



Agenzia Nazionale per le Nuove Tecnologie,
l'Energia e lo Sviluppo Economico Sostenibile



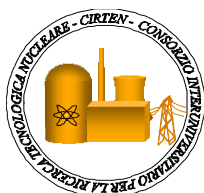
Ministero dello Sviluppo Economico

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IMPIANTO SPES-3 Design review del piping

C. Congiu, G. Tortora



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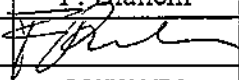
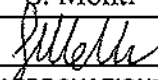
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LEGENDA

ADS	Automatic Depressurization System
ADS-DT	ADS-Double Train
ADS-ST	ADS-Single Train
ASME	American Society of Mechanical Engineers
CCFL	Counter Current Flow Limitation
CE	Marcatura per la libera circolazione dei prodotti fabbricati nella comunità europea
CSPRS	Controlled Safety Pressure Relief Systems
DEG	Double Ended Guillotine
DN	Diametro Nominale
DVI	Direct Vessel Injection
DW	Dry Well
EBT	Emergency Boration Tank
EHRS	Emergency Heat Removal System
FL	Feed Line
HP	High pressure
IRIS	International Reactor Innovative and Secure
LGMS	Long Term Gravity Make-up System
LP	Low Pressure
MFIV	Main Feed Isolation Valve
MSIV	Main Steam Isolation Valve
NRC	Nuclear Regulatory Commission
PED	Pressure Equipment Directive
PQR	Procedure Qualification Report
PRZ	Pressurizzatore
PS	Pressione di progetto
PSS	Pressure Suppression System
PWR	Pressurized Water Reactor
QT	Quench Tank
RC	Reactor Cavity
RPV	Reactor Pressure Vessel
SIET	Società Informazioni Esperienze Termoidrauliche
SG	Steam Generator
SPES	Simulatore Pressurizzato per Esperienze di Sicurezza
SPES3	Simulatore Per Esperienze di Sicurezza
SRMCR	Safety Related Measurement Control and Regulation
SUS	Condizione di carico in UNI EN 13480-3 par. 12.3.2
TS	Temperatura di progetto
V	Volume interno netto di un recipiente, raccordi compresi fino alla prima connessione
WPS	Welding Procedure Specification

1 INTRODUZIONE

Nell'ambito del "design review" dell'impianto SPES3, questo documento riporta i risultati dell'attività di revisione del progetto del piping del progetto SPES3, e rappresenta l'evoluzione del documento [1], che è parte integrante del progetto esecutivo dell'impianto SPES3 [2].

Qui sono descritte nel dettaglio l'insieme delle tubazioni dell'impianto SPES3 e sono fornite indicazioni tecniche per la loro costruzione.

La progettazione dell'impianto SPES3 consiste di due documenti principali che riguardano il progetto del Canale Centrale (RV) [3] ed il progetto di tutto il resto dell'impianto [2].

La progettazione meccanica del RV, effettuata da Mangiarotti Nuclear, si è conclusa temporalmente dopo l'emissione del progetto esecutivo dell'impianto SPES3 [2] e le soluzioni tecnologiche trovate per la realizzazione del RV hanno portato allo spostamento di alcuni bocchelli, rispetto al progetto preliminare [4] e conseguentemente alla modifica delle linee che si staccano da tali bocchelli.

La disponibilità del progetto del RV e la modellazione di tutto l'impianto SPES3 sulla struttura portante, effettuata con il software CAD 3D Solide Edge, hanno imposto ulteriori cambiamenti al layout delle linee per rispettare gli spazi disponibili. In Figura 1-1 e Figura 1-2 si vede l'impianto SPES3 inserito nella struttura.

La simulazioni di transitori incidentali sull'impianto SPES3 con il codice di calcolo RELAP5, finalizzati allo studio del contenimento e alla sua influenza sull'andamento delle grandezze principali, hanno portato ad ulteriori modifiche delle linee, in particolare alla variazione di alcuni diametri e all'introduzione di alcuni orifizi per l'adeguamento delle perdite di carico [5].

L'impianto SPES3, operando a pressione superiore a 0.5 bar relativi, è soggetto alla verifica PED, pertanto la progettazione delle linee è stata eseguita con uno specifico programma di calcolo per tubazioni, Autopipe Plus V8.i [6], che ne consente la verifica secondo la norma UNI EN 13480:2002, armonizzata alla direttiva PED 97/23/CE.

Questo documento riporta i risultati delle verifiche relative alle diverse condizioni di funzionamento stazionario e in transitorio dell'impianto SPES3.

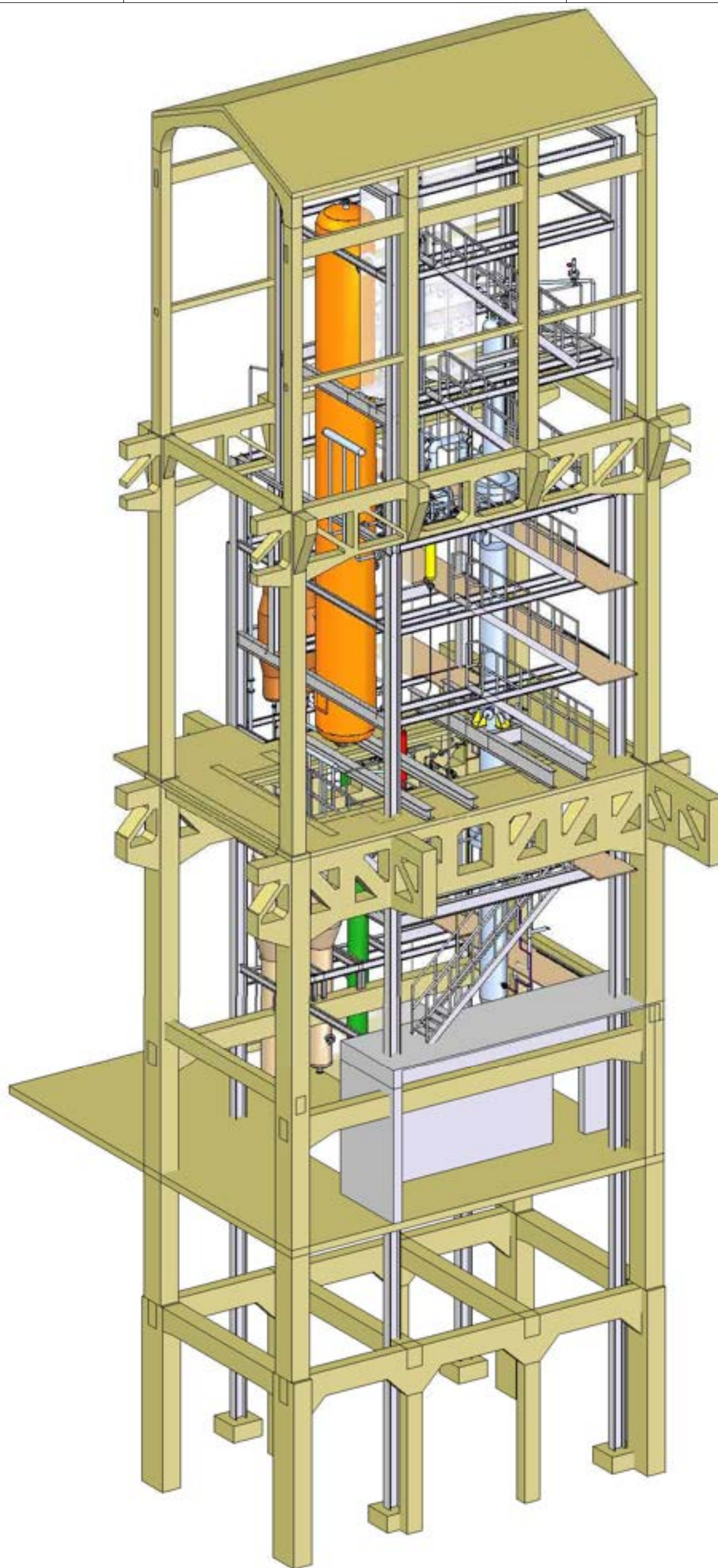


Figura 1-1: Impianto SPES-3 inserito nella struttura portante (vista posteriore)

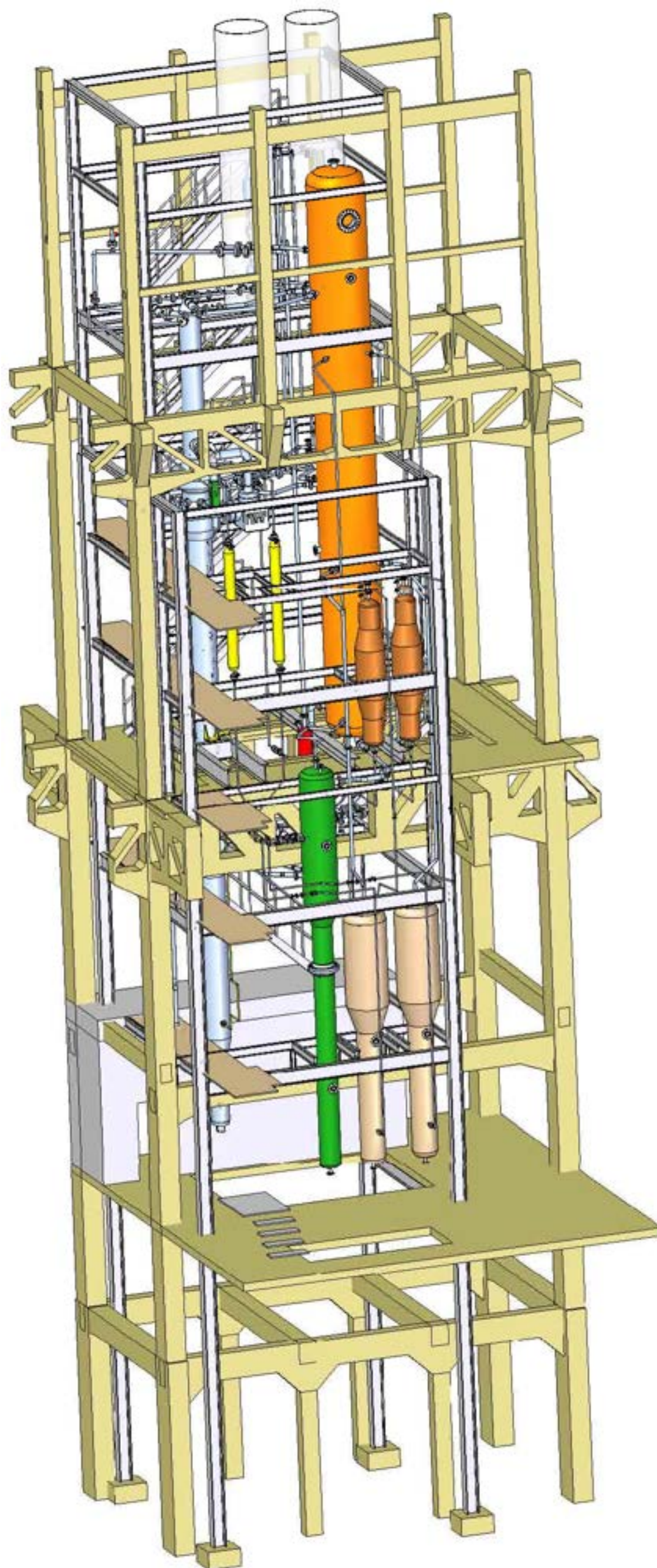


Figura 1-2: Impianto SPES-3 inserito nella struttura portante (vista anteriore)

2 NORMATIVE DI RIFERIMENTO

Le normative europee di riferimento, applicabili per il sistema di tubazioni in pressione e per raccordi ed accessori, sono la direttiva PED (Pressure Equipment Directive) 97-23-CE e le norme armonizzate da essa contemplate, relative ai componenti in pressione, in particolare:

- a) UNI EN 13480:1÷5 - “Tubazioni industriali metalliche”;
- b) UNI EN 10216:5 Tubi senza saldatura di acciaio per impieghi a pressione – Condizioni tecniche di fornitura - Tubi di acciaio inossidabile;
- c) ASME/ANSI B16.5 - 1996 - Pipe Flanges and Flanged Fittings;
- d) ANSI B36.19 - 1985 – Seamless and welded steel pipes
- e) ANSI B36.34 – 1996 - Valves
- f) ASME/ANSI B16.9 – 1996: Wrought steel butt welding fittings
- g) norma EN ISO 5167-4 – 2003 – Measurement of fluid flow by means of pressure differential devices inserted in circular cross-section conduits running full – Part 4: Venturi Tubes - per i venturimetri.
- h) norma EN ISO 5167-2 – 2003 – Measurement of fluid flow by means of pressure differential devices inserted in circular cross-section conduits running full – Part 2: Orifices plates - per gli orifici.

Flange, tubi, raccordi, bulloneria, barre, valvole saranno acquistati conformi alle norme:

Per i materiali si fa riferimento alla classificazione ASTM riconosciuta dalla normativa armonizzata come prescritto dalla PED, rispettando i rating pressione – temperatura nella scelta delle schedule di tutti i componenti, e la congruenza dei materiali in accordo alle normative citate.

Inoltre le tubazioni nel loro insieme, in quanto in pressione, ed i singoli particolari ove previsto, dalle prescrizioni PED, dovranno essere dotati di marchio CE per le categorie applicabili.

2.1 Requisiti PED

Il sistema di tubazioni di cui si compone l'impianto SPES3 opera con un liquido (acqua surriscaldata, secondo la PED, essendo la $TS > 110\text{ °C}$) come fluido interno, ed è progettato ad una pressione $PS > 0.5\text{ barg}$ (bar relativi), pertanto rientra nella classe di impianti a pressione soggetti alla Direttiva PED 97-23-CE.

Secondo la classificazione PED, bisogna stabilire il gruppo di appartenenza del sistema in base al fluido contenuto, e la categoria di rischio applicabile in base al tipo di attrezzatura a pressione, al fluido, alla pressione di progetto (PS) ed al volume (V) o al diametro nominale (DN) (per le tubazioni).

L'insieme delle tubazioni di SPES3 rientra nella classificazione PED di “tubazione” a pressione; ciò consente di fare un'analisi ed una validazione separata delle tubazioni dai recipienti.

Col termine “tubazione” a pressione si intende **“un'attrezzatura destinata al trasporto di un fluido quando essa collega varie attrezzature a pressione di un impianto”**.

Le **“attrezzature a pressione”** sono i **“recipienti, tubi, soffiotti, tubi flessibili, riduzioni, connessioni a T ed a Y, curve, flange, raccordi, attacchi di carica, ecc.”**.

Nell'impianto sono presenti gli **“accessori a pressione”**, che sono i **“dispositivi aventi funzione di servizio e i cui alloggiamenti sono sottoposti a pressione”**. Tra questi rientrano le valvole (a sfera, saracinesca, ecc..), la strumentazione (manometri, indicatori di livello, ecc..), gli accessori

vari (giunti a dilatazione, filtri a cartuccia, ecc..) e gli “**accessori di sicurezza**”, tra cui sono compresi i “**dispositivi per la limitazione diretta della pressione, le valvole di sicurezza, le barre di schiacciamento, i dispositivi di sicurezza pilotati (CSPRS), i dispositivi a disco di rottura, i dispositivi di limitazione che attivino i sistemi di regolazione o che chiudano e disattivino l'attrezzatura, i commutatori attivati dalla pressione, dalla temperatura, dal livello del fluido, i dispositivi di misurazione, controllo e regolazione per la sicurezza (SRMCR)**”.

In conformità alla direttiva PED 97-23-CE, obbligatoria a partire dal 30/05/2002 in Italia, e a seguito dell'entrata in vigore del D.M. 329/04, è stato introdotto anche per le tubazioni a pressione l'obbligo di sottoporle a verifiche di costruzione e di esercizio (verifiche di messa in servizio), differenziate in base al gruppo e alla categoria di appartenenza.

Per la PED, essendo SPES3 destinato a contenere acqua surriscaldata ($TS > 110\text{ }^{\circ}\text{C}$), ed essendo progettato a $PS > 0.5\text{ barg}$, il gruppo di appartenenza del fluido contenuto nell'impianto (art. 9) è il **Gruppo 2** (fluidi non pericolosi) e pertanto rientra nella **Tabella 7** della PED.

Nell'impianto sono presenti tubazioni in pressione di diametro da $\frac{3}{8}$ " a 6".

In base alla classificazione delle tubazioni, per $DN \leq 32$ ($1\frac{1}{4}$ ") ed indipendentemente dal valore di PS, la PED prescrive al fabbricante:

- una corretta prassi costruttiva;
- non necessità di “dichiarazione di conformità” né di “marcatura CE”;
- non necessità di intervento dell'organismo notificato;
- non necessità di certificazione da parte di un organismo notificato o ente terzo riconosciuto per le procedure ed il personale impiegato nella saldatura;
- necessità di corredare l'apparecchiatura di sufficienti istruzioni per l'uso.

Per $32 < DN \leq 100$ (4") e $PS \times DN > 1000$, $DN > 100$ e $1000 < PS \times DN \leq 3500$, le tubazioni sono classificate in **Categoria 1** e la PED prescrive al fabbricante:

- l'applicazione della direttiva (**modulo A - Controllo di fabbricazione interno**);
- la “dichiarazione di conformità” e la “marcatura CE”;
- non necessità di intervento dell'organismo notificato;
- non necessità di certificazione da parte di un organismo notificato o ente terzo riconosciuto per le procedure ed il personale impiegato nella saldatura;

Per completezza, in questo documento si riporta per intero il **Modulo A** della PED, in cui è dettagliata la documentazione tecnica da allegare al progetto.

Modulo A (Controllo di fabbricazione interno)

1. Questo modulo descrive la procedura con cui il fabbricante o il suo mandatario, stabilito nella Comunità (Unione Europea), che soddisfa gli obblighi di cui al punto 2, si accerta e dichiara che le attrezzature a pressione soddisfano i requisiti della direttiva ad esse applicabili. Il fabbricante o il suo mandatario stabilito nella Comunità appone la marcatura CE su ciascuna attrezzatura a pressione e redige una dichiarazione scritta di conformità.
2. Il fabbricante prepara la documentazione tecnica descritta al punto 3; il fabbricante o il suo mandatario stabilito nella Comunità la tiene a disposizione delle autorità nazionali competenti, a fini ispettivi, per dieci anni dall'ultima data di fabbricazione dell'attrezzatura a pressione.

Nel caso in cui né il fabbricante né il suo mandatario siano stabiliti nella Comunità, l'obbligo di tenere a disposizione la documentazione tecnica incombe alla persona responsabile dell'immissione dell'attrezzatura a pressione nel mercato comunitario.
3. La **documentazione tecnica** deve consentire di valutare la conformità dell'attrezzatura a pressione ai requisiti della direttiva ad essa applicabili. Essa deve comprendere, nella misura

necessaria a tale valutazione, il progetto, la fabbricazione ed il funzionamento dell'attrezzatura a pressione e deve contenere:

- la descrizione generale dell'attrezzatura a pressione;
- disegni di progettazione e fabbricazione, nonché gli schemi di componenti, sottounità, circuiti, ecc.;
- la descrizione e le spiegazioni necessarie alla comprensione di tali disegni e schemi ed il funzionamento dell'attrezzatura a pressione;
- un elenco delle norme di cui all'articolo 5, applicate in tutto o in parte e la descrizione delle soluzioni adottate per soddisfare i requisiti essenziali della direttiva qualora non siano state applicate le norme di cui all'articolo 5 (nota: norme armonizzate);
- i risultati dei calcoli di progetto e degli esami svolti, ecc.;
- i rapporti sulle prove effettuate.

4. Il fabbricante o il suo mandatario stabilito nella Comunità conserva copia della dichiarazione di conformità insieme con la documentazione tecnica.

5. Il fabbricante prende tutte le misure necessarie affinché il processo di fabbricazione garantisca la conformità dell'attrezzatura a pressione alla documentazione tecnica di cui al punto 2 e ai requisiti della direttiva che ad essa si applicano.

Per quanto riguarda gli altri componenti presenti nell'impianto le classificazioni sotto cui rientrano sono:

Valvole (con funzione accessoria e non di sicurezza): sono classificate come tubazioni (condividono le stesse tabelle delle tubazioni a cui sono applicate)

Accessori in pressione: si applicano le tabelle (esclusa la 5) secondo il tipo di fluido contenuto, la pressione massima ammissibile e il V o il DN.

Accessori di sicurezza: sempre in categoria massima, la IV. Come eccezione (se custom) possono essere della stessa categoria del particolare apparecchio che proteggono.

La PED dà prescrizioni generali sulla progettazione e costruzione delle tubazioni, che, oltre a tener conto di PS e TS, devono essere progettate e costruite in modo da garantire che:

- il rischio di sovrassollecitazioni causate da gioco eccessivo o dilatazioni impedita a carico dei componenti della tubazione (flange, soffietti, giunzioni, ecc.) sia opportunamente controllato mediante idonei mezzi (sostegno vincoli, ancoraggio, pretensione, ecc.);
- siano previsti idonei sistemi di drenaggio e di rimozione di depositi all'interno dei tubi onde evitare colpi d'ariete o corrosione;
- si presti la dovuta attenzione al rischio di fatica derivante da vibrazioni nei tubi;
- si tenga conto delle forze di reazione e momenti di reazione provocati da sostegni, collegamenti, ecc....;
- si tenga conto di eventuali fenomeni di creep.

La fabbricazione deve avvenire con tecniche idonee e procedure opportune. Il Fabbricante deve garantire, per le parti pertinenti e le categorie applicabili, la corretta esecuzione delle seguenti operazioni:

- Preparazione dei componenti.
- Giunzioni permanenti: procedure e saldatori certificati da Organismo Notificato/Entità Terza Riconosciuta per le tubazioni di categorie II e III.
- Controlli non distruttivi con personale certificato da una Entità Terza Riconosciuta per tubazioni di III categoria.

- Trattamenti Termici.
- Rintracciabilità del materiale.

Dopo il buon esito della verifica finale (Esame finale e prova di pressione), il Fabbrikante applica sulla tubazione la targa identificativa riportante la marcatura CE .

Le tubazioni facenti parte di un unico impianto possono riportare un'unica marcatura CE, purché la documentazione di accompagnamento fornita dal costruttore definisca con chiarezza il confine dell'impianto (L.G. 9/8).

L'impianto in oggetto è escluso dal campo di applicazione del D.M. 329/04, che impone di sottoporre a verifiche di costruzione e di esercizio da parte dell'ISPESL le tubazioni in pressione, sia di recente costruzione che preesistenti al 12/02/2005.

Non è soggetto alle verifiche ISPESL per la messa in servizio, in quanto in esso sono presenti, tra tutte quelle contemplate nell'esclusione, le seguenti condizioni, valide per tubazioni che collegano attrezzature a pressione singolarmente escluse dal campo di applicazione del D.M. 329/04, quali:

- _ tubazioni di convogliamento degli sfiati ai sistemi di abbattimento;
- _ tubazioni di scarico dei dispositivi di sicurezza;
- _ tubazioni degli sfiati di esercizio;

In definitiva l'impianto, ricadente per la PED sotto la categoria di rischio 1, è progettato, costruito e collaudato rispettando la direttiva PED ed utilizzando per questi scopi le normative europee armonizzate CEN, come previsto nell'art. 5 della Direttiva.

Relativamente alle valvole di sicurezza si chiederà al fabbricante il certificato di taratura e la documentazione comprovante la rispondenza del componente alla Categoria IV della PED.

Il sistema di tubazioni costituente l'impianto SPES3, realizzato come prototipo e singolo componente, e non destinato alla commercializzazione, sarà dotato di un unico marchio CE.

La normativa utilizzata per la progettazione, la realizzazione, il controllo ed il collaudo del sistema di tubazioni dell'impianto, considerato il ridotto diametro delle tubazioni impiegate nel sistema (EN 13480:3 cap. 4.1), è la EN 13480:1-5 e le norme ad essa collegate. I riferimenti normativi sono comunque tutti riportati nel capitolo 3.

3 SPECIFICHE PER LA REALIZZAZIONE DEL PIPING

In questo capitolo sono raccolte le indicazioni vincolanti per l'azienda che realizzerà il piping dell'impianto. Tali indicazioni saranno il punto di partenza per la redazione della specifica d'ordine.

Le linee dell'impianto SPES3 sono costituite da tubazioni in acciaio inossidabile AISI 304 ed unite ai componenti mediante giunti flangiati.

I tratti di tubazione compresi tra due o più componenti saranno realizzati assemblando le diverse parti che li costituiscono mediante saldatura.

La fornitura include la realizzazione e la posa in opera dei tratti di tubazione che uniscono i diversi componenti e gli accessori delle tubazioni stesse, quali: supporti, flange terminali, coibentazione.

Le linee dovranno essere realizzate secondo le geometrie rappresentate nei disegni estratti da Autopipe, rispettando i punti fissati nel presente documento. I disegni SE, pur non riportando i supporti, sono il feedback per il controllo delle posizioni dei componenti nelle linee, forniscono il riferimento per il posizionamento delle tubazioni relativamente alla struttura, e sono riportati nella cartella "AA_SE_SPES-3, Allegato 13 al presente documento.

3.1 Materiali

Le linee saranno realizzate in acciaio inossidabile austenitico ad alto tenore di nichel, 18 Cr – 8 Ni (AISI 304), utilizzando tubi senza saldatura (seamless) con spessori/diametri/tolleranze secondo la norma). Flange, curve e raccordi saranno anch'esse realizzate in AISI 304.

Gli sketch estratti da Autopipe riportano diametro e schedula delle tubazioni. La schedula corrispondente delle flange è 2500 sulle tubazioni ad alta schedula (80 e 160); le flange sono WN, tranne quelle tra orifici e venturimetri, che per ragioni di ingombro sono state scelte cieche e forate in opera (la tipologia delle flange è comunque dettagliata nei file di output dei calcoli Autopipe. e visibile nei file di SE. Alle tubazioni di bassa schedula (40) sono associate flange slip on o blind ANSI 300, scelte secondo i criteri sopracitati. La tipologia delle flange non è rappresentata con Autopipe per facilità di lettura. Tali elementi sono vincolanti e debbono essere rispettati durante la realizzazione.

La seguente Tabella 3-1 riporta diametri e spessori per le tubazioni maggiormente utilizzate nei circuiti.

diametri pollici	diametri esterni mm	spessori mm SCH40	SCH80	SCH100	SCH160
3/8"	17.1	2.31	3.2		
1/2"	21.3	2.77	3.73		
3/4"	26.7	2.87	3.91		
1"	33.4	3.38	4.55		
1"1/4	42.2	3.56	4.85		
1"1/2	48.3	3.68	5.08		7.14
2"	60.3	3.91	5.54		8.64
2"1/2	73	5.16	7.01		9.52
3"	88.9	5.49	7.62		
4"	114.3	6.02	-		13.49
5"	141.3	6.55	-		
6"	168.3	7.11	-		

Tabella 3-1: Diametri e spessori delle tubazioni in SPES3

3.2 Raccordi

Curve, riduzioni e giunzioni a TEE saranno componenti commerciali, ove disponibili, e comunque ricavati da forgiatura o altra lavorazione di deformazione plastica a caldo, partendo da tubi senza saldatura.

3.3 Saldature

Tutte le saldature presenti nei circuiti dell'impianto sono a piena penetrazione, tranne quelle tra flangia (blind o slip on) e tubo nei tratti a bassa pressione delle tubazioni del contenimento.

Le saldature a piena penetrazione potranno essere eseguite integralmente con tecnica TIG, oppure con tecnica mista elettrodo+TIG, per gli spessori più grossi. In tal caso il TIG sarà utilizzato per realizzare la prima passata.

Pur non essendo necessaria la certificazione delle procedure di saldatura e del personale che le esegue (WPS e PQR) da parte di un ente terzo o di un organismo notificato, per la categoria di appartenenza come evidenziato nel Cap. 3.1, tuttavia la buona pratica costruttiva impone di utilizzare procedure e personale qualificato. I saldatori dovranno essere qualificati per i processi di saldatura utilizzati. I materiali di riporto dovranno essere compatibili con il metallo base e dovranno avere caratteristiche meccaniche pari o superiori a quelle del metallo base stesso.

3.4 Ispezioni e test

I test cui vanno sottoposti i circuiti sono:

Prova idraulica: al termine della prova idraulica, dovrà essere rilasciato da chi la esegue un certificato di collaudo ed un certificato di conformità, come stabilito dalla norma.

Per ogni tratto di circuito esaminato, Autopipe consente di fare la verifica meccanica nelle condizioni della prova idraulica, ed indica la corrispondente sollecitazione massima ammissibile, secondo quanto previsto dalla UNI EN 13480-5 al paragrafo 9.3.

Le valvole di sicurezza devono essere corredate di un certificato di conformità alla categoria IV della PED e di un certificato di collaudo e, prima di essere messe in esercizio, devono essere sottoposte ad una serie di ispezioni per valutarne la conformità, come previsto nell'Allegato A della norma EN 13480-5.

I controlli non distruttivi (NDT) previsti sono elencati nella tabella 8.2.1 della norma EN 13480:5, per il gruppo di materiale (8.1). Essendo un acciaio austenitico e appartenendo il sistema alla classe della tubazione I, i controlli previsti sono i seguenti:

- VT test visivo al 100% su tutte le saldature.
- RT test radiografico:
 - al 100% delle saldature circonferenziali e di quelle sui bocchelli per le tubazioni con $\varnothing > 1''$ (PSxDN $\geq$ 5000);
 - al 25% delle saldature circonferenziali e di quelle sui bocchelli per le tubazioni con $\varnothing = 3/4'' \div 1''$ (PSxDN $\geq$ 3500)
 - al 5% su tutti i rimanenti diametri
 - al 10% su tutti i giunti saldati a tasca.

Queste verifiche sono da intendersi come minime garantite, con la naturale estensione dei controlli, se nelle risultanze dei NDT si dovesse evidenziare un livello di difettosità superiore a quello accettabile.

3.5 Supporti

Le tubazioni di SPES3 ed i componenti installati sulle stesse dovranno essere fissati e sostenuti con idonei supporti. Tali supporti, rappresentati schematicamente con Autopipe, dovranno essere realizzati a cura del costruttore, in modo da resistere alle sollecitazioni calcolate e soddisfare i requisiti della classe di appartenenza individuata dalla norma EN13480:3, tabella 13.1.2-1.

Non rientra negli scopi del documento fornire informazioni sulla realizzazione pratica dei supporti atti a realizzare le condizioni di vincolo previste. Come prescrizione generale, si indica solo che tutti i supporti andranno fissati al tubo mediante collari, di forma e sezione opportuna a trasmettere i carichi. I carichi di serraggio delle viti e quelli dovuti al peso del tubo e alle dilatazioni termiche non devono determinare negli elementi del supporto sollecitazioni maggiori di quelle previste. Le tabelle 13.3.7-1 e 13.3.7-2 della norma EN13480:3 forniscono i valori da prendere a riferimento per le tensioni ammissibili dei supporti. La tensione ammissibile si ricava con la formula:

$$f = \frac{R_{p0,2t}}{1.5}$$

in cui

f = sollecitazione massima ammissibile di progetto per il materiale utilizzato;

$R_{p0,2t}$ = tensione di scostamento dalla proporzionalità alla temperatura di progetto del componente;

1.5 = fattore di sicurezza

I supporti individuati sono di tre tipi:

Incastri: in grado di vincolare tutti e 6 i gradi di libertà della tubazione o del componente. In Figura 3-1 è rappresentato un incastro come schematizzato da Autopipe. Agli incastri in corrispondenza delle flange di connessione ai serbatoi è stato imposto lo spostamento dovuto alle dilatazioni termiche.

Guide: danno luogo al vincolo in una o più direzioni e permettendo il movimento lungo l'asse del tubo. Una guida può anche permettere il movimento in una o più direzioni, imponendo un gap lungo le stesse, come evidenziato in Figura 3-2.

Supporti a molla: sostegni in grado di fornire una spinta verso l'alto o verso altre direzioni, di intensità determinata dalle risultanze del calcolo eseguito con Autopipe, e verificata in fase di collaudo delle linee. Questi supporti possono essere a carico variabile o a carico costante. La schematizzazione Autopipe per il carico variabile è in Figura 3-3, quella per il carico costante in Figura 3-4. Per il supporto con molla a carico costante, un cinematisma compensa la variazione di carico della molla associata alla deformazione. La scelta di supporti a carico costante è stata fatta dove l'escursione del tubo dovuta alle dilatazioni termiche assume valori particolarmente elevati.

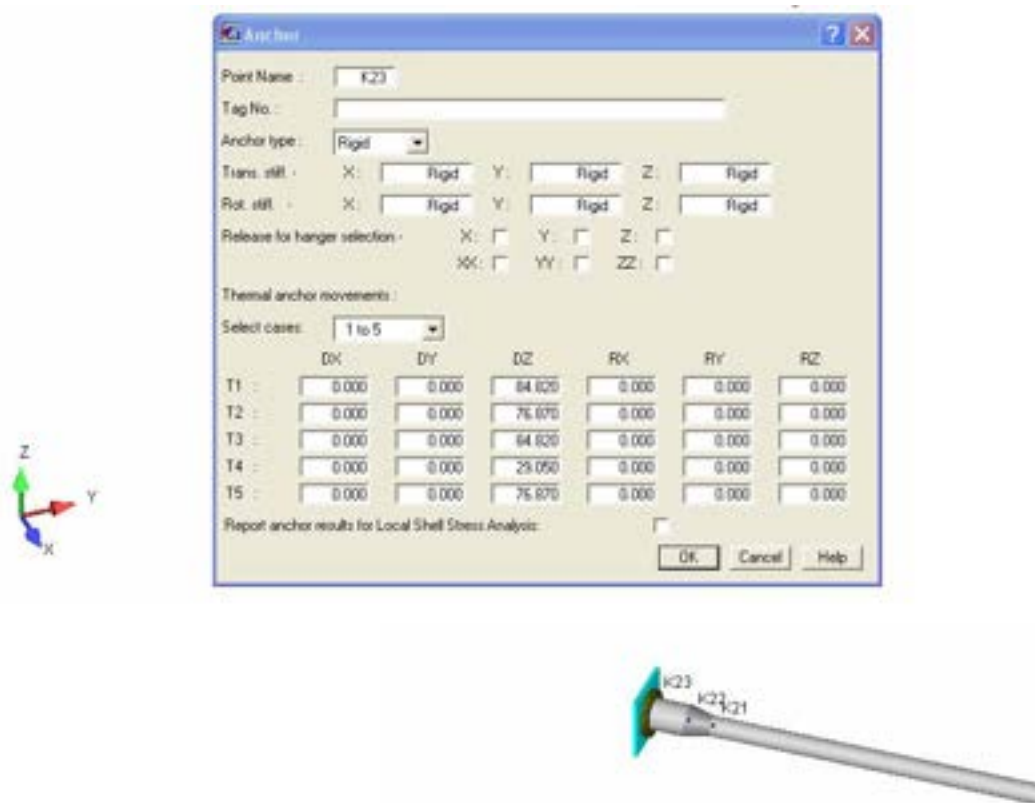


Figura 3-1: Rappresentazione Autopipe del vincolo “incastro” e finestra opzioni

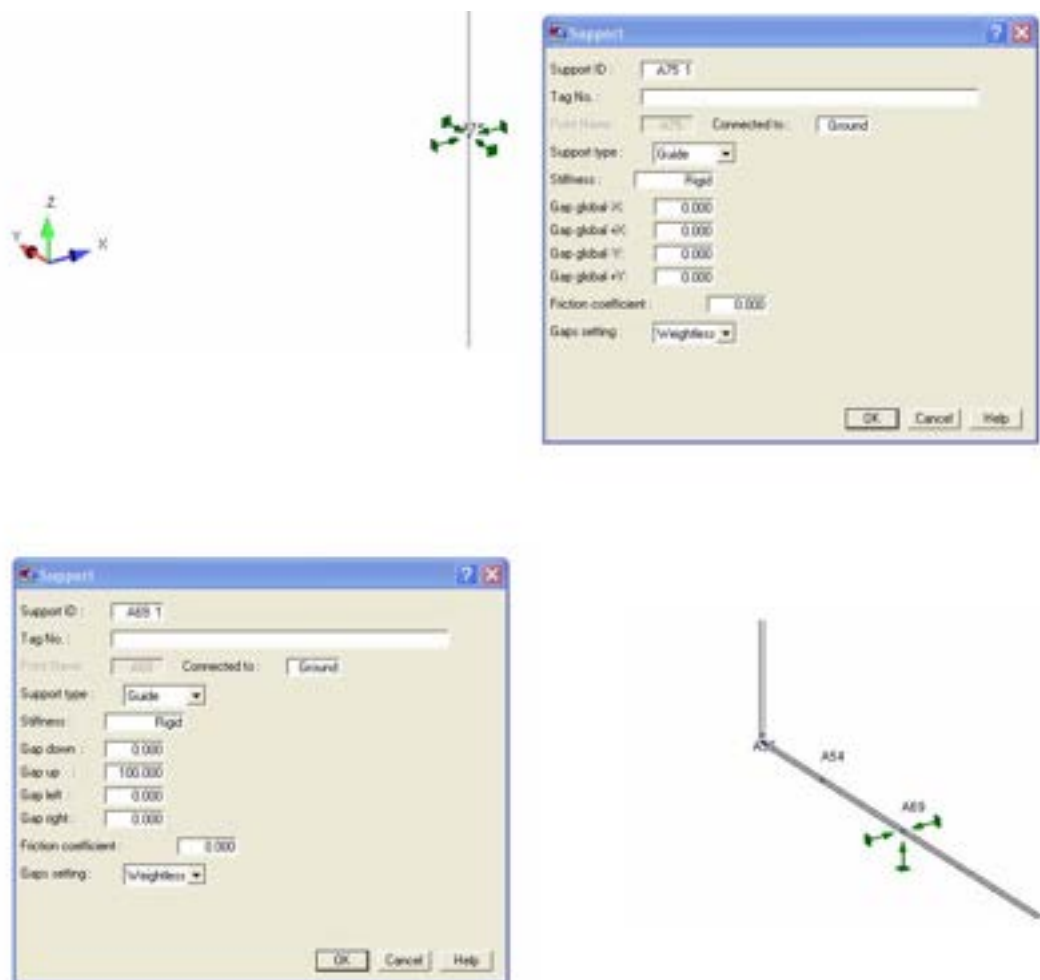


Figura 3-2: Rappresentazione Autopipe del vincolo “guida” e finestra opzioni

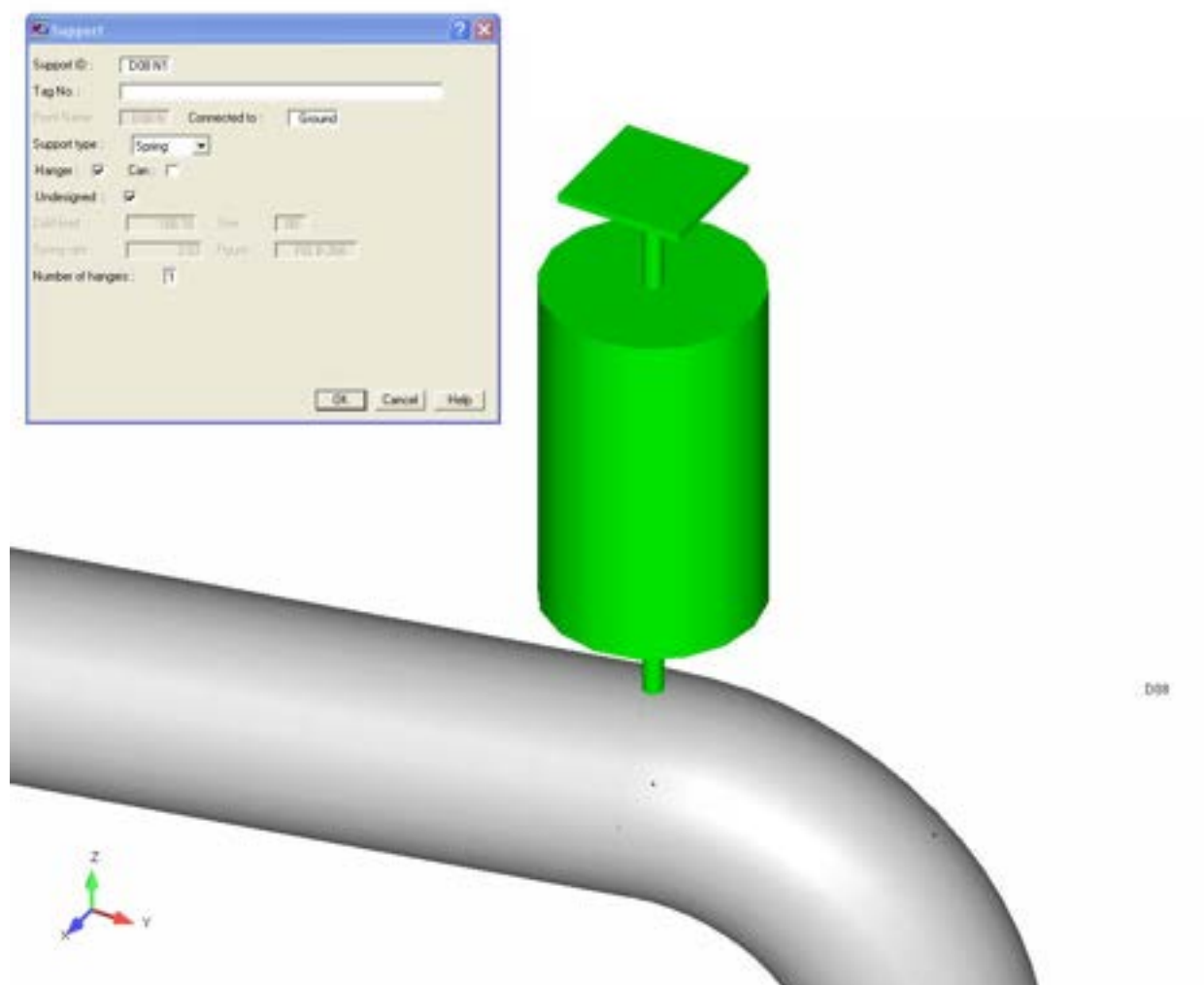


Figura 3-3: Rappresentazione Autopipe del vincolo “molla a carico variabile” e finestra opzioni

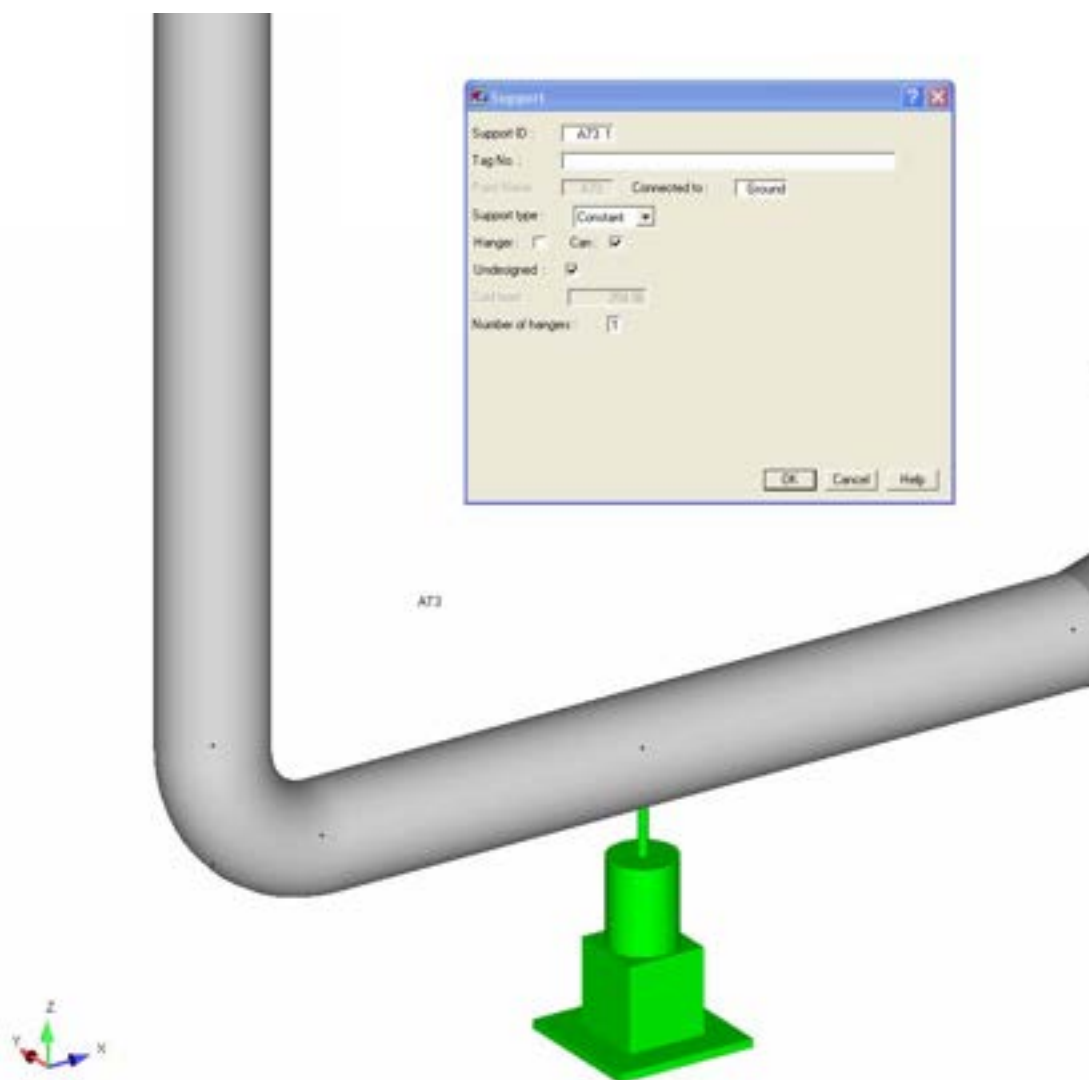


Figura 3-4: Rappresentazione Autopipe del vincolo “molla a carico costante” e finestra opzioni

3.6 Verifica PED

La ditta a cui verrà data in appalto l'attività di realizzazione delle tubazioni sarà responsabile dell'iter per il conseguimento della marchiatura CE. Partendo dalle informazioni contenute nella presente documentazione progettuale, dovrà redigere tutta la documentazione richiesta, per la categoria di appartenenza del circuito. Tale categoria dovrà essere stabilita dal fabbricante sotto la propria responsabilità, a prescindere dalle risultanze del presente documento, e la documentazione dovrà essere integrata con tutti gli elementi e le verifiche necessarie, anche di calcolo, e sottoposta, se richiesto dall'iter PED, all'esame dell'ente notificato.

Copia del fascicolo dovrà essere consegnata al committente.

3.7 Accettazione

Il committente si riserva di esaminare la documentazione chiedendo eventuali integrazioni ai sensi delle normative vigenti.

3.8 Documentazione

Il fornitore dovrà fornire il dossier completo della documentazione relativa alla fornitura previsto dalla Tabella 9.5.1 della norma EN13480-5, in ottemperanza alla direttiva PED 97/23/CE, per la Categoria di appartenenza del piping.

Relativamente ai disegni, qualora ne fossero prodotti, ne è richiesta la fornitura in file di formato ".dwg" di tipo AUTOCAD, versione fino al 2006. Tali disegni dovranno essere approvati ufficialmente dal committente prima di procedere alla fase esecutiva.

4 CONDIZIONI DI ESERCIZIO

L'impianto SPES3 è suddiviso in diversi circuiti, ognuno caratterizzato da diverse condizioni di progetto e di esercizio. Nella Tabella 4-1 sono riassunte le condizioni di progetto e di esercizio per i diversi circuiti. Le valvole oggetto della fornitura dovranno essere progettate per operare alle massime condizioni di progetto, anche se in condizioni operative normali non vengono superate le condizioni di esercizio.

n°	Circuito	Condizioni di progetto		Condizioni di esercizio	
		Pass [MPa]	T [°C]	P ass [MPa]	T [°C]
1	Primario	17.25	353.5 ¹	15.5	344.7 ¹
2	Secondari Loop A,B,C (fino alle valvole di isolamento, compresi i circuiti degli EHRS)	17.25	353.5 ¹	15.5	344.7 ¹
3	Secondario (zona a monte delle valvole di isolamento della FL)	10.0	311 ¹	6.0	224 ²
4	Secondario (zona a valle delle valvole di isolamento della SL)	10.0	353.5 ³	6.0	322 ³
5	Contenimento	1.5	198 ¹	1.0	179.9 ¹

Tabella 4-1: Condizioni di progetto e di esercizio di SPES3

I fenomeni transitori dovuti alla chiusura e apertura delle valvole non danno luogo a sollecitazioni maggiori di quelle previste a progetto, poiché, anche in presenza di valvole relativamente veloci (tempo di manovra minimo 2 s), la lunghezza massima delle linee è dell'ordine di una decina di metri, quindi i tempi di riflessione dell'onda di pressione sono nettamente più brevi dei tempi di manovra delle valvole. Ciò evita la formazione di colpi d'ariete.

¹ vapore o liquido saturo

² liquido al di sotto della saturazione

³ vapore surriscaldato

5 VERIFICA DEI CIRCUITI CON AUTOPIPE

Il software di calcolo per le tubazioni, Autopipe Plus [6], ne esegue la verifica secondo la norma UNI EN 13480:2002, armonizzata alla direttiva PED 97/23/CE, ed è uno strumento adeguato per la progettazione meccanica delle linee.

Dato che il programma consente di considerare gruppi di tubazioni, oltre che singoli tratti di linea, a varie condizioni operative, in prova idraulica, e in combinazioni di carico previste dalla normativa o definite dall'utente, nonché di definire e verificare tipo e posizioni dei supporti, di fatto costituisce un approccio integrato alla verifica del sistema.

5.1 Caratteristiche dell'input

La progettazione e la verifica del piping con Autopipe consente, attraverso l'introduzione nei dati di input della densità relativa del fluido, di considerare il battente idrostatico nelle tubazioni. In modo conservativo, le tubazioni sono state considerate completamente piene di acqua. Si è introdotto anche il coibente, di cui è stato definito lo spessore ed il materiale, coerentemente con i dati riportati nel Cap. 7.

Le flange, che possono essere scelte come tipo e rating, sono considerate dal programma come puntiformi, pertanto le lunghezze delle tubazioni indicate sono comprensive dell'ingombro delle flange. Il programma ne considera comunque il peso. L'aver scelto flange con rating P/T idoneo alle condizioni di progetto, esonera dal verificarle. Nella rappresentazione sono stati inseriti sia gli orifici che i venturimetri. Gli orifici, al fine di verificare nel layout la disponibilità delle lunghezze dei tratti di calma a monte e valle, come previsto dalla normativa, i venturimetri per verificare la disponibilità del tratto di tubazione necessario per ospitarli fisicamente. In Autopipe sono stati schematizzati come un tratto di tubazione tra due coppie di flange. La lunghezza rappresentata include il venturimetro e le 4 flange, che, per ragioni di ingombro, sono state scelte come flange cieche forate. Per una più agevole identificazione, i punti relativi sono stati chiamati col nome di identificazione di orifici e venturimetri nell'impianto SPES3 [2].

Le valvole sono state inserite con gli ingombri ed il peso. La posizione dell'attuatore, se presente, è stata considerata nel baricentro dello stesso, dove se ne concentra il peso. In alcuni casi si è già individuato uno o più possibili fornitori delle valvole, ed i dati relativi ad esse sono stati desunti dalla documentazione tecnica disponibile. In altri casi, individuata la valvola, si sono introdotti i dati più omogenei disponibili, attingendo dai cataloghi dei vari produttori. Anche alle valvole è stato dato il nome che hanno sull'impianto SPES3 [2].

Tutte le valvole, tranne alcune di peso trascurabile, sono state adeguatamente supportate, e le linee, specie quelle lunghe, opportunamente guidate. Come criterio generale si è scelto di limitare i vincoli sulle tubazioni al minimo, per non introdurre ulteriori tensioni e favorirne la libera dilatazione nelle condizioni di carico considerate.

Relativamente alle linee, rispetto alla configurazione riportata in [1], si è scelto di eliminare i soffiotti e di sostituirli, ove possibile, con una configurazione "a lira" della linea, perché essi non sono in grado, da soli, di compensare grosse sollecitazioni e perché hanno resistenza meccanica inferiore rispetto ai dilatatori a lira.

La disponibilità di un congruo numero di punti su cui costruire il modello ha consentito di simulare e verificare gruppi di tubazioni interconnesse tra loro. Anche i supporti sono stati definiti in termini di posizione e tipo e considerati nel calcolo come puntiformi. Ciò ha consentito di studiare le mutue interazioni tra le linee al variare delle condizioni di carico.

Nei calcoli, riportati negli allegati, si sono prese in considerazione, per ogni gruppo di linee, le varie condizioni operative dell'impianto che si potranno verificare durante le prove sperimentali [4], basandosi sui risultati dei transitori simulati con il codice RELAP [7] [5]. E' stata fatta l'analisi statica del circuito, con le varie combinazioni di carico previste dalla normativa, e la verifica in condizioni di prova idraulica.

5.2 Caratteristiche dell'output

Per ogni gruppo di linee considerato, si è scelto di stampare la descrizione puntuale del circuito e delle caratteristiche dei componenti, con i pesi dei singoli componenti, ivi comprese flange e valvole, il peso dell'impianto e del suo contenuto, le caratteristiche dei materiali, le condizioni operative, le combinazioni di carico con gli spostamenti e le rotazioni di ogni singolo punto e dei supporti, le forze ed i momenti agenti su ogni punto e sui supporti, le tensioni cui sono sottoposti tutti i punti, la conformità col codice verificata per ogni singolo punto, il sommario dei risultati relativi ai punti maggiormente sollecitati, con l'espressa dichiarazione della conformità al codice per l'intero calcolo.

5.3 Presentazione degli allegati di calcolo

Una breve introduzione generale, per ciascuno dei gruppi di linee elencati e descritti nel Par. 6.1, presenta i criteri utilizzati nella rappresentazione del circuito con Autopipe.

Per ciascun gruppo, sono elencate le condizioni di carico prese in esame, e per ciascuna condizione, ove necessario, è spiegato il motivo della scelta, dato che a volte si sono accorpati eventi relativamente vicini nel tempo, ma non contemporanei.

In Allegato 1, per ogni gruppo di linee sono riportate le raffigurazioni del circuito con indicate le "size" dei tubi e le schedule di tubi e flange, insieme alle lunghezze dei tratti considerati ed ai supporti. I riferimenti cartesiani usati da Autopipe sono visibili nelle figure. Ciascuna linea, o gruppo di linee, è rappresentata a partire dalle flange di stacco dai serbatoi a cui è collegata. Il vincolo dalla flangia di accoppiamento al serbatoio (generalmente non rappresentato) è schematizzato come un incastro, al quale è associato uno spostamento verticale dovuto alla dilatazione termica del serbatoio. L'entità dello spostamento è stata calcolata a partire dal punto di appoggio del serbatoio alla struttura portante. La posizione di ogni serbatoio (e di conseguenza la posizione di ogni linea rappresentata) è considerata in riferimento al punto chiamato "RPV bottom", che rappresenta lo "zero" impianto. I valori di spostamento presi a riferimento per ciascun vincolo, nei vari casi di carico considerati, sono per comodità riportati in una tabella per ciascun gruppo o singola linea considerata.

L'Allegato 1 riporta inoltre, per ogni condizione di carico esaminata, la visualizzazione delle pressioni e delle temperature nelle linee.

Per i vari casi di carico considerati, è riportata la rappresentazione, della verifica statica del sistema, con il metodo delle tensioni ammissibili secondo Von Mises, per le condizioni e le combinazioni di carico previste dalla normativa e dovute a battente idrostatico (gravity), pressioni e temperature, prova idraulica massima pressione circonferenziale (Hoop stress) e creep.

Per ogni condizione operativa è presentata la visualizzazione degli spostamenti dell'intero circuito nelle condizioni accoppiate GT (Gravity + Temperature), cioè l'effetto combinato del peso del sistema e del suo contenuto con le temperature, perché è quello che racchiude informazioni globali sulla deformata del sistema.

Il dettaglio delle verifiche effettuate con il programma Autopipe è riportato di seguito:

Determinazione delle tensioni massime ammissibili (Formula ricavata da Norma UNI EN 13480-3)

Per acciai austenitici, con allungamento $A > 35\%$, la sollecitazione massima ammissibile è data dalla 5.2.2-1:

$$f = \frac{R_{p1,0t}}{1.5}$$

Dove $R_{p1,0t}$ è il carico unitario di scostamento dalla proporzionalità all'1%, alla temperatura media di parete dichiarata in progetto.

Tensioni dovute ai carichi di pressione, peso proprio del sistema e del suo contenuto, ed eventuali carichi meccanici (SUS)

$$\sigma_1 = \frac{p_c * d_o}{4 * e_n} + \frac{0.75 * i * M_A}{Z} \leq k * f_h$$

dove:

i = fattore di intensità dello sforzo

k = fattore di carico occasionale

z= modulo di resistenza della sezione([mm³])

do = diametro esterno della tubazione (mm)

ma = carichi meccanici sulla tubazione (nmm)

pc = pressione di calcolo (n/mm²)

en = spessore di calcolo (mm)

f_h = sollecitazione massima ammissibile alla minima temperatura del materiale alle condizioni di carico considerate

Determinazione delle tensioni per il calcolo della flessibilità tenendo conto dei carichi termici (Amb+T_i)

$$\sigma_3 = \frac{i * M_C}{Z} \leq f_a$$

dove

fa = massima tensione ammissibile per la flessibilità

M_C = carichi termici sulla tubazione (Nmm)

Avendo selezionato una combinazione di calcolo che include il “Maximum range combination”, questo caso comprende la massima escursione termica tra tutte le combinazioni di carico considerate e la massima escursione della temperatura ambiente Amb+T_i

Hoop stress (max. P₁)

E' la tensione circonferenziale che agisce su un elemento cilindrico sottoposto a pressione interna o esterna)

$$\sigma_{hoop} = \frac{p_{max} D_o}{2 e_h Z} - \frac{p_{max} Y}{Z} \leq f$$

dove

Y= coefficiente di hoop stress = 0.5 (default)

z efficienza della saldatura=1 per tubo non saldato

D_o = diametro esterno della tubazione

e_n = spessore ridotto della tubazione= $(e_n - c_0 - c_1)$ dove

e_n = spessore nominale della tubazione;

c_0 = tolleranza di corrosione;

c_1 = valore assoluto della tolleranza negativa sullo spessore (dallo standard del materiale o dichiarata dal produttore della tubazione)

Creep stress (Creep Rupt)

La formula, ricavata dalla Norma UNI EN 13480-3, è la 5.3.2-1:

$$f_{CR} = \frac{S_{RTt}}{SF_{CR}}$$

dove:

S_{RTt} è il valore medio della tensione ammissibile per rottura da creep.

SF_{CR} è il fattore di sicurezza che dipende dal tempo e deve essere in accordo con la Tabella 5.3.2-1 della Norma UNI EN 13480-3

La norma UNI EN 13480:2002 non consente di trascurare le tensioni da creep nonostante che assumano significato solo per un tempo di vita dell'impianto superiore alle 100000 h e a partire da temperature superiori a 550°C. Siccome il tempo di esercizio dell'impianto SPES3 e le temperature raggiunte sono ben al di sotto dei termini per il calcolo del creep, il report dei risultati dice che il materiale è fuori dal range di temperatura e non calcola la tensione ammissibile dovuta al creep.

La verifica, pur effettuata con Autopipe e presente nel report dei risultati, non viene rappresentata graficamente, dato che non è significativa.

Prova idraulica (Hydrotest)

La prova viene eseguita a temperatura ambiente, il programma esegue la verifica considerando una pressione di prova pari a 1.5xPS.

La tensione calcolata con questo valore di pressione, tenendo conto dei carichi agenti sulla tubazione, non deve superare la tensione massima ammissibile calcolata dalla formula 5.2.2-1 della normativa.

Verifica a fatica: Non necessaria perché il numero di cicli previsto è < 1000;

Per le ragioni già spiegate nel documento di progettazione [1], non si considerano carichi sismici, né dovuti al vento o alla neve, né carichi dinamici o alternati.

Gli Allegati da A2 ad A12 riportano i listati dei dati di input e di output dei calcoli effettuati con Autopipe per tutte le linee.

6 LINEE DELL'IMPIANTO SPES3

6.1 Elenco delle linee dell'impianto SPES3

Le linee dell'impianto SPES3, verificate nel presente documento, sono elencate di seguito, mentre la verifica con Autopipe è stata fatta per i gruppi di linee come mostrato in Tabella 6-1.

Circuito Primario/Contenimento

- 1) DVI A, B;
- 2) ADS Stage-I;
- 3) ADS Stage-II;
- 4) RV to EBT balance line A and B;
- 5) EBT to DVI line A and B;
- 6) Linee di rottura del DVI-B;
- 7) Linee di rottura dell'EBT-B balance line;
- 8) Linee di rottura dell'ADS Single Train Stage-I

Circuiti secondari ed EHRS

- 1) Feed Line A, B, C;
- 2) Steam Line A, B, C
- 3) EHRS A, B, C Hot leg;
- 4) EHRS A, B, C Cold Leg;

Circuito secondario/Contenimento

- 1) Linee di rottura della Feed Line B;
- 2) Linee di rottura della Steam Line B

Contenimento

- 1) DW to RC;
- 2) PSS to DW Main vent pipe A e B e vent pipe extension A e B;
- 3) PSS to DVI A e B;
- 4) PSS to LGMS A e B;
- 5) LGMS to DVI A e B;
- 6) RC to DVI A e B

6.2 Modifiche alle linee e motivazioni

Le linee modificate rispetto a quelle descritte in [1] sono elencate di seguito con le motivazioni che hanno reso necessarie le variazioni:

Circuito Primario/Contenimento

- 1) DVI-A e linee adducenti:
 - modifiche al layout della parte verticale ed orizzontale, per motivi di posizionamento sulla struttura portante e per modifiche al posizionamento dei bocchelli del DVI sul vessel, che sono stati ruotati di 90° [3]; per motivi di interferenza con le strutture preesistenti. È stata modificata la lira a livello della presa del DVI bottom, ed il layout orizzontale della linea; il cambiamento di layout si ripercuote su tutte le linee che partono dal DVI e si collegano ai vari serbatoi;
 - RV to EBT-A balance line: modifiche al layout per nuovo posizionamento dell'EBT-A sulla struttura portante;

- EBT-A to DVI-A line: modifiche al layout per nuovo posizionamento dell'EBT-A sulla struttura portante, e per la modifica al layout del DVI-A a cui è collegata;
- PSS-A to DVI-A: modifiche al layout conseguenti alla modifica del layout del DVI-A e alle interfacce con la struttura portante;
- LGMS-A to DVI-A: modifiche al layout conseguenti alla modifica del layout del DVI-A e alle interfacce con la struttura portante;
- RC to DVI-A: modifiche al layout conseguenti alla modifica del layout del DVI-A.

2) DVI-B e linee adducenti:

- modifiche al layout della parte verticale ad orizzontale per motivi di posizionamento sulla struttura portante: le modifiche sono analoghe a quelle descritte per il DVI-A;
- RV to EBT-B balance line; modifiche al layout per nuovo posizionamento dell'EBTB sulla struttura portante e aggiunta di una configurazione “a lira” della linea, per renderla verificata secondo il programma Autopipe Plus [6];
- EBT-B to DVI-B line: modifiche al layout per nuovo posizionamento dell'EBT-B sulla struttura portante, per la modifica al layout del DVI-B a cui è collegata;
- linee di rottura del DVI-B: modifiche al layout conseguenti alla modifica del layout del DVI-B, per l'interferenza con le strutture preesistenti e per la sostituzione del soffietto nella linea DVI DEG con una “lira”, per rendere la linea verificata secondo il programma Autopipe Plus [6];
- linee di rottura dell'EBT-B balance line: modifiche al layout conseguenti alla modifica del layout della EBT-B balance line, per motivi di interferenza con le strutture preesistenti e per l'aggiunta di una configurazione “a lira” in ciascuna linea (SPLIT e DEG), per rendere la linea verificata secondo il programma Autopipe Plus [6];
- PSS-B to DVI-B: modifiche al layout conseguenti alla modifica del layout del DVI-B e alle interfacce con la struttura portante;
- LGMS-B to DVI-B: modifiche al layout conseguenti alla modifica del layout del DVI-B e alle interfacce con la struttura portante;
- RC to DVI-B: modifiche al layout conseguenti alla modifica del layout del DVI-B.

3) ADS Stage-I e II:

- modifiche al layout per motivi di posizionamento sulla struttura portante;
- aumento dello spessore dei tubi di tutti gli stadi e treni a monte delle valvole degli ADS (lato primario del circuito), da Sch. 80 a Sch. 160, per rendere la linea verificata secondo il programma Autopipe Plus [6];
- linee di rottura dell'ADS Stage-I Single Train: modifica al layout conseguente alla modifica del layout dell'ADS Stage-I ST ;
- eliminazione del soffietto sulla linea verticale di ingresso alla QT.

Circuiti secondari ed EHRS

1) Feed Line-A, B, C:

- modifiche al layout legate alla variazione angolare dei bocchelli di attacco sul RV secondo il progetto di Mangiarotti Nuclear [3], con conseguenti modifiche delle zone di attacco ai bocchelli stessi;
- EHRS-A, B, C Cold Leg: modifiche al layout legate alla variazione della posizione delle FL a cui sono collegate;
- variazione del diametro delle CL-A and B da 1 ¼” Sch. 80 a ½” Sch. 80 e della CL-C da 1 ½” Sch. 80 a ¾” Sch. 80 per adeguamento delle perdite di carico [5];
- ottimizzazione del layout con spostamento degli EHRS all'interno delle relative piscine RWST per interfacce con la struttura portante;
- Cold Leg-A: aggiunta di una configurazione “a lira” per rendere la linee verificata secondo il programma Autopipe [6].
- linee di rottura della Feed Line-B: modifiche alle linee per interfacce con la struttura portante.

- 2) Steam Line-A, B, C:
- modifiche al layout legate alla variazione angolare dei bocchelli di attacco sul RV, secondo il progetto di Mangiarotti Nuclear [3], con conseguenti modifiche delle zone di attacco ai bocchelli stessi;
 - Eliminate riduzioni alla diramazione delle linee SL C per rendere le linee verificate secondo il programma Autopipe [6];
 - EHRS-A, B, C Hot Leg: modifiche al layout legate alla variazione della posizione delle SL a cui sono collegate; variazione del diametro delle HL-A and B da 2" Sch. 80 a 1 ¼" Sch. 80 e della HL-C da 2 ½" Sch. 80 a 2" Sch. 80 per adeguamento delle perdite di carico [5];
 - ottimizzazione del layout con spostamento degli EHRS all'interno delle relative piscine RWST per interfacce con la struttura portante;
 - linee di rottura della Steam Line-B: modifiche al layout per rendere le linee verificate secondo il programma Autopipe [6].
 - Hot Leg-B: aggiunta di una configurazione "a lira" per rendere le linee verificate secondo il programma Autopipe [6].

Contenimento

- 1) DW to RC: modifiche al layout per motivi di posizionamento sulla struttura portante e sostituzione dei soffiotti con una configurazione "a lira" sia nella linea del liquido sia nella linea del gas per rendere la linea verificata secondo il programma Autopipe [6];
- 2) PSS-A e B to LGMS-A e B: modifiche al layout per motivi di posizionamento sulla struttura portante;
- 3) PSS to DW main vent pipe-A e B e vent pipe extension-A e B: variazione del diametro dei main vent pipe da 2" Sch. 40 a 2 ½" Sch. 40 e dei vent pipe extension da da ½" Sch. 40 a 1" Sch. 40 per adeguamento delle perdite di carico; riduzione della lunghezza dei vent pipe extension per adeguamento dell'elevazione dell'attacco al DW a quella del reattore IRIS [5]; modifiche al layout per motivi di posizionamento sulla struttura portante.

Tabella 6-1: Gruppi di linee verificati con Autopipe

Gruppo	Identificazione	Linee appartenenti al gruppo
1	DVI-A	DVI-A e tutte le linee che adducono al DVI-A a partire dalle flange di stacco dai serbatoi: - EBT-A to DVI-A, inclusi EBT-A e balance line-A che la collega superiormente al RV (EBT-A simulato come pipe) - PSS-A to DVI-A - LGMS-A to DVI-A - RC to DVI-A
2	DVI-B	DVI-B e tutte le linee che adducono al DVI-B a partire dalle flange di stacco dai serbatoi: - EBT-B to DVI-B, inclusi EBT-B e balance line-B che la collega superiormente al RV (EBT-B simulato come pipe) - linee di rottura del DVI-B - PSS-B to DVI-B - LGMS-B to DVI-B - RC to DVI-B - linee di rottura dell'EBT-B balance line
3	ADS	- ADS Stage-I fino alla QT - ADS Stage-II - linee di rottura dell'ADS Stage-I Single Train
4	FL	- Feed Line-A, B, C a partire dal collettore di alimento della FW - Cold Leg degli EHRS-A,B,C - Linee di rottura della Feed Line-B
5	SL	- Steam Line-A, B, C fino al collettore di scarico del vapore - Hot Leg degli EHRS-A, B, C - Linee di rottura della Steam Line-B
6	DW to RC	2 calcoli separati: - Linea del liquido - Linea del gas
7	DW to PSS	2 calcoli separati: - Main vent pipe-A and extension - Main vent pipe-B and extension
8	PSS to LGMS	2 calcoli separati: - PSS to LGMS-A - PSS to LGMS-B

7 COIBENTAZIONI

Le coibentazioni saranno realizzate con lana di roccia, composta da materiali biocompatibili, ricoperta esternamente con lamierino di alluminio.

In corrispondenza delle valvole, delle flange e degli orifizi, la coibentazione dovrà essere realizzata con gusci apribili mediante ganci.

La conducibilità termica del coibente, nello stato di posa, non dovrà essere maggiore di 0.045 W/(m K).

Lo spessore della coibentazione è funzione del diametro delle linee, secondo quanto riportato nella Tabella 7-1, dove è anche valutata la temperatura superficiale della coibentazione alle condizioni del fluido del primario e del contenimento.

Per ridurre le dispersioni verso l'ambiente, lo spessore della coibentazione scelto deve essere tale da limitare la temperature superficiale a 35 °C con aria esterna a 20 °C.

Calcoli basati su un tratto di tubazione di lunghezza 1 m					Tubazioni del contenimento								
	De tubo	Sp. Coib.	D esterno	R tubo	R esterno	k isolante	h esterno	Res isol	Res sup	εRtot	T fluido	T aria	T sup est
	mm	mm	mm	m	m	w/(mK)	w/m²K	k/w	k/w	k/w	°C	°C	°C
1/2"	21.3	40	101.3	0.01065	0.05065	0.045	10	5.52	0.31	5.83	220	20	30.8
3/4"	26.7	40	106.7	0.01335	0.05335	0.045	10	4.90	0.30	5.20	220	20	31.5
1"	33.4	40	113.4	0.0167	0.0567	0.045	10	4.33	0.28	4.61	220	20	32.2
1"1/2	48.3	50	148.3	0.02415	0.07415	0.045	10	3.97	0.21	4.18	220	20	30.3
2"	60.3	50	160.3	0.03015	0.08015	0.045	10	3.46	0.20	3.66	220	20	30.9
2"1/2	73	80	233	0.0365	0.1165	0.045	10	4.11	0.14	4.24	220	20	26.4
3"	88.9	80	248.9	0.04445	0.12445	0.045	10	3.64	0.13	3.77	220	20	26.8
4"	114.3	80	274.3	0.05715	0.13715	0.045	10	3.10	0.12	3.21	220	20	27.2
5"	141.3	80	301.3	0.07065	0.15065	0.045	10	2.68	0.11	2.79	220	20	27.6
6"	168.3	80	328.3	0.08415	0.16415	0.045	10	2.36	0.10	2.46	220	20	27.9
Calcoli basati su un tratto di tubazione di lunghezza 1 m					Tubazioni del primario e del secondario								
	De tubo	Sp. Coib.	D esterno	R tubo	R esterno	k isolante	h esterno	Res isol	Res sup	εRtot	T fluido	T aria	T sup est
	mm	mm	mm	m	m	w/(mK)	w/m²K	k/w	k/w	k/w	°C	°C	°C
1/2"	21.3	50	121.3	0.01065	0.06065	0.045	10	6.16	0.26	6.42	300	20	31.5
3/4"	26.7	50	126.7	0.01335	0.06335	0.045	10	5.51	0.25	5.76	300	20	32.2
1"	33.4	50	133.4	0.0167	0.0667	0.045	10	4.90	0.24	5.14	300	20	33.0
1"1/2	48.3	50	148.3	0.02415	0.07415	0.045	10	3.97	0.21	4.18	300	20	34.4
2"	60.3	50	160.3	0.03015	0.08015	0.045	10	3.46	0.20	3.66	300	20	35.2
2"1/2	73	80	233	0.0365	0.1165	0.045	10	4.11	0.14	4.24	300	20	29.0
3"	88.9	80	248.9	0.04445	0.12445	0.045	10	3.64	0.13	3.77	300	20	29.5
4"	114.3	80	274.3	0.05715	0.13715	0.045	10	3.10	0.12	3.21	300	20	30.1
5"	141.3	80	301.3	0.07065	0.15065	0.045	10	2.68	0.11	2.79	300	20	30.6
6"	168.3	80	328.3	0.08415	0.16415	0.045	10	2.36	0.10	2.46	300	20	31.0

Tabella 7-1: Spessori della coibentazione

8 CONCLUSIONI

La revisione globale delle linee dell'impianto SPES3 è stata necessaria a valle delle scelte tecnologiche per la costruzione del canale centrale dell'impianto, per l'adeguamento agli spazi disponibili sulla struttura portante e per i risultati delle simulazioni dei transitori che hanno determinato una revisione del progetto per una migliore simulazione del reattore IRIS.

Tutte le linee sono state simulate e verificate con il programma Autopipe, adeguato alla verifica secondo la norma UNI EN 13480:2002, armonizzata alla direttiva PED 97/23/CE.

I risultati dei calcoli hanno dimostrato che in nessuna delle condizioni di carico esaminate viene superata la tensione ammissibile e che le linee, previa ulteriore verifica da parte del costruttore, sono adeguate alla costruzione.

9 RIFERIMENTI

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ALLEGATO 1 CONDIZIONI OPERATIVE DELLE LINEE

A1.1 Scelte e assunzioni per costruire il modello delle linee

A seguito dei transitori operazionali o incidentali previsti durante l'esercizio dell'impianto SPES-3, i vari serbatoi del circuito sono soggetti a uno spostamento verticale (verso l'alto o verso il basso, a seconda del punto di ancoraggio degli stessi alla struttura), causato dal gradiente termico che li interessa. Lo spostamento verticale di ogni serbatoio interessa solidalmente le linee ad esso collegate.

Nella verifica delle linee di SPES-3 col software Autopipe, la rappresentazione delle linee, tranne casi particolari, non include i serbatoi, e si ferma agli attacchi flangiati linea-serbatoio, simulati come incastri, cui viene imposto lo spostamento verticale calcolato alla quota del bocchello del serbatoio.

Il valore di questo spostamento verticale è dato da $\alpha \cdot L \cdot \Delta T$, dove:

α è il coefficiente di dilatazione termica lineare dell'acciaio AISI 304 espresso in $^{\circ}\text{C}^{-1}$, variabile con la temperatura, come visibile dal grafico in Figura A1-1;

L è la distanza, espressa in mm, tra il punto di appoggio del serbatoio alla struttura portante e l'attacco flangiato linea-serbatoio, calcolata come differenza tra le relative quote;

ΔT è il gradiente termico a cui è sottoposto il serbatoio.

Ogni quota nell'assieme generale di SPES-3 è stata calcolata considerando come punto di riferimento (quota 0) il fondo interno del vessel (RPV bottom).

Nella Tabella A1.1 sono riportate le quote del punto di appoggio alla struttura di ogni serbatoio presente in SPES-3, e nella Tabella A1.2 la quota a cui ogni linea si connette ai serbatoi.

Gli spostamenti verticali degli attacchi flangiati sono inclusi, caso per caso e linea per linea, nel paragrafo corrispondente alla linea a cui fanno riferimento.

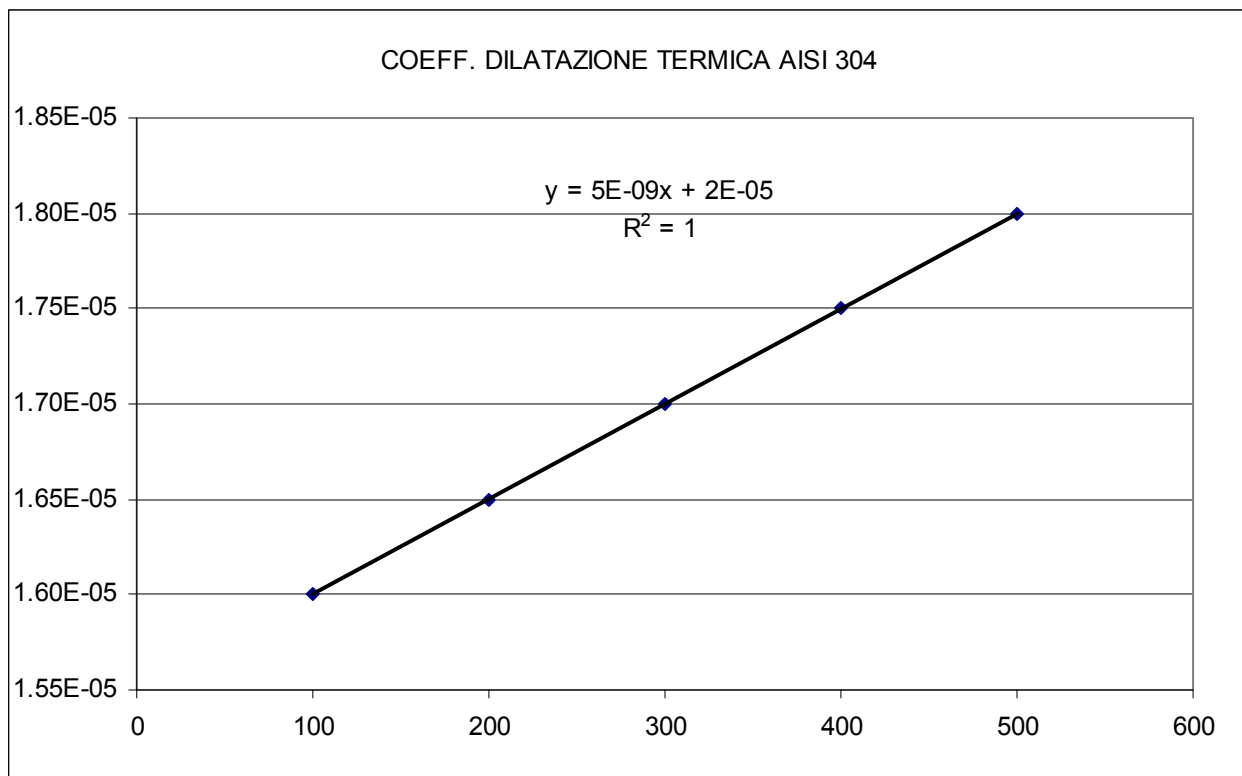


Figura A1-1: Andamento del coefficiente di dilatazione termica in funzione della temperatura

Serbatoio	Quota (mm)
DW	9902.37
LGMS	12367.42
EBT	15045.92
PSS	2351.92
RC	2351.92
QT	9902.37
RV	10081.92
RWST	21872.12

Tabella A1.1: Quote di ancoraggio dei serbatoi rispetto a RPV bottom

linea/serbatoio	Quota di collegamento linea - serbatoio [mm]						
	DW	LGMS	EBT	PSS-A	PSS-B	RV	RC
DVI-A		10267.35	12737.61	15		2356.90/7556.90/9436.90 (bottom/middle/top)	8238.9
DVI-B		10214.9	12907		23	2356.90/7556.90/9436.90 (bottom/middle/top)	8238.9/8488.9 (DEG/SPLIT)
ADS	22465.72 (DEG-SPLIT-Stage I); 23465.72 (Stage II)					21801.72 (Stage I-II)	
DW to PSS	20664/14600			6215	6215		
DW to RC	10640/10065.80 (gas/liquid)						10215/9562 (gas/liquid)
FL	7075.72 (DEG/SPLIT)					7883 /7898 FL (FL-A,B /C1,FL-C2)	
SL	16845 (SPLIT/DEG)					16083 (SL-A,B,C)	
PSS to LGMS		14614.72		6138.4	6141.64		
EBT	17860 (DEG/SPLIT)					17861.42 /17860 (EBT-A/EBT-B)	
QT	10807.52						

Tabella A1.2: Quote di riferimento delle connessioni tra linee e serbatoi

Per misurare la portata nelle varie linee dell'impianto SPES-3 sono stati adottati dispositivi di strozzamento come venturimetri, Figura A1-2, ed orifizi calibrati.

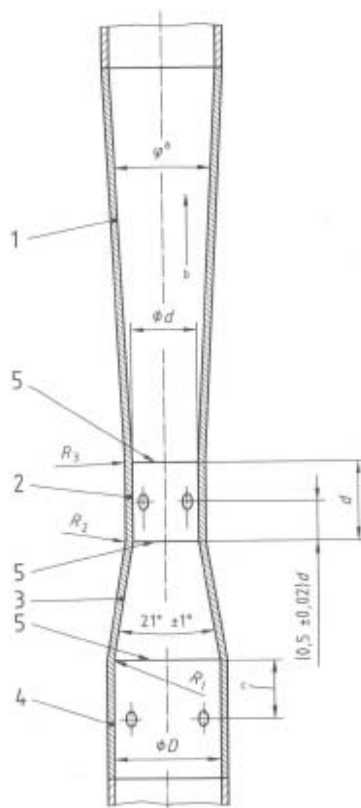


Figura A1-2: Schema di un venturimetro

I venturimetri presenti nell'impianto SPES-3 sono dimensionati secondo la norma ISO 5167-4:2003.

Facendo riferimento alla tabella in Figura A1-3, per tutti i venturimetri è stato scelto un rapporto β , tra i diametri, pari a 0.7, in modo da limitare le perdite di carico e l'interferenza sui flussi in trasferimento. Per il collegamento dei venturimetri alle linee sono state scelte flange cieche, opportunamente forate, perché tra tutti i tipi di flange, a parità di rating, hanno lunghezza minore.

In Tabella A1.3, per ogni linea sono state inserite le rispettive lunghezze dei venturimetri e i rispettivi ingombri (incluse le flange di accoppiamento).

I diametri di gola degli orifizi calibrati sono stati determinati sulla base delle simulazioni numeriche dei transitori con il codice RELAP [5]. La norma di riferimento per gli orifizi è la ISO 5167-2:2003 sulla base della quale sono stati identificati i tratti di calma a monte e valle per il corrispondente rapporto tra i diametri β . I tratti di calma sono riportati in Tabella A1. 4.

Diameter ratio β	Single 90° bend ^a		Two or more 90° bends in the same plane or different planes ^a		Reducer 1,33D to D over a length of 2,3D		Expander 0,67D to D over a length of 2,5D		Reducer 3D to D over a length of 3,5D		Expander 0,75D to D over a length of D		Full bore ball or gate valve fully open	
1	2		3		4		5		6		7		8	
	A ^b	B ^c	A ^b	B ^c	A ^b	B ^c	A ^b	B ^c	A ^b	B ^c	A ^b	B ^c	A ^b	B ^c
0,30	8	3	8	3	4	4	4	4	2,5	4	2,5	4	2,5	4
0,40	8	3	8	3	4	4	4	4	2,5	4	2,5	4	2,5	4
0,50	9	3	10	3	4	4	5	4	5,5	2,5	2,5	4	3,5	2,5
0,60	10	3	10	3	4	4	6	4	8,5	2,5	3,5	2,5	4,5	2,5
0,70	14	3	18	3	4	4	7	5	10,5	2,5	5,5	3,5	5,5	3,5
0,75	16	8	22	8	4	4	7	6	11,5	3,5	6,5	4,5	5,5	3,5

The minimum straight lengths required are the lengths between various fittings located upstream of the classical Venturi tube and the classical Venturi tube itself. Straight lengths shall be measured from the downstream end of the curved portion of the nearest (or only) bend or the downstream end of the curved or conical portion of the reducer or expander to the upstream pressure tapping plane of the classical Venturi tube.

If temperature pockets or wells are installed upstream of the classical Venturi tube, they shall not exceed 0,13D in diameter and shall be located at least 4D upstream of the upstream tapping plane of the Venturi tube.

For downstream straight lengths, fittings or other disturbances (as indicated in this Table) or densitometer pockets situated at least four throat diameters downstream of the throat pressure tapping plane do not affect the accuracy of the measurement (see 6.2.3 and 6.2.5).

^a The radius of curvature of the bend shall be greater than or equal to the pipe diameter.

^b Column A for each fitting gives lengths corresponding to "zero additional uncertainty" values (see 6.2.3).

^c Column B for each fitting gives lengths corresponding to "0,5 % additional uncertainty" values (see 6.2.4).

^d The straight length in Column A gives zero additional uncertainty; data are not available for shorter straight lengths which could be used to give the required straight lengths for Column B.

Figura A1-3: Tratti di calma a monte e a valle per venturimetri

Dettaglio linea	Tubo	Sch.	Diametro interno "D" [mm]	Diametro gola "d" [mm]	β "D/d"	Lunghezza venturimetro [mm]	Lunghezza flange [mm]	Ingombro venturimetro [mm]	Tratti di calma minimi [mm]
ADS Stage-I Double Train	2 1/2"	80	59.01	41.30	0.7	220	57.2	448.8	177.02
ADS Stage-II Double Train	2 1/2"	80	59.01	41.30	0.7	220	57.2	448.8	177.02
ADS Stage-I Single Train	1 1/2"	80	38.10	26.67	0.7	143	44.5	321	114.30
ADS Stage-II Single Train	1 1/2"	80	38.10	26.67	0.7	143	44.5	321	114.30
ADS break line SPLIT	1 1/2"	40	40.90	28.63	0.7	153	44.5	218.9	122.70
ADS break line DEG	1 1/2"	40	40.90	28.63	0.7	153	44.5	218.9	122.70
EBT-B to RPV bal. Line Break DEG	3/4"	80	18.85	13.19	0.7	71	31.8	198.2	56.54
EBT-B to RPV bal. Line Break SPLIT	3/4"	80	18.85	13.19	0.7	71	31.8	198.2	56.54
FL-B break SPLIT	1 1/2"	80	38.10	26.67	0.7	143	57.2	371.8	114.30
FL-B break DEG	1 1/2"	80	38.10	26.67	0.7	143	57.2	371.8	114.30
SL-B break SPLIT	2"	80	49.25	34.48	0.7	184	50.8	387.2	147.75
SL-B break DEG	2"	80	49.25	34.48	0.7	184	50.8	387.2	147.75
FL-A	1 1/2"	80	38.10	26.67	0.7	143	44.5	321	114.30
FL-B	1 1/2"	80	38.10	26.67	0.7	143	44.5	321	114.30
FL-C	2"	80	49.25	34.48	0.7	184	50.8	387.2	147.75
SL-A	2"	80	49.25	34.48	0.7	184	50.8	387.2	147.75
SL-B	2"	80	49.25	34.48	0.7	184	50.8	387.2	147.75
SL-C	2 1/2"	80	59.01	41.30	0.7	220	57.2	448.8	177.02
PSS-A to DW	2 1/2"	40	62.71	43.90	0.7	234	25.4	335.6	188.14
PSS-B to DW	2 1/2"	40	62.71	43.90	0.7	234	25.4	335.6	188.14
DVI -B break SPLIT	1/2"	80	13.84	9.69	0.7	52	30.2	172.8	41.52
DVI -B break DEG	1/2"	80	13.84	9.69	0.7	52	30.2	172.8	41.52
EBT-A to DVI-A line	3/8"	80	10.75	7.52	0.7	41	30.2	161.8	32.24
EBT-B to DVI-B line	3/8"	80	10.75	7.52	0.7	41	30.2	161.8	32.24

Tabella A1.3: Ingombri dei venturimetri

Identificativo orifizio	Linea	Tubo	SCH.	Diametro interno	β	d	β	Tratto di calma reale		Tratto di calma 5167-2	
								monte	valle	monte	valle
CO15	EBT-A to DVI-A	3/8"	80	10.745	0.3164262	3.4	0.4	449.75	449.75	268.625	32.235
CO16	EBT-B to DVI-B	3/8"	80	10.745	0.3164262	3.4	0.4	433.4	200	268.625	32.235
CO30	RC to DVI-A	3/8"	40	12.523	0.0798531	1	≤ 0.2	200.82	50	225.414	25.046
CO31	RC to DVI-B	3/8"	40	12.523	0.0798531	1	≤ 0.2	125	25	225.414	25.046
CO20	LGMS-A to DVI-A	3/8"	40	12.523	0.2874711	3.6	0.4	477.9	477.9	313.075	37.569
CO21	LGMS-B to DVI-B	3/8"	40	12.523	0.2874711	3.6	0.4	497.7	497.7	313.075	37.569
OR9	PSS-A to DVI-A	3/8"	40	12.523	0.2874711	3.6	0.4	245.72	245.72	313.075	37.569
OR10	PSS-B to DVI-B	3/8"	40	12.523	0.2874711	3.6	0.4	267.5	267.5	313.075	37.569
???	PSS-A to DW			c'è anche questa linea???							
CO33	PSS-B to DW	3/8"	40	26.645	0.6567836	17.5	0.67	175	175	532.9	93.2575
OR13	PSS-A to LGMS-A	1/2"	40	15.798	0.2278769	3.6	0.4	6015.75	2005.25	394.95	47.394
OR14	PSS-B to LGMS-B	1/2"	40	15.798	0.2278769	3.6	0.4	6015.75	2005.25	394.95	47.394
CO17	Cold Leg-A	1/2"	80	13.876	0.4251946	5.9	0.4	256	169.05	249.768	41.628
CO18	Cold Leg-B	1/2"	80	13.876	0.4251946	5.9	0.4	250	161.74	249.768	41.628
CO19	Cold Leg-C	3/4"	80	18.846	0.4404118	8.3	0.4	340	183.81	339.228	56.538
CO40	DVI-A	1/2"	80	13.876				300			
CO41	DVI-B	1/2"	80	13.876				326	200		

Tabella A1. 4: Tratti di calma a monte e a valle degli orifizi

A1.2 DVI

Il gruppo DVI è quello di riferimento principale per il calcolo, perché il transitorio di rottura del DVI ha conseguenze su tutti gli altri gruppi di linee..

I due circuiti, A e B, dell'impianto sono stati verificati separatamente: DVI-A e DVI-B, con tutte le linee che fanno parte dei due gruppi, Tabella 6-1, Figura A1-4, Figura A1-16. Il DVI-B, essendo direttamente interessato dalla rottura risulta essere il più critico, tra i due, in quanto più sollecitato.

Gli EBT sono schematizzati come tubi di grosso diametro, connessi senza riduzioni ai bocchelli di ingresso ed uscita della linea. Tale schematizzazione dà la possibilità di rappresentare il punto di appoggio dell'EBT sulla struttura con un incastro, garantendo la libera dilatazione delle flange terminali connesse alle tubazioni calcolate dal programma Autopipe.

Al di là delle verifiche delle linee, il serbatoio EBT è oggetto di una verifica PED separata. I risultati di non verifica del serbatoio all'hoop stress, che derivano dalla sua inclusione nel gruppo del DVI, sono soltanto una conseguenza delle approssimazioni fatte e non una reale non conformità alla verifica meccanica.

La scelta di accorpare nel DVI gli EBT e la linea superiore di collegamento al vessel è stata dettata dal fatto che gli EBT-A e B intervengono nel transitorio di rottura del DVI-B.

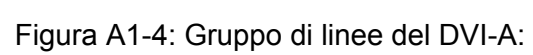
A1.2.1. DVI-A

Il gruppo DVI-A è stato verificato in tre condizioni, denominate “casi”, identificate come le più gravose tra quelle che possono verificarsi.

- Nel primo caso, al primario sono state imposte le condizioni di progetto ($P = 172.5$ bar e $T = 354$ °C) che, con il contenimento a pressione e temperatura ambiente, determinano carichi termici maggiori (dilatazioni termiche ai bocchelli) e sforzi meccanici più alti, dovuti alla maggior pressione interna.
- Nel secondo caso, alle condizioni del caso 1, si aggiunge l'intervento dell'EBT-A. In modo conservativo, i valori di pressione e temperatura della linea dell'EBT, al momento dell'intervento dell'EBT stesso, sono stati imposti pari a quelli delle condizioni di progetto, sebbene la pressione al momento dell'intervento sia inferiore (≈ 120 bar).
- Nel terzo caso si è considerato l'intervento contemporaneo di tutti i serbatoi alle condizioni di progetto del contenimento ($P = 15$ bar e $T = 198$ °C). In realtà, il loro intervento si verifica in tempi diversi sulla base dei set-point dei segnali del sistema di controllo, quando ormai le pressioni del primario e del contenimento si sono uguagliate [8], [7].
La linea che collega la PSS-A al DVI-A è considerata conservativamente alla condizioni di progetto del contenimento. In realtà, in nessuno dei transitori esaminati è previsto che intervenga ed è mantenuta chiusa.
- .

Data la sostanziale somiglianza dei casi 1 e 2, i grafici e le tabelle ad essi relativi sono stati accorpati.

In Figura A1-4 è rappresentato il gruppo di linee del DVI-A con indicate le “size” e le schedule di tubi e flange, le lunghezze dei tratti di tubazione, i supporti.



I dettagli delle condizioni esaminate nei casi 1 e 2 del DVI-A sono riportate di seguito.

- **Caso 1: circuito primario alle condizioni di progetto.**

Il circuito primario si trova alle condizioni di progetto $P=17.25$ MPa, $T= 354$ °C. Il DVI-A è alle stesse condizioni di temperatura e pressione del primario nel tratto verticale ed in quello orizzontale fino al loop seal. Tutte le linee di collegamento dai serbatoi al DVI-A, lato contenimento, ossia a valle della valvola di non ritorno, sono a pressione e temperatura ambiente ($P= 0.1$ MPa, $T= 20$ °C). La linea dell'EBT-A, collegata lato primario a monte della valvola di non ritorno, è alla pressione di progetto del primario, ma a temperatura ambiente $T= 20$ °C.

- **Caso 2: intervento dell'EBT-A**

Le condizioni del primario e del contenimento sono le stesse del caso 1. La linea dell'EBT-A, invece, in quanto è previsto l'intervento del sistema, è simulata tutta calda alle condizioni di progetto del primario: $P=17.25$ MPa, $T= 354$ °C.

In Tabella A1. 5 sono indicati gli spostamenti, diversi da zero, attribuiti a ciascun incastro in corrispondenza delle flange, nelle condizioni di carico 1 e 2.

Incastri - Dilatazioni termiche differenziali					
quota bocchello [mm]	linea	Δz (bocchello-ancoraggio serbatoio) [mm]	ΔT [°C]	$\alpha \cdot \Delta T$	dilatazione [mm]
	DVI-a to RV1	7725.02	334	7.24E-03	-55.91
	DVI-A to RV2	2525.02	334	7.24E-03	-18.28
	DVI-A to RV3	645.02	334	7.24E-03	-4.67
	DVI-A to LGMS-A	2100.07	0	0	0
	DVI-A to PSS-A	2336.92	0	0	0
	RC to DVI-A	-5886.98	0	0	0
	EBT-A to RV	-7779.5	334	7.24E-03	56.31

Tabella A1. 5: DVI-A casi 1 e 2: spostamenti degli incastri in corrispondenza delle flange

Le temperature delle linee nel caso 1 sono mostrate in Figura A1-5, le pressioni nelle linee per i casi 1 e 2 e le temperature per il caso 2 sono mostrate in Figura A1-6.

I risultati delle verifiche strutturali, eseguite per le condizioni operative esaminate e per la prova idraulica, sono riportati in Figura A1-7, Figura A1-8, Figura A1-9, Figura A1-10.. Non è riportata la verifica a hoop stress per quanto spiegato nel paragrafo A1.2.

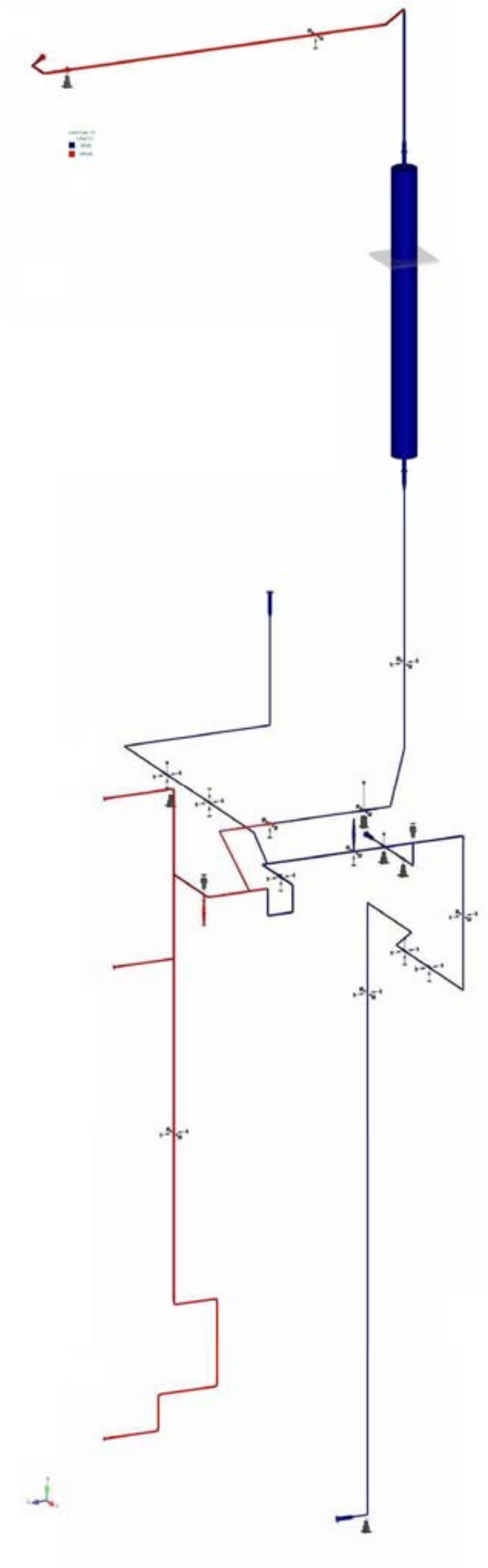


Figura A1-5: DVI-A caso 1: Temperature nelle linee

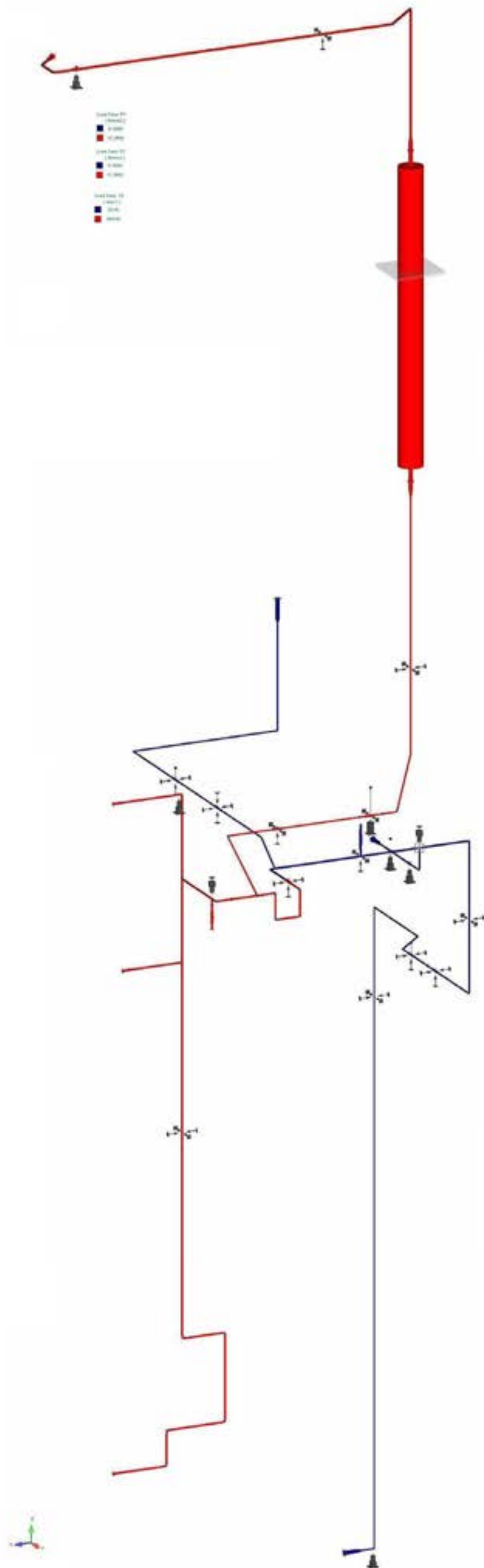


Figura A1-6: DVI-A casi 1 e 2: Pressioni; caso 2: temperature

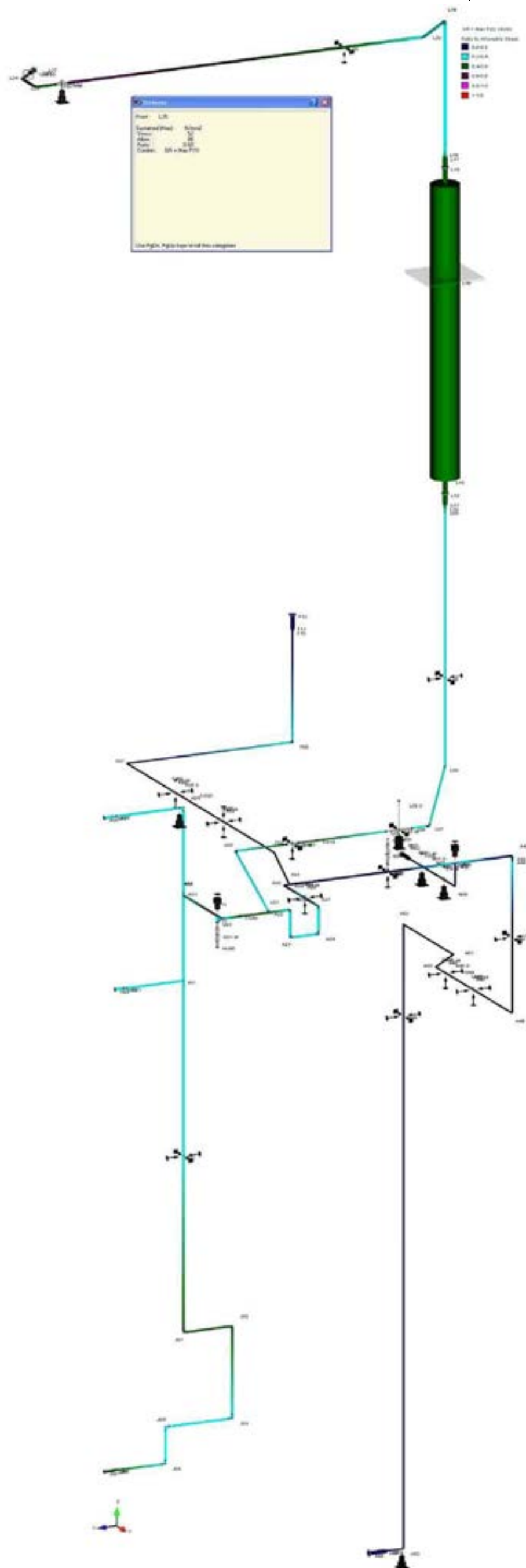
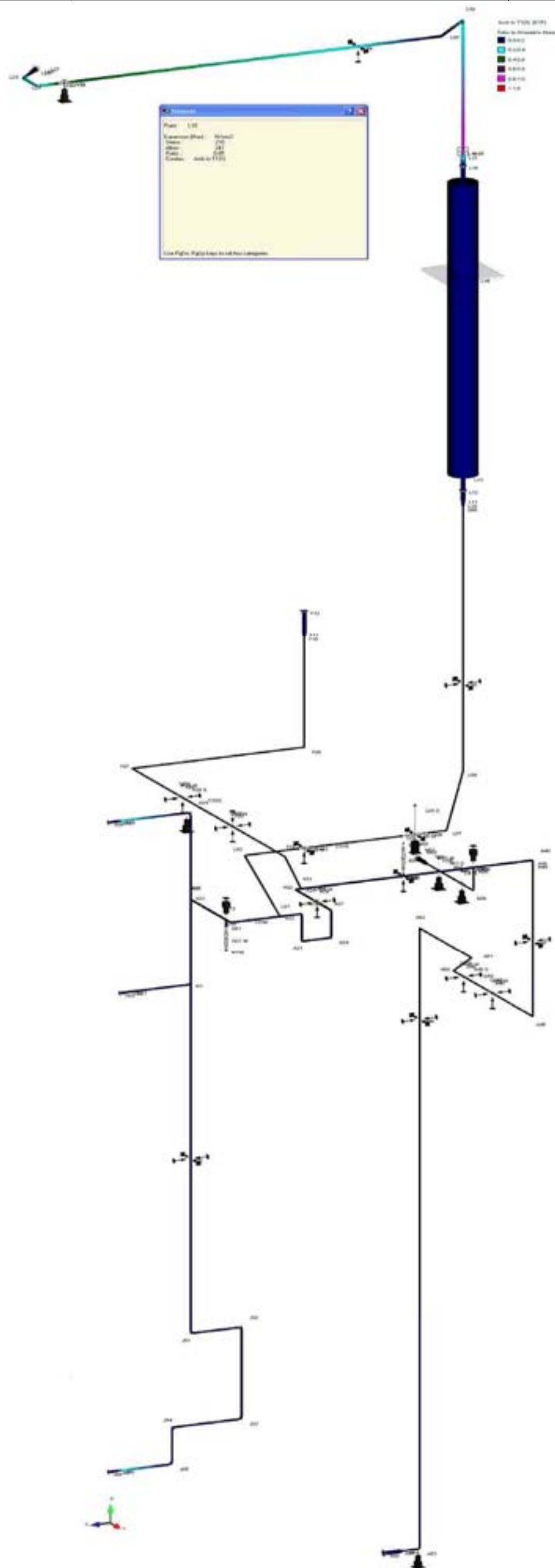


Figura A1-7: DVI-A casi 1 e 2: Tensioni dovute a pressione, peso proprio del sistema e del suo contenuto, carichi meccanici (SUS)



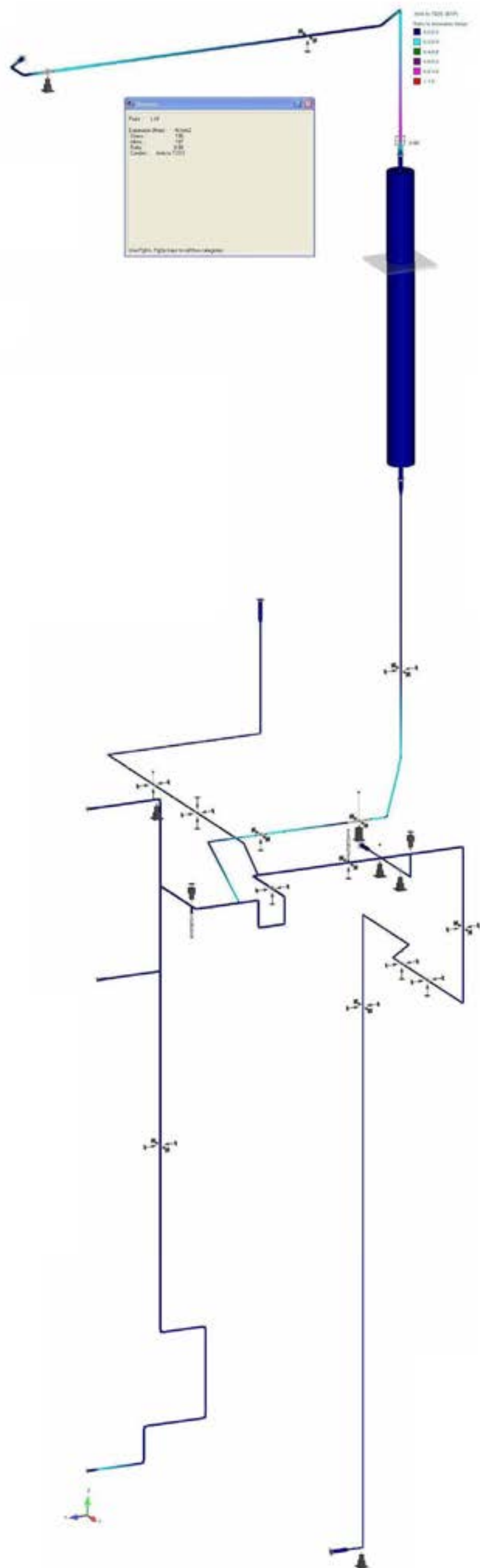


Figura A1-9: DVI-A caso 2: Tensioni dovute ai carichi termici

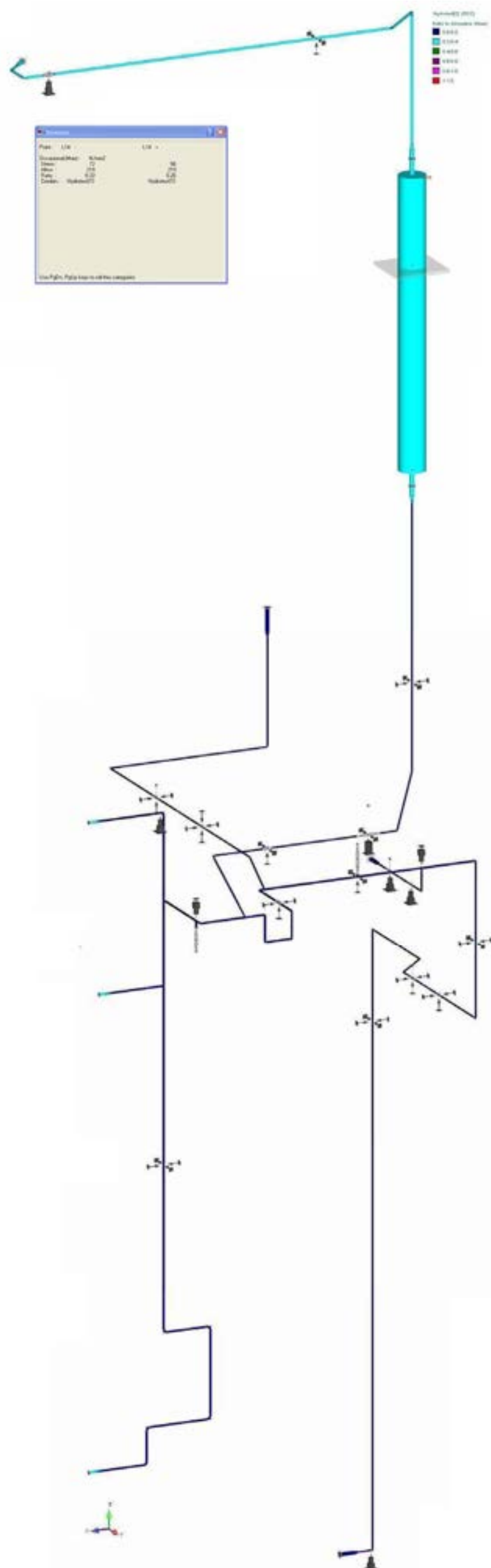


Figura A1-10: DVI-A prova idraulica

• **Caso 3: equalizzazione della pressione del circuito primario a quella del contenimento**

In una fase avanzata di un transitorio di LOCA, si verifica l'equalizzazione della pressione tra il circuito primario e il contenimento [5]. Da questo punto in poi, è possibile che il fluido contenuto nei serbatoi del contenimento rientri nel primario. La verifica del gruppo di linee del DVI-A è stata fatta assumendo che tutti i sistemi di iniezione dal contenimento al DVI-A siano attivi alla massima pressione possibile, ossia alle condizioni di progetto del contenimento, $P=1.5$ MPa, $T=198$ °C. Le linee DVI-A to LGMS-A, DVI-A to PSS-A e DVI-A to RC subiscono uno spostamento verticale dovuto alla dilatazione termica del relativo serbatoio, che dalla temperatura ambiente si porta alle condizioni di progetto.

In Tabella A1. 6 sono indicati gli spostamenti, diversi da zero, attribuiti a ciascun incastro in corrispondenza delle flange, nella condizione di carico 3.

Incastri - Dilatazioni termiche differenziali					
quota bocchello [mm]	linea	Δz (bocchello-ancoraggio serbatoio) [mm]	ΔT [°C]	$\alpha \cdot \Delta T$	dilatazione [mm]
	DVI-A to RV1	7725.02	178	3.72E-03	-28.72
	DVI-A to RV2	2525.02	178	3.72E-03	-9.39
	DVI-A to RV3	645.02	178	3.72E-03	-2.40
	DVI-A to LGMS-A	2100.07	178	3.72E-03	-7.81
	DVI-A to PSS-A	2336.92	178	3.72E-03	-8.69
	RC to DVI-A	-5886.98	178	3.72E-03	21.89
	EBT-A to RV	-7779.5	178	3.72E-03	28.93

Tabella A1. 6: DVI-A caso 3: spostamenti degli incastri in corrispondenza delle flange

Le temperature e le pressioni delle linee nel caso 3 sono mostrate in Figura A1-11.

I risultati delle verifiche strutturali, eseguite per la condizione operativa esaminata, sono riportate in Figura A1-12.

Per ciascun caso esaminato, in Figura A1-13, Figura A1-14, Figura A1-15 è presentata la visualizzazione degli spostamenti dell'intero circuito nelle condizioni accoppiate GT (G=gravity e T=temperatura), ossia sotto l'effetto combinato del peso del sistema e del suo contenuto con le temperature. La condizione GT è quella che racchiude informazioni globali sulla deformata del sistema.

La rappresentazione degli spostamenti è amplificata di un fattore 5 per aumentarne la percezione.

L'entità degli spostamenti di ogni punto e lo spostamento massimo sono presentati nell'output del calcolo di verifica della linea con Autopipe, Allegato 2.

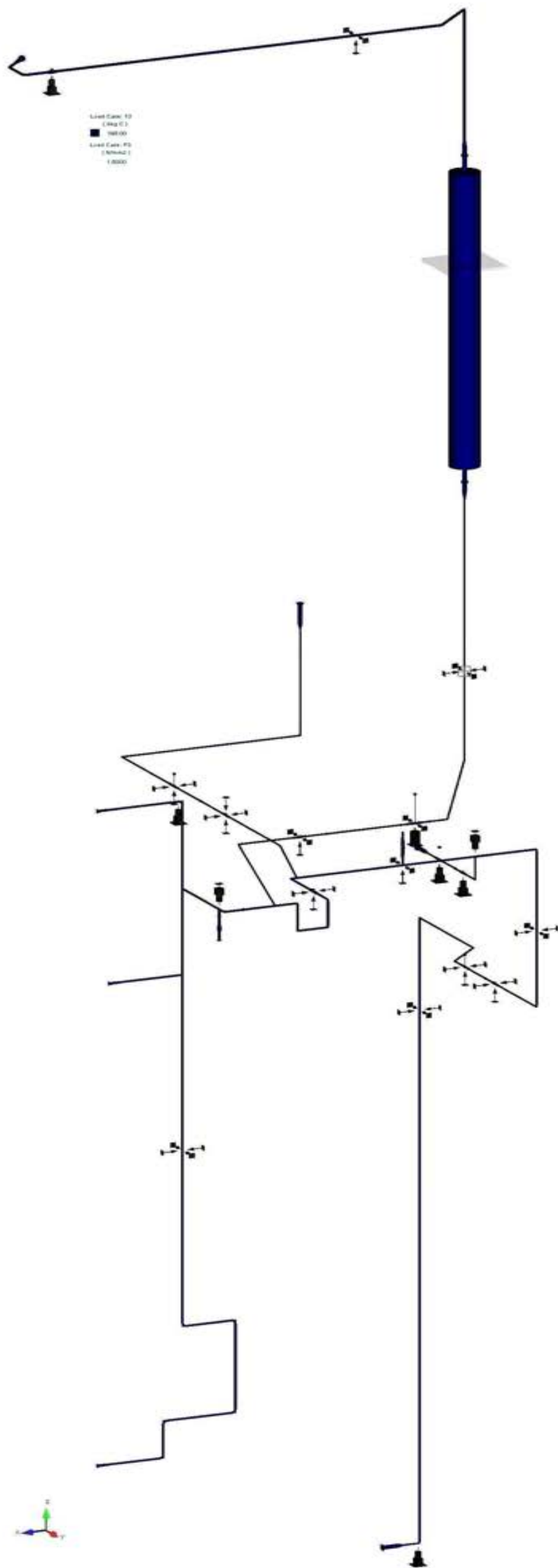


Figura A1-11: DVI-A caso 3: Temperature e pressioni

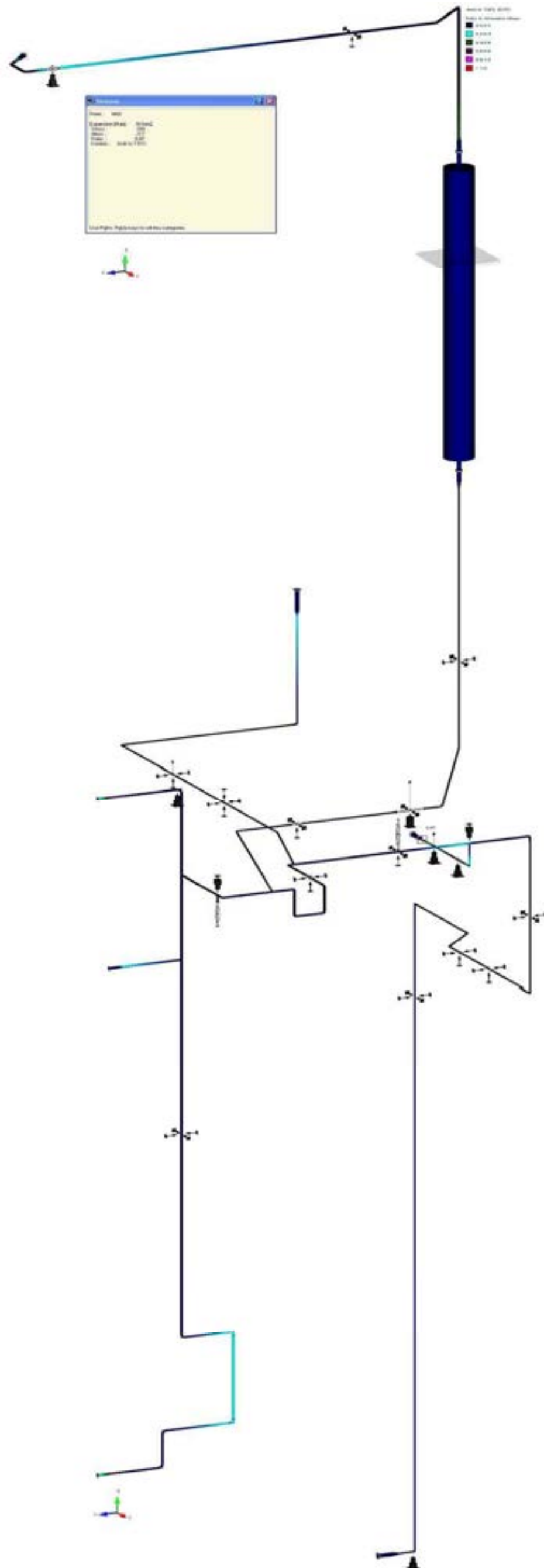


Figura A1-12: DVI-A caso 3: Tensioni dovute ai carichi termici

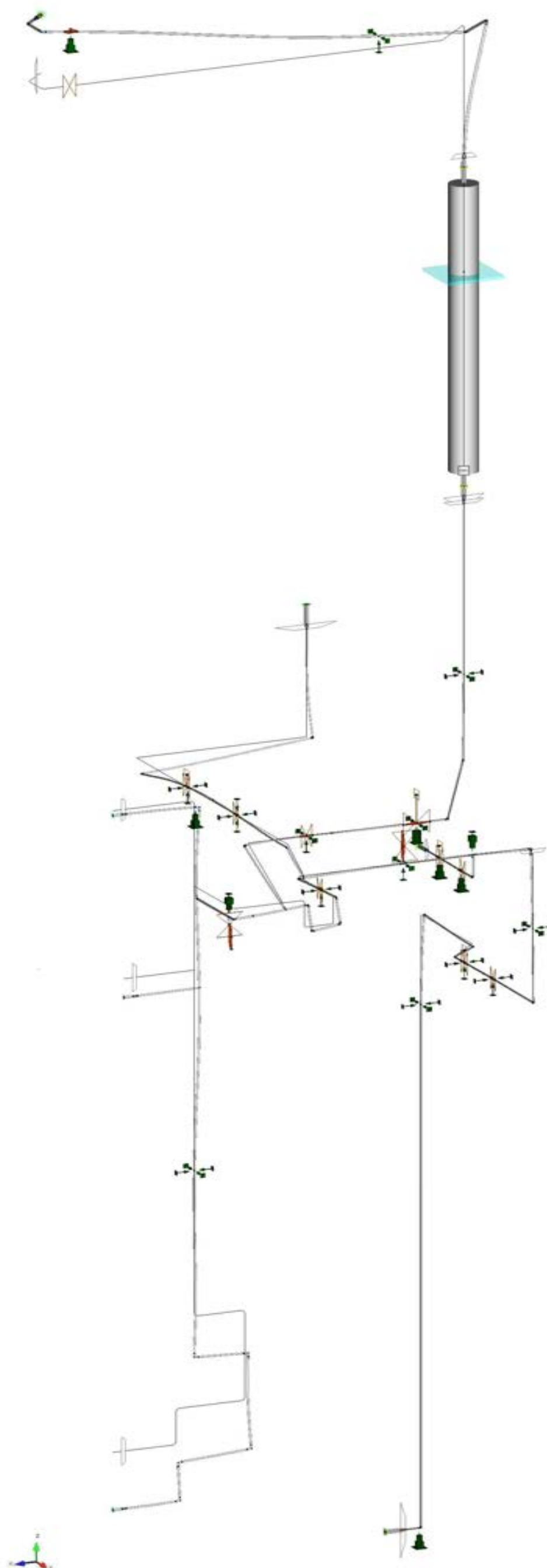


Figura A1-13: DVI-A caso 1: Visualizzazione degli spostamenti del circuito sotto effetto combinato del peso del sistema e del suo contenuto

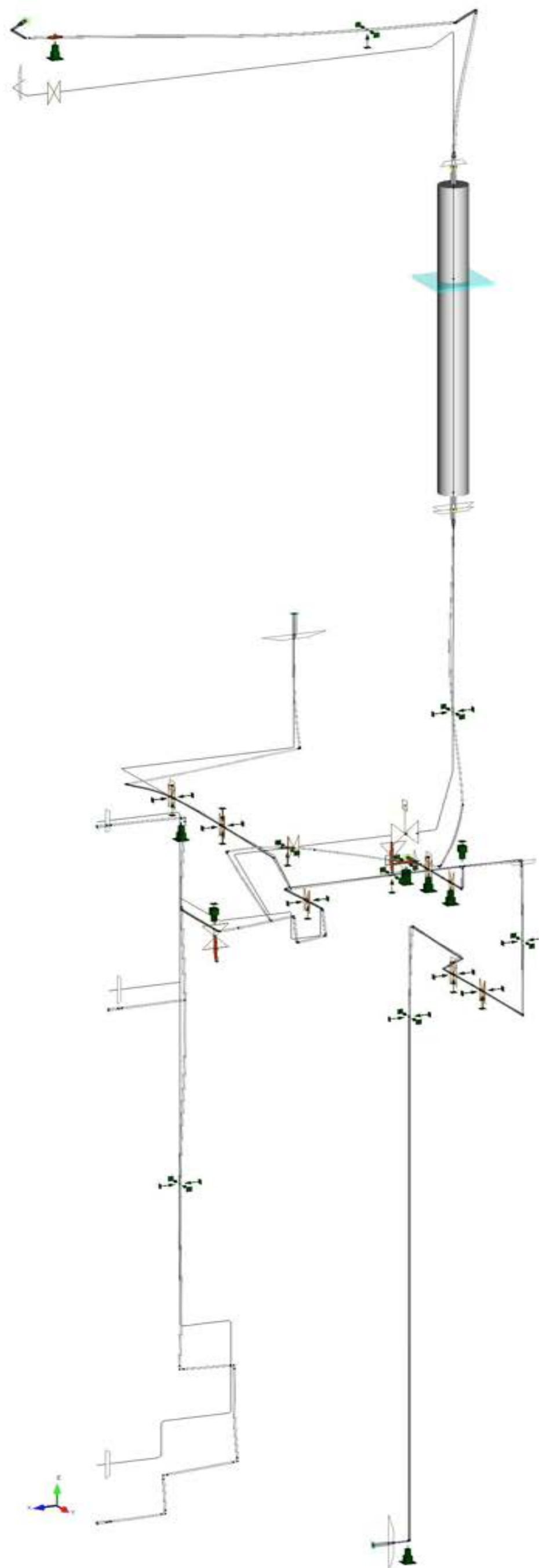


Figura A1-14: DVI-A caso 2: Visualizzazione degli spostamenti del circuito sotto effetto combinato del peso del sistema e del suo contenuto

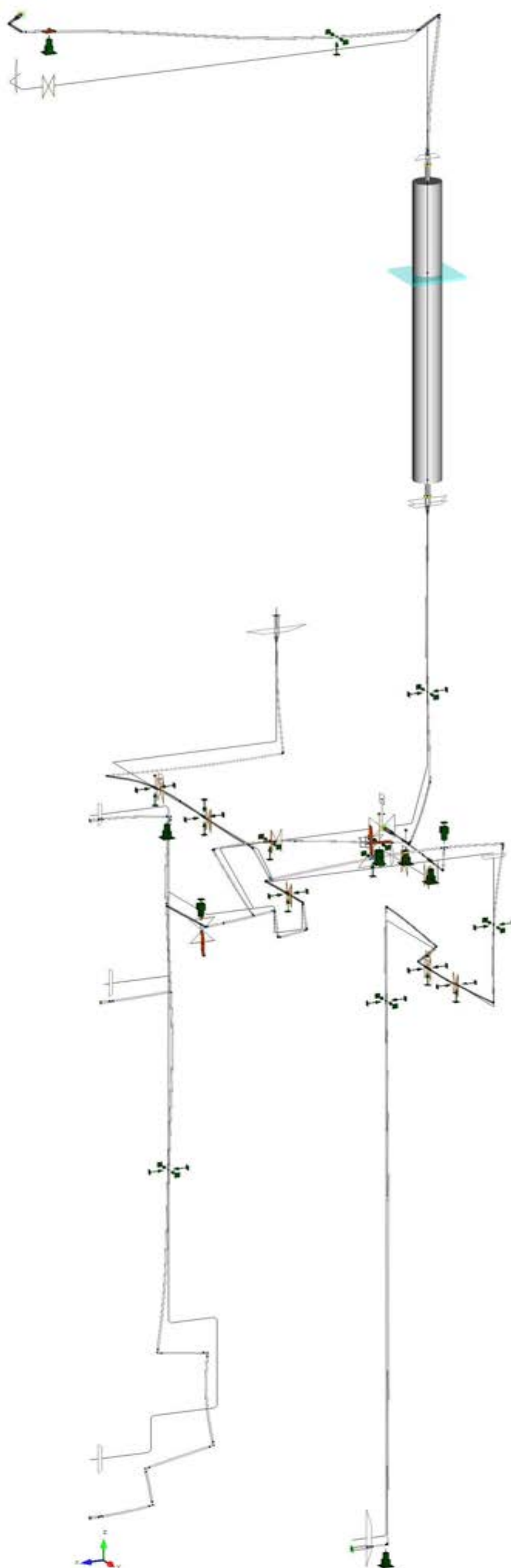


Figura A1-15: DVI-A caso 3: Visualizzazione degli spostamenti del circuito sotto effetto combinato del peso del sistema e del suo contenuto

A1.2.2. DVI-B

Il gruppo DVI-B è più complesso del DVI-A in quanto include le due linee di rottura del DVI e le linee di rottura della linea superiore di collegamento tra EBT-B e vessel.

Sebbene l'EBT-B sia incluso nel gruppo di linee per la verifica del DVI-B, la rottura della linea dell'EBT-B è stata verificata come caso a parte, visto che la rottura contemporanea di EBT-B e DVI-B è irrealistica.

Vista la maggiore complessità, il DVI-B è stato verificato in cinque condizioni, identificate come le più gravose tra quelle che possono verificarsi a seguito di un incidente.

- Nel primo caso, analogamente al DVI-A, al primario sono state imposte le condizioni di progetto ($P = 172.5$ bar e $T = 354$ °C) che, con il contenimento a pressione e temperatura ambiente, determinano carichi termici maggiori (dilatazioni termiche ai bocchelli) e sforzi meccanici più alti, dovuti alla maggior pressione interna.
- Nel secondo caso, viene esaminata la rottura a ghigliottina del DVI-B, imponendo alle linee SPLIT e DEG, a valle delle valvole di rottura, le condizioni di progetto del contenimento. Anche le linee di rottura dell'EBT-B, pressurizzate tramite il DW, sono simulate alla pressione di progetto del contenimento, ma fredde a 20 °C. Per la parte restante della linea valgono le condizioni di pressione e temperatura del caso 1.
- Nel terzo caso, alle condizioni del caso 2, si aggiunge l'intervento dell'EBT-B. Le condizioni dell'EBT-B e della relativa linea vengono imposte, conservativamente, pari a quelle di progetto del circuito primario.
- Nel quarto caso, viene esaminata la rottura a ghigliottina della linea superiore dell'EBT-B, imponendo alle linee SPLIT e DEG, a valle delle valvole di rottura, le condizioni di progetto del contenimento. Anche le linee di rottura del DVI-B, pressurizzate tramite la RC, sono simulate alla pressione di progetto del contenimento, ma fredde a 20 °C. Per la parte restante della linea valgono le condizioni di pressione e temperatura del caso 1.
- Nel quinto caso, analogamente al DVI-A, si è considerato l'intervento contemporaneo di tutti i serbatoi alle condizioni di progetto del contenimento ($P = 15$ bar e $T = 198$ °C).

In Figura A1-16 è rappresentato il gruppo di linee del DVI-B con indicate le “size” e le schedule di tubi e flange, le lunghezze dei tratti di tubazione, i supporti.

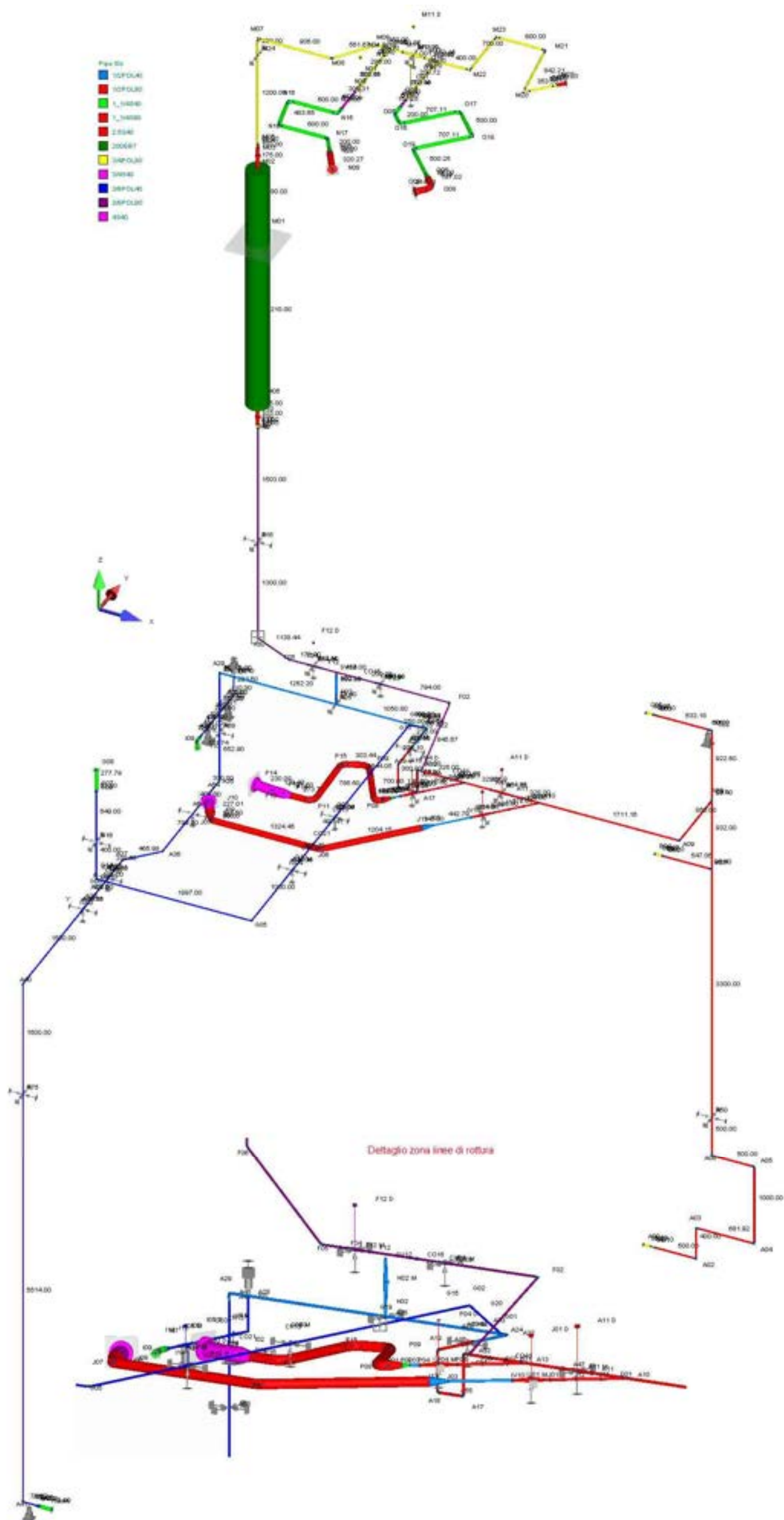


Figura A1-16: Gruppo di linee del DVI-B

I dettagli delle condizioni esaminate nel caso 1 sono riportate di seguito.

- **Caso 1: circuito primario alle condizioni di progetto.**

Analogo al caso 1 della linea DVI-A.

In Tabella A1. 7 sono indicati gli spostamenti, diversi da zero, attribuiti a ciascun incastro in corrispondenza delle flange, nella condizione di carico 1.

Incastri - Dilatazioni termiche differenziali					
quota bocchello [mm]	linea	Δz (bocchello-ancoraggio serbatoio) [mm]	ΔT [°C]	$\alpha \cdot \Delta T$	dilatazione [mm]
	DVI-B to RV1b	7725.02	334	7.24E-03	-55.91
	DVI-B to RV2b	2525.02	334	7.24E-03	-18.28
	DVI-B to RV3b	645.02	334	7.24E-03	-4.67
	DVI-B to LGMS-B	2152.52	0	0	0
	DVI-B to PSS-B	2328.92	0	0	0
	DVI-B to RCb	-5886.98	0	0	0
	EBT-B to RV	-7778.08	334	7.24E-03	56.30
	DVI-B DEG	-6136.98	0	0	0
	DVI-B SPLIT	-6136.98	0	0	0
	EBT-B DEG	-7957.63	0	0	0
	EBT-B SPLIT	-7957.63	0	0	0

Tabella A1. 7: DVI-B caso 1: spostamenti degli incastri in corrispondenza delle flange

Le pressioni delle linee nel caso 1 sono mostrate in Figura A1-17 e le temperature in Figura A1-18.

I risultati delle verifiche strutturali, eseguite per la condizione operativa esaminata e per la prova idraulica, sono riportati in Figura A1-19, Figura A1-20, Figura A1-21. Non è riportata la verifica a hoop stress per quanto spiegato nel paragrafo A1.2.

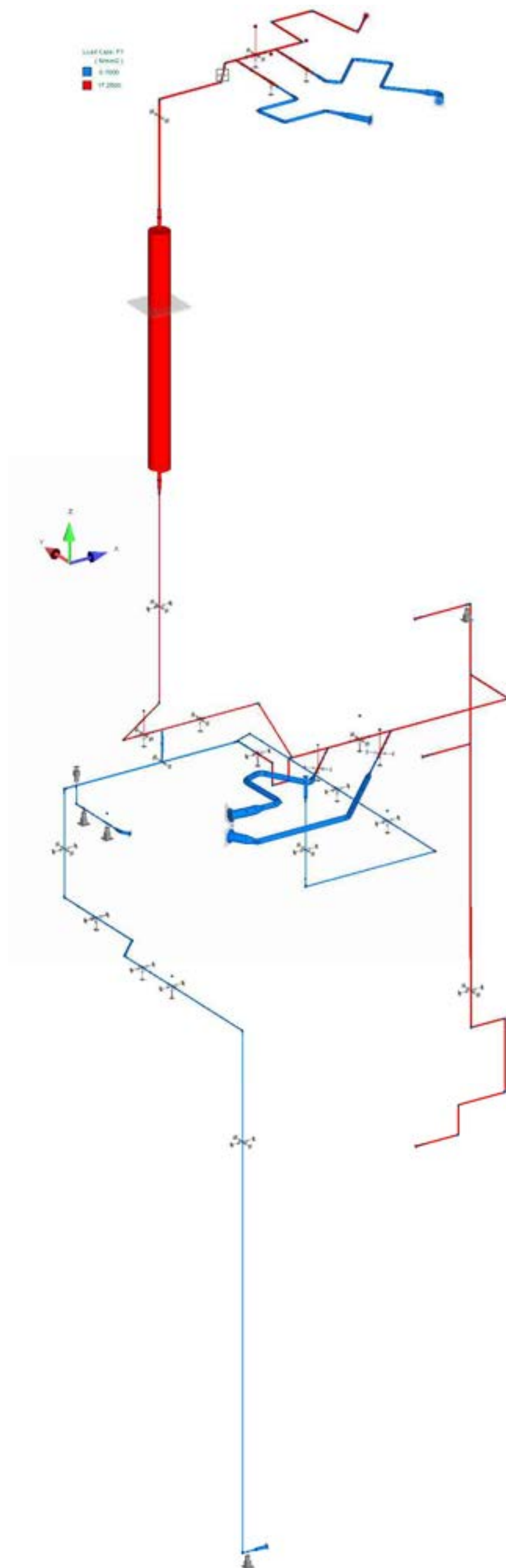


Figura A1-17: DVI-B caso 1: Pressioni

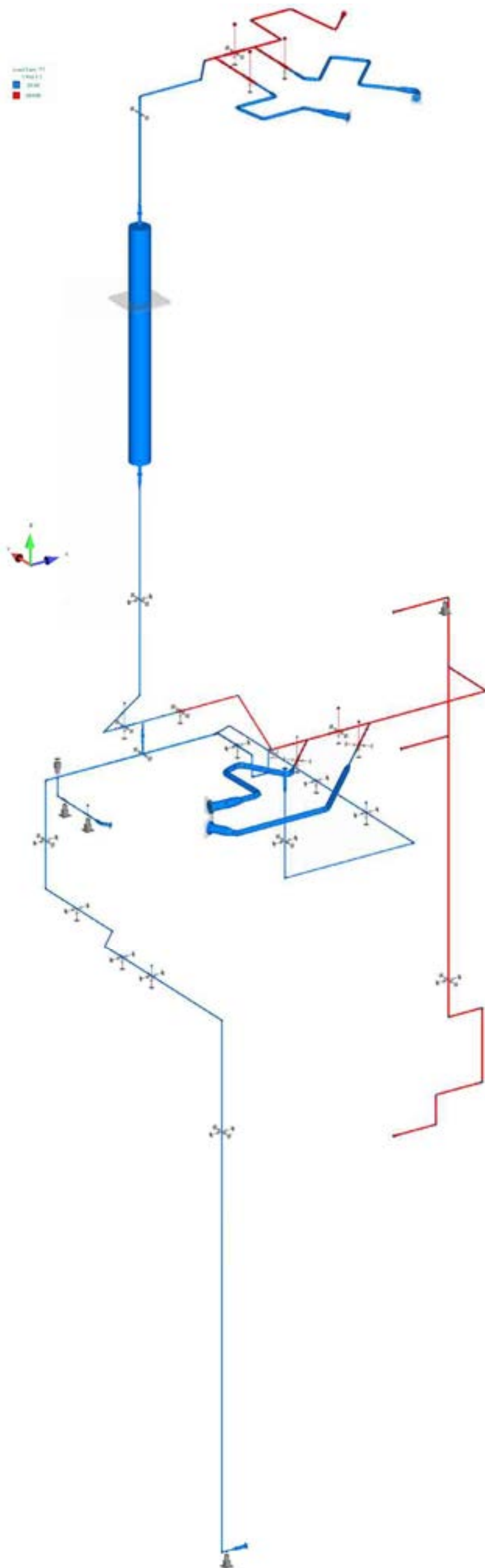


Figura A1-18: DVI-B caso 1: Temperature

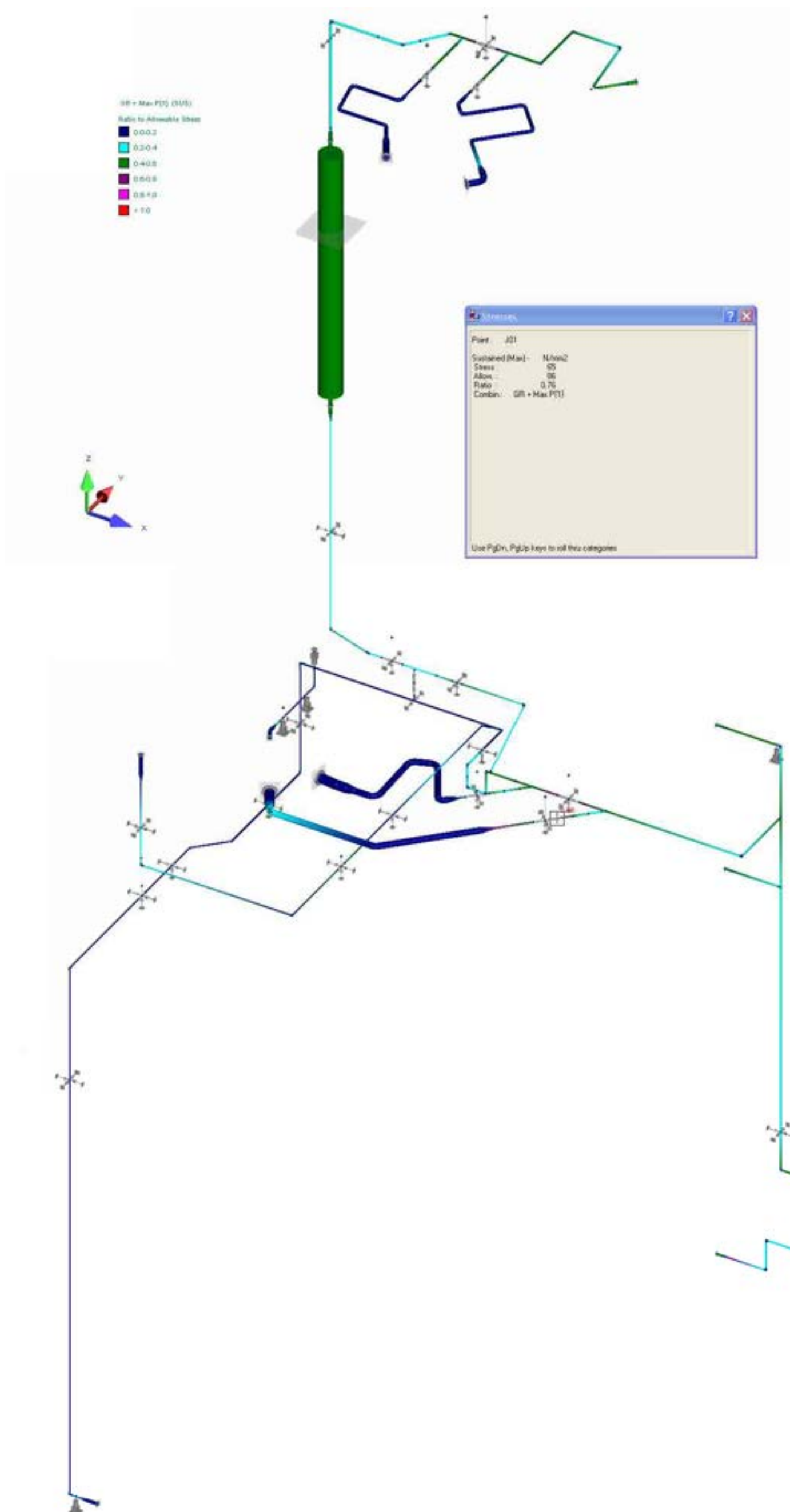


Figura A1-19: DVI-B caso 1: Tensioni dovute a pressione, peso proprio del sistema e del suo contenuto, carichi meccanici (SUS)

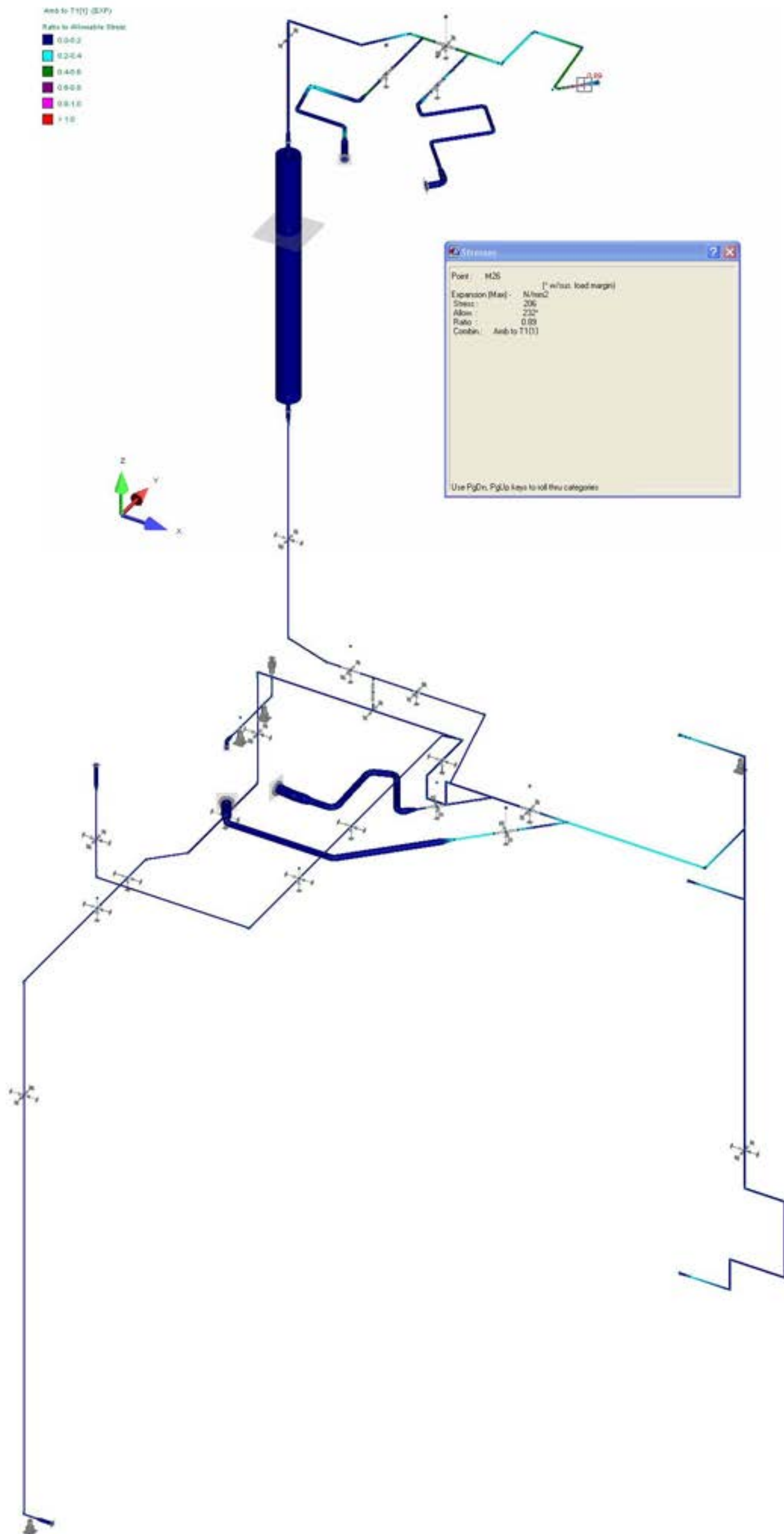


Figura A1-20: DVI-B caso 1: Tensioni dovute ai carichi termici

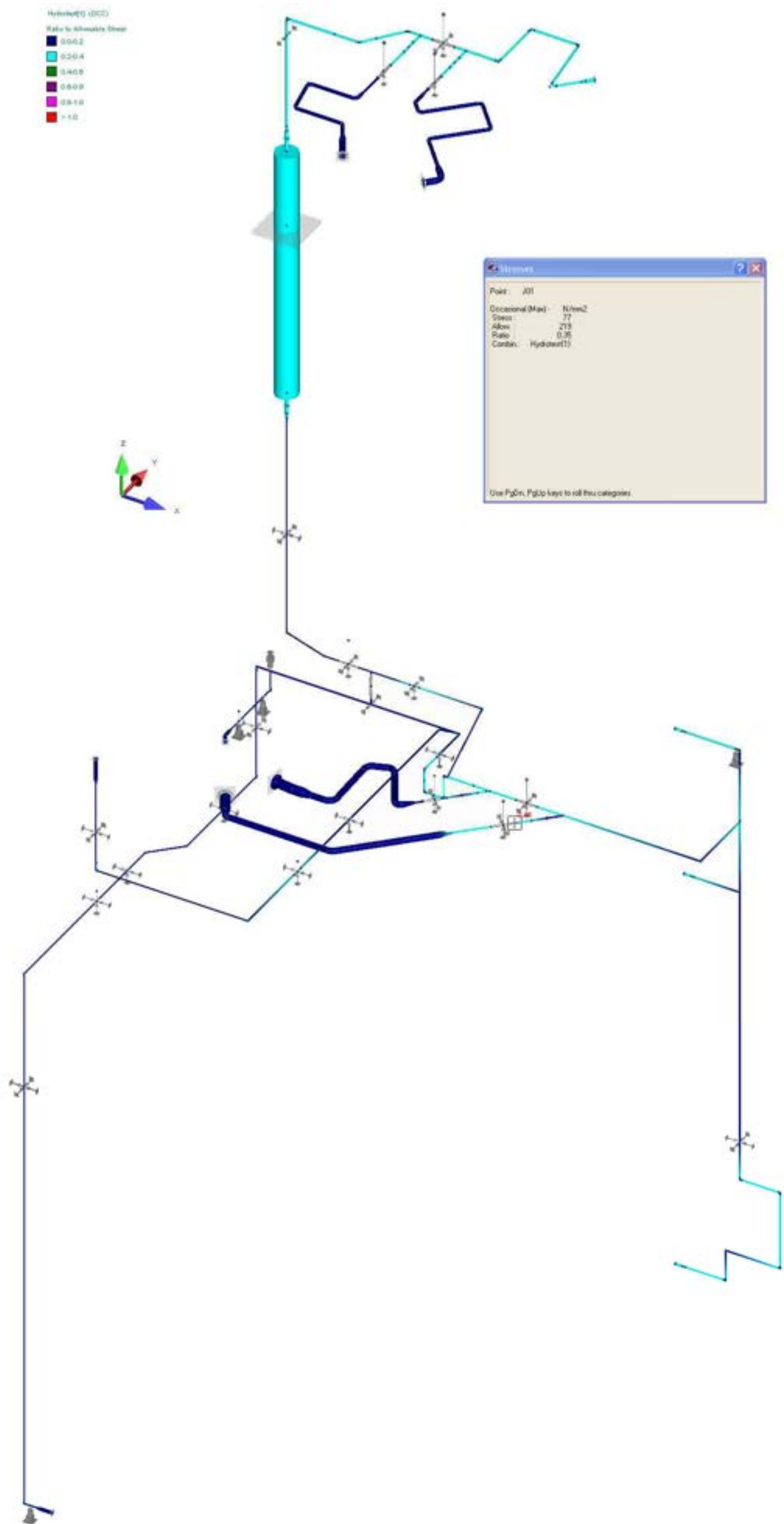


Figura A1-21: DVI-B: Prova idraulica

• **Caso 2: rottura della linea DVI-B**

La rottura a ghigliottina del DVI-B è simulata dall'apertura delle valvole di isolamento sulle linee SPLIT e DEG e dalla contemporanea chiusura della valvola di isolamento sulla linea DVI-B. Le condizioni imposte alle linee di rottura del DVI-B, per la verifica, sono quelle di progetto del contenimento.

Le linee di rottura dell'EBT-B, collegate al DW e pressurizzate conseguentemente alla rottura del DVI-B che scarica nel RC, sono anch'esse verificate alla pressione di progetto del contenimento, ma alla temperatura $T = 20\text{ °C}$. Per la parte restante del DVI-B valgono le condizioni di pressione e temperatura imposte nel caso 1.

In Tabella A1. 8 sono indicati gli spostamenti, diversi da zero, attribuiti a ciascun incastro in corrispondenza delle flange, nelle condizioni di carico 2 e 3.

Incastri - Dilatazioni termiche differenziali					
quota bocchello [mm]	linea	Δz (bocchello-ancoraggio serbatoio) [mm]	ΔT [°C]	$\alpha \cdot \Delta T$	dilatazione [mm]
	dvi-b to RV1b	7725.02	334	7.24E-03	-55.91
	dvi-b to RV2b	2525.02	334	7.24E-03	-18.28
	dvi-b to RV3b	645.02	334	7.24E-03	-4.67
	dvi-b to LGMS-B	2152.52	0	0	0
	dvi-b to PSS-B	2328.92	0	0	0
	DVI-B to RCb	-5886.98	0	0	0
	EBT-B to RV	-7778.08	334	7.24E-03	56.30
	DVI-B DEG	-6136.98	178	3.72E-03	22.82
	DVI-B SPLIT	-6136.98	178	3.72E-03	22.82
	EBT-B DEG	-7957.63	0	0	0
	EBT-B SPLIT	-7957.63	0	0	0

Tabella A1. 8: DVI-B casi 2 e 3: spostamenti degli incastri in corrispondenza delle flange.

Le pressioni delle linee nel caso 2 sono mostrate in Figura A1-22 e le temperature in Figura A1-23.

I risultati delle verifiche strutturali, eseguite per la condizione operativa esaminata, sono riportati in Figura A1-24. Non è riportata la verifica a hoop stress per quanto spiegato nel paragrafo A1.2.

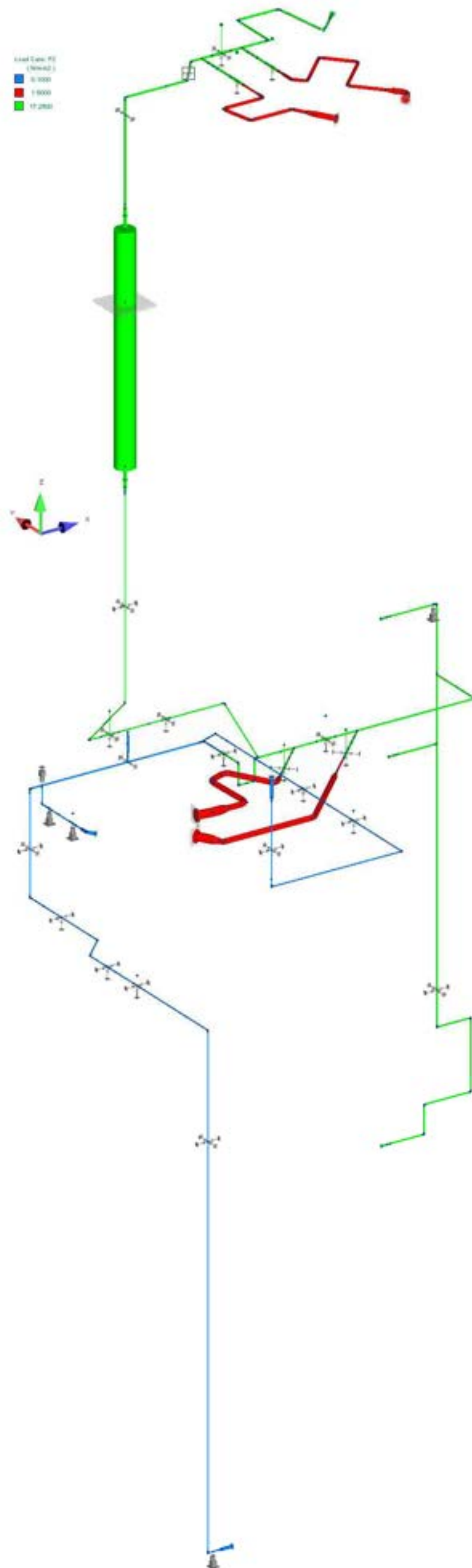


Figura A1-22: DVI-B caso 2: Pressioni

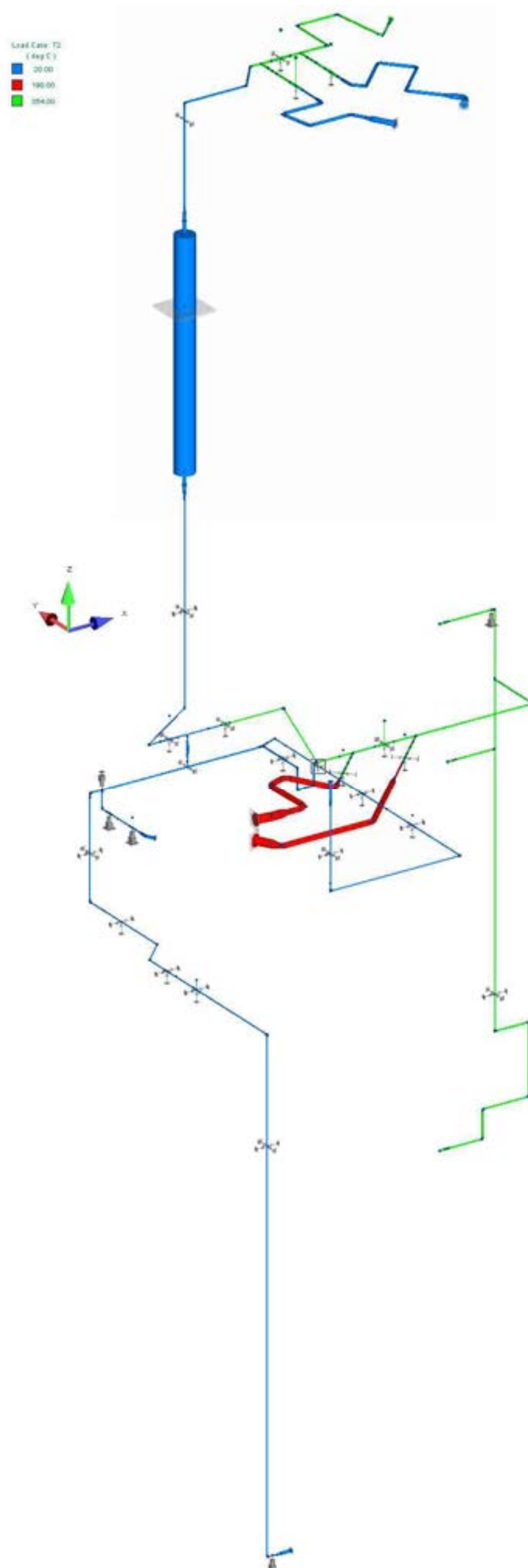


Figura A1-23: DVI-B caso 2: Temperature

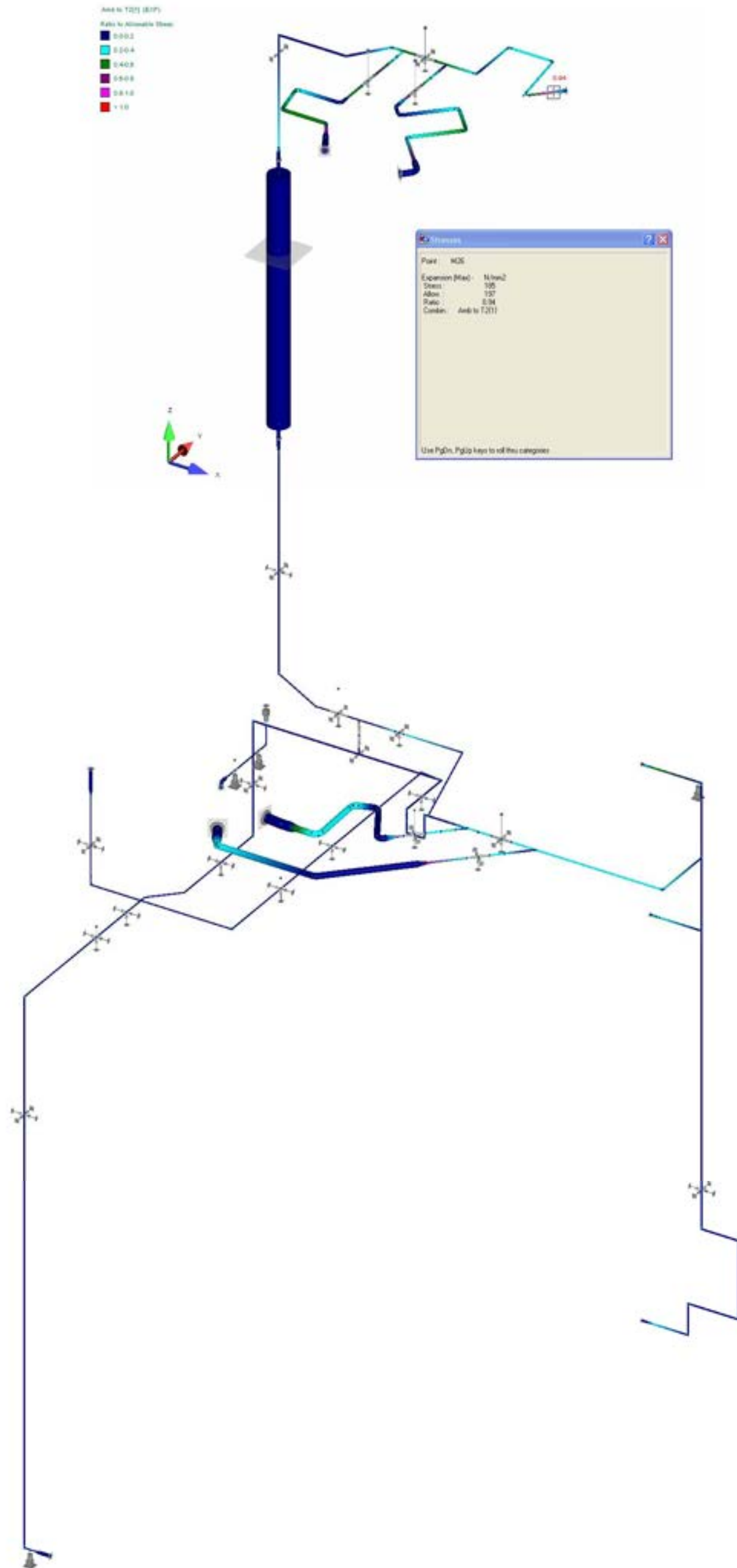


Figura A1-24: DVI-B caso 2: Tensioni dovute ai carichi termici

- **Caso 3: intervento dell'EBT-B**

Le condizioni del primario e del contenimento sono le stesse del caso 2. La linea dell'EBT-B, invece, in quanto è previsto l'intervento del sistema, è simulata tutta calda alle condizioni di progetto del primario: $P=17.25$ MPa, $T=354$ °C..

Gli spostamenti attribuiti a ciascun incastro in corrispondenza delle flange sono gli stessi del caso 2 e sono indicati in Tabella A1. 8.

Le pressioni delle linee nel caso 3 sono mostrate in Figura A1-25 e le temperature in Figura A1-26.

I risultati delle verifiche strutturali, eseguite per la condizione operativa esaminata, sono riportati in Figura A1-27. Non è riportata la verifica a hoop stress per quanto spiegato nel paragrafo A1.2.

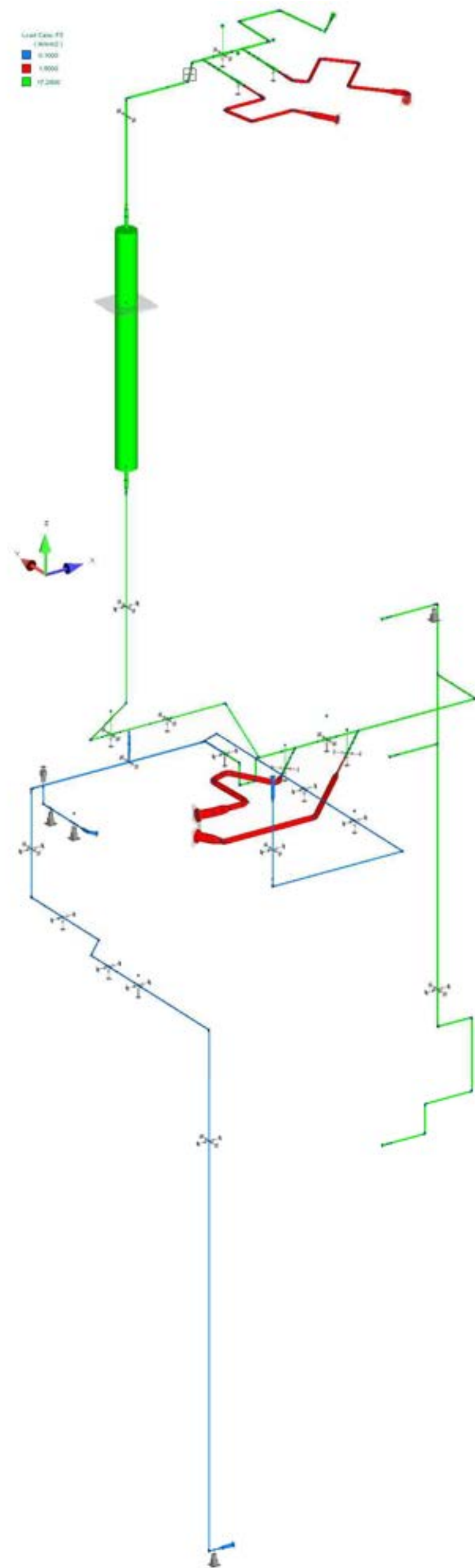


Figura A1-25: DVI-B caso 3: Pressioni

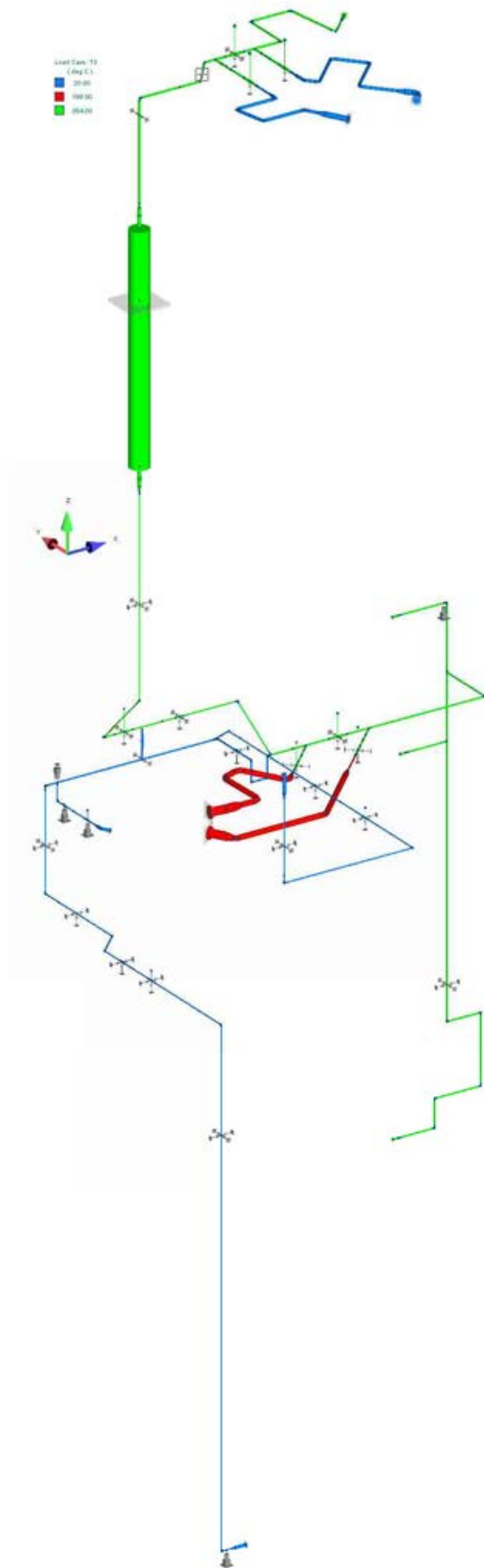


Figura A1-26: DVI-B caso 3: Temperature

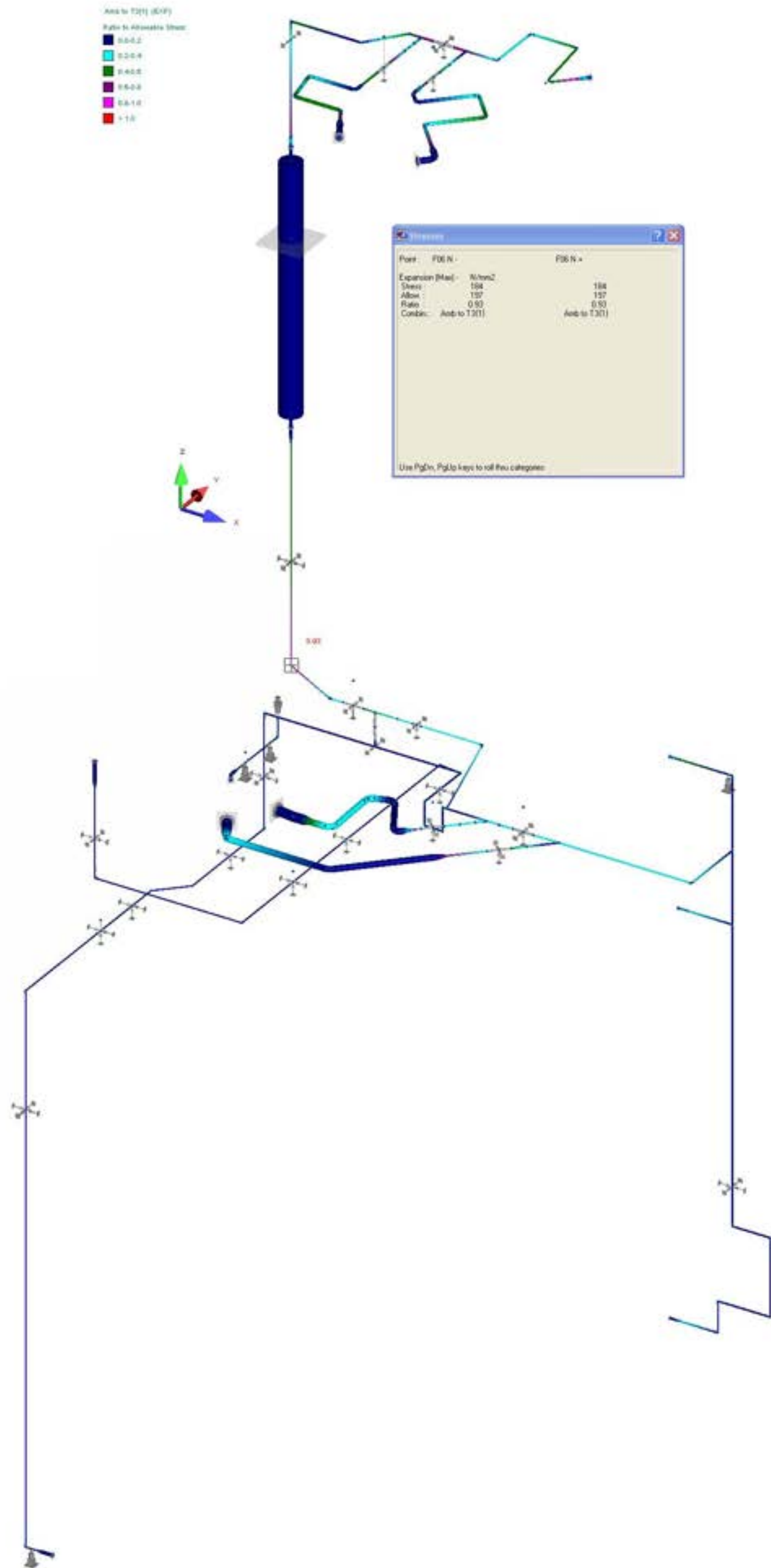


Figura A1-27: DVI-B caso 3: Tensioni dovute ai carichi termici

• **Caso 4: rottura della linea EBT-B**

Nel caso della rottura della linea superiore dell'EBT-B, le condizioni imposte per la verifica sono quelle di progetto del contenimento. La linea del DVI-B è alla pressione e temperatura di progetto del primario, lungo il tratto verticale e nel tratto orizzontale fino al loop seal. Le linee di collegamento ai serbatoi sono a temperatura e pressione ambiente. Le linee SPLIT e DEG, di rottura del DVI-B, sono simulate alla pressione di progetto del contenimento, in quanto collegate al RC (pressurizzato dal getto di vapore ad alta pressione dalle rottura dell'EBT-B che scarica nel DW), ma a temperatura ambiente. Subiscono tuttavia la dilatazione termica in corrispondenza dei bocchelli della Cavity cui sono collegati.

In Tabella A1. 9 sono indicati gli spostamenti, diversi da zero, attribuiti a ciascun incastro in corrispondenza delle flange, nella condizione di carico 4.

Incastri - Dilatazioni termiche differenziali					
quota bocchello [mm]	linea	Δz (bocchello-ancoraggio serbatoio) [mm]	ΔT [°C]	$\alpha \Delta T$	dilatazione [mm]
	DVI-B to RV1b	7725.02	334	7.24E-03	-55.91
	DVI-B to RV2b	2525.02	334	7.24E-03	-18.28
	DVI-B to RV3b	645.02	334	7.24E-03	-4.67
	DVI-B to LGMS-B	2152.52		0	0
	DVI-B to PSS-B	2328.92		0	0
	DVI-B to RCb	-5886.98		0	0
	EBT-B to RV	-7778.08	334	7.24E-03	56.30
	DVI-B DEG	-6136.98	0	0	22.82
	DVI-B SPLIT	-6136.98	0	0	22.82
	EBT-B DEG	-7957.63		3.72E-03	29.59
	EBT-B SPLIT	-7957.63		3.72E-03	29.59

Tabella A1. 9: DVI-B caso 4: spostamenti degli incastri in corrispondenza delle flange

Le pressioni delle linee nel caso 4 sono mostrate in Figura A1-28 e le temperature in Figura A1-29.

I risultati delle verifiche strutturali, eseguite per la condizione operativa esaminata, sono riportati in Figura A1-30. Non è riportata la verifica a hoop stress per quanto spiegato nel paragrafo A1.2.

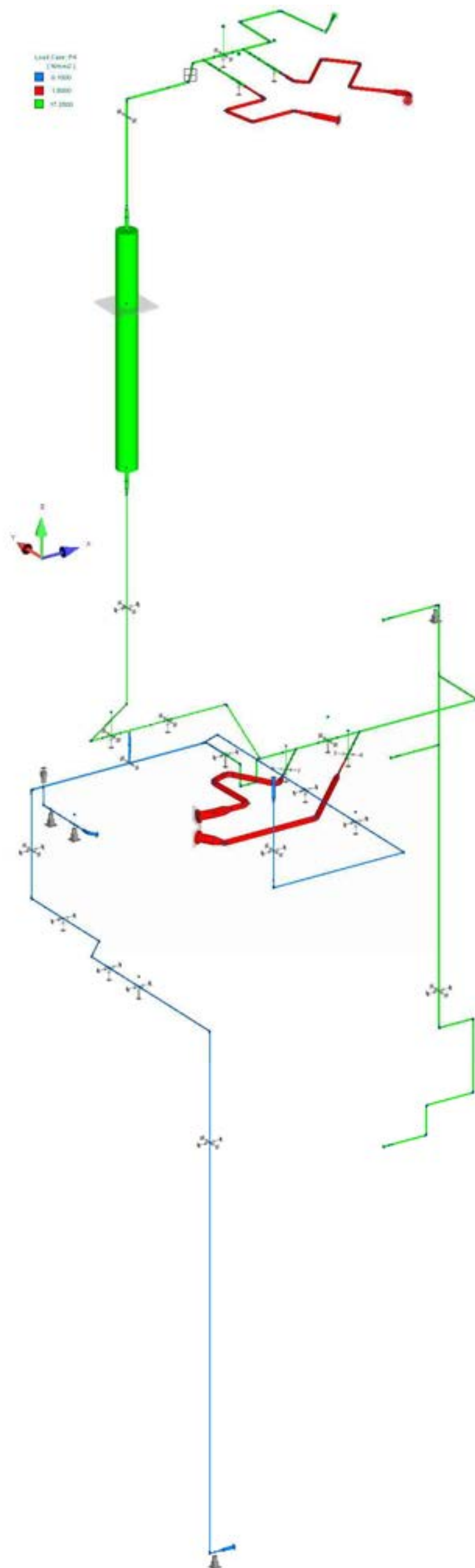


Figura A1-28: DVI-B caso 4: Pressioni

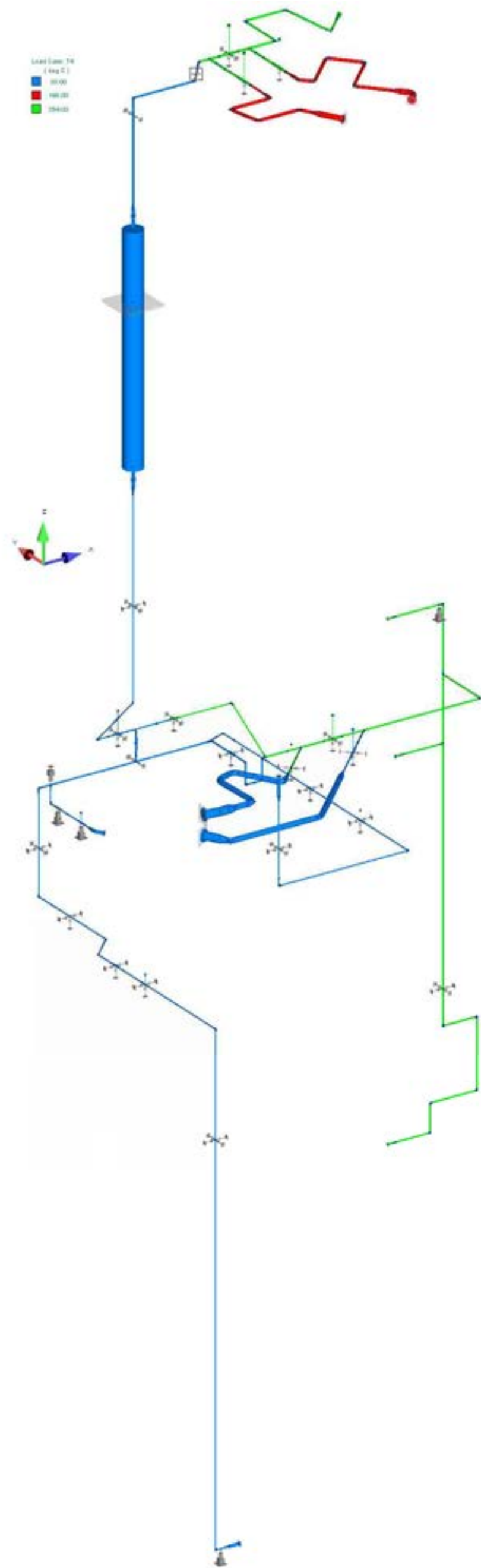


Figura A1-29: DVI-B caso 4: Temperature

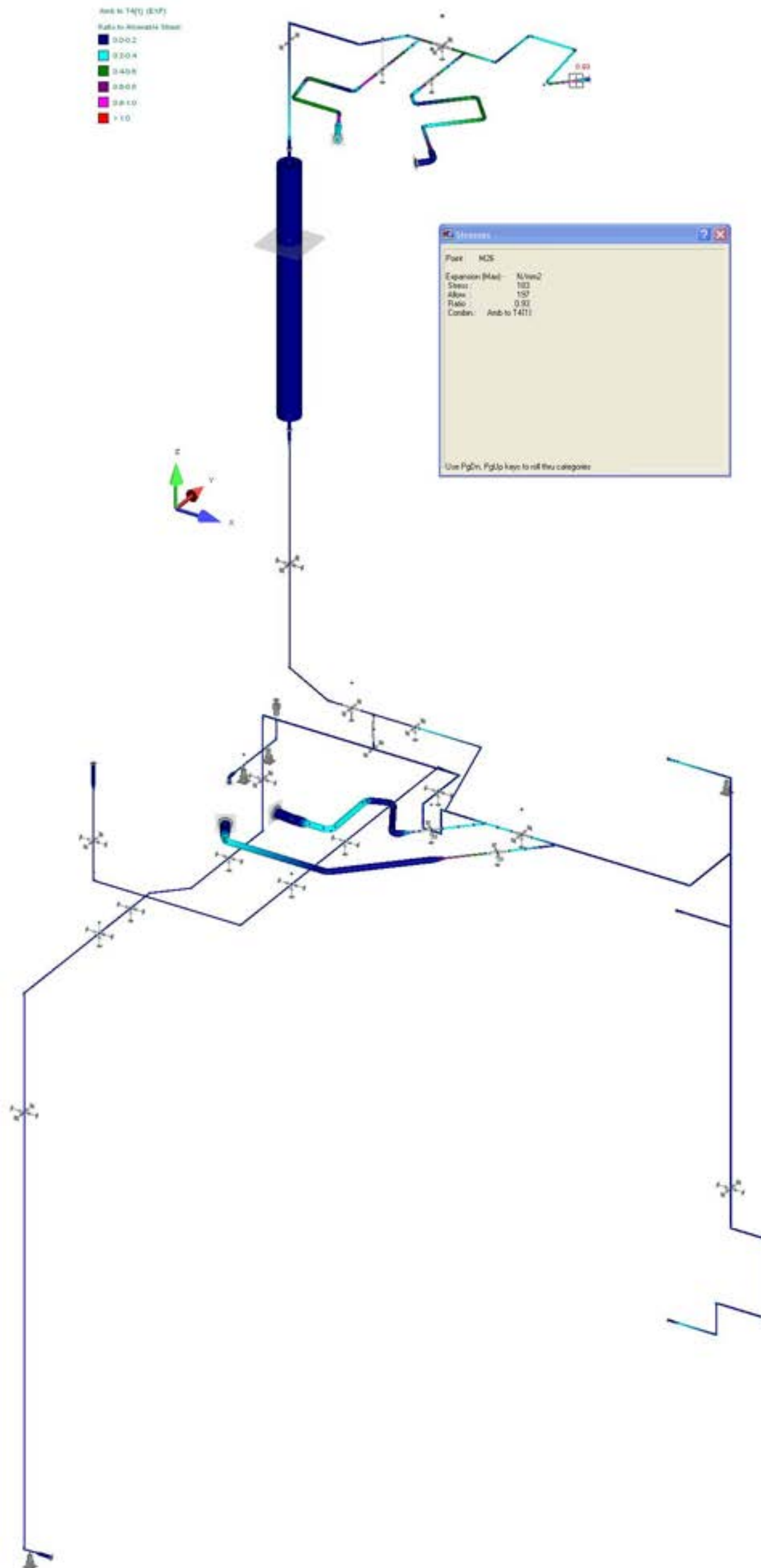


Figura A1-30: DVI-B caso 4: Tensioni dovute ai carichi termici

• **Caso 5: equalizzazione della pressione del circuito primario a quella del contenimento**

Analogo al caso 3 della linea DVI-A.

In Tabella A1. 10 sono indicati gli spostamenti, diversi da zero, attribuiti a ciascun incastro in corrispondenza delle flange, nella condizione di carico 5.

Incastri - Dilatazioni termiche differenziali					
quota bocchello [mm]	linea	Δz (bocchello- ancoraggio) [mm]	ΔT [°C]	$\alpha \cdot \Delta T$	dilatazione [mm]
	DVI-B to RV1b	7725.02	178	7.24E-03	-28.72
	DVI-B to RV2b	2525.02	178	7.24E-03	-9.39
	DVI-B to RV3b	645.02	178	7.24E-03	-2.40
	DVI-B to LGMS-B	2152.52	178	3.72E-03	-8.00
	DVI-B to PSS-B	2328.92	178	3.72E-03	-8.66
	DVI-B to RCb	-5886.98	178	3.72E-03	21.89
	EBT-B to RVb	-7778.08	178	7.24E-03	28.92
	DVI-B DEG	-6136.98	178	3.72E-03	22.82
	DVI-B SPLIT	-6136.98	178	3.72E-03	22.82
	EBT-B DEG	-7957.63	178	3.72E-03	29.59
	EBT-B SPLIT	-7957.63	178	3.72E-03	29.59

Tabella A1. 10: DVI-B caso 5: spostamenti degli incastri in corrispondenza delle flange

Le temperature e le pressioni delle linee nel caso 5 sono mostrate in Figura A1-31.

I risultati delle verifiche strutturali, eseguite per la condizione operativa esaminata, sono riportate in Figura A1-32.

Per ciascun caso esaminato, in Figura A1-33, Figura A1-34, Figura A1-35, Figura A1-36 è presentata la visualizzazione degli spostamenti dell'intero circuito nelle condizioni accoppiate GT (G=gravity e T=temperatura), ossia sotto l'effetto combinato del peso del sistema e del suo contenuto con le temperature. La condizione GT è quella che racchiude informazioni globali sulla deformata del sistema.

La rappresentazione degli spostamenti è amplificata di un fattore 5 per aumentarne la percezione.

L'entità degli spostamenti di ogni punto e lo spostamento massimo sono presentati nell'output del calcolo di verifica della linea con Autopipe, Allegato 3.

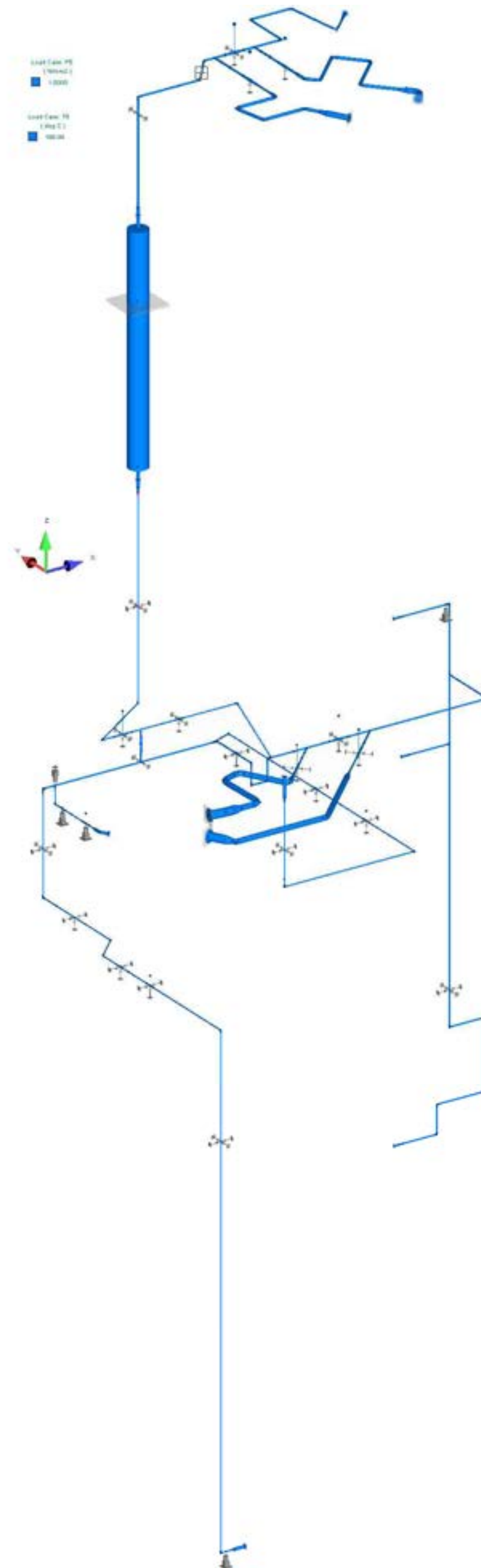


Figura A1-31: DVI-B caso 5: Temperature e pressioni

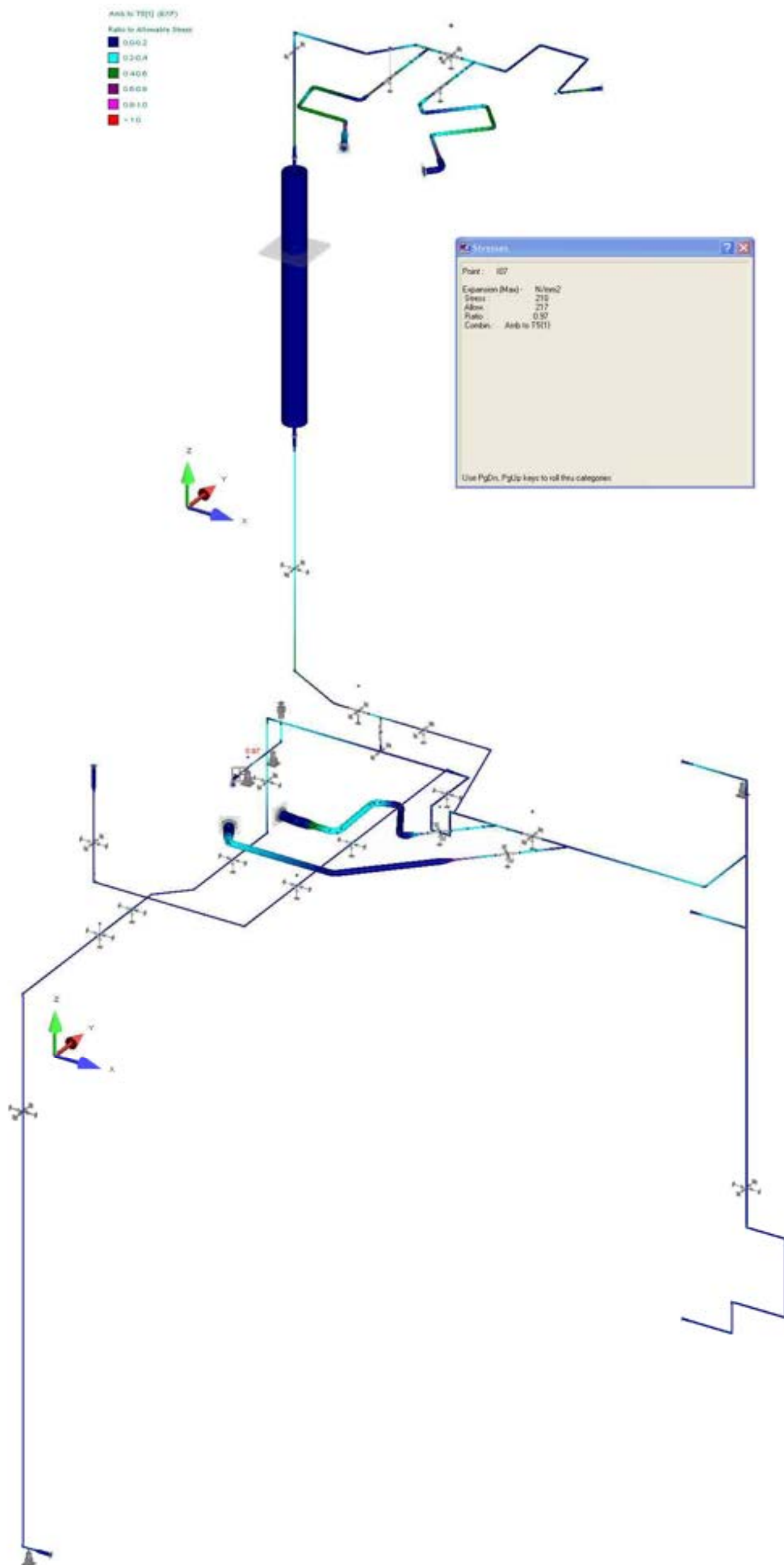


Figura A1-32: DVI-B caso 5: Tensioni dovute ai carichi termici

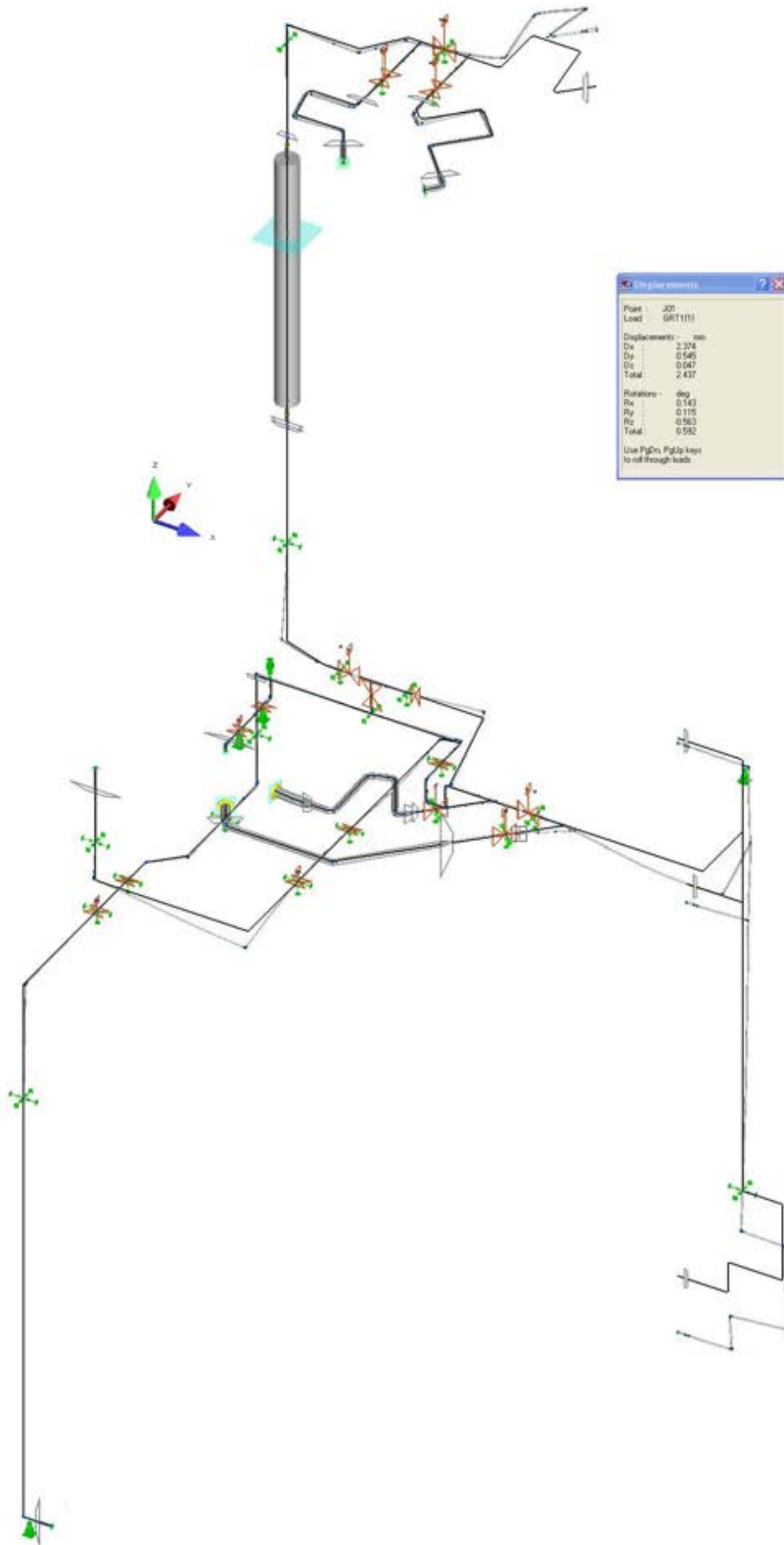


Figura A1-33: DVI-B caso 1: Visualizzazione degli spostamenti del circuito sotto effetto combinato del peso del sistema e del suo contenuto.

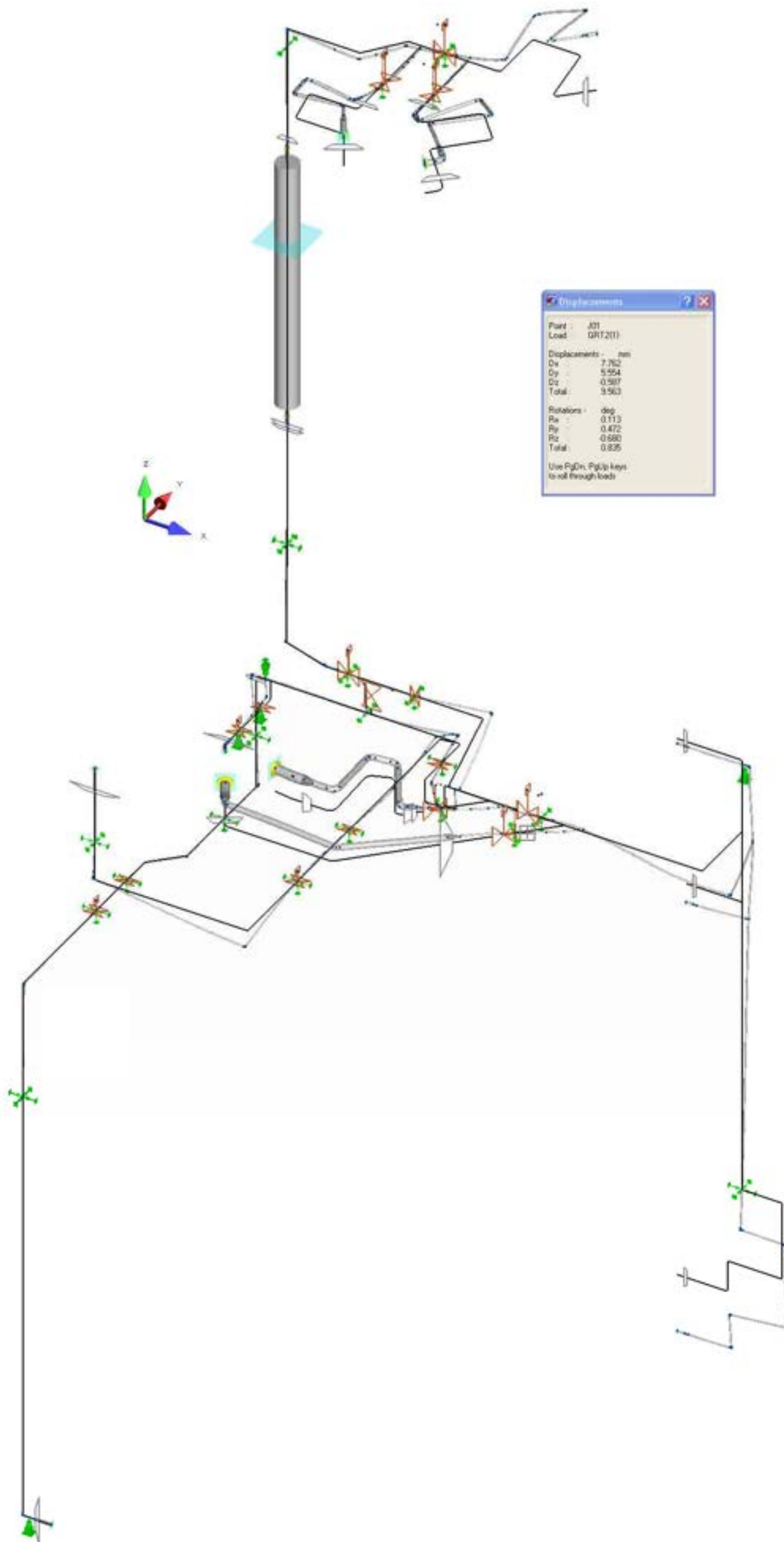


Figura A1-34: DVI-B caso 2: Visualizzazione degli spostamenti del circuito sotto effetto combinato del peso del sistema e del suo contenuto.

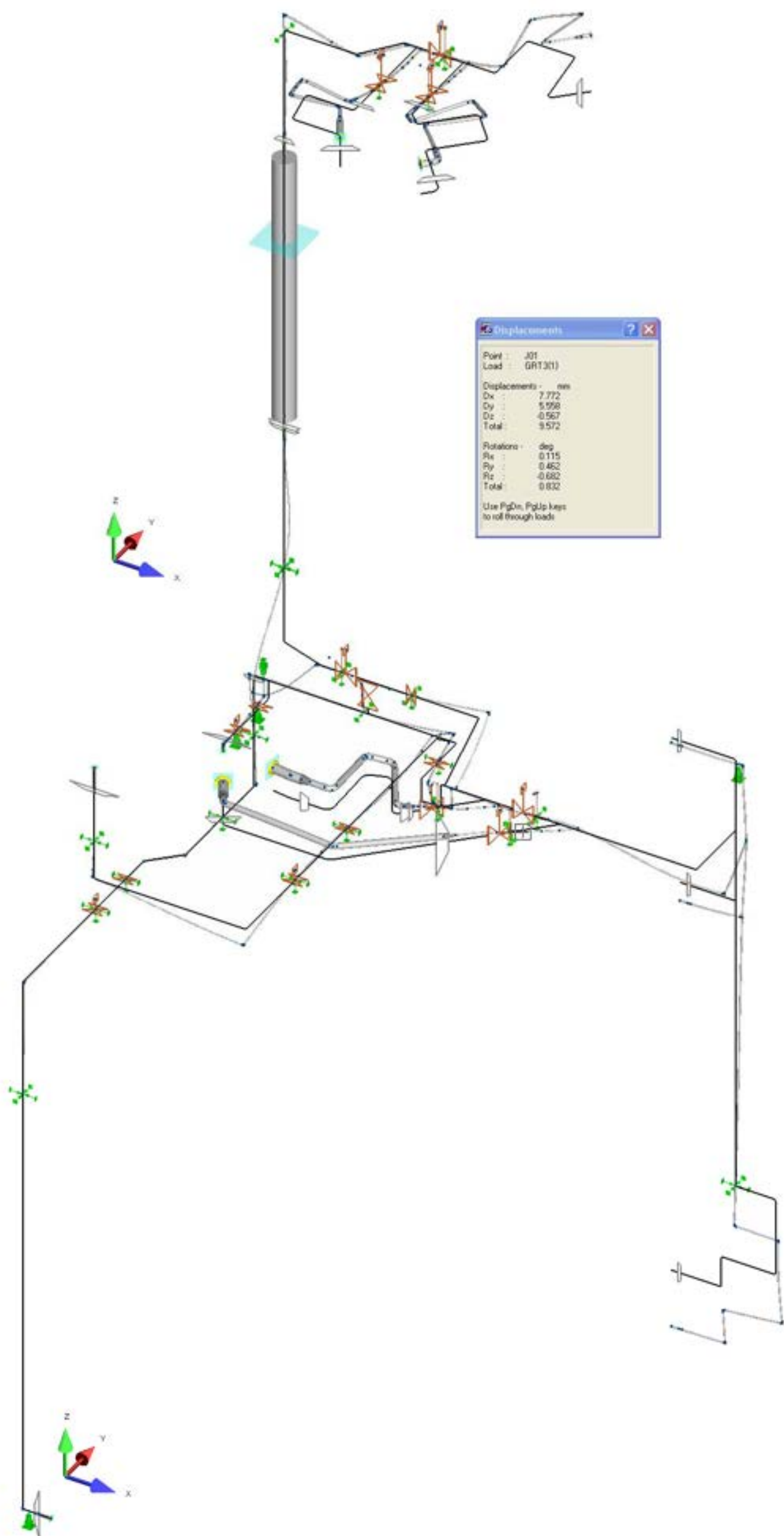


Figura A1-35: DVI-B caso 3: Visualizzazione degli spostamenti del circuito sotto effetto combinato del peso del sistema e del suo contenuto.

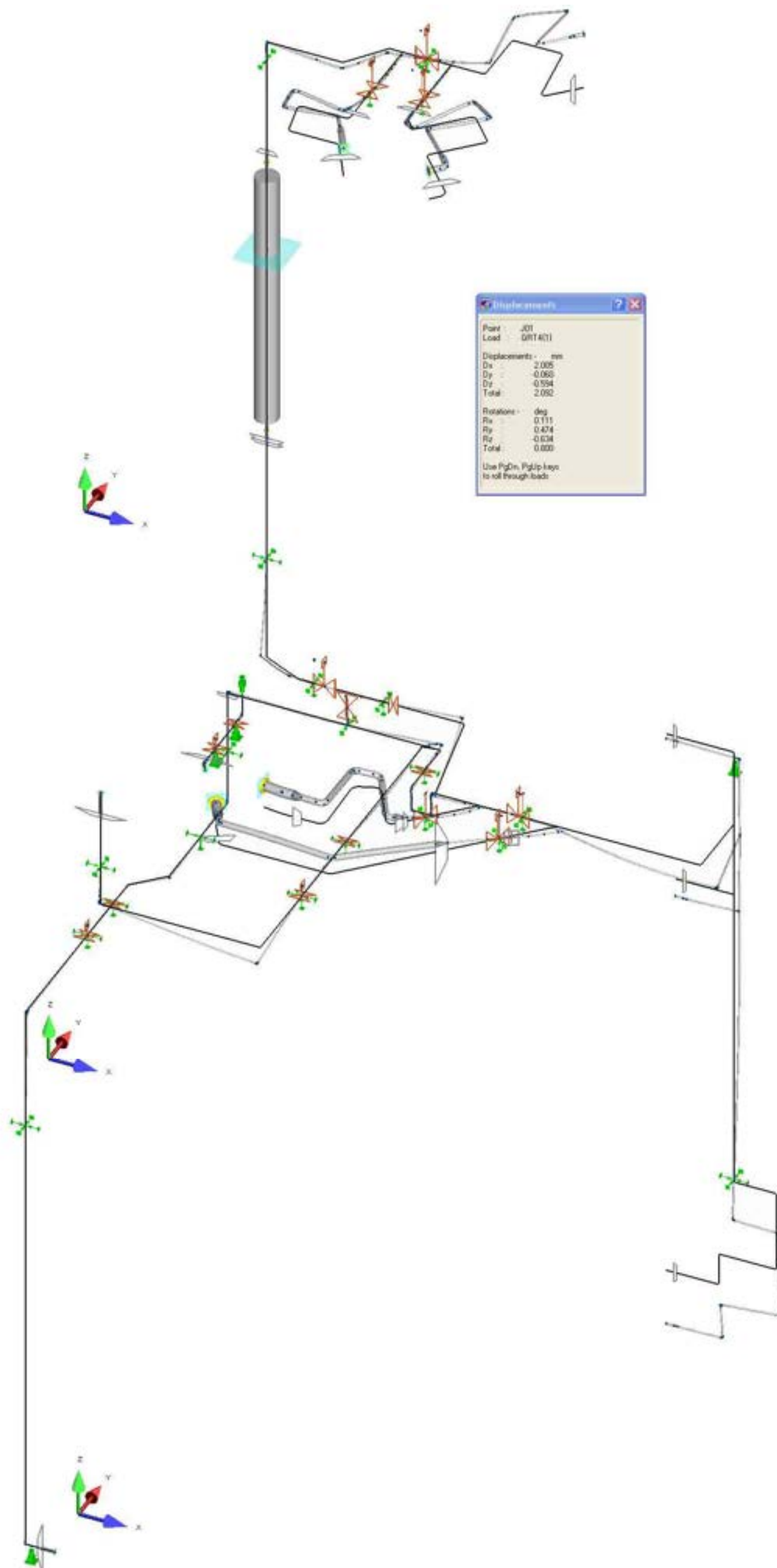


Figura A1-36: DVI-B caso 4: Visualizzazione degli spostamenti del circuito sotto effetto combinato del peso del sistema e del suo contenuto.

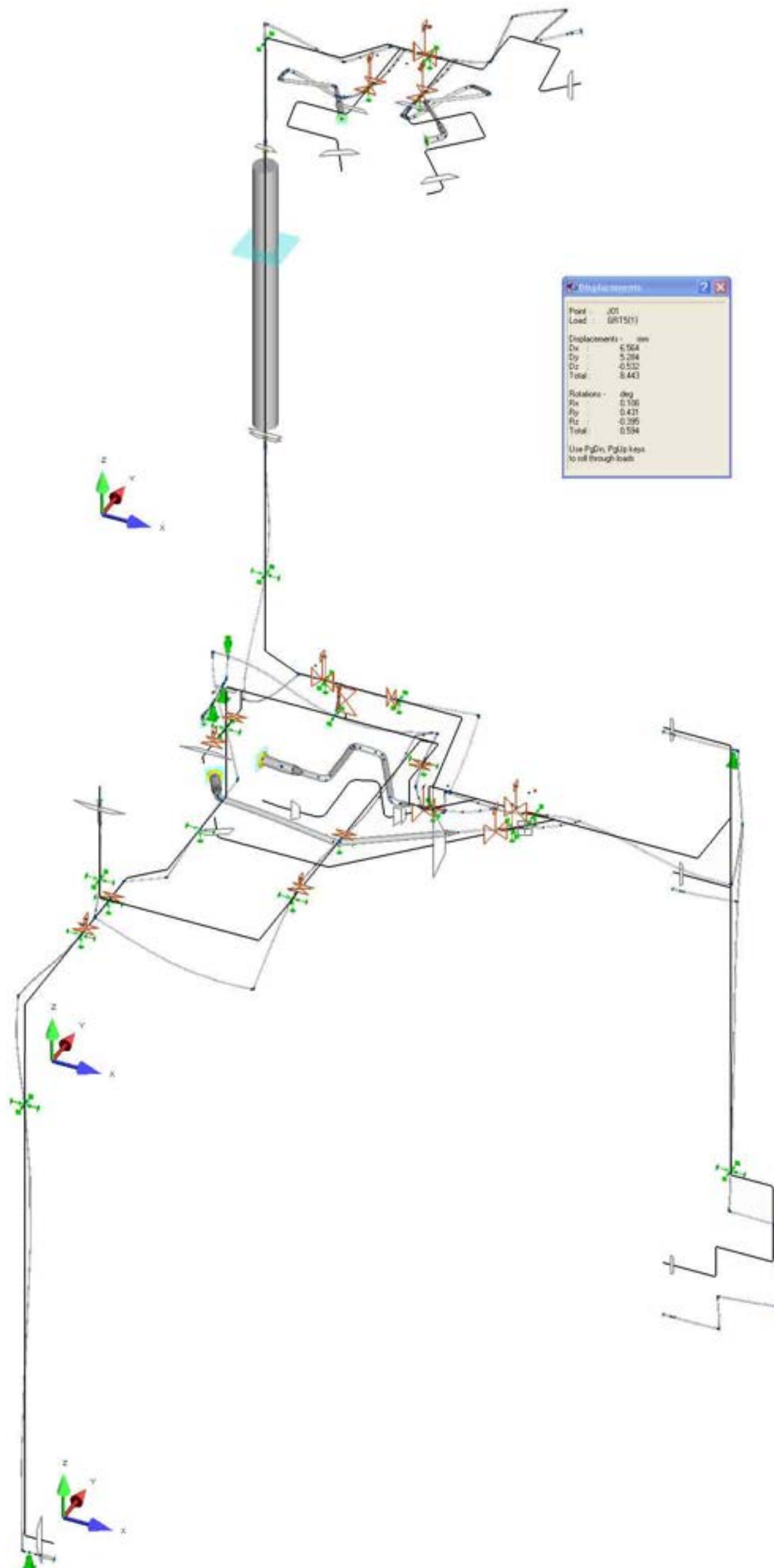


Figura A1-37: DVI-B caso 5: Visualizzazione degli spostamenti del circuito sotto effetto combinato del peso del sistema e del suo contenuto

A1.3 ADS

Il gruppo ADS include le linee come riportato in Tabella 6-1. Lo Stage-I è simulato fino alla QT inclusa e, come per l'EBT nel caso del DVI, sono state fatte delle approssimazioni nel modello del serbatoio per poterlo rappresentare con Autopipe. Come l'EBT, anche la QT è oggetto di una verifica PED separata. I risultati di non verifica della QT all'hoop stress, che derivano dalla sua inclusione nel gruppo ADS, sono soltanto una conseguenza delle approssimazioni fatte e non una reale non conformità alla verifica meccanica.

Le scelte fatte per simulare la QT sono descritte di seguito.

La QT nella realtà è ancorata solidalmente al DW tramite un bocchello che si stacca dal fondello superiore. Tale bocchello non è simulato in Autopipe ed un'ancora è stata messa proprio al punto di attacco del bocchello alla QT. All'ancora sono stati attribuiti gli spostamenti dovuti alla dilatazione termica del DW, alla quota considerata.

Il gruppo ADS è stato verificato in cinque condizioni diverse.

- Il primo caso si applica a qualsiasi situazione di raggiungimento delle condizioni stazionarie. A tutte le linee collegate al RV, a monte delle valvole di isolamento, sono state imposte le condizioni di progetto del primario, mentre a valle delle valvole sono state imposte le condizioni di pressione e temperatura ambiente.
- Nel secondo caso, si considera l'intervento dell'ADS Stage-I a seguito della rottura del DVI-B. Vengono studiati simultaneamente la rottura del DVI-B e l'intervento dell'ADS per poter imporre a tutti i bocchelli, sia del DW che della QT, il relativo spostamento. La pressione imposta, lato primario, corrisponde a quella di intervento dell'ADS, con la relativa temperatura di saturazione. La linea della QT, la QT ed il DW sono considerati alle condizioni di progetto del contenimento. L'ADS Stage-II e le linee di rottura dell'ADS, a valle delle valvole di isolamento, sono considerati alla pressione di progetto del contenimento, ma a temperatura ambiente.
- Nel terzo caso, si considera la rottura dell'ADS Stage-I Single Train. Le condizioni imposte per la verifica sono analoghe a quelle del caso 1, tranne che per le linee di rottura in cui, a valle delle valvole, si impongono le condizioni di progetto del contenimento.
- Nel quarto caso, si considera l'intervento dell'ADS Stage-II a seguito della rottura del DVI-B. L'intervento dell'ADS Stage-II avviene in una tarda fase del transitorio, quando ormai il sistema è a bassa pressione.
- Nel quinto caso si considera l'intervento dell'ADS Stage-I a seguito della rottura dell'ADS ST.

In Figura A1-38 è rappresentato il gruppo di linee ADS con indicate le "size" e le schedule di tubi e flange, i supporti e le lunghezze dei tratti di tubazione.



I dettagli delle 5 condizioni operative prese in esame per la verifica del gruppo ADS sono descritti in seguito.

- **Caso 1: circuito primario alle condizioni di progetto:**

Le linee del gruppo ADS collegate al vessel, a monte delle valvole di isolamento, sono simulate alle condizioni di progetto del primario ($P=17.25$ MPa, $T= 354$ °C), mentre quelle a valle delle linee di isolamento sono a pressione e temperatura ambiente ($P= 0.1$ MPa, $T= 20$ °C). Ai bocchelli sul vessel sono state imposti gli spostamenti dovuti alla dilatazione termica del vessel stesso. Gli altri bocchelli lato contenimento, sono mantenuti fermi.

In Tabella A1. 11 sono indicati gli spostamenti, diversi da zero, attribuiti a ciascun incastro in corrispondenza delle flange, nella condizione di carico 1.

Incastri - Dilatazioni termiche differenziali					
quota bocchello [mm]	linea	Δz (bocchello- ancoraggio serbatoio) [mm]	ΔT [°C]	$\alpha \Delta T$	dilatazione [mm]
21801.72	ADS ST to RV	-11719.8	334	0.007238	84.83
21801.72	ADS DT to RV	-11719.8	334	0.007238	84.83

Tabella A1. 11: ADS caso 1: Spostamenti degli incastri in corrispondenza delle flange

Le pressioni e le temperature delle linee nel caso 1 sono mostrate in Figura A1-39..

I risultati delle verifiche strutturali, eseguite per la condizione operativa esaminata, sono riportati in Figura A1-40, Figura A1-41, Figura A1-42.

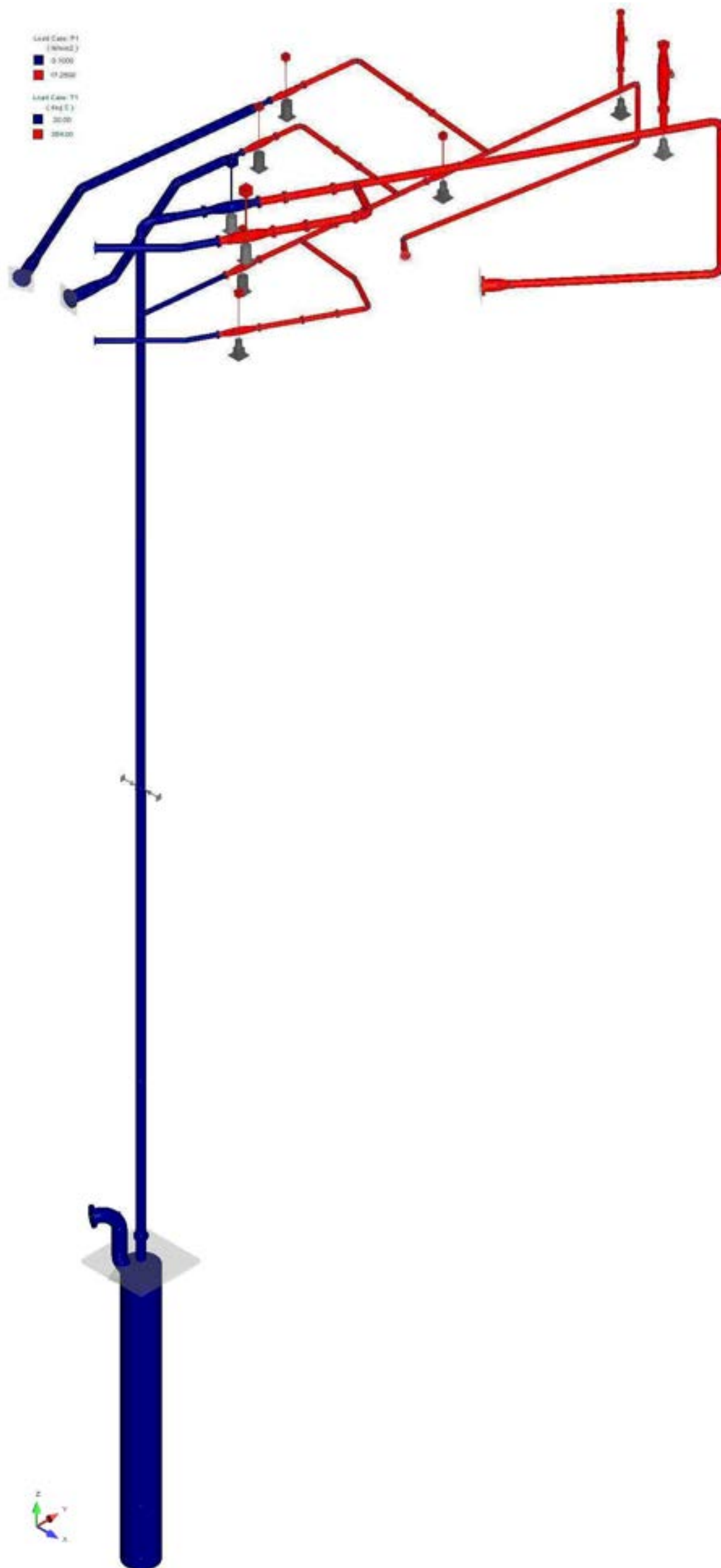


Figura A1-39: ADS caso 1: Pressioni e temperature

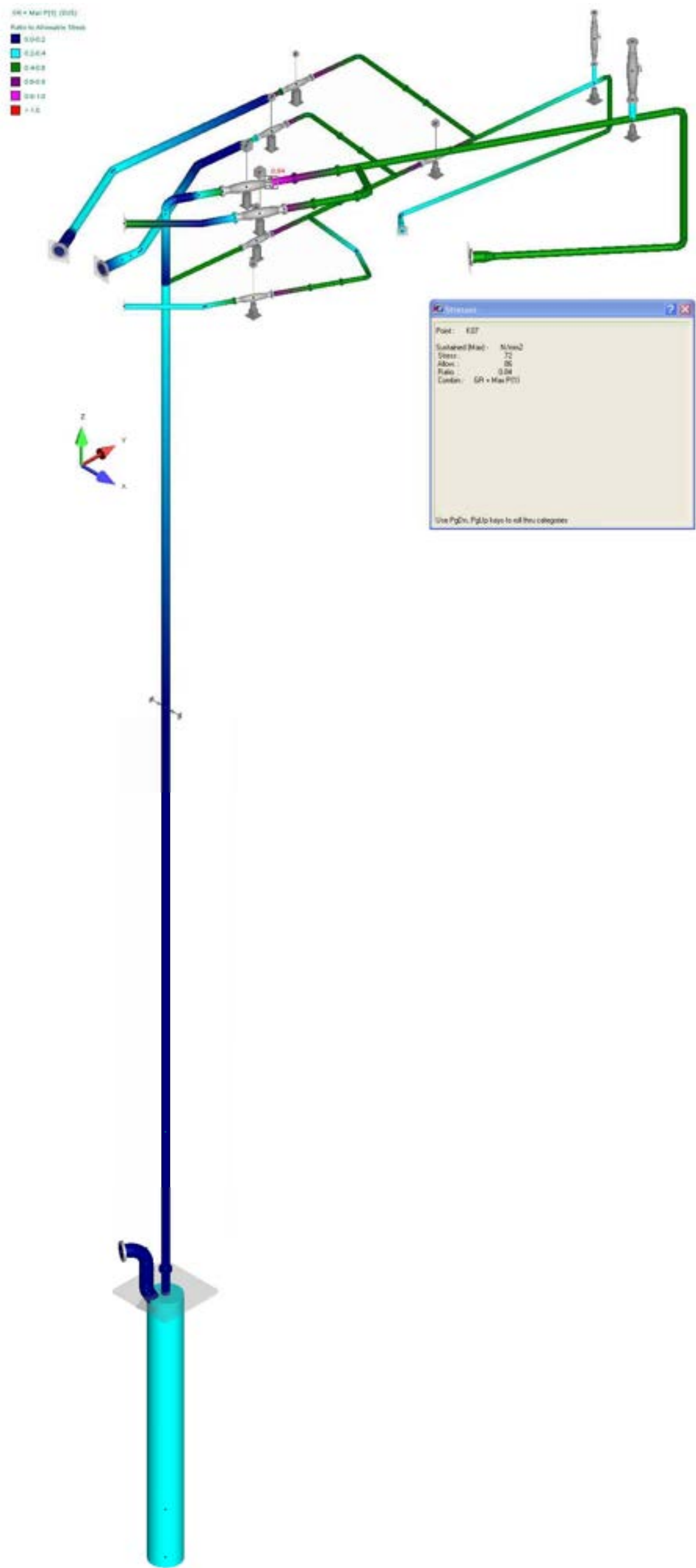


Figura A1-40: ADS caso 1: Tensioni dovute a pressione, peso proprio del sistema e del suo contenuto, carichi meccanici (SUS)

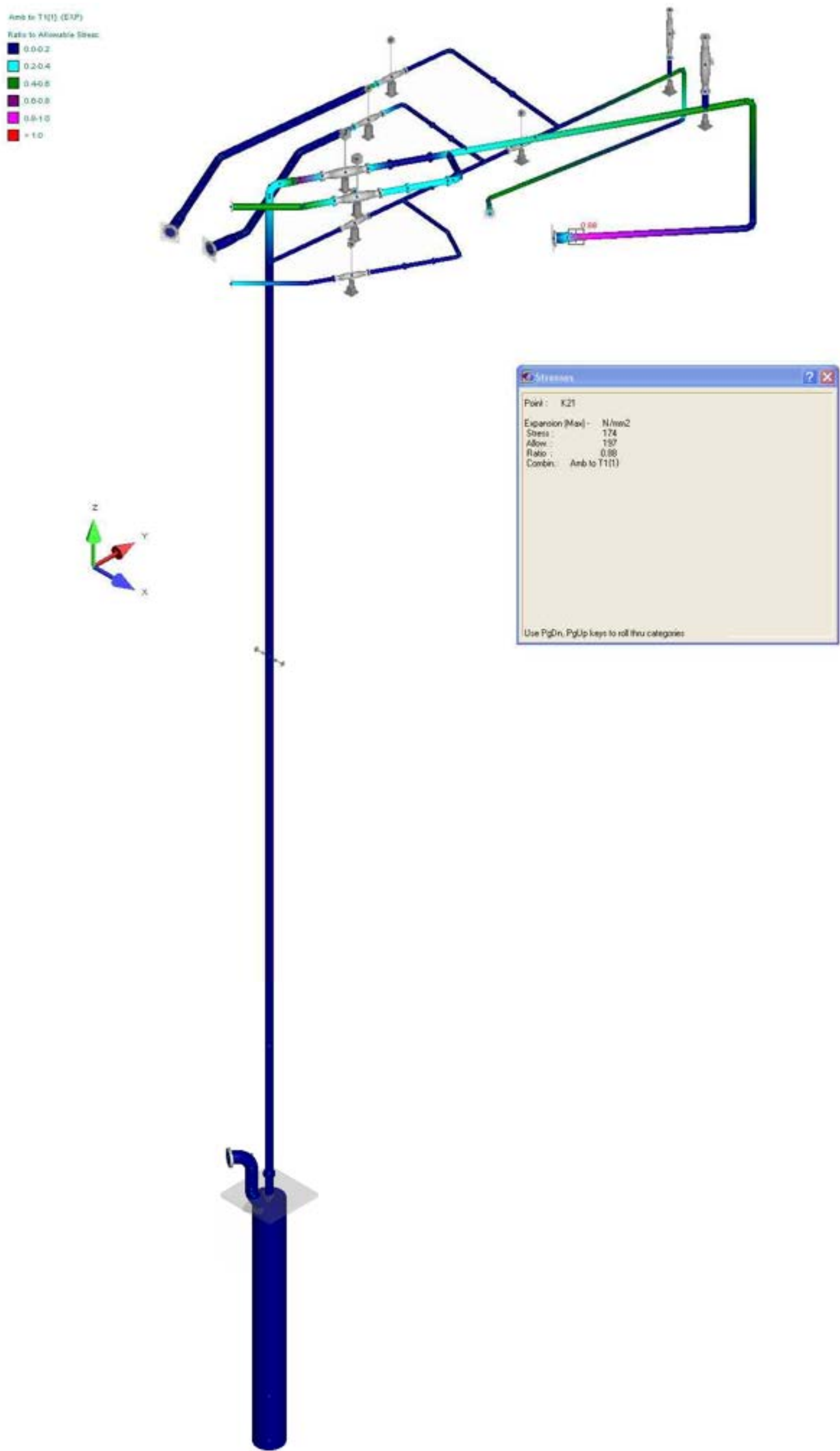


Figura A1-41: ADS caso 1: Tensioni dovute ai carichi termici

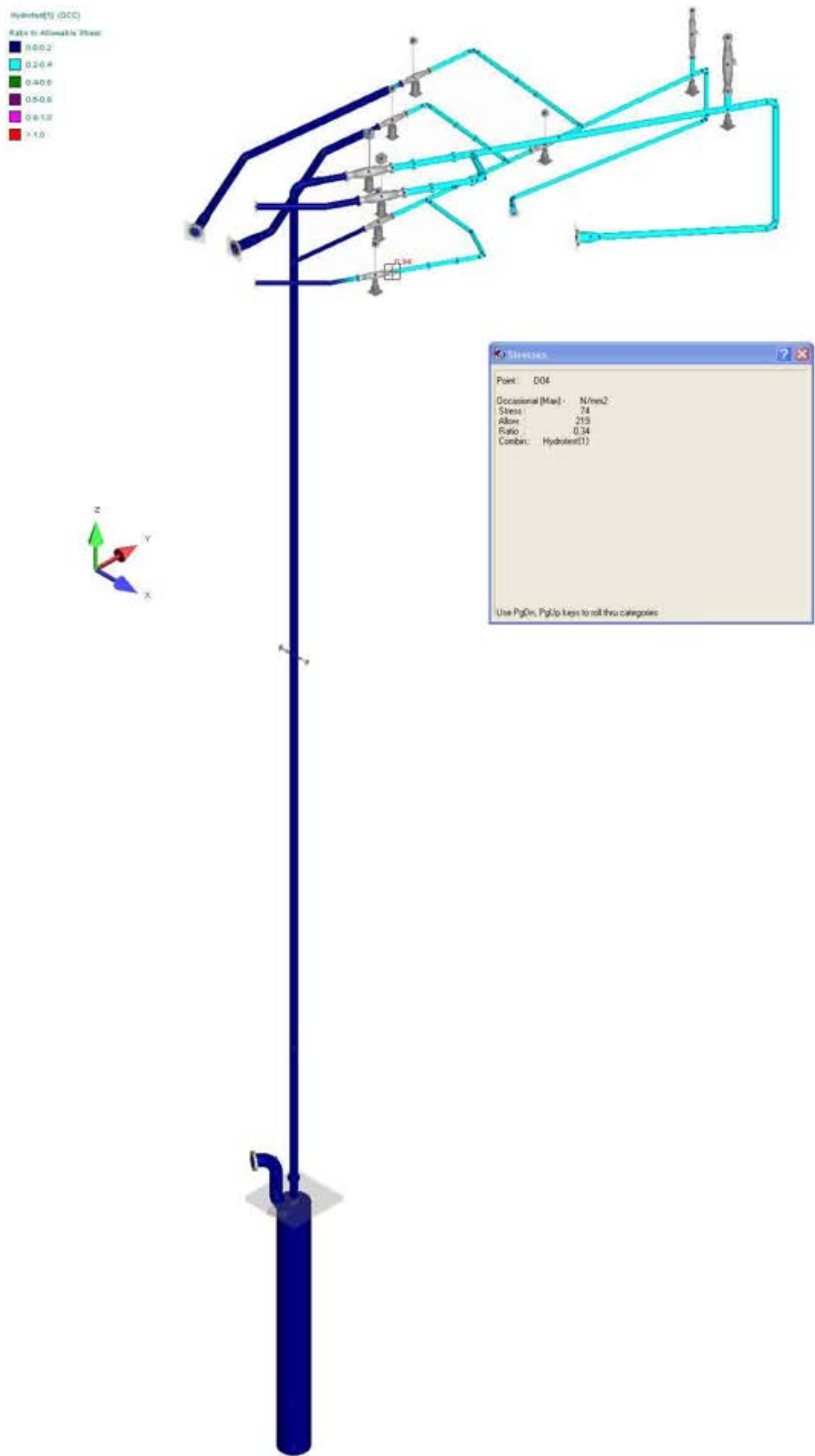


Figura A1-42: ADS: Prova idraulica

• **Caso 2: intervento dell'ADS Stage-I in seguito della rottura del DVI-B:**

In seguito della rottura del DVI-B, si ha l'intervento del primo stadio dell'ADS, che scarica nella QT e quindi nel DW. Lo studio simultaneo dei due eventi consente di verificare il gruppo ADS con tutti i bocchelli sottoposti a spostamento per le dilatazioni termiche dei serbatoi a cui sono collegati.

Le condizioni imposte al primario, fino alle valvole di isolamento, sono $P=12$ MPa e $T= 324.74$ °C (pressione di intervento degli ADS e relativa temperatura di saturazione); la linea della QT, la QT ed il DW sono simulati alle condizioni di progetto del contenimento ($P=1.5$ MPa, $T= 198$ °C); le linee degli ADS Stage-II e quelle di rottura dell'ADS, a valle delle valvole di isolamento, sono simulate a alla pressione di progetto del contenimento, ma a temperatura ambiente ($P= 1.5$ MPa, $T= 20$ °C).

In Tabella A1. 12 sono indicati gli spostamenti, diversi da zero, attribuiti a ciascun incastro in corrispondenza delle flange, nella condizione di carico 2.

Incastri - Dilatazioni termiche differenziali					
quota bocchello [mm]	linea	Δz (bocchello-ancoraggio serbatoio) [mm]	ΔT [°C]	$\alpha \Delta T$	dilatazione [mm]
22465.72	ADS break SPLIT	-12563.35	178	0.003718	46.72
22465.72	ADS break DEG	-12563.35	178	0.003718	46.72
22465.72	ADS ST to DW	-12563.35	178	0.003718	46.72
23465.72	ADS DT to DW	-13563.35	178	0.003718	50.43
21801.72	ADS ST to RV	-11719.8	304.74	0.007238	76.87
21801.72	ADS DT to RV	-11719.8	304.74	0.007238	76.87
10807.52	QT to DW	-905.15	178	0.003718	3.37

Tabella A1. 12: ADS caso 2: spostamenti degli incastri in corrispondenza delle flange

Le pressioni nelle linee nel caso 2 sono mostrate in Figura A1-43 e le temperature in Figura A1-44

I risultati delle verifiche strutturali, eseguite per la condizione operativa esaminata, sono riportati in Figura A1-45.

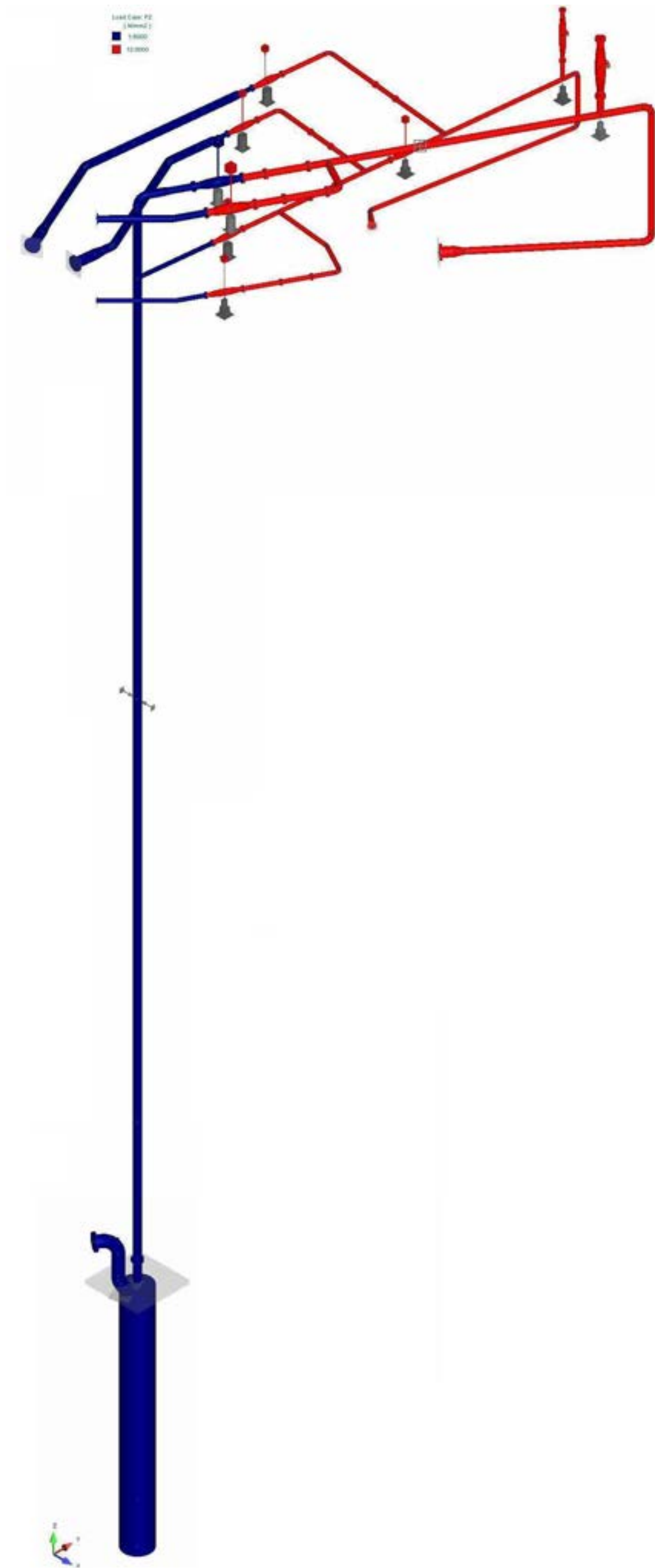


Figura A1-43: ADS caso 2: Pressioni

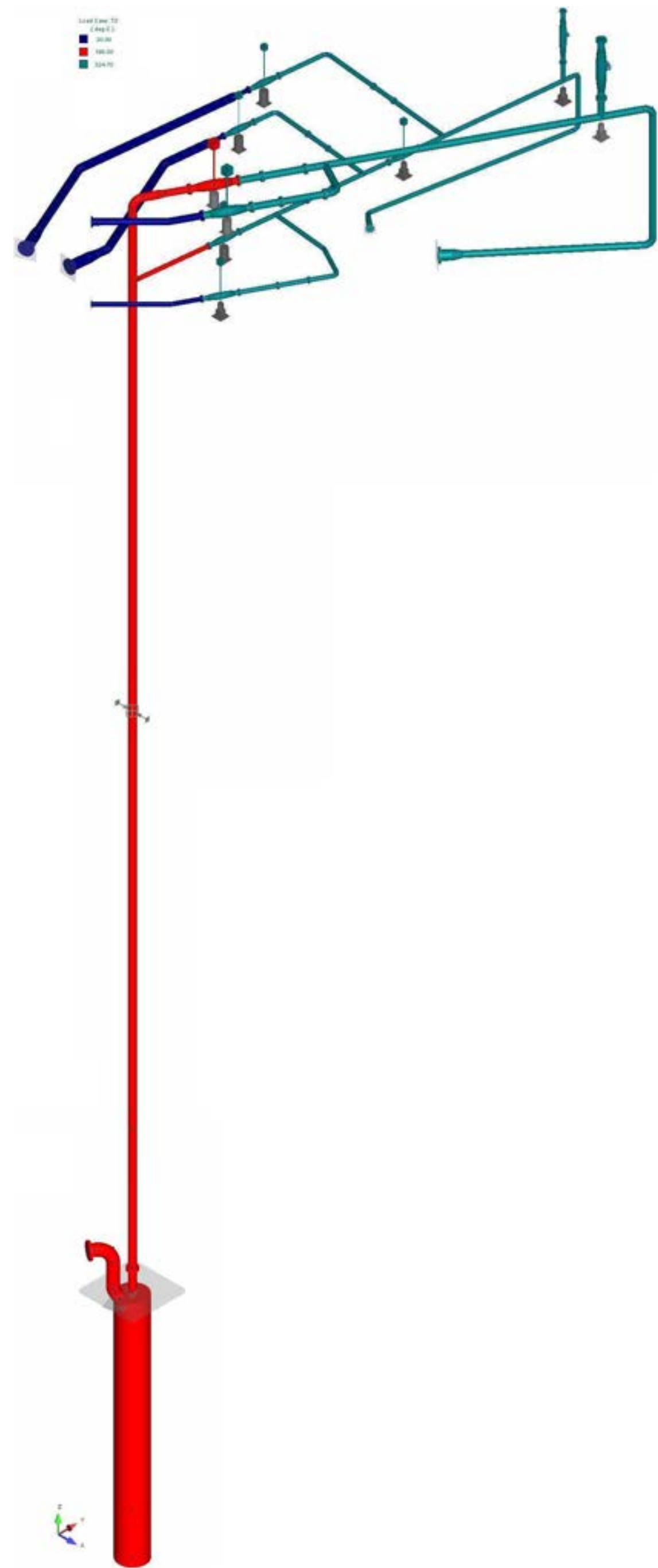


Figura A1-44: ADS caso 2: Temperature

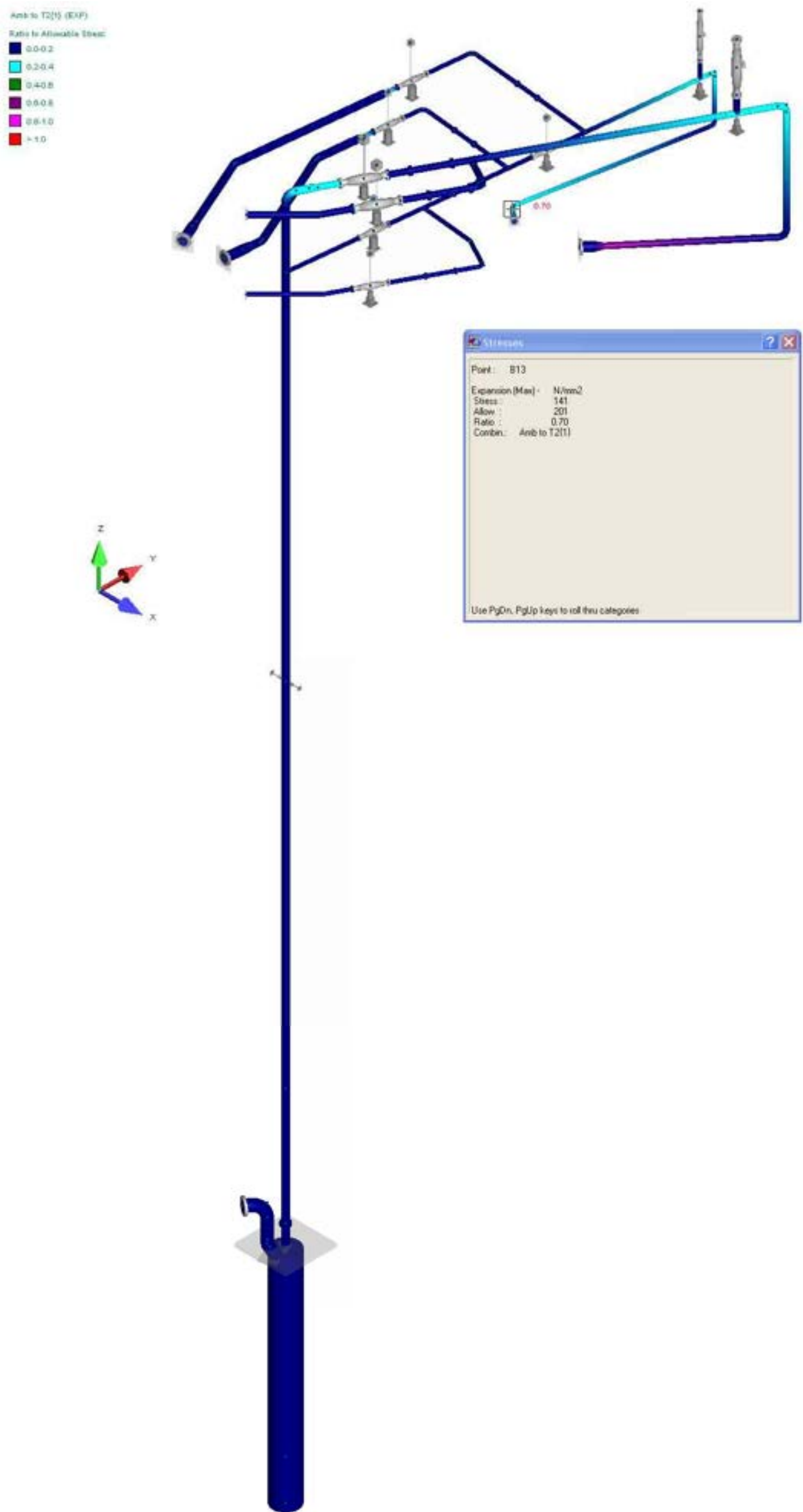


Figura A1-45: ADS caso 2: Tensioni dovute ai carichi termici

• **Caso 3: rottura dell'ADS**

Il caso 3 consente di verificare il gruppo ADS sottoposto a rottura dello Stage-I, a partire da condizioni di progetto nel primario ($P=17.25$ MPa, $T= 354$ °C). In conseguenza della rottura, le condizioni di progetto del contenimento ($P=1.5$ MPa, $T= 198$ °C) vengono imposte alle linee SPLIT e DEG, dalle valvole fino al DW, mentre tutte le altre linee vengono considerate alla pressione di progetto del contenimento, ma a temperatura ambiente ($P= 1.5$ MPa, $T= 20$ °C), anche se, essendo collegate al DW, subiscono la dilatazione termica ai bocchelli.

In Tabella A1. 13 sono indicati gli spostamenti, diversi da zero, attribuiti a ciascun incastro in corrispondenza delle flange, nella condizione di carico 3.

Incastri - Dilatazioni termiche differenziali					
quota bocchello [mm]	linea	Δz (bocchello-ancoraggio serbatoio) [mm]	ΔT [°C]	$\alpha \cdot \Delta T$	dilatazione [mm]
22465.72	ADS brek SPLIT	-12563.35	178	0.003718	46.72
22465.72	ADS break DEG	-12563.35	178	0.003718	46.72
22465.72	ADS ST to DW	-12563.35	0	0.003718	46.72
23465.72	ADS DT to DW	-13563.35	0	0.003718	50.43
21801.72	ADS ST to RV	-11719.8	334	0.007238	84.83
21801.72	ADS DT to RV	-11719.8	334	0.007238	84.83
10807.52	QT to DW	-905.15	0	0.003718	3.37

Tabella A1. 13: ADS caso 3: spostamenti degli incastri in corrispondenza delle flange

Le pressioni delle linee nel caso 3 sono in Figura A1-46 e le temperature in Figura A1-47.

I risultati delle verifiche strutturali, eseguite per la condizione operativa esaminata, sono riportati in Figura A1-48.

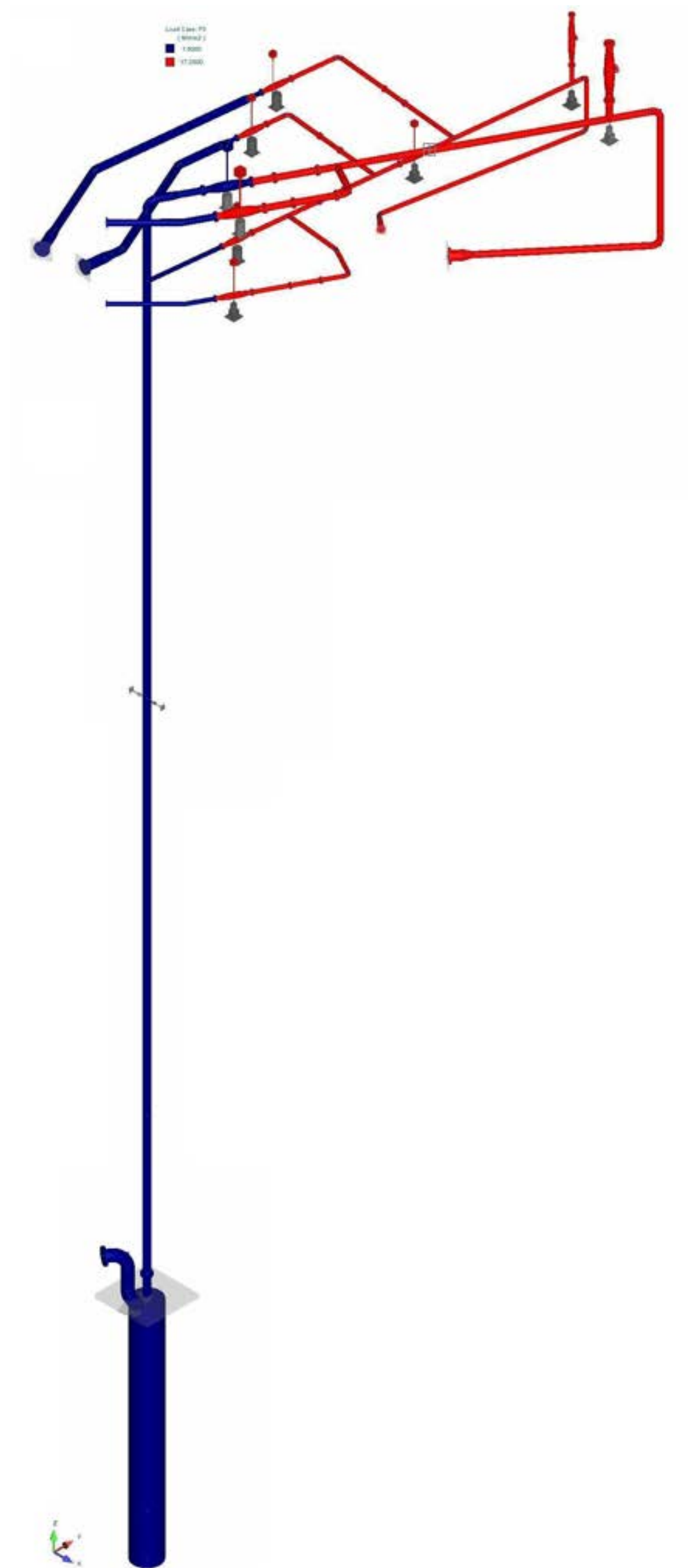


Figura A1-46: ADS caso 3: Pressioni

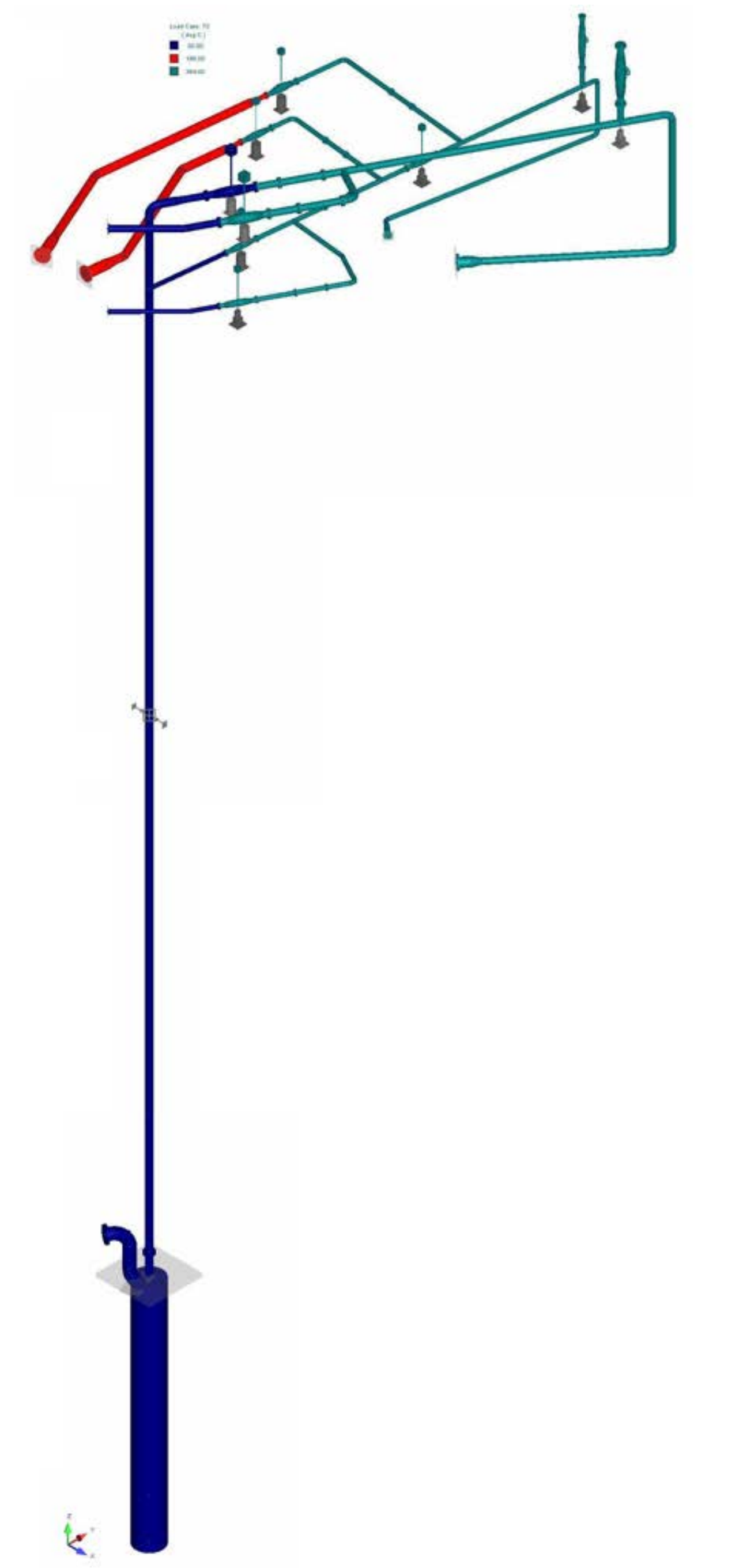


Figura A1-47: ADS caso 3: Temperature

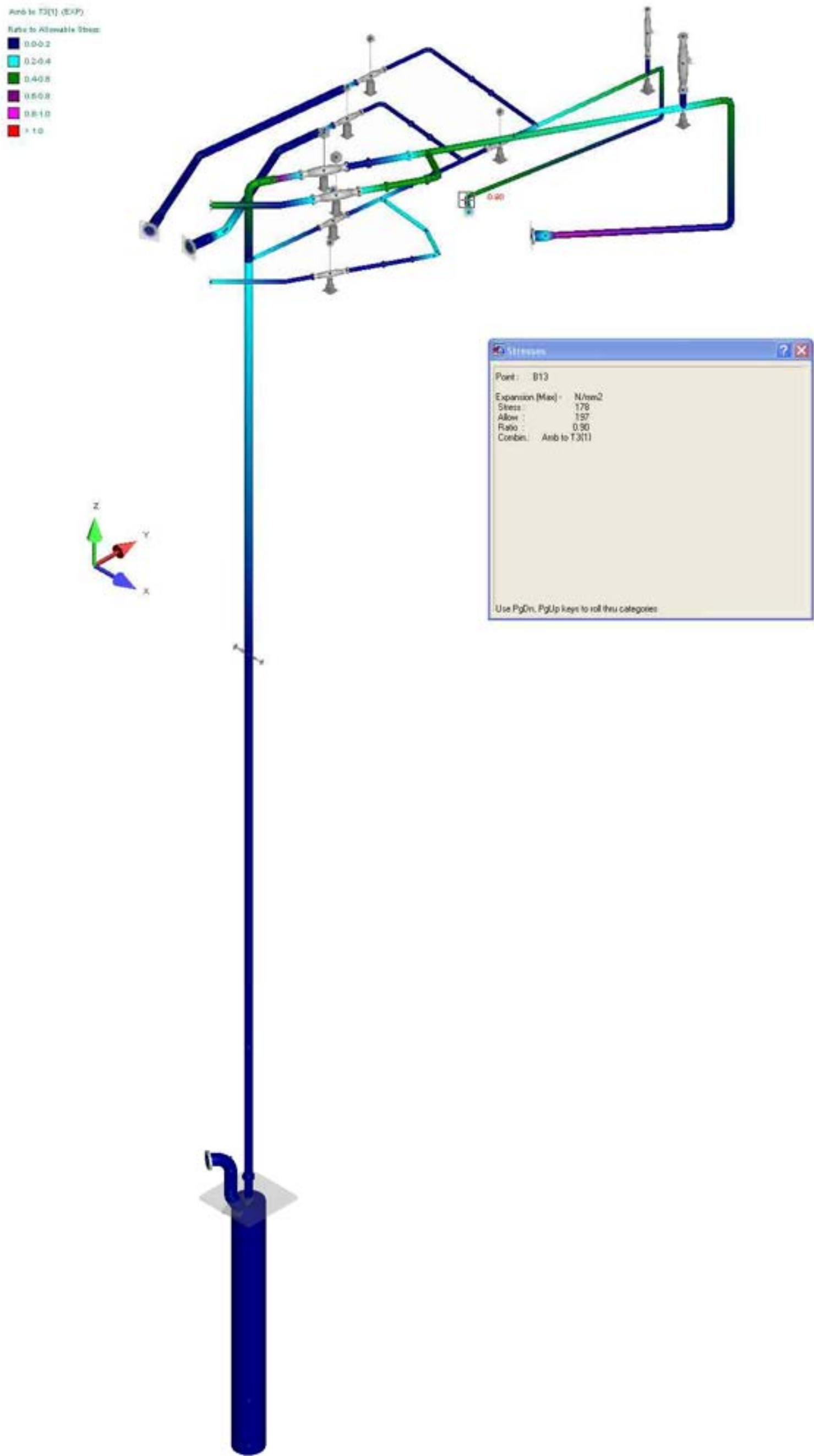


Figura A1-48: ADS caso 3: Tensioni dovute ai carichi termici

• **Caso 4: intervento dell' ADS Stage-II in seguito alla rottura del DVI-B**

L'intervento dell'ADS Stage-II non avviene nel caso di rottura dell'ADS Stage-I. Per questo motivo viene studiato a seguito della rottura del DVI-B.

L'ADS Stage-II interviene in una fase avanzata del transitorio, quando la pressione del sistema si è portata a valori bassi. Le condizioni imposte alle linee per la verifica sono quelle corrispondenti alla pressione del sistema al momento dell'intervento dell'ADS Stage-II. Alle linee di rottura dell'ADS Stage-I si impongono $P=0.36$ MPa e $T=20$ °C, ma con lo spostamento dei bocchelli relativo al DW. A tutte le altre linee si attribuiscono le condizioni di saturazione alla pressione di intervento: $P=0.36$ MPa, $T=140.3$ °C.

In Tabella A1. 14 sono indicati gli spostamenti, diversi da zero, attribuiti a ciascun incastro in corrispondenza delle flange, nella condizione di carico 4.

Incastri - Dilatazioni termiche differenziali					
quota bocchello [mm]	linea	Δz (bocchello-ancoraggio serbatoio) [mm]	ΔT [°C]	$\alpha \Delta T$	dilatazione [mm]
21801.72	ADS ST to RV	-11719.8	120.3	0.002479	29.05
21801.72	ADS DT to RV	-11719.8	120.3	0.002479	29.05
22465.72	ADS SPLIT	-12563.35	0	0.002479	31.14
22465.72	ADS DEG	-12563.35	0	0.002479	31.14
22465.72	ADS ST to DW	-12563.35	120.3	0.002479	31.14
23465.72	ADS DT to DW	-13563.35	120.3	0.002479	33.62
10807.52	QT to DW	-905.15	120.3	0.002479	2.24

Tabella A1. 14:ADS caso 4: spostamenti degli incastri in corrispondenza delle flange

Le pressioni delle linee nel caso 4 sono mostrate in Figura A1-49 e le temperature in Figura A1-50.

I risultati delle verifiche strutturali, eseguite per la condizione operativa esaminata, sono riportati in Figura A1-51. Non è riportata la verifica a hoop stress per quanto spiegato nel paragrafo A1.3.

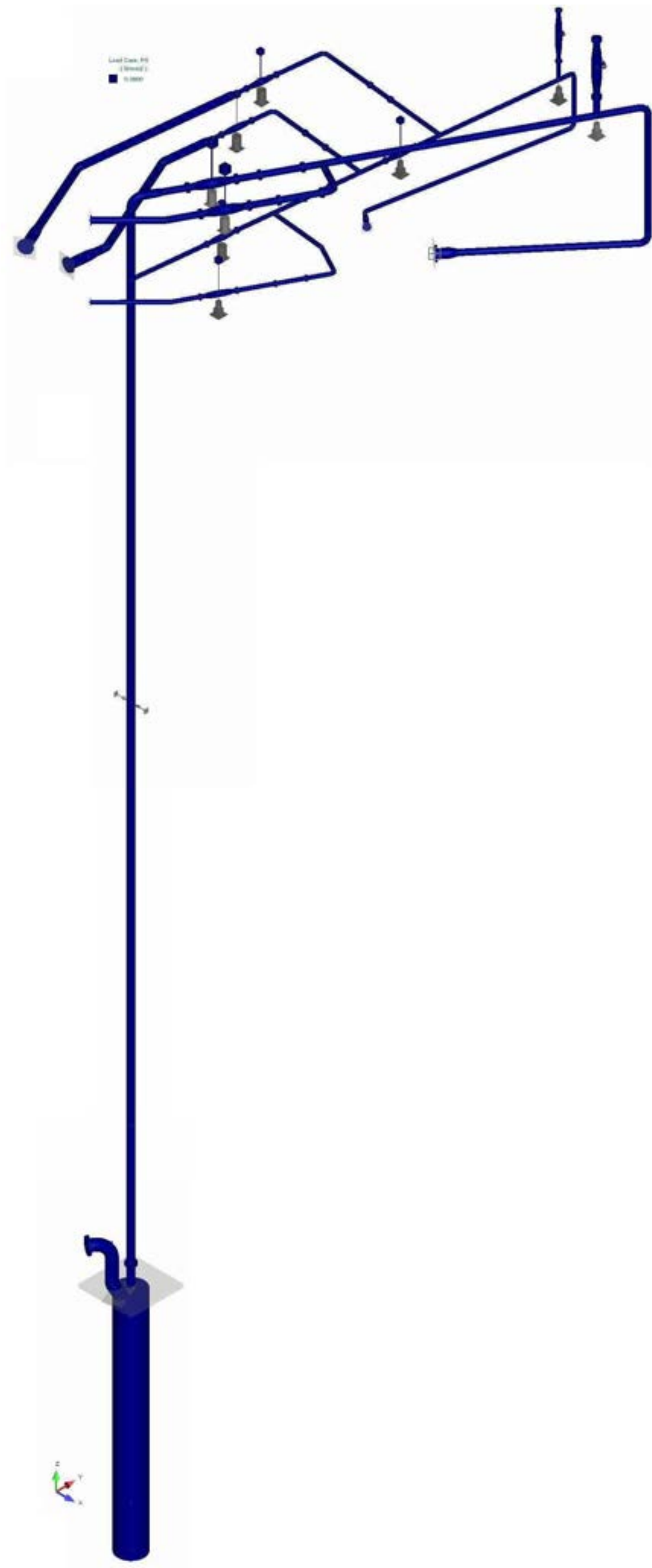


Figura A1-49: ADS caso 4: Pressioni

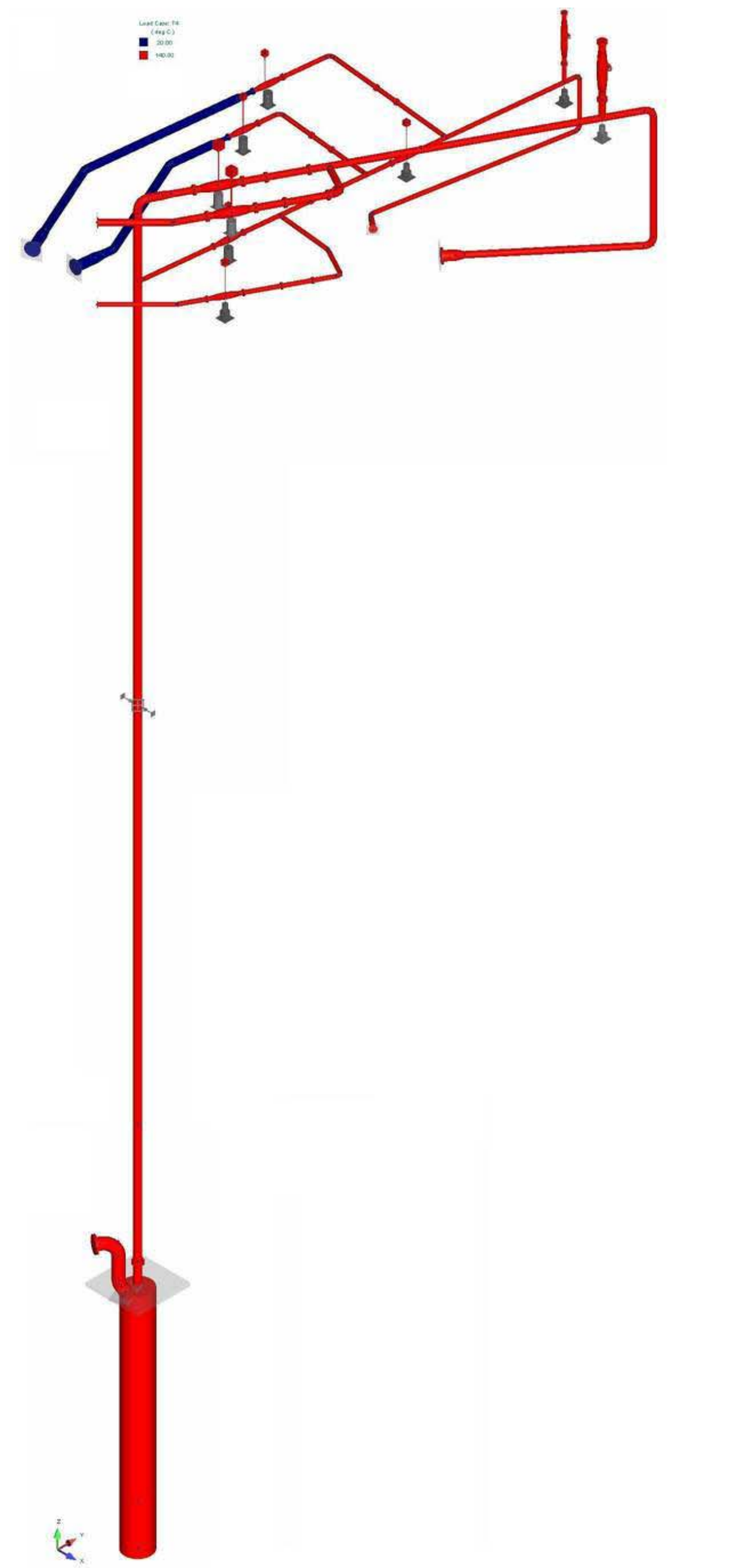


Figura A1-50: ADS caso 4: Temperature

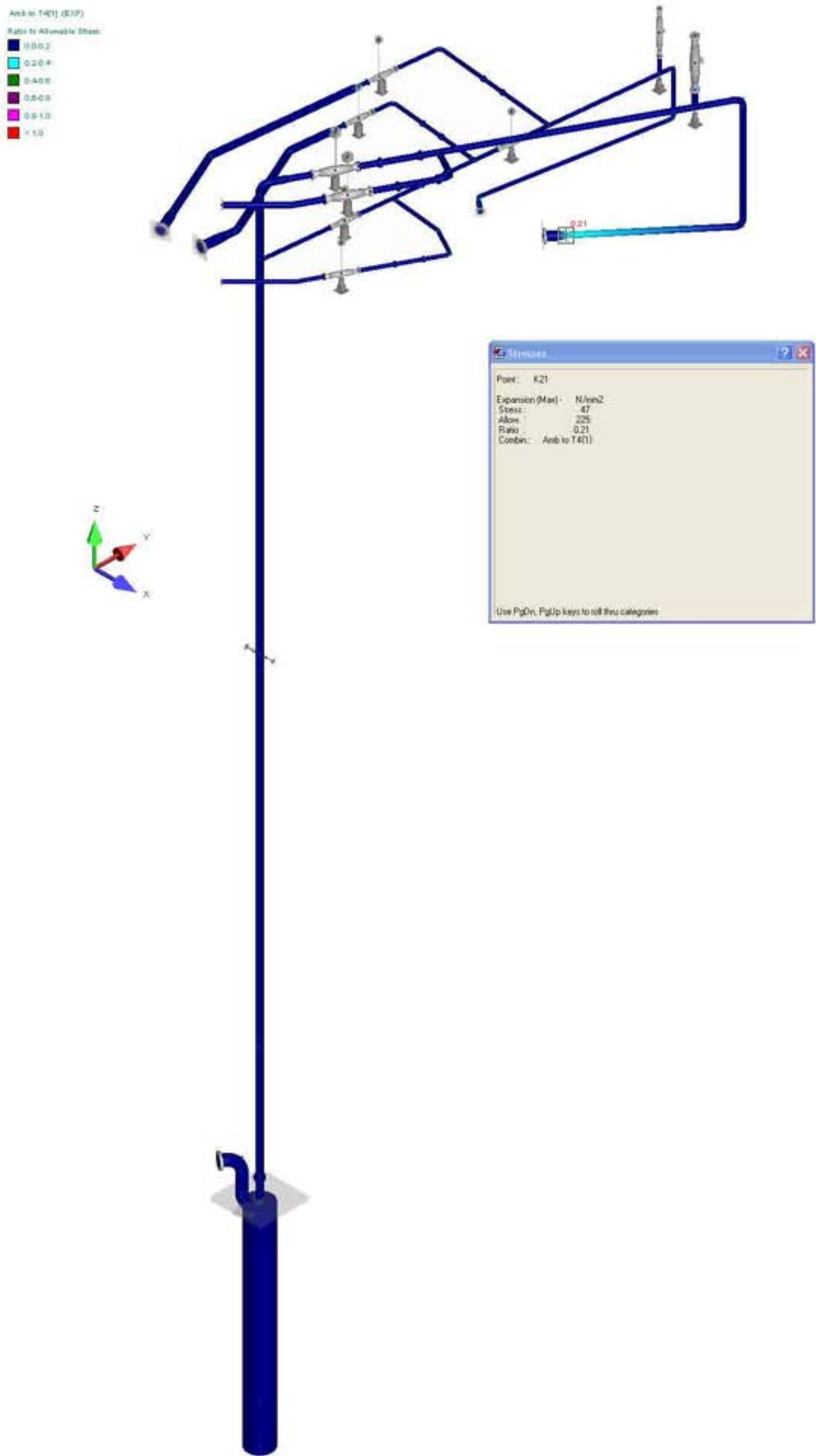


Figura A1-51: ADS caso 4: Tensioni dovute ai carichi termici

• **Caso 5: Intervento dell'ADS Stage-I in seguito alla rottura dell'ADS ST**

A seguito della rottura dell'ADS Single Train, si ha l'intervento dell'ADS Stage-I. A causa della posizione della rottura, che si trova a monte della valvola dell'ADS, tale sistema sul Single Train perde la sua funzione e solo quello del Double Train scarica il fluido nella QT. Un ritorno di massa, uscente dall'ADS Stage-I DT, avviene dal collettore verticale attraverso lo Stage-I ST verso la linea DEG della rottura.

Le condizioni imposte alle linee, lato primario sono quelle all'intervento dell'ADS ($P=12$ MPa, $T=324.7$ °C): per il ST dal vessel fino alle valvole di rottura sulla linea SPLIT e sulla linea principale; per il DT fino alle valvole degli ADS Stage-I e Stage-II. Lato contenimento, vengono imposte le condizioni di progetto: $P=1.5$ MPa, $T=198$ °C a tutte le linee tranne che a quelle dello Stage-II che, non intervenendo, vengono simulate alla pressione di progetto del contenimento, ma a temperatura ambiente ($P=1.5$ MPa, $T=20$ °C).

In Tabella A1. 15 sono indicati gli spostamenti, diversi da zero, attribuiti a ciascun incastro in corrispondenza delle flange, nella condizione di carico 5.

Incastri - Dilatazioni termiche differenziali					
quota bocchello [mm]	linea	Δz (bocchello-ancoraggio serbatoio) [mm]	ΔT [°C]	$\alpha \cdot \Delta T$	dilatazione [mm]
22465.72	ADS SPLIT	-12563.35	178	0.003718	46.72
22465.72	ADS DEG	-12563.35	178	0.003718	46.72
22465.72	ADS ST to DW	-12563.35	178	0.003718	46.72
23465.72	ADS DT to DW	-13563.35	178	0.003718	50.43
21801.72	ADS ST to RV	-11719.8	304.7	0.006559	76.87
21801.72	ADS DT to RV	-11719.8	304.7	0.006559	76.87
10807.52	QT to DW	-905.15	178	0.003718	3.37

Tabella A1. 15: ADS caso 5: spostamenti degli incastri in corrispondenza delle flange

Le pressioni delle linee nel caso 5 sono mostrate in Figura A1-52 e le temperature in Figura A1-53.

I risultati delle verifiche strutturali, eseguite per la condizione operativa esaminata, sono riportati in Figura A1-54.

Per ciascun caso esaminato, in Figura A1-55, Figura A1-56, Figura A1-57, Figura A1-58, Figura A1-59 è presentata la visualizzazione degli spostamenti dell'intero circuito nelle condizioni accoppiate GT (G=gravity e T=temperatura), ossia sotto l'effetto combinato del peso del sistema e del suo contenuto con le temperature. La condizione GT è quella che racchiude informazioni globali sulla deformata del sistema.

La rappresentazione degli spostamenti è amplificata di un fattore 5 per aumentarne la percezione.

L'entità degli spostamenti di ogni punto e lo spostamento massimo sono presentati nell'output del calcolo di verifica della linea con Autopipe, Allegato 4.

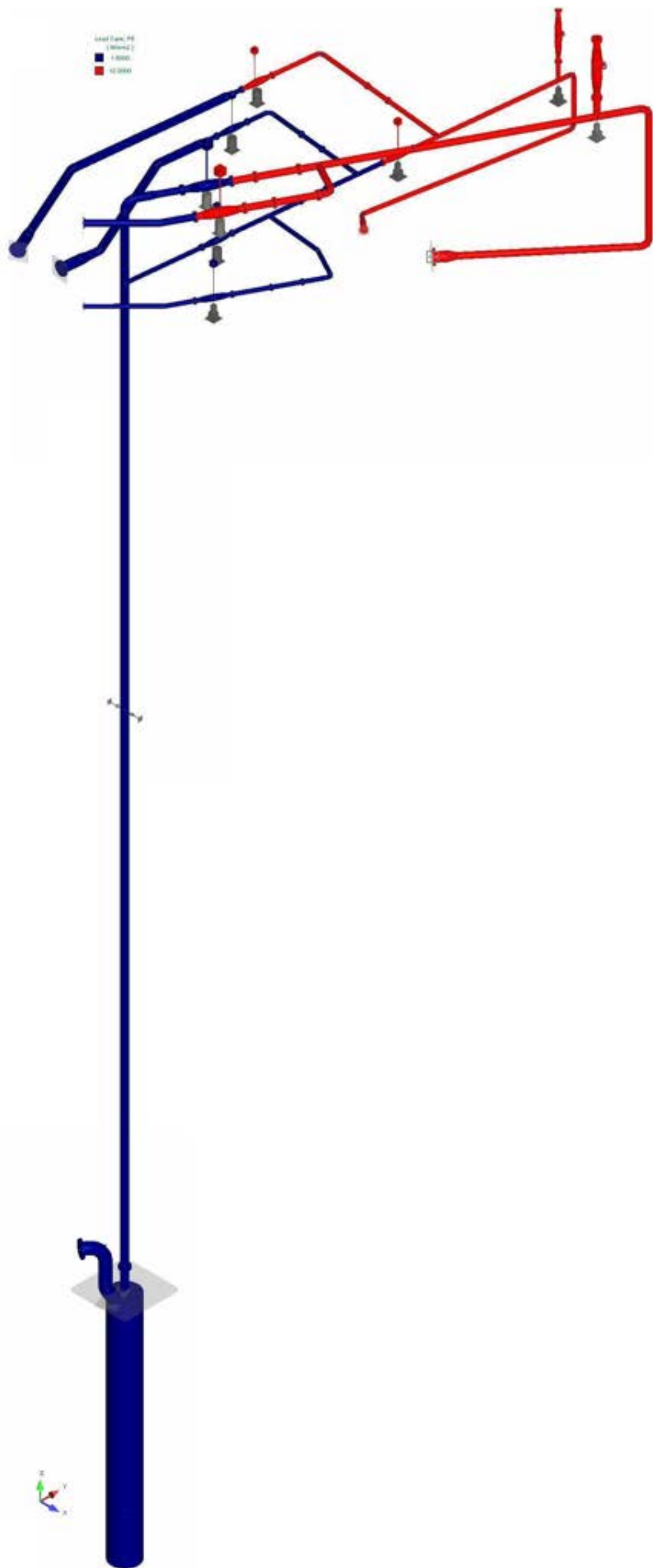


Figura A1-52: ADS caso 5: Pressioni

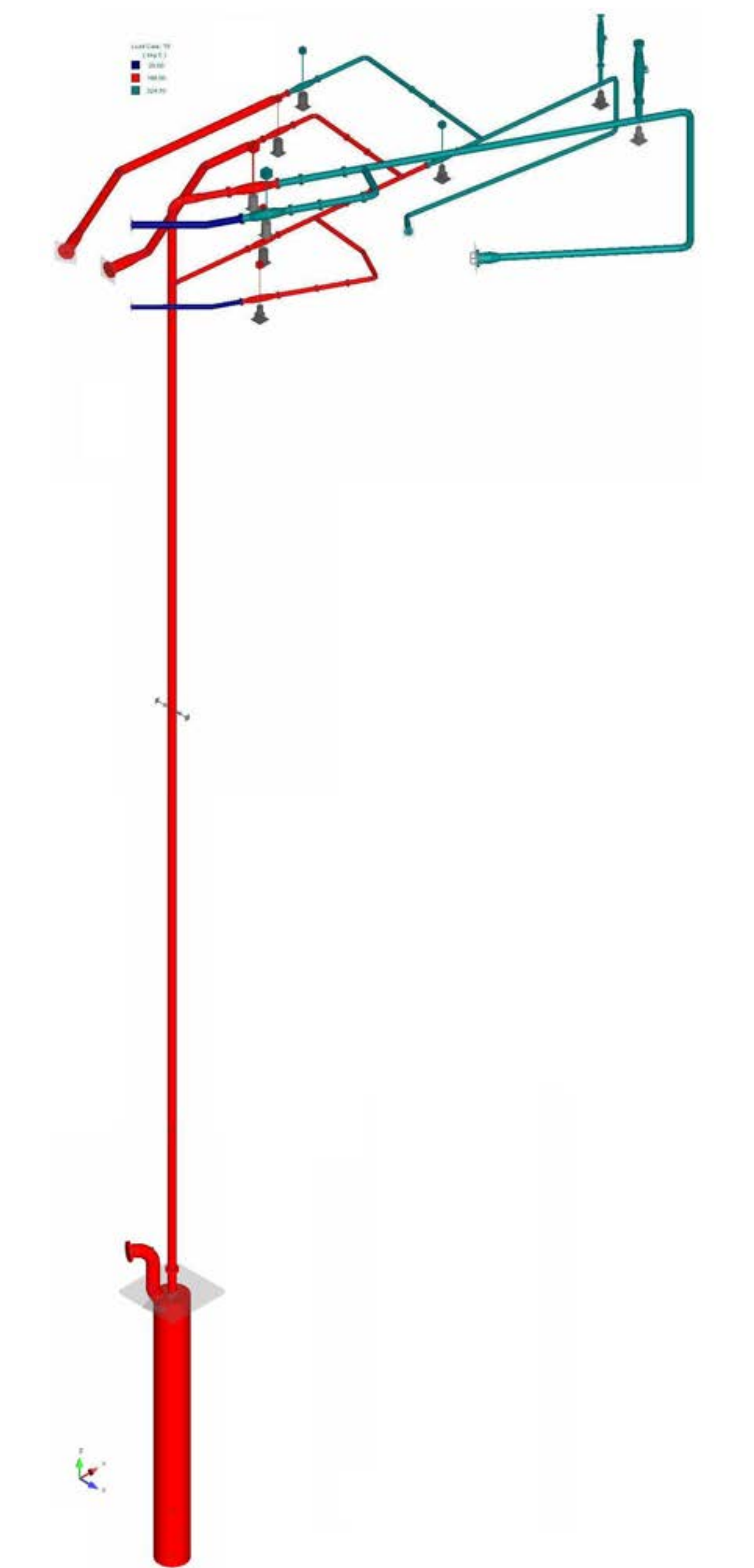


Figura A1-53: ADS caso 5: Temperature

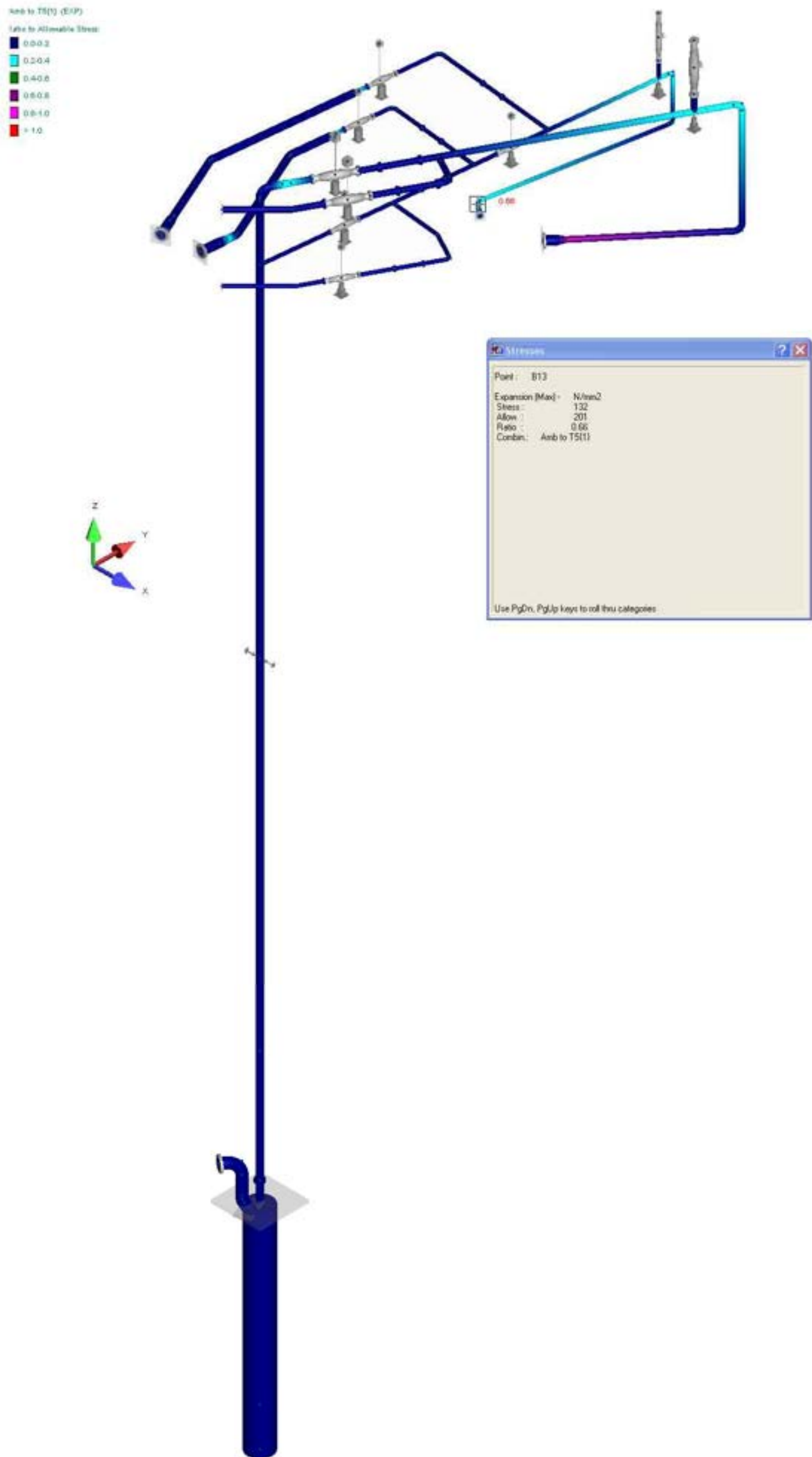


Figura A1-54: ADS caso 5: Tensioni dovute ai carichi termici

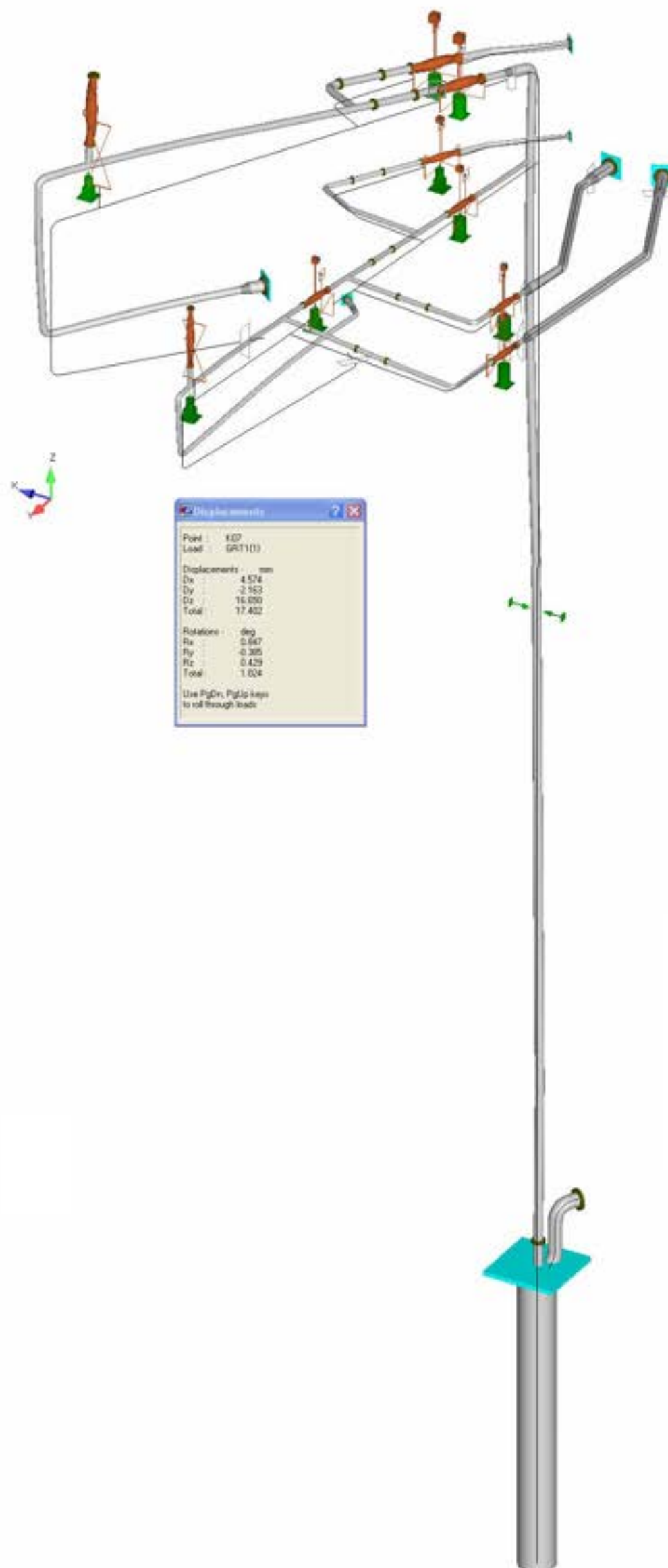


Figura A1-55: ADS caso 1: Visualizzazione degli spostamenti del circuito sotto effetto combinato del peso del sistema e del suo contenuto.

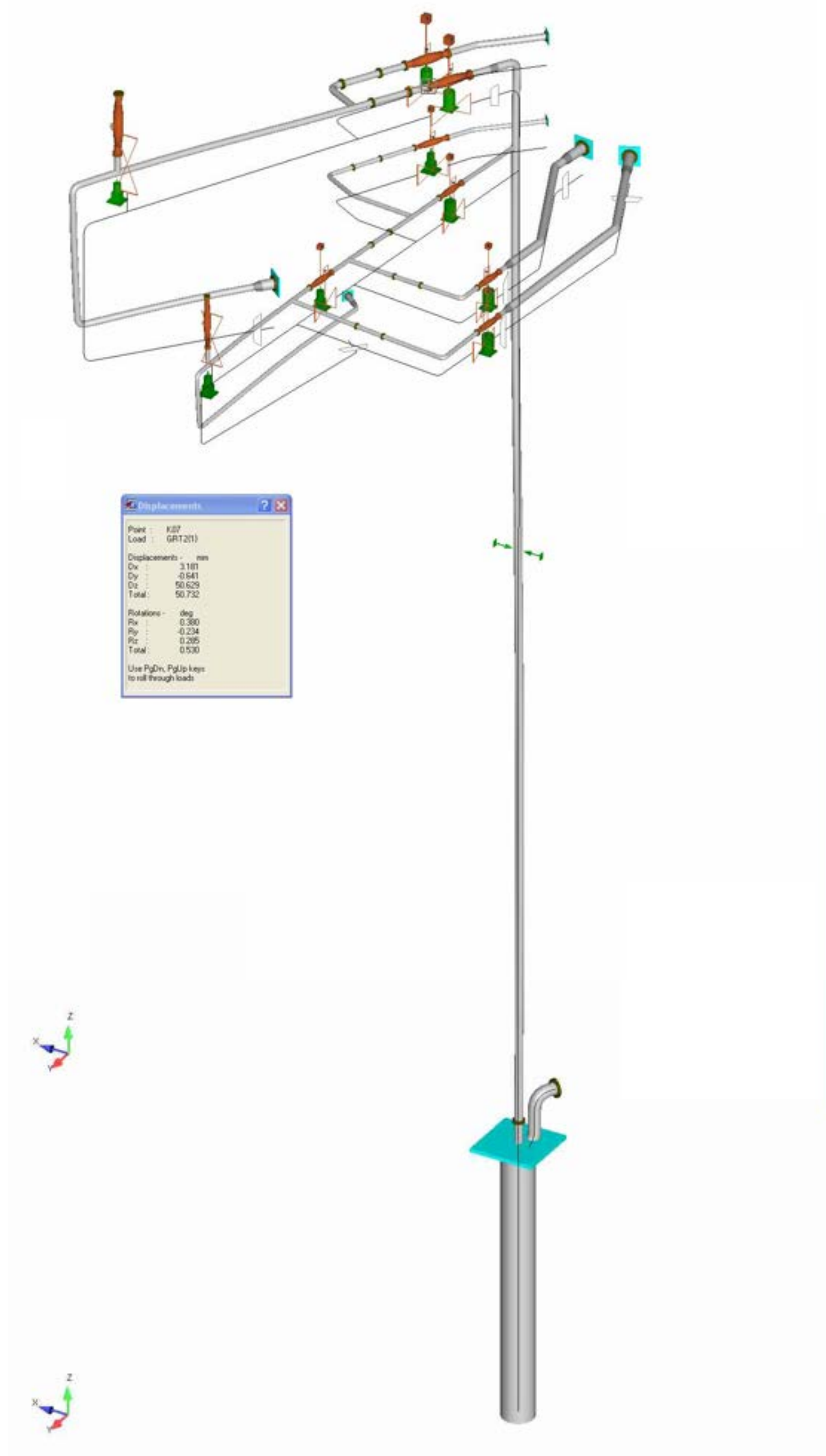


Figura A1-56: ADS caso 2: Visualizzazione degli spostamenti del circuito sotto effetto combinato del peso del sistema e del suo contenuto

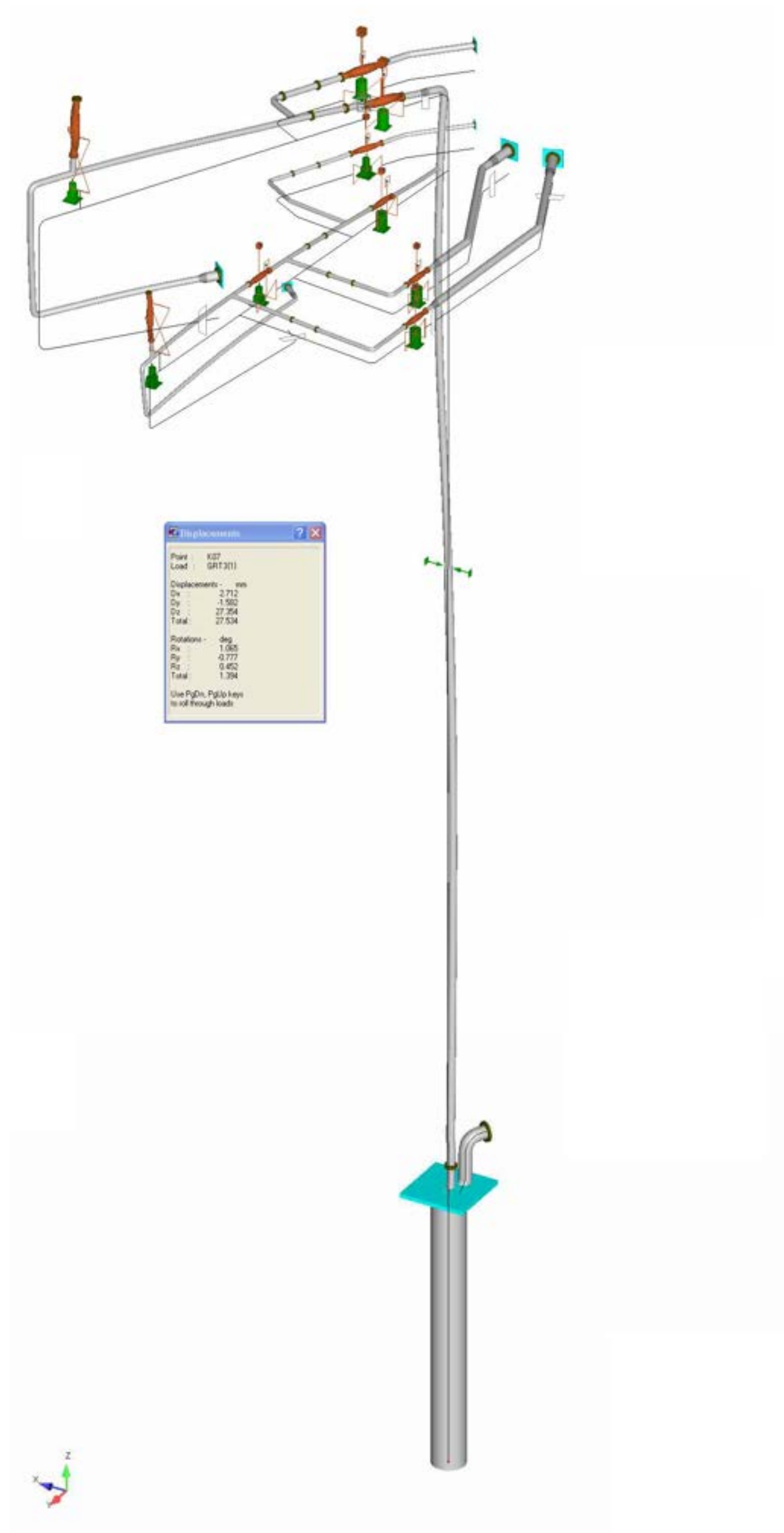


Figura A1-57: ADS caso 3: Visualizzazione degli spostamenti del circuito sotto effetto combinato del peso del sistema e del suo contenuto

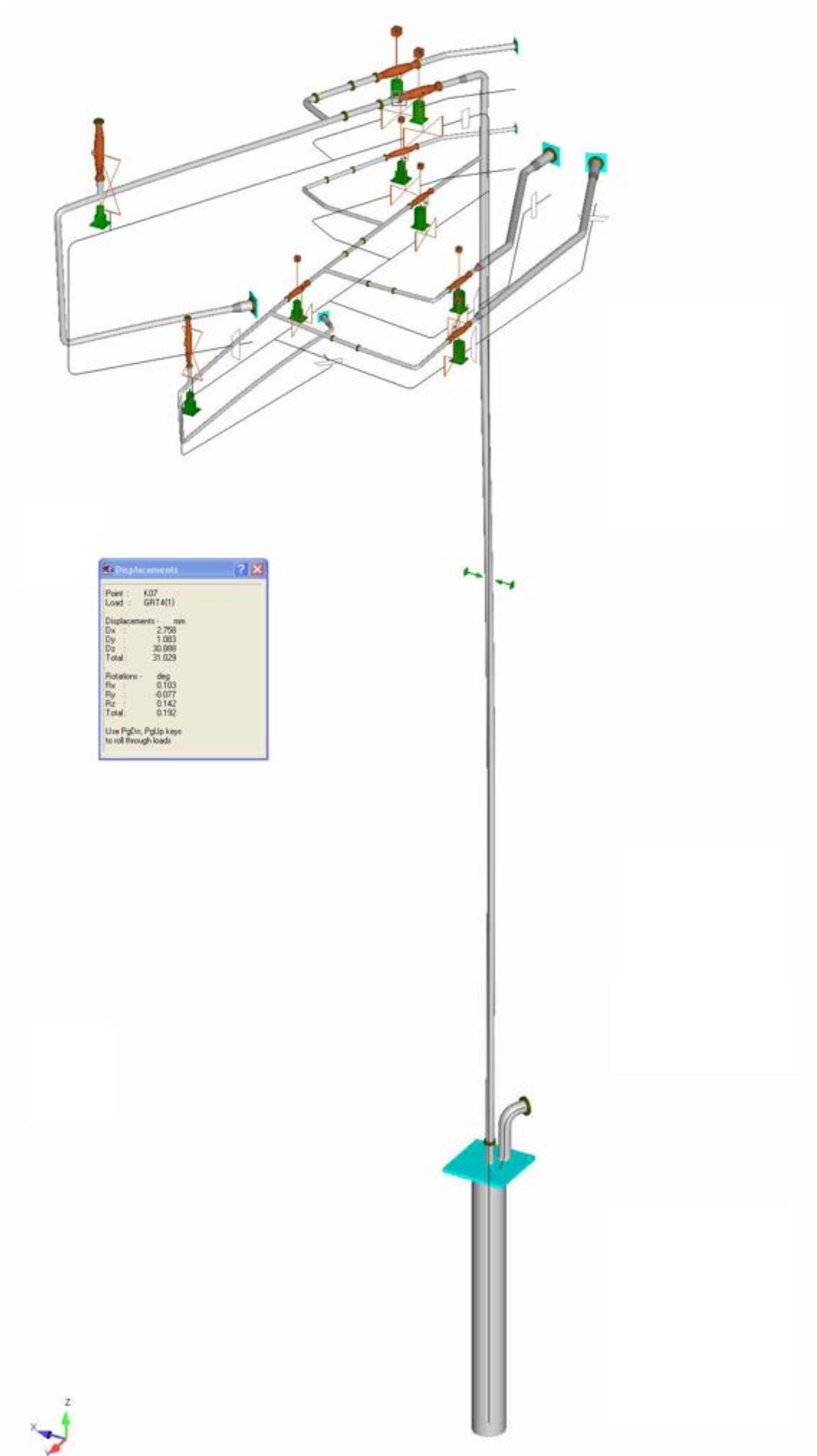


Figura A1-58: ADS caso 4: Visualizzazione degli spostamenti del circuito sotto effetto combinato del peso del sistema e del suo contenuto

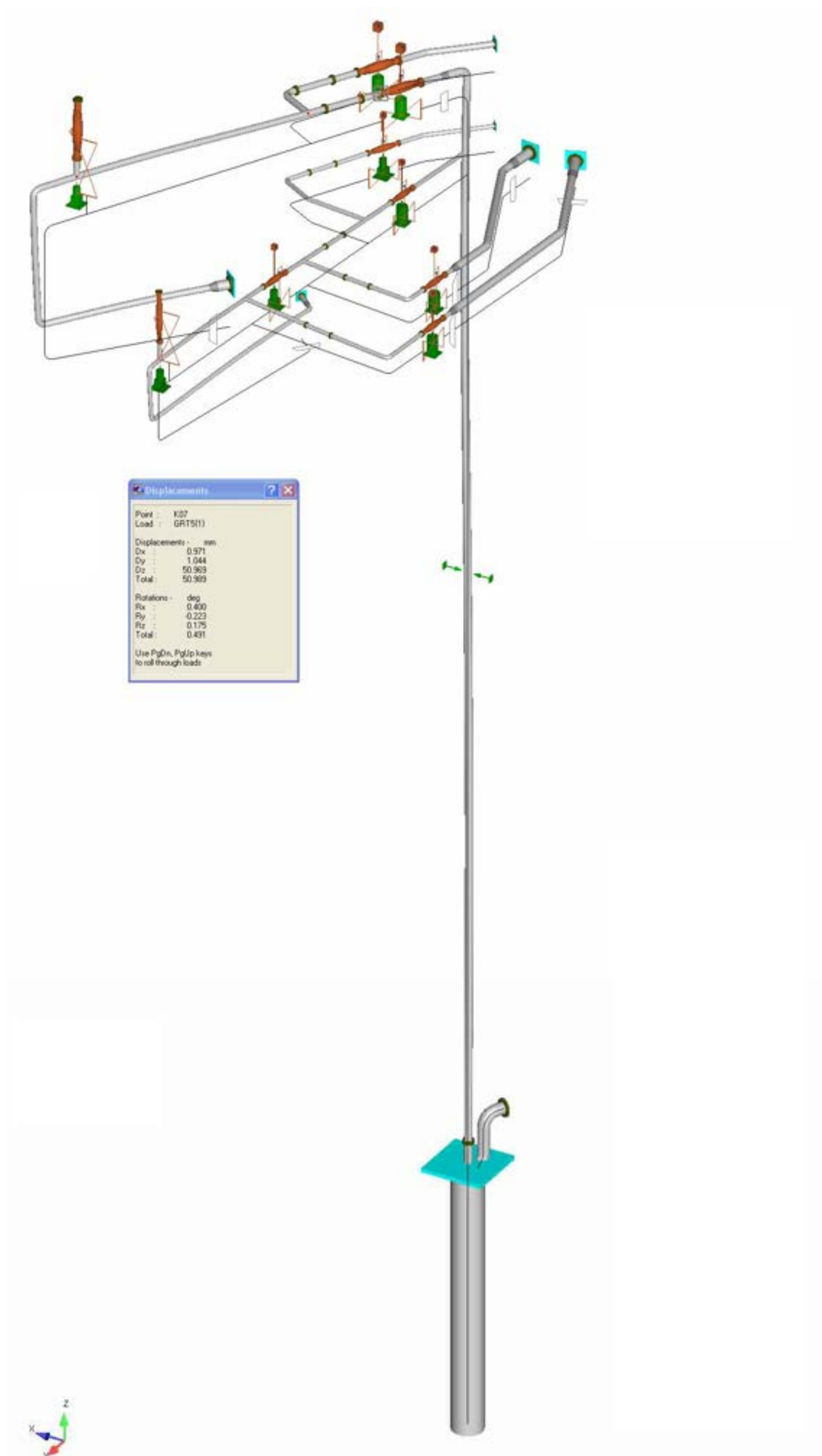


Figura A1-59: ADS caso 5: Visualizzazione degli spostamenti del circuito sotto effetto combinato del peso del sistema e del suo contenuto

A1.4 FL

Le linee che fanno parte del gruppo FL sono riportate in Tabella 6-1. Ai fini della simulazione dell'impianto IRIS, le tre FL di SPES3 hanno inizio alle valvole di isolamento (FV003, FV005, FV006), mentre la parte a monte di tali valvole, fino al collettore della Feed Water, fa parte degli ausiliari. Per uno studio globale delle linee, anche tale parte di ausiliari è stata simulata e verificata con Autopipe. Il collettore è un recipiente in pressione e come tale soggetto ad una verifica PED separata. In questo caso è stato schematizzato come un tubo chiuso alle estremità da flange cieche, pur consapevoli dei limiti che comporta questa schematizzazione con Autopipe.

Il gruppo FL è stato verificato in quattro condizioni.

- Nel primo caso si è studiata la condizione stazionaria di esercizio. Ai circuiti secondari e alle CL degli EHRS, a valle delle valvole di non ritorno, sono state imposte le condizioni di normale funzionamento, ossia acqua in pressione sottoraffreddata. Le CL, nella parte a monte delle valvole di non ritorno, sono state considerate alla stessa pressione delle FL, ma a temperatura ambiente. La parte delle linee di rottura, lato contenimento, a pressione e temperatura ambiente.
- Nel secondo caso si è studiata l'influenza della rottura del DVI-B sul gruppo FL. Le condizioni imposte alle linee fanno riferimento al picco di pressione che si verifica nei circuiti secondari dopo l'isolamento. Sebbene l'attivazione dei tre EHRS si verifichi in tempi diversi, tali eventi sono stati considerati contemporanei e le stesse condizioni applicate alle FL e alle CL.
- Il terzo caso rappresenta la rottura della FL-B a partire alle condizioni stazionarie di esercizio.
- Il quarto caso rappresenta la condizione conseguente alla rottura della FL-B con la perdita del sistema EHRS-B ad essa collegato.

In Figura A1-60 è rappresentato il gruppo di linee FL con indicate le "size" e le schedule di tubi e flange, i supporti e le lunghezze dei tratti di tubazione.



I dettagli delle 4 condizioni operative prese in esame per la verifica sono riportati in seguito.

• **Caso 1: condizioni stazionarie di funzionamento**

Le condizioni stazionarie di funzionamento del gruppo di linee FL prevedono acqua sottoraffreddata nelle linee di alimento e nelle CL degli EHRS, a valle delle valvole di non ritorno ($P=5.83$ MPa, $T=224$ °C), acqua fredda nelle CL a monte delle valvole di non ritorno ($P=5.83$ MPa, $T=20$ °C) e le linee di rottura della FL-B, alle condizioni ambiente (0.1 MPa, $T=20$ °C). Gli spostamenti imposti ai bocchelli sul vessel sono quelli legati alle dilatazioni termiche dello stesso, considerato alle condizioni di progetto del primario.

In Tabella A1. 16 sono indicati gli spostamenti, diversi da zero, attribuiti a ciascun incastro in corrispondenza delle flange.

Incastri - Dilatazioni termiche differenziali					
quota bocchello [mm]	linea	Δz (bocchello-ancoraggio serbatoio) [mm]	ΔT [°C]	$\alpha \cdot \Delta T$	dilatazione [mm]
7883	FL-A to RVa	2198.92	334	0.007238	-15.92
7883	FL-B to RVb	2198.92	334	0.007238	-15.92
7883	FL-C to RVc1	2198.92	334	0.007238	-15.92
7898	FL-C to RVc2	2183.92	334	0.007238	-15.92

Tabella A1. 16: FL caso 1: spostamenti degli incastri in corrispondenza delle flange

Le pressioni delle linee nel caso 1 sono mostrate in Figura A1-61 e le temperature in Figura A1-62.

I risultati delle verifiche strutturali, eseguite per la condizione operativa esaminata, sono riportati in Figura A1-63, Figura A1-64, Figura A1-65.

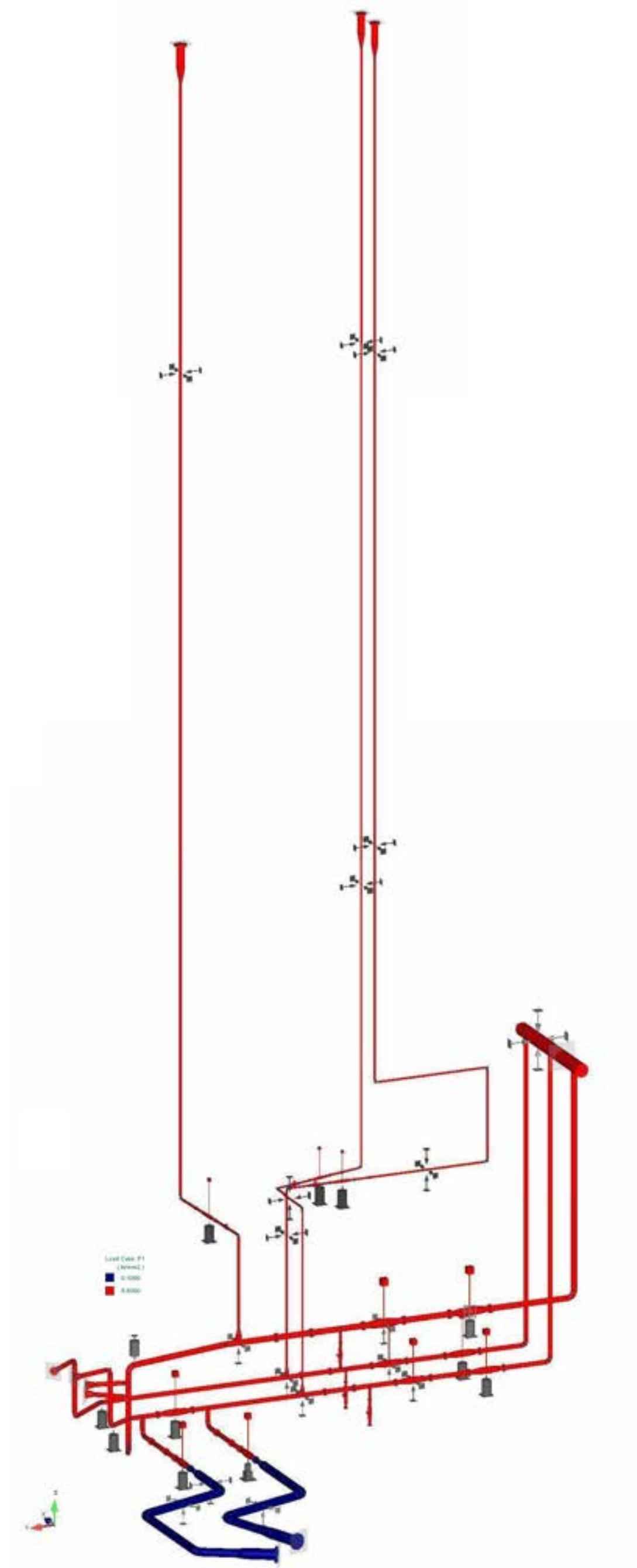


Figura A1-61: FL caso 1: Pressioni

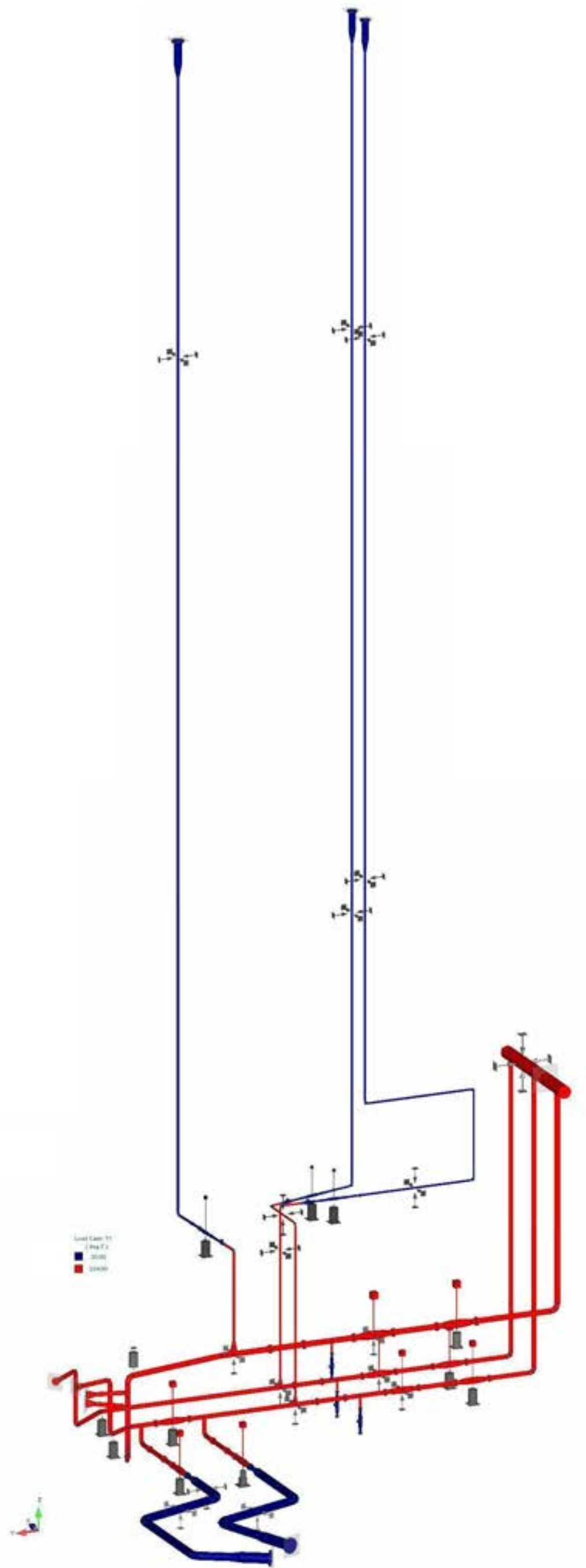


Figura A1-62: FL caso 1: Temperature

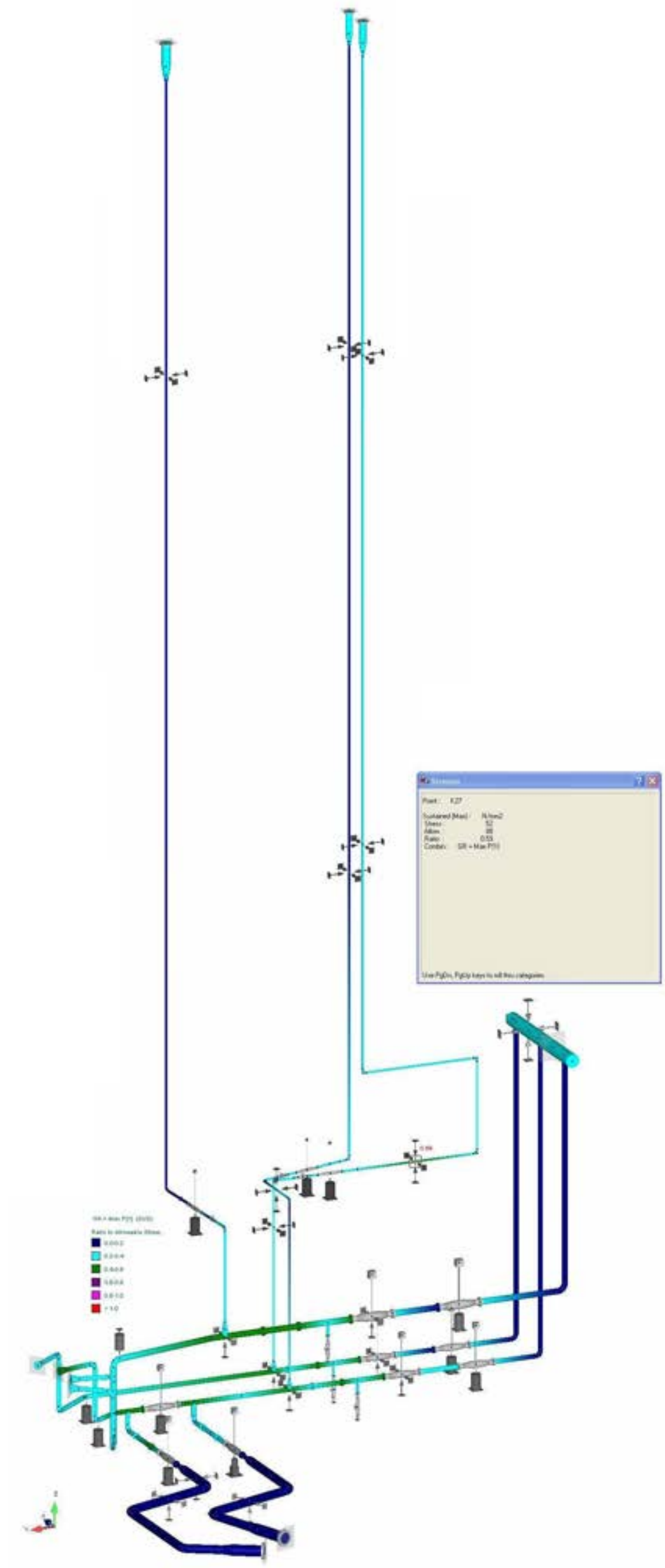


Figura A1-63: FL caso 1: Tensioni dovute a pressione, peso proprio del sistema e del suo contenuto, carichi meccanici (SUS)

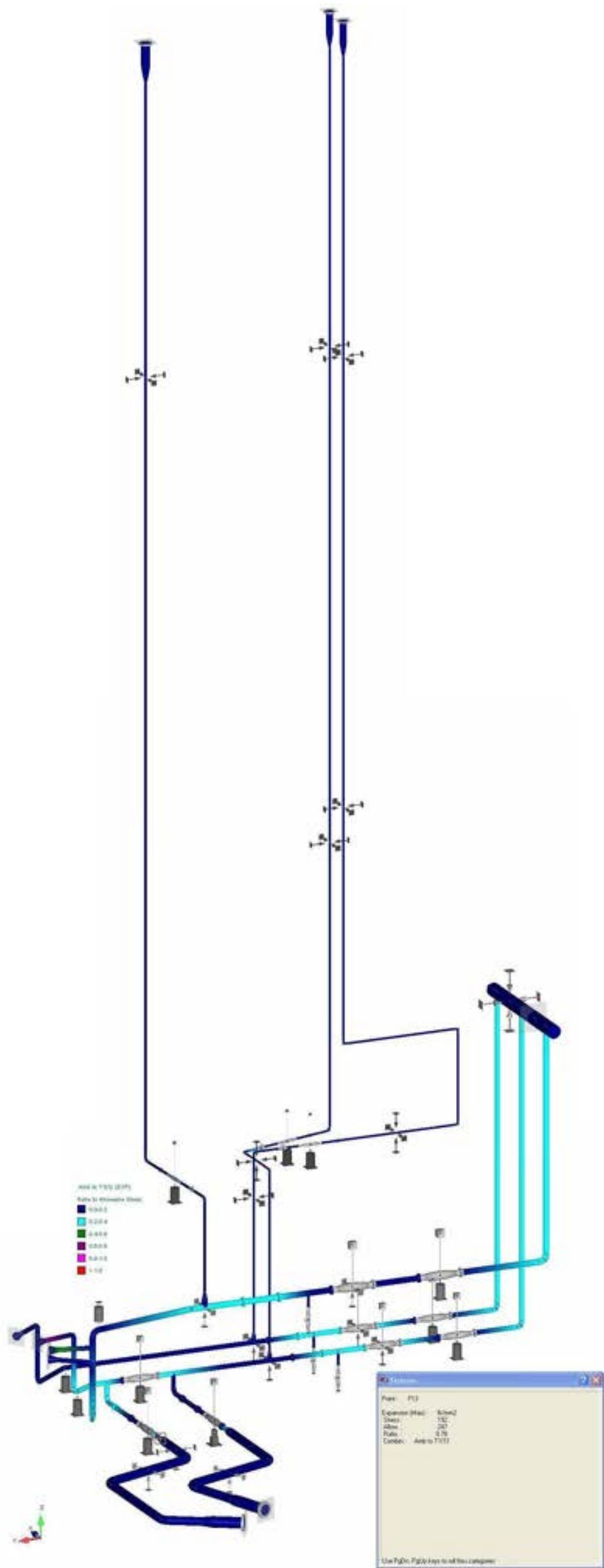


Figura A1-64: FL caso 1: Tensioni dovute ai carichi termici

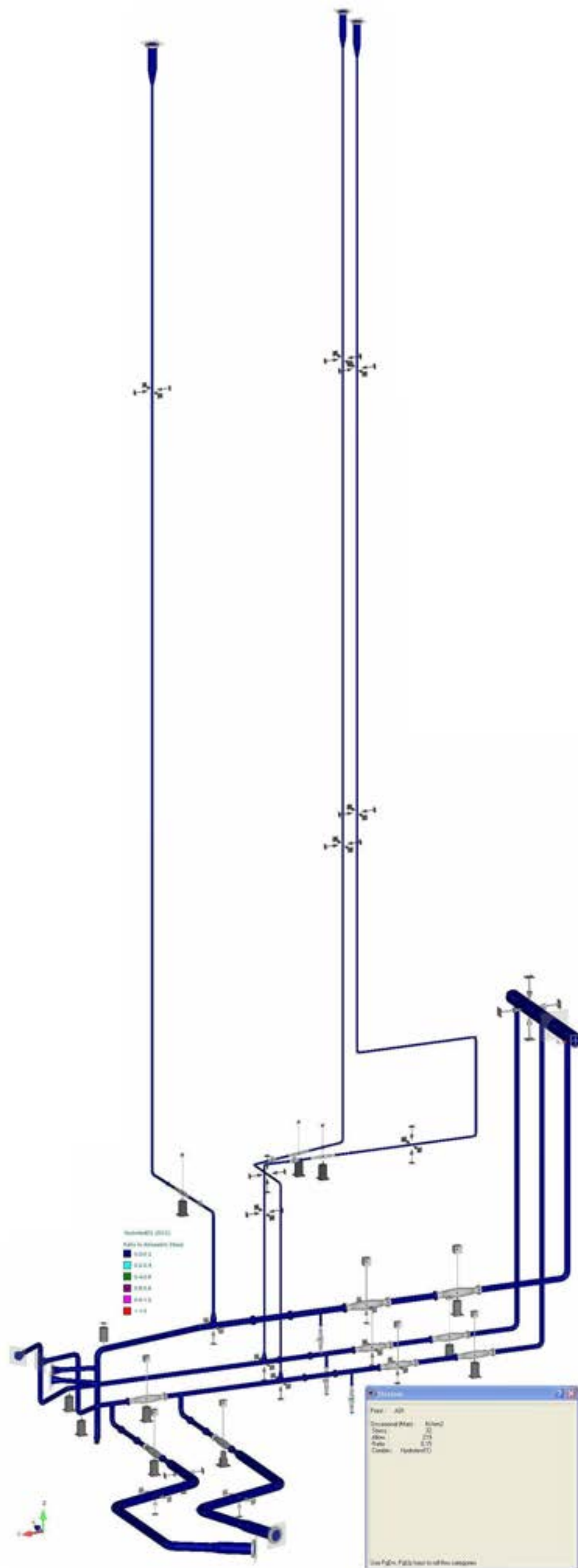


Figura A1-65: FL: Prova idraulica

• **Caso 2: rottura del DVI-B**

A seguito della rottura del DVI-B e l'isolamento dei circuiti secondari, in questi ultimi si produce un picco di pressione, successivamente smaltito dalla rimozione del calore da parte degli EHRS. Per la verifica di questo caso, alle linee FL e CL sono state imposte le condizioni relative al picco di pressione nel secondario ($P=11.5$ MPa, $T=322$ °C). Lo stesso valore di temperatura è stato usato per il primario (visto che, mentre i secondari si pressurizzano, il primario si depressurizza e al momento del picco le pressioni sono molto simili) al fine del calcolo degli spostamenti dei bocchelli. Le linee dei circuiti secondari, a monte delle valvole di isolamento, sono state considerate alle condizioni di esercizio ($P=5.83$ MPa, $T=224$ °C). Le linee di rottura della FL-B sono state considerate a pressione e temperatura ambiente ($P=0.1$ MPa, $T=20$ °C).

In Tabella A1. 17 sono indicati gli spostamenti, diversi da zero, attribuiti a ciascun incastro in corrispondenza delle flange, nella condizione di carico 2.

Incastri - Dilatazioni termiche differenziali					
quota bocchello [mm]	linea	Δz (bocchello-ancoraggio serbatoio) [mm]	ΔT [°C]	$\alpha \cdot \Delta T$	dilatazione [mm]
7883	FL-A to RVa	2198.92	322	0.006958	-15.30
7883	FL-B to RVb	2198.92	322	0.006958	-15.30
7883	FL-C to RVc1	2198.92	322	0.006958	-15.30
7898	FL-C to RVc2	2183.92	322	0.006958	-15.30
21762	EHRS-A	110.12	322	0.006958	-0.77
21762	EHRS-B	110.12	322	0.006958	-0.77
21762	EHRS-C	110.12	322	0.006958	-0.77

Tabella A1. 17: FL caso 2: spostamenti degli incastri in corrispondenza delle flange

Le pressioni delle linee nel caso 2 sono mostrate in Figura A1-66 e le temperature in Figura A1-67. I risultati delle verifiche strutturali, eseguite per la condizione operativa esaminata, sono riportati in Figura A1-68.

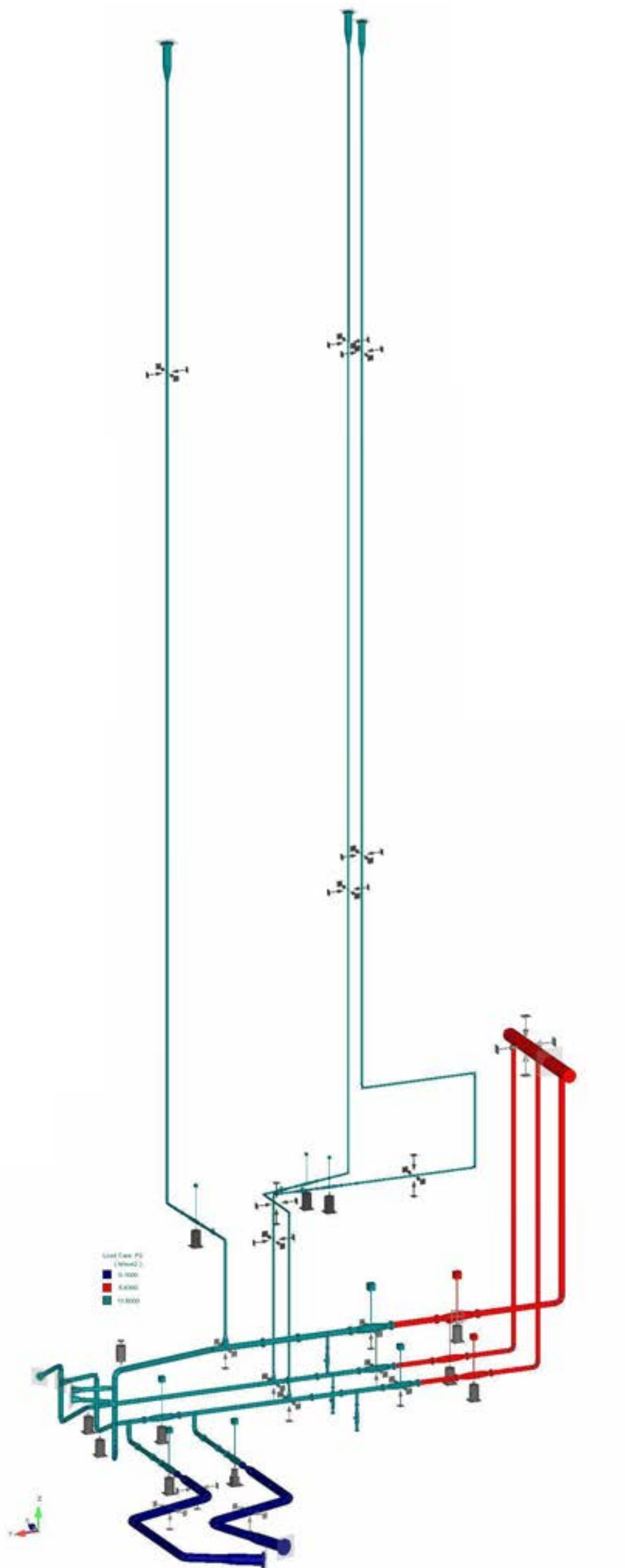


Figura A1-66: FL caso 2: Pressioni

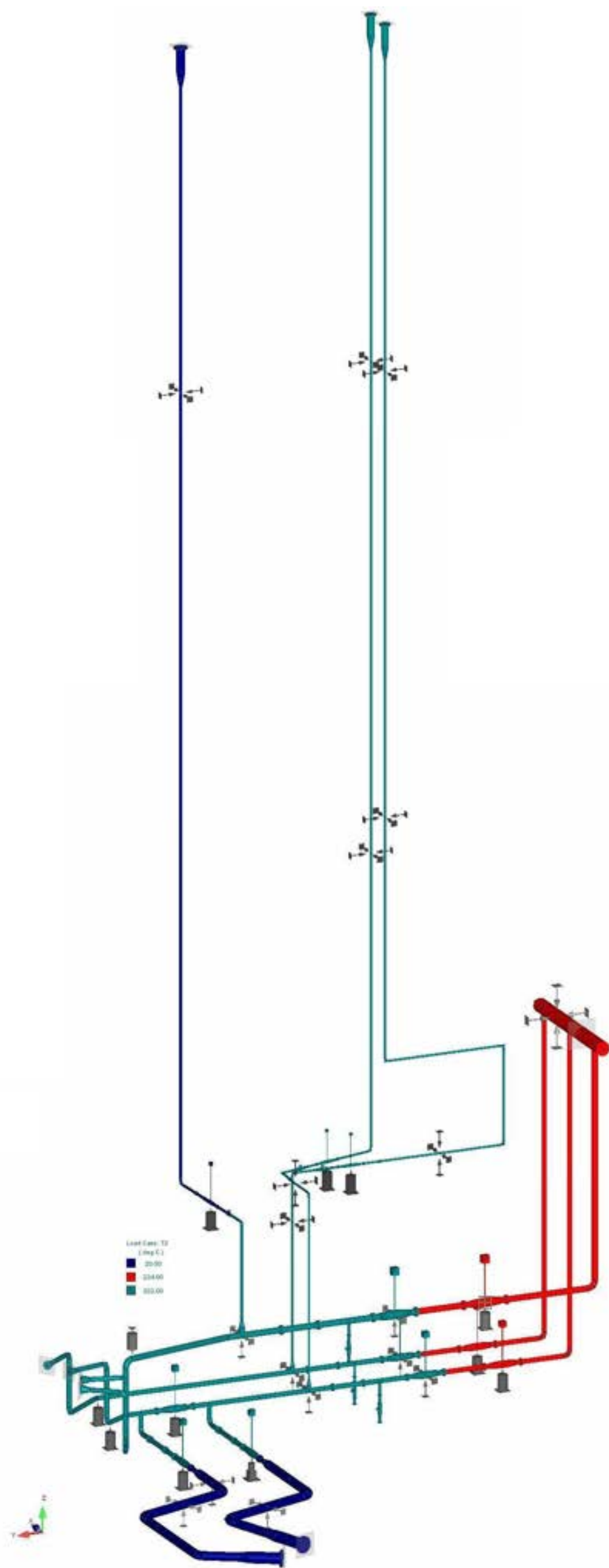


Figura A1-67: FL caso 2: Temperature

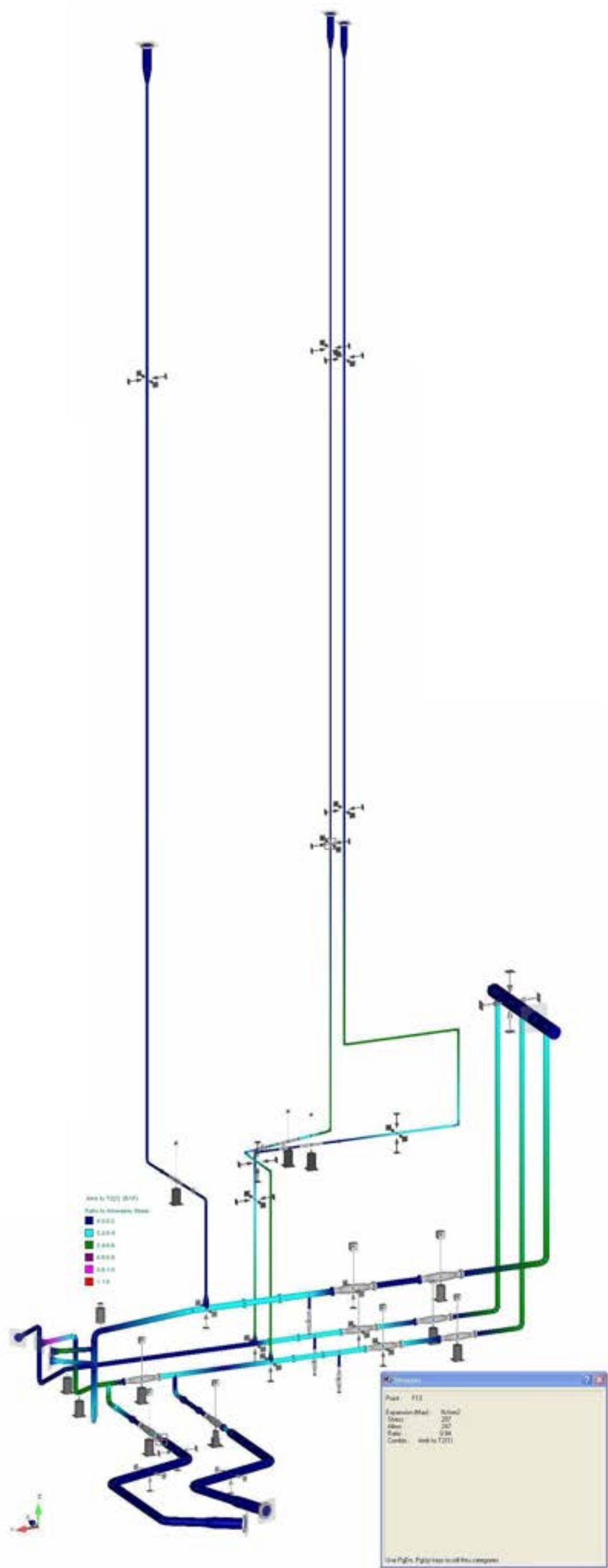


Figura A1-68: FL caso 2: Tensioni dovute ai carichi termici

• **Caso 3: rottura della FL-B**

Il caso della rottura della FL-B si è studiato a partire dalle condizioni stazionarie di esercizio dei circuiti secondari ($P=5.83$ MPa, $T=224$ °C). Come nel caso 1, le FL e le CL degli EHRS, a valle delle valvole di non ritorno, sono state considerate alle suddette condizioni. Le CL, a monte delle valvole di non ritorno, sono state considerate alla pressione dei secondari, ma fredde ($P=5.83$ MPa, $T = 20$ °C). Le linee di rottura sono state verificate alle condizioni di progetto del contenimento ($P=1.5$ MPa, $T=198$ °C), mentre ai bocchelli di collegamento delle FL al RV è stato applicato lo spostamento corrispondente alla dilatazione dei bocchelli del vessel. In Tabella A1. 18 sono indicati gli spostamenti, diversi da zero, attribuiti a ciascun incastro in corrispondenza delle flange, nella condizione di carico 3.

Incastri - Dilatazioni termiche differenziali					
quota bocchello [mm]	linea	Δz (bocchello-ancoraggio serbatoio) [mm]	ΔT [°C]	$\alpha \Delta T$	dilatazione [mm]
7075.72	FL-B SPLIT	-4723.8	178	0.003718	17.57
7075.72	FI-B DEG	-4723.8	178	0.003718	17.57
7883	FL-A to RVa	2198.92	334	0.007238	-15.92
7883	FL-B to RVb	2198.92	334	0.007238	-15.92
7883	FL-C to RVc1	2198.92	334	0.007238	-15.92
7898	FL-C to RVc2	2183.92	334	0.007238	-15.92

Tabella A1. 18: FL caso 3: spostamenti degli incastri in corrispondenza delle flange

Le pressioni delle linee nel caso 3 sono mostrate in Figura A1-69 e le temperature in Figura A1-70.

I risultati delle verifiche strutturali, eseguite per la condizione operativa esaminata, sono riportati in Figura A1-71.

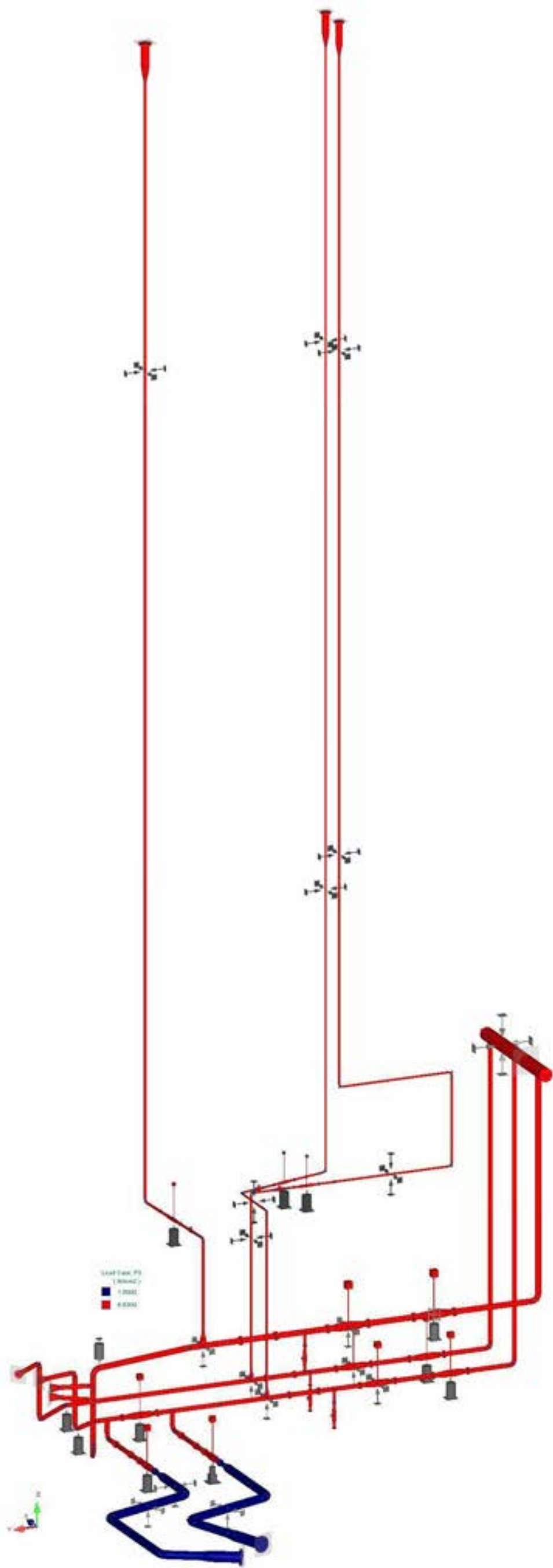


Figura A1-69: FL caso 3: Pressioni

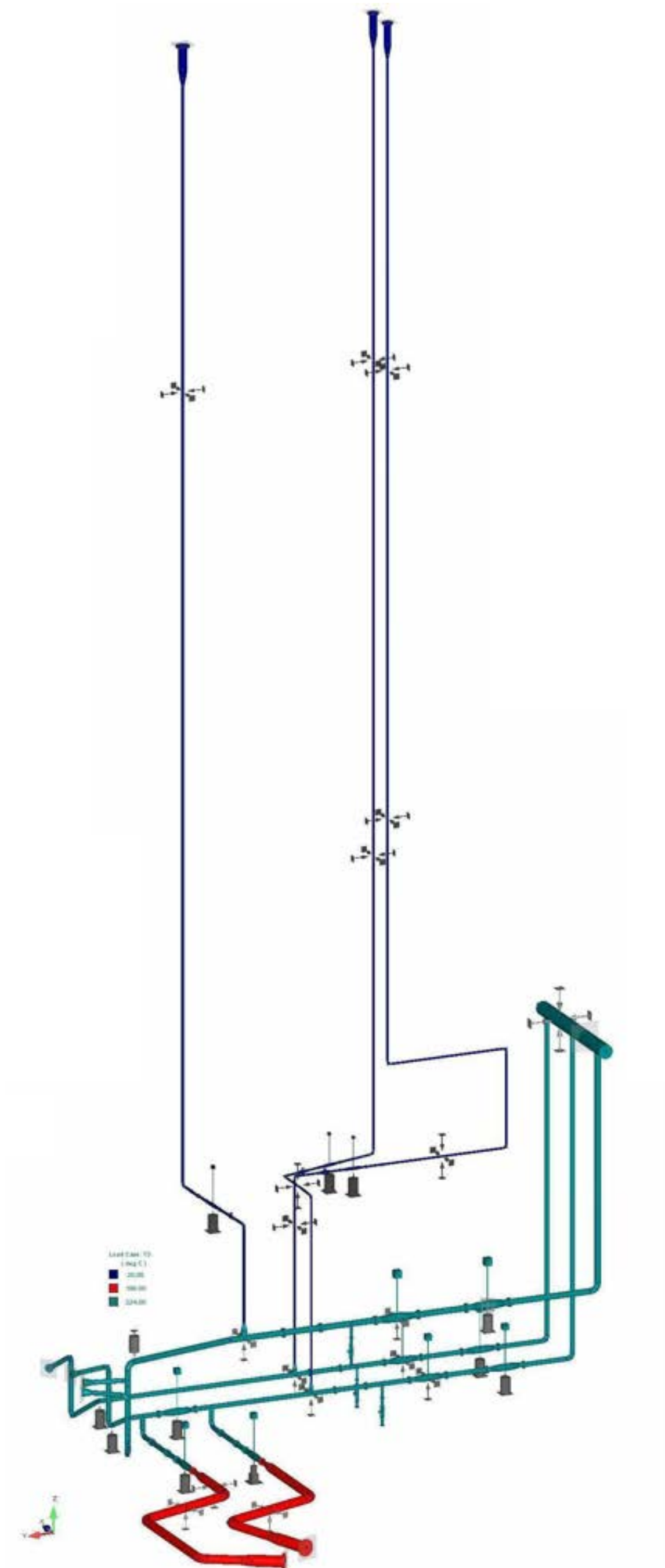


Figura A1-70: FL caso 3: Temperature

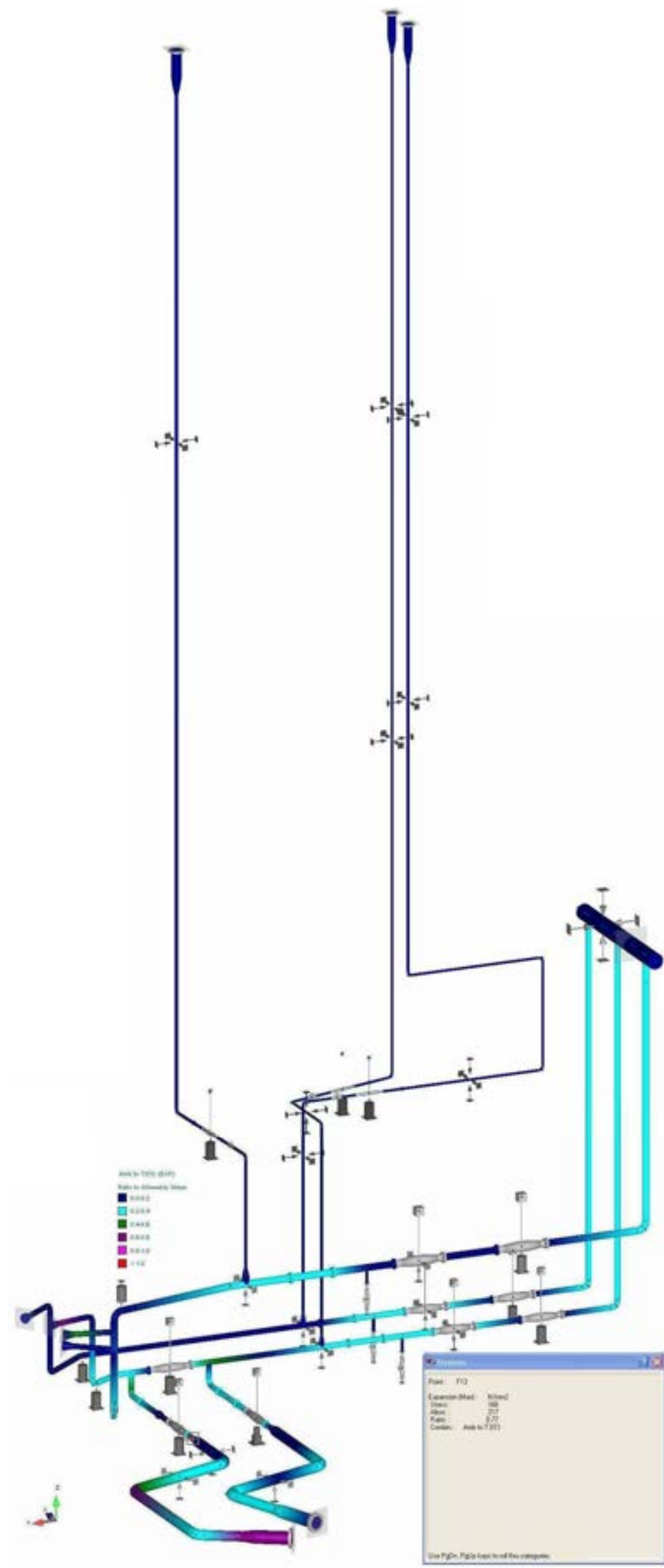


Figura A1-71: FL caso 3: Tensioni dovute ai carichi termici

• **Caso 4: Rottura della FL-B con perdita dell'EHR-S-B**

Nel caso della rottura della FL-B, il relativo sistema EHR-S-B perde di funzionalità. Le condizioni di pressione imposte alle FL-A e FL-C e relative CL dei sistemi EHR-S-A e C sono quelle del picco di pressione nei secondari, dopo l'isolamento dei circuiti ($P=10$ MPa). La pressione imposta alla FL-B ed al relativo sistema EHR-S-B è quella del contenimento al momento dell'equalizzazione con il secondario ($P = 0.13$ MPa).

Le temperature imposte alle linee sono state estratte dai risultati delle simulazioni dei transitori, con il codice RELAP5 [7], e corrispondono alle fasi iniziali di equalizzazione della pressione secondario-contenimento, picco di pressione nei secondari e attuazione dell'EHR-S-A. La temperatura della FL-A corrisponde alla fase iniziale dell'intervento dell'EHR-S-A (passaggio di acqua fredda) e per semplicità di simulazione è posta uguale a quella della FL-B (saturazione alla pressione del contenimento $P=0.13$ MPa, $T=57$ °C). La FL-C si trova a $T=227$ °C.

La temperatura della CL-A dell'EHR-S-A è quella di saturazione corrispondente al picco di pressione del secondario ($T= 311$ °C). La temperatura della CL-B è quella di saturazione alla pressione del contenimento ($T=57$ °C). La temperatura della CL-C è la stessa della FL-C a valle dalla valvola di non ritorno ($T=227$ °C), mentre a monte della valvola è $T=20$ °C, in quanto il sistema EHR-S-C non interviene nel transitorio e la linea resta alla sua temperatura iniziale.

A monte delle valvole di isolamento sulle FL, le condizioni imposte sono quelle di esercizio dell'impianto ($P=5.83$ MPa, $T=224$ °C). I bocchelli di collegamento delle FL al RV subiscono lo spostamento corrispondente alla dilatazione dei bocchelli del vessel.

In Tabella A1. 19 sono indicati gli spostamenti, diversi da zero, attribuiti a ciascun incastro in corrispondenza delle flange, nelle condizione di carico 4.

Incastri - Dilatazioni termiche differenziali					
quota bocchello [mm]	linea	Δz (bocchello-ancoraggio serbatoio) [mm]	ΔT [°C]	$\alpha \cdot \Delta T$	dilatazione [mm]
7075.72	FI-B SPLIT	-4723.8	37	0.000747	3.53
7075.72	FL-B DEG	-4723.8	37	0.000747	3.53
7883	FL-A to RVa	2198.92	322	0.006958	-15.30
7883	FL-A to RVb	2198.92	322	0.006958	-15.30
7883	FL-C to RVc1	2198.92	322	0.006958	-15.30
7883	FL-C to RVc2	2198.92	322	0.006958	-15.30
21762	EHR-S-A	110.12	291	0.006704	-0.76
21762	EHR-S-B	110.12	37	0.000747	-0.08

Tabella A1. 19: FL caso 4: spostamenti degli incastri in corrispondenza delle flange

Le pressioni delle linee nel caso 4 sono mostrate in Figura A1-72 e le temperature in Figura A1-73.

I risultati delle verifiche strutturali, eseguite per la condizione operativa esaminata, sono riportati in Figura A1-74.

Per ciascun caso esaminato, in Figura A1-75, Figura A1-76, Figura A1-77, Figura A1-78 è presentata la visualizzazione degli spostamenti dell'intero circuito nelle condizioni accoppiate GT (G=gravity e T=temperatura), ossia sotto l'effetto combinato del peso del sistema e del suo contenuto con le temperature. La condizione GT è quella che racchiude informazioni globali sulla deformata del sistema.

La rappresentazione degli spostamenti è amplificata di un fattore 5 per aumentarne la percezione.

L'entità degli spostamenti di ogni punto e lo spostamento massimo sono presentati nell'output del calcolo di verifica della linea con Autopipe, Allegato 5.

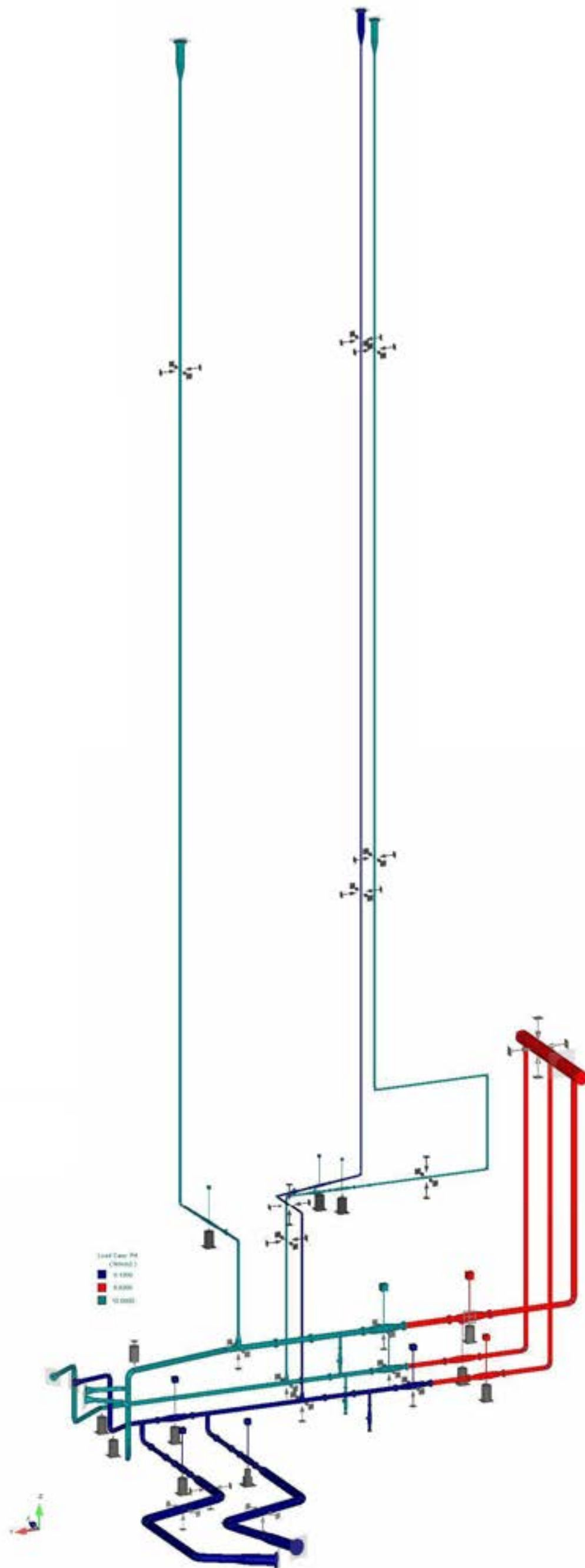


Figura A1-72: FL caso 4: Pressioni

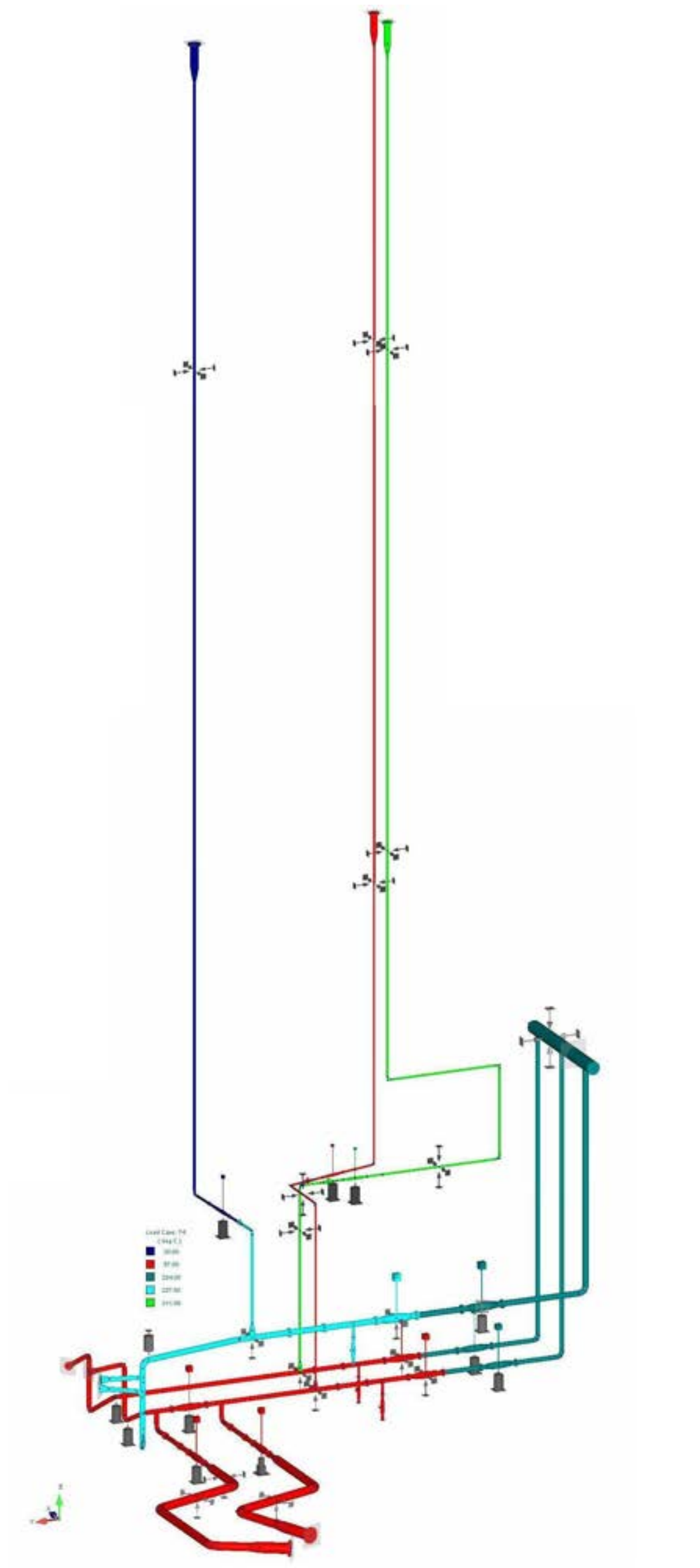


Figura A1-73: FL caso 4: Temperature

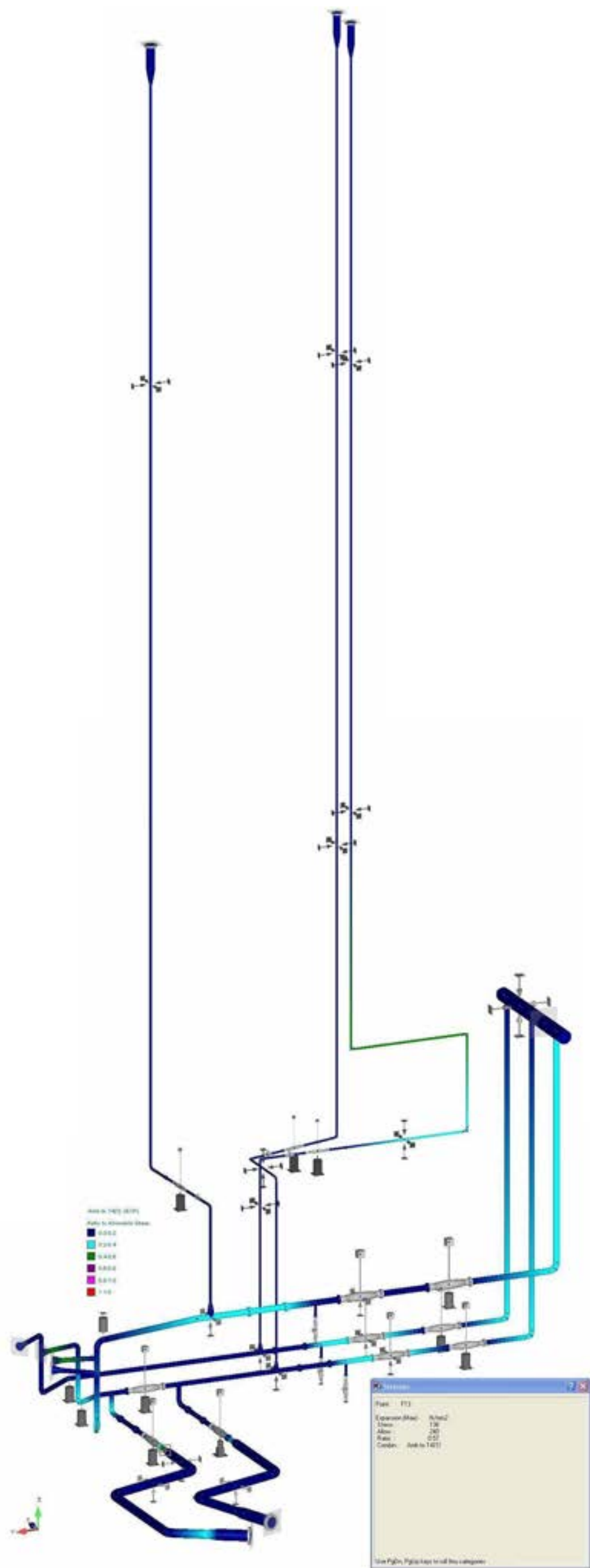


Figura A1-74: FL caso 4: Tensioni dovute ai carichi termici

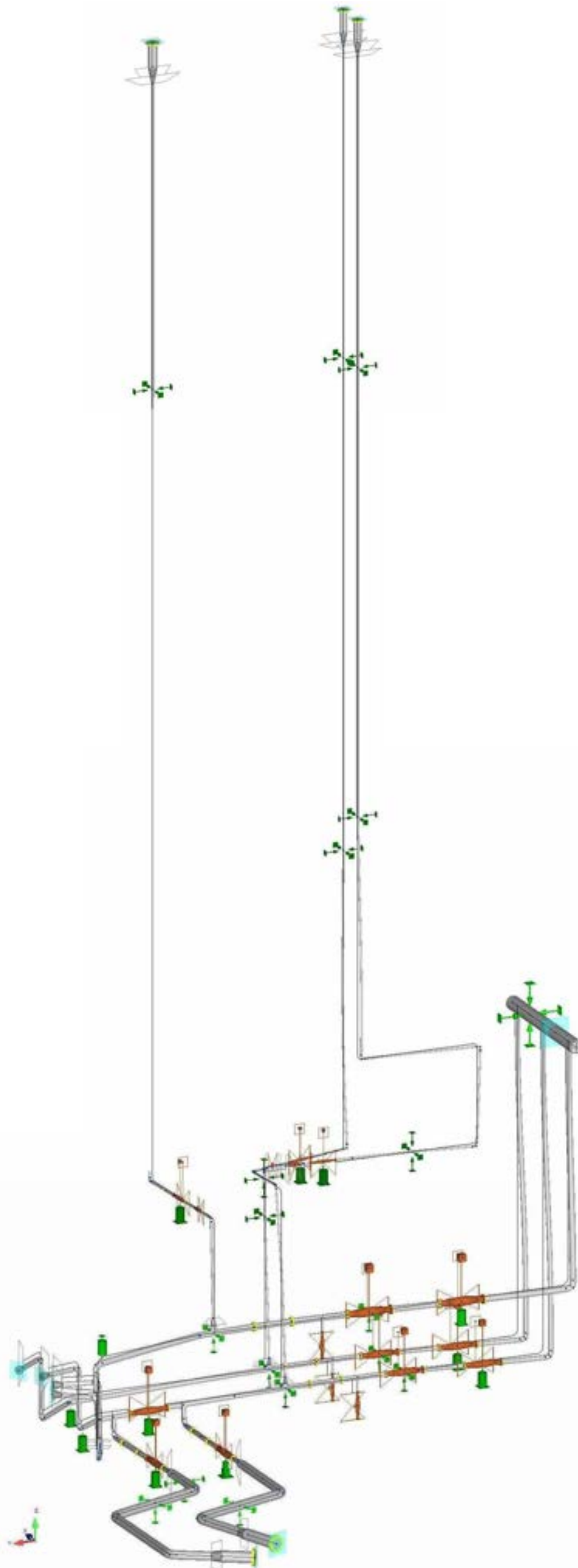


Figura A1-75: FL caso 1: Visualizzazione degli spostamenti del circuito sotto effetto combinato del peso del sistema e del suo contenuto

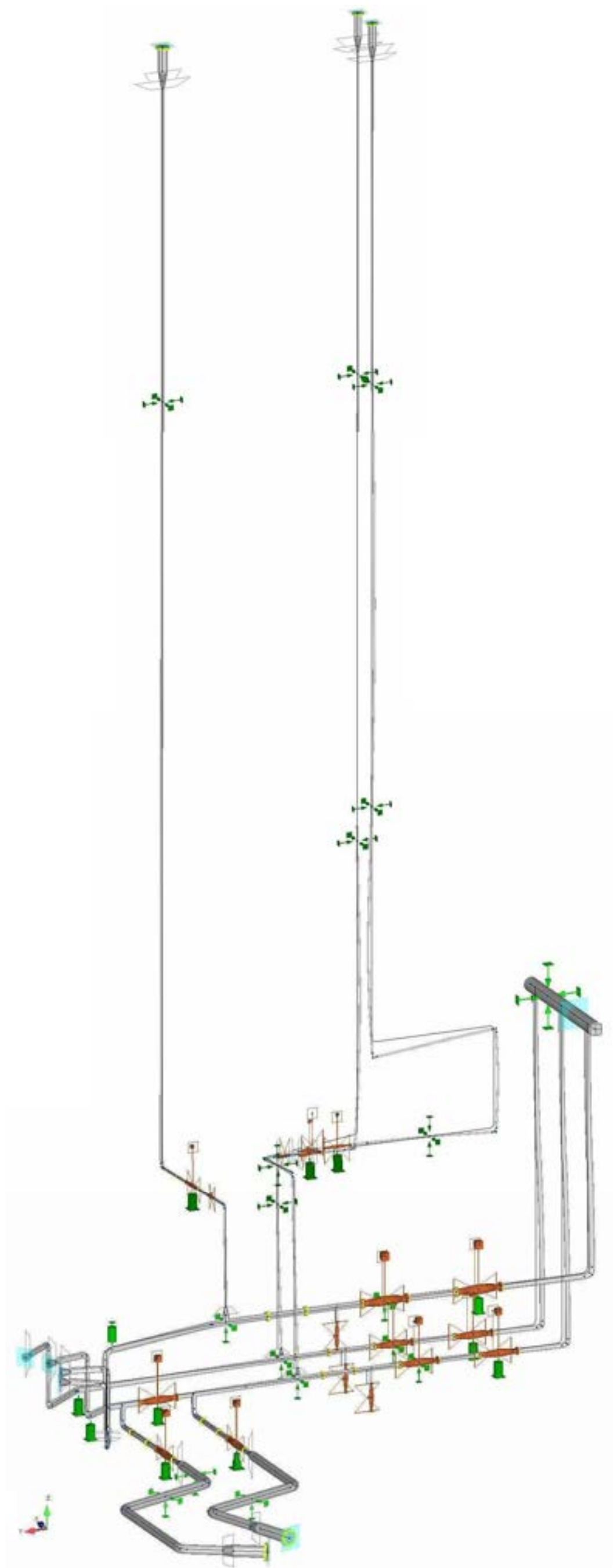


Figura A1-76: FL caso 2: Visualizzazione degli spostamenti del circuito sotto l'effetto combinato del peso del sistema e del suo contenuto

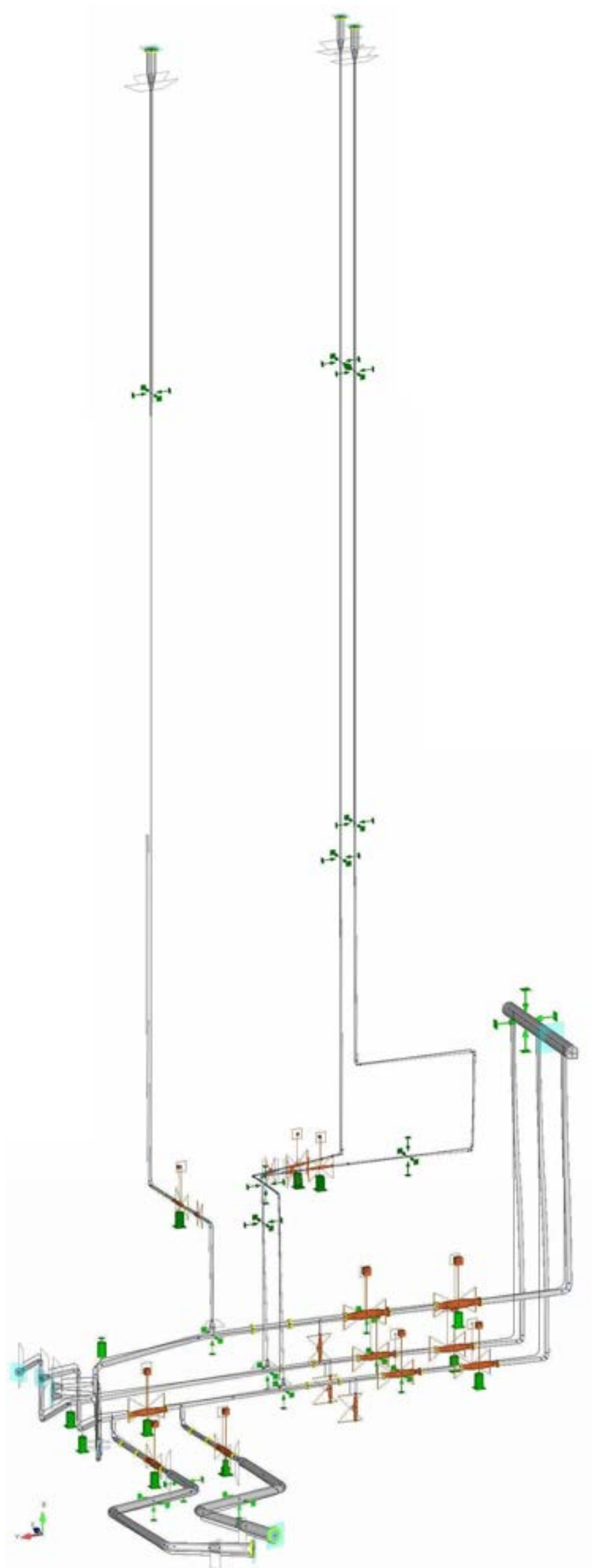


Figura A1-77: FL caso 3: Visualizzazione degli spostamenti del circuito sotto l'effetto combinato del peso del sistema e del suo contenuto

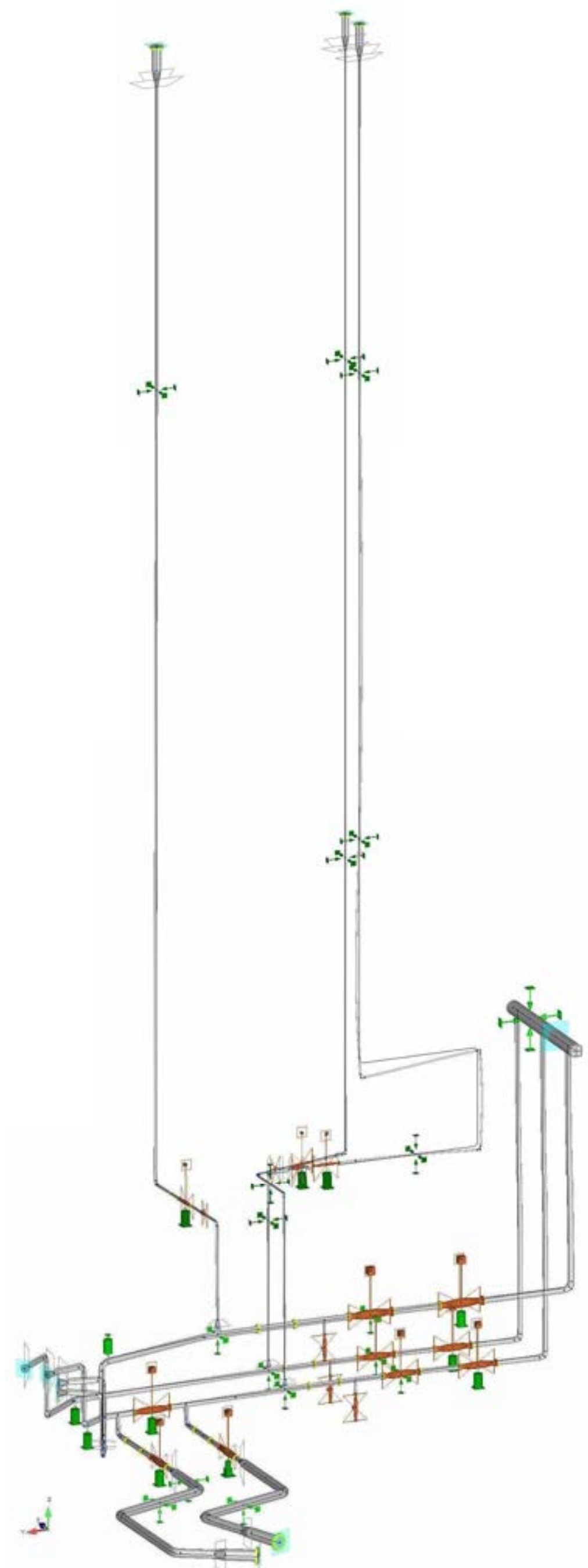


Figura A1-78: FL caso 4: Visualizzazione degli spostamenti del circuito sotto l'effetto combinato del peso del sistema e del suo contenuto

A1.5 SL

Le linee che fanno parte del gruppo SL sono riportate in Tabella 6-1. Come per il gruppo FL, anche in questo caso, le tre SL sono simulate fino al collettore del vapore che, insieme alla porzione di linee a valle delle valvole di isolamento, fa parte degli ausiliari. Ciò ha consentito lo studio e la verifica globale del gruppo con Autopipe. Il collettore è un recipiente in pressione e, come tale, soggetto ad una verifica PED separata. In questo caso è stato schematizzato come un tubo chiuso all'estremità da flange cieche, pur consapevoli dei limiti che comporta questa schematizzazione con Autopipe.

Il gruppo SI è stato verificato in cinque condizioni.

- Nel primo caso si è studiata la condizione di esercizio stazionario. Alle SL sono state imposte le condizioni di normale funzionamento con vapore surriscaldato, mentre alle HL degli EHRS è stato attribuito vapore saturo. La parte delle linee di rottura, lato contenimento, a pressione e temperatura ambiente.
- Nel secondo caso si è studiata l'influenza della rottura del DVI-B sul gruppo SL con le condizioni del sistema dopo l'isolamento dei circuiti secondari.
- Nel terzo caso si è studiato il sistema a seguito della rottura della SL-B a partire dalle condizioni stazionarie di esercizio.
- Il quarto caso studia il sistema alle le condizioni che si verificano nell'impianto, subito dopo la rottura, vista la rapidità di questo transitorio. A 2 s dalla rottura, la SL-B si è depressurizzata, mentre le SL-A e SL-C sono ancora in condizioni simili a quelle iniziali. Come nel caso della rottura della FL-B, l'EHRS-C non interviene neppure per la rottura della SL-B.
- Il quinto caso rappresenta la condizione conseguente alla rottura della SL-B con la perdita del sistema EHRS-B ad essa collegato.

In Figura A1-79 è rappresentato il gruppo di linee SL con indicate le “size” e le schedule di tubi e flange i supporti e le lunghezze dei tratti di tubazione.

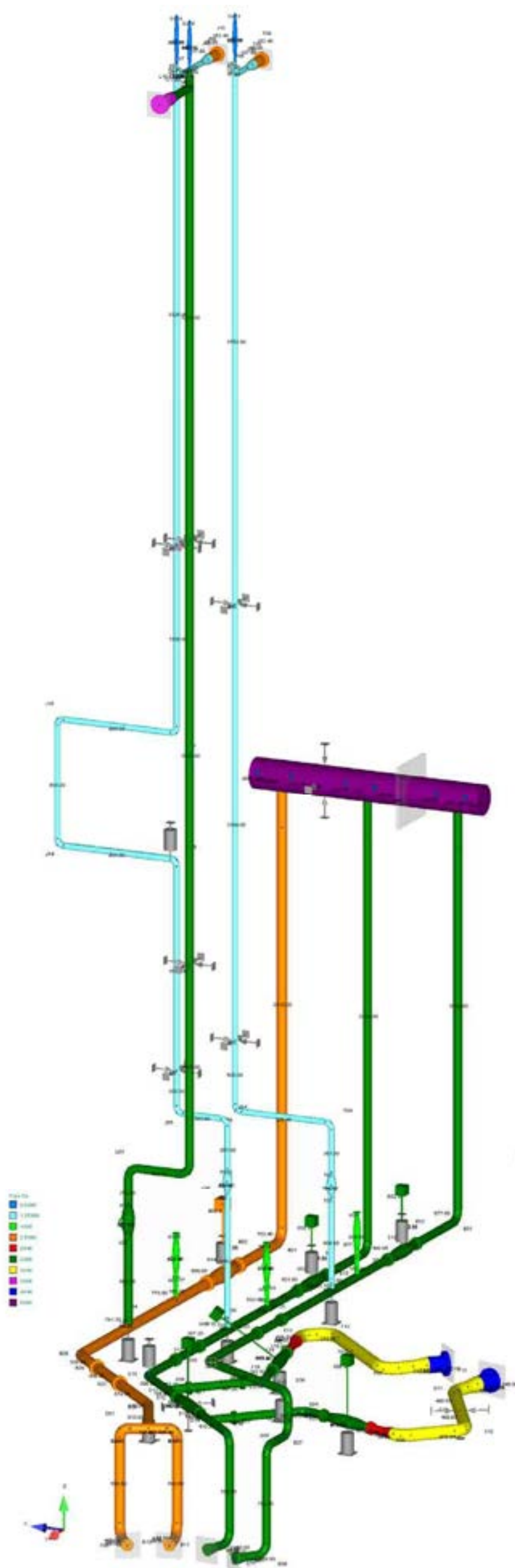


Figura A1-79: Gruppo di linee delle SL

I dettagli delle 5 condizioni operative prese in esame per la verifica sono riportati in seguito.

- **Caso 1: condizioni stazionarie di funzionamento**

Le condizioni stazionarie di funzionamento del gruppo SL prevedono vapore surriscaldato nelle SL (P=5.83 MPa, T=320 °C) e vapore saturo nelle HL degli EHRS (P=5.83 MPa, T=274 °C). Alle linee di rottura sono imposte le condizioni ambiente (P=0.1 MPa, T=20 °C).

In Tabella A1. 20 sono indicati gli spostamenti, diversi da zero, attribuiti a ciascun incastro in corrispondenza delle flange. I bocchelli di collegamento delle FL al RV subiscono lo spostamento corrispondente alla dilatazione dei bocchelli del vessel.

Incastri - Dilatazioni termiche differenziali					
quota bocchello [mm]	linea	Δz (bocchello-ancoraggio serbatoio) [mm]	ΔT [°C]	$\alpha \cdot \Delta T$	dilatazione [mm]
16083	SL-A to RVa	-6001.08	334	0.007238	43.43
16083	SL-B to RVb	-6001.08	334	0.007238	43.43
16083	SL-C to RVc1	-6001.08	334	0.007238	43.43
16083	SL-C to RVc2	-6001.08	334	0.007238	43.43
25698	HL EHRS-A	-3825.88	254	0.005403	20.67
25698	HL EHRS-B	-3825.88	254	0.005403	20.67
25698	HL EHRS-C	-3825.88	254	0.005403	20.67

Tabella A1. 20: FL caso 1: spostamenti degli incastri in corrispondenza delle flange

Le pressioni delle linee nel caso 1 sono mostrate in Figura A1-80 e le temperature in Figura A1-81.

I risultati delle -verifiche strutturali, eseguite per la condizione operativa esaminata, sono riportati in Figura A1-82, Figura A1-83, Figura A1-84.

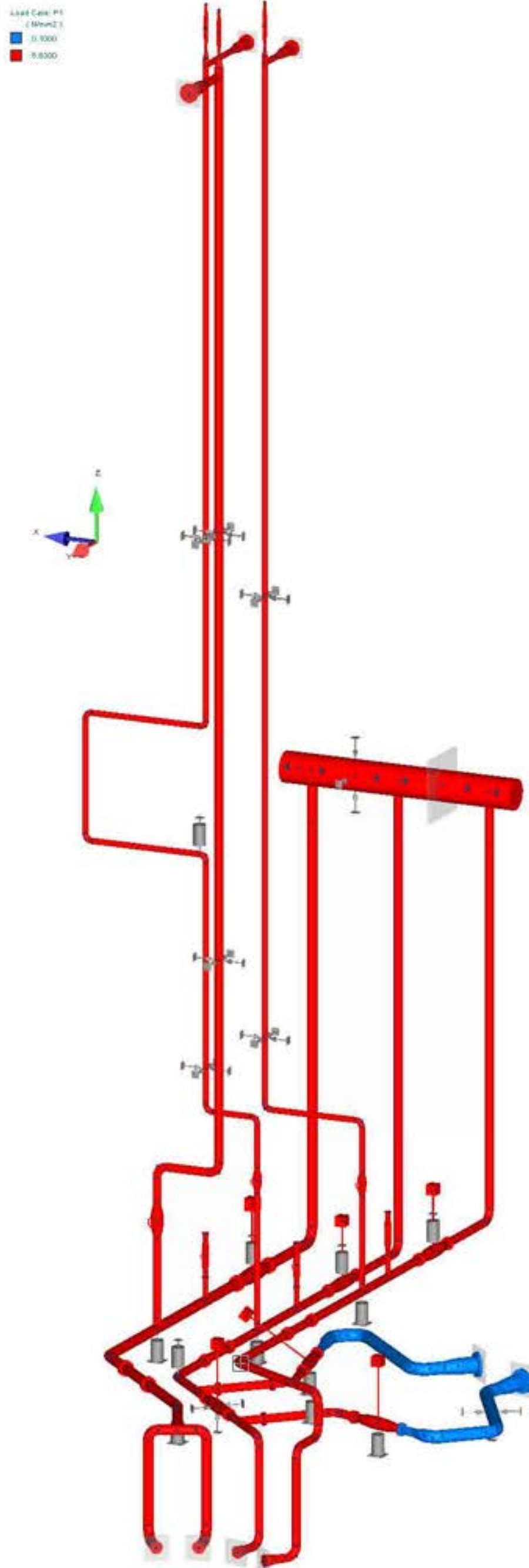


Figura A1-80: SL caso 1: Pressioni

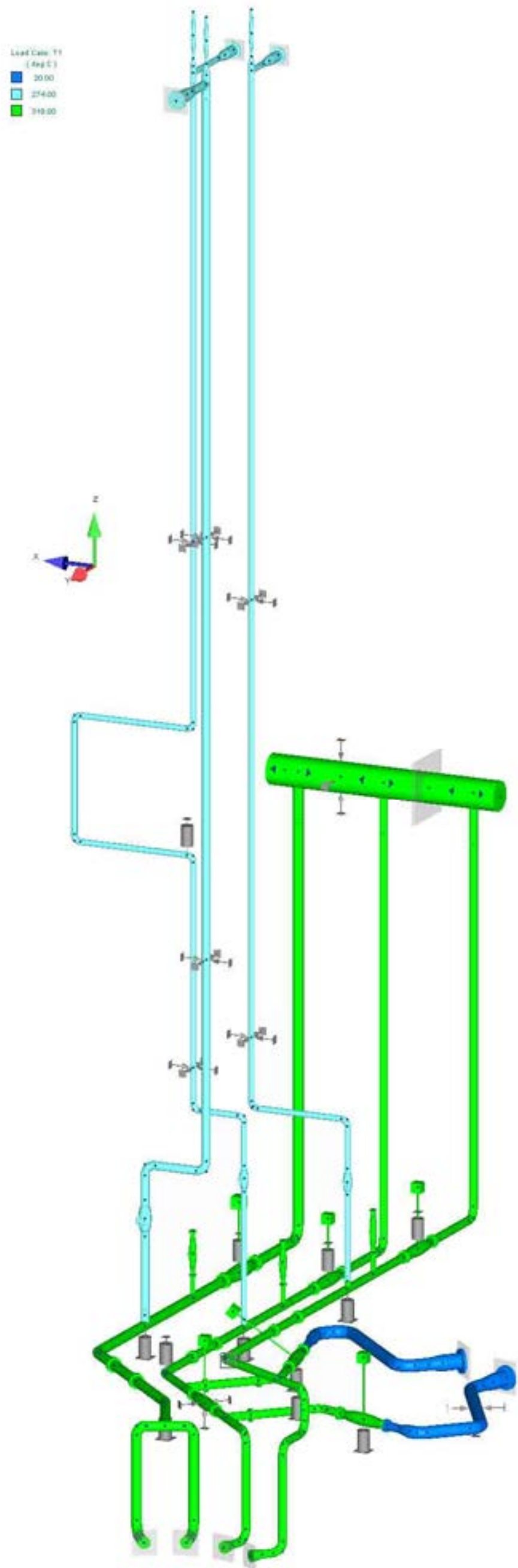


Figura A1-81: SL caso 1: Temperature

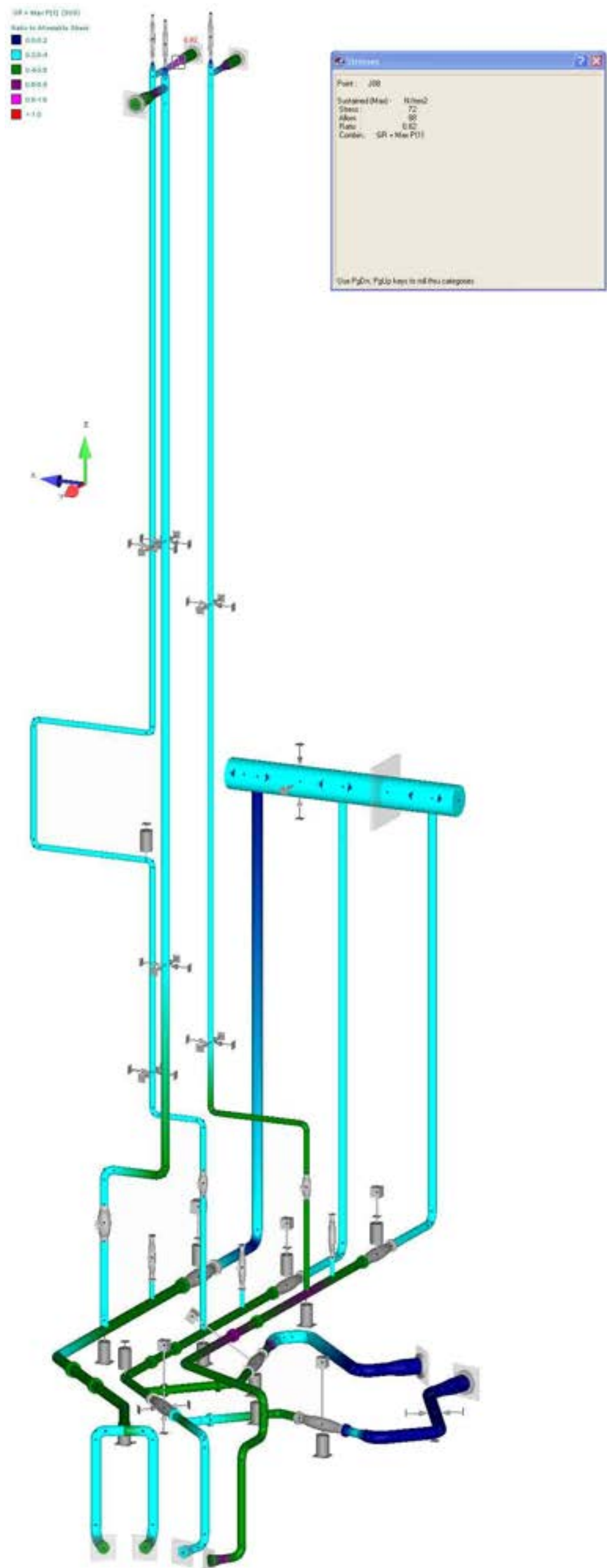


Figura A1-82: SL caso 1: Tensioni dovute a pressione, peso proprio del sistema e del suo contenuto, carichi meccanici (SUS)

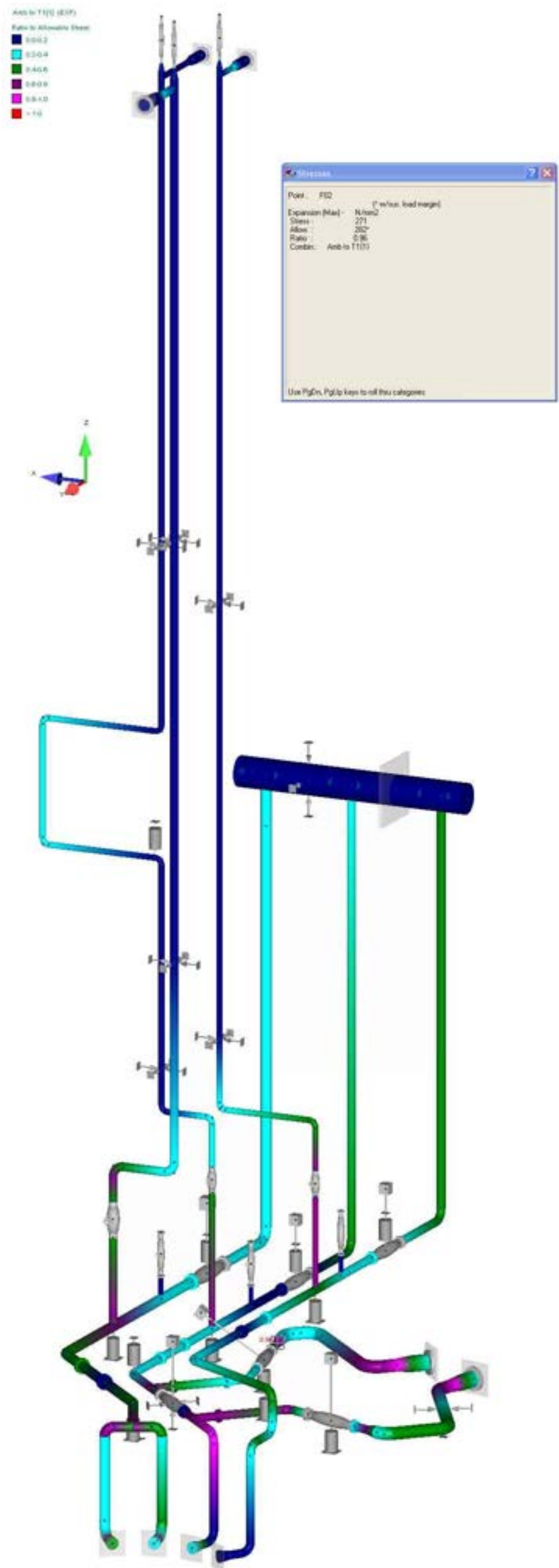


Figura A1-83: SL caso 1: Tensioni dovute ai carichi termici

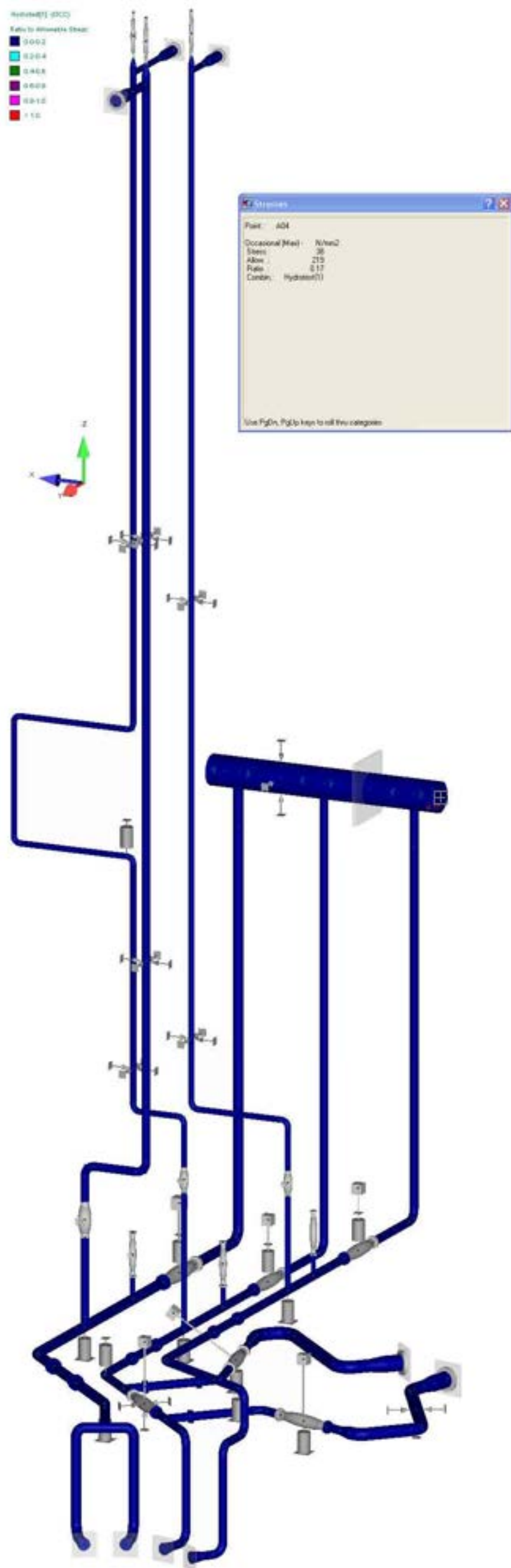


Figura A1-84: SL Prova idraulica

• **Caso 2: rottura del DVI-B**

A seguito della rottura del DVI-B e l'isolamento dei circuiti secondari, in questi ultimi si produce un picco di pressione, successivamente smaltito dalla rimozione del calore da parte degli EHRS.

Per la verifica di questo caso, alle SL sono state imposte le condizioni relative al picco di pressione nel secondario ($P=11.5$ MPa, $T=347$ °C), come da calcoli RELAP5 [7]. Le HL degli EHRS sono state considerate alla stessa pressione di picco, ma in condizioni di saturazione ($T = 322$ °C). Le linee di rottura della SL-B, lato contenimento, sono pressurizzate dal DW sono state verificate a condizioni ambiente (1.5 MPa, 20 °C).

Le SL, valle delle valvole di isolamento, sono state considerate alle condizioni stazionarie di esercizio ($P=5.83$ MPa, $T= 224$ °C).

In Tabella A1. 21 sono indicati gli spostamenti, diversi da zero, attribuiti a ciascun incastro in corrispondenza delle flange, nella condizione di carico 2. I bocchelli di SL break split e deg, pur essendo le linee fredde, subiscono la dilatazione termica dei bocchelli del DW cui sono collegati, discorso analogo vale per i bocchelli collegati al vessel.

Incastri - Dilatazioni termiche differenziali					
quota bocchello [mm]	linea	Δz (bocchello-ancoraggio serbatoio) [mm]	ΔT [°C]	$\alpha \cdot \Delta T$	dilatazione [mm]
16845	slSPLIT	-6942.63	0	0.003718	25.82
16845	slDEG	-6942.63	0	0.003718	25.82
16083	sltoRVa	-6001.08	334	0.007238	43.43
16083	sltoRVb	-6001.08	334	0.007238	43.43
16083	sltoRVc1	-6001.08	334	0.007238	43.43
16083	sltoRVc2	-6001.08	334	0.007238	43.43
25698	sltoehrsa	-3825.88	302	0.00645	24.68
25698	sltoehrsb	-3825.88	302	0.00645	24.68
25698	sltoehrsc	-3825.88	302	0.00645	24.68

Tabella A1. 21: SL caso 2: spostamenti degli incastri in corrispondenza delle flange

Le pressioni delle linee nel caso 2 sono mostrate in Figura A1-85 e le temperature in Figura A1-86. I risultati delle verifiche strutturali, eseguite per la condizione operativa esaminata, sono riportati in Figura A1-87.

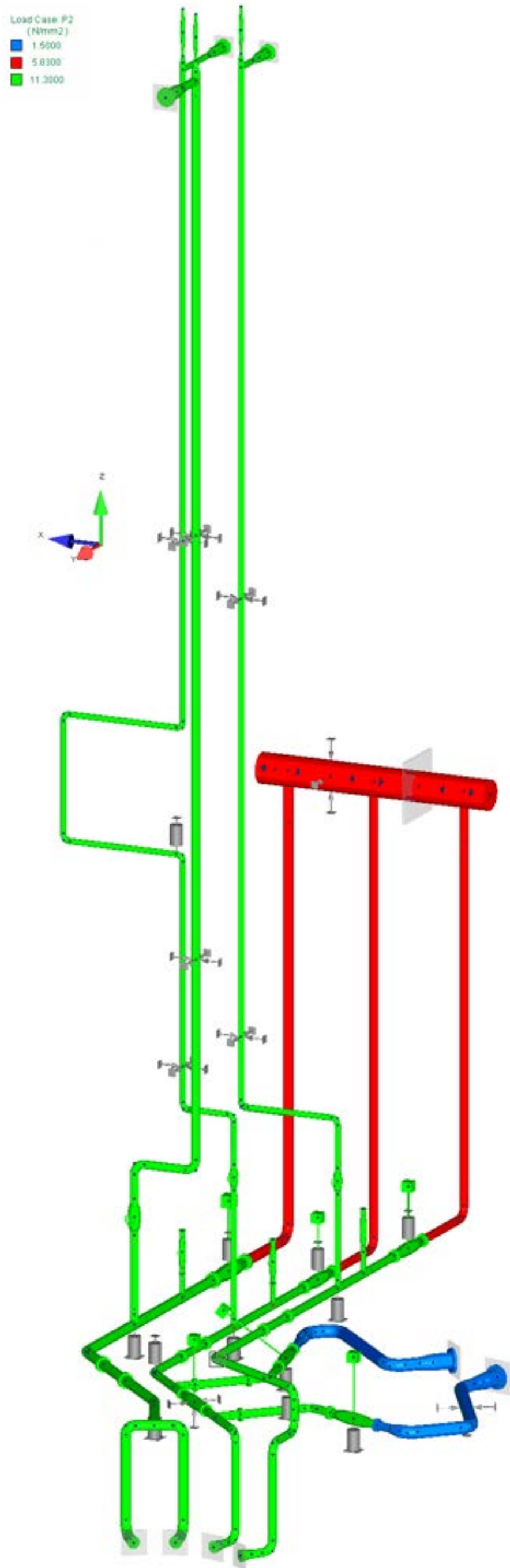


Figura A1-85: SL caso 2: Pressioni

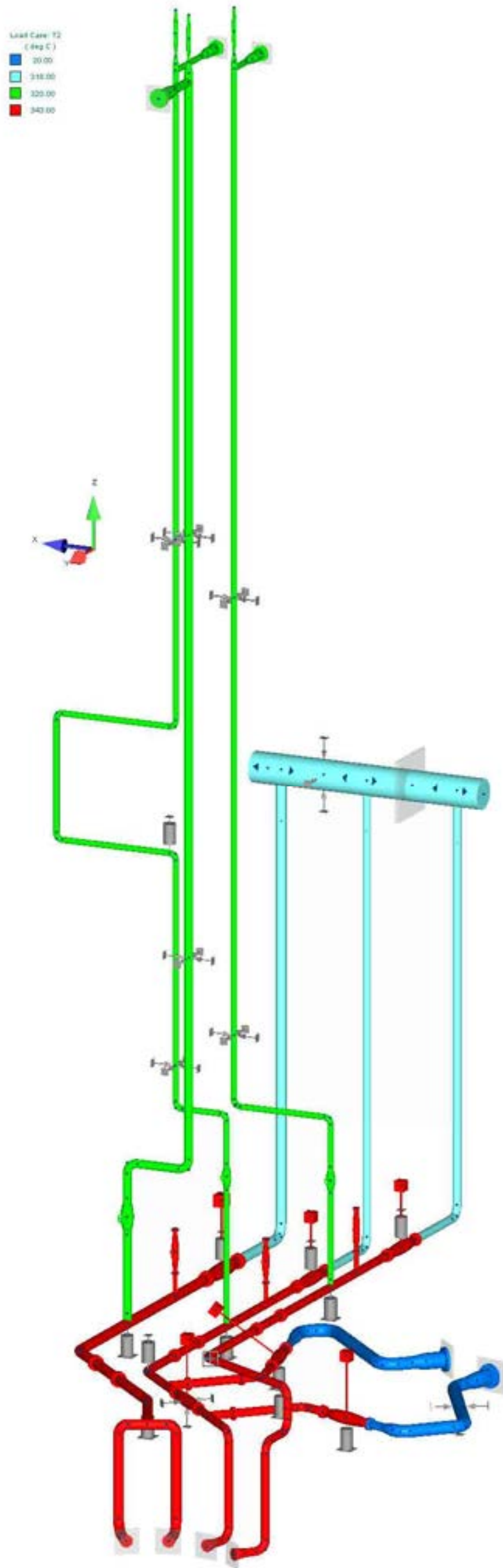


Figura A1-86: SL caso 2: Temperature

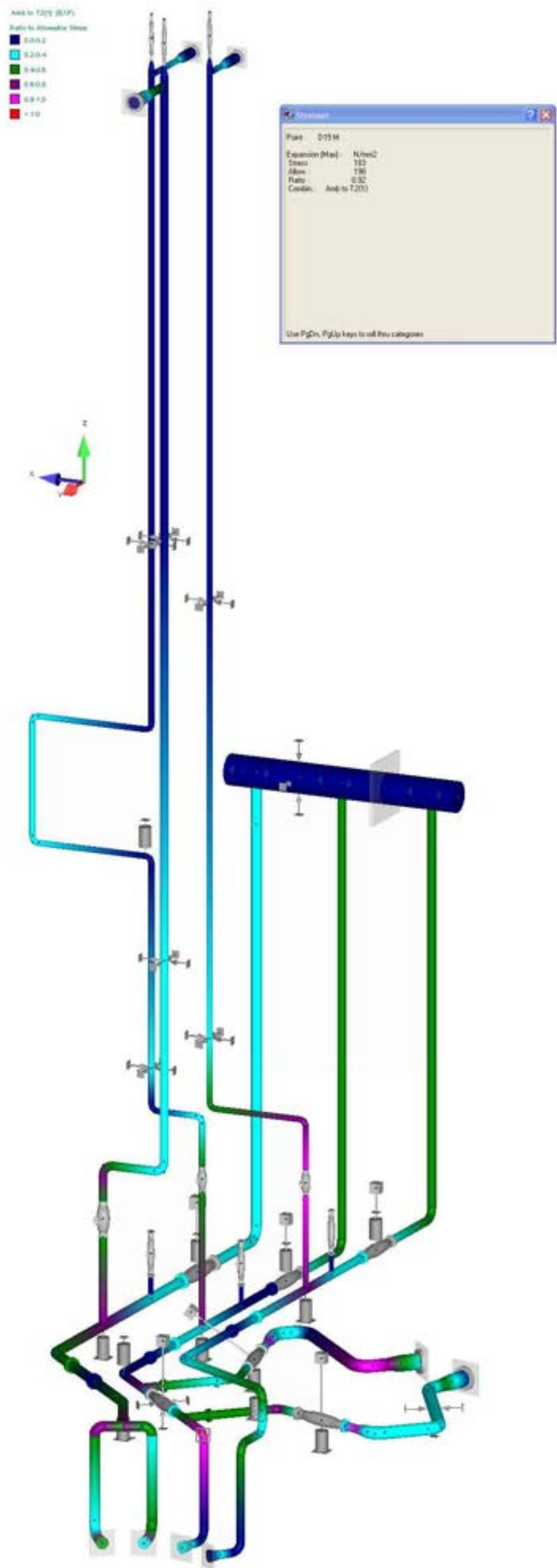


Figura A1-87: SL caso 2: Tensioni dovute ai carichi termici

• **Caso 3: rottura della SL-B**

Il caso della rottura della SL-B si è studiato a partire dalle condizioni stazionarie di esercizio dei circuiti secondari, ossia vapore surriscaldato nelle SL ($P=5.83$ MPa, $T=320$ °C) e vapore saturo nelle HL degli EHRS ($P=5.83$ MPa, $T=274$ °C). Le condizioni imposte alle linee di rottura sono invece quelle di progetto del contenimento ($P= 1.5$ MPa, $T = 198$ °C).

In Tabella A1. 22 sono indicati gli spostamenti, diversi da zero, attribuiti a ciascun incastro in corrispondenza delle flange, nella condizione di carico 3.

Incastri - Dilatazioni termiche differenziali					
quota bocchello [mm]	linea	Δz (bocchello-ancoraggio serbatoio) [mm]	ΔT [°C]	$\alpha \Delta T$	dilatazione [mm]
16845	slSPLIT	-6942.63	178	0.003718	25.82
16845	slIDEG	-6942.63	178	0.003718	25.82
16083	sltoRVa	-6001.08	334	0.007238	43.43
16083	sltoRVb	-6001.08	334	0.007238	43.43
16083	sltoRVc1	-6001.08	334	0.007238	43.43
16083	sltoRVc2	-6001.08	334	0.007238	43.43
25698	sltoehrsa	-3825.88	254	0.005403	20.67
25698	sltoehrsb	-3825.88	254	0.005403	20.67
25698	sltoehrsc	-3825.88	254	0.005403	20.67

Tabella A1. 22: SL caso 3: spostamenti degli incastri in corrispondenza delle flange

Le pressioni delle linee nel caso 3 sono mostrate in Figura A1-88 e le temperature in Figura A1-89.

I risultati delle verifiche strutturali, eseguite per la condizione operativa esaminata, sono riportati in Figura A1-90.

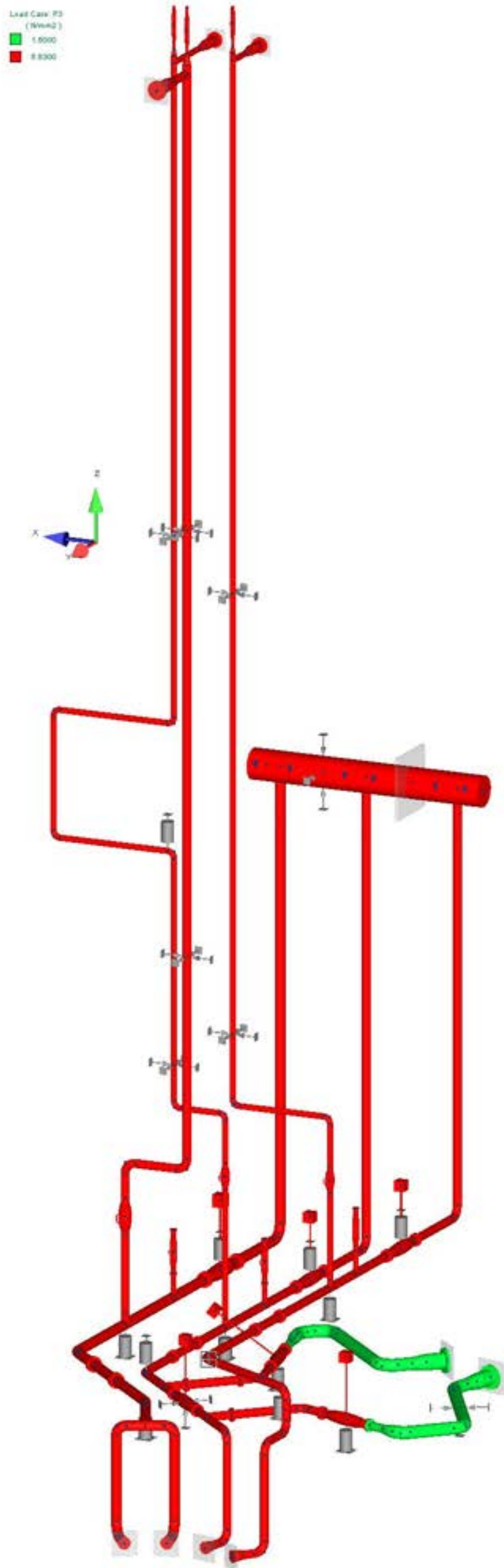


Figura A1-88: SL caso 3: Pressioni

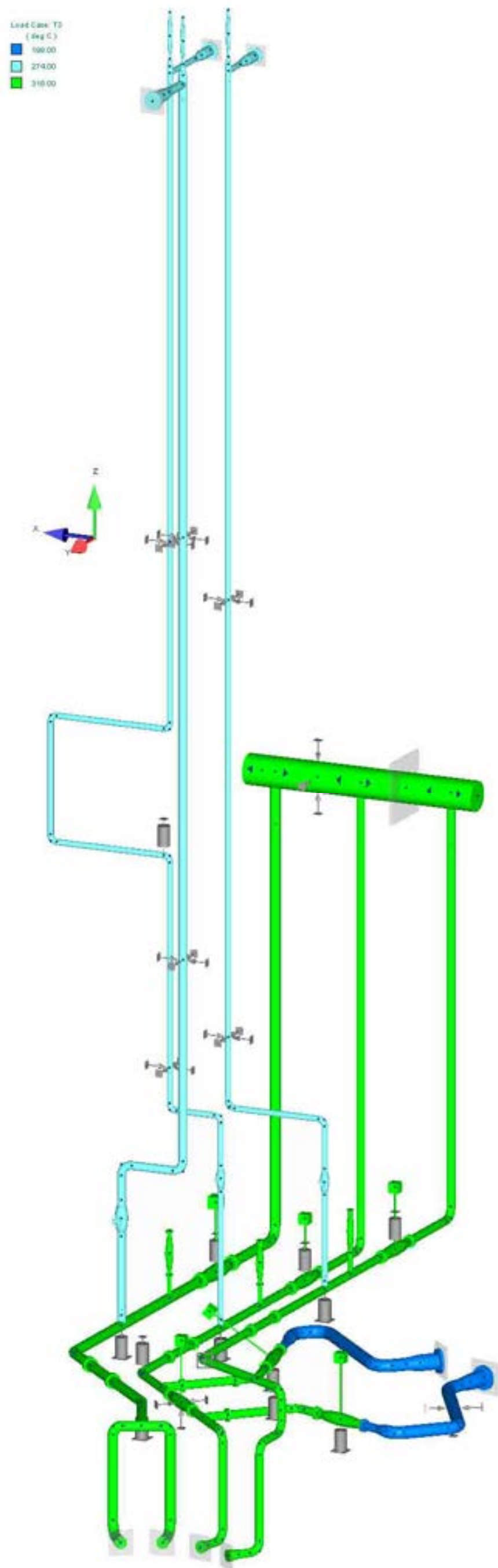


Figura A1-89: SL caso 3: Temperature

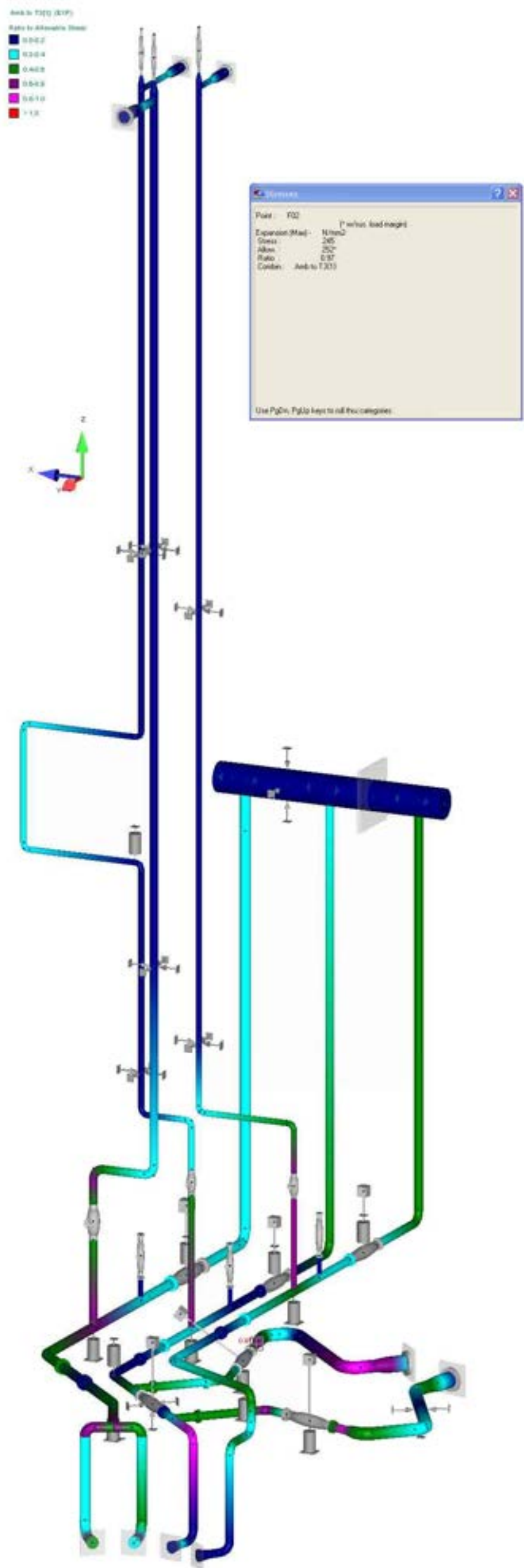


Figura A1-90: SL caso 3: Tensioni dovute ai carichi termici

• **Caso 4: 2 secondi dopo la rottura della SL-B**

Il transitorio di rottura della SL-B è molto rapido [7] e, per la verifica del gruppo SL, si è reso necessario studiare il sistema nei primi istanti dopo la rottura.

Nei primi 2 s successivi alla rottura, la pressione nella SL-B diminuisce rapidamente e le condizioni imposte alla linea per la verifica sono $P=3.47$ MPa e $T=259$ °C. Le condizioni di SL-A e SL-C sono invece molto simili a quelle iniziali ($P=5.2$ MPa, $T = 306$ °C). Le HL degli EHRS sono alla temperatura di saturazione corrispondente alla pressione delle SL: HL-B $T=242$ °C; HL-A e HL-C $T=265.5$ °C. Le linee di rottura vengono verificate alle condizioni di progetto del contenimento. La porzione delle SL a valle delle valvole di isolamento si trova alle condizioni di normale funzionamento ($P=5.83$ Mpa, $T= 224$ °C)

In Tabella A1. 23 sono indicati gli spostamenti, diversi da zero, attribuiti a ciascun incastro in corrispondenza delle flange.

Incastri - Dilatazioni termiche differenziali					
quota bocchello [mm]	linea	Δz (bocchello-ancoraggio serbatoio) [mm]	ΔT [°C]	$\alpha \Delta T$	dilatazione [mm]
16845	SL-B SPLIT	-6942.63	178	0.003718	25.82
16845	SL-B DEG	-6942.63	178	0.003718	25.82
16083	SL-A to RVa	-6001.08	334	0.007238	43.43
16083	SL-B to RVb	-6001.08	334	0.007238	43.43
16083	SL-C to RVc1	-6001.08	334	0.007238	43.43
16083	SL-C to RVc2	-6001.08	334	0.007238	43.43
25698	HL-EHRS-A	-3825.88	245.5	0.005234	20.02
25698	HL EHRS-B	-3825.88	222	0.004686	17.93
25698	HL EHRS-C	-3825.88	245.5	0.005234	20.02

Tabella A1. 23: SL caso 4: spostamenti degli incastri in corrispondenza delle flange

Le pressioni delle linee nel caso 4 sono in Figura A1-91 e le temperature in Figura A1-92.

I risultati delle verifiche strutturali, eseguite per la condizione operativa esaminata, sono riportati in Figura A1-93

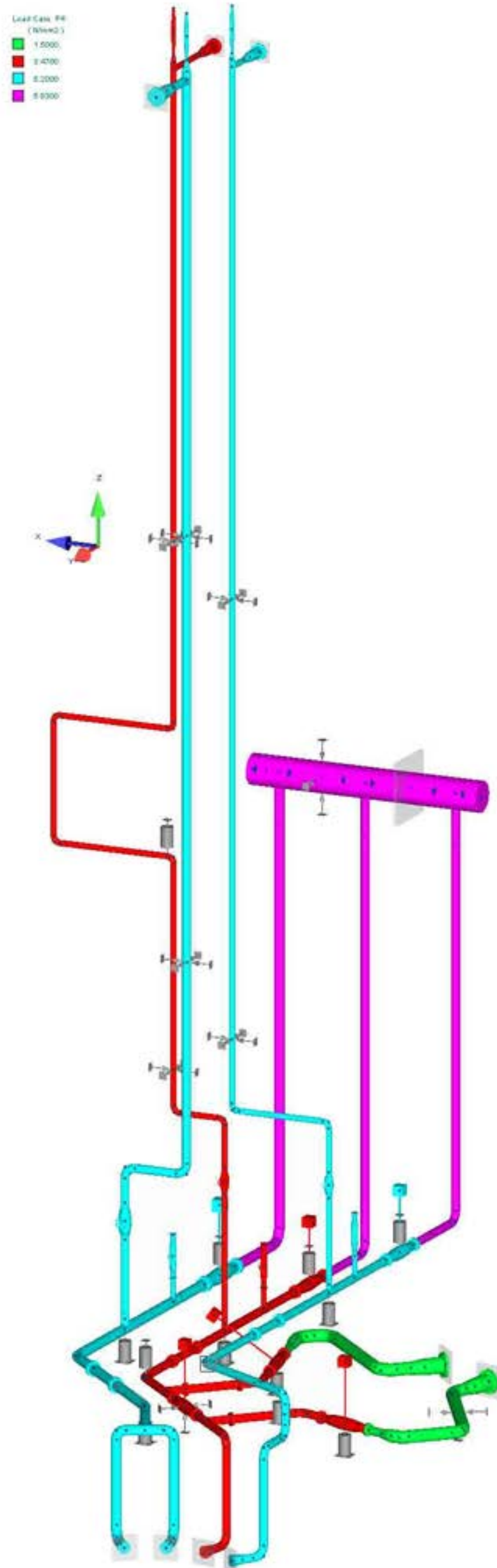


Figura A1-91: SL caso 4: Pressioni

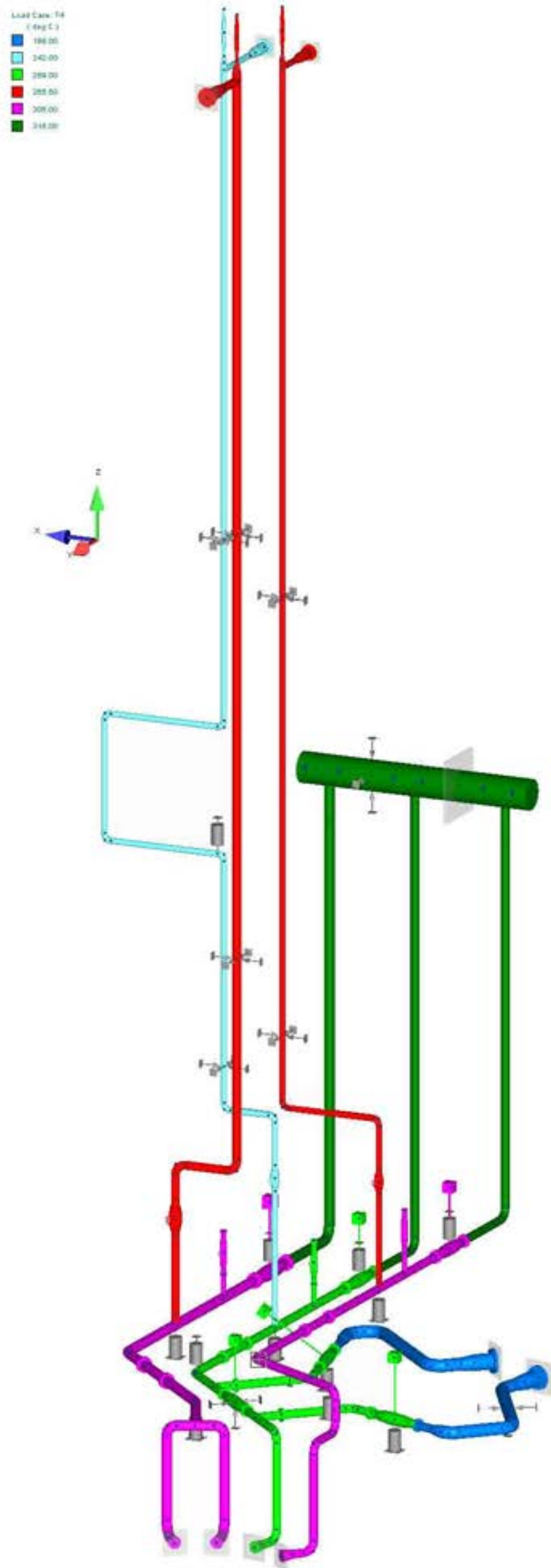


Figura A1-92: SL caso 4: Temperature

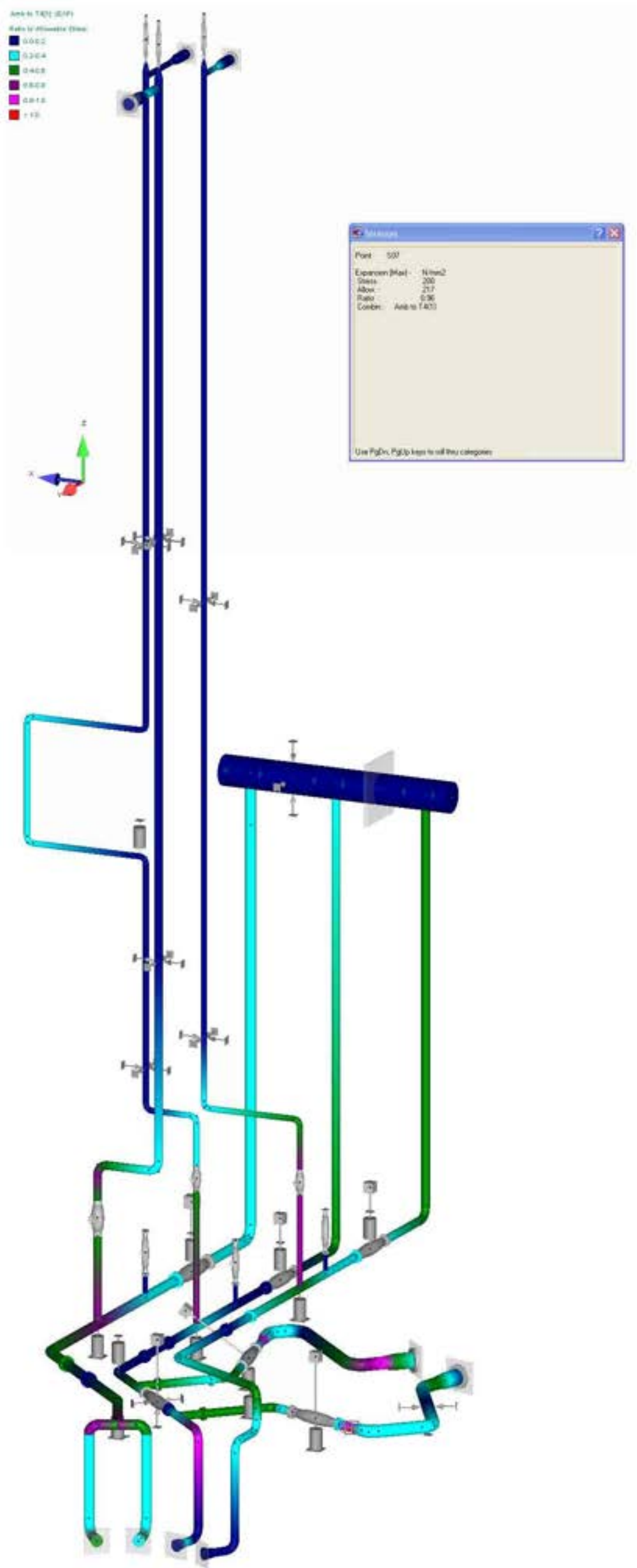


Figura A1-93: SL caso 4: Tensioni dovute ai carichi termici

• **Caso 5: Rottura della SL-B con perdita dell'EHRB-B**

Nel caso della rottura della SL-B, il relativo sistema EHRB-B perde di funzionalità. Le condizioni di pressione imposte alle SL-A e SL-C e relative HL dei sistemi EHRB-A e C sono quelle del picco di pressione nei secondari, dopo l'isolamento dei circuiti ($P=9.39$ MPa). La temperatura considerata è la corrispondente temperatura di saturazione ($T=306$ °C). La pressione imposta alla SL-B ed al relativo sistema EHRB-B è quella del contenimento al momento dell'equalizzazione con il secondario ($P = 0.19$ MPa) e la temperatura è quella di saturazione ($T=118$ °C). A valle delle valvole di isolamento sulle SL, le condizioni imposte sono quelle di esercizio dell'impianto ($P=5.83$ MPa, $T=224$ °C). Per il calcolo degli spostamenti verticali dei bocchelli sul vessel, si considerano le condizioni del primario al tempo in cui la pressione del circuito secondario rotto uguaglia quella del contenimento ($P= 15$ MPa, $T=342$ °C).

In Tabella A1. 24 sono indicati gli spostamenti, diversi da zero, attribuiti a ciascun incastro in corrispondenza delle flange.

Incastri - Dilatazioni termiche differenziali					
quota bocchello [mm]	linea	Δz (bocchello-ancoraggio serbatoio) [mm]	ΔT [°C]	$\alpha \Delta T$	dilatazione [mm]
16845	sISPLIT	-6942.63	98	0.002295	14
16845	sIDEG	-6942.63	98	0.002295	14
16083	sltoRVa	-6001.08	322	0.006964	41.79
16083	sltoRVb	-6001.08	322	0.006964	41.79
16083	sltoRVc1	-6001.08	322	0.006964	41.79
16083	sltoRVc2	-6001.08	322	0.006964	41.79
25698	sltoehrsa	-3825.88	286	0.00613	23.45
25698	sltoehrsb	-3825.88	98	0.002295	8.78
25698	sltoehrsc	-3825.88	286	0.00613	23.45

Tabella A1. 24: SL caso 5: spostamenti degli incastri in corrispondenza delle flange

Le pressioni delle linee nel caso 5 sono mostrate in Figura A1-94 e le temperature in Figura A1-95.

I risultati delle verifiche strutturali, eseguite per la condizione operativa esaminata, sono riportati in Figura A1-96.

Per ciascun caso esaminato, in Figura A1-97, Figura A1-98, Figura A1-99, Figura A1-100, Figura A1-101 è presentata la visualizzazione degli spostamenti dell'intero circuito nelle condizioni accoppiate GT (G=gravity e T=temperatura), ossia sotto l'effetto combinato del peso del sistema e del suo contenuto con le temperature. La condizione GT è quella che racchiude informazioni globali sulla deformata del sistema.

La rappresentazione degli spostamenti è amplificata di un fattore 5 per aumentarne la percezione.

L'entità degli spostamenti di ogni punto e lo spostamento massimo sono presentati nell'output del calcolo di verifica della linea con Autopipe, Allegato 6.

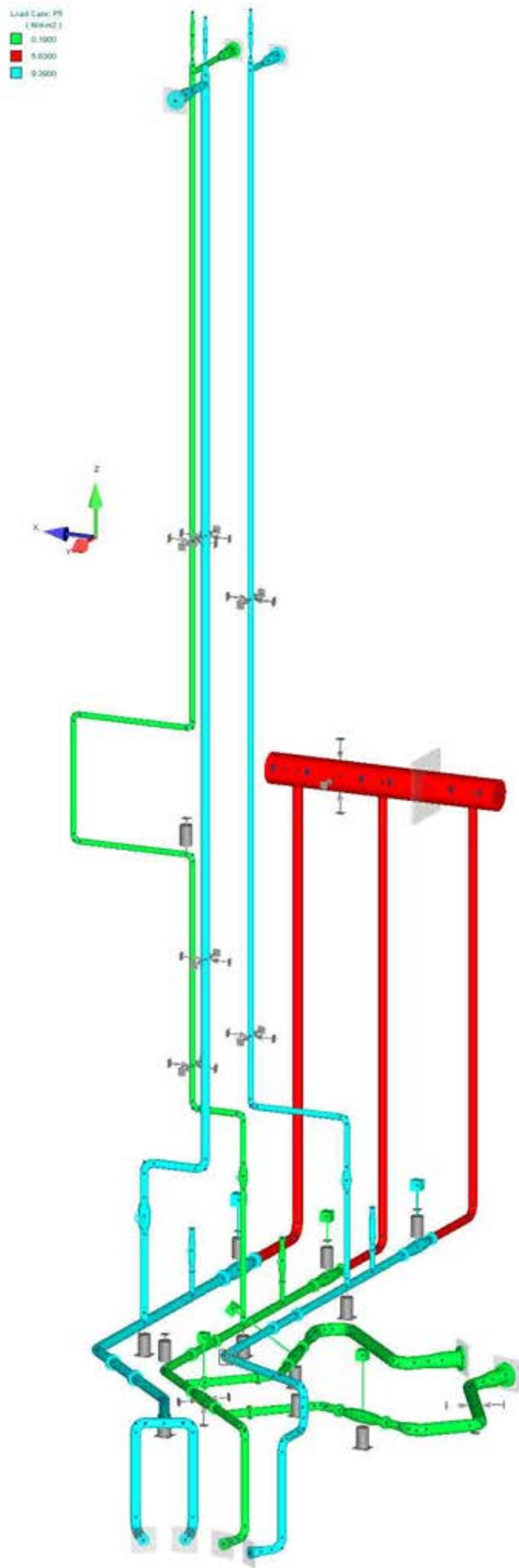


Figura A1-94: SL caso 5: Pressioni

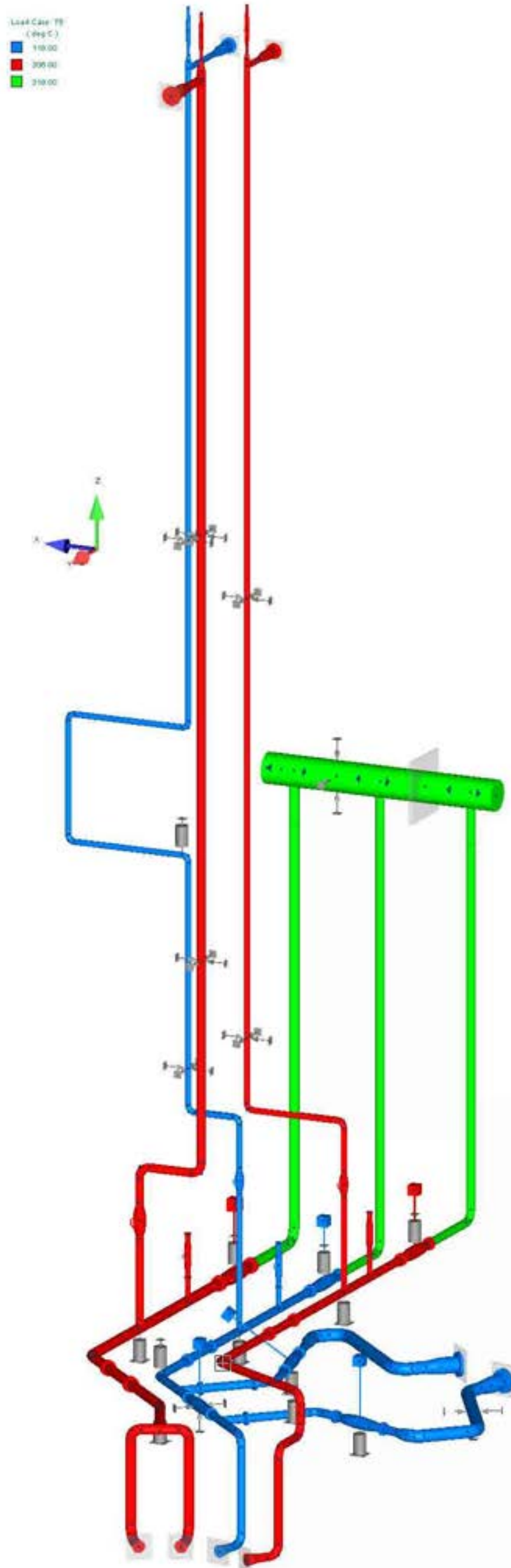


Figura A1-95: SL caso 5: Temperature

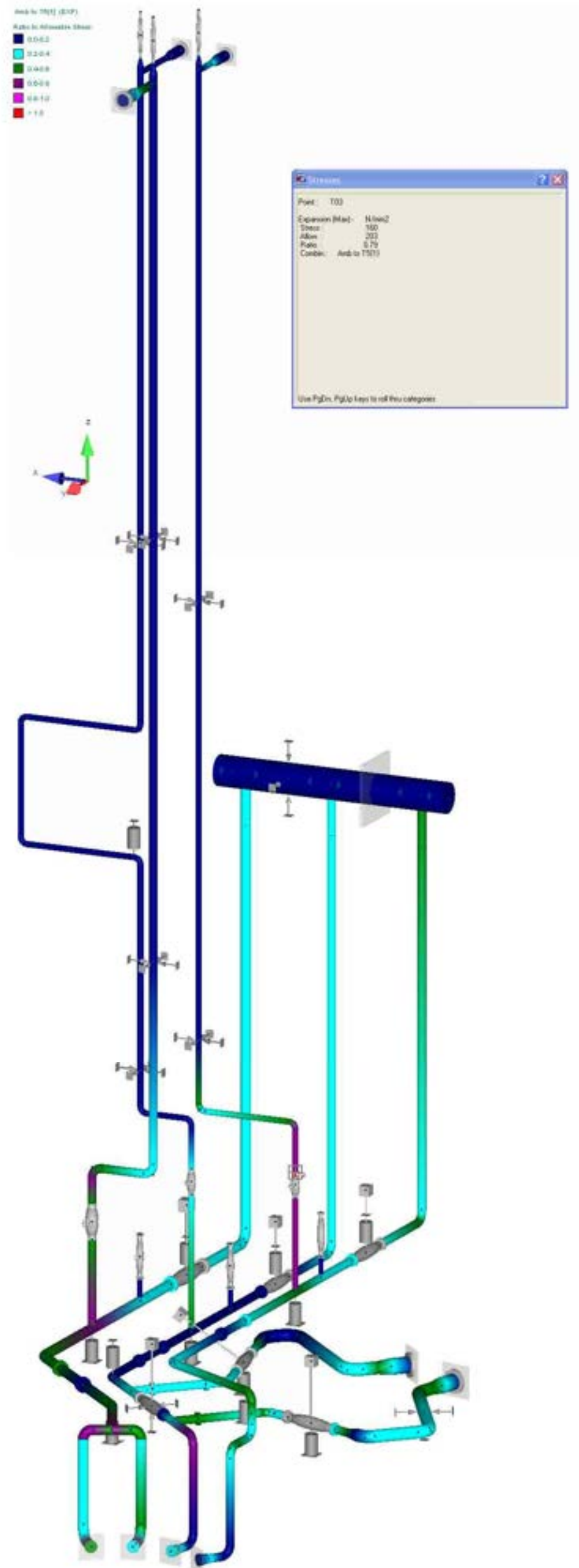


Figura A1-96: SL caso 5: Tensioni dovute ai carichi termici

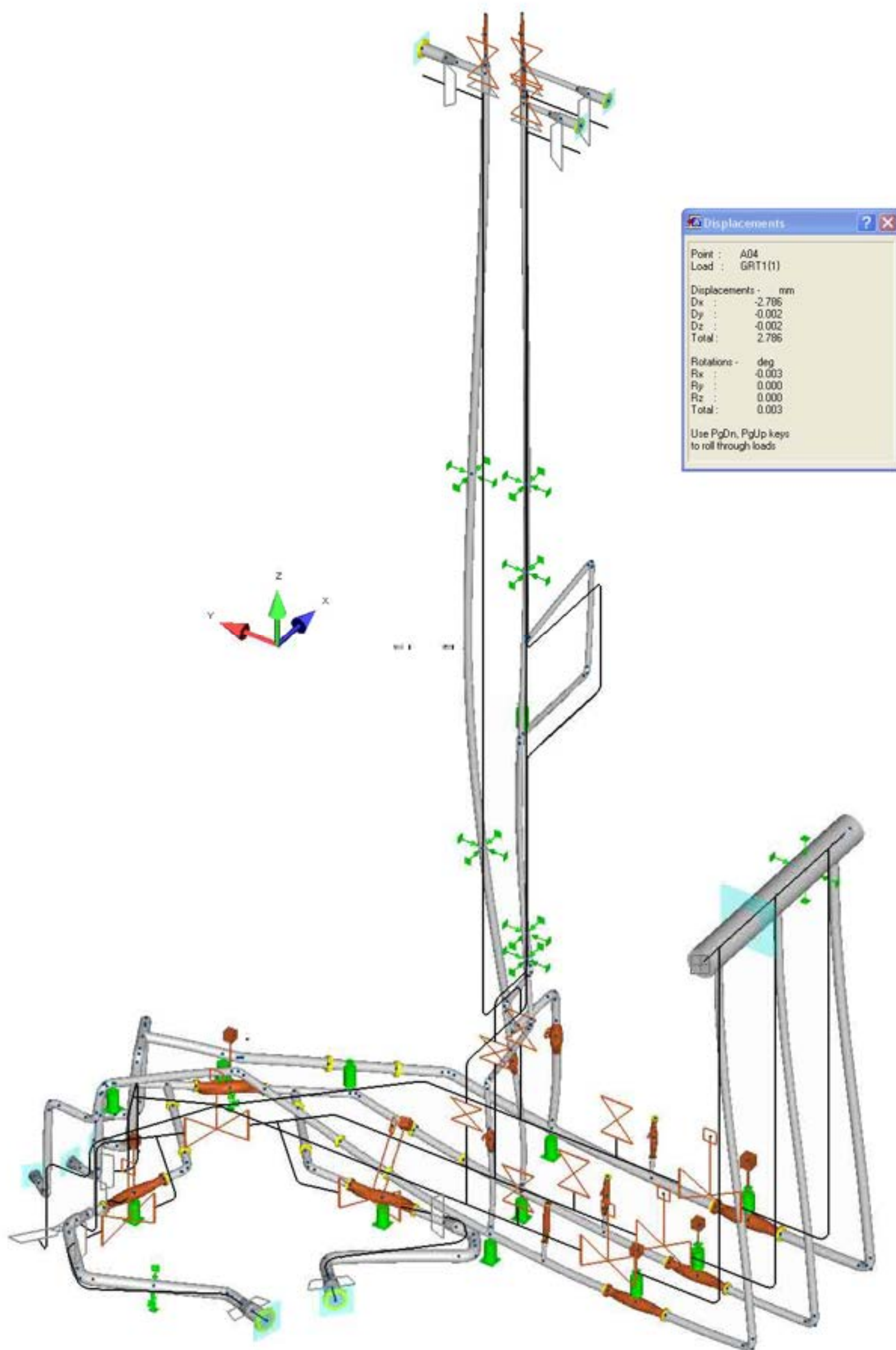


Figura A1-97: SL caso 1: Visualizzazione degli spostamenti del circuito sotto l'effetto combinato del peso del sistema e del suo contenuto

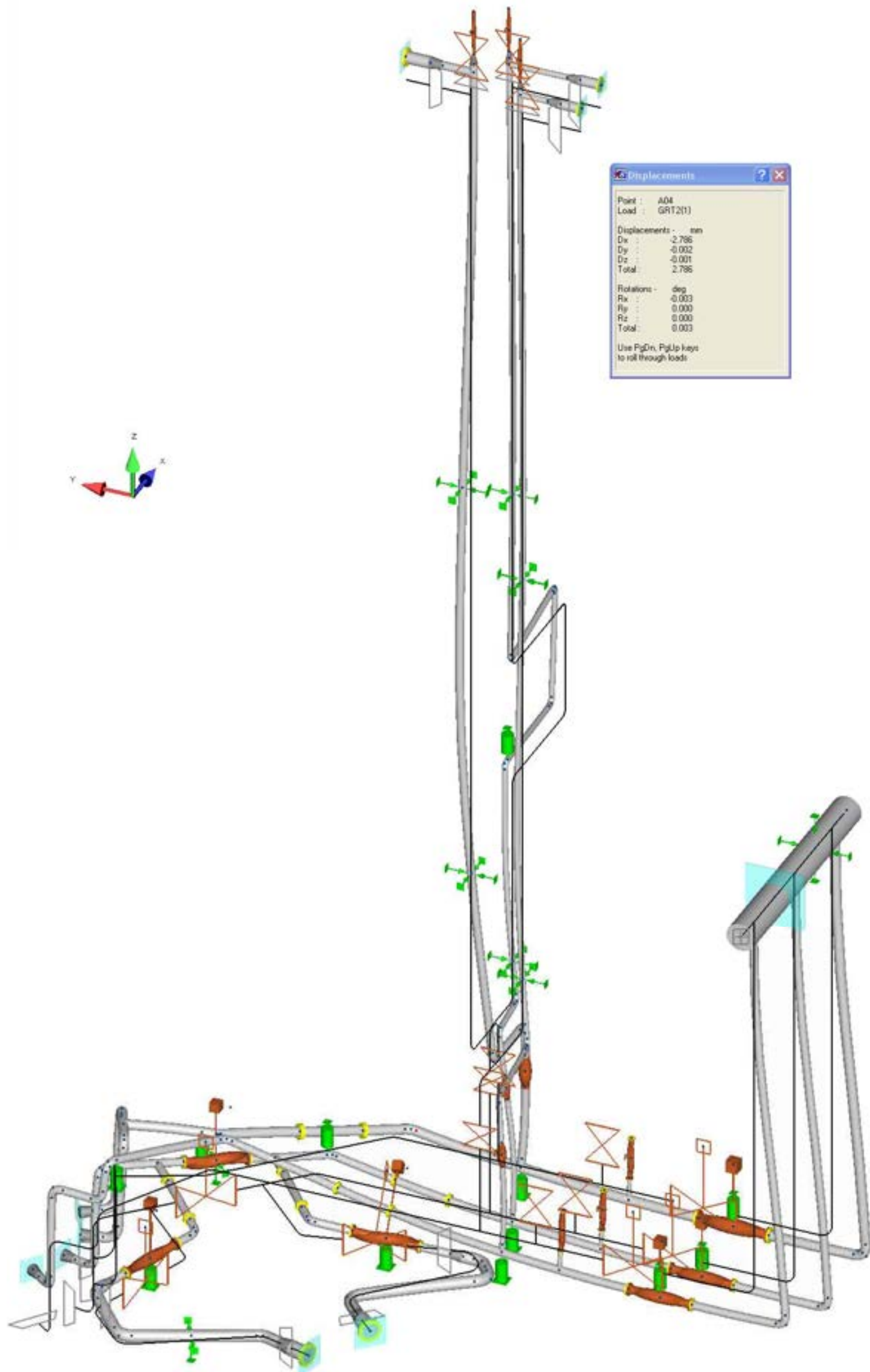


Figura A1-98: SL caso 2: Visualizzazione degli spostamenti del circuito sotto l'effetto combinato del peso del sistema e del suo contenuto

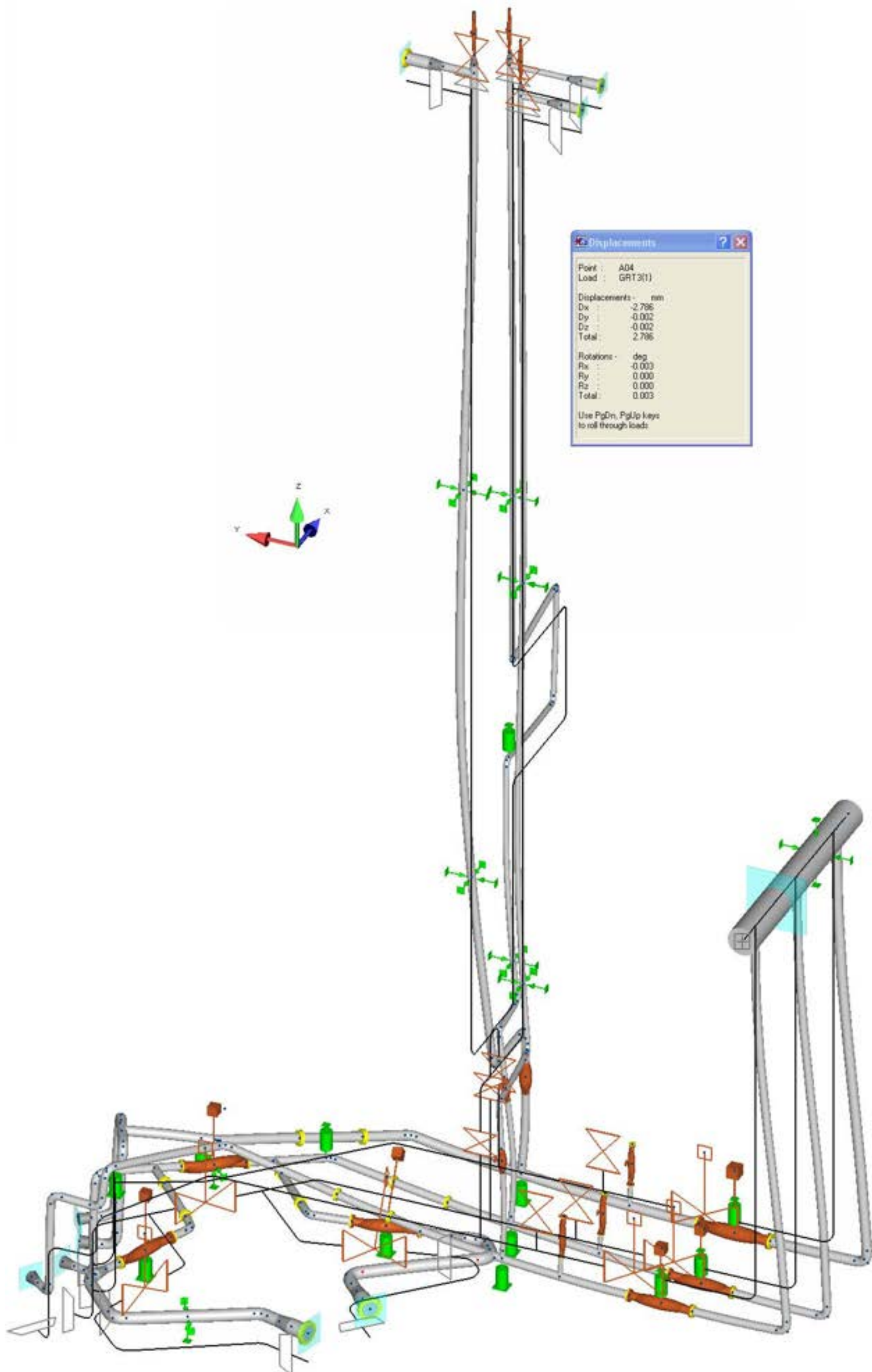


Figura A1-99: SL caso 3: Visualizzazione degli spostamenti del circuito sotto l'effetto combinato del peso del sistema e del suo contenuto

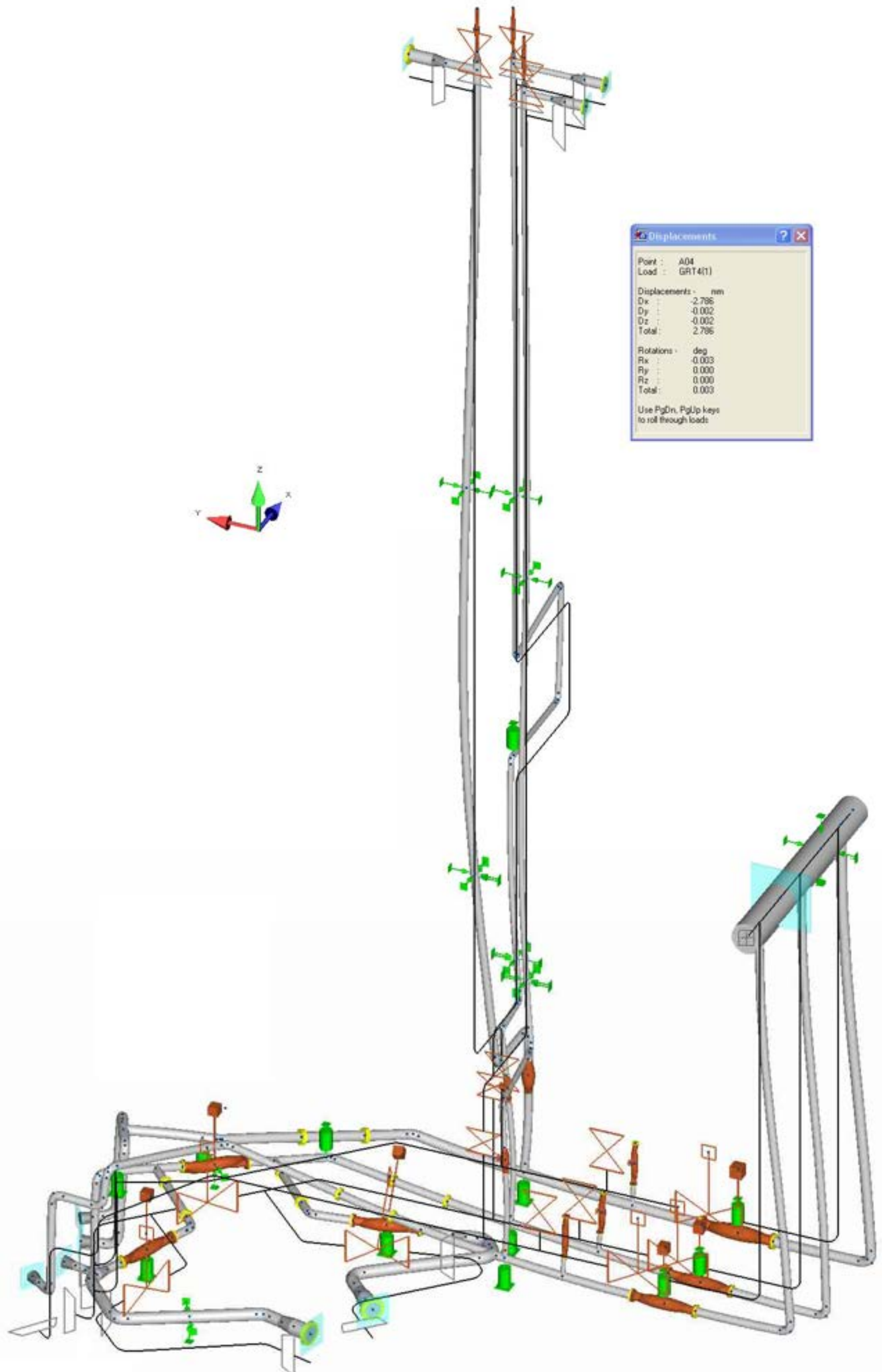


Figura A1-100: SL caso 4: Visualizzazione degli spostamenti del circuito sotto l'effetto combinato del peso del sistema e del suo contenuto

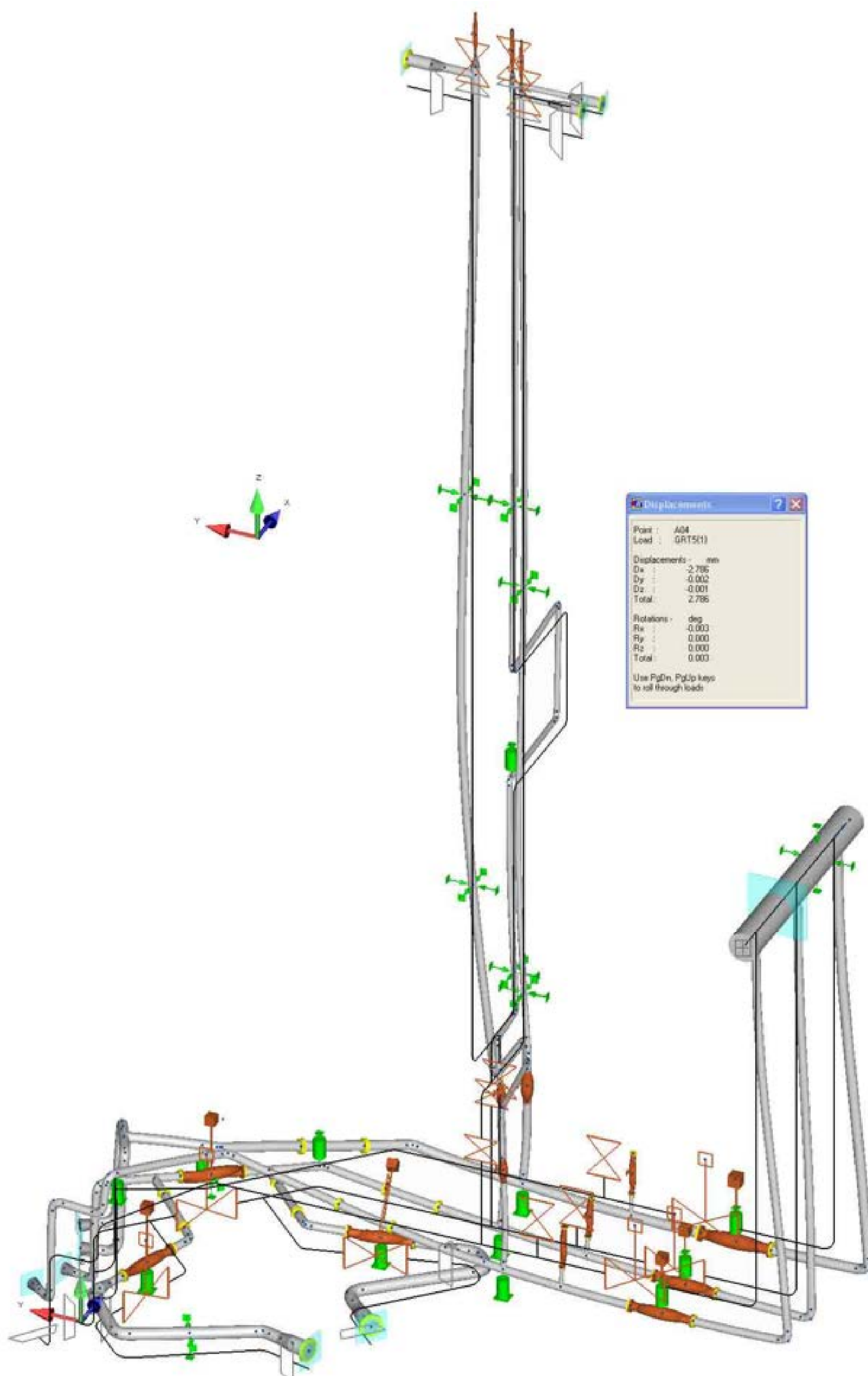


Figura A1-101: SL caso 5: Visualizzazione degli spostamenti del circuito sotto l'effetto combinato del peso del sistema e del suo contenuto

A1.6 DW to RC

Il collegamento tra DW e RC consiste di due linee separate che consentono il travaso del liquido da DW a RC e del gas da RC a DW, evitando fenomeni di CCFL [8]. Le linee sono riportate in Tabella 6-1. Essendo parte integrante del contenimento, sono state verificate alle condizioni di progetto dello stesso.

La linea del liquido è rappresentata in Figura A1-102 con indicate le “size” e le schedule di tubi e flange, le lunghezze dei tratti di tubazione, i supporti.

La linea del gas è rappresentata in Figura A1-103 con indicate le “size” e le schedule di tubi e flange, le lunghezze dei tratti di tubazione, i supporti.

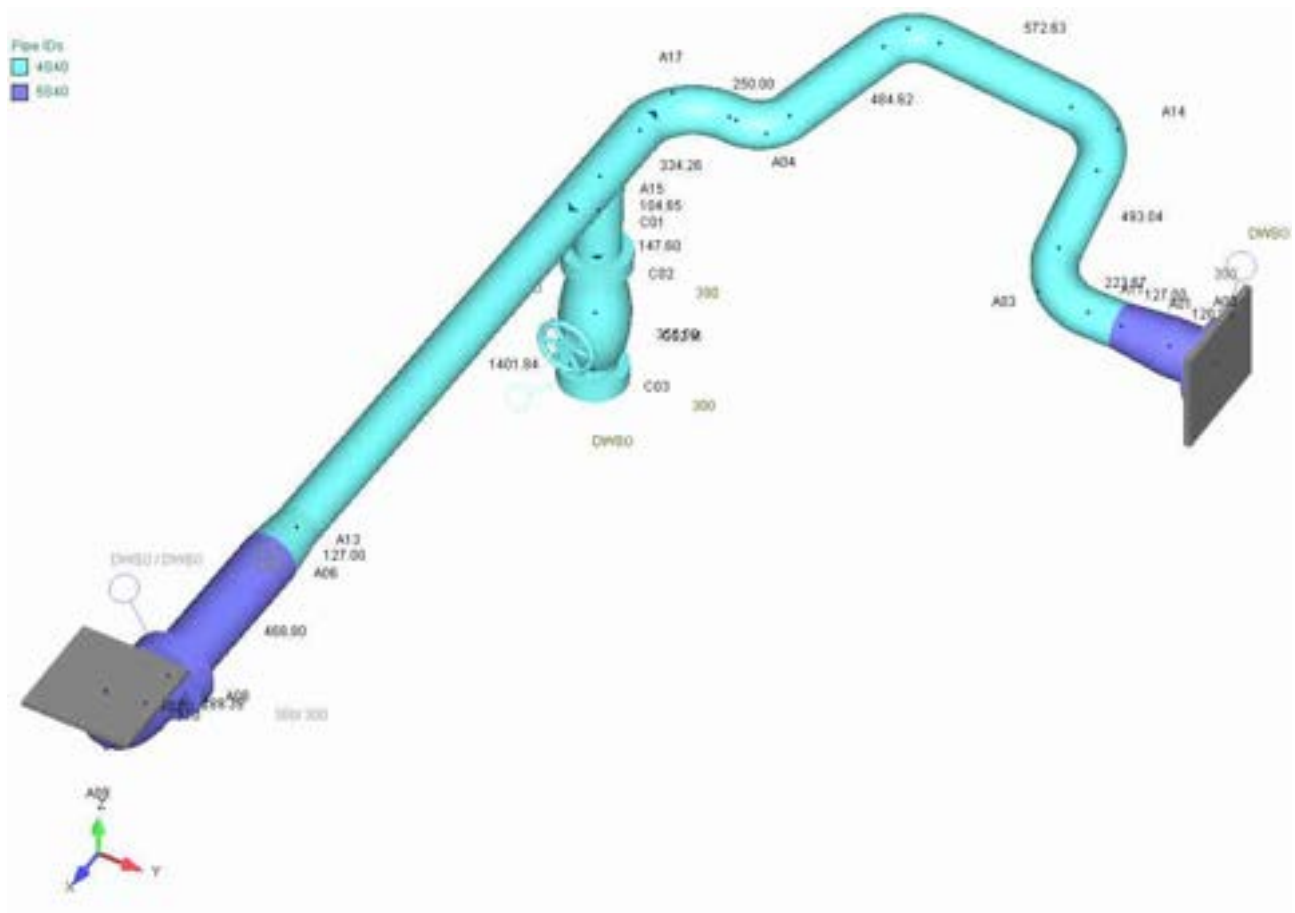


Figura A1-102: DW to RC liquid line

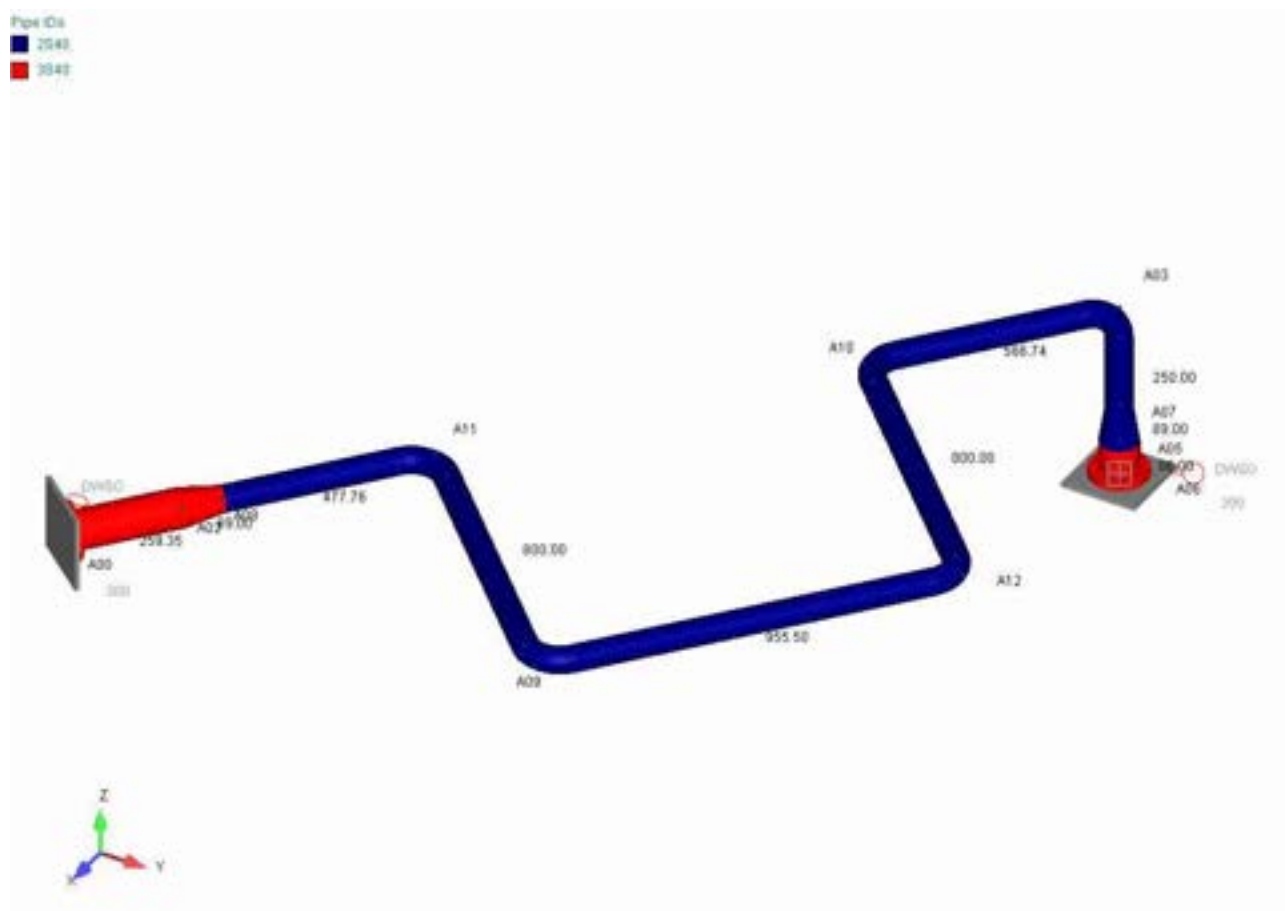


Figura A1-103: DW to RC gas line

A1.6.1. DW to RC liquid line

La linea del liquido è stata verificata in un'unica condizione.

- Caso 1: condizioni di progetto del contenimento:**

Le condizioni di progetto del contenimento (P=1.5 MPa, T= 198 °C) sono state prese a riferimento per la verifica della linea.

In tabella Tabella A1. 25 sono indicati gli spostamenti attribuiti a ciascun incastro in corrispondenza delle flange.

Incastri - Dilatazioni termiche differenziali					
quota bocchello [mm]	linea	Δz (bocchello- ancoraggio serbatoio) [mm]	ΔT [°C]	$\alpha \cdot \Delta T$	dilatazione [mm]
9562	DW to RC	-7210.08	178	0.003718	26.81
10015	DW to RC	-112.63	178	0.003718	0.42

Tabella A1. 25 : DW to RC liquid line: spostamenti degli incastri in corrispondenza delle flange

Le pressioni e le temperature nella linea, alla condizione di riferimento, sono mostrate in Figura A1-104.

I risultati delle verifiche strutturali, eseguite per la condizione operativa esaminata, sono riportati in Figura A1-105, Figura A1-106, Figura A1-107.

Per la condizione operativa esaminata, in Figura A1-108 è presentata la visualizzazione degli spostamenti della linea nelle condizioni accoppiate GT (G=gravity e T=temperatura), ossia sotto l'effetto combinato del peso del sistema e del suo contenuto con la temperatura. La condizione GT è quella che racchiude informazioni globali sulla deformata del sistema.

La rappresentazione degli spostamenti è amplificata di un fattore 5 per aumentarne la percezione.

L'entità degli spostamenti di ogni punto e lo spostamento massimo sono presentati nell'output del calcolo di verifica della linea con Autopipe, Allegato 7.

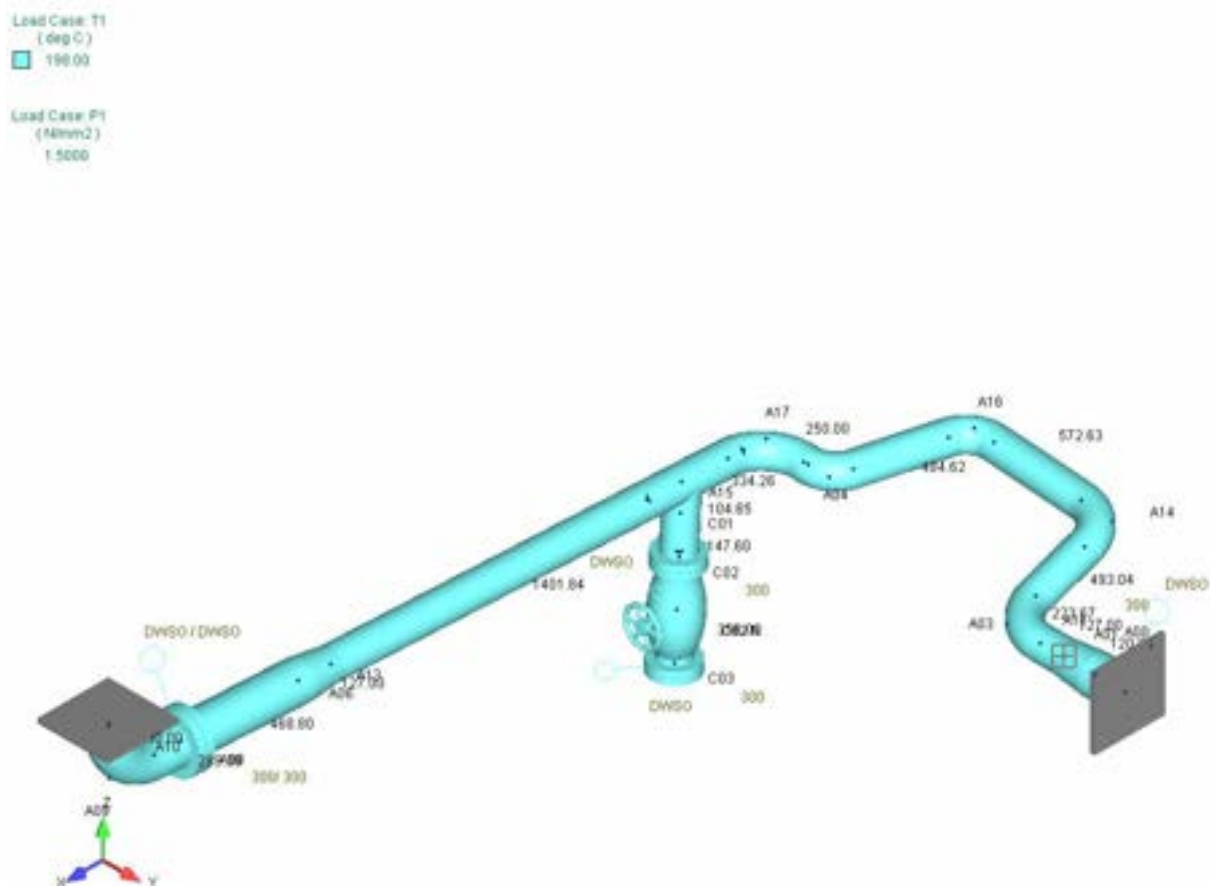
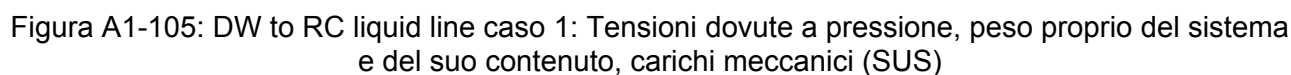


Figura A1-104: DW to RC liquid line caso 1: Pressione e temperatura



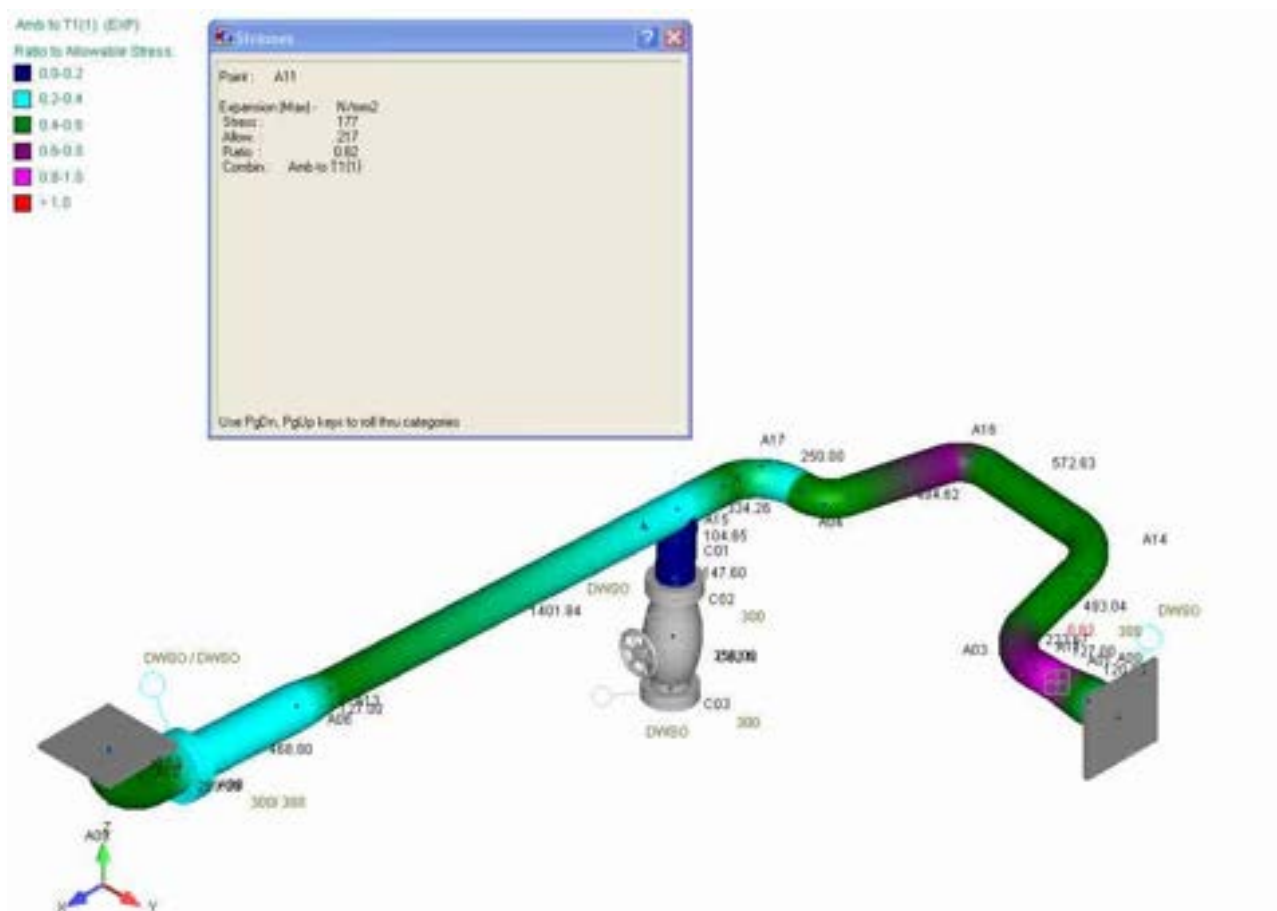


Figura A1-106: DW to RC liquid line caso 1: Tensioni dovute ai carichi termici

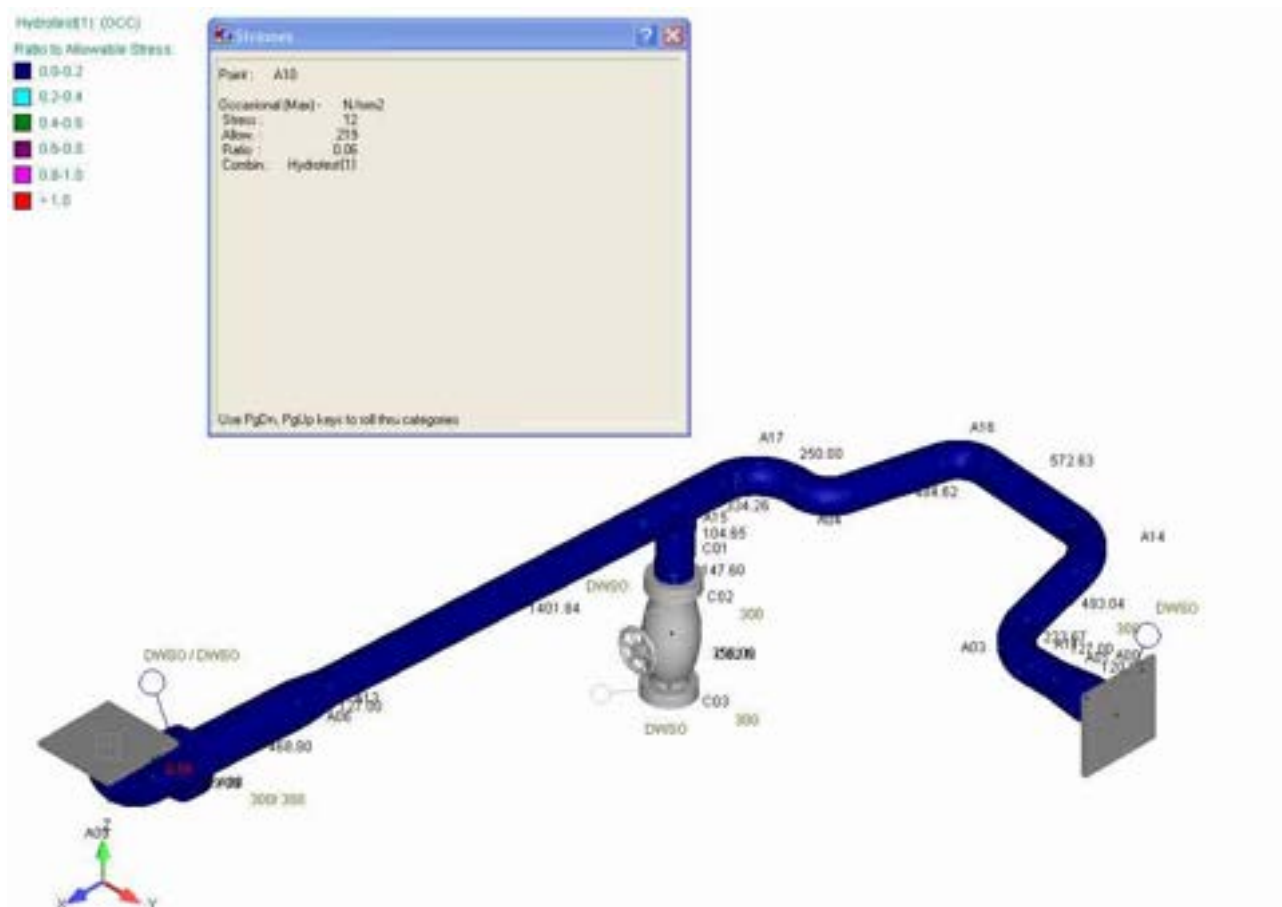


Figura A1-107: DW to RC liquid line: Prova idraulica

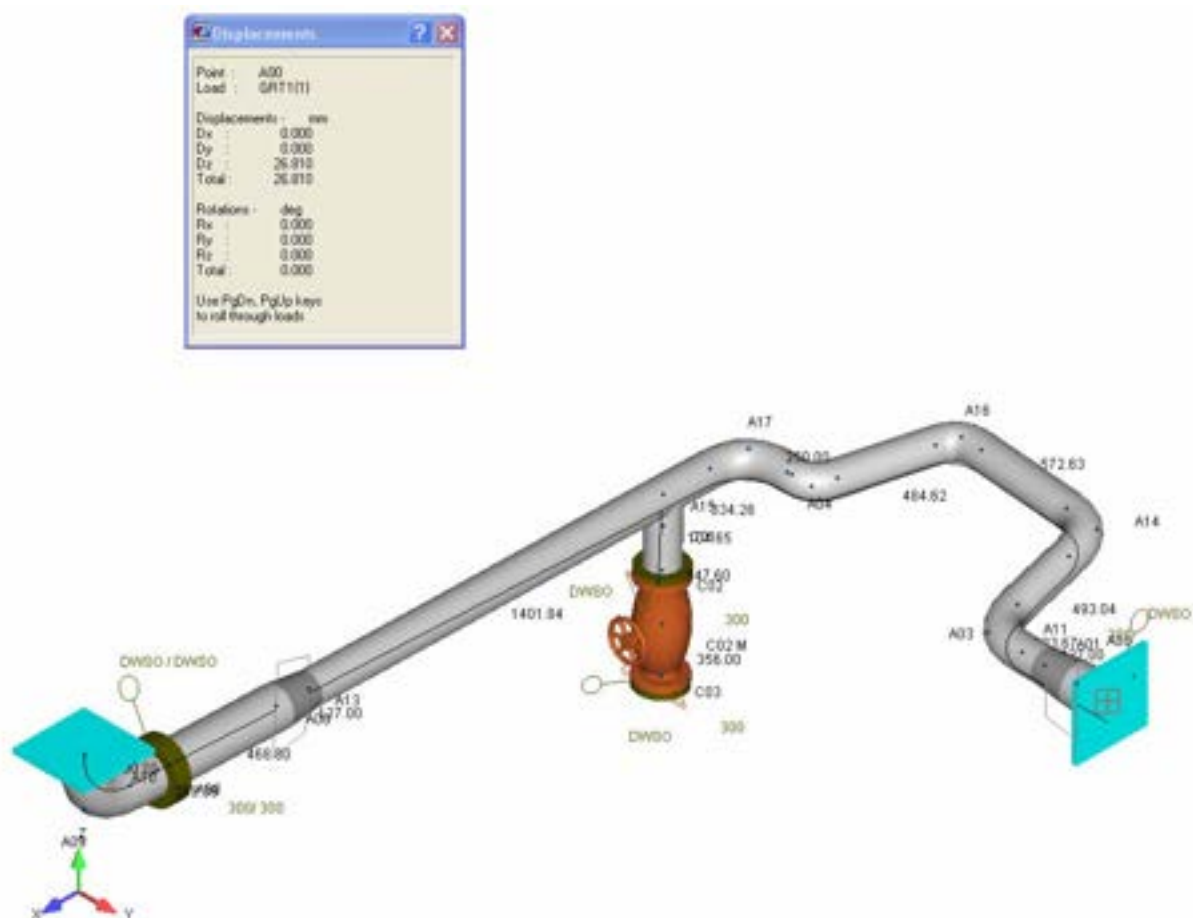


Figura A1-108: DW to RC liquid line caso 1: Visualizzazione degli spostamenti del circuito sotto effetto combinato del peso del sistema e del suo contenuto

A1.6.2. DW to RC gas line

La linea del gas è stata verificata in un'unica condizione.

- Caso 1: condizioni di progetto del contenimento:**

Le condizioni di progetto del contenimento ($P=1.5$ MPa, $T=198$ °C) sono state prese a riferimento per la verifica della linea.

In Tabella A1. 26 sono indicati gli spostamenti attribuiti a ciascun incastro in corrispondenza delle flange.

Incastri - Dilatazioni termiche differenziali					
quota bocchello [mm]	linea	Δz (bocchello- ancoraggio serbatoio) [mm]	ΔT [°C]	$\alpha \cdot \Delta T$	dilatazione [mm]
10640	from CAV	-737.63	178	0.003718	2.74
10215	toDW	-7863.08	178	0.003718	29.24

Tabella A1. 26: DW to RC gas line: spostamenti degli incastri in corrispondenza delle flange

Le pressioni e le temperature nella linea, alla condizione di riferimento, sono mostrate in **Figura A1-109**.

I risultati delle verifiche strutturali, eseguite per la condizione operativa esaminata, sono riportati in Figura A1-110, Figura A1-111, Figura A1-112.

Per la condizione operativa esaminata, in Figura A1-113 è presentata la visualizzazione degli spostamenti della linea nelle condizioni accoppiate GT (G=gravity e T=temperatura), ossia sotto l'effetto combinato del peso del sistema e del suo contenuto con la temperatura. La condizione GT è quella che racchiude informazioni globali sulla deformata del sistema.

La rappresentazione degli spostamenti è amplificata di un fattore 5 per migliorarne la percezione.

L'entità degli spostamenti di ogni punto e lo spostamento massimo sono presentati nell'output del calcolo di verifica della linea con Autopipe, Allegato 8.

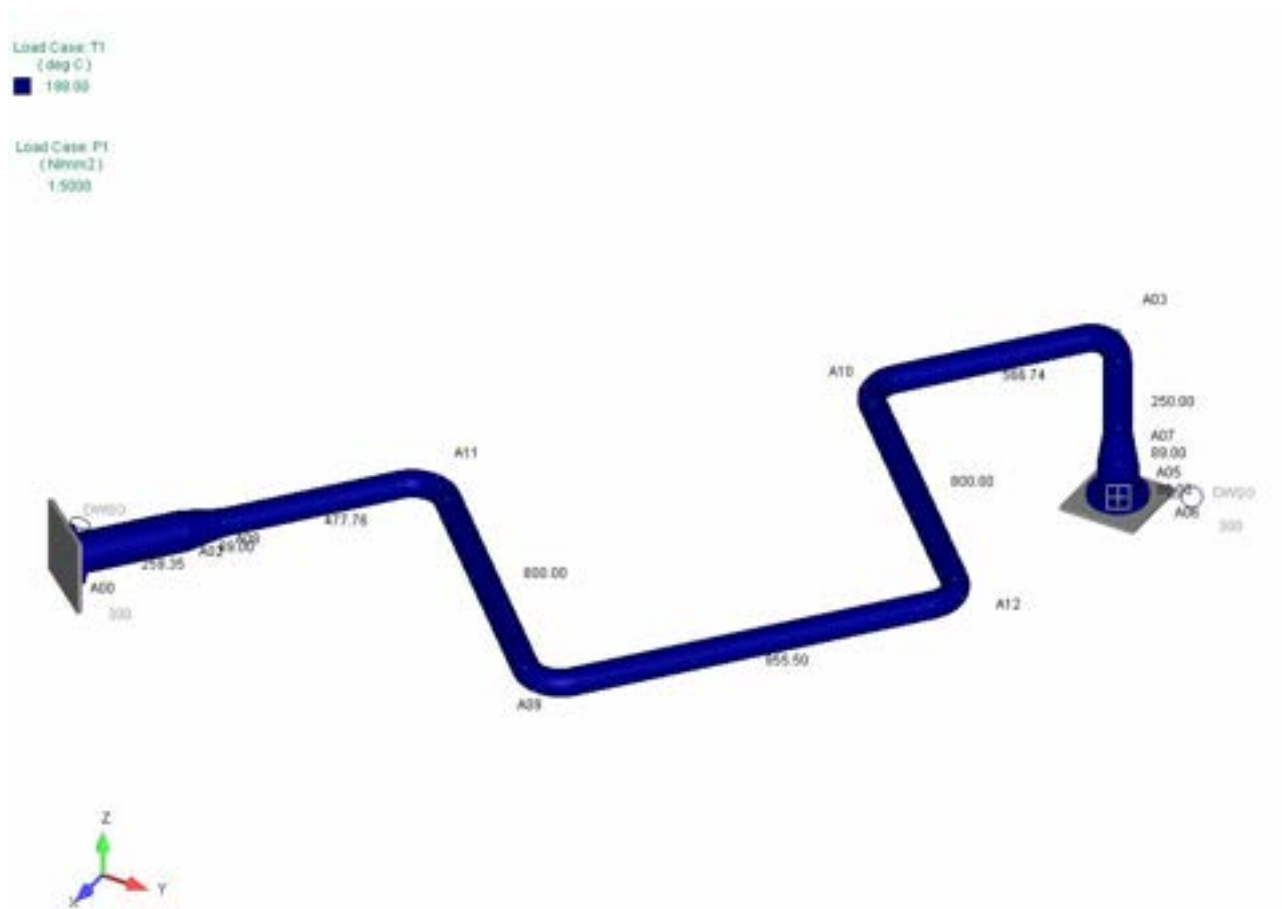


Figura A1-109: DW to RC gas line caso 1: Pressioni e temperature

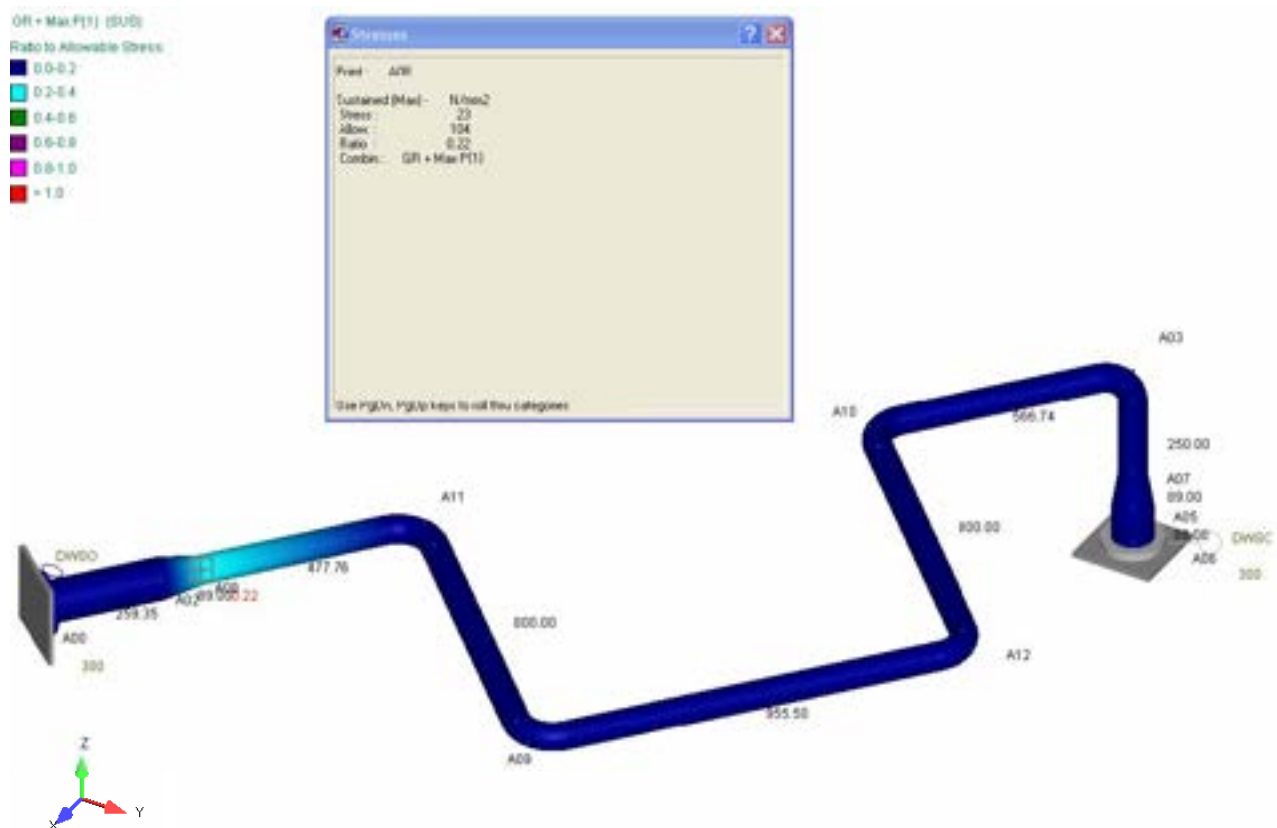


Figura A1-110: DW to RC gas line caso 1: Tensioni dovute a pressione, peso proprio del sistema e del suo contenuto, carichi meccanici (SUS)

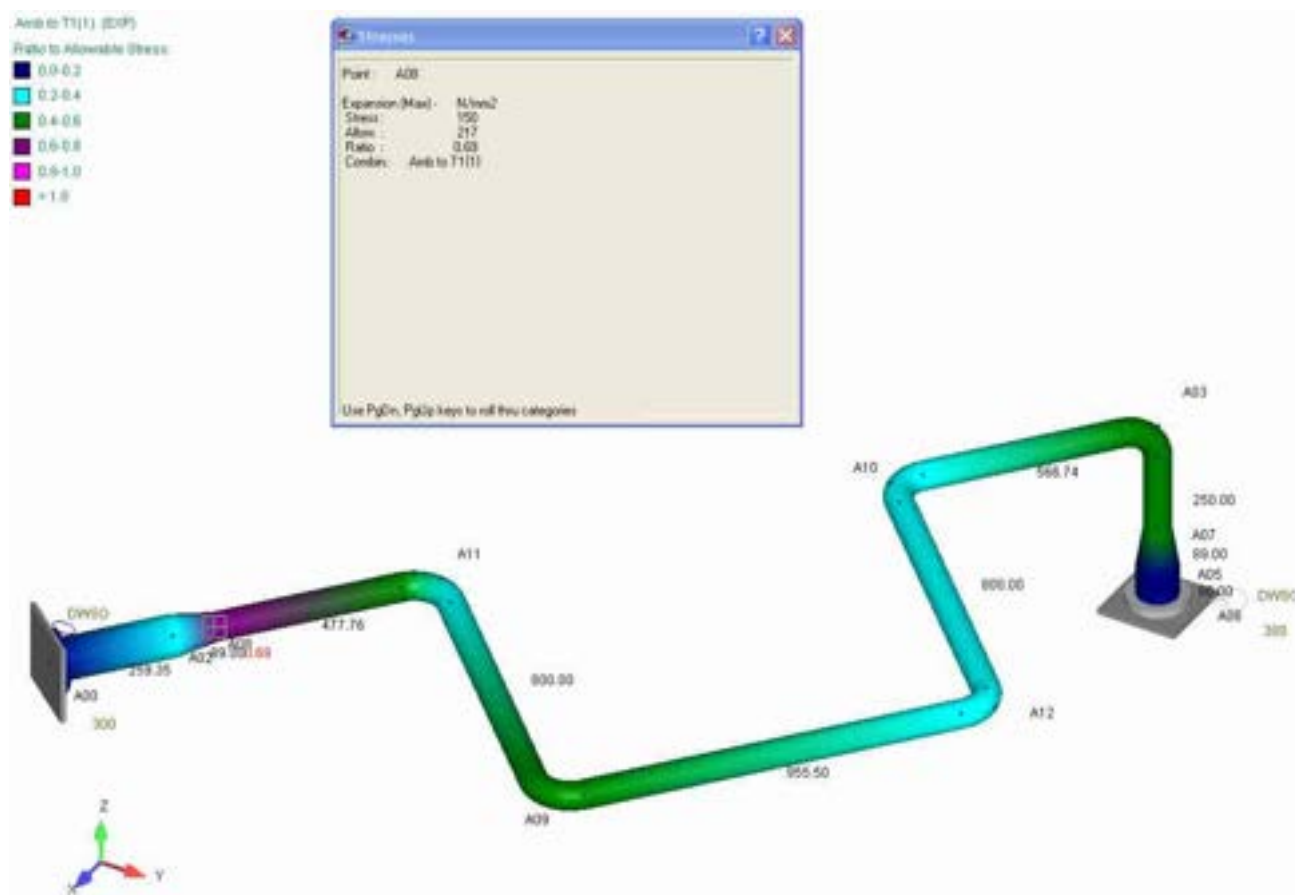


Figura A1-111: DW to RC gas line caso 1: Tensioni dovute ai carichi termici

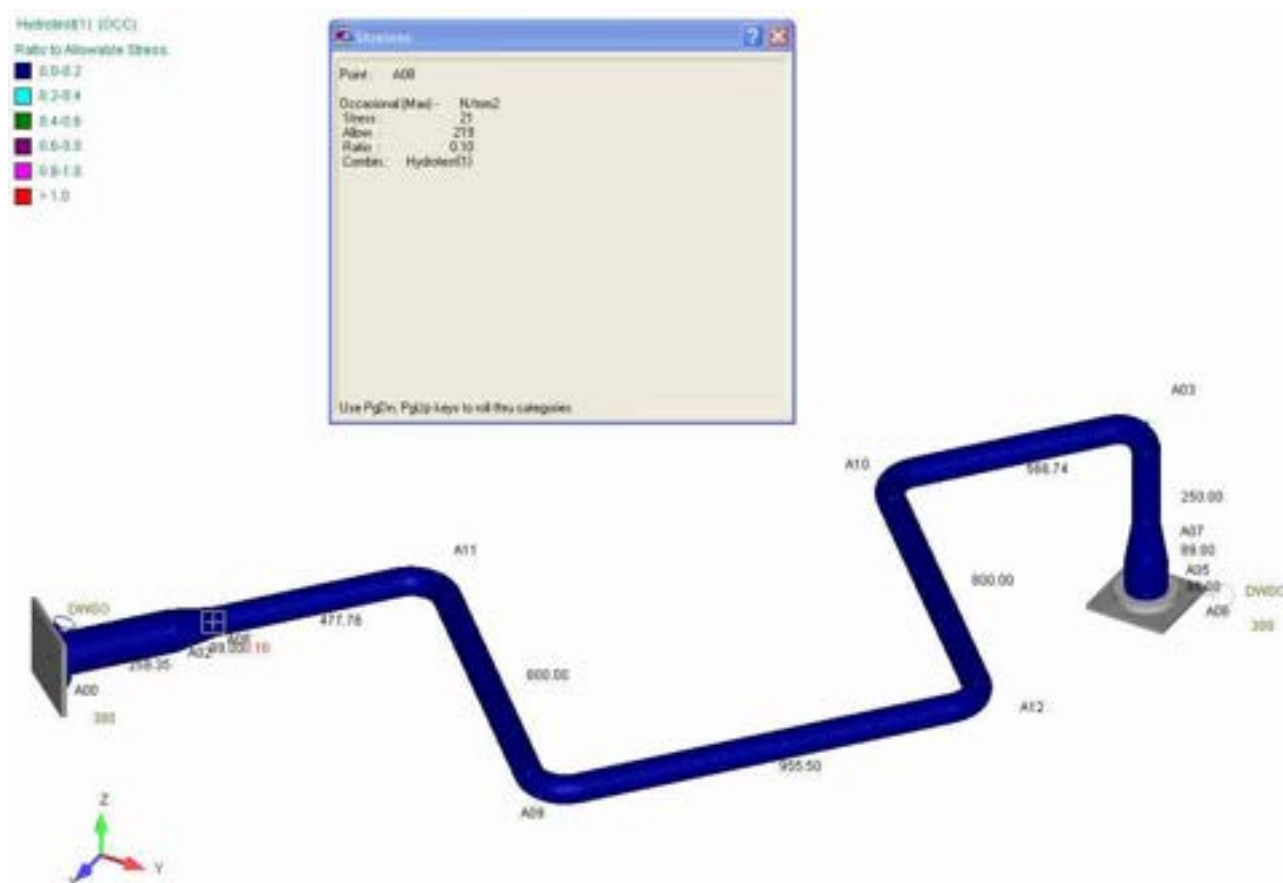
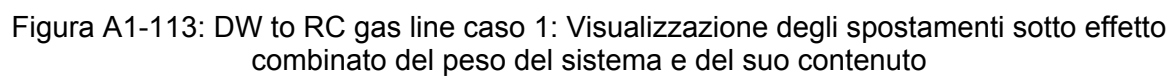


Figura A1-112: DW to RC gas line: Prova idraulica



A1.7 DW to PSS

Il DW è collegato a ciascuna PSS tramite una linea, lunga e snella, che consente il passaggio della miscela aria-vapore da DW a PSS, durante la prima fase del transitorio ed il ritorno del liquido da PSS a DW, in una fase più avanzata [7].

Le linee DW to PSS sono riportate in Tabella 6-1. Essendo parte integrante del contenimento, sono state verificate alle condizioni di progetto dello stesso.

La linea DW to PSS-A è rappresentata in Figura A1-114 con indicate le “size” e le schedule di tubi e flange, le lunghezze dei tratti di tubazione, i supporti..

La linea DW to PSS-B è rappresentata in Figura A1-115 con indicate le “size” e le schedule di tubi e flange, le lunghezze dei tratti di tubazione, i supporti.

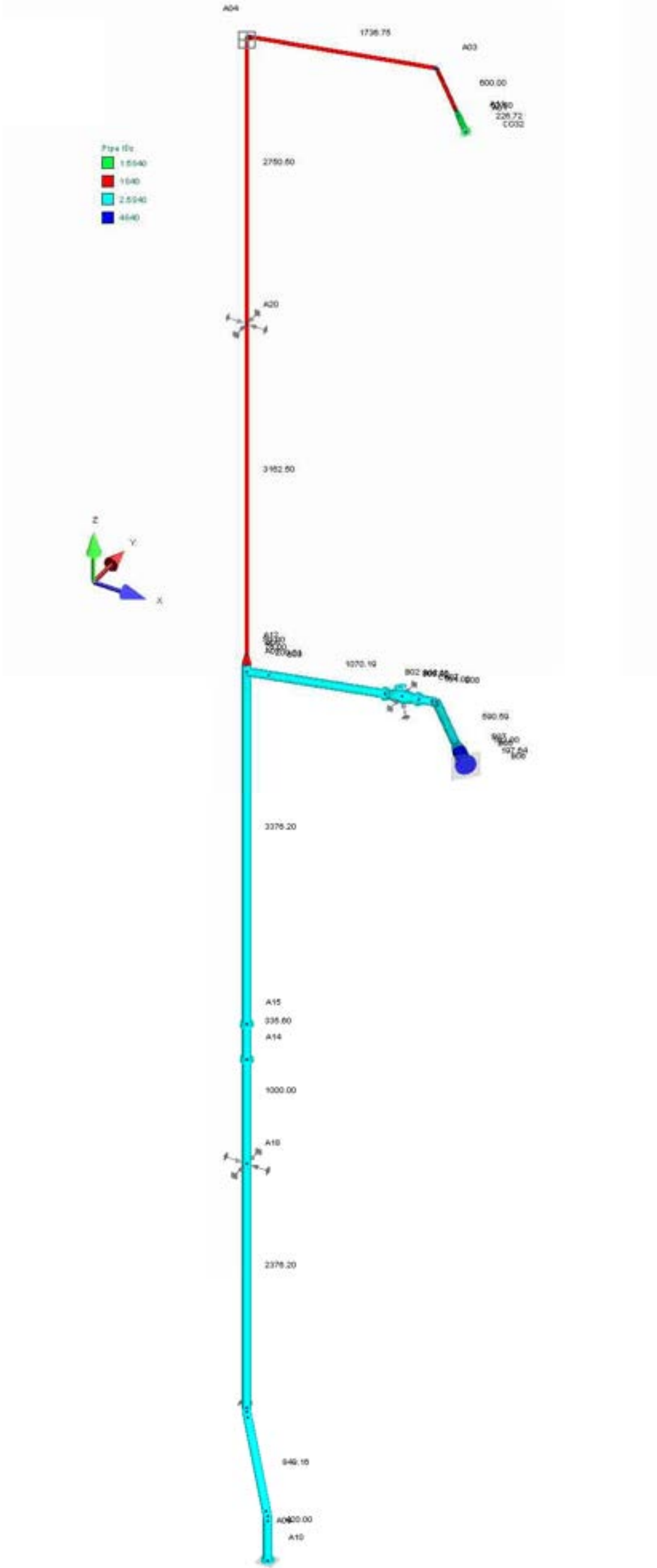


Figura A1-114: DW to PSS-A

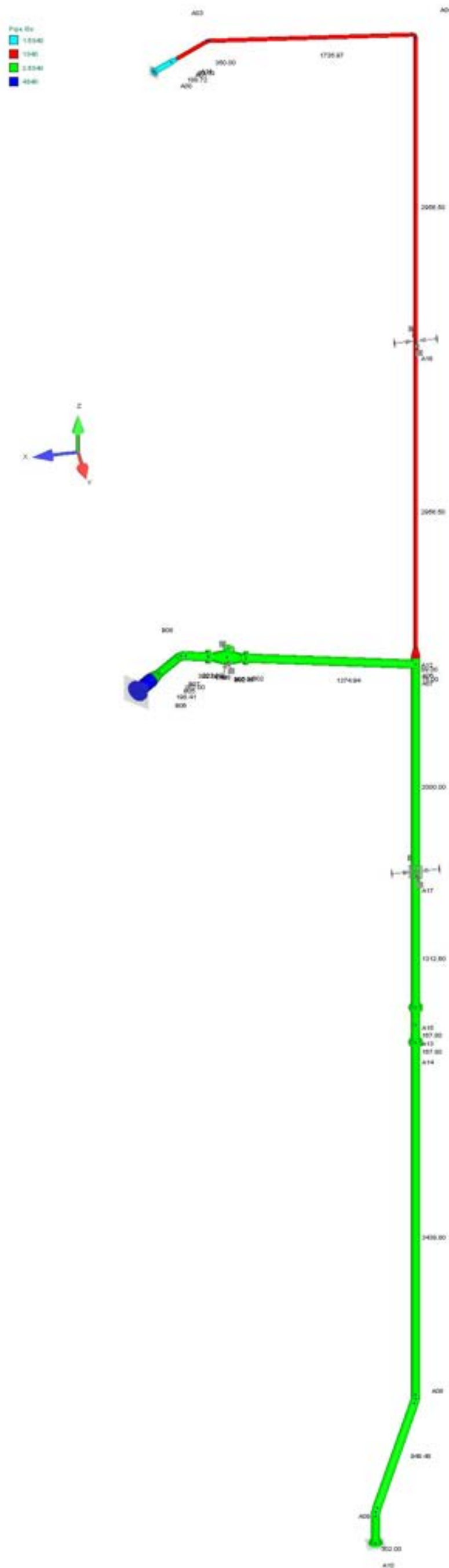


Figura A1-115: DW to PSS-B

A1.7.1. DW to PSS-A

La linea DW to PSS-A è stata verificata in un' unica condizione.

- Caso 1: condizioni di progetto del contenimento**

Le condizioni di progetto del contenimento ($P=1.5$ MPa, $T= 198$ °C) sono state prese a riferimento per la verifica della linea.

In Tabella A1. 27 sono indicati gli spostamenti attribuiti a ciascun incastro in corrispondenza delle flange.

Incastri - Dilatazioni termiche differenziali					
quota bocchello [mm]	linea	Δz (bocchello- ancoraggio serbatoio) [mm]	ΔT [°C]	$\alpha \cdot \Delta T$	dilatazione [mm]
20664	DW to PSS-A extension	-10761.63	178	0.003718	40.02
14600	DW to PSS-A main vent	-4697.63	178	0.003718	17.47
6215	DW to PSS-A	-3863.08	178	0.003718	14.36

Tabella A1. 27: DW to PSS-A: spostamenti degli incastri in corrispondenza delle flange

Le pressioni e le temperature nella linea, alla condizione di riferimento, sono mostrate in Figura A1-116.

I risultati delle verifiche strutturali, eseguite per la condizione operativa esaminata, sono riportati in Figura A1-117, Figura A1-118, Figura A1-119.

Per la condizione operativa esaminata, in Figura A1-120 è presentata la visualizzazione degli spostamenti della linea nelle condizioni accoppiate GT (G=gravity e T=temperatura), ossia sotto l'effetto combinato del peso del sistema e del suo contenuto con la temperatura. La condizione GT è quella che racchiude informazioni globali sulla deformata del sistema.

La rappresentazione degli spostamenti è amplificata di un fattore 5 per aumentarne la percezione.

L'entità degli spostamenti di ogni punto e lo spostamento massimo sono presentati nell'output del calcolo di verifica della linea con Autopipe, Allegato 9.



Figura A1-116: DW to PSS-A caso 1: Pressioni e temperature

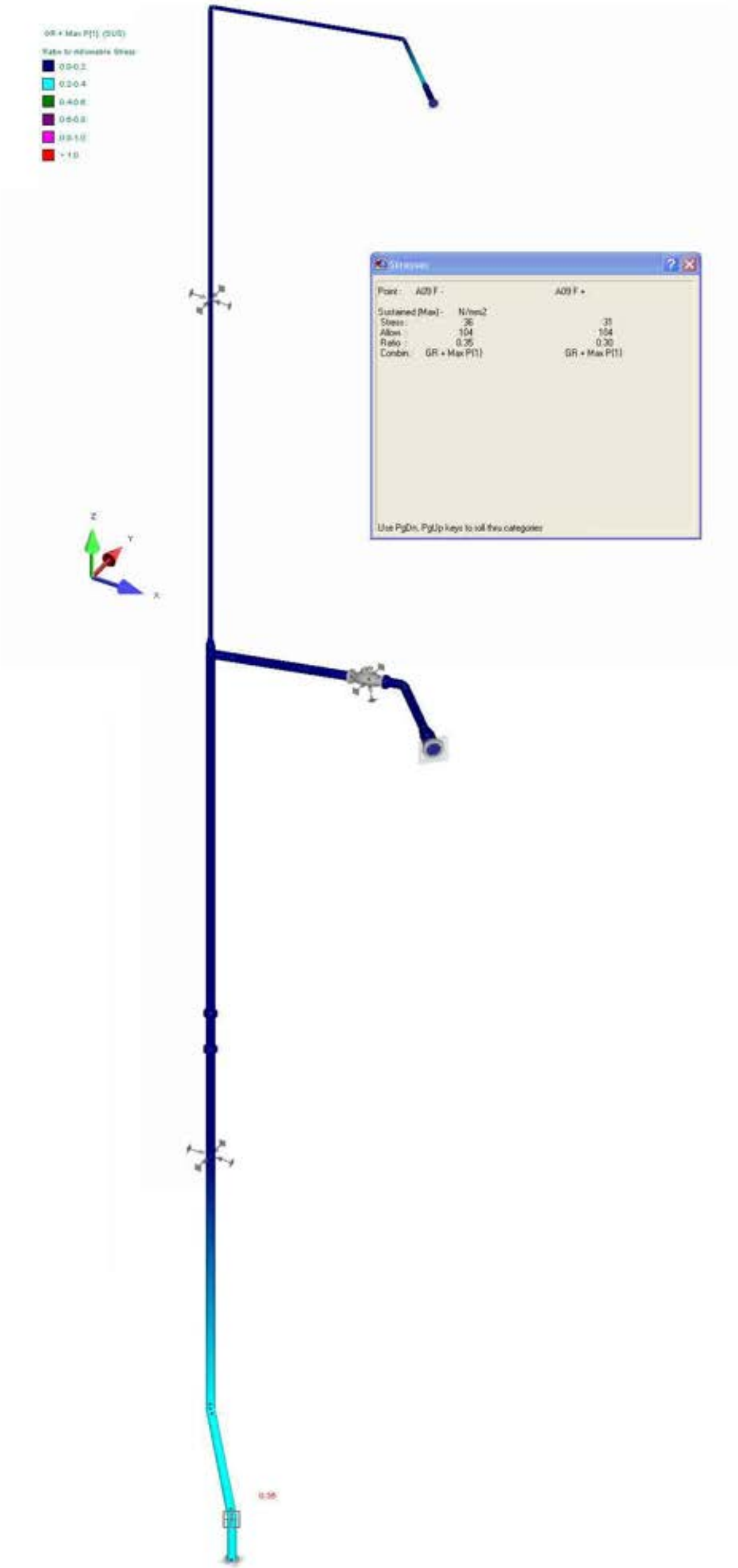


Figura A1-117: DW to PSS-A caso 1: Tensioni dovute a pressione, peso proprio del sistema e del suo contenuto, carichi meccanici (SUS)

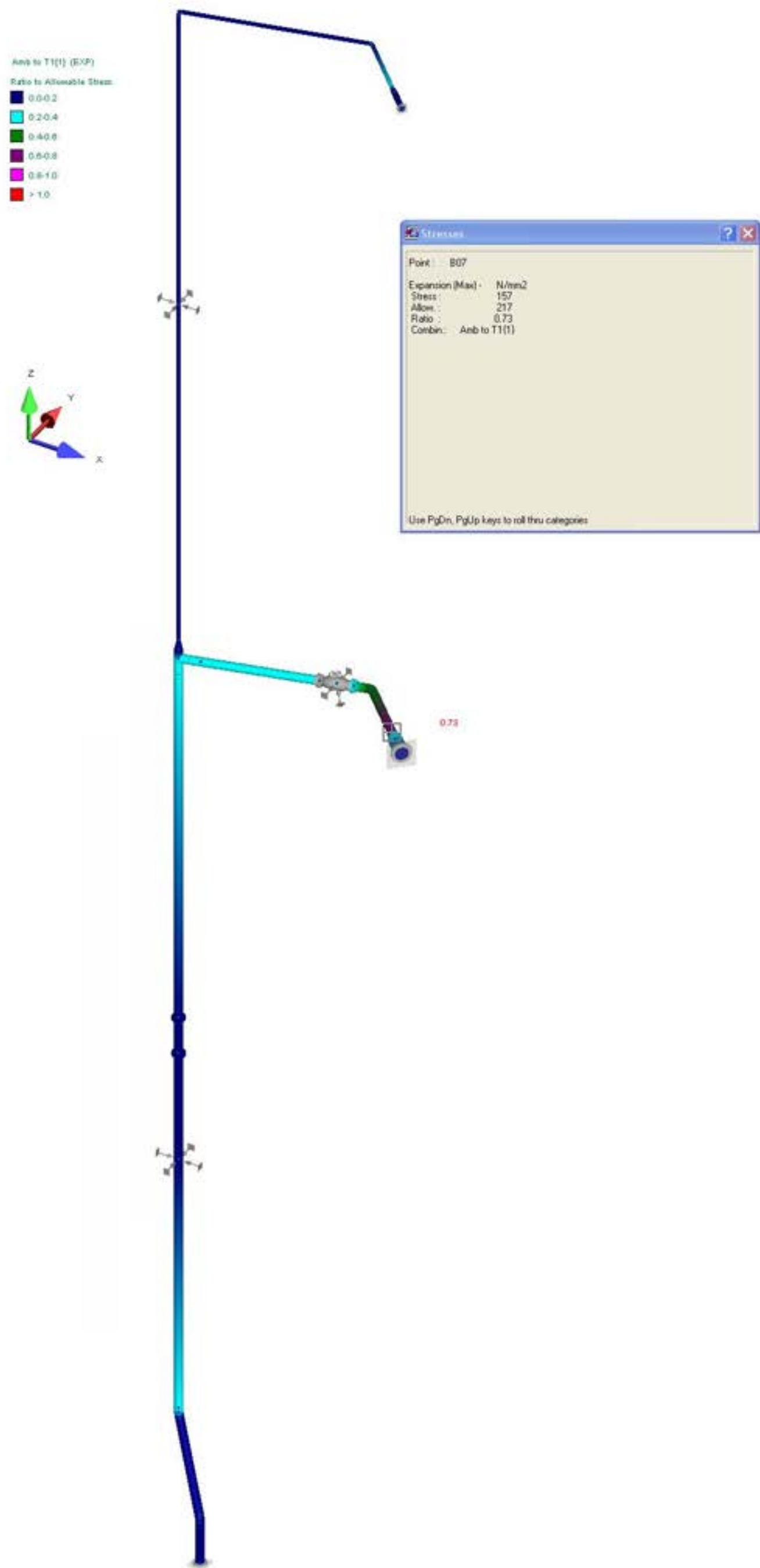


Figura A1-118: DW to PSS-A caso 1: Tensioni dovute ai carichi termici

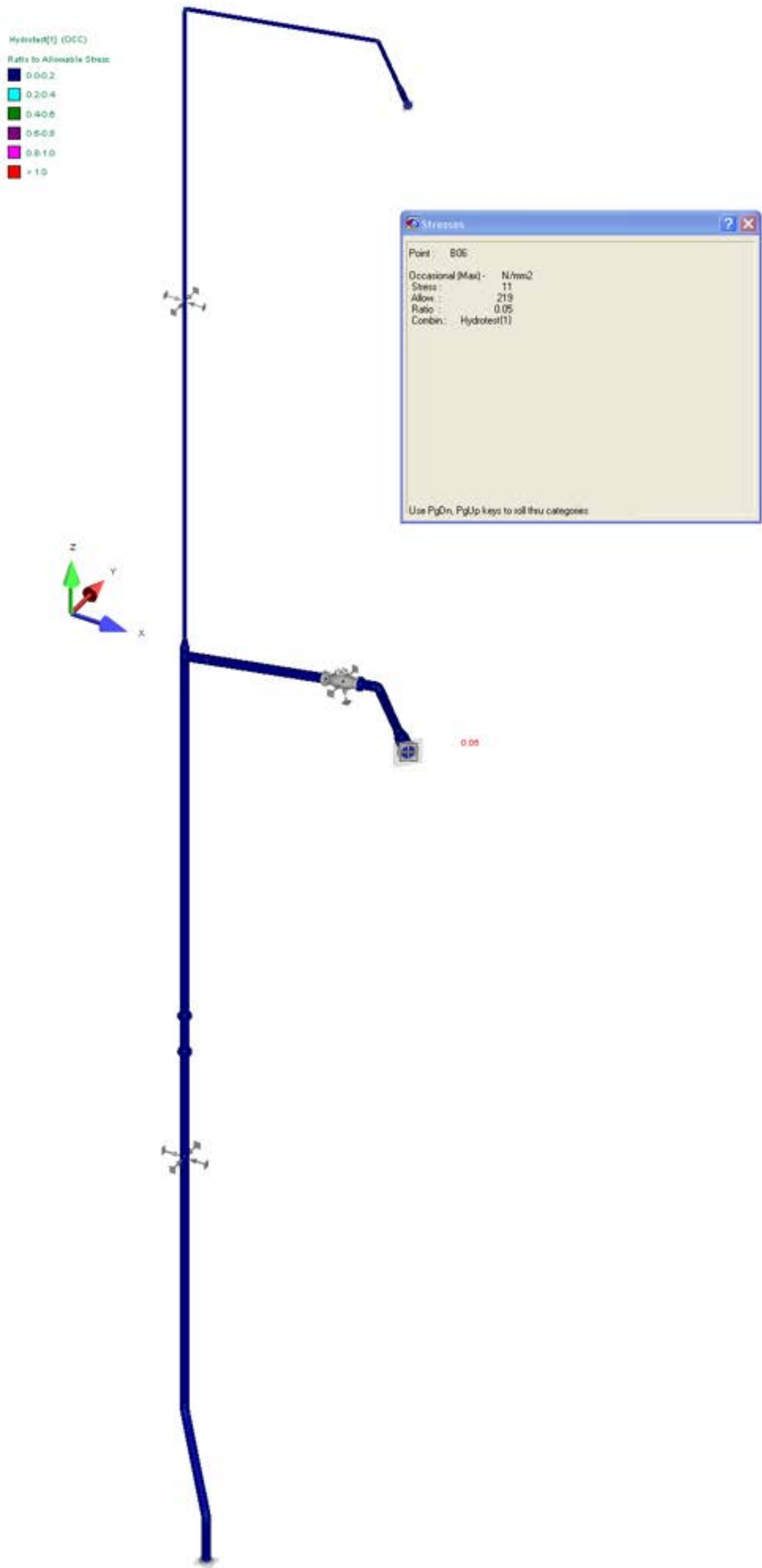


Figura A1-119: DW to PSS-A: Prova idraulica



Figura A1-120: DW to PSS-A caso 1: Visualizzazione degli spostamenti del circuito sotto effetto combinato del peso del sistema e del suo contenuto

A1.7.2. DW to PSS-B

La linea DW to PSS-B è stata verificata in un' unica condizione.

- Caso 1: condizioni di progetto del contenimento**

Le condizioni di progetto del contenimento (P=1.5 MPa, T= 198 °C) sono state prese a riferimento per la verifica della linea.

In Tabella A1. 28 sono indicati gli spostamenti attribuiti a ciascun incastro in corrispondenza delle flange.

Incastri - Dilatazioni termiche differenziali					
quota bocchello [mm]	linea	Δz (bocchello [mm])	ΔT [°C]	$\alpha \cdot \Delta T$	dilatazione [mm]
20664	DW to PSS-B extension	-10761.63	178	0.003718	40.02
14600	DW to PSS-B main vent	-4697.63	178	0.003718	17.47
6215	DW to PSS-B	-3863.08	178	0.003718	14.36

Tabella A1. 28: DW to PSS-B: spostamenti degli incastri in corrispondenza delle flange

Le pressioni e le temperature nella linea, alla condizione di riferimento, sono mostrate in Figura A1-121.

I risultati delle verifiche strutturali, eseguite per la condizione operativa esaminata, sono riportati in Figura A1-122, Figura A1-123, Figura A1-124, .

Per la condizione operativa esaminata, in Figura A1-125 è presentata la visualizzazione degli spostamenti della linea nelle condizioni accoppiate GT (G=gravity e T=temperatura), ossia sotto l'effetto combinato del peso del sistema e del suo contenuto con la temperatura. La condizione GT è quella che racchiude informazioni globali sulla deformata del sistema.

La rappresentazione degli spostamenti è amplificata di un fattore 5 per aumentarne la percezione.

L'entità degli spostamenti di ogni punto e lo spostamento massimo sono presentati nell'output del calcolo di verifica della linea con Autopipe, Allegato 10.

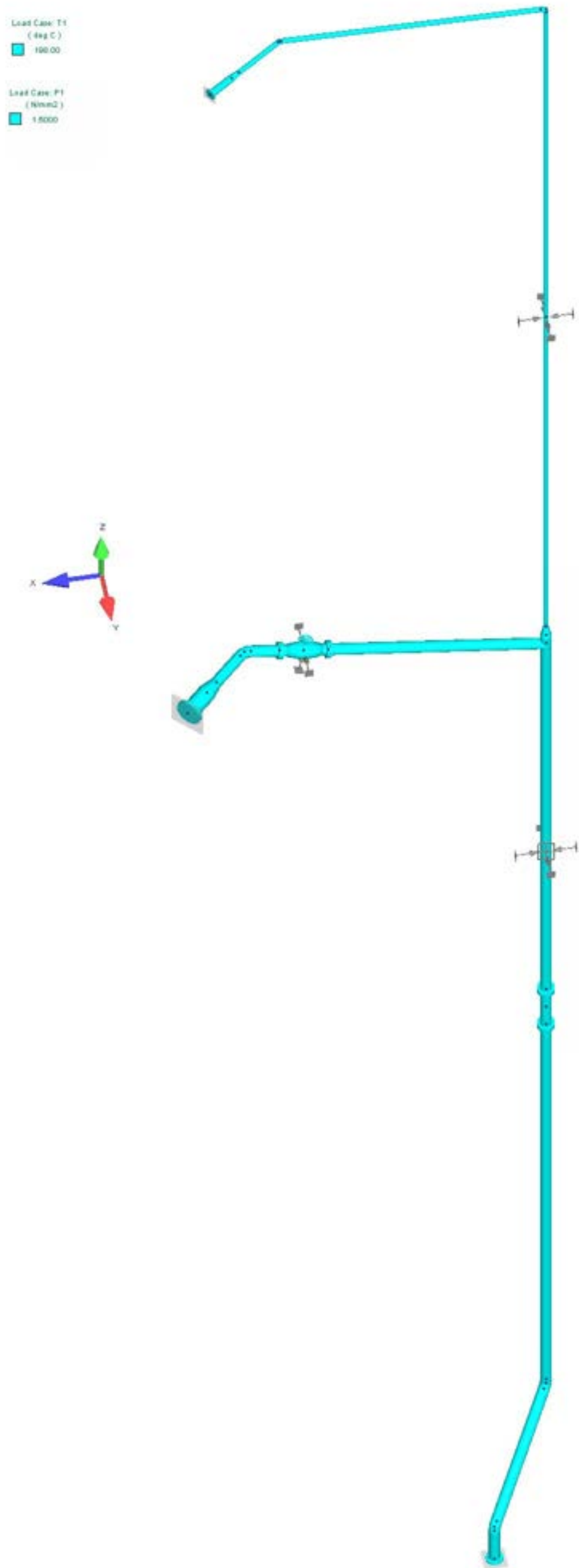


Figura A1-121: DW to PSS-B caso 1: Pressioni e temperature

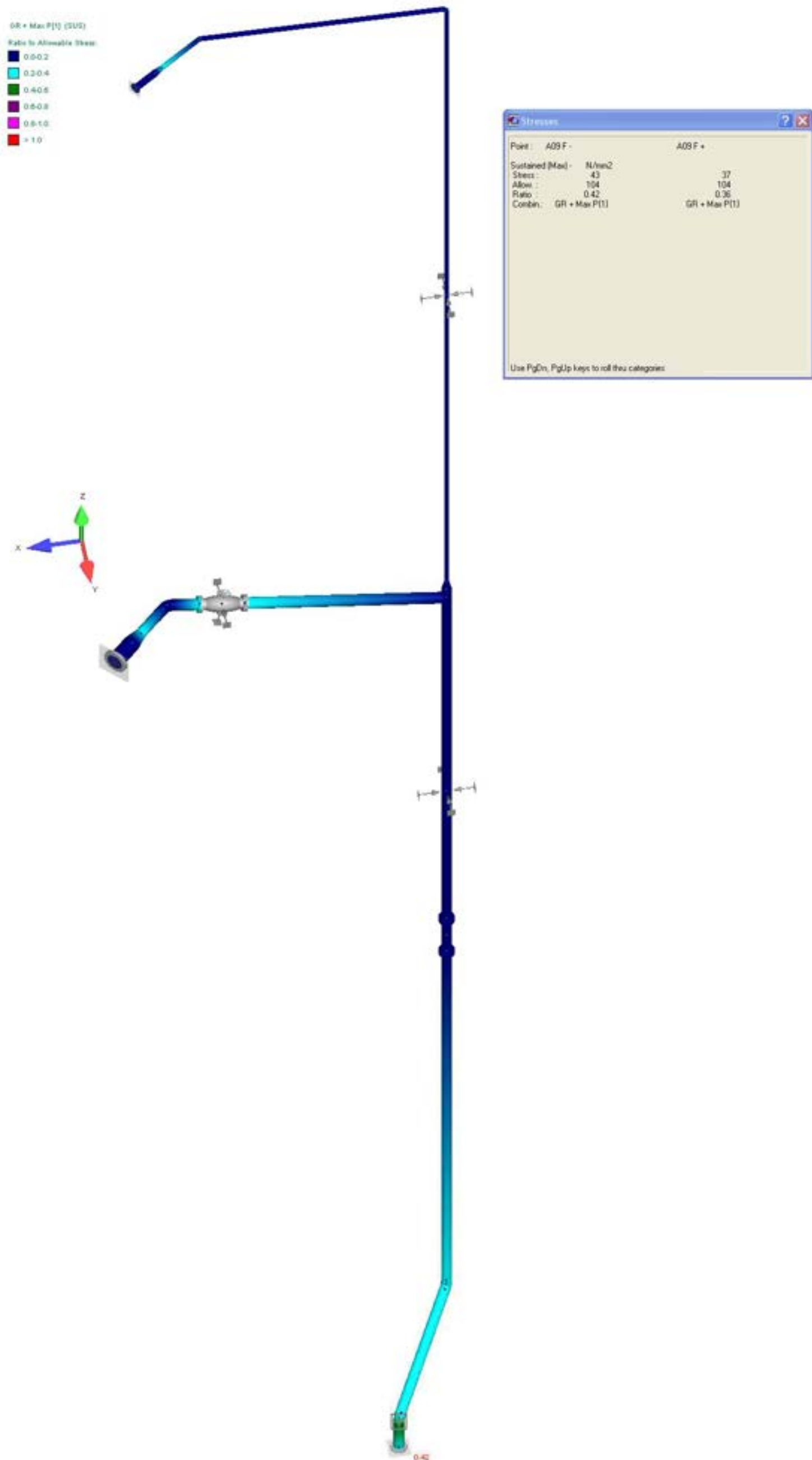


Figura A1-122: DW to PSS-B caso 1: Tensioni dovute a pressione, peso proprio del sistema e del suo contenuto, carichi meccanici (SUS)

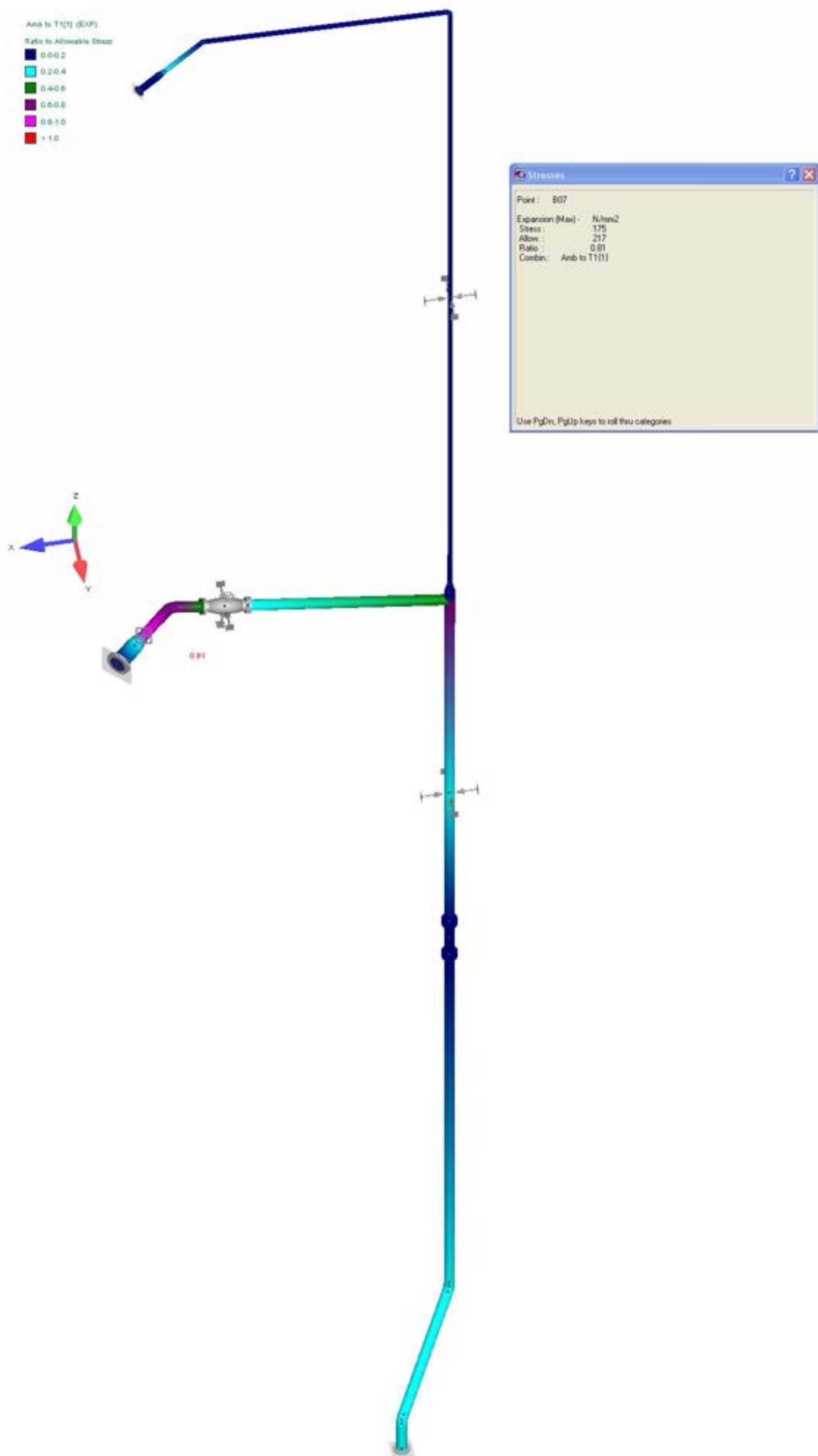


Figura A1-123: DW to PSS-B caso 1: Tensioni dovute ai carichi termici

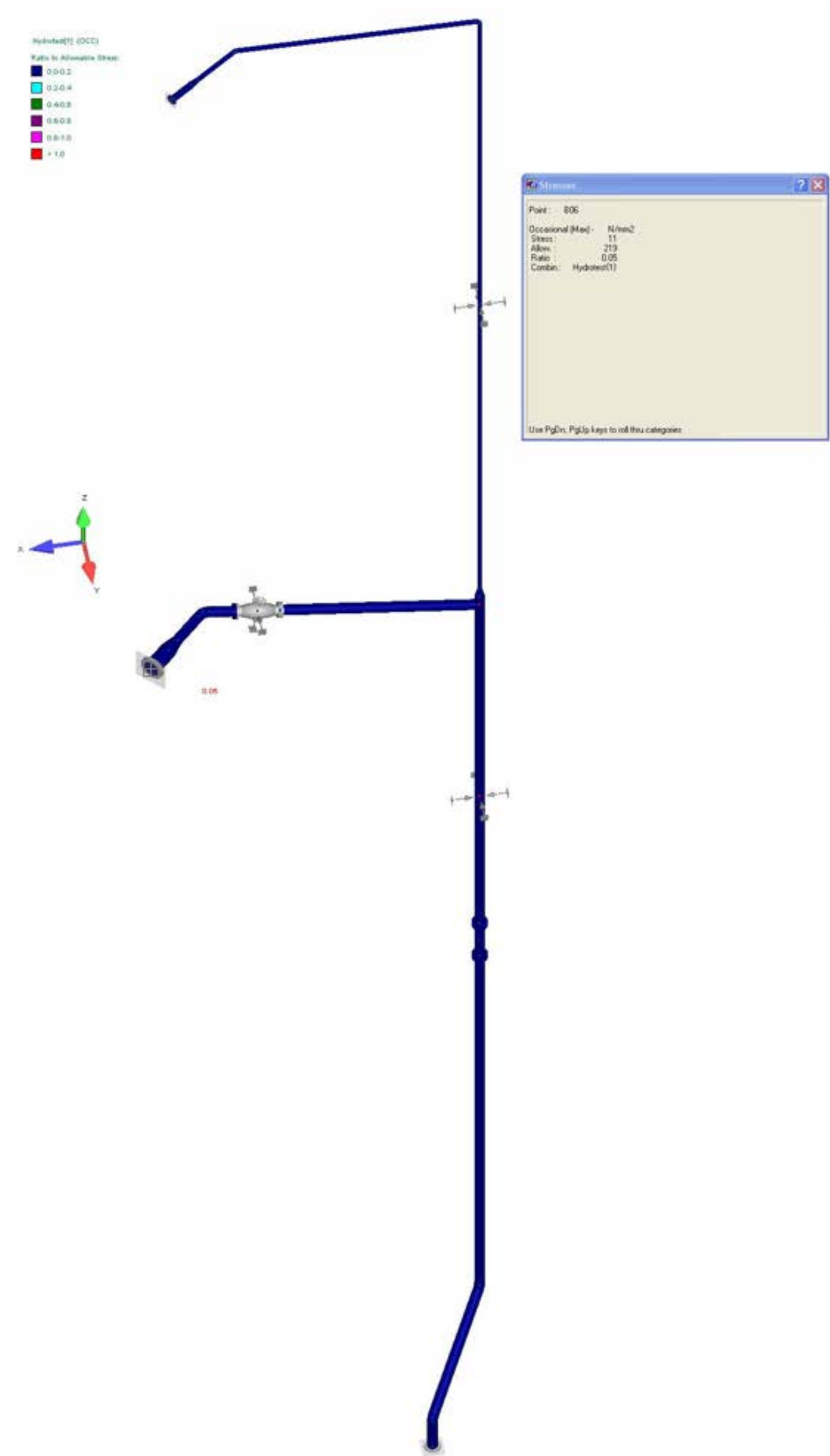


Figura A1-124: DW to PSS-B: Prova idraulica

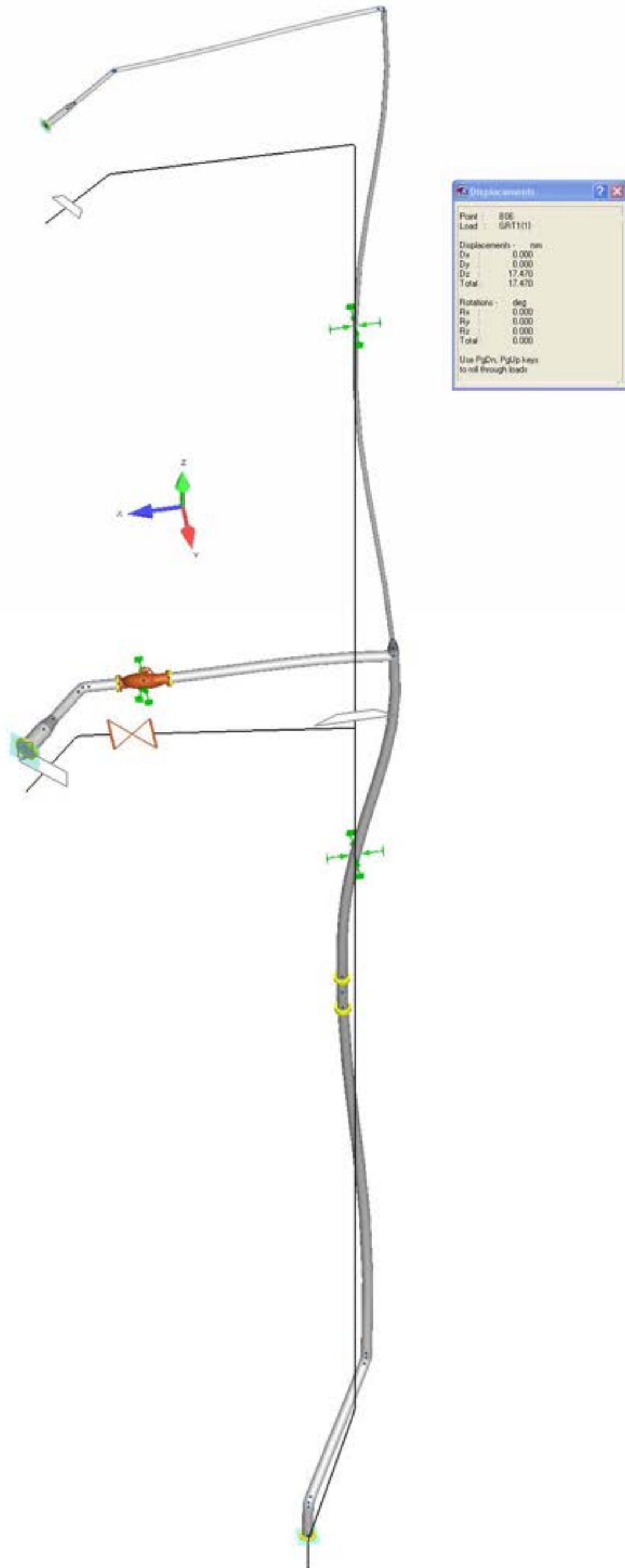


Figura A1-125: DW to PSS-B caso 1: Visualizzazione degli spostamenti del circuito sotto effetto combinato del peso del sistema e del suo contenuto

A1.8 PSS to LGMS

La PSS di ciascun loop è collegata superiormente al relativo LGMS tramite la linea PSS to LGMS che consente l'equalizzazione della pressione tra i due serbatoi [7].

Le linee PSS to LGMS sono riportate in Tabella 6-1. Essendo parte integrante del contenimento, sono state verificate alle condizioni di progetto dello stesso.

La linea PSS-A to LGMS-A è rappresentata in Figura A1-126 con indicate le “size” e le schedule di tubi e flange, le lunghezze dei tratti di tubazione, i supporti.

La linea PSS-B to LGMS-B è rappresentata in Figura A1-127 con indicate le “size” e le schedule di tubi e flange, le lunghezze dei tratti di tubazione, i supporti.

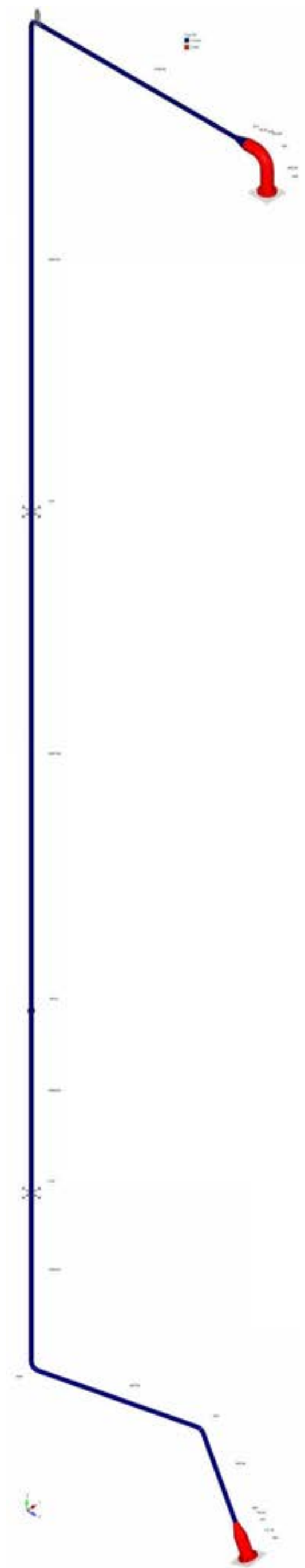


Figura A1-126: PSS-A to LGMS-A



Figura A1-127: PSS-B to LGMS-B

A1.8.1. PSS-A to LGMS-A

La linea PSS-A to LGMS-A è stata verificata in un' unica condizione.

- **Caso 1: condizioni di progetto del contenimento:**

Le condizioni di progetto del contenimento (P=1.5 MPa, T= 198 °C) sono state prese a riferimento per la verifica della linea.

In Tabella A1. 29 sono indicati gli spostamenti attribuiti a ciascun incastro in corrispondenza delle flange.

Incastri - Dilatazioni termiche differenziali					
quota bocchello [mm]	linea	Δz (bocchello ancoraggio serbatoio) [mm]	ΔT [°C]	$\alpha \cdot \Delta T$	dilatazione [mm]
6138.4	PSS-A to LGMS-A	-3786.48	178	0.003718	14.08
14614.72	PSS-A to LGMS-A	-2247.3	178	0.003718	8.36

Tabella A1. 29: PSS-A to LGMS-A: Spostamenti degli incastri in corrispondenza delle flange

Le pressioni e le temperature nella linea, alla condizione di riferimento, sono mostrate in Figura A1-128.

I risultati delle verifiche strutturali, eseguite per la condizione operativa esaminata, sono riportati in Figura A1-129, Figura A1-130, Figura A1-131.

Per la condizione operativa esaminata, in Figura A1-132 è presentata la visualizzazione degli spostamenti della linea nelle condizioni accoppiate GT (G=gravity e T=temperatura), ossia sotto l'effetto combinato del peso del sistema e del suo contenuto con la temperatura. La condizione GT è quella che racchiude informazioni globali sulla deformata del sistema.

La rappresentazione degli spostamenti è amplificata di un fattore 5 per aumentarne la percezione.

L'entità degli spostamenti di ogni punto e lo spostamento massimo sono presentati nell'output del calcolo di verifica della linea con Autopipe, Allegato 11.



Figura A1-128: PSS-A to LGMS-A caso 1: Pressioni e temperature



Figura A1-129: PSS-A to LGMS-A caso 1: Tensioni dovute a pressione, peso proprio del sistema e del suo contenuto, carichi meccanici (SUS)



Figura A1-130: PSS-A to LGMS-A caso 1: Tensioni dovute ai carichi termici

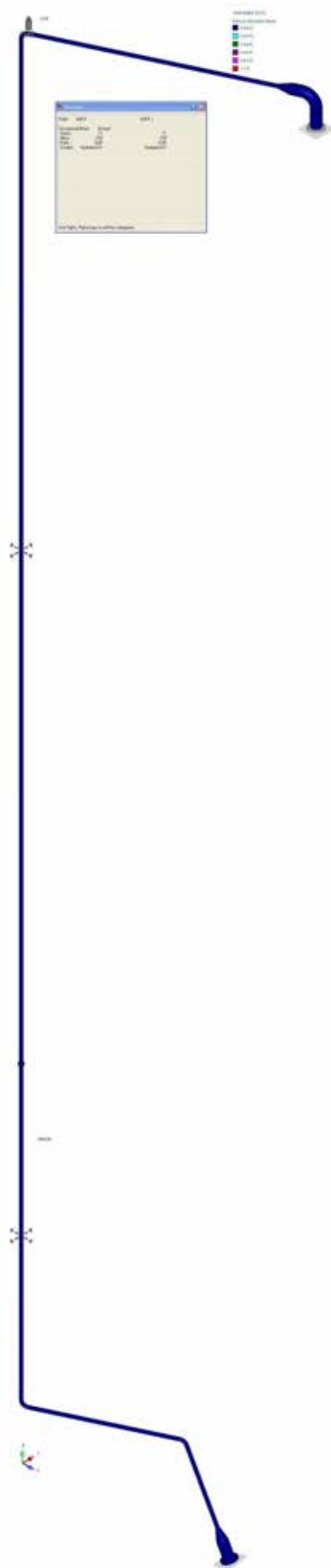


Figura A1-131: PSS-A to LGMS-A: Prova idraulica

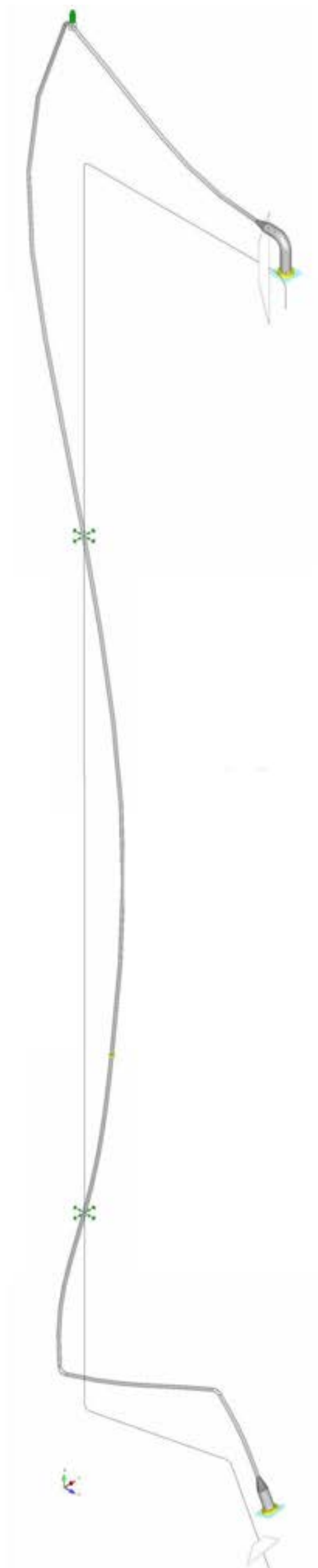


Figura A1-132: PSS-A to LGMS-A caso 1: Visualizzazione degli spostamenti del circuito sotto effetto combinato del peso del sistema e del suo contenuto

A1.8.2. PSS-B to LGMS-B

La linea PSS-B to LGMS-B è stata verificata in un' unica condizione.

- Caso 1: condizioni di progetto del contenimento:**

Le condizioni di progetto del contenimento (P=1.5 MPa, T= 198 °C) sono state prese a riferimento per la verifica della linea.

In Tabella A1. 30 sono indicati gli spostamenti attribuiti a ciascun incastro in corrispondenza delle flange.

Incastri - Dilatazioni termiche differenziali					
quota bocchello [mm]	linea	Δz (bocchello ancoraggio serbatoio) [mm]	ΔT [°C]	$\alpha \cdot \Delta T$	dilatazione [mm]
6138.4	PSS-B to LGMS-B	-3786.48	178	0.003718	14.07972296
14614.72	PSS-B to LGMS-B	-2247.3	178	0.003718	8.356405266

Tabella A1. 30: PSS-B to LGMS-B: spostamenti degli incastri in corrispondenza delle flange

Le pressioni e le temperature nella linea, alla condizione di riferimento, sono mostrate in Figura A1-133

I risultati delle verifiche strutturali, eseguite per la condizione operativa esaminata, sono riportati in Figura A1-134, Figura A1-135, Figura A1-136.

Per la condizione operativa esaminata, in Figura A1-137 è presentata la visualizzazione degli spostamenti della linea nelle condizioni accoppiate GT (G=gravity e T=temperatura), ossia sotto l'effetto combinato del peso del sistema e del suo contenuto con la temperatura. La condizione GT è quella che racchiude informazioni globali sulla deformata del sistema.

La rappresentazione degli spostamenti è amplificata di un fattore 5 per aumentarne la percezione.

L'entità degli spostamenti di ogni punto e lo spostamento massimo sono presentati nell'output del calcolo di verifica della linea con Autopipe, Allegato 12.



Figura A1-133: PSS-B to LGMS-B caso 1: Pressioni e temperature

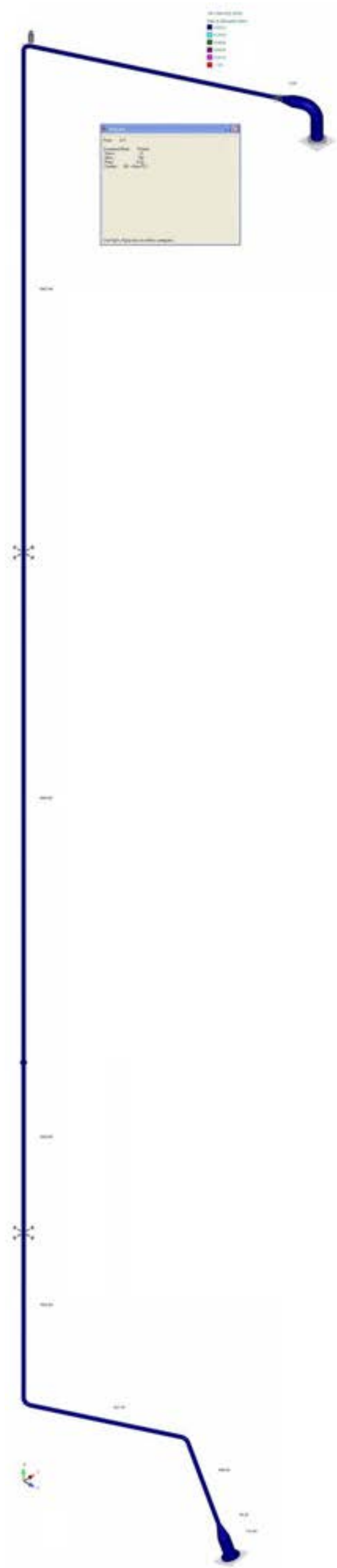


Figura A1-134: PSS-B to LGMS-B caso 1: Tensioni dovute a pressione, peso proprio del sistema e del suo contenuto, carichi meccanici (SUS)

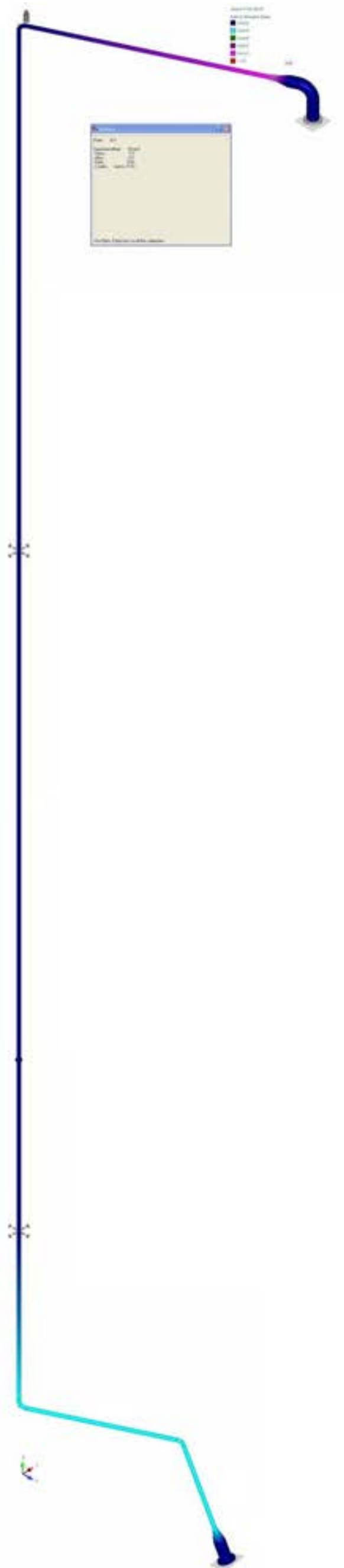


Figura A1-135: PSS-B to LGMS-B caso 1: Tensioni dovute ai carichi termici



Figura A1-136: PSS-B to LGMS-B: Prova idraulica

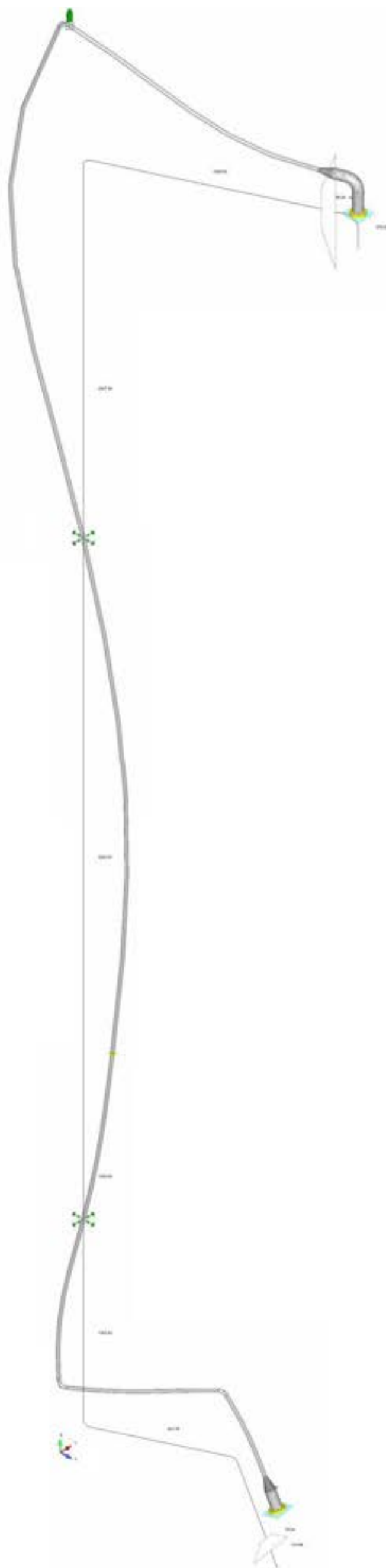


Figura A1-137: PSS-B to LGMS-B caso 1: Visualizzazione degli spostamenti del circuito sotto effetto combinato del peso del sistema e del suo contenuto

A1.9 SINTESI DEI RISULTATI

La Tabella A1. 31 riassume i risultati delle verifiche delle linee descritte nei paragrafi precedenti, per tutte le condizioni di carico esaminate.

In tutti i casi, il rapporto tra la tensione ammissibile e la tensione calcolata risulta inferiore all'unità, soddisfacendo i requisiti della norma UNI EN 13480:2002, armonizzata alla direttiva PED 97/23/CE.

	condizioni esaminate	Condizione di carico	tensione/ tensione ammissibile	Punto di massima sollecitazione
DVI-A		Hydrotest	0.33	L14
Caso 1	circuito primario alle condizioni di progetto	GR+Max (P1)	0.6	L25
		Amb + T1	0.85	L18
Caso 2	intervento dell' EBT-A	Amb + T2	0.96	L18
Caso 3	equalizzazione della pressione del circuito primario a quella del contenimento	Amb + T3	0.87	M02
DVI-B		Hydrotest	0.35	J 01
Caso 1	circuito primario alle condizioni di progetto	GR+Max (P1)	0.76	J01
		Amb + T1	0.89	M26
Caso 2	rottura del DVI-B	Amb + T2	0.94	M26
Caso 3	intervento dell'EBT-B	Amb + T3	0.93	F06
Caso 4	rottura della linea EBT-B	Amb + T4	0.93	M26
Caso 5	equalizzazione della pressione del circuito primario a quella del contenimento	Amb + T5	0.97	I07
ADS		Hydrotest	0.34	D04
Caso 1	circuito primario alle condizioni di progetto	GR+Max (P1)	0.84	K07
		Amb + T1	0.88	K21
Caso 2	intervento dell'ADS Stage-I in seguito della rottura del DVI-B	Amb + T2	0.70	B13
Caso 3	rottura dell'ADS	Amb + T3	0.90	B13
Caso 4	intervento dell' ADS Stage-II in seguito alla rottura del DVI-B	Amb + T4	0.21	K21
Caso 5	intervento dell'ADS Stage-I in seguito alla rottura dell'ADS ST	Amb + T5	0.66	B13
FL		Hydrotest	0.15	A01
Caso 1	condizioni stazionarie di funzionamento	GR+Max (P1)	0.59	K27
		Amb + T1	0.78	F13
Caso 2	rottura del DVI-B	Amb + T2	0.84	F13
Caso 3	rottura della FL-B	Amb + T3	0.77	F13
Caso 4	rottura dell FL-B con perdita dell'EHRB-B	Amb + T4	0.57	F13
SL		Hydrotest	0.17	A04
Caso 1	condizioni stazionarie di funzionamento	GR+Max (P1)	0.82	J8
		Amb + T1	0.96	F02
Caso 2	rottura del DVI-B	Amb + T2	0.92	D15 M
Caso 3	rottura della SL-B	Amb + T3	0.97	F02
Caso 4	2 secondi dopo la rottura della SL-B	Amb + T4	0.96	S07
Caso 5	Rottura della SL-B con perdita dell'EHRB-B	Amb + T5	0.79	T03
DW to RC liquid line		Hydrotest	0.06	A10
Caso 1	condizioni di progetto del contenimento	GR+Max (P1)	0.35	A11
		Amb + T1	0.82	A11
DW to RC gas line		Hydrotest	0.10	A08
Caso 1	condizioni di progetto del contenimento	GR+Max (P1)	0.22	A08
		Amb + T1	0.69	A08
DW to PSS-A		Hydrotest	0.05	B06
Caso 1	condizioni di progetto del contenimento	GR+Max (P1)	0.35	A09 F
		Amb + T1	0.73	B07
DW to PSS-B		Hydrotest	0.05	B06
Caso 1	condizioni di progetto del contenimento	GR+Max (P1)	0.42	A09 F
		Amb + T1	0.81	B0.7
PSS-A to LGMS-A		Hydrotest	0.05	A05
Caso 1	condizioni di progetto del contenimento	GR+Max (P1)	0.18	A05
		Amb + T1	0.77	A11
PSS-B to LGMS-B		Hydrotest	0.05	A05
Caso 1	condizioni di progetto del contenimento	GR+Max (P1)	0.20	A11
		Amb + T1	0.82	A11

Tabella A1. 31: Risultati delle verifiche delle linee di SPES3

ALLEGATO 2. DVI-A INPUT E OUTPUT DEI CALCOLI AUTOPIPE

file: DVI_A_LINE_rev0.pdf

DVI_A_LINE_REV0.OUT

PIPING CODE : EN 13480
 YEAR : 2002
 LIFETIME (HRS) : 200000
 LIFETIME MONITORING : NO
 VERTICAL AXIS : Z
 AMBIENT TEMPERATURE : 20.0 deg C
 COMPONENT LIBRARY : AUTOPIPE
 MATERIAL LIBRARY : EUROMAT
 MODEL REVISION NUMBER : 24

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 DVI_A_LINE_REV0

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C O M P O N E N T D A T A L I S T I N G

 *** SEGMENT A

 From A00 to A01, DX= -85.72 mm

Run

PIPE DATA:

Pipe Id= 3/4POL80, Material= X5CRNI18-10 1.4301, Product= Seamless tube, Source= EURO,
 Composition= Austentic Stainless, Poisson= 0.300, Nom Size= 20 mm, OD= 26.670 mm, Sch= 80, Wall Thk= 3.912 mm,
 Mill= 0.489 mm, Cor= 0 mm, Pipe Density= 7930.00 kg/m3, Pipe Unit Wgt= 21.75 N/m, Content Sp Gr= 1.000,
 Content Unit Wgt= 2.73 N/m, Insul Thk= 50.000 mm, Insul Material= MINERAL WOOL, Insul Density= 136.16 kg/m3,
 Insul Unit Wgt= 16.08 N/m, Lining Thk= 0 mm, Long Weld factor= 1.00, Circ Weld factor= 1.00, Long Modulus= 0.19996 E6 N/mm2,
 Hoop Modulus= 0.19996 E6 N/mm2, Shear Modulus= 0.07691 E6 N/mm2, Al= 40.0, At= 35.0, fc= 166.7 N/mm2, Rp0.2= 195.0 N/mm2,
 Rp1.0= 230.0 N/mm2, Rm= 500.0 N/mm2

OPERATING DATA:

P1= 17.2500 N/mm2, P2= 17.2500 N/mm2, P3= 1.5000 N/mm2, T1= 354.00 deg C, T2= 354.00 deg C, T3= 198.00 deg C,
 Exp1= 5.85176 mm/m, Exp2= 5.85176 mm/m, Exp3= 2.94948 mm/m, E1= 0.17164 E6 N/mm2, E2= 0.17164 E6 N/mm2, E3= 0.18487 E6 N/mm2,
 Rp0.2t1= 103.52 N/mm2, Rp0.2t2= 103.52 N/mm2, Rp0.2t3= 127.52 N/mm2, Rp1.0t1= 128.68 N/mm2, Rp1.0t2= 128.68 N/mm2,
 Rp1.0t3= 155.60 N/mm2, Rmt1= 0.00 N/mm2, Rmt2= 0.00 N/mm2, Rmt3= 0.00 N/mm2, fcr1= 0.00 N/mm2, fcr2= 0.00 N/mm2,
 fcr3= 0.00 N/mm2, fh1= 85.79 N/mm2, fh2= 85.79 N/mm2, fh3= 103.73 N/mm2

POINT DATA:

A00, Coordinates, X= -531.40 mm, Y= 0.00 mm, Z= 9437.00 mm
 A00, Flange= WELDNECK, Rating= Non standard, Flange Weight= 3.60 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck,
 SIF= 1.00, Perform ANSI check= No

SUPPORT DATA:

A00, Anchor, Tag No.= DVITORV3, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

 From A01 to A26, DX= -38.10 mm

Redu

COMPONENT DATA (Reducer):

Length= 38.10 mm, SIF= 2.00

POINT DATA:

A01, Coordinates, X= -617.12 mm, Y= 0.00 mm, Z= 9437.00 mm

From A26 to A04, DX= -683.18 mm

Run

PIPE DATA:

Pipe Id= 1/2POL80, Composition= Austentic Stainless, Nom Size= 15 mm, OD= 21.336 mm, Wall Thk= 3.734 mm, Mill= 0.467 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 1.48 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 14.96 N/m

POINT DATA:

A26, Coordinates, X= -655.22 mm, Y= 0.00 mm, Z= 9437.00 mm

From A04 to A31, DZ= -922.60 mm

Bend

COMPONENT DATA (Bend, TIP= A04, Near= A04 N, Far= A04 F):

Long Elbow, Radius= 38.10 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIF0= 1.00

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C O M P O N E N T D A T A L I S T I N G

POINT DATA:

A04, Coordinates, X= -1338.40 mm, Y= 0.00 mm, Z= 9437.00 mm
A04 N, Coordinates, X= -1300.30 mm, Y= 0.00 mm, Z= 9437.00 mm
A04 F, Coordinates, X= -1338.40 mm, Y= 0.00 mm, Z= 9398.90 mm

SUPPORT DATA:

A04 N, Constant Force Hanger, Support Id= A04 N1, Connected to Ground, 1 hanger(s), Preload= 273 N

From A31 to A07, DZ= -25.40 mm

Run

POINT DATA:

A31, Coordinates, X= -1338.40 mm, Y= 0.00 mm, Z= 8514.40 mm

From A07 to A28, DY= 25.40 mm

Tee

COMPONENT DATA (Tee Branch, Center= A07):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

POINT DATA:

A07, Coordinates, X= -1338.40 mm, Y= 0.00 mm, Z= 8489.00 mm

From A28 to A13, DY= 725.40 mm

Run

POINT DATA:

A28, Coordinates, X= -1338.40 mm, Y= 25.40 mm, Z= 8489.00 mm

From A13 to A10, DY= 99.20 mm

Tee

COMPONENT DATA (Tee Header, Center= A13):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

POINT DATA:

A13, Coordinates, X= -1338.40 mm, Y= 750.80 mm, Z= 8489.00 mm

SUPPORT DATA:

A13, Constant Force Hanger, Support Id= A13 1, Connected to Ground, 1 hanger(s), Preload= 298 N

From A10 to C040, DX= -181.60 mm

Bend

COMPONENT DATA (Bend, TIP= A10, Near= A10 N, Far= A10 F):

Elbow, Radius= 19.00 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIF0= 1.00

POINT DATA:

DVI_A_LINE_REV0.0UT
A10, Coordinates, X= -1338.40 mm, Y= 850.00 mm, Z= 8489.00 mm
A10 N, Coordinates, X= -1338.40 mm, Y= 831.00 mm, Z= 8489.00 mm
A10 F, Coordinates, X= -1357.40 mm, Y= 850.00 mm, Z= 8489.00 mm

From C040 to A33, DX= -300.00 mm

Run

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C O M P O N E N T D A T A L I S T I N G

POINT DATA:

C040, Coordinates, X= -1520.00 mm, Y= 850.00 mm, Z= 8489.00 mm
C040, Flange= WELDNECK, Rating= 2500, Flange Weight= 3.60 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No
C040, Flange= WELDNECK, Rating= 2500, Flange Weight= 3.60 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No

From A33 to A18, DX= -212.00 mm

Tee

COMPONENT DATA (Tee Header, Center= A33):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

POINT DATA:

A33, Coordinates, X= -1820.00 mm, Y= 850.00 mm, Z= 8489.00 mm

From A18 to A21, DZ= -300.00 mm

Bend

COMPONENT DATA (Bend, TIP= A18, Near= A18 N, Far= A18 F):

Elbow, Radius= 19.00 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIF0=
1.00

OPERATING DATA (A18 F to A21):

T1= 20.00 deg C, T2= 20.00 deg C, Exp1= 0 mm/m, Exp2= 0 mm/m, E1= 0.19996 E6 N/mm2, E2= 0.19996
E6 N/mm2,
Rp0.2t1= 195.00 N/mm2, Rp0.2t2= 195.00 N/mm2, Rp1.0t1= 230.00 N/mm2, Rp1.0t2= 230.00 N/mm2, fh1=
153.33 N/mm2,
fh2= 153.33 N/mm2

POINT DATA:

A18, Coordinates, X= -2032.00 mm, Y= 850.00 mm, Z= 8489.00 mm
A18 N, Coordinates, X= -2013.00 mm, Y= 850.00 mm, Z= 8489.00 mm
A18 F, Coordinates, X= -2032.00 mm, Y= 850.00 mm, Z= 8470.00 mm

From A21 to A24, DX= -288.00 mm

Bend

COMPONENT DATA (Bend, TIP= A21, Near= A21 N, Far= A21 F):

Elbow, Radius= 19.00 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIF0=
1.00

POINT DATA:

A21, Coordinates, X= -2032.00 mm, Y= 850.00 mm, Z= 8189.00 mm
A21 N, Coordinates, X= -2032.00 mm, Y= 850.00 mm, Z= 8208.00 mm
A21 F, Coordinates, X= -2051.00 mm, Y= 850.00 mm, Z= 8189.00 mm

From A24 to A27, DZ= 300.00 mm

Bend

COMPONENT DATA (Bend, TIP= A24, Near= A24 N, Far= A24 F):

Elbow, Radius= 19.00 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIF0=
1.00

POINT DATA:

A24, Coordinates, X= -2320.00 mm, Y= 850.00 mm, Z= 8189.00 mm
A24 N, Coordinates, X= -2301.00 mm, Y= 850.00 mm, Z= 8189.00 mm
A24 F, Coordinates, X= -2320.00 mm, Y= 850.00 mm, Z= 8208.00 mm

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From A27 to A29, DY= -240.60 mm

Bend

COMPONENT DATA (Bend, TIP= A27, Near= A27 N, Far= A27 F):

Elbow, Radius= 19.00 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIF0= 1.00

POINT DATA:

A27, Coordinates, X= -2320.00 mm, Y= 850.00 mm, Z= 8489.00 mm

A27 N, Coordinates, X= -2320.00 mm, Y= 850.00 mm, Z= 8470.00 mm

A27 F, Coordinates, X= -2320.00 mm, Y= 831.00 mm, Z= 8489.00 mm

From A29 to CH01, DY= -110.00 mm

Valv

COMPONENT DATA (Valve):

TCHECK-F, Rating= Non-standard, Length= 110.00 mm, Valve weight = 9 kg, Surface factor= 1.00, End type= Weld neck, SIF= 1.00

POINT DATA:

A29, Coordinates, X= -2320.00 mm, Y= 609.40 mm, Z= 8489.00 mm

A29, Flange= WELDNECK, Rating= Non standard, Flange Weight= 3.20 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck,

SIF= 1.00, Perform ANSI check= No

A29 M, Coordinates, X= -2320.00 mm, Y= 554.40 mm, Z= 8489.00 mm

SUPPORT DATA:

A29 M, Guide, Support Id= A29 M1, Connected to Ground, Stiffness= RIGID, Gap-Down= 0.00 mm,

Gap-Above= 100.00 mm,

Gap-Left= 0.00 mm, Gap-Right= 0.00 mm, Friction= 0.00, Gaps setting= Weightless

From CH01 to A32, DY= -409.40 mm

Run

PIPE DATA:

Pipe Id= 1/2POL40, Composition= Austentic Stainless, Sch= 40, Wall Thk= 2.769 mm, Mill= 0.346 mm, Content Sp Gr= 1.000,

Content Unit Wgt= 1.92 N/m, Insul Thk= 40.000 mm, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 10.29 N/m,

Long Modulus= 0.19996 E6 N/mm2, Hoop Modulus= 0.19996 E6 N/mm2, Shear Modulus= 0.07691 E6 N/mm2

OPERATING DATA:

P1= 0.1000 N/mm2, P2= 0.1000 N/mm2

POINT DATA:

CH01, Coordinates, X= -2320.00 mm, Y= 499.40 mm, Z= 8489.00 mm

CH01, Flange= WELDNECK, Rating= Non standard, Flange Weight= 3.20 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck,

SIF= 1.00, Perform ANSI check= No

From A32 to A34, DX= -57.50 mm

Bend

COMPONENT DATA (Bend, TIP= A32, Near= A32 N, Far= A32 F):

Elbow, Radius= 19.00 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.25, SIF0= 1.25

POINT DATA:

A32, Coordinates, X= -2320.00 mm, Y= 90.00 mm, Z= 8489.00 mm

A32 N, Coordinates, X= -2320.00 mm, Y= 109.00 mm, Z= 8489.00 mm

A32 F, Coordinates, X= -2339.00 mm, Y= 90.00 mm, Z= 8489.00 mm

From A34 to A35, DX= -974.40 mm

Tee

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COMPONENT DATA (Tee Header, Center= A34):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

POINT DATA:

A34, Coordinates, X= -2377.50 mm, Y= 90.00 mm, Z= 8489.00 mm

From A35 to A39, DX= -25.40 mm

Run

POINT DATA:

A35, Coordinates, X= -3351.90 mm, Y= 90.00 mm, Z= 8489.00 mm

From A39 to A36, DX= -25.40 mm

Tee

COMPONENT DATA (Tee Header, Center= A39):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

POINT DATA:

A39, Coordinates, X= -3377.30 mm, Y= 90.00 mm, Z= 8489.00 mm

SUPPORT DATA:

A39, Guide, Support Id= A39 2, Connected to Ground, Stiffness= RIGID, Gap-Down= 0.00 mm,
Gap-Above= 100.00 mm,
Gap-Left= 0.00 mm, Gap-Right= 0.00 mm, Friction= 0.00, Gaps setting= Weightless

From A36 to A37, DX= -634.80 mm

Run

POINT DATA:

A36, Coordinates, X= -3402.70 mm, Y= 90.00 mm, Z= 8489.00 mm

From A37 to A58, DX= -25.00 mm

Run

POINT DATA:

A37, Coordinates, X= -4037.50 mm, Y= 90.00 mm, Z= 8489.00 mm

From A58 to A38, DX= -25.00 mm

Tee

COMPONENT DATA (Tee Header, Center= A58):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

POINT DATA:

A58, Coordinates, X= -4062.50 mm, Y= 90.00 mm, Z= 8489.00 mm

SUPPORT DATA:

A58, Constant Force Hanger, Support Id= A58 1, Connected to Ground, 1 hanger(s), Preload= 67 N

From A38 to A40, DX= -556.00 mm

Run

POINT DATA:

A38, Coordinates, X= -4087.50 mm, Y= 90.00 mm, Z= 8489.00 mm

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From A40 to A43, DZ= -19.00 mm Bend

COMPONENT DATA (Bend, TIP= A40, Near= A40 N, Far= A40 F):
Elbow, Radius= 19.00 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.25, SIF0= 1.25

POINT DATA:

A40, Coordinates, X= -4643.50 mm, Y= 90.00 mm, Z= 8489.00 mm
A40 N, Coordinates, X= -4624.50 mm, Y= 90.00 mm, Z= 8489.00 mm
A40 F, Coordinates, X= -4643.50 mm, Y= 90.00 mm, Z= 8470.64 mm

From A43 to A44, DZ= -38.00 mm Redu

COMPONENT DATA (Reducer):
Length= 38.00 mm, SIF= 2.00

POINT DATA:

A43, Coordinates, X= -4643.50 mm, Y= 90.00 mm, Z= 8470.00 mm

From A44 to A47, DZ= -826.00 mm Run

PIPE DATA:
Pipe Id= 3/8POL40, Composition= Austentic Stainless, Nom Size= 10 mm, OD= 17.145 mm, Wall Thk= 2.311 mm, Mill= 0.289 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 1.21 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 9.59 N/m,
Long Modulus= 0.19996 E6 N/mm2, Hoop Modulus= 0.19996 E6 N/mm2, Shear Modulus= 0.07691 E6 N/mm2

POINT DATA:

A44, Coordinates, X= -4643.50 mm, Y= 90.00 mm, Z= 8432.00 mm

From A47 to A45, DZ= -826.00 mm Run

POINT DATA:

A47, Coordinates, X= -4643.50 mm, Y= 90.00 mm, Z= 7606.00 mm

SUPPORT DATA:

A47, Guide, Support Id= A47 1, Connected to Ground, Stiffness= RIGID

From A45 to A46, DY= -799.00 mm Bend

COMPONENT DATA (Bend, TIP= A45, Near= A45 N, Far= A45 F):
Long Elbow, Radius= 14.29 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.26, SIF0= 1.26

POINT DATA:

A45, Coordinates, X= -4643.50 mm, Y= 90.00 mm, Z= 6780.00 mm
A45 N, Coordinates, X= -4643.50 mm, Y= 90.00 mm, Z= 6794.29 mm
A45 F, Coordinates, X= -4643.50 mm, Y= 75.71 mm, Z= 6780.00 mm

From A46 to CH05, DY= -105.00 mm Valv

COMPONENT DATA (Valve):

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TCHECK-F, Rating= Non-standard, Length= 105.00 mm, Valve weight = 3 kg, Surface factor= 1.00, End type= Weld neck, SIF= 1.00

POINT DATA:

A46, Coordinates, X= -4643.50 mm, Y= -709.00 mm, Z= 6780.00 mm
A46, Flange= WELDNECK, Rating= Non standard, Flange Weight= 0.70 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck,

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SIF= 1.00, Perform ANSI check= No
A46 M, Coordinates, X= -4643.50 mm, Y= -761.50 mm, Z= 6780.00 mm

SUPPORT DATA:

A46 M, Guide, Support Id= A46 M1, Connected to Ground, Stiffness= RIGID, Gap-Down= 0.00 mm,
Gap-Above= 100.00 mm,
Gap-Left= 0.00 mm, Gap-Right= 0.00 mm, Friction= 0.00, Gaps setting= Weightless

From CH05 to OR9, DY= -145.00 mm

Run

POINT DATA:

CH05, Coordinates, X= -4643.50 mm, Y= -814.00 mm, Z= 6780.00 mm
CH05, Flange= WELDNECK, Rating= Non standard, Flange Weight= 0.70 kg, Bolt/Nut Weight= 0.00 kg,
End type= Weld neck,
SIF= 1.00, Perform ANSI check= No

From OR9 to A48, DY= -345.00 mm

Run

POINT DATA:

OR9, Coordinates, X= -4643.50 mm, Y= -959.00 mm, Z= 6780.00 mm
OR9, Flange= SLIP-ON, Rating= Non standard, Flange Weight= 0.70 kg, Bolt/Nut Weight= 0.00 kg, End
type= Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No
OR9, Flange= SLIP-ON, Rating= Non standard, Flange Weight= 0.70 kg, Bolt/Nut Weight= 0.00 kg, End
type= Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No

From A48 to IV07, DY= -140.00 mm

Valv

COMPONENT DATA (Valve):

GLOBE-F, Rating= Non-standard, Length= 140.00 mm, Valve weight = 3 kg, Actuator Auto = No,
Actuator Symbol = Yes,
Actuator weight = 5 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 133.50 mm, Surface factor=
1.00, End type= Weld neck,
SIF= 1.00

POINT DATA:

A48, Coordinates, X= -4643.50 mm, Y= -1304.00 mm, Z= 6780.00 mm
A48, Flange= WELDNECK, Rating= Non standard, Flange Weight= 0.70 kg, Bolt/Nut Weight= 0.00 kg,
End type= Weld neck,
SIF= 1.00, Perform ANSI check= No
A48 M, Coordinates, X= -4643.50 mm, Y= -1374.00 mm, Z= 6780.00 mm

SUPPORT DATA:

A48 M, Guide, Support Id= A48 M1, Connected to Ground, Stiffness= RIGID, Gap-Down= 0.00 mm,
Gap-Above= 100.00 mm,
Gap-Left= 0.00 mm, Gap-Right= 0.00 mm, Friction= 0.00, Gaps setting= Weightless

From IV07 to A50, DY= -145.00 mm

Run

POINT DATA:

IV07, Coordinates, X= -4643.50 mm, Y= -1444.00 mm, Z= 6780.00 mm
IV07, Flange= WELDNECK, Rating= Non standard, Flange Weight= 0.70 kg, Bolt/Nut Weight= 0.00 kg,
End type= Weld neck,
SIF= 1.00, Perform ANSI check= No

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C O M P O N E N T D A T A L I S T I N G

From A50 to A51, DX= -329.50 mm, DY= -329.50 mm, L= 465.98 mm

Bend

COMPONENT DATA (Bend, TIP= A50, Near= A50 N, Far= A50 F):

Long Elbow, Radius= 14.29 mm, Bend angle= 45.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.26,
SIFO= 1.26

DVI_A_LINE_REV0.OUT

POINT DATA:

A50, Coordinates, X= -4643.50 mm, Y= -1589.00 mm, Z= 6780.00 mm
 A50 N, Coordinates, X= -4643.50 mm, Y= -1583.08 mm, Z= 6780.00 mm
 A50 F, Coordinates, X= -4647.69 mm, Y= -1593.18 mm, Z= 6780.00 mm

 From A51 to A52, DY= -1100.00 mm

Bend

COMPONENT DATA (Bend, TIP= A51, Near= A51 N, Far= A51 F):

Long Elbow, Radius= 14.29 mm, Bend angle= 45.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.26, SIFO= 1.26

POINT DATA:

A51, Coordinates, X= -4973.00 mm, Y= -1918.50 mm, Z= 6780.00 mm
 A51 N, Coordinates, X= -4968.82 mm, Y= -1914.32 mm, Z= 6780.00 mm
 A51 F, Coordinates, X= -4973.00 mm, Y= -1924.42 mm, Z= 6780.00 mm

 From A52 to A49, DZ= -1000.00 mm

Bend

COMPONENT DATA (Bend, TIP= A52, Near= A52 N, Far= A52 F):

Long Elbow, Radius= 14.29 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.26, SIFO= 1.26

POINT DATA:

A52, Coordinates, X= -4973.00 mm, Y= -3018.50 mm, Z= 6780.00 mm
 A52 N, Coordinates, X= -4973.00 mm, Y= -3004.21 mm, Z= 6780.00 mm
 A52 F, Coordinates, X= -4973.00 mm, Y= -3018.50 mm, Z= 6765.71 mm

 From A49 to A53, DZ= -5765.00 mm

Run

POINT DATA:

A49, Coordinates, X= -4973.00 mm, Y= -3018.50 mm, Z= 5780.00 mm

SUPPORT DATA:

A49, Guide, Support Id= A49 1, Connected to Ground, Stiffness= RIGID

 From A53 to A54, DX= 150.00 mm

Bend

COMPONENT DATA (Bend, TIP= A53, Near= A53 N, Far= A53 F):

Long Elbow, Radius= 14.29 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.26, SIFO= 1.26

POINT DATA:

A53, Coordinates, X= -4973.00 mm, Y= -3018.50 mm, Z= 15.00 mm
 A53 N, Coordinates, X= -4973.00 mm, Y= -3018.50 mm, Z= 29.29 mm
 A53 F, Coordinates, X= -4958.71 mm, Y= -3018.50 mm, Z= 15.00 mm

SUPPORT DATA:

A53 F, Constant Force Hanger, Support Id= A53 F1, Connected to Ground, 1 hanger(s), Preload= 162 N

□

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 From A54 to A55, DX= 51.00 mm

Redu

COMPONENT DATA (Reducer):

Length= 51.00 mm, SIF= 2.00

POINT DATA:

A54, Coordinates, X= -4823.00 mm, Y= -3018.50 mm, Z= 15.00 mm

 From A55 to A56, DX= 152.00 mm

Run

PIPE DATA:

Pipe Id= 1_1/4S40, Composition= Austentic Stainless, Nom Size= 32 mm, OD= 42.164 mm, Wall Thk= 3.556 mm, Mill= 0.444 mm,

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Content Sp Gr= 1.000, Content Unit Wgt= 9.46 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 13.79 N/m

POINT DATA:

A55, Coordinates, X= -4772.00 mm, Y= -3018.50 mm, Z= 15.00 mm
A56, Coordinates, X= -4620.00 mm, Y= -3018.50 mm, Z= 15.00 mm
A56, Flange= WELDNECK, Rating= Non standard, Flange Weight= 1.80 kg, Bolt/Nut Weight= 0.00 kg,
End type= Weld neck,
SIF= 1.00, Perform ANSI check= No

SUPPORT DATA:

A56, Anchor, Tag No.= DVITOPSS, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

*** SEGMENT E

From A39 to E01, DZ= 25.40 mm Tee

COMPONENT DATA (Tee Branch, Center= A39):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

PIPE DATA:

Pipe Id= 1/2POL40, Composition= Austentic Stainless, Nom Size= 15 mm, OD= 21.336 mm, Wall Thk= 2.769 mm, Mill= 0.346 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 1.92 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 10.29 N/m,
Long Modulus= 0.19996 E6 N/mm2, Hoop Modulus= 0.19996 E6 N/mm2, Shear Modulus= 0.07691 E6 N/mm2

POINT DATA:

A39, Coordinates, X= -3377.30 mm, Y= 90.00 mm, Z= 8489.00 mm

From E01 to SV11, DZ= 333.00 mm Valv

COMPONENT DATA (Valve):

GATE-F, Rating= Non-standard, Length= 333.00 mm, Valve weight = 2 kg, Surface factor= 1.00, End type= Screwed (threaded),
SIF= 2.30

POINT DATA:

E01, Coordinates, X= -3377.30 mm, Y= 90.00 mm, Z= 8514.40 mm
E01 M, Coordinates, X= -3377.30 mm, Y= 90.00 mm, Z= 8680.90 mm
SV11, Coordinates, X= -3377.30 mm, Y= 90.00 mm, Z= 8847.40 mm

□

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*** SEGMENT F

From A34 to F01, DY= -20.55 mm, DZ= 14.93 mm, L= 25.40 mm Tee

COMPONENT DATA (Tee Branch, Center= A34):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

PIPE DATA:

Pipe Id= 3/8POL40, Composition= Austentic Stainless, Nom Size= 10 mm, OD= 17.145 mm, Wall Thk= 2.311 mm, Mill= 0.289 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 1.21 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 9.59 N/m,
Long Modulus= 0.19996 E6 N/mm2, Hoop Modulus= 0.19996 E6 N/mm2, Shear Modulus= 0.07691 E6 N/mm2

POINT DATA:

A34, Coordinates, X= -2377.50 mm, Y= 90.00 mm, Z= 8489.00 mm

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From F01 to F02, DY= -320.79 mm, DZ= 233.07 mm, L= 396.52 mm Run

POINT DATA:

F01, Coordinates, X= -2377.50 mm, Y= 69.45 mm, Z= 8503.93 mm

From F02 to F03, DY= -1057.35 mm Bend

COMPONENT DATA (Bend, TIP= F02, Near= F02 N, Far= F02 F):

Elbow, Radius= 19.00 mm, Bend angle= 36.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.05, SIF0= 1.05

POINT DATA:

F02, Coordinates, X= -2377.50 mm, Y= -251.34 mm, Z= 8737.00 mm
F02 N, Coordinates, X= -2377.50 mm, Y= -246.35 mm, Z= 8733.37 mm
F02 F, Coordinates, X= -2377.50 mm, Y= -257.51 mm, Z= 8737.00 mm

From F03 to CH12, DY= -105.00 mm Valv

COMPONENT DATA (Valve):

TCHECK-F, Rating= Non-standard, Length= 105.00 mm, Valve weight = 3 kg, Surface factor= 1.00, End type= Weld neck, SIF= 1.00

POINT DATA:

F03, Coordinates, X= -2377.50 mm, Y= -1308.69 mm, Z= 8737.00 mm
F03, Flange= WELDNECK, Rating= Non standard, Flange Weight= 0.70 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00, Perform ANSI check= No
F03 M, Coordinates, X= -2377.50 mm, Y= -1361.19 mm, Z= 8737.00 mm

SUPPORT DATA:

F03 M, V-Stop, Support Id= F03 M1, Connected to Ground
F03 M, Guide, Support Id= F03 M2, Connected to Ground, Stiffness= RIGID, Gap-Down= 0.00 mm, Gap-Above= 100.00 mm, Gap-Left= 0.00 mm, Gap-Right= 0.00 mm, Friction= 0.00, Gaps setting= Weightless

From CH12 to C020, DY= -467.90 mm Run

□

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POINT DATA:

CH12, Coordinates, X= -2377.50 mm, Y= -1413.69 mm, Z= 8737.00 mm
CH12, Flange= WELDNECK, Rating= Non standard, Flange Weight= 0.70 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00, Perform ANSI check= No

From C020 to F05, DY= -467.90 mm Run

POINT DATA:

C020, Coordinates, X= -2377.50 mm, Y= -1881.59 mm, Z= 8737.00 mm
C020, Flange= SLIP-ON, Rating= Non standard, Flange Weight= 0.70 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on, SIF= 1.20, Perform ANSI check= No
C020, Flange= SLIP-ON, Rating= Non standard, Flange Weight= 0.70 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on, SIF= 1.20, Perform ANSI check= No

From F05 to IV03, DY= -140.00 mm Valv

COMPONENT DATA (Valve):

GATE-F, Rating= Non-standard, Length= 140.00 mm, Valve weight = 3 kg, Actuator Auto = No, Actuator Symbol = Yes, Actuator weight = 5 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 133.50 mm, Surface factor= 1.00, End type= Weld neck, SIF= 1.00

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POINT DATA:

F05, Coordinates, X= -2377.50 mm, Y= -2349.49 mm, Z= 8737.00 mm
 F05, Flange= WELDNECK, Rating= Non standard, Flange Weight= 0.70 kg, Bolt/Nut Weight= 0.00 kg,
 End type= Weld neck,
 SIF= 1.00, Perform ANSI check= No
 F05 M, Coordinates, X= -2377.50 mm, Y= -2419.49 mm, Z= 8737.00 mm

SUPPORT DATA:

F05 M, Guide, Support Id= F05 M1, Connected to Ground, Stiffness= RIGID, Gap-Down= 0.00 mm,
 Gap-Above= 100.00 mm,
 Gap-Left= 0.00 mm, Gap-Right= 0.00 mm, Friction= 0.00, Gaps setting= Weightless

 From IV03 to F07, DY= -1000.00 mm

Run

POINT DATA:

IV03, Coordinates, X= -2377.50 mm, Y= -2489.49 mm, Z= 8737.00 mm
 IV03, Flange= WELDNECK, Rating= Non standard, Flange Weight= 0.70 kg, Bolt/Nut Weight= 0.00 kg,
 End type= Weld neck,
 SIF= 1.00, Perform ANSI check= No

 From F07 to F08, DX= -1685.00 mm

Bend

COMPONENT DATA (Bend, TIP= F07, Near= F07 N, Far= F07 F):

Long Elbow, Radius= 14.29 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.26,
 SIF0= 1.26

POINT DATA:

F07, Coordinates, X= -2377.50 mm, Y= -3489.49 mm, Z= 8737.00 mm
 F07 N, Coordinates, X= -2377.50 mm, Y= -3475.20 mm, Z= 8737.00 mm
 F07 F, Coordinates, X= -2391.79 mm, Y= -3489.49 mm, Z= 8737.00 mm

 From F08 to F10, DZ= 1200.00 mm

Bend

□

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C O M P O N E N T D A T A L I S T I N G

COMPONENT DATA (Bend, TIP= F08, Near= F08 N, Mid= F08 M, Far= F08 F):

Long Elbow, Radius= 14.29 mm, Bend angle= 90.00 deg, Mid point at 50.00 percent, End flanges= 0,
 Flex= Auto, SIFI= 1.26,
 SIF0= 1.26

POINT DATA:

F08, Coordinates, X= -4062.50 mm, Y= -3489.49 mm, Z= 8737.00 mm
 F08 N, Coordinates, X= -4048.21 mm, Y= -3489.49 mm, Z= 8737.00 mm
 F08 M, Coordinates, X= -4058.32 mm, Y= -3489.49 mm, Z= 8741.19 mm
 F08 F, Coordinates, X= -4062.50 mm, Y= -3489.49 mm, Z= 8751.29 mm

 From F10 to F11, DZ= 51.00 mm

Redu

COMPONENT DATA (Reducer):

Length= 51.00 mm, SIF= 2.00

POINT DATA:

F10, Coordinates, X= -4062.50 mm, Y= -3489.49 mm, Z= 9937.00 mm

 From F11 to F12, DZ= 227.00 mm

Run

PIPE DATA:

Pipe Id= 1_1/4S40, Composition= Austentic Stainless, Nom Size= 32 mm, OD= 42.164 mm, Wall Thk= 3.556 mm, Mill= 0.444 mm,
 Content Sp Gr= 1.000, Content Unit Wgt= 9.46 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 13.79 N/m

POINT DATA:

F11, Coordinates, X= -4062.50 mm, Y= -3489.49 mm, Z= 9988.00 mm

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F12, Coordinates, X= -4062.50 mm, Y= -3489.49 mm, Z= 10215.00 mm
 F12, Flange= WELDNECK, Rating= Non standard, Flange Weight= 1.80 kg, Bolt/Nut Weight= 0.00 kg,
 End type= Weld neck,
 SIF= 1.00, Perform ANSI check= No

SUPPORT DATA:

F12, Anchor, Tag No.= DVITOLGMS, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

*** SEGMENT G

From A58 to N06, DZ= -25.40 mm Tee

COMPONENT DATA (Tee Branch, Center= A58):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

PIPE DATA:

Pipe Id= 3/8POL40, Composition= Austentic Stainless, Nom Size= 10 mm, OD= 17.145 mm, Wall Thk= 2.311 mm, Mill= 0.289 mm,
 Content Sp Gr= 1.000, Content Unit Wgt= 1.21 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 9.59 N/m

POINT DATA:

A58, Coordinates, X= -4062.50 mm, Y= 90.00 mm, Z= 8489.00 mm
 N06, Coordinates, X= -4062.50 mm, Y= 90.00 mm, Z= 8463.60 mm

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*** SEGMENT I

From A07 to I01, DZ= -932.00 mm Tee

COMPONENT DATA (Tee Header, Center= A07):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

PIPE DATA:

Pipe Id= 1/2POL80, Composition= Austentic Stainless, Nom Size= 15 mm, OD= 21.336 mm, Sch= 80,
 Wall Thk= 3.734 mm,
 Mill= 0.467 mm, Content Sp Gr= 1.000, Content Unit Wgt= 1.48 N/m, Insul Thk= 50.000 mm, Insul
 Density= 136.16 kg/m3,
 Insul Unit Wgt= 14.96 N/m

OPERATING DATA:

P1= 17.2500 N/mm2, P2= 17.2500 N/mm2, T1= 354.00 deg C, T2= 354.00 deg C, Exp1= 5.85176 mm/m,
 Exp2= 5.85176 mm/m,
 E1= 0.17164 E6 N/mm2, E2= 0.17164 E6 N/mm2, Rp0.2t1= 103.52 N/mm2, Rp0.2t2= 103.52 N/mm2,
 Rp1.0t1= 128.68 N/mm2,
 Rp1.0t2= 128.68 N/mm2, fh1= 85.79 N/mm2, fh2= 85.79 N/mm2

POINT DATA:

A07, Coordinates, X= -1338.40 mm, Y= 0.00 mm, Z= 8489.00 mm

From I01 to I02, DZ= -1900.00 mm Tee

COMPONENT DATA (Tee Header, Center= I01):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

POINT DATA:

I01, Coordinates, X= -1338.40 mm, Y= 0.00 mm, Z= 7557.00 mm
 I02, Coordinates, X= -1338.40 mm, Y= 0.00 mm, Z= 5657.00 mm

SUPPORT DATA:

I02, Guide, Support Id= I02 1, Connected to Ground, Stiffness= RIGID

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*** SEGMENT J

From I02 to J01, DZ= -1900.00 mm Junc

PIPE DATA:
Pipe Id= 1/2POL80, Composition= Austentic Stainless

POINT DATA:
I02, Coordinates, X= -1338.40 mm, Y= 0.00 mm, Z= 5657.00 mm

From J01 to J02, DX= -500.00 mm Bend

COMPONENT DATA (Bend, TIP= J01, Near= J01 N, Far= J01 F):
Long Elbow, Radius= 38.10 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIFO= 1.00

POINT DATA:
J01, Coordinates, X= -1338.40 mm, Y= 0.00 mm, Z= 3757.00 mm

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J01 N, Coordinates, X= -1338.40 mm, Y= 0.00 mm, Z= 3795.10 mm
J01 F, Coordinates, X= -1376.50 mm, Y= 0.00 mm, Z= 3757.00 mm

From J02 to J03, DZ= -1000.00 mm Bend

COMPONENT DATA (Bend, TIP= J02, Near= J02 N, Far= J02 F):
Long Elbow, Radius= 38.10 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIFO= 1.00

POINT DATA:
J02, Coordinates, X= -1838.40 mm, Y= 0.00 mm, Z= 3757.00 mm
J02 N, Coordinates, X= -1800.30 mm, Y= 0.00 mm, Z= 3757.00 mm
J02 F, Coordinates, X= -1838.40 mm, Y= 0.00 mm, Z= 3718.90 mm

From J03 to J04, DX= 681.93 mm Bend

COMPONENT DATA (Bend, TIP= J03, Near= J03 N, Far= J03 F):
Long Elbow, Radius= 38.10 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIFO= 1.00

POINT DATA:
J03, Coordinates, X= -1838.40 mm, Y= 0.00 mm, Z= 2757.00 mm
J03 N, Coordinates, X= -1838.40 mm, Y= 0.00 mm, Z= 2795.10 mm
J03 F, Coordinates, X= -1800.30 mm, Y= 0.00 mm, Z= 2757.00 mm

From J04 to J05, DZ= -400.00 mm Bend

COMPONENT DATA (Bend, TIP= J04, Near= J04 N, Far= J04 F):
Long Elbow, Radius= 38.10 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIFO= 1.00

POINT DATA:
J04, Coordinates, X= -1156.47 mm, Y= 0.00 mm, Z= 2757.00 mm
J04 N, Coordinates, X= -1194.57 mm, Y= 0.00 mm, Z= 2757.00 mm
J04 F, Coordinates, X= -1156.47 mm, Y= 0.00 mm, Z= 2718.90 mm

From J05 to J06, DX= 501.00 mm Bend

COMPONENT DATA (Bend, TIP= J05, Near= J05 N, Far= J05 F):
Long Elbow, Radius= 38.10 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIFO= 1.00

POINT DATA:

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J05, Coordinates, X= -1156.47 mm, Y= 0.00 mm, Z= 2357.00 mm
J05 N, Coordinates, X= -1156.47 mm, Y= 0.00 mm, Z= 2395.10 mm
J05 F, Coordinates, X= -1118.37 mm, Y= 0.00 mm, Z= 2357.00 mm

From J06 to J07, DX= 38.10 mm

Redu

COMPONENT DATA (Reducer):
Length= 38.10 mm, SIF= 2.00

POINT DATA:
J06, Coordinates, X= -655.47 mm, Y= 0.00 mm, Z= 2357.00 mm

□

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From J07 to J08, DX= 85.72 mm

Run

PIPE DATA:
Pipe Id= 3/4POL80, Composition= Austentic Stainless, Nom Size= 20 mm, OD= 26.670 mm, Wall Thk= 3.912 mm, Mill= 0.489 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 2.73 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 16.08 N/m

POINT DATA:
J07, Coordinates, X= -617.37 mm, Y= 0.00 mm, Z= 2357.00 mm
J08, Coordinates, X= -531.65 mm, Y= 0.00 mm, Z= 2357.00 mm
J08, Flange= WELDNECK, Rating= Non standard, Flange Weight= 3.60 kg, Bolt/Nut Weight= 0.00 kg,
End type= Weld neck,
SIF= 1.00, Perform ANSI check= No

SUPPORT DATA:
J08, Anchor, Tag No.= DVITORV1, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

*** SEGMENT K

From I01 to K01, DX= 572.46 mm

Tee

COMPONENT DATA (Tee Branch, Center= I01):
B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

PIPE DATA:
Pipe Id= 1/2POL80, Composition= Austentic Stainless, Nom Size= 15 mm, OD= 21.336 mm, Wall Thk= 3.734 mm, Mill= 0.467 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 1.48 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 14.96 N/m

POINT DATA:
I01, Coordinates, X= -1338.40 mm, Y= 0.00 mm, Z= 7557.00 mm

From K01 to K02, DX= 38.10 mm

Redu

COMPONENT DATA (Reducer):
Length= 38.10 mm, SIF= 2.00

POINT DATA:
K01, Coordinates, X= -765.94 mm, Y= 0.00 mm, Z= 7557.00 mm

From K02 to K03, DX= 85.72 mm

Run

PIPE DATA:
Pipe Id= 3/4POL80, Composition= Austentic Stainless, Nom Size= 20 mm, OD= 26.670 mm, Wall Thk= 3.912 mm, Mill= 0.489 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 2.73 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 16.08 N/m

DVI_A_LINE_REV0.OUT

POINT DATA:

K02, Coordinates, X= -727.84 mm, Y= 0.00 mm, Z= 7557.00 mm
 K03, Coordinates, X= -642.12 mm, Y= 0.00 mm, Z= 7557.00 mm
 K03, Flange= WELDNECK, Rating= Non standard, Flange Weight= 3.60 kg, Bolt/Nut Weight= 0.00 kg,
 End type= Weld neck,
 SIF= 1.00, Perform ANSI check= No

□

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 C O M P O N E N T D A T A L I S T I N G

SUPPORT DATA:

K03, Anchor, Tag No.= DVITORV2, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

 *** SEGMENT L

 From A33 to L01, DY= -21.77 mm, DZ= 13.08 mm, L= 25.40 mm Tee

COMPONENT DATA (Tee Branch, Center= A33):
 B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

PIPE DATA:

Pipe Id= 3/8POL80, Composition= Austentic Stainless, Nom Size= 10 mm, OD= 17.145 mm, Wall Thk= 3.200 mm, Mill= 0.400 mm,
 Content Sp Gr= 1.000, Content Unit Wgt= 0.89 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 14.08 N/m

POINT DATA:

A33, Coordinates, X= -1820.00 mm, Y= 850.00 mm, Z= 8489.00 mm

 From L01 to L02, DY= -728.23 mm, DZ= 429.92 mm, L= 845.67 mm Run

POINT DATA:

L01, Coordinates, X= -1820.00 mm, Y= 828.23 mm, Z= 8502.08 mm

 From L02 to L03, DX= -527.00 mm Bend

COMPONENT DATA (Bend, TIP= L02, Near= L02 N, Mid= L02 M, Far= L02 F):
 Elbow, Radius= 19.00 mm, Bend angle= 90.00 deg, Mid point at 50.00 percent, End flanges= 0, Flex= Auto, SIFI= 1.00,
 SIF0= 1.00

POINT DATA:

L02, Coordinates, X= -1820.00 mm, Y= 100.00 mm, Z= 8932.00 mm
 L02 N, Coordinates, X= -1820.00 mm, Y= 116.36 mm, Z= 8922.34 mm
 L02 M, Coordinates, X= -1825.57 mm, Y= 104.79 mm, Z= 8929.17 mm
 L02 F, Coordinates, X= -1839.00 mm, Y= 100.00 mm, Z= 8932.00 mm

 From L03 to CH03, DX= -110.00 mm Valv

COMPONENT DATA (Valve):

TCHECK-F, Rating= Non-standard, Length= 110.00 mm, Valve weight = 9 kg, Surface factor= 1.00, End type= Weld neck, SIF= 1.00

POINT DATA:

L03, Coordinates, X= -2347.00 mm, Y= 100.00 mm, Z= 8932.00 mm
 L03, Flange= WELDNECK, Rating= Non standard, Flange Weight= 3.20 kg, Bolt/Nut Weight= 0.00 kg,
 End type= Weld neck,
 SIF= 1.00, Perform ANSI check= No
 L03 M, Coordinates, X= -2402.00 mm, Y= 100.00 mm, Z= 8932.00 mm

SUPPORT DATA:

L03 M, Guide, Support Id= L03 M1, Connected to Ground, Stiffness= RIGID, Gap-Down= 0.00 mm,
 Gap-Above= 100.00 mm,
 Gap-Left= 0.00 mm, Gap-Right= 0.00 mm, Friction= 0.00, Gaps setting= Weightless

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 From CH03 to C015, DX= -200.00 mm

Run

OPERATING DATA:

T1= 20.00 deg C, Exp1= 0 mm/m, E1= 0.19996 E6 N/mm2, Rp0.2t1= 195.00 N/mm2, Rp1.0t1= 230.00 N/mm2, fh1= 153.33 N/mm2

POINT DATA:

CH03, Coordinates, X= -2457.00 mm, Y= 100.00 mm, Z= 8932.00 mm
 CH03, Flange= WELDNECK, Rating= Non standard, Flange Weight= 3.20 kg, Bolt/Nut Weight= 0.00 kg,
 End type= Weld neck,
 SIF= 1.00, Perform ANSI check= No

 From C015 to L05, DX= -699.50 mm

Run

POINT DATA:

C015, Coordinates, X= -2657.00 mm, Y= 100.00 mm, Z= 8932.00 mm
 C015, Flange= WELDNECK, Rating= Non standard, Flange Weight= 3.20 kg, Bolt/Nut Weight= 0.00 kg,
 End type= Weld neck,
 SIF= 1.00, Perform ANSI check= No
 C015, Flange= WELDNECK, Rating= Non standard, Flange Weight= 3.20 kg, Bolt/Nut Weight= 0.00 kg,
 End type= Weld neck,
 SIF= 1.00, Perform ANSI check= No

 From L05 to L06, DX= -264.00 mm

Valv

COMPONENT DATA (Valve):

GATE-F, Rating= Non-standard, Length= 264.00 mm, Valve weight = 12 kg, Actuator Auto = No,
 Actuator Symbol = Yes,
 Actuator weight = 19 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 313.50 mm, Surface factor= 1.00, End type= Weld neck,
 SIF= 1.00

POINT DATA:

L05, Coordinates, X= -3356.50 mm, Y= 100.00 mm, Z= 8932.00 mm
 L05, Flange= WELDNECK, Rating= Non standard, Flange Weight= 3.20 kg, Bolt/Nut Weight= 0.00 kg,
 End type= Weld neck,
 SIF= 1.00, Perform ANSI check= No
 L05 M, Coordinates, X= -3488.50 mm, Y= 100.00 mm, Z= 8932.00 mm

SUPPORT DATA:

L05 M, Guide, Support Id= L05 M2, Connected to Ground, Stiffness= RIGID, Gap-Down= 100.00 mm,
 Gap-Above= 100.00 mm,
 Gap-Left= 0.00 mm, Gap-Right= 0.00 mm, Friction= 0.00, Gaps setting= Weightless

L05 M, Variable Spring Hanger, Support Id= L05 M1, Connected to Ground, 1 hanger(s), Stiffness= 2 N/mm, Preload= 364 N

 From L06 to L07, DX= -174.50 mm

Run

POINT DATA:

L06, Coordinates, X= -3620.50 mm, Y= 100.00 mm, Z= 8932.00 mm
 L06, Flange= WELDNECK, Rating= Non standard, Flange Weight= 3.20 kg, Bolt/Nut Weight= 0.00 kg,
 End type= Weld neck,
 SIF= 1.00, Perform ANSI check= No

 From L07 to L08, DY= 350.00 mm, DZ= 750.00 mm, L= 827.65 mm

Bend

COMPONENT DATA (Bend, TIP= L07, Near= L07 N, Mid= L07 M, Far= L07 F):

Elbow, Radius= 19.00 mm, Bend angle= 90.00 deg, Mid point at 50.00 percent, End flanges= 0, Flex= Auto, SIFI= 1.00,
 SIFO= 1.00

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POINT DATA:

L07, Coordinates, X= -3795.00 mm, Y= 100.00 mm, Z= 8932.00 mm
L07 N, Coordinates, X= -3776.00 mm, Y= 100.00 mm, Z= 8932.00 mm
L07 M, Coordinates, X= -3789.43 mm, Y= 102.35 mm, Z= 8937.04 mm
L07 F, Coordinates, X= -3795.00 mm, Y= 108.03 mm, Z= 8949.22 mm

From L08 to L35, DZ= 957.70 mm

Bend

COMPONENT DATA (Bend, TIP= L08, Near= L08 N, Far= L08 F):

Elbow, Radius= 19.00 mm, Bend angle= 25.02 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIF0= 1.00

POINT DATA:

L08, Coordinates, X= -3795.00 mm, Y= 450.00 mm, Z= 9682.00 mm
L08 N, Coordinates, X= -3795.00 mm, Y= 448.22 mm, Z= 9678.18 mm
L08 F, Coordinates, X= -3795.00 mm, Y= 450.00 mm, Z= 9686.22 mm

From L35 to L09, DZ= 1900.00 mm

Run

POINT DATA:

L35, Coordinates, X= -3795.00 mm, Y= 450.00 mm, Z= 10639.70 mm

SUPPORT DATA:

L35, Guide, Support Id= L35 1, Connected to Ground, Stiffness= RIGID

From L09 to L10, DZ= 38.10 mm

Redu

COMPONENT DATA (Reducer):

Length= 38.10 mm, SIF= 2.00

POINT DATA:

L09, Coordinates, X= -3795.00 mm, Y= 450.00 mm, Z= 12539.70 mm

From L10 to L11, DZ= 51.00 mm

Redu

COMPONENT DATA (Reducer):

Length= 51.00 mm, SIF= 2.00

PIPE DATA:

Pipe Id= 3/4POL80, Composition= Austentic Stainless, Nom Size= 20 mm, OD= 26.670 mm, Wall Thk= 3.912 mm, Mill= 0.489 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 2.73 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 16.08 N/m

POINT DATA:

L10, Coordinates, X= -3795.00 mm, Y= 450.00 mm, Z= 12577.80 mm

From L11 to L12, DZ= 103.20 mm

Run

PIPE DATA:

Pipe Id= 1_1/4S80, Composition= Austentic Stainless, Nom Size= 32 mm, OD= 42.164 mm, Wall Thk= 4.851 mm, Mill= 0.606 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 8.11 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 19.33 N/m

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POINT DATA:

L11, Coordinates, X= -3795.00 mm, Y= 450.00 mm, Z= 12628.80 mm

From L12 to L13, DZ= 175.00 mm

Run

POINT DATA:

L12, Coordinates, X= -3795.00 mm, Y= 450.00 mm, Z= 12732.00 mm

L12, Flange= WELDNECK, Rating= Non standard, Flange Weight= 7.80 kg, Bolt/Nut Weight= 0.00 kg,
End type= Weld neck,
SIF= 1.00, Perform ANSI check= No
L12, Flange= WELDNECK, Rating= Non standard, Flange Weight= 7.80 kg, Bolt/Nut Weight= 0.00 kg,
End type= Weld neck,
SIF= 1.00, Perform ANSI check= No-----
From L13 to L16, DZ= 2210.00 mm

Run

PIPE DATA:

Pipe Id= 200EBT, Composition= Austentic Stainless, Nom Size= Non-standard, OD= 280.00 mm, Sch= Non-standard,
Wall Thk= 25.000 mm, Mill= 3.125 mm, Content Sp Gr= 1.000, Content Unit Wgt= 407.26 N/m, Insul Thk= 100.000 mm,
Insul Density= 136.16 kg/m3, Insul Unit Wgt= 159.41 N/m

POINT DATA:

L13, Coordinates, X= -3795.00 mm, Y= 450.00 mm, Z= 12907.00 mm

From L16 to L14, DZ= 980.00 mm

Run

POINT DATA:

L16, Coordinates, X= -3795.00 mm, Y= 450.00 mm, Z= 15117.00 mm

SUPPORT DATA:

L16, Anchor, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

From L14 to L15, DZ= 175.00 mm

Run

PIPE DATA:

Pipe Id= 1_1/4S80, Composition= Austentic Stainless, OD= 42.164 mm, Sch= 80, Wall Thk= 4.851 mm, Mill= 0.606 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 8.11 N/m, Insul Thk= 50.000 mm, Insul Density= 136.16 kg/m3,
Insul Unit Wgt= 19.33 N/m

POINT DATA:

L14, Coordinates, X= -3795.00 mm, Y= 450.00 mm, Z= 16097.00 mm

From L15 to L17, DZ= 103.00 mm

Run

POINT DATA:

L15, Coordinates, X= -3795.00 mm, Y= 450.00 mm, Z= 16272.00 mm

L15, Flange= WELDNECK, Rating= Non standard, Flange Weight= 7.80 kg, Bolt/Nut Weight= 0.00 kg,
End type= Weld neck,
SIF= 1.00, Perform ANSI check= No
L15, Flange= WELDNECK, Rating= Non standard, Flange Weight= 7.80 kg, Bolt/Nut Weight= 0.00 kg,
End type= Weld neck,
SIF= 1.00, Perform ANSI check= No-----
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From L17 to L18, DZ= 51.00 mm

Redu

COMPONENT DATA (Reducer):

Length= 51.00 mm, SIF= 2.00

POINT DATA:

L17, Coordinates, X= -3795.00 mm, Y= 450.00 mm, Z= 16375.00 mm

From L18 to L19, DZ= 1429.81 mm

Run

PIPE DATA:

Pipe Id= 3/4POL80, Composition= Austentic Stainless, Nom Size= 20 mm, OD= 26.670 mm, Wall Thk= 3.912 mm, Mill= 0.489 mm, Content Sp Gr= 1.000, Content Unit Wgt= 2.73 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 16.08 N/m

POINT DATA:

L18, Coordinates, X= -3795.00 mm, Y= 450.00 mm, Z= 16426.00 mm

From L19 to L20, DX= 400.00 mm, DY= 400.00 mm, L= 565.69 mm

Bend

COMPONENT DATA (Bend, TIP= L19, Near= L19 N, Far= L19N):

Long Elbow, Radius= 38.10 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIFO= 1.00

OPERATING DATA:

T1= 354.00 deg C, Exp1= 5.85176 mm/m, E1= 0.17164 E6 N/mm2, Rp0.2t1= 103.52 N/mm2, Rp1.0t1= 128.68 N/mm2, fh1= 85.79 N/mm2

POINT DATA:

L19, Coordinates, X= -3795.00 mm, Y= 450.00 mm, Z= 17855.81 mm

L19 N, Coordinates, X= -3795.00 mm, Y= 450.00 mm, Z= 17817.71 mm

L19N, Coordinates, X= -3768.06 mm, Y= 476.94 mm, Z= 17855.81 mm

From L20 to L29, DX= 811.00 mm

Bend

COMPONENT DATA (Bend, TIP= L20, Near= L20 N, Far= L20 F):

Long Elbow, Radius= 38.10 mm, Bend angle= 45.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIFO= 1.00

POINT DATA:

L20, Coordinates, X= -3395.00 mm, Y= 850.00 mm, Z= 17855.81 mm

L20 N, Coordinates, X= -3406.16 mm, Y= 838.84 mm, Z= 17855.81 mm

L20 F, Coordinates, X= -3379.22 mm, Y= 850.00 mm, Z= 17855.81 mm

From L29 to L21, DX= 2811.00 mm

Run

POINT DATA:

L29, Coordinates, X= -2584.00 mm, Y= 850.00 mm, Z= 17855.81 mm

SUPPORT DATA:

L29, Guide, Support Id= L29 1, Connected to Ground, Stiffness= RIGID, Gap-Down= 0.00 mm, Gap-Above= 100.00 mm, Gap-Left= 0.00 mm, Gap-Right= 0.00 mm, Friction= 0.00, Gaps setting= Weightless

From L21 to L22, DX= 124.00 mm

Valv

□

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COMPONENT DATA LISTING

COMPONENT DATA (Valve):

GLOBE-B, Rating= Non-standard, Length= 124.00 mm, Valve weight = 7 kg, Surface factor= 1.00, End type= Socket welded, SIF= 2.10

DVI_A_LINE_REV0.OUT

POINT DATA:

L21, Coordinates, X= 227.00 mm, Y= 850.00 mm, Z= 17855.81 mm
L21 M, Coordinates, X= 289.00 mm, Y= 850.00 mm, Z= 17855.81 mm

SUPPORT DATA:

L21 M, Constant Force Hanger, Support Id= L21 M1, Connected to Ground, 1 hanger(s), Preload= 186 N

From L22 to L23, DX= 206.63 mm

Run

POINT DATA:

L22, Coordinates, X= 351.00 mm, Y= 850.00 mm, Z= 17855.81 mm

From L23 to L24, DY= -289.00 mm

Bend

COMPONENT DATA (Bend, TIP= L23, Near= L23 N, Far= L23 F):

Long Elbow, Radius= 38.10 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIFO= 1.00

POINT DATA:

L23, Coordinates, X= 557.63 mm, Y= 850.00 mm, Z= 17855.81 mm
L23 N, Coordinates, X= 519.53 mm, Y= 850.00 mm, Z= 17855.81 mm
L23 F, Coordinates, X= 557.63 mm, Y= 811.90 mm, Z= 17855.81 mm

From L24 to L25, DX= -115.47 mm, DY= -115.47 mm, L= 163.30 mm

Bend

COMPONENT DATA (Bend, TIP= L24, Near= L24 N, Far= L24 F):

Long Elbow, Radius= 38.10 mm, Bend angle= 45.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIFO= 1.00

POINT DATA:

L24, Coordinates, X= 557.63 mm, Y= 561.00 mm, Z= 17855.81 mm
L24 N, Coordinates, X= 557.63 mm, Y= 576.78 mm, Z= 17855.81 mm
L24 F, Coordinates, X= 546.47 mm, Y= 549.84 mm, Z= 17855.81 mm

From L25 to L26, DX= -36.06 mm, DY= -36.06 mm, L= 51.00 mm

Redu

COMPONENT DATA (Reducer):

Length= 51.00 mm, SIF= 2.00

POINT DATA:

L25, Coordinates, X= 442.16 mm, Y= 445.53 mm, Z= 17855.81 mm

From L26 to L27, DX= -72.97 mm, DY= -72.97 mm, L= 103.20 mm

Run

PIPE DATA:

Pipe Id= 1_1/4S80, Composition= Austentic Stainless, Nom Size= 32 mm, OD= 42.164 mm, Wall Thk= 4.851 mm, Mill= 0.606 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 8.11 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 19.33 N/m

||

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POINT DATA:

L26, Coordinates, X= 406.10 mm, Y= 409.47 mm, Z= 17855.81 mm
L27, Coordinates, X= 333.13 mm, Y= 336.50 mm, Z= 17855.81 mm
L27, Flange= WELDNECK, Rating= Non standard, Flange Weight= 7.80 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00, Perform ANSI check= No

SUPPORT DATA:

L27, Anchor, Tag No.= EBTORV, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

DVI_A_LINE_REV0.OUT

*** SEGMENT M

From M00 to M01, DY= 146.00 mm

Run

PIPE DATA:

Pipe Id= 1_1/4S40, Composition= Austentic Stainless, Sch= 40, Wall Thk= 3.556 mm, Mill= 0.444 mm, Content Sp Gr= 1.000, Content Unit Wgt= 9.46 N/m, Insul Thk= 40.000 mm, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 13.79 N/m

OPERATING DATA:

P1= 0.1000 N/mm2, P2= 0.1000 N/mm2, T1= 20.00 deg C, T2= 20.00 deg C, Exp1= 0 mm/m, Exp2= 0 mm/m, E1= 0.19996 E6 N/mm2, E2= 0.19996 E6 N/mm2, Rp0.2t1= 195.00 N/mm2, Rp0.2t2= 195.00 N/mm2, Rp1.0t1= 230.00 N/mm2, Rp1.0t2= 230.00 N/mm2, fh1= 153.33 N/mm2, fh2= 153.33 N/mm2

POINT DATA:

M00, Coordinates, X= -4062.50 mm, Y= -1084.41 mm, Z= 8239.00 mm
M00, Flange= SLIP-ON, Rating= Non standard, Flange Weight= 2.00 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00, Perform ANSI check= No

SUPPORT DATA:

M00, Anchor, Tag No.= CAVTODVI, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

From M01 to M02, DY= 51.00 mm

Redu

COMPONENT DATA (Reducer):

Length= 51.00 mm, SIF= 2.00

POINT DATA:

M01, Coordinates, X= -4062.50 mm, Y= -938.41 mm, Z= 8239.00 mm
M02, Coordinates, X= -4062.50 mm, Y= -887.41 mm, Z= 8239.00 mm

*** SEGMENT N

From M02 to N01, DY= 177.63 mm

Junc

PIPE DATA:

Pipe Id= 3/8POL40, Composition= Austentic Stainless, Nom Size= 10 mm, OD= 17.145 mm, Wall Thk= 2.311 mm, Mill= 0.289 mm, Content Sp Gr= 1.000, Content Unit Wgt= 1.21 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 9.59 N/m

POINT DATA:

□

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C O M P O N E N T D A T A L I S T I N G

M02, Coordinates, X= -4062.50 mm, Y= -887.41 mm, Z= 8239.00 mm

From N01 to IV05, DY= 140.00 mm

Valv

COMPONENT DATA (Valve):

GATE-F, Rating= Non-standard, Length= 140.00 mm, Valve weight = 3 kg, Actuator Auto = No, Actuator Symbol = Yes, Actuator weight = 5 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 133.50 mm, Surface factor= 1.00, End type= Weld neck, SIF= 1.00

POINT DATA:

N01, Coordinates, X= -4062.50 mm, Y= -709.78 mm, Z= 8239.00 mm
N01, Flange= SLIP-ON, Rating= Non standard, Flange Weight= 2.00 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,

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Perform ANSI check= No
N01 M, Coordinates, X= -4062.50 mm, Y= -639.78 mm, Z= 8239.00 mm

SUPPORT DATA:

N01 M, Constant Force Hanger, Support Id= N01 M1, Connected to Ground, 1 hanger(s), Preload= 132 N

From IV05 to N07, DY= 250.00 mm Run

POINT DATA:

IV05, Coordinates, X= -4062.50 mm, Y= -569.78 mm, Z= 8239.00 mm
IV05, Flange= SLIP-ON, Rating= Non standard, Flange Weight= 2.00 kg, Bolt/Nut Weight= 0.00 kg,
End type= Weld neck,
SIF= 1.00, Perform ANSI check= No

From N07 to N03, DY= 113.00 mm Run

POINT DATA:

N07, Coordinates, X= -4062.50 mm, Y= -319.78 mm, Z= 8239.00 mm
N07, Flange= SLIP-ON, Rating= Non standard, Flange Weight= 0.70 kg, Bolt/Nut Weight= 0.00 kg, End
type= Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No
N07, Flange= SLIP-ON, Rating= Non standard, Flange Weight= 0.70 kg, Bolt/Nut Weight= 0.00 kg, End
type= Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No

From N03 to CH14, DY= 105.00 mm Valv

COMPONENT DATA (Valve):

TCHECK-F, Rating= Non-standard, Length= 105.00 mm, Valve weight = 3 kg, Surface factor= 1.00, End
type= Weld neck, SIF= 1.00

POINT DATA:

N03, Coordinates, X= -4062.50 mm, Y= -206.78 mm, Z= 8239.00 mm
N03, Flange= SLIP-ON, Rating= Non standard, Flange Weight= 0.70 kg, Bolt/Nut Weight= 0.00 kg, End
type= Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No
N03 M, Coordinates, X= -4062.50 mm, Y= -154.28 mm, Z= 8239.00 mm

SUPPORT DATA:

N03 M, Constant Force Hanger, Support Id= N03 M1, Connected to Ground, 1 hanger(s), Preload= 74 N

From CH14 to N05, DY= 191.78 mm Run

□

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POINT DATA:

CH14, Coordinates, X= -4062.50 mm, Y= -101.78 mm, Z= 8239.00 mm
CH14, Flange= SLIP-ON, Rating= Non standard, Flange Weight= 0.70 kg, Bolt/Nut Weight= 0.00 kg,
End type= Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No

From N05 to N06, DZ= 224.60 mm Bend

COMPONENT DATA (Bend, TIP= N05, Near= N05 N, Far= N05 F):

Long Elbow, Radius= 14.29 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.26,
SIFO= 1.26

POINT DATA:

N05, Coordinates, X= -4062.50 mm, Y= 90.00 mm, Z= 8239.00 mm
N05 N, Coordinates, X= -4062.50 mm, Y= 75.71 mm, Z= 8239.00 mm
N05 F, Coordinates, X= -4062.50 mm, Y= 90.00 mm, Z= 8253.29 mm
N06, Coordinates, X= -4062.50 mm, Y= 90.00 mm, Z= 8463.60 mm

*** SEGMENT 0

From A13 to 001, DZ= -73.00 mm

Tee

COMPONENT DATA (Tee Branch, Center= A13):
B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

PIPE DATA:

Pipe Id= 1/2POL80, Composition= Austentic Stainless, Nom Size= 15 mm, OD= 21.336 mm, Sch= 80,
Wall Thk= 3.734 mm,
Mill= 0.467 mm, Content Sp Gr= 1.000, Content Unit Wgt= 1.48 N/m, Insul Thk= 50.000 mm, Insul
Density= 136.16 kg/m3,
Insul Unit Wgt= 14.96 N/m

OPERATING DATA:

P1= 17.2500 N/mm2, P2= 17.2500 N/mm2, T1= 354.00 deg C, T2= 354.00 deg C, Exp1= 5.85176 mm/m,
Exp2= 5.85176 mm/m,
E1= 0.17164 E6 N/mm2, E2= 0.17164 E6 N/mm2, Rp0.2t1= 103.52 N/mm2, Rp0.2t2= 103.52 N/mm2,
Rp1.0t1= 128.68 N/mm2,
Rp1.0t2= 128.68 N/mm2, fh1= 85.79 N/mm2, fh2= 85.79 N/mm2

POINT DATA:

A13, Coordinates, X= -1338.40 mm, Y= 750.80 mm, Z= 8489.00 mm

From 001 to HV40, DZ= -263.50 mm

Valv

COMPONENT DATA (Valve):

GLOBE-F, Rating= Non-standard, Length= 263.50 mm, Valve weight = 12 kg, Surface factor= 1.00, End
type= Weld neck, SIF= 1.00

POINT DATA:

001, Coordinates, X= -1338.40 mm, Y= 750.80 mm, Z= 8416.00 mm
001, Flange= WELDNECK, Rating= Non standard, Flange Weight= 3.20 kg, Bolt/Nut Weight= 0.00 kg,
End type= Weld neck,
SIF= 1.00, Perform ANSI check= No
001 M, Coordinates, X= -1338.40 mm, Y= 750.80 mm, Z= 8284.25 mm
HV40, Coordinates, X= -1338.40 mm, Y= 750.80 mm, Z= 8152.50 mm
HV40, Flange= WELDNECK, Rating= Non standard, Flange Weight= 3.20 kg, Bolt/Nut Weight= 0.00 kg,
End type= Weld neck,
SIF= 1.00, Perform ANSI check= No

□

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C O M P O N E N T D A T A L I S T I N G

Number of points in the system: 195

Weight of Empty Pipes + Weight of Contents = Total Weight of System
903.4 kg + 141.1 kg = 1044.6 kg

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C O O R D I N A T E S D A T A L I S T I N G

DVI_A_LINE_REV0.OUT
POINT -----COORDINATE (mm)-----

NAME X Y Z

*** SEGMENT A

A00	-531.40	0.00	9437.00
A01	-617.12	0.00	9437.00
A26	-655.22	0.00	9437.00
A04 N	-1300.30	0.00	9437.00
A04	-1338.40	0.00	9437.00
A04 F	-1338.40	0.00	9398.90
A31	-1338.40	0.00	8514.40
A07	-1338.40	0.00	8489.00
A28	-1338.40	25.40	8489.00
A13	-1338.40	750.80	8489.00
A10 N	-1338.40	831.00	8489.00
A10	-1338.40	850.00	8489.00
A10 F	-1357.40	850.00	8489.00
C040	-1520.00	850.00	8489.00
A33	-1820.00	850.00	8489.00
A18 N	-2013.00	850.00	8489.00
A18	-2032.00	850.00	8489.00
A18 F	-2032.00	850.00	8470.00
A21 N	-2032.00	850.00	8208.00
A21	-2032.00	850.00	8189.00
A21 F	-2051.00	850.00	8189.00
A24 N	-2301.00	850.00	8189.00
A24	-2320.00	850.00	8189.00
A24 F	-2320.00	850.00	8208.00
A27 N	-2320.00	850.00	8470.00
A27	-2320.00	850.00	8489.00
A27 F	-2320.00	831.00	8489.00
A29	-2320.00	609.40	8489.00
A29 M	-2320.00	554.40	8489.00
CH01	-2320.00	499.40	8489.00
A32 N	-2320.00	109.00	8489.00
A32	-2320.00	90.00	8489.00
A32 F	-2339.00	90.00	8489.00
A34	-2377.50	90.00	8489.00
A35	-3351.90	90.00	8489.00
A39	-3377.30	90.00	8489.00
A36	-3402.70	90.00	8489.00
A37	-4037.50	90.00	8489.00
A58	-4062.50	90.00	8489.00
A38	-4087.50	90.00	8489.00
A40 N	-4624.50	90.00	8489.00
A40	-4643.50	90.00	8489.00
A40 F	-4643.50	90.00	8470.64
A43	-4643.50	90.00	8470.00
A44	-4643.50	90.00	8432.00
A47	-4643.50	90.00	7606.00
A45 N	-4643.50	90.00	6794.29
A45	-4643.50	90.00	6780.00
A45 F	-4643.50	75.71	6780.00
A46	-4643.50	-709.00	6780.00
A46 M	-4643.50	-761.50	6780.00

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C O O R D I N A T E S D A T A L I S T I N G

POINT -----COORDINATE (mm)-----

NAME X Y Z

CH05	-4643.50	-814.00	6780.00
OR9	-4643.50	-959.00	6780.00
A48	-4643.50	-1304.00	6780.00
A48 M	-4643.50	-1374.00	6780.00
IV07	-4643.50	-1444.00	6780.00

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A50 N	-4643.50	-1583.08	6780.00
A50	-4643.50	-1589.00	6780.00
A50 F	-4647.69	-1593.18	6780.00
A51 N	-4968.82	-1914.32	6780.00
A51	-4973.00	-1918.50	6780.00
A51 F	-4973.00	-1924.42	6780.00
A52 N	-4973.00	-3004.21	6780.00
A52	-4973.00	-3018.50	6780.00
A52 F	-4973.00	-3018.50	6765.71
A49	-4973.00	-3018.50	5780.00
A53 N	-4973.00	-3018.50	29.29
A53	-4973.00	-3018.50	15.00
A53 F	-4958.71	-3018.50	15.00
A54	-4823.00	-3018.50	15.00
A55	-4772.00	-3018.50	15.00
A56	-4620.00	-3018.50	15.00

*** SEGMENT E

A39	-3377.30	90.00	8489.00
E01	-3377.30	90.00	8514.40
E01 M	-3377.30	90.00	8680.90
SV11	-3377.30	90.00	8847.40

*** SEGMENT F

A34	-2377.50	90.00	8489.00
F01	-2377.50	69.45	8503.93
F02 N	-2377.50	-246.35	8733.37
F02	-2377.50	-251.34	8737.00
F02 F	-2377.50	-257.51	8737.00
F03	-2377.50	-1308.69	8737.00
F03 M	-2377.50	-1361.19	8737.00
CH12	-2377.50	-1413.69	8737.00
C020	-2377.50	-1881.59	8737.00
F05	-2377.50	-2349.49	8737.00
F05 M	-2377.50	-2419.49	8737.00
IV03	-2377.50	-2489.49	8737.00
F07 N	-2377.50	-3475.20	8737.00
F07	-2377.50	-3489.49	8737.00
F07 F	-2391.79	-3489.49	8737.00
F08 N	-4048.21	-3489.49	8737.00
F08	-4062.50	-3489.49	8737.00
F08 M	-4058.32	-3489.49	8741.19
F08 F	-4062.50	-3489.49	8751.29
F10	-4062.50	-3489.49	9937.00
F11	-4062.50	-3489.49	9988.00
F12	-4062.50	-3489.49	10215.00

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C O O R D I N A T E S D A T A L I S T I N G

POINT	-----COORDINATE (mm)-----		
NAME	X	Y	Z

*** SEGMENT G

A58	-4062.50	90.00	8489.00
N06	-4062.50	90.00	8463.60

*** SEGMENT I

A07	-1338.40	0.00	8489.00
I01	-1338.40	0.00	7557.00
I02	-1338.40	0.00	5657.00

*** SEGMENT J

I02	-1338.40	0.00	5657.00
J01 N	-1338.40	0.00	3795.10
J01	-1338.40	0.00	3757.00
J01 F	-1376.50	0.00	3757.00
J02 N	-1800.30	0.00	3757.00
J02	-1838.40	0.00	3757.00

J02	F	-1838.40	0.00	3718.90
J03	N	-1838.40	0.00	2795.10
J03		-1838.40	0.00	2757.00
J03	F	-1800.30	0.00	2757.00
J04	N	-1194.57	0.00	2757.00
J04		-1156.47	0.00	2757.00
J04	F	-1156.47	0.00	2718.90
J05	N	-1156.47	0.00	2395.10
J05		-1156.47	0.00	2357.00
J05	F	-1118.37	0.00	2357.00
J06		-655.47	0.00	2357.00
J07		-617.37	0.00	2357.00
J08		-531.65	0.00	2357.00

I01	-1338.40	0.00	7557.00
K01	-765.94	0.00	7557.00
K02	-727.84	0.00	7557.00
K03	-642.12	0.00	7557.00

A33	-1820.00	850.00	8489.00
L01	-1820.00	828.23	8502.08
L02 N	-1820.00	116.36	8922.34
L02	-1820.00	100.00	8932.00
L02 M	-1825.57	104.79	8929.17
L02 F	-1839.00	100.00	8932.00
L03	-2347.00	100.00	8932.00
L03 M	-2402.00	100.00	8932.00
CH03	-2457.00	100.00	8932.00
C015	-2657.00	100.00	8932.00
L05	-3356.50	100.00	8932.00
L05 M	-3488.50	100.00	8932.00
L06	-3620.50	100.00	8932.00
L07 N	-3776.00	100.00	8932.00
L07	-3795.00	100.00	8932.00

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COORDINATES DATA LISTING

L07	M	-3789.43	102.35	8937.04
L07	F	-3795.00	108.03	8949.22
L08	N	-3795.00	448.22	9678.18
L08		-3795.00	450.00	9682.00
L08	F	-3795.00	450.00	9686.22
L35		-3795.00	450.00	10639.70
L09		-3795.00	450.00	12539.70
L10		-3795.00	450.00	12577.80
L11		-3795.00	450.00	12628.80
L12		-3795.00	450.00	12732.00
L13		-3795.00	450.00	12907.00
L16		-3795.00	450.00	15117.00
L14		-3795.00	450.00	16097.00
L15		-3795.00	450.00	16272.00
L17		-3795.00	450.00	16375.00
L18		-3795.00	450.00	16426.00
L19	N	-3795.00	450.00	17817.71
L19		-3795.00	450.00	17855.81
L19N		-3768.06	476.94	17855.81
L20	N	-3406.16	838.84	17855.81
L20		-3395.00	850.00	17855.81
L20	F	-3379.22	850.00	17855.81
L29		-2584.00	850.00	17855.81
L21		227.00	850.00	17855.81
L21	M	289.00	850.00	17855.81
L22		351.00	850.00	17855.81
L23	N	519.53	850.00	17855.81

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L23	557.63	850.00	17855.81
L23 F	557.63	811.90	17855.81
L24 N	557.63	576.78	17855.81
L24	557.63	561.00	17855.81
L24 F	546.47	549.84	17855.81
L25	442.16	445.53	17855.81
L26	406.10	409.47	17855.81
L27	333.13	336.50	17855.81

*** SEGMENT M

M00	-4062.50	-1084.41	8239.00
M01	-4062.50	-938.41	8239.00
M02	-4062.50	-887.41	8239.00

*** SEGMENT N

M02	-4062.50	-887.41	8239.00
N01	-4062.50	-709.78	8239.00
N01 M	-4062.50	-639.78	8239.00
IV05	-4062.50	-569.78	8239.00
N07	-4062.50	-319.78	8239.00
N03	-4062.50	-206.78	8239.00
N03 M	-4062.50	-154.28	8239.00
CH14	-4062.50	-101.78	8239.00
N05 N	-4062.50	75.71	8239.00
N05	-4062.50	90.00	8239.00

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C O O R D I N A T E S D A T A L I S T I N G

POINT -----COORDINATE (mm)-----

NAME	X	Y	Z
N05 F	-4062.50	90.00	8253.29
N06	-4062.50	90.00	8463.60

*** SEGMENT O

A13	-1338.40	750.80	8489.00
O01	-1338.40	750.80	8416.00
O01 M	-1338.40	750.80	8284.25
HV40	-1338.40	750.80	8152.50

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P I P E D A T A L I S T I N G

Pipe ID/ Material	Nom/ O.D. Sch mm	-----Thickness(mm)----- W.Th. Corr Mill	Spec Insu	Weight(N/m) Pipe Other Total	ZL/ ZC	Composition
1/2POL40 Stainless 1.4301	15 21.336 40	2.769	0 0.35 40 0	1.00 12.56 10.29 24.77	1.00	Austentic
1/2POL80 Stainless 1.4301	15 21.336 80	3.734	0 0.47 50 0	1.00 16.06 14.96 32.50	1.00	Austentic

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3/4POL80 Stainless 1.4301	20	26.670	3.912	0	0.49	50	0	1.00	21.75	16.08	40.56	1.00	Austentic
	80											1.00	
3/8POL80 Stainless 1.4301	10	17.145	3.200	0	0.40	50	0	1.00	10.90	14.08	25.87	1.00	Austentic
	80											1.00	
3/8POL40 Stainless 1.4301	10	17.145	2.311	0	0.29	40	0	1.00	8.38	9.59	19.17	1.00	Austentic
	40											1.00	
1_1/4S80 Stainless 1.4301	32	42.164	4.851	0	0.61	50	0	1.00	44.22	19.33	71.67	1.00	Austentic
	80											1.00	
1_1/4S40 Stainless 1.4301	32	42.164	3.556	0	0.44	40	0	1.00	33.54	13.79	56.79	1.00	Austentic
	40											1.00	
200EBT Stainless 1.4301	7112	280.00	25.00	0	3.12	100	0	1.00	1557	159	2124	1.00	Austentic
	NS											1.00	

0

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M A T E R I A L D A T A L I S T I N G

Material	Density	Pois.	Temper.	Modulus E6 N/mm2			Expans.	Composition
Name/[Comp.] Pipe ID	kg/m3	Al/At	deg C	Axial	Hoop	Shear	mm/m	
1.4301 3/4POL80	7930.0	0.30	20.0	0.19996	0.19996	0.07691		Austentic Stainless
X5CRNI18-10 [Austenitic]		40.00 35.00	354.0 198.0	0.17164 0.18487			5.8518 2.9495	
1.4301 1/2POL80	7930.0	0.30	20.0	0.19996	0.19996	0.07691		Austentic Stainless
X5CRNI18-10 [Austenitic]		40.00 35.00	354.0 198.0	0.17164 0.18487			5.8518 2.9495	
1.4301 1/2POL40	7930.0	0.30	20.0	0.19996	0.19996	0.07691		Austentic Stainless
X5CRNI18-10 [Austenitic]		40.00 35.00	198.0	0.18487			2.9495	
1.4301 3/8POL40	7930.0	0.30	20.0	0.19996	0.19996	0.07691		Austentic Stainless
X5CRNI18-10 [Austenitic]		40.00 35.00	198.0 354.0	0.18487 0.17164			2.9495 5.8518	
1.4301 1_1/4S40	7930.0	0.30	20.0	0.19996	0.19996	0.07691		Austentic Stainless
X5CRNI18-10 [Austenitic]		40.00 35.00	198.0	0.18487			2.9495	
1.4301 3/8POL80	7930.0	0.30	20.0	0.19996	0.19996	0.07691		Austentic Stainless
X5CRNI18-10 [Austenitic]		40.00 35.00	354.0 198.0	0.17164 0.18487			5.8518 2.9495	
1.4301 1_1/4S80	7930.0	0.30	20.0	0.19996	0.19996	0.07691		Austentic Stainless
X5CRNI18-10 [Austenitic]		40.00 35.00	354.0 198.0	0.17164 0.18487			5.8518 2.9495	
1.4301 200EBT	7930.0	0.30	20.0	0.19996	0.19996	0.07691		Austentic Stainless
X5CRNI18-10 [Austenitic]		40.00 35.00	354.0 198.0	0.17164 0.18487			5.8518 2.9495	

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1

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DVI_A_LINE_REV0.OUT

POINT -----COORDINATE(mm)----- DATA
 NAME X Y Z TYPE DESCRIPTION

```

-----
L05 M -3488.50 100.00 8932.00
L05 D -3488.50 100.00 9245.50
N01 M -4062.50 -639.78 8239.00
N01 D -4062.50 -639.78 8372.50
A48 M -4643.50 -1374.00 6780.00
A48 D -4643.50 -1374.00 6913.50
F05 M -2377.50 -2419.49 8737.00
F05 D -2377.50 -2419.49 8870.50

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BEAM DATA LISTING

(Length - mm , Rigid End - mm , Beta Angle - deg)

BEAM	POINT	SEC. ID/	BETA	RIGID	RELEASE
ID	NAME	SEC. NAME	LENGTH	ANGLE	END Ax Y-Y Z-Z
L05 M	From	L05 M 0	313.50	0.00	0.00 N N N
	To	L05 D RIGID			0.00 N N N
N01 M	From	N01 M 0	133.50	0.00	0.00 N N N
	To	N01 D RIGID			0.00 N N N
A48 M	From	A48 M 0	133.50	0.00	0.00 N N N
	To	A48 D RIGID			0.00 N N N
F05 M	From	F05 M 0	133.50	0.00	0.00 N N N
	To	F05 D RIGID			0.00 N N N

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CROSS SECTION LISTING

Section ID/	Length(mm)	Area(cm2)	Inertia (mm4)
Section Type	Depth/OD	Width	Thick Fthk/spc
ID Shape Name/Matl	CC	Axial Y-Shear Z-Shear	Torsion Y-Y Bend Z-Z Bend
0 W RIGID		254.00 254.00 25.40 25.40	
RIGID	6.45 6.45	6.45 41623140 41623140 41623140	

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BEAM MATERIAL LISTING

	Elastic		
	modulus	Poissons	Density
MATERIAL ID	E6 N/mm2	ratio	kg/m3
RIGID	68.948	0.300	0.00

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OPERATING TEMPERATURE AND PRESSURE DATA

STRESSES IN N/mm2

POINT	PRESS.	TEMPER	EXPAN.	MODULUS	0.2%	1.0%	TENSILE	CREEP
NAME CASE	N/mm2	deg C	mm/m	E6 N/mm	PROOF	PROOF	(Rmt)	(fcr)
*** SEGMENT A								
A00 T1	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
T2	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
T3	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
A18 F T1	17.2500	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
T2	17.2500	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
T3	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
CH01 T1	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
T2	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
T3	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
A56	Same as previous point.							
*** SEGMENT E								
A39 T1	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
T2	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
T3	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
SV11	Same as previous point.							
*** SEGMENT F								
A34 T1	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
T2	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
T3	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
F12	Same as previous point.							
*** SEGMENT G								
A58 T1	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
T2	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
T3	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
N06	Same as previous point.							
*** SEGMENT I								
A07 T1	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
T2	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
T3	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
I02	Same as previous point.							
*** SEGMENT J								
I02 T1	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
T2	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
T3	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
J08	Same as previous point.							
*** SEGMENT K								

DVI_A_LINE_REV0.OUT									
I01	T1	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T2	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T3	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
K03	Same as previous point.								

*** SEGMENT L

A33	T1	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T2	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T3	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
CH03	T1	17.2500	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T2	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T3	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
L19 N	T1	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T2	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u

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OPERATING TEMPERATURE AND PRESSURE DATA

STRESSES IN N/mm2

POINT	PRESS.	TEMPER	EXPAN.	MODULUS	0.2%	1.0%	TENSILE	CREEP
NAME	CASE	N/mm2	deg C	mm/m	E6 N/mm	PROOF	PROOF	(Rmt)
								(fcr)
L27	T3	1.5000	198	2.949	0.18487	127.52	155.60	0.00
	Same as previous point.							
*** SEGMENT M								
M00	T1	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00
	T2	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00
	T3	1.5000	198	2.949	0.18487	127.52	155.60	0.00
M02	Same as previous point.							
*** SEGMENT N								
M02	T1	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00
	T2	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00
	T3	1.5000	198	2.949	0.18487	127.52	155.60	0.00
N06	Same as previous point.							
*** SEGMENT O								
A13	T1	17.2500	354	5.852	0.17164	103.52	128.68	0.00
	T2	17.2500	354	5.852	0.17164	103.52	128.68	0.00
	T3	1.5000	198	2.949	0.18487	127.52	155.60	0.00
HV40	Same as previous point.							

u User-defined value

* Non-code material for allowable stress;
Non-standard material for expansion and modulus

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THERMAL ANCHOR MOVEMENTS AND DISPLACEMENTS

POINT	DX	DY	DZ	RX	RY	RZ
NAME	LOAD CASE	(mm)	(mm)	(mm)	(deg)	(deg)

DVI_A_LINE_REV0.0UT

A00	Thermal	1	0.00	0.00	-4.67	0.000	0.000	0.000
	Thermal	2	0.00	0.00	-4.67	0.000	0.000	0.000
	Thermal	3	0.00	0.00	-4.67	0.000	0.000	0.000
A56	Thermal	3	0.00	0.00	-8.69	0.000	0.000	0.000
F12	Thermal	3	0.00	0.00	-7.81	0.000	0.000	0.000
J08	Thermal	1	0.00	0.00	-55.91	0.000	0.000	0.000
	Thermal	2	0.00	0.00	-55.91	0.000	0.000	0.000
	Thermal	3	0.00	0.00	-55.91	0.000	0.000	0.000
K03	Thermal	1	0.00	0.00	-18.27	0.000	0.000	0.000
	Thermal	2	0.00	0.00	-18.27	0.000	0.000	0.000
	Thermal	3	0.00	0.00	-18.27	0.000	0.000	0.000
L27	Thermal	1	0.00	0.00	56.31	0.000	0.000	0.000
	Thermal	2	0.00	0.00	56.31	0.000	0.000	0.000
	Thermal	3	0.00	0.00	56.31	0.000	0.000	0.000
M00	Thermal	3	0.00	0.00	21.89	0.000	0.000	0.000

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S U P P O R T D A T A L I S T I N G

Point	Support	Support	Conn.to	Stiff.	Gap 1	Gap 2	Fric.	GapSet	Preload	Size	Figure
Name	Type	ID	/Dir		(mm)	(mm)	Fact.	/#hgr	(N)		

Tag No.: <None>
 A04 N Cons Can A04 N1 Ground 0.000 1-Und 273

Tag No.: <None>
 A13 Cons Hgr A13 1 Ground 0.000 1-Und 298

Tag No.: <None>
 A29 M Guide-V A29 M1 Ground Rigid 0.0 100.0 0.00 Weightless
 Guide-H A29 M1 Ground Rigid 0.0 0.0 0.00 Weightless

Tag No.: <None>
 A39 Guide-V A39 2 Ground Rigid 0.0 100.0 0.00 Weightless
 Guide-H A39 2 Ground Rigid 0.0 0.0 0.00 Weightless

Tag No.: <None>
 A58 Cons Hgr A58 1 Ground 0.000 1-Und 67

Tag No.: <None>
 A47 Guide-V A47 1 Ground Rigid 0.0 0.0 0.00
 Guide-H A47 1 Ground Rigid 0.0 0.0 0.00
 Gap Dir.: (Gap1_V=-X, Gap2_V=+X, Gap1_H=-Y, Gap2_H=+Y)

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Tag No.: <None>
A46 M Guide-V A46 M1 Ground Rigid 0.0 100.0 0.00 Weightless
Guide-H A46 M1 Ground Rigid 0.0 0.0 0.00 Weightless

Tag No.: <None>
A48 M Guide-V A48 M1 Ground Rigid 0.0 100.0 0.00 Weightless
Guide-H A48 M1 Ground Rigid 0.0 0.0 0.00 Weightless

Tag No.: <None>
A49 Guide-V A49 1 Ground Rigid 0.0 0.0 0.00
Guide-H A49 1 Ground Rigid 0.0 0.0 0.00
Gap Dir.: (Gap1_V=-X, Gap2_V=+X, Gap1_H=-Y, Gap2_H=+Y)

Tag No.: <None>
A53 F Cons Can A53 F1 Ground 0.000 1-Und 162

Tag No.: <None>
F03 M V-stop F03 M1 Ground Rigid 0.0 0.0 0.00

Tag No.: <None>
F03 M Guide-V F03 M2 Ground Rigid 0.0 100.0 0.00 Weightless
Guide-H F03 M2 Ground Rigid 0.0 0.0 0.00 Weightless

Tag No.: <None>
F05 M Guide-V F05 M1 Ground Rigid 0.0 100.0 0.00 Weightless
Guide-H F05 M1 Ground Rigid 0.0 0.0 0.00 Weightless

Tag No.: <None>
I02 Guide-V I02 1 Ground Rigid 0.0 0.0 0.00

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S U P P O R T D A T A L I S T I N G

Point Name	Support Type	Support ID	Conn.to /Dir	Stiff.	Gap 1 (mm)	Gap 2 (mm)	Fric. Fact.	GapSet /#hgr	Preload (N)	Size	Figure

Guide-H I02 1 Ground Rigid 0.0 0.0 0.00
Gap Dir.: (Gap1_V=-X, Gap2_V=+X, Gap1_H=-Y, Gap2_H=+Y)

Tag No.: <None>
L03 M Guide-V L03 M1 Ground Rigid 0.0 100.0 0.00 Weightless
Guide-H L03 M1 Ground Rigid 0.0 0.0 0.00 Weightless

Tag No.: <None>
L05 M Guide-V L05 M2 Ground Rigid 100.0 100.0 0.00 Weightless
Guide-H L05 M2 Ground Rigid 0.0 0.0 0.00 Weightless

Tag No.: <None>
L05 M Spr. Can L05 M1 Ground 1.751 1-Und 364 1 FIG 98

Tag No.: <None>
L35 Guide-V L35 1 Ground Rigid 0.0 0.0 0.00
Guide-H L35 1 Ground Rigid 0.0 0.0 0.00
Gap Dir.: (Gap1_V=-X, Gap2_V=+X, Gap1_H=-Y, Gap2_H=+Y)

Tag No.: <None>
L29 Guide-V L29 1 Ground Rigid 0.0 100.0 0.00 Weightless
Guide-H L29 1 Ground Rigid 0.0 0.0 0.00 Weightless

Tag No.: <None>
L21 M Cons Can L21 M1 Ground 0.000 1-Und 186

Tag No.: <None>
N01 M Cons Can N01 M1 Ground 0.000 1-Und 132

Tag No.: <None>

N03 M Cons Can N03 M1 Ground

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0.000

1-Und

74

Spring Manufacturer: Anvil/Grinnell

NOTE 1: No soil supports present in the system.

Gap 1 : V-stop,Guide-V=down, Linestop,Incline,Tie/link=backward, Guide-H=Left

Gap 2 : V-stop,Guide-V=Up, Linestop,Incline,Tie/link=forward, Guide-H=Right

Stiffness units for rotation support: N.m/deg, all others: N/mm

0

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B E N D D A T A L I S T I N G

Point Bend Pressure Case Name Type	Radius (mm)	Angle (deg)	OD (mm)	tnom (mm)	Material	Flg/ Cuts	SIF in	SIF out	Analysis Set	Flexibility (K)	
A04 Elbow	38L	90.0	21.3	3.7	1.4301	0/0	1.00	1.00	1	1.00	None
A10 Elbow	19	90.0	21.3	3.7	1.4301	0/0	1.00	1.00	1	1.80	None
A18 Elbow	19	90.0	21.3	3.7	1.4301	0/0	1.00	1.00	1	1.80	None
A21 Elbow	19	90.0	21.3	3.7	1.4301	0/0	1.00	1.00	1	1.80	None
A24 Elbow	19	90.0	21.3	3.7	1.4301	0/0	1.00	1.00	1	1.80	None
A27 Elbow	19	90.0	21.3	3.7	1.4301	0/0	1.00	1.00	1	1.80	None
A32 Elbow	19	90.0	21.3	2.8	1.4301	0/0	1.25	1.25	1	2.70	None
A40 Elbow	19	90.0	21.3	2.8	1.4301	0/0	1.25	1.25	1	2.70	None
A45 Elbow	14L	90.0	17.1	2.3	1.4301	0/0	1.26	1.26	1	2.75	None
A50 Elbow	14L	45.0	17.1	2.3	1.4301	0/0	1.26	1.26	1	2.75	None
A51 Elbow	14L	45.0	17.1	2.3	1.4301	0/0	1.26	1.26	1	2.75	None
A52 Elbow	14L	90.0	17.1	2.3	1.4301	0/0	1.26	1.26	1	2.75	None
A53 Elbow	14L	90.0	17.1	2.3	1.4301	0/0	1.26	1.26	1	2.75	None
F02 Elbow	19	36.0	17.1	2.3	1.4301	0/0	1.05	1.05	1	2.07	None
F07 Elbow	14L	90.0	17.1	2.3	1.4301	0/0	1.26	1.26	1	2.75	None
F08 *Elbow	14L	90.0	17.1	2.3	1.4301	0/0	1.26	1.26	1	2.75	None
J01 Elbow	38L	90.0	21.3	3.7	1.4301	0/0	1.00	1.00	1	1.00	None
J02 Elbow	38L	90.0	21.3	3.7	1.4301	0/0	1.00	1.00	1	1.00	None
J03 Elbow	38L	90.0	21.3	3.7	1.4301	0/0	1.00	1.00	1	1.00	None
J04 Elbow	38L	90.0	21.3	3.7	1.4301	0/0	1.00	1.00	1	1.00	None
J05 Elbow	38L	90.0	21.3	3.7	1.4301	0/0	1.00	1.00	1	1.00	None
L02 *Elbow	19	90.0	17.1	3.2	1.4301	0/0	1.00	1.00	1	1.32	None
L07 *Elbow	19	90.0	17.1	3.2	1.4301	0/0	1.00	1.00	1	1.32	None
L08 Elbow	19	25.0	17.1	3.2	1.4301	0/0	1.00	1.00	1	1.32	None
L19 Elbow	38L	90.0	26.7	3.9	1.4301	0/0	1.00	1.00	1	1.43	None
L20 Elbow	38L	45.0	26.7	3.9	1.4301	0/0	1.00	1.00	1	1.43	None
L23 Elbow	38L	90.0	26.7	3.9	1.4301	0/0	1.00	1.00	1	1.43	None

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L24	Elbow	38L	45.0	26.7	3.9	1.4301	0/0	1.00	1.00	1	1.43	None
N05	Elbow	14L	90.0	17.1	2.3	1.4301	0/0	1.26	1.26	1	2.75	None

* = Mid-point present
L = Long radius

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TEE DATA LISTING

Point Name	Point Seg-Type	Pipe	Pipe	Material	Tee Type	**Crotch	*Crotch	SIF in	SIF out
		OD (mm)	Thk. (mm)			Radius (mm)	Thick (mm)		
A07	I-Header A-Branch	21.3 21.3	3.7 3.7	1.4301 1.4301	welding			1.00	1.00
A13	A-Header O-Branch	21.3 21.3	3.7 3.7	1.4301 1.4301	welding			1.00	1.00
A33	A-Header L-Branch	21.3 17.1	3.7 3.2	1.4301 1.4301	welding			1.00	1.00
A34	A-Header F-Branch	21.3 17.1	2.8 2.3	1.4301 1.4301	welding			1.00	1.00
A39	A-Header E-Branch	21.3 21.3	2.8 2.8	1.4301 1.4301	welding			1.00	1.00
A58	A-Header G-Branch	21.3 17.1	2.8 2.3	1.4301 1.4301	welding			1.00	1.00
I01	I-Header K-Branch	21.3 21.3	3.7 3.7	1.4301 1.4301	welding			1.00	1.00

* = Pad thickness for reinforced tee.

**= Fillet radius for Raised tee or discontinuity dist. for Thickened tee.

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VALVE DATA LISTING

Type Point /Avg. Name (mm)	Point /Max. Type	Dnom (mm)	Rating	Length (mm)	Weight (kg)	Valve Weight (kg)	Actuator Weight (kg)	DX (mm)	Actuator DY (mm)	Actuator DZ (mm)	Joint SAF	Type	SIF	Size
														(mm)
A29	TCHECK-F	15	NS	110.00	9						1.00	WN	1.00	
A46	TCHECK-F	10	NS	105.00	3						1.00	WN	1.00	
A48	GLOBE-F	10	NS	140.00	3	5	0.00	0.00	133.50	1.00	WN	1.00		
E01	GATE-F	15	NS	333.00	2						1.00	TJ	2.30	

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F03	TCHECK-F	10	NS	105.00	3				1.00	WN	1.00	
F05	GATE-F	10	NS	140.00	3	5	0.00	0.00	133.50	1.00	WN	1.00
L03	TCHECK-F	10	NS	110.00	9					1.00	WN	1.00
L05	GATE-F	10	NS	264.00	12	19	0.00	0.00	313.50	1.00	WN	1.00
L21	GLOBE-B	20	NS	124.00	7					1.00	SW	2.10
N01	GATE-F	10	NS	140.00	3	5	0.00	0.00	133.50	1.00	WN	1.00
N03	TCHECK-F	10	NS	105.00	3					1.00	WN	1.00
001	GLOBE-F	15	NS	263.50	12					1.00	WN	1.00

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FLANGE DATA LISTING

Point	FLG		Dnom		Flange	Bolt		Size	Type	
Name	No.	Type	(mm)	Rating	Weight (kg)	Weight (kg)	Joint Type	/Avg.	/Max.	ANSI
								SIF	(mm)	(mm)
A00	1	WELDNECK	20	NS	3.6	0.0	WN	1.00		No
C040	1	WELDNECK	15	2500	3.6	0.0	WN	1.00		No
C040	2	WELDNECK	15	2500	3.6	0.0	WN	1.00		No
A29	1	WELDNECK	15	NS	3.2	0.0	WN	1.00		No
CH01	1	WELDNECK	15	NS	3.2	0.0	WN	1.00		No
A46	1	WELDNECK	10	NS	0.7	0.0	WN	1.00		No
CH05	1	WELDNECK	10	NS	0.7	0.0	WN	1.00		No
OR9	1	SLIP-ON	10	NS	0.7	0.0	DWSO	1.20		No
OR9	2	SLIP-ON	10	NS	0.7	0.0	DWSO	1.20		No
A48	1	WELDNECK	10	NS	0.7	0.0	WN	1.00		No
IV07	1	WELDNECK	10	NS	0.7	0.0	WN	1.00		No
A56	1	WELDNECK	32	NS	1.8	0.0	WN	1.00		No
F03	1	WELDNECK	10	NS	0.7	0.0	WN	1.00		No
CH12	1	WELDNECK	10	NS	0.7	0.0	WN	1.00		No
C020	1	SLIP-ON	10	NS	0.7	0.0	DWSO	1.20		No
C020	2	SLIP-ON	10	NS	0.7	0.0	DWSO	1.20		No
F05	1	WELDNECK	10	NS	0.7	0.0	WN	1.00		No
IV03	1	WELDNECK	10	NS	0.7	0.0	WN	1.00		No
F12	1	WELDNECK	32	NS	1.8	0.0	WN	1.00		No
J08	1	WELDNECK	20	NS	3.6	0.0	WN	1.00		No
K03	1	WELDNECK	20	NS	3.6	0.0	WN	1.00		No
L03	1	WELDNECK	10	NS	3.2	0.0	WN	1.00		No
CH03	1	WELDNECK	10	NS	3.2	0.0	WN	1.00		No
C015	1	WELDNECK	10	NS	3.2	0.0	WN	1.00		No
C015	2	WELDNECK	10	NS	3.2	0.0	WN	1.00		No
L05	1	WELDNECK	10	NS	3.2	0.0	WN	1.00		No
L06	1	WELDNECK	10	NS	3.2	0.0	WN	1.00		No
L12	1	WELDNECK	32	NS	7.8	0.0	WN	1.00		No
L12	2	WELDNECK	32	NS	7.8	0.0	WN	1.00		No
L15	1	WELDNECK	32	NS	7.8	0.0	WN	1.00		No
L15	2	WELDNECK	32	NS	7.8	0.0	WN	1.00		No
L27	1	WELDNECK	32	NS	7.8	0.0	WN	1.00		No
M00	1	SLIP-ON	32	NS	2.0	0.0	WN	1.00		No
N01	1	SLIP-ON	10	NS	2.0	0.0	WN	1.00		No
IV05	1	SLIP-ON	10	NS	2.0	0.0	WN	1.00		No
N07	1	SLIP-ON	10	NS	0.7	0.0	DWSO	1.20		No
N07	2	SLIP-ON	10	NS	0.7	0.0	DWSO	1.20		No
N03	1	SLIP-ON	10	NS	0.7	0.0	DWSO	1.20		No
CH14	1	SLIP-ON	10	NS	0.7	0.0	DWSO	1.20		No
001	1	WELDNECK	15	NS	3.2	0.0	WN	1.00		No
HV40	1	WELDNECK	15	NS	3.2	0.0	WN	1.00		No

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JOINT TYPE / USER - SIF DATA LISTING

Point	Point	SIF	SIF	Joint	Size		Over
Name	Type	in	out	Type	(mm)	(mm)	ride
-----	-----	-----	-----	-----	-----	-----	-----

[]

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REDUCER DATA LISTING

From	To	Length	OD	OD	Thk	Thk	Cone	SIF
Point	Point	(mm)	From	To	From	To	Angle	
			(mm)	(mm)	(mm)	(mm)	(deg)	
A01	A26	38.10	26.7	21.3	3.9	3.7	1.4301	2.00t
A43	A44	38.00	21.3	17.1	2.8	2.3	1.4301	2.00t
A54	A55	51.00	17.1	42.2	2.3	3.6	1.4301	2.00t
F10	F11	51.00	17.1	42.2	2.3	3.6	1.4301	2.00t
J06	J07	38.10	21.3	26.7	3.7	3.9	1.4301	2.00t
K01	K02	38.10	21.3	26.7	3.7	3.9	1.4301	2.00t
L09	L10	38.10	17.1	26.7	3.2	3.9	1.4301	2.00t
L10	L11	51.00	26.7	42.2	3.9	4.9	1.4301	2.00t
L17	L18	51.00	42.2	26.7	4.9	3.9	1.4301	2.00t
L25	L26	51.00	26.7	42.2	3.9	4.9	1.4301	2.00t
M01	M02	51.00	42.2	17.1	3.6	2.3	1.4301	2.00t

t = Use SIF of 2.0

[]

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RIGID PIPE DATA LISTING

From	To	Include	Include	Rigid
Point	Point	Weight	Expansion	Factor
-----	-----	-----	-----	-----

[]

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REFERENCE POINT LISTING

(Force - N , Moment - N.m)

Tag No./	Refer.	Point	Seg	Coord.	Load	[Report Loads]
Ref. ID	Side	Name	Name	System	Direction	Actual Allow.

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ANALYSIS SUMMARY

Current model revision number : 24

Static - Analysis set number 1
 Date and Time of analysis Sep 13, 2010 9:41 AM
 Model Revision Number 24
 Number of load cases 4
 Load cases analyzed GR T1 T2 T3
 Description Analysis Set no. 1
 Gaps/Friction/Soil considered Yes
 Tolerance - Force, Displacement 44.48 N 0.0254 mm
 Friction - Scale Factor, Tolerance 1.00 0.10
 Ignore friction for cases E1,E2,E3 Yes
 Ignore friction for gravity case Yes
 Hanger design run No
 Cut short included No
 Thermal bowing included No
 Include Bourdon rotational effect No
 Pipe radius for Bourdon calculation ... Mean
 Occasional load analysis type Nonlinear
 Non-linear analysis summary file DVI_A_LINE_REV0.LOG
 Use default load sequence Yes
 Base load cases for nonlinear analysis
 GR = None
 T1 = GR
 T2 = GR
 T3 = GR
 Weight of contents included Yes
 Pressure stiffening case None
 Hot modulus case None
 Water elevation for buoyancy loads Not considered
 Use corroded thickness in analysis No
 Rigid stiffness factor 1000.0

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CODE COMPLIANCE COMBINATIONS

<Description> Allowable Combination (N/mm2) D/A/P	Category	Method	Case/Combination	Factor M/S	K-Factor
GR + Max P{1}	Sustain	Sum	GR[1]	1.00	
Automatic Y Y Y			Max Long	1.00	

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Max Range Automatic Y Y Y	Expansion	Sum	Temp. Range	1.00	
Amb to T1{1} Automatic Y Y Y	Expansion	Sum	T1[1]	1.00	
Amb to T2{1} Automatic Y Y Y	Expansion	Sum	T2[1]	1.00	
Amb to T3{1} Automatic Y Y Y	Expansion	Sum	T3[1]	1.00	
**Hydrotest{1} Automatic Y Y Y	Occasion	Sum	*HY[1]	1.00	1.000
			Max Long	1.00	
Max P{1} Automatic Y Y Y	Hoop	Sum	Max Hoop	1.00	
Sus.+T1{1} Automatic Y Y Y	Creep Rupt	Sum	Max Sus	1.00	
			T1[1]	1.00	
Sus.+T2{1} Automatic Y Y Y	Creep Rupt	Sum	Max Sus	1.00	
			T2[1]	1.00	
Sus.+T3{1} Automatic Y Y Y	Creep Rupt	Sum	Max Sus	1.00	
			T3[1]	1.00	

Notes:

D/A/P: [D]efault/[A]uto-Update/[P]rint options (Y=Yes, N=No)

* indicates that the load case has not been analyzed

** indicates that the combination includes unanalyzed load case(s)
or combination(s) that include unanalyzed load case(s).

□

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NON-CODE COMBINATIONS

<Description>				
Combination	Method	Case/Combination	Factor	D/A/P
-----	-----	-----	-----	-----
Gravity{1}	Sum	GR[1]	1.00	Y Y Y
**Hydrotest{1}	Sum	*HY[1]	1.00	Y Y Y
Thermal 1{1}	Sum	T1[1]	1.00	Y Y Y
Thermal 2{1}	Sum	T2[1]	1.00	Y Y Y
Thermal 3{1}	Sum	T3[1]	1.00	Y Y Y
GRT1{1}	Sum	GR[1] T1[1]	1.00 1.00	Y Y Y
GRT2{1}	Sum	GR[1] T2[1]	1.00 1.00	Y Y Y
GRT3{1}	Sum	GR[1] T3[1]	1.00 1.00	Y Y Y

Notes:

D/A/P: [D]efault/[A]uto-Update/[P]rint options (Y=Yes, N=No)

* indicates that the load case has not been analyzed

** indicates that the combination includes unanalyzed load case(s)
or combination(s) that include unanalyzed load case(s).

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CODE COMPLIANCE

Y - Factor 0.50
 Weld efficiency factor 1.00
 Range reduction factor 1.00
 Design Pressure Factor 1.00
 Minimum stress ratio used in reports... 0.00
 Number of stress points per span 0
 Include corrosion in stress calcs. N
 Include axial force in code stress N
 Include sustain load margin Only if allowable stress is exceeded
 Use single SIF Y
 Set sustained/occasional SIF = 1 N
 Set sustained/occasional SIF = 0.75i .. N
 Apply cold/hot modulus ratio N
 Disable auto code combinations N
 Disable auto non-code combinations N
 No. of thermal ranges to report 0
 Include Max Range combination Y
 Total stress Octahedral
 Direct shear None
 Longitudinal pressure calculation PD/4t
 Inc. Axial Str and Pcase in Sustained.. N

□

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
*** Segment A begin ***							
A00	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	-4.670	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	-4.670	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	-4.670	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	-4.670	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	-4.670	0.000	0.000	0.000

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	GRT3{1}	0.000	0.000	-4.670	0.000	0.000	0.000
A01	Gravity{1}	0.000	-0.002	0.002	-0.001	0.002	0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.502	-0.006	-4.687	-0.004	-0.023	0.007
	Thermal 2{1}	-0.502	-0.005	-4.685	-0.004	-0.019	0.007
	Thermal 3{1}	-0.253	-0.005	-4.738	-0.001	-0.088	0.006
	GRT1{1}	-0.502	-0.008	-4.686	-0.004	-0.021	0.010
	GRT2{1}	-0.502	-0.007	-4.683	-0.004	-0.017	0.009
	GRT3{1}	-0.253	-0.006	-4.737	-0.002	-0.086	0.008
A26	Gravity{1}	0.000	-0.004	0.003	-0.001	0.004	0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.725	-0.012	-4.707	-0.006	-0.036	0.011
	Thermal 2{1}	-0.725	-0.011	-4.702	-0.006	-0.031	0.010
	Thermal 3{1}	-0.365	-0.010	-4.814	-0.002	-0.139	0.009
	GRT1{1}	-0.725	-0.016	-4.704	-0.007	-0.033	0.015
	GRT2{1}	-0.725	-0.015	-4.698	-0.007	-0.028	0.014
	GRT3{1}	-0.365	-0.014	-4.811	-0.003	-0.135	0.013
A04 N	Gravity{1}	0.000	-0.177	0.037	-0.013	-0.028	0.021
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-4.499	-0.228	-6.477	-0.068	-0.227	-0.012
	Thermal 2{1}	-4.499	-0.139	-6.353	-0.068	-0.227	-0.027
	Thermal 3{1}	-2.268	-0.356	-10.418	-0.022	-0.580	0.032
	GRT1{1}	-4.499	-0.405	-6.439	-0.081	-0.255	0.008
	GRT2{1}	-4.499	-0.316	-6.316	-0.081	-0.255	-0.006
	GRT3{1}	-2.268	-0.533	-10.380	-0.035	-0.608	0.053
A04 F	Gravity{1}	0.021	-0.200	0.016	-0.014	-0.029	0.020
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-4.570	-0.265	-6.851	-0.074	-0.228	-0.029
	Thermal 2{1}	-4.568	-0.165	-6.729	-0.074	-0.234	-0.045
	Thermal 3{1}	-2.011	-0.392	-10.907	-0.024	-0.539	0.028
	GRT1{1}	-4.549	-0.464	-6.835	-0.088	-0.258	-0.008
	GRT2{1}	-4.547	-0.364	-6.713	-0.088	-0.263	-0.025
	GRT3{1}	-1.991	-0.592	-10.891	-0.038	-0.568	0.048

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D I S P L A C E M E N T S

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Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
A31	Gravity{1}	0.148	-0.307	0.011	0.012	-0.006	0.013
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-2.420	-0.643	-12.027	0.099	0.041	-0.304
	Thermal 2{1}	-2.159	-0.521	-11.905	0.102	0.039	-0.347
	Thermal 3{1}	1.294	-0.262	-13.518	0.078	0.106	-0.051
	GRT1{1}	-2.272	-0.950	-12.016	0.111	0.035	-0.291
	GRT2{1}	-2.012	-0.828	-11.894	0.114	0.033	-0.335
	GRT3{1}	1.441	-0.569	-13.507	0.090	0.100	-0.038
A07	Gravity{1}	0.150	-0.301	0.011	0.014	-0.007	0.013
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-2.441	-0.596	-12.176	0.111	0.057	-0.312
	Thermal 2{1}	-2.181	-0.473	-12.054	0.114	0.057	-0.356
	Thermal 3{1}	1.243	-0.226	-13.593	0.084	0.124	-0.054
	GRT1{1}	-2.291	-0.898	-12.165	0.124	0.050	-0.299
	GRT2{1}	-2.030	-0.774	-12.043	0.128	0.050	-0.343
	GRT3{1}	1.393	-0.528	-13.582	0.098	0.117	-0.041
A28	Gravity{1}	0.145	-0.301	0.017	0.015	-0.011	0.013
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-2.301	-0.448	-12.124	0.124	0.069	-0.322
	Thermal 2{1}	-2.020	-0.324	-12.000	0.128	0.071	-0.367
	Thermal 3{1}	1.267	-0.151	-13.553	0.095	0.137	-0.056
	GRT1{1}	-2.156	-0.749	-12.107	0.139	0.057	-0.309
	GRT2{1}	-1.875	-0.626	-11.983	0.143	0.059	-0.355
	GRT3{1}	1.412	-0.453	-13.536	0.110	0.125	-0.043
A13	Gravity{1}	-0.023	-0.301	0.170	-0.033	-0.132	0.016
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	2.177	3.797	-9.151	0.265	0.415	-0.276
	Thermal 2{1}	2.878	3.920	-9.262	0.196	0.449	-0.270
	Thermal 3{1}	1.819	1.988	-11.576	0.136	0.509	0.007
	GRT1{1}	2.154	3.495	-8.982	0.233	0.283	-0.261
	GRT2{1}	2.855	3.619	-9.092	0.163	0.317	-0.255
	GRT3{1}	1.796	1.687	-11.407	0.103	0.377	0.022
A10 N	Gravity{1}	-0.045	-0.301	0.111	-0.047	-0.145	0.017
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	2.533	4.266	-8.789	0.251	0.453	-0.231
	Thermal 2{1}	3.215	4.390	-9.009	0.164	0.491	-0.210

		DVI_A_LINE_REV0.OUT					
Thermal 3{1}		1.795	2.225	-11.403	0.110	0.551	0.027
GRT1{1}		2.488	3.965	-8.678	0.205	0.307	-0.214
GRT2{1}		3.170	4.088	-8.898	0.117	0.345	-0.193
GRT3{1}		1.750	1.923	-11.292	0.064	0.405	0.044

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DVI_A_LINE_REV0

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RESULT PAGE 7

D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
A10 F	Gravity{1}	-0.051	-0.307	0.046	-0.048	-0.151	0.017
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	2.495	4.447	-8.553	0.243	0.469	-0.198
	Thermal 2{1}	3.169	4.561	-8.791	0.144	0.506	-0.165
	Thermal 3{1}	1.728	2.268	-11.183	0.095	0.567	0.043
	GRT1{1}	2.444	4.140	-8.507	0.195	0.318	-0.180
	GRT2{1}	3.118	4.254	-8.746	0.095	0.356	-0.148
	GRT3{1}	1.677	1.961	-11.137	0.047	0.416	0.060
C040	Gravity{1}	-0.051	-0.357	-0.367	-0.050	-0.128	0.017
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.544	4.870	-7.154	0.195	0.513	-0.104
	Thermal 2{1}	2.217	4.843	-7.282	0.043	0.552	-0.037
	Thermal 3{1}	1.249	2.084	-9.498	0.016	0.616	0.087
	GRT1{1}	1.493	4.513	-7.521	0.145	0.386	-0.086
	GRT2{1}	2.166	4.486	-7.649	-0.007	0.424	-0.019
	GRT3{1}	1.198	1.726	-9.865	-0.034	0.488	0.104
A33	Gravity{1}	-0.051	-0.431	-0.753	-0.053	-0.020	0.009
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.212	5.040	-4.378	0.107	0.533	0.030
	Thermal 2{1}	0.462	4.494	-4.350	-0.142	0.549	0.162
	Thermal 3{1}	0.364	1.432	-6.167	-0.129	0.642	0.160
	GRT1{1}	-0.263	4.608	-5.131	0.054	0.512	0.039
	GRT2{1}	0.411	4.062	-5.103	-0.196	0.529	0.170
	GRT3{1}	0.313	1.001	-6.920	-0.183	0.622	0.169
A18 N	Gravity{1}	-0.051	-0.450	-0.719	-0.047	0.037	0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000

DVI_A_LINE_REV0.OUT

	Thermal 1{1}	-1.341	4.835	-2.595	0.074	0.521	0.088
	Thermal 2{1}	-0.667	3.910	-2.552	-0.133	0.516	0.183
	Thermal 3{1}	-0.205	0.876	-4.001	-0.127	0.642	0.171
	GRT1{1}	-1.392	4.386	-3.313	0.027	0.558	0.090
	GRT2{1}	-0.718	3.460	-3.271	-0.181	0.553	0.185
	GRT3{1}	-0.256	0.426	-4.720	-0.175	0.679	0.173
A18 F	Gravity{1}	-0.066	-0.466	-0.705	-0.046	0.050	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.623	4.828	-2.534	0.067	0.513	0.099
	Thermal 2{1}	-0.947	3.805	-2.494	-0.132	0.504	0.186
	Thermal 3{1}	-0.474	0.776	-3.844	-0.127	0.641	0.173
	GRT1{1}	-1.689	4.362	-3.239	0.021	0.564	0.100
	GRT2{1}	-1.013	3.339	-3.199	-0.178	0.555	0.186
	GRT3{1}	-0.540	0.311	-4.549	-0.173	0.691	0.174

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RESULT PAGE 8

D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
A21 N	Gravity{1}	-0.440	-0.662	-0.705	-0.039	0.115	-0.013
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-3.957	5.093	-2.534	0.055	0.522	0.180
	Thermal 2{1}	-3.172	3.243	-2.494	-0.110	0.477	0.212
	Thermal 3{1}	-3.390	0.198	-4.617	-0.126	0.636	0.193
	GRT1{1}	-4.397	4.430	-3.238	0.015	0.636	0.167
	GRT2{1}	-3.612	2.581	-3.198	-0.149	0.592	0.199
	GRT3{1}	-3.830	-0.464	-5.322	-0.165	0.750	0.181
A21 F	Gravity{1}	-0.480	-0.670	-0.664	-0.038	0.128	-0.015
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-4.131	5.049	-2.359	0.055	0.532	0.190
	Thermal 2{1}	-3.330	3.137	-2.336	-0.104	0.477	0.214
	Thermal 3{1}	-3.657	0.092	-4.462	-0.126	0.635	0.196
	GRT1{1}	-4.611	4.379	-3.022	0.017	0.660	0.176
	GRT2{1}	-3.810	2.467	-2.999	-0.142	0.605	0.200
	GRT3{1}	-4.137	-0.579	-5.126	-0.164	0.763	0.181

DVI_A_LINE_REV0.OUT

A24 N	Gravity{1}	-0.480	-0.585	-0.021	-0.029	0.154	-0.025
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-4.131	4.121	0.037	0.066	0.558	0.229
	Thermal 2{1}	-3.330	2.180	-0.267	-0.061	0.467	0.221
	Thermal 3{1}	-4.394	-0.796	-1.708	-0.126	0.624	0.211
	GRT1{1}	-4.611	3.535	0.016	0.038	0.712	0.205
	GRT2{1}	-3.810	1.594	-0.288	-0.089	0.621	0.196
	GRT3{1}	-4.874	-1.382	-1.729	-0.155	0.778	0.187
A24 F	Gravity{1}	-0.429	-0.568	0.030	-0.027	0.151	-0.027
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-3.946	4.022	0.222	0.068	0.557	0.233
	Thermal 2{1}	-3.176	2.125	-0.113	-0.055	0.462	0.221
	Thermal 3{1}	-4.244	-0.825	-1.446	-0.126	0.620	0.214
	GRT1{1}	-4.375	3.454	0.252	0.041	0.708	0.207
	GRT2{1}	-3.605	1.558	-0.083	-0.082	0.613	0.194
	GRT3{1}	-4.674	-1.393	-1.416	-0.153	0.771	0.188
A27 N	Gravity{1}	0.216	-0.458	0.030	-0.021	0.130	-0.041
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.482	3.724	0.222	0.056	0.507	0.260
	Thermal 2{1}	-1.165	2.318	-0.113	-0.033	0.409	0.214
	Thermal 3{1}	-1.465	-0.253	-0.673	-0.125	0.595	0.236
	GRT1{1}	-1.266	3.265	0.252	0.035	0.637	0.219
	GRT2{1}	-0.949	1.859	-0.083	-0.054	0.539	0.173
	GRT3{1}	-1.250	-0.711	-0.643	-0.145	0.725	0.195

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
A27 F	Gravity{1}	0.244	-0.452	0.037	-0.019	0.126	-0.044
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.229	3.706	0.205	0.049	0.490	0.261
	Thermal 2{1}	-0.961	2.328	-0.103	-0.031	0.394	0.212
	Thermal 3{1}	-1.190	-0.267	-0.576	-0.124	0.590	0.239

		DVI_A_LINE_REV0.OUT					
	GRT1{1}	-0.985	3.254	0.242	0.030	0.615	0.217
	GRT2{1}	-0.717	1.877	-0.066	-0.050	0.520	0.168
	GRT3{1}	-0.946	-0.719	-0.539	-0.143	0.716	0.195
A29	Gravity{1}	0.053	-0.452	0.034	0.035	0.099	-0.056
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.234	3.706	0.041	0.042	0.382	0.243
	Thermal 2{1}	-0.179	2.328	-0.012	-0.013	0.304	0.186
	Thermal 3{1}	-0.241	-0.921	-0.110	-0.115	0.559	0.251
	GRT1{1}	-0.180	3.254	0.075	0.078	0.481	0.188
	GRT2{1}	-0.125	1.877	0.022	0.022	0.403	0.131
	GRT3{1}	-0.188	-1.373	-0.076	-0.079	0.658	0.195
A29 M	Gravity{1}	0.000	-0.452	0.000	0.036	0.099	-0.056
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	3.706	0.000	0.043	0.382	0.243
	Thermal 2{1}	0.000	2.328	0.000	-0.013	0.304	0.186
	Thermal 3{1}	0.000	-1.083	0.000	-0.115	0.559	0.251
	GRT1{1}	0.000	3.254	0.000	0.078	0.481	0.188
	GRT2{1}	0.000	1.877	0.000	0.023	0.402	0.130
	GRT3{1}	0.000	-1.535	0.000	-0.079	0.658	0.195
CH01	Gravity{1}	-0.053	-0.452	-0.034	0.036	0.098	-0.056
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.233	3.706	-0.041	0.043	0.382	0.243
	Thermal 2{1}	0.179	2.328	0.012	-0.013	0.304	0.186
	Thermal 3{1}	0.241	-1.245	0.110	-0.114	0.559	0.251
	GRT1{1}	0.180	3.254	-0.075	0.078	0.480	0.187
	GRT2{1}	0.125	1.877	-0.022	0.023	0.402	0.130
	GRT3{1}	0.188	-1.697	0.076	-0.079	0.657	0.195
A32 N	Gravity{1}	-0.456	-0.452	-0.760	0.141	0.043	-0.054
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.630	3.706	-0.398	0.053	0.159	0.186
	Thermal 2{1}	1.203	2.328	-0.027	0.015	0.117	0.128
	Thermal 3{1}	1.687	-2.397	0.781	-0.085	0.495	0.139
	GRT1{1}	1.174	3.254	-1.158	0.194	0.202	0.132
	GRT2{1}	0.747	1.877	-0.787	0.156	0.160	0.075
	GRT3{1}	1.231	-2.849	0.021	0.056	0.538	0.085

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DVI_A_LINE_REV0

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
A32 F	Gravity{1}	-0.473	-0.435	-0.794	0.143	0.037	-0.047
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.692	3.644	-0.367	0.056	0.133	0.186
	Thermal 2{1}	1.245	2.286	0.002	0.020	0.095	0.125
	Thermal 3{1}	1.672	-2.489	0.971	-0.081	0.487	0.093
	GRT1{1}	1.218	3.209	-1.162	0.199	0.170	0.138
	GRT2{1}	0.772	1.851	-0.792	0.162	0.132	0.078
	GRT3{1}	1.198	-2.924	0.177	0.062	0.523	0.045
A34	Gravity{1}	-0.473	-0.404	-0.771	0.142	0.034	-0.044
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.692	3.519	-0.283	0.053	0.117	0.185
	Thermal 2{1}	1.245	2.203	0.061	0.020	0.081	0.123
	Thermal 3{1}	1.558	-2.544	1.296	-0.078	0.482	0.071
	GRT1{1}	1.218	3.115	-1.054	0.195	0.151	0.141
	GRT2{1}	0.772	1.798	-0.710	0.162	0.116	0.079
	GRT3{1}	1.085	-2.949	0.526	0.064	0.516	0.026
A35	Gravity{1}	-0.474	-0.002	-0.026	0.074	0.059	-0.005
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.691	0.054	0.007	0.064	-0.016	0.125
	Thermal 2{1}	1.245	0.032	0.012	0.028	-0.028	0.075
	Thermal 3{1}	-1.315	-0.172	9.269	-0.210	0.434	-0.380
	GRT1{1}	1.218	0.052	-0.019	0.138	0.043	0.121
	GRT2{1}	0.771	0.030	-0.014	0.103	0.031	0.070
	GRT3{1}	-1.789	-0.174	9.243	-0.136	0.493	-0.385
A39	Gravity{1}	-0.474	0.000	0.000	0.073	0.058	-0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.691	0.000	0.000	0.064	-0.014	0.116
	Thermal 2{1}	1.245	0.000	0.000	0.028	-0.026	0.069
	Thermal 3{1}	-1.390	0.000	9.460	-0.213	0.431	-0.395
	GRT1{1}	1.218	0.000	0.000	0.137	0.044	0.112
	GRT2{1}	0.771	0.000	0.000	0.101	0.032	0.066
	GRT3{1}	-1.863	0.000	9.460	-0.141	0.489	-0.399
A36	Gravity{1}	-0.474	0.002	0.025	0.071	0.057	-0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.691	-0.049	-0.006	0.064	-0.012	0.107

Thermal 2{1}	1.245	-0.029	-0.011	0.029	-0.024	0.064
Thermal 3{1}	-1.465	0.178	9.651	-0.217	0.427	-0.408
GRT1{1}	1.218	-0.048	0.020	0.135	0.044	0.104
GRT2{1}	0.771	-0.028	0.014	0.100	0.033	0.061
GRT3{1}	-1.938	0.180	9.676	-0.146	0.484	-0.411

RESULT PAGE 11

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
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A37	Gravity{1}	-0.474	-0.055	0.023	0.027	-0.106	0.010
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.691	-0.330	0.132	0.071	0.037	-0.022
	Thermal 2{1}	1.245	-0.165	-0.013	0.034	0.023	-0.019
	Thermal 3{1}	-3.336	4.852	12.962	-0.303	0.089	-0.287
	GRT1{1}	1.217	-0.385	0.155	0.098	-0.070	-0.012
	GRT2{1}	0.771	-0.219	0.010	0.061	-0.084	-0.009
	GRT3{1}	-3.810	4.798	12.985	-0.276	-0.017	-0.276
A58	Gravity{1}	-0.474	-0.059	-0.026	0.025	-0.120	0.011
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.691	-0.320	0.148	0.071	0.038	-0.023
	Thermal 2{1}	1.245	-0.156	-0.003	0.035	0.024	-0.020
	Thermal 3{1}	-3.410	4.973	12.996	-0.306	0.066	-0.264
	GRT1{1}	1.217	-0.379	0.122	0.097	-0.081	-0.013
	GRT2{1}	0.771	-0.215	-0.029	0.060	-0.096	-0.009
	GRT3{1}	-3.884	4.914	12.970	-0.281	-0.054	-0.253
A38	Gravity{1}	-0.474	-0.064	-0.082	0.025	-0.134	0.011
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.691	-0.310	0.165	0.070	0.039	-0.022
	Thermal 2{1}	1.245	-0.148	0.008	0.034	0.025	-0.019
	Thermal 3{1}	-3.484	5.085	13.021	-0.314	0.049	-0.252
	GRT1{1}	1.217	-0.374	0.083	0.095	-0.095	-0.011
	GRT2{1}	0.771	-0.212	-0.074	0.058	-0.109	-0.008
	GRT3{1}	-3.957	5.021	12.939	-0.289	-0.085	-0.241

		DVI_A_LINE_REV0.OUT					
A40 N	Gravity{1}	-0.474	-0.185	-1.999	0.015	-0.203	0.013
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.691	-0.192	0.656	0.039	0.071	-0.006
	Thermal 2{1}	1.245	-0.029	0.354	0.016	0.052	-0.008
	Thermal 3{1}	-5.067	6.626	12.089	-0.470	-0.212	-0.120
	GRT1{1}	1.217	-0.377	-1.343	0.054	-0.132	0.007
	GRT2{1}	0.771	-0.214	-1.645	0.031	-0.152	0.005
	GRT3{1}	-5.541	6.441	10.090	-0.455	-0.416	-0.107
A40 F	Gravity{1}	-0.412	-0.184	-2.063	0.015	-0.183	0.013
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.666	-0.179	0.680	0.036	0.078	-0.005
	Thermal 2{1}	1.227	-0.022	0.371	0.014	0.057	-0.007
	Thermal 3{1}	-5.048	6.509	11.962	-0.483	-0.234	-0.117
	GRT1{1}	1.255	-0.363	-1.383	0.051	-0.105	0.008
	GRT2{1}	0.815	-0.206	-1.691	0.029	-0.126	0.006
	GRT3{1}	-5.460	6.325	9.899	-0.468	-0.417	-0.104

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DVI_A_LINE_REV0

09/13/2010 DVIALINE

BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 12

D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
A43	Gravity{1}	-0.410	-0.184	-2.063	0.015	-0.183	0.013
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.666	-0.178	0.680	0.036	0.078	-0.005
	Thermal 2{1}	1.226	-0.022	0.371	0.014	0.057	-0.007
	Thermal 3{1}	-5.046	6.503	11.960	-0.483	-0.235	-0.117
	GRT1{1}	1.256	-0.362	-1.383	0.051	-0.105	0.008
	GRT2{1}	0.816	-0.206	-1.691	0.029	-0.126	0.006
	GRT3{1}	-5.456	6.319	9.897	-0.468	-0.417	-0.104
A44	Gravity{1}	-0.293	-0.175	-2.063	0.014	-0.169	0.013
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.612	-0.155	0.680	0.033	0.083	-0.004
	Thermal 2{1}	1.187	-0.013	0.371	0.013	0.061	-0.007
	Thermal 3{1}	-4.885	6.179	11.848	-0.494	-0.249	-0.118
	GRT1{1}	1.319	-0.330	-1.383	0.048	-0.086	0.009

		DVI_A_LINE_REV0.OUT					
	GRT2{1}	0.894	-0.187	-1.691	0.027	-0.108	0.006
	GRT3{1}	-5.179	6.005	9.785	-0.480	-0.418	-0.105
A47	Gravity{1}	0.000	0.000	-2.064	0.019	0.037	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.680	0.005	0.093	0.025
	Thermal 2{1}	0.000	0.000	0.371	-0.001	0.068	0.017
	Thermal 3{1}	0.000	0.000	9.411	-0.128	-0.280	-0.136
	GRT1{1}	0.000	0.000	-1.384	0.025	0.130	0.025
	GRT2{1}	0.000	0.000	-1.692	0.018	0.105	0.016
	GRT3{1}	0.000	0.000	7.347	-0.109	-0.243	-0.137
A45 N	Gravity{1}	0.085	-0.129	-2.064	-0.082	-0.059	-0.014
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.658	0.315	0.680	0.044	0.020	0.054
	Thermal 2{1}	-0.485	0.140	0.371	0.023	0.015	0.039
	Thermal 3{1}	1.712	3.762	7.016	0.528	-0.007	-0.154
	GRT1{1}	-0.573	0.186	-1.384	-0.037	-0.039	0.040
	GRT2{1}	-0.400	0.011	-1.693	-0.058	-0.044	0.025
	GRT3{1}	1.797	3.633	4.952	0.446	-0.066	-0.168
A45 F	Gravity{1}	0.097	-0.151	-2.041	-0.100	-0.066	-0.013
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.649	0.326	0.668	0.048	0.019	0.055
	Thermal 2{1}	-0.479	0.146	0.365	0.026	0.015	0.040
	Thermal 3{1}	1.674	3.854	6.839	0.547	0.001	-0.157
	GRT1{1}	-0.552	0.175	-1.373	-0.051	-0.047	0.042
	GRT2{1}	-0.382	-0.005	-1.676	-0.074	-0.052	0.028
	GRT3{1}	1.771	3.703	4.799	0.447	-0.065	-0.169

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DVI_A_LINE_REV0

09/13/2010 DVIALINE

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
A46	Gravity{1}	-0.007	-0.151	-0.074	-0.081	-0.227	0.007
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.017	0.326	0.019	0.020	0.007	0.018
	Thermal 2{1}	-0.013	0.146	0.010	0.011	0.007	0.014

DVI_A_LINE_REV0.OUT

	Thermal 3{1}	0.037	1.540	0.223	0.244	0.171	-0.041
	GRT1{1}	-0.023	0.175	-0.056	-0.061	-0.220	0.026
	GRT2{1}	-0.019	-0.005	-0.064	-0.070	-0.220	0.021
	GRT3{1}	0.030	1.389	0.149	0.163	-0.056	-0.033
A46 M	Gravity{1}	0.000	-0.151	0.000	-0.081	-0.227	0.007
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.326	0.000	0.020	0.007	0.018
	Thermal 2{1}	0.000	0.146	0.000	0.011	0.007	0.014
	Thermal 3{1}	0.000	1.385	0.000	0.244	0.171	-0.040
	GRT1{1}	0.000	0.175	0.000	-0.061	-0.220	0.025
	GRT2{1}	0.000	-0.005	0.000	-0.070	-0.221	0.021
	GRT3{1}	0.000	1.234	0.000	0.162	-0.056	-0.033
CH05	Gravity{1}	0.007	-0.151	0.074	-0.081	-0.227	0.007
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.017	0.326	-0.019	0.020	0.007	0.018
	Thermal 2{1}	0.012	0.146	-0.010	0.011	0.007	0.014
	Thermal 3{1}	-0.037	1.230	-0.223	0.243	0.171	-0.040
	GRT1{1}	0.023	0.175	0.056	-0.061	-0.220	0.025
	GRT2{1}	0.019	-0.005	0.064	-0.070	-0.221	0.021
	GRT3{1}	-0.030	1.079	-0.149	0.162	-0.056	-0.033
OR9	Gravity{1}	0.030	-0.151	0.199	-0.024	-0.257	0.010
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.044	0.326	-0.048	0.004	0.004	0.004
	Thermal 2{1}	0.033	0.146	-0.026	0.002	0.005	0.003
	Thermal 3{1}	-0.092	0.802	-0.642	0.091	0.202	-0.006
	GRT1{1}	0.073	0.175	0.151	-0.020	-0.253	0.013
	GRT2{1}	0.062	-0.005	0.173	-0.022	-0.252	0.013
	GRT3{1}	-0.062	0.652	-0.443	0.067	-0.055	0.004
A48	Gravity{1}	0.024	-0.151	0.079	0.065	-0.328	-0.020
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.012	0.326	-0.012	-0.010	-0.001	-0.010
	Thermal 2{1}	0.009	0.146	-0.007	-0.005	0.002	-0.007
	Thermal 3{1}	-0.019	-0.215	-0.251	-0.205	0.277	0.015
	GRT1{1}	0.036	0.175	0.067	0.055	-0.329	-0.029
	GRT2{1}	0.033	-0.005	0.073	0.059	-0.326	-0.027
	GRT3{1}	0.005	-0.366	-0.172	-0.141	-0.051	-0.004

DVI_A_LINE_REV0

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
A48 M	Gravity{1}	0.000	-0.151	0.000	0.065	-0.328	-0.020
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.326	0.000	-0.010	-0.001	-0.010
	Thermal 2{1}	0.000	0.146	0.000	-0.005	0.002	-0.007
	Thermal 3{1}	0.000	-0.421	0.000	-0.206	0.277	0.015
	GRT1{1}	0.000	0.175	0.000	0.055	-0.329	-0.029
	GRT2{1}	0.000	-0.005	0.000	0.060	-0.326	-0.027
	GRT3{1}	0.000	-0.572	0.000	-0.141	-0.051	-0.005
IV07	Gravity{1}	-0.024	-0.151	-0.080	0.065	-0.328	-0.020
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.012	0.326	0.012	-0.010	-0.001	-0.010
	Thermal 2{1}	-0.009	0.146	0.007	-0.005	0.002	-0.007
	Thermal 3{1}	0.019	-0.628	0.252	-0.206	0.277	0.015
	GRT1{1}	-0.036	0.175	-0.068	0.055	-0.329	-0.030
	GRT2{1}	-0.033	-0.005	-0.073	0.060	-0.326	-0.027
	GRT3{1}	-0.006	-0.779	0.172	-0.141	-0.051	-0.005
A50 N	Gravity{1}	-0.103	-0.151	-0.261	0.080	-0.356	-0.045
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.032	0.326	0.031	-0.006	-0.003	-0.007
	Thermal 2{1}	-0.025	0.146	0.017	-0.003	0.000	-0.006
	Thermal 3{1}	0.033	-1.038	0.847	-0.281	0.307	-0.004
	GRT1{1}	-0.135	0.175	-0.230	0.073	-0.360	-0.052
	GRT2{1}	-0.128	-0.005	-0.244	0.076	-0.356	-0.050
	GRT3{1}	-0.070	-1.189	0.586	-0.201	-0.049	-0.049
A50 F	Gravity{1}	-0.111	-0.147	-0.301	0.080	-0.359	-0.050
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.033	0.327	0.032	-0.006	-0.004	-0.007
	Thermal 2{1}	-0.026	0.147	0.018	-0.003	0.000	-0.005
	Thermal 3{1}	0.019	-1.067	0.921	-0.295	0.312	-0.009
	GRT1{1}	-0.145	0.179	-0.269	0.075	-0.363	-0.057
	GRT2{1}	-0.137	-0.001	-0.283	0.077	-0.359	-0.055
	GRT3{1}	-0.092	-1.214	0.619	-0.214	-0.047	-0.059
A51 N	Gravity{1}	-0.554	0.296	-2.675	-0.002	-0.369	-0.097

	DVI_A_LINE_REV0.OUT					
Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
Thermal 1{1}	-0.054	0.347	0.009	0.003	-0.006	-0.002
Thermal 2{1}	-0.044	0.165	0.015	0.002	-0.002	-0.002
Thermal 3{1}	-1.028	-1.914	4.844	-0.451	0.294	-0.002
GRT1{1}	-0.608	0.643	-2.666	0.000	-0.374	-0.099
GRT2{1}	-0.598	0.460	-2.660	-0.001	-0.370	-0.099
GRT3{1}	-1.582	-1.619	2.169	-0.453	-0.075	-0.099

0

DVI_A_LINE_REV0

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RESULT PAGE 15

D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
A51 F	Gravity{1}	-0.571	0.303	-2.700	-0.010	-0.365	-0.098
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.054	0.348	0.008	0.003	-0.006	-0.002
	Thermal 2{1}	-0.044	0.165	0.014	0.002	-0.002	-0.002
	Thermal 3{1}	-1.040	-1.944	4.945	-0.454	0.292	0.004
	GRT1{1}	-0.626	0.650	-2.693	-0.007	-0.371	-0.100
	GRT2{1}	-0.615	0.468	-2.686	-0.009	-0.367	-0.100
	GRT3{1}	-1.611	-1.641	2.245	-0.464	-0.074	-0.094
A52 N	Gravity{1}	-2.583	0.303	-0.065	-0.156	-0.204	-0.108
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.077	0.347	-0.001	-0.010	-0.005	-0.001
	Thermal 2{1}	-0.057	0.165	0.000	-0.004	-0.003	0.000
	Thermal 3{1}	0.235	-5.128	11.233	-0.022	0.069	0.097
	GRT1{1}	-2.660	0.650	-0.066	-0.166	-0.209	-0.109
	GRT2{1}	-2.640	0.468	-0.066	-0.160	-0.207	-0.108
	GRT3{1}	-2.348	-4.825	11.168	-0.178	-0.135	-0.011
A52 F	Gravity{1}	-2.560	0.267	-0.028	-0.134	-0.199	-0.109
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.076	0.345	0.002	-0.012	-0.005	-0.001
	Thermal 2{1}	-0.056	0.164	0.001	-0.005	-0.003	0.000
	Thermal 3{1}	0.243	-5.167	11.191	0.036	0.062	0.098
	GRT1{1}	-2.636	0.612	-0.027	-0.145	-0.204	-0.109
	GRT2{1}	-2.616	0.431	-0.027	-0.139	-0.202	-0.109

		DVI_A_LINE_REV0.OUT					
GRT3{1}		-2.317	-4.899	11.163	-0.098	-0.137	-0.010
A49	Gravity{1}	0.000	0.000	-0.027	0.037	-0.105	-0.093
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.002	-0.021	-0.004	-0.001
	Thermal 2{1}	0.000	0.000	0.001	-0.010	-0.003	0.000
	Thermal 3{1}	0.000	0.000	8.285	0.371	-0.006	0.084
	GRT1{1}	0.000	0.000	-0.026	0.016	-0.109	-0.094
	GRT2{1}	0.000	0.000	-0.026	0.027	-0.108	-0.093
	GRT3{1}	0.000	0.000	8.257	0.408	-0.110	-0.009
A53 N	Gravity{1}	-0.003	0.004	-0.003	-0.003	-0.009	-0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.001	0.001	0.001	0.000
	Thermal 2{1}	0.000	0.000	0.001	0.001	0.000	0.000
	Thermal 3{1}	-1.044	0.005	-8.674	-0.026	-0.010	0.000
	GRT1{1}	-0.002	0.003	-0.001	-0.001	-0.008	-0.002
	GRT2{1}	-0.002	0.004	-0.002	-0.002	-0.009	-0.002
	GRT3{1}	-1.046	0.009	-8.677	-0.029	-0.019	-0.002

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DVI_A_LINE_REV0

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AutoPIPE Plus 9.2.1 RESULT PAGE 16

DISPLACEMENTS

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
A53 F	Gravity{1}	0.000	0.003	0.000	-0.002	-0.007	-0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.001	0.001	0.001	0.000
	Thermal 2{1}	0.000	0.000	0.001	0.001	0.000	0.000
	Thermal 3{1}	-0.999	-0.001	-8.714	-0.021	-0.011	0.001
	GRT1{1}	0.000	0.003	0.001	-0.001	-0.007	-0.002
	GRT2{1}	0.000	0.003	0.001	-0.002	-0.007	-0.002
	GRT3{1}	-0.999	0.002	-8.714	-0.024	-0.018	-0.001
A54	Gravity{1}	0.000	0.000	0.002	0.000	0.001	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 3{1}	-0.599	0.000	-8.694	-0.002	-0.003	0.000

DVI_A_LINE_REV0.OUT

	GRT1{1}	0.000	0.000	0.002	0.000	0.001	0.000
	GRT2{1}	0.000	0.000	0.002	0.000	0.001	0.000
	GRT3{1}	-0.599	0.000	-8.692	-0.002	-0.001	0.000
A55	Gravity{1}	0.000	0.000	0.001	0.000	0.001	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 3{1}	-0.448	0.000	-8.692	-0.001	-0.001	0.000
	GRT1{1}	0.000	0.000	0.001	0.000	0.001	0.000
	GRT2{1}	0.000	0.000	0.001	0.000	0.001	0.000
	GRT3{1}	-0.448	0.000	-8.691	-0.001	-0.001	0.000
A56	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	-8.690	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	-8.690	0.000	0.000	0.000

*** Segment A end ***

*** Segment E begin ***

A39	Gravity{1}	-0.474	0.000	0.000	0.073	0.058	-0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.691	0.000	0.000	0.064	-0.014	0.116
	Thermal 2{1}	1.245	0.000	0.000	0.028	-0.026	0.069
	Thermal 3{1}	-1.390	0.000	9.460	-0.213	0.431	-0.395
	GRT1{1}	1.218	0.000	0.000	0.137	0.044	0.112
	GRT2{1}	0.771	0.000	0.000	0.101	0.032	0.066
	GRT3{1}	-1.863	0.000	9.460	-0.141	0.489	-0.399

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DVI_A_LINE_REV0

09/13/2010 DVIALINE

BENTLEY

09:41 AM

AutoPIPE Plus 9.2.1

RESULT PAGE 17

D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----

		DVI_A_LINE_REV0.OUT					
E01	Gravity{1}	-0.448	-0.032	0.000	0.073	0.058	-0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.685	-0.028	0.000	0.064	-0.014	0.116
	Thermal 2{1}	1.234	-0.013	0.000	0.028	-0.026	0.069
	Thermal 3{1}	-1.199	0.095	9.535	-0.213	0.431	-0.395
	GRT1{1}	1.237	-0.061	0.000	0.137	0.044	0.112
	GRT2{1}	0.785	-0.045	0.000	0.101	0.032	0.066
	GRT3{1}	-1.647	0.062	9.535	-0.141	0.489	-0.399

E01 M	Gravity{1}	-0.280	-0.243	0.000	0.073	0.058	-0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.644	-0.215	0.000	0.064	-0.014	0.116
	Thermal 2{1}	1.158	-0.095	0.000	0.028	-0.026	0.069
	Thermal 3{1}	0.053	0.715	10.026	-0.213	0.431	-0.395
	GRT1{1}	1.364	-0.458	0.000	0.137	0.044	0.112
	GRT2{1}	0.878	-0.339	0.000	0.101	0.032	0.066
	GRT3{1}	-0.227	0.472	10.026	-0.141	0.489	-0.399

SV11	Gravity{1}	-0.112	-0.455	0.000	0.073	0.058	-0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.602	-0.401	0.000	0.064	-0.014	0.116
	Thermal 2{1}	1.082	-0.178	0.000	0.028	-0.026	0.069
	Thermal 3{1}	1.305	1.335	10.517	-0.213	0.431	-0.395
	GRT1{1}	1.491	-0.856	0.000	0.137	0.044	0.112
	GRT2{1}	0.971	-0.633	0.000	0.101	0.032	0.066
	GRT3{1}	1.193	0.881	10.517	-0.141	0.489	-0.399

*** Segment E end ***

*** Segment F begin ***

A34	Gravity{1}	-0.473	-0.404	-0.771	0.142	0.034	-0.044
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.692	3.519	-0.283	0.053	0.117	0.185
	Thermal 2{1}	1.245	2.203	0.061	0.020	0.081	0.123
	Thermal 3{1}	1.558	-2.544	1.296	-0.078	0.482	0.071
	GRT1{1}	1.218	3.115	-1.054	0.195	0.151	0.141
	GRT2{1}	0.772	1.798	-0.710	0.162	0.116	0.079
	GRT3{1}	1.085	-2.949	0.526	0.064	0.516	0.026

F01	Gravity{1}	-0.480	-0.442	-0.822	0.144	0.036	-0.043
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.785	3.506	-0.302	0.050	0.114	0.169
	Thermal 2{1}	1.308	2.198	0.054	0.019	0.079	0.112
	Thermal 3{1}	1.706	-2.586	1.367	-0.069	0.474	0.058
	GRT1{1}	1.305	3.064	-1.124	0.194	0.150	0.126
	GRT2{1}	0.829	1.756	-0.768	0.163	0.115	0.069

DVI_A_LINE_REV0.OUT

GRT3{1} 1.226 -3.027 0.545 0.075 0.510 0.016

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DVI_A_LINE_REV0

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
F02 N	Gravity{1}	-0.440	-0.974	-1.555	0.100	0.062	-0.015
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	2.505	3.401	-0.445	0.004	0.097	-0.040
	Thermal 2{1}	1.782	2.144	-0.020	0.008	0.067	-0.032
	Thermal 3{1}	3.258	-3.505	2.060	0.058	0.375	-0.096
	GRT1{1}	2.065	2.427	-2.000	0.104	0.160	-0.055
	GRT2{1}	1.342	1.170	-1.575	0.108	0.130	-0.047
	GRT3{1}	2.817	-4.479	0.505	0.159	0.438	-0.111
F02 F	Gravity{1}	-0.439	-0.980	-1.574	0.094	0.064	-0.013
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	2.503	3.401	-0.446	0.001	0.096	-0.050
	Thermal 2{1}	1.780	2.143	-0.021	0.007	0.066	-0.038
	Thermal 3{1}	3.262	-3.542	2.059	0.066	0.371	-0.104
	GRT1{1}	2.064	2.421	-2.020	0.095	0.160	-0.063
	GRT2{1}	1.341	1.163	-1.595	0.101	0.130	-0.051
	GRT3{1}	2.823	-4.522	0.485	0.159	0.435	-0.117
F03	Gravity{1}	-0.049	-0.980	-0.174	-0.190	0.150	0.053
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.085	3.401	-0.018	-0.019	0.073	-0.093
	Thermal 2{1}	0.060	2.143	-0.002	-0.003	0.049	-0.065
	Thermal 3{1}	0.131	-6.642	0.042	0.046	0.101	-0.143
	GRT1{1}	0.036	2.421	-0.191	-0.209	0.223	-0.039
	GRT2{1}	0.011	1.163	-0.176	-0.192	0.199	-0.012
	GRT3{1}	0.082	-7.622	-0.131	-0.143	0.251	-0.090
F03 M	Gravity{1}	0.000	-0.980	0.000	-0.190	0.150	0.053
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	3.401	0.000	-0.019	0.073	-0.092
	Thermal 2{1}	0.000	2.143	0.000	-0.003	0.049	-0.065

		DVI_A_LINE_REV0.OUT					
	Thermal 3{1}	0.000	-6.797	0.000	0.046	0.101	-0.143
	GRT1{1}	0.000	2.421	0.000	-0.209	0.223	-0.039
	GRT2{1}	0.000	1.163	0.000	-0.192	0.199	-0.012
	GRT3{1}	0.000	-7.777	0.000	-0.143	0.251	-0.090
CH12	Gravity{1}	0.049	-0.980	0.174	-0.189	0.150	0.053
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.085	3.401	0.018	-0.019	0.073	-0.092
	Thermal 2{1}	-0.059	2.143	0.002	-0.003	0.049	-0.065
	Thermal 3{1}	-0.131	-6.951	-0.042	0.046	0.101	-0.143
	GRT1{1}	-0.036	2.421	0.191	-0.209	0.223	-0.039
	GRT2{1}	-0.011	1.163	0.176	-0.192	0.199	-0.011
	GRT3{1}	-0.082	-7.932	0.131	-0.144	0.251	-0.090

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
C020	Gravity{1}	0.418	-0.980	1.356	-0.079	0.189	0.021
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.339	3.401	0.072	0.003	0.063	0.016
	Thermal 2{1}	-0.239	2.143	0.009	0.001	0.042	0.011
	Thermal 3{1}	-0.763	-8.331	-0.005	-0.030	-0.019	-0.008
	GRT1{1}	0.079	2.421	1.429	-0.076	0.252	0.037
	GRT2{1}	0.179	1.163	1.365	-0.078	0.230	0.032
	GRT3{1}	-0.345	-9.312	1.352	-0.109	0.170	0.013
F05	Gravity{1}	0.131	-0.980	0.481	0.393	0.227	-0.107
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.050	3.401	0.011	0.009	0.053	0.041
	Thermal 2{1}	-0.035	2.143	0.001	0.001	0.034	0.029
	Thermal 3{1}	-0.187	-9.711	0.051	0.042	-0.139	0.153
	GRT1{1}	0.081	2.421	0.492	0.402	0.280	-0.066
	GRT2{1}	0.096	1.163	0.482	0.394	0.261	-0.078
	GRT3{1}	-0.055	-10.692	0.532	0.435	0.088	0.045
F05 M	Gravity{1}	0.000	-0.980	0.000	0.395	0.227	-0.108
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000

	Thermal 1{1}	0.000	3.401	0.000	0.009	0.053	0.041	
	Thermal 2{1}	0.000	2.143	0.000	0.001	0.034	0.029	
	Thermal 3{1}	0.000	-9.918	0.000	0.042	-0.139	0.153	
	GRT1{1}	0.000	2.421	0.000	0.404	0.280	-0.067	
	GRT2{1}	0.000	1.163	0.000	0.395	0.261	-0.079	
	GRT3{1}	0.000	-10.898	0.000	0.436	0.088	0.045	
IV03	Gravity{1}	-0.132	-0.980	-0.483	0.396	0.227	-0.108	
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000	
	Thermal 1{1}	0.050	3.401	-0.011	0.009	0.053	0.041	
	Thermal 2{1}	0.035	2.143	-0.001	0.001	0.034	0.029	
	Thermal 3{1}	0.187	-10.124	-0.051	0.042	-0.139	0.153	
	GRT1{1}	-0.082	2.421	-0.494	0.405	0.280	-0.067	
	GRT2{1}	-0.096	1.163	-0.484	0.397	0.261	-0.079	
	GRT3{1}	0.055	-11.105	-0.534	0.438	0.088	0.045	
	F07 N	Gravity{1}	-3.824	-0.980	-14.928	0.961	0.308	-0.244
		Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
		Thermal 1{1}	0.695	3.401	-0.156	0.012	0.031	0.056
		Thermal 2{1}	0.474	2.143	-0.023	0.004	0.018	0.036
Thermal 3{1}		2.811	-13.031	-2.208	0.131	-0.392	-0.002	
GRT1{1}		-3.129	2.421	-15.084	0.973	0.339	-0.188	
	GRT2{1}	-3.350	1.163	-14.951	0.965	0.326	-0.207	
	GRT3{1}	-1.013	-14.012	-17.136	1.093	-0.084	-0.246	

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Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
F07 F	Gravity{1}	-3.884	-0.920	-15.089	0.948	0.314	-0.237
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.710	3.386	-0.151	0.012	0.030	0.061
	Thermal 2{1}	0.484	2.134	-0.019	0.005	0.017	0.040
	Thermal 3{1}	2.765	-13.067	-2.339	0.127	-0.400	-0.041
	GRT1{1}	-3.175	2.466	-15.240	0.961	0.344	-0.176
	GRT2{1}	-3.401	1.213	-15.108	0.953	0.331	-0.198
	GRT3{1}	-1.119	-13.987	-17.428	1.075	-0.086	-0.279

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F08 N	Gravity{1}	-3.885	3.773	-0.127	0.359	0.516	-0.099
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.710	0.701	0.008	0.044	-0.030	0.087
	Thermal 2{1}	0.483	0.426	0.006	0.026	-0.022	0.055
	Thermal 3{1}	-2.120	-3.600	-12.157	-0.198	-0.062	-0.376
	GRT1{1}	-3.175	4.474	-0.119	0.402	0.486	-0.012
	GRT2{1}	-3.401	4.199	-0.121	0.385	0.495	-0.044
	GRT3{1}	-6.004	0.173	-12.284	0.160	0.455	-0.475
F08 M	Gravity{1}	-3.848	3.764	-0.038	0.354	0.496	-0.098
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.707	0.683	0.002	0.043	-0.032	0.085
	Thermal 2{1}	0.482	0.415	0.002	0.026	-0.023	0.054
	Thermal 3{1}	-2.153	-3.520	-12.154	-0.200	-0.043	-0.370
	GRT1{1}	-3.141	4.447	-0.035	0.398	0.464	-0.013
	GRT2{1}	-3.366	4.179	-0.036	0.380	0.473	-0.044
	GRT3{1}	-6.001	0.244	-12.192	0.155	0.453	-0.469
F08 F	Gravity{1}	-3.762	3.709	-0.002	0.347	0.475	-0.098
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.701	0.669	0.000	0.044	-0.034	0.084
	Thermal 2{1}	0.478	0.406	0.000	0.026	-0.024	0.053
	Thermal 3{1}	-2.171	-3.457	-12.127	-0.203	-0.025	-0.367
	GRT1{1}	-3.061	4.378	-0.002	0.391	0.441	-0.014
	GRT2{1}	-3.285	4.116	-0.002	0.373	0.451	-0.045
	GRT3{1}	-5.934	0.252	-12.129	0.144	0.450	-0.466
F10	Gravity{1}	-0.001	0.008	0.000	0.005	0.001	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.004	0.003	0.000	0.001	-0.002	0.001
	Thermal 2{1}	0.002	0.002	0.000	0.001	-0.001	0.001
	Thermal 3{1}	-0.019	-0.016	-8.630	-0.008	0.010	-0.005
	GRT1{1}	0.003	0.011	0.000	0.006	-0.001	0.000
	GRT2{1}	0.002	0.010	0.000	0.006	0.000	-0.001
	GRT3{1}	-0.020	-0.007	-8.630	-0.003	0.011	-0.006

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D I S P L A C E M E N T S

DVI_A_LINE_REV0.0UT

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
F11	Gravity{1}	0.000	0.005	0.000	0.003	0.000	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.002	0.002	0.000	0.001	-0.001	0.001
	Thermal 2{1}	0.002	0.001	0.000	0.001	-0.001	0.000
	Thermal 3{1}	-0.012	-0.010	-8.480	-0.005	0.006	-0.003
	GRT1{1}	0.002	0.007	0.000	0.003	-0.001	0.000
	GRT2{1}	0.001	0.006	0.000	0.003	0.000	0.000
	GRT3{1}	-0.013	-0.005	-8.480	-0.002	0.006	-0.003
F12	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	-7.810	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	-7.810	0.000	0.000	0.000
*** Segment F end ***							
*** Segment G begin ***							
A58	Gravity{1}	-0.474	-0.059	-0.026	0.025	-0.120	0.011
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.691	-0.320	0.148	0.071	0.038	-0.023
	Thermal 2{1}	1.245	-0.156	-0.003	0.035	0.024	-0.020
	Thermal 3{1}	-3.410	4.973	12.996	-0.306	0.066	-0.264
	GRT1{1}	1.217	-0.379	0.122	0.097	-0.081	-0.013
	GRT2{1}	0.771	-0.215	-0.029	0.060	-0.096	-0.009
	GRT3{1}	-3.884	4.914	12.970	-0.281	-0.054	-0.253
N06	Gravity{1}	-0.421	-0.049	-0.026	0.023	-0.117	0.010
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.673	-0.288	0.148	0.074	0.041	-0.030
	Thermal 2{1}	1.234	-0.141	-0.003	0.036	0.026	-0.024
	Thermal 3{1}	-3.436	4.839	12.921	-0.301	0.052	-0.230
	GRT1{1}	1.252	-0.336	0.122	0.097	-0.076	-0.020
	GRT2{1}	0.812	-0.189	-0.029	0.059	-0.091	-0.014
	GRT3{1}	-3.857	4.790	12.895	-0.279	-0.065	-0.220
*** Segment G end ***							
*** Segment I begin ***							
A07	Gravity{1}	0.150	-0.301	0.011	0.014	-0.007	0.013

	DVI_A_LINE_REV0.OUT					
Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
Thermal 1{1}	-2.441	-0.596	-12.176	0.111	0.057	-0.312
Thermal 2{1}	-2.181	-0.473	-12.054	0.114	0.057	-0.356
Thermal 3{1}	1.243	-0.226	-13.593	0.084	0.124	-0.054
GRT1{1}	-2.291	-0.898	-12.165	0.124	0.050	-0.299
GRT2{1}	-2.030	-0.774	-12.043	0.128	0.050	-0.343
GRT3{1}	1.393	-0.528	-13.582	0.098	0.117	-0.041

0

DVI_A_LINE_REV0

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RESULT PAGE 22

D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
I01	Gravity{1}	0.000	-0.072	0.006	0.009	0.001	0.010
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-4.074	0.506	-17.631	0.023	0.065	-0.095
	Thermal 2{1}	-4.074	0.609	-17.509	0.020	0.082	-0.112
	Thermal 3{1}	-2.053	0.265	-16.345	0.000	0.213	-0.037
	GRT1{1}	-4.074	0.433	-17.625	0.032	0.066	-0.085
	GRT2{1}	-4.074	0.537	-17.503	0.029	0.083	-0.102
	GRT3{1}	-2.053	0.193	-16.339	0.009	0.215	-0.027
I02	Gravity{1}	0.000	0.000	0.000	-0.001	0.098	0.007
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	-28.751	-0.025	-0.151	-0.068
	Thermal 2{1}	0.000	0.000	-28.629	-0.027	-0.157	-0.080
	Thermal 3{1}	0.000	0.000	-21.953	-0.008	-0.249	-0.026
	GRT1{1}	0.000	0.000	-28.751	-0.025	-0.053	-0.061
	GRT2{1}	0.000	0.000	-28.629	-0.028	-0.059	-0.073
	GRT3{1}	0.000	0.000	-21.954	-0.009	-0.151	-0.020

*** Segment I end ***

*** Segment J begin ***

I02	Gravity{1}	0.000	0.000	0.000	-0.001	0.098	0.007
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	-28.751	-0.025	-0.151	-0.068
	Thermal 2{1}	0.000	0.000	-28.629	-0.027	-0.157	-0.080
	Thermal 3{1}	0.000	0.000	-21.953	-0.008	-0.249	-0.026

		DVI_A_LINE_REV0.OUT					
	GRT1{1}	0.000	0.000	-28.751	-0.025	-0.053	-0.061
	GRT2{1}	0.000	0.000	-28.629	-0.028	-0.059	-0.073
	GRT3{1}	0.000	0.000	-21.954	-0.009	-0.151	-0.020
J01 N	Gravity{1}	-2.543	-0.004	-0.004	0.000	-0.154	0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	2.401	-0.315	-39.647	0.001	-0.049	-0.042
	Thermal 2{1}	2.505	-0.349	-39.525	0.001	-0.051	-0.049
	Thermal 3{1}	12.004	-0.110	-27.449	0.000	-0.513	-0.016
	GRT1{1}	-0.143	-0.319	-39.652	0.001	-0.203	-0.038
	GRT2{1}	-0.039	-0.353	-39.530	0.001	-0.204	-0.045
	GRT3{1}	9.461	-0.115	-27.453	0.000	-0.667	-0.012
J01 F	Gravity{1}	-2.434	-0.007	-0.119	0.000	-0.181	0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	2.211	-0.287	-39.904	0.001	-0.050	-0.041
	Thermal 2{1}	2.316	-0.316	-39.783	0.001	-0.052	-0.048
	Thermal 3{1}	12.236	-0.100	-27.907	0.000	-0.522	-0.016
	GRT1{1}	-0.223	-0.293	-40.022	0.001	-0.232	-0.037
	GRT2{1}	-0.118	-0.322	-39.901	0.001	-0.233	-0.045
	GRT3{1}	9.802	-0.106	-28.026	0.001	-0.703	-0.012

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DVI_A_LINE_REV0

09/13/2010 DVIALINE

BENTLEY

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
J02 N	Gravity{1}	-2.434	-0.034	-1.734	0.000	-0.206	0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.269	-0.001	-40.060	0.004	0.036	-0.036
	Thermal 2{1}	-0.164	0.021	-39.946	0.005	0.037	-0.042
	Thermal 3{1}	10.986	0.011	-31.202	0.001	-0.277	-0.014
	GRT1{1}	-2.703	-0.034	-41.794	0.005	-0.169	-0.032
	GRT2{1}	-2.598	-0.013	-41.680	0.005	-0.169	-0.039
	GRT3{1}	8.552	-0.023	-32.936	0.002	-0.483	-0.010
J02 F	Gravity{1}	-2.305	-0.036	-1.867	0.000	-0.188	0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.527	0.026	-40.253	0.005	0.062	-0.035

Thermal 2{1}	-0.422	0.052	-40.138	0.005	0.063	-0.041
Thermal 3{1}	11.025	0.021	-31.481	0.002	-0.199	-0.013
GRT1{1}	-2.832	-0.010	-42.120	0.005	-0.126	-0.031
GRT2{1}	-2.727	0.016	-42.005	0.006	-0.125	-0.038
GRT3{1}	8.721	-0.015	-33.347	0.002	-0.387	-0.010

J03 F	Gravity{1}	-0.695	-0.026	-1.827	0.000	-0.062	0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-4.646	0.123	-46.176	0.007	0.448	-0.016
	Thermal 2{1}	-4.604	0.153	-46.066	0.007	0.455	-0.019
	Thermal 3{1}	3.799	0.052	-35.029	0.002	1.093	-0.006
	GRT1{1}	-5.341	0.097	-48.003	0.007	0.386	-0.014
	GRT2{1}	-5.299	0.128	-47.893	0.008	0.393	-0.017
	GRT3{1}	3.104	0.026	-36.856	0.003	1.031	-0.004

J04 N	Gravity{1}	-0.695	-0.007	-0.959	0.000	-0.096	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.101	-0.007	-51.311	0.005	0.465	-0.009
	Thermal 2{1}	-1.060	-0.004	-51.277	0.005	0.472	-0.011
	Thermal 3{1}	5.585	0.000	-48.405	0.002	1.251	-0.004
	GRT1{1}	-1.797	-0.014	-52.270	0.005	0.369	-0.007
	GRT2{1}	-1.755	-0.011	-52.236	0.006	0.376	-0.009
	GRT3{1}	4.890	-0.007	-49.365	0.002	1.155	-0.002

RESULT PAGE 24

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z

		DVI_A_LINE_REV0.OUT					
J04 F	Gravity{1}	-0.632	-0.006	-0.896	0.000	-0.095	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.181	-0.010	-51.839	0.005	0.448	-0.008
	Thermal 2{1}	-1.144	-0.007	-51.810	0.005	0.455	-0.010
	Thermal 3{1}	4.884	-0.002	-49.339	0.002	1.207	-0.003
	GRT1{1}	-1.813	-0.016	-52.735	0.005	0.353	-0.007
	GRT2{1}	-1.776	-0.013	-52.706	0.006	0.360	-0.009
	GRT3{1}	4.252	-0.007	-50.235	0.002	1.112	-0.002
J05 N	Gravity{1}	-0.074	-0.004	-0.896	0.000	-0.109	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-3.431	0.015	-53.734	0.004	0.347	-0.004
	Thermal 2{1}	-3.427	0.020	-53.705	0.004	0.352	-0.005
	Thermal 3{1}	-1.221	0.007	-50.295	0.001	0.953	-0.002
	GRT1{1}	-3.505	0.011	-54.630	0.004	0.237	-0.004
	GRT2{1}	-3.501	0.016	-54.601	0.004	0.242	-0.005
	GRT3{1}	-1.295	0.003	-51.191	0.002	0.844	-0.001
J05 F	Gravity{1}	0.000	-0.003	-0.820	0.000	-0.115	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-3.433	0.015	-54.179	0.003	0.326	-0.004
	Thermal 2{1}	-3.433	0.019	-54.153	0.004	0.331	-0.005
	Thermal 3{1}	-1.731	0.007	-51.021	0.001	0.903	-0.002
	GRT1{1}	-3.433	0.012	-55.000	0.004	0.211	-0.003
	GRT2{1}	-3.433	0.016	-54.974	0.004	0.216	-0.004
	GRT3{1}	-1.730	0.003	-51.841	0.001	0.788	-0.001
J06	Gravity{1}	0.000	0.000	-0.038	0.000	-0.035	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.725	0.000	-55.854	0.000	0.054	0.000
	Thermal 2{1}	-0.725	0.000	-55.854	0.000	0.055	0.000
	Thermal 3{1}	-0.365	0.000	-55.749	0.000	0.157	0.000
	GRT1{1}	-0.725	0.000	-55.892	0.000	0.019	0.000
	GRT2{1}	-0.725	0.000	-55.891	0.000	0.020	0.000
	GRT3{1}	-0.365	0.000	-55.786	0.000	0.122	0.000
J07	Gravity{1}	0.000	0.000	-0.018	0.000	-0.023	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.502	0.000	-55.884	0.000	0.034	0.000
	Thermal 2{1}	-0.502	0.000	-55.884	0.000	0.034	0.000
	Thermal 3{1}	-0.253	0.000	-55.834	0.000	0.098	0.000
	GRT1{1}	-0.502	0.000	-55.902	0.000	0.011	0.000
	GRT2{1}	-0.502	0.000	-55.902	0.000	0.012	0.000
	GRT3{1}	-0.253	0.000	-55.852	0.000	0.076	0.000

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RESULT PAGE 25

D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
J08	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	-55.910	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	-55.910	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	-55.910	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	-55.910	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	-55.910	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	-55.910	0.000	0.000	0.000
*** Segment J end ***							
*** Segment K begin ***							
I01	Gravity{1}	0.000	-0.072	0.006	0.009	0.001	0.010
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-4.074	0.506	-17.631	0.023	0.065	-0.095
	Thermal 2{1}	-4.074	0.609	-17.509	0.020	0.082	-0.112
	Thermal 3{1}	-2.053	0.265	-16.345	0.000	0.213	-0.037
	GRT1{1}	-4.074	0.433	-17.625	0.032	0.066	-0.085
	GRT2{1}	-4.074	0.537	-17.503	0.029	0.083	-0.102
	GRT3{1}	-2.053	0.193	-16.339	0.009	0.215	-0.027
K01	Gravity{1}	0.000	-0.002	-0.003	0.001	-0.002	0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.725	0.008	-18.249	0.002	0.020	-0.008
	Thermal 2{1}	-0.725	0.010	-18.246	0.002	0.023	-0.010
	Thermal 3{1}	-0.365	0.007	-18.210	0.000	0.058	-0.007
	GRT1{1}	-0.724	0.006	-18.251	0.003	0.018	-0.006
	GRT2{1}	-0.724	0.008	-18.248	0.003	0.021	-0.008
	GRT3{1}	-0.365	0.005	-18.212	0.001	0.056	-0.005
K02	Gravity{1}	0.000	-0.001	-0.001	0.001	-0.002	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.502	0.004	-18.260	0.001	0.013	-0.005
	Thermal 2{1}	-0.502	0.005	-18.258	0.001	0.015	-0.006

		DVI_A_LINE_REV0.OUT					
	Thermal 3{1}	-0.253	0.003	-18.241	0.000	0.037	-0.004
	GRT1{1}	-0.502	0.003	-18.261	0.002	0.011	-0.004
	GRT2{1}	-0.502	0.004	-18.260	0.002	0.013	-0.005
	GRT3{1}	-0.253	0.002	-18.243	0.001	0.035	-0.003
K03	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	-18.270	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	-18.270	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	-18.270	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	-18.270	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	-18.270	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	-18.270	0.000	0.000	0.000

*** Segment K end ***

*** Segment L begin ***

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DVI_A_LINE_REV0

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RESULT PAGE 26

DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
A33	Gravity{1}	-0.051	-0.431	-0.753	-0.053	-0.020	0.009
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.212	5.040	-4.378	0.107	0.533	0.030
	Thermal 2{1}	0.462	4.494	-4.350	-0.142	0.549	0.162
	Thermal 3{1}	0.364	1.432	-6.167	-0.129	0.642	0.160
	GRT1{1}	-0.263	4.608	-5.131	0.054	0.512	0.039
	GRT2{1}	0.411	4.062	-5.103	-0.196	0.529	0.170
	GRT3{1}	0.313	1.001	-6.920	-0.183	0.622	0.169
L01	Gravity{1}	-0.052	-0.419	-0.732	-0.055	-0.021	0.008
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.079	4.889	-4.341	0.101	0.527	0.031
	Thermal 2{1}	0.653	4.402	-4.213	-0.172	0.542	0.189
	Thermal 3{1}	0.573	1.400	-6.075	-0.151	0.635	0.171
	GRT1{1}	-0.132	4.469	-5.073	0.046	0.506	0.039
	GRT2{1}	0.601	3.983	-4.946	-0.227	0.521	0.197
	GRT3{1}	0.520	0.981	-6.807	-0.207	0.614	0.179

DVI_A_LINE_REV0.0UT

L02 N	Gravity{1}	-0.021	0.378	0.618	-0.137	0.003	0.028
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.541	0.431	-2.375	0.006	0.315	0.046
	Thermal 2{1}	8.469	3.742	4.186	-0.613	-0.030	0.519
	Thermal 3{1}	7.381	2.053	-0.172	-0.468	0.254	0.291
	GRT1{1}	3.521	0.809	-1.757	-0.131	0.318	0.074
	GRT2{1}	8.448	4.120	4.804	-0.750	-0.027	0.547
	GRT3{1}	7.360	2.431	0.446	-0.605	0.258	0.319
L02 M	Gravity{1}	-0.015	0.391	0.646	-0.136	0.004	0.029
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.555	0.359	-2.306	0.006	0.311	0.046
	Thermal 2{1}	8.536	3.698	4.345	-0.611	-0.048	0.512
	Thermal 3{1}	7.453	2.047	-0.033	-0.466	0.244	0.287
	GRT1{1}	3.541	0.750	-1.660	-0.130	0.315	0.075
	GRT2{1}	8.521	4.089	4.991	-0.746	-0.044	0.541
	GRT3{1}	7.438	2.438	0.613	-0.601	0.248	0.316
L02 F	Gravity{1}	-0.012	0.391	0.658	-0.133	0.005	0.031
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.496	0.320	-2.218	0.006	0.306	0.045
	Thermal 2{1}	8.497	3.581	4.399	-0.609	-0.067	0.504
	Thermal 3{1}	7.449	1.989	0.070	-0.464	0.233	0.282
	GRT1{1}	3.484	0.711	-1.559	-0.128	0.311	0.076
	GRT2{1}	8.485	3.972	5.057	-0.742	-0.062	0.535
	GRT3{1}	7.437	2.380	0.728	-0.597	0.238	0.313

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 RESULT PAGE 27

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
L03	Gravity{1}	-0.012	0.036	0.184	-0.061	-0.192	0.038
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.523	0.019	-0.142	-0.001	0.148	0.020
	Thermal 2{1}	5.525	0.220	0.801	-0.532	-0.834	0.230
	Thermal 3{1}	5.951	0.119	0.249	-0.388	-0.259	0.124
	GRT1{1}	0.511	0.056	0.042	-0.062	-0.044	0.058

DVI_A_LINE_REV0.OUT							
	GRT2{1}	5.513	0.257	0.985	-0.593	-1.025	0.268
	GRT3{1}	5.939	0.156	0.433	-0.449	-0.451	0.162
L03 M	Gravity{1}	-0.012	0.000	0.000	-0.061	-0.192	0.038
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.201	0.000	0.000	-0.001	0.148	0.020
	Thermal 2{1}	5.203	0.000	0.000	-0.532	-0.835	0.229
	Thermal 3{1}	5.789	0.000	0.000	-0.388	-0.260	0.124
	GRT1{1}	0.189	0.000	0.000	-0.062	-0.045	0.058
	GRT2{1}	5.191	0.000	0.000	-0.593	-1.027	0.267
	GRT3{1}	5.777	0.000	0.000	-0.449	-0.452	0.162
CH03	Gravity{1}	-0.012	-0.036	-0.185	-0.061	-0.193	0.038
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.120	-0.019	0.142	-0.001	0.148	0.020
	Thermal 2{1}	4.881	-0.220	-0.802	-0.532	-0.836	0.229
	Thermal 3{1}	5.626	-0.119	-0.250	-0.388	-0.261	0.124
	GRT1{1}	-0.132	-0.056	-0.043	-0.062	-0.045	0.058
	GRT2{1}	4.869	-0.256	-0.987	-0.593	-1.029	0.267
	GRT3{1}	5.614	-0.155	-0.435	-0.449	-0.453	0.162
C015	Gravity{1}	-0.012	-0.144	-0.969	-0.032	-0.216	0.024
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.120	-0.069	0.529	-0.003	0.077	0.009
	Thermal 2{1}	3.711	-0.797	-4.366	-0.502	-1.189	0.106
	Thermal 3{1}	5.037	-0.423	-1.602	-0.358	-0.504	0.053
	GRT1{1}	-0.132	-0.213	-0.440	-0.036	-0.139	0.033
	GRT2{1}	3.699	-0.941	-5.335	-0.535	-1.405	0.129
	GRT3{1}	5.025	-0.567	-2.570	-0.391	-0.720	0.077
L05	Gravity{1}	-0.012	-0.084	-1.480	0.067	0.118	-0.037
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.120	-0.024	0.477	-0.012	-0.055	-0.011
	Thermal 2{1}	-0.382	-0.312	-22.878	-0.397	-1.641	-0.135
	Thermal 3{1}	2.974	-0.148	-10.869	-0.254	-0.894	-0.064
	GRT1{1}	-0.132	-0.109	-1.003	0.055	0.063	-0.047
	GRT2{1}	-0.394	-0.397	-24.359	-0.330	-1.522	-0.172
	GRT3{1}	2.962	-0.232	-12.349	-0.187	-0.776	-0.101

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DVI_A_LINE_REV0.0UT
D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
L05 M	Gravity{1}	-0.012	0.000	-1.207	0.067	0.118	-0.037
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.120	0.000	0.349	-0.012	-0.055	-0.011
	Thermal 2{1}	-1.154	0.000	-26.659	-0.397	-1.640	-0.136
	Thermal 3{1}	2.584	0.000	-12.929	-0.254	-0.894	-0.064
	GRT1{1}	-0.132	0.000	-0.858	0.055	0.063	-0.047
	GRT2{1}	-1.166	0.000	-27.866	-0.330	-1.522	-0.172
	GRT3{1}	2.572	0.000	-14.137	-0.187	-0.776	-0.101
L06	Gravity{1}	-0.012	0.085	-0.934	0.068	0.118	-0.037
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.120	0.024	0.222	-0.012	-0.055	-0.011
	Thermal 2{1}	-1.927	0.313	-30.437	-0.397	-1.639	-0.136
	Thermal 3{1}	2.195	0.148	-14.989	-0.254	-0.894	-0.064
	GRT1{1}	-0.132	0.109	-0.713	0.055	0.063	-0.047
	GRT2{1}	-1.939	0.397	-31.371	-0.329	-1.521	-0.173
	GRT3{1}	2.183	0.232	-15.924	-0.186	-0.775	-0.101
L07 N	Gravity{1}	-0.012	0.186	-0.617	0.090	0.109	-0.036
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.120	0.055	0.081	-0.014	-0.047	-0.012
	Thermal 2{1}	-2.836	0.757	-34.531	-0.373	-1.351	-0.199
	Thermal 3{1}	1.736	0.350	-17.258	-0.231	-0.764	-0.089
	GRT1{1}	-0.132	0.241	-0.536	0.075	0.062	-0.048
	GRT2{1}	-2.848	0.943	-35.148	-0.284	-1.242	-0.235
	GRT3{1}	1.724	0.536	-17.875	-0.141	-0.655	-0.125
L07 M	Gravity{1}	-0.001	0.186	-0.588	0.092	0.106	-0.035
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.124	0.059	0.069	-0.014	-0.045	-0.013
	Thermal 2{1}	-3.023	0.852	-34.829	-0.371	-1.304	-0.210
	Thermal 3{1}	1.635	0.399	-17.429	-0.229	-0.742	-0.094
	GRT1{1}	-0.125	0.246	-0.519	0.077	0.060	-0.047
	GRT2{1}	-3.024	1.038	-35.417	-0.279	-1.199	-0.245
	GRT3{1}	1.633	0.585	-18.017	-0.137	-0.636	-0.129
L07 F	Gravity{1}	0.024	0.170	-0.569	0.094	0.102	-0.033
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.132	0.064	0.064	-0.015	-0.044	-0.013

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Thermal 2{1}	-3.306	0.984	-34.919	-0.368	-1.257	-0.221
Thermal 3{1}	1.473	0.473	-17.488	-0.226	-0.720	-0.099
GRT1{1}	-0.108	0.234	-0.505	0.079	0.058	-0.047
GRT2{1}	-3.282	1.154	-35.488	-0.275	-1.155	-0.255
GRT3{1}	1.497	0.643	-18.056	-0.132	-0.618	-0.132

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RESULT PAGE 29

D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
L08 N	Gravity{1}	0.594	-1.023	-0.011	0.032	-0.017	-0.016
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.239	0.199	0.000	0.001	0.006	-0.015
	Thermal 2{1}	-7.084	5.473	-31.821	0.093	0.196	-0.302
	Thermal 3{1}	-1.932	2.977	-16.039	0.049	-0.019	-0.129
	GRT1{1}	0.354	-0.824	-0.011	0.032	-0.011	-0.031
	GRT2{1}	-6.491	4.450	-31.833	0.125	0.179	-0.317
	GRT3{1}	-1.338	1.954	-16.050	0.080	-0.036	-0.144
L08 F	Gravity{1}	0.592	-1.027	-0.010	0.028	-0.018	-0.016
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.238	0.199	0.000	0.001	0.007	-0.015
	Thermal 2{1}	-7.047	5.469	-31.771	0.104	0.208	-0.301
	Thermal 3{1}	-1.930	2.975	-16.014	0.055	-0.014	-0.128
	GRT1{1}	0.354	-0.828	-0.010	0.029	-0.011	-0.030
	GRT2{1}	-6.455	4.442	-31.782	0.132	0.190	-0.317
	GRT3{1}	-1.339	1.948	-16.024	0.083	-0.032	-0.144
L35	Gravity{1}	0.000	0.000	-0.008	-0.071	-0.030	-0.011
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.012	0.012	-0.010
	Thermal 2{1}	0.000	0.000	-26.194	0.295	0.356	-0.201
	Thermal 3{1}	0.000	0.000	-13.203	0.161	0.121	-0.086
	GRT1{1}	0.000	0.000	-0.008	-0.060	-0.018	-0.020
	GRT2{1}	0.000	0.000	-26.203	0.224	0.326	-0.212
	GRT3{1}	0.000	0.000	-13.211	0.090	0.091	-0.096
L09	Gravity{1}	-0.002	0.005	-0.002	0.002	0.001	0.000

Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
Thermal 1{1}	0.001	-0.001	0.000	0.000	0.000	0.000
Thermal 2{1}	0.025	-0.021	-15.081	-0.010	-0.012	-0.003
Thermal 3{1}	0.008	-0.011	-7.602	-0.005	-0.004	-0.001
GRT1{1}	-0.001	0.004	-0.002	0.002	0.001	0.000
GRT2{1}	0.023	-0.016	-15.084	-0.007	-0.011	-0.003
GRT3{1}	0.006	-0.006	-7.604	-0.003	-0.003	-0.001
Gravity{1}	-0.002	0.004	-0.002	0.001	0.001	0.000
Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
Thermal 1{1}	0.001	-0.001	0.000	0.000	0.000	0.000
Thermal 2{1}	0.019	-0.016	-14.859	-0.005	-0.006	-0.001
Thermal 3{1}	0.006	-0.009	-7.489	-0.003	-0.002	-0.001
GRT1{1}	-0.001	0.003	-0.002	0.001	0.000	0.000
GRT2{1}	0.017	-0.012	-14.861	-0.004	-0.006	-0.002
GRT3{1}	0.005	-0.005	-7.491	-0.002	-0.002	-0.001

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Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
L11	Gravity{1}	-0.001	0.003	-0.002	0.001	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.014	-0.011	-14.560	-0.004	-0.005	-0.001
	Thermal 3{1}	0.005	-0.006	-7.339	-0.002	-0.002	0.000
	GRT1{1}	-0.001	0.002	-0.002	0.001	0.000	0.000
	GRT2{1}	0.013	-0.009	-14.562	-0.003	-0.004	-0.001
	GRT3{1}	0.004	-0.003	-7.341	-0.001	-0.001	0.000
L12	Gravity{1}	-0.001	0.001	-0.002	0.001	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.007	-0.005	-13.956	-0.003	-0.003	-0.001
	Thermal 3{1}	0.002	-0.003	-7.034	-0.001	-0.001	0.000
	GRT1{1}	0.000	0.001	-0.002	0.001	0.000	0.000
	GRT2{1}	0.006	-0.004	-13.958	-0.002	-0.003	-0.001

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	GRT3{1}	0.002	-0.002	-7.036	-0.001	-0.001	0.000
L13	Gravity{1}	0.000	0.000	-0.001	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.001	-0.001	-12.932	0.000	0.000	0.000
	Thermal 3{1}	0.000	-0.001	-6.518	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	-0.001	0.000	0.000	0.000
	GRT2{1}	0.001	-0.001	-12.934	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	-6.520	0.000	0.000	0.000
L16	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	0.000	0.000	0.000	0.000
L14	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.004	-0.001	0.000	0.000	0.000	0.000
	Thermal 2{1}	-0.004	-0.001	5.735	0.000	0.000	0.000
	Thermal 3{1}	-0.002	-0.001	2.890	0.000	0.000	0.000
	GRT1{1}	-0.004	-0.001	0.000	0.000	0.000	0.000
	GRT2{1}	-0.004	-0.001	5.734	0.000	0.000	0.000
	GRT3{1}	-0.002	-0.001	2.890	0.000	0.000	0.000

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
L15	Gravity{1}	0.001	0.000	-0.001	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.127	-0.035	0.000	0.021	-0.078	0.005
	Thermal 2{1}	-0.132	-0.037	6.759	0.023	-0.081	0.005

		DVI_A_LINE_REV0.OUT					
	Thermal 3{1}	-0.071	-0.020	3.407	0.012	-0.044	0.002
	GRT1{1}	-0.127	-0.035	-0.001	0.021	-0.078	0.005
	GRT2{1}	-0.131	-0.037	6.758	0.023	-0.080	0.005
	GRT3{1}	-0.071	-0.019	3.406	0.012	-0.043	0.002
L17	Gravity{1}	0.002	0.000	-0.001	0.000	0.001	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.305	-0.084	0.000	0.032	-0.118	0.007
	Thermal 2{1}	-0.316	-0.089	7.361	0.034	-0.122	0.008
	Thermal 3{1}	-0.170	-0.046	3.710	0.017	-0.066	0.002
	GRT1{1}	-0.303	-0.084	-0.001	0.032	-0.118	0.007
	GRT2{1}	-0.314	-0.089	7.361	0.034	-0.122	0.008
	GRT3{1}	-0.169	-0.045	3.710	0.017	-0.065	0.003
L18	Gravity{1}	0.002	0.000	-0.001	0.000	0.001	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.429	-0.117	0.000	0.042	-0.158	0.010
	Thermal 2{1}	-0.443	-0.124	7.660	0.045	-0.163	0.011
	Thermal 3{1}	-0.239	-0.063	3.861	0.022	-0.088	0.003
	GRT1{1}	-0.426	-0.117	-0.001	0.042	-0.157	0.010
	GRT2{1}	-0.441	-0.124	7.659	0.045	-0.162	0.011
	GRT3{1}	-0.237	-0.063	3.860	0.022	-0.087	0.004
L19 N	Gravity{1}	0.036	-0.118	-0.002	0.014	-0.003	0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-21.440	-4.159	-0.002	0.070	-0.940	0.207
	Thermal 2{1}	-21.280	-4.400	15.802	0.074	-0.875	0.227
	Thermal 3{1}	-11.107	-1.068	7.964	-0.091	-0.432	0.068
	GRT1{1}	-21.404	-4.276	-0.004	0.084	-0.944	0.211
	GRT2{1}	-21.244	-4.518	15.800	0.088	-0.879	0.232
	GRT3{1}	-11.071	-1.186	7.962	-0.077	-0.435	0.072
L19N	Gravity{1}	0.031	-0.125	0.007	0.016	-0.005	0.005
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-21.991	-3.939	0.663	0.030	-0.870	0.214
	Thermal 2{1}	-21.795	-4.172	16.433	0.032	-0.792	0.235
	Thermal 3{1}	-11.336	-0.887	8.211	-0.126	-0.383	0.070
	GRT1{1}	-21.960	-4.064	0.670	0.046	-0.875	0.219
	GRT2{1}	-21.763	-4.298	16.441	0.047	-0.797	0.240
	GRT3{1}	-11.304	-1.012	8.218	-0.110	-0.387	0.074

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
L20 N	Gravity{1}	-0.002	-0.092	0.226	0.030	-0.016	0.006
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-21.100	-0.595	4.725	-0.059	-0.520	0.134
	Thermal 2{1}	-21.031	-0.702	19.760	-0.054	-0.362	0.150
	Thermal 3{1}	-10.604	0.515	8.696	-0.211	-0.178	0.014
	GRT1{1}	-21.102	-0.687	4.951	-0.028	-0.537	0.140
	GRT2{1}	-21.033	-0.794	19.987	-0.023	-0.379	0.156
	GRT3{1}	-10.606	0.423	8.922	-0.181	-0.195	0.021
L20 F	Gravity{1}	-0.003	-0.089	0.240	0.031	-0.017	0.006
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-20.968	-0.471	4.954	-0.059	-0.504	0.117
	Thermal 2{1}	-20.901	-0.571	19.915	-0.054	-0.341	0.132
	Thermal 3{1}	-10.527	0.552	8.737	-0.210	-0.172	0.004
	GRT1{1}	-20.971	-0.560	5.194	-0.029	-0.520	0.124
	GRT2{1}	-20.905	-0.660	20.155	-0.024	-0.357	0.138
	GRT3{1}	-10.530	0.463	8.976	-0.180	-0.188	0.011
L29	Gravity{1}	-0.003	0.000	0.000	0.041	0.100	0.005
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-16.316	0.000	11.606	-0.062	-0.582	0.023
	Thermal 2{1}	-16.250	0.000	23.735	-0.055	-0.344	0.027
	Thermal 3{1}	-8.182	0.000	11.978	-0.186	-0.414	-0.034
	GRT1{1}	-16.319	0.000	11.606	-0.021	-0.482	0.028
	GRT2{1}	-16.253	0.000	23.735	-0.014	-0.244	0.032
	GRT3{1}	-8.186	0.000	11.978	-0.146	-0.314	-0.029
L21	Gravity{1}	-0.003	0.003	-0.132	0.077	-0.122	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.127	3.277	53.093	-0.071	-0.569	-0.058
	Thermal 2{1}	0.192	3.316	53.816	-0.058	-0.438	-0.066
	Thermal 3{1}	0.105	1.631	52.766	-0.102	-0.611	-0.025
	GRT1{1}	0.124	3.280	52.961	0.006	-0.691	-0.058
	GRT2{1}	0.189	3.319	53.684	0.019	-0.560	-0.067
	GRT3{1}	0.102	1.634	52.634	-0.025	-0.733	-0.026
L21 M	Gravity{1}	-0.003	0.002	0.000	0.077	-0.122	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000

Thermal 1{1}	0.490	3.214	53.709	-0.071	-0.569	-0.058
Thermal 2{1}	0.555	3.245	54.290	-0.058	-0.438	-0.066
Thermal 3{1}	0.288	1.604	53.427	-0.102	-0.611	-0.025
GRT1{1}	0.486	3.217	53.709	0.006	-0.691	-0.059
GRT2{1}	0.552	3.247	54.290	0.019	-0.560	-0.067
GRT3{1}	0.285	1.606	53.427	-0.025	-0.732	-0.026

RESULT PAGE 33

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
L22	Gravity{1}	-0.003	0.002	0.132	0.077	-0.122	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.852	3.151	54.324	-0.071	-0.568	-0.058
	Thermal 2{1}	0.918	3.173	54.763	-0.058	-0.437	-0.066
	Thermal 3{1}	0.471	1.576	54.087	-0.102	-0.610	-0.025
	GRT1{1}	0.849	3.153	54.456	0.006	-0.690	-0.059
	GRT2{1}	0.915	3.175	54.895	0.019	-0.559	-0.067
	GRT3{1}	0.467	1.578	54.219	-0.025	-0.732	-0.026
L23 N	Gravity{1}	-0.003	0.001	0.427	0.079	-0.084	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.838	2.923	55.834	-0.072	-0.456	-0.098
	Thermal 2{1}	1.904	2.918	55.925	-0.059	-0.351	-0.108
	Thermal 3{1}	0.968	1.465	55.710	-0.097	-0.490	-0.051
	GRT1{1}	1.835	2.924	56.261	0.008	-0.540	-0.098
	GRT2{1}	1.901	2.919	56.353	0.021	-0.435	-0.108
	GRT3{1}	0.964	1.465	56.137	-0.018	-0.574	-0.051
L23 F	Gravity{1}	-0.003	0.001	0.427	0.080	-0.073	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.987	2.630	56.170	-0.070	-0.398	-0.117
	Thermal 2{1}	2.046	2.618	56.186	-0.057	-0.306	-0.128
	Thermal 3{1}	1.040	1.315	56.084	-0.093	-0.428	-0.063
	GRT1{1}	1.984	2.631	56.596	0.010	-0.471	-0.117
	GRT2{1}	2.043	2.619	56.613	0.023	-0.379	-0.128
	GRT3{1}	1.037	1.316	56.511	-0.013	-0.501	-0.063

DVI_A_LINE_REV0.OUT

L24 N	Gravity{1}	-0.001	0.001	0.136	0.055	-0.035	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.494	1.254	56.434	-0.055	-0.179	-0.104
	Thermal 2{1}	1.509	1.242	56.402	-0.045	-0.138	-0.113
	Thermal 3{1}	0.765	0.622	56.428	-0.070	-0.192	-0.059
	GRT1{1}	1.493	1.255	56.571	0.000	-0.214	-0.104
	GRT2{1}	1.507	1.243	56.538	0.010	-0.173	-0.113
	GRT3{1}	0.764	0.623	56.564	-0.015	-0.228	-0.059
L24 F	Gravity{1}	-0.001	0.001	0.106	0.047	-0.030	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.382	1.115	56.428	-0.051	-0.151	-0.091
	Thermal 2{1}	1.393	1.104	56.398	-0.041	-0.116	-0.099
	Thermal 3{1}	0.706	0.553	56.426	-0.064	-0.162	-0.052
	GRT1{1}	1.381	1.116	56.534	-0.005	-0.181	-0.090
	GRT2{1}	1.392	1.105	56.504	0.005	-0.146	-0.098
	GRT3{1}	0.705	0.554	56.532	-0.017	-0.192	-0.051

 DVI_A_LINE_REV0
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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
L25	Gravity{1}	0.000	0.000	0.016	0.011	-0.008	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.660	0.616	56.324	-0.012	-0.030	-0.025
	Thermal 2{1}	0.662	0.615	56.320	-0.010	-0.023	-0.027
	Thermal 3{1}	0.334	0.309	56.323	-0.015	-0.033	-0.015
	GRT1{1}	0.660	0.617	56.339	-0.001	-0.038	-0.025
	GRT2{1}	0.661	0.615	56.336	0.002	-0.031	-0.027
	GRT3{1}	0.334	0.309	56.339	-0.004	-0.040	-0.014
L26	Gravity{1}	0.000	0.000	0.006	0.006	-0.004	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.436	0.418	56.315	-0.006	-0.015	-0.013
	Thermal 2{1}	0.437	0.417	56.314	-0.005	-0.011	-0.015
	Thermal 3{1}	0.221	0.210	56.315	-0.008	-0.016	-0.008

		DVI_A_LINE_REV0.OUT					
	GRT1{1}	0.436	0.418	56.322	0.000	-0.019	-0.013
	GRT2{1}	0.437	0.417	56.320	0.001	-0.015	-0.014
	GRT3{1}	0.221	0.210	56.321	-0.002	-0.020	-0.008
L27	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	56.310	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	56.310	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	56.310	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	56.310	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	56.310	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	56.310	0.000	0.000	0.000

*** Segment L end ***

*** Segment M begin ***

M00	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	21.890	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	21.890	0.000	0.000	0.000
M01	Gravity{1}	0.000	0.000	0.000	0.000	-0.001	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.004	0.000	-0.001	-0.001	0.000	-0.003
	Thermal 2{1}	0.003	0.000	-0.001	0.000	0.000	-0.002
	Thermal 3{1}	-0.012	0.430	21.865	-0.019	0.000	0.009
	GRT1{1}	0.004	0.000	-0.001	0.000	0.000	-0.003
	GRT2{1}	0.003	0.000	-0.001	0.000	0.000	-0.002
	GRT3{1}	-0.011	0.430	21.865	-0.019	-0.001	0.008

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DVI_A_LINE_REV0

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
M02	Gravity{1}	0.000	0.000	0.000	0.000	-0.002	0.000

		DVI_A_LINE_REV0.OUT					
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.008	0.000	-0.001	-0.001	0.001	-0.006
	Thermal 2{1}	0.006	0.000	-0.001	-0.001	0.001	-0.004
	Thermal 3{1}	-0.023	0.581	21.838	-0.040	0.000	0.018
	GRT1{1}	0.008	0.000	-0.001	-0.001	-0.001	-0.006
	GRT2{1}	0.006	0.000	-0.001	-0.001	-0.001	-0.004
	GRT3{1}	-0.023	0.581	21.838	-0.040	-0.002	0.018
*** Segment M end ***							
*** Segment N begin ***							
M02	Gravity{1}	0.000	0.000	0.000	0.000	-0.002	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.008	0.000	-0.001	-0.001	0.001	-0.006
	Thermal 2{1}	0.006	0.000	-0.001	-0.001	0.001	-0.004
	Thermal 3{1}	-0.023	0.581	21.838	-0.040	0.000	0.018
	GRT1{1}	0.008	0.000	-0.001	-0.001	-0.001	-0.006
	GRT2{1}	0.006	0.000	-0.001	-0.001	-0.001	-0.004
	GRT3{1}	-0.023	0.581	21.838	-0.040	-0.002	0.018
N01	Gravity{1}	0.002	0.000	0.001	-0.002	-0.024	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.134	0.000	-0.017	-0.007	0.012	-0.072
	Thermal 2{1}	0.099	0.000	-0.016	-0.008	0.008	-0.054
	Thermal 3{1}	-0.391	1.104	20.988	-0.483	-0.004	0.206
	GRT1{1}	0.136	0.000	-0.015	-0.009	-0.012	-0.073
	GRT2{1}	0.101	0.000	-0.015	-0.010	-0.016	-0.054
	GRT3{1}	-0.389	1.104	20.990	-0.485	-0.028	0.205
N01 M	Gravity{1}	0.003	0.000	-0.001	-0.002	-0.024	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.222	0.000	-0.025	-0.007	0.012	-0.072
	Thermal 2{1}	0.165	0.000	-0.026	-0.008	0.008	-0.054
	Thermal 3{1}	-0.643	1.311	20.397	-0.485	-0.004	0.207
	GRT1{1}	0.225	0.000	-0.027	-0.009	-0.012	-0.073
	GRT2{1}	0.168	0.000	-0.027	-0.010	-0.016	-0.055
	GRT3{1}	-0.640	1.311	20.396	-0.486	-0.028	0.206
IV05	Gravity{1}	0.004	0.000	-0.003	-0.002	-0.024	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.310	0.000	-0.034	-0.007	0.012	-0.072
	Thermal 2{1}	0.231	0.000	-0.036	-0.008	0.008	-0.054
	Thermal 3{1}	-0.896	1.517	19.804	-0.486	-0.004	0.207
	GRT1{1}	0.314	0.000	-0.038	-0.009	-0.012	-0.073
	GRT2{1}	0.234	0.000	-0.039	-0.010	-0.016	-0.055

GRT3{1} DVI_A_LINE_REV0.OUT
-0.892 1.517 19.801 -0.488 -0.028 0.206

0

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
N07	Gravity{1}	0.006	0.000	-0.015	0.001	-0.055	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.722	0.000	-0.040	0.008	0.028	-0.109
	Thermal 2{1}	0.537	0.000	-0.062	-0.002	0.019	-0.082
	Thermal 3{1}	-1.978	2.254	17.091	-0.710	-0.009	0.264
	GRT1{1}	0.728	0.000	-0.055	0.009	-0.027	-0.109
	GRT2{1}	0.543	0.000	-0.077	-0.001	-0.037	-0.081
	GRT3{1}	-1.972	2.254	17.076	-0.709	-0.064	0.264
N03	Gravity{1}	0.005	0.000	-0.012	-0.001	-0.069	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.943	0.000	-0.013	0.020	0.035	-0.113
	Thermal 2{1}	0.702	0.000	-0.059	0.005	0.024	-0.085
	Thermal 3{1}	-2.481	2.586	15.672	-0.718	-0.011	0.241
	GRT1{1}	0.947	0.000	-0.024	0.019	-0.034	-0.112
	GRT2{1}	0.707	0.000	-0.071	0.004	-0.046	-0.083
	GRT3{1}	-2.477	2.586	15.660	-0.719	-0.080	0.242
N03 M	Gravity{1}	0.004	0.000	-0.013	-0.001	-0.070	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.046	0.000	0.006	0.020	0.035	-0.113
	Thermal 2{1}	0.779	0.000	-0.055	0.005	0.024	-0.085
	Thermal 3{1}	-2.702	2.741	15.013	-0.718	-0.011	0.241
	GRT1{1}	1.050	0.000	-0.007	0.019	-0.034	-0.112
	GRT2{1}	0.783	0.000	-0.068	0.004	-0.046	-0.083
	GRT3{1}	-2.698	2.741	15.001	-0.719	-0.081	0.242
CH14	Gravity{1}	0.003	0.000	-0.013	-0.001	-0.070	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.150	0.000	0.025	0.020	0.035	-0.113
	Thermal 2{1}	0.857	0.000	-0.051	0.005	0.024	-0.085
	Thermal 3{1}	-2.922	2.896	14.356	-0.718	-0.011	0.240

DVI_A_LINE_REV0.OUT

	GRT1{1}	1.152	0.000	0.011	0.019	-0.034	-0.112
	GRT2{1}	0.859	0.000	-0.064	0.004	-0.046	-0.083
	GRT3{1}	-2.920	2.896	14.342	-0.719	-0.081	0.241
N05 N	Gravity{1}	-0.005	0.000	-0.026	-0.002	-0.092	0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.470	-0.001	0.134	0.052	0.047	-0.090
	Thermal 2{1}	1.098	0.000	-0.009	0.023	0.031	-0.068
	Thermal 3{1}	-3.469	3.419	12.383	-0.530	-0.014	0.100
	GRT1{1}	1.466	0.000	0.108	0.050	-0.045	-0.087
	GRT2{1}	1.093	0.000	-0.035	0.021	-0.061	-0.065
	GRT3{1}	-3.474	3.419	12.357	-0.532	-0.106	0.103

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
N05 F	Gravity{1}	-0.029	0.000	-0.026	0.004	-0.096	0.005
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.504	-0.015	0.148	0.064	0.047	-0.082
	Thermal 2{1}	1.122	-0.007	-0.003	0.030	0.031	-0.062
	Thermal 3{1}	-3.491	3.579	12.301	-0.440	-0.004	0.053
	GRT1{1}	1.474	-0.016	0.122	0.068	-0.050	-0.077
	GRT2{1}	1.092	-0.008	-0.029	0.034	-0.065	-0.057
	GRT3{1}	-3.520	3.578	12.275	-0.437	-0.100	0.059
N06	Gravity{1}	-0.421	-0.049	-0.026	0.023	-0.117	0.010
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.673	-0.288	0.148	0.074	0.041	-0.030
	Thermal 2{1}	1.234	-0.141	-0.003	0.036	0.026	-0.024
	Thermal 3{1}	-3.436	4.839	12.921	-0.301	0.052	-0.230
	GRT1{1}	1.252	-0.336	0.122	0.097	-0.076	-0.020
	GRT2{1}	0.812	-0.189	-0.029	0.059	-0.091	-0.014
	GRT3{1}	-3.857	4.790	12.895	-0.279	-0.065	-0.220

*** Segment N end ***
 *** Segment O begin ***

		DVI_A_LINE_REV0.OUT					
A13	Gravity{1}	-0.023	-0.301	0.170	-0.033	-0.132	0.016
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	2.177	3.797	-9.151	0.265	0.415	-0.276
	Thermal 2{1}	2.878	3.920	-9.262	0.196	0.449	-0.270
	Thermal 3{1}	1.819	1.988	-11.576	0.136	0.509	0.007
	GRT1{1}	2.154	3.495	-8.982	0.233	0.283	-0.261
	GRT2{1}	2.855	3.619	-9.092	0.163	0.317	-0.255
	GRT3{1}	1.796	1.687	-11.407	0.103	0.377	0.022
001	Gravity{1}	0.146	-0.343	0.169	-0.033	-0.132	0.016
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.649	4.135	-9.578	0.265	0.415	-0.276
	Thermal 2{1}	2.306	4.170	-9.689	0.196	0.449	-0.270
	Thermal 3{1}	1.170	2.161	-11.791	0.136	0.509	0.007
	GRT1{1}	1.794	3.792	-9.409	0.233	0.283	-0.261
	GRT2{1}	2.452	3.827	-9.520	0.163	0.317	-0.255
	GRT3{1}	1.315	1.818	-11.622	0.103	0.377	0.022
001 M	Gravity{1}	0.449	-0.418	0.169	-0.033	-0.132	0.016
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.695	4.744	-10.349	0.265	0.415	-0.276
	Thermal 2{1}	1.274	4.620	-10.460	0.196	0.449	-0.270
	Thermal 3{1}	-0.002	2.473	-12.180	0.136	0.509	0.007
	GRT1{1}	1.145	4.326	-10.180	0.233	0.283	-0.261
	GRT2{1}	1.723	4.202	-10.291	0.163	0.317	-0.255
	GRT3{1}	0.447	2.055	-12.011	0.103	0.377	0.022

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DVI_A_LINE_REV0

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BENTLEY

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RESULT PAGE 38

DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
HV40	Gravity{1}	0.753	-0.493	0.169	-0.033	-0.132	0.016
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.258	5.354	-11.120	0.265	0.415	-0.276
	Thermal 2{1}	0.242	5.070	-11.231	0.196	0.449	-0.270
	Thermal 3{1}	-1.173	2.785	-12.569	0.136	0.509	0.007
	GRT1{1}	0.495	4.861	-10.951	0.233	0.283	-0.261

		DVI_A_LINE_REV0.OUT					
	GRT2{1}	0.995	4.577	-11.062	0.163	0.317	-0.255
	GRT3{1}	-0.420	2.292	-12.399	0.103	0.377	0.022
*** Segment 0 end ***							
L05 M	Gravity{1}	-0.012	0.000	-1.207	0.067	0.118	-0.037
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.120	0.000	0.349	-0.012	-0.055	-0.011
	Thermal 2{1}	-1.154	0.000	-26.659	-0.397	-1.640	-0.136
	Thermal 3{1}	2.584	0.000	-12.929	-0.254	-0.894	-0.064
	GRT1{1}	-0.132	0.000	-0.858	0.055	0.063	-0.047
	GRT2{1}	-1.166	0.000	-27.866	-0.330	-1.522	-0.172
	GRT3{1}	2.572	0.000	-14.137	-0.187	-0.776	-0.101
L05 D	Gravity{1}	0.636	-0.368	-1.207	0.067	0.118	-0.037
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.424	0.067	0.349	-0.012	-0.055	-0.011
	Thermal 2{1}	-10.130	2.171	-26.659	-0.397	-1.640	-0.136
	Thermal 3{1}	-2.309	1.390	-12.929	-0.254	-0.894	-0.064
	GRT1{1}	0.212	-0.302	-0.858	0.055	0.063	-0.047
	GRT2{1}	-9.494	1.803	-27.866	-0.330	-1.522	-0.172
	GRT3{1}	-1.673	1.022	-14.137	-0.187	-0.776	-0.101
N01 M	Gravity{1}	0.003	0.000	-0.001	-0.002	-0.024	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.222	0.000	-0.025	-0.007	0.012	-0.072
	Thermal 2{1}	0.165	0.000	-0.026	-0.008	0.008	-0.054
	Thermal 3{1}	-0.643	1.311	20.397	-0.485	-0.004	0.207
	GRT1{1}	0.225	0.000	-0.027	-0.009	-0.012	-0.073
	GRT2{1}	0.168	0.000	-0.027	-0.010	-0.016	-0.055
	GRT3{1}	-0.640	1.311	20.396	-0.486	-0.028	0.206
N01 D	Gravity{1}	-0.053	0.004	-0.001	-0.002	-0.024	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.250	0.017	-0.025	-0.007	0.012	-0.072
	Thermal 2{1}	0.184	0.019	-0.026	-0.008	0.008	-0.054
	Thermal 3{1}	-0.652	2.440	20.397	-0.485	-0.004	0.207
	GRT1{1}	0.197	0.021	-0.027	-0.009	-0.012	-0.073
	GRT2{1}	0.131	0.023	-0.027	-0.010	-0.016	-0.055
	GRT3{1}	-0.705	2.444	20.396	-0.486	-0.028	0.206

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
A48 M	Gravity{1}	0.000	-0.151	0.000	0.065	-0.328	-0.020
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.326	0.000	-0.010	-0.001	-0.010
	Thermal 2{1}	0.000	0.146	0.000	-0.005	0.002	-0.007
	Thermal 3{1}	0.000	-0.421	0.000	-0.206	0.277	0.015
	GRT1{1}	0.000	0.175	0.000	0.055	-0.329	-0.029
	GRT2{1}	0.000	-0.005	0.000	0.060	-0.326	-0.027
	GRT3{1}	0.000	-0.572	0.000	-0.141	-0.051	-0.005
A48 D	Gravity{1}	-0.764	-0.302	0.000	0.065	-0.328	-0.020
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.003	0.349	0.000	-0.010	-0.001	-0.010
	Thermal 2{1}	0.004	0.159	0.000	-0.005	0.002	-0.007
	Thermal 3{1}	0.645	0.058	0.000	-0.206	0.277	0.015
	GRT1{1}	-0.766	0.047	0.000	0.055	-0.329	-0.029
	GRT2{1}	-0.760	-0.143	0.000	0.060	-0.326	-0.027
	GRT3{1}	-0.119	-0.244	0.000	-0.141	-0.051	-0.005
F05 M	Gravity{1}	0.000	-0.980	0.000	0.395	0.227	-0.108
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	3.401	0.000	0.009	0.053	0.041
	Thermal 2{1}	0.000	2.143	0.000	0.001	0.034	0.029
	Thermal 3{1}	0.000	-9.918	0.000	0.042	-0.139	0.153
	GRT1{1}	0.000	2.421	0.000	0.404	0.280	-0.067
	GRT2{1}	0.000	1.163	0.000	0.395	0.261	-0.079
	GRT3{1}	0.000	-10.898	0.000	0.436	0.088	0.045
F05 D	Gravity{1}	0.529	-1.900	0.000	0.395	0.227	-0.108
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.123	3.380	0.000	0.009	0.053	0.041
	Thermal 2{1}	0.079	2.142	0.000	0.001	0.034	0.029
	Thermal 3{1}	-0.324	-10.015	0.000	0.042	-0.139	0.153
	GRT1{1}	0.652	1.480	0.000	0.404	0.280	-0.067
	GRT2{1}	0.608	0.242	0.000	0.395	0.261	-0.079
	GRT3{1}	0.205	-11.915	0.000	0.436	0.088	0.045

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform

Tag No.: <None>								
A04 N		Gravity{1}	down	273	-0.037	X		0.000
A04 N1	Cons Can					Y		-0.177
Stiff	:RIGID					Z	-273	0.037
Preload :	273	Hydrotest{1}	down		0.000	X		0.000
						Y		0.000
						Z		0.000
		Thermal 1{1}	down		6.477	X		-4.499
						Y		-0.228
						Z		-6.477
		Thermal 2{1}	down		6.353	X		-4.499
						Y		-0.139
						Z		-6.353
		Thermal 3{1}	down		10.418	X		-2.268
						Y		-0.356
						Z		-10.418
		GRT1{1}	down	273	6.439	X		-4.499
						Y		-0.405
						Z	-273	-6.439
		GRT2{1}	down	273	6.316	X		-4.499
						Y		-0.316
						Z	-273	-6.316
		GRT3{1}	down	273	10.380	X		-2.268
						Y		-0.533
						Z	-273	-10.380
Tag No.: <None>								
A13		Gravity{1}	down	298	-0.170	X		-0.023
A13 1	Cons Hgr					Y		-0.301
Stiff	:RIGID					Z	-298	0.170
Preload :	298	Hydrotest{1}	down		0.000	X		0.000
						Y		0.000

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			Z	0.000
Thermal 1{1}	down	9.151	X	2.177
			Y	3.797
			Z	-9.151
Thermal 2{1}	down	9.262	X	2.878
			Y	3.920
			Z	-9.262
Thermal 3{1}	down	11.576	X	1.819

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/ Supp. ID	Connect/ Type	Load Combination	L O C A L			G L O B A L		
			Dirn	Force	Deform	Dirn	Force	Deform
						Y		1.988
						Z		-11.576
		GRT1{1}	down	298	8.982	X		2.154
						Y		3.495
						Z	-298	-8.982
		GRT2{1}	down	298	9.092	X		2.855
						Y		3.619
						Z	-298	-9.092
		GRT3{1}	down	298	11.407	X		1.796
						Y		1.687
						Z	-298	-11.407
Tag No.: <None> A29 M		Gravity{1}	down	242	0.000	X	-11	0.000
A29 M1	Guide		right	11	0.000	Y		-0.452
Stiff	:RIGID		forw		0.452	Z	-242	0.000
		Hydrotest{1}	down		0.000	X		0.000
			left		0.000	Y		0.000
			back		0.000	Z		0.000
		Thermal 1{1}	down	31	0.000	X	-54	0.000

		DVI_A_LINE_REV0.OUT					
		right	54	0.000	Y		3.706
		back		3.706	Z	-31	0.000
Thermal 2{1}		down	19	0.000	X	-35	0.000
		right	35	0.000	Y		2.328
		back		2.328	Z	-19	0.000
Thermal 3{1}		down	11	0.000	X	31	0.000
		left	31	0.000	Y		-1.083
		forw		1.083	Z	-11	0.000
GRT1{1}		down	273	0.000	X	-65	0.000
		right	65	0.000	Y		3.254
		back		3.254	Z	-273	0.000
GRT2{1}		down	261	0.000	X	-46	0.000
		right	46	0.000	Y		1.877
		back		1.877	Z	-261	0.000
GRT3{1}		down	253	0.000	X	20	0.000
		left	20	0.000	Y		-1.535
		forw		1.535	Z	-253	0.000
Tag No.: <None> A39	Gravity{1}	down	26	0.000	X		-0.474
A39 2 Guide		left	1	0.000	Y	-1	0.000
Stiff :RIGID		forw		0.474	Z	-26	0.000

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S U P P O R T F O R C E S								
(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)								
Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
Hydrotest{1}			down		0.000	X		0.000
			left		0.000	Y		0.000
			back		0.000	Z		0.000
Thermal 1{1}			up	11	0.000	X		1.691
			right	28	0.000	Y	28	0.000
			back		1.691	Z	11	0.000
Thermal 2{1}			up	10	0.000	X		1.245

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		right	16	0.000	Y	16	0.000
		back		1.245	Z	10	0.000
	Thermal 3{1}	up	26	9.460	X		-1.390
		right	59	0.000	Y	59	0.000
		forw		1.390	Z	26	9.460
	GRT1{1}	down	16	0.000	X		1.218
		right	27	0.000	Y	27	0.000
		back		1.218	Z	-16	0.000
	GRT2{1}	down	17	0.000	X		0.771
		right	16	0.000	Y	16	0.000
		back		0.771	Z	-17	0.000
	GRT3{1}	up		9.460	X		-1.863
		right	59	0.000	Y	59	0.000
		forw		1.863	Z		9.460
Tag No.: <None>							
A58	Gravity{1}	down	67	0.026	X		-0.474
A58 1 Cons Hgr					Y		-0.059
Stiff :RIGID					Z	-67	-0.026
Preload :	67 Hydrotest{1}	down		0.000	X		0.000
					Y		0.000
					Z		0.000
	Thermal 1{1}	up		0.148	X		1.691
					Y		-0.320
					Z		0.148
	Thermal 2{1}	down		0.003	X		1.245
					Y		-0.156
					Z		-0.003
	Thermal 3{1}	up		12.996	X		-3.410
					Y		4.973
					Z		12.996
	GRT1{1}	down	67	-0.122	X		1.217
					Y		-0.379
					Z	-67	0.122

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S U P P O R T F O R C E S								
(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)								
Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
Tag No.: <None> A47	1	GRT2{1}	down	67	0.029	X		0.771
						Y		-0.215
						Z	-67	-0.029
		GRT3{1}	down	67	-12.970	X		-3.884
						Y		4.914
						Z	-67	12.970
		Gravity{1}	up	7	0.000	X	7	0.000
			left	5	0.000	Y	5	0.000
			forw		2.064	Z		-2.064
		Hydrotest{1}	down		0.000	X		0.000
			left		0.000	Y		0.000
			back		0.000	Z		0.000
		Thermal 1{1}	up	6	0.000	X	6	0.000
			left	1	0.000	Y	1	0.000
			back		0.680	Z		0.680
		Thermal 2{1}	up	5	0.000	X	5	0.000
			left	1	0.000	Y	1	0.000
			back		0.371	Z		0.371
		Thermal 3{1}	down	18	0.000	X	-18	0.000
			left	34	0.000	Y	34	0.000
			back		9.411	Z		9.411
		GRT1{1}	up	14	0.000	X	14	0.000
			left	6	0.000	Y	6	0.000
			forw		1.384	Z		-1.384
		GRT2{1}	up	12	0.000	X	12	0.000
			left	6	0.000	Y	6	0.000
			forw		1.692	Z		-1.692
		GRT3{1}	down	11	0.000	X	-11	0.000
			left	40	0.000	Y	40	0.000
			back		7.347	Z		7.347

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Tag No.: <None>							
A46 M	Gravity{1}	down	86	0.000	X	5	0.000
A46 M1	Guide	left	5	0.000	Y		-0.151
Stiff	:RIGID	forw		0.151	Z	-86	0.000
	Hydrotest{1}	down		0.000	X		0.000
		left		0.000	Y		0.000
		back		0.000	Z		0.000
	Thermal 1{1}	up	6	0.000	X	-4	0.000
		rght	4	0.000	Y		0.326

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
-----			----	-----	-----	----	-----	-----
			back		0.326	Z	6	0.000
		Thermal 2{1}	up	3	0.000	X	-3	0.000
			rght	3	0.000	Y		0.146
			back		0.146	Z	3	0.000
		Thermal 3{1}	up	26	0.000	X	12	0.000
			left	12	0.000	Y		1.385
			back		1.385	Z	26	0.000
		GRT1{1}	down	80	0.000	X	1	0.000
			left	1	0.000	Y		0.175
			back		0.175	Z	-80	0.000
		GRT2{1}	down	83	0.000	X	2	0.000
			left	2	0.000	Y		-0.005
			forw		0.005	Z	-83	0.000
		GRT3{1}	down	60	0.000	X	17	0.000
			left	17	0.000	Y		1.234
			back		1.234	Z	-60	0.000
Tag No.: <None>								
A48 M	Gravity{1}	down	113	0.000	X	-5	0.000	
A48 M1	Guide	rght	5	0.000	Y		-0.151	
Stiff	:RIGID	forw		0.151	Z	-113	0.000	

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Hydrotest{1}	down		0.000	X		0.000
	left		0.000	Y		0.000
	back		0.000	Z		0.000
Thermal 1{1}	down	4	0.000	X	3	0.000
	left	3	0.000	Y		0.326
	back		0.326	Z	-4	0.000
Thermal 2{1}	down	2	0.000	X	2	0.000
	left	2	0.000	Y		0.146
	back		0.146	Z	-2	0.000
Thermal 3{1}	up	2	0.000	X	-6	0.000
	right	6	0.000	Y		-0.421
	forw		0.421	Z	2	0.000
GRT1{1}	down	117	0.000	X	-2	0.000
	right	2	0.000	Y		0.175
	back		0.175	Z	-117	0.000
GRT2{1}	down	115	0.000	X	-3	0.000
	right	3	0.000	Y		-0.005
	forw		0.005	Z	-115	0.000
GRT3{1}	down	111	0.000	X	-11	0.000

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
			right	11	0.000	Y		-0.572
			forw		0.572	Z	-111	0.000
Tag No.: <None> A49		Gravity{1}	up	0	0.000	X	0	0.000
A49 1	Guide		right	4	0.000	Y	-4	0.000
Stiff	:RIGID		forw		0.027	Z		-0.027
		Hydrotest{1}	down		0.000	X		0.000
			left		0.000	Y		0.000

		DVI_A_LINE_REV0.OUT				
		back	0.000	Z		0.000
Thermal 1{1}		down	0 0.000	X	0	0.000
		left	1 0.000	Y	1	0.000
		back	0.002	Z		0.002
Thermal 2{1}		down	0 0.000	X	0	0.000
		left	0 0.000	Y	0	0.000
		back	0.001	Z		0.001
Thermal 3{1}		down	2 0.000	X	-2	0.000
		right	13 0.000	Y	-13	0.000
		back	8.285	Z		8.285
GRT1{1}		up	0 0.000	X	0	0.000
		right	4 0.000	Y	-4	0.000
		forw	0.026	Z		-0.026
GRT2{1}		up	0 0.000	X	0	0.000
		right	4 0.000	Y	-4	0.000
		forw	0.026	Z		-0.026
GRT3{1}		down	2 0.000	X	-2	0.000
		right	18 0.000	Y	-18	0.000
		back	8.257	Z		8.257
Tag No.: <None>						
A53 F	Gravity{1}	down	162 0.000	X		0.000
A53 F1 Cons Can				Y		0.003
Stiff :RIGID				Z	-162	0.000
Preload : 162	Hydrotest{1}	down	0.000	X		0.000
				Y		0.000
				Z		0.000
Thermal 1{1}		up	0.001	X		0.000
				Y		0.000
				Z		0.001
Thermal 2{1}		up	0.001	X		0.000
				Y		0.000
				Z		0.001

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/ Supp. ID	Connect/ Type	Load Combination	L O C A L			G L O B A L		
			Dirn	Force	Deform	Dirn	Force	Deform

Tag No.: <None> F03 M F03 M1 V - Stop Stiff :RIGID		Thermal 3{1}	down		8.714	X		-0.999
						Y		-0.001
						Z		-8.714
		GRT1{1}	down	162	-0.001	X		0.000
						Y		0.003
						Z	-162	0.001
		GRT2{1}	down	162	-0.001	X		0.000
						Y		0.003
						Z	-162	0.001
		GRT3{1}	down	162	8.714	X		-0.999
						Y		0.002
						Z	-162	-8.714
		Gravity{1}	down	30	0.000	X		0.000
						Y		-0.980
						Z	-30	0.000
		Hydrotest{1}	down		0.000	X		0.000
						Y		0.000
						Z		0.000
		Thermal 1{1}	down	1	0.000	X		0.000
						Y		3.401
						Z	-1	0.000
		Thermal 2{1}	down	0	0.000	X		0.000
						Y		2.143
						Z	0	0.000
Thermal 3{1}	up	7	0.000	X		0.000		
				Y		-6.797		
				Z	7	0.000		
GRT1{1}	down	31	0.000	X		0.000		
				Y		2.421		
				Z	-31	0.000		
GRT2{1}	down	30	0.000	X		0.000		
				Y		1.163		

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		+Y		1.163	Z	-30	0.000
	GRT3{1}	down	23	0.000	X		0.000
		-X		0.000	Y		-7.777
		-Y		7.777	Z	-23	0.000
Tag No.: <None>							
F03 M	Gravity{1}	down	30	0.000	X	4	0.000
F03 M2	Guide	left	4	0.000	Y		-0.980

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
Stiff	:RIGID		forw		0.980	Z	-30	0.000
		Hydrotest{1}	down		0.000	X		0.000
			left		0.000	Y		0.000
			back		0.000	Z		0.000
		Thermal 1{1}	down	1	0.000	X	11	0.000
			left	11	0.000	Y		3.401
			back		3.401	Z	-1	0.000
		Thermal 2{1}	down	0	0.000	X	8	0.000
			left	8	0.000	Y		2.143
			back		2.143	Z	0	0.000
		Thermal 3{1}	up	7	0.000	X	4	0.000
			left	4	0.000	Y		-6.797
			forw		6.797	Z	7	0.000
		GRT1{1}	down	31	0.000	X	15	0.000
			left	15	0.000	Y		2.421
			back		2.421	Z	-31	0.000
		GRT2{1}	down	30	0.000	X	12	0.000
			left	12	0.000	Y		1.163
			back		1.163	Z	-30	0.000
		GRT3{1}	down	23	0.000	X	9	0.000

		DVI_A_LINE_REV0.OUT					
		left	9	0.000	Y		-7.777
		forw		7.777	Z	-23	0.000
Tag No.: <None>							
F05 M	Gravity{1}	down	157	0.000	X	-10	0.000
F05 M1	Guide	rght	10	0.000	Y		-0.980
Stiff	:RIGID	forw		0.980	Z	-157	0.000
	Hydrotest{1}	down		0.000	X		0.000
		left		0.000	Y		0.000
		back		0.000	Z		0.000
	Thermal 1{1}	up	1	0.000	X	-5	0.000
		rght	5	0.000	Y		3.401
		back		3.401	Z	1	0.000
	Thermal 2{1}	up	0	0.000	X	-4	0.000
		rght	4	0.000	Y		2.143
		back		2.143	Z	0	0.000
	Thermal 3{1}	down	12	0.000	X	11	0.000
		left	11	0.000	Y		-9.918
		forw		9.918	Z	-12	0.000
	GRT1{1}	down	156	0.000	X	-15	0.000

□

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S U P P O R T F O R C E S								
(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)								
Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform

			rght	15	0.000	Y		2.421
			back		2.421	Z	-156	0.000
		GRT2{1}	down	157	0.000	X	-13	0.000
			rght	13	0.000	Y		1.163
			back		1.163	Z	-157	0.000
		GRT3{1}	down	170	0.000	X	2	0.000
			left	2	0.000	Y		-10.898
			forw		10.898	Z	-170	0.000

Tag No.: <None>

		DVI_A_LINE_REV0.OUT					
I02	Gravity{1}	down	16	0.000	X	-16	0.000
I02 1	Guide	left	0	0.000	Y	0	0.000
Stiff	:RIGID	forw		0.000	Z		0.000
	Hydrotest{1}	down		0.000	X		0.000
		left		0.000	Y		0.000
		back		0.000	Z		0.000
	Thermal 1{1}	down	10	0.000	X	-10	0.000
		left	2	0.000	Y	2	0.000
		forw		28.751	Z		-28.751
	Thermal 2{1}	down	11	0.000	X	-11	0.000
		left	2	0.000	Y	2	0.000
		forw		28.629	Z		-28.629
	Thermal 3{1}	down	5	0.000	X	-5	0.000
		left	0	0.000	Y	0	0.000
		forw		21.953	Z		-21.953
	GRT1{1}	down	26	0.000	X	-26	0.000
		left	2	0.000	Y	2	0.000
		forw		28.751	Z		-28.751
	GRT2{1}	down	26	0.000	X	-26	0.000
		left	2	0.000	Y	2	0.000
		forw		28.629	Z		-28.629
	GRT3{1}	down	21	0.000	X	-21	0.000
		left	1	0.000	Y	1	0.000
		forw		21.954	Z		-21.954
Tag No.: <None>							
L03 M	Gravity{1}	down	252	0.000	X	-0.012	
L03 M1	Guide	right	3	0.000	Y	3	0.000
Stiff	:RIGID	forw		0.012	Z	-252	0.000
	Hydrotest{1}	down		0.000	X		0.000
		left		0.000	Y		0.000
		back		0.000	Z		0.000

□

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/ Supp. ID	Connect/ Type	Load Combination	L O C A L			G L O B A L		
			Dirn	Force	Deform	Dirn	Force	Deform

Tag No.: <None> L05 M	Guide Stiff :RIGID	Thermal 1{1}	down	9	0.000	X		0.201
			right	2	0.000	Y	2	0.000
			back		0.201	Z	-9	0.000
		Thermal 2{1}	down	57	0.000	X		5.203
			right	15	0.000	Y	15	0.000
			back		5.203	Z	-57	0.000
		Thermal 3{1}	down	38	0.000	X		5.789
			right	10	0.000	Y	10	0.000
			back		5.789	Z	-38	0.000
		GRT1{1}	down	261	0.000	X		0.189
			right	4	0.000	Y	4	0.000
			back		0.189	Z	-261	0.000
		GRT2{1}	down	309	0.000	X		5.191
			right	17	0.000	Y	17	0.000
			back		5.191	Z	-309	0.000
		GRT3{1}	down	290	0.000	X		5.777
			right	12	0.000	Y	12	0.000
			back		5.777	Z	-290	0.000
		Gravity{1}	down		1.207	X		-0.012
			right	7	0.000	Y	7	0.000
			forw		0.012	Z		-1.207
		Hydrotest{1}	down		0.000	X		0.000
			left		0.000	Y		0.000
			back		0.000	Z		0.000
		Thermal 1{1}	up		0.349	X		-0.120
			left	2	0.000	Y	-2	0.000
			forw		0.120	Z		0.349
Thermal 2{1}	down		26.659	X		-1.154		
	left	29	0.000	Y	-29	0.000		
	forw		1.154	Z		-26.659		
Thermal 3{1}	down		12.929	X		2.584		
	left	17	0.000	Y	-17	0.000		
	back		2.584	Z		-12.929		

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GRT1{1}	down		0.858	X		-0.132
	right	5	0.000	Y	5	0.000
	forw		0.132	Z		-0.858
GRT2{1}	down		27.866	X		-1.166
	left	22	0.000	Y	-22	0.000
	forw		1.166	Z		-27.866

0

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/ Connect/ Load			L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
GRT3{1}			down		14.137	X		2.572
			left	10	0.000	Y	-10	0.000
			back		2.572	Z		-14.137
Tag No.: <None> L05 M Gravity{1}			down	366	1.207	X		-0.012
L05 M1 Spr. Can						Y		0.000
Stiff : 2						Z	-366	-1.207
Preload : 364 Hydrotest{1}			down		0.000	X		0.000
						Y		0.000
						Z		0.000
Thermal 1{1}			up	1	0.349	X		-0.120
						Y		0.000
						Z	1	0.349
Thermal 2{1}			down	47	26.659	X		-1.154
						Y		0.000
						Z	-47	-26.659
Thermal 3{1}			down	23	12.929	X		2.584
						Y		0.000
						Z	-23	-12.929
GRT1{1}			down	365	0.858	X		-0.132
						Y		0.000
						Z	-365	-0.858

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	GRT2{1}	down	413	27.866	X	-1.166	
					Y	0.000	
					Z	-413	-27.866
	GRT3{1}	down	389	14.137	X	2.572	
					Y	0.000	
					Z	-389	-14.137
Tag No.: <None> L35	Gravity{1}	up	3	0.000	X	3	0.000
		left	8	0.000	Y	-8	0.000
		back		0.008	Z		-0.008
L35 1 Guide	Hydrotest{1}	down		0.000	X		0.000
		left		0.000	Y		0.000
		back		0.000	Z		0.000
Stiff :RIGID	Thermal 1{1}	down	1	0.000	X	-1	0.000
		right	1	0.000	Y	1	0.000
		forw		0.000	Z		0.000
	Thermal 2{1}	down	30	0.000	X	-30	0.000
		right	27	0.000	Y	27	0.000

0

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/ Supp. ID	Connect/ Type	Load Combination	L O C A L			G L O B A L		
			Dirn	Force	Deform	Dirn	Force	Deform
			back		26.194	Z		-26.194
		Thermal 3{1}	down	13	0.000	X	-13	0.000
			rght	15	0.000	Y	15	0.000
			back		13.203	Z		-13.203
		GRT1{1}	up	1	0.000	X	1	0.000
			left	7	0.000	Y	-7	0.000
			back		0.008	Z		-0.008
		GRT2{1}	down	28	0.000	X	-28	0.000
			rght	19	0.000	Y	19	0.000

			DVI_A_LINE_REV0.OUT				
			back	26.203	Z		-26.203
	GRT3{1}		down	10	0.000	X	-10 0.000
			rght	7	0.000	Y	7 0.000
			back		13.211	Z	-13.211
Tag No.: <None>							
L29	Gravity{1}		down	104	0.000	X	-0.003
L29 1	Guide		rght	1	0.000	Y	-1 0.000
Stiff	:RIGID		back		0.003	Z	-104 0.000
	Hydrotest{1}		down		0.000	X	0.000
			left		0.000	Y	0.000
			back		0.000	Z	0.000
	Thermal 1{1}		up	104	11.606	X	-16.316
			left	53	0.000	Y	53 0.000
			back		16.316	Z	104 11.606
	Thermal 2{1}		up	104	23.735	X	-16.250
			left	55	0.000	Y	55 0.000
			back		16.250	Z	104 23.735
	Thermal 3{1}		up	104	11.978	X	-8.182
			left	37	0.000	Y	37 0.000
			back		8.182	Z	104 11.978
	GRT1{1}		up		11.606	X	-16.319
			left	52	0.000	Y	52 0.000
			back		16.319	Z	11.606
	GRT2{1}		up		23.735	X	-16.253
			left	54	0.000	Y	54 0.000
			back		16.253	Z	23.735
	GRT3{1}		up		11.978	X	-8.186
			left	36	0.000	Y	36 0.000
			back		8.186	Z	11.978

Tag No.: <None>

□

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/ Connect/ Load

L O C A L

G L O B A L

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Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
L21 M		Gravity{1}	down	186	0.000	X		-0.003
L21 M1	Cons Can					Y		0.002
Stiff	:RIGID					Z	-186	0.000
Preload :	186	Hydrotest{1}	down		0.000	X		0.000
						Y		0.000
						Z		0.000
		Thermal 1{1}	up		53.709	X		0.490
						Y		3.214
						Z		53.709
		Thermal 2{1}	up		54.290	X		0.555
						Y		3.245
						Z		54.290
		Thermal 3{1}	up		53.427	X		0.288
						Y		1.604
						Z		53.427
		GRT1{1}	down	186	-53.709	X		0.486
						Y		3.217
						Z	-186	53.709
		GRT2{1}	down	186	-54.290	X		0.552
						Y		3.247
						Z	-186	54.290
		GRT3{1}	down	186	-53.427	X		0.285
						Y		1.606
						Z	-186	53.427
Tag No.: <None>								
N01 M		Gravity{1}	down	132	0.001	X		0.003
N01 M1	Cons Can					Y		0.000
Stiff	:RIGID					Z	-132	-0.001
Preload :	132	Hydrotest{1}	down		0.000	X		0.000
						Y		0.000
						Z		0.000
		Thermal 1{1}	down		0.025	X		0.222
						Y		0.000
						Z		-0.025
		Thermal 2{1}	down		0.026	X		0.165

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Y 0.000

Z -0.026

Thermal 3{1} up 20.397 X -0.643

Y 1.311

Z 20.397

0

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/ Supp. ID	Connect/ Type	Load Combination	L O C A L			G L O B A L		
			Dirn	Force	Deform	Dirn	Force	Deform
		GRT1{1}	down	132	0.027	X		0.225
						Y		0.000
						Z	-132	-0.027
		GRT2{1}	down	132	0.027	X		0.168
						Y		0.000
						Z	-132	-0.027
		GRT3{1}	down	132	-20.396	X		-0.640
						Y		1.311
						Z	-132	20.396
Tag No.: <None> N03 M		Gravity{1}	down	74	0.013	X		0.004
N03 M1 Cons Can						Y		0.000
Stiff :RIGID						Z	-74	-0.013
Preload :	74	Hydrotest{1}	down		0.000	X		0.000
						Y		0.000
						Z		0.000
		Thermal 1{1}	up		0.006	X		1.046
						Y		0.000
						Z		0.006
		Thermal 2{1}	down		0.055	X		0.779
						Y		0.000
						Z		-0.055
		Thermal 3{1}	up		15.013	X		-2.702

Y		2.741
Z		15.013
X		1.050
Y		0.000
Z	-74	-0.007
X		0.783
Y		0.000
Z	-74	-0.068
X		-2.698
Y		2.741
Z	-74	15.001

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result
A00	Anchor Tag No.: DVITORV3								
	Gravity{1}	-4	-3	-38	38	0	2	2	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	20	-16	-21	34	-2	-18	6	19
	Thermal 2{1}	26	-17	-15	34	-2	-15	6	17
	Thermal 3{1}	-1	-8	-116	116	-1	-72	5	72
	GRT1{1}	16	-19	-59	64	-3	-17	8	19
	GRT2{1}	22	-19	-53	60	-3	-14	8	16
	GRT3{1}	-5	-11	-154	154	-1	-70	7	70
A04 N	Cons Can Tag No.: <None>								
	Gravity{1}	[ID: A04 N1]							
		0	0	-273	273	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	-273	273	0	0	0	0
	GRT2{1}	0	0	-273	273	0	0	0	0
	GRT3{1}	0	0	-273	273	0	0	0	0

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A13	Cons Hgr Tag No.: <None>	[ID: A13 1]	0	0	-298	298	0	0	0
	Gravity{1}		0	0	0	0	0	0	0
	Hydrotest{1}		0	0	0	0	0	0	0
	Thermal 1{1}		0	0	0	0	0	0	0
	Thermal 2{1}		0	0	0	0	0	0	0
	Thermal 3{1}		0	0	0	0	0	0	0
	GRT1{1}		0	0	-298	298	0	0	0
	GRT2{1}		0	0	-298	298	0	0	0
	GRT3{1}		0	0	-298	298	0	0	0
A29 M	Guide Tag No.: <None>	[ID: A29 M1]	-11	0	-242	242	0	0	0
	Gravity{1}		0	0	0	0	0	0	0
	Hydrotest{1}		0	0	0	0	0	0	0
	Thermal 1{1}		-54	0	-31	62	0	0	0
	Thermal 2{1}		-35	0	-19	40	0	0	0
	Thermal 3{1}		31	0	-11	33	0	0	0
	GRT1{1}		-65	0	-273	281	0	0	0
	GRT2{1}		-46	0	-261	265	0	0	0
	GRT3{1}		20	0	-253	253	0	0	0
A39	Guide Tag No.: <None>	[ID: A39 2]	0	-1	-26	26	0	0	0
	Gravity{1}		0	0	0	0	0	0	0
	Hydrotest{1}		0	0	0	0	0	0	0
	Thermal 1{1}		0	28	11	30	0	0	0
	Thermal 2{1}		0	16	10	19	0	0	0
	Thermal 3{1}		0	59	26	65	0	0	0
	GRT1{1}		0	27	-16	31	0	0	0
	GRT2{1}		0	16	-17	23	0	0	0
	GRT3{1}		0	59	0	59	0	0	0

□

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R E S T R A I N T R E A C T I O N S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A58	Cons Hgr Tag No.: <None>	[ID: A58 1]	0	0	-67	67	0	0	0
	Gravity{1}		0	0	0	0	0	0	0
	Hydrotest{1}		0	0	0	0	0	0	0
	Thermal 1{1}		0	0	0	0	0	0	0
	Thermal 2{1}		0	0	0	0	0	0	0

DVI_A_LINE_REV0.OUT									
	Thermal 3{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	-67	67	0	0	0	0
	GRT2{1}	0	0	-67	67	0	0	0	0
	GRT3{1}	0	0	-67	67	0	0	0	0
A47	Guide Tag No.: <None> [ID: A47 1]	7	5	0	9	0	0	0	0
	Gravity{1}								
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	6	1	0	7	0	0	0	0
	Thermal 2{1}	5	1	0	5	0	0	0	0
	Thermal 3{1}	-18	34	0	39	0	0	0	0
	GRT1{1}	14	6	0	15	0	0	0	0
	GRT2{1}	12	6	0	14	0	0	0	0
	GRT3{1}	-11	40	0	41	0	0	0	0
A46 M	Guide Tag No.: <None> [ID: A46 M1]	5	0	-86	86	0	0	0	0
	Gravity{1}								
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-4	0	6	7	0	0	0	0
	Thermal 2{1}	-3	0	3	5	0	0	0	0
	Thermal 3{1}	12	0	26	29	0	0	0	0
	GRT1{1}	1	0	-80	80	0	0	0	0
	GRT2{1}	2	0	-83	83	0	0	0	0
	GRT3{1}	17	0	-60	62	0	0	0	0
A48 M	Guide Tag No.: <None> [ID: A48 M1]	-5	0	-113	114	0	0	0	0
	Gravity{1}								
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	3	0	-4	4	0	0	0	0
	Thermal 2{1}	2	0	-2	3	0	0	0	0
	Thermal 3{1}	-6	0	2	6	0	0	0	0
	GRT1{1}	-2	0	-117	117	0	0	0	0
	GRT2{1}	-3	0	-115	115	0	0	0	0
	GRT3{1}	-11	0	-111	112	0	0	0	0
A49	Guide Tag No.: <None> [ID: A49 1]	0	-4	0	4	0	0	0	0
	Gravity{1}								
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	1	0	1	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	-2	-13	0	13	0	0	0	0
	GRT1{1}	0	-4	0	4	0	0	0	0
	GRT2{1}	0	-4	0	4	0	0	0	0
	GRT3{1}	-2	-18	0	18	0	0	0	0

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DVI_A_LINE_REV0

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R E S T R A I N T R E A C T I O N S

Point	Load		FORCES (N)				MOMENTS (N.m)			
name	combination		X	Y	Z	Result	X	Y	Z	Result

A53 F	Cons Can	Tag No.: <None>	[ID: A53 F1]							
	Gravity{1}		0	0	-162	162	0	0	0	0
	Hydrotest{1}		0	0	0	0	0	0	0	0
	Thermal 1{1}		0	0	0	0	0	0	0	0
	Thermal 2{1}		0	0	0	0	0	0	0	0
	Thermal 3{1}		0	0	0	0	0	0	0	0
	GRT1{1}		0	0	-162	162	0	0	0	0
	GRT2{1}		0	0	-162	162	0	0	0	0
	GRT3{1}		0	0	-162	162	0	0	0	0
A56	Anchor	Tag No.: DVITOPSS								
	Gravity{1}		0	0	-16	16	0	2	0	2
	Hydrotest{1}		0	0	0	0	0	0	0	0
	Thermal 1{1}		0	0	0	0	0	0	0	0
	Thermal 2{1}		0	0	0	0	0	0	0	0
	Thermal 3{1}		0	1	-10	10	-1	-3	0	4
	GRT1{1}		0	0	-15	15	0	2	0	2
	GRT2{1}		0	0	-15	15	0	2	0	2
	GRT3{1}		0	1	-26	26	-1	-2	0	2
F03 M	V - Stop	Tag No.: <None>	[ID: F03 M1]							
	Gravity{1}		0	0	-30	30	0	0	0	0
	Hydrotest{1}		0	0	0	0	0	0	0	0
	Thermal 1{1}		0	0	-1	1	0	0	0	0
	Thermal 2{1}		0	0	0	0	0	0	0	0
	Thermal 3{1}		0	0	7	7	0	0	0	0
	GRT1{1}		0	0	-31	31	0	0	0	0
	GRT2{1}		0	0	-30	30	0	0	0	0
	GRT3{1}		0	0	-23	23	0	0	0	0
F03 M	Guide	Tag No.: <None>	[ID: F03 M2]							
	Gravity{1}		4	0	-30	30	0	0	0	0
	Hydrotest{1}		0	0	0	0	0	0	0	0
	Thermal 1{1}		11	0	-1	11	0	0	0	0
	Thermal 2{1}		8	0	0	8	0	0	0	0
	Thermal 3{1}		4	0	7	8	0	0	0	0
	GRT1{1}		15	0	-31	35	0	0	0	0

		DVI_A_LINE_REV0.OUT							
	GRT2{1}	12	0	-30	33	0	0	0	0
	GRT3{1}	9	0	-23	25	0	0	0	0
F05 M	Guide Tag No.: <None> [ID: F05 M1]	-10	0	-157	158	0	0	0	0
	Gravity{1}								
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-5	0	1	6	0	0	0	0
	Thermal 2{1}	-4	0	0	4	0	0	0	0
	Thermal 3{1}	11	0	-12	17	0	0	0	0
	GRT1{1}	-15	0	-156	157	0	0	0	0
	GRT2{1}	-13	0	-157	158	0	0	0	0
	GRT3{1}	2	0	-170	170	0	0	0	0

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R E S T R A I N T R E A C T I O N S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
F12	Anchor Tag No.: DVITOLGMS								
	Gravity{1}	5	0	-76	76	3	0	-1	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	1	0	2	1	-2	1	2
	Thermal 2{1}	1	1	0	1	1	-1	0	1
	Thermal 3{1}	-10	-5	5	13	-7	8	-2	11
	GRT1{1}	7	1	-77	77	4	-2	0	5
	GRT2{1}	6	1	-76	77	4	-1	0	4
	GRT3{1}	-5	-5	-71	72	-3	8	-3	9
I02	Guide Tag No.: <None> [ID: I02 1]	-16	0	0	16	0	0	0	0
	Gravity{1}								
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-10	2	0	11	0	0	0	0
	Thermal 2{1}	-11	2	0	11	0	0	0	0
	Thermal 3{1}	-5	0	0	5	0	0	0	0
	GRT1{1}	-26	2	0	26	0	0	0	0
	GRT2{1}	-26	2	0	27	0	0	0	0
	GRT3{1}	-21	1	0	21	0	0	0	0
J08	Anchor Tag No.: DVITORV1								
	Gravity{1}	11	0	-83	83	0	-19	0	19
	Hydrotest{1}	0	0	0	0	0	0	0	0

Thermal 1{1}	3	0	28	28	0	27	0	27
Thermal 2{1}	3	0	28	28	0	27	0	27
Thermal 3{1}	1	0	89	89	0	78	0	78
GRT1{1}	13	0	-55	57	0	8	0	8
GRT2{1}	13	0	-55	56	0	8	0	8
GRT3{1}	12	0	6	13	0	59	0	59

L03	M	Guide Tag No.: <None>	[ID: L03 M1]							
		Gravity{1}	0	3	-252	252	0	0	0	0
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	0	2	-9	9	0	0	0	0
		Thermal 2{1}	0	15	-57	59	0	0	0	0
		Thermal 3{1}	0	10	-38	39	0	0	0	0
		GRT1{1}	0	4	-261	261	0	0	0	0
		GRT2{1}	0	17	-309	310	0	0	0	0
		GRT3{1}	0	12	-290	290	0	0	0	0

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result
L05 M	Guide Tag No.: <None> Gravity{1}	[ID: 0	L05 7	M2] 0	7	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	-2	0	2	0	0	0	0
	Thermal 2{1}	0	-29	0	29	0	0	0	0
	Thermal 3{1}	0	-17	0	17	0	0	0	0
	GRT1{1}	0	5	0	5	0	0	0	0

DVI_A_LINE_REV0.OUT									
	GRT2{1}	0	-22	0	22	0	0	0	0
	GRT3{1}	0	-10	0	10	0	0	0	0
L05 M	Spr. Can Tag No.: <None>	[ID: L05 M1]							
	Gravity{1}	0	0	-366	366	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	1	1	0	0	0	0
	Thermal 2{1}	0	0	-47	47	0	0	0	0
	Thermal 3{1}	0	0	-23	23	0	0	0	0
	GRT1{1}	0	0	-365	365	0	0	0	0
	GRT2{1}	0	0	-413	413	0	0	0	0
	GRT3{1}	0	0	-389	389	0	0	0	0
L35	Guide Tag No.: <None>	[ID: L35 1]							
	Gravity{1}	3	-8	0	8	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	1	0	2	0	0	0	0
	Thermal 2{1}	-30	27	0	41	0	0	0	0
	Thermal 3{1}	-13	15	0	20	0	0	0	0
	GRT1{1}	1	-7	0	7	0	0	0	0
	GRT2{1}	-28	19	0	34	0	0	0	0
	GRT3{1}	-10	7	0	12	0	0	0	0
L16	Anchor Tag No.: <None>								
	Gravity{1}	1	2	-7312	7312	4	4	0	5
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-127	-45	-74	153	89	-292	7	306
	Thermal 2{1}	-129	-53	-5	140	76	-329	7	338
	Thermal 3{1}	-73	-34	-32	87	45	-175	2	181
	GRT1{1}	-126	-42	-7385	7386	93	-288	7	303
	GRT2{1}	-129	-50	-7316	7317	80	-325	7	335
	GRT3{1}	-73	-31	-7343	7344	49	-171	2	178
L29	Guide Tag No.: <None>	[ID: L29 1]							
	Gravity{1}	0	-1	-104	104	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	53	104	117	0	0	0	0
	Thermal 2{1}	0	55	104	118	0	0	0	0
	Thermal 3{1}	0	37	104	111	0	0	0	0
	GRT1{1}	0	52	0	52	0	0	0	0
	GRT2{1}	0	54	0	54	0	0	0	0
	GRT3{1}	0	36	0	36	0	0	0	0

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DVI_A_LINE_REV0

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R E S T R A I N T R E A C T I O N S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
L21 M	Cons Can Tag No.: <None> [ID: L21 M1]								
	Gravity{1}	0	0	-186	186	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	-186	186	0	0	0	0
	GRT2{1}	0	0	-186	186	0	0	0	0
	GRT3{1}	0	0	-186	186	0	0	0	0
L27	Anchor Tag No.: EBTORV								
	Gravity{1}	-1	0	-53	53	20	-15	0	25
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	127	-8	-27	130	-14	-41	-51	66
	Thermal 2{1}	136	-9	-22	138	-11	-31	-55	64
	Thermal 3{1}	76	-6	-31	82	-18	-43	-30	55
	GRT1{1}	126	-8	-80	150	6	-56	-50	76
	GRT2{1}	135	-8	-75	155	9	-46	-54	72
	GRT3{1}	74	-6	-85	113	2	-58	-29	65
M00	Anchor Tag No.: CAVTODVI								
	Gravity{1}	0	0	-27	27	0	-1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	7	-14	-3	16	-1	1	-6	6
	Thermal 2{1}	5	-8	-2	10	-1	0	-4	4
	Thermal 3{1}	-25	-76	-48	94	-40	0	18	44
	GRT1{1}	7	-14	-30	34	-1	-1	-6	6
	GRT2{1}	5	-8	-29	31	-1	-1	-4	5
	GRT3{1}	-25	-76	-75	110	-40	-1	18	44
N01 M	Cons Can Tag No.: <None> [ID: N01 M1]								
	Gravity{1}	0	0	-132	132	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	-132	132	0	0	0	0
	GRT2{1}	0	0	-132	132	0	0	0	0
	GRT3{1}	0	0	-132	132	0	0	0	0

DVI_A_LINE_REV0.OUT

N03 M	Cons Can Tag No.: <None>	[ID: N03 M1]							
	Gravity{1}	0	0	-74	74	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	-74	74	0	0	0	0
	GRT2{1}	0	0	-74	74	0	0	0	0
	GRT3{1}	0	0	-74	74	0	0	0	0

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

*** Segment A begin ***									
A00	Gravity{1}	4	3	3	6	0	-2	-2	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-20	16	21	34	2	18	-6	19
	Thermal 2{1}	-26	17	15	34	2	15	-6	17
	Thermal 3{1}	1	8	116	116	1	72	-5	72
	GRT1{1}	-16	19	24	35	3	17	-8	19
	GRT2{1}	-22	19	17	34	3	14	-8	16
	GRT3{1}	5	11	118	119	1	70	-7	70
A01	Gravity{1}	4	3	-1	5	0	-2	-2	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-20	16	21	34	2	16	-5	17
	Thermal 2{1}	-26	17	15	34	2	14	-4	15
	Thermal 3{1}	1	8	116	116	1	62	-4	62
	GRT1{1}	-16	19	21	32	3	15	-7	16
	GRT2{1}	-22	19	14	32	3	13	-6	14
	GRT3{1}	5	11	115	115	1	60	-6	60
A26	Gravity{1}	4	3	-2	5	0	-2	-2	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-20	16	21	34	2	16	-4	16
	Thermal 2{1}	-26	17	15	34	2	14	-4	14

		DVI_A_LINE_REV0.OUT							
		1	8	116	116	1	57	-4	57
	Thermal 3{1}								
	GRT1{1}	-16	19	19	31	3	14	-6	15
	GRT2{1}	-22	19	12	32	3	12	-5	13
	GRT3{1}	5	11	113	114	1	56	-5	56
A04 N-	Gravity{1}	4	3	-23	24	0	7	0	7
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-20	16	21	34	2	2	6	7
	Thermal 2{1}	-26	17	15	34	2	4	7	8
	Thermal 3{1}	1	8	116	116	1	-17	2	17
	GRT1{1}	-16	19	-2	25	3	8	6	11
	GRT2{1}	-22	19	-9	30	3	11	7	13
	GRT3{1}	5	11	92	93	1	-11	2	11
A04 N+	Gravity{1}	4	3	250	250	0	7	0	7
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-20	16	21	34	2	2	6	7
	Thermal 2{1}	-26	17	15	34	2	4	7	8
	Thermal 3{1}	1	8	116	116	1	-17	2	17
	GRT1{1}	-16	19	271	272	3	8	6	11
	GRT2{1}	-22	19	264	266	3	11	7	13
	GRT3{1}	5	11	366	366	1	-11	2	11

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DVI_A_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A04 F	Gravity{1}	4	3	248	248	0	-3	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-20	16	21	34	2	0	7	7
	Thermal 2{1}	-26	17	15	34	2	3	8	8
	Thermal 3{1}	1	8	116	116	0	-22	2	22
	GRT1{1}	-16	19	269	270	2	-3	7	8
	GRT2{1}	-22	19	263	264	2	0	8	8
	GRT3{1}	5	11	364	364	1	-24	2	24
A31	Gravity{1}	4	3	219	219	-2	1	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0

DVI_A_LINE_REV0.OUT

	Thermal 1{1}	-20	16	21	34	-13	-18	7	23
	Thermal 2{1}	-26	17	15	34	-13	-21	8	26
	Thermal 3{1}	1	8	116	116	-7	-21	2	22
	GRT1{1}	-16	19	241	242	-15	-17	7	24
	GRT2{1}	-22	19	234	236	-15	-19	8	26
	GRT3{1}	5	11	335	335	-9	-20	2	22
A07 -	Gravity{1}	4	3	218	218	-2	1	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-20	16	21	34	-13	-18	7	24
	Thermal 2{1}	-26	17	15	34	-14	-21	8	26
	Thermal 3{1}	1	8	116	116	-7	-21	2	22
	GRT1{1}	-16	19	240	241	-15	-17	7	24
	GRT2{1}	-22	19	233	235	-16	-20	8	27
	GRT3{1}	5	11	334	334	-9	-20	2	22
A07 +	Gravity{1}	-1	4	-1	4	-2	4	0	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-36	17	-27	48	-16	-11	12	23
	Thermal 2{1}	-45	16	-36	60	-17	-12	14	24
	Thermal 3{1}	-13	4	-27	30	-12	-12	2	17
	GRT1{1}	-37	20	-28	50	-18	-7	12	23
	GRT2{1}	-46	20	-37	62	-18	-8	14	24
	GRT3{1}	-13	7	-28	32	-14	-8	3	16
A28	Gravity{1}	-1	4	-2	4	-2	4	0	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-36	17	-27	48	-15	-11	11	22
	Thermal 2{1}	-45	16	-36	60	-16	-12	12	23
	Thermal 3{1}	-13	4	-27	30	-11	-12	2	16
	GRT1{1}	-37	20	-29	51	-17	-7	11	22
	GRT2{1}	-46	20	-38	63	-17	-8	13	23
	GRT3{1}	-13	7	-29	33	-13	-8	2	15

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 DVI_A_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

DVI_A_LINE_REV0.OUT

A13	-	Gravity{1}	-1	4	-26	26	8	4	0	9
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	-36	17	-27	48	4	-11	-15	19
		Thermal 2{1}	-45	16	-36	60	10	-12	-20	26
		Thermal 3{1}	-13	4	-27	30	8	-12	-7	16
		GRT1{1}	-37	20	-52	67	12	-7	-15	21
		GRT2{1}	-46	20	-61	79	19	-8	-21	29
		GRT3{1}	-13	7	-53	55	17	-8	-7	20
A13	+	Gravity{1}	-1	4	83	83	8	4	0	9
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	-36	17	-27	48	4	-11	-15	19
		Thermal 2{1}	-45	16	-36	60	10	-12	-20	26
		Thermal 3{1}	-13	4	-27	30	8	-12	-7	16
		GRT1{1}	-37	20	57	71	12	-7	-15	21
		GRT2{1}	-46	20	47	69	19	-8	-21	29
		GRT3{1}	-13	7	56	58	17	-8	-7	20
A10	N	Gravity{1}	-1	4	81	81	2	4	0	4
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	-36	17	-27	48	6	-11	-18	22
		Thermal 2{1}	-45	16	-36	60	13	-12	-24	30
		Thermal 3{1}	-13	4	-27	30	10	-12	-8	17
		GRT1{1}	-37	20	54	69	8	-7	-18	21
		GRT2{1}	-46	20	45	67	15	-8	-24	30
		GRT3{1}	-13	7	54	56	12	-8	-8	17
A10	F	Gravity{1}	-1	4	80	80	0	2	0	2
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	-36	17	-27	48	7	-10	-18	22
		Thermal 2{1}	-45	16	-36	60	14	-11	-24	30
		Thermal 3{1}	-13	4	-27	30	11	-11	-8	18
		GRT1{1}	-37	20	53	68	7	-8	-19	21
		GRT2{1}	-46	20	44	66	14	-9	-25	30
		GRT3{1}	-13	7	53	55	11	-9	-9	17
C040	-	Gravity{1}	-1	4	74	75	0	-10	0	10
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	-36	17	-27	48	7	-6	-15	18
		Thermal 2{1}	-45	16	-36	60	14	-5	-22	26
		Thermal 3{1}	-13	4	-27	30	11	-7	-8	15
		GRT1{1}	-37	20	48	64	7	-16	-15	23
		GRT2{1}	-46	20	39	63	14	-15	-21	30
		GRT3{1}	-13	7	47	50	11	-17	-7	22

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
C040 +	Gravity{1}	-1	4	4	5	0	-10	0	10
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-36	17	-27	48	7	-6	-15	18
	Thermal 2{1}	-45	16	-36	60	14	-5	-22	26
	Thermal 3{1}	-13	4	-27	30	11	-7	-8	15
	GRT1{1}	-37	20	-23	48	7	-16	-15	23
	GRT2{1}	-46	20	-32	59	14	-15	-21	30
	GRT3{1}	-13	7	-23	28	11	-17	-7	22
A33 -	Gravity{1}	-1	4	-6	7	0	-10	1	10
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-36	17	-27	48	7	2	-10	13
	Thermal 2{1}	-45	16	-36	60	14	6	-17	23
	Thermal 3{1}	-13	4	-27	30	11	2	-7	13
	GRT1{1}	-37	20	-32	53	7	-8	-9	14
	GRT2{1}	-46	20	-42	65	14	-4	-15	21
	GRT3{1}	-13	7	-33	36	11	-8	-5	15
A33 +	Gravity{1}	-3	1	-12	13	-1	-10	1	10
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-35	16	-23	45	4	0	-10	11
	Thermal 2{1}	-22	9	-10	26	-1	4	-4	6
	Thermal 3{1}	-2	-1	-8	8	0	-1	-2	2
	GRT1{1}	-38	17	-35	54	3	-10	-9	14
	GRT2{1}	-24	10	-22	34	-2	-6	-3	7
	GRT3{1}	-5	0	-20	21	-1	-11	-1	11
A18 N	Gravity{1}	-3	1	-19	19	-1	-7	1	7
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-35	16	-23	45	4	4	-7	9
	Thermal 2{1}	-22	9	-10	26	-1	6	-2	7
	Thermal 3{1}	-2	-1	-8	8	0	1	-2	2

		DVI_A_LINE_REV0.OUT							
	GRT1{1}	-38	17	-41	58	3	-3	-6	8
	GRT2{1}	-24	10	-29	39	-2	-1	-1	2
	GRT3{1}	-5	0	-26	27	-1	-6	-1	7
A18 F	Gravity{1}	-3	1	-19	20	-1	-7	1	7
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-35	16	-23	45	3	4	-7	9
	Thermal 2{1}	-22	9	-10	26	-1	6	-2	6
	Thermal 3{1}	-2	-1	-8	8	0	1	-2	2
	GRT1{1}	-38	17	-42	59	3	-3	-6	7
	GRT2{1}	-24	10	-29	39	-2	-1	-1	2
	GRT3{1}	-5	0	-27	28	-1	-6	-1	6

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A21 N	Gravity{1}	-3	1	-28	28	-1	-8	1	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-35	16	-23	45	-1	-6	-7	9
	Thermal 2{1}	-22	9	-10	26	-4	0	-2	4
	Thermal 3{1}	-2	-1	-8	8	0	0	-2	2
	GRT1{1}	-38	17	-51	65	-2	-13	-6	14
	GRT2{1}	-24	10	-38	46	-5	-7	-1	9
	GRT3{1}	-5	0	-36	36	-1	-7	-1	7
A21 F	Gravity{1}	-3	1	-29	29	-1	-7	1	7
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-35	16	-23	45	-1	-6	-7	9
	Thermal 2{1}	-22	9	-10	26	-4	0	-2	4
	Thermal 3{1}	-2	-1	-8	8	0	0	-2	2
	GRT1{1}	-38	17	-52	66	-2	-13	-5	14
	GRT2{1}	-24	10	-39	47	-5	-7	-1	9
	GRT3{1}	-5	0	-37	37	-1	-7	-1	7
A24 N	Gravity{1}	-3	1	-37	37	-1	1	1	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-35	16	-23	45	-1	0	-3	3

DVI_A_LINE_REV0.OUT

	Thermal 2{1}	-22	9	-10	26	-4	2	0	5
	Thermal 3{1}	-2	-1	-8	8	0	2	-2	3
	GRT1{1}	-38	17	-60	73	-2	1	-1	3
	GRT2{1}	-24	10	-47	54	-5	4	2	6
	GRT3{1}	-5	0	-45	45	-1	4	-1	4
A24 F	Gravity{1}	-3	1	-38	38	-1	2	1	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-35	16	-23	45	-1	1	-2	3
	Thermal 2{1}	-22	9	-10	26	-4	3	1	5
	Thermal 3{1}	-2	-1	-8	8	0	2	-2	3
	GRT1{1}	-38	17	-61	73	-2	3	-1	3
	GRT2{1}	-24	10	-48	55	-5	5	2	7
	GRT3{1}	-5	0	-46	46	-1	4	-1	5
A27 N	Gravity{1}	-3	1	-47	47	-1	3	1	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-35	16	-23	45	3	10	-2	11
	Thermal 2{1}	-22	9	-10	26	-1	9	1	9
	Thermal 3{1}	-2	-1	-8	8	0	3	-2	4
	GRT1{1}	-38	17	-69	81	3	13	-1	13
	GRT2{1}	-24	10	-57	62	-2	11	2	12
	GRT3{1}	-5	0	-54	55	-1	6	-1	6

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A27 F	Gravity{1}	-3	1	-48	48	-2	3	1	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-35	16	-23	45	3	11	-2	12
	Thermal 2{1}	-22	9	-10	26	-1	9	1	9
	Thermal 3{1}	-2	-1	-8	8	0	3	-2	4
	GRT1{1}	-38	17	-70	81	2	14	0	14
	GRT2{1}	-24	10	-58	63	-3	12	2	12
	GRT3{1}	-5	0	-55	56	-2	6	-1	6

		DVI_A_LINE_REV0.OUT							
A29	- Gravity{1}	-3	1	-55	55	-13	3	2	13
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-35	16	-23	45	-2	11	6	13
	Thermal 2{1}	-22	9	-10	26	-3	9	6	11
	Thermal 3{1}	-2	-1	-8	8	-2	3	-1	4
	GRT1{1}	-38	17	-77	88	-15	14	8	22
	GRT2{1}	-24	10	-65	70	-16	12	8	22
	GRT3{1}	-5	0	-63	63	-15	6	1	16
A29	+ Gravity{1}	-3	1	-86	86	-13	3	2	13
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-35	16	-23	45	-2	11	6	13
	Thermal 2{1}	-22	9	-10	26	-3	9	6	11
	Thermal 3{1}	-2	-1	-8	8	-2	3	-1	4
	GRT1{1}	-38	17	-109	116	-15	14	8	22
	GRT2{1}	-24	10	-96	100	-16	12	8	22
	GRT3{1}	-5	0	-94	94	-15	6	1	16
A29 M-	Gravity{1}	-3	1	-129	129	-19	3	2	19
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-35	16	-23	45	-3	11	8	14
	Thermal 2{1}	-22	9	-10	26	-4	9	7	12
	Thermal 3{1}	-2	-1	-8	8	-3	3	-1	4
	GRT1{1}	-38	17	-151	157	-22	14	10	28
	GRT2{1}	-24	10	-139	141	-23	12	9	27
	GRT3{1}	-5	0	-137	137	-21	6	1	22
A29 M+	Gravity{1}	9	1	113	114	-19	3	2	19
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	18	16	9	26	-3	11	8	14
	Thermal 2{1}	13	9	9	18	-4	9	7	12
	Thermal 3{1}	-33	-1	3	34	-3	3	-1	4
	GRT1{1}	27	17	122	126	-22	14	10	28
	GRT2{1}	22	10	122	125	-23	12	9	27
	GRT3{1}	-25	0	116	119	-21	6	1	22

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)	MOMENTS (N.m)

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name	combination	X	Y	Z	Result	X	Y	Z	Result

CH01 -	Gravity{1}	9	1	71	71	-14	3	2	14
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	18	16	9	26	-2	11	7	13
	Thermal 2{1}	13	9	9	18	-4	9	6	12
	Thermal 3{1}	-33	-1	3	34	-2	3	1	4
	GRT1{1}	27	17	80	86	-16	14	9	23
	GRT2{1}	22	10	80	83	-17	12	8	22
	GRT3{1}	-25	0	73	78	-16	6	2	17
CH01 +	Gravity{1}	9	1	39	40	-14	3	2	14
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	18	16	9	26	-2	11	7	13
	Thermal 2{1}	13	9	9	18	-4	9	6	12
	Thermal 3{1}	-33	-1	3	34	-2	3	1	4
	GRT1{1}	27	17	48	58	-16	14	9	23
	GRT2{1}	22	10	48	54	-17	12	8	22
	GRT3{1}	-25	0	42	49	-16	6	2	17
A32 N	Gravity{1}	9	1	30	31	0	3	-2	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	18	16	9	26	1	11	0	11
	Thermal 2{1}	13	9	9	18	0	9	1	9
	Thermal 3{1}	-33	-1	3	34	-1	3	14	14
	GRT1{1}	27	17	38	50	1	14	-2	14
	GRT2{1}	22	10	39	45	0	12	-1	12
	GRT3{1}	-25	0	32	41	-2	6	12	13
A32 F	Gravity{1}	9	1	29	30	0	2	-2	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	18	16	9	26	1	11	0	11
	Thermal 2{1}	13	9	9	18	0	9	1	9
	Thermal 3{1}	-33	-1	3	34	-1	3	14	15
	GRT1{1}	27	17	38	49	2	13	-2	13
	GRT2{1}	22	10	38	45	0	11	-1	11
	GRT3{1}	-25	0	32	40	-1	5	12	13
A34 -	Gravity{1}	9	1	28	29	0	1	-2	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	18	16	9	26	1	10	1	10
	Thermal 2{1}	13	9	9	18	0	9	1	9
	Thermal 3{1}	-33	-1	3	34	-1	3	14	15
	GRT1{1}	27	17	37	48	2	11	-1	12

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GRT2{1}	22	10	37	44	0	10	-1
GRT3{1}	-25	0	31	40	-1	4	12

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)				
name	combination	X	Y	Z	Result	X	Y	Z	Result	
A34	+	Gravity{1}	9	0	13	16	1	2	-1	2
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	11	15	10	22	0	8	-6	10
		Thermal 2{1}	8	9	9	15	0	7	-3	8
		Thermal 3{1}	-39	5	-3	39	3	0	9	10
		GRT1{1}	20	15	23	34	1	10	-7	12
		GRT2{1}	17	9	22	29	1	9	-4	10
		GRT3{1}	-30	5	10	32	4	1	8	9
A35		Gravity{1}	9	0	-11	14	1	1	-1	2
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	11	15	10	22	0	-2	9	9
		Thermal 2{1}	8	9	9	15	0	-2	6	6
		Thermal 3{1}	-39	5	-3	39	3	3	14	14
		GRT1{1}	20	15	-1	25	1	-1	8	8
		GRT2{1}	17	9	-2	19	1	-1	5	5
		GRT3{1}	-30	5	-15	34	4	4	13	14
A39	-	Gravity{1}	9	0	-12	15	1	1	-1	2
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	11	15	10	22	0	-2	9	10
		Thermal 2{1}	8	9	9	15	0	-2	6	6
		Thermal 3{1}	-39	5	-3	39	3	3	14	15
		GRT1{1}	20	15	-1	25	1	-1	8	9
		GRT2{1}	17	9	-3	19	1	-1	5	5
		GRT3{1}	-30	5	-15	34	4	4	13	14
A39	+	Gravity{1}	9	1	-10	13	1	1	-1	2
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	11	-12	0	17	0	-2	9	10
		Thermal 2{1}	8	-7	0	11	0	-2	6	6

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	Thermal 3{1}	-39	-55	-30	73	3	3	14	15
	GRT1{1}	20	-11	-10	25	1	-1	8	9
	GRT2{1}	17	-6	-10	21	1	-1	5	5
	GRT3{1}	-30	-54	-40	73	4	4	13	14
A36	Gravity{1}	9	1	-10	14	1	1	-1	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	11	-12	0	17	0	-2	9	9
	Thermal 2{1}	8	-7	0	11	0	-2	6	6
	Thermal 3{1}	-39	-55	-30	73	3	4	13	13
	GRT1{1}	20	-11	-10	25	1	-1	8	8
	GRT2{1}	17	-6	-11	21	1	-1	5	5
	GRT3{1}	-30	-54	-40	73	4	5	12	13

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A37	Gravity{1}	9	1	-26	27	1	13	0	13
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	11	-12	0	17	0	-2	1	2
	Thermal 2{1}	8	-7	0	11	0	-2	1	2
	Thermal 3{1}	-39	-55	-30	73	3	23	-22	32
	GRT1{1}	20	-11	-26	35	1	11	1	11
	GRT2{1}	17	-6	-26	32	1	11	1	11
	GRT3{1}	-30	-54	-56	83	4	36	-22	42
A58 -	Gravity{1}	9	1	-27	28	1	14	0	14
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	11	-12	0	17	0	-2	1	2
	Thermal 2{1}	8	-7	0	11	0	-2	1	2
	Thermal 3{1}	-39	-55	-30	73	3	23	-23	33
	GRT1{1}	20	-11	-27	35	1	12	1	12
	GRT2{1}	17	-6	-27	33	1	12	1	12
	GRT3{1}	-30	-54	-57	84	4	37	-24	44
A58 +	Gravity{1}	8	1	44	45	0	15	0	15

		DVI_A_LINE_REV0.OUT							
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	4	2	3	5	1	-1	-1	2
	Thermal 2{1}	3	1	2	4	1	-1	-1	1
	Thermal 3{1}	-14	22	18	31	6	17	-12	22
	GRT1{1}	13	2	47	48	1	14	-2	14
	GRT2{1}	12	2	45	47	1	14	-1	14
	GRT3{1}	-5	23	62	66	6	32	-13	35
A38	Gravity{1}	8	1	43	44	0	14	0	14
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	4	2	3	5	1	-1	-1	2
	Thermal 2{1}	3	1	2	4	1	-1	-1	1
	Thermal 3{1}	-14	22	18	31	6	17	-12	21
	GRT1{1}	13	2	46	48	1	13	-2	13
	GRT2{1}	12	2	45	46	1	13	-1	13
	GRT3{1}	-5	23	61	66	6	31	-12	33
A40 N	Gravity{1}	8	1	30	31	0	-6	0	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	4	2	3	5	1	-2	0	2
	Thermal 2{1}	3	1	2	4	1	-2	0	2
	Thermal 3{1}	-14	22	18	31	6	7	0	9
	GRT1{1}	13	2	33	35	1	-8	0	8
	GRT2{1}	12	2	32	34	1	-8	0	8
	GRT3{1}	-5	23	48	53	6	1	0	6

□

DVI_A_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result
-----		-----				-----			
A40 F	Gravity{1}	8	1	29	30	0	-6	0	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	4	2	3	5	1	-2	0	2
	Thermal 2{1}	3	1	2	4	1	-2	0	2
	Thermal 3{1}	-14	22	18	31	5	7	0	8
	GRT1{1}	13	2	32	35	1	-9	0	9
	GRT2{1}	12	2	31	33	1	-8	0	8

		DVI_A_LINE_REV0.OUT							
		-5	23	47	53	5	0	0	5
	GRT3{1}								
A43	Gravity{1}	8	1	29	30	0	-6	0	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	4	2	3	5	1	-2	0	2
	Thermal 2{1}	3	1	2	4	1	-2	0	2
	Thermal 3{1}	-14	22	18	31	5	7	0	8
	GRT1{1}	13	2	32	35	1	-9	0	9
	GRT2{1}	12	2	31	33	1	-8	0	8
	GRT3{1}	-5	23	47	53	5	0	0	5
A44	Gravity{1}	8	1	28	30	0	-6	0	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	4	2	3	5	1	-2	0	2
	Thermal 2{1}	3	1	2	4	1	-1	0	2
	Thermal 3{1}	-14	22	18	31	4	6	0	7
	GRT1{1}	13	2	31	34	1	-8	0	8
	GRT2{1}	12	2	30	32	1	-8	0	8
	GRT3{1}	-5	23	46	52	5	0	0	5
A47 -	Gravity{1}	8	1	13	15	0	1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	4	2	3	5	0	2	0	2
	Thermal 2{1}	3	1	2	4	0	1	0	1
	Thermal 3{1}	-14	22	18	31	-14	-5	0	15
	GRT1{1}	13	2	15	20	-1	3	0	3
	GRT2{1}	12	2	14	18	-1	2	0	2
	GRT3{1}	-5	23	31	38	-14	-4	0	15
A47 +	Gravity{1}	1	-4	13	13	0	1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-2	1	3	3	0	2	0	2
	Thermal 2{1}	-1	0	2	2	0	1	0	1
	Thermal 3{1}	4	-13	18	22	-14	-5	0	15
	GRT1{1}	-1	-4	15	16	-1	3	0	3
	GRT2{1}	0	-4	14	15	-1	2	0	2
	GRT3{1}	5	-17	31	35	-14	-4	0	15

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G L O B A L F O R C E S & M O M E N T S

DVI_A_LINE_REV0.OUT

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

A45 N	Gravity{1}	1	-4	-3	5	3	2	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-2	1	3	3	-1	0	0	1
	Thermal 2{1}	-1	0	2	2	0	0	0	0
	Thermal 3{1}	4	-13	18	22	-3	-2	0	4
	GRT1{1}	-1	-4	0	4	2	2	0	3
	GRT2{1}	0	-4	-1	4	3	2	0	3
	GRT3{1}	5	-17	15	23	0	0	0	1
A45 F	Gravity{1}	1	-4	-3	6	3	2	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-2	1	3	3	-1	0	0	1
	Thermal 2{1}	-1	0	2	2	0	0	0	0
	Thermal 3{1}	4	-13	18	22	-3	-2	0	3
	GRT1{1}	-1	-4	-1	4	2	2	0	3
	GRT2{1}	0	-4	-2	4	3	2	0	3
	GRT3{1}	5	-17	15	23	0	0	0	0
A46 -	Gravity{1}	1	-4	-18	19	-6	2	-1	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-2	1	3	3	1	0	1	2
	Thermal 2{1}	-1	0	2	2	1	0	1	1
	Thermal 3{1}	4	-13	18	22	11	-2	-3	12
	GRT1{1}	-1	-4	-16	16	-4	2	1	5
	GRT2{1}	0	-4	-17	17	-5	2	0	5
	GRT3{1}	5	-17	0	18	6	0	-4	7
A46 +	Gravity{1}	1	-4	-25	26	-6	2	-1	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-2	1	3	3	1	0	1	2
	Thermal 2{1}	-1	0	2	2	1	0	1	1
	Thermal 3{1}	4	-13	18	22	11	-2	-3	12
	GRT1{1}	-1	-4	-23	23	-4	2	1	5
	GRT2{1}	0	-4	-24	24	-5	2	0	5
	GRT3{1}	5	-17	-7	19	6	0	-4	7
A46 M-	Gravity{1}	1	-4	-43	43	-7	2	-1	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-2	1	3	3	2	0	1	2
	Thermal 2{1}	-1	0	2	2	1	0	1	1
	Thermal 3{1}	4	-13	18	22	12	-2	-3	13

DVI_A_LINE_REV0.OUT

GRT1{1}	-1	-4	-40	40	-6	2	1	6
GRT2{1}	0	-4	-41	41	-6	2	0	7
GRT3{1}	5	-17	-25	30	5	0	-4	6

DVI_A_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

A46 M+	Gravity{1}	-4	-4	44	44	-7	2	-1	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	3	1	-3	4	2	0	1	2
	Thermal 2{1}	2	0	-2	3	1	0	1	1
	Thermal 3{1}	-8	-13	-8	17	12	-2	-3	13
	GRT1{1}	-2	-4	40	41	-6	2	1	6
	GRT2{1}	-2	-4	42	42	-6	2	0	7
	GRT3{1}	-12	-17	35	41	5	0	-4	6
CH05 -	Gravity{1}	-4	-4	26	27	-5	2	0	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	3	1	-3	4	1	0	1	2
	Thermal 2{1}	2	0	-2	3	1	0	1	1
	Thermal 3{1}	-8	-13	-8	17	12	-2	-3	12
	GRT1{1}	-2	-4	23	24	-4	2	1	4
	GRT2{1}	-2	-4	25	25	-5	2	0	5
	GRT3{1}	-12	-17	18	28	6	0	-4	7
CH05 +	Gravity{1}	-4	-4	19	20	-5	2	0	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	3	1	-3	4	1	0	1	2
	Thermal 2{1}	2	0	-2	3	1	0	1	1
	Thermal 3{1}	-8	-13	-8	17	12	-2	-3	12
	GRT1{1}	-2	-4	16	17	-4	2	1	4
	GRT2{1}	-2	-4	18	18	-5	2	0	5
	GRT3{1}	-12	-17	11	24	6	0	-4	7
OR9 -	Gravity{1}	-4	-4	17	18	-3	2	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0

DVI_A_LINE_REV0.OUT								
Thermal 1{1}	3	1	-3	4	1	0	1	1
Thermal 2{1}	2	0	-2	3	1	0	1	1
Thermal 3{1}	-8	-13	-8	17	11	-2	-2	11
GRT1{1}	-2	-4	14	14	-2	2	1	3
GRT2{1}	-2	-4	15	16	-2	2	1	3
GRT3{1}	-12	-17	9	22	8	0	-2	8
OR9 + Gravity{1}	-4	-4	3	7	-3	2	0	3
Hydrotest{1}	0	0	0	0	0	0	0	0
Thermal 1{1}	3	1	-3	4	1	0	1	1
Thermal 2{1}	2	0	-2	3	1	0	1	1
Thermal 3{1}	-8	-13	-8	17	11	-2	-2	11
GRT1{1}	-2	-4	0	4	-2	2	1	3
GRT2{1}	-2	-4	1	5	-2	2	1	3
GRT3{1}	-12	-17	-5	21	8	0	-2	8

0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A48 -	Gravity{1}	-4	-4	-4	7	-3	2	2	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	3	1	-3	4	0	0	0	0
	Thermal 2{1}	2	0	-2	3	0	0	0	0
	Thermal 3{1}	-8	-13	-8	17	8	-2	1	8
	GRT1{1}	-2	-4	-7	8	-3	2	2	4
	GRT2{1}	-2	-4	-5	7	-3	2	2	4
	GRT3{1}	-12	-17	-12	24	5	0	2	5
A48 +	Gravity{1}	-4	-4	-11	12	-3	2	2	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	3	1	-3	4	0	0	0	0
	Thermal 2{1}	2	0	-2	3	0	0	0	0
	Thermal 3{1}	-8	-13	-8	17	8	-2	1	8
	GRT1{1}	-2	-4	-14	14	-3	2	2	4
	GRT2{1}	-2	-4	-12	13	-3	2	2	4
	GRT3{1}	-12	-17	-19	28	5	0	2	5

DVI_A_LINE_REV0.OUT

A48 M-	Gravity{1}	-4	-4	-26	27	-4	2	2	5
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	3	1	-3	4	0	0	0	0
	Thermal 2{1}	2	0	-2	3	0	0	0	0
	Thermal 3{1}	-8	-13	-8	17	7	-2	1	7
	GRT1{1}	-2	-4	-29	29	-5	2	2	5
	GRT2{1}	-2	-4	-28	28	-4	2	2	5
	GRT3{1}	-12	-17	-34	40	3	0	3	4
A48 M+	Gravity{1}	0	-4	38	39	-4	2	2	5
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	1	0	1	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	-2	-13	-10	17	7	-2	1	7
	GRT1{1}	0	-4	39	39	-5	2	2	5
	GRT2{1}	0	-4	39	39	-4	2	2	5
	GRT3{1}	-1	-17	28	33	3	0	3	4
IV07 -	Gravity{1}	0	-4	23	23	-2	2	2	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	1	0	1	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	-2	-13	-10	17	6	-2	1	7
	GRT1{1}	0	-4	23	24	-2	2	2	3
	GRT2{1}	0	-4	23	23	-2	2	2	3
	GRT3{1}	-1	-17	12	21	4	0	3	5

0

DVI_A_LINE_REV0

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
IV07 +	Gravity{1}	0	-4	16	17	-2	2	2	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	1	0	1	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	-2	-13	-10	17	6	-2	1	7
	GRT1{1}	0	-4	16	17	-2	2	2	3

		DVI_A_LINE_REV0.OUT							
A50 N	GRT2{1}	0	-4	16	17	-2	2	2	3
	GRT3{1}	-1	-17	6	18	4	0	3	5
	Gravity{1}	0	-4	13	14	0	2	2	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	1	0	1	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	-2	-13	-10	17	5	-2	2	5
	GRT1{1}	0	-4	14	14	0	2	2	2
A50 F	GRT2{1}	0	-4	14	14	0	2	2	2
	GRT3{1}	-1	-17	3	17	5	0	3	6
	Gravity{1}	0	-4	13	14	0	2	2	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	1	0	1	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	-2	-13	-10	17	5	-2	2	5
	GRT1{1}	0	-4	14	14	0	2	2	2
A51 N	GRT2{1}	0	-4	13	14	0	2	2	2
	GRT3{1}	-1	-17	3	17	5	0	3	6
	Gravity{1}	0	-4	4	6	3	-1	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	1	0	1	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	-2	-13	-10	17	1	2	-2	3
	GRT1{1}	0	-4	5	6	3	-1	0	3
A51 F	GRT2{1}	0	-4	5	6	3	-1	0	3
	GRT3{1}	-1	-17	-6	18	4	0	-2	5
	Gravity{1}	0	-4	4	6	3	-1	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	1	0	1	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	-2	-13	-10	17	1	2	-2	3
	GRT1{1}	0	-4	5	6	3	-1	0	3
	GRT2{1}	0	-4	4	6	3	-1	0	3
	GRT3{1}	-1	-17	-6	18	4	0	-2	5

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DVI_A_LINE_REV0

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DVI_A_LINE_REV0.OUT
G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

A52 N	Gravity{1}	0	-4	-17	17	-4	-1	0	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	1	0	1	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	-2	-13	-10	17	-10	2	0	10
	GRT1{1}	0	-4	-16	17	-3	-1	0	4
	GRT2{1}	0	-4	-16	17	-4	-1	0	4
	GRT3{1}	-1	-17	-27	32	-14	0	0	14
A52 F	Gravity{1}	0	-4	-17	17	-4	-1	0	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	1	0	1	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	-2	-13	-10	17	-10	2	0	10
	GRT1{1}	0	-4	-17	17	-4	-1	0	4
	GRT2{1}	0	-4	-17	17	-4	-1	0	4
	GRT3{1}	-1	-17	-27	32	-14	0	0	14
A49 -	Gravity{1}	0	-4	-36	36	0	-1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	1	0	1	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	-2	-13	-10	17	3	0	0	3
	GRT1{1}	0	-4	-35	36	0	-1	0	1
	GRT2{1}	0	-4	-36	36	0	-1	0	1
	GRT3{1}	-1	-17	-46	49	3	-1	0	3
A49 +	Gravity{1}	0	0	-36	36	0	-1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	1	-10	10	3	0	0	3
	GRT1{1}	0	0	-35	35	0	-1	0	1
	GRT2{1}	0	0	-36	36	0	-1	0	1
	GRT3{1}	0	1	-46	46	3	-1	0	3
A53 N	Gravity{1}	0	0	-146	146	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0

	DVI_A_LINE_REV0.OUT							
Thermal 2{1}	0	0	0	0	0	0	0	0
Thermal 3{1}	0	1	-10	10	-1	0	0	1
GRT1{1}	0	0	-146	146	0	0	0	0
GRT2{1}	0	0	-146	146	0	0	0	0
GRT3{1}	0	1	-157	157	-1	1	0	1

0

DVI_A_LINE_REV0

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A53 F-	Gravity{1}	0	0	-147	147	0	-2	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	1	-10	10	-1	0	0	1
	GRT1{1}	0	0	-146	146	0	-2	0	2
	GRT2{1}	0	0	-146	146	0	-2	0	2
	GRT3{1}	0	1	-157	157	-1	-2	0	2
A53 F+	Gravity{1}	0	0	15	15	0	-2	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	1	-10	10	-1	0	0	1
	GRT1{1}	0	0	16	16	0	-2	0	2
	GRT2{1}	0	0	15	15	0	-2	0	2
	GRT3{1}	0	1	5	5	-1	-2	0	2
A54	Gravity{1}	0	0	13	13	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	1	-10	10	-1	-1	0	2
	GRT1{1}	0	0	13	13	0	0	0	0
	GRT2{1}	0	0	13	13	0	0	0	0
	GRT3{1}	0	1	2	2	-1	-1	0	2
A55	Gravity{1}	0	0	11	11	0	1	0	1

DVI_A_LINE_REV0.OUT

	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	1	-10	10	-1	-2	0	2
	GRT1{1}	0	0	11	11	0	1	0	1
	GRT2{1}	0	0	11	11	0	1	0	1
	GRT3{1}	0	1	0	1	-1	-1	0	2
A56	Gravity{1}	0	0	2	2	0	2	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	1	-10	10	-1	-3	0	4
	GRT1{1}	0	0	2	2	0	2	0	2
	GRT2{1}	0	0	2	2	0	2	0	2
	GRT3{1}	0	1	-8	8	-1	-2	0	2

*** Segment A end ***

*** Segment E begin ***

□

DVI_A_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

A39	Gravity{1}	0	0	24	24	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	24	24	0	0	0	0
	GRT2{1}	0	0	24	24	0	0	0	0
	GRT3{1}	0	0	24	24	0	0	0	0
E01	Gravity{1}	0	0	24	24	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0

DVI_A_LINE_REV0.OUT

	GRT1{1}	0	0	24	24	0	0	0	0
	GRT2{1}	0	0	24	24	0	0	0	0
	GRT3{1}	0	0	24	24	0	0	0	0
E01 M	Gravity{1}	0	0	12	12	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	12	12	0	0	0	0
	GRT2{1}	0	0	12	12	0	0	0	0
	GRT3{1}	0	0	12	12	0	0	0	0
SV11	Gravity{1}	0	0	0	0	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	0	0	0	0	0	0
	GRT2{1}	0	0	0	0	0	0	0	0
	GRT3{1}	0	0	0	0	0	0	0	0

*** Segment E end ***

*** Segment F begin ***

A34	Gravity{1}	0	0	15	15	-1	-1	-1	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	7	1	-2	7	1	2	7	7
	Thermal 2{1}	5	1	0	5	0	1	4	5
	Thermal 3{1}	5	-5	6	10	-4	3	5	7
	GRT1{1}	7	1	13	15	0	1	6	6
	GRT2{1}	5	1	15	15	-1	1	4	4
	GRT3{1}	5	-5	21	22	-5	3	4	7

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

		DVI_A_LINE_REV0.OUT							
F01	Gravity{1}	0	0	15	15	-1	-1	-1	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	7	1	-2	7	1	2	6	7
	Thermal 2{1}	5	1	0	5	0	1	4	5
	Thermal 3{1}	5	-5	6	10	-4	3	5	7
	GRT1{1}	7	1	13	15	1	1	6	6
	GRT2{1}	5	1	14	15	0	1	4	4
	GRT3{1}	5	-5	21	22	-5	3	4	7
F02 N	Gravity{1}	0	0	7	7	3	-1	-1	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	7	1	-2	7	1	0	4	4
	Thermal 2{1}	5	1	0	5	0	0	3	3
	Thermal 3{1}	5	-5	6	10	-3	2	3	5
	GRT1{1}	7	1	5	9	4	0	3	5
	GRT2{1}	5	1	7	8	3	-1	2	4
	GRT3{1}	5	-5	13	15	0	1	3	3
F02 F	Gravity{1}	0	0	7	7	3	-1	-1	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	7	1	-2	7	1	0	4	4
	Thermal 2{1}	5	1	0	5	0	0	3	3
	Thermal 3{1}	5	-5	6	10	-3	2	3	5
	GRT1{1}	7	1	5	9	4	0	3	5
	GRT2{1}	5	1	6	8	3	-1	2	4
	GRT3{1}	5	-5	13	15	0	1	2	3
F03 -	Gravity{1}	0	0	-13	13	-1	-1	-1	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	7	1	-2	7	-1	0	-3	3
	Thermal 2{1}	5	1	0	5	0	0	-2	2
	Thermal 3{1}	5	-5	6	10	3	2	-2	5
	GRT1{1}	7	1	-15	17	-1	0	-4	4
	GRT2{1}	5	1	-14	15	-1	-1	-3	3
	GRT3{1}	5	-5	-7	10	3	1	-3	4
F03 +	Gravity{1}	0	0	-20	20	-1	-1	-1	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	7	1	-2	7	-1	0	-3	3
	Thermal 2{1}	5	1	0	5	0	0	-2	2
	Thermal 3{1}	5	-5	6	10	3	2	-2	5
	GRT1{1}	7	1	-22	23	-1	0	-4	4
	GRT2{1}	5	1	-21	21	-1	-1	-3	3
	GRT3{1}	5	-5	-14	16	3	1	-3	4

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

F03 M-	Gravity{1}	0	0	-37	37	-2	-1	-1	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	7	1	-2	7	-1	0	-4	4
	Thermal 2{1}	5	1	0	5	0	0	-3	3
	Thermal 3{1}	5	-5	6	10	4	2	-3	5
	GRT1{1}	7	1	-39	40	-3	0	-4	5
	GRT2{1}	5	1	-38	38	-2	-1	-3	4
	GRT3{1}	5	-5	-31	32	2	1	-3	4
F03 M+	Gravity{1}	-5	0	22	23	-2	-1	-1	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-4	1	1	4	-1	0	-4	4
	Thermal 2{1}	-3	1	0	3	0	0	-3	3
	Thermal 3{1}	1	-5	-7	9	4	2	-3	5
	GRT1{1}	-9	1	23	25	-3	0	-4	5
	GRT2{1}	-7	1	23	24	-2	-1	-3	4
	GRT3{1}	-3	-5	15	17	2	1	-3	4
CH12 -	Gravity{1}	-5	0	5	7	-1	-1	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-4	1	1	4	-1	0	-3	3
	Thermal 2{1}	-3	1	0	3	0	0	-2	2
	Thermal 3{1}	1	-5	-7	9	3	2	-3	5
	GRT1{1}	-9	1	6	11	-2	0	-4	4
	GRT2{1}	-7	1	5	9	-2	-1	-3	3
	GRT3{1}	-3	-5	-2	7	2	1	-3	4
CH12 +	Gravity{1}	-5	0	-2	5	-1	-1	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-4	1	1	4	-1	0	-3	3
	Thermal 2{1}	-3	1	0	3	0	0	-2	2
	Thermal 3{1}	1	-5	-7	9	3	2	-3	5
	GRT1{1}	-9	1	-1	9	-2	0	-4	4

		DVI_A_LINE_REV0.OUT							
		-7	1	-2	8	-2	-1	-3	3
GRT2{1}		-7	1	-2	8	-2	-1	-3	3
GRT3{1}		-3	-5	-9	11	2	1	-3	4
C020 -	Gravity{1}	-5	0	-11	12	-4	-1	2	5
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-4	1	1	4	0	0	-2	2
	Thermal 2{1}	-3	1	0	3	0	0	-1	1
	Thermal 3{1}	1	-5	-7	9	0	2	-3	4
	GRT1{1}	-9	1	-10	13	-5	0	0	5
	GRT2{1}	-7	1	-10	13	-4	-1	1	4
	GRT3{1}	-3	-5	-18	19	-4	1	-2	5

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DVI_A_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

C020 +	Gravity{1}	-5	0	-24	25	-4	-1	2	5
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-4	1	1	4	0	0	-2	2
	Thermal 2{1}	-3	1	0	3	0	0	-1	1
	Thermal 3{1}	1	-5	-7	9	0	2	-3	4
	GRT1{1}	-9	1	-24	25	-5	0	0	5
	GRT2{1}	-7	1	-24	25	-4	-1	1	4
	GRT3{1}	-3	-5	-32	32	-4	1	-2	5
F05 -	Gravity{1}	-5	0	-33	34	-18	-1	4	18
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-4	1	1	4	0	0	0	0
	Thermal 2{1}	-3	1	0	3	0	0	0	0
	Thermal 3{1}	1	-5	-7	9	-3	2	-4	6
	GRT1{1}	-9	1	-33	34	-18	0	4	18
	GRT2{1}	-7	1	-33	34	-18	-1	4	18
	GRT3{1}	-3	-5	-40	41	-21	1	0	21
F05 +	Gravity{1}	-5	0	-40	40	-18	-1	4	18
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-4	1	1	4	0	0	0	0
	Thermal 2{1}	-3	1	0	3	0	0	0	0

DVI_A_LINE_REV0.OUT

	Thermal 3{1}	1	-5	-7	9	-3	2	-4	6
	GRT1{1}	-9	1	-39	40	-18	0	4	18
	GRT2{1}	-7	1	-40	41	-18	-1	4	18
	GRT3{1}	-3	-5	-47	48	-21	1	0	21
F05 M-	Gravity{1}	-5	0	-56	56	-21	-1	4	22
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-4	1	1	4	0	0	1	1
	Thermal 2{1}	-3	1	0	3	0	0	0	0
	Thermal 3{1}	1	-5	-7	9	-4	2	-4	6
	GRT1{1}	-9	1	-55	56	-21	0	5	22
	GRT2{1}	-7	1	-56	56	-21	-1	5	22
	GRT3{1}	-3	-5	-63	63	-25	1	0	25
F05 M+	Gravity{1}	5	0	53	53	-21	-1	4	22
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	1	0	2	0	0	1	1
	Thermal 2{1}	1	1	0	1	0	0	0	0
	Thermal 3{1}	-10	-5	5	13	-4	2	-4	6
	GRT1{1}	7	1	53	53	-21	0	5	22
	GRT2{1}	6	1	53	53	-21	-1	5	22
	GRT3{1}	-5	-5	58	58	-25	1	0	25

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DVI_A_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
IV03 -	Gravity{1}	5	0	37	38	-18	-1	4	18
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	1	0	2	0	0	1	1
	Thermal 2{1}	1	1	0	1	0	0	0	0
	Thermal 3{1}	-10	-5	5	13	-3	2	-3	5
	GRT1{1}	7	1	37	38	-18	0	5	18
	GRT2{1}	6	1	37	38	-18	-1	4	18
	GRT3{1}	-5	-5	42	43	-21	1	1	21
IV03 +	Gravity{1}	5	0	30	31	-18	-1	4	18

		DVI_A_LINE_REV0.OUT							
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	1	0	2	0	0	1	1
	Thermal 2{1}	1	1	0	1	0	0	0	0
	Thermal 3{1}	-10	-5	5	13	-3	2	-3	5
	GRT1{1}	7	1	30	31	-18	0	5	18
	GRT2{1}	6	1	30	31	-18	-1	4	18
	GRT3{1}	-5	-5	36	36	-21	1	1	21
F07 N	Gravity{1}	5	0	12	13	3	-1	-1	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	1	0	2	0	0	-1	1
	Thermal 2{1}	1	1	0	1	0	0	-1	1
	Thermal 3{1}	-10	-5	5	13	2	2	7	7
	GRT1{1}	7	1	11	13	3	0	-2	3
	GRT2{1}	6	1	11	13	3	-1	-2	3
	GRT3{1}	-5	-5	17	18	4	1	6	7
F07 F	Gravity{1}	5	0	11	12	3	-1	-1	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	1	0	2	0	0	-1	1
	Thermal 2{1}	1	1	0	1	0	0	-1	1
	Thermal 3{1}	-10	-5	5	13	2	2	7	7
	GRT1{1}	7	1	11	13	3	-1	-2	3
	GRT2{1}	6	1	11	13	3	-1	-2	3
	GRT3{1}	-5	-5	16	18	4	1	6	7
F08 N	Gravity{1}	5	0	-21	21	3	7	-1	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	1	0	2	0	1	1	1
	Thermal 2{1}	1	1	0	1	0	0	0	1
	Thermal 3{1}	-10	-5	5	13	2	-6	-2	7
	GRT1{1}	7	1	-21	22	3	8	0	8
	GRT2{1}	6	1	-21	22	3	7	0	8
	GRT3{1}	-5	-5	-16	17	4	1	-3	5

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DVI_A_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result

DVI_A_LINE_REV0.OUT

F08 M	Gravity{1}	5	0	-21	21	3	7	-1	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	1	0	2	0	1	1	1
	Thermal 2{1}	1	1	0	1	0	0	0	1
	Thermal 3{1}	-10	-5	5	13	2	-6	-2	7
	GRT1{1}	7	1	-21	22	3	8	0	8
	GRT2{1}	6	1	-21	22	3	8	0	8
	GRT3{1}	-5	-5	-16	17	4	1	-3	6
F08 F	Gravity{1}	5	0	-21	22	3	7	-1	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	1	0	2	0	1	1	1
	Thermal 2{1}	1	1	0	1	0	0	0	1
	Thermal 3{1}	-10	-5	5	13	2	-6	-2	7
	GRT1{1}	7	1	-21	22	3	8	0	8
	GRT2{1}	6	1	-21	22	3	8	0	8
	GRT3{1}	-5	-5	-16	18	4	1	-3	6
F10	Gravity{1}	5	0	-44	44	3	1	-1	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	1	0	2	1	-1	1	2
	Thermal 2{1}	1	1	0	1	1	-1	0	1
	Thermal 3{1}	-10	-5	5	13	-5	6	-2	8
	GRT1{1}	7	1	-44	45	4	0	0	4
	GRT2{1}	6	1	-44	44	4	0	0	4
	GRT3{1}	-5	-5	-39	39	-2	7	-3	8
F11	Gravity{1}	5	0	-46	46	3	1	-1	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	1	0	2	1	-1	1	2
	Thermal 2{1}	1	1	0	1	1	-1	0	1
	Thermal 3{1}	-10	-5	5	13	-5	6	-2	8
	GRT1{1}	7	1	-46	46	4	0	0	4
	GRT2{1}	6	1	-46	46	4	0	0	4
	GRT3{1}	-5	-5	-41	41	-2	7	-3	8
F12	Gravity{1}	5	0	-59	59	3	0	-1	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	1	0	2	1	-2	1	2
	Thermal 2{1}	1	1	0	1	1	-1	0	1
	Thermal 3{1}	-10	-5	5	13	-7	8	-2	11
	GRT1{1}	7	1	-59	59	4	-2	0	5
	GRT2{1}	6	1	-59	59	4	-1	0	4

I01 +	Hydrotest{1}	0	0	0	0	0	0	0	
	Thermal 1{1}	16	0	48	51	3	7	-5	9
	Thermal 2{1}	19	0	51	54	3	8	-6	10
	Thermal 3{1}	14	5	143	144	0	4	0	4
	GRT1{1}	21	-1	237	238	4	9	-5	11
	GRT2{1}	24	-1	240	241	3	10	-6	12
	GRT3{1}	19	4	332	333	1	6	0	6
	Gravity{1}	-5	0	179	179	0	3	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-8	1	28	29	2	11	0	11
	Thermal 2{1}	-8	1	28	29	2	12	0	12
	Thermal 3{1}	-4	0	89	89	0	11	0	11
	GRT1{1}	-13	2	206	207	2	14	0	14
	GRT2{1}	-13	2	207	207	2	15	0	15
	GRT3{1}	-9	1	267	267	1	14	0	14

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result
I02	Gravity{1}	-5	0	117	117	0	-6	0	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-8	1	28	29	-1	-4	0	4
	Thermal 2{1}	-8	1	28	29	-1	-4	0	4
	Thermal 3{1}	-4	0	89	89	0	3	0	3
	GRT1{1}	-13	2	144	145	-1	-10	0	10
	GRT2{1}	-13	2	145	145	-1	-10	0	10
	GRT3{1}	-9	1	205	206	0	-3	0	3

I02	Gravity{1}	11	0	117	117	0	-6	0	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	3	0	28	28	-1	-4	0	4
	Thermal 2{1}	3	0	28	28	-1	-4	0	4
	Thermal 3{1}	1	0	89	89	0	3	0	3

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	GRT1{1}	13	0	144	145	-1	-10	0	10
	GRT2{1}	13	0	145	146	-1	-10	0	10
	GRT3{1}	12	0	205	206	0	-3	0	3
J01 N	Gravity{1}	11	0	56	57	0	14	0	14
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	3	0	28	28	0	1	0	1
	Thermal 2{1}	3	0	28	28	0	1	0	1
	Thermal 3{1}	1	0	89	89	0	5	0	5
	GRT1{1}	13	0	84	85	0	15	0	15
	GRT2{1}	13	0	84	85	0	15	0	15
	GRT3{1}	12	0	145	145	0	19	0	19
J01 F	Gravity{1}	11	0	54	55	0	12	0	12
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	3	0	28	28	0	0	0	0
	Thermal 2{1}	3	0	28	28	0	0	0	0
	Thermal 3{1}	1	0	89	89	0	2	0	2
	GRT1{1}	13	0	82	83	0	12	0	12
	GRT2{1}	13	0	82	84	0	12	0	12
	GRT3{1}	12	0	143	144	0	14	0	14
J02 N	Gravity{1}	11	0	41	42	0	-8	0	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	3	0	28	28	0	-12	0	12
	Thermal 2{1}	3	0	28	28	0	-12	0	12
	Thermal 3{1}	1	0	89	89	0	-36	0	36
	GRT1{1}	13	0	68	70	0	-20	0	20
	GRT2{1}	13	0	69	70	0	-20	0	20
	GRT3{1}	12	0	129	130	0	-44	0	44

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
J02 F	Gravity{1}	11	0	39	40	0	-9	0	9
	Hydrotest{1}	0	0	0	0	0	0	0	0

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	Thermal 1{1}	3	0	28	28	0	-13	0	13
	Thermal 2{1}	3	0	28	28	0	-13	0	13
	Thermal 3{1}	1	0	89	89	0	-39	0	39
	GRT1{1}	13	0	66	68	0	-22	0	22
	GRT2{1}	13	0	67	68	0	-22	0	22
	GRT3{1}	12	0	127	128	0	-48	0	48
J03 N	Gravity{1}	11	0	9	14	0	1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	3	0	28	28	0	-10	0	10
	Thermal 2{1}	3	0	28	28	0	-10	0	10
	Thermal 3{1}	1	0	89	89	0	-38	0	38
	GRT1{1}	13	0	36	39	0	-9	0	9
	GRT2{1}	13	0	37	39	0	-10	0	10
	GRT3{1}	12	0	97	98	0	-37	0	37
J03 F	Gravity{1}	11	0	7	13	0	2	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	3	0	28	28	0	-9	0	9
	Thermal 2{1}	3	0	28	28	0	-9	0	9
	Thermal 3{1}	1	0	89	89	0	-34	0	34
	GRT1{1}	13	0	34	37	0	-8	0	8
	GRT2{1}	13	0	35	37	0	-8	0	8
	GRT3{1}	12	0	95	96	0	-33	0	33
J04 N	Gravity{1}	11	0	-13	17	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	3	0	28	28	0	8	0	8
	Thermal 2{1}	3	0	28	28	0	8	0	8
	Thermal 3{1}	1	0	89	89	0	19	0	19
	GRT1{1}	13	0	15	20	0	7	0	7
	GRT2{1}	13	0	15	20	0	7	0	7
	GRT3{1}	12	0	76	77	0	19	0	19
J04 F	Gravity{1}	11	0	-15	18	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	3	0	28	28	0	9	0	9
	Thermal 2{1}	3	0	28	28	0	9	0	9
	Thermal 3{1}	1	0	89	89	0	23	0	23
	GRT1{1}	13	0	13	18	0	8	0	8
	GRT2{1}	13	0	13	19	0	8	0	8
	GRT3{1}	12	0	74	75	0	22	0	22

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
J05 N	Gravity{1}	11	0	-25	28	0	3	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	3	0	28	28	0	10	0	10
	Thermal 2{1}	3	0	28	28	0	10	0	10
	Thermal 3{1}	1	0	89	89	0	23	0	23
	GRT1{1}	13	0	2	14	0	13	0	13
	GRT2{1}	13	0	3	14	0	13	0	13
	GRT3{1}	12	0	63	64	0	26	0	26
J05 F	Gravity{1}	11	0	-27	29	0	2	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	3	0	28	28	0	11	0	11
	Thermal 2{1}	3	0	28	28	0	11	0	11
	Thermal 3{1}	1	0	89	89	0	26	0	26
	GRT1{1}	13	0	0	13	0	13	0	13
	GRT2{1}	13	0	1	13	0	13	0	13
	GRT3{1}	12	0	61	62	0	29	0	29
J06	Gravity{1}	11	0	-42	44	0	-14	0	14
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	3	0	28	28	0	24	0	24
	Thermal 2{1}	3	0	28	28	0	24	0	24
	Thermal 3{1}	1	0	89	89	0	67	0	67
	GRT1{1}	13	0	-15	20	0	10	0	10
	GRT2{1}	13	0	-14	20	0	10	0	10
	GRT3{1}	12	0	46	48	0	54	0	54
J07	Gravity{1}	11	0	-44	45	0	-15	0	15
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	3	0	28	28	0	25	0	25
	Thermal 2{1}	3	0	28	28	0	25	0	25
	Thermal 3{1}	1	0	89	89	0	71	0	71
	GRT1{1}	13	0	-16	21	0	9	0	9
	GRT2{1}	13	0	-16	21	0	10	0	10
	GRT3{1}	12	0	45	46	0	56	0	56

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J08	Gravity{1}	11	0	-47	48	0	-19	0	19
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	3	0	28	28	0	27	0	27
	Thermal 2{1}	3	0	28	28	0	27	0	27
	Thermal 3{1}	1	0	89	89	0	78	0	78
	GRT1{1}	13	0	-20	24	0	8	0	8
	GRT2{1}	13	0	-19	23	0	8	0	8
	GRT3{1}	12	0	41	43	0	59	0	59

*** Segment J end ***

*** Segment K begin ***

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

I01	Gravity{1}	10	-1	11	14	0	-1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	24	-2	20	31	1	-4	-5	6
	Thermal 2{1}	27	-1	23	35	1	-3	-6	7
	Thermal 3{1}	18	4	54	57	0	-8	0	8
	GRT1{1}	33	-3	31	46	1	-5	-5	7
	GRT2{1}	37	-2	33	50	1	-5	-5	7
	GRT3{1}	28	3	65	70	0	-9	0	9
K01	Gravity{1}	10	-1	-8	13	0	0	1	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	24	-2	20	31	1	8	-4	9
	Thermal 2{1}	27	-1	23	35	1	9	-5	11
	Thermal 3{1}	18	4	54	57	0	23	-3	24
	GRT1{1}	33	-3	12	36	1	8	-3	8
	GRT2{1}	37	-2	15	40	1	9	-4	10
	GRT3{1}	28	3	46	54	0	23	-2	23
K02	Gravity{1}	10	-1	-9	14	0	-1	1	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	24	-2	20	31	1	9	-4	10
	Thermal 2{1}	27	-1	23	35	1	10	-5	11

DVI_A_LINE_REV0.OUT

	Thermal 3{1}	18	4	54	57	0	26	-3	26
	GRT1{1}	33	-3	11	35	1	8	-3	9
	GRT2{1}	37	-2	13	39	1	10	-4	10
	GRT3{1}	28	3	45	53	0	25	-2	25
K03	Gravity{1}	10	-1	-13	16	0	-2	1	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	24	-2	20	31	1	11	-4	11
	Thermal 2{1}	27	-1	23	35	1	12	-5	13
	Thermal 3{1}	18	4	54	57	0	30	-3	30
	GRT1{1}	33	-3	7	34	1	9	-3	9
	GRT2{1}	37	-2	10	38	1	11	-4	11
	GRT3{1}	28	3	41	50	0	29	-2	29

*** Segment K end ***

*** Segment L begin ***

A33	Gravity{1}	2	3	6	7	1	0	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	1	-4	4	3	2	0	4
	Thermal 2{1}	-23	7	-26	36	15	1	-13	20
	Thermal 3{1}	-10	4	-19	22	11	2	-5	12
	GRT1{1}	1	4	2	5	4	3	0	5
	GRT2{1}	-21	10	-20	31	16	2	-12	20
	GRT3{1}	-8	8	-13	17	12	2	-5	13

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
L01	Gravity{1}	2	3	6	7	1	0	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	1	-4	4	3	2	0	4
	Thermal 2{1}	-23	7	-26	36	14	2	-12	19
	Thermal 3{1}	-10	4	-19	22	11	2	-5	12
	GRT1{1}	1	4	2	4	4	3	0	5
	GRT2{1}	-21	10	-20	31	16	2	-12	20
	GRT3{1}	-8	8	-14	18	12	3	-4	13

DVI_A_LINE_REV0.OUT

L02 N	Gravity{1}	2	3	-16	16	-1	-1	-1	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	1	-4	4	0	3	0	3
	Thermal 2{1}	-23	7	-26	36	-1	12	4	12
	Thermal 3{1}	-10	4	-19	22	-1	7	3	7
	GRT1{1}	1	4	-20	20	-1	2	-1	2
	GRT2{1}	-21	10	-42	48	-2	11	3	12
	GRT3{1}	-8	8	-35	37	-2	6	2	7
L02 M	Gravity{1}	2	3	-16	17	-1	-1	-1	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	1	-4	4	0	3	0	3
	Thermal 2{1}	-23	7	-26	36	-1	12	5	13
	Thermal 3{1}	-10	4	-19	22	-1	7	3	8
	GRT1{1}	1	4	-20	21	-1	2	-1	3
	GRT2{1}	-21	10	-42	48	-3	11	4	12
	GRT3{1}	-8	8	-35	37	-3	6	2	7
L02 F	Gravity{1}	2	3	-16	17	-1	0	-1	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	1	-4	4	0	3	0	3
	Thermal 2{1}	-23	7	-26	36	-1	12	5	13
	Thermal 3{1}	-10	4	-19	22	-1	7	3	8
	GRT1{1}	1	4	-20	21	-1	2	-1	3
	GRT2{1}	-21	10	-42	49	-3	12	4	13
	GRT3{1}	-8	8	-36	37	-3	7	2	8
L03 -	Gravity{1}	2	3	-30	30	-1	11	1	11
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	1	-4	4	0	5	1	5
	Thermal 2{1}	-23	7	-26	36	-1	25	9	27
	Thermal 3{1}	-10	4	-19	22	-1	17	5	18
	GRT1{1}	1	4	-34	34	-1	16	1	16
	GRT2{1}	-21	10	-56	60	-3	37	9	38
	GRT3{1}	-8	8	-49	50	-3	28	6	29

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DVI_A_LINE_REV0.OUT									
Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

L03 +	Gravity{1}	2	3	-61	61	-1	11	1	11
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	1	-4	4	0	5	1	5
	Thermal 2{1}	-23	7	-26	36	-1	25	9	27
	Thermal 3{1}	-10	4	-19	22	-1	17	5	18
	GRT1{1}	1	4	-65	65	-1	16	1	16
	GRT2{1}	-21	10	-87	90	-3	37	9	38
	GRT3{1}	-8	8	-80	81	-3	28	6	29
L03 M-	Gravity{1}	2	3	-104	104	-1	16	1	16
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	1	-4	4	0	5	1	5
	Thermal 2{1}	-23	7	-26	36	-1	27	9	28
	Thermal 3{1}	-10	4	-19	22	-1	18	5	19
	GRT1{1}	1	4	-108	108	-1	21	2	21
	GRT2{1}	-21	10	-129	132	-3	43	10	44
	GRT3{1}	-8	8	-123	123	-3	34	6	35
L03 M+	Gravity{1}	2	0	149	149	-1	16	1	16
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	-1	5	5	0	5	1	5
	Thermal 2{1}	-23	-8	31	40	-1	27	9	28
	Thermal 3{1}	-10	-5	18	22	-1	18	5	19
	GRT1{1}	1	0	153	153	-1	21	2	21
	GRT2{1}	-21	-7	180	181	-3	43	10	44
	GRT3{1}	-8	-5	167	167	-3	34	6	35
CH03 -	Gravity{1}	2	0	106	106	-1	9	1	9
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	-1	5	5	0	5	1	5
	Thermal 2{1}	-23	-8	31	40	-1	25	8	27
	Thermal 3{1}	-10	-5	18	22	-1	17	5	18
	GRT1{1}	1	0	111	111	-1	14	2	14
	GRT2{1}	-21	-7	137	139	-3	34	9	35
	GRT3{1}	-8	-5	125	125	-3	26	6	27
CH03 +	Gravity{1}	2	0	75	75	-1	9	1	9
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	-1	5	5	0	5	1	5
	Thermal 2{1}	-23	-8	31	40	-1	25	8	27
	Thermal 3{1}	-10	-5	18	22	-1	17	5	18

	DVI_A_LINE_REV0.OUT							
GRT1{1}	1	0	79	79	-1	14	2	14
GRT2{1}	-21	-7	106	108	-3	34	9	35
GRT3{1}	-8	-5	93	94	-3	26	6	27

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

C015 -	Gravity{1}	2	0	70	70	-1	-6	1	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	-1	5	5	0	4	1	4
	Thermal 2{1}	-23	-8	31	40	-1	19	7	20
	Thermal 3{1}	-10	-5	18	22	-1	13	4	14
	GRT1{1}	1	0	74	74	-1	-2	2	3
	GRT2{1}	-21	-7	101	103	-3	13	8	16
	GRT3{1}	-8	-5	88	89	-3	8	5	10
C015 +	Gravity{1}	2	0	7	7	-1	-6	1	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	-1	5	5	0	4	1	4
	Thermal 2{1}	-23	-8	31	40	-1	19	7	20
	Thermal 3{1}	-10	-5	18	22	-1	13	4	14
	GRT1{1}	1	0	12	12	-1	-2	2	3
	GRT2{1}	-21	-7	38	44	-3	13	8	16
	GRT3{1}	-8	-5	25	27	-3	8	5	10
L05 -	Gravity{1}	2	0	-11	11	-1	-4	1	5
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	-1	5	5	0	1	0	1
	Thermal 2{1}	-23	-8	31	40	-1	-3	2	4
	Thermal 3{1}	-10	-5	18	22	-1	1	0	2
	GRT1{1}	1	0	-7	7	-1	-3	1	4
	GRT2{1}	-21	-7	20	30	-3	-7	3	8
	GRT3{1}	-8	-5	7	12	-3	-4	2	5
L05 +	Gravity{1}	2	0	-43	43	-1	-4	1	5
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	-1	5	5	0	1	0	1

Thermal 2{1}	-23	-8	31	40	-1	-3	2	4
Thermal 3{1}	-10	-5	18	22	-1	1	0	2
GRT1{1}	1	0	-38	38	-1	-3	1	4
GRT2{1}	-21	-7	-11	25	-3	-7	3	8
GRT3{1}	-8	-5	-24	26	-3	-4	2	5
Gravity{1}	2	0	-104	104	-1	6	1	6
Hydrotest{1}	0	0	0	0	0	0	0	0
Thermal 1{1}	-1	-1	5	5	0	0	0	0
Thermal 2{1}	-23	-8	31	40	-1	-7	1	7
Thermal 3{1}	-10	-5	18	22	-1	-2	0	2
GRT1{1}	1	0	-100	100	-1	6	1	6
GRT2{1}	-21	-7	-73	77	-3	-1	2	4
GRT3{1}	-8	-5	-86	87	-3	4	1	5

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

L05 M+	Gravity{1}	2	-7	77	78	-1	6	1	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	1	4	4	0	0	0	0
	Thermal 2{1}	-23	21	78	84	-1	-7	1	7
	Thermal 3{1}	-10	12	41	44	-1	-2	0	2
	GRT1{1}	1	-6	81	81	-1	6	1	6
	GRT2{1}	-21	15	155	157	-3	-1	2	4
	GRT3{1}	-8	5	118	119	-3	4	1	5
L06 -	Gravity{1}	2	-7	16	17	-1	-1	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	1	4	4	0	0	0	0
	Thermal 2{1}	-23	21	78	84	-1	-17	3	18
	Thermal 3{1}	-10	12	41	44	-1	-7	1	7
	GRT1{1}	1	-6	19	20	-1	-1	0	2
	GRT2{1}	-21	15	93	97	-3	-18	4	18
	GRT3{1}	-8	5	57	57	-3	-8	2	9

		DVI_A_LINE_REV0.OUT								
L06	+	Gravity{1}	2	-7	-16	17	-1	-1	0	2
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	-1	1	4	4	0	0	0	0
		Thermal 2{1}	-23	21	78	84	-1	-17	3	18
		Thermal 3{1}	-10	12	41	44	-1	-7	1	7
		GRT1{1}	1	-6	-12	13	-1	-1	0	2
		GRT2{1}	-21	15	62	67	-3	-18	4	18
		GRT3{1}	-8	5	25	27	-3	-8	2	9
L07	N	Gravity{1}	2	-7	-20	21	-1	2	-1	3
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	-1	1	4	4	0	-1	0	1
		Thermal 2{1}	-23	21	78	84	-1	-29	7	30
		Thermal 3{1}	-10	12	41	44	-1	-14	3	14
		GRT1{1}	1	-6	-16	17	-1	1	0	2
		GRT2{1}	-21	15	58	63	-3	-27	6	28
		GRT3{1}	-8	5	21	23	-3	-11	2	12
L07	M	Gravity{1}	2	-7	-20	21	-1	2	-1	3
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	-1	1	4	4	0	-1	0	1
		Thermal 2{1}	-23	21	78	84	-2	-30	7	31
		Thermal 3{1}	-10	12	41	44	-1	-14	3	15
		GRT1{1}	1	-6	-16	17	-1	1	0	2
		GRT2{1}	-21	15	58	63	-3	-28	6	29
		GRT3{1}	-8	5	21	23	-3	-12	2	12

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
L07 F	Gravity{1}	2	-7	-21	22	-1	3	-1	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	1	4	4	0	-1	0	1
	Thermal 2{1}	-23	21	78	84	-2	-30	7	31
	Thermal 3{1}	-10	12	41	44	-2	-14	3	15
	GRT1{1}	1	-6	-17	18	-1	1	0	2

		DVI_A_LINE_REV0.OUT							
	GRT2{1}	-21	15	57	63	-3	-28	6	29
	GRT3{1}	-8	5	20	23	-3	-12	2	12
L08 N	Gravity{1}	2	-7	-41	42	4	1	0	5
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	1	4	4	-1	0	0	1
	Thermal 2{1}	-23	21	78	84	-13	-13	-1	18
	Thermal 3{1}	-10	12	41	44	-7	-7	0	10
	GRT1{1}	1	-6	-37	38	4	1	0	4
	GRT2{1}	-21	15	36	45	-8	-12	-1	15
	GRT3{1}	-8	5	0	10	-3	-6	0	6
L08 F	Gravity{1}	2	-7	-42	42	4	1	0	5
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	1	4	4	-1	0	0	1
	Thermal 2{1}	-23	21	78	84	-13	-13	-1	18
	Thermal 3{1}	-10	12	41	44	-7	-7	0	10
	GRT1{1}	1	-6	-38	38	4	1	0	4
	GRT2{1}	-21	15	36	44	-8	-12	-1	15
	GRT3{1}	-8	5	-1	10	-3	-6	0	6
L35 -	Gravity{1}	2	-7	-66	67	-2	-1	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	1	4	4	0	0	0	0
	Thermal 2{1}	-23	21	78	84	8	9	-1	12
	Thermal 3{1}	-10	12	41	44	4	3	0	5
	GRT1{1}	1	-6	-62	63	-2	0	0	2
	GRT2{1}	-21	15	11	28	6	8	-1	10
	GRT3{1}	-8	5	-25	27	2	2	0	3
L35 +	Gravity{1}	-1	1	-66	66	-2	-1	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	4	4	0	0	0	0
	Thermal 2{1}	7	-6	78	78	8	9	-1	12
	Thermal 3{1}	2	-3	41	41	4	3	0	5
	GRT1{1}	0	1	-62	62	-2	0	0	2
	GRT2{1}	7	-4	11	14	6	8	-1	10
	GRT3{1}	2	-2	-25	25	2	2	0	3

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DVI_A_LINE_REV0.OUT
G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

L09	Gravity{1}	-1	1	-116	116	1	0	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	4	4	0	0	0	0
	Thermal 2{1}	7	-6	78	78	-4	-4	-1	6
	Thermal 3{1}	2	-3	41	41	-2	-1	0	3
	GRT1{1}	0	1	-112	112	1	0	0	1
	GRT2{1}	7	-4	-38	39	-3	-4	-1	5
	GRT3{1}	2	-2	-75	75	-1	-1	0	2
L10	Gravity{1}	-1	1	-117	117	1	0	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	4	4	0	0	0	0
	Thermal 2{1}	7	-6	78	78	-4	-5	-1	6
	Thermal 3{1}	2	-3	41	41	-2	-2	0	3
	GRT1{1}	0	1	-113	113	1	0	0	1
	GRT2{1}	7	-4	-39	40	-3	-4	-1	5
	GRT3{1}	2	-2	-76	76	-1	-1	0	2
L11	Gravity{1}	-1	1	-120	120	1	0	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	4	4	0	0	0	0
	Thermal 2{1}	7	-6	78	78	-4	-5	-1	7
	Thermal 3{1}	2	-3	41	41	-2	-2	0	3
	GRT1{1}	0	1	-116	116	1	0	0	1
	GRT2{1}	7	-4	-42	43	-3	-5	-1	6
	GRT3{1}	2	-2	-79	79	-1	-1	0	2
L12 -	Gravity{1}	-1	1	-127	127	1	0	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	4	4	0	0	0	0
	Thermal 2{1}	7	-6	78	78	-5	-6	-1	7
	Thermal 3{1}	2	-3	41	41	-3	-2	0	3
	GRT1{1}	0	1	-123	123	1	0	0	1
	GRT2{1}	7	-4	-49	50	-4	-5	-1	6
	GRT3{1}	2	-2	-86	86	-1	-1	0	2
L12 +	Gravity{1}	-1	1	-280	280	1	0	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	4	4	0	0	0	0
	Thermal 2{1}	7	-6	78	78	-5	-6	-1	7

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Thermal 3{1}	2	-3	41	41	-3	-2	0	3
GRT1{1}	0	1	-276	276	1	0	0	1
GRT2{1}	7	-4	-202	202	-4	-5	-1	6
GRT3{1}	2	-2	-239	239	-1	-1	0	2

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

L13	Gravity{1}	-1	1	-293	293	1	1	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	4	4	0	0	0	0
	Thermal 2{1}	7	-6	78	78	-6	-7	-1	9
	Thermal 3{1}	2	-3	41	41	-3	-2	0	4
	GRT1{1}	0	1	-289	289	1	0	0	1
	GRT2{1}	7	-4	-215	215	-4	-6	-1	8
	GRT3{1}	2	-2	-252	252	-2	-2	0	3
L16 -	Gravity{1}	-1	1	-4987	4987	5	2	0	5
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	4	4	-1	-1	0	1
	Thermal 2{1}	7	-6	78	78	-19	-23	-1	30
	Thermal 3{1}	2	-3	41	41	-10	-8	0	13
	GRT1{1}	0	1	-4983	4983	4	1	0	4
	GRT2{1}	7	-4	-4909	4909	-14	-21	-1	25
	GRT3{1}	2	-2	-4946	4946	-6	-6	0	8
L16 +	Gravity{1}	-1	-1	2325	2325	1	-2	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	127	44	78	155	-90	291	-7	305
	Thermal 2{1}	136	47	82	166	-95	307	-8	321
	Thermal 3{1}	76	30	73	109	-56	168	-2	177
	GRT1{1}	126	43	2402	2406	-89	289	-7	303
	GRT2{1}	135	46	2407	2411	-94	305	-8	319
	GRT3{1}	74	30	2397	2399	-55	166	-2	174
L14	Gravity{1}	-1	-1	243	243	0	-1	0	1

		DVI_A_LINE_REV0.OUT							
		0	0	0	0	0	0	0	0
	Hydrotest{1}								
	Thermal 1{1}	127	44	78	155	-47	167	-7	173
	Thermal 2{1}	136	47	82	166	-49	173	-8	180
	Thermal 3{1}	76	30	73	109	-26	94	-2	97
	GRT1{1}	126	43	321	347	-46	166	-7	172
	GRT2{1}	135	46	325	355	-49	172	-8	179
	GRT3{1}	74	30	316	326	-26	93	-2	96
L15 -	Gravity{1}	-1	-1	230	230	0	-1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	127	44	78	155	-39	145	-7	150
	Thermal 2{1}	136	47	82	166	-41	149	-8	155
	Thermal 3{1}	76	30	73	109	-21	80	-2	83
	GRT1{1}	126	43	308	336	-39	144	-7	149
	GRT2{1}	135	46	313	344	-41	148	-8	154
	GRT3{1}	74	30	303	314	-21	80	-2	82

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
L15 +	Gravity{1}	-1	-1	77	77	0	-1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	127	44	78	155	-39	145	-7	150
	Thermal 2{1}	136	47	82	166	-41	149	-8	155
	Thermal 3{1}	76	30	73	109	-21	80	-2	83
	GRT1{1}	126	43	155	204	-39	144	-7	149
	GRT2{1}	135	46	160	214	-41	148	-8	154
	GRT3{1}	74	30	150	170	-21	80	-2	82
L17	Gravity{1}	-1	-1	70	70	0	-1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	127	44	78	155	-34	132	-7	136
	Thermal 2{1}	136	47	82	166	-36	135	-8	140
	Thermal 3{1}	76	30	73	109	-17	73	-2	75
	GRT1{1}	126	43	148	199	-34	131	-7	136
	GRT2{1}	135	46	152	209	-36	134	-8	140

		DVI_A_LINE_REV0.OUT							
		74	30	143	164	-17	72	-2	74
L18	GRT3{1}								
	Gravity{1}	-1	-1	67	67	0	-1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	127	44	78	155	-32	125	-7	129
	Thermal 2{1}	136	47	82	166	-34	128	-8	133
	Thermal 3{1}	76	30	73	109	-16	69	-2	70
	GRT1{1}	126	43	145	197	-32	124	-7	129
	GRT2{1}	135	46	150	207	-34	128	-8	132
	GRT3{1}	74	30	140	161	-16	68	-2	70
L19 N	Gravity{1}	-1	-1	11	11	-1	1	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	127	44	78	155	30	-52	-7	60
	Thermal 2{1}	136	47	82	166	31	-61	-8	69
	Thermal 3{1}	76	30	73	109	26	-36	-2	45
	GRT1{1}	126	43	88	160	28	-51	-7	59
	GRT2{1}	135	46	93	170	30	-61	-8	68
	GRT3{1}	74	30	84	116	25	-36	-2	44
L19N	Gravity{1}	-1	-1	8	8	-2	1	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	127	44	78	155	29	-55	-5	62
	Thermal 2{1}	136	47	82	166	31	-64	-5	72
	Thermal 3{1}	76	30	73	109	26	-37	-1	45
	GRT1{1}	126	43	86	159	28	-53	-5	60
	GRT2{1}	135	46	91	169	29	-63	-6	70
	GRT3{1}	74	30	81	114	24	-36	-1	43

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
L20 N	Gravity{1}	-1	-1	-12	12	-1	1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	127	44	78	155	1	-27	25	37
	Thermal 2{1}	136	47	82	166	1	-35	27	44
	Thermal 3{1}	76	30	73	109	-1	-11	15	19

L20 F	GRT1{1}	126	43	65	148	0	-26	25	36
	GRT2{1}	135	46	70	159	0	-34	27	43
	GRT3{1}	74	30	60	100	-1	-11	15	18
	Gravity{1}	-1	-1	-14	14	-1	0	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	127	44	78	155	0	-24	25	35
	Thermal 2{1}	136	47	82	166	0	-32	27	42
	Thermal 3{1}	76	30	73	109	-1	-9	15	18
	GRT1{1}	126	43	64	148	0	-24	25	35
L29 -	GRT2{1}	135	46	69	158	-1	-32	27	42
	GRT3{1}	74	30	59	100	-2	-9	15	18
	Gravity{1}	-1	-1	-46	46	-1	-23	0	24
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	127	44	78	155	0	37	-10	39
	Thermal 2{1}	136	47	82	166	0	33	-10	34
	Thermal 3{1}	76	30	73	109	-1	49	-9	50
	GRT1{1}	126	43	32	137	0	14	-9	17
	GRT2{1}	135	46	36	147	-1	10	-10	13
L29 +	GRT3{1}	74	30	27	84	-2	25	-9	27
	Gravity{1}	-1	0	58	58	-1	-23	0	24
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	127	-8	-27	130	0	37	-10	39
	Thermal 2{1}	136	-9	-22	138	0	33	-10	34
	Thermal 3{1}	76	-6	-31	82	-1	49	-9	50
	GRT1{1}	126	-8	32	130	0	14	-9	17
	GRT2{1}	135	-8	36	140	-1	10	-10	13
	GRT3{1}	74	-6	27	79	-2	25	-9	27
L21	Gravity{1}	-1	0	-56	56	-1	-20	0	20
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	127	-8	-27	130	0	-38	14	40
	Thermal 2{1}	136	-9	-22	138	0	-29	14	32
	Thermal 3{1}	76	-6	-31	82	-1	-40	9	41
	GRT1{1}	126	-8	-82	151	0	-57	13	59
	GRT2{1}	135	-8	-78	156	-1	-48	14	50
	GRT3{1}	74	-6	-87	115	-2	-59	8	60

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
L21 M-	Gravity{1}	-1	0	-91	91	-1	-24	0	24
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	127	-8	-27	130	0	-39	14	42
	Thermal 2{1}	136	-9	-22	138	0	-30	15	33
	Thermal 3{1}	76	-6	-31	82	-1	-42	9	43
	GRT1{1}	126	-8	-118	173	0	-64	14	65
	GRT2{1}	135	-8	-113	176	-1	-54	15	56
	GRT3{1}	74	-6	-123	144	-2	-66	9	66
L21 M+	Gravity{1}	-1	0	95	95	-1	-24	0	24
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	127	-8	-27	130	0	-39	14	42
	Thermal 2{1}	136	-9	-22	138	0	-30	15	33
	Thermal 3{1}	76	-6	-31	82	-1	-42	9	43
	GRT1{1}	126	-8	68	143	0	-64	14	65
	GRT2{1}	135	-8	73	154	-1	-54	15	56
	GRT3{1}	74	-6	63	98	-2	-66	9	66
L22	Gravity{1}	-1	0	59	59	-1	-19	0	19
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	127	-8	-27	130	0	-41	15	44
	Thermal 2{1}	136	-9	-22	138	0	-31	15	35
	Thermal 3{1}	76	-6	-31	82	-1	-44	9	45
	GRT1{1}	126	-8	33	130	0	-61	14	62
	GRT2{1}	135	-8	37	140	-1	-51	15	53
	GRT3{1}	74	-6	28	80	-2	-63	9	64
L23 N	Gravity{1}	-1	0	52	52	-1	-10	0	10
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	127	-8	-27	130	0	-46	16	48
	Thermal 2{1}	136	-9	-22	138	0	-35	17	39
	Thermal 3{1}	76	-6	-31	82	-1	-49	10	50
	GRT1{1}	126	-8	26	129	0	-56	16	58
	GRT2{1}	135	-8	31	139	-1	-45	17	48
	GRT3{1}	74	-6	21	78	-2	-59	10	60
L23 F	Gravity{1}	-1	0	50	50	1	-8	0	8
	Hydrotest{1}	0	0	0	0	0	0	0	0

	DVI_A_LINE_REV0.OUT							
Thermal 1{1}	127	-8	-27	130	-1	-47	11	48
Thermal 2{1}	136	-9	-22	138	-1	-36	12	38
Thermal 3{1}	76	-6	-31	82	-3	-50	8	51
GRT1{1}	126	-8	23	128	0	-55	11	56
GRT2{1}	135	-8	28	138	1	-44	12	45
GRT3{1}	74	-6	19	77	-1	-58	8	59

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

L24 N	Gravity{1}	-1	0	41	41	12	-8	0	14
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	127	-8	-27	130	-7	-47	-18	51
	Thermal 2{1}	136	-9	-22	138	-6	-36	-20	42
	Thermal 3{1}	76	-6	-31	82	-10	-50	-10	52
	GRT1{1}	126	-8	14	127	5	-55	-18	58
	GRT2{1}	135	-8	19	137	6	-44	-20	49
	GRT3{1}	74	-6	9	75	2	-58	-10	59
L24 F	Gravity{1}	-1	0	39	39	13	-8	0	16
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	127	-8	-27	130	-8	-46	-22	52
	Thermal 2{1}	136	-9	-22	138	-7	-36	-24	43
	Thermal 3{1}	76	-6	-31	82	-11	-50	-12	52
	GRT1{1}	126	-8	13	127	5	-55	-22	59
	GRT2{1}	135	-8	17	137	6	-44	-24	51
	GRT3{1}	74	-6	8	75	2	-58	-12	59
L25	Gravity{1}	-1	0	33	33	17	-12	0	21
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	127	-8	-27	130	-11	-44	-36	58
	Thermal 2{1}	136	-9	-22	138	-9	-33	-39	52
	Thermal 3{1}	76	-6	-31	82	-14	-46	-21	53
	GRT1{1}	126	-8	7	126	6	-56	-36	67
	GRT2{1}	135	-8	11	136	8	-46	-39	60
	GRT3{1}	74	-6	2	75	3	-59	-20	62

DVI_A_LINE_REV0.OUT

L26	Gravity{1}	-1	0	30	30	18	-13	0	22
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	127	-8	-27	130	-12	-43	-41	60
	Thermal 2{1}	136	-9	-22	138	-10	-33	-44	56
	Thermal 3{1}	76	-6	-31	82	-15	-45	-24	53
	GRT1{1}	126	-8	4	126	6	-56	-41	69
	GRT2{1}	135	-8	9	136	8	-46	-44	64
	GRT3{1}	74	-6	-1	75	3	-59	-23	63
L27	Gravity{1}	-1	0	23	23	20	-15	0	25
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	127	-8	-27	130	-14	-41	-51	66
	Thermal 2{1}	136	-9	-22	138	-11	-31	-55	64
	Thermal 3{1}	76	-6	-31	82	-18	-43	-30	55
	GRT1{1}	126	-8	-4	126	6	-56	-50	76
	GRT2{1}	135	-8	1	135	9	-46	-54	72
	GRT3{1}	74	-6	-8	75	2	-58	-29	65

*** Segment L end ***

*** Segment M begin ***

0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
M00	Gravity{1}	0	0	8	8	0	1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-7	14	3	16	1	-1	6	6
	Thermal 2{1}	-5	8	2	10	1	0	4	4
	Thermal 3{1}	25	76	48	94	40	0	-18	44
	GRT1{1}	-7	14	11	19	1	1	6	6
	GRT2{1}	-5	8	10	14	1	1	4	5
	GRT3{1}	25	76	56	98	40	1	-18	44
M01	Gravity{1}	0	0	-1	1	0	1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-7	14	3	16	1	-1	5	5
	Thermal 2{1}	-5	8	2	10	1	0	4	4

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	Thermal 3{1}	25	76	48	94	33	0	-15	36
	GRT1{1}	-7	14	2	16	0	1	5	5
	GRT2{1}	-5	8	1	10	0	1	4	4
	GRT3{1}	25	76	47	93	33	1	-15	36
M02	Gravity{1}	0	0	-3	3	0	1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-7	14	3	16	1	-1	5	5
	Thermal 2{1}	-5	8	2	10	1	0	3	3
	Thermal 3{1}	25	76	48	94	31	0	-13	34
	GRT1{1}	-7	14	0	15	0	1	5	5
	GRT2{1}	-5	8	-1	10	0	1	3	4
	GRT3{1}	25	76	45	92	30	1	-13	33

*** Segment M end ***

*** Segment N begin ***

M02	Gravity{1}	0	0	-3	3	0	1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-7	14	3	16	1	-1	5	5
	Thermal 2{1}	-5	8	2	10	1	0	3	3
	Thermal 3{1}	25	76	48	94	31	0	-13	34
	GRT1{1}	-7	14	0	15	0	1	5	5
	GRT2{1}	-5	8	-1	10	0	1	3	4
	GRT3{1}	25	76	45	92	30	1	-13	33
N01 -	Gravity{1}	0	0	-6	6	1	1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-7	14	3	16	0	-1	3	3
	Thermal 2{1}	-5	8	2	10	0	0	2	3
	Thermal 3{1}	25	76	48	94	22	0	-9	24
	GRT1{1}	-7	14	-3	16	1	1	3	3
	GRT2{1}	-5	8	-4	11	1	1	3	3
	GRT3{1}	25	76	42	90	23	1	-9	24

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GLOBAL FORCES & MOMENTS

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

DVI_A_LINE_REV0.OUT

N01	+	Gravity{1}	0	0	-26	26	1	1	0	1
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	-7	14	3	16	0	-1	3	3
		Thermal 2{1}	-5	8	2	10	0	0	2	3
		Thermal 3{1}	25	76	48	94	22	0	-9	24
		GRT1{1}	-7	14	-23	27	1	1	3	3
		GRT2{1}	-5	8	-24	26	1	1	3	3
		GRT3{1}	25	76	22	83	23	1	-9	24
N01	M-	Gravity{1}	0	0	-41	41	3	1	0	3
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	-7	14	3	16	0	-1	3	3
		Thermal 2{1}	-5	8	2	10	0	0	2	2
		Thermal 3{1}	25	76	48	94	19	0	-7	20
		GRT1{1}	-7	14	-38	41	3	1	3	4
		GRT2{1}	-5	8	-39	40	3	1	2	4
		GRT3{1}	25	76	7	80	22	1	-7	23
N01	M+	Gravity{1}	0	0	42	42	3	1	0	3
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	-7	14	3	16	0	-1	3	3
		Thermal 2{1}	-5	8	2	10	0	0	2	2
		Thermal 3{1}	25	76	48	94	19	0	-7	20
		GRT1{1}	-7	14	45	47	3	1	3	4
		GRT2{1}	-5	8	44	45	3	1	2	4
		GRT3{1}	25	76	90	120	22	1	-7	23
IV05	-	Gravity{1}	0	0	26	26	0	1	0	1
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	-7	14	3	16	0	-1	2	2
		Thermal 2{1}	-5	8	2	10	0	0	2	2
		Thermal 3{1}	25	76	48	94	15	0	-6	16
		GRT1{1}	-7	14	29	33	0	1	2	2
		GRT2{1}	-5	8	28	30	0	1	2	2
		GRT3{1}	25	76	74	109	16	1	-6	17
IV05	+	Gravity{1}	0	0	7	7	0	1	0	1
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	-7	14	3	16	0	-1	2	2
		Thermal 2{1}	-5	8	2	10	0	0	2	2
		Thermal 3{1}	25	76	48	94	15	0	-6	16
		GRT1{1}	-7	14	9	18	0	1	2	2
		GRT2{1}	-5	8	9	13	0	1	2	2
		GRT3{1}	25	76	54	97	16	1	-6	17

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		DVI_A_LINE_REV0.OUT							
	GRT1{1}	-7	14	-18	24	0	1	0	1
	GRT2{1}	-5	8	-19	21	0	1	0	1
	GRT3{1}	25	76	27	85	-1	1	3	4
N03 M-	Gravity{1}	0	0	-38	38	2	1	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-7	14	3	16	-1	-1	0	2
	Thermal 2{1}	-5	8	2	10	-1	0	0	1
	Thermal 3{1}	25	76	48	94	-4	0	5	7
	GRT1{1}	-7	14	-35	39	1	1	-1	1
	GRT2{1}	-5	8	-36	38	2	1	0	2
	GRT3{1}	25	76	10	81	-2	1	5	5

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DVI_A_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
N03 M+	Gravity{1}	0	0	36	36	2	1	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-7	14	3	16	-1	-1	0	2
	Thermal 2{1}	-5	8	2	10	-1	0	0	1
	Thermal 3{1}	25	76	48	94	-4	0	5	7
	GRT1{1}	-7	14	39	42	1	1	-1	1
	GRT2{1}	-5	8	38	39	2	1	0	2
	GRT3{1}	25	76	84	116	-2	1	5	5
CH14 -	Gravity{1}	0	0	19	19	1	1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-7	14	3	16	-2	-1	-1	2
	Thermal 2{1}	-5	8	2	10	-1	0	-1	1
	Thermal 3{1}	25	76	48	94	-7	0	6	9
	GRT1{1}	-7	14	22	27	-1	1	-1	1
	GRT2{1}	-5	8	21	23	0	1	-1	1
	GRT3{1}	25	76	67	104	-6	1	6	9
CH14 +	Gravity{1}	0	0	12	12	1	1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-7	14	3	16	-2	-1	-1	2

DVI_A_LINE_REV0.OUT

	Thermal 2{1}	-5	8	2	10	-1	0	-1	1
	Thermal 3{1}	25	76	48	94	-7	0	6	9
	GRT1{1}	-7	14	15	22	-1	1	-1	1
	GRT2{1}	-5	8	14	17	0	1	-1	1
	GRT3{1}	25	76	60	100	-6	1	6	9
N05 N	Gravity{1}	0	0	9	9	-1	1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-7	14	3	16	-2	-1	-2	3
	Thermal 2{1}	-5	8	2	10	-1	0	-1	2
	Thermal 3{1}	25	76	48	94	-15	0	11	19
	GRT1{1}	-7	14	12	19	-3	1	-2	4
	GRT2{1}	-5	8	11	14	-2	1	-2	3
	GRT3{1}	25	76	57	98	-16	1	10	19
N05 F	Gravity{1}	0	0	8	8	-1	1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-7	14	3	16	-2	0	-2	3
	Thermal 2{1}	-5	8	2	10	-1	0	-1	2
	Thermal 3{1}	25	76	48	94	-15	0	11	19
	GRT1{1}	-7	14	11	19	-3	1	-2	4
	GRT2{1}	-5	8	10	14	-2	1	-2	3
	GRT3{1}	25	76	56	98	-16	1	11	19

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
N06	Gravity{1}	0	0	4	4	-1	1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-7	14	3	16	1	1	-2	2
	Thermal 2{1}	-5	8	2	10	1	1	-1	2
	Thermal 3{1}	25	76	48	94	1	-5	11	12
	GRT1{1}	-7	14	7	17	0	2	-2	3
	GRT2{1}	-5	8	6	12	0	2	-2	3
	GRT3{1}	25	76	52	96	0	-4	11	12

*** Segment N end ***

A13		Gravity{1}	0	0	189	189	0	0	0	0
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	0	0	0	0	0	0	0	0
		Thermal 2{1}	0	0	0	0	0	0	0	0
		Thermal 3{1}	0	0	0	0	0	0	0	0
		GRT1{1}	0	0	189	189	0	0	0	0
		GRT2{1}	0	0	189	189	0	0	0	0
		GRT3{1}	0	0	189	189	0	0	0	0
001 -		Gravity{1}	0	0	187	187	0	0	0	0
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	0	0	0	0	0	0	0	0
		Thermal 2{1}	0	0	0	0	0	0	0	0
		Thermal 3{1}	0	0	0	0	0	0	0	0
		GRT1{1}	0	0	187	187	0	0	0	0
		GRT2{1}	0	0	187	187	0	0	0	0
		GRT3{1}	0	0	187	187	0	0	0	0
001 +		Gravity{1}	0	0	155	155	0	0	0	0
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	0	0	0	0	0	0	0	0
		Thermal 2{1}	0	0	0	0	0	0	0	0
		Thermal 3{1}	0	0	0	0	0	0	0	0
		GRT1{1}	0	0	155	155	0	0	0	0
		GRT2{1}	0	0	155	155	0	0	0	0
		GRT3{1}	0	0	155	155	0	0	0	0
001 M		Gravity{1}	0	0	93	93	0	0	0	0
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	0	0	0	0	0	0	0	0
		Thermal 2{1}	0	0	0	0	0	0	0	0
		Thermal 3{1}	0	0	0	0	0	0	0	0
		GRT1{1}	0	0	93	93	0	0	0	0
		GRT2{1}	0	0	93	93	0	0	0	0
		GRT3{1}	0	0	93	93	0	0	0	0

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DVI_A_LINE_REV0.OUT

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

HV40	Gravity{1}	0	0	31	31	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	31	31	0	0	0	0
	GRT2{1}	0	0	31	31	0	0	0	0
	GRT3{1}	0	0	31	31	0	0	0	0

*** Segment 0 end ***

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DVI_A_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal		Shear	Principal		Total	
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
*** Segment A begin ***									
A00	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	2	-2	0	2	-2	2	129
	Hydrotest{1}	75	26	26	0	75	26	66	270
	Thermal 1{1}	0	14	-14	1	14	-14	14	199
	Thermal 2{1}	0	12	-12	1	12	-12	12	200
	Thermal 3{1}	0	51	-51	0	51	-51	51	4
	GRT1{1}	0	13	-13	1	13	-13	13	206
	GRT2{1}	0	11	-11	1	11	-11	12	209
	GRT3{1}	0	50	-50	0	50	-50	50	5
A01	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	3	-3	0	3	-3	3	134
	Hydrotest{1}	75	26	26	0	75	26	66	270
	Thermal 1{1}	0	24	-24	1	24	-24	25	197
	Thermal 2{1}	0	21	-21	1	21	-21	21	197
	Thermal 3{1}	0	88	-88	0	88	-88	88	4
	GRT1{1}	0	23	-23	1	23	-23	23	204
	GRT2{1}	0	20	-20	1	20	-20	20	206

		DVI_A_LINE_REV0.OUT							
GRT3{1}		0	86	-86	0	86	-86	86	6
A26	SIFI= 2.00 Gravity{1}	0	6	-6	0	6	-6	6	134
	Hydrotest{1}	61	19	19	0	61	19	54	270
	Thermal 1{1}	0	41	-41	1	41	-41	41	195
	Thermal 2{1}	0	36	-36	1	36	-36	36	195
	Thermal 3{1}	0	147	-147	0	147	-147	147	4
	GRT1{1}	0	39	-39	2	39	-39	39	203
	GRT2{1}	0	33	-34	2	33	-34	34	204
	GRT3{1}	0	143	-143	1	143	-143	143	6
A04 N-	SIFI= 1.00 Gravity{1}	0	9	-9	0	9	-9	9	359
	Hydrotest{1}	61	19	19	0	61	19	54	270
	Thermal 1{1}	0	8	-8	1	9	-9	9	105
	Thermal 2{1}	0	10	-11	1	10	-11	11	120
	Thermal 3{1}	0	22	-22	0	22	-22	22	186
	GRT1{1}	0	13	-14	2	14	-14	14	142
	GRT2{1}	0	16	-17	2	17	-17	17	147
	GRT3{1}	0	14	-14	1	14	-14	14	189
A04 N+	SIFI= 1.00 Gravity{1}	0	9	-9	0	9	-9	9	179
	Hydrotest{1}	61	19	19	0	61	19	54	270
	Thermal 1{1}	0	8	-8	1	9	-9	9	285
	Thermal 2{1}	0	10	-11	1	10	-11	11	300
	Thermal 3{1}	0	22	-22	0	22	-22	22	6
	GRT1{1}	0	13	-14	2	14	-14	14	322
	GRT2{1}	0	16	-17	2	17	-17	17	327
	GRT3{1}	0	14	-14	1	14	-14	14	9

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DVI_A_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
								Loc
-----		-----	-----	-----	-----	-----	-----	---
A04 F-	SIFI= 1.00 Gravity{1}	0	5	-2	0	5	-2	5 353
	Hydrotest{1}	61	19	19	0	61	19	54 270
	Thermal 1{1}	0	2	-2	4	6	-5	8 267

DVI_A_LINE_REV0.OUT

	Thermal 2{1}	0	4	-4	5	7	-7	9	211
	Thermal 3{1}	0	28	-27	1	28	-27	28	359
	GRT1{1}	0	5	-3	5	8	-6	10	324
	GRT2{1}	0	4	-1	5	7	-6	9	273
	GRT3{1}	0	33	-29	1	33	-29	33	358
A04 F+	SIFI= 1.00 Gravity{1}	0	5	-2	0	5	-2	5	353
	Hydrotest{1}	61	19	19	0	61	19	54	270
	Thermal 1{1}	0	2	-2	4	6	-5	8	267
	Thermal 2{1}	0	4	-4	5	7	-7	9	211
	Thermal 3{1}	0	28	-27	1	28	-27	28	359
	GRT1{1}	0	5	-3	5	8	-6	10	324
	GRT2{1}	0	4	-1	5	7	-6	9	273
	GRT3{1}	0	33	-29	1	33	-29	33	358
A31	SIFI= 1.00 Gravity{1}	0	4	-2	0	4	-2	4	119
	Hydrotest{1}	61	19	19	0	61	19	54	270
	Thermal 1{1}	0	28	-28	4	29	-29	29	36
	Thermal 2{1}	0	31	-31	5	32	-32	32	33
	Thermal 3{1}	0	29	-27	1	29	-27	29	19
	GRT1{1}	0	30	-28	5	31	-28	31	42
	GRT2{1}	0	33	-30	5	33	-31	34	38
	GRT3{1}	0	29	-26	1	29	-26	29	25
A07 -	SIFI= 1.00 Gravity{1}	0	4	-2	0	4	-2	4	150
	Hydrotest{1}	61	19	19	0	61	19	54	270
	Thermal 1{1}	0	29	-29	4	30	-30	30	234
	Thermal 2{1}	0	32	-32	5	33	-33	33	237
	Thermal 3{1}	0	29	-27	1	29	-28	29	251
	GRT1{1}	0	31	-28	5	31	-29	32	228
	GRT2{1}	0	34	-31	5	34	-32	35	232
	GRT3{1}	0	29	-26	1	29	-26	29	244
A07 +	SIFI= 1.00 Gravity{1}	0	2	-2	2	4	-4	5	176
	Hydrotest{1}	61	19	19	0	61	19	54	270
	Thermal 1{1}	0	26	-26	7	27	-27	28	143
	Thermal 2{1}	0	27	-27	7	29	-29	30	141
	Thermal 3{1}	0	16	-16	7	19	-19	20	169
	GRT1{1}	0	27	-28	4	28	-28	29	145
	GRT2{1}	0	29	-29	5	30	-30	31	143
	GRT3{1}	0	18	-18	5	19	-19	20	170
A28	SIFI= 1.00 SIFO= 1.00								

Gravity{1} DVI_A_LINE_REV0.OUT 0 2 -2 2 4 -4 5 3

0

DVI_A_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----			-----	-----	-----	-----	-----	-----	-----	---
A13	-	Hydrotest{1}	61	19	19	0	61	19	54	270
		Thermal 1{1}	0	24	-24	7	26	-26	27	36
		Thermal 2{1}	0	26	-26	7	28	-28	29	38
		Thermal 3{1}	0	15	-15	7	18	-18	20	10
		GRT1{1}	0	26	-26	4	27	-27	27	34
		GRT2{1}	0	27	-27	5	28	-28	29	36
		GRT3{1}	0	17	-17	5	18	-18	19	9
		SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	11	-11	2	11	-11	11	358
		Hydrotest{1}	61	19	19	0	61	19	54	270
		Thermal 1{1}	0	20	-20	7	22	-22	23	285
		Thermal 2{1}	0	29	-29	7	31	-31	32	297
		Thermal 3{1}	0	14	-14	7	17	-17	19	319
		GRT1{1}	0	25	-25	4	26	-26	26	309
		GRT2{1}	0	35	-36	5	36	-36	37	312
		GRT3{1}	0	23	-23	5	24	-24	25	336
A13	+	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	11	-11	2	11	-11	11	358
		Hydrotest{1}	61	19	19	0	61	19	54	270
		Thermal 1{1}	0	20	-20	7	22	-22	23	285
		Thermal 2{1}	0	29	-29	7	31	-31	32	297
		Thermal 3{1}	0	14	-14	7	17	-17	19	319
		GRT1{1}	0	25	-25	4	26	-26	26	309
		GRT2{1}	0	35	-36	5	36	-36	37	312
		GRT3{1}	0	23	-23	5	24	-24	25	336
A10	N-	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	2	-2	2	4	-4	5	192
		Hydrotest{1}	61	19	19	0	61	19	54	270
		Thermal 1{1}	0	24	-24	7	26	-26	27	251
		Thermal 2{1}	0	35	-35	7	36	-36	37	241
		Thermal 3{1}	0	17	-17	7	20	-20	21	218

GRT1{1}	0	25	-25	4	26	-26	27	247
GRT2{1}	0	36	-36	5	37	-37	37	238
GRT3{1}	0	19	-19	5	20	-20	21	215

Gravity{1}	0	2	-2	2	4	-4	5	282
Hydrotest{1}	61	19	19	0	61	19	54	270
Thermal 1{1}	0	24	-24	7	26	-26	27	341
Thermal 2{1}	0	35	-35	7	36	-36	37	331
Thermal 3{1}	0	17	-17	7	20	-20	21	308
GRT1{1}	0	25	-25	4	26	-26	27	337
GRT2{1}	0	36	-36	5	37	-37	37	328
GRT3{1}	0	19	-19	5	20	-20	21	305

Gravity{1}	0	3	-3	0	3	-3	3	278
Hydrotest{1}	61	19	19	0	61	19	54	270
Thermal 1{1}	0	26	-27	4	27	-27	28	29

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(Stress in N/mm²)

Point	Load	Hoop	Longitudinal		Shear	Principal		Total	
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
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	Thermal 2{1}	0	34	-34	9	36	-37	38	24
	Thermal 3{1}	0	18	-18	7	20	-20	21	53
	GRT1{1}	0	26	-26	4	26	-27	27	23
	GRT2{1}	0	33	-34	9	36	-36	37	20
	GRT3{1}	0	16	-16	7	18	-18	20	46

Gravity{1}	0	3	-3	0	3	-3	3	188
Hydrotest{1}	61	19	19	0	61	19	54	270
Thermal 1{1}	0	26	-27	4	27	-27	28	299
Thermal 2{1}	0	34	-34	9	36	-37	38	294
Thermal 3{1}	0	18	-18	7	20	-20	21	323
GRT1{1}	0	26	-26	4	26	-27	27	293
GRT2{1}	0	33	-34	9	36	-36	37	290
GRT3{1}	0	16	-16	7	18	-18	20	316

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DVI_A_LINE_REV0.OUT									
Gravity{1}	0	13	-13	0	13	-13	13	2	
Hydrotest{1}	61	19	19	0	61	19	54	270	
Thermal 1{1}	0	21	-21	4	22	-22	23	291	
Thermal 2{1}	0	28	-29	9	31	-31	33	283	
Thermal 3{1}	0	13	-13	7	16	-16	18	311	
GRT1{1}	0	28	-29	4	29	-29	30	317	
GRT2{1}	0	34	-34	9	36	-36	37	306	
GRT3{1}	0	24	-24	7	25	-26	27	336	
A33 - SIFI= 1.00 SIFO= 1.00									
Gravity{1}	0	13	-13	0	13	-13	13	293	
Hydrotest{1}	61	19	19	0	61	19	54	270	
Thermal 1{1}	0	13	-14	4	15	-15	16	42	
Thermal 2{1}	0	22	-23	9	25	-26	28	49	
Thermal 3{1}	0	9	-9	7	12	-13	15	44	
GRT1{1}	0	15	-16	4	16	-17	17	350	
GRT2{1}	0	20	-21	9	24	-24	26	15	
GRT3{1}	0	13	-13	7	16	-16	18	332	
A33 + SIFI= 1.00 SIFO= 1.00									
Gravity{1}	0	13	-13	0	13	-13	13	295	
Hydrotest{1}	61	19	19	0	61	19	54	270	
Thermal 1{1}	0	13	-13	2	13	-14	14	29	
Thermal 2{1}	0	7	-8	1	7	-8	8	76	
Thermal 3{1}	0	2	-2	0	2	-2	2	5	
GRT1{1}	0	18	-18	2	18	-18	18	343	
GRT2{1}	0	9	-9	1	9	-9	9	329	
GRT3{1}	0	14	-14	1	14	-14	14	304	
A18 N- SIFI= 1.00 SIFO= 1.00									
Gravity{1}	0	9	-9	0	9	-9	9	9	
Hydrotest{1}	61	19	19	0	61	19	54	270	
Thermal 1{1}	0	10	-11	2	11	-11	11	241	
Thermal 2{1}	0	8	-8	1	8	-8	8	201	
Thermal 3{1}	0	2	-2	0	2	-2	2	246	

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DVI_A_LINE_REV0

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RESULT PAGE 108

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal		Shear	Principal		Total	
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---

DVI_A_LINE_REV0.OUT

GRT1{1}	0	9	-9	2	9	-9	10	297
GRT2{1}	0	2	-2	1	2	-3	3	311
GRT3{1}	0	8	-8	1	8	-8	8	355
A18 N+ SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	9	-9	0	9	-9	9	189
Hydrotest{1}	61	19	19	0	61	19	54	270
Thermal 1{1}	0	10	-11	2	11	-11	11	61
Thermal 2{1}	0	8	-8	1	8	-8	8	21
Thermal 3{1}	0	2	-2	0	2	-2	2	66
GRT1{1}	0	9	-9	2	9	-9	10	117
GRT2{1}	0	2	-2	1	2	-3	3	131
GRT3{1}	0	8	-8	1	8	-8	8	175
A18 F- SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	9	-9	1	9	-9	9	186
Hydrotest{1}	61	19	19	0	61	19	54	270
Thermal 1{1}	0	6	-7	4	9	-9	10	43
Thermal 2{1}	0	8	-8	1	8	-8	8	348
Thermal 3{1}	0	1	-1	1	2	-2	2	346
GRT1{1}	0	5	-6	4	7	-7	8	138
GRT2{1}	0	3	-3	1	3	-3	3	243
GRT3{1}	0	8	-8	0	8	-8	8	189
A18 F+ SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	9	-9	1	9	-9	9	186
Hydrotest{1}	61	19	19	0	61	19	54	270
Thermal 1{1}	0	6	-7	4	9	-9	10	43
Thermal 2{1}	0	8	-8	1	8	-8	8	348
Thermal 3{1}	0	1	-1	1	2	-2	2	346
GRT1{1}	0	5	-6	4	7	-7	8	138
GRT2{1}	0	3	-3	1	3	-3	3	243
GRT3{1}	0	8	-8	0	8	-8	8	189
A21 N- SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	10	-10	1	10	-10	10	186
Hydrotest{1}	61	19	19	0	61	19	54	270
Thermal 1{1}	0	7	-7	4	9	-9	10	187
Thermal 2{1}	0	5	-5	1	5	-5	5	273
Thermal 3{1}	0	0	0	1	1	-1	2	351
GRT1{1}	0	17	-17	4	17	-18	18	187
GRT2{1}	0	11	-11	1	11	-11	11	212
GRT3{1}	0	9	-10	0	9	-10	10	187
A21 N+ SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	10	-10	1	10	-10	10	6
Hydrotest{1}	61	19	19	0	61	19	54	270

	DVI_A_LINE_REV0.OUT							
Thermal 1{1}	0	7	-7	4	9	-9	10	7
Thermal 2{1}	0	5	-5	1	5	-5	5	93
Thermal 3{1}	0	0	0	1	1	-1	2	171
GRT1{1}	0	17	-17	4	17	-18	18	7
GRT2{1}	0	11	-11	1	11	-11	11	32

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DVI_A_LINE_REV0

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
-----	-----	-----	-----	-----	-----	-----	-----	---
	GRT3{1}	0	9	-10	0	9	-10	10 7
A21 F-	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	9	-9	1	9	-9	9 9
	Hydrotest{1}	61	19	19	0	61	19	54 270
	Thermal 1{1}	0	11	-11	1	11	-11	11 311
	Thermal 2{1}	0	2	-3	2	4	-4	5 271
	Thermal 3{1}	0	2	-2	0	2	-2	2 259
	GRT1{1}	0	18	-18	1	18	-18	18 337
	GRT2{1}	0	9	-9	3	10	-10	11 353
	GRT3{1}	0	9	-9	1	9	-9	9 355
A21 F+	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	9	-9	1	9	-9	9 9
	Hydrotest{1}	61	19	19	0	61	19	54 270
	Thermal 1{1}	0	11	-11	1	11	-11	11 311
	Thermal 2{1}	0	2	-3	2	4	-4	5 271
	Thermal 3{1}	0	2	-2	0	2	-2	2 259
	GRT1{1}	0	18	-18	1	18	-18	18 337
	GRT2{1}	0	9	-9	3	10	-10	11 353
	GRT3{1}	0	9	-9	1	9	-9	9 355
A24 N-	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	2	-2	1	2	-2	2 135
	Hydrotest{1}	61	19	19	0	61	19	54 270
	Thermal 1{1}	0	3	-3	1	3	-4	4 273
	Thermal 2{1}	0	3	-3	2	4	-5	5 171
	Thermal 3{1}	0	4	-4	0	4	-4	4 219
	GRT1{1}	0	2	-2	1	3	-3	3 230
	GRT2{1}	0	5	-5	3	6	-7	7 156

DVI_A_LINE_REV0.OUT

GRT3{1}	0	5	-5	1	5	-5	5	190
A24 N+ SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	2	-2	1	2	-2	2	135
Hydrotest{1}	61	19	19	0	61	19	54	270
Thermal 1{1}	0	3	-3	1	3	-4	4	273
Thermal 2{1}	0	3	-3	2	4	-5	5	171
Thermal 3{1}	0	4	-4	0	4	-4	4	219
GRT1{1}	0	2	-2	1	3	-3	3	230
GRT2{1}	0	5	-5	3	6	-7	7	156
GRT3{1}	0	5	-5	1	5	-5	5	190
A24 F- SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	3	-3	1	3	-3	3	22
Hydrotest{1}	61	19	19	0	61	19	54	270
Thermal 1{1}	0	2	-1	1	2	-2	3	36
Thermal 2{1}	0	6	-6	0	6	-6	6	50
Thermal 3{1}	0	3	-3	1	4	-4	4	1
GRT1{1}	0	5	-4	1	5	-4	5	27
GRT2{1}	0	9	-8	1	9	-9	9	42
GRT3{1}	0	6	-6	0	6	-6	6	11

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
-----	-----	-----	-----	-----	-----	-----	-----	---
A24 F+ SIFI= 1.00 SIFO= 1.00 Gravity{1}		0	3	-3	1	3	-3	3
Hydrotest{1}		61	19	19	0	61	19	54
Thermal 1{1}		0	2	-1	1	2	-2	3
Thermal 2{1}		0	6	-6	0	6	-6	6
Thermal 3{1}		0	3	-3	1	4	-4	4
GRT1{1}		0	5	-4	1	5	-4	5
GRT2{1}		0	9	-8	1	9	-9	9
GRT3{1}		0	6	-6	0	6	-6	6
A27 N- SIFI= 1.00 SIFO= 1.00 Gravity{1}		0	4	-3	1	4	-3	4
Hydrotest{1}		61	19	19	0	61	19	54

DVI_A_LINE_REV0.OUT								
Thermal 1{1}	0	14	-14	1	14	-14	14	341
Thermal 2{1}	0	11	-11	0	11	-11	11	8
Thermal 3{1}	0	4	-4	1	4	-4	5	4
GRT1{1}	0	17	-17	1	17	-17	17	348
GRT2{1}	0	15	-14	1	15	-15	15	10
GRT3{1}	0	8	-7	0	8	-7	8	9
A27 N+ SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	4	-3	1	4	-3	4	104
Hydrotest{1}	61	19	19	0	61	19	54	270
Thermal 1{1}	0	14	-14	1	14	-14	14	71
Thermal 2{1}	0	11	-11	0	11	-11	11	98
Thermal 3{1}	0	4	-4	1	4	-4	5	94
GRT1{1}	0	17	-17	1	17	-17	17	78
GRT2{1}	0	15	-14	1	15	-15	15	100
GRT3{1}	0	8	-7	0	8	-7	8	99
A27 F- SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	3	-3	2	3	-3	4	140
Hydrotest{1}	61	19	19	0	61	19	54	270
Thermal 1{1}	0	5	-5	7	10	-10	13	335
Thermal 2{1}	0	2	-2	6	7	-7	10	142
Thermal 3{1}	0	2	-2	2	4	-4	4	78
GRT1{1}	0	2	-2	9	10	-10	15	351
GRT2{1}	0	5	-5	8	10	-10	14	141
GRT3{1}	0	3	-3	4	5	-5	7	16
A27 F+ SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	3	-3	2	3	-3	4	320
Hydrotest{1}	61	19	19	0	61	19	54	270
Thermal 1{1}	0	5	-5	7	10	-10	13	155
Thermal 2{1}	0	2	-2	6	7	-7	10	322
Thermal 3{1}	0	2	-2	2	4	-4	4	258
GRT1{1}	0	2	-2	9	10	-10	15	171
GRT2{1}	0	5	-5	8	10	-10	14	321
GRT3{1}	0	3	-3	4	5	-5	7	196
A29 SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	17	-17	2	17	-17	17	352

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DVI_A_LINE_REV0

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AutoPIPE Plus 9.2.1

RESULT PAGE 111

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

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DVI_A_LINE_REV0.OUT

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
CH01	Hydrotest{1}		61	19	19	0	61	19	54	270
	Thermal 1{1}		0	8	-8	7	12	-12	15	285
	Thermal 2{1}		0	9	-9	6	12	-11	13	301
	Thermal 3{1}		0	3	-3	2	4	-4	5	212
	GRT1{1}		0	21	-21	9	24	-24	26	331
	GRT2{1}		0	23	-23	8	25	-25	27	335
	GRT3{1}		0	19	-19	4	20	-20	20	178
	SIFI= 1.00 Gravity{1}		0	21	-21	2	21	-21	21	354
	Hydrotest{1}		1	0	0	0	1	0	0	270
	Thermal 1{1}		0	11	-11	8	16	-16	18	288
	Thermal 2{1}		0	11	-11	7	14	-14	16	299
	Thermal 3{1}		0	4	-4	2	5	-5	6	165
	GRT1{1}		0	28	-27	10	31	-31	33	332
	GRT2{1}		0	28	-28	9	31	-31	32	336
	GRT3{1}		0	24	-24	4	25	-25	26	172
A32 N-	SIFI= 1.00 Gravity{1}		0	3	-3	2	4	-4	4	81
	Hydrotest{1}		1	0	0	0	1	0	0	270
	Thermal 1{1}		0	2	-1	8	9	-9	14	185
	Thermal 2{1}		0	2	-2	7	8	-8	12	272
	Thermal 3{1}		0	21	-21	2	21	-21	21	95
	GRT1{1}		0	3	-3	10	12	-12	18	114
	GRT2{1}		0	1	-1	9	10	-9	15	65
	GRT3{1}		0	18	-18	4	19	-19	20	98
A32 N+	SIFI= 1.25 Gravity{1}		0	3	-3	2	4	-4	5	351
	Hydrotest{1}		1	0	0	0	1	0	0	270
	Thermal 1{1}		0	2	-2	8	9	-9	14	95
	Thermal 2{1}		0	2	-2	7	8	-8	12	182
	Thermal 3{1}		0	26	-26	2	26	-26	26	5
	GRT1{1}		0	4	-3	10	12	-12	18	24
	GRT2{1}		0	2	-1	9	10	-10	15	335
	GRT3{1}		0	22	-22	4	23	-23	24	8
A32 F-	SIFI= 1.25 Gravity{1}		0	6	-5	0	6	-5	6	312
	Hydrotest{1}		1	0	0	0	1	0	0	270
	Thermal 1{1}		0	20	-20	1	20	-20	20	270
	Thermal 2{1}		0	17	-17	0	17	-17	17	263

DVI_A_LINE_REV0.OUT									
Thermal 3{1}	0	27	-28	1	27	-28	28	12	
GRT1{1}	0	25	-24	1	25	-24	25	278	
GRT2{1}	0	21	-21	0	21	-21	21	275	
GRT3{1}	0	25	-25	1	25	-25	25	23	
A32 F+ SIFI= 1.00 SIFO= 1.00									
Gravity{1}	0	4	-4	0	4	-4	4	42	
Hydrotest{1}	1	0	0	0	1	0	0	270	
Thermal 1{1}	0	16	-16	1	16	-16	16	360	

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total				
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc	

A34	- Thermal 2{1}	0	14	-13	0	14	-13	14	353	
	Thermal 3{1}	0	22	-22	1	22	-22	22	102	
	GRT1{1}	0	20	-19	1	20	-19	20	8	
	GRT2{1}	0	17	-17	0	17	-17	17	5	
	GRT3{1}	0	20	-20	1	20	-20	20	113	
	- SIFI= 1.00 Gravity{1}	0	3	-3	0	3	-3	3	245	
	SIFO= 1.00 Hydrotest{1}	1	0	0	0	1	0	0	270	
	Thermal 1{1}	0	16	-16	1	16	-16	16	310	
	Thermal 2{1}	0	13	-13	0	13	-13	13	315	
	Thermal 3{1}	0	22	-22	1	22	-22	22	204	
	GRT1{1}	0	17	-17	1	18	-17	18	300	
	GRT2{1}	0	15	-14	0	15	-14	15	303	
	GRT3{1}	0	19	-20	1	19	-20	20	198	
	A34	+ SIFI= 1.00 Gravity{1}	0	3	-3	1	4	-3	4	273
		SIFO= 1.00 Hydrotest{1}	1	0	0	0	1	0	0	270
Thermal 1{1}		0	16	-15	0	16	-15	16	271	
Thermal 2{1}		0	12	-12	0	12	-12	12	283	
Thermal 3{1}		0	13	-14	2	14	-14	14	219	
GRT1{1}		0	19	-19	1	19	-19	19	272	
GRT2{1}		0	15	-15	1	15	-15	15	281	
GRT3{1}		0	12	-12	3	13	-13	13	207	

DVI_A_LINE_REV0.OUT									
A35	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	2	-2	1	2	-2	3 44
	Hydrotest{1}		1	0	0	0	1	0	0 270
	Thermal 1{1}		0	14	-14	0	14	-14	14 259
	Thermal 2{1}		0	9	-9	0	9	-9	9 253
	Thermal 3{1}		0	21	-21	2	21	-22	22 102
	GRT1{1}		0	12	-12	1	12	-12	12 264
	GRT2{1}		0	7	-7	1	7	-7	7 260
	GRT3{1}		0	20	-20	3	20	-21	21 106
A39 -	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	2	-2	1	3	-3	3 324
	Hydrotest{1}		1	0	0	0	1	0	0 270
	Thermal 1{1}		0	14	-14	0	14	-14	14 102
	Thermal 2{1}		0	9	-9	0	9	-9	9 109
	Thermal 3{1}		0	21	-22	2	21	-22	22 258
	GRT1{1}		0	13	-13	1	13	-13	13 95
	GRT2{1}		0	8	-7	1	8	-7	8 99
	GRT3{1}		0	20	-21	3	21	-21	21 252
A39 +	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	2	-2	1	3	-3	3 324
	Hydrotest{1}		1	0	0	0	1	0	0 270
	Thermal 1{1}		0	14	-14	0	14	-14	14 102
	Thermal 2{1}		0	9	-9	0	9	-9	9 109
	Thermal 3{1}		0	21	-22	2	21	-22	22 258

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc

	GRT1{1}	0	13	-13	1	13	-13	13 95
	GRT2{1}	0	8	-7	1	8	-7	8 99
	GRT3{1}	0	20	-21	3	21	-21	21 252
A36	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	3	-2	1	3	-3 30
	Hydrotest{1}		1	0	0	0	1	0 270
	Thermal 1{1}		0	14	-14	0	14	-14 258
	Thermal 2{1}		0	9	-9	0	9	-9 251

		DVI_A_LINE_REV0.OUT						
	Thermal 3{1}	0	19	-20	2	20	-20	20 107
	GRT1{1}	0	12	-12	1	12	-12	12 266
	GRT2{1}	0	7	-7	1	7	-7	7 264
	GRT3{1}	0	19	-19	3	19	-20	20 114
A37	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	20	-19	1	20	-19	20 1
	Hydrotest{1}	1	0	0	0	1	0	0 270
	Thermal 1{1}	0	3	-3	0	3	-3	3 211
	Thermal 2{1}	0	3	-3	0	3	-3	3 207
	Thermal 3{1}	0	47	-48	2	47	-48	48 224
	GRT1{1}	0	17	-17	1	17	-17	17 355
	GRT2{1}	0	17	-17	1	17	-17	17 357
	GRT3{1}	0	63	-63	3	63	-63	63 212
A58	- SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	21	-20	1	21	-20	21 179
	Hydrotest{1}	1	0	0	0	1	0	0 270
	Thermal 1{1}	0	3	-3	0	3	-3	3 336
	Thermal 2{1}	0	3	-3	0	3	-3	3 338
	Thermal 3{1}	0	49	-50	2	50	-50	50 315
	GRT1{1}	0	18	-18	1	18	-18	18 183
	GRT2{1}	0	18	-18	1	18	-18	18 182
	GRT3{1}	0	66	-66	3	66	-66	66 327
A58	+ SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	22	-22	0	22	-22	22 179
	Hydrotest{1}	1	0	0	0	1	0	0 270
	Thermal 1{1}	0	2	-2	1	2	-2	3 61
	Thermal 2{1}	0	2	-2	0	2	-2	2 45
	Thermal 3{1}	0	32	-32	4	33	-33	33 324
	GRT1{1}	0	21	-21	1	21	-21	21 174
	GRT2{1}	0	21	-21	1	21	-21	21 175
	GRT3{1}	0	52	-52	4	52	-52	52 338
A38	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	20	-20	0	21	-20	21 1
	Hydrotest{1}	1	0	0	0	1	0	0 270
	Thermal 1{1}	0	2	-2	1	2	-2	3 122
	Thermal 2{1}	0	2	-2	0	2	-2	2 137
	Thermal 3{1}	0	31	-31	4	32	-32	32 215
	GRT1{1}	0	20	-19	1	20	-19	20 7
	GRT2{1}	0	19	-19	1	19	-19	19 5

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
A40 N-	GRT3{1}		0	49	-49	4	50	-50	50	202
	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	9	-9	0	9	-9	9	181
	Hydrotest{1}		1	0	0	0	1	0	0	270
	Thermal 1{1}		0	3	-3	1	4	-3	4	172
	Thermal 2{1}		0	3	-2	0	3	-3	3	171
	Thermal 3{1}		0	11	-11	4	12	-12	13	182
	GRT1{1}		0	12	-12	1	13	-12	13	179
	GRT2{1}		0	12	-11	1	12	-12	12	179
GRT3{1}		0	2	-2	4	5	-5	8	185	
A40 N+	SIFI= 1.25									
	Gravity{1}	SIFO= 1.25	0	11	-11	0	11	-11	11	1
	Hydrotest{1}		1	0	0	0	1	0	0	270
	Thermal 1{1}		0	4	-4	1	4	-4	4	351
	Thermal 2{1}		0	3	-3	0	3	-3	3	351
	Thermal 3{1}		0	13	-14	4	15	-15	15	3
	GRT1{1}		0	16	-15	1	16	-15	16	358
	GRT2{1}		0	15	-14	1	15	-14	15	359
	GRT3{1}		0	2	-2	4	6	-6	8	10
A40 F-	SIFI= 1.25									
	Gravity{1}	SIFO= 1.25	0	12	-12	0	12	-12	12	357
	Hydrotest{1}		1	0	0	0	1	0	0	270
	Thermal 1{1}		0	5	-5	0	5	-5	5	333
	Thermal 2{1}		0	3	-3	0	3	-3	3	339
	Thermal 3{1}		0	16	-16	0	16	-16	16	218
	GRT1{1}		0	17	-16	0	17	-16	17	351
	GRT2{1}		0	15	-15	0	15	-15	15	353
	GRT3{1}		0	11	-10	0	11	-10	11	268
A40 F+	SIFI= 1.00									
	Gravity{1}	SIFO= 1.00	0	10	-9	0	10	-10	10	357
	Hydrotest{1}		1	0	0	0	1	0	0	270
	Thermal 1{1}		0	4	-4	0	4	-4	4	333
	Thermal 2{1}		0	3	-3	0	3	-3	3	339
	Thermal 3{1}		0	13	-12	0	13	-12	13	218
	GRT1{1}		0	13	-13	0	13	-13	13	351

			DVI_A_LINE_REV0.OUT						
	GRT2{1}		0	12	-12	0	12	-12	12 353
	GRT3{1}		0	9	-8	0	9	-8	9 268
A43	SIFI= 2.00	SIFO= 2.00							
	Gravity{1}		0	20	-19	0	20	-19	20 357
	Hydrotest{1}		1	0	0	0	1	0	0 270
	Thermal 1{1}		0	7	-7	0	7	-7	7 333
	Thermal 2{1}		0	5	-5	0	5	-5	5 339
	Thermal 3{1}		0	25	-25	0	25	-25	25 218
	GRT1{1}		0	26	-26	0	26	-26	26 351
	GRT2{1}		0	24	-24	0	24	-24	24 353
	GRT3{1}		0	17	-16	0	17	-16	17 268

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal	Shear	Principal	Total	
name	combination		Stress	Max	Min	Max	Min	Stress Loc
A44	SIFI= 2.00	SIFO= 2.00						
	Gravity{1}		0	35	-34	0	35	-34 35 357
	Hydrotest{1}		0	0	0	0	0	0 270
	Thermal 1{1}		0	13	-13	0	13	-13 13 333
	Thermal 2{1}		0	9	-9	0	9	-9 9 339
	Thermal 3{1}		0	42	-42	0	42	-42 42 215
	GRT1{1}		0	47	-46	0	47	-46 47 351
	GRT2{1}		0	43	-43	0	43	-43 43 354
	GRT3{1}		0	26	-26	0	26	-26 26 270
A47	SIFI= 1.00	SIFO= 1.00						
	Gravity{1}		0	3	-3	0	3	-3 3 154
	Hydrotest{1}		0	0	0	0	0	0 270
	Thermal 1{1}		0	5	-5	0	5	-5 5 170
	Thermal 2{1}		0	4	-4	0	4	-4 4 170
	Thermal 3{1}		0	42	-41	0	42	-41 42 69
	GRT1{1}		0	8	-7	0	8	-7 8 164
	GRT2{1}		0	6	-6	0	6	-6 6 164
	GRT3{1}		0	42	-42	0	42	-42 42 72
A45 N-	SIFI= 1.00	SIFO= 1.00						
	Gravity{1}		0	10	-10	0	10	-10 10 61
	Hydrotest{1}		0	0	0	0	0	0 270

DVI_A_LINE_REV0.OUT

Thermal 1{1}	0	2	-2	0	2	-2	2	103
Thermal 2{1}	0	1	-1	0	1	-1	1	104
Thermal 3{1}	0	11	-11	0	11	-11	11	62
GRT1{1}	0	8	-8	0	8	-8	8	52
GRT2{1}	0	9	-9	0	9	-9	9	56
GRT3{1}	0	1	-1	0	1	-1	2	67
A45 N+ SIFI= 1.26 SIF0= 1.26								
Gravity{1}	0	12	-12	0	12	-12	12	331
Hydrotest{1}	0	0	0	0	0	0	0	270
Thermal 1{1}	0	3	-3	0	3	-3	3	13
Thermal 2{1}	0	2	-2	0	2	-2	2	14
Thermal 3{1}	0	14	-14	0	14	-14	14	332
GRT1{1}	0	11	-11	0	11	-11	11	322
GRT2{1}	0	11	-11	0	11	-11	11	326
GRT3{1}	0	2	-1	0	2	-1	2	337
A45 F- SIFI= 1.26 SIF0= 1.26								
Gravity{1}	0	11	-11	2	11	-11	12	2
Hydrotest{1}	0	0	0	0	0	0	0	270
Thermal 1{1}	0	3	-3	0	3	-3	3	21
Thermal 2{1}	0	2	-2	0	2	-2	2	27
Thermal 3{1}	0	11	-11	2	11	-11	12	178
GRT1{1}	0	8	-9	3	9	-9	10	357
GRT2{1}	0	9	-10	2	10	-10	10	358
GRT3{1}	0	1	-1	0	1	-1	1	74
A45 F+ SIFI= 1.00 SIF0= 1.00								
Gravity{1}	0	9	-9	2	9	-9	10	2

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	Hydrotest{1}	0	0	0	0	0	0	0	270
	Thermal 1{1}	0	2	-2	0	2	-2	2	21
	Thermal 2{1}	0	1	-1	0	1	-1	1	27
	Thermal 3{1}	0	8	-9	2	9	-9	10	178
	GRT1{1}	0	7	-7	3	8	-8	8	357

			DVI_A_LINE_REV0.OUT					
	GRT2{1}		0	7	-8	2	8	-8 9 358
	GRT3{1}		0	1	-1	0	1	-1 1 74
A46	SIFI= 1.00 SIF0= 1.00 Gravity{1}		0	16	-16	2	16	-16 16 187
	Hydrotest{1}		0	0	0	0	0	0 270
	Thermal 1{1}		0	5	-5	0	5	-5 5 221
	Thermal 2{1}		0	3	-3	0	3	-3 3 230
	Thermal 3{1}		0	33	-33	2	33	-33 33 344
	GRT1{1}		0	12	-12	3	12	-12 12 172
	GRT2{1}		0	13	-13	2	14	-14 14 177
	GRT3{1}		0	19	-20	0	19	-20 20 325
CH05	SIFI= 1.00 SIF0= 1.00 Gravity{1}		0	15	-16	2	16	-16 16 185
	Hydrotest{1}		0	0	0	0	0	0 270
	Thermal 1{1}		0	5	-5	0	5	-5 5 221
	Thermal 2{1}		0	3	-3	0	3	-3 3 229
	Thermal 3{1}		0	34	-34	2	34	-34 35 345
	GRT1{1}		0	12	-12	3	12	-12 12 170
	GRT2{1}		0	13	-13	2	14	-14 14 175
	GRT3{1}		0	20	-20	0	20	-20 20 330
OR9	SIFI= 1.20 SIF0= 1.20 Gravity{1}		0	10	-10	2	10	-10 11 177
	Hydrotest{1}		0	0	0	0	0	0 270
	Thermal 1{1}		0	4	-4	0	4	-4 4 222
	Thermal 2{1}		0	3	-3	0	3	-3 3 230
	Thermal 3{1}		0	36	-36	2	36	-37 37 349
	GRT1{1}		0	7	-7	3	8	-8 9 152
	GRT2{1}		0	8	-8	2	9	-9 9 161
	GRT3{1}		0	26	-27	0	26	-27 27 347
A48	SIFI= 1.00 SIF0= 1.00 Gravity{1}		0	10	-10	2	10	-10 11 151
	Hydrotest{1}		0	0	0	0	0	0 270
	Thermal 1{1}		0	0	0	0	0	0 9
	Thermal 2{1}		0	0	0	0	0	0 2
	Thermal 3{1}		0	22	-22	2	22	-22 22 5
	GRT1{1}		0	10	-10	3	10	-11 11 152
	GRT2{1}		0	10	-10	2	10	-10 11 152
	GRT3{1}		0	15	-15	0	15	-15 15 26
IV07	SIFI= 1.00 SIF0= 1.00 Gravity{1}		0	8	-8	2	9	-9 9 138
	Hydrotest{1}		0	0	0	0	0	0 270
	Thermal 1{1}		0	1	-1	0	1	-1 1 33

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
		Thermal 2{1}	0	1	-1	0	1	-1	1	38
		Thermal 3{1}	0	18	-19	2	19	-19	19	12
		GRT1{1}	0	8	-8	3	9	-9	10	145
		GRT2{1}	0	8	-8	2	9	-9	9	142
		GRT3{1}	0	15	-15	0	15	-15	15	37
A50 N-	SIFI= 1.00	SIFO= 1.00								
		Gravity{1}	0	5	-5	2	6	-6	7	93
		Hydrotest{1}	0	0	0	0	0	0	0	270
		Thermal 1{1}	0	1	-1	0	1	-1	1	38
		Thermal 2{1}	0	1	-1	0	1	-1	1	43
		Thermal 3{1}	0	15	-15	2	15	-15	15	18
		GRT1{1}	0	5	-5	3	6	-6	7	102
		GRT2{1}	0	5	-5	2	6	-6	7	98
		GRT3{1}	0	17	-17	0	17	-17	17	36
A50 N+	SIFI= 1.26	SIFO= 1.26								
		Gravity{1}	0	7	-7	2	7	-7	8	3
		Hydrotest{1}	0	0	0	0	0	0	0	270
		Thermal 1{1}	0	1	-1	0	1	-1	1	308
		Thermal 2{1}	0	1	-1	0	1	-1	1	313
		Thermal 3{1}	0	18	-19	2	19	-19	19	288
		GRT1{1}	0	6	-6	3	7	-7	8	12
		GRT2{1}	0	6	-6	2	7	-7	8	8
		GRT3{1}	0	21	-21	0	21	-21	21	306
A50 F-	SIFI= 1.26	SIFO= 1.26								
		Gravity{1}	0	8	-8	2	8	-8	8	31
		Hydrotest{1}	0	0	0	0	0	0	0	270
		Thermal 1{1}	0	1	-1	0	1	-1	1	306
		Thermal 2{1}	0	1	-1	0	1	-1	1	309
		Thermal 3{1}	0	17	-18	3	18	-18	18	289
		GRT1{1}	0	8	-8	2	8	-8	8	40
		GRT2{1}	0	8	-8	2	8	-8	8	36
		GRT3{1}	0	17	-18	5	19	-19	19	314

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A50 F+ SIFI= 1.00 SIFO= 1.00

Gravity{1}	0	6	-6	2	6	-7	7	121
Hydrotest{1}	0	0	0	0	0	0	0	270
Thermal 1{1}	0	1	-1	0	1	-1	1	36
Thermal 2{1}	0	1	-1	0	1	-1	1	39
Thermal 3{1}	0	14	-14	3	14	-15	15	19
GRT1{1}	0	6	-6	2	6	-6	7	130
GRT2{1}	0	6	-6	2	6	-6	7	126
GRT3{1}	0	14	-14	5	15	-15	16	44

A51 N- SIFI= 1.00 SIFO= 1.00

Gravity{1}	0	8	-8	2	8	-8	9	7
Hydrotest{1}	0	0	0	0	0	0	0	270
Thermal 1{1}	0	0	0	0	0	0	0	18
Thermal 2{1}	0	0	0	0	0	0	0	33
Thermal 3{1}	0	5	-5	3	7	-7	8	267

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
								Loc
	GRT1{1}	0	8	-8	2	8	-8	8
	GRT2{1}	0	8	-8	2	8	-8	8
	GRT3{1}	0	9	-9	5	11	-11	12
								331
A51 N+	SIFI= 1.26							
	Gravity{1}	0	10	-10	2	11	-11	11
	Hydrotest{1}	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0
	Thermal 3{1}	0	7	-7	3	8	-8	9
	GRT1{1}	0	10	-10	2	10	-10	10
	GRT2{1}	0	10	-10	2	10	-10	10
	GRT3{1}	0	11	-11	5	13	-13	14
								61
A51 F-	SIFI= 1.26							
	Gravity{1}	0	10	-10	2	11	-11	11
	Hydrotest{1}	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0
								118

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Thermal 3{1}	0	8	-9	2	9	-9	10	36
GRT1{1}	0	10	-10	2	10	-10	10	96
GRT2{1}	0	10	-10	2	10	-10	11	96
GRT3{1}	0	16	-17	1	16	-17	17	69
A51 F+ SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	8	-8	2	9	-9	9	6
Hydrotest{1}	0	0	0	0	0	0	0	270
Thermal 1{1}	0	0	0	0	0	0	0	12
Thermal 2{1}	0	0	0	0	0	0	0	28
Thermal 3{1}	0	7	-7	2	7	-8	8	306
GRT1{1}	0	8	-8	2	8	-8	9	6
GRT2{1}	0	8	-8	2	8	-8	9	6
GRT3{1}	0	13	-13	1	13	-13	13	339
A52 N- SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	11	-11	2	11	-11	11	182
Hydrotest{1}	0	0	0	0	0	0	0	270
Thermal 1{1}	0	1	-1	0	1	-1	1	180
Thermal 2{1}	0	0	0	0	0	0	0	180
Thermal 3{1}	0	28	-28	2	28	-28	28	179
GRT1{1}	0	10	-10	2	10	-10	10	182
GRT2{1}	0	10	-10	2	10	-10	11	182
GRT3{1}	0	38	-39	1	38	-39	39	180
A52 N+ SIFI= 1.26 SIFO= 1.26								
Gravity{1}	0	13	-13	2	14	-14	14	2
Hydrotest{1}	0	0	0	0	0	0	0	270
Thermal 1{1}	0	1	-1	0	1	-1	1	360
Thermal 2{1}	0	1	-1	0	1	-1	1	360
Thermal 3{1}	0	35	-35	2	35	-36	36	359
GRT1{1}	0	12	-12	2	12	-12	13	2
GRT2{1}	0	13	-13	2	13	-13	13	2

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal		Shear	Principal		Total	
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc

	GRT3{1}	0	49	-49	1	49	-49	49	0

DVI_A_LINE_REV0.OUT

A52 F-	SIFI= 1.26	SIFO= 1.26							
	Gravity{1}		0	15	-15	0	15	-15	15 343
	Hydrotest{1}		0	0	0	0	0	0	0 270
	Thermal 1{1}		0	1	-1	0	1	-1	1 1
	Thermal 2{1}		0	1	-1	0	1	-1	1 357
	Thermal 3{1}		0	36	-36	0	36	-36	36 10
	GRT1{1}		0	13	-14	0	13	-14	14 341
	GRT2{1}		0	14	-14	0	14	-14	14 342
	GRT3{1}		0	49	-49	0	49	-49	49 2
A52 F+	SIFI= 1.00	SIFO= 1.00							
	Gravity{1}		0	11	-12	0	11	-12	12 253
	Hydrotest{1}		0	0	0	0	0	0	0 270
	Thermal 1{1}		0	1	-1	0	1	-1	1 271
	Thermal 2{1}		0	0	0	0	0	0	0 267
	Thermal 3{1}		0	28	-28	0	28	-28	28 280
	GRT1{1}		0	11	-11	0	11	-11	11 251
	GRT2{1}		0	11	-11	0	11	-11	11 252
	GRT3{1}		0	39	-39	0	39	-39	39 272
A49	SIFI= 1.00	SIFO= 1.00							
	Gravity{1}		0	2	-3	0	2	-3	3 162
	Hydrotest{1}		0	0	0	0	0	0	0 270
	Thermal 1{1}		0	0	0	0	0	0	0 81
	Thermal 2{1}		0	0	0	0	0	0	0 75
	Thermal 3{1}		0	7	-8	0	7	-8	8 94
	GRT1{1}		0	2	-3	0	2	-3	3 172
	GRT2{1}		0	2	-3	0	2	-3	3 167
	GRT3{1}		0	8	-9	0	8	-9	9 109
A53 N-	SIFI= 1.00	SIFO= 1.00							
	Gravity{1}		0	0	-3	0	0	-3	3 346
	Hydrotest{1}		0	0	0	0	0	0	0 270
	Thermal 1{1}		0	0	0	0	0	0	0 263
	Thermal 2{1}		0	0	0	0	0	0	0 257
	Thermal 3{1}		0	3	-3	0	3	-3	3 280
	GRT1{1}		0	0	-3	0	0	-3	3 354
	GRT2{1}		0	0	-3	0	0	-3	3 350
	GRT3{1}		0	3	-6	0	3	-6	6 297
A53 N+	SIFI= 1.26	SIFO= 1.26							
	Gravity{1}		0	0	-3	0	0	-3	3 346
	Hydrotest{1}		0	0	0	0	0	0	0 270
	Thermal 1{1}		0	0	0	0	0	0	0 263
	Thermal 2{1}		0	0	0	0	0	0	0 257
	Thermal 3{1}		0	4	-4	0	4	-4	4 280
	GRT1{1}		0	0	-3	0	0	-3	3 354

GRT2{1}	0	0	-3	0	0	-3	3	350
GRT3{1}	0	4	-7	0	4	-7	7	297

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		DVI_A_LINE_REV0.OUT							
	Hydrotest{1}	1	0	0	0	1	0	1	270
	Thermal 1{1}	0	0	0	0	0	0	0	4
	Thermal 2{1}	0	0	0	0	0	0	0	4
	Thermal 3{1}	0	1	-1	0	1	-1	1	180
	GRT1{1}	0	0	0	0	0	0	0	352
	GRT2{1}	0	0	0	0	0	0	0	351
	GRT3{1}	0	1	-1	0	1	-1	1	188
A56	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	0	0	0	0	0	0	355
	Hydrotest{1}	1	0	0	0	1	0	1	270
	Thermal 1{1}	0	0	0	0	0	0	0	4
	Thermal 2{1}	0	0	0	0	0	0	0	4
	Thermal 3{1}	0	1	-1	0	1	-1	1	182
	GRT1{1}	0	1	-1	0	1	-1	1	356
	GRT2{1}	0	0	0	0	0	0	0	356
	GRT3{1}	0	0	0	0	0	0	1	189

*** Segment A end ***

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal		Shear	Principal		Total	
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---

*** Segment E begin ***

A39	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	0	0	0	0	0	0	270
	Hydrotest{1}	1	0	0	0	1	0	0	270
	Thermal 1{1}	0	0	0	0	0	0	0	270
	Thermal 2{1}	0	0	0	0	0	0	0	270
	Thermal 3{1}	0	0	0	0	0	0	0	270
	GRT1{1}	0	0	0	0	0	0	0	270
	GRT2{1}	0	0	0	0	0	0	0	270
	GRT3{1}	0	0	0	0	0	0	0	270
E01	SIFI= 2.30 SIFO= 2.30 Gravity{1}	0	0	0	0	0	0	0	270
	Hydrotest{1}	1	0	0	0	1	0	0	270
	Thermal 1{1}	0	0	0	0	0	0	0	270
	Thermal 2{1}	0	0	0	0	0	0	0	270

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Thermal 3{1}	0	0	0	0	0	0	0	270
GRT1{1}	0	0	0	0	0	0	0	270
GRT2{1}	0	0	0	0	0	0	0	270
GRT3{1}	0	0	0	0	0	0	0	270

*** Segment E end ***

*** Segment F begin ***

A34	SIFI= 1.00	SIFO= 1.00	0	4	-4	0	4	-4	4	225
	Gravity{1}									
	Hydrotest{1}		0	0	0	0	0	0	0	270
	Thermal 1{1}		0	19	-18	3	19	-19	19	193
	Thermal 2{1}		0	13	-12	2	13	-13	13	184
	Thermal 3{1}		0	20	-21	0	20	-21	21	328
	GRT1{1}		0	15	-15	3	16	-16	16	4
	GRT2{1}		0	10	-10	2	10	-10	11	347
	GRT3{1}		0	20	-20	0	20	-20	20	316
F01	SIFI= 1.00	SIFO= 1.00	0	4	-4	0	4	-4	4	235
	Gravity{1}									
	Hydrotest{1}		0	0	0	0	0	0	0	270
	Thermal 1{1}		0	18	-18	3	19	-19	19	257
	Thermal 2{1}		0	12	-12	2	13	-13	13	266
	Thermal 3{1}		0	20	-20	0	20	-20	20	122
	GRT1{1}		0	15	-15	3	15	-16	16	83
	GRT2{1}		0	9	-9	2	10	-10	10	98
	GRT3{1}		0	19	-19	0	19	-19	19	132
F02 N-	SIFI= 1.00	SIFO= 1.00	0	8	-8	0	8	-8	8	340
	Gravity{1}									
	Hydrotest{1}		0	0	0	0	0	0	0	270
	Thermal 1{1}		0	10	-10	3	11	-11	12	253
	Thermal 2{1}		0	7	-7	2	8	-7	8	263

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	Thermal 3{1}	0	14	-14	0	14	-14	14	128
	GRT1{1}	0	13	-13	3	14	-14	14	33

			DVI_A_LINE_REV0.OUT					
	GRT2{1}		0	9	-9	2	10	-10 10 25
	GRT3{1}		0	8	-8	0	8	-8 8 97
F02 N+	SIFI= 1.05 Gravity{1}	SIFO= 1.05	0	9	-9	0	9	-9 9 160
	Hydrotest{1}		0	0	0	0	0	0 270
	Thermal 1{1}		0	11	-11	3	12	-12 12 73
	Thermal 2{1}		0	7	-7	2	8	-8 8 83
	Thermal 3{1}		0	15	-15	0	15	-15 15 308
	GRT1{1}		0	13	-14	3	14	-14 15 213
	GRT2{1}		0	10	-10	2	10	-10 11 205
	GRT3{1}		0	9	-9	0	9	-9 9 277
F02 F-	SIFI= 1.05 Gravity{1}	SIFO= 1.05	0	9	-9	1	9	-9 9 345
	Hydrotest{1}		0	0	0	0	0	0 270
	Thermal 1{1}		0	13	-13	0	13	-13 13 75
	Thermal 2{1}		0	8	-8	0	8	-8 8 84
	Thermal 3{1}		0	13	-13	3	14	-14 14 313
	GRT1{1}		0	15	-15	1	15	-15 15 41
	GRT2{1}		0	11	-11	1	11	-11 11 34
	GRT3{1}		0	7	-7	2	8	-8 8 276
F02 F+	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	8	-8	1	8	-8 8 165
	Hydrotest{1}		0	0	0	0	0	0 270
	Thermal 1{1}		0	12	-12	0	12	-12 12 255
	Thermal 2{1}		0	8	-8	0	8	-8 8 264
	Thermal 3{1}		0	13	-13	3	13	-13 14 133
	GRT1{1}		0	15	-14	1	15	-15 15 221
	GRT2{1}		0	11	-11	1	11	-11 11 214
	GRT3{1}		0	7	-7	2	8	-8 8 96
F03	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	2	-2	1	3	-3 3 44
	Hydrotest{1}		0	0	0	0	0	0 270
	Thermal 1{1}		0	9	-9	0	9	-9 9 79
	Thermal 2{1}		0	6	-6	0	6	-6 6 87
	Thermal 3{1}		0	12	-12	3	13	-13 13 325
	GRT1{1}		0	11	-11	1	11	-11 11 72
	GRT2{1}		0	8	-8	1	8	-8 8 76
	GRT3{1}		0	12	-12	2	12	-12 12 313
CH12	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	4	-4	1	4	-4 4 14
	Hydrotest{1}		0	0	0	0	0	0 270
	Thermal 1{1}		0	10	-10	0	10	-10 10 78
	Thermal 2{1}		0	7	-7	0	7	-7 7 87

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Thermal 3{1}	0	12	-12	3	13	-13	13	321
GRT1{1}	0	12	-12	1	12	-12	12	61

0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
								Loc
	GRT2{1}	0	9	-9	1	9	-9	9 61
	GRT3{1}	0	10	-11	2	11	-11	11 302
C020	SIFI= 1.20 SIFO= 1.20 Gravity{1}	0	16	-16	1	16	-16	16 337
	Hydrotest{1}	0	0	0	0	0	0	0 270
	Thermal 1{1}	0	5	-5	0	5	-5	5 78
	Thermal 2{1}	0	4	-4	0	4	-4	4 88
	Thermal 3{1}	0	11	-11	3	12	-12	12 271
	GRT1{1}	0	16	-16	1	16	-16	16 356
	GRT2{1}	0	15	-15	1	15	-15	15 350
	GRT3{1}	0	15	-15	2	15	-16	16 200
F05	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	52	-51	1	52	-52	52 347
	Hydrotest{1}	0	0	0	0	0	0	0 270
	Thermal 1{1}	0	1	-1	0	1	-1	1 261
	Thermal 2{1}	0	1	-1	0	1	-1	1 262
	Thermal 3{1}	0	14	-14	3	15	-15	15 230
	GRT1{1}	0	52	-52	1	52	-52	52 346
	GRT2{1}	0	52	-52	1	52	-52	52 347
	GRT3{1}	0	60	-60	2	60	-60	60 180
IV03	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	52	-52	1	52	-52	52 348
	Hydrotest{1}	0	0	0	0	0	0	0 270
	Thermal 1{1}	0	2	-2	0	2	-2	2 260
	Thermal 2{1}	0	1	-1	0	1	-1	1 265
	Thermal 3{1}	0	13	-14	3	14	-14	14 224
	GRT1{1}	0	52	-52	1	52	-52	52 346
	GRT2{1}	0	52	-52	1	52	-52	52 346
	GRT3{1}	0	61	-61	2	61	-61	61 178

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F07 N- SIFI= 1.00 SIFO= 1.00
Gravity{1}

0	8	-8	1	8	-8	8	159
Hydrotest{1}	0	0	0	0	0	0	270
Thermal 1{1}	0	3	-3	0	3	-3	80
Thermal 2{1}	0	2	-2	0	2	-2	79
Thermal 3{1}	0	19	-19	3	20	-20	77
GRT1{1}	0	9	-9	1	9	-9	144
GRT2{1}	0	9	-9	1	9	-9	149
GRT3{1}	0	20	-20	2	20	-20	53

F07 N+ SIFI= 1.26 SIFO= 1.26
Gravity{1}

0	10	-10	1	11	-11	11	69
Hydrotest{1}	0	0	0	0	0	0	270
Thermal 1{1}	0	3	-3	0	3	-3	350
Thermal 2{1}	0	2	-2	0	2	-2	349
Thermal 3{1}	0	24	-24	3	25	-25	347
GRT1{1}	0	12	-11	1	12	-12	54
GRT2{1}	0	11	-11	1	11	-11	59
GRT3{1}	0	25	-25	2	25	-25	323

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
F07 F-	SIFI= 1.26	SIFO= 1.26								
	Gravity{1}		0	5	-5	4	7	-7	9	37
	Hydrotest{1}		0	0	0	0	0	0	0	270
	Thermal 1{1}		0	3	-3	0	3	-3	3	348
	Thermal 2{1}		0	2	-2	0	2	-2	2	346
	Thermal 3{1}		0	25	-25	2	25	-25	25	17
	GRT1{1}		0	8	-7	4	9	-9	10	18
	GRT2{1}		0	6	-6	4	8	-8	9	23
	GRT3{1}		0	20	-20	6	22	-22	23	12
F07 F+	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	4	-4	4	7	-6	8	127
	Hydrotest{1}		0	0	0	0	0	0	0	270
	Thermal 1{1}		0	3	-3	0	3	-3	3	78
	Thermal 2{1}		0	2	-2	0	2	-2	2	76

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Thermal 3{1}	0	20	-20	2	20	-20	20	107
GRT1{1}	0	6	-6	4	8	-8	9	108
GRT2{1}	0	5	-5	4	7	-7	9	113
GRT3{1}	0	16	-16	6	18	-18	20	102
F08 N- SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	20	-20	4	21	-21	21	5
Hydrotest{1}	0	0	0	0	0	0	0	270
Thermal 1{1}	0	2	-2	0	2	-2	2	317
Thermal 2{1}	0	1	-1	0	1	-1	1	316
Thermal 3{1}	0	19	-19	2	19	-20	20	339
GRT1{1}	0	22	-21	4	22	-22	23	1
GRT2{1}	0	21	-21	4	22	-22	22	2
GRT3{1}	0	9	-9	6	12	-12	14	258
F08 N+ SIFI= 1.26 SIFO= 1.26								
Gravity{1}	0	25	-25	4	26	-26	26	5
Hydrotest{1}	0	0	0	0	0	0	0	270
Thermal 1{1}	0	3	-3	0	3	-3	3	317
Thermal 2{1}	0	2	-2	0	2	-2	2	316
Thermal 3{1}	0	24	-24	2	24	-25	25	339
GRT1{1}	0	27	-27	4	28	-28	28	1
GRT2{1}	0	26	-26	4	27	-27	27	2
GRT3{1}	0	11	-11	6	14	-14	16	258
F08 M SIFI= 1.26 SIFO= 1.26								
Gravity{1}	0	26	-26	4	27	-27	27	348
Hydrotest{1}	0	0	0	0	0	0	0	270
Thermal 1{1}	0	2	-2	1	3	-3	3	333
Thermal 2{1}	0	1	-1	0	2	-2	2	334
Thermal 3{1}	0	23	-23	4	23	-24	24	354
GRT1{1}	0	29	-28	3	29	-29	29	346
GRT2{1}	0	28	-28	3	28	-28	28	347
GRT3{1}	0	5	-4	8	10	-10	14	312
F08 F- SIFI= 1.26 SIFO= 1.26								
Gravity{1}	0	28	-28	1	28	-28	28	338

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total

name	combination	DVI_A_LINE_REV0.0UT			Stress	Max	Min	Stress	Loc
		Stress	Max	Min					
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	Hydrotest{1}	0	0	0	0	0	0	0	270
	Thermal 1{1}	0	2	-2	1	2	-2	3	14
	Thermal 2{1}	0	1	-1	1	1	-1	2	15
	Thermal 3{1}	0	23	-23	4	24	-24	24	14
	GRT1{1}	0	30	-29	0	30	-29	30	341
	GRT2{1}	0	29	-29	0	29	-29	29	340
	GRT3{1}	0	16	-16	4	17	-17	18	282
F08 F+	SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	22	-22	1	22	-22	22	338
	Hydrotest{1}	0	0	0	0	0	0	0	270
	Thermal 1{1}	0	2	-2	1	2	-2	2	14
	Thermal 2{1}	0	1	-1	1	1	-1	1	15
	Thermal 3{1}	0	18	-18	4	19	-19	19	14
	GRT1{1}	0	24	-23	0	24	-23	24	341
	GRT2{1}	0	23	-23	0	23	-23	23	340
	GRT3{1}	0	13	-13	4	14	-14	15	282
F10	SIFI= 2.00 SIF0= 2.00 Gravity{1}	0	20	-19	1	20	-19	20	291
	Hydrotest{1}	0	0	0	0	0	0	0	270
	Thermal 1{1}	0	8	-8	1	8	-8	8	218
	Thermal 2{1}	0	5	-5	1	5	-5	5	216
	Thermal 3{1}	0	43	-43	4	43	-43	43	221
	GRT1{1}	0	24	-23	0	24	-23	24	271
	GRT2{1}	0	22	-21	0	22	-21	22	277
	GRT3{1}	0	41	-40	4	41	-40	41	15
F11	SIFI= 2.00 SIF0= 2.00 Gravity{1}	0	2	-2	0	2	-2	2	287
	Hydrotest{1}	1	0	0	0	1	0	1	270
	Thermal 1{1}	0	1	-1	0	1	-1	1	218
	Thermal 2{1}	0	1	-1	0	1	-1	1	216
	Thermal 3{1}	0	4	-4	0	4	-4	4	221
	GRT1{1}	0	2	-2	0	2	-2	2	267
	GRT2{1}	0	2	-2	0	2	-2	2	272
	GRT3{1}	0	4	-4	0	4	-4	4	16
F12	SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	1	-1	0	1	-1	1	267
	Hydrotest{1}	1	0	0	0	1	0	1	270
	Thermal 1{1}	0	0	0	0	1	-1	1	216
	Thermal 2{1}	0	0	0	0	0	0	0	214
	Thermal 3{1}	0	3	-3	0	3	-3	3	218
	GRT1{1}	0	1	-1	0	1	-1	1	249

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GRT2{1}	0	1	-1	0	1	-1	1	253
GRT3{1}	0	2	-2	0	3	-2	3	21

*** Segment F end ***

*** Segment G begin ***

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal	Shear	Principal	Total	
name	combination		Stress	Max	Min	Stress	Max	Min
-----	-----		-----	-----	-----	-----	-----	-----
A58	SIFI= 1.00 SIFO= 1.00 Gravity{1}		0	4	-4	0	4	-4
	Hydrotest{1}		0	0	0	0	0	0
	Thermal 1{1}		0	5	-5	3	6	-6
	Thermal 2{1}		0	3	-3	2	4	-4
	Thermal 3{1}		0	19	-20	15	27	-28
	GRT1{1}		0	6	-6	3	8	-8
	GRT2{1}		0	6	-6	2	6	-7
	GRT3{1}		0	15	-16	15	24	-25
N06	SIFI= 1.00 SIFO= 1.00 Gravity{1}		0	4	-4	0	4	-4
	Hydrotest{1}		0	0	0	0	0	0
	Thermal 1{1}		0	4	-4	3	5	-5
	Thermal 2{1}		0	3	-3	2	4	-4
	Thermal 3{1}		0	15	-16	15	25	-26
	GRT1{1}		0	6	-6	3	7	-7
	GRT2{1}		0	5	-5	2	6	-6
	GRT3{1}		0	12	-13	15	22	-23

*** Segment G end ***

*** Segment I begin ***

A07	SIFI= 1.00 SIFO= 1.00 Gravity{1}		0	4	-2	0	4	-2
	Hydrotest{1}		61	19	19	0	61	19
	Thermal 1{1}		0	11	-10	3	12	-11
	Thermal 2{1}		0	13	-13	4	14	-14
	Thermal 3{1}		0	14	-13	0	14	-13
	GRT1{1}		0	15	-12	3	15	-13

DVI_A_LINE_REV0.OUT									
GRT2{1}	0	17	-14	4	18	-15	18	283	
GRT3{1}	0	18	-14	0	18	-14	18	291	
I01 - SIFI= 1.00 SIF0= 1.00	0	4	-2	0	4	-2	4	162	
Gravity{1}	61	19	19	0	61	19	54	270	
Hydrotest{1}	0	10	-10	3	11	-11	12	158	
Thermal 1{1}	0	11	-11	4	12	-12	13	161	
Thermal 2{1}	0	5	-4	0	5	-4	5	173	
Thermal 3{1}	0	14	-11	3	14	-12	15	159	
GRT1{1}	0	15	-12	4	16	-13	16	161	
GRT2{1}	0	9	-6	0	9	-6	9	169	
GRT3{1}									
I01 + SIFI= 1.00 SIF0= 1.00	0	5	-3	0	5	-3	5	174	
Gravity{1}	61	19	19	0	61	19	54	270	
Hydrotest{1}	0	14	-14	0	14	-14	14	169	
Thermal 1{1}	0	15	-15	0	15	-15	15	170	
Thermal 2{1}	0	15	-14	0	15	-14	15	178	
Thermal 3{1}	0	19	-17	0	19	-17	19	170	
GRT1{1}	0	20	-18	0	20	-18	20	171	
GRT2{1}									

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DVI_A_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
								Loc
	GRT3{1}	0	20	-17	0	20	-17	20 177
I02	SIFI= 1.00 SIF0= 1.00	0	8	-7	0	8	-7	8 0
	Gravity{1}	61	19	19	0	61	19	54 270
	Hydrotest{1}	0	5	-5	0	5	-5	5 9
	Thermal 1{1}	0	6	-5	0	6	-5	6 9
	Thermal 2{1}	0	4	-3	0	4	-3	4 176
	Thermal 3{1}	0	14	-12	0	14	-12	14 4
	GRT1{1}	0	14	-12	0	14	-12	14 4
	GRT2{1}	0	5	-3	0	5	-3	5 4
	GRT3{1}							

*** Segment I end ***

*** Segment J begin ***

DVI_A_LINE_REV0.0UT									
I02	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	8	-7	0	8	-7	8 0
	Hydrotest{1}		61	19	19	0	61	19	54 270
	Thermal 1{1}		0	5	-5	0	5	-5	5 9
	Thermal 2{1}		0	6	-5	0	6	-5	6 9
	Thermal 3{1}		0	4	-3	0	4	-3	4 176
	GRT1{1}		0	14	-12	0	14	-12	14 4
	GRT2{1}		0	14	-12	0	14	-12	14 4
	GRT3{1}		0	5	-3	0	5	-3	5 4
J01 N-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	18	-18	0	18	-18	18 180
	Hydrotest{1}		61	19	19	0	61	19	54 270
	Thermal 1{1}		0	1	-1	0	1	-1	1 168
	Thermal 2{1}		0	1	-1	0	1	-1	1 167
	Thermal 3{1}		0	7	-6	0	7	-6	7 179
	GRT1{1}		0	19	-18	0	19	-18	19 179
	GRT2{1}		0	19	-18	0	19	-18	19 179
	GRT3{1}		0	25	-24	0	25	-24	25 180
J01 N+	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	18	-18	0	18	-18	18 360
	Hydrotest{1}		61	19	19	0	61	19	54 270
	Thermal 1{1}		0	1	-1	0	1	-1	1 348
	Thermal 2{1}		0	1	-1	0	1	-1	1 347
	Thermal 3{1}		0	7	-6	0	7	-6	7 359
	GRT1{1}		0	19	-18	0	19	-18	19 359
	GRT2{1}		0	19	-18	0	19	-18	19 359
	GRT3{1}		0	25	-24	0	25	-24	25 360
J01 F-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	16	-16	0	16	-16	16 360
	Hydrotest{1}		61	19	19	0	61	19	54 270
	Thermal 1{1}		0	0	0	0	0	0	0 107
	Thermal 2{1}		0	1	-1	0	1	-1	1 108
	Thermal 3{1}		0	2	-2	0	2	-2	2 4

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DVI_A_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc

DVI_A_LINE_REV0.OUT

GRT1{1}	0	16	-15	0	16	-15	16	1
GRT2{1}	0	16	-15	0	16	-15	16	2
GRT3{1}	0	18	-18	0	18	-18	18	0
J01 F+ SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	16	-16	0	16	-16	16	360
Hydrotest{1}	61	19	19	0	61	19	54	270
Thermal 1{1}	0	0	0	0	0	0	0	107
Thermal 2{1}	0	1	-1	0	1	-1	1	108
Thermal 3{1}	0	2	-2	0	2	-2	2	4
GRT1{1}	0	16	-15	0	16	-15	16	1
GRT2{1}	0	16	-15	0	16	-15	16	2
GRT3{1}	0	18	-18	0	18	-18	18	0
J02 N- SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	10	-10	0	10	-10	10	180
Hydrotest{1}	61	19	19	0	61	19	54	270
Thermal 1{1}	0	15	-15	0	15	-15	15	178
Thermal 2{1}	0	15	-15	0	15	-15	15	178
Thermal 3{1}	0	46	-45	0	46	-45	46	180
GRT1{1}	0	25	-25	0	25	-25	25	179
GRT2{1}	0	25	-25	0	25	-25	25	179
GRT3{1}	0	56	-56	0	56	-56	56	180
J02 N+ SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	10	-10	0	10	-10	10	0
Hydrotest{1}	61	19	19	0	61	19	54	270
Thermal 1{1}	0	15	-15	0	15	-15	15	358
Thermal 2{1}	0	15	-15	0	15	-15	15	358
Thermal 3{1}	0	46	-45	0	46	-45	46	360
GRT1{1}	0	25	-25	0	25	-25	25	359
GRT2{1}	0	25	-25	0	25	-25	25	359
GRT3{1}	0	56	-56	0	56	-56	56	360
J02 F- SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	12	-11	0	12	-11	12	0
Hydrotest{1}	61	19	19	0	61	19	54	270
Thermal 1{1}	0	16	-16	0	16	-16	16	1
Thermal 2{1}	0	17	-16	0	17	-16	17	1
Thermal 3{1}	0	50	-49	0	50	-49	50	0
GRT1{1}	0	28	-27	0	28	-27	28	0
GRT2{1}	0	28	-28	0	28	-28	28	0
GRT3{1}	0	62	-61	0	62	-61	62	0
J02 F+ SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	12	-11	0	12	-11	12	0
Hydrotest{1}	61	19	19	0	61	19	54	270

DVI_A_LINE_REV0.OUT

Thermal 1{1}	0	16	-16	0	16	-16	16	1
Thermal 2{1}	0	17	-16	0	17	-16	17	1
Thermal 3{1}	0	50	-49	0	50	-49	50	0
GRT1{1}	0	28	-27	0	28	-27	28	0
GRT2{1}	0	28	-28	0	28	-28	28	0

0

DVI_A_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point name	Load combination	Hoop Stress	Longitudinal Max	Min	Shear Stress	Principal Max	Min	Total Stress	Loc
	GRT3{1}	0	62	-61	0	62	-61	62	0
J03 N-	SIFI= 1.00 Gravity{1}	0	1	-1	0	1	-1	1	180
	Hydrotest{1}	61	19	19	0	61	19	54	270
	Thermal 1{1}	0	13	-13	0	13	-13	13	360
	Thermal 2{1}	0	14	-13	0	14	-13	14	360
	Thermal 3{1}	0	49	-48	0	49	-48	49	360
	GRT1{1}	0	12	-12	0	12	-12	12	360
	GRT2{1}	0	12	-12	0	12	-12	12	360
	GRT3{1}	0	48	-47	0	48	-47	48	360
J03 N+	SIFI= 1.00 Gravity{1}	0	1	-1	0	1	-1	1	180
	Hydrotest{1}	61	19	19	0	61	19	54	270
	Thermal 1{1}	0	13	-13	0	13	-13	13	360
	Thermal 2{1}	0	14	-13	0	14	-13	14	360
	Thermal 3{1}	0	49	-48	0	49	-48	49	360
	GRT1{1}	0	12	-12	0	12	-12	12	360
	GRT2{1}	0	12	-12	0	12	-12	12	360
	GRT3{1}	0	48	-47	0	48	-47	48	360
J03 F-	SIFI= 1.00 Gravity{1}	0	2	-2	0	2	-2	2	1
	Hydrotest{1}	61	19	19	0	61	19	54	270
	Thermal 1{1}	0	12	-12	0	12	-12	12	183
	Thermal 2{1}	0	12	-12	0	12	-12	12	183
	Thermal 3{1}	0	44	-44	0	44	-44	44	180
	GRT1{1}	0	10	-10	0	10	-10	10	183

DVI_A_LINE_REV0.OUT									
GRT2{1}	0	10	-10	0	10	-10	10	183	
GRT3{1}	0	42	-42	0	42	-42	42	180	
J03 F+ SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	2	-2	0	2	-2	2	1	
Hydrotest{1}	61	19	19	0	61	19	54	270	
Thermal 1{1}	0	12	-12	0	12	-12	12	183	
Thermal 2{1}	0	12	-12	0	12	-12	12	183	
Thermal 3{1}	0	44	-44	0	44	-44	44	180	
GRT1{1}	0	10	-10	0	10	-10	10	183	
GRT2{1}	0	10	-10	0	10	-10	10	183	
GRT3{1}	0	42	-42	0	42	-42	42	180	
J04 N- SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	0	0	0	0	0	0	173	
Hydrotest{1}	61	19	19	0	61	19	54	270	
Thermal 1{1}	0	10	-10	0	10	-10	10	358	
Thermal 2{1}	0	10	-10	0	10	-10	10	357	
Thermal 3{1}	0	25	-25	0	25	-25	25	360	
GRT1{1}	0	9	-9	0	9	-9	9	358	
GRT2{1}	0	9	-9	0	9	-9	9	358	
GRT3{1}	0	24	-24	0	24	-24	24	360	

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
J04 N+ SIFI= 1.00 SIF0= 1.00 Gravity{1}		0	0	0	0	0	0	353
Hydrotest{1}		61	19	19	0	61	19	270
Thermal 1{1}		0	10	-10	0	10	-10	178
Thermal 2{1}		0	10	-10	0	10	-10	177
Thermal 3{1}		0	25	-25	0	25	-25	180
GRT1{1}		0	9	-9	0	9	-9	178
GRT2{1}		0	9	-9	0	9	-9	178
GRT3{1}		0	24	-24	0	24	-24	180
J04 F- SIFI= 1.00 SIF0= 1.00 Gravity{1}		0	0	-1	0	0	-1	359
Hydrotest{1}		61	19	19	0	61	19	270

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Thermal 1{1}	0	11	-11	0	11	-11	11	0
Thermal 2{1}	0	11	-11	0	11	-11	11	0
Thermal 3{1}	0	29	-28	0	29	-28	29	0
GRT1{1}	0	11	-11	0	11	-11	11	0
GRT2{1}	0	11	-11	0	11	-11	11	0
GRT3{1}	0	29	-28	0	29	-28	29	0
J04 F+ SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	0	-1	0	0	-1	1	179
Hydrotest{1}	61	19	19	0	61	19	54	270
Thermal 1{1}	0	11	-11	0	11	-11	11	180
Thermal 2{1}	0	11	-11	0	11	-11	11	180
Thermal 3{1}	0	29	-28	0	29	-28	29	180
GRT1{1}	0	11	-11	0	11	-11	11	180
GRT2{1}	0	11	-11	0	11	-11	11	180
GRT3{1}	0	29	-28	0	29	-28	29	180
J05 N- SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	4	-4	0	4	-4	4	0
Hydrotest{1}	61	19	19	0	61	19	54	270
Thermal 1{1}	0	12	-12	0	12	-12	12	181
Thermal 2{1}	0	13	-12	0	13	-12	13	181
Thermal 3{1}	0	30	-29	0	30	-29	30	180
GRT1{1}	0	16	-16	0	16	-16	16	181
GRT2{1}	0	16	-16	0	16	-16	16	181
GRT3{1}	0	34	-33	0	34	-33	34	180
J05 N+ SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	4	-4	0	4	-4	4	0
Hydrotest{1}	61	19	19	0	61	19	54	270
Thermal 1{1}	0	12	-12	0	12	-12	12	181
Thermal 2{1}	0	13	-12	0	13	-12	13	181
Thermal 3{1}	0	30	-29	0	30	-29	30	180
GRT1{1}	0	16	-16	0	16	-16	16	181
GRT2{1}	0	16	-16	0	16	-16	16	181
GRT3{1}	0	34	-33	0	34	-33	34	180
J05 F- SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	3	-3	0	3	-3	3	1

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GENERAL PIPE STRESS REPORT

DVI_A_LINE_REV0.OUT
(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
J05 F+	Hydrotest{1}		61	19	19	0	61	19	54	270
	Thermal 1{1}		0	14	-14	0	14	-14	14	359
	Thermal 2{1}		0	14	-14	0	14	-14	14	358
	Thermal 3{1}		0	34	-34	0	34	-34	34	360
	GRT1{1}		0	17	-17	0	17	-17	17	359
	GRT2{1}		0	17	-17	0	17	-17	17	359
	GRT3{1}		0	37	-37	0	37	-37	37	360
	SIFI= 1.00 Gravity{1}		0	3	-3	0	3	-3	3	1
	Hydrotest{1}		61	19	19	0	61	19	54	270
	Thermal 1{1}		0	14	-14	0	14	-14	14	359
	Thermal 2{1}		0	14	-14	0	14	-14	14	358
	Thermal 3{1}		0	34	-34	0	34	-34	34	360
	GRT1{1}		0	17	-17	0	17	-17	17	359
	GRT2{1}		0	17	-17	0	17	-17	17	359
	GRT3{1}		0	37	-37	0	37	-37	37	360
J06	SIFI= 2.00 Gravity{1}		0	35	-35	0	35	-35	35	180
	Hydrotest{1}		61	19	19	0	61	19	54	270
	Thermal 1{1}		0	60	-60	0	60	-60	60	360
	Thermal 2{1}		0	61	-61	0	61	-61	61	360
	Thermal 3{1}		0	172	-172	0	172	-172	172	360
	GRT1{1}		0	25	-25	0	25	-25	25	359
	GRT2{1}		0	26	-26	0	26	-26	26	359
	GRT3{1}		0	137	-137	0	137	-137	137	360
	J07	SIFI= 2.00 Gravity{1}		0	22	-22	0	22	-22	22
Hydrotest{1}		75	26	26	0	75	26	66	270	
Thermal 1{1}		0	35	-35	0	35	-35	35	360	
Thermal 2{1}		0	36	-36	0	36	-36	36	360	
Thermal 3{1}		0	101	-101	0	101	-101	101	360	
GRT1{1}		0	13	-13	0	13	-13	13	359	
GRT2{1}		0	14	-14	0	14	-14	14	359	
GRT3{1}		0	79	-79	0	79	-79	79	360	
J08	SIFI= 1.00 Gravity{1}		0	14	-14	0	14	-14	14	180
	Hydrotest{1}		75	26	26	0	75	26	66	270
	Thermal 1{1}		0	19	-19	0	19	-19	19	360
	Thermal 2{1}		0	20	-20	0	20	-20	20	360

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Thermal 3{1}	0	56	-56	0	56	-56	56	360
GRT1{1}	0	5	-6	0	5	-6	6	359
GRT2{1}	0	6	-6	0	6	-6	6	359
GRT3{1}	0	42	-42	0	42	-42	42	360

*** Segment J end ***

*** Segment K begin ***

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point name	Load combination	Hoop Stress	Longitudinal Max	Min	Shear Stress	Principal Max	Min	Total Stress	Loc
I01	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	1	-1	0	1	-1	1	2
	Hydrotest{1}	61	19	19	0	61	19	54	270
	Thermal 1{1}	0	8	-8	1	8	-8	8	306
	Thermal 2{1}	0	8	-8	0	8	-8	8	302
	Thermal 3{1}	0	10	-10	0	10	-10	10	358
	GRT1{1}	0	8	-9	1	8	-9	9	313
	GRT2{1}	0	9	-9	1	9	-9	9	310
	GRT3{1}	0	11	-11	0	11	-11	11	358
K01	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	2	-2	0	2	-2	2	115
	Hydrotest{1}	61	19	19	0	61	19	54	270
	Thermal 1{1}	0	23	-23	1	23	-23	23	334
	Thermal 2{1}	0	27	-27	0	27	-27	27	333
	Thermal 3{1}	0	60	-60	0	60	-60	60	353
	GRT1{1}	0	21	-22	1	21	-22	22	338
	GRT2{1}	0	25	-26	1	25	-26	26	336
	GRT3{1}	0	59	-59	0	59	-59	59	355
K02	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	2	-2	0	2	-2	2	130
	Hydrotest{1}	75	26	26	0	75	26	66	270
	Thermal 1{1}	0	14	-14	0	14	-14	14	337
	Thermal 2{1}	0	16	-16	0	16	-16	16	335
	Thermal 3{1}	0	37	-37	0	37	-37	37	353
	GRT1{1}	0	12	-13	0	12	-13	13	340

DVI_A_LINE_REV0.OUT									
	GRT2{1}		0	15	-15	0	15	-15	15 338
	GRT3{1}		0	36	-36	0	36	-36	36 355
K03	SIFI= 1.00	SIFO= 1.00							
	Gravity{1}		0	1	-1	0	1	-1	1 150
	Hydrotest{1}		75	26	26	0	75	26	66 270
	Thermal 1{1}		0	8	-8	0	8	-8	8 341
	Thermal 2{1}		0	9	-9	0	9	-9	9 339
	Thermal 3{1}		0	22	-22	0	22	-22	22 354
	GRT1{1}		0	7	-7	0	7	-7	7 343
	GRT2{1}		0	8	-8	0	8	-8	8 341
	GRT3{1}		0	20	-21	0	20	-21	21 355

*** Segment K end ***

*** Segment L begin ***

A33	SIFI= 1.00	SIFO= 1.00							
	Gravity{1}		0	2	-2	0	2	-2	2 66
	Hydrotest{1}		56	17	17	0	56	17	50 270
	Thermal 1{1}		0	7	-7	3	8	-8	9 249
	Thermal 2{1}		0	43	-43	9	45	-45	46 304
	Thermal 3{1}		0	28	-27	5	29	-28	29 286
	GRT1{1}		0	10	-10	2	10	-10	10 248
	GRT2{1}		0	44	-44	9	46	-46	47 301

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc

	GRT3{1}	0	30	-29	5	30	-30	31 283
L01	SIFI= 1.00							
	Gravity{1}	0	3	-3	0	3	-3	3 18
	Hydrotest{1}	56	17	17	0	56	17	50 270
	Thermal 1{1}	0	7	-7	3	8	-8	8 202
	Thermal 2{1}	0	42	-41	9	43	-43	44 146
	Thermal 3{1}	0	27	-26	5	28	-28	28 165
	GRT1{1}	0	10	-10	2	10	-10	11 201
	GRT2{1}	0	43	-43	9	45	-45	46 149
	GRT3{1}	0	29	-29	5	30	-30	30 168

DVI_A_LINE_REV0.OUT									
L02 N-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	4	-4	0	4	-4	4 47
	Hydrotest{1}		56	17	17	0	56	17	50 270
	Thermal 1{1}		0	4	-4	3	6	-5	6 264
	Thermal 2{1}		0	24	-23	9	27	-27	28 276
	Thermal 3{1}		0	14	-14	5	16	-15	17 282
	GRT1{1}		0	3	-3	2	4	-4	5 332
	GRT2{1}		0	21	-21	9	25	-24	26 285
	GRT3{1}		0	12	-12	5	14	-14	15 298
L02 N+	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	4	-4	0	4	-4	4 317
	Hydrotest{1}		56	17	17	0	56	17	50 270
	Thermal 1{1}		0	4	-4	3	6	-5	6 174
	Thermal 2{1}		0	24	-23	9	27	-27	28 186
	Thermal 3{1}		0	14	-14	5	16	-15	17 192
	GRT1{1}		0	3	-3	2	4	-4	5 242
	GRT2{1}		0	21	-21	9	25	-24	26 195
	GRT3{1}		0	12	-12	5	14	-14	15 208
L02 M	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	4	-4	1	4	-4	4 324
	Hydrotest{1}		56	17	17	0	56	17	50 270
	Thermal 1{1}		0	6	-6	2	6	-6	7 220
	Thermal 2{1}		0	29	-29	5	30	-30	30 32
	Thermal 3{1}		0	17	-17	3	18	-18	18 216
	GRT1{1}		0	6	-6	1	6	-6	6 256
	GRT2{1}		0	28	-28	4	28	-28	29 219
	GRT3{1}		0	17	-16	2	17	-17	17 228
L02 F-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	3	-3	2	3	-3	4 354
	Hydrotest{1}		56	17	17	0	56	17	50 270
	Thermal 1{1}		0	7	-7	0	7	-7	7 51
	Thermal 2{1}		0	32	-32	2	32	-32	32 37
	Thermal 3{1}		0	18	-19	2	19	-19	19 38
	GRT1{1}		0	6	-6	1	6	-6	7 252
	GRT2{1}		0	30	-30	3	30	-30	31 41
	GRT3{1}		0	17	-17	3	17	-17	18 44

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GENERAL PIPE STRESS REPORT

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(Stress in N/mm2)

Point	Load		Hoop	Longitudinal	Shear	Principal	Total	
name	combination		Stress	Max	Min	Max	Min	Stress Loc
-----	-----		-----	-----	-----	-----	-----	---
L02 F+	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	3	-3	2	3	4 114
	Hydrotest{1}		56	17	17	0	56	50 270
	Thermal 1{1}		0	7	-7	0	7	7 172
	Thermal 2{1}		0	32	-32	2	32	32 158
	Thermal 3{1}		0	18	-19	2	19	19 159
	GRT1{1}		0	6	-6	1	6	7 13
	GRT2{1}		0	30	-30	3	30	31 161
	GRT3{1}		0	17	-17	3	17	18 165
L03	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	27	-27	2	27	27 357
	Hydrotest{1}		56	17	17	0	56	50 270
	Thermal 1{1}		0	12	-12	0	12	12 171
	Thermal 2{1}		0	64	-64	2	64	64 161
	Thermal 3{1}		0	42	-42	2	42	43 164
	GRT1{1}		0	39	-39	1	39	39 355
	GRT2{1}		0	90	-91	3	90	91 166
	GRT3{1}		0	69	-69	3	69	69 169
CH03	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	21	-21	2	21	21 355
	Hydrotest{1}		56	17	17	0	56	50 270
	Thermal 1{1}		0	12	-12	0	12	12 171
	Thermal 2{1}		0	63	-64	2	63	64 161
	Thermal 3{1}		0	42	-43	2	42	43 164
	GRT1{1}		0	33	-33	1	33	33 353
	GRT2{1}		0	84	-84	3	84	84 165
	GRT3{1}		0	63	-63	3	63	64 167
C015	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	14	-14	2	14	14 189
	Hydrotest{1}		56	17	17	0	56	50 270
	Thermal 1{1}		0	10	-10	0	10	10 171
	Thermal 2{1}		0	48	-48	2	48	49 160
	Thermal 3{1}		0	33	-33	2	33	34 164
	GRT1{1}		0	6	-6	1	6	6 222
	GRT2{1}		0	37	-37	3	37	38 149
	GRT3{1}		0	22	-22	3	22	23 148
L05	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	10	-10	2	11	11 196
	Hydrotest{1}		56	17	17	0	56	50 270

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Thermal 1{1}	0	2	-2	0	2	-2	2	176
Thermal 2{1}	0	8	-8	2	8	-8	8	31
Thermal 3{1}	0	1	-2	2	3	-3	3	154
GRT1{1}	0	9	-9	1	9	-9	9	201
GRT2{1}	0	18	-18	3	18	-19	19	23
GRT3{1}	0	9	-9	3	10	-10	11	23

L06 SIFI= 1.00 SIFO= 1.00
Gravity{1}

0	2	-2	2	3	-3	3	214

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point name	Load combination	Hoop Stress	Longitudinal Max	Min	Shear Stress	Principal Max	Min	Total Stress	Loc
Hydrotest{1}		56	17	17	0	56	17	50	270
Thermal 1{1}		0	1	-1	0	1	-1	1	11
Thermal 2{1}		0	42	-42	2	42	-42	42	11
Thermal 3{1}		0	17	-18	2	18	-18	18	9
GRT1{1}		0	3	-3	1	3	-3	4	207
GRT2{1}		0	43	-44	3	44	-44	44	12
GRT3{1}		0	19	-19	3	20	-20	20	11
L07 N- SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	5	-5	2	6	-6	6	16
Hydrotest{1}		56	17	17	0	56	17	50	270
Thermal 1{1}		0	2	-2	0	2	-2	2	12
Thermal 2{1}		0	72	-72	2	72	-72	72	13
Thermal 3{1}		0	33	-33	2	33	-33	34	12
GRT1{1}		0	3	-3	1	4	-4	4	18
GRT2{1}		0	66	-67	3	66	-67	67	13
GRT3{1}		0	28	-28	3	28	-28	29	12
L07 N+ SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	5	-5	2	6	-6	6	351
Hydrotest{1}		56	17	17	0	56	17	50	270
Thermal 1{1}		0	2	-2	0	2	-2	2	347
Thermal 2{1}		0	72	-72	2	72	-72	72	348
Thermal 3{1}		0	33	-33	2	33	-33	34	347
GRT1{1}		0	3	-3	1	4	-4	4	353

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	GRT2{1}		0	66	-67	3	66	-67	67 348
	GRT3{1}		0	28	-28	3	28	-28	29 347
L07 M	SIFI= 1.00	SIFO= 1.00							
	Gravity{1}		0	6	-6	1	7	-6	7 15
	Hydrotest{1}		56	17	17	0	56	17	50 270
	Thermal 1{1}		0	2	-2	0	2	-3	3 355
	Thermal 2{1}		0	73	-74	4	73	-74	74 350
	Thermal 3{1}		0	34	-35	1	34	-35	35 347
	GRT1{1}		0	4	-4	1	4	-4	5 28
	GRT2{1}		0	68	-69	3	68	-69	69 347
	GRT3{1}		0	29	-30	0	29	-30	30 341
L07 F-	SIFI= 1.00	SIFO= 1.00							
	Gravity{1}		0	7	-7	0	7	-7	7 27
	Hydrotest{1}		56	17	17	0	56	17	50 270
	Thermal 1{1}		0	2	-3	0	3	-3	3 6
	Thermal 2{1}		0	72	-73	8	73	-74	75 357
	Thermal 3{1}		0	34	-34	4	34	-35	35 354
	GRT1{1}		0	5	-5	0	5	-5	5 38
	GRT2{1}		0	67	-67	7	67	-68	69 354
	GRT3{1}		0	28	-29	3	29	-29	29 346
L07 F+	SIFI= 1.00	SIFO= 1.00							
	Gravity{1}		0	7	-7	0	7	-7	7 117
	Hydrotest{1}		56	17	17	0	56	17	50 270
	Thermal 1{1}		0	2	-3	0	3	-3	3 96

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
	Thermal 2{1}	0	72	-73	8	73	-74	75 87
	Thermal 3{1}	0	34	-34	4	34	-35	35 84
	GRT1{1}	0	5	-5	0	5	-5	5 128
	GRT2{1}	0	67	-67	7	67	-68	69 84
	GRT3{1}	0	28	-29	3	29	-29	29 76

L08 N-	SIFI= 1.00	SIFO= 1.00						
	Gravity{1}		0	11	-11	0	11	-11 13
	Hydrotest{1}		56	17	17	0	56	17 270

Thermal 1{1}	0	2	-2	0	2	-2	2	34
Thermal 2{1}	0	41	-42	8	42	-43	44	43
Thermal 3{1}	0	22	-22	4	22	-23	23	40
GRT1{1}	0	10	-9	0	10	-9	10	9
GRT2{1}	0	32	-32	7	33	-34	35	52
GRT3{1}	0	13	-13	3	14	-14	14	63

0 11 -11 0 11 -11 11 13

56 17 17 0 56 17 50 270

0 2 -2 0 2 -2 2 34

0 41 -42 8 42 -43 44 43

0 22 -22 4 22 -23 23 40

0 10 -9 0 10 -9 10 9

0 32 -32 7 33 -34 35 52

0 13 -13 3 14 -14 14 63

0 11 -11 0 11 -11 11 14

56 17 17 0 56 17 50 270

0 2 -2 0 2 -2 2 38

0 43 -44 1 43 -44 44 46

0	23	-23	1	23	-23	23	44

0 10 -9 0 10 -9 10 9

0	34	-35	1	35	-35	35	56

0 15 -15 1 15 -15 15 246

0 11 -11 0 11 -11 11 284

56	17	17	0	56	17	50	270

0 2 -2 0 2 -2 2 308

0	43	-44	1	43	-44	44	316

0 23 -23 1 23 -23 23 314

0 10 -9 0 10 -9 10 279

0	34	-35	1	35	-35	35	326

0	15	-15	1	15	-15	15	156

0 5 -4 0 5 -4 5 113

56 17 17 0 56 17 50 270

0 1 -1 0 1 -1 1 136

0	28	-29	1	28	-29	29	140

$$0 \quad 12 \quad -13 \quad 1 \quad 12 \quad -13 \quad 13 \quad 127$$

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
L09	GRT1{1}		0	4	-3	0	4	-3	4	106
	GRT2{1}		0	24	-25	1	24	-25	25	146
	GRT3{1}		0	8	-8	1	8	-8	8	315
	SIFI= 2.00 Gravity{1}	SIFO= 2.00	0	5	-4	0	5	-4	5	293
	Hydrotest{1}		56	17	17	0	56	17	50	270
	Thermal 1{1}		0	1	-1	0	1	-1	1	316
	Thermal 2{1}		0	26	-28	1	27	-28	28	320
	Thermal 3{1}		0	11	-12	1	12	-12	12	307
	GRT1{1}		0	4	-3	0	4	-3	4	286
GRT2{1}		0	23	-23	1	23	-23	23	146	
GRT3{1}		0	8	-7	1	8	-7	8	135	
L10	SIFI= 2.00 Gravity{1}	SIFO= 2.00	0	2	-1	0	2	-1	2	293
	Hydrotest{1}		75	26	26	0	75	26	66	270
	Thermal 1{1}		0	0	0	0	0	0	0	316
	Thermal 2{1}		0	8	-9	0	8	-9	9	320
	Thermal 3{1}		0	4	-4	0	4	-4	4	307
	GRT1{1}		0	2	-1	0	2	-1	2	286
	GRT2{1}		0	7	-7	0	8	-7	8	146
	GRT3{1}		0	3	-2	0	3	-2	3	135
L11	SIFI= 2.00 Gravity{1}	SIFO= 2.00	0	1	0	0	1	0	1	293
	Hydrotest{1}		100	38	38	0	100	38	87	270
	Thermal 1{1}		0	0	0	0	0	0	0	316
	Thermal 2{1}		0	3	-3	0	3	-3	3	320
	Thermal 3{1}		0	1	-1	0	1	-1	1	307
	GRT1{1}		0	1	0	0	1	0	1	286
	GRT2{1}		0	2	-2	0	2	-2	2	146
	GRT3{1}		0	1	-1	0	1	-1	1	135
L12	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	0	0	0	0	0	0	293
	Hydrotest{1}		100	38	38	0	100	38	87	270
	Thermal 1{1}		0	0	0	0	0	0	0	316
	Thermal 2{1}		0	1	-2	0	1	-2	2	320

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Thermal 3{1}	0	1	-1	0	1	-1	1	307
GRT1{1}	0	0	0	0	0	0	0	286
GRT2{1}	0	1	-1	0	1	-1	1	146
GRT3{1}	0	1	0	0	1	0	1	135
L13 - SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	1	0	0	1	0	1	293
Hydrotest{1}	100	38	38	0	100	38	87	270
Thermal 1{1}	0	0	0	0	0	0	0	316
Thermal 2{1}	0	2	-2	0	2	-2	2	320
Thermal 3{1}	0	1	-1	0	1	-1	1	307
GRT1{1}	0	1	0	0	1	0	1	286
GRT2{1}	0	2	-1	0	2	-1	2	146

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
-----	-----	-----	-----	-----	-----	-----	-----	---
	GRT3{1}	0	1	0	0	1	0	1 135
L13 + SIFI= 1.00 SIFO= 1.00								
	Gravity{1}	0	0	0	0	0	0	0 293
	Hydrotest{1}	132	54	54	0	132	54	115 270
	Thermal 1{1}	0	0	0	0	0	0	0 316
	Thermal 2{1}	0	0	0	0	0	0	0 320
	Thermal 3{1}	0	0	0	0	0	0	0 307
	GRT1{1}	0	0	0	0	0	0	0 286
	GRT2{1}	0	0	0	0	0	0	0 146
	GRT3{1}	0	0	0	0	0	0	0 135
L16 SIFI= 1.00 SIFO= 1.00								
	Gravity{1}	0	0	0	0	0	0	0 293
	Hydrotest{1}	132	54	54	0	132	54	115 270
	Thermal 1{1}	0	0	0	0	0	0	0 316
	Thermal 2{1}	0	0	0	0	0	0	0 320
	Thermal 3{1}	0	0	0	0	0	0	0 307
	GRT1{1}	0	0	0	0	0	0	0 286
	GRT2{1}	0	0	0	0	0	0	0 146
	GRT3{1}	0	0	0	0	0	0	0 135

L14	-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	0	0	0	0	0	0	13
		Hydrotest{1}		132	54	54	0	132	54	115	270
		Thermal 1{1}		0	0	0	0	0	0	0	196
		Thermal 2{1}		0	0	0	0	0	0	0	196
		Thermal 3{1}		0	0	0	0	0	0	0	195
		GRT1{1}		0	0	0	0	0	0	0	196
		GRT2{1}		0	0	0	0	0	0	0	196
		GRT3{1}		0	0	0	0	0	0	0	196
L14	+	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	0	-1	0	0	-1	1	13
		Hydrotest{1}		100	38	38	0	100	38	87	270
		Thermal 1{1}		0	36	-36	1	36	-36	36	196
		Thermal 2{1}		0	38	-38	1	38	-38	38	196
		Thermal 3{1}		0	20	-20	0	20	-20	20	195
		GRT1{1}		0	36	-37	1	36	-37	37	196
		GRT2{1}		0	37	-38	1	37	-38	38	196
		GRT3{1}		0	20	-21	0	20	-21	21	196
L15		SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	0	-1	0	0	-1	1	5
		Hydrotest{1}		100	38	38	0	100	38	87	270
		Thermal 1{1}		0	31	-32	1	31	-32	32	195
		Thermal 2{1}		0	32	-33	1	32	-33	33	195
		Thermal 3{1}		0	17	-17	0	17	-17	17	194
		GRT1{1}		0	31	-32	1	31	-32	32	195
		GRT2{1}		0	32	-33	1	32	-33	33	195
		GRT3{1}		0	17	-18	0	17	-18	18	194

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(Stress in N/mm²)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
L17	SIFI= 2.00 Gravity{1}	0	0	0	0	0	0	0	358
	Hydrotest{1}	100	38	38	0	100	38	87	270
	Thermal 1{1}	0	57	-57	1	57	-57	57	195
	Thermal 2{1}	0	58	-59	1	58	-59	59	195

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	Thermal 3{1}	0	31	-31	0	31	-31	31	194
	GRT1{1}	0	56	-57	1	56	-57	57	195
	GRT2{1}	0	58	-59	1	58	-59	59	195
	GRT3{1}	0	31	-31	0	31	-31	31	194
L18	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	1	-1	0	1	-1	1	353
	Hydrotest{1}	75	26	26	0	75	26	66	270
	Thermal 1{1}	0	184	-185	3	184	-185	185	194
	Thermal 2{1}	0	189	-190	3	189	-190	190	195
	Thermal 3{1}	0	101	-101	1	101	-101	101	193
	GRT1{1}	0	183	-184	3	183	-184	184	194
	GRT2{1}	0	188	-189	3	188	-189	189	195
	GRT3{1}	0	100	-101	1	100	-101	101	193
L19 N-	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	1	-1	0	1	-1	1	232
	Hydrotest{1}	75	26	26	0	75	26	66	270
	Thermal 1{1}	0	42	-43	3	43	-43	43	30
	Thermal 2{1}	0	49	-50	3	49	-50	50	27
	Thermal 3{1}	0	32	-32	1	32	-33	33	36
	GRT1{1}	0	41	-42	3	42	-42	42	29
	GRT2{1}	0	48	-49	3	48	-49	49	26
	GRT3{1}	0	31	-31	1	31	-31	31	35
L19 N+	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	1	-1	0	1	-1	1	187
	Hydrotest{1}	75	26	26	0	75	26	66	270
	Thermal 1{1}	0	42	-43	3	43	-43	43	345
	Thermal 2{1}	0	49	-50	3	49	-50	50	342
	Thermal 3{1}	0	32	-32	1	32	-33	33	351
	GRT1{1}	0	41	-42	3	42	-42	42	344
	GRT2{1}	0	48	-49	3	48	-49	49	341
	GRT3{1}	0	31	-31	1	31	-31	31	350
L19N -	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	1	-1	0	1	-1	1	355
	Hydrotest{1}	75	26	26	0	75	26	66	270
	Thermal 1{1}	0	42	-43	6	43	-44	44	5
	Thermal 2{1}	0	48	-49	9	49	-50	51	5
	Thermal 3{1}	0	32	-32	3	32	-32	33	1
	GRT1{1}	0	41	-42	7	42	-43	43	5
	GRT2{1}	0	46	-47	9	48	-49	50	5
	GRT3{1}	0	30	-31	3	31	-31	31	2
L19N +	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	1	-1	0	1	-1	1	175

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
		Hydrotest{1}	75	26	26	0	75	26	66	270
		Thermal 1{1}	0	42	-43	6	43	-44	44	185
		Thermal 2{1}	0	48	-49	9	49	-50	51	185
		Thermal 3{1}	0	32	-32	3	32	-32	33	181
		GRT1{1}	0	41	-42	7	42	-43	43	185
		GRT2{1}	0	46	-47	9	48	-49	50	185
		GRT3{1}	0	30	-31	3	31	-31	31	182
L20 N-	SIFI= 1.00	SIFO= 1.00								
		Gravity{1}	0	1	-1	0	1	-1	1	165
		Hydrotest{1}	75	26	26	0	75	26	66	270
		Thermal 1{1}	0	22	-23	6	24	-25	26	128
		Thermal 2{1}	0	26	-27	9	29	-29	31	133
		Thermal 3{1}	0	12	-12	3	13	-13	13	116
		GRT1{1}	0	22	-23	7	24	-24	25	127
		GRT2{1}	0	25	-26	9	28	-29	30	132
		GRT3{1}	0	11	-12	3	12	-13	13	113
L20 N+	SIFI= 1.00	SIFO= 1.00								
		Gravity{1}	0	1	-1	0	1	-1	1	75
		Hydrotest{1}	75	26	26	0	75	26	66	270
		Thermal 1{1}	0	22	-23	6	24	-25	26	38
		Thermal 2{1}	0	26	-27	9	29	-29	31	43
		Thermal 3{1}	0	12	-12	3	13	-13	13	26
		GRT1{1}	0	22	-23	7	24	-24	25	37
		GRT2{1}	0	25	-26	9	28	-29	30	42
		GRT3{1}	0	11	-12	3	12	-13	13	23
L20 F-	SIFI= 1.00	SIFO= 1.00								
		Gravity{1}	0	0	0	0	0	0	0	35
		Hydrotest{1}	75	26	26	0	75	26	66	270
		Thermal 1{1}	0	25	-26	0	25	-26	26	44
		Thermal 2{1}	0	30	-31	0	30	-31	31	50
		Thermal 3{1}	0	12	-13	1	12	-13	13	31
		GRT1{1}	0	25	-25	0	25	-25	25	44

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	GRT2{1}		0	30	-31	0	30	-31	31	50
	GRT3{1}		0	12	-13	1	12	-13	13	31
L20 F+	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	0	0	0	0	0	0	125
	Hydrotest{1}		75	26	26	0	75	26	66	270
	Thermal 1{1}		0	25	-26	0	25	-26	26	134
	Thermal 2{1}		0	30	-31	0	30	-31	31	140
	Thermal 3{1}		0	12	-13	1	12	-13	13	121
	GRT1{1}		0	25	-25	0	25	-25	25	134
	GRT2{1}		0	30	-31	0	30	-31	31	140
	GRT3{1}		0	12	-13	1	12	-13	13	121
L29	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	17	-17	0	17	-17	17	359
	Hydrotest{1}		75	26	26	0	75	26	66	270
	Thermal 1{1}		0	27	-28	0	27	-28	28	345

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
-----	-----	-----	-----	-----	-----	-----	-----	---
	Thermal 2{1}	0	24	-25	0	24	-25	25
	Thermal 3{1}	0	35	-36	1	35	-36	36
	GRT1{1}	0	11	-12	0	11	-12	12
	GRT2{1}	0	9	-10	0	9	-10	10
	GRT3{1}	0	19	-19	1	19	-19	19
L21	SIFI= 2.10 Gravity{1}	0	30	-30	0	30	-30	30
	Hydrotest{1}	75	26	26	0	75	26	66
	Thermal 1{1}	0	60	-61	0	60	-61	61
	Thermal 2{1}	0	48	-49	0	48	-49	49
	Thermal 3{1}	0	61	-61	1	61	-61	61
	GRT1{1}	0	88	-89	0	88	-89	89
	GRT2{1}	0	75	-76	0	75	-76	76
	GRT3{1}	0	90	-90	1	90	-90	90
L22	SIFI= 2.10 Gravity{1}	0	29	-29	0	29	-29	29

DVI_A_LINE_REV0.OUT									
Hydrotest{1}	75	26	26	0	75	26	66	270	
Thermal 1{1}	0	65	-66	0	65	-66	66	160	
Thermal 2{1}	0	52	-53	0	52	-53	53	154	
Thermal 3{1}	0	67	-67	1	67	-67	67	168	
GRT1{1}	0	93	-94	0	93	-94	94	167	
GRT2{1}	0	79	-80	0	79	-80	80	163	
GRT3{1}	0	95	-96	1	95	-96	96	172	
L23 N- SIFI= 1.00 SIFO= 1.00									
Gravity{1}	0	7	-7	0	7	-7	7	1	
Hydrotest{1}	75	26	26	0	75	26	66	270	
Thermal 1{1}	0	34	-35	0	34	-35	35	161	
Thermal 2{1}	0	27	-28	0	27	-28	28	154	
Thermal 3{1}	0	35	-36	1	35	-36	36	168	
GRT1{1}	0	41	-42	0	41	-42	42	164	
GRT2{1}	0	34	-35	0	34	-35	35	160	
GRT3{1}	0	42	-43	1	42	-43	43	170	
L23 N+ SIFI= 1.00 SIFO= 1.00									
Gravity{1}	0	7	-7	0	7	-7	7	271	
Hydrotest{1}	75	26	26	0	75	26	66	270	
Thermal 1{1}	0	34	-35	0	34	-35	35	71	
Thermal 2{1}	0	27	-28	0	27	-28	28	64	
Thermal 3{1}	0	35	-36	1	35	-36	36	78	
GRT1{1}	0	41	-42	0	41	-42	42	74	
GRT2{1}	0	34	-35	0	34	-35	35	70	
GRT3{1}	0	42	-43	1	42	-43	43	80	
L23 F- SIFI= 1.00 SIFO= 1.00									
Gravity{1}	0	1	-1	3	3	-3	5	81	
Hydrotest{1}	75	26	26	0	75	26	66	270	
Thermal 1{1}	0	8	-8	17	21	-21	30	4	
Thermal 2{1}	0	9	-9	13	18	-18	24	4	
Thermal 3{1}	0	6	-6	18	21	-21	32	19	

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
-----	-----	-----	-----	-----	-----	-----	-----	---
	GRT1{1}	0	8	-8	20	24	-24	35
								358

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GRT2{1}	0	8	-8	16	20	-20	29	357
GRT3{1}	0	5	-5	21	24	-24	36	11
L23 F+ SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	1	-1	3	3	-3	5	171
Hydrotest{1}	75	26	26	0	75	26	66	270
Thermal 1{1}	0	8	-8	17	21	-21	30	94
Thermal 2{1}	0	9	-9	13	18	-18	24	94
Thermal 3{1}	0	6	-6	18	21	-21	32	109
GRT1{1}	0	8	-8	20	24	-24	35	88
GRT2{1}	0	8	-8	16	20	-20	29	87
GRT3{1}	0	5	-5	21	24	-24	36	101
L24 N- SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	9	-9	3	9	-9	10	180
Hydrotest{1}	75	26	26	0	75	26	66	270
Thermal 1{1}	0	14	-14	17	25	-25	32	249
Thermal 2{1}	0	15	-15	13	22	-22	27	254
Thermal 3{1}	0	10	-10	18	24	-24	33	225
GRT1{1}	0	14	-14	20	27	-27	36	285
GRT2{1}	0	15	-15	16	25	-25	31	287
GRT3{1}	0	7	-7	21	25	-25	37	280
L24 N+ SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	9	-9	3	9	-9	10	90
Hydrotest{1}	75	26	26	0	75	26	66	270
Thermal 1{1}	0	14	-14	17	25	-25	32	159
Thermal 2{1}	0	15	-15	13	22	-22	27	164
Thermal 3{1}	0	10	-10	18	24	-24	33	135
GRT1{1}	0	14	-14	20	27	-27	36	195
GRT2{1}	0	15	-15	16	25	-25	31	197
GRT3{1}	0	7	-7	21	25	-25	37	190
L24 F- SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	11	-11	1	11	-11	11	270
Hydrotest{1}	75	26	26	0	75	26	66	270
Thermal 1{1}	0	25	-25	14	31	-31	35	51
Thermal 2{1}	0	23	-22	11	27	-27	29	41
Thermal 3{1}	0	22	-21	15	30	-29	34	66
GRT1{1}	0	34	-34	13	39	-38	41	63
GRT2{1}	0	31	-30	10	34	-33	35	56
GRT3{1}	0	32	-32	14	37	-37	40	74
L24 F+ SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	11	-11	1	11	-11	11	0
Hydrotest{1}	75	26	26	0	75	26	66	270
Thermal 1{1}	0	25	-25	14	31	-31	35	141

	DVI_A_LINE_REV0.OUT							
Thermal 2{1}	0	23	-22	11	27	-27	29	131
Thermal 3{1}	0	22	-21	15	30	-29	34	156
GRT1{1}	0	34	-34	13	39	-38	41	153
GRT2{1}	0	31	-30	10	34	-33	35	146

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DVI_A_LINE_REV0

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AutoPIPE Plus 9.2.1 RESULT PAGE 143

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
								Loc
	GRT3{1}	0	32	-32	14	37	-37	40 164
L25	SIFI= 2.00 Gravity{1}	0	29	-29	1	29	-29	29 1
	Hydrotest{1}	75	26	26	0	75	26	66 270
	Thermal 1{1}	0	62	-61	14	65	-64	66 123
	Thermal 2{1}	0	61	-61	11	63	-63	64 114
	Thermal 3{1}	0	44	-44	15	49	-49	52 138
	GRT1{1}	0	81	-81	13	83	-83	84 141
	GRT2{1}	0	78	-77	10	79	-78	80 134
	GRT3{1}	0	69	-68	14	72	-71	73 155
L26	SIFI= 2.00 Gravity{1}	0	9	-9	0	9	-9	9 1
	Hydrotest{1}	100	38	38	0	100	38	87 270
	Thermal 1{1}	0	20	-19	4	20	-20	21 118
	Thermal 2{1}	0	20	-20	3	20	-20	21 110
	Thermal 3{1}	0	13	-13	4	15	-15	15 132
	GRT1{1}	0	25	-25	4	26	-26	26 137
	GRT2{1}	0	25	-24	3	25	-25	25 131
	GRT3{1}	0	21	-21	4	22	-21	22 152
L27	SIFI= 1.00 Gravity{1}	0	5	-5	0	5	-5	5 1
	Hydrotest{1}	100	38	38	0	100	38	87 270
	Thermal 1{1}	0	12	-11	4	13	-13	13 111
	Thermal 2{1}	0	12	-12	3	13	-12	13 104
	Thermal 3{1}	0	7	-7	4	9	-9	11 121
	GRT1{1}	0	14	-14	4	15	-15	16 131
	GRT2{1}	0	14	-14	3	15	-14	15 126
	GRT3{1}	0	11	-11	4	12	-12	13 146

DVI_A_LINE_REV0.OUT

*** Segment L end ***

*** Segment M begin ***

M00	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	0	0	0	0	0	0	334
	Hydrotest{1}		1	0	0	0	1	0	1	270
	Thermal 1{1}		0	2	-2	0	2	-2	2	102
	Thermal 2{1}		0	1	-1	0	1	-1	1	103
	Thermal 3{1}		0	11	-12	0	11	-12	12	205
	GRT1{1}		0	2	-2	0	2	-2	2	104
	GRT2{1}		0	1	-1	0	1	-1	1	105
	GRT3{1}		0	11	-12	0	11	-12	12	204
M01	SIFI= 2.00	SIFO= 2.00								
	Gravity{1}		0	0	0	0	0	0	0	196
	Hydrotest{1}		1	0	0	0	1	0	1	270
	Thermal 1{1}		0	3	-3	0	3	-3	3	99
	Thermal 2{1}		0	2	-2	0	2	-2	2	101
	Thermal 3{1}		0	19	-19	0	19	-19	19	204

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
								Loc
	GRT1{1}	0	3	-3	0	3	-3	3 96
	GRT2{1}	0	2	-2	0	2	-2	2 96
	GRT3{1}	0	19	-19	0	19	-19	19 204
M02	SIFI= 2.00	SIFO= 2.00						
	Gravity{1}	0	1	-1	1	2	-2	3 198
	Hydrotest{1}	0	0	0	0	0	0	0 270
	Thermal 1{1}	0	26	-26	1	26	-26	26 98
	Thermal 2{1}	0	19	-19	0	19	-19	19 100
	Thermal 3{1}	0	189	-190	0	189	-190	190 204
	GRT1{1}	0	26	-26	1	26	-26	26 95
	GRT2{1}	0	19	-20	1	20	-20	20 97
	GRT3{1}	0	187	-189	2	187	-189	189 204

*** Segment M end ***

*** Segment N begin ***

M02	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	1	-1	1	2	-2	3	198
	Hydrotest{1}		0	0	0	0	0	0	0	270
	Thermal 1{1}		0	13	-13	1	13	-13	13	98
	Thermal 2{1}		0	10	-10	0	10	-10	10	100
	Thermal 3{1}		0	94	-95	0	94	-95	95	204
	GRT1{1}		0	13	-13	1	13	-13	13	95
	GRT2{1}		0	10	-10	1	10	-10	10	97
	GRT3{1}		0	93	-95	2	93	-95	95	204
N01	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	2	-2	1	2	-2	3	358
	Hydrotest{1}		0	0	0	0	0	0	0	270
	Thermal 1{1}		0	9	-10	1	9	-10	10	92
	Thermal 2{1}		0	7	-7	0	7	-7	7	96
	Thermal 3{1}		0	67	-68	0	67	-68	68	202
	GRT1{1}		0	10	-10	1	10	-10	10	101
	GRT2{1}		0	7	-8	1	7	-8	8	108
	GRT3{1}		0	68	-70	2	68	-70	70	202
IV05	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	1	-1	1	2	-2	3	1
	Hydrotest{1}		0	0	0	0	0	0	0	270
	Thermal 1{1}		0	7	-7	1	7	-7	7	83
	Thermal 2{1}		0	5	-5	0	5	-5	5	89
	Thermal 3{1}		0	46	-47	0	46	-47	47	200
	GRT1{1}		0	7	-7	1	7	-7	7	95
	GRT2{1}		0	5	-5	1	5	-5	6	105
	GRT3{1}		0	47	-48	2	47	-49	49	199
N07	SIFI= 1.20 Gravity{1}	SIFO= 1.20	0	2	-2	1	3	-3	3	172
	Hydrotest{1}		0	0	0	0	0	0	0	270
	Thermal 1{1}		0	4	-4	1	4	-4	4	36

DVI_A_LINE_REV0

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GENERAL PIPE STRESS REPORT

Point	Load	Hoop	Longitudinal		Shear	Principal		Total	
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
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	Thermal 2{1}	0	2	-3	0	3	-3	3	48

DVI_A_LINE_REV0.OUT

	Thermal 3{1}		0	11	-13	0	11	-13	13	168
	GRT1{1}		0	6	-6	1	6	-6	6	23
	GRT2{1}		0	4	-4	1	4	-4	4	25
	GRT3{1}		0	10	-11	2	10	-11	11	168
N03	SIFI= 1.20 Gravity{1}	SIFO= 1.20	0	3	-3	1	4	-4	4	6
	Hydrotest{1}		0	0	0	0	0	0	0	270
	Thermal 1{1}		0	4	-5	1	4	-5	5	358
	Thermal 2{1}		0	2	-3	0	2	-3	3	360
	Thermal 3{1}		0	13	-14	0	13	-14	14	62
	GRT1{1}		0	1	-2	1	2	-2	2	340
	GRT2{1}		0	1	-1	1	1	-1	2	208
	GRT3{1}		0	11	-13	2	12	-13	13	74
CH14	SIFI= 1.20 Gravity{1}	SIFO= 1.20	0	4	-4	1	4	-4	4	7
	Hydrotest{1}		0	0	0	0	0	0	0	270
	Thermal 1{1}		0	6	-6	1	6	-6	6	335
	Thermal 2{1}		0	4	-4	0	4	-4	4	330
	Thermal 3{1}		0	31	-32	0	31	-32	32	42
	GRT1{1}		0	3	-4	1	4	-4	4	304
	GRT2{1}		0	2	-2	1	3	-3	3	261
	GRT3{1}		0	28	-29	2	28	-29	30	46
N05 N-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	2	-2	1	3	-3	3	168
	Hydrotest{1}		0	0	0	0	0	0	0	270
	Thermal 1{1}		0	8	-8	1	8	-8	8	318
	Thermal 2{1}		0	5	-5	0	5	-5	5	312
	Thermal 3{1}		0	52	-54	0	52	-54	54	34
	GRT1{1}		0	10	-10	1	10	-10	10	325
	GRT2{1}		0	7	-7	1	7	-8	8	323
	GRT3{1}		0	54	-55	2	54	-55	55	33
N05 N+	SIFI= 1.26 Gravity{1}	SIFO= 1.26	0	3	-3	1	4	-4	4	168
	Hydrotest{1}		0	0	0	0	0	0	0	270
	Thermal 1{1}		0	10	-10	1	10	-10	11	318
	Thermal 2{1}		0	7	-7	0	7	-7	7	312
	Thermal 3{1}		0	66	-68	0	66	-68	68	34
	GRT1{1}		0	13	-13	1	13	-13	13	325
	GRT2{1}		0	9	-9	1	9	-10	10	323
	GRT3{1}		0	68	-70	2	68	-70	70	33
N05 F-	SIFI= 1.26 Gravity{1}	SIFO= 1.26	0	5	-5	0	5	-5	5	313

	DVI_A_LINE_REV0.OUT							
Hydrotest{1}	0	0	0	0	0	0	0	270
Thermal 1{1}	0	7	-7	3	8	-8	9	12
Thermal 2{1}	0	4	-4	2	5	-5	6	13
Thermal 3{1}	0	53	-54	15	57	-58	60	1

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
								Loc
	GRT1{1}	0	11	-11	3	11	-12	12 348
	GRT2{1}	0	8	-8	2	9	-9	9 341
	GRT3{1}	0	57	-58	15	60	-61	63 357
N05 F+	SIFI= 1.00 SIFO= 1.00							
	Gravity{1}	0	4	-4	0	4	-4	4 223
	Hydrotest{1}	0	0	0	0	0	0	0 270
	Thermal 1{1}	0	6	-6	3	7	-7	8 282
	Thermal 2{1}	0	3	-3	2	4	-4	5 283
	Thermal 3{1}	0	42	-43	15	47	-48	51 271
	GRT1{1}	0	8	-9	3	9	-10	10 258
	GRT2{1}	0	6	-6	2	7	-7	8 251
	GRT3{1}	0	45	-46	15	49	-50	53 267
N06	SIFI= 1.00 SIFO= 1.00							
	Gravity{1}	0	4	-4	0	4	-4	4 223
	Hydrotest{1}	0	0	0	0	0	0	0 270
	Thermal 1{1}	0	4	-4	3	5	-5	6 136
	Thermal 2{1}	0	3	-3	2	4	-4	5 143
	Thermal 3{1}	0	15	-16	15	25	-26	31 11
	GRT1{1}	0	6	-6	3	7	-7	8 181
	GRT2{1}	0	5	-5	2	6	-6	7 192
	GRT3{1}	0	12	-13	15	22	-23	29 1

*** Segment N end ***

*** Segment 0 begin ***

A13	SIFI= 1.00 SIFO= 1.00							
	Gravity{1}	0	1	1	0	1	0	1 270
	Hydrotest{1}	61	19	19	0	61	19	54 270
	Thermal 1{1}	0	0	0	0	0	0	0 90
	Thermal 2{1}	0	0	0	0	0	0	0 90

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	Thermal 3{1}	0	0	0	0	0	0	90
	GRT1{1}	0	1	1	0	1	0	270
	GRT2{1}	0	1	1	0	1	0	270
	GRT3{1}	0	1	1	0	1	0	270
001	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	1	1	0	1	0	270
	Hydrotest{1}	61	19	19	0	61	19	54 270
	Thermal 1{1}	0	0	0	0	0	0	90
	Thermal 2{1}	0	0	0	0	0	0	90
	Thermal 3{1}	0	0	0	0	0	0	90
	GRT1{1}	0	1	1	0	1	0	270
	GRT2{1}	0	1	1	0	1	0	270
	GRT3{1}	0	1	1	0	1	0	270

*** Segment 0 end ***

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)

(Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
M02	Max P{1}					HOOP	6 104
	GR + Max P{1}	1			2.00	2-1 SUST	7 104
	TR:T1 to T3{1}			35	2.00	4-1 DISP	198 217
	Amb to T1{1}			5	2.00	4-1 DISP	26 247
	Amb to T2{1}			3	2.00	4-1 DISP	19 247
	Amb to T3{1}			34	2.00	4-1 DISP	189 217
	Hydrotest{1}	0	0		2.00	3-1 OCC	0 219
	Sus.+T1{1}				2.00	5-1 CRUP	14 <NOTE 1>
	Sus.+T2{1}				2.00	5-1 CRUP	12 <NOTE 1>
	Sus.+T3{1}				2.00	5-1 CRUP	55 <NOTE 1>
L18	Max P{1}					HOOP	59 86
	GR + Max P{1}	1			2.00	2-1 SUST	30 86
	TR:Amb to T2{1}			133	2.00	4-1 DISP	190 197
	Amb to T1{1}			129	2.00	4-1 DISP	185 247
	Amb to T2{1}			133	2.00	4-1 DISP	190 197
	Amb to T3{1}			70	2.00	4-1 DISP	101 217

DVI_A_LINE_REV0.OUT									
	Hydrotest{1}	0	0	2.00	3-1	OCC	44	219	
	Sus.+T1{1}			2.00	5-1	CRUP	76	<NOTE 1>	
	Sus.+T2{1}			2.00	5-1	CRUP	78	<NOTE 1>	
	Sus.+T3{1}			2.00	5-1	CRUP	55	<NOTE 1>	
J06	Max P{1}					HOOP	48	86	
	GR + Max P{1}	14		2.00	2-1	SUST	51	86	
	TR:Amb to T3{1}		67	2.00	4-1	DISP	172	217	
	Amb to T1{1}		24	2.00	4-1	DISP	60	197	
	Amb to T2{1}		24	2.00	4-1	DISP	61	197	
	Amb to T3{1}		67	2.00	4-1	DISP	172	217	
	Hydrotest{1}	0	0	2.00	3-1	OCC	37	219	
	Sus.+T1{1}			2.00	5-1	CRUP	66	<NOTE 1>	
	Sus.+T2{1}			2.00	5-1	CRUP	66	<NOTE 1>	
	Sus.+T3{1}			2.00	5-1	CRUP	94	<NOTE 1>	
A26	Max P{1}					HOOP	48	86	
	GR + Max P{1}	2		2.00	2-1	SUST	29	86	
	TR:Amb to T3{1}		57	2.00	4-1	DISP	147	217	
	Amb to T1{1}		16	2.00	4-1	DISP	41	197	
	Amb to T2{1}		14	2.00	4-1	DISP	36	197	
	Amb to T3{1}		57	2.00	4-1	DISP	147	217	
	Hydrotest{1}	0	0	2.00	3-1	OCC	37	219	
	Sus.+T1{1}			2.00	5-1	CRUP	39	<NOTE 1>	
	Sus.+T2{1}			2.00	5-1	CRUP	38	<NOTE 1>	
	Sus.+T3{1}			2.00	5-1	CRUP	66	<NOTE 1>	

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
L14	- Max P{1}					HOOP	102	86**	
	GR + Max P{1}	1			1.00	2-1 SUST	48	86	
	TR:Amb to T2{1}			180	1.00	4-1 DISP	0	197	
	Amb to T1{1}			173	1.00	4-1 DISP	0	247	
	Amb to T2{1}			180	1.00	4-1 DISP	0	197	
	Amb to T3{1}			97	1.00	4-1 DISP	0	217	

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Hydrotest{1}	0	0	1.00	3-1	OCC	72	219		
Sus.+T1{1}			1.00	5-1	CRUP	48	<NOTE 1>		
Sus.+T2{1}			1.00	5-1	CRUP	48	<NOTE 1>		
Sus.+T3{1}			1.00	5-1	CRUP	48	<NOTE 1>		
L16 + Max P{1}					HOOP	102	86**		
GR + Max P{1}	2		1.00	2-1	SUST	48	86		
TR:Amb to T2{1}		321	1.00	4-1	DISP	0	197		
Amb to T1{1}		305	1.00	4-1	DISP	0	247		
Amb to T2{1}		321	1.00	4-1	DISP	0	197		
Amb to T3{1}		177	1.00	4-1	DISP	0	217		
Hydrotest{1}	0	0	1.00	3-1	OCC	72	219		
Sus.+T1{1}			1.00	5-1	CRUP	48	<NOTE 1>		
Sus.+T2{1}			1.00	5-1	CRUP	48	<NOTE 1>		
Sus.+T3{1}			1.00	5-1	CRUP	48	<NOTE 1>		
L16 - Max P{1}					HOOP	102	86**		
GR + Max P{1}	5		1.00	2-1	SUST	48	86		
TR:Amb to T2{1}		30	1.00	4-1	DISP	0	197		
Amb to T1{1}		1	1.00	4-1	DISP	0	247		
Amb to T2{1}		30	1.00	4-1	DISP	0	197		
Amb to T3{1}		13	1.00	4-1	DISP	0	217		
Hydrotest{1}	0	0	1.00	3-1	OCC	72	219		
Sus.+T1{1}			1.00	5-1	CRUP	48	<NOTE 1>		
Sus.+T2{1}			1.00	5-1	CRUP	48	<NOTE 1>		
Sus.+T3{1}			1.00	5-1	CRUP	48	<NOTE 1>		
L13 + Max P{1}					HOOP	102	86**		
GR + Max P{1}	2		1.00	2-1	SUST	48	86		
TR:Amb to T2{1}		9	1.00	4-1	DISP	0	197		
Amb to T1{1}		0	1.00	4-1	DISP	0	247		
Amb to T2{1}		9	1.00	4-1	DISP	0	197		
Amb to T3{1}		4	1.00	4-1	DISP	0	217		
Hydrotest{1}	0	0	1.00	3-1	OCC	72	219		
Sus.+T1{1}			1.00	5-1	CRUP	48	<NOTE 1>		
Sus.+T2{1}			1.00	5-1	CRUP	48	<NOTE 1>		
Sus.+T3{1}			1.00	5-1	CRUP	48	<NOTE 1>		

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DVI_A_LINE_REV0.0UT

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F					
J07	Max P{1}							HOOP	59	86
	GR + Max P{1}	15			2.00	2-1	SUST		46	86
	TR:Amb to T3{1}			71	2.00	4-1	DISP		101	217
	Amb to T1{1}			25	2.00	4-1	DISP		35	197
	Amb to T2{1}			25	2.00	4-1	DISP		36	197
	Amb to T3{1}			71	2.00	4-1	DISP		101	217
	Hydrotest{1}	0	0		2.00	3-1	OCC		44	219
	Sus.+T1{1}				2.00	5-1	CRUP		55	<NOTE 1>
	Sus.+T2{1}				2.00	5-1	CRUP		55	<NOTE 1>
	Sus.+T3{1}				2.00	5-1	CRUP		71	<NOTE 1>
M02	Max P{1}							HOOP	6	104
	GR + Max P{1}	1			1.00	2-1	SUST		6	104
	TR:T1 to T3{1}			35	1.00	4-1	DISP		99	217
	Amb to T1{1}			5	1.00	4-1	DISP		13	247
	Amb to T2{1}			3	1.00	4-1	DISP		10	247
	Amb to T3{1}			34	1.00	4-1	DISP		95	217
	Hydrotest{1}	0	0		1.00	3-1	OCC		0	219
	Sus.+T1{1}				1.00	5-1	CRUP		10	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		9	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP		37	<NOTE 1>
A01	Max P{1}							HOOP	59	86
	GR + Max P{1}	2			2.00	2-1	SUST		32	86
	TR:Amb to T3{1}			62	2.00	4-1	DISP		88	217
	Amb to T1{1}			17	2.00	4-1	DISP		25	197
	Amb to T2{1}			15	2.00	4-1	DISP		21	197
	Amb to T3{1}			62	2.00	4-1	DISP		88	217
	Hydrotest{1}	0	0		2.00	3-1	OCC		44	219
	Sus.+T1{1}				2.00	5-1	CRUP		38	<NOTE 1>
	Sus.+T2{1}				2.00	5-1	CRUP		37	<NOTE 1>
	Sus.+T3{1}				2.00	5-1	CRUP		54	<NOTE 1>
L25	Max P{1}							HOOP	59	86
	GR + Max P{1}	21			2.00	2-1	SUST		52	86
	TR:Amb to T1{1}			58	2.00	4-1	DISP		82	197
	Amb to T1{1}			58	2.00	4-1	DISP		82	197
	Amb to T2{1}			52	2.00	4-1	DISP		75	197
	Amb to T3{1}			53	2.00	4-1	DISP		76	217
	Hydrotest{1}	0	0		2.00	3-1	OCC		44	219

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Sus.+T1{1}	2.00	5-1	CRUP	72 <NOTE 1>
Sus.+T2{1}	2.00	5-1	CRUP	70 <NOTE 1>
Sus.+T3{1}	2.00	5-1	CRUP	71 <NOTE 1>

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(Moments in N.m)

(Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F no. type	Stress	Allow.
L27	Max P{1}				HOOP	77	86
	GR + Max P{1}	25			1.00 2-1 SUST	43	86
	TR:Amb to T1{1}			66	1.00 4-1 DISP	14	197
	Amb to T1{1}			66	1.00 4-1 DISP	14	197
	Amb to T2{1}			64	1.00 4-1 DISP	13	197
	Amb to T3{1}			55	1.00 4-1 DISP	12	217
	Hydrotest{1}	0	0		1.00 3-1 OCC	56	219
	Sus.+T1{1}				1.00 5-1 CRUP	47 <NOTE 1>	
	Sus.+T2{1}				1.00 5-1 CRUP	47 <NOTE 1>	
	Sus.+T3{1}				1.00 5-1 CRUP	47 <NOTE 1>	
L26	Max P{1}				HOOP	77	86
	GR + Max P{1}	22			2.00 2-1 SUST	45	86
	TR:Amb to T1{1}			60	2.00 4-1 DISP	25	197
	Amb to T1{1}			60	2.00 4-1 DISP	25	197
	Amb to T2{1}			56	2.00 4-1 DISP	23	197
	Amb to T3{1}			53	2.00 4-1 DISP	22	217
	Hydrotest{1}	0	0		2.00 3-1 OCC	56	219
	Sus.+T1{1}				2.00 5-1 CRUP	51 <NOTE 1>	
	Sus.+T2{1}				2.00 5-1 CRUP	50 <NOTE 1>	
	Sus.+T3{1}				2.00 5-1 CRUP	50 <NOTE 1>	
L17	Max P{1}				HOOP	77	86
	GR + Max P{1}	1			2.00 2-1 SUST	38	86
	TR:Amb to T2{1}			140	2.00 4-1 DISP	59	197
	Amb to T1{1}			136	2.00 4-1 DISP	57	247
	Amb to T2{1}			140	2.00 4-1 DISP	59	197
	Amb to T3{1}			75	2.00 4-1 DISP	31	217
	Hydrotest{1}	0	0		2.00 3-1 OCC	56	219

Sus.+T1{1}	2.00	5-1 CRUP	52 <NOTE 1>
Sus.+T2{1}	2.00	5-1 CRUP	52 <NOTE 1>
Sus.+T3{1}	2.00	5-1 CRUP	45 <NOTE 1>

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L14	+ Max P{1}				H00P	77	86
	GR + Max P{1}	1		1.00	2-1 SUST	38	86
	TR:Amb to T2{1}		180	1.00	4-1 DISP	38	197
	Amb to T1{1}		173	1.00	4-1 DISP	36	247
	Amb to T2{1}		180	1.00	4-1 DISP	38	197
	Amb to T3{1}		97	1.00	4-1 DISP	20	217
	Hydrotest{1}	0	0	1.00	3-1 OCC	56	219

Sus.+T1{1}	1.00	5-1 CRUP	50 <NOTE 1>
Sus.+T2{1}	1.00	5-1 CRUP	50 <NOTE 1>
Sus.+T3{1}	1.00	5-1 CRUP	44 <NOTE 1>

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L12	-	Max P{1}				H00P	77	86
		GR + Max P{1}	1		1.00	2-1 SUST	38	86
		TR:Amb to T2{1}		7	1.00	4-1 DISP	2	197
		Amb to T1{1}		0	1.00	4-1 DISP	0	247
		Amb to T2{1}		7	1.00	4-1 DISP	2	197
		Amb to T3{1}		3	1.00	4-1 DISP	1	217
		Hydrotest{1}	0	0	1.00	3-1 OCC	56	219

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	Sus.+T1{1}		1.00	5-1	CRUP	38	<NOTE 1>
	Sus.+T2{1}		1.00	5-1	CRUP	38	<NOTE 1>
	Sus.+T3{1}		1.00	5-1	CRUP	38	<NOTE 1>
L11	Max P{1}				HOOP	77	86
	GR + Max P{1}	1	2.00	2-1	SUST	38	86
	TR:Amb to T2{1}		7	2.00	4-1	DISP	3 197
	Amb to T1{1}		0	2.00	4-1	DISP	0 247
	Amb to T2{1}		7	2.00	4-1	DISP	3 197
	Amb to T3{1}		3	2.00	4-1	DISP	1 217
	Hydrotest{1}	0 0	2.00	3-1	OCC	56	219
	Sus.+T1{1}		2.00	5-1	CRUP	38	<NOTE 1>
	Sus.+T2{1}		2.00	5-1	CRUP	39	<NOTE 1>
	Sus.+T3{1}		2.00	5-1	CRUP	38	<NOTE 1>
L07 F+	Max P{1}				HOOP	44	86
	GR + Max P{1}	3	1.00	2-1	SUST	30	86
	TR:Amb to T2{1}		31	1.00	4-1	DISP	74 197
	Amb to T1{1}		1	1.00	4-1	DISP	3 247
	Amb to T2{1}		31	1.00	4-1	DISP	74 197
	Amb to T3{1}		15	1.00	4-1	DISP	35 217
	Hydrotest{1}	0 0	1.00	3-1	OCC	35	219
	Sus.+T1{1}		1.00	5-1	CRUP	31	<NOTE 1>
	Sus.+T2{1}		1.00	5-1	CRUP	55	<NOTE 1>
	Sus.+T3{1}		1.00	5-1	CRUP	42	<NOTE 1>
L07 F-	Max P{1}				HOOP	44	86
	GR + Max P{1}	3	1.00	2-1	SUST	30	86
	TR:Amb to T2{1}		31	1.00	4-1	DISP	74 197
	Amb to T1{1}		1	1.00	4-1	DISP	3 247
	Amb to T2{1}		31	1.00	4-1	DISP	74 197
	Amb to T3{1}		15	1.00	4-1	DISP	35 217
	Hydrotest{1}	0 0	1.00	3-1	OCC	35	219
	Sus.+T1{1}		1.00	5-1	CRUP	31	<NOTE 1>
	Sus.+T2{1}		1.00	5-1	CRUP	55	<NOTE 1>
	Sus.+T3{1}		1.00	5-1	CRUP	42	<NOTE 1>

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(Moments in N.m)			(Stress in N/mm2)					
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code	
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.

L07 M	Max P{1}					HOOP	44	86
	GR + Max P{1}	3			1.00	2-1 SUST	30	86
	TR:Amb to T2{1}			31	1.00	4-1 DISP	74	197
	Amb to T1{1}			1	1.00	4-1 DISP	3	247
	Amb to T2{1}			31	1.00	4-1 DISP	74	197
	Amb to T3{1}			15	1.00	4-1 DISP	35	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	35	219
	Sus.+T1{1}				1.00	5-1 CRUP	31	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	55	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	42	<NOTE 1>
L07 N-	Max P{1}					HOOP	44	86
	GR + Max P{1}	3			1.00	2-1 SUST	29	86
	TR:Amb to T2{1}			30	1.00	4-1 DISP	72	197
	Amb to T1{1}			1	1.00	4-1 DISP	2	247
	Amb to T2{1}			30	1.00	4-1 DISP	72	197
	Amb to T3{1}			14	1.00	4-1 DISP	34	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	35	219
	Sus.+T1{1}				1.00	5-1 CRUP	30	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	53	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	41	<NOTE 1>
L07 N+	Max P{1}					HOOP	44	86
	GR + Max P{1}	3			1.00	2-1 SUST	29	86
	TR:Amb to T2{1}			30	1.00	4-1 DISP	72	197
	Amb to T1{1}			1	1.00	4-1 DISP	2	247
	Amb to T2{1}			30	1.00	4-1 DISP	72	197
	Amb to T3{1}			14	1.00	4-1 DISP	34	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	35	219
	Sus.+T1{1}				1.00	5-1 CRUP	30	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	53	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	41	<NOTE 1>
L03	Max P{1}					HOOP	44	86
	GR + Max P{1}	11			1.00	2-1 SUST	50	86
	TR:Amb to T2{1}			27	1.00	4-1 DISP	64	197
	Amb to T1{1}			5	1.00	4-1 DISP	12	197
	Amb to T2{1}			27	1.00	4-1 DISP	64	197
	Amb to T3{1}			18	1.00	4-1 DISP	43	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	35	219

	DVI_A_LINE_REV0.OUT			
Sus.+T1{1}	1.00	5-1	CRUP	54 <NOTE 1>
Sus.+T2{1}	1.00	5-1	CRUP	72 <NOTE 1>
Sus.+T3{1}	1.00	5-1	CRUP	64 <NOTE 1>

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Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. Load no. type			
N01	Max P{1}					HOOP		6	104
	GR + Max P{1}	1			1.00	2-1 SUST		6	104
	TR:T1 to T3{1}			25	1.00	4-1 DISP		71	217
	Amb to T1{1}			3	1.00	4-1 DISP		10	247
	Amb to T2{1}			3	1.00	4-1 DISP		7	247
	Amb to T3{1}			24	1.00	4-1 DISP		68	217
	Hydrotest{1}	0	0		1.00	3-1 OCC		0	219
	Sus.+T1{1}				1.00	5-1 CRUP		9 <NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP		8 <NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP		29 <NOTE 1>	
L22	Max P{1}					HOOP		59	86
	GR + Max P{1}	19			2.10	2-1 SUST		51	86
	TR:Amb to T3{1}			45	2.10	4-1 DISP		67	217
	Amb to T1{1}			44	2.10	4-1 DISP		66	197
	Amb to T2{1}			35	2.10	4-1 DISP		52	197
	Amb to T3{1}			45	2.10	4-1 DISP		67	217
	Hydrotest{1}	0	0		2.10	3-1 OCC		44	219
	Sus.+T1{1}				2.10	5-1 CRUP		68 <NOTE 1>	
	Sus.+T2{1}				2.10	5-1 CRUP		64 <NOTE 1>	
	Sus.+T3{1}				2.10	5-1 CRUP		68 <NOTE 1>	
N05 N+	Max P{1}					HOOP		6	104
	GR + Max P{1}	1			1.26	2-1 SUST		7	104
	TR:Amb to T3{1}			19	1.26	4-1 DISP		67	217
	Amb to T1{1}			3	1.26	4-1 DISP		10	247
	Amb to T2{1}			2	1.26	4-1 DISP		7	247
	Amb to T3{1}			19	1.26	4-1 DISP		67	217
	Hydrotest{1}	0	0		1.26	3-1 OCC		0	219

		DVI_A_LINE_REV0.0UT					
	Sus.+T1{1}		1.26	5-1	CRUP	9	<NOTE 1>
	Sus.+T2{1}		1.26	5-1	CRUP	8	<NOTE 1>
	Sus.+T3{1}		1.26	5-1	CRUP	24	<NOTE 1>
L21	Max P{1}				HOOP	59	86
	GR + Max P{1}	20	2.10	2-1	SUST	52	86
	TR:Amb to T3{1}		41	2.10	4-1 DISP	61	217
	Amb to T1{1}		40	2.10	4-1 DISP	60	197
	Amb to T2{1}		32	2.10	4-1 DISP	48	197
	Amb to T3{1}		41	2.10	4-1 DISP	61	217
	Hydrotest{1}	0	0	2.10	3-1 OCC	44	219
	Sus.+T1{1}		2.10	5-1	CRUP	67	<NOTE 1>
	Sus.+T2{1}		2.10	5-1	CRUP	64	<NOTE 1>
	Sus.+T3{1}		2.10	5-1	CRUP	67	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

N05 F-	Max P{1}					HOOP	6	104	
	GR + Max P{1}	1			1.26	2-1 SUST	7	104	
	TR:T2 to T3{1}			19	1.26	4-1 DISP	67	217	
	Amb to T1{1}			3	1.26	4-1 DISP	10	247	
	Amb to T2{1}			2	1.26	4-1 DISP	7	247	
	Amb to T3{1}			19	1.26	4-1 DISP	66	217	
	Hydrotest{1}	0	0		1.26	3-1 OCC	0	219	
	Sus.+T1{1}				1.26	5-1 CRUP	9	<NOTE 1>	
	Sus.+T2{1}				1.26	5-1 CRUP	9	<NOTE 1>	
	Sus.+T3{1}				1.26	5-1 CRUP	24	<NOTE 1>	
CH03	Max P{1}					HOOP	44	86	
	GR + Max P{1}	9			1.00	2-1 SUST	44	86	
	TR:Amb to T2{1}			27	1.00	4-1 DISP	64	197	
	Amb to T1{1}			5	1.00	4-1 DISP	12	247	
	Amb to T2{1}			27	1.00	4-1 DISP	64	197	
	Amb to T3{1}			18	1.00	4-1 DISP	43	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	35	219	

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	Sus.+T1{1}			1.00	5-1	CRUP	48	<NOTE 1>	
	Sus.+T2{1}			1.00	5-1	CRUP	66	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1	CRUP	59	<NOTE 1>	
J08	Max P{1}					HOOP	59	86	
	GR + Max P{1}	19		1.00	2-1	SUST	43	86	
	TR:Amb to T3{1}		78	1.00	4-1	DISP	56	217	
	Amb to T1{1}		27	1.00	4-1	DISP	19	197	
	Amb to T2{1}		27	1.00	4-1	DISP	20	197	
	Amb to T3{1}		78	1.00	4-1	DISP	56	217	
	Hydrotest{1}	0	0	1.00	3-1	OCC	44	219	
	Sus.+T1{1}			1.00	5-1	CRUP	50	<NOTE 1>	
	Sus.+T2{1}			1.00	5-1	CRUP	50	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1	CRUP	62	<NOTE 1>	
K01	Max P{1}					HOOP	48	86	
	GR + Max P{1}	1		2.00	2-1	SUST	26	86	
	TR:Amb to T3{1}		24	2.00	4-1	DISP	60	217	
	Amb to T1{1}		9	2.00	4-1	DISP	23	197	
	Amb to T2{1}		11	2.00	4-1	DISP	27	197	
	Amb to T3{1}		24	2.00	4-1	DISP	60	217	
	Hydrotest{1}	0	0	2.00	3-1	OCC	37	219	
	Sus.+T1{1}			2.00	5-1	CRUP	32	<NOTE 1>	
	Sus.+T2{1}			2.00	5-1	CRUP	33	<NOTE 1>	
	Sus.+T3{1}			2.00	5-1	CRUP	41	<NOTE 1>	

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
IV03	Max P{1}					HOOP	6	104	
	GR + Max P{1}	18			1.00	2-1 SUST	55	104	
	TR:T1 to T3{1}			6	1.00	4-1 DISP	16	217	
	Amb to T1{1}			1	1.00	4-1 DISP	2	247	
	Amb to T2{1}			0	1.00	4-1 DISP	1	247	
	Amb to T3{1}			5	1.00	4-1 DISP	15	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	0	219	

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	Sus.+T1{1}			1.00	5-1	CRUP	55	<NOTE 1>	
	Sus.+T2{1}			1.00	5-1	CRUP	55	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1	CRUP	60	<NOTE 1>	
F05	Max P{1}					HOOP	6	104	
	GR + Max P{1}	18		1.00	2-1	SUST	54	104	
	TR:T1 to T3{1}		6	1.00	4-1	DISP	16	217	
	Amb to T1{1}		0	1.00	4-1	DISP	1	247	
	Amb to T2{1}		0	1.00	4-1	DISP	1	247	
	Amb to T3{1}		6	1.00	4-1	DISP	16	217	
	Hydrotest{1}	0	0	1.00	3-1	OCC	0	219	
	Sus.+T1{1}			1.00	5-1	CRUP	55	<NOTE 1>	
	Sus.+T2{1}			1.00	5-1	CRUP	55	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1	CRUP	60	<NOTE 1>	
L24 F+	Max P{1}					HOOP	59	86	
	GR + Max P{1}	16		1.00	2-1	SUST	41	86	
	TR:Amb to T3{1}		52	1.00	4-1	DISP	37	217	
	Amb to T1{1}		52	1.00	4-1	DISP	37	197	
	Amb to T2{1}		43	1.00	4-1	DISP	31	197	
	Amb to T3{1}		52	1.00	4-1	DISP	37	217	
	Hydrotest{1}	0	0	1.00	3-1	OCC	44	219	
	Sus.+T1{1}			1.00	5-1	CRUP	53	<NOTE 1>	
	Sus.+T2{1}			1.00	5-1	CRUP	51	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1	CRUP	53	<NOTE 1>	
L24 F-	Max P{1}					HOOP	59	86	
	GR + Max P{1}	16		1.00	2-1	SUST	41	86	
	TR:Amb to T3{1}		52	1.00	4-1	DISP	37	217	
	Amb to T1{1}		52	1.00	4-1	DISP	37	197	
	Amb to T2{1}		43	1.00	4-1	DISP	31	197	
	Amb to T3{1}		52	1.00	4-1	DISP	37	217	
	Hydrotest{1}	0	0	1.00	3-1	OCC	44	219	
	Sus.+T1{1}			1.00	5-1	CRUP	53	<NOTE 1>	
	Sus.+T2{1}			1.00	5-1	CRUP	51	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1	CRUP	53	<NOTE 1>	

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DVI_A_LINE_REV0

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)

(Stress in N/mm2)

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DVI_A_LINE_REV0.OUT

Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.

L24 N+	Max P{1}					HOOP	59	86
	GR + Max P{1}	14			1.00	2-1 SUST	40	86
	TR:Amb to T3{1}			52	1.00	4-1 DISP	37	217
	Amb to T1{1}			51	1.00	4-1 DISP	36	197
	Amb to T2{1}			42	1.00	4-1 DISP	30	197
	Amb to T3{1}			52	1.00	4-1 DISP	37	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	44	219
	Sus.+T1{1}				1.00	5-1 CRUP	52	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	50	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	52	<NOTE 1>
L24 N-	Max P{1}					HOOP	59	86
	GR + Max P{1}	14			1.00	2-1 SUST	40	86
	TR:Amb to T3{1}			52	1.00	4-1 DISP	37	217
	Amb to T1{1}			51	1.00	4-1 DISP	36	197
	Amb to T2{1}			42	1.00	4-1 DISP	30	197
	Amb to T3{1}			52	1.00	4-1 DISP	37	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	44	219
	Sus.+T1{1}				1.00	5-1 CRUP	52	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	50	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	52	<NOTE 1>
L23 F+	Max P{1}					HOOP	59	86
	GR + Max P{1}	8			1.00	2-1 SUST	35	86
	TR:Amb to T3{1}			51	1.00	4-1 DISP	36	217
	Amb to T1{1}			48	1.00	4-1 DISP	34	197
	Amb to T2{1}			38	1.00	4-1 DISP	27	197
	Amb to T3{1}			51	1.00	4-1 DISP	36	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	44	219
	Sus.+T1{1}				1.00	5-1 CRUP	47	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	44	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	47	<NOTE 1>
L23 F-	Max P{1}					HOOP	59	86
	GR + Max P{1}	8			1.00	2-1 SUST	35	86
	TR:Amb to T3{1}			51	1.00	4-1 DISP	36	217
	Amb to T1{1}			48	1.00	4-1 DISP	34	197
	Amb to T2{1}			38	1.00	4-1 DISP	27	197
	Amb to T3{1}			51	1.00	4-1 DISP	36	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	44	219
	Sus.+T1{1}				1.00	5-1 CRUP	47	<NOTE 1>

Sus.+T2{1}	1.00	5-1 CRUP	44 <NOTE 1>
Sus.+T3{1}	1.00	5-1 CRUP	47 <NOTE 1>

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			(Moments in N.m)		(Stress in N/mm2)			
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code	
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.	
-----	-----	-----	-----	-----	-----	-----	-----	
L23 N+	Max P{1}					HOOP	59 86	
	GR + Max P{1}	10			1.00	2-1 SUST	37 86	
	TR:Amb to T3{1}			50	1.00	4-1 DISP	36 217	
	Amb to T1{1}			48	1.00	4-1 DISP	35 197	
	Amb to T2{1}			39	1.00	4-1 DISP	28 197	
	Amb to T3{1}			50	1.00	4-1 DISP	36 217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	44 219	
	Sus.+T1{1}				1.00	5-1 CRUP	48 <NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	46 <NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	48 <NOTE 1>	
L23 N-	Max P{1}					HOOP	59 86	
	GR + Max P{1}	10			1.00	2-1 SUST	37 86	
	TR:Amb to T3{1}			50	1.00	4-1 DISP	36 217	
	Amb to T1{1}			48	1.00	4-1 DISP	35 197	
	Amb to T2{1}			39	1.00	4-1 DISP	28 197	
	Amb to T3{1}			50	1.00	4-1 DISP	36 217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	44 219	
	Sus.+T1{1}				1.00	5-1 CRUP	48 <NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	46 <NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	48 <NOTE 1>	
L29 +	Max P{1}					HOOP	59 86	
	GR + Max P{1}	24			1.00	2-1 SUST	46 86	
	TR:Amb to T3{1}			50	1.00	4-1 DISP	36 217	
	Amb to T1{1}			39	1.00	4-1 DISP	28 197	
	Amb to T2{1}			34	1.00	4-1 DISP	25 197	
	Amb to T3{1}			50	1.00	4-1 DISP	36 217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	44 219	
	Sus.+T1{1}				1.00	5-1 CRUP	55 <NOTE 1>	

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Sus.+T2{1}			1.00	5-1	CRUP	54	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	58	<NOTE 1>
L29 - Max P{1}					HOOP	59	86
GR + Max P{1}	24		1.00	2-1	SUST	46	86
TR:Amb to T3{1}			50	1.00	4-1	DISP	36 217
Amb to T1{1}			39	1.00	4-1	DISP	28 197
Amb to T2{1}			34	1.00	4-1	DISP	25 197
Amb to T3{1}			50	1.00	4-1	DISP	36 217
Hydrotest{1}	0	0	1.00	3-1	OCC	44	219
Sus.+T1{1}			1.00	5-1	CRUP	55	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	54	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	58	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

L20 F+ Max P{1}						HOOP	59	86	
GR + Max P{1}		1			1.00	2-1 SUST	30	86	
TR:Amb to T2{1}				42	1.00	4-1 DISP	30	197	
Amb to T1{1}				35	1.00	4-1 DISP	25	197	
Amb to T2{1}				42	1.00	4-1 DISP	30	197	
Amb to T3{1}				18	1.00	4-1 DISP	13	217	
Hydrotest{1}		0	0		1.00	3-1 OCC	44	219	
Sus.+T1{1}					1.00	5-1 CRUP	38	<NOTE 1>	
Sus.+T2{1}					1.00	5-1 CRUP	40	<NOTE 1>	
Sus.+T3{1}					1.00	5-1 CRUP	34	<NOTE 1>	
L20 F- Max P{1}						HOOP	59	86	
GR + Max P{1}		1			1.00	2-1 SUST	30	86	
TR:Amb to T2{1}				42	1.00	4-1 DISP	30	197	
Amb to T1{1}				35	1.00	4-1 DISP	25	197	
Amb to T2{1}				42	1.00	4-1 DISP	30	197	
Amb to T3{1}				18	1.00	4-1 DISP	13	217	
Hydrotest{1}		0	0		1.00	3-1 OCC	44	219	
Sus.+T1{1}					1.00	5-1 CRUP	38	<NOTE 1>	

DVI_A_LINE_REV0.OUT

Sus.+T2{1}			1.00	5-1	CRUP	40	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	34	<NOTE 1>
L20 N+ Max P{1}					HOOP	59	86
GR + Max P{1}	1		1.00	2-1	SUST	30	86
TR:Amb to T2{1}			44	1.00	4-1	DISP	31 197
Amb to T1{1}			37	1.00	4-1	DISP	26 197
Amb to T2{1}			44	1.00	4-1	DISP	31 197
Amb to T3{1}			19	1.00	4-1	DISP	13 217
Hydrotest{1}	0	0	1.00	3-1	OCC	44	219
Sus.+T1{1}			1.00	5-1	CRUP	39	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	41	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	35	<NOTE 1>
L20 N- Max P{1}					HOOP	59	86
GR + Max P{1}	1		1.00	2-1	SUST	30	86
TR:Amb to T2{1}			44	1.00	4-1	DISP	31 197
Amb to T1{1}			37	1.00	4-1	DISP	26 197
Amb to T2{1}			44	1.00	4-1	DISP	31 197
Amb to T3{1}			19	1.00	4-1	DISP	13 217
Hydrotest{1}	0	0	1.00	3-1	OCC	44	219
Sus.+T1{1}			1.00	5-1	CRUP	39	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	41	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	35	<NOTE 1>

DVI_A_LINE_REV0

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. no.	Load type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F						
L19N + Max P{1}									HOOP	59	86
GR + Max P{1}		2			1.00	2-1	SUST	31		86	
TR:Amb to T2{1}				72	1.00	4-1	DISP	51		197	
Amb to T1{1}				62	1.00	4-1	DISP	44		197	
Amb to T2{1}				72	1.00	4-1	DISP	51		197	
Amb to T3{1}				45	1.00	4-1	DISP	32		217	
Hydrotest{1}		0	0		1.00	3-1	OCC	44		219	
Sus.+T1{1}					1.00	5-1	CRUP	46		<NOTE 1>	

Sus.+T2{1}			1.00	5-1 CRUP	48	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	42	<NOTE 1>
Max P{1}				HOOP	59	86
GR + Max P{1}	2		1.00	2-1 SUST	31	86
TR:Amb to T2{1}		72	1.00	4-1 DISP	51	197
Amb to T1{1}		62	1.00	4-1 DISP	44	197
Amb to T2{1}		72	1.00	4-1 DISP	51	197
Amb to T3{1}		45	1.00	4-1 DISP	32	217
Hydrotest{1}	0	0	1.00	3-1 OCC	44	219
Sus.+T1{1}			1.00	5-1 CRUP	46	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	48	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	42	<NOTE 1>

L19 N+ Max P{1}					HOOP	59	86
GR + Max P{1}	2		1.00	2-1	SUST	31	86
TR:Amb to T2{1}		69	1.00	4-1	DISP	50	197
Amb to T1{1}		60	1.00	4-1	DISP	43	197
Amb to T2{1}		69	1.00	4-1	DISP	50	197
Amb to T3{1}		45	1.00	4-1	DISP	32	217
Hydrotest{1}	0	0	1.00	3-1	OCC	44	219
Sus.+T1{1}			1.00	5-1	CRUP	45	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	47	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	41	<NOTE 1>

L19 N- Max P{1}					HOOP	59	86
GR + Max P{1}	2		1.00	2-1	SUST	31	86
TR:Amb to T2{1}		69	1.00	4-1	DISP	50	197
Amb to T1{1}		60	1.00	4-1	DISP	43	247
Amb to T2{1}		69	1.00	4-1	DISP	50	197
Amb to T3{1}		45	1.00	4-1	DISP	32	217
Hydrotest{1}	0	0	1.00	3-1	OCC	44	219
Sus.+T1{1}			1.00	5-1	CRUP	45	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	47	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	41	<NOTE 1>

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Point name	Load combination	DVI_A_LINE_REV0.OUT				Eq. Load no. type	Code Stress	Code Allow.	
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F				

L10	Max P{1}						HOOP	59	86
	GR + Max P{1}	1			2.00	2-1	SUST	30	86
	TR:Amb to T2{1}			6	2.00	4-1	DISP	9	197
	Amb to T1{1}			0	2.00	4-1	DISP	0	247
	Amb to T2{1}			6	2.00	4-1	DISP	9	197
	Amb to T3{1}			3	2.00	4-1	DISP	4	217
	Hydrotest{1}	0	0		2.00	3-1	OCC	44	219
	Sus.+T1{1}				2.00	5-1	CRUP	31	<NOTE 1>
	Sus.+T2{1}				2.00	5-1	CRUP	33	<NOTE 1>
	Sus.+T3{1}				2.00	5-1	CRUP	31	<NOTE 1>
K03	Max P{1}						HOOP	59	86
	GR + Max P{1}	2			1.00	2-1	SUST	31	86
	TR:Amb to T3{1}			30	1.00	4-1	DISP	22	217
	Amb to T1{1}			11	1.00	4-1	DISP	8	197
	Amb to T2{1}			13	1.00	4-1	DISP	9	197
	Amb to T3{1}			30	1.00	4-1	DISP	22	217
	Hydrotest{1}	0	0		1.00	3-1	OCC	44	219
	Sus.+T1{1}				1.00	5-1	CRUP	33	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP	34	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP	38	<NOTE 1>
K02	Max P{1}						HOOP	59	86
	GR + Max P{1}	1			2.00	2-1	SUST	31	86
	TR:Amb to T3{1}			26	2.00	4-1	DISP	37	217
	Amb to T1{1}			10	2.00	4-1	DISP	14	197
	Amb to T2{1}			11	2.00	4-1	DISP	16	197
	Amb to T3{1}			26	2.00	4-1	DISP	37	217
	Hydrotest{1}	0	0		2.00	3-1	OCC	44	219
	Sus.+T1{1}				2.00	5-1	CRUP	34	<NOTE 1>
	Sus.+T2{1}				2.00	5-1	CRUP	35	<NOTE 1>
	Sus.+T3{1}				2.00	5-1	CRUP	40	<NOTE 1>
A00	Max P{1}						HOOP	59	86
	GR + Max P{1}	3			1.00	2-1	SUST	31	86
	TR:Amb to T3{1}			72	1.00	4-1	DISP	51	217
	Amb to T1{1}			19	1.00	4-1	DISP	14	197
	Amb to T2{1}			17	1.00	4-1	DISP	12	197
	Amb to T3{1}			72	1.00	4-1	DISP	51	217
	Hydrotest{1}	0	0		1.00	3-1	OCC	44	219
	Sus.+T1{1}				1.00	5-1	CRUP	36	<NOTE 1>

Sus.+T2{1}	DVI_A_LINE_REV0.OUT	1.00	5-1	CRUP	35 <NOTE 1>
Sus.+T3{1}		1.00	5-1	CRUP	48 <NOTE 1>

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DVI_A_LINE_REV0

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BENTLEY

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AutoPIPE Plus 9.2.1 RESULT PAGE 162

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

F10	Max P{1}					HOOP	6	104	
	GR + Max P{1}	4			2.00	2-1 SUST	18	104	
	TR:T1 to T3{1}			10	2.00	4-1 DISP	54	217	
	Amb to T1{1}			2	2.00	4-1 DISP	9	247	
	Amb to T2{1}			1	2.00	4-1 DISP	6	247	
	Amb to T3{1}			8	2.00	4-1 DISP	45	217	
	Hydrotest{1}	0	0		2.00	3-1 OCC	0	219	
	Sus.+T1{1}				2.00	5-1 CRUP	20	<NOTE 1>	
	Sus.+T2{1}				2.00	5-1 CRUP	19	<NOTE 1>	
	Sus.+T3{1}				2.00	5-1 CRUP	29	<NOTE 1>	
C015 +	Max P{1}					HOOP	44	86	
	GR + Max P{1}	6			1.00	2-1 SUST	37	86	
	TR:Amb to T2{1}			20	1.00	4-1 DISP	48	197	
	Amb to T1{1}			4	1.00	4-1 DISP	10	247	
	Amb to T2{1}			20	1.00	4-1 DISP	48	197	
	Amb to T3{1}			14	1.00	4-1 DISP	34	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	35	219	
	Sus.+T1{1}				1.00	5-1 CRUP	40	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	53	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	48	<NOTE 1>	
C015 -	Max P{1}					HOOP	44	86	
	GR + Max P{1}	6			1.00	2-1 SUST	37	86	
	TR:Amb to T2{1}			20	1.00	4-1 DISP	48	197	
	Amb to T1{1}			4	1.00	4-1 DISP	10	247	
	Amb to T2{1}			20	1.00	4-1 DISP	48	197	
	Amb to T3{1}			14	1.00	4-1 DISP	34	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	35	219	
	Sus.+T1{1}				1.00	5-1 CRUP	40	<NOTE 1>	

DVI_A_LINE_REV0.OUT									
Sus.+T2{1}			1.00	5-1	CRUP	53	<NOTE 1>		
Sus.+T3{1}			1.00	5-1	CRUP	48	<NOTE 1>		
N05 N- Max P{1}					HOOP	6		104	
GR + Max P{1}	1		1.00	2-1	SUST	7		104	
TR:Amb to T3{1}			19	1.00	4-1	DISP	53		217
Amb to T1{1}			3	1.00	4-1	DISP	8		247
Amb to T2{1}			2	1.00	4-1	DISP	5		247
Amb to T3{1}			19	1.00	4-1	DISP	53		217
Hydrotest{1}	0	0		1.00	3-1	OCC	0		219
Sus.+T1{1}				1.00	5-1	CRUP	9	<NOTE 1>	
Sus.+T2{1}				1.00	5-1	CRUP	8	<NOTE 1>	
Sus.+T3{1}				1.00	5-1	CRUP	24	<NOTE 1>	

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DVI_A_LINE_REV0

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
J02 F+ Max P{1}						HOOP	48	86	
GR + Max P{1}		9			1.00	2-1 SUST	36	86	
TR:Amb to T3{1}				39	1.00	4-1 DISP	50	217	
Amb to T1{1}				13	1.00	4-1 DISP	16	197	
Amb to T2{1}				13	1.00	4-1 DISP	17	197	
Amb to T3{1}				39	1.00	4-1 DISP	50	217	
Hydrotest{1}		0	0		1.00	3-1 OCC	37	219	
Sus.+T1{1}					1.00	5-1 CRUP	42	<NOTE 1>	
Sus.+T2{1}					1.00	5-1 CRUP	42	<NOTE 1>	
Sus.+T3{1}					1.00	5-1 CRUP	53	<NOTE 1>	
J02 F- Max P{1}						HOOP	48	86	
GR + Max P{1}		9			1.00	2-1 SUST	36	86	
TR:Amb to T3{1}				39	1.00	4-1 DISP	50	217	
Amb to T1{1}				13	1.00	4-1 DISP	16	197	
Amb to T2{1}				13	1.00	4-1 DISP	17	197	
Amb to T3{1}				39	1.00	4-1 DISP	50	217	
Hydrotest{1}		0	0		1.00	3-1 OCC	37	219	
Sus.+T1{1}					1.00	5-1 CRUP	42	<NOTE 1>	

DVI_A_LINE_REV0.OUT									
Sus.+T2{1}				1.00	5-1	CRUP	42	<NOTE 1>	
Sus.+T3{1}				1.00	5-1	CRUP	53	<NOTE 1>	
A58	- Max P{1}					HOOP	6	104	
	GR + Max P{1}	14		1.00	2-1	SUST	23	104	
	TR:T2 to T3{1}		35	1.00	4-1	DISP	53	217	
	Amb to T1{1}		2	1.00	4-1	DISP	3	247	
	Amb to T2{1}		2	1.00	4-1	DISP	3	247	
	Amb to T3{1}		33	1.00	4-1	DISP	50	217	
	Hydrotest{1}	0	0	1.00	3-1	OCC	0	219	
	Sus.+T1{1}			1.00	5-1	CRUP	24	<NOTE 1>	
	Sus.+T2{1}			1.00	5-1	CRUP	24	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1	CRUP	40	<NOTE 1>	
N05	F+ Max P{1}					HOOP	6	104	
	GR + Max P{1}	1		1.00	2-1	SUST	7	104	
	TR:T2 to T3{1}		19	1.00	4-1	DISP	53	217	
	Amb to T1{1}		3	1.00	4-1	DISP	8	247	
	Amb to T2{1}		2	1.00	4-1	DISP	5	247	
	Amb to T3{1}		19	1.00	4-1	DISP	53	217	
	Hydrotest{1}	0	0	1.00	3-1	OCC	0	219	
	Sus.+T1{1}			1.00	5-1	CRUP	9	<NOTE 1>	
	Sus.+T2{1}			1.00	5-1	CRUP	9	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1	CRUP	24	<NOTE 1>	

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DVI_A_LINE_REV0

09/13/2010 DVIALINE

BENTLEY

09:41 AM

AutoPIPE Plus 9.2.1 RESULT PAGE 164

EN 13480 (2002) CODE COMPLIANCE									
		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
A37	Max P{1}					HOOP	6	104	
	GR + Max P{1}	13			1.00	2-1 SUST	22	104	
	TR:T1 to T3{1}			34	1.00	4-1 DISP	51	217	
	Amb to T1{1}			2	1.00	4-1 DISP	3	247	
	Amb to T2{1}			2	1.00	4-1 DISP	3	247	
	Amb to T3{1}			32	1.00	4-1 DISP	48	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	0	219	
	Sus.+T1{1}				1.00	5-1 CRUP	24	<NOTE 1>	

DVI_A_LINE_REV0.OUT									
Sus.+T2{1}			1.00	5-1	CRUP	23	<NOTE 1>		
Sus.+T3{1}			1.00	5-1	CRUP	38	<NOTE 1>		
J02 N+ Max P{1}					HOOP	48	86		
GR + Max P{1}	8		1.00	2-1	SUST	35	86		
TR:Amb to T3{1}			36	1.00	4-1 DISP	45	217		
Amb to T1{1}			12	1.00	4-1 DISP	15	197		
Amb to T2{1}			12	1.00	4-1 DISP	15	197		
Amb to T3{1}			36	1.00	4-1 DISP	45	217		
Hydrotest{1}	0	0	1.00	3-1	OCC	37	219		
Sus.+T1{1}			1.00	5-1	CRUP	40	<NOTE 1>		
Sus.+T2{1}			1.00	5-1	CRUP	40	<NOTE 1>		
Sus.+T3{1}			1.00	5-1	CRUP	50	<NOTE 1>		
J02 N- Max P{1}					HOOP	48	86		
GR + Max P{1}	8		1.00	2-1	SUST	35	86		
TR:Amb to T3{1}			36	1.00	4-1 DISP	45	217		
Amb to T1{1}			12	1.00	4-1 DISP	15	197		
Amb to T2{1}			12	1.00	4-1 DISP	15	197		
Amb to T3{1}			36	1.00	4-1 DISP	45	217		
Hydrotest{1}	0	0	1.00	3-1	OCC	37	219		
Sus.+T1{1}			1.00	5-1	CRUP	40	<NOTE 1>		
Sus.+T2{1}			1.00	5-1	CRUP	40	<NOTE 1>		
Sus.+T3{1}			1.00	5-1	CRUP	50	<NOTE 1>		
IV05 Max P{1}					HOOP	6	104		
GR + Max P{1}	1		1.00	2-1	SUST	6	104		
TR:T1 to T3{1}			18	1.00	4-1 DISP	50	217		
Amb to T1{1}			2	1.00	4-1 DISP	7	247		
Amb to T2{1}			2	1.00	4-1 DISP	5	247		
Amb to T3{1}			16	1.00	4-1 DISP	46	217		
Hydrotest{1}	0	0	1.00	3-1	OCC	0	219		
Sus.+T1{1}			1.00	5-1	CRUP	8	<NOTE 1>		
Sus.+T2{1}			1.00	5-1	CRUP	8	<NOTE 1>		
Sus.+T3{1}			1.00	5-1	CRUP	21	<NOTE 1>		

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DVI_A_LINE_REV0

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BENTLEY

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AutoPIPE Plus 9.2.1 RESULT PAGE 165

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code

DVI_A_LINE_REV0.0UT

name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
A44	Max P{1}					HOOP	6	104
	GR + Max P{1}	6			2.00	2-1 SUST	29	104
	TR:T1 to T3{1}			9	2.00	4-1 DISP	49	217
	Amb to T1{1}			2	2.00	4-1 DISP	13	247
	Amb to T2{1}			2	2.00	4-1 DISP	9	247
	Amb to T3{1}			7	2.00	4-1 DISP	42	217
	Hydrotest{1}	0	0		2.00	3-1 OCC	0	219
	Sus.+T1{1}				2.00	5-1 CRUP	32	<NOTE 1>
	Sus.+T2{1}				2.00	5-1 CRUP	31	<NOTE 1>
	Sus.+T3{1}				2.00	5-1 CRUP	39	<NOTE 1>
C040 +	Max P{1}					HOOP	48	86
	GR + Max P{1}	10			1.00	2-1 SUST	38	86
	TR:Amb to T2{1}			26	1.00	4-1 DISP	34	197
	Amb to T1{1}			18	1.00	4-1 DISP	23	197
	Amb to T2{1}			26	1.00	4-1 DISP	34	197
	Amb to T3{1}			15	1.00	4-1 DISP	19	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	37	219
	Sus.+T1{1}				1.00	5-1 CRUP	45	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	49	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	44	<NOTE 1>
C040 -	Max P{1}					HOOP	48	86
	GR + Max P{1}	10			1.00	2-1 SUST	38	86
	TR:Amb to T2{1}			26	1.00	4-1 DISP	34	197
	Amb to T1{1}			18	1.00	4-1 DISP	23	197
	Amb to T2{1}			26	1.00	4-1 DISP	34	197
	Amb to T3{1}			15	1.00	4-1 DISP	19	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	37	219
	Sus.+T1{1}				1.00	5-1 CRUP	45	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	49	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	44	<NOTE 1>
L08 N-	Max P{1}					HOOP	44	86
	GR + Max P{1}	5			1.00	2-1 SUST	34	86
	TR:Amb to T2{1}			18	1.00	4-1 DISP	44	197
	Amb to T1{1}			1	1.00	4-1 DISP	2	247
	Amb to T2{1}			18	1.00	4-1 DISP	44	197
	Amb to T3{1}			10	1.00	4-1 DISP	23	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	35	219
	Sus.+T1{1}				1.00	5-1 CRUP	35	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	49	<NOTE 1>

DVI_A_LINE_REV0.OUT

Sus.+T3{1}

1.00

5-1 CRUP

42 <NOTE 1>

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DVI_A_LINE_REV0

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AutoPIPE Plus 9.2.1

RESULT PAGE 166

EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. no.	Load type		
L08 N+	Max P{1}						HOOP	44	86
	GR + Max P{1}	5			1.00	2-1	SUST	34	86
	TR:Amb to T2{1}			18	1.00	4-1	DISP	44	197
	Amb to T1{1}			1	1.00	4-1	DISP	2	247
	Amb to T2{1}			18	1.00	4-1	DISP	44	197
	Amb to T3{1}			10	1.00	4-1	DISP	23	217
	Hydrotest{1}	0	0		1.00	3-1	OCC	35	219
	Sus.+T1{1}				1.00	5-1	CRUP	35	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP	49	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP	42	<NOTE 1>
L08 F+	Max P{1}						HOOP	44	86
	GR + Max P{1}	5			1.00	2-1	SUST	34	86
	TR:Amb to T2{1}			18	1.00	4-1	DISP	44	197
	Amb to T1{1}			1	1.00	4-1	DISP	2	247
	Amb to T2{1}			18	1.00	4-1	DISP	44	197
	Amb to T3{1}			10	1.00	4-1	DISP	23	217
	Hydrotest{1}	0	0		1.00	3-1	OCC	35	219
	Sus.+T1{1}				1.00	5-1	CRUP	35	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP	49	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP	42	<NOTE 1>
L08 F-	Max P{1}						HOOP	44	86
	GR + Max P{1}	5			1.00	2-1	SUST	34	86
	TR:Amb to T2{1}			18	1.00	4-1	DISP	44	197
	Amb to T1{1}			1	1.00	4-1	DISP	2	247
	Amb to T2{1}			18	1.00	4-1	DISP	44	197
	Amb to T3{1}			10	1.00	4-1	DISP	23	217
	Hydrotest{1}	0	0		1.00	3-1	OCC	35	219
	Sus.+T1{1}				1.00	5-1	CRUP	35	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP	49	<NOTE 1>

Sus.+T3{1}			1.00	5-1	CRUP	42	<NOTE 1>
Max P{1}					HOOP	48	86
GR + Max P{1}	1		1.00	2-1	SUST	26	86
TR:Amb to T3{1}		38	1.00	4-1	DISP	48	217
Amb to T1{1}		10	1.00	4-1	DISP	13	197
Amb to T2{1}		10	1.00	4-1	DISP	13	197
Amb to T3{1}		38	1.00	4-1	DISP	48	217
Hydrotest{1}	0	0	1.00	3-1	OCC	37	219
Sus.+T1{1}			1.00	5-1	CRUP	30	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	30	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	42	<NOTE 1>

DVI_A_LINE_REV0.OUT

	Sus.+T3{1}			1.00	5-1	CRUP	25	<NOTE 1>
A13	Max P{1}					HOOP	48	86
	GR + Max P{1}	0		1.00	2-1	SUST	25	86
	TR:Amb to T3{1}		0	1.00	4-1	DISP	0	217
	Amb to T1{1}		0	1.00	4-1	DISP	0	197
	Amb to T2{1}		0	1.00	4-1	DISP	0	197
	Amb to T3{1}		0	1.00	4-1	DISP	0	217
	Hydrotest{1}	0	0	1.00	3-1	OCC	37	219
	Sus.+T1{1}			1.00	5-1	CRUP	25	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	25	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	25	<NOTE 1>
I01	Max P{1}					HOOP	48	86
	GR + Max P{1}	1		1.00	2-1	SUST	26	86
	TR:Amb to T3{1}		8	1.00	4-1	DISP	8	217
	Amb to T1{1}		6	1.00	4-1	DISP	7	197
	Amb to T2{1}		7	1.00	4-1	DISP	7	197
	Amb to T3{1}		8	1.00	4-1	DISP	8	217
	Hydrotest{1}	0	0	1.00	3-1	OCC	37	219
	Sus.+T1{1}			1.00	5-1	CRUP	28	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	28	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	29	<NOTE 1>

 DVI_A_LINE_REV0
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 AutoPIPE Plus 9.2.1

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F no. type	Stress	Allow.
J05 F+	Max P{1}					HOOP	48 86
	GR + Max P{1}	2			1.00 2-1	SUST	28 86
	TR:Amb to T3{1}			26	1.00 4-1	DISP	34 217
	Amb to T1{1}			11	1.00 4-1	DISP	14 197
	Amb to T2{1}			11	1.00 4-1	DISP	14 197
	Amb to T3{1}			26	1.00 4-1	DISP	34 217
	Hydrotest{1}	0	0		1.00 3-1	OCC	37 219
	Sus.+T1{1}				1.00 5-1	CRUP	32 <NOTE 1>
	Sus.+T2{1}				1.00 5-1	CRUP	32 <NOTE 1>

DVI_A_LINE_REV0.OUT

Sus.+T3{1}			1.00	5-1	CRUP	39	<NOTE 1>
J05 F- Max P{1}					HOOP	48	86
GR + Max P{1}	2		1.00	2-1	SUST	28	86
TR:Amb to T3{1}		26	1.00	4-1	DISP	34	217
Amb to T1{1}		11	1.00	4-1	DISP	14	197
Amb to T2{1}		11	1.00	4-1	DISP	14	197
Amb to T3{1}		26	1.00	4-1	DISP	34	217
Hydrotest{1}	0	0	1.00	3-1	OCC	37	219
Sus.+T1{1}			1.00	5-1	CRUP	32	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	32	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	39	<NOTE 1>
J05 N+ Max P{1}					HOOP	48	86
GR + Max P{1}	3		1.00	2-1	SUST	29	86
TR:Amb to T3{1}		23	1.00	4-1	DISP	29	217
Amb to T1{1}		10	1.00	4-1	DISP	12	197
Amb to T2{1}		10	1.00	4-1	DISP	12	197
Amb to T3{1}		23	1.00	4-1	DISP	29	217
Hydrotest{1}	0	0	1.00	3-1	OCC	37	219
Sus.+T1{1}			1.00	5-1	CRUP	33	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	33	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	38	<NOTE 1>
J05 N- Max P{1}					HOOP	48	86
GR + Max P{1}	3		1.00	2-1	SUST	29	86
TR:Amb to T3{1}		23	1.00	4-1	DISP	29	217
Amb to T1{1}		10	1.00	4-1	DISP	12	197
Amb to T2{1}		10	1.00	4-1	DISP	12	197
Amb to T3{1}		23	1.00	4-1	DISP	29	217
Hydrotest{1}	0	0	1.00	3-1	OCC	37	219
Sus.+T1{1}			1.00	5-1	CRUP	33	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	33	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	38	<NOTE 1>

 DVI_A_LINE_REV0
 09/13/2010 DVIALLINE
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 AutoPIPE Plus 9.2.1

BENTLEY

EN 13480 (2002) CODE COMPLIANCE
 (Moments in N.m) (Stress in N/mm2)

Point Load Ma Mb Mc Eq. Load Code Code

name	combination	DVI_A_LINE_REV0.OUT			no.	type	Stress	Allow.
		(Sus.)	(Occ.)	(Exp.)				
J04 F+	Max P{1}					HOOP	48	86
	GR + Max P{1}	0			1.00	2-1 SUST	25	86
	TR:Amb to T3{1}			23	1.00	4-1 DISP	29	217
	Amb to T1{1}			9	1.00	4-1 DISP	11	197
	Amb to T2{1}			9	1.00	4-1 DISP	11	197
	Amb to T3{1}			23	1.00	4-1 DISP	29	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	37	219
	Sus.+T1{1}				1.00	5-1 CRUP	29	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	29	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	35	<NOTE 1>
J04 F-	Max P{1}					HOOP	48	86
	GR + Max P{1}	0			1.00	2-1 SUST	25	86
	TR:Amb to T3{1}			23	1.00	4-1 DISP	29	217
	Amb to T1{1}			9	1.00	4-1 DISP	11	197
	Amb to T2{1}			9	1.00	4-1 DISP	11	197
	Amb to T3{1}			23	1.00	4-1 DISP	29	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	37	219
	Sus.+T1{1}				1.00	5-1 CRUP	29	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	29	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	35	<NOTE 1>
J04 N+	Max P{1}					HOOP	48	86
	GR + Max P{1}	0			1.00	2-1 SUST	25	86
	TR:Amb to T3{1}			19	1.00	4-1 DISP	25	217
	Amb to T1{1}			8	1.00	4-1 DISP	10	197
	Amb to T2{1}			8	1.00	4-1 DISP	10	197
	Amb to T3{1}			19	1.00	4-1 DISP	25	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	37	219
	Sus.+T1{1}				1.00	5-1 CRUP	28	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	28	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	33	<NOTE 1>
J04 N-	Max P{1}					HOOP	48	86
	GR + Max P{1}	0			1.00	2-1 SUST	25	86
	TR:Amb to T3{1}			19	1.00	4-1 DISP	25	217
	Amb to T1{1}			8	1.00	4-1 DISP	10	197
	Amb to T2{1}			8	1.00	4-1 DISP	10	197
	Amb to T3{1}			19	1.00	4-1 DISP	25	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	37	219
	Sus.+T1{1}				1.00	5-1 CRUP	28	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	28	<NOTE 1>

Sus.+T3{1}

DVI_A_LINE_REV0.OUT

1.00

5-1 CRUP

33 <NOTE 1>

0

DVI_A_LINE_REV0

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F					
J03 F+ Max P{1}								HOOP	48	86
	GR + Max P{1}	2			1.00	2-1	SUST		27	86
	TR:Amb to T3{1}			34	1.00	4-1	DISP		44	217
	Amb to T1{1}			9	1.00	4-1	DISP		12	197
	Amb to T2{1}			9	1.00	4-1	DISP		12	197
	Amb to T3{1}			34	1.00	4-1	DISP		44	217
	Hydrotest{1}	0	0		1.00	3-1	OCC		37	219
	Sus.+T1{1}				1.00	5-1	CRUP		31	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		31	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP		41	<NOTE 1>
J03 F- Max P{1}								HOOP	48	86
	GR + Max P{1}	2			1.00	2-1	SUST		27	86
	TR:Amb to T3{1}			34	1.00	4-1	DISP		44	217
	Amb to T1{1}			9	1.00	4-1	DISP		12	197
	Amb to T2{1}			9	1.00	4-1	DISP		12	197
	Amb to T3{1}			34	1.00	4-1	DISP		44	217
	Hydrotest{1}	0	0		1.00	3-1	OCC		37	219
	Sus.+T1{1}				1.00	5-1	CRUP		31	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		31	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP		41	<NOTE 1>
J01 F+ Max P{1}								HOOP	48	86
	GR + Max P{1}	12			1.00	2-1	SUST		40	86
	TR:T2 to T3{1}			2	1.00	4-1	DISP		3	197
	Amb to T1{1}			0	1.00	4-1	DISP		0	197
	Amb to T2{1}			0	1.00	4-1	DISP		1	197
	Amb to T3{1}			2	1.00	4-1	DISP		2	217
	Hydrotest{1}	0	0		1.00	3-1	OCC		37	219
	Sus.+T1{1}				1.00	5-1	CRUP		40	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		40	<NOTE 1>

		DVI_A_LINE_REV0.OUT					
Sus.+T3{1}			1.00	5-1	CRUP	41	<NOTE 1>
J01 F- Max P{1}					HOOP	48	86
GR + Max P{1}	12		1.00	2-1	SUST	40	86
TR:T2 to T3{1}		2	1.00	4-1	DISP	3	197
Amb to T1{1}		0	1.00	4-1	DISP	0	197
Amb to T2{1}		0	1.00	4-1	DISP	1	197
Amb to T3{1}		2	1.00	4-1	DISP	2	217
Hydrotest{1}	0	0	1.00	3-1	OCC	37	219
Sus.+T1{1}			1.00	5-1	CRUP	40	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	40	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	41	<NOTE 1>

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RESULT PAGE 171

		EN 13480 (2002) CODE COMPLIANCE					
		(Moments in N.m)		(Stress in N/mm2)			
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
-----		-----		-----		-----	
J01 N+ Max P{1}						HOOP	48 86
GR + Max P{1}		14			1.00	2-1 SUST	42 86
TR:Amb to T3{1}				5	1.00	4-1 DISP	7 217
Amb to T1{1}				1	1.00	4-1 DISP	1 197
Amb to T2{1}				1	1.00	4-1 DISP	1 197
Amb to T3{1}				5	1.00	4-1 DISP	7 217
Hydrotest{1}		0	0		1.00	3-1 OCC	37 219
Sus.+T1{1}					1.00	5-1 CRUP	43 <NOTE 1>
Sus.+T2{1}					1.00	5-1 CRUP	43 <NOTE 1>
Sus.+T3{1}					1.00	5-1 CRUP	45 <NOTE 1>
J01 N- Max P{1}						HOOP	48 86
GR + Max P{1}		14			1.00	2-1 SUST	42 86
TR:Amb to T3{1}				5	1.00	4-1 DISP	7 217
Amb to T1{1}				1	1.00	4-1 DISP	1 197
Amb to T2{1}				1	1.00	4-1 DISP	1 197
Amb to T3{1}				5	1.00	4-1 DISP	7 217
Hydrotest{1}		0	0		1.00	3-1 OCC	37 219
Sus.+T1{1}					1.00	5-1 CRUP	43 <NOTE 1>
Sus.+T2{1}					1.00	5-1 CRUP	43 <NOTE 1>

		DVI_A_LINE_REV0.OUT					
	Sus.+T3{1}		1.00	5-1	CRUP	45	<NOTE 1>
I02	Max P{1}				HOOP	48	86
	GR + Max P{1}	6	1.00	2-1	SUST	32	86
	TR:T2 to T3{1}		7	1.00	4-1 DISP	9	197
	Amb to T1{1}		4	1.00	4-1 DISP	5	197
	Amb to T2{1}		4	1.00	4-1 DISP	5	197
	Amb to T3{1}		3	1.00	4-1 DISP	4	217
	Hydrotest{1}	0	0	1.00	3-1 OCC	37	219
	Sus.+T1{1}		1.00	5-1	CRUP	34	<NOTE 1>
	Sus.+T2{1}		1.00	5-1	CRUP	34	<NOTE 1>
	Sus.+T3{1}		1.00	5-1	CRUP	34	<NOTE 1>
I02	Max P{1}				HOOP	48	86
	GR + Max P{1}	6	1.00	2-1	SUST	32	86
	TR:T2 to T3{1}		7	1.00	4-1 DISP	9	197
	Amb to T1{1}		4	1.00	4-1 DISP	5	197
	Amb to T2{1}		4	1.00	4-1 DISP	5	197
	Amb to T3{1}		3	1.00	4-1 DISP	4	217
	Hydrotest{1}	0	0	1.00	3-1 OCC	37	219
	Sus.+T1{1}		1.00	5-1	CRUP	34	<NOTE 1>
	Sus.+T2{1}		1.00	5-1	CRUP	34	<NOTE 1>
	Sus.+T3{1}		1.00	5-1	CRUP	34	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
I01	+ Max P{1}					HOOP	48	86	
	GR + Max P{1}	3			1.00	2-1 SUST	29	86	
	TR:Amb to T2{1}			12	1.00	4-1 DISP	15	197	
	Amb to T1{1}			11	1.00	4-1 DISP	14	197	
	Amb to T2{1}			12	1.00	4-1 DISP	15	197	
	Amb to T3{1}			11	1.00	4-1 DISP	14	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	37	219	
	Sus.+T1{1}				1.00	5-1 CRUP	33	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	34	<NOTE 1>	

		DVI_A_LINE_REV0.OUT					
	Sus.+T3{1}			1.00	5-1	CRUP	33 <NOTE 1>
I01	- Max P{1}					HOOP	48 86
	GR + Max P{1}	2		1.00	2-1	SUST	27 86
	TR:Amb to T2{1}		10	1.00	4-1	DISP	13 197
	Amb to T1{1}		9	1.00	4-1	DISP	12 197
	Amb to T2{1}		10	1.00	4-1	DISP	13 197
	Amb to T3{1}		4	1.00	4-1	DISP	5 217
	Hydrotest{1}	0	0	1.00	3-1	OCC	37 219
	Sus.+T1{1}			1.00	5-1	CRUP	31 <NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	32 <NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	29 <NOTE 1>
A07	Max P{1}					HOOP	48 86
	GR + Max P{1}	3		1.00	2-1	SUST	28 86
	TR:Amb to T2{1}		12	1.00	4-1	DISP	15 197
	Amb to T1{1}		10	1.00	4-1	DISP	12 197
	Amb to T2{1}		12	1.00	4-1	DISP	15 197
	Amb to T3{1}		10	1.00	4-1	DISP	13 217
	Hydrotest{1}	0	0	1.00	3-1	OCC	37 219
	Sus.+T1{1}			1.00	5-1	CRUP	32 <NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	33 <NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	32 <NOTE 1>
A29	Max P{1}					HOOP	48 104
	GR + Max P{1}	13		1.00	2-1	SUST	42 104
	TR:Amb to T1{1}		13	1.00	4-1	DISP	16 247
	Amb to T1{1}		13	1.00	4-1	DISP	16 247
	Amb to T2{1}		11	1.00	4-1	DISP	14 247
	Amb to T3{1}		4	1.00	4-1	DISP	5 217
	Hydrotest{1}	0	0	1.00	3-1	OCC	37 219
	Sus.+T1{1}			1.00	5-1	CRUP	47 <NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	46 <NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	43 <NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)

(Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.

DVI_A_LINE_REV0.OUT

A27 F+ Max P{1}					HOOP	48	104
GR + Max P{1}	3		1.00	2-1	SUST	29	104
TR:Amb to T1{1}		12	1.00	4-1	DISP	15	247
Amb to T1{1}		12	1.00	4-1	DISP	15	247
Amb to T2{1}		9	1.00	4-1	DISP	12	247
Amb to T3{1}		4	1.00	4-1	DISP	5	217
Hydrotest{1}	0	0	1.00	3-1	OCC	37	219
Sus.+T1{1}			1.00	5-1	CRUP	34	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	33	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	31	<NOTE 1>
A27 F- Max P{1}					HOOP	48	104
GR + Max P{1}	3		1.00	2-1	SUST	29	104
TR:Amb to T1{1}		12	1.00	4-1	DISP	15	247
Amb to T1{1}		12	1.00	4-1	DISP	15	247
Amb to T2{1}		9	1.00	4-1	DISP	12	247
Amb to T3{1}		4	1.00	4-1	DISP	5	217
Hydrotest{1}	0	0	1.00	3-1	OCC	37	219
Sus.+T1{1}			1.00	5-1	CRUP	34	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	33	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	31	<NOTE 1>
A27 N+ Max P{1}					HOOP	48	104
GR + Max P{1}	3		1.00	2-1	SUST	29	104
TR:Amb to T1{1}		11	1.00	4-1	DISP	14	247
Amb to T1{1}		11	1.00	4-1	DISP	14	247
Amb to T2{1}		9	1.00	4-1	DISP	11	247
Amb to T3{1}		4	1.00	4-1	DISP	5	217
Hydrotest{1}	0	0	1.00	3-1	OCC	37	219
Sus.+T1{1}			1.00	5-1	CRUP	33	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	32	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	30	<NOTE 1>
A27 N- Max P{1}					HOOP	48	104
GR + Max P{1}	3		1.00	2-1	SUST	29	104
TR:Amb to T1{1}		11	1.00	4-1	DISP	14	247
Amb to T1{1}		11	1.00	4-1	DISP	14	247
Amb to T2{1}		9	1.00	4-1	DISP	11	247
Amb to T3{1}		4	1.00	4-1	DISP	5	217
Hydrotest{1}	0	0	1.00	3-1	OCC	37	219
Sus.+T1{1}			1.00	5-1	CRUP	33	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	32	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	30	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

A24 F+	Max P{1}					HOOP	48	104	
	GR + Max P{1}	3			1.00	2-1 SUST	28	104	
	TR:Amb to T2{1}			5	1.00	4-1 DISP	6	247	
	Amb to T1{1}			3	1.00	4-1 DISP	3	247	
	Amb to T2{1}			5	1.00	4-1 DISP	6	247	
	Amb to T3{1}			3	1.00	4-1 DISP	4	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	37	219	
	Sus.+T1{1}				1.00	5-1 CRUP	29	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	30	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	29	<NOTE 1>	
A24 F-	Max P{1}					HOOP	48	104	
	GR + Max P{1}	3			1.00	2-1 SUST	28	104	
	TR:Amb to T2{1}			5	1.00	4-1 DISP	6	247	
	Amb to T1{1}			3	1.00	4-1 DISP	3	247	
	Amb to T2{1}			5	1.00	4-1 DISP	6	247	
	Amb to T3{1}			3	1.00	4-1 DISP	4	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	37	219	
	Sus.+T1{1}				1.00	5-1 CRUP	29	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	30	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	29	<NOTE 1>	
A24 N+	Max P{1}					HOOP	48	104	
	GR + Max P{1}	2			1.00	2-1 SUST	27	104	
	TR:T1 to T2{1}			5	1.00	4-1 DISP	6	247	
	Amb to T1{1}			3	1.00	4-1 DISP	4	247	
	Amb to T2{1}			5	1.00	4-1 DISP	6	247	
	Amb to T3{1}			3	1.00	4-1 DISP	4	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	37	219	
	Sus.+T1{1}				1.00	5-1 CRUP	28	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	29	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	28	<NOTE 1>	

DVI_A_LINE_REV0.OUT

A24 N- Max P{1}					HOOP	48	104
GR + Max P{1}	2		1.00	2-1	SUST	27	104
TR:T1 to T2{1}		5	1.00	4-1	DISP	6	247
Amb to T1{1}		3	1.00	4-1	DISP	4	247
Amb to T2{1}		5	1.00	4-1	DISP	6	247
Amb to T3{1}		3	1.00	4-1	DISP	4	217
Hydrotest{1}	0	0	1.00	3-1	OCC	37	219
Sus.+T1{1}			1.00	5-1	CRUP	28	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	29	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	28	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

A21 F+ Max P{1}						HOOP	48	104	
GR + Max P{1}		7			1.00	2-1 SUST	34	104	
TR:Amb to T1{1}				9	1.00	4-1 DISP	11	247	
Amb to T1{1}				9	1.00	4-1 DISP	11	247	
Amb to T2{1}				4	1.00	4-1 DISP	6	247	
Amb to T3{1}				2	1.00	4-1 DISP	2	217	
Hydrotest{1}		0	0		1.00	3-1 OCC	37	219	
Sus.+T1{1}					1.00	5-1 CRUP	38	<NOTE 1>	
Sus.+T2{1}					1.00	5-1 CRUP	36	<NOTE 1>	
Sus.+T3{1}					1.00	5-1 CRUP	35	<NOTE 1>	
A21 F- Max P{1}						HOOP	48	104	
GR + Max P{1}		7			1.00	2-1 SUST	34	104	
TR:Amb to T1{1}				9	1.00	4-1 DISP	11	247	
Amb to T1{1}				9	1.00	4-1 DISP	11	247	
Amb to T2{1}				4	1.00	4-1 DISP	6	247	
Amb to T3{1}				2	1.00	4-1 DISP	2	217	
Hydrotest{1}		0	0		1.00	3-1 OCC	37	219	
Sus.+T1{1}					1.00	5-1 CRUP	38	<NOTE 1>	
Sus.+T2{1}					1.00	5-1 CRUP	36	<NOTE 1>	
Sus.+T3{1}					1.00	5-1 CRUP	35	<NOTE 1>	

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A21	N+	Max P{1}				HOOP	48	104
		GR + Max P{1}	8		1.00	2-1 SUST	34	104
		TR:Amb to T1{1}		9	1.00	4-1 DISP	11	247
		Amb to T1{1}		9	1.00	4-1 DISP	11	247
		Amb to T2{1}		4	1.00	4-1 DISP	5	247
		Amb to T3{1}		2	1.00	4-1 DISP	2	217
		Hydrotest{1}	0	0	1.00	3-1 OCC	37	219
		Sus.+T1{1}			1.00	5-1 CRUP	38	<NOTE 1>
		Sus.+T2{1}			1.00	5-1 CRUP	36	<NOTE 1>
		Sus.+T3{1}			1.00	5-1 CRUP	35	<NOTE 1>

A21 N-	Max P{1}				HOOP	48	104
	GR + Max P{1}	8		1.00	2-1 SUST	34	104
	TR:Amb to T1{1}		9	1.00	4-1 DISP	11	247
	Amb to T1{1}		9	1.00	4-1 DISP	11	247
	Amb to T2{1}		4	1.00	4-1 DISP	5	247
	Amb to T3{1}		2	1.00	4-1 DISP	2	217
	Hydrotest{1}	0	0	1.00	3-1 OCC	37	219
	Sus.+T1{1}			1.00	5-1 CRUP	38	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	36	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	35	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m) (Stress in N/mm²)

Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
A18 F+ Max P{1}						HOOP	48	104
	GR + Max P{1}	7			1.00	2-1 SUST	34	104
	TR:Amb to T1{1}			9	1.00	4-1 DISP	11	247
	Amb to T1{1}			9	1.00	4-1 DISP	11	247
	Amb to T2{1}			6	1.00	4-1 DISP	8	247
	Amb to T3{1}			2	1.00	4-1 DISP	2	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	37	219
	Sus.+T1{1}				1.00	5-1 CRUP	37	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	36	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	34	<NOTE 1>

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A18 F-	Max P{1}									HOOP	48	86
	GR + Max P{1}	7				1.00	2-1	SUST			34	86
	TR:Amb to T1{1}				9	1.00	4-1	DISP			11	197
	Amb to T1{1}				9	1.00	4-1	DISP			11	197
	Amb to T2{1}				6	1.00	4-1	DISP			8	197
	Amb to T3{1}				2	1.00	4-1	DISP			2	217
	Hydrotest{1}	0	0			1.00	3-1	OCC			37	219
	Sus.+T1{1}					1.00	5-1	CRUP			37	<NOTE 1>
	Sus.+T2{1}					1.00	5-1	CRUP			36	<NOTE 1>
	Sus.+T3{1}					1.00	5-1	CRUP			34	<NOTE 1>
A18 N+	Max P{1}									HOOP	48	86
	GR + Max P{1}	7				1.00	2-1	SUST			34	86
	TR:Amb to T1{1}				9	1.00	4-1	DISP			12	197
	Amb to T1{1}				9	1.00	4-1	DISP			12	197
	Amb to T2{1}				7	1.00	4-1	DISP			8	197
	Amb to T3{1}				2	1.00	4-1	DISP			2	217
	Hydrotest{1}	0	0			1.00	3-1	OCC			37	219
	Sus.+T1{1}					1.00	5-1	CRUP			38	<NOTE 1>
	Sus.+T2{1}					1.00	5-1	CRUP			37	<NOTE 1>
	Sus.+T3{1}					1.00	5-1	CRUP			35	<NOTE 1>
A18 N-	Max P{1}									HOOP	48	86
	GR + Max P{1}	7				1.00	2-1	SUST			34	86
	TR:Amb to T1{1}				9	1.00	4-1	DISP			12	197
	Amb to T1{1}				9	1.00	4-1	DISP			12	197
	Amb to T2{1}				7	1.00	4-1	DISP			8	197
	Amb to T3{1}				2	1.00	4-1	DISP			2	217
	Hydrotest{1}	0	0			1.00	3-1	OCC			37	219
	Sus.+T1{1}					1.00	5-1	CRUP			38	<NOTE 1>
	Sus.+T2{1}					1.00	5-1	CRUP			37	<NOTE 1>
	Sus.+T3{1}					1.00	5-1	CRUP			35	<NOTE 1>

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09:41 AM

AutoPIPE Plus 9.2.1 RESULT PAGE 177

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m) (Stress in N/mm²)

Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.

DVI_A_LINE_REV0.OUT

A33 + Max P{1}					HOOP	48	86
GR + Max P{1}	10		1.00	2-1	SUST	38	86
TR:Amb to T2{1}			11 1.00	4-1	DISP	14	197
Amb to T1{1}			11 1.00	4-1	DISP	14	197
Amb to T2{1}			6 1.00	4-1	DISP	8	197
Amb to T3{1}			2 1.00	4-1	DISP	2	217
Hydrotest{1}	0	0	1.00	3-1	OCC	37	219
Sus.+T1{1}			1.00	5-1	CRUP	42	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	40	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	38	<NOTE 1>
A33 - Max P{1}					HOOP	48	86
GR + Max P{1}	10		1.00	2-1	SUST	38	86
TR:Amb to T2{1}			23 1.00	4-1	DISP	29	197
Amb to T1{1}			13 1.00	4-1	DISP	16	197
Amb to T2{1}			23 1.00	4-1	DISP	29	197
Amb to T3{1}			13 1.00	4-1	DISP	16	217
Hydrotest{1}	0	0	1.00	3-1	OCC	37	219
Sus.+T1{1}			1.00	5-1	CRUP	43	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	47	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	43	<NOTE 1>
A10 F+ Max P{1}					HOOP	48	86
GR + Max P{1}	2		1.00	2-1	SUST	28	86
TR:Amb to T2{1}			30 1.00	4-1	DISP	38	197
Amb to T1{1}			22 1.00	4-1	DISP	28	197
Amb to T2{1}			30 1.00	4-1	DISP	38	197
Amb to T3{1}			18 1.00	4-1	DISP	22	217
Hydrotest{1}	0	0	1.00	3-1	OCC	37	219
Sus.+T1{1}			1.00	5-1	CRUP	37	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	40	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	35	<NOTE 1>
A10 F- Max P{1}					HOOP	48	86
GR + Max P{1}	2		1.00	2-1	SUST	28	86
TR:Amb to T2{1}			30 1.00	4-1	DISP	38	197
Amb to T1{1}			22 1.00	4-1	DISP	28	197
Amb to T2{1}			30 1.00	4-1	DISP	38	197
Amb to T3{1}			18 1.00	4-1	DISP	22	217
Hydrotest{1}	0	0	1.00	3-1	OCC	37	219
Sus.+T1{1}			1.00	5-1	CRUP	37	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	40	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	35	<NOTE 1>

BENTLEY

RESULT PAGE 178

(Stress in N/mm²)

Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.

A10 N+	Max P{1}					HOOP	48	86
	GR + Max P{1}	4			1.00	2-1 SUST	30	86
	TR:Amb to T2{1}			30	1.00	4-1 DISP	38	197
	Amb to T1{1}			22	1.00	4-1 DISP	28	197
	Amb to T2{1}			30	1.00	4-1 DISP	38	197
	Amb to T3{1}			17	1.00	4-1 DISP	22	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	37	219
	Sus.+T1{1}				1.00	5-1 CRUP	39	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	43	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	37	<NOTE 1>
A10 N-	Max P{1}					HOOP	48	86
	GR + Max P{1}	4			1.00	2-1 SUST	30	86
	TR:Amb to T2{1}			30	1.00	4-1 DISP	38	197
	Amb to T1{1}			22	1.00	4-1 DISP	28	197
	Amb to T2{1}			30	1.00	4-1 DISP	38	197
	Amb to T3{1}			17	1.00	4-1 DISP	22	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	37	219
	Sus.+T1{1}				1.00	5-1 CRUP	39	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	43	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	37	<NOTE 1>
A13 +	Max P{1}					HOOP	48	86
	GR + Max P{1}	9			1.00	2-1 SUST	36	86
	TR:Amb to T2{1}			26	1.00	4-1 DISP	33	197
	Amb to T1{1}			19	1.00	4-1 DISP	24	197
	Amb to T2{1}			26	1.00	4-1 DISP	33	197
	Amb to T3{1}			16	1.00	4-1 DISP	20	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	37	219
	Sus.+T1{1}				1.00	5-1 CRUP	44	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	47	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	43	<NOTE 1>

A13	- Max P{1}					HOOP	48	86
	GR + Max P{1}	9		1.00	2-1	SUST	36	86
	TR:Amb to T2{1}		26	1.00	4-1	DISP	33	197
	Amb to T1{1}		19	1.00	4-1	DISP	24	197
	Amb to T2{1}		26	1.00	4-1	DISP	33	197
	Amb to T3{1}		16	1.00	4-1	DISP	20	217
	Hydrotest{1}	0	0	1.00	3-1	OCC	37	219
	Sus.+T1{1}			1.00	5-1	CRUP	44	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	47	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	43	<NOTE 1>

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Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
A28	Max P{1}					HOOB	48 86
	GR + Max P{1}	4			1.00	2-1 SUST	30 86
	TR:Amb to T2{1}			23	1.00	4-1 DISP	30 197
	Amb to T1{1}			22	1.00	4-1 DISP	28 197
	Amb to T2{1}			23	1.00	4-1 DISP	30 197
	Amb to T3{1}			16	1.00	4-1 DISP	21 217
	Hydrotest{1}	0	0		1.00	3-1 OCC	37 219
	Sus.+T1{1}				1.00	5-1 CRUP	39 <NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	40 <NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	37 <NOTE 1>
A07	+ Max P{1}					HOOB	48 86
	GR + Max P{1}	4			1.00	2-1 SUST	29 86
	TR:Amb to T2{1}			24	1.00	4-1 DISP	27 197
	Amb to T1{1}			23	1.00	4-1 DISP	25 197
	Amb to T2{1}			24	1.00	4-1 DISP	27 197
	Amb to T3{1}			17	1.00	4-1 DISP	19 217
	Hydrotest{1}	0	0		1.00	3-1 OCC	37 219
	Sus.+T1{1}				1.00	5-1 CRUP	38 <NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	38 <NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	35 <NOTE 1>

DVI_A_LINE_REV0.OUT

A07	- Max P{1}					HOOP	48	86
	GR + Max P{1}	2		1.00	2-1	SUST	28	86
	TR:Amb to T2{1}		26	1.00	4-1	DISP	34	197
	Amb to T1{1}		24	1.00	4-1	DISP	30	197
	Amb to T2{1}		26	1.00	4-1	DISP	34	197
	Amb to T3{1}		22	1.00	4-1	DISP	28	217
	Hydrotest{1}	0	0	1.00	3-1	OCC	37	219
	Sus.+T1{1}			1.00	5-1	CRUP	38	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	39	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	37	<NOTE 1>
A31	Max P{1}					HOOP	48	86
	GR + Max P{1}	2		1.00	2-1	SUST	28	86
	TR:Amb to T2{1}		26	1.00	4-1	DISP	33	197
	Amb to T1{1}		23	1.00	4-1	DISP	30	197
	Amb to T2{1}		26	1.00	4-1	DISP	33	197
	Amb to T3{1}		22	1.00	4-1	DISP	28	217
	Hydrotest{1}	0	0	1.00	3-1	OCC	37	219
	Sus.+T1{1}			1.00	5-1	CRUP	37	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	38	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	37	<NOTE 1>

 DVI_A_LINE_REV0
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 AutoPIPE Plus 9.2.1
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BENTLEY

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
A04 F+	Max P{1}					HOOP	48	86	
	GR + Max P{1}	3			1.00	2-1 SUST	28	86	
	TR:T2 to T3{1}			25	1.00	4-1 DISP	32	197	
	Amb to T1{1}			7	1.00	4-1 DISP	9	197	
	Amb to T2{1}			8	1.00	4-1 DISP	11	197	
	Amb to T3{1}			22	1.00	4-1 DISP	28	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	37	219	
	Sus.+T1{1}				1.00	5-1 CRUP	31	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	32	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	37	<NOTE 1>	

DVI_A_LINE_REV0.OUT

A04 F- Max P{1}					HOOP	48	86
GR + Max P{1}	3		1.00	2-1	SUST	28	86
TR:T2 to T3{1}		25	1.00	4-1	DISP	32	197
Amb to T1{1}		7	1.00	4-1	DISP	9	197
Amb to T2{1}		8	1.00	4-1	DISP	11	197
Amb to T3{1}		22	1.00	4-1	DISP	28	217
Hydrotest{1}	0	0	1.00	3-1	OCC	37	219
Sus.+T1{1}			1.00	5-1	CRUP	31	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	32	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	37	<NOTE 1>
A04 N+ Max P{1}					HOOP	48	86
GR + Max P{1}	7		1.00	2-1	SUST	33	86
TR:T2 to T3{1}		22	1.00	4-1	DISP	28	197
Amb to T1{1}		7	1.00	4-1	DISP	9	197
Amb to T2{1}		8	1.00	4-1	DISP	11	197
Amb to T3{1}		17	1.00	4-1	DISP	22	217
Hydrotest{1}	0	0	1.00	3-1	OCC	37	219
Sus.+T1{1}			1.00	5-1	CRUP	36	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	37	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	41	<NOTE 1>
A04 N- Max P{1}					HOOP	48	86
GR + Max P{1}	7		1.00	2-1	SUST	33	86
TR:T2 to T3{1}		22	1.00	4-1	DISP	28	197
Amb to T1{1}		7	1.00	4-1	DISP	9	197
Amb to T2{1}		8	1.00	4-1	DISP	11	197
Amb to T3{1}		17	1.00	4-1	DISP	22	217
Hydrotest{1}	0	0	1.00	3-1	OCC	37	219
Sus.+T1{1}			1.00	5-1	CRUP	36	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	37	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	41	<NOTE 1>

 DVI_A_LINE_REV0
 09/13/2010 DVIALINE
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 AutoPIPE Plus 9.2.1

BENTLEY

EN 13480 (2002) CODE COMPLIANCE
 (Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
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DVI_A_LINE_REV0.OUT

L01	Max P{1}					HOOP	44	86
	GR + Max P{1}	1		1.00	2-1	SUST	26	86
	TR:Amb to T2{1}		19	1.00	4-1	DISP	45	197
	Amb to T1{1}		4	1.00	4-1	DISP	9	197
	Amb to T2{1}		19	1.00	4-1	DISP	45	197
	Amb to T3{1}		12	1.00	4-1	DISP	29	217
	Hydrotest{1}	0	0	1.00	3-1	OCC	35	219
	Sus.+T1{1}			1.00	5-1	CRUP	29	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	41	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	35	<NOTE 1>
L09	Max P{1}					HOOP	44	86
	GR + Max P{1}	1		2.00	2-1	SUST	26	86
	TR:Amb to T2{1}		6	2.00	4-1	DISP	27	197
	Amb to T1{1}		0	2.00	4-1	DISP	1	247
	Amb to T2{1}		6	2.00	4-1	DISP	27	197
	Amb to T3{1}		3	2.00	4-1	DISP	12	217
	Hydrotest{1}	0	0	2.00	3-1	OCC	35	219
	Sus.+T1{1}			2.00	5-1	CRUP	27	<NOTE 1>
	Sus.+T2{1}			2.00	5-1	CRUP	33	<NOTE 1>
	Sus.+T3{1}			2.00	5-1	CRUP	29	<NOTE 1>
L35	+ Max P{1}					HOOP	44	86
	GR + Max P{1}	2		1.00	2-1	SUST	28	86
	TR:Amb to T2{1}		12	1.00	4-1	DISP	29	197
	Amb to T1{1}		0	1.00	4-1	DISP	1	247
	Amb to T2{1}		12	1.00	4-1	DISP	29	197
	Amb to T3{1}		5	1.00	4-1	DISP	12	217
	Hydrotest{1}	0	0	1.00	3-1	OCC	35	219
	Sus.+T1{1}			1.00	5-1	CRUP	28	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	37	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	32	<NOTE 1>
L35	- Max P{1}					HOOP	44	86
	GR + Max P{1}	2		1.00	2-1	SUST	28	86
	TR:Amb to T2{1}		12	1.00	4-1	DISP	29	197
	Amb to T1{1}		0	1.00	4-1	DISP	1	247
	Amb to T2{1}		12	1.00	4-1	DISP	29	197
	Amb to T3{1}		5	1.00	4-1	DISP	12	217
	Hydrotest{1}	0	0	1.00	3-1	OCC	35	219
	Sus.+T1{1}			1.00	5-1	CRUP	28	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	37	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	32	<NOTE 1>

DVI_A_LINE_REV0

09/13/2010 DVIALLINE

BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 182

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)				(Stress in N/mm2)			
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
L06	Max P{1}					HOOP	44 86
	GR + Max P{1}	2			1.00	2-1 SUST	27 86
	TR:Amb to T2{1}			18	1.00	4-1 DISP	42 197
	Amb to T1{1}			0	1.00	4-1 DISP	1 247
	Amb to T2{1}			18	1.00	4-1 DISP	42 197
	Amb to T3{1}			7	1.00	4-1 DISP	18 217
	Hydrotest{1}	0	0		1.00	3-1 OCC	35 219
	Sus.+T1{1}				1.00	5-1 CRUP	27 <NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	41 <NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	33 <NOTE 1>
L05	Max P{1}					HOOP	44 86
	GR + Max P{1}	5			1.00	2-1 SUST	34 86
	TR:T1 to T2{1}			4	1.00	4-1 DISP	10 197
	Amb to T1{1}			1	1.00	4-1 DISP	2 247
	Amb to T2{1}			4	1.00	4-1 DISP	8 197
	Amb to T3{1}			2	1.00	4-1 DISP	4 217
	Hydrotest{1}	0	0		1.00	3-1 OCC	35 219
	Sus.+T1{1}				1.00	5-1 CRUP	35 <NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	37 <NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	35 <NOTE 1>
L02 F+	Max P{1}					HOOP	44 86
	GR + Max P{1}	2			1.00	2-1 SUST	27 86
	TR:Amb to T2{1}			13	1.00	4-1 DISP	32 197
	Amb to T1{1}			3	1.00	4-1 DISP	7 197
	Amb to T2{1}			13	1.00	4-1 DISP	32 197
	Amb to T3{1}			8	1.00	4-1 DISP	19 217
	Hydrotest{1}	0	0		1.00	3-1 OCC	35 219
	Sus.+T1{1}				1.00	5-1 CRUP	30 <NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	38 <NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	34 <NOTE 1>

DVI_A_LINE_REV0.0UT					
L02 F- Max P{1}				HOOP	44 86
GR + Max P{1}	2	1.00	2-1	SUST	27 86
TR:Amb to T2{1}		13 1.00	4-1	DISP	32 197
Amb to T1{1}		3 1.00	4-1	DISP	7 197
Amb to T2{1}		13 1.00	4-1	DISP	32 197
Amb to T3{1}		8 1.00	4-1	DISP	19 217
Hydrotest{1}	0 0	1.00	3-1	OCC	35 219
Sus.+T1{1}		1.00	5-1	CRUP	30 <NOTE 1>
Sus.+T2{1}		1.00	5-1	CRUP	38 <NOTE 1>
Sus.+T3{1}		1.00	5-1	CRUP	34 <NOTE 1>

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DVI_A_LINE_REV0

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BENTLEY

09:41 AM

AutoPIPE Plus 9.2.1

RESULT PAGE 183

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

L02 M	Max P{1}					HOOP	44	86	
	GR + Max P{1}	2			1.00	2-1 SUST	27	86	
	TR:Amb to T2{1}			13	1.00	4-1 DISP	31	197	
	Amb to T1{1}			3	1.00	4-1 DISP	7	197	
	Amb to T2{1}			13	1.00	4-1 DISP	31	197	
	Amb to T3{1}			8	1.00	4-1 DISP	18	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	35	219	
	Sus.+T1{1}				1.00	5-1 CRUP	30	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	38	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	33	<NOTE 1>	

L02 N+	Max P{1}					HOOP	44	86	
	GR + Max P{1}	2			1.00	2-1 SUST	27	86	
	TR:Amb to T2{1}			12	1.00	4-1 DISP	30	197	
	Amb to T1{1}			3	1.00	4-1 DISP	7	197	
	Amb to T2{1}			12	1.00	4-1 DISP	30	197	
	Amb to T3{1}			7	1.00	4-1 DISP	17	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	35	219	
	Sus.+T1{1}				1.00	5-1 CRUP	29	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	37	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	33	<NOTE 1>	

		DVI_A_LINE_REV0.OUT					
L02 N-	Max P{1}				HOOP	44	86
	GR + Max P{1}	2	1.00	2-1	SUST	27	86
	TR:Amb to T2{1}		12 1.00	4-1	DISP	30	197
	Amb to T1{1}		3 1.00	4-1	DISP	7	197
	Amb to T2{1}		12 1.00	4-1	DISP	30	197
	Amb to T3{1}		7 1.00	4-1	DISP	17	217
	Hydrotest{1}	0 0	1.00	3-1	OCC	35	219
	Sus.+T1{1}		1.00	5-1	CRUP	29	<NOTE 1>
	Sus.+T2{1}		1.00	5-1	CRUP	37	<NOTE 1>
	Sus.+T3{1}		1.00	5-1	CRUP	33	<NOTE 1>

A33	Max P{1}				HOOP	44	86
	GR + Max P{1}	1	1.00	2-1	SUST	25	86
	TR:Amb to T2{1}		20 1.00	4-1	DISP	40	197
	Amb to T1{1}		4 1.00	4-1	DISP	8	197
	Amb to T2{1}		20 1.00	4-1	DISP	40	197
	Amb to T3{1}		12 1.00	4-1	DISP	25	217
	Hydrotest{1}	0 0	1.00	3-1	OCC	35	219
	Sus.+T1{1}		1.00	5-1	CRUP	28	<NOTE 1>
	Sus.+T2{1}		1.00	5-1	CRUP	39	<NOTE 1>
	Sus.+T3{1}		1.00	5-1	CRUP	34	<NOTE 1>

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DVI_A_LINE_REV0

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BENTLEY

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EN 13480 (2002) CODE COMPLIANCE								
(Moments in N.m)			(Stress in N/mm2)					
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code	
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
A47	+ Max P{1}					HOOP	6	104
	GR + Max P{1}	1			1.00	2-1 SUST	5	104
	TR:T1 to T3{1}			15	1.00	4-1 DISP	43	217
	Amb to T1{1}			2	1.00	4-1 DISP	5	247
	Amb to T2{1}			1	1.00	4-1 DISP	4	247
	Amb to T3{1}			15	1.00	4-1 DISP	42	217
	Hydrotest{1}	0 0			1.00	3-1 OCC	0	219
	Sus.+T1{1}				1.00	5-1 CRUP	7	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	7	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	19	<NOTE 1>

DVI_A_LINE_REV0.0UT									
A47	- Max P{1}					HOOP	6	104	
	GR + Max P{1}	1		1.00	2-1	SUST	5	104	
	TR:T1 to T3{1}		15	1.00	4-1	DISP	43	217	
	Amb to T1{1}		2	1.00	4-1	DISP	5	247	
	Amb to T2{1}		1	1.00	4-1	DISP	4	247	
	Amb to T3{1}		15	1.00	4-1	DISP	42	217	
	Hydrotest{1}	0	0	1.00	3-1	OCC	0	219	
	Sus.+T1{1}			1.00	5-1	CRUP	7	<NOTE 1>	
	Sus.+T2{1}			1.00	5-1	CRUP	7	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1	CRUP	19	<NOTE 1>	
N06	Max P{1}					HOOP	6	104	
	GR + Max P{1}	1		1.00	2-1	SUST	7	104	
	TR:T1 to T3{1}		15	1.00	4-1	DISP	41	217	
	Amb to T1{1}		2	1.00	4-1	DISP	7	247	
	Amb to T2{1}		2	1.00	4-1	DISP	5	247	
	Amb to T3{1}		12	1.00	4-1	DISP	35	217	
	Hydrotest{1}	0	0	1.00	3-1	OCC	0	219	
	Sus.+T1{1}			1.00	5-1	CRUP	9	<NOTE 1>	
	Sus.+T2{1}			1.00	5-1	CRUP	9	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1	CRUP	19	<NOTE 1>	
N06	Max P{1}					HOOP	6	104	
	GR + Max P{1}	1		1.00	2-1	SUST	7	104	
	TR:T1 to T3{1}		15	1.00	4-1	DISP	41	217	
	Amb to T1{1}		2	1.00	4-1	DISP	7	247	
	Amb to T2{1}		2	1.00	4-1	DISP	5	247	
	Amb to T3{1}		12	1.00	4-1	DISP	35	217	
	Hydrotest{1}	0	0	1.00	3-1	OCC	0	219	
	Sus.+T1{1}			1.00	5-1	CRUP	9	<NOTE 1>	
	Sus.+T2{1}			1.00	5-1	CRUP	9	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1	CRUP	19	<NOTE 1>	

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RESULT PAGE 185

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)

(Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.

DVI_A_LINE_REV0.0UT									
A58	Max P{1}					HOOP	6	104	
	GR + Max P{1}	1		1.00	2-1	SUST	6	104	
	TR:T1 to T3{1}		15	1.00	4-1	DISP	37	217	
	Amb to T1{1}		3	1.00	4-1	DISP	7	247	
	Amb to T2{1}		2	1.00	4-1	DISP	5	247	
	Amb to T3{1}		13	1.00	4-1	DISP	32	217	
	Hydrotest{1}	0	0	1.00	3-1	OCC	0	219	
	Sus.+T1{1}			1.00	5-1	CRUP	9	<NOTE 1>	
	Sus.+T2{1}			1.00	5-1	CRUP	8	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1	CRUP	17	<NOTE 1>	
A52 N+	Max P{1}					HOOP	6	104	
	GR + Max P{1}	4		1.26	2-1	SUST	14	104	
	TR:T1 to T3{1}		10	1.26	4-1	DISP	37	217	
	Amb to T1{1}		0	1.26	4-1	DISP	1	247	
	Amb to T2{1}		0	1.26	4-1	DISP	1	247	
	Amb to T3{1}		10	1.26	4-1	DISP	36	217	
	Hydrotest{1}	0	0	1.26	3-1	OCC	0	219	
	Sus.+T1{1}			1.26	5-1	CRUP	14	<NOTE 1>	
	Sus.+T2{1}			1.26	5-1	CRUP	14	<NOTE 1>	
	Sus.+T3{1}			1.26	5-1	CRUP	23	<NOTE 1>	
A52 F-	Max P{1}					HOOP	6	104	
	GR + Max P{1}	4		1.26	2-1	SUST	14	104	
	TR:T1 to T3{1}		10	1.26	4-1	DISP	37	217	
	Amb to T1{1}		0	1.26	4-1	DISP	1	247	
	Amb to T2{1}		0	1.26	4-1	DISP	1	247	
	Amb to T3{1}		10	1.26	4-1	DISP	36	217	
	Hydrotest{1}	0	0	1.26	3-1	OCC	0	219	
	Sus.+T1{1}			1.26	5-1	CRUP	15	<NOTE 1>	
	Sus.+T2{1}			1.26	5-1	CRUP	15	<NOTE 1>	
	Sus.+T3{1}			1.26	5-1	CRUP	24	<NOTE 1>	
OR9 +	Max P{1}					HOOP	6	104	
	GR + Max P{1}	3		1.20	2-1	SUST	12	104	
	TR:Amb to T3{1}		11	1.20	4-1	DISP	37	217	
	Amb to T1{1}		1	1.20	4-1	DISP	4	247	
	Amb to T2{1}		1	1.20	4-1	DISP	3	247	
	Amb to T3{1}		11	1.20	4-1	DISP	37	217	
	Hydrotest{1}	0	0	1.20	3-1	OCC	0	219	
	Sus.+T1{1}			1.20	5-1	CRUP	13	<NOTE 1>	
	Sus.+T2{1}			1.20	5-1	CRUP	13	<NOTE 1>	
	Sus.+T3{1}			1.20	5-1	CRUP	22	<NOTE 1>	

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
OR9	- Max P{1}					HOOP	6	104	
	GR + Max P{1}	3			1.20	2-1 SUST	12	104	
	TR:Amb to T3{1}			11	1.20	4-1 DISP	37	217	
	Amb to T1{1}			1	1.20	4-1 DISP	4	247	
	Amb to T2{1}			1	1.20	4-1 DISP	3	247	
	Amb to T3{1}			11	1.20	4-1 DISP	37	217	
	Hydrotest{1}	0	0		1.20	3-1 OCC	0	219	
	Sus.+T1{1}				1.20	5-1 CRUP	13	<NOTE 1>	
	Sus.+T2{1}				1.20	5-1 CRUP	13	<NOTE 1>	
	Sus.+T3{1}				1.20	5-1 CRUP	22	<NOTE 1>	
A58	+ Max P{1}					HOOP	6	104	
	GR + Max P{1}	15			1.00	2-1 SUST	25	104	
	TR:T2 to T3{1}			22	1.00	4-1 DISP	33	217	
	Amb to T1{1}			2	1.00	4-1 DISP	3	247	
	Amb to T2{1}			1	1.00	4-1 DISP	2	247	
	Amb to T3{1}			22	1.00	4-1 DISP	33	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	0	219	
	Sus.+T1{1}				1.00	5-1 CRUP	26	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	26	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	36	<NOTE 1>	
CH05	Max P{1}					HOOP	6	104	
	GR + Max P{1}	6			1.00	2-1 SUST	19	104	
	TR:Amb to T3{1}			12	1.00	4-1 DISP	34	217	
	Amb to T1{1}			2	1.00	4-1 DISP	5	247	
	Amb to T2{1}			1	1.00	4-1 DISP	3	247	
	Amb to T3{1}			12	1.00	4-1 DISP	34	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	0	219	
	Sus.+T1{1}				1.00	5-1 CRUP	21	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	20	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	30	<NOTE 1>	
A38	Max P{1}					HOOP	6	104	

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GR + Max P{1}	14	1.00	2-1 SUST	23	104	
TR:T2 to T3{1}		22	1.00	4-1 DISP	32	217
Amb to T1{1}		2	1.00	4-1 DISP	3	247
Amb to T2{1}		1	1.00	4-1 DISP	2	247
Amb to T3{1}		21	1.00	4-1 DISP	32	217
Hydrotest{1}	0	0	1.00	3-1 OCC	0	219
Sus.+T1{1}			1.00	5-1 CRUP	24	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	24	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	34	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)

(Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F no. type	Stress	Allow.
A46	Max P{1}				HOOP	6	104
	GR + Max P{1}	6			1.00 2-1 SUST	19	104
	TR:Amb to T3{1}			12	1.00 4-1 DISP	33	217
	Amb to T1{1}			2	1.00 4-1 DISP	5	247
	Amb to T2{1}			1	1.00 4-1 DISP	3	247
	Amb to T3{1}			12	1.00 4-1 DISP	33	217
	Hydrotest{1}	0	0		1.00 3-1 OCC	0	219
	Sus.+T1{1}				1.00 5-1 CRUP	21	<NOTE 1>
	Sus.+T2{1}				1.00 5-1 CRUP	20	<NOTE 1>
	Sus.+T3{1}				1.00 5-1 CRUP	30	<NOTE 1>
CH14	Max P{1}				HOOP	6	104
	GR + Max P{1}	1			1.20 2-1 SUST	7	104
	TR:Amb to T3{1}			9	1.20 4-1 DISP	31	217
	Amb to T1{1}			2	1.20 4-1 DISP	6	247
	Amb to T2{1}			1	1.20 4-1 DISP	4	247
	Amb to T3{1}			9	1.20 4-1 DISP	31	217
	Hydrotest{1}	0	0		1.20 3-1 OCC	0	219
	Sus.+T1{1}				1.20 5-1 CRUP	9	<NOTE 1>
	Sus.+T2{1}				1.20 5-1 CRUP	8	<NOTE 1>
	Sus.+T3{1}				1.20 5-1 CRUP	16	<NOTE 1>
F08 F+	Max P{1}				HOOP	6	104

GR + Max P{1}	8	1.00	2-1 SUST	25	104	
TR:T1 to T3{1}		8	1.00	4-1 DISP	22	217
Amb to T1{1}		1	1.00	4-1 DISP	2	247
Amb to T2{1}		1	1.00	4-1 DISP	1	247
Amb to T3{1}		7	1.00	4-1 DISP	20	217
Hydrotest{1}	0	0	1.00	3-1 OCC	0	219
Sus.+T1{1}			1.00	5-1 CRUP	26	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	25	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	31	<NOTE 1>

F08 F- Max P{1}					HOOP	6	104
GR + Max P{1}	8		1.26	2-1	SUST	25	104
TR:T1 to T3{1}		8	1.26	4-1	DISP	27	217
Amb to T1{1}		1	1.26	4-1	DISP	3	247
Amb to T2{1}		1	1.26	4-1	DISP	2	247
Amb to T3{1}		7	1.26	4-1	DISP	25	217
Hydrotest{1}	0	0	1.26	3-1	OCC	0	219
Sus.+T1{1}			1.26	5-1	CRUP	26	<NOTE 1>
Sus.+T2{1}			1.26	5-1	CRUP	25	<NOTE 1>
Sus.+T3{1}			1.26	5-1	CRUP	31	<NOTE 1>

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Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
F08 M	Max P{1}					H00P	6	104
	GR + Max P{1}	8			1.26	2-1 SUST	25	104
	TR:T1 to T3{1}			8	1.26	4-1 DISP	28	217
	Amb to T1{1}			1	1.26	4-1 DISP	3	247
	Amb to T2{1}			1	1.26	4-1 DISP	2	247
	Amb to T3{1}			7	1.26	4-1 DISP	25	217
	Hydrotest{1}	0	0		1.26	3-1 OCC	0	219
	Sus.+T1{1}				1.26	5-1 CRUP	26	<NOTE 1>
	Sus.+T2{1}				1.26	5-1 CRUP	25	<NOTE 1>
	Sus.+T3{1}				1.26	5-1 CRUP	31	<NOTE 1>

F08 N+ Max P{1}	H00P	6	104

GR + Max P{1}	8	1.26	2-1	SUST	24	104
TR:T1 to T3{1}		8	1.26	4-1	DISP	217
Amb to T1{1}		1	1.26	4-1	DISP	247
Amb to T2{1}		1	1.26	4-1	DISP	247
Amb to T3{1}		7	1.26	4-1	DISP	217
Hydrotest{1}	0	0	1.26	3-1	OCC	219
Sus.+T1{1}			1.26	5-1	CRUP	<NOTE 1>
Sus.+T2{1}			1.26	5-1	CRUP	<NOTE 1>
Sus.+T3{1}			1.26	5-1	CRUP	<NOTE 1>

F08 N-	Max P{1}					HOOP	6	104
	GR + Max P{1}	8		1.00	2-1	SUST	24	104
	TR:T1 to T3{1}		8	1.00	4-1	DISP	22	217
	Amb to T1{1}		1	1.00	4-1	DISP	2	247
	Amb to T2{1}		1	1.00	4-1	DISP	1	247
	Amb to T3{1}		7	1.00	4-1	DISP	20	217
	Hydrotest{1}	0	0	1.00	3-1	OCC	0	219
	Sus.+T1{1}			1.00	5-1	CRUP	25	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	25	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	31	<NOTE 1>
A32 F-	Max P{1}					HOOP	6	104
	GR + Max P{1}	3		1.25	2-1	SUST	7	104
	TR:T1 to T3{1}		16	1.25	4-1	DISP	31	217
	Amb to T1{1}		11	1.25	4-1	DISP	20	247
	Amb to T2{1}		9	1.25	4-1	DISP	17	247
	Amb to T3{1}		15	1.25	4-1	DISP	28	217
	Hydrotest{1}	0	0	1.25	3-1	OCC	0	219
	Sus.+T1{1}			1.25	5-1	CRUP	13	<NOTE 1>
	Sus.+T2{1}			1.25	5-1	CRUP	12	<NOTE 1>
	Sus.+T3{1}			1.25	5-1	CRUP	15	<NOTE 1>

DVI_A_LINE_REV0

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BENTLEY

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(Moments in N.m) (Stress in N/mm²)

Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
-----	-----	-----	-----	-----	-----	-----	-----	-----
CH01	Max P{1}					H00P	6	104

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GR + Max P{1}	14		1.00	2-1 SUST	24	104
TR:Amb to T1{1}		13	1.00	4-1 DISP	20	247
Amb to T1{1}		13	1.00	4-1 DISP	20	247
Amb to T2{1}		12	1.00	4-1 DISP	17	247
Amb to T3{1}		4	1.00	4-1 DISP	6	217
Hydrotest{1}	0	0	1.00	3-1 OCC	0	219
Sus.+T1{1}			1.00	5-1 CRUP	31	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	30	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	26	<NOTE 1>
A32 N+ Max P{1}				HOOP	6	104
GR + Max P{1}	3		1.25	2-1 SUST	8	104
TR:T1 to T3{1}		16	1.25	4-1 DISP	30	217
Amb to T1{1}		11	1.25	4-1 DISP	21	247
Amb to T2{1}		9	1.25	4-1 DISP	17	247
Amb to T3{1}		14	1.25	4-1 DISP	26	217
Hydrotest{1}	0	0	1.25	3-1 OCC	0	219
Sus.+T1{1}			1.25	5-1 CRUP	13	<NOTE 1>
Sus.+T2{1}			1.25	5-1 CRUP	12	<NOTE 1>
Sus.+T3{1}			1.25	5-1 CRUP	15	<NOTE 1>
A52 N- Max P{1}				HOOP	6	104
GR + Max P{1}	4		1.00	2-1 SUST	14	104
TR:T1 to T3{1}		10	1.00	4-1 DISP	29	217
Amb to T1{1}		0	1.00	4-1 DISP	1	247
Amb to T2{1}		0	1.00	4-1 DISP	0	247
Amb to T3{1}		10	1.00	4-1 DISP	28	217
Hydrotest{1}	0	0	1.00	3-1 OCC	0	219
Sus.+T1{1}			1.00	5-1 CRUP	14	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	14	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	23	<NOTE 1>
A52 F+ Max P{1}				HOOP	6	104
GR + Max P{1}	4		1.00	2-1 SUST	14	104
TR:T1 to T3{1}		10	1.00	4-1 DISP	29	217
Amb to T1{1}		0	1.00	4-1 DISP	1	247
Amb to T2{1}		0	1.00	4-1 DISP	0	247
Amb to T3{1}		10	1.00	4-1 DISP	28	217
Hydrotest{1}	0	0	1.00	3-1 OCC	0	219
Sus.+T1{1}			1.00	5-1 CRUP	15	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	15	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	24	<NOTE 1>

DVI_A_LINE_REV0

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. Load no. type			
A43	Max P{1}					HOOP		6	104
	GR + Max P{1}	6			2.00	2-1 SUST		17	104
	TR:T1 to T3{1}			10	2.00	4-1 DISP		29	217
	Amb to T1{1}			2	2.00	4-1 DISP		7	247
	Amb to T2{1}			2	2.00	4-1 DISP		5	247
	Amb to T3{1}			8	2.00	4-1 DISP		25	217
	Hydrotest{1}	0	0		2.00	3-1 OCC		0	219
	Sus.+T1{1}				2.00	5-1 CRUP		19	<NOTE 1>
	Sus.+T2{1}				2.00	5-1 CRUP		19	<NOTE 1>
	Sus.+T3{1}				2.00	5-1 CRUP		24	<NOTE 1>
F07 F-	Max P{1}					HOOP		6	104
	GR + Max P{1}	3			1.26	2-1 SUST		12	104
	TR:T1 to T3{1}			8	1.26	4-1 DISP		29	217
	Amb to T1{1}			1	1.26	4-1 DISP		3	247
	Amb to T2{1}			1	1.26	4-1 DISP		2	247
	Amb to T3{1}			7	1.26	4-1 DISP		26	217
	Hydrotest{1}	0	0		1.26	3-1 OCC		0	219
	Sus.+T1{1}				1.26	5-1 CRUP		13	<NOTE 1>
	Sus.+T2{1}				1.26	5-1 CRUP		12	<NOTE 1>
	Sus.+T3{1}				1.26	5-1 CRUP		19	<NOTE 1>
F07 N+	Max P{1}					HOOP		6	104
	GR + Max P{1}	3			1.26	2-1 SUST		11	104
	TR:T1 to T3{1}			8	1.26	4-1 DISP		28	217
	Amb to T1{1}			1	1.26	4-1 DISP		3	247
	Amb to T2{1}			1	1.26	4-1 DISP		2	247
	Amb to T3{1}			7	1.26	4-1 DISP		25	217
	Hydrotest{1}	0	0		1.26	3-1 OCC		0	219
	Sus.+T1{1}				1.26	5-1 CRUP		12	<NOTE 1>
	Sus.+T2{1}				1.26	5-1 CRUP		12	<NOTE 1>
	Sus.+T3{1}				1.26	5-1 CRUP		18	<NOTE 1>
A34	+ Max P{1}					HOOP		6	104

		DVI_A_LINE_REV0.OUT					
GR + Max P{1}	2		1.00	2-1	SUST	7	104
TR:T1 to T3{1}		18	1.00	4-1	DISP	27	217
Amb to T1{1}		10	1.00	4-1	DISP	15	247
Amb to T2{1}		8	1.00	4-1	DISP	12	247
Amb to T3{1}		10	1.00	4-1	DISP	14	217
Hydrotest{1}	0	0	1.00	3-1	OCC	0	219
Sus.+T1{1}			1.00	5-1	CRUP	12	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	11	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	11	<NOTE 1>

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DVI_A_LINE_REV0

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

A32 F+	Max P{1}					HOOP	6	104	
	GR + Max P{1}	3			1.00	2-1 SUST	7	104	
	TR:T1 to T3{1}			16	1.00	4-1 DISP	25	217	
	Amb to T1{1}			11	1.00	4-1 DISP	16	247	
	Amb to T2{1}			9	1.00	4-1 DISP	14	247	
	Amb to T3{1}			15	1.00	4-1 DISP	22	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	0	219	
	Sus.+T1{1}				1.00	5-1 CRUP	13	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	12	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	15	<NOTE 1>	
A32 N-	Max P{1}					HOOP	6	104	
	GR + Max P{1}	3			1.00	2-1 SUST	8	104	
	TR:T1 to T3{1}			16	1.00	4-1 DISP	24	217	
	Amb to T1{1}			11	1.00	4-1 DISP	16	247	
	Amb to T2{1}			9	1.00	4-1 DISP	14	247	
	Amb to T3{1}			14	1.00	4-1 DISP	21	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	0	219	
	Sus.+T1{1}				1.00	5-1 CRUP	13	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	12	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	15	<NOTE 1>	
A34	- Max P{1}					HOOP	6	104	

		DVI_A_LINE_REV0.OUT					
	GR + Max P{1}	2	1.00	2-1	SUST	6	104
	TR:T1 to T3{1}	16	1.00	4-1	DISP	24	217
	Amb to T1{1}	10	1.00	4-1	DISP	16	247
	Amb to T2{1}	9	1.00	4-1	DISP	13	247
	Amb to T3{1}	15	1.00	4-1	DISP	22	217
	Hydrotest{1}	0	0	1.00	3-1 OCC	0	219
	Sus.+T1{1}		1.00	5-1	CRUP	11	<NOTE 1>
	Sus.+T2{1}		1.00	5-1	CRUP	11	<NOTE 1>
	Sus.+T3{1}		1.00	5-1	CRUP	14	<NOTE 1>
A48	Max P{1}				HOOP	6	104
	GR + Max P{1}	4	1.00	2-1	SUST	14	104
	TR:T1 to T3{1}	8	1.00	4-1	DISP	23	217
	Amb to T1{1}	0	1.00	4-1	DISP	0	247
	Amb to T2{1}	0	1.00	4-1	DISP	0	247
	Amb to T3{1}	8	1.00	4-1	DISP	22	217
	Hydrotest{1}	0	0	1.00	3-1 OCC	0	219
	Sus.+T1{1}		1.00	5-1	CRUP	14	<NOTE 1>
	Sus.+T2{1}		1.00	5-1	CRUP	14	<NOTE 1>
	Sus.+T3{1}		1.00	5-1	CRUP	21	<NOTE 1>

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AutoPIPE Plus 9.2.1 RESULT PAGE 192

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

F07 F+	Max P{1}					HOOP	6	104	
	GR + Max P{1}	3			1.00	2-1 SUST	12	104	
	TR:T1 to T3{1}			8	1.00	4-1 DISP	23	217	
	Amb to T1{1}			1	1.00	4-1 DISP	3	247	
	Amb to T2{1}			1	1.00	4-1 DISP	2	247	
	Amb to T3{1}			7	1.00	4-1 DISP	20	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	0	219	
	Sus.+T1{1}				1.00	5-1 CRUP	13	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	12	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	19	<NOTE 1>	
F07 N-	Max P{1}					HOOP	6	104	

DVI_A_LINE_REV0.OUT									
GR + Max P{1}	3		1.00	2-1	SUST	11	104		
TR:T1 to T3{1}		8	1.00	4-1	DISP	22	217		
Amb to T1{1}		1	1.00	4-1	DISP	3	247		
Amb to T2{1}		1	1.00	4-1	DISP	2	247		
Amb to T3{1}		7	1.00	4-1	DISP	20	217		
Hydrotest{1}	0	0	1.00	3-1	OCC	0	219		
Sus.+T1{1}			1.00	5-1	CRUP	12	<NOTE 1>		
Sus.+T2{1}			1.00	5-1	CRUP	12	<NOTE 1>		
Sus.+T3{1}			1.00	5-1	CRUP	18	<NOTE 1>		
A39 + Max P{1}					HOOP	6	104		
GR + Max P{1}	2		1.00	2-1	SUST	6	104		
TR:Amb to T3{1}		15	1.00	4-1	DISP	22	217		
Amb to T1{1}		10	1.00	4-1	DISP	14	247		
Amb to T2{1}		6	1.00	4-1	DISP	9	247		
Amb to T3{1}		15	1.00	4-1	DISP	22	217		
Hydrotest{1}	0	0	1.00	3-1	OCC	0	219		
Sus.+T1{1}			1.00	5-1	CRUP	11	<NOTE 1>		
Sus.+T2{1}			1.00	5-1	CRUP	9	<NOTE 1>		
Sus.+T3{1}			1.00	5-1	CRUP	13	<NOTE 1>		
A39 - Max P{1}					HOOP	6	104		
GR + Max P{1}	2		1.00	2-1	SUST	6	104		
TR:Amb to T3{1}		15	1.00	4-1	DISP	22	217		
Amb to T1{1}		10	1.00	4-1	DISP	14	247		
Amb to T2{1}		6	1.00	4-1	DISP	9	247		
Amb to T3{1}		15	1.00	4-1	DISP	22	217		
Hydrotest{1}	0	0	1.00	3-1	OCC	0	219		
Sus.+T1{1}			1.00	5-1	CRUP	11	<NOTE 1>		
Sus.+T2{1}			1.00	5-1	CRUP	9	<NOTE 1>		
Sus.+T3{1}			1.00	5-1	CRUP	13	<NOTE 1>		

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DVI_A_LINE_REV0

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AutoPIPE Plus 9.2.1

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no.	type	Stress	Allow.
A35	Max P{1}					6	HOOP	104	

		DVI_A_LINE_REV0.OUT				
	GR + Max P{1}	2	1.00	2-1 SUST	6	104
	TR:Amb to T3{1}	14	1.00	4-1 DISP	22	217
	Amb to T1{1}	9	1.00	4-1 DISP	14	247
	Amb to T2{1}	6	1.00	4-1 DISP	9	247
	Amb to T3{1}	14	1.00	4-1 DISP	22	217
	Hydrotest{1}	0	0	1.00 3-1 OCC	0	219
	Sus.+T1{1}		1.00	5-1 CRUP	10	<NOTE 1>
	Sus.+T2{1}		1.00	5-1 CRUP	9	<NOTE 1>
	Sus.+T3{1}		1.00	5-1 CRUP	13	<NOTE 1>
A50 N+	Max P{1}			HOOP	6	104
	GR + Max P{1}	3	1.26	2-1 SUST	10	104
	TR:T1 to T3{1}	6	1.26	4-1 DISP	21	217
	Amb to T1{1}	0	1.26	4-1 DISP	1	247
	Amb to T2{1}	0	1.26	4-1 DISP	1	247
	Amb to T3{1}	5	1.26	4-1 DISP	20	217
	Hydrotest{1}	0	0	1.26 3-1 OCC	0	219
	Sus.+T1{1}		1.26	5-1 CRUP	10	<NOTE 1>
	Sus.+T2{1}		1.26	5-1 CRUP	10	<NOTE 1>
	Sus.+T3{1}		1.26	5-1 CRUP	15	<NOTE 1>
A50 F-	Max P{1}			HOOP	6	104
	GR + Max P{1}	2	1.26	2-1 SUST	10	104
	TR:T1 to T3{1}	6	1.26	4-1 DISP	20	217
	Amb to T1{1}	0	1.26	4-1 DISP	1	247
	Amb to T2{1}	0	1.26	4-1 DISP	1	247
	Amb to T3{1}	5	1.26	4-1 DISP	19	217
	Hydrotest{1}	0	0	1.26 3-1 OCC	0	219
	Sus.+T1{1}		1.26	5-1 CRUP	10	<NOTE 1>
	Sus.+T2{1}		1.26	5-1 CRUP	10	<NOTE 1>
	Sus.+T3{1}		1.26	5-1 CRUP	15	<NOTE 1>
IV07	Max P{1}			HOOP	6	104
	GR + Max P{1}	3	1.00	2-1 SUST	12	104
	TR:T1 to T3{1}	7	1.00	4-1 DISP	20	217
	Amb to T1{1}	0	1.00	4-1 DISP	1	247
	Amb to T2{1}	0	1.00	4-1 DISP	1	247
	Amb to T3{1}	7	1.00	4-1 DISP	19	217
	Hydrotest{1}	0	0	1.00 3-1 OCC	0	219
	Sus.+T1{1}		1.00	5-1 CRUP	13	<NOTE 1>
	Sus.+T2{1}		1.00	5-1 CRUP	12	<NOTE 1>
	Sus.+T3{1}		1.00	5-1 CRUP	19	<NOTE 1>

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DVI_A_LINE_REV0

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F					
F01	Max P{1}							HOOP	6	104
	GR + Max P{1}	1			1.00	2-1	SUST		6	104
	TR:Amb to T3{1}			7	1.00	4-1	DISP		20	217
	Amb to T1{1}			7	1.00	4-1	DISP		19	247
	Amb to T2{1}			5	1.00	4-1	DISP		13	247
	Amb to T3{1}			7	1.00	4-1	DISP		20	217
	Hydrotest{1}	0	0		1.00	3-1	OCC		0	219
	Sus.+T1{1}				1.00	5-1	CRUP		13	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		11	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP		13	<NOTE 1>
A36	Max P{1}							HOOP	6	104
	GR + Max P{1}	2			1.00	2-1	SUST		6	104
	TR:Amb to T3{1}			13	1.00	4-1	DISP		20	217
	Amb to T1{1}			9	1.00	4-1	DISP		14	247
	Amb to T2{1}			6	1.00	4-1	DISP		9	247
	Amb to T3{1}			13	1.00	4-1	DISP		20	217
	Hydrotest{1}	0	0		1.00	3-1	OCC		0	219
	Sus.+T1{1}				1.00	5-1	CRUP		11	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		9	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP		13	<NOTE 1>
C020 +	Max P{1}							HOOP	6	104
	GR + Max P{1}	5			1.20	2-1	SUST		16	104
	TR:Amb to T3{1}			4	1.20	4-1	DISP		13	217
	Amb to T1{1}			2	1.20	4-1	DISP		5	247
	Amb to T2{1}			1	1.20	4-1	DISP		4	247
	Amb to T3{1}			4	1.20	4-1	DISP		13	217
	Hydrotest{1}	0	0		1.20	3-1	OCC		0	219
	Sus.+T1{1}				1.20	5-1	CRUP		18	<NOTE 1>
	Sus.+T2{1}				1.20	5-1	CRUP		17	<NOTE 1>
	Sus.+T3{1}				1.20	5-1	CRUP		20	<NOTE 1>
C020 -	Max P{1}							HOOP	6	104
	GR + Max P{1}	5			1.20	2-1	SUST		16	104

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TR:Amb to T3{1}			4	1.20	4-1 DISP	13	217
Amb to T1{1}			2	1.20	4-1 DISP	5	247
Amb to T2{1}			1	1.20	4-1 DISP	4	247
Amb to T3{1}			4	1.20	4-1 DISP	13	217
Hydrotest{1}	0	0		1.20	3-1 OCC	0	219
Sus.+T1{1}				1.20	5-1 CRUP	18	<NOTE 1>
Sus.+T2{1}				1.20	5-1 CRUP	17	<NOTE 1>
Sus.+T3{1}				1.20	5-1 CRUP	20	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. no.	Load type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F						
M01	Max P{1}								HOOP	9	104
	GR + Max P{1}	1			2.00	2-1	SUST	5		104	
	TR:T1 to T3{1}			38	2.00	4-1	DISP	20		217	
	Amb to T1{1}			5	2.00	4-1	DISP	3		247	
	Amb to T2{1}			4	2.00	4-1	DISP	2		247	
	Amb to T3{1}			36	2.00	4-1	DISP	19		217	
	Hydrotest{1}	0	0		2.00	3-1	OCC	0		219	
	Sus.+T1{1}				2.00	5-1	CRUP	6		<NOTE 1>	
	Sus.+T2{1}				2.00	5-1	CRUP	5		<NOTE 1>	
	Sus.+T3{1}				2.00	5-1	CRUP	10		<NOTE 1>	
A40 N+	Max P{1}								HOOP	6	104
	GR + Max P{1}	6			1.25	2-1	SUST	12		104	
	TR:T1 to T3{1}			10	1.25	4-1	DISP	20		217	
	Amb to T1{1}			2	1.25	4-1	DISP	5		247	
	Amb to T2{1}			2	1.25	4-1	DISP	3		247	
	Amb to T3{1}			9	1.25	4-1	DISP	17		217	
	Hydrotest{1}	0	0		1.25	3-1	OCC	0		219	
	Sus.+T1{1}				1.25	5-1	CRUP	13		<NOTE 1>	
	Sus.+T2{1}				1.25	5-1	CRUP	13		<NOTE 1>	
	Sus.+T3{1}				1.25	5-1	CRUP	17		<NOTE 1>	
A40 F-	Max P{1}								HOOP	6	104
	GR + Max P{1}	6			1.25	2-1	SUST	13		104	

TR:T1 to T3{1}			10	1.25	4-1 DISP	18	217
Amb to T1{1}			2	1.25	4-1 DISP	5	247
Amb to T2{1}			2	1.25	4-1 DISP	3	247
Amb to T3{1}			8	1.25	4-1 DISP	16	217
Hydrotest{1}	0	0		1.25	3-1 OCC	0	219
Sus.+T1{1}				1.25	5-1 CRUP	14	<NOTE 1>
Sus.+T2{1}				1.25	5-1 CRUP	13	<NOTE 1>
Sus.+T3{1}				1.25	5-1 CRUP	17	<NOTE 1>

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Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
A40 F+ Max P{1}						HOOP	6	104
	GR + Max P{1}	6			1.00	2-1 SUST	13	104
	TR:T1 to T3{1}			10	1.00	4-1 DISP	15	217
	Amb to T1{1}			2	1.00	4-1 DISP	4	247
	Amb to T2{1}			2	1.00	4-1 DISP	3	247
	Amb to T3{1}			8	1.00	4-1 DISP	13	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	0	219
	Sus.+T1{1}				1.00	5-1 CRUP	14	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	13	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	17	<NOTE 1>

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TR:T1 to T3{1}			10	1.00	4-1 DISP	16	217
Amb to T1{1}			2	1.00	4-1 DISP	4	247
Amb to T2{1}			2	1.00	4-1 DISP	3	247
Amb to T3{1}			9	1.00	4-1 DISP	14	217
Hydrotest{1}	0	0		1.00	3-1 OCC	0	219
Sus.+T1{1}				1.00	5-1 CRUP	13	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	13	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	17	<NOTE 1>

A50 N- Max P{1}				HOOP	6	104
GR + Max P{1}	3	1.00	2-1 SUST	10	104	
TR:T1 to T3{1}		6	1.00	4-1 DISP	16	217
Amb to T1{1}		0	1.00	4-1 DISP	1	247
Amb to T2{1}		0	1.00	4-1 DISP	1	247
Amb to T3{1}		5	1.00	4-1 DISP	16	217
Hydrotest{1}	0	0	1.00	3-1 OCC	0	219
Sus.+T1{1}			1.00	5-1 CRUP	10	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	10	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	15	<NOTE 1>

A45	N+	Max P{1}			HOOB	6	104
		GR + Max P{1}	3	1.26	2-1 SUST	13	104
		TR:Amb to T3{1}		4 1.26	4-1 DISP	14	217
		Amb to T1{1}		1 1.26	4-1 DISP	3	247
		Amb to T2{1}		0 1.26	4-1 DISP	2	247
		Amb to T3{1}		4 1.26	4-1 DISP	14	217
		Hydrotest{1}	0	0 1.26	3-1 OCC	0	219
		Sus.+T1{1}		1.26	5-1 CRUP	13	<NOTE 1>
		Sus.+T2{1}		1.26	5-1 CRUP	13	<NOTE 1>
		Sus.+T3{1}		1.26	5-1 CRUP	16	<NOTE 1>

DVI_A_LINE_REV0

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(Moments in N.m) (Stress in N/mm²)

Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
-----	-----	-----	-----	-----	-----	-----	-----	-----
A45 N-	Max P{1}					H00P	6	104
	GR + Max P{1}	3			1.00	2-1 SUST	13	104

DVI_A_LINE_REV0.OUT

TR:Amb to T3{1}		4	1.00	4-1 DISP	11	217
Amb to T1{1}		1	1.00	4-1 DISP	2	247
Amb to T2{1}		0	1.00	4-1 DISP	1	247
Amb to T3{1}		4	1.00	4-1 DISP	11	217
Hydrotest{1}	0	0	1.00	3-1 OCC	0	219
Sus.+T1{1}			1.00	5-1 CRUP	13	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	13	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	16	<NOTE 1>
A50 F+ Max P{1}				HOOP	6	104
GR + Max P{1}	2		1.00	2-1 SUST	10	104
TR:T1 to T3{1}		6	1.00	4-1 DISP	16	217
Amb to T1{1}		0	1.00	4-1 DISP	1	247
Amb to T2{1}		0	1.00	4-1 DISP	1	247
Amb to T3{1}		5	1.00	4-1 DISP	15	217
Hydrotest{1}	0	0	1.00	3-1 OCC	0	219
Sus.+T1{1}			1.00	5-1 CRUP	10	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	10	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	15	<NOTE 1>
A45 F+ Max P{1}				HOOP	6	104
GR + Max P{1}	3		1.00	2-1 SUST	13	104
TR:Amb to T3{1}		3	1.00	4-1 DISP	10	217
Amb to T1{1}		1	1.00	4-1 DISP	2	247
Amb to T2{1}		0	1.00	4-1 DISP	1	247
Amb to T3{1}		3	1.00	4-1 DISP	10	217
Hydrotest{1}	0	0	1.00	3-1 OCC	0	219
Sus.+T1{1}			1.00	5-1 CRUP	13	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	13	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	16	<NOTE 1>
A45 F- Max P{1}				HOOP	6	104
GR + Max P{1}	3		1.26	2-1 SUST	13	104
TR:Amb to T3{1}		3	1.26	4-1 DISP	12	217
Amb to T1{1}		1	1.26	4-1 DISP	3	247
Amb to T2{1}		0	1.26	4-1 DISP	2	247
Amb to T3{1}		3	1.26	4-1 DISP	12	217
Hydrotest{1}	0	0	1.26	3-1 OCC	0	219
Sus.+T1{1}			1.26	5-1 CRUP	13	<NOTE 1>
Sus.+T2{1}			1.26	5-1 CRUP	13	<NOTE 1>
Sus.+T3{1}			1.26	5-1 CRUP	16	<NOTE 1>

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 DVI_A_LINE_REV0

09/13/2010 DVI A LINE

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AutoPIPE Plus 9.2.1

RESULT PAGE 198

EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F					
F02 F+ Max P{1}								HOOP	6	104
	GR + Max P{1}	3			1.00	2-1	SUST		11	104
	TR:Amb to T3{1}			5	1.00	4-1	DISP		14	217
	Amb to T1{1}			4	1.00	4-1	DISP		12	247
	Amb to T2{1}			3	1.00	4-1	DISP		8	247
	Amb to T3{1}			5	1.00	4-1	DISP		14	217
	Hydrotest{1}	0	0		1.00	3-1	OCC		0	219
	Sus.+T1{1}				1.00	5-1	CRUP		15	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		14	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP		16	<NOTE 1>
F02 F- Max P{1}								HOOP	6	104
	GR + Max P{1}	3			1.05	2-1	SUST		11	104
	TR:Amb to T3{1}			5	1.05	4-1	DISP		15	217
	Amb to T1{1}			4	1.05	4-1	DISP		13	247
	Amb to T2{1}			3	1.05	4-1	DISP		8	247
	Amb to T3{1}			5	1.05	4-1	DISP		15	217
	Hydrotest{1}	0	0		1.05	3-1	OCC		0	219
	Sus.+T1{1}				1.05	5-1	CRUP		15	<NOTE 1>
	Sus.+T2{1}				1.05	5-1	CRUP		14	<NOTE 1>
	Sus.+T3{1}				1.05	5-1	CRUP		16	<NOTE 1>
F02 N+ Max P{1}								HOOP	6	104
	GR + Max P{1}	3			1.05	2-1	SUST		11	104
	TR:Amb to T3{1}			5	1.05	4-1	DISP		15	217
	Amb to T1{1}			4	1.05	4-1	DISP		13	247
	Amb to T2{1}			3	1.05	4-1	DISP		9	247
	Amb to T3{1}			5	1.05	4-1	DISP		15	217
	Hydrotest{1}	0	0		1.05	3-1	OCC		0	219
	Sus.+T1{1}				1.05	5-1	CRUP		15	<NOTE 1>
	Sus.+T2{1}				1.05	5-1	CRUP		14	<NOTE 1>
	Sus.+T3{1}				1.05	5-1	CRUP		16	<NOTE 1>
F02 N- Max P{1}								HOOP	6	104
	GR + Max P{1}	3			1.00	2-1	SUST		11	104

TR:Amb to T3{1}			DVI_A_LINE_REV0.0UT	5	1.00	4-1 DISP	14	217
Amb to T1{1}				4	1.00	4-1 DISP	12	247
Amb to T2{1}				3	1.00	4-1 DISP	8	247
Amb to T3{1}				5	1.00	4-1 DISP	14	217
Hydrotest{1}	0	0			1.00	3-1 OCC	0	219
Sus.+T1{1}					1.00	5-1 CRUP	15	<NOTE 1>
Sus.+T2{1}					1.00	5-1 CRUP	14	<NOTE 1>
Sus.+T3{1}					1.00	5-1 CRUP	16	<NOTE 1>

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DVI_A_LINE_REV0

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RESULT PAGE 199

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
N07	+ Max P{1}					HOOP	6	104	
	GR + Max P{1}	1			1.20	2-1 SUST	6	104	
	TR:T1 to T3{1}			5	1.20	4-1 DISP	15	217	
	Amb to T1{1}			1	1.20	4-1 DISP	5	247	
	Amb to T2{1}			1	1.20	4-1 DISP	3	247	
	Amb to T3{1}			4	1.20	4-1 DISP	12	217	
	Hydrotest{1}	0	0		1.20	3-1 OCC	0	219	
	Sus.+T1{1}				1.20	5-1 CRUP	7	<NOTE 1>	
	Sus.+T2{1}				1.20	5-1 CRUP	7	<NOTE 1>	
	Sus.+T3{1}				1.20	5-1 CRUP	9	<NOTE 1>	
N07	- Max P{1}					HOOP	6	104	
	GR + Max P{1}	1			1.20	2-1 SUST	6	104	
	TR:T1 to T3{1}			5	1.20	4-1 DISP	15	217	
	Amb to T1{1}			1	1.20	4-1 DISP	5	247	
	Amb to T2{1}			1	1.20	4-1 DISP	3	247	
	Amb to T3{1}			4	1.20	4-1 DISP	12	217	
	Hydrotest{1}	0	0		1.20	3-1 OCC	0	219	
	Sus.+T1{1}				1.20	5-1 CRUP	7	<NOTE 1>	
	Sus.+T2{1}				1.20	5-1 CRUP	7	<NOTE 1>	
	Sus.+T3{1}				1.20	5-1 CRUP	9	<NOTE 1>	
A51	F+ Max P{1}					HOOP	6	104	
	GR + Max P{1}	3			1.00	2-1 SUST	12	104	

DVI_A_LINE_REV0.OUT									
TR:T1 to T3{1}			3	1.00	4-1 DISP	8	217		
Amb to T1{1}			0	1.00	4-1 DISP	0	247		
Amb to T2{1}			0	1.00	4-1 DISP	0	247		
Amb to T3{1}			3	1.00	4-1 DISP	8	217		
Hydrotest{1}	0	0		1.00	3-1 OCC	0	219		
Sus.+T1{1}				1.00	5-1 CRUP	12	<NOTE 1>		
Sus.+T2{1}				1.00	5-1 CRUP	12	<NOTE 1>		
Sus.+T3{1}				1.00	5-1 CRUP	14	<NOTE 1>		
A51 F- Max P{1}					HOOP	6	104		
GR + Max P{1}	3			1.26	2-1 SUST	12	104		
TR:T1 to T3{1}			3	1.26	4-1 DISP	11	217		
Amb to T1{1}			0	1.26	4-1 DISP	0	247		
Amb to T2{1}			0	1.26	4-1 DISP	0	247		
Amb to T3{1}			3	1.26	4-1 DISP	10	217		
Hydrotest{1}	0	0		1.26	3-1 OCC	0	219		
Sus.+T1{1}				1.26	5-1 CRUP	12	<NOTE 1>		
Sus.+T2{1}				1.26	5-1 CRUP	12	<NOTE 1>		
Sus.+T3{1}				1.26	5-1 CRUP	14	<NOTE 1>		

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DVI_A_LINE_REV0

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EN 13480 (2002) CODE COMPLIANCE									
(Moments in N.m)			(Stress in N/mm2)						
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
A51 N+ Max P{1}						HOOP	6	104	
GR + Max P{1}	3				1.26	2-1 SUST	12	104	
TR:T1 to T3{1}				3	1.26	4-1 DISP	11	217	
Amb to T1{1}				0	1.26	4-1 DISP	0	247	
Amb to T2{1}				0	1.26	4-1 DISP	0	247	
Amb to T3{1}				3	1.26	4-1 DISP	10	217	
Hydrotest{1}	0	0			1.26	3-1 OCC	0	219	
Sus.+T1{1}					1.26	5-1 CRUP	12	<NOTE 1>	
Sus.+T2{1}					1.26	5-1 CRUP	12	<NOTE 1>	
Sus.+T3{1}					1.26	5-1 CRUP	14	<NOTE 1>	
A51 N- Max P{1}						HOOP	6	104	
GR + Max P{1}	3				1.00	2-1 SUST	12	104	

DVI_A_LINE_REV0.OUT									
	TR:T1 to T3{1}			3	1.00	4-1	DISP	8	217
	Amb to T1{1}			0	1.00	4-1	DISP	0	247
	Amb to T2{1}			0	1.00	4-1	DISP	0	247
	Amb to T3{1}			3	1.00	4-1	DISP	8	217
	Hydrotest{1}	0	0		1.00	3-1	OCC	0	219
	Sus.+T1{1}				1.00	5-1	CRUP	12	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP	12	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP	14	<NOTE 1>
CH12	Max P{1}						HOOP	6	104
	GR + Max P{1}	2			1.00	2-1	SUST	7	104
	TR:Amb to T3{1}			5	1.00	4-1	DISP	14	217
	Amb to T1{1}			3	1.00	4-1	DISP	10	247
	Amb to T2{1}			2	1.00	4-1	DISP	7	247
	Amb to T3{1}			5	1.00	4-1	DISP	14	217
	Hydrotest{1}	0	0		1.00	3-1	OCC	0	219
	Sus.+T1{1}				1.00	5-1	CRUP	11	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP	10	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP	12	<NOTE 1>
N03	Max P{1}						HOOP	6	104
	GR + Max P{1}	1			1.20	2-1	SUST	7	104
	TR:Amb to T3{1}			4	1.20	4-1	DISP	14	217
	Amb to T1{1}			1	1.20	4-1	DISP	5	247
	Amb to T2{1}			1	1.20	4-1	DISP	3	247
	Amb to T3{1}			4	1.20	4-1	DISP	14	217
	Hydrotest{1}	0	0		1.20	3-1	OCC	0	219
	Sus.+T1{1}				1.20	5-1	CRUP	8	<NOTE 1>
	Sus.+T2{1}				1.20	5-1	CRUP	7	<NOTE 1>
	Sus.+T3{1}				1.20	5-1	CRUP	10	<NOTE 1>

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DVI_A_LINE_REV0

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
F03	Max P{1}					HOOP	6	104	
	GR + Max P{1}	1			1.00	2-1 SUST	6	104	

DVI_A_LINE_REV0.OUT									
	TR:Amb to T3{1}		5	1.00	4-1 DISP	13	217		
	Amb to T1{1}		3	1.00	4-1 DISP	9	247		
	Amb to T2{1}		2	1.00	4-1 DISP	6	247		
	Amb to T3{1}		5	1.00	4-1 DISP	13	217		
	Hydrotest{1}	0	0	1.00	3-1 OCC	0	219		
	Sus.+T1{1}			1.00	5-1 CRUP	9	<NOTE 1>		
	Sus.+T2{1}			1.00	5-1 CRUP	8	<NOTE 1>		
	Sus.+T3{1}			1.00	5-1 CRUP	10	<NOTE 1>		
M00	Max P{1}				HOOP	9	104		
	GR + Max P{1}	1		1.00	2-1 SUST	5	104		
	TR:T1 to T3{1}		46	1.00	4-1 DISP	12	217		
	Amb to T1{1}		6	1.00	4-1 DISP	2	247		
	Amb to T2{1}		4	1.00	4-1 DISP	1	247		
	Amb to T3{1}		44	1.00	4-1 DISP	11	217		
	Hydrotest{1}	0	0	1.00	3-1 OCC	0	219		
	Sus.+T1{1}			1.00	5-1 CRUP	5	<NOTE 1>		
	Sus.+T2{1}			1.00	5-1 CRUP	5	<NOTE 1>		
	Sus.+T3{1}			1.00	5-1 CRUP	9	<NOTE 1>		
A54	Max P{1}				HOOP	6	104		
	GR + Max P{1}	0		2.00	2-1 SUST	4	104		
	TR:T1 to T3{1}		2	2.00	4-1 DISP	11	217		
	Amb to T1{1}		0	2.00	4-1 DISP	1	247		
	Amb to T2{1}		0	2.00	4-1 DISP	0	247		
	Amb to T3{1}		2	2.00	4-1 DISP	10	217		
	Hydrotest{1}	0	0	2.00	3-1 OCC	0	219		
	Sus.+T1{1}			2.00	5-1 CRUP	4	<NOTE 1>		
	Sus.+T2{1}			2.00	5-1 CRUP	4	<NOTE 1>		
	Sus.+T3{1}			2.00	5-1 CRUP	7	<NOTE 1>		
F12	Max P{1}				HOOP	9	104		
	GR + Max P{1}	3		1.00	2-1 SUST	5	104		
	TR:T1 to T3{1}		13	1.00	4-1 DISP	3	217		
	Amb to T1{1}		2	1.00	4-1 DISP	1	247		
	Amb to T2{1}		1	1.00	4-1 DISP	0	247		
	Amb to T3{1}		11	1.00	4-1 DISP	3	217		
	Hydrotest{1}	0	0	1.00	3-1 OCC	0	219		
	Sus.+T1{1}			1.00	5-1 CRUP	5	<NOTE 1>		
	Sus.+T2{1}			1.00	5-1 CRUP	5	<NOTE 1>		
	Sus.+T3{1}			1.00	5-1 CRUP	6	<NOTE 1>		

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DVI_A_LINE_REV0

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AutoPIPE Plus 9.2.1

RESULT PAGE 202

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)				(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
F11	Max P{1}					HOOP	9	104
	GR + Max P{1}	3			2.00	2-1 SUST	6	104
	TR:T1 to T3{1}			10	2.00	4-1 DISP	5	217
	Amb to T1{1}			2	2.00	4-1 DISP	1	247
	Amb to T2{1}			1	2.00	4-1 DISP	1	247
	Amb to T3{1}			8	2.00	4-1 DISP	4	217
	Hydrotest{1}	0	0		2.00	3-1 OCC	0	219
	Sus.+T1{1}				2.00	5-1 CRUP	6	<NOTE 1>
	Sus.+T2{1}				2.00	5-1 CRUP	6	<NOTE 1>
	Sus.+T3{1}				2.00	5-1 CRUP	7	<NOTE 1>
A56	Max P{1}					HOOP	9	104
	GR + Max P{1}	2			1.00	2-1 SUST	5	104
	TR:T1 to T3{1}			4	1.00	4-1 DISP	1	217
	Amb to T1{1}			0	1.00	4-1 DISP	0	247
	Amb to T2{1}			0	1.00	4-1 DISP	0	247
	Amb to T3{1}			4	1.00	4-1 DISP	1	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	0	219
	Sus.+T1{1}				1.00	5-1 CRUP	5	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	5	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	5	<NOTE 1>
A55	Max P{1}					HOOP	9	104
	GR + Max P{1}	1			2.00	2-1 SUST	5	104
	TR:T1 to T3{1}			2	2.00	4-1 DISP	1	217
	Amb to T1{1}			0	2.00	4-1 DISP	0	247
	Amb to T2{1}			0	2.00	4-1 DISP	0	247
	Amb to T3{1}			2	2.00	4-1 DISP	1	217
	Hydrotest{1}	0	0		2.00	3-1 OCC	0	219
	Sus.+T1{1}				2.00	5-1 CRUP	5	<NOTE 1>
	Sus.+T2{1}				2.00	5-1 CRUP	5	<NOTE 1>
	Sus.+T3{1}				2.00	5-1 CRUP	5	<NOTE 1>
A53 F+	Max P{1}					HOOP	6	104
	GR + Max P{1}	2			1.00	2-1 SUST	7	104
	TR:T1 to T3{1}			1	1.00	4-1 DISP	4	217

DVI_A_LINE_REV0.OUT

Amb to T1{1}			0	1.00	4-1 DISP	0	247
Amb to T2{1}			0	1.00	4-1 DISP	0	247
Amb to T3{1}			1	1.00	4-1 DISP	3	217
Hydrotest{1}	0	0		1.00	3-1 OCC	0	219
Sus.+T1{1}				1.00	5-1 CRUP	7	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	7	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	9	<NOTE 1>

DVI_A_LINE_REV0

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RESULT PAGE 203

EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. Load no. type			
A53 F-	Max P{1}					HOOP		6	104
	GR + Max P{1}	2			1.26	2-1 SUST		7	104
	TR:T1 to T3{1}			1	1.26	4-1 DISP		4	217
	Amb to T1{1}			0	1.26	4-1 DISP		0	247
	Amb to T2{1}			0	1.26	4-1 DISP		0	247
	Amb to T3{1}			1	1.26	4-1 DISP		4	217
	Hydrotest{1}	0	0		1.26	3-1 OCC		0	219
	Sus.+T1{1}				1.26	5-1 CRUP		7	<NOTE 1>
	Sus.+T2{1}				1.26	5-1 CRUP		7	<NOTE 1>
	Sus.+T3{1}				1.26	5-1 CRUP		9	<NOTE 1>
A49 +	Max P{1}					HOOP		6	104
	GR + Max P{1}	1			1.00	2-1 SUST		5	104
	TR:T1 to T3{1}			3	1.00	4-1 DISP		8	217
	Amb to T1{1}			0	1.00	4-1 DISP		0	247
	Amb to T2{1}			0	1.00	4-1 DISP		0	247
	Amb to T3{1}			3	1.00	4-1 DISP		7	217
	Hydrotest{1}	0	0		1.00	3-1 OCC		0	219
	Sus.+T1{1}				1.00	5-1 CRUP		5	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP		5	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP		8	<NOTE 1>
A49 -	Max P{1}					HOOP		6	104
	GR + Max P{1}	1			1.00	2-1 SUST		5	104
	TR:T1 to T3{1}			3	1.00	4-1 DISP		8	217

DVI_A_LINE_REV0.OUT

	Amb to T1{1}		0	1.00	4-1 DISP	0	247
	Amb to T2{1}		0	1.00	4-1 DISP	0	247
	Amb to T3{1}		3	1.00	4-1 DISP	7	217
	Hydrotest{1}	0	0	1.00	3-1 OCC	0	219
	Sus.+T1{1}			1.00	5-1 CRUP	5	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	5	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	8	<NOTE 1>
E01	Max P{1}				HOOP	6	104
	GR + Max P{1}	0		2.30	2-1 SUST	3	104
	TR:T1 to T3{1}		0	2.30	4-1 DISP	0	217
	Amb to T1{1}		0	2.30	4-1 DISP	0	247
	Amb to T2{1}		0	2.30	4-1 DISP	0	247
	Amb to T3{1}		0	2.30	4-1 DISP	0	217
	Hydrotest{1}	0	0	2.30	3-1 OCC	0	219
	Sus.+T1{1}			2.30	5-1 CRUP	3	<NOTE 1>
	Sus.+T2{1}			2.30	5-1 CRUP	3	<NOTE 1>
	Sus.+T3{1}			2.30	5-1 CRUP	3	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. Load no. type			
A39	Max P{1}					HOOP	6	104	
	GR + Max P{1}	0			1.00	2-1 SUST	3	104	
	TR:T2 to T3{1}			0	1.00	4-1 DISP	0	217	
	Amb to T1{1}			0	1.00	4-1 DISP	0	247	
	Amb to T2{1}			0	1.00	4-1 DISP	0	247	
	Amb to T3{1}			0	1.00	4-1 DISP	0	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	0	219	
	Sus.+T1{1}				1.00	5-1 CRUP	3	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	3	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	3	<NOTE 1>	
A53 N+	Max P{1}					HOOP	6	104	
	GR + Max P{1}	0			1.26	2-1 SUST	4	104	
	TR:T1 to T3{1}			1	1.26	4-1 DISP	4	217	

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Amb to T1{1}			0	1.26	4-1 DISP	0	247
Amb to T2{1}			0	1.26	4-1 DISP	0	247
Amb to T3{1}			1	1.26	4-1 DISP	4	217
Hydrotest{1}	0	0		1.26	3-1 OCC	0	219
Sus.+T1{1}				1.26	5-1 CRUP	4	<NOTE 1>
Sus.+T2{1}				1.26	5-1 CRUP	4	<NOTE 1>
Sus.+T3{1}				1.26	5-1 CRUP	5	<NOTE 1>
A53 N- Max P{1}					HOOP	6	104
GR + Max P{1}	0			1.00	2-1 SUST	4	104
TR:T1 to T3{1}			1	1.00	4-1 DISP	4	217
Amb to T1{1}			0	1.00	4-1 DISP	0	247
Amb to T2{1}			0	1.00	4-1 DISP	0	247
Amb to T3{1}			1	1.00	4-1 DISP	3	217
Hydrotest{1}	0	0		1.00	3-1 OCC	0	219
Sus.+T1{1}				1.00	5-1 CRUP	4	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	4	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	5	<NOTE 1>

*** NOTE 1: No allowable stress could be calculated.
 *** Mechanical properties are outside of temperature range.

□

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R E S U L T S U M M A R Y

Maximum displacements (mm)

Maximum X :	-21.991	Point : L19N	Load Comb.: Thermal 1{1}
Maximum Y :	-14.012	Point : F07 N	Load Comb.: GRT3{1}
Maximum Z :	56.613	Point : L23 F	Load Comb.: GRT2{1}
Max. total:	56.711	Point : L23 F	Load Comb.: GRT2{1}

Maximum rotations (deg)

Maximum X :	1.093	Point : F07 N	Load Comb.: GRT3{1}
Maximum Y :	-1.641	Point : L05	Load Comb.: Thermal 2{1}
Maximum Z :	0.547	Point : L02 N	Load Comb.: GRT2{1}
Max. total:	1.694	Point : L05	Load Comb.: Thermal 2{1}

Maximum restraint forces (N)

Maximum X :	136	Point : L27	Load Comb.: Thermal 2{1}
Maximum Y :	-76	Point : M00	Load Comb.: Thermal 3{1}
Maximum Z :	-7385	Point : L16	Load Comb.: GRT1{1}
Max. total:	7386	Point : L16	Load Comb.: GRT1{1}

Maximum restraint moments (N.m)

Maximum X :	93	Point :	L16	Load Comb.: GRT1{1}
Maximum Y :	-329	Point :	L16	Load Comb.: Thermal 2{1}
Maximum Z :	-55	Point :	L27	Load Comb.: Thermal 2{1}
Max. total:	338	Point :	L16	Load Comb.: Thermal 2{1}

1

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RESULT SUMMARY

Maximum pipe forces (N)

Maximum X :	136	Point : L16	Load Comb.: Thermal 2{1}
Maximum Y :	-76	Point : A58	Load Comb.: Thermal 3{1}
Maximum Z :	-4987	Point : L16	Load Comb.: Gravity{1}
Max. total:	4987	Point : L16	Load Comb.: Gravity{1}

Maximum pipe moments (N.m)

Maximum X :	-95	Point : L16	Load Comb.: Thermal 2{1}
Maximum Y :	307	Point : L16	Load Comb.: Thermal 2{1}
Maximum Z :	-55	Point : L27	Load Comb.: Thermal 2{1}
Max. total:	321	Point : L16	Load Comb.: Thermal 2{1}

1

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R E S U L T S U M M A R Y

Maximum sustained stress

Point : IV03
Stress N/mm2 : 55
Allowable N/mm2 : 104
Ratio : 0.53
Load combination : GR + Max P{1}

Maximum displacement stress

Point : M02
Stress N/mm2 : 198
Allowable N/mm2 : 217
Ratio : 0.91
Load combination : Max Range

Maximum occasional stress

Point : L14
Stress N/mm2 : 72
Allowable N/mm2 : 219
Ratio : 0.33
Load combination : Hydrotest{1}

Maximum hoop stress

Point : L14
Stress N/mm2 : 102
Allowable N/mm2 : 86
Ratio : 1.19
Load combination : Max P{1}

Maximum creep rupture stress

Point : J06
Stress N/mm2 : 94
Allowable N/mm2 : 0 < See Note 1 >
Ratio : 0.00
Load combination : Sus.+T3{1}

□

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R E S U L T S U M M A R Y

Maximum sustained stress ratio

Point : L25
Stress N/mm2 : 52
Allowable N/mm2 : 86
Ratio : 0.60
Load combination : GR + Max P{1}

Maximum displacement stress ratio

Point : L18
Stress N/mm2 : 190

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Allowable N/mm2 : 197
Ratio : 0.96
Load combination : Max Range

Maximum occasional stress ratio

Point : L14
Stress N/mm2 : 72
Allowable N/mm2 : 219
Ratio : 0.33
Load combination : Hydrotest{1}

Maximum hoop stress ratio

Point : L14
Stress N/mm2 : 102
Allowable N/mm2 : 86
Ratio : 1.19
Load combination : Max P{1}

Maximum creep rupture stress ratio

Point : M02
Stress N/mm2 : 14
Allowable N/mm2 : 0 < See Note 1 >
Ratio : 0.00
Load combination : Sus.+T1{1}

* * * The system does not satisfy EN 13480 (2002) code requirements * * *
* * * for the selected options * * *

Warnings:
(1) Maximum creep rupture stress ratio is zero

* * * Note 1: Points were found in this stress category with * * *
* * * mechanical properties outside of temperature range. No * * *

□

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R E S U L T S U M M A R Y

* * * allowable stress were calculated at these points. * * *

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ALLEGATO 3. DVI-B INPUT E OUTPUT DEI CALCOLI AUTOPIPE

file: DVI_B_LINE_REV0.pdf

DVI_B_LINE_REV0.OUT

PIPING CODE : EN 13480
 YEAR : 2002
 LIFETIME (HRS) : 200000
 LIFETIME MONITORING : NO
 VERTICAL AXIS : Z
 AMBIENT TEMPERATURE : 20.0 deg C
 COMPONENT LIBRARY : AUTOPIPE
 MATERIAL LIBRARY : EUROMAT
 MODEL REVISION NUMBER : 36

□

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 AutoPIPE Plus 9.2.1 MODEL PAGE 3

 C O M P O N E N T D A T A L I S T I N G

 *** SEGMENT A

 From A00 to A30, DX= 85.73 mm Run

PIPE DATA:
 Pipe Id= 3/4POL80, Material= X5CRNI18-10 1.4301, Product= Seamless tube, Source= EURO,
 Composition= Austentic Stainless, Poisson= 0.300, Nom Size= 20 mm, OD= 26.670 mm, Sch= 80, Wall Thk= 3.912 mm,
 Mill= 0.489 mm, Cor= 0 mm, Pipe Density= 7930.00 kg/m3, Pipe Unit Wgt= 21.75 N/m, Content Sp Gr= 1.000,
 Content Unit Wgt= 2.73 N/m, Insul Thk= 50.000 mm, Insul Material= MINERAL WOOL, Insul Density= 136.16 kg/m3,
 Insul Unit Wgt= 16.08 N/m, Lining Thk= 0 mm, Long Weld factor= 1.00, Circ Weld factor= 1.00, Long Modulus= 0.19996 E6 N/mm2,
 Hoop Modulus= 0.19996 E6 N/mm2, Shear Modulus= 0.07691 E6 N/mm2, Al= 40.0, At= 35.0, fcr= 166.7 N/mm2, Rp0.2= 195.0 N/mm2,
 Rp1.0= 230.0 N/mm2, Rm= 500.0 N/mm2

OPERATING DATA:
 P1= 17.2500 N/mm2, P2= 17.2500 N/mm2, P3= 17.2500 N/mm2, P4= 17.2500 N/mm2, P5= 1.5000 N/mm2, T1= 354.00 deg C,
 T2= 354.00 deg C, T3= 354.00 deg C, T4= 354.00 deg C, T5= 198.00 deg C, Exp1= 5.85176 mm/m, Exp2= 5.85176 mm/m,
 Exp3= 5.85176 mm/m, Exp4= 5.85176 mm/m, Exp5= 2.94948 mm/m, E1= 0.17164 E6 N/mm2, E2= 0.17164 E6 N/mm2, E3= 0.17164 E6 N/mm2,
 E4= 0.17164 E6 N/mm2, E5= 0.18487 E6 N/mm2, Rp0.2t1= 103.52 N/mm2, Rp0.2t2= 103.52 N/mm2, Rp0.2t3= 103.52 N/mm2,
 Rp0.2t4= 103.52 N/mm2, Rp0.2t5= 127.52 N/mm2, Rp1.0t1= 128.68 N/mm2, Rp1.0t2= 128.68 N/mm2, Rp1.0t3= 128.68 N/mm2,
 Rp1.0t4= 128.68 N/mm2, Rp1.0t5= 155.60 N/mm2, Rmt1= 0.00 N/mm2, Rmt2= 0.00 N/mm2, Rmt3= 0.00 N/mm2, Rmt4= 0.00 N/mm2,
 Rmt5= 0.00 N/mm2, fcr1= 0.00 N/mm2, fcr2= 0.00 N/mm2, fcr3= 0.00 N/mm2, fcr4= 0.00 N/mm2, fcr5= 0.00 N/mm2, fh1= 85.79 N/mm2,
 fh2= 85.79 N/mm2, fh3= 85.79 N/mm2, fh4= 85.79 N/mm2, fh5= 103.73 N/mm2

POINT DATA:
 A00, Coordinates, X= 531.40 mm, Y= 0.00 mm, Z= 2357.00 mm
 A00, Flange= WELDNECK, Rating= 2500, Flange Weight= 4.10 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
 Perform ANSI check= No

SUPPORT DATA:
 A00, Anchor, Tag No.= DVITORV1B, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

 From A30 to A01, DX= 38.10 mm Redu

COMPONENT DATA (Reducer):

Length= 38.10 mm, SIF= 2.00

POINT DATA:

A30, Coordinates, X= 617.13 mm, Y= 0.00 mm, Z= 2357.00 mm

From A01 to A02, DX= 500.00 mm

Run

PIPE DATA:

Pipe Id= 1/2POL80, Composition= Austentic Stainless, Nom Size= 15 mm, OD= 21.336 mm, Wall Thk= 3.734 mm, Mill= 0.467 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 1.48 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 14.96 N/m

POINT DATA:

A01, Coordinates, X= 655.23 mm, Y= 0.00 mm, Z= 2357.00 mm

From A02 to A03, DZ= 400.00 mm

Bend

[]

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C O M P O N E N T D A T A L I S T I N G

COMPONENT DATA (Bend, TIP= A02, Near= A02 N, Far= A02 F):

Elbow, Radius= 19.00 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIF0= 1.00

POINT DATA:

A02, Coordinates, X= 1155.23 mm, Y= 0.00 mm, Z= 2357.00 mm
A02 N, Coordinates, X= 1136.23 mm, Y= 0.00 mm, Z= 2357.00 mm
A02 F, Coordinates, X= 1155.23 mm, Y= 0.00 mm, Z= 2376.00 mm

From A03 to A04, DX= 681.92 mm

Bend

COMPONENT DATA (Bend, TIP= A03, Near= A03 N, Far= A03 F):

Elbow, Radius= 19.00 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIF0= 1.00

POINT DATA:

A03, Coordinates, X= 1155.23 mm, Y= 0.00 mm, Z= 2757.00 mm
A03 N, Coordinates, X= 1155.23 mm, Y= 0.00 mm, Z= 2738.00 mm
A03 F, Coordinates, X= 1174.23 mm, Y= 0.00 mm, Z= 2757.00 mm

From A04 to A05, DZ= 1000.00 mm

Bend

COMPONENT DATA (Bend, TIP= A04, Near= A04 N, Far= A04 F):

Elbow, Radius= 19.00 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIF0= 1.00

POINT DATA:

A04, Coordinates, X= 1837.15 mm, Y= 0.00 mm, Z= 2757.00 mm
A04 N, Coordinates, X= 1818.15 mm, Y= 0.00 mm, Z= 2757.00 mm
A04 F, Coordinates, X= 1837.15 mm, Y= 0.00 mm, Z= 2776.00 mm

From A05 to A06, DX= -500.00 mm

Bend

COMPONENT DATA (Bend, TIP= A05, Near= A05 N, Far= A05 F):

Elbow, Radius= 19.00 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIF0= 1.00

POINT DATA:

A05, Coordinates, X= 1837.15 mm, Y= 0.00 mm, Z= 3757.00 mm
A05 N, Coordinates, X= 1837.15 mm, Y= 0.00 mm, Z= 3738.00 mm
A05 F, Coordinates, X= 1818.15 mm, Y= 0.00 mm, Z= 3757.00 mm

From A06 to A50, DZ= 500.00 mm

Bend

COMPONENT DATA (Bend, TIP= A06, Near= A06 N, Far= A06 F):

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Elbow, Radius= 19.00 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIF0= 1.00

POINT DATA:

A06, Coordinates, X= 1337.15 mm, Y= 0.00 mm, Z= 3757.00 mm
A06 N, Coordinates, X= 1356.15 mm, Y= 0.00 mm, Z= 3757.00 mm
A06 F, Coordinates, X= 1337.15 mm, Y= 0.00 mm, Z= 3776.00 mm

From A50 to A07, DX= 0.01 mm, DZ= 3300.00 mm, L= 3300.00 mm Run

□

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C O M P O N E N T D A T A L I S T I N G

POINT DATA:

A50, Coordinates, X= 1337.15 mm, Y= 0.00 mm, Z= 4257.00 mm

SUPPORT DATA:

A50, Guide, Support Id= A50 1, Connected to Ground, Stiffness= RIGID

From A07 to A08, DZ= 932.00 mm Tee

COMPONENT DATA (Tee Header, Center= A07):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

POINT DATA:

A07, Coordinates, X= 1337.16 mm, Y= 0.00 mm, Z= 7557.00 mm

From A08 to A09, DY= -850.00 mm Tee

COMPONENT DATA (Tee Branch, Center= A08):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

POINT DATA:

A08, Coordinates, X= 1337.16 mm, Y= 0.00 mm, Z= 8489.00 mm

From A09 to A10, DX= -1711.16 mm Bend

COMPONENT DATA (Bend, TIP= A09, Near= A09 N, Mid= A09 M, Far= A09 F):

Elbow, Radius= 19.00 mm, Bend angle= 90.00 deg, Mid point at 50.00 percent, End flanges= 0, Flex= Auto, SIFI= 1.00, SIF0= 1.00

POINT DATA:

A09, Coordinates, X= 1337.16 mm, Y= -850.00 mm, Z= 8489.00 mm
A09 N, Coordinates, X= 1337.16 mm, Y= -831.00 mm, Z= 8489.00 mm
A09 M, Coordinates, X= 1331.60 mm, Y= -844.44 mm, Z= 8489.00 mm
A09 F, Coordinates, X= 1318.16 mm, Y= -850.00 mm, Z= 8489.00 mm

From A10 to A11, DX= -328.00 mm Tee

COMPONENT DATA (Tee Header, Center= A10):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

POINT DATA:

A10, Coordinates, X= -374.00 mm, Y= -850.00 mm, Z= 8489.00 mm

From A11 to A47, DX= -264.00 mm Valv

COMPONENT DATA (Valve):

GATE-F, Rating= Non-standard, Length= 264.00 mm, Valve weight = 12 kg, Actuator Auto = No, Actuator Symbol = Yes, Actuator weight = 19 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 313.50 mm, Surface factor= 1.00, End type= Weld neck, SIF= 1.00

POINT DATA:

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C O M P O N E N T D A T A L I S T I N G

A11, Coordinates, X= -702.00 mm, Y= -850.00 mm, Z= 8489.00 mm
A11, Flange= WELDNECK, Rating= 2500, Flange Weight= 3.60 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No
A11 M, Coordinates, X= -834.00 mm, Y= -850.00 mm, Z= 8489.00 mm

SUPPORT DATA:

A11 M, Guide, Support Id= A11 M1, Connected to Ground, Stiffness= RIGID, Gap-Down= 0.00 mm,
Gap-Above= 100.00 mm,
Gap-Left= 10.00 mm, Gap-Right= 10.00 mm, Friction= 0.00, Gaps setting= Weightless

From A47 to A13, DX= -328.00 mm

Run

POINT DATA:

A47, Coordinates, X= -966.00 mm, Y= -850.00 mm, Z= 8489.00 mm
A47, Flange= WELDNECK, Rating= 2500, Flange Weight= 3.60 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No

From A13 to C041, DX= -200.00 mm

Tee

COMPONENT DATA (Tee Header, Center= A13):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

POINT DATA:

A13, Coordinates, X= -1294.00 mm, Y= -850.00 mm, Z= 8489.00 mm

From C041 to A32, DX= -326.00 mm

Run

POINT DATA:

C041, Coordinates, X= -1494.00 mm, Y= -850.00 mm, Z= 8489.00 mm
C041, Flange= WELDNECK, Rating= 2500, Flange Weight= 3.60 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No
C041, Flange= WELDNECK, Rating= 2500, Flange Weight= 3.60 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No

From A32 to A16, DX= -50.00 mm

Tee

COMPONENT DATA (Tee Header, Center= A32):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

POINT DATA:

A32, Coordinates, X= -1820.00 mm, Y= -850.00 mm, Z= 8489.00 mm

From A16 to A17, DZ= -300.00 mm

Bend

COMPONENT DATA (Bend, TIP= A16, Near= A16 N, Far= A16 F):

Elbow, Radius= 19.00 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIF0= 1.00

OPERATING DATA (A16 F to A17):

T1= 20.00 deg C, T2= 20.00 deg C, T3= 20.00 deg C, T4= 20.00 deg C, Exp1= 0 mm/m, Exp2= 0 mm/m,
Exp3= 0 mm/m, Exp4= 0 mm/m,
E1= 0.19996 E6 N/mm2, E2= 0.19996 E6 N/mm2, E3= 0.19996 E6 N/mm2, E4= 0.19996 E6 N/mm2, Rp0.2t1=
195.00 N/mm2,
Rp0.2t2= 195.00 N/mm2, Rp0.2t3= 195.00 N/mm2, Rp0.2t4= 195.00 N/mm2, Rp1.0t1= 230.00 N/mm2,
Rp1.0t2= 230.00 N/mm2,

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C O M P O N E N T D A T A L I S T I N G

Rp1.0t3= 230.00 N/mm2, Rp1.0t4= 230.00 N/mm2, fh1= 153.33 N/mm2, fh2= 153.33 N/mm2, fh3= 153.33 N/mm2, fh4= 153.33 N/mm2

POINT DATA:

A16, Coordinates, X= -1870.00 mm, Y= -850.00 mm, Z= 8489.00 mm
A16 N, Coordinates, X= -1851.00 mm, Y= -850.00 mm, Z= 8489.00 mm
A16 F, Coordinates, X= -1870.00 mm, Y= -850.00 mm, Z= 8470.00 mm

From A17 to A55, DX= -119.00 mm

Bend

COMPONENT DATA (Bend, TIP= A17, Near= A17 N, Far= A17 F):

Elbow, Radius= 19.00 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIF0= 1.00

POINT DATA:

A17, Coordinates, X= -1870.00 mm, Y= -850.00 mm, Z= 8189.00 mm
A17 N, Coordinates, X= -1870.00 mm, Y= -850.00 mm, Z= 8208.00 mm
A17 F, Coordinates, X= -1889.00 mm, Y= -850.00 mm, Z= 8189.00 mm

From A55 to A18, DX= -119.00 mm

Run

POINT DATA:

A55, Coordinates, X= -1989.00 mm, Y= -850.00 mm, Z= 8189.00 mm

From A18 to A56, DZ= 150.00 mm

Bend

COMPONENT DATA (Bend, TIP= A18, Near= A18 N, Far= A18 F):

Elbow, Radius= 19.00 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIF0= 1.00

POINT DATA:

A18, Coordinates, X= -2108.00 mm, Y= -850.00 mm, Z= 8189.00 mm
A18 N, Coordinates, X= -2089.00 mm, Y= -850.00 mm, Z= 8189.00 mm
A18 F, Coordinates, X= -2108.00 mm, Y= -850.00 mm, Z= 8208.00 mm

From A56 to A19, DZ= 150.00 mm

Run

POINT DATA:

A56, Coordinates, X= -2108.00 mm, Y= -850.00 mm, Z= 8339.00 mm

From A19 to A20, DY= 270.10 mm

Bend

COMPONENT DATA (Bend, TIP= A19, Near= A19 N, Far= A19 F):

Elbow, Radius= 19.00 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIF0= 1.00

POINT DATA:

A19, Coordinates, X= -2108.00 mm, Y= -850.00 mm, Z= 8489.00 mm
A19 N, Coordinates, X= -2108.00 mm, Y= -850.00 mm, Z= 8470.00 mm
A19 F, Coordinates, X= -2108.00 mm, Y= -831.00 mm, Z= 8489.00 mm

From A20 to CH02, DY= 110.00 mm

Valv

□

DVI_B_LINE_REV0

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C O M P O N E N T D A T A L I S T I N G

DVI_B_LINE_REV0.0UT

COMPONENT DATA (Valve):
 TCHECK-F, Rating= Non-standard, Length= 110.00 mm, Valve weight = 9 kg, Surface factor= 1.00, End type= Weld neck, SIF= 1.00

POINT DATA:
 A20, Coordinates, X= -2108.00 mm, Y= -579.90 mm, Z= 8489.00 mm
 A20, Flange= WELDNECK, Rating= 2500, Flange Weight= 3.60 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
 Perform ANSI check= No
 A20 M, Coordinates, X= -2108.00 mm, Y= -524.90 mm, Z= 8489.00 mm

SUPPORT DATA:
 A20 M, Guide, Support Id= A20 M1, Connected to Ground, Stiffness= RIGID, Gap-Down= 0.00 mm, Gap-Above= 100.00 mm,
 Gap-Left= 0.00 mm, Gap-Right= 0.00 mm, Friction= 0.00, Gaps setting= Weightless

 From CH02 to A70, DY= 230.00 mm Run

PIPE DATA:
 Pipe Id= 1/2POL40, Composition= Austentic Stainless, Sch= 40, Wall Thk= 2.769 mm, Mill= 0.346 mm, Content Sp Gr= 1.000,
 Content Unit Wgt= 1.92 N/m, Insul Thk= 40.000 mm, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 10.29 N/m,
 Long Modulus= 0.19996 E6 N/mm2, Hoop Modulus= 0.19996 E6 N/mm2, Shear Modulus= 0.07691 E6 N/mm2

OPERATING DATA:
 P1= 0.1000 N/mm2, P2= 0.1000 N/mm2, P3= 0.1000 N/mm2, P4= 0.1000 N/mm2

POINT DATA:
 CH02, Coordinates, X= -2108.00 mm, Y= -469.90 mm, Z= 8489.00 mm
 CH02, Flange= WELDNECK, Rating= 2500, Flange Weight= 3.60 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
 Perform ANSI check= No

 From A70 to A22, DY= 149.90 mm Run

POINT DATA:
 A70, Coordinates, X= -2108.00 mm, Y= -239.90 mm, Z= 8489.00 mm

 From A22 to A24, DX= -57.50 mm Bend

COMPONENT DATA (Bend, TIP= A22, Near= A22 N, Far= A22 F):
 Elbow, Radius= 19.00 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.25, SIF0= 1.25

POINT DATA:
 A22, Coordinates, X= -2108.00 mm, Y= -90.00 mm, Z= 8489.00 mm
 A22 N, Coordinates, X= -2108.00 mm, Y= -109.00 mm, Z= 8489.00 mm
 A22 F, Coordinates, X= -2127.00 mm, Y= -90.00 mm, Z= 8489.00 mm

 From A24 to A26, DX= -1050.80 mm Tee

COMPONENT DATA (Tee Header, Center= A24):
 B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

POINT DATA:
 A24, Coordinates, X= -2165.50 mm, Y= -90.00 mm, Z= 8489.00 mm

□

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 C O M P O N E N T D A T A L I S T I N G

 From A26 to A28, DX= -1252.20 mm Tee

DVI_B_LINE_REV0.0UT

COMPONENT DATA (Tee Header, Center= A26):
B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

POINT DATA:

A26, Coordinates, X= -3216.30 mm, Y= -90.00 mm, Z= 8489.00 mm

SUPPORT DATA:

A26, Guide, Support Id= A26 1, Connected to Ground, Stiffness= RIGID, Gap-Down= 100.00 mm,
Gap-Above= 100.00 mm,
Gap-Left= 0.00 mm, Gap-Right= 0.00 mm, Friction= 0.00, Gaps setting= Weightless

From A28 to A29, DX= -175.00 mm

Tee

COMPONENT DATA (Tee Header, Center= A28):
B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

POINT DATA:

A28, Coordinates, X= -4468.50 mm, Y= -90.00 mm, Z= 8489.00 mm

SUPPORT DATA:

A28, Constant Force Hanger, Support Id= A28 1, Connected to Ground, 1 hanger(s), Preload= 71 N

From A29 to A46, DZ= -19.00 mm

Bend

COMPONENT DATA (Bend, TIP= A29, Near= A29 N, Far= A29 F):
Elbow, Radius= 19.00 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.25, SIF0= 1.25

POINT DATA:

A29, Coordinates, X= -4643.50 mm, Y= -90.00 mm, Z= 8489.00 mm
A29 N, Coordinates, X= -4624.50 mm, Y= -90.00 mm, Z= 8489.00 mm
A29 F, Coordinates, X= -4643.50 mm, Y= -90.00 mm, Z= 8470.63 mm

From A46 to A45, DZ= -38.10 mm

Redu

COMPONENT DATA (Reducer):
Length= 38.10 mm, SIF= 2.00

POINT DATA:

A46, Coordinates, X= -4643.50 mm, Y= -90.00 mm, Z= 8470.00 mm

From A45 to A68, DZ= -750.00 mm

Run

PIPE DATA:

Pipe Id= 3/8POL40, Composition= Austentic Stainless, Nom Size= 10 mm, OD= 17.145 mm, Wall Thk= 2.311 mm, Mill= 0.289 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 1.21 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 9.59 N/m,
Long Modulus= 0.19996 E6 N/mm2, Hoop Modulus= 0.19996 E6 N/mm2, Shear Modulus= 0.07691 E6 N/mm2

POINT DATA:

A45, Coordinates, X= -4643.50 mm, Y= -90.00 mm, Z= 8431.90 mm

□

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C O M P O N E N T D A T A L I S T I N G

From A68 to A35, DZ= -652.90 mm

Run

POINT DATA:

A68, Coordinates, X= -4643.50 mm, Y= -90.00 mm, Z= 7681.90 mm

SUPPORT DATA:

A68, Guide, Support Id= A68 1, Connected to Ground, Stiffness= RIGID

DVI_B_LINE_REV0.OUT

From A35 to A54, DY= -300.00 mm Bend

COMPONENT DATA (Bend, TIP= A35, Near= A35 N, Far= A35 F):
Elbow, Radius= 19.00 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.05, SIF0= 1.05

POINT DATA:

A35, Coordinates, X= -4643.50 mm, Y= -90.00 mm, Z= 7029.00 mm
A35 N, Coordinates, X= -4643.50 mm, Y= -90.00 mm, Z= 7048.00 mm
A35 F, Coordinates, X= -4643.50 mm, Y= -109.00 mm, Z= 7029.00 mm

From A54 to A69, DY= -400.00 mm Run

POINT DATA:

A54, Coordinates, X= -4643.50 mm, Y= -390.00 mm, Z= 7029.00 mm

From A69 to A36, DY= -799.00 mm Run

POINT DATA:

A69, Coordinates, X= -4643.50 mm, Y= -790.00 mm, Z= 7029.00 mm

SUPPORT DATA:

A69, Guide, Support Id= A69 1, Connected to Ground, Stiffness= RIGID, Gap-Down= 0.00 mm,
Gap-Above= 100.00 mm,
Gap-Left= 0.00 mm, Gap-Right= 0.00 mm, Friction= 0.00, Gaps setting= Weightless

From A36 to A37, DX= -329.50 mm, DY= -329.50 mm, L= 465.98 mm Bend

COMPONENT DATA (Bend, TIP= A36, Near= A36 N, Mid= A36 M, Far= A36 F):
Elbow, Radius= 19.00 mm, Bend angle= 45.00 deg, Mid point at 50.00 percent, End flanges= 0, Flex= Auto, SIFI= 1.05, SIF0= 1.05

POINT DATA:

A36, Coordinates, X= -4643.50 mm, Y= -1589.00 mm, Z= 7029.00 mm
A36 N, Coordinates, X= -4643.50 mm, Y= -1581.13 mm, Z= 7029.00 mm
A36 M, Coordinates, X= -4644.95 mm, Y= -1588.40 mm, Z= 7029.00 mm
A36 F, Coordinates, X= -4649.07 mm, Y= -1594.57 mm, Z= 7029.00 mm

From A37 to A38, DY= -339.50 mm Bend

COMPONENT DATA (Bend, TIP= A37, Near= A37 N, Far= A37 F):
Elbow, Radius= 19.00 mm, Bend angle= 45.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.05, SIF0= 1.05

□

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C O M P O N E N T D A T A L I S T I N G

POINT DATA:

A37, Coordinates, X= -4973.00 mm, Y= -1918.50 mm, Z= 7029.00 mm
A37 N, Coordinates, X= -4967.44 mm, Y= -1912.94 mm, Z= 7029.00 mm
A37 F, Coordinates, X= -4973.00 mm, Y= -1926.37 mm, Z= 7029.00 mm

From A38 to CH06, DY= -105.00 mm Valv

COMPONENT DATA (Valve):

TCHECK-F, Rating= Non-standard, Length= 105.00 mm, Valve weight = 3 kg, Surface factor= 1.00, End type= Weld neck, SIF= 1.00

POINT DATA:

A38, Coordinates, X= -4973.00 mm, Y= -2258.00 mm, Z= 7029.00 mm
A38, Flange= SLIP-ON, Rating= Non standard, Flange Weight= 0.70 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= No
A38 M, Coordinates, X= -4973.00 mm, Y= -2310.50 mm, Z= 7029.00 mm

DVI_B_LINE_REV0.0UT

SUPPORT DATA:

A38 M, Guide, Support Id= A38 M1, Connected to Ground, Stiffness= RIGID, Gap-Down= 0.00 mm,
Gap-Above= 100.00 mm,
Gap-Left= 0.00 mm, Gap-Right= 0.00 mm, Friction= 0.00, Gaps setting= Weightless

From CH06 to OR10, DY= -135.00 mm

Run

POINT DATA:

CH06, Coordinates, X= -4973.00 mm, Y= -2363.00 mm, Z= 7029.00 mm
CH06, Flange= SLIP-ON, Rating= Non standard, Flange Weight= 0.70 kg, Bolt/Nut Weight= 0.00 kg,
End type= Weld neck,
SIF= 1.00, Perform ANSI check= No

From OR10 to A39, DY= -400.00 mm

Run

POINT DATA:

OR10, Coordinates, X= -4973.00 mm, Y= -2498.00 mm, Z= 7029.00 mm
OR10, Flange= SLIP-ON, Rating= Non standard, Flange Weight= 0.70 kg, Bolt/Nut Weight= 0.00 kg,
End type= Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No
OR10, Flange= SLIP-ON, Rating= Non standard, Flange Weight= 0.70 kg, Bolt/Nut Weight= 0.00 kg,
End type= Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No

From A39 to IV08, DY= -140.00 mm

Valv

COMPONENT DATA (Valve):

GATE-F, Rating= Non-standard, Length= 140.00 mm, Valve weight = 3 kg, Actuator Auto = No,
Actuator Symbol = Yes,
Actuator weight = 5 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 133.50 mm, Surface factor=
1.00, End type= Weld neck,
SIF= 1.00

POINT DATA:

A39, Coordinates, X= -4973.00 mm, Y= -2898.00 mm, Z= 7029.00 mm
A39, Flange= SLIP-ON, Rating= Non standard, Flange Weight= 0.70 kg, Bolt/Nut Weight= 0.00 kg, End
type= Weld neck, SIF= 1.00,
Perform ANSI check= No
A39 M, Coordinates, X= -4973.00 mm, Y= -2968.00 mm, Z= 7029.00 mm

SUPPORT DATA:

A39 M, Guide, Support Id= A39 M1, Connected to Ground, Stiffness= RIGID, Gap-Down= 0.00 mm,
Gap-Above= 100.00 mm,
[]

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C O M P O N E N T D A T A L I S T I N G

Gap-Left= 0.00 mm, Gap-Right= 0.00 mm, Friction= 0.00, Gaps setting= Weightless

From IV08 to A40, DY= -1500.00 mm

Run

POINT DATA:

IV08, Coordinates, X= -4973.00 mm, Y= -3038.00 mm, Z= 7029.00 mm
IV08, Flange= SLIP-ON, Rating= Non standard, Flange Weight= 0.70 kg, Bolt/Nut Weight= 0.00 kg,
End type= Weld neck,
SIF= 1.00, Perform ANSI check= No

From A40 to A75, DZ= -1500.00 mm

Bend

COMPONENT DATA (Bend, TIP= A40, Near= A40 N, Far= A40 F):

Elbow, Radius= 19.00 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.05, SIF0=
1.05

POINT DATA:

A40, Coordinates, X= -4973.00 mm, Y= -4538.00 mm, Z= 7029.00 mm

DVI_B_LINE_REV0.00T
A40 N, Coordinates, X= -4973.00 mm, Y= -4519.00 mm, Z= 7029.00 mm
A40 F, Coordinates, X= -4973.00 mm, Y= -4538.00 mm, Z= 7010.00 mm

From A75 to A41, DY= 0 mm, DZ= -5514.00 mm, L= 5514.00 mm Run

POINT DATA:
A75, Coordinates, X= -4973.00 mm, Y= -4538.00 mm, Z= 5529.00 mm

SUPPORT DATA:
A75, Guide, Support Id= A75 1, Connected to Ground, Stiffness= RIGID

From A41 to A73, DX= 75.00 mm Bend

COMPONENT DATA (Bend, TIP= A41, Near= A41 N, Far= A41 F):
Elbow, Radius= 19.00 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.05, SIF0= 1.05

POINT DATA:
A41, Coordinates, X= -4973.00 mm, Y= -4538.00 mm, Z= 15.00 mm
A41 N, Coordinates, X= -4973.00 mm, Y= -4538.00 mm, Z= 34.00 mm
A41 F, Coordinates, X= -4954.00 mm, Y= -4538.00 mm, Z= 15.00 mm

From A73 to A42, DX= 75.00 mm Run

POINT DATA:
A73, Coordinates, X= -4898.00 mm, Y= -4538.00 mm, Z= 15.00 mm

SUPPORT DATA:
A73, Constant Force Hanger, Support Id= A73 1, Connected to Ground, 1 hanger(s), Preload= 255 N

From A42 to A72, DX= 51.00 mm Redu

COMPONENT DATA (Reducer):
Length= 51.00 mm, SIF= 2.00

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C O M P O N E N T D A T A L I S T I N G

POINT DATA:
A42, Coordinates, X= -4823.00 mm, Y= -4538.00 mm, Z= 15.00 mm

From A72 to A44, DX= 152.00 mm, DZ= 0 mm, L= 152.00 mm Run

PIPE DATA:
Pipe Id= 1_1/4S40, Composition= Austenitic Stainless, Nom Size= 32 mm, OD= 42.164 mm, Wall Thk= 3.556 mm, Mill= 0.444 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 9.46 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 13.79 N/m

POINT DATA:
A72, Coordinates, X= -4772.00 mm, Y= -4538.00 mm, Z= 15.00 mm
A44, Coordinates, X= -4620.00 mm, Y= -4538.00 mm, Z= 15.00 mm
A44, Flange= SLIP-ON, Rating= 300, Flange Weight= 1.80 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= No

SUPPORT DATA:
A44, Anchor, Tag No.= DVITOPSSB, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

*** SEGMENT B

From A07 to B01, DX= -25.40 mm Tee

DVI_B_LINE_REV0.0UT

COMPONENT DATA (Tee Branch, Center= A07):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

PIPE DATA:

Pipe Id= 1/2POL80, Composition= Austentic Stainless, Nom Size= 15 mm, OD= 21.336 mm, Sch= 80,
 Wall Thk= 3.734 mm,
 Mill= 0.467 mm, Content Sp Gr= 1.000, Content Unit Wgt= 1.48 N/m, Insul Thk= 50.000 mm, Insul
 Density= 136.16 kg/m3,
 Insul Unit Wgt= 14.96 N/m

OPERATING DATA:

P1= 17.2500 N/mm2, P2= 17.2500 N/mm2, P3= 17.2500 N/mm2, P4= 17.2500 N/mm2, T1= 354.00 deg C, T2=
 354.00 deg C,
 T3= 354.00 deg C, T4= 354.00 deg C, Exp1= 5.85176 mm/m, Exp2= 5.85176 mm/m, Exp3= 5.85176 mm/m,
 Exp4= 5.85176 mm/m,
 E1= 0.17164 E6 N/mm2, E2= 0.17164 E6 N/mm2, E3= 0.17164 E6 N/mm2, E4= 0.17164 E6 N/mm2, Rp0.2t1=
 103.52 N/mm2,
 Rp0.2t2= 103.52 N/mm2, Rp0.2t3= 103.52 N/mm2, Rp0.2t4= 103.52 N/mm2, Rp1.0t1= 128.68 N/mm2,
 Rp1.0t2= 128.68 N/mm2,
 Rp1.0t3= 128.68 N/mm2, Rp1.0t4= 128.68 N/mm2, fh1= 85.79 N/mm2, fh2= 85.79 N/mm2, fh3= 85.79
 N/mm2, fh4= 85.79 N/mm2

POINT DATA:

A07, Coordinates, X= 1337.16 mm, Y= 0.00 mm, Z= 7557.00 mm

 From B01 to B02, DX= -547.06 mm

Run

POINT DATA:

B01, Coordinates, X= 1311.76 mm, Y= 0.00 mm, Z= 7557.00 mm

 From B02 to B03, DX= -38.10 mm

Redu

COMPONENT DATA (Reducer):

Length= 38.10 mm, SIF= 2.00

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C O M P O N E N T D A T A L I S T I N G

POINT DATA:

B02, Coordinates, X= 764.70 mm, Y= 0.00 mm, Z= 7557.00 mm

 From B03 to B04, DX= -86.97 mm

Run

PIPE DATA:

Pipe Id= 3/4POL80, Composition= Austentic Stainless, Nom Size= 20 mm, OD= 26.670 mm, Wall Thk=
 3.912 mm, Mill= 0.489 mm,
 Content Sp Gr= 1.000, Content Unit Wgt= 2.73 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt=
 16.08 N/m

POINT DATA:

B03, Coordinates, X= 726.60 mm, Y= 0.00 mm, Z= 7557.00 mm
 B04, Coordinates, X= 639.63 mm, Y= 0.00 mm, Z= 7557.00 mm
 B04, Flange= WELDNECK, Rating= 2500, Flange Weight= 4.10 kg, Bolt/Nut Weight= 0.00 kg, End type=
 Weld neck, SIF= 1.00,
 Perform ANSI check= No

SUPPORT DATA:

B04, Anchor, Tag No.= DVITORV2B, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ=
 Rigid-----
 *** SEGMENT C-----
 From A08 to C01, DZ= 25.40 mm

Tee

COMPONENT DATA (Tee Header, Center= A08):

B16.9 welding tee, SIFI= 1.00, SIFO= 1.00

PIPE DATA:

Pipe Id= 1/2POL80, Composition= Austentic Stainless, Nom Size= 15 mm, OD= 21.336 mm, Wall Thk= 3.734 mm, Mill= 0.467 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 1.48 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 14.96 N/m

POINT DATA:

A08, Coordinates, X= 1337.16 mm, Y= 0.00 mm, Z= 8489.00 mm

From C01 to C02, DZ= 922.60 mm

Run

POINT DATA:

C01, Coordinates, X= 1337.16 mm, Y= 0.00 mm, Z= 8514.40 mm

From C02 to C06, DX= -50.00 mm

Bend

COMPONENT DATA (Bend, TIP= C02, Near= C02 N, Mid= C02 M, Far= C02 F):

Elbow, Radius= 19.00 mm, Bend angle= 90.00 deg, Mid point at 50.00 percent, End flanges= 0, Flex= Auto, SIFI= 1.00,
SIFO= 1.00

POINT DATA:

C02, Coordinates, X= 1337.16 mm, Y= 0.00 mm, Z= 9437.00 mm
C02 N, Coordinates, X= 1337.16 mm, Y= 0.00 mm, Z= 9418.00 mm
C02 M, Coordinates, X= 1331.60 mm, Y= 0.00 mm, Z= 9431.43 mm
C02 F, Coordinates, X= 1318.16 mm, Y= 0.00 mm, Z= 9437.00 mm

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AutoPIPE Plus 9.2.1 MODEL PAGE 15

C O M P O N E N T D A T A L I S T I N G

From C06 to C03, DX= -633.18 mm

Run

POINT DATA:

C06, Coordinates, X= 1287.16 mm, Y= 0.00 mm, Z= 9437.00 mm

SUPPORT DATA:

C06, Constant Force Hanger, Support Id= C06 1, Connected to Ground, 1 hanger(s), Preload= 318 N

From C03 to C04, DX= -38.10 mm

Redu

COMPONENT DATA (Reducer):

Length= 38.10 mm, SIF= 2.00

POINT DATA:

C03, Coordinates, X= 653.98 mm, Y= 0.00 mm, Z= 9437.00 mm

From C04 to C05, DX= -86.97 mm

Run

PIPE DATA:

Pipe Id= 3/4POL80, Composition= Austentic Stainless, Nom Size= 20 mm, OD= 26.670 mm, Wall Thk= 3.912 mm, Mill= 0.489 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 2.73 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 16.08 N/m

POINT DATA:

C04, Coordinates, X= 615.88 mm, Y= 0.00 mm, Z= 9437.00 mm
C05, Coordinates, X= 528.91 mm, Y= 0.00 mm, Z= 9437.00 mm
C05, Flange= WELDNECK, Rating= 2500, Flange Weight= 4.10 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= No

SUPPORT DATA:

C05, Anchor, Tag No.= DVITORV3B, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

DVI_B_LINE_REV0.0UT

*** SEGMENT D

From A10 to D01, DX= -26.95 mm, DY= -26.95 mm, L= 38.11 mm Tee

COMPONENT DATA (Tee Branch, Center= A10):
B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

PIPE DATA:

Pipe Id= 1/2POL80, Composition= Austentic Stainless, Nom Size= 15 mm, OD= 21.336 mm, Wall Thk= 3.734 mm, Mill= 0.467 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 1.48 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 14.96 N/m

POINT DATA:

A10, Coordinates, X= -374.00 mm, Y= -850.00 mm, Z= 8489.00 mm
D01, Coordinates, X= -400.95 mm, Y= -876.95 mm, Z= 8489.00 mm

*** SEGMENT E

□

DVI_B_LINE_REV0

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AutoPIPE Plus 9.2.1 MODEL PAGE 16

C O M P O N E N T D A T A L I S T I N G

From A13 to E01, DX= -26.94 mm, DY= -26.94 mm, L= 38.10 mm Tee

COMPONENT DATA (Tee Branch, Center= A13):
B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

PIPE DATA:

Pipe Id= 1/2POL80, Composition= Austentic Stainless

POINT DATA:

A13, Coordinates, X= -1294.00 mm, Y= -850.00 mm, Z= 8489.00 mm
E01, Coordinates, X= -1320.94 mm, Y= -876.94 mm, Z= 8489.00 mm

*** SEGMENT F

From A32 to F01, DY= 21.77 mm, DZ= 13.08 mm, L= 25.40 mm Tee

COMPONENT DATA (Tee Branch, Center= A32):
B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

PIPE DATA:

Pipe Id= 3/8POL80, Composition= Austentic Stainless, Nom Size= 10 mm, OD= 17.145 mm, Wall Thk= 3.200 mm, Mill= 0.400 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 0.89 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 14.08 N/m

POINT DATA:

A32, Coordinates, X= -1820.00 mm, Y= -850.00 mm, Z= 8489.00 mm

From F01 to F02, DY= 728.23 mm, DZ= 429.92 mm, L= 845.67 mm Run

POINT DATA:

F01, Coordinates, X= -1820.00 mm, Y= -828.23 mm, Z= 8502.08 mm

From F02 to F03, DX= -794.00 mm Bend

COMPONENT DATA (Bend, TIP= F02, Near= F02 N, Mid= F02 M, Far= F02 F):
Elbow, Radius= 19.00 mm, Bend angle= 90.00 deg, Mid point at 50.00 percent, End flanges= 0, Flex= Auto, SIFI= 1.00,

SIF0= 1.00

POINT DATA:

F02, Coordinates, X= -1820.00 mm, Y= -100.00 mm, Z= 8932.00 mm
 F02 N, Coordinates, X= -1820.00 mm, Y= -116.36 mm, Z= 8922.34 mm
 F02 M, Coordinates, X= -1825.57 mm, Y= -104.79 mm, Z= 8929.17 mm
 F02 F, Coordinates, X= -1839.00 mm, Y= -100.00 mm, Z= 8932.00 mm

From F03 to CH04, DX= -110.00 mm

Valv

COMPONENT DATA (Valve):

TCHECK-F, Rating= Non-standard, Length= 110.00 mm, Valve weight = 9 kg, Surface factor= 1.00, End
 type= Weld neck, SIF= 1.00

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 POINT DATA:
 F03, Coordinates, X= -2614.00 mm, Y= -100.00 mm, Z= 8932.00 mm
 F03, Flange= WELDNECK, Rating= Non standard, Flange Weight= 3.20 kg, Bolt/Nut Weight= 0.00 kg,
 End type= Weld neck,
 SIF= 1.00, Perform ANSI check= No
 F03 M, Coordinates, X= -2669.00 mm, Y= -100.00 mm, Z= 8932.00 mm
 SUPPORT DATA:
 F03 M, Guide, Support Id= F03 M1, Connected to Ground, Stiffness= RIGID, Gap-Down= 0.00 mm,
 Gap-Above= 100.00 mm,
 Gap-Left= 0.00 mm, Gap-Right= 0.00 mm, Friction= 0.00, Gaps setting= Weightless

 From CH04 to C016, DX= -200.00 mm
 Run
 OPERATING DATA:
 T1= 20.00 deg C, T2= 20.00 deg C, T4= 20.00 deg C, Exp1= 0 mm/m, Exp2= 0 mm/m, Exp4= 0 mm/m, E1=
 0.19996 E6 N/mm2,
 E2= 0.19996 E6 N/mm2, E4= 0.19996 E6 N/mm2, Rp0.2t1= 195.00 N/mm2, Rp0.2t2= 195.00 N/mm2,
 Rp0.2t4= 195.00 N/mm2,
 Rp1.0t1= 230.00 N/mm2, Rp1.0t2= 230.00 N/mm2, Rp1.0t4= 230.00 N/mm2, fh1= 153.33 N/mm2, fh2=
 153.33 N/mm2, fh4= 153.33 N/mm2
 POINT DATA:
 CH04, Coordinates, X= -2724.00 mm, Y= -100.00 mm, Z= 8932.00 mm
 CH04, Flange= WELDNECK, Rating= Non standard, Flange Weight= 3.20 kg, Bolt/Nut Weight= 0.00 kg,
 End type= Weld neck,
 SIF= 1.00, Perform ANSI check= No

 From C016 to F12, DX= -434.00 mm
 Run
 POINT DATA:
 C016, Coordinates, X= -2924.00 mm, Y= -100.00 mm, Z= 8932.00 mm
 C016, Flange= WELDNECK, Rating= Non standard, Flange Weight= 3.20 kg, Bolt/Nut Weight= 0.00 kg,
 End type= Weld neck,
 SIF= 1.00, Perform ANSI check= No
 C016, Flange= WELDNECK, Rating= Non standard, Flange Weight= 3.20 kg, Bolt/Nut Weight= 0.00 kg,
 End type= Weld neck,
 SIF= 1.00, Perform ANSI check= No

 From F12 to F04, DX= -264.00 mm
 Valv
 COMPONENT DATA (Valve):
 GATE-F, Rating= Non-standard, Length= 264.00 mm, Valve weight = 12 kg, Actuator Auto = No,
 Actuator Symbol = Yes,
 Actuator weight = 19 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 313.50 mm, Surface factor=
 0.00, End type= Weld neck,
 SIF= 1.00
 POINT DATA:
 F12, Coordinates, X= -3358.00 mm, Y= -100.00 mm, Z= 8932.00 mm

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F12, Flange= WELDNECK, Rating= Non standard, Flange Weight= 3.20 kg, Bolt/Nut Weight= 0.00 kg,
End type= Weld neck,
SIF= 1.00, Perform ANSI check= No
F12 M, Coordinates, X= -3490.00 mm, Y= -100.00 mm, Z= 8932.00 mm

SUPPORT DATA:

F12 M, Guide, Support Id= F12 M1, Connected to Ground, Stiffness= RIGID, Gap-Down= 0.00 mm,
Gap-Above= 100.00 mm,
Gap-Left= 0.00 mm, Gap-Right= 0.00 mm, Friction= 0.00, Gaps setting= Weightless

From F04 to F05, DX= -173.00 mm

Run

POINT DATA:

0

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F04, Coordinates, X= -3622.00 mm, Y= -100.00 mm, Z= 8932.00 mm
F04, Flange= WELDNECK, Rating= Non standard, Flange Weight= 3.20 kg, Bolt/Nut Weight= 0.00 kg,
End type= Weld neck,
SIF= 1.00, Perform ANSI check= No

From F05 to F06, DY= -805.00 mm, DZ= 805.00 mm, L= 1138.44 mm

Bend

COMPONENT DATA (Bend, TIP= F05, Near= F05 N, Mid= F05 M, Far= F05 F):

Elbow, Radius= 19.00 mm, Bend angle= 90.00 deg, Mid point at 50.00 percent, End flanges= 0, Flex=
Auto, SIFI= 1.00,
SIF0= 1.00

POINT DATA:

F05, Coordinates, X= -3795.00 mm, Y= -100.00 mm, Z= 8932.00 mm
F05 N, Coordinates, X= -3776.00 mm, Y= -100.00 mm, Z= 8932.00 mm
F05 M, Coordinates, X= -3789.43 mm, Y= -103.93 mm, Z= 8935.93 mm
F05 F, Coordinates, X= -3795.00 mm, Y= -113.44 mm, Z= 8945.44 mm

From F06 to F16, DZ= 1300.00 mm

Bend

COMPONENT DATA (Bend, TIP= F06, Near= F06 N, Far= F06 F):

Elbow, Radius= 19.00 mm, Bend angle= 45.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIF0=
1.00

POINT DATA:

F06, Coordinates, X= -3795.00 mm, Y= -905.00 mm, Z= 9737.00 mm
F06 N, Coordinates, X= -3795.00 mm, Y= -899.43 mm, Z= 9731.44 mm
F06 F, Coordinates, X= -3795.00 mm, Y= -905.00 mm, Z= 9744.87 mm

From F16 to F07, DZ= 1503.00 mm

Run

POINT DATA:

F16, Coordinates, X= -3795.00 mm, Y= -905.00 mm, Z= 11037.00 mm

SUPPORT DATA:

F16, Guide, Support Id= F16 1, Connected to Ground, Stiffness= RIGID

From F07 to F46, DZ= 38.00 mm

Redu

COMPONENT DATA (Reducer):

Length= 38.00 mm, SIF= 2.00

POINT DATA:

F07, Coordinates, X= -3795.00 mm, Y= -905.00 mm, Z= 12540.00 mm

From F46 to F45

Run

PIPE DATA:

Pipe Id= 3/4POL80, Composition= Austentic Stainless, Nom Size= 20 mm, OD= 26.670 mm, Wall Thk=

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3.912 mm, Mill= 0.489 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 2.73 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 16.08 N/m

POINT DATA:

F46, Coordinates, X= -3795.00 mm, Y= -905.00 mm, Z= 12578.00 mm

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From F45 to F09, DZ= 51.00 mm Redu

COMPONENT DATA (Reducer):

Length= 51.00 mm, SIF= 2.00

POINT DATA:

F45, Coordinates, X= -3795.00 mm, Y= -905.00 mm, Z= 12578.00 mm

From F09 to F10, DZ= 103.00 mm Run

PIPE DATA:

Pipe Id= 1_1/4S80, Composition= Austentic Stainless, Nom Size= 32 mm, OD= 42.164 mm, Wall Thk= 4.851 mm, Mill= 0.606 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 8.11 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 19.33 N/m

POINT DATA:

F09, Coordinates, X= -3795.00 mm, Y= -905.00 mm, Z= 12629.00 mm

F10, Coordinates, X= -3795.00 mm, Y= -905.00 mm, Z= 12732.00 mm

F10, Flange= WELDNECK, Rating= 2500, Flange Weight= 9.10 kg, Bolt/Nut Weight= 0.00 kg, End type=

Weld neck, SIF= 1.00,

Perform ANSI check= Yes, Flange material= A182-F304, Flange group Id= 2.1, Gasket material=

IIIB-RINGJ,

Gasket inside diam= 53.85 mm, Gasket width= 4.83 mm

*** SEGMENT G

From A24 to G01, DY= -20.55 mm, DZ= 15.00 mm, L= 25.44 mm Tee

COMPONENT DATA (Tee Branch, Center= A24):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

PIPE DATA:

Pipe Id= 3/8POL40, Composition= Austentic Stainless, Nom Size= 10 mm, OD= 17.145 mm, Sch= 40, Wall Thk= 2.311 mm,
Mill= 0.289 mm, Content Sp Gr= 1.000, Content Unit Wgt= 1.21 N/m, Insul Thk= 40.000 mm, Insul Density= 136.16 kg/m3,
Insul Unit Wgt= 9.59 N/m

OPERATING DATA:

P1= 0.1000 N/mm2, P2= 0.1000 N/mm2, P3= 0.1000 N/mm2, P4= 0.1000 N/mm2, T3= 20.00 deg C, Exp3= 0 mm/m, E3= 0.19996 E6 N/mm2,
Rp0.2t3= 195.00 N/mm2, Rp1.0t3= 230.00 N/mm2, fh3= 153.33 N/mm2

POINT DATA:

A24, Coordinates, X= -2165.50 mm, Y= -90.00 mm, Z= 8489.00 mm

From G01 to G20, DY= -160.54 mm, DZ= 116.50 mm, L= 198.36 mm Run

POINT DATA:

G01, Coordinates, X= -2165.50 mm, Y= -110.55 mm, Z= 8504.00 mm

From G20 to G02, DY= -160.55 mm, DZ= 116.50 mm, L= 198.36 mm Run

POINT DATA:

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 G20, Coordinates, X= -2165.50 mm, Y= -271.09 mm, Z= 8620.50 mm

 From G02 to G15, DY= -250.00 mm Bend
 COMPONENT DATA (Bend, TIP= G02, Near= G02 N, Far= G02 F):
 Elbow, Radius= 19.00 mm, Bend angle= 35.97 deg, End flanges= 0, Flex= Auto, SIFI= 1.05, SIF0= 1.05
 POINT DATA:
 G02, Coordinates, X= -2165.50 mm, Y= -431.64 mm, Z= 8737.00 mm
 G02 N, Coordinates, X= -2165.50 mm, Y= -426.65 mm, Z= 8733.38 mm
 G02 F, Coordinates, X= -2165.50 mm, Y= -437.81 mm, Z= 8737.00 mm

 From G15 to G19, DY= -722.03 mm Run
 POINT DATA:
 G15, Coordinates, X= -2165.50 mm, Y= -681.64 mm, Z= 8737.00 mm

 From G19 to G03, DY= -922.02 mm Run
 POINT DATA:
 G19, Coordinates, X= -2165.50 mm, Y= -1403.67 mm, Z= 8737.00 mm

 From G03 to CH13, DY= -105.00 mm Valv
 COMPONENT DATA (Valve):
 TCHECK-F, Rating= Non-standard, Length= 105.00 mm, Valve weight = 3 kg, Surface factor= 1.00, End type= Weld neck, SIF= 1.00
 POINT DATA:
 G03, Coordinates, X= -2165.50 mm, Y= -2325.69 mm, Z= 8737.00 mm
 G03, Flange= SLIP-ON, Rating= Non standard, Flange Weight= 0.70 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
 Perform ANSI check= No
 G03 M, Coordinates, X= -2165.50 mm, Y= -2378.19 mm, Z= 8737.00 mm
 SUPPORT DATA:
 G03 M, Guide, Support Id= G03 M1, Connected to Ground, Stiffness= RIGID, Gap-Down= 0.00 mm, Gap-Above= 100.00 mm,
 Gap-Left= 0.00 mm, Gap-Right= 0.00 mm, Friction= 0.00, Gaps setting= Weightless

 From CH13 to C021, DY= -497.41 mm Run
 POINT DATA:
 CH13, Coordinates, X= -2165.50 mm, Y= -2430.69 mm, Z= 8737.00 mm
 CH13, Flange= SLIP-ON, Rating= Non standard, Flange Weight= 0.70 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck,
 SIF= 1.00, Perform ANSI check= No

 From C021 to G10, DY= -497.40 mm Run
 POINT DATA:
 C021, Coordinates, X= -2165.50 mm, Y= -2928.10 mm, Z= 8737.00 mm
 C021, Flange= SLIP-ON, Rating= Non standard, Flange Weight= 0.70 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on,

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SIF= 1.20, Perform ANSI check= No
C021, Flange= SLIP-ON, Rating= Non standard, Flange Weight= 0.70 kg, Bolt/Nut Weight= 0.00 kg,
End type= Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No

From G10 to IV04, DY= -140.00 mm

Valv

COMPONENT DATA (Valve):
GATE-F, Rating= Non-standard, Length= 140.00 mm, Valve weight = 3 kg, Actuator Auto = No,
Actuator Symbol = Yes,
Actuator weight = 5 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 133.50 mm, Surface factor=
1.00, End type= Weld neck,
SIF= 1.00

POINT DATA:

G10, Coordinates, X= -2165.50 mm, Y= -3425.50 mm, Z= 8737.00 mm
G10, Flange= SLIP-ON, Rating= Non standard, Flange Weight= 0.70 kg, Bolt/Nut Weight= 0.00 kg, End
type= Weld neck, SIF= 1.00,
Perform ANSI check= No
G10 M, Coordinates, X= -2165.50 mm, Y= -3495.50 mm, Z= 8737.00 mm

SUPPORT DATA:

G10 M, Guide, Support Id= G10 M1, Connected to Ground, Stiffness= RIGID, Gap-Down= 0.00 mm,
Gap-Above= 100.00 mm,
Gap-Left= 0.00 mm, Gap-Right= 0.00 mm, Friction= 0.00, Gaps setting= Weightless

From IV04 to G05, DY= -1000.00 mm

Run

POINT DATA:

IV04, Coordinates, X= -2165.50 mm, Y= -3565.50 mm, Z= 8737.00 mm
IV04, Flange= SLIP-ON, Rating= Non standard, Flange Weight= 0.70 kg, Bolt/Nut Weight= 0.00 kg,
End type= Weld neck,
SIF= 1.00, Perform ANSI check= No

From G05 to G06, DX= -1897.00 mm

Bend

COMPONENT DATA (Bend, TIP= G05, Near= G05 N, Mid= G05 M, Far= G05 F):
Elbow, Radius= 19.00 mm, Bend angle= 90.00 deg, Mid point at 50.00 percent, End flanges= 0, Flex=
Auto, SIFI= 1.05,
SIFO= 1.05

POINT DATA:

G05, Coordinates, X= -2165.50 mm, Y= -4565.50 mm, Z= 8737.00 mm
G05 N, Coordinates, X= -2165.50 mm, Y= -4546.50 mm, Z= 8737.00 mm
G05 M, Coordinates, X= -2171.06 mm, Y= -4559.94 mm, Z= 8737.00 mm
G05 F, Coordinates, X= -2184.50 mm, Y= -4565.50 mm, Z= 8737.00 mm

From G06 to G14, DZ= 100.00 mm

Bend

COMPONENT DATA (Bend, TIP= G06, Near= G06 N, Mid= G06 M, Far= G06 F):
Elbow, Radius= 19.00 mm, Bend angle= 90.00 deg, Mid point at 50.00 percent, End flanges= 0, Flex=
Auto, SIFI= 1.05,
SIFO= 1.05

POINT DATA:

G06, Coordinates, X= -4062.50 mm, Y= -4565.50 mm, Z= 8737.00 mm
G06 N, Coordinates, X= -4043.50 mm, Y= -4565.50 mm, Z= 8737.00 mm
G06 M, Coordinates, X= -4056.93 mm, Y= -4565.50 mm, Z= 8742.56 mm
G06 F, Coordinates, X= -4062.50 mm, Y= -4565.50 mm, Z= 8756.00 mm

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From G14 to G16, DZ= 400.00 mm Run

POINT DATA:

G14, Coordinates, X= -4062.50 mm, Y= -4565.50 mm, Z= 8837.00 mm

From G16 to G09, DZ= 649.00 mm Run

POINT DATA:

G16, Coordinates, X= -4062.50 mm, Y= -4565.50 mm, Z= 9237.00 mm

SUPPORT DATA:

G16, Guide, Support Id= G16 1, Connected to Ground, Stiffness= RIGID

From G09 to G07, DZ= 51.00 mm Redu

COMPONENT DATA (Reducer):

Length= 51.00 mm, SIF= 2.00

POINT DATA:

G09, Coordinates, X= -4062.50 mm, Y= -4565.50 mm, Z= 9886.00 mm

From G07 to G08, DZ= 277.79 mm Run

PIPE DATA:

Pipe Id= 1_1/4S40, Composition= Austentic Stainless, Nom Size= 32 mm, OD= 42.164 mm, Wall Thk= 3.556 mm, Mill= 0.444 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 9.46 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 13.79 N/m

POINT DATA:

G07, Coordinates, X= -4062.50 mm, Y= -4565.50 mm, Z= 9937.00 mm

G08, Coordinates, X= -4062.50 mm, Y= -4565.50 mm, Z= 10214.79 mm

G08, Flange= WELDNECK, Rating= 2500, Flange Weight= 9.10 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= No

SUPPORT DATA:

G08, Anchor, Tag No.= DVITOLGMSB, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

*** SEGMENT H

From A26 to H02, DZ= 76.40 mm Tee

COMPONENT DATA (Tee Branch, Center= A26):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

PIPE DATA:

Pipe Id= 1/2POL40, Composition= Austentic Stainless, Nom Size= 15 mm, OD= 21.336 mm, Wall Thk= 2.769 mm, Mill= 0.346 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 1.92 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 10.29 N/m,
Long Modulus= 0.19996 E6 N/mm2, Hoop Modulus= 0.19996 E6 N/mm2, Shear Modulus= 0.07691 E6 N/mm2

0

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POINT DATA:

A26, Coordinates, X= -3216.30 mm, Y= -90.00 mm, Z= 8489.00 mm

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From H02 to SV12, DZ= 333.00 mm Valv

COMPONENT DATA (Valve):
GATE-F, Rating= Non-standard, Length= 333.00 mm, Valve weight = 2 kg, Surface factor= 1.00, End
type= Screwed (threaded),
SIF= 2.30

POINT DATA:

H02, Coordinates, X= -3216.30 mm, Y= -90.00 mm, Z= 8565.40 mm
H02 M, Coordinates, X= -3216.30 mm, Y= -90.00 mm, Z= 8731.90 mm
SV12, Coordinates, X= -3216.30 mm, Y= -90.00 mm, Z= 8898.40 mm

*** SEGMENT I

From A28 to I01, DZ= -25.40 mm Tee

COMPONENT DATA (Tee Branch, Center= A28):
B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

PIPE DATA:

Pipe Id= 3/8POL40, Composition= Austentic Stainless, Nom Size= 10 mm, OD= 17.145 mm, Wall Thk=
2.311 mm, Mill= 0.289 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 1.21 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt=
9.59 N/m,
Long Modulus= 0.19996 E6 N/mm2, Hoop Modulus= 0.19996 E6 N/mm2, Shear Modulus= 0.07691 E6 N/mm2

POINT DATA:

A28, Coordinates, X= -4468.50 mm, Y= -90.00 mm, Z= 8489.00 mm

From I01 to I02, DZ= -224.60 mm Run

POINT DATA:

I01, Coordinates, X= -4468.50 mm, Y= -90.00 mm, Z= 8463.60 mm

From I02 to I11, DY= -110.00 mm Bend

COMPONENT DATA (Bend, TIP= I02, Near= I02 N, Far= I02 F):
Long Elbow, Radius= 14.29 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.26,
SIF0= 1.26

POINT DATA:

I02, Coordinates, X= -4468.50 mm, Y= -90.00 mm, Z= 8239.00 mm
I02 N, Coordinates, X= -4468.50 mm, Y= -90.00 mm, Z= 8253.29 mm
I02 F, Coordinates, X= -4468.50 mm, Y= -104.29 mm, Z= 8239.00 mm

From I11 to CH15, DY= -105.00 mm Valv

COMPONENT DATA (Valve):
TCHECK-F, Rating= Non-standard, Length= 105.00 mm, Valve weight = 3 kg, Surface factor= 1.00, End
type= Weld neck, SIF= 1.00

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POINT DATA:

I11, Coordinates, X= -4468.50 mm, Y= -200.00 mm, Z= 8239.00 mm
I11, Flange= SLIP-ON, Rating= Non standard, Flange Weight= 0.70 kg, Bolt/Nut Weight= 0.00 kg, End
type= Weld neck, SIF= 1.00,
Perform ANSI check= No
I11 M, Coordinates, X= -4468.50 mm, Y= -252.50 mm, Z= 8239.00 mm

SUPPORT DATA:

I11 M, Constant Force Hanger, Support Id= I11 M1, Connected to Ground, 1 hanger(s), Preload= 81 N

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From CH15 to C031, DY= -147.00 mm

Run

POINT DATA:

CH15, Coordinates, X= -4468.50 mm, Y= -305.00 mm, Z= 8239.00 mm
CH15, Flange= SLIP-ON, Rating= Non standard, Flange Weight= 0.70 kg, Bolt/Nut Weight= 0.00 kg,
End type= Weld neck,
SIF= 1.00, Perform ANSI check= No
CH15, Flange= SLIP-ON, Rating= Non standard, Flange Weight= 0.70 kg, Bolt/Nut Weight= 0.00 kg,
End type= Weld neck,
SIF= 1.00, Perform ANSI check= No

From C031 to I05, DY= -248.00 mm

Run

POINT DATA:

C031, Coordinates, X= -4468.50 mm, Y= -452.00 mm, Z= 8239.00 mm
C031, Flange= SLIP-ON, Rating= Non standard, Flange Weight= 0.70 kg, Bolt/Nut Weight= 0.00 kg,
End type= Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No
C031, Flange= SLIP-ON, Rating= Non standard, Flange Weight= 0.70 kg, Bolt/Nut Weight= 0.00 kg,
End type= Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No

From I05 to I12, DY= -140.00 mm

Valv

COMPONENT DATA (Valve):

GATE-F, Rating= Non-standard, Length= 140.00 mm, Valve weight = 3 kg, Actuator Auto = No,
Actuator Symbol = Yes,
Actuator weight = 5 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 133.50 mm, Surface factor=
1.00, End type= Weld neck,
SIF= 1.00

POINT DATA:

I05, Coordinates, X= -4468.50 mm, Y= -700.00 mm, Z= 8239.00 mm
I05, Flange= SLIP-ON, Rating= Non standard, Flange Weight= 0.70 kg, Bolt/Nut Weight= 0.00 kg, End
type= Weld neck, SIF= 1.00,
Perform ANSI check= No
I05 M, Coordinates, X= -4468.50 mm, Y= -770.00 mm, Z= 8239.00 mm

SUPPORT DATA:

I05 M, Constant Force Hanger, Support Id= I05 M2, Connected to Ground, 1 hanger(s), Preload= 111
N

From I12 to I07, DY= -100.00 mm

Run

POINT DATA:

I12, Coordinates, X= -4468.50 mm, Y= -840.00 mm, Z= 8239.00 mm
I12, Flange= SLIP-ON, Rating= Non standard, Flange Weight= 0.70 kg, Bolt/Nut Weight= 0.00 kg, End
type= Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No

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C O M P O N E N T D A T A L I S T I N G

From I07 to I14, DY= -51.00 mm

Redu

COMPONENT DATA (Reducer):

Length= 51.00 mm, SIF= 2.00

POINT DATA:

I07, Coordinates, X= -4468.50 mm, Y= -940.00 mm, Z= 8239.00 mm

From I14 to I09, DY= -72.74 mm

Run

PIPE DATA:

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Pipe Id= 1_1/4S40, Composition= Austentic Stainless, Nom Size= 32 mm, OD= 42.164 mm, Wall Thk= 3.556 mm, Mill= 0.444 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 9.46 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 13.79 N/m

POINT DATA:

I14, Coordinates, X= -4468.50 mm, Y= -991.00 mm, Z= 8239.00 mm

From I09 to I10, DX= 65.96 mm, DY= -114.04 mm, L= 131.74 mm Bend

COMPONENT DATA (Bend, TIP= I09, Near= I09 N, Far= I09 F):

Long Elbow, Radius= 47.62 mm, Bend angle= 30.04 deg, End flanges= 0, Flex= Auto, SIFI= 1.52, SIFO= 1.52

POINT DATA:

I09, Coordinates, X= -4468.50 mm, Y= -1063.74 mm, Z= 8239.00 mm
I09 N, Coordinates, X= -4468.50 mm, Y= -1050.96 mm, Z= 8239.00 mm
I09 F, Coordinates, X= -4462.10 mm, Y= -1074.80 mm, Z= 8239.00 mm
I10, Coordinates, X= -4402.54 mm, Y= -1177.78 mm, Z= 8239.00 mm
I10, Flange= SLIP-ON, Rating= 300, Flange Weight= 1.80 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= No

SUPPORT DATA:

I10, Anchor, Tag No.= DVITOCABV, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

*** SEGMENT J

From D01 to J11, DX= -106.07 mm, DY= -106.07 mm, L= 150.00 mm Junc

PIPE DATA:

Pipe Id= 1/2POL80, Composition= Austentic Stainless, Nom Size= 15 mm, OD= 21.336 mm, Sch= 80, Wall Thk= 3.734 mm,
Mill= 0.467 mm, Content Sp Gr= 1.000, Content Unit Wgt= 1.48 N/m, Insul Thk= 50.000 mm, Insul Density= 136.16 kg/m3,
Insul Unit Wgt= 14.96 N/m

OPERATING DATA:

P1= 17.2500 N/mm2, P2= 17.2500 N/mm2, P3= 17.2500 N/mm2, P4= 17.2500 N/mm2, T1= 354.00 deg C, T2= 354.00 deg C,
T3= 354.00 deg C, Exp1= 5.85176 mm/m, Exp2= 5.85176 mm/m, Exp3= 5.85176 mm/m, E1= 0.17164 E6 N/mm2, E2= 0.17164 E6 N/mm2,
E3= 0.17164 E6 N/mm2, Rp0.2t1= 103.52 N/mm2, Rp0.2t2= 103.52 N/mm2, Rp0.2t3= 103.52 N/mm2, Rp1.0t1= 128.68 N/mm2,
Rp1.0t2= 128.68 N/mm2, Rp1.0t3= 128.68 N/mm2, fh1= 85.79 N/mm2, fh2= 85.79 N/mm2, fh3= 85.79 N/mm2

POINT DATA:

D01, Coordinates, X= -400.95 mm, Y= -876.95 mm, Z= 8489.00 mm

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C O M P O N E N T D A T A L I S T I N G

From J11 to J12, DX= -122.19 mm, DY= -122.19 mm, L= 172.80 mm Run

POINT DATA:

J11, Coordinates, X= -507.02 mm, Y= -983.02 mm, Z= 8489.00 mm
J11, Flange= BLIND, Rating= 2500, Flange Weight= 3.20 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on, SIF= 1.20,
Perform ANSI check= No
J11, Flange= BLIND, Rating= 2500, Flange Weight= 3.20 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on, SIF= 1.20,
Perform ANSI check= No

From J12 to J01, DX= -129.40 mm, DY= -129.40 mm, L= 183.00 mm Run

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POINT DATA:

J12, Coordinates, X= -629.21 mm, Y= -1105.21 mm, Z= 8489.00 mm
 J12, Flange= BLIND, Rating= 2500, Flange Weight= 3.20 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on, SIF= 1.20,
 Perform ANSI check= No
 J12, Flange= BLIND, Rating= 2500, Flange Weight= 3.20 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on, SIF= 1.20,
 Perform ANSI check= No

 From J01 to IV10, DX= -186.68 mm, DY= -186.68 mm, L= 264.01 mm Valv

COMPONENT DATA (Valve):

GATE-F, Rating= Non-standard, Length= 264.01 mm, Valve weight = 12 kg, Actuator Auto = No,
 Actuator Symbol = Yes,
 Actuator weight = 19 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 313.50 mm, Surface factor= 1.00, End type= Weld neck,
 SIF= 1.00

POINT DATA:

J01, Coordinates, X= -758.61 mm, Y= -1234.61 mm, Z= 8489.00 mm
 J01, Flange= WELDNECK, Rating= 2500, Flange Weight= 3.60 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
 Perform ANSI check= No
 J01 M, Coordinates, X= -851.95 mm, Y= -1327.95 mm, Z= 8489.00 mm

SUPPORT DATA:

J01 M, Guide, Support Id= J01 M1, Connected to Ground, Stiffness= RIGID, Gap-Down= 0.00 mm,
 Gap-Above= 100.00 mm,
 Gap-Left= 0.00 mm, Gap-Right= 0.00 mm, Friction= 0.00, Gaps setting= Weightless

 From IV10 to J03, DX= -313.51 mm, DY= -312.69 mm, L= 442.79 mm Run

PIPE DATA:

Pipe Id= 1/2POL40, Composition= Austentic Stainless, Sch= 40, Wall Thk= 2.769 mm, Mill= 0.346 mm,
 Content Sp Gr= 1.000,
 Content Unit Wgt= 1.92 N/m, Insul Thk= 40.000 mm, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 10.29 N/m,
 Long Modulus= 0.19996 E6 N/mm2, Hoop Modulus= 0.19996 E6 N/mm2, Shear Modulus= 0.07691 E6 N/mm2

OPERATING DATA:

P1= 0.1000 N/mm2, P2= 1.5000 N/mm2, P3= 1.5000 N/mm2, P4= 1.5000 N/mm2, T1= 20.00 deg C, T2= 198.00 deg C, T3= 198.00 deg C,
 Exp1= 0 mm/m, Exp2= 2.94948 mm/m, Exp3= 2.94948 mm/m, E1= 0.19996 E6 N/mm2, E2= 0.18487 E6 N/mm2, E3= 0.18487 E6 N/mm2,
 Rp0.2t1= 195.00 N/mm2, Rp0.2t2= 127.52 N/mm2, Rp0.2t3= 127.52 N/mm2, Rp1.0t1= 230.00 N/mm2, Rp1.0t2= 155.60 N/mm2,
 Rp1.0t3= 155.60 N/mm2, fh1= 153.33 N/mm2, fh2= 103.73 N/mm2, fh3= 103.73 N/mm2

POINT DATA:

IV10, Coordinates, X= -945.29 mm, Y= -1421.29 mm, Z= 8489.00 mm
 IV10, Flange= WELDNECK, Rating= 2500, Flange Weight= 3.60 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
 []

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Perform ANSI check= No

 From J03 to J13, DX= -99.00 mm, DY= -98.99 mm, L= 140.00 mm Redu

COMPONENT DATA (Reducer):

Length= 140.00 mm, SIF= 2.00

POINT DATA:

J03, Coordinates, X= -1258.80 mm, Y= -1733.98 mm, Z= 8489.00 mm

DVI_B_LINE_REV0.OUT

From J13 to J06, DX= -851.46 mm, DY= -851.46 mm, L= 1204.15 mm Run

PIPE DATA:

Pipe Id= 2.5S40, Composition= Austentic Stainless, Nom Size= 65 mm, OD= 73.025 mm, Wall Thk= 5.156 mm, Mill= 0.645 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 30.28 N/m, Insul Thk= 80.000 mm, Insul Density= 136.16 kg/m3,
Insul Unit Wgt= 51.35 N/m, Long Modulus= 0.19996 E6 N/mm2, Hoop Modulus= 0.19996 E6 N/mm2, Shear Modulus= 0.07691 E6 N/mm2

POINT DATA:

J13, Coordinates, X= -1357.80 mm, Y= -1832.97 mm, Z= 8489.00 mm

From J06 to J07, DX= -1324.45 mm Bend

COMPONENT DATA (Bend, TIP= J06, Near= J06 N, Far= J06 F):

Long Elbow, Radius= 95.25 mm, Bend angle= 45.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.59, SIFO= 1.59

POINT DATA:

J06, Coordinates, X= -2209.26 mm, Y= -2684.43 mm, Z= 8489.00 mm
J06 N, Coordinates, X= -2181.36 mm, Y= -2656.54 mm, Z= 8489.00 mm
J06 F, Coordinates, X= -2248.71 mm, Y= -2684.43 mm, Z= 8489.00 mm

From J07 to J08, DX= -25.00 mm, DY= 43.30 mm, L= 50.00 mm Bend

COMPONENT DATA (Bend, TIP= J07, Near= J07 N, Far= J07 F):

Elbow, Radius= 50.00 mm, Bend angle= 60.00 deg, End flanges= 0, Flex= Auto, SIFI= 2.44, SIFO= 2.44

POINT DATA:

J07, Coordinates, X= -3533.71 mm, Y= -2684.43 mm, Z= 8489.00 mm
J07 N, Coordinates, X= -3504.84 mm, Y= -2684.43 mm, Z= 8489.00 mm
J07 F, Coordinates, X= -3548.14 mm, Y= -2659.44 mm, Z= 8489.00 mm

From J08 to J09, DX= -50.80 mm, DY= 87.99 mm, L= 101.60 mm Redu

COMPONENT DATA (Reducer):

Length= 101.60 mm, SIF= 2.00

POINT DATA:

J08, Coordinates, X= -3558.71 mm, Y= -2641.13 mm, Z= 8489.00 mm

From J09 to J10, DX= -113.50 mm, DY= 196.59 mm, DZ= 0 mm, L= 227.01 mm Run

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PIPE DATA:

Pipe Id= 4S40, Composition= Austentic Stainless, Nom Size= 100 mm, OD= 114.30 mm, Wall Thk= 6.020 mm, Mill= 0.752 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 80.51 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 65.20 N/m

POINT DATA:

J09, Coordinates, X= -3609.51 mm, Y= -2553.14 mm, Z= 8489.00 mm
J10, Coordinates, X= -3723.01 mm, Y= -2356.55 mm, Z= 8489.00 mm
J10, Flange= SLIP-ON, Rating= 300, Flange Weight= 10.00 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No

SUPPORT DATA:

J10, Anchor, Tag No.= DVIDEG, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

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*** SEGMENT M

From F10 to M06, DZ= 175.00 mm

Junc

PIPE DATA:

Pipe Id= 1_1/4S80, Composition= Austentic Stainless, Nom Size= 32 mm, OD= 42.164 mm, Sch= 80,
Wall Thk= 4.851 mm,
Mill= 0.606 mm, Content Sp Gr= 1.000, Content Unit Wgt= 8.11 N/m, Insul Thk= 50.000 mm, Insul
Density= 136.16 kg/m3,
Insul Unit Wgt= 19.33 N/m

OPERATING DATA:

P1= 17.2500 N/mm2, P2= 17.2500 N/mm2, P3= 17.2500 N/mm2, P4= 17.2500 N/mm2, T2= 20.00 deg C, T3=
354.00 deg C, Exp2= 0 mm/m,
Exp3= 5.85176 mm/m, E2= 0.19996 E6 N/mm2, E3= 0.17164 E6 N/mm2, Rp0.2t2= 195.00 N/mm2, Rp0.2t3=
103.52 N/mm2,
Rp1.0t2= 230.00 N/mm2, Rp1.0t3= 128.68 N/mm2, fh2= 153.33 N/mm2, fh3= 85.79 N/mm2

POINT DATA:

F10, Coordinates, X= -3795.00 mm, Y= -905.00 mm, Z= 12732.00 mm
F10, Flange= WELDNECK, Rating= 2500, Flange Weight= 9.10 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No

From M06 to M01, DZ= 2210.00 mm

Run

PIPE DATA:

Pipe Id= 200EBT, Composition= Austentic Stainless, Nom Size= Non-standard, OD= 280.00 mm, Sch=
Non-standard,
Wall Thk= 25.000 mm, Mill= 3.125 mm, Content Sp Gr= 1.000, Content Unit Wgt= 407.26 N/m, Insul
Thk= 100.000 mm,
Insul Density= 136.16 kg/m3, Insul Unit Wgt= 159.41 N/m

POINT DATA:

M06, Coordinates, X= -3795.00 mm, Y= -905.00 mm, Z= 12907.00 mm

From M01 to M02, DZ= 980.00 mm

Run

POINT DATA:

M01, Coordinates, X= -3795.00 mm, Y= -905.00 mm, Z= 15117.00 mm

SUPPORT DATA:

M01, Anchor, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

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C O M P O N E N T D A T A L I S T I N G-----
From M02 to M03, DZ= 175.00 mm

Run

PIPE DATA:

Pipe Id= 1_1/4S80, Composition= Austentic Stainless, OD= 42.164 mm, Sch= 80, Wall Thk= 4.851 mm,
Mill= 0.606 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 8.11 N/m, Insul Thk= 50.000 mm, Insul Density= 136.16
kg/m3,
Insul Unit Wgt= 19.33 N/m

POINT DATA:

M02, Coordinates, X= -3795.00 mm, Y= -905.00 mm, Z= 16097.00 mm

From M03 to M04, DZ= 103.00 mm

Run

POINT DATA:

M03, Coordinates, X= -3795.00 mm, Y= -905.00 mm, Z= 16272.00 mm
M03, Flange= WELDNECK, Rating= Non standard, Flange Weight= 7.80 kg, Bolt/Nut Weight= 0.00 kg,
End type= Weld neck,

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SIF= 1.00, Perform ANSI check= No
M03, Flange= WELDNECK, Rating= Non standard, Flange Weight= 7.80 kg, Bolt/Nut Weight= 0.00 kg,
End type= Weld neck,
SIF= 1.00, Perform ANSI check= No

From M04 to M05, DZ= 55.00 mm Redu

COMPONENT DATA (Reducer):
Length= 55.00 mm, SIF= 2.00

POINT DATA:
M04, Coordinates, X= -3795.00 mm, Y= -905.00 mm, Z= 16375.00 mm

From M05 to M24, DZ= 1200.00 mm Run

PIPE DATA:
Pipe Id= 3/4POL80, Composition= Austentic Stainless, Nom Size= 20 mm, OD= 26.670 mm, Wall Thk= 3.912 mm, Mill= 0.489 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 2.73 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 16.08 N/m

POINT DATA:
M05, Coordinates, X= -3795.00 mm, Y= -905.00 mm, Z= 16430.00 mm

From M24 to M07, DZ= 230.00 mm Run

POINT DATA:
M24, Coordinates, X= -3795.00 mm, Y= -905.00 mm, Z= 17630.00 mm

SUPPORT DATA:
M24, Guide, Support Id= M24 1, Connected to Ground, Stiffness= RIGID, Gap -X= 100.00 mm, Gap +X= 100.00 mm, Gap -Y= 0.00 mm,
Gap +Y= 0.00 mm, Friction= 0.00, Gaps setting= Weightless

From M07 to M31, DX= 600.00 mm Bend

COMPONENT DATA (Bend, TIP= M07, Near= M07 N, Far= M07 F):
Elbow, Radius= 28.60 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIF0= 1.00

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POINT DATA:
M07, Coordinates, X= -3795.00 mm, Y= -905.00 mm, Z= 17860.00 mm
M07 N, Coordinates, X= -3795.00 mm, Y= -905.00 mm, Z= 17831.40 mm
M07 F, Coordinates, X= -3766.40 mm, Y= -905.00 mm, Z= 17860.00 mm

From M31 to M08, DX= 306.00 mm Run

POINT DATA:
M31, Coordinates, X= -3195.00 mm, Y= -905.00 mm, Z= 17860.00 mm

From M08 to M30, DX= 122.49 mm, DY= 158.10 mm, L= 200.00 mm Bend

COMPONENT DATA (Bend, TIP= M08, Near= M08 N, Far= M08 F):
Elbow, Radius= 28.60 mm, Bend angle= 52.23 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIF0= 1.00

POINT DATA:
M08, Coordinates, X= -2889.00 mm, Y= -905.00 mm, Z= 17860.00 mm
M08 N, Coordinates, X= -2903.02 mm, Y= -905.00 mm, Z= 17860.00 mm
M08 F, Coordinates, X= -2880.41 mm, Y= -893.92 mm, Z= 17860.00 mm

From M30 to M09, DX= 221.51 mm, DY= 285.90 mm, L= 361.67 mm Run

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POINT DATA:

M30, Coordinates, X= -2766.51 mm, Y= -746.90 mm, Z= 17860.00 mm

From M09 to M10, DX= 159.00 mm

Bend

COMPONENT DATA (Bend, TIP= M09, Near= M09 N, Far= M09 F):

Elbow, Radius= 28.60 mm, Bend angle= 52.23 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIF0= 1.00

OPERATING DATA (M09 N to M09 F):

T4= 354.00 deg C, Exp4= 5.85176 mm/m, E4= 0.17164 E6 N/mm2, Rp0.2t4= 103.52 N/mm2, Rp1.0t4= 128.68 N/mm2, fh4= 85.79 N/mm2

OPERATING DATA (M09 F to M10):

T1= 354.00 deg C, T2= 354.00 deg C, Exp1= 5.85176 mm/m, Exp2= 5.85176 mm/m, E1= 0.17164 E6 N/mm2, E2= 0.17164 E6 N/mm2, Rp0.2t1= 103.52 N/mm2, Rp0.2t2= 103.52 N/mm2, Rp1.0t1= 128.68 N/mm2, Rp1.0t2= 128.68 N/mm2, fh1= 85.79 N/mm2, fh2= 85.79 N/mm2

POINT DATA:

M09, Coordinates, X= -2545.00 mm, Y= -461.00 mm, Z= 17860.00 mm
M09 N, Coordinates, X= -2553.59 mm, Y= -472.08 mm, Z= 17860.00 mm
M09 F, Coordinates, X= -2530.98 mm, Y= -461.00 mm, Z= 17860.00 mm

From M10 to M11, DX= 151.85 mm

Tee

COMPONENT DATA (Tee Header, Center= M10):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

POINT DATA:

M10, Coordinates, X= -2386.00 mm, Y= -461.00 mm, Z= 17860.00 mm

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From M11 to M17, DX= 272.00 mm

Valv

COMPONENT DATA (Valve):

GATE-F, Rating= Non-standard, Length= 272.00 mm, Valve weight = 20 kg, Actuator Auto = No, Actuator Symbol = Yes, Actuator weight = 26 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 380.00 mm, Surface factor= 1.00, End type= Weld neck, SIF= 1.00

POINT DATA:

M11, Coordinates, X= -2234.15 mm, Y= -461.00 mm, Z= 17860.00 mm
M11, Flange= WELDNECK, Rating= 2500, Flange Weight= 4.10 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00, Perform ANSI check= No
M11 M, Coordinates, X= -2098.15 mm, Y= -461.00 mm, Z= 17860.00 mm

SUPPORT DATA:

M11 M, Guide, Support Id= M11 M1, Connected to Ground, Stiffness= RIGID, Gap-Down= 0.00 mm, Gap-Above= 100.00 mm, Gap-Left= 0.00 mm, Gap-Right= 0.00 mm, Friction= 0.00, Gaps setting= Weightless

From M17 to M13, DX= 153.15 mm

Run

POINT DATA:

M17, Coordinates, X= -1962.15 mm, Y= -461.00 mm, Z= 17860.00 mm
M17, Flange= WELDNECK, Rating= 2500, Flange Weight= 4.10 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00, Perform ANSI check= No

From M13 to M22, DX= 400.00 mm

Tee

COMPONENT DATA (Tee Header, Center= M13):

Other, SIFI= 1.00, SIFO= 1.00

POINT DATA:

M13, Coordinates, X= -1809.00 mm, Y= -461.00 mm, Z= 17860.00 mm

From M22 to M23, DY= 700.00 mm

Bend

COMPONENT DATA (Bend, TIP= M22, Near= M22 N, Far= M22 F):

Long Elbow, Radius= 38.10 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIFO= 1.00

POINT DATA:

M22, Coordinates, X= -1409.00 mm, Y= -461.00 mm, Z= 17860.00 mm

M22 N, Coordinates, X= -1447.10 mm, Y= -461.00 mm, Z= 17860.00 mm

M22 F, Coordinates, X= -1409.00 mm, Y= -422.90 mm, Z= 17860.00 mm

From M23 to M21, DX= 600.00 mm

Bend

COMPONENT DATA (Bend, TIP= M23, Near= M23 N, Far= M23 F):

Long Elbow, Radius= 38.10 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIFO= 1.00

POINT DATA:

M23, Coordinates, X= -1409.00 mm, Y= 239.00 mm, Z= 17860.00 mm

M23 N, Coordinates, X= -1409.00 mm, Y= 200.90 mm, Z= 17860.00 mm

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C O M P O N E N T D A T A L I S T I N G

M23 F, Coordinates, X= -1370.90 mm, Y= 239.00 mm, Z= 17860.00 mm

From M21 to M20, DX= 113.47 mm, DY= -834.53 mm, L= 842.21 mm

Bend

COMPONENT DATA (Bend, TIP= M21, Near= M21 N, Far= M21 F):

Long Elbow, Radius= 38.10 mm, Bend angle= 82.26 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIFO= 1.00

POINT DATA:

M21, Coordinates, X= -809.00 mm, Y= 239.00 mm, Z= 17860.00 mm

M21 N, Coordinates, X= -842.27 mm, Y= 239.00 mm, Z= 17860.00 mm

M21 F, Coordinates, X= -804.52 mm, Y= 206.03 mm, Z= 17860.00 mm

From M20 to M26, DX= 250.00 mm, DY= 250.00 mm, L= 353.55 mm

Bend

COMPONENT DATA (Bend, TIP= M20, Near= M20 N, Far= M20 F):

Long Elbow, Radius= 38.10 mm, Bend angle= 127.26 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIFO= 1.00

POINT DATA:

M20, Coordinates, X= -695.53 mm, Y= -595.53 mm, Z= 17860.00 mm

M20 N, Coordinates, X= -705.88 mm, Y= -519.38 mm, Z= 17860.00 mm

M20 F, Coordinates, X= -641.19 mm, Y= -541.19 mm, Z= 17860.00 mm

From M26 to M27, DX= 36.06 mm, DY= 36.06 mm, L= 51.00 mm

Redu

COMPONENT DATA (Reducer):

Length= 51.00 mm, SIF= 2.00

POINT DATA:

M26, Coordinates, X= -445.53 mm, Y= -345.53 mm, Z= 17860.00 mm

From M27 to M28, DX= 72.97 mm, DY= 72.97 mm, L= 103.20 mm

Run

PIPE DATA:

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Pipe Id= 1_1/4S80, Composition= Austentic Stainless, Nom Size= 32 mm, OD= 42.164 mm, Wall Thk= 4.851 mm, Mill= 0.606 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 8.11 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 19.33 N/m

POINT DATA:

M27, Coordinates, X= -409.47 mm, Y= -309.47 mm, Z= 17860.00 mm
M28, Coordinates, X= -336.50 mm, Y= -236.50 mm, Z= 17860.00 mm
M28, Flange= WELDNECK, Rating= 2500, Flange Weight= 9.10 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= No

SUPPORT DATA:

M28, Anchor, Tag No.= EBTBTORV, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

*** SEGMENT N

From M10 to N14, DY= -151.00 mm Tee

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C O M P O N E N T D A T A L I S T I N G

COMPONENT DATA (Tee Branch, Center= M10):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

PIPE DATA:

Pipe Id= 3/4POL80, Composition= Austentic Stainless, Nom Size= 20 mm, OD= 26.670 mm, Wall Thk= 3.912 mm, Mill= 0.489 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 2.73 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 16.08 N/m

POINT DATA:

M10, Coordinates, X= -2386.00 mm, Y= -461.00 mm, Z= 17860.00 mm

From N14 to N12, DY= -99.10 mm Run

POINT DATA:

N14, Coordinates, X= -2386.00 mm, Y= -612.00 mm, Z= 17860.00 mm
N14, Flange= WELDNECK, Rating= Non standard, Flange Weight= 3.20 kg, Bolt/Nut Weight= 0.00 kg,
End type= Weld neck,
SIF= 1.00, Perform ANSI check= No
N14, Flange= WELDNECK, Rating= Non standard, Flange Weight= 3.20 kg, Bolt/Nut Weight= 0.00 kg,
End type= Weld neck,
SIF= 1.00, Perform ANSI check= No

From N12 to N13, DY= -99.10 mm Run

POINT DATA:

N12, Coordinates, X= -2386.00 mm, Y= -711.10 mm, Z= 17860.00 mm

From N13 to N01, DY= -296.00 mm Run

POINT DATA:

N13, Coordinates, X= -2386.00 mm, Y= -810.20 mm, Z= 17860.00 mm
N13, Flange= WELDNECK, Rating= Non standard, Flange Weight= 3.20 kg, Bolt/Nut Weight= 0.00 kg,
End type= Weld neck,
SIF= 1.00, Perform ANSI check= No
N13, Flange= WELDNECK, Rating= Non standard, Flange Weight= 3.20 kg, Bolt/Nut Weight= 0.00 kg,
End type= Weld neck,
SIF= 1.00, Perform ANSI check= No

From N01 to N09, DY= -272.00 mm Valv

COMPONENT DATA (Valve):

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GATE-F, Rating= Non-standard, Length= 272.00 mm, Valve weight = 20 kg, Actuator Auto = No,
 Actuator Symbol = Yes,
 Actuator weight = 26 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 380.00 mm, Surface factor=
 1.00, End type= Weld neck,
 SIF= 1.00

POINT DATA:

N01, Coordinates, X= -2386.00 mm, Y= -1106.20 mm, Z= 17860.00 mm
 N01, Flange= WELDNECK, Rating= 2500, Flange Weight= 4.10 kg, Bolt/Nut Weight= 0.00 kg, End type=
 Weld neck, SIF= 1.00,
 Perform ANSI check= No
 N01 M, Coordinates, X= -2386.00 mm, Y= -1242.20 mm, Z= 17860.00 mm

SUPPORT DATA:

N01 M, Guide, Support Id= N01 M1, Connected to Ground, Stiffness= RIGID, Gap-Down= 0.00 mm,
 Gap-Above= 100.00 mm,
 Gap-Left= 100.00 mm, Gap-Right= 100.00 mm, Friction= 0.00, Gaps setting= Weightless

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C O M P O N E N T D A T A L I S T I N G

 From N09 to N03, DY= -306.31 mm

Run

PIPE DATA:

Pipe Id= 3/4S40, Composition= Austentic Stainless, Sch= 40, Wall Thk= 2.870 mm, Mill= 0.359 mm,
 Content Sp Gr= 1.000,
 Content Unit Wgt= 3.37 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 16.08 N/m

OPERATING DATA:

P1= 0.1000 N/mm2, P2= 1.5000 N/mm2, P3= 1.5000 N/mm2, P4= 1.5000 N/mm2, T1= 20.00 deg C, T2=
 20.00 deg C, T3= 20.00 deg C,
 T4= 198.00 deg C, Exp1= 0 mm/m, Exp2= 0 mm/m, Exp3= 0 mm/m, Exp4= 2.94948 mm/m, E1= 0.19996 E6
 N/mm2, E2= 0.19996 E6 N/mm2,
 E3= 0.19996 E6 N/mm2, E4= 0.18487 E6 N/mm2, Rp0.2t1= 195.00 N/mm2, Rp0.2t2= 195.00 N/mm2,
 Rp0.2t3= 195.00 N/mm2,
 Rp0.2t4= 127.52 N/mm2, Rp1.0t1= 230.00 N/mm2, Rp1.0t2= 230.00 N/mm2, Rp1.0t3= 230.00 N/mm2,
 Rp1.0t4= 155.60 N/mm2,
 fh1= 153.33 N/mm2, fh2= 153.33 N/mm2, fh3= 153.33 N/mm2, fh4= 103.73 N/mm2

POINT DATA:

N09, Coordinates, X= -2386.00 mm, Y= -1378.20 mm, Z= 17860.00 mm
 N09, Flange= WELDNECK, Rating= 2500, Flange Weight= 4.10 kg, Bolt/Nut Weight= 0.00 kg, End type=
 Weld neck, SIF= 1.00,
 Perform ANSI check= No

 From N03 to N10, DY= -51.00 mm

Redu

COMPONENT DATA (Reducer):

Length= 51.00 mm, SIF= 2.00

POINT DATA:

N03, Coordinates, X= -2386.00 mm, Y= -1684.51 mm, Z= 17860.00 mm

 From N10 to N15, DY= -100.00 mm

Run

PIPE DATA:

Pipe Id= 1_1/4S40, Composition= Austentic Stainless, Nom Size= 32 mm, OD= 42.164 mm, Wall Thk=
 3.556 mm, Mill= 0.444 mm,
 Content Sp Gr= 1.000, Content Unit Wgt= 9.46 N/m, Insul Thk= 40.000 mm, Insul Density= 136.16
 kg/m3,
 Insul Unit Wgt= 13.79 N/m

POINT DATA:

N10, Coordinates, X= -2386.00 mm, Y= -1735.51 mm, Z= 17860.00 mm

 From N15 to N16, DX= -600.00 mm

Bend

DVI_B_LINE_REV0.OUT

COMPONENT DATA (Bend, TIP= N15, Near= N15 N, Far= N15 F):
 Long Elbow, Radius= 47.62 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.52,
 SIFO= 1.52

POINT DATA:

N15, Coordinates, X= -2386.00 mm, Y= -1835.51 mm, Z= 17860.00 mm
 N15 N, Coordinates, X= -2386.00 mm, Y= -1787.89 mm, Z= 17860.00 mm
 N15 F, Coordinates, X= -2433.62 mm, Y= -1835.51 mm, Z= 17860.00 mm

 From N16 to N19, DX= 50.00 mm, DY= -236.60 mm, L= 241.83 mm Bend

COMPONENT DATA (Bend, TIP= N16, Near= N16 N, Far= N16 F):
 Long Elbow, Radius= 47.62 mm, Bend angle= 101.93 deg, End flanges= 0, Flex= Auto, SIFI= 1.52,
 SIFO= 1.52

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POINT DATA:

N16, Coordinates, X= -2986.00 mm, Y= -1835.51 mm, Z= 17860.00 mm
 N16 N, Coordinates, X= -2927.26 mm, Y= -1835.51 mm, Z= 17860.00 mm
 N16 F, Coordinates, X= -2973.85 mm, Y= -1892.98 mm, Z= 17860.00 mm

 From N19 to N18, DX= 50.00 mm, DY= -236.60 mm, L= 241.83 mm Run

POINT DATA:

N19, Coordinates, X= -2936.00 mm, Y= -2072.11 mm, Z= 17860.00 mm

 From N18 to N17, DX= 600.00 mm Bend

COMPONENT DATA (Bend, TIP= N18, Near= N18 N, Far= N18 F):
 Long Elbow, Radius= 47.62 mm, Bend angle= 78.07 deg, End flanges= 0, Flex= Auto, SIFI= 1.52,
 SIFO= 1.52

POINT DATA:

N18, Coordinates, X= -2886.00 mm, Y= -2308.71 mm, Z= 17860.00 mm
 N18 N, Coordinates, X= -2893.98 mm, Y= -2270.93 mm, Z= 17860.00 mm
 N18 F, Coordinates, X= -2847.39 mm, Y= -2308.71 mm, Z= 17860.00 mm

 From N17 to N06, DX= 100.00 mm, DY= -173.21 mm, L= 200.00 mm Bend

COMPONENT DATA (Bend, TIP= N17, Near= N17 N, Far= N17 F):
 Long Elbow, Radius= 47.62 mm, Bend angle= 60.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.52,
 SIFO= 1.52

POINT DATA:

N17, Coordinates, X= -2286.00 mm, Y= -2308.71 mm, Z= 17860.00 mm
 N17 N, Coordinates, X= -2313.50 mm, Y= -2308.71 mm, Z= 17860.00 mm
 N17 F, Coordinates, X= -2272.25 mm, Y= -2332.52 mm, Z= 17860.00 mm

 From N06 to N20, DX= 44.50 mm, DY= -77.08 mm, L= 89.00 mm Redu

COMPONENT DATA (Reducer):

Length= 89.00 mm, SIF= 2.00

POINT DATA:

N06, Coordinates, X= -2186.00 mm, Y= -2481.92 mm, Z= 17860.00 mm

 From N20 to N08, DX= 160.14 mm, DY= -277.36 mm, L= 320.27 mm Run

PIPE DATA:

Pipe Id= 2.5S40, Composition= Austentic Stainless, Nom Size= 65 mm, OD= 73.025 mm, Wall Thk= 5.156 mm, Mill= 0.645 mm,
 Content Sp Gr= 1.000, Content Unit Wgt= 30.28 N/m, Insul Thk= 80.000 mm, Insul Density= 136.16 kg/m3,

Insul Unit Wgt= 51.35 N/m

POINT DATA:

N20, Coordinates, X= -2141.50 mm, Y= -2559.00 mm, Z= 17860.00 mm

N08, Coordinates, X= -1981.36 mm, Y= -2836.36 mm, Z= 17860.00 mm

N08, Flange= SLIP-ON, Rating= 300, Flange Weight= 4.50 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No

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SUPPORT DATA:

N08, Anchor, Tag No.= EBTDEG, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

*** SEGMENT 0

From M13 to O15, DY= -151.65 mm

Tee

COMPONENT DATA (Tee Branch, Center= M13):

Other, SIFI= 1.00, SIFO= 1.00

PIPE DATA:

Pipe Id= 3/4POL80, Composition= Austentic Stainless, Nom Size= 20 mm, OD= 26.670 mm, Sch= 80,
Wall Thk= 3.912 mm,

Mill= 0.489 mm, Content Sp Gr= 1.000, Content Unit Wgt= 2.73 N/m, Insul Thk= 50.000 mm, Insul
Density= 136.16 kg/m3,

Insul Unit Wgt= 16.08 N/m

OPERATING DATA:

P1= 17.2500 N/mm2, P2= 17.2500 N/mm2, P3= 17.2500 N/mm2, P4= 17.2500 N/mm2, T1= 354.00 deg C, T2= 354.00 deg C,

T3= 354.00 deg C, T4= 354.00 deg C, Exp1= 5.85176 mm/m, Exp2= 5.85176 mm/m, Exp3= 5.85176 mm/m,
Exp4= 5.85176 mm/m,

E1= 0.17164 E6 N/mm2, E2= 0.17164 E6 N/mm2, E3= 0.17164 E6 N/mm2, E4= 0.17164 E6 N/mm2, Rp0.2t1= 103.52 N/mm2,

Rp0.2t2= 103.52 N/mm2, Rp0.2t3= 103.52 N/mm2, Rp0.2t4= 103.52 N/mm2, Rp1.0t1= 128.68 N/mm2,
Rp1.0t2= 128.68 N/mm2,

Rp1.0t3= 128.68 N/mm2, Rp1.0t4= 128.68 N/mm2, fh1= 85.79 N/mm2, fh2= 85.79 N/mm2, fh3= 85.79 N/mm2, fh4= 85.79 N/mm2

POINT DATA:

M13, Coordinates, X= -1809.00 mm, Y= -461.00 mm, Z= 17860.00 mm

From O15 to O13, DY= -99.10 mm

Run

POINT DATA:

O15, Coordinates, X= -1809.00 mm, Y= -612.65 mm, Z= 17860.00 mm

O15, Flange= WELDNECK, Rating= Non standard, Flange Weight= 3.20 kg, Bolt/Nut Weight= 0.00 kg,
End type= Weld neck,

SIF= 1.00, Perform ANSI check= No

O15, Flange= WELDNECK, Rating= Non standard, Flange Weight= 3.20 kg, Bolt/Nut Weight= 0.00 kg,
End type= Weld neck,

SIF= 1.00, Perform ANSI check= No

From O13 to O14, DY= -99.10 mm

Run

POINT DATA:

O13, Coordinates, X= -1809.00 mm, Y= -711.75 mm, Z= 17860.00 mm

From O14 to O01, DY= -200.72 mm

Run

POINT DATA:

O14, Coordinates, X= -1809.00 mm, Y= -810.85 mm, Z= 17860.00 mm

O14, Flange= WELDNECK, Rating= Non standard, Flange Weight= 3.20 kg, Bolt/Nut Weight= 0.00 kg,

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End type= Weld neck,
SIF= 1.00, Perform ANSI check= No
014, Flange= WELDNECK, Rating= Non standard, Flange Weight= 3.20 kg, Bolt/Nut Weight= 0.00 kg,
End type= Weld neck,
SIF= 1.00, Perform ANSI check= No

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C O M P O N E N T D A T A L I S T I N G

From 001 to 010, DY= -272.00 mm

Valv

COMPONENT DATA (Valve):

GATE-F, Rating= Non-standard, Length= 272.00 mm, Valve weight = 20 kg, Actuator Auto = No,
Actuator Symbol = Yes,
Actuator weight = 26 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 380.00 mm, Surface factor=
1.00, End type= Weld neck,
SIF= 1.00

POINT DATA:

001, Coordinates, X= -1809.00 mm, Y= -1011.57 mm, Z= 17860.00 mm
001, Flange= WELDNECK, Rating= 2500, Flange Weight= 4.10 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No
001 M, Coordinates, X= -1809.00 mm, Y= -1147.57 mm, Z= 17860.00 mm

SUPPORT DATA:

001 M, Guide, Support Id= 001 M1, Connected to Ground, Stiffness= RIGID, Gap-Down= 0.00 mm,
Gap-Above= 100.00 mm,
Gap-Left= 100.00 mm, Gap-Right= 100.00 mm, Friction= 0.00, Gaps setting= Weightless

From 010 to 003, DY= -79.40 mm

Run

PIPE DATA:

Pipe Id= 3/4S40, Composition= Austentic Stainless, Sch= 40, Wall Thk= 2.870 mm, Mill= 0.359 mm,
Content Sp Gr= 1.000,
Content Unit Wgt= 3.37 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 16.08 N/m

OPERATING DATA:

P1= 0.1000 N/mm2, P2= 1.5000 N/mm2, P3= 1.5000 N/mm2, P4= 1.5000 N/mm2, T1= 20.00 deg C, T2=
20.00 deg C, T3= 20.00 deg C,
T4= 198.00 deg C, Exp1= 0 mm/m, Exp2= 0 mm/m, Exp3= 0 mm/m, Exp4= 2.94948 mm/m, E1= 0.19996 E6
N/mm2, E2= 0.19996 E6 N/mm2,
E3= 0.19996 E6 N/mm2, E4= 0.18487 E6 N/mm2, Rp0.2t1= 195.00 N/mm2, Rp0.2t2= 195.00 N/mm2,
Rp0.2t3= 195.00 N/mm2,
Rp0.2t4= 127.52 N/mm2, Rp1.0t1= 230.00 N/mm2, Rp1.0t2= 230.00 N/mm2, Rp1.0t3= 230.00 N/mm2,
Rp1.0t4= 155.60 N/mm2,
fh1= 153.33 N/mm2, fh2= 153.33 N/mm2, fh3= 153.33 N/mm2, fh4= 103.73 N/mm2

POINT DATA:

010, Coordinates, X= -1809.00 mm, Y= -1283.57 mm, Z= 17860.00 mm
010, Flange= WELDNECK, Rating= 2500, Flange Weight= 4.10 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No

From 003 to 011, DY= -51.00 mm

Redu

COMPONENT DATA (Reducer):

Length= 51.00 mm, SIF= 2.00

POINT DATA:

003, Coordinates, X= -1809.00 mm, Y= -1362.97 mm, Z= 17860.00 mm

From 011 to 005, DY= -157.25 mm

Run

PIPE DATA:

Pipe Id= 1_1/4S40, Composition= Austentic Stainless, Nom Size= 32 mm, OD= 42.164 mm, Wall Thk=

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3.556 mm, Mill= 0.444 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 9.46 N/m, Insul Thk= 40.000 mm, Insul Density= 136.16
kg/m3,
Insul Unit Wgt= 13.79 N/m

POINT DATA:

011, Coordinates, X= -1809.00 mm, Y= -1413.97 mm, Z= 17860.00 mm

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From 005 to 016, DX= 132.80 mm, DY= -149.55 mm, L= 200.00 mm Bend

COMPONENT DATA (Bend, TIP= 005, Near= 005 N, Far= 005 F):
Long Elbow, Radius= 47.62 mm, Bend angle= 41.60 deg, End flanges= 0, Flex= Auto, SIFI= 1.52,
SIFO= 1.52

POINT DATA:

005, Coordinates, X= -1809.00 mm, Y= -1571.22 mm, Z= 17860.00 mm
005 N, Coordinates, X= -1809.00 mm, Y= -1553.13 mm, Z= 17860.00 mm
005 F, Coordinates, X= -1796.99 mm, Y= -1584.75 mm, Z= 17860.00 mm

From 016 to 017, DX= 500.00 mm, DY= 500.00 mm, L= 707.11 mm Bend

COMPONENT DATA (Bend, TIP= 016, Near= 016 N, Far= 016 F):
Long Elbow, Radius= 47.62 mm, Bend angle= 93.40 deg, End flanges= 0, Flex= Auto, SIFI= 1.52,
SIFO= 1.52

POINT DATA:

016, Coordinates, X= -1676.20 mm, Y= -1720.77 mm, Z= 17860.00 mm
016 N, Coordinates, X= -1709.75 mm, Y= -1682.98 mm, Z= 17860.00 mm
016 F, Coordinates, X= -1640.47 mm, Y= -1685.04 mm, Z= 17860.00 mm

From 017 to 018, DX= 332.00 mm, DY= -373.87 mm, L= 500.00 mm Bend

COMPONENT DATA (Bend, TIP= 017, Near= 017 N, Far= 017 F):
Long Elbow, Radius= 47.62 mm, Bend angle= 93.39 deg, End flanges= 0, Flex= Auto, SIFI= 1.52,
SIFO= 1.52

POINT DATA:

017, Coordinates, X= -1176.20 mm, Y= -1220.77 mm, Z= 17860.00 mm
017 N, Coordinates, X= -1211.93 mm, Y= -1256.50 mm, Z= 17860.00 mm
017 F, Coordinates, X= -1142.65 mm, Y= -1258.56 mm, Z= 17860.00 mm

From 018 to 019, DX= -500.00 mm, DY= -500.00 mm, L= 707.11 mm Bend

COMPONENT DATA (Bend, TIP= 018, Near= 018 N, Far= 018 F):
Long Elbow, Radius= 47.62 mm, Bend angle= 86.61 deg, End flanges= 0, Flex= Auto, SIFI= 1.52,
SIFO= 1.52

POINT DATA:

018, Coordinates, X= -844.20 mm, Y= -1594.64 mm, Z= 17860.00 mm
018 N, Coordinates, X= -874.00 mm, Y= -1561.08 mm, Z= 17860.00 mm
018 F, Coordinates, X= -875.94 mm, Y= -1626.38 mm, Z= 17860.00 mm

From 019 to 006, DX= 332.17 mm, DY= -374.05 mm, L= 500.25 mm Bend

COMPONENT DATA (Bend, TIP= 019, Near= 019 N, Far= 019 F):
Long Elbow, Radius= 47.62 mm, Bend angle= 86.61 deg, End flanges= 0, Flex= Auto, SIFI= 1.52,
SIFO= 1.52

POINT DATA:

019, Coordinates, X= -1344.20 mm, Y= -2094.64 mm, Z= 17860.00 mm
019 N, Coordinates, X= -1312.46 mm, Y= -2062.90 mm, Z= 17860.00 mm
019 F, Coordinates, X= -1314.40 mm, Y= -2128.20 mm, Z= 17860.00 mm

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C O M P O N E N T D A T A L I S T I N G

From 006 to 012, DX= 59.08 mm, DY= -66.56 mm, L= 89.00 mm ReduCOMPONENT DATA (Reducer):
Length= 89.00 mm, SIF= 2.00POINT DATA:
006, Coordinates, X= -1012.03 mm, Y= -2468.69 mm, Z= 17860.00 mm-----
From 012 to 008, DX= 124.16 mm, DY= -139.88 mm, L= 187.03 mm RunPIPE DATA:
Pipe Id= 2.5S40, Composition= Austentic Stainless, Nom Size= 65 mm, OD= 73.025 mm, Wall Thk= 5.156 mm, Mill= 0.645 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 30.28 N/m, Insul Thk= 80.000 mm, Insul Density= 136.16 kg/m3,
Insul Unit Wgt= 51.35 N/mPOINT DATA:
012, Coordinates, X= -952.95 mm, Y= -2535.25 mm, Z= 17860.00 mm-----
From 008 to 009, DX= -147.67 mm, DY= -155.76 mm, L= 214.63 mm BendCOMPONENT DATA (Bend, TIP= 008, Near= 008 N, Far= 008 F):
Elbow, Radius= 95.20 mm, Bend angle= 85.07 deg, End flanges= 0, Flex= Auto, SIFI= 1.59, SIF0= 1.59POINT DATA:
008, Coordinates, X= -828.79 mm, Y= -2675.13 mm, Z= 17860.00 mm
008 N, Coordinates, X= -886.77 mm, Y= -2609.81 mm, Z= 17860.00 mm
008 F, Coordinates, X= -888.88 mm, Y= -2738.51 mm, Z= 17860.00 mm
009, Coordinates, X= -976.46 mm, Y= -2830.89 mm, Z= 17860.00 mm
009, Flange= SLIP-ON, Rating= 300, Flange Weight= 4.50 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= NoSUPPORT DATA:
009, Anchor, Tag No.= EBTSPPLIT, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid-----
*** SEGMENT P-----
From P14 to P13, DX= 228.17 mm, DY= -29.64 mm, L= 230.09 mm RunPIPE DATA:
Pipe Id= 4S40, Composition= Austentic Stainless, Nom Size= 100 mm, OD= 114.30 mm, Wall Thk= 6.020 mm, Mill= 0.752 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 80.51 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 65.20 N/mOPERATING DATA:
T2= 198.00 deg C, T3= 198.00 deg C, T4= 20.00 deg C, Exp2= 2.94948 mm/m, Exp3= 2.94948 mm/m,
Exp4= 0 mm/m,
E2= 0.18487 E6 N/mm2, E3= 0.18487 E6 N/mm2, E4= 0.19996 E6 N/mm2, Rp0.2t2= 127.52 N/mm2, Rp0.2t3= 127.52 N/mm2,
Rp0.2t4= 195.00 N/mm2, Rp1.0t2= 155.60 N/mm2, Rp1.0t3= 155.60 N/mm2, Rp1.0t4= 230.00 N/mm2, fh2= 103.73 N/mm2,
fh3= 103.73 N/mm2, fh4= 153.33 N/mm2POINT DATA:
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C O M P O N E N T D A T A L I S T I N G

P14, Coordinates, X= -3388.44 mm, Y= -1854.86 mm, Z= 8489.00 mm
P14, Flange= SLIP-ON, Rating= 300, Flange Weight= 10.00 kg, Bolt/Nut Weight= 0.00 kg, End type=
Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No

SUPPORT DATA:

P14, Anchor, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

From P13 to P12, DX= 129.40 mm Bend

COMPONENT DATA (Bend, TIP= P13, Near= P13 N, Far= P13 F):
Long Elbow, Radius= 152.40 mm, Bend angle= 7.40 deg, End flanges= 0, Flex= Auto, SIFI= 1.95,
SIFO= 1.95

POINT DATA:

P13, Coordinates, X= -3160.27 mm, Y= -1884.50 mm, Z= 8489.00 mm
P13 N, Coordinates, X= -3170.05 mm, Y= -1883.23 mm, Z= 8489.00 mm
P13 F, Coordinates, X= -3150.41 mm, Y= -1884.50 mm, Z= 8489.00 mm

From P12 to P16, DX= 101.60 mm Redu

COMPONENT DATA (Reducer):
Length= 101.60 mm, SIF= 2.00

POINT DATA:

P12, Coordinates, X= -3030.87 mm, Y= -1884.50 mm, Z= 8489.00 mm

From P16 to P11, DX= 273.71 mm Run

PIPE DATA:

Pipe Id= 2.5S40, Composition= Austentic Stainless, Nom Size= 65 mm, OD= 73.025 mm, Wall Thk=
5.156 mm, Mill= 0.645 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 30.28 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt=
51.35 N/m

POINT DATA:

P16, Coordinates, X= -2929.27 mm, Y= -1884.50 mm, Z= 8489.00 mm

From P11 to P15, DX= -25.57 mm, DY= 786.18 mm, L= 786.60 mm Bend

COMPONENT DATA (Bend, TIP= P11, Near= P11 N, Far= P11 F):
Long Elbow, Radius= 95.25 mm, Bend angle= 91.86 deg, End flanges= 0, Flex= Auto, SIFI= 1.59,
SIFO= 1.59

POINT DATA:

P11, Coordinates, X= -2655.56 mm, Y= -1884.50 mm, Z= 8489.00 mm
P11 N, Coordinates, X= -2753.96 mm, Y= -1884.50 mm, Z= 8489.00 mm
P11 F, Coordinates, X= -2658.76 mm, Y= -1786.15 mm, Z= 8489.00 mm

From P15 to P09, DX= 285.47 mm, DY= 102.88 mm, L= 303.44 mm Bend

COMPONENT DATA (Bend, TIP= P15, Near= P15 N, Mid= P15 M, Far= P15 F):
Long Elbow, Radius= 95.25 mm, Bend angle= 72.04 deg, Mid point at 50.00 percent, End flanges= 0,
Flex= Auto, SIFI= 1.59,
SIFO= 1.59

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POINT DATA:

P15, Coordinates, X= -2681.13 mm, Y= -1098.32 mm, Z= 8489.00 mm
P15 N, Coordinates, X= -2678.88 mm, Y= -1167.54 mm, Z= 8489.00 mm
P15 M, Coordinates, X= -2662.50 mm, Y= -1110.96 mm, Z= 8489.00 mm
P15 F, Coordinates, X= -2615.97 mm, Y= -1074.84 mm, Z= 8489.00 mm

From P09 to P08, DX= 350.00 mm, DY= -606.22 mm, L= 700.00 mm Bend

COMPONENT DATA (Bend, TIP= P09, Near= P09 N, Far= P09 F):

Long Elbow, Radius= 95.25 mm, Bend angle= 79.82 deg, End flanges= 0, Flex= Auto, SIFI= 1.59,
SIFO= 1.59

POINT DATA:

P09, Coordinates, X= -2395.66 mm, Y= -995.44 mm, Z= 8489.00 mm
P09 N, Coordinates, X= -2470.61 mm, Y= -1022.45 mm, Z= 8489.00 mm
P09 F, Coordinates, X= -2355.83 mm, Y= -1064.43 mm, Z= 8489.00 mm

From P08 to P01, DX= 70.71 mm, DY= 70.71 mm, DZ= 0 mm, L= 100.00 mm Bend

COMPONENT DATA (Bend, TIP= P08, Near= P08 N, Far= P08 F):

Short Elbow, Radius= 63.50 mm, Bend angle= 105.00 deg, End flanges= 0, Flex= Auto, SIFI= 2.08,
SIFO= 2.08

POINT DATA:

P08, Coordinates, X= -2045.66 mm, Y= -1601.66 mm, Z= 8489.00 mm
P08 N, Coordinates, X= -2087.04 mm, Y= -1529.99 mm, Z= 8489.00 mm
P08 F, Coordinates, X= -1987.14 mm, Y= -1543.14 mm, Z= 8489.00 mm

From P01 to P02, DX= 62.93 mm, DY= 62.93 mm, L= 89.00 mm Redu

COMPONENT DATA (Reducer):

Length= 89.00 mm, SIF= 2.00

POINT DATA:

P01, Coordinates, X= -1974.95 mm, Y= -1530.95 mm, Z= 8489.00 mm

From P02 to P03, DX= 36.06 mm, DY= 36.06 mm, L= 51.00 mm Redu

COMPONENT DATA (Reducer):

Length= 51.00 mm, SIF= 2.00

PIPE DATA:

Pipe Id= 1_1/4S40, Composition= Austentic Stainless, Nom Size= 32 mm, OD= 42.164 mm, Wall Thk=
3.556 mm, Mill= 0.444 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 9.46 N/m, Insul Thk= 40.000 mm, Insul Density= 136.16
kg/m3,
Insul Unit Wgt= 13.79 N/m

POINT DATA:

P02, Coordinates, X= -1912.02 mm, Y= -1468.02 mm, Z= 8489.00 mm

From P03 to P04, DX= 51.62 mm, DY= 51.62 mm, L= 73.00 mm Run

PIPE DATA:

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C O M P O N E N T D A T A L I S T I N G

Pipe Id= 1/2POL40, Composition= Austentic Stainless, Nom Size= 15 mm, OD= 21.336 mm, Wall Thk=
2.769 mm, Mill= 0.346 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 1.92 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt=
10.29 N/m,
Long Modulus= 0.19996 E6 N/mm2, Hoop Modulus= 0.19996 E6 N/mm2, Shear Modulus= 0.07691 E6 N/mm2

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POINT DATA:

P03, Coordinates, X= -1875.96 mm, Y= -1431.96 mm, Z= 8489.00 mm

From P04 to P05, DX= 186.68 mm, DY= 186.68 mm, L= 264.01 mm

COMPONENT DATA (Valve):

GATE-F, Rating= Non-standard, Length= 264.01 mm, Valve weight = 12 kg, Actuator Auto = No,
Actuator Symbol = No,
Actuator weight = 19 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 313.50 mm, Surface factor=
1.00, End type= Weld neck,
SIF= 1.00

PIPE DATA:

Pipe Id= 1/2POL80, Composition= Austentic Stainless, Sch= 80, Wall Thk= 3.734 mm, Mill= 0.467 mm, Content Sp Gr= 1.000, Content Unit Wgt= 1.48 N/m, Insul Thk= 50.000 mm, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 14.96 N/m, Long Modulus= 0.19996 E6 N/mm2, Hoop Modulus= 0.19996 E6 N/mm2, Shear Modulus= 0.07691 E6 N/mm2

OPERATING DATA (P04 M to P05):

P1= 17.2500 N/mm2, P2= 17.2500 N/mm2, P3= 17.2500 N/mm2, P4= 17.2500 N/mm2, T1= 354.00 deg C, T2= 354.00 deg C, T3= 354.00 deg C, T4= 354.00 deg C, Exp1= 5.85176 mm/m, Exp2= 5.85176 mm/m, Exp3= 5.85176 mm/m, Exp4= 5.85176 mm/m, E1= 0.17164 E6 N/mm2, E2= 0.17164 E6 N/mm2, E3= 0.17164 E6 N/mm2, E4= 0.17164 E6 N/mm2, Rp0.2t1= 103.52 N/mm2, Rp0.2t2= 103.52 N/mm2, Rp0.2t3= 103.52 N/mm2, Rp0.2t4= 103.52 N/mm2, Rp1.0t1= 128.68 N/mm2, Rp1.0t2= 128.68 N/mm2, Rp1.0t3= 128.68 N/mm2, Rp1.0t4= 128.68 N/mm2, fh1= 85.79 N/mm2, fh2= 85.79 N/mm2, fh3= 85.79 N/mm2, fh4= 85.79 N/mm2

POINT DATA:

P04, Coordinates, X= -1824.34 mm, Y= -1380.34 mm, Z= 8489.00 mm
P04, Flange= WELDNECK, Rating= 2500, Flange Weight= 3.60 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= No
P04 M, Coordinates, X= -1731.00 mm, Y= -1287.00 mm, Z= 8489.00 mm

SUPPORT DATA:

P04 M, Guide, Support Id= P04 M1, Connected to Ground, Stiffness= RIGID, Gap-Down= 0.00 mm, Gap-Above= 100.00 mm, Gap-Left= 0.00 mm, Gap-Right= 0.00 mm, Friction= 0.00, Gaps setting= Weightless

From P05 to P06, DX= 123.82 mm, DY= 123.82 mm, L= 175.10 mm Run

POINT DATA:

P05, Coordinates, X= -1637.66 mm, Y= -1193.66 mm, Z= 8489.00 mm
P05, Flange= WELDNECK, Rating= 2500, Flange Weight= 3.60 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= No

From P06 to P07, DX= 122.19 mm, DY= 122.19 mm, L= 172.80 mm Run

POINT DATA:

P06, Coordinates, X=-1513.84 mm, Y= -1069.84 mm, Z= 8489.00 mm
P06, Flange= BLIND, Rating= 2500, Flange Weight= 3.20 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on, SIF= 1.20,
Perform ANSI check= No
P06, Flange= BLIND, Rating= 2500, Flange Weight= 3.20 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on, SIF= 1.20,
Perform ANSI check= No

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COMPONENT DATA LISTING

From P07 to E01, DX= 70.71 mm, DY= 70.71 mm, L= 100.00 mm

Run

POINT DATA:

P07, Coordinates, X= -1391.65 mm, Y= -947.65 mm, Z= 8489.00 mm
 P07, Flange= BLIND, Rating= 2500, Flange Weight= 3.20 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on, SIF= 1.20,
 Perform ANSI check= No
 P07, Flange= BLIND, Rating= 2500, Flange Weight= 3.20 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on, SIF= 1.20,
 Perform ANSI check= No
 E01, Coordinates, X= -1320.94 mm, Y= -876.94 mm, Z= 8489.00 mm

Number of points in the system: 326

Weight of Empty Pipes + Weight of Contents = Total Weight of System
 1387.4 kg + 170.5 kg = 1557.9 kg

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C O O R D I N A T E S D A T A L I S T I N G

POINT -----COORDINATE (mm)-----

NAME X Y Z

*** SEGMENT A

A00	531.40	0.00	2357.00
A30	617.13	0.00	2357.00
A01	655.23	0.00	2357.00
A02 N	1136.23	0.00	2357.00
A02	1155.23	0.00	2357.00
A02 F	1155.23	0.00	2376.00
A03 N	1155.23	0.00	2738.00
A03	1155.23	0.00	2757.00
A03 F	1174.23	0.00	2757.00
A04 N	1818.15	0.00	2757.00
A04	1837.15	0.00	2757.00
A04 F	1837.15	0.00	2776.00
A05 N	1837.15	0.00	3738.00
A05	1837.15	0.00	3757.00
A05 F	1818.15	0.00	3757.00
A06 N	1356.15	0.00	3757.00
A06	1337.15	0.00	3757.00
A06 F	1337.15	0.00	3776.00
A50	1337.15	0.00	4257.00
A07	1337.16	0.00	7557.00
A08	1337.16	0.00	8489.00
A09 N	1337.16	-831.00	8489.00
A09	1337.16	-850.00	8489.00
A09 M	1331.60	-844.44	8489.00
A09 F	1318.16	-850.00	8489.00
A10	-374.00	-850.00	8489.00
A11	-702.00	-850.00	8489.00
A11 M	-834.00	-850.00	8489.00
A47	-966.00	-850.00	8489.00
A13	-1294.00	-850.00	8489.00
C041	-1494.00	-850.00	8489.00
A32	-1820.00	-850.00	8489.00
A16 N	-1851.00	-850.00	8489.00
A16	-1870.00	-850.00	8489.00
A16 F	-1870.00	-850.00	8470.00
A17 N	-1870.00	-850.00	8208.00
A17	-1870.00	-850.00	8189.00
A17 F	-1889.00	-850.00	8189.00
A55	-1989.00	-850.00	8189.00
A18 N	-2089.00	-850.00	8189.00
A18	-2108.00	-850.00	8189.00

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A18 F	-2108.00	-850.00	8208.00
A56	-2108.00	-850.00	8339.00
A19 N	-2108.00	-850.00	8470.00
A19	-2108.00	-850.00	8489.00
A19 F	-2108.00	-831.00	8489.00
A20	-2108.00	-579.90	8489.00
A20 M	-2108.00	-524.90	8489.00
CH02	-2108.00	-469.90	8489.00
A70	-2108.00	-239.90	8489.00
A22 N	-2108.00	-109.00	8489.00

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C O O R D I N A T E S D A T A L I S T I N G

POINT -----COORDINATE (mm)-----

NAME X Y Z

A22	-2108.00	-90.00	8489.00
A22 F	-2127.00	-90.00	8489.00
A24	-2165.50	-90.00	8489.00
A26	-3216.30	-90.00	8489.00
A28	-4468.50	-90.00	8489.00
A29 N	-4624.50	-90.00	8489.00
A29	-4643.50	-90.00	8489.00
A29 F	-4643.50	-90.00	8470.63
A46	-4643.50	-90.00	8470.00
A45	-4643.50	-90.00	8431.90
A68	-4643.50	-90.00	7681.90
A35 N	-4643.50	-90.00	7048.00
A35	-4643.50	-90.00	7029.00
A35 F	-4643.50	-109.00	7029.00
A54	-4643.50	-390.00	7029.00
A69	-4643.50	-790.00	7029.00
A36 N	-4643.50	-1581.13	7029.00
A36	-4643.50	-1589.00	7029.00
A36 M	-4644.95	-1588.40	7029.00
A36 F	-4649.07	-1594.57	7029.00
A37 N	-4967.44	-1912.94	7029.00
A37	-4973.00	-1918.50	7029.00
A37 F	-4973.00	-1926.37	7029.00
A38	-4973.00	-2258.00	7029.00
A38 M	-4973.00	-2310.50	7029.00
CH06	-4973.00	-2363.00	7029.00
OR10	-4973.00	-2498.00	7029.00
A39	-4973.00	-2898.00	7029.00
A39 M	-4973.00	-2968.00	7029.00
IV08	-4973.00	-3038.00	7029.00
A40 N	-4973.00	-4519.00	7029.00
A40	-4973.00	-4538.00	7029.00
A40 F	-4973.00	-4538.00	7010.00
A75	-4973.00	-4538.00	5529.00
A41 N	-4973.00	-4538.00	34.00
A41	-4973.00	-4538.00	15.00
A41 F	-4954.00	-4538.00	15.00
A73	-4898.00	-4538.00	15.00
A42	-4823.00	-4538.00	15.00
A72	-4772.00	-4538.00	15.00
A44	-4620.00	-4538.00	15.00

*** SEGMENT B

A07	1337.16	0.00	7557.00
B01	1311.76	0.00	7557.00
B02	764.70	0.00	7557.00
B03	726.60	0.00	7557.00
B04	639.63	0.00	7557.00

*** SEGMENT C

A08	1337.16	0.00	8489.00
C01	1337.16	0.00	8514.40

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C O O R D I N A T E S D A T A L I S T I N G

POINT -----COORDINATE (mm)-----

NAME X Y Z

C02 N	1337.16	0.00	9418.00
C02	1337.16	0.00	9437.00
C02 M	1331.60	0.00	9431.43
C02 F	1318.16	0.00	9437.00
C06	1287.16	0.00	9437.00
C03	653.98	0.00	9437.00
C04	615.88	0.00	9437.00
C05	528.91	0.00	9437.00

*** SEGMENT D

A10	-374.00	-850.00	8489.00
D01	-400.95	-876.95	8489.00

*** SEGMENT E

A13	-1294.00	-850.00	8489.00
E01	-1320.94	-876.94	8489.00

*** SEGMENT F

A32	-1820.00	-850.00	8489.00
F01	-1820.00	-828.23	8502.08
F02 N	-1820.00	-116.36	8922.34
F02	-1820.00	-100.00	8932.00
F02 M	-1825.57	-104.79	8929.17
F02 F	-1839.00	-100.00	8932.00
F03	-2614.00	-100.00	8932.00
F03 M	-2669.00	-100.00	8932.00
CH04	-2724.00	-100.00	8932.00
C016	-2924.00	-100.00	8932.00
F12	-3358.00	-100.00	8932.00
F12 M	-3490.00	-100.00	8932.00
F04	-3622.00	-100.00	8932.00
F05 N	-3776.00	-100.00	8932.00
F05	-3795.00	-100.00	8932.00
F05 M	-3789.43	-103.93	8935.93
F05 F	-3795.00	-113.44	8945.44
F06 N	-3795.00	-899.43	9731.44
F06	-3795.00	-905.00	9737.00
F06 F	-3795.00	-905.00	9744.87
F16	-3795.00	-905.00	11037.00
F07	-3795.00	-905.00	12540.00
F46	-3795.00	-905.00	12578.00
F45	-3795.00	-905.00	12578.00
F09	-3795.00	-905.00	12629.00
F10	-3795.00	-905.00	12732.00

*** SEGMENT G

A24	-2165.50	-90.00	8489.00
G01	-2165.50	-110.55	8504.00
G20	-2165.50	-271.09	8620.50
G02 N	-2165.50	-426.65	8733.38
G02	-2165.50	-431.64	8737.00
G02 F	-2165.50	-437.81	8737.00

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DVI_B_LINE_REV0.OUT

C O O R D I N A T E S D A T A L I S T I N G

POINT -----COORDINATE (mm)-----

NAME X Y Z

G15	-2165.50	-681.64	8737.00
G19	-2165.50	-1403.67	8737.00
G03	-2165.50	-2325.69	8737.00
G03 M	-2165.50	-2378.19	8737.00
CH13	-2165.50	-2430.69	8737.00
C021	-2165.50	-2928.10	8737.00
G10	-2165.50	-3425.50	8737.00
G10 M	-2165.50	-3495.50	8737.00
IV04	-2165.50	-3565.50	8737.00
G05 N	-2165.50	-4546.50	8737.00
G05	-2165.50	-4565.50	8737.00
G05 M	-2171.06	-4559.94	8737.00
G05 F	-2184.50	-4565.50	8737.00
G06 N	-4043.50	-4565.50	8737.00
G06	-4062.50	-4565.50	8737.00
G06 M	-4056.93	-4565.50	8742.56
G06 F	-4062.50	-4565.50	8756.00
G14	-4062.50	-4565.50	8837.00
G16	-4062.50	-4565.50	9237.00
G09	-4062.50	-4565.50	9886.00
G07	-4062.50	-4565.50	9937.00
G08	-4062.50	-4565.50	10214.79

*** SEGMENT H

A26	-3216.30	-90.00	8489.00
H02	-3216.30	-90.00	8565.40
H02 M	-3216.30	-90.00	8731.90
SV12	-3216.30	-90.00	8898.40

*** SEGMENT I

A28	-4468.50	-90.00	8489.00
I01	-4468.50	-90.00	8463.60
I02 N	-4468.50	-90.00	8253.29
I02	-4468.50	-90.00	8239.00
I02 F	-4468.50	-104.29	8239.00
I11	-4468.50	-200.00	8239.00
I11 M	-4468.50	-252.50	8239.00
CH15	-4468.50	-305.00	8239.00
C031	-4468.50	-452.00	8239.00
I05	-4468.50	-700.00	8239.00
I05 M	-4468.50	-770.00	8239.00
I12	-4468.50	-840.00	8239.00
I07	-4468.50	-940.00	8239.00
I14	-4468.50	-991.00	8239.00
I09 N	-4468.50	-1050.96	8239.00
I09	-4468.50	-1063.74	8239.00
I09 F	-4462.10	-1074.80	8239.00
I10	-4402.54	-1177.78	8239.00

*** SEGMENT J

D01	-400.95	-876.95	8489.00
J11	-507.02	-983.02	8489.00

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C O O R D I N A T E S D A T A L I S T I N G

POINT -----COORDINATE (mm)-----

NAME X Y Z

J12	-629.21	-1105.21	8489.00

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J01	-758.61	-1234.61	8489.00
J01 M	-851.95	-1327.95	8489.00
IV10	-945.29	-1421.29	8489.00
J03	-1258.80	-1733.98	8489.00
J13	-1357.80	-1832.97	8489.00
J06 N	-2181.36	-2656.54	8489.00
J06	-2209.26	-2684.43	8489.00
J06 F	-2248.71	-2684.43	8489.00
J07 N	-3504.84	-2684.43	8489.00
J07	-3533.71	-2684.43	8489.00
J07 F	-3548.14	-2659.44	8489.00
J08	-3558.71	-2641.13	8489.00
J09	-3609.51	-2553.14	8489.00
J10	-3723.01	-2356.55	8489.00

*** SEGMENT M

F10	-3795.00	-905.00	12732.00
M06	-3795.00	-905.00	12907.00
M01	-3795.00	-905.00	15117.00
M02	-3795.00	-905.00	16097.00
M03	-3795.00	-905.00	16272.00
M04	-3795.00	-905.00	16375.00
M05	-3795.00	-905.00	16430.00
M24	-3795.00	-905.00	17630.00
M07 N	-3795.00	-905.00	17831.40
M07	-3795.00	-905.00	17860.00
M07 F	-3766.40	-905.00	17860.00
M31	-3195.00	-905.00	17860.00
M08 N	-2903.02	-905.00	17860.00
M08	-2889.00	-905.00	17860.00
M08 F	-2880.41	-893.92	17860.00
M30	-2766.51	-746.90	17860.00
M09 N	-2553.59	-472.08	17860.00
M09	-2545.00	-461.00	17860.00
M09 F	-2530.98	-461.00	17860.00
M10	-2386.00	-461.00	17860.00
M11	-2234.15	-461.00	17860.00
M11 M	-2098.15	-461.00	17860.00
M17	-1962.15	-461.00	17860.00
M13	-1809.00	-461.00	17860.00
M22 N	-1447.10	-461.00	17860.00
M22	-1409.00	-461.00	17860.00
M22 F	-1409.00	-422.90	17860.00
M23 N	-1409.00	200.90	17860.00
M23	-1409.00	239.00	17860.00
M23 F	-1370.90	239.00	17860.00
M21 N	-842.27	239.00	17860.00
M21	-809.00	239.00	17860.00
M21 F	-804.52	206.03	17860.00
M20 N	-705.88	-519.38	17860.00
M20	-695.53	-595.53	17860.00

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C O O R D I N A T E S D A T A L I S T I N G

POINT -----COORDINATE (mm)-----

NAME X Y Z

M20 F	-641.19	-541.19	17860.00
M26	-445.53	-345.53	17860.00
M27	-409.47	-309.47	17860.00
M28	-336.50	-236.50	17860.00

*** SEGMENT N

M10	-2386.00	-461.00	17860.00
N14	-2386.00	-612.00	17860.00
N12	-2386.00	-711.10	17860.00
N13	-2386.00	-810.20	17860.00
N01	-2386.00	-1106.20	17860.00
N01 M	-2386.00	-1242.20	17860.00

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N09	-2386.00	-1378.20	17860.00
N03	-2386.00	-1684.51	17860.00
N10	-2386.00	-1735.51	17860.00
N15 N	-2386.00	-1787.89	17860.00
N15	-2386.00	-1835.51	17860.00
N15 F	-2433.62	-1835.51	17860.00
N16 N	-2927.26	-1835.51	17860.00
N16	-2986.00	-1835.51	17860.00
N16 F	-2973.85	-1892.98	17860.00
N19	-2936.00	-2072.11	17860.00
N18 N	-2893.98	-2270.93	17860.00
N18	-2886.00	-2308.71	17860.00
N18 F	-2847.39	-2308.71	17860.00
N17 N	-2313.50	-2308.71	17860.00
N17	-2286.00	-2308.71	17860.00
N17 F	-2272.25	-2332.52	17860.00
N06	-2186.00	-2481.92	17860.00
N20	-2141.50	-2559.00	17860.00
N08	-1981.36	-2836.36	17860.00

*** SEGMENT O

M13	-1809.00	-461.00	17860.00
O15	-1809.00	-612.65	17860.00
O13	-1809.00	-711.75	17860.00
O14	-1809.00	-810.85	17860.00
O01	-1809.00	-1011.57	17860.00
O01 M	-1809.00	-1147.57	17860.00
O10	-1809.00	-1283.57	17860.00
O03	-1809.00	-1362.97	17860.00
O11	-1809.00	-1413.97	17860.00
O05 N	-1809.00	-1553.13	17860.00
O05	-1809.00	-1571.22	17860.00
O05 F	-1796.99	-1584.75	17860.00
O16 N	-1709.75	-1682.98	17860.00
O16	-1676.20	-1720.77	17860.00
O16 F	-1640.47	-1685.04	17860.00
O17 N	-1211.93	-1256.50	17860.00
O17	-1176.20	-1220.77	17860.00
O17 F	-1142.65	-1258.56	17860.00
O18 N	-874.00	-1561.08	17860.00

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C O O R D I N A T E S D A T A L I S T I N G

POINT -----COORDINATE (mm)-----

NAME X Y Z

O18	-844.20	-1594.64	17860.00
O18 F	-875.94	-1626.38	17860.00
O19 N	-1312.46	-2062.90	17860.00
O19	-1344.20	-2094.64	17860.00
O19 F	-1314.40	-2128.20	17860.00
O06	-1012.03	-2468.69	17860.00
O12	-952.95	-2535.25	17860.00
O08 N	-886.77	-2609.81	17860.00
O08	-828.79	-2675.13	17860.00
O08 F	-888.88	-2738.51	17860.00
O09	-976.46	-2830.89	17860.00

*** SEGMENT P

P14	-3388.44	-1854.86	8489.00
P13 N	-3170.05	-1883.23	8489.00
P13	-3160.27	-1884.50	8489.00
P13 F	-3150.41	-1884.50	8489.00
P12	-3030.87	-1884.50	8489.00
P16	-2929.27	-1884.50	8489.00
P11 N	-2753.96	-1884.50	8489.00
P11	-2655.56	-1884.50	8489.00
P11 F	-2658.76	-1786.15	8489.00
P15 N	-2678.88	-1167.54	8489.00

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P15	-2681.13	-1098.32	8489.00
P15 M	-2662.50	-1110.96	8489.00
P15 F	-2615.97	-1074.84	8489.00
P09 N	-2470.61	-1022.45	8489.00
P09	-2395.66	-995.44	8489.00
P09 F	-2355.83	-1064.43	8489.00
P08 N	-2087.04	-1529.99	8489.00
P08	-2045.66	-1601.66	8489.00
P08 F	-1987.14	-1543.14	8489.00
P01	-1974.95	-1530.95	8489.00
P02	-1912.02	-1468.02	8489.00
P03	-1875.96	-1431.96	8489.00
P04	-1824.34	-1380.34	8489.00
P04 M	-1731.00	-1287.00	8489.00
P05	-1637.66	-1193.66	8489.00
P06	-1513.84	-1069.84	8489.00
P07	-1391.65	-947.65	8489.00
E01	-1320.94	-876.94	8489.00

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P I P E D A T A L I S T I N G

Pipe ID/ Material	Nom/ O.D. Sch mm	-----Thickness(mm)----- W.Th. Corr Mill Insu Ling	Spec Grav	Weight(N/m) Pipe Other Total	ZL/ ZC	Composition
1/2POL40 Stainless 1.4301	15 21.336 40	2.769 0 0.35 40 0	1.00	12.56 10.29 24.77	1.00	Austentic
1/2POL80 Stainless 1.4301	15 21.336 80	3.734 0 0.47 50 0	1.00	16.06 14.96 32.50	1.00	Austentic
3/4POL80 Stainless 1.4301	20 26.670 80	3.912 0 0.49 50 0	1.00	21.75 16.08 40.56	1.00	Austentic
3/8POL80 Stainless 1.4301	10 17.145 80	3.200 0 0.40 50 0	1.00	10.90 14.08 25.87	1.00	Austentic
3/8POL40 Stainless 1.4301	10 17.145 40	2.311 0 0.29 40 0	1.00	8.38 9.59 19.17	1.00	Austentic
1_1/4S80 Stainless 1.4301	32 42.164 80	4.851 0 0.61 50 0	1.00	44.22 19.33 71.67	1.00	Austentic
1_1/4S40 Stainless 1.4301	32 42.164 40	3.556 0 0.44 40 0	1.00	33.54 13.79 56.79	1.00	Austentic
200EBT Stainless 1.4301	7112 280.00 NS	25.00 0 3.12 100 0	1.00	1557 159 2124	1.00	Austentic
4S40 Stainless 1.4301	100 114.30 40	6.020 0 0.75 80 0	1.00	159 65.20 305	1.00	Austentic
2.5S40 Stainless 1.4301	65 73.025 40	5.156 0 0.64 80 0	1.00	85.50 51.35 167	1.00	Austentic
1/2S40 Stainless 1.4301	15 21.336 40	2.769 0 0.35 40 0	1.00	12.56 10.29 24.77	1.00	Austentic
1/2S80	15 21.336	3.734 0 0.47 50 0	1.00	16.06 14.96 32.50	1.00	Austentic

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Stainless 1.4301 80 1.00
 3/4S40 20 26.670 2.870 0 0.36 50 0 1.00 16.69 16.08 36.14 1.00 Austentic
 Stainless 1.4301 40 1.00

□

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M A T E R I A L D A T A L I S T I N G

Material	Density	Pois.	Temper.	Modulus E6	N/mm2	Expans.	Composition
Name/[Comp.] Pipe ID	kg/m3	Al/At	deg C	Axial	Hoop	Shear	mm/m
1.4301 3/4POL80	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless
X5CRNI18-10 [Austenitic]		40.00 35.00	354.0 198.0	0.17164 0.18487			5.8518 2.9495
1.4301 1/2POL80	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless
X5CRNI18-10 [Austenitic]		40.00 35.00	354.0 198.0	0.17164 0.18487			5.8518 2.9495
1.4301 1/2POL40	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless
X5CRNI18-10 [Austenitic]		40.00 35.00	354.0 198.0	0.17164 0.18487			5.8518 2.9495
1.4301 3/8POL40	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless
X5CRNI18-10 [Austenitic]		40.00 35.00	354.0 198.0	0.17164 0.18487			5.8518 2.9495
1.4301 1_1/4S40	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless
X5CRNI18-10 [Austenitic]		40.00 35.00	354.0 198.0	0.17164 0.18487			5.8518 2.9495
1.4301 3/8POL80	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless
X5CRNI18-10 [Austenitic]		40.00 35.00	354.0 198.0	0.17164 0.18487			5.8518 2.9495
1.4301 1_1/4S80	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless
X5CRNI18-10 [Austenitic]		40.00 35.00	354.0 198.0	0.17164 0.18487			5.8518 2.9495
1.4301 2.5S40	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless
X5CRNI18-10 [Austenitic]		40.00 35.00	354.0 198.0	0.17164 0.18487			5.8518 2.9495
1.4301 4S40	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless
X5CRNI18-10 [Austenitic]		40.00 35.00	354.0 198.0	0.17164 0.18487			5.8518 2.9495
1.4301 200EBT	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless
X5CRNI18-10 [Austenitic]		40.00 35.00	354.0 198.0	0.17164 0.18487			5.8518 2.9495
1.4301 3/4S40	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless
X5CRNI18-10 [Austenitic]		40.00 35.00	354.0 198.0	0.17164 0.18487			5.8518 2.9495

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M A T E R I A L A L L O W A B L E D A T A L I S T I N G

Material		Temper.	Proof (Rp0.2)	Proof (Rp1.0)	Tensile (Rmt)	Rupture (fcr)	Allow. (fh)
Name	Pipe ID	deg C	N/mm2	N/mm2	N/mm2	N/mm2	N/mm2
X5CRNI18-10 1.4301	3/4POL80	20.0 354.0 198.0 20.0	195.00 103.52 127.52 195.00	230.00 128.68 155.60 230.00	500.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	166.67 85.79 103.73 153.33
X5CRNI18-10 1.4301	1/2POL80	20.0 354.0 198.0 20.0	195.00 103.52 127.52 195.00	230.00 128.68 155.60 230.00	500.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	166.67 85.79 103.73 153.33
X5CRNI18-10 1.4301	1/2POL40	20.0 20.0 198.0	195.00 195.00 127.52	230.00 230.00 155.60	500.00 0.00 0.00	0.00 0.00 0.00	166.67 153.33 103.73
X5CRNI18-10 1.4301	3/8POL40	20.0 20.0 198.0	195.00 195.00 127.52	230.00 230.00 155.60	500.00 0.00 0.00	0.00 0.00 0.00	166.67 153.33 103.73
X5CRNI18-10 1.4301	1_1/4S40	20.0 20.0 198.0	195.00 195.00 127.52	230.00 230.00 155.60	500.00 0.00 0.00	0.00 0.00 0.00	166.67 153.33 103.73
X5CRNI18-10 1.4301	3/8POL80	20.0 354.0 198.0 20.0	195.00 103.52 127.52 195.00	230.00 128.68 155.60 230.00	500.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	166.67 85.79 103.73 153.33
X5CRNI18-10 1.4301	1_1/4S80	20.0 20.0 354.0 198.0	195.00 195.00 103.52 127.52	230.00 230.00 128.68 155.60	500.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	166.67 153.33 85.79 103.73
X5CRNI18-10 1.4301	2.5S40	20.0 20.0 198.0	195.00 195.00 127.52	230.00 230.00 155.60	500.00 0.00 0.00	0.00 0.00 0.00	166.67 153.33 103.73
X5CRNI18-10 1.4301	4S40	20.0 20.0 198.0	195.00 195.00 127.52	230.00 230.00 155.60	500.00 0.00 0.00	0.00 0.00 0.00	166.67 153.33 103.73
X5CRNI18-10 1.4301	200EBT	20.0 20.0 354.0 198.0	195.00 195.00 103.52 127.52	230.00 230.00 128.68 155.60	500.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	166.67 153.33 85.79 103.73
X5CRNI18-10 1.4301	3/4S40	20.0 20.0 198.0	195.00 195.00 127.52	230.00 230.00 155.60	500.00 0.00 0.00	0.00 0.00 0.00	166.67 153.33 103.73

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FRAME POINT DATA LISTING

POINT -----COORDINATE(mm)----- DATA
 NAME X Y Z TYPE DESCRIPTION

```

J01 M -851.95 -1327.95 8489.00
J01 D -851.95 -1327.95 8802.50
A11 M -834.00 -850.00 8489.00
A11 D -834.00 -850.00 8802.50
P04 M -1731.00 -1287.00 8489.00
P04 D -1731.00 -1287.00 8802.50
O01 M -1809.00 -1147.57 17860.00
O01 D -1809.00 -1147.57 18240.00
M11 M -2098.15 -461.00 17860.00
M11 D -2098.15 -461.00 18240.00
N01 M -2386.00 -1242.20 17860.00
N01 D -2386.00 -1242.20 18240.00
F12 M -3490.00 -100.00 8932.00
F12 D -3490.00 -100.00 9245.50
I05 M -4468.50 -770.00 8239.00
I05 D -4468.50 -770.00 8372.50
A39 M -4973.00 -2968.00 7029.00
A39 D -4973.00 -2968.00 7162.50
G10 M -2165.50 -3495.50 8737.00
G10 D -2165.50 -3495.50 8870.50

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BEAM DATA LISTING

(Length - mm , Rigid End - mm , Beta Angle - deg)

BEAM	POINT	SEC. ID/	BETA	RIGID	RELEASE
ID	NAME	SEC. NAME	LENGTH	ANGLE	END Ax Y-Y Z-Z
J01 M	From J01 M	0	313.50	0.00	0.00 N N N
	To J01 D	RIGID			0.00 N N N
A11 M	From A11 M	0	313.50	0.00	0.00 N N N
	To A11 D	RIGID			0.00 N N N
P04 M	From P04 M	0	313.50	0.00	0.00 N N N
	To P04 D	RIGID			0.00 N N N
O01 M	From O01 M	0	380.00	0.00	0.00 N N N
	To O01 D	RIGID			0.00 N N N
M11 M	From M11 M	0	380.00	0.00	0.00 N N N
	To M11 D	RIGID			0.00 N N N
N01 M	From N01 M	0	380.00	0.00	0.00 N N N
	To N01 D	RIGID			0.00 N N N
F12 M	From F12 M	0	313.50	0.00	0.00 N N N
	To F12 D	RIGID			0.00 N N N
I05 M	From I05 M	0	133.50	0.00	0.00 N N N
	To I05 D	RIGID			0.00 N N N

DVI_B_LINE_REV0.OUT

A39 M	From	A39 M	0	133.50	0.00	0.00	N	N	N
	To	A39 D	RIGID			0.00	N	N	N
G10 M	From	G10 M	0	133.50	0.00	0.00	N	N	N
	To	G10 D	RIGID			0.00	N	N	N

DVI_B_LINE_REV0

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CROSS SECTION LISTING

Section ID/ Section Type	Length(mm)	Area(cm2)	Inertia (mm4)	Depth/OD	Width	Thick	Fthk/spc
ID Shape Name/Matl	CC	Axial	Y-Shear	Z-Shear	Torsion	Y-Y Bend	Z-Z Bend
0 W RIGID RIGID		6.45	6.45	254.00 6.45	254.00 41623140	25.40 41623140	25.40 41623140

DVI_B_LINE_REV0

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BEAM MATERIAL LISTING

MATERIAL ID	Elastic		Density
	modulus	Poissons	
	E6 N/mm2	ratio	kg/m3
RIGID	68.948	0.300	0.00

DVI_B_LINE_REV0

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AutoPIPE Plus 9.2.1 MODEL PAGE 58

OPERATING TEMPERATURE AND PRESSURE DATA

STRESSES IN N/mm2

POINT	PRESS.	TEMPER	EXPAN.	MODULUS	0.2%	1.0%	TENSILE	CREEP
NAME CASE	N/mm2	deg C	mm/m	E6 N/mm	PROOF	PROOF	(Rmt)	(fcr)
----	----	----	----	----	----	----	----	----

*** SEGMENT A

DVI_B_LINE_REV0.OUT									
A00	T1	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T2	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T3	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T4	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T5	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
A16 F	T1	17.2500	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T2	17.2500	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T3	17.2500	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T4	17.2500	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T5	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
CH02	T1	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T2	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T3	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T4	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T5	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
A44	Same as previous point.								
*** SEGMENT B									
A07	T1	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T2	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T3	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T4	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T5	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
B04	Same as previous point.								
*** SEGMENT C									
A08	T1	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T2	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T3	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T4	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T5	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
C05	Same as previous point.								
*** SEGMENT D									
A10	T1	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T2	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T3	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T4	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T5	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
D01	Same as previous point.								
*** SEGMENT E									
A13	T1	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T2	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T3	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T4	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T5	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
E01	Same as previous point.								
*** SEGMENT F									
A32	T1	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T2	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T3	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T4	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u

DVI_B_LINE_REV0

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OPERATING TEMPERATURE AND PRESSURE DATA

STRESSES IN N/mm2

POINT	PRESS.	TEMPER	EXPAN.	MODULUS	0.2%	1.0%	TENSILE	CREEP
NAME	CASE	N/mm2	deg C	mm/m	E6 N/mm	PROOF	PROOF	(Rmt)
								(fcr)
CH04	T5	1.5000	198	2.949	0.18487	127.52	155.60	0.00
	T1	17.2500	20.00	0.000	0.19996	195.00	230.00	0.00
	T2	17.2500	20.00	0.000	0.19996	195.00	230.00	0.00
	T3	17.2500	354	5.852	0.17164	103.52	128.68	0.00
	T4	17.2500	20.00	0.000	0.19996	195.00	230.00	0.00
	T5	1.5000	198	2.949	0.18487	127.52	155.60	0.00
F10	Same as previous point.							

DVI_B_LINE_REV0.OUT

*** SEGMENT G

A24	T1	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T2	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T3	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T4	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T5	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u

G08 Same as previous point.

*** SEGMENT H

A26	T1	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T2	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T3	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T4	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T5	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u

SV12 Same as previous point.

*** SEGMENT I

A28	T1	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T2	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T3	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T4	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T5	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u

I10 Same as previous point.

*** SEGMENT J

D01	T1	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T2	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T3	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T4	17.2500	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T5	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
IV10	T1	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T2	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
	T3	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
	T4	1.5000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T5	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u

J10 Same as previous point.

*** SEGMENT M

F10	T1	17.2500	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T2	17.2500	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T3	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T4	17.2500	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T5	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
M09 N	T1	17.2500	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T2	17.2500	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T3	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T4	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T5	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u

□

DVI_B_LINE_REV0

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OPERATING TEMPERATURE AND PRESSURE DATA

STRESSES IN N/mm2

POINT		PRESS.	TEMPER	EXPAN.	MODULUS	0.2%	1.0%	TENSILE	CREEP
NAME	CASE	N/mm2	deg C	mm/m	E6 N/mm	PROOF	PROOF	(Rmt)	(fcr)
M09 F	T1	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T2	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T3	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T4	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T5	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
M28	Same as previous point.								
***	SEGMENT N								
M10	T1	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T2	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T3	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T4	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u

DVI_B_LINE_REV0.OUT									
	T5	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
N09	T1	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T2	1.5000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T3	1.5000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T4	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
	T5	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
N08	Same as previous point.								
*** SEGMENT O									
M13	T1	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T2	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T3	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T4	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T5	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
O10	T1	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T2	1.5000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T3	1.5000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T4	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
	T5	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
O09	Same as previous point.								
*** SEGMENT P									
P14	T1	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T2	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
	T3	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
	T4	1.5000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T5	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
P04	T1	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T2	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T3	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T4	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T5	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
E01	Same as previous point.								

u User-defined value

* Non-code material for allowable stress;
Non-standard material for expansion and modulus

0

DVI_B_LINE_REV0

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THERMAL ANCHOR MOVEMENTS AND DISPLACEMENTS

POINT		DX	DY	DZ	RX	RY	RZ
NAME	LOAD CASE	(mm)	(mm)	(mm)	(deg)	(deg)	(deg)
A00	Thermal 1	0.00	0.00	-55.91	0.000	0.000	0.000
	Thermal 2	0.00	0.00	-55.91	0.000	0.000	0.000
	Thermal 3	0.00	0.00	-55.91	0.000	0.000	0.000
	Thermal 4	0.00	0.00	-55.91	0.000	0.000	0.000
	Thermal 5	0.00	0.00	-28.72	0.000	0.000	0.000
A44	Thermal 5	0.00	0.00	-8.66	0.000	0.000	0.000
B04	Thermal 1	0.00	0.00	-18.27	0.000	0.000	0.000
	Thermal 2	0.00	0.00	-18.27	0.000	0.000	0.000
	Thermal 3	0.00	0.00	-18.27	0.000	0.000	0.000
	Thermal 4	0.00	0.00	-18.27	0.000	0.000	0.000
	Thermal 5	0.00	0.00	-9.39	0.000	0.000	0.000

DVI_B_LINE_REV0.OUT

C05	Thermal	1	0.00	0.00	-4.67	0.000	0.000	0.000
	Thermal	2	0.00	0.00	-4.67	0.000	0.000	0.000
	Thermal	3	0.00	0.00	-4.67	0.000	0.000	0.000
	Thermal	4	0.00	0.00	-4.67	0.000	0.000	0.000
	Thermal	5	0.00	0.00	-2.40	0.000	0.000	0.000
G08	Thermal	5	0.00	0.00	-8.00	0.000	0.000	0.000
I10	Thermal	5	0.00	0.00	21.89	0.000	0.000	0.000
J10	Thermal	2	0.00	0.00	22.82	0.000	0.000	0.000
	Thermal	3	0.00	0.00	22.82	0.000	0.000	0.000
	Thermal	4	0.00	0.00	22.82	0.000	0.000	0.000
	Thermal	5	0.00	0.00	22.82	0.000	0.000	0.000
M28	Thermal	1	0.00	0.00	56.30	0.000	0.000	0.000
	Thermal	2	0.00	0.00	56.30	0.000	0.000	0.000
	Thermal	3	0.00	0.00	56.30	0.000	0.000	0.000
	Thermal	4	0.00	0.00	56.30	0.000	0.000	0.000
	Thermal	5	0.00	0.00	28.92	0.000	0.000	0.000
N08	Thermal	2	0.00	0.00	29.59	0.000	0.000	0.000
	Thermal	3	0.00	0.00	29.59	0.000	0.000	0.000
	Thermal	4	0.00	0.00	29.59	0.000	0.000	0.000
	Thermal	5	0.00	0.00	29.59	0.000	0.000	0.000
O09	Thermal	2	0.00	0.00	29.59	0.000	0.000	0.000
	Thermal	3	0.00	0.00	29.59	0.000	0.000	0.000
	Thermal	4	0.00	0.00	29.59	0.000	0.000	0.000
	Thermal	5	0.00	0.00	29.59	0.000	0.000	0.000
P14	Thermal	2	0.00	0.00	22.82	0.000	0.000	0.000
	Thermal	3	0.00	0.00	22.82	0.000	0.000	0.000
	Thermal	4	0.00	0.00	22.82	0.000	0.000	0.000
	Thermal	5	0.00	0.00	22.82	0.000	0.000	0.000

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BENTLEY

S U P P O R T D A T A L I S T I N G

Point Name	Support Type	Support ID	Conn.to /Dir	Stiff.	Gap 1 (mm)	Gap 2 (mm)	Fric. Fact.	GapSet /#hgr	Preload (N)	Size	Figure

DVI_B_LINE_REV0.OUT

```

Tag No.: <None>
A50   Guide-V  A50   1   Ground  Rigid      0.0      0.0  0.00
      Guide-H  A50   1   Ground  Rigid      0.0      0.0  0.00
      Gap Dir.: (Gap1_V=-X, Gap2_V=+X, Gap1_H=-Y, Gap2_H=+Y)

Tag No.: <None>
A11 M Guide-V  A11 M1  Ground  Rigid      0.0     100.0  0.00  Weightless
      Guide-H  A11 M1  Ground  Rigid     10.0      10.0  0.00  Weightless

Tag No.: <None>
A20 M Guide-V  A20 M1  Ground  Rigid      0.0     100.0  0.00  Weightless
      Guide-H  A20 M1  Ground  Rigid      0.0       0.0  0.00  Weightless

Tag No.: <None>
A26   Guide-V  A26   1   Ground  Rigid     100.0     100.0  0.00  Weightless
      Guide-H  A26   1   Ground  Rigid      0.0       0.0  0.00  Weightless

Tag No.: <None>
A28   Cons Hgr A28   1   Ground      0.000                                1-Und      71

Tag No.: <None>
A68   Guide-V  A68   1   Ground  Rigid      0.0      0.0  0.00
      Guide-H  A68   1   Ground  Rigid      0.0      0.0  0.00
      Gap Dir.: (Gap1_V=-X, Gap2_V=+X, Gap1_H=-Y, Gap2_H=+Y)

Tag No.: <None>
A69   Guide-V  A69   1   Ground  Rigid      0.0     100.0  0.00  Weightless
      Guide-H  A69   1   Ground  Rigid      0.0       0.0  0.00  Weightless

Tag No.: <None>
A38 M Guide-V  A38 M1  Ground  Rigid      0.0     100.0  0.00  Weightless
      Guide-H  A38 M1  Ground  Rigid      0.0       0.0  0.00  Weightless

Tag No.: <None>
A39 M Guide-V  A39 M1  Ground  Rigid      0.0     100.0  0.00  Weightless
      Guide-H  A39 M1  Ground  Rigid      0.0       0.0  0.00  Weightless

Tag No.: <None>
A75   Guide-V  A75   1   Ground  Rigid      0.0      0.0  0.00
      Guide-H  A75   1   Ground  Rigid      0.0      0.0  0.00
      Gap Dir.: (Gap1_V=-X, Gap2_V=+X, Gap1_H=-Y, Gap2_H=+Y)

Tag No.: <None>
A73   Cons Can A73   1   Ground      0.000                                1-Und      255

Tag No.: <None>
C06   Cons Can C06   1   Ground      0.000                                1-Und      318 0      FIG 82

Tag No.: <None>
F03 M Guide-V  F03 M1  Ground  Rigid      0.0     100.0  0.00  Weightless
      Guide-H  F03 M1  Ground  Rigid      0.0       0.0  0.00  Weightless

```

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S U P P O R T D A T A L I S T I N G

Point	Support	Support	Conn.to	Stiff.	Gap 1	Gap 2	Fric.	GapSet	Preload	Size	Figure
Name	Type	ID	/Dir		(mm)	(mm)	Fact.	/#hgr	(N)		

```

Tag No.: <None>
F12 M Guide-V  F12 M1  Ground  Rigid      0.0     100.0  0.00  Weightless
      Guide-H  F12 M1  Ground  Rigid      0.0       0.0  0.00  Weightless

```

```

Tag No.: <None>
F16   Guide-V  F16   1   Ground  Rigid      0.0      0.0  0.00

```

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Guide-H	F16	1	Ground	Rigid	0.0	0.0	0.00	
Gap Dir.: (Gap1_V=-X, Gap2_V=+X, Gap1_H=-Y, Gap2_H=+Y)								

Tag No.: <None>

G03	M	Guide-V	G03	M1	Ground	Rigid	0.0	100.0	0.00	Weightless
		Guide-H	G03	M1	Ground	Rigid	0.0	0.0	0.00	Weightless

Tag No.: <None>

G10	M	Guide-V	G10	M1	Ground	Rigid	0.0	100.0	0.00	Weightless
		Guide-H	G10	M1	Ground	Rigid	0.0	0.0	0.00	Weightless

Tag No.: <None>

G16		Guide-V	G16	1	Ground	Rigid	0.0	0.0	0.00	
		Guide-H	G16	1	Ground	Rigid	0.0	0.0	0.00	
Gap Dir.: (Gap1_V=-X, Gap2_V=+X, Gap1_H=-Y, Gap2_H=+Y)										

Tag No.: <None>

I11	M	Cons	Can	I11	M1	Ground	0.000		1-Und	81 000	FIG B-268

Tag No.: <None>

I05	M	Cons	Can	I05	M2	Ground	0.000		1-Und	111	

Tag No.: <None>

J01	M	Guide-V	J01	M1	Ground	Rigid	0.0	100.0	0.00	Weightless
		Guide-H	J01	M1	Ground	Rigid	0.0	0.0	0.00	Weightless

Tag No.: <None>

M24		Guide-V	M24	1	Ground	Rigid	100.0	100.0	0.00	Weightless
		Guide-H	M24	1	Ground	Rigid	0.0	0.0	0.00	Weightless
Gap Dir.: (Gap1_V=-X, Gap2_V=+X, Gap1_H=-Y, Gap2_H=+Y)										

Tag No.: <None>

M11	M	Guide-V	M11	M1	Ground	Rigid	0.0	100.0	0.00	Weightless
		Guide-H	M11	M1	Ground	Rigid	0.0	0.0	0.00	Weightless

Tag No.: <None>

N01	M	Guide-V	N01	M1	Ground	Rigid	0.0	100.0	0.00	Weightless
		Guide-H	N01	M1	Ground	Rigid	100.0	100.0	0.00	Weightless

Tag No.: <None>

O01	M	Guide-V	O01	M1	Ground	Rigid	0.0	100.0	0.00	Weightless
		Guide-H	O01	M1	Ground	Rigid	100.0	100.0	0.00	Weightless

Tag No.: <None>

P04	M	Guide-V	P04	M1	Ground	Rigid	0.0	100.0	0.00	Weightless
		Guide-H	P04	M1	Ground	Rigid	0.0	0.0	0.00	Weightless

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S U P P O R T D A T A L I S T I N G

Point	Support	Support	Conn.to	Stiff.	Gap 1	Gap 2	Fric.	GapSet	Preload	Size	Figure
Name	Type	ID	/Dir		(mm)	(mm)	Fact.	/#hgr	(N)		

Spring Manufacturer: Anvil/Grinnell

NOTE 1: No soil supports present in the system.

Gap 1 : V-stop, Guide-V=down, Linestop, Incline, Tie/link=backward, Guide-H=Left

Gap 2 : V-stop, Guide-V=Up , Linestop, Incline, Tie/link=forward , Guide-H=Right

Stiffness units for rotation support: N.m/deg , all others: N/mm

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B E N D D A T A L I S T I N G

Point Pressure Name	Bend Case Type	Radius (mm)	Angle (deg)	OD (mm)	tnom (mm)	Material	Flg/ Cuts	SIF in	SIF out	Analysis Set	Flexibility (K)	
A02	Elbow	19	90.0	21.3	3.7	1.4301	0/0	1.00	1.00	1	1.80	None
A03	Elbow	19	90.0	21.3	3.7	1.4301	0/0	1.00	1.00	1	1.80	None
A04	Elbow	19	90.0	21.3	3.7	1.4301	0/0	1.00	1.00	1	1.80	None
A05	Elbow	19	90.0	21.3	3.7	1.4301	0/0	1.00	1.00	1	1.80	None
A06	Elbow	19	90.0	21.3	3.7	1.4301	0/0	1.00	1.00	1	1.80	None
A09	*Elbow	19	90.0	21.3	3.7	1.4301	0/0	1.00	1.00	1	1.80	None
A16	Elbow	19	90.0	21.3	3.7	1.4301	0/0	1.00	1.00	1	1.80	None
A17	Elbow	19	90.0	21.3	3.7	1.4301	0/0	1.00	1.00	1	1.80	None
A18	Elbow	19	90.0	21.3	3.7	1.4301	0/0	1.00	1.00	1	1.80	None
A19	Elbow	19	90.0	21.3	3.7	1.4301	0/0	1.00	1.00	1	1.80	None
A22	Elbow	19	90.0	21.3	2.8	1.4301	0/0	1.25	1.25	1	2.70	None
A29	Elbow	19	90.0	21.3	2.8	1.4301	0/0	1.25	1.25	1	2.70	None
A35	Elbow	19	90.0	17.1	2.3	1.4301	0/0	1.05	1.05	1	2.07	None
A36	*Elbow	19	45.0	17.1	2.3	1.4301	0/0	1.05	1.05	1	2.07	None
A37	Elbow	19	45.0	17.1	2.3	1.4301	0/0	1.05	1.05	1	2.07	None
A40	Elbow	19	90.0	17.1	2.3	1.4301	0/0	1.05	1.05	1	2.07	None
A41	Elbow	19	90.0	17.1	2.3	1.4301	0/0	1.05	1.05	1	2.07	None
C02	*Elbow	19	90.0	21.3	3.7	1.4301	0/0	1.00	1.00	1	1.80	None
F02	*Elbow	19	90.0	17.1	3.2	1.4301	0/0	1.00	1.00	1	1.32	None
F05	*Elbow	19	90.0	17.1	3.2	1.4301	0/0	1.00	1.00	1	1.32	None
F06	Elbow	19	45.0	17.1	3.2	1.4301	0/0	1.00	1.00	1	1.32	None
G02	Elbow	19	36.0	17.1	2.3	1.4301	0/0	1.05	1.05	1	2.07	None
G05	*Elbow	19	90.0	17.1	2.3	1.4301	0/0	1.05	1.05	1	2.07	None
G06	*Elbow	19	90.0	17.1	2.3	1.4301	0/0	1.05	1.05	1	2.07	None
I02	Elbow	14L	90.0	17.1	2.3	1.4301	0/0	1.26	1.26	1	2.75	None
I09	Elbow	48L	30.0	42.2	3.6	1.4301	0/0	1.52	1.52	1	3.63	None
J06	Elbow	95L	45.0	73.0	5.2	1.4301	0/0	1.59	1.59	1	3.87	None
J07	Elbow	50	60.0	73.0	5.2	1.4301	0/0	2.44	2.44	1	7.37	None
M07	Elbow	29	90.0	26.7	3.9	1.4301	0/0	1.00	1.00	1	1.91	None
M08	Elbow	29	52.2	26.7	3.9	1.4301	0/0	1.00	1.00	1	1.91	None
M09	Elbow	29	52.2	26.7	3.9	1.4301	0/0	1.00	1.00	1	1.91	None
M22	Elbow	38L	90.0	26.7	3.9	1.4301	0/0	1.00	1.00	1	1.43	None
M23	Elbow	38L	90.0	26.7	3.9	1.4301	0/0	1.00	1.00	1	1.43	None
M21	Elbow	38L	82.3	26.7	3.9	1.4301	0/0	1.00	1.00	1	1.43	None
M20	Elbow	38L	127.3	26.7	3.9	1.4301	0/0	1.00	1.00	1	1.43	None
N15	Elbow	48L	90.0	42.2	3.6	1.4301	0/0	1.52	1.52	1	3.63	None

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N16	Elbow	48L	101.9	42.2	3.6	1.4301	0/0	1.52	1.52	1	3.63	None
N18	Elbow	48L	78.1	42.2	3.6	1.4301	0/0	1.52	1.52	1	3.63	None
N17	Elbow	48L	60.0	42.2	3.6	1.4301	0/0	1.52	1.52	1	3.63	None
005	Elbow	48L	41.6	42.2	3.6	1.4301	0/0	1.52	1.52	1	3.63	None
016	Elbow	48L	93.4	42.2	3.6	1.4301	0/0	1.52	1.52	1	3.63	None
017	Elbow	48L	93.4	42.2	3.6	1.4301	0/0	1.52	1.52	1	3.63	None
018	Elbow	48L	86.6	42.2	3.6	1.4301	0/0	1.52	1.52	1	3.63	None
019	Elbow	48L	86.6	42.2	3.6	1.4301	0/0	1.52	1.52	1	3.63	None
008	Elbow	95	85.1	73.0	5.2	1.4301	0/0	1.59	1.59	1	3.87	None
P13	Elbow	152L	7.4	114.3	6.0	1.4301	0/0	1.95	1.95	1	5.27	None
P11	Elbow	95L	91.9	73.0	5.2	1.4301	0/0	1.59	1.59	1	3.87	None
P15	*Elbow	95L	72.0	73.0	5.2	1.4301	0/0	1.59	1.59	1	3.87	None
P09	Elbow	95L	79.8	73.0	5.2	1.4301	0/0	1.59	1.59	1	3.87	None
P08	Elbow	64S	105.0	73.0	5.2	1.4301	0/0	2.08	2.08	1	5.80	None

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B E N D D A T A L I S T I N G

Point	Bend	Radius	Angle	OD	tnom	Material	Flg/	SIF	SIF	Analysis	Flexibility
Pressure	Case										
Name	Type	(mm)	(deg)	(mm)	(mm)		Cuts	in	out	Set	(K)

* = Mid-point present
 L = Long radius
 S = Short radius

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AutoPIPE Plus 9.2.1 MODEL PAGE 67

T E E D A T A L I S T I N G

Point	Point	Pipe	Pipe	Material	Tee	**Crotch	*Crotch	SIF	SIF
Name	Seg-Type	OD	Thk.		Type	Radius	Thick	in	out
		(mm)	(mm)			(mm)	(mm)		
A07	A-Header	21.3	3.7	1.4301	welding			1.00	1.00
	B-Branch	21.3	3.7	1.4301					
A08	C-Header	21.3	3.7	1.4301	welding			1.00	1.00
	A-Branch	21.3	3.7	1.4301					
A10	A-Header	21.3	3.7	1.4301	welding			1.00	1.00

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	D-Branch	21.3	3.7	1.4301			
A13	A-Header	21.3	3.7	1.4301	welding	1.00	1.00
	E-Branch	21.3	3.7	1.4301			
A32	A-Header	21.3	3.7	1.4301	welding	1.00	1.00
	F-Branch	17.1	3.2	1.4301			
A24	A-Header	21.3	2.8	1.4301	welding	1.00	1.00
	G-Branch	17.1	2.3	1.4301			
A26	A-Header	21.3	2.8	1.4301	welding	1.00	1.00
	H-Branch	21.3	2.8	1.4301			
A28	A-Header	21.3	2.8	1.4301	welding	1.00	1.00
	I-Branch	17.1	2.3	1.4301			
M10	M-Header	26.7	3.9	1.4301	welding	1.00	1.00
	N-Branch	26.7	3.9	1.4301			
M13	M-Header	26.7	3.9	1.4301	Other	1.00	1.00
	O-Branch	26.7	3.9	1.4301			

* = Pad thickness for reinforced tee.

**= Fillet radius for Raised tee or discontinuity dist. for Thickened tee.

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V A L V E D A T A L I S T I N G

Type Point /Avg. Name (mm)	/Max. Type	Dnom		Length	Valve	Actuator		Actuator			Joint			Size
		(mm)	Rating	(mm)	Weight (kg)	Weight (kg)	DX (mm)	DY (mm)	DZ (mm)	SAF	Type	SIF	(mm)	
A11	GATE-F	15	NS	264.00	12	19	0.00	0.00	313.50	1.00	WN	1.00		
A20	TCHECK-F	15	NS	110.00	9					1.00	WN	1.00		
A38	TCHECK-F	10	NS	105.00	3					1.00	WN	1.00		
A39	GATE-F	10	NS	140.00	3	5	0.00	0.00	133.50	1.00	WN	1.00		
F03	TCHECK-F	10	NS	110.00	9					1.00	WN	1.00		
F12	GATE-F	10	NS	264.00	12	19	0.00	0.00	313.50	0.00	WN	1.00		
G03	TCHECK-F	10	NS	105.00	3					1.00	WN	1.00		
G10	GATE-F	10	NS	140.00	3	5	0.00	0.00	133.50	1.00	WN	1.00		
H02	GATE-F	15	NS	333.00	2					1.00	TJ	2.30		
I11	TCHECK-F	10	NS	105.00	3					1.00	WN	1.00		
I05	GATE-F	10	NS	140.00	3	5	0.00	0.00	133.50	1.00	WN	1.00		
J01	GATE-F	15	NS	264.01	12	19	0.00	0.00	313.50	1.00	WN	1.00		
M11	GATE-F	20	NS	272.00	20	26	0.00	0.00	380.00	1.00	WN	1.00		
N01	GATE-F	20	NS	272.00	20	26	0.00	0.00	380.00	1.00	WN	1.00		
O01	GATE-F	20	NS	272.00	20	26	0.00	0.00	380.00	1.00	WN	1.00		
P04	GATE-F	15	NS	264.01	12	19	0.00	0.00	313.50	1.00	WN	1.00		

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F L A N G E D A T A L I S T I N G

					Flange	Bolt		Size		Type	
Point	FLG	Dnom			Weight	Weight	Joint	/Avg.	/Max.	ANSI	
Name	No.	Type	(mm)	Rating	(kg)	(kg)	Type	SIF	(mm)	(mm)	Check

A00	1	WELDNECK	20	2500	4.1	0.0	WN	1.00			No
A11	1	WELDNECK	15	2500	3.6	0.0	WN	1.00			No
A47	1	WELDNECK	15	2500	3.6	0.0	WN	1.00			No
C041	1	WELDNECK	15	2500	3.6	0.0	WN	1.00			No
C041	2	WELDNECK	15	2500	3.6	0.0	WN	1.00			No
A20	1	WELDNECK	15	2500	3.6	0.0	WN	1.00			No
CH02	1	WELDNECK	15	2500	3.6	0.0	WN	1.00			No
A38	1	SLIP-ON	10	NS	0.7	0.0	WN	1.00			No
CH06	1	SLIP-ON	10	NS	0.7	0.0	WN	1.00			No
OR10	1	SLIP-ON	10	NS	0.7	0.0	DWSO	1.20			No
OR10	2	SLIP-ON	10	NS	0.7	0.0	DWSO	1.20			No
A39	1	SLIP-ON	10	NS	0.7	0.0	WN	1.00			No
IV08	1	SLIP-ON	10	NS	0.7	0.0	WN	1.00			No
A44	1	SLIP-ON	32	300	1.8	0.0	WN	1.00			No
B04	1	WELDNECK	20	2500	4.1	0.0	WN	1.00			No
C05	1	WELDNECK	20	2500	4.1	0.0	WN	1.00			No
F03	1	WELDNECK	10	NS	3.2	0.0	WN	1.00			No
CH04	1	WELDNECK	10	NS	3.2	0.0	WN	1.00			No
C016	1	WELDNECK	10	NS	3.2	0.0	WN	1.00			No
C016	2	WELDNECK	10	NS	3.2	0.0	WN	1.00			No
F12	1	WELDNECK	10	NS	3.2	0.0	WN	1.00			No
F04	1	WELDNECK	10	NS	3.2	0.0	WN	1.00			No
F10	1	WELDNECK	32	2500	9.1	0.0	WN	1.00			Yes
G03	1	SLIP-ON	10	NS	0.7	0.0	WN	1.00			No
CH13	1	SLIP-ON	10	NS	0.7	0.0	WN	1.00			No
C021	1	SLIP-ON	10	NS	0.7	0.0	DWSO	1.20			No
C021	2	SLIP-ON	10	NS	0.7	0.0	DWSO	1.20			No
G10	1	SLIP-ON	10	NS	0.7	0.0	WN	1.00			No
IV04	1	SLIP-ON	10	NS	0.7	0.0	WN	1.00			No
G08	1	WELDNECK	32	2500	9.1	0.0	WN	1.00			No
I11	1	SLIP-ON	10	NS	0.7	0.0	WN	1.00			No
CH15	1	SLIP-ON	10	NS	0.7	0.0	WN	1.00			No
CH15	2	SLIP-ON	10	NS	0.7	0.0	WN	1.00			No
C031	1	SLIP-ON	10	NS	0.7	0.0	DWSO	1.20			No
C031	2	SLIP-ON	10	NS	0.7	0.0	DWSO	1.20			No
I05	1	SLIP-ON	10	NS	0.7	0.0	WN	1.00			No
I12	1	SLIP-ON	10	NS	0.7	0.0	DWSO	1.20			No
I10	1	SLIP-ON	32	300	1.8	0.0	WN	1.00			No
J11	1	BLIND	15	2500	3.2	0.0	DWSO	1.20			No
J11	2	BLIND	15	2500	3.2	0.0	DWSO	1.20			No
J12	1	BLIND	15	2500	3.2	0.0	DWSO	1.20			No
J12	2	BLIND	15	2500	3.2	0.0	DWSO	1.20			No
J01	1	WELDNECK	15	2500	3.6	0.0	WN	1.00			No
IV10	1	WELDNECK	15	2500	3.6	0.0	WN	1.00			No
J10	1	SLIP-ON	100	300	10.0	0.0	DWSO	1.20			No
F10	1	WELDNECK	32	2500	9.1	0.0	WN	1.00			No
M03	1	WELDNECK	32	NS	7.8	0.0	WN	1.00			No
M03	2	WELDNECK	32	NS	7.8	0.0	WN	1.00			No
M11	1	WELDNECK	20	2500	4.1	0.0	WN	1.00			No
M17	1	WELDNECK	20	2500	4.1	0.0	WN	1.00			No
M28	1	WELDNECK	32	2500	9.1	0.0	WN	1.00			No
N14	1	WELDNECK	20	NS	3.2	0.0	WN	1.00			No

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F L A N G E D A T A L I S T I N G

Flange Bolt Size Type

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Point	FLG		Dnom		Weight	Weight	Joint		/Avg.	/Max.	ANSI
Name	No.	Type	(mm)	Rating	(kg)	(kg)	Type	SIF	(mm)	(mm)	Check
N14	2	WELDNECK	20	NS	3.2	0.0	WN	1.00			No
N13	1	WELDNECK	20	NS	3.2	0.0	WN	1.00			No
N13	2	WELDNECK	20	NS	3.2	0.0	WN	1.00			No
N01	1	WELDNECK	20	2500	4.1	0.0	WN	1.00			No
N09	1	WELDNECK	20	2500	4.1	0.0	WN	1.00			No
N08	1	SLIP-ON	65	300	4.5	0.0	DWSO	1.20			No
O15	1	WELDNECK	20	NS	3.2	0.0	WN	1.00			No
O15	2	WELDNECK	20	NS	3.2	0.0	WN	1.00			No
O14	1	WELDNECK	20	NS	3.2	0.0	WN	1.00			No
O14	2	WELDNECK	20	NS	3.2	0.0	WN	1.00			No
O01	1	WELDNECK	20	2500	4.1	0.0	WN	1.00			No
O10	1	WELDNECK	20	2500	4.1	0.0	WN	1.00			No
O09	1	SLIP-ON	65	300	4.5	0.0	DWSO	1.20			No
P14	1	SLIP-ON	100	300	10.0	0.0	DWSO	1.20			No
P04	1	WELDNECK	15	2500	3.6	0.0	WN	1.00			No
P05	1	WELDNECK	15	2500	3.6	0.0	WN	1.00			No
P06	1	BLIND	15	2500	3.2	0.0	DWSO	1.20			No
P06	2	BLIND	15	2500	3.2	0.0	DWSO	1.20			No
P07	1	BLIND	15	2500	3.2	0.0	DWSO	1.20			No
P07	2	BLIND	15	2500	3.2	0.0	DWSO	1.20			No

DVI_B_LINE_REV0

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AutoPIPE Plus 9.2.1 MODEL PAGE 71

ANSI FLANGE CHECK DATA LISTING

Point	FLG	-----Flange Data-----			-----Gasket Data -----		
Name	No.	Series	Material	Group	Material	Di(mm)	Width(mm)
F10	1		A182-F304	2.1	IIIB-RINGJ	53.848	4.826

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JOINT TYPE / USER - SIF DATA LISTING

Size							
Point	Point	SIF	SIF	Joint	/Avg.	Max.	Over
Name	Type	in	out	Type	(mm)	(mm)	ride

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REDUCER DATA LISTING

DVI_B_LINE_REV0.0UT

		OD		Thk				Cone	
From	To	Length	From	To	From	To	From	Angle	SIF
Point	Point	(mm)	(mm)	(mm)	(mm)	(mm)	Material	(deg)	

A30	A01	38.10	26.7	21.3	3.9	3.7	1.4301		2.00t
A46	A45	38.10	21.3	17.1	2.8	2.3	1.4301		2.00t
A42	A72	51.00	17.1	42.2	2.3	3.6	1.4301		2.00t
B02	B03	38.10	21.3	26.7	3.7	3.9	1.4301		2.00t
C03	C04	38.10	21.3	26.7	3.7	3.9	1.4301		2.00t
F07	F46	38.00	17.1	26.7	3.2	3.9	1.4301		2.00t
F45	F09	51.00	26.7	42.2	3.9	4.9	1.4301		2.00t
G09	G07	51.00	17.1	42.2	2.3	3.6	1.4301		2.00t
I07	I14	51.00	17.1	42.2	2.3	3.6	1.4301		2.00t
J03	J13	140.00	21.3	73.0	2.8	5.2	1.4301		2.00t
J08	J09	101.60	73.0	114.3	5.2	6.0	1.4301		2.00t
M04	M05	55.00	42.2	26.7	4.9	3.9	1.4301		2.00t
M26	M27	51.00	26.7	42.2	3.9	4.9	1.4301		2.00t
N03	N10	51.00	26.7	42.2	2.9	3.6	1.4301		2.00t
N06	N20	89.00	42.2	73.0	3.6	5.2	1.4301		2.00t
O03	O11	51.00	26.7	42.2	2.9	3.6	1.4301		2.00t
O06	O12	89.00	42.2	73.0	3.6	5.2	1.4301		2.00t
P12	P16	101.60	114.3	73.0	6.0	5.2	1.4301		2.00t
P01	P02	89.00	73.0	42.2	5.2	3.6	1.4301		2.00t
P02	P03	51.00	42.2	21.3	3.6	2.8	1.4301		2.00t

t = Use SIF of 2.0

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R I G I D P I P E D A T A L I S T I N G

From	To	Include	Include	Rigid
Point	Point	Weight	Expansion	Factor
-----	-----	-----	-----	-----

DVI_B_LINE_REV0

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AutoPIPE Plus 9.2.1 MODEL PAGE 75

R E F E R E N C E P O I N T L I S T I N G

(Force - N , Moment - N.m)

Tag No./	Refer.	Point	Seg	Coord.	Load	[Report Loads]
Ref. ID	Side	Name	Name	System	Direction	Actual Allow.
-----	-----	-----	-----	-----	-----	-----

DVI_B_LINE_REV0

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AutoPIPE Plus 9.2.1 RESULT PAGE 1

A N A L Y S I S S U M M A R Y

Current model revision number : 36

Static - Analysis set number 1
 Date and Time of analysis Sep 13, 2010 9:54 AM
 Model Revision Number 36
 Number of load cases 6
 Load cases analyzed GR T1 T2 T3 T4 T5
 Description Analysis Set no. 1
 Gaps/Friction/Soil considered Yes
 Tolerance - Force, Displacement 44.48 N 0.0254 mm
 Friction - Scale Factor, Tolerance 1.00 0.10
 Ignore friction for cases E1,E2,E3 Yes
 Ignore friction for gravity case Yes
 Hanger design run No
 Cut short included No
 Thermal bowing included No
 Include Bourdon rotational effect No
 Pipe radius for Bourdon calculation ... Mean
 Occasional load analysis type Nonlinear
 Non-linear analysis summary file DVI_B_LINE_REV0.LOG
 Use default load sequence Yes
 Base load cases for nonlinear analysis

GR = None
 T1 = GR
 T2 = GR
 T3 = GR
 T4 = GR
 T5 = GR

Weight of contents included Yes
 Pressure stiffening case None
 Hot modulus case None
 Water elevation for buoyancy loads Not considered
 Use corroded thickness in analysis No
 Rigid stiffness factor 1000.0

□

DVI_B_LINE_REV0

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AutoPIPE Plus 9.2.1 RESULT PAGE 2

CODE COMPLIANCE COMBINATIONS

<Description> Allowable Combination (N/mm ²) D/A/P	Category	Method	Case/Combination	Factor M/S K-Factor
GR + Max P{1} Automatic Y Y Y	Sustain	Sum	GR[1] Max Long	1.00 1.00
Max Range Automatic Y Y Y	Expansion	Sum	Temp. Range	1.00
Amb to T1{1} Automatic Y Y Y	Expansion	Sum	T1[1]	1.00
Amb to T2{1} Automatic Y Y Y	Expansion	Sum	T2[1]	1.00
Amb to T3{1} Automatic Y Y Y	Expansion	Sum	T3[1]	1.00
Amb to T4{1} Automatic Y Y Y	Expansion	Sum	T4[1]	1.00
Amb to T5{1} Automatic Y Y Y	Expansion	Sum	T5[1]	1.00

DVI_B_LINE_REV0.OUT

**Hydrotest{1} Automatic Y Y Y	Occasion	Sum	*HY[1]	1.00	1.000
			Max Long	1.00	
Max P{1} Automatic Y Y Y	Hoop	Sum	Max Hoop	1.00	
Sus.+T1{1} Automatic Y Y Y	Creep Rupt	Sum	Max Sus	1.00	
			T1[1]	1.00	
Sus.+T2{1} Automatic Y Y Y	Creep Rupt	Sum	Max Sus	1.00	
			T2[1]	1.00	
Sus.+T3{1} Automatic Y Y Y	Creep Rupt	Sum	Max Sus	1.00	
			T3[1]	1.00	
Sus.+T4{1} Automatic Y Y Y	Creep Rupt	Sum	Max Sus	1.00	
			T4[1]	1.00	
Sus.+T5{1} Automatic Y Y Y	Creep Rupt	Sum	Max Sus	1.00	
			T5[1]	1.00	

Notes:

D/A/P: [D]efault/[A]uto-Update/[P]rint options (Y=Yes, N=No)

* indicates that the load case has not been analyzed

** indicates that the combination includes unanalyzed load case(s)
or combination(s) that include unanalyzed load case(s).

□

DVI_B_LINE_REV0

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AutoPIPE Plus 9.2.1 RESULT PAGE 3

NON-CODE COMBINATIONS

<Description>

Combination	Method	Case/Combination	Factor	D/A/P
Gravity{1}	Sum	GR[1]	1.00	Y Y Y
**Hydrotest{1}	Sum	*HY[1]	1.00	Y Y Y
Thermal 1{1}	Sum	T1[1]	1.00	Y Y Y
Thermal 2{1}	Sum	T2[1]	1.00	Y Y Y
Thermal 3{1}	Sum	T3[1]	1.00	Y Y Y
Thermal 4{1}	Sum	T4[1]	1.00	Y Y Y
Thermal 5{1}	Sum	T5[1]	1.00	Y Y Y
GRT1{1}	Sum	GR[1] T1[1]	1.00 1.00	Y Y Y
GRT2{1}	Sum	GR[1] T2[1]	1.00 1.00	Y Y Y

		DVI_B_LINE_REV0.OUT		
GRT3{1}	Sum	GR[1]	1.00	Y Y Y
		T3[1]	1.00	
GRT4{1}	Sum	GR[1]	1.00	Y Y Y
		T4[1]	1.00	
GRT5{1}	Sum	GR[1]	1.00	Y Y Y
		T5[1]	1.00	

Notes:

D/A/P: [D]efault/[A]uto-Update/[P]rint options (Y=Yes, N=No)

* indicates that the load case has not been analyzed

** indicates that the combination includes unanalyzed load case(s) or combination(s) that include unanalyzed load case(s).

DVI_B_LINE_REV0

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AutoPIPE Plus 9.2.1 RESULT PAGE 4

CODE COMPLIANCE

Y - Factor 0.50
Weld efficiency factor 1.00
Range reduction factor 1.00
Design Pressure Factor 1.00
Minimum stress ratio used in reports... 0.00
Number of stress points per span 0
Include corrosion in stress calcs. N
Include axial force in code stress N
Include sustain load margin Only if allowable stress is exceeded
Use single SIF Y
Set sustained/occasional SIF = 1 N
Set sustained/occasional SIF = 0.75i .. N
Apply cold/hot modulus ratio N
Disable auto code combinations N
Disable auto non-code combinations N
No. of thermal ranges to report 0
Include Max Range combination Y
Total stress Octahedral
Direct shear None
Longitudinal pressure calculation PD/4t
Inc. Axial Str and Pcase in Sustained.. N

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AutoPIPE Plus 9.2.1 RESULT PAGE 5

D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
*** Segment A begin ***							
A00	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	-55.910	0.000	0.000	0.000

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	Thermal 2{1}	0.000	0.000	-55.910	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	-55.910	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	-55.910	0.000	0.000	0.000
	Thermal 5{1}	0.000	0.000	-28.720	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	-55.910	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	-55.910	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	-55.910	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	-55.910	0.000	0.000	0.000
	GRT5{1}	0.000	0.000	-28.720	0.000	0.000	0.000
A30	Gravity{1}	0.000	0.000	-0.019	0.000	0.024	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.502	0.001	-55.886	0.000	-0.031	0.001
	Thermal 2{1}	0.502	0.002	-55.886	0.000	-0.031	0.002
	Thermal 3{1}	0.502	0.002	-55.886	0.000	-0.031	0.002
	Thermal 4{1}	0.502	0.001	-55.886	0.000	-0.031	0.001
	Thermal 5{1}	0.253	0.001	-28.707	0.000	-0.017	0.002
	GRT1{1}	0.502	0.001	-55.905	0.000	-0.007	0.002
	GRT2{1}	0.502	0.002	-55.906	0.000	-0.007	0.003
	GRT3{1}	0.502	0.002	-55.906	0.000	-0.007	0.003
	GRT4{1}	0.502	0.001	-55.906	0.000	-0.007	0.001
	GRT5{1}	0.253	0.001	-28.726	0.000	0.007	0.002
A01	Gravity{1}	0.000	0.000	-0.040	0.000	0.037	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.725	0.002	-55.859	0.000	-0.050	0.002
	Thermal 2{1}	0.725	0.004	-55.860	-0.001	-0.049	0.004
	Thermal 3{1}	0.725	0.004	-55.860	-0.001	-0.049	0.004
	Thermal 4{1}	0.725	0.001	-55.860	0.000	-0.049	0.001
	Thermal 5{1}	0.365	0.003	-28.693	-0.001	-0.027	0.003
	GRT1{1}	0.725	0.003	-55.898	0.000	-0.014	0.003
	GRT2{1}	0.725	0.004	-55.899	-0.001	-0.012	0.004
	GRT3{1}	0.725	0.004	-55.899	-0.001	-0.012	0.004
	GRT4{1}	0.725	0.002	-55.899	0.000	-0.012	0.002
	GRT5{1}	0.365	0.003	-28.732	-0.001	0.010	0.003

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RESULT PAGE 6

D I S P L A C E M E N T S

DVI_B_LINE_REV0.OUT

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
A02 N	Gravity{1}	0.000	0.019	-0.825	0.000	0.095	0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.539	0.090	-54.233	-0.003	-0.301	0.019
	Thermal 2{1}	3.539	0.154	-54.271	-0.006	-0.294	0.031
	Thermal 3{1}	3.539	0.154	-54.269	-0.006	-0.294	0.031
	Thermal 4{1}	3.539	0.062	-54.267	-0.001	-0.295	0.013
	Thermal 5{1}	1.784	0.109	-27.836	-0.005	-0.158	0.022
	GRT1{1}	3.539	0.109	-55.058	-0.003	-0.206	0.023
	GRT2{1}	3.539	0.173	-55.097	-0.007	-0.199	0.035
	GRT3{1}	3.539	0.173	-55.095	-0.007	-0.199	0.035
	GRT4{1}	3.539	0.081	-55.093	-0.001	-0.200	0.017
	GRT5{1}	1.784	0.128	-28.661	-0.005	-0.063	0.026
A02 F	Gravity{1}	0.029	0.021	-0.856	0.000	0.084	0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.547	0.097	-54.020	-0.003	-0.316	0.020
	Thermal 2{1}	3.550	0.167	-54.061	-0.007	-0.309	0.034
	Thermal 3{1}	3.550	0.167	-54.059	-0.007	-0.309	0.034
	Thermal 4{1}	3.549	0.067	-54.057	-0.001	-0.310	0.014
	Thermal 5{1}	1.786	0.118	-27.726	-0.005	-0.166	0.024
	GRT1{1}	3.576	0.118	-54.876	-0.004	-0.232	0.025
	GRT2{1}	3.579	0.187	-54.916	-0.008	-0.225	0.038
	GRT3{1}	3.579	0.187	-54.914	-0.008	-0.225	0.038
	GRT4{1}	3.578	0.088	-54.912	-0.001	-0.226	0.019
	GRT5{1}	1.815	0.139	-28.582	-0.006	-0.082	0.028
A03 N	Gravity{1}	0.402	0.024	-0.856	-0.001	0.048	0.008
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.237	0.122	-51.902	-0.005	-0.414	0.036
	Thermal 2{1}	1.294	0.220	-51.942	-0.010	-0.404	0.060
	Thermal 3{1}	1.291	0.220	-51.940	-0.010	-0.405	0.060
	Thermal 4{1}	1.283	0.075	-51.938	-0.002	-0.406	0.027
	Thermal 5{1}	0.578	0.159	-26.658	-0.007	-0.216	0.042
	GRT1{1}	1.639	0.147	-52.757	-0.005	-0.366	0.044
	GRT2{1}	1.696	0.245	-52.798	-0.010	-0.357	0.068
	GRT3{1}	1.693	0.244	-52.796	-0.010	-0.357	0.068
	GRT4{1}	1.685	0.099	-52.794	-0.002	-0.358	0.035
	GRT5{1}	0.980	0.184	-27.514	-0.008	-0.169	0.050
A03 F	Gravity{1}	0.418	0.027	-0.872	-0.001	0.048	0.008
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000

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Thermal 1{1}	1.209	0.136	-51.650	-0.005	-0.427	0.038
Thermal 2{1}	1.269	0.244	-51.694	-0.010	-0.418	0.062
Thermal 3{1}	1.267	0.243	-51.692	-0.010	-0.418	0.062
Thermal 4{1}	1.258	0.084	-51.689	-0.002	-0.419	0.028
Thermal 5{1}	0.561	0.176	-26.529	-0.008	-0.224	0.043
GRT1{1}	1.627	0.164	-52.522	-0.006	-0.379	0.046
GRT2{1}	1.687	0.271	-52.566	-0.011	-0.369	0.071
GRT3{1}	1.685	0.271	-52.564	-0.011	-0.370	0.070
GRT4{1}	1.676	0.112	-52.561	-0.003	-0.371	0.036
GRT5{1}	0.979	0.203	-27.401	-0.008	-0.175	0.052

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RESULT PAGE 7

D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
A04 N	Gravity{1}	0.418	0.149	-1.053	-0.002	-0.038	0.013
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	4.978	0.678	-46.690	-0.008	-0.391	0.059
	Thermal 2{1}	5.038	1.131	-46.844	-0.014	-0.382	0.095
	Thermal 3{1}	5.035	1.130	-46.837	-0.014	-0.383	0.095
	Thermal 4{1}	5.026	0.495	-46.816	-0.005	-0.385	0.046
	Thermal 5{1}	2.460	0.791	-23.944	-0.010	-0.202	0.065
	GRT1{1}	5.395	0.827	-47.744	-0.009	-0.429	0.072
	GRT2{1}	5.455	1.280	-47.898	-0.015	-0.421	0.108
	GRT3{1}	5.452	1.279	-47.891	-0.015	-0.421	0.108
	GRT4{1}	5.443	0.643	-47.870	-0.006	-0.423	0.059
	GRT5{1}	2.878	0.940	-24.997	-0.012	-0.240	0.079
A04 F	Gravity{1}	0.403	0.154	-1.039	-0.002	-0.049	0.014
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	4.963	0.701	-46.452	-0.008	-0.371	0.060
	Thermal 2{1}	5.026	1.168	-46.609	-0.014	-0.363	0.097
	Thermal 3{1}	5.023	1.167	-46.601	-0.014	-0.363	0.097
	Thermal 4{1}	5.013	0.512	-46.580	-0.005	-0.366	0.047
	Thermal 5{1}	2.452	0.816	-23.822	-0.010	-0.191	0.067
	GRT1{1}	5.366	0.854	-47.491	-0.010	-0.420	0.074

		DVI_B_LINE_REV0.OUT					
	GRT2{1}	5.428	1.321	-47.648	-0.016	-0.412	0.111
	GRT3{1}	5.426	1.320	-47.641	-0.016	-0.412	0.111
	GRT4{1}	5.416	0.665	-47.619	-0.007	-0.415	0.061
	GRT5{1}	2.854	0.970	-24.861	-0.012	-0.240	0.081
A05 N	Gravity{1}	-0.370	0.189	-1.039	-0.003	0.050	0.024
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.885	0.856	-40.822	-0.010	0.013	0.100
	Thermal 2{1}	1.994	1.416	-40.979	-0.014	0.009	0.156
	Thermal 3{1}	1.991	1.415	-40.971	-0.014	0.010	0.156
	Thermal 4{1}	1.938	0.636	-40.950	-0.011	0.008	0.084
	Thermal 5{1}	0.944	0.986	-20.984	-0.008	0.013	0.105
	GRT1{1}	1.515	1.046	-41.861	-0.013	0.063	0.124
	GRT2{1}	1.624	1.605	-42.018	-0.016	0.059	0.180
	GRT3{1}	1.621	1.604	-42.010	-0.016	0.059	0.180
	GRT4{1}	1.568	0.825	-41.989	-0.013	0.058	0.108
	GRT5{1}	0.574	1.176	-22.023	-0.011	0.063	0.129
A05 F	Gravity{1}	-0.351	0.182	-1.018	-0.003	0.071	0.024
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.781	0.826	-40.701	-0.010	0.036	0.102
	Thermal 2{1}	1.889	1.368	-40.860	-0.013	0.031	0.158
	Thermal 3{1}	1.885	1.367	-40.852	-0.013	0.031	0.158
	Thermal 4{1}	1.832	0.611	-40.831	-0.011	0.031	0.085
	Thermal 5{1}	0.894	0.954	-20.921	-0.008	0.025	0.107
	GRT1{1}	1.430	1.008	-41.719	-0.013	0.107	0.126
	GRT2{1}	1.538	1.551	-41.878	-0.016	0.102	0.182
	GRT3{1}	1.534	1.549	-41.870	-0.016	0.102	0.182
	GRT4{1}	1.481	0.794	-41.849	-0.014	0.101	0.109
	GRT5{1}	0.543	1.136	-21.939	-0.011	0.096	0.131

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DVI_B_LINE_REV0

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RESULT PAGE 8

DISPLACEMENTS

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
A06 N	Gravity{1}	-0.351	-0.027	-0.107	-0.004	0.103	0.028
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000

		DVI_B_LINE_REV0.OUT					
	Thermal 1{1}	-0.923	-0.057	-39.916	-0.011	0.126	0.117
	Thermal 2{1}	-0.814	0.002	-40.136	-0.009	0.116	0.181
	Thermal 3{1}	-0.818	0.001	-40.125	-0.009	0.116	0.181
	Thermal 4{1}	-0.871	-0.130	-40.096	-0.016	0.119	0.098
	Thermal 5{1}	-0.469	0.032	-20.472	-0.004	0.068	0.122
	GRT1{1}	-1.274	-0.083	-40.022	-0.015	0.229	0.145
	GRT2{1}	-1.166	-0.025	-40.242	-0.013	0.219	0.209
	GRT3{1}	-1.169	-0.025	-40.232	-0.013	0.220	0.209
	GRT4{1}	-1.223	-0.156	-40.203	-0.020	0.223	0.126
	GRT5{1}	-0.820	0.006	-20.579	-0.007	0.172	0.150
A06 F	Gravity{1}	-0.320	-0.035	-0.074	-0.004	0.088	0.028
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.993	-0.092	-39.763	-0.011	0.124	0.119
	Thermal 2{1}	-0.888	-0.056	-39.986	-0.009	0.114	0.184
	Thermal 3{1}	-0.891	-0.056	-39.976	-0.009	0.114	0.184
	Thermal 4{1}	-0.943	-0.157	-39.945	-0.016	0.118	0.100
	Thermal 5{1}	-0.502	-0.007	-20.394	-0.003	0.067	0.124
	GRT1{1}	-1.313	-0.127	-39.837	-0.014	0.212	0.147
	GRT2{1}	-1.208	-0.090	-40.060	-0.012	0.202	0.212
	GRT3{1}	-1.211	-0.091	-40.050	-0.012	0.202	0.212
	GRT4{1}	-1.264	-0.192	-40.020	-0.020	0.205	0.128
	GRT5{1}	-0.823	-0.042	-20.468	-0.007	0.154	0.152
A50	Gravity{1}	0.000	0.000	-0.073	-0.005	0.012	0.033
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	-36.948	-0.011	0.114	0.139
	Thermal 2{1}	0.000	0.000	-37.171	-0.004	0.099	0.216
	Thermal 3{1}	0.000	0.000	-37.161	-0.004	0.100	0.216
	Thermal 4{1}	0.000	0.000	-37.130	-0.021	0.109	0.116
	Thermal 5{1}	0.000	0.000	-18.975	0.002	0.053	0.146
	GRT1{1}	0.000	0.000	-37.021	-0.016	0.126	0.172
	GRT2{1}	0.000	0.000	-37.245	-0.009	0.111	0.249
	GRT3{1}	0.000	0.000	-37.234	-0.009	0.112	0.249
	GRT4{1}	0.000	0.000	-37.204	-0.026	0.121	0.149
	GRT5{1}	0.000	0.000	-19.048	-0.003	0.066	0.179
A07	Gravity{1}	0.000	0.562	-0.064	-0.017	-0.005	0.066
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	4.082	1.667	-17.635	-0.064	-0.002	0.282
	Thermal 2{1}	4.082	2.866	-17.858	-0.160	0.046	0.442
	Thermal 3{1}	4.082	2.860	-17.848	-0.160	0.045	0.442
	Thermal 4{1}	4.082	1.285	-17.818	-0.006	0.002	0.231
	Thermal 5{1}	2.058	2.022	-9.240	-0.129	0.041	0.300

	DVI_B_LINE_REV0.OUT					
GRT1{1}	4.082	2.229	-17.699	-0.081	-0.007	0.348
GRT2{1}	4.082	3.427	-17.922	-0.178	0.041	0.508
GRT3{1}	4.082	3.421	-17.912	-0.177	0.040	0.507
GRT4{1}	4.082	1.846	-17.881	-0.023	-0.003	0.297
GRT5{1}	2.058	2.584	-9.304	-0.146	0.036	0.366

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
A08	Gravity{1}	-0.221	-0.103	-0.060	0.170	-0.010	0.011
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	5.382	3.034	-12.179	-0.072	0.038	0.770
	Thermal 2{1}	6.218	5.504	-12.403	-0.025	0.019	0.961
	Thermal 3{1}	6.222	5.508	-12.392	-0.028	0.020	0.964
	Thermal 4{1}	5.017	1.314	-12.362	0.000	0.017	0.715
	Thermal 5{1}	3.491	4.024	-6.491	0.005	0.002	0.576
	GRT1{1}	5.161	2.931	-12.239	0.097	0.028	0.781
	GRT2{1}	5.997	5.401	-12.462	0.144	0.009	0.973
	GRT3{1}	6.001	5.405	-12.452	0.141	0.010	0.975
	GRT4{1}	4.796	1.211	-12.422	0.169	0.007	0.726
	GRT5{1}	3.270	3.921	-6.550	0.174	-0.009	0.587
A09 N	Gravity{1}	-0.018	-0.103	-5.224	0.405	0.020	0.009
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	17.324	-1.828	-10.291	-0.147	0.288	0.624
	Thermal 2{1}	19.862	0.643	-12.427	0.024	0.156	0.559
	Thermal 3{1}	19.917	0.646	-12.319	0.016	0.163	0.563
	Thermal 4{1}	17.111	-3.549	-12.676	0.040	0.161	0.748
	Thermal 5{1}	11.132	1.574	-7.263	0.081	0.029	0.242
	GRT1{1}	17.306	-1.931	-15.516	0.259	0.307	0.633
	GRT2{1}	19.844	0.540	-17.651	0.429	0.176	0.568
	GRT3{1}	19.899	0.543	-17.544	0.421	0.183	0.572
	GRT4{1}	17.093	-3.652	-17.900	0.445	0.180	0.758
	GRT5{1}	11.114	1.471	-12.487	0.487	0.049	0.252
A09 M	Gravity{1}	-0.016	-0.104	-5.317	0.401	0.021	0.009

		DVI_B_LINE_REV0.OUT					
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	17.435	-1.966	-10.229	-0.146	0.292	0.595
	Thermal 2{1}	19.955	0.513	-12.417	0.024	0.158	0.510
	Thermal 3{1}	20.011	0.516	-12.307	0.017	0.166	0.514
	Thermal 4{1}	17.252	-3.699	-12.669	0.040	0.163	0.729
	Thermal 5{1}	11.169	1.513	-7.279	0.082	0.029	0.209
	GRT1{1}	17.419	-2.069	-15.546	0.256	0.313	0.603
	GRT2{1}	19.939	0.409	-17.734	0.426	0.179	0.519
	GRT3{1}	19.995	0.412	-17.624	0.418	0.187	0.523
	GRT4{1}	17.236	-3.802	-17.987	0.442	0.184	0.738
	GRT5{1}	11.153	1.409	-12.596	0.483	0.050	0.217
A09 F	Gravity{1}	-0.015	-0.106	-5.351	0.398	0.022	0.008
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	17.413	-2.134	-10.145	-0.145	0.298	0.565
	Thermal 2{1}	19.925	0.367	-12.382	0.025	0.162	0.462
	Thermal 3{1}	19.981	0.369	-12.269	0.017	0.169	0.465
	Thermal 4{1}	17.244	-3.900	-12.635	0.041	0.167	0.710
	Thermal 5{1}	11.148	1.452	-7.280	0.082	0.030	0.174
	GRT1{1}	17.398	-2.240	-15.496	0.253	0.320	0.572
	GRT2{1}	19.909	0.261	-17.733	0.423	0.184	0.469
	GRT3{1}	19.965	0.263	-17.620	0.415	0.191	0.473
	GRT4{1}	17.228	-4.006	-17.986	0.439	0.189	0.718
	GRT5{1}	11.133	1.346	-12.631	0.480	0.052	0.182

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
A10	Gravity{1}	-0.015	0.006	-0.539	0.047	0.184	-0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	7.514	0.148	-0.821	0.001	0.162	-0.418
	Thermal 2{1}	10.026	8.647	-3.848	0.115	0.436	-0.231
	Thermal 3{1}	10.082	8.600	-3.684	0.115	0.422	-0.233
	Thermal 4{1}	7.344	-5.064	-3.893	0.114	0.442	-0.684
	Thermal 5{1}	6.160	8.687	-3.170	0.114	0.333	-0.016
	GRT1{1}	7.498	0.154	-1.360	0.048	0.346	-0.419

DVI_B_LINE_REV0.OUT							
	GRT2{1}	10.011	8.654	-4.387	0.162	0.620	-0.232
	GRT3{1}	10.067	8.606	-4.223	0.162	0.606	-0.234
	GRT4{1}	7.328	-5.058	-4.431	0.160	0.626	-0.686
	GRT5{1}	6.145	8.693	-3.709	0.161	0.518	-0.018
A11	Gravity{1}	-0.015	0.010	0.040	-0.018	-0.016	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	5.595	1.980	-0.151	0.014	0.066	-0.215
	Thermal 2{1}	8.107	9.317	-1.043	-0.032	0.453	0.000
	Thermal 3{1}	8.164	9.265	-0.984	-0.044	0.428	0.001
	Thermal 4{1}	5.426	-1.431	-1.055	-0.037	0.459	-0.552
	Thermal 5{1}	5.192	8.427	-0.870	-0.060	0.378	0.109
	GRT1{1}	5.580	1.989	-0.112	-0.003	0.049	-0.215
	GRT2{1}	8.092	9.327	-1.003	-0.050	0.437	0.000
	GRT3{1}	8.148	9.274	-0.945	-0.062	0.412	0.002
	GRT4{1}	5.411	-1.422	-1.016	-0.055	0.442	-0.551
	GRT5{1}	5.177	8.437	-0.830	-0.078	0.362	0.110
A11 M	Gravity{1}	-0.015	0.008	0.000	-0.018	-0.018	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	4.823	2.475	0.000	0.014	0.065	-0.214
	Thermal 2{1}	7.335	9.317	0.000	-0.033	0.452	0.001
	Thermal 3{1}	7.391	9.261	0.000	-0.045	0.426	0.002
	Thermal 4{1}	4.654	-0.161	0.000	-0.037	0.457	-0.551
	Thermal 5{1}	4.803	8.175	0.000	-0.061	0.377	0.110
	GRT1{1}	4.808	2.483	0.000	-0.004	0.047	-0.214
	GRT2{1}	7.320	9.325	0.000	-0.051	0.434	0.001
	GRT3{1}	7.376	9.269	0.000	-0.063	0.408	0.003
	GRT4{1}	4.639	-0.153	0.000	-0.055	0.439	-0.550
	GRT5{1}	4.788	8.183	0.000	-0.079	0.359	0.111
A47	Gravity{1}	-0.015	0.007	-0.043	-0.018	-0.019	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	4.051	2.968	0.150	0.015	0.065	-0.213
	Thermal 2{1}	6.563	9.314	1.039	-0.034	0.450	0.002
	Thermal 3{1}	6.619	9.255	0.980	-0.045	0.425	0.003
	Thermal 4{1}	3.881	1.105	1.051	-0.038	0.456	-0.549
	Thermal 5{1}	4.414	7.921	0.866	-0.061	0.375	0.111
	GRT1{1}	4.035	2.975	0.107	-0.004	0.045	-0.213
	GRT2{1}	6.547	9.320	0.996	-0.052	0.431	0.002
	GRT3{1}	6.604	9.261	0.937	-0.064	0.405	0.004
	GRT4{1}	3.866	1.112	1.008	-0.056	0.436	-0.549
	GRT5{1}	4.398	7.927	0.823	-0.080	0.356	0.111

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DVI_B_LINE_REV0

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
A13	Gravity{1}	-0.015	-0.010	-0.535	-0.083	-0.094	0.006
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	2.133	3.424	0.247	0.027	-0.023	0.061
	Thermal 2{1}	4.644	8.564	2.878	-0.181	0.240	0.263
	Thermal 3{1}	4.700	8.542	2.650	-0.205	0.210	0.247
	Thermal 4{1}	1.964	2.952	2.906	-0.189	0.239	-0.063
	Thermal 5{1}	3.446	6.862	2.385	-0.235	0.207	0.262
	GRT1{1}	2.117	3.413	-0.287	-0.055	-0.117	0.067
	GRT2{1}	4.629	8.553	2.344	-0.264	0.146	0.269
	GRT3{1}	4.685	8.532	2.116	-0.287	0.116	0.252
	GRT4{1}	1.949	2.942	2.371	-0.271	0.145	-0.057
	GRT5{1}	3.431	6.852	1.850	-0.318	0.113	0.267
C041	Gravity{1}	-0.015	-0.044	-0.805	-0.083	-0.046	0.013
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.962	3.069	0.099	0.038	-0.060	0.135
	Thermal 2{1}	3.474	7.416	3.352	-0.191	0.043	0.384
	Thermal 3{1}	3.530	7.493	3.004	-0.216	0.007	0.345
	Thermal 4{1}	0.794	2.932	3.366	-0.205	0.036	0.064
	Thermal 5{1}	2.856	5.729	2.770	-0.261	0.029	0.377
	GRT1{1}	0.947	3.025	-0.706	-0.045	-0.106	0.147
	GRT2{1}	3.458	7.371	2.548	-0.274	-0.003	0.397
	GRT3{1}	3.514	7.448	2.199	-0.299	-0.039	0.358
	GRT4{1}	0.779	2.888	2.561	-0.288	-0.010	0.076
	GRT5{1}	2.841	5.684	1.965	-0.344	-0.017	0.389
A32	Gravity{1}	-0.015	-0.119	-0.710	-0.083	0.068	0.011
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.945	2.161	-0.358	0.055	-0.096	0.165
	Thermal 2{1}	1.566	4.951	3.012	-0.207	-0.133	0.455
	Thermal 3{1}	1.622	5.339	2.500	-0.236	-0.147	0.387
	Thermal 4{1}	-1.113	2.269	2.934	-0.233	-0.159	0.143
	Thermal 5{1}	1.894	3.353	2.522	-0.303	-0.076	0.430

DVI_B_LINE_REV0.OUT

	GRT1{1}	-0.960	2.042	-1.068	-0.029	-0.028	0.176
	GRT2{1}	1.551	4.832	2.302	-0.290	-0.064	0.466
	GRT3{1}	1.607	5.220	1.790	-0.319	-0.079	0.398
	GRT4{1}	-1.128	2.150	2.225	-0.316	-0.091	0.154
	GRT5{1}	1.879	3.234	1.813	-0.386	-0.008	0.441
A16 N	Gravity{1}	-0.015	-0.125	-0.671	-0.078	0.074	0.009
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.126	2.073	-0.411	0.054	-0.098	0.160
	Thermal 2{1}	1.384	4.706	2.938	-0.215	-0.139	0.451
	Thermal 3{1}	1.441	5.130	2.419	-0.239	-0.150	0.385
	Thermal 4{1}	-1.294	2.193	2.846	-0.241	-0.168	0.139
	Thermal 5{1}	1.803	3.121	2.481	-0.311	-0.075	0.429
	GRT1{1}	-1.141	1.948	-1.082	-0.024	-0.024	0.170
	GRT2{1}	1.369	4.582	2.267	-0.293	-0.065	0.460
	GRT3{1}	1.425	5.006	1.748	-0.318	-0.076	0.394
	GRT4{1}	-1.310	2.068	2.175	-0.320	-0.094	0.148
	GRT5{1}	1.788	2.996	1.810	-0.389	-0.001	0.438

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
A16 F	Gravity{1}	-0.041	-0.152	-0.646	-0.072	0.081	0.006
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.205	2.039	-0.554	0.055	-0.099	0.153
	Thermal 2{1}	1.321	4.484	2.780	-0.223	-0.148	0.446
	Thermal 3{1}	1.380	4.923	2.258	-0.243	-0.154	0.383
	Thermal 4{1}	-1.347	2.065	2.677	-0.250	-0.181	0.133
	Thermal 5{1}	1.771	2.873	2.401	-0.320	-0.070	0.427
	GRT1{1}	-1.246	1.887	-1.200	-0.017	-0.019	0.159
	GRT2{1}	1.280	4.332	2.134	-0.295	-0.067	0.452
	GRT3{1}	1.339	4.771	1.612	-0.316	-0.073	0.389
	GRT4{1}	-1.388	1.913	2.032	-0.323	-0.101	0.139
	GRT5{1}	1.730	2.721	1.755	-0.393	0.010	0.433
A17 N	Gravity{1}	-0.479	-0.403	-0.645	-0.037	0.110	-0.012

Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
Thermal 1{1}	-0.815	2.302	-0.554	0.064	-0.055	0.096
Thermal 2{1}	2.083	3.369	2.780	-0.261	-0.184	0.399
Thermal 3{1}	2.125	3.774	2.258	-0.254	-0.173	0.359
Thermal 4{1}	-0.472	0.822	2.677	-0.288	-0.183	0.081
Thermal 5{1}	2.112	1.343	1.628	-0.337	-0.095	0.403
GRT1{1}	-1.294	1.899	-1.200	0.027	0.055	0.084
GRT2{1}	1.604	2.966	2.134	-0.297	-0.074	0.388
GRT3{1}	1.647	3.371	1.612	-0.291	-0.063	0.347
GRT4{1}	-0.950	0.419	2.032	-0.324	-0.072	0.069
GRT5{1}	1.634	0.940	0.982	-0.374	0.016	0.391

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BENTLEY

RESULT PAGE 13

DVI_B_LINE_REV0.OUT
D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
A18 N	Gravity{1}	-0.516	-0.338	-0.221	0.009	0.092	-0.027
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.799	2.056	-0.565	0.089	0.037	0.047
	Thermal 2{1}	2.145	1.836	2.046	-0.288	-0.186	0.358
	Thermal 3{1}	2.183	2.367	1.573	-0.250	-0.176	0.333
	Thermal 4{1}	-0.412	0.511	2.142	-0.309	-0.095	0.032
	Thermal 5{1}	1.499	-0.240	1.101	-0.313	-0.130	0.362
	GRT1{1}	-1.315	1.719	-0.786	0.097	0.129	0.020
	GRT2{1}	1.629	1.499	1.825	-0.280	-0.094	0.330
	GRT3{1}	1.667	2.029	1.352	-0.242	-0.084	0.305
	GRT4{1}	-0.928	0.173	1.921	-0.300	-0.003	0.005
	GRT5{1}	0.983	-0.578	0.880	-0.304	-0.038	0.335
A18 F	Gravity{1}	-0.489	-0.332	-0.193	0.015	0.074	-0.030
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.783	2.012	-0.550	0.091	0.055	0.036
	Thermal 2{1}	2.085	1.816	1.985	-0.294	-0.177	0.347
	Thermal 3{1}	2.126	2.340	1.515	-0.250	-0.171	0.325
	Thermal 4{1}	-0.438	0.606	2.114	-0.313	-0.068	0.019
	Thermal 5{1}	1.401	-0.255	1.115	-0.311	-0.125	0.348
	GRT1{1}	-1.272	1.680	-0.743	0.106	0.129	0.007
	GRT2{1}	1.596	1.483	1.792	-0.279	-0.104	0.317
	GRT3{1}	1.637	2.008	1.322	-0.235	-0.097	0.296
	GRT4{1}	-0.927	0.273	1.921	-0.298	0.005	-0.011
	GRT5{1}	0.912	-0.588	0.922	-0.296	-0.052	0.319
A56	Gravity{1}	-0.374	-0.388	-0.193	0.033	0.027	-0.042
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.616	1.794	-0.550	0.098	0.086	-0.004
	Thermal 2{1}	1.703	2.504	1.985	-0.310	-0.157	0.309
	Thermal 3{1}	1.752	2.914	1.515	-0.253	-0.156	0.299
	Thermal 4{1}	-0.531	1.336	2.114	-0.328	-0.019	-0.027
	Thermal 5{1}	1.139	0.452	1.501	-0.311	-0.100	0.297
	GRT1{1}	-0.991	1.406	-0.743	0.132	0.113	-0.046
	GRT2{1}	1.328	2.116	1.792	-0.276	-0.130	0.268
	GRT3{1}	1.378	2.526	1.322	-0.219	-0.129	0.257
	GRT4{1}	-0.906	0.948	1.921	-0.294	0.008	-0.068
	GRT5{1}	0.765	0.064	1.308	-0.278	-0.073	0.256

		DVI_B_LINE_REV0.OUT					
A19 N	Gravity{1}	-0.364	-0.484	-0.192	0.051	-0.018	-0.054
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.408	1.566	-0.550	0.100	0.093	-0.045
	Thermal 2{1}	1.365	3.236	1.985	-0.332	-0.139	0.272
	Thermal 3{1}	1.412	3.500	1.515	-0.261	-0.141	0.272
	Thermal 4{1}	-0.543	2.110	2.113	-0.350	0.003	-0.072
	Thermal 5{1}	0.961	1.179	1.887	-0.328	-0.052	0.246
	GRT1{1}	-0.772	1.082	-0.743	0.151	0.074	-0.099
	GRT2{1}	1.000	2.752	1.793	-0.281	-0.157	0.218
	GRT3{1}	1.047	3.016	1.322	-0.211	-0.159	0.218
	GRT4{1}	-0.908	1.626	1.921	-0.300	-0.015	-0.126
	GRT5{1}	0.596	0.695	1.695	-0.277	-0.070	0.192

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Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
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A19 F	Gravity{1}	-0.355	-0.502	-0.174	0.056	-0.034	-0.055
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.360	1.533	-0.517	0.100	0.091	-0.055
	Thermal 2{1}	1.232	3.347	1.873	-0.342	-0.132	0.261
	Thermal 3{1}	1.278	3.587	1.427	-0.266	-0.134	0.264
	Thermal 4{1}	-0.515	2.227	1.995	-0.361	0.006	-0.084
	Thermal 5{1}	0.868	1.345	1.832	-0.338	-0.029	0.229
	GRT1{1}	-0.714	1.031	-0.691	0.156	0.057	-0.111
	GRT2{1}	0.877	2.846	1.699	-0.285	-0.166	0.206
	GRT3{1}	0.923	3.086	1.253	-0.210	-0.168	0.208
	GRT4{1}	-0.870	1.726	1.821	-0.305	-0.028	-0.139
GRT5{1}	0.514	0.843	1.658	-0.282	-0.063	0.174	
A20	Gravity{1}	-0.071	-0.502	0.003	-0.003	-0.147	-0.074
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.063	1.532	-0.090	0.094	0.070	-0.065
	Thermal 2{1}	0.202	3.347	0.334	-0.348	-0.089	0.210
	Thermal 3{1}	0.213	3.587	0.251	-0.262	-0.094	0.221
	Thermal 4{1}	-0.089	2.227	0.358	-0.373	0.016	-0.093

		DVI_B_LINE_REV0.OUT					
	Thermal 5{1}	0.102	2.085	0.321	-0.334	0.127	0.106
	GRT1{1}	-0.134	1.031	-0.087	0.090	-0.077	-0.140
	GRT2{1}	0.130	2.846	0.337	-0.351	-0.236	0.136
	GRT3{1}	0.141	3.086	0.255	-0.265	-0.241	0.147
	GRT4{1}	-0.160	1.725	0.361	-0.376	-0.131	-0.167
	GRT5{1}	0.030	1.584	0.324	-0.338	-0.020	0.032
A20 M	Gravity{1}	0.000	-0.502	0.000	-0.004	-0.147	-0.074
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	1.532	0.000	0.094	0.070	-0.065
	Thermal 2{1}	0.000	3.347	0.000	-0.347	-0.089	0.210
	Thermal 3{1}	0.000	3.587	0.000	-0.262	-0.094	0.221
	Thermal 4{1}	0.000	2.227	0.000	-0.373	0.016	-0.093
	Thermal 5{1}	0.000	2.248	0.000	-0.334	0.127	0.106
	GRT1{1}	0.000	1.031	0.000	0.090	-0.077	-0.140
	GRT2{1}	0.000	2.846	0.000	-0.351	-0.236	0.136
	GRT3{1}	0.000	3.086	0.000	-0.265	-0.241	0.147
	GRT4{1}	0.000	1.725	0.000	-0.377	-0.131	-0.167
	GRT5{1}	0.000	1.746	0.000	-0.338	-0.020	0.031
CH02	Gravity{1}	0.071	-0.502	-0.004	-0.004	-0.147	-0.074
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.062	1.532	0.090	0.094	0.070	-0.065
	Thermal 2{1}	-0.202	3.347	-0.333	-0.347	-0.089	0.210
	Thermal 3{1}	-0.212	3.587	-0.251	-0.262	-0.094	0.221
	Thermal 4{1}	0.089	2.227	-0.358	-0.373	0.016	-0.092
	Thermal 5{1}	-0.101	2.410	-0.321	-0.334	0.127	0.105
	GRT1{1}	0.134	1.031	0.086	0.090	-0.077	-0.139
	GRT2{1}	-0.130	2.846	-0.337	-0.351	-0.236	0.136
	GRT3{1}	-0.141	3.086	-0.255	-0.266	-0.241	0.147
	GRT4{1}	0.160	1.725	-0.362	-0.377	-0.131	-0.167
	GRT5{1}	-0.030	1.908	-0.324	-0.338	-0.020	0.031

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DVI_B_LINE_REV0

09/13/2010 DVI BLINE

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09:56 AM

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RESULT PAGE 15

DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
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		DVI_B_LINE_REV0.OUT					
A70	Gravity{1}	0.385	-0.502	-0.227	-0.080	-0.268	-0.077
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.217	1.532	0.444	0.083	0.048	-0.013
	Thermal 2{1}	-0.981	3.347	-1.629	-0.299	-0.044	0.184
	Thermal 3{1}	-1.038	3.587	-1.221	-0.223	-0.050	0.196
	Thermal 4{1}	0.320	2.227	-1.763	-0.327	0.026	-0.023
	Thermal 5{1}	-0.325	3.088	-1.539	-0.279	0.295	0.036
	GRT1{1}	0.602	1.031	0.217	0.003	-0.221	-0.090
	GRT2{1}	-0.596	2.845	-1.856	-0.379	-0.312	0.107
	GRT3{1}	-0.653	3.085	-1.448	-0.303	-0.319	0.119
	GRT4{1}	0.705	1.725	-1.990	-0.407	-0.242	-0.100
	GRT5{1}	0.060	2.586	-1.766	-0.359	0.026	-0.041
A22 N	Gravity{1}	0.551	-0.502	-0.393	-0.056	-0.337	-0.066
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.216	1.532	0.627	0.077	0.035	0.014
	Thermal 2{1}	-1.397	3.347	-2.282	-0.274	-0.018	0.183
	Thermal 3{1}	-1.482	3.587	-1.707	-0.203	-0.025	0.195
	Thermal 4{1}	0.327	2.227	-2.481	-0.301	0.032	0.017
	Thermal 5{1}	-0.437	3.474	-2.156	-0.263	0.390	0.073
	GRT1{1}	0.767	1.030	0.234	0.021	-0.303	-0.053
	GRT2{1}	-0.847	2.845	-2.675	-0.330	-0.355	0.116
	GRT3{1}	-0.931	3.085	-2.100	-0.259	-0.363	0.128
	GRT4{1}	0.878	1.725	-2.874	-0.357	-0.305	-0.050
	GRT5{1}	0.114	2.972	-2.549	-0.319	0.052	0.006
A22 F	Gravity{1}	0.572	-0.482	-0.524	-0.038	-0.355	-0.057
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.210	1.525	0.662	0.074	0.030	0.029
	Thermal 2{1}	-1.458	3.286	-2.374	-0.260	-0.006	0.186
	Thermal 3{1}	-1.547	3.522	-1.780	-0.193	-0.015	0.198
	Thermal 4{1}	0.318	2.216	-2.568	-0.289	0.037	0.041
	Thermal 5{1}	-0.522	3.497	-2.106	-0.251	0.424	0.115
	GRT1{1}	0.781	1.043	0.138	0.036	-0.325	-0.028
	GRT2{1}	-0.887	2.804	-2.899	-0.298	-0.361	0.129
	GRT3{1}	-0.975	3.040	-2.304	-0.231	-0.370	0.141
	GRT4{1}	0.890	1.735	-3.092	-0.326	-0.318	-0.016
	GRT5{1}	0.050	3.015	-2.630	-0.289	0.069	0.059
A24	Gravity{1}	0.572	-0.445	-0.767	-0.017	-0.367	-0.052
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.210	1.502	0.681	0.072	0.027	0.036
	Thermal 2{1}	-1.458	3.161	-2.377	-0.251	0.000	0.187
	Thermal 3{1}	-1.547	3.388	-1.788	-0.186	-0.009	0.199

	DVI_B_LINE_REV0.OUT					
Thermal 4{1}	0.318	2.185	-2.543	-0.278	0.038	0.052
Thermal 5{1}	-0.635	3.413	-1.814	-0.248	0.445	0.135
GRT1{1}	0.781	1.057	-0.086	0.055	-0.340	-0.016
GRT2{1}	-0.887	2.716	-3.144	-0.268	-0.367	0.134
GRT3{1}	-0.975	2.943	-2.555	-0.203	-0.376	0.147
GRT4{1}	0.890	1.740	-3.310	-0.296	-0.329	0.000
GRT5{1}	-0.063	2.967	-2.581	-0.265	0.078	0.083

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DVI_B_LINE_REV0

09/13/2010 DVI.BLINE

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09:56 AM

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RESULT PAGE 16

D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
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A26	Gravity{1}	0.572	0.000	-5.996	-0.011	-0.010	-0.009
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.210	0.000	0.686	0.056	-0.018	0.066
	Thermal 2{1}	-1.458	0.000	-1.364	-0.152	0.083	0.091
	Thermal 3{1}	-1.546	0.000	-0.989	-0.108	0.070	0.099
	Thermal 4{1}	0.318	0.000	-1.531	-0.171	0.065	0.089
	Thermal 5{1}	-3.732	0.000	9.514	-0.297	0.652	-0.012
	GRT1{1}	0.782	0.000	-5.311	0.045	-0.029	0.058
	GRT2{1}	-0.886	0.000	-7.361	-0.163	0.073	0.082
	GRT3{1}	-0.974	0.000	-6.985	-0.119	0.059	0.090
	GRT4{1}	0.890	0.000	-7.527	-0.182	0.055	0.080
	GRT5{1}	-3.160	0.000	3.517	-0.308	0.642	-0.021
A28	Gravity{1}	0.572	0.008	0.001	-0.003	0.263	0.013
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.210	-0.172	0.287	0.036	-0.006	-0.018
	Thermal 2{1}	-1.457	0.117	-0.372	-0.034	-0.031	-0.021
	Thermal 3{1}	-1.546	0.046	-0.276	-0.016	-0.042	-0.018
	Thermal 4{1}	0.318	0.140	-0.239	-0.043	0.043	-0.045
	Thermal 5{1}	-7.422	4.750	16.819	-0.355	-0.180	-0.094
	GRT1{1}	0.782	-0.164	0.288	0.033	0.256	-0.005
	GRT2{1}	-0.885	0.125	-0.371	-0.037	0.231	-0.008
	GRT3{1}	-0.973	0.055	-0.275	-0.020	0.220	-0.005
	GRT4{1}	0.891	0.148	-0.239	-0.046	0.306	-0.032
	GRT5{1}	-6.849	4.758	16.819	-0.358	0.082	-0.081

DVI_B_LINE_REV0.OUT

A29 N	Gravity{1}	0.573	-0.028	0.625	-0.004	0.202	0.013
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.210	-0.127	0.276	0.029	-0.002	-0.016
	Thermal 2{1}	-1.457	0.177	-0.480	-0.028	-0.048	-0.023
	Thermal 3{1}	-1.546	0.100	-0.413	-0.013	-0.059	-0.021
	Thermal 4{1}	0.318	0.262	-0.126	-0.037	0.040	-0.044
	Thermal 5{1}	-7.882	4.992	16.176	-0.398	-0.289	-0.088
	GRT1{1}	0.782	-0.155	0.901	0.024	0.200	-0.002
	GRT2{1}	-0.885	0.149	0.145	-0.032	0.153	-0.010
	GRT3{1}	-0.973	0.072	0.212	-0.018	0.143	-0.007
	GRT4{1}	0.891	0.234	0.499	-0.041	0.242	-0.031
	GRT5{1}	-7.309	4.964	16.800	-0.403	-0.087	-0.075
A29 F	Gravity{1}	0.511	-0.034	0.688	-0.005	0.180	0.013
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.210	-0.113	0.276	0.027	0.001	-0.015
	Thermal 2{1}	-1.439	0.176	-0.497	-0.026	-0.057	-0.024
	Thermal 3{1}	-1.525	0.103	-0.433	-0.012	-0.067	-0.022
	Thermal 4{1}	0.306	0.264	-0.113	-0.035	0.038	-0.044
	Thermal 5{1}	-7.833	4.888	16.021	-0.410	-0.337	-0.088
	GRT1{1}	0.721	-0.146	0.963	0.022	0.180	-0.001
	GRT2{1}	-0.928	0.142	0.191	-0.030	0.122	-0.011
	GRT3{1}	-1.013	0.069	0.254	-0.017	0.113	-0.008
	GRT4{1}	0.817	0.230	0.575	-0.040	0.218	-0.030
	GRT5{1}	-7.321	4.855	16.708	-0.414	-0.157	-0.075

 DVI_B_LINE_REV0
 09/13/2010 DVI BLINE
 09:56 AM
 AutoPIPE Plus 9.2.1

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RESULT PAGE 17

D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
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A46	Gravity{1}	0.509	-0.034	0.688	-0.005	0.180	0.013
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.210	-0.112	0.276	0.027	0.001	-0.015
	Thermal 2{1}	-1.439	0.176	-0.497	-0.026	-0.057	-0.024
	Thermal 3{1}	-1.524	0.103	-0.433	-0.012	-0.067	-0.022
	Thermal 4{1}	0.305	0.264	-0.113	-0.035	0.038	-0.044

DVI_B_LINE_REV0.OUT

	Thermal 5{1}	-7.829	4.884	16.019	-0.410	-0.337	-0.088
	GRT1{1}	0.719	-0.146	0.963	0.022	0.180	-0.001
	GRT2{1}	-0.929	0.142	0.191	-0.030	0.122	-0.011
	GRT3{1}	-1.015	0.069	0.254	-0.017	0.112	-0.008
	GRT4{1}	0.815	0.230	0.575	-0.040	0.218	-0.030
	GRT5{1}	-7.320	4.850	16.706	-0.414	-0.158	-0.075
A45	Gravity{1}	0.395	-0.037	0.688	-0.005	0.165	0.013
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.209	-0.095	0.276	0.024	0.002	-0.015
	Thermal 2{1}	-1.399	0.159	-0.497	-0.024	-0.063	-0.025
	Thermal 3{1}	-1.477	0.095	-0.433	-0.012	-0.073	-0.023
	Thermal 4{1}	0.280	0.241	-0.113	-0.034	0.037	-0.043
	Thermal 5{1}	-7.593	4.608	15.906	-0.420	-0.370	-0.093
	GRT1{1}	0.604	-0.132	0.963	0.020	0.167	-0.001
	GRT2{1}	-1.004	0.122	0.191	-0.029	0.102	-0.012
	GRT3{1}	-1.082	0.058	0.254	-0.016	0.092	-0.009
	GRT4{1}	0.675	0.204	0.575	-0.039	0.202	-0.030
	GRT5{1}	-7.199	4.571	16.594	-0.425	-0.205	-0.079
A68	Gravity{1}	0.000	0.000	0.687	0.020	-0.021	0.011
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.276	0.003	0.018	-0.001
	Thermal 2{1}	0.000	0.000	-0.497	-0.012	-0.103	-0.052
	Thermal 3{1}	0.000	0.000	-0.433	-0.010	-0.107	-0.052
	Thermal 4{1}	0.000	0.000	-0.113	-0.010	0.008	-0.022
	Thermal 5{1}	0.000	0.000	13.693	-0.075	-0.520	-0.221
	GRT1{1}	0.000	0.000	0.962	0.023	-0.003	0.009
	GRT2{1}	0.000	0.000	0.190	0.008	-0.124	-0.042
	GRT3{1}	0.000	0.000	0.254	0.010	-0.127	-0.041
	GRT4{1}	0.000	0.000	0.574	0.010	-0.012	-0.011
	GRT5{1}	0.000	0.000	14.380	-0.054	-0.541	-0.210
A35 N	Gravity{1}	-0.073	0.396	0.687	0.044	0.033	0.008
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.134	0.118	0.276	0.019	0.010	0.010
	Thermal 2{1}	0.826	-0.250	-0.497	-0.034	-0.059	-0.075
	Thermal 3{1}	0.845	-0.214	-0.433	-0.030	-0.060	-0.076
	Thermal 4{1}	-0.021	-0.111	-0.113	-0.010	-0.002	-0.003
	Thermal 5{1}	3.494	2.948	11.823	0.538	-0.184	-0.329
	GRT1{1}	-0.207	0.514	0.962	0.063	0.043	0.018
	GRT2{1}	0.753	0.146	0.190	0.009	-0.026	-0.067
	GRT3{1}	0.772	0.182	0.254	0.014	-0.027	-0.068
	GRT4{1}	-0.094	0.285	0.574	0.034	0.032	0.005

DVI_B_LINE_REV0.OUT

GRT5{1} 3.421 3.344 12.510 0.581 -0.151 -0.321

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DVI_B_LINE_REV0

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BENTLEY

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
A35 F	Gravity{1}	-0.082	0.411	0.672	0.044	0.038	0.007
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.134	0.124	0.269	0.020	0.010	0.011
	Thermal 2{1}	0.821	-0.262	-0.485	-0.037	-0.059	-0.076
	Thermal 3{1}	0.839	-0.224	-0.423	-0.032	-0.060	-0.078
	Thermal 4{1}	-0.022	-0.115	-0.109	-0.010	-0.002	-0.002
	Thermal 5{1}	3.443	3.075	11.581	0.575	-0.175	-0.336
	GRT1{1}	-0.216	0.535	0.941	0.064	0.048	0.018
	GRT2{1}	0.739	0.149	0.187	0.007	-0.021	-0.069
	GRT3{1}	0.757	0.186	0.249	0.012	-0.022	-0.070
	GRT4{1}	-0.103	0.296	0.563	0.033	0.036	0.005
	GRT5{1}	3.361	3.485	12.253	0.619	-0.137	-0.329
A54	Gravity{1}	-0.047	0.411	0.460	0.044	0.068	0.007
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.076	0.124	0.157	0.024	0.012	0.012
	Thermal 2{1}	0.442	-0.262	-0.285	-0.043	-0.059	-0.075
	Thermal 3{1}	0.453	-0.224	-0.249	-0.037	-0.059	-0.077
	Thermal 4{1}	-0.021	-0.115	-0.059	-0.010	-0.003	0.002
	Thermal 5{1}	1.788	2.246	8.484	0.662	-0.115	-0.324
	GRT1{1}	-0.123	0.535	0.617	0.069	0.080	0.019
	GRT2{1}	0.395	0.149	0.175	0.001	0.010	-0.068
	GRT3{1}	0.405	0.186	0.211	0.007	0.010	-0.070
	GRT4{1}	-0.068	0.296	0.400	0.035	0.066	0.009
	GRT5{1}	1.741	2.657	8.943	0.706	-0.047	-0.317
A69	Gravity{1}	0.000	0.411	0.000	0.107	0.112	0.007
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.124	0.000	0.018	0.014	0.008
	Thermal 2{1}	0.000	-0.262	0.000	-0.035	-0.058	-0.046
	Thermal 3{1}	0.000	-0.224	0.000	-0.031	-0.057	-0.047

DVI_B_LINE_REV0.OUT

	Thermal 4{1}	0.000	-0.115	0.000	-0.007	-0.004	0.003
	Thermal 5{1}	0.000	1.066	4.174	0.521	-0.030	-0.159
	GRT1{1}	0.000	0.535	0.000	0.126	0.125	0.015
	GRT2{1}	0.000	0.149	0.000	0.072	0.054	-0.039
	GRT3{1}	0.000	0.186	0.000	0.076	0.055	-0.040
	GRT4{1}	0.000	0.296	0.000	0.101	0.108	0.010
	GRT5{1}	0.000	1.477	4.174	0.628	0.082	-0.152
A36 N	Gravity{1}	0.060	0.411	-1.688	0.059	0.198	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.030	0.124	-0.121	0.002	0.018	-0.002
	Thermal 2{1}	-0.171	-0.262	0.288	-0.010	-0.056	0.010
	Thermal 3{1}	-0.176	-0.224	0.265	-0.010	-0.054	0.010
	Thermal 4{1}	0.011	-0.115	0.041	0.000	-0.005	-0.001
	Thermal 5{1}	0.061	-1.267	0.109	0.134	0.139	0.080
	GRT1{1}	0.090	0.535	-1.809	0.061	0.216	-0.003
	GRT2{1}	-0.112	0.149	-1.400	0.049	0.141	0.009
	GRT3{1}	-0.116	0.186	-1.422	0.049	0.144	0.009
	GRT4{1}	0.070	0.296	-1.646	0.058	0.192	-0.002
	GRT5{1}	0.121	-0.856	-1.579	0.193	0.336	0.079

 DVI_B_LINE_REV0
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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
A36 M	Gravity{1}	0.059	0.411	-1.690	0.055	0.199	-0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.030	0.124	-0.121	0.002	0.018	-0.002
	Thermal 2{1}	-0.170	-0.262	0.288	-0.009	-0.056	0.010
	Thermal 3{1}	-0.174	-0.225	0.265	-0.009	-0.054	0.011
	Thermal 4{1}	0.011	-0.115	0.041	0.000	-0.005	-0.001
	Thermal 5{1}	0.067	-1.290	0.095	0.130	0.140	0.080
	GRT1{1}	0.089	0.535	-1.811	0.056	0.217	-0.003
	GRT2{1}	-0.111	0.149	-1.402	0.045	0.143	0.009
	GRT3{1}	-0.115	0.186	-1.425	0.045	0.145	0.009
	GRT4{1}	0.070	0.296	-1.649	0.054	0.193	-0.002

		DVI_B_LINE_REV0.OUT					
		0.127	-0.879	-1.594	0.185	0.339	0.078
	GRT5{1}						
A36 F	Gravity{1}	0.059	0.411	-1.681	0.051	0.200	-0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.030	0.124	-0.120	0.001	0.018	-0.002
	Thermal 2{1}	-0.169	-0.263	0.285	-0.009	-0.056	0.011
	Thermal 3{1}	-0.173	-0.225	0.262	-0.009	-0.054	0.011
	Thermal 4{1}	0.011	-0.115	0.041	0.000	-0.006	-0.001
	Thermal 5{1}	0.064	-1.314	0.092	0.127	0.143	0.079
	GRT1{1}	0.089	0.535	-1.801	0.052	0.219	-0.004
	GRT2{1}	-0.110	0.148	-1.397	0.042	0.144	0.009
	GRT3{1}	-0.114	0.185	-1.419	0.042	0.147	0.009
	GRT4{1}	0.070	0.296	-1.640	0.051	0.195	-0.003
	GRT5{1}	0.123	-0.903	-1.589	0.178	0.343	0.078
A37 N	Gravity{1}	0.034	0.436	-0.469	-0.061	0.207	-0.005
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.016	0.138	-0.015	-0.002	0.018	-0.003
	Thermal 2{1}	-0.088	-0.343	0.008	-0.001	-0.052	0.016
	Thermal 3{1}	-0.090	-0.308	0.004	-0.002	-0.049	0.016
	Thermal 4{1}	0.005	-0.109	0.007	0.001	-0.005	-0.001
	Thermal 5{1}	-0.447	-2.681	0.501	0.064	0.165	0.080
	GRT1{1}	0.050	0.575	-0.484	-0.063	0.225	-0.008
	GRT2{1}	-0.055	0.094	-0.461	-0.062	0.155	0.011
	GRT3{1}	-0.057	0.129	-0.465	-0.063	0.158	0.011
	GRT4{1}	0.038	0.327	-0.462	-0.060	0.201	-0.006
	GRT5{1}	-0.414	-2.244	0.032	0.003	0.372	0.074
A37 F	Gravity{1}	0.032	0.437	-0.434	-0.064	0.206	-0.005
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.015	0.138	-0.013	-0.002	0.018	-0.003
	Thermal 2{1}	-0.085	-0.344	0.004	-0.001	-0.052	0.016
	Thermal 3{1}	-0.087	-0.310	-0.001	-0.001	-0.049	0.016
	Thermal 4{1}	0.005	-0.109	0.006	0.001	-0.005	-0.001
	Thermal 5{1}	-0.445	-2.728	0.502	0.064	0.164	0.080
	GRT1{1}	0.048	0.575	-0.447	-0.067	0.224	-0.008
	GRT2{1}	-0.052	0.093	-0.431	-0.065	0.155	0.011
	GRT3{1}	-0.054	0.127	-0.435	-0.066	0.157	0.011
	GRT4{1}	0.037	0.328	-0.428	-0.063	0.201	-0.006
	GRT5{1}	-0.413	-2.291	0.068	-0.001	0.370	0.075

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DVI_B_LINE_REV0

09/13/2010 DVI.BLINE

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
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A38	Gravity{1}	0.005	0.437	-0.045	-0.049	0.185	-0.005
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.002	0.138	-0.001	-0.001	0.016	-0.002
	Thermal 2{1}	-0.008	-0.344	0.001	0.001	-0.047	0.009
	Thermal 3{1}	-0.008	-0.310	0.000	0.001	-0.044	0.009
	Thermal 4{1}	0.000	-0.109	0.001	0.001	-0.005	0.000
	Thermal 5{1}	-0.040	-3.706	0.085	0.092	0.145	0.044
	GRT1{1}	0.006	0.575	-0.046	-0.050	0.201	-0.007
	GRT2{1}	-0.003	0.093	-0.044	-0.048	0.139	0.004
	GRT3{1}	-0.004	0.127	-0.044	-0.048	0.141	0.004
	GRT4{1}	0.005	0.328	-0.044	-0.048	0.180	-0.005
	GRT5{1}	-0.036	-3.269	0.040	0.043	0.330	0.039
A38 M	Gravity{1}	0.000	0.437	0.000	-0.049	0.185	-0.005
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.138	0.000	-0.001	0.016	-0.002
	Thermal 2{1}	0.000	-0.344	0.000	0.001	-0.047	0.009
	Thermal 3{1}	0.000	-0.310	0.000	0.001	-0.044	0.009
	Thermal 4{1}	0.000	-0.109	0.000	0.001	-0.005	0.000
	Thermal 5{1}	0.000	-3.861	0.000	0.092	0.145	0.044
	GRT1{1}	0.000	0.575	0.000	-0.050	0.201	-0.007
	GRT2{1}	0.000	0.093	0.000	-0.048	0.139	0.004
	GRT3{1}	0.000	0.127	0.000	-0.048	0.141	0.004
	GRT4{1}	0.000	0.328	0.000	-0.048	0.180	-0.005
	GRT5{1}	0.000	-3.424	0.000	0.044	0.330	0.039
CH06	Gravity{1}	-0.005	0.437	0.045	-0.049	0.185	-0.005
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.002	0.138	0.001	-0.001	0.016	-0.002
	Thermal 2{1}	0.008	-0.344	-0.001	0.001	-0.047	0.009
	Thermal 3{1}	0.008	-0.310	0.000	0.001	-0.044	0.009
	Thermal 4{1}	0.000	-0.109	-0.001	0.001	-0.005	0.000
	Thermal 5{1}	0.040	-4.016	-0.085	0.092	0.145	0.044
	GRT1{1}	-0.006	0.575	0.046	-0.050	0.201	-0.007
	GRT2{1}	0.003	0.093	0.044	-0.048	0.139	0.004
	GRT3{1}	0.003	0.127	0.044	-0.048	0.141	0.004

		DVI_B_LINE_REV0.OUT					
	GRT4{1}	-0.005	0.328	0.044	-0.048	0.180	-0.005
	GRT5{1}	0.035	-3.579	-0.040	0.044	0.330	0.039
OR10	Gravity{1}	-0.016	0.437	0.126	-0.024	0.177	-0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.004	0.138	0.004	-0.001	0.015	-0.001
	Thermal 2{1}	0.022	-0.344	-0.003	0.001	-0.045	0.003
	Thermal 3{1}	0.022	-0.310	-0.002	0.000	-0.042	0.003
	Thermal 4{1}	-0.001	-0.109	-0.002	0.000	-0.005	0.000
	Thermal 5{1}	0.104	-4.414	-0.304	0.086	0.137	0.013
	GRT1{1}	-0.020	0.575	0.130	-0.025	0.192	-0.005
	GRT2{1}	0.006	0.093	0.123	-0.024	0.132	-0.001
	GRT3{1}	0.006	0.127	0.124	-0.024	0.134	-0.001
	GRT4{1}	-0.016	0.328	0.124	-0.024	0.172	-0.004
	GRT5{1}	0.089	-3.977	-0.178	0.062	0.313	0.009

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DVI_B_LINE_REV0

09/13/2010 DVI BLINE

BENTLEY

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RESULT PAGE 21

DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
A39	Gravity{1}	-0.010	0.437	0.070	0.057	0.151	0.008
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.002	0.138	0.001	0.001	0.013	0.001
	Thermal 2{1}	0.007	-0.344	-0.001	-0.001	-0.039	-0.006
	Thermal 3{1}	0.007	-0.310	-0.001	-0.001	-0.037	-0.006
	Thermal 4{1}	0.000	-0.109	-0.001	-0.001	-0.004	0.000
	Thermal 5{1}	0.025	-5.593	-0.212	-0.173	0.113	-0.021
	GRT1{1}	-0.012	0.575	0.071	0.058	0.164	0.009
	GRT2{1}	-0.003	0.093	0.069	0.056	0.113	0.002
	GRT3{1}	-0.003	0.128	0.069	0.056	0.115	0.002
	GRT4{1}	-0.010	0.328	0.069	0.057	0.147	0.008
	GRT5{1}	0.015	-5.156	-0.142	-0.116	0.265	-0.013
A39 M	Gravity{1}	0.000	0.437	0.000	0.058	0.151	0.008
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.138	0.000	0.001	0.013	0.001
	Thermal 2{1}	0.000	-0.344	0.000	-0.001	-0.039	-0.006

		DVI_B_LINE_REV0.OUT					
	Thermal 3{1}	0.000	-0.310	0.000	-0.001	-0.037	-0.006
	Thermal 4{1}	0.000	-0.109	0.000	-0.001	-0.004	0.000
	Thermal 5{1}	0.000	-5.800	0.000	-0.174	0.113	-0.021
	GRT1{1}	0.000	0.575	0.000	0.059	0.164	0.010
	GRT2{1}	0.000	0.093	0.000	0.056	0.113	0.002
	GRT3{1}	0.000	0.128	0.000	0.057	0.115	0.002
	GRT4{1}	0.000	0.328	0.000	0.057	0.147	0.008
	GRT5{1}	0.000	-5.363	0.000	-0.117	0.265	-0.013
IV08	Gravity{1}	0.010	0.437	-0.070	0.058	0.151	0.008
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.002	0.138	-0.001	0.001	0.013	0.001
	Thermal 2{1}	-0.007	-0.344	0.001	-0.001	-0.039	-0.006
	Thermal 3{1}	-0.007	-0.310	0.001	-0.001	-0.037	-0.006
	Thermal 4{1}	0.000	-0.109	0.001	-0.001	-0.004	0.000
	Thermal 5{1}	-0.025	-6.006	0.213	-0.175	0.113	-0.021
	GRT1{1}	0.012	0.575	-0.072	0.059	0.164	0.010
	GRT2{1}	0.003	0.093	-0.069	0.057	0.113	0.002
	GRT3{1}	0.003	0.128	-0.069	0.057	0.115	0.002
	GRT4{1}	0.010	0.328	-0.070	0.057	0.147	0.008
	GRT5{1}	-0.015	-5.569	0.143	-0.117	0.265	-0.012
A40 N	Gravity{1}	0.878	0.437	-0.147	-0.098	0.058	0.045
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.070	0.138	-0.001	-0.003	0.005	0.003
	Thermal 2{1}	-0.242	-0.344	0.002	0.007	-0.016	-0.010
	Thermal 3{1}	-0.236	-0.309	0.002	0.006	-0.016	-0.010
	Thermal 4{1}	-0.012	-0.109	0.001	0.002	-0.001	-0.001
	Thermal 5{1}	0.170	-10.374	11.934	-0.160	0.027	0.021
	GRT1{1}	0.948	0.575	-0.148	-0.101	0.063	0.048
	GRT2{1}	0.636	0.093	-0.145	-0.091	0.041	0.034
	GRT3{1}	0.642	0.128	-0.145	-0.092	0.042	0.035
	GRT4{1}	0.866	0.328	-0.146	-0.096	0.056	0.044
	GRT5{1}	1.048	-9.937	11.787	-0.258	0.084	0.066

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DVI_B_LINE_REV0

09/13/2010 DVI BLINE

BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 22

DISPLACEMENTS

Point	Load	TRANSLATIONS (mm)	ROTATIONS (deg)

name	combination	DVI_B_LINE_REV0.OUT			X	Y	Z
		X	Y	Z			
-----	-----	-----	-----	-----	-----	-----	-----
A40 F	Gravity{1}	0.874	0.406	-0.115	-0.089	0.055	0.045
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.069	0.137	0.000	-0.003	0.005	0.003
	Thermal 2{1}	-0.241	-0.342	0.000	0.008	-0.016	-0.010
	Thermal 3{1}	-0.235	-0.307	0.000	0.007	-0.015	-0.010
	Thermal 4{1}	-0.012	-0.108	0.000	0.002	-0.001	-0.001
	Thermal 5{1}	0.168	-10.467	11.922	-0.087	0.024	0.021
	GRT1{1}	0.944	0.544	-0.115	-0.092	0.060	0.048
	GRT2{1}	0.634	0.064	-0.116	-0.081	0.039	0.034
	GRT3{1}	0.640	0.099	-0.116	-0.082	0.040	0.035
	GRT4{1}	0.862	0.298	-0.116	-0.086	0.054	0.044
	GRT5{1}	1.043	-10.061	11.807	-0.176	0.080	0.066
A75	Gravity{1}	0.000	0.000	-0.114	0.017	0.027	0.035
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	-0.005	0.001	0.003
	Thermal 2{1}	0.000	0.000	0.000	0.013	-0.005	-0.008
	Thermal 3{1}	0.000	0.000	0.000	0.011	-0.005	-0.008
	Thermal 4{1}	0.000	0.000	0.000	0.004	0.000	-0.001
	Thermal 5{1}	0.000	0.000	7.555	0.517	0.003	0.016
	GRT1{1}	0.000	0.000	-0.113	0.011	0.028	0.038
	GRT2{1}	0.000	0.000	-0.114	0.029	0.022	0.027
	GRT3{1}	0.000	0.000	-0.114	0.028	0.022	0.028
	GRT4{1}	0.000	0.000	-0.114	0.021	0.027	0.035
	GRT5{1}	0.000	0.000	7.442	0.533	0.030	0.052
A41 N	Gravity{1}	-0.026	-0.001	-0.089	-0.001	-0.079	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.001	0.000	-0.001	0.000	0.000
	Thermal 3{1}	0.000	0.001	0.000	-0.001	0.000	0.000
	Thermal 4{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 5{1}	-1.047	0.014	-8.648	-0.038	-0.018	-0.002
	GRT1{1}	-0.026	-0.001	-0.089	-0.001	-0.079	0.001
	GRT2{1}	-0.026	0.000	-0.089	-0.002	-0.078	0.001
	GRT3{1}	-0.026	0.000	-0.089	-0.002	-0.078	0.001
	GRT4{1}	-0.026	-0.001	-0.090	-0.001	-0.079	0.001
	GRT5{1}	-1.074	0.013	-8.737	-0.039	-0.096	-0.001
A41 F	Gravity{1}	0.000	-0.001	-0.063	-0.001	-0.076	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000

	DVI_B_LINE_REV0.OUT					
Thermal 2{1}	0.000	0.000	0.000	-0.001	0.000	0.000
Thermal 3{1}	0.000	0.000	0.000	-0.001	0.000	0.000
Thermal 4{1}	0.000	0.000	0.000	0.000	0.000	0.000
Thermal 5{1}	-0.985	0.002	-8.698	-0.030	-0.018	-0.001
GRT1{1}	0.000	-0.001	-0.063	-0.001	-0.076	0.001
GRT2{1}	0.000	-0.001	-0.063	-0.002	-0.076	0.000
GRT3{1}	0.000	-0.001	-0.063	-0.002	-0.076	0.000
GRT4{1}	0.000	-0.001	-0.063	-0.001	-0.076	0.001
GRT5{1}	-0.985	0.001	-8.761	-0.031	-0.094	0.000

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DVI_B_LINE_REV0

09/13/2010 DVIIBLINE

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DISPLACEMENTS

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
A73	Gravity{1}	0.000	0.000	0.000	-0.001	-0.042	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 5{1}	-0.820	0.001	-8.681	-0.018	-0.015	-0.001
	GRT1{1}	0.000	0.000	0.000	0.000	-0.042	0.000
	GRT2{1}	0.000	0.000	0.000	-0.001	-0.042	0.000
	GRT3{1}	0.000	0.000	0.000	-0.001	-0.042	0.000
	GRT4{1}	0.000	0.000	0.000	-0.001	-0.042	0.000
	GRT5{1}	-0.820	0.001	-8.681	-0.019	-0.057	0.000
A42	Gravity{1}	0.000	0.000	0.016	0.000	0.005	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 5{1}	-0.599	0.000	-8.667	-0.003	-0.004	0.000
	GRT1{1}	0.000	0.000	0.016	0.000	0.005	0.000
	GRT2{1}	0.000	0.000	0.016	0.000	0.005	0.000
	GRT3{1}	0.000	0.000	0.016	0.000	0.005	0.000

DVI_B_LINE_REV0.OUT							
	GRT4{1}	0.000	0.000	0.016	0.000	0.005	0.000
	GRT5{1}	-0.599	0.000	-8.651	-0.003	0.001	0.000
A72	Gravity{1}	0.000	0.000	0.010	0.000	0.005	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 5{1}	-0.448	0.000	-8.664	-0.001	-0.002	0.000
	GRT1{1}	0.000	0.000	0.010	0.000	0.005	0.000
	GRT2{1}	0.000	0.000	0.010	0.000	0.005	0.000
	GRT3{1}	0.000	0.000	0.010	0.000	0.005	0.000
	GRT4{1}	0.000	0.000	0.010	0.000	0.005	0.000
	GRT5{1}	-0.448	0.000	-8.654	-0.001	0.003	0.000
A44	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 5{1}	0.000	0.000	-8.660	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT5{1}	0.000	0.000	-8.660	0.000	0.000	0.000

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DVI_B_LINE_REV0

09/13/2010 DVI BLINE

BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 24

DISPLACEMENTS

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
*** Segment A end ***							
*** Segment B begin ***							
A07	Gravity{1}	0.000	0.562	-0.064	-0.017	-0.005	0.066
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000

DVI_B_LINE_REV0.OUT

	Thermal 1{1}	4.082	1.667	-17.635	-0.064	-0.002	0.282
	Thermal 2{1}	4.082	2.866	-17.858	-0.160	0.046	0.442
	Thermal 3{1}	4.082	2.860	-17.848	-0.160	0.045	0.442
	Thermal 4{1}	4.082	1.285	-17.818	-0.006	0.002	0.231
	Thermal 5{1}	2.058	2.022	-9.240	-0.129	0.041	0.300
	GRT1{1}	4.082	2.229	-17.699	-0.081	-0.007	0.348
	GRT2{1}	4.082	3.427	-17.922	-0.178	0.041	0.508
	GRT3{1}	4.082	3.421	-17.912	-0.177	0.040	0.507
	GRT4{1}	4.082	1.846	-17.881	-0.023	-0.003	0.297
	GRT5{1}	2.058	2.584	-9.304	-0.146	0.036	0.366
B01	Gravity{1}	0.000	0.532	-0.066	-0.016	-0.004	0.067
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.934	1.545	-17.639	-0.062	-0.014	0.272
	Thermal 2{1}	3.934	2.672	-17.841	-0.154	0.031	0.432
	Thermal 3{1}	3.934	2.666	-17.831	-0.154	0.030	0.432
	Thermal 4{1}	3.933	1.184	-17.819	-0.005	-0.007	0.222
	Thermal 5{1}	1.983	1.890	-9.225	-0.124	0.032	0.295
	GRT1{1}	3.933	2.077	-17.704	-0.078	-0.018	0.339
	GRT2{1}	3.934	3.204	-17.907	-0.170	0.027	0.499
	GRT3{1}	3.934	3.198	-17.897	-0.170	0.026	0.499
	GRT4{1}	3.933	1.716	-17.885	-0.022	-0.011	0.289
	GRT5{1}	1.983	2.422	-9.290	-0.140	0.028	0.362
B02	Gravity{1}	0.000	0.017	-0.007	-0.002	0.006	0.016
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.732	0.033	-18.236	-0.006	-0.031	0.033
	Thermal 2{1}	0.732	0.066	-18.238	-0.016	-0.029	0.064
	Thermal 3{1}	0.732	0.065	-18.238	-0.016	-0.029	0.064
	Thermal 4{1}	0.732	0.023	-18.245	-0.001	-0.023	0.023
	Thermal 5{1}	0.369	0.049	-9.373	-0.013	-0.015	0.047
	GRT1{1}	0.732	0.050	-18.243	-0.008	-0.025	0.049
	GRT2{1}	0.732	0.083	-18.245	-0.018	-0.023	0.080
	GRT3{1}	0.732	0.083	-18.245	-0.018	-0.023	0.080
	GRT4{1}	0.732	0.040	-18.252	-0.002	-0.017	0.039
	GRT5{1}	0.369	0.066	-9.381	-0.015	-0.009	0.064

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 DVI_B_LINE_REV0
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 RESULT PAGE 25

BENTLEY

D I S P L A C E M E N T S

Pagina 93

DVI_B_LINE_REV0.OUT

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
B03	Gravity{1}	0.000	0.008	-0.004	-0.001	0.004	0.010
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.509	0.016	-18.253	-0.004	-0.021	0.020
	Thermal 2{1}	0.509	0.031	-18.254	-0.010	-0.019	0.040
	Thermal 3{1}	0.509	0.031	-18.254	-0.010	-0.019	0.040
	Thermal 4{1}	0.509	0.010	-18.258	0.000	-0.015	0.014
	Thermal 5{1}	0.257	0.023	-9.382	-0.008	-0.010	0.030
	GRT1{1}	0.509	0.024	-18.257	-0.005	-0.016	0.031
	GRT2{1}	0.509	0.039	-18.258	-0.011	-0.015	0.050
	GRT3{1}	0.509	0.039	-18.258	-0.011	-0.015	0.050
	GRT4{1}	0.509	0.019	-18.261	-0.001	-0.011	0.024
	GRT5{1}	0.257	0.031	-9.386	-0.009	-0.006	0.040
B04	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	-18.270	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	-18.270	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	-18.270	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	-18.270	0.000	0.000	0.000
	Thermal 5{1}	0.000	0.000	-9.390	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	-18.270	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	-18.270	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	-18.270	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	-18.270	0.000	0.000	0.000
	GRT5{1}	0.000	0.000	-9.390	0.000	0.000	0.000
*** Segment B end ***							
*** Segment C begin ***							
A08	Gravity{1}	-0.221	-0.103	-0.060	0.170	-0.010	0.011
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	5.382	3.034	-12.179	-0.072	0.038	0.770
	Thermal 2{1}	6.218	5.504	-12.403	-0.025	0.019	0.961
	Thermal 3{1}	6.222	5.508	-12.392	-0.028	0.020	0.964
	Thermal 4{1}	5.017	1.314	-12.362	0.000	0.017	0.715
	Thermal 5{1}	3.491	4.024	-6.491	0.005	0.002	0.576
	GRT1{1}	5.161	2.931	-12.239	0.097	0.028	0.781
	GRT2{1}	5.997	5.401	-12.462	0.144	0.009	0.973
	GRT3{1}	6.001	5.405	-12.452	0.141	0.010	0.975
	GRT4{1}	4.796	1.211	-12.422	0.169	0.007	0.726

GRT5{1} DVI_B_LINE_REV0.OUT 3.270 3.921 -6.550 0.174 -0.009 0.587

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DVI_B_LINE_REV0

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RESULT PAGE 26

DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
C01	Gravity{1}	-0.226	-0.176	-0.059	0.159	-0.010	0.009
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	5.396	3.064	-12.031	-0.064	0.024	0.759
	Thermal 2{1}	6.222	5.513	-12.254	-0.012	0.000	0.949
	Thermal 3{1}	6.226	5.517	-12.244	-0.015	0.001	0.952
	Thermal 4{1}	5.022	1.315	-12.214	-0.002	0.007	0.703
	Thermal 5{1}	3.489	4.020	-6.416	0.014	-0.011	0.569
	GRT1{1}	5.170	2.888	-12.090	0.095	0.014	0.768
	GRT2{1}	5.997	5.337	-12.313	0.147	-0.010	0.957
	GRT3{1}	6.001	5.342	-12.303	0.144	-0.009	0.960
	GRT4{1}	4.796	1.139	-12.273	0.157	-0.003	0.712
	GRT5{1}	3.263	3.844	-6.475	0.173	-0.021	0.578
C02 N	Gravity{1}	-0.020	-0.792	-0.053	-0.018	0.056	-0.074
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	4.703	2.656	-6.742	0.059	0.071	0.372
	Thermal 2{1}	4.709	3.670	-6.965	0.150	0.050	0.496
	Thermal 3{1}	4.709	3.689	-6.954	0.150	0.049	0.498
	Thermal 4{1}	4.692	1.597	-6.925	-0.021	0.103	0.263
	Thermal 5{1}	2.374	2.383	-3.749	0.123	0.022	0.314
	GRT1{1}	4.683	1.864	-6.795	0.041	0.127	0.298
	GRT2{1}	4.689	2.878	-7.018	0.132	0.106	0.422
	GRT3{1}	4.689	2.897	-7.008	0.132	0.105	0.424
	GRT4{1}	4.673	0.805	-6.978	-0.039	0.159	0.189
	GRT5{1}	2.354	1.591	-3.803	0.105	0.078	0.240
C02 M	Gravity{1}	-0.006	-0.780	-0.048	-0.018	0.059	-0.076
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	4.689	2.606	-6.655	0.057	0.088	0.365
	Thermal 2{1}	4.690	3.587	-6.880	0.146	0.073	0.488
	Thermal 3{1}	4.690	3.606	-6.869	0.146	0.072	0.490

		DVI_B_LINE_REV0.OUT					
	Thermal 4{1}	4.686	1.577	-6.835	-0.021	0.119	0.256
	Thermal 5{1}	2.364	2.325	-3.707	0.120	0.036	0.309
	GRT1{1}	4.683	1.826	-6.702	0.039	0.148	0.289
	GRT2{1}	4.684	2.807	-6.927	0.128	0.132	0.412
	GRT3{1}	4.684	2.826	-6.917	0.128	0.131	0.414
	GRT4{1}	4.680	0.796	-6.883	-0.040	0.179	0.180
	GRT5{1}	2.358	1.544	-3.754	0.101	0.096	0.234
C02 F	Gravity{1}	0.000	-0.761	-0.033	-0.018	0.060	-0.077
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	4.619	2.516	-6.599	0.055	0.106	0.356
	Thermal 2{1}	4.619	3.460	-6.827	0.142	0.096	0.477
	Thermal 3{1}	4.619	3.479	-6.817	0.142	0.095	0.479
	Thermal 4{1}	4.619	1.520	-6.772	-0.022	0.135	0.246
	Thermal 5{1}	2.328	2.241	-3.680	0.116	0.051	0.303
	GRT1{1}	4.619	1.756	-6.632	0.037	0.166	0.279
	GRT2{1}	4.620	2.700	-6.860	0.124	0.156	0.400
	GRT3{1}	4.620	2.718	-6.850	0.124	0.155	0.402
	GRT4{1}	4.619	0.759	-6.805	-0.040	0.196	0.169
	GRT5{1}	2.329	1.481	-3.713	0.098	0.111	0.226

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DVI_B_LINE_REV0

09/13/2010 DVI BLINE

BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 27

DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
C06	Gravity{1}	0.000	-0.718	-0.001	-0.017	0.054	-0.079
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	4.438	2.327	-6.537	0.053	0.125	0.345
	Thermal 2{1}	4.438	3.205	-6.768	0.136	0.120	0.465
	Thermal 3{1}	4.438	3.223	-6.759	0.136	0.119	0.467
	Thermal 4{1}	4.438	1.390	-6.694	-0.021	0.153	0.235
	Thermal 5{1}	2.237	2.079	-3.648	0.112	0.066	0.296
	GRT1{1}	4.438	1.608	-6.537	0.035	0.179	0.266
	GRT2{1}	4.438	2.487	-6.769	0.119	0.174	0.386
	GRT3{1}	4.438	2.504	-6.759	0.119	0.173	0.388
	GRT4{1}	4.438	0.672	-6.695	-0.038	0.207	0.156
	GRT5{1}	2.237	1.361	-3.649	0.094	0.120	0.217

DVI_B_LINE_REV0.OUT

C03	Gravity{1}	0.000	-0.018	0.007	-0.002	-0.006	-0.017
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.732	0.041	-4.732	0.005	0.058	0.041
	Thermal 2{1}	0.732	0.059	-4.743	0.012	0.068	0.058
	Thermal 3{1}	0.732	0.059	-4.743	0.012	0.068	0.058
	Thermal 4{1}	0.732	0.019	-4.734	-0.002	0.060	0.020
	Thermal 5{1}	0.369	0.039	-2.445	0.010	0.042	0.038
	GRT1{1}	0.732	0.023	-4.725	0.003	0.051	0.023
	GRT2{1}	0.732	0.041	-4.736	0.011	0.062	0.041
	GRT3{1}	0.732	0.041	-4.736	0.011	0.062	0.041
	GRT4{1}	0.732	0.001	-4.727	-0.003	0.053	0.002
	GRT5{1}	0.369	0.021	-2.438	0.009	0.035	0.021
C04	Gravity{1}	0.000	-0.009	0.003	-0.001	-0.004	-0.011
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.509	0.019	-4.700	0.003	0.037	0.025
	Thermal 2{1}	0.509	0.028	-4.705	0.008	0.044	0.036
	Thermal 3{1}	0.509	0.028	-4.705	0.008	0.044	0.036
	Thermal 4{1}	0.509	0.009	-4.701	-0.001	0.039	0.012
	Thermal 5{1}	0.257	0.018	-2.422	0.006	0.027	0.024
	GRT1{1}	0.509	0.011	-4.696	0.002	0.033	0.014
	GRT2{1}	0.509	0.019	-4.702	0.007	0.040	0.025
	GRT3{1}	0.509	0.019	-4.702	0.007	0.040	0.025
	GRT4{1}	0.509	0.000	-4.697	-0.002	0.034	0.001
	GRT5{1}	0.257	0.010	-2.418	0.005	0.023	0.013
C05	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	-4.670	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	-4.670	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	-4.670	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	-4.670	0.000	0.000	0.000
	Thermal 5{1}	0.000	0.000	-2.400	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	-4.670	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	-4.670	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	-4.670	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	-4.670	0.000	0.000	0.000
	GRT5{1}	0.000	0.000	-2.400	0.000	0.000	0.000

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DVI_B_LINE_REV0

09/13/2010 DVIBLINE

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RESULT PAGE 28

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
*** Segment C end ***							
*** Segment D begin ***							
A10	Gravity{1}	-0.015	0.006	-0.539	0.047	0.184	-0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	7.514	0.148	-0.821	0.001	0.162	-0.418
	Thermal 2{1}	10.026	8.647	-3.848	0.115	0.436	-0.231
	Thermal 3{1}	10.082	8.600	-3.684	0.115	0.422	-0.233
	Thermal 4{1}	7.344	-5.064	-3.893	0.114	0.442	-0.684
	Thermal 5{1}	6.160	8.687	-3.170	0.114	0.333	-0.016
	GRT1{1}	7.498	0.154	-1.360	0.048	0.346	-0.419
	GRT2{1}	10.011	8.654	-4.387	0.162	0.620	-0.232
	GRT3{1}	10.067	8.606	-4.223	0.162	0.606	-0.234
	GRT4{1}	7.328	-5.058	-4.431	0.160	0.626	-0.686
	GRT5{1}	6.145	8.693	-3.709	0.161	0.518	-0.018
D01	Gravity{1}	-0.016	0.007	-0.475	0.045	0.182	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	7.154	0.192	-0.747	0.002	0.155	-0.439
	Thermal 2{1}	9.763	8.596	-3.707	0.126	0.412	-0.218
	Thermal 3{1}	9.818	8.549	-3.549	0.127	0.397	-0.221
	Thermal 4{1}	6.855	-4.891	-3.748	0.124	0.417	-0.720
	Thermal 5{1}	6.079	8.609	-3.077	0.127	0.311	0.009
	GRT1{1}	7.138	0.199	-1.222	0.048	0.337	-0.440
	GRT2{1}	9.747	8.602	-4.181	0.171	0.593	-0.219
	GRT3{1}	9.802	8.555	-4.024	0.172	0.578	-0.222
	GRT4{1}	6.839	-4.884	-4.222	0.170	0.599	-0.721
	GRT5{1}	6.063	8.616	-3.551	0.172	0.493	0.008
*** Segment D end ***							
*** Segment E begin ***							
A13	Gravity{1}	-0.015	-0.010	-0.535	-0.083	-0.094	0.006
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	2.133	3.424	0.247	0.027	-0.023	0.061
	Thermal 2{1}	4.644	8.564	2.878	-0.181	0.240	0.263
	Thermal 3{1}	4.700	8.542	2.650	-0.205	0.210	0.247
	Thermal 4{1}	1.964	2.952	2.906	-0.189	0.239	-0.063
	Thermal 5{1}	3.446	6.862	2.385	-0.235	0.207	0.262

DVI_B_LINE_REV0.OUT

GRT1{1}	2.117	3.413	-0.287	-0.055	-0.117	0.067
GRT2{1}	4.629	8.553	2.344	-0.264	0.146	0.269
GRT3{1}	4.685	8.532	2.116	-0.287	0.116	0.252
GRT4{1}	1.949	2.942	2.371	-0.271	0.145	-0.057
GRT5{1}	3.431	6.852	1.850	-0.318	0.113	0.267

 DVI_B_LINE_REV0
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 RESULT PAGE 29

BENTLEY

D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
E01	Gravity{1}	-0.013	-0.013	-0.536	-0.088	-0.083	0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	2.007	3.234	0.223	0.027	-0.023	0.076
	Thermal 2{1}	4.610	8.282	3.088	-0.190	0.280	0.265
	Thermal 3{1}	4.659	8.268	2.858	-0.214	0.254	0.251
	Thermal 4{1}	1.786	2.815	3.118	-0.197	0.278	-0.027
	Thermal 5{1}	3.488	6.662	2.605	-0.243	0.252	0.253
	GRT1{1}	1.995	3.221	-0.313	-0.061	-0.106	0.080
	GRT2{1}	4.598	8.269	2.551	-0.278	0.197	0.270
	GRT3{1}	4.647	8.255	2.321	-0.302	0.171	0.255
	GRT4{1}	1.773	2.802	2.581	-0.285	0.195	-0.022
	GRT5{1}	3.475	6.649	2.069	-0.331	0.169	0.257

*** Segment E end ***
 *** Segment F begin ***

A32	Gravity{1}	-0.015	-0.119	-0.710	-0.083	0.068	0.011
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.945	2.161	-0.358	0.055	-0.096	0.165
	Thermal 2{1}	1.566	4.951	3.012	-0.207	-0.133	0.455
	Thermal 3{1}	1.622	5.339	2.500	-0.236	-0.147	0.387
	Thermal 4{1}	-1.113	2.269	2.934	-0.233	-0.159	0.143
	Thermal 5{1}	1.894	3.353	2.522	-0.303	-0.076	0.430
	GRT1{1}	-0.960	2.042	-1.068	-0.029	-0.028	0.176
	GRT2{1}	1.551	4.832	2.302	-0.290	-0.064	0.466
	GRT3{1}	1.607	5.220	1.790	-0.319	-0.079	0.398
	GRT4{1}	-1.128	2.150	2.225	-0.316	-0.091	0.154

		DVI_B_LINE_REV0.OUT					
	GRT5{1}	1.879	3.234	1.813	-0.386	-0.008	0.441
F01	Gravity{1}	-0.004	-0.099	-0.743	-0.090	0.072	0.012
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.031	2.276	-0.260	0.058	-0.099	0.170
	Thermal 2{1}	1.361	5.125	3.012	-0.197	-0.136	0.461
	Thermal 3{1}	1.442	5.520	2.487	-0.232	-0.150	0.384
	Thermal 4{1}	-1.205	2.448	2.924	-0.224	-0.160	0.151
	Thermal 5{1}	1.714	3.486	2.447	-0.296	-0.077	0.426
	GRT1{1}	-1.034	2.176	-1.003	-0.033	-0.027	0.182
	GRT2{1}	1.358	5.025	2.269	-0.288	-0.064	0.473
	GRT3{1}	1.438	5.421	1.745	-0.322	-0.078	0.396
	GRT4{1}	-1.209	2.349	2.182	-0.314	-0.089	0.163
	GRT5{1}	1.711	3.386	1.704	-0.386	-0.005	0.438

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DVI_B_LINE_REV0

09/13/2010 DVI BLINE

BENTLEY

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
F02 N	Gravity{1}	0.499	0.716	-2.124	-0.086	0.184	0.057
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-5.622	5.807	3.271	0.098	-0.227	0.419
	Thermal 2{1}	-7.527	9.954	4.344	-0.028	-0.301	0.765
	Thermal 3{1}	-6.088	9.779	4.785	0.362	-0.439	0.625
	Thermal 4{1}	-6.732	7.509	3.866	-0.059	-0.272	0.531
	Thermal 5{1}	-4.392	6.516	2.109	0.099	-0.197	0.475
	GRT1{1}	-5.123	6.523	1.148	0.012	-0.043	0.476
	GRT2{1}	-7.029	10.670	2.221	-0.114	-0.117	0.822
	GRT3{1}	-5.589	10.495	2.662	0.276	-0.256	0.681
	GRT4{1}	-6.233	8.225	1.742	-0.145	-0.089	0.588
	GRT5{1}	-3.894	7.232	-0.015	0.013	-0.013	0.532
F02 M	Gravity{1}	0.509	0.720	-2.123	-0.085	0.186	0.057
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-5.767	5.822	3.309	0.098	-0.231	0.427
	Thermal 2{1}	-7.752	9.950	4.349	-0.027	-0.306	0.775
	Thermal 3{1}	-6.301	9.741	4.857	0.387	-0.450	0.638

		DVI_B_LINE_REV0.OUT					
	Thermal 4{1}	-6.906	7.531	3.867	-0.058	-0.277	0.542
	Thermal 5{1}	-4.529	6.491	2.131	0.112	-0.202	0.481
	GRT1{1}	-5.258	6.543	1.186	0.013	-0.045	0.485
	GRT2{1}	-7.242	10.671	2.226	-0.111	-0.121	0.832
	GRT3{1}	-5.791	10.461	2.735	0.302	-0.264	0.696
	GRT4{1}	-6.396	8.252	1.744	-0.143	-0.091	0.599
	GRT5{1}	-4.020	7.211	0.008	0.028	-0.016	0.538
F02 F	Gravity{1}	0.514	0.711	-2.086	-0.083	0.188	0.058
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-5.893	5.744	3.279	0.097	-0.235	0.435
	Thermal 2{1}	-7.911	9.797	4.291	-0.026	-0.312	0.784
	Thermal 3{1}	-6.455	9.598	4.800	0.412	-0.460	0.652
	Thermal 4{1}	-7.044	7.434	3.813	-0.057	-0.282	0.553
	Thermal 5{1}	-4.619	6.386	2.101	0.126	-0.207	0.486
	GRT1{1}	-5.379	6.455	1.192	0.014	-0.048	0.493
	GRT2{1}	-7.397	10.508	2.205	-0.109	-0.124	0.842
	GRT3{1}	-5.942	10.309	2.714	0.329	-0.272	0.710
	GRT4{1}	-6.530	8.145	1.727	-0.141	-0.094	0.611
	GRT5{1}	-4.105	7.097	0.015	0.042	-0.019	0.544
F03	Gravity{1}	0.514	0.024	-0.005	-0.019	0.006	0.025
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-10.428	0.201	0.137	0.081	-0.143	0.209
	Thermal 2{1}	-12.446	0.335	0.177	0.015	-0.184	0.349
	Thermal 3{1}	-10.990	0.446	-0.041	1.728	0.042	0.465
	Thermal 4{1}	-11.579	0.264	0.156	-0.006	-0.162	0.275
	Thermal 5{1}	-6.905	0.269	-0.030	0.823	0.031	0.280
	GRT1{1}	-9.914	0.224	0.132	0.062	-0.137	0.234
	GRT2{1}	-11.932	0.359	0.171	-0.005	-0.178	0.374
	GRT3{1}	-10.476	0.470	-0.046	1.709	0.048	0.490
	GRT4{1}	-11.065	0.288	0.150	-0.026	-0.157	0.300
	GRT5{1}	-6.391	0.292	-0.035	0.804	0.037	0.305

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DVI_B_LINE_REV0

09/13/2010 DVI BLINE

BENTLEY

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z

		DVI_B_LINE_REV0.OUT					
-----	-----	-----	-----	-----	-----	-----	-----
F03 M	Gravity{1}	0.514	0.000	0.000	-0.019	0.005	0.025
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-10.750	0.000	0.000	0.081	-0.143	0.209
	Thermal 2{1}	-12.767	0.000	0.000	0.015	-0.184	0.348
	Thermal 3{1}	-11.312	0.000	0.000	1.729	0.043	0.464
	Thermal 4{1}	-11.900	0.000	0.000	-0.006	-0.162	0.275
	Thermal 5{1}	-7.067	0.000	0.000	0.824	0.031	0.280
	GRT1{1}	-10.236	0.000	0.000	0.062	-0.138	0.233
	GRT2{1}	-12.254	0.000	0.000	-0.005	-0.179	0.373
	GRT3{1}	-10.798	0.000	0.000	1.710	0.048	0.489
	GRT4{1}	-11.387	0.000	0.000	-0.026	-0.157	0.299
	GRT5{1}	-6.553	0.000	0.000	0.804	0.037	0.304
CH04	Gravity{1}	0.514	-0.024	0.005	-0.019	0.005	0.025
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-11.072	-0.200	-0.137	0.081	-0.143	0.208
	Thermal 2{1}	-13.089	-0.334	-0.176	0.015	-0.184	0.347
	Thermal 3{1}	-11.634	-0.445	0.042	1.730	0.044	0.464
	Thermal 4{1}	-12.222	-0.263	-0.155	-0.006	-0.162	0.274
	Thermal 5{1}	-7.229	-0.268	0.030	0.824	0.032	0.279
	GRT1{1}	-10.558	-0.224	-0.132	0.062	-0.138	0.233
	GRT2{1}	-12.576	-0.358	-0.172	-0.005	-0.179	0.372
	GRT3{1}	-11.120	-0.469	0.047	1.711	0.049	0.488
	GRT4{1}	-11.709	-0.287	-0.151	-0.026	-0.157	0.298
	GRT5{1}	-6.715	-0.292	0.035	0.805	0.037	0.304
C016	Gravity{1}	0.514	-0.073	-0.089	-0.003	-0.027	0.005
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-11.072	-0.620	-0.473	0.077	-0.052	0.044
	Thermal 2{1}	-13.089	-1.046	-0.605	0.025	-0.065	0.077
	Thermal 3{1}	-12.804	-1.609	0.585	2.070	0.219	0.202
	Thermal 4{1}	-12.222	-0.821	-0.534	0.007	-0.058	0.059
	Thermal 5{1}	-7.819	-0.947	0.320	1.004	0.110	0.112
	GRT1{1}	-10.558	-0.693	-0.562	0.074	-0.079	0.049
	GRT2{1}	-12.576	-1.118	-0.695	0.022	-0.092	0.082
	GRT3{1}	-12.290	-1.682	0.496	2.067	0.192	0.207
	GRT4{1}	-11.709	-0.893	-0.623	0.004	-0.085	0.064
	GRT5{1}	-7.305	-1.020	0.231	1.002	0.083	0.117
F12	Gravity{1}	0.514	-0.026	-0.022	0.033	0.010	-0.011
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-11.071	-0.226	-0.240	0.068	0.104	-0.098
	Thermal 2{1}	-13.089	-0.395	-0.303	0.048	0.131	-0.171

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Thermal 3{1}	-15.343	-0.907	0.856	2.807	-0.370	-0.393
Thermal 4{1}	-12.222	-0.305	-0.267	0.035	0.116	-0.133
Thermal 5{1}	-9.099	-0.508	0.435	1.395	-0.188	-0.220
GRT1{1}	-10.558	-0.252	-0.263	0.101	0.114	-0.110
GRT2{1}	-12.576	-0.421	-0.325	0.081	0.141	-0.183
GRT3{1}	-14.830	-0.933	0.834	2.840	-0.360	-0.404
GRT4{1}	-11.709	-0.331	-0.289	0.068	0.126	-0.144
GRT5{1}	-8.585	-0.534	0.413	1.428	-0.178	-0.231

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
F12 M	Gravity{1}	0.514	0.000	0.000	0.033	0.009	-0.011
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-11.071	0.000	0.000	0.068	0.105	-0.098
	Thermal 2{1}	-13.089	0.000	0.000	0.048	0.132	-0.171
	Thermal 3{1}	-16.116	0.000	0.000	2.809	-0.374	-0.395
	Thermal 4{1}	-12.222	0.000	0.000	0.035	0.116	-0.132
	Thermal 5{1}	-9.488	0.000	0.000	1.396	-0.190	-0.221
	GRT1{1}	-10.558	0.000	0.000	0.101	0.114	-0.109
	GRT2{1}	-12.576	0.000	0.000	0.081	0.141	-0.183
	GRT3{1}	-15.602	0.000	0.000	2.843	-0.365	-0.406
	GRT4{1}	-11.709	0.000	0.000	0.069	0.125	-0.144
	GRT5{1}	-8.975	0.000	0.000	1.429	-0.181	-0.232
F04	Gravity{1}	0.514	0.026	0.020	0.033	0.008	-0.011
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-11.071	0.226	0.241	0.068	0.105	-0.098
	Thermal 2{1}	-13.089	0.394	0.304	0.048	0.132	-0.171
	Thermal 3{1}	-16.888	0.911	-0.866	2.812	-0.378	-0.396
	Thermal 4{1}	-12.222	0.305	0.268	0.035	0.116	-0.132
	Thermal 5{1}	-9.878	0.510	-0.440	1.397	-0.192	-0.222
	GRT1{1}	-10.558	0.252	0.261	0.101	0.113	-0.109
	GRT2{1}	-12.576	0.420	0.324	0.081	0.141	-0.182
	GRT3{1}	-16.375	0.937	-0.846	2.845	-0.369	-0.407
	GRT4{1}	-11.709	0.331	0.288	0.069	0.125	-0.143

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	GRT5{1}	-9.364	0.536	-0.420	1.431	-0.183	-0.233
F05 N	Gravity{1}	0.514	0.055	0.012	0.046	-0.009	-0.010
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-11.071	0.440	0.582	0.064	0.149	-0.062
	Thermal 2{1}	-13.089	0.792	0.730	0.056	0.186	-0.125
	Thermal 3{1}	-17.789	1.989	-2.035	3.073	-0.421	-0.374
	Thermal 4{1}	-12.222	0.604	0.645	0.046	0.165	-0.091
	Thermal 5{1}	-10.332	1.104	-1.024	1.536	-0.206	-0.204
	GRT1{1}	-10.558	0.495	0.594	0.110	0.140	-0.072
	GRT2{1}	-12.576	0.846	0.742	0.102	0.177	-0.135
	GRT3{1}	-17.276	2.043	-2.023	3.119	-0.430	-0.384
	GRT4{1}	-11.708	0.659	0.658	0.092	0.156	-0.101
	GRT5{1}	-9.818	1.159	-1.011	1.582	-0.215	-0.215
F05 M	Gravity{1}	0.512	0.054	0.007	0.047	-0.009	-0.010
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-11.065	0.450	0.613	0.064	0.155	-0.057
	Thermal 2{1}	-13.084	0.817	0.770	0.057	0.193	-0.119
	Thermal 3{1}	-17.921	1.840	-2.322	3.098	-0.399	-0.359
	Thermal 4{1}	-12.216	0.622	0.681	0.047	0.172	-0.085
	Thermal 5{1}	-10.399	1.033	-1.166	1.549	-0.194	-0.196
	GRT1{1}	-10.553	0.504	0.620	0.111	0.146	-0.067
	GRT2{1}	-12.572	0.870	0.777	0.104	0.184	-0.129
	GRT3{1}	-17.409	1.893	-2.314	3.146	-0.408	-0.369
	GRT4{1}	-11.704	0.675	0.689	0.094	0.163	-0.095
	GRT5{1}	-9.886	1.087	-1.159	1.597	-0.203	-0.206

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
F05 F	Gravity{1}	0.509	0.047	-0.002	0.048	-0.009	-0.010
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-11.048	0.445	0.618	0.064	0.161	-0.052
	Thermal 2{1}	-13.071	0.818	0.780	0.057	0.200	-0.113
	Thermal 3{1}	-18.076	1.303	-2.820	3.122	-0.374	-0.342

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	Thermal 4{1}	-12.201	0.622	0.691	0.047	0.179	-0.080
	Thermal 5{1}	-10.478	0.766	-1.414	1.562	-0.180	-0.187
	GRT1{1}	-10.539	0.492	0.616	0.112	0.151	-0.063
	GRT2{1}	-12.562	0.865	0.778	0.106	0.191	-0.123
	GRT3{1}	-17.567	1.349	-2.822	3.171	-0.383	-0.353
	GRT4{1}	-11.692	0.669	0.689	0.096	0.169	-0.090
	GRT5{1}	-9.969	0.813	-1.416	1.610	-0.190	-0.197
F06 N	Gravity{1}	0.207	0.037	-0.011	-0.038	-0.012	-0.010
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-6.781	-0.171	0.002	0.017	0.359	0.061
	Thermal 2{1}	-8.368	0.042	0.004	0.034	0.443	0.040
	Thermal 3{1}	-15.712	-36.527	-31.463	0.364	0.694	0.048
	Thermal 4{1}	-7.651	-0.066	0.003	0.029	0.405	0.054
	Thermal 5{1}	-8.866	-18.308	-15.858	0.190	0.398	0.029
	GRT1{1}	-6.575	-0.134	-0.009	-0.021	0.347	0.051
	GRT2{1}	-8.161	0.080	-0.008	-0.004	0.432	0.029
	GRT3{1}	-15.505	-36.490	-31.474	0.326	0.683	0.038
	GRT4{1}	-7.445	-0.028	-0.008	-0.009	0.393	0.044
	GRT5{1}	-8.660	-18.271	-15.869	0.152	0.386	0.019
F06 F	Gravity{1}	0.203	0.046	-0.007	-0.036	-0.012	-0.010
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-6.691	-0.175	0.000	0.015	0.360	0.061
	Thermal 2{1}	-8.260	0.035	0.000	0.032	0.444	0.040
	Thermal 3{1}	-15.543	-36.630	-31.416	0.243	0.703	0.048
	Thermal 4{1}	-7.551	-0.072	0.000	0.027	0.406	0.054
	Thermal 5{1}	-8.770	-18.361	-15.835	0.129	0.402	0.029
	GRT1{1}	-6.488	-0.129	-0.007	-0.021	0.348	0.051
	GRT2{1}	-8.057	0.081	-0.007	-0.004	0.433	0.029
	GRT3{1}	-15.340	-36.584	-31.423	0.207	0.692	0.038
	GRT4{1}	-7.348	-0.026	-0.007	-0.009	0.394	0.044
	GRT5{1}	-8.567	-18.315	-15.842	0.093	0.391	0.019
F16	Gravity{1}	0.000	0.000	-0.006	0.011	-0.004	-0.006
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	-0.011	0.144	0.033
	Thermal 2{1}	0.000	0.000	0.000	-0.007	0.178	0.021
	Thermal 3{1}	0.000	0.000	-23.864	-1.392	0.371	0.026
	Thermal 4{1}	0.000	0.000	0.000	-0.010	0.163	0.029
	Thermal 5{1}	0.000	0.000	-12.028	-0.700	0.208	0.016
	GRT1{1}	0.000	0.000	-0.006	0.001	0.140	0.027
	GRT2{1}	0.000	0.000	-0.006	0.004	0.174	0.016
	GRT3{1}	0.000	0.000	-23.870	-1.381	0.367	0.020

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GRT4{1}	0.000	0.000	-0.006	0.002	0.159	0.024
GRT5{1}	0.000	0.000	-12.034	-0.688	0.204	0.010

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
F07	Gravity{1}	0.000	-0.001	-0.002	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.013	0.001	0.000	0.000	-0.006	0.001
	Thermal 2{1}	0.017	0.001	0.000	0.000	-0.008	0.000
	Thermal 3{1}	0.035	0.130	-15.080	0.059	-0.016	0.000
	Thermal 4{1}	0.015	0.001	0.000	0.000	-0.007	0.001
	Thermal 5{1}	0.019	0.065	-7.601	0.030	-0.009	0.000
	GRT1{1}	0.013	0.000	-0.002	0.000	-0.006	0.001
	GRT2{1}	0.016	0.000	-0.002	0.000	-0.007	0.000
	GRT3{1}	0.034	0.128	-15.083	0.058	-0.015	0.000
	GRT4{1}	0.015	0.000	-0.002	0.000	-0.007	0.000
	GRT5{1}	0.019	0.064	-7.603	0.029	-0.009	0.000
F46	Gravity{1}	0.000	-0.001	-0.002	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.010	0.001	0.000	0.000	-0.003	0.000
	Thermal 2{1}	0.013	0.001	0.000	0.000	-0.004	0.000
	Thermal 3{1}	0.026	0.099	-14.858	0.032	-0.009	0.000
	Thermal 4{1}	0.012	0.001	0.000	0.000	-0.004	0.000
	Thermal 5{1}	0.015	0.050	-7.489	0.016	-0.005	0.000
	GRT1{1}	0.010	0.000	-0.002	0.000	-0.003	0.000
	GRT2{1}	0.012	0.000	-0.002	0.000	-0.004	0.000
	GRT3{1}	0.026	0.098	-14.860	0.032	-0.009	0.000
	GRT4{1}	0.011	0.000	-0.002	0.000	-0.004	0.000
	GRT5{1}	0.015	0.049	-7.491	0.016	-0.005	0.000
F45	Gravity{1}	0.000	-0.001	-0.002	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.010	0.001	0.000	0.000	-0.003	0.000
	Thermal 2{1}	0.013	0.001	0.000	0.000	-0.004	0.000

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	Thermal 3{1}	0.026	0.099	-14.857	0.032	-0.009	0.000
	Thermal 4{1}	0.012	0.001	0.000	0.000	-0.004	0.000
	Thermal 5{1}	0.015	0.050	-7.488	0.016	-0.005	0.000
	GRT1{1}	0.010	0.000	-0.002	0.000	-0.003	0.000
	GRT2{1}	0.012	0.000	-0.002	0.000	-0.004	0.000
	GRT3{1}	0.026	0.098	-14.859	0.032	-0.008	0.000
	GRT4{1}	0.011	0.000	-0.002	0.000	-0.004	0.000
	GRT5{1}	0.014	0.049	-7.490	0.016	-0.005	0.000
F09	Gravity{1}	0.000	-0.001	-0.002	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.008	0.001	0.000	0.000	-0.003	0.000
	Thermal 2{1}	0.009	0.000	0.000	0.000	-0.003	0.000
	Thermal 3{1}	0.020	0.073	-14.559	0.025	-0.007	0.000
	Thermal 4{1}	0.009	0.001	0.000	0.000	-0.003	0.000
	Thermal 5{1}	0.011	0.037	-7.338	0.012	-0.004	0.000
	GRT1{1}	0.007	0.000	-0.002	0.000	-0.003	0.000
	GRT2{1}	0.009	0.000	-0.002	0.000	-0.003	0.000
	GRT3{1}	0.019	0.073	-14.561	0.025	-0.007	0.000
	GRT4{1}	0.008	0.000	-0.002	0.000	-0.003	0.000
	GRT5{1}	0.011	0.036	-7.340	0.012	-0.004	0.000

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
F10	Gravity{1}	0.000	0.000	-0.002	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.004	0.000	0.000	0.000	-0.002	0.000
	Thermal 2{1}	0.005	0.000	0.000	0.000	-0.002	0.000
	Thermal 3{1}	0.009	0.035	-13.956	0.017	-0.005	0.000
	Thermal 4{1}	0.004	0.000	0.000	0.000	-0.002	0.000
	Thermal 5{1}	0.005	0.018	-7.034	0.008	-0.003	0.000
	GRT1{1}	0.004	0.000	-0.002	0.000	-0.002	0.000
	GRT2{1}	0.004	0.000	-0.002	0.000	-0.002	0.000
	GRT3{1}	0.009	0.035	-13.958	0.017	-0.004	0.000

		DVI_B_LINE_REV0.OUT					
GRT4{1}	0.004	0.000	-0.002	0.000	-0.002	0.000	
GRT5{1}	0.005	0.017	-7.036	0.008	-0.002	0.000	

*** Segment F end ***

*** Segment G begin ***

A24	Gravity{1}	0.572	-0.445	-0.767	-0.017	-0.367	-0.052
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.210	1.502	0.681	0.072	0.027	0.036
	Thermal 2{1}	-1.458	3.161	-2.377	-0.251	0.000	0.187
	Thermal 3{1}	-1.547	3.388	-1.788	-0.186	-0.009	0.199
	Thermal 4{1}	0.318	2.185	-2.543	-0.278	0.038	0.052
	Thermal 5{1}	-0.635	3.413	-1.814	-0.248	0.445	0.135
	GRT1{1}	0.781	1.057	-0.086	0.055	-0.340	-0.016
	GRT2{1}	-0.887	2.716	-3.144	-0.268	-0.367	0.134
	GRT3{1}	-0.975	2.943	-2.555	-0.203	-0.376	0.147
	GRT4{1}	0.890	1.740	-3.310	-0.296	-0.329	0.000
	GRT5{1}	-0.063	2.967	-2.581	-0.265	0.078	0.083
G01	Gravity{1}	0.458	-0.444	-0.766	0.006	-0.364	-0.050
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.229	1.484	0.656	0.070	0.027	0.034
	Thermal 2{1}	-1.392	3.226	-2.288	-0.245	0.000	0.181
	Thermal 3{1}	-1.479	3.436	-1.722	-0.181	-0.009	0.194
	Thermal 4{1}	0.347	2.257	-2.444	-0.271	0.038	0.049
	Thermal 5{1}	-0.472	3.416	-1.682	-0.242	0.440	0.131
	GRT1{1}	0.687	1.040	-0.110	0.077	-0.337	-0.016
	GRT2{1}	-0.935	2.782	-3.053	-0.238	-0.364	0.131
	GRT3{1}	-1.021	2.992	-2.487	-0.174	-0.373	0.144
	GRT4{1}	0.804	1.813	-3.210	-0.265	-0.326	-0.001
	GRT5{1}	-0.014	2.972	-2.447	-0.235	0.077	0.081

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
G20	Gravity{1}	-0.373	-0.615	-1.001	0.149	-0.340	-0.033
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000

		DVI_B_LINE_REV0.OUT					
	Thermal 1{1}	0.360	1.353	0.476	0.058	0.026	0.021
	Thermal 2{1}	-0.940	3.673	-1.672	-0.196	0.000	0.142
	Thermal 3{1}	-1.013	3.766	-1.267	-0.145	-0.008	0.152
	Thermal 4{1}	0.532	2.752	-1.761	-0.217	0.036	0.030
	Thermal 5{1}	0.708	3.384	-0.730	-0.191	0.408	0.096
	GRT1{1}	-0.013	0.739	-0.525	0.207	-0.314	-0.012
	GRT2{1}	-1.313	3.058	-2.673	-0.047	-0.339	0.109
	GRT3{1}	-1.386	3.152	-2.268	0.004	-0.348	0.119
	GRT4{1}	0.159	2.138	-2.762	-0.068	-0.304	-0.003
	GRT5{1}	0.335	2.769	-1.731	-0.042	0.068	0.064
G02 N	Gravity{1}	-1.090	-0.992	-1.521	0.224	-0.318	-0.018
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.452	1.250	0.334	0.046	0.026	0.009
	Thermal 2{1}	-0.598	4.018	-1.195	-0.156	0.004	0.107
	Thermal 3{1}	-0.664	4.021	-0.916	-0.115	-0.004	0.115
	Thermal 4{1}	0.660	3.135	-1.234	-0.172	0.036	0.013
	Thermal 5{1}	1.700	3.251	0.052	-0.138	0.378	0.065
	GRT1{1}	-0.638	0.259	-1.187	0.270	-0.292	-0.008
	GRT2{1}	-1.688	3.027	-2.716	0.069	-0.314	0.090
	GRT3{1}	-1.753	3.029	-2.437	0.109	-0.322	0.097
	GRT4{1}	-0.429	2.143	-2.755	0.053	-0.282	-0.005
	GRT5{1}	0.611	2.259	-1.469	0.086	0.060	0.048
G02 F	Gravity{1}	-1.113	-1.006	-1.565	0.230	-0.316	-0.016
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.455	1.248	0.326	0.045	0.026	0.008
	Thermal 2{1}	-0.578	4.028	-1.166	-0.151	0.003	0.104
	Thermal 3{1}	-0.642	4.028	-0.894	-0.111	-0.005	0.111
	Thermal 4{1}	0.665	3.145	-1.201	-0.166	0.036	0.011
	Thermal 5{1}	1.736	3.227	0.089	-0.131	0.375	0.061
	GRT1{1}	-0.658	0.241	-1.240	0.275	-0.290	-0.008
	GRT2{1}	-1.691	3.022	-2.731	0.079	-0.313	0.088
	GRT3{1}	-1.755	3.022	-2.460	0.119	-0.321	0.096
	GRT4{1}	-0.448	2.139	-2.767	0.064	-0.280	-0.005
	GRT5{1}	0.624	2.220	-1.477	0.099	0.059	0.046
G15	Gravity{1}	-1.139	-1.006	-2.598	0.240	-0.284	0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.465	1.248	0.164	0.031	0.024	-0.003
	Thermal 2{1}	-0.213	4.028	-0.620	-0.107	0.003	0.069
	Thermal 3{1}	-0.250	4.028	-0.490	-0.079	-0.004	0.074
	Thermal 4{1}	0.676	3.145	-0.604	-0.116	0.034	-0.005
	Thermal 5{1}	1.917	2.507	0.509	-0.069	0.329	0.024

	DVI_B_LINE_REV0.OUT					
GRT1{1}	-0.675	0.241	-2.433	0.272	-0.259	0.000
GRT2{1}	-1.353	3.022	-3.218	0.134	-0.280	0.071
GRT3{1}	-1.390	3.022	-3.088	0.161	-0.288	0.077
GRT4{1}	-0.463	2.139	-3.201	0.124	-0.250	-0.003
GRT5{1}	0.777	1.501	-2.088	0.172	0.045	0.027

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
G19	Gravity{1}	-0.844	-1.006	-4.068	-0.057	-0.187	0.040
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.291	1.248	-0.038	0.004	0.021	-0.020
	Thermal 2{1}	0.171	4.028	0.093	-0.017	0.003	0.001
	Thermal 3{1}	0.171	4.028	0.051	-0.014	-0.003	0.002
	Thermal 4{1}	0.418	3.145	0.147	-0.015	0.029	-0.030
	Thermal 5{1}	1.644	0.378	0.576	0.038	0.191	-0.062
	GRT1{1}	-0.553	0.241	-4.107	-0.053	-0.166	0.020
	GRT2{1}	-0.674	3.022	-3.975	-0.074	-0.184	0.041
	GRT3{1}	-0.673	3.022	-4.017	-0.071	-0.190	0.042
	GRT4{1}	-0.427	2.139	-3.921	-0.072	-0.159	0.010
	GRT5{1}	0.800	-0.628	-3.492	-0.019	0.004	-0.021
G03	Gravity{1}	-0.048	-1.006	-0.262	-0.286	-0.064	0.052
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.008	1.248	-0.003	-0.003	0.016	-0.008
	Thermal 2{1}	0.006	4.028	0.010	0.011	0.003	-0.007
	Thermal 3{1}	0.007	4.028	0.007	0.007	-0.001	-0.007
	Thermal 4{1}	0.010	3.145	0.012	0.013	0.021	-0.011
	Thermal 5{1}	0.110	-2.341	0.001	0.001	0.016	-0.120
	GRT1{1}	-0.040	0.241	-0.265	-0.290	-0.048	0.044
	GRT2{1}	-0.041	3.022	-0.253	-0.276	-0.061	0.045
	GRT3{1}	-0.041	3.022	-0.255	-0.279	-0.065	0.045
	GRT4{1}	-0.038	2.139	-0.251	-0.274	-0.043	0.041
	GRT5{1}	0.062	-3.347	-0.261	-0.285	-0.048	-0.067
G03 M	Gravity{1}	0.000	-1.006	0.000	-0.286	-0.064	0.052

		DVI_B_LINE_REV0.OUT					
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	1.248	0.000	-0.003	0.016	-0.008
	Thermal 2{1}	0.000	4.028	0.000	0.011	0.003	-0.007
	Thermal 3{1}	0.000	4.028	0.000	0.007	-0.001	-0.007
	Thermal 4{1}	0.000	3.145	0.000	0.013	0.021	-0.011
	Thermal 5{1}	0.000	-2.496	0.000	0.001	0.016	-0.120
	GRT1{1}	0.000	0.241	0.000	-0.289	-0.048	0.044
	GRT2{1}	0.000	3.022	0.000	-0.276	-0.061	0.045
	GRT3{1}	0.000	3.022	0.000	-0.279	-0.065	0.045
	GRT4{1}	0.000	2.139	0.000	-0.274	-0.043	0.041
	GRT5{1}	0.000	-3.502	0.000	-0.285	-0.048	-0.067
CH13	Gravity{1}	0.048	-1.006	0.262	-0.286	-0.064	0.052
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.008	1.248	0.003	-0.003	0.016	-0.008
	Thermal 2{1}	-0.006	4.028	-0.010	0.011	0.003	-0.007
	Thermal 3{1}	-0.007	4.028	-0.007	0.007	-0.001	-0.007
	Thermal 4{1}	-0.010	3.145	-0.012	0.013	0.021	-0.011
	Thermal 5{1}	-0.110	-2.651	-0.001	0.001	0.016	-0.120
	GRT1{1}	0.040	0.241	0.265	-0.289	-0.048	0.044
	GRT2{1}	0.041	3.022	0.252	-0.275	-0.061	0.045
	GRT3{1}	0.041	3.022	0.255	-0.279	-0.065	0.045
	GRT4{1}	0.038	2.139	0.251	-0.273	-0.043	0.041
	GRT5{1}	-0.062	-3.657	0.261	-0.285	-0.048	-0.067

0

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
C021	Gravity{1}	0.369	-1.006	1.888	-0.076	0.002	0.012
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.024	1.248	0.013	0.000	0.014	0.002
	Thermal 2{1}	-0.007	4.028	-0.047	-0.001	0.004	0.004
	Thermal 3{1}	-0.008	4.028	-0.035	-0.001	0.000	0.004
	Thermal 4{1}	-0.026	3.145	-0.053	-0.002	0.018	0.004
	Thermal 5{1}	-0.900	-4.118	0.151	-0.020	-0.079	-0.035
	GRT1{1}	0.345	0.241	1.901	-0.076	0.016	0.015

DVI_B_LINE_REV0.OUT

	GRT2{1}	0.363	3.022	1.842	-0.077	0.006	0.016
	GRT3{1}	0.362	3.022	1.854	-0.077	0.003	0.016
	GRT4{1}	0.343	2.139	1.836	-0.078	0.020	0.017
	GRT5{1}	-0.531	-5.124	2.039	-0.096	-0.077	-0.023
G10	Gravity{1}	0.102	-1.006	0.587	0.480	0.069	-0.083
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.001	1.248	0.002	0.002	0.011	0.001
	Thermal 2{1}	0.005	4.028	-0.008	-0.007	0.004	-0.004
	Thermal 3{1}	0.005	4.028	-0.007	-0.005	0.002	-0.004
	Thermal 4{1}	0.001	3.145	-0.009	-0.007	0.014	-0.001
	Thermal 5{1}	-0.258	-5.585	0.067	0.055	-0.173	0.211
	GRT1{1}	0.101	0.241	0.589	0.481	0.080	-0.083
	GRT2{1}	0.107	3.022	0.579	0.473	0.072	-0.088
	GRT3{1}	0.107	3.022	0.580	0.474	0.070	-0.088
	GRT4{1}	0.104	2.139	0.578	0.473	0.082	-0.085
	GRT5{1}	-0.156	-6.591	0.654	0.535	-0.105	0.127
G10 M	Gravity{1}	0.000	-1.006	0.000	0.481	0.069	-0.084
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	1.248	0.000	0.002	0.011	0.001
	Thermal 2{1}	0.000	4.028	0.000	-0.007	0.004	-0.004
	Thermal 3{1}	0.000	4.028	0.000	-0.005	0.002	-0.004
	Thermal 4{1}	0.000	3.145	0.000	-0.007	0.014	-0.001
	Thermal 5{1}	0.000	-5.791	0.000	0.055	-0.173	0.211
	GRT1{1}	0.000	0.241	0.000	0.483	0.080	-0.083
	GRT2{1}	0.000	3.022	0.000	0.474	0.072	-0.088
	GRT3{1}	0.000	3.022	0.000	0.476	0.070	-0.088
	GRT4{1}	0.000	2.139	0.000	0.474	0.083	-0.085
	GRT5{1}	0.000	-6.798	0.000	0.536	-0.105	0.127
IV04	Gravity{1}	-0.102	-1.006	-0.589	0.482	0.069	-0.084
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.001	1.248	-0.002	0.002	0.011	0.001
	Thermal 2{1}	-0.005	4.028	0.008	-0.007	0.004	-0.004
	Thermal 3{1}	-0.005	4.028	0.007	-0.005	0.002	-0.004
	Thermal 4{1}	-0.001	3.145	0.009	-0.007	0.014	-0.001
	Thermal 5{1}	0.258	-5.998	-0.067	0.055	-0.174	0.212
	GRT1{1}	-0.101	0.241	-0.591	0.484	0.080	-0.083
	GRT2{1}	-0.107	3.022	-0.580	0.476	0.072	-0.088
	GRT3{1}	-0.107	3.022	-0.582	0.477	0.070	-0.088
	GRT4{1}	-0.104	2.139	-0.580	0.475	0.083	-0.085
	GRT5{1}	0.156	-7.004	-0.656	0.538	-0.105	0.128

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
G05 N	Gravity{1}	-2.592	-1.006	-16.695	1.058	0.200	-0.150
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.048	1.248	-0.029	0.002	0.006	0.014
	Thermal 2{1}	0.142	4.028	0.121	-0.004	0.004	0.048
	Thermal 3{1}	0.140	4.028	0.104	-0.004	0.004	0.048
	Thermal 4{1}	0.122	3.145	0.106	-0.003	0.006	0.037
	Thermal 5{1}	5.323	-8.891	-2.209	0.142	-0.360	0.165
	GRT1{1}	-2.543	0.241	-16.724	1.060	0.206	-0.136
	GRT2{1}	-2.449	3.022	-16.574	1.054	0.203	-0.102
	GRT3{1}	-2.451	3.022	-16.591	1.055	0.203	-0.102
	GRT4{1}	-2.469	2.139	-16.589	1.055	0.206	-0.113
	GRT5{1}	2.731	-9.897	-18.904	1.200	-0.160	0.014
G05 M	Gravity{1}	-2.626	-0.992	-16.923	1.049	0.203	-0.147
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.052	1.246	-0.029	0.002	0.006	0.016
	Thermal 2{1}	0.154	4.023	0.123	-0.004	0.004	0.052
	Thermal 3{1}	0.152	4.023	0.105	-0.003	0.004	0.052
	Thermal 4{1}	0.131	3.141	0.107	-0.003	0.006	0.041
	Thermal 5{1}	5.343	-8.945	-2.277	0.140	-0.363	0.143
	GRT1{1}	-2.574	0.254	-16.951	1.051	0.209	-0.131
	GRT2{1}	-2.472	3.031	-16.800	1.045	0.207	-0.095
	GRT3{1}	-2.475	3.031	-16.818	1.046	0.207	-0.095
	GRT4{1}	-2.495	2.150	-16.816	1.046	0.209	-0.106
	GRT5{1}	2.716	-9.937	-19.200	1.189	-0.160	-0.004
G05 F	Gravity{1}	-2.641	-0.958	-16.976	1.041	0.208	-0.144
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.054	1.242	-0.027	0.002	0.006	0.017
	Thermal 2{1}	0.159	4.010	0.124	-0.004	0.004	0.057
	Thermal 3{1}	0.157	4.010	0.106	-0.003	0.004	0.056
	Thermal 4{1}	0.135	3.132	0.109	-0.003	0.006	0.044
	Thermal 5{1}	5.316	-8.992	-2.376	0.139	-0.367	0.120

DVI_B_LINE_REV0.OUT

	GRT1{1}	-2.587	0.284	-17.003	1.044	0.214	-0.127
	GRT2{1}	-2.481	3.052	-16.852	1.038	0.211	-0.087
	GRT3{1}	-2.483	3.052	-16.870	1.038	0.211	-0.087
	GRT4{1}	-2.505	2.174	-16.867	1.039	0.214	-0.100
	GRT5{1}	2.675	-9.950	-19.352	1.181	-0.159	-0.023
G06 N	Gravity{1}	-2.641	1.288	-0.174	0.243	0.537	-0.024
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.053	0.058	0.002	0.006	-0.006	0.036
	Thermal 2{1}	0.159	0.171	0.006	0.018	-0.018	0.115
	Thermal 3{1}	0.157	0.172	0.006	0.018	-0.018	0.115
	Thermal 4{1}	0.135	0.134	0.005	0.014	-0.016	0.090
	Thermal 5{1}	-0.166	-0.570	-12.347	-0.053	-0.058	-0.349
	GRT1{1}	-2.587	1.345	-0.172	0.250	0.531	0.012
	GRT2{1}	-2.482	1.459	-0.168	0.261	0.519	0.092
	GRT3{1}	-2.484	1.460	-0.168	0.261	0.519	0.092
	GRT4{1}	-2.506	1.422	-0.169	0.257	0.521	0.066
	GRT5{1}	-2.807	0.717	-12.521	0.191	0.479	-0.372

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
G06 M	Gravity{1}	-2.590	1.270	-0.051	0.236	0.511	-0.024
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.053	0.049	0.001	0.006	-0.006	0.035
	Thermal 2{1}	0.157	0.143	0.002	0.018	-0.019	0.113
	Thermal 3{1}	0.155	0.143	0.002	0.018	-0.019	0.113
	Thermal 4{1}	0.134	0.112	0.002	0.014	-0.017	0.089
	Thermal 5{1}	-0.210	-0.484	-12.342	-0.054	-0.044	-0.342
	GRT1{1}	-2.538	1.319	-0.050	0.243	0.505	0.011
	GRT2{1}	-2.433	1.413	-0.049	0.254	0.492	0.089
	GRT3{1}	-2.435	1.414	-0.049	0.254	0.493	0.089
	GRT4{1}	-2.457	1.382	-0.049	0.250	0.495	0.064
	GRT5{1}	-2.801	0.786	-12.393	0.183	0.468	-0.367
G06 F	Gravity{1}	-2.474	1.218	-0.002	0.227	0.485	-0.025

DVI_B_LINE_REV0.OUT
D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
G09	Gravity{1}	0.023	-0.012	0.000	-0.004	-0.008	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.001	-0.001	0.000	0.000	0.000	0.001
	Thermal 2{1}	-0.002	-0.002	0.000	-0.001	0.001	0.002
	Thermal 3{1}	-0.002	-0.002	0.000	-0.001	0.001	0.002
	Thermal 4{1}	-0.002	-0.001	0.000	0.000	0.001	0.001
	Thermal 5{1}	0.006	0.006	-8.974	0.002	-0.002	-0.005
	GRT1{1}	0.022	-0.013	0.000	-0.005	-0.008	0.000
	GRT2{1}	0.021	-0.014	0.000	-0.005	-0.008	0.001
	GRT3{1}	0.021	-0.014	0.000	-0.005	-0.008	0.001
	GRT4{1}	0.021	-0.013	0.000	-0.005	-0.008	0.001
	GRT5{1}	0.029	-0.006	-8.974	-0.002	-0.011	-0.005
G07	Gravity{1}	0.017	-0.009	0.000	-0.003	-0.006	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	-0.001	-0.001	0.000	0.000	0.001	0.001
	Thermal 3{1}	-0.001	-0.001	0.000	0.000	0.001	0.001
	Thermal 4{1}	-0.001	-0.001	0.000	0.000	0.000	0.001
	Thermal 5{1}	0.005	0.004	-8.823	0.002	-0.002	-0.003
	GRT1{1}	0.016	-0.009	0.000	-0.003	-0.006	0.000
	GRT2{1}	0.015	-0.010	0.000	-0.004	-0.005	0.001
	GRT3{1}	0.015	-0.010	0.000	-0.004	-0.005	0.001
	GRT4{1}	0.015	-0.010	0.000	-0.003	-0.006	0.001
	GRT5{1}	0.021	-0.004	-8.824	-0.002	-0.008	-0.003
G08	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 5{1}	0.000	0.000	-8.004	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT5{1}	0.000	0.000	-8.004	0.000	0.000	0.000

*** Segment G end ***

*** Segment H begin ***

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DVI_B_LINE_REV0

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RESULT PAGE 42

D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
A26	Gravity{1}	0.572	0.000	-5.996	-0.011	-0.010	-0.009
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.210	0.000	0.686	0.056	-0.018	0.066
	Thermal 2{1}	-1.458	0.000	-1.364	-0.152	0.083	0.091
	Thermal 3{1}	-1.546	0.000	-0.989	-0.108	0.070	0.099
	Thermal 4{1}	0.318	0.000	-1.531	-0.171	0.065	0.089
	Thermal 5{1}	-3.732	0.000	9.514	-0.297	0.652	-0.012
	GRT1{1}	0.782	0.000	-5.311	0.045	-0.029	0.058
	GRT2{1}	-0.886	0.000	-7.361	-0.163	0.073	0.082
	GRT3{1}	-0.974	0.000	-6.985	-0.119	0.059	0.090
	GRT4{1}	0.890	0.000	-7.527	-0.182	0.055	0.080
	GRT5{1}	-3.160	0.000	3.517	-0.308	0.642	-0.021
H02	Gravity{1}	0.558	0.015	-5.996	-0.011	-0.010	-0.009
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.185	-0.074	0.686	0.056	-0.018	0.066
	Thermal 2{1}	-1.347	0.203	-1.364	-0.152	0.083	0.091
	Thermal 3{1}	-1.453	0.145	-0.989	-0.108	0.070	0.099
	Thermal 4{1}	0.405	0.228	-1.531	-0.171	0.065	0.089
	Thermal 5{1}	-2.862	0.396	9.739	-0.297	0.652	-0.012
	GRT1{1}	0.744	-0.060	-5.311	0.045	-0.029	0.058
	GRT2{1}	-0.789	0.217	-7.361	-0.163	0.073	0.082
	GRT3{1}	-0.895	0.159	-6.985	-0.119	0.059	0.090
	GRT4{1}	0.963	0.242	-7.527	-0.182	0.055	0.080
	GRT5{1}	-2.304	0.410	3.743	-0.308	0.642	-0.021
H02 M	Gravity{1}	0.528	0.046	-5.996	-0.011	-0.010	-0.009
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.133	-0.237	0.686	0.056	-0.018	0.066
	Thermal 2{1}	-1.105	0.644	-1.364	-0.152	0.083	0.091

		DVI_B_LINE_REV0.OUT					
	Thermal 3{1}	-1.250	0.459	-0.989	-0.108	0.070	0.099
	Thermal 4{1}	0.595	0.724	-1.531	-0.171	0.065	0.089
	Thermal 5{1}	-0.966	1.258	10.230	-0.297	0.652	-0.012
	GRT1{1}	0.660	-0.190	-5.311	0.045	-0.029	0.058
	GRT2{1}	-0.577	0.690	-7.361	-0.163	0.073	0.082
	GRT3{1}	-0.722	0.506	-6.985	-0.119	0.059	0.090
	GRT4{1}	1.123	0.770	-7.527	-0.182	0.055	0.080
	GRT5{1}	-0.438	1.304	4.234	-0.308	0.642	-0.021
SV12	Gravity{1}	0.498	0.078	-5.996	-0.011	-0.010	-0.009
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.080	-0.399	0.686	0.056	-0.018	0.066
	Thermal 2{1}	-0.863	1.086	-1.364	-0.152	0.083	0.091
	Thermal 3{1}	-1.047	0.774	-0.989	-0.108	0.070	0.099
	Thermal 4{1}	0.784	1.221	-1.531	-0.171	0.065	0.089
	Thermal 5{1}	0.930	2.120	10.721	-0.297	0.652	-0.012
	GRT1{1}	0.577	-0.321	-5.311	0.045	-0.029	0.058
	GRT2{1}	-0.365	1.164	-7.361	-0.163	0.073	0.082
	GRT3{1}	-0.549	0.852	-6.985	-0.119	0.059	0.090
	GRT4{1}	1.282	1.299	-7.527	-0.182	0.055	0.080
	GRT5{1}	1.428	2.198	4.725	-0.308	0.642	-0.021

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DVI_B_LINE_REV0

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
*** Segment H end ***							
*** Segment I begin ***							
A28	Gravity{1}	0.572	0.008	0.001	-0.003	0.263	0.013
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.210	-0.172	0.287	0.036	-0.006	-0.018
	Thermal 2{1}	-1.457	0.117	-0.372	-0.034	-0.031	-0.021
	Thermal 3{1}	-1.546	0.046	-0.276	-0.016	-0.042	-0.018
	Thermal 4{1}	0.318	0.140	-0.239	-0.043	0.043	-0.045
	Thermal 5{1}	-7.422	4.750	16.819	-0.355	-0.180	-0.094
	GRT1{1}	0.782	-0.164	0.288	0.033	0.256	-0.005
	GRT2{1}	-0.885	0.125	-0.371	-0.037	0.231	-0.008

DVI_B_LINE_REV0.OUT

	GRT3{1}	-0.973	0.055	-0.275	-0.020	0.220	-0.005
	GRT4{1}	0.891	0.148	-0.239	-0.046	0.306	-0.032
	GRT5{1}	-6.849	4.758	16.819	-0.358	0.082	-0.081
I01	Gravity{1}	0.458	0.007	0.001	-0.003	0.255	0.015
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.212	-0.155	0.287	0.038	-0.006	-0.018
	Thermal 2{1}	-1.442	0.103	-0.372	-0.031	-0.036	-0.011
	Thermal 3{1}	-1.526	0.040	-0.276	-0.014	-0.046	-0.008
	Thermal 4{1}	0.300	0.122	-0.239	-0.040	0.042	-0.043
	Thermal 5{1}	-7.337	4.595	16.744	-0.346	-0.201	-0.047
	GRT1{1}	0.670	-0.148	0.288	0.035	0.249	-0.003
	GRT2{1}	-0.984	0.110	-0.371	-0.034	0.219	0.004
	GRT3{1}	-1.068	0.047	-0.275	-0.017	0.209	0.006
	GRT4{1}	0.757	0.129	-0.239	-0.043	0.297	-0.028
	GRT5{1}	-6.879	4.602	16.745	-0.349	0.054	-0.032
I02 N	Gravity{1}	-0.372	0.000	0.001	-0.002	0.199	0.029
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.226	-0.009	0.287	0.039	-0.002	-0.021
	Thermal 2{1}	-1.275	0.004	-0.372	-0.027	-0.048	0.070
	Thermal 3{1}	-1.322	0.001	-0.276	-0.012	-0.057	0.074
	Thermal 4{1}	0.163	0.006	-0.239	-0.026	0.033	-0.027
	Thermal 5{1}	-6.435	3.299	16.124	-0.400	-0.254	0.345
	GRT1{1}	-0.146	-0.009	0.288	0.036	0.196	0.009
	GRT2{1}	-1.647	0.004	-0.371	-0.029	0.151	0.099
	GRT3{1}	-1.694	0.001	-0.275	-0.015	0.142	0.103
	GRT4{1}	-0.209	0.006	-0.238	-0.029	0.232	0.002
	GRT5{1}	-6.807	3.299	16.125	-0.402	-0.055	0.374

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
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I02 F	Gravity{1}	-0.412	-0.001	0.001	-0.003	0.187	0.034
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.221	0.000	0.278	0.036	-0.002	-0.021

DVI_B_LINE_REV0.OUT

	Thermal 2{1}	-1.244	-0.002	-0.364	-0.030	-0.048	0.083
	Thermal 3{1}	-1.288	-0.003	-0.272	-0.017	-0.057	0.086
	Thermal 4{1}	0.149	0.000	-0.233	-0.026	0.030	-0.024
	Thermal 5{1}	-6.277	3.153	16.190	-0.451	-0.255	0.405
	GRT1{1}	-0.191	-0.001	0.279	0.033	0.185	0.013
	GRT2{1}	-1.656	-0.003	-0.363	-0.032	0.139	0.117
	GRT3{1}	-1.700	-0.003	-0.271	-0.019	0.131	0.120
	GRT4{1}	-0.264	-0.001	-0.231	-0.028	0.218	0.010
	GRT5{1}	-6.690	3.152	16.191	-0.453	-0.068	0.439
I11	Gravity{1}	-0.352	-0.001	0.003	0.003	0.158	0.038
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.185	0.000	0.222	0.031	-0.002	-0.021
	Thermal 2{1}	-1.086	-0.002	-0.312	-0.033	-0.041	0.105
	Thermal 3{1}	-1.123	-0.003	-0.239	-0.022	-0.048	0.109
	Thermal 4{1}	0.113	0.000	-0.191	-0.024	0.026	-0.019
	Thermal 5{1}	-5.503	2.871	17.000	-0.512	-0.215	0.514
	GRT1{1}	-0.167	-0.001	0.226	0.034	0.156	0.016
	GRT2{1}	-1.438	-0.003	-0.309	-0.030	0.117	0.143
	GRT3{1}	-1.475	-0.003	-0.236	-0.020	0.110	0.147
	GRT4{1}	-0.239	-0.001	-0.188	-0.021	0.184	0.019
	GRT5{1}	-5.855	2.870	17.003	-0.510	-0.057	0.551
I11 M	Gravity{1}	-0.317	-0.001	0.001	0.003	0.158	0.038
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.166	0.000	0.194	0.031	-0.002	-0.021
	Thermal 2{1}	-0.990	-0.002	-0.281	-0.033	-0.041	0.105
	Thermal 3{1}	-1.023	-0.003	-0.219	-0.022	-0.048	0.109
	Thermal 4{1}	0.096	0.000	-0.169	-0.024	0.026	-0.019
	Thermal 5{1}	-5.032	2.716	17.469	-0.512	-0.215	0.514
	GRT1{1}	-0.152	-0.001	0.195	0.034	0.156	0.016
	GRT2{1}	-1.307	-0.003	-0.281	-0.030	0.117	0.143
	GRT3{1}	-1.341	-0.003	-0.218	-0.020	0.110	0.147
	GRT4{1}	-0.222	-0.001	-0.168	-0.021	0.183	0.019
	GRT5{1}	-5.349	2.716	17.470	-0.510	-0.057	0.552
CH15	Gravity{1}	-0.283	-0.001	-0.002	0.003	0.158	0.038
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.146	0.000	0.166	0.031	-0.002	-0.021
	Thermal 2{1}	-0.893	-0.002	-0.251	-0.033	-0.041	0.105
	Thermal 3{1}	-0.923	-0.003	-0.198	-0.022	-0.048	0.109
	Thermal 4{1}	0.079	0.000	-0.147	-0.024	0.026	-0.019
	Thermal 5{1}	-4.561	2.561	17.938	-0.512	-0.214	0.514
	GRT1{1}	-0.137	-0.001	0.164	0.034	0.156	0.016

DVI_B_LINE_REV0.OUT

GRT2{1}	-1.176	-0.003	-0.253	-0.030	0.117	0.143
GRT3{1}	-1.206	-0.003	-0.200	-0.020	0.110	0.147
GRT4{1}	-0.204	-0.001	-0.149	-0.021	0.183	0.019
GRT5{1}	-4.844	2.561	17.937	-0.510	-0.057	0.552

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RESULT PAGE 45

D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
C031	Gravity{1}	-0.188	-0.001	-0.014	0.002	0.112	0.035
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.094	0.000	0.097	0.023	-0.001	-0.019
	Thermal 2{1}	-0.617	-0.002	-0.168	-0.031	-0.029	0.107
	Thermal 3{1}	-0.637	-0.003	-0.138	-0.023	-0.034	0.110
	Thermal 4{1}	0.040	0.000	-0.091	-0.019	0.018	-0.012
	Thermal 5{1}	-3.209	2.128	19.235	-0.484	-0.153	0.521
	GRT1{1}	-0.094	-0.001	0.083	0.025	0.111	0.016
	GRT2{1}	-0.805	-0.003	-0.182	-0.028	0.083	0.142
	GRT3{1}	-0.825	-0.003	-0.152	-0.021	0.078	0.145
	GRT4{1}	-0.149	-0.001	-0.105	-0.017	0.130	0.023
	GRT5{1}	-3.397	2.127	19.222	-0.482	-0.041	0.556
I05	Gravity{1}	-0.068	-0.001	-0.002	-0.002	0.036	0.018
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.032	0.000	0.030	0.008	0.000	-0.009
	Thermal 2{1}	-0.232	-0.002	-0.061	-0.016	-0.009	0.061
	Thermal 3{1}	-0.239	-0.002	-0.053	-0.014	-0.011	0.063
	Thermal 4{1}	0.009	0.000	-0.030	-0.008	0.006	-0.003
	Thermal 5{1}	-1.328	1.397	20.920	-0.255	-0.049	0.297
	GRT1{1}	-0.036	0.000	0.027	0.006	0.035	0.009
	GRT2{1}	-0.300	-0.003	-0.063	-0.018	0.027	0.079
	GRT3{1}	-0.307	-0.003	-0.055	-0.016	0.025	0.081
	GRT4{1}	-0.059	-0.001	-0.032	-0.010	0.042	0.015
	GRT5{1}	-1.396	1.397	20.918	-0.257	-0.013	0.315
I05 M	Gravity{1}	-0.046	-0.001	0.000	-0.002	0.036	0.018
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000

Thermal 1{1}	0.022	0.000	0.020	0.008	0.000	-0.009
Thermal 2{1}	-0.158	-0.002	-0.041	-0.016	-0.009	0.061
Thermal 3{1}	-0.163	-0.002	-0.036	-0.014	-0.011	0.063
Thermal 4{1}	0.006	0.000	-0.020	-0.008	0.006	-0.003
Thermal 5{1}	-0.966	1.191	21.232	-0.254	-0.049	0.296
GRT1{1}	-0.024	0.000	0.020	0.006	0.035	0.009
GRT2{1}	-0.204	-0.003	-0.041	-0.018	0.026	0.079
GRT3{1}	-0.209	-0.003	-0.036	-0.016	0.025	0.080
GRT4{1}	-0.040	-0.001	-0.020	-0.010	0.041	0.015
GRT5{1}	-1.012	1.190	21.232	-0.256	-0.013	0.314

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Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
I07	Gravity{1}	-0.006	-0.001	0.002	0.001	0.004	0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.002	0.000	0.002	0.001	0.000	-0.001
	Thermal 2{1}	-0.020	-0.002	-0.005	-0.003	-0.001	0.011
	Thermal 3{1}	-0.020	-0.002	-0.005	-0.002	-0.001	0.011
	Thermal 4{1}	0.000	0.000	-0.002	-0.001	0.001	0.000
	Thermal 5{1}	-0.292	0.690	21.809	-0.045	-0.007	0.054
	GRT1{1}	-0.003	0.000	0.004	0.002	0.004	0.002

		DVI_B_LINE_REV0.OUT					
	GRT2{1}	-0.025	-0.003	-0.003	-0.002	0.003	0.014
	GRT3{1}	-0.026	-0.003	-0.003	-0.002	0.003	0.014
	GRT4{1}	-0.005	-0.001	0.000	-0.001	0.005	0.003
	GRT5{1}	-0.298	0.689	21.811	-0.044	-0.002	0.057
I14	Gravity{1}	-0.003	-0.001	0.001	0.001	0.002	0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.001	0.000	0.001	0.001	0.000	-0.001
	Thermal 2{1}	-0.012	-0.002	-0.003	-0.002	-0.001	0.007
	Thermal 3{1}	-0.012	-0.002	-0.003	-0.002	-0.001	0.007
	Thermal 4{1}	0.000	0.000	-0.001	-0.001	0.000	0.000
	Thermal 5{1}	-0.253	0.539	21.842	-0.029	-0.004	0.034
	GRT1{1}	-0.002	0.000	0.003	0.001	0.002	0.001
	GRT2{1}	-0.015	-0.003	-0.002	-0.001	0.002	0.009
	GRT3{1}	-0.015	-0.003	-0.001	-0.001	0.002	0.009
	GRT4{1}	-0.003	-0.001	0.000	0.000	0.003	0.002
	GRT5{1}	-0.256	0.539	21.843	-0.028	-0.001	0.036
I09 N	Gravity{1}	-0.001	-0.001	0.001	0.000	0.002	0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.001	0.000	0.000	0.001	0.000	-0.001
	Thermal 2{1}	-0.005	-0.002	-0.001	-0.001	0.000	0.006
	Thermal 3{1}	-0.005	-0.002	-0.001	-0.001	-0.001	0.006
	Thermal 4{1}	0.000	0.000	0.000	-0.001	0.000	0.000
	Thermal 5{1}	-0.220	0.363	21.869	-0.023	-0.003	0.028
	GRT1{1}	-0.001	0.000	0.001	0.001	0.002	0.001
	GRT2{1}	-0.006	-0.003	-0.001	-0.001	0.001	0.007
	GRT3{1}	-0.007	-0.003	0.000	-0.001	0.001	0.007
	GRT4{1}	-0.001	-0.001	0.000	0.000	0.002	0.002
	GRT5{1}	-0.221	0.362	21.870	-0.022	-0.001	0.029
I09 F	Gravity{1}	-0.001	-0.001	0.001	0.000	0.001	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	-0.003	-0.002	-0.001	-0.001	0.000	0.003
	Thermal 3{1}	-0.003	-0.002	-0.001	-0.001	0.000	0.003
	Thermal 4{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 5{1}	-0.192	0.294	21.876	-0.014	-0.001	0.017
	GRT1{1}	-0.001	0.000	0.001	0.000	0.001	0.001
	GRT2{1}	-0.004	-0.002	0.000	-0.001	0.001	0.004
	GRT3{1}	-0.004	-0.002	0.000	-0.001	0.001	0.004
	GRT4{1}	-0.001	-0.001	0.000	0.000	0.001	0.001
	GRT5{1}	-0.192	0.294	21.877	-0.014	0.000	0.018

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
I10	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 5{1}	0.000	0.000	21.890	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT5{1}	0.000	0.000	21.890	0.000	0.000	0.000
*** Segment I end ***							
*** Segment J begin ***							
D01	Gravity{1}	-0.016	0.007	-0.475	0.045	0.182	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	7.154	0.192	-0.747	0.002	0.155	-0.439
	Thermal 2{1}	9.763	8.596	-3.707	0.126	0.412	-0.218
	Thermal 3{1}	9.818	8.549	-3.549	0.127	0.397	-0.221
	Thermal 4{1}	6.855	-4.891	-3.748	0.124	0.417	-0.720
	Thermal 5{1}	6.079	8.609	-3.077	0.127	0.311	0.009
	GRT1{1}	7.138	0.199	-1.222	0.048	0.337	-0.440
	GRT2{1}	9.747	8.602	-4.181	0.171	0.593	-0.219
	GRT3{1}	9.802	8.555	-4.024	0.172	0.578	-0.222
	GRT4{1}	6.839	-4.884	-4.222	0.170	0.599	-0.721
	GRT5{1}	6.063	8.616	-3.551	0.172	0.493	0.008
J11	Gravity{1}	-0.016	0.007	-0.223	0.037	0.175	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	5.666	0.438	-0.490	0.005	0.130	-0.487
	Thermal 2{1}	8.790	8.328	-3.240	0.118	0.365	-0.160
	Thermal 3{1}	8.836	8.290	-3.118	0.122	0.349	-0.166

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Thermal 4{1}	5.427	-3.464	-3.268	0.116	0.370	-0.806
Thermal 5{1}	5.867	8.195	-2.794	0.123	0.274	0.097
GRT1{1}	5.650	0.445	-0.713	0.043	0.305	-0.486
GRT2{1}	8.774	8.335	-3.463	0.155	0.541	-0.159
GRT3{1}	8.820	8.297	-3.341	0.160	0.524	-0.165
GRT4{1}	5.411	-3.457	-3.491	0.154	0.546	-0.805
GRT5{1}	5.851	8.202	-3.017	0.160	0.450	0.098

0

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
J12	Gravity{1}	-0.013	0.004	0.052	0.046	0.151	0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.915	0.759	-0.259	0.009	0.100	-0.471
	Thermal 2{1}	7.822	7.866	-2.590	0.010	0.410	-0.074
	Thermal 3{1}	7.853	7.843	-2.515	0.016	0.394	-0.081
	Thermal 4{1}	3.698	-1.736	-2.606	0.009	0.414	-0.793
	Thermal 5{1}	5.805	7.537	-2.336	0.017	0.335	0.178
	GRT1{1}	3.902	0.763	-0.207	0.054	0.251	-0.470
	GRT2{1}	7.809	7.870	-2.538	0.056	0.561	-0.072
	GRT3{1}	7.840	7.847	-2.463	0.062	0.545	-0.079
	GRT4{1}	3.685	-1.732	-2.554	0.054	0.565	-0.792
	GRT5{1}	5.791	7.542	-2.284	0.062	0.485	0.180
J01	Gravity{1}	-0.008	-0.001	0.126	0.127	0.051	0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	2.186	0.972	-0.092	0.013	0.069	-0.373
	Thermal 2{1}	7.022	7.152	-1.292	-0.219	0.572	0.039
	Thermal 3{1}	7.036	7.145	-1.263	-0.213	0.560	0.033
	Thermal 4{1}	2.040	-0.079	-1.298	-0.219	0.575	-0.651
	Thermal 5{1}	5.899	6.680	-1.198	-0.216	0.518	0.239
	GRT1{1}	2.178	0.972	0.034	0.140	0.120	-0.371
	GRT2{1}	7.013	7.151	-1.166	-0.092	0.624	0.042
	GRT3{1}	7.028	7.145	-1.137	-0.086	0.611	0.035
	GRT4{1}	2.031	-0.079	-1.172	-0.092	0.627	-0.649
	GRT5{1}	5.891	6.679	-1.072	-0.088	0.569	0.242

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J01 M	Gravity{1}	-0.005	-0.005	0.000	0.129	0.050	0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.033	1.033	0.000	0.013	0.069	-0.372
	Thermal 2{1}	6.540	6.540	0.000	-0.221	0.574	0.040
	Thermal 3{1}	6.545	6.545	0.000	-0.216	0.562	0.034
	Thermal 4{1}	0.980	0.980	0.000	-0.222	0.577	-0.649
	Thermal 5{1}	6.014	6.014	0.000	-0.218	0.520	0.240
	GRT1{1}	1.029	1.029	0.000	0.141	0.119	-0.370
	GRT2{1}	6.536	6.536	0.000	-0.093	0.624	0.043
	GRT3{1}	6.540	6.540	0.000	-0.087	0.612	0.036
	GRT4{1}	0.976	0.976	0.000	-0.093	0.627	-0.647
	GRT5{1}	6.010	6.010	0.000	-0.089	0.570	0.242
IV10	Gravity{1}	-0.001	-0.008	-0.131	0.130	0.048	0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.118	1.092	0.091	0.013	0.069	-0.371
	Thermal 2{1}	6.061	5.928	1.300	-0.223	0.576	0.041
	Thermal 3{1}	6.055	5.942	1.271	-0.218	0.564	0.035
	Thermal 4{1}	-0.075	2.036	1.305	-0.224	0.579	-0.647
	Thermal 5{1}	6.129	5.348	1.206	-0.220	0.522	0.240
	GRT1{1}	-0.119	1.084	-0.040	0.143	0.117	-0.368
	GRT2{1}	6.060	5.919	1.168	-0.093	0.624	0.044
	GRT3{1}	6.054	5.934	1.140	-0.088	0.612	0.037
	GRT4{1}	-0.076	2.028	1.174	-0.094	0.627	-0.645
	GRT5{1}	6.129	5.340	1.075	-0.090	0.570	0.242

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
J03	Gravity{1}	0.005	-0.014	-1.245	0.099	0.031	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.907	1.882	0.200	0.006	-0.002	0.049
	Thermal 2{1}	5.731	4.410	6.679	-0.294	0.455	0.106
	Thermal 3{1}	5.714	4.435	6.616	-0.295	0.457	0.107
	Thermal 4{1}	-1.544	3.505	6.692	-0.293	0.455	0.079

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	Thermal 5{1}	6.218	3.411	6.474	-0.298	0.459	0.079
	GRT1{1}	-0.902	1.867	-1.045	0.105	0.029	0.049
	GRT2{1}	5.736	4.396	5.434	-0.195	0.486	0.106
	GRT3{1}	5.720	4.420	5.370	-0.196	0.488	0.107
	GRT4{1}	-1.539	3.491	5.447	-0.195	0.486	0.079
	GRT5{1}	6.223	3.397	5.228	-0.200	0.490	0.079
J13	Gravity{1}	0.005	-0.014	-1.349	0.089	0.039	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.817	1.791	0.185	0.006	-0.003	0.055
	Thermal 2{1}	5.619	3.938	7.952	-0.280	0.439	0.102
	Thermal 3{1}	5.604	3.961	7.892	-0.282	0.440	0.103
	Thermal 4{1}	-1.398	3.358	7.964	-0.280	0.439	0.090
	Thermal 5{1}	6.058	2.988	7.760	-0.285	0.443	0.073
	GRT1{1}	-0.812	1.778	-1.163	0.095	0.036	0.054
	GRT2{1}	5.624	3.924	6.603	-0.191	0.478	0.102
	GRT3{1}	5.609	3.947	6.543	-0.192	0.480	0.103
	GRT4{1}	-1.393	3.345	6.615	-0.191	0.478	0.090
	GRT5{1}	6.062	2.974	6.412	-0.196	0.482	0.072
J06 N	Gravity{1}	0.000	-0.009	-1.666	0.059	0.068	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.010	0.985	0.063	0.004	-0.004	0.055
	Thermal 2{1}	4.522	0.177	17.398	-0.205	0.357	0.078
	Thermal 3{1}	4.522	0.186	17.375	-0.206	0.359	0.078
	Thermal 4{1}	-0.013	1.972	17.402	-0.205	0.357	0.100
	Thermal 5{1}	4.528	-0.340	17.328	-0.208	0.362	0.048
	GRT1{1}	-0.010	0.976	-1.604	0.063	0.064	0.055
	GRT2{1}	4.522	0.168	15.731	-0.146	0.425	0.077
	GRT3{1}	4.522	0.177	15.708	-0.146	0.427	0.078
	GRT4{1}	-0.013	1.963	15.736	-0.145	0.425	0.100
	GRT5{1}	4.528	-0.349	15.661	-0.149	0.430	0.048
J06 F	Gravity{1}	0.000	-0.009	-1.610	0.055	0.075	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.016	0.921	0.057	0.004	-0.003	0.053
	Thermal 2{1}	4.359	0.010	17.892	-0.184	0.322	0.067
	Thermal 3{1}	4.359	0.018	17.871	-0.184	0.323	0.068
	Thermal 4{1}	0.036	1.853	17.896	-0.183	0.322	0.101
	Thermal 5{1}	4.351	-0.473	17.828	-0.187	0.326	0.039
	GRT1{1}	0.016	0.913	-1.553	0.059	0.071	0.053
	GRT2{1}	4.359	0.001	16.282	-0.129	0.397	0.067
	GRT3{1}	4.359	0.009	16.261	-0.129	0.398	0.068
	GRT4{1}	0.036	1.845	16.286	-0.129	0.396	0.101

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GRT5{1} 4.351 -0.482 16.218 -0.132 0.401 0.039

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
J07 N	Gravity{1}	0.000	0.000	-0.055	0.018	0.044	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.016	0.017	0.001	0.000	-0.001	0.022
	Thermal 2{1}	0.655	-0.953	22.763	-0.005	0.096	0.020
	Thermal 3{1}	0.655	-0.953	22.763	-0.005	0.096	0.020
	Thermal 4{1}	0.035	0.038	22.763	-0.005	0.096	0.046
	Thermal 5{1}	0.647	-0.962	22.762	-0.005	0.097	0.008
	GRT1{1}	0.016	0.017	-0.054	0.018	0.042	0.022
	GRT2{1}	0.655	-0.954	22.708	0.013	0.139	0.019
	GRT3{1}	0.655	-0.953	22.708	0.013	0.140	0.019
	GRT4{1}	0.035	0.038	22.708	0.013	0.139	0.046
	GRT5{1}	0.646	-0.963	22.708	0.013	0.141	0.008
J07 F	Gravity{1}	0.000	0.000	-0.028	0.004	0.014	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.011	0.006	0.000	0.000	0.000	0.005
	Thermal 2{1}	0.523	-0.889	22.805	-0.015	0.036	0.004
	Thermal 3{1}	0.523	-0.889	22.805	-0.015	0.036	0.004
	Thermal 4{1}	0.025	0.015	22.805	-0.015	0.036	0.011
	Thermal 5{1}	0.517	-0.892	22.805	-0.015	0.037	0.001
	GRT1{1}	0.011	0.006	-0.028	0.004	0.013	0.005
	GRT2{1}	0.523	-0.889	22.777	-0.012	0.050	0.004
	GRT3{1}	0.523	-0.889	22.777	-0.012	0.050	0.004
	GRT4{1}	0.025	0.014	22.777	-0.012	0.050	0.011
	GRT5{1}	0.517	-0.892	22.777	-0.012	0.051	0.001
J08	Gravity{1}	0.000	0.000	-0.025	0.003	0.011	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.010	0.006	0.000	0.000	0.000	0.004
	Thermal 2{1}	0.491	-0.836	22.807	-0.012	0.030	0.003
	Thermal 3{1}	0.491	-0.836	22.807	-0.012	0.030	0.003

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	Thermal 4{1}	0.022	0.013	22.807	-0.012	0.030	0.010
	Thermal 5{1}	0.486	-0.839	22.807	-0.012	0.030	0.001
	GRT1{1}	0.009	0.005	-0.024	0.003	0.011	0.004
	GRT2{1}	0.491	-0.836	22.783	-0.009	0.041	0.003
	GRT3{1}	0.491	-0.836	22.783	-0.009	0.041	0.003
	GRT4{1}	0.021	0.012	22.783	-0.009	0.041	0.009
	GRT5{1}	0.486	-0.839	22.783	-0.009	0.041	0.001
J09	Gravity{1}	0.000	0.000	-0.012	0.002	0.006	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.004	0.002	0.000	0.000	0.000	0.002
	Thermal 2{1}	0.337	-0.578	22.814	-0.006	0.016	0.002
	Thermal 3{1}	0.337	-0.578	22.814	-0.006	0.016	0.002
	Thermal 4{1}	0.010	0.006	22.814	-0.006	0.016	0.005
	Thermal 5{1}	0.335	-0.580	22.814	-0.006	0.016	0.000
	GRT1{1}	0.004	0.002	-0.012	0.002	0.006	0.002
	GRT2{1}	0.337	-0.578	22.802	-0.004	0.022	0.002
	GRT3{1}	0.337	-0.578	22.802	-0.004	0.022	0.002
	GRT4{1}	0.010	0.006	22.802	-0.004	0.022	0.005
	GRT5{1}	0.335	-0.580	22.802	-0.004	0.022	0.000

 DVI_B_LINE_REV0
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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
J10	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	22.820	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	22.820	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	22.820	0.000	0.000	0.000
	Thermal 5{1}	0.000	0.000	22.820	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	22.820	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	22.820	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	22.820	0.000	0.000	0.000

		DVI_B_LINE_REV0.OUT					
GRT5{1}		0.000	0.000	22.820	0.000	0.000	0.000

*** Segment J end ***

*** Segment M begin ***

F10	Gravity{1}	0.000	0.000	-0.002	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.004	0.000	0.000	0.000	-0.002	0.000
	Thermal 2{1}	0.005	0.000	0.000	0.000	-0.002	0.000
	Thermal 3{1}	0.009	0.035	-13.956	0.017	-0.005	0.000
	Thermal 4{1}	0.004	0.000	0.000	0.000	-0.002	0.000
	Thermal 5{1}	0.005	0.018	-7.034	0.008	-0.003	0.000
	GRT1{1}	0.004	0.000	-0.002	0.000	-0.002	0.000
	GRT2{1}	0.004	0.000	-0.002	0.000	-0.002	0.000
	GRT3{1}	0.009	0.035	-13.958	0.017	-0.004	0.000
	GRT4{1}	0.004	0.000	-0.002	0.000	-0.002	0.000
	GRT5{1}	0.005	0.017	-7.036	0.008	-0.002	0.000
M06	Gravity{1}	0.000	0.000	-0.001	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.001	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.001	0.000	0.000	0.000	0.000	0.000
	Thermal 3{1}	0.002	0.008	-12.932	0.000	0.000	0.000
	Thermal 4{1}	0.001	0.000	0.000	0.000	0.000	0.000
	Thermal 5{1}	0.001	0.004	-6.518	0.000	0.000	0.000
	GRT1{1}	0.001	0.000	-0.001	0.000	0.000	0.000
	GRT2{1}	0.001	0.000	-0.001	0.000	0.000	0.000
	GRT3{1}	0.002	0.008	-12.934	0.000	0.000	0.000
	GRT4{1}	0.001	0.000	-0.001	0.000	0.000	0.000
	GRT5{1}	0.001	0.004	-6.520	0.000	0.000	0.000

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
M01	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000

		DVI_B_LINE_REV0.OUT					
	Thermal 2{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 5{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT5{1}	0.000	0.000	0.000	0.000	0.000	0.000
M02	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.002	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	-0.002	0.000	0.000	0.000	0.000	0.000
	Thermal 3{1}	-0.004	0.000	5.735	0.000	0.000	0.000
	Thermal 4{1}	-0.002	0.000	0.000	0.000	0.000	0.000
	Thermal 5{1}	-0.002	0.000	2.890	0.000	0.000	0.000
	GRT1{1}	-0.002	0.000	0.000	0.000	0.000	0.000
	GRT2{1}	-0.002	0.000	0.000	0.000	0.000	0.000
	GRT3{1}	-0.004	0.000	5.734	0.000	0.000	0.000
	GRT4{1}	-0.002	0.000	0.000	0.000	0.000	0.000
	GRT5{1}	-0.003	0.000	2.890	0.000	0.000	0.000
M03	Gravity{1}	-0.002	0.002	-0.001	-0.001	-0.001	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.052	-0.004	0.000	0.002	-0.031	-0.001
	Thermal 2{1}	-0.057	0.000	0.000	0.000	-0.034	-0.001
	Thermal 3{1}	-0.119	-0.003	6.758	0.002	-0.071	-0.005
	Thermal 4{1}	-0.069	-0.001	0.000	0.001	-0.042	-0.001
	Thermal 5{1}	-0.073	-0.001	3.406	0.001	-0.044	-0.002
	GRT1{1}	-0.054	-0.002	-0.001	0.001	-0.032	-0.001
	GRT2{1}	-0.059	0.001	-0.001	-0.001	-0.035	-0.001
	GRT3{1}	-0.121	-0.001	6.758	0.001	-0.072	-0.005
	GRT4{1}	-0.071	0.001	-0.001	0.000	-0.043	-0.001
	GRT5{1}	-0.075	0.001	3.406	0.000	-0.045	-0.002
M04	Gravity{1}	-0.004	0.004	-0.001	-0.001	-0.002	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.123	-0.008	0.000	0.003	-0.047	-0.002
	Thermal 2{1}	-0.134	-0.001	0.000	0.000	-0.051	-0.002
	Thermal 3{1}	-0.280	-0.006	7.361	0.002	-0.107	-0.008
	Thermal 4{1}	-0.163	-0.002	0.000	0.001	-0.062	-0.001
	Thermal 5{1}	-0.172	-0.003	3.710	0.001	-0.066	-0.003
	GRT1{1}	-0.127	-0.005	-0.001	0.002	-0.048	-0.002

	DVI_B_LINE_REV0.OUT					
GRT2{1}	-0.138	0.003	-0.001	-0.001	-0.053	-0.002
GRT3{1}	-0.284	-0.002	7.360	0.001	-0.108	-0.008
GRT4{1}	-0.168	0.002	-0.001	-0.001	-0.064	-0.001
GRT5{1}	-0.176	0.001	3.709	0.000	-0.067	-0.003

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DISPLACEMENTS

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
M05	Gravity{1}	-0.006	0.005	-0.001	-0.002	-0.002	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.176	-0.012	0.000	0.004	-0.063	-0.003
	Thermal 2{1}	-0.191	-0.001	0.000	0.000	-0.068	-0.003
	Thermal 3{1}	-0.400	-0.009	7.683	0.003	-0.142	-0.011
	Thermal 4{1}	-0.234	-0.003	0.000	0.001	-0.083	-0.002
	Thermal 5{1}	-0.246	-0.004	3.872	0.001	-0.087	-0.005
	GRT1{1}	-0.182	-0.006	-0.001	0.002	-0.065	-0.003
	GRT2{1}	-0.197	0.004	-0.001	-0.001	-0.070	-0.003
	GRT3{1}	-0.406	-0.003	7.682	0.001	-0.144	-0.011
	GRT4{1}	-0.240	0.002	-0.001	-0.001	-0.085	-0.002
	GRT5{1}	-0.252	0.002	3.871	-0.001	-0.089	-0.005
M24	Gravity{1}	0.036	0.000	-0.002	0.015	0.021	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-5.314	0.000	-0.002	-0.032	-0.182	-0.046
	Thermal 2{1}	-5.228	0.000	-0.003	-0.004	-0.129	-0.046
	Thermal 3{1}	-10.485	0.000	14.701	-0.024	-0.215	-0.196
	Thermal 4{1}	-6.826	0.000	-0.003	-0.009	-0.213	-0.031
	Thermal 5{1}	-6.756	0.000	7.409	-0.010	-0.171	-0.082
	GRT1{1}	-5.278	0.000	-0.004	-0.017	-0.162	-0.045
	GRT2{1}	-5.192	0.000	-0.005	0.011	-0.109	-0.045
	GRT3{1}	-10.449	0.000	14.699	-0.009	-0.194	-0.195
	GRT4{1}	-6.789	0.000	-0.005	0.006	-0.192	-0.030
	GRT5{1}	-6.720	0.000	7.407	0.005	-0.150	-0.081
M07 N	Gravity{1}	0.130	-0.069	-0.002	0.024	0.033	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000

		DVI_B_LINE_REV0.OUT					
	Thermal 1{1}	-5.752	0.155	-0.002	-0.058	-0.059	-0.053
	Thermal 2{1}	-5.424	0.024	-0.003	-0.012	0.027	-0.053
	Thermal 3{1}	-10.670	0.126	15.879	-0.053	0.128	-0.226
	Thermal 4{1}	-7.288	0.048	-0.003	-0.020	-0.040	-0.036
	Thermal 5{1}	-7.026	0.054	8.003	-0.023	0.029	-0.094
	GRT1{1}	-5.622	0.086	-0.005	-0.034	-0.026	-0.052
	GRT2{1}	-5.294	-0.044	-0.005	0.012	0.060	-0.052
	GRT3{1}	-10.541	0.058	15.876	-0.029	0.161	-0.225
	GRT4{1}	-7.158	-0.020	-0.005	0.004	-0.007	-0.035
	GRT5{1}	-6.896	-0.014	8.001	0.001	0.062	-0.093
M07 F	Gravity{1}	0.147	-0.081	-0.021	0.027	0.038	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-5.770	0.159	0.007	-0.069	0.003	-0.053
	Thermal 2{1}	-5.397	0.005	-0.041	-0.017	0.104	-0.054
	Thermal 3{1}	-10.408	0.041	15.928	-0.069	0.298	-0.232
	Thermal 4{1}	-7.292	0.041	-0.011	-0.026	0.047	-0.036
	Thermal 5{1}	-6.909	0.020	8.041	-0.031	0.127	-0.097
	GRT1{1}	-5.623	0.079	-0.013	-0.041	0.042	-0.053
	GRT2{1}	-5.249	-0.076	-0.062	0.010	0.142	-0.053
	GRT3{1}	-10.261	-0.040	15.907	-0.042	0.336	-0.232
	GRT4{1}	-7.145	-0.040	-0.032	0.001	0.085	-0.036
	GRT5{1}	-6.762	-0.061	8.021	-0.004	0.166	-0.096

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DVI_B_LINE_REV0

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
M31	Gravity{1}	0.147	-0.066	-0.395	0.059	0.024	0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-5.770	-0.291	-1.363	-0.186	0.201	-0.023
	Thermal 2{1}	-5.397	-0.435	-2.700	-0.075	0.339	-0.018
	Thermal 3{1}	-7.066	-2.156	8.972	-0.249	0.938	-0.168
	Thermal 4{1}	-7.293	-0.213	-2.368	-0.092	0.330	0.000
	Thermal 5{1}	-5.225	-0.868	4.426	-0.113	0.506	-0.062
	GRT1{1}	-5.623	-0.357	-1.758	-0.127	0.225	-0.020
	GRT2{1}	-5.250	-0.501	-3.095	-0.016	0.363	-0.016

DVI_B_LINE_REV0.OUT							
	GRT3{1}	-6.919	-2.222	8.577	-0.190	0.962	-0.165
	GRT4{1}	-7.146	-0.279	-2.763	-0.032	0.354	0.003
	GRT5{1}	-5.078	-0.935	4.032	-0.054	0.530	-0.059
M08 N	Gravity{1}	0.147	-0.047	-0.463	0.076	0.003	0.005
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-5.771	-0.293	-2.287	-0.246	0.142	0.025
	Thermal 2{1}	-5.398	-0.400	-4.268	-0.104	0.252	0.036
	Thermal 3{1}	-5.358	-2.719	4.182	-0.341	0.899	-0.042
	Thermal 4{1}	-7.293	-0.091	-3.929	-0.125	0.257	0.052
	Thermal 5{1}	-4.364	-1.040	1.825	-0.155	0.490	0.000
	GRT1{1}	-5.624	-0.341	-2.749	-0.170	0.145	0.030
	GRT2{1}	-5.251	-0.448	-4.731	-0.029	0.255	0.041
	GRT3{1}	-5.211	-2.766	3.719	-0.265	0.902	-0.037
	GRT4{1}	-7.146	-0.138	-4.392	-0.050	0.260	0.057
	GRT5{1}	-4.217	-1.088	1.362	-0.080	0.493	0.005
M08 F	Gravity{1}	0.146	-0.045	-0.448	0.078	0.000	0.005
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-5.777	-0.282	-2.388	-0.249	0.124	0.036
	Thermal 2{1}	-5.406	-0.384	-4.383	-0.104	0.227	0.047
	Thermal 3{1}	-5.222	-2.666	3.765	-0.346	0.874	-0.015
	Thermal 4{1}	-7.305	-0.069	-4.051	-0.125	0.233	0.062
	Thermal 5{1}	-4.299	-1.006	1.603	-0.158	0.476	0.013
	GRT1{1}	-5.631	-0.327	-2.836	-0.172	0.124	0.041
	GRT2{1}	-5.260	-0.429	-4.832	-0.026	0.227	0.053
	GRT3{1}	-5.075	-2.711	3.316	-0.268	0.874	-0.010
	GRT4{1}	-7.159	-0.114	-4.499	-0.048	0.233	0.068
	GRT5{1}	-4.153	-1.051	1.155	-0.080	0.476	0.018
M30	Gravity{1}	0.131	-0.033	-0.232	0.082	-0.010	0.006
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-5.906	-0.182	-3.210	-0.273	0.015	0.061
	Thermal 2{1}	-5.570	-0.258	-4.980	-0.109	0.081	0.075
	Thermal 3{1}	-4.620	-1.756	1.256	-0.366	0.700	0.056
	Thermal 4{1}	-7.501	0.083	-4.721	-0.131	0.093	0.084
	Thermal 5{1}	-4.043	-0.510	0.321	-0.163	0.382	0.043
	GRT1{1}	-5.775	-0.215	-3.441	-0.191	0.005	0.067
	GRT2{1}	-5.439	-0.291	-5.212	-0.027	0.071	0.082
	GRT3{1}	-4.489	-1.789	1.024	-0.284	0.691	0.062
	GRT4{1}	-7.370	0.050	-4.953	-0.049	0.083	0.091
	GRT5{1}	-3.912	-0.544	0.089	-0.081	0.373	0.049

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
M09 N	Gravity{1}	0.104	-0.013	0.192	0.069	-0.011	0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-6.202	0.047	-4.023	-0.224	-0.262	0.049
	Thermal 2{1}	-5.927	0.018	-4.966	0.001	-0.285	0.058
	Thermal 3{1}	-3.696	0.101	-1.963	-0.192	0.212	0.046
	Thermal 4{1}	-7.845	0.349	-4.850	-0.014	-0.268	0.039
	Thermal 5{1}	-3.588	0.434	-1.219	-0.052	0.113	0.009
	GRT1{1}	-6.097	0.034	-3.830	-0.155	-0.273	0.052
	GRT2{1}	-5.822	0.005	-4.774	0.070	-0.296	0.062
	GRT3{1}	-3.592	0.088	-1.771	-0.124	0.201	0.050
	GRT4{1}	-7.741	0.336	-4.658	0.055	-0.279	0.043
	GRT5{1}	-3.484	0.421	-1.027	0.017	0.102	0.013
M09 F	Gravity{1}	0.104	-0.012	0.209	0.065	-0.008	0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-6.211	0.064	-3.953	-0.204	-0.303	0.041
	Thermal 2{1}	-5.937	0.039	-4.840	0.031	-0.340	0.048
	Thermal 3{1}	-3.572	0.181	-2.065	-0.145	0.133	0.031
	Thermal 4{1}	-7.720	0.426	-4.733	0.018	-0.324	0.025
	Thermal 5{1}	-3.522	0.467	-1.263	-0.024	0.068	-0.005
	GRT1{1}	-6.107	0.053	-3.744	-0.139	-0.312	0.044
	GRT2{1}	-5.834	0.028	-4.631	0.096	-0.348	0.051
	GRT3{1}	-3.468	0.169	-1.856	-0.080	0.125	0.034
	GRT4{1}	-7.616	0.415	-4.524	0.083	-0.332	0.028
	GRT5{1}	-3.419	0.455	-1.053	0.041	0.060	-0.002
M10	Gravity{1}	0.104	-0.006	0.216	0.047	0.005	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-5.362	0.142	-3.017	-0.128	-0.442	0.021
	Thermal 2{1}	-5.089	0.129	-3.756	0.154	-0.524	0.024
	Thermal 3{1}	-2.724	0.209	-2.080	0.052	-0.134	-0.006
	Thermal 4{1}	-6.871	0.435	-3.689	0.146	-0.509	-0.016
	Thermal 5{1}	-3.095	0.406	-1.254	0.094	-0.082	-0.042
	GRT1{1}	-5.259	0.136	-2.801	-0.081	-0.436	0.023

GRT2{1}	-4.985	0.123	-3.541	0.201	-0.518	0.025
GRT3{1}	-2.620	0.203	-1.864	0.099	-0.128	-0.005
GRT4{1}	-6.768	0.429	-3.473	0.193	-0.504	-0.015
GRT5{1}	-2.991	0.400	-1.038	0.141	-0.077	-0.041
Gravity{1}	0.104	-0.003	0.142	0.016	0.059	0.001
Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
Thermal 1{1}	-4.474	0.085	-1.572	0.076	-0.661	-0.036
Thermal 2{1}	-4.201	0.079	-1.959	0.356	-0.824	-0.033
Thermal 3{1}	-1.836	0.105	-1.218	0.254	-0.512	-0.044
Thermal 4{1}	-5.983	0.226	-1.928	0.349	-0.811	-0.095
Thermal 5{1}	-2.647	0.197	-0.726	0.216	-0.305	-0.083
GRT1{1}	-4.371	0.082	-1.431	0.092	-0.602	-0.035
GRT2{1}	-4.097	0.076	-1.817	0.372	-0.765	-0.032
GRT3{1}	-1.732	0.102	-1.076	0.270	-0.452	-0.043
GRT4{1}	-5.880	0.223	-1.786	0.365	-0.752	-0.094
GRT5{1}	-2.544	0.194	-0.585	0.232	-0.246	-0.082

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
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M11 M	Gravity{1}	0.104	0.000	0.000	0.016	0.060	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-3.678	0.000	0.000	0.078	-0.664	-0.035
	Thermal 2{1}	-3.405	0.000	0.000	0.358	-0.826	-0.033
	Thermal 3{1}	-1.040	0.000	0.000	0.256	-0.515	-0.043
	Thermal 4{1}	-5.188	0.000	0.000	0.351	-0.813	-0.094
	Thermal 5{1}	-2.246	0.000	0.000	0.218	-0.307	-0.082
	GRT1{1}	-3.575	0.000	0.000	0.094	-0.603	-0.034
	GRT2{1}	-3.301	0.000	0.000	0.373	-0.766	-0.032
	GRT3{1}	-0.937	0.000	0.000	0.272	-0.454	-0.042
	GRT4{1}	-5.084	0.000	0.000	0.367	-0.753	-0.093
GRT5{1}	-2.143	0.000	0.000	0.233	-0.246	-0.081	
M17	Gravity{1}	0.104	0.003	-0.144	0.015	0.061	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000

Thermal 1{1}	-2.883	-0.083	1.579	0.080	-0.666	-0.034
Thermal 2{1}	-2.609	-0.076	1.964	0.360	-0.829	-0.032
Thermal 3{1}	-0.244	-0.102	1.226	0.258	-0.518	-0.042
Thermal 4{1}	-4.392	-0.221	1.933	0.353	-0.816	-0.092
Thermal 5{1}	-1.845	-0.193	0.730	0.219	-0.308	-0.081
GRT1{1}	-2.779	-0.080	1.434	0.095	-0.605	-0.033
GRT2{1}	-2.506	-0.074	1.820	0.375	-0.767	-0.031
GRT3{1}	-0.141	-0.099	1.081	0.273	-0.457	-0.041
GRT4{1}	-4.288	-0.218	1.789	0.368	-0.754	-0.091
GRT5{1}	-1.742	-0.191	0.586	0.234	-0.247	-0.080

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DVI_B_LINE_REV0.OUT

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
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M22 F	Gravity{1}	0.101	0.018	-1.329	-0.146	0.108	0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.227	0.909	12.630	0.748	-1.476	0.201
	Thermal 2{1}	0.495	0.953	14.761	0.908	-1.578	0.210
	Thermal 3{1}	2.808	1.125	12.115	0.889	-1.467	0.292
	Thermal 4{1}	-1.245	0.284	14.652	0.906	-1.573	0.144
	Thermal 5{1}	-0.265	-0.088	6.943	0.518	-0.792	0.084
	GRT1{1}	0.329	0.926	11.301	0.602	-1.368	0.204
	GRT2{1}	0.596	0.970	13.433	0.762	-1.470	0.214
	GRT3{1}	2.909	1.143	10.786	0.743	-1.360	0.296
	GRT4{1}	-1.144	0.302	13.323	0.760	-1.465	0.148
	GRT5{1}	-0.164	-0.070	5.614	0.372	-0.684	0.088
M23 N	Gravity{1}	0.058	0.018	-3.399	-0.216	0.013	0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-2.078	4.559	21.162	0.626	-2.087	0.125
	Thermal 2{1}	-1.928	4.603	24.652	0.741	-2.021	0.133
	Thermal 3{1}	-0.721	4.775	21.995	0.734	-2.071	0.216
	Thermal 4{1}	-3.062	3.935	24.533	0.740	-2.023	0.109
	Thermal 5{1}	-1.462	1.752	12.545	0.422	-1.042	0.087
	GRT1{1}	-2.021	4.577	17.762	0.410	-2.074	0.128
	GRT2{1}	-1.870	4.621	21.252	0.525	-2.008	0.136
	GRT3{1}	-0.663	4.793	18.595	0.518	-2.058	0.219
	GRT4{1}	-3.004	3.953	21.133	0.524	-2.010	0.112
	GRT5{1}	-1.405	1.770	9.146	0.205	-1.029	0.090
M23 F	Gravity{1}	0.056	0.019	-3.549	-0.220	0.003	0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.926	4.843	22.967	0.531	-2.142	0.072
	Thermal 2{1}	-1.780	4.891	26.484	0.651	-2.060	0.077
	Thermal 3{1}	-0.625	5.112	23.860	0.635	-2.125	0.144
	Thermal 4{1}	-2.903	4.214	26.366	0.649	-2.063	0.070
	Thermal 5{1}	-1.403	1.914	13.516	0.372	-1.064	0.066
	GRT1{1}	-1.870	4.862	19.418	0.311	-2.139	0.074
	GRT2{1}	-1.725	4.910	22.935	0.431	-2.057	0.079
	GRT3{1}	-0.569	5.131	20.311	0.415	-2.122	0.146
	GRT4{1}	-2.847	4.233	22.818	0.430	-2.059	0.072
	GRT5{1}	-1.347	1.933	9.967	0.153	-1.060	0.068
M21 N	Gravity{1}	0.056	0.016	-3.304	-0.250	-0.051	-0.003

DVI_B_LINE_REV0.OUT

Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
Thermal 1{1}	1.166	4.019	43.029	-0.315	-2.067	-0.242
Thermal 2{1}	1.312	4.061	45.494	-0.147	-1.940	-0.249
Thermal 3{1}	2.467	4.385	43.759	-0.241	-2.050	-0.296
Thermal 4{1}	0.190	3.712	45.416	-0.152	-1.945	-0.176
Thermal 5{1}	0.156	1.870	23.373	-0.062	-1.009	-0.078
GRT1{1}	1.222	4.035	39.725	-0.565	-2.118	-0.245
GRT2{1}	1.368	4.078	42.190	-0.397	-1.991	-0.252
GRT3{1}	2.523	4.401	40.455	-0.491	-2.101	-0.299
GRT4{1}	0.246	3.728	42.112	-0.402	-1.996	-0.179
GRT5{1}	0.212	1.887	20.069	-0.312	-1.059	-0.081

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
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M21 F	Gravity{1}	0.054	0.014	-3.125	-0.253	-0.054	-0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.232	3.656	44.587	-0.401	-1.996	-0.283
	Thermal 2{1}	1.373	3.693	46.871	-0.229	-1.871	-0.292
	Thermal 3{1}	2.495	3.981	45.264	-0.330	-1.979	-0.356
	Thermal 4{1}	0.297	3.394	46.798	-0.234	-1.876	-0.210
	Thermal 5{1}	0.214	1.716	24.081	-0.106	-0.973	-0.100
	GRT1{1}	1.286	3.670	41.462	-0.655	-2.050	-0.286
	GRT2{1}	1.427	3.707	43.746	-0.482	-1.925	-0.295
	GRT3{1}	2.549	3.995	42.140	-0.584	-2.034	-0.360
	GRT4{1}	0.351	3.408	43.674	-0.487	-1.930	-0.213
	GRT5{1}	0.268	1.730	20.956	-0.360	-1.027	-0.103
M20 N	Gravity{1}	-0.002	0.007	-0.131	-0.152	-0.078	-0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-2.349	-1.154	54.339	-0.480	-0.876	-0.238
	Thermal 2{1}	-2.354	-1.137	54.449	-0.373	-0.802	-0.247
	Thermal 3{1}	-2.395	-1.007	54.332	-0.449	-0.866	-0.316
	Thermal 4{1}	-2.296	-1.282	54.444	-0.376	-0.805	-0.182
	Thermal 5{1}	-1.151	-0.648	27.947	-0.192	-0.419	-0.096

		DVI_B_LINE_REV0.OUT					
	GRT1{1}	-2.351	-1.148	54.208	-0.632	-0.954	-0.242
	GRT2{1}	-2.357	-1.131	54.319	-0.525	-0.880	-0.250
	GRT3{1}	-2.398	-1.001	54.202	-0.601	-0.944	-0.319
	GRT4{1}	-2.299	-1.275	54.314	-0.528	-0.883	-0.185
	GRT5{1}	-1.153	-0.642	27.817	-0.344	-0.497	-0.099
M20 F	Gravity{1}	-0.004	0.004	0.015	-0.108	-0.074	-0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-2.064	-1.501	55.412	-0.355	-0.710	-0.159
	Thermal 2{1}	-2.074	-1.492	55.404	-0.276	-0.646	-0.165
	Thermal 3{1}	-2.142	-1.423	55.384	-0.332	-0.701	-0.208
	Thermal 4{1}	-1.990	-1.576	55.403	-0.278	-0.649	-0.120
	Thermal 5{1}	-0.998	-0.799	28.445	-0.142	-0.338	-0.061
	GRT1{1}	-2.068	-1.497	55.426	-0.463	-0.783	-0.161
	GRT2{1}	-2.077	-1.488	55.418	-0.384	-0.720	-0.167
	GRT3{1}	-2.146	-1.419	55.398	-0.440	-0.775	-0.210
	GRT4{1}	-1.993	-1.572	55.418	-0.387	-0.722	-0.122
	GRT5{1}	-1.002	-0.795	28.459	-0.250	-0.411	-0.063
M26	Gravity{1}	0.000	0.000	-0.006	-0.009	-0.014	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.647	-0.629	56.238	-0.030	-0.102	-0.013
	Thermal 2{1}	-0.647	-0.629	56.240	-0.022	-0.092	-0.014
	Thermal 3{1}	-0.648	-0.627	56.236	-0.027	-0.101	-0.016
	Thermal 4{1}	-0.644	-0.632	56.240	-0.022	-0.093	-0.009
	Thermal 5{1}	-0.324	-0.319	28.888	-0.011	-0.048	-0.004
	GRT1{1}	-0.647	-0.629	56.232	-0.038	-0.116	-0.013
	GRT2{1}	-0.647	-0.629	56.234	-0.030	-0.106	-0.014
	GRT3{1}	-0.648	-0.627	56.230	-0.035	-0.115	-0.016
	GRT4{1}	-0.644	-0.632	56.234	-0.031	-0.107	-0.009
	GRT5{1}	-0.324	-0.319	28.882	-0.020	-0.062	-0.004

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DVI_B_LINE_REV0

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
M27	Gravity{1}	0.000	0.000	-0.003	-0.004	-0.007	0.000

		DVI_B_LINE_REV0.OUT					
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.430	-0.424	56.274	-0.013	-0.052	-0.006
	Thermal 2{1}	-0.430	-0.424	56.275	-0.009	-0.047	-0.006
	Thermal 3{1}	-0.431	-0.423	56.273	-0.012	-0.051	-0.007
	Thermal 4{1}	-0.429	-0.425	56.275	-0.009	-0.047	-0.004
	Thermal 5{1}	-0.216	-0.215	28.907	-0.005	-0.024	-0.001
	GRT1{1}	-0.430	-0.424	56.271	-0.017	-0.059	-0.006
	GRT2{1}	-0.430	-0.424	56.272	-0.013	-0.054	-0.006
	GRT3{1}	-0.431	-0.423	56.270	-0.015	-0.058	-0.007
	GRT4{1}	-0.429	-0.425	56.272	-0.013	-0.054	-0.004
	GRT5{1}	-0.216	-0.215	28.904	-0.008	-0.032	-0.001
M28	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	56.300	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	56.300	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	56.300	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	56.300	0.000	0.000	0.000
	Thermal 5{1}	0.000	0.000	28.920	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	56.300	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	56.300	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	56.300	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	56.300	0.000	0.000	0.000
	GRT5{1}	0.000	0.000	28.920	0.000	0.000	0.000
*** Segment M end ***							
*** Segment N begin ***							
M10	Gravity{1}	0.104	-0.006	0.216	0.047	0.005	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-5.362	0.142	-3.017	-0.128	-0.442	0.021
	Thermal 2{1}	-5.089	0.129	-3.756	0.154	-0.524	0.024
	Thermal 3{1}	-2.724	0.209	-2.080	0.052	-0.134	-0.006
	Thermal 4{1}	-6.871	0.435	-3.689	0.146	-0.509	-0.016
	Thermal 5{1}	-3.095	0.406	-1.254	0.094	-0.082	-0.042
	GRT1{1}	-5.259	0.136	-2.801	-0.081	-0.436	0.023
	GRT2{1}	-4.985	0.123	-3.541	0.201	-0.518	0.025
	GRT3{1}	-2.620	0.203	-1.864	0.099	-0.128	-0.005
	GRT4{1}	-6.768	0.429	-3.473	0.193	-0.504	-0.015
	GRT5{1}	-2.991	0.400	-1.038	0.141	-0.077	-0.041

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DVI_B_LINE_REV0

09/13/2010 DVI.BLINE

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
N14	Gravity{1}	0.104	-0.006	0.092	0.041	-0.009	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-5.173	-0.741	-2.570	-0.204	-0.405	0.117
	Thermal 2{1}	-4.899	-0.754	-4.055	0.056	-0.377	0.115
	Thermal 3{1}	-2.645	-0.674	-2.185	0.010	-0.032	0.061
	Thermal 4{1}	-6.727	-0.447	-3.971	0.052	-0.364	0.117
	Thermal 5{1}	-3.098	-0.039	-1.468	0.050	0.014	0.034
	GRT1{1}	-5.068	-0.747	-2.478	-0.163	-0.414	0.116
	GRT2{1}	-4.795	-0.760	-3.963	0.098	-0.387	0.114
	GRT3{1}	-2.540	-0.680	-2.093	0.051	-0.041	0.061
	GRT4{1}	-6.623	-0.453	-3.879	0.093	-0.374	0.116
	GRT5{1}	-2.994	-0.045	-1.376	0.091	0.005	0.033
N12	Gravity{1}	0.103	-0.006	0.032	0.027	-0.019	-0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-4.928	-1.320	-2.186	-0.236	-0.381	0.163
	Thermal 2{1}	-4.660	-1.333	-4.066	-0.053	-0.282	0.158
	Thermal 3{1}	-2.509	-1.253	-2.143	-0.067	0.035	0.092
	Thermal 4{1}	-6.466	-1.025	-3.975	-0.056	-0.270	0.180
	Thermal 5{1}	-3.009	-0.330	-1.494	-0.028	0.078	0.068
	GRT1{1}	-4.826	-1.326	-2.154	-0.209	-0.400	0.161
	GRT2{1}	-4.558	-1.339	-4.033	-0.026	-0.300	0.157
	GRT3{1}	-2.407	-1.259	-2.111	-0.040	0.016	0.091
	GRT4{1}	-6.364	-1.031	-3.943	-0.028	-0.289	0.178
	GRT5{1}	-2.906	-0.336	-1.462	-0.001	0.059	0.066
N13	Gravity{1}	0.099	-0.006	-0.002	0.011	-0.029	-0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-4.615	-1.899	-1.761	-0.252	-0.357	0.196
	Thermal 2{1}	-4.357	-1.912	-3.856	-0.198	-0.186	0.189
	Thermal 3{1}	-2.329	-1.833	-1.934	-0.183	0.102	0.113
	Thermal 4{1}	-6.114	-1.604	-3.763	-0.199	-0.175	0.223
	Thermal 5{1}	-2.870	-0.622	-1.351	-0.146	0.141	0.090
	GRT1{1}	-4.516	-1.905	-1.763	-0.241	-0.386	0.194
	GRT2{1}	-4.258	-1.918	-3.858	-0.187	-0.214	0.187
	GRT3{1}	-2.230	-1.839	-1.935	-0.172	0.073	0.111
	GRT4{1}	-6.015	-1.610	-3.764	-0.187	-0.203	0.221

GRT5{1}	-2.771	-0.628	-1.353	-0.135	0.113	0.087
Gravity{1}	0.081	-0.006	0.003	0.001	-0.057	-0.004
Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
Thermal 1{1}	-3.494	-3.629	-0.502	-0.212	-0.285	0.218
Thermal 2{1}	-3.284	-3.642	-1.308	-0.844	0.101	0.207
Thermal 3{1}	-1.703	-3.563	0.354	-0.763	0.302	0.113
Thermal 4{1}	-4.850	-3.333	-1.222	-0.841	0.108	0.236
Thermal 5{1}	-2.374	-1.492	0.758	-0.731	0.330	0.084
GRT1{1}	-3.413	-3.635	-0.499	-0.211	-0.343	0.214
GRT2{1}	-3.203	-3.648	-1.305	-0.843	0.044	0.202
GRT3{1}	-1.622	-3.569	0.357	-0.762	0.245	0.109
GRT4{1}	-4.769	-3.339	-1.219	-0.840	0.051	0.231
GRT5{1}	-2.293	-1.498	0.760	-0.730	0.273	0.079

RESULT PAGE 61

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
N01 M	Gravity{1}	0.071	-0.006	0.000	0.001	-0.057	-0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-2.977	-4.425	0.000	-0.211	-0.285	0.218
	Thermal 2{1}	-2.794	-4.438	0.701	-0.848	0.102	0.206
	Thermal 3{1}	-1.435	-4.359	2.169	-0.767	0.303	0.113
	Thermal 4{1}	-4.291	-4.129	0.779	-0.845	0.109	0.235
	Thermal 5{1}	-2.176	-1.893	2.498	-0.735	0.331	0.083
	GRT1{1}	-2.906	-4.431	0.000	-0.210	-0.342	0.213
	GRT2{1}	-2.723	-4.444	0.701	-0.847	0.045	0.202
	GRT3{1}	-1.364	-4.365	2.169	-0.765	0.245	0.109
	GRT4{1}	-4.220	-4.135	0.779	-0.844	0.052	0.231
GRT5{1}	-2.105	-1.899	2.498	-0.734	0.274	0.079	
N09	Gravity{1}	0.061	-0.006	-0.004	0.002	-0.057	-0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-2.461	-5.221	0.500	-0.210	-0.285	0.217
	Thermal 2{1}	-2.305	-5.234	2.719	-0.852	0.104	0.206
	Thermal 3{1}	-1.167	-5.154	3.994	-0.770	0.304	0.112

Thermal 4{1}	-3.734	-4.924	2.790	-0.849	0.111	0.234
Thermal 5{1}	-1.979	-2.295	4.248	-0.739	0.332	0.083
GRT1{1}	-2.401	-5.227	0.496	-0.209	-0.342	0.213
GRT2{1}	-2.244	-5.240	2.715	-0.850	0.046	0.201
GRT3{1}	-1.107	-5.160	3.990	-0.769	0.246	0.108
GRT4{1}	-3.673	-4.930	2.786	-0.847	0.053	0.230
GRT5{1}	-1.918	-2.301	4.244	-0.737	0.274	0.078

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DVI_B_LINE_REV0.OUT

N15 N	Gravity{1}	0.031	-0.006	-0.128	0.017	-0.097	-0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-2.008	-5.218	1.283	-0.048	-0.186	-0.070
	Thermal 2{1}	-1.927	-5.231	11.458	-1.371	0.497	-0.080
	Thermal 3{1}	-1.343	-5.151	12.074	-1.277	0.578	-0.142
	Thermal 4{1}	-3.834	-6.127	11.498	-1.366	0.500	-0.228
	Thermal 5{1}	-2.564	-3.499	12.148	-1.257	0.592	-0.222
	GRT1{1}	-1.976	-5.224	1.154	-0.030	-0.283	-0.074
	GRT2{1}	-1.896	-5.237	11.329	-1.353	0.400	-0.084
	GRT3{1}	-1.312	-5.157	11.946	-1.260	0.481	-0.146
	GRT4{1}	-3.803	-6.133	11.369	-1.349	0.403	-0.232
	GRT5{1}	-2.533	-3.505	12.019	-1.239	0.495	-0.226
N15 F	Gravity{1}	0.028	-0.003	-0.223	0.014	-0.098	-0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-2.085	-5.125	1.166	-0.040	-0.181	-0.130
	Thermal 2{1}	-2.013	-5.131	13.019	-1.362	0.517	-0.139
	Thermal 3{1}	-1.478	-5.005	13.621	-1.268	0.590	-0.193
	Thermal 4{1}	-4.194	-6.025	13.057	-1.357	0.520	-0.322
	Thermal 5{1}	-2.909	-3.421	13.689	-1.249	0.603	-0.282
	GRT1{1}	-2.057	-5.128	0.943	-0.026	-0.279	-0.134
	GRT2{1}	-1.985	-5.134	12.796	-1.348	0.419	-0.143
	GRT3{1}	-1.450	-5.008	13.399	-1.255	0.492	-0.196
	GRT4{1}	-4.166	-6.028	12.834	-1.343	0.421	-0.325
	GRT5{1}	-2.881	-3.424	13.466	-1.235	0.504	-0.285
N16 N	Gravity{1}	0.028	0.025	-1.074	-0.003	-0.098	-0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-2.085	-4.074	-0.244	-0.004	-0.141	-0.056
	Thermal 2{1}	-2.012	-4.008	17.196	-1.282	0.390	-0.064
	Thermal 3{1}	-1.477	-3.451	18.347	-1.198	0.448	-0.114
	Thermal 4{1}	-5.649	-3.434	17.249	-1.278	0.392	-0.182
	Thermal 5{1}	-4.364	-1.150	18.513	-1.183	0.458	-0.178
	GRT1{1}	-2.057	-4.049	-1.318	-0.008	-0.238	-0.059
	GRT2{1}	-1.984	-3.983	16.121	-1.285	0.293	-0.067
	GRT3{1}	-1.449	-3.426	17.273	-1.202	0.351	-0.117
	GRT4{1}	-5.621	-3.409	16.175	-1.281	0.294	-0.186
	GRT5{1}	-4.336	-1.125	17.439	-1.187	0.361	-0.181
N16 F	Gravity{1}	0.025	0.027	-1.146	-0.009	-0.095	-0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-2.041	-4.066	-0.349	0.001	-0.121	0.106
	Thermal 2{1}	-1.976	-3.994	18.712	-1.211	0.253	0.098

DVI_B_LINE_REV0.OUT

Thermal 3{1}	-1.495	-3.395	19.827	-1.131	0.310	0.042
Thermal 4{1}	-5.796	-3.521	18.762	-1.207	0.254	0.098
Thermal 5{1}	-4.558	-1.221	19.987	-1.117	0.320	0.019
GRT1{1}	-2.016	-4.039	-1.495	-0.009	-0.215	0.103
GRT2{1}	-1.951	-3.967	17.566	-1.220	0.158	0.094
GRT3{1}	-1.470	-3.367	18.681	-1.140	0.215	0.039
GRT4{1}	-5.771	-3.494	17.616	-1.216	0.160	0.095
GRT5{1}	-4.533	-1.194	18.841	-1.126	0.225	0.016

0

DVI_B_LINE_REV0

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BENTLEY

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
N19	Gravity{1}	0.015	0.025	-1.048	-0.014	-0.093	-0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.566	-3.965	-0.290	0.006	-0.094	0.194
	Thermal 2{1}	-1.527	-3.899	22.290	-1.140	0.094	0.186
	Thermal 3{1}	-1.224	-3.337	23.125	-1.065	0.149	0.128
	Thermal 4{1}	-5.126	-3.930	22.327	-1.137	0.096	0.252
	Thermal 5{1}	-4.207	-1.698	23.238	-1.053	0.158	0.129
	GRT1{1}	-1.551	-3.940	-1.338	-0.008	-0.186	0.191
	GRT2{1}	-1.512	-3.873	21.242	-1.154	0.001	0.183
	GRT3{1}	-1.209	-3.311	22.077	-1.079	0.057	0.125
	GRT4{1}	-5.111	-3.905	21.279	-1.150	0.003	0.249
	GRT5{1}	-4.192	-1.673	22.190	-1.066	0.065	0.126
N18 N	Gravity{1}	0.005	0.023	-0.929	-0.016	-0.090	-0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.755	-3.793	-0.256	0.007	-0.065	0.269
	Thermal 2{1}	-0.743	-3.732	26.029	-1.006	-0.071	0.261
	Thermal 3{1}	-0.641	-3.213	26.577	-0.940	-0.017	0.204
	Thermal 4{1}	-3.878	-4.277	26.052	-1.003	-0.069	0.388
	Thermal 5{1}	-3.454	-2.151	26.644	-0.929	-0.010	0.228
	GRT1{1}	-0.751	-3.770	-1.185	-0.009	-0.154	0.266
	GRT2{1}	-0.739	-3.709	25.100	-1.022	-0.161	0.258
	GRT3{1}	-0.636	-3.190	25.648	-0.956	-0.107	0.201

		DVI_B_LINE_REV0.OUT					
	GRT4{1}	-3.873	-4.254	25.123	-1.019	-0.159	0.385
	GRT5{1}	-3.450	-2.128	25.715	-0.945	-0.100	0.225
N18 F	Gravity{1}	0.003	0.021	-0.847	-0.015	-0.087	-0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.562	-3.541	-0.217	0.012	-0.047	0.334
	Thermal 2{1}	-0.554	-3.486	26.741	-0.918	-0.120	0.327
	Thermal 3{1}	-0.489	-3.011	27.207	-0.860	-0.072	0.273
	Thermal 4{1}	-3.453	-4.011	26.761	-0.915	-0.119	0.509
	Thermal 5{1}	-3.144	-2.030	27.261	-0.850	-0.066	0.319
	GRT1{1}	-0.559	-3.520	-1.064	-0.003	-0.134	0.331
	GRT2{1}	-0.551	-3.465	25.894	-0.933	-0.208	0.324
	GRT3{1}	-0.486	-2.990	26.360	-0.875	-0.159	0.271
	GRT4{1}	-3.451	-3.990	25.914	-0.930	-0.206	0.507
	GRT5{1}	-3.141	-2.009	26.415	-0.865	-0.153	0.316
N17 N	Gravity{1}	0.003	0.002	-0.139	-0.013	-0.056	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.561	-0.438	0.019	0.007	-0.010	0.265
	Thermal 2{1}	-0.554	-0.432	28.478	-0.353	-0.180	0.261
	Thermal 3{1}	-0.488	-0.381	28.569	-0.331	-0.152	0.229
	Thermal 4{1}	-1.878	0.856	28.483	-0.352	-0.179	0.422
	Thermal 5{1}	-1.569	1.097	28.579	-0.327	-0.149	0.275
	GRT1{1}	-0.558	-0.436	-0.120	-0.006	-0.067	0.264
	GRT2{1}	-0.551	-0.430	28.340	-0.366	-0.237	0.260
	GRT3{1}	-0.486	-0.379	28.430	-0.343	-0.208	0.228
	GRT4{1}	-1.875	0.858	28.344	-0.364	-0.235	0.420
	GRT5{1}	-1.566	1.100	28.441	-0.340	-0.205	0.274

0

DVI_B_LINE_REV0

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RESULT PAGE 64

DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
N17 F	Gravity{1}	0.002	0.001	-0.100	-0.007	-0.040	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.476	-0.276	0.021	0.008	-0.006	0.170
	Thermal 2{1}	-0.470	-0.273	28.710	-0.258	-0.101	0.168

		DVI_B_LINE_REV0.OUT					
	Thermal 3{1}	-0.415	-0.241	28.776	-0.243	-0.083	0.147
	Thermal 4{1}	-1.620	1.044	28.713	-0.257	-0.100	0.271
	Thermal 5{1}	-1.358	1.196	28.783	-0.241	-0.081	0.177
	GRT1{1}	-0.474	-0.275	-0.078	0.000	-0.046	0.169
	GRT2{1}	-0.467	-0.271	28.610	-0.265	-0.140	0.167
	GRT3{1}	-0.412	-0.239	28.676	-0.250	-0.123	0.147
	GRT4{1}	-1.618	1.045	28.613	-0.264	-0.140	0.270
	GRT5{1}	-1.356	1.197	28.684	-0.248	-0.121	0.177
N06	Gravity{1}	0.001	0.000	-0.041	-0.005	-0.013	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.168	-0.098	0.010	0.004	-0.001	0.060
	Thermal 2{1}	-0.166	-0.096	29.281	-0.089	-0.038	0.059
	Thermal 3{1}	-0.147	-0.085	29.303	-0.084	-0.032	0.052
	Thermal 4{1}	-0.874	0.888	29.282	-0.089	-0.037	0.096
	Thermal 5{1}	-0.781	0.942	29.305	-0.083	-0.032	0.063
	GRT1{1}	-0.167	-0.097	-0.030	-0.002	-0.014	0.060
	GRT2{1}	-0.165	-0.096	29.240	-0.094	-0.051	0.059
	GRT3{1}	-0.146	-0.085	29.262	-0.089	-0.045	0.052
	GRT4{1}	-0.873	0.889	29.241	-0.094	-0.051	0.096
	GRT5{1}	-0.780	0.942	29.265	-0.089	-0.045	0.063
N20	Gravity{1}	0.000	0.000	-0.025	-0.004	-0.008	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.101	-0.059	0.007	0.003	0.000	0.039
	Thermal 2{1}	-0.099	-0.058	29.405	-0.057	-0.025	0.038
	Thermal 3{1}	-0.088	-0.051	29.418	-0.054	-0.021	0.034
	Thermal 4{1}	-0.634	0.724	29.406	-0.057	-0.025	0.062
	Thermal 5{1}	-0.579	0.756	29.419	-0.054	-0.021	0.041
	GRT1{1}	-0.100	-0.058	-0.019	-0.002	-0.009	0.039
	GRT2{1}	-0.099	-0.058	29.380	-0.061	-0.033	0.038
	GRT3{1}	-0.088	-0.051	29.393	-0.058	-0.030	0.034
	GRT4{1}	-0.634	0.724	29.380	-0.061	-0.033	0.062
	GRT5{1}	-0.578	0.756	29.394	-0.058	-0.030	0.041
N08	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	29.590	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	29.590	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	29.590	0.000	0.000	0.000
	Thermal 5{1}	0.000	0.000	29.590	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	29.590	0.000	0.000	0.000

	DVI_B_LINE_REV0.OUT					
GRT3{1}	0.000	0.000	29.590	0.000	0.000	0.000
GRT4{1}	0.000	0.000	29.590	0.000	0.000	0.000
GRT5{1}	0.000	0.000	29.590	0.000	0.000	0.000

0

DVI_B_LINE_REV0

09/13/2010 DVI.BLINE

BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 65

DISPLACEMENTS

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z

*** Segment N end ***							
*** Segment 0 begin ***							
M13	Gravity{1}	0.104	0.005	-0.390	-0.016	0.114	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.987	-0.067	3.688	0.285	-0.901	0.036
	Thermal 2{1}	-1.713	-0.055	4.567	0.563	-1.128	0.037
	Thermal 3{1}	0.651	-0.106	3.114	0.462	-0.900	0.026
	Thermal 4{1}	-3.496	-0.332	4.507	0.558	-1.119	-0.015
	Thermal 5{1}	-1.394	-0.325	1.854	0.342	-0.545	-0.038
	GRT1{1}	-1.883	-0.062	3.298	0.269	-0.788	0.037
	GRT2{1}	-1.610	-0.050	4.177	0.547	-1.015	0.037
	GRT3{1}	0.755	-0.101	2.723	0.446	-0.786	0.026
	GRT4{1}	-3.392	-0.327	4.117	0.542	-1.005	-0.015
	GRT5{1}	-1.290	-0.320	1.464	0.326	-0.432	-0.038
015	Gravity{1}	0.102	0.005	-0.353	-0.017	0.127	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.892	-0.954	2.900	0.308	-0.787	0.039
	Thermal 2{1}	-1.623	-0.942	3.038	0.572	-1.233	0.035
	Thermal 3{1}	0.660	-0.993	1.879	0.453	-1.030	-0.012
	Thermal 4{1}	-3.566	-1.218	2.992	0.567	-1.225	-0.028
	Thermal 5{1}	-1.550	-0.771	0.927	0.340	-0.723	-0.070
	GRT1{1}	-1.790	-0.949	2.547	0.290	-0.660	0.038
	GRT2{1}	-1.521	-0.937	2.684	0.555	-1.107	0.034
	GRT3{1}	0.762	-0.988	1.526	0.435	-0.904	-0.014
	GRT4{1}	-3.464	-1.213	2.639	0.550	-1.099	-0.029
	GRT5{1}	-1.448	-0.766	0.574	0.323	-0.597	-0.072
013	Gravity{1}	0.099	0.005	-0.315	-0.028	0.135	-0.002

	DVI_B_LINE_REV0.OUT					
Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
Thermal 1{1}	-1.814	-1.533	2.360	0.315	-0.711	0.052
Thermal 2{1}	-1.555	-1.522	2.082	0.523	-1.302	0.046
Thermal 3{1}	0.631	-1.572	1.136	0.397	-1.116	-0.019
Thermal 4{1}	-3.603	-1.798	2.045	0.518	-1.295	-0.010
Thermal 5{1}	-1.671	-1.063	0.375	0.289	-0.839	-0.066
GRT1{1}	-1.716	-1.528	2.045	0.288	-0.577	0.050
GRT2{1}	-1.456	-1.517	1.767	0.495	-1.167	0.043
GRT3{1}	0.730	-1.567	0.821	0.369	-0.981	-0.021
GRT4{1}	-3.504	-1.792	1.730	0.490	-1.160	-0.012
GRT5{1}	-1.573	-1.058	0.061	0.261	-0.704	-0.068

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DVI_B_LINE_REV0

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BENTLEY

09:56 AM

AutoPIPE Plus 9.2.1

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
014	Gravity{1}	0.094	0.005	-0.257	-0.039	0.143	-0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.708	-2.113	1.812	0.317	-0.636	0.073
	Thermal 2{1}	-1.461	-2.102	1.249	0.430	-1.371	0.065
	Thermal 3{1}	0.602	-2.152	0.524	0.302	-1.201	-0.011
	Thermal 4{1}	-3.590	-2.377	1.221	0.425	-1.364	0.030
	Thermal 5{1}	-1.769	-1.355	-0.054	0.198	-0.955	-0.042
	GRT1{1}	-1.614	-2.108	1.555	0.278	-0.493	0.070
	GRT2{1}	-1.367	-2.097	0.992	0.391	-1.228	0.062
	GRT3{1}	0.696	-2.147	0.267	0.263	-1.058	-0.014
	GRT4{1}	-3.496	-2.372	0.964	0.386	-1.221	0.027
	GRT5{1}	-1.675	-1.350	-0.311	0.159	-0.812	-0.045
001	Gravity{1}	0.082	0.005	-0.101	-0.043	0.160	-0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.345	-3.287	0.719	0.303	-0.484	0.141
	Thermal 2{1}	-1.130	-3.276	0.251	0.107	-1.510	0.131
	Thermal 3{1}	0.647	-3.326	-0.034	-0.013	-1.374	0.048
	Thermal 4{1}	-3.259	-3.550	0.240	0.103	-1.505	0.175
	Thermal 5{1}	-1.754	-1.946	-0.262	-0.109	-1.191	0.066
	GRT1{1}	-1.263	-3.282	0.618	0.260	-0.324	0.137

GRT2{1}	-1.049	-3.271	0.150	0.064	-1.350	0.127
GRT3{1}	0.729	-3.321	-0.135	-0.056	-1.214	0.044
GRT4{1}	-3.177	-3.545	0.139	0.060	-1.344	0.171
GRT5{1}	-1.672	-1.941	-0.363	-0.152	-1.030	0.062

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BENTLEY

RESULT PAGE 67

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
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003	Gravity{1}	0.059	0.005	0.154	-0.038	0.169	-0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000

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	Thermal 1{1}	-0.432	-4.878	-1.121	0.279	-0.410	0.208
	Thermal 2{1}	-0.277	-4.867	-0.253	-0.076	-1.579	0.200
	Thermal 3{1}	1.002	-4.917	0.189	-0.183	-1.459	0.134
	Thermal 4{1}	-2.070	-5.375	-0.236	-0.080	-1.574	0.333
	Thermal 5{1}	-1.252	-2.982	0.545	-0.273	-1.306	0.199
	GRT1{1}	-0.373	-4.873	-0.967	0.241	-0.241	0.205
	GRT2{1}	-0.218	-4.862	-0.099	-0.114	-1.410	0.197
	GRT3{1}	1.061	-4.912	0.343	-0.221	-1.290	0.131
	GRT4{1}	-2.011	-5.370	-0.082	-0.118	-1.405	0.330
	GRT5{1}	-1.193	-2.977	0.699	-0.311	-1.138	0.196
011	Gravity{1}	0.057	0.005	0.188	-0.038	0.171	-0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.240	-4.878	-1.367	0.273	-0.391	0.226
	Thermal 2{1}	-0.091	-4.867	-0.166	-0.114	-1.596	0.218
	Thermal 3{1}	1.132	-4.917	0.369	-0.218	-1.480	0.159
	Thermal 4{1}	-1.755	-5.525	-0.146	-0.118	-1.591	0.376
	Thermal 5{1}	-1.059	-3.132	0.805	-0.306	-1.335	0.236
	GRT1{1}	-0.183	-4.873	-1.179	0.234	-0.220	0.223
	GRT2{1}	-0.035	-4.862	0.021	-0.153	-1.425	0.216
	GRT3{1}	1.188	-4.912	0.556	-0.256	-1.309	0.156
	GRT4{1}	-1.698	-5.520	0.041	-0.156	-1.420	0.373
	GRT5{1}	-1.003	-3.127	0.993	-0.345	-1.165	0.233
005 N	Gravity{1}	0.050	0.005	0.284	-0.042	0.173	-0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.340	-4.878	-2.018	0.264	-0.367	0.252
	Thermal 2{1}	0.471	-4.867	0.161	-0.149	-1.618	0.246
	Thermal 3{1}	1.558	-4.917	0.942	-0.249	-1.508	0.194
	Thermal 4{1}	-0.768	-5.935	0.190	-0.153	-1.614	0.439
	Thermal 5{1}	-0.424	-3.542	1.591	-0.335	-1.373	0.290
	GRT1{1}	0.390	-4.873	-1.734	0.222	-0.193	0.250
	GRT2{1}	0.521	-4.862	0.444	-0.191	-1.445	0.243
	GRT3{1}	1.608	-4.912	1.226	-0.291	-1.334	0.192
	GRT4{1}	-0.718	-5.930	0.474	-0.195	-1.440	0.436
	GRT5{1}	-0.374	-3.537	1.875	-0.377	-1.199	0.287
005 F	Gravity{1}	0.048	0.005	0.272	-0.046	0.173	-0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.486	-4.821	-2.086	0.259	-0.361	0.278
	Thermal 2{1}	0.613	-4.811	0.590	-0.171	-1.629	0.272
	Thermal 3{1}	1.674	-4.871	1.402	-0.267	-1.519	0.230
	Thermal 4{1}	-0.474	-5.928	0.621	-0.174	-1.624	0.500
	Thermal 5{1}	-0.215	-3.567	2.071	-0.353	-1.387	0.343

GRT1{1}	0.535	-4.817	-1.814	0.213	-0.188	0.276
GRT2{1}	0.662	-4.807	0.862	-0.217	-1.455	0.270
GRT3{1}	1.723	-4.866	1.674	-0.314	-1.346	0.228
GRT4{1}	-0.426	-5.923	0.892	-0.221	-1.451	0.498
GRT5{1}	-0.166	-3.562	2.342	-0.399	-1.214	0.340

DISPLACEMENTS

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
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016 N	Gravity{1}	0.045	0.001	0.093	-0.055	0.175	-0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.984	-4.379	-1.987	0.246	-0.339	0.302
	Thermal 2{1}	1.102	-4.377	3.385	-0.183	-1.637	0.298
	Thermal 3{1}	2.099	-4.493	4.196	-0.275	-1.532	0.265
	Thermal 4{1}	0.694	-5.408	3.415	-0.187	-1.632	0.560
	Thermal 5{1}	0.676	-3.293	4.812	-0.356	-1.409	0.395
	GRT1{1}	1.029	-4.377	-1.894	0.191	-0.164	0.301
	GRT2{1}	1.147	-4.375	3.477	-0.238	-1.462	0.296
	GRT3{1}	2.144	-4.492	4.288	-0.329	-1.357	0.263
	GRT4{1}	0.739	-5.407	3.507	-0.241	-1.457	0.558
	GRT5{1}	0.721	-3.292	4.905	-0.411	-1.234	0.393
016 F	Gravity{1}	0.045	0.000	-0.116	-0.063	0.173	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.988	-3.984	-1.604	0.237	-0.308	0.346
	Thermal 2{1}	1.106	-3.987	5.371	-0.189	-1.632	0.344
	Thermal 3{1}	2.099	-4.130	6.063	-0.276	-1.535	0.331
	Thermal 4{1}	0.901	-4.666	5.396	-0.192	-1.628	0.670
	Thermal 5{1}	0.879	-2.759	6.541	-0.354	-1.424	0.492
	GRT1{1}	1.033	-3.985	-1.720	0.173	-0.135	0.345
	GRT2{1}	1.151	-3.987	5.255	-0.252	-1.459	0.343
	GRT3{1}	2.143	-4.131	5.948	-0.340	-1.362	0.330
	GRT4{1}	0.946	-4.666	5.280	-0.255	-1.455	0.669
	GRT5{1}	0.924	-2.760	6.425	-0.418	-1.251	0.491
017 N	Gravity{1}	0.051	-0.006	-1.922	-0.095	0.144	-0.001

DVI_B_LINE_REV0.OUT

	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.672	-1.323	2.047	0.203	-0.233	0.332
	Thermal 2{1}	-1.540	-1.340	15.269	-0.348	-1.457	0.329
	Thermal 3{1}	-0.509	-1.522	14.719	-0.418	-1.379	0.320
	Thermal 4{1}	-3.061	1.826	15.247	-0.351	-1.454	0.650
	Thermal 5{1}	-1.747	2.396	13.931	-0.488	-1.297	0.481
	GRT1{1}	-1.621	-1.330	0.125	0.108	-0.089	0.331
	GRT2{1}	-1.490	-1.346	13.347	-0.443	-1.313	0.329
	GRT3{1}	-0.459	-1.528	12.797	-0.513	-1.235	0.319
	GRT4{1}	-3.011	1.820	13.325	-0.446	-1.309	0.649
	GRT5{1}	-1.696	2.390	12.009	-0.583	-1.153	0.480
017 F	Gravity{1}	0.050	-0.008	-2.085	-0.099	0.132	-0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.671	-0.955	2.306	0.196	-0.208	0.274
	Thermal 2{1}	-1.540	-0.975	16.965	-0.414	-1.323	0.270
	Thermal 3{1}	-0.512	-1.177	16.328	-0.479	-1.253	0.245
	Thermal 4{1}	-2.858	2.533	16.939	-0.416	-1.320	0.522
	Thermal 5{1}	-1.546	2.911	15.449	-0.548	-1.180	0.374
	GRT1{1}	-1.621	-0.963	0.221	0.097	-0.076	0.273
	GRT2{1}	-1.490	-0.983	14.880	-0.513	-1.191	0.269
	GRT3{1}	-0.462	-1.185	14.243	-0.578	-1.121	0.244
	GRT4{1}	-2.808	2.526	14.854	-0.515	-1.188	0.520
	GRT5{1}	-1.495	2.904	13.364	-0.647	-1.048	0.373

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
018 N	Gravity{1}	0.039	-0.017	-2.108	-0.107	0.111	-0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.490	0.094	2.214	0.163	-0.159	0.167
	Thermal 2{1}	-0.388	0.049	25.122	-0.610	-0.957	0.160
	Thermal 3{1}	0.445	-0.326	24.502	-0.659	-0.905	0.111
	Thermal 4{1}	0.101	3.568	25.097	-0.612	-0.955	0.286
	Thermal 5{1}	0.737	3.344	23.663	-0.719	-0.849	0.180

		DVI_B_LINE_REV0.OUT					
	GRT1{1}	-0.451	0.077	0.106	0.056	-0.048	0.164
	GRT2{1}	-0.348	0.032	23.013	-0.717	-0.846	0.158
	GRT3{1}	0.484	-0.343	22.394	-0.766	-0.794	0.108
	GRT4{1}	0.141	3.550	22.988	-0.719	-0.844	0.283
	GRT5{1}	0.776	3.327	21.555	-0.826	-0.738	0.178
018 F	Gravity{1}	0.036	-0.017	-1.980	-0.110	0.106	-0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.346	0.102	2.033	0.146	-0.148	0.086
	Thermal 2{1}	-0.252	0.057	25.806	-0.644	-0.850	0.078
	Thermal 3{1}	0.515	-0.313	25.240	-0.687	-0.802	0.014
	Thermal 4{1}	0.321	3.395	25.783	-0.646	-0.848	0.111
	Thermal 5{1}	0.855	3.170	24.468	-0.741	-0.750	0.038
	GRT1{1}	-0.310	0.085	0.052	0.036	-0.042	0.083
	GRT2{1}	-0.216	0.040	23.825	-0.755	-0.744	0.075
	GRT3{1}	0.552	-0.330	23.260	-0.797	-0.696	0.011
	GRT4{1}	0.357	3.378	23.802	-0.756	-0.742	0.108
	GRT5{1}	0.891	3.152	22.488	-0.852	-0.644	0.035
019 N	Gravity{1}	0.012	0.007	-0.483	-0.105	0.058	-0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.135	-0.109	0.199	0.098	-0.085	0.004
	Thermal 2{1}	-0.104	-0.090	25.809	-0.491	-0.383	-0.004
	Thermal 3{1}	0.142	0.061	25.783	-0.517	-0.357	-0.064
	Thermal 4{1}	-1.039	2.182	25.808	-0.492	-0.382	-0.050
	Thermal 5{1}	-0.857	2.307	25.692	-0.555	-0.326	-0.080
	GRT1{1}	-0.123	-0.101	-0.284	-0.007	-0.027	0.001
	GRT2{1}	-0.092	-0.082	25.326	-0.596	-0.326	-0.007
	GRT3{1}	0.153	0.068	25.300	-0.622	-0.299	-0.067
	GRT4{1}	-1.028	2.189	25.325	-0.597	-0.325	-0.053
	GRT5{1}	-0.845	2.314	25.209	-0.660	-0.268	-0.083
019 F	Gravity{1}	0.009	0.007	-0.370	-0.091	0.045	-0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.125	-0.107	0.098	0.076	-0.071	0.014
	Thermal 2{1}	-0.102	-0.088	26.309	-0.400	-0.335	0.009
	Thermal 3{1}	0.085	0.068	26.309	-0.418	-0.312	-0.034
	Thermal 4{1}	-1.081	1.997	26.309	-0.400	-0.334	-0.011
	Thermal 5{1}	-0.931	2.123	26.257	-0.448	-0.287	-0.038
	GRT1{1}	-0.116	-0.100	-0.272	-0.015	-0.027	0.012
	GRT2{1}	-0.093	-0.080	25.939	-0.490	-0.290	0.007
	GRT3{1}	0.094	0.075	25.939	-0.509	-0.268	-0.036
	GRT4{1}	-1.072	2.005	25.939	-0.491	-0.290	-0.013
	GRT5{1}	-0.922	2.131	25.887	-0.539	-0.242	-0.040

 DVI_B_LINE_REV0
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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
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006	Gravity{1}	0.002	0.001	-0.094	-0.029	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.030	-0.021	0.032	0.015	-0.009	0.010
	Thermal 2{1}	-0.026	-0.019	29.091	-0.120	-0.076	0.009
	Thermal 3{1}	0.006	-0.001	29.087	-0.123	-0.072	-0.001
	Thermal 4{1}	-0.138	1.041	29.091	-0.120	-0.076	0.012
	Thermal 5{1}	-0.108	1.060	29.072	-0.130	-0.069	0.002
	GRT1{1}	-0.028	-0.020	-0.062	-0.013	-0.009	0.010
	GRT2{1}	-0.024	-0.018	28.997	-0.149	-0.075	0.009
	GRT3{1}	0.007	0.000	28.993	-0.152	-0.072	-0.001
	GRT4{1}	-0.136	1.042	28.997	-0.149	-0.075	0.012
	GRT5{1}	-0.107	1.061	28.978	-0.158	-0.069	0.002
012	Gravity{1}	0.001	0.000	-0.064	-0.023	-0.001	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.019	-0.011	0.025	0.012	-0.006	0.008
	Thermal 2{1}	-0.016	-0.010	29.286	-0.097	-0.055	0.007
	Thermal 3{1}	0.005	-0.002	29.282	-0.099	-0.052	0.000
	Thermal 4{1}	0.050	0.857	29.286	-0.097	-0.054	0.010
	Thermal 5{1}	0.069	0.866	29.271	-0.104	-0.050	0.002
	GRT1{1}	-0.018	-0.011	-0.039	-0.012	-0.007	0.008
	GRT2{1}	-0.015	-0.010	29.222	-0.120	-0.055	0.007
	GRT3{1}	0.006	-0.001	29.218	-0.123	-0.053	-0.001
	GRT4{1}	0.051	0.857	29.222	-0.120	-0.055	0.010
	GRT5{1}	0.070	0.867	29.207	-0.127	-0.051	0.002
008 N	Gravity{1}	0.001	0.000	-0.034	-0.020	-0.001	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.009	-0.002	0.017	0.010	-0.004	0.007
	Thermal 2{1}	-0.007	-0.002	29.463	-0.086	-0.044	0.006
	Thermal 3{1}	0.004	-0.002	29.459	-0.087	-0.042	-0.001
	Thermal 4{1}	0.257	0.648	29.463	-0.086	-0.044	0.009

		DVI_B_LINE_REV0.00T					
	Thermal 5{1}	0.267	0.649	29.453	-0.092	-0.041	0.002
	GRT1{1}	-0.008	-0.002	-0.018	-0.011	-0.005	0.007
	GRT2{1}	-0.007	-0.002	29.428	-0.106	-0.045	0.006
	GRT3{1}	0.005	-0.002	29.425	-0.108	-0.043	-0.001
	GRT4{1}	0.258	0.648	29.428	-0.106	-0.045	0.008
	GRT5{1}	0.267	0.649	29.418	-0.112	-0.042	0.001
008 F	Gravity{1}	0.000	0.000	-0.005	-0.005	-0.001	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.003	0.002	-0.001	0.001
	Thermal 2{1}	0.000	0.000	29.584	-0.023	-0.018	0.000
	Thermal 3{1}	0.002	-0.002	29.583	-0.023	-0.017	-0.001
	Thermal 4{1}	0.259	0.271	29.584	-0.023	-0.018	0.000
	Thermal 5{1}	0.260	0.271	29.582	-0.024	-0.017	-0.001
	GRT1{1}	0.000	0.000	-0.002	-0.003	-0.002	0.001
	GRT2{1}	0.000	0.000	29.579	-0.028	-0.019	0.000
	GRT3{1}	0.002	-0.002	29.579	-0.029	-0.018	-0.001
	GRT4{1}	0.259	0.271	29.579	-0.028	-0.019	0.000
	GRT5{1}	0.260	0.271	29.578	-0.030	-0.018	-0.001

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BENTLEY

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
009	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	29.590	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	29.590	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	29.590	0.000	0.000	0.000
	Thermal 5{1}	0.000	0.000	29.590	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	29.590	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	29.590	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	29.590	0.000	0.000	0.000
	GRT5{1}	0.000	0.000	29.590	0.000	0.000	0.000

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*** Segment 0 end ***

*** Segment P begin ***

P14	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	22.820	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	22.820	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	22.820	0.000	0.000	0.000
	Thermal 5{1}	0.000	0.000	22.820	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	22.820	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	22.820	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	22.820	0.000	0.000	0.000
	GRT5{1}	0.000	0.000	22.820	0.000	0.000	0.000
P13 N	Gravity{1}	0.000	0.000	-0.005	-0.003	0.002	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	-0.002	0.000	0.000	0.000	-0.001
	Thermal 2{1}	0.645	-0.076	22.783	-0.010	0.019	0.004
	Thermal 3{1}	0.645	-0.076	22.783	-0.010	0.020	0.004
	Thermal 4{1}	0.000	-0.002	22.783	-0.010	0.019	-0.001
	Thermal 5{1}	0.645	-0.076	22.782	-0.010	0.020	0.004
	GRT1{1}	0.000	-0.002	-0.005	-0.003	0.002	-0.001
	GRT2{1}	0.645	-0.076	22.778	-0.013	0.022	0.004
	GRT3{1}	0.645	-0.076	22.778	-0.013	0.022	0.004
	GRT4{1}	0.000	-0.002	22.778	-0.013	0.022	-0.001
	GRT5{1}	0.645	-0.076	22.777	-0.013	0.022	0.004

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RESULT PAGE 72

D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
P13 F	Gravity{1}	0.000	0.000	-0.006	-0.003	0.003	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	-0.002	0.000	0.000	0.000	-0.001
	Thermal 2{1}	0.703	-0.078	22.775	-0.010	0.027	0.006
	Thermal 3{1}	0.703	-0.078	22.775	-0.010	0.028	0.006

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	Thermal 4{1}	0.000	-0.003	22.775	-0.010	0.027	-0.001
	Thermal 5{1}	0.703	-0.078	22.774	-0.011	0.028	0.006
	GRT1{1}	0.000	-0.002	-0.006	-0.003	0.003	-0.001
	GRT2{1}	0.703	-0.078	22.769	-0.013	0.030	0.006
	GRT3{1}	0.703	-0.078	22.769	-0.013	0.031	0.006
	GRT4{1}	0.000	-0.003	22.769	-0.013	0.030	-0.001
	GRT5{1}	0.703	-0.077	22.769	-0.014	0.031	0.006
P12	Gravity{1}	0.000	0.000	-0.013	-0.005	0.003	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	-0.004	-0.001	0.000	0.000	-0.001
	Thermal 2{1}	1.056	-0.065	22.707	-0.015	0.036	0.008
	Thermal 3{1}	1.056	-0.065	22.706	-0.016	0.037	0.008
	Thermal 4{1}	0.000	-0.005	22.707	-0.015	0.036	-0.001
	Thermal 5{1}	1.056	-0.063	22.706	-0.016	0.037	0.008
	GRT1{1}	0.000	-0.004	-0.013	-0.005	0.004	-0.001
	GRT2{1}	1.056	-0.065	22.694	-0.020	0.040	0.008
	GRT3{1}	1.056	-0.065	22.693	-0.020	0.040	0.008
	GRT4{1}	0.000	-0.005	22.694	-0.020	0.040	-0.001
	GRT5{1}	1.056	-0.062	22.693	-0.020	0.040	0.008
P16	Gravity{1}	0.000	0.000	-0.020	-0.007	0.004	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	-0.006	-0.001	0.000	0.000	-0.001
	Thermal 2{1}	1.355	-0.048	22.629	-0.024	0.050	0.011
	Thermal 3{1}	1.355	-0.048	22.627	-0.024	0.051	0.011
	Thermal 4{1}	-0.001	-0.008	22.629	-0.024	0.050	-0.001
	Thermal 5{1}	1.355	-0.045	22.626	-0.025	0.051	0.012
	GRT1{1}	0.000	-0.006	-0.021	-0.007	0.004	-0.001
	GRT2{1}	1.355	-0.048	22.609	-0.031	0.054	0.011
	GRT3{1}	1.355	-0.048	22.607	-0.032	0.055	0.011
	GRT4{1}	-0.001	-0.007	22.609	-0.031	0.054	-0.001
	GRT5{1}	1.355	-0.045	22.607	-0.032	0.055	0.012
P11 N	Gravity{1}	0.000	0.001	-0.033	-0.018	0.004	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	-0.011	-0.002	0.000	0.000	-0.001
	Thermal 2{1}	1.872	0.005	22.392	-0.059	0.101	0.024
	Thermal 3{1}	1.872	0.004	22.389	-0.060	0.102	0.023
	Thermal 4{1}	-0.001	-0.011	22.393	-0.059	0.101	0.000
	Thermal 5{1}	1.872	0.011	22.387	-0.061	0.102	0.025
	GRT1{1}	0.000	-0.011	-0.035	-0.018	0.004	-0.001
	GRT2{1}	1.872	0.005	22.360	-0.077	0.105	0.024
	GRT3{1}	1.872	0.005	22.356	-0.078	0.105	0.024

GRT4{1}	-0.001	-0.010	22.361	-0.077	0.104	0.000
GRT5{1}	1.872	0.012	22.354	-0.079	0.106	0.025

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Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
P11 F	Gravity{1}	-0.001	0.001	-0.084	-0.034	0.004	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	-0.013	-0.003	0.000	0.001	0.000
	Thermal 2{1}	2.068	0.358	21.945	-0.146	0.217	0.063
	Thermal 3{1}	2.069	0.358	21.937	-0.148	0.218	0.062
	Thermal 4{1}	-0.008	-0.007	21.946	-0.146	0.216	0.006
	Thermal 5{1}	2.066	0.367	21.932	-0.149	0.220	0.065
	GRT1{1}	-0.001	-0.012	-0.087	-0.034	0.004	0.001
	GRT2{1}	2.068	0.359	21.861	-0.180	0.220	0.063
	GRT3{1}	2.068	0.359	21.853	-0.182	0.222	0.063
	GRT4{1}	-0.009	-0.006	21.862	-0.180	0.220	0.007
	GRT5{1}	2.065	0.368	21.848	-0.183	0.223	0.065
P15 N	Gravity{1}	-0.007	0.001	-0.544	-0.048	-0.010	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.023	-0.012	-0.002	0.000	0.001	-0.007
	Thermal 2{1}	1.173	2.156	20.220	-0.174	0.410	0.087
	Thermal 3{1}	1.178	2.155	20.188	-0.177	0.414	0.087
	Thermal 4{1}	-0.041	-0.008	20.224	-0.174	0.409	-0.007
	Thermal 5{1}	1.140	2.164	20.167	-0.179	0.416	0.091
	GRT1{1}	0.017	-0.011	-0.546	-0.048	-0.008	-0.007
	GRT2{1}	1.167	2.157	19.677	-0.222	0.401	0.087
	GRT3{1}	1.172	2.156	19.645	-0.225	0.404	0.087
	GRT4{1}	-0.048	-0.007	19.681	-0.222	0.400	-0.006
	GRT5{1}	1.133	2.165	19.623	-0.227	0.406	0.091
P15 M	Gravity{1}	-0.007	0.001	-0.589	-0.050	-0.011	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.033	-0.015	-0.002	0.001	0.001	-0.013
	Thermal 2{1}	1.134	2.348	19.928	-0.173	0.431	0.090

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	Thermal 3{1}	1.139	2.348	19.893	-0.176	0.435	0.090
	Thermal 4{1}	-0.029	-0.012	19.933	-0.173	0.430	-0.019
	Thermal 5{1}	1.096	2.358	19.869	-0.178	0.437	0.096
	GRT1{1}	0.026	-0.014	-0.591	-0.049	-0.010	-0.013
	GRT2{1}	1.127	2.349	19.339	-0.222	0.420	0.090
	GRT3{1}	1.133	2.349	19.304	-0.225	0.424	0.090
	GRT4{1}	-0.036	-0.012	19.344	-0.222	0.419	-0.019
	GRT5{1}	1.089	2.359	19.280	-0.227	0.426	0.096
P15 F	Gravity{1}	-0.007	0.001	-0.611	-0.050	-0.013	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.043	-0.029	-0.002	0.001	0.001	-0.019
	Thermal 2{1}	1.214	2.529	19.452	-0.180	0.467	0.092
	Thermal 3{1}	1.219	2.528	19.412	-0.183	0.471	0.092
	Thermal 4{1}	-0.014	-0.033	19.458	-0.180	0.466	-0.031
	Thermal 5{1}	1.171	2.544	19.384	-0.186	0.473	0.099
	GRT1{1}	0.036	-0.028	-0.613	-0.049	-0.012	-0.019
	GRT2{1}	1.207	2.530	18.841	-0.230	0.454	0.092
	GRT3{1}	1.212	2.529	18.801	-0.233	0.458	0.092
	GRT4{1}	-0.021	-0.032	18.847	-0.230	0.453	-0.031
	GRT5{1}	1.164	2.545	18.773	-0.235	0.460	0.099

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BENTLEY

D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
P09 N	Gravity{1}	-0.007	0.000	-0.620	-0.052	-0.016	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.062	-0.083	-0.005	0.001	0.001	-0.023
	Thermal 2{1}	1.558	2.918	18.065	-0.163	0.501	0.092
	Thermal 3{1}	1.563	2.919	18.011	-0.166	0.505	0.093
	Thermal 4{1}	0.018	-0.123	18.073	-0.163	0.500	-0.039
	Thermal 5{1}	1.508	2.953	17.975	-0.168	0.508	0.101
	GRT1{1}	0.056	-0.082	-0.625	-0.051	-0.015	-0.024
	GRT2{1}	1.552	2.918	17.444	-0.214	0.485	0.092
	GRT3{1}	1.556	2.919	17.391	-0.217	0.489	0.093

		DVI_B_LINE_REV0.OUT					
	GRT4{1}	0.011	-0.123	17.453	-0.214	0.484	-0.040
	GRT5{1}	1.501	2.953	17.355	-0.220	0.491	0.101
P09 F	Gravity{1}	-0.007	-0.001	-0.540	-0.055	-0.025	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.038	-0.140	-0.009	0.001	0.002	-0.034
	Thermal 2{1}	1.964	2.979	17.085	-0.131	0.581	0.092
	Thermal 3{1}	1.970	2.982	17.024	-0.134	0.586	0.094
	Thermal 4{1}	-0.026	-0.226	17.095	-0.131	0.579	-0.064
	Thermal 5{1}	1.922	3.033	16.984	-0.136	0.589	0.103
	GRT1{1}	0.031	-0.141	-0.549	-0.054	-0.023	-0.035
	GRT2{1}	1.957	2.978	16.545	-0.186	0.556	0.091
	GRT3{1}	1.962	2.981	16.484	-0.189	0.561	0.093
	GRT4{1}	-0.034	-0.227	16.555	-0.186	0.555	-0.065
	GRT5{1}	1.914	3.032	16.444	-0.191	0.564	0.102
P08 N	Gravity{1}	-0.017	-0.006	0.060	-0.056	-0.035	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.264	-0.315	-0.031	0.002	0.001	-0.037
	Thermal 2{1}	3.525	2.049	15.190	-0.135	0.658	0.100
	Thermal 3{1}	3.544	2.061	15.130	-0.138	0.663	0.102
	Thermal 4{1}	-0.598	-0.555	15.205	-0.135	0.656	-0.071
	Thermal 5{1}	3.575	2.157	15.095	-0.141	0.667	0.111
	GRT1{1}	-0.281	-0.321	0.029	-0.054	-0.034	-0.039
	GRT2{1}	3.508	2.043	15.250	-0.191	0.622	0.099
	GRT3{1}	3.528	2.055	15.190	-0.195	0.628	0.101
	GRT4{1}	-0.614	-0.562	15.265	-0.191	0.621	-0.072
	GRT5{1}	3.558	2.151	15.155	-0.197	0.632	0.110
P08 F	Gravity{1}	-0.017	-0.008	0.138	-0.055	-0.040	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.274	-0.374	-0.034	0.002	0.001	-0.030
	Thermal 2{1}	3.839	2.203	14.045	-0.149	0.692	0.120
	Thermal 3{1}	3.859	2.218	13.976	-0.152	0.698	0.122
	Thermal 4{1}	-0.616	-0.669	14.063	-0.149	0.690	-0.058
	Thermal 5{1}	3.892	2.329	13.935	-0.155	0.701	0.129
	GRT1{1}	-0.291	-0.382	0.105	-0.053	-0.039	-0.031
	GRT2{1}	3.822	2.195	14.184	-0.204	0.652	0.119
	GRT3{1}	3.842	2.209	14.115	-0.208	0.658	0.120
	GRT4{1}	-0.633	-0.677	14.202	-0.204	0.651	-0.059
	GRT5{1}	3.875	2.320	14.074	-0.211	0.662	0.128

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
P01	Gravity{1}	-0.017	-0.009	0.135	-0.055	-0.040	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.268	-0.380	-0.033	0.002	0.001	-0.030
	Thermal 2{1}	3.849	2.265	13.866	-0.150	0.693	0.120
	Thermal 3{1}	3.869	2.280	13.795	-0.154	0.698	0.122
	Thermal 4{1}	-0.604	-0.681	13.884	-0.150	0.691	-0.058
	Thermal 5{1}	3.900	2.392	13.753	-0.157	0.702	0.129
	GRT1{1}	-0.285	-0.389	0.102	-0.053	-0.039	-0.031
	GRT2{1}	3.833	2.256	14.001	-0.205	0.653	0.119
	GRT3{1}	3.852	2.271	13.930	-0.209	0.659	0.121
	GRT4{1}	-0.621	-0.690	14.020	-0.205	0.651	-0.059
	GRT5{1}	3.883	2.384	13.888	-0.212	0.662	0.128
P02	Gravity{1}	-0.016	-0.010	0.119	-0.055	-0.041	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.236	-0.412	-0.032	0.002	0.001	-0.028
	Thermal 2{1}	3.899	2.586	12.927	-0.161	0.701	0.126
	Thermal 3{1}	3.917	2.603	12.846	-0.165	0.707	0.127
	Thermal 4{1}	-0.543	-0.743	12.948	-0.161	0.700	-0.054
	Thermal 5{1}	3.941	2.723	12.796	-0.168	0.711	0.133
	GRT1{1}	-0.252	-0.422	0.087	-0.052	-0.040	-0.029
	GRT2{1}	3.884	2.576	13.047	-0.216	0.661	0.125
	GRT3{1}	3.902	2.593	12.965	-0.220	0.666	0.126
	GRT4{1}	-0.559	-0.753	13.067	-0.215	0.659	-0.055
	GRT5{1}	3.925	2.713	12.915	-0.223	0.670	0.132
P03	Gravity{1}	-0.015	-0.010	0.111	-0.056	-0.041	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.223	-0.426	-0.031	0.003	0.000	-0.016
	Thermal 2{1}	3.919	2.779	12.359	-0.201	0.730	0.146
	Thermal 3{1}	3.937	2.796	12.271	-0.207	0.736	0.147
	Thermal 4{1}	-0.515	-0.770	12.380	-0.201	0.728	-0.035
	Thermal 5{1}	3.958	2.919	12.216	-0.211	0.740	0.149
	GRT1{1}	-0.238	-0.436	0.081	-0.053	-0.041	-0.017
	GRT2{1}	3.904	2.768	12.470	-0.257	0.689	0.145

		DVI_B_LINE_REV0.OUT					
	GRT3{1}	3.922	2.785	12.382	-0.263	0.694	0.146
	GRT4{1}	-0.530	-0.781	12.492	-0.257	0.687	-0.036
	GRT5{1}	3.942	2.908	12.327	-0.267	0.699	0.149
P04	Gravity{1}	-0.014	-0.011	0.086	-0.081	-0.029	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.240	-0.409	-0.023	0.009	-0.005	0.052
	Thermal 2{1}	3.894	3.109	11.385	-0.363	0.821	0.240
	Thermal 3{1}	3.911	3.126	11.283	-0.376	0.827	0.240
	Thermal 4{1}	-0.532	-0.755	11.408	-0.363	0.819	0.068
	Thermal 5{1}	3.942	3.239	11.217	-0.387	0.832	0.215
	GRT1{1}	-0.254	-0.420	0.063	-0.072	-0.034	0.051
	GRT2{1}	3.879	3.097	11.471	-0.443	0.793	0.239
	GRT3{1}	3.896	3.115	11.369	-0.456	0.798	0.239
	GRT4{1}	-0.546	-0.766	11.494	-0.443	0.790	0.067
	GRT5{1}	3.927	3.228	11.303	-0.467	0.804	0.214

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DVI_B_LINE_REV0

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
P04 M	Gravity{1}	-0.013	-0.013	0.000	-0.082	-0.028	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.222	0.222	0.000	0.009	-0.005	0.053
	Thermal 2{1}	4.047	4.047	9.456	-0.363	0.821	0.241
	Thermal 3{1}	4.065	4.065	9.324	-0.376	0.826	0.241
	Thermal 4{1}	-0.097	-0.097	9.483	-0.363	0.818	0.069
	Thermal 5{1}	3.866	3.866	9.231	-0.387	0.831	0.216
	GRT1{1}	0.209	0.209	0.000	-0.073	-0.033	0.052
	GRT2{1}	4.035	4.035	9.456	-0.445	0.793	0.240
	GRT3{1}	4.052	4.052	9.324	-0.458	0.798	0.240
	GRT4{1}	-0.110	-0.110	9.483	-0.445	0.790	0.068
	GRT5{1}	3.853	3.853	9.231	-0.469	0.804	0.215
P05	Gravity{1}	-0.011	-0.014	-0.090	-0.083	-0.027	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.682	0.854	0.023	0.009	-0.005	0.053

		DVI_B_LINE_REV0.OUT					
	Thermal 2{1}	4.200	4.987	7.529	-0.362	0.819	0.241
	Thermal 3{1}	4.218	5.004	7.367	-0.376	0.824	0.241
	Thermal 4{1}	0.336	0.562	7.561	-0.362	0.816	0.070
	Thermal 5{1}	3.790	4.492	7.247	-0.387	0.830	0.216
	GRT1{1}	0.671	0.840	-0.066	-0.074	-0.032	0.052
	GRT2{1}	4.189	4.972	7.440	-0.445	0.792	0.240
	GRT3{1}	4.207	4.989	7.278	-0.458	0.797	0.240
	GRT4{1}	0.325	0.548	7.472	-0.445	0.789	0.069
	GRT5{1}	3.778	4.478	7.158	-0.469	0.803	0.215
P06	Gravity{1}	-0.009	-0.017	-0.307	-0.124	-0.009	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.223	1.761	0.077	0.019	-0.015	0.105
	Thermal 2{1}	4.379	6.257	5.318	-0.279	0.593	0.262
	Thermal 3{1}	4.400	6.271	5.117	-0.300	0.589	0.258
	Thermal 4{1}	0.854	1.492	5.354	-0.281	0.590	0.104
	Thermal 5{1}	3.693	5.319	4.954	-0.319	0.593	0.215
	GRT1{1}	1.215	1.744	-0.230	-0.105	-0.024	0.105
	GRT2{1}	4.370	6.240	5.011	-0.404	0.583	0.261
	GRT3{1}	4.391	6.254	4.810	-0.424	0.579	0.257
	GRT4{1}	0.845	1.475	5.047	-0.406	0.580	0.103
	GRT5{1}	3.684	5.302	4.646	-0.444	0.583	0.214
P07	Gravity{1}	-0.009	-0.016	-0.501	-0.106	-0.052	0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.706	2.708	0.164	0.025	-0.021	0.102
	Thermal 2{1}	4.526	7.539	3.750	-0.217	0.389	0.268
	Thermal 3{1}	4.561	7.539	3.523	-0.241	0.372	0.258
	Thermal 4{1}	1.390	2.385	3.784	-0.222	0.387	0.047
	Thermal 5{1}	3.578	6.154	3.304	-0.267	0.373	0.234
	GRT1{1}	1.697	2.691	-0.337	-0.081	-0.073	0.104
	GRT2{1}	4.517	7.523	3.249	-0.323	0.337	0.270
	GRT3{1}	4.552	7.523	3.022	-0.347	0.320	0.260
	GRT4{1}	1.380	2.369	3.283	-0.328	0.335	0.049
	GRT5{1}	3.569	6.138	2.803	-0.373	0.321	0.235

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DVI_B_LINE_REV0

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D I S P L A C E M E N T S

Point	Load	DVI_B_LINE_REV0.0UT TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
E01	Gravity{1}	-0.013	-0.013	-0.536	-0.088	-0.083	0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	2.007	3.234	0.223	0.027	-0.023	0.076
	Thermal 2{1}	4.610	8.282	3.088	-0.190	0.280	0.265
	Thermal 3{1}	4.659	8.268	2.858	-0.214	0.254	0.251
	Thermal 4{1}	1.786	2.815	3.118	-0.197	0.278	-0.027
	Thermal 5{1}	3.488	6.662	2.605	-0.243	0.252	0.253
	GRT1{1}	1.995	3.221	-0.313	-0.061	-0.106	0.080
	GRT2{1}	4.598	8.269	2.551	-0.278	0.197	0.270
	GRT3{1}	4.647	8.255	2.321	-0.302	0.171	0.255
	GRT4{1}	1.773	2.802	2.581	-0.285	0.195	-0.022
	GRT5{1}	3.475	6.649	2.069	-0.331	0.169	0.257
*** Segment P end ***							
J01 M	Gravity{1}	-0.005	-0.005	0.000	0.129	0.050	0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.033	1.033	0.000	0.013	0.069	-0.372
	Thermal 2{1}	6.540	6.540	0.000	-0.221	0.574	0.040
	Thermal 3{1}	6.545	6.545	0.000	-0.216	0.562	0.034
	Thermal 4{1}	0.980	0.980	0.000	-0.222	0.577	-0.649
	Thermal 5{1}	6.014	6.014	0.000	-0.218	0.520	0.240
	GRT1{1}	1.029	1.029	0.000	0.141	0.119	-0.370
	GRT2{1}	6.536	6.536	0.000	-0.093	0.624	0.043
	GRT3{1}	6.540	6.540	0.000	-0.087	0.612	0.036
	GRT4{1}	0.976	0.976	0.000	-0.093	0.627	-0.647
	GRT5{1}	6.010	6.010	0.000	-0.089	0.570	0.242
J01 D	Gravity{1}	0.268	-0.708	0.000	0.129	0.050	0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.410	0.964	0.000	0.013	0.069	-0.372
	Thermal 2{1}	9.683	7.751	0.000	-0.221	0.574	0.040
	Thermal 3{1}	9.620	7.725	0.000	-0.216	0.562	0.034
	Thermal 4{1}	4.139	2.194	0.000	-0.222	0.577	-0.649
	Thermal 5{1}	8.859	7.207	0.000	-0.218	0.520	0.240
	GRT1{1}	1.678	0.255	0.000	0.141	0.119	-0.370
	GRT2{1}	9.951	7.042	0.000	-0.093	0.624	0.043
	GRT3{1}	9.887	7.017	0.000	-0.087	0.612	0.036
	GRT4{1}	4.407	1.486	0.000	-0.093	0.627	-0.647
	GRT5{1}	9.127	6.499	0.000	-0.089	0.570	0.242
A11 M	Gravity{1}	-0.015	0.008	0.000	-0.018	-0.018	0.001

	DVI_B_LINE_REV0.OUT					
Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
Thermal 1{1}	4.823	2.475	0.000	0.014	0.065	-0.214
Thermal 2{1}	7.335	9.317	0.000	-0.033	0.452	0.001
Thermal 3{1}	7.391	9.261	0.000	-0.045	0.426	0.002
Thermal 4{1}	4.654	-0.161	0.000	-0.037	0.457	-0.551
Thermal 5{1}	4.803	8.175	0.000	-0.061	0.377	0.110
GRT1{1}	4.808	2.483	0.000	-0.004	0.047	-0.214
GRT2{1}	7.320	9.325	0.000	-0.051	0.434	0.001
GRT3{1}	7.376	9.269	0.000	-0.063	0.408	0.003
GRT4{1}	4.639	-0.153	0.000	-0.055	0.439	-0.550
GRT5{1}	4.788	8.183	0.000	-0.079	0.359	0.111

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DVI_B_LINE_REV0

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
A11 D	Gravity{1}	-0.114	0.107	0.000	-0.018	-0.018	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	5.181	2.396	0.000	0.014	0.065	-0.214
	Thermal 2{1}	9.807	9.497	0.000	-0.033	0.452	0.001
	Thermal 3{1}	9.725	9.506	0.000	-0.045	0.426	0.002
	Thermal 4{1}	7.156	0.043	0.000	-0.037	0.457	-0.551
	Thermal 5{1}	6.865	8.506	0.000	-0.061	0.377	0.110
	GRT1{1}	5.067	2.503	0.000	-0.004	0.047	-0.214
	GRT2{1}	9.694	9.604	0.000	-0.051	0.434	0.001
	GRT3{1}	9.611	9.613	0.000	-0.063	0.408	0.003
	GRT4{1}	7.042	0.150	0.000	-0.055	0.439	-0.550
	GRT5{1}	6.751	8.613	0.000	-0.079	0.359	0.111
P04 M	Gravity{1}	-0.013	-0.013	0.000	-0.082	-0.028	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.222	0.222	0.000	0.009	-0.005	0.053
	Thermal 2{1}	4.047	4.047	9.456	-0.363	0.821	0.241
	Thermal 3{1}	4.065	4.065	9.324	-0.376	0.826	0.241
	Thermal 4{1}	-0.097	-0.097	9.483	-0.363	0.818	0.069
	Thermal 5{1}	3.866	3.866	9.231	-0.387	0.831	0.216
	GRT1{1}	0.209	0.209	0.000	-0.073	-0.033	0.052

GRT2{1}	4.035	4.035	9.456	-0.445	0.793	0.240
GRT3{1}	4.052	4.052	9.324	-0.458	0.798	0.240
GRT4{1}	-0.110	-0.110	9.483	-0.445	0.790	0.068
GRT5{1}	3.853	3.853	9.231	-0.469	0.804	0.215

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RESULT PAGE 79

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
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001 D	Gravity{1}	1.136	0.286	0.000	-0.042	0.160	-0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000

DVI_B_LINE_REV0.OUT

	Thermal 1{1}	-4.216	-6.090	0.000	0.303	-0.483	0.141
	Thermal 2{1}	-10.842	-4.761	0.000	0.104	-1.511	0.132
	Thermal 3{1}	-8.359	-4.015	0.000	-0.016	-1.375	0.048
	Thermal 4{1}	-12.828	-5.005	0.000	0.099	-1.506	0.176
	Thermal 5{1}	-9.504	-1.605	0.000	-0.112	-1.192	0.067
	GRT1{1}	-3.080	-5.804	0.000	0.260	-0.323	0.138
	GRT2{1}	-9.705	-4.475	0.000	0.062	-1.351	0.128
	GRT3{1}	-7.223	-3.729	0.000	-0.058	-1.215	0.045
	GRT4{1}	-11.692	-4.719	0.000	0.057	-1.345	0.173
	GRT5{1}	-8.367	-1.319	0.000	-0.154	-1.032	0.063
M11 M	Gravity{1}	0.104	0.000	0.000	0.016	0.060	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-3.678	0.000	0.000	0.078	-0.664	-0.035
	Thermal 2{1}	-3.405	0.000	0.000	0.358	-0.826	-0.033
	Thermal 3{1}	-1.040	0.000	0.000	0.256	-0.515	-0.043
	Thermal 4{1}	-5.188	0.000	0.000	0.351	-0.813	-0.094
	Thermal 5{1}	-2.246	0.000	0.000	0.218	-0.307	-0.082
	GRT1{1}	-3.575	0.000	0.000	0.094	-0.603	-0.034
	GRT2{1}	-3.301	0.000	0.000	0.373	-0.766	-0.032
	GRT3{1}	-0.937	0.000	0.000	0.272	-0.454	-0.042
	GRT4{1}	-5.084	0.000	0.000	0.367	-0.753	-0.093
	GRT5{1}	-2.143	0.000	0.000	0.233	-0.246	-0.081
M11 D	Gravity{1}	0.503	-0.103	0.000	0.016	0.060	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-8.080	-0.517	0.000	0.078	-0.664	-0.035
	Thermal 2{1}	-8.885	-2.373	0.000	0.358	-0.826	-0.033
	Thermal 3{1}	-4.454	-1.698	0.000	0.256	-0.515	-0.043
	Thermal 4{1}	-10.582	-2.329	0.000	0.351	-0.813	-0.094
	Thermal 5{1}	-4.281	-1.443	0.000	0.218	-0.307	-0.082
	GRT1{1}	-7.577	-0.621	0.000	0.094	-0.603	-0.034
	GRT2{1}	-8.382	-2.477	0.000	0.373	-0.766	-0.032
	GRT3{1}	-3.951	-1.801	0.000	0.272	-0.454	-0.042
	GRT4{1}	-10.079	-2.432	0.000	0.367	-0.753	-0.093
	GRT5{1}	-3.778	-1.546	0.000	0.233	-0.246	-0.081
N01 M	Gravity{1}	0.071	-0.006	0.000	0.001	-0.057	-0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-2.977	-4.425	0.000	-0.211	-0.285	0.218
	Thermal 2{1}	-2.794	-4.438	0.701	-0.848	0.102	0.206
	Thermal 3{1}	-1.435	-4.359	2.169	-0.767	0.303	0.113
	Thermal 4{1}	-4.291	-4.129	0.779	-0.845	0.109	0.235
	Thermal 5{1}	-2.176	-1.893	2.498	-0.735	0.331	0.083

GRT1{1}	-2.906	-4.431	0.000	-0.210	-0.342	0.213
GRT2{1}	-2.723	-4.444	0.701	-0.847	0.045	0.202
GRT3{1}	-1.364	-4.365	2.169	-0.765	0.245	0.109
GRT4{1}	-4.220	-4.135	0.779	-0.844	0.052	0.231
GRT5{1}	-2.105	-1.899	2.498	-0.734	0.274	0.079

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Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
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N01 D	Gravity{1}	-0.310	-0.015	0.000	0.001	-0.057	-0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-4.868	-3.025	0.000	-0.211	-0.285	0.218
	Thermal 2{1}	-2.116	1.188	0.701	-0.848	0.102	0.206
	Thermal 3{1}	0.573	0.727	2.169	-0.767	0.303	0.113
	Thermal 4{1}	-3.565	1.475	0.779	-0.845	0.109	0.235
	Thermal 5{1}	0.020	2.982	2.498	-0.735	0.331	0.083
	GRT1{1}	-5.177	-3.041	0.000	-0.210	-0.342	0.213
	GRT2{1}	-2.426	1.173	0.701	-0.847	0.045	0.202
	GRT3{1}	0.264	0.711	2.169	-0.765	0.245	0.109
	GRT4{1}	-3.875	1.460	0.779	-0.844	0.052	0.231
	GRT5{1}	-0.289	2.967	2.498	-0.734	0.274	0.079
F12 M	Gravity{1}	0.514	0.000	0.000	0.033	0.009	-0.011
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-11.071	0.000	0.000	0.068	0.105	-0.098
	Thermal 2{1}	-13.089	0.000	0.000	0.048	0.132	-0.171
	Thermal 3{1}	-16.116	0.000	0.000	2.809	-0.374	-0.395
	Thermal 4{1}	-12.222	0.000	0.000	0.035	0.116	-0.132
	Thermal 5{1}	-9.488	0.000	0.000	1.396	-0.190	-0.221
	GRT1{1}	-10.558	0.000	0.000	0.101	0.114	-0.109
	GRT2{1}	-12.576	0.000	0.000	0.081	0.141	-0.183
	GRT3{1}	-15.602	0.000	0.000	2.843	-0.365	-0.406
	GRT4{1}	-11.709	0.000	0.000	0.069	0.125	-0.144
	GRT5{1}	-8.975	0.000	0.000	1.429	-0.181	-0.232
F12 D	Gravity{1}	0.564	-0.182	0.000	0.033	0.009	-0.011

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	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-10.499	-0.370	0.000	0.068	0.105	-0.098
	Thermal 2{1}	-12.369	-0.261	0.000	0.048	0.132	-0.171
	Thermal 3{1}	-18.162	-15.372	0.000	2.809	-0.374	-0.395
	Thermal 4{1}	-11.587	-0.193	0.000	0.035	0.116	-0.132
	Thermal 5{1}	-10.529	-7.639	0.000	1.396	-0.190	-0.221
	GRT1{1}	-9.936	-0.552	0.000	0.101	0.114	-0.109
	GRT2{1}	-11.805	-0.443	0.000	0.081	0.141	-0.183
	GRT3{1}	-17.598	-15.553	0.000	2.843	-0.365	-0.406
	GRT4{1}	-11.023	-0.375	0.000	0.069	0.125	-0.144
	GRT5{1}	-9.965	-7.821	0.000	1.429	-0.181	-0.232
I05 M	Gravity{1}	-0.046	-0.001	0.000	-0.002	0.036	0.018
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.022	0.000	0.020	0.008	0.000	-0.009
	Thermal 2{1}	-0.158	-0.002	-0.041	-0.016	-0.009	0.061
	Thermal 3{1}	-0.163	-0.002	-0.036	-0.014	-0.011	0.063
	Thermal 4{1}	0.006	0.000	-0.020	-0.008	0.006	-0.003
	Thermal 5{1}	-0.966	1.191	21.232	-0.254	-0.049	0.296
	GRT1{1}	-0.024	0.000	0.020	0.006	0.035	0.009
	GRT2{1}	-0.204	-0.003	-0.041	-0.018	0.026	0.079
	GRT3{1}	-0.209	-0.003	-0.036	-0.016	0.025	0.080
	GRT4{1}	-0.040	-0.001	-0.020	-0.010	0.041	0.015
	GRT5{1}	-1.012	1.190	21.232	-0.256	-0.013	0.314

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
I05 D	Gravity{1}	0.037	0.004	0.000	-0.002	0.036	0.018
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.021	-0.018	0.020	0.008	0.000	-0.009
	Thermal 2{1}	-0.179	0.035	-0.041	-0.016	-0.009	0.061
	Thermal 3{1}	-0.188	0.030	-0.036	-0.014	-0.011	0.063
	Thermal 4{1}	0.019	0.019	-0.020	-0.008	0.006	-0.003
	Thermal 5{1}	-1.079	1.784	21.232	-0.254	-0.049	0.296

		DVI_B_LINE_REV0.OUT					
	GRT1{1}	0.057	-0.015	0.020	0.006	0.035	0.009
	GRT2{1}	-0.142	0.038	-0.041	-0.018	0.026	0.079
	GRT3{1}	-0.151	0.033	-0.036	-0.016	0.025	0.080
	GRT4{1}	0.056	0.022	-0.020	-0.010	0.041	0.015
	GRT5{1}	-1.042	1.787	21.232	-0.256	-0.013	0.314
A39 M	Gravity{1}	0.000	0.437	0.000	0.058	0.151	0.008
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.138	0.000	0.001	0.013	0.001
	Thermal 2{1}	0.000	-0.344	0.000	-0.001	-0.039	-0.006
	Thermal 3{1}	0.000	-0.310	0.000	-0.001	-0.037	-0.006
	Thermal 4{1}	0.000	-0.109	0.000	-0.001	-0.004	0.000
	Thermal 5{1}	0.000	-5.800	0.000	-0.174	0.113	-0.021
	GRT1{1}	0.000	0.575	0.000	0.059	0.164	0.010
	GRT2{1}	0.000	0.093	0.000	0.056	0.113	0.002
	GRT3{1}	0.000	0.128	0.000	0.057	0.115	0.002
	GRT4{1}	0.000	0.328	0.000	0.057	0.147	0.008
	GRT5{1}	0.000	-5.363	0.000	-0.117	0.265	-0.013
A39 D	Gravity{1}	0.352	0.303	0.000	0.058	0.151	0.008
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.030	0.136	0.000	0.001	0.013	0.001
	Thermal 2{1}	-0.090	-0.342	0.000	-0.001	-0.039	-0.006
	Thermal 3{1}	-0.086	-0.307	0.000	-0.001	-0.037	-0.006
	Thermal 4{1}	-0.009	-0.108	0.000	-0.001	-0.004	0.000
	Thermal 5{1}	0.264	-5.394	0.000	-0.174	0.113	-0.021
	GRT1{1}	0.383	0.439	0.000	0.059	0.164	0.010
	GRT2{1}	0.263	-0.039	0.000	0.056	0.113	0.002
	GRT3{1}	0.267	-0.004	0.000	0.057	0.115	0.002
	GRT4{1}	0.343	0.195	0.000	0.057	0.147	0.008
	GRT5{1}	0.617	-5.091	0.000	-0.117	0.265	-0.013
G10 M	Gravity{1}	0.000	-1.006	0.000	0.481	0.069	-0.084
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	1.248	0.000	0.002	0.011	0.001
	Thermal 2{1}	0.000	4.028	0.000	-0.007	0.004	-0.004
	Thermal 3{1}	0.000	4.028	0.000	-0.005	0.002	-0.004
	Thermal 4{1}	0.000	3.145	0.000	-0.007	0.014	-0.001
	Thermal 5{1}	0.000	-5.791	0.000	0.055	-0.173	0.211
	GRT1{1}	0.000	0.241	0.000	0.483	0.080	-0.083
	GRT2{1}	0.000	3.022	0.000	0.474	0.072	-0.088
	GRT3{1}	0.000	3.022	0.000	0.476	0.070	-0.088
	GRT4{1}	0.000	2.139	0.000	0.474	0.083	-0.085
	GRT5{1}	0.000	-6.798	0.000	0.536	-0.105	0.127

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Thermal 1{1}	up	2	0.000	X	2	0.000
	left	0	0.000	Y	0	0.000
	back		36.948	Z	0	-36.948
Thermal 2{1}	up	1	0.000	X	1	0.000
	left	1	0.000	Y	-1	0.000
	back		37.171	Z	0	-37.171
Thermal 3{1}	up	1	0.000	X	1	0.000
	left	1	0.000	Y	-1	0.000
	back		37.161	Z	0	-37.161
Thermal 4{1}	up	2	0.000	X	2	0.000
	right	0	0.000	Y	0	0.000
	back		37.130	Z	0	-37.130
Thermal 5{1}	up	0	0.000	X	0	0.000
	left	1	0.000	Y	-1	0.000
	back		18.975	Z		-18.975
GRT1{1}	up	20	0.000	X	20	0.000
	left	0	0.000	Y	0	0.000
	back		37.021	Z	0	-37.021
GRT2{1}	up	19	0.000	X	19	0.000
	left	1	0.000	Y	-1	0.000
	back		37.245	Z	0	-37.245
GRT3{1}	up	19	0.000	X	19	0.000
	left	1	0.000	Y	-1	0.000
	back		37.234	Z	0	-37.234
GRT4{1}	up	20	0.000	X	20	0.000
	right	0	0.000	Y	0	0.000
	back		37.204	Z	0	-37.204
GRT5{1}	up	18	0.000	X	18	0.000
	left	1	0.000	Y	-1	0.000
	back		19.048	Z	0	-19.048

Tag No.: <None>
A11 M

Gravity{1} down 536 0.000 X -0.015

□

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

			L O C A L			G L O B A L		
Point/	Connect/	Load	Dirn	Force	Deform	Dirn	Force	Deform
Supp. ID	Type	Combination						
A11 M1	Guide		right		0.008	Y		0.008
Stiff	:RIGID		forw		0.015	Z	-536	0.000
		Hydrotest{1}	down		0.000	X		0.000
			left		0.000	Y		0.000
			back		0.000	Z		0.000
		Thermal 1{1}	down	23	0.000	X		4.823
			right		2.475	Y		2.475
			back		4.823	Z	-23	0.000
		Thermal 2{1}	down	220	0.000	X		7.335
			right		9.317	Y		9.317
			back		7.335	Z	-220	0.000
		Thermal 3{1}	down	230	0.000	X		7.391
			right		9.261	Y		9.261
			back		7.391	Z	-230	0.000
		Thermal 4{1}	down	218	0.000	X		4.654
			left		0.161	Y		-0.161
			back		4.654	Z	-218	0.000
		Thermal 5{1}	down	228	0.000	X		4.803
			right		8.175	Y		8.175
			back		4.803	Z	-228	0.000
		GRT1{1}	down	559	0.000	X		4.808
			right		2.483	Y		2.483
			back		4.808	Z	-559	0.000
		GRT2{1}	down	756	0.000	X		7.320
			right		9.325	Y		9.325
			back		7.320	Z	-756	0.000
		GRT3{1}	down	767	0.000	X		7.376
			right		9.269	Y		9.269
			back		7.376	Z	-767	0.000
		GRT4{1}	down	754	0.000	X		4.639
			left		0.153	Y		-0.153
			back		4.639	Z	-754	0.000

	GRT5{1}	DVI_B_LINE_REV0.0UT	down	765	0.000	X		4.788
			right		8.183	Y		8.183
			back		4.788	Z	-765	0.000
Tag No.: <None>								
A20 M	Gravity{1}		down	310	0.000	X	14	0.000
A20 M1	Guide		right	14	0.000	Y		-0.502
Stiff	:RIGID		back		0.502	Z	-310	0.000

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S U P P O R T F O R C E S								
(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)								
Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
		Hydrotest{1}	down		0.000	X		0.000
			left		0.000	Y		0.000
			back		0.000	Z		0.000
		Thermal 1{1}	down	4	0.000	X	-43	0.000
			left	43	0.000	Y		1.532
			forw		1.532	Z	-4	0.000
		Thermal 2{1}	up	38	0.000	X	11	0.000
			right	11	0.000	Y		3.347
			forw		3.347	Z	38	0.000
		Thermal 3{1}	up	26	0.000	X	17	0.000
			right	17	0.000	Y		3.587
			forw		3.587	Z	26	0.000
		Thermal 4{1}	up	34	0.000	X	-47	0.000
			left	47	0.000	Y		2.227
			forw		2.227	Z	34	0.000
		Thermal 5{1}	up	62	0.000	X	119	0.000
			right	119	0.000	Y		2.248
			forw		2.248	Z	62	0.000
		GRT1{1}	down	314	0.000	X	-29	0.000
			left	29	0.000	Y		1.031
			forw		1.031	Z	-314	0.000

GRT2{1}	down	273	0.000	X	25	0.000
	right	25	0.000	Y		2.846
	forw		2.846	Z	-273	0.000
GRT3{1}	down	284	0.000	X	31	0.000
	right	31	0.000	Y		3.086
	forw		3.086	Z	-284	0.000
GRT4{1}	down	277	0.000	X	-33	0.000
	left	33	0.000	Y		1.725
	forw		1.725	Z	-277	0.000
GRT5{1}	down	248	0.000	X	132	0.000
	right	132	0.000	Y		1.746
	forw		1.746	Z	-248	0.000

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A26  1  Guide
Stiff  :RIGID
```

Gravity{1}	down	5.996	X	0.572
	right	2 0.000	Y	2 0.000
	back	0.572	Z	-5.996
Hydrotest{1}	down	0.000	X	0.000
	left	0.000	Y	0.000
	back	0.000	Z	0.000

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(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform

		Thermal 1{1}	up		0.686	X		0.210
			right	11	0.000	Y	11	0.000
			back		0.210	Z		0.686
		Thermal 2{1}	down		1.364	X		-1.458
			right	17	0.000	Y	17	0.000
			forw		1.458	Z		-1.364
		Thermal 3{1}	down		0.989	X		-1.546
			right	18	0.000	Y	18	0.000
			forw		1.546	Z		-0.989

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Thermal 4{1}	down		1.531	X		0.318
	right	18	0.000	Y	18	0.000
	back		0.318	Z		-1.531
Thermal 5{1}	up		9.514	X		-3.732
	right	65	0.000	Y	65	0.000
	forw		3.732	Z		9.514
GRT1{1}	down		5.311	X		0.782
	right	14	0.000	Y	14	0.000
	back		0.782	Z		-5.311
GRT2{1}	down		7.361	X		-0.886
	right	19	0.000	Y	19	0.000
	forw		0.886	Z		-7.361
GRT3{1}	down		6.985	X		-0.974
	right	20	0.000	Y	20	0.000
	forw		0.974	Z		-6.985
GRT4{1}	down		7.527	X		0.890
	right	21	0.000	Y	21	0.000
	back		0.890	Z		-7.527
GRT5{1}	up		3.517	X		-3.160
	right	67	0.000	Y	67	0.000
	forw		3.160	Z		3.517
Tag No.: <None> A28	Gravity{1}	down	71	-0.001	X	0.572
A28 1 Cons Hgr					Y	0.008
Stiff :RIGID					Z	-71 0.001
Preload : 71	Hydrotest{1}	down		0.000	X	0.000
					Y	0.000
					Z	0.000
	Thermal 1{1}	up		0.287	X	0.210
					Y	-0.172
					Z	0.287

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform

		Thermal 2{1}	down		0.372	X		-1.457
						Y		0.117
						Z		-0.372
		Thermal 3{1}	down		0.276	X		-1.546
						Y		0.046
						Z		-0.276
		Thermal 4{1}	down		0.239	X		0.318
						Y		0.140
						Z		-0.239
		Thermal 5{1}	up		16.819	X		-7.422
						Y		4.750
						Z		16.819
		GRT1{1}	down	71	-0.288	X		0.782
						Y		-0.164
						Z	-71	0.288
		GRT2{1}	down	71	0.371	X		-0.885
						Y		0.125
						Z	-71	-0.371
		GRT3{1}	down	71	0.275	X		-0.973
						Y		0.055
						Z	-71	-0.275
		GRT4{1}	down	71	0.239	X		0.891
						Y		0.148
						Z	-71	-0.239
		GRT5{1}	down	71	-16.819	X		-6.849
						Y		4.758
						Z	-71	16.819
Tag No.: <None> A68		Gravity{1}	down	10	0.000	X	-10	0.000
A68 1	Guide		left	2	0.000	Y	2	0.000
Stiff	:RIGID		back		0.687	Z		0.687
		Hydrotest{1}	down		0.000	X		0.000
			left		0.000	Y		0.000

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	back		0.000	Z		0.000
Thermal 1{1}	up	2	0.000	X	2	0.000
	left	1	0.000	Y	1	0.000
	back		0.276	Z		0.276
Thermal 2{1}	down	7	0.000	X	-7	0.000
	right	1	0.000	Y	-1	0.000
	forw		0.497	Z		-0.497

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/ Supp. ID	Connect/ Type	Load Combination	L O C A L			G L O B A L		
			Dirn	Force	Deform	Dirn	Force	Deform
		Thermal 3{1}	down	7	0.000	X	-7	0.000
			right	1	0.000	Y	-1	0.000
			forw		0.433	Z		-0.433
		Thermal 4{1}	up	0	0.000	X	0	0.000
			right	1	0.000	Y	-1	0.000
			forw		0.113	Z		-0.113
		Thermal 5{1}	down	42	0.000	X	-42	0.000
			left	35	0.000	Y	35	0.000
			back		13.693	Z		13.693
		GRT1{1}	down	8	0.000	X	-8	0.000
			left	4	0.000	Y	4	0.000
			back		0.962	Z		0.962
		GRT2{1}	down	17	0.000	X	-17	0.000
			left	1	0.000	Y	1	0.000
			back		0.190	Z		0.190
		GRT3{1}	down	17	0.000	X	-17	0.000
			left	2	0.000	Y	2	0.000
			back		0.254	Z		0.254
		GRT4{1}	down	9	0.000	X	-9	0.000
			left	2	0.000	Y	2	0.000

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		back		0.574	Z		0.574
GRT5{1}		down	51	0.000	X	-51	0.000
		left	37	0.000	Y	37	0.000
		back		14.380	Z		14.380
Tag No.: <None> A69	Gravity{1}	down	27	0.000	X	0	0.000
A69 1 Guide		left	0	0.000	Y		0.411
Stiff :RIGID		back		0.411	Z	-27	0.000
Hydrotest{1}		down		0.000	X		0.000
		left		0.000	Y		0.000
		back		0.000	Z		0.000
Thermal 1{1}		up	1	0.000	X	-1	0.000
		right	1	0.000	Y		0.124
		back		0.124	Z	1	0.000
Thermal 2{1}		down	2	0.000	X	3	0.000
		left	3	0.000	Y		-0.262
		forw		0.262	Z	-2	0.000
Thermal 3{1}		down	1	0.000	X	3	0.000
		left	3	0.000	Y		-0.224
		forw		0.224	Z	-1	0.000

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DVI_B_LINE_REV0

09/13/2010 DVI BLINE

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		S U P P O R T F O R C E S						
		(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)						
Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
-----			-----			-----		
		Thermal 4{1}	down	0	0.000	X	0	0.000
			right	0	0.000	Y		-0.115
			forw		0.115	Z	0	0.000
		Thermal 5{1}	up	27	4.174	X	20	0.000
			left	20	0.000	Y		1.066
			back		1.066	Z	27	4.174
		GRT1{1}	down	26	0.000	X	0	0.000
			right	0	0.000	Y		0.535

DVI_B_LINE_REV0.OUT

		back		0.535	Z	-26	0.000
	GRT2{1}	down	29	0.000	X	4	0.000
		left	4	0.000	Y		0.149
		back		0.149	Z	-29	0.000
	GRT3{1}	down	29	0.000	X	4	0.000
		left	4	0.000	Y		0.186
		back		0.186	Z	-29	0.000
	GRT4{1}	down	28	0.000	X	0	0.000
		rght	0	0.000	Y		0.296
		back		0.296	Z	-28	0.000
	GRT5{1}	up		4.174	X	21	0.000
		left	21	0.000	Y		1.477
		back		1.477	Z		4.174
Tag No.: <None>							
A38 M	Gravity{1}	down	77	0.000	X	-1	0.000
A38 M1 Guide		rght	1	0.000	Y		0.437
Stiff :RIGID		back		0.437	Z	-77	0.000
	Hydrotest{1}	down		0.000	X		0.000
		left		0.000	Y		0.000
		back		0.000	Z		0.000
	Thermal 1{1}	down	0	0.000	X	0	0.000
		left	0	0.000	Y		0.138
		back		0.138	Z	0	0.000
	Thermal 2{1}	up	0	0.000	X	-2	0.000
		rght	2	0.000	Y		-0.344
		forw		0.344	Z	0	0.000
	Thermal 3{1}	up	0	0.000	X	-2	0.000
		rght	2	0.000	Y		-0.310
		forw		0.310	Z	0	0.000
	Thermal 4{1}	up	0	0.000	X	0	0.000
		left	0	0.000	Y		-0.109
		forw		0.109	Z	0	0.000

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 DVI_B_LINE_REV0

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S U P P O R T F O R C E S								
(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)								
Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
Tag No.: <None> A39 M A39 M1 Guide Stiff :RIGID		Thermal 5{1}	down	31	0.000	X	-15	0.000
			right	15	0.000	Y		-3.861
			forw		3.861	Z	-31	0.000
		GRT1{1}	down	77	0.000	X	-1	0.000
			right	1	0.000	Y		0.575
			back		0.575	Z	-77	0.000
		GRT2{1}	down	77	0.000	X	-3	0.000
			right	3	0.000	Y		0.093
			back		0.093	Z	-77	0.000
		GRT3{1}	down	77	0.000	X	-3	0.000
			right	3	0.000	Y		0.127
			back		0.127	Z	-77	0.000
		GRT4{1}	down	77	0.000	X	-1	0.000
			right	1	0.000	Y		0.328
			back		0.328	Z	-77	0.000
		GRT5{1}	down	108	0.000	X	-16	0.000
			right	16	0.000	Y		-3.424
			forw		3.424	Z	-108	0.000
		Gravity{1}	down	120	0.000	X	1	0.000
			left	1	0.000	Y		0.437
			back		0.437	Z	-120	0.000
		Hydrotest{1}	down		0.000	X		0.000
			left		0.000	Y		0.000
			back		0.000	Z		0.000
		Thermal 1{1}	up	0	0.000	X	0	0.000
			right	0	0.000	Y		0.138
			back		0.138	Z	0	0.000
		Thermal 2{1}	up	0	0.000	X	1	0.000
			left	1	0.000	Y		-0.344
			forw		0.344	Z	0	0.000
		Thermal 3{1}	up	0	0.000	X	1	0.000

DVI_B_LINE_REV0.OUT

	left	1	0.000	Y		-0.310
	forw		0.310	Z	0	0.000
Thermal 4{1}	up	0	0.000	X	0	0.000
	right	0	0.000	Y		-0.109
	forw		0.109	Z	0	0.000
Thermal 5{1}	up	40	0.000	X	6	0.000
	left	6	0.000	Y		-5.800
	forw		5.800	Z	40	0.000

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DVI_B_LINE_REV0

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/ Supp. ID	Connect/ Type	Load Combination	L O C A L			G L O B A L		
			Dirn	Force	Deform	Dirn	Force	Deform
		GRT1{1}	down	120	0.000	X	1	0.000
			left	1	0.000	Y		0.575
			back		0.575	Z	-120	0.000
		GRT2{1}	down	119	0.000	X	2	0.000
			left	2	0.000	Y		0.093
			back		0.093	Z	-119	0.000
		GRT3{1}	down	119	0.000	X	2	0.000
			left	2	0.000	Y		0.128
			back		0.128	Z	-119	0.000
		GRT4{1}	down	120	0.000	X	1	0.000
			left	1	0.000	Y		0.328
			back		0.328	Z	-120	0.000
		GRT5{1}	down	79	0.000	X	8	0.000
			left	8	0.000	Y		-5.363
			forw		5.363	Z	-79	0.000
Tag No.: <None> A75		Gravity{1}	down	1	0.000	X	-1	0.000
A75 1 Guide			right	1	0.000	Y	-1	0.000
Stiff :RIGID			forw		0.114	Z		-0.114
		Hydrotest{1}	down		0.000	X		0.000

Thermal 1{1}	left		0.000	Y		0.000
	back		0.000	Z		0.000
	down	0	0.000	X	0	0.000
Thermal 2{1}	left	0	0.000	Y	0	0.000
	back		0.000	Z		0.000
	up	0	0.000	X	0	0.000
Thermal 3{1}	right	0	0.000	Y	0	0.000
	forw		0.000	Z		0.000
	up	0	0.000	X	0	0.000
Thermal 4{1}	right	0	0.000	Y	0	0.000
	forw		0.000	Z		0.000
	down	1	0.000	X	-1	0.000
Thermal 5{1}	right	12	0.000	Y	-12	0.000
	back		7.555	Z		7.555
	down	1	0.000	X	-1	0.000
GRT1{1}	right	1	0.000	Y	-1	0.000
	forw		0.113	Z		-0.113

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Point/ Supp. ID	Connect/ Type	Load Combination	L O C A L			G L O B A L		
			Dirn	Force	Deform	Dirn	Force	Deform
		GRT2{1}	down	0	0.000	X	0	0.000
			right	1	0.000	Y	-1	0.000
			forw		0.114	Z		-0.114
		GRT3{1}	down	0	0.000	X	0	0.000
			right	1	0.000	Y	-1	0.000
			forw		0.114	Z		-0.114
		GRT4{1}	down	1	0.000	X	-1	0.000

rght	1	0.000	Y	-1	0.000
forw		0.114	Z		-0.114

GRT5{1}	down	1	0.000	X	-1	0.000
	right	13	0.000	Y	-13	0.000
	back		7.442	Z		7.442

Tag No.: <None>						
A73	Gravity{1}	down	255	0.000	X	0.000
A73 1	Cons Can				Y	0.000
Stiff	:RIGID				Z	-255 0.000

Preload :	255	Hydrotest{1}	down	0.000	X	0.000
					Y	0.000
					Z	0.000

Thermal 1{1}	up	0.000	X	0.000
			Y	0.000
			Z	0.000

Thermal 2{1}	down	0.000	X	0.000
			Y	0.000
			Z	0.000

Thermal 3{1}	down	0.000	X	0.000
			Y	0.000
			Z	0.000

Thermal 4{1}	down	0.000	X	0.000
			Y	0.000
			Z	0.000

Thermal 5{1}	down	8.681	X	-0.820
			Y	0.001
			Z	-8.681

GRT1{1}	down	255	0.000	X	0.000
				Y	0.000
				Z	-255 0.000

GRT2{1}	down	255	0.000	X	0.000
				Y	0.000
				Z	-255 0.000

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DVI_B_LINE_REV0

09/13/2010 DVIBLINE

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S U P P O R T F O R C E S								
(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)								
Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
		GRT3{1}	down	255	0.000	X		0.000
						Y		0.000
						Z	-255	0.000
		GRT4{1}	down	255	0.000	X		0.000
						Y		0.000
						Z	-255	0.000
		GRT5{1}	down	255	8.681	X		-0.820
						Y		0.001
						Z	-255	-8.681
Tag No.: <None> C06		Gravity{1}	down	318	0.001	X		0.000
C06 1 Cons Can						Y		-0.718
Stiff :RIGID						Z	-318	-0.001
Preload :	318	Hydrotest{1}	down		0.000	X		0.000
						Y		0.000
						Z		0.000
		Thermal 1{1}	down		6.537	X		4.438
						Y		2.327
						Z		-6.537
		Thermal 2{1}	down		6.768	X		4.438
						Y		3.205
						Z		-6.768
		Thermal 3{1}	down		6.759	X		4.438
						Y		3.223
						Z		-6.759
		Thermal 4{1}	down		6.694	X		4.438
						Y		1.390
						Z		-6.694
		Thermal 5{1}	down		3.648	X		2.237
						Y		2.079
						Z		-3.648

GRT1{1}	DVI_B_LINE_REV0	down	318	6.537	X	4.438
					Y	1.608
					Z	-318 -6.537
GRT2{1}		down	318	6.769	X	4.438
					Y	2.487
					Z	-318 -6.769
GRT3{1}		down	318	6.759	X	4.438
					Y	2.504
					Z	-318 -6.759

0

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
		GRT4{1}	down	318	6.695	X	4.438	
						Y	0.672	
						Z	-318 -6.695	
		GRT5{1}	down	318	3.649	X	2.237	
						Y	1.361	
						Z	-318 -3.649	
Tag No.: <None> F03 M		Gravity{1}	down	232	0.000	X	0.514	
F03 M1	Guide		rght	5	0.000	Y	5	0.000
Stiff	:RIGID		back		0.514	Z	-232	0.000
		Hydrotest{1}	down		0.000	X	0.000	
			left		0.000	Y	0.000	
			back		0.000	Z	0.000	
		Thermal 1{1}	up	14	0.000	X	-10.750	
			rght	41	0.000	Y	41	0.000
			forw		10.750	Z	14	0.000
		Thermal 2{1}	up	19	0.000	X	-12.767	
			rght	64	0.000	Y	64	0.000
			forw		12.767	Z	19	0.000

DVI_B_LINE_REV0.OUT

Thermal 3{1}	up	125	0.000	X		-11.312
	right	27	0.000	Y	27	0.000
	forw		11.312	Z	125	0.000
Thermal 4{1}	up	17	0.000	X		-11.900
	right	54	0.000	Y	54	0.000
	forw		11.900	Z	17	0.000
Thermal 5{1}	up	60	0.000	X		-7.067
	right	20	0.000	Y	20	0.000
	forw		7.067	Z	60	0.000
GRT1{1}	down	217	0.000	X		-10.236
	right	46	0.000	Y	46	0.000
	forw		10.236	Z	-217	0.000
GRT2{1}	down	212	0.000	X		-12.254
	right	69	0.000	Y	69	0.000
	forw		12.254	Z	-212	0.000
GRT3{1}	down	107	0.000	X		-10.798
	right	32	0.000	Y	32	0.000
	forw		10.798	Z	-107	0.000
GRT4{1}	down	215	0.000	X		-11.387
	right	59	0.000	Y	59	0.000
	forw		11.387	Z	-215	0.000

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DVI_B_LINE_REV0

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
		GRT5{1}	down	172	0.000	X		-6.553
			right	25	0.000	Y	25	0.000
			forw		6.553	Z	-172	0.000
Tag No.: <None> F12 M		Gravity{1}	down	403	0.000	X		0.514
F12 M1	Guide		left	4	0.000	Y	-4	0.000
Stiff	:RIGID		back		0.514	Z	-403	0.000

DVI_B_LINE_REV0.OUT

Hydrotest{1}	down		0.000	X		0.000
	left		0.000	Y		0.000
	back		0.000	Z		0.000
Thermal 1{1}	down	5	0.000	X		-11.071
	left	19	0.000	Y	-19	0.000
	forw		11.071	Z	-5	0.000
Thermal 2{1}	down	8	0.000	X		-13.089
	left	30	0.000	Y	-30	0.000
	forw		13.089	Z	-8	0.000
Thermal 3{1}	down	299	0.000	X		-16.116
	right	97	0.000	Y	97	0.000
	forw		16.116	Z	-299	0.000
Thermal 4{1}	down	8	0.000	X		-12.222
	left	24	0.000	Y	-24	0.000
	forw		12.222	Z	-8	0.000
Thermal 5{1}	down	150	0.000	X		-9.488
	right	45	0.000	Y	45	0.000
	forw		9.488	Z	-150	0.000
GRT1{1}	down	409	0.000	X		-10.558
	left	22	0.000	Y	-22	0.000
	forw		10.558	Z	-409	0.000
GRT2{1}	down	412	0.000	X		-12.576
	left	33	0.000	Y	-33	0.000
	forw		12.576	Z	-412	0.000
GRT3{1}	down	702	0.000	X		-15.602
	right	93	0.000	Y	93	0.000
	forw		15.602	Z	-702	0.000
GRT4{1}	down	411	0.000	X		-11.709
	left	27	0.000	Y	-27	0.000
	forw		11.709	Z	-411	0.000
GRT5{1}	down	553	0.000	X		-8.975
	right	41	0.000	Y	41	0.000
	forw		8.975	Z	-553	0.000

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 DVI_B_LINE_REV0

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S U P P O R T F O R C E S								
(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)								
Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform

Tag No.: <None> F16		Gravity{1}	up	0	0.000	X	0	0.000
F16 1	Guide		right	2	0.000	Y	2	0.000
Stiff	:RIGID		back		0.006	Z		-0.006
		Hydrotest{1}	down		0.000	X		0.000
			left		0.000	Y		0.000
			back		0.000	Z		0.000
		Thermal 1{1}	down	9	0.000	X	-9	0.000
			left	1	0.000	Y	-1	0.000
			forw		0.000	Z		0.000
		Thermal 2{1}	down	11	0.000	X	-11	0.000
			left	1	0.000	Y	-1	0.000
			forw		0.000	Z		0.000
		Thermal 3{1}	down	25	0.000	X	-25	0.000
			left	138	0.000	Y	-138	0.000
			back		23.864	Z		-23.864
		Thermal 4{1}	down	10	0.000	X	-10	0.000
			left	1	0.000	Y	-1	0.000
			forw		0.000	Z		0.000
		Thermal 5{1}	down	14	0.000	X	-14	0.000
			left	70	0.000	Y	-70	0.000
			back		12.028	Z		-12.028
		GRT1{1}	down	8	0.000	X	-8	0.000
			right	0	0.000	Y	0	0.000
			back		0.006	Z		-0.006
		GRT2{1}	down	10	0.000	X	-10	0.000
			right	0	0.000	Y	0	0.000
			back		0.006	Z		-0.006
		GRT3{1}	down	25	0.000	X	-25	0.000
			left	137	0.000	Y	-137	0.000
			back		23.870	Z		-23.870

DVI_B_LINE_REV0.OUT

GRT4{1}	down	9	0.000	X	-9	0.000
	right	0	0.000	Y	0	0.000
	back		0.006	Z		-0.006
GRT5{1}	down	14	0.000	X	-14	0.000
	left	68	0.000	Y	-68	0.000
	back		12.034	Z		-12.034
Tag No.: <None> G03 M	Gravity{1}	down	68	0.000	X	2 0.000
G03 M1 Guide		left	2	0.000	Y	-1.006

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/ Supp. ID	Connect/ Type	Load Combination	L O C A L			G L O B A L		
			Dirn	Force	Deform	Dirn	Force	Deform
-----			----	-----	-----	----	-----	-----
Stiff	:RIGID		forw		1.006	Z	-68	0.000
		Hydrotest{1}	down		0.000	X		0.000
			left		0.000	Y		0.000
			back		0.000	Z		0.000
		Thermal 1{1}	down	0	0.000	X	1	0.000
			left	1	0.000	Y		1.248
			back		1.248	Z	0	0.000
		Thermal 2{1}	up	1	0.000	X	2	0.000
			left	2	0.000	Y		4.028
			back		4.028	Z	1	0.000
		Thermal 3{1}	up	1	0.000	X	2	0.000
			left	2	0.000	Y		4.028
			back		4.028	Z	1	0.000
		Thermal 4{1}	up	2	0.000	X	2	0.000
			left	2	0.000	Y		3.145
			back		3.145	Z	2	0.000
		Thermal 5{1}	up	6	0.000	X	-6	0.000
			rght	6	0.000	Y		-2.496

		DVI_B_LINE_REV0.OUT					
		forw		2.496	Z	6	0.000
GRT1{1}		down	69	0.000	X	3	0.000
		left	3	0.000	Y		0.241
		back		0.241	Z	-69	0.000
GRT2{1}		down	67	0.000	X	4	0.000
		left	4	0.000	Y		3.022
		back		3.022	Z	-67	0.000
GRT3{1}		down	67	0.000	X	4	0.000
		left	4	0.000	Y		3.022
		back		3.022	Z	-67	0.000
GRT4{1}		down	66	0.000	X	3	0.000
		left	3	0.000	Y		2.139
		back		2.139	Z	-66	0.000
GRT5{1}		down	62	0.000	X	-4	0.000
		rght	4	0.000	Y		-3.502
		forw		3.502	Z	-62	0.000
Tag No.: <None>							
G10 M	Gravity{1}	down	157	0.000	X	-6	0.000
G10 M1 Guide		rght	6	0.000	Y		-1.006
Stiff :RIGID		forw		1.006	Z	-157	0.000
	Hydrotest{1}	down		0.000	X		0.000

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S U P P O R T F O R C E S								
(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)								
Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
			left		0.000	Y		0.000
			back		0.000	Z		0.000
		Thermal 1{1}	up	0	0.000	X	-1	0.000
			rght	1	0.000	Y		1.248
			back		1.248	Z	0	0.000
		Thermal 2{1}	down	0	0.000	X	-3	0.000
			rght	3	0.000	Y		4.028

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		back		4.028	Z	0	0.000
	Thermal 3{1}	up	0	0.000	X	-3	0.000
		right	3	0.000	Y		4.028
		back		4.028	Z	0	0.000
	Thermal 4{1}	down	0	0.000	X	-2	0.000
		right	2	0.000	Y		3.145
		back		3.145	Z	0	0.000
	Thermal 5{1}	down	8	0.000	X	21	0.000
		left	21	0.000	Y		-5.791
		forw		5.791	Z	-8	0.000
	GRT1{1}	down	157	0.000	X	-7	0.000
		right	7	0.000	Y		0.241
		back		0.241	Z	-157	0.000
	GRT2{1}	down	157	0.000	X	-9	0.000
		right	9	0.000	Y		3.022
		back		3.022	Z	-157	0.000
	GRT3{1}	down	157	0.000	X	-9	0.000
		right	9	0.000	Y		3.022
		back		3.022	Z	-157	0.000
	GRT4{1}	down	157	0.000	X	-8	0.000
		right	8	0.000	Y		2.139
		back		2.139	Z	-157	0.000
	GRT5{1}	down	164	0.000	X	15	0.000
		left	15	0.000	Y		-6.798
		forw		6.798	Z	-164	0.000
Tag No.: <None> G16	Gravity{1}	down	12	0.000	X	-12	0.000
G16 1 Guide		right	9	0.000	Y	9	0.000
Stiff :RIGID		back		0.001	Z		-0.001
	Hydrotest{1}	down		0.000	X		0.000
		left		0.000	Y		0.000
		back		0.000	Z		0.000

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S U P P O R T F O R C E S								
(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)								
Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform

		Thermal 1{1}	up	1	0.000	X	1	0.000
			right	1	0.000	Y	1	0.000
			back		0.000	Z		0.000
		Thermal 2{1}	up	3	0.000	X	3	0.000
			right	2	0.000	Y	2	0.000
			back		0.000	Z		0.000
		Thermal 3{1}	up	3	0.000	X	3	0.000
			right	2	0.000	Y	2	0.000
			back		0.000	Z		0.000
		Thermal 4{1}	up	3	0.000	X	3	0.000
			right	2	0.000	Y	2	0.000
			back		0.000	Z		0.000
		Thermal 5{1}	down	19	0.000	X	-19	0.000
			left	9	0.000	Y	-9	0.000
			back		10.888	Z		-10.888
		GRT1{1}	down	11	0.000	X	-11	0.000
			right	10	0.000	Y	10	0.000
			back		0.001	Z		-0.001
		GRT2{1}	down	9	0.000	X	-9	0.000
			right	11	0.000	Y	11	0.000
			back		0.001	Z		-0.001
		GRT3{1}	down	9	0.000	X	-9	0.000
			right	11	0.000	Y	11	0.000
			back		0.001	Z		-0.001
		GRT4{1}	down	10	0.000	X	-10	0.000
			right	11	0.000	Y	11	0.000
			back		0.001	Z		-0.001
		GRT5{1}	down	31	0.000	X	-31	0.000
			left	1	0.000	Y	-1	0.000
			back		10.889	Z		-10.889
Tag No.: <None> I11 M		Gravity{1}	down	81	-0.001	X		-0.317

I11 M1	Cons Can	DVI_B_LINE_REV0.OUT			Y	-0.001
Stiff	:RIGID			Z	-81	0.001
Preload :	81 Hydrotest{1}	down	0.000	X		0.000
				Y		0.000
				Z		0.000
	Thermal 1{1}	up	0.194	X		0.166
				Y		0.000
				Z		0.194

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S U P P O R T F O R C E S								
(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)								
Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform

		Thermal 2{1}	down		0.281	X		-0.990
						Y		-0.002
						Z		-0.281
		Thermal 3{1}	down		0.219	X		-1.023
						Y		-0.003
						Z		-0.219
		Thermal 4{1}	down		0.169	X		0.096
						Y		0.000
						Z		-0.169
		Thermal 5{1}	up		17.469	X		-5.032
						Y		2.716
						Z		17.469
		GRT1{1}	down	81	-0.195	X		-0.152
						Y		-0.001
						Z	-81	0.195
		GRT2{1}	down	81	0.281	X		-1.307
						Y		-0.003
						Z	-81	-0.281
		GRT3{1}	down	81	0.218	X		-1.341

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					Y	-0.003
					Z	-81 -0.218
	GRT4{1}	down	81	0.168	X	-0.222
					Y	-0.001
					Z	-81 -0.168
	GRT5{1}	down	81	-17.470	X	-5.349
					Y	2.716
					Z	-81 17.470
Tag No.: <None>						
I05 M	Gravity{1}	down	111	0.000	X	-0.046
I05 M2 Cons Can					Y	-0.001
Stiff :RIGID					Z	-111 0.000
Preload :	111 Hydrotest{1}	down		0.000	X	0.000
					Y	0.000
					Z	0.000
	Thermal 1{1}	up		0.020	X	0.022
					Y	0.000
					Z	0.020
	Thermal 2{1}	down		0.041	X	-0.158
					Y	-0.002
					Z	-0.041

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
		Thermal 3{1}	down		0.036	X		-0.163
						Y		-0.002
						Z		-0.036
		Thermal 4{1}	down		0.020	X		0.006
						Y		0.000
						Z		-0.020
		Thermal 5{1}	up		21.232	X		-0.966

Y	1.191
Z	21.232

GRT1{1}	down	111	-0.020	X	-0.024
				Y	0.000
				Z	-111 0.020
GRT2{1}	down	111	0.041	X	-0.204
				Y	-0.003
				Z	-111 -0.041
GRT3{1}	down	111	0.036	X	-0.209
				Y	-0.003
				Z	-111 -0.036
GRT4{1}	down	111	0.020	X	-0.040
				Y	-0.001
				Z	-111 -0.020
GRT5{1}	down	111	-21.232	X	-1.012
				Y	1.190
				Z	-111 21.232

Gravity{1}	down	651	0.000	X	0	-0.005
	right	1	0.000	Y	0	-0.005
	forw		0.006	Z	-651	0.000
Hydrotest{1}	down		0.000	X		0.000
	left		0.000	Y		0.000
	back		0.000	Z		0.000
Thermal 1{1}	down	5	0.000	X	69	1.033
	left	98	0.000	Y	-69	1.033
	back		1.461	Z	-5	0.000
Thermal 2{1}	up	368	0.000	X	51	6.540
	left	73	0.000	Y	-51	6.540
	back		9.250	Z	368	0.000
Thermal 3{1}	up	372	0.000	X	54	6.545
	left	76	0.000	Y	-54	6.545
	back		9.255	Z	372	0.000

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S U P P O R T F O R C E S								
(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)								
Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
Tag No.: <None> M24 M24 1 Guide Stiff :RIGID		Thermal 4{1}	up	367	0.000	X	98	0.980
			left	138	0.000	Y	-98	0.980
			back		1.387	Z	367	0.000
		Thermal 5{1}	up	378	0.000	X	12	6.014
			left	18	0.000	Y	-12	6.014
			back		8.505	Z	378	0.000
		GRT1{1}	down	655	0.000	X	69	1.029
			left	97	0.000	Y	-69	1.029
			back		1.455	Z	-655	0.000
		GRT2{1}	down	283	0.000	X	51	6.536
			left	72	0.000	Y	-51	6.536
			back		9.243	Z	-283	0.000
		GRT3{1}	down	278	0.000	X	53	6.540
			left	76	0.000	Y	-53	6.540
			back		9.249	Z	-278	0.000
		GRT4{1}	down	283	0.000	X	97	0.976
			left	138	0.000	Y	-97	0.976
			back		1.380	Z	-283	0.000
		GRT5{1}	down	272	0.000	X	12	6.010
			left	17	0.000	Y	-12	6.010
			back		8.499	Z	-272	0.000
		Gravity{1}	up		0.036	X		0.036
			left	4	0.000	Y	-4	0.000
			back		0.002	Z		-0.002
		Hydrotest{1}	down		0.000	X		0.000
			left		0.000	Y		0.000
			back		0.000	Z		0.000
		Thermal 1{1}	down		5.314	X		-5.314
			left	9	0.000	Y	-9	0.000
			back		0.002	Z		-0.002

Thermal 2{1}	DVI_B_LINE_REV0.OUT				
	down		5.228	X	-5.228
	left	18	0.000	Y	-18 0.000
	back		0.003	Z	-0.003
Thermal 3{1}	down		10.485	X	-10.485
	left	42	0.000	Y	-42 0.000
	forw		14.701	Z	14.701
Thermal 4{1}	down		6.826	X	-6.826
	left	15	0.000	Y	-15 0.000
	back		0.003	Z	-0.003

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/ Supp. ID	Connect/ Type	Load Combination	L O C A L			G L O B A L		
			Dirn	Force	Deform	Dirn	Force	Deform
Thermal 5{1}			down		6.756	X		-6.756
			left	20	0.000	Y	-20	0.000
			forw		7.409	Z		7.409
GRT1{1}			down		5.278	X		-5.278
			left	13	0.000	Y	-13	0.000
			back		0.004	Z		-0.004
GRT2{1}			down		5.192	X		-5.192
			left	22	0.000	Y	-22	0.000
			back		0.005	Z		-0.005
GRT3{1}			down		10.449	X		-10.449
			left	46	0.000	Y	-46	0.000
			forw		14.699	Z		14.699
GRT4{1}			down		6.789	X		-6.789
			left	19	0.000	Y	-19	0.000
			back		0.005	Z		-0.005
GRT5{1}			down		6.720	X		-6.720
			left	24	0.000	Y	-24	0.000
			forw		7.407	Z		7.407

Tag No.: <None>		DVI_B_LINE_REV0.0UT					
M11 M	Gravity{1}	down	799	0.000	X		0.104
M11 M1 Guide		left	1	0.000	Y	1	0.000
Stiff :RIGID		forw		0.104	Z	-799	0.000
	Hydrotest{1}	down		0.000	X		0.000
		left		0.000	Y		0.000
		back		0.000	Z		0.000
	Thermal 1{1}	up	337	0.000	X		-3.678
		left	546	0.000	Y	546	0.000
		back		3.678	Z	337	0.000
	Thermal 2{1}	down	254	0.000	X		-3.405
		left	550	0.000	Y	550	0.000
		back		3.405	Z	-254	0.000
	Thermal 3{1}	down	142	0.000	X		-1.040
		left	597	0.000	Y	597	0.000
		back		1.040	Z	-142	0.000
	Thermal 4{1}	down	247	0.000	X		-5.188
		left	1014	0.000	Y	1014	0.000
		back		5.188	Z	-247	0.000
	Thermal 5{1}	down	327	0.000	X		-2.246
		left	765	0.000	Y	765	0.000
		back		2.246	Z	-327	0.000

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S U P P O R T F O R C E S								
(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)								
Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform

		GRT1{1}	down	462	0.000	X		-3.575
			left	547	0.000	Y	547	0.000
			back		3.575	Z	-462	0.000
		GRT2{1}	down	1053	0.000	X		-3.301
			left	551	0.000	Y	551	0.000
			back		3.301	Z	-1053	0.000

GRT3{1}	down	941	0.000	X		-0.937
	left	598	0.000	Y	598	0.000
	back		0.937	Z	-941	0.000
GRT4{1}	down	1047	0.000	X		-5.084
	left	1015	0.000	Y	1015	0.000
	back		5.084	Z	-1047	0.000
GRT5{1}	down	1126	0.000	X		-2.143
	left	767	0.000	Y	767	0.000
	back		2.143	Z	-1126	0.000
Gravity{1}	down	649	0.000	X		0.071
	left		0.071	Y		-0.006
	forw		0.006	Z	-649	0.000
Hydrotest{1}	down		0.000	X		0.000
	left		0.000	Y		0.000
	back		0.000	Z		0.000
Thermal 1{1}	down	136	0.000	X		-2.977
	right		2.977	Y		-4.425
	forw		4.425	Z	-136	0.000
Thermal 2{1}	up	649	0.701	X		-2.794
	right		2.794	Y		-4.438
	forw		4.438	Z	649	0.701
Thermal 3{1}	up	649	2.169	X		-1.435
	right		1.435	Y		-4.359
	forw		4.359	Z	649	2.169
Thermal 4{1}	up	649	0.779	X		-4.291
	right		4.291	Y		-4.129
	forw		4.129	Z	649	0.779
Thermal 5{1}	up	649	2.498	X		-2.176
	right		2.176	Y		-1.893
	forw		1.893	Z	649	2.498
GRT1{1}	down	786	0.000	X		-2.906
	right		2.906	Y		-4.431
	forw		4.431	Z	-786	0.000

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S U P P O R T F O R C E S								
(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)								
Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform

		GRT2{1}	up		0.701	X		-2.723
			right		2.723	Y		-4.444
			forw		4.444	Z		0.701
		GRT3{1}	up		2.169	X		-1.364
			right		1.364	Y		-4.365
			forw		4.365	Z		2.169
		GRT4{1}	up		0.779	X		-4.220
			right		4.220	Y		-4.135
			forw		4.135	Z		0.779
		GRT5{1}	up		2.498	X		-2.105
			right		2.105	Y		-1.899
			forw		1.899	Z		2.498
Tag No.: <None>								
001 M		Gravity{1}	down	673	0.000	X		0.073
001 M1	Guide		left		0.073	Y		0.005
Stiff	:RIGID		back		0.005	Z	-673	0.000
		Hydrotest{1}	down		0.000	X		0.000
			left		0.000	Y		0.000
			back		0.000	Z		0.000
		Thermal 1{1}	up	24	0.000	X		-1.010
			right		1.010	Y		-4.083
			forw		4.083	Z	24	0.000
		Thermal 2{1}	up	591	0.000	X		-0.819
			right		0.819	Y		-4.072
			forw		4.072	Z	591	0.000
		Thermal 3{1}	up	563	0.000	X		0.761
			left		0.761	Y		-4.122
			forw		4.122	Z	563	0.000
		Thermal 4{1}	up	591	0.000	X		-2.842
			right		2.842	Y		-4.346
			forw		4.346	Z	591	0.000

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Thermal 5{1}	up	572	0.000	X	-1.596
	right		1.596	Y	-2.347
	forw		2.347	Z	572 0.000
GRT1{1}	down	649	0.000	X	-0.937
	right		0.937	Y	-4.078
	forw		4.078	Z	-649 0.000
GRT2{1}	down	82	0.000	X	-0.746
	right		0.746	Y	-4.066
	forw		4.066	Z	-82 0.000

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RESULT PAGE 106

S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform

		GRT3{1}	down	111	0.000	X		0.834
			left		0.834	Y		-4.117
			forw		4.117	Z	-111	0.000
		GRT4{1}	down	83	0.000	X		-2.769
			rght		2.769	Y		-4.341
			forw		4.341	Z	-83	0.000
		GRT5{1}	down	101	0.000	X		-1.523
			rght		1.523	Y		-2.342
			forw		2.342	Z	-101	0.000
Tag No.: <None> P04 M		Gravity{1}	down	638	0.000	X	4	-0.013
P04 M1	Guide		rght	5	0.000	Y	-4	-0.013
Stiff	:RIGID		back		0.018	Z	-638	0.000
		Hydrotest{1}	down		0.000	X		0.000
			left		0.000	Y		0.000
			back		0.000	Z		0.000
		Thermal 1{1}	up	9	0.000	X	-26	0.222
			left	37	0.000	Y	26	0.222

			DVI_B_LINE_REV0.00T forw	0.314	Z	9	0.000
Thermal 2{1}	up	638	9.456	X	99	4.047	
	rght	140	0.000	Y	-99	4.047	
	forw		5.724	Z	638	9.456	
Thermal 3{1}	up	638	9.324	X	95	4.065	
	rght	134	0.000	Y	-95	4.065	
	forw		5.748	Z	638	9.324	
Thermal 4{1}	up	638	9.483	X	-21	-0.097	
	left	29	0.000	Y	21	-0.097	
	back		0.137	Z	638	9.483	
Thermal 5{1}	up	638	9.231	X	124	3.866	
	rght	176	0.000	Y	-124	3.866	
	forw		5.467	Z	638	9.231	
GRT1{1}	down	629	0.000	X	-23	0.209	
	left	32	0.000	Y	23	0.209	
	forw		0.296	Z	-629	0.000	
GRT2{1}	up		9.456	X	103	4.035	
	rght	145	0.000	Y	-103	4.035	
	forw		5.706	Z		9.456	
GRT3{1}	up		9.324	X	99	4.052	
	rght	140	0.000	Y	-99	4.052	
	forw		5.730	Z		9.324	

0

DVI_B_LINE_REV0

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S U P P O R T F O R C E S								
(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)								
Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform

		GRT4{1}	up		9.483	X	-17	-0.110
			left	24	0.000	Y	17	-0.110
			back		0.155	Z		9.483
		GRT5{1}	up		9.231	X	128	3.853
			rght	181	0.000	Y	-128	3.853

[]

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R E S T R A I N T R E A C T I O N S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A00	Anchor Tag No.: DVITORV1B Gravity{1}	-18	0	-94	96	0	20	0	20
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-2	0	27	27	0	-25	1	25
	Thermal 2{1}	-1	0	26	26	0	-24	2	25
	Thermal 3{1}	-1	0	26	27	0	-24	2	25
	Thermal 4{1}	-2	0	26	26	0	-24	1	24
	Thermal 5{1}	0	0	15	15	0	-13	1	13
	GRT1{1}	-19	0	-67	70	0	-5	1	5
	GRT2{1}	-19	0	-68	70	0	-4	2	4
	GRT3{1}	-19	0	-68	70	0	-4	2	4
	GRT4{1}	-19	0	-68	71	0	-4	1	4
	GRT5{1}	-18	0	-80	82	0	7	1	7
A50	Guide Tag No.: <None> [ID: A50 1] Gravity{1}	17	0	0	17	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	2	0	0	2	0	0	0	0
	Thermal 2{1}	1	-1	0	2	0	0	0	0
	Thermal 3{1}	1	-1	0	2	0	0	0	0
	Thermal 4{1}	2	0	0	2	0	0	0	0
	Thermal 5{1}	0	-1	0	1	0	0	0	0
	GRT1{1}	20	0	0	20	0	0	0	0
	GRT2{1}	19	-1	0	19	0	0	0	0
	GRT3{1}	19	-1	0	19	0	0	0	0
	GRT4{1}	20	0	0	20	0	0	0	0
	GRT5{1}	18	-1	0	18	0	0	0	0
A11 M	Guide Tag No.: <None> [ID: A11 M1] Gravity{1}	0	0	-536	536	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	-23	23	0	0	0	0
	Thermal 2{1}	0	0	-220	220	0	0	0	0

DVI_B_LINE_REV0.OUT

Thermal 3{1}	0	0	-230	230	0	0	0	0
Thermal 4{1}	0	0	-218	218	0	0	0	0
Thermal 5{1}	0	0	-228	228	0	0	0	0
GRT1{1}	0	0	-559	559	0	0	0	0
GRT2{1}	0	0	-756	756	0	0	0	0
GRT3{1}	0	0	-767	767	0	0	0	0
GRT4{1}	0	0	-754	754	0	0	0	0
GRT5{1}	0	0	-765	765	0	0	0	0

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R E S T R A I N T R E A C T I O N S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

A20 M	Guide Tag No.: <None> Gravity{1}	[ID: A20 M1] 14	0	-310	310	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-43	0	-4	43	0	0	0	0
	Thermal 2{1}	11	0	38	39	0	0	0	0
	Thermal 3{1}	17	0	26	31	0	0	0	0
	Thermal 4{1}	-47	0	34	58	0	0	0	0
	Thermal 5{1}	119	0	62	134	0	0	0	0
	GRT1{1}	-29	0	-314	315	0	0	0	0
	GRT2{1}	25	0	-273	274	0	0	0	0
	GRT3{1}	31	0	-284	286	0	0	0	0
	GRT4{1}	-33	0	-277	279	0	0	0	0
	GRT5{1}	132	0	-248	281	0	0	0	0

A26	Guide Tag No.: <None> Gravity{1}	[ID: A26 1] 0	2	0	2	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	11	0	11	0	0	0	0
	Thermal 2{1}	0	17	0	17	0	0	0	0
	Thermal 3{1}	0	18	0	18	0	0	0	0
	Thermal 4{1}	0	18	0	18	0	0	0	0
	Thermal 5{1}	0	65	0	65	0	0	0	0
	GRT1{1}	0	14	0	14	0	0	0	0
	GRT2{1}	0	19	0	19	0	0	0	0

DVI_B_LINE_REV0.OUT									
GRT3{1}	0	20	0	20	0	0	0	0	0
GRT4{1}	0	21	0	21	0	0	0	0	0
GRT5{1}	0	67	0	67	0	0	0	0	0
A28	Cons Hgr Tag No.: <None>	[ID: A28	1]						
Gravity{1}	0	0	-71	71	0	0	0	0	0
Hydrotest{1}	0	0	0	0	0	0	0	0	0
Thermal 1{1}	0	0	0	0	0	0	0	0	0
Thermal 2{1}	0	0	0	0	0	0	0	0	0
Thermal 3{1}	0	0	0	0	0	0	0	0	0
Thermal 4{1}	0	0	0	0	0	0	0	0	0
Thermal 5{1}	0	0	0	0	0	0	0	0	0
GRT1{1}	0	0	-71	71	0	0	0	0	0
GRT2{1}	0	0	-71	71	0	0	0	0	0
GRT3{1}	0	0	-71	71	0	0	0	0	0
GRT4{1}	0	0	-71	71	0	0	0	0	0
GRT5{1}	0	0	-71	71	0	0	0	0	0

0

DVI_B_LINE_REV0

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R E S T R A I N T R E A C T I O N S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A68	Guide Tag No.: <None>	[ID: A68	1]						
Gravity{1}		-10	2	0	10	0	0	0	0
Hydrotest{1}		0	0	0	0	0	0	0	0
Thermal 1{1}		2	1	0	2	0	0	0	0
Thermal 2{1}		-7	-1	0	7	0	0	0	0
Thermal 3{1}		-7	-1	0	7	0	0	0	0
Thermal 4{1}		0	-1	0	1	0	0	0	0
Thermal 5{1}		-42	35	0	54	0	0	0	0
GRT1{1}		-8	4	0	8	0	0	0	0
GRT2{1}		-17	1	0	17	0	0	0	0
GRT3{1}		-17	2	0	17	0	0	0	0
GRT4{1}		-9	2	0	9	0	0	0	0
GRT5{1}		-51	37	0	63	0	0	0	0
A69	Guide Tag No.: <None>	[ID: A69	1]						
Gravity{1}		0	0	-27	27	0	0	0	0
Hydrotest{1}		0	0	0	0	0	0	0	0

DVI_B_LINE_REV0.OUT

Thermal 1{1}	-1	0	1	1	0	0	0	0
Thermal 2{1}	3	0	-2	4	0	0	0	0
Thermal 3{1}	3	0	-1	4	0	0	0	0
Thermal 4{1}	0	0	0	1	0	0	0	0
Thermal 5{1}	20	0	27	34	0	0	0	0
GRT1{1}	0	0	-26	26	0	0	0	0
GRT2{1}	4	0	-29	29	0	0	0	0
GRT3{1}	4	0	-29	29	0	0	0	0
GRT4{1}	0	0	-28	28	0	0	0	0
GRT5{1}	21	0	0	21	0	0	0	0

A38 M	Guide	Tag No.: <None>	[ID: A38 M1]					
	Gravity{1}		-1	0	-77	77	0	0
	Hydrotest{1}		0	0	0	0	0	0
	Thermal 1{1}		0	0	0	0	0	0
	Thermal 2{1}		-2	0	0	2	0	0
	Thermal 3{1}		-2	0	0	2	0	0
	Thermal 4{1}		0	0	0	0	0	0
	Thermal 5{1}		-15	0	-31	34	0	0
	GRT1{1}		-1	0	-77	77	0	0
	GRT2{1}		-3	0	-77	77	0	0
	GRT3{1}		-3	0	-77	77	0	0
	GRT4{1}		-1	0	-77	77	0	0
	GRT5{1}		-16	0	-108	109	0	0

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R E S T R A I N T R E A C T I O N S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A39 M	Guide								
	Gravity{1}	1	0	-120	120	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	1	0	0	1	0	0	0	0
	Thermal 3{1}	1	0	0	1	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	6	0	40	41	0	0	0	0

DVI_B_LINE_REV0.OUT									
	GRT1{1}	1	0	-120	120	0	0	0	0
	GRT2{1}	2	0	-119	119	0	0	0	0
	GRT3{1}	2	0	-119	119	0	0	0	0
	GRT4{1}	1	0	-120	120	0	0	0	0
	GRT5{1}	8	0	-79	80	0	0	0	0
A75	Guide Tag No.: <None> [ID: A75 1]								
	Gravity{1}	-1	-1	0	1	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	-1	-12	0	12	0	0	0	0
	GRT1{1}	-1	-1	0	1	0	0	0	0
	GRT2{1}	0	-1	0	1	0	0	0	0
	GRT3{1}	0	-1	0	1	0	0	0	0
	GRT4{1}	-1	-1	0	1	0	0	0	0
	GRT5{1}	-1	-13	0	13	0	0	0	0
A73	Cons Can Tag No.: <None> [ID: A73 1]								
	Gravity{1}	0	0	-255	255	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	-255	255	0	0	0	0
	GRT2{1}	0	0	-255	255	0	0	0	0
	GRT3{1}	0	0	-255	255	0	0	0	0
	GRT4{1}	0	0	-255	255	0	0	0	0
	GRT5{1}	0	0	-255	255	0	0	0	0

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DVI_B_LINE_REV0

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R E S T R A I N T R E A C T I O N S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result

		DVI_B_LINE_REV0.OUT							
A44	Anchor Tag No.: DVITOPSSB								
	Gravity{1}	0	0	76	76	0	18	0	18
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	1	-17	17	-2	-6	0	6
	GRT1{1}	0	0	77	77	0	18	0	18
	GRT2{1}	0	0	76	76	0	18	0	18
	GRT3{1}	0	0	76	76	0	18	0	18
	GRT4{1}	0	0	76	76	0	18	0	18
	GRT5{1}	0	1	60	60	-2	12	0	12
B04	Anchor Tag No.: DVIT0RV2B								
	Gravity{1}	-2	14	-60	62	-1	4	8	9
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	24	7	46	52	-2	-17	15	23
	Thermal 2{1}	40	29	49	70	-6	-17	31	36
	Thermal 3{1}	40	29	50	70	-6	-17	31	36
	Thermal 4{1}	19	-1	34	39	0	-13	10	16
	Thermal 5{1}	27	25	28	47	-5	-9	23	25
	GRT1{1}	22	21	-14	33	-3	-13	24	27
	GRT2{1}	37	43	-10	58	-6	-12	40	42
	GRT3{1}	37	43	-10	58	-6	-13	39	42
	GRT4{1}	16	13	-26	33	-1	-9	19	21
	GRT5{1}	25	40	-32	57	-5	-5	32	32
C06	Cons Can Tag No.: <None> [ID: C06 1]								
	Gravity{1}	0	0	-318	318	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	-318	318	0	0	0	0
	GRT2{1}	0	0	-318	318	0	0	0	0
	GRT3{1}	0	0	-318	318	0	0	0	0
	GRT4{1}	0	0	-318	318	0	0	0	0
	GRT5{1}	0	0	-318	318	0	0	0	0

□

DVI_B_LINE_REV0

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R E S T R A I N T R E A C T I O N S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
C05	Anchor Gravity{1} Tag No.: DVITORV3B	4	-13	-35	38	-1	-3	-9	9
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	39	12	-62	75	2	31	19	36
	Thermal 2{1}	52	20	-77	95	4	36	28	46
	Thermal 3{1}	52	21	-77	95	4	36	28	46
	Thermal 4{1}	32	-3	-62	70	-1	32	9	33
	Thermal 5{1}	33	15	-48	60	4	22	19	29
	GRT1{1}	43	-1	-98	107	1	27	11	29
	GRT2{1}	56	7	-113	126	4	33	19	38
	GRT3{1}	56	7	-112	126	4	33	19	38
	GRT4{1}	37	-16	-97	105	-1	28	0	28
	GRT5{1}	37	2	-83	91	3	19	10	21
F03 M	Guide Gravity{1} Tag No.: <None> [ID: F03 M1]	0	5	-232	232	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	41	14	44	0	0	0	0
	Thermal 2{1}	0	64	19	67	0	0	0	0
	Thermal 3{1}	0	27	125	128	0	0	0	0
	Thermal 4{1}	0	54	17	56	0	0	0	0
	Thermal 5{1}	0	20	60	63	0	0	0	0
	GRT1{1}	0	46	-217	222	0	0	0	0
	GRT2{1}	0	69	-212	223	0	0	0	0
	GRT3{1}	0	32	-107	111	0	0	0	0
	GRT4{1}	0	59	-215	223	0	0	0	0
	GRT5{1}	0	25	-172	174	0	0	0	0
F12 M	Guide Gravity{1} Tag No.: <None> [ID: F12 M1]	0	-4	-403	403	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	-19	-5	19	0	0	0	0
	Thermal 2{1}	0	-30	-8	31	0	0	0	0
	Thermal 3{1}	0	97	-299	314	0	0	0	0
	Thermal 4{1}	0	-24	-8	25	0	0	0	0
	Thermal 5{1}	0	45	-150	156	0	0	0	0
	GRT1{1}	0	-22	-409	409	0	0	0	0
	GRT2{1}	0	-33	-412	413	0	0	0	0

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GRT3{1}	0	93	-702	709	0	0	0	0
GRT4{1}	0	-27	-411	412	0	0	0	0
GRT5{1}	0	41	-553	555	0	0	0	0

0

DVI_B_LINE_REV0

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R E S T R A I N T R E A C T I O N S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
F16	Guide Tag No.: <None> Gravity{1}	[ID: F16 1] 0 2				0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-9	-1	0	9	0	0	0	0
	Thermal 2{1}	-11	-1	0	11	0	0	0	0
	Thermal 3{1}	-25	-138	0	141	0	0	0	0
	Thermal 4{1}	-10	-1	0	10	0	0	0	0
	Thermal 5{1}	-14	-70	0	71	0	0	0	0
	GRT1{1}	-8	0	0	8	0	0	0	0
	GRT2{1}	-10	0	0	10	0	0	0	0
	GRT3{1}	-25	-137	0	139	0	0	0	0
	GRT4{1}	-9	0	0	9	0	0	0	0
	GRT5{1}	-14	-68	0	69	0	0	0	0
G03 M	Guide Tag No.: <None> Gravity{1}	[ID: G03 M1] 2 0				-68	68	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	0	0	1	0	0	0	0
	Thermal 2{1}	2	0	1	2	0	0	0	0
	Thermal 3{1}	2	0	1	2	0	0	0	0
	Thermal 4{1}	2	0	2	2	0	0	0	0
	Thermal 5{1}	-6	0	6	9	0	0	0	0
	GRT1{1}	3	0	-69	69	0	0	0	0
	GRT2{1}	4	0	-67	67	0	0	0	0
	GRT3{1}	4	0	-67	67	0	0	0	0
	GRT4{1}	3	0	-66	67	0	0	0	0
	GRT5{1}	-4	0	-62	62	0	0	0	0
G10 M	Guide Tag No.: <None> Gravity{1}	[ID: G10 M1] -6 0				-157	157	0	0

	DVI_B_LINE_REV0.OUT							
Hydrotest{1}	0	0	0	0	0	0	0	0
Thermal 1{1}	-1	0	0	1	0	0	0	0
Thermal 2{1}	-3	0	0	3	0	0	0	0
Thermal 3{1}	-3	0	0	3	0	0	0	0
Thermal 4{1}	-2	0	0	2	0	0	0	0
Thermal 5{1}	21	0	-8	22	0	0	0	0
GRT1{1}	-7	0	-157	157	0	0	0	0
GRT2{1}	-9	0	-157	157	0	0	0	0
GRT3{1}	-9	0	-157	157	0	0	0	0
GRT4{1}	-8	0	-157	157	0	0	0	0
GRT5{1}	15	0	-164	165	0	0	0	0

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DVI_B_LINE_REV0

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R E S T R A I N T R E A C T I O N S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
G16	Guide Tag No.: <None> Gravity{1}	[ID: G16 -12	1 9	0	15	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	1	0	1	0	0	0	0
	Thermal 2{1}	3	2	0	4	0	0	0	0
	Thermal 3{1}	3	2	0	4	0	0	0	0
	Thermal 4{1}	3	2	0	3	0	0	0	0
	Thermal 5{1}	-19	-9	0	21	0	0	0	0
	GRT1{1}	-11	10	0	15	0	0	0	0
	GRT2{1}	-9	11	0	14	0	0	0	0
	GRT3{1}	-9	11	0	14	0	0	0	0
	GRT4{1}	-10	11	0	14	0	0	0	0
	GRT5{1}	-31	-1	0	31	0	0	0	0
G08	Anchor Tag No.: DVITOLGMSB Gravity{1}	16	-8	-152	153	-4	-8	0	9
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	1	0	0	0	0
	Thermal 2{1}	-1	-1	0	2	-1	1	1	1
	Thermal 3{1}	-1	-1	0	2	-1	1	1	1
	Thermal 4{1}	-1	-1	0	1	0	1	1	1
	Thermal 5{1}	4	4	3	7	2	-2	-2	4

DVI_B_LINE_REV0.OUT

GRT1{1}	15	-9	-152	153	-5	-8	0	9
GRT2{1}	14	-9	-152	153	-5	-8	1	9
GRT3{1}	14	-9	-153	153	-5	-8	1	9
GRT4{1}	15	-9	-152	153	-5	-8	0	9
GRT5{1}	20	-4	-149	150	-2	-11	-3	11

I11 M	Cons Can Tag No.: <None>	[ID: I11 M1]							
	Gravity{1}	0	0	-81	81	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	-81	81	0	0	0	0
	GRT2{1}	0	0	-81	81	0	0	0	0
	GRT3{1}	0	0	-81	81	0	0	0	0
	GRT4{1}	0	0	-81	81	0	0	0	0
	GRT5{1}	0	0	-81	81	0	0	0	0

DVI_B_LINE_REV0

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R E S T R A I N T R E A C T I O N S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
I05 M	Cons Can Tag No.: <None>	[ID: I05 M2]							
	Gravity{1}	0	0	-111	111	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	-111	111	0	0	0	0
	GRT2{1}	0	0	-111	111	0	0	0	0
	GRT3{1}	0	0	-111	111	0	0	0	0
	GRT4{1}	0	0	-111	111	0	0	0	0
	GRT5{1}	0	0	-111	111	0	0	0	0

DVI_B_LINE_REV0.OUT

I10	Anchor Gravity{1}	Tag No.: DVI0CAVB	-3	-2	-24	25	0	2	2	3
	Hydrotest{1}		0	0	0	0	0	0	0	0
	Thermal 1{1}		1	-5	0	5	1	0	-1	1
	Thermal 2{1}		-10	-6	-2	12	-2	-1	9	9
	Thermal 3{1}		-11	-7	-2	13	-2	-1	9	9
	Thermal 4{1}		0	-5	-1	5	-1	0	0	1
	Thermal 5{1}		-51	-55	-39	84	-33	-6	44	55
	GRT1{1}		-2	-6	-24	25	1	2	2	3
	GRT2{1}		-13	-8	-27	31	-2	2	11	11
	GRT3{1}		-13	-9	-27	31	-2	1	11	12
	GRT4{1}		-3	-6	-25	26	-1	3	3	4
	GRT5{1}		-53	-56	-64	100	-33	-4	46	57

J01 M	Guide	Tag No.: <None>	[ID: J01 M1]							
	Gravity{1}		0	0	-651	651	0	0	0	0
	Hydrotest{1}		0	0	0	0	0	0	0	0
	Thermal 1{1}		69	-69	-5	98	0	0	0	0
	Thermal 2{1}		51	-51	368	375	0	0	0	0
	Thermal 3{1}		54	-54	372	380	0	0	0	0
	Thermal 4{1}		98	-98	367	392	0	0	0	0
	Thermal 5{1}		12	-12	378	378	0	0	0	0
	GRT1{1}		69	-69	-655	662	0	0	0	0
	GRT2{1}		51	-51	-283	292	0	0	0	0
	GRT3{1}		53	-53	-278	288	0	0	0	0
	GRT4{1}		97	-97	-283	315	0	0	0	0
	GRT5{1}		12	-12	-272	273	0	0	0	0

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R E S T R A I N T R E A C T I O N S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
J10	Anchor								
	Gravity{1}	-1	-1	-502	502	164	274	-1	319
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	27	61	4	67	3	-8	116	117
	Thermal 2{1}	-68	8	-222	232	-170	588	69	616
	Thermal 3{1}	-69	7	-224	234	-171	591	69	619

Thermal 4{1}	123	154	-222	297	-170	588	268	668
Thermal 5{1}	-79	-23	-227	241	-173	597	9	621
GRT1{1}	26	61	-498	502	168	266	115	335
GRT2{1}	-69	7	-725	728	-6	862	67	865
GRT3{1}	-71	6	-726	729	-7	865	67	867
GRT4{1}	122	153	-724	750	-6	861	266	902
GRT5{1}	-80	-24	-729	734	-9	870	8	870

M24	Guide Gravity{1}	Tag No.: <None>	[ID: M24 1]	0	-4	0	4	0	0	0	0
	Hydrotest{1}			0	0	0	0	0	0	0	0
	Thermal 1{1}			0	-9	0	9	0	0	0	0
	Thermal 2{1}			0	-18	0	18	0	0	0	0
	Thermal 3{1}			0	-42	0	42	0	0	0	0
	Thermal 4{1}			0	-15	0	15	0	0	0	0
	Thermal 5{1}			0	-20	0	20	0	0	0	0
	GRT1{1}			0	-13	0	13	0	0	0	0
	GRT2{1}			0	-22	0	22	0	0	0	0
	GRT3{1}			0	-46	0	46	0	0	0	0
	GRT4{1}			0	-19	0	19	0	0	0	0
	GRT5{1}			0	-24	0	24	0	0	0	0

Point Load FORCES (N) MOMENTS (N.m)

DVI_B_LINE_REV0.0UT

name	combination	X	Y	Z	Result	X	Y	Z	Result

M11 M	Guide Tag No.: <None> [ID: M11 M1]	0	1	-799	799	0	0	0	0
	Gravity{1}	0	1	-799	799	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	546	337	642	0	0	0	0
	Thermal 2{1}	0	550	-254	606	0	0	0	0
	Thermal 3{1}	0	597	-142	614	0	0	0	0
	Thermal 4{1}	0	1014	-247	1044	0	0	0	0
	Thermal 5{1}	0	765	-327	832	0	0	0	0
	GRT1{1}	0	547	-462	717	0	0	0	0
	GRT2{1}	0	551	-1053	1189	0	0	0	0
	GRT3{1}	0	598	-941	1116	0	0	0	0
	GRT4{1}	0	1015	-1047	1458	0	0	0	0
	GRT5{1}	0	767	-1126	1362	0	0	0	0
M28	Anchor Tag No.: EBTBTORV	2	0	-165	165	-5	-23	0	24
	Gravity{1}	2	0	-165	165	-5	-23	0	24
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	97	11	-192	216	-11	-157	-16	159
	Thermal 2{1}	101	11	-166	195	-3	-143	-17	144
	Thermal 3{1}	139	8	-191	236	-8	-156	-18	157
	Thermal 4{1}	79	4	-167	185	-4	-143	-10	144
	Thermal 5{1}	49	-3	-89	101	-1	-75	-3	75
	GRT1{1}	99	11	-357	371	-17	-181	-17	182
	GRT2{1}	103	11	-331	347	-9	-166	-17	167
	GRT3{1}	140	8	-355	382	-13	-179	-18	181
	GRT4{1}	81	4	-332	342	-9	-167	-11	167
	GRT5{1}	50	-3	-253	258	-6	-98	-3	99
N01 M	Guide Tag No.: <None> [ID: N01 M1]	0	0	-649	649	0	0	0	0
	Gravity{1}	0	0	-649	649	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	-136	136	0	0	0	0
	Thermal 2{1}	0	0	649	649	0	0	0	0
	Thermal 3{1}	0	0	649	649	0	0	0	0
	Thermal 4{1}	0	0	649	649	0	0	0	0
	Thermal 5{1}	0	0	649	649	0	0	0	0
	GRT1{1}	0	0	-786	786	0	0	0	0
	GRT2{1}	0	0	0	0	0	0	0	0
	GRT3{1}	0	0	0	0	0	0	0	0
	GRT4{1}	0	0	0	0	0	0	0	0
	GRT5{1}	0	0	0	0	0	0	0	0

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R E S T R A I N T R E A C T I O N S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
N08	Anchor Gravity{1} Tag No.: EBTDEG	1	1	-183	183	-50	-61	-1	79
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-86	-385	37	396	21	3	312	313
	Thermal 2{1}	-84	-383	-412	569	-448	-215	309	585
	Thermal 3{1}	-69	-358	-391	534	-422	-192	274	538
	Thermal 4{1}	-130	-648	-411	778	-447	-214	503	706
	Thermal 5{1}	-80	-445	-390	597	-419	-190	332	567
	GRT1{1}	-85	-384	-147	420	-29	-58	311	318
	GRT2{1}	-83	-383	-596	713	-498	-276	307	647
	GRT3{1}	-68	-357	-574	679	-472	-253	273	601
	GRT4{1}	-129	-647	-594	888	-497	-275	502	758
	GRT5{1}	-79	-444	-573	729	-469	-251	330	626
001 M	Guide Gravity{1} Tag No.: <None> [ID: 001 M1]	0	0	-673	673	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	24	24	0	0	0	0
	Thermal 2{1}	0	0	591	591	0	0	0	0
	Thermal 3{1}	0	0	563	563	0	0	0	0
	Thermal 4{1}	0	0	591	591	0	0	0	0
	Thermal 5{1}	0	0	572	572	0	0	0	0
	GRT1{1}	0	0	-649	649	0	0	0	0
	GRT2{1}	0	0	-82	82	0	0	0	0
	GRT3{1}	0	0	-111	111	0	0	0	0
	GRT4{1}	0	0	-83	83	0	0	0	0
	GRT5{1}	0	0	-101	101	0	0	0	0
009	Anchor Gravity{1} Tag No.: EBTSPPLIT	2	-2	-206	206	-90	8	-1	91
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	55	-155	14	165	36	-27	2	45
	Thermal 2{1}	59	-159	-302	346	-335	-217	-2	399
	Thermal 3{1}	94	-199	-300	373	-342	-207	-33	401
	Thermal 4{1}	141	-352	-302	485	-335	-216	-23	400

	DVI_B_LINE_REV0.OUT							
Thermal 5{1}	130	-294	-308	446	-357	-198	-39	410
GRT1{1}	56	-157	-192	254	-54	-18	1	57
GRT2{1}	60	-161	-507	536	-425	-208	-3	473
GRT3{1}	95	-201	-506	553	-432	-199	-35	477
GRT4{1}	142	-354	-507	635	-425	-208	-25	474
GRT5{1}	131	-296	-514	607	-448	-190	-41	488

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R E S T R A I N T R E A C T I O N S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

P14	Anchor Gravity{1} Tag No.: <None>	-5	-1	-443	443	-96	139	1	169
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-90	-68	-4	112	0	5	-41	41
	Thermal 2{1}	-165	51	-612	636	-327	974	185	1044
	Thermal 3{1}	-159	53	-617	639	-331	982	185	1053
	Thermal 4{1}	-200	-117	-611	653	-326	973	-56	1027
	Thermal 5{1}	-148	75	-619	641	-334	987	204	1062
	GRT1{1}	-95	-69	-447	462	-96	144	-40	177
	GRT2{1}	-171	50	-1054	1069	-423	1114	185	1205
	GRT3{1}	-164	52	-1060	1073	-427	1122	185	1214
	GRT4{1}	-205	-118	-1053	1080	-422	1112	-55	1190
	GRT5{1}	-153	74	-1062	1076	-430	1126	204	1223
P04 M	Guide Gravity{1} Tag No.: <None>	[ID: P04 M1] 4	-4	-638	638	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-26	26	9	38	0	0	0	0
	Thermal 2{1}	99	-99	638	653	0	0	0	0
	Thermal 3{1}	95	-95	638	652	0	0	0	0
	Thermal 4{1}	-21	21	638	639	0	0	0	0
	Thermal 5{1}	124	-124	638	662	0	0	0	0
	GRT1{1}	-23	23	-629	630	0	0	0	0
	GRT2{1}	103	-103	0	145	0	0	0	0
	GRT3{1}	99	-99	0	140	0	0	0	0
	GRT4{1}	-17	17	0	24	0	0	0	0
	GRT5{1}	128	-128	0	181	0	0	0	0

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

*** Segment A begin ***									
A00	Gravity{1}	18	0	54	57	0	-20	0	20
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	2	0	-27	27	0	25	-1	25
	Thermal 2{1}	1	0	-26	26	0	24	-2	25
	Thermal 3{1}	1	0	-26	27	0	24	-2	25
	Thermal 4{1}	2	0	-26	26	0	24	-1	24
	Thermal 5{1}	0	0	-15	15	0	13	-1	13
	GRT1{1}	19	0	27	33	0	5	-1	5
	GRT2{1}	19	0	28	33	0	4	-2	4
	GRT3{1}	19	0	28	33	0	4	-2	4
	GRT4{1}	19	0	28	34	0	4	-1	4
	GRT5{1}	18	0	39	43	0	-7	-1	7
A30	Gravity{1}	18	0	51	54	0	-16	0	16
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	2	0	-27	27	0	23	-1	23
	Thermal 2{1}	1	0	-26	26	0	22	-2	22
	Thermal 3{1}	1	0	-26	27	0	22	-2	22
	Thermal 4{1}	2	0	-26	26	0	22	-1	22
	Thermal 5{1}	0	0	-15	15	0	12	-1	12
	GRT1{1}	19	0	24	30	0	7	-1	7
	GRT2{1}	19	0	24	31	0	6	-2	7
	GRT3{1}	19	0	24	31	0	6	-2	7
	GRT4{1}	19	0	24	31	0	6	-1	6
	GRT5{1}	18	0	36	40	0	-4	-1	4
A01	Gravity{1}	18	0	49	52	0	-14	0	14
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	2	0	-27	27	0	22	-1	22
	Thermal 2{1}	1	0	-26	26	0	21	-2	21
	Thermal 3{1}	1	0	-26	27	0	21	-2	21

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Thermal 4{1}	2	0	-26	26	0	21	-1	21
Thermal 5{1}	0	0	-15	15	0	11	-1	12
GRT1{1}	19	0	22	29	0	8	-1	8
GRT2{1}	19	0	23	30	0	7	-2	7
GRT3{1}	19	0	23	30	0	7	-2	7
GRT4{1}	19	0	23	30	0	7	-1	7
GRT5{1}	18	0	35	39	0	-3	-1	3

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RESULT PAGE 122

G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

A02 N	Gravity{1}	18	0	34	38	0	6	0	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	2	0	-27	27	0	9	-1	9
	Thermal 2{1}	1	0	-26	26	0	8	-2	9
	Thermal 3{1}	1	0	-26	27	0	8	-2	9
	Thermal 4{1}	2	0	-26	26	0	9	-1	9
	Thermal 5{1}	0	0	-15	15	0	4	-1	5
	GRT1{1}	19	0	7	20	0	14	-1	15
	GRT2{1}	19	0	7	20	0	14	-2	14
	GRT3{1}	19	0	7	20	0	14	-2	14
	GRT4{1}	19	0	7	21	0	14	-1	14
	GRT5{1}	18	0	19	26	0	10	-1	10
A02 F	Gravity{1}	18	0	33	37	0	6	0	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	2	0	-27	27	0	8	-1	8
	Thermal 2{1}	1	0	-26	26	0	8	-2	8
	Thermal 3{1}	1	0	-26	27	0	8	-2	8
	Thermal 4{1}	2	0	-26	26	0	8	-1	8
	Thermal 5{1}	0	0	-15	15	0	4	-1	4
	GRT1{1}	19	0	6	20	0	14	-1	14
	GRT2{1}	19	0	6	20	0	14	-2	14
	GRT3{1}	19	0	6	20	0	14	-2	14
	GRT4{1}	19	0	6	20	0	14	-1	14

		DVI_B_LINE_REV0.OUT							
		18	0	18	25	0	10	-1	10
A03 N	GRT5{1}								
	Gravity{1}	18	0	21	27	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	2	0	-27	27	0	8	-1	8
	Thermal 2{1}	1	0	-26	26	0	7	-2	8
	Thermal 3{1}	1	0	-26	27	0	7	-2	8
	Thermal 4{1}	2	0	-26	26	0	7	-1	7
	Thermal 5{1}	0	0	-15	15	0	4	-1	4
	GRT1{1}	19	0	-6	20	0	7	-1	7
	GRT2{1}	19	0	-6	20	0	7	-2	7
	GRT3{1}	19	0	-6	20	0	7	-2	7
	GRT4{1}	19	0	-5	20	0	7	-1	7
	GRT5{1}	18	0	6	19	0	4	-1	4
A03 F	Gravity{1}	18	0	20	27	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	2	0	-27	27	0	7	-1	7
	Thermal 2{1}	1	0	-26	26	0	7	-2	7
	Thermal 3{1}	1	0	-26	27	0	7	-2	7
	Thermal 4{1}	2	0	-26	26	0	7	-1	7
	Thermal 5{1}	0	0	-15	15	0	4	-1	4
	GRT1{1}	19	0	-7	20	0	7	-1	7
	GRT2{1}	19	0	-7	20	0	7	-2	7
	GRT3{1}	19	0	-7	20	0	7	-2	7
	GRT4{1}	19	0	-6	20	0	7	-1	7
	GRT5{1}	18	0	5	19	0	3	-1	4

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DVI_B_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A04 N	Gravity{1}	18	0	-1	18	0	6	0	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	2	0	-27	27	0	-10	-1	10
	Thermal 2{1}	1	0	-26	26	0	-10	-1	10
	Thermal 3{1}	1	0	-26	27	0	-10	-1	10

		DVI_B_LINE_REV0.OUT							
	Thermal 4{1}	2	0	-26	26	0	-10	-1	10
	Thermal 5{1}	0	0	-15	15	0	-6	-1	6
	GRT1{1}	19	0	-28	34	0	-5	-1	5
	GRT2{1}	19	0	-28	33	0	-4	-2	5
	GRT3{1}	19	0	-28	33	0	-4	-2	5
	GRT4{1}	19	0	-27	33	0	-4	-1	4
	GRT5{1}	18	0	-16	24	0	0	-1	1
A04 F	Gravity{1}	18	0	-2	18	0	5	0	5
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	2	0	-27	27	0	-11	-1	11
	Thermal 2{1}	1	0	-26	26	0	-11	-1	11
	Thermal 3{1}	1	0	-26	27	0	-11	-1	11
	Thermal 4{1}	2	0	-26	26	0	-11	-1	11
	Thermal 5{1}	0	0	-15	15	0	-6	-1	6
	GRT1{1}	19	0	-29	35	0	-5	-1	6
	GRT2{1}	19	0	-28	34	0	-5	-2	5
	GRT3{1}	19	0	-29	34	0	-5	-2	5
	GRT4{1}	19	0	-28	34	0	-5	-1	5
	GRT5{1}	18	0	-17	25	0	-1	-1	1
A05 N	Gravity{1}	18	0	-33	38	0	-11	0	11
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	2	0	-27	27	0	-12	-1	12
	Thermal 2{1}	1	0	-26	26	0	-12	-1	12
	Thermal 3{1}	1	0	-26	27	0	-12	-1	12
	Thermal 4{1}	2	0	-26	26	0	-12	-1	12
	Thermal 5{1}	0	0	-15	15	0	-6	-1	6
	GRT1{1}	19	0	-60	63	0	-24	-1	24
	GRT2{1}	19	0	-60	63	0	-23	-2	23
	GRT3{1}	19	0	-60	63	0	-23	-2	23
	GRT4{1}	19	0	-60	63	0	-24	-1	24
	GRT5{1}	18	0	-48	51	0	-18	-1	18
A05 F	Gravity{1}	18	0	-34	39	0	-11	0	11
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	2	0	-27	27	0	-12	-1	12
	Thermal 2{1}	1	0	-26	26	0	-11	-1	12
	Thermal 3{1}	1	0	-26	27	0	-11	-1	12
	Thermal 4{1}	2	0	-26	26	0	-12	-1	12
	Thermal 5{1}	0	0	-15	15	0	-6	-1	6
	GRT1{1}	19	0	-61	64	0	-23	-1	23
	GRT2{1}	19	0	-61	64	0	-23	-2	23
	GRT3{1}	19	0	-61	64	0	-23	-2	23

	DVI_B_LINE_REV0.OUT							
GRT4{1}	19	0	-61	64	0	-23	-1	23
GRT5{1}	18	0	-49	52	0	-17	-1	17

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A06 N	Gravity{1}	18	0	-49	52	0	8	0	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	2	0	-27	27	0	1	-1	1
	Thermal 2{1}	1	0	-26	26	0	1	-2	2
	Thermal 3{1}	1	0	-26	27	0	1	-2	2
	Thermal 4{1}	2	0	-26	26	0	0	-1	1
	Thermal 5{1}	0	0	-15	15	0	1	-1	1
	GRT1{1}	19	0	-76	79	0	9	-1	9
	GRT2{1}	19	0	-76	78	0	9	-2	9
	GRT3{1}	19	0	-76	78	0	9	-2	9
	GRT4{1}	19	0	-76	78	0	9	-1	9
	GRT5{1}	18	0	-64	66	0	9	-1	9
A06 F	Gravity{1}	18	0	-50	53	0	9	0	9
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	2	0	-27	27	0	1	-1	1
	Thermal 2{1}	1	0	-26	26	0	1	-2	2
	Thermal 3{1}	1	0	-26	27	0	1	-2	2
	Thermal 4{1}	2	0	-26	26	0	1	-1	1
	Thermal 5{1}	0	0	-15	15	0	1	-1	1
	GRT1{1}	19	0	-77	80	0	10	-1	10
	GRT2{1}	19	0	-77	79	0	10	-2	10
	GRT3{1}	19	0	-77	79	0	10	-2	10
	GRT4{1}	19	0	-77	79	0	10	-1	10
	GRT5{1}	18	0	-65	67	0	10	-1	10
A50 -	Gravity{1}	18	0	-66	68	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	2	0	-27	27	0	0	-1	1
	Thermal 2{1}	1	0	-26	26	0	1	-2	2

DVI_B_LINE_REV0.OUT								
Thermal 3{1}	1	0	-26	27	0	1	-2	2
Thermal 4{1}	2	0	-26	26	0	0	-1	1
Thermal 5{1}	0	0	-15	15	0	1	-1	1
GRT1{1}	19	0	-93	95	0	1	-1	1
GRT2{1}	19	0	-92	94	0	1	-2	2
GRT3{1}	19	0	-92	94	0	1	-2	2
GRT4{1}	19	0	-92	94	0	0	-1	1
GRT5{1}	18	0	-81	83	0	1	-1	2
A50 + Gravity{1}	0	0	-66	66	0	0	0	0
Hydrotest{1}	0	0	0	0	0	0	0	0
Thermal 1{1}	0	0	-27	27	0	0	-1	1
Thermal 2{1}	0	1	-26	26	0	1	-2	2
Thermal 3{1}	0	1	-26	26	0	1	-2	2
Thermal 4{1}	0	0	-26	26	0	0	-1	1
Thermal 5{1}	0	1	-15	15	0	1	-1	1
GRT1{1}	0	0	-93	93	0	1	-1	1
GRT2{1}	0	1	-92	92	0	1	-2	2
GRT3{1}	0	1	-92	92	0	1	-2	2
GRT4{1}	0	0	-92	92	0	0	-1	1
GRT5{1}	0	1	-81	81	0	1	-1	2

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A07 -	Gravity{1}	0	0	-173	173	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	-27	27	1	2	-1	2
	Thermal 2{1}	0	1	-26	26	3	0	-2	3
	Thermal 3{1}	0	1	-26	26	3	0	-2	3
	Thermal 4{1}	0	0	-26	26	-1	2	-1	2
	Thermal 5{1}	0	1	-15	15	3	0	-1	3
	GRT1{1}	0	0	-200	200	1	2	-1	2
	GRT2{1}	0	1	-200	200	3	0	-2	4
	GRT3{1}	0	1	-200	200	3	0	-2	4
	GRT4{1}	0	0	-199	199	0	2	-1	2

DVI_B_LINE_REV0.OUT

		GRT5{1}	0	1	-188	188	3	-1	-1	3
A07	+	Gravity{1}	2	-14	-177	178	1	1	1	2
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	-25	-6	-73	77	3	-13	-12	18
		Thermal 2{1}	-40	-28	-76	90	9	-18	-13	23
		Thermal 3{1}	-40	-28	-76	90	9	-18	-13	23
		Thermal 4{1}	-19	1	-61	64	0	-9	-12	15
		Thermal 5{1}	-27	-24	-43	56	7	-11	-7	15
		GRT1{1}	-23	-21	-250	252	4	-12	-10	16
		GRT2{1}	-37	-42	-253	259	10	-16	-11	22
		GRT3{1}	-37	-42	-253	259	10	-16	-11	22
		GRT4{1}	-17	-14	-238	239	0	-8	-10	13
		GRT5{1}	-25	-39	-219	224	8	-10	-5	14
A08	-	Gravity{1}	2	-14	-207	208	-12	-1	1	13
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	-25	-6	-73	77	-3	10	-12	16
		Thermal 2{1}	-40	-28	-76	90	-17	19	-13	29
		Thermal 3{1}	-40	-28	-76	90	-17	19	-13	29
		Thermal 4{1}	-19	1	-61	64	0	8	-12	14
		Thermal 5{1}	-27	-24	-43	56	-16	14	-7	22
		GRT1{1}	-23	-21	-280	282	-15	9	-10	21
		GRT2{1}	-37	-42	-283	289	-30	18	-11	37
		GRT3{1}	-37	-42	-284	289	-29	18	-11	36
		GRT4{1}	-17	-14	-268	269	-12	8	-10	18
		GRT5{1}	-25	-39	-250	254	-28	13	-5	31
A08	+	Gravity{1}	-2	-1	48	48	-25	-1	-1	25
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	-64	-18	-10	67	7	-7	-21	23
		Thermal 2{1}	-91	-48	1	103	-2	-4	-24	24
		Thermal 3{1}	-91	-48	1	103	-2	-4	-24	24
		Thermal 4{1}	-52	3	1	52	-2	-4	-23	23
		Thermal 5{1}	-59	-40	5	72	-5	-1	-13	14
		GRT1{1}	-66	-19	38	78	-18	-8	-22	29
		GRT2{1}	-93	-49	49	116	-27	-5	-24	37
		GRT3{1}	-93	-49	49	116	-26	-5	-25	36
		GRT4{1}	-53	2	49	73	-26	-5	-23	36
		GRT5{1}	-61	-40	53	91	-29	-2	-14	32

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 DVI_B_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A09 N	Gravity{1}	-2	-1	21	21	4	-1	1	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-64	-18	-10	67	-2	-7	32	32
	Thermal 2{1}	-91	-48	1	103	-1	-4	52	52
	Thermal 3{1}	-91	-48	1	103	-1	-4	52	52
	Thermal 4{1}	-52	3	1	52	-1	-4	20	21
	Thermal 5{1}	-59	-40	5	72	-1	-1	36	36
	GRT1{1}	-66	-19	11	69	3	-8	32	33
	GRT2{1}	-93	-49	22	108	3	-5	53	53
	GRT3{1}	-93	-49	22	108	3	-5	53	53
	GRT4{1}	-53	2	22	58	3	-5	21	22
	GRT5{1}	-61	-40	26	78	4	-2	37	37
A09 M	Gravity{1}	-2	-1	21	21	5	-1	1	5
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-64	-18	-10	67	-2	-7	32	33
	Thermal 2{1}	-91	-48	1	103	-1	-4	53	53
	Thermal 3{1}	-91	-48	1	103	-1	-4	53	53
	Thermal 4{1}	-52	3	1	52	-1	-4	21	21
	Thermal 5{1}	-59	-40	5	72	0	-1	37	37
	GRT1{1}	-66	-19	10	69	3	-8	33	34
	GRT2{1}	-93	-49	22	108	3	-5	54	54
	GRT3{1}	-93	-49	21	107	3	-5	54	54
	GRT4{1}	-53	2	22	58	4	-5	22	23
	GRT5{1}	-61	-40	26	78	4	-2	38	38
A09 F	Gravity{1}	-2	-1	20	20	5	-1	1	5
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-64	-18	-10	67	-2	-7	32	33
	Thermal 2{1}	-91	-48	1	103	-1	-4	53	53
	Thermal 3{1}	-91	-48	1	103	-1	-4	53	53
	Thermal 4{1}	-52	3	1	52	-1	-4	21	22
	Thermal 5{1}	-59	-40	5	72	0	-1	37	37
	GRT1{1}	-66	-19	10	69	3	-8	33	34
	GRT2{1}	-93	-49	21	107	3	-5	54	54
	GRT3{1}	-93	-49	21	107	3	-5	54	54

DVI_B_LINE_REV0.OUT

	GRT4{1}	-53	2	21	58	4	-5	22	23
	GRT5{1}	-61	-40	25	78	4	-2	38	38
A10 -	Gravity{1}	-2	-1	-35	35	5	11	-1	12
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-64	-18	-10	67	-2	11	1	11
	Thermal 2{1}	-91	-48	1	103	-1	-6	-29	30
	Thermal 3{1}	-91	-48	1	103	-1	-5	-29	29
	Thermal 4{1}	-52	3	1	52	-1	-6	27	27
	Thermal 5{1}	-59	-40	5	72	0	-10	-30	32
	GRT1{1}	-66	-19	-45	82	3	22	1	23
	GRT2{1}	-93	-49	-34	110	3	5	-29	30
	GRT3{1}	-93	-49	-34	111	3	6	-29	30
	GRT4{1}	-53	2	-34	63	4	6	26	27
	GRT5{1}	-61	-40	-30	79	4	1	-31	31

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A10 +	Gravity{1}	0	0	-49	49	4	9	0	10
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-160	-11	-10	161	-1	7	-16	18
	Thermal 2{1}	-75	-5	-144	163	10	-25	-20	34
	Thermal 3{1}	-76	-1	-148	167	11	-25	-21	34
	Thermal 4{1}	-272	-53	-144	312	10	-25	-3	27
	Thermal 5{1}	7	-4	-146	146	12	-28	-11	32
	GRT1{1}	-161	-11	-59	172	4	16	-16	23
	GRT2{1}	-75	-5	-193	208	14	-16	-20	29
	GRT3{1}	-76	-2	-197	212	15	-16	-21	30
	GRT4{1}	-272	-54	-193	338	15	-16	-3	22
	GRT5{1}	7	-4	-195	195	16	-19	-11	27
A11 -	Gravity{1}	0	0	-60	60	4	27	0	27
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-160	-11	-10	161	-1	10	-20	22
	Thermal 2{1}	-75	-5	-144	163	10	22	-21	32

DVI_B_LINE_REV0.OUT

	Thermal 3{1}	-76	-1	-148	167	11	24	-21	34
	Thermal 4{1}	-272	-53	-144	312	10	22	-20	32
	Thermal 5{1}	7	-4	-146	146	12	20	-12	26
	GRT1{1}	-161	-11	-70	175	4	37	-20	42
	GRT2{1}	-75	-5	-204	217	14	49	-22	56
	GRT3{1}	-76	-2	-208	221	15	51	-21	57
	GRT4{1}	-272	-54	-204	344	15	49	-21	55
	GRT5{1}	7	-4	-206	206	16	47	-12	51
A11 +	Gravity{1}	0	0	-95	95	4	27	0	27
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-160	-11	-10	161	-1	10	-20	22
	Thermal 2{1}	-75	-5	-144	163	10	22	-21	32
	Thermal 3{1}	-76	-1	-148	167	11	24	-21	34
	Thermal 4{1}	-272	-53	-144	312	10	22	-20	32
	Thermal 5{1}	7	-4	-146	146	12	20	-12	26
	GRT1{1}	-161	-11	-105	192	4	37	-20	42
	GRT2{1}	-75	-5	-239	251	14	49	-22	56
	GRT3{1}	-76	-2	-243	255	15	51	-21	57
	GRT4{1}	-272	-54	-239	366	15	49	-21	55
	GRT5{1}	7	-4	-241	241	16	47	-12	51
A11 M-	Gravity{1}	0	0	-157	157	4	44	0	44
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-160	-11	-10	161	-1	12	-21	24
	Thermal 2{1}	-75	-5	-144	163	10	41	-22	48
	Thermal 3{1}	-76	-1	-148	167	11	43	-21	49
	Thermal 4{1}	-272	-53	-144	312	10	41	-28	51
	Thermal 5{1}	7	-4	-146	146	12	39	-12	43
	GRT1{1}	-161	-11	-167	232	4	55	-22	59
	GRT2{1}	-75	-5	-301	311	14	85	-22	89
	GRT3{1}	-76	-2	-305	315	15	87	-22	91
	GRT4{1}	-272	-54	-301	410	15	85	-28	91
	GRT5{1}	7	-4	-303	303	16	83	-13	86

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GLOBAL FORCES & MOMENTS

Point Load FORCES (N) MOMENTS (N.m)
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DVI_B_LINE_REV0.OUT

name	combination	X	Y	Z	Result	X	Y	Z	Result

A11 M+	Gravity{1}	0	0	195	195	4	44	0	44
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-160	-11	12	161	-1	12	-21	24
	Thermal 2{1}	-75	-5	76	107	10	41	-22	48
	Thermal 3{1}	-76	-1	82	112	11	43	-21	49
	Thermal 4{1}	-272	-53	74	287	10	41	-28	51
	Thermal 5{1}	7	-4	82	83	12	39	-12	43
	GRT1{1}	-161	-11	207	263	4	55	-22	59
	GRT2{1}	-75	-5	271	281	14	85	-22	89
	GRT3{1}	-76	-2	277	287	15	87	-22	91
	GRT4{1}	-272	-54	269	387	15	85	-28	91
	GRT5{1}	7	-4	277	277	16	83	-13	86
A47 -	Gravity{1}	0	0	133	133	4	22	0	22
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-160	-11	12	161	-1	10	-23	25
	Thermal 2{1}	-75	-5	76	107	10	31	-22	40
	Thermal 3{1}	-76	-1	82	112	11	33	-21	40
	Thermal 4{1}	-272	-53	74	287	10	31	-35	48
	Thermal 5{1}	7	-4	82	83	12	28	-13	33
	GRT1{1}	-161	-11	145	217	4	32	-23	40
	GRT2{1}	-75	-5	209	222	14	53	-23	60
	GRT3{1}	-76	-2	215	228	15	55	-22	61
	GRT4{1}	-272	-54	207	346	15	53	-35	66
	GRT5{1}	7	-4	215	215	16	51	-13	55
A47 +	Gravity{1}	0	0	98	98	4	22	0	22
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-160	-11	12	161	-1	10	-23	25
	Thermal 2{1}	-75	-5	76	107	10	31	-22	40
	Thermal 3{1}	-76	-1	82	112	11	33	-21	40
	Thermal 4{1}	-272	-53	74	287	10	31	-35	48
	Thermal 5{1}	7	-4	82	83	12	28	-13	33
	GRT1{1}	-161	-11	110	195	4	32	-23	40
	GRT2{1}	-75	-5	174	189	14	53	-23	60
	GRT3{1}	-76	-2	180	195	15	55	-22	61
	GRT4{1}	-272	-54	172	326	15	53	-35	66
	GRT5{1}	7	-4	180	180	16	51	-13	55
A13 -	Gravity{1}	0	0	87	87	4	-8	-1	9
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-160	-11	12	161	-1	6	-26	27

Thermal 2{1}	-75	-5	76	107	10	6	-24	27
Thermal 3{1}	-76	-1	82	112	11	6	-22	25
Thermal 4{1}	-272	-53	74	287	10	7	-52	53
Thermal 5{1}	7	-4	82	83	12	1	-14	18
GRT1{1}	-161	-11	99	189	4	-2	-27	27
GRT2{1}	-75	-5	163	180	14	-2	-24	29
GRT3{1}	-76	-2	169	185	15	-3	-22	27
GRT4{1}	-272	-54	161	321	15	-1	-52	55
GRT5{1}	7	-4	169	169	16	-7	-15	23

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

A13 +	Gravity{1}	1	5	64	64	0	-1	-1	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-44	30	8	54	-1	6	-14	15
	Thermal 2{1}	-8	43	49	66	1	34	-22	40
	Thermal 3{1}	-12	40	60	73	1	36	-18	40
	Thermal 4{1}	-52	43	46	82	2	34	-23	41
	Thermal 5{1}	31	45	63	84	3	32	-21	39
	GRT1{1}	-43	35	72	91	-1	5	-15	16
	GRT2{1}	-7	48	113	123	1	33	-24	40
	GRT3{1}	-10	45	124	133	1	35	-20	40
	GRT4{1}	-50	48	110	130	2	33	-24	41
	GRT5{1}	32	50	127	140	3	32	-23	39
C041 -	Gravity{1}	1	5	58	58	0	-13	-1	13
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-44	30	8	54	-1	5	-8	9
	Thermal 2{1}	-8	43	49	66	1	24	-13	27
	Thermal 3{1}	-12	40	60	73	1	24	-10	26
	Thermal 4{1}	-52	43	46	82	2	25	-14	29
	Thermal 5{1}	31	45	63	84	3	20	-12	23
	GRT1{1}	-43	35	65	86	-1	-8	-8	12
	GRT2{1}	-7	48	107	117	1	11	-14	18

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	GRT3{1}	-10	45	118	126	1	11	-11	15
	GRT4{1}	-50	48	104	125	2	12	-15	19
	GRT5{1}	32	50	121	134	3	7	-13	15
C041 +	Gravity{1}	1	5	-13	14	0	-13	-1	13
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-44	30	8	54	-1	5	-8	9
	Thermal 2{1}	-8	43	49	66	1	24	-13	27
	Thermal 3{1}	-12	40	60	73	1	24	-10	26
	Thermal 4{1}	-52	43	46	82	2	25	-14	29
	Thermal 5{1}	31	45	63	84	3	20	-12	23
	GRT1{1}	-43	35	-5	56	-1	-8	-8	12
	GRT2{1}	-7	48	36	60	1	11	-14	18
	GRT3{1}	-10	45	47	66	1	11	-11	15
	GRT4{1}	-50	48	33	77	2	12	-15	19
	GRT5{1}	32	50	50	78	3	7	-13	15
A32 -	Gravity{1}	1	5	-24	24	0	-7	1	7
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-44	30	8	54	-1	2	2	3
	Thermal 2{1}	-8	43	49	66	1	8	1	8
	Thermal 3{1}	-12	40	60	73	1	4	3	5
	Thermal 4{1}	-52	43	46	82	2	10	0	10
	Thermal 5{1}	31	45	63	84	3	-1	3	4
	GRT1{1}	-43	35	-16	58	-1	-5	3	6
	GRT2{1}	-7	48	25	55	1	1	2	2
	GRT3{1}	-10	45	37	59	1	-3	4	5
	GRT4{1}	-50	48	22	73	2	3	1	4
	GRT5{1}	32	50	39	71	3	-8	4	9

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A32 +	Gravity{1}	1	2	-42	42	-4	-6	1	7
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-40	9	-3	41	0	1	4	5

		DVI_B_LINE_REV0.OUT							
	Thermal 2{1}	-3	10	35	37	6	6	3	9
	Thermal 3{1}	2	11	23	26	3	3	2	4
	Thermal 4{1}	-47	14	34	60	6	9	4	12
	Thermal 5{1}	38	28	46	66	6	-1	1	6
	GRT1{1}	-39	11	-45	61	-3	-5	6	8
	GRT2{1}	-2	12	-7	15	2	1	5	5
	GRT3{1}	3	13	-19	23	-1	-3	3	4
	GRT4{1}	-46	16	-8	50	3	3	5	7
	GRT5{1}	39	30	3	50	3	-6	2	7
A16 N	Gravity{1}	1	2	-43	43	-4	-4	1	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-40	9	-3	41	0	1	5	5
	Thermal 2{1}	-3	10	35	37	6	5	4	9
	Thermal 3{1}	2	11	23	26	3	2	2	4
	Thermal 4{1}	-47	14	34	60	6	8	4	11
	Thermal 5{1}	38	28	46	66	6	-2	2	7
	GRT1{1}	-39	11	-46	62	-3	-3	6	8
	GRT2{1}	-2	12	-8	15	2	1	5	6
	GRT3{1}	3	13	-20	24	-1	-2	3	4
	GRT4{1}	-46	16	-9	50	3	4	6	7
	GRT5{1}	39	30	2	50	3	-6	3	8
A16 F	Gravity{1}	1	2	-44	44	-4	-3	2	5
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-40	9	-3	41	0	0	5	5
	Thermal 2{1}	-3	10	35	37	6	5	4	8
	Thermal 3{1}	2	11	23	26	3	2	2	4
	Thermal 4{1}	-47	14	34	60	6	6	4	10
	Thermal 5{1}	38	28	46	66	6	-2	2	6
	GRT1{1}	-39	11	-47	62	-4	-3	6	8
	GRT2{1}	-2	12	-9	16	2	1	6	6
	GRT3{1}	3	13	-21	25	-1	-2	4	4
	GRT4{1}	-46	16	-10	50	2	3	6	7
	GRT5{1}	39	30	1	50	2	-6	4	7
A17 N	Gravity{1}	1	2	-53	53	-4	-3	2	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-40	9	-3	41	-2	-10	5	11
	Thermal 2{1}	-3	10	35	37	3	4	4	6
	Thermal 3{1}	2	11	23	26	0	2	2	3
	Thermal 4{1}	-47	14	34	60	2	-6	4	8
	Thermal 5{1}	38	28	46	66	-2	8	2	8
	GRT1{1}	-39	11	-56	69	-6	-13	6	16

	DVI_B_LINE_REV0.OUT							
GRT2{1}	-2	12	-18	22	-1	0	6	6
GRT3{1}	3	13	-30	33	-4	-1	4	6
GRT4{1}	-46	16	-19	52	-2	-9	6	11
GRT5{1}	39	30	-7	50	-6	5	4	8

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A17 F	Gravity{1}	1	2	-54	54	-4	-2	2	5
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-40	9	-3	41	-2	-11	5	12
	Thermal 2{1}	-3	10	35	37	3	3	4	6
	Thermal 3{1}	2	11	23	26	0	2	2	3
	Thermal 4{1}	-47	14	34	60	2	-8	5	9
	Thermal 5{1}	38	28	46	66	-2	8	3	8
	GRT1{1}	-39	11	-57	70	-7	-13	7	16
	GRT2{1}	-2	12	-19	23	-2	1	6	6
	GRT3{1}	3	13	-31	33	-5	0	4	6
	GRT4{1}	-46	16	-20	53	-2	-10	6	12
	GRT5{1}	39	30	-8	50	-7	5	4	10
A55	Gravity{1}	1	2	-57	57	-4	3	2	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-40	9	-3	41	-2	-11	6	12
	Thermal 2{1}	-3	10	35	37	3	-1	5	6
	Thermal 3{1}	2	11	23	26	0	0	3	3
	Thermal 4{1}	-47	14	34	60	2	-11	6	13
	Thermal 5{1}	38	28	46	66	-2	3	5	7
	GRT1{1}	-39	11	-60	72	-7	-7	8	12
	GRT2{1}	-2	12	-22	25	-2	3	7	8
	GRT3{1}	3	13	-34	36	-5	3	5	8
	GRT4{1}	-46	16	-23	54	-2	-8	8	11
	GRT5{1}	39	30	-11	51	-7	6	7	12
A18 N	Gravity{1}	1	2	-60	60	-4	9	2	10
	Hydrotest{1}	0	0	0	0	0	0	0	0

DVI_B_LINE_REV0.OUT									
	Thermal 1{1}	-40	9	-3	41	-2	-10	7	12
	Thermal 2{1}	-3	10	35	37	3	-4	6	8
	Thermal 3{1}	2	11	23	26	0	-3	4	5
	Thermal 4{1}	-47	14	34	60	2	-14	8	16
	Thermal 5{1}	38	28	46	66	-2	-2	8	9
	GRT1{1}	-39	11	-63	75	-7	-1	9	11
	GRT2{1}	-2	12	-25	28	-2	5	8	10
	GRT3{1}	3	13	-37	39	-5	7	6	10
	GRT4{1}	-46	16	-26	55	-2	-5	10	11
	GRT5{1}	39	30	-15	52	-7	8	10	14
A18 F	Gravity{1}	1	2	-61	61	-4	10	2	11
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-40	9	-3	41	-2	-9	7	12
	Thermal 2{1}	-3	10	35	37	3	-5	6	8
	Thermal 3{1}	2	11	23	26	0	-3	5	6
	Thermal 4{1}	-47	14	34	60	2	-14	8	16
	Thermal 5{1}	38	28	46	66	-2	-3	9	10
	GRT1{1}	-39	11	-64	76	-6	1	9	11
	GRT2{1}	-2	12	-26	29	-1	6	8	10
	GRT3{1}	3	13	-38	40	-4	7	7	11
	GRT4{1}	-46	16	-27	56	-2	-4	10	11
	GRT5{1}	39	30	-16	52	-6	7	11	14

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A56	Gravity{1}	1	2	-65	65	-4	10	2	11
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-40	9	-3	41	-1	-4	7	8
	Thermal 2{1}	-3	10	35	37	4	-4	6	9
	Thermal 3{1}	2	11	23	26	1	-3	5	6
	Thermal 4{1}	-47	14	34	60	4	-8	8	12
	Thermal 5{1}	38	28	46	66	2	-8	9	12
	GRT1{1}	-39	11	-69	80	-5	6	9	12
	GRT2{1}	-2	12	-30	33	0	6	8	10

DVI_B_LINE_REV0.OUT									
A19 N	GRT3{1}	3	13	-42	44	-3	7	7	10
	GRT4{1}	-46	16	-31	58	0	2	10	10
	GRT5{1}	39	30	-20	54	-2	2	11	11
	Gravity{1}	1	2	-70	70	-4	10	2	11
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-40	9	-3	41	0	1	7	7
	Thermal 2{1}	-3	10	35	37	6	-4	6	9
	Thermal 3{1}	2	11	23	26	3	-4	5	6
	Thermal 4{1}	-47	14	34	60	6	-2	8	10
	Thermal 5{1}	38	28	46	66	6	-13	9	17
	GRT1{1}	-39	11	-73	83	-4	11	9	15
	GRT2{1}	-2	12	-35	37	2	6	8	11
	GRT3{1}	3	13	-47	49	-1	7	7	9
GRT4{1}	-46	16	-36	60	2	8	10	13	
GRT5{1}	39	30	-24	55	2	-3	11	11	
A19 F	Gravity{1}	1	2	-71	71	-2	10	2	11
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-40	9	-3	41	0	2	6	6
	Thermal 2{1}	-3	10	35	37	5	-4	6	9
	Thermal 3{1}	2	11	23	26	2	-4	5	6
	Thermal 4{1}	-47	14	34	60	6	-1	7	9
	Thermal 5{1}	38	28	46	66	5	-14	10	18
	GRT1{1}	-39	11	-74	84	-2	12	8	15
	GRT2{1}	-2	12	-36	38	3	6	8	11
	GRT3{1}	3	13	-48	49	0	6	7	9
	GRT4{1}	-46	16	-37	61	3	9	9	13
	GRT5{1}	39	30	-25	56	3	-4	12	13
	A20 -	Gravity{1}	1	2	-79	79	16	10	2
Hydrotest{1}		0	0	0	0	0	0	0	0
Thermal 1{1}		-40	9	-3	41	1	2	-4	4
Thermal 2{1}		-3	10	35	37	-4	-4	6	8
Thermal 3{1}		2	11	23	26	-3	-4	5	7
Thermal 4{1}		-47	14	34	60	-3	-1	-5	6
Thermal 5{1}		38	28	46	66	-6	-14	19	24
GRT1{1}		-39	11	-82	91	18	12	-2	21
GRT2{1}		-2	12	-44	46	13	6	8	16
GRT3{1}		3	13	-56	57	13	6	8	16
GRT4{1}		-46	16	-45	66	14	9	-3	17
GRT5{1}		39	30	-33	60	10	-4	21	24

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A20 +	Gravity{1}	1	2	-114	114	16	10	2	19
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-40	9	-3	41	1	2	-4	4
	Thermal 2{1}	-3	10	35	37	-4	-4	6	8
	Thermal 3{1}	2	11	23	26	-3	-4	5	7
	Thermal 4{1}	-47	14	34	60	-3	-1	-5	6
	Thermal 5{1}	38	28	46	66	-6	-14	19	24
	GRT1{1}	-39	11	-117	124	18	12	-2	21
	GRT2{1}	-2	12	-79	80	13	6	8	16
	GRT3{1}	3	13	-91	92	13	6	8	16
	GRT4{1}	-46	16	-80	94	14	9	-3	17
	GRT5{1}	39	30	-69	85	10	-4	21	24
A20 M-	Gravity{1}	1	2	-157	157	24	10	2	26
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-40	9	-3	41	1	2	-6	7
	Thermal 2{1}	-3	10	35	37	-6	-4	5	9
	Thermal 3{1}	2	11	23	26	-5	-4	5	8
	Thermal 4{1}	-47	14	34	60	-5	-1	-8	9
	Thermal 5{1}	38	28	46	66	-9	-14	21	27
	GRT1{1}	-39	11	-160	165	25	12	-4	28
	GRT2{1}	-2	12	-122	122	18	6	8	21
	GRT3{1}	3	13	-134	134	19	6	8	22
	GRT4{1}	-46	16	-123	132	19	9	-5	22
	GRT5{1}	39	30	-111	122	15	-4	24	28
A20 M+	Gravity{1}	-13	2	153	154	24	10	2	26
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	3	9	1	9	1	2	-6	7
	Thermal 2{1}	-15	10	-2	18	-6	-4	5	9
	Thermal 3{1}	-15	11	-3	18	-5	-4	5	8
	Thermal 4{1}	0	14	0	14	-5	-1	-8	9
	Thermal 5{1}	-81	28	-16	87	-9	-14	21	27
	GRT1{1}	-10	11	154	155	25	12	-4	28

GRT2{1}	-27	12	151	154	18	6	8	21
GRT3{1}	-27	13	151	154	19	6	8	22
GRT4{1}	-13	16	154	155	19	9	-5	22
GRT5{1}	-93	30	137	169	15	-4	24	28
Gravity{1}	-13	2	111	112	17	10	2	20
Hydrotest{1}	0	0	0	0	0	0	0	0
Thermal 1{1}	3	9	1	9	1	2	-6	6
Thermal 2{1}	-15	10	-2	18	-6	-4	5	8
Thermal 3{1}	-15	11	-3	18	-5	-4	4	7
Thermal 4{1}	0	14	0	14	-5	-1	-8	9
Thermal 5{1}	-81	28	-16	87	-8	-14	17	23
GRT1{1}	-10	11	112	113	18	12	-4	22
GRT2{1}	-27	12	108	112	11	6	6	14
GRT3{1}	-27	13	108	112	12	6	6	15
GRT4{1}	-13	16	111	113	12	9	-6	16
GRT5{1}	-93	30	95	136	9	-4	18	21

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GLOBAL FORCES & MOMENTS

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	Thermal 1{1}	3	9	1	9	1	2	-5	6
	Thermal 2{1}	-15	10	-2	18	-5	-4	1	6
	Thermal 3{1}	-15	11	-3	18	-4	-4	1	5
	Thermal 4{1}	0	14	0	14	-5	-1	-8	9
	Thermal 5{1}	-81	28	-16	87	-4	-14	-2	15
	GRT1{1}	-10	11	71	72	1	12	-6	14
	GRT2{1}	-27	12	67	74	-5	6	0	8
	GRT3{1}	-27	13	67	74	-4	6	0	8
	GRT4{1}	-13	16	70	73	-5	9	-9	14
	GRT5{1}	-93	30	54	112	-4	-4	-3	6
A22 N	Gravity{1}	-13	2	67	68	-9	10	-3	14
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	3	9	1	9	1	2	-5	5
	Thermal 2{1}	-15	10	-2	18	-5	-4	-1	6
	Thermal 3{1}	-15	11	-3	18	-4	-4	-1	5
	Thermal 4{1}	0	14	0	14	-5	-1	-8	9
	Thermal 5{1}	-81	28	-16	87	-2	-14	-12	19
	GRT1{1}	-10	11	67	69	-8	12	-8	16
	GRT2{1}	-27	12	64	71	-14	6	-4	15
	GRT3{1}	-27	13	64	71	-13	6	-4	15
	GRT4{1}	-13	16	67	70	-14	9	-10	20
	GRT5{1}	-93	30	50	110	-11	-4	-15	19
A22 F	Gravity{1}	-13	2	66	67	-10	9	-3	14
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	3	9	1	9	1	2	-5	5
	Thermal 2{1}	-15	10	-2	18	-5	-4	-1	6
	Thermal 3{1}	-15	11	-3	18	-3	-4	-1	5
	Thermal 4{1}	0	14	0	14	-5	-1	-7	9
	Thermal 5{1}	-81	28	-16	87	-2	-14	-13	19
	GRT1{1}	-10	11	67	68	-9	11	-8	16
	GRT2{1}	-27	12	63	70	-15	5	-4	16
	GRT3{1}	-27	13	63	70	-14	5	-4	15
	GRT4{1}	-13	16	66	69	-15	8	-10	20
	GRT5{1}	-93	30	50	110	-12	-5	-16	21

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 DVI_B_LINE_REV0
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DVI_B_LINE_REV0.OUT

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

A24 -	Gravity{1}	-13	2	65	66	-10	6	-3	12
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	3	9	1	9	1	2	-4	5
	Thermal 2{1}	-15	10	-2	18	-5	-4	0	6
	Thermal 3{1}	-15	11	-3	18	-3	-3	-1	5
	Thermal 4{1}	0	14	0	14	-5	-1	-7	8
	Thermal 5{1}	-81	28	-16	87	-2	-13	-12	18
	GRT1{1}	-10	11	66	67	-9	8	-7	14
	GRT2{1}	-27	12	62	69	-15	3	-3	15
	GRT3{1}	-27	13	62	69	-14	3	-3	14
	GRT4{1}	-13	16	65	69	-15	5	-10	19
	GRT5{1}	-93	30	49	109	-12	-7	-15	20
A24 +	Gravity{1}	-12	2	39	41	0	8	-2	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	2	8	1	9	0	2	-5	5
	Thermal 2{1}	-16	9	-4	19	-2	-4	-2	5
	Thermal 3{1}	-16	10	-4	19	-1	-4	-3	5
	Thermal 4{1}	-1	13	-1	13	-2	-1	-8	8
	Thermal 5{1}	-81	34	-19	90	1	-15	-14	20
	GRT1{1}	-10	10	40	42	0	9	-7	12
	GRT2{1}	-28	11	35	46	-2	4	-4	6
	GRT3{1}	-28	11	35	47	-2	4	-5	6
	GRT4{1}	-13	15	38	43	-2	6	-10	12
	GRT5{1}	-93	35	20	102	1	-7	-16	18
A26 -	Gravity{1}	-12	2	13	18	0	-20	0	20
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	2	8	1	9	0	0	4	4
	Thermal 2{1}	-16	9	-4	19	-2	0	7	7
	Thermal 3{1}	-16	10	-4	19	-1	0	7	8
	Thermal 4{1}	-1	13	-1	13	-2	0	6	6
	Thermal 5{1}	-81	34	-19	90	1	5	21	22
	GRT1{1}	-10	10	14	20	0	-19	3	20
	GRT2{1}	-28	11	9	31	-2	-20	7	21
	GRT3{1}	-28	11	9	32	-2	-20	7	21
	GRT4{1}	-13	15	12	23	-2	-20	6	21
	GRT5{1}	-93	35	-6	100	1	-15	21	26
A26 +	Gravity{1}	-12	0	-13	17	0	-20	0	20

Hydrotest{1}	0	0	0	0	0	0	0	0
Thermal 1{1}	2	-3	1	4	0	0	4	4
Thermal 2{1}	-16	-8	-4	18	-2	0	7	7
Thermal 3{1}	-16	-8	-4	18	-1	0	7	8
Thermal 4{1}	-1	-5	-1	6	-2	0	6	6
Thermal 5{1}	-81	-31	-19	89	1	5	21	22
GRT1{1}	-10	-4	-11	15	0	-19	3	20
GRT2{1}	-28	-8	-16	33	-2	-20	7	21
GRT3{1}	-28	-9	-16	33	-2	-20	7	21
GRT4{1}	-13	-6	-14	20	-2	-20	6	21
GRT5{1}	-93	-32	-31	103	1	-15	21	26

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

A28	- Gravity{1}	-12	0	-44	45	0	15	-1	15
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	2	-3	1	4	0	-1	0	1
	Thermal 2{1}	-16	-8	-4	18	-2	5	-3	6
	Thermal 3{1}	-16	-8	-4	18	-1	4	-3	5
	Thermal 4{1}	-1	-5	-1	6	-2	1	-1	2
	Thermal 5{1}	-81	-31	-19	89	1	28	-18	33
	GRT1{1}	-10	-4	-43	44	0	14	-1	15
	GRT2{1}	-28	-8	-47	56	-2	20	-3	20
	GRT3{1}	-28	-9	-47	56	-2	20	-3	20
	GRT4{1}	-13	-6	-45	47	-2	16	-1	17
GRT5{1}	-93	-32	-62	117	1	44	-19	47	
A28	+ Gravity{1}	-9	1	34	35	0	12	0	12
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	1	1	2	1	-1	0	1
	Thermal 2{1}	-5	-1	-1	6	-1	3	1	3
	Thermal 3{1}	-5	-1	-1	5	0	3	0	3
	Thermal 4{1}	0	-1	0	1	-1	0	0	1
	Thermal 5{1}	-30	24	21	44	5	19	-3	20

		DVI_B_LINE_REV0.OUT							
	GRT1{1}	-8	3	35	36	1	12	-1	12
	GRT2{1}	-15	0	33	36	-1	15	0	15
	GRT3{1}	-15	0	33	36	0	15	0	15
	GRT4{1}	-10	0	34	35	-1	13	0	13
	GRT5{1}	-40	25	54	72	5	31	-3	32
A29 N	Gravity{1}	-9	1	30	32	0	7	0	7
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	1	1	2	1	-1	0	1
	Thermal 2{1}	-5	-1	-1	6	-1	3	0	3
	Thermal 3{1}	-5	-1	-1	5	0	3	0	3
	Thermal 4{1}	0	-1	0	1	-1	1	0	1
	Thermal 5{1}	-30	24	21	44	5	16	1	17
	GRT1{1}	-8	3	31	32	1	6	0	7
	GRT2{1}	-15	0	29	32	-1	10	0	10
	GRT3{1}	-15	0	29	32	0	10	0	10
	GRT4{1}	-10	0	30	31	-1	8	0	8
	GRT5{1}	-40	25	51	69	5	23	1	24
A29 F	Gravity{1}	-9	1	29	31	0	7	0	7
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	1	1	2	1	-1	0	1
	Thermal 2{1}	-5	-1	-1	6	-1	3	0	3
	Thermal 3{1}	-5	-1	-1	5	0	3	0	3
	Thermal 4{1}	0	-1	0	1	-1	1	0	1
	Thermal 5{1}	-30	24	21	44	5	15	1	16
	GRT1{1}	-8	3	30	31	1	6	0	6
	GRT2{1}	-15	0	28	32	-1	9	0	9
	GRT3{1}	-15	0	28	32	0	9	0	9
	GRT4{1}	-10	0	29	31	-1	7	0	7
	GRT5{1}	-40	25	50	68	5	21	1	22

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DVI_B_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A46	Gravity{1}	-9	1	29	31	0	7	0	7

		DVI_B_LINE_REV0.OUT							
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	1	1	2	1	-1	0	1
	Thermal 2{1}	-5	-1	-1	6	-1	3	0	3
	Thermal 3{1}	-5	-1	-1	5	0	3	0	3
	Thermal 4{1}	0	-1	0	1	-1	1	0	1
	Thermal 5{1}	-30	24	21	44	5	15	1	16
	GRT1{1}	-8	3	30	31	1	6	0	6
	GRT2{1}	-15	0	28	32	-1	9	0	9
	GRT3{1}	-15	0	28	32	0	9	0	9
	GRT4{1}	-10	0	29	31	-1	7	0	7
	GRT5{1}	-40	25	50	68	5	21	1	22
A45	Gravity{1}	-9	1	28	30	0	6	0	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	1	1	2	1	-1	0	1
	Thermal 2{1}	-5	-1	-1	6	-1	3	0	3
	Thermal 3{1}	-5	-1	-1	5	0	2	0	2
	Thermal 4{1}	0	-1	0	1	-1	1	0	1
	Thermal 5{1}	-30	24	21	44	4	14	1	14
	GRT1{1}	-8	3	29	31	1	5	0	6
	GRT2{1}	-15	0	27	31	-1	9	0	9
	GRT3{1}	-15	0	27	31	0	9	0	9
	GRT4{1}	-10	0	28	30	-1	7	0	7
	GRT5{1}	-40	25	49	68	4	20	1	20
A68 -	Gravity{1}	-9	1	14	17	-1	-1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	1	1	2	0	0	0	0
	Thermal 2{1}	-5	-1	-1	6	0	-1	0	1
	Thermal 3{1}	-5	-1	-1	5	0	-1	0	2
	Thermal 4{1}	0	-1	0	1	0	0	0	0
	Thermal 5{1}	-30	24	21	44	-14	-9	1	17
	GRT1{1}	-8	3	15	17	-1	-1	0	1
	GRT2{1}	-15	0	13	20	0	-2	0	2
	GRT3{1}	-15	0	13	20	0	-2	0	2
	GRT4{1}	-10	0	14	17	-1	-1	0	1
	GRT5{1}	-40	25	35	58	-14	-10	1	18
A68 +	Gravity{1}	0	-1	14	14	-1	-1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	0	1	1	0	0	0	0
	Thermal 2{1}	2	0	-1	3	0	-1	0	1
	Thermal 3{1}	2	0	-1	2	0	-1	0	2
	Thermal 4{1}	0	0	0	0	0	0	0	0

	DVI_B_LINE_REV0.OUT							
Thermal 5{1}	12	-11	21	26	-14	-9	1	17
GRT1{1}	0	-1	15	15	-1	-1	0	1
GRT2{1}	2	-1	13	13	0	-2	0	2
GRT3{1}	2	-1	13	13	0	-2	0	2
GRT4{1}	0	-1	14	14	-1	-1	0	1
GRT5{1}	12	-12	35	38	-14	-10	1	18

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DVI_B_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

A35 N	Gravity{1}	0	-1	2	2	0	-1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	0	1	1	0	0	0	0
	Thermal 2{1}	2	0	-1	3	0	0	0	1
	Thermal 3{1}	2	0	-1	2	0	0	0	1
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	12	-11	21	26	-7	-2	1	7
	GRT1{1}	0	-1	3	3	0	-1	0	1
	GRT2{1}	2	-1	1	3	0	-1	0	1
	GRT3{1}	2	-1	1	3	0	-1	0	1
	GRT4{1}	0	-1	2	2	0	-1	0	1
	GRT5{1}	12	-12	22	28	-7	-3	1	7
A35 F	Gravity{1}	0	-1	1	2	0	-1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	0	1	1	0	0	0	0
	Thermal 2{1}	2	0	-1	3	0	0	0	0
	Thermal 3{1}	2	0	-1	2	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	12	-11	21	26	-6	-2	1	6
	GRT1{1}	0	-1	2	3	0	-1	0	1
	GRT2{1}	2	-1	0	3	0	-1	0	1
	GRT3{1}	2	-1	0	3	0	-1	0	1
	GRT4{1}	0	-1	1	2	0	-1	0	1
	GRT5{1}	12	-12	22	28	-6	-3	1	7

		DVI_B_LINE_REV0.OUT							
A54	Gravity{1}	0	-1	-4	4	0	-1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	0	1	1	0	0	0	0
	Thermal 2{1}	2	0	-1	3	0	0	0	0
	Thermal 3{1}	2	0	-1	2	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	12	-11	21	26	0	-2	-2	3
	GRT1{1}	0	-1	-3	3	0	-1	0	1
	GRT2{1}	2	-1	-5	6	0	-1	0	1
	GRT3{1}	2	-1	-5	6	0	-1	0	1
	GRT4{1}	0	-1	-4	4	0	-1	0	1
	GRT5{1}	12	-12	16	24	-1	-3	-2	3
A69	Gravity{1}	0	-1	-12	12	-3	-1	0	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	0	1	1	0	0	0	0
	Thermal 2{1}	2	0	-1	3	0	0	-1	1
	Thermal 3{1}	2	0	-1	2	0	0	-1	1
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	12	-11	21	26	8	-2	-7	10
	GRT1{1}	0	-1	-11	11	-3	-1	0	3
	GRT2{1}	2	-1	-13	13	-4	-1	-1	4
	GRT3{1}	2	-1	-13	13	-4	-1	-1	4
	GRT4{1}	0	-1	-12	12	-4	-1	0	4
	GRT5{1}	12	-12	9	19	4	-3	-7	8

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DVI_B_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A69	+ Gravity{1}	0	-1	16	16	-3	-1	0	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	-1	0	0	1	0	0	-1	1
	Thermal 3{1}	-1	0	0	1	0	0	-1	1
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	-9	-11	-7	16	8	-2	-7	10

DVI_B_LINE_REV0.OUT

	GRT1{1}	0	-1	15	15	-3	-1	0	3
	GRT2{1}	-1	-1	16	16	-4	-1	-1	4
	GRT3{1}	-1	-1	16	16	-4	-1	-1	4
	GRT4{1}	0	-1	16	16	-4	-1	0	4
	GRT5{1}	-9	-12	9	18	4	-3	-7	8
A36 N	Gravity{1}	0	-1	0	1	3	-1	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	-1	0	0	1	0	0	0	0
	Thermal 3{1}	-1	0	0	1	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	-9	-11	-7	16	3	-2	0	3
	GRT1{1}	0	-1	0	1	3	-1	0	3
	GRT2{1}	-1	-1	1	2	3	-1	0	3
	GRT3{1}	-1	-1	1	2	3	-1	0	3
	GRT4{1}	0	-1	0	1	3	-1	0	3
	GRT5{1}	-9	-12	-6	17	5	-3	1	6
A36 M	Gravity{1}	0	-1	0	1	3	-1	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	-1	0	0	1	0	0	0	0
	Thermal 3{1}	-1	0	0	1	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	-9	-11	-7	16	2	-2	0	3
	GRT1{1}	0	-1	0	1	3	-1	0	3
	GRT2{1}	-1	-1	1	2	3	-1	0	3
	GRT3{1}	-1	-1	0	2	3	-1	0	3
	GRT4{1}	0	-1	0	1	3	-1	0	3
	GRT5{1}	-9	-12	-7	17	5	-3	1	6
A36 F	Gravity{1}	0	-1	0	1	3	-1	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	-1	0	0	1	0	0	0	0
	Thermal 3{1}	-1	0	0	1	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	-9	-11	-7	16	2	-2	0	3
	GRT1{1}	0	-1	0	1	3	-1	0	3
	GRT2{1}	-1	-1	0	2	3	-1	0	3
	GRT3{1}	-1	-1	0	2	3	-1	0	3
	GRT4{1}	0	-1	0	1	3	-1	0	3
	GRT5{1}	-9	-12	-7	17	5	-3	1	6

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

A37 N	Gravity{1}	0	-1	-9	9	1	0	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	-1	0	0	1	0	0	0	0
	Thermal 3{1}	-1	0	0	1	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	-9	-11	-7	16	0	0	0	1
	GRT1{1}	0	-1	-9	9	1	1	0	2
	GRT2{1}	-1	-1	-8	8	1	0	0	1
	GRT3{1}	-1	-1	-8	9	1	0	0	1
	GRT4{1}	0	-1	-8	9	1	0	0	2
	GRT5{1}	-9	-12	-15	22	2	1	0	2
A37 F	Gravity{1}	0	-1	-9	9	1	1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	-1	0	0	1	0	0	0	0
	Thermal 3{1}	-1	0	0	1	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	-9	-11	-7	16	0	0	0	1
	GRT1{1}	0	-1	-9	9	1	1	0	1
	GRT2{1}	-1	-1	-9	9	1	0	0	1
	GRT3{1}	-1	-1	-9	9	1	0	0	1
	GRT4{1}	0	-1	-9	9	1	1	0	1
	GRT5{1}	-9	-12	-16	22	2	1	0	2
A38 -	Gravity{1}	0	-1	-15	15	-3	1	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	-1	0	0	1	0	0	0	0
	Thermal 3{1}	-1	0	0	1	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0

DVI_B_LINE_REV0.OUT

	Thermal 5{1}	-9	-11	-7	16	-2	0	3	3
	GRT1{1}	0	-1	-15	16	-3	1	0	3
	GRT2{1}	-1	-1	-15	15	-3	0	0	3
	GRT3{1}	-1	-1	-15	15	-3	0	0	3
	GRT4{1}	0	-1	-15	15	-3	1	0	3
	GRT5{1}	-9	-12	-22	27	-5	1	3	5
A38 +	Gravity{1}	0	-1	-22	22	-3	1	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	-1	0	0	1	0	0	0	0
	Thermal 3{1}	-1	0	0	1	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	-9	-11	-7	16	-2	0	3	3
	GRT1{1}	0	-1	-22	22	-3	1	0	3
	GRT2{1}	-1	-1	-22	22	-3	0	0	3
	GRT3{1}	-1	-1	-22	22	-3	0	0	3
	GRT4{1}	0	-1	-22	22	-3	1	0	3
	GRT5{1}	-9	-12	-29	33	-5	1	3	5

0

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RESULT PAGE 141

G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A38 M-	Gravity{1}	0	-1	-39	39	-4	1	0	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	-1	0	0	1	0	0	0	0
	Thermal 3{1}	-1	0	0	1	0	0	0	1
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	-9	-11	-7	16	-2	0	3	4
	GRT1{1}	0	-1	-40	40	-4	1	0	4
	GRT2{1}	-1	-1	-39	39	-4	0	1	4
	GRT3{1}	-1	-1	-39	39	-4	0	1	4
	GRT4{1}	0	-1	-39	39	-4	1	0	4
	GRT5{1}	-9	-12	-46	48	-7	1	3	7

DVI_B_LINE_REV0.OUT

A38 M+	Gravity{1}	1	-1	38	38	-4	1	0	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	1	0	0	1	0	0	0	0
	Thermal 3{1}	1	0	0	1	0	0	0	1
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	6	-11	24	27	-2	0	3	4
	GRT1{1}	1	-1	38	38	-4	1	0	4
	GRT2{1}	2	-1	38	38	-4	0	1	4
	GRT3{1}	2	-1	38	38	-4	0	1	4
	GRT4{1}	1	-1	38	38	-4	1	0	4
	GRT5{1}	7	-12	62	63	-7	1	3	7
CH06 -	Gravity{1}	1	-1	20	20	-3	1	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	1	0	0	1	0	0	0	0
	Thermal 3{1}	1	0	0	1	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	6	-11	24	27	-1	0	3	3
	GRT1{1}	1	-1	21	21	-3	1	0	3
	GRT2{1}	2	-1	21	21	-3	0	0	3
	GRT3{1}	2	-1	21	21	-3	0	0	3
	GRT4{1}	1	-1	20	20	-3	1	0	3
	GRT5{1}	7	-12	44	46	-4	1	3	5
CH06 +	Gravity{1}	1	-1	14	14	-3	1	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	1	0	0	1	0	0	0	0
	Thermal 3{1}	1	0	0	1	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	6	-11	24	27	-1	0	3	3
	GRT1{1}	1	-1	14	14	-3	1	0	3
	GRT2{1}	2	-1	14	14	-3	0	0	3
	GRT3{1}	2	-1	14	14	-3	0	0	3
	GRT4{1}	1	-1	14	14	-3	1	0	3
	GRT5{1}	7	-12	37	40	-4	1	3	5

DVI_B_LINE_REV0

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RESULT PAGE 142

G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
OR10 -	Gravity{1}	1	-1	11	11	-1	1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	1	0	0	1	0	0	0	0
	Thermal 3{1}	1	0	0	1	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	6	-11	24	27	2	0	2	3
	GRT1{1}	1	-1	11	11	-1	1	0	1
	GRT2{1}	2	-1	11	11	-1	0	0	1
	GRT3{1}	2	-1	11	11	-1	0	0	1
	GRT4{1}	1	-1	11	11	-1	1	0	1
	GRT5{1}	7	-12	35	38	1	1	2	2
OR10 +	Gravity{1}	1	-1	-3	3	-1	1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	1	0	0	1	0	0	0	0
	Thermal 3{1}	1	0	0	1	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	6	-11	24	27	2	0	2	3
	GRT1{1}	1	-1	-3	3	-1	1	0	1
	GRT2{1}	2	-1	-3	3	-1	0	0	1
	GRT3{1}	2	-1	-3	3	-1	0	0	1
	GRT4{1}	1	-1	-3	3	-1	1	0	1
	GRT5{1}	7	-12	21	25	1	1	2	2
A39 -	Gravity{1}	1	-1	-10	11	-4	1	-1	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	1	0	0	1	0	0	0	0
	Thermal 3{1}	1	0	0	1	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	6	-11	24	27	12	0	0	12
	GRT1{1}	1	-1	-10	10	-4	1	-1	4
	GRT2{1}	2	-1	-10	11	-4	0	0	4
	GRT3{1}	2	-1	-10	11	-4	0	0	4
	GRT4{1}	1	-1	-10	11	-4	1	-1	4

		DVI_B_LINE_REV0.OUT								
		7	-12	13	19	8	1	-1	8	
A39	+	GRT5{1}								
		Gravity{1}	1	-1	-17	17	-4	1	-1	4
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	0	0	0	0	0	0	0	0
		Thermal 2{1}	1	0	0	1	0	0	0	0
		Thermal 3{1}	1	0	0	1	0	0	0	0
		Thermal 4{1}	0	0	0	0	0	0	0	0
		Thermal 5{1}	6	-11	24	27	12	0	0	12
		GRT1{1}	1	-1	-17	17	-4	1	-1	4
		GRT2{1}	2	-1	-17	17	-4	0	0	4
		GRT3{1}	2	-1	-17	17	-4	0	0	4
		GRT4{1}	1	-1	-17	17	-4	1	-1	4
		GRT5{1}	7	-12	7	15	8	1	-1	8

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DVI_B_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A39 M-	Gravity{1}	1	-1	-33	33	-5	1	-1	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	1	0	0	1	0	0	0	0
	Thermal 3{1}	1	0	0	1	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	6	-11	24	27	13	0	-1	13
	GRT1{1}	1	-1	-33	33	-6	1	-1	6
	GRT2{1}	2	-1	-33	33	-5	0	-1	5
	GRT3{1}	2	-1	-33	33	-5	0	-1	5
	GRT4{1}	1	-1	-33	33	-5	1	-1	6
	GRT5{1}	7	-12	-9	17	8	1	-1	8
A39 M+	Gravity{1}	0	-1	38	38	-5	1	-1	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0

DVI_B_LINE_REV0.OUT								
Thermal 4{1}	0	0	0	0	0	0	0	0
Thermal 5{1}	0	-11	-17	20	13	0	-1	13
GRT1{1}	0	-1	38	38	-6	1	-1	6
GRT2{1}	0	-1	38	38	-5	0	-1	5
GRT3{1}	0	-1	38	38	-5	0	-1	5
GRT4{1}	0	-1	38	38	-5	1	-1	6
GRT5{1}	-1	-12	21	25	8	1	-1	8
IV08 - Gravity{1}	0	-1	22	22	-3	1	-1	3
Hydrotest{1}	0	0	0	0	0	0	0	0
Thermal 1{1}	0	0	0	0	0	0	0	0
Thermal 2{1}	0	0	0	0	0	0	0	0
Thermal 3{1}	0	0	0	0	0	0	0	0
Thermal 4{1}	0	0	0	0	0	0	0	0
Thermal 5{1}	0	-11	-17	20	12	0	-1	12
GRT1{1}	0	-1	22	22	-3	1	-1	3
GRT2{1}	0	-1	22	22	-3	0	0	3
GRT3{1}	0	-1	22	22	-3	0	0	3
GRT4{1}	0	-1	22	22	-3	1	-1	3
GRT5{1}	-1	-12	6	14	9	1	-1	9
IV08 + Gravity{1}	0	-1	16	16	-3	1	-1	3
Hydrotest{1}	0	0	0	0	0	0	0	0
Thermal 1{1}	0	0	0	0	0	0	0	0
Thermal 2{1}	0	0	0	0	0	0	0	0
Thermal 3{1}	0	0	0	0	0	0	0	0
Thermal 4{1}	0	0	0	0	0	0	0	0
Thermal 5{1}	0	-11	-17	20	12	0	-1	12
GRT1{1}	0	-1	16	16	-3	1	-1	3
GRT2{1}	0	-1	15	15	-3	0	0	3
GRT3{1}	0	-1	15	15	-3	0	0	3
GRT4{1}	0	-1	15	16	-3	1	-1	3
GRT5{1}	-1	-12	-1	12	9	1	-1	9

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DVI_B_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result

DVI_B_LINE_REV0.OUT

A40 N	Gravity{1}	0	-1	-13	13	-1	1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	-11	-17	20	-12	0	0	12
	GRT1{1}	0	-1	-13	13	-1	1	0	1
	GRT2{1}	0	-1	-13	13	-2	0	0	2
	GRT3{1}	0	-1	-13	13	-2	0	0	2
	GRT4{1}	0	-1	-13	13	-1	1	0	2
	GRT5{1}	-1	-12	-29	32	-14	1	0	14
A40 F	Gravity{1}	0	-1	-13	13	-2	1	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	-11	-17	20	-12	0	0	12
	GRT1{1}	0	-1	-13	13	-2	1	0	2
	GRT2{1}	0	-1	-14	14	-2	0	0	2
	GRT3{1}	0	-1	-14	14	-2	0	0	2
	GRT4{1}	0	-1	-13	14	-2	0	0	2
	GRT5{1}	-1	-12	-30	32	-14	1	0	14
A75 -	Gravity{1}	0	-1	-42	42	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	-11	-17	20	4	0	0	4
	GRT1{1}	0	-1	-42	42	0	0	0	0
	GRT2{1}	0	-1	-42	42	0	0	0	0
	GRT3{1}	0	-1	-42	42	0	0	0	0
	GRT4{1}	0	-1	-42	42	0	0	0	0
	GRT5{1}	-1	-12	-58	60	4	0	0	4
A75 +	Gravity{1}	0	0	-42	42	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0

	DVI_B_LINE_REV0.OUT							
Thermal 3{1}	0	0	0	0	0	0	0	0
Thermal 4{1}	0	0	0	0	0	0	0	0
Thermal 5{1}	0	1	-17	17	4	0	0	4
GRT1{1}	0	0	-42	42	0	0	0	0
GRT2{1}	0	0	-42	42	0	0	0	0
GRT3{1}	0	0	-42	42	0	0	0	0
GRT4{1}	0	0	-42	42	0	0	0	0
GRT5{1}	0	1	-58	58	4	0	0	4

0

DVI_B_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A41 N	Gravity{1}	0	0	-147	147	0	1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	1	-17	17	-2	0	0	2
	GRT1{1}	0	0	-147	147	0	1	0	1
	GRT2{1}	0	0	-147	147	0	1	0	1
	GRT3{1}	0	0	-147	147	0	1	0	1
	GRT4{1}	0	0	-147	147	0	1	0	1
	GRT5{1}	0	1	-164	164	-2	1	0	2
A41 F	Gravity{1}	0	0	-148	148	0	-2	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	1	-17	17	-2	0	0	2
	GRT1{1}	0	0	-148	148	0	-2	0	2
	GRT2{1}	0	0	-148	148	0	-2	0	2
	GRT3{1}	0	0	-148	148	0	-2	0	2
	GRT4{1}	0	0	-148	148	0	-2	0	2

DVI_B_LINE_REV0.OUT

	GRT5{1}	0	1	-164	164	-2	-2	0	3
A73	- Gravity{1}	0	0	-149	149	0	-11	0	11
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	1	-17	17	-2	-1	0	2
	GRT1{1}	0	0	-149	149	0	-11	0	11
	GRT2{1}	0	0	-149	149	0	-11	0	11
	GRT3{1}	0	0	-149	149	0	-11	0	11
	GRT4{1}	0	0	-149	149	0	-11	0	11
	GRT5{1}	0	1	-165	165	-2	-12	0	12
A73	+ Gravity{1}	0	0	106	106	0	-11	0	11
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	1	-17	17	-2	-1	0	2
	GRT1{1}	0	0	106	106	0	-11	0	11
	GRT2{1}	0	0	106	106	0	-11	0	11
	GRT3{1}	0	0	106	106	0	-11	0	11
	GRT4{1}	0	0	106	106	0	-11	0	11
	GRT5{1}	0	1	90	90	-2	-12	0	12

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A42	Gravity{1}	0	0	105	105	0	-3	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0

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	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	1	-17	17	-2	-2	0	3
	GRT1{1}	0	0	105	105	0	-3	0	3
	GRT2{1}	0	0	105	105	0	-3	0	3
	GRT3{1}	0	0	105	105	0	-3	0	3
	GRT4{1}	0	0	105	105	0	-3	0	3
	GRT5{1}	0	1	88	88	-2	-5	0	5
A72	Gravity{1}	0	0	103	103	0	3	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	1	-17	17	-2	-3	0	4
	GRT1{1}	0	0	103	103	0	3	0	3
	GRT2{1}	0	0	103	103	0	3	0	3
	GRT3{1}	0	0	103	103	0	3	0	3
	GRT4{1}	0	0	103	103	0	3	0	3
	GRT5{1}	0	1	86	86	-2	0	0	2
A44	Gravity{1}	0	0	94	94	0	18	0	18
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	1	-17	17	-2	-6	0	6
	GRT1{1}	0	0	94	94	0	18	0	18
	GRT2{1}	0	0	94	94	0	18	0	18
	GRT3{1}	0	0	94	94	0	18	0	18
	GRT4{1}	0	0	94	94	0	18	0	18
	GRT5{1}	0	1	78	78	-2	12	0	12

*** Segment A end ***

*** Segment B begin ***

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GLOBAL FORCES & MOMENTS

DVI_B_LINE_REV0.OUT

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

A07	Gravity{1}	-2	14	4	15	-1	-1	-2	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	24	7	46	52	-2	15	11	18
	Thermal 2{1}	40	29	49	70	-6	18	11	22
	Thermal 3{1}	40	29	50	70	-6	18	11	22
	Thermal 4{1}	19	-1	34	39	0	11	11	16
	Thermal 5{1}	27	25	28	47	-5	11	6	13
	GRT1{1}	22	21	50	58	-3	13	9	17
	GRT2{1}	37	43	53	78	-6	17	9	20
	GRT3{1}	37	43	54	78	-6	17	10	20
	GRT4{1}	16	13	38	44	-1	10	9	14
	GRT5{1}	25	40	32	57	-5	10	4	12
B01	Gravity{1}	-2	14	3	15	-1	-1	-1	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	24	7	46	52	-2	13	11	18
	Thermal 2{1}	40	29	49	70	-6	17	12	21
	Thermal 3{1}	40	29	50	70	-6	17	12	21
	Thermal 4{1}	19	-1	34	39	0	10	11	15
	Thermal 5{1}	27	25	28	47	-5	10	6	13
	GRT1{1}	22	21	49	58	-3	12	10	16
	GRT2{1}	37	43	52	78	-6	15	11	20
	GRT3{1}	37	43	53	78	-6	15	11	20
	GRT4{1}	16	13	37	43	-1	9	10	13
	GRT5{1}	25	40	31	56	-5	9	5	11
B02	Gravity{1}	-2	14	-15	21	-1	2	7	7
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	24	7	46	52	-2	-12	15	19
	Thermal 2{1}	40	29	49	70	-6	-10	28	30
	Thermal 3{1}	40	29	50	70	-6	-10	27	30
	Thermal 4{1}	19	-1	34	39	0	-9	10	13
	Thermal 5{1}	27	25	28	47	-5	-5	20	21
	GRT1{1}	22	21	31	44	-3	-10	21	24
	GRT2{1}	37	43	35	67	-6	-8	34	36
	GRT3{1}	37	43	35	67	-6	-9	34	36
	GRT4{1}	16	13	20	29	-1	-7	17	18
	GRT5{1}	25	40	13	49	-5	-3	27	27
B03	Gravity{1}	-2	14	-16	22	-1	2	7	8
	Hydrotest{1}	0	0	0	0	0	0	0	0

Thermal 1{1}	24	7	46	52	-2	-13	15	20
Thermal 2{1}	40	29	49	70	-6	-12	29	32
Thermal 3{1}	40	29	50	70	-6	-12	29	32
Thermal 4{1}	19	-1	34	39	0	-10	10	14
Thermal 5{1}	27	25	28	47	-5	-6	21	22
GRT1{1}	22	21	30	43	-3	-11	22	25
GRT2{1}	37	43	33	66	-6	-10	36	38
GRT3{1}	37	43	34	66	-6	-10	36	38
GRT4{1}	16	13	18	28	-1	-7	18	19
GRT5{1}	25	40	12	48	-5	-4	28	29

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result
B04	Gravity{1}	-2	14	-20	24	-1	4	8	9
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	24	7	46	52	-2	-17	15	23
	Thermal 2{1}	40	29	49	70	-6	-17	31	36
	Thermal 3{1}	40	29	50	70	-6	-17	31	36
	Thermal 4{1}	19	-1	34	39	0	-13	10	16
	Thermal 5{1}	27	25	28	47	-5	-9	23	25
	GRT1{1}	22	21	26	40	-3	-13	24	27
	GRT2{1}	37	43	30	64	-6	-12	40	42
	GRT3{1}	37	43	30	64	-6	-13	39	42
	GRT4{1}	16	13	15	26	-1	-9	19	21
	GRT5{1}	25	40	8	48	-5	-5	32	32

A08	Gravity{1}	4	-13	-255	256	12	0	2	12
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	39	12	-62	75	-10	17	10	22
	Thermal 2{1}	52	20	-77	95	-15	23	11	30
	Thermal 3{1}	52	21	-77	95	-15	23	11	30
	Thermal 4{1}	32	-3	-62	70	2	12	11	17

		DVI_B_LINE_REV0.OUT							
	Thermal 5{1}	33	15	-48	60	-11	14	6	19
	GRT1{1}	43	-1	-318	321	2	17	12	21
	GRT2{1}	56	7	-333	337	-3	23	13	27
	GRT3{1}	56	7	-332	337	-3	23	13	27
	GRT4{1}	37	-16	-317	320	14	12	13	23
	GRT5{1}	37	2	-303	305	1	14	8	17
C01	Gravity{1}	4	-13	-256	257	12	0	2	12
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	39	12	-62	75	-9	16	10	21
	Thermal 2{1}	52	20	-77	95	-14	22	11	28
	Thermal 3{1}	52	21	-77	95	-15	22	11	29
	Thermal 4{1}	32	-3	-62	70	2	12	11	16
	Thermal 5{1}	33	15	-48	60	-10	14	6	18
	GRT1{1}	43	-1	-319	322	2	16	12	20
	GRT2{1}	56	7	-333	338	-3	21	13	25
	GRT3{1}	56	7	-333	338	-3	22	13	26
	GRT4{1}	37	-16	-318	320	14	11	13	22
	GRT5{1}	37	2	-304	306	1	13	8	16

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
C02 N	Gravity{1}	4	-13	-286	286	0	-4	2	5
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	39	12	-62	75	1	-19	10	21
	Thermal 2{1}	52	20	-77	95	4	-25	11	28
	Thermal 3{1}	52	21	-77	95	4	-25	11	28
	Thermal 4{1}	32	-3	-62	70	-1	-18	11	21
	Thermal 5{1}	33	15	-48	60	3	-16	6	17
	GRT1{1}	43	-1	-348	351	1	-23	12	26
	GRT2{1}	56	7	-363	367	4	-29	13	32
	GRT3{1}	56	7	-363	367	4	-29	13	32
	GRT4{1}	37	-16	-347	350	-1	-22	13	25
	GRT5{1}	37	2	-333	335	3	-20	8	22

		DVI_B_LINE_REV0.OUT							
C02 M	Gravity{1}	4	-13	-286	286	0	-3	2	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	39	12	-62	75	2	-19	10	22
	Thermal 2{1}	52	20	-77	95	4	-25	11	28
	Thermal 3{1}	52	21	-77	95	4	-25	11	28
	Thermal 4{1}	32	-3	-62	70	-1	-18	11	21
	Thermal 5{1}	33	15	-48	60	4	-16	6	18
	GRT1{1}	43	-1	-349	351	1	-22	12	25
	GRT2{1}	56	7	-363	368	4	-28	13	31
	GRT3{1}	56	7	-363	367	4	-28	13	31
	GRT4{1}	37	-16	-348	350	-1	-20	13	24
	GRT5{1}	37	2	-334	336	3	-18	8	20
C02 F	Gravity{1}	4	-13	-287	287	-1	1	2	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	39	12	-62	75	2	-19	10	21
	Thermal 2{1}	52	20	-77	95	4	-24	12	27
	Thermal 3{1}	52	21	-77	95	4	-24	12	27
	Thermal 4{1}	32	-3	-62	70	-1	-17	11	20
	Thermal 5{1}	33	15	-48	60	4	-15	7	17
	GRT1{1}	43	-1	-349	352	1	-17	12	21
	GRT2{1}	56	7	-364	368	4	-23	13	27
	GRT3{1}	56	7	-364	368	4	-23	13	27
	GRT4{1}	37	-16	-348	351	-1	-16	13	20
	GRT5{1}	37	2	-334	336	3	-14	8	17
C06 -	Gravity{1}	4	-13	-288	288	-1	10	1	10
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	39	12	-62	75	2	-17	10	20
	Thermal 2{1}	52	20	-77	95	4	-22	12	26
	Thermal 3{1}	52	21	-77	95	4	-22	12	26
	Thermal 4{1}	32	-3	-62	70	-1	-15	11	19
	Thermal 5{1}	33	15	-48	60	4	-14	7	16
	GRT1{1}	43	-1	-350	353	1	-7	12	13
	GRT2{1}	56	7	-365	369	4	-12	14	18
	GRT3{1}	56	7	-365	369	4	-12	14	18
	GRT4{1}	37	-16	-349	352	-1	-5	12	13
	GRT5{1}	37	2	-335	337	3	-4	8	10

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
C06 +	Gravity{1}	4	-13	30	33	-1	10	1	10
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	39	12	-62	75	2	-17	10	20
	Thermal 2{1}	52	20	-77	95	4	-22	12	26
	Thermal 3{1}	52	21	-77	95	4	-22	12	26
	Thermal 4{1}	32	-3	-62	70	-1	-15	11	19
	Thermal 5{1}	33	15	-48	60	4	-14	7	16
	GRT1{1}	43	-1	-32	54	1	-7	12	13
	GRT2{1}	56	7	-47	73	4	-12	14	18
	GRT3{1}	56	7	-47	73	4	-12	14	18
	GRT4{1}	37	-16	-31	51	-1	-5	12	13
	GRT5{1}	37	2	-17	41	3	-4	8	10
C03	Gravity{1}	4	-13	10	17	-1	-2	-7	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	39	12	-62	75	2	23	18	29
	Thermal 2{1}	52	20	-77	95	4	27	25	37
	Thermal 3{1}	52	21	-77	95	4	27	25	37
	Thermal 4{1}	32	-3	-62	70	-1	24	9	25
	Thermal 5{1}	33	15	-48	60	4	16	17	24
	GRT1{1}	43	-1	-53	68	1	20	11	23
	GRT2{1}	56	7	-67	88	4	24	18	31
	GRT3{1}	56	7	-67	88	4	24	18	31
	GRT4{1}	37	-16	-52	66	-1	21	2	21
	GRT5{1}	37	2	-38	53	3	14	10	17
C04	Gravity{1}	4	-13	8	16	-1	-3	-8	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	39	12	-62	75	2	25	18	31
	Thermal 2{1}	52	20	-77	95	4	30	26	40
	Thermal 3{1}	52	21	-77	95	4	30	26	40
	Thermal 4{1}	32	-3	-62	70	-1	26	9	28
	Thermal 5{1}	33	15	-48	60	4	18	17	25
	GRT1{1}	43	-1	-54	69	1	22	11	25
	GRT2{1}	56	7	-69	89	4	27	18	33
	GRT3{1}	56	7	-69	89	4	27	19	33
	GRT4{1}	37	-16	-53	67	-1	23	1	23
	GRT5{1}	37	2	-39	54	3	15	10	18

C05	Gravity{1}	4	-13	5	15	-1	-3	-9	9
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	39	12	-62	75	2	31	19	36
	Thermal 2{1}	52	20	-77	95	4	36	28	46
	Thermal 3{1}	52	21	-77	95	4	36	28	46
	Thermal 4{1}	32	-3	-62	70	-1	32	9	33
	Thermal 5{1}	33	15	-48	60	4	22	19	29
	GRT1{1}	43	-1	-58	72	1	27	11	29
	GRT2{1}	56	7	-72	92	4	33	19	38
	GRT3{1}	56	7	-72	92	4	33	19	38
	GRT4{1}	37	-16	-57	70	-1	28	0	28
	GRT5{1}	37	2	-43	57	3	19	10	21

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[illegible]

A10	Gravity{1}	-2	0	14	14	0	2	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	96	-8	0	97	-1	4	18	18
	Thermal 2{1}	-16	-44	145	153	-11	19	-9	24
	Thermal 3{1}	-16	-47	149	157	-12	20	-8	25
	Thermal 4{1}	221	56	145	270	-11	20	30	37
	Thermal 5{1}	-67	-36	151	169	-12	18	-20	30
	GRT1{1}	95	-8	14	96	-1	6	17	18
	GRT2{1}	-18	-44	160	167	-11	21	-10	26
	GRT3{1}	-17	-47	163	171	-12	22	-9	26
	GRT4{1}	219	56	159	277	-11	21	29	38
	GRT5{1}	-68	-36	166	183	-12	20	-20	31
D01	Gravity{1}	-2	0	13	13	1	2	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	96	-8	0	97	-1	4	15	15
	Thermal 2{1}	-16	-44	145	153	-7	16	-10	20

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Thermal 3{1}	-16	-47	149	157	-8	16	-9	20
Thermal 4{1}	221	56	145	270	-7	16	25	31
Thermal 5{1}	-67	-36	151	169	-8	14	-19	25
GRT1{1}	95	-8	13	96	0	6	14	16
GRT2{1}	-18	-44	158	165	-7	17	-10	21
GRT3{1}	-17	-47	162	169	-8	18	-9	21
GRT4{1}	219	56	158	276	-7	17	25	31
GRT5{1}	-68	-36	164	182	-8	16	-19	26

*** Segment D end ***

*** Segment E begin ***

A13	Gravity{1}	-2	-5	23	24	4	-7	1	9
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-116	-41	5	123	0	0	-12	12
	Thermal 2{1}	-67	-48	27	86	9	-27	-2	29
	Thermal 3{1}	-64	-42	22	80	10	-30	-4	32
	Thermal 4{1}	-220	-96	28	242	8	-27	-29	41
	Thermal 5{1}	-23	-49	19	58	9	-31	7	33
	GRT1{1}	-118	-46	28	129	5	-8	-11	15
	GRT2{1}	-68	-53	50	100	13	-35	-1	37
	GRT3{1}	-66	-47	45	92	14	-37	-3	40
	GRT4{1}	-222	-101	51	249	13	-35	-28	46
	GRT5{1}	-25	-54	42	73	13	-38	8	41

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DVI_B_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
E01	Gravity{1}	-2	-5	22	22	5	-8	1	9
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-116	-41	5	123	0	0	-10	10
	Thermal 2{1}	-67	-48	27	86	10	-28	-1	30
	Thermal 3{1}	-64	-42	22	80	10	-31	-3	32
	Thermal 4{1}	-220	-96	28	242	9	-28	-26	39
	Thermal 5{1}	-23	-49	19	58	10	-31	7	33
	GRT1{1}	-118	-46	27	129	5	-8	-9	14

	DVI_B_LINE_REV0.OUT							
GRT2{1}	-68	-53	49	99	15	-36	-1	39
GRT3{1}	-66	-47	43	92	15	-39	-2	42
GRT4{1}	-222	-101	50	249	14	-36	-25	46
GRT5{1}	-25	-54	41	72	15	-39	7	43

*** Segment E end ***

*** Segment F begin ***

A32	Gravity{1}	0	2	19	19	4	-1	0	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-4	22	11	25	-1	1	-2	3
	Thermal 2{1}	-5	33	14	36	-5	1	-3	6
	Thermal 3{1}	-14	29	37	49	-2	1	1	2
	Thermal 4{1}	-5	29	12	32	-4	1	-4	6
	Thermal 5{1}	-8	17	17	26	-3	0	2	4
	GRT1{1}	-4	24	29	38	2	0	-3	4
	GRT2{1}	-5	35	33	48	-1	0	-3	3
	GRT3{1}	-14	32	56	66	2	0	1	2
	GRT4{1}	-4	31	31	44	-1	0	-4	4
	GRT5{1}	-7	20	36	42	0	-1	1	2
F01	Gravity{1}	0	2	18	18	3	-1	0	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-4	22	11	25	-1	1	-2	3
	Thermal 2{1}	-5	33	14	36	-5	2	-3	6
	Thermal 3{1}	-14	29	37	49	-2	1	1	2
	Thermal 4{1}	-5	29	12	32	-4	1	-4	6
	Thermal 5{1}	-8	17	17	26	-3	0	2	4
	GRT1{1}	-4	24	29	38	2	0	-3	3
	GRT2{1}	-5	35	32	48	-1	0	-3	4
	GRT3{1}	-14	32	55	65	1	0	0	1
	GRT4{1}	-4	31	30	44	-1	0	-4	5
	GRT5{1}	-7	20	35	41	0	-1	1	2

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DVI_B_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result

		DVI_B_LINE_REV0.OUT							
		0	2	-3	4	-1	-1	0	2
F02 N	Gravity{1}	0	2	-3	4	-1	-1	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-4	22	11	25	0	3	-5	6
	Thermal 2{1}	-5	33	14	36	-1	4	-6	7
	Thermal 3{1}	-14	29	37	49	-16	7	-9	20
	Thermal 4{1}	-5	29	12	32	-1	3	-7	8
	Thermal 5{1}	-8	17	17	26	-9	3	-4	10
	GRT1{1}	-4	24	7	26	-1	1	-6	6
	GRT2{1}	-5	35	11	37	-1	2	-7	7
	GRT3{1}	-14	32	34	48	-17	6	-9	20
	GRT4{1}	-4	31	9	33	-2	2	-8	8
	GRT5{1}	-7	20	14	25	-9	2	-4	10
F02 M	Gravity{1}	0	2	-4	5	-1	-1	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-4	22	11	25	0	3	-5	6
	Thermal 2{1}	-5	33	14	36	-1	4	-6	7
	Thermal 3{1}	-14	29	37	49	-16	7	-9	20
	Thermal 4{1}	-5	29	12	32	-1	3	-7	8
	Thermal 5{1}	-8	17	17	26	-9	3	-4	10
	GRT1{1}	-4	24	7	26	-1	1	-6	6
	GRT2{1}	-5	35	10	37	-1	2	-7	7
	GRT3{1}	-14	32	33	48	-17	5	-9	20
	GRT4{1}	-4	31	8	33	-1	2	-8	8
	GRT5{1}	-7	20	14	25	-9	2	-4	10
F02 F	Gravity{1}	0	2	-4	5	-1	-1	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-4	22	11	25	0	3	-5	6
	Thermal 2{1}	-5	33	14	36	-1	3	-6	7
	Thermal 3{1}	-14	29	37	49	-16	6	-8	19
	Thermal 4{1}	-5	29	12	32	-1	3	-7	7
	Thermal 5{1}	-8	17	17	26	-9	3	-3	10
	GRT1{1}	-4	24	7	25	-1	1	-5	5
	GRT2{1}	-5	35	10	37	-1	2	-6	7
	GRT3{1}	-14	32	33	48	-17	5	-9	20
	GRT4{1}	-4	31	8	33	-1	1	-7	7
	GRT5{1}	-7	20	13	25	-9	2	-4	10
F03 -	Gravity{1}	0	2	-24	24	-1	10	1	10
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-4	22	11	25	0	-6	12	13
	Thermal 2{1}	-5	33	14	36	-1	-7	20	21
	Thermal 3{1}	-14	29	37	49	-16	-23	14	31

	DVI_B_LINE_REV0.OUT							
Thermal 4{1}	-5	29	12	32	-1	-7	16	17
Thermal 5{1}	-8	17	17	26	-9	-11	10	17
GRT1{1}	-4	24	-14	28	-1	4	14	14
GRT2{1}	-5	35	-10	37	-1	2	21	21
GRT3{1}	-14	32	13	37	-17	-13	16	27
GRT4{1}	-4	31	-12	34	-1	3	17	17
GRT5{1}	-7	20	-7	22	-9	-1	11	15

0

DVI_B_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
F03 +	Gravity{1}	0	2	-56	56	-1	10	1	10
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-4	22	11	25	0	-6	12	13
	Thermal 2{1}	-5	33	14	36	-1	-7	20	21
	Thermal 3{1}	-14	29	37	49	-16	-23	14	31
	Thermal 4{1}	-5	29	12	32	-1	-7	16	17
	Thermal 5{1}	-8	17	17	26	-9	-11	10	17
	GRT1{1}	-4	24	-45	51	-1	4	14	14
	GRT2{1}	-5	35	-42	55	-1	2	21	21
	GRT3{1}	-14	32	-18	39	-17	-13	16	27
	GRT4{1}	-4	31	-44	54	-1	3	17	17
	GRT5{1}	-7	20	-38	44	-9	-1	11	15
F03 M-	Gravity{1}	0	2	-98	98	-1	14	2	14
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-4	22	11	25	0	-6	13	15
	Thermal 2{1}	-5	33	14	36	-1	-8	22	23
	Thermal 3{1}	-14	29	37	49	-16	-25	16	34
	Thermal 4{1}	-5	29	12	32	-1	-7	17	19
	Thermal 5{1}	-8	17	17	26	-9	-12	11	18
	GRT1{1}	-4	24	-87	91	-1	8	15	17
	GRT2{1}	-5	35	-84	91	-1	6	23	24
	GRT3{1}	-14	32	-61	70	-17	-11	18	27
	GRT4{1}	-4	31	-86	92	-1	7	19	20
	GRT5{1}	-7	20	-81	83	-9	2	13	16

DVI_B_LINE_REV0.OUT

F03 M+	Gravity{1}	0	-2	134	134	-1	14	2	14
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-4	-20	-4	20	0	-6	13	15
	Thermal 2{1}	-5	-31	-5	32	-1	-8	22	23
	Thermal 3{1}	-14	2	-88	89	-16	-25	16	34
	Thermal 4{1}	-5	-25	-5	26	-1	-7	17	19
	Thermal 5{1}	-8	-3	-43	43	-9	-12	11	18
	GRT1{1}	-4	-22	130	132	-1	8	15	17
	GRT2{1}	-5	-33	128	132	-1	6	23	24
	GRT3{1}	-14	0	46	48	-17	-11	18	27
	GRT4{1}	-4	-27	129	132	-1	7	19	20
	GRT5{1}	-7	-5	91	91	-9	2	13	16
CH04 -	Gravity{1}	0	-2	91	91	-1	8	1	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-4	-20	-4	20	0	-6	12	14
	Thermal 2{1}	-5	-31	-5	32	-1	-8	20	22
	Thermal 3{1}	-14	2	-88	89	-16	-20	16	30
	Thermal 4{1}	-5	-25	-5	26	-1	-7	16	17
	Thermal 5{1}	-8	-3	-43	43	-9	-9	11	17
	GRT1{1}	-4	-22	88	90	-1	2	14	14
	GRT2{1}	-5	-33	86	92	-1	0	21	21
	GRT3{1}	-14	0	3	14	-17	-12	18	27
	GRT4{1}	-4	-27	86	91	-1	1	17	17
	GRT5{1}	-7	-5	48	49	-9	-1	12	16

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GLOBAL FORCES & MOMENTS

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
CH04 +	Gravity{1}	0	-2	60	60	-1	8	1	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-4	-20	-4	20	0	-6	12	14
	Thermal 2{1}	-5	-31	-5	32	-1	-8	20	22
	Thermal 3{1}	-14	2	-88	89	-16	-20	16	30
	Thermal 4{1}	-5	-25	-5	26	-1	-7	16	17

DVI_B_LINE_REV0.OUT

	Thermal 5{1}	-8	-3	-43	43	-9	-9	11	17
	GRT1{1}	-4	-22	56	60	-1	2	14	14
	GRT2{1}	-5	-33	54	64	-1	0	21	21
	GRT3{1}	-14	0	-28	31	-17	-12	18	27
	GRT4{1}	-4	-27	55	62	-1	1	17	17
	GRT5{1}	-7	-5	17	19	-9	-1	12	16
C016 -	Gravity{1}	0	-2	55	55	-1	-4	1	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-4	-20	-4	20	0	-5	8	10
	Thermal 2{1}	-5	-31	-5	32	-1	-7	14	15
	Thermal 3{1}	-14	2	-88	89	-16	-2	17	23
	Thermal 4{1}	-5	-25	-5	26	-1	-6	11	13
	Thermal 5{1}	-8	-3	-43	43	-9	-1	10	13
	GRT1{1}	-4	-22	51	56	-1	-9	9	13
	GRT2{1}	-5	-33	49	59	-1	-11	15	18
	GRT3{1}	-14	0	-33	36	-17	-6	18	25
	GRT4{1}	-4	-27	50	57	-1	-10	12	15
	GRT5{1}	-7	-5	12	15	-9	-4	11	15
C016 +	Gravity{1}	0	-2	-8	8	-1	-4	1	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-4	-20	-4	20	0	-5	8	10
	Thermal 2{1}	-5	-31	-5	32	-1	-7	14	15
	Thermal 3{1}	-14	2	-88	89	-16	-2	17	23
	Thermal 4{1}	-5	-25	-5	26	-1	-6	11	13
	Thermal 5{1}	-8	-3	-43	43	-9	-1	10	13
	GRT1{1}	-4	-22	-12	25	-1	-9	9	13
	GRT2{1}	-5	-33	-14	36	-1	-11	15	18
	GRT3{1}	-14	0	-96	97	-17	-6	18	25
	GRT4{1}	-4	-27	-13	31	-1	-10	12	15
	GRT5{1}	-7	-5	-51	52	-9	-4	11	15
F12 -	Gravity{1}	0	-2	-19	20	-1	2	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-4	-20	-4	20	0	-4	0	4
	Thermal 2{1}	-5	-31	-5	32	-1	-4	1	5
	Thermal 3{1}	-14	2	-88	89	-16	36	18	43
	Thermal 4{1}	-5	-25	-5	26	-1	-4	0	4
	Thermal 5{1}	-8	-3	-43	43	-9	18	9	22
	GRT1{1}	-4	-22	-23	32	-1	-1	0	2
	GRT2{1}	-5	-33	-25	42	-1	-2	0	3
	GRT3{1}	-14	0	-107	108	-17	38	18	46
	GRT4{1}	-4	-27	-24	37	-1	-2	0	2

DVI_B_LINE_REV0.OUT

GRT5{1} -7 -5 -62 63 -9 20 9 24

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DVI_B_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

F12 +	Gravity{1}	0	-2	-51	51	-1	2	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-4	-20	-4	20	0	-4	0	4
	Thermal 2{1}	-5	-31	-5	32	-1	-4	1	5
	Thermal 3{1}	-14	2	-88	89	-16	36	18	43
	Thermal 4{1}	-5	-25	-5	26	-1	-4	0	4
	Thermal 5{1}	-8	-3	-43	43	-9	18	9	22
	GRT1{1}	-4	-22	-54	59	-1	-1	0	2
	GRT2{1}	-5	-33	-56	65	-1	-2	0	3
	GRT3{1}	-14	0	-139	139	-17	38	18	46
	GRT4{1}	-4	-27	-56	62	-1	-2	0	2
	GRT5{1}	-7	-5	-93	94	-9	20	9	24
F12 M-	Gravity{1}	0	-2	-111	111	-1	13	0	13
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-4	-20	-4	20	0	-3	-3	4
	Thermal 2{1}	-5	-31	-5	32	-1	-4	-4	5
	Thermal 3{1}	-14	2	-88	89	-16	48	18	54
	Thermal 4{1}	-5	-25	-5	26	-1	-3	-3	5
	Thermal 5{1}	-8	-3	-43	43	-9	24	9	26
	GRT1{1}	-4	-22	-114	117	-1	10	-3	10
	GRT2{1}	-5	-33	-116	121	-1	9	-4	10
	GRT3{1}	-14	0	-199	199	-17	61	18	65
	GRT4{1}	-4	-27	-116	119	-1	10	-4	10
	GRT5{1}	-7	-5	-153	154	-9	36	8	39
F12 M+	Gravity{1}	0	1	108	108	-1	13	0	13
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-4	-1	2	4	0	-3	-3	4
	Thermal 2{1}	-5	-1	3	6	-1	-4	-4	5
	Thermal 3{1}	-14	-94	211	232	-16	48	18	54

DVI_B_LINE_REV0.OUT

	Thermal 4{1}	-5	-1	3	6	-1	-3	-3	5
	Thermal 5{1}	-8	-48	107	117	-9	24	9	26
	GRT1{1}	-4	0	110	110	-1	10	-3	10
	GRT2{1}	-5	0	111	111	-1	9	-4	10
	GRT3{1}	-14	-93	319	333	-17	61	18	65
	GRT4{1}	-4	0	112	112	-1	10	-4	10
	GRT5{1}	-7	-46	215	220	-9	36	8	39
F04 -	Gravity{1}	0	1	48	48	-1	3	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-4	-1	2	4	0	-3	-3	4
	Thermal 2{1}	-5	-1	3	6	-1	-4	-4	6
	Thermal 3{1}	-14	-94	211	232	-16	20	6	26
	Thermal 4{1}	-5	-1	3	6	-1	-4	-3	5
	Thermal 5{1}	-8	-48	107	117	-9	9	2	13
	GRT1{1}	-4	0	50	50	-1	-1	-3	3
	GRT2{1}	-5	0	51	52	-1	-2	-4	4
	GRT3{1}	-14	-93	260	276	-17	22	5	29
	GRT4{1}	-4	0	52	52	-1	-1	-3	4
	GRT5{1}	-7	-46	155	162	-9	12	2	15

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DVI_B_LINE_REV0

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RESULT PAGE 157

G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
F04 +	Gravity{1}	0	1	17	17	-1	3	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-4	-1	2	4	0	-3	-3	4
	Thermal 2{1}	-5	-1	3	6	-1	-4	-4	6
	Thermal 3{1}	-14	-94	211	232	-16	20	6	26
	Thermal 4{1}	-5	-1	3	6	-1	-4	-3	5
	Thermal 5{1}	-8	-48	107	117	-9	9	2	13
	GRT1{1}	-4	0	19	19	-1	-1	-3	3
	GRT2{1}	-5	0	20	21	-1	-2	-4	4
	GRT3{1}	-14	-93	228	247	-17	22	5	29
	GRT4{1}	-4	0	20	21	-1	-1	-3	4

		DVI_B_LINE_REV0.OUT							
		-7	-46	124	133	-9	12	2	15
F05 N	GRT5{1}								
	Gravity{1}	0	1	13	13	-1	0	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-4	-1	2	4	0	-4	-3	5
	Thermal 2{1}	-5	-1	3	6	-1	-5	-4	6
	Thermal 3{1}	-14	-94	211	232	-16	-13	-9	23
	Thermal 4{1}	-5	-1	3	6	-1	-4	-3	5
	Thermal 5{1}	-8	-48	107	117	-9	-7	-5	12
	GRT1{1}	-4	0	15	15	-1	-3	-3	5
	GRT2{1}	-5	0	16	17	-1	-4	-4	6
	GRT3{1}	-14	-93	224	243	-17	-12	-9	23
	GRT4{1}	-4	0	16	17	-1	-4	-3	5
	GRT5{1}	-7	-46	120	129	-9	-7	-5	13
F05 M	Gravity{1}	0	1	13	13	-1	0	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-4	-1	2	4	0	-4	-3	5
	Thermal 2{1}	-5	-1	3	6	0	-5	-4	6
	Thermal 3{1}	-14	-94	211	232	-16	-15	-10	24
	Thermal 4{1}	-5	-1	3	6	-1	-4	-3	5
	Thermal 5{1}	-8	-48	107	117	-8	-8	-6	13
	GRT1{1}	-4	0	14	15	-1	-4	-3	5
	GRT2{1}	-5	0	16	16	-1	-4	-4	6
	GRT3{1}	-14	-93	224	243	-17	-15	-10	25
	GRT4{1}	-4	0	16	16	-1	-4	-3	6
	GRT5{1}	-7	-46	120	128	-9	-8	-6	14
F05 F	Gravity{1}	0	1	12	12	-1	0	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-4	-1	2	4	0	-4	-3	5
	Thermal 2{1}	-5	-1	3	6	0	-5	-4	6
	Thermal 3{1}	-14	-94	211	232	-15	-17	-11	25
	Thermal 4{1}	-5	-1	3	6	-1	-4	-3	5
	Thermal 5{1}	-8	-48	107	117	-8	-9	-6	13
	GRT1{1}	-4	0	14	15	0	-4	-3	5
	GRT2{1}	-5	0	15	16	-1	-5	-4	6
	GRT3{1}	-14	-93	223	242	-15	-16	-11	25
	GRT4{1}	-4	0	15	16	-1	-4	-3	5
	GRT5{1}	-7	-46	119	128	-8	-9	-6	14

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DVI_B_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
F06 N	Gravity{1}	0	1	-16	16	-1	0	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-4	-1	2	4	1	-1	0	1
	Thermal 2{1}	-5	-1	3	6	1	-1	0	1
	Thermal 3{1}	-14	-94	211	232	77	-6	0	77
	Thermal 4{1}	-5	-1	3	6	1	-1	0	1
	Thermal 5{1}	-8	-48	107	117	39	-3	0	39
	GRT1{1}	-4	0	-15	15	0	-1	0	1
	GRT2{1}	-5	0	-14	14	0	-1	0	1
	GRT3{1}	-14	-93	195	216	76	-6	0	76
	GRT4{1}	-4	0	-13	14	0	-1	0	1
	GRT5{1}	-7	-46	90	102	38	-3	0	38
F06 F	Gravity{1}	0	1	-17	17	-1	0	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-4	-1	2	4	1	0	0	1
	Thermal 2{1}	-5	-1	3	6	1	-1	0	1
	Thermal 3{1}	-14	-94	211	232	77	-6	0	77
	Thermal 4{1}	-5	-1	3	6	1	-1	0	1
	Thermal 5{1}	-8	-48	107	117	39	-3	0	39
	GRT1{1}	-4	0	-15	16	0	-1	0	1
	GRT2{1}	-5	0	-14	15	0	-1	0	1
	GRT3{1}	-14	-93	194	216	76	-6	0	76
	GRT4{1}	-4	0	-14	14	0	-1	0	1
	GRT5{1}	-7	-46	90	102	37	-3	0	38
F16 -	Gravity{1}	0	1	-50	50	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-4	-1	2	4	0	5	0	5
	Thermal 2{1}	-5	-1	3	6	0	6	0	6
	Thermal 3{1}	-14	-94	211	232	-45	12	0	47
	Thermal 4{1}	-5	-1	3	6	0	5	0	5
	Thermal 5{1}	-8	-48	107	117	-23	7	0	24
	GRT1{1}	-4	0	-49	49	0	5	0	5
	GRT2{1}	-5	0	-47	48	0	6	0	6
	GRT3{1}	-14	-93	161	186	-45	12	0	46

DVI_B_LINE_REV0.OUT								
GRT4{1}	-4	0	-47	47	0	5	0	5
GRT5{1}	-7	-46	57	73	-22	7	0	23
F16 + Gravity{1}	0	0	-50	50	0	0	0	0
Hydrotest{1}	0	0	0	0	0	0	0	0
Thermal 1{1}	5	0	2	5	0	5	0	5
Thermal 2{1}	6	0	3	6	0	6	0	6
Thermal 3{1}	12	44	211	216	-45	12	0	47
Thermal 4{1}	5	0	3	6	0	5	0	5
Thermal 5{1}	7	22	107	109	-23	7	0	24
GRT1{1}	4	0	-49	49	0	5	0	5
GRT2{1}	5	0	-47	48	0	6	0	6
GRT3{1}	12	44	161	167	-45	12	0	46
GRT4{1}	5	0	-47	47	0	5	0	5
GRT5{1}	6	22	57	61	-22	7	0	23

0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
F07	Gravity{1}	0	0	-89	89	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	5	0	2	5	0	-2	0	2
	Thermal 2{1}	6	0	3	6	0	-3	0	3
	Thermal 3{1}	12	44	211	216	21	-6	0	22
	Thermal 4{1}	5	0	3	6	0	-2	0	2
	Thermal 5{1}	7	22	107	109	11	-3	0	11
	GRT1{1}	4	0	-87	88	0	-2	0	2
	GRT2{1}	5	0	-86	86	0	-3	0	3
	GRT3{1}	12	44	122	130	21	-6	0	22
	GRT4{1}	5	0	-86	86	0	-2	0	2
	GRT5{1}	6	22	18	29	10	-3	0	11
F46	Gravity{1}	0	0	-90	90	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	5	0	2	5	0	-2	0	2
	Thermal 2{1}	6	0	3	6	0	-3	0	3

		DVI_B_LINE_REV0.OUT							
	Thermal 3{1}	12	44	211	216	23	-6	0	23
	Thermal 4{1}	5	0	3	6	0	-3	0	3
	Thermal 5{1}	7	22	107	109	11	-3	0	12
	GRT1{1}	4	0	-89	89	0	-2	0	2
	GRT2{1}	5	0	-88	88	0	-3	0	3
	GRT3{1}	12	44	121	129	22	-6	0	23
	GRT4{1}	5	0	-87	87	0	-3	0	3
	GRT5{1}	6	22	16	28	11	-3	0	12
F45	Gravity{1}	0	0	-90	90	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	5	0	2	5	0	-2	0	2
	Thermal 2{1}	6	0	3	6	0	-3	0	3
	Thermal 3{1}	12	44	211	216	23	-6	0	23
	Thermal 4{1}	5	0	3	6	0	-3	0	3
	Thermal 5{1}	7	22	107	109	11	-3	0	12
	GRT1{1}	4	0	-89	89	0	-2	0	2
	GRT2{1}	5	0	-88	88	0	-3	0	3
	GRT3{1}	12	44	121	129	22	-6	0	23
	GRT4{1}	5	0	-87	87	0	-3	0	3
	GRT5{1}	6	22	16	28	11	-3	0	12
F09	Gravity{1}	0	0	-93	93	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	5	0	2	5	0	-3	0	3
	Thermal 2{1}	6	0	3	6	0	-3	0	3
	Thermal 3{1}	12	44	211	216	25	-7	0	26
	Thermal 4{1}	5	0	3	6	0	-3	0	3
	Thermal 5{1}	7	22	107	109	13	-4	0	13
	GRT1{1}	4	0	-92	92	0	-3	0	3
	GRT2{1}	5	0	-90	91	0	-3	0	3
	GRT3{1}	12	44	118	126	25	-7	0	26
	GRT4{1}	5	0	-90	90	0	-3	0	3
	GRT5{1}	6	22	14	26	12	-4	0	13

0

DVI_B_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)	MOMENTS (N.m)

name	combination	DVI_B_LINE_REV0.OUT				X	Y	Z	Result
		X	Y	Z	Result				

F10	Gravity{1}	0	0	-101	101	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	5	0	2	5	0	-3	0	3
	Thermal 2{1}	6	0	3	6	0	-4	0	4
	Thermal 3{1}	12	44	211	216	29	-8	0	30
	Thermal 4{1}	5	0	3	6	0	-3	0	3
	Thermal 5{1}	7	22	107	109	15	-4	0	15
	GRT1{1}	4	0	-99	99	0	-3	0	3
	GRT2{1}	5	0	-98	98	0	-4	0	4
	GRT3{1}	12	44	110	119	29	-8	0	30
	GRT4{1}	5	0	-98	98	0	-3	0	3
	GRT5{1}	6	22	6	24	15	-4	0	15
*** Segment F end ***									
*** Segment G begin ***									
A24	Gravity{1}	-1	1	26	26	-10	-1	-1	10
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	1	1	0	1	1
	Thermal 2{1}	1	1	1	2	-3	0	2	3
	Thermal 3{1}	1	1	1	2	-2	0	2	3
	Thermal 4{1}	1	1	1	2	-3	0	1	3
	Thermal 5{1}	1	-5	2	6	-3	2	2	4
	GRT1{1}	0	1	26	26	-9	-1	0	10
	GRT2{1}	1	2	27	27	-13	-1	1	13
	GRT3{1}	1	2	27	27	-12	-1	1	12
	GRT4{1}	0	1	27	27	-13	-1	0	13
	GRT5{1}	0	-5	28	29	-13	1	1	13
G01	Gravity{1}	-1	1	25	25	-10	-1	-1	10
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	1	1	0	1	1
	Thermal 2{1}	1	1	1	2	-3	0	2	3
	Thermal 3{1}	1	1	1	2	-2	0	2	3
	Thermal 4{1}	1	1	1	2	-3	0	1	3
	Thermal 5{1}	1	-5	2	6	-3	2	2	4
	GRT1{1}	0	1	25	25	-9	-1	0	9
	GRT2{1}	1	2	27	27	-12	-1	1	12
	GRT3{1}	1	2	26	26	-12	-1	1	12
	GRT4{1}	0	1	27	27	-13	-1	0	13
	GRT5{1}	0	-5	28	28	-12	1	1	12

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DVI_B_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
G20	Gravity{1}	-1	1	22	22	-6	-1	-1	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	1	1	0	1	1
	Thermal 2{1}	1	1	1	2	-2	0	2	3
	Thermal 3{1}	1	1	1	2	-2	0	2	3
	Thermal 4{1}	1	1	1	2	-3	0	1	3
	Thermal 5{1}	1	-5	2	6	-3	2	2	4
	GRT1{1}	0	1	21	21	-5	-1	0	5
	GRT2{1}	1	2	23	23	-8	-1	1	8
	GRT3{1}	1	2	22	23	-8	-1	1	8
	GRT4{1}	0	1	23	23	-8	-1	0	9
	GRT5{1}	0	-5	24	25	-9	0	1	9
G02 N	Gravity{1}	-1	1	18	18	-3	-1	-1	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	1	1	0	1	1
	Thermal 2{1}	1	1	1	2	-2	0	2	3
	Thermal 3{1}	1	1	1	2	-2	0	2	2
	Thermal 4{1}	1	1	1	2	-2	0	1	2
	Thermal 5{1}	1	-5	2	6	-3	2	2	4
	GRT1{1}	0	1	18	18	-2	-1	0	2
	GRT2{1}	1	2	19	19	-5	-1	1	5
	GRT3{1}	1	2	19	19	-4	-1	1	4
	GRT4{1}	0	1	19	19	-5	-1	0	5
	GRT5{1}	0	-5	20	21	-6	0	1	6
G02 F	Gravity{1}	-1	1	18	18	-2	-1	-1	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	1	1	0	1	1
	Thermal 2{1}	1	1	1	2	-2	0	2	3
	Thermal 3{1}	1	1	1	2	-1	0	2	2
	Thermal 4{1}	1	1	1	2	-2	0	1	2
	Thermal 5{1}	1	-5	2	6	-3	2	2	4
	GRT1{1}	0	1	17	17	-2	-1	0	2

DVI_B_LINE_REV0.OUT

	GRT2{1}	1	2	19	19	-4	-1	1	5
	GRT3{1}	1	2	19	19	-4	-1	1	4
	GRT4{1}	0	1	19	19	-5	-1	0	5
	GRT5{1}	0	-5	20	21	-5	0	1	6
G15	Gravity{1}	-1	1	13	13	1	-1	-1	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	1	1	0	0	1
	Thermal 2{1}	1	1	1	2	-2	0	1	2
	Thermal 3{1}	1	1	1	2	-1	0	1	2
	Thermal 4{1}	1	1	1	2	-2	0	1	2
	Thermal 5{1}	1	-5	2	6	-2	2	2	3
	GRT1{1}	0	1	13	13	2	-1	0	2
	GRT2{1}	1	2	14	14	0	-1	1	1
	GRT3{1}	1	2	14	14	0	-1	1	1
	GRT4{1}	0	1	14	15	-1	-1	0	1
	GRT5{1}	0	-5	15	16	-1	0	1	1

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
G19	Gravity{1}	-1	1	-1	1	6	-1	0	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	1	0	0	0	0
	Thermal 2{1}	1	1	1	2	-1	0	1	1
	Thermal 3{1}	1	1	1	2	-1	0	1	1
	Thermal 4{1}	1	1	1	2	-1	0	0	1
	Thermal 5{1}	1	-5	2	6	-1	2	1	2
	GRT1{1}	0	1	-1	2	6	-1	0	6
	GRT2{1}	1	2	0	2	5	-1	0	5
	GRT3{1}	1	2	0	2	5	-1	0	5
	GRT4{1}	0	1	1	2	5	-1	0	5
	GRT5{1}	0	-5	2	5	5	0	1	5
G03	Gravity{1}	-1	1	-19	19	-3	-1	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0

Thermal 1{1}	0	0	0	1	0	0	0	0
Thermal 2{1}	1	1	1	2	0	0	0	0
Thermal 3{1}	1	1	1	2	0	0	0	0
Thermal 4{1}	1	1	1	2	0	0	-1	1
Thermal 5{1}	1	-5	2	6	2	2	0	2
GRT1{1}	0	1	-19	19	-3	-1	0	3
GRT2{1}	1	2	-17	17	-3	-1	0	3
GRT3{1}	1	2	-18	18	-3	-1	0	3
GRT4{1}	0	1	-17	17	-3	-1	0	3
GRT5{1}	0	-5	-16	17	-2	0	0	2

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DVI_B_LINE_REV0.OUT

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

G03 M+	Gravity{1}	-2	1	26	26	-5	-1	0	5
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	0	0	1	0	0	0	0
	Thermal 2{1}	-1	1	0	1	0	0	0	1
	Thermal 3{1}	-1	1	0	1	0	0	0	1
	Thermal 4{1}	-1	1	0	1	0	0	-1	1
	Thermal 5{1}	7	-5	-4	10	2	2	0	2
	GRT1{1}	-3	1	26	26	-5	-1	0	5
	GRT2{1}	-3	2	25	26	-5	-1	0	5
	GRT3{1}	-3	2	26	26	-5	-1	0	5
	GRT4{1}	-3	1	25	26	-5	-1	0	5
	GRT5{1}	5	-5	22	23	-3	0	0	3
CH13 -	Gravity{1}	-2	1	8	9	-4	-1	0	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	0	0	1	0	0	0	0
	Thermal 2{1}	-1	1	0	1	0	0	0	1
	Thermal 3{1}	-1	1	0	1	0	0	0	0
	Thermal 4{1}	-1	1	0	1	0	0	-1	1
	Thermal 5{1}	7	-5	-4	10	1	2	0	2
	GRT1{1}	-3	1	9	9	-4	-1	0	4
	GRT2{1}	-3	2	8	9	-4	-1	0	4
	GRT3{1}	-3	2	8	9	-4	-1	0	4
	GRT4{1}	-3	1	8	9	-4	-1	0	4
	GRT5{1}	5	-5	4	8	-3	0	0	3
CH13 +	Gravity{1}	-2	1	2	3	-4	-1	0	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	0	0	1	0	0	0	0
	Thermal 2{1}	-1	1	0	1	0	0	0	1
	Thermal 3{1}	-1	1	0	1	0	0	0	0
	Thermal 4{1}	-1	1	0	1	0	0	-1	1
	Thermal 5{1}	7	-5	-4	10	1	2	0	2
	GRT1{1}	-3	1	2	4	-4	-1	0	4
	GRT2{1}	-3	2	1	4	-4	-1	0	4
	GRT3{1}	-3	2	1	4	-4	-1	0	4
	GRT4{1}	-3	1	1	4	-4	-1	0	4
	GRT5{1}	5	-5	-2	7	-3	0	0	3
C021 -	Gravity{1}	-2	1	-8	8	-6	-1	1	6

DVI_B_LINE_REV0.OUT

Hydrotest{1}	0	0	0	0	0	0	0	0
Thermal 1{1}	-1	0	0	1	0	0	0	0
Thermal 2{1}	-1	1	0	1	0	0	0	0
Thermal 3{1}	-1	1	0	1	0	0	0	0
Thermal 4{1}	-1	1	0	1	0	0	0	0
Thermal 5{1}	7	-5	-4	10	-1	2	-4	4
GRT1{1}	-3	1	-8	8	-6	-1	1	6
GRT2{1}	-3	2	-8	9	-5	-1	1	6
GRT3{1}	-3	2	-8	9	-6	-1	1	6
GRT4{1}	-3	1	-8	9	-5	-1	1	6
GRT5{1}	5	-5	-12	14	-6	0	-2	7

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GLOBAL FORCES & MOMENTS

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
C021 +	Gravity{1}	-2	1	-22	22	-6	-1	1	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	0	0	1	0	0	0	0
	Thermal 2{1}	-1	1	0	1	0	0	0	0
	Thermal 3{1}	-1	1	0	1	0	0	0	0
	Thermal 4{1}	-1	1	0	1	0	0	0	0
	Thermal 5{1}	7	-5	-4	10	-1	2	-4	4
	GRT1{1}	-3	1	-22	22	-6	-1	1	6
	GRT2{1}	-3	2	-22	22	-5	-1	1	6
	GRT3{1}	-3	2	-22	22	-6	-1	1	6
	GRT4{1}	-3	1	-22	22	-5	-1	1	6
	GRT5{1}	5	-5	-26	27	-6	0	-2	7
G10 -	Gravity{1}	-2	1	-31	31	-19	-1	3	19
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	0	0	1	0	0	0	0
	Thermal 2{1}	-1	1	0	1	0	0	0	0
	Thermal 3{1}	-1	1	0	1	0	0	0	0
	Thermal 4{1}	-1	1	0	1	0	0	0	0
	Thermal 5{1}	7	-5	-4	10	-3	2	-7	8

DVI_B_LINE_REV0.OUT									
	GRT1{1}	-3	1	-31	31	-19	-1	3	19
	GRT2{1}	-3	2	-31	32	-19	-1	3	19
	GRT3{1}	-3	2	-31	32	-19	-1	3	19
	GRT4{1}	-3	1	-32	32	-19	-1	3	19
	GRT5{1}	5	-5	-35	36	-21	0	-4	22
G10 +	Gravity{1}	-2	1	-38	38	-19	-1	3	19
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	0	0	1	0	0	0	0
	Thermal 2{1}	-1	1	0	1	0	0	0	0
	Thermal 3{1}	-1	1	0	1	0	0	0	0
	Thermal 4{1}	-1	1	0	1	0	0	0	0
	Thermal 5{1}	7	-5	-4	10	-3	2	-7	8
	GRT1{1}	-3	1	-38	38	-19	-1	3	19
	GRT2{1}	-3	2	-38	38	-19	-1	3	19
	GRT3{1}	-3	2	-38	38	-19	-1	3	19
	GRT4{1}	-3	1	-38	39	-19	-1	3	19
	GRT5{1}	5	-5	-42	43	-21	0	-4	22
G10 M-	Gravity{1}	-2	1	-54	54	-22	-1	3	22
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	0	0	1	0	0	0	0
	Thermal 2{1}	-1	1	0	1	0	0	0	0
	Thermal 3{1}	-1	1	0	1	0	0	0	0
	Thermal 4{1}	-1	1	0	1	0	0	0	0
	Thermal 5{1}	7	-5	-4	10	-3	2	-7	8
	GRT1{1}	-3	1	-53	54	-22	-1	3	22
	GRT2{1}	-3	2	-54	54	-22	-1	3	22
	GRT3{1}	-3	2	-54	54	-22	-1	3	22
	GRT4{1}	-3	1	-54	54	-22	-1	3	22
	GRT5{1}	5	-5	-58	58	-25	0	-5	25

0

DVI_B_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
G10 M+	Gravity{1}	4	1	54	54	-22	-1	3	22

		DVI_B_LINE_REV0.OUT							
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	0	0	1	0	0	0	0
	Thermal 2{1}	2	1	0	2	0	0	0	0
	Thermal 3{1}	2	1	0	2	0	0	0	0
	Thermal 4{1}	1	1	0	2	0	0	0	0
	Thermal 5{1}	-14	-5	3	16	-3	2	-7	8
	GRT1{1}	4	1	54	54	-22	-1	3	22
	GRT2{1}	5	2	54	54	-22	-1	3	22
	GRT3{1}	6	2	54	54	-22	-1	3	22
	GRT4{1}	5	1	54	54	-22	-1	3	22
	GRT5{1}	-10	-5	58	59	-25	0	-5	25
IV04 -	Gravity{1}	4	1	39	39	-19	-1	3	19
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	0	0	1	0	0	0	0
	Thermal 2{1}	2	1	0	2	0	0	0	0
	Thermal 3{1}	2	1	0	2	0	0	0	0
	Thermal 4{1}	1	1	0	2	0	0	0	0
	Thermal 5{1}	-14	-5	3	16	-3	2	-6	7
	GRT1{1}	4	1	39	39	-19	-1	3	19
	GRT2{1}	5	2	39	39	-19	-1	3	19
	GRT3{1}	6	2	39	39	-19	-1	3	19
	GRT4{1}	5	1	39	39	-19	-1	3	19
	GRT5{1}	-10	-5	42	44	-21	0	-4	22
IV04 +	Gravity{1}	4	1	32	32	-19	-1	3	19
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	0	0	1	0	0	0	0
	Thermal 2{1}	2	1	0	2	0	0	0	0
	Thermal 3{1}	2	1	0	2	0	0	0	0
	Thermal 4{1}	1	1	0	2	0	0	0	0
	Thermal 5{1}	-14	-5	3	16	-3	2	-6	7
	GRT1{1}	4	1	32	32	-19	-1	3	19
	GRT2{1}	5	2	32	32	-19	-1	3	19
	GRT3{1}	6	2	32	32	-19	-1	3	19
	GRT4{1}	5	1	32	32	-19	-1	3	19
	GRT5{1}	-10	-5	35	37	-21	0	-4	22
G05 N	Gravity{1}	4	1	13	14	3	-1	-1	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	0	0	1	0	0	0	0
	Thermal 2{1}	2	1	0	2	0	0	-1	1
	Thermal 3{1}	2	1	0	2	0	0	-1	1
	Thermal 4{1}	1	1	0	2	0	0	-1	1

	DVI_B_LINE_REV0.OUT							
Thermal 5{1}	-14	-5	3	16	1	2	7	8
GRT1{1}	4	1	13	14	3	-1	-2	4
GRT2{1}	5	2	13	14	3	-1	-3	4
GRT3{1}	6	2	13	14	3	-1	-3	4
GRT4{1}	5	1	13	14	3	-1	-2	4
GRT5{1}	-10	-5	17	20	4	0	6	8

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DVI_B_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

G05 M	Gravity{1}	4	1	13	13	3	-1	-1	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	0	0	1	0	0	0	0
	Thermal 2{1}	2	1	0	2	0	0	-1	1
	Thermal 3{1}	2	1	0	2	0	0	-1	1
	Thermal 4{1}	1	1	0	2	0	0	-1	1
	Thermal 5{1}	-14	-5	3	16	1	2	8	8
	GRT1{1}	4	1	13	13	3	-1	-2	4
	GRT2{1}	5	2	13	14	3	-1	-3	4
	GRT3{1}	6	2	13	14	3	-1	-3	4
	GRT4{1}	5	1	13	14	3	-1	-2	4
	GRT5{1}	-10	-5	16	20	4	0	6	8
G05 F	Gravity{1}	4	1	12	13	3	-1	-1	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	0	0	1	0	0	0	0
	Thermal 2{1}	2	1	0	2	0	0	-1	1
	Thermal 3{1}	2	1	0	2	0	0	-1	1
	Thermal 4{1}	1	1	0	2	0	0	-1	1
	Thermal 5{1}	-14	-5	3	16	1	1	8	8
	GRT1{1}	4	1	12	13	3	-1	-2	4
	GRT2{1}	5	2	12	14	3	-1	-3	4
	GRT3{1}	6	2	12	14	3	-1	-3	4
	GRT4{1}	5	1	12	14	3	-1	-2	4
	GRT5{1}	-10	-5	16	20	4	0	6	8

		DVI_B_LINE_REV0.OUT							
G06 N	Gravity{1}	4	1	-23	23	3	9	0	9
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	0	0	1	0	0	0	0
	Thermal 2{1}	2	1	0	2	0	0	1	1
	Thermal 3{1}	2	1	0	2	0	0	1	1
	Thermal 4{1}	1	1	0	2	0	0	1	1
	Thermal 5{1}	-14	-5	3	16	1	-5	-2	6
	GRT1{1}	4	1	-23	24	3	9	0	9
	GRT2{1}	5	2	-23	24	3	9	1	10
	GRT3{1}	6	2	-23	24	3	9	1	10
	GRT4{1}	5	1	-23	24	3	9	0	9
	GRT5{1}	-10	-5	-20	23	4	4	-2	6
G06 M	Gravity{1}	4	1	-23	24	4	9	0	10
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	0	0	1	0	0	0	0
	Thermal 2{1}	2	1	0	2	0	0	1	1
	Thermal 3{1}	2	1	0	2	0	0	1	1
	Thermal 4{1}	1	1	0	2	0	0	1	1
	Thermal 5{1}	-14	-5	3	16	1	-5	-2	6
	GRT1{1}	4	1	-23	24	3	9	0	10
	GRT2{1}	5	2	-24	24	3	9	1	10
	GRT3{1}	6	2	-24	24	3	9	1	10
	GRT4{1}	5	1	-24	24	3	9	0	10
	GRT5{1}	-10	-5	-20	23	4	4	-3	6

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DVI_B_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
G06 F	Gravity{1}	4	1	-24	24	4	9	0	10
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	0	0	1	0	0	0	0
	Thermal 2{1}	2	1	0	2	0	0	1	1
	Thermal 3{1}	2	1	0	2	0	0	1	1
	Thermal 4{1}	1	1	0	2	0	0	1	1
	Thermal 5{1}	-14	-5	3	16	1	-5	-2	5

DVI_B_LINE_REV0.OUT

	GRT1{1}	4	1	-24	24	3	9	0	10
	GRT2{1}	5	2	-24	25	3	9	1	10
	GRT3{1}	6	2	-24	25	3	9	1	10
	GRT4{1}	5	1	-24	24	3	9	0	10
	GRT5{1}	-10	-5	-20	23	4	4	-3	7
G14	Gravity{1}	4	1	-25	26	4	9	0	9
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	0	0	1	0	0	0	0
	Thermal 2{1}	2	1	0	2	0	0	1	1
	Thermal 3{1}	2	1	0	2	0	0	1	1
	Thermal 4{1}	1	1	0	2	0	0	1	1
	Thermal 5{1}	-14	-5	3	16	0	-4	-2	4
	GRT1{1}	4	1	-25	26	4	9	0	9
	GRT2{1}	5	2	-25	26	4	9	1	9
	GRT3{1}	6	2	-25	26	4	9	1	9
	GRT4{1}	5	1	-25	26	4	9	0	9
	GRT5{1}	-10	-5	-22	25	4	5	-3	7
G16 -	Gravity{1}	4	1	-33	33	4	7	0	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	0	0	1	0	0	0	0
	Thermal 2{1}	2	1	0	2	0	-1	1	1
	Thermal 3{1}	2	1	0	2	1	-1	1	1
	Thermal 4{1}	1	1	0	2	0	-1	1	1
	Thermal 5{1}	-14	-5	3	16	-2	2	-2	4
	GRT1{1}	4	1	-33	33	4	7	0	8
	GRT2{1}	5	2	-33	34	4	7	1	8
	GRT3{1}	6	2	-33	34	4	7	1	8
	GRT4{1}	5	1	-33	33	4	7	0	8
	GRT5{1}	-10	-5	-29	32	2	9	-3	10
G16 +	Gravity{1}	16	-8	-33	37	4	7	0	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	1	0	0	0	0
	Thermal 2{1}	-1	-1	0	2	0	-1	1	1
	Thermal 3{1}	-1	-1	0	2	1	-1	1	1
	Thermal 4{1}	-1	-1	0	1	0	-1	1	1
	Thermal 5{1}	4	4	3	7	-2	2	-2	4
	GRT1{1}	15	-9	-33	37	4	7	0	8
	GRT2{1}	14	-9	-33	37	4	7	1	8
	GRT3{1}	14	-9	-33	37	4	7	1	8
	GRT4{1}	15	-9	-33	37	4	7	0	8
	GRT5{1}	20	-4	-29	36	2	9	-3	10

0

DVI_B_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
G09	Gravity{1}	16	-8	-45	49	-2	-3	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	1	0	0	0	0
	Thermal 2{1}	-1	-1	0	2	0	0	1	1
	Thermal 3{1}	-1	-1	0	2	0	0	1	1
	Thermal 4{1}	-1	-1	0	1	0	0	1	1
	Thermal 5{1}	4	4	3	7	1	-1	-2	3
	GRT1{1}	15	-9	-45	49	-2	-3	0	3
	GRT2{1}	14	-9	-46	49	-2	-3	1	3
	GRT3{1}	14	-9	-46	49	-2	-3	1	3
	GRT4{1}	15	-9	-45	49	-2	-3	0	3
	GRT5{1}	20	-4	-42	47	-1	-4	-3	5
G07	Gravity{1}	16	-8	-47	51	-2	-4	0	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	1	0	0	0	0
	Thermal 2{1}	-1	-1	0	2	0	0	1	1
	Thermal 3{1}	-1	-1	0	2	0	0	1	1
	Thermal 4{1}	-1	-1	0	1	0	0	1	1
	Thermal 5{1}	4	4	3	7	1	-1	-2	3
	GRT1{1}	15	-9	-47	51	-2	-4	0	4
	GRT2{1}	14	-9	-47	51	-2	-4	1	4
	GRT3{1}	14	-9	-47	51	-2	-4	1	4
	GRT4{1}	15	-9	-47	50	-2	-4	0	4
	GRT5{1}	20	-4	-44	49	-1	-5	-3	6
G08	Gravity{1}	16	-8	-63	66	-4	-8	0	9
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	1	0	0	0	0
	Thermal 2{1}	-1	-1	0	2	-1	1	1	1
	Thermal 3{1}	-1	-1	0	2	-1	1	1	1
	Thermal 4{1}	-1	-1	0	1	0	1	1	1

DVI_B_LINE_REV0.OUT

Thermal 5{1}	4	4	3	7	2	-2	-2	4
GRT1{1}	15	-9	-63	66	-5	-8	0	9
GRT2{1}	14	-9	-63	66	-5	-8	1	9
GRT3{1}	14	-9	-63	66	-5	-8	1	9
GRT4{1}	15	-9	-63	66	-5	-8	0	9
GRT5{1}	20	-4	-60	63	-2	-11	-3	11

*** Segment G end ***

*** Segment H begin ***

0

DVI_B_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A26	Gravity{1}	0	0	26	26	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	26	26	0	0	0	0
	GRT2{1}	0	0	26	26	0	0	0	0
	GRT3{1}	0	0	26	26	0	0	0	0
	GRT4{1}	0	0	26	26	0	0	0	0
	GRT5{1}	0	0	26	26	0	0	0	0
H02	Gravity{1}	0	0	24	24	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	24	24	0	0	0	0
	GRT2{1}	0	0	24	24	0	0	0	0
	GRT3{1}	0	0	24	24	0	0	0	0

		DVI_B_LINE_REV0.OUT							
	GRT4{1}	0	0	24	24	0	0	0	0
	GRT5{1}	0	0	24	24	0	0	0	0
H02 M	Gravity{1}	0	0	12	12	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	12	12	0	0	0	0
	GRT2{1}	0	0	12	12	0	0	0	0
	GRT3{1}	0	0	12	12	0	0	0	0
	GRT4{1}	0	0	12	12	0	0	0	0
	GRT5{1}	0	0	12	12	0	0	0	0
SV12	Gravity{1}	0	0	0	0	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	0	0	0	0	0	0
	GRT2{1}	0	0	0	0	0	0	0	0
	GRT3{1}	0	0	0	0	0	0	0	0
	GRT4{1}	0	0	0	0	0	0	0	0
	GRT5{1}	0	0	0	0	0	0	0	0

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DVI_B_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result
-----		-----	-----	-----	-----	-----	-----	-----	-----
*** Segment H end ***									
*** Segment I begin ***									
A28	Gravity{1}	-3	-2	-6	7	0	3	-1	3
	Hydrotest{1}	0	0	0	0	0	0	0	0

		DVI_B_LINE_REV0.OUT							
		1	-5	0	5	-1	0	0	1
	Thermal 1{1}								
	Thermal 2{1}	-10	-6	-2	12	-1	2	-3	4
	Thermal 3{1}	-11	-7	-2	13	-1	2	-3	4
	Thermal 4{1}	0	-5	-1	5	-1	1	-1	1
	Thermal 5{1}	-51	-55	-39	84	-4	9	-15	18
	GRT1{1}	-2	-6	-6	9	-1	3	0	3
	GRT2{1}	-13	-8	-9	18	-1	5	-4	6
	GRT3{1}	-13	-9	-9	18	-1	5	-4	6
	GRT4{1}	-3	-6	-7	10	-1	4	-1	4
	GRT5{1}	-53	-56	-46	90	-5	12	-16	21
I01	Gravity{1}	-3	-2	-7	8	0	3	-1	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	-5	0	5	-1	0	0	1
	Thermal 2{1}	-10	-6	-2	12	-1	2	-3	4
	Thermal 3{1}	-11	-7	-2	13	-1	2	-3	4
	Thermal 4{1}	0	-5	-1	5	-1	1	-1	1
	Thermal 5{1}	-51	-55	-39	84	-3	8	-15	17
	GRT1{1}	-2	-6	-7	9	-1	3	0	3
	GRT2{1}	-13	-8	-9	18	-1	5	-4	6
	GRT3{1}	-13	-9	-9	19	-1	5	-4	6
	GRT4{1}	-3	-6	-8	10	-1	4	-1	4
	GRT5{1}	-53	-56	-46	90	-3	11	-16	20
I02 N	Gravity{1}	-3	-2	-11	11	0	3	-1	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	-5	0	5	0	0	0	0
	Thermal 2{1}	-10	-6	-2	12	0	0	-3	3
	Thermal 3{1}	-11	-7	-2	13	1	-1	-3	3
	Thermal 4{1}	0	-5	-1	5	0	0	-1	1
	Thermal 5{1}	-51	-55	-39	84	8	-3	-15	18
	GRT1{1}	-2	-6	-11	12	1	3	0	3
	GRT2{1}	-13	-8	-13	20	1	2	-4	4
	GRT3{1}	-13	-9	-13	21	1	2	-4	4
	GRT4{1}	-3	-6	-12	14	0	3	-1	3
	GRT5{1}	-53	-56	-50	92	9	0	-16	18

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DVI_B_LINE_REV0

09/13/2010 DVI BLINE

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AutoPIPE Plus 9.2.1

RESULT PAGE 171

G L O B A L F O R C E S & M O M E N T S

DVI_B_LINE_REV0.OUT

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

I02 F	Gravity{1}	-3	-2	-11	12	0	3	-1	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	-5	0	5	1	0	0	1
	Thermal 2{1}	-10	-6	-2	12	0	-1	-3	3
	Thermal 3{1}	-11	-7	-2	13	1	-1	-3	3
	Thermal 4{1}	0	-5	-1	5	0	0	-1	1
	Thermal 5{1}	-51	-55	-39	84	9	-3	-14	17
	GRT1{1}	-2	-6	-11	13	1	2	0	3
	GRT2{1}	-13	-8	-14	21	0	2	-4	4
	GRT3{1}	-13	-9	-14	21	1	2	-4	4
	GRT4{1}	-3	-6	-12	14	0	3	-1	3
	GRT5{1}	-53	-56	-51	93	9	-1	-15	17
I11 -	Gravity{1}	-3	-2	-13	14	-1	3	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	-5	0	5	1	0	0	1
	Thermal 2{1}	-10	-6	-2	12	0	-1	-2	2
	Thermal 3{1}	-11	-7	-2	13	1	-1	-2	2
	Thermal 4{1}	0	-5	-1	5	0	0	-1	1
	Thermal 5{1}	-51	-55	-39	84	5	-3	-10	11
	GRT1{1}	-2	-6	-13	14	-1	2	0	3
	GRT2{1}	-13	-8	-16	22	-1	2	-2	3
	GRT3{1}	-13	-9	-16	22	-1	2	-2	3
	GRT4{1}	-3	-6	-14	16	-1	3	-1	3
	GRT5{1}	-53	-56	-52	94	4	-1	-10	11
I11 +	Gravity{1}	-3	-2	-20	20	-1	3	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	-5	0	5	1	0	0	1
	Thermal 2{1}	-10	-6	-2	12	0	-1	-2	2
	Thermal 3{1}	-11	-7	-2	13	1	-1	-2	2
	Thermal 4{1}	0	-5	-1	5	0	0	-1	1
	Thermal 5{1}	-51	-55	-39	84	5	-3	-10	11
	GRT1{1}	-2	-6	-20	21	-1	2	0	3
	GRT2{1}	-13	-8	-23	27	-1	2	-2	3
	GRT3{1}	-13	-9	-23	28	-1	2	-2	3
	GRT4{1}	-3	-6	-21	22	-1	3	-1	3
	GRT5{1}	-53	-56	-59	98	4	-1	-10	11
I11 M-	Gravity{1}	-3	-2	-37	37	-3	3	0	4

	DVI_B_LINE_REV0.OUT							
Hydrotest{1}	0	0	0	0	0	0	0	0
Thermal 1{1}	1	-5	0	5	1	0	0	1
Thermal 2{1}	-10	-6	-2	12	0	-1	-1	2
Thermal 3{1}	-11	-7	-2	13	0	-1	-1	2
Thermal 4{1}	0	-5	-1	5	0	0	-1	1
Thermal 5{1}	-51	-55	-39	84	3	-3	-7	8
GRT1{1}	-2	-6	-37	38	-2	2	0	3
GRT2{1}	-13	-8	-40	43	-3	2	-2	4
GRT3{1}	-13	-9	-40	43	-2	2	-2	3
GRT4{1}	-3	-6	-38	39	-3	3	-1	4
GRT5{1}	-53	-56	-76	109	0	-1	-7	7

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DVI_B_LINE_REV0

09/13/2010 DVI.BLINE

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
I11 M+	Gravity{1}	-3	-2	44	44	-3	3	0	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	-5	0	5	1	0	0	1
	Thermal 2{1}	-10	-6	-2	12	0	-1	-1	2
	Thermal 3{1}	-11	-7	-2	13	0	-1	-1	2
	Thermal 4{1}	0	-5	-1	5	0	0	-1	1
	Thermal 5{1}	-51	-55	-39	84	3	-3	-7	8
	GRT1{1}	-2	-6	44	45	-2	2	0	3
	GRT2{1}	-13	-8	41	44	-3	2	-2	4
	GRT3{1}	-13	-9	41	44	-2	2	-2	3
	GRT4{1}	-3	-6	43	44	-3	3	-1	4
	GRT5{1}	-53	-56	5	78	0	-1	-7	7
CH15 -	Gravity{1}	-3	-2	27	27	-1	3	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	-5	0	5	1	0	0	1
	Thermal 2{1}	-10	-6	-2	12	0	-1	-1	1
	Thermal 3{1}	-11	-7	-2	13	0	-1	-1	1
	Thermal 4{1}	0	-5	-1	5	0	0	-1	1
	Thermal 5{1}	-51	-55	-39	84	1	-3	-4	5
	GRT1{1}	-2	-6	27	28	0	2	0	3

GRT2{1}	-13	-8	24	29	-1	2	-1	2
GRT3{1}	-13	-9	24	29	-1	2	-1	2
GRT4{1}	-3	-6	26	27	-1	3	-1	3
GRT5{1}	-53	-56	-13	79	0	-1	-4	4

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result
C031 +	Gravity{1}	-3	-2	-4	5	1	3	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0

DVI_B_LINE_REV0.OUT

	Thermal 1{1}	1	-5	0	5	1	0	0	1
	Thermal 2{1}	-10	-6	-2	12	0	-1	1	1
	Thermal 3{1}	-11	-7	-2	13	0	-1	1	1
	Thermal 4{1}	0	-5	-1	5	0	0	0	1
	Thermal 5{1}	-51	-55	-39	84	-5	-3	3	7
	GRT1{1}	-2	-6	-3	7	1	2	0	3
	GRT2{1}	-13	-8	-6	16	0	2	1	2
	GRT3{1}	-13	-9	-6	17	1	2	1	2
	GRT4{1}	-3	-6	-4	8	0	3	0	3
	GRT5{1}	-53	-56	-43	89	-4	-1	4	6
I05 -	Gravity{1}	-3	-2	-8	9	-1	3	1	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	-5	0	5	1	0	-1	1
	Thermal 2{1}	-10	-6	-2	12	-1	-1	3	3
	Thermal 3{1}	-11	-7	-2	13	-1	-1	3	4
	Thermal 4{1}	0	-5	-1	5	-1	0	0	1
	Thermal 5{1}	-51	-55	-39	84	-15	-3	16	22
	GRT1{1}	-2	-6	-8	10	0	2	0	3
	GRT2{1}	-13	-8	-11	19	-2	2	4	5
	GRT3{1}	-13	-9	-11	19	-1	2	4	5
	GRT4{1}	-3	-6	-9	11	-1	3	1	3
	GRT5{1}	-53	-56	-48	91	-15	-1	17	23
I05 +	Gravity{1}	-3	-2	-15	16	-1	3	1	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	-5	0	5	1	0	-1	1
	Thermal 2{1}	-10	-6	-2	12	-1	-1	3	3
	Thermal 3{1}	-11	-7	-2	13	-1	-1	3	4
	Thermal 4{1}	0	-5	-1	5	-1	0	0	1
	Thermal 5{1}	-51	-55	-39	84	-15	-3	16	22
	GRT1{1}	-2	-6	-15	16	0	2	0	3
	GRT2{1}	-13	-8	-18	23	-2	2	4	5
	GRT3{1}	-13	-9	-18	24	-1	2	4	5
	GRT4{1}	-3	-6	-16	17	-1	3	1	3
	GRT5{1}	-53	-56	-54	95	-15	-1	17	23
I05 M-	Gravity{1}	-3	-2	-31	31	-2	3	1	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	-5	0	5	1	0	-1	1
	Thermal 2{1}	-10	-6	-2	12	-1	-1	4	4
	Thermal 3{1}	-11	-7	-2	13	-1	-1	4	4
	Thermal 4{1}	0	-5	-1	5	-1	0	0	1
	Thermal 5{1}	-51	-55	-39	84	-17	-3	19	26

DVI_B_LINE_REV0.OUT

GRT1{1}	-2	-6	-31	31	-2	2	1	3
GRT2{1}	-13	-8	-33	37	-3	2	5	6
GRT3{1}	-13	-9	-33	37	-3	2	5	6
GRT4{1}	-3	-6	-31	32	-3	3	1	4
GRT5{1}	-53	-56	-70	104	-20	-1	21	29

 DVI_B_LINE_REV0
 09/13/2010 DVI BLINE
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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

I05 M+	Gravity{1}	-3	-2	31	31	-2	3	1	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	-5	0	5	1	0	-1	1
	Thermal 2{1}	-10	-6	-2	12	-1	-1	4	4
	Thermal 3{1}	-11	-7	-2	13	-1	-1	4	4
	Thermal 4{1}	0	-5	-1	5	-1	0	0	1
	Thermal 5{1}	-51	-55	-39	84	-17	-3	19	26
	GRT1{1}	-2	-6	31	32	-2	2	1	3
	GRT2{1}	-13	-8	29	32	-3	2	5	6
	GRT3{1}	-13	-9	28	33	-3	2	5	6
	GRT4{1}	-3	-6	30	31	-3	3	1	4
	GRT5{1}	-53	-56	-8	78	-20	-1	21	29
I12 -	Gravity{1}	-3	-2	15	16	-1	3	1	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	-5	0	5	1	0	-1	1
	Thermal 2{1}	-10	-6	-2	12	-1	-1	5	5
	Thermal 3{1}	-11	-7	-2	13	-1	-1	5	5
	Thermal 4{1}	0	-5	-1	5	-1	0	0	1
	Thermal 5{1}	-51	-55	-39	84	-20	-3	23	31
	GRT1{1}	-2	-6	16	17	0	2	1	3
	GRT2{1}	-13	-8	13	20	-2	2	6	7
	GRT3{1}	-13	-9	13	21	-2	2	6	7
	GRT4{1}	-3	-6	15	16	-1	3	1	3
	GRT5{1}	-53	-56	-24	81	-21	-1	24	32
I12 +	Gravity{1}	-3	-2	9	9	-1	3	1	3

DVI_B_LINE_REV0.OUT

	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	-5	0	5	1	0	-1	1
	Thermal 2{1}	-10	-6	-2	12	-1	-1	5	5
	Thermal 3{1}	-11	-7	-2	13	-1	-1	5	5
	Thermal 4{1}	0	-5	-1	5	-1	0	0	1
	Thermal 5{1}	-51	-55	-39	84	-20	-3	23	31
	GRT1{1}	-2	-6	9	11	0	2	1	3
	GRT2{1}	-13	-8	6	17	-2	2	6	7
	GRT3{1}	-13	-9	6	17	-2	2	6	7
	GRT4{1}	-3	-6	8	10	-1	3	1	3
	GRT5{1}	-53	-56	-31	83	-21	-1	24	32
I07	Gravity{1}	-3	-2	7	7	0	3	2	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	-5	0	5	1	0	-1	1
	Thermal 2{1}	-10	-6	-2	12	-2	-1	6	6
	Thermal 3{1}	-11	-7	-2	13	-1	-1	6	6
	Thermal 4{1}	0	-5	-1	5	-1	0	0	1
	Thermal 5{1}	-51	-55	-39	84	-24	-3	28	37
	GRT1{1}	-2	-6	7	9	1	2	1	3
	GRT2{1}	-13	-8	4	16	-1	2	7	8
	GRT3{1}	-13	-9	4	17	-1	2	8	8
	GRT4{1}	-3	-6	6	9	-1	3	1	3
	GRT5{1}	-53	-56	-32	84	-24	-1	30	38

 DVI_B_LINE_REV0
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BENTLEY

G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
I14	Gravity{1}	-3	-2	5	6	0	3	2	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	-5	0	5	1	0	-1	1
	Thermal 2{1}	-10	-6	-2	12	-2	-1	6	7
	Thermal 3{1}	-11	-7	-2	13	-1	-1	6	7
	Thermal 4{1}	0	-5	-1	5	-1	0	0	1
	Thermal 5{1}	-51	-55	-39	84	-26	-3	31	40

		DVI_B_LINE_REV0.OUT							
	GRT1{1}	-2	-6	5	8	1	2	1	3
	GRT2{1}	-13	-8	2	15	-1	2	8	8
	GRT3{1}	-13	-9	2	16	-1	2	8	9
	GRT4{1}	-3	-6	4	8	0	3	2	3
	GRT5{1}	-53	-56	-34	85	-26	-1	32	41
I09 N	Gravity{1}	-3	-2	1	3	1	3	2	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	-5	0	5	1	0	-1	1
	Thermal 2{1}	-10	-6	-2	12	-2	-1	7	7
	Thermal 3{1}	-11	-7	-2	13	-2	-1	7	7
	Thermal 4{1}	0	-5	-1	5	-1	0	0	1
	Thermal 5{1}	-51	-55	-39	84	-28	-3	34	44
	GRT1{1}	-2	-6	2	7	1	2	1	3
	GRT2{1}	-13	-8	-1	15	-1	2	9	9
	GRT3{1}	-13	-9	-1	16	-1	2	9	9
	GRT4{1}	-3	-6	1	7	0	3	2	3
	GRT5{1}	-53	-56	-38	86	-28	-1	36	45
I09 F	Gravity{1}	-3	-2	0	3	1	3	2	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	-5	0	5	1	0	-1	1
	Thermal 2{1}	-10	-6	-2	12	-2	-1	7	7
	Thermal 3{1}	-11	-7	-2	13	-2	-1	7	8
	Thermal 4{1}	0	-5	-1	5	-1	0	0	1
	Thermal 5{1}	-51	-55	-39	84	-29	-4	35	46
	GRT1{1}	-2	-6	0	6	1	2	1	3
	GRT2{1}	-13	-8	-2	16	-1	2	9	10
	GRT3{1}	-13	-9	-3	16	-1	2	9	10
	GRT4{1}	-3	-6	-1	7	0	3	2	4
	GRT5{1}	-53	-56	-39	87	-29	-1	37	47
I10	Gravity{1}	-3	-2	-7	7	0	2	2	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	-5	0	5	1	0	-1	1
	Thermal 2{1}	-10	-6	-2	12	-2	-1	9	9
	Thermal 3{1}	-11	-7	-2	13	-2	-1	9	9
	Thermal 4{1}	0	-5	-1	5	-1	0	0	1
	Thermal 5{1}	-51	-55	-39	84	-33	-6	44	55
	GRT1{1}	-2	-6	-7	9	1	2	2	3
	GRT2{1}	-13	-8	-9	18	-2	2	11	11
	GRT3{1}	-13	-9	-9	19	-2	1	11	12
	GRT4{1}	-3	-6	-8	10	-1	3	3	4
	GRT5{1}	-53	-56	-46	90	-33	-4	46	57

0

DVI_B_LINE_REV0

09/13/2010 DVI BLINE

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09:56 AM

AutoPIPE Plus 9.2.1

RESULT PAGE 176

G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

*** Segment I end ***									
*** Segment J begin ***									
D01	Gravity{1}	-2	0	13	13	1	2	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	96	-8	0	97	-1	4	15	15
	Thermal 2{1}	-16	-44	145	153	-7	16	-10	20
	Thermal 3{1}	-16	-47	149	157	-8	16	-9	20
	Thermal 4{1}	221	56	145	270	-7	16	25	31
	Thermal 5{1}	-67	-36	151	169	-8	14	-19	25
	GRT1{1}	95	-8	13	96	0	6	14	16
	GRT2{1}	-18	-44	158	165	-7	17	-10	21
	GRT3{1}	-17	-47	162	169	-8	18	-9	21
	GRT4{1}	219	56	158	276	-7	17	25	31
	GRT5{1}	-68	-36	164	182	-8	16	-19	26
J11 -	Gravity{1}	-2	0	8	8	2	0	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	96	-8	0	97	-1	4	4	6
	Thermal 2{1}	-16	-44	145	153	8	0	-13	15
	Thermal 3{1}	-16	-47	149	157	8	0	-12	15
	Thermal 4{1}	221	56	145	270	8	0	8	11
	Thermal 5{1}	-67	-36	151	169	8	-2	-16	17
	GRT1{1}	95	-8	8	96	1	5	3	6
	GRT2{1}	-18	-44	154	161	10	0	-13	16
	GRT3{1}	-17	-47	157	165	9	1	-13	16
	GRT4{1}	219	56	153	273	10	1	8	12
	GRT5{1}	-68	-36	160	177	10	-1	-16	19
J11 +	Gravity{1}	-2	0	-55	55	2	0	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	96	-8	0	97	-1	4	4	6
	Thermal 2{1}	-16	-44	145	153	8	0	-13	15

DVI_B_LINE_REV0.OUT								
Thermal 3{1}	-16	-47	149	157	8	0	-12	15
Thermal 4{1}	221	56	145	270	8	0	8	11
Thermal 5{1}	-67	-36	151	169	8	-2	-16	17
GRT1{1}	95	-8	-55	110	1	5	3	6
GRT2{1}	-18	-44	91	103	10	0	-13	16
GRT3{1}	-17	-47	94	107	9	1	-13	16
GRT4{1}	219	56	91	244	10	1	8	12
GRT5{1}	-68	-36	97	124	10	-1	-16	19

0

DVI_B_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
J12 -	Gravity{1}	-2	0	-60	60	-5	7	0	9
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	96	-8	0	97	-1	4	-9	10
	Thermal 2{1}	-16	-44	145	153	26	-18	-16	35
	Thermal 3{1}	-16	-47	149	157	26	-18	-16	35
	Thermal 4{1}	221	56	145	270	26	-18	-12	33
	Thermal 5{1}	-67	-36	151	169	26	-20	-12	35
	GRT1{1}	95	-8	-61	113	-6	12	-9	16
	GRT2{1}	-18	-44	85	98	21	-10	-16	28
	GRT3{1}	-17	-47	89	102	21	-11	-16	28
	GRT4{1}	219	56	85	241	21	-10	-12	26
	GRT5{1}	-68	-36	91	119	21	-13	-12	27
J12 +	Gravity{1}	-2	0	-123	123	-5	7	0	9
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	96	-8	0	97	-1	4	-9	10
	Thermal 2{1}	-16	-44	145	153	26	-18	-16	35
	Thermal 3{1}	-16	-47	149	157	26	-18	-16	35
	Thermal 4{1}	221	56	145	270	26	-18	-12	33
	Thermal 5{1}	-67	-36	151	169	26	-20	-12	35
	GRT1{1}	95	-8	-123	156	-6	12	-9	16
	GRT2{1}	-18	-44	22	53	21	-10	-16	28
	GRT3{1}	-17	-47	26	56	21	-11	-16	28
	GRT4{1}	219	56	22	227	21	-10	-12	26

DVI_B_LINE_REV0.OUT

		GRT5{1}	-68	-36	28	82	21	-13	-12	27
J01	-	Gravity{1}	-2	0	-129	129	-22	24	0	32
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	96	-8	0	97	-1	5	-22	23
		Thermal 2{1}	-16	-44	145	153	45	-37	-20	61
		Thermal 3{1}	-16	-47	149	157	45	-37	-20	62
		Thermal 4{1}	221	56	145	270	45	-36	-33	66
		Thermal 5{1}	-67	-36	151	169	46	-40	-8	61
		GRT1{1}	95	-8	-129	161	-23	28	-22	43
		GRT2{1}	-18	-44	16	50	23	-13	-20	33
		GRT3{1}	-17	-47	20	54	23	-13	-20	34
		GRT4{1}	219	56	16	227	23	-13	-33	42
		GRT5{1}	-68	-36	23	80	24	-16	-8	30
J01	+	Gravity{1}	-2	0	-164	164	-22	24	0	32
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	96	-8	0	97	-1	5	-22	23
		Thermal 2{1}	-16	-44	145	153	45	-37	-20	61
		Thermal 3{1}	-16	-47	149	157	45	-37	-20	62
		Thermal 4{1}	221	56	145	270	45	-36	-33	66
		Thermal 5{1}	-67	-36	151	169	46	-40	-8	61
		GRT1{1}	95	-8	-165	190	-23	28	-22	43
		GRT2{1}	-18	-44	-19	51	23	-13	-20	33
		GRT3{1}	-17	-47	-15	52	23	-13	-20	34
		GRT4{1}	219	56	-19	227	23	-13	-33	42
		GRT5{1}	-68	-36	-13	78	24	-16	-8	30

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
J01 M-	Gravity{1}	-2	0	-226	226	-40	42	0	58
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	96	-8	0	97	-1	5	-32	32
	Thermal 2{1}	-16	-44	145	153	58	-50	-22	80
	Thermal 3{1}	-16	-47	149	157	59	-51	-23	81

DVI_B_LINE_REV0.OUT

	Thermal 4{1}	221	56	145	270	58	-50	-49	91
	Thermal 5{1}	-67	-36	151	169	60	-54	-5	81
	GRT1{1}	95	-8	-227	246	-41	46	-32	70
	GRT2{1}	-18	-44	-81	94	18	-8	-22	30
	GRT3{1}	-17	-47	-77	92	19	-9	-23	31
	GRT4{1}	219	56	-81	240	18	-8	-49	52
	GRT5{1}	-68	-36	-75	107	20	-12	-5	24
J01 M+	Gravity{1}	-1	-1	240	240	-40	42	0	58
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	27	61	4	67	-1	5	-32	32
	Thermal 2{1}	-68	8	-222	232	58	-50	-22	80
	Thermal 3{1}	-69	7	-224	234	59	-51	-23	81
	Thermal 4{1}	123	154	-222	297	58	-50	-49	91
	Thermal 5{1}	-79	-23	-227	241	60	-54	-5	81
	GRT1{1}	26	61	244	253	-41	46	-32	70
	GRT2{1}	-69	7	18	71	18	-8	-22	30
	GRT3{1}	-71	6	16	73	19	-9	-23	31
	GRT4{1}	122	153	18	197	18	-8	-49	52
	GRT5{1}	-80	-24	13	85	20	-12	-5	24
IV10 -	Gravity{1}	-1	-1	178	178	-20	22	0	30
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	27	61	4	67	-1	4	-29	29
	Thermal 2{1}	-68	8	-222	232	37	-29	-15	50
	Thermal 3{1}	-69	7	-224	234	38	-30	-16	51
	Thermal 4{1}	123	154	-222	297	37	-29	-46	66
	Thermal 5{1}	-79	-23	-227	241	39	-33	0	51
	GRT1{1}	26	61	182	194	-21	27	-29	44
	GRT2{1}	-69	7	-44	82	17	-7	-15	24
	GRT3{1}	-71	6	-46	84	18	-8	-16	25
	GRT4{1}	122	153	-44	201	17	-7	-46	49
	GRT5{1}	-80	-24	-49	97	19	-10	0	21
IV10 +	Gravity{1}	-1	-1	143	143	-20	22	0	30
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	27	61	4	67	-1	4	-29	29
	Thermal 2{1}	-68	8	-222	232	37	-29	-15	50
	Thermal 3{1}	-69	7	-224	234	38	-30	-16	51
	Thermal 4{1}	123	154	-222	297	37	-29	-46	66
	Thermal 5{1}	-79	-23	-227	241	39	-33	0	51
	GRT1{1}	26	61	147	161	-21	27	-29	44
	GRT2{1}	-69	7	-80	105	17	-7	-15	24
	GRT3{1}	-71	6	-81	108	18	-8	-16	25

GRT4{1}	122	153	-79	211	17	-7	-46	49
GRT5{1}	-80	-24	-84	119	19	-10	0	21

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

DVI_B_LINE_REV0.OUT

	Thermal 3{1}	-69	7	-224	234	-238	246	79	351
	Thermal 4{1}	123	154	-222	297	-237	245	-7	341
	Thermal 5{1}	-79	-23	-227	241	-241	247	69	352
	GRT1{1}	26	61	-72	98	57	-51	14	78
	GRT2{1}	-69	7	-299	307	-185	195	78	280
	GRT3{1}	-71	6	-300	308	-186	196	79	281
	GRT4{1}	122	153	-298	357	-185	195	-6	269
	GRT5{1}	-80	-24	-303	314	-189	197	69	282
J06 F	Gravity{1}	-1	-1	-89	89	50	-45	0	67
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	27	61	4	67	5	-1	17	17
	Thermal 2{1}	-68	8	-222	232	-243	260	80	365
	Thermal 3{1}	-69	7	-224	234	-244	261	81	367
	Thermal 4{1}	123	154	-222	297	-243	260	0	356
	Thermal 5{1}	-79	-23	-227	241	-247	262	70	367
	GRT1{1}	26	61	-85	107	55	-46	17	73
	GRT2{1}	-69	7	-311	319	-193	216	80	301
	GRT3{1}	-71	6	-313	320	-194	217	81	302
	GRT4{1}	122	153	-311	367	-193	216	1	290
	GRT5{1}	-80	-24	-316	326	-197	218	70	302

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
J07 N	Gravity{1}	-1	-1	-299	299	50	199	-1	205
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	27	61	4	67	5	-7	94	94
	Thermal 2{1}	-68	8	-222	232	-243	540	89	599
	Thermal 3{1}	-69	7	-224	234	-244	542	90	601
	Thermal 4{1}	123	154	-222	297	-243	539	194	623
	Thermal 5{1}	-79	-23	-227	241	-247	547	40	602
	GRT1{1}	26	61	-295	302	55	192	93	220
	GRT2{1}	-69	7	-521	526	-193	739	88	769
	GRT3{1}	-71	6	-522	527	-194	741	89	771

		DVI_B_LINE_REV0.OUT							
	GRT4{1}	122	153	-521	556	-193	738	193	787
	GRT5{1}	-80	-24	-525	532	-197	746	39	773
J07 F	Gravity{1}	-1	-1	-308	308	58	212	-1	220
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	27	61	4	67	4	-7	97	98
	Thermal 2{1}	-68	8	-222	232	-238	549	88	605
	Thermal 3{1}	-69	7	-224	234	-239	552	89	608
	Thermal 4{1}	123	154	-222	297	-238	549	204	632
	Thermal 5{1}	-79	-23	-227	241	-242	557	37	608
	GRT1{1}	26	61	-303	310	62	205	96	235
	GRT2{1}	-69	7	-530	534	-180	761	87	787
	GRT3{1}	-71	6	-531	536	-181	764	88	790
	GRT4{1}	122	153	-530	565	-180	761	203	808
	GRT5{1}	-80	-24	-534	541	-184	769	36	792
J08	Gravity{1}	-1	-1	-311	311	63	215	-1	224
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	27	61	4	67	4	-7	98	99
	Thermal 2{1}	-68	8	-222	232	-234	552	87	605
	Thermal 3{1}	-69	7	-224	234	-235	554	87	608
	Thermal 4{1}	123	154	-222	297	-234	551	208	634
	Thermal 5{1}	-79	-23	-227	241	-238	559	36	609
	GRT1{1}	26	61	-307	314	68	208	97	240
	GRT2{1}	-69	7	-533	538	-171	767	86	790
	GRT3{1}	-71	6	-535	539	-171	770	86	793
	GRT4{1}	122	153	-533	568	-170	767	207	812
	GRT5{1}	-80	-24	-538	544	-174	775	35	795
J09	Gravity{1}	-1	-1	-335	335	92	232	-1	249
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	27	61	4	67	4	-7	104	104
	Thermal 2{1}	-68	8	-222	232	-214	563	81	608
	Thermal 3{1}	-69	7	-224	234	-215	566	82	611
	Thermal 4{1}	123	154	-222	297	-214	563	226	643
	Thermal 5{1}	-79	-23	-227	241	-218	571	28	612
	GRT1{1}	26	61	-331	337	96	225	103	265
	GRT2{1}	-69	7	-557	562	-123	795	80	808
	GRT3{1}	-71	6	-559	563	-123	797	81	811
	GRT4{1}	122	153	-557	591	-122	794	225	835
	GRT5{1}	-80	-24	-562	568	-126	803	26	813

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
J10	Gravity{1}	-1	-1	-404	404	164	274	-1	319
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	27	61	4	67	3	-8	116	117
	Thermal 2{1}	-68	8	-222	232	-170	588	69	616
	Thermal 3{1}	-69	7	-224	234	-171	591	69	619
	Thermal 4{1}	123	154	-222	297	-170	588	268	668
	Thermal 5{1}	-79	-23	-227	241	-173	597	9	621
	GRT1{1}	26	61	-400	405	168	266	115	335
	GRT2{1}	-69	7	-627	630	-6	862	67	865
	GRT3{1}	-71	6	-628	632	-7	865	67	867
	GRT4{1}	122	153	-626	656	-6	861	266	902
	GRT5{1}	-80	-24	-631	636	-9	870	8	870

*** Segment J end ***

*** Segment M begin ***

F10	Gravity{1}	0	0	-279	279	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	5	0	2	5	0	-3	0	3
	Thermal 2{1}	6	0	3	6	0	-4	0	4
	Thermal 3{1}	12	44	211	216	29	-8	0	30
	Thermal 4{1}	5	0	3	6	0	-3	0	3
	Thermal 5{1}	7	22	107	109	15	-4	0	15
	GRT1{1}	4	0	-277	277	0	-3	0	3
	GRT2{1}	5	0	-276	276	0	-4	0	4
	GRT3{1}	12	44	-68	82	29	-8	0	30
	GRT4{1}	5	0	-276	276	0	-3	0	3
	GRT5{1}	6	22	-172	174	15	-4	0	15
M06	Gravity{1}	0	0	-292	292	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	5	0	2	5	0	-4	0	4
	Thermal 2{1}	6	0	3	6	0	-5	0	5
	Thermal 3{1}	12	44	211	216	37	-10	0	38
	Thermal 4{1}	5	0	3	6	0	-4	0	4
	Thermal 5{1}	7	22	107	109	19	-6	0	19

	DVI_B_LINE_REV0.OUT							
GRT1{1}	4	0	-290	290	0	-4	0	4
GRT2{1}	5	0	-289	289	0	-5	0	5
GRT3{1}	12	44	-81	92	37	-10	0	38
GRT4{1}	5	0	-289	289	0	-4	0	4
GRT5{1}	6	22	-185	186	18	-5	0	19

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RESULT PAGE 182

G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

M01 -	Gravity{1}	0	0	-4986	4986	-1	0	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	5	0	2	5	1	-14	0	14
	Thermal 2{1}	6	0	3	6	1	-17	0	17
	Thermal 3{1}	12	44	211	216	134	-36	0	139
	Thermal 4{1}	5	0	3	6	1	-16	0	16
	Thermal 5{1}	7	22	107	109	67	-20	0	70
	GRT1{1}	4	0	-4984	4984	0	-14	0	14
	GRT2{1}	5	0	-4983	4983	0	-17	0	17
	GRT3{1}	12	44	-4775	4775	133	-35	0	138
	GRT4{1}	5	0	-4983	4983	0	-15	0	15
	GRT5{1}	6	22	-4879	4879	66	-20	0	69
M01 +	Gravity{1}	4	-3	2343	2343	6	6	0	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	66	7	83	106	-12	133	2	134
	Thermal 2{1}	77	1	107	131	-1	150	2	150
	Thermal 3{1}	164	5	188	250	-9	317	8	318
	Thermal 4{1}	90	2	113	144	-3	179	1	179
	Thermal 5{1}	98	2	108	146	-4	193	3	193
	GRT1{1}	70	4	2426	2427	-7	140	2	140
	GRT2{1}	81	-3	2450	2451	4	156	2	156
	GRT3{1}	168	2	2531	2537	-3	324	8	324
	GRT4{1}	94	-1	2455	2457	2	186	1	186
	GRT5{1}	102	-1	2451	2453	2	199	3	199
M02	Gravity{1}	4	-3	261	261	2	2	0	3

DVI_B_LINE_REV0.OUT									
		0	0	0	0	0	0	0	0
	Hydrotest{1}								
	Thermal 1{1}	66	7	83	106	-5	68	2	69
	Thermal 2{1}	77	1	107	131	-1	75	2	75
	Thermal 3{1}	164	5	188	250	-4	157	8	157
	Thermal 4{1}	90	2	113	144	-1	91	1	91
	Thermal 5{1}	98	2	108	146	-2	96	3	96
	GRT1{1}	70	4	344	351	-3	71	2	71
	GRT2{1}	81	-3	368	377	2	77	2	77
	GRT3{1}	168	2	450	480	-1	159	8	160
	GRT4{1}	94	-1	374	385	1	93	1	93
	GRT5{1}	102	-1	369	383	1	99	3	99
M03 -	Gravity{1}	4	-3	249	249	2	2	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	66	7	83	106	-4	57	2	57
	Thermal 2{1}	77	1	107	131	0	61	2	61
	Thermal 3{1}	164	5	188	250	-3	128	8	128
	Thermal 4{1}	90	2	113	144	-1	75	1	75
	Thermal 5{1}	98	2	108	146	-1	79	3	79
	GRT1{1}	70	4	331	339	-2	59	2	59
	GRT2{1}	81	-3	355	364	1	63	2	63
	GRT3{1}	168	2	437	468	-1	130	8	130
	GRT4{1}	94	-1	361	373	1	77	1	77
	GRT5{1}	102	-1	357	371	1	81	3	81

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
M03 +	Gravity{1}	4	-3	96	96	2	2	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	66	7	83	106	-4	57	2	57
	Thermal 2{1}	77	1	107	131	0	61	2	61
	Thermal 3{1}	164	5	188	250	-3	128	8	128
	Thermal 4{1}	90	2	113	144	-1	75	1	75
	Thermal 5{1}	98	2	108	146	-1	79	3	79
	GRT1{1}	70	4	178	192	-2	59	2	59

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	GRT2{1}	81	-3	202	218	1	63	2	63
	GRT3{1}	168	2	284	330	-1	130	8	130
	GRT4{1}	94	-1	208	229	1	77	1	77
	GRT5{1}	102	-1	204	228	1	81	3	81
M04	Gravity{1}	4	-3	88	88	1	1	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	66	7	83	106	-3	50	2	50
	Thermal 2{1}	77	1	107	131	0	54	2	54
	Thermal 3{1}	164	5	188	250	-2	111	8	112
	Thermal 4{1}	90	2	113	144	-1	66	1	66
	Thermal 5{1}	98	2	108	146	-1	69	3	69
	GRT1{1}	70	4	171	185	-2	51	2	51
	GRT2{1}	81	-3	195	211	1	55	2	55
	GRT3{1}	168	2	277	324	-1	113	8	113
	GRT4{1}	94	-1	201	222	1	67	1	67
	GRT5{1}	102	-1	196	221	0	70	3	70
M05	Gravity{1}	4	-3	85	85	1	1	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	66	7	83	106	-2	46	2	46
	Thermal 2{1}	77	1	107	131	0	49	2	49
	Thermal 3{1}	164	5	188	250	-2	102	8	103
	Thermal 4{1}	90	2	113	144	-1	61	1	61
	Thermal 5{1}	98	2	108	146	-1	63	3	64
	GRT1{1}	70	4	168	182	-1	47	2	47
	GRT2{1}	81	-3	192	208	1	50	2	51
	GRT3{1}	168	2	274	321	-1	103	8	104
	GRT4{1}	94	-1	198	219	0	62	1	62
	GRT5{1}	102	-1	193	219	0	65	3	65
M24 -	Gravity{1}	4	-3	36	37	-3	-4	0	5
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	66	7	83	106	6	-33	2	34
	Thermal 2{1}	77	1	107	131	1	-43	2	43
	Thermal 3{1}	164	5	188	250	5	-94	8	95
	Thermal 4{1}	90	2	113	144	2	-47	1	47
	Thermal 5{1}	98	2	108	146	2	-54	3	55
	GRT1{1}	70	4	119	138	3	-37	2	37
	GRT2{1}	81	-3	143	164	-2	-46	2	46
	GRT3{1}	168	2	225	281	2	-98	8	98
	GRT4{1}	94	-1	149	176	-1	-51	1	51
	GRT5{1}	102	-1	144	177	-1	-58	3	58

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
M24 +	Gravity{1}	4	1	36	37	-3	-4	0	5
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	66	17	83	107	6	-33	2	34
	Thermal 2{1}	77	19	107	133	1	-43	2	43
	Thermal 3{1}	164	48	188	254	5	-94	8	95
	Thermal 4{1}	90	17	113	145	2	-47	1	47
	Thermal 5{1}	98	23	108	148	2	-54	3	55
	GRT1{1}	70	17	119	139	3	-37	2	37
	GRT2{1}	81	19	143	165	-2	-46	2	46
	GRT3{1}	168	48	225	285	2	-98	8	98
	GRT4{1}	94	18	149	177	-1	-51	1	51
	GRT5{1}	102	23	144	179	-1	-58	3	58
M07 N	Gravity{1}	4	1	28	29	-3	-4	0	5
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	66	17	83	107	10	-47	2	48
	Thermal 2{1}	77	19	107	133	5	-58	2	58
	Thermal 3{1}	164	48	188	254	14	-127	8	128
	Thermal 4{1}	90	17	113	145	5	-65	1	65
	Thermal 5{1}	98	23	108	148	7	-74	3	75
	GRT1{1}	70	17	111	133	7	-51	2	52
	GRT2{1}	81	19	135	158	2	-63	2	63
	GRT3{1}	168	48	217	278	12	-132	8	132
	GRT4{1}	94	18	141	170	2	-69	1	70
	GRT5{1}	102	23	136	172	4	-79	3	79
M07 F	Gravity{1}	4	1	26	27	-3	-4	0	5
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	66	17	83	107	10	-46	1	47
	Thermal 2{1}	77	19	107	133	5	-57	1	58
	Thermal 3{1}	164	48	188	254	16	-127	6	128
	Thermal 4{1}	90	17	113	145	6	-64	1	65
	Thermal 5{1}	98	23	108	148	7	-74	3	74

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	GRT1{1}	70	17	109	131	7	-50	1	50
	GRT2{1}	81	19	133	157	2	-61	1	61
	GRT3{1}	168	48	215	277	13	-130	6	131
	GRT4{1}	94	18	139	169	3	-68	1	68
	GRT5{1}	102	23	134	171	4	-78	3	78
M31	Gravity{1}	4	1	3	5	-3	5	0	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	66	17	83	107	10	1	-8	13
	Thermal 2{1}	77	19	107	133	5	4	-9	11
	Thermal 3{1}	164	48	188	254	16	-19	-21	32
	Thermal 4{1}	90	17	113	145	6	0	-9	11
	Thermal 5{1}	98	23	108	148	7	-12	-10	18
	GRT1{1}	70	17	86	112	7	6	-9	13
	GRT2{1}	81	19	110	138	2	9	-10	13
	GRT3{1}	168	48	192	259	13	-14	-21	29
	GRT4{1}	94	18	116	150	3	5	-9	11
	GRT5{1}	102	23	111	153	4	-7	-11	14

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
M08 N	Gravity{1}	4	1	-9	9	-3	4	-1	5
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	66	17	83	107	10	25	-13	30
	Thermal 2{1}	77	19	107	133	5	35	-15	38
	Thermal 3{1}	164	48	188	254	16	36	-35	53
	Thermal 4{1}	90	17	113	145	6	33	-14	36
	Thermal 5{1}	98	23	108	148	7	19	-17	27
	GRT1{1}	70	17	74	104	7	29	-14	33
	GRT2{1}	81	19	98	129	2	39	-15	42
	GRT3{1}	168	48	180	251	13	40	-36	55
	GRT4{1}	94	18	104	141	3	37	-15	40
	GRT5{1}	102	23	99	145	4	23	-18	30
M08 F	Gravity{1}	4	1	-10	10	-3	4	-1	5

DVI_B_LINE_REV0.OUT
G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

M09 F	Gravity{1}	4	1	-32	33	6	-4	1	7
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	66	17	83	107	-26	56	10	63
	Thermal 2{1}	77	19	107	133	-42	75	12	87
	Thermal 3{1}	164	48	188	254	-68	106	20	128
	Thermal 4{1}	90	17	113	145	-44	75	20	89
	Thermal 5{1}	98	23	108	148	-41	59	18	74
	GRT1{1}	70	17	50	88	-20	52	11	57
	GRT2{1}	81	19	74	111	-36	71	13	81
	GRT3{1}	168	48	156	234	-62	103	21	121
	GRT4{1}	94	18	80	125	-38	71	21	83
	GRT5{1}	102	23	76	129	-34	56	19	68
M10 -	Gravity{1}	4	1	-38	38	6	-9	1	11
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	66	17	83	107	-26	68	8	73
	Thermal 2{1}	77	19	107	133	-42	90	10	100
	Thermal 3{1}	164	48	188	254	-68	133	13	150
	Thermal 4{1}	90	17	113	145	-44	91	17	103
	Thermal 5{1}	98	23	108	148	-41	75	15	87
	GRT1{1}	70	17	45	85	-20	59	8	63
	GRT2{1}	81	19	69	108	-36	81	10	90
	GRT3{1}	168	48	150	230	-62	125	14	140
	GRT4{1}	94	18	75	121	-38	82	18	93
	GRT5{1}	102	23	70	126	-34	66	16	76
M10 +	Gravity{1}	3	0	-123	124	10	-14	0	17
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	152	402	183	467	-67	80	55	118
	Thermal 2{1}	160	402	-130	452	-67	139	55	163
	Thermal 3{1}	233	406	-70	473	-67	167	47	186
	Thermal 4{1}	220	665	-126	712	-67	139	84	176
	Thermal 5{1}	178	468	-152	523	-40	107	53	126
	GRT1{1}	155	402	59	435	-57	67	55	104
	GRT2{1}	164	402	-254	503	-56	125	55	148
	GRT3{1}	236	406	-194	508	-56	154	47	170
	GRT4{1}	223	665	-249	744	-57	125	84	161
	GRT5{1}	181	468	-275	572	-30	94	53	112

			DVI_B_LINE_REV0.OUT							
M11	-	Gravity{1}	3	0	-130	130	10	-33	0	34
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	152	402	183	467	-67	108	-6	127
		Thermal 2{1}	160	402	-130	452	-67	119	-6	136
		Thermal 3{1}	233	406	-70	473	-67	157	-14	171
		Thermal 4{1}	220	665	-126	712	-67	120	-17	138
		Thermal 5{1}	178	468	-152	523	-40	84	-18	95
		GRT1{1}	155	402	53	434	-57	75	-6	94
		GRT2{1}	164	402	-260	506	-56	86	-6	103
		GRT3{1}	236	406	-200	510	-56	124	-14	137
		GRT4{1}	223	665	-255	746	-57	87	-17	105
		GRT5{1}	181	468	-281	575	-30	51	-18	62

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GLOBAL FORCES & MOMENTS

		DVI_B_LINE_REV0.OUT							
	Thermal 5{1}	178	468	-152	523	-40	63	-81	111
	GRT1{1}	155	402	-88	440	-57	70	-61	109
	GRT2{1}	164	402	-401	591	-56	38	-61	91
	GRT3{1}	236	406	-341	580	-56	84	-69	123
	GRT4{1}	223	665	-396	806	-57	40	-107	128
	GRT5{1}	181	468	-422	656	-30	1	-81	87
M11 M+	Gravity{1}	3	-1	274	274	10	-63	0	64
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	152	-144	-154	260	-67	133	-61	161
	Thermal 2{1}	160	-148	123	251	-67	101	-61	135
	Thermal 3{1}	233	-191	72	310	-67	147	-69	176
	Thermal 4{1}	220	-349	122	430	-67	103	-107	163
	Thermal 5{1}	178	-298	175	389	-40	63	-81	111
	GRT1{1}	155	-146	119	244	-57	70	-61	109
	GRT2{1}	164	-150	397	455	-56	38	-61	91
	GRT3{1}	236	-193	346	461	-56	84	-69	123
	GRT4{1}	223	-350	396	573	-57	40	-107	128
	GRT5{1}	181	-299	449	569	-30	1	-81	87
M17 -	Gravity{1}	3	-1	173	173	10	-32	0	34
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	152	-144	-154	260	-67	112	-41	137
	Thermal 2{1}	160	-148	123	251	-67	118	-40	141
	Thermal 3{1}	233	-191	72	310	-67	157	-43	176
	Thermal 4{1}	220	-349	122	430	-67	119	-60	149
	Thermal 5{1}	178	-298	175	389	-40	87	-41	104
	GRT1{1}	155	-146	19	214	-57	79	-41	106
	GRT2{1}	164	-150	297	370	-56	86	-40	110
	GRT3{1}	236	-193	245	391	-56	124	-43	143
	GRT4{1}	223	-350	295	509	-57	87	-59	120
	GRT5{1}	181	-299	348	494	-30	55	-41	75

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DVI_B_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

		DVI_B_LINE_REV0.OUT								
		3	-1	133	133	10	-32	0	34	
M17	+	Gravity{1}								
		Hydrotest{1}	0	0	0	0	0	0	0	
		Thermal 1{1}	152	-144	-154	260	-67	112	-41	137
		Thermal 2{1}	160	-148	123	251	-67	118	-40	141
		Thermal 3{1}	233	-191	72	310	-67	157	-43	176
		Thermal 4{1}	220	-349	122	430	-67	119	-60	149
		Thermal 5{1}	178	-298	175	389	-40	87	-41	104
		GRT1{1}	155	-146	-21	214	-57	79	-41	106
		GRT2{1}	164	-150	256	339	-56	86	-40	110
		GRT3{1}	236	-193	205	367	-56	124	-43	143
		GRT4{1}	223	-350	255	487	-57	87	-59	120
		GRT5{1}	181	-299	308	466	-30	55	-41	75
M13	-	Gravity{1}	3	-1	127	127	10	-12	0	16
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	152	-144	-154	260	-67	88	-19	112
		Thermal 2{1}	160	-148	123	251	-67	137	-18	153
		Thermal 3{1}	233	-191	72	310	-67	168	-14	181
		Thermal 4{1}	220	-349	122	430	-67	138	-6	154
		Thermal 5{1}	178	-298	175	389	-40	114	5	121
		GRT1{1}	155	-146	-28	215	-57	76	-18	96
		GRT2{1}	164	-150	250	334	-56	124	-17	138
		GRT3{1}	236	-193	199	364	-56	155	-14	166
		GRT4{1}	223	-350	249	484	-57	126	-6	138
		GRT5{1}	181	-299	302	462	-30	102	5	106
M13	+	Gravity{1}	2	0	48	48	15	-8	0	17
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	97	11	-192	216	-55	126	-22	139
		Thermal 2{1}	101	11	-166	195	-41	102	-23	112
		Thermal 3{1}	139	8	-191	236	-51	125	-37	140
		Thermal 4{1}	79	4	-167	185	-41	103	-23	113
		Thermal 5{1}	49	-3	-89	101	-21	55	-19	62
		GRT1{1}	99	11	-145	176	-39	118	-22	126
		GRT2{1}	103	11	-118	157	-25	94	-23	100
		GRT3{1}	140	8	-143	200	-35	116	-38	127
		GRT4{1}	81	4	-120	144	-26	95	-23	101
		GRT5{1}	50	-3	-41	65	-5	47	-19	51
M22	N	Gravity{1}	2	0	33	33	15	6	0	17
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	97	11	-192	216	-55	56	-26	83
		Thermal 2{1}	101	11	-166	195	-41	42	-27	64
		Thermal 3{1}	139	8	-191	236	-51	56	-40	85

	DVI_B_LINE_REV0.OUT							
Thermal 4{1}	79	4	-167	185	-41	42	-24	64
Thermal 5{1}	49	-3	-89	101	-21	23	-17	36
GRT1{1}	99	11	-159	188	-39	63	-26	79
GRT2{1}	103	11	-133	169	-25	48	-28	61
GRT3{1}	140	8	-158	211	-35	62	-41	82
GRT4{1}	81	4	-134	157	-26	49	-24	60
GRT5{1}	50	-3	-56	75	-5	30	-18	35

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
M22 F	Gravity{1}	2	0	31	31	14	8	0	16
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	97	11	-192	216	-47	49	-22	72
	Thermal 2{1}	101	11	-166	195	-34	36	-24	55
	Thermal 3{1}	139	8	-191	236	-43	48	-35	74
	Thermal 4{1}	79	4	-167	185	-35	36	-21	54
	Thermal 5{1}	49	-3	-89	101	-18	20	-15	31
	GRT1{1}	99	11	-162	190	-33	57	-23	69
	GRT2{1}	103	11	-136	171	-20	43	-24	53
	GRT3{1}	140	8	-160	213	-29	56	-36	73
	GRT4{1}	81	4	-137	159	-21	44	-21	53
	GRT5{1}	50	-3	-58	77	-3	28	-16	32
M23 N	Gravity{1}	2	0	5	5	3	8	1	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	97	11	-192	216	73	49	38	96
	Thermal 2{1}	101	11	-166	195	69	36	40	87
	Thermal 3{1}	139	8	-191	236	76	48	51	103
	Thermal 4{1}	79	4	-167	185	69	36	28	83
	Thermal 5{1}	49	-3	-89	101	38	20	15	45
	GRT1{1}	99	11	-187	212	76	57	39	102
	GRT2{1}	103	11	-161	191	72	43	40	93
	GRT3{1}	140	8	-185	233	79	56	52	110
	GRT4{1}	81	4	-162	181	73	44	29	89
	GRT5{1}	50	-3	-83	97	41	28	15	52

DVI_B_LINE_REV0.OUT

M23 F	Gravity{1}	2	0	3	3	3	8	1	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	97	11	-192	216	80	42	42	99
	Thermal 2{1}	101	11	-166	195	76	29	43	92
	Thermal 3{1}	139	8	-191	236	83	41	56	108
	Thermal 4{1}	79	4	-167	185	76	30	31	87
	Thermal 5{1}	49	-3	-89	101	41	17	17	47
	GRT1{1}	99	11	-190	214	83	49	42	105
	GRT2{1}	103	11	-163	193	78	37	44	97
	GRT3{1}	140	8	-188	235	86	49	57	114
	GRT4{1}	81	4	-164	183	79	37	32	93
	GRT5{1}	50	-3	-86	99	44	24	17	53
M21 N	Gravity{1}	2	0	-19	19	3	4	1	5
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	97	11	-192	216	80	-60	36	106
	Thermal 2{1}	101	11	-166	195	76	-59	37	103
	Thermal 3{1}	139	8	-191	236	83	-60	52	115
	Thermal 4{1}	79	4	-167	185	76	-59	29	100
	Thermal 5{1}	49	-3	-89	101	41	-30	19	54
	GRT1{1}	99	11	-211	233	83	-56	36	107
	GRT2{1}	103	11	-185	212	78	-55	38	103
	GRT3{1}	140	8	-209	252	86	-56	53	115
	GRT4{1}	81	4	-186	203	79	-55	30	101
	GRT5{1}	50	-3	-107	118	44	-27	19	55

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
M21 F	Gravity{1}	2	0	-21	21	2	3	1	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	97	11	-192	216	74	-67	32	105
	Thermal 2{1}	101	11	-166	195	70	-65	33	101
	Thermal 3{1}	139	8	-191	236	77	-67	47	112
	Thermal 4{1}	79	4	-167	185	70	-65	26	99

DVI_B_LINE_REV0.OUT

	Thermal 5{1}	49	-3	-89	101	38	-33	17	54
	GRT1{1}	99	11	-213	235	76	-64	32	105
	GRT2{1}	103	11	-187	214	72	-62	34	101
	GRT3{1}	140	8	-211	254	79	-64	48	112
	GRT4{1}	81	4	-188	205	73	-62	27	99
	GRT5{1}	50	-3	-109	120	40	-31	18	54
M20 N	Gravity{1}	2	0	-51	51	-24	-1	-1	24
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	97	11	-192	216	-66	-86	-40	116
	Thermal 2{1}	101	11	-166	195	-50	-81	-41	104
	Thermal 3{1}	139	8	-191	236	-62	-86	-54	119
	Thermal 4{1}	79	4	-167	185	-51	-81	-31	101
	Thermal 5{1}	49	-3	-89	101	-26	-42	-18	53
	GRT1{1}	99	11	-243	263	-90	-87	-40	131
	GRT2{1}	103	11	-217	240	-74	-82	-42	118
	GRT3{1}	140	8	-241	279	-85	-86	-55	133
	GRT4{1}	81	4	-218	232	-75	-82	-32	115
	GRT5{1}	50	-3	-139	148	-50	-43	-18	68
M20 F	Gravity{1}	2	0	-54	54	-25	-4	-1	25
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	97	11	-192	216	-70	-99	-43	128
	Thermal 2{1}	101	11	-166	195	-54	-92	-44	116
	Thermal 3{1}	139	8	-191	236	-66	-98	-58	131
	Thermal 4{1}	79	4	-167	185	-55	-92	-33	112
	Thermal 5{1}	49	-3	-89	101	-28	-48	-19	59
	GRT1{1}	99	11	-246	266	-95	-103	-43	146
	GRT2{1}	103	11	-220	243	-79	-96	-45	132
	GRT3{1}	140	8	-245	282	-91	-102	-59	148
	GRT4{1}	81	4	-221	235	-79	-96	-34	129
	GRT5{1}	50	-3	-142	151	-53	-52	-19	77
M26	Gravity{1}	2	0	-65	65	-13	-16	0	20
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	97	11	-192	216	-32	-136	-26	142
	Thermal 2{1}	101	11	-166	195	-22	-125	-27	129
	Thermal 3{1}	139	8	-191	236	-29	-135	-32	142
	Thermal 4{1}	79	4	-167	185	-22	-125	-19	128
	Thermal 5{1}	49	-3	-89	101	-11	-65	-8	67
	GRT1{1}	99	11	-258	276	-46	-152	-26	161
	GRT2{1}	103	11	-231	254	-35	-140	-27	147
	GRT3{1}	140	8	-256	292	-42	-151	-33	160
	GRT4{1}	81	4	-232	246	-35	-141	-19	146

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GRT5{1}	50	-3	-154	162	-24	-81	-9	85

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
M27	Gravity{1}	2	0	-68	68	-11	-18	0	21
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	97	11	-192	216	-25	-143	-23	147
	Thermal 2{1}	101	11	-166	195	-16	-131	-23	134
	Thermal 3{1}	139	8	-191	236	-22	-142	-28	146
	Thermal 4{1}	79	4	-167	185	-16	-131	-16	133
	Thermal 5{1}	49	-3	-89	101	-7	-68	-7	69
	GRT1{1}	99	11	-260	279	-36	-161	-23	167
	GRT2{1}	103	11	-234	256	-26	-149	-24	153
	GRT3{1}	140	8	-259	294	-32	-160	-28	166
	GRT4{1}	81	4	-235	249	-27	-149	-16	152
	GRT5{1}	50	-3	-157	164	-18	-87	-7	89
M28	Gravity{1}	2	0	-75	75	-5	-23	0	24
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	97	11	-192	216	-11	-157	-16	159
	Thermal 2{1}	101	11	-166	195	-3	-143	-17	144
	Thermal 3{1}	139	8	-191	236	-8	-156	-18	157
	Thermal 4{1}	79	4	-167	185	-4	-143	-10	144
	Thermal 5{1}	49	-3	-89	101	-1	-75	-3	75
	GRT1{1}	99	11	-268	286	-17	-181	-17	182
	GRT2{1}	103	11	-242	263	-9	-166	-17	167
	GRT3{1}	140	8	-266	301	-13	-179	-18	181
	GRT4{1}	81	4	-243	256	-9	-167	-11	167
	GRT5{1}	50	-3	-164	171	-6	-98	-3	99

*** Segment M end ***

*** Segment N begin ***

M10	Gravity{1}	1	1	85	85	-4	5	1	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-86	-385	-100	407	41	-12	-48	64

Thermal 2{1}	-84	-383	237	458	24	-48	-45	71
Thermal 3{1}	-69	-358	259	447	-1	-34	-34	48
Thermal 4{1}	-130	-648	238	703	23	-48	-67	86
Thermal 5{1}	-80	-445	260	521	-1	-32	-38	50
GRT1{1}	-85	-384	-14	394	37	-7	-47	60
GRT2{1}	-83	-383	322	507	20	-44	-45	66
GRT3{1}	-68	-357	344	501	-5	-29	-33	44
GRT4{1}	-129	-647	324	735	19	-43	-66	81
GRT5{1}	-79	-444	345	568	-4	-27	-38	47

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result
N14 -	Gravity{1}	1	1	79	79	8	5	1	10
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-86	-385	-100	407	26	-12	-35	45
	Thermal 2{1}	-84	-383	237	458	60	-48	-33	84
	Thermal 3{1}	-69	-358	259	447	38	-34	-24	56
	Thermal 4{1}	-130	-648	238	703	59	-48	-48	89
	Thermal 5{1}	-80	-445	260	521	39	-32	-26	57
	GRT1{1}	-85	-384	-21	394	34	-7	-34	49
	GRT2{1}	-83	-383	316	503	68	-44	-32	87
	GRT3{1}	-68	-357	338	496	46	-29	-23	59
	GRT4{1}	-129	-647	317	732	67	-43	-47	93
	GRT5{1}	-79	-444	339	564	47	-27	-26	60
N14 +	Gravity{1}	1	1	16	16	8	5	1	10
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-86	-385	-100	407	26	-12	-35	45
	Thermal 2{1}	-84	-383	237	458	60	-48	-33	84
	Thermal 3{1}	-69	-358	259	447	38	-34	-24	56
	Thermal 4{1}	-130	-648	238	703	59	-48	-48	89
	Thermal 5{1}	-80	-445	260	521	39	-32	-26	57
	GRT1{1}	-85	-384	-83	402	34	-7	-34	49
	GRT2{1}	-83	-383	253	466	68	-44	-32	87

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	GRT3{1}	-68	-357	275	456	46	-29	-23	59
	GRT4{1}	-129	-647	255	708	67	-43	-47	93
	GRT5{1}	-79	-444	276	529	47	-27	-26	60
N12	Gravity{1}	1	1	12	12	10	5	1	11
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-86	-385	-100	407	16	-12	-26	33
	Thermal 2{1}	-84	-383	237	458	83	-48	-25	100
	Thermal 3{1}	-69	-358	259	447	63	-34	-17	74
	Thermal 4{1}	-130	-648	238	703	82	-48	-35	101
	Thermal 5{1}	-80	-445	260	521	64	-32	-18	74
	GRT1{1}	-85	-384	-87	403	26	-7	-25	37
	GRT2{1}	-83	-383	249	464	93	-44	-24	106
	GRT3{1}	-68	-357	271	454	73	-29	-16	80
	GRT4{1}	-129	-647	251	706	92	-43	-34	107
	GRT5{1}	-79	-444	272	527	74	-27	-18	81
N13 -	Gravity{1}	1	1	8	8	11	5	1	12
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-86	-385	-100	407	6	-12	-18	22
	Thermal 2{1}	-84	-383	237	458	107	-48	-16	119
	Thermal 3{1}	-69	-358	259	447	89	-34	-10	96
	Thermal 4{1}	-130	-648	238	703	106	-48	-22	118
	Thermal 5{1}	-80	-445	260	521	90	-32	-11	96
	GRT1{1}	-85	-384	-91	404	17	-7	-17	25
	GRT2{1}	-83	-383	245	462	118	-44	-16	127
	GRT3{1}	-68	-357	267	451	100	-29	-10	105
	GRT4{1}	-129	-647	247	705	117	-43	-21	126
	GRT5{1}	-79	-444	268	525	101	-27	-10	105

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
N13 +	Gravity{1}	1	1	-54	54	11	5	1	12
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-86	-385	-100	407	6	-12	-18	22

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	Thermal 2{1}	-84	-383	237	458	107	-48	-16	119
	Thermal 3{1}	-69	-358	259	447	89	-34	-10	96
	Thermal 4{1}	-130	-648	238	703	106	-48	-22	118
	Thermal 5{1}	-80	-445	260	521	90	-32	-11	96
	GRT1{1}	-85	-384	-154	423	17	-7	-17	25
	GRT2{1}	-83	-383	183	432	118	-44	-16	127
	GRT3{1}	-68	-357	204	417	100	-29	-10	105
	GRT4{1}	-129	-647	184	685	117	-43	-21	126
	GRT5{1}	-79	-444	205	496	101	-27	-10	105
N01 -	Gravity{1}	1	1	-66	66	-7	5	0	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-86	-385	-100	407	-24	-12	8	28
	Thermal 2{1}	-84	-383	237	458	177	-48	9	184
	Thermal 3{1}	-69	-358	259	447	166	-34	10	169
	Thermal 4{1}	-130	-648	238	703	176	-48	16	184
	Thermal 5{1}	-80	-445	260	521	167	-32	13	171
	GRT1{1}	-85	-384	-166	427	-31	-7	8	33
	GRT2{1}	-83	-383	171	427	170	-44	9	176
	GRT3{1}	-68	-357	192	411	159	-29	10	162
	GRT4{1}	-129	-647	172	682	169	-43	17	176
	GRT5{1}	-79	-444	193	491	160	-27	13	163
N01 +	Gravity{1}	1	1	-107	107	-7	5	0	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-86	-385	-100	407	-24	-12	8	28
	Thermal 2{1}	-84	-383	237	458	177	-48	9	184
	Thermal 3{1}	-69	-358	259	447	166	-34	10	169
	Thermal 4{1}	-130	-648	238	703	176	-48	16	184
	Thermal 5{1}	-80	-445	260	521	167	-32	13	171
	GRT1{1}	-85	-384	-206	445	-31	-7	8	33
	GRT2{1}	-83	-383	130	413	170	-44	9	176
	GRT3{1}	-68	-357	152	394	159	-29	10	162
	GRT4{1}	-129	-647	132	673	169	-43	17	176
	GRT5{1}	-79	-444	153	476	160	-27	13	163
N01 M-	Gravity{1}	1	1	-207	207	-28	5	0	29
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-86	-385	-100	407	-37	-12	20	44
	Thermal 2{1}	-84	-383	237	458	209	-48	20	216
	Thermal 3{1}	-69	-358	259	447	201	-34	20	205
	Thermal 4{1}	-130	-648	238	703	209	-48	34	217
	Thermal 5{1}	-80	-445	260	521	202	-32	24	206
	GRT1{1}	-85	-384	-307	499	-66	-7	20	69

	DVI_B_LINE_REV0.OUT							
GRT2{1}	-83	-383	30	393	181	-44	20	187
GRT3{1}	-68	-357	52	367	173	-29	20	176
GRT4{1}	-129	-647	31	661	180	-43	34	189
GRT5{1}	-79	-444	52	454	174	-27	24	178

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
N01 M+	Gravity{1}	1	1	187	187	-28	5	0	29
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-86	-385	37	396	-37	-12	20	44
	Thermal 2{1}	-84	-383	-412	569	209	-48	20	216
	Thermal 3{1}	-69	-358	-391	534	201	-34	20	205
	Thermal 4{1}	-130	-648	-411	778	209	-48	34	217
	Thermal 5{1}	-80	-445	-390	597	202	-32	24	206
	GRT1{1}	-85	-384	224	453	-66	-7	20	69
	GRT2{1}	-83	-383	-225	452	181	-44	20	187
	GRT3{1}	-68	-357	-203	417	173	-29	20	176
	GRT4{1}	-129	-647	-224	697	180	-43	34	189
	GRT5{1}	-79	-444	-203	495	174	-27	24	178
N09 -	Gravity{1}	1	1	86	86	-10	5	0	11
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-86	-385	37	396	-32	-12	31	47
	Thermal 2{1}	-84	-383	-412	569	153	-48	31	164
	Thermal 3{1}	-69	-358	-391	534	148	-34	29	154
	Thermal 4{1}	-130	-648	-411	778	153	-48	52	168
	Thermal 5{1}	-80	-445	-390	597	149	-32	35	157
	GRT1{1}	-85	-384	123	413	-42	-7	31	53
	GRT2{1}	-83	-383	-326	509	144	-44	31	153
	GRT3{1}	-68	-357	-304	474	138	-29	29	144
	GRT4{1}	-129	-647	-325	736	143	-43	52	158
	GRT5{1}	-79	-444	-303	544	140	-27	35	147
N09 +	Gravity{1}	1	1	46	46	-10	5	0	11
	Hydrotest{1}	0	0	0	0	0	0	0	0

		DVI_B_LINE_REV0.OUT							
	Thermal 1{1}	-86	-385	37	396	-32	-12	31	47
	Thermal 2{1}	-84	-383	-412	569	153	-48	31	164
	Thermal 3{1}	-69	-358	-391	534	148	-34	29	154
	Thermal 4{1}	-130	-648	-411	778	153	-48	52	168
	Thermal 5{1}	-80	-445	-390	597	149	-32	35	157
	GRT1{1}	-85	-384	83	402	-42	-7	31	53
	GRT2{1}	-83	-383	-366	536	144	-44	31	153
	GRT3{1}	-68	-357	-344	501	138	-29	29	144
	GRT4{1}	-129	-647	-365	754	143	-43	52	158
	GRT5{1}	-79	-444	-343	567	140	-27	35	147
N03	Gravity{1}	1	1	35	35	3	5	0	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-86	-385	37	396	-21	-12	58	63
	Thermal 2{1}	-84	-383	-412	569	27	-48	57	80
	Thermal 3{1}	-69	-358	-391	534	28	-34	50	67
	Thermal 4{1}	-130	-648	-411	778	27	-48	91	107
	Thermal 5{1}	-80	-445	-390	597	30	-32	60	74
	GRT1{1}	-85	-384	72	400	-18	-7	57	61
	GRT2{1}	-83	-383	-377	544	30	-44	57	78
	GRT3{1}	-68	-357	-355	508	31	-29	50	65
	GRT4{1}	-129	-647	-376	760	30	-43	91	105
	GRT5{1}	-79	-444	-354	574	33	-27	59	73

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
N10	Gravity{1}	1	1	33	33	5	5	0	7
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-86	-385	37	396	-19	-12	62	66
	Thermal 2{1}	-84	-383	-412	569	6	-48	61	78
	Thermal 3{1}	-69	-358	-391	534	8	-34	53	64
	Thermal 4{1}	-130	-648	-411	778	6	-48	98	109
	Thermal 5{1}	-80	-445	-390	597	10	-32	64	72
	GRT1{1}	-85	-384	70	400	-15	-7	62	64
	GRT2{1}	-83	-383	-379	545	10	-44	61	76

DVI_B_LINE_REV0.OUT									
	GRT3{1}	-68	-357	-358	510	13	-29	53	62
	GRT4{1}	-129	-647	-378	761	11	-43	98	107
	GRT5{1}	-79	-444	-357	575	15	-27	63	70
N15 N	Gravity{1}	1	1	30	30	6	5	0	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-86	-385	37	396	-17	-12	66	70
	Thermal 2{1}	-84	-383	-412	569	-16	-48	66	83
	Thermal 3{1}	-69	-358	-391	534	-12	-34	57	67
	Thermal 4{1}	-130	-648	-411	778	-16	-48	105	116
	Thermal 5{1}	-80	-445	-390	597	-10	-32	68	76
	GRT1{1}	-85	-384	67	399	-11	-7	66	68
	GRT2{1}	-83	-383	-382	547	-9	-44	65	79
	GRT3{1}	-68	-357	-361	512	-6	-29	57	64
	GRT4{1}	-129	-647	-381	762	-9	-43	105	113
	GRT5{1}	-79	-444	-360	577	-4	-27	68	73
N15 F	Gravity{1}	1	1	26	26	8	4	0	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-86	-385	37	396	-15	-14	52	56
	Thermal 2{1}	-84	-383	-412	569	-35	-29	51	69
	Thermal 3{1}	-69	-358	-391	534	-31	-15	43	55
	Thermal 4{1}	-130	-648	-411	778	-35	-28	80	92
	Thermal 5{1}	-80	-445	-390	597	-29	-13	50	60
	GRT1{1}	-85	-384	62	399	-8	-10	52	54
	GRT2{1}	-83	-383	-387	550	-28	-25	51	63
	GRT3{1}	-68	-357	-365	515	-23	-12	43	50
	GRT4{1}	-129	-647	-385	764	-28	-25	80	88
	GRT5{1}	-79	-444	-364	580	-21	-10	50	55
N16 N	Gravity{1}	1	1	-2	3	8	-2	0	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-86	-385	37	396	-15	-32	-138	142
	Thermal 2{1}	-84	-383	-412	569	-35	175	-138	225
	Thermal 3{1}	-69	-358	-391	534	-31	178	-133	224
	Thermal 4{1}	-130	-648	-411	778	-35	175	-240	299
	Thermal 5{1}	-80	-445	-390	597	-29	179	-169	248
	GRT1{1}	-85	-384	34	395	-8	-34	-138	142
	GRT2{1}	-83	-383	-415	570	-28	173	-138	223
	GRT3{1}	-68	-357	-393	535	-23	175	-133	222
	GRT4{1}	-129	-647	-413	779	-28	172	-240	297
	GRT5{1}	-79	-444	-392	598	-21	177	-169	246

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
N16 F	Gravity{1}	1	1	-7	7	7	-2	0	7
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-86	-385	37	396	-13	-34	-151	155
	Thermal 2{1}	-84	-383	-412	569	-59	194	-151	253
	Thermal 3{1}	-69	-358	-391	534	-53	196	-146	250
	Thermal 4{1}	-130	-648	-411	778	-59	194	-262	331
	Thermal 5{1}	-80	-445	-390	597	-51	197	-185	275
	GRT1{1}	-85	-384	29	395	-6	-36	-151	155
	GRT2{1}	-83	-383	-420	574	-52	192	-151	250
	GRT3{1}	-68	-357	-398	539	-46	194	-146	247
	GRT4{1}	-129	-647	-418	781	-52	192	-262	329
	GRT5{1}	-79	-444	-397	601	-44	195	-185	273
N19	Gravity{1}	1	1	-18	18	5	-2	0	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-86	-385	37	396	-7	-32	-121	125
	Thermal 2{1}	-84	-383	-412	569	-133	178	-121	253
	Thermal 3{1}	-69	-358	-391	534	-123	181	-120	250
	Thermal 4{1}	-130	-648	-411	778	-132	178	-215	309
	Thermal 5{1}	-80	-445	-390	597	-121	182	-154	268
	GRT1{1}	-85	-384	19	394	-2	-35	-121	126
	GRT2{1}	-83	-383	-430	581	-128	176	-121	249
	GRT3{1}	-68	-357	-408	547	-118	179	-120	246
	GRT4{1}	-129	-647	-429	787	-127	176	-215	305
	GRT5{1}	-79	-444	-407	608	-116	180	-154	264
N18 N	Gravity{1}	1	1	-29	29	0	-3	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-86	-385	37	396	0	-31	-88	93
	Thermal 2{1}	-84	-383	-412	569	-215	161	-89	283
	Thermal 3{1}	-69	-358	-391	534	-201	165	-91	275
	Thermal 4{1}	-130	-648	-411	778	-214	161	-162	313
	Thermal 5{1}	-80	-445	-390	597	-199	166	-119	285
	GRT1{1}	-85	-384	8	394	1	-34	-88	94

GRT2{1}	-83	-383	-441	590	-214	158	-89	281
GRT3{1}	-68	-357	-420	555	-201	161	-92	273
GRT4{1}	-129	-647	-440	793	-214	158	-162	311
GRT5{1}	-79	-444	-419	616	-198	163	-120	283

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BENTLEY

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result
N17 N	Gravity{1}	1	1	-63	63	-1	-31	-1	31
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-86	-385	37	396	2	-9	139	140
	Thermal 2{1}	-84	-383	-412	569	-230	-78	137	279
	Thermal 3{1}	-69	-358	-391	534	-216	-62	119	254
	Thermal 4{1}	-130	-648	-411	778	-230	-78	219	327
	Thermal 5{1}	-80	-445	-390	597	-213	-60	142	263
	GRT1{1}	-85	-384	-26	395	1	-40	138	144
	GRT2{1}	-83	-383	-475	616	-231	-109	136	290
	GRT3{1}	-68	-357	-454	581	-216	-93	118	263
	GRT4{1}	-129	-647	-474	813	-230	-108	219	336
	GRT5{1}	-79	-444	-453	639	-214	-91	141	272

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	Thermal 1{1}	-86	-385	37	396	3	-8	157	157
	Thermal 2{1}	-84	-383	-412	569	-240	-95	155	301
	Thermal 3{1}	-69	-358	-391	534	-225	-78	135	274
	Thermal 4{1}	-130	-648	-411	778	-239	-95	249	358
	Thermal 5{1}	-80	-445	-390	597	-223	-76	162	286
	GRT1{1}	-85	-384	-29	395	0	-41	156	162
	GRT2{1}	-83	-383	-478	618	-243	-129	154	315
	GRT3{1}	-68	-357	-457	584	-227	-111	134	287
	GRT4{1}	-129	-647	-477	814	-242	-128	248	369
	GRT5{1}	-79	-444	-456	641	-225	-109	161	298
N06	Gravity{1}	1	1	-76	76	-13	-39	-1	41
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-86	-385	37	396	8	-5	203	203
	Thermal 2{1}	-84	-383	-412	569	-302	-131	200	385
	Thermal 3{1}	-69	-358	-391	534	-283	-112	176	352
	Thermal 4{1}	-130	-648	-411	778	-301	-130	325	461
	Thermal 5{1}	-80	-445	-390	597	-281	-110	212	369
	GRT1{1}	-85	-384	-39	396	-5	-44	202	207
	GRT2{1}	-83	-383	-488	626	-315	-170	199	410
	GRT3{1}	-68	-357	-466	591	-296	-151	175	376
	GRT4{1}	-129	-647	-487	820	-314	-169	324	481
	GRT5{1}	-79	-444	-465	648	-294	-149	211	391
N20	Gravity{1}	1	1	-86	86	-19	-43	-1	47
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-86	-385	37	396	11	-3	227	227
	Thermal 2{1}	-84	-383	-412	569	-334	-149	224	429
	Thermal 3{1}	-69	-358	-391	534	-313	-129	198	392
	Thermal 4{1}	-130	-648	-411	778	-332	-148	363	514
	Thermal 5{1}	-80	-445	-390	597	-311	-127	238	412
	GRT1{1}	-85	-384	-49	397	-8	-46	226	231
	GRT2{1}	-83	-383	-498	634	-353	-192	223	459
	GRT3{1}	-68	-357	-476	599	-333	-172	196	423
	GRT4{1}	-129	-647	-497	826	-352	-191	362	540
	GRT5{1}	-79	-444	-475	655	-330	-170	237	441

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G L O B A L F O R C E S & M O M E N T S

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DVI_B_LINE_REV0.OUT

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

N08	Gravity{1}	1	1	-139	139	-50	-61	-1	79
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-86	-385	37	396	21	3	312	313
	Thermal 2{1}	-84	-383	-412	569	-448	-215	309	585
	Thermal 3{1}	-69	-358	-391	534	-422	-192	274	538
	Thermal 4{1}	-130	-648	-411	778	-447	-214	503	706
	Thermal 5{1}	-80	-445	-390	597	-419	-190	332	567
	GRT1{1}	-85	-384	-103	407	-29	-58	311	318
	GRT2{1}	-83	-383	-552	676	-498	-276	307	647
	GRT3{1}	-68	-357	-530	643	-472	-253	273	601
	GRT4{1}	-129	-647	-550	859	-497	-275	502	758
	GRT5{1}	-79	-444	-529	695	-469	-251	330	626
*** Segment N end ***									
*** Segment 0 begin ***									
M13	Gravity{1}	2	-2	79	79	-5	-4	1	7
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	55	-155	38	169	-13	-38	3	40
	Thermal 2{1}	59	-159	290	336	-26	35	5	44
	Thermal 3{1}	94	-199	262	343	-16	43	23	52
	Thermal 4{1}	141	-352	289	477	-26	35	16	46
	Thermal 5{1}	130	-294	264	416	-19	59	23	66
	GRT1{1}	56	-157	117	204	-18	-42	4	46
	GRT2{1}	60	-161	369	407	-31	30	6	44
	GRT3{1}	95	-201	341	408	-21	39	24	50
	GRT4{1}	142	-354	368	530	-31	31	17	47
	GRT5{1}	131	-296	343	472	-25	54	24	64
015 -	Gravity{1}	2	-2	73	73	6	-4	1	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	55	-155	38	169	-7	-38	-6	39
	Thermal 2{1}	59	-159	290	336	18	35	-4	39
	Thermal 3{1}	94	-199	262	343	24	43	9	50
	Thermal 4{1}	141	-352	289	477	18	35	-5	40
	Thermal 5{1}	130	-294	264	416	21	59	4	62
	GRT1{1}	56	-157	111	200	0	-42	-5	42
	GRT2{1}	60	-161	363	401	24	30	-3	39
	GRT3{1}	95	-201	335	402	30	39	10	50
	GRT4{1}	142	-354	362	526	24	31	-4	40

GRT5{1} 131 DVI_B_LINE_REV0.OUT -296 337 467 27 54 4 61

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
015 +	Gravity{1}	2	-2	10	10	6	-4	1	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	55	-155	38	169	-7	-38	-6	39
	Thermal 2{1}	59	-159	290	336	18	35	-4	39
	Thermal 3{1}	94	-199	262	343	24	43	9	50
	Thermal 4{1}	141	-352	289	477	18	35	-5	40
	Thermal 5{1}	130	-294	264	416	21	59	4	62
	GRT1{1}	56	-157	48	174	0	-42	-5	42
	GRT2{1}	60	-161	300	346	24	30	-3	39
	GRT3{1}	95	-201	273	352	30	39	10	50
	GRT4{1}	142	-354	299	485	24	31	-4	40
	GRT5{1}	131	-296	274	424	27	54	4	61
013	Gravity{1}	2	-2	6	7	7	-4	1	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	55	-155	38	169	-3	-38	-11	40
	Thermal 2{1}	59	-159	290	336	47	35	-10	59
	Thermal 3{1}	94	-199	262	343	50	43	0	66
	Thermal 4{1}	141	-352	289	477	47	35	-19	61
	Thermal 5{1}	130	-294	264	416	47	59	-9	76
	GRT1{1}	56	-157	44	173	4	-42	-10	44
	GRT2{1}	60	-161	296	342	54	30	-9	63
	GRT3{1}	95	-201	269	349	57	39	0	69
	GRT4{1}	142	-354	295	482	54	31	-18	65
	GRT5{1}	131	-296	270	421	54	54	-9	77
014 -	Gravity{1}	2	-2	2	3	8	-4	0	9
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	55	-155	38	169	1	-38	-16	41
	Thermal 2{1}	59	-159	290	336	76	35	-15	85
	Thermal 3{1}	94	-199	262	343	76	43	-10	88

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Thermal 4{1}	141	-352	289	477	75	35	-33	89
Thermal 5{1}	130	-294	264	416	73	59	-22	96
GRT1{1}	56	-157	40	172	8	-42	-16	46
GRT2{1}	60	-161	292	339	83	30	-15	90
GRT3{1}	95	-201	265	346	83	39	-9	92
GRT4{1}	142	-354	291	480	83	31	-33	94
GRT5{1}	131	-296	266	419	80	54	-22	100
014 + Gravity{1}	2	-2	-61	61	8	-4	0	9
Hydrotest{1}	0	0	0	0	0	0	0	0
Thermal 1{1}	55	-155	38	169	1	-38	-16	41
Thermal 2{1}	59	-159	290	336	76	35	-15	85
Thermal 3{1}	94	-199	262	343	76	43	-10	88
Thermal 4{1}	141	-352	289	477	75	35	-33	89
Thermal 5{1}	130	-294	264	416	73	59	-22	96
GRT1{1}	56	-157	-23	168	8	-42	-16	46
GRT2{1}	60	-161	229	286	83	30	-15	90
GRT3{1}	95	-201	202	300	83	39	-9	92
GRT4{1}	142	-354	228	445	83	31	-33	94
GRT5{1}	131	-296	203	382	80	54	-22	100

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
001 -	Gravity{1}	2	-2	-69	69	-5	-4	0	7
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	55	-155	38	169	8	-38	-27	48
	Thermal 2{1}	59	-159	290	336	134	35	-27	141
	Thermal 3{1}	94	-199	262	343	128	43	-28	138
	Thermal 4{1}	141	-352	289	477	133	35	-61	151
	Thermal 5{1}	130	-294	264	416	126	59	-48	147
	GRT1{1}	56	-157	-31	170	3	-42	-27	50
	GRT2{1}	60	-161	221	280	128	30	-27	135
	GRT3{1}	95	-201	194	295	123	39	-28	132
	GRT4{1}	142	-354	220	441	128	31	-61	145
	GRT5{1}	131	-296	195	378	120	54	-48	141

DVI_B_LINE_REV0.OUT

001 +	Gravity{1}	2	-2	-109	109	-5	-4	0	7
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	55	-155	38	169	8	-38	-27	48
	Thermal 2{1}	59	-159	290	336	134	35	-27	141
	Thermal 3{1}	94	-199	262	343	128	43	-28	138
	Thermal 4{1}	141	-352	289	477	133	35	-61	151
	Thermal 5{1}	130	-294	264	416	126	59	-48	147
	GRT1{1}	56	-157	-71	181	3	-42	-27	50
	GRT2{1}	60	-161	181	249	128	30	-27	135
	GRT3{1}	95	-201	153	270	123	39	-28	132
	GRT4{1}	142	-354	180	422	128	31	-61	145
	GRT5{1}	131	-296	155	359	120	54	-48	141
001 M-	Gravity{1}	2	-2	-210	210	-27	-4	0	27
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	55	-155	38	169	13	-38	-35	53
	Thermal 2{1}	59	-159	290	336	173	35	-35	180
	Thermal 3{1}	94	-199	262	343	164	43	-41	174
	Thermal 4{1}	141	-352	289	477	173	35	-80	194
	Thermal 5{1}	130	-294	264	416	162	59	-66	184
	GRT1{1}	56	-157	-172	239	-14	-42	-35	56
	GRT2{1}	60	-161	80	190	146	30	-35	153
	GRT3{1}	95	-201	53	229	137	39	-41	148
	GRT4{1}	142	-354	80	390	146	31	-80	169
	GRT5{1}	131	-296	54	328	135	54	-66	159
001 M+	Gravity{1}	2	-2	209	209	-27	-4	0	27
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	55	-155	14	165	13	-38	-35	53
	Thermal 2{1}	59	-159	-302	346	173	35	-35	180
	Thermal 3{1}	94	-199	-300	373	164	43	-41	174
	Thermal 4{1}	141	-352	-302	485	173	35	-80	194
	Thermal 5{1}	130	-294	-308	446	162	59	-66	184
	GRT1{1}	56	-157	222	278	-14	-42	-35	56
	GRT2{1}	60	-161	-93	195	146	30	-35	153
	GRT3{1}	95	-201	-91	241	137	39	-41	148
	GRT4{1}	142	-354	-93	393	146	31	-80	169
	GRT5{1}	131	-296	-99	339	135	54	-66	159

DVI_B_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
010 -	Gravity{1}	2	-2	108	108	-5	-4	0	7
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	55	-155	14	165	15	-38	-42	59
	Thermal 2{1}	59	-159	-302	346	132	35	-43	143
	Thermal 3{1}	94	-199	-300	373	123	43	-54	141
	Thermal 4{1}	141	-352	-302	485	132	35	-99	169
	Thermal 5{1}	130	-294	-308	446	120	59	-83	157
	GRT1{1}	56	-157	122	207	10	-42	-43	61
	GRT2{1}	60	-161	-194	259	126	30	-44	137
	GRT3{1}	95	-201	-192	294	118	39	-54	135
	GRT4{1}	142	-354	-194	428	126	31	-100	164
	GRT5{1}	131	-296	-200	381	114	54	-84	152
010 +	Gravity{1}	2	-2	68	68	-5	-4	0	7
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	55	-155	14	165	15	-38	-42	59
	Thermal 2{1}	59	-159	-302	346	132	35	-43	143
	Thermal 3{1}	94	-199	-300	373	123	43	-54	141
	Thermal 4{1}	141	-352	-302	485	132	35	-99	169
	Thermal 5{1}	130	-294	-308	446	120	59	-83	157
	GRT1{1}	56	-157	82	186	10	-42	-43	61
	GRT2{1}	60	-161	-234	290	126	30	-44	137
	GRT3{1}	95	-201	-232	322	118	39	-54	135
	GRT4{1}	142	-354	-234	447	126	31	-100	164
	GRT5{1}	131	-296	-240	403	114	54	-84	152
003	Gravity{1}	2	-2	65	65	0	-4	0	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	55	-155	14	165	16	-38	-47	62
	Thermal 2{1}	59	-159	-302	346	108	35	-48	123
	Thermal 3{1}	94	-199	-300	373	99	43	-61	124
	Thermal 4{1}	141	-352	-302	485	108	35	-111	158
	Thermal 5{1}	130	-294	-308	446	95	59	-94	146
	GRT1{1}	56	-157	79	184	16	-42	-47	65
	GRT2{1}	60	-161	-237	293	108	30	-49	122
	GRT3{1}	95	-201	-235	324	99	39	-62	123
	GRT4{1}	142	-354	-237	449	107	31	-111	158

GRT5{1}	131	-296	-243	405	95	54	-94	144
Gravity{1}	2	-2	63	63	3	-4	-1	5
Hydrotest{1}	0	0	0	0	0	0	0	0
Thermal 1{1}	55	-155	14	165	17	-38	-50	65
Thermal 2{1}	59	-159	-302	346	93	35	-51	111
Thermal 3{1}	94	-199	-300	373	84	43	-66	115
Thermal 4{1}	141	-352	-302	485	92	35	-118	154
Thermal 5{1}	130	-294	-308	446	80	59	-100	141
GRT1{1}	56	-157	76	183	20	-42	-50	69
GRT2{1}	60	-161	-239	294	96	30	-52	113
GRT3{1}	95	-201	-238	325	87	39	-67	116
GRT4{1}	142	-354	-239	450	95	31	-118	155
GRT5{1}	131	-296	-246	406	83	54	-101	141

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result
005 N	Gravity{1}	2	-2	55	55	11	-4	-1	12
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	55	-155	14	165	19	-38	-57	71
	Thermal 2{1}	59	-159	-302	346	51	35	-59	85
	Thermal 3{1}	94	-199	-300	373	42	43	-79	100
	Thermal 4{1}	141	-352	-302	485	50	35	-137	150
	Thermal 5{1}	130	-294	-308	446	37	59	-118	137
	GRT1{1}	56	-157	68	180	30	-42	-58	78
	GRT2{1}	60	-161	-247	301	62	30	-60	91
	GRT3{1}	95	-201	-245	331	53	39	-80	104
	GRT4{1}	142	-354	-247	454	62	31	-138	154
	GRT5{1}	131	-296	-253	411	48	54	-119	139
005 F	Gravity{1}	2	-2	53	53	13	-4	-1	13
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	55	-155	14	165	19	-38	-57	71
	Thermal 2{1}	59	-159	-302	346	41	31	-59	78
	Thermal 3{1}	94	-199	-300	373	33	39	-80	95

DVI_B_LINE_REV0.OUT

	Thermal 4{1}	141	-352	-302	485	41	31	-137	147
	Thermal 5{1}	130	-294	-308	446	27	55	-119	134
	GRT1{1}	56	-157	67	180	32	-41	-58	78
	GRT2{1}	60	-161	-249	303	54	28	-60	85
	GRT3{1}	95	-201	-247	333	46	36	-81	99
	GRT4{1}	142	-354	-249	455	54	28	-138	151
	GRT5{1}	131	-296	-255	412	40	51	-120	136
016 N	Gravity{1}	2	-2	45	45	18	1	-1	18
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	55	-155	14	165	21	-37	-49	64
	Thermal 2{1}	59	-159	-302	346	11	5	-51	53
	Thermal 3{1}	94	-199	-300	373	3	13	-72	73
	Thermal 4{1}	141	-352	-302	485	11	5	-121	121
	Thermal 5{1}	130	-294	-308	446	-3	28	-106	110
	GRT1{1}	56	-157	59	177	39	-36	-50	72
	GRT2{1}	60	-161	-256	309	29	5	-52	60
	GRT3{1}	95	-201	-255	338	21	14	-73	77
	GRT4{1}	142	-354	-256	460	29	6	-121	125
	GRT5{1}	131	-296	-263	417	14	29	-107	112
016 F	Gravity{1}	2	-2	41	41	18	4	-1	18
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	55	-155	14	165	21	-36	-38	56
	Thermal 2{1}	59	-159	-302	346	11	-16	-40	45
	Thermal 3{1}	94	-199	-300	373	3	-8	-58	59
	Thermal 4{1}	141	-352	-302	485	10	-16	-96	98
	Thermal 5{1}	130	-294	-308	446	-4	7	-86	86
	GRT1{1}	56	-157	55	175	39	-32	-39	64
	GRT2{1}	60	-161	-261	312	29	-12	-41	51
	GRT3{1}	95	-201	-259	342	20	-4	-59	62
	GRT4{1}	142	-354	-261	462	28	-12	-97	102
	GRT5{1}	131	-296	-267	420	14	10	-87	88

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GLOBAL FORCES & MOMENTS

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result

DVI_B_LINE_REV0.OUT

017 N	Gravity{1}	2	-2	7	7	8	14	1	16
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	55	-155	14	165	15	-30	52	62
	Thermal 2{1}	59	-159	-302	346	140	-145	53	209
	Thermal 3{1}	94	-199	-300	373	131	-136	68	201
	Thermal 4{1}	141	-352	-302	485	140	-145	115	232
	Thermal 5{1}	130	-294	-308	446	128	-125	96	203
	GRT1{1}	56	-157	20	168	23	-16	52	59
	GRT2{1}	60	-161	-295	342	148	-132	54	205
	GRT3{1}	95	-201	-294	368	139	-122	68	197
	GRT4{1}	142	-354	-295	482	147	-131	115	229
	GRT5{1}	131	-296	-302	443	136	-112	96	200
017 F	Gravity{1}	2	-2	2	3	8	14	1	16
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	55	-155	14	165	15	-29	63	70
	Thermal 2{1}	59	-159	-302	346	139	-166	64	226
	Thermal 3{1}	94	-199	-300	373	131	-157	81	220
	Thermal 4{1}	141	-352	-302	485	139	-166	139	257
	Thermal 5{1}	130	-294	-308	446	127	-147	116	226
	GRT1{1}	56	-157	16	168	23	-15	63	69
	GRT2{1}	60	-161	-300	345	147	-152	65	221
	GRT3{1}	95	-201	-298	372	138	-143	82	215
	GRT4{1}	142	-354	-300	485	147	-152	140	253
	GRT5{1}	131	-296	-306	446	135	-133	117	222
018 N	Gravity{1}	2	-2	-21	21	5	12	1	13
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	55	-155	14	165	19	-25	88	93
	Thermal 2{1}	59	-159	-302	346	48	-247	89	267
	Thermal 3{1}	94	-199	-300	373	40	-238	106	263
	Thermal 4{1}	141	-352	-302	485	48	-247	191	316
	Thermal 5{1}	130	-294	-308	446	34	-230	156	280
	GRT1{1}	56	-157	-7	167	24	-13	88	93
	GRT2{1}	60	-161	-323	366	53	-236	90	258
	GRT3{1}	95	-201	-321	391	45	-226	107	254
	GRT4{1}	142	-354	-323	500	53	-235	192	308
	GRT5{1}	131	-296	-329	462	39	-218	156	271
018 F	Gravity{1}	2	-2	-25	25	3	12	1	12
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	55	-155	14	165	20	-25	84	90
	Thermal 2{1}	59	-159	-302	346	29	-247	85	263

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Thermal 3{1}	94	-199	-300	373	20	-237	100	258
Thermal 4{1}	141	-352	-302	485	28	-246	181	307
Thermal 5{1}	130	-294	-308	446	14	-229	147	272
GRT1{1}	56	-157	-11	167	23	-13	84	89
GRT2{1}	60	-161	-327	369	32	-235	86	252
GRT3{1}	95	-201	-325	394	24	-225	100	248
GRT4{1}	142	-354	-327	502	32	-235	182	299
GRT5{1}	131	-296	-333	465	17	-217	147	263

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GLOBAL FORCES & MOMENTS

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
019 N	Gravity{1}	2	-2	-60	60	-15	30	-1	34
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	55	-155	14	165	26	-31	-8	41
	Thermal 2{1}	59	-159	-302	346	-103	-115	-10	155
	Thermal 3{1}	94	-199	-300	373	-111	-106	-28	156
	Thermal 4{1}	141	-352	-302	485	-104	-115	-34	158
	Thermal 5{1}	130	-294	-308	446	-121	-94	-38	158
	GRT1{1}	56	-157	-46	173	11	-1	-9	14
	GRT2{1}	60	-161	-362	400	-118	-85	-11	146
	GRT3{1}	95	-201	-360	423	-126	-76	-29	150
	GRT4{1}	142	-354	-362	526	-119	-84	-35	150
	GRT5{1}	131	-296	-368	490	-136	-64	-39	155
019 F	Gravity{1}	2	-2	-64	64	-19	30	-1	36
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	55	-155	14	165	27	-31	-12	43
	Thermal 2{1}	59	-159	-302	346	-123	-115	-14	169
	Thermal 3{1}	94	-199	-300	373	-131	-105	-35	171
	Thermal 4{1}	141	-352	-302	485	-123	-114	-44	174
	Thermal 5{1}	130	-294	-308	446	-141	-94	-48	176
	GRT1{1}	56	-157	-50	174	8	-1	-13	15
	GRT2{1}	60	-161	-366	404	-142	-84	-15	166
	GRT3{1}	95	-201	-364	427	-150	-75	-36	171

		DVI_B_LINE_REV0.OUT							
	GRT4{1}	142	-354	-366	528	-142	-84	-45	171
	GRT5{1}	131	-296	-372	493	-160	-63	-48	179
006	Gravity{1}	2	-2	-90	90	-45	7	-1	46
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	55	-155	14	165	32	-27	16	45
	Thermal 2{1}	59	-159	-302	346	-226	-206	14	306
	Thermal 3{1}	94	-199	-300	373	-233	-196	-6	305
	Thermal 4{1}	141	-352	-302	485	-226	-205	15	306
	Thermal 5{1}	130	-294	-308	446	-246	-187	-3	309
	GRT1{1}	56	-157	-76	183	-14	-20	15	29
	GRT2{1}	60	-161	-392	428	-271	-199	13	336
	GRT3{1}	95	-201	-390	449	-278	-189	-7	336
	GRT4{1}	142	-354	-392	547	-271	-198	14	336
	GRT5{1}	131	-296	-398	513	-291	-180	-4	342
012	Gravity{1}	2	-2	-100	100	-52	2	-1	52
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	55	-155	14	165	32	-26	22	47
	Thermal 2{1}	59	-159	-302	346	-246	-224	19	333
	Thermal 3{1}	94	-199	-300	373	-253	-214	-1	331
	Thermal 4{1}	141	-352	-302	485	-246	-223	26	333
	Thermal 5{1}	130	-294	-308	446	-266	-205	6	336
	GRT1{1}	56	-157	-86	188	-19	-25	21	38
	GRT2{1}	60	-161	-402	437	-297	-222	18	372
	GRT3{1}	95	-201	-400	458	-305	-212	-2	371
	GRT4{1}	142	-354	-402	554	-298	-222	25	372
	GRT5{1}	131	-296	-408	521	-318	-204	5	378

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
008 N	Gravity{1}	2	-2	-116	117	-60	-6	-1	60
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	55	-155	14	165	33	-25	28	51
	Thermal 2{1}	59	-159	-302	346	-268	-244	26	363

		DVI_B_LINE_REV0.OUT							
	Thermal 3{1}	94	-199	-300	373	-275	-234	5	361
	Thermal 4{1}	141	-352	-302	485	-269	-243	39	364
	Thermal 5{1}	130	-294	-308	446	-289	-226	16	367
	GRT1{1}	56	-157	-103	196	-26	-31	27	49
	GRT2{1}	60	-161	-418	452	-328	-249	25	413
	GRT3{1}	95	-201	-417	472	-335	-240	4	412
	GRT4{1}	142	-354	-418	566	-328	-249	38	414
	GRT5{1}	131	-296	-425	534	-349	-231	15	419
008 F	Gravity{1}	2	-2	-140	140	-76	-5	-1	76
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	55	-155	14	165	35	-25	21	48
	Thermal 2{1}	59	-159	-302	346	-307	-243	18	392
	Thermal 3{1}	94	-199	-300	373	-314	-233	-7	391
	Thermal 4{1}	141	-352	-302	485	-307	-243	20	392
	Thermal 5{1}	130	-294	-308	446	-329	-225	-2	398
	GRT1{1}	56	-157	-126	209	-41	-30	20	55
	GRT2{1}	60	-161	-442	474	-383	-248	16	457
	GRT3{1}	95	-201	-440	493	-390	-238	-8	457
	GRT4{1}	142	-354	-442	584	-384	-248	19	457
	GRT5{1}	131	-296	-448	553	-405	-230	-3	466
009	Gravity{1}	2	-2	-161	161	-90	8	-1	91
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	55	-155	14	165	36	-27	2	45
	Thermal 2{1}	59	-159	-302	346	-335	-217	-2	399
	Thermal 3{1}	94	-199	-300	373	-342	-207	-33	401
	Thermal 4{1}	141	-352	-302	485	-335	-216	-23	400
	Thermal 5{1}	130	-294	-308	446	-357	-198	-39	410
	GRT1{1}	56	-157	-148	223	-54	-18	1	57
	GRT2{1}	60	-161	-463	494	-425	-208	-3	473
	GRT3{1}	95	-201	-462	513	-432	-199	-35	477
	GRT4{1}	142	-354	-463	600	-425	-208	-25	474
	GRT5{1}	131	-296	-470	570	-448	-190	-41	488

*** Segment O end ***

*** Segment P begin ***

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DVI_B_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

DVI_B_LINE_REV0.OUT

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

P14	Gravity{1}	5	1	345	345	96	-139	-1	169
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	90	68	4	112	0	-5	41	41
	Thermal 2{1}	165	-51	612	636	327	-974	-185	1044
	Thermal 3{1}	159	-53	617	639	331	-982	-185	1053
	Thermal 4{1}	200	117	611	653	326	-973	56	1027
	Thermal 5{1}	148	-75	619	641	334	-987	-204	1062
	GRT1{1}	95	69	349	368	96	-144	40	177
	GRT2{1}	171	-50	956	973	423	-1114	-185	1205
	GRT3{1}	164	-52	961	977	427	-1122	-185	1214
	GRT4{1}	205	118	955	984	422	-1112	55	1190
	GRT5{1}	153	-74	964	979	430	-1126	-204	1223
P13 N	Gravity{1}	5	1	278	278	105	-71	-1	127
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	90	68	4	112	0	-4	24	24
	Thermal 2{1}	165	-51	612	636	344	-841	-178	926
	Thermal 3{1}	159	-53	617	639	349	-848	-178	934
	Thermal 4{1}	200	117	611	653	343	-839	24	907
	Thermal 5{1}	148	-75	619	641	352	-852	-192	941
	GRT1{1}	95	69	282	305	105	-75	23	131
	GRT2{1}	171	-50	889	907	449	-912	-179	1032
	GRT3{1}	164	-52	894	911	454	-919	-179	1040
	GRT4{1}	205	118	888	919	448	-910	23	1015
	GRT5{1}	153	-74	897	913	457	-923	-193	1048
P13 F	Gravity{1}	5	1	272	272	105	-66	-1	124
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	90	68	4	112	0	-4	22	22
	Thermal 2{1}	165	-51	612	636	345	-829	-177	915
	Thermal 3{1}	159	-53	617	639	349	-836	-177	923
	Thermal 4{1}	200	117	611	653	344	-827	22	896
	Thermal 5{1}	148	-75	619	641	353	-840	-190	930
	GRT1{1}	95	69	276	300	105	-69	21	128
	GRT2{1}	171	-50	883	901	450	-895	-178	1017
	GRT3{1}	164	-52	888	905	455	-901	-178	1025
	GRT4{1}	205	118	882	913	449	-893	21	1000
	GRT5{1}	153	-74	891	907	458	-905	-191	1032
P12	Gravity{1}	5	1	235	235	105	-35	-1	111

	DVI_B_LINE_REV0.OUT							
	0	0	0	0	0	0	0	0
Hydrotest{1}								
Thermal 1{1}	90	68	4	112	0	-3	14	14
Thermal 2{1}	165	-51	612	636	345	-756	-171	848
Thermal 3{1}	159	-53	617	639	349	-762	-170	855
Thermal 4{1}	200	117	611	653	344	-754	8	829
Thermal 5{1}	148	-75	619	641	353	-766	-181	862
GRT1{1}	95	69	239	267	105	-38	13	113
GRT2{1}	171	-50	847	865	450	-791	-172	926
GRT3{1}	164	-52	852	869	455	-797	-172	934
GRT4{1}	205	118	846	878	449	-790	7	909
GRT5{1}	153	-74	854	871	458	-801	-183	941

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DVI_B_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
P16	Gravity{1}	5	1	211	211	105	-13	-1	106
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	90	68	4	112	0	-3	7	8
	Thermal 2{1}	165	-51	612	636	345	-694	-166	792
	Thermal 3{1}	159	-53	617	639	349	-699	-165	799
	Thermal 4{1}	200	117	611	653	344	-692	-4	773
	Thermal 5{1}	148	-75	619	641	353	-703	-174	805
	GRT1{1}	95	69	215	245	105	-15	6	107
	GRT2{1}	171	-50	823	842	450	-706	-167	854
	GRT3{1}	164	-52	828	846	455	-712	-166	861
	GRT4{1}	205	118	822	855	449	-705	-5	836
	GRT5{1}	153	-74	830	848	458	-715	-175	867
P11 N	Gravity{1}	5	1	182	182	105	22	-2	108
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	90	68	4	112	0	-2	-5	5
	Thermal 2{1}	165	-51	612	636	345	-586	-157	698
	Thermal 3{1}	159	-53	617	639	349	-591	-156	704
	Thermal 4{1}	200	117	611	653	344	-585	-25	679
	Thermal 5{1}	148	-75	619	641	353	-594	-161	709
	GRT1{1}	95	69	186	220	105	20	-6	107

GRT2{1}	171	-50	793	813	450	-565	-159	739
GRT3{1}	164	-52	799	817	455	-569	-157	745
GRT4{1}	205	118	792	827	449	-564	-26	721
GRT5{1}	153	-74	801	819	458	-572	-162	751

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

P15 M	Gravity{1}	5	1	43	43	22	37	3	43
	Hydrotest{1}	0	0	0	0	0	0	0	0

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	Thermal 1{1}	90	68	4	112	-3	-2	59	59
	Thermal 2{1}	165	-51	612	636	-128	-531	-25	546
	Thermal 3{1}	159	-53	617	639	-128	-535	-28	551
	Thermal 4{1}	200	117	611	653	-128	-529	119	558
	Thermal 5{1}	148	-75	619	641	-126	-538	-40	554
	GRT1{1}	95	69	47	127	18	35	61	73
	GRT2{1}	171	-50	655	678	-107	-494	-22	506
	GRT3{1}	164	-52	660	682	-106	-498	-25	510
	GRT4{1}	205	118	653	695	-107	-493	122	518
	GRT5{1}	153	-74	662	684	-105	-501	-37	513
P15 F	Gravity{1}	5	1	33	33	20	39	3	44
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	90	68	4	112	-3	-1	59	59
	Thermal 2{1}	165	-51	612	636	-150	-502	-16	524
	Thermal 3{1}	159	-53	617	639	-150	-506	-20	528
	Thermal 4{1}	200	117	611	653	-150	-501	121	537
	Thermal 5{1}	148	-75	619	641	-149	-509	-31	531
	GRT1{1}	95	69	37	123	17	37	61	74
	GRT2{1}	171	-50	645	669	-130	-463	-13	482
	GRT3{1}	164	-52	650	672	-130	-468	-17	486
	GRT4{1}	205	118	643	686	-130	-462	124	496
	GRT5{1}	153	-74	652	674	-129	-470	-28	488
P09 N	Gravity{1}	5	1	7	9	19	42	3	46
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	90	68	4	112	-3	-1	53	54
	Thermal 2{1}	165	-51	612	636	-183	-413	0	452
	Thermal 3{1}	159	-53	617	639	-182	-417	-4	455
	Thermal 4{1}	200	117	611	653	-182	-412	114	465
	Thermal 5{1}	148	-75	619	641	-181	-419	-12	456
	GRT1{1}	95	69	11	118	16	41	56	71
	GRT2{1}	171	-50	619	644	-163	-372	3	406
	GRT3{1}	164	-52	624	647	-163	-375	-1	409
	GRT4{1}	205	118	618	661	-163	-371	117	422
	GRT5{1}	153	-74	626	649	-162	-377	-9	411
P09 F	Gravity{1}	5	1	-15	16	19	41	2	45
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	90	68	4	112	-3	0	42	42
	Thermal 2{1}	165	-51	612	636	-157	-343	-1	377
	Thermal 3{1}	159	-53	617	639	-156	-346	-4	379
	Thermal 4{1}	200	117	611	653	-156	-342	93	388
	Thermal 5{1}	148	-75	619	641	-155	-348	-10	381

GRT1{1}	95	69	-11	118	15	41	44	62
GRT2{1}	171	-50	597	622	-138	-302	1	332
GRT3{1}	164	-52	602	626	-138	-305	-2	334
GRT4{1}	205	118	595	641	-138	-301	95	344
GRT5{1}	153	-74	604	628	-137	-306	-7	336

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result
P08 N	Gravity{1}	5	1	-105	105	-9	25	0	27
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	90	68	4	112	-1	1	-18	18
	Thermal 2{1}	165	-51	612	636	128	-179	-65	229
	Thermal 3{1}	159	-53	617	639	131	-180	-64	231
	Thermal 4{1}	200	117	611	653	128	-178	-32	221
	Thermal 5{1}	148	-75	619	641	133	-181	-58	232
	GRT1{1}	95	69	-101	155	-11	26	-18	34
	GRT2{1}	171	-50	507	537	119	-154	-65	205
	GRT3{1}	164	-52	512	540	121	-155	-64	207
	GRT4{1}	205	118	506	558	118	-153	-32	196
	GRT5{1}	153	-74	514	542	124	-156	-59	208
P08 F	Gravity{1}	5	1	-124	124	-11	14	-1	17
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	90	68	4	112	-1	1	-26	26
	Thermal 2{1}	165	-51	612	636	136	-118	-62	190
	Thermal 3{1}	159	-53	617	639	139	-118	-61	192
	Thermal 4{1}	200	117	611	653	136	-117	-46	185
	Thermal 5{1}	148	-75	619	641	141	-119	-53	192
	GRT1{1}	95	69	-120	168	-12	15	-26	33
	GRT2{1}	171	-50	487	519	125	-104	-62	174
	GRT3{1}	164	-52	492	522	128	-105	-61	177
	GRT4{1}	205	118	486	541	125	-104	-47	169
	GRT5{1}	153	-74	495	523	131	-106	-53	176
P01	Gravity{1}	5	1	-127	127	-9	12	-1	15

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	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	90	68	4	112	-1	1	-26	26
	Thermal 2{1}	165	-51	612	636	128	-110	-59	179
	Thermal 3{1}	159	-53	617	639	131	-111	-58	181
	Thermal 4{1}	200	117	611	653	128	-110	-45	175
	Thermal 5{1}	148	-75	619	641	134	-112	-50	181
	GRT1{1}	95	69	-123	170	-10	13	-26	31
	GRT2{1}	171	-50	484	516	119	-98	-60	166
	GRT3{1}	164	-52	489	519	122	-99	-59	168
	GRT4{1}	205	118	483	538	119	-98	-46	161
	GRT5{1}	153	-74	492	520	125	-100	-51	168
P02	Gravity{1}	5	1	-137	137	-1	4	0	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	90	68	4	112	-2	2	-24	24
	Thermal 2{1}	165	-51	612	636	90	-72	-45	124
	Thermal 3{1}	159	-53	617	639	93	-72	-45	126
	Thermal 4{1}	200	117	611	653	90	-71	-40	121
	Thermal 5{1}	148	-75	619	641	95	-73	-36	125
	GRT1{1}	95	69	-133	177	-2	5	-25	25
	GRT2{1}	171	-50	474	507	89	-68	-46	121
	GRT3{1}	164	-52	479	510	92	-68	-45	123
	GRT4{1}	205	118	473	529	89	-68	-40	119
	GRT5{1}	153	-74	482	511	94	-69	-36	122

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
P03	Gravity{1}	5	1	-139	139	4	-1	0	5
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	90	68	4	112	-2	2	-23	24
	Thermal 2{1}	165	-51	612	636	68	-50	-38	92
	Thermal 3{1}	159	-53	617	639	70	-50	-37	94
	Thermal 4{1}	200	117	611	653	68	-49	-37	92
	Thermal 5{1}	148	-75	619	641	72	-51	-28	93

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P04 -	GRT1{1}	95	69	-135	179	3	1	-24	24
	GRT2{1}	171	-50	472	505	72	-51	-38	96
	GRT3{1}	164	-52	477	508	75	-51	-37	98
	GRT4{1}	205	118	471	527	72	-51	-37	96
	GRT5{1}	153	-74	480	509	77	-52	-28	97
	Gravity{1}	5	1	-141	141	12	-8	0	14
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	90	68	4	112	-2	2	-22	23
	Thermal 2{1}	165	-51	612	636	36	-18	-26	48
	Thermal 3{1}	159	-53	617	639	38	-18	-26	50
	Thermal 4{1}	200	117	611	653	36	-18	-33	52
	Thermal 5{1}	148	-75	619	641	40	-19	-17	47
GRT1{1}	95	69	-137	180	10	-7	-22	25	
GRT2{1}	171	-50	470	503	48	-26	-26	61	
GRT3{1}	164	-52	476	506	50	-26	-26	62	
GRT4{1}	205	118	469	526	48	-26	-33	64	
GRT5{1}	153	-74	478	507	52	-27	-17	61	
P04 +	Gravity{1}	5	1	-176	176	12	-8	0	14
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	90	68	4	112	-2	2	-22	23
	Thermal 2{1}	165	-51	612	636	36	-18	-26	48
	Thermal 3{1}	159	-53	617	639	38	-18	-26	50
	Thermal 4{1}	200	117	611	653	36	-18	-33	52
	Thermal 5{1}	148	-75	619	641	40	-19	-17	47
	GRT1{1}	95	69	-172	208	10	-7	-22	25
	GRT2{1}	171	-50	435	470	48	-26	-26	61
	GRT3{1}	164	-52	440	473	50	-26	-26	62
	GRT4{1}	205	118	434	494	48	-26	-33	64
	GRT5{1}	153	-74	443	474	52	-27	-17	61
P04 M-	Gravity{1}	5	1	-238	238	31	-28	1	42
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	90	68	4	112	-2	2	-20	21
	Thermal 2{1}	165	-51	612	636	-21	39	-6	45
	Thermal 3{1}	159	-53	617	639	-19	40	-6	44
	Thermal 4{1}	200	117	611	653	-21	39	-25	51
	Thermal 5{1}	148	-75	619	641	-17	39	4	43
	GRT1{1}	95	69	-234	262	29	-25	-20	43
	GRT2{1}	171	-50	373	413	10	11	-6	16
	GRT3{1}	164	-52	378	416	12	12	-6	18
	GRT4{1}	205	118	372	441	10	11	-24	29
	GRT5{1}	153	-74	381	417	13	11	5	18

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

P04 M+	Gravity{1}	2	5	216	216	31	-28	1	42
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	116	41	-5	123	-2	2	-20	21
	Thermal 2{1}	67	48	-27	86	-21	39	-6	45
	Thermal 3{1}	64	42	-22	80	-19	40	-6	44
	Thermal 4{1}	220	96	-28	242	-21	39	-25	51
	Thermal 5{1}	23	49	-19	58	-17	39	4	43
	GRT1{1}	118	46	211	246	29	-25	-20	43
	GRT2{1}	68	53	189	208	10	11	-6	16
	GRT3{1}	66	47	194	210	12	12	-6	18
	GRT4{1}	222	101	188	308	10	11	-24	29
	GRT5{1}	25	54	196	205	13	11	5	18
P05 -	Gravity{1}	2	5	154	154	14	-11	0	17
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	116	41	-5	123	-2	2	-13	14
	Thermal 2{1}	67	48	-27	86	-18	37	-5	41
	Thermal 3{1}	64	42	-22	80	-17	38	-4	41
	Thermal 4{1}	220	96	-28	242	-18	37	-13	43
	Thermal 5{1}	23	49	-19	58	-16	37	2	41
	GRT1{1}	118	46	149	195	12	-9	-13	20
	GRT2{1}	68	53	127	153	-5	26	-4	27
	GRT3{1}	66	47	132	155	-3	27	-4	27
	GRT4{1}	222	101	126	274	-4	26	-13	30
	GRT5{1}	25	54	134	147	-2	27	2	27
P05 +	Gravity{1}	2	5	118	118	14	-11	0	17
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	116	41	-5	123	-2	2	-13	14
	Thermal 2{1}	67	48	-27	86	-18	37	-5	41
	Thermal 3{1}	64	42	-22	80	-17	38	-4	41
	Thermal 4{1}	220	96	-28	242	-18	37	-13	43

		DVI_B_LINE_REV0.OUT							
	Thermal 5{1}	23	49	-19	58	-16	37	2	41
	GRT1{1}	118	46	114	170	12	-9	-13	20
	GRT2{1}	68	53	92	126	-5	26	-4	27
	GRT3{1}	66	47	97	126	-3	27	-4	27
	GRT4{1}	222	101	91	260	-4	26	-13	30
	GRT5{1}	25	54	99	116	-2	27	2	27
P06 -	Gravity{1}	2	5	113	113	-1	4	0	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	116	41	-5	123	-1	1	-4	4
	Thermal 2{1}	67	48	-27	86	-15	33	-2	37
	Thermal 3{1}	64	42	-22	80	-14	35	-1	38
	Thermal 4{1}	220	96	-28	242	-15	33	2	36
	Thermal 5{1}	23	49	-19	58	-13	35	-2	37
	GRT1{1}	118	46	108	166	-2	5	-4	7
	GRT2{1}	68	53	86	122	-16	37	-2	40
	GRT3{1}	66	47	91	122	-15	39	-2	41
	GRT4{1}	222	101	85	258	-15	37	2	40
	GRT5{1}	25	54	93	111	-14	39	-2	41

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
P06 +	Gravity{1}	2	5	50	50	-1	4	0	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	116	41	-5	123	-1	1	-4	4
	Thermal 2{1}	67	48	-27	86	-15	33	-2	37
	Thermal 3{1}	64	42	-22	80	-14	35	-1	38
	Thermal 4{1}	220	96	-28	242	-15	33	2	36
	Thermal 5{1}	23	49	-19	58	-13	35	-2	37
	GRT1{1}	118	46	45	134	-2	5	-4	7
	GRT2{1}	68	53	23	89	-16	37	-2	40
	GRT3{1}	66	47	28	85	-15	39	-2	41
	GRT4{1}	222	101	22	245	-15	37	2	40
	GRT5{1}	25	54	31	67	-14	39	-2	41

		DVI_B_LINE_REV0.OUT							
P07	- Gravity{1}	2	5	44	45	-6	9	-1	11
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	116	41	-5	123	-1	1	5	5
	Thermal 2{1}	67	48	-27	86	-12	30	0	32
	Thermal 3{1}	64	42	-22	80	-12	32	1	34
	Thermal 4{1}	220	96	-28	242	-11	30	17	36
	Thermal 5{1}	23	49	-19	58	-11	33	-5	35
	GRT1{1}	118	46	39	132	-7	10	4	13
	GRT2{1}	68	53	17	88	-18	39	-1	43
	GRT3{1}	66	47	23	84	-18	42	1	45
	GRT4{1}	222	101	16	244	-18	39	17	46
	GRT5{1}	25	54	25	65	-17	42	-5	46
P07	+ Gravity{1}	2	5	-18	19	-6	9	-1	11
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	116	41	-5	123	-1	1	5	5
	Thermal 2{1}	67	48	-27	86	-12	30	0	32
	Thermal 3{1}	64	42	-22	80	-12	32	1	34
	Thermal 4{1}	220	96	-28	242	-11	30	17	36
	Thermal 5{1}	23	49	-19	58	-11	33	-5	35
	GRT1{1}	118	46	-23	129	-7	10	4	13
	GRT2{1}	68	53	-45	98	-18	39	-1	43
	GRT3{1}	66	47	-40	90	-18	42	1	45
	GRT4{1}	222	101	-46	248	-18	39	17	46
	GRT5{1}	25	54	-38	71	-17	42	-5	46
E01	Gravity{1}	2	5	-22	22	-5	8	-1	9
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	116	41	-5	123	0	0	10	10
	Thermal 2{1}	67	48	-27	86	-10	28	1	30
	Thermal 3{1}	64	42	-22	80	-10	31	3	32
	Thermal 4{1}	220	96	-28	242	-9	28	26	39
	Thermal 5{1}	23	49	-19	58	-10	31	-7	33
	GRT1{1}	118	46	-27	129	-5	8	9	14
	GRT2{1}	68	53	-49	99	-15	36	1	39
	GRT3{1}	66	47	-43	92	-15	39	2	42
	GRT4{1}	222	101	-50	249	-14	36	25	46
	GRT5{1}	25	54	-41	72	-15	39	-7	43

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

*** Segment P end ***

DVI_B_LINE_REV0

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal		Shear	Principal		Total	
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc

*** Segment A begin ***

A00	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	15	-15	0	15	-15	15	181
	Hydrotest{1}	75	26	26	0	75	26	66	270
	Thermal 1{1}	0	18	-18	0	18	-18	18	358
	Thermal 2{1}	0	18	-18	0	18	-18	18	356
	Thermal 3{1}	0	18	-18	0	18	-18	18	356
	Thermal 4{1}	0	18	-18	0	18	-18	18	358
	Thermal 5{1}	0	10	-10	0	10	-10	10	354
	GRT1{1}	0	3	-3	0	3	-3	3	345
	GRT2{1}	0	3	-3	0	3	-3	3	333
	GRT3{1}	0	3	-3	0	3	-3	3	333
	GRT4{1}	0	3	-3	0	3	-3	3	348
	GRT5{1}	0	5	-5	0	5	-5	5	192
A30	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	23	-23	0	23	-23	23	181
	Hydrotest{1}	75	26	26	0	75	26	66	270
	Thermal 1{1}	0	33	-33	0	33	-33	33	357
	Thermal 2{1}	0	32	-32	0	32	-32	32	355
	Thermal 3{1}	0	32	-32	0	32	-32	32	355
	Thermal 4{1}	0	32	-32	0	32	-32	32	358
	Thermal 5{1}	0	17	-17	0	17	-17	17	354
	GRT1{1}	0	10	-10	0	10	-10	10	350
	GRT2{1}	0	9	-9	0	9	-9	9	342
	GRT3{1}	0	9	-9	0	9	-9	9	342

			DVI_B_LINE_REV0.OUT						
	GRT4{1}		0	9	-9	0	9	-9	9 352
	GRT5{1}		0	6	-6	0	6	-6	6 200
A01	SIFI= 2.00	SIFO= 2.00							
	Gravity{1}		0	36	-36	0	36	-36	36 181
	Hydrotest{1}		61	19	19	0	61	19	54 270
	Thermal 1{1}		0	55	-55	0	55	-55	55 357
	Thermal 2{1}		0	54	-54	0	54	-54	54 355
	Thermal 3{1}		0	54	-54	0	54	-54	54 355
	Thermal 4{1}		0	54	-54	0	54	-54	54 358
	Thermal 5{1}		0	29	-29	0	29	-29	29 354
	GRT1{1}		0	19	-20	0	19	-20	20 351
	GRT2{1}		0	19	-19	0	19	-19	19 345
	GRT3{1}		0	19	-19	0	19	-19	19 345
	GRT4{1}		0	18	-18	0	18	-18	18 353
	GRT5{1}		0	8	-8	0	8	-8	8 209
A02 N-	SIFI= 1.00	SIFO= 1.00							
	Gravity{1}		0	7	-7	0	7	-7	7 358
	Hydrotest{1}		61	19	19	0	61	19	54 270
	Thermal 1{1}		0	11	-11	0	11	-11	11 354
	Thermal 2{1}		0	11	-11	0	11	-11	11 349
	Thermal 3{1}		0	11	-11	0	11	-11	11 349
	Thermal 4{1}		0	11	-11	0	11	-11	11 355

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DVI_B_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc

	Thermal 5{1}	0	6	-6	0	6	-6	6 346
	GRT1{1}	0	18	-19	0	18	-19	19 355
	GRT2{1}	0	18	-18	0	18	-18	18 353
	GRT3{1}	0	18	-18	0	18	-18	18 353
	GRT4{1}	0	18	-18	0	18	-18	18 356
	GRT5{1}	0	13	-13	0	13	-13	13 353
A02 N+	SIFI= 1.00	SIFO= 1.00						
	Gravity{1}	0	7	-7	0	7	-7	7 358
	Hydrotest{1}	61	19	19	0	61	19	54 270
	Thermal 1{1}	0	11	-11	0	11	-11	11 354

Thermal 2{1}	0	11	-11	0	11	-11	11	349
Thermal 3{1}	0	11	-11	0	11	-11	11	349
Thermal 4{1}	0	11	-11	0	11	-11	11	355
Thermal 5{1}	0	6	-6	0	6	-6	6	346
GRT1{1}	0	18	-19	0	18	-19	19	355
GRT2{1}	0	18	-18	0	18	-18	18	353
GRT3{1}	0	18	-18	0	18	-18	18	353
GRT4{1}	0	18	-18	0	18	-18	18	356
GRT5{1}	0	13	-13	0	13	-13	13	353

Gravity{1}	0	8	-8	0	8	-8	8	360
Hydrotest{1}	61	19	19	0	61	19	54	270
Thermal 1{1}	0	11	-10	1	11	-10	11	179
Thermal 2{1}	0	10	-10	1	10	-10	10	178
Thermal 3{1}	0	10	-10	1	10	-10	10	178
Thermal 4{1}	0	10	-10	0	10	-10	10	180
Thermal 5{1}	0	5	-5	1	5	-5	6	177
GRT1{1}	0	18	-18	1	18	-18	18	359
GRT2{1}	0	18	-18	1	18	-18	18	359
GRT3{1}	0	18	-18	1	18	-18	18	359
GRT4{1}	0	18	-18	1	18	-18	18	360
GRT5{1}	0	13	-13	1	13	-13	13	359

Gravity{1}	0	8	-8	0	8	-8	8	180
Hydrotest{1}	61	19	19	0	61	19	54	270
Thermal 1{1}	0	11	-10	1	11	-10	11	359
Thermal 2{1}	0	10	-10	1	10	-10	10	358
Thermal 3{1}	0	10	-10	1	10	-10	10	358
Thermal 4{1}	0	10	-10	0	10	-10	10	360
Thermal 5{1}	0	5	-5	1	5	-5	6	357
GRT1{1}	0	18	-18	1	18	-18	18	179
GRT2{1}	0	18	-18	1	18	-18	18	179
GRT3{1}	0	18	-18	1	18	-18	18	179
GRT4{1}	0	18	-18	1	18	-18	18	180
GRT5{1}	0	13	-13	1	13	-13	13	179

Gravity{1}	0	0	0	0	0	0	1	5
Hydrotest{1}	61	19	19	0	61	19	54	270

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
	Thermal 1{1}	0	10	-10	1	10	-10	10 359
	Thermal 2{1}	0	10	-9	1	10	-9	10 359
	Thermal 3{1}	0	10	-9	1	10	-9	10 359
	Thermal 4{1}	0	10	-9	0	10	-9	10 359
	Thermal 5{1}	0	5	-5	1	5	-5	5 359
	GRT1{1}	0	9	-9	1	9	-9	9 359
	GRT2{1}	0	9	-9	1	9	-9	9 359
	GRT3{1}	0	9	-9	1	9	-9	9 359
	GRT4{1}	0	9	-9	1	9	-9	9 359
	GRT5{1}	0	5	-5	1	5	-5	5 178
A03 N+	SIFI= 1.00 Gravity{1}	0	0	0	0	0	0	1 5
	Hydrotest{1}	61	19	19	0	61	19	54 270
	Thermal 1{1}	0	10	-10	1	10	-10	10 359
	Thermal 2{1}	0	10	-9	1	10	-9	10 359
	Thermal 3{1}	0	10	-9	1	10	-9	10 359
	Thermal 4{1}	0	10	-9	0	10	-9	10 359
	Thermal 5{1}	0	5	-5	1	5	-5	5 359
	GRT1{1}	0	9	-9	1	9	-9	9 359
	GRT2{1}	0	9	-9	1	9	-9	9 359
	GRT3{1}	0	9	-9	1	9	-9	9 359
	GRT4{1}	0	9	-9	1	9	-9	9 359
	GRT5{1}	0	5	-5	1	5	-5	5 178
A03 F-	SIFI= 1.00 Gravity{1}	0	0	0	0	0	0	0 45
	Hydrotest{1}	61	19	19	0	61	19	54 270
	Thermal 1{1}	0	9	-9	0	9	-9	9 172
	Thermal 2{1}	0	9	-9	0	9	-9	9 167
	Thermal 3{1}	0	9	-9	0	9	-9	9 167
	Thermal 4{1}	0	9	-9	0	9	-9	9 174
	Thermal 5{1}	0	5	-5	0	5	-5	5 164
	GRT1{1}	0	9	-9	0	9	-9	9 170
	GRT2{1}	0	9	-9	0	9	-9	9 165
	GRT3{1}	0	9	-9	0	9	-9	9 165
	GRT4{1}	0	9	-9	0	9	-9	9 172
	GRT5{1}	0	5	-5	0	5	-5	5 159

DVI_B_LINE_REV0.OUT

A03 F+ SIFI= 1.00 SIFO= 1.00
Gravity{1}

	0	0	0	0	0	0	0	225
Hydrotest{1}	61	19	19	0	61	19	54	270
Thermal 1{1}	0	9	-9	0	9	-9	9	352
Thermal 2{1}	0	9	-9	0	9	-9	9	347
Thermal 3{1}	0	9	-9	0	9	-9	9	347
Thermal 4{1}	0	9	-9	0	9	-9	9	354
Thermal 5{1}	0	5	-5	0	5	-5	5	344
GRT1{1}	0	9	-9	0	9	-9	9	350
GRT2{1}	0	9	-9	0	9	-9	9	345
GRT3{1}	0	9	-9	0	9	-9	9	345
GRT4{1}	0	9	-9	0	9	-9	9	352
GRT5{1}	0	5	-5	0	5	-5	5	339

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----			-----	-----	-----	-----	-----	-----	-----	---
A04 N-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	7	-8	0	7	-8	8	358
	Hydrotest{1}		61	19	19	0	61	19	54	270
	Thermal 1{1}		0	13	-13	0	13	-13	13	185
	Thermal 2{1}		0	13	-13	0	13	-13	13	188
	Thermal 3{1}		0	13	-13	0	13	-13	13	188
	Thermal 4{1}		0	13	-13	0	13	-13	13	185
	Thermal 5{1}		0	7	-7	0	7	-7	7	189
	GRT1{1}		0	6	-6	0	6	-6	6	195
	GRT2{1}		0	6	-6	0	6	-6	6	201
	GRT3{1}		0	6	-6	0	6	-6	6	201
	GRT4{1}		0	5	-6	0	5	-6	6	195
	GRT5{1}		0	1	-2	0	1	-2	2	276
A04 N+	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	7	-8	0	7	-8	8	358
	Hydrotest{1}		61	19	19	0	61	19	54	270
	Thermal 1{1}		0	13	-13	0	13	-13	13	185
	Thermal 2{1}		0	13	-13	0	13	-13	13	188

DVI_B_LINE_REV0.OUT									
Thermal 3{1}	0	13	-13	0	13	-13	13	188	
Thermal 4{1}	0	13	-13	0	13	-13	13	185	
Thermal 5{1}	0	7	-7	0	7	-7	7	189	
GRT1{1}	0	6	-6	0	6	-6	6	195	
GRT2{1}	0	6	-6	0	6	-6	6	201	
GRT3{1}	0	6	-6	0	6	-6	6	201	
GRT4{1}	0	5	-6	0	5	-6	6	195	
GRT5{1}	0	1	-2	0	1	-2	2	276	
A04 F- SIFI= 1.00 SIFO= 1.00									
Gravity{1}	0	7	-7	0	7	-7	7	180	
Hydrotest{1}	61	19	19	0	61	19	54	270	
Thermal 1{1}	0	14	-14	1	14	-14	14	1	
Thermal 2{1}	0	14	-13	1	14	-14	14	1	
Thermal 3{1}	0	14	-13	1	14	-14	14	1	
Thermal 4{1}	0	14	-13	1	14	-13	14	1	
Thermal 5{1}	0	8	-8	1	8	-8	8	1	
GRT1{1}	0	7	-7	1	7	-7	7	1	
GRT2{1}	0	7	-6	1	7	-7	7	2	
GRT3{1}	0	7	-6	1	7	-7	7	2	
GRT4{1}	0	7	-6	1	7	-6	7	1	
GRT5{1}	0	1	-1	1	1	-1	1	11	
A04 F+ SIFI= 1.00 SIFO= 1.00									
Gravity{1}	0	7	-7	0	7	-7	7	360	
Hydrotest{1}	61	19	19	0	61	19	54	270	
Thermal 1{1}	0	14	-14	1	14	-14	14	181	
Thermal 2{1}	0	14	-13	1	14	-14	14	181	
Thermal 3{1}	0	14	-13	1	14	-14	14	181	
Thermal 4{1}	0	14	-13	1	14	-13	14	181	
Thermal 5{1}	0	8	-8	1	8	-8	8	181	
GRT1{1}	0	7	-7	1	7	-7	7	181	
GRT2{1}	0	7	-6	1	7	-7	7	182	

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DVI_B_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress

	GRT3{1}	0	7	-6	1	7	-7	7
								182

DVI_B_LINE_REV0.OUT

GRT4{1}	0	7	-6	1	7	-6	7	181
GRT5{1}	0	1	-1	1	1	-1	1	191
A05 N- SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	15	-14	0	15	-14	15	180
Hydrotest{1}	61	19	19	0	61	19	54	270
Thermal 1{1}	0	16	-16	1	16	-16	16	180
Thermal 2{1}	0	15	-15	1	15	-15	15	179
Thermal 3{1}	0	15	-15	1	15	-15	15	179
Thermal 4{1}	0	16	-15	1	16	-15	16	181
Thermal 5{1}	0	8	-8	1	8	-8	8	178
GRT1{1}	0	31	-30	1	31	-30	31	180
GRT2{1}	0	30	-30	1	30	-30	30	180
GRT3{1}	0	30	-30	1	30	-30	30	180
GRT4{1}	0	30	-30	1	30	-30	30	181
GRT5{1}	0	23	-23	1	23	-23	23	179
A05 N+ SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	15	-14	0	15	-14	15	0
Hydrotest{1}	61	19	19	0	61	19	54	270
Thermal 1{1}	0	16	-16	1	16	-16	16	0
Thermal 2{1}	0	15	-15	1	15	-15	15	359
Thermal 3{1}	0	15	-15	1	15	-15	15	359
Thermal 4{1}	0	16	-15	1	16	-15	16	1
Thermal 5{1}	0	8	-8	1	8	-8	8	358
GRT1{1}	0	31	-30	1	31	-30	31	0
GRT2{1}	0	30	-30	1	30	-30	30	360
GRT3{1}	0	30	-30	1	30	-30	30	360
GRT4{1}	0	30	-30	1	30	-30	30	1
GRT5{1}	0	23	-23	1	23	-23	23	359
A05 F- SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	14	-14	0	14	-14	14	359
Hydrotest{1}	61	19	19	0	61	19	54	270
Thermal 1{1}	0	15	-15	0	15	-15	15	356
Thermal 2{1}	0	15	-15	0	15	-15	15	353
Thermal 3{1}	0	15	-15	0	15	-15	15	353
Thermal 4{1}	0	15	-15	0	15	-15	15	356
Thermal 5{1}	0	8	-8	0	8	-8	8	352
GRT1{1}	0	30	-29	0	30	-29	30	357
GRT2{1}	0	29	-29	0	29	-29	29	356
GRT3{1}	0	29	-29	0	29	-29	29	356
GRT4{1}	0	29	-29	0	29	-29	29	357
GRT5{1}	0	22	-22	0	22	-22	22	356

A05 F+ SIFI= 1.00 SIFO= 1.00

DVI_B_LINE_REV0.OUT								
Gravity{1}	0	14	-14	0	14	-14	14	179
Hydrotest{1}	61	19	19	0	61	19	54	270
Thermal 1{1}	0	15	-15	0	15	-15	15	176
Thermal 2{1}	0	15	-15	0	15	-15	15	173
Thermal 3{1}	0	15	-15	0	15	-15	15	173

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DVI_B_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc

	Thermal 4{1}	0	15	-15	0	15	-15	15 176
	Thermal 5{1}	0	8	-8	0	8	-8	8 172
	GRT1{1}	0	30	-29	0	30	-29	30 177
	GRT2{1}	0	29	-29	0	29	-29	29 176
	GRT3{1}	0	29	-29	0	29	-29	29 176
	GRT4{1}	0	29	-29	0	29	-29	29 177
	GRT5{1}	0	22	-22	0	22	-22	22 176
A06 N-	SIFI= 1.00 SIFO= 1.00							
	Gravity{1}	0	11	-10	0	11	-10	11 2
	Hydrotest{1}	61	19	19	0	61	19	54 270
	Thermal 1{1}	0	1	-1	0	1	-1	1 61
	Thermal 2{1}	0	2	-2	0	2	-2	2 64
	Thermal 3{1}	0	2	-2	0	2	-2	2 64
	Thermal 4{1}	0	1	-1	0	1	-1	1 59
	Thermal 5{1}	0	2	-2	0	2	-2	2 58
	GRT1{1}	0	11	-11	0	11	-11	11 8
	GRT2{1}	0	12	-12	0	12	-12	12 11
	GRT3{1}	0	12	-12	0	12	-12	12 11
	GRT4{1}	0	11	-11	0	11	-11	11 7
	GRT5{1}	0	11	-11	0	11	-11	11 8
A06 N+	SIFI= 1.00 SIFO= 1.00							
	Gravity{1}	0	11	-10	0	11	-10	11 2
	Hydrotest{1}	61	19	19	0	61	19	54 270
	Thermal 1{1}	0	1	-1	0	1	-1	1 61
	Thermal 2{1}	0	2	-2	0	2	-2	2 64
	Thermal 3{1}	0	2	-2	0	2	-2	2 64
	Thermal 4{1}	0	1	-1	0	1	-1	1 59

DVI_B_LINE_REV0.OUT

Thermal 5{1}	0	2	-2	0	2	-2	2	58
GRT1{1}	0	11	-11	0	11	-11	11	8
GRT2{1}	0	12	-12	0	12	-12	12	11
GRT3{1}	0	12	-12	0	12	-12	12	11
GRT4{1}	0	11	-11	0	11	-11	11	7
GRT5{1}	0	11	-11	0	11	-11	11	8
A06 F- SIFI= 1.00 SIF0= 1.00								
Gravity{1}	0	11	-11	0	11	-11	11	360
Hydrotest{1}	61	19	19	0	61	19	54	270
Thermal 1{1}	0	1	-1	1	2	-1	2	358
Thermal 2{1}	0	2	-1	1	2	-2	2	9
Thermal 3{1}	0	2	-1	1	2	-2	2	9
Thermal 4{1}	0	1	-1	0	2	-1	2	345
Thermal 5{1}	0	1	-1	1	2	-1	2	13
GRT1{1}	0	13	-12	1	13	-12	13	360
GRT2{1}	0	13	-12	1	13	-13	13	1
GRT3{1}	0	13	-12	1	13	-13	13	1
GRT4{1}	0	13	-12	1	13	-12	13	358
GRT5{1}	0	13	-12	1	13	-12	13	1
A06 F+ SIFI= 1.00 SIF0= 1.00								
Gravity{1}	0	11	-11	0	11	-11	11	360

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DVI_B_LINE_REV0

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RESULT PAGE 220

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	----
	Hydrotest{1}	61	19	19	0	61	19	54	270
	Thermal 1{1}	0	1	-1	1	2	-1	2	358
	Thermal 2{1}	0	2	-1	1	2	-2	2	9
	Thermal 3{1}	0	2	-1	1	2	-2	2	9
	Thermal 4{1}	0	1	-1	0	2	-1	2	345
	Thermal 5{1}	0	1	-1	1	2	-1	2	13
	GRT1{1}	0	13	-12	1	13	-12	13	360
	GRT2{1}	0	13	-12	1	13	-13	13	1
	GRT3{1}	0	13	-12	1	13	-13	13	1
	GRT4{1}	0	13	-12	1	13	-12	13	358

		DVI_B_LINE_REV0.OUT						
		0	13	-12	1	13	-12	13 1
A50	GRT5{1}	0	13	-12	1	13	-12	13 1
	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	1	0	0	1	0	1 351
	Hydrotest{1}	61	19	19	0	61	19	54 270
	Thermal 1{1}	0	0	0	1	1	-1	1 359
	Thermal 2{1}	0	1	-1	1	2	-1	2 31
	Thermal 3{1}	0	1	-1	1	2	-1	2 31
	Thermal 4{1}	0	1	0	0	1	-1	1 293
	Thermal 5{1}	0	1	-1	1	1	-1	2 27
	GRT1{1}	0	1	0	1	2	-1	2 354
	GRT2{1}	0	2	-1	1	2	-2	3 18
	GRT3{1}	0	2	-1	1	2	-2	3 18
	GRT4{1}	0	1	0	1	2	-1	2 321
	GRT5{1}	0	2	-1	1	2	-1	2 16
A07	- SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	1	1	0	1	0	1 280
	Hydrotest{1}	61	19	19	0	61	19	54 270
	Thermal 1{1}	0	3	-2	1	3	-3	3 207
	Thermal 2{1}	0	4	-4	1	4	-4	4 263
	Thermal 3{1}	0	4	-4	1	4	-4	4 263
	Thermal 4{1}	0	2	-2	0	3	-2	3 161
	Thermal 5{1}	0	4	-3	1	4	-4	4 280
	GRT1{1}	0	4	-2	1	4	-2	4 212
	GRT2{1}	0	5	-3	1	5	-4	6 264
	GRT3{1}	0	5	-3	1	5	-4	6 264
	GRT4{1}	0	3	-1	1	3	-2	3 166
	GRT5{1}	0	5	-3	1	5	-3	5 280
A07	+ SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	3	-1	1	3	-1	3 212
	Hydrotest{1}	61	19	19	0	61	19	54 270
	Thermal 1{1}	0	17	-17	8	20	-19	22 346
	Thermal 2{1}	0	25	-25	8	28	-27	29 334
	Thermal 3{1}	0	26	-25	8	28	-27	29 334
	Thermal 4{1}	0	12	-12	7	16	-15	18 2
	Thermal 5{1}	0	17	-17	4	18	-18	19 327
	GRT1{1}	0	17	-14	7	19	-17	20 341
	GRT2{1}	0	25	-23	7	27	-25	28 330
	GRT3{1}	0	25	-23	7	27	-25	28 330
	GRT4{1}	0	12	-9	7	15	-13	16 357

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DVI_B_LINE_REV0

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AutoPIPE Plus 9.2.1

RESULT PAGE 221

G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----			-----	-----	-----	-----	-----	-----	-----	---
A08 -	GRT5{1}		0	17	-15	3	18	-16	18	322
	SIFI= 1.00 Gravity{1} SIF0= 1.00		0	17	-15	1	17	-15	17	176
	Hydrotest{1}		61	19	19	0	61	19	54	270
	Thermal 1{1}		0	14	-13	8	17	-17	19	255
	Thermal 2{1}		0	33	-33	8	35	-35	36	228
	Thermal 3{1}		0	33	-32	8	35	-34	36	229
	Thermal 4{1}		0	11	-11	7	15	-14	17	271
	Thermal 5{1}		0	27	-26	4	27	-27	28	221
	GRT1{1}		0	24	-21	7	26	-23	27	212
	GRT2{1}		0	46	-43	7	47	-44	48	212
	GRT3{1}		0	46	-43	7	47	-44	47	212
	GRT4{1}		0	20	-17	7	22	-19	23	211
	GRT5{1}		0	41	-38	3	41	-38	41	205
A08 +	SIFI= 1.00 Gravity{1} SIF0= 1.00		0	31	-31	1	31	-31	31	178
	Hydrotest{1}		61	19	19	0	61	19	54	270
	Thermal 1{1}		0	29	-29	4	29	-29	30	72
	Thermal 2{1}		0	30	-31	2	30	-31	31	95
	Thermal 3{1}		0	30	-31	2	30	-31	31	94
	Thermal 4{1}		0	29	-29	2	29	-29	29	275
	Thermal 5{1}		0	17	-18	0	18	-18	18	110
	GRT1{1}		0	36	-36	5	37	-37	37	128
	GRT2{1}		0	46	-47	3	46	-47	47	138
	GRT3{1}		0	46	-46	3	46	-46	47	137
	GRT4{1}		0	45	-45	3	45	-45	45	319
	GRT5{1}		0	41	-42	1	41	-42	42	155
	A09 N-	SIFI= 1.00 Gravity{1} SIF0= 1.00		0	6	-6	1	6	-6	6
Hydrotest{1}		61	19	19	0	61	19	54	270	
Thermal 1{1}		0	40	-41	4	41	-41	41	93	
Thermal 2{1}		0	66	-67	2	66	-67	67	91	
Thermal 3{1}		0	66	-67	2	66	-67	67	91	
Thermal 4{1}		0	26	-26	2	26	-26	26	273	
Thermal 5{1}		0	46	-47	0	46	-47	47	91	

DVI_B_LINE_REV0.OUT								
GRT1{1}	0	41	-42	5	42	-42	43	86
GRT2{1}	0	67	-68	3	67	-68	68	87
GRT3{1}	0	67	-68	3	68	-68	68	87
GRT4{1}	0	27	-27	3	28	-28	28	261
GRT5{1}	0	48	-48	1	48	-48	48	84

A09 N+ SIFI= 1.00 SIFO= 1.00

Gravity{1}	0	6	-6	1	6	-6	6	281
Hydrotest{1}	61	19	19	0	61	19	54	270
Thermal 1{1}	0	40	-41	4	41	-41	41	3
Thermal 2{1}	0	66	-67	2	66	-67	67	1
Thermal 3{1}	0	66	-67	2	66	-67	67	1
Thermal 4{1}	0	26	-26	2	26	-26	26	183
Thermal 5{1}	0	46	-47	0	46	-47	47	1

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DVI_B_LINE_REV0

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RESULT PAGE 222

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point name	Load combination	Hoop Stress	Longitudinal Max	Longitudinal Min	Shear Stress	Principal Max	Principal Min	Total Stress	Total Loc

	GRT1{1}	0	41	-42	5	42	-42	43	356
	GRT2{1}	0	67	-68	3	67	-68	68	357
	GRT3{1}	0	67	-68	3	68	-68	68	357
	GRT4{1}	0	27	-27	3	28	-28	28	171
	GRT5{1}	0	48	-48	1	48	-48	48	354
A09 M SIFI= 1.00 SIFO= 1.00									
	Gravity{1}	0	5	-5	2	6	-6	6	283
	Hydrotest{1}	61	19	19	0	61	19	54	270
	Thermal 1{1}	0	41	-42	4	42	-42	42	354
	Thermal 2{1}	0	67	-68	2	67	-68	68	358
	Thermal 3{1}	0	67	-68	2	67	-68	68	358
	Thermal 4{1}	0	27	-27	2	27	-27	27	354
	Thermal 5{1}	0	47	-48	1	47	-48	48	360
	GRT1{1}	0	43	-44	2	43	-44	44	348
	GRT2{1}	0	69	-70	1	69	-70	70	354
	GRT3{1}	0	69	-70	1	69	-70	70	354
	GRT4{1}	0	29	-29	1	29	-29	29	345
	GRT5{1}	0	48	-49	1	48	-49	49	354

DVI_B_LINE_REV0.OUT									
A09 F-	SIFI= 1.00	SIFO= 1.00	0	2	-2	3	4	-4	5 306
	Gravity{1}								
	Hydrotest{1}		61	19	19	0	61	19	54 270
	Thermal 1{1}		0	42	-43	1	42	-43	43 349
	Thermal 2{1}		0	67	-68	1	67	-68	68 356
	Thermal 3{1}		0	67	-68	1	67	-68	68 356
	Thermal 4{1}		0	27	-28	1	27	-28	28 350
	Thermal 5{1}		0	47	-47	0	47	-47	47 359
	GRT1{1}		0	43	-44	2	43	-44	44 347
	GRT2{1}		0	68	-69	2	68	-69	69 355
	GRT3{1}		0	68	-69	2	68	-69	69 355
	GRT4{1}		0	29	-29	2	29	-29	30 347
	GRT5{1}		0	48	-48	3	48	-49	49 357
A09 F+	SIFI= 1.00	SIFO= 1.00	0	2	-2	3	4	-4	5 36
	Gravity{1}								
	Hydrotest{1}		61	19	19	0	61	19	54 270
	Thermal 1{1}		0	42	-43	1	42	-43	43 79
	Thermal 2{1}		0	67	-68	1	67	-68	68 86
	Thermal 3{1}		0	67	-68	1	67	-68	68 86
	Thermal 4{1}		0	27	-28	1	27	-28	28 80
	Thermal 5{1}		0	47	-47	0	47	-47	47 89
	GRT1{1}		0	43	-44	2	43	-44	44 77
	GRT2{1}		0	68	-69	2	68	-69	69 85
	GRT3{1}		0	68	-69	2	68	-69	69 85
	GRT4{1}		0	29	-29	2	29	-29	30 77
	GRT5{1}		0	48	-48	3	48	-49	49 87
A10 -	SIFI= 1.00	SIFO= 1.00	0	14	-14	3	15	-15	15 87
	Gravity{1}								
	Hydrotest{1}		61	19	19	0	61	19	54 270
	Thermal 1{1}		0	14	-15	1	14	-15	15 97

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DVI_B_LINE_REV0

09/13/2010 DVI BLINE

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
-----	-----	-----	-----	-----	-----	-----	-----	---
	Thermal 2{1}	0	37	-38	1	37	-38	38 349
	Thermal 3{1}	0	37	-38	1	37	-38	38 350

		DVI_B_LINE_REV0.OUT						
	Thermal 4{1}	0	35	-35	1	35	-35	35 192
	Thermal 5{1}	0	40	-41	0	40	-41	41 342
	GRT1{1}	0	28	-29	2	28	-29	29 92
	GRT2{1}	0	38	-39	2	38	-39	39 10
	GRT3{1}	0	38	-39	2	38	-39	39 12
	GRT4{1}	0	34	-34	2	34	-35	35 168
	GRT5{1}	0	39	-40	3	39	-40	40 3
A10	+ SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	12	-12	3	12	-12	13 89
	Hydrotest{1}	61	19	19	0	61	19	54 270
	Thermal 1{1}	0	22	-23	1	22	-23	23 23
	Thermal 2{1}	0	41	-41	6	42	-42	43 308
	Thermal 3{1}	0	41	-42	7	42	-43	43 310
	Thermal 4{1}	0	31	-34	7	32	-35	35 277
	Thermal 5{1}	0	38	-38	8	40	-40	40 111
	GRT1{1}	0	28	-30	2	29	-30	30 44
	GRT2{1}	0	32	-33	9	35	-35	37 321
	GRT3{1}	0	33	-33	10	35	-36	37 323
	GRT4{1}	0	19	-22	9	23	-25	27 281
	GRT5{1}	0	28	-27	10	31	-31	33 120
A11	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	35	-35	3	35	-35	35 181
	Hydrotest{1}	61	19	19	0	61	19	54 270
	Thermal 1{1}	0	28	-29	1	28	-29	29 243
	Thermal 2{1}	0	39	-40	6	40	-41	41 224
	Thermal 3{1}	0	40	-41	7	41	-42	43 222
	Thermal 4{1}	0	37	-40	7	38	-41	41 223
	Thermal 5{1}	0	30	-30	8	32	-31	32 31
	GRT1{1}	0	53	-55	2	53	-55	55 208
	GRT2{1}	0	68	-69	9	69	-70	71 204
	GRT3{1}	0	70	-71	10	71	-72	73 203
	GRT4{1}	0	67	-70	9	68	-71	71 203
	GRT5{1}	0	62	-62	10	64	-64	65 14
A47	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	28	-28	3	28	-28	29 181
	Hydrotest{1}	61	19	19	0	61	19	54 270
	Thermal 1{1}	0	31	-32	1	31	-32	32 246
	Thermal 2{1}	0	49	-49	6	49	-50	51 216
	Thermal 3{1}	0	49	-50	7	50	-51	51 213
	Thermal 4{1}	0	58	-61	7	59	-62	62 228
	Thermal 5{1}	0	40	-40	8	41	-41	42 24
	GRT1{1}	0	49	-51	2	50	-51	51 216
	GRT2{1}	0	74	-74	9	75	-75	76 203

GRT3{1}	0	75	-75	10	76	-77	77	202
GRT4{1}	0	80	-83	9	81	-84	84	213
GRT5{1}	0	67	-67	10	68	-68	69	15

DVI_B_LINE_REV0.OUT									
Hydrotest{1}	61	19	19	0	61	19	54	270	
Thermal 1{1}	0	11	-12	1	11	-12	12	240	
Thermal 2{1}	0	35	-35	1	35	-35	35	209	
Thermal 3{1}	0	33	-33	1	33	-33	33	204	
Thermal 4{1}	0	36	-37	1	36	-37	37	209	
Thermal 5{1}	0	30	-29	2	30	-30	30	32	
GRT1{1}	0	15	-15	1	15	-15	15	315	
GRT2{1}	0	23	-23	1	23	-23	23	232	
GRT3{1}	0	19	-20	1	19	-20	20	226	
GRT4{1}	0	24	-24	1	24	-25	25	231	
GRT5{1}	0	19	-18	2	19	-18	19	62	
A32 - SIFI= 1.00 SIF0= 1.00									
Gravity{1}	0	9	-9	0	9	-9	9	231	
Hydrotest{1}	61	19	19	0	61	19	54	270	
Thermal 1{1}	0	4	-4	1	4	-4	4	286	
Thermal 2{1}	0	10	-10	1	10	-10	10	245	
Thermal 3{1}	0	6	-6	1	6	-6	6	274	
Thermal 4{1}	0	12	-13	1	13	-13	13	238	
Thermal 5{1}	0	4	-3	2	4	-4	5	167	
GRT1{1}	0	7	-8	1	7	-8	8	26	
GRT2{1}	0	2	-2	1	3	-3	3	304	

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DVI_B_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
								Loc
GRT3{1}		0	6	-6	1	6	-6	6 8
GRT4{1}		0	4	-4	1	4	-4	5 255
GRT5{1}		0	11	-11	2	11	-11	12 215
A32 + SIFI= 1.00 SIF0= 1.00								
Gravity{1}		0	7	-7	2	8	-8	8 225
Hydrotest{1}		61	19	19	0	61	19	54 270
Thermal 1{1}		0	6	-6	0	6	-6	6 317
Thermal 2{1}		0	9	-9	4	10	-11	11 268
Thermal 3{1}		0	4	-4	2	5	-5	5 85
Thermal 4{1}		0	12	-13	4	13	-14	14 262
Thermal 5{1}		0	1	-1	4	5	-4	7 198

GRT1{1}	0	9	-10	2	10	-10	10	7
GRT2{1}	0	6	-6	1	7	-7	7	321
GRT3{1}	0	5	-5	1	5	-5	5	191
GRT4{1}	0	8	-8	2	8	-8	9	297
GRT5{1}	0	9	-8	2	9	-9	9	221

Gravity{1}	0	6	-6	2	7	-7	7	199
Hydrotest{1}	61	19	19	0	61	19	54	270
Thermal 1{1}	0	6	-6	0	6	-6	6	103
Thermal 2{1}	0	8	-8	4	10	-10	10	144
Thermal 3{1}	0	4	-4	2	4	-4	5	321
Thermal 4{1}	0	11	-12	4	12	-13	14	152
Thermal 5{1}	0	4	-3	4	6	-6	8	215
GRT1{1}	0	9	-9	2	9	-10	10	62
GRT2{1}	0	7	-7	1	7	-7	7	100
GRT3{1}	0	5	-5	1	5	-5	5	239
GRT4{1}	0	8	-9	2	9	-9	9	122
GRT5{1}	0	9	-9	2	10	-9	10	205

Gravity{1}	0	6	-6	2	7	-7	7	19
Hydrotest{1}	61	19	19	0	61	19	54	270
Thermal 1{1}	0	6	-6	0	6	-6	6	283
Thermal 2{1}	0	8	-8	4	10	-10	10	324
Thermal 3{1}	0	4	-4	2	4	-4	5	141
Thermal 4{1}	0	11	-12	4	12	-13	14	332
Thermal 5{1}	0	4	-3	4	6	-6	8	35
GRT1{1}	0	9	-9	2	9	-10	10	242
GRT2{1}	0	7	-7	1	7	-7	7	280
GRT3{1}	0	5	-5	1	5	-5	5	59
GRT4{1}	0	8	-9	2	9	-9	9	302
GRT5{1}	0	9	-9	2	10	-9	10	25

Gravity{1}	0	6	-7	1	6	-7	7	227
Hydrotest{1}	61	19	19	0	61	19	54	270
Thermal 1{1}	0	0	0	3	3	-3	5	18
Thermal 2{1}	0	9	-9	3	10	-10	10	231
Thermal 3{1}	0	4	-4	1	5	-4	5	234

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
A16 F+	Thermal 4{1}	0	11	-11	3	12	-12	12	223
	Thermal 5{1}	0	8	-8	1	8	-8	8	292
	GRT1{1}	0	6	-6	4	8	-8	9	229
	GRT2{1}	0	3	-3	4	5	-5	7	61
	GRT3{1}	0	2	-2	2	4	-4	5	213
	GRT4{1}	0	5	-5	4	7	-7	8	39
	GRT5{1}	0	8	-8	2	8	-8	9	342
	SIFI= 1.00 Gravity{1} SIF0= 1.00	0	6	-7	1	6	-7	7	227
	Hydrotest{1}	61	19	19	0	61	19	54	270
	Thermal 1{1}	0	0	0	3	3	-3	5	18
	Thermal 2{1}	0	9	-9	3	10	-10	10	231
	Thermal 3{1}	0	4	-4	1	5	-4	5	234
	Thermal 4{1}	0	11	-11	3	12	-12	12	223
	Thermal 5{1}	0	8	-8	1	8	-8	8	292
A17 N-	GRT1{1}	0	6	-6	4	8	-8	9	229
	GRT2{1}	0	3	-3	4	5	-5	7	61
	GRT3{1}	0	2	-2	2	4	-4	5	213
	GRT4{1}	0	5	-5	4	7	-7	8	39
	GRT5{1}	0	8	-8	2	8	-8	9	342
	SIFI= 1.00 Gravity{1} SIF0= 1.00	0	7	-7	1	7	-7	7	233
	Hydrotest{1}	61	19	19	0	61	19	54	270
	Thermal 1{1}	0	13	-13	3	14	-14	14	192
	Thermal 2{1}	0	6	-6	3	7	-7	7	219
	Thermal 3{1}	0	3	-3	1	4	-4	4	176
	Thermal 4{1}	0	8	-8	3	9	-9	10	339
	Thermal 5{1}	0	10	-10	1	10	-10	11	167
	GRT1{1}	0	19	-19	4	19	-20	20	206
	GRT2{1}	0	2	-2	4	5	-5	6	287
GRT3{1}	0	6	-6	2	6	-7	7	261	
GRT4{1}	0	12	-12	4	13	-13	14	192	
GRT5{1}	0	10	-10	2	10	-10	10	307	
A17 N+	SIFI= 1.00 Gravity{1} SIF0= 1.00	0	7	-7	1	7	-7	7	53
	Hydrotest{1}	61	19	19	0	61	19	54	270
	Thermal 1{1}	0	13	-13	3	14	-14	14	12

DVI_B_LINE_REV0.OUT

Thermal 2{1}	0	6	-6	3	7	-7	7	39
Thermal 3{1}	0	3	-3	1	4	-4	4	356
Thermal 4{1}	0	8	-8	3	9	-9	10	159
Thermal 5{1}	0	10	-10	1	10	-10	11	347
GRT1{1}	0	19	-19	4	19	-20	20	26
GRT2{1}	0	2	-2	4	5	-5	6	107
GRT3{1}	0	6	-6	2	6	-7	7	81
GRT4{1}	0	12	-12	4	13	-13	14	12
GRT5{1}	0	10	-10	2	10	-10	10	127

A17 F- SIFI= 1.00 SIF0= 1.00
Gravity{1}

0 3 -3 3 5 -5 6 216

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DVI_B_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point name	Load combination	Hoop Stress	Longitudinal Max	Min	Shear Stress	Principal Max	Min	Total Stress	Loc
Hydrotest{1}		61	19	19	0	61	19	54	270
Thermal 1{1}		0	15	-15	1	15	-16	16	25
Thermal 2{1}		0	6	-6	2	7	-7	7	125
Thermal 3{1}		0	4	-4	0	4	-4	4	313
Thermal 4{1}		0	11	-12	1	11	-12	12	32
Thermal 5{1}		0	10	-10	1	11	-10	11	341
GRT1{1}		0	18	-19	4	19	-20	20	27
GRT2{1}		0	7	-7	1	8	-8	8	97
GRT3{1}		0	5	-5	3	6	-6	7	269
GRT4{1}		0	15	-15	1	15	-15	15	33
GRT5{1}		0	9	-9	4	11	-10	12	322
A17 F+ SIFI= 1.00 SIF0= 1.00 Gravity{1}		0	3	-3	3	5	-5	6	216
Hydrotest{1}		61	19	19	0	61	19	54	270
Thermal 1{1}		0	15	-15	1	15	-16	16	25
Thermal 2{1}		0	6	-6	2	7	-7	7	125
Thermal 3{1}		0	4	-4	0	4	-4	4	313
Thermal 4{1}		0	11	-12	1	11	-12	12	32
Thermal 5{1}		0	10	-10	1	11	-10	11	341
GRT1{1}		0	18	-19	4	19	-20	20	27

		DVI_B_LINE_REV0.OUT						
	GRT2{1}	0	7	-7	1	8	-8	8 97
	GRT3{1}	0	5	-5	3	6	-6	7 269
	GRT4{1}	0	15	-15	1	15	-15	15 33
	GRT5{1}	0	9	-9	4	11	-10	12 322
A55	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	5	-5	3	6	-6	7 332
	Hydrotest{1}	61	19	19	0	61	19	54 270
	Thermal 1{1}	0	15	-16	1	15	-16	16 29
	Thermal 2{1}	0	7	-7	2	7	-7	7 83
	Thermal 3{1}	0	4	-4	0	4	-4	4 266
	Thermal 4{1}	0	16	-16	1	16	-16	16 29
	Thermal 5{1}	0	8	-8	1	8	-8	8 299
	GRT1{1}	0	13	-14	4	14	-15	15 47
	GRT2{1}	0	10	-10	1	10	-10	10 112
	GRT3{1}	0	8	-8	3	9	-9	9 302
	GRT4{1}	0	14	-14	1	14	-14	14 46
	GRT5{1}	0	12	-12	4	14	-13	14 312
A18 N-	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	12	-12	3	13	-13	13 348
	Hydrotest{1}	61	19	19	0	61	19	54 270
	Thermal 1{1}	0	15	-16	1	16	-16	16 34
	Thermal 2{1}	0	10	-10	2	10	-10	10 56
	Thermal 3{1}	0	6	-6	0	7	-6	7 240
	Thermal 4{1}	0	20	-21	1	21	-21	21 28
	Thermal 5{1}	0	11	-11	1	11	-11	11 259
	GRT1{1}	0	11	-11	4	13	-13	14 84
	GRT2{1}	0	12	-12	1	12	-12	13 122
	GRT3{1}	0	12	-12	3	13	-13	13 316
	GRT4{1}	0	14	-14	1	14	-14	14 62

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DVI_B_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc

	GRT5{1}	0	17	-16	4	18	-17	18	307
A18 N+	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	12	-12	3	13	-13	13 348

DVI_B_LINE_REV0.OUT

	Hydrotest{1}	61	19	19	0	61	19	54	270
	Thermal 1{1}	0	15	-16	1	16	-16	16	34
	Thermal 2{1}	0	10	-10	2	10	-10	10	56
	Thermal 3{1}	0	6	-6	0	7	-6	7	240
	Thermal 4{1}	0	20	-21	1	21	-21	21	28
	Thermal 5{1}	0	11	-11	1	11	-11	11	259
	GRT1{1}	0	11	-11	4	13	-13	14	84
	GRT2{1}	0	12	-12	1	12	-12	13	122
	GRT3{1}	0	12	-12	3	13	-13	13	316
	GRT4{1}	0	14	-14	1	14	-14	14	62
	GRT5{1}	0	17	-16	4	18	-17	18	307
A18 F-	SIFI= 1.00 Gravity{1}	0	15	-14	1	15	-14	15	22
	Hydrotest{1}	61	19	19	0	61	19	54	270
	Thermal 1{1}	0	12	-12	4	14	-14	15	167
	Thermal 2{1}	0	7	-7	4	9	-9	10	31
	Thermal 3{1}	0	4	-4	3	5	-6	6	356
	Thermal 4{1}	0	18	-18	5	19	-20	20	9
	Thermal 5{1}	0	4	-5	6	8	-9	11	330
	GRT1{1}	0	9	-8	6	11	-11	13	81
	GRT2{1}	0	8	-7	5	10	-10	12	14
	GRT3{1}	0	11	-11	4	13	-12	13	31
	GRT4{1}	0	5	-5	6	10	-9	12	153
	GRT5{1}	0	12	-12	7	15	-15	17	40
A18 F+	SIFI= 1.00 Gravity{1}	0	15	-14	1	15	-14	15	22
	Hydrotest{1}	61	19	19	0	61	19	54	270
	Thermal 1{1}	0	12	-12	4	14	-14	15	167
	Thermal 2{1}	0	7	-7	4	9	-9	10	31
	Thermal 3{1}	0	4	-4	3	5	-6	6	356
	Thermal 4{1}	0	18	-18	5	19	-20	20	9
	Thermal 5{1}	0	4	-5	6	8	-9	11	330
	GRT1{1}	0	9	-8	6	11	-11	13	81
	GRT2{1}	0	8	-7	5	10	-10	12	14
	GRT3{1}	0	11	-11	4	13	-12	13	31
	GRT4{1}	0	5	-5	6	10	-9	12	153
	GRT5{1}	0	12	-12	7	15	-15	17	40
A56	SIFI= 1.00 Gravity{1}	0	14	-14	1	14	-14	15	21
	Hydrotest{1}	61	19	19	0	61	19	54	270
	Thermal 1{1}	0	5	-5	4	8	-8	9	166
	Thermal 2{1}	0	8	-8	4	9	-10	11	44

	DVI_B_LINE_REV0.OUT							
Thermal 3{1}	0	4	-5	3	6	-6	7	20
Thermal 4{1}	0	11	-12	5	13	-13	14	28
Thermal 5{1}	0	10	-11	6	13	-13	15	13

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DVI_B_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc

	GRT1{1}	0	10	-10	6	13	-12	14 39
	GRT2{1}	0	8	-7	5	11	-10	12 357
	GRT3{1}	0	10	-9	4	11	-11	12 22
	GRT4{1}	0	3	-3	6	8	-8	11 355
	GRT5{1}	0	4	-4	7	9	-9	13 45
A19 N- SIFI= 1.00 SIFO= 1.00								
	Gravity{1}	0	14	-13	1	14	-13	14 20
	Hydrotest{1}	61	19	19	0	61	19	54 270
	Thermal 1{1}	0	1	-1	4	5	-5	8 354
	Thermal 2{1}	0	8	-9	4	10	-10	11 55
	Thermal 3{1}	0	6	-6	3	7	-7	8 36
	Thermal 4{1}	0	8	-8	5	10	-11	12 74
	Thermal 5{1}	0	18	-18	6	20	-20	21 23
	GRT1{1}	0	15	-15	6	17	-17	18 18
	GRT2{1}	0	8	-8	5	11	-11	13 343
	GRT3{1}	0	9	-8	4	10	-10	11 9
	GRT4{1}	0	11	-11	6	14	-14	16 344
	GRT5{1}	0	5	-5	7	10	-10	13 212
A19 N+ SIFI= 1.00 SIFO= 1.00								
	Gravity{1}	0	14	-13	1	14	-13	14 290
	Hydrotest{1}	61	19	19	0	61	19	54 270
	Thermal 1{1}	0	1	-1	4	5	-5	8 264
	Thermal 2{1}	0	8	-9	4	10	-10	11 325
	Thermal 3{1}	0	6	-6	3	7	-7	8 306
	Thermal 4{1}	0	8	-8	5	10	-11	12 344
	Thermal 5{1}	0	18	-18	6	20	-20	21 293
	GRT1{1}	0	15	-15	6	17	-17	18 288
	GRT2{1}	0	8	-8	5	11	-11	13 253
	GRT3{1}	0	9	-8	4	10	-10	11 279

DVI_B_LINE_REV0.OUT

GRT4{1}	0	11	-11	6	14	-14	16	254
GRT5{1}	0	5	-5	7	10	-10	13	122
A19 F- SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	4	-4	6	9	-9	12	222
Hydrotest{1}	61	19	19	0	61	19	54	270
Thermal 1{1}	0	8	-8	1	8	-8	8	273
Thermal 2{1}	0	10	-10	2	11	-11	11	309
Thermal 3{1}	0	7	-7	2	7	-7	8	297
Thermal 4{1}	0	11	-11	1	11	-11	11	309
Thermal 5{1}	0	14	-14	9	18	-18	21	299
GRT1{1}	0	11	-11	8	15	-15	17	257
GRT2{1}	0	11	-11	4	13	-13	13	288
GRT3{1}	0	9	-9	4	10	-10	11	271
GRT4{1}	0	12	-12	6	15	-15	16	290
GRT5{1}	0	15	-15	2	16	-16	16	284
A19 F+ SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	4	-4	6	9	-9	12	42
Hydrotest{1}	61	19	19	0	61	19	54	270
Thermal 1{1}	0	8	-8	1	8	-8	8	93

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total	
name	combination	Stress	Max	Min	Max	Min	Stress Loc
-----	-----	-----	-----	-----	-----	-----	---
	Thermal 2{1}	0	10	-10	11	-11	11 129
	Thermal 3{1}	0	7	-7	7	-7	8 117
	Thermal 4{1}	0	11	-11	11	-11	11 129
	Thermal 5{1}	0	14	-14	18	-18	21 119
	GRT1{1}	0	11	-11	15	-15	17 77
	GRT2{1}	0	11	-11	13	-13	13 108
	GRT3{1}	0	9	-9	10	-10	11 91
	GRT4{1}	0	12	-12	15	-15	16 110
	GRT5{1}	0	15	-15	16	-16	16 104
A20	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	21	-21	23	-23	24 172
	Hydrotest{1}	61	19	19	61	19	54 270

		DVI_B_LINE_REV0.OUT						
	Thermal 1{1}	0	5	-5	1	5	-5	6 254
	Thermal 2{1}	0	8	-9	2	9	-9	10 56
	Thermal 3{1}	0	8	-8	2	8	-9	9 57
	Thermal 4{1}	0	7	-7	1	7	-7	7 301
	Thermal 5{1}	0	25	-26	9	28	-29	30 72
	GRT1{1}	0	23	-23	8	25	-25	26 185
	GRT2{1}	0	19	-19	4	20	-20	20 148
	GRT3{1}	0	19	-19	4	20	-20	21 150
	GRT4{1}	0	18	-18	6	19	-19	20 191
	GRT5{1}	0	30	-31	2	30	-31	31 116
CH02	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	25	-25	8	27	-27	28 174
	Hydrotest{1}	1	0	0	0	1	0	0 270
	Thermal 1{1}	0	9	-9	1	9	-9	9 258
	Thermal 2{1}	0	11	-11	3	11	-11	12 39
	Thermal 3{1}	0	9	-10	3	10	-10	11 45
	Thermal 4{1}	0	13	-13	1	13	-14	14 303
	Thermal 5{1}	0	28	-28	10	31	-31	33 65
	GRT1{1}	0	28	-28	9	30	-30	32 193
	GRT2{1}	0	19	-19	5	20	-20	21 151
	GRT3{1}	0	20	-21	5	21	-22	22 153
	GRT4{1}	0	20	-20	7	22	-22	23 206
	GRT5{1}	0	31	-31	3	31	-31	31 116
A70	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	2	-2	8	8	-8	13 272
	Hydrotest{1}	1	0	0	0	1	0	0 270
	Thermal 1{1}	0	8	-8	1	8	-8	8 258
	Thermal 2{1}	0	8	-8	3	9	-9	9 13
	Thermal 3{1}	0	6	-6	3	7	-7	8 15
	Thermal 4{1}	0	13	-14	1	13	-14	14 303
	Thermal 5{1}	0	6	-7	10	14	-14	19 337
	GRT1{1}	0	10	-10	9	15	-15	18 261
	GRT2{1}	0	7	-8	5	10	-10	11 360
	GRT3{1}	0	6	-6	5	9	-9	10 359
	GRT4{1}	0	15	-15	7	18	-18	19 300
	GRT5{1}	0	7	-8	3	8	-9	9 325

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DVI_B_LINE_REV0

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DVI_B_LINE_REV0.OUT
GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
A22 N-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	14	-14	8	17	-17	19	343
	Hydrotest{1}		1	0	0	0	1	0	0	270
	Thermal 1{1}		0	7	-8	1	8	-8	8	259
	Thermal 2{1}		0	7	-7	3	8	-8	9	351
	Thermal 3{1}		0	5	-6	3	7	-7	7	346
	Thermal 4{1}		0	13	-14	1	14	-14	14	304
	Thermal 5{1}		0	18	-19	10	23	-23	26	279
	GRT1{1}		0	17	-17	9	20	-21	23	316
	GRT2{1}		0	21	-21	5	22	-22	23	345
	GRT3{1}		0	19	-20	5	21	-21	21	344
	GRT4{1}		0	26	-26	7	28	-28	29	323
	GRT5{1}		0	28	-28	3	28	-28	29	306
A22 N+	SIFI= 1.25 Gravity{1}	SIFO= 1.25	0	18	-18	8	20	-20	22	73
	Hydrotest{1}		1	0	0	0	1	0	0	270
	Thermal 1{1}		0	9	-9	1	10	-10	10	349
	Thermal 2{1}		0	9	-9	3	10	-10	10	81
	Thermal 3{1}		0	7	-7	3	8	-8	8	76
	Thermal 4{1}		0	17	-17	1	17	-17	17	34
	Thermal 5{1}		0	23	-24	10	27	-27	30	9
	GRT1{1}		0	21	-21	9	24	-24	26	46
	GRT2{1}		0	26	-26	5	27	-27	28	75
	GRT3{1}		0	24	-25	5	25	-25	26	74
	GRT4{1}		0	33	-33	7	34	-34	35	53
	GRT5{1}		0	35	-35	3	35	-35	36	36
A22 F-	SIFI= 1.25 Gravity{1}	SIFO= 1.25	0	17	-18	8	20	-20	22	289
	Hydrotest{1}		1	0	0	0	1	0	0	270
	Thermal 1{1}		0	9	-9	1	9	-9	10	158
	Thermal 2{1}		0	7	-7	3	8	-9	9	77
	Thermal 3{1}		0	7	-7	3	8	-8	8	75
	Thermal 4{1}		0	14	-14	4	15	-15	15	7
	Thermal 5{1}		0	35	-36	1	35	-36	36	46
	GRT1{1}		0	25	-25	7	26	-27	27	306
	GRT2{1}		0	12	-12	11	18	-19	23	307
	GRT3{1}		0	12	-12	10	18	-18	22	307
	GRT4{1}		0	24	-24	11	29	-29	31	322

		DVI_B_LINE_REV0.OUT						
GRT5{1}		0	31	-32	9	34	-35	36 16
A22 F+	SIFI= 1.00 Gravity{1}	0	14	-14	8	17	-17	19 199
	Hydrotest{1}	1	0	0	0	1	0	0 270
	Thermal 1{1}	0	8	-8	1	8	-8	8 68
	Thermal 2{1}	0	6	-6	3	7	-7	8 347
	Thermal 3{1}	0	5	-6	3	7	-7	7 345
	Thermal 4{1}	0	11	-11	4	12	-12	13 277
	Thermal 5{1}	0	28	-29	1	28	-29	29 316
	GRT1{1}	0	20	-20	7	22	-22	23 216
	GRT2{1}	0	9	-10	11	17	-17	22 217

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DVI_B_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
-----	-----	-----	-----	-----	-----	-----	-----	---
	GRT3{1}	0	10	-10	10	16	-16	20 217
	GRT4{1}	0	19	-20	11	25	-25	28 232
	GRT5{1}	0	25	-26	9	28	-29	30 286
A24 -	SIFI= 1.00 Gravity{1}	0	10	-10	8	14	-15	17 101
	Hydrotest{1}	1	0	0	0	1	0	0 270
	Thermal 1{1}	0	7	-7	1	7	-7	7 239
	Thermal 2{1}	0	5	-6	3	7	-7	8 313
	Thermal 3{1}	0	5	-5	3	6	-6	7 315
	Thermal 4{1}	0	10	-10	4	11	-11	12 29
	Thermal 5{1}	0	26	-27	1	26	-27	27 349
	GRT1{1}	0	16	-16	7	19	-19	20 84
	GRT2{1}	0	6	-7	11	15	-15	20 74
	GRT3{1}	0	7	-7	10	14	-14	19 75
	GRT4{1}	0	17	-17	11	22	-23	26 65
	GRT5{1}	0	24	-25	9	27	-28	30 12
A24 +	SIFI= 1.00 Gravity{1}	0	12	-12	0	12	-12	12 112
	Hydrotest{1}	1	0	0	0	1	0	0 270
	Thermal 1{1}	0	8	-8	0	8	-8	8 234
	Thermal 2{1}	0	7	-7	1	7	-7	7 339

DVI_B_LINE_REV0.OUT

Thermal 3{1}	0	7	-7	1	7	-7	7	342
Thermal 4{1}	0	12	-12	1	12	-12	12	28
Thermal 5{1}	0	30	-31	1	30	-31	31	350
GRT1{1}	0	17	-17	0	17	-17	17	89
GRT2{1}	0	8	-9	1	9	-9	9	75
GRT3{1}	0	9	-9	1	9	-9	9	76
GRT4{1}	0	17	-17	2	17	-18	18	70
GRT5{1}	0	26	-27	1	26	-27	27	12
A26 - SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	30	-30	0	30	-30	30	0
Hydrotest{1}	1	0	0	0	1	0	0	270
Thermal 1{1}	0	5	-5	0	6	-5	6	83
Thermal 2{1}	0	10	-11	1	11	-11	11	270
Thermal 3{1}	0	11	-11	1	11	-11	11	270
Thermal 4{1}	0	9	-9	1	9	-9	9	271
Thermal 5{1}	0	32	-33	1	32	-33	33	257
GRT1{1}	0	29	-29	0	29	-29	29	350
GRT2{1}	0	31	-32	1	31	-32	32	341
GRT3{1}	0	31	-32	1	31	-32	32	340
GRT4{1}	0	31	-31	2	31	-31	31	344
GRT5{1}	0	38	-39	1	38	-39	39	305
A26 + SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	30	-30	0	30	-30	30	0
Hydrotest{1}	1	0	0	0	1	0	0	270
Thermal 1{1}	0	5	-5	0	6	-5	6	83
Thermal 2{1}	0	10	-11	1	11	-11	11	270
Thermal 3{1}	0	11	-11	1	11	-11	11	270

0

DVI_B_LINE_REV0

09/13/2010 DVI BLINE

BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 233

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	Thermal 4{1}	0	9	-9	1	9	-9	9	271
	Thermal 5{1}	0	32	-33	1	32	-33	33	257
	GRT1{1}	0	29	-29	0	29	-29	29	350
	GRT2{1}	0	31	-32	1	31	-32	32	341

		DVI_B_LINE_REV0.OUT						
	GRT3{1}	0	31	-32	1	31	-32	32 340
	GRT4{1}	0	31	-31	2	31	-31	31 344
	GRT5{1}	0	38	-39	1	38	-39	39 305
A28	- SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	23	-23	0	23	-23	23 357
	Hydrotest{1}	1	0	0	0	1	0	0 270
	Thermal 1{1}	0	1	-1	0	2	-2	2 17
	Thermal 2{1}	0	8	-8	1	8	-8	8 330
	Thermal 3{1}	0	8	-8	1	8	-8	8 329
	Thermal 4{1}	0	2	-2	1	3	-3	3 325
	Thermal 5{1}	0	50	-51	1	50	-51	51 328
	GRT1{1}	0	22	-22	0	22	-22	22 356
	GRT2{1}	0	30	-31	1	30	-31	31 351
	GRT3{1}	0	30	-30	1	30	-30	30 350
	GRT4{1}	0	25	-25	2	25	-25	25 355
	GRT5{1}	0	70	-72	1	70	-72	72 337
A28	+ SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	18	-18	0	18	-18	18 359
	Hydrotest{1}	1	0	0	0	1	0	0 270
	Thermal 1{1}	0	1	-1	1	1	-1	2 32
	Thermal 2{1}	0	4	-4	1	4	-4	4 11
	Thermal 3{1}	0	4	-4	0	4	-4	4 10
	Thermal 4{1}	0	1	-1	1	1	-1	1 350
	Thermal 5{1}	0	28	-29	4	29	-29	30 352
	GRT1{1}	0	17	-17	1	17	-18	18 357
	GRT2{1}	0	22	-22	0	22	-22	22 1
	GRT3{1}	0	22	-22	0	22	-22	22 1
	GRT4{1}	0	19	-19	0	19	-19	19 359
	GRT5{1}	0	47	-47	4	47	-47	48 355
A29	N- SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	11	-11	0	11	-11	11 180
	Hydrotest{1}	1	0	0	0	1	0	0 270
	Thermal 1{1}	0	1	-1	1	2	-2	2 168
	Thermal 2{1}	0	4	-4	1	4	-4	4 174
	Thermal 3{1}	0	4	-4	0	4	-4	4 173
	Thermal 4{1}	0	1	-1	1	1	-1	1 203
	Thermal 5{1}	0	23	-24	4	24	-24	25 177
	GRT1{1}	0	10	-10	1	10	-10	10 181
	GRT2{1}	0	15	-15	0	15	-15	15 178
	GRT3{1}	0	15	-15	0	15	-15	15 178
	GRT4{1}	0	12	-12	0	12	-12	12 182
	GRT5{1}	0	34	-35	4	35	-35	35 178

A29 N+ SIFI= 1.25 SIFO= 1.25 DVI_B_LINE_REV0.OUT
Gravity{1} 0 14 -14 0 14 -14 14 360

0

DVI_B_LINE_REV0

09/13/2010 DVI BLINE

BENTLEY

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AutoPIPE Plus 9.2.1 RESULT PAGE 234

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
		Hydrotest{1}	1	0	0	0	1	0	0	270
		Thermal 1{1}	0	2	-1	1	2	-2	2	346
		Thermal 2{1}	0	5	-5	1	5	-5	5	353
		Thermal 3{1}	0	5	-5	0	5	-5	5	353
		Thermal 4{1}	0	1	-1	1	1	-1	1	21
		Thermal 5{1}	0	29	-30	4	30	-30	30	357
		GRT1{1}	0	12	-12	1	12	-12	12	2
		GRT2{1}	0	19	-19	0	19	-19	19	358
		GRT3{1}	0	19	-19	0	19	-19	19	358
		GRT4{1}	0	15	-15	0	15	-15	15	1
		GRT5{1}	0	43	-43	4	43	-44	44	358
A29 F-	SIFI= 1.25 Gravity{1}	SIFO= 1.25	0	12	-12	0	12	-12	12	181
		Hydrotest{1}	1	0	0	0	1	0	0	270
		Thermal 1{1}	0	2	-2	0	2	-2	2	310
		Thermal 2{1}	0	5	-5	0	5	-5	5	345
		Thermal 3{1}	0	5	-5	0	5	-5	5	352
		Thermal 4{1}	0	2	-2	0	2	-2	2	308
		Thermal 5{1}	0	29	-29	1	29	-29	29	198
		GRT1{1}	0	11	-11	0	11	-11	11	190
		GRT2{1}	0	18	-17	0	18	-17	18	176
		GRT3{1}	0	17	-17	0	17	-17	17	178
		GRT4{1}	0	13	-13	0	13	-13	13	175
		GRT5{1}	0	41	-41	1	41	-41	41	193
A29 F+	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	10	-10	0	10	-10	10	181
		Hydrotest{1}	1	0	0	0	1	0	0	270
		Thermal 1{1}	0	2	-2	0	2	-2	2	310
		Thermal 2{1}	0	4	-4	0	4	-4	4	345
		Thermal 3{1}	0	4	-4	0	4	-4	4	352

		DVI_B_LINE_REV0.OUT						
	Thermal 4{1}	0	1	-1	0	1	-1	1 308
	Thermal 5{1}	0	23	-23	1	23	-23	23 198
	GRT1{1}	0	9	-9	0	9	-9	9 190
	GRT2{1}	0	14	-14	0	14	-14	14 176
	GRT3{1}	0	14	-14	0	14	-14	14 178
	GRT4{1}	0	11	-10	0	11	-10	11 175
	GRT5{1}	0	33	-32	1	33	-32	33 193
A46	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	20	-19	0	20	-19	20 181
	Hydrotest{1}	1	0	0	0	1	0	0 270
	Thermal 1{1}	0	4	-4	0	4	-4	4 310
	Thermal 2{1}	0	8	-9	0	8	-9	9 345
	Thermal 3{1}	0	8	-8	0	8	-8	8 352
	Thermal 4{1}	0	3	-3	0	3	-3	3 308
	Thermal 5{1}	0	47	-46	1	47	-46	47 198
	GRT1{1}	0	18	-17	0	18	-17	18 190
	GRT2{1}	0	28	-28	0	28	-28	28 176
	GRT3{1}	0	28	-27	0	28	-27	28 178
	GRT4{1}	0	21	-21	0	21	-21	21 175

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DVI_B_LINE_REV0

09/13/2010 DVI BLINE

BENTLEY

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc

	GRT5{1}	0	66	-65	1	66	-65	66 193
A45	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	35	-35	0	35	-35	35 181
	Hydrotest{1}	0	0	0	0	0	0	0 270
	Thermal 1{1}	0	6	-6	0	6	-6	6 310
	Thermal 2{1}	0	15	-15	0	15	-15	15 345
	Thermal 3{1}	0	14	-14	0	14	-14	14 352
	Thermal 4{1}	0	5	-5	0	5	-5	5 309
	Thermal 5{1}	0	80	-79	2	80	-80	80 196
	GRT1{1}	0	31	-31	0	31	-31	31 189
	GRT2{1}	0	50	-49	0	50	-49	50 176
	GRT3{1}	0	49	-48	0	49	-48	49 178
	GRT4{1}	0	38	-38	0	38	-38	38 175

DVI_B_LINE_REV0.OUT

	GRT5{1}		0	114	-113	2	114	-113	114	192
A68	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	4	-3	0	4	-3	4	40
	Hydrotest{1}		0	0	0	0	0	0	0	270
	Thermal 1{1}		0	1	-1	0	1	-1	1	140
	Thermal 2{1}		0	4	-4	0	4	-4	4	167
	Thermal 3{1}		0	4	-4	0	4	-4	4	169
	Thermal 4{1}		0	1	-1	0	1	-1	1	356
	Thermal 5{1}		0	47	-47	2	47	-47	47	56
	GRT1{1}		0	4	-3	0	4	-3	4	58
	GRT2{1}		0	7	-7	0	7	-7	7	11
	GRT3{1}		0	7	-7	0	7	-7	7	12
	GRT4{1}		0	3	-3	0	3	-3	3	52
	GRT5{1}		0	50	-50	2	50	-50	50	55
A35 N-	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	3	-2	0	3	-2	3	1
	Hydrotest{1}		0	0	0	0	0	0	0	270
	Thermal 1{1}		0	1	-1	0	1	-1	1	83
	Thermal 2{1}		0	1	-1	0	1	-1	1	98
	Thermal 3{1}		0	1	-1	0	1	-1	1	101
	Thermal 4{1}		0	0	0	0	0	0	1	29
	Thermal 5{1}		0	20	-20	2	20	-20	20	74
	GRT1{1}		0	3	-3	0	3	-3	3	18
	GRT2{1}		0	3	-3	0	3	-3	3	336
	GRT3{1}		0	3	-3	0	3	-3	3	339
	GRT4{1}		0	2	-2	0	2	-2	2	0
	GRT5{1}		0	21	-20	2	21	-21	21	67
A35 N+	SIFI= 1.05	SIFO= 1.05								
	Gravity{1}		0	3	-3	0	3	-3	3	271
	Hydrotest{1}		0	0	0	0	0	0	0	270
	Thermal 1{1}		0	1	-1	0	1	-1	1	353
	Thermal 2{1}		0	1	-1	0	1	-1	1	8
	Thermal 3{1}		0	1	-1	0	1	-1	1	11
	Thermal 4{1}		0	0	0	0	0	0	1	299
	Thermal 5{1}		0	21	-21	2	21	-21	21	344

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 DVI_B_LINE_REV0
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 GENERAL PIPE STRESS REPORT

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BENTLEY

DVI_B_LINE_REV0.OUT
(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	----
A35 F-	GRT1{1}		0	3	-3	0	3	-3	3	288
	GRT2{1}		0	3	-3	0	3	-3	3	246
	GRT3{1}		0	3	-3	0	3	-3	3	249
	GRT4{1}		0	3	-3	0	3	-3	3	270
	GRT5{1}		0	22	-21	2	22	-22	22	337
	SIFI= 1.05	SIF0= 1.05								
	Gravity{1}		0	0	0	1	1	-1	2	41
	Hydrotest{1}		0	0	0	0	0	0	0	270
	Thermal 1{1}		0	1	-1	0	1	-1	1	27
	Thermal 2{1}		0	1	-1	0	1	-1	1	32
	Thermal 3{1}		0	1	-1	0	1	-1	1	37
	Thermal 4{1}		0	1	-1	0	1	-1	1	273
	Thermal 5{1}		0	18	-19	2	19	-19	19	169
	GRT1{1}		0	1	-1	1	2	-2	2	204
	GRT2{1}		0	2	-2	1	2	-2	3	32
	GRT3{1}		0	1	-1	1	2	-2	3	37
	GRT4{1}		0	1	-1	1	2	-2	2	283
GRT5{1}		0	18	-18	4	19	-19	20	169	
A35 F+	SIFI= 1.00	SIF0= 1.00								
	Gravity{1}		0	0	0	1	1	-1	2	41
	Hydrotest{1}		0	0	0	0	0	0	0	270
	Thermal 1{1}		0	1	-1	0	1	-1	1	27
	Thermal 2{1}		0	1	-1	0	1	-1	1	32
	Thermal 3{1}		0	1	-1	0	1	-1	1	37
	Thermal 4{1}		0	1	-1	0	1	-1	1	273
	Thermal 5{1}		0	18	-18	2	18	-18	18	169
	GRT1{1}		0	1	-1	1	2	-2	2	204
	GRT2{1}		0	1	-2	1	2	-2	3	32
	GRT3{1}		0	1	-1	1	2	-2	3	37
	GRT4{1}		0	1	-1	1	2	-2	2	283
	GRT5{1}		0	17	-18	4	18	-18	19	169
A54	SIFI= 1.00	SIF0= 1.00								
	Gravity{1}		0	1	-1	1	2	-2	2	178
	Hydrotest{1}		0	0	0	0	0	0	0	270
	Thermal 1{1}		0	0	0	0	0	0	0	338
	Thermal 2{1}		0	1	-1	0	1	-1	1	278
	Thermal 3{1}		0	1	-1	0	1	-1	1	279
	Thermal 4{1}		0	0	0	0	0	0	0	247
Thermal 5{1}		0	6	-6	2	7	-7	7	260	

GRT1{1}	0	1	-1	1	2	-2	3	177
GRT2{1}	0	1	-1	1	2	-2	3	229
GRT3{1}	0	1	-1	1	2	-2	3	229
GRT4{1}	0	1	-1	1	2	-2	2	193
GRT5{1}	0	6	-6	4	8	-8	9	251

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BENTLEY

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Point	Load	Hoop	Longitudinal		Shear	Principal		Total	
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	Thermal 2{1}	0	4	-4	0	4	-4	4	249
	Thermal 3{1}	0	4	-4	0	4	-4	4	253
	Thermal 4{1}	0	0	0	0	0	0	0	152
	Thermal 5{1}	0	29	-29	2	29	-29	30	319
	GRT1{1}	0	9	-9	1	9	-9	9	176
	GRT2{1}	0	12	-12	1	12	-12	12	197
	GRT3{1}	0	11	-12	1	12	-12	12	198
	GRT4{1}	0	10	-10	1	10	-10	10	179
	GRT5{1}	0	22	-23	4	23	-23	24	303

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DVI_B_LINE_REV0.0UT

A36 N+ SIFI= 1.05 SIFO= 1.05
Gravity{1}

0	8	-8	1	8	-8	9	275
Hydrotest{1}	0	0	0	0	0	0	270
Thermal 1{1}	0	0	0	0	0	0	112
Thermal 2{1}	0	1	-1	0	1	-1	144
Thermal 3{1}	0	1	-1	0	1	-1	148
Thermal 4{1}	0	0	0	0	0	0	60
Thermal 5{1}	0	7	-8	2	8	-8	277
GRT1{1}	0	9	-9	1	9	-9	275
GRT2{1}	0	8	-8	1	8	-8	268
GRT3{1}	0	8	-8	1	8	-8	268
GRT4{1}	0	8	-8	1	8	-8	275
GRT5{1}	0	16	-16	4	16	-17	276

A36 M SIFI= 1.05 SIFO= 1.05
Gravity{1}

0	9	-9	0	9	-9	9	274
Hydrotest{1}	0	0	0	0	0	0	270
Thermal 1{1}	0	0	0	0	0	0	111
Thermal 2{1}	0	1	-1	0	1	-1	146
Thermal 3{1}	0	1	-1	0	1	-1	152
Thermal 4{1}	0	0	0	0	0	0	62
Thermal 5{1}	0	9	-9	1	9	-9	277
GRT1{1}	0	9	-9	0	9	-9	275
GRT2{1}	0	8	-8	0	8	-8	269
GRT3{1}	0	8	-8	0	8	-8	269
GRT4{1}	0	9	-9	0	9	-9	275
GRT5{1}	0	17	-18	1	17	-18	276

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DVI_B_LINE_REV0

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BENTLEY

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AutoPIPE Plus 9.2.1 RESULT PAGE 238

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
A36 F-	SIFI= 1.05	SIFO= 1.05								
	Gravity{1}		0	8	-8	2	8	-8	8	275
	Hydrotest{1}		0	0	0	0	0	0	0	270
	Thermal 1{1}		0	0	0	0	0	0	0	112
	Thermal 2{1}		0	1	-1	0	1	-1	1	154
	Thermal 3{1}		0	1	-1	0	1	-1	1	160

DVI_B_LINE_REV0.OUT

Thermal 4{1}	0	0	0	0	0	0	0	61
Thermal 5{1}	0	9	-9	1	9	-9	9	277
GRT1{1}	0	8	-8	2	8	-9	9	276
GRT2{1}	0	7	-7	2	8	-8	8	269
GRT3{1}	0	7	-7	2	8	-8	8	269
GRT4{1}	0	8	-8	2	8	-8	8	276
GRT5{1}	0	16	-17	3	17	-17	17	276
A36 F+ SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	7	-7	2	8	-8	8	5
Hydrotest{1}	0	0	0	0	0	0	0	270
Thermal 1{1}	0	0	0	0	0	0	0	202
Thermal 2{1}	0	1	-1	0	1	-1	1	244
Thermal 3{1}	0	1	-1	0	1	-1	1	250
Thermal 4{1}	0	0	0	0	0	0	0	151
Thermal 5{1}	0	8	-8	1	8	-8	9	7
GRT1{1}	0	8	-8	2	8	-8	8	6
GRT2{1}	0	7	-7	2	7	-7	8	359
GRT3{1}	0	7	-7	2	7	-7	8	359
GRT4{1}	0	7	-7	2	8	-8	8	6
GRT5{1}	0	16	-16	3	16	-16	16	6
A37 N- SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	2	-2	2	3	-3	4	355
Hydrotest{1}	0	0	0	0	0	0	0	270
Thermal 1{1}	0	0	0	0	0	0	0	356
Thermal 2{1}	0	0	0	0	0	0	0	74
Thermal 3{1}	0	0	0	0	0	0	0	81
Thermal 4{1}	0	0	0	0	0	0	0	290
Thermal 5{1}	0	1	-1	1	1	-2	2	254
GRT1{1}	0	2	-2	2	3	-3	4	355
GRT2{1}	0	2	-2	2	3	-3	4	358
GRT3{1}	0	2	-2	2	3	-3	4	358
GRT4{1}	0	2	-2	2	3	-3	4	354
GRT5{1}	0	2	-2	3	4	-4	5	325
A37 N+ SIFI= 1.05 SIFO= 1.05								
Gravity{1}	0	2	-2	2	3	-3	4	85
Hydrotest{1}	0	0	0	0	0	0	0	270
Thermal 1{1}	0	0	0	0	0	0	0	86
Thermal 2{1}	0	0	0	0	0	0	0	164
Thermal 3{1}	0	0	0	0	0	0	0	171
Thermal 4{1}	0	0	0	0	0	0	0	20
Thermal 5{1}	0	1	-1	1	1	-2	2	344
GRT1{1}	0	2	-2	2	3	-3	4	85

GRT2{1} DVI_B_LINE_REV0.OUT 0 2 -2 2 3 -3 4 88

□

DVI_B_LINE_REV0

09/13/2010 DVIIBLINE

BENTLEY

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
-----	-----	-----	-----	-----	-----	-----	-----	---
	GRT3{1}	0	2	-2	2	3	-3	4 88
	GRT4{1}	0	2	-2	2	3	-3	4 84
	GRT5{1}	0	2	-2	3	4	-4	5 55
A37 F-	SIFI= 1.05 SIF0= 1.05 Gravity{1}	0	4	-4	1	4	-4	4 87
	Hydrotest{1}	0	0	0	0	0	0	0 270
	Thermal 1{1}	0	0	0	0	0	0	0 266
	Thermal 2{1}	0	0	0	0	0	0	0 247
	Thermal 3{1}	0	0	0	0	0	0	0 245
	Thermal 4{1}	0	0	0	0	0	0	0 327
	Thermal 5{1}	0	1	-1	1	1	-1	2 35
	GRT1{1}	0	4	-4	1	4	-4	4 87
	GRT2{1}	0	4	-4	1	4	-4	4 89
	GRT3{1}	0	4	-4	1	4	-4	4 89
	GRT4{1}	0	4	-4	1	4	-4	4 87
	GRT5{1}	0	5	-5	1	5	-5	5 77
A37 F+	SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	4	-4	1	4	-4	4 357
	Hydrotest{1}	0	0	0	0	0	0	0 270
	Thermal 1{1}	0	0	0	0	0	0	0 176
	Thermal 2{1}	0	0	0	0	0	0	0 157
	Thermal 3{1}	0	0	0	0	0	0	0 155
	Thermal 4{1}	0	0	0	0	0	0	0 237
	Thermal 5{1}	0	1	-1	1	1	-1	2 305
	GRT1{1}	0	4	-4	1	4	-4	4 357
	GRT2{1}	0	3	-3	1	4	-4	4 359
	GRT3{1}	0	3	-3	1	4	-4	4 359
	GRT4{1}	0	4	-4	1	4	-4	4 357
	GRT5{1}	0	4	-5	1	5	-5	5 347
A38	SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	8	-8	1	8	-8	8 179

Hydrotest{1}	0	0	0	0	0	0	0	270
Thermal 1{1}	0	0	0	0	0	0	0	48
Thermal 2{1}	0	1	-1	0	1	-1	1	90
Thermal 3{1}	0	1	-1	0	1	-1	1	93
Thermal 4{1}	0	0	0	0	0	0	0	313
Thermal 5{1}	0	9	-9	1	9	-10	10	128
GRT1{1}	0	8	-8	1	8	-8	8	181
GRT2{1}	0	8	-8	1	8	-8	8	170
GRT3{1}	0	8	-8	1	8	-8	8	170
GRT4{1}	0	7	-7	1	8	-8	8	180
GRT5{1}	0	15	-15	1	15	-15	16	150

Gravimetric	Gravimetric	Gravimetric	Gravimetric	Gravimetric	Gravimetric	Gravimetric	Gravimetric	Gravimetric
Gravity{1}	0	8	-8	1	8	-8	8	180
Hydrotest{1}	0	0	0	0	0	0	0	270
Thermal 1{1}	0	0	0	0	0	0	0	47
Thermal 2{1}	0	1	-1	0	1	-1	1	87
Thermal 3{1}	0	1	-1	0	1	-1	1	90

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[illegible]

DVI_B_LINE_REV0.OUT								
	Thermal 5{1}	0	10	-10	1	10	-10	10 44
	GRT1{1}	0	4	-4	1	4	-4	4 190
	GRT2{1}	0	4	-4	1	4	-4	4 167
	GRT3{1}	0	4	-4	1	4	-4	4 167
	GRT4{1}	0	4	-4	1	4	-4	4 188
	GRT5{1}	0	7	-7	1	7	-8	8 62
A39	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	11	-11	1	11	-11	11 188
	Hydrotest{1}	0	0	0	0	0	0	0 270
	Thermal 1{1}	0	0	0	0	0	0	0 60
	Thermal 2{1}	0	0	0	0	0	0	0 62
	Thermal 3{1}	0	0	0	0	0	0	0 63
	Thermal 4{1}	0	0	0	0	0	0	0 25
	Thermal 5{1}	0	33	-33	1	33	-33	33 359
	GRT1{1}	0	11	-11	1	11	-11	11 189
	GRT2{1}	0	10	-10	1	10	-10	10 186
	GRT3{1}	0	10	-10	1	10	-10	11 186
	GRT4{1}	0	11	-11	1	11	-11	11 188
	GRT5{1}	0	22	-23	1	22	-23	23 354
IV08	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	10	-10	1	10	-10	10 189
	Hydrotest{1}	0	0	0	0	0	0	0 270
	Thermal 1{1}	0	0	0	0	0	0	0 70
	Thermal 2{1}	0	0	0	0	0	0	0 51
	Thermal 3{1}	0	0	0	0	0	0	0 50
	Thermal 4{1}	0	0	0	0	0	0	0 43
	Thermal 5{1}	0	34	-34	1	34	-34	34 357
	GRT1{1}	0	10	-10	1	10	-10	10 190
	GRT2{1}	0	9	-9	1	9	-10	10 188
	GRT3{1}	0	9	-9	1	10	-10	10 189
	GRT4{1}	0	10	-10	1	10	-10	10 189
	GRT5{1}	0	25	-25	1	25	-25	25 352
A40 N-	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	4	-4	1	4	-4	4 178

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DVI_B_LINE_REV0

09/13/2010 DVI BLINE

BENTLEY

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total

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DVI_B_LINE_REV0.OUT

name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc

	Hydrotest{1}	0	0	0	0	0	0	0	270
	Thermal 1{1}	0	0	0	0	0	0	0	183
	Thermal 2{1}	0	0	0	0	1	-1	1	184
	Thermal 3{1}	0	0	0	0	0	0	1	184
	Thermal 4{1}	0	0	0	0	0	0	0	181
	Thermal 5{1}	0	35	-35	1	35	-35	35	180
	GRT1{1}	0	4	-4	1	4	-4	4	178
	GRT2{1}	0	4	-4	1	5	-5	5	179
	GRT3{1}	0	4	-4	1	4	-4	5	179
	GRT4{1}	0	4	-4	1	4	-4	4	178
	GRT5{1}	0	39	-39	1	39	-39	39	180
A40 N+	SIFI= 1.05 Gravity{1}	0	4	-4	1	4	-4	4	358
	Hydrotest{1}	0	0	0	0	0	0	0	270
	Thermal 1{1}	0	0	0	0	0	0	0	3
	Thermal 2{1}	0	1	-1	0	1	-1	1	4
	Thermal 3{1}	0	0	0	0	1	-1	1	4
	Thermal 4{1}	0	0	0	0	0	0	0	1
	Thermal 5{1}	0	36	-37	1	36	-37	37	360
	GRT1{1}	0	4	-4	1	4	-4	4	358
	GRT2{1}	0	5	-5	1	5	-5	5	359
	GRT3{1}	0	5	-5	1	5	-5	5	359
	GRT4{1}	0	4	-4	1	4	-4	4	358
	GRT5{1}	0	41	-41	1	41	-41	41	360
A40 F-	SIFI= 1.05 Gravity{1}	0	5	-5	0	5	-5	5	17
	Hydrotest{1}	0	0	0	0	0	0	0	270
	Thermal 1{1}	0	0	0	0	0	0	0	326
	Thermal 2{1}	0	1	-1	0	1	-1	1	325
	Thermal 3{1}	0	1	-1	0	1	-1	1	323
	Thermal 4{1}	0	0	0	0	0	0	0	345
	Thermal 5{1}	0	37	-37	0	37	-37	37	2
	GRT1{1}	0	5	-5	0	5	-5	5	19
	GRT2{1}	0	5	-6	0	5	-6	6	12
	GRT3{1}	0	5	-6	0	5	-6	6	12
	GRT4{1}	0	5	-5	0	5	-5	5	16
	GRT5{1}	0	41	-42	0	41	-42	42	4
A40 F+	SIFI= 1.00 Gravity{1}	0	5	-5	0	5	-5	5	287
	Hydrotest{1}	0	0	0	0	0	0	0	270

	DVI_B_LINE_REV0.OUT							
Thermal 1{1}	0	0	0	0	0	0	0	236
Thermal 2{1}	0	1	-1	0	1	-1	1	235
Thermal 3{1}	0	1	-1	0	1	-1	1	233
Thermal 4{1}	0	0	0	0	0	0	0	255
Thermal 5{1}	0	35	-35	0	35	-35	35	272
GRT1{1}	0	5	-5	0	5	-5	5	289
GRT2{1}	0	5	-5	0	5	-5	5	282
GRT3{1}	0	5	-5	0	5	-5	5	282
GRT4{1}	0	5	-5	0	5	-5	5	286

0

DVI_B_LINE_REV0

09/13/2010 DVI BLINE

BENTLEY

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
A75	GRT5{1}		0	40	-40	0	40	-40	40	274
	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	0	-1	0	0	-1	1	129
	Hydrotest{1}		0	0	0	0	0	0	0	270
	Thermal 1{1}		0	0	0	0	0	0	0	104
	Thermal 2{1}		0	0	0	0	0	0	0	111
	Thermal 3{1}		0	0	0	0	0	0	0	113
	Thermal 4{1}		0	0	0	0	0	0	0	92
	Thermal 5{1}		0	11	-11	0	11	-11	11	93
	GRT1{1}		0	0	-1	0	0	-1	1	137
	GRT2{1}		0	0	-1	0	0	-1	1	122
	GRT3{1}		0	0	-1	0	0	-1	1	123
	GRT4{1}		0	0	-1	0	0	-1	1	124
GRT5{1}		0	11	-12	0	11	-12	12	94	
A41 N-	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	0	-3	0	0	-3	3	354
	Hydrotest{1}		0	0	0	0	0	0	0	270
	Thermal 1{1}		0	0	0	0	0	0	0	285
	Thermal 2{1}		0	0	0	0	0	0	0	293
	Thermal 3{1}		0	0	0	0	0	0	0	295
	Thermal 4{1}		0	0	0	0	0	0	0	273
	Thermal 5{1}		0	5	-5	0	5	-5	5	278
GRT1{1}		0	0	-3	0	0	-3	3	356	

GRT2{1}	0	0	-3	0	0	-3	3	350
GRT3{1}	0	0	-3	0	0	-3	3	350
GRT4{1}	0	0	-3	0	0	-3	3	352
GRT5{1}	0	4	-7	0	4	-7	7	293

Gravity{1}	0	0	-3	0	0	-3	3	354
Hydrotest{1}	0	0	0	0	0	0	0	270
Thermal 1{1}	0	0	0	0	0	0	0	285
Thermal 2{1}	0	0	0	0	0	0	0	293
Thermal 3{1}	0	0	0	0	0	0	0	295
Thermal 4{1}	0	0	0	0	0	0	0	273
Thermal 5{1}	0	5	-5	0	5	-5	5	278
GRT1{1}	0	0	-3	0	0	-3	3	356
GRT2{1}	0	0	-3	0	0	-3	3	350
GRT3{1}	0	0	-3	0	0	-3	3	350
GRT4{1}	0	0	-3	0	0	-3	3	352
GRT5{1}	0	4	-7	0	4	-7	7	293

Gravity{1}	0	7	-7	0	7	-7	7	179
Hydrotest{1}	0	0	0	0	0	0	0	270
Thermal 1{1}	0	0	0	0	0	0	0	314
Thermal 2{1}	0	0	0	0	0	0	0	320
Thermal 3{1}	0	0	0	0	0	0	0	321
Thermal 4{1}	0	0	0	0	0	0	0	262
Thermal 5{1}	0	0	0	2	3	-3	4	173

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(Stress in N/mm²)

Point	Load	Hoop	Longitudinal		Shear	Principal		Total	
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	GRT1{1}	0	7	-7	0	7	-7	7	179
	GRT2{1}	0	7	-7	0	7	-7	7	179
	GRT3{1}	0	7	-7	0	7	-7	7	179
	GRT4{1}	0	7	-7	0	7	-7	7	179
	GRT5{1}	0	7	-7	2	8	-8	8	179

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		DVI_B_LINE_REV0.OUT							
	Gravity{1}	0	6	-6	0	6	-6	6	179
	Hydrotest{1}	0	0	0	0	0	0	0	270
	Thermal 1{1}	0	0	0	0	0	0	0	314
	Thermal 2{1}	0	0	0	0	0	0	0	320
	Thermal 3{1}	0	0	0	0	0	0	0	321
	Thermal 4{1}	0	0	0	0	0	0	0	262
	Thermal 5{1}	0	0	0	2	3	-3	4	173
	GRT1{1}	0	6	-6	0	6	-6	6	179
	GRT2{1}	0	6	-6	0	6	-6	6	179
	GRT3{1}	0	6	-6	0	6	-6	6	179
	GRT4{1}	0	6	-6	0	6	-6	6	179
	GRT5{1}	0	7	-7	2	8	-8	8	179
A73	SIFI= 1.00 SIF0= 1.00								
	Gravity{1}	0	30	-30	0	30	-30	30	180
	Hydrotest{1}	0	0	0	0	0	0	0	270
	Thermal 1{1}	0	0	0	0	0	0	0	280
	Thermal 2{1}	0	0	0	0	0	0	0	294
	Thermal 3{1}	0	0	0	0	0	0	0	297
	Thermal 4{1}	0	0	0	0	0	0	0	208
	Thermal 5{1}	0	3	-3	2	4	-4	5	183
	GRT1{1}	0	30	-30	0	30	-30	30	180
	GRT2{1}	0	30	-30	0	30	-30	30	180
	GRT3{1}	0	30	-30	0	30	-30	30	180
	GRT4{1}	0	30	-30	0	30	-30	30	180
	GRT5{1}	0	33	-33	2	33	-33	33	180
A42	SIFI= 2.00 SIF0= 2.00								
	Gravity{1}	0	15	-15	0	15	-15	15	179
	Hydrotest{1}	0	0	0	0	0	0	0	270
	Thermal 1{1}	0	0	0	0	0	0	0	239
	Thermal 2{1}	0	0	0	0	0	0	0	250
	Thermal 3{1}	0	0	0	0	0	0	0	254
	Thermal 4{1}	0	0	0	0	0	0	0	198
	Thermal 5{1}	0	13	-13	2	13	-13	13	183
	GRT1{1}	0	15	-15	0	15	-15	15	179
	GRT2{1}	0	15	-15	0	15	-15	15	179
	GRT3{1}	0	15	-15	0	15	-15	15	179
	GRT4{1}	0	15	-15	0	15	-15	15	179
	GRT5{1}	0	28	-28	2	28	-28	28	181
A72	SIFI= 2.00 SIF0= 2.00								
	Gravity{1}	0	1	-1	0	1	-1	1	1
	Hydrotest{1}	1	0	0	0	1	0	1	270
	Thermal 1{1}	0	0	0	0	0	0	0	225

DVI_B_LINE_REV0

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
	Thermal 2{1}		0	0	0	0	0	0	0	231
	Thermal 3{1}		0	0	0	0	0	0	0	234
	Thermal 4{1}		0	0	0	0	0	0	0	196
	Thermal 5{1}		0	2	-2	0	2	-2	2	183
	GRT1{1}		0	1	-1	0	1	-1	1	1
	GRT2{1}		0	1	-1	0	1	-1	1	1
	GRT3{1}		0	1	-1	0	1	-1	1	1
	GRT4{1}		0	1	-1	0	1	-1	1	1
	GRT5{1}		0	0	0	0	0	0	0	195
A44	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	5	-5	0	5	-5	5	0
	Hydrotest{1}		1	0	0	0	1	0	1	270
	Thermal 1{1}		0	0	0	0	0	0	0	208
	Thermal 2{1}		0	0	0	0	0	0	0	209
	Thermal 3{1}		0	0	0	0	0	0	0	210
	Thermal 4{1}		0	0	0	0	0	0	0	193
	Thermal 5{1}		0	1	-1	0	1	-1	2	183
	GRT1{1}		0	5	-5	0	5	-5	5	0
	GRT2{1}		0	5	-5	0	5	-5	5	0
	GRT3{1}		0	5	-5	0	5	-5	5	0
	GRT4{1}		0	5	-5	0	5	-5	5	0
	GRT5{1}		0	3	-3	0	3	-3	3	359
*** Segment A end ***										
*** Segment B begin ***										
A07	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	3	-3	0	3	-3	3	50
	Hydrotest{1}		61	19	19	0	61	19	54	270
	Thermal 1{1}		0	23	-23	1	23	-23	23	36
	Thermal 2{1}		0	27	-27	4	28	-27	28	31
	Thermal 3{1}		0	27	-27	4	28	-27	28	31
	Thermal 4{1}		0	20	-20	0	20	-20	20	44
	Thermal 5{1}		0	16	-15	3	16	-16	16	27

		DVI_B_LINE_REV0.OUT						
	GRT1{1}	0	21	-21	2	21	-21	21 35
	GRT2{1}	0	25	-24	4	25	-25	26 29
	GRT3{1}	0	25	-24	4	25	-25	26 29
	GRT4{1}	0	17	-17	1	17	-17	17 43
	GRT5{1}	0	13	-13	3	14	-14	15 23
B01	SIFI= 1.00 SIF0= 1.00							
	Gravity{1}	0	2	-2	0	2	-2	2 319
	Hydrotest{1}	61	19	19	0	61	19	54 270
	Thermal 1{1}	0	22	-22	1	22	-22	22 321
	Thermal 2{1}	0	26	-26	4	27	-26	27 325
	Thermal 3{1}	0	26	-26	4	27	-27	27 325
	Thermal 4{1}	0	19	-19	0	19	-19	19 313
	Thermal 5{1}	0	15	-15	3	16	-16	16 328
	GRT1{1}	0	20	-20	2	20	-20	20 321
	GRT2{1}	0	24	-24	4	25	-24	25 326

0

DVI_B_LINE_REV0

09/13/2010 DVI BLINE

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
B02		GRT3{1}	0	24	-24	4	25	-24	25	326
		GRT4{1}	0	17	-17	1	17	-17	17	313
		GRT5{1}	0	13	-13	3	14	-14	14	330
	SIFI= 2.00	SIF0= 2.00								
		Gravity{1}	0	18	-18	0	18	-18	18	106
		Hydrotest{1}	61	19	19	0	61	19	54	270
		Thermal 1{1}	0	48	-48	1	48	-48	48	231
		Thermal 2{1}	0	75	-75	4	75	-75	76	249
		Thermal 3{1}	0	75	-75	4	75	-75	75	249
		Thermal 4{1}	0	34	-34	0	34	-34	34	231
		Thermal 5{1}	0	53	-53	3	53	-53	53	256
		GRT1{1}	0	60	-59	2	60	-60	60	245
		GRT2{1}	0	90	-90	4	90	-90	90	256
		GRT3{1}	0	90	-89	4	90	-90	90	256
		GRT4{1}	0	47	-47	1	47	-47	47	249
	GRT5{1}	0	69	-69	3	69	-69	69	263	

DVI_B_LINE_REV0.OUT									
B03	SIFI= 2.00 Gravity{1}	SIFO= 2.00	0	11	-11	0	11	-11	11 109
	Hydrotest{1}		75	26	26	0	75	26	66 270
	Thermal 1{1}		0	29	-29	1	29	-29	29 228
	Thermal 2{1}		0	45	-44	2	45	-44	45 247
	Thermal 3{1}		0	45	-44	2	45	-44	45 247
	Thermal 4{1}		0	21	-20	0	21	-20	21 226
	Thermal 5{1}		0	32	-31	2	32	-31	32 254
	GRT1{1}		0	35	-35	1	35	-35	35 244
	GRT2{1}		0	53	-53	2	53	-53	53 255
	GRT3{1}		0	53	-53	2	53	-53	53 254
	GRT4{1}		0	27	-27	0	27	-27	27 247
	GRT5{1}		0	41	-41	2	41	-41	41 262
B04	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	7	-7	0	7	-7	7 116
	Hydrotest{1}		75	26	26	0	75	26	66 270
	Thermal 1{1}		0	17	-17	1	17	-17	17 221
	Thermal 2{1}		0	25	-25	2	26	-25	26 242
	Thermal 3{1}		0	25	-25	2	26	-25	26 242
	Thermal 4{1}		0	12	-12	0	12	-12	12 219
	Thermal 5{1}		0	18	-18	2	18	-18	18 250
	GRT1{1}		0	20	-19	1	20	-20	20 241
	GRT2{1}		0	30	-30	2	30	-30	30 252
	GRT3{1}		0	30	-29	2	30	-30	30 252
	GRT4{1}		0	15	-15	0	15	-15	15 245
	GRT5{1}		0	23	-23	2	23	-23	23 262

*** Segment B end ***

*** Segment C begin ***

A08	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	17	-14	1	17	-14	17 1

□

DVI_B_LINE_REV0

09/13/2010 DVI B LINE

BENTLEY

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
Hydrotest{1}		61	19	19	0	61	19	54 270
Thermal 1{1}		0	25	-25	6	27	-26	28 240

		DVI_B_LINE_REV0.OUT						
	Thermal 2{1}	0	35	-35	7	37	-36	38 237
	Thermal 3{1}	0	36	-35	7	37	-36	38 237
	Thermal 4{1}	0	16	-16	7	19	-18	20 279
	Thermal 5{1}	0	23	-23	4	24	-23	24 233
	GRT1{1}	0	23	-20	7	26	-23	27 278
	GRT2{1}	0	31	-28	8	33	-30	34 263
	GRT3{1}	0	31	-28	8	33	-30	35 262
	GRT4{1}	0	25	-22	8	28	-25	29 319
	GRT5{1}	0	20	-17	5	21	-19	22 275
C01	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	16	-14	1	16	-14	16 269
	Hydrotest{1}	61	19	19	0	61	19	54 270
	Thermal 1{1}	0	24	-23	6	26	-25	26 30
	Thermal 2{1}	0	34	-33	7	35	-34	36 34
	Thermal 3{1}	0	34	-33	7	35	-35	36 34
	Thermal 4{1}	0	15	-15	7	18	-17	19 351
	Thermal 5{1}	0	22	-22	4	23	-22	23 37
	GRT1{1}	0	22	-19	7	24	-21	26 352
	GRT2{1}	0	29	-26	8	32	-29	33 7
	GRT3{1}	0	29	-26	8	32	-29	33 8
	GRT4{1}	0	24	-21	8	27	-24	28 310
	GRT5{1}	0	19	-16	5	20	-17	21 354
C02 N-	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	7	-4	1	7	-4	7 176
	Hydrotest{1}	61	19	19	0	61	19	54 270
	Thermal 1{1}	0	25	-24	6	26	-26	27 184
	Thermal 2{1}	0	33	-32	7	34	-33	35 189
	Thermal 3{1}	0	33	-32	7	34	-33	35 189
	Thermal 4{1}	0	23	-22	7	25	-24	26 178
	Thermal 5{1}	0	21	-20	4	22	-21	22 192
	GRT1{1}	0	31	-28	7	33	-30	34 183
	GRT2{1}	0	39	-36	8	41	-37	42 187
	GRT3{1}	0	39	-35	8	41	-37	42 187
	GRT4{1}	0	30	-26	8	32	-29	33 178
	GRT5{1}	0	27	-24	5	28	-25	29 189
C02 N+	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	7	-4	1	7	-4	7 356
	Hydrotest{1}	61	19	19	0	61	19	54 270
	Thermal 1{1}	0	25	-24	6	26	-26	27 4
	Thermal 2{1}	0	33	-32	7	34	-33	35 9
	Thermal 3{1}	0	33	-32	7	34	-33	35 9
	Thermal 4{1}	0	23	-22	7	25	-24	26 358
	Thermal 5{1}	0	21	-20	4	22	-21	22 12

GRT1{1}	0	31	-28	7	33	-30	34	3
GRT2{1}	0	39	-36	8	41	-37	42	7
GRT3{1}	0	39	-35	8	41	-37	42	7
GRT4{1}	0	30	-26	8	32	-29	33	358

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Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
C02 M	GRT5{1}		0	27	-24	5	28	-25	29	9
	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	4	-2	1	5	-3	5	23
	Hydrotest{1}		61	19	19	0	61	19	54	270
	Thermal 1{1}		0	27	-26	4	27	-27	28	23
	Thermal 2{1}		0	36	-35	3	36	-35	36	24
	Thermal 3{1}		0	35	-35	3	36	-35	36	24
	Thermal 4{1}		0	25	-24	5	26	-25	26	22
	Thermal 5{1}		0	22	-22	1	23	-22	23	24
	GRT1{1}		0	31	-29	5	32	-30	33	23
	GRT2{1}		0	40	-37	4	40	-38	41	24
	GRT3{1}		0	40	-37	4	40	-38	41	24
	GRT4{1}		0	29	-27	6	31	-28	31	22
	GRT5{1}		0	27	-24	2	27	-25	27	24
C02 F-	SIFI= 1.00									
	Gravity{1}	SIFO= 1.00	0	3	-3	0	3	-3	3	126
	Hydrotest{1}		61	19	19	0	61	19	54	270
	Thermal 1{1}		0	27	-27	1	27	-27	27	28
	Thermal 2{1}		0	35	-34	3	35	-34	35	25
	Thermal 3{1}		0	35	-34	3	35	-34	35	26
	Thermal 4{1}		0	26	-26	0	26	-26	26	32
	Thermal 5{1}		0	22	-21	2	22	-22	22	23
	GRT1{1}		0	27	-26	1	27	-26	27	34
	GRT2{1}		0	34	-34	2	35	-34	35	30
	GRT3{1}		0	34	-34	2	35	-34	35	30
	GRT4{1}		0	26	-26	1	26	-26	26	39
	GRT5{1}		0	21	-21	2	21	-21	21	31

```
C02 F+ SIFI= 1.00    SIFO= 1.00
      Gravity{1}
```

```
C06      SIFI= 1.00      SIF0= 1.00
          Gravity{1}
```

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BENTLEY

RESULT PAGE 248

(Stress in N/mm²)

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DVI_B_LINE_REV0.OUT

	Thermal 4{1}	0	65	-65	0	65	-65	65	339
	Thermal 5{1}	0	60	-59	2	60	-59	60	314
	GRT1{1}	0	59	-59	1	59	-59	59	332
	GRT2{1}	0	78	-77	2	78	-77	78	323
	GRT3{1}	0	78	-77	2	78	-77	78	323
	GRT4{1}	0	55	-55	1	55	-55	55	355
	GRT5{1}	0	43	-43	2	43	-43	43	325
C04	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	12	-12	0	12	-12	12	110
	Hydrotest{1}	75	26	26	0	75	26	66	270
	Thermal 1{1}	0	45	-44	1	45	-44	45	324
	Thermal 2{1}	0	57	-56	2	57	-56	57	319
	Thermal 3{1}	0	57	-56	2	57	-56	57	319
	Thermal 4{1}	0	40	-39	0	40	-39	40	341
	Thermal 5{1}	0	36	-36	1	36	-36	36	316
	GRT1{1}	0	36	-35	0	36	-35	36	334
	GRT2{1}	0	47	-46	1	47	-47	47	326
	GRT3{1}	0	47	-46	1	47	-47	47	325
	GRT4{1}	0	34	-33	0	34	-33	34	357
	GRT5{1}	0	26	-26	1	26	-26	26	328
C05	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	7	-7	0	7	-7	7	111
	Hydrotest{1}	75	26	26	0	75	26	66	270
	Thermal 1{1}	0	26	-26	1	26	-26	26	328
	Thermal 2{1}	0	33	-33	2	33	-33	33	323
	Thermal 3{1}	0	33	-33	2	33	-33	33	322
	Thermal 4{1}	0	24	-23	0	24	-23	24	345
	Thermal 5{1}	0	21	-21	1	21	-21	21	320
	GRT1{1}	0	21	-21	0	21	-21	21	339
	GRT2{1}	0	27	-27	1	28	-27	28	330
	GRT3{1}	0	27	-27	1	28	-27	28	330
	GRT4{1}	0	20	-20	0	20	-20	20	0
	GRT5{1}	0	15	-15	1	15	-15	15	332

*** Segment C end ***

*** Segment D begin ***

□

DVI_B_LINE_REV0

09/13/2010 DVI BLINE

BENTLEY

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G E N E R A L P I P E S T R E S S R E P O R T

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DVI_B_LINE_REV0.0UT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	----
A10	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	2	-2	1	2	-2	2	250
	Hydrotest{1}		61	19	19	0	61	19	54	270
	Thermal 1{1}		0	23	-23	2	23	-23	23	168
	Thermal 2{1}		0	30	-30	4	30	-31	31	247
	Thermal 3{1}		0	31	-31	4	31	-32	32	250
	Thermal 4{1}		0	48	-46	4	48	-46	48	144
	Thermal 5{1}		0	37	-38	3	37	-38	38	228
	GRT1{1}		0	23	-23	2	23	-23	24	164
	GRT2{1}		0	31	-32	5	32	-33	33	247
	GRT3{1}		0	32	-33	5	33	-33	34	250
	GRT4{1}		0	49	-47	5	49	-47	49	142
	GRT5{1}		0	38	-39	4	39	-40	40	229
D01	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	1	-1	1	2	-2	2	212
	Hydrotest{1}		61	19	19	0	61	19	54	270
	Thermal 1{1}		0	20	-19	2	20	-19	20	285
	Thermal 2{1}		0	24	-24	4	25	-25	25	212
	Thermal 3{1}		0	25	-25	4	25	-25	26	208
	Thermal 4{1}		0	39	-38	4	40	-38	40	303
	Thermal 5{1}		0	31	-32	3	31	-32	32	230
	GRT1{1}		0	20	-19	2	20	-19	20	287
	GRT2{1}		0	25	-25	5	26	-26	27	212
	GRT3{1}		0	25	-26	5	26	-27	27	208
	GRT4{1}		0	39	-38	5	40	-38	40	304
	GRT5{1}		0	32	-33	4	32	-33	33	229
*** Segment D end ***										
*** Segment E begin ***										
A13	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	11	-11	1	11	-11	11	83
	Hydrotest{1}		61	19	19	0	61	19	54	270
	Thermal 1{1}		0	15	-16	0	15	-16	16	178
	Thermal 2{1}		0	33	-33	8	35	-35	36	94
	Thermal 3{1}		0	36	-36	9	38	-39	40	97
	Thermal 4{1}		0	48	-50	8	50	-52	52	139
	Thermal 5{1}		0	37	-37	10	39	-40	41	76
	GRT1{1}		0	18	-19	1	18	-19	19	143
	GRT2{1}		0	43	-44	10	45	-46	47	92
	GRT3{1}		0	46	-47	11	48	-49	50	94

GRT4{1}	0	55	-57	10	57	-59	60	130
GRT5{1}	0	48	-48	11	50	-51	52	77
SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	12	-12	1	12	-12	12	6
Hydrotest{1}	61	19	19	0	61	19	54	270
Thermal 1{1}	0	13	-14	0	13	-14	14	273
Thermal 2{1}	0	34	-35	8	36	-36	37	357
Thermal 3{1}	0	37	-37	9	39	-40	41	354

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Point	Load	Hoop	Longitudinal		Shear	Principal		Total	
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	Thermal 4{1}	0	46	-48	8	47	-50	50	315
	Thermal 5{1}	0	38	-38	10	40	-40	42	13
	GRT1{1}	0	17	-18	1	17	-18	18	316
	GRT2{1}	0	45	-46	10	47	-48	49	359
	GRT3{1}	0	48	-49	11	50	-51	52	357
	GRT4{1}	0	54	-56	10	56	-58	59	325
	GRT5{1}	0	49	-50	11	52	-52	53	11

A32	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	9	-9	2	9	-9	9	94
	Hydrotest{1}		56	17	17	0	56	17	50	270
	Thermal 1{1}		0	7	-7	0	7	-7	7	330
	Thermal 2{1}		0	13	-14	0	13	-14	14	303
	Thermal 3{1}		0	4	-4	2	4	-5	5	248
	Thermal 4{1}		0	14	-14	1	14	-14	14	311
	Thermal 5{1}		0	9	-9	1	9	-9	9	242
	GRT1{1}		0	7	-8	2	8	-8	8	45
	GRT2{1}		0	7	-8	2	7	-8	8	340
	GRT3{1}		0	5	-6	0	5	-6	6	112
	GRT4{1}		0	8	-9	3	9	-10	10	348
	GRT5{1}		0	5	-5	1	5	-5	5	169

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	DVI_B_LINE_REV0.OUT							
Gravity{1}	0	8	-8	2	8	-8	8	176
Hydrotest{1}	56	17	17	0	56	17	50	270
Thermal 1{1}	0	7	-7	0	7	-7	7	298
Thermal 2{1}	0	13	-14	0	13	-14	14	325
Thermal 3{1}	0	4	-5	2	5	-6	6	8
Thermal 4{1}	0	14	-14	1	14	-14	14	317
Thermal 5{1}	0	9	-9	1	9	-9	9	24
GRT1{1}	0	7	-7	2	7	-8	8	231
GRT2{1}	0	7	-8	2	8	-8	9	293
GRT3{1}	0	3	-4	0	3	-4	4	159
GRT4{1}	0	9	-9	3	10	-10	11	285
GRT5{1}	0	4	-5	1	4	-5	5	86

F02 N- SIFI= 1.00 SIFO= 1.00

Gravity{1}	0	2	-2	2	3	-3	4	20
Hydrotest{1}	56	17	17	0	56	17	50	270
Thermal 1{1}	0	14	-14	0	14	-14	14	268
Thermal 2{1}	0	17	-18	0	17	-18	18	275
Thermal 3{1}	0	46	-47	2	46	-47	47	326
Thermal 4{1}	0	18	-19	1	18	-19	19	275
Thermal 5{1}	0	23	-23	1	23	-24	24	331
GRT1{1}	0	13	-14	2	14	-14	14	277
GRT2{1}	0	17	-17	2	17	-17	18	282
GRT3{1}	0	47	-48	0	47	-48	48	328
GRT4{1}	0	18	-18	3	18	-19	19	282

0

DVI_B_LINE_REV0

09/13/2010 DVI BLINE

BENTLEY

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
	GRT5{1}		0	25	-25	1	25	-25	25	335
F02 N+	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	2	-2	2	3	-3	4	110
	Hydrotest{1}		56	17	17	0	56	17	50	270
	Thermal 1{1}		0	14	-14	0	14	-14	14	358
	Thermal 2{1}		0	17	-18	0	17	-18	18	5
	Thermal 3{1}		0	46	-47	2	46	-47	47	56
	Thermal 4{1}		0	18	-19	1	18	-19	19	5

DVI_B_LINE_REV0.OUT

Thermal 5{1}	0	23	-23	1	23	-24	24	61
GRT1{1}	0	13	-14	2	14	-14	14	7
GRT2{1}	0	17	-17	2	17	-17	18	12
GRT3{1}	0	47	-48	0	47	-48	48	58
GRT4{1}	0	18	-18	3	18	-19	19	12
GRT5{1}	0	25	-25	1	25	-25	25	65
F02 M SIFI= 1.00 SIF0= 1.00								
Gravity{1}	0	4	-4	0	4	-4	4	102
Hydrotest{1}	56	17	17	0	56	17	50	270
Thermal 1{1}	0	14	-14	0	14	-14	14	360
Thermal 2{1}	0	17	-17	0	17	-17	17	4
Thermal 3{1}	0	36	-37	15	41	-42	45	44
Thermal 4{1}	0	18	-19	0	18	-19	19	9
Thermal 5{1}	0	17	-17	8	20	-20	22	50
GRT1{1}	0	13	-14	1	14	-14	14	16
GRT2{1}	0	17	-17	0	17	-17	17	16
GRT3{1}	0	38	-39	14	43	-44	46	49
GRT4{1}	0	18	-19	1	18	-19	19	21
GRT5{1}	0	20	-20	8	22	-22	24	58
F02 F- SIFI= 1.00 SIF0= 1.00								
Gravity{1}	0	3	-3	1	3	-3	4	284
Hydrotest{1}	56	17	17	0	56	17	50	270
Thermal 1{1}	0	13	-13	0	13	-13	13	2
Thermal 2{1}	0	16	-16	1	16	-16	16	0
Thermal 3{1}	0	25	-25	20	36	-36	42	354
Thermal 4{1}	0	17	-17	1	17	-17	17	8
Thermal 5{1}	0	11	-11	10	17	-17	21	350
GRT1{1}	0	13	-13	1	13	-13	13	16
GRT2{1}	0	16	-16	2	16	-16	16	12
GRT3{1}	0	24	-24	20	36	-36	43	1
GRT4{1}	0	17	-17	2	17	-18	18	19
GRT5{1}	0	10	-10	11	17	-17	22	7
F02 F+ SIFI= 1.00 SIF0= 1.00								
Gravity{1}	0	3	-3	1	3	-3	4	163
Hydrotest{1}	56	17	17	0	56	17	50	270
Thermal 1{1}	0	13	-13	0	13	-13	13	241
Thermal 2{1}	0	16	-16	1	16	-16	16	240
Thermal 3{1}	0	25	-25	20	36	-36	42	233
Thermal 4{1}	0	17	-17	1	17	-17	17	248
Thermal 5{1}	0	11	-11	10	17	-17	21	229

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----			-----	-----	-----	-----	-----	-----	-----	---
F03	GRT1{1}		0	13	-13	1	13	-13	13	255
	GRT2{1}		0	16	-16	2	16	-16	16	251
	GRT3{1}		0	24	-24	20	36	-36	43	240
	GRT4{1}		0	17	-17	2	17	-18	18	258
	GRT5{1}		0	10	-10	11	17	-17	22	247
	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	24	-24	1	24	-24	24	351
	Hydrotest{1}		56	17	17	0	56	17	50	270
	Thermal 1{1}		0	32	-32	0	32	-32	32	65
	Thermal 2{1}		0	51	-51	1	51	-51	51	69
	Thermal 3{1}		0	64	-64	20	69	-69	72	33
	Thermal 4{1}		0	41	-41	1	41	-41	41	67
	Thermal 5{1}		0	35	-35	10	38	-38	39	43
	GRT1{1}		0	34	-34	1	34	-34	34	107
	GRT2{1}		0	51	-51	2	51	-51	51	96
	GRT3{1}		0	49	-49	20	56	-56	60	51
GRT4{1}		0	42	-42	2	42	-42	42	100	
GRT5{1}		0	27	-28	11	31	-32	34	86	
CH04	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	19	-19	1	19	-19	19	349
	Hydrotest{1}		56	17	17	0	56	17	50	270
	Thermal 1{1}		0	33	-33	0	33	-33	33	64
	Thermal 2{1}		0	51	-51	1	51	-51	51	68
	Thermal 3{1}		0	61	-61	20	67	-67	70	39
	Thermal 4{1}		0	42	-42	1	42	-42	42	66
	Thermal 5{1}		0	34	-34	10	37	-37	38	50
	GRT1{1}		0	33	-33	1	33	-33	33	97
	GRT2{1}		0	51	-51	2	51	-51	51	90
	GRT3{1}		0	51	-51	20	58	-58	62	56
	GRT4{1}		0	42	-42	2	42	-42	42	93
	GRT5{1}		0	29	-30	11	33	-33	35	84
C016	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	9	-9	1	9	-9	9	195
	Hydrotest{1}		56	17	17	0	56	17	50	270

Thermal 1{1}	0	24	-24	0	24	-24	24	58
Thermal 2{1}	0	37	-37	1	37	-37	37	64
Thermal 3{1}	0	40	-40	20	48	-48	53	83
Thermal 4{1}	0	30	-30	1	30	-30	30	61
Thermal 5{1}	0	24	-24	10	28	-28	30	86
GRT1{1}	0	31	-31	1	31	-31	31	46
GRT2{1}	0	43	-43	2	43	-44	44	55
GRT3{1}	0	44	-44	20	52	-52	57	72
GRT4{1}	0	37	-37	2	37	-37	37	51
GRT5{1}	0	29	-29	11	33	-33	35	69

F12	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	6	-6	1	6	-6	6	1
	Hydrotest{1}		56	17	17	0	56	17	50	270
	Thermal 1{1}		0	9	-9	0	9	-9	9	358

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Point	Load	Hoop	Longitudinal	Shear	Principal	Total				
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc	
-----	-----	-----	-----	-----	-----	-----	-----	-----	---	
	Thermal 2{1}	0	11	-11	1	11	-11	11	6	
	Thermal 3{1}	0	96	-96	20	100	-100	102	154	
	Thermal 4{1}	0	9	-9	1	9	-10	10	2	
	Thermal 5{1}	0	48	-48	10	50	-50	51	153	
	GRT1{1}	0	3	-3	1	3	-4	4	352	
	GRT2{1}	0	5	-5	2	6	-6	6	12	
	GRT3{1}	0	101	-101	20	105	-105	107	155	
	GRT4{1}	0	4	-4	2	5	-5	5	3	
	GRT5{1}	0	53	-53	11	55	-55	56	156	
F04	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	6	-6	1	6	-6	7	4
	Hydrotest{1}	56	17	17	0	56	17	50	270	
	Thermal 1{1}	0	11	-11	0	11	-11	11	320	
	Thermal 2{1}	0	13	-13	1	13	-13	13	318	
	Thermal 3{1}	0	49	-49	20	56	-56	60	164	
	Thermal 4{1}	0	12	-12	1	12	-12	12	319	
	Thermal 5{1}	0	23	-23	10	27	-27	29	166	

DVI_B_LINE_REV0.OUT									
GRT1{1}	0	8	-8	1	8	-8	8	285	
GRT2{1}	0	10	-10	2	10	-10	10	291	
GRT3{1}	0	55	-55	20	62	-62	66	167	
GRT4{1}	0	9	-9	2	9	-9	9	288	
GRT5{1}	0	29	-29	11	33	-33	35	170	
F05 N- SIFI= 1.00 SIF0= 1.00									
Gravity{1}	0	1	-1	1	1	-1	2	357	
Hydrotest{1}	56	17	17	0	56	17	50	270	
Thermal 1{1}	0	11	-11	0	11	-11	11	321	
Thermal 2{1}	0	14	-14	1	14	-14	14	320	
Thermal 3{1}	0	37	-37	20	46	-46	50	325	
Thermal 4{1}	0	13	-13	1	13	-13	13	321	
Thermal 5{1}	0	21	-21	10	25	-25	27	324	
GRT1{1}	0	11	-11	1	11	-11	11	319	
GRT2{1}	0	14	-14	2	14	-14	14	318	
GRT3{1}	0	37	-37	20	46	-46	51	324	
GRT4{1}	0	12	-12	2	13	-13	13	319	
GRT5{1}	0	20	-20	11	25	-25	28	323	
F05 N+ SIFI= 1.00 SIF0= 1.00									
Gravity{1}	0	1	-1	1	1	-1	2	42	
Hydrotest{1}	56	17	17	0	56	17	50	270	
Thermal 1{1}	0	11	-11	0	11	-11	11	6	
Thermal 2{1}	0	14	-14	1	14	-14	14	5	
Thermal 3{1}	0	37	-37	20	46	-46	50	10	
Thermal 4{1}	0	13	-13	1	13	-13	13	6	
Thermal 5{1}	0	21	-21	10	25	-25	27	9	
GRT1{1}	0	11	-11	1	11	-11	11	4	
GRT2{1}	0	14	-14	2	14	-14	14	3	
GRT3{1}	0	37	-37	20	46	-46	51	9	
GRT4{1}	0	12	-12	2	13	-13	13	4	
GRT5{1}	0	20	-20	11	25	-25	28	8	

□

DVI_B_LINE_REV0

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total	
name	combination	Stress	Max	Min	Stress	Max	Min
						Stress	Loc
-----	-----	-----	-----	-----	-----	-----	---

		DVI_B_LINE_REV0.OUT							
F05 M	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	1	-1	1	2	-2	2 259
	Hydrotest{1}		56	17	17	0	56	17	50 270
	Thermal 1{1}		0	11	-11	0	11	-11	11 6
	Thermal 2{1}		0	14	-14	1	14	-14	14 0
	Thermal 3{1}		0	47	-49	17	52	-54	57 335
	Thermal 4{1}		0	13	-13	1	13	-13	13 360
	Thermal 5{1}		0	26	-27	9	28	-29	31 335
	GRT1{1}		0	11	-11	1	11	-11	11 359
	GRT2{1}		0	14	-14	1	14	-14	14 355
	GRT3{1}		0	47	-50	17	53	-55	58 333
	GRT4{1}		0	13	-13	2	13	-13	13 353
	GRT5{1}		0	26	-27	9	29	-30	32 333
F05 F-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	1	-2	0	1	-2	2 263
	Hydrotest{1}		56	17	17	0	56	17	50 270
	Thermal 1{1}		0	11	-11	1	11	-11	11 3
	Thermal 2{1}		0	14	-14	1	14	-14	14 355
	Thermal 3{1}		0	56	-59	5	57	-60	60 322
	Thermal 4{1}		0	13	-13	1	13	-13	13 354
	Thermal 5{1}		0	31	-32	3	31	-32	32 323
	GRT1{1}		0	11	-11	1	11	-11	11 355
	GRT2{1}		0	14	-14	1	14	-14	14 349
	GRT3{1}		0	57	-60	5	58	-61	61 321
	GRT4{1}		0	13	-13	1	13	-13	13 347
	GRT5{1}		0	31	-33	3	32	-33	33 321
F05 F+	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	1	-2	0	1	-2	2 173
	Hydrotest{1}		56	17	17	0	56	17	50 270
	Thermal 1{1}		0	11	-11	1	11	-11	11 273
	Thermal 2{1}		0	14	-14	1	14	-14	14 265
	Thermal 3{1}		0	56	-59	5	57	-60	60 232
	Thermal 4{1}		0	13	-13	1	13	-13	13 264
	Thermal 5{1}		0	31	-32	3	31	-32	32 233
	GRT1{1}		0	11	-11	1	11	-11	11 265
	GRT2{1}		0	14	-14	1	14	-14	14 259
	GRT3{1}		0	57	-60	5	58	-61	61 231
	GRT4{1}		0	13	-13	1	13	-13	13 257
	GRT5{1}		0	31	-33	3	32	-33	33 231
F06 N-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	3	-3	0	3	-3	3 2
	Hydrotest{1}		56	17	17	0	56	17	50 270
	Thermal 1{1}		0	2	-2	1	2	-2	2 343

DVI_B_LINE_REV0.OUT								
Thermal 2{1}	0	3	-3	1	3	-3	3	338
Thermal 3{1}	0	183	-186	5	183	-186	186	357
Thermal 4{1}	0	3	-3	1	3	-3	3	342
Thermal 5{1}	0	92	-94	3	92	-94	94	357
GRT1{1}	0	1	-1	1	1	-1	2	38
GRT2{1}	0	1	-1	1	2	-1	2	65

0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc

	GRT3{1}	0	180	-183	5	180	-183	183 357
	GRT4{1}	0	1	-1	1	1	-1	2 64
	GRT5{1}	0	89	-91	3	89	-91	91 357
F06 N+	SIFI= 1.00 Gravity{1}	0	3	-3	0	3	-3	3 2
	Hydrotest{1}	56	17	17	0	56	17	50 270
	Thermal 1{1}	0	2	-2	1	2	-2	2 343
	Thermal 2{1}	0	3	-3	1	3	-3	3 338
	Thermal 3{1}	0	183	-186	5	183	-186	186 357
	Thermal 4{1}	0	3	-3	1	3	-3	3 342
	Thermal 5{1}	0	92	-94	3	92	-94	94 357
	GRT1{1}	0	1	-1	1	1	-1	2 38
	GRT2{1}	0	1	-1	1	2	-1	2 65
	GRT3{1}	0	180	-183	5	180	-183	183 357
	GRT4{1}	0	1	-1	1	1	-1	2 64
	GRT5{1}	0	89	-91	3	89	-91	91 357
F06 F-	SIFI= 1.00 Gravity{1}	0	3	-3	0	3	-3	3 1
	Hydrotest{1}	56	17	17	0	56	17	50 270
	Thermal 1{1}	0	2	-2	0	2	-2	2 329
	Thermal 2{1}	0	3	-3	0	3	-3	3 329
	Thermal 3{1}	0	183	-186	0	183	-186	186 356
	Thermal 4{1}	0	3	-3	0	3	-3	3 331
	Thermal 5{1}	0	92	-94	0	92	-94	94 356
	GRT1{1}	0	2	-2	0	2	-2	2 49
	GRT2{1}	0	2	-2	0	2	-2	2 66

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	GRT3{1}	0	180	-182	0	180	-182	182	356
	GRT4{1}	0	2	-1	0	2	-1	2	67
	GRT5{1}	0	89	-90	0	89	-90	90	355
F06 F+	SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	3	-3	0	3	-3	3	91
	Hydrotest{1}	56	17	17	0	56	17	50	270
	Thermal 1{1}	0	2	-2	0	2	-2	2	59
	Thermal 2{1}	0	3	-3	0	3	-3	3	59
	Thermal 3{1}	0	183	-186	0	183	-186	186	86
	Thermal 4{1}	0	3	-3	0	3	-3	3	61
	Thermal 5{1}	0	92	-94	0	92	-94	94	86
	GRT1{1}	0	2	-2	0	2	-2	2	139
	GRT2{1}	0	2	-2	0	2	-2	2	156
	GRT3{1}	0	180	-182	0	180	-182	182	86
	GRT4{1}	0	2	-1	0	2	-1	2	157
	GRT5{1}	0	89	-90	0	89	-90	90	85
F16	SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	1	-1	0	1	-1	1	250
	Hydrotest{1}	56	17	17	0	56	17	50	270
	Thermal 1{1}	0	11	-11	0	11	-11	11	184
	Thermal 2{1}	0	14	-14	0	14	-14	14	182
	Thermal 3{1}	0	110	-113	0	110	-113	113	255

 DVI_B_LINE_REV0
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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
	Thermal 4{1}	0	13	-13	0	13	-13	13 183
	Thermal 5{1}	0	56	-57	0	56	-57	57 253
	GRT1{1}	0	11	-11	0	11	-11	11 360
	GRT2{1}	0	14	-13	0	14	-13	14 359
	GRT3{1}	0	110	-112	0	110	-112	112 255
	GRT4{1}	0	13	-12	0	13	-12	13 359
	GRT5{1}	0	55	-56	0	55	-56	56 253
F07	SIFI= 2.00 SIF0= 2.00 Gravity{1}	0	2	0	0	2	0	2 70

			DVI_B_LINE_REV0.OUT							
	Hydrotest{1}		56	17	17	0	56	17	50	270
	Thermal 1{1}		0	10	-10	0	10	-10	10	4
	Thermal 2{1}		0	13	-13	0	13	-13	13	2
	Thermal 3{1}		0	102	-105	0	102	-105	105	75
	Thermal 4{1}		0	12	-12	0	12	-12	12	3
	Thermal 5{1}		0	52	-53	0	52	-53	53	73
	GRT1{1}		0	11	-9	0	11	-9	11	180
	GRT2{1}		0	13	-12	0	13	-12	13	179
	GRT3{1}		0	102	-104	0	102	-104	104	75
	GRT4{1}		0	12	-11	0	12	-11	12	179
	GRT5{1}		0	52	-52	0	52	-52	52	73
F46	SIFI= 2.00 Gravity{1}	SIFO= 2.00	0	1	0	0	1	0	1	70
	Hydrotest{1}		75	26	26	0	75	26	66	270
	Thermal 1{1}		0	3	-3	0	3	-3	3	4
	Thermal 2{1}		0	4	-4	0	4	-4	4	2
	Thermal 3{1}		0	33	-34	0	33	-34	34	75
	Thermal 4{1}		0	4	-4	0	4	-4	4	3
	Thermal 5{1}		0	17	-17	0	17	-17	17	73
	GRT1{1}		0	4	-3	0	4	-3	4	180
	GRT2{1}		0	4	-4	0	4	-4	4	179
	GRT3{1}		0	33	-34	0	33	-34	34	75
	GRT4{1}		0	4	-3	0	4	-3	4	179
	GRT5{1}		0	17	-17	0	17	-17	17	73
F45	SIFI= 2.00 Gravity{1}	SIFO= 2.00	0	1	0	0	1	0	1	70
	Hydrotest{1}		75	26	26	0	75	26	66	270
	Thermal 1{1}		0	3	-3	0	3	-3	3	4
	Thermal 2{1}		0	4	-4	0	4	-4	4	2
	Thermal 3{1}		0	33	-34	0	33	-34	34	75
	Thermal 4{1}		0	4	-4	0	4	-4	4	3
	Thermal 5{1}		0	17	-17	0	17	-17	17	73
	GRT1{1}		0	4	-3	0	4	-3	4	180
	GRT2{1}		0	4	-4	0	4	-4	4	179
	GRT3{1}		0	33	-34	0	33	-34	34	75
	GRT4{1}		0	4	-3	0	4	-3	4	179
	GRT5{1}		0	17	-17	0	17	-17	17	73
F09	SIFI= 2.00 Gravity{1}	SIFO= 2.00	0	0	0	0	0	0	0	70

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DVI_B_LINE_REV0

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
	Hydrotest{1}	100	38	38	0	100	38	87 270
	Thermal 1{1}	0	1	-1	0	1	-1	1 4
	Thermal 2{1}	0	1	-1	0	1	-1	1 2
	Thermal 3{1}	0	10	-11	0	10	-11	11 75
	Thermal 4{1}	0	1	-1	0	1	-1	1 3
	Thermal 5{1}	0	5	-6	0	5	-6	6 73
	GRT1{1}	0	1	-1	0	1	-1	1 180
	GRT2{1}	0	1	-1	0	1	-1	1 179
	GRT3{1}	0	10	-11	0	10	-11	11 75
	GRT4{1}	0	1	-1	0	1	-1	1 179
	GRT5{1}	0	5	-5	0	5	-5	5 73
F10	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	0	0	0	0	0	0 70
	Hydrotest{1}	100	38	38	0	100	38	87 270
	Thermal 1{1}	0	1	-1	0	1	-1	1 4
	Thermal 2{1}	0	1	-1	0	1	-1	1 2
	Thermal 3{1}	0	6	-7	0	6	-7	7 75
	Thermal 4{1}	0	1	-1	0	1	-1	1 3
	Thermal 5{1}	0	3	-3	0	3	-3	3 73
	GRT1{1}	0	1	0	0	1	0	1 180
	GRT2{1}	0	1	-1	0	1	-1	1 179
	GRT3{1}	0	6	-7	0	6	-7	7 75
	GRT4{1}	0	1	-1	0	1	-1	1 179
	GRT5{1}	0	3	-3	0	3	-3	3 73
*** Segment F end ***								
*** Segment G begin ***								
A24	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	29	-29	1	29	-29	29 261
	Hydrotest{1}	0	0	0	0	0	0	0 270
	Thermal 1{1}	0	3	-3	0	3	-3	3 225
	Thermal 2{1}	0	9	-9	1	10	-10	10 123
	Thermal 3{1}	0	8	-8	1	8	-8	8 132
	Thermal 4{1}	0	9	-9	1	9	-9	9 288
	Thermal 5{1}	0	10	-10	0	10	-10	10 316
	GRT1{1}	0	27	-27	1	27	-27	27 265

DVI_B_LINE_REV0.OUT									
GRT2{1}	0	36	-37	2	36	-37	37	271	
GRT3{1}	0	34	-35	2	35	-35	35	272	
GRT4{1}	0	37	-37	1	37	-37	37	268	
GRT5{1}	0	36	-36	0	36	-36	36	275	
G01	SIFI= 1.00	SIFO= 1.00							
Gravity{1}	0	27	-28	1	27	-28	28	189	
Hydrotest{1}	0	0	0	0	0	0	0	270	
Thermal 1{1}	0	3	-3	0	3	-3	3	224	
Thermal 2{1}	0	9	-9	1	9	-9	10	327	
Thermal 3{1}	0	8	-8	1	8	-8	8	318	
Thermal 4{1}	0	9	-9	1	9	-9	9	162	
Thermal 5{1}	0	10	-10	0	10	-10	10	135	

0

DVI_B_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
G20		GRT1{1}	0	25	-25	1	25	-25	25	186
		GRT2{1}	0	35	-35	2	35	-35	35	179
		GRT3{1}	0	33	-33	2	33	-33	33	178
		GRT4{1}	0	36	-36	1	36	-36	36	183
		GRT5{1}	0	34	-35	0	34	-35	35	175
		SIFI= 1.00 Gravity{1}	0	17	-17	1	17	-17	17	194
		Hydrotest{1}	0	0	0	0	0	0	0	270
		Thermal 1{1}	0	2	-2	0	3	-3	3	221
		Thermal 2{1}	0	8	-8	1	8	-8	8	327
		Thermal 3{1}	0	7	-7	1	7	-7	7	317
		Thermal 4{1}	0	8	-8	1	8	-8	8	163
		Thermal 5{1}	0	10	-11	0	10	-11	11	139
		GRT1{1}	0	14	-15	1	15	-15	15	190
		GRT2{1}	0	23	-23	2	23	-23	23	179
		GRT3{1}	0	21	-21	2	21	-22	22	178
		GRT4{1}	0	24	-24	1	24	-24	24	184
		GRT5{1}	0	24	-25	0	24	-25	25	173
G02 N-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	8	-8	1	8	-8	8	207

DVI_B_LINE_REV0.OUT

Hydrotest{1}	0	0	0	0	0	0	0	270
Thermal 1{1}	0	2	-2	0	2	-2	2	216
Thermal 2{1}	0	7	-7	1	7	-7	7	327
Thermal 3{1}	0	6	-6	1	6	-6	6	317
Thermal 4{1}	0	7	-7	1	7	-7	7	164
Thermal 5{1}	0	11	-11	0	11	-11	11	143
GRT1{1}	0	6	-6	1	6	-6	6	204
GRT2{1}	0	13	-13	2	13	-14	14	180
GRT3{1}	0	12	-12	2	12	-12	12	179
GRT4{1}	0	14	-14	1	14	-14	14	187
GRT5{1}	0	16	-16	0	16	-16	16	170
G02 N+ SIFI= 1.05 SIFO= 1.05 Gravity{1}								
Hydrotest{1}	0	9	-9	1	9	-9	9	27
Thermal 1{1}	0	2	-2	0	2	-2	2	36
Thermal 2{1}	0	7	-7	1	8	-8	8	147
Thermal 3{1}	0	6	-6	1	6	-6	7	137
Thermal 4{1}	0	7	-7	1	7	-7	7	344
Thermal 5{1}	0	11	-11	0	11	-11	11	323
GRT1{1}	0	6	-6	1	6	-7	7	24
GRT2{1}	0	14	-14	2	14	-14	14	360
GRT3{1}	0	12	-12	2	12	-13	13	359
GRT4{1}	0	15	-15	1	15	-15	15	7
GRT5{1}	0	17	-17	0	17	-17	17	350
G02 F- SIFI= 1.05 SIFO= 1.05 Gravity{1}								
Hydrotest{1}	0	0	0	0	0	0	0	270
Thermal 1{1}	0	2	-2	0	2	-2	2	41

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DVI_B_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	Thermal 2{1}	0	8	-8	0	8	-8	8	141
	Thermal 3{1}	0	7	-7	0	7	-7	7	130
	Thermal 4{1}	0	7	-7	0	7	-7	7	161

		DVI_B_LINE_REV0.OUT							
	Thermal 5{1}	0	10	-10	2	11	-11	11	331
	GRT1{1}	0	5	-5	1	6	-6	6	190
	GRT2{1}	0	13	-13	2	14	-14	14	170
	GRT3{1}	0	12	-12	2	12	-12	12	167
	GRT4{1}	0	14	-14	1	14	-14	14	181
	GRT5{1}	0	16	-16	1	16	-16	16	351
G02 F+	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	7	-7	2	8	-8	8	19
	Hydrotest{1}	0	0	0	0	0	0	0	270
	Thermal 1{1}	0	2	-2	0	2	-2	2	221
	Thermal 2{1}	0	7	-7	0	7	-7	7	321
	Thermal 3{1}	0	7	-6	0	7	-6	7	310
	Thermal 4{1}	0	7	-7	0	7	-7	7	341
	Thermal 5{1}	0	10	-10	2	10	-10	11	151
	GRT1{1}	0	5	-5	1	6	-5	6	10
	GRT2{1}	0	13	-13	2	13	-13	13	350
	GRT3{1}	0	11	-11	2	12	-12	12	347
	GRT4{1}	0	13	-13	1	14	-14	14	1
	GRT5{1}	0	16	-16	1	16	-16	16	171
G15	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	4	-4	2	5	-5	5	151
	Hydrotest{1}	0	0	0	0	0	0	0	270
	Thermal 1{1}	0	2	-2	0	2	-2	2	218
	Thermal 2{1}	0	6	-6	0	6	-6	6	322
	Thermal 3{1}	0	6	-5	0	6	-5	6	311
	Thermal 4{1}	0	6	-6	0	6	-6	6	343
	Thermal 5{1}	0	8	-8	2	9	-9	9	148
	GRT1{1}	0	5	-5	1	6	-6	6	171
	GRT2{1}	0	2	-2	2	3	-3	3	304
	GRT3{1}	0	2	-2	2	3	-3	3	266
	GRT4{1}	0	2	-2	1	3	-3	3	9
	GRT5{1}	0	4	-4	1	4	-4	4	145
G19	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	16	-16	2	16	-16	16	176
	Hydrotest{1}	0	0	0	0	0	0	0	270
	Thermal 1{1}	0	1	-1	0	1	-1	1	197
	Thermal 2{1}	0	3	-3	0	3	-3	3	326
	Thermal 3{1}	0	3	-3	0	3	-3	3	315
	Thermal 4{1}	0	3	-3	0	3	-3	3	354
	Thermal 5{1}	0	3	-3	2	4	-5	5	125
	GRT1{1}	0	17	-17	1	17	-17	17	177
	GRT2{1}	0	14	-14	2	14	-14	14	183
	GRT3{1}	0	14	-14	2	15	-15	15	183

		DVI_B_LINE_REV0.OUT							
	Thermal 1{1}	0	0	0	0	0	0	0	62
	Thermal 2{1}	0	1	-1	0	1	-1	1	171
	Thermal 3{1}	0	0	0	0	0	0	0	166
	Thermal 4{1}	0	1	-1	0	1	-1	1	153
	Thermal 5{1}	0	12	-12	2	12	-13	13	261
	GRT1{1}	0	20	-20	1	20	-20	20	347
	GRT2{1}	0	19	-19	2	19	-19	19	345
	GRT3{1}	0	19	-19	2	19	-19	20	346
	GRT4{1}	0	19	-19	1	19	-19	19	346
	GRT5{1}	0	22	-22	1	22	-22	22	198
G10	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	54	-54	2	54	-54	54	352
	Hydrotest{1}	0	0	0	0	0	0	0	270
	Thermal 1{1}	0	0	0	0	0	0	0	268
	Thermal 2{1}	0	1	-1	0	1	-1	1	260
	Thermal 3{1}	0	1	-1	0	1	-1	1	259
	Thermal 4{1}	0	1	-1	0	1	-1	1	266
	Thermal 5{1}	0	21	-21	2	21	-21	21	249
	GRT1{1}	0	54	-54	1	54	-54	54	352
	GRT2{1}	0	54	-54	2	54	-54	54	351

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DVI_B_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal		Shear	Principal		Total	
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	GRT3{1}	0	54	-54	2	54	-54	54	351
	GRT4{1}	0	54	-54	1	54	-54	54	351
	GRT5{1}	0	62	-62	1	62	-62	62	191
IV04	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	54	-53	2	54	-54	54	352
	Hydrotest{1}	0	0	0	0	0	0	0	270
	Thermal 1{1}	0	0	0	0	0	0	0	266
	Thermal 2{1}	0	1	-1	0	1	-1	1	263
	Thermal 3{1}	0	1	-1	0	1	-1	1	260
	Thermal 4{1}	0	1	-1	0	1	-1	1	272
	Thermal 5{1}	0	20	-20	2	20	-20	20	248
	GRT1{1}	0	54	-54	1	54	-54	54	352

DVI_B_LINE_REV0.OUT

GRT2{1}	0	54	-53	2	54	-54	54	351
GRT3{1}	0	53	-53	2	54	-54	54	351
GRT4{1}	0	54	-54	1	54	-54	54	351
GRT5{1}	0	61	-62	1	61	-62	62	190
G05 N- SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	10	-10	2	10	-10	10	161
Hydrotest{1}	0	0	0	0	0	0	0	270
Thermal 1{1}	0	1	-1	0	1	-1	1	88
Thermal 2{1}	0	4	-4	0	4	-4	4	86
Thermal 3{1}	0	4	-4	0	4	-4	4	86
Thermal 4{1}	0	3	-3	0	3	-3	3	86
Thermal 5{1}	0	21	-21	2	21	-21	22	84
GRT1{1}	0	10	-10	1	10	-10	10	154
GRT2{1}	0	11	-11	2	12	-12	12	141
GRT3{1}	0	11	-11	2	12	-12	12	141
GRT4{1}	0	11	-11	1	11	-11	11	145
GRT5{1}	0	21	-21	1	21	-21	21	58
G05 N+ SIFI= 1.05 SIFO= 1.05								
Gravity{1}	0	10	-10	2	10	-10	11	71
Hydrotest{1}	0	0	0	0	0	0	0	270
Thermal 1{1}	0	1	-1	0	1	-1	1	358
Thermal 2{1}	0	4	-4	0	4	-4	4	356
Thermal 3{1}	0	4	-4	0	4	-4	4	356
Thermal 4{1}	0	3	-3	0	3	-3	3	356
Thermal 5{1}	0	22	-22	2	22	-22	23	354
GRT1{1}	0	11	-11	1	11	-11	11	64
GRT2{1}	0	12	-12	2	12	-12	12	51
GRT3{1}	0	12	-12	2	12	-12	12	51
GRT4{1}	0	11	-11	1	12	-12	12	55
GRT5{1}	0	22	-22	1	22	-22	22	328
G05 M SIFI= 1.05 SIFO= 1.05								
Gravity{1}	0	10	-10	2	11	-11	11	70
Hydrotest{1}	0	0	0	0	0	0	0	270
Thermal 1{1}	0	1	-1	0	1	-1	1	355
Thermal 2{1}	0	4	-4	0	4	-4	4	357
Thermal 3{1}	0	4	-4	0	4	-4	4	358

 DVI_B_LINE_REV0
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 AutoPIPE Plus 9.2.1

BENTLEY

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DVI_B_LINE_REV0.OUT
GENERAL PIPE STRESS REPORT

(Stress in N/mm²)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
G05 F-	Thermal 4{1}		0	3	-3	0	3	-3	3	355
	Thermal 5{1}		0	22	-23	2	23	-23	23	4
	GRT1{1}		0	11	-11	2	11	-11	11	63
	GRT2{1}		0	12	-12	2	13	-12	13	51
	GRT3{1}		0	12	-12	2	13	-13	13	51
	GRT4{1}		0	12	-11	2	12	-12	12	54
	GRT5{1}		0	21	-21	5	22	-22	22	337
	SIFI= 1.05 Gravity{1}	SIF0= 1.05	0	5	-5	5	8	-8	10	48
	Hydrotest{1}		0	0	0	0	0	0	0	270
	Thermal 1{1}		0	1	-1	0	1	-1	1	355
	Thermal 2{1}		0	4	-4	0	4	-4	4	360
	Thermal 3{1}		0	4	-4	0	4	-4	4	1
	Thermal 4{1}		0	3	-3	0	3	-3	3	357
	Thermal 5{1}		0	23	-23	1	23	-23	23	11
G05 F+	GRT1{1}		0	6	-6	5	9	-9	11	38
	GRT2{1}		0	9	-9	5	11	-11	12	27
	GRT3{1}		0	9	-9	5	11	-11	12	27
	GRT4{1}		0	8	-8	5	10	-10	11	29
	GRT5{1}		0	19	-19	6	21	-21	22	1
	SIFI= 1.00 Gravity{1}	SIF0= 1.00	0	5	-5	5	8	-8	10	138
	Hydrotest{1}		0	0	0	0	0	0	0	270
	Thermal 1{1}		0	1	-1	0	1	-1	1	85
	Thermal 2{1}		0	4	-4	0	4	-4	4	90
	Thermal 3{1}		0	4	-4	0	4	-4	4	91
	Thermal 4{1}		0	3	-3	0	3	-3	3	87
	Thermal 5{1}		0	22	-22	1	22	-22	22	101
	GRT1{1}		0	6	-6	5	9	-9	10	128
	GRT2{1}		0	8	-8	5	11	-10	12	117
GRT3{1}		0	8	-8	5	11	-10	12	117	
GRT4{1}		0	7	-7	5	10	-10	11	119	
GRT5{1}		0	18	-18	6	20	-20	21	91	
G06 N-	SIFI= 1.00 Gravity{1}	SIF0= 1.00	0	24	-24	5	25	-25	26	1
	Hydrotest{1}		0	0	0	0	0	0	0	270
	Thermal 1{1}		0	1	-1	0	1	-1	1	292
	Thermal 2{1}		0	2	-2	0	2	-2	2	288

DVI_B_LINE_REV0.OUT

Thermal 3{1}	0	2	-2	0	2	-2	2	289
Thermal 4{1}	0	2	-2	0	2	-2	2	287
Thermal 5{1}	0	15	-16	1	15	-16	16	335
GRT1{1}	0	25	-25	5	26	-26	26	360
GRT2{1}	0	25	-25	5	26	-26	26	356
GRT3{1}	0	25	-25	5	26	-26	27	356
GRT4{1}	0	25	-25	5	26	-26	26	357
GRT5{1}	0	12	-13	6	15	-15	16	214

G06 N+ SIFI= 1.05 SIF0= 1.05
Gravity{1}

0	26	-25	5	26	-26	27	1

0

DVI_B_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
G06 M	Hydrotest{1}		0	0	0	0	0	0	0	270
	Thermal 1{1}		0	1	-1	0	1	-1	1	292
	Thermal 2{1}		0	2	-2	0	2	-2	2	288
	Thermal 3{1}		0	2	-2	0	2	-2	2	289
	Thermal 4{1}		0	2	-2	0	2	-2	2	287
	Thermal 5{1}		0	16	-16	1	16	-16	17	335
	GRT1{1}		0	26	-26	5	27	-27	27	360
	GRT2{1}		0	26	-26	5	27	-27	28	356
	GRT3{1}		0	26	-26	5	27	-27	28	356
	GRT4{1}		0	26	-26	5	27	-27	27	357
	GRT5{1}		0	13	-13	6	15	-15	17	214
G06 M	SIFI= 1.05 Gravity{1}		0	27	-27	4	28	-28	28	345
	Hydrotest{1}		0	0	0	0	0	0	0	270
	Thermal 1{1}		0	1	-1	0	1	-1	1	300
	Thermal 2{1}		0	2	-2	1	2	-2	2	296
	Thermal 3{1}		0	2	-2	1	2	-2	2	297
	Thermal 4{1}		0	1	-1	1	2	-2	2	295
	Thermal 5{1}		0	15	-15	3	16	-16	16	347
	GRT1{1}		0	28	-27	3	28	-28	28	344
	GRT2{1}		0	28	-28	3	29	-28	29	343

DVI_B_LINE_REV0.OUT									
GRT3{1}	0	29	-28	3	29	-28	29	343	
GRT4{1}	0	28	-28	3	29	-28	29	343	
GRT5{1}	0	12	-12	7	15	-15	17	342	
G06 F- SIFI= 1.05 SIFO= 1.05 Gravity{1}									
	0	29	-28	0	29	-28	29	339	
Hydrotest{1}	0	0	0	0	0	0	0	270	
Thermal 1{1}	0	0	0	0	0	0	1	8	
Thermal 2{1}	0	1	-1	1	2	-2	2	19	
Thermal 3{1}	0	1	-1	1	2	-2	2	17	
Thermal 4{1}	0	1	-1	1	1	-1	2	19	
Thermal 5{1}	0	14	-14	3	15	-15	16	9	
GRT1{1}	0	29	-29	0	29	-29	29	339	
GRT2{1}	0	29	-29	1	29	-29	29	340	
GRT3{1}	0	29	-29	1	29	-29	29	340	
GRT4{1}	0	29	-29	1	29	-29	29	339	
GRT5{1}	0	18	-17	4	19	-18	19	315	
G06 F+ SIFI= 1.00 SIFO= 1.00 Gravity{1}									
	0	27	-27	0	27	-27	27	339	
Hydrotest{1}	0	0	0	0	0	0	0	270	
Thermal 1{1}	0	0	0	0	0	0	1	8	
Thermal 2{1}	0	1	-1	1	1	-1	2	19	
Thermal 3{1}	0	1	-1	1	2	-2	2	17	
Thermal 4{1}	0	0	0	1	1	-1	2	19	
Thermal 5{1}	0	14	-14	3	14	-15	15	9	
GRT1{1}	0	28	-27	0	28	-27	28	339	
GRT2{1}	0	28	-28	1	28	-28	28	340	
GRT3{1}	0	28	-28	1	28	-28	28	340	
GRT4{1}	0	28	-27	1	28	-27	28	339	

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DVI_B_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
	GRT5{1}	0	17	-17	4	18	-17	18
G14	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	27	-26	0	27	-26	27
	Hydrotest{1}	0	0	0	0	0	0	0

DVI_B_LINE_REV0.OUT

	Thermal 1{1}	0	0	0	0	0	0	1	332
	Thermal 2{1}	0	0	0	1	1	-1	2	343
	Thermal 3{1}	0	0	0	1	1	-1	2	343
	Thermal 4{1}	0	0	0	1	1	-1	2	337
	Thermal 5{1}	0	10	-10	3	11	-11	12	5
	GRT1{1}	0	27	-26	0	27	-26	27	338
	GRT2{1}	0	27	-27	1	27	-27	27	338
	GRT3{1}	0	27	-27	1	27	-27	27	338
	GRT4{1}	0	27	-26	1	27	-26	27	338
	GRT5{1}	0	18	-18	4	19	-18	19	323
G16	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	23	-23	0	23	-23	23	332
	Hydrotest{1}	0	0	0	0	0	0	0	270
	Thermal 1{1}	0	1	-1	0	1	-1	1	218
	Thermal 2{1}	0	2	-2	1	3	-3	3	218
	Thermal 3{1}	0	2	-2	1	3	-3	3	219
	Thermal 4{1}	0	2	-2	1	2	-2	2	217
	Thermal 5{1}	0	8	-8	3	9	-9	10	222
	GRT1{1}	0	23	-22	0	23	-22	23	331
	GRT2{1}	0	22	-22	1	22	-22	22	327
	GRT3{1}	0	22	-22	1	22	-22	22	327
	GRT4{1}	0	22	-22	1	23	-22	23	328
	GRT5{1}	0	27	-26	4	27	-27	28	348
G09	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	20	-19	0	20	-19	20	152
	Hydrotest{1}	0	0	0	0	0	0	0	270
	Thermal 1{1}	0	1	-1	0	1	-1	1	38
	Thermal 2{1}	0	2	-2	1	2	-2	3	38
	Thermal 3{1}	0	2	-2	1	2	-2	3	39
	Thermal 4{1}	0	2	-2	1	2	-2	2	37
	Thermal 5{1}	0	7	-7	3	8	-8	9	42
	GRT1{1}	0	20	-19	0	20	-19	20	151
	GRT2{1}	0	19	-19	1	19	-19	19	147
	GRT3{1}	0	19	-19	1	19	-19	19	147
	GRT4{1}	0	19	-19	1	19	-19	19	148
	GRT5{1}	0	23	-22	4	24	-23	24	168
G07	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	2	-2	0	2	-2	2	152
	Hydrotest{1}	1	0	0	0	1	0	1	270
	Thermal 1{1}	0	0	0	0	0	0	0	38
	Thermal 2{1}	0	0	0	0	0	0	0	38
	Thermal 3{1}	0	0	0	0	0	0	0	39

	DVI_B_LINE_REV0.OUT							
Thermal 4{1}	0	0	0	0	0	0	0	37
Thermal 5{1}	0	1	-1	0	1	-1	1	42

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DVI_B_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total	
name	combination	Stress	Max	Min	Stress	Max	Min
	GRT1{1}	0	2	-2	0	2	-2
	GRT2{1}	0	2	-2	0	2	-2
	GRT3{1}	0	2	-2	0	2	-2
	GRT4{1}	0	2	-2	0	2	-2
	GRT5{1}	0	3	-3	0	3	-3
G08	SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	3	-2	0	3	-2
	Hydrotest{1}	1	0	0	0	1	0
	Thermal 1{1}	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0
	Thermal 5{1}	0	1	-1	0	1	-1
	GRT1{1}	0	3	-2	0	3	-2
	GRT2{1}	0	2	-2	0	2	-2
	GRT3{1}	0	2	-2	0	2	-2
	GRT4{1}	0	3	-2	0	3	-2
	GRT5{1}	0	3	-3	0	3	-3

*** Segment G end ***

*** Segment H begin ***

A26	SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	0	0	0	0	0
	Hydrotest{1}	1	0	0	0	1	0
	Thermal 1{1}	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0
	GRT1{1}	0	0	0	0	0	0
	GRT2{1}	0	0	0	0	0	0

GRT3{1}	0	0	0	0	0	0	0	270
GRT4{1}	0	0	0	0	0	0	0	270
GRT5{1}	0	0	0	0	0	0	0	270
SIFI= 2.30 SIF0= 2.30								
Gravity{1}	0	0	0	0	0	0	0	270
Hydrotest{1}	1	0	0	0	1	0	0	270
Thermal 1{1}	0	0	0	0	0	0	0	270
Thermal 2{1}	0	0	0	0	0	0	0	90
Thermal 3{1}	0	0	0	0	0	0	0	90
Thermal 4{1}	0	0	0	0	0	0	0	90
Thermal 5{1}	0	0	0	0	0	0	0	270
GRT1{1}	0	0	0	0	0	0	0	270
GRT2{1}	0	0	0	0	0	0	0	270
GRT3{1}	0	0	0	0	0	0	0	270
GRT4{1}	0	0	0	0	0	0	0	270
GRT5{1}	0	0	0	0	0	0	0	270

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[illegible]

A28	SIFI= 1.00 Gravity{1}	SIF0= 1.00	0	9	-9	1	9	-9	9	184
	Hydrotest{1}		0	0	0	0	0	0	0	270
	Thermal 1{1}		0	2	-2	0	2	-2	2	115
	Thermal 2{1}		0	6	-6	4	9	-9	10	208
	Thermal 3{1}		0	6	-6	4	9	-9	10	208
	Thermal 4{1}		0	4	-4	1	4	-4	4	247
	Thermal 5{1}		0	29	-29	21	40	-41	47	206
	GRT1{1}		0	8	-9	1	8	-9	9	197
	GRT2{1}		0	15	-15	5	17	-17	18	194
	GRT3{1}		0	15	-15	5	16	-17	18	194
	GRT4{1}		0	11	-11	2	11	-12	12	202
GRT5{1}		0	37	-38	22	48	-48	54	201	

I01	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	9	-9	1	9	-9	9	356
	Hydrotest{1}		0	0	0	0	0	0	0	270
	Thermal 1{1}		0	2	-2	0	2	-2	2	62
	Thermal 2{1}		0	5	-5	4	8	-8	9	332
	Thermal 3{1}		0	5	-5	4	8	-8	9	333
	Thermal 4{1}		0	4	-4	1	4	-4	4	294
	Thermal 5{1}		0	24	-25	21	36	-37	44	339
	GRT1{1}		0	8	-8	1	8	-8	8	346
	GRT2{1}		0	14	-14	5	16	-16	17	347
	GRT3{1}		0	14	-14	5	15	-16	17	348
	GRT4{1}		0	11	-11	2	11	-11	11	340
GRT5{1}		0	32	-33	22	44	-44	51	344	
I02 N-	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	7	-7	1	7	-7	7	3
	Hydrotest{1}		0	0	0	0	0	0	0	270
	Thermal 1{1}		0	1	-1	0	1	-1	1	276
	Thermal 2{1}		0	2	-2	4	5	-5	8	138
	Thermal 3{1}		0	3	-3	4	6	-6	8	132
	Thermal 4{1}		0	1	-1	1	2	-2	2	335
	Thermal 5{1}		0	25	-25	21	37	-38	45	108
	GRT1{1}		0	7	-7	1	7	-7	7	13
	GRT2{1}		0	6	-6	5	9	-9	11	16
	GRT3{1}		0	6	-6	5	9	-9	11	23
	GRT4{1}		0	8	-8	2	9	-9	9	359
GRT5{1}		0	24	-25	22	37	-38	46	91	
I02 N+	SIFI= 1.26	SIFO= 1.26								
	Gravity{1}		0	9	-9	1	9	-9	9	273
	Hydrotest{1}		0	0	0	0	0	0	0	270
	Thermal 1{1}		0	2	-2	0	2	-2	2	186
			0	2	-2	4	6	-6	8	48

Point	Load	Hoop	Longitudinal		Shear	Principal		Total	
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	Thermal 3{1}	0	3	-3	4	6	-6	8	42

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Thermal 4{1}	0	2	-2	1	2	-2	2	245
Thermal 5{1}	0	31	-32	21	42	-43	49	18
GRT1{1}	0	9	-9	1	9	-9	9	283
GRT2{1}	0	7	-8	5	10	-10	12	286
GRT3{1}	0	7	-8	5	10	-10	12	293
GRT4{1}	0	10	-11	2	11	-11	11	269
GRT5{1}	0	30	-31	22	42	-43	50	1
I02 F- SIFI= 1.26 SIF0= 1.26								
Gravity{1}	0	2	-2	4	5	-5	6	269
Hydrotest{1}	0	0	0	0	0	0	0	270
Thermal 1{1}	0	2	-2	0	2	-2	2	10
Thermal 2{1}	0	11	-11	1	11	-11	11	279
Thermal 3{1}	0	11	-11	1	11	-11	11	284
Thermal 4{1}	0	2	-2	1	2	-2	2	257
Thermal 5{1}	0	60	-61	5	60	-61	61	301
GRT1{1}	0	2	-2	4	5	-5	7	319
GRT2{1}	0	13	-13	3	13	-13	14	278
GRT3{1}	0	13	-13	2	13	-13	14	282
GRT4{1}	0	4	-4	4	7	-7	8	263
GRT5{1}	0	61	-62	1	61	-62	62	300
I02 F+ SIFI= 1.00 SIF0= 1.00								
Gravity{1}	0	1	-1	4	4	-4	6	269
Hydrotest{1}	0	0	0	0	0	0	0	270
Thermal 1{1}	0	1	-2	0	1	-2	2	10
Thermal 2{1}	0	8	-9	1	9	-9	9	279
Thermal 3{1}	0	9	-9	1	9	-9	9	284
Thermal 4{1}	0	2	-2	1	2	-2	2	257
Thermal 5{1}	0	47	-48	5	48	-49	49	301
GRT1{1}	0	2	-2	4	5	-5	6	319
GRT2{1}	0	10	-10	3	11	-11	11	278
GRT3{1}	0	10	-10	2	11	-11	11	282
GRT4{1}	0	3	-3	4	6	-6	8	263
GRT5{1}	0	48	-49	1	48	-49	49	300
I11 SIFI= 1.00 SIF0= 1.00								
Gravity{1}	0	3	-3	4	6	-6	7	193
Hydrotest{1}	0	0	0	0	0	0	0	270
Thermal 1{1}	0	1	-2	0	1	-2	2	359
Thermal 2{1}	0	6	-6	1	6	-6	6	278
Thermal 3{1}	0	6	-6	1	6	-6	6	284
Thermal 4{1}	0	2	-2	1	2	-2	2	250
Thermal 5{1}	0	30	-31	5	31	-32	32	297
GRT1{1}	0	2	-2	4	5	-5	6	204

	DVI_B_LINE_REV0.OUT						
GRT2{1}	0	7	-7	3	8	-8	8 248
GRT3{1}	0	7	-7	2	7	-8	8 253
GRT4{1}	0	5	-5	4	7	-7	9 211
GRT5{1}	0	29	-30	1	29	-30	30 291

CH15 SIFI= 1.00 SIFO= 1.00

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
	Gravity{1}		0	2	-2	4	5	-5	7	180
	Hydrotest{1}		0	0	0	0	0	0	0	270
	Thermal 1{1}		0	2	-2	0	2	-2	2	347
	Thermal 2{1}		0	2	-3	1	3	-3	3	271
	Thermal 3{1}		0	3	-3	1	3	-3	3	286
	Thermal 4{1}		0	2	-2	1	2	-2	2	241
	Thermal 5{1}		0	12	-13	5	13	-14	15	281
	GRT1{1}		0	1	-1	4	4	-4	6	203
	GRT2{1}		0	3	-3	3	5	-5	6	226
	GRT3{1}		0	3	-3	2	4	-4	5	236
	GRT4{1}		0	3	-4	4	6	-6	8	204
	GRT5{1}		0	11	-12	1	12	-13	13	270
	C031	SIFI= 1.20	SIFO= 1.20							
Gravity{1}		0	3	-3	4	5	-5	7	25	
Hydrotest{1}		0	0	0	0	0	0	0	270	
Thermal 1{1}		0	2	-2	0	2	-2	2	334	
Thermal 2{1}		0	2	-3	1	3	-3	3	117	
Thermal 3{1}		0	2	-2	1	3	-3	3	99	
Thermal 4{1}		0	2	-2	1	2	-2	2	229	
Thermal 5{1}		0	19	-20	5	21	-22	22	147	
GRT1{1}		0	5	-5	4	7	-7	8	4	
GRT2{1}		0	4	-4	3	5	-5	6	65	
GRT3{1}		0	4	-5	2	5	-6	6	56	
GRT4{1}		0	1	-2	4	5	-5	7	353	
GRT5{1}		0	18	-19	1	18	-19	19	138	
I05	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	4	-4	4	6	-6	7	122

DVI_B_LINE_REV0.OUT

	Hydrotest{1}		0	0	0	0	0	0	270
	Thermal 1{1}		0	2	-2	0	2	-2	320
	Thermal 2{1}		0	9	-10	1	10	-10	106
	Thermal 3{1}		0	10	-10	1	10	-10	102
	Thermal 4{1}		0	2	-2	1	2	-2	211
	Thermal 5{1}		0	60	-61	5	61	-62	133
	GRT1{1}		0	1	-1	4	4	-4	90
	GRT2{1}		0	13	-13	3	13	-14	110
	GRT3{1}		0	13	-13	2	13	-14	107
	GRT4{1}		0	4	-4	4	7	-7	150
	GRT5{1}		0	64	-65	1	64	-65	132
I12	SIFI= 1.20 Gravity{1}	SIFO= 1.20	0	5	-5	4	7	-7	115
	Hydrotest{1}		0	0	0	0	0	0	270
	Thermal 1{1}		0	3	-3	0	3	-3	315
	Thermal 2{1}		0	16	-17	1	17	-17	105
	Thermal 3{1}		0	17	-17	1	17	-17	102
	Thermal 4{1}		0	2	-3	1	3	-3	202
	Thermal 5{1}		0	103	-104	5	103	-104	131
	GRT1{1}		0	2	-2	4	5	-5	86
	GRT2{1}		0	22	-22	3	22	-22	107
	GRT3{1}		0	22	-22	2	22	-22	105

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total	
name	combination	Stress	Max	Min	Max	Min	Stress Loc
	GRT4{1}	0	6	-6	4	8	-8 9 139
	GRT5{1}	0	108	-109	1	108	-109 109 130
I07	SIFI= 2.00 Gravity{1}	0	10	-10	4	11	-11 11 86
	Hydrotest{1}	0	0	0	0	0	0 270
	Thermal 1{1}	0	6	-6	0	6	-6 6 311
	Thermal 2{1}	0	34	-34	1	34	-34 34 105
	Thermal 3{1}	0	34	-34	1	34	-34 34 102
	Thermal 4{1}	0	4	-4	1	4	-5 5 197

		DVI_B_LINE_REV0.OUT						
	Thermal 5{1}	0	208	-209	5	208	-209	209 131
	GRT1{1}	0	7	-7	4	8	-8	9 46
	GRT2{1}	0	43	-43	3	43	-43	43 101
	GRT3{1}	0	43	-44	2	44	-44	44 99
	GRT4{1}	0	9	-9	4	11	-11	12 113
	GRT5{1}	0	215	-216	1	215	-216	216 129
I14	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	1	-1	0	1	-1	1 77
	Hydrotest{1}	1	0	0	0	1	0	1 270
	Thermal 1{1}	0	1	-1	0	1	-1	1 310
	Thermal 2{1}	0	3	-3	0	3	-3	3 105
	Thermal 3{1}	0	3	-3	0	3	-3	3 102
	Thermal 4{1}	0	0	0	0	0	0	0 195
	Thermal 5{1}	0	21	-21	0	21	-21	21 130
	GRT1{1}	0	1	-1	0	1	-1	1 40
	GRT2{1}	0	4	-4	0	4	-4	4 99
	GRT3{1}	0	4	-4	0	4	-4	4 97
	GRT4{1}	0	1	-1	0	1	-1	1 103
	GRT5{1}	0	21	-22	0	21	-22	22 128
I09 N-	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	1	-1	0	1	-1	1 73
	Hydrotest{1}	1	0	0	0	1	0	1 270
	Thermal 1{1}	0	0	0	0	0	0	0 309
	Thermal 2{1}	0	2	-2	0	2	-2	2 104
	Thermal 3{1}	0	2	-2	0	2	-2	2 102
	Thermal 4{1}	0	0	0	0	0	0	0 192
	Thermal 5{1}	0	11	-12	0	11	-12	12 130
	GRT1{1}	0	0	0	0	1	-1	1 38
	GRT2{1}	0	2	-2	0	2	-2	2 98
	GRT3{1}	0	2	-2	0	2	-2	2 96
	GRT4{1}	0	0	0	0	1	-1	1 97
	GRT5{1}	0	12	-12	0	12	-12	12 128
I09 N+	SIFI= 1.52 SIFO= 1.52 Gravity{1}	0	1	-1	0	1	-1	1 163
	Hydrotest{1}	1	0	0	0	1	0	1 270
	Thermal 1{1}	0	0	0	0	0	0	0 39
	Thermal 2{1}	0	3	-3	0	3	-3	3 194
	Thermal 3{1}	0	3	-3	0	3	-3	3 192
	Thermal 4{1}	0	0	0	0	0	0	0 282

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DVI_B_LINE_REV0

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
	Thermal 5{1}	0	17	-18	0	17	-18	18 220
	GRT1{1}	0	1	-1	0	1	-1	1 128
	GRT2{1}	0	4	-4	0	4	-4	4 188
	GRT3{1}	0	4	-4	0	4	-4	4 186
	GRT4{1}	0	1	-1	0	1	-1	1 187
	GRT5{1}	0	18	-18	0	18	-18	18 218
I09 F-	SIFI= 1.52 SIF0= 1.52 Gravity{1}	0	1	-1	0	1	-1	1 139
	Hydrotest{1}	1	0	0	0	1	0	1 270
	Thermal 1{1}	0	0	0	0	0	0	0 34
	Thermal 2{1}	0	3	-3	0	3	-3	3 195
	Thermal 3{1}	0	3	-3	0	3	-3	3 194
	Thermal 4{1}	0	0	0	0	0	0	0 285
	Thermal 5{1}	0	18	-18	1	18	-18	18 218
	GRT1{1}	0	1	-1	0	1	-1	1 115
	GRT2{1}	0	4	-4	0	4	-4	4 181
	GRT3{1}	0	4	-4	0	4	-4	4 180
	GRT4{1}	0	1	-1	0	1	-1	1 147
	GRT5{1}	0	18	-18	2	18	-18	18 214
I09 F+	SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	1	-1	0	1	-1	1 49
	Hydrotest{1}	1	0	0	0	1	0	1 270
	Thermal 1{1}	0	0	0	0	0	0	0 304
	Thermal 2{1}	0	2	-2	0	2	-2	2 105
	Thermal 3{1}	0	2	-2	0	2	-2	2 104
	Thermal 4{1}	0	0	0	0	0	0	0 195
	Thermal 5{1}	0	12	-12	1	12	-12	12 128
	GRT1{1}	0	1	-1	0	1	-1	1 25
	GRT2{1}	0	2	-2	0	2	-2	2 91
	GRT3{1}	0	2	-2	0	2	-2	3 90
	GRT4{1}	0	1	-1	0	1	-1	1 57
	GRT5{1}	0	12	-12	2	12	-12	12 124
I10	SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	1	-1	0	1	-1	1 60
	Hydrotest{1}	1	0	0	0	1	0	1 270

	DVI_B_LINE_REV0.OUT							
Thermal 1{1}	0	0	0	0	0	0	0	311
Thermal 2{1}	0	2	-2	0	2	-2	2	104
Thermal 3{1}	0	2	-2	0	2	-2	2	103
Thermal 4{1}	0	0	0	0	0	0	0	164
Thermal 5{1}	0	14	-14	1	14	-14	14	126
GRT1{1}	0	1	-1	0	1	-1	1	39
GRT2{1}	0	3	-3	0	3	-3	3	94
GRT3{1}	0	3	-3	0	3	-3	3	94
GRT4{1}	0	1	-1	0	1	-1	1	74
GRT5{1}	0	14	-14	2	15	-15	15	123

*** Segment I end ***

*** Segment J begin ***

□

DVI_B_LINE_REV0

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BENTLEY

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal	Shear	Principal	Total	
name	combination		Stress	Max	Min	Max	Min	Stress Loc
-----	-----		-----	-----	-----	-----	-----	---
D01	SIFI= 1.00 SIFO= 1.00 Gravity{1}		0	1	-1	1	2	2 212
	Hydrotest{1}		61	19	19	0	61	54 270
	Thermal 1{1}		0	20	-19	2	20	20 285
	Thermal 2{1}		0	24	-24	4	25	25 212
	Thermal 3{1}		0	25	-25	4	25	26 208
	Thermal 4{1}		0	39	-38	4	40	40 303
	Thermal 5{1}		0	31	-32	3	31	32 230
	GRT1{1}		0	20	-19	2	20	20 287
	GRT2{1}		0	25	-25	5	26	27 212
	GRT3{1}		0	25	-26	5	26	27 208
	GRT4{1}		0	39	-38	5	40	40 304
	GRT5{1}		0	32	-33	4	32	33 229
J11	SIFI= 1.20 SIFO= 1.20 Gravity{1}		0	2	-2	1	2	2 344
	Hydrotest{1}		61	19	19	0	61	54 270
	Thermal 1{1}		0	9	-8	2	9	9 316
	Thermal 2{1}		0	21	-22	4	22	23 294
	Thermal 3{1}		0	20	-21	4	21	22 293
	Thermal 4{1}		0	16	-14	4	17	17 235

Thermal 5{1}	0	26	-26	3	26	-27	27	294
GRT1{1}	0	7	-7	2	8	-8	8	310
GRT2{1}	0	22	-23	5	23	-24	24	297
GRT3{1}	0	21	-22	5	22	-23	23	296
GRT4{1}	0	16	-14	5	18	-16	18	230
GRT5{1}	0	27	-27	4	27	-28	28	296

J12	SIFI= 1.20 Gravity{1}	SIFO= 1.20	0	14	-14	1	14	-14	14	181
	Hydrotest{1}		61	19	19	0	61	19	54	270
	Thermal 1{1}		0	15	-15	2	15	-15	15	66
	Thermal 2{1}		0	53	-53	4	53	-54	54	332
	Thermal 3{1}		0	53	-54	4	54	-54	54	332
	Thermal 4{1}		0	51	-49	4	52	-50	52	158
	Thermal 5{1}		0	53	-54	3	53	-54	54	340
	GRT1{1}		0	24	-24	2	25	-24	25	35
	GRT2{1}		0	42	-42	5	42	-42	43	323
	GRT3{1}		0	42	-42	5	42	-43	43	323
	GRT4{1}		0	39	-37	5	40	-38	40	151
	GRT5{1}		0	41	-41	4	41	-42	42	334
J01	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	41	-41	1	41	-41	41	180
	Hydrotest{1}		61	19	19	0	61	19	54	270
	Thermal 1{1}		0	29	-29	2	29	-29	29	80
	Thermal 2{1}		0	77	-78	4	77	-78	78	341
	Thermal 3{1}		0	78	-79	4	79	-79	79	341
	Thermal 4{1}		0	85	-84	4	86	-84	86	150
	Thermal 5{1}		0	78	-78	3	78	-79	79	353
	GRT1{1}		0	54	-54	2	55	-54	55	32
	GRT2{1}		0	41	-41	5	41	-42	42	322

DVI_B_LINE_REV0

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(Stress in N/mm²)

Point	Load	Hoop	Longitudinal		Shear	Principal		Total	
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	GRT3{1}	0	42	-42	5	42	-43	43	322
	GRT4{1}	0	54	-52	5	55	-53	55	127

		DVI_B_LINE_REV0.OUT						
		0	38	-38	4	38	-39	39 345
IV10	GRT5{1}	0	38	-38	4	38	-39	39 345
	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	45	-45	1	45	-45	45 180
	Hydrotest{1}	1	0	0	0	1	0	0 270
	Thermal 1{1}	0	44	-43	2	44	-43	44 83
	Thermal 2{1}	0	74	-75	4	74	-75	75 342
	Thermal 3{1}	0	76	-77	4	76	-77	77 342
	Thermal 4{1}	0	100	-97	4	100	-97	100 136
	Thermal 5{1}	0	76	-77	3	76	-77	77 0
	GRT1{1}	0	67	-66	3	67	-66	67 41
	GRT2{1}	0	34	-35	5	35	-35	36 318
	GRT3{1}	0	36	-36	5	37	-37	38 319
	GRT4{1}	0	74	-72	6	74	-72	75 110
	GRT5{1}	0	30	-31	4	31	-32	32 1
J03	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	92	-92	1	92	-92	92 0
	Hydrotest{1}	1	0	0	0	1	0	0 270
	Thermal 1{1}	0	55	-54	2	55	-54	55 85
	Thermal 2{1}	0	155	-156	4	155	-156	156 171
	Thermal 3{1}	0	154	-154	4	154	-154	154 171
	Thermal 4{1}	0	189	-186	4	189	-186	189 35
	Thermal 5{1}	0	157	-158	3	158	-158	158 160
	GRT1{1}	0	103	-102	3	103	-102	103 148
	GRT2{1}	0	67	-67	6	67	-68	68 158
	GRT3{1}	0	65	-66	5	65	-66	66 158
	GRT4{1}	0	125	-122	6	125	-123	125 60
	GRT5{1}	0	78	-79	4	78	-79	79 137
J13	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	6	-6	0	6	-6	6 0
	Hydrotest{1}	1	0	0	0	1	0	1 270
	Thermal 1{1}	0	2	-2	0	2	-2	2 86
	Thermal 2{1}	0	10	-10	0	10	-10	10 169
	Thermal 3{1}	0	10	-10	0	10	-10	10 169
	Thermal 4{1}	0	10	-10	0	10	-10	10 22
	Thermal 5{1}	0	10	-10	0	10	-10	10 164
	GRT1{1}	0	6	-6	0	6	-6	6 163
	GRT2{1}	0	4	-4	0	4	-4	4 155
	GRT3{1}	0	4	-4	0	4	-4	4 155
	GRT4{1}	0	6	-5	0	6	-5	6 43
	GRT5{1}	0	5	-5	0	5	-5	5 145
J06 N-	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	4	-4	0	4	-4	4 0
	Hydrotest{1}	1	0	0	0	1	0	1 270

DVI_B_LINE_REV0.OUT

Thermal 1{1}	0	1	-1	0	1	-1	1	253
Thermal 2{1}	0	20	-20	0	20	-20	20	167
Thermal 3{1}	0	20	-20	0	20	-20	20	167

DVI_B_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----			-----	-----	-----	-----	-----	-----	-----	---
J06 N+	SIFI= 1.59 Gravity{1}		0	20	-19	0	20	-19	20	1
	Thermal 4{1}		0	20	-20	0	20	-20	20	169
	Thermal 5{1}		0	5	-4	0	5	-4	5	190
	GRT1{1}		0	16	-16	0	16	-16	16	164
	GRT2{1}		0	16	-16	0	16	-16	16	164
	GRT3{1}		0	16	-15	0	16	-15	16	1
	GRT4{1}		0	16	-16	0	16	-16	16	166
	GRT5{1}		0	7	-7	0	7	-7	7	270
	Hydrotest{1}		1	0	0	0	1	0	1	270
	Thermal 1{1}		0	1	-1	0	1	-1	1	163
	Thermal 2{1}		0	32	-32	0	32	-32	32	77
	Thermal 3{1}		0	32	-32	0	32	-32	32	77
	Thermal 4{1}		0	31	-31	0	31	-31	31	271
	Thermal 5{1}		0	32	-32	0	32	-32	32	79
	GRT1{1}		0	7	-7	0	7	-7	7	100
J06 F-	SIFI= 1.59 Gravity{1}		0	25	-26	0	25	-26	26	74
	Hydrotest{1}		1	0	0	0	1	0	1	270
	Thermal 1{1}		0	26	-26	0	26	-26	26	74
	Thermal 2{1}		0	25	-24	0	25	-24	25	271
	Thermal 3{1}		0	26	-26	0	26	-26	26	76
	Thermal 4{1}		0	4	-4	1	5	-5	5	270
	Thermal 5{1}		1	0	0	0	1	0	1	270
	GRT1{1}		0	2	-1	0	2	-2	2	175
	GRT2{1}		0	25	-25	7	27	-27	28	73
	GRT3{1}		0	25	-25	7	27	-27	28	73
	GRT4{1}		0	24	-24	7	26	-26	27	270
	GRT5{1}		0	25	-25	7	27	-27	28	75

	DVI_B_LINE_REV0.OUT							
GRT1{1}	0	4	-4	2	5	-5	5	110
GRT2{1}	0	21	-21	6	22	-22	23	70
GRT3{1}	0	21	-21	6	22	-23	23	69
GRT4{1}	0	20	-20	6	21	-21	22	270
GRT5{1}	0	21	-21	6	22	-22	23	72

J06 F+ SIFI= 1.00 SIF0= 1.00

Gravity{1}	0	3	-3	1	3	-3	4	0
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	1	-1	0	1	-1	1	265
Thermal 2{1}	0	16	-16	7	18	-18	20	163
Thermal 3{1}	0	16	-16	7	18	-18	20	163
Thermal 4{1}	0	15	-15	7	18	-18	19	360
Thermal 5{1}	0	16	-16	7	18	-18	20	165
GRT1{1}	0	3	-3	2	4	-3	4	200
GRT2{1}	0	13	-13	6	15	-15	16	160
GRT3{1}	0	13	-13	6	15	-15	16	159
GRT4{1}	0	12	-12	6	15	-14	16	360
GRT5{1}	0	13	-13	6	15	-15	16	162

J07 N- SIFI= 1.00 SIF0= 1.00

Gravity{1}	0	11	-11	1	12	-12	12	180

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DVI_B_LINE_REV0

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RESULT PAGE 274

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal		Shear	Principal		Total	
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	Hydrotest{1}	1	0	0	0	1	0	1	270
	Thermal 1{1}	0	5	-5	0	5	-5	5	266
	Thermal 2{1}	0	31	-31	7	33	-33	34	171
	Thermal 3{1}	0	31	-32	7	33	-33	34	171
	Thermal 4{1}	0	33	-33	7	34	-34	35	340
	Thermal 5{1}	0	31	-32	7	33	-33	34	176
	GRT1{1}	0	12	-12	2	12	-12	13	334
	GRT2{1}	0	43	-43	6	43	-43	44	173
	GRT3{1}	0	43	-43	6	43	-44	44	173
	GRT4{1}	0	44	-44	6	45	-44	45	345
	GRT5{1}	0	43	-43	6	44	-44	44	177

DVI_B_LINE_REV0.OUT									
J07 N+	SIFI= 2.44	SIFO= 2.44							
	Gravity{1}		0	28	-28	1	28	-28	28 90
	Hydrotest{1}		1	0	0	0	1	0	1 270
	Thermal 1{1}		0	13	-13	0	13	-13	13 176
	Thermal 2{1}		0	77	-77	7	77	-77	78 81
	Thermal 3{1}		0	77	-77	7	78	-78	78 81
	Thermal 4{1}		0	80	-80	7	81	-81	81 250
	Thermal 5{1}		0	77	-77	7	77	-78	78 86
	GRT1{1}		0	30	-30	2	30	-30	30 244
	GRT2{1}		0	104	-104	6	104	-105	105 83
	GRT3{1}		0	104	-105	6	105	-105	105 83
	GRT4{1}		0	107	-107	6	107	-107	107 255
	GRT5{1}		0	105	-105	6	105	-105	105 87
J07 F-	SIFI= 2.44	SIFO= 2.44							
	Gravity{1}		0	22	-22	4	23	-23	23 270
	Hydrotest{1}		1	0	0	0	1	0	1 270
	Thermal 1{1}		0	14	-14	0	14	-14	14 0
	Thermal 2{1}		0	16	-16	17	27	-27	33 38
	Thermal 3{1}		0	16	-16	17	27	-27	34 38
	Thermal 4{1}		0	30	-30	17	38	-38	42 19
	Thermal 5{1}		0	11	-11	17	24	-24	32 62
	GRT1{1}		0	26	-26	4	26	-26	27 58
	GRT2{1}		0	34	-34	21	44	-44	50 69
	GRT3{1}		0	34	-34	22	44	-44	50 69
	GRT4{1}		0	42	-42	21	51	-51	56 48
	GRT5{1}		0	32	-32	22	43	-43	49 81
J07 F+	SIFI= 1.00	SIFO= 1.00							
	Gravity{1}		0	9	-9	4	11	-11	12 0
	Hydrotest{1}		1	0	0	0	1	0	1 270
	Thermal 1{1}		0	6	-6	0	6	-6	6 90
	Thermal 2{1}		0	6	-6	17	21	-21	30 128
	Thermal 3{1}		0	6	-6	17	21	-21	30 128
	Thermal 4{1}		0	12	-12	17	24	-24	32 109
	Thermal 5{1}		0	4	-5	17	20	-20	30 152
	GRT1{1}		0	10	-11	4	12	-12	13 148
	GRT2{1}		0	14	-14	21	29	-30	40 159
	GRT3{1}		0	14	-14	22	30	-30	40 159
	GRT4{1}		0	17	-17	21	32	-32	41 138

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DVI_B_LINE_REV0

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
J08	GRT5{1}		0	13	-13	22	29	-29	40	171
	SIFI= 2.00 SIFO= 2.00 Gravity{1}		0	19	-19	4	20	-20	20	0
	Hydrotest{1}		1	0	0	0	1	0	1	270
	Thermal 1{1}		0	11	-11	0	11	-11	11	90
	Thermal 2{1}		0	13	-13	17	25	-25	32	130
	Thermal 3{1}		0	13	-13	17	25	-25	32	130
	Thermal 4{1}		0	25	-25	17	34	-34	39	109
	Thermal 5{1}		0	9	-9	17	23	-23	31	154
	GRT1{1}		0	22	-22	4	23	-23	23	149
	GRT2{1}		0	29	-29	21	40	-40	47	160
	GRT3{1}		0	29	-29	22	40	-40	47	160
	GRT4{1}		0	36	-36	21	46	-46	52	139
	GRT5{1}		0	27	-27	22	39	-39	47	172
J09	SIFI= 2.00 SIFO= 2.00 Gravity{1}		0	7	-7	1	8	-8	8	0
	Hydrotest{1}		1	1	1	0	1	1	1	270
	Thermal 1{1}		0	4	-4	0	4	-4	4	90
	Thermal 2{1}		0	5	-5	6	9	-9	11	140
	Thermal 3{1}		0	5	-5	6	9	-9	11	140
	Thermal 4{1}		0	9	-9	6	12	-12	14	113
	Thermal 5{1}		0	4	-4	6	8	-8	11	164
	GRT1{1}		0	8	-8	1	9	-9	9	152
	GRT2{1}		0	11	-11	7	15	-15	17	165
	GRT3{1}		0	11	-12	7	15	-15	17	165
	GRT4{1}		0	14	-14	7	17	-17	19	142
	GRT5{1}		0	11	-11	7	15	-15	17	175
	J10	SIFI= 1.20 SIFO= 1.20 Gravity{1}		0	6	-6	1	7	-7	7
Hydrotest{1}		1	1	1	0	1	1	1	270	
Thermal 1{1}		0	3	-3	0	3	-3	3	89	
Thermal 2{1}		0	4	-4	6	8	-8	10	155	
Thermal 3{1}		0	4	-4	6	8	-8	11	155	
Thermal 4{1}		0	7	-7	6	10	-10	12	119	
Thermal 5{1}		0	3	-3	6	8	-8	10	176	
GRT1{1}		0	7	-7	1	7	-7	7	158	
GRT2{1}		0	10	-10	7	14	-14	16	171	

DVI_B_LINE_REV0.OUT

GRT3{1}	0	10	-10	7	14	-14	16	171
GRT4{1}	0	11	-11	7	15	-15	17	148
GRT5{1}	0	10	-10	7	14	-14	16	179

*** Segment J end ***

*** Segment M begin ***

F10	SIFI= 1.00	SIFO= 1.00						
	Gravity{1}		0	1	0	0	1	0
	Hydrotest{1}		100	38	38	0	100	38
	Thermal 1{1}		0	1	-1	0	1	-1

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
	Thermal 2{1}	0	1	-1	0	1	-1	1
	Thermal 3{1}	0	6	-7	0	6	-7	7
	Thermal 4{1}	0	1	-1	0	1	-1	1
	Thermal 5{1}	0	3	-3	0	3	-3	3
	GRT1{1}	0	1	0	0	1	0	1
	GRT2{1}	0	1	0	0	1	0	1
	GRT3{1}	0	6	-6	0	6	-6	6
	GRT4{1}	0	1	0	0	1	0	1
	GRT5{1}	0	3	-3	0	3	-3	3
M06	- SIFI= 1.00							
	Gravity{1}	0	1	0	0	1	0	1
	Hydrotest{1}	100	38	38	0	100	38	87
	Thermal 1{1}	0	1	-1	0	1	-1	1
	Thermal 2{1}	0	1	-1	0	1	-1	1
	Thermal 3{1}	0	8	-8	0	8	-8	8
	Thermal 4{1}	0	1	-1	0	1	-1	1
	Thermal 5{1}	0	4	-4	0	4	-4	4
	GRT1{1}	0	1	0	0	1	0	1
	GRT2{1}	0	1	0	0	1	0	1
	GRT3{1}	0	8	-8	0	8	-8	8
	GRT4{1}	0	1	0	0	1	0	1
	GRT5{1}	0	4	-4	0	4	-4	4

DVI_B_LINE_REV0.OUT

M06 + SIFI= 1.00 SIFO= 1.00
Gravity{1}

	0	0	0	0	0	0	0	70
Hydrotest{1}	132	54	54	0	132	54	115	270
Thermal 1{1}	0	0	0	0	0	0	0	4
Thermal 2{1}	0	0	0	0	0	0	0	2
Thermal 3{1}	0	0	0	0	0	0	0	75
Thermal 4{1}	0	0	0	0	0	0	0	3
Thermal 5{1}	0	0	0	0	0	0	0	73
GRT1{1}	0	0	0	0	0	0	0	180
GRT2{1}	0	0	0	0	0	0	0	179
GRT3{1}	0	0	0	0	0	0	0	255
GRT4{1}	0	0	0	0	0	0	0	179
GRT5{1}	0	0	0	0	0	0	0	253

M01 SIFI= 1.00 SIFO= 1.00
Gravity{1}

	0	0	0	0	0	0	0	70
Hydrotest{1}	132	54	54	0	132	54	115	270
Thermal 1{1}	0	0	0	0	0	0	0	4
Thermal 2{1}	0	0	0	0	0	0	0	2
Thermal 3{1}	0	0	0	0	0	0	0	75
Thermal 4{1}	0	0	0	0	0	0	0	3
Thermal 5{1}	0	0	0	0	0	0	0	73
GRT1{1}	0	0	0	0	0	0	0	180
GRT2{1}	0	0	0	0	0	0	0	179
GRT3{1}	0	0	0	0	0	0	0	255
GRT4{1}	0	0	0	0	0	0	0	179
GRT5{1}	0	0	0	0	0	0	0	253

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DVI_B_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
M02 -	SIFI= 1.00 SIFO= 1.00								
	Gravity{1}	0	0	0	0	0	0	0	137
	Hydrotest{1}	132	54	54	0	132	54	115	270
	Thermal 1{1}	0	0	0	0	0	0	0	184
	Thermal 2{1}	0	0	0	0	0	0	0	180
	Thermal 3{1}	0	0	0	0	0	0	0	181

DVI_B_LINE_REV0.OUT

	Thermal 4{1}	0	0	0	0	0	0	0	181	
	Thermal 5{1}	0	0	0	0	0	0	0	181	
	GRT1{1}	0	0	0	0	0	0	0	182	
	GRT2{1}	0	0	0	0	0	0	0	179	
	GRT3{1}	0	0	0	0	0	0	0	180	
	GRT4{1}	0	0	0	0	0	0	0	179	
	GRT5{1}	0	0	0	0	0	0	0	180	
M02	+ SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	0	-1	0	0	-1	1	137
	Hydrotest{1}	100	38	38	0	100	38	87	270	
	Thermal 1{1}	0	14	-15	0	14	-15	15	184	
	Thermal 2{1}	0	15	-16	0	15	-16	16	180	
	Thermal 3{1}	0	33	-33	1	33	-33	33	181	
	Thermal 4{1}	0	19	-19	0	19	-19	19	181	
	Thermal 5{1}	0	20	-20	0	20	-20	20	181	
	GRT1{1}	0	14	-15	0	14	-15	15	182	
	GRT2{1}	0	16	-17	0	16	-17	17	179	
	GRT3{1}	0	33	-34	1	33	-34	34	180	
	GRT4{1}	0	19	-20	0	19	-20	20	179	
	GRT5{1}	0	20	-21	0	20	-21	21	180	
M03	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	0	-1	0	0	-1	1	137
	Hydrotest{1}	100	38	38	0	100	38	87	270	
	Thermal 1{1}	0	12	-12	0	12	-12	12	184	
	Thermal 2{1}	0	13	-13	0	13	-13	13	180	
	Thermal 3{1}	0	27	-27	1	27	-27	27	181	
	Thermal 4{1}	0	16	-16	0	16	-16	16	181	
	Thermal 5{1}	0	16	-17	0	16	-17	17	181	
	GRT1{1}	0	12	-13	0	12	-13	13	182	
	GRT2{1}	0	13	-14	0	13	-14	14	179	
	GRT3{1}	0	26	-28	1	26	-28	28	180	
	GRT4{1}	0	16	-17	0	16	-17	17	180	
	GRT5{1}	0	16	-18	0	16	-18	18	180	
M04	SIFI= 2.00 Gravity{1}	SIFO= 2.00	0	1	-1	0	1	-1	1	136
	Hydrotest{1}	100	38	38	0	100	38	87	270	
	Thermal 1{1}	0	21	-21	0	21	-21	21	183	
	Thermal 2{1}	0	22	-23	0	22	-23	23	180	
	Thermal 3{1}	0	46	-47	1	46	-47	47	181	
	Thermal 4{1}	0	27	-28	0	27	-28	28	181	
	Thermal 5{1}	0	29	-29	0	29	-29	29	181	
	GRT1{1}	0	21	-22	0	21	-22	22	182	

GRT2{1} DVI_B_LINE_REV0.OUT 0 23 -23 0 23 -23 23 179

0

DVI_B_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
	GRT3{1}	0	47	-48	1	47	-48	48 180
	GRT4{1}	0	28	-29	0	28	-29	29 180
	GRT5{1}	0	29	-30	0	29	-30	30 180
M05	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	2	-3	0	2	-3	3 135
	Hydrotest{1}	75	26	26	0	75	26	66 270
	Thermal 1{1}	0	66	-67	1	66	-67	67 183
	Thermal 2{1}	0	70	-71	1	70	-71	71 180
	Thermal 3{1}	0	146	-147	3	146	-147	147 181
	Thermal 4{1}	0	87	-88	0	87	-88	88 181
	Thermal 5{1}	0	90	-91	1	90	-91	91 181
	GRT1{1}	0	67	-68	1	67	-68	68 182
	GRT2{1}	0	72	-73	1	72	-73	73 179
	GRT3{1}	0	147	-149	3	147	-149	149 180
	GRT4{1}	0	88	-90	0	88	-90	90 180
	GRT5{1}	0	92	-93	1	92	-93	93 180
M24	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	3	-3	0	3	-3	3 320
	Hydrotest{1}	75	26	26	0	75	26	66 270
	Thermal 1{1}	0	24	-25	1	24	-25	25 11
	Thermal 2{1}	0	30	-31	1	30	-31	31 1
	Thermal 3{1}	0	67	-68	3	67	-68	68 3
	Thermal 4{1}	0	33	-34	0	33	-34	34 2
	Thermal 5{1}	0	39	-39	1	39	-39	39 2
	GRT1{1}	0	26	-27	1	26	-27	27 5
	GRT2{1}	0	33	-34	1	33	-34	34 357
	GRT3{1}	0	69	-71	3	69	-71	71 1
	GRT4{1}	0	36	-37	0	36	-37	37 359
	GRT5{1}	0	41	-42	1	41	-42	42 359
M07 N-	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	4	-4	0	4	-4	4 327

DVI_B_LINE_REV0.OUT

Hydrotest{1}	75	26	26	0	75	26	66	270
Thermal 1{1}	0	34	-34	1	34	-34	34	12
Thermal 2{1}	0	41	-42	1	41	-42	42	4
Thermal 3{1}	0	91	-92	3	91	-92	92	6
Thermal 4{1}	0	46	-47	0	46	-47	47	5
Thermal 5{1}	0	53	-54	1	53	-54	54	5
GRT1{1}	0	36	-37	1	36	-37	37	8
GRT2{1}	0	44	-45	1	44	-45	45	2
GRT3{1}	0	94	-95	3	94	-95	96	5
GRT4{1}	0	49	-50	0	49	-50	50	2
GRT5{1}	0	56	-57	1	56	-57	57	3

M07 N+ SIFI= 1.00 SIFO= 1.00
Gravity{1}

Gravity{1}	0	4	-4	0	4	-4	4	327
Hydrotest{1}	75	26	26	0	75	26	66	270
Thermal 1{1}	0	34	-34	1	34	-34	34	12
Thermal 2{1}	0	41	-42	1	41	-42	42	4
Thermal 3{1}	0	91	-92	3	91	-92	92	6

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point name	Load combination	Hoop Stress	Longitudinal Max	Min	Shear Stress	Principal Max	Min	Total Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	Thermal 4{1}	0	46	-47	0	46	-47	47	5
	Thermal 5{1}	0	53	-54	1	53	-54	54	5
	GRT1{1}	0	36	-37	1	36	-37	37	8
	GRT2{1}	0	44	-45	1	44	-45	45	2
	GRT3{1}	0	94	-95	3	94	-95	96	5
	GRT4{1}	0	49	-50	0	49	-50	50	2
	GRT5{1}	0	56	-57	1	56	-57	57	3
M07 F-	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	3	-3	1	3	-3	3	1
	Hydrotest{1}	75	26	26	0	75	26	66	270
	Thermal 1{1}	0	33	-33	4	33	-34	34	358
	Thermal 2{1}	0	41	-41	2	41	-41	41	359
	Thermal 3{1}	0	90	-91	6	90	-92	92	357
	Thermal 4{1}	0	46	-46	2	46	-47	47	359

DVI_B_LINE_REV0.OUT								
Thermal 5{1}	0	53	-53	3	53	-53	53	358
GRT1{1}	0	35	-36	3	36	-36	36	359
GRT2{1}	0	43	-44	1	43	-44	44	359
GRT3{1}	0	93	-94	5	93	-94	94	357
GRT4{1}	0	48	-49	1	48	-49	49	359
GRT5{1}	0	55	-56	2	55	-56	56	358
M07 F+ SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	3	-3	1	3	-3	3	181
Hydrotest{1}	75	26	26	0	75	26	66	270
Thermal 1{1}	0	33	-33	4	33	-34	34	178
Thermal 2{1}	0	41	-41	2	41	-41	41	179
Thermal 3{1}	0	90	-91	6	90	-92	92	177
Thermal 4{1}	0	46	-46	2	46	-47	47	179
Thermal 5{1}	0	53	-53	3	53	-53	53	178
GRT1{1}	0	35	-36	3	36	-36	36	179
GRT2{1}	0	43	-44	1	43	-44	44	179
GRT3{1}	0	93	-94	5	93	-94	94	177
GRT4{1}	0	48	-49	1	48	-49	49	179
GRT5{1}	0	55	-56	2	55	-56	56	178
M31 SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	3	-3	1	4	-4	4	355
Hydrotest{1}	75	26	26	0	75	26	66	270
Thermal 1{1}	0	6	-6	4	8	-8	9	278
Thermal 2{1}	0	7	-7	2	7	-8	8	292
Thermal 3{1}	0	20	-21	6	21	-22	23	228
Thermal 4{1}	0	6	-7	2	7	-7	8	270
Thermal 5{1}	0	11	-12	3	12	-12	13	220
GRT1{1}	0	7	-8	3	8	-9	9	304
GRT2{1}	0	9	-10	1	9	-10	10	311
GRT3{1}	0	18	-19	5	19	-20	21	236
GRT4{1}	0	7	-8	1	7	-8	8	297
GRT5{1}	0	9	-10	2	9	-10	10	235
M08 N- SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	3	-3	1	3	-3	3	352

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DVI_B_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total

DVI_B_LINE_REV0.OUT

name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
	Hydrotest{1}	75	26	26	0	75	26	66	270
	Thermal 1{1}	0	20	-21	4	21	-21	22	332
	Thermal 2{1}	0	27	-27	2	27	-28	28	337
	Thermal 3{1}	0	35	-37	6	36	-37	38	316
	Thermal 4{1}	0	25	-26	2	25	-26	26	337
	Thermal 5{1}	0	18	-19	3	18	-19	19	318
	GRT1{1}	0	23	-23	3	23	-24	24	335
	GRT2{1}	0	30	-30	1	30	-30	30	338
	GRT3{1}	0	38	-39	5	38	-39	40	318
	GRT4{1}	0	28	-29	1	28	-29	29	338
	GRT5{1}	0	21	-21	2	21	-21	21	323
M08 N+	SIFI= 1.00 Gravity{1}	0	3	-3	1	3	-3	3	82
	Hydrotest{1}	75	26	26	0	75	26	66	270
	Thermal 1{1}	0	20	-21	4	21	-21	22	62
	Thermal 2{1}	0	27	-27	2	27	-28	28	67
	Thermal 3{1}	0	35	-37	6	36	-37	38	46
	Thermal 4{1}	0	25	-26	2	25	-26	26	67
	Thermal 5{1}	0	18	-19	3	18	-19	19	48
	GRT1{1}	0	23	-23	3	23	-24	24	65
	GRT2{1}	0	30	-30	1	30	-30	30	68
	GRT3{1}	0	38	-39	5	38	-39	40	48
	GRT4{1}	0	28	-29	1	28	-29	29	68
	GRT5{1}	0	21	-21	2	21	-21	21	53
M08 F-	SIFI= 1.00 Gravity{1}	0	3	-3	0	3	-3	3	83
	Hydrotest{1}	75	26	26	0	75	26	66	270
	Thermal 1{1}	0	11	-11	10	17	-17	20	36
	Thermal 2{1}	0	17	-18	11	23	-23	27	54
	Thermal 3{1}	0	26	-27	14	32	-33	37	22
	Thermal 4{1}	0	16	-16	11	22	-22	25	54
	Thermal 5{1}	0	13	-14	7	16	-17	19	27
	GRT1{1}	0	13	-14	10	19	-19	22	46
	GRT2{1}	0	20	-21	12	26	-26	29	58
	GRT3{1}	0	28	-29	15	34	-35	39	28
	GRT4{1}	0	19	-19	11	24	-25	28	58
	GRT5{1}	0	15	-16	8	18	-19	21	37
M08 F+	SIFI= 1.00 Gravity{1}	0	3	-3	0	3	-3	3	353
	Hydrotest{1}	75	26	26	0	75	26	66	270

	DVI_B_LINE_REV0.OUT						
Thermal 1{1}	0	11	-11	10	17	-17	20 306
Thermal 2{1}	0	17	-18	11	23	-23	27 324
Thermal 3{1}	0	26	-27	14	32	-33	37 292
Thermal 4{1}	0	16	-16	11	22	-22	25 324
Thermal 5{1}	0	13	-14	7	16	-17	19 297
GRT1{1}	0	13	-14	10	19	-19	22 316
GRT2{1}	0	20	-21	12	26	-26	29 328
GRT3{1}	0	28	-29	15	34	-35	39 298
GRT4{1}	0	19	-19	11	24	-25	28 328

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DVI_B_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
M30	GRT5{1}		0	15	-16	8	18	-19	21	307
	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	1	-1	0	2	-2	2	359
	Hydrotest{1}		75	26	26	0	75	26	66	270
	Thermal 1{1}		0	18	-18	10	22	-22	25	349
	Thermal 2{1}		0	28	-29	11	32	-33	35	352
	Thermal 3{1}		0	36	-37	14	41	-42	45	342
	Thermal 4{1}		0	28	-28	11	32	-32	34	357
	Thermal 5{1}		0	20	-21	7	23	-23	25	351
	GRT1{1}		0	19	-20	10	24	-24	26	349
	GRT2{1}		0	30	-30	12	34	-34	37	353
	GRT3{1}		0	38	-39	15	43	-44	46	343
GRT4{1}		0	29	-30	11	33	-34	36	357	
GRT5{1}		0	22	-22	8	24	-25	26	351	
M09 N-	SIFI= 1.00									
	Gravity{1}		0	5	-5	0	5	-5	5	172
	Hydrotest{1}		75	26	26	0	75	26	66	270
	Thermal 1{1}		0	39	-39	10	41	-41	42	10
	Thermal 2{1}		0	55	-56	11	58	-58	59	9
	Thermal 3{1}		0	83	-84	14	85	-86	87	10
	Thermal 4{1}		0	57	-58	11	59	-60	61	14
	Thermal 5{1}		0	49	-49	7	50	-50	51	15
GRT1{1}		0	34	-35	10	37	-37	39	13	

GRT2{1}	0	51	-51	12	54	-54	55	10
GRT3{1}	0	78	-79	15	81	-82	83	11
GRT4{1}	0	53	-54	11	55	-56	57	15
GRT5{1}	0	44	-45	8	46	-46	47	17

0	5	-5	0	5	-5	5	82
75	26	26	0	75	26	66	270
0	39	-39	10	41	-41	42	280
0	55	-56	11	58	-58	59	279
0	83	-84	14	85	-86	87	280
0	57	-58	11	59	-60	61	284
0	49	-49	7	50	-50	51	285
0	34	-35	10	37	-37	39	283
0	51	-51	12	54	-54	55	280
0	78	-79	15	81	-82	83	281
0	53	-54	11	55	-56	57	285
0	44	-45	8	46	-46	47	287

0	3	-3	2	4	-4	5	75
75	26	26	0	75	26	66	270
0	41	-41	9	43	-43	44	280
0	54	-54	15	58	-58	60	279
0	77	-78	24	84	-85	88	281
0	55	-56	16	59	-60	62	285
0	44	-45	15	48	-49	51	287

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GENERAL PIPE STRESS REPORT
(Stress in N/mm2)

Point	Load	Hoop	Longitudinal		Shear	Principal		Total	
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	GRT1{1}	0	38	-39	7	39	-40	41	282
	GRT2{1}	0	51	-52	13	54	-55	57	281
	GRT3{1}	0	74	-75	22	80	-81	85	282
	GRT4{1}	0	53	-53	14	56	-57	58	286
	GRT5{1}	0	42	-43	12	45	-46	48	289

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		DVI_B_LINE_REV0.OUT						
		0	3	-3	2	4	-4	5 165
	Gravity{1}	0						
	Hydrotest{1}	75	26	26	0	75	26	66 270
	Thermal 1{1}	0	41	-41	9	43	-43	44 10
	Thermal 2{1}	0	54	-54	15	58	-58	60 9
	Thermal 3{1}	0	77	-78	24	84	-85	88 11
	Thermal 4{1}	0	55	-56	16	59	-60	62 15
	Thermal 5{1}	0	44	-45	15	48	-49	51 17
	GRT1{1}	0	38	-39	7	39	-40	41 12
	GRT2{1}	0	51	-52	13	54	-55	57 11
	GRT3{1}	0	74	-75	22	80	-81	85 12
	GRT4{1}	0	53	-53	14	56	-57	58 16
	GRT5{1}	0	42	-43	12	45	-46	48 19
M10	- SIFI= 1.00 SIFO= 1.00							
	Gravity{1}	0	6	-6	2	7	-7	7 276
	Hydrotest{1}	75	26	26	0	75	26	66 270
	Thermal 1{1}	0	49	-49	9	51	-51	52 84
	Thermal 2{1}	0	65	-65	15	68	-68	70 84
	Thermal 3{1}	0	95	-97	24	101	-102	105 84
	Thermal 4{1}	0	66	-67	16	70	-70	72 79
	Thermal 5{1}	0	54	-55	15	58	-59	61 79
	GRT1{1}	0	43	-43	7	44	-44	45 82
	GRT2{1}	0	58	-59	13	61	-62	63 83
	GRT3{1}	0	89	-90	22	94	-95	98 84
	GRT4{1}	0	60	-61	14	63	-64	65 78
	GRT5{1}	0	48	-49	12	51	-52	54 77
M10	+ SIFI= 1.00 SIFO= 1.00							
	Gravity{1}	0	10	-10	4	11	-11	12 270
	Hydrotest{1}	75	26	26	0	75	26	66 270
	Thermal 1{1}	0	69	-70	24	77	-78	82 55
	Thermal 2{1}	0	106	-107	24	111	-112	115 68
	Thermal 3{1}	0	123	-125	24	128	-130	132 74
	Thermal 4{1}	0	116	-117	24	120	-122	124 59
	Thermal 5{1}	0	85	-86	14	87	-89	90 64
	GRT1{1}	0	61	-62	20	67	-68	72 50
	GRT2{1}	0	97	-98	20	101	-102	104 66
	GRT3{1}	0	114	-116	20	118	-119	121 73
	GRT4{1}	0	107	-109	20	111	-113	114 56
	GRT5{1}	0	76	-78	11	78	-79	80 60
M11	SIFI= 1.00 SIFO= 1.00							
	Gravity{1}	0	23	-23	4	24	-24	24 180
	Hydrotest{1}	75	26	26	0	75	26	66 270
	Thermal 1{1}	0	77	-78	24	84	-85	88 357

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
	Thermal 2{1}		0	85	-86	24	91	-92	95	357
	Thermal 3{1}		0	112	-113	24	116	-118	121	355
	Thermal 4{1}		0	86	-87	24	92	-94	97	352
	Thermal 5{1}		0	61	-62	14	64	-65	67	348
	GRT1{1}		0	53	-54	20	60	-61	65	356
	GRT2{1}		0	61	-62	20	67	-68	71	356
	GRT3{1}		0	88	-90	20	93	-94	97	353
	GRT4{1}		0	63	-64	20	69	-70	73	349
	GRT5{1}		0	38	-39	11	41	-42	44	341
M17	SIFI= 1.00	SIF0= 1.00								
	Gravity{1}		0	23	-23	4	24	-24	24	180
	Hydrotest{1}		75	26	26	0	75	26	66	270
	Thermal 1{1}		0	85	-86	24	91	-92	95	340
	Thermal 2{1}		0	89	-90	24	95	-96	99	341
	Thermal 3{1}		0	116	-117	24	120	-122	124	345
	Thermal 4{1}		0	95	-96	24	100	-102	105	333
	Thermal 5{1}		0	68	-70	14	71	-72	74	335
	GRT1{1}		0	63	-64	20	69	-70	73	333
	GRT2{1}		0	67	-68	20	73	-74	77	335
	GRT3{1}		0	93	-95	20	98	-99	101	341
	GRT4{1}		0	75	-76	20	80	-81	84	326
	GRT5{1}		0	48	-50	11	51	-52	53	324
M13	- SIFI= 1.00	SIF0= 1.00								
	Gravity{1}		0	9	-9	4	10	-10	11	272
	Hydrotest{1}		75	26	26	0	75	26	66	270
	Thermal 1{1}		0	64	-65	24	72	-73	77	102
	Thermal 2{1}		0	98	-99	24	104	-105	107	97
	Thermal 3{1}		0	120	-121	24	124	-126	128	95
	Thermal 4{1}		0	98	-100	24	104	-105	108	93
	Thermal 5{1}		0	81	-82	14	84	-85	86	88
	GRT1{1}		0	55	-56	20	62	-63	66	104
	GRT2{1}		0	89	-90	20	94	-95	97	98

		DVI_B_LINE_REV0.OUT						
	GRT3{1}	0	111	-112	20	114	-116	118 95
	GRT4{1}	0	89	-91	20	94	-95	97 93
	GRT5{1}	0	72	-73	11	74	-75	76 87
M13	+ SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	6	-6	6	9	-9	11 267
	Hydrotest{1}	75	26	26	0	75	26	66 270
	Thermal 1{1}	0	91	-92	20	95	-96	98 100
	Thermal 2{1}	0	74	-75	15	77	-78	79 103
	Thermal 3{1}	0	93	-94	18	96	-97	99 107
	Thermal 4{1}	0	75	-76	15	78	-78	80 102
	Thermal 5{1}	0	42	-42	7	43	-43	44 109
	GRT1{1}	0	85	-86	14	88	-88	89 101
	GRT2{1}	0	69	-70	9	70	-71	71 104
	GRT3{1}	0	87	-88	13	89	-90	91 108
	GRT4{1}	0	69	-70	9	71	-71	72 104
	GRT5{1}	0	36	-37	2	36	-37	37 112

0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
M22 N-	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	5	-5	6	8	-8	11 356
	Hydrotest{1}	75	26	26	0	75	26	66 270
	Thermal 1{1}	0	44	-45	20	51	-52	56 335
	Thermal 2{1}	0	35	-36	15	41	-41	44 327
	Thermal 3{1}	0	49	-50	18	55	-56	59 324
	Thermal 4{1}	0	35	-35	15	40	-41	43 331
	Thermal 5{1}	0	21	-21	7	23	-23	25 323
	GRT1{1}	0	48	-49	14	52	-53	55 337
	GRT2{1}	0	39	-40	9	41	-42	43 330
	GRT3{1}	0	53	-54	13	55	-56	58 327
	GRT4{1}	0	39	-39	9	41	-41	42 333
	GRT5{1}	0	25	-25	2	25	-25	25 329
M22 N+	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	5	-5	6	8	-8	11 86
	Hydrotest{1}	75	26	26	0	75	26	66 270

DVI_B_LINE_REV0.OUT

Thermal 1{1}	0	44	-45	20	51	-52	56	65
Thermal 2{1}	0	35	-36	15	41	-41	44	57
Thermal 3{1}	0	49	-50	18	55	-56	59	54
Thermal 4{1}	0	35	-35	15	40	-41	43	61
Thermal 5{1}	0	21	-21	7	23	-23	25	53
GRT1{1}	0	48	-49	14	52	-53	55	67
GRT2{1}	0	39	-40	9	41	-42	43	60
GRT3{1}	0	53	-54	13	55	-56	58	57
GRT4{1}	0	39	-39	9	41	-41	42	63
GRT5{1}	0	25	-25	2	25	-25	25	59

M22 F- SIFI= 1.00 SIFO= 1.00

Gravity{1}	0	10	-10	3	11	-11	11	272
Hydrotest{1}	75	26	26	0	75	26	66	270
Thermal 1{1}	0	37	-38	18	44	-44	48	65
Thermal 2{1}	0	30	-30	13	35	-35	37	56
Thermal 3{1}	0	40	-40	17	46	-46	50	51
Thermal 4{1}	0	29	-29	13	34	-34	37	59
Thermal 5{1}	0	17	-17	7	19	-19	21	229
GRT1{1}	0	29	-29	20	39	-39	45	55
GRT2{1}	0	22	-22	15	30	-30	35	40
GRT3{1}	0	33	-33	20	42	-42	48	39
GRT4{1}	0	21	-21	16	30	-30	34	44
GRT5{1}	0	12	-12	10	17	-17	21	192

M22 F+ SIFI= 1.00 SIFO= 1.00

Gravity{1}	0	10	-10	3	11	-11	11	182
Hydrotest{1}	75	26	26	0	75	26	66	270
Thermal 1{1}	0	37	-38	18	44	-44	48	335
Thermal 2{1}	0	30	-30	13	35	-35	37	326
Thermal 3{1}	0	40	-40	17	46	-46	50	321
Thermal 4{1}	0	29	-29	13	34	-34	37	329
Thermal 5{1}	0	17	-17	7	19	-19	21	139
GRT1{1}	0	29	-29	20	39	-39	45	325
GRT2{1}	0	22	-22	15	30	-30	35	310

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DVI_B_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total

name	combination	DVI_B_LINE_REV0.OUT			Stress	Max	Min	Stress	Max	Min	Stress	Loc
		Stress	Max	Min								
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	GRT3{1}	0	33	-33	20	42	-42	48	309			
	GRT4{1}	0	21	-21	16	30	-30	34	314			
	GRT5{1}	0	12	-12	10	17	-17	21	102			
M23 N-	SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	2	-2	3	4	-4	5	170			
	Hydrotest{1}	75	26	26	0	75	26	66	270			
	Thermal 1{1}	0	59	-59	18	64	-64	66	152			
	Thermal 2{1}	0	57	-57	13	60	-60	61	150			
	Thermal 3{1}	0	65	-65	17	70	-70	72	146			
	Thermal 4{1}	0	54	-54	13	57	-57	58	158			
	Thermal 5{1}	0	29	-29	7	31	-31	32	339			
	GRT1{1}	0	61	-61	20	67	-67	70	153			
	GRT2{1}	0	59	-59	15	63	-63	65	151			
	GRT3{1}	0	67	-67	20	73	-73	76	147			
	GRT4{1}	0	56	-56	16	60	-60	62	158			
	GRT5{1}	0	31	-31	10	34	-34	36	339			
M23 N+	SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	2	-2	3	4	-4	5	80			
	Hydrotest{1}	75	26	26	0	75	26	66	270			
	Thermal 1{1}	0	59	-59	18	64	-64	66	62			
	Thermal 2{1}	0	57	-57	13	60	-60	61	60			
	Thermal 3{1}	0	65	-65	17	70	-70	72	56			
	Thermal 4{1}	0	54	-54	13	57	-57	58	68			
	Thermal 5{1}	0	29	-29	7	31	-31	32	249			
	GRT1{1}	0	61	-61	20	67	-67	70	63			
	GRT2{1}	0	59	-59	15	63	-63	65	61			
	GRT3{1}	0	67	-67	20	73	-73	76	57			
	GRT4{1}	0	56	-56	16	60	-60	62	68			
	GRT5{1}	0	31	-31	10	34	-34	36	249			
M23 F-	SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	6	-6	1	6	-6	6	275			
	Hydrotest{1}	75	26	26	0	75	26	66	270			
	Thermal 1{1}	0	42	-42	29	56	-57	65	315			
	Thermal 2{1}	0	37	-38	27	51	-52	60	326			
	Thermal 3{1}	0	49	-50	30	63	-64	72	324			
	Thermal 4{1}	0	31	-31	27	46	-47	56	316			
	Thermal 5{1}	0	17	-17	15	25	-26	31	315			
	GRT1{1}	0	46	-47	30	61	-61	70	310			
	GRT2{1}	0	41	-41	28	55	-56	64	320			
	GRT3{1}	0	53	-54	31	67	-68	76	319			
	GRT4{1}	0	35	-35	28	51	-51	60	310			

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GRT5{1}	0	21	-22	16	30	-30	35	305
M23 F+ SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	6	-6	1	6	-6	6	5
Hydrotest{1}	75	26	26	0	75	26	66	270
Thermal 1{1}	0	42	-42	29	56	-57	65	45
Thermal 2{1}	0	37	-38	27	51	-52	60	56
Thermal 3{1}	0	49	-50	30	63	-64	72	54

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DVI_B_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
-----	-----	-----	-----	-----	-----	-----	-----	---
	Thermal 4{1}	0	31	-31	27	46	-47	56 46
	Thermal 5{1}	0	17	-17	15	25	-26	31 45
	GRT1{1}	0	46	-47	30	61	-61	70 40
	GRT2{1}	0	41	-41	28	55	-56	64 50
	GRT3{1}	0	53	-54	31	67	-68	76 49
	GRT4{1}	0	35	-35	28	51	-51	60 40
	GRT5{1}	0	21	-22	16	30	-30	35 35
M21 N- SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	3	-3	1	3	-3	3	9
Hydrotest{1}	75	26	26	0	75	26	66	270
Thermal 1{1}	0	50	-50	29	63	-63	71	149
Thermal 2{1}	0	49	-50	27	61	-62	68	148
Thermal 3{1}	0	56	-57	30	69	-70	77	139
Thermal 4{1}	0	47	-47	27	59	-60	67	154
Thermal 5{1}	0	25	-26	15	32	-32	36	148
GRT1{1}	0	48	-48	30	62	-62	70	147
GRT2{1}	0	47	-48	28	60	-61	68	146
GRT3{1}	0	54	-55	31	68	-69	77	137
GRT4{1}	0	44	-45	28	58	-59	66	152
GRT5{1}	0	23	-24	16	31	-31	36	144
M21 N+ SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	3	-3	1	3	-3	3	279
Hydrotest{1}	75	26	26	0	75	26	66	270
Thermal 1{1}	0	50	-50	29	63	-63	71	59

DVI_B_LINE_REV0.OUT									
Thermal 2{1}	0	49	-50	27	61	-62	68	58	
Thermal 3{1}	0	56	-57	30	69	-70	77	49	
Thermal 4{1}	0	47	-47	27	59	-60	67	64	
Thermal 5{1}	0	25	-26	15	32	-32	36	58	
GRT1{1}	0	48	-48	30	62	-62	70	57	
GRT2{1}	0	47	-48	28	60	-61	68	56	
GRT3{1}	0	54	-55	31	68	-69	77	47	
GRT4{1}	0	44	-45	28	58	-59	66	62	
GRT5{1}	0	23	-24	16	31	-31	36	54	
M21 F- SIFI= 1.00 SIFO= 1.00									
Gravity{1}	0	2	-2	1	2	-2	2	282	
Hydrotest{1}	75	26	26	0	75	26	66	270	
Thermal 1{1}	0	51	-51	27	63	-63	70	297	
Thermal 2{1}	0	50	-50	26	61	-61	67	299	
Thermal 3{1}	0	58	-59	27	69	-69	75	305	
Thermal 4{1}	0	47	-48	26	59	-59	66	293	
Thermal 5{1}	0	27	-27	14	33	-33	36	297	
GRT1{1}	0	53	-53	26	64	-64	70	296	
GRT2{1}	0	51	-51	25	62	-62	68	298	
GRT3{1}	0	60	-60	26	70	-70	76	304	
GRT4{1}	0	49	-49	26	60	-60	66	293	
GRT5{1}	0	29	-29	13	33	-34	36	296	
M21 F+ SIFI= 1.00 SIFO= 1.00									
Gravity{1}	0	2	-2	1	2	-2	2	12	

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DVI_B_LINE_REV0

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RESULT PAGE 287

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	Hydrotest{1}	75	26	26	0	75	26	66	270
	Thermal 1{1}	0	51	-51	27	63	-63	70	27
	Thermal 2{1}	0	50	-50	26	61	-61	67	29
	Thermal 3{1}	0	58	-59	27	69	-69	75	35
	Thermal 4{1}	0	47	-48	26	59	-59	66	23
	Thermal 5{1}	0	27	-27	14	33	-33	36	27
	GRT1{1}	0	53	-53	26	64	-64	70	26
	GRT2{1}	0	51	-51	25	62	-62	68	28

DVI_B_LINE_REV0.OUT

GRT3{1}	0	60	-60	26	70	-70	76	34
GRT4{1}	0	49	-49	26	60	-60	66	23
GRT5{1}	0	29	-29	13	33	-34	36	26
M20 N- SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	17	-17	1	17	-17	17	181
Hydrotest{1}	75	26	26	0	75	26	66	270
Thermal 1{1}	0	62	-62	27	72	-72	78	207
Thermal 2{1}	0	53	-53	26	64	-64	70	214
Thermal 3{1}	0	65	-65	27	75	-75	80	217
Thermal 4{1}	0	49	-49	26	61	-61	67	207
Thermal 5{1}	0	26	-26	14	32	-32	35	209
GRT1{1}	0	77	-77	26	86	-86	90	202
GRT2{1}	0	67	-67	25	76	-76	81	206
GRT3{1}	0	79	-79	26	87	-87	92	210
GRT4{1}	0	65	-65	26	74	-74	79	201
GRT5{1}	0	41	-42	13	45	-45	47	198
M20 N+ SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	17	-17	1	17	-17	17	271
Hydrotest{1}	75	26	26	0	75	26	66	270
Thermal 1{1}	0	62	-62	27	72	-72	78	297
Thermal 2{1}	0	53	-53	26	64	-64	70	304
Thermal 3{1}	0	65	-65	27	75	-75	80	307
Thermal 4{1}	0	49	-49	26	61	-61	67	297
Thermal 5{1}	0	26	-26	14	32	-32	35	299
GRT1{1}	0	77	-77	26	86	-86	90	292
GRT2{1}	0	67	-67	25	76	-76	81	296
GRT3{1}	0	79	-79	26	87	-87	92	300
GRT4{1}	0	65	-65	26	74	-74	79	291
GRT5{1}	0	41	-42	13	45	-45	47	288
M20 F- SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	10	-10	7	14	-14	16	88
Hydrotest{1}	75	26	26	0	75	26	66	270
Thermal 1{1}	0	34	-34	43	63	-63	81	335
Thermal 2{1}	0	37	-37	37	60	-60	74	329
Thermal 3{1}	0	44	-45	41	69	-70	85	339
Thermal 4{1}	0	30	-31	37	55	-56	71	321
Thermal 5{1}	0	17	-17	19	29	-29	37	323
GRT1{1}	0	31	-32	50	68	-68	92	353
GRT2{1}	0	33	-34	44	64	-64	84	345
GRT3{1}	0	42	-43	49	74	-74	94	352
GRT4{1}	0	26	-26	44	59	-59	81	341

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DVI_B_LINE_REV0

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
M20 F+	GRT5{1}		0	14	-14	26	34	-34	48	2
	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	10	-10	7	14	-14	16	358
	Hydrotest{1}		75	26	26	0	75	26	66	270
	Thermal 1{1}		0	34	-34	43	63	-63	81	245
	Thermal 2{1}		0	37	-37	37	60	-60	74	239
	Thermal 3{1}		0	44	-45	41	69	-70	85	249
	Thermal 4{1}		0	30	-31	37	55	-56	71	231
	Thermal 5{1}		0	17	-17	19	29	-29	37	233
	GRT1{1}		0	31	-32	50	68	-68	92	263
	GRT2{1}		0	33	-34	44	64	-64	84	255
	GRT3{1}		0	42	-43	49	74	-74	94	262
	GRT4{1}		0	26	-26	44	59	-59	81	251
GRT5{1}		0	14	-14	26	34	-34	48	272	
M26	SIFI= 2.00									
	Gravity{1}	SIFO= 2.00	0	3	-3	7	9	-9	13	190
	Hydrotest{1}		75	26	26	0	75	26	66	270
	Thermal 1{1}		0	111	-112	43	126	-126	134	199
	Thermal 2{1}		0	111	-111	37	122	-122	128	200
	Thermal 3{1}		0	117	-118	41	130	-131	138	203
	Thermal 4{1}		0	107	-108	37	119	-119	126	194
	Thermal 5{1}		0	56	-57	19	62	-63	66	192
	GRT1{1}		0	114	-114	50	133	-133	143	199
	GRT2{1}		0	113	-114	44	129	-129	137	200
	GRT3{1}		0	120	-120	49	137	-138	147	203
	GRT4{1}		0	110	-111	44	126	-126	135	194
	GRT5{1}		0	59	-59	26	69	-69	75	192
M27	SIFI= 2.00									
	Gravity{1}	SIFO= 2.00	0	2	-2	2	4	-4	4	183
	Hydrotest{1}		100	38	38	0	100	38	87	270
	Thermal 1{1}		0	36	-36	12	40	-40	42	195
	Thermal 2{1}		0	35	-36	11	38	-39	40	196
Thermal 3{1}		0	37	-38	12	41	-41	43	198	

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	Thermal 4{1}	0	35	-35	11	38	-38	40	191
	Thermal 5{1}	0	18	-18	6	20	-20	21	189
	GRT1{1}	0	38	-38	15	43	-43	46	195
	GRT2{1}	0	37	-38	13	41	-42	44	195
	GRT3{1}	0	39	-40	14	44	-44	47	197
	GRT4{1}	0	37	-37	13	41	-41	43	191
	GRT5{1}	0	20	-21	8	23	-23	25	188
M28	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	3	-3	2	4	-4	5	181
	Hydrotest{1}	100	38	38	0	100	38	87	270
	Thermal 1{1}	0	22	-22	12	27	-28	31	189
	Thermal 2{1}	0	21	-21	11	25	-26	28	190
	Thermal 3{1}	0	22	-22	12	27	-28	31	190
	Thermal 4{1}	0	21	-21	11	25	-26	28	186
	Thermal 5{1}	0	11	-11	6	13	-13	15	183

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
	GRT1{1}	0	24	-25	15	31	-31	35 188
	GRT2{1}	0	23	-24	13	29	-29	33 189
	GRT3{1}	0	25	-25	14	31	-32	35 189
	GRT4{1}	0	23	-24	13	29	-29	33 185
	GRT5{1}	0	14	-14	8	17	-17	19 183

*** Segment M end ***

*** Segment N begin ***

M10	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	3	-3	2	4	-4	4	282
	Hydrotest{1}	75	26	26	0	75	26	66	270
	Thermal 1{1}	0	43	-46	4	44	-47	47	319
	Thermal 2{1}	0	35	-38	17	43	-45	49	332
	Thermal 3{1}	0	23	-26	12	28	-31	33	2
	Thermal 4{1}	0	48	-53	17	54	-58	61	341
	Thermal 5{1}	0	26	-29	11	30	-33	35	1
	GRT1{1}	0	41	-44	3	41	-44	44	322

		DVI_B_LINE_REV0.OUT							
	GRT2{1}	0	34	-36	16	40	-42	45	336
	GRT3{1}	0	23	-25	10	27	-29	31	9
	GRT4{1}	0	47	-52	15	52	-56	58	344
	GRT5{1}	0	26	-29	10	29	-32	33	7
N14	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	6	-6	2	7	-7	7	185
	Hydrotest{1}	75	26	26	0	75	26	66	270
	Thermal 1{1}	0	29	-32	4	30	-33	33	307
	Thermal 2{1}	0	48	-50	17	53	-56	59	331
	Thermal 3{1}	0	31	-33	12	35	-37	39	328
	Thermal 4{1}	0	52	-56	17	57	-61	64	321
	Thermal 5{1}	0	32	-35	11	36	-38	40	326
	GRT1{1}	0	33	-36	3	33	-36	36	315
	GRT2{1}	0	53	-55	16	57	-60	62	335
	GRT3{1}	0	36	-38	10	38	-41	42	333
	GRT4{1}	0	56	-61	15	60	-65	66	325
	GRT5{1}	0	37	-40	10	39	-42	43	331
N12	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	7	-7	2	7	-7	8	184
	Hydrotest{1}	75	26	26	0	75	26	66	270
	Thermal 1{1}	0	20	-23	4	21	-24	24	301
	Thermal 2{1}	0	61	-64	17	65	-68	70	344
	Thermal 3{1}	0	46	-48	12	49	-51	53	345
	Thermal 4{1}	0	62	-66	17	66	-70	73	337
	Thermal 5{1}	0	46	-50	11	49	-52	53	344
	GRT1{1}	0	24	-27	3	25	-27	28	315
	GRT2{1}	0	68	-70	16	71	-74	75	346
	GRT3{1}	0	52	-55	10	54	-57	58	347
	GRT4{1}	0	68	-73	15	71	-76	77	340
	GRT5{1}	0	53	-56	10	55	-58	59	347

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal		Shear	Principal		Total	
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
N13	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	8	-8	2	8	-8	8	183

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	Hydrotest{1}	75	26	26	0	75	26	66	270
	Thermal 1{1}	0	12	-15	4	13	-16	16	288
	Thermal 2{1}	0	76	-79	17	80	-82	84	351
	Thermal 3{1}	0	63	-65	12	65	-68	69	353
	Thermal 4{1}	0	75	-80	17	79	-83	85	348
	Thermal 5{1}	0	63	-67	11	65	-68	69	353
	GRT1{1}	0	16	-18	3	16	-19	19	315
	GRT2{1}	0	84	-86	16	87	-89	91	352
	GRT3{1}	0	71	-73	10	72	-75	75	354
	GRT4{1}	0	83	-87	15	85	-90	91	350
	GRT5{1}	0	71	-74	10	72	-76	76	354
N01	SIFI= 1.00 Gravity{1}	0	5	-5	2	6	-6	6	358
	Hydrotest{1}	75	26	26	0	75	26	66	270
	Thermal 1{1}	0	16	-19	4	18	-20	21	162
	Thermal 2{1}	0	125	-128	17	128	-131	132	3
	Thermal 3{1}	0	117	-120	12	119	-121	122	4
	Thermal 4{1}	0	124	-129	17	127	-131	132	5
	Thermal 5{1}	0	118	-121	11	119	-123	123	5
	GRT1{1}	0	21	-24	3	22	-24	24	165
	GRT2{1}	0	121	-123	16	123	-125	126	3
	GRT3{1}	0	112	-115	10	113	-116	116	4
	GRT4{1}	0	119	-124	15	121	-126	127	6
	GRT5{1}	0	113	-116	10	114	-117	118	5
N09	SIFI= 1.00 Gravity{1}	0	8	-8	2	9	-9	9	360
	Hydrotest{1}	1	0	0	0	1	0	1	270
	Thermal 1{1}	0	37	-41	5	38	-41	42	136
	Thermal 2{1}	0	134	-137	21	137	-140	142	12
	Thermal 3{1}	0	129	-132	15	130	-133	134	11
	Thermal 4{1}	0	137	-143	21	140	-146	147	19
	Thermal 5{1}	0	131	-135	14	132	-136	137	13
	GRT1{1}	0	44	-47	3	44	-47	47	143
	GRT2{1}	0	125	-129	19	128	-132	133	12
	GRT3{1}	0	120	-124	13	122	-125	126	12
	GRT4{1}	0	129	-135	19	131	-137	139	20
	GRT5{1}	0	122	-127	12	124	-128	128	14
N03	SIFI= 2.00 Gravity{1}	0	5	-5	2	6	-6	6	176
	Hydrotest{1}	1	0	0	0	1	0	1	270
	Thermal 1{1}	0	104	-108	5	105	-108	108	110
	Thermal 2{1}	0	107	-111	21	111	-115	117	65

	DVI_B_LINE_REV0.OUT						
Thermal 3{1}	0	98	-101	15	100	-103	104 61
Thermal 4{1}	0	162	-168	21	165	-171	172 74
Thermal 5{1}	0	113	-117	14	115	-119	120 63
GRT1{1}	0	102	-106	3	103	-106	106 108
GRT2{1}	0	109	-113	19	112	-116	117 62

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(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
N10	GRT3{1}		0	100	-103	13	101	-104	105	58
	GRT4{1}		0	163	-169	19	165	-171	172	72
	GRT5{1}		0	115	-119	12	116	-120	121	61
	SIFI= 2.00	SIFO= 2.00								
	Gravity{1}		0	2	-2	1	3	-3	3	177
	Hydrotest{1}		1	0	0	0	1	0	1	270
	Thermal 1{1}		0	33	-35	2	33	-35	35	107
	Thermal 2{1}		0	31	-33	6	32	-34	35	84
	Thermal 3{1}		0	27	-29	4	28	-30	30	81
	Thermal 4{1}		0	50	-53	6	50	-53	54	86
	Thermal 5{1}		0	32	-35	4	33	-35	35	81
	GRT1{1}		0	32	-34	1	32	-34	34	103
	GRT2{1}		0	31	-33	6	32	-34	35	80
	GRT3{1}		0	28	-29	4	28	-30	30	77
	GRT4{1}		0	50	-53	6	50	-53	54	84
GRT5{1}		0	33	-35	4	33	-35	35	77	
N15 N-	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	2	-2	1	2	-2	2	177
	Hydrotest{1}		1	0	0	0	1	0	1	270
	Thermal 1{1}		0	17	-19	2	17	-19	19	105
	Thermal 2{1}		0	17	-18	6	19	-20	21	103
	Thermal 3{1}		0	14	-16	4	16	-17	18	102
	Thermal 4{1}		0	26	-29	6	27	-30	31	98
	Thermal 5{1}		0	17	-19	4	18	-20	20	99
	GRT1{1}		0	17	-18	1	17	-18	18	99
	GRT2{1}		0	16	-18	6	18	-20	21	98
GRT3{1}		0	14	-16	4	15	-17	17	96	

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GRT4{1}	0	26	-29	6	27	-30	30	95
GRT5{1}	0	17	-19	4	17	-19	20	93
N15 N+ SIFI= 1.52 SIF0= 1.52 Gravity{1}	0	2	-2	1	3	-3	3	87
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	26	-28	2	26	-28	28	15
Thermal 2{1}	0	26	-28	6	27	-29	30	13
Thermal 3{1}	0	22	-24	4	23	-25	25	12
Thermal 4{1}	0	40	-43	6	41	-44	45	8
Thermal 5{1}	0	26	-28	4	27	-29	29	9
GRT1{1}	0	26	-27	1	26	-28	28	9
GRT2{1}	0	25	-27	6	26	-28	29	8
GRT3{1}	0	22	-23	4	22	-24	24	6
GRT4{1}	0	40	-43	6	41	-44	44	5
GRT5{1}	0	26	-28	4	26	-28	28	3
N15 F- SIFI= 1.52 SIF0= 1.52 Gravity{1}	0	1	-1	1	2	-2	2	275
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	21	-22	2	21	-22	22	345
Thermal 2{1}	0	23	-24	5	24	-24	25	331
Thermal 3{1}	0	18	-18	4	19	-19	20	341

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	Thermal 4{1}	0	33	-34	5	34	-35	35	341
	Thermal 5{1}	0	20	-21	4	21	-22	22	345
	GRT1{1}	0	21	-21	1	21	-21	21	349
	GRT2{1}	0	22	-23	4	23	-23	24	334
	GRT3{1}	0	17	-18	3	18	-18	19	345
	GRT4{1}	0	33	-33	4	33	-34	34	343
	GRT5{1}	0	20	-20	3	20	-21	21	349
N15 F+	SIFI= 1.00 Gravity{1}	0	1	-1	1	2	-2	2	5
	Hydrotest{1}	1	0	0	0	1	0	1	270

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Thermal 1{1}	0	14	-14	2	14	-15	15	75
Thermal 2{1}	0	15	-16	5	16	-17	17	61
Thermal 3{1}	0	12	-12	4	13	-13	14	71
Thermal 4{1}	0	22	-22	5	23	-23	24	71
Thermal 5{1}	0	13	-14	4	14	-15	15	75
GRT1{1}	0	14	-14	1	14	-14	14	79
GRT2{1}	0	15	-15	4	15	-16	16	64
GRT3{1}	0	11	-12	3	12	-12	13	75
GRT4{1}	0	21	-22	4	22	-23	23	73
GRT5{1}	0	13	-13	3	14	-14	14	79
N16 N- SIFI= 1.00 SIF0= 1.00								
Gravity{1}	0	1	-1	1	1	-1	2	180
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	37	-37	2	37	-37	37	283
Thermal 2{1}	0	58	-58	5	58	-58	59	218
Thermal 3{1}	0	58	-58	4	58	-58	58	217
Thermal 4{1}	0	77	-77	5	77	-78	78	234
Thermal 5{1}	0	64	-64	4	64	-64	65	223
GRT1{1}	0	37	-37	1	37	-37	37	284
GRT2{1}	0	57	-58	4	57	-58	58	219
GRT3{1}	0	57	-57	3	57	-58	58	217
GRT4{1}	0	77	-77	4	77	-77	77	234
GRT5{1}	0	63	-64	3	64	-64	64	224
N16 N+ SIFI= 1.52 SIF0= 1.52								
Gravity{1}	0	1	-1	1	1	-1	2	270
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	56	-56	2	56	-56	56	13
Thermal 2{1}	0	88	-88	5	88	-89	89	308
Thermal 3{1}	0	88	-88	4	88	-88	88	307
Thermal 4{1}	0	117	-118	5	117	-118	118	324
Thermal 5{1}	0	97	-98	4	97	-98	98	313
GRT1{1}	0	56	-56	1	56	-56	56	14
GRT2{1}	0	87	-88	4	87	-88	88	309
GRT3{1}	0	87	-87	3	87	-88	88	307
GRT4{1}	0	117	-117	4	117	-117	117	324
GRT5{1}	0	97	-97	3	97	-97	97	314
N16 F- SIFI= 1.52 SIF0= 1.52								
Gravity{1}	0	3	-3	0	3	-3	3	270

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	----
	Hydrotest{1}		1	0	0	0	1	0	1	270
	Thermal 1{1}		0	59	-61	4	60	-61	61	352
	Thermal 2{1}		0	59	-61	26	69	-71	76	353
	Thermal 3{1}		0	57	-59	26	68	-69	74	355
	Thermal 4{1}		0	103	-106	26	109	-112	115	356
	Thermal 5{1}		0	73	-74	26	81	-83	87	357
	GRT1{1}		0	59	-61	4	59	-61	61	355
	GRT2{1}		0	59	-61	26	69	-70	75	356
	GRT3{1}		0	57	-59	26	67	-68	74	358
	GRT4{1}		0	103	-105	26	109	-111	115	358
	GRT5{1}		0	72	-74	26	81	-83	87	359
N16 F+	SIFI= 1.00 Gravity{1}		0	2	-2	0	2	-2	2	180
	Hydrotest{1}		1	0	0	0	1	0	1	270
	Thermal 1{1}		0	39	-40	4	39	-41	41	262
	Thermal 2{1}		0	39	-40	26	52	-53	61	263
	Thermal 3{1}		0	37	-39	26	51	-52	60	265
	Thermal 4{1}		0	67	-70	26	76	-79	83	266
	Thermal 5{1}		0	47	-49	26	59	-61	67	267
	GRT1{1}		0	39	-40	4	39	-41	41	265
	GRT2{1}		0	39	-40	26	51	-53	60	266
	GRT3{1}		0	37	-39	26	51	-52	59	268
	GRT4{1}		0	67	-70	26	76	-78	83	268
GRT5{1}		0	47	-49	26	59	-60	67	269	
N19	SIFI= 1.00 Gravity{1}		0	1	-1	0	1	-1	1	177
	Hydrotest{1}		1	0	0	0	1	0	1	270
	Thermal 1{1}		0	31	-32	4	31	-33	33	264
	Thermal 2{1}		0	39	-41	26	52	-53	61	233
	Thermal 3{1}		0	37	-39	26	51	-52	60	235
	Thermal 4{1}		0	59	-62	26	69	-72	77	247
	Thermal 5{1}		0	44	-46	26	57	-58	65	242
	GRT1{1}		0	31	-32	4	31	-33	33	266
	GRT2{1}		0	38	-40	26	51	-53	60	234
	GRT3{1}		0	37	-38	26	50	-51	59	237
	GRT4{1}		0	59	-62	26	69	-71	76	248

		DVI_B_LINE_REV0.OUT						
GRT5{1}		0	44	-46	26	56	-58	64 244
N18 N- SIFI= 1.00 SIFO= 1.00 Gravity{1}		0	0	0	0	1	-1	1 44
Hydrotest{1}		1	0	0	0	1	0	1 270
Thermal 1{1}		0	22	-24	4	23	-24	25 266
Thermal 2{1}		0	51	-52	26	62	-63	69 207
Thermal 3{1}		0	48	-49	26	59	-61	67 209
Thermal 4{1}		0	61	-64	26	71	-73	78 223
Thermal 5{1}		0	51	-53	26	62	-64	70 217
GRT1{1}		0	22	-24	4	23	-25	25 266
GRT2{1}		0	51	-52	26	62	-63	69 207
GRT3{1}		0	48	-49	26	59	-61	67 209
GRT4{1}		0	61	-64	26	70	-73	78 223

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total		
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc	
-----	-----		-----	-----	-----	-----	-----	-----	-----	---	
N18 N+	SIFI= 1.52 Gravity{1}		SIFO= 1.52	0	51	-53	26	62	-64	70	217
	Hydrotest{1}			0	0	0	0	1	-1	1	134
	Thermal 1{1}			1	0	0	0	1	0	1	270
	Thermal 2{1}			0	34	-36	4	34	-36	36	356
	Thermal 3{1}			0	78	-79	26	86	-87	91	297
	Thermal 4{1}			0	73	-75	26	82	-83	87	299
	Thermal 5{1}			0	93	-96	26	100	-103	106	313
	GRT1{1}			0	78	-80	26	86	-88	92	307
	GRT2{1}			0	34	-36	4	35	-36	37	356
	GRT3{1}			0	78	-79	26	86	-87	91	297
	GRT4{1}			0	73	-75	26	82	-83	87	299
	GRT5{1}			0	94	-96	26	100	-103	106	313
	GRT5{1}			0	78	-80	26	86	-88	92	307
N18 F-	SIFI= 1.52 Gravity{1}		SIFO= 1.52	0	2	-2	0	2	-2	2	275
	Hydrotest{1}			1	0	0	0	1	0	1	270
	Thermal 1{1}			0	29	-29	0	29	-29	29	156
	Thermal 2{1}			0	62	-62	30	74	-74	81	245

Thermal 3{1}	0	65	-64	28	75	-75	81	244
Thermal 4{1}	0	76	-75	30	86	-85	92	228
Thermal 5{1}	0	70	-70	28	80	-79	85	237
GRT1{1}	0	30	-30	0	30	-30	30	153
GRT2{1}	0	61	-60	30	73	-73	80	244
GRT3{1}	0	63	-63	28	74	-74	80	243
GRT4{1}	0	74	-74	30	85	-84	91	227
GRT5{1}	0	68	-68	28	78	-78	84	236

Gravity{1}	0	1	-1	0	1	-1	1	185
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	19	-19	0	19	-19	19	66
Thermal 2{1}	0	41	-41	30	57	-57	66	155
Thermal 3{1}	0	43	-42	28	57	-56	65	154
Thermal 4{1}	0	50	-49	30	64	-63	72	138
Thermal 5{1}	0	46	-46	28	59	-59	67	147
GRT1{1}	0	20	-19	0	20	-19	20	63
GRT2{1}	0	40	-40	30	56	-56	66	154
GRT3{1}	0	42	-41	28	56	-56	64	153
GRT4{1}	0	49	-48	30	63	-63	71	137
GRT5{1}	0	45	-45	28	58	-58	66	146

Gravity{1}	0	8	-8	0	8	-8	8	181
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	36	-36	0	36	-36	36	274
Thermal 2{1}	0	41	-41	30	57	-57	66	300
Thermal 3{1}	0	35	-35	28	51	-50	60	298
Thermal 4{1}	0	61	-60	30	73	-73	80	289
Thermal 5{1}	0	40	-40	28	54	-54	63	293

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(Stress in N/mm²)

Point	Load	Hoop	Longitudinal		Shear	Principal		Total	
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	GRT1{1}	0	38	-37	0	38	-37	38	286
	GRT2{1}	0	46	-45	30	61	-60	69	309

			DVI_B_LINE_REV0.OUT							
GRT3{1}			0	39	-39	28	54	-54	63	308
GRT4{1}			0	64	-63	30	76	-75	82	296
GRT5{1}			0	44	-43	28	57	-57	65	303
N17 N+	SIFI= 1.52 Gravity{1}	SIFO= 1.52	0	12	-12	0	12	-12	12	91
	Hydrotest{1}		1	0	0	0	1	0	1	270
	Thermal 1{1}		0	55	-55	0	55	-55	55	184
	Thermal 2{1}		0	63	-62	30	75	-74	81	210
	Thermal 3{1}		0	53	-53	28	65	-65	72	208
	Thermal 4{1}		0	92	-92	30	101	-101	106	199
	Thermal 5{1}		0	61	-61	28	72	-72	78	203
	GRT1{1}		0	57	-57	0	57	-57	57	196
	GRT2{1}		0	69	-69	30	81	-80	87	219
	GRT3{1}		0	60	-59	28	71	-71	77	218
	GRT4{1}		0	97	-96	30	105	-105	110	206
	GRT5{1}		0	67	-66	28	77	-76	82	213
	N17 F-	SIFI= 1.52 Gravity{1}	SIFO= 1.52	0	7	-7	4	9	-9	10
Hydrotest{1}			1	0	0	0	1	0	1	270
Thermal 1{1}			0	62	-63	1	62	-63	63	1
Thermal 2{1}			0	118	-119	5	118	-119	119	59
Thermal 3{1}			0	106	-108	6	107	-108	108	60
Thermal 4{1}			0	140	-142	5	140	-142	143	46
Thermal 5{1}			0	111	-113	6	111	-113	113	55
GRT1{1}			0	62	-63	5	62	-63	64	7
GRT2{1}			0	124	-125	1	124	-125	125	61
GRT3{1}			0	113	-114	2	113	-114	114	62
GRT4{1}			0	145	-147	1	145	-147	147	48
GRT5{1}			0	117	-118	2	117	-118	119	57
N17 F+		SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	5	-5	4	7	-7	8
	Hydrotest{1}		1	0	0	0	1	0	1	270
	Thermal 1{1}		0	40	-42	1	40	-42	42	91
	Thermal 2{1}		0	77	-78	5	77	-79	79	149
	Thermal 3{1}		0	70	-71	6	70	-71	72	150
	Thermal 4{1}		0	92	-94	5	92	-94	94	136
	Thermal 5{1}		0	73	-74	6	73	-75	75	145
	GRT1{1}		0	40	-42	5	41	-42	42	97
	GRT2{1}		0	81	-83	1	81	-83	83	151
	GRT3{1}		0	74	-75	2	74	-75	75	152
	GRT4{1}		0	95	-97	1	95	-97	97	138
	GRT5{1}		0	76	-78	2	77	-78	78	147

N06 SIFI= 2.00 SIFO= 2.00 DVI_B_LINE_REV0.OUT

Gravity{1}	0	16	-16	4	17	-17	17	2
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	105	-106	1	105	-106	106	89

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DVI_B_LINE_REV0

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RESULT PAGE 296

G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
-----	-----	-----	-----	-----	-----	-----	-----	---
	Thermal 2{1}	0	199	-200	5	199	-200	200 148
	Thermal 3{1}	0	181	-182	6	181	-182	183 150
	Thermal 4{1}	0	238	-240	5	238	-240	240 135
	Thermal 5{1}	0	190	-191	6	190	-191	191 145
	GRT1{1}	0	105	-107	5	106	-107	107 97
	GRT2{1}	0	212	-214	1	212	-214	214 151
	GRT3{1}	0	195	-196	2	195	-196	196 152
	GRT4{1}	0	249	-252	1	249	-252	252 138
	GRT5{1}	0	203	-204	2	203	-204	204 147
N20	SIFI= 2.00 SIFO= 2.00							
	Gravity{1}	0	4	-4	1	5	-5	5 2
	Hydrotest{1}	1	0	0	0	1	0	1 270
	Thermal 1{1}	0	26	-26	0	26	-26	26 88
	Thermal 2{1}	0	49	-49	1	49	-49	49 148
	Thermal 3{1}	0	44	-45	1	45	-45	45 150
	Thermal 4{1}	0	58	-59	1	58	-59	59 135
	Thermal 5{1}	0	47	-47	1	47	-47	47 144
	GRT1{1}	0	26	-26	1	26	-26	26 98
	GRT2{1}	0	52	-53	0	52	-53	53 151
	GRT3{1}	0	48	-49	0	48	-49	49 152
	GRT4{1}	0	61	-62	0	61	-62	62 138
	GRT5{1}	0	50	-51	1	50	-51	51 147
N08	SIFI= 1.20 SIFO= 1.20							
	Gravity{1}	0	5	-5	1	5	-5	5 1
	Hydrotest{1}	1	0	0	0	1	0	1 270
	Thermal 1{1}	0	21	-22	0	21	-22	22 86
	Thermal 2{1}	0	40	-40	1	40	-40	40 148
	Thermal 3{1}	0	37	-37	1	37	-37	37 149

DVI_B_LINE_REV0.OUT								
Thermal 4{1}	0	48	-49	1	48	-49	49	134
Thermal 5{1}	0	39	-39	1	39	-39	39	144
GRT1{1}	0	21	-22	1	22	-22	22	100
GRT2{1}	0	44	-45	0	44	-45	45	152
GRT3{1}	0	41	-42	0	41	-42	42	153
GRT4{1}	0	52	-53	0	52	-53	53	139
GRT5{1}	0	43	-43	1	43	-43	43	148

*** Segment N end ***

*** Segment 0 begin ***

M13	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	4	-4	2	4	-4	5	100
	Hydrotest{1}		75	26	26	0	75	26	66	270
	Thermal 1{1}		0	9	-10	14	19	-19	25	102
	Thermal 2{1}		0	18	-19	12	25	-25	29	101
	Thermal 3{1}		0	20	-21	15	28	-29	34	145
	Thermal 4{1}		0	21	-23	13	26	-29	32	122
	Thermal 5{1}		0	21	-23	21	34	-35	43	140
	GRT1{1}		0	12	-14	15	22	-23	29	102
	GRT2{1}		0	22	-23	11	27	-28	30	101

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DVI_B_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	----
015		GRT3{1}	0	22	-24	14	29	-30	34	139
		GRT4{1}	0	24	-27	11	28	-31	33	119
		GRT5{1}	0	24	-26	19	35	-36	42	135
	SIFI= 1.00	SIFO= 1.00								
		Gravity{1}	0	5	-5	2	5	-5	5	6
		Hydrotest{1}	75	26	26	0	75	26	66	270
		Thermal 1{1}	0	6	-7	14	17	-17	24	219
		Thermal 2{1}	0	13	-14	12	20	-21	26	348
		Thermal 3{1}	0	17	-19	15	26	-27	33	21
		Thermal 4{1}	0	12	-15	13	20	-22	26	344
	Thermal 5{1}	0	14	-16	21	29	-30	40	10	
	GRT1{1}	0	3	-4	15	17	-17	26	265	
	GRT2{1}	0	17	-18	11	22	-23	26	353	

GRT3{1}	0	22	-23	14	29	-30	33	18
GRT4{1}	0	16	-19	11	22	-24	27	350
GRT5{1}	0	18	-21	19	31	-32	40	9

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DVI_B_LINE_REV0.OUT
(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
010	Thermal 4{1}		0	104	-106	13	105	-108	108	335
	Thermal 5{1}		0	95	-97	21	100	-102	104	339
	GRT1{1}		0	19	-20	15	27	-28	33	276
	GRT2{1}		0	93	-94	11	94	-96	96	348
	GRT3{1}		0	89	-91	14	92	-93	94	347
	GRT4{1}		0	100	-103	11	101	-104	104	334
	GRT5{1}		0	92	-94	19	96	-98	100	338
	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	5	-5	2	5	-5	6	184
	Hydrotest{1}		1	0	0	0	1	0	1	270
	Thermal 1{1}		0	38	-40	16	44	-46	49	290
	Thermal 2{1}		0	119	-121	15	121	-123	124	342
	Thermal 3{1}		0	115	-117	19	118	-120	122	336
	Thermal 4{1}		0	141	-144	15	143	-146	147	323
	Thermal 5{1}		0	125	-128	25	130	-132	135	325
GRT1{1}		0	37	-39	18	45	-46	50	283	
GRT2{1}		0	115	-116	13	116	-118	119	341	
GRT3{1}		0	111	-113	17	114	-115	117	335	
GRT4{1}		0	137	-141	13	139	-142	143	322	
GRT5{1}		0	121	-124	24	126	-128	130	324	
003	SIFI= 2.00 Gravity{1}	SIFO= 2.00	0	1	-1	2	2	-2	3	246
	Hydrotest{1}		1	0	0	0	1	0	1	270
	Thermal 1{1}		0	85	-86	16	88	-89	91	289
	Thermal 2{1}		0	204	-205	15	205	-206	207	336
	Thermal 3{1}		0	201	-203	19	203	-205	205	328
	Thermal 4{1}		0	265	-269	15	266	-269	270	314
	Thermal 5{1}		0	230	-233	25	233	-235	237	315
	GRT1{1}		0	86	-87	18	89	-91	93	289
	GRT2{1}		0	204	-205	13	205	-206	207	336
	GRT3{1}		0	201	-203	17	203	-204	205	328
	GRT4{1}		0	266	-269	13	266	-270	270	314
	GRT5{1}		0	230	-233	24	233	-235	236	315
011	SIFI= 2.00 Gravity{1}	SIFO= 2.00	0	2	-2	1	2	-2	2	350
	Hydrotest{1}		1	0	0	0	1	0	1	270
	Thermal 1{1}		0	27	-28	5	28	-28	29	289
	Thermal 2{1}		0	55	-55	5	55	-56	56	331
	Thermal 3{1}		0	55	-56	6	56	-57	57	322

DVI_B_LINE_REV0.OUT

Thermal 4{1}	0	77	-79	5	77	-79	79	308
Thermal 5{1}	0	66	-67	8	67	-68	69	308
GRT1{1}	0	28	-28	5	29	-29	30	292
GRT2{1}	0	56	-57	4	56	-57	57	332
GRT3{1}	0	57	-58	5	57	-58	58	322
GRT4{1}	0	78	-80	4	78	-80	80	309
GRT5{1}	0	67	-69	7	68	-69	70	309

005 N- SIFI= 1.00 SIFO= 1.00
Gravity{1}

0	3	-3	1	3	-3	3	356

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DVI_B_LINE_REV0

09/13/2010 DVI BLINE

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	Hydrotest{1}	1	0	0	0	1	0	1	270
	Thermal 1{1}	0	15	-16	5	17	-17	18	288
	Thermal 2{1}	0	20	-21	5	21	-22	22	311
	Thermal 3{1}	0	23	-24	6	24	-25	26	298
	Thermal 4{1}	0	37	-39	5	38	-39	40	290
	Thermal 5{1}	0	32	-33	8	33	-35	35	287
	GRT1{1}	0	17	-17	5	18	-19	20	298
	GRT2{1}	0	22	-23	4	23	-23	24	316
	GRT3{1}	0	25	-25	5	26	-26	27	304
	GRT4{1}	0	38	-40	4	39	-41	41	294
	GRT5{1}	0	33	-34	7	34	-36	36	292
005 N+	SIFI= 1.52 Gravity{1}								
	Hydrotest{1}	0	4	-4	1	5	-5	5	86
	Thermal 1{1}	1	0	0	0	1	0	1	270
	Thermal 2{1}	0	24	-24	5	25	-25	26	18
	Thermal 3{1}	0	30	-31	5	31	-32	32	41
	Thermal 4{1}	0	35	-36	6	36	-37	37	28
	Thermal 5{1}	0	57	-59	5	57	-59	59	20
	GRT1{1}	0	48	-50	8	50	-51	51	17
	GRT2{1}	0	26	-26	5	27	-27	28	28
	GRT3{1}	0	34	-35	4	34	-35	35	46
	GRT4{1}	0	38	-39	5	38	-39	40	34

DVI_B_LINE_REV0.OUT									
GRT4{1}	0	59	-61	4	59	-61	61	24	
GRT5{1}	0	50	-52	7	51	-53	53	22	
005 F- SIFI= 1.52 SIF0= 1.52									
Gravity{1}	0	3	-3	1	4	-4	4	84	
Hydrotest{1}	1	0	0	0	1	0	1	270	
Thermal 1{1}	0	23	-23	5	24	-24	25	350	
Thermal 2{1}	0	31	-31	1	31	-31	31	41	
Thermal 3{1}	0	37	-38	1	37	-38	38	32	
Thermal 4{1}	0	57	-59	0	57	-59	59	20	
Thermal 5{1}	0	51	-53	3	52	-53	53	25	
GRT1{1}	0	23	-23	7	24	-25	26	357	
GRT2{1}	0	33	-34	2	33	-34	34	44	
GRT3{1}	0	39	-40	0	39	-40	40	36	
GRT4{1}	0	59	-60	2	59	-60	60	23	
GRT5{1}	0	53	-54	2	53	-55	55	28	
005 F+ SIFI= 1.00 SIF0= 1.00									
Gravity{1}	0	2	-2	1	3	-3	3	354	
Hydrotest{1}	1	0	0	0	1	0	1	270	
Thermal 1{1}	0	15	-15	5	16	-17	18	260	
Thermal 2{1}	0	20	-21	1	20	-21	21	311	
Thermal 3{1}	0	24	-25	1	24	-25	25	302	
Thermal 4{1}	0	37	-39	0	37	-39	39	290	
Thermal 5{1}	0	34	-35	3	34	-35	35	295	
GRT1{1}	0	15	-15	7	17	-18	19	267	
GRT2{1}	0	21	-22	2	22	-22	22	314	
GRT3{1}	0	25	-26	0	25	-26	26	306	
GRT4{1}	0	38	-40	2	38	-40	40	293	

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DVI_B_LINE_REV0

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
								Loc
GRT5{1}		0	35	-36	2	35	-36	36
								298
016 N- SIFI= 1.00 SIF0= 1.00								
Gravity{1}		0	4	-4	1	4	-4	4
								357
Hydrotest{1}		1	0	0	0	1	0	1
								270
Thermal 1{1}		0	13	-13	5	15	-15	16
								260

DVI_B_LINE_REV0.OUT

Thermal 2{1}	0	13	-14	1	13	-14	14	283
Thermal 3{1}	0	18	-19	1	18	-19	19	279
Thermal 4{1}	0	31	-32	0	31	-32	32	276
Thermal 5{1}	0	27	-29	3	28	-29	29	279
GRT1{1}	0	13	-13	7	16	-16	18	276
GRT2{1}	0	15	-15	2	15	-16	16	296
GRT3{1}	0	19	-20	0	19	-20	20	289
GRT4{1}	0	31	-33	2	32	-33	33	282
GRT5{1}	0	28	-30	2	28	-30	30	286
016 N+ SIFI= 1.52 SIF0= 1.52								
Gravity{1}	0	5	-5	1	6	-6	6	87
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	19	-20	5	21	-21	22	350
Thermal 2{1}	0	20	-21	1	20	-21	21	13
Thermal 3{1}	0	28	-29	1	28	-29	29	9
Thermal 4{1}	0	47	-49	0	47	-49	49	6
Thermal 5{1}	0	42	-43	3	42	-43	44	9
GRT1{1}	0	19	-20	7	22	-22	23	6
GRT2{1}	0	23	-23	2	23	-23	24	26
GRT3{1}	0	30	-31	0	30	-31	31	19
GRT4{1}	0	48	-50	2	48	-50	50	12
GRT5{1}	0	43	-45	2	43	-45	45	16
016 F- SIFI= 1.52 SIF0= 1.52								
Gravity{1}	0	4	-4	2	5	-5	5	274
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	22	-22	1	22	-22	22	134
Thermal 2{1}	0	18	-17	0	18	-17	18	155
Thermal 3{1}	0	23	-23	0	23	-23	23	173
Thermal 4{1}	0	39	-39	0	39	-39	39	169
Thermal 5{1}	0	34	-34	0	34	-34	34	185
GRT1{1}	0	25	-25	1	25	-25	25	128
GRT2{1}	0	20	-20	1	20	-20	20	145
GRT3{1}	0	24	-24	2	25	-24	25	164
GRT4{1}	0	40	-40	2	41	-40	41	164
GRT5{1}	0	35	-34	2	35	-34	35	178
016 F+ SIFI= 1.00 SIF0= 1.00								
Gravity{1}	0	3	-3	2	4	-4	4	184
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	15	-14	1	15	-14	15	44
Thermal 2{1}	0	12	-11	0	12	-11	12	65
Thermal 3{1}	0	15	-15	0	15	-15	15	83
Thermal 4{1}	0	26	-25	0	26	-25	26	79

Thermal 5{1} DVI_B_LINE_REV0.OUT 0 23 -22 0 23 -22 23 95

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DVI_B_LINE_REV0

09/13/2010 DVI.BLINE

BENTLEY

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
								Loc
	GRT1{1}	0	17	-16	1	17	-16	17 38
	GRT2{1}	0	13	-13	1	13	-13	13 55
	GRT3{1}	0	16	-16	2	16	-16	16 74
	GRT4{1}	0	27	-26	2	27	-26	27 74
	GRT5{1}	0	23	-22	2	23	-23	23 88
017 N-	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	1	-1	2	3	-3	4 8
	Hydrotest{1}	1	0	0	0	1	0	1 270
	Thermal 1{1}	0	16	-16	1	16	-16	16 301
	Thermal 2{1}	0	55	-54	0	55	-54	55 345
	Thermal 3{1}	0	52	-52	0	52	-52	52 340
	Thermal 4{1}	0	61	-60	0	61	-60	61 330
	Thermal 5{1}	0	53	-53	0	53	-53	53 332
	GRT1{1}	0	16	-15	1	16	-15	16 297
	GRT2{1}	0	53	-53	1	53	-53	54 345
	GRT3{1}	0	51	-51	2	51	-51	51 340
	GRT4{1}	0	60	-59	2	60	-59	60 330
	GRT5{1}	0	52	-52	2	52	-52	52 331
017 N+	SIFI= 1.52 SIFO= 1.52 Gravity{1}	0	2	-2	2	3	-3	4 278
	Hydrotest{1}	1	0	0	0	1	0	1 270
	Thermal 1{1}	0	24	-24	1	24	-24	24 211
	Thermal 2{1}	0	83	-83	0	83	-83	83 255
	Thermal 3{1}	0	80	-79	0	80	-79	80 250
	Thermal 4{1}	0	92	-92	0	92	-92	92 240
	Thermal 5{1}	0	81	-80	0	81	-80	81 242
	GRT1{1}	0	24	-23	1	24	-23	24 207
	GRT2{1}	0	81	-81	1	81	-81	81 255
	GRT3{1}	0	78	-78	2	78	-78	78 250
	GRT4{1}	0	91	-90	2	91	-90	91 240
	GRT5{1}	0	79	-79	2	79	-79	79 241

DVI_B_LINE_REV0.OUT

017 F- SIFI= 1.52 SIF0= 1.52

Gravity{1}	0	6	-6	1	6	-6	6	273
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	25	-25	4	25	-26	26	7
Thermal 2{1}	0	25	-26	28	44	-44	55	5
Thermal 3{1}	0	32	-33	27	47	-48	56	5
Thermal 4{1}	0	54	-56	28	66	-68	74	3
Thermal 5{1}	0	45	-47	25	57	-58	64	1
GRT1{1}	0	25	-26	3	25	-26	26	353
GRT2{1}	0	26	-26	28	43	-44	54	352
GRT3{1}	0	32	-33	26	46	-47	56	354
GRT4{1}	0	55	-56	27	66	-67	74	356
GRT5{1}	0	46	-47	25	56	-58	64	354

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017 F+ SIFI= 1.00    SIF0= 1.00
```

Gravity{1}	0	4	-4	1	4	-4	4	3
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	16	-17	4	17	-18	18	97

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DVI_B_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm²)

Point	Load	Hoop	Longitudinal		Shear	Principal		Total	
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
	Thermal 2{1}	0	16	-17	28	38	-38	52	95
	Thermal 3{1}	0	21	-22	27	39	-40	51	95
	Thermal 4{1}	0	35	-37	28	51	-52	61	93
	Thermal 5{1}	0	29	-31	25	44	-45	54	91
	GRT1{1}	0	16	-17	3	17	-18	18	83
	GRT2{1}	0	17	-17	28	37	-38	51	82
	GRT3{1}	0	21	-22	26	38	-39	50	84
	GRT4{1}	0	36	-37	27	50	-52	60	86
	GRT5{1}	0	30	-31	25	44	-45	53	84

018 N- SIFI= 1.00 SIF0= 1.00

Gravity{1}	0	3	-3	1	3	-3	3	3
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	22	-23	4	23	-24	24	92
Thermal 2{1}	0	40	-41	28	55	-55	64	145

		DVI_B_LINE_REV0.OUT						
Thermal 3{1}	0	43	-44	27	56	-56	64	140
Thermal 4{1}	0	59	-61	28	70	-72	78	124
Thermal 5{1}	0	52	-53	25	62	-63	69	129
GRT1{1}	0	23	-23	3	23	-24	24	84
GRT2{1}	0	38	-39	28	52	-53	61	142
GRT3{1}	0	41	-42	26	53	-54	61	137
GRT4{1}	0	58	-59	27	69	-70	76	121
GRT5{1}	0	50	-51	25	60	-61	67	126
018 N+ SIFI= 1.52 SIF0= 1.52								
Gravity{1}	0	5	-5	1	5	-5	5	273
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	34	-35	4	35	-36	36	2
Thermal 2{1}	0	62	-62	28	73	-73	79	55
Thermal 3{1}	0	65	-66	27	75	-76	81	50
Thermal 4{1}	0	90	-92	28	98	-100	104	34
Thermal 5{1}	0	79	-80	25	86	-88	91	39
GRT1{1}	0	35	-36	3	35	-36	36	354
GRT2{1}	0	58	-59	28	69	-70	76	52
GRT3{1}	0	62	-63	26	72	-72	77	47
GRT4{1}	0	88	-90	27	96	-98	102	31
GRT5{1}	0	76	-78	25	84	-85	89	36
018 F- SIFI= 1.52 SIF0= 1.52								
Gravity{1}	0	2	-2	1	3	-3	3	265
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	35	-36	0	35	-36	36	339
Thermal 2{1}	0	84	-84	20	89	-89	91	294
Thermal 3{1}	0	82	-82	20	87	-87	89	299
Thermal 4{1}	0	105	-106	20	109	-109	111	313
Thermal 5{1}	0	89	-90	20	93	-94	96	310
GRT1{1}	0	35	-35	1	35	-35	35	343
GRT2{1}	0	82	-82	19	86	-86	88	294
GRT3{1}	0	80	-80	19	84	-85	87	300
GRT4{1}	0	103	-104	19	107	-107	109	314
GRT5{1}	0	88	-88	18	91	-92	94	312

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DVI_B_LINE_REV0

09/13/2010 DVI BLINE

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point name	Load combination	Hoop Stress	DVI_B_LINE_REV0.0UT Longitudinal		Shear Stress	Principal		Total	
			Max	Min		Max	Min	Stress	Loc
018 F+	SIFI= 1.00 Gravity{1}	0	2	-2	1	2	-2	3	355
	Hydrotest{1}	1	0	0	0	1	0	1	270
	Thermal 1{1}	0	23	-23	0	23	-24	24	69
	Thermal 2{1}	0	55	-55	20	62	-62	65	24
	Thermal 3{1}	0	54	-54	20	60	-61	64	29
	Thermal 4{1}	0	69	-69	20	74	-75	78	43
	Thermal 5{1}	0	59	-59	20	65	-65	68	40
	GRT1{1}	0	23	-23	1	23	-23	23	73
	GRT2{1}	0	54	-54	19	60	-60	63	24
	GRT3{1}	0	53	-53	19	58	-59	62	30
	GRT4{1}	0	68	-68	19	73	-73	76	44
	GRT5{1}	0	57	-58	18	63	-63	66	42
019 N-	SIFI= 1.00 Gravity{1}	0	8	-8	1	9	-9	9	1
	Hydrotest{1}	1	0	0	0	1	0	1	270
	Thermal 1{1}	0	11	-11	0	11	-11	11	349
	Thermal 2{1}	0	3	-4	20	22	-22	35	310
	Thermal 3{1}	0	7	-8	20	24	-24	35	263
	Thermal 4{1}	0	9	-9	20	25	-25	36	283
	Thermal 5{1}	0	11	-11	20	26	-26	36	244
	GRT1{1}	0	3	-3	1	3	-4	4	313
	GRT2{1}	0	7	-7	19	22	-22	33	205
	GRT3{1}	0	12	-12	19	25	-26	34	219
	GRT4{1}	0	11	-11	19	25	-25	34	235
	GRT5{1}	0	16	-17	18	28	-29	36	218
019 N+	SIFI= 1.52 Gravity{1}	0	13	-13	1	13	-13	13	91
	Hydrotest{1}	1	0	0	0	1	0	1	270
	Thermal 1{1}	0	16	-16	0	16	-16	16	79
	Thermal 2{1}	0	5	-5	20	23	-23	35	40
	Thermal 3{1}	0	11	-11	20	26	-26	36	353
	Thermal 4{1}	0	13	-14	20	28	-28	38	13
	Thermal 5{1}	0	17	-17	20	30	-30	38	334
	GRT1{1}	0	5	-5	1	5	-5	5	43
	GRT2{1}	0	10	-11	19	24	-25	34	295
	GRT3{1}	0	18	-18	19	30	-30	37	309
	GRT4{1}	0	16	-17	19	29	-29	37	325
	GRT5{1}	0	25	-26	18	35	-35	41	308
019 F-	SIFI= 1.52 Gravity{1}	0	13	-13	1	13	-13	13	91
	Hydrotest{1}	1	0	0	0	1	0	1	270
	Thermal 1{1}	0	16	-16	0	16	-16	16	79
	Thermal 2{1}	0	5	-5	20	23	-23	35	40
	Thermal 3{1}	0	11	-11	20	26	-26	36	353
	Thermal 4{1}	0	13	-14	20	28	-28	38	13
	Thermal 5{1}	0	17	-17	20	30	-30	38	334
	GRT1{1}	0	5	-5	1	5	-5	5	43
	GRT2{1}	0	10	-11	19	24	-25	34	295
	GRT3{1}	0	18	-18	19	30	-30	37	309
	GRT4{1}	0	16	-17	19	29	-29	37	325
	GRT5{1}	0	25	-26	18	35	-35	41	308

	DVI_B_LINE_REV0.OUT							
Gravity{1}	0	2	-2	5	6	-6	8	81
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	4	-5	5	8	-8	11	357
Thermal 2{1}	0	66	-67	1	66	-67	67	275
Thermal 3{1}	0	67	-68	1	67	-68	68	282
Thermal 4{1}	0	68	-70	0	68	-70	70	285
Thermal 5{1}	0	68	-70	3	68	-70	70	286
GRT1{1}	0	5	-6	1	5	-6	6	22
GRT2{1}	0	64	-65	4	64	-65	65	275

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DVI_B_LINE_REV0

09/13/2010 DVI BLINE

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
-----	-----	-----	-----	-----	-----	-----	-----	---
	GRT3{1}	0	65	-66	6	66	-67	67 282
	GRT4{1}	0	66	-67	4	66	-68	68 285
	GRT5{1}	0	66	-68	8	67	-68	69 287
019 F+	SIFI= 1.00 SIFO= 1.00							
	Gravity{1}	0	2	-2	5	5	-5	8 351
	Hydrotest{1}	1	0	0	0	1	0	1 270
	Thermal 1{1}	0	3	-3	5	7	-7	10 267
	Thermal 2{1}	0	43	-44	1	43	-44	44 185
	Thermal 3{1}	0	44	-45	1	44	-45	45 192
	Thermal 4{1}	0	44	-46	0	44	-46	46 195
	Thermal 5{1}	0	45	-46	3	45	-46	46 196
	GRT1{1}	0	3	-4	1	3	-4	4 292
	GRT2{1}	0	42	-43	4	42	-43	43 185
	GRT3{1}	0	43	-44	6	43	-44	45 192
	GRT4{1}	0	43	-45	4	43	-45	45 195
	GRT5{1}	0	43	-45	8	44	-46	47 197
006	SIFI= 2.00 SIFO= 2.00							
	Gravity{1}	0	15	-15	5	16	-17	17 182
	Hydrotest{1}	1	0	0	0	1	0	1 270
	Thermal 1{1}	0	9	-9	5	11	-12	13 71
	Thermal 2{1}	0	159	-159	1	159	-159	159 177
	Thermal 3{1}	0	158	-159	1	158	-159	159 181
	Thermal 4{1}	0	158	-160	0	158	-160	160 177

DVI_B_LINE_REV0.OUT

	Thermal 5{1}	0	159	-161	3	160	-161	161	181
	GRT1{1}	0	14	-15	1	14	-15	15	147
	GRT2{1}	0	174	-175	4	174	-175	175	178
	GRT3{1}	0	173	-174	6	173	-174	174	181
	GRT4{1}	0	173	-175	4	173	-175	175	178
	GRT5{1}	0	175	-176	8	175	-176	177	181
012	SIFI= 2.00 SIF0= 2.00 Gravity{1}	0	4	-4	1	5	-5	5	182
	Hydrotest{1}	1	0	0	0	1	0	1	270
	Thermal 1{1}	0	2	-3	1	3	-3	3	73
	Thermal 2{1}	0	38	-38	0	38	-38	38	177
	Thermal 3{1}	0	38	-38	0	38	-38	38	180
	Thermal 4{1}	0	38	-39	0	38	-39	39	175
	Thermal 5{1}	0	38	-39	1	38	-39	39	179
	GRT1{1}	0	4	-4	0	4	-4	4	146
	GRT2{1}	0	42	-43	1	42	-43	43	177
	GRT3{1}	0	42	-42	1	42	-43	43	180
	GRT4{1}	0	42	-43	1	42	-43	43	176
	GRT5{1}	0	43	-43	2	43	-43	43	179
008 N-	SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	3	-3	1	3	-3	3	181
	Hydrotest{1}	1	0	0	0	1	0	1	270
	Thermal 1{1}	0	2	-2	1	2	-2	3	74
	Thermal 2{1}	0	21	-21	0	21	-21	21	176
	Thermal 3{1}	0	21	-21	0	21	-21	21	179

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DVI_B_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
								Loc
Thermal 4{1}		0	21	-21	0	21	-21	21 174
Thermal 5{1}		0	21	-21	1	21	-21	21 178
GRT1{1}		0	3	-3	0	3	-3	3 146
GRT2{1}		0	23	-24	1	23	-24	24 177
GRT3{1}		0	23	-24	1	23	-24	24 179
GRT4{1}		0	23	-24	1	23	-24	24 175

		DVI_B_LINE_REV0.OUT							
		0	24	-24	2	24	-24	24	178
GRT5{1}		0							
008 N+	SIFI= 1.59 Gravity{1}	0	4	-4	1	5	-5	5	91
	Hydrotest{1}	1	0	0	0	1	0	1	270
	Thermal 1{1}	0	3	-3	1	3	-3	3	344
	Thermal 2{1}	0	33	-33	0	33	-33	33	86
	Thermal 3{1}	0	33	-33	0	33	-33	33	89
	Thermal 4{1}	0	33	-34	0	33	-34	34	84
	Thermal 5{1}	0	33	-34	1	33	-34	34	88
	GRT1{1}	0	4	-5	0	4	-5	5	56
	GRT2{1}	0	37	-38	1	37	-38	38	87
	GRT3{1}	0	37	-38	1	37	-38	38	89
	GRT4{1}	0	37	-38	1	37	-38	38	85
	GRT5{1}	0	38	-38	2	38	-38	38	88
008 F-	SIFI= 1.59 Gravity{1}	0	5	-5	2	5	-5	5	91
	Hydrotest{1}	1	0	0	0	1	0	1	270
	Thermal 1{1}	0	4	-4	0	4	-4	4	296
	Thermal 2{1}	0	5	-5	11	14	-14	20	72
	Thermal 3{1}	0	6	-6	11	15	-15	20	96
	Thermal 4{1}	0	5	-6	11	14	-14	20	70
	Thermal 5{1}	0	8	-8	11	16	-16	21	91
	GRT1{1}	0	2	-2	1	3	-3	3	25
	GRT2{1}	0	10	-10	13	19	-19	24	81
	GRT3{1}	0	11	-11	13	19	-19	25	94
	GRT4{1}	0	10	-10	13	19	-19	24	80
	GRT5{1}	0	12	-12	13	20	-20	25	91
008 F+	SIFI= 1.00 Gravity{1}	0	3	-3	2	4	-4	4	181
	Hydrotest{1}	1	0	0	0	1	0	1	270
	Thermal 1{1}	0	3	-3	0	3	-3	3	26
	Thermal 2{1}	0	3	-3	11	13	-13	20	162
	Thermal 3{1}	0	4	-4	11	13	-13	20	186
	Thermal 4{1}	0	3	-4	11	13	-13	20	160
	Thermal 5{1}	0	5	-5	11	14	-14	20	181
	GRT1{1}	0	1	-1	1	2	-2	3	115
	GRT2{1}	0	6	-6	13	16	-16	23	171
	GRT3{1}	0	7	-7	13	16	-17	23	184
	GRT4{1}	0	6	-6	13	16	-16	23	170
	GRT5{1}	0	8	-8	13	17	-17	24	181
009	SIFI= 1.20 Gravity{1}	0	5	-5	2	5	-5	6	181

DVI_B_LINE_REV0

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RESULT PAGE 306

G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal		Shear	Principal		Total	
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	----
	Hydrotest{1}	1	0	0	0	1	0	1	270
	Thermal 1{1}	0	3	-3	0	3	-3	3	3
	Thermal 2{1}	0	6	-7	11	15	-15	20	181
	Thermal 3{1}	0	8	-8	11	15	-16	21	197
	Thermal 4{1}	0	7	-7	11	15	-15	20	194
	Thermal 5{1}	0	9	-9	11	16	-17	21	198
	GRT1{1}	0	2	-2	1	3	-3	3	179
	GRT2{1}	0	11	-11	13	20	-20	25	181
	GRT3{1}	0	12	-12	13	20	-20	25	191
	GRT4{1}	0	11	-12	13	20	-20	25	189
	GRT5{1}	0	14	-14	13	21	-21	26	192

*** Segment 0 end ***

*** Segment P begin ***

P14	SIFI= 1.20 Gravity{1}	SIFO= 1.20	0	3	-3	1	3	-3	3	180
	Hydrotest{1}		1	1	1	0	1	1	1	270
	Thermal 1{1}		0	1	-1	0	1	-1	1	96
	Thermal 2{1}		0	21	-22	4	22	-22	23	191
	Thermal 3{1}		0	22	-22	4	22	-23	23	191
	Thermal 4{1}		0	21	-21	4	22	-22	22	177
	Thermal 5{1}		0	22	-22	4	23	-23	23	192
	GRT1{1}		0	3	-3	1	3	-3	4	163
	GRT2{1}		0	24	-24	5	25	-25	26	190
	GRT3{1}		0	24	-25	5	26	-26	26	190
	GRT4{1}		0	24	-24	5	25	-25	26	177
	GRT5{1}		0	25	-25	5	26	-26	26	191
P13 N-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	1	-1	1	2	-2	2	181
	Hydrotest{1}		1	1	1	0	1	1	1	270
	Thermal 1{1}		0	0	0	0	0	0	0	99
	Thermal 2{1}		0	15	-15	4	16	-17	17	193
	Thermal 3{1}		0	15	-16	4	17	-17	17	193

DVI_B_LINE_REV0.OUT								
Thermal 4{1}	0	15	-15	4	16	-16	17	178
Thermal 5{1}	0	16	-16	4	17	-17	17	193
GRT1{1}	0	1	-1	1	2	-2	2	160
GRT2{1}	0	16	-17	5	18	-18	19	192
GRT3{1}	0	16	-17	5	18	-18	19	192
GRT4{1}	0	16	-16	5	18	-18	19	178
GRT5{1}	0	17	-17	5	18	-18	19	193
P13 N+ SIFI= 1.95 SIF0= 1.95								
Gravity{1}	0	2	-2	1	3	-3	3	271
Hydrotest{1}	1	1	1	0	1	1	1	270
Thermal 1{1}	0	1	-1	0	1	-1	1	189
Thermal 2{1}	0	30	-30	4	31	-31	31	283
Thermal 3{1}	0	30	-30	4	31	-31	31	283
Thermal 4{1}	0	29	-29	4	30	-30	30	268
Thermal 5{1}	0	30	-31	4	31	-31	31	283

0

DVI_B_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
								Loc
GRT1{1}		0	2	-2	1	3	-3	3 250
GRT2{1}		0	32	-32	5	33	-33	33 282
GRT3{1}		0	32	-32	5	33	-33	34 282
GRT4{1}		0	31	-31	5	32	-32	33 268
GRT5{1}		0	32	-33	5	33	-33	34 283
P13 F- SIFI= 1.95 SIF0= 1.95								
Gravity{1}		0	2	-2	1	3	-3	3 271
Hydrotest{1}		1	1	1	0	1	1	1 270
Thermal 1{1}		0	1	-1	0	1	-1	1 189
Thermal 2{1}		0	31	-32	3	32	-32	32 282
Thermal 3{1}		0	32	-32	3	32	-32	32 282
Thermal 4{1}		0	31	-31	3	31	-31	31 268
Thermal 5{1}		0	32	-32	3	32	-32	33 283
GRT1{1}		0	3	-3	1	3	-3	3 253
GRT2{1}		0	34	-34	4	34	-34	35 281
GRT3{1}		0	34	-34	4	35	-35	35 281
GRT4{1}		0	33	-33	4	34	-34	34 269

DVI_B_LINE_REV0.OUT

GRT5{1}		0	34	-34	4	35	-35	35	282
P13 F+	SIFI= 1.00 SIFO= 1.00								
	Gravity{1}	0	1	-1	1	2	-2	2	181
	Hydrotest{1}	1	1	1	0	1	1	1	270
	Thermal 1{1}	0	0	0	0	0	0	0	99
	Thermal 2{1}	0	16	-16	3	17	-17	17	192
	Thermal 3{1}	0	16	-16	3	17	-17	17	192
	Thermal 4{1}	0	16	-16	3	16	-16	17	178
	Thermal 5{1}	0	16	-16	3	17	-17	17	193
	GRT1{1}	0	1	-1	1	2	-2	2	163
	GRT2{1}	0	17	-17	4	18	-18	19	191
	GRT3{1}	0	17	-18	4	18	-19	19	191
	GRT4{1}	0	17	-17	4	18	-18	19	179
	GRT5{1}	0	17	-18	4	19	-19	19	192
P12	SIFI= 2.00 SIFO= 2.00								
	Gravity{1}	0	1	-1	1	2	-2	2	182
	Hydrotest{1}	1	1	1	0	1	1	1	270
	Thermal 1{1}	0	1	-1	0	1	-1	1	102
	Thermal 2{1}	0	29	-30	3	30	-30	30	193
	Thermal 3{1}	0	30	-30	3	30	-30	30	193
	Thermal 4{1}	0	29	-29	3	29	-29	29	179
	Thermal 5{1}	0	30	-30	3	30	-30	31	193
	GRT1{1}	0	1	-2	1	2	-2	2	161
	GRT2{1}	0	31	-31	4	31	-31	32	192
	GRT3{1}	0	31	-31	4	31	-32	32	192
	GRT4{1}	0	30	-30	4	30	-31	31	180
	GRT5{1}	0	31	-31	4	32	-32	32	193
P16	SIFI= 2.00 SIFO= 2.00								
	Gravity{1}	0	1	-1	3	4	-4	5	186
	Hydrotest{1}	1	0	0	0	1	0	1	270
	Thermal 1{1}	0	1	-1	0	1	-1	1	110

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DVI_B_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
-----	-----	-----	-----	-----	-----	-----	-----	-----

		DVI_B_LINE_REV0.OUT						
Thermal 2{1}		0	82	-82	10	83	-83	84 193
Thermal 3{1}		0	82	-83	10	83	-84	84 193
Thermal 4{1}		0	79	-80	10	80	-81	81 180
Thermal 5{1}		0	83	-83	10	84	-84	85 194
GRT1{1}		0	2	-2	3	4	-4	6 159
GRT2{1}		0	83	-83	13	85	-85	86 193
GRT3{1}		0	84	-84	13	86	-86	87 193
GRT4{1}		0	81	-81	13	83	-83	84 180
GRT5{1}		0	84	-85	13	86	-87	88 194
P11 N-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	1	-1	3	4	-4 5 356
Hydrotest{1}			1	0	0	0	1	0 1 270
Thermal 1{1}			0	0	0	0	0	0 248
Thermal 2{1}			0	35	-35	10	37	-38 39 195
Thermal 3{1}			0	35	-35	10	38	-38 39 195
Thermal 4{1}			0	33	-34	10	36	-36 38 182
Thermal 5{1}			0	35	-35	10	38	-38 40 195
GRT1{1}			0	1	-1	3	4	-4 5 343
GRT2{1}			0	33	-34	13	38	-38 41 196
GRT3{1}			0	34	-34	13	38	-38 41 195
GRT4{1}			0	32	-33	13	37	-37 39 183
GRT5{1}			0	34	-34	13	38	-39 41 196
P11 N+	SIFI= 1.59 Gravity{1}	SIFO= 1.59	0	2	-2	3	4	-4 6 86
Hydrotest{1}			1	0	0	0	1	0 1 270
Thermal 1{1}			0	0	-1	0	0	-1 1 338
Thermal 2{1}			0	55	-55	10	57	-57 58 285
Thermal 3{1}			0	56	-56	10	57	-58 58 285
Thermal 4{1}			0	53	-54	10	55	-55 56 272
Thermal 5{1}			0	56	-56	10	58	-58 59 285
GRT1{1}			0	2	-2	3	4	-4 6 73
GRT2{1}			0	53	-54	13	56	-57 58 286
GRT3{1}			0	54	-54	13	57	-57 59 285
GRT4{1}			0	51	-52	13	54	-55 56 273
GRT5{1}			0	54	-54	13	57	-57 59 286
P11 F-	SIFI= 1.59 Gravity{1}	SIFO= 1.59	0	8	-8	1	8	-8 8 271
Hydrotest{1}			1	0	0	0	1	0 1 270
Thermal 1{1}			0	0	0	0	0	0 9
Thermal 2{1}			0	27	-27	15	34	-34 38 117
Thermal 3{1}			0	28	-28	16	35	-35 39 116
Thermal 4{1}			0	24	-24	15	32	-32 36 273
Thermal 5{1}			0	28	-28	16	35	-35 39 117

DVI_B_LINE_REV0.OUT

GRT1{1}	0	8	-8	1	8	-8	8	272
GRT2{1}	0	35	-35	14	40	-40	43	111
GRT3{1}	0	35	-35	15	40	-40	43	111
GRT4{1}	0	32	-33	14	38	-38	41	273
GRT5{1}	0	36	-35	15	41	-41	44	111

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----			-----	-----	-----	-----	-----	-----	-----	----
P11 F+	SIFI= 1.00	SIF0= 1.00								
	Gravity{1}		0	5	-5	1	5	-5	5	181
	Hydrotest{1}		1	0	0	0	1	0	1	270
	Thermal 1{1}		0	0	0	0	0	0	0	279
	Thermal 2{1}		0	17	-17	15	26	-26	32	27
	Thermal 3{1}		0	17	-17	16	27	-26	32	26
	Thermal 4{1}		0	15	-15	15	25	-25	31	183
	Thermal 5{1}		0	18	-18	16	27	-27	32	27
	GRT1{1}		0	5	-5	1	5	-5	5	182
	GRT2{1}		0	22	-22	14	29	-29	33	21
	GRT3{1}		0	22	-22	15	29	-29	34	21
	GRT4{1}		0	20	-21	14	28	-28	32	183
GRT5{1}		0	22	-22	15	30	-30	34	21	
P15 N-	SIFI= 1.00	SIF0= 1.00								
	Gravity{1}		0	1	-1	1	2	-2	2	175
	Hydrotest{1}		1	0	0	0	1	0	1	270
	Thermal 1{1}		0	3	-3	0	3	-3	3	87
	Thermal 2{1}		0	7	-7	15	19	-19	28	163
	Thermal 3{1}		0	7	-7	16	19	-19	28	161
	Thermal 4{1}		0	9	-9	15	20	-21	28	45
	Thermal 5{1}		0	7	-7	16	19	-19	28	156
	GRT1{1}		0	3	-4	1	4	-4	4	112
	GRT2{1}		0	5	-5	14	17	-17	25	159
	GRT3{1}		0	5	-5	15	17	-17	26	157
	GRT4{1}		0	8	-8	14	19	-19	26	53
GRT5{1}		0	6	-5	15	18	-18	26	151	

DVI_B_LINE_REV0.OUT

P15 N+ SIFI= 1.59 SIFO= 1.59
Gravity{1}

	0	2	-2	1	3	-3	3	85
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	5	-5	0	5	-5	5	357
Thermal 2{1}	0	11	-11	15	22	-22	29	73
Thermal 3{1}	0	11	-11	16	22	-22	29	71
Thermal 4{1}	0	14	-14	15	24	-24	30	315
Thermal 5{1}	0	11	-11	16	22	-22	29	66
GRT1{1}	0	6	-6	1	6	-6	6	22
GRT2{1}	0	8	-8	14	19	-19	26	69
GRT3{1}	0	8	-8	15	19	-19	27	67
GRT4{1}	0	13	-13	14	22	-22	28	323
GRT5{1}	0	9	-9	15	20	-20	27	61

P15 M SIFI= 1.59 SIFO= 1.59
Gravity{1}

	0	0	0	1	1	-1	2	311
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	5	-5	0	5	-5	5	358
Thermal 2{1}	0	18	-18	15	26	-26	31	97
Thermal 3{1}	0	18	-18	15	26	-26	31	98
Thermal 4{1}	0	20	-21	15	28	-28	33	58
Thermal 5{1}	0	18	-18	15	27	-27	32	101
GRT1{1}	0	5	-6	1	6	-6	6	356
GRT2{1}	0	17	-17	13	25	-25	29	97

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GENERAL PIPE STRESS REPORT

(Stress in N/mm²)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	GRT3{1}	0	18	-18	14	25	-25	29	98
	GRT4{1}	0	20	-21	13	27	-27	31	57
	GRT5{1}	0	18	-18	14	25	-25	30	101

P15 F- SIFI= 1.59 SIFO= 1.59
Gravity{1}

	0	3	-3	1	3	-3	3	275
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	5	-5	0	5	-5	5	0
Thermal 2{1}	0	38	-39	9	40	-41	42	92
Thermal 3{1}	0	39	-39	9	41	-41	42	93

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Thermal 4{1}	0	40	-40	9	42	-42	43	74
Thermal 5{1}	0	39	-39	9	41	-41	42	94
GRT1{1}	0	6	-6	1	6	-6	6	334
GRT2{1}	0	36	-36	8	37	-38	38	92
GRT3{1}	0	36	-36	8	38	-38	39	92
GRT4{1}	0	37	-38	8	39	-39	40	72
GRT5{1}	0	36	-37	8	38	-38	39	94
P15 F+ SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	2	-2	1	2	-2	2	5
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	3	-3	0	3	-3	3	90
Thermal 2{1}	0	24	-24	9	27	-27	29	182
Thermal 3{1}	0	24	-25	9	27	-27	29	183
Thermal 4{1}	0	25	-25	9	28	-28	30	164
Thermal 5{1}	0	25	-25	9	27	-28	29	184
GRT1{1}	0	4	-4	1	4	-4	4	64
GRT2{1}	0	22	-23	8	25	-25	27	182
GRT3{1}	0	23	-23	8	25	-25	27	182
GRT4{1}	0	23	-24	8	26	-26	27	162
GRT5{1}	0	23	-23	8	25	-26	27	184
P09 N- SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	2	-2	1	2	-2	2	5
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	3	-3	0	3	-3	3	89
Thermal 2{1}	0	19	-19	9	22	-22	24	180
Thermal 3{1}	0	19	-19	9	22	-23	25	181
Thermal 4{1}	0	20	-20	9	23	-23	25	161
Thermal 5{1}	0	19	-19	9	23	-23	25	182
GRT1{1}	0	4	-4	1	4	-4	4	60
GRT2{1}	0	17	-17	8	20	-20	22	179
GRT3{1}	0	17	-17	8	20	-20	22	180
GRT4{1}	0	18	-18	8	21	-21	23	158
GRT5{1}	0	17	-17	8	20	-20	22	182
P09 N+ SIFI= 1.59 SIFO= 1.59								
Gravity{1}	0	3	-3	1	3	-3	3	275
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	5	-5	0	5	-5	5	359
Thermal 2{1}	0	30	-30	9	32	-32	34	90
Thermal 3{1}	0	30	-30	9	32	-33	34	91

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
	Thermal 4{1}		0	31	-32	9	34	-34	35	71
	Thermal 5{1}		0	30	-30	9	33	-33	34	92
	GRT1{1}		0	6	-6	1	6	-6	6	330
	GRT2{1}		0	27	-27	8	29	-29	30	89
	GRT3{1}		0	27	-27	8	29	-29	31	90
	GRT4{1}		0	29	-29	8	31	-31	32	68
	GRT5{1}		0	27	-27	8	29	-30	31	92
P09 F-	SIFI= 1.59 Gravity{1}	SIF0= 1.59	0	3	-3	1	4	-4	4	274
	Hydrotest{1}		1	0	0	0	1	0	1	270
	Thermal 1{1}		0	4	-4	0	4	-4	4	184
	Thermal 2{1}		0	28	-28	6	29	-29	30	90
	Thermal 3{1}		0	28	-28	6	29	-30	30	91
	Thermal 4{1}		0	29	-29	6	30	-30	31	253
	Thermal 5{1}		0	28	-28	6	29	-30	30	92
	GRT1{1}		0	5	-5	1	5	-5	5	143
	GRT2{1}		0	25	-25	6	26	-26	27	90
	GRT3{1}		0	25	-25	6	26	-26	27	90
	GRT4{1}		0	26	-26	5	27	-27	28	71
	GRT5{1}		0	25	-25	6	26	-26	27	92
P09 F+	SIFI= 1.00 Gravity{1}	SIF0= 1.00	0	2	-2	1	2	-2	2	4
	Hydrotest{1}		1	0	0	0	1	0	1	270
	Thermal 1{1}		0	2	-2	0	2	-2	2	274
	Thermal 2{1}		0	18	-18	6	20	-20	21	180
	Thermal 3{1}		0	18	-18	6	20	-20	21	181
	Thermal 4{1}		0	18	-18	6	20	-20	21	343
	Thermal 5{1}		0	18	-18	6	20	-20	21	182
	GRT1{1}		0	3	-3	1	3	-3	3	233
	GRT2{1}		0	15	-16	6	17	-17	18	180
	GRT3{1}		0	15	-16	6	17	-17	18	180
	GRT4{1}		0	16	-16	5	18	-18	19	161
	GRT5{1}		0	15	-16	6	17	-18	19	182
P08 N-	SIFI= 1.00 Gravity{1}	SIF0= 1.00	0	0	0	1	1	-1	1	355

DVI_B_LINE_REV0.OUT

Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	1	-1	0	1	-1	1	88
Thermal 2{1}	0	4	-4	6	8	-9	12	288
Thermal 3{1}	0	4	-4	6	9	-9	12	290
Thermal 4{1}	0	2	-2	6	7	-7	11	124
Thermal 5{1}	0	4	-4	6	8	-9	12	293
GRT1{1}	0	1	-1	1	2	-1	2	101
GRT2{1}	0	4	-4	6	8	-8	10	292
GRT3{1}	0	4	-4	6	8	-8	11	293
GRT4{1}	0	2	-2	5	7	-7	10	309
GRT5{1}	0	4	-4	6	8	-8	11	296

P08 N+ SIFI= 2.08 SIFO= 2.08
Gravity{1}

0 1 -1 1 1 -1 1 85

0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
Hydrotest{1}		1	0	0	0	1	0	1 270
Thermal 1{1}		0	2	-2	0	2	-2	2 178
Thermal 2{1}		0	8	-8	6	11	-12	14 18
Thermal 3{1}		0	8	-8	6	12	-12	14 20
Thermal 4{1}		0	5	-5	6	9	-9	12 214
Thermal 5{1}		0	7	-8	6	11	-11	14 23
GRT1{1}		0	2	-2	1	3	-2	3 191
GRT2{1}		0	8	-8	6	11	-11	13 22
GRT3{1}		0	8	-8	6	11	-11	13 23
GRT4{1}		0	5	-5	5	8	-8	11 39
GRT5{1}		0	8	-8	6	11	-11	13 26
P08 F- SIFI= 2.08 SIFO= 2.08 Gravity{1}		0	2	-2	0	2	-2	2 88
Hydrotest{1}		1	0	0	0	1	0	1 270
Thermal 1{1}		0	3	-3	0	3	-3	3 4
Thermal 2{1}		0	23	-23	0	23	-23	23 289
Thermal 3{1}		0	23	-23	0	23	-23	23 288
Thermal 4{1}		0	22	-22	0	22	-22	22 284

DVI_B_LINE_REV0.OUT									
Thermal 5{1}	0	23	-23	0	23	-23	23	286	
GRT1{1}	0	4	-4	0	4	-4	4	35	
GRT2{1}	0	21	-21	0	21	-21	21	291	
GRT3{1}	0	21	-21	0	21	-21	21	290	
GRT4{1}	0	20	-20	0	20	-20	20	286	
GRT5{1}	0	21	-21	1	21	-21	21	288	
P08 F+ SIFI= 1.00 SIFO= 1.00									
Gravity{1}	0	1	-1	0	1	-1	1	358	
Hydrotest{1}	1	0	0	0	1	0	1	270	
Thermal 1{1}	0	1	-2	0	1	-2	2	274	
Thermal 2{1}	0	11	-11	0	11	-11	11	199	
Thermal 3{1}	0	11	-11	0	11	-11	11	198	
Thermal 4{1}	0	10	-11	0	10	-11	11	194	
Thermal 5{1}	0	11	-11	0	11	-11	11	196	
GRT1{1}	0	2	-2	0	2	-2	2	305	
GRT2{1}	0	10	-10	0	10	-10	10	201	
GRT3{1}	0	10	-10	0	10	-10	10	200	
GRT4{1}	0	9	-10	0	9	-10	10	196	
GRT5{1}	0	10	-10	1	10	-10	10	198	
P01 SIFI= 2.00 SIFO= 2.00									
Gravity{1}	0	2	-2	0	2	-2	2	358	
Hydrotest{1}	1	0	0	0	1	0	1	270	
Thermal 1{1}	0	3	-3	0	3	-3	3	274	
Thermal 2{1}	0	20	-21	0	20	-21	21	199	
Thermal 3{1}	0	21	-21	0	21	-21	21	199	
Thermal 4{1}	0	20	-20	0	20	-20	20	195	
Thermal 5{1}	0	21	-21	0	21	-21	21	196	
GRT1{1}	0	3	-4	0	3	-4	4	303	
GRT2{1}	0	19	-19	0	19	-19	19	201	
GRT3{1}	0	19	-19	0	19	-19	19	201	
GRT4{1}	0	18	-19	0	18	-19	19	197	

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DVI_B_LINE_REV0

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AutoPIPE Plus 9.2.1 RESULT PAGE 313

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
-----	-----	-----	-----	-----	-----	-----	-----	---
	GRT5{1}	0	19	-19	1	19	-19	19

DVI_B_LINE_REV0.OUT

P02	SIFI= 2.00	SIFO= 2.00							
	Gravity{1}		0	2	-2	0	2	-2	2 355
	Hydrotest{1}		1	0	0	0	1	0	1 270
	Thermal 1{1}		0	12	-13	0	12	-13	13 275
	Thermal 2{1}		0	64	-64	2	64	-64	64 202
	Thermal 3{1}		0	65	-65	2	65	-65	65 201
	Thermal 4{1}		0	62	-63	2	62	-63	63 199
	Thermal 5{1}		0	64	-65	2	64	-65	65 197
	GRT1{1}		0	13	-13	0	13	-13	13 282
	GRT2{1}		0	62	-63	2	62	-63	63 202
	GRT3{1}		0	63	-64	2	63	-64	64 202
	GRT4{1}		0	61	-62	2	61	-62	62 200
	GRT5{1}		0	63	-63	2	63	-63	63 198
P03	SIFI= 2.00	SIFO= 2.00							
	Gravity{1}		0	12	-12	2	12	-12	12 181
	Hydrotest{1}		1	0	0	0	1	0	0 270
	Thermal 1{1}		0	70	-71	0	70	-71	71 276
	Thermal 2{1}		0	273	-274	10	273	-274	274 204
	Thermal 3{1}		0	278	-278	11	278	-279	279 204
	Thermal 4{1}		0	271	-273	10	271	-274	274 204
	Thermal 5{1}		0	274	-274	12	274	-275	275 198
	GRT1{1}		0	70	-72	2	70	-72	72 266
	GRT2{1}		0	284	-285	11	284	-285	286 203
	GRT3{1}		0	288	-289	12	289	-290	290 203
	GRT4{1}		0	282	-284	12	282	-285	285 203
	GRT5{1}		0	285	-286	13	286	-286	287 197
P04	SIFI= 1.00	SIFO= 1.00							
	Gravity{1}		0	21	-21	2	21	-21	21 180
	Hydrotest{1}		1	0	0	0	1	0	0 270
	Thermal 1{1}		0	33	-34	0	33	-34	34 277
	Thermal 2{1}		0	69	-70	10	71	-72	72 215
	Thermal 3{1}		0	71	-72	11	73	-74	74 213
	Thermal 4{1}		0	74	-77	10	75	-78	79 221
	Thermal 5{1}		0	67	-68	12	69	-70	71 202
	GRT1{1}		0	37	-38	2	37	-38	38 243
	GRT2{1}		0	88	-89	11	89	-90	91 207
	GRT3{1}		0	90	-91	12	91	-92	93 206
	GRT4{1}		0	91	-94	12	93	-95	96 212
	GRT5{1}		0	87	-88	13	89	-90	91 197
P05	SIFI= 1.00	SIFO= 1.00							
	Gravity{1}		0	22	-22	1	22	-22	22 179
	Hydrotest{1}		61	19	19	0	61	19	54 270

	DVI_B_LINE_REV0.OUT							
Thermal 1{1}	0	17	-18	0	17	-18	18	282
Thermal 2{1}	0	49	-50	8	51	-52	52	353
Thermal 3{1}	0	49	-50	9	51	-52	52	354
Thermal 4{1}	0	51	-53	8	52	-55	55	341
Thermal 5{1}	0	48	-48	10	50	-50	51	3

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DVI_B_LINE_REV0

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
-----	-----	-----	-----	-----	-----	-----	-----	---
	GRT1{1}	0	24	-25	1	24	-26	26 222
	GRT2{1}	0	28	-29	10	31	-32	33 349
	GRT3{1}	0	27	-28	11	31	-32	34 349
	GRT4{1}	0	31	-33	10	34	-36	37 328
	GRT5{1}	0	26	-26	11	30	-30	33 5
P06	SIFI= 1.20 SIFO= 1.20 Gravity{1}	0	5	-5	1	5	-5	5 356
	Hydrotest{1}	61	19	19	0	61	19	54 270
	Thermal 1{1}	0	6	-7	0	6	-7	7 295
	Thermal 2{1}	0	52	-53	8	53	-54	55 356
	Thermal 3{1}	0	53	-54	9	55	-55	56 358
	Thermal 4{1}	0	51	-53	8	52	-54	55 3
	Thermal 5{1}	0	52	-53	10	54	-54	55 357
	GRT1{1}	0	9	-11	1	10	-11	11 319
	GRT2{1}	0	57	-57	10	58	-59	60 356
	GRT3{1}	0	58	-58	11	60	-60	61 358
	GRT4{1}	0	55	-58	10	57	-59	60 3
	GRT5{1}	0	57	-57	11	59	-59	61 357
P07	SIFI= 1.20 SIFO= 1.20 Gravity{1}	0	17	-17	1	17	-17	17 357
	Hydrotest{1}	61	19	19	0	61	19	54 270
	Thermal 1{1}	0	7	-8	0	7	-8	8 78
	Thermal 2{1}	0	45	-45	8	46	-47	48 0
	Thermal 3{1}	0	47	-48	9	49	-50	51 2
	Thermal 4{1}	0	50	-53	8	52	-54	55 31
	Thermal 5{1}	0	48	-48	10	49	-50	51 351
	GRT1{1}	0	19	-21	1	19	-21	21 20

DVI_B_LINE_REV0.OUT

	GRT2{1}	0	62	-63	10	63	-64	65	359
	GRT3{1}	0	64	-65	11	66	-67	68	1
	GRT4{1}	0	65	-68	10	67	-69	70	22
	GRT5{1}	0	65	-65	11	67	-67	68	353
E01	SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	12	-12	1	12	-12	12	354
	Hydrotest{1}	61	19	19	0	61	19	54	270
	Thermal 1{1}	0	13	-14	0	13	-14	14	87
	Thermal 2{1}	0	34	-35	8	36	-36	37	3
	Thermal 3{1}	0	37	-37	9	39	-40	41	6
	Thermal 4{1}	0	46	-48	8	47	-50	50	45
	Thermal 5{1}	0	38	-38	10	40	-40	42	347
	GRT1{1}	0	17	-18	1	17	-18	18	44
	GRT2{1}	0	45	-46	10	47	-48	49	1
	GRT3{1}	0	48	-49	11	50	-51	52	3
	GRT4{1}	0	54	-56	10	56	-58	59	35
	GRT5{1}	0	49	-50	11	52	-52	53	349

*** Segment P end ***

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DVI_B_LINE_REV0

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AutoPIPE Plus 9.2.1 RESULT PAGE 315

A N S I F L A N G E C H E C K

Point	Load	Reaction	Force	Moment	Press. (N/mm2)		Press.
name	combination	(mm)	(N)	(N.m)	Actual	Allow.	Ratio
A00	** ANSI check not requested **						
A11	** ANSI check not requested **						
A47	** ANSI check not requested **						
C041	** ANSI check not requested **						
A20	** ANSI check not requested **						
CH02	** ANSI check not requested **						
A38	** ANSI check not requested **						
CH06	** ANSI check not requested **						
OR10	** ANSI check not requested **						
A39	** ANSI check not requested **						
IV08	** ANSI check not requested **						
A44	** ANSI check not requested **						
B04	** ANSI check not requested **						

DVI_B_LINE_REV0.OUT

J12 ** ANSI check not requested **
J01 ** ANSI check not requested **
IV10 ** ANSI check not requested **
J10 ** ANSI check not requested **
F10 ** ANSI check not requested **
M03 ** ANSI check not requested **
M11 ** ANSI check not requested **
M17 ** ANSI check not requested **
M28 ** ANSI check not requested **
N14 ** ANSI check not requested **
N13 ** ANSI check not requested **
N01 ** ANSI check not requested **
N09 ** ANSI check not requested **

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DVI_B_LINE_REV0

09/13/2010 DVIIBLINE

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AutoPIPE Plus 9.2.1 RESULT PAGE 317

A N S I F L A N G E C H E C K

Point name	Load combination	Reaction (mm)	Force (N)	Moment (N.m)	Press. (N/mm2) Actual Allow.	Press. Ratio
N08	** ANSI check not requested **					
015	** ANSI check not requested **					
014	** ANSI check not requested **					
001	** ANSI check not requested **					
010	** ANSI check not requested **					
009	** ANSI check not requested **					
P14	** ANSI check not requested **					
P04	** ANSI check not requested **					
P05	** ANSI check not requested **					
P06	** ANSI check not requested **					
P07	** ANSI check not requested **					

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DVI_B_LINE_REV0

09/13/2010 DVIIBLINE

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AutoPIPE Plus 9.2.1 RESULT PAGE 318

EN 13480 (2002) CODE COMPLIANCE

DVI_B_LINE_REV0.00T								
(Moments in N.m)			(Stress in N/mm2)					
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code	
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.

P03	Max P{1}					HOOP	6	104
	GR + Max P{1}	5			2.00	2-1 SUST	13	104
	TR:Amb to T3{1}			94	2.00	4-1 DISP	281	217**
	with Sus. load margin			4-2		281 307		
	Amb to T1{1}			24	2.00	4-1 DISP	71	247
	Amb to T2{1}			92	2.00	4-1 DISP	276	217**
	with Sus. load margin			4-2		276 307		
	Amb to T3{1}			94	2.00	4-1 DISP	281	217**
	with Sus. load margin			4-2		281 307		
	Amb to T4{1}			92	2.00	4-1 DISP	275	247**
	with Sus. load margin			4-2		275 337		
	Amb to T5{1}			93	2.00	4-1 DISP	278	217**
	with Sus. load margin			4-2		278 307		
	Hydrotest{1}	0	0		2.00	3-1 OCC	0	219
	Sus.+T1{1}				2.00	5-1 CRUP	31	<NOTE 1>
	Sus.+T2{1}				2.00	5-1 CRUP	82	<NOTE 1>
	Sus.+T3{1}				2.00	5-1 CRUP	83	<NOTE 1>
	Sus.+T4{1}				2.00	5-1 CRUP	82	<NOTE 1>
	Sus.+T5{1}				2.00	5-1 CRUP	82	<NOTE 1>
003	Max P{1}					HOOP	7	104
	GR + Max P{1}	4			2.00	2-1 SUST	9	104
	TR:Amb to T4{1}			158	2.00	4-1 DISP	274	217**
	with Sus. load margin			4-2		274 311		
	Amb to T1{1}			62	2.00	4-1 DISP	108	247
	Amb to T2{1}			123	2.00	4-1 DISP	213	247
	Amb to T3{1}			124	2.00	4-1 DISP	215	247
	Amb to T4{1}			158	2.00	4-1 DISP	274	217**
	with Sus. load margin			4-2		274 311		
	Amb to T5{1}			146	2.00	4-1 DISP	252	217**
	with Sus. load margin			4-2		252 311		
	Hydrotest{1}	0	0		2.00	3-1 OCC	0	219
	Sus.+T1{1}				2.00	5-1 CRUP	36	<NOTE 1>
	Sus.+T2{1}				2.00	5-1 CRUP	62	<NOTE 1>
	Sus.+T3{1}				2.00	5-1 CRUP	63	<NOTE 1>
	Sus.+T4{1}				2.00	5-1 CRUP	77	<NOTE 1>
	Sus.+T5{1}				2.00	5-1 CRUP	72	<NOTE 1>

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DVI_B_LINE_REV0

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AutoPIPE Plus 9.2.1

RESULT PAGE 319

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code	
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
N06	Max P{1}					HOOP	9	104	
	GR + Max P{1}	41			2.00	2-1 SUST	21	104	
	TR:Amb to T4{1}			461	2.00	4-1 DISP	240	217**	
	with Sus. load margin			4-2		240 300			
	Amb to T1{1}			203	2.00	4-1 DISP	106	247	
	Amb to T2{1}			385	2.00	4-1 DISP	200	247	
	Amb to T3{1}			352	2.00	4-1 DISP	183	247	
	Amb to T4{1}			461	2.00	4-1 DISP	240	217**	
	with Sus. load margin			4-2		240 300			
	Amb to T5{1}			369	2.00	4-1 DISP	192	217	
	Hydrotest{1}	0	0		2.00	3-1 OCC	0	219	
	Sus.+T1{1}				2.00	5-1 CRUP	47	<NOTE 1>	
	Sus.+T2{1}				2.00	5-1 CRUP	71	<NOTE 1>	
	Sus.+T3{1}				2.00	5-1 CRUP	66	<NOTE 1>	
	Sus.+T4{1}				2.00	5-1 CRUP	81	<NOTE 1>	
	Sus.+T5{1}				2.00	5-1 CRUP	69	<NOTE 1>	
I07	Max P{1}					HOOP	6	104	
	GR + Max P{1}	3			2.00	2-1 SUST	16	104	
	TR:T1 to T5{1}			38	2.00	4-1 DISP	216	217	
	Amb to T1{1}			1	2.00	4-1 DISP	6	247	
	Amb to T2{1}			6	2.00	4-1 DISP	34	247	
	Amb to T3{1}			6	2.00	4-1 DISP	35	247	
	Amb to T4{1}			1	2.00	4-1 DISP	5	247	
	Amb to T5{1}			37	2.00	4-1 DISP	210	217	
	Hydrotest{1}	0	0		2.00	3-1 OCC	0	219	
	Sus.+T1{1}				2.00	5-1 CRUP	17	<NOTE 1>	
	Sus.+T2{1}				2.00	5-1 CRUP	24	<NOTE 1>	
	Sus.+T3{1}				2.00	5-1 CRUP	24	<NOTE 1>	
	Sus.+T4{1}				2.00	5-1 CRUP	17	<NOTE 1>	
	Sus.+T5{1}				2.00	5-1 CRUP	68	<NOTE 1>	
M26	Max P{1}					HOOP	59	86	
	GR + Max P{1}	20			2.00	2-1 SUST	51	86	
	TR:Amb to T1{1}			142	2.00	4-1 DISP	204	197**	
	with Sus. load margin			4-2		204 232			
	Amb to T1{1}			142	2.00	4-1 DISP	204	197**	
	with Sus. load margin			4-2		204 232			
	Amb to T2{1}			129	2.00	4-1 DISP	185	197	
	Amb to T3{1}			142	2.00	4-1 DISP	203	197**	

DVI_B_LINE_REV0.OUT

with Sus. load margin			4-2		203	232		
Amb to T4{1}			128	2.00	4-1	DISP	183	197
Amb to T5{1}			67	2.00	4-1	DISP	95	217
Hydrotest{1}	0	0		2.00	3-1	OCC	44	219
Sus.+T1{1}				2.00	5-1	CRUP	102	<NOTE 1>
Sus.+T2{1}				2.00	5-1	CRUP	98	<NOTE 1>
Sus.+T3{1}				2.00	5-1	CRUP	102	<NOTE 1>
Sus.+T4{1}				2.00	5-1	CRUP	97	<NOTE 1>
Sus.+T5{1}				2.00	5-1	CRUP	75	<NOTE 1>

DVI_B_LINE_REV0

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. Load no. type			
J03	Max P{1}					HOOP	6	104	
	GR + Max P{1}	31			2.00	2-1 SUST	72	104	
	TR:Amb to T4{1}			63	2.00	4-1 DISP	188	247	
	Amb to T1{1}			18	2.00	4-1 DISP	55	247	
	Amb to T2{1}			52	2.00	4-1 DISP	157	217	
	Amb to T3{1}			52	2.00	4-1 DISP	155	217	
	Amb to T4{1}			63	2.00	4-1 DISP	188	247	
	Amb to T5{1}			53	2.00	4-1 DISP	158	217	
	Hydrotest{1}	0	0		2.00	3-1 OCC	0	219	
	Sus.+T1{1}				2.00	5-1 CRUP	85	<NOTE 1>	
	Sus.+T2{1}				2.00	5-1 CRUP	111	<NOTE 1>	
	Sus.+T3{1}				2.00	5-1 CRUP	110	<NOTE 1>	
	Sus.+T4{1}				2.00	5-1 CRUP	119	<NOTE 1>	
	Sus.+T5{1}				2.00	5-1 CRUP	111	<NOTE 1>	
N03	Max P{1}					HOOP	7	104	
	GR + Max P{1}	6			2.00	2-1 SUST	11	104	
	TR:Amb to T4{1}			107	2.00	4-1 DISP	185	217	
	Amb to T1{1}			63	2.00	4-1 DISP	108	247	
	Amb to T2{1}			80	2.00	4-1 DISP	138	247	
	Amb to T3{1}			67	2.00	4-1 DISP	115	247	
	Amb to T4{1}			107	2.00	4-1 DISP	185	217	
	Amb to T5{1}			74	2.00	4-1 DISP	128	217	

DVI_B_LINE_REV0.OUT

Hydrotest{1}	0	0	2.00	3-1	OCC	0	219
Sus.+T1{1}			2.00	5-1	CRUP	38	<NOTE 1>
Sus.+T2{1}			2.00	5-1	CRUP	45	<NOTE 1>
Sus.+T3{1}			2.00	5-1	CRUP	40	<NOTE 1>
Sus.+T4{1}			2.00	5-1	CRUP	57	<NOTE 1>
Sus.+T5{1}			2.00	5-1	CRUP	43	<NOTE 1>
F06 N+ Max P{1}					HOOP	44	86
GR + Max P{1}	1		1.00	2-1	SUST	26	86
TR:Amb to T3{1}		77	1.00	4-1	DISP	184	197
Amb to T1{1}		1	1.00	4-1	DISP	2	247
Amb to T2{1}		1	1.00	4-1	DISP	3	247
Amb to T3{1}		77	1.00	4-1	DISP	184	197
Amb to T4{1}		1	1.00	4-1	DISP	3	247
Amb to T5{1}		39	1.00	4-1	DISP	93	217
Hydrotest{1}	0	0	1.00	3-1	OCC	35	219
Sus.+T1{1}			1.00	5-1	CRUP	27	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	27	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	87	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	27	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	57	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no.	type	Stress	Allow.
F06 N- Max P{1}							HOOP	44	86
GR + Max P{1}		1			1.00	2-1	SUST	26	86
TR:Amb to T3{1}				77	1.00	4-1	DISP	184	197
Amb to T1{1}				1	1.00	4-1	DISP	2	247
Amb to T2{1}				1	1.00	4-1	DISP	3	247
Amb to T3{1}				77	1.00	4-1	DISP	184	197
Amb to T4{1}				1	1.00	4-1	DISP	3	247
Amb to T5{1}				39	1.00	4-1	DISP	93	217
Hydrotest{1}		0	0		1.00	3-1	OCC	35	219
Sus.+T1{1}					1.00	5-1	CRUP	27	<NOTE 1>

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Sus.+T2{1}			1.00	5-1	CRUP	27	<NOTE 1>		
Sus.+T3{1}			1.00	5-1	CRUP	87	<NOTE 1>		
Sus.+T4{1}			1.00	5-1	CRUP	27	<NOTE 1>		
Sus.+T5{1}			1.00	5-1	CRUP	57	<NOTE 1>		
F06 F+ Max P{1}					HOOP	44		86	
GR + Max P{1}	1		1.00	2-1	SUST	26		86	
TR:Amb to T3{1}			77	1.00	4-1	DISP	184		197
Amb to T1{1}			1	1.00	4-1	DISP	2		247
Amb to T2{1}			1	1.00	4-1	DISP	3		247
Amb to T3{1}			77	1.00	4-1	DISP	184		197
Amb to T4{1}			1	1.00	4-1	DISP	3		247
Amb to T5{1}			39	1.00	4-1	DISP	93		217
Hydrotest{1}	0	0		1.00	3-1	OCC	35		219
Sus.+T1{1}				1.00	5-1	CRUP	27	<NOTE 1>	
Sus.+T2{1}				1.00	5-1	CRUP	27	<NOTE 1>	
Sus.+T3{1}				1.00	5-1	CRUP	88	<NOTE 1>	
Sus.+T4{1}				1.00	5-1	CRUP	27	<NOTE 1>	
Sus.+T5{1}				1.00	5-1	CRUP	57	<NOTE 1>	
F06 F- Max P{1}					HOOP	44		86	
GR + Max P{1}	1		1.00	2-1	SUST	26		86	
TR:Amb to T3{1}			77	1.00	4-1	DISP	184		197
Amb to T1{1}			1	1.00	4-1	DISP	2		247
Amb to T2{1}			1	1.00	4-1	DISP	3		247
Amb to T3{1}			77	1.00	4-1	DISP	184		197
Amb to T4{1}			1	1.00	4-1	DISP	3		247
Amb to T5{1}			39	1.00	4-1	DISP	93		217
Hydrotest{1}	0	0		1.00	3-1	OCC	35		219
Sus.+T1{1}				1.00	5-1	CRUP	27	<NOTE 1>	
Sus.+T2{1}				1.00	5-1	CRUP	27	<NOTE 1>	
Sus.+T3{1}				1.00	5-1	CRUP	88	<NOTE 1>	
Sus.+T4{1}				1.00	5-1	CRUP	27	<NOTE 1>	
Sus.+T5{1}				1.00	5-1	CRUP	57	<NOTE 1>	

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m) (Stress in N/mm2)

Point Load Ma Mb Mc Eq. Load Code Code

name	combination	DVI_B_LINE_REV0.0UT			no.	type	Stress	Allow.	
		(Sus.)	(Occ.)	(Exp.)					S.I.F

006	Max P{1}					HOOP	9	104	
	GR + Max P{1}	46			2.00	2-1 SUST	22	104	
	TR:T1 to T5{1}			321	2.00	4-1 DISP	167	217	
	Amb to T1{1}			45	2.00	4-1 DISP	23	247	
	Amb to T2{1}			306	2.00	4-1 DISP	159	247	
	Amb to T3{1}			305	2.00	4-1 DISP	158	247	
	Amb to T4{1}			306	2.00	4-1 DISP	159	217	
	Amb to T5{1}			309	2.00	4-1 DISP	161	217	
	Hydrotest{1}	0	0		2.00	3-1 OCC	0	219	
	Sus.+T1{1}				2.00	5-1 CRUP	28	<NOTE 1>	
	Sus.+T2{1}				2.00	5-1 CRUP	62	<NOTE 1>	
	Sus.+T3{1}				2.00	5-1 CRUP	62	<NOTE 1>	
	Sus.+T4{1}				2.00	5-1 CRUP	62	<NOTE 1>	
	Sus.+T5{1}				2.00	5-1 CRUP	63	<NOTE 1>	
	N09	Max P{1}					HOOP	7	104
		GR + Max P{1}	11			1.00	2-1 SUST	13	104
TR:T1 to T4{1}				190	1.00	4-1 DISP	164	217	
Amb to T1{1}				47	1.00	4-1 DISP	40	247	
Amb to T2{1}				164	1.00	4-1 DISP	142	247	
Amb to T3{1}				154	1.00	4-1 DISP	133	247	
Amb to T4{1}				168	1.00	4-1 DISP	146	217	
Amb to T5{1}				157	1.00	4-1 DISP	136	217	
Hydrotest{1}		0	0		1.00	3-1 OCC	0	219	
Sus.+T1{1}					1.00	5-1 CRUP	26	<NOTE 1>	
Sus.+T2{1}					1.00	5-1 CRUP	60	<NOTE 1>	
Sus.+T3{1}					1.00	5-1 CRUP	57	<NOTE 1>	
Sus.+T4{1}					1.00	5-1 CRUP	61	<NOTE 1>	
Sus.+T5{1}					1.00	5-1 CRUP	58	<NOTE 1>	
M05		Max P{1}					HOOP	59	86
		GR + Max P{1}	2			2.00	2-1 SUST	31	86
	TR:Amb to T3{1}			103	2.00	4-1 DISP	147	197	
	Amb to T1{1}			46	2.00	4-1 DISP	66	247	
	Amb to T2{1}			49	2.00	4-1 DISP	71	247	
	Amb to T3{1}			103	2.00	4-1 DISP	147	197	
	Amb to T4{1}			61	2.00	4-1 DISP	87	247	
	Amb to T5{1}			64	2.00	4-1 DISP	91	217	
	Hydrotest{1}	0	0		2.00	3-1 OCC	44	219	
	Sus.+T1{1}				2.00	5-1 CRUP	48	<NOTE 1>	
	Sus.+T2{1}				2.00	5-1 CRUP	49	<NOTE 1>	
	Sus.+T3{1}				2.00	5-1 CRUP	68	<NOTE 1>	

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Sus.+T4{1}	2.00	5-1	CRUP	53 <NOTE 1>
Sus.+T5{1}	2.00	5-1	CRUP	54 <NOTE 1>

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Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. no.	Load type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F						
N01	Max P{1}							HOOP	59	86	
	GR + Max P{1}	8			1.00		2-1	SUST	35	86	
	TR:T1 to T2{1}			204	1.00		4-1	DISP	146	197	
	Amb to T1{1}			28	1.00		4-1	DISP	20	197	
	Amb to T2{1}			184	1.00		4-1	DISP	132	197	
	Amb to T3{1}			169	1.00		4-1	DISP	121	197	
	Amb to T4{1}			184	1.00		4-1	DISP	131	197	
	Amb to T5{1}			171	1.00		4-1	DISP	122	217	
	Hydrotest{1}	0	0		1.00		3-1	OCC	44	219	
	Sus.+T1{1}				1.00		5-1	CRUP	42	<NOTE 1>	
	Sus.+T2{1}				1.00		5-1	CRUP	79	<NOTE 1>	
	Sus.+T3{1}				1.00		5-1	CRUP	76	<NOTE 1>	
	Sus.+T4{1}				1.00		5-1	CRUP	79	<NOTE 1>	
	Sus.+T5{1}				1.00		5-1	CRUP	76	<NOTE 1>	
010	Max P{1}							HOOP	7	104	
	GR + Max P{1}	7			1.00		2-1	SUST	9	104	
	TR:Amb to T4{1}			169	1.00		4-1	DISP	146	217	
	Amb to T1{1}			59	1.00		4-1	DISP	51	247	
	Amb to T2{1}			143	1.00		4-1	DISP	124	247	
	Amb to T3{1}			141	1.00		4-1	DISP	122	247	
	Amb to T4{1}			169	1.00		4-1	DISP	146	217	
	Amb to T5{1}			157	1.00		4-1	DISP	136	217	
	Hydrotest{1}	0	0		1.00		3-1	OCC	0	219	
	Sus.+T1{1}				1.00		5-1	CRUP	26	<NOTE 1>	
	Sus.+T2{1}				1.00		5-1	CRUP	51	<NOTE 1>	
	Sus.+T3{1}				1.00		5-1	CRUP	50	<NOTE 1>	
	Sus.+T4{1}				1.00		5-1	CRUP	58	<NOTE 1>	
	Sus.+T5{1}				1.00		5-1	CRUP	55	<NOTE 1>	

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N17 F- Max P{1}					HOOP	9	104
GR + Max P{1}	33		1.52	2-1 SUST		14	104
TR:Amb to T4{1}			358	1.52	4-1 DISP	142	217
Amb to T1{1}			157	1.52	4-1 DISP	62	247
Amb to T2{1}			301	1.52	4-1 DISP	119	247
Amb to T3{1}			274	1.52	4-1 DISP	108	247
Amb to T4{1}			358	1.52	4-1 DISP	142	217
Amb to T5{1}			286	1.52	4-1 DISP	113	217
Hydrotest{1}	0	0		1.52	3-1 OCC	0	219
Sus.+T1{1}				1.52	5-1 CRUP	30	<NOTE 1>
Sus.+T2{1}				1.52	5-1 CRUP	44	<NOTE 1>
Sus.+T3{1}				1.52	5-1 CRUP	41	<NOTE 1>
Sus.+T4{1}				1.52	5-1 CRUP	50	<NOTE 1>
Sus.+T5{1}				1.52	5-1 CRUP	43	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

M10	+ Max P{1}					HOOP	59	86	
	GR + Max P{1}	17			1.00	2-1 SUST	42	86	
	TR:Amb to T3{1}			186	1.00	4-1 DISP	133	197	
	Amb to T1{1}			118	1.00	4-1 DISP	85	197	
	Amb to T2{1}			163	1.00	4-1 DISP	117	197	
	Amb to T3{1}			186	1.00	4-1 DISP	133	197	
	Amb to T4{1}			176	1.00	4-1 DISP	126	197	
	Amb to T5{1}			126	1.00	4-1 DISP	90	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	44	219	
	Sus.+T1{1}				1.00	5-1 CRUP	70	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	80	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	86	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	83	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	72	<NOTE 1>	

N16 F-	Max P{1}					HOOP	9	104	
	GR + Max P{1}	7			1.52	2-1 SUST	7	104	

DVI_B_LINE_REV0.OUT							
TR:Amb to T4{1}			331	1.52	4-1 DISP	131	217
Amb to T1{1}			155	1.52	4-1 DISP	61	247
Amb to T2{1}			253	1.52	4-1 DISP	100	247
Amb to T3{1}			250	1.52	4-1 DISP	99	247
Amb to T4{1}			331	1.52	4-1 DISP	131	217
Amb to T5{1}			275	1.52	4-1 DISP	109	217
Hydrotest{1}	0	0		1.52	3-1 OCC	0	219
Sus.+T1{1}				1.52	5-1 CRUP	22	<NOTE 1>
Sus.+T2{1}				1.52	5-1 CRUP	32	<NOTE 1>
Sus.+T3{1}				1.52	5-1 CRUP	31	<NOTE 1>
Sus.+T4{1}				1.52	5-1 CRUP	39	<NOTE 1>
Sus.+T5{1}				1.52	5-1 CRUP	34	<NOTE 1>
N17 N+ Max P{1}					HOOP	9	104
GR + Max P{1}	31			1.52	2-1 SUST	14	104
TR:Amb to T4{1}			327	1.52	4-1 DISP	129	217
Amb to T1{1}			140	1.52	4-1 DISP	55	247
Amb to T2{1}			279	1.52	4-1 DISP	111	247
Amb to T3{1}			254	1.52	4-1 DISP	101	247
Amb to T4{1}			327	1.52	4-1 DISP	129	217
Amb to T5{1}			263	1.52	4-1 DISP	104	217
Hydrotest{1}	0	0		1.52	3-1 OCC	0	219
Sus.+T1{1}				1.52	5-1 CRUP	27	<NOTE 1>
Sus.+T2{1}				1.52	5-1 CRUP	41	<NOTE 1>
Sus.+T3{1}				1.52	5-1 CRUP	39	<NOTE 1>
Sus.+T4{1}				1.52	5-1 CRUP	46	<NOTE 1>
Sus.+T5{1}				1.52	5-1 CRUP	40	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

M13	- Max P{1}					HOOP	59	86	
	GR + Max P{1}	16			1.00	2-1 SUST	41	86	
	TR:Amb to T3{1}			181	1.00	4-1 DISP	129	197	
	Amb to T1{1}			112	1.00	4-1 DISP	80	197	
	Amb to T2{1}			153	1.00	4-1 DISP	110	197	

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	Amb to T3{1}		181	1.00	4-1 DISP	129	197
	Amb to T4{1}		154	1.00	4-1 DISP	110	197
	Amb to T5{1}		121	1.00	4-1 DISP	87	217
	Hydrotest{1}	0	0	1.00	3-1 OCC	44	219
	Sus.+T1{1}			1.00	5-1 CRUP	68	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	77	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	84	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	78	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	70	<NOTE 1>
M17	Max P{1}				HOOP	59	86
	GR + Max P{1}	34		1.00	2-1 SUST	54	86
	TR:Amb to T3{1}		176	1.00	4-1 DISP	126	197
	Amb to T1{1}		137	1.00	4-1 DISP	98	197
	Amb to T2{1}		141	1.00	4-1 DISP	101	197
	Amb to T3{1}		176	1.00	4-1 DISP	126	197
	Amb to T4{1}		149	1.00	4-1 DISP	107	197
	Amb to T5{1}		104	1.00	4-1 DISP	75	217
	Hydrotest{1}	0	0	1.00	3-1 OCC	44	219
	Sus.+T1{1}			1.00	5-1 CRUP	86	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	87	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	96	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	89	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	79	<NOTE 1>
018 N+	Max P{1}				HOOP	9	104
	GR + Max P{1}	13		1.52	2-1 SUST	8	104
	TR:Amb to T4{1}		316	1.52	4-1 DISP	125	217
	Amb to T1{1}		93	1.52	4-1 DISP	37	247
	Amb to T2{1}		267	1.52	4-1 DISP	106	247
	Amb to T3{1}		263	1.52	4-1 DISP	104	247
	Amb to T4{1}		316	1.52	4-1 DISP	125	217
	Amb to T5{1}		280	1.52	4-1 DISP	111	217
	Hydrotest{1}	0	0	1.52	3-1 OCC	0	219
	Sus.+T1{1}			1.52	5-1 CRUP	17	<NOTE 1>
	Sus.+T2{1}			1.52	5-1 CRUP	35	<NOTE 1>
	Sus.+T3{1}			1.52	5-1 CRUP	34	<NOTE 1>
	Sus.+T4{1}			1.52	5-1 CRUP	40	<NOTE 1>
	Sus.+T5{1}			1.52	5-1 CRUP	36	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
N18 N+	Max P{1}					HOOP	9	104	
	GR + Max P{1}	3			1.52	2-1 SUST	5	104	
	TR:Amb to T4{1}			313	1.52	4-1 DISP	124	217	
	Amb to T1{1}			93	1.52	4-1 DISP	37	247	
	Amb to T2{1}			283	1.52	4-1 DISP	112	247	
	Amb to T3{1}			275	1.52	4-1 DISP	109	247	
	Amb to T4{1}			313	1.52	4-1 DISP	124	217	
	Amb to T5{1}			285	1.52	4-1 DISP	113	217	
	Hydrotest{1}	0	0		1.52	3-1 OCC	0	219	
	Sus.+T1{1}				1.52	5-1 CRUP	15	<NOTE 1>	
	Sus.+T2{1}				1.52	5-1 CRUP	33	<NOTE 1>	
	Sus.+T3{1}				1.52	5-1 CRUP	33	<NOTE 1>	
	Sus.+T4{1}				1.52	5-1 CRUP	36	<NOTE 1>	
	Sus.+T5{1}				1.52	5-1 CRUP	34	<NOTE 1>	
M11	Max P{1}					HOOP	59	86	
	GR + Max P{1}	34			1.00	2-1 SUST	54	86	
	TR:Amb to T3{1}			171	1.00	4-1 DISP	122	197	
	Amb to T1{1}			127	1.00	4-1 DISP	91	197	
	Amb to T2{1}			136	1.00	4-1 DISP	98	197	
	Amb to T3{1}			171	1.00	4-1 DISP	122	197	
	Amb to T4{1}			138	1.00	4-1 DISP	99	197	
	Amb to T5{1}			95	1.00	4-1 DISP	68	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	44	219	
	Sus.+T1{1}				1.00	5-1 CRUP	84	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	86	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	95	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	87	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	77	<NOTE 1>	
018 F-	Max P{1}					HOOP	9	104	
	GR + Max P{1}	12			1.52	2-1 SUST	8	104	
	TR:Amb to T4{1}			307	1.52	4-1 DISP	122	217	
	Amb to T1{1}			90	1.52	4-1 DISP	36	247	
	Amb to T2{1}			263	1.52	4-1 DISP	104	247	
	Amb to T3{1}			258	1.52	4-1 DISP	102	247	

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Amb to T4{1}		307	1.52	4-1	DISP	122	217
Amb to T5{1}		272	1.52	4-1	DISP	108	217
Hydrotest{1}	0	0	1.52	3-1	OCC	0	219
Sus.+T1{1}			1.52	5-1	CRUP	17	<NOTE 1>
Sus.+T2{1}			1.52	5-1	CRUP	34	<NOTE 1>
Sus.+T3{1}			1.52	5-1	CRUP	34	<NOTE 1>
Sus.+T4{1}			1.52	5-1	CRUP	39	<NOTE 1>
Sus.+T5{1}			1.52	5-1	CRUP	35	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
N16 N+	Max P{1}					HOOP	9 104
	GR + Max P{1}	8			1.52	2-1 SUST	7 104
	TR:Amb to T4{1}			299	1.52	4-1 DISP	118 217
	Amb to T1{1}			142	1.52	4-1 DISP	56 247
	Amb to T2{1}			225	1.52	4-1 DISP	89 247
	Amb to T3{1}			224	1.52	4-1 DISP	89 247
	Amb to T4{1}			299	1.52	4-1 DISP	118 217
	Amb to T5{1}			248	1.52	4-1 DISP	98 217
	Hydrotest{1}	0	0		1.52	3-1 OCC	0 219
	Sus.+T1{1}				1.52	5-1 CRUP	21 <NOTE 1>
	Sus.+T2{1}				1.52	5-1 CRUP	29 <NOTE 1>
	Sus.+T3{1}				1.52	5-1 CRUP	29 <NOTE 1>
	Sus.+T4{1}				1.52	5-1 CRUP	36 <NOTE 1>
	Sus.+T5{1}				1.52	5-1 CRUP	31 <NOTE 1>
N18 F-	Max P{1}					HOOP	9 104
	GR + Max P{1}	5			1.52	2-1 SUST	6 104
	TR:Amb to T4{1}			298	1.52	4-1 DISP	118 217
	Amb to T1{1}			73	1.52	4-1 DISP	29 247
	Amb to T2{1}			279	1.52	4-1 DISP	110 247
	Amb to T3{1}			270	1.52	4-1 DISP	107 247
	Amb to T4{1}			298	1.52	4-1 DISP	118 217
	Amb to T5{1}			277	1.52	4-1 DISP	110 217
	Hydrotest{1}	0	0		1.52	3-1 OCC	0 219

Sus.+T1{1}	1.52	5-1	CRUP	13	<NOTE 1>
Sus.+T2{1}	1.52	5-1	CRUP	34	<NOTE 1>
Sus.+T3{1}	1.52	5-1	CRUP	33	<NOTE 1>
Sus.+T4{1}	1.52	5-1	CRUP	35	<NOTE 1>
Sus.+T5{1}	1.52	5-1	CRUP	33	<NOTE 1>

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BENTLEY

Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
F16	+ Max P{1}					HOOP	44	86
	GR + Max P{1}	0			1.00	2-1 SUST	24	86
	TR:Amb to T3{1}			47	1.00	4-1 DISP	112	197
	Amb to T1{1}			5	1.00	4-1 DISP	11	247
	Amb to T2{1}			6	1.00	4-1 DISP	14	247
	Amb to T3{1}			47	1.00	4-1 DISP	112	197
	Amb to T4{1}			5	1.00	4-1 DISP	13	247
	Amb to T5{1}			24	1.00	4-1 DISP	57	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	35	219
	Sus.+T1{1}				1.00	5-1 CRUP	28	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	29	<NOTE 1>

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	Sus.+T3{1}			1.00	5-1	CRUP	61	<NOTE 1>	
	Sus.+T4{1}			1.00	5-1	CRUP	28	<NOTE 1>	
	Sus.+T5{1}			1.00	5-1	CRUP	43	<NOTE 1>	
F16	- Max P{1}					HOOP	44		86
	GR + Max P{1}	0		1.00	2-1	SUST	24		86
	TR:Amb to T3{1}		47	1.00	4-1	DISP	112		197
	Amb to T1{1}		5	1.00	4-1	DISP	11		247
	Amb to T2{1}		6	1.00	4-1	DISP	14		247
	Amb to T3{1}		47	1.00	4-1	DISP	112		197
	Amb to T4{1}		5	1.00	4-1	DISP	13		247
	Amb to T5{1}		24	1.00	4-1	DISP	57		217
	Hydrotest{1}	0	0	1.00	3-1	OCC	35		219
	Sus.+T1{1}			1.00	5-1	CRUP	28	<NOTE 1>	
	Sus.+T2{1}			1.00	5-1	CRUP	29	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1	CRUP	61	<NOTE 1>	
	Sus.+T4{1}			1.00	5-1	CRUP	28	<NOTE 1>	
	Sus.+T5{1}			1.00	5-1	CRUP	43	<NOTE 1>	
001	Max P{1}					HOOP	59		86
	GR + Max P{1}	7		1.00	2-1	SUST	34		86
	TR:T1 to T5{1}		153	1.00	4-1	DISP	110		197
	Amb to T1{1}		48	1.00	4-1	DISP	34		197
	Amb to T2{1}		141	1.00	4-1	DISP	101		197
	Amb to T3{1}		138	1.00	4-1	DISP	99		197
	Amb to T4{1}		151	1.00	4-1	DISP	108		197
	Amb to T5{1}		147	1.00	4-1	DISP	105		217
	Hydrotest{1}	0	0	1.00	3-1	OCC	44		219
	Sus.+T1{1}			1.00	5-1	CRUP	46	<NOTE 1>	
	Sus.+T2{1}			1.00	5-1	CRUP	68	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1	CRUP	67	<NOTE 1>	
	Sus.+T4{1}			1.00	5-1	CRUP	70	<NOTE 1>	
	Sus.+T5{1}			1.00	5-1	CRUP	69	<NOTE 1>	

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DVI_B_LINE_REV0

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.

DVI_B_LINE_REV0.OUT

M10	- Max P{1}					HOOP	59	86
	GR + Max P{1}	11		1.00	2-1	SUST	37	86
	TR:Amb to T3{1}		150	1.00	4-1	DISP	108	197
	Amb to T1{1}		73	1.00	4-1	DISP	53	197
	Amb to T2{1}		100	1.00	4-1	DISP	72	197
	Amb to T3{1}		150	1.00	4-1	DISP	108	197
	Amb to T4{1}		103	1.00	4-1	DISP	74	197
	Amb to T5{1}		87	1.00	4-1	DISP	62	217
	Hydrotest{1}	0	0	1.00	3-1	OCC	44	219
	Sus.+T1{1}			1.00	5-1	CRUP	55	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	61	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	73	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	62	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	58	<NOTE 1>
I12	Max P{1}					HOOP	6	104
	GR + Max P{1}	3		1.20	2-1	SUST	11	104
	TR:T1 to T5{1}		32	1.20	4-1	DISP	107	217
	Amb to T1{1}		1	1.20	4-1	DISP	3	247
	Amb to T2{1}		5	1.20	4-1	DISP	17	247
	Amb to T3{1}		5	1.20	4-1	DISP	17	247
	Amb to T4{1}		1	1.20	4-1	DISP	3	247
	Amb to T5{1}		31	1.20	4-1	DISP	104	217
	Hydrotest{1}	0	0	1.20	3-1	OCC	0	219
	Sus.+T1{1}			1.20	5-1	CRUP	12	<NOTE 1>
	Sus.+T2{1}			1.20	5-1	CRUP	16	<NOTE 1>
	Sus.+T3{1}			1.20	5-1	CRUP	16	<NOTE 1>
	Sus.+T4{1}			1.20	5-1	CRUP	12	<NOTE 1>
	Sus.+T5{1}			1.20	5-1	CRUP	40	<NOTE 1>
F07	Max P{1}					HOOP	44	86
	GR + Max P{1}	0		2.00	2-1	SUST	24	86
	TR:Amb to T3{1}		22	2.00	4-1	DISP	104	197
	Amb to T1{1}		2	2.00	4-1	DISP	10	247
	Amb to T2{1}		3	2.00	4-1	DISP	13	247
	Amb to T3{1}		22	2.00	4-1	DISP	104	197
	Amb to T4{1}		2	2.00	4-1	DISP	12	247
	Amb to T5{1}		11	2.00	4-1	DISP	53	217
	Hydrotest{1}	0	0	2.00	3-1	OCC	35	219
	Sus.+T1{1}			2.00	5-1	CRUP	26	<NOTE 1>
	Sus.+T2{1}			2.00	5-1	CRUP	27	<NOTE 1>
	Sus.+T3{1}			2.00	5-1	CRUP	50	<NOTE 1>
	Sus.+T4{1}			2.00	5-1	CRUP	27	<NOTE 1>

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Sus.+T5{1}

2.00

5-1 CRUP

37 <NOTE 1>

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AutoPIPE Plus 9.2.1

RESULT PAGE 330

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

017 F-	Max P{1}					HOOP	9	104	
	GR + Max P{1}	16			1.52	2-1 SUST	9	104	
	TR:Amb to T4{1}			257	1.52	4-1 DISP	102	217	
	Amb to T1{1}			70	1.52	4-1 DISP	28	247	
	Amb to T2{1}			226	1.52	4-1 DISP	90	247	
	Amb to T3{1}			220	1.52	4-1 DISP	87	247	
	Amb to T4{1}			257	1.52	4-1 DISP	102	217	
	Amb to T5{1}			226	1.52	4-1 DISP	90	217	
	Hydrotest{1}	0	0		1.52	3-1 OCC	0	219	
	Sus.+T1{1}				1.52	5-1 CRUP	16	<NOTE 1>	
	Sus.+T2{1}				1.52	5-1 CRUP	32	<NOTE 1>	
	Sus.+T3{1}				1.52	5-1 CRUP	31	<NOTE 1>	
	Sus.+T4{1}				1.52	5-1 CRUP	35	<NOTE 1>	
	Sus.+T5{1}				1.52	5-1 CRUP	32	<NOTE 1>	
M02 -	Max P{1}					HOOP	102	86**	
	GR + Max P{1}	3			1.00	2-1 SUST	48	86	
	TR:Amb to T3{1}			157	1.00	4-1 DISP	0	197	
	Amb to T1{1}			69	1.00	4-1 DISP	0	247	
	Amb to T2{1}			75	1.00	4-1 DISP	0	247	
	Amb to T3{1}			157	1.00	4-1 DISP	0	197	
	Amb to T4{1}			91	1.00	4-1 DISP	0	247	
	Amb to T5{1}			96	1.00	4-1 DISP	0	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	72	219	
	Sus.+T1{1}				1.00	5-1 CRUP	48	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	48	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	48	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	48	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	48	<NOTE 1>	
M01 +	Max P{1}					HOOP	102	86**	

GR + Max P{1}	8		1.00	2-1 SUST	48	86
TR:Amb to T3{1}		318	1.00	4-1 DISP	0	197
Amb to T1{1}		134	1.00	4-1 DISP	0	247
Amb to T2{1}		150	1.00	4-1 DISP	0	247
Amb to T3{1}		318	1.00	4-1 DISP	0	197
Amb to T4{1}		179	1.00	4-1 DISP	0	247
Amb to T5{1}		193	1.00	4-1 DISP	0	217
Hydrotest{1}	0	0	1.00	3-1 OCC	72	219
Sus.+T1{1}			1.00	5-1 CRUP	48	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	48	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	48	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	48	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	48	<NOTE 1>

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Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
M01	- Max P{1}					HOOP	102	86**
	GR + Max P{1}	1			1.00	2-1 SUST	48	86
	TR:Amb to T3{1}			139	1.00	4-1 DISP	0	197
	Amb to T1{1}			14	1.00	4-1 DISP	0	247
	Amb to T2{1}			17	1.00	4-1 DISP	0	247
	Amb to T3{1}			139	1.00	4-1 DISP	0	197
	Amb to T4{1}			16	1.00	4-1 DISP	0	247
	Amb to T5{1}			70	1.00	4-1 DISP	0	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	72	219
	Sus.+T1{1}				1.00	5-1 CRUP	48	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	48	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	48	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	48	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	48	<NOTE 1>
M06	+ Max P{1}					HOOP	102	86**
	GR + Max P{1}	0			1.00	2-1 SUST	48	86
	TR:Amb to T3{1}			38	1.00	4-1 DISP	0	197

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Amb to T1{1}			4	1.00	4-1 DISP	0	247		
Amb to T2{1}			5	1.00	4-1 DISP	0	247		
Amb to T3{1}			38	1.00	4-1 DISP	0	197		
Amb to T4{1}			4	1.00	4-1 DISP	0	247		
Amb to T5{1}			19	1.00	4-1 DISP	0	217		
Hydrotest{1}	0	0		1.00	3-1 OCC	72	219		
Sus.+T1{1}				1.00	5-1 CRUP	48	<NOTE 1>		
Sus.+T2{1}				1.00	5-1 CRUP	48	<NOTE 1>		
Sus.+T3{1}				1.00	5-1 CRUP	48	<NOTE 1>		
Sus.+T4{1}				1.00	5-1 CRUP	48	<NOTE 1>		
Sus.+T5{1}				1.00	5-1 CRUP	48	<NOTE 1>		
M13 + Max P{1}					HOOP	59	86		
GR + Max P{1}	17			1.00	2-1 SUST	42	86		
TR:Amb to T3{1}			140	1.00	4-1 DISP	100	197		
Amb to T1{1}			139	1.00	4-1 DISP	99	197		
Amb to T2{1}			112	1.00	4-1 DISP	80	197		
Amb to T3{1}			140	1.00	4-1 DISP	100	197		
Amb to T4{1}			113	1.00	4-1 DISP	81	197		
Amb to T5{1}			62	1.00	4-1 DISP	44	217		
Hydrotest{1}	0	0		1.00	3-1 OCC	44	219		
Sus.+T1{1}				1.00	5-1 CRUP	75	<NOTE 1>		
Sus.+T2{1}				1.00	5-1 CRUP	69	<NOTE 1>		
Sus.+T3{1}				1.00	5-1 CRUP	75	<NOTE 1>		
Sus.+T4{1}				1.00	5-1 CRUP	69	<NOTE 1>		
Sus.+T5{1}				1.00	5-1 CRUP	57	<NOTE 1>		

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DVI_B_LINE_REV0

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AutoPIPE Plus 9.2.1

RESULT PAGE 332

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
IV10	Max P{1}					HOOP	6	104	
	GR + Max P{1}	30			1.00	2-1 SUST	48	104	
	TR:Amb to T4{1}			66	1.00	4-1 DISP	99	247	
	Amb to T1{1}			29	1.00	4-1 DISP	44	247	
	Amb to T2{1}			50	1.00	4-1 DISP	75	217	
	Amb to T3{1}			51	1.00	4-1 DISP	77	217	

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	Amb to T4{1}		66	1.00	4-1 DISP	99	247
	Amb to T5{1}		51	1.00	4-1 DISP	76	217
	Hydrotest{1}	0	0	1.00	3-1 OCC	0	219
	Sus.+T1{1}			1.00	5-1 CRUP	63	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	73	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	74	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	81	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	74	<NOTE 1>
C03	Max P{1}				HOOP	48	86
	GR + Max P{1}	8		2.00	2-1 SUST	39	86
	TR:Amb to T3{1}		37	2.00	4-1 DISP	95	197
	Amb to T1{1}		29	2.00	4-1 DISP	74	197
	Amb to T2{1}		37	2.00	4-1 DISP	95	197
	Amb to T3{1}		37	2.00	4-1 DISP	95	197
	Amb to T4{1}		25	2.00	4-1 DISP	65	197
	Amb to T5{1}		24	2.00	4-1 DISP	60	217
	Hydrotest{1}	0	0	2.00	3-1 OCC	37	219
	Sus.+T1{1}			2.00	5-1 CRUP	58	<NOTE 1>
	Sus.+T2{1}			2.00	5-1 CRUP	63	<NOTE 1>
	Sus.+T3{1}			2.00	5-1 CRUP	63	<NOTE 1>
	Sus.+T4{1}			2.00	5-1 CRUP	55	<NOTE 1>
	Sus.+T5{1}			2.00	5-1 CRUP	54	<NOTE 1>
M20 F+	Max P{1}				HOOP	59	86
	GR + Max P{1}	25		1.00	2-1 SUST	47	86
	TR:Amb to T3{1}		131	1.00	4-1 DISP	94	197
	Amb to T1{1}		128	1.00	4-1 DISP	92	197
	Amb to T2{1}		116	1.00	4-1 DISP	83	197
	Amb to T3{1}		131	1.00	4-1 DISP	94	197
	Amb to T4{1}		112	1.00	4-1 DISP	80	197
	Amb to T5{1}		59	1.00	4-1 DISP	42	217
	Hydrotest{1}	0	0	1.00	3-1 OCC	44	219
	Sus.+T1{1}			1.00	5-1 CRUP	78	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	75	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	79	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	74	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	61	<NOTE 1>

DVI_B_LINE_REV0

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 AutoPIPE Plus 9.2.1 RESULT PAGE 333

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

M20 F-	Max P{1}					HOOP	59	86	
	GR + Max P{1}	25			1.00	2-1 SUST	47	86	
	TR:Amb to T3{1}			131	1.00	4-1 DISP	94	197	
	Amb to T1{1}			128	1.00	4-1 DISP	92	197	
	Amb to T2{1}			116	1.00	4-1 DISP	83	197	
	Amb to T3{1}			131	1.00	4-1 DISP	94	197	
	Amb to T4{1}			112	1.00	4-1 DISP	80	197	
	Amb to T5{1}			59	1.00	4-1 DISP	42	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	44	219	
	Sus.+T1{1}				1.00	5-1 CRUP	78	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	75	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	79	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	74	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	61	<NOTE 1>	
J01	Max P{1}					HOOP	48	86	
	GR + Max P{1}	32			1.00	2-1 SUST	66	86	
	TR:Amb to T4{1}			66	1.00	4-1 DISP	85	247	
	Amb to T1{1}			23	1.00	4-1 DISP	29	197	
	Amb to T2{1}			61	1.00	4-1 DISP	78	197	
	Amb to T3{1}			62	1.00	4-1 DISP	79	197	
	Amb to T4{1}			66	1.00	4-1 DISP	85	247	
	Amb to T5{1}			61	1.00	4-1 DISP	78	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	37	219	
	Sus.+T1{1}				1.00	5-1 CRUP	75	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	92	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	92	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	94	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	92	<NOTE 1>	
N17 F+	Max P{1}					HOOP	9	104	
	GR + Max P{1}	33			1.00	2-1 SUST	13	104	
	TR:Amb to T4{1}			358	1.00	4-1 DISP	93	217	
	Amb to T1{1}			157	1.00	4-1 DISP	41	247	
	Amb to T2{1}			301	1.00	4-1 DISP	78	247	
	Amb to T3{1}			274	1.00	4-1 DISP	71	247	
	Amb to T4{1}			358	1.00	4-1 DISP	93	217	

DVI_B_LINE_REV0.OUT							
Amb to T5{1}		286	1.00	4-1	DISP	74	217
Hydrotest{1}	0	0	1.00	3-1	OCC	0	219
Sus.+T1{1}			1.00	5-1	CRUP	27	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	39	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	37	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	44	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	38	<NOTE 1>

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DVI_B_LINE_REV0

09/13/2010 DVI BLINE

BENTLEY

09:56 AM

AutoPIPE Plus 9.2.1

RESULT PAGE 334

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

P16	Max P{1}					HOOP	11	104	
	GR + Max P{1}	106			2.00	2-1 SUST	14	104	
	TR:Amb to T5{1}			805	2.00	4-1 DISP	92	217	
	Amb to T1{1}			8	2.00	4-1 DISP	1	247	
	Amb to T2{1}			792	2.00	4-1 DISP	91	217	
	Amb to T3{1}			799	2.00	4-1 DISP	92	217	
	Amb to T4{1}			773	2.00	4-1 DISP	89	247	
	Amb to T5{1}			805	2.00	4-1 DISP	92	217	
	Hydrotest{1}	0	0		2.00	3-1 OCC	1	219	
	Sus.+T1{1}				2.00	5-1 CRUP	15	<NOTE 1>	
	Sus.+T2{1}				2.00	5-1 CRUP	37	<NOTE 1>	
	Sus.+T3{1}				2.00	5-1 CRUP	37	<NOTE 1>	
	Sus.+T4{1}				2.00	5-1 CRUP	37	<NOTE 1>	
	Sus.+T5{1}				2.00	5-1 CRUP	38	<NOTE 1>	
M07 N+	Max P{1}					HOOP	59	86	
	GR + Max P{1}	5			1.00	2-1 SUST	33	86	
	TR:Amb to T3{1}			128	1.00	4-1 DISP	92	197	
	Amb to T1{1}			48	1.00	4-1 DISP	34	247	
	Amb to T2{1}			58	1.00	4-1 DISP	42	247	
	Amb to T3{1}			128	1.00	4-1 DISP	92	197	
	Amb to T4{1}			65	1.00	4-1 DISP	47	247	
	Amb to T5{1}			75	1.00	4-1 DISP	53	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	44	219	
	Sus.+T1{1}				1.00	5-1 CRUP	45	<NOTE 1>	

Sus.+T2{1}	1.00	5-1 CRUP	47 <NOTE 1>
Sus.+T3{1}	1.00	5-1 CRUP	64 <NOTE 1>
Sus.+T4{1}	1.00	5-1 CRUP	49 <NOTE 1>
Sus.+T5{1}	1.00	5-1 CRUP	51 <NOTE 1>

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BENTLEY

RESULT PAGE 335

Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
O17 N+	Max P{1}					HOOP	9	104
	GR + Max P{1}	16			1.52	2-1 SUST	9	104
	TR:Amb to T4{1}			232	1.52	4-1 DISP	92	217
	Amb to T1{1}			62	1.52	4-1 DISP	24	247
	Amb to T2{1}			209	1.52	4-1 DISP	83	247
	Amb to T3{1}			201	1.52	4-1 DISP	80	247
	Amb to T4{1}			232	1.52	4-1 DISP	92	217
	Amb to T5{1}			203	1.52	4-1 DISP	81	217
	Hydrotest{1}	0	0		1.52	3-1 OCC	0	219
	Sus.+T1{1}				1.52	5-1 CRUP	15	<NOTE 1>
	Sus.+T2{1}				1.52	5-1 CRUP	30	<NOTE 1>
	Sus.+T3{1}				1.52	5-1 CRUP	29	<NOTE 1>

			DVI_B_LINE_REV0.0UT				
Sus.+T4{1}			1.52	5-1	CRUP	32	<NOTE 1>
Sus.+T5{1}			1.52	5-1	CRUP	29	<NOTE 1>
M07 F+	Max P{1}				HOOP	59	86
	GR + Max P{1}	5	1.00	2-1	SUST	33	86
	TR:Amb to T3{1}		128	1.00	4-1 DISP	91	197
	Amb to T1{1}		47	1.00	4-1 DISP	34	247
	Amb to T2{1}		58	1.00	4-1 DISP	41	247
	Amb to T3{1}		128	1.00	4-1 DISP	91	197
	Amb to T4{1}		65	1.00	4-1 DISP	46	247
	Amb to T5{1}		74	1.00	4-1 DISP	53	217
	Hydrotest{1}	0	0	1.00	3-1 OCC	44	219
	Sus.+T1{1}		1.00	5-1	CRUP	44	<NOTE 1>
	Sus.+T2{1}		1.00	5-1	CRUP	46	<NOTE 1>
	Sus.+T3{1}		1.00	5-1	CRUP	63	<NOTE 1>
	Sus.+T4{1}		1.00	5-1	CRUP	48	<NOTE 1>
	Sus.+T5{1}		1.00	5-1	CRUP	50	<NOTE 1>
M07 F-	Max P{1}				HOOP	59	86
	GR + Max P{1}	5	1.00	2-1	SUST	33	86
	TR:Amb to T3{1}		128	1.00	4-1 DISP	91	197
	Amb to T1{1}		47	1.00	4-1 DISP	34	247
	Amb to T2{1}		58	1.00	4-1 DISP	41	247
	Amb to T3{1}		128	1.00	4-1 DISP	91	197
	Amb to T4{1}		65	1.00	4-1 DISP	46	247
	Amb to T5{1}		74	1.00	4-1 DISP	53	217
	Hydrotest{1}	0	0	1.00	3-1 OCC	44	219
	Sus.+T1{1}		1.00	5-1	CRUP	44	<NOTE 1>
	Sus.+T2{1}		1.00	5-1	CRUP	46	<NOTE 1>
	Sus.+T3{1}		1.00	5-1	CRUP	63	<NOTE 1>
	Sus.+T4{1}		1.00	5-1	CRUP	48	<NOTE 1>
	Sus.+T5{1}		1.00	5-1	CRUP	50	<NOTE 1>

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DVI_B_LINE_REV0

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BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 336

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)

(Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.

DVI_B_LINE_REV0.OUT									
M09 F+ Max P{1}						HOOP	59	86	
GR + Max P{1}	7		1.00	2-1	SUST		35	86	
TR:Amb to T3{1}		128	1.00	4-1	DISP		91	197	
Amb to T1{1}		63	1.00	4-1	DISP		45	197	
Amb to T2{1}		87	1.00	4-1	DISP		62	197	
Amb to T3{1}		128	1.00	4-1	DISP		91	197	
Amb to T4{1}		89	1.00	4-1	DISP		64	197	
Amb to T5{1}		74	1.00	4-1	DISP		53	217	
Hydrotest{1}	0	0	1.00	3-1	OCC		44	219	
Sus.+T1{1}			1.00	5-1	CRUP		50	<NOTE 1>	
Sus.+T2{1}			1.00	5-1	CRUP		55	<NOTE 1>	
Sus.+T3{1}			1.00	5-1	CRUP		65	<NOTE 1>	
Sus.+T4{1}			1.00	5-1	CRUP		56	<NOTE 1>	
Sus.+T5{1}			1.00	5-1	CRUP		52	<NOTE 1>	
M09 F- Max P{1}						HOOP	59	86	
GR + Max P{1}	7		1.00	2-1	SUST		35	86	
TR:Amb to T3{1}		128	1.00	4-1	DISP		91	197	
Amb to T1{1}		63	1.00	4-1	DISP		45	247	
Amb to T2{1}		87	1.00	4-1	DISP		62	247	
Amb to T3{1}		128	1.00	4-1	DISP		91	197	
Amb to T4{1}		89	1.00	4-1	DISP		64	197	
Amb to T5{1}		74	1.00	4-1	DISP		53	217	
Hydrotest{1}	0	0	1.00	3-1	OCC		44	219	
Sus.+T1{1}			1.00	5-1	CRUP		50	<NOTE 1>	
Sus.+T2{1}			1.00	5-1	CRUP		55	<NOTE 1>	
Sus.+T3{1}			1.00	5-1	CRUP		65	<NOTE 1>	
Sus.+T4{1}			1.00	5-1	CRUP		56	<NOTE 1>	
Sus.+T5{1}			1.00	5-1	CRUP		52	<NOTE 1>	
J07 F- Max P{1}						HOOP	11	104	
GR + Max P{1}	220		2.44	2-1	SUST		28	104	
TR:Amb to T4{1}		632	2.44	4-1	DISP		88	247	
Amb to T1{1}		98	2.44	4-1	DISP		14	247	
Amb to T2{1}		605	2.44	4-1	DISP		85	217	
Amb to T3{1}		608	2.44	4-1	DISP		85	217	
Amb to T4{1}		632	2.44	4-1	DISP		88	247	
Amb to T5{1}		608	2.44	4-1	DISP		85	217	
Hydrotest{1}	0	0	2.44	3-1	OCC		1	219	
Sus.+T1{1}			2.44	5-1	CRUP		32	<NOTE 1>	
Sus.+T2{1}			2.44	5-1	CRUP		50	<NOTE 1>	
Sus.+T3{1}			2.44	5-1	CRUP		50	<NOTE 1>	
Sus.+T4{1}			2.44	5-1	CRUP		50	<NOTE 1>	
Sus.+T5{1}			2.44	5-1	CRUP		50	<NOTE 1>	

DVI_B_LINE_REV0

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BENTLEY

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RESULT PAGE 337

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

M09 N+	Max P{1}					HOOP	59	86	
	GR + Max P{1}	7			1.00	2-1 SUST	34	86	
	TR:Amb to T3{1}			123	1.00	4-1 DISP	88	197	
	Amb to T1{1}			61	1.00	4-1 DISP	43	247	
	Amb to T2{1}			84	1.00	4-1 DISP	60	247	
	Amb to T3{1}			123	1.00	4-1 DISP	88	197	
	Amb to T4{1}			86	1.00	4-1 DISP	62	197	
	Amb to T5{1}			72	1.00	4-1 DISP	51	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	44	219	
	Sus.+T1{1}				1.00	5-1 CRUP	49	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	54	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	63	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	55	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	51	<NOTE 1>	
M09 N-	Max P{1}					HOOP	59	86	
	GR + Max P{1}	7			1.00	2-1 SUST	34	86	
	TR:Amb to T3{1}			123	1.00	4-1 DISP	88	197	
	Amb to T1{1}			61	1.00	4-1 DISP	43	247	
	Amb to T2{1}			84	1.00	4-1 DISP	60	247	
	Amb to T3{1}			123	1.00	4-1 DISP	88	197	
	Amb to T4{1}			86	1.00	4-1 DISP	62	247	
	Amb to T5{1}			72	1.00	4-1 DISP	51	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	44	219	
	Sus.+T1{1}				1.00	5-1 CRUP	49	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	54	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	63	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	55	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	51	<NOTE 1>	
J07 N+	Max P{1}					HOOP	11	104	
	GR + Max P{1}	205			2.44	2-1 SUST	27	104	

TR:Amb to T4{1}			623	2.44	4-1 DISP	87	247
Amb to T1{1}			94	2.44	4-1 DISP	13	247
Amb to T2{1}			599	2.44	4-1 DISP	84	217
Amb to T3{1}			601	2.44	4-1 DISP	84	217
Amb to T4{1}			623	2.44	4-1 DISP	87	247
Amb to T5{1}			602	2.44	4-1 DISP	84	217
Hydrotest{1}	0	0		2.44	3-1 OCC	1	219
Sus.+T1{1}				2.44	5-1 CRUP	30	<NOTE 1>
Sus.+T2{1}				2.44	5-1 CRUP	48	<NOTE 1>
Sus.+T3{1}				2.44	5-1 CRUP	48	<NOTE 1>
Sus.+T4{1}				2.44	5-1 CRUP	49	<NOTE 1>
Sus.+T5{1}				2.44	5-1 CRUP	48	<NOTE 1>

RESULT PAGE 338

Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
014	+ Max P{1}					HOOP	59	86
	GR + Max P{1}	9			1.00	2-1 SUST	36	86
	TR:T1 to T5{1}			121	1.00	4-1 DISP	86	197
	Amb to T1{1}			41	1.00	4-1 DISP	30	197
	Amb to T2{1}			85	1.00	4-1 DISP	60	197
	Amb to T3{1}			88	1.00	4-1 DISP	63	197
	Amb to T4{1}			89	1.00	4-1 DISP	64	197
	Amb to T5{1}			96	1.00	4-1 DISP	69	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	44	219
	Sus.+T1{1}				1.00	5-1 CRUP	45	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	56	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	56	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	57	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	59	<NOTE 1>
014	- Max P{1}					HOOP	59	86
	GR + Max P{1}	9			1.00	2-1 SUST	36	86
	TR:T1 to T5{1}			121	1.00	4-1 DISP	86	197
	Amb to T1{1}			41	1.00	4-1 DISP	30	197

DVI_B_LINE_REV0.OUT							
Amb to T2{1}			85	1.00	4-1 DISP	60	197
Amb to T3{1}			88	1.00	4-1 DISP	63	197
Amb to T4{1}			89	1.00	4-1 DISP	64	197
Amb to T5{1}			96	1.00	4-1 DISP	69	217
Hydrotest{1}	0	0		1.00	3-1 OCC	44	219
Sus.+T1{1}				1.00	5-1 CRUP	45	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	56	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	56	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	57	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	59	<NOTE 1>

N16 F+ Max P{1}					HOOP	9	104
GR + Max P{1}	7			1.00	2-1 SUST	6	104
TR:Amb to T4{1}			331	1.00	4-1 DISP	86	217
Amb to T1{1}			155	1.00	4-1 DISP	40	247
Amb to T2{1}			253	1.00	4-1 DISP	66	247
Amb to T3{1}			250	1.00	4-1 DISP	65	247
Amb to T4{1}			331	1.00	4-1 DISP	86	217
Amb to T5{1}			275	1.00	4-1 DISP	72	217
Hydrotest{1}	0	0		1.00	3-1 OCC	0	219
Sus.+T1{1}				1.00	5-1 CRUP	20	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	28	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	28	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	35	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	30	<NOTE 1>

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DVI_B_LINE_REV0

09/13/2010 DVI BLINE

BENTLEY

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AutoPIPE Plus 9.2.1 RESULT PAGE 339

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
N17 N- Max P{1}						HOOP	9	104	
GR + Max P{1}		31			1.00	2-1 SUST	12	104	
TR:Amb to T4{1}				327	1.00	4-1 DISP	85	217	
Amb to T1{1}				140	1.00	4-1 DISP	36	247	
Amb to T2{1}				279	1.00	4-1 DISP	73	247	
Amb to T3{1}				254	1.00	4-1 DISP	66	247	
Amb to T4{1}				327	1.00	4-1 DISP	85	217	

Amb to T5{1}			263	1.00	4-1 DISP	68	217
Hydrotest{1}	0	0		1.00	3-1 OCC	0	219
Sus.+T1{1}				1.00	5-1 CRUP	24	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	37	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	34	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	41	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	35	<NOTE 1>

M20	N+	Max	P{1}			HOOP	59	86
		GR + Max	P{1}	24	1.00	2-1 SUST	46	86
		TR:Amb to T3{1}		119	1.00	4-1 DISP	85	197
		Amb to T1{1}		116	1.00	4-1 DISP	83	197
		Amb to T2{1}		104	1.00	4-1 DISP	75	197
		Amb to T3{1}		119	1.00	4-1 DISP	85	197
		Amb to T4{1}		101	1.00	4-1 DISP	72	197
		Amb to T5{1}		53	1.00	4-1 DISP	38	217
		Hydrotest{1}	0	0	1.00	3-1 OCC	44	219
		Sus.+T1{1}			1.00	5-1 CRUP	74	<NOTE 1>
		Sus.+T2{1}			1.00	5-1 CRUP	71	<NOTE 1>
		Sus.+T3{1}			1.00	5-1 CRUP	75	<NOTE 1>
		Sus.+T4{1}			1.00	5-1 CRUP	70	<NOTE 1>
		Sus.+T5{1}			1.00	5-1 CRUP	59	<NOTE 1>

M20 N- Max P{1}					HOOP	59	86
GR + Max P{1}	24		1.00	2-1	SUST	46	86
TR:Amb to T3{1}		119	1.00	4-1	DISP	85	197
Amb to T1{1}		116	1.00	4-1	DISP	83	197
Amb to T2{1}		104	1.00	4-1	DISP	75	197
Amb to T3{1}		119	1.00	4-1	DISP	85	197
Amb to T4{1}		101	1.00	4-1	DISP	72	197
Amb to T5{1}		53	1.00	4-1	DISP	38	217
Hydrotest{1}	0	0	1.00	3-1	OCC	44	219
Sus.+T1{1}			1.00	5-1	CRUP	74	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	71	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	75	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	70	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	59	<NOTE 1>

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DVI_B_LINE_REV0.0UT

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)				(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
N13	+ Max P{1}					HOOP	59	86
	GR + Max P{1}	12			1.00	2-1 SUST	38	86
	TR:Amb to T2{1}			119	1.00	4-1 DISP	85	197
	Amb to T1{1}			22	1.00	4-1 DISP	16	197
	Amb to T2{1}			119	1.00	4-1 DISP	85	197
	Amb to T3{1}			96	1.00	4-1 DISP	69	197
	Amb to T4{1}			118	1.00	4-1 DISP	85	197
	Amb to T5{1}			96	1.00	4-1 DISP	69	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	44	219
	Sus.+T1{1}				1.00	5-1 CRUP	43	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	66	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	61	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	66	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	61	<NOTE 1>
N13	- Max P{1}					HOOP	59	86
	GR + Max P{1}	12			1.00	2-1 SUST	38	86
	TR:Amb to T2{1}			119	1.00	4-1 DISP	85	197
	Amb to T1{1}			22	1.00	4-1 DISP	16	197
	Amb to T2{1}			119	1.00	4-1 DISP	85	197
	Amb to T3{1}			96	1.00	4-1 DISP	69	197
	Amb to T4{1}			118	1.00	4-1 DISP	85	197
	Amb to T5{1}			96	1.00	4-1 DISP	69	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	44	219
	Sus.+T1{1}				1.00	5-1 CRUP	43	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	66	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	61	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	66	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	61	<NOTE 1>
A45	Max P{1}					HOOP	6	104
	GR + Max P{1}	6			2.00	2-1 SUST	29	104
	TR:T1 to T5{1}			15	2.00	4-1 DISP	83	217
	Amb to T1{1}			1	2.00	4-1 DISP	6	247
	Amb to T2{1}			3	2.00	4-1 DISP	15	247
	Amb to T3{1}			2	2.00	4-1 DISP	14	247
	Amb to T4{1}			1	2.00	4-1 DISP	5	247
	Amb to T5{1}			14	2.00	4-1 DISP	80	217

	DVI_B_LINE_REV0.OUT					
Hydrotest{1}	0	0	2.00	3-1	OCC	0 219
Sus.+T1{1}			2.00	5-1	CRUP	31 <NOTE 1>
Sus.+T2{1}			2.00	5-1	CRUP	33 <NOTE 1>
Sus.+T3{1}			2.00	5-1	CRUP	32 <NOTE 1>
Sus.+T4{1}			2.00	5-1	CRUP	30 <NOTE 1>
Sus.+T5{1}			2.00	5-1	CRUP	49 <NOTE 1>

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DVI_B_LINE_REV0

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

018 N-	Max P{1}					HOOP	9	104	
	GR + Max P{1}	13			1.00	2-1 SUST	8	104	
	TR:Amb to T4{1}			316	1.00	4-1 DISP	82	217	
	Amb to T1{1}			93	1.00	4-1 DISP	24	247	
	Amb to T2{1}			267	1.00	4-1 DISP	70	247	
	Amb to T3{1}			263	1.00	4-1 DISP	69	247	
	Amb to T4{1}			316	1.00	4-1 DISP	82	217	
	Amb to T5{1}			280	1.00	4-1 DISP	73	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	0	219	
	Sus.+T1{1}				1.00	5-1 CRUP	16	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	31	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	31	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	35	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	32	<NOTE 1>	
M21 N+	Max P{1}					HOOP	59	86	
	GR + Max P{1}	5			1.00	2-1 SUST	33	86	
	TR:Amb to T3{1}			115	1.00	4-1 DISP	82	197	
	Amb to T1{1}			106	1.00	4-1 DISP	76	197	
	Amb to T2{1}			103	1.00	4-1 DISP	73	197	
	Amb to T3{1}			115	1.00	4-1 DISP	82	197	
	Amb to T4{1}			100	1.00	4-1 DISP	72	197	
	Amb to T5{1}			54	1.00	4-1 DISP	39	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	44	219	
	Sus.+T1{1}				1.00	5-1 CRUP	58	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	57	<NOTE 1>	

DVI_B_LINE_REV0.OUT

Sus.+T3{1}			1.00	5-1	CRUP	60	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	57	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	46	<NOTE 1>
M21 N- Max P{1}					HOOP	59	86
GR + Max P{1}	5		1.00	2-1	SUST	33	86
TR:Amb to T3{1}		115	1.00	4-1	DISP	82	197
Amb to T1{1}		106	1.00	4-1	DISP	76	197
Amb to T2{1}		103	1.00	4-1	DISP	73	197
Amb to T3{1}		115	1.00	4-1	DISP	82	197
Amb to T4{1}		100	1.00	4-1	DISP	72	197
Amb to T5{1}		54	1.00	4-1	DISP	39	217
Hydrotest{1}	0	0	1.00	3-1	OCC	44	219
Sus.+T1{1}			1.00	5-1	CRUP	58	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	57	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	60	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	57	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	46	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
N18 N- Max P{1}						HOOP	9	104	
GR + Max P{1}		3			1.00	2-1 SUST	5	104	
TR:Amb to T4{1}				313	1.00	4-1 DISP	81	217	
Amb to T1{1}				93	1.00	4-1 DISP	24	247	
Amb to T2{1}				283	1.00	4-1 DISP	74	247	
Amb to T3{1}				275	1.00	4-1 DISP	72	247	
Amb to T4{1}				313	1.00	4-1 DISP	81	217	
Amb to T5{1}				285	1.00	4-1 DISP	74	217	
Hydrotest{1}		0	0		1.00	3-1 OCC	0	219	
Sus.+T1{1}					1.00	5-1 CRUP	13	<NOTE 1>	
Sus.+T2{1}					1.00	5-1 CRUP	30	<NOTE 1>	
Sus.+T3{1}					1.00	5-1 CRUP	29	<NOTE 1>	
Sus.+T4{1}					1.00	5-1 CRUP	32	<NOTE 1>	

		DVI_B_LINE_REV0.OUT					
	Sus.+T5{1}			1.00	5-1 CRUP	30	<NOTE 1>
N19	Max P{1}				HOOP	9	104
	GR + Max P{1}	6		1.00	2-1 SUST	6	104
	TR:Amb to T4{1}		309	1.00	4-1 DISP	80	217
	Amb to T1{1}		125	1.00	4-1 DISP	33	247
	Amb to T2{1}		253	1.00	4-1 DISP	66	247
	Amb to T3{1}		250	1.00	4-1 DISP	65	247
	Amb to T4{1}		309	1.00	4-1 DISP	80	217
	Amb to T5{1}		268	1.00	4-1 DISP	70	217
	Hydrotest{1}	0	0	1.00	3-1 OCC	0	219
	Sus.+T1{1}			1.00	5-1 CRUP	17	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	28	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	28	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	33	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	29	<NOTE 1>
M21 F+	Max P{1}				HOOP	59	86
	GR + Max P{1}	4		1.00	2-1 SUST	32	86
	TR:Amb to T3{1}		112	1.00	4-1 DISP	80	197
	Amb to T1{1}		105	1.00	4-1 DISP	75	197
	Amb to T2{1}		101	1.00	4-1 DISP	72	197
	Amb to T3{1}		112	1.00	4-1 DISP	80	197
	Amb to T4{1}		99	1.00	4-1 DISP	71	197
	Amb to T5{1}		54	1.00	4-1 DISP	38	217
	Hydrotest{1}	0	0	1.00	3-1 OCC	44	219
	Sus.+T1{1}			1.00	5-1 CRUP	57	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	56	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	59	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	56	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	45	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)		
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F no. type	Stress	Allow.
M21 F-	Max P{1}				HOOP	59	86

		DVI_B_LINE_REV0.OUT						
	GR + Max P{1}	4		1.00	2-1	SUST	32	86
	TR:Amb to T3{1}		112	1.00	4-1	DISP	80	197
	Amb to T1{1}		105	1.00	4-1	DISP	75	197
	Amb to T2{1}		101	1.00	4-1	DISP	72	197
	Amb to T3{1}		112	1.00	4-1	DISP	80	197
	Amb to T4{1}		99	1.00	4-1	DISP	71	197
	Amb to T5{1}		54	1.00	4-1	DISP	38	217
	Hydrotest{1}	0	0	1.00	3-1	OCC	44	219
	Sus.+T1{1}			1.00	5-1	CRUP	57	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	56	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	59	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	56	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	45	<NOTE 1>
018 F+	Max P{1}					HOOP	9	104
	GR + Max P{1}	12		1.00	2-1	SUST	8	104
	TR:Amb to T4{1}		307	1.00	4-1	DISP	80	217
	Amb to T1{1}		90	1.00	4-1	DISP	23	247
	Amb to T2{1}		263	1.00	4-1	DISP	68	247
	Amb to T3{1}		258	1.00	4-1	DISP	67	247
	Amb to T4{1}		307	1.00	4-1	DISP	80	217
	Amb to T5{1}		272	1.00	4-1	DISP	71	217
	Hydrotest{1}	0	0	1.00	3-1	OCC	0	219
	Sus.+T1{1}			1.00	5-1	CRUP	15	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	30	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	30	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	34	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	31	<NOTE 1>
011	Max P{1}					HOOP	9	104
	GR + Max P{1}	5		2.00	2-1	SUST	6	104
	TR:Amb to T4{1}		154	2.00	4-1	DISP	80	217
	Amb to T1{1}		65	2.00	4-1	DISP	34	247
	Amb to T2{1}		111	2.00	4-1	DISP	58	247
	Amb to T3{1}		115	2.00	4-1	DISP	60	247
	Amb to T4{1}		154	2.00	4-1	DISP	80	217
	Amb to T5{1}		141	2.00	4-1	DISP	73	217
	Hydrotest{1}	0	0	2.00	3-1	OCC	0	219
	Sus.+T1{1}			2.00	5-1	CRUP	15	<NOTE 1>
	Sus.+T2{1}			2.00	5-1	CRUP	21	<NOTE 1>
	Sus.+T3{1}			2.00	5-1	CRUP	21	<NOTE 1>
	Sus.+T4{1}			2.00	5-1	CRUP	26	<NOTE 1>
	Sus.+T5{1}			2.00	5-1	CRUP	25	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)			(Stress in N/mm2)					
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code	
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.	
-----	-----	-----	-----	-----	-----	-----	-----	
P04	Max P{1}					HOOP	6 104	
	GR + Max P{1}	14			1.00	2-1 SUST	24 104	
	TR:Amb to T4{1}			52	1.00	4-1 DISP	78 247	
	Amb to T1{1}			23	1.00	4-1 DISP	34 247	
	Amb to T2{1}			48	1.00	4-1 DISP	73 217	
	Amb to T3{1}			50	1.00	4-1 DISP	75 217	
	Amb to T4{1}			52	1.00	4-1 DISP	78 247	
	Amb to T5{1}			47	1.00	4-1 DISP	71 217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	0 219	
	Sus.+T1{1}				1.00	5-1 CRUP	36 <NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	49 <NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	49 <NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	50 <NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	48 <NOTE 1>	
	013	Max P{1}					HOOP	59 86
		GR + Max P{1}	8			1.00	2-1 SUST	35 86
TR:T1 to T5{1}				109	1.00	4-1 DISP	78 197	
Amb to T1{1}				40	1.00	4-1 DISP	28 197	
Amb to T2{1}				59	1.00	4-1 DISP	42 197	
Amb to T3{1}				66	1.00	4-1 DISP	47 197	
Amb to T4{1}				61	1.00	4-1 DISP	44 197	
Amb to T5{1}				76	1.00	4-1 DISP	54 217	
Hydrotest{1}		0	0		1.00	3-1 OCC	44 219	
Sus.+T1{1}					1.00	5-1 CRUP	45 <NOTE 1>	
Sus.+T2{1}					1.00	5-1 CRUP	49 <NOTE 1>	
Sus.+T3{1}					1.00	5-1 CRUP	51 <NOTE 1>	
Sus.+T4{1}					1.00	5-1 CRUP	50 <NOTE 1>	
Sus.+T5{1}					1.00	5-1 CRUP	53 <NOTE 1>	
N16 N-		Max P{1}					HOOP	9 104
		GR + Max P{1}	8			1.00	2-1 SUST	6 104
	TR:Amb to T4{1}			299	1.00	4-1 DISP	78 217	

Amb to T1{1}			142	1.00	4-1 DISP	37	247
Amb to T2{1}			225	1.00	4-1 DISP	59	247
Amb to T3{1}			224	1.00	4-1 DISP	58	247
Amb to T4{1}			299	1.00	4-1 DISP	78	217
Amb to T5{1}			248	1.00	4-1 DISP	64	217
Hydrotest{1}	0	0		1.00	3-1 OCC	0	219
Sus.+T1{1}				1.00	5-1 CRUP	19	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	26	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	26	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	32	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	28	<NOTE 1>

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Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
N18 F+	Max P{1}					HOOP	9	104
	GR + Max P{1}	5			1.00	2-1 SUST	6	104
	TR:Amb to T4{1}			298	1.00	4-1 DISP	78	217
	Amb to T1{1}			73	1.00	4-1 DISP	19	247
	Amb to T2{1}			279	1.00	4-1 DISP	73	247
	Amb to T3{1}			270	1.00	4-1 DISP	70	247
	Amb to T4{1}			298	1.00	4-1 DISP	78	217
	Amb to T5{1}			277	1.00	4-1 DISP	72	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	0	219
	Sus.+T1{1}				1.00	5-1 CRUP	12	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	30	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	29	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	32	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	30	<NOTE 1>
M23 F+	Max P{1}					HOOP	59	86
	GR + Max P{1}	8			1.00	2-1 SUST	35	86
	TR:Amb to T3{1}			108	1.00	4-1 DISP	77	197
	Amb to T1{1}			99	1.00	4-1 DISP	71	197
	Amb to T2{1}			92	1.00	4-1 DISP	66	197

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Amb to T3{1}		108	1.00	4-1	DISP	77	197
Amb to T4{1}		87	1.00	4-1	DISP	62	197
Amb to T5{1}		47	1.00	4-1	DISP	34	217
Hydrotest{1}	0	0	1.00	3-1	OCC	44	219
Sus.+T1{1}			1.00	5-1	CRUP	59	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	57	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	61	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	56	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	47	<NOTE 1>
M23 F- Max P{1}					HOOP	59	86
GR + Max P{1}	8		1.00	2-1	SUST	35	86
TR:Amb to T3{1}		108	1.00	4-1	DISP	77	197
Amb to T1{1}		99	1.00	4-1	DISP	71	197
Amb to T2{1}		92	1.00	4-1	DISP	66	197
Amb to T3{1}		108	1.00	4-1	DISP	77	197
Amb to T4{1}		87	1.00	4-1	DISP	62	197
Amb to T5{1}		47	1.00	4-1	DISP	34	217
Hydrotest{1}	0	0	1.00	3-1	OCC	44	219
Sus.+T1{1}			1.00	5-1	CRUP	59	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	57	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	61	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	56	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	47	<NOTE 1>

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DVI_B_LINE_REV0

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RESULT PAGE 346

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)		
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
M28	Max P{1}					HOOP	77 86
	GR + Max P{1}	24			1.00	2-1 SUST	43 86
	TR:Amb to T1{1}			159	1.00	4-1 DISP	33 197
	Amb to T1{1}			159	1.00	4-1 DISP	33 197
	Amb to T2{1}			144	1.00	4-1 DISP	30 197
	Amb to T3{1}			157	1.00	4-1 DISP	33 197
	Amb to T4{1}			144	1.00	4-1 DISP	30 197
	Amb to T5{1}			75	1.00	4-1 DISP	16 217

DVI_B_LINE_REV0.OUT

	Hydrotest{1}	0	0	1.00	3-1	OCC	56	219
	Sus.+T1{1}			1.00	5-1	CRUP	54	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	53	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	53	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	53	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	48	<NOTE 1>
M27	Max P{1}					HOOP	77	86
	GR + Max P{1}	21		2.00	2-1	SUST	44	86
	TR:Amb to T1{1}		147	2.00	4-1	DISP	62	197
	Amb to T1{1}		147	2.00	4-1	DISP	62	197
	Amb to T2{1}		134	2.00	4-1	DISP	56	197
	Amb to T3{1}		146	2.00	4-1	DISP	61	197
	Amb to T4{1}		133	2.00	4-1	DISP	56	197
	Amb to T5{1}		69	2.00	4-1	DISP	29	217
	Hydrotest{1}	0	0	2.00	3-1	OCC	56	219
	Sus.+T1{1}			2.00	5-1	CRUP	60	<NOTE 1>
	Sus.+T2{1}			2.00	5-1	CRUP	58	<NOTE 1>
	Sus.+T3{1}			2.00	5-1	CRUP	59	<NOTE 1>
	Sus.+T4{1}			2.00	5-1	CRUP	58	<NOTE 1>
	Sus.+T5{1}			2.00	5-1	CRUP	51	<NOTE 1>
M04	Max P{1}					HOOP	77	86
	GR + Max P{1}	2		2.00	2-1	SUST	38	86
	TR:Amb to T3{1}		112	2.00	4-1	DISP	47	197
	Amb to T1{1}		50	2.00	4-1	DISP	21	247
	Amb to T2{1}		54	2.00	4-1	DISP	22	247
	Amb to T3{1}		112	2.00	4-1	DISP	47	197
	Amb to T4{1}		66	2.00	4-1	DISP	28	247
	Amb to T5{1}		69	2.00	4-1	DISP	29	217
	Hydrotest{1}	0	0	2.00	3-1	OCC	56	219
	Sus.+T1{1}			2.00	5-1	CRUP	43	<NOTE 1>
	Sus.+T2{1}			2.00	5-1	CRUP	44	<NOTE 1>
	Sus.+T3{1}			2.00	5-1	CRUP	50	<NOTE 1>
	Sus.+T4{1}			2.00	5-1	CRUP	45	<NOTE 1>
	Sus.+T5{1}			2.00	5-1	CRUP	45	<NOTE 1>

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 DVI_B_LINE_REV0
 09/13/2010 DVIIBLINE
 09:56 AM
 AutoPIPE Plus 9.2.1

 RESULT PAGE 347

BENTLEY

DVI_B_LINE_REV0.0UT

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code	
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

M03	+ Max P{1}					HOOP	77	86	
	GR + Max P{1}	2			1.00	2-1 SUST	38	86	
	TR:Amb to T3{1}			128	1.00	4-1 DISP	27	197	
	Amb to T1{1}			57	1.00	4-1 DISP	12	247	
	Amb to T2{1}			61	1.00	4-1 DISP	13	247	
	Amb to T3{1}			128	1.00	4-1 DISP	27	197	
	Amb to T4{1}			75	1.00	4-1 DISP	16	247	
	Amb to T5{1}			79	1.00	4-1 DISP	17	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	56	219	
	Sus.+T1{1}				1.00	5-1 CRUP	42	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	42	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	47	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	43	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	44	<NOTE 1>	
M03	- Max P{1}					HOOP	77	86	
	GR + Max P{1}	2			1.00	2-1 SUST	38	86	
	TR:Amb to T3{1}			128	1.00	4-1 DISP	27	197	
	Amb to T1{1}			57	1.00	4-1 DISP	12	247	
	Amb to T2{1}			61	1.00	4-1 DISP	13	247	
	Amb to T3{1}			128	1.00	4-1 DISP	27	197	
	Amb to T4{1}			75	1.00	4-1 DISP	16	247	
	Amb to T5{1}			79	1.00	4-1 DISP	17	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	56	219	
	Sus.+T1{1}				1.00	5-1 CRUP	42	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	42	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	47	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	43	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	44	<NOTE 1>	
M02	+ Max P{1}					HOOP	77	86	
	GR + Max P{1}	3			1.00	2-1 SUST	38	86	
	TR:Amb to T3{1}			157	1.00	4-1 DISP	33	197	
	Amb to T1{1}			69	1.00	4-1 DISP	14	247	
	Amb to T2{1}			75	1.00	4-1 DISP	16	247	
	Amb to T3{1}			157	1.00	4-1 DISP	33	197	
	Amb to T4{1}			91	1.00	4-1 DISP	19	247	
	Amb to T5{1}			96	1.00	4-1 DISP	20	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	56	219	

Sus.+T1{1}	DVI_B_LINE_REV0.0UT	1.00	5-1	CRUP	43	<NOTE 1>
Sus.+T2{1}		1.00	5-1	CRUP	43	<NOTE 1>
Sus.+T3{1}		1.00	5-1	CRUP	49	<NOTE 1>
Sus.+T4{1}		1.00	5-1	CRUP	45	<NOTE 1>
Sus.+T5{1}		1.00	5-1	CRUP	45	<NOTE 1>

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DVI_B_LINE_REV0

09/13/2010 DVIIBLINE

BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 348

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
M06	Max P{1}					HOOP	77 86
	GR + Max P{1}	0			1.00	2-1 SUST	38 86
	TR:Amb to T3{1}			38	1.00	4-1 DISP	8 197
	Amb to T1{1}			4	1.00	4-1 DISP	1 247
	Amb to T2{1}			5	1.00	4-1 DISP	1 247
	Amb to T3{1}			38	1.00	4-1 DISP	8 197
	Amb to T4{1}			4	1.00	4-1 DISP	1 247
	Amb to T5{1}			19	1.00	4-1 DISP	4 217
	Hydrotest{1}	0	0		1.00	3-1 OCC	56 219
	Sus.+T1{1}				1.00	5-1 CRUP	38 <NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	38 <NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	40 <NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	38 <NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	39 <NOTE 1>
F10	Max P{1}					HOOP	77 86
	GR + Max P{1}	0			1.00	2-1 SUST	38 86
	TR:Amb to T3{1}			30	1.00	4-1 DISP	6 197
	Amb to T1{1}			3	1.00	4-1 DISP	1 247
	Amb to T2{1}			4	1.00	4-1 DISP	1 247
	Amb to T3{1}			30	1.00	4-1 DISP	6 197
	Amb to T4{1}			3	1.00	4-1 DISP	1 247
	Amb to T5{1}			15	1.00	4-1 DISP	3 217
	Hydrotest{1}	0	0		1.00	3-1 OCC	56 219
	Sus.+T1{1}				1.00	5-1 CRUP	38 <NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	38 <NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	40 <NOTE 1>

Sus.+T4{1}			1.00	5-1	CRUP	38	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	39	<NOTE 1>
Max P{1}					HOOP	77	86
GR + Max P{1}	0		1.00	2-1	SUST	38	86
TR:Amb to T3{1}		30	1.00	4-1	DISP	6	197
Amb to T1{1}		3	1.00	4-1	DISP	1	247
Amb to T2{1}		4	1.00	4-1	DISP	1	247
Amb to T3{1}		30	1.00	4-1	DISP	6	197
Amb to T4{1}		3	1.00	4-1	DISP	1	247
Amb to T5{1}		15	1.00	4-1	DISP	3	217
Hydrotest{1}	0	0	1.00	3-1	OCC	56	219
Sus.+T1{1}			1.00	5-1	CRUP	38	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	38	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	40	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	38	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	39	<NOTE 1>

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Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
F09	Max P{1}					H00P	77	86
	GR + Max P{1}	0			2.00	2-1 SUST	38	86
	TR:Amb to T3{1}			26	2.00	4-1 DISP	11	197
	Amb to T1{1}			3	2.00	4-1 DISP	1	247
	Amb to T2{1}			3	2.00	4-1 DISP	1	247
	Amb to T3{1}			26	2.00	4-1 DISP	11	197
	Amb to T4{1}			3	2.00	4-1 DISP	1	247
	Amb to T5{1}			13	2.00	4-1 DISP	5	217
	Hydrotest{1}	0	0		2.00	3-1 OCC	56	219
	Sus.+T1{1}				2.00	5-1 CRUP	38	<NOTE 1>
	Sus.+T2{1}				2.00	5-1 CRUP	38	<NOTE 1>
	Sus.+T3{1}				2.00	5-1 CRUP	40	<NOTE 1>
	Sus.+T4{1}				2.00	5-1 CRUP	38	<NOTE 1>
	Sus.+T5{1}				2.00	5-1 CRUP	39	<NOTE 1>

B02	Max P{1}						HOOP	48	86	
	GR + Max P{1}	7			2.00	2-1	SUST	38	86	
	TR:Amb to T2{1}			30	2.00	4-1	DISP	76	197	
	Amb to T1{1}			19	2.00	4-1	DISP	48	197	
	Amb to T2{1}			30	2.00	4-1	DISP	76	197	
	Amb to T3{1}			30	2.00	4-1	DISP	76	197	
	Amb to T4{1}			13	2.00	4-1	DISP	34	197	
	Amb to T5{1}			21	2.00	4-1	DISP	54	217	
	Hydrotest{1}	0	0		2.00	3-1	OCC	37	219	
	Sus.+T1{1}				2.00	5-1	CRUP	50	<NOTE 1>	
	Sus.+T2{1}				2.00	5-1	CRUP	57	<NOTE 1>	
	Sus.+T3{1}				2.00	5-1	CRUP	57	<NOTE 1>	
	Sus.+T4{1}				2.00	5-1	CRUP	46	<NOTE 1>	
	Sus.+T5{1}				2.00	5-1	CRUP	51	<NOTE 1>	
	F03	Max P{1}						HOOP	44	86
		GR + Max P{1}	10			1.00	2-1	SUST	47	86
TR:Amb to T3{1}				31	1.00	4-1	DISP	75	197	
Amb to T1{1}				13	1.00	4-1	DISP	32	197	
Amb to T2{1}				21	1.00	4-1	DISP	51	197	
Amb to T3{1}				31	1.00	4-1	DISP	75	197	
Amb to T4{1}				17	1.00	4-1	DISP	41	197	
Amb to T5{1}				17	1.00	4-1	DISP	40	217	
Hydrotest{1}		0	0		1.00	3-1	OCC	35	219	
Sus.+T1{1}					1.00	5-1	CRUP	57	<NOTE 1>	
Sus.+T2{1}					1.00	5-1	CRUP	64	<NOTE 1>	
Sus.+T3{1}					1.00	5-1	CRUP	72	<NOTE 1>	
Sus.+T4{1}					1.00	5-1	CRUP	60	<NOTE 1>	
Sus.+T5{1}					1.00	5-1	CRUP	60	<NOTE 1>	

DVI_B_LINE_REV0

09/13/2010 DVIBLINE

BENTLEY

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AutoPIPE Plus 9.2.1 RESULT PAGE 350

			(Moments in N.m)		(Stress in N/mm2)			
Point	Load		Ma	Mb	Mc	Eq. Load	Code	Code
name	combination		(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
-----			-----		-----		-----	-----
M23 N+	Max P{1}						H00P	59 86
	GR + Max P{1}		8		1.00	2-1	SUST	35 86

		DVI_B_LINE_REV0.OUT						
	TR:Amb to T3{1}		103	1.00	4-1 DISP		74	197
	Amb to T1{1}		96	1.00	4-1 DISP		68	197
	Amb to T2{1}		87	1.00	4-1 DISP		62	197
	Amb to T3{1}		103	1.00	4-1 DISP		74	197
	Amb to T4{1}		83	1.00	4-1 DISP		60	197
	Amb to T5{1}		45	1.00	4-1 DISP		32	217
	Hydrotest{1}	0	0	1.00	3-1 OCC		44	219
	Sus.+T1{1}			1.00	5-1 CRUP		58	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP		56	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP		60	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP		55	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP		46	<NOTE 1>
M23 N-	Max P{1}				HOOP		59	86
	GR + Max P{1}	8		1.00	2-1 SUST		35	86
	TR:Amb to T3{1}		103	1.00	4-1 DISP		74	197
	Amb to T1{1}		96	1.00	4-1 DISP		68	197
	Amb to T2{1}		87	1.00	4-1 DISP		62	197
	Amb to T3{1}		103	1.00	4-1 DISP		74	197
	Amb to T4{1}		83	1.00	4-1 DISP		60	197
	Amb to T5{1}		45	1.00	4-1 DISP		32	217
	Hydrotest{1}	0	0	1.00	3-1 OCC		44	219
	Sus.+T1{1}			1.00	5-1 CRUP		58	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP		56	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP		60	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP		55	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP		46	<NOTE 1>
A11	Max P{1}				HOOP		48	86
	GR + Max P{1}	27		1.00	2-1 SUST		60	86
	TR:Amb to T3{1}		34	1.00	4-1 DISP		43	197
	Amb to T1{1}		22	1.00	4-1 DISP		28	197
	Amb to T2{1}		32	1.00	4-1 DISP		41	197
	Amb to T3{1}		34	1.00	4-1 DISP		43	197
	Amb to T4{1}		32	1.00	4-1 DISP		41	197
	Amb to T5{1}		26	1.00	4-1 DISP		33	217
	Hydrotest{1}	0	0	1.00	3-1 OCC		37	219
	Sus.+T1{1}			1.00	5-1 CRUP		69	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP		73	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP		74	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP		73	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP		71	<NOTE 1>

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DVI_B_LINE_REV0

09/13/2010 DVI BLINE

BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 351

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)				(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
A47	Max P{1}					HOOP	48	86
	GR + Max P{1}	22			1.00	2-1 SUST	53	86
	TR:Amb to T4{1}			48	1.00	4-1 DISP	61	197
	Amb to T1{1}			25	1.00	4-1 DISP	32	197
	Amb to T2{1}			40	1.00	4-1 DISP	51	197
	Amb to T3{1}			40	1.00	4-1 DISP	52	197
	Amb to T4{1}			48	1.00	4-1 DISP	61	197
	Amb to T5{1}			33	1.00	4-1 DISP	43	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	37	219
	Sus.+T1{1}				1.00	5-1 CRUP	64	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	70	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	71	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	74	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	68	<NOTE 1>
A10	Max P{1}					HOOP	48	86
	GR + Max P{1}	12			1.00	2-1 SUST	40	86
	TR:T4 to T5{1}			57	1.00	4-1 DISP	73	197
	Amb to T1{1}			11	1.00	4-1 DISP	15	197
	Amb to T2{1}			30	1.00	4-1 DISP	38	197
	Amb to T3{1}			29	1.00	4-1 DISP	37	197
	Amb to T4{1}			27	1.00	4-1 DISP	35	197
	Amb to T5{1}			32	1.00	4-1 DISP	40	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	37	219
	Sus.+T1{1}				1.00	5-1 CRUP	45	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	53	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	52	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	52	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	54	<NOTE 1>
J08	Max P{1}					HOOP	11	104
	GR + Max P{1}	224			2.00	2-1 SUST	25	104
	TR:Amb to T4{1}			634	2.00	4-1 DISP	73	247
	Amb to T1{1}			99	2.00	4-1 DISP	11	247

Amb to T2{1}			605	2.00	4-1 DISP	69	217
Amb to T3{1}			608	2.00	4-1 DISP	70	217
Amb to T4{1}			634	2.00	4-1 DISP	73	247
Amb to T5{1}			609	2.00	4-1 DISP	70	217
Hydrotest{1}	0	0		2.00	3-1 OCC	1	219
Sus.+T1{1}				2.00	5-1 CRUP	27	<NOTE 1>
Sus.+T2{1}				2.00	5-1 CRUP	42	<NOTE 1>
Sus.+T3{1}				2.00	5-1 CRUP	42	<NOTE 1>
Sus.+T4{1}				2.00	5-1 CRUP	43	<NOTE 1>
Sus.+T5{1}				2.00	5-1 CRUP	42	<NOTE 1>

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	DVI_B_LINE_REV0.OUT						
Amb to T4{1}		17	1.00	4-1	DISP	42	247
Amb to T5{1}		17	1.00	4-1	DISP	40	217
Hydrotest{1}	0	0	1.00	3-1	OCC	35	219
Sus.+T1{1}			1.00	5-1	CRUP	53	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	59	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	66	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	56	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	55	<NOTE 1>

019 F- Max P{1}					HOOP	9	104
GR + Max P{1}	36		1.52	2-1	SUST	15	104
TR:T1 to T5{1}		182	1.52	4-1	DISP	72	217
Amb to T1{1}		43	1.52	4-1	DISP	17	247
Amb to T2{1}		169	1.52	4-1	DISP	67	247
Amb to T3{1}		171	1.52	4-1	DISP	68	247
Amb to T4{1}		174	1.52	4-1	DISP	69	217
Amb to T5{1}		176	1.52	4-1	DISP	70	217
Hydrotest{1}	0	0	1.52	3-1	OCC	0	219
Sus.+T1{1}			1.52	5-1	CRUP	19	<NOTE 1>
Sus.+T2{1}			1.52	5-1	CRUP	32	<NOTE 1>
Sus.+T3{1}			1.52	5-1	CRUP	32	<NOTE 1>
Sus.+T4{1}			1.52	5-1	CRUP	32	<NOTE 1>
Sus.+T5{1}			1.52	5-1	CRUP	33	<NOTE 1>

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DVI_B_LINE_REV0

09/13/2010 DVI BLINE

BENTLEY

09:56 AM

AutoPIPE Plus 9.2.1 RESULT PAGE 353

EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)		Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F				
015 + Max P{1}							HOOP	59	86
GR + Max P{1}		8			1.00	2-1	SUST	35	86
TR:T1 to T5{1}				101	1.00	4-1	DISP	72	197
Amb to T1{1}				39	1.00	4-1	DISP	28	197
Amb to T2{1}				39	1.00	4-1	DISP	28	197
Amb to T3{1}				50	1.00	4-1	DISP	36	197
Amb to T4{1}				40	1.00	4-1	DISP	28	197
Amb to T5{1}				62	1.00	4-1	DISP	45	217
Hydrotest{1}		0	0		1.00	3-1	OCC	44	219

Sus.+T1{1}	1.00	5-1 CRUP	44 <NOTE 1>
Sus.+T2{1}	1.00	5-1 CRUP	44 <NOTE 1>
Sus.+T3{1}	1.00	5-1 CRUP	47 <NOTE 1>
Sus.+T4{1}	1.00	5-1 CRUP	44 <NOTE 1>
Sus.+T5{1}	1.00	5-1 CRUP	50 <NOTE 1>

015	- Max P{1}				HOOP	59	86
	GR + Max P{1}	8		1.00	2-1 SUST	35	86
	TR:T1 to T5{1}		101	1.00	4-1 DISP	72	197
	Amb to T1{1}		39	1.00	4-1 DISP	28	197
	Amb to T2{1}		39	1.00	4-1 DISP	28	197
	Amb to T3{1}		50	1.00	4-1 DISP	36	197
	Amb to T4{1}		40	1.00	4-1 DISP	28	197
	Amb to T5{1}		62	1.00	4-1 DISP	45	217
	Hydrotest{1}	0	0	1.00	3-1 OCC	44	219
	Sus.+T1{1}			1.00	5-1 CRUP	44	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	44	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	47	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	44	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	50	<NOTE 1>

F04	Max P{1}					HOOP	44	86
	GR + Max P{1}	3		1.00	2-1	SUST	30	86
	TR:T2 to T3{1}		30	1.00	4-1	DISP	72	197
	Amb to T1{1}		4	1.00	4-1	DISP	11	247
	Amb to T2{1}		6	1.00	4-1	DISP	13	247
	Amb to T3{1}		26	1.00	4-1	DISP	63	197
	Amb to T4{1}		5	1.00	4-1	DISP	12	247
	Amb to T5{1}		13	1.00	4-1	DISP	31	217
	Hydrotest{1}	0	0	1.00	3-1	OCC	35	219
	Sus.+T1{1}			1.00	5-1	CRUP	33	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	34	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	51	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	34	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	40	<NOTE 1>

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Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.

A13	- Max P{1}					HOOP	48	86
	GR + Max P{1}	9			1.00	2-1 SUST	37	86
	TR:Amb to T4{1}			53	1.00	4-1 DISP	68	197
	Amb to T1{1}			27	1.00	4-1 DISP	34	197
	Amb to T2{1}			27	1.00	4-1 DISP	34	197
	Amb to T3{1}			25	1.00	4-1 DISP	32	197
	Amb to T4{1}			53	1.00	4-1 DISP	68	197
	Amb to T5{1}			18	1.00	4-1 DISP	24	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	37	219
	Sus.+T1{1}				1.00	5-1 CRUP	48	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	48	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	47	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	59	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	44	<NOTE 1>
A09	M Max P{1}					HOOP	48	86
	GR + Max P{1}	5			1.00	2-1 SUST	31	86
	TR:Amb to T3{1}			53	1.00	4-1 DISP	68	197
	Amb to T1{1}			33	1.00	4-1 DISP	42	197
	Amb to T2{1}			53	1.00	4-1 DISP	68	197
	Amb to T3{1}			53	1.00	4-1 DISP	68	197
	Amb to T4{1}			21	1.00	4-1 DISP	27	197
	Amb to T5{1}			37	1.00	4-1 DISP	47	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	37	219
	Sus.+T1{1}				1.00	5-1 CRUP	45	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	53	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	53	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	40	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	46	<NOTE 1>
M24	+ Max P{1}					HOOP	59	86
	GR + Max P{1}	5			1.00	2-1 SUST	33	86
	TR:Amb to T3{1}			95	1.00	4-1 DISP	68	197
	Amb to T1{1}			34	1.00	4-1 DISP	24	247
	Amb to T2{1}			43	1.00	4-1 DISP	31	247
	Amb to T3{1}			95	1.00	4-1 DISP	68	197
	Amb to T4{1}			47	1.00	4-1 DISP	34	247
	Amb to T5{1}			55	1.00	4-1 DISP	39	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	44	219
	Sus.+T1{1}				1.00	5-1 CRUP	41	<NOTE 1>

Sus.+T2{1}	DVI_B_LINE_REV0.OUT	1.00	5-1	CRUP	43 <NOTE 1>
Sus.+T3{1}		1.00	5-1	CRUP	55 <NOTE 1>
Sus.+T4{1}		1.00	5-1	CRUP	44 <NOTE 1>
Sus.+T5{1}		1.00	5-1	CRUP	46 <NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

M24	- Max P{1}					HOOP	59	86	
	GR + Max P{1}	5			1.00	2-1 SUST	33	86	
	TR:Amb to T3{1}			95	1.00	4-1 DISP	68	197	
	Amb to T1{1}			34	1.00	4-1 DISP	24	247	
	Amb to T2{1}			43	1.00	4-1 DISP	31	247	
	Amb to T3{1}			95	1.00	4-1 DISP	68	197	
	Amb to T4{1}			47	1.00	4-1 DISP	34	247	
	Amb to T5{1}			55	1.00	4-1 DISP	39	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	44	219	
	Sus.+T1{1}				1.00	5-1 CRUP	41	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	43	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	55	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	44	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	46	<NOTE 1>	
A09	F+ Max P{1}					HOOP	48	86	
	GR + Max P{1}	5			1.00	2-1 SUST	31	86	
	TR:Amb to T3{1}			53	1.00	4-1 DISP	68	197	
	Amb to T1{1}			33	1.00	4-1 DISP	42	197	
	Amb to T2{1}			53	1.00	4-1 DISP	68	197	
	Amb to T3{1}			53	1.00	4-1 DISP	68	197	
	Amb to T4{1}			22	1.00	4-1 DISP	28	197	
	Amb to T5{1}			37	1.00	4-1 DISP	47	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	37	219	
	Sus.+T1{1}				1.00	5-1 CRUP	45	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	53	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	53	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	40	<NOTE 1>	

Sus.+T5{1}			1.00	5-1 CRUP	47	<NOTE 1>
Max P{1}				HOOP	48	86
GR + Max P{1}	5		1.00	2-1 SUST	31	86
TR:Amb to T3{1}		53	1.00	4-1 DISP	68	197
Amb to T1{1}		33	1.00	4-1 DISP	42	197
Amb to T2{1}		53	1.00	4-1 DISP	68	197
Amb to T3{1}		53	1.00	4-1 DISP	68	197
Amb to T4{1}		22	1.00	4-1 DISP	28	197
Amb to T5{1}		37	1.00	4-1 DISP	47	217
Hydrotest{1}	0	0	1.00	3-1 OCC	37	219
Sus.+T1{1}			1.00	5-1 CRUP	45	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	53	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	53	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	40	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	47	<NOTE 1>

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Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. Load no. type			
017 F+	Max P{1}					HOOP	9	104	
	GR + Max P{1}	16			1.00	2-1 SUST	9	104	
	TR:Amb to T4{1}			257	1.00	4-1 DISP	67	217	
	Amb to T1{1}			70	1.00	4-1 DISP	18	247	
	Amb to T2{1}			226	1.00	4-1 DISP	59	247	
	Amb to T3{1}			220	1.00	4-1 DISP	57	247	
	Amb to T4{1}			257	1.00	4-1 DISP	67	217	
	Amb to T5{1}			226	1.00	4-1 DISP	59	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	0	219	
	Sus.+T1{1}				1.00	5-1 CRUP	15	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	28	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	28	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	31	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	28	<NOTE 1>	

A09 N+ Max P{1}	H00P	48	86

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GR + Max P{1}	4		1.00	2-1	SUST	30	86
TR:Amb to T3{1}		52	1.00	4-1	DISP	67	197
Amb to T1{1}		32	1.00	4-1	DISP	41	197
Amb to T2{1}		52	1.00	4-1	DISP	67	197
Amb to T3{1}		52	1.00	4-1	DISP	67	197
Amb to T4{1}		21	1.00	4-1	DISP	26	197
Amb to T5{1}		36	1.00	4-1	DISP	46	217
Hydrotest{1}	0	0	1.00	3-1	OCC	37	219
Sus.+T1{1}			1.00	5-1	CRUP	44	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	52	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	52	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	39	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	46	<NOTE 1>
A09 N- Max P{1}					HOOP	48	86
GR + Max P{1}	4		1.00	2-1	SUST	30	86
TR:Amb to T3{1}		52	1.00	4-1	DISP	67	197
Amb to T1{1}		32	1.00	4-1	DISP	41	197
Amb to T2{1}		52	1.00	4-1	DISP	67	197
Amb to T3{1}		52	1.00	4-1	DISP	67	197
Amb to T4{1}		21	1.00	4-1	DISP	26	197
Amb to T5{1}		36	1.00	4-1	DISP	46	217
Hydrotest{1}	0	0	1.00	3-1	OCC	37	219
Sus.+T1{1}			1.00	5-1	CRUP	44	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	52	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	52	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	39	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	46	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no.	type	Stress	Allow.
A01	Max P{1}						HOOP	48	86
	GR + Max P{1}	14			2.00	2-1	SUST	52	86
	TR:Amb to T1{1}			22	2.00	4-1	DISP	55	197

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	Amb to T1{1}		22	2.00	4-1	DISP	55	197	
	Amb to T2{1}		21	2.00	4-1	DISP	54	197	
	Amb to T3{1}		21	2.00	4-1	DISP	54	197	
	Amb to T4{1}		21	2.00	4-1	DISP	54	197	
	Amb to T5{1}		12	2.00	4-1	DISP	29	217	
	Hydrotest{1}	0	0	2.00	3-1	OCC	37	219	
	Sus.+T1{1}			2.00	5-1	CRUP	65	<NOTE 1>	
	Sus.+T2{1}			2.00	5-1	CRUP	65	<NOTE 1>	
	Sus.+T3{1}			2.00	5-1	CRUP	65	<NOTE 1>	
	Sus.+T4{1}			2.00	5-1	CRUP	65	<NOTE 1>	
	Sus.+T5{1}			2.00	5-1	CRUP	59	<NOTE 1>	
P02	Max P{1}					HOOP	9	104	
	GR + Max P{1}	4		2.00	2-1	SUST	6	104	
	TR:Amb to T3{1}		126	2.00	4-1	DISP	65	217	
	Amb to T1{1}		24	2.00	4-1	DISP	13	247	
	Amb to T2{1}		124	2.00	4-1	DISP	64	217	
	Amb to T3{1}		126	2.00	4-1	DISP	65	217	
	Amb to T4{1}		121	2.00	4-1	DISP	63	247	
	Amb to T5{1}		125	2.00	4-1	DISP	65	217	
	Hydrotest{1}	0	0	2.00	3-1	OCC	0	219	
	Sus.+T1{1}			2.00	5-1	CRUP	9	<NOTE 1>	
	Sus.+T2{1}			2.00	5-1	CRUP	22	<NOTE 1>	
	Sus.+T3{1}			2.00	5-1	CRUP	22	<NOTE 1>	
	Sus.+T4{1}			2.00	5-1	CRUP	22	<NOTE 1>	
	Sus.+T5{1}			2.00	5-1	CRUP	22	<NOTE 1>	
P05	Max P{1}					HOOP	48	86	
	GR + Max P{1}	17		1.00	2-1	SUST	47	86	
	TR:Amb to T4{1}		43	1.00	4-1	DISP	55	197	
	Amb to T1{1}		14	1.00	4-1	DISP	17	197	
	Amb to T2{1}		41	1.00	4-1	DISP	53	197	
	Amb to T3{1}		41	1.00	4-1	DISP	53	197	
	Amb to T4{1}		43	1.00	4-1	DISP	55	197	
	Amb to T5{1}		41	1.00	4-1	DISP	52	217	
	Hydrotest{1}	0	0	1.00	3-1	OCC	37	219	
	Sus.+T1{1}			1.00	5-1	CRUP	53	<NOTE 1>	
	Sus.+T2{1}			1.00	5-1	CRUP	64	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1	CRUP	64	<NOTE 1>	
	Sus.+T4{1}			1.00	5-1	CRUP	65	<NOTE 1>	
	Sus.+T5{1}			1.00	5-1	CRUP	64	<NOTE 1>	

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Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F					
P11 N+	Max P{1}							HOOP	11	104
	GR + Max P{1}	108			1.59	2-1	SUST		13	104
	TR:Amb to T5{1}			709	1.59	4-1	DISP		65	217
	Amb to T1{1}			5	1.59	4-1	DISP		0	247
	Amb to T2{1}			698	1.59	4-1	DISP		64	217
	Amb to T3{1}			704	1.59	4-1	DISP		64	217
	Amb to T4{1}			679	1.59	4-1	DISP		62	247
	Amb to T5{1}			709	1.59	4-1	DISP		65	217
	Hydrotest{1}	0	0		1.59	3-1	OCC		1	219
	Sus.+T1{1}				1.59	5-1	CRUP		13	<NOTE 1>
	Sus.+T2{1}				1.59	5-1	CRUP		29	<NOTE 1>
	Sus.+T3{1}				1.59	5-1	CRUP		29	<NOTE 1>
	Sus.+T4{1}				1.59	5-1	CRUP		28	<NOTE 1>
	Sus.+T5{1}				1.59	5-1	CRUP		29	<NOTE 1>
019 N+	Max P{1}							HOOP	9	104
	GR + Max P{1}	34			1.52	2-1	SUST		15	104
	TR:T1 to T5{1}			162	1.52	4-1	DISP		64	217
	Amb to T1{1}			41	1.52	4-1	DISP		16	247
	Amb to T2{1}			155	1.52	4-1	DISP		61	247
	Amb to T3{1}			156	1.52	4-1	DISP		62	247
	Amb to T4{1}			158	1.52	4-1	DISP		63	217
	Amb to T5{1}			158	1.52	4-1	DISP		63	217
	Hydrotest{1}	0	0		1.52	3-1	OCC		0	219
	Sus.+T1{1}				1.52	5-1	CRUP		19	<NOTE 1>
	Sus.+T2{1}				1.52	5-1	CRUP		30	<NOTE 1>
	Sus.+T3{1}				1.52	5-1	CRUP		30	<NOTE 1>
	Sus.+T4{1}				1.52	5-1	CRUP		30	<NOTE 1>
	Sus.+T5{1}				1.52	5-1	CRUP		30	<NOTE 1>
I05	Max P{1}							HOOP	6	104
	GR + Max P{1}	3			1.00	2-1	SUST		11	104
	TR:T1 to T5{1}			23	1.00	4-1	DISP		64	217
	Amb to T1{1}			1	1.00	4-1	DISP		2	247
	Amb to T2{1}			3	1.00	4-1	DISP		10	247

Amb to T3{1}			4	1.00	4-1 DISP	10	247
Amb to T4{1}			1	1.00	4-1 DISP	2	247
Amb to T5{1}			22	1.00	4-1 DISP	62	217
Hydrotest{1}	0	0		1.00	3-1 OCC	0	219
Sus.+T1{1}				1.00	5-1 CRUP	12	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	14	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	14	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	11	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	31	<NOTE 1>

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Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
N14	+ Max P{1}					HOOP	59	86
	GR + Max P{1}	10			1.00	2-1 SUST	36	86
	TR:Amb to T4{1}			89	1.00	4-1 DISP	64	197
	Amb to T1{1}			45	1.00	4-1 DISP	32	197
	Amb to T2{1}			84	1.00	4-1 DISP	60	197
	Amb to T3{1}			56	1.00	4-1 DISP	40	197
	Amb to T4{1}			89	1.00	4-1 DISP	64	197
	Amb to T5{1}			57	1.00	4-1 DISP	41	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	44	219
	Sus.+T1{1}				1.00	5-1 CRUP	47	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	56	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	50	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	58	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	50	<NOTE 1>
N14	- Max P{1}					HOOP	59	86
	GR + Max P{1}	10			1.00	2-1 SUST	36	86
	TR:Amb to T4{1}			89	1.00	4-1 DISP	64	197
	Amb to T1{1}			45	1.00	4-1 DISP	32	197
	Amb to T2{1}			84	1.00	4-1 DISP	60	197
	Amb to T3{1}			56	1.00	4-1 DISP	40	197
	Amb to T4{1}			89	1.00	4-1 DISP	64	197

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	Amb to T5{1}			57	1.00	4-1	DISP	41	217
	Hydrotest{1}	0	0		1.00	3-1	OCC	44	219
	Sus.+T1{1}				1.00	5-1	CRUP	47	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP	56	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP	50	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP	58	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP	50	<NOTE 1>
G10	Max P{1}						HOOP	6	104
	GR + Max P{1}	19			1.00	2-1	SUST	57	104
	TR:T3 to T5{1}			8	1.00	4-1	DISP	22	217
	Amb to T1{1}			0	1.00	4-1	DISP	0	247
	Amb to T2{1}			0	1.00	4-1	DISP	1	247
	Amb to T3{1}			0	1.00	4-1	DISP	1	247
	Amb to T4{1}			0	1.00	4-1	DISP	1	247
	Amb to T5{1}			8	1.00	4-1	DISP	21	217
	Hydrotest{1}	0	0		1.00	3-1	OCC	0	219
	Sus.+T1{1}				1.00	5-1	CRUP	57	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP	57	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP	57	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP	57	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP	64	<NOTE 1>

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DVI_B_LINE_REV0

09/13/2010 DVIIBLINE

BENTLEY

09:56 AM

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EN 13480 (2002) CODE COMPLIANCE									
		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
IV04	Max P{1}						HOOP	6	104
	GR + Max P{1}	19			1.00	2-1	SUST	56	104
	TR:T3 to T5{1}			7	1.00	4-1	DISP	21	217
	Amb to T1{1}			0	1.00	4-1	DISP	0	247
	Amb to T2{1}			0	1.00	4-1	DISP	1	247
	Amb to T3{1}			0	1.00	4-1	DISP	1	247
	Amb to T4{1}			0	1.00	4-1	DISP	1	247
	Amb to T5{1}			7	1.00	4-1	DISP	20	217
	Hydrotest{1}	0	0		1.00	3-1	OCC	0	219
	Sus.+T1{1}				1.00	5-1	CRUP	57	<NOTE 1>

Sus.+T2{1}	1.00	5-1 CRUP	57 <NOTE 1>
Sus.+T3{1}	1.00	5-1 CRUP	57 <NOTE 1>
Sus.+T4{1}	1.00	5-1 CRUP	57 <NOTE 1>
Sus.+T5{1}	1.00	5-1 CRUP	63 <NOTE 1>

M13	Max P{1}					HOOP	59	86
	GR + Max P{1}	7		1.00	2-1	SUST	34	86
	TR:T1 to T5{1}		99	1.00	4-1	DISP	62	197
	Amb to T1{1}		40	1.00	4-1	DISP	25	197
	Amb to T2{1}		44	1.00	4-1	DISP	27	197
	Amb to T3{1}		52	1.00	4-1	DISP	32	197
	Amb to T4{1}		46	1.00	4-1	DISP	29	197
	Amb to T5{1}		66	1.00	4-1	DISP	42	217
	Hydrotest{1}	0	0	1.00	3-1	OCC	44	219
	Sus.+T1{1}			1.00	5-1	CRUP	42	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	43	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	44	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	43	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	48	<NOTE 1>

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Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
			Pagina 547				

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name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
M22 N+	Max P{1}					HOOP	59	86
	GR + Max P{1}	17			1.00	2-1 SUST	41	86
	TR:Amb to T3{1}			85	1.00	4-1 DISP	61	197
	Amb to T1{1}			83	1.00	4-1 DISP	59	197
	Amb to T2{1}			64	1.00	4-1 DISP	46	197
	Amb to T3{1}			85	1.00	4-1 DISP	61	197
	Amb to T4{1}			64	1.00	4-1 DISP	46	197
	Amb to T5{1}			36	1.00	4-1 DISP	26	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	44	219
	Sus.+T1{1}				1.00	5-1 CRUP	61	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	57	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	62	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	57	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	50	<NOTE 1>
M22 N-	Max P{1}					HOOP	59	86
	GR + Max P{1}	17			1.00	2-1 SUST	41	86
	TR:Amb to T3{1}			85	1.00	4-1 DISP	61	197
	Amb to T1{1}			83	1.00	4-1 DISP	59	197
	Amb to T2{1}			64	1.00	4-1 DISP	46	197
	Amb to T3{1}			85	1.00	4-1 DISP	61	197
	Amb to T4{1}			64	1.00	4-1 DISP	46	197
	Amb to T5{1}			36	1.00	4-1 DISP	26	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	44	219
	Sus.+T1{1}				1.00	5-1 CRUP	61	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	57	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	62	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	57	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	50	<NOTE 1>
I02 F-	Max P{1}					HOOP	6	104
	GR + Max P{1}	3			1.26	2-1 SUST	10	104
	TR:Amb to T5{1}			17	1.26	4-1 DISP	61	217
	Amb to T1{1}			1	1.26	4-1 DISP	2	247
	Amb to T2{1}			3	1.26	4-1 DISP	11	247
	Amb to T3{1}			3	1.26	4-1 DISP	11	247
	Amb to T4{1}			1	1.26	4-1 DISP	3	247
	Amb to T5{1}			17	1.26	4-1 DISP	61	217
	Hydrotest{1}	0	0		1.26	3-1 OCC	0	219
	Sus.+T1{1}				1.26	5-1 CRUP	11	<NOTE 1>
	Sus.+T2{1}				1.26	5-1 CRUP	13	<NOTE 1>

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Sus.+T3{1}	1.26	5-1	CRUP	13 <NOTE 1>
Sus.+T4{1}	1.26	5-1	CRUP	11 <NOTE 1>
Sus.+T5{1}	1.26	5-1	CRUP	26 <NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no.	type	Stress	Allow.
A08	+ Max P{1}						HOOP	48	86
	GR + Max P{1}	25			1.00	2-1	SUST	52	86
	TR:Amb to T3{1}			24	1.00	4-1	DISP	27	197
	Amb to T1{1}			23	1.00	4-1	DISP	26	197
	Amb to T2{1}			24	1.00	4-1	DISP	27	197
	Amb to T3{1}			24	1.00	4-1	DISP	27	197
	Amb to T4{1}			23	1.00	4-1	DISP	25	197
	Amb to T5{1}			14	1.00	4-1	DISP	15	217
	Hydrotest{1}	0	0		1.00	3-1	OCC	37	219
	Sus.+T1{1}				1.00	5-1	CRUP	60	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP	61	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP	61	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP	60	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP	57	<NOTE 1>
017	N- Max P{1}						HOOP	9	104
	GR + Max P{1}	16			1.00	2-1	SUST	9	104
	TR:Amb to T4{1}			232	1.00	4-1	DISP	60	217
	Amb to T1{1}			62	1.00	4-1	DISP	16	247
	Amb to T2{1}			209	1.00	4-1	DISP	54	247
	Amb to T3{1}			201	1.00	4-1	DISP	52	247
	Amb to T4{1}			232	1.00	4-1	DISP	60	217
	Amb to T5{1}			203	1.00	4-1	DISP	53	217
	Hydrotest{1}	0	0		1.00	3-1	OCC	0	219
	Sus.+T1{1}				1.00	5-1	CRUP	14	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP	27	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP	26	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP	29	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP	26	<NOTE 1>

DVI_B_LINE_REV0.OUT

A20	Max P{1}				HOOP	48	104
	GR + Max P{1}	19		1.00	2-1 SUST	49	104
	TR:T1 to T5{1}		29	1.00	4-1 DISP	37	217
	Amb to T1{1}		4	1.00	4-1 DISP	6	247
	Amb to T2{1}		8	1.00	4-1 DISP	10	247
	Amb to T3{1}		7	1.00	4-1 DISP	9	247
	Amb to T4{1}		6	1.00	4-1 DISP	7	247
	Amb to T5{1}		24	1.00	4-1 DISP	31	217
	Hydrotest{1}	0	0	1.00	3-1 OCC	37	219
	Sus.+T1{1}			1.00	5-1 CRUP	51	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	53	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	53	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	52	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	60	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

005 N+	Max P{1}					HOOP	9	104	
	GR + Max P{1}	12			1.52	2-1 SUST	8	104	
	TR:Amb to T4{1}			150	1.52	4-1 DISP	60	217	
	Amb to T1{1}			71	1.52	4-1 DISP	28	247	
	Amb to T2{1}			85	1.52	4-1 DISP	34	247	
	Amb to T3{1}			100	1.52	4-1 DISP	39	247	
	Amb to T4{1}			150	1.52	4-1 DISP	60	217	
	Amb to T5{1}			137	1.52	4-1 DISP	54	217	
	Hydrotest{1}	0	0		1.52	3-1 OCC	0	219	
	Sus.+T1{1}				1.52	5-1 CRUP	15	<NOTE 1>	
	Sus.+T2{1}				1.52	5-1 CRUP	16	<NOTE 1>	
	Sus.+T3{1}				1.52	5-1 CRUP	18	<NOTE 1>	
	Sus.+T4{1}				1.52	5-1 CRUP	23	<NOTE 1>	
	Sus.+T5{1}				1.52	5-1 CRUP	22	<NOTE 1>	
N20	Max P{1}					HOOP	11	104	
	GR + Max P{1}	47			2.00	2-1 SUST	9	104	

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TR:Amb to T4{1}			514	2.00	4-1 DISP	59	217
Amb to T1{1}			227	2.00	4-1 DISP	26	247
Amb to T2{1}			429	2.00	4-1 DISP	49	247
Amb to T3{1}			392	2.00	4-1 DISP	45	247
Amb to T4{1}			514	2.00	4-1 DISP	59	217
Amb to T5{1}			412	2.00	4-1 DISP	47	217
Hydrotest{1}	0	0		2.00	3-1 OCC	1	219
Sus.+T1{1}				2.00	5-1 CRUP	16	<NOTE 1>
Sus.+T2{1}				2.00	5-1 CRUP	22	<NOTE 1>
Sus.+T3{1}				2.00	5-1 CRUP	21	<NOTE 1>
Sus.+T4{1}				2.00	5-1 CRUP	24	<NOTE 1>
Sus.+T5{1}				2.00	5-1 CRUP	21	<NOTE 1>
F05 F- Max P{1}					HOOP	44	86
GR + Max P{1}	1			1.00	2-1 SUST	25	86
TR:Amb to T3{1}			25	1.00	4-1 DISP	59	197
Amb to T1{1}			5	1.00	4-1 DISP	11	247
Amb to T2{1}			6	1.00	4-1 DISP	14	247
Amb to T3{1}			25	1.00	4-1 DISP	59	197
Amb to T4{1}			5	1.00	4-1 DISP	13	247
Amb to T5{1}			13	1.00	4-1 DISP	32	217
Hydrotest{1}	0	0		1.00	3-1 OCC	35	219
Sus.+T1{1}				1.00	5-1 CRUP	28	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	29	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	44	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	29	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	35	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no.	type	Stress	Allow.

F05 F+ Max P{1}						HOOP		44	86
GR + Max P{1}		1			1.00	2-1 SUST		25	86
TR:Amb to T3{1}				25	1.00	4-1 DISP		59	197
Amb to T1{1}				5	1.00	4-1 DISP		11	247

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	Amb to T2{1}		6	1.00	4-1 DISP	14	247	
	Amb to T3{1}		25	1.00	4-1 DISP	59	197	
	Amb to T4{1}		5	1.00	4-1 DISP	13	247	
	Amb to T5{1}		13	1.00	4-1 DISP	32	217	
	Hydrotest{1}	0	0	1.00	3-1 OCC	35	219	
	Sus.+T1{1}			1.00	5-1 CRUP	28	<NOTE 1>	
	Sus.+T2{1}			1.00	5-1 CRUP	29	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1 CRUP	44	<NOTE 1>	
	Sus.+T4{1}			1.00	5-1 CRUP	29	<NOTE 1>	
	Sus.+T5{1}			1.00	5-1 CRUP	35	<NOTE 1>	
M10	Max P{1}				HOOP	59	86	
	GR + Max P{1}	6		1.00	2-1 SUST	33	86	
	TR:Amb to T4{1}		86	1.00	4-1 DISP	54	197	
	Amb to T1{1}		64	1.00	4-1 DISP	40	197	
	Amb to T2{1}		71	1.00	4-1 DISP	44	197	
	Amb to T3{1}		48	1.00	4-1 DISP	30	197	
	Amb to T4{1}		86	1.00	4-1 DISP	54	197	
	Amb to T5{1}		50	1.00	4-1 DISP	31	217	
	Hydrotest{1}	0	0	1.00	3-1 OCC	44	219	
	Sus.+T1{1}			1.00	5-1 CRUP	47	<NOTE 1>	
	Sus.+T2{1}			1.00	5-1 CRUP	48	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1 CRUP	43	<NOTE 1>	
	Sus.+T4{1}			1.00	5-1 CRUP	51	<NOTE 1>	
	Sus.+T5{1}			1.00	5-1 CRUP	44	<NOTE 1>	
M22 F+	Max P{1}				HOOP	59	86	
	GR + Max P{1}	16		1.00	2-1 SUST	41	86	
	TR:Amb to T3{1}		74	1.00	4-1 DISP	53	197	
	Amb to T1{1}		72	1.00	4-1 DISP	51	197	
	Amb to T2{1}		55	1.00	4-1 DISP	39	197	
	Amb to T3{1}		74	1.00	4-1 DISP	53	197	
	Amb to T4{1}		54	1.00	4-1 DISP	39	197	
	Amb to T5{1}		31	1.00	4-1 DISP	22	217	
	Hydrotest{1}	0	0	1.00	3-1 OCC	44	219	
	Sus.+T1{1}			1.00	5-1 CRUP	58	<NOTE 1>	
	Sus.+T2{1}			1.00	5-1 CRUP	54	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1 CRUP	59	<NOTE 1>	
	Sus.+T4{1}			1.00	5-1 CRUP	54	<NOTE 1>	
	Sus.+T5{1}			1.00	5-1 CRUP	48	<NOTE 1>	

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DVI_B_LINE_REV0

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BENTLEY

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RESULT PAGE 365

EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F					
M22 F-	Max P{1}							HOOP	59	86
	GR + Max P{1}	16			1.00	2-1	SUST		41	86
	TR:Amb to T3{1}			74	1.00	4-1	DISP		53	197
	Amb to T1{1}			72	1.00	4-1	DISP		51	197
	Amb to T2{1}			55	1.00	4-1	DISP		39	197
	Amb to T3{1}			74	1.00	4-1	DISP		53	197
	Amb to T4{1}			54	1.00	4-1	DISP		39	197
	Amb to T5{1}			31	1.00	4-1	DISP		22	217
	Hydrotest{1}	0	0		1.00	3-1	OCC		44	219
	Sus.+T1{1}				1.00	5-1	CRUP		58	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		54	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP		59	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP		54	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP		48	<NOTE 1>
M30	Max P{1}							HOOP	59	86
	GR + Max P{1}	2			1.00	2-1	SUST		31	86
	TR:Amb to T3{1}			65	1.00	4-1	DISP		47	197
	Amb to T1{1}			37	1.00	4-1	DISP		26	247
	Amb to T2{1}			51	1.00	4-1	DISP		37	247
	Amb to T3{1}			65	1.00	4-1	DISP		47	197
	Amb to T4{1}			50	1.00	4-1	DISP		36	247
	Amb to T5{1}			36	1.00	4-1	DISP		26	217
	Hydrotest{1}	0	0		1.00	3-1	OCC		44	219
	Sus.+T1{1}				1.00	5-1	CRUP		40	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		43	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP		47	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP		43	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP		40	<NOTE 1>
M08 F+	Max P{1}							HOOP	59	86
	GR + Max P{1}	5			1.00	2-1	SUST		33	86
	TR:Amb to T3{1}			55	1.00	4-1	DISP		39	197
	Amb to T1{1}			31	1.00	4-1	DISP		22	247
	Amb to T2{1}			40	1.00	4-1	DISP		29	247
	Amb to T3{1}			55	1.00	4-1	DISP		39	197

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Amb to T4{1}			38	1.00	4-1 DISP	27	247
Amb to T5{1}			28	1.00	4-1 DISP	20	217
Hydrotest{1}	0	0		1.00	3-1 OCC	44	219
Sus.+T1{1}				1.00	5-1 CRUP	40	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	42	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	46	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	42	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	39	<NOTE 1>

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BENTLEY

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AutoPIPE Plus 9.2.1

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. Load no. type			
M08 F- Max P{1}						HOOP		59	86
	GR + Max P{1}	5			1.00	2-1 SUST		33	86
	TR:Amb to T3{1}			55	1.00	4-1 DISP		39	197
	Amb to T1{1}			31	1.00	4-1 DISP		22	247
	Amb to T2{1}			40	1.00	4-1 DISP		29	247
	Amb to T3{1}			55	1.00	4-1 DISP		39	197
	Amb to T4{1}			38	1.00	4-1 DISP		27	247
	Amb to T5{1}			28	1.00	4-1 DISP		20	217
	Hydrotest{1}	0	0		1.00	3-1 OCC		44	219
	Sus.+T1{1}				1.00	5-1 CRUP		40	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP		42	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP		46	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP		42	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP		39	<NOTE 1>
M08 N+ Max P{1}						HOOP		59	86
	GR + Max P{1}	5			1.00	2-1 SUST		33	86
	TR:Amb to T3{1}			53	1.00	4-1 DISP		38	197
	Amb to T1{1}			30	1.00	4-1 DISP		22	247
	Amb to T2{1}			38	1.00	4-1 DISP		27	247
	Amb to T3{1}			53	1.00	4-1 DISP		38	197
	Amb to T4{1}			36	1.00	4-1 DISP		26	247
	Amb to T5{1}			27	1.00	4-1 DISP		19	217

DVI_B_LINE_REV0.OUT							
	Hydrotest{1}	0	0	1.00	3-1	OCC	44 219
	Sus.+T1{1}			1.00	5-1	CRUP	40 <NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	42 <NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	45 <NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	42 <NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	39 <NOTE 1>
M08 N-	Max P{1}					HOOP	59 86
	GR + Max P{1}	5		1.00	2-1	SUST	33 86
	TR:Amb to T3{1}		53	1.00	4-1	DISP	38 197
	Amb to T1{1}		30	1.00	4-1	DISP	22 247
	Amb to T2{1}		38	1.00	4-1	DISP	27 247
	Amb to T3{1}		53	1.00	4-1	DISP	38 197
	Amb to T4{1}		36	1.00	4-1	DISP	26 247
	Amb to T5{1}		27	1.00	4-1	DISP	19 217
	Hydrotest{1}	0	0	1.00	3-1	OCC	44 219
	Sus.+T1{1}			1.00	5-1	CRUP	40 <NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	42 <NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	45 <NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	42 <NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	39 <NOTE 1>

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DVI_B_LINE_REV0

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RESULT PAGE 367

EN 13480 (2002) CODE COMPLIANCE							
(Moments in N.m)				(Stress in N/mm2)			
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
M31	Max P{1}					HOOP	59 86
	GR + Max P{1}	6			1.00	2-1 SUST	33 86
	TR:Amb to T3{1}			32	1.00	4-1 DISP	23 197
	Amb to T1{1}			13	1.00	4-1 DISP	9 247
	Amb to T2{1}			11	1.00	4-1 DISP	8 247
	Amb to T3{1}			32	1.00	4-1 DISP	23 197
	Amb to T4{1}			11	1.00	4-1 DISP	8 247
	Amb to T5{1}			18	1.00	4-1 DISP	13 217
	Hydrotest{1}	0	0		1.00	3-1 OCC	44 219
	Sus.+T1{1}				1.00	5-1 CRUP	37 <NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	36 <NOTE 1>

DVI_B_LINE_REV0.OUT

	Sus.+T3{1}			1.00	5-1	CRUP	41	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	36	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	38	<NOTE 1>
F45	Max P{1}					HOOP	59	86
	GR + Max P{1}	0		2.00	2-1	SUST	30	86
	TR:Amb to T3{1}		23	2.00	4-1	DISP	34	197
	Amb to T1{1}		2	2.00	4-1	DISP	3	247
	Amb to T2{1}		3	2.00	4-1	DISP	4	247
	Amb to T3{1}		23	2.00	4-1	DISP	34	197
	Amb to T4{1}		3	2.00	4-1	DISP	4	247
	Amb to T5{1}		12	2.00	4-1	DISP	17	217
	Hydrotest{1}	0	0	2.00	3-1	OCC	44	219
	Sus.+T1{1}			2.00	5-1	CRUP	30	<NOTE 1>
	Sus.+T2{1}			2.00	5-1	CRUP	31	<NOTE 1>
	Sus.+T3{1}			2.00	5-1	CRUP	38	<NOTE 1>
	Sus.+T4{1}			2.00	5-1	CRUP	31	<NOTE 1>
	Sus.+T5{1}			2.00	5-1	CRUP	34	<NOTE 1>
F46	Max P{1}					HOOP	59	86
	GR + Max P{1}	0		2.00	2-1	SUST	30	86
	TR:Amb to T3{1}		23	2.00	4-1	DISP	34	197
	Amb to T1{1}		2	2.00	4-1	DISP	3	247
	Amb to T2{1}		3	2.00	4-1	DISP	4	247
	Amb to T3{1}		23	2.00	4-1	DISP	34	197
	Amb to T4{1}		3	2.00	4-1	DISP	4	247
	Amb to T5{1}		12	2.00	4-1	DISP	17	217
	Hydrotest{1}	0	0	2.00	3-1	OCC	44	219
	Sus.+T1{1}			2.00	5-1	CRUP	30	<NOTE 1>
	Sus.+T2{1}			2.00	5-1	CRUP	31	<NOTE 1>
	Sus.+T3{1}			2.00	5-1	CRUP	38	<NOTE 1>
	Sus.+T4{1}			2.00	5-1	CRUP	31	<NOTE 1>
	Sus.+T5{1}			2.00	5-1	CRUP	34	<NOTE 1>

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 DVI_B_LINE_REV0
 09/13/2010 DVI BLINE
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 AutoPIPE Plus 9.2.1

 RESULT PAGE 368

 EN 13480 (2002) CODE COMPLIANCE
 (Moments in N.m) (Stress in N/mm2)
 Point Load Ma Mb Mc Eq. Load Code Code
 name combination (Sus.) (Occ.) (Exp.) S.I.F no. type Stress Allow.
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BENTLEY

DVI_B_LINE_REV0.OUT

C05	Max P{1}					HOOP	59	86
	GR + Max P{1}	9		1.00	2-1	SUST	36	86
	TR:Amb to T3{1}		46	1.00	4-1	DISP	33	197
	Amb to T1{1}		36	1.00	4-1	DISP	26	197
	Amb to T2{1}		46	1.00	4-1	DISP	33	197
	Amb to T3{1}		46	1.00	4-1	DISP	33	197
	Amb to T4{1}		33	1.00	4-1	DISP	23	197
	Amb to T5{1}		29	1.00	4-1	DISP	21	217
	Hydrotest{1}	0	0	1.00	3-1	OCC	44	219
	Sus.+T1{1}			1.00	5-1	CRUP	45	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	47	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	47	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	44	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	43	<NOTE 1>
C04	Max P{1}					HOOP	59	86
	GR + Max P{1}	8		2.00	2-1	SUST	38	86
	TR:Amb to T3{1}		40	2.00	4-1	DISP	57	197
	Amb to T1{1}		31	2.00	4-1	DISP	45	197
	Amb to T2{1}		40	2.00	4-1	DISP	57	197
	Amb to T3{1}		40	2.00	4-1	DISP	57	197
	Amb to T4{1}		28	2.00	4-1	DISP	40	197
	Amb to T5{1}		25	2.00	4-1	DISP	36	217
	Hydrotest{1}	0	0	2.00	3-1	OCC	44	219
	Sus.+T1{1}			2.00	5-1	CRUP	49	<NOTE 1>
	Sus.+T2{1}			2.00	5-1	CRUP	52	<NOTE 1>
	Sus.+T3{1}			2.00	5-1	CRUP	52	<NOTE 1>
	Sus.+T4{1}			2.00	5-1	CRUP	48	<NOTE 1>
	Sus.+T5{1}			2.00	5-1	CRUP	47	<NOTE 1>
B04	Max P{1}					HOOP	59	86
	GR + Max P{1}	9		1.00	2-1	SUST	36	86
	TR:Amb to T2{1}		36	1.00	4-1	DISP	26	197
	Amb to T1{1}		23	1.00	4-1	DISP	17	197
	Amb to T2{1}		36	1.00	4-1	DISP	26	197
	Amb to T3{1}		36	1.00	4-1	DISP	26	197
	Amb to T4{1}		16	1.00	4-1	DISP	12	197
	Amb to T5{1}		25	1.00	4-1	DISP	18	217
	Hydrotest{1}	0	0	1.00	3-1	OCC	44	219
	Sus.+T1{1}			1.00	5-1	CRUP	42	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	45	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	45	<NOTE 1>

Sus.+T4{1}	DVI_B_LINE_REV0.OUT	1.00	5-1 CRUP	40 <NOTE 1>
Sus.+T5{1}		1.00	5-1 CRUP	42 <NOTE 1>

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DVI_B_LINE_REV0

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

B03	Max P{1}					HOOP	59	86	
	GR + Max P{1}	8			2.00	2-1 SUST	38	86	
	TR:Amb to T2{1}			32	2.00	4-1 DISP	45	197	
	Amb to T1{1}			20	2.00	4-1 DISP	29	197	
	Amb to T2{1}			32	2.00	4-1 DISP	45	197	
	Amb to T3{1}			32	2.00	4-1 DISP	45	197	
	Amb to T4{1}			14	2.00	4-1 DISP	20	197	
	Amb to T5{1}			22	2.00	4-1 DISP	32	217	
	Hydrotest{1}	0	0		2.00	3-1 OCC	44	219	
	Sus.+T1{1}				2.00	5-1 CRUP	45	<NOTE 1>	
	Sus.+T2{1}				2.00	5-1 CRUP	49	<NOTE 1>	
	Sus.+T3{1}				2.00	5-1 CRUP	49	<NOTE 1>	
	Sus.+T4{1}				2.00	5-1 CRUP	43	<NOTE 1>	
	Sus.+T5{1}				2.00	5-1 CRUP	46	<NOTE 1>	
A30	Max P{1}					HOOP	59	86	
	GR + Max P{1}	16			2.00	2-1 SUST	47	86	
	TR:Amb to T1{1}			23	2.00	4-1 DISP	33	197	
	Amb to T1{1}			23	2.00	4-1 DISP	33	197	
	Amb to T2{1}			22	2.00	4-1 DISP	32	197	
	Amb to T3{1}			22	2.00	4-1 DISP	32	197	
	Amb to T4{1}			22	2.00	4-1 DISP	32	197	
	Amb to T5{1}			12	2.00	4-1 DISP	17	217	
	Hydrotest{1}	0	0		2.00	3-1 OCC	44	219	
	Sus.+T1{1}				2.00	5-1 CRUP	55	<NOTE 1>	
	Sus.+T2{1}				2.00	5-1 CRUP	55	<NOTE 1>	
	Sus.+T3{1}				2.00	5-1 CRUP	55	<NOTE 1>	
	Sus.+T4{1}				2.00	5-1 CRUP	55	<NOTE 1>	
	Sus.+T5{1}				2.00	5-1 CRUP	51	<NOTE 1>	

DVI_B_LINE_REV0.0UT									
A00	Max P{1}					HOOP	59	86	
	GR + Max P{1}	20		1.00	2-1	SUST	44	86	
	TR:Amb to T1{1}		25	1.00	4-1	DISP	18	197	
	Amb to T1{1}		25	1.00	4-1	DISP	18	197	
	Amb to T2{1}		25	1.00	4-1	DISP	18	197	
	Amb to T3{1}		25	1.00	4-1	DISP	18	197	
	Amb to T4{1}		24	1.00	4-1	DISP	18	197	
	Amb to T5{1}		13	1.00	4-1	DISP	10	217	
	Hydrotest{1}	0	0	1.00	3-1	OCC	44	219	
	Sus.+T1{1}			1.00	5-1	CRUP	50	<NOTE 1>	
	Sus.+T2{1}			1.00	5-1	CRUP	50	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1	CRUP	50	<NOTE 1>	
	Sus.+T4{1}			1.00	5-1	CRUP	50	<NOTE 1>	
	Sus.+T5{1}			1.00	5-1	CRUP	47	<NOTE 1>	

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DVI_B_LINE_REV0

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AutoPIPE Plus 9.2.1

RESULT PAGE 370

EN 13480 (2002) CODE COMPLIANCE									
			(Moments in N.m)			(Stress in N/mm2)			
Point	Load		Ma	Mb	Mc	Eq. Load	Code	Code	
name	combination		(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.

F05 M	Max P{1}						HOOP	44	86
	GR + Max P{1}	1				1.00	2-1 SUST	25	86
	TR:Amb to T3{1}				24	1.00	4-1 DISP	58	197
	Amb to T1{1}				5	1.00	4-1 DISP	11	247
	Amb to T2{1}				6	1.00	4-1 DISP	14	247
	Amb to T3{1}				24	1.00	4-1 DISP	58	197
	Amb to T4{1}				5	1.00	4-1 DISP	13	247
	Amb to T5{1}				13	1.00	4-1 DISP	32	217
	Hydrotest{1}	0	0			1.00	3-1 OCC	35	219
	Sus.+T1{1}					1.00	5-1 CRUP	29	<NOTE 1>
	Sus.+T2{1}					1.00	5-1 CRUP	30	<NOTE 1>
	Sus.+T3{1}					1.00	5-1 CRUP	44	<NOTE 1>
	Sus.+T4{1}					1.00	5-1 CRUP	29	<NOTE 1>
	Sus.+T5{1}					1.00	5-1 CRUP	35	<NOTE 1>

005 F-	Max P{1}						HOOP	9	104
	GR + Max P{1}	13				1.52	2-1 SUST	8	104
	TR:Amb to T4{1}				147	1.52	4-1 DISP	58	217

Amb to T1{1}			71	1.52	4-1 DISP	28	247
Amb to T2{1}			78	1.52	4-1 DISP	31	247
Amb to T3{1}			95	1.52	4-1 DISP	38	247
Amb to T4{1}			147	1.52	4-1 DISP	58	217
Amb to T5{1}			134	1.52	4-1 DISP	53	217
Hydrotest{1}	0	0		1.52	3-1 OCC	0	219
Sus.+T1{1}				1.52	5-1 CRUP	15	<NOTE 1>
Sus.+T2{1}				1.52	5-1 CRUP	16	<NOTE 1>
Sus.+T3{1}				1.52	5-1 CRUP	18	<NOTE 1>
Sus.+T4{1}				1.52	5-1 CRUP	23	<NOTE 1>
Sus.+T5{1}				1.52	5-1 CRUP	22	<NOTE 1>

P06	+ Max P{1}					HOOP	48	86
	GR + Max P{1}	4		1.20	2-1	SUST	29	86
	TR:Amb to T3{1}		38	1.20	4-1	DISP	58	197
	Amb to T1{1}		4	1.20	4-1	DISP	7	197
	Amb to T2{1}		37	1.20	4-1	DISP	56	197
	Amb to T3{1}		38	1.20	4-1	DISP	58	197
	Amb to T4{1}		36	1.20	4-1	DISP	56	197
	Amb to T5{1}		37	1.20	4-1	DISP	57	217
	Hydrotest{1}	0	0	1.20	3-1	OCC	37	219
	Sus.+T1{1}			1.20	5-1	CRUP	31	<NOTE 1>
	Sus.+T2{1}			1.20	5-1	CRUP	45	<NOTE 1>
	Sus.+T3{1}			1.20	5-1	CRUP	45	<NOTE 1>
	Sus.+T4{1}			1.20	5-1	CRUP	45	<NOTE 1>
	Sus.+T5{1}			1.20	5-1	CRUP	45	<NOTE 1>

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Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
-----	-----	-----	-----	-----	-----	-----	-----	-----
P06	- Max P{1}					H00P	48	86
	GR + Max P{1}	4			1.20	2-1 SUST	29	86
	TR:Amb to T3{1}			38	1.20	4-1 DISP	58	197
	Amb to T1{1}			4	1.20	4-1 DISP	7	197
	Amb to T2{1}			37	1.20	4-1 DISP	56	197

		DVI_B_LINE_REV0.OUT					
	Amb to T3{1}		38	1.20	4-1 DISP	58	197
	Amb to T4{1}		36	1.20	4-1 DISP	56	197
	Amb to T5{1}		37	1.20	4-1 DISP	57	217
	Hydrotest{1}	0	0	1.20	3-1 OCC	37	219
	Sus.+T1{1}			1.20	5-1 CRUP	31	<NOTE 1>
	Sus.+T2{1}			1.20	5-1 CRUP	45	<NOTE 1>
	Sus.+T3{1}			1.20	5-1 CRUP	45	<NOTE 1>
	Sus.+T4{1}			1.20	5-1 CRUP	45	<NOTE 1>
	Sus.+T5{1}			1.20	5-1 CRUP	45	<NOTE 1>
P11 F-	Max P{1}				HOOP	11	104
	GR + Max P{1}	97		1.59	2-1 SUST	12	104
	TR:Amb to T5{1}		625	1.59	4-1 DISP	57	217
	Amb to T1{1}		3	1.59	4-1 DISP	0	247
	Amb to T2{1}		615	1.59	4-1 DISP	56	217
	Amb to T3{1}		621	1.59	4-1 DISP	57	217
	Amb to T4{1}		599	1.59	4-1 DISP	55	247
	Amb to T5{1}		625	1.59	4-1 DISP	57	217
	Hydrotest{1}	0	0	1.59	3-1 OCC	1	219
	Sus.+T1{1}			1.59	5-1 CRUP	12	<NOTE 1>
	Sus.+T2{1}			1.59	5-1 CRUP	26	<NOTE 1>
	Sus.+T3{1}			1.59	5-1 CRUP	26	<NOTE 1>
	Sus.+T4{1}			1.59	5-1 CRUP	26	<NOTE 1>
	Sus.+T5{1}			1.59	5-1 CRUP	26	<NOTE 1>
N10	Max P{1}				HOOP	9	104
	GR + Max P{1}	7		2.00	2-1 SUST	7	104
	TR:Amb to T4{1}		109	2.00	4-1 DISP	57	217
	Amb to T1{1}		66	2.00	4-1 DISP	34	247
	Amb to T2{1}		78	2.00	4-1 DISP	41	247
	Amb to T3{1}		64	2.00	4-1 DISP	33	247
	Amb to T4{1}		109	2.00	4-1 DISP	57	217
	Amb to T5{1}		72	2.00	4-1 DISP	37	217
	Hydrotest{1}	0	0	2.00	3-1 OCC	0	219
	Sus.+T1{1}			2.00	5-1 CRUP	16	<NOTE 1>
	Sus.+T2{1}			2.00	5-1 CRUP	17	<NOTE 1>
	Sus.+T3{1}			2.00	5-1 CRUP	15	<NOTE 1>
	Sus.+T4{1}			2.00	5-1 CRUP	21	<NOTE 1>
	Sus.+T5{1}			2.00	5-1 CRUP	16	<NOTE 1>

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DVI_B_LINE_REV0

09/13/2010 DVI BLINE

BENTLEY

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. no.	Load type		
J12	+ Max P{1}						HOOP	48	86
	GR + Max P{1}	9			1.20	2-1	SUST	36	86
	TR:T1 to T5{1}			37	1.20	4-1	DISP	57	197
	Amb to T1{1}			10	1.20	4-1	DISP	15	197
	Amb to T2{1}			35	1.20	4-1	DISP	54	197
	Amb to T3{1}			35	1.20	4-1	DISP	54	197
	Amb to T4{1}			33	1.20	4-1	DISP	51	247
	Amb to T5{1}			35	1.20	4-1	DISP	54	217
	Hydrotest{1}	0	0		1.20	3-1	OCC	37	219
	Sus.+T1{1}				1.20	5-1	CRUP	41	<NOTE 1>
	Sus.+T2{1}				1.20	5-1	CRUP	51	<NOTE 1>
	Sus.+T3{1}				1.20	5-1	CRUP	51	<NOTE 1>
	Sus.+T4{1}				1.20	5-1	CRUP	50	<NOTE 1>
	Sus.+T5{1}				1.20	5-1	CRUP	51	<NOTE 1>
J12	- Max P{1}						HOOP	48	86
	GR + Max P{1}	9			1.20	2-1	SUST	36	86
	TR:T1 to T5{1}			37	1.20	4-1	DISP	57	197
	Amb to T1{1}			10	1.20	4-1	DISP	15	197
	Amb to T2{1}			35	1.20	4-1	DISP	54	197
	Amb to T3{1}			35	1.20	4-1	DISP	54	197
	Amb to T4{1}			33	1.20	4-1	DISP	51	247
	Amb to T5{1}			35	1.20	4-1	DISP	54	217
	Hydrotest{1}	0	0		1.20	3-1	OCC	37	219
	Sus.+T1{1}				1.20	5-1	CRUP	41	<NOTE 1>
	Sus.+T2{1}				1.20	5-1	CRUP	51	<NOTE 1>
	Sus.+T3{1}				1.20	5-1	CRUP	51	<NOTE 1>
	Sus.+T4{1}				1.20	5-1	CRUP	50	<NOTE 1>
	Sus.+T5{1}				1.20	5-1	CRUP	51	<NOTE 1>
D01	Max P{1}						HOOP	48	86
	GR + Max P{1}	2			1.00	2-1	SUST	27	86
	TR:T4 to T5{1}			44	1.00	4-1	DISP	56	217
	Amb to T1{1}			15	1.00	4-1	DISP	20	197
	Amb to T2{1}			20	1.00	4-1	DISP	25	197
	Amb to T3{1}			20	1.00	4-1	DISP	26	197
	Amb to T4{1}			31	1.00	4-1	DISP	39	247

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Amb to T5{1}			25	1.00	4-1 DISP	32	217
Hydrotest{1}	0	0		1.00	3-1 OCC	37	219
Sus.+T1{1}				1.00	5-1 CRUP	33	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	35	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	35	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	40	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	37	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. no.	Load type		
D01	Max P{1}						HOOP	48	86
	GR + Max P{1}	2			1.00	2-1	SUST	27	86
	TR:T4 to T5{1}			44	1.00	4-1	DISP	56	197
	Amb to T1{1}			15	1.00	4-1	DISP	20	197
	Amb to T2{1}			20	1.00	4-1	DISP	25	197
	Amb to T3{1}			20	1.00	4-1	DISP	26	197
	Amb to T4{1}			31	1.00	4-1	DISP	39	197
	Amb to T5{1}			25	1.00	4-1	DISP	32	217
	Hydrotest{1}	0	0		1.00	3-1	OCC	37	219
	Sus.+T1{1}				1.00	5-1	CRUP	33	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP	35	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP	35	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP	40	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP	37	<NOTE 1>
C016 +	Max P{1}						HOOP	44	86
	GR + Max P{1}	4			1.00	2-1	SUST	32	86
	TR:Amb to T3{1}			23	1.00	4-1	DISP	56	197
	Amb to T1{1}			10	1.00	4-1	DISP	24	247
	Amb to T2{1}			15	1.00	4-1	DISP	37	247
	Amb to T3{1}			23	1.00	4-1	DISP	56	197
	Amb to T4{1}			13	1.00	4-1	DISP	30	247
	Amb to T5{1}			13	1.00	4-1	DISP	32	217
	Hydrotest{1}	0	0		1.00	3-1	OCC	35	219

DVI_B_LINE_REV0.OUT						
Sus.+T1{1}			1.00	5-1	CRUP	40 <NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	45 <NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	51 <NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	42 <NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	43 <NOTE 1>
C016 - Max P{1}						
					HOOP	44 86
GR + Max P{1}	4		1.00	2-1	SUST	32 86
TR:Amb to T3{1}		23	1.00	4-1	DISP	56 197
Amb to T1{1}		10	1.00	4-1	DISP	24 247
Amb to T2{1}		15	1.00	4-1	DISP	37 247
Amb to T3{1}		23	1.00	4-1	DISP	56 197
Amb to T4{1}		13	1.00	4-1	DISP	30 247
Amb to T5{1}		13	1.00	4-1	DISP	32 217
Hydrotest{1}	0	0	1.00	3-1	OCC	35 219
Sus.+T1{1}			1.00	5-1	CRUP	40 <NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	45 <NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	51 <NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	42 <NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	43 <NOTE 1>

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RESULT PAGE 374

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)			
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code	
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
P07	+ Max P{1}					HOOP	48	86
	GR + Max P{1}	11			1.20	2-1 SUST	39	86
	TR:Amb to T4{1}			36	1.20	4-1 DISP	55	197
	Amb to T1{1}			5	1.20	4-1 DISP	8	197
	Amb to T2{1}			32	1.20	4-1 DISP	49	197
	Amb to T3{1}			34	1.20	4-1 DISP	52	197
	Amb to T4{1}			36	1.20	4-1 DISP	55	197
	Amb to T5{1}			35	1.20	4-1 DISP	53	217
	Hydrotest{1}	0	0		1.20	3-1 OCC	37	219
	Sus.+T1{1}				1.20	5-1 CRUP	41	<NOTE 1>
	Sus.+T2{1}				1.20	5-1 CRUP	53	<NOTE 1>
	Sus.+T3{1}				1.20	5-1 CRUP	54	<NOTE 1>

Sus.+T4{1}	1.20	5-1 CRUP	55 <NOTE 1>
Sus.+T5{1}	1.20	5-1 CRUP	54 <NOTE 1>

P07	- Max P{1}					HOOP	48	86
	GR + Max P{1}	11		1.20	2-1	SUST	39	86
	TR:Amb to T4{1}		36	1.20	4-1	DISP	55	197
	Amb to T1{1}		5	1.20	4-1	DISP	8	197
	Amb to T2{1}		32	1.20	4-1	DISP	49	197
	Amb to T3{1}		34	1.20	4-1	DISP	52	197
	Amb to T4{1}		36	1.20	4-1	DISP	55	197
	Amb to T5{1}		35	1.20	4-1	DISP	53	217
	Hydrotest{1}	0	0	1.20	3-1	OCC	37	219
	Sus.+T1{1}			1.20	5-1	CRUP	41	<NOTE 1>
	Sus.+T2{1}			1.20	5-1	CRUP	53	<NOTE 1>
	Sus.+T3{1}			1.20	5-1	CRUP	54	<NOTE 1>
	Sus.+T4{1}			1.20	5-1	CRUP	55	<NOTE 1>
	Sus.+T5{1}			1.20	5-1	CRUP	54	<NOTE 1>
	A10	Max P{1}					HOOP	48
GR + Max P{1}		2		1.00	2-1	SUST	27	86
TR:T4 to T5{1}			49	1.00	4-1	DISP	54	197
Amb to T1{1}			18	1.00	4-1	DISP	20	197
Amb to T2{1}			24	1.00	4-1	DISP	27	197
Amb to T3{1}			25	1.00	4-1	DISP	27	197
Amb to T4{1}			37	1.00	4-1	DISP	41	197
Amb to T5{1}			30	1.00	4-1	DISP	33	217
Hydrotest{1}		0	0	1.00	3-1	OCC	37	219
Sus.+T1{1}				1.00	5-1	CRUP	33	<NOTE 1>
Sus.+T2{1}				1.00	5-1	CRUP	36	<NOTE 1>
Sus.+T3{1}				1.00	5-1	CRUP	36	<NOTE 1>
Sus.+T4{1}				1.00	5-1	CRUP	41	<NOTE 1>
Sus.+T5{1}				1.00	5-1	CRUP	38	<NOTE 1>

DVI_B_LINE_REV0

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(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.

DVI_B_LINE_REV0.OUT

F05 N+	Max P{1}				HOOP	44	86
	GR + Max P{1}	1		1.00	2-1 SUST	25	86
	TR:Amb to T3{1}		23	1.00	4-1 DISP	54	197
	Amb to T1{1}		5	1.00	4-1 DISP	11	247
	Amb to T2{1}		6	1.00	4-1 DISP	14	247
	Amb to T3{1}		23	1.00	4-1 DISP	54	197
	Amb to T4{1}		5	1.00	4-1 DISP	13	247
	Amb to T5{1}		12	1.00	4-1 DISP	29	217
	Hydrotest{1}	0	0	1.00	3-1 OCC	35	219
	Sus.+T1{1}			1.00	5-1 CRUP	29	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	30	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	43	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	30	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	35	<NOTE 1>
F05 N-	Max P{1}				HOOP	44	86
	GR + Max P{1}	1		1.00	2-1 SUST	25	86
	TR:Amb to T3{1}		23	1.00	4-1 DISP	54	197
	Amb to T1{1}		5	1.00	4-1 DISP	11	247
	Amb to T2{1}		6	1.00	4-1 DISP	14	247
	Amb to T3{1}		23	1.00	4-1 DISP	54	197
	Amb to T4{1}		5	1.00	4-1 DISP	13	247
	Amb to T5{1}		12	1.00	4-1 DISP	29	217
	Hydrotest{1}	0	0	1.00	3-1 OCC	35	219
	Sus.+T1{1}			1.00	5-1 CRUP	29	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	30	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	43	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	30	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	35	<NOTE 1>
E01	Max P{1}				HOOP	48	86
	GR + Max P{1}	9		1.00	2-1 SUST	37	86
	TR:Amb to T4{1}		39	1.00	4-1 DISP	50	197
	Amb to T1{1}		10	1.00	4-1 DISP	13	197
	Amb to T2{1}		30	1.00	4-1 DISP	38	197
	Amb to T3{1}		32	1.00	4-1 DISP	41	197
	Amb to T4{1}		39	1.00	4-1 DISP	50	197
	Amb to T5{1}		33	1.00	4-1 DISP	43	217
	Hydrotest{1}	0	0	1.00	3-1 OCC	37	219
	Sus.+T1{1}			1.00	5-1 CRUP	41	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	49	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	51	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	53	<NOTE 1>

Sus.+T5{1}

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1.00

5-1 CRUP

51 <NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F					
E01	Max P{1}							HOOP	48	86
	GR + Max P{1}	9			1.00	2-1	SUST		37	86
	TR:Amb to T4{1}			39	1.00	4-1	DISP		50	197
	Amb to T1{1}			10	1.00	4-1	DISP		13	197
	Amb to T2{1}			30	1.00	4-1	DISP		38	197
	Amb to T3{1}			32	1.00	4-1	DISP		41	197
	Amb to T4{1}			39	1.00	4-1	DISP		50	197
	Amb to T5{1}			33	1.00	4-1	DISP		43	217
	Hydrotest{1}	0	0		1.00	3-1	OCC		37	219
	Sus.+T1{1}				1.00	5-1	CRUP		41	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		49	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP		51	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP		53	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP		51	<NOTE 1>
C041 +	Max P{1}							HOOP	48	86
	GR + Max P{1}	13			1.00	2-1	SUST		41	86
	TR:Amb to T4{1}			29	1.00	4-1	DISP		37	197
	Amb to T1{1}			9	1.00	4-1	DISP		12	197
	Amb to T2{1}			27	1.00	4-1	DISP		35	197
	Amb to T3{1}			26	1.00	4-1	DISP		33	197
	Amb to T4{1}			29	1.00	4-1	DISP		37	197
	Amb to T5{1}			23	1.00	4-1	DISP		30	217
	Hydrotest{1}	0	0		1.00	3-1	OCC		37	219
	Sus.+T1{1}				1.00	5-1	CRUP		45	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		53	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP		52	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP		53	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP		51	<NOTE 1>
C041 -	Max P{1}							HOOP	48	86

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GR + Max P{1}	13		1.00	2-1 SUST	41	86
TR:Amb to T4{1}		29	1.00	4-1 DISP	37	197
Amb to T1{1}		9	1.00	4-1 DISP	12	197
Amb to T2{1}		27	1.00	4-1 DISP	35	197
Amb to T3{1}		26	1.00	4-1 DISP	33	197
Amb to T4{1}		29	1.00	4-1 DISP	37	197
Amb to T5{1}		23	1.00	4-1 DISP	30	217
Hydrotest{1}	0	0	1.00	3-1 OCC	37	219
Sus.+T1{1}			1.00	5-1 CRUP	45	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	53	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	52	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	53	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	51	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

A08	Max P{1}					HOOP	48	86	
	GR + Max P{1}	12			1.00	2-1 SUST	40	86	
	TR:Amb to T3{1}			30	1.00	4-1 DISP	38	197	
	Amb to T1{1}			22	1.00	4-1 DISP	28	197	
	Amb to T2{1}			30	1.00	4-1 DISP	38	197	
	Amb to T3{1}			30	1.00	4-1 DISP	38	197	
	Amb to T4{1}			17	1.00	4-1 DISP	21	197	
	Amb to T5{1}			19	1.00	4-1 DISP	24	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	37	219	
	Sus.+T1{1}				1.00	5-1 CRUP	50	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	53	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	53	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	47	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	48	<NOTE 1>	

A08	- Max P{1}					HOOP	48	86	
	GR + Max P{1}	13			1.00	2-1 SUST	41	86	
	TR:Amb to T3{1}			29	1.00	4-1 DISP	37	197	
	Amb to T1{1}			16	1.00	4-1 DISP	20	197	

DVI_B_LINE_REV0.OUT

Amb to T2{1}		29	1.00	4-1 DISP	37	197
Amb to T3{1}		29	1.00	4-1 DISP	36	197
Amb to T4{1}		14	1.00	4-1 DISP	18	197
Amb to T5{1}		22	1.00	4-1 DISP	28	217
Hydrotest{1}	0	0	1.00	3-1 OCC	37	219
Sus.+T1{1}			1.00	5-1 CRUP	47	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	53	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	53	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	47	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	50	<NOTE 1>
A13 + Max P{1}				HOOP	48	86
GR + Max P{1}	2		1.00	2-1 SUST	27	86
TR:Amb to T4{1}		41	1.00	4-1 DISP	52	197
Amb to T1{1}		15	1.00	4-1 DISP	19	197
Amb to T2{1}		40	1.00	4-1 DISP	51	197
Amb to T3{1}		40	1.00	4-1 DISP	51	197
Amb to T4{1}		41	1.00	4-1 DISP	52	197
Amb to T5{1}		39	1.00	4-1 DISP	50	217
Hydrotest{1}	0	0	1.00	3-1 OCC	37	219
Sus.+T1{1}			1.00	5-1 CRUP	33	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	44	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	44	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	44	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	43	<NOTE 1>

DVI_B_LINE_REV0

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. Load no. type			
A10 + Max P{1}						HOOP	48	86	
GR + Max P{1}		10			1.00	2-1 SUST	38	86	
TR:T4 to T5{1}				38	1.00	4-1 DISP	48	197	
Amb to T1{1}				18	1.00	4-1 DISP	23	197	
Amb to T2{1}				34	1.00	4-1 DISP	43	197	
Amb to T3{1}				34	1.00	4-1 DISP	43	197	

DVI_B_LINE_REV0.OUT									
	Amb to T4{1}			27	1.00	4-1 DISP	35	197	
	Amb to T5{1}			32	1.00	4-1 DISP	41	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	37	219	
	Sus.+T1{1}				1.00	5-1 CRUP	45	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	52	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	52	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	49	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	51	<NOTE 1>	
C01	Max P{1}					HOOP	48	86	
	GR + Max P{1}	12			1.00	2-1 SUST	40	86	
	TR:Amb to T3{1}			29	1.00	4-1 DISP	36	197	
	Amb to T1{1}			21	1.00	4-1 DISP	27	197	
	Amb to T2{1}			28	1.00	4-1 DISP	36	197	
	Amb to T3{1}			29	1.00	4-1 DISP	36	197	
	Amb to T4{1}			16	1.00	4-1 DISP	20	197	
	Amb to T5{1}			18	1.00	4-1 DISP	23	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	37	219	
	Sus.+T1{1}				1.00	5-1 CRUP	49	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	52	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	52	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	47	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	48	<NOTE 1>	
P15 N+	Max P{1}					HOOP	11	104	
	GR + Max P{1}	44			1.59	2-1 SUST	8	104	
	TR:T1 to T5{1}			563	1.59	4-1 DISP	51	217	
	Amb to T1{1}			55	1.59	4-1 DISP	5	247	
	Amb to T2{1}			550	1.59	4-1 DISP	50	217	
	Amb to T3{1}			554	1.59	4-1 DISP	50	217	
	Amb to T4{1}			558	1.59	4-1 DISP	51	247	
	Amb to T5{1}			557	1.59	4-1 DISP	51	217	
	Hydrotest{1}	0	0		1.59	3-1 OCC	1	219	
	Sus.+T1{1}				1.59	5-1 CRUP	10	<NOTE 1>	
	Sus.+T2{1}				1.59	5-1 CRUP	21	<NOTE 1>	
	Sus.+T3{1}				1.59	5-1 CRUP	21	<NOTE 1>	
	Sus.+T4{1}				1.59	5-1 CRUP	21	<NOTE 1>	
	Sus.+T5{1}				1.59	5-1 CRUP	21	<NOTE 1>	

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DVI_B_LINE_REV0

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code	
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

A28	- Max P{1}					HOOP	6	104	
	GR + Max P{1}	15			1.00	2-1 SUST	26	104	
	TR:T1 to T5{1}			34	1.00	4-1 DISP	51	217	
	Amb to T1{1}			1	1.00	4-1 DISP	2	247	
	Amb to T2{1}			6	1.00	4-1 DISP	8	247	
	Amb to T3{1}			5	1.00	4-1 DISP	8	247	
	Amb to T4{1}			2	1.00	4-1 DISP	3	247	
	Amb to T5{1}			33	1.00	4-1 DISP	50	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	0	219	
	Sus.+T1{1}				1.00	5-1 CRUP	27	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	29	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	29	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	27	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	43	<NOTE 1>	
P15 M	Max P{1}					HOOP	11	104	
	GR + Max P{1}	43			1.59	2-1 SUST	8	104	
	TR:T1 to T5{1}			559	1.59	4-1 DISP	51	217	
	Amb to T1{1}			59	1.59	4-1 DISP	5	247	
	Amb to T2{1}			546	1.59	4-1 DISP	50	217	
	Amb to T3{1}			551	1.59	4-1 DISP	50	217	
	Amb to T4{1}			558	1.59	4-1 DISP	51	247	
	Amb to T5{1}			554	1.59	4-1 DISP	50	217	
	Hydrotest{1}	0	0		1.59	3-1 OCC	1	219	
	Sus.+T1{1}				1.59	5-1 CRUP	10	<NOTE 1>	
	Sus.+T2{1}				1.59	5-1 CRUP	21	<NOTE 1>	
	Sus.+T3{1}				1.59	5-1 CRUP	21	<NOTE 1>	
	Sus.+T4{1}				1.59	5-1 CRUP	21	<NOTE 1>	
	Sus.+T5{1}				1.59	5-1 CRUP	21	<NOTE 1>	
I02 N-	Max P{1}					HOOP	6	104	
	GR + Max P{1}	3			1.00	2-1 SUST	10	104	
	TR:Amb to T5{1}			18	1.00	4-1 DISP	50	217	
	Amb to T1{1}			0	1.00	4-1 DISP	1	247	
	Amb to T2{1}			3	1.00	4-1 DISP	9	247	
	Amb to T3{1}			3	1.00	4-1 DISP	9	247	
	Amb to T4{1}			1	1.00	4-1 DISP	2	247	
	Amb to T5{1}			18	1.00	4-1 DISP	50	217	

DVI_B_LINE_REV0.OUT

Hydrotest{1}	0	0	1.00	3-1	OCC	0	219
Sus.+T1{1}			1.00	5-1	CRUP	11	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	13	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	13	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	11	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	27	<NOTE 1>

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DVI_B_LINE_REV0

09/13/2010 DVI BLINE

BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 380

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)

(Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
I01	Max P{1}					HOOP	6 104
	GR + Max P{1}	3			1.00	2-1 SUST	12 104
	TR:T1 to T5{1}			18	1.00	4-1 DISP	50 217
	Amb to T1{1}			1	1.00	4-1 DISP	2 247
	Amb to T2{1}			4	1.00	4-1 DISP	10 247
	Amb to T3{1}			4	1.00	4-1 DISP	10 247
	Amb to T4{1}			1	1.00	4-1 DISP	4 247
	Amb to T5{1}			17	1.00	4-1 DISP	49 217
	Hydrotest{1}	0	0		1.00	3-1 OCC	0 219
	Sus.+T1{1}				1.00	5-1 CRUP	12 <NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	15 <NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	15 <NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	13 <NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	28 <NOTE 1>
A13	Max P{1}					HOOP	48 86
	GR + Max P{1}	9			1.00	2-1 SUST	34 86
	TR:Amb to T4{1}			41	1.00	4-1 DISP	45 197
	Amb to T1{1}			12	1.00	4-1 DISP	14 197
	Amb to T2{1}			29	1.00	4-1 DISP	32 197
	Amb to T3{1}			32	1.00	4-1 DISP	35 197
	Amb to T4{1}			41	1.00	4-1 DISP	45 197
	Amb to T5{1}			33	1.00	4-1 DISP	36 217
	Hydrotest{1}	0	0		1.00	3-1 OCC	37 219
	Sus.+T1{1}				1.00	5-1 CRUP	39 <NOTE 1>

	DVI_B_LINE_REV0.OUT				
Sus.+T2{1}		1.00	5-1 CRUP	45	<NOTE 1>
Sus.+T3{1}		1.00	5-1 CRUP	46	<NOTE 1>
Sus.+T4{1}		1.00	5-1 CRUP	49	<NOTE 1>
Sus.+T5{1}		1.00	5-1 CRUP	46	<NOTE 1>

P15 F- Max P{1}				HOOP	11	104
GR + Max P{1}	44		1.59	2-1 SUST	8	104
TR:Amb to T4{1}		537	1.59	4-1 DISP	49	247
Amb to T1{1}		59	1.59	4-1 DISP	5	247
Amb to T2{1}		524	1.59	4-1 DISP	48	217
Amb to T3{1}		528	1.59	4-1 DISP	48	217
Amb to T4{1}		537	1.59	4-1 DISP	49	247
Amb to T5{1}		531	1.59	4-1 DISP	48	217
Hydrotest{1}	0	0	1.59	3-1 OCC	1	219
Sus.+T1{1}			1.59	5-1 CRUP	10	<NOTE 1>
Sus.+T2{1}			1.59	5-1 CRUP	20	<NOTE 1>
Sus.+T3{1}			1.59	5-1 CRUP	20	<NOTE 1>
Sus.+T4{1}			1.59	5-1 CRUP	21	<NOTE 1>
Sus.+T5{1}			1.59	5-1 CRUP	20	<NOTE 1>

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DVI_B_LINE_REV0

09/13/2010 DVI BLINE

BENTLEY

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AutoPIPE Plus 9.2.1 RESULT PAGE 381

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
C06	+ Max P{1}					HOOP	48	86	
	GR + Max P{1}	10			1.00	2-1 SUST	38	86	
	TR:Amb to T3{1}			26	1.00	4-1 DISP	33	197	
	Amb to T1{1}			20	1.00	4-1 DISP	25	197	
	Amb to T2{1}			26	1.00	4-1 DISP	33	197	
	Amb to T3{1}			26	1.00	4-1 DISP	33	197	
	Amb to T4{1}			19	1.00	4-1 DISP	24	197	
	Amb to T5{1}			16	1.00	4-1 DISP	21	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	37	219	
	Sus.+T1{1}				1.00	5-1 CRUP	46	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	49	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	49	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	46	<NOTE 1>	

DVI_B_LINE_REV0.OUT

	GR + Max P{1}	3		1.00	2-1 SUST	10	104
	TR:Amb to T5{1}		17	1.00	4-1 DISP	49	217
	Amb to T1{1}		1	1.00	4-1 DISP	1	247
	Amb to T2{1}		3	1.00	4-1 DISP	9	247
	Amb to T3{1}		3	1.00	4-1 DISP	9	247
	Amb to T4{1}		1	1.00	4-1 DISP	2	247
	Amb to T5{1}		17	1.00	4-1 DISP	49	217
	Hydrotest{1}	0	0	1.00	3-1 OCC	0	219
	Sus.+T1{1}			1.00	5-1 CRUP	11	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	13	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	13	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	11	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	26	<NOTE 1>
A46	Max P{1}				HOOP	6	104
	GR + Max P{1}	7		2.00	2-1 SUST	18	104
	TR:T1 to T5{1}		16	2.00	4-1 DISP	48	217
	Amb to T1{1}		1	2.00	4-1 DISP	4	247
	Amb to T2{1}		3	2.00	4-1 DISP	9	247
	Amb to T3{1}		3	2.00	4-1 DISP	8	247
	Amb to T4{1}		1	2.00	4-1 DISP	3	247
	Amb to T5{1}		16	2.00	4-1 DISP	47	217
	Hydrotest{1}	0	0	2.00	3-1 OCC	0	219
	Sus.+T1{1}			2.00	5-1 CRUP	18	<NOTE 1>
	Sus.+T2{1}			2.00	5-1 CRUP	20	<NOTE 1>
	Sus.+T3{1}			2.00	5-1 CRUP	20	<NOTE 1>
	Sus.+T4{1}			2.00	5-1 CRUP	18	<NOTE 1>
	Sus.+T5{1}			2.00	5-1 CRUP	29	<NOTE 1>
O16 N+	Max P{1}				HOOP	9	104
	GR + Max P{1}	18		1.52	2-1 SUST	10	104
	TR:Amb to T4{1}		121	1.52	4-1 DISP	48	217
	Amb to T1{1}		64	1.52	4-1 DISP	26	247
	Amb to T2{1}		53	1.52	4-1 DISP	21	247
	Amb to T3{1}		73	1.52	4-1 DISP	29	247
	Amb to T4{1}		121	1.52	4-1 DISP	48	217
	Amb to T5{1}		110	1.52	4-1 DISP	43	217
	Hydrotest{1}	0	0	1.52	3-1 OCC	0	219
	Sus.+T1{1}			1.52	5-1 CRUP	16	<NOTE 1>
	Sus.+T2{1}			1.52	5-1 CRUP	15	<NOTE 1>
	Sus.+T3{1}			1.52	5-1 CRUP	17	<NOTE 1>
	Sus.+T4{1}			1.52	5-1 CRUP	22	<NOTE 1>
	Sus.+T5{1}			1.52	5-1 CRUP	21	<NOTE 1>

BENTLEY

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(Stress in N/mm²)

Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
J11	+ Max P{1}					HOOP	48	86
	GR + Max P{1}	2			1.20	2-1 SUST	27	86
	TR:T4 to T5{1}			24	1.20	4-1 DISP	36	217
	Amb to T1{1}			6	1.20	4-1 DISP	9	197
	Amb to T2{1}			15	1.20	4-1 DISP	23	197
	Amb to T3{1}			15	1.20	4-1 DISP	22	197
	Amb to T4{1}			11	1.20	4-1 DISP	17	247
	Amb to T5{1}			17	1.20	4-1 DISP	27	217
	Hydrotest{1}	0	0		1.20	3-1 OCC	37	219
	Sus.+T1{1}				1.20	5-1 CRUP	29	<NOTE 1>
	Sus.+T2{1}				1.20	5-1 CRUP	33	<NOTE 1>
	Sus.+T3{1}				1.20	5-1 CRUP	33	<NOTE 1>
	Sus.+T4{1}				1.20	5-1 CRUP	32	<NOTE 1>
	Sus.+T5{1}				1.20	5-1 CRUP	34	<NOTE 1>
J11	- Max P{1}					HOOP	48	86
	GR + Max P{1}	2			1.20	2-1 SUST	27	86
	TR:T4 to T5{1}			24	1.20	4-1 DISP	36	217
	Amb to T1{1}			6	1.20	4-1 DISP	9	197
	Amb to T2{1}			15	1.20	4-1 DISP	23	197
	Amb to T3{1}			15	1.20	4-1 DISP	22	197
	Amb to T4{1}			11	1.20	4-1 DISP	17	247
	Amb to T5{1}			17	1.20	4-1 DISP	27	217
	Hydrotest{1}	0	0		1.20	3-1 OCC	37	219
	Sus.+T1{1}				1.20	5-1 CRUP	29	<NOTE 1>
	Sus.+T2{1}				1.20	5-1 CRUP	33	<NOTE 1>
	Sus.+T3{1}				1.20	5-1 CRUP	33	<NOTE 1>
	Sus.+T4{1}				1.20	5-1 CRUP	32	<NOTE 1>
	Sus.+T5{1}				1.20	5-1 CRUP	34	<NOTE 1>
C02	F+ Max P{1}					HOOP	48	86
	GR + Max P{1}	2			1.00	2-1 SUST	28	86

	DVI_B_LINE_REV0.OUT						
TR:Amb to T2{1}	27	1.00	4-1	DISP	35	197	
Amb to T1{1}	21	1.00	4-1	DISP	27	197	
Amb to T2{1}	27	1.00	4-1	DISP	35	197	
Amb to T3{1}	27	1.00	4-1	DISP	35	197	
Amb to T4{1}	20	1.00	4-1	DISP	26	197	
Amb to T5{1}	17	1.00	4-1	DISP	22	217	
Hydrotest{1}	0	0	1.00	3-1 OCC	37	219	
Sus.+T1{1}			1.00	5-1 CRUP	37	<NOTE 1>	
Sus.+T2{1}			1.00	5-1 CRUP	39	<NOTE 1>	
Sus.+T3{1}			1.00	5-1 CRUP	39	<NOTE 1>	
Sus.+T4{1}			1.00	5-1 CRUP	36	<NOTE 1>	
Sus.+T5{1}			1.00	5-1 CRUP	35	<NOTE 1>	

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DVI_B_LINE_REV0

09/13/2010 DVIIBLINE

BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 384

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code	
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
C02 F-	Max P{1}					HOOP	48	86	
	GR + Max P{1}	2			1.00	2-1 SUST	28	86	
	TR:Amb to T2{1}			27	1.00	4-1 DISP	35	197	
	Amb to T1{1}			21	1.00	4-1 DISP	27	197	
	Amb to T2{1}			27	1.00	4-1 DISP	35	197	
	Amb to T3{1}			27	1.00	4-1 DISP	35	197	
	Amb to T4{1}			20	1.00	4-1 DISP	26	197	
	Amb to T5{1}			17	1.00	4-1 DISP	22	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	37	219	
	Sus.+T1{1}				1.00	5-1 CRUP	37	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	39	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	39	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	36	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	35	<NOTE 1>	
C02 M	Max P{1}					HOOP	48	86	
	GR + Max P{1}	3			1.00	2-1 SUST	29	86	
	TR:Amb to T2{1}			28	1.00	4-1 DISP	36	197	
	Amb to T1{1}			22	1.00	4-1 DISP	28	197	
	Amb to T2{1}			28	1.00	4-1 DISP	36	197	

Amb to T3{1}			28	1.00	4-1 DISP	36	197
Amb to T4{1}			21	1.00	4-1 DISP	27	197
Amb to T5{1}			18	1.00	4-1 DISP	22	217
Hydrotest{1}	0	0		1.00	3-1 OCC	37	219
Sus.+T1{1}				1.00	5-1 CRUP	38	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	41	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	41	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	38	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	36	<NOTE 1>

C02	N+	Max P{1}				HOOP	48	86
		GR + Max P{1}	5		1.00	2-1 SUST	30	86
		TR:Amb to T2{1}		28	1.00	4-1 DISP	35	197
		Amb to T1{1}		21	1.00	4-1 DISP	27	197
		Amb to T2{1}		28	1.00	4-1 DISP	35	197
		Amb to T3{1}		28	1.00	4-1 DISP	35	197
		Amb to T4{1}		21	1.00	4-1 DISP	27	197
		Amb to T5{1}		17	1.00	4-1 DISP	22	217
		Hydrotest{1}	0	0	1.00	3-1 OCC	37	219
		Sus.+T1{1}			1.00	5-1 CRUP	40	<NOTE 1>
		Sus.+T2{1}			1.00	5-1 CRUP	42	<NOTE 1>
		Sus.+T3{1}			1.00	5-1 CRUP	42	<NOTE 1>
		Sus.+T4{1}			1.00	5-1 CRUP	39	<NOTE 1>
		Sus.+T5{1}			1.00	5-1 CRUP	38	<NOTE 1>

DVI_B_LINE_REV0

BENTLEY

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AutoPIPE Plus 9.2.1 RESULT PAGE 385

Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
C02 N-	Max P{1}					H00P	48	86
	GR + Max P{1}	5			1.00	2-1 SUST	30	86
	TR:Amb to T2{1}			28	1.00	4-1 DISP	35	197
	Amb to T1{1}			21	1.00	4-1 DISP	27	197
	Amb to T2{1}			28	1.00	4-1 DISP	35	197
	Amb to T3{1}			28	1.00	4-1 DISP	35	197
	Amb to T4{1}			21	1.00	4-1 DISP	27	197

		DVI_B_LINE_REV0.OUT					
	Amb to T5{1}		17	1.00	4-1 DISP	22	217
	Hydrotest{1}	0	0	1.00	3-1 OCC	37	219
	Sus.+T1{1}			1.00	5-1 CRUP	40	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	42	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	42	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	39	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	38	<NOTE 1>
B01	Max P{1}				HOOP	48	86
	GR + Max P{1}	2		1.00	2-1 SUST	27	86
	TR:Amb to T3{1}		21	1.00	4-1 DISP	27	197
	Amb to T1{1}		18	1.00	4-1 DISP	22	197
	Amb to T2{1}		21	1.00	4-1 DISP	27	197
	Amb to T3{1}		21	1.00	4-1 DISP	27	197
	Amb to T4{1}		15	1.00	4-1 DISP	19	197
	Amb to T5{1}		13	1.00	4-1 DISP	16	217
	Hydrotest{1}	0	0	1.00	3-1 OCC	37	219
	Sus.+T1{1}			1.00	5-1 CRUP	35	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	36	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	36	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	33	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	32	<NOTE 1>
A07	Max P{1}				HOOP	48	86
	GR + Max P{1}	2		1.00	2-1 SUST	27	86
	TR:Amb to T3{1}		22	1.00	4-1 DISP	24	197
	Amb to T1{1}		18	1.00	4-1 DISP	20	197
	Amb to T2{1}		22	1.00	4-1 DISP	24	197
	Amb to T3{1}		22	1.00	4-1 DISP	24	197
	Amb to T4{1}		16	1.00	4-1 DISP	17	197
	Amb to T5{1}		13	1.00	4-1 DISP	14	217
	Hydrotest{1}	0	0	1.00	3-1 OCC	37	219
	Sus.+T1{1}			1.00	5-1 CRUP	34	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	35	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	35	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	33	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	32	<NOTE 1>

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DVI_B_LINE_REV0

09/13/2010 DVI BLINE

BENTLEY

09:56 AM

AutoPIPE Plus 9.2.1

RESULT PAGE 386

DVI_B_LINE_REV0.OUT
EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F					
A19 F+	Max P{1}							HOOP	48	104
	GR + Max P{1}	11			1.00	2-1	SUST		38	104
	TR:Amb to T5{1}			18	1.00	4-1	DISP		23	217
	Amb to T1{1}			6	1.00	4-1	DISP		8	247
	Amb to T2{1}			9	1.00	4-1	DISP		11	247
	Amb to T3{1}			6	1.00	4-1	DISP		8	247
	Amb to T4{1}			9	1.00	4-1	DISP		11	247
	Amb to T5{1}			18	1.00	4-1	DISP		23	217
	Hydrotest{1}	0	0		1.00	3-1	OCC		37	219
	Sus.+T1{1}				1.00	5-1	CRUP		41	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		42	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP		41	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP		42	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP		46	<NOTE 1>
A19 F-	Max P{1}							HOOP	48	104
	GR + Max P{1}	11			1.00	2-1	SUST		38	104
	TR:Amb to T5{1}			18	1.00	4-1	DISP		23	217
	Amb to T1{1}			6	1.00	4-1	DISP		8	247
	Amb to T2{1}			9	1.00	4-1	DISP		11	247
	Amb to T3{1}			6	1.00	4-1	DISP		8	247
	Amb to T4{1}			9	1.00	4-1	DISP		11	247
	Amb to T5{1}			18	1.00	4-1	DISP		23	217
	Hydrotest{1}	0	0		1.00	3-1	OCC		37	219
	Sus.+T1{1}				1.00	5-1	CRUP		41	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		42	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP		41	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP		42	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP		46	<NOTE 1>
A19 N+	Max P{1}							HOOP	48	104
	GR + Max P{1}	11			1.00	2-1	SUST		39	104
	TR:Amb to T5{1}			17	1.00	4-1	DISP		21	217
	Amb to T1{1}			7	1.00	4-1	DISP		9	247
	Amb to T2{1}			9	1.00	4-1	DISP		12	247
	Amb to T3{1}			6	1.00	4-1	DISP		8	247
	Amb to T4{1}			10	1.00	4-1	DISP		13	247
	Amb to T5{1}			17	1.00	4-1	DISP		21	217
	Hydrotest{1}	0	0		1.00	3-1	OCC		37	219

DVI_B_LINE_REV0.OUT

Sus.+T1{1}	1.00	5-1	CRUP	42 <NOTE 1>
Sus.+T2{1}	1.00	5-1	CRUP	43 <NOTE 1>
Sus.+T3{1}	1.00	5-1	CRUP	41 <NOTE 1>
Sus.+T4{1}	1.00	5-1	CRUP	43 <NOTE 1>
Sus.+T5{1}	1.00	5-1	CRUP	46 <NOTE 1>

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DVI_B_LINE_REV0

09/13/2010 DVI BLINE

BENTLEY

09:56 AM

AutoPIPE Plus 9.2.1

RESULT PAGE 387

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

A19 N-	Max P{1}					HOOP	48	104	
	GR + Max P{1}	11			1.00	2-1 SUST	39	104	
	TR:Amb to T5{1}			17	1.00	4-1 DISP	21	217	
	Amb to T1{1}			7	1.00	4-1 DISP	9	247	
	Amb to T2{1}			9	1.00	4-1 DISP	12	247	
	Amb to T3{1}			6	1.00	4-1 DISP	8	247	
	Amb to T4{1}			10	1.00	4-1 DISP	13	247	
	Amb to T5{1}			17	1.00	4-1 DISP	21	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	37	219	
	Sus.+T1{1}				1.00	5-1 CRUP	42	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	43	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	41	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	43	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	46	<NOTE 1>	
A56	Max P{1}					HOOP	48	104	
	GR + Max P{1}	11			1.00	2-1 SUST	39	104	
	TR:Amb to T5{1}			12	1.00	4-1 DISP	15	217	
	Amb to T1{1}			8	1.00	4-1 DISP	10	247	
	Amb to T2{1}			9	1.00	4-1 DISP	11	247	
	Amb to T3{1}			6	1.00	4-1 DISP	7	247	
	Amb to T4{1}			12	1.00	4-1 DISP	15	247	
	Amb to T5{1}			12	1.00	4-1 DISP	15	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	37	219	
	Sus.+T1{1}				1.00	5-1 CRUP	42	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	43	<NOTE 1>	

DVI_B_LINE_REV0.OUT						
Sus.+T3{1}			1.00	5-1	CRUP	41 <NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	44 <NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	44 <NOTE 1>
A18 F+ Max P{1}					HOOP	48 104
GR + Max P{1}	11		1.00	2-1	SUST	39 104
TR:Amb to T4{1}		16	1.00	4-1	DISP	21 247
Amb to T1{1}		12	1.00	4-1	DISP	15 247
Amb to T2{1}		8	1.00	4-1	DISP	11 247
Amb to T3{1}		6	1.00	4-1	DISP	7 247
Amb to T4{1}		16	1.00	4-1	DISP	21 247
Amb to T5{1}		10	1.00	4-1	DISP	12 217
Hydrotest{1}	0	0	1.00	3-1	OCC	37 219
Sus.+T1{1}			1.00	5-1	CRUP	44 <NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	43 <NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	42 <NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	46 <NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	43 <NOTE 1>

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DVI_B_LINE_REV0

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AutoPIPE Plus 9.2.1

RESULT PAGE 388

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
A18 F- Max P{1}						HOOP	48	104	
GR + Max P{1}		11			1.00	2-1 SUST	39	104	
TR:Amb to T4{1}				16	1.00	4-1 DISP	21	247	
Amb to T1{1}				12	1.00	4-1 DISP	15	247	
Amb to T2{1}				8	1.00	4-1 DISP	11	247	
Amb to T3{1}				6	1.00	4-1 DISP	7	247	
Amb to T4{1}				16	1.00	4-1 DISP	21	247	
Amb to T5{1}				10	1.00	4-1 DISP	12	217	
Hydrotest{1}		0	0		1.00	3-1 OCC	37	219	
Sus.+T1{1}					1.00	5-1 CRUP	44	<NOTE 1>	
Sus.+T2{1}					1.00	5-1 CRUP	43	<NOTE 1>	
Sus.+T3{1}					1.00	5-1 CRUP	42	<NOTE 1>	
Sus.+T4{1}					1.00	5-1 CRUP	46	<NOTE 1>	
Sus.+T5{1}					1.00	5-1 CRUP	43	<NOTE 1>	

DVI_B_LINE_REV0.OUT

A18 N+	Max P{1}					HOOP	48	104
	GR + Max P{1}	10		1.00	2-1	SUST	38	104
	TR:Amb to T4{1}		16	1.00	4-1	DISP	21	247
	Amb to T1{1}		12	1.00	4-1	DISP	16	247
	Amb to T2{1}		8	1.00	4-1	DISP	10	247
	Amb to T3{1}		5	1.00	4-1	DISP	7	247
	Amb to T4{1}		16	1.00	4-1	DISP	21	247
	Amb to T5{1}		9	1.00	4-1	DISP	11	217
	Hydrotest{1}	0	0	1.00	3-1	OCC	37	219
	Sus.+T1{1}			1.00	5-1	CRUP	43	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	41	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	40	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	45	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	42	<NOTE 1>
	A18 N-	Max P{1}					HOOP	48
GR + Max P{1}		10		1.00	2-1	SUST	38	104
TR:Amb to T4{1}			16	1.00	4-1	DISP	21	247
Amb to T1{1}			12	1.00	4-1	DISP	16	247
Amb to T2{1}			8	1.00	4-1	DISP	10	247
Amb to T3{1}			5	1.00	4-1	DISP	7	247
Amb to T4{1}			16	1.00	4-1	DISP	21	247
Amb to T5{1}			9	1.00	4-1	DISP	11	217
Hydrotest{1}		0	0	1.00	3-1	OCC	37	219
Sus.+T1{1}				1.00	5-1	CRUP	43	<NOTE 1>
Sus.+T2{1}				1.00	5-1	CRUP	41	<NOTE 1>
Sus.+T3{1}				1.00	5-1	CRUP	40	<NOTE 1>
Sus.+T4{1}				1.00	5-1	CRUP	45	<NOTE 1>
Sus.+T5{1}				1.00	5-1	CRUP	42	<NOTE 1>

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DVI B LINE REV0

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BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 389

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)

(Stress in N/mm²)

Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
-----	-----	-----	-----	-----	-----	-----	-----	-----
A55	Max P{1}					H00P	48	104
	GR + Max P{1}	6			1.00	2-1 SUST	32	104

DVI_B_LINE_REV0.OUT

TR:T4 to T5{1}			15	1.00	4-1 DISP	19	217
Amb to T1{1}			12	1.00	4-1 DISP	16	247
Amb to T2{1}			6	1.00	4-1 DISP	8	247
Amb to T3{1}			3	1.00	4-1 DISP	4	247
Amb to T4{1}			13	1.00	4-1 DISP	16	247
Amb to T5{1}			7	1.00	4-1 DISP	8	217
Hydrotest{1}	0	0		1.00	3-1 OCC	37	219
Sus.+T1{1}				1.00	5-1 CRUP	37	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	34	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	33	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	37	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	35	<NOTE 1>
A17 F+ Max P{1}					HOOP	48	104
GR + Max P{1}	5			1.00	2-1 SUST	31	104
TR:T1 to T5{1}			19	1.00	4-1 DISP	24	217
Amb to T1{1}			12	1.00	4-1 DISP	16	247
Amb to T2{1}			6	1.00	4-1 DISP	7	247
Amb to T3{1}			3	1.00	4-1 DISP	4	247
Amb to T4{1}			9	1.00	4-1 DISP	12	247
Amb to T5{1}			8	1.00	4-1 DISP	11	217
Hydrotest{1}	0	0		1.00	3-1 OCC	37	219
Sus.+T1{1}				1.00	5-1 CRUP	36	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	34	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	32	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	35	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	35	<NOTE 1>
A17 F- Max P{1}					HOOP	48	104
GR + Max P{1}	5			1.00	2-1 SUST	31	104
TR:T1 to T5{1}			19	1.00	4-1 DISP	24	217
Amb to T1{1}			12	1.00	4-1 DISP	16	247
Amb to T2{1}			6	1.00	4-1 DISP	7	247
Amb to T3{1}			3	1.00	4-1 DISP	4	247
Amb to T4{1}			9	1.00	4-1 DISP	12	247
Amb to T5{1}			8	1.00	4-1 DISP	11	217
Hydrotest{1}	0	0		1.00	3-1 OCC	37	219
Sus.+T1{1}				1.00	5-1 CRUP	36	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	34	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	32	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	35	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	35	<NOTE 1>

DVI_B_LINE_REV0

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BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 390

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)

(Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
A17 N+ Max P{1}						HOOP	48 104
	GR + Max P{1}	6			1.00	2-1 SUST	32 104
	TR:T1 to T5{1}			18	1.00	4-1 DISP	23 217
	Amb to T1{1}			11	1.00	4-1 DISP	15 247
	Amb to T2{1}			6	1.00	4-1 DISP	8 247
	Amb to T3{1}			3	1.00	4-1 DISP	4 247
	Amb to T4{1}			8	1.00	4-1 DISP	10 247
	Amb to T5{1}			8	1.00	4-1 DISP	10 217
	Hydrotest{1}	0	0		1.00	3-1 OCC	37 219
	Sus.+T1{1}				1.00	5-1 CRUP	37 <NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	34 <NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	33 <NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	35 <NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	35 <NOTE 1>
A17 N- Max P{1}						HOOP	48 104
	GR + Max P{1}	6			1.00	2-1 SUST	32 104
	TR:T1 to T5{1}			18	1.00	4-1 DISP	23 217
	Amb to T1{1}			11	1.00	4-1 DISP	15 247
	Amb to T2{1}			6	1.00	4-1 DISP	8 247
	Amb to T3{1}			3	1.00	4-1 DISP	4 247
	Amb to T4{1}			8	1.00	4-1 DISP	10 247
	Amb to T5{1}			8	1.00	4-1 DISP	10 217
	Hydrotest{1}	0	0		1.00	3-1 OCC	37 219
	Sus.+T1{1}				1.00	5-1 CRUP	37 <NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	34 <NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	33 <NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	35 <NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	35 <NOTE 1>
A16 F+ Max P{1}						HOOP	48 104
	GR + Max P{1}	5			1.00	2-1 SUST	31 104
	TR:Amb to T4{1}			10	1.00	4-1 DISP	13 247

DVI_B_LINE_REV0.OUT						
Amb to T1{1}		5	1.00	4-1	DISP	6 247
Amb to T2{1}		8	1.00	4-1	DISP	10 247
Amb to T3{1}		4	1.00	4-1	DISP	5 247
Amb to T4{1}		10	1.00	4-1	DISP	13 247
Amb to T5{1}		6	1.00	4-1	DISP	8 217
Hydrotest{1}	0	0	1.00	3-1	OCC	37 219
Sus.+T1{1}			1.00	5-1	CRUP	33 <NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	35 <NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	33 <NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	36 <NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	34 <NOTE 1>

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DVI_B_LINE_REV0

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BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 391

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F no. type	Stress	Allow.

A16 F-	Max P{1}				HOOP	48	86
	GR + Max P{1}	5			1.00 2-1 SUST	31	86
	TR:Amb to T4{1}			10	1.00 4-1 DISP	13	197
	Amb to T1{1}			5	1.00 4-1 DISP	6	197
	Amb to T2{1}			8	1.00 4-1 DISP	10	197
	Amb to T3{1}			4	1.00 4-1 DISP	5	197
	Amb to T4{1}			10	1.00 4-1 DISP	13	197
	Amb to T5{1}			6	1.00 4-1 DISP	8	217
	Hydrotest{1}	0	0		1.00 3-1 OCC	37	219
	Sus.+T1{1}				1.00 5-1 CRUP	33	<NOTE 1>
	Sus.+T2{1}				1.00 5-1 CRUP	35	<NOTE 1>
	Sus.+T3{1}				1.00 5-1 CRUP	33	<NOTE 1>
	Sus.+T4{1}				1.00 5-1 CRUP	36	<NOTE 1>
	Sus.+T5{1}				1.00 5-1 CRUP	34	<NOTE 1>

A16 N+	Max P{1}				HOOP	48	86
	GR + Max P{1}	6			1.00 2-1 SUST	32	86
	TR:Amb to T4{1}			11	1.00 4-1 DISP	14	197
	Amb to T1{1}			5	1.00 4-1 DISP	6	197
	Amb to T2{1}			9	1.00 4-1 DISP	11	197
	Amb to T3{1}			4	1.00 4-1 DISP	5	197

Amb to T4{1}			11	1.00	4-1 DISP	14	197
Amb to T5{1}			7	1.00	4-1 DISP	9	217
Hydrotest{1}	0	0		1.00	3-1 OCC	37	219
Sus.+T1{1}				1.00	5-1 CRUP	34	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	36	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	34	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	37	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	35	<NOTE 1>

A16 N- Max P{1}					HOOP	48	86
GR + Max P{1}	6		1.00	2-1	SUST	32	86
TR:Amb to T4{1}		11	1.00	4-1	DISP	14	197
Amb to T1{1}		5	1.00	4-1	DISP	6	197
Amb to T2{1}		9	1.00	4-1	DISP	11	197
Amb to T3{1}		4	1.00	4-1	DISP	5	197
Amb to T4{1}		11	1.00	4-1	DISP	14	197
Amb to T5{1}		7	1.00	4-1	DISP	9	217
Hydrotest{1}	0	0	1.00	3-1	OCC	37	219
Sus.+T1{1}			1.00	5-1	CRUP	34	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	36	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	34	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	37	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	35	<NOTE 1>

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Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
-----	-----	-----	-----	-----	-----	-----	-----	-----
A32	+ Max P{1}					H00P	48	86
	GR + Max P{1}	7			1.00	2-1 SUST	33	86
	TR:T4 to T5{1}			12	1.00	4-1 DISP	15	197
	Amb to T1{1}			5	1.00	4-1 DISP	6	197
	Amb to T2{1}			9	1.00	4-1 DISP	12	197
	Amb to T3{1}			4	1.00	4-1 DISP	6	197
	Amb to T4{1}			12	1.00	4-1 DISP	15	197
	Amb to T5{1}			6	1.00	4-1 DISP	8	217

DVI_B_LINE_REV0.OUT									
		0	0	1.00	3-1	OCC	37	219	
Hydrotest{1}									
Sus.+T1{1}				1.00	5-1	CRUP	35	<NOTE 1>	
Sus.+T2{1}				1.00	5-1	CRUP	37	<NOTE 1>	
Sus.+T3{1}				1.00	5-1	CRUP	35	<NOTE 1>	
Sus.+T4{1}				1.00	5-1	CRUP	38	<NOTE 1>	
Sus.+T5{1}				1.00	5-1	CRUP	36	<NOTE 1>	
A32 - Max P{1}									
						HOOP	48	86	
GR + Max P{1}	7			1.00	2-1	SUST	34	86	
TR:T4 to T5{1}		11		1.00	4-1	DISP	14	197	
Amb to T1{1}		3		1.00	4-1	DISP	4	197	
Amb to T2{1}		8		1.00	4-1	DISP	10	197	
Amb to T3{1}		5		1.00	4-1	DISP	6	197	
Amb to T4{1}		10		1.00	4-1	DISP	13	197	
Amb to T5{1}		4		1.00	4-1	DISP	5	217	
Hydrotest{1}		0	0	1.00	3-1	OCC	37	219	
Sus.+T1{1}				1.00	5-1	CRUP	35	<NOTE 1>	
Sus.+T2{1}				1.00	5-1	CRUP	37	<NOTE 1>	
Sus.+T3{1}				1.00	5-1	CRUP	36	<NOTE 1>	
Sus.+T4{1}				1.00	5-1	CRUP	38	<NOTE 1>	
Sus.+T5{1}				1.00	5-1	CRUP	35	<NOTE 1>	
A07 + Max P{1}									
						HOOP	48	86	
GR + Max P{1}	2			1.00	2-1	SUST	27	86	
TR:T2 to T4{1}		23		1.00	4-1	DISP	30	197	
Amb to T1{1}		18		1.00	4-1	DISP	23	197	
Amb to T2{1}		23		1.00	4-1	DISP	30	197	
Amb to T3{1}		23		1.00	4-1	DISP	30	197	
Amb to T4{1}		15		1.00	4-1	DISP	19	197	
Amb to T5{1}		15		1.00	4-1	DISP	19	217	
Hydrotest{1}		0	0	1.00	3-1	OCC	37	219	
Sus.+T1{1}				1.00	5-1	CRUP	35	<NOTE 1>	
Sus.+T2{1}				1.00	5-1	CRUP	37	<NOTE 1>	
Sus.+T3{1}				1.00	5-1	CRUP	37	<NOTE 1>	
Sus.+T4{1}				1.00	5-1	CRUP	34	<NOTE 1>	
Sus.+T5{1}				1.00	5-1	CRUP	34	<NOTE 1>	

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DVI_B_LINE_REV0

09/13/2010 DVI BLINE

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EN 13480 (2002) CODE COMPLIANCE

		DVI_B_LINE_REV0.0UT (Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

A07	- Max P{1}					HOOP	48	86	
	GR + Max P{1}	0			1.00	2-1 SUST	25	86	
	TR:T2 to T4{1}			4	1.00	4-1 DISP	5	197	
	Amb to T1{1}			2	1.00	4-1 DISP	3	197	
	Amb to T2{1}			3	1.00	4-1 DISP	4	197	
	Amb to T3{1}			3	1.00	4-1 DISP	4	197	
	Amb to T4{1}			2	1.00	4-1 DISP	3	197	
	Amb to T5{1}			3	1.00	4-1 DISP	4	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	37	219	
	Sus.+T1{1}				1.00	5-1 CRUP	26	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	26	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	26	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	26	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	26	<NOTE 1>	
A50	+ Max P{1}					HOOP	48	86	
	GR + Max P{1}	0			1.00	2-1 SUST	25	86	
	TR:Amb to T2{1}			2	1.00	4-1 DISP	2	197	
	Amb to T1{1}			1	1.00	4-1 DISP	1	197	
	Amb to T2{1}			2	1.00	4-1 DISP	2	197	
	Amb to T3{1}			2	1.00	4-1 DISP	2	197	
	Amb to T4{1}			1	1.00	4-1 DISP	1	197	
	Amb to T5{1}			1	1.00	4-1 DISP	2	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	37	219	
	Sus.+T1{1}				1.00	5-1 CRUP	26	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	26	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	26	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	26	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	26	<NOTE 1>	
A50	- Max P{1}					HOOP	48	86	
	GR + Max P{1}	0			1.00	2-1 SUST	25	86	
	TR:Amb to T2{1}			2	1.00	4-1 DISP	2	197	
	Amb to T1{1}			1	1.00	4-1 DISP	1	197	
	Amb to T2{1}			2	1.00	4-1 DISP	2	197	
	Amb to T3{1}			2	1.00	4-1 DISP	2	197	
	Amb to T4{1}			1	1.00	4-1 DISP	1	197	
	Amb to T5{1}			1	1.00	4-1 DISP	2	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	37	219	
	Sus.+T1{1}				1.00	5-1 CRUP	26	<NOTE 1>	

DVI_B_LINE_REV0.OUT

Sus.+T2{1}	1.00	5-1	CRUP	26 <NOTE 1>
Sus.+T3{1}	1.00	5-1	CRUP	26 <NOTE 1>
Sus.+T4{1}	1.00	5-1	CRUP	26 <NOTE 1>
Sus.+T5{1}	1.00	5-1	CRUP	26 <NOTE 1>

DVI_B_LINE_REV0

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AutoPIPE Plus 9.2.1

RESULT PAGE 394

EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. Load no. type			
A06 F+ Max P{1}						HOOP	48	86	
GR + Max P{1}		9			1.00	2-1 SUST	36	86	
TR:Amb to T2{1}				2	1.00	4-1 DISP	3	197	
Amb to T1{1}				1	1.00	4-1 DISP	2	197	
Amb to T2{1}				2	1.00	4-1 DISP	3	197	
Amb to T3{1}				2	1.00	4-1 DISP	3	197	
Amb to T4{1}				1	1.00	4-1 DISP	2	197	
Amb to T5{1}				1	1.00	4-1 DISP	2	217	
Hydrotest{1}		0	0		1.00	3-1 OCC	37	219	
Sus.+T1{1}					1.00	5-1 CRUP	36	<NOTE 1>	
Sus.+T2{1}					1.00	5-1 CRUP	37	<NOTE 1>	
Sus.+T3{1}					1.00	5-1 CRUP	37	<NOTE 1>	
Sus.+T4{1}					1.00	5-1 CRUP	36	<NOTE 1>	
Sus.+T5{1}					1.00	5-1 CRUP	36	<NOTE 1>	
A06 F- Max P{1}						HOOP	48	86	
GR + Max P{1}		9			1.00	2-1 SUST	36	86	
TR:Amb to T2{1}				2	1.00	4-1 DISP	3	197	
Amb to T1{1}				1	1.00	4-1 DISP	2	197	
Amb to T2{1}				2	1.00	4-1 DISP	3	197	
Amb to T3{1}				2	1.00	4-1 DISP	3	197	
Amb to T4{1}				1	1.00	4-1 DISP	2	197	
Amb to T5{1}				1	1.00	4-1 DISP	2	217	
Hydrotest{1}		0	0		1.00	3-1 OCC	37	219	
Sus.+T1{1}					1.00	5-1 CRUP	36	<NOTE 1>	
Sus.+T2{1}					1.00	5-1 CRUP	37	<NOTE 1>	
Sus.+T3{1}					1.00	5-1 CRUP	37	<NOTE 1>	

DVI_B_LINE_REV0.OUT									
Sus.+T4{1}			1.00	5-1	CRUP	36	<NOTE 1>		
Sus.+T5{1}			1.00	5-1	CRUP	36	<NOTE 1>		
A06 N+ Max P{1}					HOOP	48	86		
GR + Max P{1}	8		1.00	2-1	SUST	35	86		
TR:Amb to T2{1}			2	1.00	4-1 DISP	2	197		
Amb to T1{1}			1	1.00	4-1 DISP	1	197		
Amb to T2{1}			2	1.00	4-1 DISP	2	197		
Amb to T3{1}			2	1.00	4-1 DISP	2	197		
Amb to T4{1}			1	1.00	4-1 DISP	1	197		
Amb to T5{1}			1	1.00	4-1 DISP	2	217		
Hydrotest{1}	0	0	1.00	3-1	OCC	37	219		
Sus.+T1{1}			1.00	5-1	CRUP	36	<NOTE 1>		
Sus.+T2{1}			1.00	5-1	CRUP	36	<NOTE 1>		
Sus.+T3{1}			1.00	5-1	CRUP	36	<NOTE 1>		
Sus.+T4{1}			1.00	5-1	CRUP	35	<NOTE 1>		
Sus.+T5{1}			1.00	5-1	CRUP	36	<NOTE 1>		

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DVI_B_LINE_REV0

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)					
Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.		
A06 N- Max P{1}						HOOP	48	86		
GR + Max P{1}		8			1.00	2-1 SUST	35	86		
TR:Amb to T2{1}					2	1.00 4-1 DISP	2	197		
Amb to T1{1}					1	1.00 4-1 DISP	1	197		
Amb to T2{1}					2	1.00 4-1 DISP	2	197		
Amb to T3{1}					2	1.00 4-1 DISP	2	197		
Amb to T4{1}					1	1.00 4-1 DISP	1	197		
Amb to T5{1}					1	1.00 4-1 DISP	2	217		
Hydrotest{1}		0	0		1.00	3-1 OCC	37	219		
Sus.+T1{1}					1.00	5-1 CRUP	36	<NOTE 1>		
Sus.+T2{1}					1.00	5-1 CRUP	36	<NOTE 1>		
Sus.+T3{1}					1.00	5-1 CRUP	36	<NOTE 1>		
Sus.+T4{1}					1.00	5-1 CRUP	35	<NOTE 1>		
Sus.+T5{1}					1.00	5-1 CRUP	36	<NOTE 1>		

DVI_B_LINE_REV0.OUT									
A05 F+ Max P{1}						HOOP	48	86	
GR + Max P{1}	11		1.00	2-1	SUST		39	86	
TR:Amb to T1{1}		12	1.00	4-1	DISP		15	197	
Amb to T1{1}		12	1.00	4-1	DISP		15	197	
Amb to T2{1}		12	1.00	4-1	DISP		15	197	
Amb to T3{1}		12	1.00	4-1	DISP		15	197	
Amb to T4{1}		12	1.00	4-1	DISP		15	197	
Amb to T5{1}		6	1.00	4-1	DISP		8	217	
Hydrotest{1}	0	0	1.00	3-1	OCC		37	219	
Sus.+T1{1}			1.00	5-1	CRUP		44	<NOTE 1>	
Sus.+T2{1}			1.00	5-1	CRUP		44	<NOTE 1>	
Sus.+T3{1}			1.00	5-1	CRUP		44	<NOTE 1>	
Sus.+T4{1}			1.00	5-1	CRUP		44	<NOTE 1>	
Sus.+T5{1}			1.00	5-1	CRUP		41	<NOTE 1>	
A05 F- Max P{1}						HOOP	48	86	
GR + Max P{1}	11		1.00	2-1	SUST		39	86	
TR:Amb to T1{1}		12	1.00	4-1	DISP		15	197	
Amb to T1{1}		12	1.00	4-1	DISP		15	197	
Amb to T2{1}		12	1.00	4-1	DISP		15	197	
Amb to T3{1}		12	1.00	4-1	DISP		15	197	
Amb to T4{1}		12	1.00	4-1	DISP		15	197	
Amb to T5{1}		6	1.00	4-1	DISP		8	217	
Hydrotest{1}	0	0	1.00	3-1	OCC		37	219	
Sus.+T1{1}			1.00	5-1	CRUP		44	<NOTE 1>	
Sus.+T2{1}			1.00	5-1	CRUP		44	<NOTE 1>	
Sus.+T3{1}			1.00	5-1	CRUP		44	<NOTE 1>	
Sus.+T4{1}			1.00	5-1	CRUP		44	<NOTE 1>	
Sus.+T5{1}			1.00	5-1	CRUP		41	<NOTE 1>	

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DVI_B_LINE_REV0

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no.	type	Stress	Allow.
A05 N+ Max P{1}							HOOP	48	86
GR + Max P{1}		11			1.00	2-1	SUST	39	86
TR:Amb to T1{1}				12	1.00	4-1	DISP	16	197

DVI_B_LINE_REV0.OUT

Amb to T1{1}			12	1.00	4-1 DISP	16	197
Amb to T2{1}			12	1.00	4-1 DISP	15	197
Amb to T3{1}			12	1.00	4-1 DISP	15	197
Amb to T4{1}			12	1.00	4-1 DISP	16	197
Amb to T5{1}			6	1.00	4-1 DISP	8	217
Hydrotest{1}	0	0		1.00	3-1 OCC	37	219
Sus.+T1{1}				1.00	5-1 CRUP	45	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	44	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	44	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	44	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	42	<NOTE 1>
A05 N- Max P{1}					HOOP	48	86
GR + Max P{1}	11			1.00	2-1 SUST	39	86
TR:Amb to T1{1}			12	1.00	4-1 DISP	16	197
Amb to T1{1}			12	1.00	4-1 DISP	16	197
Amb to T2{1}			12	1.00	4-1 DISP	15	197
Amb to T3{1}			12	1.00	4-1 DISP	15	197
Amb to T4{1}			12	1.00	4-1 DISP	16	197
Amb to T5{1}			6	1.00	4-1 DISP	8	217
Hydrotest{1}	0	0		1.00	3-1 OCC	37	219
Sus.+T1{1}				1.00	5-1 CRUP	45	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	44	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	44	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	44	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	42	<NOTE 1>
A04 F+ Max P{1}					HOOP	48	86
GR + Max P{1}	5			1.00	2-1 SUST	32	86
TR:Amb to T1{1}			11	1.00	4-1 DISP	14	197
Amb to T1{1}			11	1.00	4-1 DISP	14	197
Amb to T2{1}			11	1.00	4-1 DISP	14	197
Amb to T3{1}			11	1.00	4-1 DISP	14	197
Amb to T4{1}			11	1.00	4-1 DISP	14	197
Amb to T5{1}			6	1.00	4-1 DISP	8	217
Hydrotest{1}	0	0		1.00	3-1 OCC	37	219
Sus.+T1{1}				1.00	5-1 CRUP	36	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	36	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	36	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	36	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	34	<NOTE 1>

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DVI_B_LINE_REV0

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F					
A04 F-	Max P{1}							HOOP	48	86
	GR + Max P{1}	5			1.00	2-1	SUST		32	86
	TR:Amb to T1{1}			11	1.00	4-1	DISP		14	197
	Amb to T1{1}			11	1.00	4-1	DISP		14	197
	Amb to T2{1}			11	1.00	4-1	DISP		14	197
	Amb to T3{1}			11	1.00	4-1	DISP		14	197
	Amb to T4{1}			11	1.00	4-1	DISP		14	197
	Amb to T5{1}			6	1.00	4-1	DISP		8	217
	Hydrotest{1}	0	0		1.00	3-1	OCC		37	219
	Sus.+T1{1}				1.00	5-1	CRUP		36	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		36	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP		36	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP		36	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP		34	<NOTE 1>
A04 N+	Max P{1}							HOOP	48	86
	GR + Max P{1}	6			1.00	2-1	SUST		32	86
	TR:Amb to T1{1}			10	1.00	4-1	DISP		13	197
	Amb to T1{1}			10	1.00	4-1	DISP		13	197
	Amb to T2{1}			10	1.00	4-1	DISP		13	197
	Amb to T3{1}			10	1.00	4-1	DISP		13	197
	Amb to T4{1}			10	1.00	4-1	DISP		13	197
	Amb to T5{1}			6	1.00	4-1	DISP		7	217
	Hydrotest{1}	0	0		1.00	3-1	OCC		37	219
	Sus.+T1{1}				1.00	5-1	CRUP		36	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		36	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP		36	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP		36	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP		35	<NOTE 1>
A04 N-	Max P{1}							HOOP	48	86
	GR + Max P{1}	6			1.00	2-1	SUST		32	86
	TR:Amb to T1{1}			10	1.00	4-1	DISP		13	197
	Amb to T1{1}			10	1.00	4-1	DISP		13	197

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Amb to T2{1}		10	1.00	4-1	DISP	13	197
Amb to T3{1}		10	1.00	4-1	DISP	13	197
Amb to T4{1}		10	1.00	4-1	DISP	13	197
Amb to T5{1}		6	1.00	4-1	DISP	7	217
Hydrotest{1}	0	0	1.00	3-1	OCC	37	219
Sus.+T1{1}			1.00	5-1	CRUP	36	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	36	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	36	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	36	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	35	<NOTE 1>

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DVI_B_LINE_REV0

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RESULT PAGE 398

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

A03 F+ Max P{1}						HOOP	48	86	
	GR + Max P{1}	0			1.00	2-1 SUST	25	86	
	TR:Amb to T3{1}			7	1.00	4-1 DISP	9	197	
	Amb to T1{1}			7	1.00	4-1 DISP	9	197	
	Amb to T2{1}			7	1.00	4-1 DISP	9	197	
	Amb to T3{1}			7	1.00	4-1 DISP	9	197	
	Amb to T4{1}			7	1.00	4-1 DISP	9	197	
	Amb to T5{1}			4	1.00	4-1 DISP	5	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	37	219	
	Sus.+T1{1}				1.00	5-1 CRUP	28	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	28	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	28	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	28	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	27	<NOTE 1>	

A03 F- Max P{1}						HOOP	48	86	
	GR + Max P{1}	0			1.00	2-1 SUST	25	86	
	TR:Amb to T3{1}			7	1.00	4-1 DISP	9	197	
	Amb to T1{1}			7	1.00	4-1 DISP	9	197	
	Amb to T2{1}			7	1.00	4-1 DISP	9	197	
	Amb to T3{1}			7	1.00	4-1 DISP	9	197	
	Amb to T4{1}			7	1.00	4-1 DISP	9	197	

DVI_B_LINE_REV0.OUT

Amb to T5{1}			4	1.00	4-1 DISP	5	217
Hydrotest{1}	0	0		1.00	3-1 OCC	37	219
Sus.+T1{1}				1.00	5-1 CRUP	28	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	28	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	28	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	28	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	27	<NOTE 1>
A03 N+ Max P{1}					HOOP	48	86
GR + Max P{1}	0			1.00	2-1 SUST	25	86
TR:Amb to T1{1}			8	1.00	4-1 DISP	10	197
Amb to T1{1}			8	1.00	4-1 DISP	10	197
Amb to T2{1}			8	1.00	4-1 DISP	10	197
Amb to T3{1}			8	1.00	4-1 DISP	10	197
Amb to T4{1}			7	1.00	4-1 DISP	10	197
Amb to T5{1}			4	1.00	4-1 DISP	5	217
Hydrotest{1}	0	0		1.00	3-1 OCC	37	219
Sus.+T1{1}				1.00	5-1 CRUP	28	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	28	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	28	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	28	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	27	<NOTE 1>

DVI_B_LINE_REV0

09/13/2010 DVIIBLINE

BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 399

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)		
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
A03 N- Max P{1}						HOOP	48 86
GR + Max P{1}		0			1.00	2-1 SUST	25 86
TR:Amb to T1{1}				8	1.00	4-1 DISP	10 197
Amb to T1{1}				8	1.00	4-1 DISP	10 197
Amb to T2{1}				8	1.00	4-1 DISP	10 197
Amb to T3{1}				8	1.00	4-1 DISP	10 197
Amb to T4{1}				7	1.00	4-1 DISP	10 197
Amb to T5{1}				4	1.00	4-1 DISP	5 217
Hydrotest{1}		0	0		1.00	3-1 OCC	37 219

DVI_B_LINE_REV0.OUT									
Sus.+T1{1}			1.00	5-1	CRUP	28	<NOTE 1>		
Sus.+T2{1}			1.00	5-1	CRUP	28	<NOTE 1>		
Sus.+T3{1}			1.00	5-1	CRUP	28	<NOTE 1>		
Sus.+T4{1}			1.00	5-1	CRUP	28	<NOTE 1>		
Sus.+T5{1}			1.00	5-1	CRUP	27	<NOTE 1>		
A02 F+ Max P{1}						HOOP	48	86	
GR + Max P{1}			6	1.00	2-1	SUST	32	86	
TR:Amb to T1{1}			8	1.00	4-1	DISP	10	197	
Amb to T1{1}			8	1.00	4-1	DISP	10	197	
Amb to T2{1}			8	1.00	4-1	DISP	10	197	
Amb to T3{1}			8	1.00	4-1	DISP	10	197	
Amb to T4{1}			8	1.00	4-1	DISP	10	197	
Amb to T5{1}			4	1.00	4-1	DISP	5	217	
Hydrotest{1}			0	0	1.00	3-1	OCC	37	219
Sus.+T1{1}				1.00	5-1	CRUP	36	<NOTE 1>	
Sus.+T2{1}				1.00	5-1	CRUP	36	<NOTE 1>	
Sus.+T3{1}				1.00	5-1	CRUP	36	<NOTE 1>	
Sus.+T4{1}				1.00	5-1	CRUP	36	<NOTE 1>	
Sus.+T5{1}				1.00	5-1	CRUP	34	<NOTE 1>	
A02 F- Max P{1}						HOOP	48	86	
GR + Max P{1}			6	1.00	2-1	SUST	32	86	
TR:Amb to T1{1}			8	1.00	4-1	DISP	10	197	
Amb to T1{1}			8	1.00	4-1	DISP	10	197	
Amb to T2{1}			8	1.00	4-1	DISP	10	197	
Amb to T3{1}			8	1.00	4-1	DISP	10	197	
Amb to T4{1}			8	1.00	4-1	DISP	10	197	
Amb to T5{1}			4	1.00	4-1	DISP	5	217	
Hydrotest{1}			0	0	1.00	3-1	OCC	37	219
Sus.+T1{1}				1.00	5-1	CRUP	36	<NOTE 1>	
Sus.+T2{1}				1.00	5-1	CRUP	36	<NOTE 1>	
Sus.+T3{1}				1.00	5-1	CRUP	36	<NOTE 1>	
Sus.+T4{1}				1.00	5-1	CRUP	36	<NOTE 1>	
Sus.+T5{1}				1.00	5-1	CRUP	34	<NOTE 1>	

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DVI_B_LINE_REV0

09/13/2010 DVI BLINE

BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 400

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)

(Stress in N/mm2)

Point name	Load combination	DVI_B_LINE_REV0.OUT				Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F			

A02 N+	Max P{1}					HOOP	48	86
	GR + Max P{1}	6			1.00	2-1 SUST	32	86
	TR:Amb to T1{1}			9	1.00	4-1 DISP	11	197
	Amb to T1{1}			9	1.00	4-1 DISP	11	197
	Amb to T2{1}			9	1.00	4-1 DISP	11	197
	Amb to T3{1}			9	1.00	4-1 DISP	11	197
	Amb to T4{1}			9	1.00	4-1 DISP	11	197
	Amb to T5{1}			5	1.00	4-1 DISP	6	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	37	219
	Sus.+T1{1}				1.00	5-1 CRUP	36	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	36	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	36	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	36	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	34	<NOTE 1>
A02 N-	Max P{1}					HOOP	48	86
	GR + Max P{1}	6			1.00	2-1 SUST	32	86
	TR:Amb to T1{1}			9	1.00	4-1 DISP	11	197
	Amb to T1{1}			9	1.00	4-1 DISP	11	197
	Amb to T2{1}			9	1.00	4-1 DISP	11	197
	Amb to T3{1}			9	1.00	4-1 DISP	11	197
	Amb to T4{1}			9	1.00	4-1 DISP	11	197
	Amb to T5{1}			5	1.00	4-1 DISP	6	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	37	219
	Sus.+T1{1}				1.00	5-1 CRUP	36	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	36	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	36	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	36	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	34	<NOTE 1>
019 F+	Max P{1}					HOOP	9	104
	GR + Max P{1}	36			1.00	2-1 SUST	14	104
	TR:T1 to T5{1}			182	1.00	4-1 DISP	47	217
	Amb to T1{1}			43	1.00	4-1 DISP	11	247
	Amb to T2{1}			169	1.00	4-1 DISP	44	247
	Amb to T3{1}			171	1.00	4-1 DISP	45	247
	Amb to T4{1}			174	1.00	4-1 DISP	45	217
	Amb to T5{1}			176	1.00	4-1 DISP	46	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	0	219
	Sus.+T1{1}				1.00	5-1 CRUP	18	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	28	<NOTE 1>

				DVI_B_LINE_REV0.OUT				
	Sus.+T5{1}			1.00	5-1	CRUP	22	<NOTE 1>
F02 M	Max P{1}					HOOP	44	86
	GR + Max P{1}	2		1.00	2-1	SUST	27	86
	TR:Amb to T3{1}		20	1.00	4-1	DISP	47	197
	Amb to T1{1}		6	1.00	4-1	DISP	14	197
	Amb to T2{1}		7	1.00	4-1	DISP	17	197
	Amb to T3{1}		20	1.00	4-1	DISP	47	197
	Amb to T4{1}		8	1.00	4-1	DISP	18	197
	Amb to T5{1}		10	1.00	4-1	DISP	24	217
	Hydrotest{1}	0	0	1.00	3-1	OCC	35	219
	Sus.+T1{1}			1.00	5-1	CRUP	32	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	33	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	43	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	33	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	35	<NOTE 1>

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DVI_B_LINE_REV0

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RESULT PAGE 402

EN 13480 (2002) CODE COMPLIANCE								
(Moments in N.m)			(Stress in N/mm2)					
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code	
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
F02 N+	Max P{1}					HOOP	44	86
	GR + Max P{1}	2			1.00	2-1 SUST	27	86
	TR:Amb to T3{1}			20	1.00	4-1 DISP	47	197
	Amb to T1{1}			6	1.00	4-1 DISP	14	197
	Amb to T2{1}			7	1.00	4-1 DISP	17	197
	Amb to T3{1}			20	1.00	4-1 DISP	47	197
	Amb to T4{1}			8	1.00	4-1 DISP	19	197
	Amb to T5{1}			10	1.00	4-1 DISP	23	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	35	219
	Sus.+T1{1}				1.00	5-1 CRUP	32	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	33	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	43	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	33	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	35	<NOTE 1>
F02 N-	Max P{1}					HOOP	44	86

DVI_B_LINE_REV0.OUT						
GR + Max P{1}	2	1.00	2-1	SUST	27	86
TR:Amb to T3{1}	20	1.00	4-1	DISP	47	197
Amb to T1{1}	6	1.00	4-1	DISP	14	197
Amb to T2{1}	7	1.00	4-1	DISP	17	197
Amb to T3{1}	20	1.00	4-1	DISP	47	197
Amb to T4{1}	8	1.00	4-1	DISP	19	197
Amb to T5{1}	10	1.00	4-1	DISP	23	217
Hydrotest{1}	0	0	1.00	3-1 OCC	35	219
Sus.+T1{1}		1.00	5-1	CRUP	32	<NOTE 1>
Sus.+T2{1}		1.00	5-1	CRUP	33	<NOTE 1>
Sus.+T3{1}		1.00	5-1	CRUP	43	<NOTE 1>
Sus.+T4{1}		1.00	5-1	CRUP	33	<NOTE 1>
Sus.+T5{1}		1.00	5-1	CRUP	35	<NOTE 1>
F02 F+ Max P{1}				HOOP	44	86
GR + Max P{1}	2	1.00	2-1	SUST	27	86
TR:Amb to T3{1}	19	1.00	4-1	DISP	46	197
Amb to T1{1}	6	1.00	4-1	DISP	13	197
Amb to T2{1}	7	1.00	4-1	DISP	16	197
Amb to T3{1}	19	1.00	4-1	DISP	46	197
Amb to T4{1}	7	1.00	4-1	DISP	17	197
Amb to T5{1}	10	1.00	4-1	DISP	23	217
Hydrotest{1}	0	0	1.00	3-1 OCC	35	219
Sus.+T1{1}		1.00	5-1	CRUP	31	<NOTE 1>
Sus.+T2{1}		1.00	5-1	CRUP	32	<NOTE 1>
Sus.+T3{1}		1.00	5-1	CRUP	42	<NOTE 1>
Sus.+T4{1}		1.00	5-1	CRUP	33	<NOTE 1>
Sus.+T5{1}		1.00	5-1	CRUP	35	<NOTE 1>

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AutoPIPE Plus 9.2.1

RESULT PAGE 403

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
F02 F-	Max P{1}					HOOP	44	86	
	GR + Max P{1}	2			1.00	2-1 SUST	27	86	
	TR:Amb to T3{1}			19	1.00	4-1 DISP	46	197	
	Amb to T1{1}			6	1.00	4-1 DISP	13	197	

Amb to T2{1}			7	1.00	4-1 DISP	16	197
Amb to T3{1}			19	1.00	4-1 DISP	46	197
Amb to T4{1}			7	1.00	4-1 DISP	17	197
Amb to T5{1}			10	1.00	4-1 DISP	23	217
Hydrotest{1}	0	0		1.00	3-1 OCC	35	219
Sus.+T1{1}				1.00	5-1 CRUP	31	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	32	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	42	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	33	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	35	<NOTE 1>

N15	N+	Max	P{1}			HOOP	9	104
		GR + Max	P{1}	8	1.52	2-1 SUST	7	104
		TR:Amb to T4{1}		116	1.52	4-1 DISP	46	217
		Amb to T1{1}		70	1.52	4-1 DISP	28	247
		Amb to T2{1}		83	1.52	4-1 DISP	33	247
		Amb to T3{1}		67	1.52	4-1 DISP	27	247
		Amb to T4{1}		116	1.52	4-1 DISP	46	217
		Amb to T5{1}		76	1.52	4-1 DISP	30	217
		Hydrotest{1}	0	0	1.52	3-1 OCC	0	219
		Sus.+T1{1}			1.52	5-1 CRUP	14	<NOTE 1>
		Sus.+T2{1}			1.52	5-1 CRUP	15	<NOTE 1>
		Sus.+T3{1}			1.52	5-1 CRUP	13	<NOTE 1>
		Sus.+T4{1}			1.52	5-1 CRUP	18	<NOTE 1>
		Sus.+T5{1}			1.52	5-1 CRUP	14	<NOTE 1>

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RESULT PAGE 404

EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. Load no. type			
F01	Max P{1}					HOOP		44	86
	GR + Max P{1}	4			1.00	2-1 SUST		32	86
	TR:T4 to T5{1}			6	1.00	4-1 DISP		14	197
	Amb to T1{1}			3	1.00	4-1 DISP		7	197
	Amb to T2{1}			6	1.00	4-1 DISP		13	197
	Amb to T3{1}			2	1.00	4-1 DISP		6	197
	Amb to T4{1}			6	1.00	4-1 DISP		14	197
	Amb to T5{1}			4	1.00	4-1 DISP		9	217
	Hydrotest{1}	0	0		1.00	3-1 OCC		35	219
	Sus.+T1{1}				1.00	5-1 CRUP		34	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP		36	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP		34	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP		36	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP		35	<NOTE 1>
A32	Max P{1}					HOOP		44	86
	GR + Max P{1}	4			1.00	2-1 SUST		31	86
	TR:T4 to T5{1}			6	1.00	4-1 DISP		12	197
	Amb to T1{1}			3	1.00	4-1 DISP		6	197
	Amb to T2{1}			6	1.00	4-1 DISP		11	197
	Amb to T3{1}			2	1.00	4-1 DISP		5	197
	Amb to T4{1}			6	1.00	4-1 DISP		12	197
	Amb to T5{1}			4	1.00	4-1 DISP		8	217
	Hydrotest{1}	0	0		1.00	3-1 OCC		35	219
	Sus.+T1{1}				1.00	5-1 CRUP		33	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP		35	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP		33	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP		35	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP		34	<NOTE 1>
CH02	Max P{1}					HOOP		6	104
	GR + Max P{1}	20			1.00	2-1 SUST		32	104
	TR:T1 to T5{1}			29	1.00	4-1 DISP		44	217
	Amb to T1{1}			6	1.00	4-1 DISP		10	247
	Amb to T2{1}			8	1.00	4-1 DISP		12	247

	DVI_B_LINE_REV0.OUT						
Amb to T3{1}		7	1.00	4-1	DISP	11	247
Amb to T4{1}		9	1.00	4-1	DISP	13	247
Amb to T5{1}		23	1.00	4-1	DISP	35	217
Hydrotest{1}	0	0	1.00	3-1	OCC	0	219
Sus.+T1{1}			1.00	5-1	CRUP	35	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	36	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	36	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	37	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	44	<NOTE 1>

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DVI_B_LINE_REV0

09/13/2010 DVIIBLINE

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AutoPIPE Plus 9.2.1 RESULT PAGE 405

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no.	type	Stress	Allow.

A26	+ Max P{1}						HOOP	6	104
	GR + Max P{1}	20			1.00	2-1	SUST	33	104
	TR:Amb to T5{1}			22	1.00	4-1	DISP	33	217
	Amb to T1{1}			4	1.00	4-1	DISP	5	247
	Amb to T2{1}			7	1.00	4-1	DISP	11	247
	Amb to T3{1}			8	1.00	4-1	DISP	11	247
	Amb to T4{1}			6	1.00	4-1	DISP	9	247
	Amb to T5{1}			22	1.00	4-1	DISP	33	217
	Hydrotest{1}	0	0		1.00	3-1	OCC	0	219
	Sus.+T1{1}				1.00	5-1	CRUP	34	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP	36	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP	36	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP	36	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP	43	<NOTE 1>
A26	- Max P{1}						HOOP	6	104
	GR + Max P{1}	20			1.00	2-1	SUST	33	104
	TR:Amb to T5{1}			22	1.00	4-1	DISP	33	217
	Amb to T1{1}			4	1.00	4-1	DISP	5	247
	Amb to T2{1}			7	1.00	4-1	DISP	11	247
	Amb to T3{1}			8	1.00	4-1	DISP	11	247
	Amb to T4{1}			6	1.00	4-1	DISP	9	247
	Amb to T5{1}			22	1.00	4-1	DISP	33	217

DVI_B_LINE_REV0.OUT

Hydrotest{1}	0	0	1.00	3-1	OCC	0	219
Sus.+T1{1}			1.00	5-1	CRUP	34	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	36	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	36	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	36	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	43	<NOTE 1>
P09 N+ Max P{1}					HOOP	11	104
GR + Max P{1}	46		1.59	2-1	SUST	8	104
TR:Amb to T4{1}		465	1.59	4-1	DISP	42	247
Amb to T1{1}		54	1.59	4-1	DISP	5	247
Amb to T2{1}		452	1.59	4-1	DISP	41	217
Amb to T3{1}		455	1.59	4-1	DISP	41	217
Amb to T4{1}		465	1.59	4-1	DISP	42	247
Amb to T5{1}		456	1.59	4-1	DISP	42	217
Hydrotest{1}	0	0	1.59	3-1	OCC	1	219
Sus.+T1{1}			1.59	5-1	CRUP	10	<NOTE 1>
Sus.+T2{1}			1.59	5-1	CRUP	19	<NOTE 1>
Sus.+T3{1}			1.59	5-1	CRUP	19	<NOTE 1>
Sus.+T4{1}			1.59	5-1	CRUP	19	<NOTE 1>
Sus.+T5{1}			1.59	5-1	CRUP	19	<NOTE 1>

 DVI_B_LINE_REV0
 09/13/2010 DVI BLINE
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 AutoPIPE Plus 9.2.1 RESULT PAGE 406

BENTLEY

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

019 N- Max P{1}						HOOP	9	104	
GR + Max P{1}		34			1.00	2-1 SUST	13	104	
TR:T1 to T5{1}				162	1.00	4-1 DISP	42	217	
Amb to T1{1}				41	1.00	4-1 DISP	11	247	
Amb to T2{1}				155	1.00	4-1 DISP	40	247	
Amb to T3{1}				156	1.00	4-1 DISP	41	247	
Amb to T4{1}				158	1.00	4-1 DISP	41	217	
Amb to T5{1}				158	1.00	4-1 DISP	41	217	
Hydrotest{1}		0	0		1.00	3-1 OCC	0	219	
Sus.+T1{1}					1.00	5-1 CRUP	17	<NOTE 1>	

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	Sus.+T2{1}			1.00	5-1	CRUP	27	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1	CRUP	27	<NOTE 1>	
	Sus.+T4{1}			1.00	5-1	CRUP	27	<NOTE 1>	
	Sus.+T5{1}			1.00	5-1	CRUP	27	<NOTE 1>	
P11 N-	Max P{1}					HOOP	11		104
	GR + Max P{1}	108		1.00	2-1	SUST	11		104
	TR:Amb to T5{1}		709	1.00	4-1	DISP	41		217
	Amb to T1{1}		5	1.00	4-1	DISP	0		247
	Amb to T2{1}		698	1.00	4-1	DISP	40		217
	Amb to T3{1}		704	1.00	4-1	DISP	40		217
	Amb to T4{1}		679	1.00	4-1	DISP	39		247
	Amb to T5{1}		709	1.00	4-1	DISP	41		217
	Hydrotest{1}	0	0	1.00	3-1	OCC	1		219
	Sus.+T1{1}			1.00	5-1	CRUP	12	<NOTE 1>	
	Sus.+T2{1}			1.00	5-1	CRUP	25	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1	CRUP	25	<NOTE 1>	
	Sus.+T4{1}			1.00	5-1	CRUP	24	<NOTE 1>	
	Sus.+T5{1}			1.00	5-1	CRUP	25	<NOTE 1>	
012	Max P{1}					HOOP	11		104
	GR + Max P{1}	52		2.00	2-1	SUST	10		104
	TR:T1 to T5{1}		349	2.00	4-1	DISP	40		217
	Amb to T1{1}		47	2.00	4-1	DISP	5		247
	Amb to T2{1}		333	2.00	4-1	DISP	38		247
	Amb to T3{1}		331	2.00	4-1	DISP	38		247
	Amb to T4{1}		333	2.00	4-1	DISP	38		217
	Amb to T5{1}		336	2.00	4-1	DISP	39		217
	Hydrotest{1}	0	0	2.00	3-1	OCC	1		219
	Sus.+T1{1}			2.00	5-1	CRUP	11	<NOTE 1>	
	Sus.+T2{1}			2.00	5-1	CRUP	19	<NOTE 1>	
	Sus.+T3{1}			2.00	5-1	CRUP	19	<NOTE 1>	
	Sus.+T4{1}			2.00	5-1	CRUP	19	<NOTE 1>	
	Sus.+T5{1}			2.00	5-1	CRUP	19	<NOTE 1>	

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DVI_B_LINE_REV0

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BENTLEY

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)		(Stress in N/mm2)					
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code

name	combination	DVI_B_LINE_REV0.0UT			no.	type	Stress	Allow.
		(Sus.)	(Occ.)	(Exp.)				
005 N-	Max P{1}					HOOP	9	104
	GR + Max P{1}	12			1.00	2-1 SUST	8	104
	TR:Amb to T4{1}			150	1.00	4-1 DISP	39	217
	Amb to T1{1}			71	1.00	4-1 DISP	19	247
	Amb to T2{1}			85	1.00	4-1 DISP	22	247
	Amb to T3{1}			100	1.00	4-1 DISP	26	247
	Amb to T4{1}			150	1.00	4-1 DISP	39	217
	Amb to T5{1}			137	1.00	4-1 DISP	36	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	0	219
	Sus.+T1{1}				1.00	5-1 CRUP	14	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	15	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	16	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	21	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	19	<NOTE 1>
016 F-	Max P{1}					HOOP	9	104
	GR + Max P{1}	18			1.52	2-1 SUST	10	104
	TR:Amb to T4{1}			98	1.52	4-1 DISP	39	217
	Amb to T1{1}			56	1.52	4-1 DISP	22	247
	Amb to T2{1}			45	1.52	4-1 DISP	18	247
	Amb to T3{1}			59	1.52	4-1 DISP	23	247
	Amb to T4{1}			98	1.52	4-1 DISP	39	217
	Amb to T5{1}			86	1.52	4-1 DISP	34	217
	Hydrotest{1}	0	0		1.52	3-1 OCC	0	219
	Sus.+T1{1}				1.52	5-1 CRUP	15	<NOTE 1>
	Sus.+T2{1}				1.52	5-1 CRUP	14	<NOTE 1>
	Sus.+T3{1}				1.52	5-1 CRUP	16	<NOTE 1>
	Sus.+T4{1}				1.52	5-1 CRUP	20	<NOTE 1>
	Sus.+T5{1}				1.52	5-1 CRUP	18	<NOTE 1>
005 F+	Max P{1}					HOOP	9	104
	GR + Max P{1}	13			1.00	2-1 SUST	8	104
	TR:Amb to T4{1}			147	1.00	4-1 DISP	38	217
	Amb to T1{1}			71	1.00	4-1 DISP	18	247
	Amb to T2{1}			78	1.00	4-1 DISP	20	247
	Amb to T3{1}			95	1.00	4-1 DISP	25	247
	Amb to T4{1}			147	1.00	4-1 DISP	38	217
	Amb to T5{1}			134	1.00	4-1 DISP	35	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	0	219
	Sus.+T1{1}				1.00	5-1 CRUP	14	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	15	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	16	<NOTE 1>

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Sus.+T4{1}	1.00	5-1	CRUP	21	<NOTE 1>
Sus.+T5{1}	1.00	5-1	CRUP	20	<NOTE 1>

DVI_B_LINE_REV0

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)		Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F				
008 F- Max P{1}							HOOP	11	104
	GR + Max P{1}	76			1.59	2-1	SUST	11	104
	TR:T1 to T5{1}			416	1.59	4-1	DISP	38	217
	Amb to T1{1}			48	1.59	4-1	DISP	4	247
	Amb to T2{1}			392	1.59	4-1	DISP	36	247
	Amb to T3{1}			391	1.59	4-1	DISP	36	247
	Amb to T4{1}			392	1.59	4-1	DISP	36	217
	Amb to T5{1}			398	1.59	4-1	DISP	36	217
	Hydrotest{1}	0	0		1.59	3-1	OCC	1	219
	Sus.+T1{1}				1.59	5-1	CRUP	12	<NOTE 1>
	Sus.+T2{1}				1.59	5-1	CRUP	19	<NOTE 1>
	Sus.+T3{1}				1.59	5-1	CRUP	19	<NOTE 1>
	Sus.+T4{1}				1.59	5-1	CRUP	19	<NOTE 1>
	Sus.+T5{1}				1.59	5-1	CRUP	20	<NOTE 1>
A40 F- Max P{1}							HOOP	6	104
	GR + Max P{1}	2			1.05	2-1	SUST	8	104
	TR:T1 to T5{1}			13	1.05	4-1	DISP	37	217
	Amb to T1{1}			0	1.05	4-1	DISP	0	247
	Amb to T2{1}			0	1.05	4-1	DISP	1	247
	Amb to T3{1}			0	1.05	4-1	DISP	1	247
	Amb to T4{1}			0	1.05	4-1	DISP	0	247
	Amb to T5{1}			12	1.05	4-1	DISP	37	217
	Hydrotest{1}	0	0		1.05	3-1	OCC	0	219
	Sus.+T1{1}				1.05	5-1	CRUP	8	<NOTE 1>
	Sus.+T2{1}				1.05	5-1	CRUP	8	<NOTE 1>
	Sus.+T3{1}				1.05	5-1	CRUP	8	<NOTE 1>
	Sus.+T4{1}				1.05	5-1	CRUP	8	<NOTE 1>
	Sus.+T5{1}				1.05	5-1	CRUP	19	<NOTE 1>

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A40 N+ Max P{1}					HOOP	6	104
GR + Max P{1}	1		1.05	2-1	SUST	7	104
TR:T1 to T5{1}		12	1.05	4-1	DISP	37	217
Amb to T1{1}		0	1.05	4-1	DISP	0	247
Amb to T2{1}		0	1.05	4-1	DISP	1	247
Amb to T3{1}		0	1.05	4-1	DISP	1	247
Amb to T4{1}		0	1.05	4-1	DISP	0	247
Amb to T5{1}		12	1.05	4-1	DISP	37	217
Hydrotest{1}	0	0	1.05	3-1	OCC	0	219
Sus.+T1{1}			1.05	5-1	CRUP	7	<NOTE 1>
Sus.+T2{1}			1.05	5-1	CRUP	7	<NOTE 1>
Sus.+T3{1}			1.05	5-1	CRUP	7	<NOTE 1>
Sus.+T4{1}			1.05	5-1	CRUP	7	<NOTE 1>
Sus.+T5{1}			1.05	5-1	CRUP	19	<NOTE 1>

DVI_B_LINE_REV0

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. Load no. type			
N15 F- Max P{1}						HOOP	9	104	
GR + Max P{1}		8			1.52	2-1 SUST	7	104	
TR:Amb to T4{1}				92	1.52	4-1 DISP	36	217	
Amb to T1{1}				56	1.52	4-1 DISP	22	247	
Amb to T2{1}				69	1.52	4-1 DISP	27	247	
Amb to T3{1}				55	1.52	4-1 DISP	22	247	
Amb to T4{1}				92	1.52	4-1 DISP	36	217	
Amb to T5{1}				60	1.52	4-1 DISP	24	217	
Hydrotest{1}		0	0		1.52	3-1 OCC	0	219	
Sus.+T1{1}					1.52	5-1 CRUP	12	<NOTE 1>	
Sus.+T2{1}					1.52	5-1 CRUP	14	<NOTE 1>	
Sus.+T3{1}					1.52	5-1 CRUP	12	<NOTE 1>	
Sus.+T4{1}					1.52	5-1 CRUP	16	<NOTE 1>	
Sus.+T5{1}					1.52	5-1 CRUP	13	<NOTE 1>	
J07 F+ Max P{1}						HOOP	11	104	
GR + Max P{1}		220			1.00	2-1 SUST	18	104	

DVI_B_LINE_REV0.OUT									
TR:Amb to T4{1}			632	1.00	4-1	DISP	36	247	
Amb to T1{1}			98	1.00	4-1	DISP	6	247	
Amb to T2{1}			605	1.00	4-1	DISP	35	217	
Amb to T3{1}			608	1.00	4-1	DISP	35	217	
Amb to T4{1}			632	1.00	4-1	DISP	36	247	
Amb to T5{1}			608	1.00	4-1	DISP	35	217	
Hydrotest{1}	0	0		1.00	3-1	OCC	1	219	
Sus.+T1{1}				1.00	5-1	CRUP	20	<NOTE 1>	
Sus.+T2{1}				1.00	5-1	CRUP	29	<NOTE 1>	
Sus.+T3{1}				1.00	5-1	CRUP	30	<NOTE 1>	
Sus.+T4{1}				1.00	5-1	CRUP	30	<NOTE 1>	
Sus.+T5{1}				1.00	5-1	CRUP	30	<NOTE 1>	
P11 F+ Max P{1}						HOOP	11	104	
GR + Max P{1}	97			1.00	2-1	SUST	11	104	
TR:Amb to T5{1}			625	1.00	4-1	DISP	36	217	
Amb to T1{1}			3	1.00	4-1	DISP	0	247	
Amb to T2{1}			615	1.00	4-1	DISP	35	217	
Amb to T3{1}			621	1.00	4-1	DISP	36	217	
Amb to T4{1}			599	1.00	4-1	DISP	34	247	
Amb to T5{1}			625	1.00	4-1	DISP	36	217	
Hydrotest{1}	0	0		1.00	3-1	OCC	1	219	
Sus.+T1{1}				1.00	5-1	CRUP	11	<NOTE 1>	
Sus.+T2{1}				1.00	5-1	CRUP	23	<NOTE 1>	
Sus.+T3{1}				1.00	5-1	CRUP	23	<NOTE 1>	
Sus.+T4{1}				1.00	5-1	CRUP	22	<NOTE 1>	
Sus.+T5{1}				1.00	5-1	CRUP	23	<NOTE 1>	

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DVI_B_LINE_REV0

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
A22 F- Max P{1}						HOOP	6	104	
GR + Max P{1}		14			1.25	2-1 SUST	24	104	
TR:Amb to T5{1}				19	1.25	4-1 DISP	36	217	
Amb to T1{1}				5	1.25	4-1 DISP	10	247	
Amb to T2{1}				6	1.25	4-1 DISP	11	247	

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Amb to T3{1}		5	1.25	4-1 DISP	10	247
Amb to T4{1}		9	1.25	4-1 DISP	17	247
Amb to T5{1}		19	1.25	4-1 DISP	36	217
Hydrotest{1}	0	0	1.25	3-1 OCC	0	219
Sus.+T1{1}			1.25	5-1 CRUP	26	<NOTE 1>
Sus.+T2{1}			1.25	5-1 CRUP	27	<NOTE 1>
Sus.+T3{1}			1.25	5-1 CRUP	26	<NOTE 1>
Sus.+T4{1}			1.25	5-1 CRUP	28	<NOTE 1>
Sus.+T5{1}			1.25	5-1 CRUP	33	<NOTE 1>
J07 N- Max P{1}				HOOP	11	104
GR + Max P{1}	205		1.00	2-1 SUST	17	104
TR:Amb to T4{1}		623	1.00	4-1 DISP	36	247
Amb to T1{1}		94	1.00	4-1 DISP	5	247
Amb to T2{1}		599	1.00	4-1 DISP	34	217
Amb to T3{1}		601	1.00	4-1 DISP	34	217
Amb to T4{1}		623	1.00	4-1 DISP	36	247
Amb to T5{1}		602	1.00	4-1 DISP	35	217
Hydrotest{1}	0	0	1.00	3-1 OCC	1	219
Sus.+T1{1}			1.00	5-1 CRUP	19	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	29	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	29	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	29	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	29	<NOTE 1>
A40 F+ Max P{1}				HOOP	6	104
GR + Max P{1}	2		1.00	2-1 SUST	8	104
TR:T1 to T5{1}		13	1.00	4-1 DISP	35	217
Amb to T1{1}		0	1.00	4-1 DISP	0	247
Amb to T2{1}		0	1.00	4-1 DISP	1	247
Amb to T3{1}		0	1.00	4-1 DISP	1	247
Amb to T4{1}		0	1.00	4-1 DISP	0	247
Amb to T5{1}		12	1.00	4-1 DISP	35	217
Hydrotest{1}	0	0	1.00	3-1 OCC	0	219
Sus.+T1{1}			1.00	5-1 CRUP	8	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	8	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	8	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	8	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	19	<NOTE 1>

DVI_B_LINE_REV0

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BENTLEY

EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F					
P09 F-	Max P{1}							HOOP	11	104
	GR + Max P{1}	45			1.59	2-1	SUST		8	104
	TR:Amb to T4{1}			388	1.59	4-1	DISP		35	247
	Amb to T1{1}			42	1.59	4-1	DISP		4	247
	Amb to T2{1}			377	1.59	4-1	DISP		34	217
	Amb to T3{1}			379	1.59	4-1	DISP		35	217
	Amb to T4{1}			388	1.59	4-1	DISP		35	247
	Amb to T5{1}			381	1.59	4-1	DISP		35	217
	Hydrotest{1}	0	0		1.59	3-1	OCC		1	219
	Sus.+T1{1}				1.59	5-1	CRUP		9	<NOTE 1>
	Sus.+T2{1}				1.59	5-1	CRUP		17	<NOTE 1>
	Sus.+T3{1}				1.59	5-1	CRUP		17	<NOTE 1>
	Sus.+T4{1}				1.59	5-1	CRUP		17	<NOTE 1>
	Sus.+T5{1}				1.59	5-1	CRUP		17	<NOTE 1>
G06 F+	Max P{1}							HOOP	6	104
	GR + Max P{1}	10			1.00	2-1	SUST		30	104
	TR:T3 to T5{1}			6	1.00	4-1	DISP		17	217
	Amb to T1{1}			0	1.00	4-1	DISP		1	247
	Amb to T2{1}			1	1.00	4-1	DISP		2	247
	Amb to T3{1}			1	1.00	4-1	DISP		2	247
	Amb to T4{1}			1	1.00	4-1	DISP		2	247
	Amb to T5{1}			5	1.00	4-1	DISP		15	217
	Hydrotest{1}	0	0		1.00	3-1	OCC		0	219
	Sus.+T1{1}				1.00	5-1	CRUP		30	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		31	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP		31	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP		31	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP		35	<NOTE 1>
G06 F-	Max P{1}							HOOP	6	104
	GR + Max P{1}	10			1.05	2-1	SUST		30	104
	TR:T3 to T5{1}			6	1.05	4-1	DISP		18	217
	Amb to T1{1}			0	1.05	4-1	DISP		1	247
	Amb to T2{1}			1	1.05	4-1	DISP		2	247
	Amb to T3{1}			1	1.05	4-1	DISP		2	247

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Amb to T4{1}			1	1.05	4-1	DISP	2 247
Amb to T5{1}			5	1.05	4-1	DISP	16 217
Hydrotest{1}	0	0		1.05	3-1	OCC	0 219
Sus.+T1{1}				1.05	5-1	CRUP	30 <NOTE 1>
Sus.+T2{1}				1.05	5-1	CRUP	31 <NOTE 1>
Sus.+T3{1}				1.05	5-1	CRUP	31 <NOTE 1>
Sus.+T4{1}				1.05	5-1	CRUP	31 <NOTE 1>
Sus.+T5{1}				1.05	5-1	CRUP	35 <NOTE 1>

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DVI_B_LINE_REV0

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

A40 N-	Max P{1}					HOOP	6	104	
	GR + Max P{1}	1			1.00	2-1 SUST	7	104	
	TR:T1 to T5{1}			12	1.00	4-1 DISP	35	217	
	Amb to T1{1}			0	1.00	4-1 DISP	0	247	
	Amb to T2{1}			0	1.00	4-1 DISP	1	247	
	Amb to T3{1}			0	1.00	4-1 DISP	1	247	
	Amb to T4{1}			0	1.00	4-1 DISP	0	247	
	Amb to T5{1}			12	1.00	4-1 DISP	35	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	0	219	
	Sus.+T1{1}				1.00	5-1 CRUP	7	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	7	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	7	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	7	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	19	<NOTE 1>	
G06 M	Max P{1}					HOOP	6	104	
	GR + Max P{1}	10			1.05	2-1 SUST	30	104	
	TR:T3 to T5{1}			6	1.05	4-1 DISP	18	217	
	Amb to T1{1}			0	1.05	4-1 DISP	1	247	
	Amb to T2{1}			1	1.05	4-1 DISP	2	247	
	Amb to T3{1}			1	1.05	4-1 DISP	2	247	
	Amb to T4{1}			1	1.05	4-1 DISP	2	247	
	Amb to T5{1}			6	1.05	4-1 DISP	16	217	
	Hydrotest{1}	0	0		1.05	3-1 OCC	0	219	

Sus.+T1{1}	1.05	5-1	CRUP	30	<NOTE 1>
Sus.+T2{1}	1.05	5-1	CRUP	31	<NOTE 1>
Sus.+T3{1}	1.05	5-1	CRUP	31	<NOTE 1>
Sus.+T4{1}	1.05	5-1	CRUP	30	<NOTE 1>
Sus.+T5{1}	1.05	5-1	CRUP	35	<NOTE 1>

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BENTLEY

Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
P13 N+	Max P{1}					HOOP	16	104
	GR + Max P{1}	127			1.95	2-1 SUST	11	104
	TR:T1 to T5{1}			943	1.95	4-1 DISP	35	217
	Amb to T1{1}			24	1.95	4-1 DISP	1	247
	Amb to T2{1}			926	1.95	4-1 DISP	34	217
	Amb to T3{1}			934	1.95	4-1 DISP	35	217
	Amb to T4{1}			907	1.95	4-1 DISP	34	247
	Amb to T5{1}			941	1.95	4-1 DISP	35	217
	Hydrotest{1}	0	0		1.95	3-1 OCC	1	219
	Sus.+T1{1}				1.95	5-1 CRUP	11	<NOTE 1>
	Sus.+T2{1}				1.95	5-1 CRUP	19	<NOTE 1>

DVI_B_LINE_REV0.0UT									
Sus.+T3{1}			1.95	5-1	CRUP	19	<NOTE 1>		
Sus.+T4{1}			1.95	5-1	CRUP	19	<NOTE 1>		
Sus.+T5{1}			1.95	5-1	CRUP	19	<NOTE 1>		
008 N+ Max P{1}					HOOP	11		104	
GR + Max P{1}	60		1.59	2-1	SUST	9		104	
TR:T1 to T5{1}		380	1.59	4-1	DISP	35		217	
Amb to T1{1}		51	1.59	4-1	DISP	5		247	
Amb to T2{1}		363	1.59	4-1	DISP	33		247	
Amb to T3{1}		361	1.59	4-1	DISP	33		247	
Amb to T4{1}		364	1.59	4-1	DISP	33		217	
Amb to T5{1}		367	1.59	4-1	DISP	33		217	
Hydrotest{1}	0	0	1.59	3-1	OCC	1		219	
Sus.+T1{1}			1.59	5-1	CRUP	11	<NOTE 1>		
Sus.+T2{1}			1.59	5-1	CRUP	18	<NOTE 1>		
Sus.+T3{1}			1.59	5-1	CRUP	18	<NOTE 1>		
Sus.+T4{1}			1.59	5-1	CRUP	18	<NOTE 1>		
Sus.+T5{1}			1.59	5-1	CRUP	18	<NOTE 1>		
A73 + Max P{1}					HOOP	6		104	
GR + Max P{1}	11		1.00	2-1	SUST	33		104	
TR:T1 to T5{1}		2	1.00	4-1	DISP	6		217	
Amb to T1{1}		0	1.00	4-1	DISP	0		247	
Amb to T2{1}		0	1.00	4-1	DISP	0		247	
Amb to T3{1}		0	1.00	4-1	DISP	0		247	
Amb to T4{1}		0	1.00	4-1	DISP	0		247	
Amb to T5{1}		2	1.00	4-1	DISP	6		217	
Hydrotest{1}	0	0	1.00	3-1	OCC	0		219	
Sus.+T1{1}			1.00	5-1	CRUP	33	<NOTE 1>		
Sus.+T2{1}			1.00	5-1	CRUP	33	<NOTE 1>		
Sus.+T3{1}			1.00	5-1	CRUP	33	<NOTE 1>		
Sus.+T4{1}			1.00	5-1	CRUP	33	<NOTE 1>		
Sus.+T5{1}			1.00	5-1	CRUP	35	<NOTE 1>		

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DVI_B_LINE_REV0

09/13/2010 DVI BLINE

BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 414

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.

DVI_B_LINE_REV0.OUT

A73	- Max P{1}					HOOP	6	104
	GR + Max P{1}	11		1.00	2-1	SUST	33	104
	TR:T1 to T5{1}		2	1.00	4-1	DISP	6	217
	Amb to T1{1}		0	1.00	4-1	DISP	0	247
	Amb to T2{1}		0	1.00	4-1	DISP	0	247
	Amb to T3{1}		0	1.00	4-1	DISP	0	247
	Amb to T4{1}		0	1.00	4-1	DISP	0	247
	Amb to T5{1}		2	1.00	4-1	DISP	6	217
	Hydrotest{1}	0	0	1.00	3-1	OCC	0	219
	Sus.+T1{1}			1.00	5-1	CRUP	33	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	33	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	33	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	33	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	35	<NOTE 1>
P13 F-	Max P{1}					HOOP	16	104
	GR + Max P{1}	124		1.95	2-1	SUST	11	104
	TR:T1 to T5{1}		932	1.95	4-1	DISP	35	217
	Amb to T1{1}		22	1.95	4-1	DISP	1	247
	Amb to T2{1}		915	1.95	4-1	DISP	34	217
	Amb to T3{1}		923	1.95	4-1	DISP	34	217
	Amb to T4{1}		896	1.95	4-1	DISP	33	247
	Amb to T5{1}		930	1.95	4-1	DISP	34	217
	Hydrotest{1}	0	0	1.95	3-1	OCC	1	219
	Sus.+T1{1}			1.95	5-1	CRUP	11	<NOTE 1>
	Sus.+T2{1}			1.95	5-1	CRUP	19	<NOTE 1>
	Sus.+T3{1}			1.95	5-1	CRUP	19	<NOTE 1>
	Sus.+T4{1}			1.95	5-1	CRUP	19	<NOTE 1>
	Sus.+T5{1}			1.95	5-1	CRUP	19	<NOTE 1>
IV08	Max P{1}					HOOP	6	104
	GR + Max P{1}	3		1.00	2-1	SUST	13	104
	TR:T1 to T5{1}		12	1.00	4-1	DISP	34	217
	Amb to T1{1}		0	1.00	4-1	DISP	0	247
	Amb to T2{1}		0	1.00	4-1	DISP	0	247
	Amb to T3{1}		0	1.00	4-1	DISP	0	247
	Amb to T4{1}		0	1.00	4-1	DISP	0	247
	Amb to T5{1}		12	1.00	4-1	DISP	34	217
	Hydrotest{1}	0	0	1.00	3-1	OCC	0	219
	Sus.+T1{1}			1.00	5-1	CRUP	13	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	13	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	13	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	13	<NOTE 1>

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Sus.+T5{1}

1.00

5-1 CRUP

24 <NOTE 1>

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DVI_B_LINE_REV0

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AutoPIPE Plus 9.2.1

RESULT PAGE 415

EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. no.	Load type		
G06 N+	Max P{1}						HOOP	6	104
	GR + Max P{1}	9			1.05	2-1	SUST	29	104
	TR:T3 to T5{1}			6	1.05	4-1	DISP	18	217
	Amb to T1{1}			0	1.05	4-1	DISP	1	247
	Amb to T2{1}			1	1.05	4-1	DISP	2	247
	Amb to T3{1}			1	1.05	4-1	DISP	2	247
	Amb to T4{1}			1	1.05	4-1	DISP	2	247
	Amb to T5{1}			6	1.05	4-1	DISP	16	217
	Hydrotest{1}	0	0		1.05	3-1	OCC	0	219
	Sus.+T1{1}				1.05	5-1	CRUP	29	<NOTE 1>
	Sus.+T2{1}				1.05	5-1	CRUP	30	<NOTE 1>
	Sus.+T3{1}				1.05	5-1	CRUP	30	<NOTE 1>
	Sus.+T4{1}				1.05	5-1	CRUP	30	<NOTE 1>
	Sus.+T5{1}				1.05	5-1	CRUP	34	<NOTE 1>
G06 N-	Max P{1}						HOOP	6	104
	GR + Max P{1}	9			1.00	2-1	SUST	29	104
	TR:T3 to T5{1}			6	1.00	4-1	DISP	17	217
	Amb to T1{1}			0	1.00	4-1	DISP	1	247
	Amb to T2{1}			1	1.00	4-1	DISP	2	247
	Amb to T3{1}			1	1.00	4-1	DISP	2	247
	Amb to T4{1}			1	1.00	4-1	DISP	2	247
	Amb to T5{1}			6	1.00	4-1	DISP	16	217
	Hydrotest{1}	0	0		1.00	3-1	OCC	0	219
	Sus.+T1{1}				1.00	5-1	CRUP	29	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP	30	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP	30	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP	30	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP	34	<NOTE 1>
G01	Max P{1}						HOOP	6	104

DVI_B_LINE_REV0.OUT

GR + Max P{1}	10		1.00	2-1	SUST	30	104
TR:T1 to T5{1}		4	1.00	4-1	DISP	11	217
Amb to T1{1}		1	1.00	4-1	DISP	3	247
Amb to T2{1}		3	1.00	4-1	DISP	10	247
Amb to T3{1}		3	1.00	4-1	DISP	8	247
Amb to T4{1}		3	1.00	4-1	DISP	9	247
Amb to T5{1}		4	1.00	4-1	DISP	10	217
Hydrotest{1}	0	0	1.00	3-1	OCC	0	219
Sus.+T1{1}			1.00	5-1	CRUP	31	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	33	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	33	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	33	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	34	<NOTE 1>

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 AutoPIPE Plus 9.2.1

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F no. type	Stress	Allow.
J06 F-	Max P{1}					HOOP	11 104
	GR + Max P{1}	67			1.59 2-1 SUST	10	104
	TR:T1 to T5{1}			369	1.59 4-1 DISP	34	217
	Amb to T1{1}			17	1.59 4-1 DISP	2	247
	Amb to T2{1}			365	1.59 4-1 DISP	33	217
	Amb to T3{1}			367	1.59 4-1 DISP	33	217
	Amb to T4{1}			356	1.59 4-1 DISP	32	247
	Amb to T5{1}			367	1.59 4-1 DISP	33	217
	Hydrotest{1}	0	0		1.59 3-1 OCC	1	219
	Sus.+T1{1}				1.59 5-1 CRUP	10	<NOTE 1>
	Sus.+T2{1}				1.59 5-1 CRUP	18	<NOTE 1>
	Sus.+T3{1}				1.59 5-1 CRUP	18	<NOTE 1>
	Sus.+T4{1}				1.59 5-1 CRUP	18	<NOTE 1>
	Sus.+T5{1}				1.59 5-1 CRUP	18	<NOTE 1>
G14	Max P{1}					HOOP	6 104
	GR + Max P{1}	9			1.00 2-1 SUST	29	104
	TR:T3 to T5{1}			5	1.00 4-1 DISP	14	217

DVI_B_LINE_REV0.OUT							
Amb to T1{1}		0	1.00	4-1 DISP	1	247	
Amb to T2{1}		1	1.00	4-1 DISP	2	247	
Amb to T3{1}		1	1.00	4-1 DISP	2	247	
Amb to T4{1}		1	1.00	4-1 DISP	2	247	
Amb to T5{1}		4	1.00	4-1 DISP	12	217	
Hydrotest{1}	0	0	1.00	3-1 OCC	0	219	
Sus.+T1{1}			1.00	5-1 CRUP	30	<NOTE 1>	
Sus.+T2{1}			1.00	5-1 CRUP	30	<NOTE 1>	
Sus.+T3{1}			1.00	5-1 CRUP	30	<NOTE 1>	
Sus.+T4{1}			1.00	5-1 CRUP	30	<NOTE 1>	
Sus.+T5{1}			1.00	5-1 CRUP	33	<NOTE 1>	
A22 F+ Max P{1}				HOOP	6	104	
GR + Max P{1}	14		1.00	2-1 SUST	24	104	
TR:Amb to T5{1}		19	1.00	4-1 DISP	29	217	
Amb to T1{1}		5	1.00	4-1 DISP	8	247	
Amb to T2{1}		6	1.00	4-1 DISP	9	247	
Amb to T3{1}		5	1.00	4-1 DISP	8	247	
Amb to T4{1}		9	1.00	4-1 DISP	13	247	
Amb to T5{1}		19	1.00	4-1 DISP	29	217	
Hydrotest{1}	0	0	1.00	3-1 OCC	0	219	
Sus.+T1{1}			1.00	5-1 CRUP	26	<NOTE 1>	
Sus.+T2{1}			1.00	5-1 CRUP	27	<NOTE 1>	
Sus.+T3{1}			1.00	5-1 CRUP	26	<NOTE 1>	
Sus.+T4{1}			1.00	5-1 CRUP	28	<NOTE 1>	
Sus.+T5{1}			1.00	5-1 CRUP	33	<NOTE 1>	

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DVI_B_LINE_REV0

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no.	type	Stress	Allow.
A39	Max P{1}					6	HOOP	104	
	GR + Max P{1}	4			1.00	14	2-1 SUST	104	
	TR:T1 to T5{1}			12	1.00	33	4-1 DISP	217	
	Amb to T1{1}			0	1.00	0	4-1 DISP	247	
	Amb to T2{1}			0	1.00	1	4-1 DISP	247	
	Amb to T3{1}			0	1.00	0	4-1 DISP	247	

Amb to T4{1}			0	1.00	4-1 DISP	0	247
Amb to T5{1}			12	1.00	4-1 DISP	33	217
Hydrotest{1}	0	0		1.00	3-1 OCC	0	219
Sus.+T1{1}				1.00	5-1 CRUP	14	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	14	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	14	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	14	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	25	<NOTE 1>

A22 N- Max P{1}				HOOP	6	104
GR + Max P{1}	14		1.00	2-1 SUST	24	104
TR:Amb to T5{1}		19	1.00	4-1 DISP	28	217
Amb to T1{1}		5	1.00	4-1 DISP	8	247
Amb to T2{1}		6	1.00	4-1 DISP	9	247
Amb to T3{1}		5	1.00	4-1 DISP	8	247
Amb to T4{1}		9	1.00	4-1 DISP	14	247
Amb to T5{1}		19	1.00	4-1 DISP	28	217
Hydrotest{1}	0	0	1.00	3-1 OCC	0	219
Sus.+T1{1}			1.00	5-1 CRUP	26	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	27	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	26	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	28	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	33	<NOTE 1>

P12	Max P{1}					HOOP	16	104
	GR + Max P{1}	111		2.00	2-1	SUST	10	104
	TR:T1 to T5{1}		863	2.00	4-1	DISP	33	217
	Amb to T1{1}		14	2.00	4-1	DISP	1	247
	Amb to T2{1}		848	2.00	4-1	DISP	32	217
	Amb to T3{1}		855	2.00	4-1	DISP	32	217
	Amb to T4{1}		829	2.00	4-1	DISP	31	247
	Amb to T5{1}		862	2.00	4-1	DISP	33	217
	Hydrotest{1}	0	0	2.00	3-1	OCC	1	219
	Sus.+T1{1}			2.00	5-1	CRUP	10	<NOTE 1>
	Sus.+T2{1}			2.00	5-1	CRUP	18	<NOTE 1>
	Sus.+T3{1}			2.00	5-1	CRUP	18	<NOTE 1>
	Sus.+T4{1}			2.00	5-1	CRUP	18	<NOTE 1>
	Sus.+T5{1}			2.00	5-1	CRUP	18	<NOTE 1>

BENTLEY

Pagina 620

EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F					
P15 N-	Max P{1}							HOOP	11	104
	GR + Max P{1}	44			1.00	2-1	SUST		8	104
	TR:T1 to T5{1}			563	1.00	4-1	DISP		32	217
	Amb to T1{1}			55	1.00	4-1	DISP		3	247
	Amb to T2{1}			550	1.00	4-1	DISP		32	217
	Amb to T3{1}			554	1.00	4-1	DISP		32	217
	Amb to T4{1}			558	1.00	4-1	DISP		32	247
	Amb to T5{1}			557	1.00	4-1	DISP		32	217
	Hydrotest{1}	0	0		1.00	3-1	OCC		1	219
	Sus.+T1{1}				1.00	5-1	CRUP		9	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		18	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP		18	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP		18	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP		18	<NOTE 1>
J06 N+	Max P{1}							HOOP	11	104
	GR + Max P{1}	72			1.59	2-1	SUST		10	104
	TR:T1 to T5{1}			354	1.59	4-1	DISP		32	217
	Amb to T1{1}			14	1.59	4-1	DISP		1	247
	Amb to T2{1}			350	1.59	4-1	DISP		32	217
	Amb to T3{1}			351	1.59	4-1	DISP		32	217
	Amb to T4{1}			341	1.59	4-1	DISP		31	247
	Amb to T5{1}			352	1.59	4-1	DISP		32	217
	Hydrotest{1}	0	0		1.59	3-1	OCC		1	219
	Sus.+T1{1}				1.59	5-1	CRUP		11	<NOTE 1>
	Sus.+T2{1}				1.59	5-1	CRUP		18	<NOTE 1>
	Sus.+T3{1}				1.59	5-1	CRUP		18	<NOTE 1>
	Sus.+T4{1}				1.59	5-1	CRUP		18	<NOTE 1>
	Sus.+T5{1}				1.59	5-1	CRUP		18	<NOTE 1>
A29 N+	Max P{1}							HOOP	6	104
	GR + Max P{1}	7			1.25	2-1	SUST		14	104
	TR:T1 to T5{1}			17	1.25	4-1	DISP		32	217
	Amb to T1{1}			1	1.25	4-1	DISP		2	247
	Amb to T2{1}			3	1.25	4-1	DISP		5	247
	Amb to T3{1}			3	1.25	4-1	DISP		5	247
	Amb to T4{1}			1	1.25	4-1	DISP		2	247

DVI_B_LINE_REV0.OUT							
Amb to T5{1}		17	1.25	4-1	DISP	31	217
Hydrotest{1}	0	0	1.25	3-1	OCC	0	219
Sus.+T1{1}			1.25	5-1	CRUP	14	<NOTE 1>
Sus.+T2{1}			1.25	5-1	CRUP	15	<NOTE 1>
Sus.+T3{1}			1.25	5-1	CRUP	15	<NOTE 1>
Sus.+T4{1}			1.25	5-1	CRUP	14	<NOTE 1>
Sus.+T5{1}			1.25	5-1	CRUP	22	<NOTE 1>

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DVI_B_LINE_REV0

09/13/2010 DVI BLINE

BENTLEY

09:56 AM

AutoPIPE Plus 9.2.1

RESULT PAGE 419

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

I11	Max P{1}					HOOP	6	104	
	GR + Max P{1}	3			1.00	2-1 SUST	11	104	
	TR:Amb to T5{1}			11	1.00	4-1 DISP	32	217	
	Amb to T1{1}			1	1.00	4-1 DISP	2	247	
	Amb to T2{1}			2	1.00	4-1 DISP	6	247	
	Amb to T3{1}			2	1.00	4-1 DISP	6	247	
	Amb to T4{1}			1	1.00	4-1 DISP	2	247	
	Amb to T5{1}			11	1.00	4-1 DISP	32	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	0	219	
	Sus.+T1{1}				1.00	5-1 CRUP	11	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	13	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	13	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	11	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	21	<NOTE 1>	
016 N-	Max P{1}					HOOP	9	104	
	GR + Max P{1}	18			1.00	2-1 SUST	9	104	
	TR:Amb to T4{1}			121	1.00	4-1 DISP	32	217	
	Amb to T1{1}			64	1.00	4-1 DISP	17	247	
	Amb to T2{1}			53	1.00	4-1 DISP	14	247	
	Amb to T3{1}			73	1.00	4-1 DISP	19	247	
	Amb to T4{1}			121	1.00	4-1 DISP	32	217	
	Amb to T5{1}			110	1.00	4-1 DISP	29	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	0	219	
	Sus.+T1{1}				1.00	5-1 CRUP	15	<NOTE 1>	

DVI_B_LINE_REV0.OUT

	Sus.+T2{1}		1.00	5-1	CRUP	14	<NOTE 1>
	Sus.+T3{1}		1.00	5-1	CRUP	15	<NOTE 1>
	Sus.+T4{1}		1.00	5-1	CRUP	20	<NOTE 1>
	Sus.+T5{1}		1.00	5-1	CRUP	19	<NOTE 1>
A24	Max P{1}				HOOP	6	104
	GR + Max P{1}	10	1.00	2-1	SUST	28	104
	TR:T1 to T5{1}		4	1.00	4-1	DISP	9 217
	Amb to T1{1}		1	1.00	4-1	DISP	2 247
	Amb to T2{1}		3	1.00	4-1	DISP	9 247
	Amb to T3{1}		3	1.00	4-1	DISP	8 247
	Amb to T4{1}		3	1.00	4-1	DISP	8 247
	Amb to T5{1}		4	1.00	4-1	DISP	9 217
	Hydrotest{1}	0 0	1.00	3-1	OCC	0	219
	Sus.+T1{1}		1.00	5-1	CRUP	29	<NOTE 1>
	Sus.+T2{1}		1.00	5-1	CRUP	31	<NOTE 1>
	Sus.+T3{1}		1.00	5-1	CRUP	31	<NOTE 1>
	Sus.+T4{1}		1.00	5-1	CRUP	31	<NOTE 1>
	Sus.+T5{1}		1.00	5-1	CRUP	31	<NOTE 1>

DVI_B_LINE_REV0

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BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 420

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)		
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
A28	+ Max P{1}					HOOP	6 104
	GR + Max P{1}	12			1.00	2-1 SUST	21 104
	TR:T1 to T5{1}			20	1.00	4-1 DISP	30 217
	Amb to T1{1}			1	1.00	4-1 DISP	2 247
	Amb to T2{1}			3	1.00	4-1 DISP	4 247
	Amb to T3{1}			3	1.00	4-1 DISP	4 247
	Amb to T4{1}			1	1.00	4-1 DISP	1 247
	Amb to T5{1}			20	1.00	4-1 DISP	30 217
	Hydrotest{1}	0	0		1.00	3-1 OCC	0 219
	Sus.+T1{1}				1.00	5-1 CRUP	22 <NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	23 <NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	23 <NOTE 1>

DVI_B_LINE_REV0.0UT									
Sus.+T4{1}			1.00	5-1	CRUP	22	<NOTE 1>		
Sus.+T5{1}			1.00	5-1	CRUP	31	<NOTE 1>		
P15 F+ Max P{1}					HOOP	11		104	
GR + Max P{1}	44		1.00	2-1	SUST	8		104	
TR:Amb to T4{1}		537	1.00	4-1	DISP	31		247	
Amb to T1{1}		59	1.00	4-1	DISP	3		247	
Amb to T2{1}		524	1.00	4-1	DISP	30		217	
Amb to T3{1}		528	1.00	4-1	DISP	30		217	
Amb to T4{1}		537	1.00	4-1	DISP	31		247	
Amb to T5{1}		531	1.00	4-1	DISP	30		217	
Hydrotest{1}	0	0	1.00	3-1	OCC	1		219	
Sus.+T1{1}			1.00	5-1	CRUP	9	<NOTE 1>		
Sus.+T2{1}			1.00	5-1	CRUP	18	<NOTE 1>		
Sus.+T3{1}			1.00	5-1	CRUP	18	<NOTE 1>		
Sus.+T4{1}			1.00	5-1	CRUP	18	<NOTE 1>		
Sus.+T5{1}			1.00	5-1	CRUP	18	<NOTE 1>		
A24 + Max P{1}					HOOP	6		104	
GR + Max P{1}	8		1.00	2-1	SUST	15		104	
TR:Amb to T5{1}		20	1.00	4-1	DISP	31		217	
Amb to T1{1}		5	1.00	4-1	DISP	8		247	
Amb to T2{1}		5	1.00	4-1	DISP	7		247	
Amb to T3{1}		5	1.00	4-1	DISP	7		247	
Amb to T4{1}		8	1.00	4-1	DISP	12		247	
Amb to T5{1}		20	1.00	4-1	DISP	31		217	
Hydrotest{1}	0	0	1.00	3-1	OCC	0		219	
Sus.+T1{1}			1.00	5-1	CRUP	17	<NOTE 1>		
Sus.+T2{1}			1.00	5-1	CRUP	17	<NOTE 1>		
Sus.+T3{1}			1.00	5-1	CRUP	17	<NOTE 1>		
Sus.+T4{1}			1.00	5-1	CRUP	19	<NOTE 1>		
Sus.+T5{1}			1.00	5-1	CRUP	25	<NOTE 1>		

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DVI_B_LINE_REV0

09/13/2010 DVI BLINE

BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 421

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)

(Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.

DVI_B_LINE_REV0.0UT									
A24 - Max P{1}						HOOP	6	104	
GR + Max P{1}	12		1.00	2-1	SUST		21	104	
TR:Amb to T5{1}			18	1.00	4-1	DISP	27	217	
Amb to T1{1}			5	1.00	4-1	DISP	7	247	
Amb to T2{1}			6	1.00	4-1	DISP	9	247	
Amb to T3{1}			5	1.00	4-1	DISP	7	247	
Amb to T4{1}			8	1.00	4-1	DISP	13	247	
Amb to T5{1}			18	1.00	4-1	DISP	27	217	
Hydrotest{1}	0	0		1.00	3-1	OCC	0	219	
Sus.+T1{1}				1.00	5-1	CRUP	24	<NOTE 1>	
Sus.+T2{1}				1.00	5-1	CRUP	24	<NOTE 1>	
Sus.+T3{1}				1.00	5-1	CRUP	24	<NOTE 1>	
Sus.+T4{1}				1.00	5-1	CRUP	26	<NOTE 1>	
Sus.+T5{1}				1.00	5-1	CRUP	30	<NOTE 1>	
N15 N- Max P{1}						HOOP	9	104	
GR + Max P{1}	8		1.00	2-1	SUST		6	104	
TR:Amb to T4{1}			116	1.00	4-1	DISP	30	217	
Amb to T1{1}			70	1.00	4-1	DISP	18	247	
Amb to T2{1}			83	1.00	4-1	DISP	22	247	
Amb to T3{1}			67	1.00	4-1	DISP	18	247	
Amb to T4{1}			116	1.00	4-1	DISP	30	217	
Amb to T5{1}			76	1.00	4-1	DISP	20	217	
Hydrotest{1}	0	0		1.00	3-1	OCC	0	219	
Sus.+T1{1}				1.00	5-1	CRUP	13	<NOTE 1>	
Sus.+T2{1}				1.00	5-1	CRUP	14	<NOTE 1>	
Sus.+T3{1}				1.00	5-1	CRUP	12	<NOTE 1>	
Sus.+T4{1}				1.00	5-1	CRUP	17	<NOTE 1>	
Sus.+T5{1}				1.00	5-1	CRUP	13	<NOTE 1>	
A29 F- Max P{1}						HOOP	6	104	
GR + Max P{1}	7		1.25	2-1	SUST		13	104	
TR:T1 to T5{1}			16	1.25	4-1	DISP	30	217	
Amb to T1{1}			1	1.25	4-1	DISP	2	247	
Amb to T2{1}			3	1.25	4-1	DISP	5	247	
Amb to T3{1}			3	1.25	4-1	DISP	5	247	
Amb to T4{1}			1	1.25	4-1	DISP	2	247	
Amb to T5{1}			16	1.25	4-1	DISP	29	217	
Hydrotest{1}	0	0		1.25	3-1	OCC	0	219	
Sus.+T1{1}				1.25	5-1	CRUP	13	<NOTE 1>	
Sus.+T2{1}				1.25	5-1	CRUP	14	<NOTE 1>	
Sus.+T3{1}				1.25	5-1	CRUP	14	<NOTE 1>	
Sus.+T4{1}				1.25	5-1	CRUP	13	<NOTE 1>	
Sus.+T5{1}				1.25	5-1	CRUP	20	<NOTE 1>	

BENTLEY

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(Stress in N/mm²)

TR:T1 to T5{1}			431	1.20	4-1 DISP	30	217
Amb to T1{1}			45	1.20	4-1 DISP	3	247
Amb to T2{1}			399	1.20	4-1 DISP	27	247
Amb to T3{1}			401	1.20	4-1 DISP	28	247
Amb to T4{1}			400	1.20	4-1 DISP	28	217
Amb to T5{1}			410	1.20	4-1 DISP	28	217
Hydrotest{1}	0	0		1.20	3-1 OCC	1	219
Sus.+T1{1}				1.20	5-1 CRUP	11	<NOTE 1>
Sus.+T2{1}				1.20	5-1 CRUP	18	<NOTE 1>
Sus.+T3{1}				1.20	5-1 CRUP	18	<NOTE 1>
Sus.+T4{1}				1.20	5-1 CRUP	18	<NOTE 1>
Sus.+T5{1}				1.20	5-1 CRUP	18	<NOTE 1>

Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
G16	+ Max P{1}					HOOP	6	104
	GR + Max P{1}	8			1.00	2-1 SUST	26	104
	TR:T2 to T5{1}			5	1.00	4-1 DISP	13	217
	Amb to T1{1}			0	1.00	4-1 DISP	1	247
	Amb to T2{1}			1	1.00	4-1 DISP	3	247
	Amb to T3{1}			1	1.00	4-1 DISP	3	247
	Amb to T4{1}			1	1.00	4-1 DISP	3	247
	Amb to T5{1}			4	1.00	4-1 DISP	10	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	0	219
	Sus.+T1{1}				1.00	5-1 CRUP	26	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	27	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	27	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	27	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	29	<NOTE 1>
G16	- Max P{1}					HOOP	6	104
	GR + Max P{1}	8			1.00	2-1 SUST	26	104
	TR:T2 to T5{1}			5	1.00	4-1 DISP	13	217
	Amb to T1{1}			0	1.00	4-1 DISP	1	247

DVI_B_LINE_REV0.OUT									
Amb to T2{1}			1	1.00	4-1	DISP	3	247	
Amb to T3{1}			1	1.00	4-1	DISP	3	247	
Amb to T4{1}			1	1.00	4-1	DISP	3	247	
Amb to T5{1}			4	1.00	4-1	DISP	10	217	
Hydrotest{1}	0	0		1.00	3-1	OCC	0	219	
Sus.+T1{1}				1.00	5-1	CRUP	26	<NOTE 1>	
Sus.+T2{1}				1.00	5-1	CRUP	27	<NOTE 1>	
Sus.+T3{1}				1.00	5-1	CRUP	27	<NOTE 1>	
Sus.+T4{1}				1.00	5-1	CRUP	27	<NOTE 1>	
Sus.+T5{1}				1.00	5-1	CRUP	29	<NOTE 1>	
P08 N+ Max P{1}						HOOP	11	104	
GR + Max P{1}	27			2.08	2-1	SUST	8	104	
TR:Amb to T5{1}			232	2.08	4-1	DISP	28	217	
Amb to T1{1}			18	2.08	4-1	DISP	2	247	
Amb to T2{1}			229	2.08	4-1	DISP	27	217	
Amb to T3{1}			231	2.08	4-1	DISP	28	217	
Amb to T4{1}			221	2.08	4-1	DISP	26	247	
Amb to T5{1}			232	2.08	4-1	DISP	28	217	
Hydrotest{1}	0	0		2.08	3-1	OCC	1	219	
Sus.+T1{1}				2.08	5-1	CRUP	8	<NOTE 1>	
Sus.+T2{1}				2.08	5-1	CRUP	15	<NOTE 1>	
Sus.+T3{1}				2.08	5-1	CRUP	15	<NOTE 1>	
Sus.+T4{1}				2.08	5-1	CRUP	14	<NOTE 1>	
Sus.+T5{1}				2.08	5-1	CRUP	15	<NOTE 1>	

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DVI_B_LINE_REV0

09/13/2010 DVI BLINE

BENTLEY

09:56 AM

AutoPIPE Plus 9.2.1 RESULT PAGE 424

EN 13480 (2002) CODE COMPLIANCE									
		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
G05 M	Max P{1}					HOOP	6	104	
	GR + Max P{1}	4			1.05	2-1 SUST	14	104	
	TR:T3 to T5{1}			9	1.05	4-1 DISP	27	217	
	Amb to T1{1}			0	1.05	4-1 DISP	1	247	
	Amb to T2{1}			1	1.05	4-1 DISP	4	247	
	Amb to T3{1}			1	1.05	4-1 DISP	4	247	
	Amb to T4{1}			1	1.05	4-1 DISP	3	247	

Amb to T5{1}			8	1.05	4-1	DISP	23	217
Hydrotest{1}	0	0		1.05	3-1	OCC	0	219
Sus.+T1{1}				1.05	5-1	CRUP	14	<NOTE 1>
Sus.+T2{1}				1.05	5-1	CRUP	15	<NOTE 1>
Sus.+T3{1}				1.05	5-1	CRUP	15	<NOTE 1>
Sus.+T4{1}				1.05	5-1	CRUP	15	<NOTE 1>
Sus.+T5{1}				1.05	5-1	CRUP	21	<NOTE 1>

G05 F- Max P{1}					HOOP	6	104
GR + Max P{1}	4		1.05	2-1	SUST	14	104
TR:T3 to T5{1}		9	1.05	4-1	DISP	27	217
Amb to T1{1}		0	1.05	4-1	DISP	1	247
Amb to T2{1}		1	1.05	4-1	DISP	4	247
Amb to T3{1}		1	1.05	4-1	DISP	4	247
Amb to T4{1}		1	1.05	4-1	DISP	3	247
Amb to T5{1}		8	1.05	4-1	DISP	23	217
Hydrotest{1}	0	0	1.05	3-1	OCC	0	219
Sus.+T1{1}			1.05	5-1	CRUP	14	<NOTE 1>
Sus.+T2{1}			1.05	5-1	CRUP	15	<NOTE 1>
Sus.+T3{1}			1.05	5-1	CRUP	15	<NOTE 1>
Sus.+T4{1}			1.05	5-1	CRUP	15	<NOTE 1>
Sus.+T5{1}			1.05	5-1	CRUP	21	<NOTE 1>

G05	N+	Max P{1}				HOOP	6	104
		GR + Max P{1}	4		1.05	2-1 SUST	13	104
		TR:T3 to T5{1}		9	1.05	4-1 DISP	27	217
		Amb to T1{1}		0	1.05	4-1 DISP	1	247
		Amb to T2{1}		1	1.05	4-1 DISP	4	247
		Amb to T3{1}		1	1.05	4-1 DISP	4	247
		Amb to T4{1}		1	1.05	4-1 DISP	3	247
		Amb to T5{1}		8	1.05	4-1 DISP	23	217
		Hydrotest{1}	0	0	1.05	3-1 OCC	0	219
		Sus.+T1{1}			1.05	5-1 CRUP	13	<NOTE 1>
		Sus.+T2{1}			1.05	5-1 CRUP	14	<NOTE 1>
		Sus.+T3{1}			1.05	5-1 CRUP	14	<NOTE 1>
		Sus.+T4{1}			1.05	5-1 CRUP	14	<NOTE 1>
		Sus.+T5{1}			1.05	5-1 CRUP	20	<NOTE 1>

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DVI_B_LINE_REV0.0UT

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)				(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.

P09 N-	Max P{1}					HOOP	11	104
	GR + Max P{1}	46			1.00	2-1 SUST	8	104
	TR:Amb to T4{1}			465	1.00	4-1 DISP	27	247
	Amb to T1{1}			54	1.00	4-1 DISP	3	247
	Amb to T2{1}			452	1.00	4-1 DISP	26	217
	Amb to T3{1}			455	1.00	4-1 DISP	26	217
	Amb to T4{1}			465	1.00	4-1 DISP	27	247
	Amb to T5{1}			456	1.00	4-1 DISP	26	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	1	219
	Sus.+T1{1}				1.00	5-1 CRUP	9	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	17	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	17	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	17	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	17	<NOTE 1>
G05 F+	Max P{1}					HOOP	6	104
	GR + Max P{1}	4			1.00	2-1 SUST	14	104
	TR:T3 to T5{1}			9	1.00	4-1 DISP	26	217
	Amb to T1{1}			0	1.00	4-1 DISP	1	247
	Amb to T2{1}			1	1.00	4-1 DISP	4	247
	Amb to T3{1}			1	1.00	4-1 DISP	4	247
	Amb to T4{1}			1	1.00	4-1 DISP	3	247
	Amb to T5{1}			8	1.00	4-1 DISP	22	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	0	219
	Sus.+T1{1}				1.00	5-1 CRUP	14	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	15	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	15	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	15	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	21	<NOTE 1>
G05 N-	Max P{1}					HOOP	6	104
	GR + Max P{1}	4			1.00	2-1 SUST	13	104
	TR:T3 to T5{1}			9	1.00	4-1 DISP	26	217
	Amb to T1{1}			0	1.00	4-1 DISP	1	247
	Amb to T2{1}			1	1.00	4-1 DISP	4	247
	Amb to T3{1}			1	1.00	4-1 DISP	4	247
	Amb to T4{1}			1	1.00	4-1 DISP	3	247
	Amb to T5{1}			8	1.00	4-1 DISP	22	217

	DVI_B_LINE_REV0.OUT					
Hydrotest{1}	0 0	1.00	3-1	OCC	0	219
Sus.+T1{1}		1.00	5-1	CRUP	13	<NOTE 1>
Sus.+T2{1}		1.00	5-1	CRUP	14	<NOTE 1>
Sus.+T3{1}		1.00	5-1	CRUP	14	<NOTE 1>
Sus.+T4{1}		1.00	5-1	CRUP	14	<NOTE 1>
Sus.+T5{1}		1.00	5-1	CRUP	20	<NOTE 1>

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DVI_B_LINE_REV0

09/13/2010 DVIIBLINE

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

A29 N-	Max P{1}					HOOP	6	104	
	GR + Max P{1}	7			1.00	2-1 SUST	14	104	
	TR:T1 to T5{1}			17	1.00	4-1 DISP	26	217	
	Amb to T1{1}			1	1.00	4-1 DISP	2	247	
	Amb to T2{1}			3	1.00	4-1 DISP	4	247	
	Amb to T3{1}			3	1.00	4-1 DISP	4	247	
	Amb to T4{1}			1	1.00	4-1 DISP	1	247	
	Amb to T5{1}			17	1.00	4-1 DISP	25	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	0	219	
	Sus.+T1{1}				1.00	5-1 CRUP	14	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	15	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	15	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	14	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	22	<NOTE 1>	
016 F+	Max P{1}					HOOP	9	104	
	GR + Max P{1}	18			1.00	2-1 SUST	9	104	
	TR:Amb to T4{1}			98	1.00	4-1 DISP	26	217	
	Amb to T1{1}			56	1.00	4-1 DISP	15	247	
	Amb to T2{1}			45	1.00	4-1 DISP	12	247	
	Amb to T3{1}			59	1.00	4-1 DISP	15	247	
	Amb to T4{1}			98	1.00	4-1 DISP	26	217	
	Amb to T5{1}			86	1.00	4-1 DISP	22	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	0	219	
	Sus.+T1{1}				1.00	5-1 CRUP	14	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	13	<NOTE 1>	

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	Sus.+T3{1}		1.00	5-1	CRUP	14	<NOTE 1>
	Sus.+T4{1}		1.00	5-1	CRUP	18	<NOTE 1>
	Sus.+T5{1}		1.00	5-1	CRUP	17	<NOTE 1>
A70	Max P{1}				HOOP	6	104
	GR + Max P{1}	10	1.00	2-1	SUST	18	104
	TR:T1 to T5{1}		17	1.00	4-1	DISP	25 217
	Amb to T1{1}		6	1.00	4-1	DISP	9 247
	Amb to T2{1}		6	1.00	4-1	DISP	10 247
	Amb to T3{1}		5	1.00	4-1	DISP	8 247
	Amb to T4{1}		9	1.00	4-1	DISP	14 247
	Amb to T5{1}		15	1.00	4-1	DISP	22 217
	Hydrotest{1}	0 0	1.00	3-1	OCC	0	219
	Sus.+T1{1}		1.00	5-1	CRUP	21	<NOTE 1>
	Sus.+T2{1}		1.00	5-1	CRUP	21	<NOTE 1>
	Sus.+T3{1}		1.00	5-1	CRUP	21	<NOTE 1>
	Sus.+T4{1}		1.00	5-1	CRUP	23	<NOTE 1>
	Sus.+T5{1}		1.00	5-1	CRUP	25	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
C031 + Max P{1}						HOOP	6	104	
	GR + Max P{1}	3			1.20	2-1 SUST	10	104	
	TR:T1 to T5{1}			7	1.20	4-1 DISP	25	217	
	Amb to T1{1}			1	1.20	4-1 DISP	2	247	
	Amb to T2{1}			1	1.20	4-1 DISP	3	247	
	Amb to T3{1}			1	1.20	4-1 DISP	4	247	
	Amb to T4{1}			1	1.20	4-1 DISP	2	247	
	Amb to T5{1}			7	1.20	4-1 DISP	23	217	
	Hydrotest{1}	0	0		1.20	3-1 OCC	0	219	
	Sus.+T1{1}				1.20	5-1 CRUP	11	<NOTE 1>	
	Sus.+T2{1}				1.20	5-1 CRUP	11	<NOTE 1>	
	Sus.+T3{1}				1.20	5-1 CRUP	11	<NOTE 1>	
	Sus.+T4{1}				1.20	5-1 CRUP	11	<NOTE 1>	

		DVI_B_LINE_REV0.0UT					
	Sus.+T5{1}			1.20	5-1 CRUP	17	<NOTE 1>
C031	- Max P{1}				HOOP	6	104
	GR + Max P{1}	3		1.20	2-1 SUST	10	104
	TR:T1 to T5{1}		7	1.20	4-1 DISP	25	217
	Amb to T1{1}		1	1.20	4-1 DISP	2	247
	Amb to T2{1}		1	1.20	4-1 DISP	3	247
	Amb to T3{1}		1	1.20	4-1 DISP	4	247
	Amb to T4{1}		1	1.20	4-1 DISP	2	247
	Amb to T5{1}		7	1.20	4-1 DISP	23	217
	Hydrotest{1}	0	0	1.20	3-1 OCC	0	219
	Sus.+T1{1}			1.20	5-1 CRUP	11	<NOTE 1>
	Sus.+T2{1}			1.20	5-1 CRUP	11	<NOTE 1>
	Sus.+T3{1}			1.20	5-1 CRUP	11	<NOTE 1>
	Sus.+T4{1}			1.20	5-1 CRUP	11	<NOTE 1>
	Sus.+T5{1}			1.20	5-1 CRUP	17	<NOTE 1>
J09	Max P{1}				HOOP	16	104
	GR + Max P{1}	249		2.00	2-1 SUST	14	104
	TR:Amb to T4{1}		643	2.00	4-1 DISP	24	247
	Amb to T1{1}		104	2.00	4-1 DISP	4	247
	Amb to T2{1}		608	2.00	4-1 DISP	23	217
	Amb to T3{1}		611	2.00	4-1 DISP	23	217
	Amb to T4{1}		643	2.00	4-1 DISP	24	247
	Amb to T5{1}		612	2.00	4-1 DISP	23	217
	Hydrotest{1}	0	0	2.00	3-1 OCC	1	219
	Sus.+T1{1}			2.00	5-1 CRUP	15	<NOTE 1>
	Sus.+T2{1}			2.00	5-1 CRUP	20	<NOTE 1>
	Sus.+T3{1}			2.00	5-1 CRUP	20	<NOTE 1>
	Sus.+T4{1}			2.00	5-1 CRUP	20	<NOTE 1>
	Sus.+T5{1}			2.00	5-1 CRUP	20	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)		
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F no. type	Stress	Allow.
P14	Max P{1}				HOOP	16	104

DVI_B_LINE_REV0.OUT						
GR + Max P{1}	169		1.20	2-1 SUST	10	104
TR:T1 to T5{1}		1066	1.20	4-1 DISP	24	217
Amb to T1{1}		41	1.20	4-1 DISP	1	247
Amb to T2{1}		1044	1.20	4-1 DISP	24	217
Amb to T3{1}		1053	1.20	4-1 DISP	24	217
Amb to T4{1}		1027	1.20	4-1 DISP	23	247
Amb to T5{1}		1062	1.20	4-1 DISP	24	217
Hydrotest{1}	0	0	1.20	3-1 OCC	1	219
Sus.+T1{1}			1.20	5-1 CRUP	11	<NOTE 1>
Sus.+T2{1}			1.20	5-1 CRUP	17	<NOTE 1>
Sus.+T3{1}			1.20	5-1 CRUP	17	<NOTE 1>
Sus.+T4{1}			1.20	5-1 CRUP	17	<NOTE 1>
Sus.+T5{1}			1.20	5-1 CRUP	17	<NOTE 1>
A29 F+ Max P{1}				HOOP	6	104
GR + Max P{1}	7		1.00	2-1 SUST	13	104
TR:T1 to T5{1}		16	1.00	4-1 DISP	24	217
Amb to T1{1}		1	1.00	4-1 DISP	2	247
Amb to T2{1}		3	1.00	4-1 DISP	4	247
Amb to T3{1}		3	1.00	4-1 DISP	4	247
Amb to T4{1}		1	1.00	4-1 DISP	1	247
Amb to T5{1}		16	1.00	4-1 DISP	23	217
Hydrotest{1}	0	0	1.00	3-1 OCC	0	219
Sus.+T1{1}			1.00	5-1 CRUP	13	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	14	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	14	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	13	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	20	<NOTE 1>
N15 F+ Max P{1}				HOOP	9	104
GR + Max P{1}	8		1.00	2-1 SUST	7	104
TR:Amb to T4{1}		92	1.00	4-1 DISP	24	217
Amb to T1{1}		56	1.00	4-1 DISP	15	247
Amb to T2{1}		69	1.00	4-1 DISP	18	247
Amb to T3{1}		55	1.00	4-1 DISP	14	247
Amb to T4{1}		92	1.00	4-1 DISP	24	217
Amb to T5{1}		60	1.00	4-1 DISP	16	217
Hydrotest{1}	0	0	1.00	3-1 OCC	0	219
Sus.+T1{1}			1.00	5-1 CRUP	11	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	13	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	11	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	15	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	12	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)			(Stress in N/mm2)					
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code	
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.

008 F+ Max P{1}						HOOP	11	104
	GR + Max P{1}	76			1.00	2-1 SUST	10	104
	TR:T1 to T5{1}			416	1.00	4-1 DISP	24	217
	Amb to T1{1}			48	1.00	4-1 DISP	3	247
	Amb to T2{1}			392	1.00	4-1 DISP	22	247
	Amb to T3{1}			391	1.00	4-1 DISP	22	247
	Amb to T4{1}			392	1.00	4-1 DISP	22	217
	Amb to T5{1}			398	1.00	4-1 DISP	23	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	1	219
	Sus.+T1{1}				1.00	5-1 CRUP	11	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	17	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	17	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	17	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	17	<NOTE 1>
C021 + Max P{1}						HOOP	6	104
	GR + Max P{1}	6			1.20	2-1 SUST	20	104
	TR:T2 to T5{1}			4	1.20	4-1 DISP	13	217
	Amb to T1{1}			0	1.20	4-1 DISP	0	247
	Amb to T2{1}			0	1.20	4-1 DISP	1	247
	Amb to T3{1}			0	1.20	4-1 DISP	0	247
	Amb to T4{1}			0	1.20	4-1 DISP	1	247
	Amb to T5{1}			4	1.20	4-1 DISP	13	217
	Hydrotest{1}	0	0		1.20	3-1 OCC	0	219
	Sus.+T1{1}				1.20	5-1 CRUP	20	<NOTE 1>
	Sus.+T2{1}				1.20	5-1 CRUP	20	<NOTE 1>
	Sus.+T3{1}				1.20	5-1 CRUP	20	<NOTE 1>
	Sus.+T4{1}				1.20	5-1 CRUP	20	<NOTE 1>
	Sus.+T5{1}				1.20	5-1 CRUP	23	<NOTE 1>
C021 - Max P{1}						HOOP	6	104
	GR + Max P{1}	6			1.20	2-1 SUST	20	104
	TR:T2 to T5{1}			4	1.20	4-1 DISP	13	217

Amb to T1{1}			0	1.20	4-1 DISP	0	247
Amb to T2{1}			0	1.20	4-1 DISP	1	247
Amb to T3{1}			0	1.20	4-1 DISP	0	247
Amb to T4{1}			0	1.20	4-1 DISP	1	247
Amb to T5{1}			4	1.20	4-1 DISP	13	217
Hydrotest{1}	0	0		1.20	3-1 OCC	0	219
Sus.+T1{1}				1.20	5-1 CRUP	20	<NOTE 1>
Sus.+T2{1}				1.20	5-1 CRUP	20	<NOTE 1>
Sus.+T3{1}				1.20	5-1 CRUP	20	<NOTE 1>
Sus.+T4{1}				1.20	5-1 CRUP	20	<NOTE 1>
Sus.+T5{1}				1.20	5-1 CRUP	23	<NOTE 1>

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Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
G20	Max P{1}					HOOP	6	104
	GR + Max P{1}	6			1.00	2-1 SUST	20	104
	TR:T1 to T5{1}			4	1.00	4-1 DISP	11	217
	Amb to T1{1}			1	1.00	4-1 DISP	3	247
	Amb to T2{1}			3	1.00	4-1 DISP	9	247
	Amb to T3{1}			3	1.00	4-1 DISP	7	247
	Amb to T4{1}			3	1.00	4-1 DISP	8	247
	Amb to T5{1}			4	1.00	4-1 DISP	11	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	0	219
	Sus.+T1{1}				1.00	5-1 CRUP	20	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	22	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	22	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	22	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	23	<NOTE 1>
P08 F-	Max P{1}					HOOP	11	104
	GR + Max P{1}	17			2.08	2-1 SUST	7	104
	TR:Amb to T3{1}			192	2.08	4-1 DISP	23	217
	Amb to T1{1}			26	2.08	4-1 DISP	3	247
	Amb to T2{1}			190	2.08	4-1 DISP	23	217

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Amb to T3{1}		192	2.08	4-1	DISP	23	217
Amb to T4{1}		185	2.08	4-1	DISP	22	247
Amb to T5{1}		192	2.08	4-1	DISP	23	217
Hydrotest{1}	0	0	2.08	3-1	OCC	1	219
Sus.+T1{1}			2.08	5-1	CRUP	8	<NOTE 1>
Sus.+T2{1}			2.08	5-1	CRUP	13	<NOTE 1>
Sus.+T3{1}			2.08	5-1	CRUP	13	<NOTE 1>
Sus.+T4{1}			2.08	5-1	CRUP	12	<NOTE 1>
Sus.+T5{1}			2.08	5-1	CRUP	13	<NOTE 1>
P09 F+ Max P{1}					HOOP	11	104
GR + Max P{1}	45		1.00	2-1	SUST	8	104
TR:Amb to T4{1}		388	1.00	4-1	DISP	22	247
Amb to T1{1}		42	1.00	4-1	DISP	2	247
Amb to T2{1}		377	1.00	4-1	DISP	22	217
Amb to T3{1}		379	1.00	4-1	DISP	22	217
Amb to T4{1}		388	1.00	4-1	DISP	22	247
Amb to T5{1}		381	1.00	4-1	DISP	22	217
Hydrotest{1}	0	0	1.00	3-1	OCC	1	219
Sus.+T1{1}			1.00	5-1	CRUP	9	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	15	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	15	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	15	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	15	<NOTE 1>

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BENTLEY

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
A35 N+ Max P{1}						HOOP	6	104	
GR + Max P{1}		1			1.05	2-1 SUST	5	104	
TR:T2 to T5{1}				7	1.05	4-1 DISP	22	217	
Amb to T1{1}				0	1.05	4-1 DISP	1	247	
Amb to T2{1}				1	1.05	4-1 DISP	2	247	
Amb to T3{1}				1	1.05	4-1 DISP	1	247	
Amb to T4{1}				0	1.05	4-1 DISP	1	247	
Amb to T5{1}				7	1.05	4-1 DISP	21	217	

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	Hydrotest{1}	0	0	1.05	3-1	OCC	0	219
	Sus.+T1{1}			1.05	5-1	CRUP	6	<NOTE 1>
	Sus.+T2{1}			1.05	5-1	CRUP	6	<NOTE 1>
	Sus.+T3{1}			1.05	5-1	CRUP	6	<NOTE 1>
	Sus.+T4{1}			1.05	5-1	CRUP	6	<NOTE 1>
	Sus.+T5{1}			1.05	5-1	CRUP	12	<NOTE 1>
008 N-	Max P{1}					HOOP	11	104
	GR + Max P{1}	60		1.00	2-1	SUST	9	104
	TR:T1 to T5{1}		380	1.00	4-1	DISP	22	217
	Amb to T1{1}		51	1.00	4-1	DISP	3	247
	Amb to T2{1}		363	1.00	4-1	DISP	21	247
	Amb to T3{1}		361	1.00	4-1	DISP	21	247
	Amb to T4{1}		364	1.00	4-1	DISP	21	217
	Amb to T5{1}		367	1.00	4-1	DISP	21	217
	Hydrotest{1}	0	0	1.00	3-1	OCC	1	219
	Sus.+T1{1}			1.00	5-1	CRUP	10	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	16	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	16	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	16	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	16	<NOTE 1>
I14	Max P{1}					HOOP	9	104
	GR + Max P{1}	3		2.00	2-1	SUST	6	104
	TR:T1 to T5{1}		41	2.00	4-1	DISP	22	217
	Amb to T1{1}		1	2.00	4-1	DISP	1	247
	Amb to T2{1}		7	2.00	4-1	DISP	3	247
	Amb to T3{1}		7	2.00	4-1	DISP	3	247
	Amb to T4{1}		1	2.00	4-1	DISP	0	247
	Amb to T5{1}		40	2.00	4-1	DISP	21	217
	Hydrotest{1}	0	0	2.00	3-1	OCC	0	219
	Sus.+T1{1}			2.00	5-1	CRUP	6	<NOTE 1>
	Sus.+T2{1}			2.00	5-1	CRUP	7	<NOTE 1>
	Sus.+T3{1}			2.00	5-1	CRUP	7	<NOTE 1>
	Sus.+T4{1}			2.00	5-1	CRUP	6	<NOTE 1>
	Sus.+T5{1}			2.00	5-1	CRUP	11	<NOTE 1>

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BENTLEY

DVI_B_LINE_REV0.0UT

Point	Load	(Moments in N.m)			(Stress in N/mm2)			Code	Code
		Ma	Mb	Mc		Eq. Load			
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

G09	Max P{1}					HOOP	6	104	
	GR + Max P{1}	3			2.00	2-1 SUST	18	104	
	TR:T2 to T5{1}			4	2.00	4-1 DISP	20	217	
	Amb to T1{1}			0	2.00	4-1 DISP	2	247	
	Amb to T2{1}			1	2.00	4-1 DISP	5	247	
	Amb to T3{1}			1	2.00	4-1 DISP	5	247	
	Amb to T4{1}			1	2.00	4-1 DISP	4	247	
	Amb to T5{1}			3	2.00	4-1 DISP	15	217	
	Hydrotest{1}	0	0		2.00	3-1 OCC	0	219	
	Sus.+T1{1}				2.00	5-1 CRUP	18	<NOTE 1>	
	Sus.+T2{1}				2.00	5-1 CRUP	19	<NOTE 1>	
	Sus.+T3{1}				2.00	5-1 CRUP	19	<NOTE 1>	
	Sus.+T4{1}				2.00	5-1 CRUP	19	<NOTE 1>	
	Sus.+T5{1}				2.00	5-1 CRUP	21	<NOTE 1>	
A35 N-	Max P{1}					HOOP	6	104	
	GR + Max P{1}	1			1.00	2-1 SUST	5	104	
	TR:T2 to T5{1}			7	1.00	4-1 DISP	21	217	
	Amb to T1{1}			0	1.00	4-1 DISP	1	247	
	Amb to T2{1}			1	1.00	4-1 DISP	1	247	
	Amb to T3{1}			1	1.00	4-1 DISP	1	247	
	Amb to T4{1}			0	1.00	4-1 DISP	1	247	
	Amb to T5{1}			7	1.00	4-1 DISP	20	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	0	219	
	Sus.+T1{1}				1.00	5-1 CRUP	6	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	6	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	6	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	6	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	12	<NOTE 1>	
J06 F+	Max P{1}					HOOP	11	104	
	GR + Max P{1}	67			1.00	2-1 SUST	9	104	
	TR:T1 to T5{1}			369	1.00	4-1 DISP	21	217	
	Amb to T1{1}			17	1.00	4-1 DISP	1	247	
	Amb to T2{1}			365	1.00	4-1 DISP	21	217	
	Amb to T3{1}			367	1.00	4-1 DISP	21	217	
	Amb to T4{1}			356	1.00	4-1 DISP	20	247	
	Amb to T5{1}			367	1.00	4-1 DISP	21	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	1	219	

	DVI_B_LINE_REV0.OUT			
Sus.+T1{1}	1.00	5-1	CRUP	9 <NOTE 1>
Sus.+T2{1}	1.00	5-1	CRUP	16 <NOTE 1>
Sus.+T3{1}	1.00	5-1	CRUP	16 <NOTE 1>
Sus.+T4{1}	1.00	5-1	CRUP	16 <NOTE 1>
Sus.+T5{1}	1.00	5-1	CRUP	16 <NOTE 1>

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DVI_B_LINE_REV0

09/13/2010 DVI.BLINE

BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 433

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
G19	Max P{1}					HOOP	6 104
	GR + Max P{1}	6			1.00	2-1 SUST	19 104
	TR:T1 to T5{1}			2	1.00	4-1 DISP	6 217
	Amb to T1{1}			0	1.00	4-1 DISP	1 247
	Amb to T2{1}			1	1.00	4-1 DISP	3 247
	Amb to T3{1}			1	1.00	4-1 DISP	3 247
	Amb to T4{1}			1	1.00	4-1 DISP	3 247
	Amb to T5{1}			2	1.00	4-1 DISP	6 217
	Hydrotest{1}	0	0		1.00	3-1 OCC	0 219
	Sus.+T1{1}				1.00	5-1 CRUP	20 <NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	20 <NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	20 <NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	20 <NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	21 <NOTE 1>
P01	Max P{1}					HOOP	11 104
	GR + Max P{1}	15			2.00	2-1 SUST	7 104
	TR:Amb to T3{1}			181	2.00	4-1 DISP	21 217
	Amb to T1{1}			26	2.00	4-1 DISP	3 247
	Amb to T2{1}			179	2.00	4-1 DISP	21 217
	Amb to T3{1}			181	2.00	4-1 DISP	21 217
	Amb to T4{1}			175	2.00	4-1 DISP	20 247
	Amb to T5{1}			181	2.00	4-1 DISP	21 217
	Hydrotest{1}	0	0		2.00	3-1 OCC	1 219
	Sus.+T1{1}				2.00	5-1 CRUP	7 <NOTE 1>
	Sus.+T2{1}				2.00	5-1 CRUP	12 <NOTE 1>
	Sus.+T3{1}				2.00	5-1 CRUP	12 <NOTE 1>

Sus.+T4{1}			2.00	5-1	CRUP	12	<NOTE 1>
Sus.+T5{1}			2.00	5-1	CRUP	12	<NOTE 1>
Max P{1}					HOOP	11	104
GR + Max P{1}	72		1.00	2-1	SUST	9	104
TR:T1 to T5{1}		354	1.00	4-1	DISP	20	217
Amb to T1{1}		14	1.00	4-1	DISP	1	247
Amb to T2{1}		350	1.00	4-1	DISP	20	217
Amb to T3{1}		351	1.00	4-1	DISP	20	217
Amb to T4{1}		341	1.00	4-1	DISP	20	247
Amb to T5{1}		352	1.00	4-1	DISP	20	217
Hydrotest{1}	0	0	1.00	3-1	OCC	1	219
Sus.+T1{1}			1.00	5-1	CRUP	10	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	16	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	16	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	16	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	16	<NOTE 1>

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AutoPIPE Plus 9.2.1 RESULT PAGE 434

Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
A35 F-	Max P{1}					HOOP	6	104
	GR + Max P{1}	1			1.05	2-1 SUST	5	104
	TR:T2 to T5{1}			7	1.05	4-1 DISP	20	217
	Amb to T1{1}			0	1.05	4-1 DISP	1	247
	Amb to T2{1}			0	1.05	4-1 DISP	1	247
	Amb to T3{1}			0	1.05	4-1 DISP	1	247
	Amb to T4{1}			0	1.05	4-1 DISP	1	247
	Amb to T5{1}			6	1.05	4-1 DISP	19	217
	Hydrotest{1}	0	0		1.05	3-1 OCC	0	219
	Sus.+T1{1}				1.05	5-1 CRUP	6	<NOTE 1>
	Sus.+T2{1}				1.05	5-1 CRUP	6	<NOTE 1>
	Sus.+T3{1}				1.05	5-1 CRUP	6	<NOTE 1>
	Sus.+T4{1}				1.05	5-1 CRUP	5	<NOTE 1>
	Sus.+T5{1}				1.05	5-1 CRUP	11	<NOTE 1>

DVI_B_LINE_REV0.OUT

A35 F+ Max P{1}					HOOP	6	104
GR + Max P{1}	1		1.00	2-1 SUST		5	104
TR:T2 to T5{1}		7	1.00	4-1 DISP		19	217
Amb to T1{1}		0	1.00	4-1 DISP		1	247
Amb to T2{1}		0	1.00	4-1 DISP		1	247
Amb to T3{1}		0	1.00	4-1 DISP		1	247
Amb to T4{1}		0	1.00	4-1 DISP		1	247
Amb to T5{1}		6	1.00	4-1 DISP		18	217
Hydrotest{1}	0	0	1.00	3-1 OCC		0	219
Sus.+T1{1}			1.00	5-1 CRUP		6	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP		6	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP		6	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP		5	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP		11	<NOTE 1>
I09 F- Max P{1}					HOOP	9	104
GR + Max P{1}	3		1.52	2-1 SUST		5	104
TR:T1 to T5{1}		47	1.52	4-1 DISP		19	217
Amb to T1{1}		1	1.52	4-1 DISP		0	247
Amb to T2{1}		7	1.52	4-1 DISP		3	247
Amb to T3{1}		8	1.52	4-1 DISP		3	247
Amb to T4{1}		1	1.52	4-1 DISP		0	247
Amb to T5{1}		46	1.52	4-1 DISP		18	217
Hydrotest{1}	0	0	1.52	3-1 OCC		0	219
Sus.+T1{1}			1.52	5-1 CRUP		6	<NOTE 1>
Sus.+T2{1}			1.52	5-1 CRUP		6	<NOTE 1>
Sus.+T3{1}			1.52	5-1 CRUP		6	<NOTE 1>
Sus.+T4{1}			1.52	5-1 CRUP		6	<NOTE 1>
Sus.+T5{1}			1.52	5-1 CRUP		10	<NOTE 1>

DVI_B_LINE_REV0

09/13/2010 DVI.BLINE

BENTLEY

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AutoPIPE Plus 9.2.1 RESULT PAGE 435

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

A42	Max P{1}					HOOP	6	104	
	GR + Max P{1}	3			2.00	2-1 SUST	14	104	

DVI_B_LINE_REV0.OUT									
TR:T1 to T5{1}			3	2.00	4-1	DISP	16	217	
Amb to T1{1}			0	2.00	4-1	DISP	0	247	
Amb to T2{1}			0	2.00	4-1	DISP	0	247	
Amb to T3{1}			0	2.00	4-1	DISP	0	247	
Amb to T4{1}			0	2.00	4-1	DISP	0	247	
Amb to T5{1}			3	2.00	4-1	DISP	16	217	
Hydrotest{1}	0	0		2.00	3-1	OCC	0	219	
Sus.+T1{1}				2.00	5-1	CRUP	14	<NOTE 1>	
Sus.+T2{1}				2.00	5-1	CRUP	14	<NOTE 1>	
Sus.+T3{1}				2.00	5-1	CRUP	14	<NOTE 1>	
Sus.+T4{1}				2.00	5-1	CRUP	14	<NOTE 1>	
Sus.+T5{1}				2.00	5-1	CRUP	18	<NOTE 1>	
I09 N+ Max P{1}									
						HOOP	9	104	
GR + Max P{1}	3			1.52	2-1	SUST	5	104	
TR:T1 to T5{1}			45	1.52	4-1	DISP	18	217	
Amb to T1{1}			1	1.52	4-1	DISP	0	247	
Amb to T2{1}			7	1.52	4-1	DISP	3	247	
Amb to T3{1}			7	1.52	4-1	DISP	3	247	
Amb to T4{1}			1	1.52	4-1	DISP	0	247	
Amb to T5{1}			44	1.52	4-1	DISP	17	217	
Hydrotest{1}	0	0		1.52	3-1	OCC	0	219	
Sus.+T1{1}				1.52	5-1	CRUP	6	<NOTE 1>	
Sus.+T2{1}				1.52	5-1	CRUP	6	<NOTE 1>	
Sus.+T3{1}				1.52	5-1	CRUP	6	<NOTE 1>	
Sus.+T4{1}				1.52	5-1	CRUP	6	<NOTE 1>	
Sus.+T5{1}				1.52	5-1	CRUP	10	<NOTE 1>	
P13 N- Max P{1}									
						HOOP	16	104	
GR + Max P{1}	127			1.00	2-1	SUST	10	104	
TR:T1 to T5{1}			943	1.00	4-1	DISP	18	217	
Amb to T1{1}			24	1.00	4-1	DISP	0	247	
Amb to T2{1}			926	1.00	4-1	DISP	18	217	
Amb to T3{1}			934	1.00	4-1	DISP	18	217	
Amb to T4{1}			907	1.00	4-1	DISP	17	247	
Amb to T5{1}			941	1.00	4-1	DISP	18	217	
Hydrotest{1}	0	0		1.00	3-1	OCC	1	219	
Sus.+T1{1}				1.00	5-1	CRUP	10	<NOTE 1>	
Sus.+T2{1}				1.00	5-1	CRUP	15	<NOTE 1>	
Sus.+T3{1}				1.00	5-1	CRUP	15	<NOTE 1>	
Sus.+T4{1}				1.00	5-1	CRUP	15	<NOTE 1>	
Sus.+T5{1}				1.00	5-1	CRUP	15	<NOTE 1>	

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DVI_B_LINE_REV0

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AutoPIPE Plus 9.2.1

RESULT PAGE 436

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)				(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.

P13 F+	Max P{1}					HOOP	16	104
	GR + Max P{1}	124			1.00	2-1 SUST	9	104
	TR:T1 to T5{1}			932	1.00	4-1 DISP	18	217
	Amb to T1{1}			22	1.00	4-1 DISP	0	247
	Amb to T2{1}			915	1.00	4-1 DISP	17	217
	Amb to T3{1}			923	1.00	4-1 DISP	18	217
	Amb to T4{1}			896	1.00	4-1 DISP	17	247
	Amb to T5{1}			930	1.00	4-1 DISP	18	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	1	219
	Sus.+T1{1}				1.00	5-1 CRUP	10	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	15	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	15	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	15	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	15	<NOTE 1>
J10	Max P{1}					HOOP	16	104
	GR + Max P{1}	319			1.20	2-1 SUST	13	104
	TR:Amb to T4{1}			668	1.20	4-1 DISP	15	247
	Amb to T1{1}			117	1.20	4-1 DISP	3	247
	Amb to T2{1}			616	1.20	4-1 DISP	14	217
	Amb to T3{1}			619	1.20	4-1 DISP	14	217
	Amb to T4{1}			668	1.20	4-1 DISP	15	247
	Amb to T5{1}			621	1.20	4-1 DISP	14	217
	Hydrotest{1}	0	0		1.20	3-1 OCC	1	219
	Sus.+T1{1}				1.20	5-1 CRUP	14	<NOTE 1>
	Sus.+T2{1}				1.20	5-1 CRUP	17	<NOTE 1>
	Sus.+T3{1}				1.20	5-1 CRUP	17	<NOTE 1>
	Sus.+T4{1}				1.20	5-1 CRUP	17	<NOTE 1>
	Sus.+T5{1}				1.20	5-1 CRUP	17	<NOTE 1>
CH13	Max P{1}					HOOP	6	104
	GR + Max P{1}	4			1.00	2-1 SUST	15	104
	TR:T1 to T5{1}			2	1.00	4-1 DISP	6	217
	Amb to T1{1}			0	1.00	4-1 DISP	1	247

Amb to T2{1}			1	1.00	4-1 DISP	1	247
Amb to T3{1}			0	1.00	4-1 DISP	1	247
Amb to T4{1}			1	1.00	4-1 DISP	2	247
Amb to T5{1}			2	1.00	4-1 DISP	6	217
Hydrotest{1}	0	0		1.00	3-1 OCC	0	219
Sus.+T1{1}				1.00	5-1 CRUP	15	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	15	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	15	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	15	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	17	<NOTE 1>

DVI_B_LINE_REV0.OUT							
Amb to T4{1}			2	1.05	4-1 DISP	7	247
Amb to T5{1}			4	1.05	4-1 DISP	11	217
Hydrotest{1}	0	0		1.05	3-1 OCC	0	219
Sus.+T1{1}				1.05	5-1 CRUP	12	<NOTE 1>
Sus.+T2{1}				1.05	5-1 CRUP	14	<NOTE 1>
Sus.+T3{1}				1.05	5-1 CRUP	13	<NOTE 1>
Sus.+T4{1}				1.05	5-1 CRUP	13	<NOTE 1>
Sus.+T5{1}				1.05	5-1 CRUP	15	<NOTE 1>
G02 N- Max P{1}							
					HOOP	6	104
GR + Max P{1}	3			1.00	2-1 SUST	11	104
TR:T1 to T5{1}			4	1.00	4-1 DISP	12	217
Amb to T1{1}			1	1.00	4-1 DISP	2	247
Amb to T2{1}			3	1.00	4-1 DISP	8	247
Amb to T3{1}			2	1.00	4-1 DISP	7	247
Amb to T4{1}			2	1.00	4-1 DISP	7	247
Amb to T5{1}			4	1.00	4-1 DISP	11	217
Hydrotest{1}	0	0		1.00	3-1 OCC	0	219
Sus.+T1{1}				1.00	5-1 CRUP	12	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	14	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	13	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	13	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	15	<NOTE 1>

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DVI_B_LINE_REV0

09/13/2010 DVI BLINE

BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 438

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

I10	Max P{1}					HOOP	9	104	
	GR + Max P{1}	3			1.00	2-1 SUST	5	104	
	TR:T1 to T5{1}			56	1.00	4-1 DISP	15	217	
	Amb to T1{1}			1	1.00	4-1 DISP	0	247	
	Amb to T2{1}			9	1.00	4-1 DISP	2	247	
	Amb to T3{1}			9	1.00	4-1 DISP	2	247	
	Amb to T4{1}			1	1.00	4-1 DISP	0	247	
	Amb to T5{1}			55	1.00	4-1 DISP	14	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	0	219	

DVI_B_LINE_REV0.OUT

	Sus.+T1{1}			1.00	5-1	CRUP	5	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	6	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	6	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	5	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	10	<NOTE 1>
G03	Max P{1}					HOOP	6	104
	GR + Max P{1}	3		1.00	2-1	SUST	12	104
	TR:T1 to T5{1}		2	1.00	4-1	DISP	7	217
	Amb to T1{1}		0	1.00	4-1	DISP	1	247
	Amb to T2{1}		0	1.00	4-1	DISP	1	247
	Amb to T3{1}		0	1.00	4-1	DISP	1	247
	Amb to T4{1}		1	1.00	4-1	DISP	2	247
	Amb to T5{1}		2	1.00	4-1	DISP	6	217
	Hydrotest{1}	0	0	1.00	3-1	OCC	0	219
	Sus.+T1{1}			1.00	5-1	CRUP	13	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	13	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	13	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	13	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	14	<NOTE 1>
G02 F+	Max P{1}					HOOP	6	104
	GR + Max P{1}	3		1.00	2-1	SUST	11	104
	TR:T1 to T5{1}		4	1.00	4-1	DISP	12	217
	Amb to T1{1}		1	1.00	4-1	DISP	2	247
	Amb to T2{1}		3	1.00	4-1	DISP	7	247
	Amb to T3{1}		2	1.00	4-1	DISP	7	247
	Amb to T4{1}		2	1.00	4-1	DISP	7	247
	Amb to T5{1}		4	1.00	4-1	DISP	11	217
	Hydrotest{1}	0	0	1.00	3-1	OCC	0	219
	Sus.+T1{1}			1.00	5-1	CRUP	11	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	13	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	13	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	13	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	14	<NOTE 1>

 DVI_B_LINE_REV0
 09/13/2010 DVI BLINE
 09:56 AM
 AutoPIPE Plus 9.2.1

BENTLEY

DVI_B_LINE_REV0.OUT

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
-----	-----	-----	-----	-----	-----	-----	-----
G02 F-	Max P{1}					HOOP	6 104
	GR + Max P{1}	3			1.05	2-1 SUST	11 104
	TR:T1 to T5{1}			4	1.05	4-1 DISP	12 217
	Amb to T1{1}			1	1.05	4-1 DISP	2 247
	Amb to T2{1}			3	1.05	4-1 DISP	8 247
	Amb to T3{1}			2	1.05	4-1 DISP	7 247
	Amb to T4{1}			2	1.05	4-1 DISP	7 247
	Amb to T5{1}			4	1.05	4-1 DISP	11 217
	Hydrotest{1}	0	0		1.05	3-1 OCC	0 219
	Sus.+T1{1}				1.05	5-1 CRUP	11 <NOTE 1>
	Sus.+T2{1}				1.05	5-1 CRUP	13 <NOTE 1>
	Sus.+T3{1}				1.05	5-1 CRUP	13 <NOTE 1>
	Sus.+T4{1}				1.05	5-1 CRUP	13 <NOTE 1>
	Sus.+T5{1}				1.05	5-1 CRUP	14 <NOTE 1>
A36 N+	Max P{1}					HOOP	6 104
	GR + Max P{1}	3			1.05	2-1 SUST	11 104
	TR:T2 to T5{1}			3	1.05	4-1 DISP	10 217
	Amb to T1{1}			0	1.05	4-1 DISP	0 247
	Amb to T2{1}			0	1.05	4-1 DISP	1 247
	Amb to T3{1}			0	1.05	4-1 DISP	1 247
	Amb to T4{1}			0	1.05	4-1 DISP	0 247
	Amb to T5{1}			3	1.05	4-1 DISP	9 217
	Hydrotest{1}	0	0		1.05	3-1 OCC	0 219
	Sus.+T1{1}				1.05	5-1 CRUP	11 <NOTE 1>
	Sus.+T2{1}				1.05	5-1 CRUP	11 <NOTE 1>
	Sus.+T3{1}				1.05	5-1 CRUP	11 <NOTE 1>
	Sus.+T4{1}				1.05	5-1 CRUP	11 <NOTE 1>
	Sus.+T5{1}				1.05	5-1 CRUP	14 <NOTE 1>
A36 N-	Max P{1}					HOOP	6 104
	GR + Max P{1}	3			1.00	2-1 SUST	11 104
	TR:T2 to T5{1}			3	1.00	4-1 DISP	9 217
	Amb to T1{1}			0	1.00	4-1 DISP	0 247
	Amb to T2{1}			0	1.00	4-1 DISP	1 247
	Amb to T3{1}			0	1.00	4-1 DISP	1 247
	Amb to T4{1}			0	1.00	4-1 DISP	0 247
	Amb to T5{1}			3	1.00	4-1 DISP	9 217
	Hydrotest{1}	0	0		1.00	3-1 OCC	0 219
	Sus.+T1{1}				1.00	5-1 CRUP	11 <NOTE 1>

Sus.+T2{1}	DVI_B_LINE_REV0.OUT	1.00	5-1	CRUP	11	<NOTE 1>
Sus.+T3{1}		1.00	5-1	CRUP	11	<NOTE 1>
Sus.+T4{1}		1.00	5-1	CRUP	11	<NOTE 1>
Sus.+T5{1}		1.00	5-1	CRUP	14	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

A36 M	Max P{1}					HOOP	6	104	
	GR + Max P{1}	3			1.05	2-1 SUST	11	104	
	TR:T2 to T5{1}			3	1.05	4-1 DISP	10	217	
	Amb to T1{1}			0	1.05	4-1 DISP	0	247	
	Amb to T2{1}			0	1.05	4-1 DISP	1	247	
	Amb to T3{1}			0	1.05	4-1 DISP	1	247	
	Amb to T4{1}			0	1.05	4-1 DISP	0	247	
	Amb to T5{1}			3	1.05	4-1 DISP	9	217	
	Hydrotest{1}	0	0		1.05	3-1 OCC	0	219	
	Sus.+T1{1}				1.05	5-1 CRUP	11	<NOTE 1>	
	Sus.+T2{1}				1.05	5-1 CRUP	11	<NOTE 1>	
	Sus.+T3{1}				1.05	5-1 CRUP	11	<NOTE 1>	
	Sus.+T4{1}				1.05	5-1 CRUP	11	<NOTE 1>	
	Sus.+T5{1}				1.05	5-1 CRUP	14	<NOTE 1>	
A36 F+	Max P{1}					HOOP	6	104	
	GR + Max P{1}	3			1.00	2-1 SUST	11	104	
	TR:T2 to T5{1}			3	1.00	4-1 DISP	9	217	
	Amb to T1{1}			0	1.00	4-1 DISP	0	247	
	Amb to T2{1}			0	1.00	4-1 DISP	1	247	
	Amb to T3{1}			0	1.00	4-1 DISP	1	247	
	Amb to T4{1}			0	1.00	4-1 DISP	0	247	
	Amb to T5{1}			3	1.00	4-1 DISP	8	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	0	219	
	Sus.+T1{1}				1.00	5-1 CRUP	11	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	11	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	11	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	11	<NOTE 1>	

DVI_B_LINE_REV0.OUT

	Sus.+T5{1}		1.00	5-1	CRUP	14	<NOTE 1>
A36 F-	Max P{1}				HOOP	6	104
	GR + Max P{1}	3	1.05	2-1	SUST	11	104
	TR:T2 to T5{1}		3	1.05	4-1	DISP	9 217
	Amb to T1{1}		0	1.05	4-1	DISP	0 247
	Amb to T2{1}		0	1.05	4-1	DISP	1 247
	Amb to T3{1}		0	1.05	4-1	DISP	1 247
	Amb to T4{1}		0	1.05	4-1	DISP	0 247
	Amb to T5{1}		3	1.05	4-1	DISP	9 217
	Hydrotest{1}	0 0	1.05	3-1	OCC	0	219
	Sus.+T1{1}		1.05	5-1	CRUP	11	<NOTE 1>
	Sus.+T2{1}		1.05	5-1	CRUP	11	<NOTE 1>
	Sus.+T3{1}		1.05	5-1	CRUP	11	<NOTE 1>
	Sus.+T4{1}		1.05	5-1	CRUP	11	<NOTE 1>
	Sus.+T5{1}		1.05	5-1	CRUP	14	<NOTE 1>

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RESULT PAGE 441

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

A38	Max P{1}					HOOP	6	104	
	GR + Max P{1}	3			1.00	2-1 SUST	10	104	
	TR:T4 to T5{1}			3	1.00	4-1 DISP	10	217	
	Amb to T1{1}			0	1.00	4-1 DISP	0	247	
	Amb to T2{1}			0	1.00	4-1 DISP	1	247	
	Amb to T3{1}			0	1.00	4-1 DISP	1	247	
	Amb to T4{1}			0	1.00	4-1 DISP	0	247	
	Amb to T5{1}			3	1.00	4-1 DISP	9	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	0	219	
	Sus.+T1{1}				1.00	5-1 CRUP	11	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	11	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	11	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	10	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	14	<NOTE 1>	

CH06	Max P{1}					HOOP	6	104

DVI_B_LINE_REV0.OUT

GR + Max P{1}	3		1.00	2-1	SUST	11	104
TR:T4 to T5{1}		3	1.00	4-1	DISP	9	217
Amb to T1{1}		0	1.00	4-1	DISP	0	247
Amb to T2{1}		0	1.00	4-1	DISP	1	247
Amb to T3{1}		0	1.00	4-1	DISP	1	247
Amb to T4{1}		0	1.00	4-1	DISP	0	247
Amb to T5{1}		3	1.00	4-1	DISP	9	217
Hydrotest{1}	0	0	1.00	3-1	OCC	0	219
Sus.+T1{1}			1.00	5-1	CRUP	11	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	11	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	11	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	11	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	14	<NOTE 1>
P08 N- Max P{1}					HOOP	11	104
GR + Max P{1}	27		1.00	2-1	SUST	7	104
TR:Amb to T5{1}		232	1.00	4-1	DISP	13	217
Amb to T1{1}		18	1.00	4-1	DISP	1	247
Amb to T2{1}		229	1.00	4-1	DISP	13	217
Amb to T3{1}		231	1.00	4-1	DISP	13	217
Amb to T4{1}		221	1.00	4-1	DISP	13	247
Amb to T5{1}		232	1.00	4-1	DISP	13	217
Hydrotest{1}	0	0	1.00	3-1	OCC	1	219
Sus.+T1{1}			1.00	5-1	CRUP	7	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	11	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	11	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	11	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	11	<NOTE 1>

DVI_B_LINE_REV0

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no.	type	Stress	Allow.
I09 F+ Max P{1}							HOOP	9	104
GR + Max P{1}		3			1.00	2-1	SUST	5	104
TR:T1 to T5{1}				47	1.00	4-1	DISP	12	217

DVI_B_LINE_REV0.OUT									
	Amb to T1{1}			1	1.00	4-1 DISP	0	247	
	Amb to T2{1}			7	1.00	4-1 DISP	2	247	
	Amb to T3{1}			8	1.00	4-1 DISP	2	247	
	Amb to T4{1}			1	1.00	4-1 DISP	0	247	
	Amb to T5{1}			46	1.00	4-1 DISP	12	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	0	219	
	Sus.+T1{1}				1.00	5-1 CRUP	5	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	6	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	6	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	5	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	9	<NOTE 1>	
J13	Max P{1}					HOOP	11	104	
	GR + Max P{1}	48			2.00	2-1 SUST	9	104	
	TR:T1 to T5{1}			89	2.00	4-1 DISP	10	217	
	Amb to T1{1}			15	2.00	4-1 DISP	2	247	
	Amb to T2{1}			84	2.00	4-1 DISP	10	217	
	Amb to T3{1}			84	2.00	4-1 DISP	10	217	
	Amb to T4{1}			89	2.00	4-1 DISP	10	247	
	Amb to T5{1}			85	2.00	4-1 DISP	10	217	
	Hydrotest{1}	0	0		2.00	3-1 OCC	1	219	
	Sus.+T1{1}				2.00	5-1 CRUP	10	<NOTE 1>	
	Sus.+T2{1}				2.00	5-1 CRUP	12	<NOTE 1>	
	Sus.+T3{1}				2.00	5-1 CRUP	12	<NOTE 1>	
	Sus.+T4{1}				2.00	5-1 CRUP	12	<NOTE 1>	
	Sus.+T5{1}				2.00	5-1 CRUP	12	<NOTE 1>	
I09 N-	Max P{1}					HOOP	9	104	
	GR + Max P{1}	3			1.00	2-1 SUST	5	104	
	TR:T1 to T5{1}			45	1.00	4-1 DISP	12	217	
	Amb to T1{1}			1	1.00	4-1 DISP	0	247	
	Amb to T2{1}			7	1.00	4-1 DISP	2	247	
	Amb to T3{1}			7	1.00	4-1 DISP	2	247	
	Amb to T4{1}			1	1.00	4-1 DISP	0	247	
	Amb to T5{1}			44	1.00	4-1 DISP	11	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	0	219	
	Sus.+T1{1}				1.00	5-1 CRUP	5	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	6	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	6	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	5	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	9	<NOTE 1>	

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DVI_B_LINE_REV0

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F					
P08 F+	Max P{1}							HOOP	11	104
	GR + Max P{1}	17			1.00	2-1	SUST	6		104
	TR:Amb to T3{1}			192	1.00	4-1	DISP	11		217
	Amb to T1{1}			26	1.00	4-1	DISP	1		247
	Amb to T2{1}			190	1.00	4-1	DISP	11		217
	Amb to T3{1}			192	1.00	4-1	DISP	11		217
	Amb to T4{1}			185	1.00	4-1	DISP	11		247
	Amb to T5{1}			192	1.00	4-1	DISP	11		217
	Hydrotest{1}	0	0		1.00	3-1	OCC	1		219
	Sus.+T1{1}				1.00	5-1	CRUP	7	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1	CRUP	10	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1	CRUP	10	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1	CRUP	10	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1	CRUP	10	<NOTE 1>	
G15	Max P{1}							HOOP	6	104
	GR + Max P{1}	2			1.00	2-1	SUST	8		104
	TR:T1 to T5{1}			4	1.00	4-1	DISP	10		217
	Amb to T1{1}			1	1.00	4-1	DISP	2		247
	Amb to T2{1}			2	1.00	4-1	DISP	6		247
	Amb to T3{1}			2	1.00	4-1	DISP	6		247
	Amb to T4{1}			2	1.00	4-1	DISP	6		247
	Amb to T5{1}			3	1.00	4-1	DISP	9		217
	Hydrotest{1}	0	0		1.00	3-1	OCC	0		219
	Sus.+T1{1}				1.00	5-1	CRUP	9	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1	CRUP	10	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1	CRUP	10	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1	CRUP	10	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1	CRUP	11	<NOTE 1>	
A75	+ Max P{1}							HOOP	6	104
	GR + Max P{1}	0			1.00	2-1	SUST	3		104
	TR:T1 to T5{1}			4	1.00	4-1	DISP	11		217
	Amb to T1{1}			0	1.00	4-1	DISP	0		247
	Amb to T2{1}			0	1.00	4-1	DISP	0		247

Amb to T3{1}		0	1.00	4-1 DISP	0	247
Amb to T4{1}		0	1.00	4-1 DISP	0	247
Amb to T5{1}		4	1.00	4-1 DISP	11	217
Hydrotest{1}	0	0	1.00	3-1 OCC	0	219
Sus.+T1{1}			1.00	5-1 CRUP	3	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	3	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	3	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	3	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	7	<NOTE 1>

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Amb to T5{1}		2	1.00	4-1	DISP	5	217
Hydrotest{1}	0	0	1.00	3-1	OCC	0	219
Sus.+T1{1}			1.00	5-1	CRUP	9	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	9	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	9	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	9	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	11	<NOTE 1>
A41 F- Max P{1}							
					HOOP	6	104
GR + Max P{1}	2		1.05	2-1	SUST	9	104
TR:T1 to T5{1}		2	1.05	4-1	DISP	5	217
Amb to T1{1}		0	1.05	4-1	DISP	0	247
Amb to T2{1}		0	1.05	4-1	DISP	0	247
Amb to T3{1}		0	1.05	4-1	DISP	0	247
Amb to T4{1}		0	1.05	4-1	DISP	0	247
Amb to T5{1}		2	1.05	4-1	DISP	5	217
Hydrotest{1}	0	0	1.05	3-1	OCC	0	219
Sus.+T1{1}			1.05	5-1	CRUP	9	<NOTE 1>
Sus.+T2{1}			1.05	5-1	CRUP	9	<NOTE 1>
Sus.+T3{1}			1.05	5-1	CRUP	9	<NOTE 1>
Sus.+T4{1}			1.05	5-1	CRUP	9	<NOTE 1>
Sus.+T5{1}			1.05	5-1	CRUP	11	<NOTE 1>

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DVI_B_LINE_REV0

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AutoPIPE Plus 9.2.1 RESULT PAGE 445

EN 13480 (2002) CODE COMPLIANCE							
		(Moments in N.m)			(Stress in N/mm2)		
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F no. type	Stress	Allow.

OR10 + Max P{1}					HOOP	6	104
GR + Max P{1}		1			1.20 2-1 SUST	6	104
TR:T1 to T5{1}				3	1.20 4-1 DISP	10	217
Amb to T1{1}				0	1.20 4-1 DISP	0	247
Amb to T2{1}				0	1.20 4-1 DISP	1	247
Amb to T3{1}				0	1.20 4-1 DISP	1	247
Amb to T4{1}				0	1.20 4-1 DISP	0	247
Amb to T5{1}				3	1.20 4-1 DISP	10	217
Hydrotest{1}		0	0		1.20 3-1 OCC	0	219
Sus.+T1{1}					1.20 5-1 CRUP	6	<NOTE 1>

Sus.+T2{1}	1.20	5-1 CRUP	7 <NOTE 1>
Sus.+T3{1}	1.20	5-1 CRUP	7 <NOTE 1>
Sus.+T4{1}	1.20	5-1 CRUP	6 <NOTE 1>
Sus.+T5{1}	1.20	5-1 CRUP	9 <NOTE 1>

OR10 - Max P{1}					HOOP	6	104
GR + Max P{1}	1		1.20	2-1	SUST	6	104
TR:T1 to T5{1}		3	1.20	4-1	DISP	10	217
Amb to T1{1}		0	1.20	4-1	DISP	0	247
Amb to T2{1}		0	1.20	4-1	DISP	1	247
Amb to T3{1}		0	1.20	4-1	DISP	1	247
Amb to T4{1}		0	1.20	4-1	DISP	0	247
Amb to T5{1}		3	1.20	4-1	DISP	10	217
Hydrotest{1}	0	0	1.20	3-1	OCC	0	219
Sus.+T1{1}			1.20	5-1	CRUP	6	<NOTE 1>
Sus.+T2{1}			1.20	5-1	CRUP	7	<NOTE 1>
Sus.+T3{1}			1.20	5-1	CRUP	7	<NOTE 1>
Sus.+T4{1}			1.20	5-1	CRUP	6	<NOTE 1>
Sus.+T5{1}			1.20	5-1	CRUP	9	<NOTE 1>

A44	Max P{1}					HOOP	9	104
	GR + Max P{1}	18		1.00	2-1	SUST	9	104
	TR:T1 to T5{1}		6	1.00	4-1	DISP	2	217
	Amb to T1{1}		0	1.00	4-1	DISP	0	247
	Amb to T2{1}		0	1.00	4-1	DISP	0	247
	Amb to T3{1}		0	1.00	4-1	DISP	0	247
	Amb to T4{1}		0	1.00	4-1	DISP	0	247
	Amb to T5{1}		6	1.00	4-1	DISP	2	217
	Hydrotest{1}	0	0	1.00	3-1	OCC	0	219
	Sus.+T1{1}			1.00	5-1	CRUP	9	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	9	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	9	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	9	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	10	<NOTE 1>

DVI_B_LINE_REV0

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
Pagina 656							

DVI_B_LINE_REV0.0UT

name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
G08	Max P{1}					HOOP	9	104
	GR + Max P{1}	9			1.00	2-1 SUST	7	104
	TR:T2 to T5{1}			5	1.00	4-1 DISP	1	217
	Amb to T1{1}			0	1.00	4-1 DISP	0	247
	Amb to T2{1}			1	1.00	4-1 DISP	0	247
	Amb to T3{1}			1	1.00	4-1 DISP	0	247
	Amb to T4{1}			1	1.00	4-1 DISP	0	247
	Amb to T5{1}			4	1.00	4-1 DISP	1	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	0	219
	Sus.+T1{1}				1.00	5-1 CRUP	7	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	7	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	7	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	7	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	7	<NOTE 1>
G07	Max P{1}					HOOP	9	104
	GR + Max P{1}	4			2.00	2-1 SUST	6	104
	TR:T2 to T5{1}			4	2.00	4-1 DISP	2	217
	Amb to T1{1}			0	2.00	4-1 DISP	0	247
	Amb to T2{1}			1	2.00	4-1 DISP	0	247
	Amb to T3{1}			1	2.00	4-1 DISP	0	247
	Amb to T4{1}			1	2.00	4-1 DISP	0	247
	Amb to T5{1}			3	2.00	4-1 DISP	1	217
	Hydrotest{1}	0	0		2.00	3-1 OCC	0	219
	Sus.+T1{1}				2.00	5-1 CRUP	6	<NOTE 1>
	Sus.+T2{1}				2.00	5-1 CRUP	6	<NOTE 1>
	Sus.+T3{1}				2.00	5-1 CRUP	6	<NOTE 1>
	Sus.+T4{1}				2.00	5-1 CRUP	6	<NOTE 1>
	Sus.+T5{1}				2.00	5-1 CRUP	7	<NOTE 1>
A72	Max P{1}					HOOP	9	104
	GR + Max P{1}	3			2.00	2-1 SUST	5	104
	TR:T1 to T5{1}			4	2.00	4-1 DISP	2	217
	Amb to T1{1}			0	2.00	4-1 DISP	0	247
	Amb to T2{1}			0	2.00	4-1 DISP	0	247
	Amb to T3{1}			0	2.00	4-1 DISP	0	247
	Amb to T4{1}			0	2.00	4-1 DISP	0	247
	Amb to T5{1}			4	2.00	4-1 DISP	2	217
	Hydrotest{1}	0	0		2.00	3-1 OCC	0	219
	Sus.+T1{1}				2.00	5-1 CRUP	5	<NOTE 1>
	Sus.+T2{1}				2.00	5-1 CRUP	5	<NOTE 1>

Sus.+T3{1}	DVI_B_LINE_REV0.OUT	2.00	5-1 CRUP	5 <NOTE 1>
Sus.+T4{1}		2.00	5-1 CRUP	5 <NOTE 1>
Sus.+T5{1}		2.00	5-1 CRUP	6 <NOTE 1>

□

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. Load no. type			
A54	Max P{1}					HOOP		6	104
	GR + Max P{1}	1			1.00	2-1 SUST		5	104
	TR:Amb to T5{1}			3	1.00	4-1 DISP		8	217
	Amb to T1{1}			0	1.00	4-1 DISP		0	247
	Amb to T2{1}			0	1.00	4-1 DISP		1	247
	Amb to T3{1}			0	1.00	4-1 DISP		1	247
	Amb to T4{1}			0	1.00	4-1 DISP		0	247
	Amb to T5{1}			3	1.00	4-1 DISP		8	217
	Hydrotest{1}	0	0		1.00	3-1 OCC		0	219
	Sus.+T1{1}				1.00	5-1 CRUP		6	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP		6	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP		6	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP		6	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP		8	<NOTE 1>
A37 N+	Max P{1}					HOOP		6	104
	GR + Max P{1}	2			1.05	2-1 SUST		7	104
	TR:T2 to T5{1}			1	1.05	4-1 DISP		2	217
	Amb to T1{1}			0	1.05	4-1 DISP		0	247
	Amb to T2{1}			0	1.05	4-1 DISP		0	247
	Amb to T3{1}			0	1.05	4-1 DISP		0	247
	Amb to T4{1}			0	1.05	4-1 DISP		0	247
	Amb to T5{1}			1	1.05	4-1 DISP		2	217
	Hydrotest{1}	0	0		1.05	3-1 OCC		0	219
	Sus.+T1{1}				1.05	5-1 CRUP		7	<NOTE 1>
	Sus.+T2{1}				1.05	5-1 CRUP		7	<NOTE 1>
	Sus.+T3{1}				1.05	5-1 CRUP		7	<NOTE 1>
	Sus.+T4{1}				1.05	5-1 CRUP		7	<NOTE 1>
	Sus.+T5{1}				1.05	5-1 CRUP		8	<NOTE 1>

DVI_B_LINE_REV0.OUT

A37 N- Max P{1}					HOOP	6	104
GR + Max P{1}	2		1.00	2-1	SUST	7	104
TR:T2 to T5{1}		1	1.00	4-1	DISP	2	217
Amb to T1{1}		0	1.00	4-1	DISP	0	247
Amb to T2{1}		0	1.00	4-1	DISP	0	247
Amb to T3{1}		0	1.00	4-1	DISP	0	247
Amb to T4{1}		0	1.00	4-1	DISP	0	247
Amb to T5{1}		1	1.00	4-1	DISP	2	217
Hydrotest{1}	0	0	1.00	3-1	OCC	0	219
Sus.+T1{1}			1.00	5-1	CRUP	7	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	7	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	7	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	7	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	8	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no.	type	Stress	Allow.

A37 F+ Max P{1}						HOOP	6	104	
GR + Max P{1}		1			1.00	2-1	SUST	7	104
TR:T2 to T5{1}				1	1.00	4-1	DISP	2	217
Amb to T1{1}				0	1.00	4-1	DISP	0	247
Amb to T2{1}				0	1.00	4-1	DISP	0	247
Amb to T3{1}				0	1.00	4-1	DISP	0	247
Amb to T4{1}				0	1.00	4-1	DISP	0	247
Amb to T5{1}				1	1.00	4-1	DISP	2	217
Hydrotest{1}		0	0		1.00	3-1	OCC	0	219
Sus.+T1{1}					1.00	5-1	CRUP	7	<NOTE 1>
Sus.+T2{1}					1.00	5-1	CRUP	7	<NOTE 1>
Sus.+T3{1}					1.00	5-1	CRUP	7	<NOTE 1>
Sus.+T4{1}					1.00	5-1	CRUP	7	<NOTE 1>
Sus.+T5{1}					1.00	5-1	CRUP	7	<NOTE 1>
A37 F- Max P{1}						HOOP	6	104	
GR + Max P{1}		1			1.05	2-1	SUST	7	104

DVI_B_LINE_REV0.OUT

	TR:T2 to T5{1}			1	1.05	4-1 DISP	2	217
	Amb to T1{1}			0	1.05	4-1 DISP	0	247
	Amb to T2{1}			0	1.05	4-1 DISP	0	247
	Amb to T3{1}			0	1.05	4-1 DISP	0	247
	Amb to T4{1}			0	1.05	4-1 DISP	0	247
	Amb to T5{1}			1	1.05	4-1 DISP	2	217
	Hydrotest{1}	0	0		1.05	3-1 OCC	0	219
	Sus.+T1{1}				1.05	5-1 CRUP	7	<NOTE 1>
	Sus.+T2{1}				1.05	5-1 CRUP	7	<NOTE 1>
	Sus.+T3{1}				1.05	5-1 CRUP	7	<NOTE 1>
	Sus.+T4{1}				1.05	5-1 CRUP	7	<NOTE 1>
	Sus.+T5{1}				1.05	5-1 CRUP	7	<NOTE 1>
H02	Max P{1}					HOOP	6	104
	GR + Max P{1}	0			2.30	2-1 SUST	3	104
	TR:T1 to T5{1}			0	2.30	4-1 DISP	0	217
	Amb to T1{1}			0	2.30	4-1 DISP	0	247
	Amb to T2{1}			0	2.30	4-1 DISP	0	247
	Amb to T3{1}			0	2.30	4-1 DISP	0	247
	Amb to T4{1}			0	2.30	4-1 DISP	0	247
	Amb to T5{1}			0	2.30	4-1 DISP	0	217
	Hydrotest{1}	0	0		2.30	3-1 OCC	0	219
	Sus.+T1{1}				2.30	5-1 CRUP	3	<NOTE 1>
	Sus.+T2{1}				2.30	5-1 CRUP	3	<NOTE 1>
	Sus.+T3{1}				2.30	5-1 CRUP	3	<NOTE 1>
	Sus.+T4{1}				2.30	5-1 CRUP	3	<NOTE 1>
	Sus.+T5{1}				2.30	5-1 CRUP	3	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no.	type	Stress	Allow.
A26	Max P{1}						HOOP	6	104
	GR + Max P{1}	0			1.00	2-1	SUST	3	104
	TR:T1 to T5{1}			0	1.00	4-1	DISP	0	217
	Amb to T1{1}			0	1.00	4-1	DISP	0	247

DVI_B_LINE_REV0.OUT									
Amb to T2{1}		0	1.00	4-1	DISP	0	247		
Amb to T3{1}		0	1.00	4-1	DISP	0	247		
Amb to T4{1}		0	1.00	4-1	DISP	0	247		
Amb to T5{1}		0	1.00	4-1	DISP	0	217		
Hydrotest{1}	0	0	1.00	3-1	OCC	0	219		
Sus.+T1{1}			1.00	5-1	CRUP	3	<NOTE 1>		
Sus.+T2{1}			1.00	5-1	CRUP	3	<NOTE 1>		
Sus.+T3{1}			1.00	5-1	CRUP	3	<NOTE 1>		
Sus.+T4{1}			1.00	5-1	CRUP	3	<NOTE 1>		
Sus.+T5{1}			1.00	5-1	CRUP	3	<NOTE 1>		
A41 N+ Max P{1}									
					HOOP	6	104		
GR + Max P{1}	1		1.05	2-1	SUST	4	104		
TR:T1 to T5{1}		2	1.05	4-1	DISP	5	217		
Amb to T1{1}		0	1.05	4-1	DISP	0	247		
Amb to T2{1}		0	1.05	4-1	DISP	0	247		
Amb to T3{1}		0	1.05	4-1	DISP	0	247		
Amb to T4{1}		0	1.05	4-1	DISP	0	247		
Amb to T5{1}		2	1.05	4-1	DISP	5	217		
Hydrotest{1}	0	0	1.05	3-1	OCC	0	219		
Sus.+T1{1}			1.05	5-1	CRUP	4	<NOTE 1>		
Sus.+T2{1}			1.05	5-1	CRUP	4	<NOTE 1>		
Sus.+T3{1}			1.05	5-1	CRUP	4	<NOTE 1>		
Sus.+T4{1}			1.05	5-1	CRUP	4	<NOTE 1>		
Sus.+T5{1}			1.05	5-1	CRUP	6	<NOTE 1>		
A41 N- Max P{1}									
					HOOP	6	104		
GR + Max P{1}	1		1.00	2-1	SUST	4	104		
TR:T1 to T5{1}		2	1.00	4-1	DISP	5	217		
Amb to T1{1}		0	1.00	4-1	DISP	0	247		
Amb to T2{1}		0	1.00	4-1	DISP	0	247		
Amb to T3{1}		0	1.00	4-1	DISP	0	247		
Amb to T4{1}		0	1.00	4-1	DISP	0	247		
Amb to T5{1}		2	1.00	4-1	DISP	5	217		
Hydrotest{1}	0	0	1.00	3-1	OCC	0	219		
Sus.+T1{1}			1.00	5-1	CRUP	4	<NOTE 1>		
Sus.+T2{1}			1.00	5-1	CRUP	4	<NOTE 1>		
Sus.+T3{1}			1.00	5-1	CRUP	4	<NOTE 1>		
Sus.+T4{1}			1.00	5-1	CRUP	4	<NOTE 1>		
Sus.+T5{1}			1.00	5-1	CRUP	6	<NOTE 1>		

*** NOTE 1: No allowable stress could be calculated.
 *** Mechanical properties are outside of temperature range.

DVI_B_LINE_REV0

DVI_B_LINE_REV0.OUT

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RESULT PAGE 450

R E S U L T S U M M A R Y

Maximum displacements (mm)

Maximum X :	20.011	Point : A09 M	Load Comb.: Thermal 3{1}
Maximum Y :	-36.630	Point : F06 F	Load Comb.: Thermal 3{1}
Maximum Z :	56.300	Point : M28	Load Comb.: Thermal 1{1}
Max. total:	56.300	Point : M28	Load Comb.: Thermal 1{1}

Maximum rotations (deg)

Maximum X :	3.171	Point : F05 F	Load Comb.: GRT3{1}
Maximum Y :	-2.142	Point : M23 F	Load Comb.: Thermal 1{1}
Maximum Z :	0.975	Point : A08	Load Comb.: GRT3{1}
Max. total:	3.213	Point : F05 F	Load Comb.: GRT3{1}

Maximum restraint forces (N)

Maximum X :	-205	Point : P14	Load Comb.: GRT4{1}
Maximum Y :	1015	Point : M11 M	Load Comb.: GRT4{1}
Maximum Z :	-7438	Point : M01	Load Comb.: GRT4{1}
Max. total:	7439	Point : M01	Load Comb.: GRT4{1}

Maximum restraint moments (N.m)

Maximum X :	-498	Point : N08	Load Comb.: GRT2{1}
Maximum Y :	1126	Point : P14	Load Comb.: GRT5{1}
Maximum Z :	503	Point : N08	Load Comb.: Thermal 4{1}
Max. total:	1223	Point : P14	Load Comb.: GRT5{1}

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R E S U L T S U M M A R Y

Maximum pipe forces (N)

Maximum X :	-272	Point : A10	Load Comb.: GRT4{1}
Maximum Y :	665	Point : M10	Load Comb.: Thermal 4{1}
Maximum Z :	-4986	Point : M01	Load Comb.: Gravity{1}
Max. total:	4986	Point : M01	Load Comb.: Gravity{1}

Maximum pipe moments (N.m)

Maximum X :	-498	Point : N08	Load Comb.: GRT2{1}
Maximum Y :	-1126	Point : P14	Load Comb.: GRT5{1}
Maximum Z :	503	Point : N08	Load Comb.: Thermal 4{1}
Max. total:	1223	Point : P14	Load Comb.: GRT5{1}

0

DVI_B_LINE_REV0

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R E S U L T S U M M A R Y

Maximum sustained stress

Point	:	J03
Stress	N/mm2	: 72
Allowable	N/mm2	: 104
Ratio	:	0.69
Load combination	:	GR + Max P{1}

Maximum displacement stress

Point	:	P03
Stress	N/mm2	: 281
Allowable	N/mm2	: 307
Ratio	:	0.92
Load combination	:	Max Range

Maximum occasional stress

Point	:	M02
Stress	N/mm2	: 72
Allowable	N/mm2	: 219
Ratio	:	0.33
Load combination	:	Hydrotest{1}

Maximum hoop stress

Point	:	M02
Stress	N/mm2	: 102
Allowable	N/mm2	: 86
Ratio	:	1.19
Load combination	:	Max P{1}

Maximum creep rupture stress

DVI_B_LINE_REV0.OUT

Point : J03
Stress N/mm2 : 119
Allowable N/mm2 : 0 < See Note 1 >
Ratio : 0.00
Load combination : Sus.+T4{1}

□

DVI_B_LINE_REV0

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RESULT SUMMARY

Maximum sustained stress ratio

Point : J01
Stress N/mm2 : 66
Allowable N/mm2 : 86
Ratio : 0.76
Load combination : GR + Max P{1}

Maximum displacement stress ratio

Point : I07
Stress N/mm2 : 216
Allowable N/mm2 : 217
Ratio : 1.00
Load combination : Max Range

Maximum occasional stress ratio

Point : M02
Stress N/mm2 : 72
Allowable N/mm2 : 219
Ratio : 0.33
Load combination : Hydrotest{1}

Maximum hoop stress ratio

Point : M02
Stress N/mm2 : 102
Allowable N/mm2 : 86
Ratio : 1.19
Load combination : Max P{1}

Maximum creep rupture stress ratio

Point : P03
Stress N/mm2 : 31
Allowable N/mm2 : 0 < See Note 1 >
Ratio : 0.00
Load combination : Sus.+T1{1}

* * * The system does not satisfy EN 13480 (2002) code requirements * * *
* * * for the selected options * * *

Warnings:

(1) Maximum creep rupture stress ratio is zero

* * * Note 1: Points were found in this stress category with * * *
* * * mechanical properties outside of temperature range. No * * *

□

DVI_B_LINE_REV0

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RESULT PAGE 454

R E S U L T S U M M A R Y

* * * allowable stress were calculated at these points.

* * *

ALLEGATO 4. ADS INPUT E OUTPUT DEI CALCOLI AUTOPIPE

file: ADS_LINE_REV0.pdf

ADS_LINE_REV0.txt
PIPING CODE : EN 13480
YEAR : 2002
LIFETIME (HRS) : 50000
LIFETIME MONITORING : NO
VERTICAL AXIS : Z
AMBIENT TEMPERATURE : 20.0 deg C
COMPONENT LIBRARY : AUTOPIPE
MATERIAL LIBRARY : EUROMAT
MODEL REVISION NUMBER : 10

ADS_LINE_REV0

09/24/2010 ADS

BENTLEY

11:20 AM

AutoPIPE Plus 9.2.1 MODEL PAGE 3

C O M P O N E N T D A T A L I S T I N G

*** SEGMENT A

From K01 to A00, DZ= -1674.75 mm Junc

PIPE DATA:

Pipe Id= 3S40, Material= X5CRNI18-10 1.4301, Product= Seamless tube, Source= EURO,
Composition= Austentic Stainless, Poisson= 0.300, Nom Size= 80 mm, OD= 88.900 mm, Sch= 40, Wall
Thk= 5.486 mm,
Mill= 0.686 mm, Cor= 0 mm, Pipe Density= 7930.00 kg/m3, Pipe Unit Wgt= 111.81 N/m, Content Sp Gr=
1.000,
Content Unit Wgt= 46.75 N/m, Insul Thk= 80.000 mm, Insul Material= MINERAL WOOL, Insul Density=
136.16 kg/m3,
Insul Unit Wgt= 56.68 N/m, Lining Thk= 0 mm, Long Weld factor= 1.00, Circ Weld factor= 1.00, Long
Modulus= 0.19996 E6 N/mm2,
Hoop Modulus= 0.19996 E6 N/mm2, Shear Modulus= 0.07691 E6 N/mm2, Al= 40.0, At= 35.0, fc= 166.7
N/mm2, Rp0.2= 195.0 N/mm2,
Rp1.0= 230.0 N/mm2, Rm= 500.0 N/mm2

OPERATING DATA:

P1= 0.1000 N/mm2, P2= 1.5000 N/mm2, P3= 1.5000 N/mm2, P4= 0.3600 N/mm2, P5= 1.5000 N/mm2, T1=
20.00 deg C, T2= 198.00 deg C,
T3= 20.00 deg C, T4= 140.30 deg C, T5= 198.00 deg C, Exp1= 0 mm/m, Exp2= 2.94948 mm/m, Exp3= 0
mm/m, Exp4= 1.94612 mm/m,
Exp5= 2.94948 mm/m, E1= 0.19996 E6 N/mm2, E2= 0.18487 E6 N/mm2, E3= 0.19996 E6 N/mm2, E4= 0.18976
E6 N/mm2,
E5= 0.18487 E6 N/mm2, Rp0.2t1= 195.00 N/mm2, Rp0.2t2= 127.52 N/mm2, Rp0.2t3= 195.00 N/mm2,
Rp0.2t4= 142.91 N/mm2,
Rp0.2t5= 127.52 N/mm2, Rp1.0t1= 230.00 N/mm2, Rp1.0t2= 155.60 N/mm2, Rp1.0t3= 230.00 N/mm2,
Rp1.0t4= 173.88 N/mm2,
Rp1.0t5= 155.60 N/mm2, Rmt1= 0.00 N/mm2, Rmt2= 0.00 N/mm2, Rmt3= 0.00 N/mm2, Rmt4= 0.00 N/mm2,
Rmt5= 0.00 N/mm2,
fcr1= 0.00 N/mm2, fcr2= 0.00 N/mm2, fcr3= 0.00 N/mm2, fcr4= 0.00 N/mm2, fcr5= 0.00 N/mm2, fh1=
153.33 N/mm2,
fh2= 103.73 N/mm2, fh3= 153.33 N/mm2, fh4= 115.92 N/mm2, fh5= 103.73 N/mm2

POINT DATA:

K01, Coordinates, X= -750.00 mm, Y= -2633.00 mm, Z= 12189.75 mm

From A00 to A05, DZ= -2920.00 mm Run

POINT DATA:

A00, Coordinates, X= -750.00 mm, Y= -2633.00 mm, Z= 10515.00 mm
A00, Flange= SLIP-ON, Rating= 300, Flange Weight= 6.40 kg, Bolt/Nut Weight= 0.00 kg, End type=
Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material=
NS,
Gasket inside diam= 0.00 mm, Gasket width= 0.00 mm
A00, Flange= SLIP-ON, Rating= 300, Flange Weight= 6.40 kg, Bolt/Nut Weight= 0.00 kg, End type=

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Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS,
Gasket inside diam= 0.00 mm, Gasket width= 0.00 mm

From A05 to A16, DZ= 2620.00 mm Run

POINT DATA:
A05, Coordinates, X= -750.00 mm, Y= -2633.00 mm, Z= 7595.00 mm

From A16 to A02, DZ= -3200.00 mm Run

PIPE DATA:
Pipe Id= QTSHELL, Composition= Austentic Stainless, Nom Size= Non-standard, OD= 370.00 mm, Sch= Non-standard,
Wall Thk= 6.000 mm, Mill= 0.750 mm, Content Sp Gr= 1.000, Content Unit Wgt= 986.69 N/m, Insul Thk= 100.000 mm,
Insul Density= 136.16 kg/m3, Insul Unit Wgt= 197.16 N/m

POINT DATA:

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A16, Coordinates, X= -750.00 mm, Y= -2633.00 mm, Z= 10215.00 mm
A02, Coordinates, X= -750.00 mm, Y= -2633.00 mm, Z= 7015.00 mm

SUPPORT DATA:
A16, Anchor, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

*** SEGMENT B

From K01 to B30, DZ= 5137.99 mm Junc

PIPE DATA:
Pipe Id= 3S40, Composition= Austentic Stainless, OD= 88.900 mm, Sch= 40, Wall Thk= 5.486 mm, Mill= 0.686 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 46.75 N/m, Insul Thk= 80.000 mm, Insul Density= 136.16 kg/m3,
Insul Unit Wgt= 56.68 N/m

POINT DATA:
K01, Coordinates, X= -750.00 mm, Y= -2633.00 mm, Z= 12189.75 mm

From B30 to K02, DZ= 5137.98 mm Run

POINT DATA:
B30, Coordinates, X= -750.00 mm, Y= -2633.00 mm, Z= 17327.74 mm

SUPPORT DATA:
B30, Guide, Support Id= B30 1, Connected to Ground, Stiffness= RIGID, Gap -X= 0.00 mm, Gap +X= 0.00 mm, Gap -Y= 100.00 mm,
Gap +Y= 100.00 mm, Friction= 0.00, Gaps setting= Weightless

From K02 to B14, DX= 8.26 mm, DY= 78.57 mm, L= 79.00 mm Tee

COMPONENT DATA (Tee Branch, Center= K02):
B16.9 welding tee, SIFI= 1.30, SIF0= 1.30

PIPE DATA:
Pipe Id= 1.5S40, Composition= Austentic Stainless, Nom Size= 40 mm, OD= 48.260 mm, Wall Thk= 3.683 mm, Mill= 0.460 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 12.87 N/m, Insul Thk= 50.000 mm, Insul Density= 136.16 kg/m3,
Insul Unit Wgt= 20.61 N/m

POINT DATA:

K02, Coordinates, X= -750.00 mm, Y= -2633.00 mm, Z= 22465.72 mm

From B14 to B15, DX= 93.33 mm, DY= 888.01 mm, L= 892.90 mm Run

POINT DATA:

B14, Coordinates, X= -741.74 mm, Y= -2554.43 mm, Z= 22465.72 mm

From B15 to B16, DX= 40.16 mm, DY= 382.10 mm, L= 384.20 mm Valv

COMPONENT DATA (Valve):

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C O M P O N E N T D A T A L I S T I N G

GATE-F, Rating= Non-standard, Length= 384.20 mm, Valve weight = 52 kg, Actuator Auto = No,
 Actuator Symbol = Yes,
 Actuator weight = 80 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 408.00 mm, Surface factor=
 0.00, End type= Weld neck,
 SIF= 1.00

PIPE DATA:

Pipe Id= 1.5S160, Composition= Austentic Stainless, Sch= 160, Wall Thk= 7.137 mm, Mill= 0.892 mm,
 Content Sp Gr= 1.000,
 Content Unit Wgt= 8.89 N/m

OPERATING DATA (B15 M to B16):

P1= 17.2500 N/mm2, P2= 12.0000 N/mm2, P3= 17.2500 N/mm2, T1= 354.00 deg C, T2= 324.74 deg C, T3=
 354.00 deg C,
 Exp1= 5.85176 mm/m, Exp2= 5.28865 mm/m, Exp3= 5.85176 mm/m, E1= 0.17164 E6 N/mm2, E2= 0.17412 E6
 N/mm2, E3= 0.17164 E6 N/mm2,
 Rp0.2t1= 103.52 N/mm2, Rp0.2t2= 107.03 N/mm2, Rp0.2t3= 103.52 N/mm2, Rp1.0t1= 128.68 N/mm2,
 Rp1.0t2= 132.03 N/mm2,
 Rp1.0t3= 128.68 N/mm2, fh1= 85.79 N/mm2, fh2= 88.02 N/mm2, fh3= 85.79 N/mm2

POINT DATA:

B15, Coordinates, X= -648.41 mm, Y= -1666.42 mm, Z= 22465.72 mm
 B15, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
 Weld neck, SIF= 1.00,
 Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket
 inside diam= 0.00 mm,
 Gasket width= 0.00 mm
 B15 M, Coordinates, X= -628.33 mm, Y= -1475.37 mm, Z= 22465.72 mm

SUPPORT DATA:

B15 M, Variable Spring Hanger, Support Id= B15 M1, Connected to Ground, Tag No.= IV17, 1
 hanger(s), Stiffness= 10 N/mm,
 Preload= 2678 N

From B16 to B04, DX= 48.95 mm, DY= 465.68 mm, L= 468.24 mm Run

OPERATING DATA:

T2= 324.74 deg C

POINT DATA:

B16, Coordinates, X= -608.25 mm, Y= -1284.32 mm, Z= 22465.72 mm
 B16, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
 Weld neck, SIF= 1.00,
 Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket
 inside diam= 0.00 mm,
 Gasket width= 0.00 mm

From B04 to B21, DX= 37.51 mm, DY= 356.87 mm, L= 358.83 mm Tee

COMPONENT DATA (Tee Header, Center= B04):

Other, SIFI= 1.00, SIFO= 1.00

POINT DATA:

B04, Coordinates, X= -559.30 mm, Y= -818.65 mm, Z= 22465.72 mm

From B21 to B22, DX= 3.95 mm, DY= 37.61 mm, L= 37.82 mm Run

POINT DATA:

B21, Coordinates, X= -521.79 mm, Y= -461.78 mm, Z= 22465.72 mm

From B22 to B20, DX= 33.55 mm, DY= 319.24 mm, L= 321.00 mm Run

□

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C O M P O N E N T D A T A L I S T I N G

POINT DATA:

B22, Coordinates, X= -517.84 mm, Y= -424.17 mm, Z= 22465.72 mm

B22, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00, Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket inside diam= 0.00 mm, Gasket width= 0.00 mm
B22, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00, Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket inside diam= 0.00 mm, Gasket width= 0.00 mm

From B20 to B05, DX= 41.46 mm, DY= 394.48 mm, L= 396.65 mm Run

POINT DATA:

B20, Coordinates, X= -484.29 mm, Y= -104.93 mm, Z= 22465.72 mm

B20, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00, Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket inside diam= 0.00 mm, Gasket width= 0.00 mm
B20, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00, Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket inside diam= 0.00 mm, Gasket width= 0.00 mm

From B05 to B06, DX= 33.27 mm, DY= 316.51 mm, L= 318.25 mm Tee

COMPONENT DATA (Tee Header, Center= B05):

Other, SIFI= 1.00, SIFO= 1.00

POINT DATA:

B05, Coordinates, X= -442.83 mm, Y= 289.55 mm, Z= 22465.72 mm

From B06 to B17, DX= 40.14 mm, DY= 381.90 mm, L= 384.00 mm Valv

COMPONENT DATA (Valve):

GLOBE-F, Rating= Non-standard, Length= 384.00 mm, Valve weight = 52 kg, Actuator Auto = No, Actuator Symbol = Yes, Actuator weight = 80 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 408.00 mm, Surface factor= 0.00, End type= Weld neck, SIF= 1.00

OPERATING DATA (B06 M to B17):

P5= 12.0000 N/mm2, T5= 324.70 deg C, Exp5= 5.28782 mm/m, E5= 0.17413 E6 N/mm2, Rp0.2t5= 107.04 N/mm2, Rp1.0t5= 132.04 N/mm2, Fh5= 88.02 N/mm2

POINT DATA:

B06, Coordinates, X= -409.56 mm, Y= 606.06 mm, Z= 22465.72 mm

B06, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00, Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket

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inside diam= 0.00 mm,
Gasket width= 0.00 mm
B06 M, Coordinates, X= -389.49 mm, Y= 797.01 mm, Z= 22465.72 mm

SUPPORT DATA:

B06 M, Constant Force Hanger, Support Id= B06 M1, Connected to Ground, Tag No.= IV21, 1
hanger(s), Preload= 2642 N

From B17 to B08, DX= 33.29 mm, DY= 316.70 mm, L= 318.45 mm Run

□

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C O M P O N E N T D A T A L I S T I N G

POINT DATA:

B17, Coordinates, X= -369.42 mm, Y= 987.96 mm, Z= 22465.72 mm
B17, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket
inside diam= 0.00 mm,
Gasket width= 0.00 mm

From B08 to B09, DX= 158.28 mm, DY= 1506.00 mm, L= 1514.29 mm Tee

COMPONENT DATA (Tee Header, Center= B08):
Other, SIFI= 1.00, SIFO= 1.00

POINT DATA:

B08, Coordinates, X= -336.13 mm, Y= 1304.66 mm, Z= 22465.72 mm

From B09 to B10, DX= 20.44 mm, DY= 194.44 mm, L= 195.51 mm Tee

COMPONENT DATA (Tee Header, Center= B09):
B16.9 welding tee, SIFI= 1.00, SIFO= 1.00

POINT DATA:

B09, Coordinates, X= -177.85 mm, Y= 2810.66 mm, Z= 22465.72 mm

SUPPORT DATA:

B09, Constant Force Hanger, Support Id= B09 1, Connected to Ground, 1 hanger(s), Preload= 999 N

From B10 to B11, DZ= -664.00 mm Bend

COMPONENT DATA (Bend, TIP= B10, Near= B10 N, Far= B10 F):
Long Elbow, Radius= 57.15 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00,
SIFO= 1.00

POINT DATA:

B10, Coordinates, X= -157.41 mm, Y= 3005.10 mm, Z= 22465.72 mm
B10 N, Coordinates, X= -163.38 mm, Y= 2948.27 mm, Z= 22465.72 mm
B10 F, Coordinates, X= -157.41 mm, Y= 3005.10 mm, Z= 22408.57 mm

From B11 to B12, DX= -441.20 mm, DY= -2502.91 mm, L= 2541.50 mm Bend

COMPONENT DATA (Bend, TIP= B11, Near= B11 N, Mid= B11 M, Far= B11 F):
Long Elbow, Radius= 57.15 mm, Bend angle= 90.00 deg, Mid point at 50.00 percent, End flanges= 0,
Flex= Auto, SIFI= 1.00,
SIFO= 1.00

POINT DATA:

B11, Coordinates, X= -157.41 mm, Y= 3005.10 mm, Z= 21801.72 mm
B11 N, Coordinates, X= -157.41 mm, Y= 3005.10 mm, Z= 21858.87 mm
B11 M, Coordinates, X= -160.32 mm, Y= 2988.62 mm, Z= 21818.46 mm
B11 F, Coordinates, X= -167.33 mm, Y= 2948.82 mm, Z= 21801.72 mm

From B12 to B13, DX= 34.89 mm, DY= -29.28 mm, L= 45.55 mm Bend

COMPONENT DATA (Bend, TIP= B12, Near= B12 N, Far= B12 F):

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Long Elbow, Radius= 57.15 mm, Bend angle= 59.99 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIFO= 1.00

POINT DATA:

B12, Coordinates, X= -598.61 mm, Y= 502.19 mm, Z= 21801.72 mm
 B12 N, Coordinates, X= -592.88 mm, Y= 534.68 mm, Z= 21801.72 mm
 B12 F, Coordinates, X= -573.34 mm, Y= 480.98 mm, Z= 21801.72 mm

From B13 to B19, DX= 58.38 mm, DY= -48.98 mm, L= 76.20 mm Redu

COMPONENT DATA (Reducer):

Length= 76.20 mm, SIF= 2.00

POINT DATA:

B13, Coordinates, X= -563.72 mm, Y= 472.91 mm, Z= 21801.72 mm

From B19 to B18, DX= 114.91 mm, DY= -96.42 mm, L= 150.00 mm Run

PIPE DATA:

Pipe Id= 2S160, Composition= Austentic Stainless, Nom Size= 50 mm, OD= 60.325 mm, Wall Thk= 8.738 mm, Mill= 1.092 mm,
 Content Sp Gr= 1.000, Content Unit Wgt= 14.14 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 23.14 N/m

POINT DATA:

B19, Coordinates, X= -505.34 mm, Y= 423.93 mm, Z= 21801.72 mm
 B18, Coordinates, X= -390.43 mm, Y= 327.51 mm, Z= 21801.72 mm
 B18, Flange= BLIND, Rating= 2500, Flange Weight= 39.00 kg, Bolt/Nut Weight= 0.00 kg, End type= User-defined, SIF= 1.00,
 Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket inside diam= 0.00 mm,
 Gasket width= 0.00 mm

SUPPORT DATA:

B18, Anchor, Tag No.= ADSSTTORV, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

*** SEGMENT C

From K11 to C01, DX= 67.28 mm, DY= -35.77 mm, L= 76.20 mm Tee

COMPONENT DATA (Tee Branch, Center= K11):

Other, SIFI= 1.00, SIFO= 1.00

PIPE DATA:

Pipe Id= 2.5S160, Composition= Austentic Stainless, Nom Size= 65 mm, OD= 73.025 mm, Wall Thk= 9.525 mm, Mill= 1.191 mm,
 Content Sp Gr= 1.000, Content Unit Wgt= 22.43 N/m, Insul Thk= 80.000 mm, Insul Density= 136.16 kg/m3,
 Insul Unit Wgt= 51.35 N/m

POINT DATA:

K11, Coordinates, X= 184.85 mm, Y= -874.81 mm, Z= 23465.72 mm

From C01 to C02, DX= 350.90 mm, DY= -186.58 mm, L= 397.42 mm Run

POINT DATA:

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C O M P O N E N T D A T A L I S T I N G

C01, Coordinates, X= 252.13 mm, Y= -910.58 mm, Z= 23465.72 mm

From C02 to C10, DX= -70.42 mm, DY= -132.44 mm, L= 150.00 mm Bend

COMPONENT DATA (Bend, TIP= C02, Near= C02 N, Far= C02 F):

Long Elbow, Radius= 95.25 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00,
SIFO= 1.00

POINT DATA:

C02, Coordinates, X= 603.03 mm, Y= -1097.16 mm, Z= 23465.72 mm

C02 N, Coordinates, X= 518.93 mm, Y= -1052.44 mm, Z= 23465.72 mm

C02 F, Coordinates, X= 558.31 mm, Y= -1181.26 mm, Z= 23465.72 mm

From C10 to C09, DX= -210.70 mm, DY= -396.26 mm, L= 448.79 mm Run

POINT DATA:

C10, Coordinates, X= 532.61 mm, Y= -1229.60 mm, Z= 23465.72 mm

C10, Flange= WELDNECK, Rating= 2500, Flange Weight= 23.60 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket
inside diam= 0.00 mm,

Gasket width= 0.00 mm

C10, Flange= WELDNECK, Rating= 2500, Flange Weight= 23.60 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket
inside diam= 0.00 mm,

Gasket width= 0.00 mm

From C09 to C03, DX= -143.45 mm, DY= -269.80 mm, L= 305.57 mm Run

POINT DATA:

C09, Coordinates, X= 321.91 mm, Y= -1625.86 mm, Z= 23465.72 mm

C09, Flange= WELDNECK, Rating= 2500, Flange Weight= 23.60 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket
inside diam= 0.00 mm,

Gasket width= 0.00 mm

C09, Flange= WELDNECK, Rating= 2500, Flange Weight= 23.60 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket
inside diam= 0.00 mm,

Gasket width= 0.00 mm

From C03 to C07, DX= -238.49 mm, DY= -448.54 mm, L= 508.00 mm Valv

COMPONENT DATA (Valve):

GATE-F, Rating= Non-standard, Length= 508.00 mm, Valve weight = 89 kg, Actuator Auto = No,

Actuator Symbol = Yes,

Actuator weight = 138 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 496.00 mm, Surface factor=

0.00, End type= Weld neck,

SIF= 1.00

POINT DATA:

C03, Coordinates, X= 178.45 mm, Y= -1895.67 mm, Z= 23465.72 mm

C03, Flange= WELDNECK, Rating= 2500, Flange Weight= 23.60 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket
inside diam= 0.00 mm,

Gasket width= 0.00 mm

C03 M, Coordinates, X= 59.21 mm, Y= -2119.94 mm, Z= 23465.72 mm

SUPPORT DATA:

C03 M, Variable Spring Hanger, Support Id= C03 M1, Connected to Ground, Tag No.= IV15, 1

hanger(s), Stiffness= 12 N/mm,

Preload= 5108 N

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C O M P O N E N T D A T A L I S T I N G

From C07 to C05, DX= -166.69 mm, DY= -313.49 mm, L= 355.05 mm Run

PIPE DATA:

Pipe Id= 2.5S40, Composition= Austentic Stainless, Sch= 40, Wall Thk= 5.156 mm, Mill= 0.645 mm,
Content Sp Gr= 1.000,
Content Unit Wgt= 30.28 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 51.35 N/m

OPERATING DATA:

P1= 0.1000 N/mm2, P2= 1.5000 N/mm2, P3= 1.5000 N/mm2, P5= 1.5000 N/mm2, T1= 20.00 deg C, T2= 20.00 deg C, T3= 20.00 deg C,
T5= 20.00 deg C, Exp1= 0 mm/m, Exp2= 0 mm/m, Exp3= 0 mm/m, Exp5= 0 mm/m, E1= 0.19996 E6 N/mm2, E2= 0.19996 E6 N/mm2,
E3= 0.19996 E6 N/mm2, E5= 0.19996 E6 N/mm2, Rp0.2t1= 195.00 N/mm2, Rp0.2t2= 195.00 N/mm2, Rp0.2t3= 195.00 N/mm2,
Rp0.2t5= 195.00 N/mm2, Rp1.0t1= 230.00 N/mm2, Rp1.0t2= 230.00 N/mm2, Rp1.0t3= 230.00 N/mm2, Rp1.0t5= 230.00 N/mm2,
fh1= 153.33 N/mm2, fh2= 153.33 N/mm2, fh3= 153.33 N/mm2, fh5= 153.33 N/mm2

POINT DATA:

C07, Coordinates, X= -60.04 mm, Y= -2344.21 mm, Z= 23465.72 mm
C07, Flange= WELDNECK, Rating= 2500, Flange Weight= 23.60 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket inside diam= 0.00 mm,
Gasket width= 0.00 mm

From C05 to C06, DX= -534.88 mm, DY= -538.94 mm, L= 759.31 mm Bend

COMPONENT DATA (Bend, TIP= C05, Near= C05 N, Far= C05 F):

Long Elbow, Radius= 95.25 mm, Bend angle= 16.78 deg, End flanges= 0, Flex= Auto, SIFI= 1.59, SIFO= 1.59

POINT DATA:

C05, Coordinates, X= -226.72 mm, Y= -2657.70 mm, Z= 23465.72 mm
C05 N, Coordinates, X= -220.13 mm, Y= -2645.29 mm, Z= 23465.72 mm
C05 F, Coordinates, X= -236.62 mm, Y= -2667.67 mm, Z= 23465.72 mm
C06, Coordinates, X= -761.60 mm, Y= -3196.64 mm, Z= 23465.72 mm
C06, Flange= WELDNECK, Rating= 300, Flange Weight= 4.80 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket inside diam= 0.00 mm,
Gasket width= 0.00 mm

SUPPORT DATA:

C06, Anchor, Tag No.= ADSDTTODW, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

*** SEGMENT D

From B04 to D01, DX= 56.84 mm, DY= -5.98 mm, L= 57.15 mm Tee

COMPONENT DATA (Tee Branch, Center= B04):

Other, SIFI= 1.00, SIFO= 1.00

PIPE DATA:

Pipe Id= 1.5S160, Composition= Austentic Stainless, Nom Size= 40 mm, OD= 48.260 mm, Sch= 160, Wall Thk= 7.137 mm,
Mill= 0.892 mm, Content Sp Gr= 1.000, Content Unit Wgt= 8.89 N/m, Insul Thk= 50.000 mm, Insul Density= 136.16 kg/m3,
Insul Unit Wgt= 20.61 N/m

OPERATING DATA:

P1= 17.2500 N/mm2, P2= 12.0000 N/mm2, P3= 17.2500 N/mm2, T1= 354.00 deg C, T2= 324.74 deg C, T3= 354.00 deg C,

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T5= 198.00 deg C, Exp1= 5.85176 mm/m, Exp2= 5.28858 mm/m, Exp3= 5.85176 mm/m, Exp5= 2.94948 mm/m,
 E1= 0.17164 E6 N/mm2,
 E2= 0.17412 E6 N/mm2, E3= 0.17164 E6 N/mm2, E5= 0.18487 E6 N/mm2, Rp0.2t1= 103.52 N/mm2, Rp0.2t2=
 107.03 N/mm2,
 Rp0.2t3= 103.52 N/mm2, Rp0.2t5= 127.52 N/mm2, Rp1.0t1= 128.68 N/mm2, Rp1.0t2= 132.03 N/mm2,
 Rp1.0t3= 128.68 N/mm2,
 Rp1.0t5= 155.60 N/mm2, fh1= 85.79 N/mm2, fh2= 88.02 N/mm2, fh3= 85.79 N/mm2, fh5= 103.73 N/mm2

POINT DATA:

B04, Coordinates, X= -559.30 mm, Y= -818.65 mm, Z= 22465.72 mm

From D01 to D02, DX= 696.17 mm, DY= -73.17 mm, L= 700.00 mm Run

POINT DATA:

D01, Coordinates, X= -502.46 mm, Y= -824.63 mm, Z= 22465.72 mm

From D02 to D03, DX= 412.24 mm, DY= -219.19 mm, L= 466.89 mm Bend

COMPONENT DATA (Bend, TIP= D02, Near= D02 N, Far= D02 F):

Long Elbow, Radius= 57.15 mm, Bend angle= 22.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00,
SIFO= 1.00

POINT DATA:

D02, Coordinates, X= 193.71 mm, Y= -897.80 mm, Z= 22465.72 mm
 D02 N, Coordinates, X= 182.66 mm, Y= -896.64 mm, Z= 22465.72 mm
 D02 F, Coordinates, X= 203.51 mm, Y= -903.01 mm, Z= 22465.72 mm

From D03 to D11, DX= -140.84 mm, DY= -264.88 mm, L= 300.00 mm Bend

COMPONENT DATA (Bend, TIP= D03, Near= D03 N, Far= D03 F):

Long Elbow, Radius= 57.15 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00,
SIFO= 1.00

POINT DATA:

D03, Coordinates, X= 605.95 mm, Y= -1116.99 mm, Z= 22465.72 mm
 D03 N, Coordinates, X= 555.48 mm, Y= -1090.16 mm, Z= 22465.72 mm
 D03 F, Coordinates, X= 579.12 mm, Y= -1167.45 mm, Z= 22465.72 mm

From D11 to D12, DX= -150.70 mm, DY= -283.42 mm, L= 321.00 mm Run

POINT DATA:

D11, Coordinates, X= 465.11 mm, Y= -1381.87 mm, Z= 22465.72 mm
 D11, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
 Weld neck, SIF= 1.00,
 Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket
 inside diam= 0.00 mm,
 Gasket width= 0.00 mm
 D11, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
 Weld neck, SIF= 1.00,
 Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket
 inside diam= 0.00 mm,
 Gasket width= 0.00 mm

From D12 to D04, DX= -187.66 mm, DY= -352.93 mm, L= 399.72 mm Run

POINT DATA:

D12, Coordinates, X= 314.40 mm, Y= -1665.29 mm, Z= 22465.72 mm
 D12, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
 Weld neck, SIF= 1.00,
 Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket
 inside diam= 0.00 mm,
 Gasket width= 0.00 mm

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Gasket width= 0.00 mm
 D12, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
 Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket inside diam= 0.00 mm,
 Gasket width= 0.00 mm

 From D04 to D08, DX= -180.28 mm, DY= -339.05 mm, L= 384.00 mm Valv

COMPONENT DATA (Valve):
 GATE-F, Rating= Non-standard, Length= 384.00 mm, Valve weight = 52 kg, Actuator Auto = No,
 Actuator Symbol = Yes,
 Actuator weight = 80 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 408.00 mm, Surface factor= 0.00, End type= Weld neck,
 SIF= 1.00

POINT DATA:
 D04, Coordinates, X= 126.74 mm, Y= -2018.22 mm, Z= 22465.72 mm
 D04, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
 Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket inside diam= 0.00 mm,
 Gasket width= 0.00 mm
 D04 M, Coordinates, X= 36.60 mm, Y= -2187.75 mm, Z= 22465.72 mm

SUPPORT DATA:
 D04 M, Constant Force Hanger, Support Id= D04 M1, Connected to Ground, Tag No.= IV18, 1 hanger(s), Preload= 2501 N

 From D08 to D06, DX= -144.59 mm, DY= -271.79 mm, L= 307.86 mm Run

PIPE DATA:
 Pipe Id= 1.5S40, Composition= Austentic Stainless, Sch= 40, Wall Thk= 3.683 mm, Mill= 0.460 mm,
 Content Sp Gr= 1.000,
 Content Unit Wgt= 12.87 N/m

OPERATING DATA:
 P1= 0.1000 N/mm2, P2= 1.5000 N/mm2, P3= 1.5000 N/mm2, T1= 20.00 deg C, T2= 20.00 deg C, T3= 20.00 deg C, T5= 20.00 deg C,
 Exp1= 0 mm/m, Exp2= 0 mm/m, Exp3= 0 mm/m, Exp5= 0 mm/m, E1= 0.19996 E6 N/mm2, E2= 0.19996 E6 N/mm2, E3= 0.19996 E6 N/mm2,
 E5= 0.19996 E6 N/mm2, Rp0.2t1= 195.00 N/mm2, Rp0.2t2= 195.00 N/mm2, Rp0.2t3= 195.00 N/mm2, Rp0.2t5= 195.00 N/mm2,
 Rp1.0t1= 230.00 N/mm2, Rp1.0t2= 230.00 N/mm2, Rp1.0t3= 230.00 N/mm2, Rp1.0t5= 230.00 N/mm2, fh1= 153.33 N/mm2,
 fh2= 153.33 N/mm2, fh3= 153.33 N/mm2, fh5= 153.33 N/mm2

POINT DATA:
 D08, Coordinates, X= -53.54 mm, Y= -2357.27 mm, Z= 22465.72 mm
 D08, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
 Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket inside diam= 0.00 mm,
 Gasket width= 0.00 mm

 From D06 to D07, DX= -563.49 mm, DY= -567.77 mm, L= 799.93 mm Bend

COMPONENT DATA (Bend, TIP= D06, Near= D06 N, Far= D06 F):
 Long Elbow, Radius= 57.15 mm, Bend angle= 16.77 deg, End flanges= 0, Flex= Auto, SIFI= 1.60, SIFO= 1.60

POINT DATA:
 D06, Coordinates, X= -198.13 mm, Y= -2629.06 mm, Z= 22465.72 mm
 D06 N, Coordinates, X= -194.17 mm, Y= -2621.62 mm, Z= 22465.72 mm
 D06 F, Coordinates, X= -204.07 mm, Y= -2635.04 mm, Z= 22465.72 mm
 D07, Coordinates, X= -761.62 mm, Y= -3196.83 mm, Z= 22465.72 mm
 D07, Flange= SLIP-ON, Rating= 300, Flange Weight= 2.70 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on,
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SIF= 1.20, Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS,
Gasket inside diam= 0.00 mm, Gasket width= 0.00 mm

SUPPORT DATA:

D07, Anchor, Tag No.= ASDSTODW, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

*** SEGMENT E

From B05 to E01, DX= -56.84 mm, DY= 5.98 mm, L= 57.15 mm Tee

COMPONENT DATA (Tee Branch, Center= B05):
Other, SIFI= 1.00, SIF0= 1.00

PIPE DATA:

Pipe Id= 1.5S160, Composition= Austentic Stainless, Sch= 160, Wall Thk= 7.137 mm, Mill= 0.892 mm,
Content Sp Gr= 1.000,
Content Unit Wgt= 8.89 N/m

OPERATING DATA:

P1= 17.2500 N/mm2, P2= 12.0000 N/mm2, P3= 17.2500 N/mm2, T1= 354.00 deg C, T2= 324.74 deg C, T3= 354.00 deg C,
T5= 198.00 deg C, Exp1= 5.85176 mm/m, Exp2= 5.28858 mm/m, Exp3= 5.85176 mm/m, Exp5= 2.94948 mm/m,
E1= 0.17164 E6 N/mm2,
E2= 0.17412 E6 N/mm2, E3= 0.17164 E6 N/mm2, E5= 0.18487 E6 N/mm2, Rp0.2t1= 103.52 N/mm2, Rp0.2t2= 107.03 N/mm2,
Rp0.2t3= 103.52 N/mm2, Rp0.2t5= 127.52 N/mm2, Rp1.0t1= 128.68 N/mm2, Rp1.0t2= 132.03 N/mm2,
Rp1.0t3= 128.68 N/mm2,
Rp1.0t5= 155.60 N/mm2, fh1= 85.79 N/mm2, fh2= 88.02 N/mm2, fh3= 85.79 N/mm2, fh5= 103.73 N/mm2

POINT DATA:

B05, Coordinates, X= -442.83 mm, Y= 289.55 mm, Z= 22465.72 mm

From E01 to E19, DX= -247.64 mm, DY= 26.03 mm, L= 249.00 mm Run

POINT DATA:

E01, Coordinates, X= -499.67 mm, Y= 295.53 mm, Z= 22465.72 mm

From E19 to E17, DX= -247.63 mm, DY= 26.02 mm, L= 249.00 mm Run

POINT DATA:

E19, Coordinates, X= -747.31 mm, Y= 321.56 mm, Z= 22465.72 mm

From E17 to E16, DX= -319.24 mm, DY= 33.55 mm, L= 321.00 mm Run

POINT DATA:

E17, Coordinates, X= -994.94 mm, Y= 347.58 mm, Z= 22465.72 mm
E17, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket inside diam= 0.00 mm,
Gasket width= 0.00 mm
E17, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket inside diam= 0.00 mm,
Gasket width= 0.00 mm

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From E16 to E02, DX= -495.27 mm, DY= 52.06 mm, L= 498.00 mm Run

POINT DATA:

E16, Coordinates, X= -1314.18 mm, Y= 381.13 mm, Z= 22465.72 mm
 E16, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
 Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket inside diam= 0.00 mm,
 Gasket width= 0.00 mm
 E16, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
 Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket inside diam= 0.00 mm,
 Gasket width= 0.00 mm

From E02 to E03, DX= -29.44 mm, DY= -280.12 mm, L= 281.66 mm Bend

COMPONENT DATA (Bend, TIP= E02, Near= E02 N, Far= E02 F):

Long Elbow, Radius= 57.15 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIFO= 1.00

POINT DATA:

E02, Coordinates, X= -1809.45 mm, Y= 433.19 mm, Z= 22465.72 mm
 E02 N, Coordinates, X= -1752.61 mm, Y= 427.22 mm, Z= 22465.72 mm
 E02 F, Coordinates, X= -1815.42 mm, Y= 376.36 mm, Z= 22465.72 mm

From E03 to E12, DX= -40.13 mm, DY= -381.90 mm, L= 384.00 mm Valv

COMPONENT DATA (Valve):

GATE-F, Rating= Non-standard, Length= 384.00 mm, Valve weight = 52 kg, Actuator Auto = No, Actuator Symbol = Yes,
 Actuator weight = 80 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 408.00 mm, Surface factor= 0.00, End type= Weld neck,
 SIF= 1.00

POINT DATA:

E03, Coordinates, X= -1838.89 mm, Y= 153.08 mm, Z= 22465.72 mm
 E03, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
 Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket inside diam= 0.00 mm,
 Gasket width= 0.00 mm
 E03 M, Coordinates, X= -1858.95 mm, Y= -37.87 mm, Z= 22465.72 mm

SUPPORT DATA:

E03 M, Variable Spring Hanger, Support Id= E03 M1, Connected to Ground, Tag No.= IV20, 1 hanger(s), Stiffness= 10 N/mm,
 Preload= 2655 N

From E12 to E05, DX= -11.62 mm, DY= -110.49 mm, L= 111.10 mm Run

PIPE DATA:

Pipe Id= 1.5S40, Composition= Austentic Stainless, Sch= 40, Wall Thk= 3.683 mm, Mill= 0.460 mm, Content Sp Gr= 1.000,
 Content Unit Wgt= 12.87 N/m

OPERATING DATA:

P1= 0.1000 N/mm2, P2= 1.5000 N/mm2, P3= 1.5000 N/mm2, T1= 20.00 deg C, T2= 20.00 deg C, T3= 198.00 deg C, T4= 20.00 deg C,
 Exp1= 0 mm/m, Exp2= 0 mm/m, Exp3= 2.94948 mm/m, Exp4= 0 mm/m, E1= 0.19996 E6 N/mm2, E2= 0.19996 E6 N/mm2,
 E3= 0.18487 E6 N/mm2, E4= 0.19996 E6 N/mm2, Rp0.2t1= 195.00 N/mm2, Rp0.2t2= 195.00 N/mm2, Rp0.2t3= 127.52 N/mm2,
 Rp0.2t4= 195.00 N/mm2, Rp1.0t1= 230.00 N/mm2, Rp1.0t2= 230.00 N/mm2, Rp1.0t3= 155.60 N/mm2, Rp1.0t4= 230.00 N/mm2,
 fh1= 153.33 N/mm2, fh2= 153.33 N/mm2, fh3= 103.73 N/mm2, fh4= 153.33 N/mm2

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POINT DATA:

E12, Coordinates, X= -1879.02 mm, Y= -228.82 mm, Z= 22465.72 mm
E12, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket
inside diam= 0.00 mm,
Gasket width= 0.00 mm

From E05 to E13, DX= -9.31 mm, DY= -88.51 mm, L= 89.00 mm Redu

COMPONENT DATA (Reducer):

Length= 89.00 mm, SIF= 2.00

POINT DATA:

E05, Coordinates, X= -1890.64 mm, Y= -339.31 mm, Z= 22465.72 mm

From E13 to E07, DX= -57.31 mm, DY= -545.21 mm, L= 548.21 mm Run

PIPE DATA:

Pipe Id= 3S40, Composition= Austentic Stainless, Nom Size= 80 mm, OD= 88.900 mm, Wall Thk= 5.486
mm, Mill= 0.686 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 46.75 N/m, Insul Thk= 80.000 mm, Insul Density= 136.16
kg/m3,
Insul Unit Wgt= 56.68 N/m

POINT DATA:

E13, Coordinates, X= -1899.95 mm, Y= -427.82 mm, Z= 22465.72 mm

From E07 to E18, DX= 366.07 mm, DY= -822.19 mm, L= 900.00 mm Bend

COMPONENT DATA (Bend, TIP= E07, Near= E07 N, Far= E07 F):

Long Elbow, Radius= 114.30 mm, Bend angle= 30.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.78,
SIFO= 1.78

POINT DATA:

E07, Coordinates, X= -1957.26 mm, Y= -973.03 mm, Z= 22465.72 mm
E07 N, Coordinates, X= -1954.05 mm, Y= -942.57 mm, Z= 22465.72 mm
E07 F, Coordinates, X= -1944.80 mm, Y= -1001.01 mm, Z= 22465.72 mm

From E18 to E08, DX= 272.99 mm, DY= -613.15 mm, L= 671.18 mm Run

POINT DATA:

E18, Coordinates, X= -1591.19 mm, Y= -1795.22 mm, Z= 22465.72 mm

From E08 to E09, DX= -13.91 mm, DY= -132.35 mm, L= 133.08 mm Bend

COMPONENT DATA (Bend, TIP= E08, Near= E08 N, Far= E08 F):

Long Elbow, Radius= 114.30 mm, Bend angle= 30.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.78,
SIFO= 1.78

POINT DATA:

E08, Coordinates, X= -1318.20 mm, Y= -2408.37 mm, Z= 22465.72 mm
E08 N, Coordinates, X= -1330.65 mm, Y= -2380.40 mm, Z= 22465.72 mm
E08 F, Coordinates, X= -1321.40 mm, Y= -2438.83 mm, Z= 22465.72 mm

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From E09 to E14, DX= -10.57 mm, DY= -100.55 mm, L= 101.10 mm Redu

COMPONENT DATA (Reducer):
Length= 101.10 mm, SIF= 2.00

POINT DATA:
E09, Coordinates, X= -1332.11 mm, Y= -2540.72 mm, Z= 22465.72 mm

From E14 to E11, DX= -27.84 mm, DY= -264.48 mm, L= 265.94 mm Run

PIPE DATA:
Pipe Id= 4S40, Composition= Austentic Stainless, Nom Size= 100 mm, OD= 114.30 mm, Wall Thk= 6.020 mm, Mill= 0.752 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 80.51 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 65.21 N/m

POINT DATA:
E14, Coordinates, X= -1342.68 mm, Y= -2641.27 mm, Z= 22465.72 mm
E11, Coordinates, X= -1370.52 mm, Y= -2905.75 mm, Z= 22465.72 mm
E11, Flange= SLIP-ON, Rating= 300, Flange Weight= 10.00 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS,
Gasket inside diam= 0.00 mm, Gasket width= 0.00 mm

SUPPORT DATA:
E11, Anchor, Tag No.= ADSDEG, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

*** SEGMENT F

From B08 to F01, DX= -56.84 mm, DY= 5.97 mm, L= 57.15 mm Tee

COMPONENT DATA (Tee Branch, Center= B08):
Other, SIFI= 1.00, SIFO= 1.00

PIPE DATA:
Pipe Id= 1.5S160, Composition= Austentic Stainless, Nom Size= 40 mm, OD= 48.260 mm, Sch= 160, Wall Thk= 7.137 mm,
Mill= 0.892 mm, Content Sp Gr= 1.000, Content Unit Wgt= 8.89 N/m, Insul Thk= 50.000 mm, Insul Density= 136.16 kg/m3,
Insul Unit Wgt= 20.61 N/m

OPERATING DATA:
P1= 17.2500 N/mm2, P2= 12.0000 N/mm2, P3= 17.2500 N/mm2, P5= 12.0000 N/mm2, T1= 354.00 deg C, T2= 324.74 deg C,
T3= 354.00 deg C, T4= 140.30 deg C, T5= 324.70 deg C, Exp1= 5.85176 mm/m, Exp2= 5.28858 mm/m, Exp3= 5.85176 mm/m,
Exp4= 1.94612 mm/m, Exp5= 5.28782 mm/m, E1= 0.17164 E6 N/mm2, E2= 0.17412 E6 N/mm2, E3= 0.17164 E6 N/mm2,
E4= 0.18976 E6 N/mm2, E5= 0.17413 E6 N/mm2, Rp0.2t1= 103.52 N/mm2, Rp0.2t2= 107.03 N/mm2, Rp0.2t3= 103.52 N/mm2,
Rp0.2t4= 142.91 N/mm2, Rp0.2t5= 107.04 N/mm2, Rp1.0t1= 128.68 N/mm2, Rp1.0t2= 132.03 N/mm2, Rp1.0t3= 128.68 N/mm2,
Rp1.0t4= 173.88 N/mm2, Rp1.0t5= 132.04 N/mm2, fh1= 85.79 N/mm2, fh2= 88.02 N/mm2, fh3= 85.79 N/mm2, fh4= 115.92 N/mm2,
fh5= 88.02 N/mm2

POINT DATA:
B08, Coordinates, X= -336.13 mm, Y= 1304.66 mm, Z= 22465.72 mm

From F01 to F17, DX= -724.61 mm, DY= 76.17 mm, L= 728.60 mm Run

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POINT DATA:

F01, Coordinates, X= -392.97 mm, Y= 1310.63 mm, Z= 22465.72 mm

From F17 to F16, DX= -319.24 mm, DY= 33.55 mm, L= 321.00 mm Run

POINT DATA:

F17, Coordinates, X= -1117.58 mm, Y= 1386.80 mm, Z= 22465.72 mm
F17, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket
inside diam= 0.00 mm,
Gasket width= 0.00 mm
F17, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket
inside diam= 0.00 mm,
Gasket width= 0.00 mm

From F16 to F02, DX= -724.63 mm, DY= 76.17 mm, L= 728.62 mm Run

POINT DATA:

F16, Coordinates, X= -1436.82 mm, Y= 1420.35 mm, Z= 22465.72 mm
F16, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket
inside diam= 0.00 mm,
Gasket width= 0.00 mm
F16, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket
inside diam= 0.00 mm,
Gasket width= 0.00 mm

From F02 to F03, DX= -63.88 mm, DY= -607.75 mm, L= 611.10 mm Bend

COMPONENT DATA (Bend, TIP= F02, Near= F02 N, Mid= F02 M, Far= F02 F):
Long Elbow, Radius= 57.15 mm, Bend angle= 90.00 deg, Mid point at 50.00 percent, End flanges= 0,
Flex= Auto, SIFI= 1.00,
SIF0= 1.00

POINT DATA:

F02, Coordinates, X= -2161.45 mm, Y= 1496.51 mm, Z= 22465.72 mm
F02 N, Coordinates, X= -2104.61 mm, Y= 1490.54 mm, Z= 22465.72 mm
F02 M, Coordinates, X= -2146.55 mm, Y= 1478.12 mm, Z= 22465.72 mm
F02 F, Coordinates, X= -2167.43 mm, Y= 1439.68 mm, Z= 22465.72 mm

From F03 to F14, DX= -40.14 mm, DY= -381.95 mm, L= 384.05 mm Valv

COMPONENT DATA (Valve):
GATE-F, Rating= 2500, Length= 384.05 mm, Valve weight = 52 kg, Actuator Auto = No, Actuator
Symbol = Yes,
Actuator weight = 80 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 408.00 mm, Surface factor=
0.00, End type= Weld neck,
SIF= 1.00

POINT DATA:

F03, Coordinates, X= -2225.33 mm, Y= 888.76 mm, Z= 22465.72 mm
F03, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket
inside diam= 0.00 mm,
Gasket width= 0.00 mm
F03 M, Coordinates, X= -2245.40 mm, Y= 697.79 mm, Z= 22465.72 mm

□

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SUPPORT DATA:

F03 M, Variable Spring Hanger, Support Id= F03 M1, Connected to Ground, Tag No.= IV19, 1
 hanger(s), Stiffness= 5 N/mm,
 Preload= 2131 N

 From F14 to F05, DX= -11.63 mm, DY= -110.65 mm, L= 111.25 mm Run

PIPE DATA:

Pipe Id= 1.5S40, Composition= Austentic Stainless, Sch= 40, Wall Thk= 3.683 mm, Mill= 0.460 mm,
 Content Sp Gr= 1.000,
 Content Unit Wgt= 12.87 N/m

OPERATING DATA:

P1= 0.1000 N/mm2, P2= 1.5000 N/mm2, P3= 1.5000 N/mm2, P5= 1.5000 N/mm2, T1= 20.00 deg C, T2= 20.00 deg C, T3= 198.00 deg C, T4= 20.00 deg C, T5= 198.00 deg C, Exp1= 0 mm/m, Exp2= 0 mm/m, Exp3= 2.94948 mm/m, Exp4= 0 mm/m, Exp5= 2.94948 mm/m,
 E1= 0.19996 E6 N/mm2, E2= 0.19996 E6 N/mm2, E3= 0.18487 E6 N/mm2, E4= 0.19996 E6 N/mm2, E5= 0.18487 E6 N/mm2,
 Rp0.2t1= 195.00 N/mm2, Rp0.2t2= 195.00 N/mm2, Rp0.2t3= 127.52 N/mm2, Rp0.2t4= 195.00 N/mm2, Rp0.2t5= 127.52 N/mm2,
 Rp1.0t1= 230.00 N/mm2, Rp1.0t2= 230.00 N/mm2, Rp1.0t3= 155.60 N/mm2, Rp1.0t4= 230.00 N/mm2, Rp1.0t5= 155.60 N/mm2,
 fh1= 153.33 N/mm2, fh2= 153.33 N/mm2, fh3= 103.73 N/mm2, fh4= 153.33 N/mm2, fh5= 103.73 N/mm2

POINT DATA:

F14, Coordinates, X= -2265.47 mm, Y= 506.81 mm, Z= 22465.72 mm
 F14, Flange= WELDNCK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
 Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket inside diam= 0.00 mm,
 Gasket width= 0.00 mm

 From F05 to F20, DX= -9.30 mm, DY= -88.51 mm, L= 89.00 mm Redu

COMPONENT DATA (Reducer):

Length= 89.00 mm, SIF= 2.00

POINT DATA:

F05, Coordinates, X= -2277.10 mm, Y= 396.17 mm, Z= 22465.72 mm

 From F20 to F07, DX= -204.01 mm, DY= -1941.01 mm, L= 1951.70 mm Run

PIPE DATA:

Pipe Id= 3S40, Composition= Austentic Stainless, Nom Size= 80 mm, OD= 88.900 mm, Wall Thk= 5.486 mm, Mill= 0.686 mm,
 Content Sp Gr= 1.000, Content Unit Wgt= 46.75 N/m, Insul Thk= 80.000 mm, Insul Density= 136.16 kg/m3,
 Insul Unit Wgt= 56.68 N/m

POINT DATA:

F20, Coordinates, X= -2286.40 mm, Y= 307.66 mm, Z= 22465.72 mm

 From F07 to F08, DX= 447.41 mm, DY= -1004.90 mm, L= 1100.00 mm Bend

COMPONENT DATA (Bend, TIP= F07, Near= F07 N, Mid= F07 M, Far= F07 F):

Long Elbow, Radius= 114.30 mm, Bend angle= 30.00 deg, Mid point at 50.00 percent, End flanges= 0, Flex= Auto, SIFI= 1.78,
 SIF0= 1.78

POINT DATA:

F07, Coordinates, X= -2490.42 mm, Y= -1633.35 mm, Z= 22465.72 mm
 F07 N, Coordinates, X= -2487.21 mm, Y= -1602.89 mm, Z= 22465.72 mm

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F07 M, Coordinates, X= -2486.43 mm, Y= -1632.72 mm, Z= 22465.72 mm
F07 F, Coordinates, X= -2477.96 mm, Y= -1661.33 mm, Z= 22465.72 mm

From F08 to F21, DX= 41.32 mm, DY= -92.82 mm, L= 101.60 mm Redu

COMPONENT DATA (Reducer):
Length= 101.60 mm, SIF= 2.00

POINT DATA:
F08, Coordinates, X= -2043.01 mm, Y= -2638.25 mm, Z= 22465.72 mm

From F21 to F10, DX= 114.42 mm, DY= -256.99 mm, L= 281.31 mm Run

PIPE DATA:
Pipe Id= 4S40, Composition= Austentic Stainless, Nom Size= 100 mm, OD= 114.30 mm, Wall Thk= 6.020 mm, Mill= 0.752 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 80.51 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 65.21 N/m

POINT DATA:
F21, Coordinates, X= -2001.69 mm, Y= -2731.07 mm, Z= 22465.72 mm
F10, Coordinates, X= -1887.26 mm, Y= -2988.06 mm, Z= 22465.72 mm
F10, Flange= SLIP-ON, Rating= 300, Flange Weight= 10.00 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS,
Gasket inside diam= 0.00 mm, Gasket width= 0.00 mm

SUPPORT DATA:
F10, Anchor, Tag No.= ADSSPLIT, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

*** SEGMENT G

From K25 to G01, DX= -0.01 mm, DY= 0.01 mm, DZ= 228.00 mm, L= 228.00 mm Tee

COMPONENT DATA (Tee Branch, Center= K25):
B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

PIPE DATA:
Pipe Id= 2.5S160, Composition= Austentic Stainless, Nom Size= 65 mm, OD= 73.025 mm, Sch= 160, Wall Thk= 9.525 mm,
Mill= 1.191 mm, Content Sp Gr= 1.000, Content Unit Wgt= 22.43 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 51.35 N/m

OPERATING DATA:
P1= 17.2500 N/mm2, P2= 12.0000 N/mm2, P3= 17.2500 N/mm2, P5= 12.0000 N/mm2, T1= 354.00 deg C, T2= 324.74 deg C,
T3= 354.00 deg C, T4= 140.30 deg C, T5= 324.70 deg C, Exp1= 5.85176 mm/m, Exp2= 5.28858 mm/m, Exp3= 5.85176 mm/m,
Exp4= 1.94612 mm/m, Exp5= 5.28782 mm/m, E1= 0.17164 E6 N/mm2, E2= 0.17412 E6 N/mm2, E3= 0.17164 E6 N/mm2,
E4= 0.18976 E6 N/mm2, E5= 0.17413 E6 N/mm2, Rp0.2t1= 103.52 N/mm2, Rp0.2t2= 107.03 N/mm2, Rp0.2t3= 103.52 N/mm2,
Rp0.2t4= 142.91 N/mm2, Rp0.2t5= 107.04 N/mm2, Rp1.0t1= 128.68 N/mm2, Rp1.0t2= 132.03 N/mm2, Rp1.0t3= 128.68 N/mm2,
Rp1.0t4= 173.88 N/mm2, Rp1.0t5= 132.04 N/mm2, fh1= 85.79 N/mm2, fh2= 88.02 N/mm2, fh3= 85.79 N/mm2, fh4= 115.92 N/mm2,
fh5= 88.02 N/mm2

POINT DATA:
K25, Coordinates, X= 1523.88 mm, Y= 1643.53 mm, Z= 23465.72 mm

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 From G01 to SV08, DZ= 700.00 mm

Valv

COMPONENT DATA (Valve):

GATE-F, Rating= Non-standard, Length= 700.00 mm, Valve weight = 62 kg, Surface factor= 0.00, End type= Weld neck, SIF= 1.00

POINT DATA:

G01, Coordinates, X= 1523.87 mm, Y= 1643.54 mm, Z= 23693.72 mm
 G01, Flange= WELDNECK, Rating= 2500, Flange Weight= 23.60 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
 Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket inside diam= 0.00 mm,
 Gasket width= 0.00 mm
 G01 M, Coordinates, X= 1523.87 mm, Y= 1643.54 mm, Z= 24043.72 mm
 SV08, Coordinates, X= 1523.87 mm, Y= 1643.54 mm, Z= 24393.72 mm
 SV08, Flange= WELDNECK, Rating= 2500, Flange Weight= 23.60 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
 Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket inside diam= 0.00 mm,
 Gasket width= 0.00 mm

 *** SEGMENT H

 From B09 to H01, DZ= 228.00 mm

Tee

COMPONENT DATA (Tee Branch, Center= B09):

B16.9 welding tee, SIFI= 1.00, SIFO= 1.00

PIPE DATA:

Pipe Id= 1.5S160, Composition= Austenitic Stainless, Nom Size= 40 mm, OD= 48.260 mm, Wall Thk= 7.137 mm, Mill= 0.892 mm,
 Content Sp Gr= 1.000, Content Unit Wgt= 8.89 N/m, Insul Thk= 50.000 mm, Insul Density= 136.16 kg/m3,
 Insul Unit Wgt= 20.61 N/m

OPERATING DATA:

Exp5= 1.94612 mm/m

POINT DATA:

B09, Coordinates, X= -177.85 mm, Y= 2810.66 mm, Z= 22465.72 mm

 From H01 to SV09, DZ= 620.00 mm

Valv

COMPONENT DATA (Valve):

GATE-F, Rating= Non-standard, Length= 620.00 mm, Valve weight = 50 kg, Surface factor= 0.00, End type= Weld neck, SIF= 1.00

OPERATING DATA (H01 M to SV09):

Exp5= 5.28782 mm/m

POINT DATA:

H01, Coordinates, X= -177.85 mm, Y= 2810.66 mm, Z= 22693.72 mm
 H01, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
 Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket inside diam= 0.00 mm,
 Gasket width= 0.00 mm
 H01 M, Coordinates, X= -177.85 mm, Y= 2810.66 mm, Z= 23003.72 mm
 SV09, Coordinates, X= -177.85 mm, Y= 2810.66 mm, Z= 23313.72 mm
 SV09, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
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Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket inside diam= 0.00 mm,

Gasket width= 0.00 mm

*** SEGMENT J

From J00 to J01, DX= -34.57 mm, DY= -60.87 mm, DZ= 121.24 mm, L= 140.00 mm Run

PIPE DATA:

Pipe Id= 5S40, Composition= Austentic Stainless, Nom Size= 125 mm, OD= 141.30 mm, Sch= 40, Wall Thk= 6.553 mm,
 Mill= 0.819 mm, Content Sp Gr= 1.000, Content Unit Wgt= 126.52 N/m, Insul Thk= 80.000 mm, Insul Density= 136.16 kg/m3,
 Insul Unit Wgt= 74.27 N/m, fc= 156.7 N/mm2

OPERATING DATA:

P1= 0.1000 N/mm2, P2= 1.5000 N/mm2, P3= 1.5000 N/mm2, P5= 1.5000 N/mm2, T1= 20.00 deg C, T2= 198.00 deg C, T3= 20.00 deg C,
 T5= 198.00 deg C, Exp1= 0 mm/m, Exp2= 2.94948 mm/m, Exp3= 0 mm/m, Exp5= 2.94948 mm/m, E1= 0.19996 E6 N/mm2,
 E2= 0.18487 E6 N/mm2, E3= 0.19996 E6 N/mm2, E5= 0.18487 E6 N/mm2, Rp0.2t1= 195.00 N/mm2, Rp0.2t2= 127.52 N/mm2,
 Rp0.2t3= 195.00 N/mm2, Rp0.2t5= 127.52 N/mm2, Rp1.0t1= 230.00 N/mm2, Rp1.0t2= 155.60 N/mm2, Rp1.0t3= 230.00 N/mm2,
 Rp1.0t5= 155.60 N/mm2, fh1= 153.33 N/mm2, fh2= 103.73 N/mm2, fh3= 153.33 N/mm2, fh5= 103.73 N/mm2

POINT DATA:

J00, Coordinates, X= -812.90 mm, Y= -2743.78 mm, Z= 10171.98 mm

SUPPORT DATA:

J00, Anchor, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

From J01 to J02, DZ= 514.30 mm

Bend

COMPONENT DATA (Bend, TIP= J01, Near= J01 N, Far= J01 F):

Long Elbow, Radius= 190.50 mm, Bend angle= 30.00 deg, End flanges= 0, Flex= Auto, SIFI= 2.13, SIFO= 2.13

POINT DATA:

J01, Coordinates, X= -847.47 mm, Y= -2804.65 mm, Z= 10293.22 mm
 J01 N, Coordinates, X= -834.86 mm, Y= -2782.46 mm, Z= 10249.01 mm
 J01 F, Coordinates, X= -847.47 mm, Y= -2804.65 mm, Z= 10344.27 mm

From J02 to J03, DX= -128.88 mm, DY= -226.96 mm, L= 261.00 mm

Bend

COMPONENT DATA (Bend, TIP= J02, Near= J02 N, Far= J02 F):

Long Elbow, Radius= 190.50 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 2.13, SIFO= 2.13

POINT DATA:

J02, Coordinates, X= -847.47 mm, Y= -2804.65 mm, Z= 10807.52 mm
 J02 N, Coordinates, X= -847.47 mm, Y= -2804.65 mm, Z= 10617.02 mm
 J02 F, Coordinates, X= -941.54 mm, Y= -2970.30 mm, Z= 10807.52 mm
 J03, Coordinates, X= -976.35 mm, Y= -3031.61 mm, Z= 10807.52 mm
 J03, Flange= SLIP-ON, Rating= 300, Flange Weight= 6.40 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on,
 SIF= 1.20, Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS,
 Gasket inside diam= 0.00 mm, Gasket width= 0.00 mm

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 *** SEGMENT K

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From K02 to K03, DZ= 1000.00 mm Tee

COMPONENT DATA (Tee Header, Center= K02):
B16.9 welding tee, SIFI= 1.30, SIF0= 1.30

PIPE DATA:
Pipe Id= 3S40, Composition= Austentic Stainless, Nom Size= 80 mm, OD= 88.900 mm, Wall Thk= 5.486 mm, Mill= 0.686 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 46.75 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 56.68 N/m, fc= 166.7 N/mm2

POINT DATA:
K02, Coordinates, X= -750.00 mm, Y= -2633.00 mm, Z= 22465.72 mm

From K03 to K04, DX= 120.26 mm, DY= 226.18 mm, L= 256.16 mm Bend

COMPONENT DATA (Bend, TIP= K03, Near= K03 N, Far= K03 F):
Long Elbow, Radius= 114.30 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.78, SIF0= 1.78

POINT DATA:
K03, Coordinates, X= -750.00 mm, Y= -2633.00 mm, Z= 23465.72 mm
K03 N, Coordinates, X= -750.00 mm, Y= -2633.00 mm, Z= 23351.42 mm
K03 F, Coordinates, X= -696.34 mm, Y= -2532.08 mm, Z= 23465.72 mm

From K04 to K05, DX= 41.78 mm, DY= 78.58 mm, L= 89.00 mm Redu

COMPONENT DATA (Reducer):
Length= 89.00 mm, SIF= 2.00

POINT DATA:
K04, Coordinates, X= -629.74 mm, Y= -2406.82 mm, Z= 23465.72 mm

From K05 to K06, DX= 114.03 mm, DY= 214.47 mm, L= 242.90 mm Run

PIPE DATA:
Pipe Id= 2.5S40, Composition= Austentic Stainless, Nom Size= 65 mm, OD= 73.025 mm, Wall Thk= 5.156 mm, Mill= 0.645 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 30.28 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 51.35 N/m

POINT DATA:
K05, Coordinates, X= -587.96 mm, Y= -2328.24 mm, Z= 23465.72 mm

From K06 to K07, DX= 238.50 mm, DY= 448.53 mm, L= 508.00 mm Valv

COMPONENT DATA (Valve):
GATE-F, Rating= Non-standard, Length= 508.00 mm, Valve weight = 89 kg, Actuator Auto = No, Actuator Symbol = Yes,
Actuator weight = 138 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 496.00 mm, Surface factor= 1.00, End type= Weld neck,
SIF= 1.00

PIPE DATA:

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Pipe Id= 2.5S160, Composition= Austentic Stainless, Sch= 160, Wall Thk= 9.525 mm, Mill= 1.191 mm,
Content Sp Gr= 1.000,
Content Unit Wgt= 22.43 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 51.35 N/m

POINT DATA:
K06, Coordinates, X= -473.93 mm, Y= -2113.77 mm, Z= 23465.72 mm
K06, Flange= WELDNECK, Rating= 2500, Flange Weight= 23.60 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket

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inside diam= 0.00 mm,
Gasket width= 0.00 mm
K06 M, Coordinates, X= -354.68 mm, Y= -1889.50 mm, Z= 23465.72 mm

SUPPORT DATA:
K06 M, Variable Spring Hanger, Support Id= K06 M1, Connected to Ground, Tag No.= IV16, 1
hanger(s), Stiffness= 23 N/mm,
Preload= 6652 N

From K07 to K08, DX= 114.03 mm, DY= 214.47 mm, L= 242.90 mm Run

OPERATING DATA:
P1= 17.2500 N/mm2, P2= 12.0000 N/mm2, P3= 17.2500 N/mm2, P5= 12.0000 N/mm2, T1= 354.00 deg C, T2= 324.74 deg C,
T3= 354.00 deg C, T5= 324.70 deg C, Exp1= 5.85176 mm/m, Exp2= 5.28858 mm/m, Exp3= 5.85176 mm/m,
Exp5= 5.28782 mm/m,
E1= 0.17164 E6 N/mm2, E2= 0.17412 E6 N/mm2, E3= 0.17164 E6 N/mm2, E5= 0.17413 E6 N/mm2, Rp0.2t1= 103.52 N/mm2,
Rp0.2t2= 107.03 N/mm2, Rp0.2t3= 103.52 N/mm2, Rp0.2t5= 107.04 N/mm2, Rp1.0t1= 128.68 N/mm2,
Rp1.0t2= 132.03 N/mm2,
Rp1.0t3= 128.68 N/mm2, Rp1.0t5= 132.04 N/mm2, fh1= 85.79 N/mm2, fh2= 88.02 N/mm2, fh3= 85.79 N/mm2, fh5= 88.02 N/mm2

POINT DATA:
K07, Coordinates, X= -235.43 mm, Y= -1665.24 mm, Z= 23465.72 mm
K07, Flange= WELDNECK, Rating= 2500, Flange Weight= 23.60 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket inside diam= 0.00 mm,
Gasket width= 0.00 mm

From K08 to K10, DX= 210.70 mm, DY= 396.26 mm, L= 448.79 mm Run

POINT DATA:
K08, Coordinates, X= -121.40 mm, Y= -1450.76 mm, Z= 23465.72 mm
K08, Flange= WELDNECK, Rating= 2500, Flange Weight= 23.60 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket inside diam= 0.00 mm,
Gasket width= 0.00 mm
K08, Flange= WELDNECK, Rating= 2500, Flange Weight= 23.60 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket inside diam= 0.00 mm,
Gasket width= 0.00 mm

From K10 to K11, DX= 95.55 mm, DY= 179.69 mm, L= 203.52 mm Run

POINT DATA:
K10, Coordinates, X= 89.30 mm, Y= -1054.50 mm, Z= 23465.72 mm
K10, Flange= WELDNECK, Rating= 2500, Flange Weight= 23.60 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= Yes, Flange material= NS, Flange group Id= , Gasket material= NS, Gasket inside diam= 0.00 mm,
Gasket width= 0.00 mm
K10, Flange= WELDNECK, Rating= 2500, Flange Weight= 23.60 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= No

From K11 to K25, DX= 1339.03 mm, DY= 2518.34 mm, L= 2852.20 mm Tee

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C O M P O N E N T D A T A L I S T I N G

COMPONENT DATA (Tee Header, Center= K11):
Other, SIFI= 1.00, SIFO= 1.00

POINT DATA:

K11, Coordinates, X= 184.85 mm, Y= -874.81 mm, Z= 23465.72 mm

From K25 to K13, DX= 250.46 mm, DY= 471.05 mm, L= 533.50 mm Tee

COMPONENT DATA (Tee Header, Center= K25):
B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

POINT DATA:

K25, Coordinates, X= 1523.88 mm, Y= 1643.53 mm, Z= 23465.72 mm

SUPPORT DATA:

K25, Constant Force Hanger, Support Id= K25 1, Connected to Ground, 1 hanger(s), Preload= 2312 N

From K13 to K14, DZ= -1664.00 mm Bend

COMPONENT DATA (Bend, TIP= K13, Near= K13 N, Far= K13 F):
Long Elbow, Radius= 95.25 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIF0= 1.00

POINT DATA:

K13, Coordinates, X= 1774.34 mm, Y= 2114.58 mm, Z= 23465.72 mm
K13 N, Coordinates, X= 1729.62 mm, Y= 2030.48 mm, Z= 23465.72 mm
K13 F, Coordinates, X= 1774.34 mm, Y= 2114.58 mm, Z= 23370.47 mm

From K14 to K21, DX= -1214.78 mm, DY= -1447.74 mm, L= 1889.88 mm Bend

COMPONENT DATA (Bend, TIP= K14, Near= K14 N, Far= K14 F):
Long Elbow, Radius= 95.25 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIF0= 1.00

POINT DATA:

K14, Coordinates, X= 1774.34 mm, Y= 2114.58 mm, Z= 21801.72 mm
K14 N, Coordinates, X= 1774.34 mm, Y= 2114.58 mm, Z= 21896.97 mm
K14 F, Coordinates, X= 1713.11 mm, Y= 2041.62 mm, Z= 21801.72 mm

From K21 to K22, DX= -57.21 mm, DY= -68.18 mm, L= 89.00 mm Redu

COMPONENT DATA (Reducer):
Length= 89.00 mm, SIF= 2.00

POINT DATA:

K21, Coordinates, X= 559.55 mm, Y= 666.85 mm, Z= 21801.72 mm

From K22 to K23, DX= -96.42 mm, DY= -114.91 mm, L= 150.00 mm Run

PIPE DATA:

Pipe Id= 4S160, Composition= Austentic Stainless, Nom Size= 100 mm, OD= 114.30 mm, Wall Thk= 13.487 mm, Mill= 1.686 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 58.71 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 65.21 N/m

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C O M P O N E N T D A T A L I S T I N G

POINT DATA:

K22, Coordinates, X= 502.34 mm, Y= 598.67 mm, Z= 21801.72 mm
K23, Coordinates, X= 405.92 mm, Y= 483.76 mm, Z= 21801.72 mm
K23, Flange= BLIND, Rating= 2500, Flange Weight= 55.80 kg, Bolt/Nut Weight= 0.00 kg, End type= User-defined, SIF= 1.00,
Perform ANSI check= Yes, Flange material= A182-F304, Flange group Id= 2.1, Gasket material= IB-SPIRALW,
Gasket inside diam= 114.30 mm, Gasket width= 21.34 mm

SUPPORT DATA:

K23, Anchor, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

Number of points in the system: 147

Weight of Empty Pipes + Weight of Contents = Total Weight of System
 3112.6 kg + 502.5 kg = 3615.1 kg

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C O O R D I N A T E S D A T A L I S T I N G

POINT -----COORDINATE (mm)-----

NAME X Y Z

*** SEGMENT A

K01	-750.00	-2633.00	12189.75
A00	-750.00	-2633.00	10515.00
A05	-750.00	-2633.00	7595.00
A16	-750.00	-2633.00	10215.00
A02	-750.00	-2633.00	7015.00

*** SEGMENT B

K01	-750.00	-2633.00	12189.75
B30	-750.00	-2633.00	17327.74
K02	-750.00	-2633.00	22465.72
B14	-741.74	-2554.43	22465.72
B15	-648.41	-1666.42	22465.72
B15 M	-628.33	-1475.37	22465.72
B16	-608.25	-1284.32	22465.72
B04	-559.30	-818.65	22465.72
B21	-521.79	-461.78	22465.72
B22	-517.84	-424.17	22465.72
B20	-484.29	-104.93	22465.72
B05	-442.83	289.55	22465.72
B06	-409.56	606.06	22465.72
B06 M	-389.49	797.01	22465.72
B17	-369.42	987.96	22465.72
B08	-336.13	1304.66	22465.72
B09	-177.85	2810.66	22465.72
B10 N	-163.38	2948.27	22465.72
B10	-157.41	3005.10	22465.72
B10 F	-157.41	3005.10	22408.57
B11 N	-157.41	3005.10	21858.87
B11	-157.41	3005.10	21801.72
B11 M	-160.32	2988.62	21818.46
B11 F	-167.33	2948.82	21801.72
B12 N	-592.88	534.68	21801.72
B12	-598.61	502.19	21801.72
B12 F	-573.34	480.98	21801.72
B13	-563.72	472.91	21801.72
B19	-505.34	423.93	21801.72
B18	-390.43	327.51	21801.72

*** SEGMENT C

K11	184.85	-874.81	23465.72
C01	252.13	-910.58	23465.72
C02 N	518.93	-1052.44	23465.72
C02	603.03	-1097.16	23465.72
C02 F	558.31	-1181.26	23465.72
C10	532.61	-1229.60	23465.72
C09	321.91	-1625.86	23465.72
C03	178.45	-1895.67	23465.72
C03 M	59.21	-2119.94	23465.72
C07	-60.04	-2344.21	23465.72
C05 N	-220.13	-2645.29	23465.72
C05	-226.72	-2657.70	23465.72

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C O O R D I N A T E S D A T A L I S T I N G

POINT -----COORDINATE (mm)-----

NAME X Y Z

NAME	X	Y	Z
C05 F	-236.62	-2667.67	23465.72
C06	-761.60	-3196.64	23465.72

*** SEGMENT D

B04	-559.30	-818.65	22465.72
D01	-502.46	-824.63	22465.72
D02 N	182.66	-896.64	22465.72
D02	193.71	-897.80	22465.72
D02 F	203.51	-903.01	22465.72
D03 N	555.48	-1090.16	22465.72
D03	605.95	-1116.99	22465.72
D03 F	579.12	-1167.45	22465.72
D11	465.11	-1381.87	22465.72
D12	314.40	-1665.29	22465.72
D04	126.74	-2018.22	22465.72
D04 M	36.60	-2187.75	22465.72
D08	-53.54	-2357.27	22465.72
D06 N	-194.17	-2621.62	22465.72
D06	-198.13	-2629.06	22465.72
D06 F	-204.07	-2635.04	22465.72
D07	-761.62	-3196.83	22465.72

*** SEGMENT E

B05	-442.83	289.55	22465.72
E01	-499.67	295.53	22465.72
E19	-747.31	321.56	22465.72
E17	-994.94	347.58	22465.72
E16	-1314.18	381.13	22465.72
E02 N	-1752.61	427.22	22465.72
E02	-1809.45	433.19	22465.72
E02 F	-1815.42	376.36	22465.72
E03	-1838.89	153.08	22465.72
E03 M	-1858.95	-37.87	22465.72
E12	-1879.02	-228.82	22465.72
E05	-1890.64	-339.31	22465.72
E13	-1899.95	-427.82	22465.72
E07 N	-1954.05	-942.57	22465.72
E07	-1957.26	-973.03	22465.72
E07 F	-1944.80	-1001.01	22465.72
E18	-1591.19	-1795.22	22465.72
E08 N	-1330.65	-2380.40	22465.72
E08	-1318.20	-2408.37	22465.72
E08 F	-1321.40	-2438.83	22465.72
E09	-1332.11	-2540.72	22465.72
E14	-1342.68	-2641.27	22465.72
E11	-1370.52	-2905.75	22465.72

*** SEGMENT F

B08	-336.13	1304.66	22465.72
F01	-392.97	1310.63	22465.72
F17	-1117.58	1386.80	22465.72
F16	-1436.82	1420.35	22465.72

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C O O R D I N A T E S D A T A L I S T I N G

POINT -----COORDINATE (mm)-----

NAME X Y Z

F02 N	-2104.61	1490.54	22465.72
F02	-2161.45	1496.51	22465.72
F02 M	-2146.55	1478.12	22465.72
F02 F	-2167.43	1439.68	22465.72
F03	-2225.33	888.76	22465.72
F03 M	-2245.40	697.79	22465.72
F14	-2265.47	506.81	22465.72
F05	-2277.10	396.17	22465.72
F20	-2286.40	307.66	22465.72
F07 N	-2487.21	-1602.89	22465.72
F07	-2490.42	-1633.35	22465.72
F07 M	-2486.43	-1632.72	22465.72
F07 F	-2477.96	-1661.33	22465.72
F08	-2043.01	-2638.25	22465.72
F21	-2001.69	-2731.07	22465.72
F10	-1887.26	-2988.06	22465.72

*** SEGMENT G

K25	1523.88	1643.53	23465.72
G01	1523.87	1643.54	23693.72
G01 M	1523.87	1643.54	24043.72
SV08	1523.87	1643.54	24393.72

*** SEGMENT H

B09	-177.85	2810.66	22465.72
H01	-177.85	2810.66	22693.72
H01 M	-177.85	2810.66	23003.72
SV09	-177.85	2810.66	23313.72

*** SEGMENT J

J00	-812.90	-2743.78	10171.98
J01 N	-834.86	-2782.46	10249.01
J01	-847.47	-2804.65	10293.22
J01 F	-847.47	-2804.65	10344.27
J02 N	-847.47	-2804.65	10617.02
J02	-847.47	-2804.65	10807.52
J02 F	-941.54	-2970.30	10807.52
J03	-976.35	-3031.61	10807.52

*** SEGMENT K

K02	-750.00	-2633.00	22465.72
K03 N	-750.00	-2633.00	23351.42
K03	-750.00	-2633.00	23465.72
K03 F	-696.34	-2532.08	23465.72
K04	-629.74	-2406.82	23465.72
K05	-587.96	-2328.24	23465.72
K06	-473.93	-2113.77	23465.72
K06 M	-354.68	-1889.50	23465.72
K07	-235.43	-1665.24	23465.72
K08	-121.40	-1450.76	23465.72
K10	89.30	-1054.50	23465.72
K11	184.85	-874.81	23465.72

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C O O R D I N A T E S D A T A L I S T I N G

POINT -----COORDINATE (mm)-----

NAME X Y Z

K25	1523.88	1643.53	23465.72

K13 N	1729.62	2030.48	23465.72
K13	1774.34	2114.58	23465.72
K13 F	1774.34	2114.58	23370.47
K14 N	1774.34	2114.58	21896.97
K14	1774.34	2114.58	21801.72
K14 F	1713.11	2041.62	21801.72
K21	559.55	666.85	21801.72
K22	502.34	598.67	21801.72
K23	405.92	483.76	21801.72

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P I P E D A T A L I S T I N G

Pipe ID/ Material	Nom/ O.D. Sch mm	-----Thickness(mm)----- W.Th. Corr Mill Insu Ling	Spec Grav	Weight(N/m) Pipe Other Total	ZL/ ZC	Composition
3S40 Stainless 1.4301	80 88.900 40	5.486 0 0.69 80 0	1.00	112 56.68 215	1.00	Austentic
2.5S40 Stainless 1.4301	65 73.025 40	5.156 0 0.64 80 0	1.00	85.50 51.35 167	1.00	Austentic
2.5S160 Stainless 1.4301	65 73.025 160	9.525 0 1.19 80 0	1.00	148 51.35 222	1.00	Austentic
1.5S40 Stainless 1.4301	40 48.260 40	3.683 0 0.46 50 0	1.00	40.11 20.61 73.59	1.00	Austentic
1.5S160 Stainless 1.4301	40 48.260 160	7.137 0 0.89 50 0	1.00	71.71 20.61 101	1.00	Austentic
4S40 Stainless 1.4301	100 114.30 40	6.020 0 0.75 80 0	1.00	159 65.21 305	1.00	Austentic
4S160 Stainless 1.4301	100 114.30 160	13.49 0 1.69 80 0	1.00	332 65.21 456	1.00	Austentic
3SCH80 Stainless 1.4301	80 88.900 80	7.620 0 0.95 80 0	1.00	151 56.68 250	1.00	Austentic
2S160 Stainless 1.4301	50 60.325 160	8.738 0 1.09 50 0	1.00	110 23.14 147	1.00	Austentic
QTSHELL Stainless 1.4301	9398 370.00 NS	6.000 0 0.75 100 0	1.00	534 197 1717	1.00	Austentic
5S40 Stainless 1.4301	125 141.30 40	6.553 0 0.82 80 0	1.00	216 74.27 417	1.00	Austentic

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M A T E R I A L D A T A L I S T I N G

Material	Density	Pois.	Temper.	Modulus E6	N/mm2	Expans.	Composition
Name/[Comp.] Pipe ID	kg/m3	Al/At	deg C	Axial	Hoop	Shear	mm/m
1.4301 3S40	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless
X5CRNI18-10 [Austenitic]		40.00 35.00	198.0 140.3	0.18487 0.18976			2.9495 1.9461
1.4301 QTSHELL	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless
X5CRNI18-10 [Austenitic]		40.00 35.00	198.0 140.3	0.18487 0.18976			2.9495 1.9461
1.4301 1.5S40	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless
X5CRNI18-10 [Austenitic]		40.00 35.00	198.0 140.3	0.18487 0.18976			2.9495 1.9461
1.4301 1.5S160	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless
X5CRNI18-10 [Austenitic]		40.00 35.00	354.0 324.7 140.3 198.0 324.7	0.17164 0.17412 0.18976 0.18487 0.17413			5.8518 5.2886 1.9461 2.9495 5.2878
1.4301 2S160	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless
X5CRNI18-10 [Austenitic]		40.00 35.00	354.0 324.7 140.3 324.7	0.17164 0.17412 0.18976 0.17413			5.8518 5.2886 1.9461 5.2878
1.4301 2.5S160	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless
X5CRNI18-10 [Austenitic]		40.00 35.00	354.0 324.7 140.3 324.7 198.0	0.17164 0.17412 0.18976 0.17413 0.18487			5.8518 5.2886 1.9461 5.2878 2.9495
1.4301 2.5S40	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless
X5CRNI18-10 [Austenitic]		40.00 35.00	140.3 198.0	0.18976 0.18487			1.9461 2.9495
1.4301 4S40	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless
X5CRNI18-10 [Austenitic]		40.00 35.00	198.0	0.18487			2.9495
1.4301 5S40	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless
X5CRNI18-10 [Austenitic]		40.00 35.00	198.0 140.3	0.18487 0.18976			2.9495 1.9461
1.4301 4S160	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless
X5CRNI18-10 [Austenitic]		40.00 35.00	354.0 324.7 140.3 324.7	0.17164 0.17412 0.18976 0.17413			5.8518 5.2886 1.9461 5.2878

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M A T E R I A L A L L O W A B L E D A T A L I S T I N G

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Material		Temper.	Proof	Proof	Tensile	Rupture	Allow.
		(deg C)	(Rp0.2)	(Rp1.0)	(Rmt)	(fcr)	(fh)
Name	Pipe ID	deg C	N/mm2	N/mm2	N/mm2	N/mm2	N/mm2

X5CRNI18-10							
1.4301	3S40	20.0	195.00	230.00	500.00	0.00	166.67
		20.0	195.00	230.00	0.00	0.00	153.33
		198.0	127.52	155.60	0.00	0.00	103.73
		140.3	142.91	173.88	0.00	0.00	115.92
X5CRNI18-10							
1.4301	QTSHELL	20.0	195.00	230.00	500.00	0.00	166.67
		20.0	195.00	230.00	0.00	0.00	153.33
		198.0	127.52	155.60	0.00	0.00	103.73
		140.3	142.91	173.88	0.00	0.00	115.92
X5CRNI18-10							
1.4301	1.5S40	20.0	195.00	230.00	500.00	0.00	166.67
		20.0	195.00	230.00	0.00	0.00	153.33
		198.0	127.52	155.60	0.00	0.00	103.73
		140.3	142.91	173.88	0.00	0.00	115.92
X5CRNI18-10							
1.4301	1.5S160	20.0	195.00	230.00	500.00	0.00	166.67
		354.0	103.52	128.68	0.00	0.00	85.79
		324.7	107.03	132.03	0.00	0.00	88.02
		140.3	142.91	173.88	0.00	0.00	115.92
		198.0	127.52	155.60	0.00	0.00	103.73
		324.7	107.04	132.04	0.00	0.00	88.02
X5CRNI18-10							
1.4301	2S160	20.0	195.00	230.00	500.00	0.00	166.67
		354.0	103.52	128.68	0.00	0.00	85.79
		324.7	107.03	132.03	0.00	0.00	88.02
		140.3	142.91	173.88	0.00	0.00	115.92
		324.7	107.04	132.04	0.00	0.00	88.02
X5CRNI18-10							
1.4301	2.5S160	20.0	195.00	230.00	500.00	0.00	166.67
		354.0	103.52	128.68	0.00	0.00	85.79
		324.7	107.03	132.03	0.00	0.00	88.02
		140.3	142.91	173.88	0.00	0.00	115.92
		324.7	107.04	132.04	0.00	0.00	88.02
		20.0	195.00	230.00	0.00	0.00	153.33
		198.0	127.52	155.60	0.00	0.00	103.73
X5CRNI18-10							
1.4301	2.5S40	20.0	195.00	230.00	500.00	0.00	166.67
		20.0	195.00	230.00	0.00	0.00	153.33
		140.3	142.91	173.88	0.00	0.00	115.92
		198.0	127.52	155.60	0.00	0.00	103.73
X5CRNI18-10							
1.4301	4S40	20.0	195.00	230.00	500.00	0.00	166.67
		20.0	195.00	230.00	0.00	0.00	153.33
		198.0	127.52	155.60	0.00	0.00	103.73
X5CRNI18-10							
1.4301	5S40	20.0	195.00	230.00	500.00	0.00	156.67
		20.0	195.00	230.00	0.00	0.00	153.33
		198.0	127.52	155.60	0.00	0.00	103.73
		140.3	142.91	173.88	0.00	0.00	115.92

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M A T E R I A L A L L O W A B L E D A T A L I S T I N G

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Material		Temper.	Proof (Rp0.2)	Proof (Rp1.0)	Tensile (Rmt)	Rupture (fcr)	Allow. (fh)
Name	Pipe ID	deg C	N/mm2	N/mm2	N/mm2	N/mm2	N/mm2

X5CRNI18-10							
1.4301	4S160	20.0	195.00	230.00	500.00	0.00	166.67
		354.0	103.52	128.68	0.00	0.00	85.79
		324.7	107.03	132.03	0.00	0.00	88.02
		140.3	142.91	173.88	0.00	0.00	115.92
		324.7	107.04	132.04	0.00	0.00	88.02

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FRAME POINT DATA LISTING

POINT -----COORDINATE(mm)----- DATA
 NAME X Y Z TYPE DESCRIPTION

 B06 M -389.49 797.01 22465.72
 B06 D -389.49 797.01 22873.72
 E03 M -1858.95 -37.87 22465.72
 E03 D -1858.95 -37.87 22873.72
 B15 M -628.33 -1475.37 22465.72
 B15 D -628.33 -1475.37 22873.72
 D04 M 36.60 -2187.75 22465.72
 D04 D 36.60 -2187.75 22873.72
 C03 M 59.21 -2119.94 23465.72
 C03 D 59.21 -2119.94 23961.72
 K06 M -354.68 -1889.50 23465.72
 K06 D -354.68 -1889.50 23961.72
 F03 M -2245.40 697.79 22465.72
 F03 D -2245.40 697.79 22873.72

□

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BEAM DATA LISTING

(Length - mm , Rigid End - mm , Beta Angle - deg)

BEAM	POINT	SEC. ID/	BETA	RIGID	RELEASE
ID	NAME	SEC. NAME	LENGTH	ANGLE	END Ax Y-Y Z-Z

B06 M	From	B06 M 0	408.00	0.00	0.00 N N N
	To	B06 D RIGID			0.00 N N N
E03 M	From	E03 M 0	408.00	0.00	0.00 N N N
	To	E03 D RIGID			0.00 N N N
B15 M	From	B15 M 0	408.00	0.00	0.00 N N N
	To	B15 D RIGID			0.00 N N N
D04 M	From	D04 M 0	408.00	0.00	0.00 N N N
	To	D04 D RIGID			0.00 N N N

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C03 M	From	C03 M	0	496.00	0.00	0.00	N	N	N
	To	C03 D	RIGID			0.00	N	N	N
K06 M	From	K06 M	0	496.00	0.00	0.00	N	N	N
	To	K06 D	RIGID			0.00	N	N	N
F03 M	From	F03 M	0	408.00	0.00	0.00	N	N	N
	To	F03 D	RIGID			0.00	N	N	N

0

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CROSS SECTION LISTING

Section ID/ Section Type	Length(mm)	Area(cm2)	Inertia (mm4)	Depth/OD	Width	Thick	Fthk/spc
ID Shape Name/Matl	CC	Axial	Y-Shear	Z-Shear	Torsion	Y-Y Bend	Z-Z Bend
0 W RIGID RIGID		6.45	6.45	254.00 6.45	254.00 41623140	25.40 41623140	25.40 41623140

0

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BEAM MATERIAL LISTING

MATERIAL ID	Elastic		Density
	modulus	Poissons	
	E6 N/mm2	ratio	kg/m3
RIGID	68.948	0.300	0.00

0

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OPERATING TEMPERATURE AND PRESSURE DATA

STRESSES IN N/mm2

POINT	PRESS.	TEMPER	EXPAN.	MODULUS	0.2%	1.0%	TENSILE	CREEP
NAME CASE	N/mm2	deg C	mm/m	E6 N/mm	PROOF	PROOF	(Rmt)	(fcr)
----	----	----	----	----	----	----	----	----

ADS_LINE_REV0.txt

```

*** SEGMENT A
K01  T1  0.1000  20.00  0.000  0.19996  195.00  230.00  0.00  0.00u
      T2  1.5000  198    2.949  0.18487  127.52  155.60  0.00  0.00u
      T3  1.5000  20.00  0.000  0.19996  195.00  230.00  0.00  0.00u
      T4  0.3600  140    1.946  0.18976  142.91  173.88  0.00  0.00u
      T5  1.5000  198    2.949  0.18487  127.52  155.60  0.00  0.00u
A02   Same as previous point.

*** SEGMENT B
K01  T1  0.1000  20.00  0.000  0.19996  195.00  230.00  0.00  0.00u
      T2  1.5000  198    2.949  0.18487  127.52  155.60  0.00  0.00u
      T3  1.5000  20.00  0.000  0.19996  195.00  230.00  0.00  0.00u
      T4  0.3600  140    1.946  0.18976  142.91  173.88  0.00  0.00u
      T5  1.5000  198    2.949  0.18487  127.52  155.60  0.00  0.00u
B15  T1  17.2500  354    5.852  0.17164  103.52  128.68  0.00  0.00u
      T2  12.0000  325    5.289  0.17412  107.03  132.03  0.00  0.00u
      T3  17.2500  354    5.852  0.17164  103.52  128.68  0.00  0.00u
      T4  0.3600  140    1.946  0.18976  142.91  173.88  0.00  0.00u
      T5  1.5000  198    2.949  0.18487  127.52  155.60  0.00  0.00u
B16  T1  17.2500  354    5.852  0.17164  103.52  128.68  0.00  0.00u
      T2  12.0000  325    5.289  0.17412  107.03  132.03  0.00  0.00u
      T3  17.2500  354    5.852  0.17164  103.52  128.68  0.00  0.00u
      T4  0.3600  140    1.946  0.18976  142.91  173.88  0.00  0.00u
      T5  1.5000  198    2.949  0.18487  127.52  155.60  0.00  0.00u
B06  T1  17.2500  354    5.852  0.17164  103.52  128.68  0.00  0.00u
      T2  12.0000  325    5.289  0.17412  107.03  132.03  0.00  0.00u
      T3  17.2500  354    5.852  0.17164  103.52  128.68  0.00  0.00u
      T4  0.3600  140    1.946  0.18976  142.91  173.88  0.00  0.00u
      T5  12.0000  325    5.288  0.17413  107.04  132.04  0.00  0.00u
B18  Same as previous point.

*** SEGMENT C
K11  T1  17.2500  354    5.852  0.17164  103.52  128.68  0.00  0.00u
      T2  12.0000  325    5.289  0.17412  107.03  132.03  0.00  0.00u
      T3  17.2500  354    5.852  0.17164  103.52  128.68  0.00  0.00u
      T4  0.3600  140    1.946  0.18976  142.91  173.88  0.00  0.00u
      T5  12.0000  325    5.288  0.17413  107.04  132.04  0.00  0.00u
C07  T1  0.1000  20.00  0.000  0.19996  195.00  230.00  0.00  0.00u
      T2  1.5000  20.00  0.000  0.19996  195.00  230.00  0.00  0.00u
      T3  1.5000  20.00  0.000  0.19996  195.00  230.00  0.00  0.00u
      T4  0.3600  140    1.946  0.18976  142.91  173.88  0.00  0.00u
      T5  1.5000  20.00  0.000  0.19996  195.00  230.00  0.00  0.00u
C06  Same as previous point.

*** SEGMENT D
B04  T1  17.2500  354    5.852  0.17164  103.52  128.68  0.00  0.00u
      T2  12.0000  325    5.289  0.17412  107.03  132.03  0.00  0.00u
      T3  17.2500  354    5.852  0.17164  103.52  128.68  0.00  0.00u
      T4  0.3600  140    1.946  0.18976  142.91  173.88  0.00  0.00u
      T5  1.5000  198    2.949  0.18487  127.52  155.60  0.00  0.00u
D08  T1  0.1000  20.00  0.000  0.19996  195.00  230.00  0.00  0.00u
      T2  1.5000  20.00  0.000  0.19996  195.00  230.00  0.00  0.00u
      T3  1.5000  20.00  0.000  0.19996  195.00  230.00  0.00  0.00u

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OPERATING TEMPERATURE AND PRESSURE DATA

STRESSES IN N/mm2

POINT	PRESS.	TEMPER	EXPAN.	MODULUS	0.2%	1.0%	TENSILE	CREEP
NAME	CASE	N/mm2	deg C	mm/m	E6 N/mm	PROOF	PROOF	(Rmt)
								(fcr)
	T4	0.3600	140	1.946	0.18976	142.91	173.88	0.00
	T5	1.5000	20.00	0.000	0.19996	195.00	230.00	0.00
D07	Same as previous point.							
*** SEGMENT E								
B05	T1	17.2500	354	5.852	0.17164	103.52	128.68	0.00


```

ADS_LINE_REV0.txt
T2 12.0000 325 5.289 0.17412 107.03 132.03 0.00 0.00u
T3 17.2500 354 5.852 0.17164 103.52 128.68 0.00 0.00u
T4 0.3600 140 1.946 0.18976 142.91 173.88 0.00 0.00u
T5 1.5000 198 2.949 0.18487 127.52 155.60 0.00 0.00u
E12 T1 0.1000 20.00 0.000 0.19996 195.00 230.00 0.00 0.00u
T2 1.5000 20.00 0.000 0.19996 195.00 230.00 0.00 0.00u
T3 1.5000 198 2.949 0.18487 127.52 155.60 0.00 0.00u
T4 0.3600 20.00 0.000 0.19996 195.00 230.00 0.00 0.00u
T5 1.5000 198 2.949 0.18487 127.52 155.60 0.00 0.00u
E11 Same as previous point.

*** SEGMENT F
B08 T1 17.2500 354 5.852 0.17164 103.52 128.68 0.00 0.00u
T2 12.0000 325 5.289 0.17412 107.03 132.03 0.00 0.00u
T3 17.2500 354 5.852 0.17164u 103.52 128.68 0.00 0.00u
T4 0.3600 140 1.946 0.18976 142.91 173.88 0.00 0.00u
T5 12.0000 325 5.288 0.17413 107.04 132.04 0.00 0.00u
F01 T1 17.2500 354 5.852 0.17164 103.52 128.68 0.00 0.00u
T2 12.0000 325 5.289 0.17412 107.03 132.03 0.00 0.00u
T3 17.2500 354 5.852 0.17164 103.52 128.68 0.00 0.00u
T4 0.3600 140 1.946 0.18976 142.91 173.88 0.00 0.00u
T5 12.0000 325 5.288 0.17413 107.04 132.04 0.00 0.00u
F14 T1 0.1000 20.00 0.000 0.19996 195.00 230.00 0.00 0.00u
T2 1.5000 20.00 0.000 0.19996 195.00 230.00 0.00 0.00u
T3 1.5000 198 2.949 0.18487 127.52 155.60 0.00 0.00u
T4 0.3600 20.00 0.000 0.19996 195.00 230.00 0.00 0.00u
T5 1.5000 198 2.949 0.18487 127.52 155.60 0.00 0.00u
F10 Same as previous point.

*** SEGMENT G
K25 T1 17.2500 354 5.852 0.17164 103.52 128.68 0.00 0.00u
T2 12.0000 325 5.289 0.17412 107.03 132.03 0.00 0.00u
T3 17.2500 354 5.852 0.17164 103.52 128.68 0.00 0.00u
T4 0.3600 140 1.946 0.18976 142.91 173.88 0.00 0.00u
T5 12.0000 325 5.288 0.17413 107.04 132.04 0.00 0.00u
SV08 Same as previous point.

*** SEGMENT H
B09 T1 17.2500 354 5.852 0.17164 103.52 128.68 0.00 0.00u
T2 12.0000 325 5.289 0.17412 107.03 132.03 0.00 0.00u
T3 17.2500 354 5.852 0.17164 103.52 128.68 0.00 0.00u
T4 0.3600 140 1.946 0.18976 142.91 173.88 0.00 0.00u
T5 12.0000 325 5.288 0.17413 107.04 132.04 0.00 0.00u
H01 T1 17.2500 354 5.852 0.17164 103.52 128.68 0.00 0.00u
T2 12.0000 325 5.289 0.17412 107.03 132.03 0.00 0.00u
T3 17.2500 354 5.852 0.17164 103.52 128.68 0.00 0.00u
T4 0.3600 140 1.946 0.18976 142.91 173.88 0.00 0.00u
T5 12.0000 325 5.288 0.17413 107.04 132.04 0.00 0.00u
SV09 Same as previous point.

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OPERATING TEMPERATURE AND PRESSURE DATA

STRESSES IN N/mm2

POINT	PRESS.	TEMPER	EXPAN.	MODULUS	0.2%	1.0%	TENSILE	CREEP	
NAME	CASE	N/mm2	deg C	mm/m	E6 N/mm	PROOF	PROOF	(Rmt)	(fcr)
----	----	-----	-----	-----	-----	-----	-----	-----	-----
*** SEGMENT J									
J00	T1	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00
	T2	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00
	T3	1.5000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00
	T4	0.3600	140	1.946	0.18976	142.91	173.88	0.00	0.00
	T5	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00
J03	Same as previous point.								
*** SEGMENT K									
K02	T1	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T2	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u

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	T3	1.5000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T4	0.3600	140	1.946	0.18976	142.91	173.88	0.00	0.00u
	T5	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
K07	T1	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T2	12.0000	325	5.289	0.17412	107.03	132.03	0.00	0.00u
	T3	17.2500	354	5.852	0.17164	103.52	128.68	0.00	0.00u
	T4	0.3600	140	1.946	0.18976	142.91	173.88	0.00	0.00u
	T5	12.0000	325	5.288	0.17413	107.04	132.04	0.00	0.00u
K23	Same as previous point.								

u User-defined value

* Non-code material for allowable stress;
Non-standard material for expansion and modulus

0

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THERMAL ANCHOR MOVEMENTS AND DISPLACEMENTS

POINT			DX	DY	DZ	RX	RY	RZ
NAME	LOAD CASE		(mm)	(mm)	(mm)	(deg)	(deg)	(deg)
A16	Thermal 2		0.00	0.00	3.36	0.000	0.000	0.000
	Thermal 3		0.00	0.00	3.36	0.000	0.000	0.000
	Thermal 4		0.00	0.00	2.24	0.000	0.000	0.000
	Thermal 5		0.00	0.00	3.36	0.000	0.000	0.000
B18	Thermal 1		0.00	0.00	84.82	0.000	0.000	0.000
	Thermal 2		0.00	0.00	76.87	0.000	0.000	0.000
	Thermal 3		0.00	0.00	84.82	0.000	0.000	0.000
	Thermal 4		0.00	0.00	29.05	0.000	0.000	0.000
	Thermal 5		0.00	0.00	76.87	0.000	0.000	0.000
C06	Thermal 2		0.00	0.00	50.43	0.000	0.000	0.000
	Thermal 3		0.00	0.00	50.43	0.000	0.000	0.000
	Thermal 4		0.00	0.00	33.62	0.000	0.000	0.000
	Thermal 5		0.00	0.00	50.43	0.000	0.000	0.000
D07	Thermal 2		0.00	0.00	46.71	0.000	0.000	0.000
	Thermal 3		0.00	0.00	46.71	0.000	0.000	0.000
	Thermal 4		0.00	0.00	31.14	0.000	0.000	0.000
	Thermal 5		0.00	0.00	46.71	0.000	0.000	0.000
E11	Thermal 2		0.00	0.00	46.71	0.000	0.000	0.000
	Thermal 3		0.00	0.00	46.71	0.000	0.000	0.000
	Thermal 4		0.00	0.00	31.14	0.000	0.000	0.000
	Thermal 5		0.00	0.00	46.71	0.000	0.000	0.000
F10	Thermal 2		0.00	0.00	46.71	0.000	0.000	0.000

ADS_LINE_REV0.txt

	Thermal	3	0.00	0.00	46.71	0.000	0.000	0.000
	Thermal	4	0.00	0.00	31.14	0.000	0.000	0.000
	Thermal	5	0.00	0.00	46.71	0.000	0.000	0.000
K23	Thermal	1	0.00	0.00	84.82	0.000	0.000	0.000
	Thermal	2	0.00	0.00	76.87	0.000	0.000	0.000
	Thermal	3	0.00	0.00	84.82	0.000	0.000	0.000
	Thermal	4	0.00	0.00	29.05	0.000	0.000	0.000
	Thermal	5	0.00	0.00	76.87	0.000	0.000	0.000

0

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S U P P O R T D A T A L I S T I N G

Point Name	Support Type	Support ID	Conn.to /Dir	Stiff.	Gap 1 (mm)	Gap 2 (mm)	Fric. Fact.	GapSet /#hgr	Preload (N)	Size	Figure

Tag No.: <None>

B30	Guide-V	B30	1	Ground	Rigid	0.0	0.0	0.00	Weightless		
	Guide-H	B30	1	Ground	Rigid	100.0	100.0	0.00	Weightless		
Gap Dir.: (Gap1_V=-X, Gap2_V=+X, Gap1_H=-Y, Gap2_H=+Y)											

Tag No.: IV17

B15	M Spr.	Can	B15	M1	Ground	9.806		1-Und	2678	7	FIG 98

Tag No.: IV21

B06	M Cons	Can	B06	M1	Ground	0.000		1-Und	2642	8	Triple

Tag No.: <None>

B09	Cons	Can	B09	1	Ground	0.000		1-Und	999	4	FIG 98

Tag No.: IV15

C03	M Spr.	Can	C03	M1	Ground	11.732		1-Und	5108	9	Triple

Tag No.: IV18

D04	M Cons	Can	D04	M1	Ground	0.000		1-Und	2501	7	FIG 98

Tag No.: IV20

E03	M Spr.	Can	E03	M1	Ground	9.806		1-Und	2655	7	FIG 98

Tag No.: IV19

F03	M Spr.	Can	F03	M1	Ground	4.903		1-Und	2131	6	Triple

Tag No.: IV16

K06	M Spr.	Can	K06	M1	Ground	22.763		1-Und	6652	10	FIG 98

Tag No.: <None>

K25	Cons	Can	K25	1	Ground	0.000		1-Und	2312	7	Triple

Spring Manufacturer: Anvil/Grinnell

NOTE 1: No soil supports present in the system.

ADS_LINE_REV0.txt
Gap 1 : V-stop,Guide-V=down, Linestop,Incline,Tie/link=backward, Guide-H=Left
Gap 2 : V-stop,Guide-V=Up , Linestop,Incline,Tie/link=forward , Guide-H=Right
Stiffness units for rotation support: N.m/deg , all others: N/mm

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B E N D D A T A L I S T I N G

Point Pressure Name	Bend Case Type	Radius (mm)	Angle (deg)	OD (mm)	tnom (mm)	Material	Flg/ Cuts	SIF in	SIF out	Analysis Set	Flexibility (K)	
B10	Elbow	57L	90.0	48.3	7.1	1.4301	0/0	1.00	1.00	1	1.71	None
B11	*Elbow	57L	90.0	48.3	7.1	1.4301	0/0	1.00	1.00	1	1.71	None
B12	Elbow	57L	60.0	48.3	7.1	1.4301	0/0	1.00	1.00	1	1.71	None
C02	Elbow	95L	90.0	73.0	9.5	1.4301	0/0	1.00	1.00	1	1.83	None
C05	Elbow	95L	16.8	73.0	5.2	1.4301	0/0	1.59	1.59	1	3.87	None
D02	Elbow	57L	22.0	48.3	7.1	1.4301	0/0	1.00	1.00	1	1.71	None
D03	Elbow	57L	90.0	48.3	7.1	1.4301	0/0	1.00	1.00	1	1.71	None
D06	Elbow	57L	16.8	48.3	3.7	1.4301	0/0	1.60	1.60	1	3.89	None
E02	Elbow	57L	90.0	48.3	7.1	1.4301	0/0	1.00	1.00	1	1.71	None
E07	Elbow	114L	30.0	88.9	5.5	1.4301	0/0	1.78	1.78	1	4.58	None
E08	Elbow	114L	30.0	88.9	5.5	1.4301	0/0	1.78	1.78	1	4.58	None
F02	*Elbow	57L	90.0	48.3	7.1	1.4301	0/0	1.00	1.00	1	1.71	None
F07	*Elbow	114L	30.0	88.9	5.5	1.4301	0/0	1.78	1.78	1	4.58	None
J01	Elbow	191L	30.0	141.3	6.6	1.4301	0/0	2.13	2.13	1	6.00	None
J02	Elbow	191L	90.0	141.3	6.6	1.4301	0/0	2.13	2.13	1	6.00	None
K03	Elbow	114L	90.0	88.9	5.5	1.4301	0/0	1.78	1.78	1	4.58	None
K13	Elbow	95L	90.0	73.0	9.5	1.4301	0/0	1.00	1.00	1	1.83	None
K14	Elbow	95L	90.0	73.0	9.5	1.4301	0/0	1.00	1.00	1	1.83	None

* = Mid-point present
L = Long radius

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T E E D A T A L I S T I N G

Point Name	Point Seg-Type	Pipe OD (mm)	Pipe Thk. (mm)	Material	Tee Type	**Crotch Radius (mm)	*Crotch Thick (mm)	SIF in	SIF out

ADS_LINE_REV0.txt

K02	K-Header	88.9	5.5	1.4301	welding	1.30	1.30
	B-Branch	48.3	3.7	1.4301			
B04	B-Header	48.3	7.1	1.4301	Other	1.00	1.00
	D-Branch	48.3	7.1	1.4301			
B05	B-Header	48.3	7.1	1.4301	Other	1.00	1.00
	E-Branch	48.3	7.1	1.4301			
B08	B-Header	48.3	7.1	1.4301	Other	1.00	1.00
	F-Branch	48.3	7.1	1.4301			
B09	B-Header	48.3	7.1	1.4301	welding	1.00	1.00
	H-Branch	48.3	7.1	1.4301			
K11	K-Header	73.0	9.5	1.4301	Other	1.00	1.00
	C-Branch	73.0	9.5	1.4301			
K25	K-Header	73.0	9.5	1.4301	welding	1.00	1.00
	G-Branch	73.0	9.5	1.4301			

* = Pad thickness for reinforced tee.

**= Fillet radius for Raised tee or discontinuity dist. for Thickened tee.

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V A L V E D A T A L I S T I N G

Type Point		Dnom	Length	Valve Weight	Actuator Weight	Actuator DX	Actuator DY	Actuator DZ	Joint SAF	Joint Type	Size SIF
/Avg. Name (mm)	/Max. Type	(mm)	(mm)	(kg)	(kg)	(mm)	(mm)	(mm)			(mm)
B15	GATE-F	40 NS	384.20	52	80	0.00	0.00	408.00	0.00 WN		1.00
B06	GLOBE-F	40 NS	384.00	52	80	0.00	0.00	408.00	0.00 WN		1.00
C03	GATE-F	65 NS	508.00	89	138	0.00	0.00	496.00	0.00 WN		1.00
D04	GATE-F	40 NS	384.00	52	80	0.00	0.00	408.00	0.00 WN		1.00
E03	GATE-F	40 NS	384.00	52	80	0.00	0.00	408.00	0.00 WN		1.00
F03	GATE-F	40 2500	384.05	52	80	0.00	0.00	408.00	0.00 WN		1.00
G01	GATE-F	65 NS	700.00	62					0.00 WN		1.00
H01	GATE-F	40 NS	620.00	50					0.00 WN		1.00
K06	GATE-F	65 NS	508.00	89	138	0.00	0.00	496.00	1.00 WN		1.00

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F L A N G E D A T A L I S T I N G

Point	FLG	Dnom	Flange Weight	Bolt Weight	Joint	Size /Avg.	Type /Max.
						ANSI	

ADS_LINE_REV0.txt									
Name	No.	Type	(mm)	Rating	(kg)	(kg)	Type	SIF	(mm) (mm) Check

A00	1	SLIP-ON	80	300	6.4	0.0	DWSO	1.20	Yes
A00	2	SLIP-ON	80	300	6.4	0.0	DWSO	1.20	Yes
B15	1	WELDNECK	40	2500	12.7	0.0	WN	1.00	Yes
B16	1	WELDNECK	40	2500	12.7	0.0	WN	1.00	Yes
B22	1	WELDNECK	40	2500	12.7	0.0	WN	1.00	Yes
B22	2	WELDNECK	40	2500	12.7	0.0	WN	1.00	Yes
B20	1	WELDNECK	40	2500	12.7	0.0	WN	1.00	Yes
B20	2	WELDNECK	40	2500	12.7	0.0	WN	1.00	Yes
B06	1	WELDNECK	40	2500	12.7	0.0	WN	1.00	Yes
B17	1	WELDNECK	40	2500	12.7	0.0	WN	1.00	Yes
B18	1	BLIND	50	2500	39.0	0.0	USER	1.00	Yes
C10	1	WELDNECK	65	2500	23.6	0.0	WN	1.00	Yes
C10	2	WELDNECK	65	2500	23.6	0.0	WN	1.00	Yes
C09	1	WELDNECK	65	2500	23.6	0.0	WN	1.00	Yes
C09	2	WELDNECK	65	2500	23.6	0.0	WN	1.00	Yes
C03	1	WELDNECK	65	2500	23.6	0.0	WN	1.00	Yes
C07	1	WELDNECK	65	2500	23.6	0.0	WN	1.00	Yes
C06	1	WELDNECK	65	300	4.8	0.0	WN	1.00	Yes
D11	1	WELDNECK	40	2500	12.7	0.0	WN	1.00	Yes
D11	2	WELDNECK	40	2500	12.7	0.0	WN	1.00	Yes
D12	1	WELDNECK	40	2500	12.7	0.0	WN	1.00	Yes
D12	2	WELDNECK	40	2500	12.7	0.0	WN	1.00	Yes
D04	1	WELDNECK	40	2500	12.7	0.0	WN	1.00	Yes
D08	1	WELDNECK	40	2500	12.7	0.0	WN	1.00	Yes
D07	1	SLIP-ON	40	300	2.7	0.0	DWSO	1.20	Yes
E17	1	WELDNECK	40	2500	12.7	0.0	WN	1.00	Yes
E17	2	WELDNECK	40	2500	12.7	0.0	WN	1.00	Yes
E16	1	WELDNECK	40	2500	12.7	0.0	WN	1.00	Yes
E16	2	WELDNECK	40	2500	12.7	0.0	WN	1.00	Yes
E03	1	WELDNECK	40	2500	12.7	0.0	WN	1.00	Yes
E12	1	WELDNECK	40	2500	12.7	0.0	WN	1.00	Yes
E11	1	SLIP-ON	100	300	10.0	0.0	DWSO	1.20	Yes
F17	1	WELDNECK	40	2500	12.7	0.0	WN	1.00	Yes
F17	2	WELDNECK	40	2500	12.7	0.0	WN	1.00	Yes
F16	1	WELDNECK	40	2500	12.7	0.0	WN	1.00	Yes
F16	2	WELDNECK	40	2500	12.7	0.0	WN	1.00	Yes
F03	1	WELDNECK	40	2500	12.7	0.0	WN	1.00	Yes
F14	1	WELDNECK	40	2500	12.7	0.0	WN	1.00	Yes
F10	1	SLIP-ON	100	300	10.0	0.0	DWSO	1.20	Yes
G01	1	WELDNECK	65	2500	23.6	0.0	WN	1.00	Yes
SV08	1	WELDNECK	65	2500	23.6	0.0	WN	1.00	Yes
H01	1	WELDNECK	40	2500	12.7	0.0	WN	1.00	Yes
SV09	1	WELDNECK	40	2500	12.7	0.0	WN	1.00	Yes
J03	1	SLIP-ON	125	300	6.4	0.0	DWSO	1.20	Yes
K06	1	WELDNECK	65	2500	23.6	0.0	WN	1.00	Yes
K07	1	WELDNECK	65	2500	23.6	0.0	WN	1.00	Yes
K08	1	WELDNECK	65	2500	23.6	0.0	WN	1.00	Yes
K08	2	WELDNECK	65	2500	23.6	0.0	WN	1.00	Yes
K10	1	WELDNECK	65	2500	23.6	0.0	WN	1.00	Yes
K10	2	WELDNECK	65	2500	23.6	0.0	WN	1.00	No
K23	1	BLIND	100	2500	55.8	0.0	USER	1.00	Yes

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A N S I F L A N G E C H E C K D A T A L I S T I N G

Point	FLG	-----Flange Data-----			-----Gasket Data -----		
Name	No.	Series	Material	Group	Material	Di(mm)	Width(mm)

A00	1		NS		NS	0.000	0.000
A00	2		NS		NS	0.000	0.000
B15	1		NS		NS	0.000	0.000
B16	1		NS		NS	0.000	0.000
B22	1		NS		NS	0.000	0.000
B22	2		NS		NS	0.000	0.000
B20	1		NS		NS	0.000	0.000
B20	2		NS		NS	0.000	0.000

				ADS_LINE_REV0.txt			
B06	1	NS		NS	0.000	0.000	
B17	1	NS		NS	0.000	0.000	
B18	1	NS		NS	0.000	0.000	
C10	1	NS		NS	0.000	0.000	
C10	2	NS		NS	0.000	0.000	
C09	1	NS		NS	0.000	0.000	
C09	2	NS		NS	0.000	0.000	
C03	1	NS		NS	0.000	0.000	
C07	1	NS		NS	0.000	0.000	
C06	1	NS		NS	0.000	0.000	
D11	1	NS		NS	0.000	0.000	
D11	2	NS		NS	0.000	0.000	
D12	1	NS		NS	0.000	0.000	
D12	2	NS		NS	0.000	0.000	
D04	1	NS		NS	0.000	0.000	
D08	1	NS		NS	0.000	0.000	
D07	1	NS		NS	0.000	0.000	
E17	1	NS		NS	0.000	0.000	
E17	2	NS		NS	0.000	0.000	
E16	1	NS		NS	0.000	0.000	
E16	2	NS		NS	0.000	0.000	
E03	1	NS		NS	0.000	0.000	
E12	1	NS		NS	0.000	0.000	
E11	1	NS		NS	0.000	0.000	
F17	1	NS		NS	0.000	0.000	
F17	2	NS		NS	0.000	0.000	
F16	1	NS		NS	0.000	0.000	
F16	2	NS		NS	0.000	0.000	
F03	1	NS		NS	0.000	0.000	
F14	1	NS		NS	0.000	0.000	
F10	1	NS		NS	0.000	0.000	
G01	1	NS		NS	0.000	0.000	
SV08	1	NS		NS	0.000	0.000	
H01	1	NS		NS	0.000	0.000	
SV09	1	NS		NS	0.000	0.000	
J03	1	NS		NS	0.000	0.000	
K06	1	NS		NS	0.000	0.000	
K07	1	NS		NS	0.000	0.000	
K08	1	NS		NS	0.000	0.000	
K08	2	NS		NS	0.000	0.000	
K10	1	NS		NS	0.000	0.000	
K23	1	A182-F304	2.1	IB-SPIRALW	114.300	21.336	

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JOINT TYPE / USER - SIF DATA LISTING

Size

Point	Point	SIF	SIF	Joint	/Avg.	Max.	Over
Name	Type	in	out	Type	(mm)	(mm)	ride

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REDUCER DATA LISTING

			OD	OD	Thk	Thk	Cone	
From	To	Length	From	To	From	To	From	Angle
Point	Point	(mm)	(mm)	(mm)	(mm)	(mm)	Material	SIF
								(deg)

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B13	B19	76.20	48.3	60.3	7.1	8.7	1.4301	2.00t
E05	E13	89.00	48.3	88.9	3.7	5.5	1.4301	2.00t
E09	E14	101.10	88.9	114.3	5.5	6.0	1.4301	2.00t
F05	F20	89.00	48.3	88.9	3.7	5.5	1.4301	2.00t
F08	F21	101.60	88.9	114.3	5.5	6.0	1.4301	2.00t
K04	K05	89.00	88.9	73.0	5.5	5.2	1.4301	2.00t
K21	K22	89.00	73.0	114.3	9.5	13.5	1.4301	2.00t

t = Use SIF of 2.0

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R I G I D P I P E D A T A L I S T I N G

From Point	To Point	Include Weight	Include Expansion	Rigid Factor
-----	-----	-----	-----	-----

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R E F E R E N C E P O I N T L I S T I N G

(Force - N , Moment - N.m)

Tag No./ Ref. ID	Refer. Side	Point Name	Seg Name	Coord. System	Load Direction	[Report Loads] Actual Allow.
-----	-----	-----	-----	-----	-----	-----

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AutoPIPE Plus 9.2.1 RESULT PAGE 1

A N A L Y S I S S U M M A R Y

Current model revision number : 10

Static - Analysis set number 1
 Date and Time of analysis Sep 24, 2010 10:19 AM
 Model Revision Number 10
 Number of load cases 7
 Load cases analyzed GR HY T1 T2 T3 T4 T5
 Description Analysis Set no. 1
 Gaps/Friction/Soil considered No
 Hanger design run No
 Cut short included No
 Thermal bowing included No
 Include Bourdon rotational effect No
 Pipe radius for Bourdon calculation ... Mean

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Weight of contents included Yes
Pressure stiffening case None
Hot modulus case None
Water elevation for buoyancy loads Not considered
Use corroded thickness in analysis No
Rigid stiffness factor 1000.0

0

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CODE COMPLIANCE COMBINATIONS

<Description> Allowable Combination (N/mm2) D/A/P		Category	Method	Case/Combination	Factor	M/S	K-Factor
GR + Max P{1} Automatic Y Y Y		Sustain	Sum	GR[1] Max Long	1.00 1.00		
Max Range Automatic Y Y Y		Expansion	Sum	Temp. Range	1.00		
Amb to T1{1} Automatic Y Y Y		Expansion	Sum	T1[1]	1.00		
Amb to T2{1} Automatic Y Y Y		Expansion	Sum	T2[1]	1.00		
Amb to T3{1} Automatic Y Y Y		Expansion	Sum	T3[1]	1.00		
Amb to T4{1} Automatic Y Y Y		Expansion	Sum	T4[1]	1.00		
Amb to T5{1} Automatic Y Y Y		Expansion	Sum	T5[1]	1.00		
Hydrotest{1} Automatic Y Y Y		Occasion	Sum	HY[1] Max Long	1.00 1.00		1.000
Max P{1} Automatic Y Y Y		Hoop	Sum	Max Hoop	1.00		
Sus.+T1{1} Automatic Y Y Y		Creep Rupt	Sum	Max Sus T1[1]	1.00 1.00		
Sus.+T2{1} Automatic Y Y Y		Creep Rupt	Sum	Max Sus T2[1]	1.00 1.00		
Sus.+T3{1} Automatic Y Y Y		Creep Rupt	Sum	Max Sus T3[1]	1.00 1.00		
Sus.+T4{1} Automatic Y Y Y		Creep Rupt	Sum	Max Sus T4[1]	1.00 1.00		
Sus.+T5{1} Automatic Y Y Y		Creep Rupt	Sum	Max Sus T5[1]	1.00 1.00		

Notes:

D/A/P: [D]efault/[A]uto-Update/[P]rint options (Y=Yes, N=No)

[]

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RESULT PAGE 3

NON-CODE COMBINATIONS

<Description>

Combination	Method	Case/Combination	Factor	D/A/P
-----	-----	-----	-----	-----
Gravity{1}	Sum	GR[1]	1.00	Y Y Y
Hydrotest{1}	Sum	HY[1]	1.00	Y Y Y
Thermal 1{1}	Sum	T1[1]	1.00	Y Y Y
Thermal 2{1}	Sum	T2[1]	1.00	Y Y Y
Thermal 3{1}	Sum	T3[1]	1.00	Y Y Y
Thermal 4{1}	Sum	T4[1]	1.00	Y Y Y
Thermal 5{1}	Sum	T5[1]	1.00	Y Y Y
GRT1{1}	Sum	GR[1] T1[1]	1.00 1.00	Y Y Y
GRT2{1}	Sum	GR[1] T2[1]	1.00 1.00	Y Y Y
GRT3{1}	Sum	GR[1] T3[1]	1.00 1.00	Y Y Y
GRT4{1}	Sum	GR[1] T4[1]	1.00 1.00	Y Y Y
GRT5{1}	Sum	GR[1] T5[1]	1.00 1.00	Y Y Y

Notes:

D/A/P: [D]efault/[A]uto-Update/[P]rint options (Y=Yes, N=No)

[]

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RESULT PAGE 4

CODE COMPLIANCE

Y - Factor 0.50
 Weld efficiency factor 1.00
 Range reduction factor 1.00
 Design Pressure Factor 1.00
 Minimum stress ratio used in reports... 0.00
 Number of stress points per span 0
 Include corrosion in stress calcs. N
 Include axial force in code stress N
 Include sustain load margin Only if allowable stress is exceeded
 Use single SIF Y
 Set sustained/occasional SIF = 1 N

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Set sustained/occasional SIF = 0.75i .. N
Apply cold/hot modulus ratio N
Disable auto code combinations N
Disable auto non-code combinations N
No. of thermal ranges to report 0
Include Max Range combination Y
Total stress Octahedral
Direct shear None
Longitudinal pressure calculation PD/4t
Inc. Axial Str and Pcase in Sustained.. N

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HYDROTEST LOAD :

Load case : HY

Specific gravity : 1.00

Temperature load case : Ambient

Temperature load case factor : 1.00

Pressure load case : P1

Pressure load case factor : 1.50

Include insulation : Yes

Included Segments - A B C D E F G H J K

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
*** Segment A begin ***							
K01	Gravity{1}	-0.504	-0.993	-0.017	0.011	-0.006	0.023
	Hydrotest{1}	-0.073	-0.187	-0.046	0.002	-0.001	0.009
	Thermal 1{1}	-3.065	-0.588	0.009	0.007	-0.035	0.133
	Thermal 2{1}	-1.658	1.076	9.173	-0.012	-0.019	0.072
	Thermal 3{1}	-4.449	-2.318	3.420	0.027	-0.051	0.150
	Thermal 4{1}	-0.665	0.752	6.075	-0.009	-0.008	0.026
	Thermal 5{1}	-0.819	0.038	9.171	0.000	-0.009	0.042
	GRT1{1}	-3.569	-1.580	-0.008	0.018	-0.041	0.156
	GRT2{1}	-2.162	0.083	9.156	-0.001	-0.025	0.095
	GRT3{1}	-4.952	-3.311	3.404	0.038	-0.057	0.173

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	GRT4{1}	-1.169	-0.240	6.058	0.003	-0.013	0.049
	GRT5{1}	-1.323	-0.955	9.155	0.011	-0.015	0.065
A00	Gravity{1}	-0.293	-0.576	-0.017	0.016	-0.008	0.018
	Hydrotest{1}	-0.042	-0.109	-0.041	0.003	-0.001	0.007
	Thermal 1{1}	-1.779	-0.341	0.007	0.009	-0.049	0.102
	Thermal 2{1}	-0.962	0.625	4.236	-0.017	-0.027	0.055
	Thermal 3{1}	-2.583	-1.346	3.406	0.037	-0.072	0.115
	Thermal 4{1}	-0.386	0.437	2.817	-0.012	-0.011	0.020
	Thermal 5{1}	-0.475	0.022	4.235	-0.001	-0.013	0.032
	GRT1{1}	-2.072	-0.917	-0.010	0.025	-0.057	0.120
	GRT2{1}	-1.255	0.048	4.219	-0.001	-0.035	0.073
	GRT3{1}	-2.875	-1.922	3.389	0.053	-0.080	0.133
	GRT4{1}	-0.679	-0.140	2.800	0.004	-0.019	0.037
	GRT5{1}	-0.768	-0.554	4.218	0.015	-0.021	0.050
A05	Gravity{1}	0.062	0.121	-0.011	0.008	-0.004	0.008
	Hydrotest{1}	0.009	0.023	-0.025	0.002	-0.001	0.003
	Thermal 1{1}	0.375	0.072	0.003	0.005	-0.025	0.048
	Thermal 2{1}	0.203	-0.132	-4.372	-0.009	-0.013	0.026
	Thermal 3{1}	0.544	0.284	3.382	0.019	-0.036	0.054
	Thermal 4{1}	0.081	-0.092	-2.862	-0.006	-0.005	0.009
	Thermal 5{1}	0.100	-0.005	-4.372	0.000	-0.007	0.015
	GRT1{1}	0.437	0.193	-0.008	0.013	-0.029	0.057
	GRT2{1}	0.264	-0.010	-4.383	-0.001	-0.018	0.034
	GRT3{1}	0.606	0.405	3.371	0.027	-0.040	0.063
	GRT4{1}	0.143	0.029	-2.873	0.002	-0.009	0.018
	GRT5{1}	0.162	0.117	-4.383	0.008	-0.011	0.024

□

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RESULT PAGE 7

D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
A16	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	3.360	0.000	0.000	0.000

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	Thermal 3{1}	0.000	0.000	3.360	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	2.240	0.000	0.000	0.000
	Thermal 5{1}	0.000	0.000	3.360	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	3.360	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	3.360	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	2.240	0.000	0.000	0.000
	GRT5{1}	0.000	0.000	3.360	0.000	0.000	0.000
A02	Gravity{1}	0.000	0.000	-0.006	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	-0.021	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	-6.078	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	3.360	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	-3.988	0.000	0.000	0.000
	Thermal 5{1}	0.000	0.000	-6.078	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	-0.006	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	-6.085	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	3.354	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	-3.994	0.000	0.000	0.000
	GRT5{1}	0.000	0.000	-6.085	0.000	0.000	0.000
*** Segment A end ***							
*** Segment B begin ***							
K01	Gravity{1}	-0.504	-0.993	-0.017	0.011	-0.006	0.023
	Hydrotest{1}	-0.073	-0.187	-0.046	0.002	-0.001	0.009
	Thermal 1{1}	-3.065	-0.588	0.009	0.007	-0.035	0.133
	Thermal 2{1}	-1.658	1.076	9.173	-0.012	-0.019	0.072
	Thermal 3{1}	-4.449	-2.318	3.420	0.027	-0.051	0.150
	Thermal 4{1}	-0.665	0.752	6.075	-0.009	-0.008	0.026
	Thermal 5{1}	-0.819	0.038	9.171	0.000	-0.009	0.042
	GRT1{1}	-3.569	-1.580	-0.008	0.018	-0.041	0.156
	GRT2{1}	-2.162	0.083	9.156	-0.001	-0.025	0.095
	GRT3{1}	-4.952	-3.311	3.404	0.038	-0.057	0.173
	GRT4{1}	-1.169	-0.240	6.058	0.003	-0.013	0.049
	GRT5{1}	-1.323	-0.955	9.155	0.011	-0.015	0.065

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RESULT PAGE 8

D I S P L A C E M E N T S

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Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
B30	Gravity{1}	0.000	0.000	-0.003	-0.044	0.022	0.039
	Hydrotest{1}	0.000	0.000	-0.050	-0.008	0.003	0.015
	Thermal 1{1}	0.000	0.000	0.015	-0.026	0.136	0.227
	Thermal 2{1}	0.000	0.000	24.319	0.048	0.073	0.123
	Thermal 3{1}	0.000	0.000	3.464	-0.103	0.197	0.257
	Thermal 4{1}	0.000	0.000	16.068	0.033	0.029	0.044
	Thermal 5{1}	0.000	0.000	24.317	0.002	0.036	0.072
	GRT1{1}	0.000	0.000	0.011	-0.070	0.158	0.267
	GRT2{1}	0.000	0.000	24.316	0.004	0.096	0.162
	GRT3{1}	0.000	0.000	3.460	-0.147	0.219	0.296
	GRT4{1}	0.000	0.000	16.064	-0.011	0.052	0.083
	GRT5{1}	0.000	0.000	24.313	-0.042	0.059	0.111
K02	Gravity{1}	1.816	0.994	0.030	0.098	-0.006	0.055
	Hydrotest{1}	0.545	0.016	-0.034	0.024	0.009	0.021
	Thermal 1{1}	11.724	-1.444	0.021	0.126	-0.013	0.322
	Thermal 2{1}	5.964	-4.497	39.465	0.008	-0.020	0.174
	Thermal 3{1}	13.458	1.599	3.507	0.254	-0.139	0.363
	Thermal 4{1}	2.804	-1.794	26.061	-0.040	0.006	0.062
	Thermal 5{1}	2.094	-1.151	39.462	0.034	-0.038	0.102
	GRT1{1}	13.541	-0.450	0.051	0.224	-0.019	0.377
	GRT2{1}	7.781	-3.503	39.495	0.106	-0.026	0.229
	GRT3{1}	15.274	2.594	3.537	0.352	-0.145	0.419
	GRT4{1}	4.620	-0.800	26.091	0.059	0.000	0.118
	GRT5{1}	3.910	-0.157	39.492	0.132	-0.044	0.157
B14	Gravity{1}	1.739	1.002	0.194	0.137	0.003	0.057
	Hydrotest{1}	0.516	0.020	0.006	0.035	0.015	0.021
	Thermal 1{1}	11.293	-1.400	0.210	0.145	-0.028	0.307
	Thermal 2{1}	5.763	-4.242	39.470	-0.004	-0.029	0.156
	Thermal 3{1}	12.959	1.651	3.933	0.333	-0.161	0.362
	Thermal 4{1}	2.740	-1.633	25.998	-0.050	0.003	0.055
	Thermal 5{1}	1.981	-0.905	39.502	0.018	-0.046	0.098
	GRT1{1}	13.032	-0.398	0.404	0.282	-0.025	0.365
	GRT2{1}	7.502	-3.240	39.664	0.133	-0.026	0.213
	GRT3{1}	14.698	2.653	4.126	0.470	-0.159	0.420
	GRT4{1}	4.479	-0.631	26.192	0.087	0.005	0.112
	GRT5{1}	3.720	0.097	39.696	0.154	-0.043	0.155
B15	Gravity{1}	0.937	1.085	2.987	0.081	0.154	0.033

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Hydrotest{1}	0.229	0.050	0.245	-0.062	0.105	0.014
Thermal 1{1}	7.787	-1.041	4.416	0.381	-0.199	0.146
Thermal 2{1}	4.711	-1.489	39.530	0.054	-0.156	0.041
Thermal 3{1}	8.201	2.139	14.414	0.841	-0.378	0.206
Thermal 4{1}	2.440	0.144	24.919	-0.058	-0.046	0.026
Thermal 5{1}	1.286	1.813	39.654	0.047	-0.157	0.018
GRT1{1}	8.724	0.044	7.403	0.462	-0.044	0.178
GRT2{1}	5.648	-0.404	42.517	0.135	-0.001	0.073
GRT3{1}	9.138	3.224	17.401	0.922	-0.224	0.238
GRT4{1}	3.377	1.229	27.906	0.023	0.109	0.058
GRT5{1}	2.222	2.898	42.641	0.128	-0.002	0.051

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
B15 M	Gravity{1}	0.829	1.096	3.202	0.080	0.155	0.032
	Hydrotest{1}	0.183	0.055	0.000	-0.063	0.105	0.014
	Thermal 1{1}	7.419	0.128	5.758	0.382	-0.199	0.146
	Thermal 2{1}	4.682	-0.465	39.764	0.054	-0.156	0.040
	Thermal 3{1}	7.633	3.329	17.350	0.841	-0.379	0.205
	Thermal 4{1}	2.393	0.525	24.741	-0.058	-0.046	0.026
	Thermal 5{1}	1.284	2.383	39.867	0.048	-0.157	0.018
	GRT1{1}	8.247	1.224	8.960	0.462	-0.044	0.178
	GRT2{1}	5.511	0.632	42.966	0.134	-0.001	0.073
	GRT3{1}	8.462	4.426	20.552	0.921	-0.224	0.238
	GRT4{1}	3.221	1.621	27.943	0.022	0.109	0.058
	GRT5{1}	2.113	3.479	43.069	0.128	-0.002	0.051
B16	Gravity{1}	0.721	1.108	3.413	0.079	0.155	0.032
	Hydrotest{1}	0.138	0.060	-0.247	-0.063	0.105	0.014
	Thermal 1{1}	7.051	1.297	7.101	0.382	-0.199	0.145
	Thermal 2{1}	4.654	0.560	40.000	0.054	-0.156	0.040
	Thermal 3{1}	7.067	4.519	20.287	0.841	-0.379	0.205
	Thermal 4{1}	2.345	0.905	24.564	-0.058	-0.046	0.026
	Thermal 5{1}	1.283	2.953	40.081	0.048	-0.157	0.018

		ADS_LINE_REV0.txt					
	GRT1{1}	7.771	2.404	10.515	0.461	-0.044	0.178
	GRT2{1}	5.374	1.668	43.413	0.134	-0.001	0.073
	GRT3{1}	7.787	5.627	23.700	0.920	-0.224	0.237
	GRT4{1}	3.066	2.013	27.977	0.021	0.109	0.058
	GRT5{1}	2.004	4.061	43.494	0.127	-0.002	0.050
B04	Gravity{1}	0.614	1.118	3.382	-0.019	0.214	-0.009
	Hydrotest{1}	0.060	0.092	-1.024	-0.079	0.134	0.006
	Thermal 1{1}	6.367	4.121	10.738	0.463	-0.257	0.093
	Thermal 2{1}	4.515	3.063	40.851	0.107	-0.202	0.062
	Thermal 3{1}	6.306	7.351	26.929	0.678	-0.417	0.044
	Thermal 4{1}	2.106	1.846	24.212	-0.047	-0.064	0.060
	Thermal 5{1}	1.473	4.321	40.883	0.102	-0.199	-0.031
	GRT1{1}	6.980	5.239	14.121	0.444	-0.042	0.085
	GRT2{1}	5.128	4.181	44.233	0.088	0.012	0.053
	GRT3{1}	6.920	8.469	30.311	0.659	-0.202	0.036
	GRT4{1}	2.720	2.965	27.595	-0.066	0.151	0.051
	GRT5{1}	2.087	5.439	44.265	0.083	0.015	-0.039
B21	Gravity{1}	0.606	1.119	3.119	-0.017	0.167	0.011
	Hydrotest{1}	0.021	0.114	-1.416	-0.018	0.073	0.007
	Thermal 1{1}	5.920	6.277	14.019	0.524	-0.346	0.125
	Thermal 2{1}	4.293	4.992	41.820	0.154	-0.232	0.078
	Thermal 3{1}	6.179	9.473	31.407	0.667	-0.371	0.068
	Thermal 4{1}	1.813	2.578	24.010	-0.033	-0.060	0.060
	Thermal 5{1}	1.823	5.347	41.832	0.154	-0.226	-0.046
	GRT1{1}	6.526	7.396	17.138	0.508	-0.179	0.136
	GRT2{1}	4.899	6.112	44.938	0.138	-0.065	0.089
	GRT3{1}	6.785	10.592	34.525	0.651	-0.203	0.078
	GRT4{1}	2.419	3.698	27.129	-0.050	0.108	0.071
	GRT5{1}	2.429	6.467	44.950	0.137	-0.058	-0.035

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
B22	Gravity{1}	0.598	1.120	3.097	-0.014	0.162	0.012

		ADS_LINE_REV0.txt					
	Hydrotest{1}	0.017	0.116	-1.430	-0.010	0.066	0.007
	Thermal 1{1}	5.860	6.505	14.389	0.530	-0.356	0.130
	Thermal 2{1}	4.261	5.197	41.939	0.158	-0.235	0.082
	Thermal 3{1}	6.157	9.698	31.869	0.663	-0.366	0.070
	Thermal 4{1}	1.781	2.656	23.993	-0.033	-0.059	0.061
	Thermal 5{1}	1.865	5.455	41.950	0.158	-0.229	-0.047
	GRT1{1}	6.458	7.625	17.486	0.516	-0.193	0.142
	GRT2{1}	4.860	6.317	45.036	0.144	-0.073	0.094
	GRT3{1}	6.756	10.818	34.966	0.650	-0.203	0.083
	GRT4{1}	2.380	3.776	27.090	-0.046	0.103	0.074
	GRT5{1}	2.464	6.575	45.047	0.144	-0.066	-0.035
B20	Gravity{1}	0.488	1.131	3.014	0.013	0.118	0.027
	Hydrotest{1}	-0.025	0.137	-1.314	0.057	0.010	0.008
	Thermal 1{1}	5.197	8.462	17.691	0.570	-0.434	0.182
	Thermal 2{1}	3.881	6.942	43.029	0.178	-0.260	0.123
	Thermal 3{1}	5.894	11.612	35.621	0.604	-0.319	0.095
	Thermal 4{1}	1.476	3.315	23.850	-0.033	-0.055	0.074
	Thermal 5{1}	2.261	6.365	43.052	0.184	-0.251	-0.059
	GRT1{1}	5.685	9.593	20.705	0.583	-0.317	0.209
	GRT2{1}	4.368	8.074	46.043	0.191	-0.142	0.150
	GRT3{1}	6.381	12.744	38.635	0.616	-0.201	0.122
	GRT4{1}	1.963	4.447	26.865	-0.020	0.063	0.101
	GRT5{1}	2.749	7.496	46.066	0.197	-0.133	-0.032
B05	Gravity{1}	0.249	1.156	3.061	0.008	0.067	0.042
	Hydrotest{1}	-0.084	0.164	-0.732	0.092	-0.055	0.009
	Thermal 1{1}	3.885	10.931	22.094	0.604	-0.530	0.275
	Thermal 2{1}	2.989	9.143	44.468	0.177	-0.287	0.206
	Thermal 3{1}	5.361	14.000	39.573	0.472	-0.255	0.131
	Thermal 4{1}	0.955	4.145	23.624	-0.047	-0.048	0.104
	Thermal 5{1}	2.840	7.480	44.560	0.194	-0.275	-0.073
	GRT1{1}	4.135	12.087	25.155	0.612	-0.463	0.317
	GRT2{1}	3.238	10.300	47.529	0.185	-0.220	0.248
	GRT3{1}	5.610	15.156	42.634	0.480	-0.189	0.173
	GRT4{1}	1.204	5.302	26.686	-0.039	0.019	0.146
	GRT5{1}	3.089	8.636	47.622	0.202	-0.209	-0.031
B06	Gravity{1}	0.020	1.180	2.886	-0.081	-0.035	0.041
	Hydrotest{1}	-0.137	0.185	-0.224	0.058	-0.094	0.011
	Thermal 1{1}	2.537	12.944	25.896	0.650	-0.555	0.286
	Thermal 2{1}	2.009	10.937	45.712	0.206	-0.290	0.215
	Thermal 3{1}	4.788	15.931	42.220	0.426	-0.246	0.147
	Thermal 4{1}	0.458	4.820	23.404	-0.045	-0.043	0.101

	ADS_LINE_REV0.txt					
Thermal 5{1}	3.325	8.372	45.921	0.235	-0.272	-0.067
GRT1{1}	2.558	14.124	28.782	0.569	-0.589	0.327
GRT2{1}	2.029	12.118	48.597	0.125	-0.325	0.256
GRT3{1}	4.808	17.111	45.105	0.345	-0.281	0.188
GRT4{1}	0.478	6.000	26.289	-0.126	-0.078	0.142
GRT5{1}	3.346	9.552	48.806	0.154	-0.307	-0.026

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
B06 M	Gravity{1}	-0.116	1.195	2.625	-0.082	-0.035	0.041
	Hydrotest{1}	-0.172	0.189	0.000	0.057	-0.094	0.011
	Thermal 1{1}	1.702	14.161	28.257	0.650	-0.555	0.286
	Thermal 2{1}	1.399	12.022	46.501	0.206	-0.290	0.215
	Thermal 3{1}	4.414	17.100	43.726	0.426	-0.246	0.148
	Thermal 4{1}	0.161	5.227	23.270	-0.045	-0.043	0.101
	Thermal 5{1}	3.655	9.358	46.800	0.235	-0.272	-0.067
	GRT1{1}	1.586	15.356	30.882	0.568	-0.590	0.327
	GRT2{1}	1.284	13.217	49.126	0.124	-0.325	0.256
	GRT3{1}	4.298	18.295	46.351	0.344	-0.281	0.188
	GRT4{1}	0.045	6.422	25.895	-0.127	-0.079	0.142
	GRT5{1}	3.539	10.553	49.425	0.153	-0.307	-0.026
B17	Gravity{1}	-0.252	1.209	2.361	-0.083	-0.036	0.041
	Hydrotest{1}	-0.207	0.193	0.221	0.056	-0.095	0.011
	Thermal 1{1}	0.866	15.379	30.617	0.650	-0.555	0.286
	Thermal 2{1}	0.790	13.107	47.290	0.206	-0.290	0.215
	Thermal 3{1}	4.039	18.269	45.231	0.425	-0.246	0.148
	Thermal 4{1}	-0.135	5.634	23.136	-0.045	-0.043	0.101
	Thermal 5{1}	3.985	10.344	47.679	0.235	-0.272	-0.067
	GRT1{1}	0.614	16.588	32.979	0.567	-0.591	0.327
	GRT2{1}	0.537	14.317	49.651	0.123	-0.326	0.256
	GRT3{1}	3.787	19.478	47.592	0.342	-0.282	0.189
	GRT4{1}	-0.388	6.843	25.497	-0.128	-0.079	0.142
	GRT5{1}	3.732	11.554	50.040	0.152	-0.308	-0.026

		ADS_LINE_REV0.txt					
B08	Gravity{1}	-0.476	1.233	1.706	-0.156	-0.139	0.040
	Hydrotest{1}	-0.264	0.215	0.373	-0.012	-0.130	0.011
	Thermal 1{1}	-0.615	17.407	34.416	0.598	-0.569	0.322
	Thermal 2{1}	-0.313	14.916	48.500	0.165	-0.286	0.250
	Thermal 3{1}	3.365	20.212	47.385	0.297	-0.228	0.167
	Thermal 4{1}	-0.655	6.311	22.861	-0.065	-0.037	0.112
	Thermal 5{1}	4.519	11.981	49.079	0.209	-0.261	-0.063
	GRT1{1}	-1.091	18.639	36.122	0.442	-0.709	0.362
	GRT2{1}	-0.789	16.148	50.206	0.009	-0.425	0.290
	GRT3{1}	2.889	21.445	49.090	0.141	-0.367	0.207
	GRT4{1}	-1.131	7.544	24.566	-0.222	-0.176	0.152
	GRT5{1}	4.043	13.213	50.785	0.053	-0.400	-0.023
B09	Gravity{1}	-1.370	1.327	-2.227	-0.145	-0.097	0.028
	Hydrotest{1}	-0.611	0.329	0.000	-0.033	-0.084	0.012
	Thermal 1{1}	-8.091	27.095	42.150	-0.350	-0.249	0.315
	Thermal 2{1}	-5.845	23.545	47.709	-0.425	-0.112	0.238
	Thermal 3{1}	-1.197	29.593	44.401	-0.722	0.039	0.222
	Thermal 4{1}	-3.076	9.527	19.285	-0.252	-0.011	0.104
	Thermal 5{1}	5.626	19.912	50.495	-0.288	-0.010	-0.001
	GRT1{1}	-9.461	28.422	39.923	-0.495	-0.345	0.343
	GRT2{1}	-7.215	24.871	45.483	-0.570	-0.208	0.266
	GRT3{1}	-2.567	30.919	42.175	-0.867	-0.058	0.250
	GRT4{1}	-4.447	10.854	17.059	-0.397	-0.107	0.132
	GRT5{1}	4.256	21.239	48.268	-0.433	-0.107	0.027

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DISPLACEMENTS

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
B10 N	Gravity{1}	-1.436	1.334	-2.546	-0.139	-0.093	0.027
	Hydrotest{1}	-0.638	0.339	-0.063	-0.035	-0.080	0.011
	Thermal 1{1}	-8.760	27.979	41.177	-0.512	-0.211	0.313
	Thermal 2{1}	-6.341	24.332	46.595	-0.526	-0.091	0.238
	Thermal 3{1}	-1.641	30.453	42.482	-0.868	0.068	0.218
	Thermal 4{1}	-3.298	9.821	18.649	-0.281	-0.007	0.105
	Thermal 5{1}	5.712	20.638	49.695	-0.380	0.018	-0.008

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	GRT1{1}	-10.197	29.313	38.631	-0.651	-0.305	0.340
	GRT2{1}	-7.777	25.666	44.050	-0.665	-0.184	0.265
	GRT3{1}	-3.077	31.786	39.936	-1.007	-0.025	0.245
	GRT4{1}	-4.735	11.154	16.103	-0.420	-0.100	0.132
	GRT5{1}	4.275	21.972	47.150	-0.519	-0.075	0.019
B10 F	Gravity{1}	-1.371	1.204	-2.671	-0.129	-0.091	0.026
	Hydrotest{1}	-0.569	0.309	-0.091	-0.032	-0.078	0.010
	Thermal 1{1}	-8.847	27.714	40.288	-0.699	-0.177	0.313
	Thermal 2{1}	-6.468	24.058	45.738	-0.642	-0.071	0.239
	Thermal 3{1}	-1.907	29.836	41.218	-1.032	0.096	0.215
	Thermal 4{1}	-3.387	9.641	18.248	-0.313	-0.003	0.107
	Thermal 5{1}	5.721	20.490	48.975	-0.486	0.042	-0.015
	GRT1{1}	-10.218	28.918	37.617	-0.827	-0.268	0.340
	GRT2{1}	-7.839	25.262	43.067	-0.770	-0.162	0.266
	GRT3{1}	-3.278	31.040	38.547	-1.161	0.005	0.241
	GRT4{1}	-4.758	10.846	15.577	-0.442	-0.095	0.133
	GRT5{1}	4.350	21.694	46.304	-0.615	-0.050	0.011
B11 N	Gravity{1}	-0.532	0.162	-2.671	-0.089	-0.083	0.021
	Hydrotest{1}	0.135	0.111	-0.120	-0.006	-0.070	0.002
	Thermal 1{1}	-7.713	18.455	37.072	-1.168	-0.067	0.306
	Thermal 2{1}	-6.106	16.375	42.832	-0.915	-0.009	0.241
	Thermal 3{1}	-3.205	17.928	38.002	-1.371	0.162	0.190
	Thermal 4{1}	-3.418	6.260	17.178	-0.375	0.009	0.117
	Thermal 5{1}	4.969	14.354	46.069	-0.757	0.105	-0.062
	GRT1{1}	-8.244	18.617	34.401	-1.257	-0.150	0.327
	GRT2{1}	-6.637	16.537	40.161	-1.004	-0.092	0.261
	GRT3{1}	-3.737	18.090	35.331	-1.460	0.079	0.210
	GRT4{1}	-3.950	6.422	14.507	-0.464	-0.075	0.137
	GRT5{1}	4.438	14.516	43.398	-0.846	0.022	-0.041
B11 M	Gravity{1}	-0.467	0.100	-2.651	-0.084	-0.082	0.020
	Hydrotest{1}	0.185	0.107	-0.124	-0.001	-0.070	0.002
	Thermal 1{1}	-7.599	17.505	37.177	-1.206	-0.055	0.305
	Thermal 2{1}	-6.048	15.623	42.885	-0.934	-0.002	0.240
	Thermal 3{1}	-3.284	16.849	38.172	-1.384	0.166	0.187
	Thermal 4{1}	-3.397	5.957	17.208	-0.376	0.010	0.117
	Thermal 5{1}	4.860	13.729	46.083	-0.779	0.110	-0.066
	GRT1{1}	-8.066	17.605	34.526	-1.290	-0.137	0.325
	GRT2{1}	-6.515	15.723	40.234	-1.018	-0.085	0.260
	GRT3{1}	-3.752	16.949	35.521	-1.468	0.084	0.207
	GRT4{1}	-3.864	6.057	14.558	-0.460	-0.072	0.137
	GRT5{1}	4.392	13.829	43.433	-0.863	0.028	-0.046

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
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B11 F	Gravity{1}	-0.430	0.074	-2.604	-0.079	-0.081	0.019
	Hydrotest{1}	0.205	0.105	-0.135	0.004	-0.069	0.001
	Thermal 1{1}	-7.414	16.879	37.924	-1.239	-0.044	0.304
	Thermal 2{1}	-5.918	15.109	43.452	-0.950	0.003	0.240
	Thermal 3{1}	-3.245	16.188	39.060	-1.393	0.170	0.184
	Thermal 4{1}	-3.332	5.755	17.438	-0.376	0.011	0.118
	Thermal 5{1}	4.742	13.297	46.557	-0.798	0.115	-0.070
	GRT1{1}	-7.843	16.952	35.319	-1.318	-0.125	0.323
	GRT2{1}	-6.348	15.182	40.847	-1.029	-0.078	0.259
	GRT3{1}	-3.675	16.261	36.456	-1.472	0.088	0.204
	GRT4{1}	-3.762	5.828	14.834	-0.455	-0.070	0.137
	GRT5{1}	4.312	13.370	43.953	-0.878	0.033	-0.051
B12 N	Gravity{1}	-0.002	-0.002	-0.054	-0.032	-0.003	0.002
	Hydrotest{1}	-0.005	0.015	-0.036	-0.019	-0.003	-0.003
	Thermal 1{1}	-1.204	1.207	84.426	-0.298	0.034	0.029
	Thermal 2{1}	-1.093	1.086	76.606	-0.202	0.025	0.027
	Thermal 3{1}	-1.161	1.240	84.495	-0.257	0.041	0.002
	Thermal 4{1}	-0.412	0.393	28.968	-0.063	0.008	0.017
	Thermal 5{1}	-1.012	1.142	76.631	-0.188	0.031	-0.033
	GRT1{1}	-1.207	1.205	84.371	-0.330	0.032	0.031
	GRT2{1}	-1.095	1.084	76.552	-0.234	0.022	0.028
	GRT3{1}	-1.163	1.238	84.441	-0.289	0.038	0.004
	GRT4{1}	-0.414	0.391	28.914	-0.095	0.005	0.018
	GRT5{1}	-1.015	1.141	76.577	-0.220	0.028	-0.031
B12 F	Gravity{1}	-0.001	-0.001	-0.028	-0.020	-0.001	0.001
	Hydrotest{1}	-0.007	0.011	-0.020	-0.012	-0.002	-0.002
	Thermal 1{1}	-1.072	0.897	84.643	-0.182	0.032	0.009
	Thermal 2{1}	-0.972	0.806	76.753	-0.123	0.022	0.010
	Thermal 3{1}	-1.050	0.923	84.680	-0.157	0.035	-0.008
	Thermal 4{1}	-0.362	0.291	29.014	-0.038	0.007	0.007

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	Thermal 5{1}	-0.936	0.849	76.766	-0.115	0.026	-0.022
	GRT1{1}	-1.073	0.895	84.615	-0.202	0.030	0.010
	GRT2{1}	-0.973	0.805	76.724	-0.143	0.021	0.011
	GRT3{1}	-1.051	0.922	84.651	-0.177	0.034	-0.007
	GRT4{1}	-0.363	0.290	28.986	-0.059	0.006	0.008
	GRT5{1}	-0.937	0.848	76.737	-0.136	0.024	-0.021
B13	Gravity{1}	-0.001	-0.001	-0.026	-0.018	-0.001	0.001
	Hydrotest{1}	-0.007	0.011	-0.018	-0.011	-0.002	-0.002
	Thermal 1{1}	-1.015	0.851	84.663	-0.164	0.028	0.007
	Thermal 2{1}	-0.920	0.765	76.766	-0.111	0.020	0.008
	Thermal 3{1}	-0.995	0.874	84.695	-0.141	0.031	-0.009
	Thermal 4{1}	-0.343	0.277	29.018	-0.034	0.006	0.006
	Thermal 5{1}	-0.888	0.803	76.777	-0.104	0.023	-0.021
	GRT1{1}	-1.016	0.849	84.637	-0.182	0.027	0.008
	GRT2{1}	-0.921	0.764	76.740	-0.129	0.018	0.009
	GRT3{1}	-0.996	0.873	84.670	-0.159	0.029	-0.008
	GRT4{1}	-0.344	0.276	28.993	-0.053	0.005	0.007
	GRT5{1}	-0.889	0.802	76.752	-0.122	0.021	-0.020

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
B19	Gravity{1}	0.000	-0.001	-0.011	-0.011	-0.001	0.000
	Hydrotest{1}	-0.005	0.007	-0.008	-0.007	-0.002	-0.001
	Thermal 1{1}	-0.671	0.567	84.753	-0.094	0.014	0.001
	Thermal 2{1}	-0.608	0.510	76.825	-0.063	0.010	0.002
	Thermal 3{1}	-0.662	0.577	84.767	-0.081	0.016	-0.009
	Thermal 4{1}	-0.225	0.186	29.036	-0.020	0.003	0.003
	Thermal 5{1}	-0.595	0.526	76.830	-0.059	0.012	-0.014
	GRT1{1}	-0.671	0.566	84.741	-0.105	0.013	0.001
	GRT2{1}	-0.608	0.509	76.814	-0.074	0.009	0.003
	GRT3{1}	-0.662	0.577	84.755	-0.091	0.015	-0.008
	GRT4{1}	-0.226	0.185	29.025	-0.030	0.002	0.003
	GRT5{1}	-0.595	0.525	76.819	-0.070	0.011	-0.013

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B18	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	84.820	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	76.870	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	84.820	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	29.050	0.000	0.000	0.000
	Thermal 5{1}	0.000	0.000	76.870	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	84.820	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	76.870	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	84.820	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	29.050	0.000	0.000	0.000
	GRT5{1}	0.000	0.000	76.870	0.000	0.000	0.000

*** Segment B end ***

*** Segment C begin ***

K11	Gravity{1}	-0.135	-0.257	3.385	-0.001	0.016	0.036
	Hydrotest{1}	0.053	-0.092	-1.197	-0.046	0.048	0.014
	Thermal 1{1}	1.942	5.502	28.302	0.932	-0.432	0.278
	Thermal 2{1}	2.085	5.635	53.787	0.340	-0.239	0.168
	Thermal 3{1}	-0.369	6.323	41.369	0.624	-0.692	0.324
	Thermal 4{1}	1.994	3.792	28.293	-0.016	-0.050	0.066
	Thermal 5{1}	1.092	6.671	54.244	0.351	-0.226	0.109
	GRT1{1}	1.807	5.245	31.687	0.931	-0.415	0.314
	GRT2{1}	1.950	5.378	57.172	0.339	-0.223	0.204
	GRT3{1}	-0.504	6.066	44.754	0.623	-0.676	0.360
	GRT4{1}	1.859	3.535	31.677	-0.017	-0.034	0.102
	GRT5{1}	0.956	6.414	57.629	0.350	-0.209	0.145

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
C01	Gravity{1}	-0.113	-0.215	3.366	0.002	0.015	0.035
	Hydrotest{1}	0.066	-0.078	-1.226	-0.047	0.049	0.013
	Thermal 1{1}	2.511	5.623	28.224	0.922	-0.422	0.279
	Thermal 2{1}	2.547	5.645	53.855	0.322	-0.228	0.168

		ADS_LINE_REV0.txt					
	Thermal 3{1}	0.230	6.500	41.798	0.545	-0.657	0.328
	Thermal 4{1}	2.166	3.800	28.362	-0.026	-0.045	0.065
	Thermal 5{1}	1.518	6.615	54.289	0.333	-0.215	0.114
	GRT1{1}	2.398	5.408	31.590	0.924	-0.407	0.314
	GRT2{1}	2.434	5.431	57.221	0.323	-0.213	0.203
	GRT3{1}	0.117	6.285	45.164	0.547	-0.642	0.363
	GRT4{1}	2.053	3.585	31.728	-0.025	-0.030	0.100
	GRT5{1}	1.405	6.400	57.655	0.335	-0.200	0.149
C02 N	Gravity{1}	-0.032	-0.063	3.298	0.012	0.006	0.029
	Hydrotest{1}	0.112	-0.031	-1.337	-0.054	0.051	0.010
	Thermal 1{1}	4.727	6.025	27.878	0.881	-0.392	0.233
	Thermal 2{1}	4.347	5.628	54.107	0.248	-0.183	0.136
	Thermal 3{1}	2.583	7.159	43.526	0.247	-0.495	0.293
	Thermal 4{1}	2.835	3.806	28.635	-0.066	-0.022	0.053
	Thermal 5{1}	3.212	6.397	54.454	0.261	-0.171	0.105
	GRT1{1}	4.695	5.962	31.175	0.892	-0.385	0.262
	GRT2{1}	4.315	5.566	57.405	0.260	-0.176	0.165
	GRT3{1}	2.551	7.096	46.823	0.259	-0.489	0.322
	GRT4{1}	2.803	3.743	31.933	-0.055	-0.015	0.081
	GRT5{1}	3.179	6.334	57.752	0.273	-0.165	0.134
C02 F	Gravity{1}	0.022	-0.043	3.261	0.017	0.000	0.020
	Hydrotest{1}	0.132	-0.032	-1.244	-0.059	0.050	0.006
	Thermal 1{1}	5.379	5.432	26.200	0.850	-0.381	0.144
	Thermal 2{1}	4.794	5.041	53.725	0.203	-0.159	0.078
	Thermal 3{1}	3.377	6.607	43.508	0.076	-0.401	0.210
	Thermal 4{1}	3.006	3.591	28.826	-0.089	-0.008	0.032
	Thermal 5{1}	3.619	5.789	54.035	0.217	-0.149	0.072
	GRT1{1}	5.401	5.389	29.461	0.866	-0.381	0.164
	GRT2{1}	4.816	4.998	56.986	0.220	-0.159	0.098
	GRT3{1}	3.398	6.564	46.769	0.092	-0.401	0.229
	GRT4{1}	3.028	3.548	32.087	-0.073	-0.008	0.051
	GRT5{1}	3.641	5.746	57.296	0.234	-0.149	0.092
C10	Gravity{1}	0.038	-0.051	3.247	0.017	-0.001	0.018
	Hydrotest{1}	0.135	-0.037	-1.172	-0.061	0.049	0.005
	Thermal 1{1}	5.342	5.089	25.315	0.842	-0.378	0.125
	Thermal 2{1}	4.719	4.753	53.488	0.194	-0.152	0.066
	Thermal 3{1}	3.395	6.235	43.286	0.041	-0.373	0.192
	Thermal 4{1}	2.981	3.484	28.901	-0.094	-0.004	0.027
	Thermal 5{1}	3.541	5.503	53.790	0.207	-0.143	0.065
	GRT1{1}	5.379	5.038	28.562	0.859	-0.380	0.143
	GRT2{1}	4.757	4.702	56.734	0.211	-0.154	0.084

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GRT3{1}	3.433	6.183	46.533	0.058	-0.374	0.210
GRT4{1}	3.018	3.433	32.147	-0.077	-0.005	0.045
GRT5{1}	3.579	5.452	57.037	0.225	-0.144	0.082

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z

C09	Gravity{1}	0.112	-0.091	3.039	0.036	-0.023	0.004
	Hydrotest{1}	0.133	-0.068	-0.562	-0.062	0.041	-0.001
	Thermal 1{1}	4.496	2.568	18.409	0.763	-0.346	-0.007
	Thermal 2{1}	3.753	2.581	51.965	0.116	-0.095	-0.019
	Thermal 3{1}	3.030	3.458	42.923	-0.201	-0.164	0.064
	Thermal 4{1}	2.649	2.672	29.714	-0.127	0.027	-0.003
	Thermal 5{1}	2.684	3.273	52.200	0.130	-0.089	0.012
	GRT1{1}	4.609	2.477	21.448	0.799	-0.369	-0.002
	GRT2{1}	3.865	2.490	55.004	0.152	-0.118	-0.014
	GRT3{1}	3.143	3.368	45.962	-0.166	-0.187	0.069
	GRT4{1}	2.761	2.581	32.753	-0.091	0.004	0.001
	GRT5{1}	2.797	3.182	55.239	0.166	-0.112	0.016
C03	Gravity{1}	0.116	-0.092	2.722	0.068	-0.048	-0.003
	Hydrotest{1}	0.109	-0.077	-0.218	-0.043	0.024	-0.005
	Thermal 1{1}	3.453	1.100	14.142	0.694	-0.315	-0.076
	Thermal 2{1}	2.797	1.261	51.348	0.065	-0.058	-0.063
	Thermal 3{1}	2.321	1.813	43.912	-0.320	-0.047	-0.006
	Thermal 4{1}	2.316	2.176	30.441	-0.143	0.045	-0.019
	Thermal 5{1}	1.911	1.855	51.532	0.078	-0.053	-0.017
	GRT1{1}	3.569	1.008	16.864	0.762	-0.363	-0.079
	GRT2{1}	2.913	1.168	54.070	0.133	-0.105	-0.066
	GRT3{1}	2.436	1.721	46.634	-0.252	-0.094	-0.009
	GRT4{1}	2.432	2.084	33.163	-0.074	-0.003	-0.022
	GRT5{1}	2.027	1.763	54.253	0.147	-0.101	-0.020
C03 M	Gravity{1}	0.105	-0.087	2.353	0.069	-0.048	-0.003
	Hydrotest{1}	0.091	-0.067	0.000	-0.043	0.024	-0.005
	Thermal 1{1}	2.455	-0.053	10.772	0.693	-0.315	-0.077

		ADS_LINE_REV0.txt					
	Thermal 2{1}	1.920	0.206	50.975	0.065	-0.057	-0.063
	Thermal 3{1}	1.597	0.515	45.071	-0.321	-0.046	-0.007
	Thermal 4{1}	2.009	1.779	31.093	-0.143	0.045	-0.019
	Thermal 5{1}	1.214	0.705	51.115	0.078	-0.053	-0.017
	GRT1{1}	2.561	-0.140	13.125	0.762	-0.363	-0.080
	GRT2{1}	2.025	0.119	53.328	0.134	-0.105	-0.066
	GRT3{1}	1.702	0.428	47.424	-0.252	-0.094	-0.010
	GRT4{1}	2.115	1.692	33.446	-0.074	-0.003	-0.022
	GRT5{1}	1.319	0.618	53.468	0.147	-0.101	-0.020
C07	Gravity{1}	0.094	-0.081	1.982	0.069	-0.048	-0.003
	Hydrotest{1}	0.073	-0.058	0.215	-0.042	0.023	-0.005
	Thermal 1{1}	1.456	-1.205	7.406	0.692	-0.315	-0.077
	Thermal 2{1}	1.041	-0.849	50.603	0.064	-0.057	-0.063
	Thermal 3{1}	0.871	-0.782	46.234	-0.321	-0.045	-0.007
	Thermal 4{1}	1.702	1.383	31.746	-0.143	0.045	-0.019
	Thermal 5{1}	0.516	-0.445	50.700	0.078	-0.053	-0.017
	GRT1{1}	1.550	-1.286	9.388	0.762	-0.363	-0.080
	GRT2{1}	1.136	-0.930	52.585	0.134	-0.106	-0.066
	GRT3{1}	0.965	-0.863	48.215	-0.252	-0.094	-0.010
	GRT4{1}	1.797	1.302	33.728	-0.074	-0.004	-0.022
	GRT5{1}	0.610	-0.526	52.682	0.147	-0.101	-0.020

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ADS_LINE_REV0

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
C05 N	Gravity{1}	0.066	-0.065	1.297	0.105	-0.081	-0.008
	Hydrotest{1}	0.044	-0.043	0.317	0.000	-0.010	-0.006
	Thermal 1{1}	0.922	-0.916	3.443	0.519	-0.234	-0.120
	Thermal 2{1}	0.635	-0.630	50.309	0.018	-0.015	-0.087
	Thermal 3{1}	0.667	-0.669	47.996	-0.321	0.048	-0.066
	Thermal 4{1}	1.263	0.866	32.612	-0.128	0.052	-0.028
	Thermal 5{1}	0.359	-0.359	50.352	0.029	-0.012	-0.041
	GRT1{1}	0.988	-0.981	4.740	0.624	-0.315	-0.127
	GRT2{1}	0.701	-0.695	51.607	0.123	-0.095	-0.095
	GRT3{1}	0.733	-0.734	49.293	-0.216	-0.033	-0.073

ADS_LINE_REV0.txt

	GRT4{1}	1.329	0.800	33.910	-0.022	-0.028	-0.036
	GRT5{1}	0.424	-0.424	51.650	0.134	-0.093	-0.048
C05 F	Gravity{1}	0.063	-0.063	1.231	0.108	-0.083	-0.008
	Hydrotest{1}	0.042	-0.041	0.311	0.009	-0.017	-0.006
	Thermal 1{1}	0.873	-0.879	3.188	0.466	-0.200	-0.128
	Thermal 2{1}	0.600	-0.603	50.302	0.008	-0.006	-0.091
	Thermal 3{1}	0.638	-0.647	48.136	-0.315	0.052	-0.079
	Thermal 4{1}	1.220	0.831	32.676	-0.121	0.049	-0.029
	Thermal 5{1}	0.342	-0.346	50.341	0.017	-0.004	-0.046
	GRT1{1}	0.936	-0.942	4.419	0.574	-0.283	-0.136
	GRT2{1}	0.663	-0.667	51.533	0.115	-0.089	-0.099
	GRT3{1}	0.701	-0.710	49.367	-0.208	-0.031	-0.088
	GRT4{1}	1.282	0.767	33.907	-0.013	-0.034	-0.038
	GRT5{1}	0.404	-0.409	51.573	0.125	-0.087	-0.054
C06	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	50.430	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	50.430	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	33.620	0.000	0.000	0.000
	Thermal 5{1}	0.000	0.000	50.430	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	50.430	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	50.430	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	33.620	0.000	0.000	0.000
	GRT5{1}	0.000	0.000	50.430	0.000	0.000	0.000

*** Segment C end ***

*** Segment D begin ***

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ADS_LINE_REV0

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
B04	Gravity{1}	0.614	1.118	3.382	-0.019	0.214	-0.009
	Hydrotest{1}	0.060	0.092	-1.024	-0.079	0.134	0.006

ADS_LINE_REV0.txt

	Thermal 1{1}	6.367	4.121	10.738	0.463	-0.257	0.093
	Thermal 2{1}	4.515	3.063	40.851	0.107	-0.202	0.062
	Thermal 3{1}	6.306	7.351	26.929	0.678	-0.417	0.044
	Thermal 4{1}	2.106	1.846	24.212	-0.047	-0.064	0.060
	Thermal 5{1}	1.473	4.321	40.883	0.102	-0.199	-0.031
	GRT1{1}	6.980	5.239	14.121	0.444	-0.042	0.085
	GRT2{1}	5.128	4.181	44.233	0.088	0.012	0.053
	GRT3{1}	6.920	8.469	30.311	0.659	-0.202	0.036
	GRT4{1}	2.720	2.965	27.595	-0.066	0.151	0.051
	GRT5{1}	2.087	5.439	44.265	0.083	0.015	-0.039
D01	Gravity{1}	0.612	1.105	3.166	-0.018	0.224	-0.017
	Hydrotest{1}	0.063	0.096	-1.153	-0.081	0.143	0.004
	Thermal 1{1}	6.709	4.174	10.942	0.461	-0.251	0.084
	Thermal 2{1}	4.822	3.095	41.041	0.098	-0.202	0.065
	Thermal 3{1}	6.642	7.347	27.277	0.636	-0.422	0.019
	Thermal 4{1}	2.223	1.897	24.282	-0.052	-0.065	0.065
	Thermal 5{1}	1.638	4.270	41.070	0.094	-0.199	-0.035
	GRT1{1}	7.321	5.279	14.109	0.442	-0.027	0.067
	GRT2{1}	5.434	4.200	44.208	0.080	0.022	0.048
	GRT3{1}	7.254	8.452	30.444	0.617	-0.198	0.002
	GRT4{1}	2.836	3.002	27.448	-0.071	0.159	0.048
	GRT5{1}	2.250	5.376	44.236	0.076	0.025	-0.052
D02 N	Gravity{1}	0.544	0.461	0.093	-0.017	0.273	-0.075
	Hydrotest{1}	0.096	0.074	-3.161	-0.105	0.196	-0.006
	Thermal 1{1}	10.741	3.978	13.046	0.429	-0.200	-0.054
	Thermal 2{1}	8.520	3.425	43.290	-0.001	-0.177	0.029
	Thermal 3{1}	10.516	5.641	31.822	0.136	-0.385	-0.209
	Thermal 4{1}	3.658	2.723	25.191	-0.115	-0.063	0.079
	Thermal 5{1}	3.588	3.392	43.285	-0.003	-0.174	-0.073
	GRT1{1}	11.285	4.438	13.139	0.412	0.074	-0.129
	GRT2{1}	9.064	3.885	43.383	-0.018	0.096	-0.046
	GRT3{1}	11.060	6.102	31.915	0.118	-0.112	-0.284
	GRT4{1}	4.203	3.184	25.284	-0.132	0.211	0.004
	GRT5{1}	4.133	3.853	43.378	-0.020	0.099	-0.148
D02 F	Gravity{1}	0.536	0.433	-0.005	-0.017	0.273	-0.076
	Hydrotest{1}	0.097	0.071	-3.221	-0.106	0.196	-0.006
	Thermal 1{1}	10.856	3.919	13.070	0.428	-0.198	-0.063
	Thermal 2{1}	8.633	3.400	43.354	-0.004	-0.175	0.022
	Thermal 3{1}	10.614	5.526	31.947	0.120	-0.380	-0.217
	Thermal 4{1}	3.708	2.739	25.227	-0.117	-0.062	0.076
	Thermal 5{1}	3.642	3.346	43.348	-0.006	-0.172	-0.075

ADS_LINE_REV0.txt

GRT1{1}	11.392	4.352	13.066	0.411	0.075	-0.138
GRT2{1}	9.169	3.834	43.350	-0.021	0.098	-0.053
GRT3{1}	11.150	5.960	31.943	0.103	-0.107	-0.293
GRT4{1}	4.243	3.172	25.222	-0.134	0.211	0.001
GRT5{1}	4.177	3.780	43.344	-0.023	0.101	-0.150

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ADS_LINE_REV0

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RESULT PAGE 19

D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
D03 N	Gravity{1}	0.295	-0.019	-1.576	-0.027	0.256	-0.066
	Hydrotest{1}	0.093	0.021	-4.049	-0.127	0.193	-0.007
	Thermal 1{1}	12.557	2.149	12.867	0.406	-0.181	-0.157
	Thermal 2{1}	10.440	2.309	44.421	-0.056	-0.137	-0.063
	Thermal 3{1}	11.852	2.886	33.946	-0.140	-0.247	-0.275
	Thermal 4{1}	4.586	2.739	25.982	-0.148	-0.041	0.036
	Thermal 5{1}	4.414	2.296	44.405	-0.058	-0.135	-0.086
	GRT1{1}	12.852	2.130	11.291	0.379	0.075	-0.223
	GRT2{1}	10.735	2.290	42.846	-0.083	0.119	-0.129
	GRT3{1}	12.147	2.867	32.371	-0.167	0.010	-0.341
	GRT4{1}	4.881	2.720	24.406	-0.174	0.216	-0.030
	GRT5{1}	4.710	2.276	42.829	-0.084	0.121	-0.152
D03 F	Gravity{1}	0.214	-0.046	-1.640	-0.033	0.247	-0.056
	Hydrotest{1}	0.086	0.015	-3.951	-0.136	0.189	-0.006
	Thermal 1{1}	12.456	1.631	12.399	0.398	-0.179	-0.194
	Thermal 2{1}	10.450	1.873	44.562	-0.068	-0.126	-0.104
	Thermal 3{1}	11.612	2.320	34.281	-0.203	-0.208	-0.283
	Thermal 4{1}	4.665	2.604	26.203	-0.155	-0.034	0.014
	Thermal 5{1}	4.366	2.032	44.546	-0.069	-0.124	-0.088
	GRT1{1}	12.670	1.585	10.759	0.365	0.068	-0.249
	GRT2{1}	10.664	1.827	42.921	-0.101	0.121	-0.159
	GRT3{1}	11.826	2.274	32.640	-0.236	0.039	-0.339
	GRT4{1}	4.879	2.557	24.562	-0.188	0.213	-0.041
	GRT5{1}	4.580	1.986	42.906	-0.102	0.123	-0.144
D11	Gravity{1}	0.037	0.047	-1.017	-0.051	0.225	-0.039

ADS_LINE_REV0.txt

	Hydrotest{1}	0.060	0.014	-3.043	-0.155	0.178	-0.005
	Thermal 1{1}	10.967	0.813	10.587	0.383	-0.173	-0.243
	Thermal 2{1}	9.345	1.007	44.625	-0.085	-0.101	-0.162
	Thermal 3{1}	9.870	1.636	34.892	-0.295	-0.125	-0.290
	Thermal 4{1}	4.433	2.192	26.746	-0.162	-0.018	-0.018
	Thermal 5{1}	3.695	1.578	44.616	-0.086	-0.100	-0.090
	GRT1{1}	11.004	0.860	9.570	0.332	0.052	-0.282
	GRT2{1}	9.382	1.054	43.608	-0.136	0.124	-0.201
	GRT3{1}	9.907	1.684	33.875	-0.345	0.100	-0.329
	GRT4{1}	4.470	2.239	25.729	-0.213	0.207	-0.058
	GRT5{1}	3.732	1.625	43.599	-0.136	0.126	-0.129
D12	Gravity{1}	-0.108	0.124	-0.169	-0.064	0.192	-0.020
	Hydrotest{1}	0.033	0.010	-1.792	-0.166	0.157	-0.003
	Thermal 1{1}	8.761	-0.141	8.312	0.357	-0.162	-0.289
	Thermal 2{1}	7.593	0.016	44.861	-0.101	-0.072	-0.220
	Thermal 3{1}	7.554	0.740	36.382	-0.383	-0.034	-0.288
	Thermal 4{1}	3.959	1.737	27.539	-0.167	-0.001	-0.053
	Thermal 5{1}	2.803	0.979	44.858	-0.101	-0.071	-0.090
	GRT1{1}	8.653	-0.017	8.143	0.293	0.029	-0.309
	GRT2{1}	7.486	0.140	44.691	-0.165	0.119	-0.240
	GRT3{1}	7.446	0.864	36.212	-0.447	0.157	-0.308
	GRT4{1}	3.851	1.861	27.370	-0.231	0.190	-0.073
	GRT5{1}	2.696	1.103	44.688	-0.165	0.121	-0.110

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ADS_LINE_REV0

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RESULT PAGE 20

D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
D04	Gravity{1}	-0.168	0.156	0.648	-0.016	0.115	0.000
	Hydrotest{1}	0.008	0.001	-0.464	-0.108	0.092	-0.002
	Thermal 1{1}	5.786	-1.208	5.731	0.316	-0.144	-0.315
	Thermal 2{1}	5.097	-1.050	45.328	-0.109	-0.042	-0.262
	Thermal 3{1}	4.730	-0.408	38.994	-0.442	0.052	-0.269
	Thermal 4{1}	3.167	1.277	28.580	-0.162	0.014	-0.083
	Thermal 5{1}	1.711	0.225	45.328	-0.109	-0.041	-0.084

		ADS_LINE_REV0.txt					
	GRT1{1}	5.618	-1.052	6.379	0.300	-0.030	-0.315
	GRT2{1}	4.928	-0.895	45.976	-0.125	0.073	-0.263
	GRT3{1}	4.562	-0.253	39.642	-0.457	0.167	-0.269
	GRT4{1}	2.999	1.433	29.228	-0.177	0.129	-0.083
	GRT5{1}	1.542	0.381	45.976	-0.124	0.074	-0.085
D04 M	Gravity{1}	-0.170	0.157	0.874	-0.015	0.114	0.000
	Hydrotest{1}	0.003	0.003	0.000	-0.108	0.091	-0.002
	Thermal 1{1}	4.328	-1.705	4.569	0.316	-0.144	-0.315
	Thermal 2{1}	3.843	-1.534	45.585	-0.109	-0.041	-0.263
	Thermal 3{1}	3.408	-0.978	40.384	-0.442	0.052	-0.269
	Thermal 4{1}	2.747	1.078	29.081	-0.162	0.014	-0.083
	Thermal 5{1}	1.195	-0.142	45.586	-0.109	-0.041	-0.084
	GRT1{1}	4.158	-1.549	5.443	0.301	-0.030	-0.315
	GRT2{1}	3.674	-1.377	46.459	-0.124	0.073	-0.263
	GRT3{1}	3.238	-0.821	41.258	-0.457	0.167	-0.269
	GRT4{1}	2.577	1.234	29.955	-0.177	0.129	-0.083
	GRT5{1}	1.026	0.014	46.459	-0.124	0.073	-0.085
D08	Gravity{1}	-0.171	0.157	1.096	-0.014	0.114	0.000
	Hydrotest{1}	-0.002	0.006	0.461	-0.107	0.091	-0.002
	Thermal 1{1}	2.869	-2.202	3.409	0.315	-0.144	-0.315
	Thermal 2{1}	2.590	-2.018	45.842	-0.109	-0.041	-0.263
	Thermal 3{1}	2.086	-1.547	41.774	-0.442	0.053	-0.268
	Thermal 4{1}	2.326	0.878	29.582	-0.162	0.014	-0.083
	Thermal 5{1}	0.680	-0.510	45.843	-0.109	-0.041	-0.084
	GRT1{1}	2.699	-2.045	4.505	0.301	-0.031	-0.315
	GRT2{1}	2.419	-1.860	46.939	-0.123	0.072	-0.263
	GRT3{1}	1.916	-1.390	42.870	-0.456	0.166	-0.269
	GRT4{1}	2.155	1.035	30.679	-0.176	0.128	-0.083
	GRT5{1}	0.510	-0.353	46.940	-0.123	0.073	-0.085
D06 N	Gravity{1}	-0.142	0.141	1.077	0.069	0.010	0.012
	Hydrotest{1}	-0.007	0.008	0.778	-0.003	-0.004	0.000
	Thermal 1{1}	1.503	-1.476	1.793	0.247	-0.112	-0.272
	Thermal 2{1}	1.416	-1.392	46.240	-0.093	-0.019	-0.241
	Thermal 3{1}	0.985	-0.962	43.888	-0.387	0.088	-0.206
	Thermal 4{1}	1.658	0.574	30.308	-0.132	0.020	-0.085
	Thermal 5{1}	0.331	-0.324	46.241	-0.093	-0.019	-0.066
	GRT1{1}	1.362	-1.334	2.870	0.316	-0.102	-0.260
	GRT2{1}	1.274	-1.251	47.317	-0.024	-0.010	-0.229
	GRT3{1}	0.843	-0.821	44.965	-0.318	0.098	-0.194
	GRT4{1}	1.516	0.715	31.385	-0.063	0.030	-0.073
	GRT5{1}	0.189	-0.183	47.318	-0.024	-0.009	-0.054

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RESULT PAGE 21

D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
D06 F	Gravity{1}	-0.139	0.139	1.060	0.082	-0.002	0.014
	Hydrotest{1}	-0.007	0.008	0.774	0.013	-0.017	0.000
	Thermal 1{1}	1.441	-1.430	1.718	0.232	-0.103	-0.259
	Thermal 2{1}	1.360	-1.352	46.258	-0.091	-0.019	-0.233
	Thermal 3{1}	0.938	-0.928	43.993	-0.375	0.084	-0.190
	Thermal 4{1}	1.619	0.562	30.342	-0.127	0.018	-0.085
	Thermal 5{1}	0.316	-0.313	46.260	-0.091	-0.019	-0.062
	GRT1{1}	1.302	-1.291	2.777	0.314	-0.105	-0.245
	GRT2{1}	1.222	-1.213	47.318	-0.009	-0.021	-0.218
	GRT3{1}	0.800	-0.789	45.052	-0.293	0.082	-0.176
	GRT4{1}	1.480	0.701	31.401	-0.044	0.015	-0.070
	GRT5{1}	0.177	-0.174	47.319	-0.008	-0.021	-0.047
D07	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	46.710	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	46.710	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	31.140	0.000	0.000	0.000
	Thermal 5{1}	0.000	0.000	46.710	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	46.710	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	46.710	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	31.140	0.000	0.000	0.000
	GRT5{1}	0.000	0.000	46.710	0.000	0.000	0.000
*** Segment D end ***							
*** Segment E begin ***							
B05	Gravity{1}	0.249	1.156	3.061	0.008	0.067	0.042
	Hydrotest{1}	-0.084	0.164	-0.732	0.092	-0.055	0.009
	Thermal 1{1}	3.885	10.931	22.094	0.604	-0.530	0.275
	Thermal 2{1}	2.989	9.143	44.468	0.177	-0.287	0.206

	ADS_LINE_REV0.txt					
Thermal 3{1}	5.361	14.000	39.573	0.472	-0.255	0.131
Thermal 4{1}	0.955	4.145	23.624	-0.047	-0.048	0.104
Thermal 5{1}	2.840	7.480	44.560	0.194	-0.275	-0.073
GRT1{1}	4.135	12.087	25.155	0.612	-0.463	0.317
GRT2{1}	3.238	10.300	47.529	0.185	-0.220	0.248
GRT3{1}	5.610	15.156	42.634	0.480	-0.189	0.173
GRT4{1}	1.204	5.302	26.686	-0.039	0.019	0.146
GRT5{1}	3.089	8.636	47.622	0.202	-0.209	-0.031

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RESULT PAGE 22

DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
E01	Gravity{1}	0.245	1.114	3.133	0.013	0.076	0.044
	Hydrotest{1}	-0.087	0.155	-0.777	0.087	-0.054	0.009
	Thermal 1{1}	3.523	10.686	21.628	0.594	-0.536	0.289
	Thermal 2{1}	2.666	8.963	44.200	0.164	-0.288	0.219
	Thermal 3{1}	5.014	13.904	39.371	0.447	-0.248	0.133
	Thermal 4{1}	0.833	4.051	23.572	-0.053	-0.047	0.110
	Thermal 5{1}	2.681	7.572	44.305	0.181	-0.278	-0.076
	GRT1{1}	3.768	11.800	24.761	0.606	-0.459	0.333
	GRT2{1}	2.911	10.077	47.333	0.177	-0.212	0.263
	GRT3{1}	5.259	15.018	42.504	0.460	-0.172	0.177
	GRT4{1}	1.077	5.165	26.705	-0.040	0.029	0.154
	GRT5{1}	2.925	8.685	47.439	0.193	-0.201	-0.032
E19	Gravity{1}	0.223	0.910	3.572	0.034	0.124	0.050
	Hydrotest{1}	-0.104	0.120	-0.953	0.068	-0.039	0.008
	Thermal 1{1}	1.931	9.477	19.536	0.549	-0.548	0.336
	Thermal 2{1}	1.245	8.043	43.008	0.108	-0.290	0.266
	Thermal 3{1}	3.503	13.463	38.546	0.339	-0.217	0.140
	Thermal 4{1}	0.296	3.576	23.346	-0.078	-0.044	0.131
	Thermal 5{1}	1.987	7.998	43.163	0.123	-0.281	-0.085
	GRT1{1}	2.154	10.387	23.107	0.583	-0.425	0.386
	GRT2{1}	1.468	8.953	46.580	0.142	-0.166	0.316
	GRT3{1}	3.726	14.373	42.117	0.373	-0.093	0.190
	GRT4{1}	0.519	4.486	26.917	-0.044	0.080	0.181

ADS_LINE_REV0.txt

	GRT5{1}	2.210	8.908	46.734	0.157	-0.158	-0.035
E17	Gravity{1}	0.200	0.690	4.246	0.056	0.180	0.051
	Hydrotest{1}	-0.120	0.088	-1.022	0.050	-0.001	0.007
	Thermal 1{1}	0.323	8.113	17.411	0.506	-0.541	0.361
	Thermal 2{1}	-0.192	6.963	41.803	0.052	-0.283	0.294
	Thermal 3{1}	1.990	13.006	37.800	0.231	-0.189	0.141
	Thermal 4{1}	-0.249	3.029	23.119	-0.103	-0.041	0.143
	Thermal 5{1}	1.296	8.449	41.996	0.066	-0.277	-0.087
	GRT1{1}	0.523	8.804	21.657	0.562	-0.361	0.412
	GRT2{1}	0.008	7.653	46.049	0.109	-0.103	0.345
	GRT3{1}	2.190	13.696	42.046	0.287	-0.008	0.192
	GRT4{1}	-0.049	3.719	27.366	-0.047	0.139	0.194
	GRT5{1}	1.496	9.139	46.242	0.122	-0.096	-0.036
E16	Gravity{1}	0.171	0.415	5.487	0.084	0.245	0.047
	Hydrotest{1}	-0.140	0.051	-0.842	0.029	0.056	0.006
	Thermal 1{1}	-1.758	6.287	14.766	0.454	-0.503	0.358
	Thermal 2{1}	-2.056	5.468	40.288	-0.018	-0.262	0.300
	Thermal 3{1}	0.041	12.437	36.936	0.091	-0.156	0.132
	Thermal 4{1}	-0.955	2.286	22.828	-0.136	-0.038	0.144
	Thermal 5{1}	0.404	9.021	40.517	-0.006	-0.258	-0.081
	GRT1{1}	-1.587	6.701	20.253	0.538	-0.258	0.405
	GRT2{1}	-1.885	5.883	45.775	0.066	-0.017	0.347
	GRT3{1}	0.212	12.851	42.424	0.175	0.089	0.179
	GRT4{1}	-0.784	2.700	28.315	-0.052	0.207	0.191
	GRT5{1}	0.575	9.436	46.004	0.078	-0.013	-0.034

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
E02 N	Gravity{1}	0.140	0.119	7.550	0.114	0.250	0.028
	Hydrotest{1}	-0.167	0.008	-0.226	-0.005	0.085	0.006
	Thermal 1{1}	-4.591	4.012	11.625	0.388	-0.396	0.294
	Thermal 2{1}	-4.604	3.535	38.407	-0.112	-0.211	0.258
	Thermal 3{1}	-2.621	11.790	35.892	-0.102	-0.117	0.104

ADS_LINE_REV0.txt

	Thermal 4{1}	-1.916	1.349	22.429	-0.181	-0.033	0.119
	Thermal 5{1}	-0.833	9.690	38.669	-0.102	-0.209	-0.055
	GRT1{1}	-4.451	4.131	19.175	0.502	-0.146	0.322
	GRT2{1}	-4.464	3.654	45.957	0.002	0.038	0.286
	GRT3{1}	-2.481	11.909	43.442	0.011	0.132	0.132
	GRT4{1}	-1.776	1.467	29.978	-0.067	0.216	0.147
	GRT5{1}	-0.693	9.808	46.219	0.011	0.041	-0.027
E02 F	Gravity{1}	0.160	0.091	7.710	0.122	0.226	0.019
	Hydrotest{1}	-0.166	-0.001	-0.126	-0.012	0.078	0.005
	Thermal 1{1}	-4.719	3.408	10.876	0.370	-0.350	0.256
	Thermal 2{1}	-4.723	2.995	38.297	-0.135	-0.190	0.230
	Thermal 3{1}	-2.904	11.385	35.885	-0.148	-0.104	0.090
	Thermal 4{1}	-1.942	1.125	22.559	-0.191	-0.031	0.104
	Thermal 5{1}	-1.060	9.595	38.554	-0.126	-0.187	-0.042
	GRT1{1}	-4.559	3.499	18.586	0.492	-0.124	0.276
	GRT2{1}	-4.563	3.086	46.007	-0.013	0.037	0.250
	GRT3{1}	-2.744	11.476	43.595	-0.026	0.122	0.109
	GRT4{1}	-1.782	1.217	30.269	-0.069	0.195	0.123
	GRT5{1}	-0.900	9.686	46.264	-0.004	0.039	-0.023
E03	Gravity{1}	0.210	0.086	7.266	0.155	0.171	0.007
	Hydrotest{1}	-0.147	-0.014	-0.048	-0.009	0.054	0.005
	Thermal 1{1}	-3.971	2.008	9.366	0.338	-0.254	0.197
	Thermal 2{1}	-4.035	1.728	38.829	-0.175	-0.147	0.185
	Thermal 3{1}	-2.733	10.046	36.566	-0.222	-0.088	0.068
	Thermal 4{1}	-1.628	0.653	23.326	-0.209	-0.029	0.080
	Thermal 5{1}	-1.256	8.949	39.053	-0.167	-0.146	-0.023
	GRT1{1}	-3.761	2.094	16.632	0.493	-0.083	0.204
	GRT2{1}	-3.826	1.814	46.095	-0.019	0.024	0.192
	GRT3{1}	-2.524	10.132	43.832	-0.066	0.083	0.075
	GRT4{1}	-1.418	0.739	30.592	-0.053	0.142	0.087
	GRT5{1}	-1.046	9.036	46.319	-0.011	0.026	-0.017
E03 M	Gravity{1}	0.231	0.084	6.807	0.156	0.171	0.006
	Hydrotest{1}	-0.130	-0.016	0.000	-0.008	0.054	0.005
	Thermal 1{1}	-3.432	0.822	8.152	0.337	-0.253	0.197
	Thermal 2{1}	-3.526	0.654	39.360	-0.175	-0.147	0.185
	Thermal 3{1}	-2.624	8.904	37.275	-0.222	-0.088	0.068
	Thermal 4{1}	-1.400	0.253	24.012	-0.209	-0.029	0.080
	Thermal 5{1}	-1.392	8.394	39.558	-0.167	-0.145	-0.023
	GRT1{1}	-3.201	0.906	14.959	0.493	-0.082	0.203
	GRT2{1}	-3.294	0.737	46.167	-0.019	0.024	0.191
	GRT3{1}	-2.392	8.988	44.082	-0.066	0.083	0.074

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GRT4{1}	-1.169	0.337	30.819	-0.053	0.142	0.086
GRT5{1}	-1.161	8.478	46.365	-0.011	0.025	-0.017

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
E12	Gravity{1}	0.252	0.082	6.346	0.157	0.170	0.006
	Hydrotest{1}	-0.114	-0.018	0.046	-0.008	0.053	0.005
	Thermal 1{1}	-2.896	-0.364	6.940	0.337	-0.252	0.196
	Thermal 2{1}	-3.017	-0.421	39.893	-0.175	-0.147	0.184
	Thermal 3{1}	-2.515	7.763	37.986	-0.223	-0.088	0.068
	Thermal 4{1}	-1.173	-0.146	24.698	-0.209	-0.029	0.080
	Thermal 5{1}	-1.528	7.839	40.065	-0.167	-0.145	-0.023
	GRT1{1}	-2.643	-0.283	13.286	0.494	-0.082	0.202
	GRT2{1}	-2.765	-0.339	46.238	-0.019	0.024	0.190
	GRT3{1}	-2.262	7.845	44.331	-0.066	0.083	0.074
	GRT4{1}	-0.921	-0.065	31.044	-0.052	0.141	0.086
	GRT5{1}	-1.276	7.921	46.410	-0.011	0.025	-0.017
E05	Gravity{1}	0.257	0.081	6.036	0.191	0.127	-0.002
	Hydrotest{1}	-0.105	-0.019	0.053	0.008	0.034	0.004
	Thermal 1{1}	-2.569	-0.399	6.295	0.286	-0.175	0.142
	Thermal 2{1}	-2.704	-0.454	40.226	-0.195	-0.115	0.139
	Thermal 3{1}	-2.436	7.425	38.432	-0.254	-0.078	0.049
	Thermal 4{1}	-1.040	-0.161	25.097	-0.208	-0.029	0.058
	Thermal 5{1}	-1.594	7.517	40.385	-0.189	-0.114	-0.010
	GRT1{1}	-2.312	-0.318	12.330	0.477	-0.048	0.141
	GRT2{1}	-2.448	-0.373	46.262	-0.004	0.012	0.138
	GRT3{1}	-2.179	7.507	44.468	-0.063	0.049	0.048
	GRT4{1}	-0.783	-0.079	31.133	-0.017	0.098	0.056
	GRT5{1}	-1.338	7.598	46.420	0.002	0.013	-0.012
E13	Gravity{1}	0.253	0.081	5.756	0.196	0.118	-0.003
	Hydrotest{1}	-0.099	-0.020	0.042	0.011	0.030	0.004
	Thermal 1{1}	-2.358	-0.421	5.834	0.274	-0.159	0.130
	Thermal 2{1}	-2.497	-0.476	40.513	-0.198	-0.109	0.129

ADS_LINE_REV0.txt

Thermal 3{1}	-2.391	7.157	38.816	-0.258	-0.076	0.045
Thermal 4{1}	-0.954	-0.170	25.414	-0.207	-0.029	0.053
Thermal 5{1}	-1.635	7.257	40.661	-0.192	-0.108	-0.007
GRT1{1}	-2.104	-0.340	11.590	0.470	-0.041	0.127
GRT2{1}	-2.244	-0.394	46.268	-0.002	0.009	0.126
GRT3{1}	-2.138	7.238	44.572	-0.063	0.042	0.042
GRT4{1}	-0.701	-0.088	31.169	-0.011	0.089	0.050
GRT5{1}	-1.382	7.339	46.417	0.004	0.010	-0.011
E07 N Gravity{1}	0.210	0.086	4.104	0.190	0.100	-0.006
Hydrotest{1}	-0.064	-0.024	-0.033	0.009	0.021	0.004
Thermal 1{1}	-1.311	-0.532	3.371	0.243	-0.121	0.102
Thermal 2{1}	-1.445	-0.587	42.190	-0.193	-0.095	0.104
Thermal 3{1}	-2.188	5.600	41.070	-0.254	-0.073	0.035
Thermal 4{1}	-0.529	-0.215	27.204	-0.195	-0.030	0.041
Thermal 5{1}	-1.835	5.743	42.287	-0.188	-0.094	-0.002
GRT1{1}	-1.101	-0.446	7.476	0.432	-0.022	0.096
GRT2{1}	-1.235	-0.501	46.294	-0.004	0.004	0.098
GRT3{1}	-1.979	5.686	45.174	-0.065	0.027	0.029
GRT4{1}	-0.319	-0.129	31.309	-0.006	0.069	0.035
GRT5{1}	-1.625	5.829	46.391	0.002	0.005	-0.008

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RESULT PAGE 25

D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
E07 F	Gravity{1}	0.203	0.085	3.900	0.179	0.096	-0.008
	Hydrotest{1}	-0.060	-0.023	-0.045	0.006	0.020	0.003
	Thermal 1{1}	-1.215	-0.518	3.152	0.226	-0.118	0.086
	Thermal 2{1}	-1.346	-0.572	42.399	-0.186	-0.093	0.090
	Thermal 3{1}	-2.128	5.433	41.337	-0.246	-0.072	0.030
	Thermal 4{1}	-0.490	-0.209	27.404	-0.185	-0.030	0.035
	Thermal 5{1}	-1.808	5.571	42.490	-0.181	-0.092	0.001
	GRT1{1}	-1.012	-0.433	7.052	0.404	-0.022	0.078
	GRT2{1}	-1.143	-0.487	46.299	-0.007	0.004	0.082
	GRT3{1}	-1.925	5.518	45.237	-0.067	0.024	0.022

		ADS_LINE_REV0.txt					
	GRT4{1}	-0.287	-0.124	31.304	-0.006	0.067	0.027
	GRT5{1}	-1.605	5.656	46.390	-0.002	0.004	-0.007
E18	Gravity{1}	0.084	0.032	1.270	0.121	0.062	-0.008
	Hydrotest{1}	-0.020	-0.007	-0.119	-0.007	0.007	0.002
	Thermal 1{1}	-0.345	-0.131	1.099	0.142	-0.053	0.042
	Thermal 2{1}	-0.405	-0.153	45.196	-0.138	-0.065	0.048
	Thermal 3{1}	-0.776	3.228	44.796	-0.182	-0.059	0.015
	Thermal 4{1}	-0.139	-0.053	29.830	-0.131	-0.029	0.017
	Thermal 5{1}	-0.711	3.253	45.226	-0.135	-0.064	0.005
	GRT1{1}	-0.261	-0.100	2.369	0.263	0.009	0.033
	GRT2{1}	-0.321	-0.122	46.465	-0.017	-0.003	0.039
	GRT3{1}	-0.692	3.259	46.066	-0.061	0.003	0.007
	GRT4{1}	-0.055	-0.021	31.099	-0.010	0.033	0.008
	GRT5{1}	-0.627	3.285	46.496	-0.014	-0.002	-0.003
E08 N	Gravity{1}	0.013	0.000	0.137	0.059	0.028	-0.005
	Hydrotest{1}	-0.003	0.001	-0.038	-0.009	0.001	0.001
	Thermal 1{1}	-0.046	0.001	0.173	0.066	-0.012	0.018
	Thermal 2{1}	-0.056	0.001	46.521	-0.073	-0.031	0.022
	Thermal 3{1}	0.101	1.550	46.460	-0.096	-0.032	0.007
	Thermal 4{1}	-0.019	0.001	30.967	-0.067	-0.017	0.007
	Thermal 5{1}	0.108	1.550	46.525	-0.072	-0.031	0.004
	GRT1{1}	-0.034	0.001	0.310	0.124	0.016	0.013
	GRT2{1}	-0.043	0.001	46.658	-0.015	-0.003	0.017
	GRT3{1}	0.114	1.550	46.597	-0.037	-0.004	0.002
	GRT4{1}	-0.006	0.000	31.104	-0.008	0.010	0.002
	GRT5{1}	0.121	1.549	46.662	-0.013	-0.003	-0.001
E08 F	Gravity{1}	0.009	-0.001	0.089	0.029	0.020	-0.003
	Hydrotest{1}	-0.002	0.001	-0.030	-0.006	0.001	0.001
	Thermal 1{1}	-0.032	0.004	0.123	0.035	-0.012	0.009
	Thermal 2{1}	-0.039	0.004	46.583	-0.039	-0.022	0.011
	Thermal 3{1}	0.133	1.378	46.539	-0.051	-0.022	0.003
	Thermal 4{1}	-0.013	0.002	31.021	-0.035	-0.012	0.004
	Thermal 5{1}	0.138	1.378	46.585	-0.038	-0.022	0.002
	GRT1{1}	-0.024	0.003	0.212	0.064	0.008	0.007
	GRT2{1}	-0.030	0.004	46.671	-0.009	-0.002	0.009
	GRT3{1}	0.142	1.378	46.628	-0.022	-0.002	0.001
	GRT4{1}	-0.004	0.001	31.110	-0.006	0.009	0.001
	GRT5{1}	0.147	1.377	46.674	-0.009	-0.002	-0.001

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ADS_LINE_REV0

D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
E09	Gravity{1}	0.005	0.000	0.049	0.018	0.013	-0.002
	Hydrotest{1}	-0.001	0.001	-0.019	-0.005	0.001	0.000
	Thermal 1{1}	-0.019	0.002	0.070	0.023	-0.008	0.006
	Thermal 2{1}	-0.022	0.003	46.637	-0.025	-0.014	0.007
	Thermal 3{1}	0.107	1.077	46.612	-0.033	-0.014	0.002
	Thermal 4{1}	-0.007	0.001	31.072	-0.023	-0.007	0.002
	Thermal 5{1}	0.109	1.077	46.638	-0.025	-0.014	0.001
	GRT1{1}	-0.013	0.002	0.119	0.041	0.005	0.004
	GRT2{1}	-0.017	0.002	46.686	-0.007	-0.001	0.006
	GRT3{1}	0.112	1.077	46.661	-0.015	-0.001	0.001
	GRT4{1}	-0.002	0.000	31.121	-0.005	0.006	0.001
	GRT5{1}	0.114	1.076	46.687	-0.006	-0.001	0.000
E14	Gravity{1}	0.003	0.000	0.025	0.012	0.008	-0.001
	Hydrotest{1}	-0.001	0.000	-0.011	-0.004	0.001	0.000
	Thermal 1{1}	-0.010	0.001	0.036	0.015	-0.005	0.004
	Thermal 2{1}	-0.012	0.001	46.672	-0.017	-0.009	0.005
	Thermal 3{1}	0.079	0.780	46.659	-0.022	-0.009	0.001
	Thermal 4{1}	-0.004	0.000	31.105	-0.015	-0.005	0.002
	Thermal 5{1}	0.080	0.780	46.673	-0.016	-0.009	0.001
	GRT1{1}	-0.007	0.001	0.060	0.026	0.003	0.003
	GRT2{1}	-0.009	0.001	46.697	-0.005	-0.001	0.004
	GRT3{1}	0.081	0.780	46.684	-0.010	0.000	0.000
	GRT4{1}	-0.001	0.000	31.130	-0.003	0.004	0.001
	GRT5{1}	0.083	0.780	46.697	-0.005	-0.001	0.000
E11	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	46.710	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	46.710	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	31.140	0.000	0.000	0.000
	Thermal 5{1}	0.000	0.000	46.710	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	46.710	0.000	0.000	0.000

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GRT3{1}	0.000	0.000	46.710	0.000	0.000	0.000
GRT4{1}	0.000	0.000	31.140	0.000	0.000	0.000
GRT5{1}	0.000	0.000	46.710	0.000	0.000	0.000

*** Segment E end ***

*** Segment F begin ***

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z

B08	Gravity{1}	-0.476	1.233	1.706	-0.156	-0.139	0.040
	Hydrotest{1}	-0.264	0.215	0.373	-0.012	-0.130	0.011
	Thermal 1{1}	-0.615	17.407	34.416	0.598	-0.569	0.322
	Thermal 2{1}	-0.313	14.916	48.500	0.165	-0.286	0.250
	Thermal 3{1}	3.365	20.212	47.385	0.297	-0.228	0.167
	Thermal 4{1}	-0.655	6.311	22.861	-0.065	-0.037	0.112
	Thermal 5{1}	4.519	11.981	49.079	0.209	-0.261	-0.063
	GRT1{1}	-1.091	18.639	36.122	0.442	-0.709	0.362
	GRT2{1}	-0.789	16.148	50.206	0.009	-0.425	0.290
	GRT3{1}	2.889	21.445	49.090	0.141	-0.367	0.207
	GRT4{1}	-1.131	7.544	24.566	-0.222	-0.176	0.152
	GRT5{1}	4.043	13.213	50.785	0.053	-0.400	-0.023
F01	Gravity{1}	-0.480	1.193	1.542	-0.158	-0.155	0.040
	Hydrotest{1}	-0.268	0.205	0.238	-0.016	-0.136	0.010
	Thermal 1{1}	-0.982	17.118	33.909	0.591	-0.578	0.330
	Thermal 2{1}	-0.640	14.695	48.232	0.158	-0.288	0.258
	Thermal 3{1}	3.015	20.082	47.188	0.287	-0.231	0.165
	Thermal 4{1}	-0.778	6.210	22.818	-0.068	-0.036	0.116
	Thermal 5{1}	4.226	12.078	48.840	0.202	-0.265	-0.069
	GRT1{1}	-1.462	18.311	35.451	0.433	-0.732	0.370
	GRT2{1}	-1.120	15.888	49.775	0.000	-0.443	0.298
	GRT3{1}	2.535	21.275	48.730	0.129	-0.386	0.206
	GRT4{1}	-1.258	7.403	24.360	-0.225	-0.191	0.156
	GRT5{1}	3.745	13.271	50.382	0.044	-0.419	-0.029
F17	Gravity{1}	-0.535	0.678	-1.121	-0.157	-0.180	0.040

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	Hydrotest{1}	-0.314	0.120	-1.420	-0.051	-0.077	0.005
	Thermal 1{1}	-5.707	12.949	26.953	0.510	-0.618	0.389
	Thermal 2{1}	-4.867	11.343	44.669	0.072	-0.291	0.325
	Thermal 3{1}	-1.433	18.545	44.449	0.165	-0.242	0.151
	Thermal 4{1}	-2.365	4.673	22.314	-0.100	-0.026	0.146
	Thermal 5{1}	0.520	13.673	45.533	0.108	-0.281	-0.106
	GRT1{1}	-6.241	13.627	25.832	0.354	-0.799	0.429
	GRT2{1}	-5.401	12.020	43.548	-0.085	-0.472	0.365
	GRT3{1}	-1.968	19.223	43.328	0.008	-0.422	0.190
	GRT4{1}	-2.899	5.351	21.193	-0.257	-0.206	0.186
	GRT5{1}	-0.015	14.350	44.412	-0.048	-0.462	-0.066
F16	Gravity{1}	-0.557	0.461	-2.051	-0.148	-0.118	0.037
	Hydrotest{1}	-0.333	0.098	-1.664	-0.061	0.002	0.004
	Thermal 1{1}	-7.804	10.959	23.839	0.478	-0.599	0.394
	Thermal 2{1}	-6.749	9.675	43.113	0.035	-0.277	0.335
	Thermal 3{1}	-3.389	17.911	43.208	0.113	-0.231	0.148
	Thermal 4{1}	-3.073	3.913	22.119	-0.115	-0.021	0.149
	Thermal 5{1}	-1.108	14.421	44.041	0.069	-0.271	-0.096
	GRT1{1}	-8.362	11.420	21.788	0.330	-0.717	0.431
	GRT2{1}	-7.306	10.136	41.063	-0.113	-0.395	0.372
	GRT3{1}	-3.946	18.372	41.157	-0.036	-0.350	0.186
	GRT4{1}	-3.630	4.374	20.068	-0.263	-0.140	0.187
	GRT5{1}	-1.666	14.882	41.990	-0.080	-0.389	-0.059

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
F02 N	Gravity{1}	-0.598	0.074	-2.974	-0.136	-0.032	0.028
	Hydrotest{1}	-0.372	0.054	-1.088	-0.090	0.082	0.005
	Thermal 1{1}	-12.181	6.904	17.962	0.419	-0.486	0.363
	Thermal 2{1}	-10.684	6.206	40.203	-0.038	-0.215	0.315
	Thermal 3{1}	-7.478	16.588	40.841	0.006	-0.180	0.151
	Thermal 4{1}	-4.551	2.349	21.771	-0.145	-0.011	0.138
	Thermal 5{1}	-4.557	15.577	41.206	-0.010	-0.214	-0.027
	GRT1{1}	-12.779	6.978	14.988	0.283	-0.518	0.391

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	GRT2{1}	-11.282	6.281	37.229	-0.174	-0.247	0.343
	GRT3{1}	-8.076	16.663	37.867	-0.129	-0.212	0.179
	GRT4{1}	-5.149	2.423	18.797	-0.280	-0.043	0.166
	GRT5{1}	-5.155	15.652	38.232	-0.146	-0.246	0.001
F02 M	Gravity{1}	-0.592	0.054	-2.967	-0.135	-0.030	0.026
	Hydrotest{1}	-0.373	0.050	-1.009	-0.093	0.079	0.005
	Thermal 1{1}	-12.349	6.568	17.522	0.415	-0.468	0.356
	Thermal 2{1}	-10.838	5.912	40.058	-0.043	-0.206	0.309
	Thermal 3{1}	-7.691	16.405	40.712	-0.001	-0.172	0.152
	Thermal 4{1}	-4.603	2.225	21.795	-0.147	-0.010	0.135
	Thermal 5{1}	-4.782	15.527	41.056	-0.016	-0.204	-0.015
	GRT1{1}	-12.941	6.622	14.555	0.279	-0.498	0.382
	GRT2{1}	-11.430	5.966	37.091	-0.178	-0.236	0.336
	GRT3{1}	-8.283	16.459	37.745	-0.137	-0.202	0.179
	GRT4{1}	-5.195	2.279	18.828	-0.282	-0.040	0.162
	GRT5{1}	-5.375	15.581	38.089	-0.151	-0.235	0.012
F02 F	Gravity{1}	-0.575	0.045	-2.887	-0.134	-0.030	0.025
	Hydrotest{1}	-0.370	0.046	-0.917	-0.095	0.077	0.005
	Thermal 1{1}	-12.235	6.214	17.078	0.409	-0.452	0.349
	Thermal 2{1}	-10.743	5.597	40.015	-0.050	-0.197	0.303
	Thermal 3{1}	-7.710	16.124	40.654	-0.010	-0.164	0.153
	Thermal 4{1}	-4.554	2.101	21.891	-0.149	-0.008	0.132
	Thermal 5{1}	-4.898	15.327	40.996	-0.023	-0.196	-0.002
	GRT1{1}	-12.810	6.259	14.190	0.274	-0.481	0.373
	GRT2{1}	-11.318	5.642	37.128	-0.184	-0.227	0.328
	GRT3{1}	-8.285	16.169	37.767	-0.145	-0.194	0.178
	GRT4{1}	-5.129	2.146	19.004	-0.284	-0.038	0.157
	GRT5{1}	-5.473	15.372	38.108	-0.157	-0.225	0.022
F03	Gravity{1}	-0.388	0.025	-1.862	-0.065	-0.028	0.014
	Hydrotest{1}	-0.312	0.012	-0.120	-0.033	0.032	0.007
	Thermal 1{1}	-9.549	2.672	13.049	0.342	-0.268	0.274
	Thermal 2{1}	-8.407	2.405	40.597	-0.108	-0.106	0.241
	Thermal 3{1}	-6.595	12.747	40.986	-0.090	-0.088	0.145
	Thermal 4{1}	-3.529	0.909	23.415	-0.168	0.002	0.102
	Thermal 5{1}	-4.859	12.378	41.345	-0.087	-0.106	0.069
	GRT1{1}	-9.937	2.697	11.187	0.277	-0.296	0.288
	GRT2{1}	-8.795	2.431	38.735	-0.173	-0.135	0.255
	GRT3{1}	-6.984	12.773	39.124	-0.155	-0.116	0.159
	GRT4{1}	-3.917	0.934	21.553	-0.233	-0.026	0.116
	GRT5{1}	-5.247	12.404	39.483	-0.152	-0.135	0.083

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
F03 M	Gravity{1}	-0.342	0.020	-1.657	-0.064	-0.028	0.014
	Hydrotest{1}	-0.289	0.009	0.000	-0.032	0.032	0.007
	Thermal 1{1}	-8.753	1.458	11.816	0.342	-0.267	0.274
	Thermal 2{1}	-7.711	1.311	40.921	-0.108	-0.106	0.241
	Thermal 3{1}	-6.231	11.579	41.256	-0.090	-0.088	0.145
	Thermal 4{1}	-3.227	0.502	23.977	-0.168	0.002	0.102
	Thermal 5{1}	-4.736	11.344	41.599	-0.087	-0.106	0.069
	GRT1{1}	-9.095	1.479	10.159	0.277	-0.295	0.288
	GRT2{1}	-8.052	1.331	39.264	-0.173	-0.134	0.254
	GRT3{1}	-6.572	11.600	39.598	-0.154	-0.116	0.159
	GRT4{1}	-3.569	0.522	22.319	-0.232	-0.026	0.116
	GRT5{1}	-5.077	11.365	39.941	-0.152	-0.134	0.083
F14	Gravity{1}	-0.295	0.016	-1.455	-0.064	-0.028	0.014
	Hydrotest{1}	-0.265	0.007	0.117	-0.032	0.032	0.007
	Thermal 1{1}	-7.958	0.245	10.585	0.341	-0.267	0.274
	Thermal 2{1}	-7.015	0.217	41.246	-0.109	-0.106	0.240
	Thermal 3{1}	-5.866	10.411	41.526	-0.091	-0.087	0.145
	Thermal 4{1}	-2.926	0.094	24.539	-0.168	0.002	0.102
	Thermal 5{1}	-4.612	10.310	41.854	-0.088	-0.106	0.069
	GRT1{1}	-8.253	0.261	9.131	0.278	-0.295	0.287
	GRT2{1}	-7.311	0.232	39.791	-0.172	-0.134	0.254
	GRT3{1}	-6.161	10.427	40.072	-0.154	-0.116	0.158
	GRT4{1}	-3.221	0.110	23.084	-0.232	-0.026	0.116
	GRT5{1}	-4.907	10.326	40.399	-0.151	-0.134	0.083
F05	Gravity{1}	-0.272	0.013	-1.376	-0.027	-0.029	0.011
	Hydrotest{1}	-0.252	0.005	0.140	0.010	0.015	0.007
	Thermal 1{1}	-7.465	0.193	9.921	0.297	-0.207	0.236
	Thermal 2{1}	-6.583	0.171	41.456	-0.126	-0.078	0.207
	Thermal 3{1}	-5.633	10.057	41.710	-0.114	-0.064	0.131
	Thermal 4{1}	-2.743	0.075	24.865	-0.167	0.005	0.087
	Thermal 5{1}	-4.503	9.969	42.026	-0.109	-0.078	0.078

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	GRT1{1}	-7.737	0.206	8.545	0.269	-0.236	0.246
	GRT2{1}	-6.854	0.184	40.080	-0.154	-0.107	0.218
	GRT3{1}	-5.905	10.070	40.334	-0.141	-0.093	0.142
	GRT4{1}	-3.015	0.088	23.489	-0.195	-0.025	0.098
	GRT5{1}	-4.775	9.982	40.650	-0.136	-0.107	0.089
F20	Gravity{1}	-0.256	0.011	-1.344	-0.021	-0.029	0.010
	Hydrotest{1}	-0.242	0.004	0.120	0.017	0.012	0.007
	Thermal 1{1}	-7.108	0.155	9.437	0.286	-0.194	0.227
	Thermal 2{1}	-6.268	0.138	41.642	-0.130	-0.071	0.200
	Thermal 3{1}	-5.460	9.775	41.880	-0.118	-0.058	0.128
	Thermal 4{1}	-2.610	0.061	25.124	-0.167	0.005	0.084
	Thermal 5{1}	-4.408	9.695	42.185	-0.112	-0.072	0.080
	GRT1{1}	-7.364	0.167	8.093	0.266	-0.223	0.237
	GRT2{1}	-6.524	0.150	40.297	-0.150	-0.101	0.210
	GRT3{1}	-5.717	9.786	40.536	-0.139	-0.088	0.138
	GRT4{1}	-2.866	0.072	23.780	-0.188	-0.024	0.094
	GRT5{1}	-4.664	9.707	40.840	-0.133	-0.101	0.090

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ADS_LINE_REV0

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RESULT PAGE 30

D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
F07 N	Gravity{1}	-0.030	-0.012	-0.711	-0.033	-0.023	0.004
	Hydrotest{1}	-0.048	-0.018	-0.340	-0.005	-0.007	0.004
	Thermal 1{1}	-1.137	-0.473	1.262	0.161	-0.082	0.119
	Thermal 2{1}	-1.001	-0.416	45.551	-0.096	-0.028	0.105
	Thermal 3{1}	-2.527	3.769	45.595	-0.093	-0.023	0.075
	Thermal 4{1}	-0.411	-0.171	30.014	-0.109	0.004	0.044
	Thermal 5{1}	-2.463	3.794	45.641	-0.087	-0.029	0.062
	GRT1{1}	-1.167	-0.485	0.551	0.128	-0.106	0.123
	GRT2{1}	-1.031	-0.428	44.840	-0.129	-0.051	0.109
	GRT3{1}	-2.558	3.757	44.884	-0.126	-0.047	0.079
	GRT4{1}	-0.441	-0.183	29.303	-0.142	-0.020	0.047
	GRT5{1}	-2.493	3.782	44.930	-0.120	-0.052	0.065
F07 M	Gravity{1}	-0.028	-0.012	-0.693	-0.033	-0.023	0.003

ADS_LINE_REV0.txt

	Hydrotest{1}	-0.046	-0.018	-0.336	-0.007	-0.007	0.004
	Thermal 1{1}	-1.078	-0.471	1.182	0.149	-0.081	0.109
	Thermal 2{1}	-0.949	-0.415	45.600	-0.090	-0.027	0.096
	Thermal 3{1}	-2.488	3.682	45.642	-0.087	-0.023	0.069
	Thermal 4{1}	-0.389	-0.170	30.069	-0.101	0.004	0.040
	Thermal 5{1}	-2.429	3.707	45.685	-0.081	-0.028	0.058
	GRT1{1}	-1.106	-0.484	0.489	0.116	-0.104	0.113
	GRT2{1}	-0.977	-0.427	44.907	-0.123	-0.051	0.100
	GRT3{1}	-2.516	3.670	44.949	-0.120	-0.046	0.073
	GRT4{1}	-0.417	-0.182	29.376	-0.135	-0.019	0.043
	GRT5{1}	-2.457	3.694	44.992	-0.115	-0.051	0.062
F07 F	Gravity{1}	-0.027	-0.012	-0.673	-0.034	-0.023	0.003
	Hydrotest{1}	-0.044	-0.018	-0.331	-0.010	-0.008	0.004
	Thermal 1{1}	-1.025	-0.456	1.122	0.139	-0.081	0.099
	Thermal 2{1}	-0.903	-0.401	45.647	-0.083	-0.025	0.087
	Thermal 3{1}	-2.429	3.607	45.687	-0.081	-0.021	0.063
	Thermal 4{1}	-0.370	-0.164	30.117	-0.094	0.005	0.036
	Thermal 5{1}	-2.376	3.631	45.728	-0.075	-0.026	0.055
	GRT1{1}	-1.052	-0.468	0.449	0.105	-0.104	0.102
	GRT2{1}	-0.929	-0.413	44.974	-0.117	-0.049	0.090
	GRT3{1}	-2.456	3.595	45.015	-0.115	-0.044	0.066
	GRT4{1}	-0.397	-0.176	29.444	-0.128	-0.018	0.039
	GRT5{1}	-2.403	3.619	45.055	-0.110	-0.049	0.058
F08	Gravity{1}	-0.001	0.000	-0.049	-0.013	-0.007	0.000
	Hydrotest{1}	-0.002	-0.001	-0.033	-0.008	-0.004	0.001
	Thermal 1{1}	-0.042	-0.019	0.050	0.022	-0.011	0.015
	Thermal 2{1}	-0.037	-0.016	46.660	-0.015	-0.005	0.013
	Thermal 3{1}	-0.490	1.018	46.661	-0.015	-0.004	0.011
	Thermal 4{1}	-0.015	-0.007	31.092	-0.016	0.000	0.005
	Thermal 5{1}	-0.491	1.018	46.663	-0.014	-0.005	0.011
	GRT1{1}	-0.043	-0.019	0.001	0.010	-0.017	0.015
	GRT2{1}	-0.038	-0.017	46.610	-0.028	-0.012	0.014
	GRT3{1}	-0.491	1.018	46.611	-0.027	-0.011	0.011
	GRT4{1}	-0.016	-0.007	31.043	-0.029	-0.007	0.006
	GRT5{1}	-0.492	1.017	46.614	-0.026	-0.012	0.011

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ADS_LINE_REV0

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RESULT PAGE 31

ADS_LINE_REV0.txt
D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
F21	Gravity{1}	0.000	0.000	-0.027	-0.009	-0.005	0.000
	Hydrotest{1}	-0.001	0.000	-0.019	-0.006	-0.003	0.000
	Thermal 1{1}	-0.022	-0.010	0.027	0.015	-0.007	0.010
	Thermal 2{1}	-0.019	-0.009	46.683	-0.010	-0.003	0.009
	Thermal 3{1}	-0.354	0.751	46.684	-0.010	-0.003	0.007
	Thermal 4{1}	-0.008	-0.003	31.115	-0.011	0.000	0.003
	Thermal 5{1}	-0.354	0.750	46.685	-0.009	-0.003	0.007
	GRT1{1}	-0.023	-0.010	-0.001	0.006	-0.012	0.010
	GRT2{1}	-0.020	-0.009	46.656	-0.019	-0.008	0.009
	GRT3{1}	-0.354	0.751	46.656	-0.019	-0.008	0.007
	GRT4{1}	-0.008	-0.004	31.087	-0.020	-0.005	0.004
	GRT5{1}	-0.355	0.750	46.658	-0.018	-0.008	0.007
F10	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	46.710	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	46.710	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	31.140	0.000	0.000	0.000
	Thermal 5{1}	0.000	0.000	46.710	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	46.710	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	46.710	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	31.140	0.000	0.000	0.000
	GRT5{1}	0.000	0.000	46.710	0.000	0.000	0.000
*** Segment F end ***							
*** Segment G begin ***							
K25	Gravity{1}	-0.912	0.157	2.034	-0.049	0.005	0.006
	Hydrotest{1}	-0.125	0.204	0.000	0.026	-0.011	0.002
	Thermal 1{1}	5.148	22.686	77.555	0.396	-0.324	0.039
	Thermal 2{1}	6.233	20.503	74.716	0.070	-0.161	0.029
	Thermal 3{1}	1.268	24.343	80.938	0.163	-0.452	0.062
	Thermal 4{1}	3.119	9.476	28.860	-0.090	-0.015	0.021
	Thermal 5{1}	6.939	20.633	74.685	0.063	-0.136	0.005
	GRT1{1}	4.236	22.843	79.589	0.347	-0.318	0.045
	GRT2{1}	5.321	20.660	76.751	0.021	-0.156	0.036
	GRT3{1}	0.356	24.500	82.972	0.114	-0.446	0.068

	ADS_LINE_REV0.txt					
GRT4{1}	2.207	9.633	30.894	-0.139	-0.010	0.027
GRT5{1}	6.026	20.790	76.720	0.014	-0.130	0.011

0

ADS_LINE_REV0

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
G01	Gravity{1}	-0.891	0.352	2.034	-0.049	0.005	0.006
	Hydrotest{1}	-0.169	0.099	0.014	0.026	-0.011	0.002
	Thermal 1{1}	3.860	21.109	78.889	0.396	-0.324	0.039
	Thermal 2{1}	5.591	20.225	75.922	0.070	-0.161	0.029
	Thermal 3{1}	-0.529	23.695	82.272	0.163	-0.452	0.062
	Thermal 4{1}	3.058	9.836	29.303	-0.090	-0.015	0.021
	Thermal 5{1}	6.398	20.383	75.891	0.063	-0.136	0.005
	GRT1{1}	2.969	21.461	80.923	0.347	-0.318	0.045
	GRT2{1}	4.701	20.577	77.956	0.021	-0.156	0.036
	GRT3{1}	-1.420	24.048	84.305	0.114	-0.446	0.068
	GRT4{1}	2.168	10.188	31.337	-0.139	-0.010	0.027
	GRT5{1}	5.507	20.735	77.925	0.014	-0.130	0.011
G01 M	Gravity{1}	-0.858	0.652	2.034	-0.049	0.005	0.006
	Hydrotest{1}	-0.238	-0.063	0.014	0.026	-0.011	0.002
	Thermal 1{1}	1.883	18.688	80.937	0.396	-0.324	0.039
	Thermal 2{1}	4.606	19.797	77.773	0.070	-0.161	0.029
	Thermal 3{1}	-3.289	22.702	84.320	0.163	-0.452	0.062
	Thermal 4{1}	2.965	10.387	29.984	-0.090	-0.015	0.021
	Thermal 5{1}	5.568	19.999	77.742	0.063	-0.136	0.005
	GRT1{1}	1.026	19.340	82.971	0.347	-0.318	0.045
	GRT2{1}	3.748	20.449	79.807	0.021	-0.156	0.036
	GRT3{1}	-4.146	23.354	86.353	0.114	-0.446	0.068
	GRT4{1}	2.107	11.039	32.018	-0.139	-0.010	0.027
	GRT5{1}	4.711	20.651	79.775	0.014	-0.130	0.011
SV08	Gravity{1}	-0.825	0.952	2.034	-0.049	0.005	0.006
	Hydrotest{1}	-0.306	-0.224	0.014	0.026	-0.011	0.002
	Thermal 1{1}	-0.094	16.268	82.985	0.396	-0.324	0.039
	Thermal 2{1}	3.621	19.369	79.624	0.070	-0.161	0.029

	ADS_LINE_REV0.txt					
Thermal 3{1}	-6.048	21.708	86.368	0.163	-0.452	0.062
Thermal 4{1}	2.871	10.939	30.666	-0.090	-0.015	0.021
Thermal 5{1}	4.739	19.615	79.592	0.063	-0.136	0.005
GRT1{1}	-0.918	17.219	85.019	0.347	-0.318	0.045
GRT2{1}	2.796	20.321	81.658	0.021	-0.156	0.036
GRT3{1}	-6.873	22.660	88.401	0.114	-0.446	0.068
GRT4{1}	2.047	11.890	32.699	-0.139	-0.010	0.027
GRT5{1}	3.914	20.567	81.626	0.014	-0.130	0.011

*** Segment G end ***

*** Segment H begin ***

0

ADS_LINE_REV0

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DISPLACEMENTS

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
B09	Gravity{1}	-1.370	1.327	-2.227	-0.145	-0.097	0.028
	Hydrotest{1}	-0.611	0.329	0.000	-0.033	-0.084	0.012
	Thermal 1{1}	-8.091	27.095	42.150	-0.350	-0.249	0.315
	Thermal 2{1}	-5.845	23.545	47.709	-0.425	-0.112	0.238
	Thermal 3{1}	-1.197	29.593	44.401	-0.722	0.039	0.222
	Thermal 4{1}	-3.076	9.527	19.285	-0.252	-0.011	0.104
	Thermal 5{1}	5.626	19.912	50.495	-0.288	-0.010	-0.001
	GRT1{1}	-9.461	28.422	39.923	-0.495	-0.345	0.343
	GRT2{1}	-7.215	24.871	45.483	-0.570	-0.208	0.266
	GRT3{1}	-2.567	30.919	42.175	-0.867	-0.058	0.250
	GRT4{1}	-4.447	10.854	17.059	-0.397	-0.107	0.132
	GRT5{1}	4.256	21.239	48.268	-0.433	-0.107	0.027
H01	Gravity{1}	-1.755	1.904	-2.227	-0.145	-0.097	0.028
	Hydrotest{1}	-0.947	0.461	0.011	-0.033	-0.084	0.012
	Thermal 1{1}	-9.080	28.490	43.484	-0.350	-0.249	0.315
	Thermal 2{1}	-6.288	25.237	48.915	-0.425	-0.112	0.238
	Thermal 3{1}	-1.043	32.466	45.735	-0.722	0.039	0.222
	Thermal 4{1}	-3.119	10.529	19.729	-0.252	-0.011	0.104
	Thermal 5{1}	5.587	21.057	50.938	-0.288	-0.010	-0.001
	GRT1{1}	-10.835	30.393	41.257	-0.495	-0.345	0.343
	GRT2{1}	-8.043	27.141	46.688	-0.570	-0.208	0.266

ADS_LINE_REV0.txt

	GRT3{1}	-2.799	34.370	43.508	-0.867	-0.058	0.250
	GRT4{1}	-4.874	12.433	17.501	-0.397	-0.107	0.132
	GRT5{1}	3.832	22.961	48.711	-0.433	-0.107	0.027
H01 M	Gravity{1}	-2.278	2.689	-2.228	-0.145	-0.097	0.028
	Hydrotest{1}	-1.403	0.641	0.011	-0.033	-0.084	0.012
	Thermal 1{1}	-10.425	30.385	45.298	-0.350	-0.249	0.315
	Thermal 2{1}	-6.892	27.539	50.555	-0.425	-0.112	0.238
	Thermal 3{1}	-0.835	36.374	47.549	-0.722	0.039	0.222
	Thermal 4{1}	-3.177	11.891	20.332	-0.252	-0.011	0.104
	Thermal 5{1}	5.534	22.614	52.578	-0.288	-0.010	-0.001
	GRT1{1}	-12.704	33.074	43.071	-0.495	-0.345	0.343
	GRT2{1}	-9.170	30.227	48.327	-0.570	-0.208	0.266
	GRT3{1}	-3.113	39.062	45.322	-0.867	-0.058	0.250
	GRT4{1}	-5.455	14.579	18.105	-0.397	-0.107	0.132
	GRT5{1}	3.256	25.302	50.350	-0.433	-0.107	0.027
SV09	Gravity{1}	-2.801	3.473	-2.228	-0.145	-0.097	0.028
	Hydrotest{1}	-1.860	0.820	0.011	-0.033	-0.084	0.012
	Thermal 1{1}	-11.771	32.281	47.112	-0.350	-0.249	0.315
	Thermal 2{1}	-7.495	29.840	52.194	-0.425	-0.112	0.238
	Thermal 3{1}	-0.627	40.281	49.363	-0.722	0.039	0.222
	Thermal 4{1}	-3.235	13.253	20.935	-0.252	-0.011	0.104
	Thermal 5{1}	5.481	24.170	54.217	-0.288	-0.010	-0.001
	GRT1{1}	-14.572	35.754	44.885	-0.495	-0.345	0.343
	GRT2{1}	-10.296	33.314	49.967	-0.570	-0.208	0.266
	GRT3{1}	-3.428	43.754	47.136	-0.867	-0.058	0.250
	GRT4{1}	-6.036	16.726	18.708	-0.397	-0.107	0.132
	GRT5{1}	2.679	27.644	51.989	-0.433	-0.107	0.027

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RESULT PAGE 34

D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
***	Segment H end	***					
***	Segment J begin	***					
J00	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000

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	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 5{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT5{1}	0.000	0.000	0.000	0.000	0.000	0.000
J01 N	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	-0.065	-0.114	0.227	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 4{1}	-0.043	-0.075	0.150	0.000	0.000	0.000
	Thermal 5{1}	-0.065	-0.114	0.227	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT2{1}	-0.065	-0.114	0.227	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT4{1}	-0.043	-0.075	0.150	0.000	0.000	0.000
	GRT5{1}	-0.065	-0.114	0.227	0.000	0.000	0.000
J01 F	Gravity{1}	-0.001	-0.001	-0.001	0.001	-0.001	0.000
	Hydrotest{1}	-0.001	-0.001	0.000	0.001	-0.001	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	-0.102	-0.180	0.508	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 4{1}	-0.067	-0.118	0.335	0.000	0.000	0.000
	Thermal 5{1}	-0.102	-0.180	0.508	0.000	0.000	0.000
	GRT1{1}	-0.001	-0.001	-0.001	0.001	-0.001	0.000
	GRT2{1}	-0.103	-0.181	0.508	0.001	-0.001	0.000
	GRT3{1}	-0.001	-0.001	-0.001	0.001	-0.001	0.000
	GRT4{1}	-0.068	-0.120	0.335	0.001	-0.001	0.000
	GRT5{1}	-0.103	-0.181	0.508	0.001	-0.001	0.000

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ADS_LINE_REV0

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BENTLEY

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RESULT PAGE 35

ADS_LINE_REV0.txt
D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
J02 N	Gravity{1}	-0.004	-0.007	-0.001	0.001	-0.001	0.000
	Hydrotest{1}	-0.004	-0.007	0.000	0.001	-0.001	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	-0.102	-0.180	1.313	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 4{1}	-0.067	-0.118	0.866	0.000	0.000	0.000
	Thermal 5{1}	-0.102	-0.180	1.313	0.000	0.000	0.000
	GRT1{1}	-0.004	-0.007	-0.001	0.001	-0.001	0.000
	GRT2{1}	-0.106	-0.186	1.312	0.001	-0.001	0.000
	GRT3{1}	-0.004	-0.007	-0.001	0.001	-0.001	0.000
	GRT4{1}	-0.071	-0.125	0.865	0.001	-0.001	0.000
	GRT5{1}	-0.106	-0.186	1.312	0.001	-0.001	0.000
J02 F	Gravity{1}	-0.008	-0.014	-0.010	0.003	-0.002	0.000
	Hydrotest{1}	-0.008	-0.014	-0.009	0.003	-0.002	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	-0.379	-0.668	1.875	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 4{1}	-0.250	-0.441	1.237	0.000	0.000	0.000
	Thermal 5{1}	-0.379	-0.668	1.875	0.000	0.000	0.000
	GRT1{1}	-0.008	-0.014	-0.010	0.003	-0.002	0.000
	GRT2{1}	-0.387	-0.682	1.864	0.003	-0.002	0.000
	GRT3{1}	-0.008	-0.014	-0.010	0.003	-0.002	0.000
	GRT4{1}	-0.258	-0.455	1.227	0.003	-0.002	0.000
	GRT5{1}	-0.387	-0.682	1.864	0.003	-0.002	0.000
J03	Gravity{1}	-0.008	-0.014	-0.014	0.003	-0.002	0.000
	Hydrotest{1}	-0.008	-0.014	-0.013	0.003	-0.002	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	-0.482	-0.849	1.875	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 4{1}	-0.318	-0.560	1.237	0.000	0.000	0.000
	Thermal 5{1}	-0.482	-0.849	1.875	0.000	0.000	0.000
	GRT1{1}	-0.008	-0.014	-0.014	0.003	-0.002	0.000
	GRT2{1}	-0.490	-0.863	1.860	0.003	-0.002	0.000
	GRT3{1}	-0.008	-0.014	-0.014	0.003	-0.002	0.000
	GRT4{1}	-0.326	-0.574	1.223	0.003	-0.002	0.000
	GRT5{1}	-0.490	-0.863	1.860	0.003	-0.002	0.000

*** Segment J end ***

*** Segment K begin ***

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
K02	Gravity{1}	1.816	0.994	0.030	0.098	-0.006	0.055
	Hydrotest{1}	0.545	0.016	-0.034	0.024	0.009	0.021
	Thermal 1{1}	11.724	-1.444	0.021	0.126	-0.013	0.322
	Thermal 2{1}	5.964	-4.497	39.465	0.008	-0.020	0.174
	Thermal 3{1}	13.458	1.599	3.507	0.254	-0.139	0.363
	Thermal 4{1}	2.804	-1.794	26.061	-0.040	0.006	0.062
	Thermal 5{1}	2.094	-1.151	39.462	0.034	-0.038	0.102
	GRT1{1}	13.541	-0.450	0.051	0.224	-0.019	0.377
	GRT2{1}	7.781	-3.503	39.495	0.106	-0.026	0.229
	GRT3{1}	15.274	2.594	3.537	0.352	-0.145	0.419
	GRT4{1}	4.620	-0.800	26.091	0.059	0.000	0.118
	GRT5{1}	3.910	-0.157	39.492	0.132	-0.044	0.157
K03 N	Gravity{1}	1.502	-0.761	0.036	0.137	-0.038	0.055
	Hydrotest{1}	0.639	-0.397	-0.030	0.032	0.003	0.022
	Thermal 1{1}	10.756	-4.232	0.022	0.272	-0.120	0.360
	Thermal 2{1}	5.247	-4.797	42.077	0.051	-0.075	0.210
	Thermal 3{1}	9.843	-3.467	3.513	0.449	-0.346	0.382
	Thermal 4{1}	2.776	-1.084	27.784	-0.046	-0.009	0.078
	Thermal 5{1}	1.204	-2.057	42.073	0.095	-0.080	0.113
	GRT1{1}	12.258	-4.993	0.058	0.409	-0.157	0.415
	GRT2{1}	6.749	-5.558	42.113	0.189	-0.113	0.265
	GRT3{1}	11.345	-4.228	3.549	0.586	-0.383	0.437
	GRT4{1}	4.278	-1.845	27.820	0.091	-0.047	0.133
	GRT5{1}	2.706	-2.818	42.109	0.232	-0.118	0.169
K03 F	Gravity{1}	1.303	-1.023	0.394	0.184	-0.066	0.056
	Hydrotest{1}	0.602	-0.448	0.037	0.037	0.001	0.022
	Thermal 1{1}	9.778	-4.603	0.962	0.516	-0.250	0.373
	Thermal 2{1}	4.827	-4.467	42.723	0.154	-0.138	0.225

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	Thermal 3{1}	8.289	-4.221	5.124	0.770	-0.565	0.403
	Thermal 4{1}	2.708	-0.725	27.954	-0.034	-0.023	0.085
	Thermal 5{1}	0.960	-1.902	42.782	0.186	-0.133	0.119
	GRT1{1}	11.082	-5.626	1.356	0.700	-0.316	0.429
	GRT2{1}	6.130	-5.490	43.117	0.338	-0.204	0.281
	GRT3{1}	9.593	-5.244	5.518	0.954	-0.631	0.458
	GRT4{1}	4.011	-1.748	28.348	0.150	-0.089	0.141
	GRT5{1}	2.264	-2.925	43.176	0.370	-0.199	0.175
K04	Gravity{1}	1.182	-0.958	0.881	0.183	-0.067	0.056
	Hydrotest{1}	0.553	-0.422	0.116	0.033	0.003	0.022
	Thermal 1{1}	8.958	-4.167	2.442	0.560	-0.270	0.376
	Thermal 2{1}	4.527	-3.834	43.246	0.174	-0.149	0.228
	Thermal 3{1}	7.408	-3.752	7.545	0.816	-0.605	0.403
	Thermal 4{1}	2.649	-0.381	27.911	-0.030	-0.026	0.087
	Thermal 5{1}	0.896	-1.393	43.366	0.203	-0.142	0.120
	GRT1{1}	10.140	-5.125	3.322	0.743	-0.337	0.432
	GRT2{1}	5.709	-4.792	44.127	0.357	-0.216	0.283
	GRT3{1}	8.589	-4.710	8.425	1.000	-0.672	0.459
	GRT4{1}	3.831	-1.339	28.792	0.153	-0.093	0.142
	GRT5{1}	2.077	-2.351	44.247	0.387	-0.209	0.175

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
K05	Gravity{1}	1.106	-0.918	1.180	0.177	-0.064	0.055
	Hydrotest{1}	0.523	-0.405	0.156	0.026	0.007	0.022
	Thermal 1{1}	8.441	-3.891	3.438	0.596	-0.287	0.377
	Thermal 2{1}	4.336	-3.435	43.608	0.192	-0.158	0.230
	Thermal 3{1}	6.854	-3.457	9.144	0.850	-0.636	0.403
	Thermal 4{1}	2.611	-0.165	27.892	-0.027	-0.029	0.087
	Thermal 5{1}	0.854	-1.074	43.763	0.219	-0.151	0.120
	GRT1{1}	9.547	-4.809	4.618	0.773	-0.351	0.432
	GRT2{1}	5.442	-4.352	44.788	0.368	-0.223	0.285
	GRT3{1}	7.960	-4.374	10.324	1.027	-0.701	0.459
	GRT4{1}	3.717	-1.082	29.072	0.150	-0.093	0.143

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	GRT5{1}	1.960	-1.991	44.943	0.396	-0.215	0.176
K06	Gravity{1}	0.903	-0.809	1.857	0.114	-0.035	0.053
	Hydrotest{1}	0.442	-0.362	0.148	-0.020	0.032	0.021
	Thermal 1{1}	7.028	-3.138	6.563	0.732	-0.349	0.376
	Thermal 2{1}	3.806	-2.340	44.818	0.266	-0.199	0.232
	Thermal 3{1}	5.349	-2.655	13.919	0.952	-0.742	0.399
	Thermal 4{1}	2.501	0.429	27.891	-0.010	-0.043	0.089
	Thermal 5{1}	0.736	-0.199	45.043	0.287	-0.188	0.122
	GRT1{1}	7.931	-3.948	8.420	0.847	-0.385	0.429
	GRT2{1}	4.708	-3.150	46.675	0.381	-0.234	0.285
	GRT3{1}	6.252	-3.464	15.776	1.066	-0.777	0.452
	GRT4{1}	3.404	-0.381	29.749	0.105	-0.078	0.142
	GRT5{1}	1.639	-1.008	46.901	0.401	-0.224	0.175
K06 M	Gravity{1}	0.696	-0.699	2.377	0.114	-0.035	0.053
	Hydrotest{1}	0.358	-0.317	0.000	-0.021	0.033	0.021
	Thermal 1{1}	5.556	-2.356	10.158	0.733	-0.350	0.376
	Thermal 2{1}	3.249	-1.196	46.275	0.267	-0.199	0.232
	Thermal 3{1}	3.786	-1.824	19.189	0.952	-0.742	0.399
	Thermal 4{1}	2.385	1.050	27.943	-0.010	-0.043	0.089
	Thermal 5{1}	0.609	0.717	46.558	0.287	-0.188	0.122
	GRT1{1}	6.252	-3.055	12.535	0.847	-0.385	0.429
	GRT2{1}	3.945	-1.895	48.653	0.381	-0.234	0.285
	GRT3{1}	4.482	-2.523	21.567	1.066	-0.777	0.452
	GRT4{1}	3.081	0.351	30.320	0.104	-0.078	0.142
	GRT5{1}	1.305	0.018	48.936	0.401	-0.223	0.175
K07	Gravity{1}	0.489	-0.589	2.893	0.113	-0.035	0.053
	Hydrotest{1}	0.274	-0.273	-0.151	-0.021	0.033	0.021
	Thermal 1{1}	4.085	-1.574	13.757	0.734	-0.350	0.376
	Thermal 2{1}	2.692	-0.052	47.736	0.267	-0.199	0.232
	Thermal 3{1}	2.224	-0.993	24.461	0.952	-0.743	0.399
	Thermal 4{1}	2.269	1.672	27.995	-0.009	-0.043	0.089
	Thermal 5{1}	0.483	1.633	48.076	0.288	-0.189	0.122
	GRT1{1}	4.574	-2.163	16.650	0.847	-0.385	0.429
	GRT2{1}	3.181	-0.641	50.629	0.380	-0.234	0.285
	GRT3{1}	2.712	-1.582	27.354	1.065	-0.777	0.452
	GRT4{1}	2.758	1.083	30.888	0.103	-0.077	0.142
	GRT5{1}	0.971	1.044	50.969	0.400	-0.223	0.175

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
K08	Gravity{1}	0.297	-0.487	3.240	0.058	-0.008	0.049
	Hydrotest{1}	0.204	-0.218	-0.375	-0.048	0.048	0.020
	Thermal 1{1}	3.378	0.413	17.359	0.800	-0.379	0.357
	Thermal 2{1}	2.447	1.534	49.228	0.303	-0.219	0.220
	Thermal 3{1}	1.424	1.044	29.466	0.913	-0.756	0.384
	Thermal 4{1}	2.165	2.263	28.068	-0.003	-0.049	0.085
	Thermal 5{1}	0.632	3.008	49.615	0.320	-0.207	0.120
	GRT1{1}	3.675	-0.074	20.598	0.858	-0.387	0.406
	GRT2{1}	2.744	1.047	52.467	0.361	-0.227	0.270
	GRT3{1}	1.721	0.556	32.705	0.971	-0.764	0.433
	GRT4{1}	2.462	1.776	31.307	0.055	-0.057	0.134
	GRT5{1}	0.929	2.521	52.855	0.378	-0.215	0.169
K10	Gravity{1}	-0.015	-0.321	3.404	0.007	0.014	0.041
	Hydrotest{1}	0.093	-0.128	-0.954	-0.055	0.052	0.016
	Thermal 1{1}	2.302	3.961	24.721	0.898	-0.419	0.307
	Thermal 2{1}	2.140	4.387	52.321	0.338	-0.238	0.188
	Thermal 3{1}	0.124	4.711	38.027	0.743	-0.727	0.346
	Thermal 4{1}	2.026	3.326	28.240	-0.007	-0.053	0.073
	Thermal 5{1}	0.936	5.535	52.763	0.351	-0.225	0.114
	GRT1{1}	2.287	3.640	28.125	0.904	-0.405	0.348
	GRT2{1}	2.125	4.066	55.725	0.345	-0.224	0.229
	GRT3{1}	0.109	4.390	41.432	0.750	-0.713	0.387
	GRT4{1}	2.011	3.005	31.645	0.000	-0.038	0.114
	GRT5{1}	0.921	5.214	56.168	0.357	-0.210	0.154
K11	Gravity{1}	-0.135	-0.257	3.385	-0.001	0.016	0.036
	Hydrotest{1}	0.053	-0.092	-1.197	-0.046	0.048	0.014
	Thermal 1{1}	1.942	5.502	28.302	0.932	-0.432	0.278
	Thermal 2{1}	2.085	5.635	53.787	0.340	-0.239	0.168
	Thermal 3{1}	-0.369	6.323	41.369	0.624	-0.692	0.324
	Thermal 4{1}	1.994	3.792	28.293	-0.016	-0.050	0.066
	Thermal 5{1}	1.092	6.671	54.244	0.351	-0.226	0.109
	GRT1{1}	1.807	5.245	31.687	0.931	-0.415	0.314
	GRT2{1}	1.950	5.378	57.172	0.339	-0.223	0.204
	GRT3{1}	-0.504	6.066	44.754	0.623	-0.676	0.360

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	GRT4{1}	1.859	3.535	31.677	-0.017	-0.034	0.102
	GRT5{1}	0.956	6.414	57.629	0.350	-0.209	0.145
K25	Gravity{1}	-0.912	0.157	2.034	-0.049	0.005	0.006
	Hydrotest{1}	-0.125	0.204	0.000	0.026	-0.011	0.002
	Thermal 1{1}	5.148	22.686	77.555	0.396	-0.324	0.039
	Thermal 2{1}	6.233	20.503	74.716	0.070	-0.161	0.029
	Thermal 3{1}	1.268	24.343	80.938	0.163	-0.452	0.062
	Thermal 4{1}	3.119	9.476	28.860	-0.090	-0.015	0.021
	Thermal 5{1}	6.939	20.633	74.685	0.063	-0.136	0.005
	GRT1{1}	4.236	22.843	79.589	0.347	-0.318	0.045
	GRT2{1}	5.321	20.660	76.751	0.021	-0.156	0.036
	GRT3{1}	0.356	24.500	82.972	0.114	-0.446	0.068
	GRT4{1}	2.207	9.633	30.894	-0.139	-0.010	0.027
	GRT5{1}	6.026	20.790	76.720	0.014	-0.130	0.011

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
K13 N	Gravity{1}	-0.951	0.178	1.642	-0.053	0.002	0.005
	Hydrotest{1}	-0.127	0.236	0.095	0.003	-0.002	0.002
	Thermal 1{1}	6.033	25.117	80.218	0.103	-0.195	0.058
	Thermal 2{1}	7.086	22.673	75.049	-0.107	-0.077	0.042
	Thermal 3{1}	2.013	26.849	82.664	-0.076	-0.326	0.077
	Thermal 4{1}	3.367	10.310	28.092	-0.142	0.011	0.025
	Thermal 5{1}	7.946	22.720	74.874	-0.115	-0.051	0.020
	GRT1{1}	5.082	25.295	81.860	0.050	-0.193	0.064
	GRT2{1}	6.135	22.851	76.691	-0.160	-0.075	0.047
	GRT3{1}	1.061	27.027	84.307	-0.129	-0.324	0.082
	GRT4{1}	2.416	10.488	29.734	-0.195	0.013	0.030
	GRT5{1}	6.995	22.898	76.516	-0.168	-0.049	0.026
K13 F	Gravity{1}	-0.953	0.107	1.571	-0.040	-0.007	0.005
	Hydrotest{1}	-0.126	0.243	0.091	-0.001	-0.001	0.003
	Thermal 1{1}	6.421	25.618	79.830	-0.096	-0.098	0.073
	Thermal 2{1}	7.318	22.845	74.365	-0.228	-0.015	0.051

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	Thermal 3{1}	2.602	27.105	82.138	-0.238	-0.237	0.090
	Thermal 4{1}	3.377	10.220	27.665	-0.177	0.030	0.027
	Thermal 5{1}	8.165	22.863	74.159	-0.236	0.011	0.031
	GRT1{1}	5.468	25.725	81.401	-0.135	-0.105	0.078
	GRT2{1}	6.365	22.952	75.936	-0.268	-0.023	0.057
	GRT3{1}	1.649	27.212	83.709	-0.278	-0.245	0.095
	GRT4{1}	2.424	10.327	29.236	-0.217	0.023	0.032
	GRT5{1}	7.213	22.970	75.730	-0.276	0.004	0.036
K14 N	Gravity{1}	-0.151	0.002	1.569	0.027	-0.050	0.004
	Hydrotest{1}	-0.039	0.198	-0.002	0.000	-0.006	0.006
	Thermal 1{1}	4.086	14.182	71.212	-0.616	0.217	0.205
	Thermal 2{1}	4.717	11.829	66.575	-0.508	0.173	0.136
	Thermal 3{1}	4.059	14.008	73.519	-0.624	0.072	0.201
	Thermal 4{1}	1.772	4.409	24.798	-0.232	0.078	0.051
	Thermal 5{1}	4.942	11.671	66.370	-0.513	0.193	0.122
	GRT1{1}	3.936	14.183	72.780	-0.589	0.167	0.209
	GRT2{1}	4.566	11.831	68.144	-0.481	0.123	0.140
	GRT3{1}	3.909	14.010	75.088	-0.597	0.022	0.205
	GRT4{1}	1.621	4.411	26.367	-0.205	0.027	0.056
	GRT5{1}	4.791	11.673	67.938	-0.486	0.142	0.126
K14 F	Gravity{1}	-0.058	0.049	1.469	0.036	-0.055	0.004
	Hydrotest{1}	-0.024	0.189	-0.017	0.002	-0.007	0.006
	Thermal 1{1}	3.626	12.503	71.680	-0.608	0.233	0.218
	Thermal 2{1}	4.279	10.457	66.896	-0.490	0.178	0.143
	Thermal 3{1}	3.828	12.332	73.836	-0.604	0.093	0.210
	Thermal 4{1}	1.592	3.834	24.978	-0.217	0.075	0.053
	Thermal 5{1}	4.456	10.306	66.714	-0.493	0.195	0.130
	GRT1{1}	3.567	12.552	73.149	-0.572	0.178	0.221
	GRT2{1}	4.220	10.506	68.364	-0.454	0.122	0.147
	GRT3{1}	3.770	12.380	75.305	-0.568	0.037	0.214
	GRT4{1}	1.533	3.882	26.447	-0.181	0.019	0.057
	GRT5{1}	4.398	10.355	68.183	-0.457	0.139	0.134

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)	ROTATIONS (deg)

ADS_LINE_REV0.txt							
name	combination	X	Y	Z	X	Y	Z

K21	Gravity{1}	0.000	0.000	0.006	0.002	-0.003	0.000
	Hydrotest{1}	0.010	0.014	-0.004	-0.001	0.001	0.000
	Thermal 1{1}	0.875	1.092	84.750	-0.035	0.020	0.018
	Thermal 2{1}	0.797	0.982	76.820	-0.026	0.014	0.012
	Thermal 3{1}	0.876	1.091	84.762	-0.032	0.013	0.017
	Thermal 4{1}	0.293	0.361	29.031	-0.010	0.005	0.004
	Thermal 5{1}	0.797	0.981	76.819	-0.026	0.014	0.011
	GRT1{1}	0.875	1.093	84.755	-0.032	0.017	0.018
	GRT2{1}	0.796	0.982	76.825	-0.023	0.011	0.012
	GRT3{1}	0.876	1.091	84.768	-0.029	0.010	0.017
	GRT4{1}	0.293	0.361	29.037	-0.008	0.002	0.004
	GRT5{1}	0.797	0.981	76.825	-0.023	0.011	0.011
K22	Gravity{1}	0.000	0.000	0.002	0.001	-0.001	0.000
	Hydrotest{1}	0.007	0.009	-0.002	-0.001	0.001	0.000
	Thermal 1{1}	0.556	0.680	84.795	-0.016	0.009	0.008
	Thermal 2{1}	0.504	0.613	76.852	-0.011	0.006	0.005
	Thermal 3{1}	0.556	0.679	84.800	-0.014	0.006	0.008
	Thermal 4{1}	0.186	0.225	29.043	-0.004	0.002	0.002
	Thermal 5{1}	0.505	0.612	76.852	-0.011	0.006	0.005
	GRT1{1}	0.556	0.680	84.797	-0.015	0.008	0.008
	GRT2{1}	0.504	0.613	76.854	-0.011	0.005	0.005
	GRT3{1}	0.556	0.679	84.802	-0.013	0.005	0.008
	GRT4{1}	0.186	0.225	29.045	-0.003	0.001	0.002
	GRT5{1}	0.504	0.612	76.854	-0.010	0.005	0.005
K23	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	84.820	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	76.870	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	84.820	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	29.050	0.000	0.000	0.000
	Thermal 5{1}	0.000	0.000	76.870	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	84.820	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	76.870	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	84.820	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	29.050	0.000	0.000	0.000
	GRT5{1}	0.000	0.000	76.870	0.000	0.000	0.000
*** Segment K end ***							
B06 M	Gravity{1}	-0.116	1.195	2.625	-0.082	-0.035	0.041
	Hydrotest{1}	-0.172	0.189	0.000	0.057	-0.094	0.011

ADS_LINE_REV0.txt

Thermal 1{1}	1.702	14.161	28.257	0.650	-0.555	0.286
Thermal 2{1}	1.399	12.022	46.501	0.206	-0.290	0.215
Thermal 3{1}	4.414	17.100	43.726	0.426	-0.246	0.148
Thermal 4{1}	0.161	5.227	23.270	-0.045	-0.043	0.101
Thermal 5{1}	3.655	9.358	46.800	0.235	-0.272	-0.067
GRT1{1}	1.586	15.356	30.882	0.568	-0.590	0.327
GRT2{1}	1.284	13.217	49.126	0.124	-0.325	0.256
GRT3{1}	4.298	18.295	46.351	0.344	-0.281	0.188
GRT4{1}	0.045	6.422	25.895	-0.127	-0.079	0.142
GRT5{1}	3.539	10.553	49.425	0.153	-0.307	-0.026

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RESULT PAGE 41

D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
B06 D	Gravity{1}	-0.368	1.781	2.625	-0.082	-0.035	0.041
	Hydrotest{1}	-0.844	-0.216	0.000	0.057	-0.094	0.011
	Thermal 1{1}	-2.249	9.532	28.257	0.650	-0.555	0.286
	Thermal 2{1}	-0.666	10.553	46.501	0.206	-0.290	0.215
	Thermal 3{1}	2.661	14.067	43.726	0.426	-0.246	0.148
	Thermal 4{1}	-0.146	5.545	23.270	-0.045	-0.043	0.101
	Thermal 5{1}	1.721	7.683	46.800	0.235	-0.272	-0.067
	GRT1{1}	-2.617	11.314	30.882	0.568	-0.590	0.327
	GRT2{1}	-1.034	12.335	49.126	0.124	-0.325	0.256
	GRT3{1}	2.293	15.848	46.351	0.344	-0.281	0.188
	GRT4{1}	-0.515	7.327	25.895	-0.127	-0.079	0.142
	GRT5{1}	1.352	9.464	49.425	0.153	-0.307	-0.026
E03 M	Gravity{1}	0.231	0.084	6.807	0.156	0.171	0.006
	Hydrotest{1}	-0.130	-0.016	0.000	-0.008	0.054	0.005
	Thermal 1{1}	-3.432	0.822	8.152	0.337	-0.253	0.197
	Thermal 2{1}	-3.526	0.654	39.360	-0.175	-0.147	0.185
	Thermal 3{1}	-2.624	8.904	37.275	-0.222	-0.088	0.068
	Thermal 4{1}	-1.400	0.253	24.012	-0.209	-0.029	0.080
	Thermal 5{1}	-1.392	8.394	39.558	-0.167	-0.145	-0.023
	GRT1{1}	-3.201	0.906	14.959	0.493	-0.082	0.203

		ADS_LINE_REV0.txt					
	GRT2{1}	-3.294	0.737	46.167	-0.019	0.024	0.191
	GRT3{1}	-2.392	8.988	44.082	-0.066	0.083	0.074
	GRT4{1}	-1.169	0.337	30.819	-0.053	0.142	0.086
	GRT5{1}	-1.161	8.478	46.365	-0.011	0.025	-0.017
E03 D	Gravity{1}	1.448	-1.027	6.807	0.156	0.171	0.006
	Hydrotest{1}	0.252	0.044	0.000	-0.008	0.054	0.005
	Thermal 1{1}	-5.235	-1.581	8.152	0.337	-0.253	0.197
	Thermal 2{1}	-4.572	1.900	39.360	-0.175	-0.147	0.185
	Thermal 3{1}	-3.249	10.487	37.275	-0.222	-0.088	0.068
	Thermal 4{1}	-1.607	1.741	24.012	-0.209	-0.029	0.080
	Thermal 5{1}	-2.428	9.584	39.558	-0.167	-0.145	-0.023
	GRT1{1}	-3.787	-2.608	14.959	0.493	-0.082	0.203
	GRT2{1}	-3.125	0.873	46.167	-0.019	0.024	0.191
	GRT3{1}	-1.801	9.459	44.082	-0.066	0.083	0.074
	GRT4{1}	-0.160	0.713	30.819	-0.053	0.142	0.086
	GRT5{1}	-0.980	8.557	46.365	-0.011	0.025	-0.017
B15 M	Gravity{1}	0.829	1.096	3.202	0.080	0.155	0.032
	Hydrotest{1}	0.183	0.055	0.000	-0.063	0.105	0.014
	Thermal 1{1}	7.419	0.128	5.758	0.382	-0.199	0.146
	Thermal 2{1}	4.682	-0.465	39.764	0.054	-0.156	0.040
	Thermal 3{1}	7.633	3.329	17.350	0.841	-0.379	0.205
	Thermal 4{1}	2.393	0.525	24.741	-0.058	-0.046	0.026
	Thermal 5{1}	1.284	2.383	39.867	0.048	-0.157	0.018
	GRT1{1}	8.247	1.224	8.960	0.462	-0.044	0.178
	GRT2{1}	5.511	0.632	42.966	0.134	-0.001	0.073
	GRT3{1}	8.462	4.426	20.552	0.921	-0.224	0.238
	GRT4{1}	3.221	1.621	27.943	0.022	0.109	0.058
	GRT5{1}	2.113	3.479	43.069	0.128	-0.002	0.051

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ADS_LINE_REV0

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
B15 D	Gravity{1}	1.930	0.525	3.202	0.080	0.155	0.032
	Hydrotest{1}	0.932	0.502	0.000	-0.063	0.105	0.014

		ADS_LINE_REV0.txt					
	Thermal 1{1}	6.001	-2.591	5.758	0.382	-0.199	0.146
	Thermal 2{1}	3.571	-0.850	39.764	0.054	-0.156	0.040
	Thermal 3{1}	4.937	-2.659	17.350	0.841	-0.379	0.205
	Thermal 4{1}	2.066	0.939	24.741	-0.058	-0.046	0.026
	Thermal 5{1}	0.167	2.044	39.867	0.048	-0.157	0.018
	GRT1{1}	7.931	-2.065	8.960	0.462	-0.044	0.178
	GRT2{1}	5.501	-0.324	42.966	0.134	-0.001	0.073
	GRT3{1}	6.867	-2.134	20.552	0.921	-0.224	0.238
	GRT4{1}	3.996	1.464	27.943	0.022	0.109	0.058
	GRT5{1}	2.097	2.570	43.069	0.128	-0.002	0.051
D04 M	Gravity{1}	-0.170	0.157	0.874	-0.015	0.114	0.000
	Hydrotest{1}	0.003	0.003	0.000	-0.108	0.091	-0.002
	Thermal 1{1}	4.328	-1.705	4.569	0.316	-0.144	-0.315
	Thermal 2{1}	3.843	-1.534	45.585	-0.109	-0.041	-0.263
	Thermal 3{1}	3.408	-0.978	40.384	-0.442	0.052	-0.269
	Thermal 4{1}	2.747	1.078	29.081	-0.162	0.014	-0.083
	Thermal 5{1}	1.195	-0.142	45.586	-0.109	-0.041	-0.084
	GRT1{1}	4.158	-1.549	5.443	0.301	-0.030	-0.315
	GRT2{1}	3.674	-1.377	46.459	-0.124	0.073	-0.263
	GRT3{1}	3.238	-0.821	41.258	-0.457	0.167	-0.269
	GRT4{1}	2.577	1.234	29.955	-0.177	0.129	-0.083
	GRT5{1}	1.026	0.014	46.459	-0.124	0.073	-0.085
D04 D	Gravity{1}	0.643	0.263	0.874	-0.015	0.114	0.000
	Hydrotest{1}	0.653	0.771	0.000	-0.108	0.091	-0.002
	Thermal 1{1}	3.300	-3.953	4.569	0.316	-0.144	-0.315
	Thermal 2{1}	3.548	-0.758	45.585	-0.109	-0.041	-0.263
	Thermal 3{1}	3.782	2.169	40.384	-0.442	0.052	-0.269
	Thermal 4{1}	2.849	2.229	29.081	-0.162	0.014	-0.083
	Thermal 5{1}	0.906	0.632	45.586	-0.109	-0.041	-0.084
	GRT1{1}	3.944	-3.690	5.443	0.301	-0.030	-0.315
	GRT2{1}	4.191	-0.495	46.459	-0.124	0.073	-0.263
	GRT3{1}	4.425	2.432	41.257	-0.457	0.167	-0.269
	GRT4{1}	3.493	2.493	29.955	-0.177	0.129	-0.083
	GRT5{1}	1.549	0.895	46.459	-0.124	0.073	-0.085
C03 M	Gravity{1}	0.105	-0.087	2.353	0.069	-0.048	-0.003
	Hydrotest{1}	0.091	-0.067	0.000	-0.043	0.024	-0.005
	Thermal 1{1}	2.455	-0.053	10.772	0.693	-0.315	-0.077
	Thermal 2{1}	1.920	0.206	50.975	0.065	-0.057	-0.063
	Thermal 3{1}	1.597	0.515	45.071	-0.321	-0.046	-0.007
	Thermal 4{1}	2.009	1.779	31.093	-0.143	0.045	-0.019
	Thermal 5{1}	1.214	0.705	51.115	0.078	-0.053	-0.017

	ADS_LINE_REV0.txt					
GRT1{1}	2.561	-0.140	13.125	0.762	-0.363	-0.080
GRT2{1}	2.025	0.119	53.328	0.134	-0.105	-0.066
GRT3{1}	1.702	0.428	47.424	-0.252	-0.094	-0.010
GRT4{1}	2.115	1.692	33.446	-0.074	-0.003	-0.022
GRT5{1}	1.319	0.618	53.468	0.147	-0.101	-0.020

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DISPLACEMENTS

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
C03 D	Gravity{1}	-0.311	-0.684	2.353	0.069	-0.048	-0.003
	Hydrotest{1}	0.297	0.302	0.000	-0.043	0.024	-0.005
	Thermal 1{1}	-0.272	-6.051	10.772	0.693	-0.315	-0.077
	Thermal 2{1}	1.423	-0.353	50.975	0.065	-0.057	-0.063
	Thermal 3{1}	1.200	3.293	45.071	-0.321	-0.046	-0.007
	Thermal 4{1}	2.396	3.017	31.093	-0.143	0.045	-0.019
	Thermal 5{1}	0.754	0.030	51.115	0.078	-0.053	-0.017
	GRT1{1}	-0.583	-6.735	13.125	0.762	-0.363	-0.080
	GRT2{1}	1.112	-1.037	53.328	0.134	-0.105	-0.066
	GRT3{1}	0.889	2.609	47.424	-0.252	-0.094	-0.010
	GRT4{1}	2.085	2.333	33.446	-0.074	-0.003	-0.022
	GRT5{1}	0.443	-0.654	53.468	0.147	-0.101	-0.020
K06 M	Gravity{1}	0.696	-0.699	2.377	0.114	-0.035	0.053
	Hydrotest{1}	0.358	-0.317	0.000	-0.021	0.033	0.021
	Thermal 1{1}	5.556	-2.356	10.158	0.733	-0.350	0.376
	Thermal 2{1}	3.249	-1.196	46.275	0.267	-0.199	0.232
	Thermal 3{1}	3.786	-1.824	19.189	0.952	-0.742	0.399
	Thermal 4{1}	2.385	1.050	27.943	-0.010	-0.043	0.089
	Thermal 5{1}	0.609	0.717	46.558	0.287	-0.188	0.122
	GRT1{1}	6.252	-3.055	12.535	0.847	-0.385	0.429
	GRT2{1}	3.945	-1.895	48.653	0.381	-0.234	0.285
	GRT3{1}	4.482	-2.523	21.567	1.066	-0.777	0.452
	GRT4{1}	3.081	0.351	30.320	0.104	-0.078	0.142
	GRT5{1}	1.305	0.018	48.936	0.401	-0.223	0.175
K06 D	Gravity{1}	0.393	-1.683	2.377	0.114	-0.035	0.053

		ADS_LINE_REV0.txt					
	Hydrotest{1}	0.641	-0.137	0.000	-0.021	0.033	0.021
	Thermal 1{1}	2.528	-8.702	10.158	0.733	-0.350	0.376
	Thermal 2{1}	1.526	-3.507	46.275	0.267	-0.199	0.232
	Thermal 3{1}	-2.641	-10.065	19.189	0.952	-0.742	0.399
	Thermal 4{1}	2.015	1.133	27.943	-0.010	-0.043	0.089
	Thermal 5{1}	-1.023	-1.769	46.558	0.287	-0.188	0.122
	GRT1{1}	2.920	-10.385	12.535	0.847	-0.385	0.429
	GRT2{1}	1.919	-5.190	48.653	0.381	-0.234	0.285
	GRT3{1}	-2.248	-11.748	21.567	1.066	-0.777	0.452
	GRT4{1}	2.407	-0.550	30.320	0.104	-0.078	0.142
	GRT5{1}	-0.630	-3.452	48.936	0.401	-0.223	0.175
F03 M	Gravity{1}	-0.342	0.020	-1.657	-0.064	-0.028	0.014
	Hydrotest{1}	-0.289	0.009	0.000	-0.032	0.032	0.007
	Thermal 1{1}	-8.753	1.458	11.816	0.342	-0.267	0.274
	Thermal 2{1}	-7.711	1.311	40.921	-0.108	-0.106	0.241
	Thermal 3{1}	-6.231	11.579	41.256	-0.090	-0.088	0.145
	Thermal 4{1}	-3.227	0.502	23.977	-0.168	0.002	0.102
	Thermal 5{1}	-4.736	11.344	41.599	-0.087	-0.106	0.069
	GRT1{1}	-9.095	1.479	10.159	0.277	-0.295	0.288
	GRT2{1}	-8.052	1.331	39.264	-0.173	-0.134	0.254
	GRT3{1}	-6.572	11.600	39.598	-0.154	-0.116	0.159
	GRT4{1}	-3.569	0.522	22.319	-0.232	-0.026	0.116
	GRT5{1}	-5.077	11.365	39.941	-0.152	-0.134	0.083

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ADS_LINE_REV0

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
F03 D	Gravity{1}	-0.542	0.477	-1.657	-0.064	-0.028	0.014
	Hydrotest{1}	-0.062	0.238	0.000	-0.032	0.032	0.007
	Thermal 1{1}	-10.656	-0.974	11.816	0.342	-0.267	0.274
	Thermal 2{1}	-8.467	2.083	40.921	-0.108	-0.106	0.241
	Thermal 3{1}	-6.854	12.222	41.256	-0.090	-0.088	0.145
	Thermal 4{1}	-3.212	1.701	23.977	-0.168	0.002	0.102
	Thermal 5{1}	-5.491	11.967	41.599	-0.087	-0.106	0.069
	GRT1{1}	-11.199	-0.497	10.159	0.277	-0.295	0.288

ADS_LINE_REV0.txt

GRT2{1}	-9.009	2.560	39.264	-0.173	-0.134	0.254
GRT3{1}	-7.397	12.699	39.598	-0.154	-0.116	0.159
GRT4{1}	-3.755	2.178	22.319	-0.232	-0.026	0.116
GRT5{1}	-6.034	12.444	39.941	-0.152	-0.134	0.083

0

ADS_LINE_REV0

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
Tag No.: <None> B30		Gravity{1}	up	29	0.000	X	29	0.000
B30 1	Guide		rght	86	0.000	Y	86	0.000
Stiff	:RIGID		back		0.003	Z		-0.003
		Hydrotest{1}	up	1	0.000	X	1	0.000
			rght	18	0.000	Y	18	0.000
			back		0.050	Z		-0.050
		Thermal 1{1}	up	170	0.000	X	170	0.000
			rght	74	0.000	Y	74	0.000
			forw		0.015	Z	0	0.015
		Thermal 2{1}	up	96	0.000	X	96	0.000
			left	56	0.000	Y	-56	0.000
			forw		24.319	Z		24.319
		Thermal 3{1}	up	287	0.000	X	287	0.000
			rght	210	0.000	Y	210	0.000
			forw		3.464	Z	0	3.464
		Thermal 4{1}	up	34	0.000	X	34	0.000
			left	54	0.000	Y	-54	0.000
			forw		16.068	Z		16.068
		Thermal 5{1}	up	57	0.000	X	57	0.000
			rght	9	0.000	Y	9	0.000
			forw		24.317	Z		24.317
		GRT1{1}	up	200	0.000	X	200	0.000
			rght	160	0.000	Y	160	0.000

ADS_LINE_REV0.txt

			forw	0.011	Z	0	0.011	
	GRT2{1}		up	126	0.000	X	126	0.000
			rght	31	0.000	Y	31	0.000
			forw	24.316	Z	0	24.316	
	GRT3{1}		up	316	0.000	X	316	0.000
			rght	296	0.000	Y	296	0.000
			forw	3.460	Z	0	3.460	
	GRT4{1}		up	63	0.000	X	63	0.000
			rght	32	0.000	Y	32	0.000
			forw	16.064	Z		16.064	
	GRT5{1}		up	86	0.000	X	86	0.000
			rght	95	0.000	Y	95	0.000
			forw	24.313	Z		24.313	
Tag No.: IV17 B15 M	Gravity{1}		down	2647	-3.202	X		0.829

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/ Supp. ID	Connect/ Type	Load Combination	L O C A L			G L O B A L		
			Dirn	Force	Deform	Dirn	Force	Deform
B15 M1	Spr. Can					Y		1.096
Stiff :	10					Z	-2647	3.202
Preload :	2678	Hydrotest{1}	down	2262	0.000	X		0.183
						Y		0.055
						Z	-2262	0.000
		Thermal 1{1}	up	56	5.758	X		7.419
						Y		0.128
						Z	56	5.758
		Thermal 2{1}	up	390	39.764	X		4.682
						Y		-0.465
						Z	390	39.764
		Thermal 3{1}	up	170	17.350	X		7.633

ADS_LINE_REV0.txt

				Y	3.329		
			Z	170	17.350		
Thermal 4{1}	up	243	24.741	X	2.393		
			Y		0.525		
			Z	243	24.741		
Thermal 5{1}	up	391	39.867	X	1.284		
			Y		2.383		
			Z	391	39.867		
GRT1{1}	down	2590	-8.960	X	8.247		
			Y		1.224		
			Z	-2590	8.960		
GRT2{1}	down	2257	-42.966	X	5.511		
			Y		0.632		
			Z	-2257	42.966		
GRT3{1}	down	2477	-20.552	X	8.462		
			Y		4.426		
			Z	-2477	20.552		
GRT4{1}	down	2404	-27.943	X	3.221		
			Y		1.621		
			Z	-2404	27.943		
GRT5{1}	down	2256	-43.069	X	2.113		
			Y		3.479		
			Z	-2256	43.069		
Tag No.: IV21							
B06 M	Gravity{1}	down	2642	-2.625	X	-0.116	
B06 M1	Cons Can				Y	1.195	
Stiff	:FREE				Z	-2642	2.625

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
Preload :	2642	Hydrotest{1}	down	2726	0.000	X		-0.172

ADS_LINE_REV0.txt

				Y	0.189
				Z	-2726 0.000
Thermal 1{1}	up	28.257		X	1.702
				Y	14.161
				Z	28.257
Thermal 2{1}	up	46.501		X	1.399
				Y	12.022
				Z	46.501
Thermal 3{1}	up	43.726		X	4.414
				Y	17.100
				Z	43.726
Thermal 4{1}	up	23.270		X	0.161
				Y	5.227
				Z	23.270
Thermal 5{1}	up	46.800		X	3.655
				Y	9.358
				Z	46.800
GRT1{1}	down	2642 -30.882		X	1.586
				Y	15.356
				Z	-2642 30.882
GRT2{1}	down	2642 -49.126		X	1.284
				Y	13.217
				Z	-2642 49.126
GRT3{1}	down	2642 -46.351		X	4.298
				Y	18.295
				Z	-2642 46.351
GRT4{1}	down	2642 -25.895		X	0.045
				Y	6.422
				Z	-2642 25.895
GRT5{1}	down	2642 -49.425		X	3.539
				Y	10.553
				Z	-2642 49.425
Tag No.: <None> B09	Gravity{1}	down	999 2.227	X	-1.370
B09 1 Cons Can				Y	1.327
Stiff :FREE				Z	-999 -2.227
Preload : 999	Hydrotest{1}	down	1045 0.000	X	-0.611

Y 0.329
Z -1045 0.000

0

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
		Thermal 1{1}	up		42.150	X		-8.091
						Y		27.095
						Z		42.150
		Thermal 2{1}	up		47.709	X		-5.845
						Y		23.545
						Z		47.709
		Thermal 3{1}	up		44.401	X		-1.197
						Y		29.593
						Z		44.401
		Thermal 4{1}	up		19.285	X		-3.076
						Y		9.527
						Z		19.285
		Thermal 5{1}	up		50.495	X		5.626
						Y		19.912
						Z		50.495
		GRT1{1}	down	999	-39.923	X		-9.461
						Y		28.422
						Z	-999	39.923
		GRT2{1}	down	999	-45.483	X		-7.215
						Y		24.871
						Z	-999	45.483
		GRT3{1}	down	999	-42.175	X		-2.567
						Y		30.919
						Z	-999	42.175
		GRT4{1}	down	999	-17.059	X		-4.447

ADS_LINE_REV0.txt

					Y	10.854
					Z	-999 17.059
	GRT5{1}	down	999 -48.268	X		4.256
				Y		21.239
				Z	-999	48.268
Tag No.: IV15						
C03 M	Gravity{1}	down	5081 -2.353	X		0.105
C03 M1 Spr. Can				Y		-0.087
Stiff : 12				Z	-5081	2.353
Preload : 5108	Hydrotest{1}	down	4515 0.000	X		0.091
				Y		-0.067
				Z	-4515	0.000
	Thermal 1{1}	up	126 10.772	X		2.455
				Y		-0.053
				Z	126	10.772

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/ Supp. ID	Connect/ Type	Load Combination	L O C A L			G L O B A L		
			Dirn	Force	Deform	Dirn	Force	Deform
		Thermal 2{1}	up	598	50.975	X		1.920
						Y		0.206
						Z	598	50.975
		Thermal 3{1}	up	529	45.071	X		1.597
						Y		0.515
						Z	529	45.071
		Thermal 4{1}	up	365	31.093	X		2.009
						Y		1.779
						Z	365	31.093
		Thermal 5{1}	up	600	51.115	X		1.214
						Y		0.705
						Z	600	51.115

		ADS_LINE_REV0.txt				
GRT1{1}		down	4954 -13.125	X		2.561
				Y		-0.140
				Z	-4954	13.125
GRT2{1}		down	4482 -53.328	X		2.025
				Y		0.119
				Z	-4482	53.328
GRT3{1}		down	4552 -47.424	X		1.702
				Y		0.428
				Z	-4552	47.424
GRT4{1}		down	4716 -33.446	X		2.115
				Y		1.692
				Z	-4716	33.446
GRT5{1}		down	4481 -53.468	X		1.319
				Y		0.618
				Z	-4481	53.468
Tag No.: IV18						
D04 M	Gravity{1}	down	2501 -0.874	X		-0.170
D04 M1 Cons Can				Y		0.157
Stiff :FREE				Z	-2501	0.874
Preload : 2501	Hydrotest{1}	down	2522 0.000	X		0.003
				Y		0.003
				Z	-2522	0.000
	Thermal 1{1}	up	4.569	X		4.328
				Y		-1.705
				Z		4.569
	Thermal 2{1}	up	45.585	X		3.843
				Y		-1.534
				Z		45.585

0

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S U P P O R T F O R C E S								
(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)								
Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
-----	-----	-----	-----	-----	-----	-----	-----	-----

ADS_LINE_REV0.txt

Thermal 3{1}	up	40.384	X	3.408
				-0.978
				40.384
Thermal 4{1}	up	29.081	X	2.747
				1.078
				29.081
Thermal 5{1}	up	45.586	X	1.195
				-0.142
				45.586
GRT1{1}	down	2501 -5.443	X	4.158
				-1.549
				-2501 5.443
GRT2{1}	down	2501 -46.459	X	3.674
				-1.377
				-2501 46.459
GRT3{1}	down	2501 -41.258	X	3.238
				-0.821
				-2501 41.258
GRT4{1}	down	2501 -29.955	X	2.577
				1.234
				-2501 29.955
GRT5{1}	down	2501 -46.459	X	1.026
				0.014
				-2501 46.459
Tag No.: IV20 E03 M Gravity{1}	down	2588 -6.807	X	0.231
				0.084
				-2588 6.807
E03 M1 Spr. Can Stiff : 10	down	2177 0.000	X	-0.130
				-0.016
				-2177 0.000
Preload : 2655 Hydrotest{1}	up	80 8.152	X	-3.432
				0.822
				80 8.152
Thermal 1{1}	up	386 39.360	X	-3.526
				0.654
				386 39.360

ADS_LINE_REV0.txt

Thermal 3{1}	up	366	37.275	X	-2.624
				Y	8.904
				Z	366 37.275

0

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
		Thermal 4{1}	up	235	24.012	X		-1.400
						Y		0.253
						Z	235	24.012
		Thermal 5{1}	up	388	39.558	X		-1.392
						Y		8.394
						Z	388	39.558
		GRT1{1}	down	2508	-14.959	X		-3.201
						Y		0.906
						Z	-2508	14.959
		GRT2{1}	down	2202	-46.167	X		-3.294
						Y		0.737
						Z	-2202	46.167
		GRT3{1}	down	2222	-44.082	X		-2.392
						Y		8.988
						Z	-2222	44.082
		GRT4{1}	down	2353	-30.819	X		-1.169
						Y		0.337
						Z	-2353	30.819
		GRT5{1}	down	2200	-46.365	X		-1.161
						Y		8.478
						Z	-2200	46.365
Tag No.: IV19		Gravity{1}	down	2139	1.657	X		-0.342
F03 M						Y		0.020
F03 M1	Spr. Can					Z	-2139	-1.657
Stiff	:	5						

ADS_LINE_REV0.txt

Preload :	2131	Hydrotest{1}	down	2266	0.000	X	-0.289
						Y	0.009
						Z	-2266 0.000
		Thermal 1{1}	up	58	11.816	X	-8.753
						Y	1.458
						Z	58 11.816
		Thermal 2{1}	up	201	40.921	X	-7.711
						Y	1.311
						Z	201 40.921
		Thermal 3{1}	up	202	41.256	X	-6.231
						Y	11.579
						Z	202 41.256
		Thermal 4{1}	up	118	23.977	X	-3.227
						Y	0.502
						Z	118 23.977

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
		Thermal 5{1}	up	204	41.599	X	-4.736	
						Y	11.344	
						Z	204 41.599	
		GRT1{1}	down	2081	-10.159	X	-9.095	
						Y	1.479	
						Z	-2081 10.159	
		GRT2{1}	down	1938	-39.264	X	-8.052	
						Y	1.331	
						Z	-1938 39.264	
		GRT3{1}	down	1936	-39.598	X	-6.572	
						Y	11.600	
						Z	-1936 39.598	

ADS_LINE_REV0.txt

	GRT4{1}	down	2021 -22.319	X	-3.569
				Y	0.522
				Z	-2021 22.319
	GRT5{1}	down	1935 -39.941	X	-5.077
				Y	11.365
				Z	-1935 39.941
Tag No.: IV16 K06 M	Gravity{1}	down	6597 -2.377	X	0.696
				Y	-0.699
				Z	-6597 2.377
K06 M1 Spr. Can Stiff : 23				X	
				Y	
				Z	
Preload : 6652	Hydrotest{1}	down	5449 0.000	X	0.358
				Y	-0.317
				Z	-5449 0.000
	Thermal 1{1}	up	231 10.158	X	5.556
				Y	-2.356
				Z	231 10.158
	Thermal 2{1}	up	1054 46.275	X	3.249
				Y	-1.196
				Z	1054 46.275
	Thermal 3{1}	up	437 19.189	X	3.786
				Y	-1.824
				Z	437 19.189
	Thermal 4{1}	up	636 27.943	X	2.385
				Y	1.050
				Z	636 27.943
	Thermal 5{1}	up	1060 46.558	X	0.609
				Y	0.717
				Z	1060 46.558

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform

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ADS_LINE_REV0.txt

Tag No.: <None> K25 1 Cons Can Stiff :FREE Preload : 2312	GRT1{1}	down	6366	-12.535	X	6.252
					Y	-3.055
					Z	-6366 12.535
	GRT2{1}	down	5544	-48.653	X	3.945
					Y	-1.895
					Z	-5544 48.653
	GRT3{1}	down	6161	-21.567	X	4.482
					Y	-2.523
					Z	-6161 21.567
	GRT4{1}	down	5961	-30.320	X	3.081
					Y	0.351
					Z	-5961 30.320
	GRT5{1}	down	5538	-48.936	X	1.305
					Y	0.018
					Z	-5538 48.936
Gravity{1}	down	2312	-2.034	X	-0.912	
				Y	0.157	
				Z	-2312 2.034	
Hydrotest{1}	down	2316	0.000	X	-0.125	
				Y	0.204	
				Z	-2316 0.000	
Thermal 1{1}	up		77.555	X	5.148	
				Y	22.686	
				Z	77.555	
Thermal 2{1}	up		74.716	X	6.233	
				Y	20.503	
				Z	74.716	
Thermal 3{1}	up		80.938	X	1.268	
				Y	24.343	
				Z	80.938	
Thermal 4{1}	up		28.860	X	3.119	
				Y	9.476	
				Z	28.860	
Thermal 5{1}	up		74.685	X	6.939	
				Y	20.633	

ADS_LINE_REV0.txt

Z 74.685
X 4.236
Y 22.843
Z -2312 79.589

GRT1{1}

down

2312 -79.589

X

4.236

Y

22.843

Z

-2312 79.589

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
-----	-----	-----	----	-----	-----	----	-----	-----
		GRT2{1}	down	2312	-76.751	X		5.321
						Y		20.660
						Z	-2312	76.751
		GRT3{1}	down	2312	-82.972	X		0.356
						Y		24.500
						Z	-2312	82.972
		GRT4{1}	down	2312	-30.894	X		2.207
						Y		9.633
						Z	-2312	30.894
		GRT5{1}	down	2312	-76.720	X		6.026
						Y		20.790
						Z	-2312	76.720

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R E S T R A I N T R E A C T I O N S

Point name	Load combination	F O R C E S (N)				M O M E N T S (N . m)			
		X	Y	Z	Result	X	Y	Z	Result
A16	Anchor Gravity{1}	-5	-10	-6972	6972	0	0	11	11

Tag No.: <None>

ADS_LINE_REV0.txt									
	Hydrotest{1}	-1	-2	-8221	8221	0	0	4	4
	Thermal 1{1}	-32	-6	340	342	0	0	62	62
	Thermal 2{1}	-17	11	-464	464	0	0	33	33
	Thermal 3{1}	-46	-24	2411	2411	0	1	70	70
	Thermal 4{1}	-7	8	-340	340	0	0	12	12
	Thermal 5{1}	-9	0	-518	518	0	0	20	20
	GRT1{1}	-37	-17	-6632	6632	0	0	73	73
	GRT2{1}	-23	1	-7435	7436	0	0	44	44
	GRT3{1}	-52	-35	-4561	4562	0	1	81	81
	GRT4{1}	-12	-3	-7312	7312	0	0	23	23
	GRT5{1}	-14	-10	-7490	7490	0	0	30	30
B30	Guide Tag No.: <None> [ID: B30 1]								
	Gravity{1}	29	86	0	91	0	0	0	0
	Hydrotest{1}	1	18	0	18	0	0	0	0
	Thermal 1{1}	170	74	0	186	0	0	0	0
	Thermal 2{1}	96	-56	0	111	0	0	0	0
	Thermal 3{1}	287	210	0	355	0	0	0	0
	Thermal 4{1}	34	-54	0	64	0	0	0	0
	Thermal 5{1}	57	9	0	58	0	0	0	0
	GRT1{1}	200	160	0	256	0	0	0	0
	GRT2{1}	126	31	0	129	0	0	0	0
	GRT3{1}	316	296	0	433	0	0	0	0
	GRT4{1}	63	32	0	71	0	0	0	0
	GRT5{1}	86	95	0	129	0	0	0	0
B15 M	Spr. Can Tag No.: IV17 [ID: B15 M1]								
	Gravity{1}	0	0	-2647	2647	0	0	0	0
	Hydrotest{1}	0	0	-2262	2262	0	0	0	0
	Thermal 1{1}	0	0	56	56	0	0	0	0
	Thermal 2{1}	0	0	390	390	0	0	0	0
	Thermal 3{1}	0	0	170	170	0	0	0	0
	Thermal 4{1}	0	0	243	243	0	0	0	0
	Thermal 5{1}	0	0	391	391	0	0	0	0
	GRT1{1}	0	0	-2590	2590	0	0	0	0
	GRT2{1}	0	0	-2257	2257	0	0	0	0
	GRT3{1}	0	0	-2477	2477	0	0	0	0
	GRT4{1}	0	0	-2404	2404	0	0	0	0
	GRT5{1}	0	0	-2256	2256	0	0	0	0

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R E S T R A I N T R E A C T I O N S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
B06 M	Cons Can Tag No.: IV21 [ID: B06 M1] Gravity{1}	0	0	-2642	2642	0	0	0	0
	Hydrotest{1}	0	0	-2726	2726	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	-2642	2642	0	0	0	0
	GRT2{1}	0	0	-2642	2642	0	0	0	0
	GRT3{1}	0	0	-2642	2642	0	0	0	0
	GRT4{1}	0	0	-2642	2642	0	0	0	0
	GRT5{1}	0	0	-2642	2642	0	0	0	0
B09	Cons Can Tag No.: <None> [ID: B09 1] Gravity{1}	0	0	-999	999	0	0	0	0
	Hydrotest{1}	0	0	-1045	1045	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	-999	999	0	0	0	0
	GRT2{1}	0	0	-999	999	0	0	0	0
	GRT3{1}	0	0	-999	999	0	0	0	0
	GRT4{1}	0	0	-999	999	0	0	0	0
	GRT5{1}	0	0	-999	999	0	0	0	0
B18	Anchor Tag No.: ADSSTTORV Gravity{1}	-1	-6	-562	562	-115	-37	6	121
	Hydrotest{1}	13	47	-547	549	-74	-35	-17	84
	Thermal 1{1}	93	846	-462	968	-919	-2	-44	920
	Thermal 2{1}	56	596	-287	664	-618	7	-12	618
	Thermal 3{1}	163	1047	-323	1108	-781	45	-167	800
	Thermal 4{1}	10	230	-72	241	-191	5	17	192
	Thermal 5{1}	129	476	-286	570	-578	28	-188	608
	GRT1{1}	92	840	-1024	1328	-1035	-39	-38	1036
	GRT2{1}	55	590	-849	1036	-733	-30	-6	734
	GRT3{1}	162	1041	-885	1376	-896	8	-161	910

		ADS_LINE_REV0.txt						
GRT4{1}	9	224	-634	673	-306	-32	23	309
GRT5{1}	128	470	-848	978	-693	-9	-182	717

0

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R E S T R A I N T R E A C T I O N S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

C03 M	Spr. Can Tag No.: IV15 [ID: C03 M1] Gravity{1}	0	0	-5081	5081	0	0	0	0
	Hydrotest{1}	0	0	-4515	4515	0	0	0	0
	Thermal 1{1}	0	0	126	126	0	0	0	0
	Thermal 2{1}	0	0	598	598	0	0	0	0
	Thermal 3{1}	0	0	529	529	0	0	0	0
	Thermal 4{1}	0	0	365	365	0	0	0	0
	Thermal 5{1}	0	0	600	600	0	0	0	0
	GRT1{1}	0	0	-4954	4954	0	0	0	0
	GRT2{1}	0	0	-4482	4482	0	0	0	0
	GRT3{1}	0	0	-4552	4552	0	0	0	0
	GRT4{1}	0	0	-4716	4716	0	0	0	0
	GRT5{1}	0	0	-4481	4481	0	0	0	0
C06	Anchor Tag No.: ADSDTTODW Gravity{1}	-47	-214	1112	1134	630	-572	-69	854
	Hydrotest{1}	-20	-104	564	573	201	-218	-41	300
	Thermal 1{1}	-831	-2847	412	2994	1409	-795	-908	1855
	Thermal 2{1}	-477	-1765	-661	1944	-153	155	-608	645
	Thermal 3{1}	-1009	-2946	-2073	3741	-1399	791	-743	1770
	Thermal 4{1}	-149	-587	-562	826	-484	318	-203	614
	Thermal 5{1}	-549	-1472	-643	1698	-123	153	-378	426
	GRT1{1}	-878	-3061	1524	3530	2039	-1367	-977	2643
	GRT2{1}	-525	-1979	451	2096	478	-417	-677	927
	GRT3{1}	-1057	-3160	-960	3468	-769	219	-812	1139
	GRT4{1}	-196	-801	550	991	146	-254	-272	399
	GRT5{1}	-596	-1686	469	1849	507	-419	-447	796
D04 M	Cons Can Tag No.: IV18 [ID: D04 M1] Gravity{1}	0	0	-2501	2501	0	0	0	0
	Hydrotest{1}	0	0	-2522	2522	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0

ADS_LINE_REV0.txt

Thermal 2{1}	0	0	0	0	0	0	0	0
Thermal 3{1}	0	0	0	0	0	0	0	0
Thermal 4{1}	0	0	0	0	0	0	0	0
Thermal 5{1}	0	0	0	0	0	0	0	0
GRT1{1}	0	0	-2501	2501	0	0	0	0
GRT2{1}	0	0	-2501	2501	0	0	0	0
GRT3{1}	0	0	-2501	2501	0	0	0	0
GRT4{1}	0	0	-2501	2501	0	0	0	0
GRT5{1}	0	0	-2501	2501	0	0	0	0

0

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R E S T R A I N T R E A C T I O N S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

D07	Anchor Tag No.: ASDSTTODW Gravity{1}	45	129	337	363	149	-113	31	190
	Hydrotest{1}	7	15	324	325	112	-113	2	159
	Thermal 1{1}	127	-80	49	158	137	-80	-205	260
	Thermal 2{1}	48	-220	-59	233	-61	13	-207	216
	Thermal 3{1}	196	193	-285	396	-275	146	-109	330
	Thermal 4{1}	-7	-153	-55	163	-81	33	-89	124
	Thermal 5{1}	40	25	-59	75	-61	13	-40	74
	GRT1{1}	172	49	386	425	286	-194	-174	387
	GRT2{1}	93	-92	278	307	88	-100	-176	221
	GRT3{1}	241	322	52	405	-126	33	-78	151
	GRT4{1}	37	-25	282	285	69	-81	-57	120
	GRT5{1}	85	153	278	329	88	-100	-8	134
E03 M	Spr. Can Tag No.: IV20 [ID: E03 M1] Gravity{1}	0	0	-2588	2588	0	0	0	0
	Hydrotest{1}	0	0	-2177	2177	0	0	0	0
	Thermal 1{1}	0	0	80	80	0	0	0	0
	Thermal 2{1}	0	0	386	386	0	0	0	0
	Thermal 3{1}	0	0	366	366	0	0	0	0
	Thermal 4{1}	0	0	235	235	0	0	0	0
	Thermal 5{1}	0	0	388	388	0	0	0	0
	GRT1{1}	0	0	-2508	2508	0	0	0	0

ADS_LINE_REV0.txt								
GRT2{1}	0	0	-2202	2202	0	0	0	0
GRT3{1}	0	0	-2222	2222	0	0	0	0
GRT4{1}	0	0	-2353	2353	0	0	0	0
GRT5{1}	0	0	-2200	2200	0	0	0	0

E11	Anchor Tag No.: ADSDEG Gravity{1}	20	48	-200	206	443	238	-45	505
	Hydrotest{1}	-3	-1	-469	469	-192	24	10	194
	Thermal 1{1}	-32	263	147	303	598	-169	166	644
	Thermal 2{1}	-51	225	-293	373	-685	-251	199	756
	Thermal 3{1}	-7	72	-394	400	-907	-237	58	939
	Thermal 4{1}	-14	111	-235	261	-620	-121	67	636
	Thermal 5{1}	-19	-70	-290	299	-672	-248	34	717
	GRT1{1}	-12	310	-52	315	1041	68	121	1050
	GRT2{1}	-31	272	-492	563	-242	-13	155	288
	GRT3{1}	13	119	-593	605	-464	1	13	464
	GRT4{1}	6	159	-435	463	-178	117	22	214
	GRT5{1}	1	-22	-490	490	-229	-10	-11	230

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R E S T R A I N T R E A C T I O N S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
F03 M	Spr. Can Tag No.: IV19 Gravity{1}	[ID: F03 M1]	0	0	-2139	2139	0	0	0
	Hydrotest{1}	0	0	-2266	2266	0	0	0	0
	Thermal 1{1}	0	0	58	58	0	0	0	0
	Thermal 2{1}	0	0	201	201	0	0	0	0
	Thermal 3{1}	0	0	202	202	0	0	0	0
	Thermal 4{1}	0	0	118	118	0	0	0	0
	Thermal 5{1}	0	0	204	204	0	0	0	0
	GRT1{1}	0	0	-2081	2081	0	0	0	0
	GRT2{1}	0	0	-1938	1938	0	0	0	0
	GRT3{1}	0	0	-1936	1936	0	0	0	0
	GRT4{1}	0	0	-2021	2021	0	0	0	0
	GRT5{1}	0	0	-1935	1935	0	0	0	0

F10	Anchor Tag No.: ADSSPLIT Gravity{1}	1	9	-590	590	-391	-196	6	437

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Hydrotest{1}	-5	-5	-550	550	-276	-132	18	306
Thermal 1{1}	-74	95	96	154	517	-155	370	654
Thermal 2{1}	-66	91	-135	175	-388	-142	325	526
Thermal 3{1}	-62	-11	-140	153	-383	-130	272	488
Thermal 4{1}	-26	43	-116	126	-403	-52	131	427
Thermal 5{1}	-83	-98	-129	182	-358	-139	285	479
GRT1{1}	-72	105	-494	510	126	-350	376	529
GRT2{1}	-65	101	-725	734	-779	-337	331	911
GRT3{1}	-61	-1	-730	732	-774	-326	279	885
GRT4{1}	-25	52	-706	709	-794	-248	137	843
GRT5{1}	-82	-88	-720	730	-749	-335	292	871

J00	Anchor Tag No.: <None> Gravity{1}	0	0	-409	409	51	-29	0	58
	Hydrotest{1}	0	0	-409	409	51	-29	0	58
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	-409	409	51	-29	0	58
	GRT2{1}	0	0	-409	409	51	-29	0	58
	GRT3{1}	0	0	-409	409	51	-29	0	58
	GRT4{1}	0	0	-409	409	51	-29	0	58
	GRT5{1}	0	0	-409	409	51	-29	0	58

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R E S T R A I N T R E A C T I O N S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
K06 M	Spr. Can Tag No.: IV16 Gravity{1}	0	0	-6597	6597	0	0	0	0
	Hydrotest{1}	0	0	-5449	5449	0	0	0	0
	Thermal 1{1}	0	0	231	231	0	0	0	0
	Thermal 2{1}	0	0	1054	1054	0	0	0	0
	Thermal 3{1}	0	0	437	437	0	0	0	0
	Thermal 4{1}	0	0	636	636	0	0	0	0

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Thermal 5{1}	0	0	1060	1060	0	0	0	0	
GRT1{1}	0	0	-6366	6366	0	0	0	0	
GRT2{1}	0	0	-5544	5544	0	0	0	0	
GRT3{1}	0	0	-6161	6161	0	0	0	0	
GRT4{1}	0	0	-5961	5961	0	0	0	0	
GRT5{1}	0	0	-5538	5538	0	0	0	0	
K25 Cons Can Tag No.: <None> [ID: K25 1]									
Gravity{1}	0	0	-2312	2312	0	0	0	0	
Hydrotest{1}	0	0	-2316	2316	0	0	0	0	
Thermal 1{1}	0	0	0	0	0	0	0	0	
Thermal 2{1}	0	0	0	0	0	0	0	0	
Thermal 3{1}	0	0	0	0	0	0	0	0	
Thermal 4{1}	0	0	0	0	0	0	0	0	
Thermal 5{1}	0	0	0	0	0	0	0	0	
GRT1{1}	0	0	-2312	2312	0	0	0	0	
GRT2{1}	0	0	-2312	2312	0	0	0	0	
GRT3{1}	0	0	-2312	2312	0	0	0	0	
GRT4{1}	0	0	-2312	2312	0	0	0	0	
GRT5{1}	0	0	-2312	2312	0	0	0	0	
K23 Anchor Tag No.: <None>									
Gravity{1}	-41	-41	-675	678	126	-142	13	190	
Hydrotest{1}	6	31	-878	878	-111	86	28	143	
Thermal 1{1}	578	1655	-1134	2088	-2020	1303	1086	2638	
Thermal 2{1}	411	1117	-730	1396	-1470	903	709	1865	
Thermal 3{1}	480	1459	-900	1780	-1787	912	1016	2249	
Thermal 4{1}	158	402	-215	483	-559	317	249	689	
Thermal 5{1}	434	1129	-718	1407	-1469	923	674	1861	
GRT1{1}	536	1614	-1810	2483	-1894	1161	1099	2479	
GRT2{1}	369	1076	-1405	1808	-1344	762	721	1705	
GRT3{1}	438	1418	-1575	2164	-1661	771	1029	2101	
GRT4{1}	117	361	-891	968	-433	175	262	536	
GRT5{1}	392	1088	-1393	1811	-1343	781	687	1699	

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

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*** Segment A begin ***

K01	Gravity{1}	-5	-10	202	203	-21	10	11	25
	Hydrotest{1}	-1	-2	-1047	1047	-4	2	4	6
	Thermal 1{1}	-32	-6	340	342	-12	64	62	90
	Thermal 2{1}	-17	11	-464	464	22	34	33	53
	Thermal 3{1}	-46	-24	2411	2411	-48	92	70	125
	Thermal 4{1}	-7	8	-340	340	16	14	12	24
	Thermal 5{1}	-9	0	-518	518	1	17	20	26
	GRT1{1}	-37	-17	542	544	-33	74	73	109
	GRT2{1}	-23	1	-261	262	2	45	44	63
	GRT3{1}	-52	-35	2613	2614	-69	103	81	148
	GRT4{1}	-12	-3	-138	138	-5	24	23	34
	GRT5{1}	-14	-10	-316	316	-20	27	30	45
A00 -	Gravity{1}	-5	-10	-158	159	-3	2	11	11
	Hydrotest{1}	-1	-2	-1407	1407	-1	0	4	4
	Thermal 1{1}	-32	-6	340	342	-2	10	62	63
	Thermal 2{1}	-17	11	-464	464	4	5	33	34
	Thermal 3{1}	-46	-24	2411	2411	-8	15	70	72
	Thermal 4{1}	-7	8	-340	340	2	2	12	12
	Thermal 5{1}	-9	0	-518	518	0	3	20	20
	GRT1{1}	-37	-17	182	186	-5	12	73	74
	GRT2{1}	-23	1	-622	622	0	7	44	45
	GRT3{1}	-52	-35	2252	2253	-11	16	81	83
	GRT4{1}	-12	-3	-498	498	-1	4	23	23
	GRT5{1}	-14	-10	-676	676	-3	4	30	31
A00 +	Gravity{1}	-5	-10	-284	284	-3	2	11	11
	Hydrotest{1}	-1	-2	-1533	1533	-1	0	4	4
	Thermal 1{1}	-32	-6	340	342	-2	10	62	63
	Thermal 2{1}	-17	11	-464	464	4	5	33	34
	Thermal 3{1}	-46	-24	2411	2411	-8	15	70	72
	Thermal 4{1}	-7	8	-340	340	2	2	12	12
	Thermal 5{1}	-9	0	-518	518	0	3	20	20
	GRT1{1}	-37	-17	56	70	-5	12	73	74
	GRT2{1}	-23	1	-747	748	0	7	44	45
	GRT3{1}	-52	-35	2127	2128	-11	16	81	83
	GRT4{1}	-12	-3	-624	624	-1	4	23	23
	GRT5{1}	-14	-10	-802	802	-3	4	30	31

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A05	Gravity{1}	-5	-10	-912	912	27	-14	11	32
	Hydrotest{1}	-1	-2	-2162	2162	5	-2	4	7
	Thermal 1{1}	-32	-6	340	342	16	-83	62	105
	Thermal 2{1}	-17	11	-464	464	-29	-45	33	63
	Thermal 3{1}	-46	-24	2411	2411	63	-121	70	153
	Thermal 4{1}	-7	8	-340	340	-20	-18	12	30
	Thermal 5{1}	-9	0	-518	518	-1	-22	20	30
	GRT1{1}	-37	-17	-572	574	43	-97	73	129
	GRT2{1}	-23	1	-1376	1376	-2	-59	44	74
	GRT3{1}	-52	-35	1498	1500	90	-135	81	181
	GRT4{1}	-12	-3	-1252	1252	7	-32	23	40
	GRT5{1}	-14	-10	-1430	1430	26	-36	30	54
A16 -	Gravity{1}	-5	-10	-1476	1476	0	0	11	11
	Hydrotest{1}	-1	-2	-2725	2725	0	0	4	4
	Thermal 1{1}	-32	-6	340	342	0	0	62	62
	Thermal 2{1}	-17	11	-464	464	0	0	33	33
	Thermal 3{1}	-46	-24	2411	2411	0	1	70	70
	Thermal 4{1}	-7	8	-340	340	0	0	12	12
	Thermal 5{1}	-9	0	-518	518	0	0	20	20
	GRT1{1}	-37	-17	-1136	1137	0	0	73	73
	GRT2{1}	-23	1	-1940	1940	0	0	44	44
	GRT3{1}	-52	-35	934	937	0	1	81	81
	GRT4{1}	-12	-3	-1816	1816	0	0	23	23
	GRT5{1}	-14	-10	-1994	1994	0	0	30	30
A16 +	Gravity{1}	0	0	5496	5496	0	0	0	0
	Hydrotest{1}	0	0	5496	5496	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	5496	5496	0	0	0	0
	GRT2{1}	0	0	5496	5496	0	0	0	0
	GRT3{1}	0	0	5496	5496	0	0	0	0

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	GRT4{1}	0	0	5496	5496	0	0	0	0
	GRT5{1}	0	0	5496	5496	0	0	0	0
A02	Gravity{1}	0	0	0	0	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	0	0	0	0	0	0
	GRT2{1}	0	0	0	0	0	0	0	0
	GRT3{1}	0	0	0	0	0	0	0	0
	GRT4{1}	0	0	0	0	0	0	0	0
	GRT5{1}	0	0	0	0	0	0	0	0

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

*** Segment A end ***									
*** Segment B begin ***									
K01	Gravity{1}	5	10	-202	203	21	-10	-11	25
	Hydrotest{1}	1	2	1047	1047	4	-2	-4	6
	Thermal 1{1}	32	6	-340	342	12	-64	-62	90
	Thermal 2{1}	17	-11	464	464	-22	-34	-33	53
	Thermal 3{1}	46	24	-2411	2411	48	-92	-70	125
	Thermal 4{1}	7	-8	340	340	-16	-14	-12	24
	Thermal 5{1}	9	0	518	518	-1	-17	-20	26
	GRT1{1}	37	17	-542	544	33	-74	-73	109
	GRT2{1}	23	-1	261	262	-2	-45	-44	63
	GRT3{1}	52	35	-2613	2614	69	-103	-81	148
	GRT4{1}	12	3	138	138	5	-24	-23	34
	GRT5{1}	14	10	316	316	20	-27	-30	45
B30	Gravity{1}	5	10	-1308	1308	74	-37	-11	84
	Hydrotest{1}	1	2	-59	59	14	-5	-4	16

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Thermal 1{1}	32	6	-340	342	44	-228	-62	240
Thermal 2{1}	17	-11	464	464	-80	-123	-33	151
Thermal 3{1}	46	24	-2411	2411	172	-331	-70	380
Thermal 4{1}	7	-8	340	340	-56	-50	-12	76
Thermal 5{1}	9	0	518	518	-3	-61	-20	64
GRT1{1}	37	17	-1648	1649	118	-266	-73	299
GRT2{1}	23	-1	-845	845	-6	-161	-44	167
GRT3{1}	52	35	-3719	3719	246	-369	-81	451
GRT4{1}	12	3	-968	968	18	-87	-23	92
GRT5{1}	14	10	-790	790	71	-98	-30	125
B30 + Gravity{1}	-24	-76	-1308	1311	74	-37	-11	84
Hydrotest{1}	0	-16	-59	61	14	-5	-4	16
Thermal 1{1}	-138	-68	-340	373	44	-228	-62	240
Thermal 2{1}	-79	44	464	472	-80	-123	-33	151
Thermal 3{1}	-240	-185	-2411	2430	172	-331	-70	380
Thermal 4{1}	-27	46	340	344	-56	-50	-12	76
Thermal 5{1}	-49	-9	518	520	-3	-61	-20	64
GRT1{1}	-162	-144	-1648	1662	118	-266	-73	299
GRT2{1}	-103	-32	-845	851	-6	-161	-44	167
GRT3{1}	-264	-261	-3719	3737	246	-369	-81	451
GRT4{1}	-51	-30	-968	970	18	-87	-23	92
GRT5{1}	-72	-85	-790	798	71	-98	-30	125

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

K02	- Gravity{1}	-24	-76	-2414	2415	-316	86	-11	328
	Hydrotest{1}	0	-16	-1165	1165	-69	-4	-4	70
	Thermal 1{1}	-138	-68	-340	373	-304	483	-62	573
	Thermal 2{1}	-79	44	464	472	148	283	-33	321
	Thermal 3{1}	-240	-185	-2411	2430	-780	904	-70	1196
	Thermal 4{1}	-27	46	340	344	180	90	-12	202
	Thermal 5{1}	-49	-9	518	520	-52	188	-20	196
	GRT1{1}	-162	-144	-2754	2763	-620	568	-73	844

		ADS_LINE_REV0.txt								
	GRT2{1}	-103	-32	-1950	1953	-169	368	-44	407	
	GRT3{1}	-264	-261	-4825	4839	-1097	989	-81	1479	
	GRT4{1}	-51	-30	-2074	2075	-136	176	-23	223	
	GRT5{1}	-72	-85	-1896	1899	-368	274	-30	460	
K02	+	Gravity{1}	65	180	-487	523	-237	-32	-12	240
		Hydrotest{1}	14	56	-196	205	-65	-24	0	70
		Thermal 1{1}	115	1124	25	1130	-108	68	83	152
		Thermal 2{1}	-13	692	203	721	75	39	103	133
		Thermal 3{1}	289	1301	-404	1393	-469	113	-1	483
		Thermal 4{1}	-37	231	117	261	64	12	46	80
		Thermal 5{1}	66	334	219	405	98	31	24	106
		GRT1{1}	180	1304	-462	1395	-345	36	72	354
		GRT2{1}	52	871	-284	918	-162	7	91	186
		GRT3{1}	354	1481	-891	1764	-706	81	-12	711
		GRT4{1}	28	410	-370	553	-173	-19	35	177
		GRT5{1}	131	513	-268	593	-139	0	12	139
B14		Gravity{1}	65	180	-493	529	-199	-36	-8	202
		Hydrotest{1}	14	56	-202	210	-50	-26	0	56
		Thermal 1{1}	115	1124	25	1130	-110	68	83	154
		Thermal 2{1}	-13	692	203	721	60	40	96	120
		Thermal 3{1}	289	1301	-404	1393	-437	109	11	451
		Thermal 4{1}	-37	231	117	261	55	13	42	70
		Thermal 5{1}	66	334	219	405	81	33	26	92
		GRT1{1}	180	1304	-468	1397	-309	32	75	319
		GRT2{1}	52	871	-290	920	-139	5	88	165
		GRT3{1}	354	1481	-897	1767	-636	74	3	640
		GRT4{1}	28	410	-376	557	-143	-22	33	149
		GRT5{1}	131	513	-273	596	-118	-2	18	119
B15	-	Gravity{1}	65	180	-559	590	268	-85	33	283
		Hydrotest{1}	14	56	-268	274	159	-48	7	166
		Thermal 1{1}	115	1124	25	1130	-132	70	80	169
		Thermal 2{1}	-13	692	203	721	-121	59	20	136
		Thermal 3{1}	289	1301	-404	1393	-79	72	147	181
		Thermal 4{1}	-37	231	117	261	-48	24	-13	55
		Thermal 5{1}	66	334	219	405	-114	54	54	137
		GRT1{1}	180	1304	-534	1420	136	-14	113	177
		GRT2{1}	52	871	-356	943	148	-25	53	159
		GRT3{1}	354	1481	-962	1801	189	-13	179	261
		GRT4{1}	28	410	-442	604	220	-61	20	229
		GRT5{1}	131	513	-339	629	154	-31	87	180

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
B15 +	Gravity{1}	65	180	-683	709	268	-85	33	283
	Hydrotest{1}	14	56	-393	397	159	-48	7	166
	Thermal 1{1}	115	1124	25	1130	-132	70	80	169
	Thermal 2{1}	-13	692	203	721	-121	59	20	136
	Thermal 3{1}	289	1301	-404	1393	-79	72	147	181
	Thermal 4{1}	-37	231	117	261	-48	24	-13	55
	Thermal 5{1}	66	334	219	405	-114	54	54	137
	GRT1{1}	180	1304	-658	1471	136	-14	113	177
	GRT2{1}	52	871	-480	996	148	-25	53	159
	GRT3{1}	354	1481	-1087	1871	189	-13	179	261
	GRT4{1}	28	410	-566	700	220	-61	20	229
	GRT5{1}	131	513	-464	704	154	-31	87	180
B15 M-	Gravity{1}	65	180	-940	959	423	-101	42	437
	Hydrotest{1}	14	56	-649	652	259	-58	9	265
	Thermal 1{1}	115	1124	25	1130	-137	71	79	173
	Thermal 2{1}	-13	692	203	721	-159	63	4	172
	Thermal 3{1}	289	1301	-404	1393	-2	64	176	187
	Thermal 4{1}	-37	231	117	261	-71	26	-24	79
	Thermal 5{1}	66	334	219	405	-156	58	60	177
	GRT1{1}	180	1304	-915	1603	287	-30	121	312
	GRT2{1}	52	871	-737	1142	264	-37	46	270
	GRT3{1}	354	1481	-1344	2031	421	-37	217	476
	GRT4{1}	28	410	-823	920	353	-74	17	361
	GRT5{1}	131	513	-720	894	268	-43	101	289
B15 M+	Gravity{1}	65	180	923	942	423	-101	42	437
	Hydrotest{1}	14	56	828	830	259	-58	9	265
	Thermal 1{1}	115	1124	-32	1130	-137	71	79	173
	Thermal 2{1}	-13	692	-187	717	-159	63	4	172
	Thermal 3{1}	289	1301	-574	1451	-2	64	176	187
	Thermal 4{1}	-37	231	-126	265	-71	26	-24	79
	Thermal 5{1}	66	334	-172	381	-156	58	60	177

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	GRT1{1}	180	1304	891	1589	287	-30	312
	GRT2{1}	52	871	735	1141	264	-37	270
	GRT3{1}	354	1481	349	1562	421	-37	476
	GRT4{1}	28	410	796	896	353	-74	361
	GRT5{1}	131	513	751	919	268	-43	289
B16 -	Gravity{1}	65	180	666	693	271	-85	289
	Hydrotest{1}	14	56	572	575	125	-44	133
	Thermal 1{1}	115	1124	-32	1130	-131	70	168
	Thermal 2{1}	-13	692	-187	717	-124	60	138
	Thermal 3{1}	289	1301	-574	1451	108	52	237
	Thermal 4{1}	-37	231	-126	265	-46	24	63
	Thermal 5{1}	66	334	-172	381	-123	55	150
	GRT1{1}	180	1304	634	1461	141	-15	192
	GRT2{1}	52	871	479	996	148	-25	155
	GRT3{1}	354	1481	92	1525	379	-33	458
	GRT4{1}	28	410	540	679	225	-61	234
	GRT5{1}	131	513	494	725	149	-30	191

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
B16 +	Gravity{1}	65	180	541	574	271	-85	50	289
	Hydrotest{1}	14	56	447	451	125	-44	10	133
	Thermal 1{1}	115	1124	-32	1130	-131	70	79	168
	Thermal 2{1}	-13	692	-187	717	-124	60	-12	138
	Thermal 3{1}	289	1301	-574	1451	108	52	205	237
	Thermal 4{1}	-37	231	-126	265	-46	24	-36	63
	Thermal 5{1}	66	334	-172	381	-123	55	66	150
	GRT1{1}	180	1304	510	1411	141	-15	129	192
	GRT2{1}	52	871	354	942	148	-25	38	155
	GRT3{1}	354	1481	-33	1523	379	-33	255	458
	GRT4{1}	28	410	415	584	225	-61	15	234
	GRT5{1}	131	513	370	646	149	-30	116	191
B04 -	Gravity{1}	65	180	494	530	30	-60	72	98

		ADS_LINE_REV0.txt							
	Hydrotest{1}	14	56	400	404	-72	-24	14	77
	Thermal 1{1}	115	1124	-32	1130	-116	69	77	155
	Thermal 2{1}	-13	692	-187	717	-36	51	-52	81
	Thermal 3{1}	289	1301	-574	1451	375	24	276	466
	Thermal 4{1}	-37	231	-126	265	12	18	-64	68
	Thermal 5{1}	66	334	-172	381	-43	46	80	102
	GRT1{1}	180	1304	462	1395	-85	9	149	172
	GRT2{1}	52	871	307	925	-6	-9	20	23
	GRT3{1}	354	1481	-80	1525	406	-36	348	535
	GRT4{1}	28	410	368	552	43	-42	8	60
	GRT5{1}	131	513	322	620	-13	-14	152	153
	B04 +	Gravity{1}	20	51	280	285	40	66	-40
Hydrotest{1}		6	41	220	223	-84	91	-3	124
Thermal 1{1}		-13	1204	-80	1207	-137	139	-37	199
Thermal 2{1}		-61	912	-128	923	-116	50	-4	126
Thermal 3{1}		93	1108	-289	1149	-28	-65	-41	82
Thermal 4{1}		-29	384	-71	392	-39	-4	11	41
Thermal 5{1}		26	309	-113	330	-121	45	30	133
GRT1{1}		7	1255	200	1271	-97	205	-77	239
GRT2{1}		-41	963	152	976	-76	115	-44	145
GRT3{1}		113	1159	-9	1165	12	1	-81	82
GRT4{1}		-9	435	210	483	1	62	-29	69
GRT5{1}		47	360	167	400	-81	111	-10	138
B21	Gravity{1}	20	51	244	250	-53	76	-35	99
	Hydrotest{1}	6	41	183	188	-156	99	-3	184
	Thermal 1{1}	-13	1204	-80	1207	-108	136	-87	194
	Thermal 2{1}	-61	912	-128	923	-71	45	-60	103
	Thermal 3{1}	93	1108	-289	1149	75	-75	-50	117
	Thermal 4{1}	-29	384	-71	392	-14	-6	-14	21
	Thermal 5{1}	26	309	-113	330	-81	41	28	95
	GRT1{1}	7	1255	163	1265	-161	212	-121	293
	GRT2{1}	-41	963	116	971	-124	120	-94	197
	GRT3{1}	113	1159	-45	1166	22	0	-84	87
	GRT4{1}	-9	435	173	468	-67	69	-49	108
	GRT5{1}	47	360	131	386	-134	116	-7	178

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

B22 -	Gravity{1}	20	51	240	246	-62	77	-34	104
	Hydrotest{1}	6	41	179	184	-162	100	-2	191
	Thermal 1{1}	-13	1204	-80	1207	-105	136	-92	195
	Thermal 2{1}	-61	912	-128	923	-66	44	-66	103
	Thermal 3{1}	93	1108	-289	1149	86	-77	-51	126
	Thermal 4{1}	-29	384	-71	392	-11	-7	-17	21
	Thermal 5{1}	26	309	-113	330	-77	40	28	91
	GRT1{1}	7	1255	160	1265	-168	212	-126	298
	GRT2{1}	-41	963	112	970	-128	121	-100	202
	GRT3{1}	113	1159	-49	1166	23	0	-85	88
	GRT4{1}	-9	435	169	467	-73	70	-51	113
	GRT5{1}	47	360	127	385	-139	117	-7	182
B22 +	Gravity{1}	20	51	-9	56	-62	77	-34	104
	Hydrotest{1}	6	41	-70	81	-162	100	-2	191
	Thermal 1{1}	-13	1204	-80	1207	-105	136	-92	195
	Thermal 2{1}	-61	912	-128	923	-66	44	-66	103
	Thermal 3{1}	93	1108	-289	1149	86	-77	-51	126
	Thermal 4{1}	-29	384	-71	392	-11	-7	-17	21
	Thermal 5{1}	26	309	-113	330	-77	40	28	91
	GRT1{1}	7	1255	-90	1258	-168	212	-126	298
	GRT2{1}	-41	963	-137	974	-128	121	-100	202
	GRT3{1}	113	1159	-298	1202	23	0	-85	88
	GRT4{1}	-9	435	-80	442	-73	70	-51	113
	GRT5{1}	47	360	-122	383	-139	117	-7	182
B20 -	Gravity{1}	20	51	-42	69	-54	76	-29	98
	Hydrotest{1}	6	41	-102	110	-135	97	-2	166
	Thermal 1{1}	-13	1204	-80	1207	-80	133	-136	207
	Thermal 2{1}	-61	912	-128	923	-25	40	-116	125
	Thermal 3{1}	93	1108	-289	1149	178	-86	-58	206
	Thermal 4{1}	-29	384	-71	392	11	-9	-39	42
	Thermal 5{1}	26	309	-113	330	-41	37	26	60
	GRT1{1}	7	1255	-122	1261	-134	209	-166	298
	GRT2{1}	-41	963	-169	979	-79	116	-145	202
	GRT3{1}	113	1159	-330	1211	124	-11	-87	152
	GRT4{1}	-9	435	-112	449	-43	67	-68	105
	GRT5{1}	47	360	-155	395	-95	112	-4	147

			ADS_LINE_REV0.txt							
B20	+	Gravity{1}	20	51	-291	296	-54	76	-29	98
		Hydrotest{1}	6	41	-351	354	-135	97	-2	166
		Thermal 1{1}	-13	1204	-80	1207	-80	133	-136	207
		Thermal 2{1}	-61	912	-128	923	-25	40	-116	125
		Thermal 3{1}	93	1108	-289	1149	178	-86	-58	206
		Thermal 4{1}	-29	384	-71	392	11	-9	-39	42
		Thermal 5{1}	26	309	-113	330	-41	37	26	60
		GRT1{1}	7	1255	-371	1309	-134	209	-166	298
		GRT2{1}	-41	963	-418	1051	-79	116	-145	202
		GRT3{1}	113	1159	-579	1301	124	-11	-87	152
		GRT4{1}	-9	435	-361	566	-43	67	-68	105
		GRT5{1}	47	360	-404	543	-95	112	-4	147

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

B05	- Gravity{1}	20	51	-331	335	69	63	-23	96
	Hydrotest{1}	6	41	-391	394	11	81	-1	82
	Thermal 1{1}	-13	1204	-80	1207	-48	130	-191	236
	Thermal 2{1}	-61	912	-128	923	25	35	-177	182
	Thermal 3{1}	93	1108	-289	1149	292	-98	-67	315
	Thermal 4{1}	-29	384	-71	392	39	-12	-66	78
	Thermal 5{1}	26	309	-113	330	4	32	23	40
	GRT1{1}	7	1255	-411	1321	21	193	-215	289
	GRT2{1}	-41	963	-459	1067	94	98	-201	242
	GRT3{1}	113	1159	-620	1319	360	-35	-91	373
	GRT4{1}	-9	435	-401	592	108	51	-90	149
	GRT5{1}	47	360	-444	573	73	95	0	119

B05	+ Gravity{1}	0	3	-464	464	116	176	2	211
	Hydrotest{1}	9	42	-666	667	-35	77	-4	84
	Thermal 1{1}	19	941	-307	990	-151	50	-11	159
	Thermal 2{1}	-10	688	-221	722	-99	10	-6	100
	Thermal 3{1}	101	1037	-260	1073	60	-14	-35	71
	Thermal 4{1}	-16	273	-71	282	-16	-6	14	22
	Thermal 5{1}	46	379	-211	436	-124	-1	-14	124

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	GRT1{1}	19	944	-772	1220	-35	226	-9	228
	GRT2{1}	-10	691	-685	973	17	186	-4	187
	GRT3{1}	101	1040	-725	1271	175	162	-33	241
	GRT4{1}	-15	276	-535	602	100	170	16	198
	GRT5{1}	46	382	-675	777	-8	175	-12	176
B06 -	Gravity{1}	0	3	-496	496	268	160	2	312
	Hydrotest{1}	9	42	-698	700	181	54	-2	189
	Thermal 1{1}	19	941	-307	990	-53	40	-37	76
	Thermal 2{1}	-10	688	-221	722	-29	3	-32	43
	Thermal 3{1}	101	1037	-260	1073	142	-22	-38	149
	Thermal 4{1}	-16	273	-71	282	7	-8	0	11
	Thermal 5{1}	46	379	-211	436	-57	-8	-12	59
	GRT1{1}	19	944	-804	1240	215	199	-35	295
	GRT2{1}	-10	691	-717	996	239	163	-30	291
	GRT3{1}	101	1040	-757	1290	410	137	-36	434
	GRT4{1}	-15	276	-567	631	275	151	2	314
	GRT5{1}	46	382	-707	805	211	152	-10	260
B06 +	Gravity{1}	0	3	-621	621	268	160	2	312
	Hydrotest{1}	9	42	-823	824	181	54	-2	189
	Thermal 1{1}	19	941	-307	990	-53	40	-37	76
	Thermal 2{1}	-10	688	-221	722	-29	3	-32	43
	Thermal 3{1}	101	1037	-260	1073	142	-22	-38	149
	Thermal 4{1}	-16	273	-71	282	7	-8	0	11
	Thermal 5{1}	46	379	-211	436	-57	-8	-12	59
	GRT1{1}	19	944	-928	1325	215	199	-35	295
	GRT2{1}	-10	691	-842	1089	239	163	-30	291
	GRT3{1}	101	1040	-881	1367	410	137	-36	434
	GRT4{1}	-15	276	-692	745	275	151	2	314
	GRT5{1}	46	382	-832	917	211	152	-10	260

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
B06 M-	Gravity{1}	0	3	-878	878	411	145	2	436

ADS_LINE_REV0.txt

	Hydrotest{1}	9	42	-1080	1080	363	35	-2	365
	Thermal 1{1}	19	941	-307	990	6	33	-52	62
	Thermal 2{1}	-10	688	-221	722	13	-2	-48	50
	Thermal 3{1}	101	1037	-260	1073	192	-28	-40	198
	Thermal 4{1}	-16	273	-71	282	20	-10	-9	24
	Thermal 5{1}	46	379	-211	436	-17	-12	-11	23
	GRT1{1}	19	944	-1185	1516	416	178	-50	456
	GRT2{1}	-10	691	-1099	1298	424	143	-46	450
	GRT3{1}	101	1040	-1138	1545	603	117	-38	615
	GRT4{1}	-15	276	-948	988	431	135	-7	452
	GRT5{1}	46	382	-1089	1155	394	133	-9	416
B06 M+	Gravity{1}	0	3	980	980	411	145	2	436
	Hydrotest{1}	9	42	862	863	363	35	-2	365
	Thermal 1{1}	19	941	-307	990	6	33	-52	62
	Thermal 2{1}	-10	688	-221	722	13	-2	-48	50
	Thermal 3{1}	101	1037	-260	1073	192	-28	-40	198
	Thermal 4{1}	-16	273	-71	282	20	-10	-9	24
	Thermal 5{1}	46	379	-211	436	-17	-12	-11	23
	GRT1{1}	19	944	673	1160	416	178	-50	456
	GRT2{1}	-10	691	759	1027	424	143	-46	450
	GRT3{1}	101	1040	720	1269	603	117	-38	615
	GRT4{1}	-15	276	909	951	431	135	-7	452
	GRT5{1}	46	382	769	860	394	133	-9	416
B17 -	Gravity{1}	0	3	723	723	248	162	2	296
	Hydrotest{1}	9	42	605	607	223	50	-1	228
	Thermal 1{1}	19	941	-307	990	64	27	-67	97
	Thermal 2{1}	-10	688	-221	722	55	-6	-64	85
	Thermal 3{1}	101	1037	-260	1073	241	-33	-41	247
	Thermal 4{1}	-16	273	-71	282	34	-11	-17	40
	Thermal 5{1}	46	379	-211	436	24	-16	-10	30
	GRT1{1}	19	944	416	1032	312	189	-65	371
	GRT2{1}	-10	691	502	854	304	156	-62	347
	GRT3{1}	101	1040	463	1143	490	129	-39	508
	GRT4{1}	-15	276	653	709	282	151	-15	320
	GRT5{1}	46	382	512	641	272	146	-8	309
B17 +	Gravity{1}	0	3	599	599	248	162	2	296
	Hydrotest{1}	9	42	481	482	223	50	-1	228
	Thermal 1{1}	19	941	-307	990	64	27	-67	97
	Thermal 2{1}	-10	688	-221	722	55	-6	-64	85
	Thermal 3{1}	101	1037	-260	1073	241	-33	-41	247
	Thermal 4{1}	-16	273	-71	282	34	-11	-17	40

ADS_LINE_REV0.txt

Thermal 5{1}	46	379	-211	436	24	-16	-10	30
GRT1{1}	19	944	291	989	312	189	-65	371
GRT2{1}	-10	691	378	788	304	156	-62	347
GRT3{1}	101	1040	338	1098	490	129	-39	508
GRT4{1}	-15	276	528	596	282	151	-15	320
GRT5{1}	46	382	388	547	272	146	-8	309

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
B08 -	Gravity{1}	0	3	567	567	64	181	2	192
	Hydrotest{1}	9	42	448	450	76	65	1	100
	Thermal 1{1}	19	941	-307	990	162	17	-93	187
	Thermal 2{1}	-10	688	-221	722	125	-13	-90	155
	Thermal 3{1}	101	1037	-260	1073	324	-42	-44	329
	Thermal 4{1}	-16	273	-71	282	56	-14	-31	66
	Thermal 5{1}	46	379	-211	436	91	-23	-8	94
	GRT1{1}	19	944	259	980	225	198	-91	313
	GRT2{1}	-10	691	346	773	189	168	-88	268
	GRT3{1}	101	1040	306	1089	387	140	-42	414
	GRT4{1}	-15	276	496	568	120	168	-29	208
	GRT5{1}	46	382	356	524	154	158	-6	221
B08 +	Gravity{1}	-1	-6	118	118	45	-20	6	50
	Hydrotest{1}	13	47	86	99	37	-19	-7	42
	Thermal 1{1}	93	846	-462	968	94	-89	1	129
	Thermal 2{1}	56	596	-287	664	58	-46	10	75
	Thermal 3{1}	163	1047	-323	1108	230	-81	-65	253
	Thermal 4{1}	10	230	-72	241	32	-6	15	36
	Thermal 5{1}	129	476	-286	570	17	-73	-88	115
	GRT1{1}	92	840	-344	912	139	-109	6	177
	GRT2{1}	55	590	-170	617	104	-66	16	124
	GRT3{1}	162	1041	-206	1073	275	-101	-60	299
	GRT4{1}	9	224	45	228	77	-26	20	84
	GRT5{1}	128	470	-168	516	63	-93	-82	139

ADS_LINE_REV0.txt

B09 -	Gravity{1}	-1	-6	-36	36	-16	-14	5	22
	Hydrotest{1}	13	47	-67	83	22	-18	6	29
	Thermal 1{1}	93	846	-462	968	789	-162	6	805
	Thermal 2{1}	56	596	-287	664	491	-91	0	499
	Thermal 3{1}	163	1047	-323	1108	717	-132	14	729
	Thermal 4{1}	10	230	-72	241	141	-17	-7	142
	Thermal 5{1}	129	476	-286	570	447	-118	30	464
	GRT1{1}	92	840	-497	981	773	-176	12	793
	GRT2{1}	55	590	-323	675	474	-105	6	486
	GRT3{1}	162	1041	-359	1113	700	-146	20	716
	GRT4{1}	9	224	-108	248	124	-31	-1	128
	GRT5{1}	128	470	-321	584	431	-132	36	452
B09 +	Gravity{1}	-1	-6	195	195	-16	-14	5	22
	Hydrotest{1}	13	47	210	216	22	-18	6	29
	Thermal 1{1}	93	846	-462	968	789	-162	6	805
	Thermal 2{1}	56	596	-287	664	491	-91	0	499
	Thermal 3{1}	163	1047	-323	1108	717	-132	14	729
	Thermal 4{1}	10	230	-72	241	141	-17	-7	142
	Thermal 5{1}	129	476	-286	570	447	-118	30	464
	GRT1{1}	92	840	-267	886	773	-176	12	793
	GRT2{1}	55	590	-92	600	474	-105	6	486
	GRT3{1}	162	1041	-128	1061	700	-146	20	716
	GRT4{1}	9	224	123	255	124	-31	-1	128
	GRT5{1}	128	470	-90	496	431	-132	36	452

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RESULT PAGE 71

G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
B10 N	Gravity{1}	-1	-6	181	181	-42	-11	5	44
	Hydrotest{1}	13	47	196	202	-6	-15	7	17
	Thermal 1{1}	93	846	-462	968	853	-168	7	869
	Thermal 2{1}	56	596	-287	664	530	-96	-1	539
	Thermal 3{1}	163	1047	-323	1108	761	-137	22	774
	Thermal 4{1}	10	230	-72	241	151	-18	-9	152

		ADS_LINE_REV0.txt							
B10 F	Thermal 5{1}	129	476	-286	570	487	-122	41	503
	GRT1{1}	92	840	-281	890	810	-180	12	830
	GRT2{1}	55	590	-106	602	488	-107	5	500
	GRT3{1}	162	1041	-142	1063	719	-148	27	734
	GRT4{1}	9	224	109	249	109	-29	-3	112
	GRT5{1}	128	470	-104	498	444	-133	47	466
	Gravity{1}	-1	-6	172	172	-52	-10	5	53
	Hydrotest{1}	13	47	187	194	-20	-13	7	25
	Thermal 1{1}	93	846	-462	968	830	-166	7	847
	Thermal 2{1}	56	596	-287	664	512	-94	-1	521
	Thermal 3{1}	163	1047	-323	1108	720	-129	25	732
	Thermal 4{1}	10	230	-72	241	142	-18	-10	143
B11 N	Thermal 5{1}	129	476	-286	570	476	-116	46	492
	GRT1{1}	92	840	-290	893	779	-176	13	798
	GRT2{1}	55	590	-115	604	460	-104	4	472
	GRT3{1}	162	1041	-151	1064	668	-140	30	683
	GRT4{1}	9	224	100	245	90	-28	-4	94
	GRT5{1}	128	470	-114	500	424	-126	51	445
	Gravity{1}	-1	-6	116	117	-49	-11	5	50
	Hydrotest{1}	13	47	132	140	-45	-6	7	46
	Thermal 1{1}	93	846	-462	968	365	-115	7	383
	Thermal 2{1}	56	596	-287	664	185	-63	-1	195
	Thermal 3{1}	163	1047	-323	1108	144	-40	25	151
	Thermal 4{1}	10	230	-72	241	15	-12	-10	22
B11 M	Thermal 5{1}	129	476	-286	570	214	-45	46	223
	GRT1{1}	92	840	-345	913	317	-125	13	341
	GRT2{1}	55	590	-171	617	136	-74	4	155
	GRT3{1}	162	1041	-207	1074	95	-50	30	112
	GRT4{1}	9	224	44	228	-33	-23	-4	41
	GRT5{1}	128	470	-169	516	165	-56	51	182
	Gravity{1}	-1	-6	112	112	-46	-11	5	48
	Hydrotest{1}	13	47	127	136	-45	-6	7	46
	Thermal 1{1}	93	846	-462	968	324	-110	8	342
	Thermal 2{1}	56	596	-287	664	156	-60	0	167
	Thermal 3{1}	163	1047	-323	1108	96	-32	25	105
	Thermal 4{1}	10	230	-72	241	5	-12	-9	16

GRT5{1} 128 ADS_LINE_REV0.txt 470 -174 517 143 -50 51 160

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RESULT PAGE 72

G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
B11 F	Gravity{1}	-1	-6	107	107	-42	-12	5	44
	Hydrotest{1}	13	47	123	132	-41	-6	7	42
	Thermal 1{1}	93	846	-462	968	291	-105	10	310
	Thermal 2{1}	56	596	-287	664	134	-57	2	146
	Thermal 3{1}	163	1047	-323	1108	66	-27	26	76
	Thermal 4{1}	10	230	-72	241	-2	-11	-8	14
	Thermal 5{1}	129	476	-286	570	170	-35	43	179
	GRT1{1}	92	840	-354	916	249	-117	16	275
	GRT2{1}	55	590	-180	619	92	-69	7	116
	GRT3{1}	162	1041	-216	1075	24	-39	31	55
	GRT4{1}	9	224	35	227	-44	-23	-2	49
	GRT5{1}	128	470	-178	519	128	-47	49	145
B12 N	Gravity{1}	-1	-6	-141	141	-83	-5	5	83
	Hydrotest{1}	13	47	-126	135	-45	-6	-5	45
	Thermal 1{1}	93	846	-462	968	-824	92	147	842
	Thermal 2{1}	56	596	-287	664	-559	65	120	575
	Thermal 3{1}	163	1047	-323	1108	-714	110	78	727
	Thermal 4{1}	10	230	-72	241	-176	20	66	189
	Thermal 5{1}	129	476	-286	570	-519	86	-65	530
	GRT1{1}	92	840	-603	1038	-906	87	151	923
	GRT2{1}	55	590	-428	731	-641	60	125	656
	GRT3{1}	162	1041	-464	1151	-796	106	83	808
	GRT4{1}	9	224	-213	309	-259	15	70	268
	GRT5{1}	128	470	-426	648	-601	82	-60	610
B12 F	Gravity{1}	-1	-6	-147	147	-90	-7	5	91
	Hydrotest{1}	13	47	-132	140	-52	-8	-7	53
	Thermal 1{1}	93	846	-462	968	-848	82	125	862
	Thermal 2{1}	56	596	-287	664	-574	59	106	587
	Thermal 3{1}	163	1047	-323	1108	-731	104	49	740

		ADS_LINE_REV0.txt							
	Thermal 4{1}	10	230	-72	241	-180	18	61	191
	Thermal 5{1}	129	476	-286	570	-534	81	-81	546
	GRT1{1}	92	840	-609	1041	-939	75	130	951
	GRT2{1}	55	590	-434	735	-664	52	111	675
	GRT3{1}	162	1041	-470	1154	-821	96	54	829
	GRT4{1}	9	224	-219	313	-270	11	66	278
	GRT5{1}	128	470	-432	652	-624	73	-76	633
B13	Gravity{1}	-1	-6	-148	148	-91	-9	5	92
	Hydrotest{1}	13	47	-133	142	-53	-10	-7	54
	Thermal 1{1}	93	846	-462	968	-852	78	116	864
	Thermal 2{1}	56	596	-287	664	-576	56	100	588
	Thermal 3{1}	163	1047	-323	1108	-734	101	38	742
	Thermal 4{1}	10	230	-72	241	-180	17	59	191
	Thermal 5{1}	129	476	-286	570	-536	78	-87	549
	GRT1{1}	92	840	-610	1042	-944	69	121	954
	GRT2{1}	55	590	-435	735	-668	48	104	678
	GRT3{1}	162	1041	-471	1154	-825	92	43	831
	GRT4{1}	9	224	-220	314	-272	9	63	279
	GRT5{1}	128	470	-434	652	-628	69	-82	637

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RESULT PAGE 73

G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
B19	Gravity{1}	-1	-6	-158	158	-99	-18	5	101
	Hydrotest{1}	13	47	-142	150	-59	-18	-11	63
	Thermal 1{1}	93	846	-462	968	-875	51	62	878
	Thermal 2{1}	56	596	-287	664	-590	40	62	595
	Thermal 3{1}	163	1047	-323	1108	-750	82	-31	755
	Thermal 4{1}	10	230	-72	241	-184	13	45	190
	Thermal 5{1}	129	476	-286	570	-550	61	-121	567
	GRT1{1}	92	840	-619	1048	-974	33	68	977
	GRT2{1}	55	590	-445	741	-689	22	67	693
	GRT3{1}	162	1041	-481	1158	-849	64	-26	851
	GRT4{1}	9	224	-230	321	-283	-4	50	287
	GRT5{1}	128	470	-443	659	-649	44	-116	661

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B18	Gravity{1}	-1	-6	-180	180	-115	-37	6	121
	Hydrotest{1}	13	47	-164	172	-74	-35	-17	84
	Thermal 1{1}	93	846	-462	968	-919	-2	-44	920
	Thermal 2{1}	56	596	-287	664	-618	7	-12	618
	Thermal 3{1}	163	1047	-323	1108	-781	45	-167	800
	Thermal 4{1}	10	230	-72	241	-191	5	17	192
	Thermal 5{1}	129	476	-286	570	-578	28	-188	608
	GRT1{1}	92	840	-641	1061	-1035	-39	-38	1036
	GRT2{1}	55	590	-467	755	-733	-30	-6	734
	GRT3{1}	162	1041	-503	1167	-896	8	-161	910
	GRT4{1}	9	224	-252	337	-306	-32	23	309
	GRT5{1}	128	470	-465	674	-693	-9	-182	717

*** Segment B end ***

*** Segment C begin ***

K11	Gravity{1}	-47	-214	187	289	-101	48	24	114
	Hydrotest{1}	-20	-104	204	230	40	-46	12	62
	Thermal 1{1}	-831	-2847	538	3014	296	-390	-143	510
	Thermal 2{1}	-477	-1765	-63	1829	638	-396	-45	752
	Thermal 3{1}	-1009	-2946	-1544	3476	2755	-1105	-298	2983
	Thermal 4{1}	-149	-587	-197	636	367	-168	8	403
	Thermal 5{1}	-549	-1472	-43	1572	623	-380	-259	775
	GRT1{1}	-878	-3061	725	3266	195	-342	-120	411
	GRT2{1}	-525	-1979	124	2051	537	-347	-22	640
	GRT3{1}	-1057	-3160	-1357	3598	2654	-1056	-274	2870
	GRT4{1}	-196	-801	-10	824	266	-119	31	293
	GRT5{1}	-596	-1686	144	1794	522	-332	-235	662

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RESULT PAGE 74

G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
C01	Gravity{1}	-47	-214	171	278	-95	60	40	119
	Hydrotest{1}	-20	-104	187	215	47	-33	20	61
	Thermal 1{1}	-831	-2847	538	3014	315	-354	78	480
	Thermal 2{1}	-477	-1765	-63	1829	636	-400	91	756

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	Thermal 3{1}	-1009	-2946	-1544	3476	2700	-1208	-63	2959
	Thermal 4{1}	-149	-587	-197	636	360	-181	52	406
	Thermal 5{1}	-549	-1472	-43	1572	622	-383	-140	744
	GRT1{1}	-878	-3061	709	3262	220	-293	118	385
	GRT2{1}	-525	-1979	107	2050	541	-340	130	652
	GRT3{1}	-1057	-3160	-1373	3604	2605	-1148	-24	2847
	GRT4{1}	-196	-801	-27	825	265	-121	92	306
	GRT5{1}	-596	-1686	127	1793	527	-323	-101	626
C02 N	Gravity{1}	-47	-214	104	243	-75	97	104	160
	Hydrotest{1}	-20	-104	120	160	69	8	50	85
	Thermal 1{1}	-831	-2847	538	3014	391	-210	955	1054
	Thermal 2{1}	-477	-1765	-63	1829	627	-417	629	981
	Thermal 3{1}	-1009	-2946	-1544	3476	2481	-1620	866	3087
	Thermal 4{1}	-149	-587	-197	636	332	-234	230	466
	Thermal 5{1}	-549	-1472	-43	1572	616	-395	330	803
	GRT1{1}	-878	-3061	642	3249	316	-113	1059	1111
	GRT2{1}	-525	-1979	40	2048	551	-320	733	971
	GRT3{1}	-1057	-3160	-1440	3630	2406	-1524	969	3008
	GRT4{1}	-196	-801	-94	830	257	-137	334	443
	GRT5{1}	-596	-1686	60	1790	540	-298	434	754
C02 F	Gravity{1}	-47	-214	70	230	-64	101	118	168
	Hydrotest{1}	-20	-104	87	137	82	13	56	100
	Thermal 1{1}	-831	-2847	538	3014	461	-189	1175	1276
	Thermal 2{1}	-477	-1765	-63	1829	618	-419	760	1066
	Thermal 3{1}	-1009	-2946	-1544	3476	2282	-1681	1112	3045
	Thermal 4{1}	-149	-587	-197	636	306	-241	272	476
	Thermal 5{1}	-549	-1472	-43	1572	610	-396	459	860
	GRT1{1}	-878	-3061	608	3242	396	-88	1293	1355
	GRT2{1}	-525	-1979	7	2047	554	-318	878	1086
	GRT3{1}	-1057	-3160	-1474	3643	2218	-1580	1230	2988
	GRT4{1}	-196	-801	-127	834	242	-141	390	480
	GRT5{1}	-596	-1686	27	1789	546	-296	577	848
C10 -	Gravity{1}	-47	-214	58	227	-61	99	115	164
	Hydrotest{1}	-20	-104	75	129	86	10	55	102
	Thermal 1{1}	-831	-2847	538	3014	487	-203	1141	1257
	Thermal 2{1}	-477	-1765	-63	1829	615	-418	738	1048
	Thermal 3{1}	-1009	-2946	-1544	3476	2207	-1642	1085	2957
	Thermal 4{1}	-149	-587	-197	636	297	-236	264	462
	Thermal 5{1}	-549	-1472	-43	1572	608	-395	448	852
	GRT1{1}	-878	-3061	596	3240	426	-103	1256	1331
	GRT2{1}	-525	-1979	-5	2047	554	-318	853	1066

ADS_LINE_REV0.txt

GRT3{1}	-1057	-3160	-1486	3648	2146	-1542	1200	2903
GRT4{1}	-196	-801	-139	836	236	-137	379	467
GRT5{1}	-596	-1686	15	1789	547	-296	563	839

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
C10 +	Gravity{1}	-47	-214	-405	460	-61	99	115	164
	Hydrotest{1}	-20	-104	-388	402	86	10	55	102
	Thermal 1{1}	-831	-2847	538	3014	487	-203	1141	1257
	Thermal 2{1}	-477	-1765	-63	1829	615	-418	738	1048
	Thermal 3{1}	-1009	-2946	-1544	3476	2207	-1642	1085	2957
	Thermal 4{1}	-149	-587	-197	636	297	-236	264	462
	Thermal 5{1}	-549	-1472	-43	1572	608	-395	448	852
	GRT1{1}	-878	-3061	133	3187	426	-103	1256	1331
	GRT2{1}	-525	-1979	-468	2100	554	-318	853	1066
	GRT3{1}	-1057	-3160	-1949	3860	2146	-1542	1200	2903
	GRT4{1}	-196	-801	-602	1021	236	-137	379	467
	GRT5{1}	-596	-1686	-448	1844	547	-296	563	839
C09 -	Gravity{1}	-47	-214	-504	550	-241	195	89	322
	Hydrotest{1}	-20	-104	-487	498	-88	103	41	141
	Thermal 1{1}	-831	-2847	538	3014	700	-316	871	1161
	Thermal 2{1}	-477	-1765	-63	1829	590	-404	555	906
	Thermal 3{1}	-1009	-2946	-1544	3476	1596	-1316	864	2242
	Thermal 4{1}	-149	-587	-197	636	219	-195	200	354
	Thermal 5{1}	-549	-1472	-43	1572	591	-386	355	790
	GRT1{1}	-878	-3061	34	3185	459	-121	960	1070
	GRT2{1}	-525	-1979	-567	2124	349	-209	644	762
	GRT3{1}	-1057	-3160	-2048	3911	1355	-1121	952	2000
	GRT4{1}	-196	-801	-701	1082	-22	0	288	289
	GRT5{1}	-596	-1686	-547	1870	350	-191	444	596
C09 +	Gravity{1}	-47	-214	-967	991	-241	195	89	322
	Hydrotest{1}	-20	-104	-950	956	-88	103	41	141
	Thermal 1{1}	-831	-2847	538	3014	700	-316	871	1161

ADS_LINE_REV0.txt

	Thermal 2{1}	-477	-1765	-63	1829	590	-404	555	906
	Thermal 3{1}	-1009	-2946	-1544	3476	1596	-1316	864	2242
	Thermal 4{1}	-149	-587	-197	636	219	-195	200	354
	Thermal 5{1}	-549	-1472	-43	1572	591	-386	355	790
	GRT1{1}	-878	-3061	-429	3213	459	-121	960	1070
	GRT2{1}	-525	-1979	-1030	2292	349	-209	644	762
	GRT3{1}	-1057	-3160	-2511	4172	1355	-1121	952	2000
	GRT4{1}	-196	-801	-1164	1427	-22	0	288	289
	GRT5{1}	-596	-1686	-1010	2054	350	-191	444	596
C03 -	Gravity{1}	-47	-214	-1035	1058	-511	339	71	617
	Hydrotest{1}	-20	-104	-1018	1023	-353	244	31	430
	Thermal 1{1}	-831	-2847	538	3014	845	-393	687	1158
	Thermal 2{1}	-477	-1765	-63	1829	573	-395	431	819
	Thermal 3{1}	-1009	-2946	-1544	3476	1179	-1095	714	1760
	Thermal 4{1}	-149	-587	-197	636	165	-167	156	282
	Thermal 5{1}	-549	-1472	-43	1572	579	-380	292	752
	GRT1{1}	-878	-3061	-497	3223	334	-55	757	830
	GRT2{1}	-525	-1979	-1098	2323	62	-57	501	508
	GRT3{1}	-1057	-3160	-2579	4213	668	-756	784	1278
	GRT4{1}	-196	-801	-1232	1482	-346	172	226	448
	GRT5{1}	-596	-1686	-1078	2088	68	-41	362	371

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
C03 +	Gravity{1}	-47	-214	-1266	1285	-511	339	71	617
	Hydrotest{1}	-20	-104	-1249	1254	-353	244	31	430
	Thermal 1{1}	-831	-2847	538	3014	845	-393	687	1158
	Thermal 2{1}	-477	-1765	-63	1829	573	-395	431	819
	Thermal 3{1}	-1009	-2946	-1544	3476	1179	-1095	714	1760
	Thermal 4{1}	-149	-587	-197	636	165	-167	156	282
	Thermal 5{1}	-549	-1472	-43	1572	579	-380	292	752
	GRT1{1}	-878	-3061	-728	3267	334	-55	757	830
	GRT2{1}	-525	-1979	-1329	2441	62	-57	501	508

		ADS_LINE_REV0.txt							
	GRT3{1}	-1057	-3160	-2810	4359	668	-756	784	1278
	GRT4{1}	-196	-801	-1463	1680	-346	172	226	448
	GRT5{1}	-596	-1686	-1309	2217	68	-41	362	371
C03 M-	Gravity{1}	-47	-214	-1708	1722	-845	516	56	991
	Hydrotest{1}	-20	-104	-1691	1694	-683	419	23	801
	Thermal 1{1}	-831	-2847	538	3014	966	-457	534	1194
	Thermal 2{1}	-477	-1765	-63	1829	559	-388	327	755
	Thermal 3{1}	-1009	-2946	-1544	3476	833	-911	589	1367
	Thermal 4{1}	-149	-587	-197	636	121	-143	119	222
	Thermal 5{1}	-549	-1472	-43	1572	569	-375	239	722
	GRT1{1}	-878	-3061	-1170	3393	121	58	589	605
	GRT2{1}	-525	-1979	-1771	2707	-285	128	383	494
	GRT3{1}	-1057	-3160	-3252	4656	-12	-395	644	756
	GRT4{1}	-196	-801	-1905	2076	-723	373	175	832
	GRT5{1}	-596	-1686	-1751	2503	-275	141	295	427
C03 M+	Gravity{1}	-47	-214	2019	2031	-845	516	56	991
	Hydrotest{1}	-20	-104	1470	1474	-683	419	23	801
	Thermal 1{1}	-831	-2847	412	2994	966	-457	534	1194
	Thermal 2{1}	-477	-1765	-661	1944	559	-388	327	755
	Thermal 3{1}	-1009	-2946	-2073	3741	833	-911	589	1367
	Thermal 4{1}	-149	-587	-562	826	121	-143	119	222
	Thermal 5{1}	-549	-1472	-643	1698	569	-375	239	722
	GRT1{1}	-878	-3061	2431	4006	121	58	589	605
	GRT2{1}	-525	-1979	1358	2457	-285	128	383	494
	GRT3{1}	-1057	-3160	-54	3333	-12	-395	644	756
	GRT4{1}	-196	-801	1457	1674	-723	373	175	832
	GRT5{1}	-596	-1686	1376	2257	-275	141	295	427
C07 -	Gravity{1}	-47	-214	1577	1592	-441	301	41	536
	Hydrotest{1}	-20	-104	1028	1034	-403	270	15	485
	Thermal 1{1}	-831	-2847	412	2994	1058	-507	381	1233
	Thermal 2{1}	-477	-1765	-661	1944	411	-309	224	561
	Thermal 3{1}	-1009	-2946	-2073	3741	368	-663	464	889
	Thermal 4{1}	-149	-587	-562	826	-5	-76	82	112
	Thermal 5{1}	-549	-1472	-643	1698	425	-298	187	552
	GRT1{1}	-878	-3061	1989	3755	617	-205	421	775
	GRT2{1}	-525	-1979	916	2243	-30	-7	265	266
	GRT3{1}	-1057	-3160	-496	3369	-73	-362	504	625
	GRT4{1}	-196	-801	1015	1308	-446	226	123	515
	GRT5{1}	-596	-1686	934	2018	-16	3	228	228

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

C07 +	Gravity{1}	-47	-214	1346	1363	-441	301	41	536
	Hydrotest{1}	-20	-104	797	804	-403	270	15	485
	Thermal 1{1}	-831	-2847	412	2994	1058	-507	381	1233
	Thermal 2{1}	-477	-1765	-661	1944	411	-309	224	561
	Thermal 3{1}	-1009	-2946	-2073	3741	368	-663	464	889
	Thermal 4{1}	-149	-587	-562	826	-5	-76	82	112
	Thermal 5{1}	-549	-1472	-643	1698	425	-298	187	552
	GRT1{1}	-878	-3061	1757	3637	617	-205	421	775
	GRT2{1}	-525	-1979	684	2159	-30	-7	265	266
	GRT3{1}	-1057	-3160	-727	3411	-73	-362	504	625
	GRT4{1}	-196	-801	783	1137	-446	226	123	515
	GRT5{1}	-596	-1686	703	1922	-16	3	228	228
C05 N	Gravity{1}	-47	-214	1289	1307	-45	91	21	103
	Hydrotest{1}	-20	-104	740	747	-171	147	4	226
	Thermal 1{1}	-831	-2847	412	2994	1182	-572	175	1325
	Thermal 2{1}	-477	-1765	-661	1944	212	-203	85	305
	Thermal 3{1}	-1009	-2946	-2073	3741	-256	-332	296	513
	Thermal 4{1}	-149	-587	-562	826	-174	14	33	178
	Thermal 5{1}	-549	-1472	-643	1698	232	-195	116	324
	GRT1{1}	-878	-3061	1700	3610	1137	-482	196	1250
	GRT2{1}	-525	-1979	627	2141	167	-112	106	227
	GRT3{1}	-1057	-3160	-784	3423	-301	-241	317	499
	GRT4{1}	-196	-801	726	1099	-219	105	54	249
	GRT5{1}	-596	-1686	646	1902	187	-105	137	254
C05 F	Gravity{1}	-47	-214	1284	1303	-16	69	18	73
	Hydrotest{1}	-20	-104	735	743	-155	135	3	205
	Thermal 1{1}	-831	-2847	412	2994	1191	-579	147	1333
	Thermal 2{1}	-477	-1765	-661	1944	197	-192	66	283
	Thermal 3{1}	-1009	-2946	-2073	3741	-302	-297	270	503
	Thermal 4{1}	-149	-587	-562	826	-187	23	27	190
	Thermal 5{1}	-549	-1472	-643	1698	217	-185	104	303
	GRT1{1}	-878	-3061	1696	3608	1175	-510	165	1292

		ADS_LINE_REV0.txt							
	GRT2{1}	-525	-1979	623	2140	181	-123	85	235
	GRT3{1}	-1057	-3160	-789	3424	-318	-228	288	486
	GRT4{1}	-196	-801	722	1096	-203	93	45	227
	GRT5{1}	-596	-1686	641	1900	201	-115	123	262
C06	Gravity{1}	-47	-214	1159	1180	630	-572	-69	854
	Hydrotest{1}	-20	-104	611	620	201	-218	-41	300
	Thermal 1{1}	-831	-2847	412	2994	1409	-795	-908	1855
	Thermal 2{1}	-477	-1765	-661	1944	-153	155	-608	645
	Thermal 3{1}	-1009	-2946	-2073	3741	-1399	791	-743	1770
	Thermal 4{1}	-149	-587	-562	826	-484	318	-203	614
	Thermal 5{1}	-549	-1472	-643	1698	-123	153	-378	426
	GRT1{1}	-878	-3061	1571	3551	2039	-1367	-977	2643
	GRT2{1}	-525	-1979	498	2107	478	-417	-677	927
	GRT3{1}	-1057	-3160	-913	3455	-769	219	-812	1139
	GRT4{1}	-196	-801	597	1018	146	-254	-272	399
	GRT5{1}	-596	-1686	516	1862	507	-419	-447	796

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

*** Segment C end ***									
*** Segment D begin ***									
B04	Gravity{1}	45	129	214	253	-10	-125	112	168
	Hydrotest{1}	7	15	180	181	11	-115	17	117
	Thermal 1{1}	127	-80	49	158	21	-71	114	136
	Thermal 2{1}	48	-220	-59	233	80	1	-48	93
	Thermal 3{1}	196	193	-285	396	404	89	317	521
	Thermal 4{1}	-7	-153	-55	163	51	21	-75	93
	Thermal 5{1}	40	25	-59	75	78	1	50	93
	GRT1{1}	172	49	263	318	11	-196	226	299
	GRT2{1}	93	-92	154	202	70	-124	63	156
	GRT3{1}	241	322	-71	408	393	-37	429	583
	GRT4{1}	37	-25	158	165	41	-104	37	118
	GRT5{1}	85	153	155	234	68	-124	162	215

		ADS_LINE_REV0.txt							
D01	Gravity{1}	45	129	208	249	-9	-113	104	154
	Hydrotest{1}	7	15	174	175	12	-105	16	107
	Thermal 1{1}	127	-80	49	158	22	-68	118	138
	Thermal 2{1}	48	-220	-59	233	79	-2	-36	87
	Thermal 3{1}	196	193	-285	396	402	72	305	510
	Thermal 4{1}	-7	-153	-55	163	51	18	-66	86
	Thermal 5{1}	40	25	-59	75	78	-2	49	92
	GRT1{1}	172	49	257	313	13	-181	222	287
	GRT2{1}	93	-92	149	198	71	-116	68	152
	GRT3{1}	241	322	-77	409	393	-41	409	569
	GRT4{1}	37	-25	153	159	42	-95	38	111
	GRT5{1}	85	153	149	230	69	-116	153	204
D02 N	Gravity{1}	45	129	138	194	4	5	13	14
	Hydrotest{1}	7	15	105	106	23	-9	5	25
	Thermal 1{1}	127	-80	49	158	25	-34	163	169
	Thermal 2{1}	48	-220	-59	233	75	-43	111	141
	Thermal 3{1}	196	193	-285	396	381	-123	159	431
	Thermal 4{1}	-7	-153	-55	163	47	-20	39	64
	Thermal 5{1}	40	25	-59	75	74	-42	29	90
	GRT1{1}	172	49	187	259	29	-29	176	181
	GRT2{1}	93	-92	79	152	79	-38	124	152
	GRT3{1}	241	322	-147	428	385	-118	172	438
	GRT4{1}	37	-25	83	94	51	-14	52	74
	GRT5{1}	85	153	80	192	77	-37	42	96

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
D02 F	Gravity{1}	45	129	136	192	5	8	10	14
	Hydrotest{1}	7	15	102	104	23	-7	4	25
	Thermal 1{1}	127	-80	49	158	25	-33	164	169
	Thermal 2{1}	48	-220	-59	233	75	-44	116	145
	Thermal 3{1}	196	193	-285	396	380	-129	153	429
	Thermal 4{1}	-7	-153	-55	163	47	-21	43	66
	Thermal 5{1}	40	25	-59	75	73	-44	28	90

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	GRT1{1}	172	49	185	257	30	-25	174	178
	GRT2{1}	93	-92	77	151	79	-36	126	153
	GRT3{1}	241	322	-149	428	384	-121	163	434
	GRT4{1}	37	-25	81	92	51	-13	53	74
	GRT5{1}	85	153	78	191	78	-35	38	94
D03 N	Gravity{1}	45	129	96	166	26	49	-44	71
	Hydrotest{1}	7	15	62	64	39	22	-2	44
	Thermal 1{1}	127	-80	49	158	35	-16	168	173
	Thermal 2{1}	48	-220	-59	233	64	-65	184	205
	Thermal 3{1}	196	193	-285	396	326	-229	49	402
	Thermal 4{1}	-7	-153	-55	163	36	-40	98	112
	Thermal 5{1}	40	25	-59	75	62	-64	12	90
	GRT1{1}	172	49	144	230	61	33	125	142
	GRT2{1}	93	-92	36	135	90	-16	141	168
	GRT3{1}	241	322	-189	444	352	-180	5	396
	GRT4{1}	37	-25	40	60	62	9	54	83
	GRT5{1}	85	153	37	179	89	-15	-31	95
D03 F	Gravity{1}	45	129	87	161	33	51	-50	79
	Hydrotest{1}	7	15	53	56	43	23	-3	49
	Thermal 1{1}	127	-80	49	158	38	-15	160	166
	Thermal 2{1}	48	-220	-59	233	59	-67	186	206
	Thermal 3{1}	196	193	-285	396	304	-236	29	386
	Thermal 4{1}	-7	-153	-55	163	32	-42	102	115
	Thermal 5{1}	40	25	-59	75	58	-66	8	88
	GRT1{1}	172	49	135	224	72	36	110	136
	GRT2{1}	93	-92	27	133	92	-15	136	165
	GRT3{1}	241	322	-199	448	337	-185	-21	385
	GRT4{1}	37	-25	31	55	65	9	52	84
	GRT5{1}	85	153	28	177	91	-14	-42	101
D11 -	Gravity{1}	45	129	62	150	49	43	-45	79
	Hydrotest{1}	7	15	28	33	52	19	-3	55
	Thermal 1{1}	127	-80	49	158	49	-21	124	135
	Thermal 2{1}	48	-220	-59	233	46	-60	150	168
	Thermal 3{1}	196	193	-285	396	243	-204	9	317
	Thermal 4{1}	-7	-153	-55	163	20	-35	86	95
	Thermal 5{1}	40	25	-59	75	45	-59	3	74
	GRT1{1}	172	49	111	211	98	22	79	128
	GRT2{1}	93	-92	3	130	96	-17	105	143
	GRT3{1}	241	322	-223	459	292	-161	-36	335
	GRT4{1}	37	-25	7	45	69	7	41	81
	GRT5{1}	85	153	4	175	94	-16	-42	105

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Point	Load	FORCES (N)				MOMENTS (N.m)				
name	combination	X	Y	Z	Result	X	Y	Z	Result	

D11	+	Gravity{1}	45	129	-187	231	49	43	-45	79
		Hydrotest{1}	7	15	-221	221	52	19	-3	55
		Thermal 1{1}	127	-80	49	158	49	-21	124	135
		Thermal 2{1}	48	-220	-59	233	46	-60	150	168
		Thermal 3{1}	196	193	-285	396	243	-204	9	317
		Thermal 4{1}	-7	-153	-55	163	20	-35	86	95
		Thermal 5{1}	40	25	-59	75	45	-59	3	74
		GRT1{1}	172	49	-138	226	98	22	79	128
		GRT2{1}	93	-92	-246	279	96	-17	105	143
		GRT3{1}	241	322	-472	620	292	-161	-36	335
		GRT4{1}	37	-25	-242	247	69	7	41	81
		GRT5{1}	85	153	-246	302	94	-16	-42	105
D12	-	Gravity{1}	45	129	-220	258	-8	73	-38	83
		Hydrotest{1}	7	15	-253	254	-15	54	-3	57
		Thermal 1{1}	127	-80	49	158	63	-28	76	102
		Thermal 2{1}	48	-220	-59	233	30	-51	103	119
		Thermal 3{1}	196	193	-285	396	162	-161	-17	229
		Thermal 4{1}	-7	-153	-55	163	4	-27	65	71
		Thermal 5{1}	40	25	-59	75	29	-50	-5	58
		GRT1{1}	172	49	-171	247	54	45	37	80
		GRT2{1}	93	-92	-279	308	21	22	65	72
		GRT3{1}	241	322	-505	645	154	-87	-56	185
		GRT4{1}	37	-25	-275	279	-4	46	27	54
		GRT5{1}	85	153	-278	329	20	23	-43	53
D12	+	Gravity{1}	45	129	-469	488	-8	73	-38	83
		Hydrotest{1}	7	15	-502	503	-15	54	-3	57
		Thermal 1{1}	127	-80	49	158	63	-28	76	102
		Thermal 2{1}	48	-220	-59	233	30	-51	103	119
		Thermal 3{1}	196	193	-285	396	162	-161	-17	229
		Thermal 4{1}	-7	-153	-55	163	4	-27	65	71

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	Thermal 5{1}	40	25	-59	75	29	-50	-5	58
	GRT1{1}	172	49	-420	456	54	45	37	80
	GRT2{1}	93	-92	-528	544	21	22	65	72
	GRT3{1}	241	322	-754	854	154	-87	-56	185
	GRT4{1}	37	-25	-524	526	-4	46	27	54
	GRT5{1}	85	153	-527	555	20	23	-43	53
D04 -	Gravity{1}	45	129	-509	527	-181	165	-30	247
	Hydrotest{1}	7	15	-543	543	-200	152	-3	251
	Thermal 1{1}	127	-80	49	158	80	-37	16	89
	Thermal 2{1}	48	-220	-59	233	9	-40	45	61
	Thermal 3{1}	196	193	-285	396	61	-107	-50	133
	Thermal 4{1}	-7	-153	-55	163	-15	-17	39	45
	Thermal 5{1}	40	25	-59	75	8	-39	-14	42
	GRT1{1}	172	49	-460	494	-101	128	-14	164
	GRT2{1}	93	-92	-568	583	-172	125	15	214
	GRT3{1}	241	322	-794	890	-120	58	-80	155
	GRT4{1}	37	-25	-564	566	-196	148	9	246
	GRT5{1}	85	153	-568	594	-173	126	-44	218

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
D04 +	Gravity{1}	45	129	-634	648	-181	165	-30	247
	Hydrotest{1}	7	15	-667	667	-200	152	-3	251
	Thermal 1{1}	127	-80	49	158	80	-37	16	89
	Thermal 2{1}	48	-220	-59	233	9	-40	45	61
	Thermal 3{1}	196	193	-285	396	61	-107	-50	133
	Thermal 4{1}	-7	-153	-55	163	-15	-17	39	45
	Thermal 5{1}	40	25	-59	75	8	-39	-14	42
	GRT1{1}	172	49	-585	612	-101	128	-14	164
	GRT2{1}	93	-92	-693	705	-172	125	15	214
	GRT3{1}	241	322	-919	1003	-120	58	-80	155
	GRT4{1}	37	-25	-689	690	-196	148	9	246
	GRT5{1}	85	153	-692	714	-173	126	-44	218

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D04 M-	Gravity{1}	45	129	-890	901	-310	234	-26	389
	Hydrotest{1}	7	15	-924	924	-335	224	-3	403
	Thermal 1{1}	127	-80	49	158	88	-42	-13	98
	Thermal 2{1}	48	-220	-59	233	-1	-34	17	38
	Thermal 3{1}	196	193	-285	396	13	-81	-66	105
	Thermal 4{1}	-7	-153	-55	163	-25	-12	26	38
	Thermal 5{1}	40	25	-59	75	-2	-34	-19	39
	GRT1{1}	172	49	-842	860	-222	192	-39	296
	GRT2{1}	93	-92	-950	959	-312	199	-9	370
	GRT3{1}	241	322	-1175	1242	-297	152	-92	346
	GRT4{1}	37	-25	-946	947	-335	222	0	402
	GRT5{1}	85	153	-949	965	-312	200	-45	373
D04 M+	Gravity{1}	45	129	826	837	-310	234	-26	389
	Hydrotest{1}	7	15	814	814	-335	224	-3	403
	Thermal 1{1}	127	-80	49	158	88	-42	-13	98
	Thermal 2{1}	48	-220	-59	233	-1	-34	17	38
	Thermal 3{1}	196	193	-285	396	13	-81	-66	105
	Thermal 4{1}	-7	-153	-55	163	-25	-12	26	38
	Thermal 5{1}	40	25	-59	75	-2	-34	-19	39
	GRT1{1}	172	49	875	893	-222	192	-39	296
	GRT2{1}	93	-92	767	778	-312	199	-9	370
	GRT3{1}	241	322	541	674	-297	152	-92	346
	GRT4{1}	37	-25	771	772	-335	222	0	402
	GRT5{1}	85	153	768	787	-312	200	-45	373
D08 -	Gravity{1}	45	129	570	586	-192	171	-22	258
	Hydrotest{1}	7	15	557	557	-219	162	-2	272
	Thermal 1{1}	127	-80	49	158	96	-46	-42	115
	Thermal 2{1}	48	-220	-59	233	-11	-29	-11	33
	Thermal 3{1}	196	193	-285	396	-35	-56	-82	105
	Thermal 4{1}	-7	-153	-55	163	-34	-7	14	37
	Thermal 5{1}	40	25	-59	75	-12	-28	-23	39
	GRT1{1}	172	49	618	644	-95	125	-64	170
	GRT2{1}	93	-92	510	527	-203	142	-33	250
	GRT3{1}	241	322	284	492	-227	115	-104	275
	GRT4{1}	37	-25	514	516	-226	164	-8	279
	GRT5{1}	85	153	511	540	-204	142	-45	253

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
D08 +	Gravity{1}	45	129	445	465	-192	171	-22	258
	Hydrotest{1}	7	15	432	433	-219	162	-2	272
	Thermal 1{1}	127	-80	49	158	96	-46	-42	115
	Thermal 2{1}	48	-220	-59	233	-11	-29	-11	33
	Thermal 3{1}	196	193	-285	396	-35	-56	-82	105
	Thermal 4{1}	-7	-153	-55	163	-34	-7	14	37
	Thermal 5{1}	40	25	-59	75	-12	-28	-23	39
	GRT1{1}	172	49	494	525	-95	125	-64	170
	GRT2{1}	93	-92	386	407	-203	142	-33	250
	GRT3{1}	241	322	160	432	-227	115	-104	275
	GRT4{1}	37	-25	390	392	-226	164	-8	279
	GRT5{1}	85	153	386	424	-204	142	-45	253
D06 N	Gravity{1}	45	129	423	444	-77	110	-16	135
	Hydrotest{1}	7	15	410	411	-107	103	-2	149
	Thermal 1{1}	127	-80	49	158	109	-53	-87	149
	Thermal 2{1}	48	-220	-59	233	-27	-21	-55	64
	Thermal 3{1}	196	193	-285	396	-111	-15	-106	154
	Thermal 4{1}	-7	-153	-55	163	-49	1	-6	49
	Thermal 5{1}	40	25	-59	75	-27	-20	-31	46
	GRT1{1}	172	49	472	505	32	57	-103	122
	GRT2{1}	93	-92	364	386	-104	89	-70	154
	GRT3{1}	241	322	138	425	-188	94	-122	243
	GRT4{1}	37	-25	368	370	-126	111	-22	169
	GRT5{1}	85	153	364	404	-104	89	-46	145
D06 F	Gravity{1}	45	129	422	443	-71	106	-15	128
	Hydrotest{1}	7	15	409	409	-102	99	-2	142
	Thermal 1{1}	127	-80	49	158	110	-53	-89	151
	Thermal 2{1}	48	-220	-59	233	-28	-20	-57	67
	Thermal 3{1}	196	193	-285	396	-114	-13	-107	157
	Thermal 4{1}	-7	-153	-55	163	-49	2	-7	50
	Thermal 5{1}	40	25	-59	75	-28	-20	-31	46
	GRT1{1}	172	49	470	503	38	52	-104	123
	GRT2{1}	93	-92	362	385	-99	85	-72	150
	GRT3{1}	241	322	137	424	-186	93	-122	241
	GRT4{1}	37	-25	366	369	-121	107	-22	163

		ADS_LINE_REV0.txt							
GRT5{1}		85	153	363	403	-99	86	-46	139
D07	Gravity{1}	45	129	363	388	149	-113	31	190
	Hydrotest{1}	7	15	351	351	112	-113	2	159
	Thermal 1{1}	127	-80	49	158	137	-80	-205	260
	Thermal 2{1}	48	-220	-59	233	-61	13	-207	216
	Thermal 3{1}	196	193	-285	396	-275	146	-109	330
	Thermal 4{1}	-7	-153	-55	163	-81	33	-89	124
	Thermal 5{1}	40	25	-59	75	-61	13	-40	74
	GRT1{1}	172	49	412	449	286	-194	-174	387
	GRT2{1}	93	-92	304	331	88	-100	-176	221
	GRT3{1}	241	322	78	409	-126	33	-78	151
	GRT4{1}	37	-25	308	311	69	-81	-57	120
	GRT5{1}	85	153	305	352	88	-100	-8	134

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

*** Segment D end ***									
*** Segment E begin ***									
B05	Gravity{1}	20	48	133	143	-47	-113	-25	125
	Hydrotest{1}	-3	-1	275	275	46	5	3	46
	Thermal 1{1}	-32	263	227	349	103	80	-180	222
	Thermal 2{1}	-51	225	93	248	124	24	-171	213
	Thermal 3{1}	-7	72	-28	77	232	-84	-32	249
	Thermal 4{1}	-14	111	0	112	55	-6	-80	97
	Thermal 5{1}	-19	-70	98	122	128	33	37	137
	GRT1{1}	-12	310	360	476	55	-33	-205	215
	GRT2{1}	-31	272	227	355	77	-89	-197	229
	GRT3{1}	13	119	105	159	185	-197	-57	277
	GRT4{1}	6	159	133	208	8	-119	-106	159
	GRT5{1}	1	-22	231	232	80	-80	12	114
E01	Gravity{1}	20	48	128	138	-48	-120	-23	132
	Hydrotest{1}	-3	-1	269	269	44	-11	3	46
	Thermal 1{1}	-32	263	227	349	101	67	-165	205

		ADS_LINE_REV0.txt							
E19	Thermal 2{1}	-51	225	93	248	124	19	-159	202
	Thermal 3{1}	-7	72	-28	77	232	-83	-28	248
	Thermal 4{1}	-14	111	0	112	55	-6	-74	92
	Thermal 5{1}	-19	-70	98	122	127	27	33	134
	GRT1{1}	-12	310	355	471	53	-53	-188	202
	GRT2{1}	-31	272	221	352	76	-101	-181	221
	GRT3{1}	13	119	99	156	184	-203	-51	279
	GRT4{1}	6	159	128	204	7	-126	-96	159
	GRT5{1}	1	-22	226	227	79	-93	11	123
	Gravity{1}	20	48	102	115	-51	-149	-10	158
	Hydrotest{1}	-3	-1	244	244	38	-74	2	83
	Thermal 1{1}	-32	263	227	349	95	11	-101	139
Thermal 2{1}	-51	225	93	248	121	-4	-104	160	
Thermal 3{1}	-7	72	-28	77	233	-76	-10	245	
Thermal 4{1}	-14	111	0	112	55	-6	-47	72	
Thermal 5{1}	-19	-70	98	122	124	3	16	125	
GRT1{1}	-12	310	329	453	44	-138	-111	183	
GRT2{1}	-31	272	196	337	70	-153	-115	204	
GRT3{1}	13	119	74	141	182	-225	-21	290	
GRT4{1}	6	159	102	189	4	-155	-57	165	
GRT5{1}	1	-22	200	202	73	-146	5	164	

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
E17	- Gravity{1}	20	48	77	93	-53	-171	2	179
	Hydrotest{1}	-3	-1	219	219	32	-131	2	135
	Thermal 1{1}	-32	263	227	349	89	-45	-37	107
	Thermal 2{1}	-51	225	93	248	119	-27	-50	132
	Thermal 3{1}	-7	72	-28	77	234	-69	7	244
	Thermal 4{1}	-14	111	0	112	55	-6	-19	58
	Thermal 5{1}	-19	-70	98	122	122	-22	-2	124
	GRT1{1}	-12	310	304	435	36	-216	-35	222
	GRT2{1}	-31	272	170	323	65	-198	-48	214
	GRT3{1}	13	119	49	129	180	-240	9	300

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		GRT4{1}	6	159	77	177	1	-177	-17	178
		GRT5{1}	1	-22	175	177	69	-193	0	205
E17	+	Gravity{1}	20	48	-172	179	-53	-171	2	179
		Hydrotest{1}	-3	-1	-31	31	32	-131	2	135
		Thermal 1{1}	-32	263	227	349	89	-45	-37	107
		Thermal 2{1}	-51	225	93	248	119	-27	-50	132
		Thermal 3{1}	-7	72	-28	77	234	-69	7	244
		Thermal 4{1}	-14	111	0	112	55	-6	-19	58
		Thermal 5{1}	-19	-70	98	122	122	-22	-2	124
		GRT1{1}	-12	310	55	315	36	-216	-35	222
		GRT2{1}	-31	272	-79	285	65	-198	-48	214
		GRT3{1}	13	119	-200	233	180	-240	9	300
		GRT4{1}	6	159	-172	234	1	-177	-17	178
		GRT5{1}	1	-22	-74	77	69	-193	0	205
E16	-	Gravity{1}	20	48	-204	211	-47	-111	18	122
		Hydrotest{1}	-3	-1	-63	63	33	-116	2	121
		Thermal 1{1}	-32	263	227	349	82	-118	46	150
		Thermal 2{1}	-51	225	93	248	116	-57	20	130
		Thermal 3{1}	-7	72	-28	77	235	-60	30	244
		Thermal 4{1}	-14	111	0	112	55	-6	16	57
		Thermal 5{1}	-19	-70	98	122	119	-53	-25	132
		GRT1{1}	-12	310	23	311	35	-229	64	240
		GRT2{1}	-31	272	-111	296	69	-168	38	185
		GRT3{1}	13	119	-233	262	188	-171	48	258
		GRT4{1}	6	159	-204	259	8	-117	34	122
		GRT5{1}	1	-22	-106	109	72	-164	-7	179
E16	+	Gravity{1}	20	48	-453	456	-47	-111	18	122
		Hydrotest{1}	-3	-1	-312	312	33	-116	2	121
		Thermal 1{1}	-32	263	227	349	82	-118	46	150
		Thermal 2{1}	-51	225	93	248	116	-57	20	130
		Thermal 3{1}	-7	72	-28	77	235	-60	30	244
		Thermal 4{1}	-14	111	0	112	55	-6	16	57
		Thermal 5{1}	-19	-70	98	122	119	-53	-25	132
		GRT1{1}	-12	310	-226	384	35	-229	64	240
		GRT2{1}	-31	272	-360	453	69	-168	38	185
		GRT3{1}	13	119	-482	497	188	-171	48	258
		GRT4{1}	6	159	-453	481	8	-117	34	122
		GRT5{1}	1	-22	-356	356	72	-164	-7	179

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
E02 N	Gravity{1}	20	48	-498	501	-25	97	40	108
	Hydrotest{1}	-3	-1	-357	357	49	30	1	57
	Thermal 1{1}	-32	263	227	349	71	-217	160	279
	Thermal 2{1}	-51	225	93	248	111	-98	116	188
	Thermal 3{1}	-7	72	-28	77	236	-47	61	248
	Thermal 4{1}	-14	111	0	112	55	-6	64	84
	Thermal 5{1}	-19	-70	98	122	114	-96	-57	159
	GRT1{1}	-12	310	-271	412	46	-120	200	237
	GRT2{1}	-31	272	-405	489	86	0	156	178
	GRT3{1}	13	119	-526	540	211	50	101	239
	GRT4{1}	6	159	-498	523	30	92	104	141
	GRT5{1}	1	-22	-400	401	89	2	-17	91
E02 F	Gravity{1}	20	48	-507	510	-51	129	42	145
	Hydrotest{1}	-3	-1	-366	366	30	53	1	61
	Thermal 1{1}	-32	263	227	349	83	-231	178	303
	Thermal 2{1}	-51	225	93	248	116	-103	133	204
	Thermal 3{1}	-7	72	-28	77	235	-46	66	248
	Thermal 4{1}	-14	111	0	112	55	-6	72	90
	Thermal 5{1}	-19	-70	98	122	119	-102	-60	168
	GRT1{1}	-12	310	-280	418	32	-102	220	244
	GRT2{1}	-31	272	-414	496	65	26	174	188
	GRT3{1}	13	119	-536	549	184	83	107	229
	GRT4{1}	6	159	-507	531	4	123	113	167
	GRT5{1}	1	-22	-409	410	68	27	-18	76
E03 -	Gravity{1}	20	48	-530	532	-167	141	38	222
	Hydrotest{1}	-3	-1	-389	389	-54	62	2	82
	Thermal 1{1}	-32	263	227	349	134	-237	191	332
	Thermal 2{1}	-51	225	93	248	137	-106	149	228
	Thermal 3{1}	-7	72	-28	77	228	-45	69	243
	Thermal 4{1}	-14	111	0	112	55	-6	77	95
	Thermal 5{1}	-19	-70	98	122	141	-104	-57	184
	GRT1{1}	-12	310	-303	434	-33	-96	230	251
	GRT2{1}	-31	272	-437	516	-30	36	188	193

ADS_LINE_REV0.txt

	GRT3{1}	13	119	-558	571	62	96	107	157
	GRT4{1}	6	159	-530	553	-112	135	116	210
	GRT5{1}	1	-22	-432	432	-26	37	-19	49
E03 +	Gravity{1}	20	48	-654	656	-167	141	38	222
	Hydrotest{1}	-3	-1	-513	513	-54	62	2	82
	Thermal 1{1}	-32	263	227	349	134	-237	191	332
	Thermal 2{1}	-51	225	93	248	137	-106	149	228
	Thermal 3{1}	-7	72	-28	77	228	-45	69	243
	Thermal 4{1}	-14	111	0	112	55	-6	77	95
	Thermal 5{1}	-19	-70	98	122	141	-104	-57	184
	GRT1{1}	-12	310	-427	528	-33	-96	230	251
	GRT2{1}	-31	272	-561	625	-30	36	188	193
	GRT3{1}	13	119	-683	693	62	96	107	157
	GRT4{1}	6	159	-654	673	-112	135	116	210
	GRT5{1}	1	-22	-556	557	-26	37	-19	49

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
E03 M-	Gravity{1}	20	48	-911	913	-316	157	36	355
	Hydrotest{1}	-3	-1	-770	770	-176	75	2	192
	Thermal 1{1}	-32	263	227	349	177	-241	203	361
	Thermal 2{1}	-51	225	93	248	155	-107	164	249
	Thermal 3{1}	-7	72	-28	77	223	-44	72	238
	Thermal 4{1}	-14	111	0	112	55	-6	82	99
	Thermal 5{1}	-19	-70	98	122	160	-106	-55	199
	GRT1{1}	-12	310	-684	751	-139	-84	238	288
	GRT2{1}	-31	272	-818	863	-161	49	199	261
	GRT3{1}	13	119	-939	947	-93	113	107	181
	GRT4{1}	6	159	-911	925	-261	151	118	324
	GRT5{1}	1	-22	-813	813	-156	51	-20	165
E03 M+	Gravity{1}	20	48	892	894	-316	157	36	355
	Hydrotest{1}	-3	-1	622	622	-176	75	2	192
	Thermal 1{1}	-32	263	147	303	177	-241	203	361

ADS_LINE_REV0.txt

	Thermal 2{1}	-51	225	-293	373	155	-107	164	249
	Thermal 3{1}	-7	72	-394	400	223	-44	72	238
	Thermal 4{1}	-14	111	-235	261	55	-6	82	99
	Thermal 5{1}	-19	-70	-290	299	160	-106	-55	199
	GRT1{1}	-12	310	1039	1085	-139	-84	238	288
	GRT2{1}	-31	272	600	659	-161	49	199	261
	GRT3{1}	13	119	498	513	-93	113	107	181
	GRT4{1}	6	159	657	676	-261	151	118	324
	GRT5{1}	1	-22	602	603	-156	51	-20	165
E12 -	Gravity{1}	20	48	636	638	-170	142	33	224
	Hydrotest{1}	-3	-1	366	366	-82	65	3	105
	Thermal 1{1}	-32	263	147	303	205	-244	214	384
	Thermal 2{1}	-51	225	-293	373	99	-102	178	227
	Thermal 3{1}	-7	72	-394	400	148	-36	75	169
	Thermal 4{1}	-14	111	-235	261	10	-1	87	87
	Thermal 5{1}	-19	-70	-290	299	104	-100	-53	154
	GRT1{1}	-12	310	783	842	35	-103	247	269
	GRT2{1}	-31	272	343	439	-71	40	210	226
	GRT3{1}	13	119	242	270	-22	105	107	152
	GRT4{1}	6	159	400	431	-160	140	120	244
	GRT5{1}	1	-22	346	346	-66	41	-20	80
E12 +	Gravity{1}	20	48	511	514	-170	142	33	224
	Hydrotest{1}	-3	-1	241	241	-82	65	3	105
	Thermal 1{1}	-32	263	147	303	205	-244	214	384
	Thermal 2{1}	-51	225	-293	373	99	-102	178	227
	Thermal 3{1}	-7	72	-394	400	148	-36	75	169
	Thermal 4{1}	-14	111	-235	261	10	-1	87	87
	Thermal 5{1}	-19	-70	-290	299	104	-100	-53	154
	GRT1{1}	-12	310	658	728	35	-103	247	269
	GRT2{1}	-31	272	218	350	-71	40	210	226
	GRT3{1}	13	119	117	168	-22	105	107	152
	GRT4{1}	6	159	276	318	-160	140	120	244
	GRT5{1}	1	-22	221	222	-66	41	-20	80

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G L O B A L F O R C E S & M O M E N T S

ADS_LINE_REV0.txt									
Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

E05	Gravity{1}	20	48	503	506	-114	136	31	180
	Hydrotest{1}	-3	-1	233	233	-56	62	3	83
	Thermal 1{1}	-32	263	147	303	221	-246	221	398
	Thermal 2{1}	-51	225	-293	373	66	-98	186	220
	Thermal 3{1}	-7	72	-394	400	104	-32	76	133
	Thermal 4{1}	-14	111	-235	261	-16	1	90	91
	Thermal 5{1}	-19	-70	-290	299	72	-97	-52	131
	GRT1{1}	-12	310	650	720	107	-110	252	295
	GRT2{1}	-31	272	210	345	-48	37	217	225
	GRT3{1}	13	119	109	162	-10	104	107	150
	GRT4{1}	6	159	268	311	-130	137	121	224
	GRT5{1}	1	-22	213	214	-42	39	-20	61
E13	Gravity{1}	20	48	490	493	-70	131	30	152
	Hydrotest{1}	-3	-1	220	220	-36	60	3	70
	Thermal 1{1}	-32	263	147	303	234	-247	226	409
	Thermal 2{1}	-51	225	-293	373	40	-95	193	219
	Thermal 3{1}	-7	72	-394	400	69	-28	78	108
	Thermal 4{1}	-14	111	-235	261	-37	4	92	99
	Thermal 5{1}	-19	-70	-290	299	47	-94	-50	117
	GRT1{1}	-12	310	637	709	164	-116	256	325
	GRT2{1}	-31	272	197	338	-30	36	222	227
	GRT3{1}	13	119	96	154	-1	103	107	149
	GRT4{1}	6	159	255	300	-107	135	122	211
	GRT5{1}	1	-22	200	201	-24	37	-21	48
E07 N	Gravity{1}	20	48	379	382	154	108	22	189
	Hydrotest{1}	-3	-1	109	109	49	51	4	71
	Thermal 1{1}	-32	263	147	303	310	-255	256	476
	Thermal 2{1}	-51	225	-293	373	-110	-80	231	268
	Thermal 3{1}	-7	72	-394	400	-134	-7	85	159
	Thermal 4{1}	-14	111	-235	261	-158	16	105	191
	Thermal 5{1}	-19	-70	-290	299	-103	-79	-44	137
	GRT1{1}	-12	310	526	611	463	-148	278	560
	GRT2{1}	-31	272	86	287	43	28	253	258
	GRT3{1}	13	119	-15	121	20	101	107	149
	GRT4{1}	6	159	143	214	-5	124	127	178
	GRT5{1}	1	-22	89	91	51	29	-22	63
E07 F	Gravity{1}	20	48	366	370	175	111	20	208
	Hydrotest{1}	-3	-1	96	96	55	52	4	76

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Thermal 1{1}	-32	263	147	303	318	-254	256	481
Thermal 2{1}	-51	225	-293	373	-127	-82	232	277
Thermal 3{1}	-7	72	-394	400	-157	-11	85	178
Thermal 4{1}	-14	111	-235	261	-172	14	105	202
Thermal 5{1}	-19	-70	-290	299	-120	-81	-43	151
GRT1{1}	-12	310	513	600	494	-143	276	584
GRT2{1}	-31	272	73	284	48	29	252	258
GRT3{1}	13	119	-28	123	19	100	106	147
GRT4{1}	6	159	130	206	3	125	125	177
GRT5{1}	1	-22	76	79	56	30	-22	67

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
E18	Gravity{1}	20	48	179	186	392	207	-12	443
	Hydrotest{1}	-3	-1	-91	91	57	53	7	78
	Thermal 1{1}	-32	263	147	303	435	-202	188	515
	Thermal 2{1}	-51	225	-293	373	-360	-186	193	449
	Thermal 3{1}	-7	72	-394	400	-469	-150	66	497
	Thermal 4{1}	-14	111	-235	261	-359	-69	76	373
	Thermal 5{1}	-19	-70	-290	299	-350	-184	-3	395
	GRT1{1}	-12	310	326	450	827	5	176	845
	GRT2{1}	-31	272	-114	297	32	21	180	184
	GRT3{1}	13	119	-215	246	-78	57	53	111
	GRT4{1}	6	159	-57	169	33	138	64	156
	GRT5{1}	1	-22	-111	113	42	23	-15	50
E08 N	Gravity{1}	20	48	41	66	456	236	-36	515
	Hydrotest{1}	-3	-1	-229	229	-37	11	9	40
	Thermal 1{1}	-32	263	147	303	521	-164	138	564
	Thermal 2{1}	-51	225	-293	373	-531	-262	164	615
	Thermal 3{1}	-7	72	-394	400	-700	-252	51	746
	Thermal 4{1}	-14	111	-235	261	-497	-130	55	516
	Thermal 5{1}	-19	-70	-290	299	-520	-259	27	581
	GRT1{1}	-12	310	188	363	977	72	102	985

ADS_LINE_REV0.txt									
	GRT2{1}	-31	272	-252	372	-76	-26	128	151
	GRT3{1}	13	119	-353	373	-244	-17	15	245
	GRT4{1}	6	159	-195	251	-41	105	19	115
	GRT5{1}	1	-22	-249	250	-64	-24	-9	69
E08 F	Gravity{1}	20	48	28	59	458	236	-38	517
	Hydrotest{1}	-3	-1	-242	242	-51	9	9	52
	Thermal 1{1}	-32	263	147	303	530	-162	138	571
	Thermal 2{1}	-51	225	-293	373	-549	-265	165	631
	Thermal 3{1}	-7	72	-394	400	-723	-256	51	769
	Thermal 4{1}	-14	111	-235	261	-510	-133	55	530
	Thermal 5{1}	-19	-70	-290	299	-537	-262	29	598
	GRT1{1}	-12	310	175	356	988	74	100	996
	GRT2{1}	-31	272	-265	381	-91	-29	127	159
	GRT3{1}	13	119	-366	385	-265	-20	13	266
	GRT4{1}	6	159	-207	261	-53	104	17	118
	GRT5{1}	1	-22	-262	263	-79	-26	-9	83
E09	Gravity{1}	20	48	6	52	460	236	-39	518
	Hydrotest{1}	-3	-1	-264	264	-77	11	9	78
	Thermal 1{1}	-32	263	147	303	545	-164	144	587
	Thermal 2{1}	-51	225	-293	373	-578	-262	172	658
	Thermal 3{1}	-7	72	-394	400	-763	-252	53	805
	Thermal 4{1}	-14	111	-235	261	-534	-130	58	553
	Thermal 5{1}	-19	-70	-290	299	-566	-259	30	623
	GRT1{1}	-12	310	153	346	1004	72	105	1012
	GRT2{1}	-31	272	-287	397	-119	-26	133	180
	GRT3{1}	13	119	-388	406	-304	-16	13	304
	GRT4{1}	6	159	-229	279	-75	106	18	131
	GRT5{1}	1	-22	-284	285	-107	-23	-10	109

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
E14	Gravity{1}	20	48	-20	55	459	236	-41	518
	Hydrotest{1}	-3	-1	-290	290	-104	14	9	106

		ADS_LINE_REV0.txt							
	Thermal 1{1}	-32	263	147	303	560	-165	150	602
	Thermal 2{1}	-51	225	-293	373	-608	-259	180	685
	Thermal 3{1}	-7	72	-394	400	-803	-248	54	842
	Thermal 4{1}	-14	111	-235	261	-558	-128	60	576
	Thermal 5{1}	-19	-70	-290	299	-595	-256	31	649
	GRT1{1}	-12	310	127	335	1018	71	109	1027
	GRT2{1}	-31	272	-313	416	-149	-23	139	205
	GRT3{1}	13	119	-414	431	-344	-12	13	344
	GRT4{1}	6	159	-256	301	-99	109	19	148
	GRT5{1}	1	-22	-310	311	-136	-20	-10	138
E11	Gravity{1}	20	48	-101	114	443	238	-45	505
	Hydrotest{1}	-3	-1	-371	371	-192	24	10	194
	Thermal 1{1}	-32	263	147	303	598	-169	166	644
	Thermal 2{1}	-51	225	-293	373	-685	-251	199	756
	Thermal 3{1}	-7	72	-394	400	-907	-237	58	939
	Thermal 4{1}	-14	111	-235	261	-620	-121	67	636
	Thermal 5{1}	-19	-70	-290	299	-672	-248	34	717
	GRT1{1}	-12	310	46	314	1041	68	121	1050
	GRT2{1}	-31	272	-394	480	-242	-13	155	288
	GRT3{1}	13	119	-495	510	-464	1	13	464
	GRT4{1}	6	159	-337	373	-178	117	22	214
	GRT5{1}	1	-22	-391	392	-229	-10	-11	230
*** Segment E end ***									
*** Segment F begin ***									
B08	Gravity{1}	1	9	449	449	18	202	-4	203
	Hydrotest{1}	-5	-5	362	362	39	84	7	93
	Thermal 1{1}	-74	95	154	196	68	105	-93	156
	Thermal 2{1}	-66	91	66	131	67	33	-100	125
	Thermal 3{1}	-62	-11	63	89	94	39	21	104
	Thermal 4{1}	-26	43	2	50	24	-8	-46	52
	Thermal 5{1}	-83	-98	75	148	73	49	80	119
	GRT1{1}	-72	105	603	617	86	307	-97	333
	GRT2{1}	-65	101	515	529	86	234	-104	270
	GRT3{1}	-61	-1	512	515	112	241	18	266
	GRT4{1}	-25	52	451	454	42	194	-50	204
	GRT5{1}	-82	-88	524	537	92	251	76	278

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
F01	Gravity{1}	1	9	443	443	16	176	-3	177
	Hydrotest{1}	-5	-5	356	356	37	64	7	74
	Thermal 1{1}	-74	95	154	196	67	97	-88	147
	Thermal 2{1}	-66	91	66	131	67	29	-95	120
	Thermal 3{1}	-62	-11	63	89	93	36	20	102
	Thermal 4{1}	-26	43	2	50	24	-8	-44	51
	Thermal 5{1}	-83	-98	75	148	73	45	74	113
	GRT1{1}	-72	105	598	611	83	273	-91	300
	GRT2{1}	-65	101	510	523	82	205	-98	242
	GRT3{1}	-61	-1	506	510	109	212	17	239
	GRT4{1}	-25	52	445	449	40	168	-47	179
	GRT5{1}	-82	-88	518	532	89	222	71	249
F17 -	Gravity{1}	1	9	370	370	-15	-118	4	119
	Hydrotest{1}	-5	-5	283	283	13	-167	3	168
	Thermal 1{1}	-74	95	154	196	55	-15	-25	62
	Thermal 2{1}	-66	91	66	131	62	-19	-34	73
	Thermal 3{1}	-62	-11	63	89	89	-10	8	89
	Thermal 4{1}	-26	43	2	50	24	-9	-14	29
	Thermal 5{1}	-83	-98	75	148	67	-9	-3	68
	GRT1{1}	-72	105	524	539	40	-133	-21	141
	GRT2{1}	-65	101	436	452	46	-137	-30	148
	GRT3{1}	-61	-1	432	437	73	-128	12	148
	GRT4{1}	-25	52	371	376	9	-127	-11	128
	GRT5{1}	-82	-88	444	460	52	-127	0	137
F17 +	Gravity{1}	1	9	121	121	-15	-118	4	119
	Hydrotest{1}	-5	-5	33	34	13	-167	3	168
	Thermal 1{1}	-74	95	154	196	55	-15	-25	62
	Thermal 2{1}	-66	91	66	131	62	-19	-34	73
	Thermal 3{1}	-62	-11	63	89	89	-10	8	89
	Thermal 4{1}	-26	43	2	50	24	-9	-14	29
	Thermal 5{1}	-83	-98	75	148	67	-9	-3	68
	GRT1{1}	-72	105	275	303	40	-133	-21	141
	GRT2{1}	-65	101	187	222	46	-137	-30	148
	GRT3{1}	-61	-1	183	193	73	-128	12	148
	GRT4{1}	-25	52	122	135	9	-127	-11	128
	GRT5{1}	-82	-88	195	229	52	-127	0	137

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F16 - Gravity{1}	1	9	88	89	-19	-152	7	153
Hydrotest{1}	-5	-5	1	7	12	-173	1	173
Thermal 1{1}	-74	95	154	196	50	-64	3	82
Thermal 2{1}	-66	91	66	131	60	-40	-7	72
Thermal 3{1}	-62	-11	63	89	86	-30	2	91
Thermal 4{1}	-26	43	2	50	24	-10	-2	26
Thermal 5{1}	-83	-98	75	148	65	-33	-37	81
GRT1{1}	-72	105	242	274	31	-216	10	218
GRT2{1}	-65	101	154	195	41	-192	-1	196
GRT3{1}	-61	-1	151	163	68	-181	9	194
GRT4{1}	-25	52	90	107	5	-161	5	161
GRT5{1}	-82	-88	163	202	46	-184	-30	192

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
F16 +	Gravity{1}	1	9	-161	161	-19	-152	7	153
	Hydrotest{1}	-5	-5	-248	248	12	-173	1	173
	Thermal 1{1}	-74	95	154	196	50	-64	3	82
	Thermal 2{1}	-66	91	66	131	60	-40	-7	72
	Thermal 3{1}	-62	-11	63	89	86	-30	2	91
	Thermal 4{1}	-26	43	2	50	24	-10	-2	26
	Thermal 5{1}	-83	-98	75	148	65	-33	-37	81
	GRT1{1}	-72	105	-7	127	31	-216	10	218
	GRT2{1}	-65	101	-95	153	41	-192	-1	196
	GRT3{1}	-61	-1	-98	116	68	-181	9	194
	GRT4{1}	-25	52	-160	170	5	-161	5	161
	GRT5{1}	-82	-88	-86	148	46	-184	-30	192
F02 N	Gravity{1}	1	9	-229	229	-5	-21	13	26
	Hydrotest{1}	-5	-5	-316	316	32	15	-3	36
	Thermal 1{1}	-74	95	154	196	39	-167	61	182
	Thermal 2{1}	-66	91	66	131	55	-84	49	112
	Thermal 3{1}	-62	-11	63	89	82	-71	-9	109
	Thermal 4{1}	-26	43	2	50	24	-11	25	36

ADS_LINE_REV0.txt

	Thermal 5{1}	-83	-98	75	148	59	-82	-108	148
	GRT1{1}	-72	105	-75	147	34	-189	74	206
	GRT2{1}	-65	101	-163	202	50	-106	62	132
	GRT3{1}	-61	-1	-166	177	77	-93	4	121
	GRT4{1}	-25	52	-227	235	19	-32	39	53
	GRT5{1}	-82	-88	-154	196	54	-104	-95	151
F02 M	Gravity{1}	1	9	-234	234	-8	-12	14	20
	Hydrotest{1}	-5	-5	-321	321	28	29	-3	40
	Thermal 1{1}	-74	95	154	196	41	-174	66	190
	Thermal 2{1}	-66	91	66	131	56	-87	54	116
	Thermal 3{1}	-62	-11	63	89	83	-74	-9	111
	Thermal 4{1}	-26	43	2	50	24	-11	27	38
	Thermal 5{1}	-83	-98	75	148	60	-86	-111	153
	GRT1{1}	-72	105	-79	150	33	-185	80	205
	GRT2{1}	-65	101	-167	206	48	-99	67	129
	GRT3{1}	-61	-1	-171	182	75	-86	5	114
	GRT4{1}	-25	52	-232	239	16	-22	41	49
	GRT5{1}	-82	-88	-159	199	52	-97	-98	147
F02 F	Gravity{1}	1	9	-238	238	-17	-7	14	23
	Hydrotest{1}	-5	-5	-325	325	16	36	-3	39
	Thermal 1{1}	-74	95	154	196	47	-177	71	196
	Thermal 2{1}	-66	91	66	131	58	-88	58	121
	Thermal 3{1}	-62	-11	63	89	85	-75	-6	114
	Thermal 4{1}	-26	43	2	50	24	-11	29	39
	Thermal 5{1}	-83	-98	75	148	63	-87	-110	154
	GRT1{1}	-72	105	-84	152	30	-184	85	205
	GRT2{1}	-65	101	-172	210	41	-95	72	126
	GRT3{1}	-61	-1	-175	186	68	-82	7	107
	GRT4{1}	-25	52	-237	244	7	-17	43	47
	GRT5{1}	-82	-88	-163	203	46	-94	-96	142

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ADS_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result

ADS_LINE_REV0.txt

F03 -	Gravity{1}	1	9	-294	294	-164	9	14	164
	Hydrotest{1}	-5	-5	-381	381	-179	56	-1	188
	Thermal 1{1}	-74	95	154	196	132	-186	117	256
	Thermal 2{1}	-66	91	66	131	95	-92	100	166
	Thermal 3{1}	-62	-11	63	89	120	-79	27	146
	Thermal 4{1}	-26	43	2	50	25	-11	46	53
	Thermal 5{1}	-83	-98	75	148	104	-91	-70	155
	GRT1{1}	-72	105	-140	189	-32	-177	131	223
	GRT2{1}	-65	101	-228	258	-69	-84	113	157
	GRT3{1}	-61	-1	-231	239	-44	-70	41	92
	GRT4{1}	-25	52	-293	298	-139	-2	60	151
	GRT5{1}	-82	-88	-220	250	-59	-83	-56	116

F03 +	Gravity{1}	1	9	-419	419	-164	9	14	164
	Hydrotest{1}	-5	-5	-506	506	-179	56	-1	188
	Thermal 1{1}	-74	95	154	196	132	-186	117	256
	Thermal 2{1}	-66	91	66	131	95	-92	100	166
	Thermal 3{1}	-62	-11	63	89	120	-79	27	146
	Thermal 4{1}	-26	43	2	50	25	-11	46	53
	Thermal 5{1}	-83	-98	75	148	104	-91	-70	155
	GRT1{1}	-72	105	-264	293	-32	-177	131	223
	GRT2{1}	-65	101	-353	372	-69	-84	113	157
	GRT3{1}	-61	-1	-356	361	-44	-70	41	92
	GRT4{1}	-25	52	-417	421	-139	-2	60	151
	GRT5{1}	-82	-88	-344	365	-59	-83	-56	116

F03 M-	Gravity{1}	1	9	-675	675	-268	20	14	269
	Hydrotest{1}	-5	-5	-762	762	-300	69	0	308
	Thermal 1{1}	-74	95	154	196	162	-189	133	282
	Thermal 2{1}	-66	91	66	131	107	-94	114	182
	Thermal 3{1}	-62	-11	63	89	132	-80	39	159
	Thermal 4{1}	-26	43	2	50	25	-11	52	58
	Thermal 5{1}	-83	-98	75	148	119	-93	-56	161
	GRT1{1}	-72	105	-521	536	-107	-169	147	248
	GRT2{1}	-65	101	-609	621	-161	-74	128	218
	GRT3{1}	-61	-1	-613	616	-136	-61	53	158
	GRT4{1}	-25	52	-674	676	-243	9	65	252
	GRT5{1}	-82	-88	-601	613	-150	-73	-42	172

F03 M+	Gravity{1}	1	9	679	679	-268	20	14	269
	Hydrotest{1}	-5	-5	719	719	-300	69	0	308
	Thermal 1{1}	-74	95	96	154	162	-189	133	282
	Thermal 2{1}	-66	91	-135	175	107	-94	114	182
	Thermal 3{1}	-62	-11	-140	153	132	-80	39	159

ADS_LINE_REV0.txt

Thermal 4{1}	-26	43	-116	126	25	-11	52	58
Thermal 5{1}	-83	-98	-129	182	119	-93	-56	161
GRT1{1}	-72	105	775	786	-107	-169	147	248
GRT2{1}	-65	101	544	557	-161	-74	128	218
GRT3{1}	-61	-1	539	543	-136	-61	53	158
GRT4{1}	-25	52	563	566	-243	9	65	252
GRT5{1}	-82	-88	550	563	-150	-73	-42	172

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

F14 -	Gravity{1}	1	9	422	422	-163	9	14	164
	Hydrotest{1}	-5	-5	462	462	-187	57	1	196
	Thermal 1{1}	-74	95	96	154	180	-191	149	302
	Thermal 2{1}	-66	91	-135	175	82	-91	128	177
	Thermal 3{1}	-62	-11	-140	153	105	-77	51	140
	Thermal 4{1}	-26	43	-116	126	3	-9	57	58
	Thermal 5{1}	-83	-98	-129	182	94	-90	-42	137
	GRT1{1}	-72	105	519	534	17	-182	163	245
	GRT2{1}	-65	101	288	312	-81	-82	142	183
	GRT3{1}	-61	-1	283	289	-58	-69	64	111
	GRT4{1}	-25	52	306	312	-160	0	71	175
	GRT5{1}	-82	-88	293	317	-69	-82	-28	111
F14 +	Gravity{1}	1	9	298	298	-163	9	14	164
	Hydrotest{1}	-5	-5	338	338	-187	57	1	196
	Thermal 1{1}	-74	95	96	154	180	-191	149	302
	Thermal 2{1}	-66	91	-135	175	82	-91	128	177
	Thermal 3{1}	-62	-11	-140	153	105	-77	51	140
	Thermal 4{1}	-26	43	-116	126	3	-9	57	58
	Thermal 5{1}	-83	-98	-129	182	94	-90	-42	137
	GRT1{1}	-72	105	394	414	17	-182	163	245
	GRT2{1}	-65	101	163	202	-81	-82	142	183
	GRT3{1}	-61	-1	158	169	-58	-69	64	111
	GRT4{1}	-25	52	182	191	-160	0	71	175

		ADS_LINE_REV0.txt							
		-82	-88	168	207	-69	-82	-28	111
F05	GRT5{1}								
	Gravity{1}	1	9	290	290	-130	5	14	131
	Hydrotest{1}	-5	-5	329	329	-150	53	1	160
	Thermal 1{1}	-74	95	96	154	191	-192	158	313
	Thermal 2{1}	-66	91	-135	175	67	-89	137	177
	Thermal 3{1}	-62	-11	-140	153	90	-76	57	131
	Thermal 4{1}	-26	43	-116	126	-10	-7	61	62
	Thermal 5{1}	-83	-98	-129	182	79	-89	-34	124
	GRT1{1}	-72	105	386	406	60	-187	172	261
	GRT2{1}	-65	101	155	196	-64	-84	151	184
	GRT3{1}	-61	-1	150	162	-41	-71	71	108
	GRT4{1}	-25	52	173	183	-140	-2	75	159
	GRT5{1}	-82	-88	160	200	-51	-84	-20	100
F20	Gravity{1}	1	9	277	277	-105	3	14	106
	Hydrotest{1}	-5	-5	317	317	-122	50	1	132
	Thermal 1{1}	-74	95	96	154	199	-193	166	323
	Thermal 2{1}	-66	91	-135	175	55	-88	144	177
	Thermal 3{1}	-62	-11	-140	153	77	-75	63	124
	Thermal 4{1}	-26	43	-116	126	-20	-6	63	67
	Thermal 5{1}	-83	-98	-129	182	68	-88	-28	114
	GRT1{1}	-72	105	373	394	94	-190	179	278
	GRT2{1}	-65	101	142	186	-51	-85	157	186
	GRT3{1}	-61	-1	137	150	-28	-72	77	109
	GRT4{1}	-25	52	161	171	-126	-4	77	148
	GRT5{1}	-82	-88	147	190	-37	-85	-14	94

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
F07 N	Gravity{1}	1	9	-137	137	28	-11	14	33
	Hydrotest{1}	-5	-5	-97	97	88	28	9	93
	Thermal 1{1}	-74	95	96	154	383	-212	325	546
	Thermal 2{1}	-66	91	-135	175	-202	-61	288	357
	Thermal 3{1}	-62	-11	-140	153	-190	-46	180	265

		ADS_LINE_REV0.txt							
	Thermal 4{1}	-26	43	-116	126	-242	17	121	271
	Thermal 5{1}	-83	-98	-129	182	-179	-62	112	220
	GRT1{1}	-72	105	-40	133	411	-224	339	578
	GRT2{1}	-65	101	-271	297	-174	-73	301	356
	GRT3{1}	-61	-1	-276	283	-161	-58	193	258
	GRT4{1}	-25	52	-253	259	-214	6	135	253
	GRT5{1}	-82	-88	-266	292	-151	-73	125	209
F07 M	Gravity{1}	1	9	-143	144	24	-12	14	30
	Hydrotest{1}	-5	-5	-103	104	85	28	9	90
	Thermal 1{1}	-74	95	96	154	386	-212	327	549
	Thermal 2{1}	-66	91	-135	175	-206	-61	290	361
	Thermal 3{1}	-62	-11	-140	153	-194	-47	182	270
	Thermal 4{1}	-26	43	-116	126	-246	17	122	275
	Thermal 5{1}	-83	-98	-129	182	-183	-62	114	224
	GRT1{1}	-72	105	-47	136	410	-224	341	578
	GRT2{1}	-65	101	-278	302	-182	-73	303	361
	GRT3{1}	-61	-1	-283	289	-170	-58	195	265
	GRT4{1}	-25	52	-259	266	-221	6	135	260
	GRT5{1}	-82	-88	-273	298	-159	-73	128	217
F07 F	Gravity{1}	1	9	-150	150	20	-13	13	27
	Hydrotest{1}	-5	-5	-110	110	82	27	9	87
	Thermal 1{1}	-74	95	96	154	389	-211	329	551
	Thermal 2{1}	-66	91	-135	175	-210	-62	291	364
	Thermal 3{1}	-62	-11	-140	153	-198	-48	183	274
	Thermal 4{1}	-26	43	-116	126	-249	16	122	278
	Thermal 5{1}	-83	-98	-129	182	-187	-63	117	229
	GRT1{1}	-72	105	-53	138	409	-224	342	578
	GRT2{1}	-65	101	-284	308	-190	-75	304	367
	GRT3{1}	-61	-1	-289	296	-178	-61	197	272
	GRT4{1}	-25	52	-266	272	-229	3	136	266
	GRT5{1}	-82	-88	-279	304	-167	-76	131	225
F08	Gravity{1}	1	9	-380	380	-239	-128	8	271
	Hydrotest{1}	-5	-5	-340	340	-138	-71	16	156
	Thermal 1{1}	-74	95	96	154	483	-170	359	625
	Thermal 2{1}	-66	91	-135	175	-341	-121	316	480
	Thermal 3{1}	-62	-11	-140	153	-334	-108	249	431
	Thermal 4{1}	-26	43	-116	126	-362	-34	129	386
	Thermal 5{1}	-83	-98	-129	182	-313	-119	241	413
	GRT1{1}	-72	105	-284	311	244	-298	367	532
	GRT2{1}	-65	101	-514	528	-580	-249	324	710
	GRT3{1}	-61	-1	-520	523	-573	-236	257	671

	ADS_LINE_REV0.txt						
GRT4{1}	-25	52	-496	499	-601	-162	137
GRT5{1}	-82	-88	-509	523	-552	-247	249

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result
F21	Gravity{1}	1	9	-406	406	-275	-144	8	311
	Hydrotest{1}	-5	-5	-366	366	-171	-85	17	191
	Thermal 1{1}	-74	95	96	154	492	-166	362	633
	Thermal 2{1}	-66	91	-135	175	-354	-126	318	492
	Thermal 3{1}	-62	-11	-140	153	-347	-114	255	446
	Thermal 4{1}	-26	43	-116	126	-373	-39	129	397
	Thermal 5{1}	-83	-98	-129	182	-325	-124	253	430
	GRT1{1}	-72	105	-310	335	217	-310	370	529
	GRT2{1}	-65	101	-541	554	-629	-271	326	758
	GRT3{1}	-61	-1	-546	549	-622	-258	263	723
	GRT4{1}	-25	52	-522	526	-648	-183	137	688
	GRT5{1}	-82	-88	-536	549	-600	-269	261	708
F10	Gravity{1}	1	9	-492	492	-391	-196	6	437
	Hydrotest{1}	-5	-5	-452	452	-276	-132	18	306
	Thermal 1{1}	-74	95	96	154	517	-155	370	654
	Thermal 2{1}	-66	91	-135	175	-388	-142	325	526
	Thermal 3{1}	-62	-11	-140	153	-383	-130	272	488
	Thermal 4{1}	-26	43	-116	126	-403	-52	131	427
	Thermal 5{1}	-83	-98	-129	182	-358	-139	285	479
	GRT1{1}	-72	105	-396	416	126	-350	376	529
	GRT2{1}	-65	101	-627	638	-779	-337	331	911
	GRT3{1}	-61	-1	-632	635	-774	-326	279	885
	GRT4{1}	-25	52	-608	611	-794	-248	137	843
	GRT5{1}	-82	-88	-621	633	-749	-335	292	871

*** Segment F end ***

*** Segment G begin ***

K25	Gravity{1}	0	0	1137	1137	0	0	0	0
	Hydrotest{1}	0	0	1137	1137	0	0	0	0

	ADS_LINE_REV0.txt							
Thermal 1{1}	0	0	0	0	0	0	0	0
Thermal 2{1}	0	0	0	0	0	0	0	0
Thermal 3{1}	0	0	0	0	0	0	0	0
Thermal 4{1}	0	0	0	0	0	0	0	0
Thermal 5{1}	0	0	0	0	0	0	0	0
GRT1{1}	0	0	1137	1137	0	0	0	0
GRT2{1}	0	0	1137	1137	0	0	0	0
GRT3{1}	0	0	1137	1137	0	0	0	0
GRT4{1}	0	0	1137	1137	0	0	0	0
GRT5{1}	0	0	1137	1137	0	0	0	0

0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
G01 -	Gravity{1}	0	0	1087	1087	0	0	0	0
	Hydrotest{1}	0	0	1087	1087	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	1087	1087	0	0	0	0
	GRT2{1}	0	0	1087	1087	0	0	0	0
	GRT3{1}	0	0	1087	1087	0	0	0	0
	GRT4{1}	0	0	1087	1087	0	0	0	0
	GRT5{1}	0	0	1087	1087	0	0	0	0
G01 +	Gravity{1}	0	0	855	855	0	0	0	0
	Hydrotest{1}	0	0	855	855	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	855	855	0	0	0	0
	GRT2{1}	0	0	855	855	0	0	0	0

ADS_LINE_REV0.txt

	GRT3{1}	0	0	855	855	0	0	0	0
	GRT4{1}	0	0	855	855	0	0	0	0
	GRT5{1}	0	0	855	855	0	0	0	0
G01 M	Gravity{1}	0	0	543	543	0	0	0	0
	Hydrotest{1}	0	0	543	543	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	543	543	0	0	0	0
	GRT2{1}	0	0	543	543	0	0	0	0
	GRT3{1}	0	0	543	543	0	0	0	0
	GRT4{1}	0	0	543	543	0	0	0	0
	GRT5{1}	0	0	543	543	0	0	0	0
SV08	Gravity{1}	0	0	231	231	0	0	0	0
	Hydrotest{1}	0	0	231	231	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	231	231	0	0	0	0
	GRT2{1}	0	0	231	231	0	0	0	0
	GRT3{1}	0	0	231	231	0	0	0	0
	GRT4{1}	0	0	231	231	0	0	0	0
	GRT5{1}	0	0	231	231	0	0	0	0

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result
-----		-----							
*** Segment G end ***									
*** Segment H begin ***									
B09	Gravity{1}	0	0	768	768	0	0	0	0

ADS_LINE_REV0.txt

	Hydrotest{1}	0	0	768	768	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	768	768	0	0	0	0
	GRT2{1}	0	0	768	768	0	0	0	0
	GRT3{1}	0	0	768	768	0	0	0	0
	GRT4{1}	0	0	768	768	0	0	0	0
	GRT5{1}	0	0	768	768	0	0	0	0
H01	- Gravity{1}	0	0	745	745	0	0	0	0
	Hydrotest{1}	0	0	745	745	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	745	745	0	0	0	0
	GRT2{1}	0	0	745	745	0	0	0	0
	GRT3{1}	0	0	745	745	0	0	0	0
	GRT4{1}	0	0	745	745	0	0	0	0
	GRT5{1}	0	0	745	745	0	0	0	0
H01	+ Gravity{1}	0	0	620	620	0	0	0	0
	Hydrotest{1}	0	0	620	620	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	620	620	0	0	0	0
	GRT2{1}	0	0	620	620	0	0	0	0
	GRT3{1}	0	0	620	620	0	0	0	0
	GRT4{1}	0	0	620	620	0	0	0	0
	GRT5{1}	0	0	620	620	0	0	0	0

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ADS_LINE_REV0.txt
G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

H01 M	Gravity{1}	0	0	372	372	0	0	0	0
	Hydrotest{1}	0	0	372	372	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	372	372	0	0	0	0
	GRT2{1}	0	0	372	372	0	0	0	0
	GRT3{1}	0	0	372	372	0	0	0	0
	GRT4{1}	0	0	372	372	0	0	0	0
	GRT5{1}	0	0	372	372	0	0	0	0
SV09	Gravity{1}	0	0	125	125	0	0	0	0
	Hydrotest{1}	0	0	125	125	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	125	125	0	0	0	0
	GRT2{1}	0	0	125	125	0	0	0	0
	GRT3{1}	0	0	125	125	0	0	0	0
	GRT4{1}	0	0	125	125	0	0	0	0
	GRT5{1}	0	0	125	125	0	0	0	0
*** Segment H end ***									
*** Segment J begin ***									
J00	Gravity{1}	0	0	409	409	-51	29	0	58
	Hydrotest{1}	0	0	409	409	-51	29	0	58
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	409	409	-51	29	0	58
	GRT2{1}	0	0	409	409	-51	29	0	58
	GRT3{1}	0	0	409	409	-51	29	0	58

	ADS_LINE_REV0.txt							
GRT4{1}	0	0	409	409	-51	29	0	58
GRT5{1}	0	0	409	409	-51	29	0	58

0

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
J01 N	Gravity{1}	0	0	372	372	-35	20	0	41
	Hydrotest{1}	0	0	372	372	-35	20	0	41
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	372	372	-35	20	0	41
	GRT2{1}	0	0	372	372	-35	20	0	41
	GRT3{1}	0	0	372	372	-35	20	0	41
	GRT4{1}	0	0	372	372	-35	20	0	41
	GRT5{1}	0	0	372	372	-35	20	0	41
J01 F	Gravity{1}	0	0	330	330	-28	16	0	32
	Hydrotest{1}	0	0	330	330	-28	16	0	32
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	330	330	-28	16	0	32
	GRT2{1}	0	0	330	330	-28	16	0	32
	GRT3{1}	0	0	330	330	-28	16	0	32
	GRT4{1}	0	0	330	330	-28	16	0	32
	GRT5{1}	0	0	330	330	-28	16	0	32
J02 N	Gravity{1}	0	0	217	217	-28	16	0	32
	Hydrotest{1}	0	0	217	217	-28	16	0	32
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0

		ADS_LINE_REV0.txt						
	Thermal 3{1}	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0
	GRT1{1}	0	0	217	217	-28	16	32
	GRT2{1}	0	0	217	217	-28	16	32
	GRT3{1}	0	0	217	217	-28	16	32
	GRT4{1}	0	0	217	217	-28	16	32
	GRT5{1}	0	0	217	217	-28	16	32
J02 F	Gravity{1}	0	0	92	92	-5	3	5
	Hydrotest{1}	0	0	92	92	-5	3	5
	Thermal 1{1}	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0
	GRT1{1}	0	0	92	92	-5	3	5
	GRT2{1}	0	0	92	92	-5	3	5
	GRT3{1}	0	0	92	92	-5	3	5
	GRT4{1}	0	0	92	92	-5	3	5
	GRT5{1}	0	0	92	92	-5	3	5

0

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
J03	Gravity{1}	0	0	63	63	0	0	0	0
	Hydrotest{1}	0	0	63	63	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	63	63	0	0	0	0
	GRT2{1}	0	0	63	63	0	0	0	0
	GRT3{1}	0	0	63	63	0	0	0	0
	GRT4{1}	0	0	63	63	0	0	0	0

ADS_LINE_REV0.txt

GRT5{1} 0 0 63 63 0 0 0 0

*** Segment J end ***

*** Segment K begin ***

K02	Gravity{1}	-89	-256	-1927	1946	-79	117	1	141
	Hydrotest{1}	-14	-72	-968	971	-4	21	-4	21
	Thermal 1{1}	-253	-1192	-365	1272	-196	415	-145	481
	Thermal 2{1}	-66	-647	261	701	72	244	-137	289
	Thermal 3{1}	-529	-1487	-2007	2553	-311	791	-69	853
	Thermal 4{1}	10	-185	223	290	116	78	-58	151
	Thermal 5{1}	-115	-343	299	469	-150	157	-43	221
	GRT1{1}	-342	-1447	-2292	2732	-275	532	-144	616
	GRT2{1}	-155	-903	-1666	1902	-7	361	-135	386
	GRT3{1}	-618	-1742	-3934	4347	-390	908	-68	991
	GRT4{1}	-79	-440	-1704	1761	37	195	-57	206
	GRT5{1}	-204	-599	-1628	1747	-229	274	-42	360
K03 N	Gravity{1}	-89	-256	-2118	2135	-306	196	1	363
	Hydrotest{1}	-14	-72	-1159	1161	-68	33	-4	76
	Thermal 1{1}	-253	-1192	-365	1272	-1251	639	-145	1412
	Thermal 2{1}	-66	-647	261	701	-501	302	-137	601
	Thermal 3{1}	-529	-1487	-2007	2553	-1628	1260	-69	2059
	Thermal 4{1}	10	-185	223	290	-48	69	-58	102
	Thermal 5{1}	-115	-343	299	469	-454	259	-43	524
	GRT1{1}	-342	-1447	-2482	2894	-1557	835	-144	1772
	GRT2{1}	-155	-903	-1857	2071	-807	498	-135	958
	GRT3{1}	-618	-1742	-4124	4520	-1933	1456	-68	2421
	GRT4{1}	-79	-440	-1894	1946	-353	265	-57	445
	GRT5{1}	-204	-599	-1819	1926	-759	455	-42	886

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result
K03 F	Gravity{1}	-89	-256	-2156	2173	-119	91	6	150
	Hydrotest{1}	-14	-72	-1198	1200	43	-29	-1	52
	Thermal 1{1}	-253	-1192	-365	1272	-1350	648	-107	1502

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	Thermal 2{1}	-66	-647	261	701	-602	324	-108	692
	Thermal 3{1}	-529	-1487	-2007	2553	-1595	1213	-43	2004
	Thermal 4{1}	10	-185	223	290	-91	80	-47	130
	Thermal 5{1}	-115	-343	299	469	-523	288	-37	598
	GRT1{1}	-342	-1447	-2521	2927	-1469	739	-101	1648
	GRT2{1}	-155	-903	-1896	2105	-720	415	-103	838
	GRT3{1}	-618	-1742	-4163	4555	-1714	1304	-37	2154
	GRT4{1}	-79	-440	-1933	1984	-210	171	-42	274
	GRT5{1}	-204	-599	-1858	1962	-642	379	-31	746
K04	Gravity{1}	-89	-256	-2187	2203	153	-53	12	163
	Hydrotest{1}	-14	-72	-1228	1230	195	-110	2	224
	Thermal 1{1}	-253	-1192	-365	1272	-1305	624	-59	1447
	Thermal 2{1}	-66	-647	261	701	-634	341	-74	724
	Thermal 3{1}	-529	-1487	-2007	2553	-1344	1079	-10	1723
	Thermal 4{1}	10	-185	223	290	-119	95	-34	156
	Thermal 5{1}	-115	-343	299	469	-561	308	-28	640
	GRT1{1}	-342	-1447	-2552	2953	-1151	571	-48	1286
	GRT2{1}	-155	-903	-1926	2133	-481	288	-62	564
	GRT3{1}	-618	-1742	-4194	4583	-1190	1026	1	1571
	GRT4{1}	-79	-440	-1963	2014	34	42	-22	58
	GRT5{1}	-204	-599	-1888	1991	-407	254	-16	480
K05	Gravity{1}	-89	-256	-2204	2220	326	-145	15	357
	Hydrotest{1}	-14	-72	-1245	1247	292	-161	4	334
	Thermal 1{1}	-253	-1192	-365	1272	-1276	609	-29	1414
	Thermal 2{1}	-66	-647	261	701	-655	352	-52	745
	Thermal 3{1}	-529	-1487	-2007	2553	-1186	995	10	1548
	Thermal 4{1}	10	-185	223	290	-137	104	-25	174
	Thermal 5{1}	-115	-343	299	469	-584	320	-23	667
	GRT1{1}	-342	-1447	-2569	2968	-950	464	-14	1057
	GRT2{1}	-155	-903	-1943	2148	-329	207	-36	390
	GRT3{1}	-618	-1742	-4211	4599	-860	850	25	1210
	GRT4{1}	-79	-440	-1980	2030	189	-41	-10	194
	GRT5{1}	-204	-599	-1905	2007	-258	175	-7	312
K06	Gravity{1}	-89	-256	-2244	2261	803	-399	25	897
	Hydrotest{1}	-14	-72	-1286	1288	564	-306	9	641
	Thermal 1{1}	-253	-1192	-365	1272	-1198	567	52	1326
	Thermal 2{1}	-66	-647	261	701	-711	382	8	807
	Thermal 3{1}	-529	-1487	-2007	2553	-756	766	66	1078
	Thermal 4{1}	10	-185	223	290	-185	130	-2	226
	Thermal 5{1}	-115	-343	299	469	-648	354	-8	739
	GRT1{1}	-342	-1447	-2609	3003	-395	168	78	436

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GRT2{1}	-155	-903	-1984	2185	92	-17	33	100
GRT3{1}	-618	-1742	-4251	4636	47	368	91	382
GRT4{1}	-79	-440	-2021	2070	618	-269	23	675
GRT5{1}	-204	-599	-1946	2046	155	-45	17	162

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
K06 +	Gravity{1}	-89	-256	-2476	2491	803	-399	25	897
	Hydrotest{1}	-14	-72	-1517	1519	564	-306	9	641
	Thermal 1{1}	-253	-1192	-365	1272	-1198	567	52	1326
	Thermal 2{1}	-66	-647	261	701	-711	382	8	807
	Thermal 3{1}	-529	-1487	-2007	2553	-756	766	66	1078
	Thermal 4{1}	10	-185	223	290	-185	130	-2	226
	Thermal 5{1}	-115	-343	299	469	-648	354	-8	739
	GRT1{1}	-342	-1447	-2841	3206	-395	168	78	436
	GRT2{1}	-155	-903	-2215	2397	92	-17	33	100
	GRT3{1}	-618	-1742	-4483	4849	47	368	91	382
	GRT4{1}	-79	-440	-2253	2296	618	-269	23	675
	GRT5{1}	-204	-599	-2177	2267	155	-45	17	162
K06 M-	Gravity{1}	-89	-256	-2931	2943	1409	-721	36	1583
	Hydrotest{1}	-14	-72	-1972	1974	955	-514	14	1084
	Thermal 1{1}	-253	-1192	-365	1272	-1116	524	138	1240
	Thermal 2{1}	-66	-647	261	701	-769	413	70	876
	Thermal 3{1}	-529	-1487	-2007	2553	-306	527	125	622
	Thermal 4{1}	10	-185	223	290	-235	156	22	283
	Thermal 5{1}	-115	-343	299	469	-715	390	7	815
	GRT1{1}	-342	-1447	-3296	3616	293	-198	174	394
	GRT2{1}	-155	-903	-2670	2823	640	-308	106	718
	GRT3{1}	-618	-1742	-4938	5273	1104	-194	161	1132
	GRT4{1}	-79	-440	-2708	2744	1175	-565	58	1304
	GRT5{1}	-204	-599	-2632	2707	694	-331	43	770
K06 M+	Gravity{1}	-89	-256	2313	2329	1409	-721	36	1583
	Hydrotest{1}	-14	-72	2123	2125	955	-514	14	1084

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	Thermal 1{1}	-253	-1192	-596	1356	-1116	524	138	1240
	Thermal 2{1}	-66	-647	-793	1026	-769	413	70	876
	Thermal 3{1}	-529	-1487	-2444	2909	-306	527	125	622
	Thermal 4{1}	10	-185	-413	452	-235	156	22	283
	Thermal 5{1}	-115	-343	-761	843	-715	390	7	815
	GRT1{1}	-342	-1447	1717	2272	293	-198	174	394
	GRT2{1}	-155	-903	1520	1775	640	-308	106	718
	GRT3{1}	-618	-1742	-131	1853	1104	-194	161	1132
	GRT4{1}	-79	-440	1900	1952	1175	-565	58	1304
	GRT5{1}	-204	-599	1552	1676	694	-331	43	770
K07 -	Gravity{1}	-89	-256	1858	1878	942	-472	46	1054
	Hydrotest{1}	-14	-72	1668	1670	530	-288	20	603
	Thermal 1{1}	-253	-1192	-596	1356	-982	452	223	1104
	Thermal 2{1}	-66	-647	-793	1026	-591	318	133	685
	Thermal 3{1}	-529	-1487	-2444	2909	242	236	183	385
	Thermal 4{1}	10	-185	-413	452	-142	107	46	184
	Thermal 5{1}	-115	-343	-761	843	-544	299	22	622
	GRT1{1}	-342	-1447	1262	1950	-41	-20	269	273
	GRT2{1}	-155	-903	1065	1405	350	-154	179	422
	GRT3{1}	-618	-1742	-586	1939	1184	-237	230	1229
	GRT4{1}	-79	-440	1445	1513	799	-365	92	884
	GRT5{1}	-204	-599	1097	1266	397	-173	69	439

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result
-----		-----				-----			
K07 +	Gravity{1}	-89	-256	1627	1649	942	-472	46	1054
	Hydrotest{1}	-14	-72	1437	1439	530	-288	20	603
	Thermal 1{1}	-253	-1192	-596	1356	-982	452	223	1104
	Thermal 2{1}	-66	-647	-793	1026	-591	318	133	685
	Thermal 3{1}	-529	-1487	-2444	2909	242	236	183	385
	Thermal 4{1}	10	-185	-413	452	-142	107	46	184
	Thermal 5{1}	-115	-343	-761	843	-544	299	22	622
	GRT1{1}	-342	-1447	1031	1809	-41	-20	269	273

		ADS_LINE_REV0.txt							
	GRT2{1}	-155	-903	834	1239	350	-154	179	422
	GRT3{1}	-618	-1742	-817	2021	1184	-237	230	1229
	GRT4{1}	-79	-440	1214	1294	799	-365	92	884
	GRT5{1}	-204	-599	865	1072	397	-173	69	439
K08	- Gravity{1}	-89	-256	1573	1596	598	-290	56	667
	Hydrotest{1}	-14	-72	1383	1385	227	-127	25	261
	Thermal 1{1}	-253	-1192	-596	1356	-854	385	305	985
	Thermal 2{1}	-66	-647	-793	1026	-421	228	192	516
	Thermal 3{1}	-529	-1487	-2444	2909	767	-43	239	804
	Thermal 4{1}	10	-185	-413	452	-54	60	69	106
	Thermal 5{1}	-115	-343	-761	843	-381	212	37	438
	GRT1{1}	-342	-1447	977	1779	-256	95	361	453
	GRT2{1}	-155	-903	780	1203	177	-62	249	312
	GRT3{1}	-618	-1742	-871	2043	1365	-333	296	1436
	GRT4{1}	-79	-440	1160	1243	545	-230	126	604
	GRT5{1}	-204	-599	811	1029	217	-78	93	249
K08	+ Gravity{1}	-89	-256	1110	1142	598	-290	56	667
	Hydrotest{1}	-14	-72	920	923	227	-127	25	261
	Thermal 1{1}	-253	-1192	-596	1356	-854	385	305	985
	Thermal 2{1}	-66	-647	-793	1026	-421	228	192	516
	Thermal 3{1}	-529	-1487	-2444	2909	767	-43	239	804
	Thermal 4{1}	10	-185	-413	452	-54	60	69	106
	Thermal 5{1}	-115	-343	-761	843	-381	212	37	438
	GRT1{1}	-342	-1447	514	1573	-256	95	361	453
	GRT2{1}	-155	-903	317	970	177	-62	249	312
	GRT3{1}	-618	-1742	-1334	2280	1365	-333	296	1436
	GRT4{1}	-79	-440	697	828	545	-230	126	604
	GRT5{1}	-204	-599	349	722	217	-78	93	249
K10	- Gravity{1}	-89	-256	1011	1046	178	-67	75	205
	Hydrotest{1}	-14	-72	821	824	-118	57	35	135
	Thermal 1{1}	-253	-1192	-596	1356	-618	259	455	810
	Thermal 2{1}	-66	-647	-793	1026	-107	61	302	327
	Thermal 3{1}	-529	-1487	-2444	2909	1735	-558	343	1854
	Thermal 4{1}	10	-185	-413	452	110	-27	112	159
	Thermal 5{1}	-115	-343	-761	843	-79	52	63	114
	GRT1{1}	-342	-1447	414	1544	-440	192	531	716
	GRT2{1}	-155	-903	218	942	71	-6	377	384
	GRT3{1}	-618	-1742	-1433	2339	1913	-625	418	2056
	GRT4{1}	-79	-440	598	747	288	-93	187	356
	GRT5{1}	-204	-599	249	680	99	-15	139	171

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
K10 +	Gravity{1}	-89	-256	548	611	178	-67	75	205
	Hydrotest{1}	-14	-72	358	365	-118	57	35	135
	Thermal 1{1}	-253	-1192	-596	1356	-618	259	455	810
	Thermal 2{1}	-66	-647	-793	1026	-107	61	302	327
	Thermal 3{1}	-529	-1487	-2444	2909	1735	-558	343	1854
	Thermal 4{1}	10	-185	-413	452	110	-27	112	159
	Thermal 5{1}	-115	-343	-761	843	-79	52	63	114
	GRT1{1}	-342	-1447	-48	1488	-440	192	531	716
	GRT2{1}	-155	-903	-245	948	71	-6	377	384
	GRT3{1}	-618	-1742	-1896	2648	1913	-625	418	2056
	GRT4{1}	-79	-440	135	467	288	-93	187	356
	GRT5{1}	-204	-599	-214	668	99	-15	139	171
K11 -	Gravity{1}	-89	-256	503	571	84	-16	84	120
	Hydrotest{1}	-14	-72	313	321	-178	89	39	203
	Thermal 1{1}	-253	-1192	-596	1356	-511	202	524	759
	Thermal 2{1}	-66	-647	-793	1026	35	-15	352	354
	Thermal 3{1}	-529	-1487	-2444	2909	2174	-791	390	2346
	Thermal 4{1}	10	-185	-413	452	184	-66	131	236
	Thermal 5{1}	-115	-343	-761	843	57	-21	76	97
	GRT1{1}	-342	-1447	-94	1490	-427	186	607	765
	GRT2{1}	-155	-903	-290	961	119	-31	436	453
	GRT3{1}	-618	-1742	-1941	2681	2258	-808	473	2444
	GRT4{1}	-79	-440	90	456	268	-83	215	353
	GRT5{1}	-204	-599	-259	683	141	-37	159	216
K11 +	Gravity{1}	-41	-41	315	321	185	-65	60	205
	Hydrotest{1}	6	31	109	113	-218	135	28	258
	Thermal 1{1}	578	1655	-1134	2088	-807	592	667	1203
	Thermal 2{1}	411	1117	-730	1396	-603	381	397	816
	Thermal 3{1}	480	1459	-900	1780	-581	313	687	953
	Thermal 4{1}	158	402	-215	483	-183	101	123	243
	Thermal 5{1}	434	1129	-718	1407	-566	359	335	749

		ADS_LINE_REV0.txt							
K25 -	GRT1{1}	536	1614	-819	1888	-622	527	727	1092
	GRT2{1}	369	1076	-414	1211	-418	316	457	695
	GRT3{1}	438	1418	-585	1595	-396	248	747	882
	GRT4{1}	117	361	100	392	2	37	183	187
	GRT5{1}	392	1088	-403	1224	-381	295	394	623
	Gravity{1}	-41	-41	-317	322	187	-66	11	198
	Hydrotest{1}	6	31	-523	524	305	-143	0	337
	Thermal 1{1}	578	1655	-1134	2088	2049	-927	-94	2251
	Thermal 2{1}	411	1117	-730	1396	1235	-596	-64	1373
	Thermal 3{1}	480	1459	-900	1780	1685	-892	-59	1907
	Thermal 4{1}	158	402	-215	483	360	-187	-17	406
	Thermal 5{1}	434	1129	-718	1407	1242	-602	-85	1383
	GRT1{1}	536	1614	-1451	2235	2236	-993	-83	2448
	GRT2{1}	369	1076	-1046	1546	1422	-662	-53	1569
	GRT3{1}	438	1418	-1217	1919	1872	-957	-48	2103
	GRT4{1}	117	361	-532	653	547	-253	-6	602
	GRT5{1}	392	1088	-1035	1552	1429	-668	-74	1579

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
K25 +	Gravity{1}	-41	-41	858	860	187	-66	11	198
	Hydrotest{1}	6	31	656	656	305	-143	0	337
	Thermal 1{1}	578	1655	-1134	2088	2049	-927	-94	2251
	Thermal 2{1}	411	1117	-730	1396	1235	-596	-64	1373
	Thermal 3{1}	480	1459	-900	1780	1685	-892	-59	1907
	Thermal 4{1}	158	402	-215	483	360	-187	-17	406
	Thermal 5{1}	434	1129	-718	1407	1242	-602	-85	1383
	GRT1{1}	536	1614	-276	1723	2236	-993	-83	2448
	GRT2{1}	369	1076	128	1145	1422	-662	-53	1569
	GRT3{1}	438	1418	-42	1485	1872	-957	-48	2103
	GRT4{1}	117	361	642	746	547	-253	-6	602
	GRT5{1}	392	1088	140	1165	1429	-668	-74	1579
K13 N	Gravity{1}	-41	-41	761	763	-126	101	3	162

		ADS_LINE_REV0.txt							
	Hydrotest{1}	6	31	558	559	70	-18	-4	72
	Thermal 1{1}	578	1655	-1134	2088	2488	-1160	-211	2754
	Thermal 2{1}	411	1117	-730	1396	1517	-746	-135	1696
	Thermal 3{1}	480	1459	-900	1780	2033	-1077	-173	2307
	Thermal 4{1}	158	402	-215	483	443	-231	-38	501
	Thermal 5{1}	434	1129	-718	1407	1520	-750	-149	1702
	GRT1{1}	536	1614	-373	1741	2362	-1059	-207	2597
	GRT2{1}	369	1076	31	1138	1391	-645	-131	1539
	GRT3{1}	438	1418	-139	1491	1907	-976	-170	2149
	GRT4{1}	117	361	545	664	317	-131	-35	344
	GRT5{1}	392	1088	43	1157	1394	-649	-146	1544
K13 F	Gravity{1}	-41	-41	728	730	-185	130	2	227
	Hydrotest{1}	6	31	525	526	21	7	-5	23
	Thermal 1{1}	578	1655	-1134	2088	2426	-1156	-236	2698
	Thermal 2{1}	411	1117	-730	1396	1472	-740	-150	1654
	Thermal 3{1}	480	1459	-900	1780	1970	-1071	-198	2251
	Thermal 4{1}	158	402	-215	483	423	-226	-43	481
	Thermal 5{1}	434	1129	-718	1407	1473	-741	-163	1657
	GRT1{1}	536	1614	-407	1749	2241	-1026	-234	2475
	GRT2{1}	369	1076	-2	1137	1287	-609	-148	1432
	GRT3{1}	438	1418	-172	1494	1784	-941	-197	2027
	GRT4{1}	117	361	512	637	238	-96	-41	259
	GRT5{1}	392	1088	10	1156	1288	-610	-161	1434
K14 N	Gravity{1}	-41	-41	401	405	-124	69	2	142
	Hydrotest{1}	6	31	199	201	-25	15	-5	30
	Thermal 1{1}	578	1655	-1134	2088	-13	-304	-236	385
	Thermal 2{1}	411	1117	-730	1396	-174	-134	-150	266
	Thermal 3{1}	480	1459	-900	1780	-181	-365	-198	453
	Thermal 4{1}	158	402	-215	483	-169	7	-43	175
	Thermal 5{1}	434	1129	-718	1407	-191	-101	-163	271
	GRT1{1}	536	1614	-733	1852	-137	-235	-234	359
	GRT2{1}	369	1076	-329	1184	-298	-65	-148	340
	GRT3{1}	438	1418	-499	1566	-305	-295	-197	468
	GRT4{1}	117	361	186	422	-294	76	-41	306
	GRT5{1}	392	1088	-317	1199	-315	-32	-161	355

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ADS_LINE_REV0.txt
G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

K14 F	Gravity{1}	-41	-41	368	373	-93	42	2	102
	Hydrotest{1}	6	31	166	169	-15	5	-4	16
	Thermal 1{1}	578	1655	-1134	2088	-253	-180	-177	358
	Thermal 2{1}	411	1117	-730	1396	-334	-50	-112	355
	Thermal 3{1}	480	1459	-900	1780	-386	-264	-144	489
	Thermal 4{1}	158	402	-215	483	-223	35	-30	228
	Thermal 5{1}	434	1129	-718	1407	-351	-16	-126	373
	GRT1{1}	536	1614	-766	1865	-346	-138	-175	411
	GRT2{1}	369	1076	-362	1194	-426	-9	-109	440
	GRT3{1}	438	1418	-532	1577	-478	-222	-142	546
	GRT4{1}	117	361	153	409	-316	77	-28	327
	GRT5{1}	392	1088	-350	1208	-443	26	-123	461
K21	Gravity{1}	-41	-41	-30	66	140	-153	11	208
	Hydrotest{1}	6	31	-232	234	-61	43	25	78
	Thermal 1{1}	578	1655	-1134	2088	-1813	1128	938	2332
	Thermal 2{1}	411	1117	-730	1396	-1337	791	612	1670
	Thermal 3{1}	480	1459	-900	1780	-1623	774	880	2002
	Thermal 4{1}	158	402	-215	483	-520	284	217	630
	Thermal 5{1}	434	1129	-718	1407	-1338	812	580	1669
	GRT1{1}	536	1614	-1164	2061	-1673	975	949	2157
	GRT2{1}	369	1076	-759	1368	-1197	638	624	1493
	GRT3{1}	438	1418	-929	1751	-1483	621	891	1838
	GRT4{1}	117	361	-245	451	-380	131	228	462
	GRT5{1}	392	1088	-748	1377	-1198	659	592	1490
K22	Gravity{1}	-41	-41	-60	84	137	-151	12	204
	Hydrotest{1}	6	31	-262	264	-77	57	26	100
	Thermal 1{1}	578	1655	-1134	2088	-1890	1193	993	2446
	Thermal 2{1}	411	1117	-730	1396	-1387	833	648	1742
	Thermal 3{1}	480	1459	-900	1780	-1684	826	931	2094
	Thermal 4{1}	158	402	-215	483	-534	296	229	652
	Thermal 5{1}	434	1129	-718	1407	-1387	853	615	1741
	GRT1{1}	536	1614	-1194	2078	-1753	1043	1005	2274
	GRT2{1}	369	1076	-789	1385	-1250	682	660	1569
	GRT3{1}	438	1418	-960	1767	-1547	675	943	1933
	GRT4{1}	117	361	-275	468	-397	146	241	487
	GRT5{1}	392	1088	-778	1394	-1250	703	627	1565

		ADS_LINE_REV0.txt							
K23	Gravity{1}	-41	-41	-128	141	126	-142	13	190
	Hydrotest{1}	6	31	-330	332	-111	86	28	143
	Thermal 1{1}	578	1655	-1134	2088	-2020	1303	1086	2638
	Thermal 2{1}	411	1117	-730	1396	-1470	903	709	1865
	Thermal 3{1}	480	1459	-900	1780	-1787	912	1016	2249
	Thermal 4{1}	158	402	-215	483	-559	317	249	689
	Thermal 5{1}	434	1129	-718	1407	-1469	923	674	1861
	GRT1{1}	536	1614	-1262	2118	-1894	1161	1099	2479
	GRT2{1}	369	1076	-858	1425	-1344	762	721	1705
	GRT3{1}	438	1418	-1028	1805	-1661	771	1029	2101
	GRT4{1}	117	361	-344	512	-433	175	262	536
	GRT5{1}	392	1088	-846	1433	-1343	781	687	1699

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GLOBAL FORCES & MOMENTS

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result

*** Segment K end ***

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BEAM FORCES & MOMENTS

Beam ID	Load combination	Point name	FORCES (N)			MOMENTS (N.m)		
			Axial	Y-Shear	Z-Shear	Torsion	Y-Y Mom.	Z-Z Mom.

B06 M	Gravity{1}	B06 M	785	0	0	0	0	0
		B06 D	-785	0	0	0	0	0
	Hydrotest{1}	B06 M	785	0	0	0	0	0
		B06 D	-785	0	0	0	0	0
	Thermal 1{1}	B06 M	0	0	0	0	0	0
		B06 D	0	0	0	0	0	0
	Thermal 2{1}	B06 M	0	0	0	0	0	0
		B06 D	0	0	0	0	0	0

		ADS_LINE_REV0.txt					
	Thermal 3{1}	B06 D	0	0	0	0	0
		B06 M	0	0	0	0	0
	Thermal 4{1}	B06 D	0	0	0	0	0
		B06 M	0	0	0	0	0
	Thermal 5{1}	B06 D	0	0	0	0	0
		B06 M	0	0	0	0	0
	GRT1{1}	B06 D	0	0	0	0	0
		B06 M	785	0	0	0	0
	GRT2{1}	B06 D	-785	0	0	0	0
		B06 M	785	0	0	0	0
	GRT3{1}	B06 D	-785	0	0	0	0
		B06 M	785	0	0	0	0
	GRT4{1}	B06 D	-785	0	0	0	0
		B06 M	785	0	0	0	0
	GRT5{1}	B06 D	-785	0	0	0	0
		B06 M	785	0	0	0	0
E03 M	Gravity{1}	E03 M	785	0	0	0	0
		E03 D	-785	0	0	0	0
	Hydrotest{1}	E03 M	785	0	0	0	0
		E03 D	-785	0	0	0	0
	Thermal 1{1}	E03 M	0	0	0	0	0
		E03 D	0	0	0	0	0
	Thermal 2{1}	E03 M	0	0	0	0	0
		E03 D	0	0	0	0	0
	Thermal 3{1}	E03 M	0	0	0	0	0
		E03 D	0	0	0	0	0
	Thermal 4{1}	E03 M	0	0	0	0	0
		E03 D	0	0	0	0	0
	Thermal 5{1}	E03 M	0	0	0	0	0
		E03 D	0	0	0	0	0
	GRT1{1}	E03 M	785	0	0	0	0
		E03 D	-785	0	0	0	0
	GRT2{1}	E03 M	785	0	0	0	0
		E03 D	-785	0	0	0	0
	GRT3{1}	E03 M	785	0	0	0	0
		E03 D	-785	0	0	0	0
	GRT4{1}	E03 M	785	0	0	0	0
		E03 D	-785	0	0	0	0
	GRT5{1}	E03 M	785	0	0	0	0
		E03 D	-785	0	0	0	0

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B E A M F O R C E S & M O M E N T S

Beam ID	Load combination	Point name	FORCES (N)			MOMENTS (N.m)		
			Axial	Y-Shear	Z-Shear	Torsion	Y-Y Mom.	Z-Z Mom.
B15 M	Gravity{1}	B15 M	785	0	0	0	0	0
		B15 D	-785	0	0	0	0	0
	Hydrotest{1}	B15 M	785	0	0	0	0	0
		B15 D	-785	0	0	0	0	0
	Thermal 1{1}	B15 M	0	0	0	0	0	0
		B15 D	0	0	0	0	0	0
	Thermal 2{1}	B15 M	0	0	0	0	0	0
		B15 D	0	0	0	0	0	0
	Thermal 3{1}	B15 M	0	0	0	0	0	0
		B15 D	0	0	0	0	0	0
	Thermal 4{1}	B15 M	0	0	0	0	0	0
		B15 D	0	0	0	0	0	0
	Thermal 5{1}	B15 M	0	0	0	0	0	0
		B15 D	0	0	0	0	0	0
	GRT1{1}	B15 M	785	0	0	0	0	0
		B15 D	-785	0	0	0	0	0
	GRT2{1}	B15 M	785	0	0	0	0	0
		B15 D	-785	0	0	0	0	0
	GRT3{1}	B15 M	785	0	0	0	0	0
		B15 D	-785	0	0	0	0	0
	GRT4{1}	B15 M	785	0	0	0	0	0
		B15 D	-785	0	0	0	0	0
	GRT5{1}	B15 M	785	0	0	0	0	0
		B15 D	-785	0	0	0	0	0
D04 M	Gravity{1}	D04 M	785	0	0	0	0	0
		D04 D	-785	0	0	0	0	0
	Hydrotest{1}	D04 M	785	0	0	0	0	0
		D04 D	-785	0	0	0	0	0
	Thermal 1{1}	D04 M	0	0	0	0	0	0
		D04 D	0	0	0	0	0	0
	Thermal 2{1}	D04 M	0	0	0	0	0	0
		D04 D	0	0	0	0	0	0

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Thermal 3{1}	D04 M	0	0	0	0	0	0
	D04 D	0	0	0	0	0	0
Thermal 4{1}	D04 M	0	0	0	0	0	0
	D04 D	0	0	0	0	0	0
Thermal 5{1}	D04 M	0	0	0	0	0	0
	D04 D	0	0	0	0	0	0
GRT1{1}	D04 M	785	0	0	0	0	0
	D04 D	-785	0	0	0	0	0
GRT2{1}	D04 M	785	0	0	0	0	0
	D04 D	-785	0	0	0	0	0
GRT3{1}	D04 M	785	0	0	0	0	0
	D04 D	-785	0	0	0	0	0
GRT4{1}	D04 M	785	0	0	0	0	0
	D04 D	-785	0	0	0	0	0
GRT5{1}	D04 M	785	0	0	0	0	0
	D04 D	-785	0	0	0	0	0

□

ADS_LINE_REV0

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B E A M F O R C E S & M O M E N T S

Beam ID	Load combination	Point name	FORCES (N)			MOMENTS (N.m)		
			Axial	Y-Shear	Z-Shear	Torsion	Y-Y Mom.	Z-Z Mom.
C03 M	Gravity{1}	C03 M	1353	0	0	0	0	0
		C03 D	-1353	0	0	0	0	0
	Hydrotest{1}	C03 M	1353	0	0	0	0	0
		C03 D	-1353	0	0	0	0	0
	Thermal 1{1}	C03 M	0	0	0	0	0	0
		C03 D	0	0	0	0	0	0
	Thermal 2{1}	C03 M	0	0	0	0	0	0
		C03 D	0	0	0	0	0	0
	Thermal 3{1}	C03 M	0	0	0	0	0	0
		C03 D	0	0	0	0	0	0
	Thermal 4{1}	C03 M	0	0	0	0	0	0
		C03 D	0	0	0	0	0	0
	Thermal 5{1}	C03 M	0	0	0	0	0	0
		C03 D	0	0	0	0	0	0
GRT1{1}		C03 M	1353	0	0	0	0	0

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		C03 D	-1353	0	0	0	0	0
	GRT2{1}	C03 M	1353	0	0	0	0	0
		C03 D	-1353	0	0	0	0	0
	GRT3{1}	C03 M	1353	0	0	0	0	0
		C03 D	-1353	0	0	0	0	0
	GRT4{1}	C03 M	1353	0	0	0	0	0
		C03 D	-1353	0	0	0	0	0
	GRT5{1}	C03 M	1353	0	0	0	0	0
		C03 D	-1353	0	0	0	0	0
K06 M	Gravity{1}	K06 M	1353	0	0	0	0	0
		K06 D	-1353	0	0	0	0	0
	Hydrotest{1}	K06 M	1353	0	0	0	0	0
		K06 D	-1353	0	0	0	0	0
	Thermal 1{1}	K06 M	0	0	0	0	0	0
		K06 D	0	0	0	0	0	0
	Thermal 2{1}	K06 M	0	0	0	0	0	0
		K06 D	0	0	0	0	0	0
	Thermal 3{1}	K06 M	0	0	0	0	0	0
		K06 D	0	0	0	0	0	0
	Thermal 4{1}	K06 M	0	0	0	0	0	0
		K06 D	0	0	0	0	0	0
	Thermal 5{1}	K06 M	0	0	0	0	0	0
		K06 D	0	0	0	0	0	0
	GRT1{1}	K06 M	1353	0	0	0	0	0
		K06 D	-1353	0	0	0	0	0
	GRT2{1}	K06 M	1353	0	0	0	0	0
		K06 D	-1353	0	0	0	0	0
	GRT3{1}	K06 M	1353	0	0	0	0	0
		K06 D	-1353	0	0	0	0	0
	GRT4{1}	K06 M	1353	0	0	0	0	0
		K06 D	-1353	0	0	0	0	0
	GRT5{1}	K06 M	1353	0	0	0	0	0
		K06 D	-1353	0	0	0	0	0

□

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B E A M F O R C E S & M O M E N T S

Beam	Load	Point	ADS_LINE_REV0.txt FORCES (N)			MOMENTS (N.m)		
ID	combination	name	Axial	Y-Shear	Z-Shear	Torsion	Y-Y Mom.	Z-Z Mom.
-----			-----			-----		
F03 M	Gravity{1}	F03 M	785	0	0	0	0	0
		F03 D	-785	0	0	0	0	0
	Hydrotest{1}	F03 M	785	0	0	0	0	0
		F03 D	-785	0	0	0	0	0
	Thermal 1{1}	F03 M	0	0	0	0	0	0
		F03 D	0	0	0	0	0	0
	Thermal 2{1}	F03 M	0	0	0	0	0	0
		F03 D	0	0	0	0	0	0
	Thermal 3{1}	F03 M	0	0	0	0	0	0
		F03 D	0	0	0	0	0	0
	Thermal 4{1}	F03 M	0	0	0	0	0	0
		F03 D	0	0	0	0	0	0
	Thermal 5{1}	F03 M	0	0	0	0	0	0
		F03 D	0	0	0	0	0	0
	GRT1{1}	F03 M	785	0	0	0	0	0
		F03 D	-785	0	0	0	0	0
	GRT2{1}	F03 M	785	0	0	0	0	0
		F03 D	-785	0	0	0	0	0
	GRT3{1}	F03 M	785	0	0	0	0	0
		F03 D	-785	0	0	0	0	0
	GRT4{1}	F03 M	785	0	0	0	0	0
		F03 D	-785	0	0	0	0	0
	GRT5{1}	F03 M	785	0	0	0	0	0
		F03 D	-785	0	0	0	0	0

0

ADS_LINE_REV0

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RESULT PAGE 112

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal		Shear	Principal		Total	
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

*** Segment A begin ***

K01	SIFI= 1.00	SIFO= 1.00							
	Gravity{1}		0	1	-1	0	1	-1	1 117
	Hydrotest{1}		1	0	0	0	1	0	1 291
	Thermal 1{1}		0	3	-2	1	3	-3	3 169

ADS_LINE_REV0.txt

	Thermal 2{1}	0	1	-2	1	1	-2	2	33
	Thermal 3{1}	0	5	-2	1	6	-3	6	152
	Thermal 4{1}	0	1	-1	0	1	-1	1	49
	Thermal 5{1}	0	0	-1	0	0	-1	1	3
	GRT1{1}	0	3	-2	1	4	-3	4	156
	GRT2{1}	0	1	-2	1	2	-2	2	2
	GRT3{1}	0	6	-3	1	7	-3	7	146
	GRT4{1}	0	1	-1	0	1	-1	1	348
	GRT5{1}	0	1	-1	1	1	-2	2	324
A00	SIFI= 1.20 SIFO= 1.20 Gravity{1}	0	0	0	0	0	0	0	297
	Hydrotest{1}	1	0	-1	0	1	-1	1	291
	Thermal 1{1}	0	1	0	1	1	-1	2	169
	Thermal 2{1}	0	0	-1	1	1	-1	1	33
	Thermal 3{1}	0	2	1	1	3	-1	3	152
	Thermal 4{1}	0	0	0	0	0	0	1	49
	Thermal 5{1}	0	0	0	0	0	-1	1	3
	GRT1{1}	0	1	0	1	2	-2	2	156
	GRT2{1}	0	0	-1	1	1	-1	2	2
	GRT3{1}	0	2	1	1	3	-1	3	146
	GRT4{1}	0	0	-1	0	0	-1	1	348
	GRT5{1}	0	0	-1	1	0	-1	1	324
A05	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	2	0	0	2	-1	2	243
	Hydrotest{1}	1	2	2	0	2	1	2	249
	Thermal 1{1}	0	3	-3	1	3	-4	4	11
	Thermal 2{1}	0	2	-2	1	2	-2	2	147
	Thermal 3{1}	0	3	-7	1	4	-7	7	28
	Thermal 4{1}	0	1	-1	0	1	-1	1	131
	Thermal 5{1}	0	1	0	0	1	-1	1	177
	GRT1{1}	0	4	-3	1	5	-4	5	204
	GRT2{1}	0	3	-1	1	3	-2	3	178
	GRT3{1}	0	5	-7	1	5	-7	7	34
	GRT4{1}	0	2	0	0	2	-1	2	192
	GRT5{1}	0	3	-1	1	3	-1	3	216
A16	- SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	1	1	0	1	0	1	63
	Hydrotest{1}	1	2	2	0	2	1	2	69
	Thermal 1{1}	0	0	0	1	1	-1	2	191
	Thermal 2{1}	0	0	0	1	1	0	1	327
	Thermal 3{1}	0	-2	-2	1	1	-2	3	208
	Thermal 4{1}	0	0	0	0	0	0	0	311

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RESULT PAGE 113

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total				
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc	
-----	-----	-----	-----	-----	-----	-----	-----	-----	---	
	Thermal 5{1}	0	0	0	0	1	0	1	357	
	GRT1{1}	0	1	1	1	2	-1	2	24	
	GRT2{1}	0	1	1	1	2	0	2	358	
	GRT3{1}	0	-1	-1	1	1	-2	3	214	
	GRT4{1}	0	1	1	0	1	0	1	12	
	GRT5{1}	0	1	1	1	2	0	2	36	
A16	+ SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	1	1	0	1	0	1	270
	Hydrotest{1}		5	3	3	0	5	3	4	270
	Thermal 1{1}		0	0	0	0	0	0	0	270
	Thermal 2{1}		0	0	0	0	0	0	0	270
	Thermal 3{1}		0	0	0	0	0	0	0	270
	Thermal 4{1}		0	0	0	0	0	0	0	270
	Thermal 5{1}		0	0	0	0	0	0	0	270
	GRT1{1}		0	1	1	0	1	0	1	270
	GRT2{1}		0	1	1	0	1	0	1	270
	GRT3{1}		0	1	1	0	1	0	1	270
	GRT4{1}		0	1	1	0	1	0	1	270
	GRT5{1}		0	1	1	0	1	0	1	270
A02	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	0	0	0	0	0	0	270
	Hydrotest{1}		5	2	2	0	5	2	4	270
	Thermal 1{1}		0	0	0	0	0	0	0	270
	Thermal 2{1}		0	0	0	0	0	0	0	270
	Thermal 3{1}		0	0	0	0	0	0	0	270
	Thermal 4{1}		0	0	0	0	0	0	0	270
	Thermal 5{1}		0	0	0	0	0	0	0	270
	GRT1{1}		0	0	0	0	0	0	0	270
	GRT2{1}		0	0	0	0	0	0	0	270
	GRT3{1}		0	0	0	0	0	0	0	270
	GRT4{1}		0	0	0	0	0	0	0	270
	GRT5{1}		0	0	0	0	0	0	0	270

*** Segment A end ***

*** Segment B begin ***

Point	Load	Hoop Stress	Longitudinal Max	Longitudinal Min	Shear Stress	Principal Max	Principal Min	Total Stress	Loc
K01	SIFI= 1.00 Gravity{1}	0	1	-1	0	1	-1	1	243
	Hydrotest{1}	1	0	0	0	1	0	1	69
	Thermal 1{1}	0	3	-2	1	3	-3	3	191
	Thermal 2{1}	0	1	-2	1	1	-2	2	327
	Thermal 3{1}	0	5	-2	1	6	-3	6	208
	Thermal 4{1}	0	1	-1	0	1	-1	1	311
	Thermal 5{1}	0	0	-1	0	0	-1	1	357
	GRT1{1}	0	3	-2	1	4	-3	4	204
	GRT2{1}	0	1	-2	1	2	-2	2	358
	GRT3{1}	0	6	-3	1	7	-3	7	214
	GRT4{1}	0	1	-1	0	1	-1	1	12
	GRT5{1}	0	1	-1	1	1	-2	2	36

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point name	Load combination	Hoop Stress	Longitudinal Max	Longitudinal Min	Shear Stress	Principal Max	Principal Min	Total Stress	Loc
B30	SIFI= 1.00 Gravity{1}	0	4	-2	0	4	-2	4	243
	Hydrotest{1}	1	1	0	0	1	0	1	69
	Thermal 1{1}	0	8	-8	1	9	-8	9	191
	Thermal 2{1}	0	5	-6	1	5	-6	6	327
	Thermal 3{1}	0	15	-12	1	15	-12	15	208
	Thermal 4{1}	0	2	-3	0	2	-3	3	311
	Thermal 5{1}	0	2	-3	0	2	-3	3	357
	GRT1{1}	0	11	-9	1	12	-9	12	204
	GRT2{1}	0	6	-5	1	6	-5	6	178
	GRT3{1}	0	18	-13	1	18	-13	18	214
	GRT4{1}	0	4	-2	0	4	-3	4	192
	GRT5{1}	0	5	-4	1	5	-4	5	216
K02	- SIFI= 1.30 Gravity{1}	0	17	-13	0	17	-13	17	9
	Hydrotest{1}	1	4	-2	0	5	-2	4	351

ADS_LINE_REV0.txt									
Thermal 1{1}	0	26	-26	1	26	-26	26	52	
Thermal 2{1}	0	14	-15	1	14	-15	15	292	
Thermal 3{1}	0	56	-53	1	56	-53	56	43	
Thermal 4{1}	0	9	-9	0	9	-9	9	327	
Thermal 5{1}	0	9	-9	0	9	-9	9	249	
GRT1{1}	0	40	-37	1	41	-37	41	37	
GRT2{1}	0	20	-17	1	20	-17	20	59	
GRT3{1}	0	71	-64	1	71	-64	71	36	
GRT4{1}	0	12	-9	0	12	-9	12	46	
GRT5{1}	0	22	-20	1	22	-20	22	31	
K02 + SIFI= 1.30 SIFO= 1.30									
Gravity{1}	0	56	-57	5	57	-57	58	3	
Hydrotest{1}	1	15	-15	3	16	-15	16	0	
Thermal 1{1}	0	32	-36	5	33	-37	38	324	
Thermal 2{1}	0	29	-32	4	30	-32	33	235	
Thermal 3{1}	0	113	-119	6	114	-119	119	0	
Thermal 4{1}	0	18	-19	2	19	-20	20	216	
Thermal 5{1}	0	23	-24	4	24	-25	25	194	
GRT1{1}	0	83	-88	0	83	-88	88	348	
GRT2{1}	0	43	-47	1	43	-47	47	331	
GRT3{1}	0	169	-175	1	169	-175	175	1	
GRT4{1}	0	41	-43	3	42	-43	43	348	
GRT5{1}	0	33	-35	1	33	-35	35	355	
B14 SIFI= 1.00 SIFO= 1.00									
Gravity{1}	0	36	-37	5	37	-37	38	358	
Hydrotest{1}	1	9	-8	3	10	-9	10	0	
Thermal 1{1}	0	25	-29	5	26	-30	30	35	
Thermal 2{1}	0	19	-22	4	20	-23	23	120	
Thermal 3{1}	0	81	-86	6	81	-87	87	1	
Thermal 4{1}	0	12	-13	2	12	-13	13	142	
Thermal 5{1}	0	15	-16	4	16	-17	17	161	
GRT1{1}	0	57	-62	0	57	-62	62	14	
GRT2{1}	0	29	-32	1	29	-33	33	32	

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max Min	Stress	Max Min	Stress	Loc	

ADS_LINE_REV0.txt

	GRT3{1}	0	117	-123	1	117	-123	123 0
	GRT4{1}	0	26	-28	3	27	-28	28 13
	GRT5{1}	0	21	-23	1	21	-23	23 9
B15	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	52	-52	5	52	-53	53 173
	Hydrotest{1}	1	31	-30	3	31	-31	31 178
	Thermal 1{1}	0	28	-32	5	29	-33	33 30
	Thermal 2{1}	0	23	-25	4	23	-26	26 9
	Thermal 3{1}	0	29	-34	6	30	-35	36 60
	Thermal 4{1}	0	9	-10	2	10	-10	11 346
	Thermal 5{1}	0	24	-25	4	24	-26	26 24
	GRT1{1}	0	31	-36	0	31	-36	36 141
	GRT2{1}	0	28	-31	1	28	-31	31 160
	GRT3{1}	0	46	-52	1	46	-52	52 137
	GRT4{1}	0	41	-43	3	42	-43	43 175
	GRT5{1}	0	33	-35	1	33	-35	35 151
B16	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	34	-34	3	34	-35	35 170
	Hydrotest{1}	75	41	10	2	75	10	70 176
	Thermal 1{1}	0	18	-20	3	18	-21	21 30
	Thermal 2{1}	0	15	-16	3	15	-17	17 355
	Thermal 3{1}	0	26	-29	4	27	-29	30 116
	Thermal 4{1}	0	7	-8	1	7	-8	8 324
	Thermal 5{1}	0	17	-18	2	17	-18	18 27
	GRT1{1}	0	22	-24	0	22	-24	24 138
	GRT2{1}	0	18	-20	1	18	-20	20 166
	GRT3{1}	0	53	-57	0	53	-57	57 146
	GRT4{1}	0	27	-28	2	27	-28	28 176
	GRT5{1}	0	22	-23	1	22	-23	24 142
B04	- SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	9	-10	3	11	-11	11 333
	Hydrotest{1}	75	34	17	2	75	17	68 79
	Thermal 1{1}	0	16	-19	3	17	-19	19 58
	Thermal 2{1}	0	7	-9	3	8	-10	10 141
	Thermal 3{1}	0	54	-57	4	54	-57	57 307
	Thermal 4{1}	0	8	-8	1	8	-8	8 189
	Thermal 5{1}	0	11	-12	2	11	-12	12 31
	GRT1{1}	0	19	-22	0	19	-22	22 30
	GRT2{1}	0	2	-3	1	2	-4	4 14
	GRT3{1}	0	63	-66	0	63	-66	66 310
	GRT4{1}	0	5	-6	2	6	-7	7 279

		ADS_LINE_REV0.txt						
GRT5{1}		0	18	-19	1	18	-19	19 4
B04 + SIFI= 1.00	SIFO= 1.00							
Gravity{1}		0	6	-6	4	8	-8	10 220
Hydrotest{1}		75	37	14	5	75	14	69 92
Thermal 1{1}		0	17	-20	7	20	-22	24 104
Thermal 2{1}		0	14	-16	2	14	-16	16 92
Thermal 3{1}		0	4	-7	4	7	-9	10 153

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal		Shear	Principal		Total	
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc

	Thermal 4{1}	0	4	-5	0	4	-5	5	74
	Thermal 5{1}	0	15	-16	2	15	-16	16	77
	GRT1{1}	0	16	-18	12	22	-24	27	123
	GRT2{1}	0	11	-13	6	14	-15	17	117
	GRT3{1}	0	9	-11	0	9	-11	11	188
	GRT4{1}	0	3	-4	4	6	-6	8	170
	GRT5{1}	0	11	-12	6	13	-14	16	96
B21	SIFI= 1.00								
	Gravity{1}	0	8	-8	4	10	-10	11	330
	Hydrotest{1}	75	45	6	5	75	5	72	359
	Thermal 1{1}	0	17	-19	7	20	-22	23	325
	Thermal 2{1}	0	11	-12	2	11	-13	13	321
	Thermal 3{1}	0	10	-13	4	12	-14	15	211
	Thermal 4{1}	0	2	-3	0	2	-3	3	313
	Thermal 5{1}	0	10	-11	2	11	-11	12	18
	GRT1{1}	0	25	-28	12	30	-32	34	326
	GRT2{1}	0	19	-21	6	21	-23	24	325
	GRT3{1}	0	9	-12	0	9	-12	12	256
	GRT4{1}	0	10	-11	4	11	-12	13	327
	GRT5{1}	0	17	-18	6	19	-20	21	357
B22	SIFI= 1.00								
	Gravity{1}	0	9	-9	4	11	-11	12	334
	Hydrotest{1}	75	46	5	5	75	4	73	359
	Thermal 1{1}	0	17	-19	7	20	-22	23	322
	Thermal 2{1}	0	11	-13	2	11	-13	13	317

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	Thermal 3{1}	0	12	-14	4	13	-15	16	209
	Thermal 4{1}	0	2	-3	0	2	-3	3	302
	Thermal 5{1}	0	10	-11	2	10	-11	11	19
	GRT1{1}	0	26	-29	12	30	-33	35	326
	GRT2{1}	0	20	-22	6	22	-23	24	325
	GRT3{1}	0	9	-12	0	9	-12	12	255
	GRT4{1}	0	11	-12	4	12	-13	14	328
	GRT5{1}	0	18	-18	6	20	-20	21	358
B20	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	8	-8	4	10	-10	11	335
	Hydrotest{1}	75	43	8	5	75	8	71	359
	Thermal 1{1}	0	19	-21	7	21	-24	25	304
	Thermal 2{1}	0	13	-15	2	14	-16	16	284
	Thermal 3{1}	0	22	-25	4	23	-25	26	197
	Thermal 4{1}	0	4	-5	0	5	-5	5	253
	Thermal 5{1}	0	6	-6	2	6	-7	7	30
	GRT1{1}	0	26	-29	12	30	-33	35	313
	GRT2{1}	0	20	-22	6	21	-23	24	302
	GRT3{1}	0	17	-20	0	17	-20	20	215
	GRT4{1}	0	10	-11	4	11	-12	12	306
	GRT5{1}	0	12	-13	6	15	-16	17	358
B05	- SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	8	-8	4	10	-10	11	69

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
								Loc
	Hydrotest{1}	75	26	25	5	75	25	66 69
	Thermal 1{1}	0	23	-25	7	25	-27	29 342
	Thermal 2{1}	0	20	-22	2	21	-23	23 7
	Thermal 3{1}	0	36	-38	4	36	-39	39 77
	Thermal 4{1}	0	9	-10	0	9	-10	10 31
	Thermal 5{1}	0	2	-3	2	4	-4	5 178
	GRT1{1}	0	24	-27	12	29	-31	34 0
	GRT2{1}	0	25	-27	6	27	-29	29 23

		ADS_LINE_REV0.txt						
	GRT3{1}	0	44	-46	0	44	-46	46 76
	GRT4{1}	0	16	-17	4	17	-18	18 49
	GRT5{1}	0	7	-8	6	11	-11	13 90
B05	+ SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	12	-12	11	18	-18	23 91
	Hydrotest{1}	75	31	20	4	75	20	67 275
	Thermal 1{1}	0	18	-20	2	18	-20	20 274
	Thermal 2{1}	0	11	-13	0	11	-13	13 274
	Thermal 3{1}	0	7	-10	0	7	-10	10 60
	Thermal 4{1}	0	2	-3	0	2	-3	3 227
	Thermal 5{1}	0	14	-15	1	14	-15	15 277
	GRT1{1}	0	6	-8	13	17	-18	24 279
	GRT2{1}	0	0	-1	11	11	-12	19 328
	GRT3{1}	0	18	-20	11	23	-25	28 78
	GRT4{1}	0	10	-10	11	17	-17	21 101
	GRT5{1}	0	3	-4	10	12	-13	18 295
B06	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	30	-30	11	34	-34	36 180
	Hydrotest{1}	75	46	4	4	75	4	73 181
	Thermal 1{1}	0	7	-9	2	8	-10	10 327
	Thermal 2{1}	0	4	-6	0	4	-6	6 312
	Thermal 3{1}	0	17	-19	0	17	-19	19 195
	Thermal 4{1}	0	1	-1	0	1	-1	1 183
	Thermal 5{1}	0	6	-7	1	7	-7	7 348
	GRT1{1}	0	22	-25	13	29	-30	34 190
	GRT2{1}	0	26	-27	11	30	-32	34 188
	GRT3{1}	0	46	-49	11	49	-51	52 185
	GRT4{1}	0	31	-31	11	34	-35	36 180
	GRT5{1}	0	23	-24	10	27	-28	30 183
B17	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	28	-28	11	32	-32	34 180
	Hydrotest{1}	75	51	-1	4	75	-1	75 180
	Thermal 1{1}	0	10	-12	2	10	-12	12 228
	Thermal 2{1}	0	9	-11	0	9	-11	11 229
	Thermal 3{1}	0	29	-31	0	29	-31	31 190
	Thermal 4{1}	0	4	-5	0	4	-5	5 207
	Thermal 5{1}	0	3	-4	1	3	-4	4 202
	GRT1{1}	0	35	-37	13	39	-41	43 193
	GRT2{1}	0	34	-36	11	38	-39	41 192
	GRT3{1}	0	56	-58	11	58	-60	61 185
	GRT4{1}	0	32	-32	11	35	-35	37 183

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
B08	-	GRT5{1}	0	30	-31	10	34	-34	36	182
	-	SIFI= 1.00 Gravity{1}	0	5	-5	11	14	-14	20	93
		Hydrotest{1}	75	34	17	4	75	17	68	90
		Thermal 1{1}	0	21	-23	2	21	-23	23	60
		Thermal 2{1}	0	18	-19	0	18	-19	19	55
		Thermal 3{1}	0	38	-41	0	38	-41	41	82
		Thermal 4{1}	0	8	-8	0	8	-8	8	61
		Thermal 5{1}	0	11	-12	1	11	-12	12	85
		GRT1{1}	0	26	-28	13	31	-33	36	66
		GRT2{1}	0	22	-24	11	27	-28	31	63
		GRT3{1}	0	44	-46	11	46	-48	50	84
		GRT4{1}	0	12	-13	11	19	-19	23	74
		GRT5{1}	0	16	-17	10	21	-22	25	87
B08	+	SIFI= 1.00 Gravity{1}	0	6	-6	1	6	-6	6	277
		Hydrotest{1}	75	30	21	1	75	21	67	80
		Thermal 1{1}	0	11	-13	5	13	-15	16	90
		Thermal 2{1}	0	7	-8	2	8	-9	9	99
		Thermal 3{1}	0	28	-31	3	29	-31	31	75
		Thermal 4{1}	0	4	-5	0	4	-5	5	114
		Thermal 5{1}	0	10	-12	4	12	-13	14	16
		GRT1{1}	0	17	-19	6	19	-20	21	92
		GRT2{1}	0	13	-14	3	14	-15	15	98
		GRT3{1}	0	34	-36	4	34	-37	37	78
		GRT4{1}	0	10	-10	1	10	-10	10	104
		GRT5{1}	0	13	-14	5	14	-15	16	41
	B09	-	SIFI= 1.00 Gravity{1}	0	2	-2	1	2	-2	2
		Hydrotest{1}	75	28	22	1	75	22	66	193
		Thermal 1{1}	0	95	-97	5	96	-97	98	180
		Thermal 2{1}	0	59	-60	2	59	-61	61	180
		Thermal 3{1}	0	86	-88	3	86	-89	89	181

ADS_LINE_REV0.txt									
Thermal 4{1}	0	17	-17	0	17	-17	17	177	
Thermal 5{1}	0	55	-56	4	55	-56	56	184	
GRT1{1}	0	94	-95	6	94	-96	96	181	
GRT2{1}	0	57	-59	3	58	-59	59	181	
GRT3{1}	0	84	-87	4	85	-87	87	182	
GRT4{1}	0	15	-16	1	15	-16	16	179	
GRT5{1}	0	53	-54	5	53	-54	55	185	
B09 + SIFI= 1.00 SIFO= 1.00									
Gravity{1}	0	2	-2	1	2	-2	2	160	
Hydrotest{1}	75	28	22	1	75	22	66	193	
Thermal 1{1}	0	95	-97	5	96	-97	98	180	
Thermal 2{1}	0	59	-60	2	59	-61	61	180	
Thermal 3{1}	0	86	-88	3	86	-89	89	181	
Thermal 4{1}	0	17	-17	0	17	-17	17	177	
Thermal 5{1}	0	55	-56	4	55	-56	56	184	

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc

	GRT1{1}	0	94	-95	6	94	-96	96	181
	GRT2{1}	0	57	-59	3	58	-59	59	181
	GRT3{1}	0	84	-87	4	85	-87	87	182
	GRT4{1}	0	15	-16	1	15	-16	16	179
	GRT5{1}	0	53	-54	5	53	-54	55	185
B10 N-	SIFI= 1.00 Gravity{1}	0	5	-5	1	5	-5	5	188
	Hydrotest{1}	75	26	24	1	75	24	66	57
	Thermal 1{1}	0	103	-105	5	103	-105	105	180
	Thermal 2{1}	0	64	-65	2	64	-65	65	180
	Thermal 3{1}	0	92	-94	3	92	-94	94	178
	Thermal 4{1}	0	18	-19	0	18	-19	19	183
	Thermal 5{1}	0	59	-60	4	60	-61	61	175
	GRT1{1}	0	98	-100	6	99	-100	101	179
	GRT2{1}	0	59	-60	3	59	-60	61	179
	GRT3{1}	0	87	-89	4	87	-89	89	178
	GRT4{1}	0	13	-14	1	13	-14	14	182

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GRT5{1}	0	55	-56	5	55	-56	56	174
B10 N+ SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	5	-5	1	5	-5	5	8
Hydrotest{1}	75	26	24	1	75	24	66	237
Thermal 1{1}	0	103	-105	5	103	-105	105	360
Thermal 2{1}	0	64	-65	2	64	-65	65	0
Thermal 3{1}	0	92	-94	3	92	-94	94	358
Thermal 4{1}	0	18	-19	0	18	-19	19	3
Thermal 5{1}	0	59	-60	4	60	-61	61	355
GRT1{1}	0	98	-100	6	99	-100	101	359
GRT2{1}	0	59	-60	3	59	-60	61	359
GRT3{1}	0	87	-89	4	87	-89	89	358
GRT4{1}	0	13	-14	1	13	-14	14	2
GRT5{1}	0	55	-56	5	55	-56	56	354
B10 F- SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	7	-6	0	7	-6	7	343
Hydrotest{1}	75	28	23	0	75	23	66	140
Thermal 1{1}	0	101	-102	0	101	-102	102	5
Thermal 2{1}	0	62	-63	0	62	-63	63	4
Thermal 3{1}	0	88	-88	1	88	-88	88	4
Thermal 4{1}	0	17	-17	1	17	-17	17	1
Thermal 5{1}	0	59	-59	3	59	-59	59	8
GRT1{1}	0	96	-96	1	96	-96	96	7
GRT2{1}	0	57	-57	0	57	-57	57	7
GRT3{1}	0	82	-82	2	82	-82	82	6
GRT4{1}	0	11	-11	0	11	-11	11	191
GRT5{1}	0	53	-53	3	53	-53	54	11
B10 F+ SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	7	-6	0	7	-6	7	79
Hydrotest{1}	75	28	23	0	75	23	66	236
Thermal 1{1}	0	101	-102	0	101	-102	102	101

0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress

ADS_LINE_REV0.txt								
Thermal 2{1}	0	62	-63	0	62	-63	63	100
Thermal 3{1}	0	88	-88	1	88	-88	88	100
Thermal 4{1}	0	17	-17	1	17	-17	17	97
Thermal 5{1}	0	59	-59	3	59	-59	59	104
GRT1{1}	0	96	-96	1	96	-96	96	103
GRT2{1}	0	57	-57	0	57	-57	57	103
GRT3{1}	0	82	-82	2	82	-82	82	102
GRT4{1}	0	11	-11	0	11	-11	11	287
GRT5{1}	0	53	-53	3	53	-53	54	107
B11 N- SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	6	-6	0	6	-6	6	78
Hydrotest{1}	75	31	20	0	75	20	67	263
Thermal 1{1}	0	46	-47	0	46	-47	47	107
Thermal 2{1}	0	23	-24	0	23	-24	24	109
Thermal 3{1}	0	18	-18	1	18	-18	18	105
Thermal 4{1}	0	2	-2	1	2	-3	3	129
Thermal 5{1}	0	26	-27	3	26	-27	27	102
GRT1{1}	0	41	-41	1	41	-41	41	112
GRT2{1}	0	18	-19	0	18	-19	19	119
GRT3{1}	0	13	-13	2	13	-13	14	118
GRT4{1}	0	5	-5	0	5	-5	5	55
GRT5{1}	0	21	-21	3	21	-22	22	109
B11 N+ SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	6	-6	0	6	-6	6	338
Hydrotest{1}	75	31	20	0	75	20	67	163
Thermal 1{1}	0	46	-47	0	46	-47	47	7
Thermal 2{1}	0	23	-24	0	23	-24	24	9
Thermal 3{1}	0	18	-18	1	18	-18	18	5
Thermal 4{1}	0	2	-2	1	2	-3	3	29
Thermal 5{1}	0	26	-27	3	26	-27	27	2
GRT1{1}	0	41	-41	1	41	-41	41	12
GRT2{1}	0	18	-19	0	18	-19	19	19
GRT3{1}	0	13	-13	2	13	-13	14	18
GRT4{1}	0	5	-5	0	5	-5	5	315
GRT5{1}	0	21	-21	3	21	-22	22	9
B11 M SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	6	-6	1	6	-6	6	339
Hydrotest{1}	75	31	20	0	75	20	67	162
Thermal 1{1}	0	41	-41	2	41	-41	41	187
Thermal 2{1}	0	20	-20	1	20	-20	20	188
Thermal 3{1}	0	13	-12	0	13	-12	13	196
Thermal 4{1}	0	1	-1	1	1	-1	2	190
Thermal 5{1}	0	24	-24	2	24	-24	24	191

ADS_LINE_REV0.txt

GRT1{1}	0	36	-36	2	37	-36	37	191
GRT2{1}	0	16	-15	2	16	-15	16	198
GRT3{1}	0	9	-8	0	9	-8	9	219
GRT4{1}	0	5	-5	1	6	-5	6	334
GRT5{1}	0	19	-19	1	19	-19	19	200

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	----
B11 F-	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	5	-5	1	5	-5	5	172
	Hydrotest{1}		75	30	21	1	75	21	67	170
	Thermal 1{1}		0	38	-36	3	38	-36	38	182
	Thermal 2{1}		0	18	-16	2	18	-17	18	181
	Thermal 3{1}		0	10	-8	1	10	-8	10	200
	Thermal 4{1}		0	1	-1	1	1	-1	2	91
	Thermal 5{1}		0	22	-21	0	22	-21	22	194
	GRT1{1}		0	33	-31	4	33	-32	34	183
	GRT2{1}		0	13	-12	3	14	-13	14	184
	GRT3{1}		0	6	-4	2	7	-5	7	226
	GRT4{1}		0	5	-4	2	6	-5	6	3
GRT5{1}		0	18	-17	1	18	-17	18	200	
B11 F+	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	5	-5	1	5	-5	5	172
	Hydrotest{1}		75	30	21	1	75	21	67	170
	Thermal 1{1}		0	38	-36	3	38	-36	38	182
	Thermal 2{1}		0	18	-16	2	18	-17	18	181
	Thermal 3{1}		0	10	-8	1	10	-8	10	200
	Thermal 4{1}		0	1	-1	1	1	-1	2	91
	Thermal 5{1}		0	22	-21	0	22	-21	22	194
	GRT1{1}		0	33	-31	4	33	-32	34	183
	GRT2{1}		0	13	-12	3	14	-13	14	184
	GRT3{1}		0	6	-4	2	7	-5	7	226
	GRT4{1}		0	5	-4	2	6	-5	6	3
GRT5{1}		0	18	-17	1	18	-17	18	200	

ADS_LINE_REV0.txt

B12 N- SIFI= 1.00 SIFO= 1.00
Gravity{1}

0	10	-10	1	10	-10	10	177
75	31	20	1	75	20	67	187
0	102	-100	3	102	-100	102	350
0	70	-68	2	70	-68	70	348
0	88	-86	1	88	-86	88	354
0	23	-22	1	23	-22	23	340
0	64	-63	0	64	-63	64	7
0	111	-110	4	112	-110	112	351
0	79	-78	3	79	-78	79	349
0	98	-96	2	98	-96	98	354
0	32	-32	2	32	-32	32	345
0	74	-73	1	74	-73	74	6

B12 N+ SIFI= 1.00 SIFO= 1.00
Gravity{1}

0	10	-10	1	10	-10	10	267
75	31	20	1	75	20	67	277
0	102	-100	3	102	-100	102	80
0	70	-68	2	70	-68	70	78
0	88	-86	1	88	-86	88	84
0	23	-22	1	23	-22	23	70
0	64	-63	0	64	-63	64	97
0	111	-110	4	112	-110	112	81
0	79	-78	3	79	-78	79	79

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GENERAL PIPE STRESS REPORT

(Stress in N/mm²)

Point	Load	Hoop	Longitudinal		Shear	Principal		Total	
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	GRT3{1}	0	98	-96	2	98	-96	98	84
	GRT4{1}	0	32	-32	2	32	-32	32	75
	GRT5{1}	0	74	-73	1	74	-73	74	96

B12 F- SIFI= 1.00 SIFO= 1.00
Gravity{1}

0	8	-8	4	9	-9	10	266
75	30	21	2	75	21	67	279
0	60	-59	42	82	-81	95	75
0	41	-41	29	56	-55	65	72
0	48	-47	38	69	-68	81	83

ADS_LINE_REV0.txt

Thermal 4{1}	0	14	-14	9	19	-18	21	59
Thermal 5{1}	0	35	-35	28	51	-50	60	106
GRT1{1}	0	68	-67	46	91	-90	105	77
GRT2{1}	0	49	-48	33	65	-65	75	74
GRT3{1}	0	56	-54	42	78	-77	91	83
GRT4{1}	0	22	-21	13	28	-27	31	68
GRT5{1}	0	43	-42	32	59	-59	69	102
B12 F+ SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	8	-8	4	9	-9	10	176
Hydrotest{1}	75	30	21	2	75	21	67	189
Thermal 1{1}	0	60	-59	42	82	-81	95	345
Thermal 2{1}	0	41	-41	29	56	-55	65	342
Thermal 3{1}	0	48	-47	38	69	-68	81	353
Thermal 4{1}	0	14	-14	9	19	-18	21	329
Thermal 5{1}	0	35	-35	28	51	-50	60	16
GRT1{1}	0	68	-67	46	91	-90	105	347
GRT2{1}	0	49	-48	33	65	-65	75	344
GRT3{1}	0	56	-54	42	78	-77	91	353
GRT4{1}	0	22	-21	13	28	-27	31	338
GRT5{1}	0	43	-42	32	59	-59	69	12
B13 SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	16	-16	4	17	-17	17	176
Hydrotest{1}	75	36	15	2	75	15	68	190
Thermal 1{1}	0	121	-120	42	134	-133	141	347
Thermal 2{1}	0	83	-82	29	92	-91	96	343
Thermal 3{1}	0	96	-95	38	109	-108	116	355
Thermal 4{1}	0	29	-28	9	31	-31	33	330
Thermal 5{1}	0	72	-71	28	81	-81	86	17
GRT1{1}	0	137	-136	46	151	-150	158	348
GRT2{1}	0	98	-97	33	108	-107	113	345
GRT3{1}	0	112	-110	42	125	-124	133	355
GRT4{1}	0	43	-43	13	47	-47	49	339
GRT5{1}	0	87	-86	32	97	-97	103	13
B19 SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	10	-10	2	10	-10	10	176
Hydrotest{1}	76	33	20	1	76	20	69	192
Thermal 1{1}	0	66	-65	22	73	-72	76	353
Thermal 2{1}	0	44	-44	15	49	-48	51	350
Thermal 3{1}	0	53	-52	20	59	-58	63	4

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RESULT PAGE 123

G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
B18	Thermal 4{1}		0	15	-14	5	16	-16	17	338
	Thermal 5{1}		0	41	-41	14	46	-45	48	21
	GRT1{1}		0	76	-75	24	82	-82	86	354
	GRT2{1}		0	54	-53	17	59	-58	61	351
	GRT3{1}		0	62	-61	22	69	-68	73	3
	GRT4{1}		0	24	-24	7	26	-26	27	345
	GRT5{1}		0	50	-50	16	55	-55	58	17
	SIFI= 1.00 SIFO= 1.00 Gravity{1}		0	6	-6	2	7	-7	7	177
	Hydrotest{1}		76	31	22	1	76	22	68	193
	Thermal 1{1}		0	37	-37	22	47	-47	53	4
	Thermal 2{1}		0	25	-24	15	32	-31	36	2
	Thermal 3{1}		0	31	-31	20	41	-40	46	20
	Thermal 4{1}		0	8	-7	5	10	-10	11	352
	Thermal 5{1}		0	25	-25	14	31	-31	35	28
	GRT1{1}		0	44	-43	24	54	-54	60	3
	GRT2{1}		0	31	-31	17	38	-38	43	1
	GRT3{1}		0	37	-36	22	47	-46	53	16
	GRT4{1}		0	14	-14	7	17	-16	18	354
	GRT5{1}		0	30	-30	16	38	-37	42	22

*** Segment B end ***

*** Segment C begin ***

K11	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	1	-1	2	3	-3	4	169
	Hydrotest{1}	86	32	30	1	86	30	76	118
	Thermal 1{1}	0	9	-10	8	14	-14	17	55
	Thermal 2{1}	0	2	-3	14	15	-15	24	48
	Thermal 3{1}	0	16	-17	55	64	-64	97	313
	Thermal 4{1}	0	1	-1	8	8	-8	13	252
	Thermal 5{1}	0	10	-10	14	19	-19	26	9
	GRT1{1}	0	9	-9	6	12	-12	14	60
	GRT2{1}	0	2	-2	12	13	-13	21	69
	GRT3{1}	0	15	-16	53	61	-61	93	311
	GRT4{1}	0	1	-1	5	6	-6	10	212
	GRT5{1}	0	9	-9	12	17	-17	22	12

ADS_LINE_REV0.txt

C01	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	1	-2	2	3	-3	4	77
	Hydrotest{1}		86	32	30	1	86	30	76	111
	Thermal 1{1}		0	6	-7	8	12	-13	16	155
	Thermal 2{1}		0	4	-4	14	16	-16	25	121
	Thermal 3{1}		0	8	-8	55	59	-59	96	342
	Thermal 4{1}		0	2	-2	8	9	-9	13	80
	Thermal 5{1}		0	5	-6	14	17	-17	24	252
	GRT1{1}		0	7	-8	6	11	-11	13	143
	GRT2{1}		0	5	-5	12	15	-15	21	109
	GRT3{1}		0	8	-8	53	57	-57	92	354
	GRT4{1}		0	3	-4	5	7	-8	10	79

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
C02 N-	GRT5{1}		0	4	-4	12	14	-14	20	250
	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	4	-4	2	5	-5	6	64
	Hydrotest{1}		86	34	29	1	86	29	76	52
	Thermal 1{1}		0	35	-36	8	37	-38	39	90
	Thermal 2{1}		0	23	-24	14	30	-30	34	97
	Thermal 3{1}		0	34	-34	55	74	-75	101	107
	Thermal 4{1}		0	9	-9	8	13	-13	16	102
	Thermal 5{1}		0	12	-13	14	21	-21	27	100
	GRT1{1}		0	39	-40	6	40	-41	41	87
	GRT2{1}		0	27	-28	12	32	-32	34	92
	GRT3{1}		0	37	-37	53	74	-75	99	103
	GRT4{1}		0	12	-13	5	14	-15	16	90
	GRT5{1}		0	16	-16	12	22	-22	26	91
C02 N+	SIFI= 1.00									
	Gravity{1}		0	4	-4	2	5	-5	6	334
	Hydrotest{1}		86	34	29	1	86	29	76	322
	Thermal 1{1}		0	35	-36	8	37	-38	39	0
	Thermal 2{1}		0	23	-24	14	30	-30	34	7

ADS_LINE_REV0.txt									
Thermal 3{1}	0	34	-34	55	74	-75	101	17	
Thermal 4{1}	0	9	-9	8	13	-13	16	12	
Thermal 5{1}	0	12	-13	14	21	-21	27	10	
GRT1{1}	0	39	-40	6	40	-41	41	357	
GRT2{1}	0	27	-28	12	32	-32	34	2	
GRT3{1}	0	37	-37	53	74	-75	99	13	
GRT4{1}	0	12	-13	5	14	-15	16	0	
GRT5{1}	0	16	-16	12	22	-22	26	1	
C02 F- SIFI= 1.00 SIFO= 1.00									
Gravity{1}	0	6	-6	1	6	-6	6	41	
Hydrotest{1}	86	34	28	1	86	28	76	310	
Thermal 1{1}	0	46	-49	1	46	-49	49	337	
Thermal 2{1}	0	39	-41	1	39	-41	41	316	
Thermal 3{1}	0	111	-114	8	111	-115	115	292	
Thermal 4{1}	0	17	-18	1	17	-18	18	305	
Thermal 5{1}	0	31	-33	1	31	-33	33	302	
GRT1{1}	0	49	-52	2	49	-52	52	343	
GRT2{1}	0	39	-42	0	39	-42	42	324	
GRT3{1}	0	109	-112	7	109	-113	113	294	
GRT4{1}	0	17	-18	0	17	-18	18	324	
GRT5{1}	0	31	-33	0	31	-33	33	313	
C02 F+ SIFI= 1.00 SIFO= 1.00									
Gravity{1}	0	6	-6	1	6	-6	6	131	
Hydrotest{1}	86	34	28	1	86	28	76	40	
Thermal 1{1}	0	46	-49	1	46	-49	49	67	
Thermal 2{1}	0	39	-41	1	39	-41	41	46	
Thermal 3{1}	0	111	-114	8	111	-115	115	22	
Thermal 4{1}	0	17	-18	1	17	-18	18	35	
Thermal 5{1}	0	31	-33	1	31	-33	33	32	

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc

	GRT1{1}	0	49	-52	2	49	-52	52	73
	GRT2{1}	0	39	-42	0	39	-42	42	54
	GRT3{1}	0	109	-112	7	109	-113	113	24

ADS_LINE_REV0.txt

	GRT4{1}		0	17	-18	0	17	-18	18	54
	GRT5{1}		0	31	-33	0	31	-33	33	43
C10	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	6	-6	1	6	-6	6	131
	Hydrotest{1}		86	34	28	1	86	28	76	38
	Thermal 1{1}		0	45	-48	1	45	-48	48	65
	Thermal 2{1}		0	38	-40	1	38	-40	40	45
	Thermal 3{1}		0	108	-111	8	108	-111	112	22
	Thermal 4{1}		0	17	-17	1	17	-17	17	35
	Thermal 5{1}		0	31	-33	1	31	-33	33	32
	GRT1{1}		0	48	-51	2	48	-51	51	71
	GRT2{1}		0	39	-41	0	39	-41	41	53
	GRT3{1}		0	106	-109	7	106	-110	110	25
	GRT4{1}		0	17	-18	0	17	-18	18	54
	GRT5{1}		0	30	-32	0	30	-32	32	42
C09	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	12	-12	1	12	-12	12	164
	Hydrotest{1}		86	36	26	1	86	26	77	162
	Thermal 1{1}		0	42	-45	1	42	-45	45	49
	Thermal 2{1}		0	33	-35	1	33	-35	35	38
	Thermal 3{1}		0	81	-84	8	81	-84	85	23
	Thermal 4{1}		0	13	-13	1	13	-13	13	35
	Thermal 5{1}		0	29	-30	1	29	-30	30	27
	GRT1{1}		0	38	-41	2	38	-41	41	64
	GRT2{1}		0	27	-29	0	27	-29	29	58
	GRT3{1}		0	72	-75	7	72	-76	76	29
	GRT4{1}		0	10	-11	0	10	-11	11	94
	GRT5{1}		0	21	-23	0	21	-23	23	48
C03	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	23	-23	1	23	-23	23	173
	Hydrotest{1}		86	47	15	1	86	15	80	176
	Thermal 1{1}		0	42	-45	1	42	-45	45	36
	Thermal 2{1}		0	29	-31	1	30	-31	31	32
	Thermal 3{1}		0	62	-65	8	63	-66	67	25
	Thermal 4{1}		0	10	-10	1	10	-11	11	35
	Thermal 5{1}		0	27	-29	1	27	-29	29	23
	GRT1{1}		0	29	-32	2	29	-32	32	67
	GRT2{1}		0	18	-20	0	18	-20	20	81
	GRT3{1}		0	44	-48	7	45	-48	49	40
	GRT4{1}		0	16	-17	0	16	-17	17	150
	GRT5{1}		0	13	-15	0	13	-15	15	78

C07 SIFI= 1.00 SIFO= 1.00

ADS_LINE_REV0.txt								
Gravity{1}	0	30	-31	2	30	-31	31	176
Hydrotest{1}	1	28	-27	1	28	-27	28	178
Thermal 1{1}	0	68	-73	1	68	-73	73	18

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc

	Thermal 2{1}	0	30	-33	2	30	-34	34 24
	Thermal 3{1}	0	42	-48	12	45	-51	52 36
	Thermal 4{1}	0	5	-6	2	5	-6	7 69
	Thermal 5{1}	0	30	-33	2	30	-33	33 20
	GRT1{1}	0	41	-47	3	41	-47	47 33
	GRT2{1}	0	13	-17	1	13	-17	17 95
	GRT3{1}	0	27	-33	10	30	-35	37 78
	GRT4{1}	0	29	-30	0	29	-30	30 166
	GRT5{1}	0	11	-15	0	11	-15	15 94
C05 N- SIFI= 1.00 SIF0= 1.00								
	Gravity{1}	0	5	-5	2	5	-6	6 166
	Hydrotest{1}	1	13	-12	1	13	-12	13 179
	Thermal 1{1}	0	73	-79	1	73	-79	79 8
	Thermal 2{1}	0	15	-19	2	16	-19	19 17
	Thermal 3{1}	0	15	-20	12	21	-26	29 103
	Thermal 4{1}	0	9	-10	2	9	-10	11 168
	Thermal 5{1}	0	17	-20	2	17	-20	20 21
	GRT1{1}	0	69	-74	3	69	-74	74 9
	GRT2{1}	0	11	-15	1	11	-15	15 28
	GRT3{1}	0	17	-23	10	22	-27	29 116
	GRT4{1}	0	14	-15	0	14	-15	15 167
	GRT5{1}	0	13	-16	0	13	-16	16 33
C05 N+ SIFI= 1.59 SIF0= 1.59								
	Gravity{1}	0	8	-8	2	8	-8	8 76
	Hydrotest{1}	1	20	-20	1	21	-20	20 89
	Thermal 1{1}	0	118	-123	1	118	-123	123 278
	Thermal 2{1}	0	25	-28	2	25	-29	29 287
	Thermal 3{1}	0	25	-30	12	30	-35	37 13
	Thermal 4{1}	0	14	-15	2	15	-16	16 78

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Thermal 5{1}	0	28	-30	2	28	-30	31	291
GRT1{1}	0	111	-116	3	111	-116	116	279
GRT2{1}	0	19	-22	1	19	-22	22	298
GRT3{1}	0	29	-35	10	32	-38	39	26
GRT4{1}	0	22	-23	0	22	-23	23	77
GRT5{1}	0	22	-25	0	22	-25	25	303
C05 F- SIFI= 1.59 SIFO= 1.59								
Gravity{1}	0	6	-6	1	6	-6	6	73
Hydrotest{1}	1	19	-18	0	19	-18	19	89
Thermal 1{1}	0	113	-117	12	114	-119	119	277
Thermal 2{1}	0	24	-27	0	24	-27	27	284
Thermal 3{1}	0	22	-27	12	27	-32	34	1
Thermal 4{1}	0	13	-14	3	14	-15	15	80
Thermal 5{1}	0	26	-29	1	26	-29	29	290
GRT1{1}	0	107	-112	13	109	-114	115	278
GRT2{1}	0	19	-23	1	20	-23	23	292
GRT3{1}	0	24	-30	11	28	-33	35	13
GRT4{1}	0	19	-20	2	19	-20	21	78
GRT5{1}	0	22	-25	2	22	-25	25	299

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
								Loc

C05 F+	SIFI= 1.00 SIFO= 1.00							
	Gravity{1}	0	3	-4	1	4	-4	4 163
	Hydrotest{1}	1	12	-11	0	12	-11	12 179
	Thermal 1{1}	0	70	-75	12	72	-77	78 7
	Thermal 2{1}	0	15	-18	0	15	-18	18 14
	Thermal 3{1}	0	13	-18	12	20	-24	28 91
	Thermal 4{1}	0	8	-9	3	9	-10	11 170
	Thermal 5{1}	0	16	-19	1	16	-19	19 20
	GRT1{1}	0	67	-72	13	69	-74	75 8
	GRT2{1}	0	12	-15	1	12	-15	15 22
	GRT3{1}	0	14	-20	11	20	-25	27 103
	GRT4{1}	0	12	-13	2	12	-13	13 168

		ADS_LINE_REV0.txt						
GRT5{1}		0	13	-16	2	13	-16	16 29
C06	SIFI= 1.00 Gravity{1}	0	49	-49	1	49	-49	49 355
	Hydrotest{1}	1	18	-17	0	18	-17	17 352
	Thermal 1{1}	0	101	-106	12	103	-107	108 330
	Thermal 2{1}	0	36	-38	0	36	-38	38 250
	Thermal 3{1}	0	96	-101	12	98	-103	103 206
	Thermal 4{1}	0	34	-35	3	34	-35	36 200
	Thermal 5{1}	0	23	-26	1	23	-26	26 243
	GRT1{1}	0	147	-152	13	148	-153	153 338
	GRT2{1}	0	52	-55	1	52	-55	55 313
	GRT3{1}	0	59	-64	11	61	-66	67 229
	GRT4{1}	0	22	-23	2	22	-23	23 316
	GRT5{1}	0	44	-47	2	44	-47	47 326

*** Segment C end ***

*** Segment D begin ***

B04	SIFI= 1.00 Gravity{1}	0	20	-20	0	20	-20	20 132
	Hydrotest{1}	75	39	12	1	75	12	69 98
	Thermal 1{1}	0	16	-16	2	16	-16	16 149
	Thermal 2{1}	0	6	-6	5	9	-9	10 349
	Thermal 3{1}	0	41	-41	24	52	-52	58 202
	Thermal 4{1}	0	10	-10	3	10	-10	11 340
	Thermal 5{1}	0	6	-6	5	9	-9	10 190
	GRT1{1}	0	36	-36	2	36	-36	36 139
	GRT2{1}	0	16	-16	5	17	-17	18 119
	GRT3{1}	0	51	-52	24	61	-61	66 181
	GRT4{1}	0	13	-13	3	13	-13	14 110
	GRT5{1}	0	24	-24	5	25	-25	26 144
D01	SIFI= 1.00 Gravity{1}	0	19	-19	0	19	-19	19 137
	Hydrotest{1}	75	38	13	1	75	13	69 171
	Thermal 1{1}	0	16	-16	2	16	-16	17 119
	Thermal 2{1}	0	4	-4	5	7	-8	9 279
	Thermal 3{1}	0	39	-39	24	50	-50	57 70

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

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ADS_LINE_REV0.txt

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
	Thermal 4{1}		0	8	-8	3	9	-9	10	290
	Thermal 5{1}		0	6	-6	5	8	-8	10	83
	GRT1{1}		0	34	-34	2	34	-35	35	129
	GRT2{1}		0	15	-15	5	17	-17	18	148
	GRT3{1}		0	49	-49	24	59	-59	64	90
	GRT4{1}		0	12	-12	3	12	-13	13	157
	GRT5{1}		0	22	-23	5	23	-24	24	125
D02 N-	SIFI= 1.00	SIF0= 1.00								
	Gravity{1}		0	2	-2	0	2	-2	2	67
	Hydrotest{1}		75	26	24	1	75	24	66	145
	Thermal 1{1}		0	20	-20	2	20	-20	20	101
	Thermal 2{1}		0	14	-14	5	15	-16	16	107
	Thermal 3{1}		0	21	-22	24	37	-37	46	117
	Thermal 4{1}		0	5	-5	3	6	-6	7	110
	Thermal 5{1}		0	5	-5	5	8	-8	10	140
	GRT1{1}		0	21	-22	2	21	-22	22	98
	GRT2{1}		0	15	-15	5	17	-17	18	103
	GRT3{1}		0	22	-23	24	37	-38	47	114
	GRT4{1}		0	6	-6	3	8	-8	8	100
GRT5{1}		0	6	-6	5	9	-9	10	124	
D02 N+	SIFI= 1.00	SIF0= 1.00								
	Gravity{1}		0	2	-2	0	2	-2	2	337
	Hydrotest{1}		75	26	24	1	75	24	66	55
	Thermal 1{1}		0	20	-20	2	20	-20	20	11
	Thermal 2{1}		0	14	-14	5	15	-16	16	17
	Thermal 3{1}		0	21	-22	24	37	-37	46	27
	Thermal 4{1}		0	5	-5	3	6	-6	7	20
	Thermal 5{1}		0	5	-5	5	8	-8	10	50
	GRT1{1}		0	21	-22	2	21	-22	22	8
	GRT2{1}		0	15	-15	5	17	-17	18	13
	GRT3{1}		0	22	-23	24	37	-38	47	24
	GRT4{1}		0	6	-6	3	8	-8	8	10
GRT5{1}		0	6	-6	5	9	-9	10	34	
D02 F-	SIFI= 1.00	SIF0= 1.00								
	Gravity{1}		0	2	-2	0	2	-2	2	137
	Hydrotest{1}		75	26	25	1	75	25	66	314
	Thermal 1{1}		0	20	-20	2	20	-20	20	6
	Thermal 2{1}		0	14	-14	5	15	-16	17	2
Thermal 3{1}		0	20	-20	24	36	-36	46	337	

	ADS_LINE_REV0.txt							
Thermal 4{1}	0	5	-5	3	6	-7	7	355
Thermal 5{1}	0	3	-3	5	7	-7	10	8
GRT1{1}	0	21	-21	2	21	-21	21	3
GRT2{1}	0	15	-15	5	17	-17	18	358
GRT3{1}	0	21	-22	24	37	-37	47	336
GRT4{1}	0	6	-7	3	8	-8	8	346
GRT5{1}	0	5	-5	5	8	-8	10	352

D02 F+ SIFI= 1.00 SIFO= 1.00
Gravity{1}

0	2	-2	0	2	-2	2	227

0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
	Hydrotest{1}	75	26	25	1	75	25	66	44
	Thermal 1{1}	0	20	-20	2	20	-20	20	96
	Thermal 2{1}	0	14	-14	5	15	-16	17	92
	Thermal 3{1}	0	20	-20	24	36	-36	46	67
	Thermal 4{1}	0	5	-5	3	6	-7	7	85
	Thermal 5{1}	0	3	-3	5	7	-7	10	98
	GRT1{1}	0	21	-21	2	21	-21	21	93
	GRT2{1}	0	15	-15	5	17	-17	18	88
	GRT3{1}	0	21	-22	24	37	-37	47	66
	GRT4{1}	0	6	-7	3	8	-8	8	76
	GRT5{1}	0	5	-5	5	8	-8	10	82

D03 N- SIFI= 1.00 SIFO= 1.00
Gravity{1}

0	8	-8	0	8	-8	8	142

Hydrotest{1}	75	30	21	1	75	21	67	356
Thermal 1{1}	0	20	-20	2	20	-21	21	89
Thermal 2{1}	0	22	-23	5	23	-24	24	99
Thermal 3{1}	0	8	-8	24	28	-28	42	135
Thermal 4{1}	0	12	-12	3	13	-13	13	101
Thermal 5{1}	0	4	-4	5	7	-7	10	156
GRT1{1}	0	16	-17	2	17	-17	17	65
GRT2{1}	0	17	-17	5	19	-19	20	79
GRT3{1}	0	1	-1	24	24	-24	41	41
GRT4{1}	0	8	-8	3	9	-9	10	56

ADS_LINE_REV0.txt

GRT5{1}			0	5	-5	5	8	-8	10	312
D03 N+	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	8	-8	0	8	-8	8	52
	Hydrotest{1}		75	30	21	1	75	21	67	266
	Thermal 1{1}		0	20	-20	2	20	-21	21	359
	Thermal 2{1}		0	22	-23	5	23	-24	24	9
	Thermal 3{1}		0	8	-8	24	28	-28	42	45
	Thermal 4{1}		0	12	-12	3	13	-13	13	11
	Thermal 5{1}		0	4	-4	5	7	-7	10	66
	GRT1{1}		0	16	-17	2	17	-17	17	335
	GRT2{1}		0	17	-17	5	19	-19	20	349
	GRT3{1}		0	1	-1	24	24	-24	41	311
	GRT4{1}		0	8	-8	3	9	-9	10	326
	GRT5{1}		0	5	-5	5	8	-8	10	222
D03 F-	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	6	-6	4	8	-8	9	6
	Hydrotest{1}		75	29	22	2	75	22	66	263
	Thermal 1{1}		0	20	-20	0	20	-20	20	346
	Thermal 2{1}		0	24	-25	2	24	-25	25	336
	Thermal 3{1}		0	46	-45	4	46	-46	47	94
	Thermal 4{1}		0	13	-14	1	14	-14	14	335
	Thermal 5{1}		0	10	-10	2	10	-10	10	96
	GRT1{1}		0	14	-14	4	15	-15	16	157
	GRT2{1}		0	19	-20	2	20	-20	20	327
	GRT3{1}		0	47	-46	0	47	-46	47	87
	GRT4{1}		0	9	-9	2	10	-10	10	314

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
-----	-----	-----	-----	-----	-----	-----	-----	---
	GRT5{1}	0	12	-11	2	12	-12	12
D03 F+	SIFI= 1.00							
	Gravity{1}	0	6	-6	4	8	-8	9
	Hydrotest{1}	75	29	22	2	75	22	66
	Thermal 1{1}	0	20	-20	0	20	-20	20

		ADS_LINE_REV0.txt						
	Thermal 2{1}	0	24	-25	2	24	-25	25 66
	Thermal 3{1}	0	46	-45	4	46	-46	47 184
	Thermal 4{1}	0	13	-14	1	14	-14	14 65
	Thermal 5{1}	0	10	-10	2	10	-10	10 186
	GRT1{1}	0	14	-14	4	15	-15	16 247
	GRT2{1}	0	19	-20	2	20	-20	20 57
	GRT3{1}	0	47	-46	0	47	-46	47 177
	GRT4{1}	0	9	-9	2	10	-10	10 44
	GRT5{1}	0	12	-11	2	12	-12	12 154
D11	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	6	-6	4	8	-8	9 117
	Hydrotest{1}	75	30	21	2	75	21	67 355
	Thermal 1{1}	0	16	-16	0	16	-16	16 67
	Thermal 2{1}	0	20	-20	2	20	-20	20 65
	Thermal 3{1}	0	38	-37	4	38	-37	38 182
	Thermal 4{1}	0	11	-11	1	11	-11	12 68
	Thermal 5{1}	0	8	-8	2	9	-8	9 182
	GRT1{1}	0	13	-13	4	14	-14	15 226
	GRT2{1}	0	17	-17	2	17	-17	17 49
	GRT3{1}	0	41	-40	0	41	-40	41 174
	GRT4{1}	0	9	-9	2	9	-9	9 35
	GRT5{1}	0	12	-12	2	13	-12	13 155
D12	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	7	-7	4	9	-8	9 42
	Hydrotest{1}	75	30	21	2	75	21	67 184
	Thermal 1{1}	0	12	-12	0	12	-12	12 48
	Thermal 2{1}	0	14	-14	2	14	-14	14 64
	Thermal 3{1}	0	27	-26	4	27	-27	27 175
	Thermal 4{1}	0	8	-8	1	8	-8	9 76
	Thermal 5{1}	0	6	-6	2	6	-6	7 174
	GRT1{1}	0	6	-5	4	8	-7	9 235
	GRT2{1}	0	8	-8	2	8	-8	9 83
	GRT3{1}	0	23	-22	0	23	-22	23 163
	GRT4{1}	0	4	-4	2	5	-5	6 133
	GRT5{1}	0	5	-5	2	6	-6	6 99
D04	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	29	-29	4	29	-29	30 7
	Hydrotest{1}	75	55	-4	2	75	-4	77 181
	Thermal 1{1}	0	11	-11	0	11	-11	11 10
	Thermal 2{1}	0	6	-6	2	7	-7	7 60
	Thermal 3{1}	0	14	-14	4	15	-15	16 154
	Thermal 4{1}	0	5	-5	1	5	-5	5 98
	Thermal 5{1}	0	4	-3	2	4	-4	5 151

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
D08	GRT1{1}		0	18	-18	4	19	-19	19	5
	GRT2{1}		0	25	-25	2	26	-26	26	176
	GRT3{1}		0	19	-18	0	19	-18	19	31
	GRT4{1}		0	29	-29	2	29	-29	29	178
	GRT5{1}		0	26	-26	2	26	-26	26	12
	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	47	-47	6	48	-47	48	5
	Hydrotest{1}		1	51	-50	4	51	-50	51	181
	Thermal 1{1}		0	21	-21	0	21	-21	21	339
	Thermal 2{1}		0	2	-2	3	4	-4	6	288
	Thermal 3{1}		0	16	-15	6	18	-17	19	86
	Thermal 4{1}		0	5	-6	2	6	-7	7	153
	Thermal 5{1}		0	4	-4	3	6	-6	7	97
	GRT1{1}		0	30	-29	6	31	-30	31	24
	GRT2{1}		0	46	-47	3	47	-47	47	188
	GRT3{1}		0	52	-51	0	52	-51	52	22
	GRT4{1}		0	52	-52	4	52	-52	52	182
	GRT5{1}		0	47	-47	3	47	-47	47	10
D06 N-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	23	-22	6	24	-24	25	7
	Hydrotest{1}		1	27	-26	4	28	-27	28	181
	Thermal 1{1}		0	28	-28	0	28	-28	28	324
	Thermal 2{1}		0	10	-11	3	11	-12	12	255
	Thermal 3{1}		0	27	-26	6	28	-27	29	50
	Thermal 4{1}		0	8	-8	2	8	-9	9	188
	Thermal 5{1}		0	6	-6	3	7	-7	8	65
	GRT1{1}		0	19	-19	6	21	-21	22	91
	GRT2{1}		0	28	-28	3	28	-29	29	208
	GRT3{1}		0	46	-45	0	46	-45	46	30
	GRT4{1}		0	31	-31	4	31	-31	31	188
	GRT5{1}		0	27	-26	3	27	-27	27	19

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D06 N+ SIFI= 1.60 SIFO= 1.60

Gravity{1}	0	36	-36	6	37	-37	38	277
Hydrotest{1}	1	43	-42	4	43	-43	43	91
Thermal 1{1}	0	44	-45	0	44	-45	45	234
Thermal 2{1}	0	17	-17	3	17	-18	18	165
Thermal 3{1}	0	42	-41	6	43	-42	43	320
Thermal 4{1}	0	13	-13	2	13	-14	14	98
Thermal 5{1}	0	10	-10	3	11	-11	11	335
GRT1{1}	0	31	-30	6	32	-32	33	1
GRT2{1}	0	45	-45	3	45	-45	45	118
GRT3{1}	0	73	-72	0	73	-72	73	300
GRT4{1}	0	49	-49	4	49	-49	50	98
GRT5{1}	0	43	-42	3	43	-42	43	289

D06 F- SIFI= 1.60 SIFO= 1.60

Gravity{1}	0	38	-37	2	38	-37	38	277
Hydrotest{1}	1	43	-42	0	43	-42	42	91
Thermal 1{1}	0	44	-44	4	44	-44	44	52

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	Thermal 2{1}	0	17	-17	3	18	-18	18	174
	Thermal 3{1}	0	39	-38	8	41	-40	42	326
	Thermal 4{1}	0	11	-11	3	12	-12	13	101
	Thermal 5{1}	0	9	-9	3	10	-10	11	349
	GRT1{1}	0	32	-31	6	33	-32	33	355
	GRT2{1}	0	45	-45	1	45	-45	45	299
	GRT3{1}	0	70	-69	6	71	-69	71	302
	GRT4{1}	0	49	-49	1	49	-49	49	278
	GRT5{1}	0	42	-41	1	42	-41	42	289
D06 F+	SIFI= 1.00 Gravity{1}	SIFO= 1.00							
		0	24	-23	2	24	-24	24	7
	Hydrotest{1}	1	27	-26	0	27	-26	27	181
	Thermal 1{1}	0	27	-27	4	28	-28	28	142
	Thermal 2{1}	0	11	-11	3	11	-12	12	264
	Thermal 3{1}	0	25	-24	8	27	-26	29	56

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	Thermal 4{1}	0	7	-7	3	8	-8	9	191
	Thermal 5{1}	0	6	-6	3	7	-7	8	79
	GRT1{1}	0	20	-19	6	22	-21	22	85
	GRT2{1}	0	28	-28	1	28	-28	28	29
	GRT3{1}	0	44	-43	6	45	-44	45	32
	GRT4{1}	0	30	-30	1	31	-30	31	8
	GRT5{1}	0	26	-26	1	26	-26	26	19
D07	SIFI= 1.20 SIFO= 1.20 Gravity{1}	0	43	-42	2	43	-42	43	190
	Hydrotest{1}	1	36	-35	0	36	-35	36	1
	Thermal 1{1}	0	58	-58	4	58	-58	58	127
	Thermal 2{1}	0	48	-48	3	48	-48	49	256
	Thermal 3{1}	0	72	-71	8	73	-72	73	20
	Thermal 4{1}	0	27	-27	3	27	-27	28	228
	Thermal 5{1}	0	15	-15	3	15	-15	16	37
	GRT1{1}	0	86	-85	6	86	-86	87	153
	GRT2{1}	0	49	-49	1	49	-49	50	127
	GRT3{1}	0	31	-30	6	33	-31	33	35
	GRT4{1}	0	27	-27	1	27	-27	27	151
	GRT5{1}	0	30	-30	1	30	-30	30	177
*** Segment D end ***									
*** Segment E begin ***									
B05	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	14	-14	2	15	-15	15	282
	Hydrotest{1}	75	27	24	3	75	24	66	286
	Thermal 1{1}	0	24	-24	6	25	-25	26	207
	Thermal 2{1}	0	21	-21	7	23	-23	25	192
	Thermal 3{1}	0	8	-8	14	19	-19	26	118
	Thermal 4{1}	0	10	-10	3	11	-11	11	180
	Thermal 5{1}	0	7	-7	7	12	-12	15	309
	GRT1{1}	0	25	-25	4	25	-25	26	173
	GRT2{1}	0	25	-26	5	26	-27	27	158

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Max	Min	Stress	Loc

ADS_LINE_REV0.txt									
	GRT3{1}	0	22	-22	12	28	-28	31	108
	GRT4{1}	0	19	-19	1	19	-19	19	132
	GRT5{1}	0	9	-9	5	11	-11	13	261
E01	SIFI= 1.00 Gravity{1}	0	15	-15	2	16	-16	16	170
	Hydrotest{1}	75	26	25	3	75	25	66	24
	Thermal 1{1}	0	22	-22	6	23	-23	24	245
	Thermal 2{1}	0	19	-20	7	22	-22	23	259
	Thermal 3{1}	0	8	-8	14	19	-19	26	334
	Thermal 4{1}	0	9	-9	3	10	-10	11	270
	Thermal 5{1}	0	6	-6	7	11	-11	14	140
	GRT1{1}	0	23	-23	4	24	-24	24	284
	GRT2{1}	0	24	-25	5	25	-26	26	297
	GRT3{1}	0	23	-23	12	28	-28	31	345
	GRT4{1}	0	19	-19	1	19	-19	19	322
	GRT5{1}	0	10	-10	5	13	-13	14	187
E19	SIFI= 1.00 Gravity{1}	0	18	-18	2	19	-19	19	176
	Hydrotest{1}	75	34	17	3	75	17	68	2
	Thermal 1{1}	0	12	-12	6	14	-15	16	258
	Thermal 2{1}	0	13	-13	7	16	-16	18	265
	Thermal 3{1}	0	6	-6	14	18	-18	26	348
	Thermal 4{1}	0	6	-6	3	7	-7	8	270
	Thermal 5{1}	0	3	-3	7	9	-9	13	135
	GRT1{1}	0	21	-21	4	21	-21	22	320
	GRT2{1}	0	22	-22	5	23	-23	24	322
	GRT3{1}	0	25	-25	12	30	-30	33	354
	GRT4{1}	0	20	-20	1	20	-20	20	340
	GRT5{1}	0	17	-17	5	18	-18	19	182
E17	SIFI= 1.00 Gravity{1}	0	21	-21	2	21	-21	21	181
	Hydrotest{1}	75	41	10	3	75	10	70	1
	Thermal 1{1}	0	6	-6	6	9	-10	12	314
	Thermal 2{1}	0	6	-6	7	11	-11	14	286
	Thermal 3{1}	0	5	-5	14	17	-17	26	9
	Thermal 4{1}	0	2	-2	3	5	-5	6	270
	Thermal 5{1}	0	1	-1	7	8	-8	13	345
	GRT1{1}	0	26	-26	4	26	-26	26	351
	GRT2{1}	0	24	-24	5	25	-25	25	346
	GRT3{1}	0	26	-26	12	31	-31	34	2
	GRT4{1}	0	21	-21	1	21	-21	21	354
	GRT5{1}	0	22	-22	5	23	-23	24	180

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E16	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	14	-14	2	14	-14	15	189
	Hydrotest{1}		75	39	12	3	75	12	69	1
	Thermal 1{1}		0	14	-14	6	16	-16	17	23
	Thermal 2{1}		0	6	-6	7	11	-11	14	24
	Thermal 3{1}		0	5	-6	14	17	-17	26	40

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
-----	-----	-----	-----	-----	-----	-----	-----	---
	Thermal 4{1}	0	2	-2	3	4	-4	6 89
	Thermal 5{1}	0	6	-6	7	11	-11	14 328
	GRT1{1}	0	28	-28	4	28	-28	29 16
	GRT2{1}	0	20	-20	5	21	-21	22 13
	GRT3{1}	0	19	-19	12	25	-25	29 18
	GRT4{1}	0	14	-14	1	15	-15	15 16
	GRT5{1}	0	19	-19	5	20	-20	21 177
E02 N-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	12	-12	2	13	-13 13 337
	Hydrotest{1}		75	30	21	3	75	21 67 178
	Thermal 1{1}		0	32	-32	6	32	-33 33 37
	Thermal 2{1}		0	17	-17	7	20	-20 21 54
	Thermal 3{1}		0	8	-8	14	19	-19 26 70
	Thermal 4{1}		0	8	-8	3	9	-9 10 90
	Thermal 5{1}		0	12	-12	7	16	-16 18 326
	GRT1{1}		0	28	-28	4	28	-28 28 60
	GRT2{1}		0	19	-19	5	20	-20 21 93
	GRT3{1}		0	15	-15	12	22	-22 26 126
	GRT4{1}		0	17	-17	1	17	-17 17 132
	GRT5{1}		0	2	-2	5	7	-7 10 57
E02 N+	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	12	-12	2	13	-13 13 67
	Hydrotest{1}		75	30	21	3	75	21 67 268
	Thermal 1{1}		0	32	-32	6	32	-33 33 127
	Thermal 2{1}		0	17	-17	7	20	-20 21 144

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Thermal 3{1}	0	8	-8	14	19	-19	26	160	
Thermal 4{1}	0	8	-8	3	9	-9	10	180	
Thermal 5{1}	0	12	-12	7	16	-16	18	56	
GRT1{1}	0	28	-28	4	28	-28	28	150	
GRT2{1}	0	19	-19	5	20	-20	21	183	
GRT3{1}	0	15	-15	12	22	-22	26	216	
GRT4{1}	0	17	-17	1	17	-17	17	222	
GRT5{1}	0	2	-2	5	7	-7	10	147	
E02 F- SIFI= 1.00 SIFO= 1.00									
Gravity{1}	0	9	-9	7	13	-13	16	57	
Hydrotest{1}	75	28	23	3	75	22	66	93	
Thermal 1{1}	0	25	-25	13	31	-30	34	329	
Thermal 2{1}	0	22	-22	5	24	-23	24	316	
Thermal 3{1}	0	30	-30	1	30	-30	30	285	
Thermal 4{1}	0	11	-11	0	11	-11	11	322	
Thermal 5{1}	0	17	-17	5	19	-19	20	65	
GRT1{1}	0	27	-27	6	28	-28	29	349	
GRT2{1}	0	23	-22	2	23	-22	23	340	
GRT3{1}	0	25	-24	6	26	-26	27	302	
GRT4{1}	0	14	-13	7	17	-17	19	4	
GRT5{1}	0	8	-8	2	9	-9	9	74	
E02 F+ SIFI= 1.00 SIFO= 1.00									
Gravity{1}	0	9	-9	7	13	-13	16	327	

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GENERAL PIPE STRESS REPORT

(Stress in N/mm²)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	Hydrotest{1}	75	28	23	3	75	22	66	3
	Thermal 1{1}	0	25	-25	13	31	-30	34	239
	Thermal 2{1}	0	22	-22	5	24	-23	24	226
	Thermal 3{1}	0	30	-30	1	30	-30	30	195
	Thermal 4{1}	0	11	-11	0	11	-11	11	232
	Thermal 5{1}	0	17	-17	5	19	-19	20	335
	GRT1{1}	0	27	-27	6	28	-28	29	259
	GRT2{1}	0	23	-22	2	23	-22	23	250
	GRT3{1}	0	25	-24	6	26	-26	27	212

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	GRT4{1}		0	14	-13	7	17	-17	19	274
	GRT5{1}		0	8	-8	2	9	-9	9	344
E03	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	22	-22	7	24	-24	26	348
	Hydrotest{1}		75	33	18	3	75	18	68	178
	Thermal 1{1}		0	30	-29	13	35	-35	38	231
	Thermal 2{1}		0	25	-25	5	27	-26	27	225
	Thermal 3{1}		0	29	-29	1	29	-29	29	197
	Thermal 4{1}		0	12	-11	0	12	-11	12	234
	Thermal 5{1}		0	19	-19	5	21	-21	22	339
	GRT1{1}		0	28	-27	6	29	-29	30	276
	GRT2{1}		0	23	-23	2	23	-23	23	280
	GRT3{1}		0	14	-14	6	17	-16	18	244
	GRT4{1}		0	21	-20	7	23	-23	24	317
	GRT5{1}		0	4	-4	2	5	-5	6	213
E12	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	35	-35	12	38	-38	40	350
	Hydrotest{1}		1	17	-16	5	18	-18	19	178
	Thermal 1{1}		0	59	-58	21	66	-65	69	223
	Thermal 2{1}		0	39	-39	8	41	-40	42	239
	Thermal 3{1}		0	32	-31	2	32	-31	32	206
	Thermal 4{1}		0	17	-16	0	17	-16	17	263
	Thermal 5{1}		0	23	-24	8	26	-26	28	335
	GRT1{1}		0	48	-46	9	49	-48	50	260
	GRT2{1}		0	42	-41	3	43	-41	43	290
	GRT3{1}		0	21	-21	10	25	-25	27	287
	GRT4{1}		0	40	-39	11	43	-42	45	325
	GRT5{1}		0	14	-14	3	14	-14	15	196
E05	SIFI= 2.00 Gravity{1}	SIFO= 2.00	0	49	-49	12	52	-52	53	346
	Hydrotest{1}		1	24	-23	5	25	-24	25	177
	Thermal 1{1}		0	124	-123	21	127	-126	129	222
	Thermal 2{1}		0	76	-75	8	77	-76	77	248
	Thermal 3{1}		0	49	-49	2	49	-49	49	216
	Thermal 4{1}		0	34	-34	0	34	-34	34	280
	Thermal 5{1}		0	36	-36	8	38	-38	39	328
	GRT1{1}		0	105	-103	9	105	-104	106	245
	GRT2{1}		0	84	-83	3	84	-83	84	283
	GRT3{1}		0	41	-41	10	43	-43	44	281
	GRT4{1}		0	71	-70	11	72	-72	73	320

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
E13	GRT5{1}		0	19	-19	3	19	-19	20	204
	SIFI= 2.00	SIFO= 2.00								
	Gravity{1}		0	6	-6	2	7	-7	7	340
	Hydrotest{1}		1	3	-2	1	4	-3	4	176
	Thermal 1{1}		0	24	-24	4	25	-25	25	221
	Thermal 2{1}		0	14	-14	2	14	-14	15	255
	Thermal 3{1}		0	8	-7	0	8	-7	8	227
	Thermal 4{1}		0	7	-7	0	7	-7	7	292
	Thermal 5{1}		0	5	-5	2	6	-6	6	318
	GRT1{1}		0	22	-22	2	22	-22	22	236
	GRT2{1}		0	16	-16	1	16	-16	16	278
	GRT3{1}		0	8	-8	2	8	-8	8	276
GRT4{1}		0	12	-12	2	13	-12	13	315	
GRT5{1}		0	2	-2	1	3	-3	3	217	
E07 N-	SIFI= 1.00									
	Gravity{1}	SIFO= 1.00	0	5	-5	2	6	-6	6	189
	Hydrotest{1}		1	2	-1	1	3	-1	3	6
	Thermal 1{1}		0	15	-15	4	16	-16	17	217
	Thermal 2{1}		0	9	-9	2	9	-9	9	294
	Thermal 3{1}		0	6	-6	0	6	-6	6	327
	Thermal 4{1}		0	7	-7	0	7	-7	7	327
	Thermal 5{1}		0	4	-4	2	4	-4	5	205
	GRT1{1}		0	20	-19	2	20	-19	20	210
	GRT2{1}		0	9	-9	1	9	-9	9	261
	GRT3{1}		0	4	-4	2	5	-4	5	265
	GRT4{1}		0	5	-4	2	6	-5	6	278
GRT5{1}		0	2	-2	1	2	-2	2	335	
E07 N+	SIFI= 1.78									
	Gravity{1}	SIFO= 1.78	0	9	-9	2	10	-9	10	279
	Hydrotest{1}		1	3	-2	1	4	-3	3	96
	Thermal 1{1}		0	27	-26	4	27	-27	28	307
	Thermal 2{1}		0	16	-16	2	16	-16	16	24
	Thermal 3{1}		0	10	-10	0	10	-10	10	57
Thermal 4{1}		0	12	-12	0	12	-12	12	57	

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Thermal 5{1}	0	6	-7	2	7	-7	7	295
GRT1{1}	0	35	-34	2	35	-35	35	300
GRT2{1}	0	16	-16	1	16	-16	16	351
GRT3{1}	0	7	-7	2	7	-7	8	355
GRT4{1}	0	8	-8	2	9	-9	9	8
GRT5{1}	0	3	-3	1	3	-3	3	65
E07 F- SIFI= 1.78 SIF0= 1.78								
Gravity{1}	0	13	-13	1	13	-13	13	276
Hydrotest{1}	1	5	-4	0	5	-4	5	94
Thermal 1{1}	0	20	-20	6	22	-22	23	324
Thermal 2{1}	0	18	-17	0	18	-17	18	33
Thermal 3{1}	0	11	-11	1	11	-11	11	60
Thermal 4{1}	0	12	-11	1	12	-12	12	55
Thermal 5{1}	0	9	-9	0	9	-9	9	287

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point name	Load combination	Hoop Stress	Longitudinal Max	Min	Shear Stress	Principal Max	Min	Total Stress	Loc

	GRT1{1}	0	30	-30	6	32	-31	32	305
	GRT2{1}	0	16	-16	0	16	-16	16	348
	GRT3{1}	0	8	-8	1	8	-8	8	331
	GRT4{1}	0	9	-8	2	9	-9	9	337
	GRT5{1}	0	4	-4	0	4	-4	4	71
E07 F+ SIFI= 1.00 SIF0= 1.00									
	Gravity{1}	0	7	-7	1	7	-7	7	186
	Hydrotest{1}	1	3	-2	0	3	-2	3	4
	Thermal 1{1}	0	11	-11	6	14	-14	16	234
	Thermal 2{1}	0	10	-10	0	10	-10	10	303
	Thermal 3{1}	0	6	-6	1	6	-6	6	330
	Thermal 4{1}	0	7	-6	1	7	-7	7	325
	Thermal 5{1}	0	5	-5	0	5	-5	5	197
	GRT1{1}	0	17	-17	6	19	-19	20	215
	GRT2{1}	0	9	-9	0	9	-9	9	258
	GRT3{1}	0	4	-4	1	5	-5	5	241
	GRT4{1}	0	5	-5	2	6	-5	6	247

		ADS_LINE_REV0.txt						
	GRT5{1}	0	2	-2	0	2	-2	2 341
E18	SIFI= 1.00 Gravity{1}	0	16	-16	1	16	-16	16 178
	Hydrotest{1}	1	3	-2	0	3	-2	3 5
	Thermal 1{1}	0	13	-13	6	16	-15	17 211
	Thermal 2{1}	0	16	-16	0	16	-16	16 335
	Thermal 3{1}	0	18	-17	1	18	-17	18 352
	Thermal 4{1}	0	13	-13	1	13	-13	13 348
	Thermal 5{1}	0	14	-14	0	14	-14	14 180
	GRT1{1}	0	28	-27	6	29	-29	30 193
	GRT2{1}	0	7	-6	0	7	-6	7 258
	GRT3{1}	0	3	-2	1	3	-3	4 312
	GRT4{1}	0	4	-4	2	5	-5	5 217
	GRT5{1}	0	2	-2	0	2	-2	2 343
E08 N-	SIFI= 1.00 Gravity{1}	0	18	-18	1	18	-18	18 176
	Hydrotest{1}	1	2	-1	0	2	-1	2 164
	Thermal 1{1}	0	15	-15	6	18	-17	19 199
	Thermal 2{1}	0	22	-22	0	22	-22	22 345
	Thermal 3{1}	0	26	-26	1	26	-26	26 356
	Thermal 4{1}	0	18	-18	1	18	-18	18 354
	Thermal 5{1}	0	21	-21	0	21	-21	21 177
	GRT1{1}	0	33	-33	6	34	-34	35 186
	GRT2{1}	0	6	-5	0	6	-5	6 302
	GRT3{1}	0	8	-8	1	8	-8	9 356
	GRT4{1}	0	1	-1	2	2	-2	4 254
	GRT5{1}	0	2	-2	0	2	-2	2 188
E08 N+	SIFI= 1.78 Gravity{1}	0	32	-32	1	32	-32	32 86
	Hydrotest{1}	1	2	-1	0	3	-2	2 74
	Thermal 1{1}	0	27	-27	6	29	-28	30 109

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	Thermal 2{1}	0	39	-38	0	39	-38	39	255

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Thermal 3{1}	0	47	-47	1	47	-47	47	266
Thermal 4{1}	0	32	-32	1	32	-32	32	264
Thermal 5{1}	0	36	-37	0	36	-37	37	87
GRT1{1}	0	59	-58	6	59	-59	59	96
GRT2{1}	0	10	-9	0	10	-9	10	212
GRT3{1}	0	15	-14	1	15	-15	15	266
GRT4{1}	0	1	-1	2	3	-3	4	164
GRT5{1}	0	4	-4	0	4	-4	4	98
E08 F- SIFI= 1.78 SIFO= 1.78								
Gravity{1}	0	27	-27	5	28	-28	29	85
Hydrotest{1}	1	4	-3	0	4	-3	3	80
Thermal 1{1}	0	35	-35	2	36	-35	36	104
Thermal 2{1}	0	34	-34	6	35	-35	36	252
Thermal 3{1}	0	44	-44	6	44	-44	45	266
Thermal 4{1}	0	31	-31	3	32	-32	32	264
Thermal 5{1}	0	32	-32	6	33	-33	33	87
GRT1{1}	0	62	-61	3	62	-62	62	96
GRT2{1}	0	10	-9	1	10	-10	10	214
GRT3{1}	0	17	-16	1	17	-16	17	267
GRT4{1}	0	4	-4	2	5	-5	5	255
GRT5{1}	0	5	-5	1	5	-5	5	97
E08 F+ SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	15	-15	5	17	-17	18	175
Hydrotest{1}	1	2	-1	0	2	-1	2	170
Thermal 1{1}	0	20	-20	2	20	-20	20	194
Thermal 2{1}	0	19	-19	6	21	-21	22	342
Thermal 3{1}	0	25	-25	6	26	-26	27	356
Thermal 4{1}	0	18	-18	3	18	-18	19	354
Thermal 5{1}	0	18	-18	6	20	-20	20	177
GRT1{1}	0	35	-34	3	35	-35	35	186
GRT2{1}	0	6	-5	1	6	-5	6	304
GRT3{1}	0	9	-9	1	9	-9	9	357
GRT4{1}	0	2	-2	2	3	-3	4	345
GRT5{1}	0	3	-3	1	3	-3	3	187
E09 SIFI= 2.00 SIFO= 2.00								
Gravity{1}	0	31	-31	5	32	-31	32	175
Hydrotest{1}	1	6	-5	0	6	-5	6	173
Thermal 1{1}	0	41	-41	2	41	-41	41	194
Thermal 2{1}	0	41	-41	6	42	-41	42	343
Thermal 3{1}	0	52	-52	6	53	-53	53	356
Thermal 4{1}	0	37	-37	3	37	-37	37	354
Thermal 5{1}	0	38	-38	6	39	-39	39	177

	ADS_LINE_REV0.txt						
GRT1{1}	0	71	-70	3	71	-70	71 186
GRT2{1}	0	13	-12	1	13	-12	13 311
GRT3{1}	0	21	-21	1	21	-21	21 357
GRT4{1}	0	6	-6	2	7	-7	7 348
GRT5{1}	0	7	-7	1	7	-7	7 185

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc

E14	SIFI= 2.00	SIFO= 2.00								
	Gravity{1}		0	16	-16	3	17	-17	17	175
	Hydrotest{1}		1	5	-3	0	5	-3	4	175
	Thermal 1{1}		0	23	-22	1	23	-22	23	195
	Thermal 2{1}		0	23	-23	3	23	-23	24	343
	Thermal 3{1}		0	29	-29	3	30	-30	30	356
	Thermal 4{1}		0	21	-21	2	21	-21	21	354
	Thermal 5{1}		0	21	-22	3	22	-22	22	177
	GRT1{1}		0	39	-38	2	39	-38	39	186
	GRT2{1}		0	8	-8	0	8	-8	8	316
	GRT3{1}		0	13	-13	0	13	-13	13	358
	GRT4{1}		0	4	-4	1	5	-4	5	350
GRT5{1}		0	5	-5	0	5	-5	5	184	
E11	SIFI= 1.20	SIFO= 1.20								
	Gravity{1}		0	10	-9	3	10	-10	11	174
	Hydrotest{1}		1	5	-4	0	5	-4	5	177
	Thermal 1{1}		0	15	-14	1	15	-14	15	195
	Thermal 2{1}		0	16	-15	3	16	-16	17	343
	Thermal 3{1}		0	20	-20	3	21	-20	21	356
	Thermal 4{1}		0	14	-14	2	14	-14	14	354
	Thermal 5{1}		0	15	-15	3	15	-15	16	177
	GRT1{1}		0	24	-23	2	24	-24	24	187
	GRT2{1}		0	7	-6	0	7	-6	7	327
	GRT3{1}		0	11	-10	0	11	-10	11	358
	GRT4{1}		0	4	-4	1	5	-4	5	353
GRT5{1}		0	5	-5	0	5	-5	5	183	

*** Segment E end ***

*** Segment F begin ***

B08	SIFI= 1.00	SIFO= 1.00							
	Gravity{1}		0	24	-24	0	24	-24	24 89
	Hydrotest{1}		75	36	15	2	75	15	68 275
	Thermal 1{1}		0	17	-18	3	18	-18	19 230
	Thermal 2{1}		0	13	-13	4	14	-14	15 202
	Thermal 3{1}		0	6	-6	5	9	-9	11 294
	Thermal 4{1}		0	6	-6	1	6	-6	6 173
	Thermal 5{1}		0	12	-12	4	13	-13	14 325
	GRT1{1}		0	39	-40	3	40	-40	40 253
	GRT2{1}		0	32	-32	4	32	-32	32 247
	GRT3{1}		0	30	-30	5	31	-31	32 274
	GRT4{1}		0	24	-24	1	24	-25	25 256
	GRT5{1}		0	32	-33	4	33	-33	33 286
F01	SIFI= 1.00	SIFO= 1.00							
	Gravity{1}		0	21	-21	0	21	-21	21 1
	Hydrotest{1}		75	34	17	2	75	17	68 174
	Thermal 1{1}		0	16	-16	3	17	-17	17 221
	Thermal 2{1}		0	12	-12	4	13	-13	14 249
	Thermal 3{1}		0	6	-6	5	9	-9	11 156

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
	Thermal 4{1}	0	5	-5	1	6	-6	6	277
	Thermal 5{1}	0	11	-11	4	12	-12	13	126
	GRT1{1}	0	35	-36	3	36	-36	36	198
	GRT2{1}	0	28	-28	4	29	-29	29	205
	GRT3{1}	0	27	-27	5	28	-28	28	176
	GRT4{1}	0	21	-21	1	21	-21	22	195
	GRT5{1}	0	29	-29	4	29	-29	30	163
F17	SIFI= 1.00	SIFO= 1.00							
	Gravity{1}	0	14	-14	0	14	-14	14	182
	Hydrotest{1}	75	45	6	2	75	6	72	1
	Thermal 1{1}	0	3	-3	3	5	-5	7	290

		ADS_LINE_REV0.txt						
	Thermal 2{1}	0	4	-4	4	7	-7	8 290
	Thermal 3{1}	0	1	-1	5	6	-6	9 88
	Thermal 4{1}	0	2	-2	1	3	-3	3 295
	Thermal 5{1}	0	0	-1	4	4	-4	7 298
	GRT1{1}	0	16	-16	3	16	-16	17 351
	GRT2{1}	0	16	-16	4	17	-17	17 347
	GRT3{1}	0	14	-14	5	16	-16	17 6
	GRT4{1}	0	15	-15	1	15	-15	15 355
	GRT5{1}	0	14	-15	4	15	-16	16 0
F16	SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	18	-18	0	18	-18	18 183
	Hydrotest{1}	75	46	5	2	75	5	72 0
	Thermal 1{1}	0	7	-7	3	8	-9	9 3
	Thermal 2{1}	0	4	-4	4	6	-6	8 348
	Thermal 3{1}	0	2	-3	5	7	-7	10 7
	Thermal 4{1}	0	1	-1	1	2	-2	3 347
	Thermal 5{1}	0	5	-6	4	8	-8	9 305
	GRT1{1}	0	25	-26	3	26	-26	26 3
	GRT2{1}	0	22	-22	4	23	-23	23 360
	GRT3{1}	0	21	-21	5	22	-22	23 3
	GRT4{1}	0	19	-19	1	19	-19	19 2
	GRT5{1}	0	22	-22	4	22	-23	23 350
F02 N-	SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	3	-3	0	3	-3	3 211
	Hydrotest{1}	75	28	23	2	75	23	66 189
	Thermal 1{1}	0	21	-21	3	21	-21	22 21
	Thermal 2{1}	0	11	-11	4	12	-12	13 32
	Thermal 3{1}	0	8	-8	5	10	-10	12 352
	Thermal 4{1}	0	3	-3	1	4	-4	4 72
	Thermal 5{1}	0	16	-16	4	17	-17	17 305
	GRT1{1}	0	24	-24	3	24	-24	25 22
	GRT2{1}	0	14	-14	4	15	-15	16 32
	GRT3{1}	0	10	-10	5	12	-12	14 3
	GRT4{1}	0	6	-6	1	6	-6	6 52
	GRT5{1}	0	16	-16	4	17	-17	18 316
F02 N+	SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	3	-3	0	3	-3	3 301

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RESULT PAGE 141

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point name	Load combination	Hoop Stress	Longitudinal Max	Min	Shear Stress	Principal Max	Min	Total Stress	Loc
	Hydrotest{1}	75	28	23	2	75	23	66	279
	Thermal 1{1}	0	21	-21	3	21	-21	22	111
	Thermal 2{1}	0	11	-11	4	12	-12	13	122
	Thermal 3{1}	0	8	-8	5	10	-10	12	82
	Thermal 4{1}	0	3	-3	1	4	-4	4	162
	Thermal 5{1}	0	16	-16	4	17	-17	17	35
	GRT1{1}	0	24	-24	3	24	-24	25	112
	GRT2{1}	0	14	-14	4	15	-15	16	122
	GRT3{1}	0	10	-10	5	12	-12	14	93
	GRT4{1}	0	6	-6	1	6	-6	6	142
	GRT5{1}	0	16	-16	4	17	-17	18	46
F02 M	SIFI= 1.00 Gravity{1}	0	2	-2	1	2	-2	2	344
	Hydrotest{1}	75	26	25	2	75	25	66	302
	Thermal 1{1}	0	21	-21	5	22	-22	22	292
	Thermal 2{1}	0	14	-14	1	14	-14	14	298
	Thermal 3{1}	0	13	-13	1	13	-13	13	86
	Thermal 4{1}	0	4	-4	1	4	-4	5	320
	Thermal 5{1}	0	18	-18	0	18	-18	18	43
	GRT1{1}	0	22	-22	5	23	-23	24	296
	GRT2{1}	0	15	-15	2	15	-15	15	302
	GRT3{1}	0	14	-14	0	14	-14	14	93
	GRT4{1}	0	6	-6	0	6	-6	6	326
	GRT5{1}	0	17	-18	1	18	-18	18	48
F02 F-	SIFI= 1.00 Gravity{1}	0	3	-3	1	3	-3	3	50
	Hydrotest{1}	75	27	24	2	75	24	66	76
	Thermal 1{1}	0	12	-11	10	18	-18	21	317
	Thermal 2{1}	0	11	-11	5	13	-13	14	311
	Thermal 3{1}	0	11	-11	4	12	-12	13	86
	Thermal 4{1}	0	5	-5	0	5	-5	5	320
	Thermal 5{1}	0	16	-16	5	17	-17	18	33
	GRT1{1}	0	12	-12	11	18	-18	22	330
	GRT2{1}	0	11	-10	5	13	-13	14	325
	GRT3{1}	0	9	-9	4	11	-11	12	96
	GRT4{1}	0	5	-5	1	6	-5	6	349
	GRT5{1}	0	13	-13	5	15	-15	16	30

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F02 F+ SIFI= 1.00 SIFO= 1.00

Gravity{1}	0	3	-3	1	3	-3	3	320
Hydrotest{1}	75	27	24	2	75	24	66	346
Thermal 1{1}	0	12	-11	10	18	-18	21	227
Thermal 2{1}	0	11	-11	5	13	-13	14	221
Thermal 3{1}	0	11	-11	4	12	-12	13	356
Thermal 4{1}	0	5	-5	0	5	-5	5	230
Thermal 5{1}	0	16	-16	5	17	-17	18	303
GRT1{1}	0	12	-12	11	18	-18	22	240
GRT2{1}	0	11	-10	5	13	-13	14	235
GRT3{1}	0	9	-9	4	11	-11	12	6
GRT4{1}	0	5	-5	1	6	-5	6	259

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RESULT PAGE 142

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
F03	GRT5{1}		0	13	-13	5	15	-15	16	300
	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	20	-20	1	20	-20	20	355
	Hydrotest{1}		75	48	3	2	75	3	73	180
	Thermal 1{1}		0	23	-23	10	27	-27	29	218
	Thermal 2{1}		0	17	-17	5	19	-19	19	224
	Thermal 3{1}		0	16	-16	4	17	-17	17	12
	Thermal 4{1}		0	6	-6	0	6	-6	6	241
	Thermal 5{1}		0	16	-16	5	17	-17	18	328
	GRT1{1}		0	16	-16	11	21	-21	25	276
	GRT2{1}		0	16	-15	5	17	-17	18	298
	GRT3{1}		0	7	-7	4	9	-9	10	131
	GRT4{1}		0	18	-18	1	18	-18	18	337
GRT5{1}		0	9	-9	5	11	-12	13	228	
F14	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	31	-31	1	31	-31	31	355
	Hydrotest{1}		1	36	-36	3	37	-36	37	180
	Thermal 1{1}		0	47	-46	16	52	-51	54	217
	Thermal 2{1}		0	30	-29	8	31	-31	32	235
	Thermal 3{1}		0	23	-23	6	25	-25	25	24

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	Thermal 4{1}	0	11	-11	1	11	-11	11	266
	Thermal 5{1}	0	21	-21	7	23	-23	25	338
	GRT1{1}	0	31	-31	17	39	-38	43	258
	GRT2{1}	0	30	-30	8	32	-32	33	297
	GRT3{1}	0	15	-15	7	18	-18	19	128
	GRT4{1}	0	33	-33	2	33	-33	33	336
	GRT5{1}	0	12	-13	8	16	-17	19	205
F05	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	49	-49	1	49	-49	49	354
	Hydrotest{1}	1	58	-58	3	59	-58	58	180
	Thermal 1{1}	0	98	-98	16	101	-101	102	217
	Thermal 2{1}	0	59	-58	8	60	-59	60	241
	Thermal 3{1}	0	42	-42	6	43	-43	44	31
	Thermal 4{1}	0	23	-23	1	23	-23	23	279
	Thermal 5{1}	0	35	-36	7	37	-37	38	339
	GRT1{1}	0	71	-71	17	75	-74	77	245
	GRT2{1}	0	60	-60	8	61	-61	62	290
	GRT3{1}	0	29	-29	7	31	-31	32	115
	GRT4{1}	0	59	-59	2	59	-59	59	332
	GRT5{1}	0	17	-18	8	21	-21	23	206
F20	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	8	-7	0	8	-7	8	353
	Hydrotest{1}	1	9	-8	1	9	-9	9	179
	Thermal 1{1}	0	19	-19	3	20	-20	20	217
	Thermal 2{1}	0	11	-11	1	11	-11	11	246
	Thermal 3{1}	0	7	-7	1	8	-8	8	37
	Thermal 4{1}	0	5	-5	0	5	-5	5	287
	Thermal 5{1}	0	6	-6	1	6	-6	6	340

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RESULT PAGE 143

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	GRT1{1}	0	15	-15	3	16	-16	16	238
	GRT2{1}	0	12	-11	2	12	-12	12	285
	GRT3{1}	0	6	-6	1	6	-6	6	105

		ADS_LINE_REV0.txt							
GRT4{1}		0	10	-10	0	10	-10	10	328
GRT5{1}		0	2	-2	2	3	-3	4	206
F07 N-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	1	-1	0	1	-1	1 205
	Hydrotest{1}		1	4	-3	1	4	-3	3 6
	Thermal 1{1}		0	18	-18	3	19	-19	19 219
	Thermal 2{1}		0	12	-12	1	13	-12	13 304
	Thermal 3{1}		0	9	-9	1	9	-9	9 136
	Thermal 4{1}		0	10	-10	0	10	-10	10 333
	Thermal 5{1}		0	7	-7	1	7	-8	8 147
	GRT1{1}		0	20	-19	3	20	-20	20 218
	GRT2{1}		0	12	-12	2	12	-12	13 299
	GRT3{1}		0	9	-9	1	9	-9	9 129
	GRT4{1}		0	9	-9	0	9	-9	9 328
	GRT5{1}		0	7	-7	2	7	-7	7 139
F07 N+	SIFI= 1.78 Gravity{1}	SIFO= 1.78	0	2	-2	0	2	-2	2 295
	Hydrotest{1}		1	6	-5	1	6	-5	6 96
	Thermal 1{1}		0	33	-33	3	33	-33	33 309
	Thermal 2{1}		0	22	-22	1	22	-22	22 34
	Thermal 3{1}		0	16	-16	1	16	-16	16 226
	Thermal 4{1}		0	17	-17	0	17	-17	17 63
	Thermal 5{1}		0	13	-13	1	13	-13	13 237
	GRT1{1}		0	35	-34	3	35	-35	35 308
	GRT2{1}		0	22	-22	2	22	-22	22 29
	GRT3{1}		0	16	-16	1	16	-16	16 219
	GRT4{1}		0	16	-16	0	16	-16	16 58
	GRT5{1}		0	12	-12	2	12	-12	12 229
F07 M	SIFI= 1.78 Gravity{1}	SIFO= 1.78	0	2	-2	0	2	-2	2 302
	Hydrotest{1}		1	6	-5	0	6	-5	6 96
	Thermal 1{1}		0	30	-30	5	31	-31	31 313
	Thermal 2{1}		0	23	-23	0	23	-23	23 36
	Thermal 3{1}		0	17	-17	0	17	-17	17 228
	Thermal 4{1}		0	17	-17	1	17	-17	17 63
	Thermal 5{1}		0	14	-14	1	14	-14	14 239
	GRT1{1}		0	32	-32	5	33	-32	33 313
	GRT2{1}		0	23	-22	1	23	-23	23 32
	GRT3{1}		0	17	-17	1	17	-17	17 42
	GRT4{1}		0	16	-16	1	16	-16	16 58
	GRT5{1}		0	13	-13	1	13	-13	13 233
F07 F-	SIFI= 1.78 Gravity{1}	SIFO= 1.78	0	1	-1	0	1	-1	1 316

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Hydrotest{1}	1	6	-5	0	6	-5	6	96
Thermal 1{1}	0	27	-27	6	28	-28	29	321

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
	Thermal 2{1}	0	23	-23	1	23	-23	23 37
	Thermal 3{1}	0	17	-17	1	17	-17	17 47
	Thermal 4{1}	0	16	-16	2	16	-16	16 61
	Thermal 5{1}	0	14	-14	0	14	-14	14 239
	GRT1{1}	0	28	-28	7	29	-29	30 320
	GRT2{1}	0	23	-23	0	23	-23	23 34
	GRT3{1}	0	17	-17	0	17	-17	17 44
	GRT4{1}	0	16	-16	2	16	-16	16 57
	GRT5{1}	0	14	-14	0	14	-14	14 234
F07 F+	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	1	-1	0	1	-1	1 226
	Hydrotest{1}	1	4	-3	0	4	-3	3 6
	Thermal 1{1}	0	15	-15	6	17	-17	19 231
	Thermal 2{1}	0	13	-13	1	13	-13	13 307
	Thermal 3{1}	0	10	-10	1	10	-10	10 317
	Thermal 4{1}	0	9	-9	2	9	-9	10 331
	Thermal 5{1}	0	8	-8	0	8	-8	8 149
	GRT1{1}	0	16	-16	7	18	-18	19 230
	GRT2{1}	0	13	-13	0	13	-13	13 304
	GRT3{1}	0	10	-10	0	10	-10	10 314
	GRT4{1}	0	9	-9	2	9	-9	9 327
	GRT5{1}	0	8	-8	0	8	-8	8 144
F08	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	19	-19	0	19	-19	19 358
	Hydrotest{1}	1	12	-11	0	12	-11	11 174
	Thermal 1{1}	0	37	-37	6	38	-38	38 224
	Thermal 2{1}	0	34	-34	1	34	-34	34 319
	Thermal 3{1}	0	30	-30	1	30	-30	30 325
	Thermal 4{1}	0	26	-26	2	26	-26	26 340

ADS_LINE_REV0.txt									
	Thermal 5{1}	0	29	-29	0	29	-29	29	144
	GRT1{1}	0	27	-27	7	29	-28	29	254
	GRT2{1}	0	50	-50	0	50	-50	50	333
	GRT3{1}	0	48	-47	0	48	-47	48	337
	GRT4{1}	0	45	-45	2	45	-45	45	347
	GRT5{1}	0	46	-46	0	46	-46	46	158
F21	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	12	-12	0	12	-12	12	359
	Hydrotest{1}	1	8	-7	0	8	-7	7	175
	Thermal 1{1}	0	20	-20	3	21	-20	21	223
	Thermal 2{1}	0	19	-19	0	19	-19	19	320
	Thermal 3{1}	0	17	-17	0	17	-17	17	325
	Thermal 4{1}	0	14	-14	1	15	-14	15	340
	Thermal 5{1}	0	16	-16	0	16	-16	16	144
	GRT1{1}	0	14	-14	4	15	-15	16	259
	GRT2{1}	0	29	-29	0	29	-29	29	335
	GRT3{1}	0	27	-27	0	27	-27	27	339
	GRT4{1}	0	26	-26	1	26	-26	26	348
	GRT5{1}	0	27	-27	0	27	-27	27	158

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ADS_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
F10	SIFI= 1.20	SIFO= 1.20								
	Gravity{1}		0	10	-10	0	10	-10	10	359
	Hydrotest{1}		1	8	-6	0	8	-6	7	177
	Thermal 1{1}		0	13	-13	3	13	-13	14	222
	Thermal 2{1}		0	12	-12	0	12	-12	12	322
	Thermal 3{1}		0	11	-11	0	11	-11	11	326
	Thermal 4{1}		0	9	-9	1	10	-9	10	341
	Thermal 5{1}		0	11	-11	0	11	-11	11	143
	GRT1{1}		0	9	-9	4	10	-10	11	274
	GRT2{1}		0	21	-21	0	21	-21	21	339
	GRT3{1}		0	20	-20	0	20	-20	20	342
	GRT4{1}		0	19	-19	1	19	-19	19	351
	GRT5{1}		0	20	-20	0	20	-20	20	160

*** Segment F end ***

*** Segment G begin ***

K25	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	-1	-1	0	0	-1	1	288
	Hydrotest{1}		86	31	31	0	86	31	76	288
	Thermal 1{1}		0	0	0	0	0	0	0	270
	Thermal 2{1}		0	0	0	0	0	0	0	270
	Thermal 3{1}		0	0	0	0	0	0	0	270
	Thermal 4{1}		0	0	0	0	0	0	0	270
	Thermal 5{1}		0	0	0	0	0	0	0	270
	GRT1{1}		0	-1	-1	0	0	-1	1	288
	GRT2{1}		0	-1	-1	0	0	-1	1	288
	GRT3{1}		0	-1	-1	0	0	-1	1	288
	GRT4{1}		0	-1	-1	0	0	-1	1	288
	GRT5{1}		0	-1	-1	0	0	-1	1	288
G01	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	-1	-1	0	0	-1	1	270
	Hydrotest{1}		86	31	31	0	86	31	76	270
	Thermal 1{1}		0	0	0	0	0	0	0	270
	Thermal 2{1}		0	0	0	0	0	0	0	270
	Thermal 3{1}		0	0	0	0	0	0	0	270
	Thermal 4{1}		0	0	0	0	0	0	0	270
	Thermal 5{1}		0	0	0	0	0	0	0	270
	GRT1{1}		0	-1	-1	0	0	-1	1	270
	GRT2{1}		0	-1	-1	0	0	-1	1	270
	GRT3{1}		0	-1	-1	0	0	-1	1	270
	GRT4{1}		0	-1	-1	0	0	-1	1	270
	GRT5{1}		0	-1	-1	0	0	-1	1	270

*** Segment G end ***

*** Segment H begin ***

B09	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	-1	-1	0	0	-1	1	270

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc

ADS_LINE_REV0.txt

	Hydrotest{1}	75	25	25	0	75	25	66	270
	Thermal 1{1}	0	0	0	0	0	0	0	90
	Thermal 2{1}	0	0	0	0	0	0	0	90
	Thermal 3{1}	0	0	0	0	0	0	0	90
	Thermal 4{1}	0	0	0	0	0	0	0	90
	Thermal 5{1}	0	0	0	0	0	0	0	90
	GRT1{1}	0	-1	-1	0	0	-1	1	270
	GRT2{1}	0	-1	-1	0	0	-1	1	270
	GRT3{1}	0	-1	-1	0	0	-1	1	270
	GRT4{1}	0	-1	-1	0	0	-1	1	270
	GRT5{1}	0	-1	-1	0	0	-1	1	270
H01	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	-1	-1	0	0	-1	1	270
	Hydrotest{1}	75	25	25	0	75	25	66	270
	Thermal 1{1}	0	0	0	0	0	0	0	90
	Thermal 2{1}	0	0	0	0	0	0	0	90
	Thermal 3{1}	0	0	0	0	0	0	0	90
	Thermal 4{1}	0	0	0	0	0	0	0	90
	Thermal 5{1}	0	0	0	0	0	0	0	90
	GRT1{1}	0	-1	-1	0	0	-1	1	270
	GRT2{1}	0	-1	-1	0	0	-1	1	270
	GRT3{1}	0	-1	-1	0	0	-1	1	270
	GRT4{1}	0	-1	-1	0	0	-1	1	270
	GRT5{1}	0	-1	-1	0	0	-1	1	270
*** Segment H end ***									
*** Segment J begin ***									
J00	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	1	-1	0	1	-1	1	180
	Hydrotest{1}	2	1	0	0	2	0	2	180
	Thermal 1{1}	0	0	0	0	0	0	0	270
	Thermal 2{1}	0	0	0	0	0	0	0	270
	Thermal 3{1}	0	0	0	0	0	0	0	270
	Thermal 4{1}	0	0	0	0	0	0	0	270
	Thermal 5{1}	0	0	0	0	0	0	0	270
	GRT1{1}	0	1	-1	0	1	-1	1	180
	GRT2{1}	0	1	-1	0	1	-1	1	180
	GRT3{1}	0	1	-1	0	1	-1	1	180
	GRT4{1}	0	1	-1	0	1	-1	1	180
	GRT5{1}	0	1	-1	0	1	-1	1	180
J01 N-	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	0	-1	0	0	-1	1	180
	Hydrotest{1}	2	1	0	0	2	0	1	180

ADS_LINE_REV0.txt

Thermal 1{1}	0	0	0	0	0	0	0	270
Thermal 2{1}	0	0	0	0	0	0	0	270
Thermal 3{1}	0	0	0	0	0	0	0	270
Thermal 4{1}	0	0	0	0	0	0	0	270
Thermal 5{1}	0	0	0	0	0	0	0	270

0

ADS_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point name	Load combination	Hoop Stress	Longitudinal Max	Min	Shear Stress	Principal Max	Min	Total Stress	Loc
	GRT1{1}	0	0	-1	0	0	-1	1	180
	GRT2{1}	0	0	-1	0	0	-1	1	180
	GRT3{1}	0	0	-1	0	0	-1	1	180
	GRT4{1}	0	0	-1	0	0	-1	1	180
	GRT5{1}	0	0	-1	0	0	-1	1	180
J01 N+	SIFI= 2.13 Gravity{1}	0	1	-1	0	1	-1	1	180
	Hydrotest{1}	2	2	0	0	2	0	2	180
	Thermal 1{1}	0	0	0	0	0	0	0	270
	Thermal 2{1}	0	0	0	0	0	0	0	270
	Thermal 3{1}	0	0	0	0	0	0	0	270
	Thermal 4{1}	0	0	0	0	0	0	0	270
	Thermal 5{1}	0	0	0	0	0	0	0	270
	GRT1{1}	0	1	-1	0	1	-1	1	180
	GRT2{1}	0	1	-1	0	1	-1	1	180
	GRT3{1}	0	1	-1	0	1	-1	1	180
	GRT4{1}	0	1	-1	0	1	-1	1	180
	GRT5{1}	0	1	-1	0	1	-1	1	180
J01 F-	SIFI= 2.13 Gravity{1}	0	1	-1	0	1	-1	1	180
	Hydrotest{1}	2	1	0	0	2	0	2	180
	Thermal 1{1}	0	0	0	0	0	0	0	270
	Thermal 2{1}	0	0	0	0	0	0	0	270
	Thermal 3{1}	0	0	0	0	0	0	0	270
	Thermal 4{1}	0	0	0	0	0	0	0	270
	Thermal 5{1}	0	0	0	0	0	0	0	270

	ADS_LINE_REV0.txt						
GRT1{1}	0	1	-1	0	1	-1	1 180
GRT2{1}	0	1	-1	0	1	-1	1 180
GRT3{1}	0	1	-1	0	1	-1	1 180
GRT4{1}	0	1	-1	0	1	-1	1 180
GRT5{1}	0	1	-1	0	1	-1	1 180

J01 F+ SIFI= 1.00 SIF0= 1.00

Gravity{1}	0	0	0	0	0	0	0 240
Hydrotest{1}	2	1	0	0	2	0	1 240
Thermal 1{1}	0	0	0	0	0	0	0 270
Thermal 2{1}	0	0	0	0	0	0	0 270
Thermal 3{1}	0	0	0	0	0	0	0 270
Thermal 4{1}	0	0	0	0	0	0	0 270
Thermal 5{1}	0	0	0	0	0	0	0 270
GRT1{1}	0	0	0	0	0	0	0 240
GRT2{1}	0	0	0	0	0	0	0 240
GRT3{1}	0	0	0	0	0	0	0 240
GRT4{1}	0	0	0	0	0	0	0 240
GRT5{1}	0	0	0	0	0	0	0 240

J02 N- SIFI= 1.00 SIF0= 1.00

Gravity{1}	0	0	0	0	0	0	0 240
Hydrotest{1}	2	1	0	0	2	0	1 240
Thermal 1{1}	0	0	0	0	0	0	0 270

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point name	Load combination	Hoop Stress	Longitudinal Max	Min	Shear Stress	Principal Max	Min	Total Stress	Loc
	Thermal 2{1}	0	0	0	0	0	0	0	270
	Thermal 3{1}	0	0	0	0	0	0	0	270
	Thermal 4{1}	0	0	0	0	0	0	0	270
	Thermal 5{1}	0	0	0	0	0	0	0	270
	GRT1{1}	0	0	0	0	0	0	0	240
	GRT2{1}	0	0	0	0	0	0	0	240
	GRT3{1}	0	0	0	0	0	0	0	240
	GRT4{1}	0	0	0	0	0	0	0	240
	GRT5{1}	0	0	0	0	0	0	0	240

			ADS_LINE_REV0.txt							
J02 N+	SIFI= 2.13	SIFO= 2.13	0	1	-1	0	1	-1	1	0
	Gravity{1}									
	Hydrotest{1}		2	1	0	0	2	0	2	0
	Thermal 1{1}		0	0	0	0	0	0	0	270
	Thermal 2{1}		0	0	0	0	0	0	0	270
	Thermal 3{1}		0	0	0	0	0	0	0	270
	Thermal 4{1}		0	0	0	0	0	0	0	270
	Thermal 5{1}		0	0	0	0	0	0	0	270
	GRT1{1}		0	1	-1	0	1	-1	1	0
	GRT2{1}		0	1	-1	0	1	-1	1	0
	GRT3{1}		0	1	-1	0	1	-1	1	0
	GRT4{1}		0	1	-1	0	1	-1	1	0
	GRT5{1}		0	1	-1	0	1	-1	1	0
J02 F-	SIFI= 2.13	SIFO= 2.13	0	0	0	0	0	0	0	180
	Gravity{1}									
	Hydrotest{1}		2	1	1	0	2	1	1	0
	Thermal 1{1}		0	0	0	0	0	0	0	270
	Thermal 2{1}		0	0	0	0	0	0	0	270
	Thermal 3{1}		0	0	0	0	0	0	0	270
	Thermal 4{1}		0	0	0	0	0	0	0	270
	Thermal 5{1}		0	0	0	0	0	0	0	270
	GRT1{1}		0	0	0	0	0	0	0	180
	GRT2{1}		0	0	0	0	0	0	0	180
	GRT3{1}		0	0	0	0	0	0	0	180
	GRT4{1}		0	0	0	0	0	0	0	180
	GRT5{1}		0	0	0	0	0	0	0	180
J02 F+	SIFI= 1.00	SIFO= 1.00	0	0	0	0	0	0	0	0
	Gravity{1}									
	Hydrotest{1}		2	1	1	0	2	1	1	180
	Thermal 1{1}		0	0	0	0	0	0	0	270
	Thermal 2{1}		0	0	0	0	0	0	0	90
	Thermal 3{1}		0	0	0	0	0	0	0	270
	Thermal 4{1}		0	0	0	0	0	0	0	270
	Thermal 5{1}		0	0	0	0	0	0	0	90
	GRT1{1}		0	0	0	0	0	0	0	0
	GRT2{1}		0	0	0	0	0	0	0	0
	GRT3{1}		0	0	0	0	0	0	0	0
	GRT4{1}		0	0	0	0	0	0	0	0
	GRT5{1}		0	0	0	0	0	0	0	0

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
J03	SIFI= 1.20	SIFO= 1.20								
	Gravity{1}		0	0	0	0	0	0	0	270
	Hydrotest{1}		2	1	1	0	2	1	1	270
	Thermal 1{1}		0	0	0	0	0	0	0	270
	Thermal 2{1}		0	0	0	0	0	0	0	90
	Thermal 3{1}		0	0	0	0	0	0	0	270
	Thermal 4{1}		0	0	0	0	0	0	0	270
	Thermal 5{1}		0	0	0	0	0	0	0	90
	GRT1{1}		0	0	0	0	0	0	0	270
	GRT2{1}		0	0	0	0	0	0	0	90
	GRT3{1}		0	0	0	0	0	0	0	270
	GRT4{1}		0	0	0	0	0	0	0	270
	GRT5{1}		0	0	0	0	0	0	0	90

*** Segment J end ***

*** Segment K begin ***

K02	SIFI= 1.30 SIFO= 1.30 Gravity{1}	0	8	-5	0	8	-5	8	50
	Hydrotest{1}	1	2	0	0	2	0	2	73
	Thermal 1{1}	0	21	-21	3	22	-21	22	59
	Thermal 2{1}	0	11	-12	2	12	-12	13	280
	Thermal 3{1}	0	40	-38	1	40	-38	40	63
	Thermal 4{1}	0	6	-7	1	6	-7	7	320
	Thermal 5{1}	0	10	-10	1	10	-10	10	220
	GRT1{1}	0	29	-26	3	29	-26	29	57
	GRT2{1}	0	18	-15	2	18	-16	18	83
	GRT3{1}	0	48	-43	1	48	-43	48	61
	GRT4{1}	0	10	-8	1	10	-8	10	95
	GRT5{1}	0	18	-15	1	18	-15	18	44

K03 N-	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	14	-11	0	14	-11	14	57
	Hydrotest{1}	1	4	-1	0	4	-1	4	64
	Thermal 1{1}	0	50	-49	3	50	-50	50	63
	Thermal 2{1}	0	21	-21	2	21	-21	21	239
	Thermal 3{1}	0	74	-71	1	74	-71	74	52
	Thermal 4{1}	0	3	-3	1	3	-3	4	215
	Thermal 5{1}	0	18	-19	1	18	-19	19	240

ADS_LINE_REV0.txt

GRT1{1}	0	64	-61	3	64	-61	64	62
GRT2{1}	0	35	-32	2	35	-32	35	58
GRT3{1}	0	89	-83	1	89	-83	89	53
GRT4{1}	0	17	-14	1	17	-14	17	53
GRT5{1}	0	33	-30	1	33	-30	33	59
K03 N+ SIFI= 1.78 SIF0= 1.78								
Gravity{1}	0	24	-21	0	24	-21	24	355
Hydrotest{1}	1	6	-3	0	6	-3	6	2
Thermal 1{1}	0	89	-88	3	89	-88	89	1
Thermal 2{1}	0	37	-37	2	37	-37	37	177
Thermal 3{1}	0	131	-128	1	131	-128	131	350

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point name	Load combination	Hoop Stress	Longitudinal Max	Min	Shear Stress	Principal Max	Min	Total Stress	Loc

	Thermal 4{1}	0	5	-5	1	5	-6	6	153
	Thermal 5{1}	0	33	-33	1	33	-33	33	178
	GRT1{1}	0	113	-109	3	113	-109	113	360
	GRT2{1}	0	61	-58	2	61	-58	61	356
	GRT3{1}	0	155	-149	1	155	-149	155	351
	GRT4{1}	0	29	-26	1	29	-26	29	351
	GRT5{1}	0	57	-54	1	57	-54	57	357
K03 F- SIFI= 1.78 SIF0= 1.78									
	Gravity{1}	0	9	-9	0	9	-9	9	2
	Hydrotest{1}	1	4	-3	0	4	-3	3	1
	Thermal 1{1}	0	95	-94	1	95	-94	95	356
	Thermal 2{1}	0	44	-43	0	44	-43	44	351
	Thermal 3{1}	0	125	-123	6	126	-124	126	359
	Thermal 4{1}	0	8	-8	0	8	-8	8	338
	Thermal 5{1}	0	38	-37	0	38	-37	38	356
	GRT1{1}	0	105	-103	1	105	-103	105	356
	GRT2{1}	0	53	-52	1	53	-52	53	353
	GRT3{1}	0	135	-132	6	135	-133	135	359
	GRT4{1}	0	17	-17	1	17	-17	17	351
	GRT5{1}	0	47	-46	1	47	-46	47	358

ADS_LINE_REV0.txt

K03 F+ SIFI= 1.00 SIFO= 1.00
Gravity{1}

0	5	-5	0	5	-5	5	182
1	2	-1	0	2	-1	2	181
0	54	-52	1	54	-52	54	176
0	25	-24	0	25	-24	25	171
0	71	-69	6	72	-69	72	179
0	5	-4	0	5	-4	5	158
0	21	-21	0	21	-21	21	176
0	59	-57	1	59	-57	59	176
0	30	-29	1	30	-29	30	173
0	77	-74	6	77	-74	77	179
0	10	-9	1	10	-9	10	171
0	27	-26	1	27	-26	27	178

K04 SIFI= 2.00 SIFO= 2.00
Gravity{1}

0	12	-11	0	12	-11	12	356
1	16	-15	0	16	-15	16	180
0	103	-102	1	103	-102	103	178
0	52	-51	0	52	-51	52	174
0	121	-119	6	121	-119	121	180
0	11	-11	0	11	-11	11	167
0	46	-45	0	46	-45	46	177
0	92	-90	1	92	-90	92	178
0	40	-39	1	40	-39	40	174
0	110	-107	6	110	-108	110	180
0	2	-1	1	2	-2	3	64
0	34	-33	1	34	-34	34	178

K05 SIFI= 2.00 SIFO= 2.00
Gravity{1}

0	41	-41	1	41	-41	41	358

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point name	Load combination	Hoop Stress	Longitudinal Max	Longitudinal Min	Shear Stress	Principal Max	Principal Min	Total Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	Hydrotest{1}	1	39	-38	0	39	-38	38	179
	Thermal 1{1}	0	163	-161	2	163	-161	163	179
	Thermal 2{1}	0	86	-85	0	86	-85	86	176
	Thermal 3{1}	0	175	-172	9	176	-173	176	180

ADS_LINE_REV0.txt

	Thermal 4{1}	0	20	-20	1	20	-20	20	171
	Thermal 5{1}	0	77	-76	0	77	-76	77	178
	GRT1{1}	0	122	-120	1	123	-120	123	179
	GRT2{1}	0	45	-44	1	45	-44	45	175
	GRT3{1}	0	135	-131	10	135	-132	136	181
	GRT4{1}	0	22	-21	2	22	-21	22	3
	GRT5{1}	0	36	-35	1	36	-35	36	179
K06	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	52	-51	1	52	-51	52	358
	Hydrotest{1}	1	37	-36	0	37	-36	37	179
	Thermal 1{1}	0	77	-75	2	77	-75	77	182
	Thermal 2{1}	0	47	-46	0	47	-46	47	181
	Thermal 3{1}	0	60	-58	9	62	-59	63	184
	Thermal 4{1}	0	13	-13	1	13	-13	13	179
	Thermal 5{1}	0	43	-42	0	43	-42	43	179
	GRT1{1}	0	26	-24	1	26	-24	26	190
	GRT2{1}	0	6	-5	1	6	-5	6	340
	GRT3{1}	0	11	-7	10	17	-14	20	215
	GRT4{1}	0	39	-38	2	39	-38	39	358
	GRT5{1}	0	10	-9	1	10	-9	10	354
K07	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	39	-39	0	39	-39	39	357
	Hydrotest{1}	86	54	9	0	86	9	82	178
	Thermal 1{1}	0	42	-40	1	42	-41	42	192
	Thermal 2{1}	0	26	-25	0	26	-25	26	191
	Thermal 3{1}	0	9	-7	6	12	-10	14	299
	Thermal 4{1}	0	7	-7	1	7	-7	7	195
	Thermal 5{1}	0	23	-23	0	23	-23	23	182
	GRT1{1}	0	11	-9	1	11	-9	11	264
	GRT2{1}	0	16	-15	1	16	-15	16	335
	GRT3{1}	0	45	-43	6	46	-44	46	349
	GRT4{1}	0	33	-33	1	33	-33	33	354
	GRT5{1}	0	17	-16	1	17	-16	17	351
K08	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	25	-25	0	25	-25	25	355
	Hydrotest{1}	86	41	21	0	86	21	78	174
	Thermal 1{1}	0	37	-36	1	37	-36	37	198
	Thermal 2{1}	0	20	-19	0	20	-19	20	202
	Thermal 3{1}	0	28	-27	6	30	-28	30	341
	Thermal 4{1}	0	4	-4	1	4	-4	4	222
	Thermal 5{1}	0	17	-16	0	17	-16	17	185
	GRT1{1}	0	18	-16	1	18	-16	18	233

	ADS_LINE_REV0.txt						
GRT2{1}	0	12	-11	1	12	-11	12 307
GRT3{1}	0	53	-51	6	54	-52	54 348
GRT4{1}	0	23	-22	1	23	-22	23 348

0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
K10		GRT5{1}	0	10	-9	1	10	-9	10	338
		SIFI= 1.00 Gravity{1}	0	8	-7	0	8	-7	8	338
		SIFO= 1.00 Hydrotest{1}	86	36	26	0	86	26	77	15
		Thermal 1{1}	0	31	-30	1	31	-30	31	214
		Thermal 2{1}	0	12	-12	0	12	-12	12	248
		Thermal 3{1}	0	69	-67	6	69	-68	70	349
		Thermal 4{1}	0	6	-6	1	6	-6	6	314
		Thermal 5{1}	0	4	-4	0	4	-4	4	214
		GRT1{1}	0	27	-26	1	27	-26	27	228
		GRT2{1}	0	15	-14	1	15	-14	15	280
		GRT3{1}	0	77	-75	6	77	-75	77	348
		GRT4{1}	0	13	-13	1	13	-13	13	328
		GRT5{1}	0	7	-6	1	7	-6	7	304
K11	-	SIFI= 1.00 Gravity{1}	0	5	-4	0	5	-4	5	136
		SIFO= 1.00 Hydrotest{1}	86	39	24	0	86	24	77	79
		Thermal 1{1}	0	29	-28	1	29	-28	29	226
		Thermal 2{1}	0	14	-13	0	14	-13	14	174
		Thermal 3{1}	0	87	-86	6	88	-86	88	100
		Thermal 4{1}	0	9	-9	1	9	-9	9	124
		Thermal 5{1}	0	4	-3	0	4	-3	4	141
		GRT1{1}	0	29	-28	1	29	-28	29	217
		GRT2{1}	0	17	-16	1	17	-16	17	165
		GRT3{1}	0	91	-89	6	92	-90	92	101
		GRT4{1}	0	13	-13	1	13	-13	13	128
		GRT5{1}	0	8	-8	1	8	-8	8	138
	K11	+	SIFI= 1.00 Gravity{1}	0	8	-8	1	8	-8	8
	SIFO= 1.00									

ADS_LINE_REV0.txt

Hydrotest{1}	86	41	22	0	86	22	78	84
Thermal 1{1}	0	44	-45	3	44	-46	46	56
Thermal 2{1}	0	30	-31	1	30	-31	31	61
Thermal 3{1}	0	35	-36	0	35	-36	36	44
Thermal 4{1}	0	9	-9	0	9	-9	9	59
Thermal 5{1}	0	27	-29	1	27	-29	29	63
GRT1{1}	0	39	-41	3	40	-41	41	48
GRT2{1}	0	25	-26	2	25	-26	26	49
GRT3{1}	0	32	-34	1	32	-34	34	32
GRT4{1}	0	7	-7	1	7	-7	7	5
GRT5{1}	0	22	-24	2	23	-24	24	50
K25 - SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	7	-7	1	7	-7	7	3
Hydrotest{1}	86	44	19	0	86	19	79	180
Thermal 1{1}	0	83	-85	3	83	-85	85	178
Thermal 2{1}	0	51	-52	1	51	-52	52	177
Thermal 3{1}	0	70	-72	0	70	-72	72	178
Thermal 4{1}	0	15	-15	0	15	-15	15	178
Thermal 5{1}	0	51	-52	1	51	-52	52	176

0

ADS_LINE_REV0

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RESULT PAGE 153

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc

	GRT1{1}	0	90	-92	3	90	-92	92 178
	GRT2{1}	0	58	-59	2	58	-59	59 178
	GRT3{1}	0	78	-79	1	78	-79	79 179
	GRT4{1}	0	22	-23	1	22	-23	23 179
	GRT5{1}	0	58	-59	2	58	-59	59 177
K25 + SIFI= 1.00 SIFO= 1.00								
	Gravity{1}	0	7	-7	1	7	-7	7 3
	Hydrotest{1}	86	44	19	0	86	19	79 180
	Thermal 1{1}	0	83	-85	3	83	-85	85 178
	Thermal 2{1}	0	51	-52	1	51	-52	52 177
	Thermal 3{1}	0	70	-72	0	70	-72	72 178
	Thermal 4{1}	0	15	-15	0	15	-15	15 178

ADS_LINE_REV0.txt								
Thermal 5{1}	0	51	-52	1	51	-52	52	176
GRT1{1}	0	90	-92	3	90	-92	92	178
GRT2{1}	0	58	-59	2	58	-59	59	178
GRT3{1}	0	78	-79	1	78	-79	79	179
GRT4{1}	0	22	-23	1	22	-23	23	179
GRT5{1}	0	58	-59	2	58	-59	59	177
K13 N- SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	6	-6	1	6	-6	6	181
Hydrotest{1}	86	34	29	0	86	29	76	184
Thermal 1{1}	0	102	-103	3	102	-104	104	184
Thermal 2{1}	0	63	-64	1	63	-64	64	185
Thermal 3{1}	0	85	-87	0	85	-87	87	184
Thermal 4{1}	0	18	-19	0	18	-19	19	184
Thermal 5{1}	0	63	-64	1	63	-64	64	185
GRT1{1}	0	96	-97	3	96	-98	98	185
GRT2{1}	0	57	-58	2	57	-58	58	185
GRT3{1}	0	79	-81	1	79	-81	81	185
GRT4{1}	0	13	-13	1	13	-13	13	186
GRT5{1}	0	57	-58	2	57	-58	58	185
K13 N+ SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	6	-6	1	6	-6	6	1
Hydrotest{1}	86	34	29	0	86	29	76	4
Thermal 1{1}	0	102	-103	3	102	-104	104	4
Thermal 2{1}	0	63	-64	1	63	-64	64	5
Thermal 3{1}	0	85	-87	0	85	-87	87	4
Thermal 4{1}	0	18	-19	0	18	-19	19	4
Thermal 5{1}	0	63	-64	1	63	-64	64	5
GRT1{1}	0	96	-97	3	96	-98	98	5
GRT2{1}	0	57	-58	2	57	-58	58	5
GRT3{1}	0	79	-81	1	79	-81	81	5
GRT4{1}	0	13	-13	1	13	-13	13	6
GRT5{1}	0	57	-58	2	57	-58	58	5
K13 F- SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	9	-8	0	9	-8	9	7
Hydrotest{1}	86	32	31	0	86	31	76	313
Thermal 1{1}	0	100	-101	4	100	-101	101	357

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RESULT PAGE 154

GENERAL PIPE STRESS REPORT

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ADS_LINE_REV0.txt
(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
	Thermal	2{1}	0	61	-62	3	61	-62	62	359
	Thermal	3{1}	0	83	-84	4	83	-84	84	1
	Thermal	4{1}	0	18	-18	1	18	-18	18	0
	Thermal	5{1}	0	61	-62	3	61	-62	62	359
	GRT1	{1}	0	92	-92	4	92	-92	92	357
	GRT2	{1}	0	53	-53	3	53	-53	53	357
	GRT3	{1}	0	75	-75	4	75	-75	76	360
	GRT4	{1}	0	10	-9	1	10	-9	10	174
	GRT5	{1}	0	53	-53	3	53	-53	53	177
	K13 F+	SIFI= 1.00 Gravity{1}	SIF0= 1.00	0	9	-8	0	9	-8	9
	Hydrotest	{1}	86	32	31	0	86	31	76	71
	Thermal	1{1}	0	100	-101	4	100	-101	101	115
	Thermal	2{1}	0	61	-62	3	61	-62	62	117
	Thermal	3{1}	0	83	-84	4	83	-84	84	119
	Thermal	4{1}	0	18	-18	1	18	-18	18	118
	Thermal	5{1}	0	61	-62	3	61	-62	62	117
	GRT1	{1}	0	92	-92	4	92	-92	92	115
	GRT2	{1}	0	53	-53	3	53	-53	53	115
	GRT3	{1}	0	75	-75	4	75	-75	76	118
	GRT4	{1}	0	10	-9	1	10	-9	10	292
	GRT5	{1}	0	53	-53	3	53	-53	53	295
K14 N-	SIFI= 1.00 Gravity{1}	SIF0= 1.00	0	6	-5	0	6	-5	6	119
	Hydrotest	{1}	86	32	30	0	86	30	76	301
	Thermal	1{1}	0	11	-12	4	12	-13	14	182
	Thermal	2{1}	0	8	-9	3	9	-9	10	232
	Thermal	3{1}	0	15	-16	4	16	-16	17	206
	Thermal	4{1}	0	6	-6	1	6	-7	7	272
	Thermal	5{1}	0	8	-8	3	9	-9	10	242
	GRT1	{1}	0	10	-11	4	11	-12	13	210
	GRT2	{1}	0	11	-12	3	12	-12	13	258
	GRT3	{1}	0	16	-16	4	16	-17	17	226
	GRT4	{1}	0	11	-11	1	11	-11	11	105
	GRT5	{1}	0	12	-12	3	12	-13	13	264
K14 N+	SIFI= 1.00 Gravity{1}	SIF0= 1.00	0	6	-5	0	6	-5	6	349
	Hydrotest	{1}	86	32	30	0	86	30	76	171

	ADS_LINE_REV0.txt							
Thermal 1{1}	0	11	-12	4	12	-13	14	52
Thermal 2{1}	0	8	-9	3	9	-9	10	102
Thermal 3{1}	0	15	-16	4	16	-16	17	76
Thermal 4{1}	0	6	-6	1	6	-7	7	142
Thermal 5{1}	0	8	-8	3	9	-9	10	112
GRT1{1}	0	10	-11	4	11	-12	13	80
GRT2{1}	0	11	-12	3	12	-12	13	128
GRT3{1}	0	16	-16	4	16	-17	17	96
GRT4{1}	0	11	-11	1	11	-11	11	335
GRT5{1}	0	12	-12	3	12	-13	13	134

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ADS_LINE_REV0

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RESULT PAGE 155

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc

K14 F-	SIFI= 1.00 SIFO= 1.00							
	Gravity{1}	0	4	-4	1	4	-4	4 179
	Hydrotest{1}	86	32	31	0	86	31	76 194
	Thermal 1{1}	0	8	-6	6	11	-10	13 66
	Thermal 2{1}	0	10	-9	5	12	-11	13 27
	Thermal 3{1}	0	8	-6	8	13	-12	17 49
	Thermal 4{1}	0	8	-7	2	8	-8	8 9
	Thermal 5{1}	0	11	-10	4	13	-12	14 26
	GRT1{1}	0	10	-8	6	13	-12	15 45
	GRT2{1}	0	13	-12	5	15	-14	16 19
	GRT3{1}	0	11	-9	9	16	-15	19 32
	GRT4{1}	0	11	-11	3	12	-11	12 5
	GRT5{1}	0	15	-13	5	16	-15	17 19
K14 F+	SIFI= 1.00 SIFO= 1.00							
	Gravity{1}	0	4	-4	1	4	-4	4 179
	Hydrotest{1}	86	32	31	0	86	31	76 194
	Thermal 1{1}	0	8	-6	6	11	-10	13 66
	Thermal 2{1}	0	10	-9	5	12	-11	13 27
	Thermal 3{1}	0	8	-6	8	13	-12	17 49
	Thermal 4{1}	0	8	-7	2	8	-8	8 9
	Thermal 5{1}	0	11	-10	4	13	-12	14 26
	GRT1{1}	0	10	-8	6	13	-12	15 45

ADS_LINE_REV0.txt

	GRT2{1}		0	13	-12	5	15	-14	16	19
	GRT3{1}		0	11	-9	9	16	-15	19	32
	GRT4{1}		0	11	-11	3	12	-11	12	5
	GRT5{1}		0	15	-13	5	16	-15	17	19
K21	SIFI= 2.00 SIFO= 2.00 Gravity{1}		0	15	-15	1	15	-15	15	3
	Hydrotest{1}	86	37	25	0	86	25	77	162	
	Thermal 1{1}	0	173	-172	6	173	-172	174	336	
	Thermal 2{1}	0	124	-122	5	124	-123	124	338	
	Thermal 3{1}	0	146	-145	8	147	-145	147	333	
	Thermal 4{1}	0	46	-46	2	47	-46	47	340	
	Thermal 5{1}	0	124	-123	4	124	-123	124	339	
	GRT1{1}	0	160	-158	6	160	-158	160	334	
	GRT2{1}	0	110	-109	5	110	-109	110	335	
	GRT3{1}	0	133	-132	9	134	-132	134	330	
	GRT4{1}	0	33	-33	3	33	-33	33	329	
	GRT5{1}	0	110	-109	5	110	-109	110	336	
K22	SIFI= 2.00 SIFO= 2.00 Gravity{1}		0	4	-4	0	4	-4	4	3
	Hydrotest{1}	97	38	34	0	97	34	85	165	
	Thermal 1{1}	0	51	-50	2	51	-50	51	336	
	Thermal 2{1}	0	36	-35	1	36	-35	36	338	
	Thermal 3{1}	0	43	-42	2	43	-42	43	333	
	Thermal 4{1}	0	13	-13	1	13	-13	13	339	
	Thermal 5{1}	0	36	-35	1	36	-35	36	339	
	GRT1{1}	0	47	-46	2	47	-46	47	333	
	GRT2{1}	0	32	-32	1	32	-32	32	335	

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ADS_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal		Shear	Principal		Total	
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	GRT3{1}	0	39	-38	2	39	-39	39	330
	GRT4{1}	0	10	-10	1	10	-10	10	329
	GRT5{1}	0	32	-32	1	32	-32	32	336

K23 SIFI= 1.00 SIFO= 1.00

	ADS_LINE_REV0.txt						
	0	2	-2	0	2	-2	2 4
Gravity{1}							
Hydrotest{1}	97	38	35	0	97	35	85 169
Thermal 1{1}	0	27	-27	2	28	-27	28 336
Thermal 2{1}	0	19	-19	1	19	-19	20 337
Thermal 3{1}	0	23	-22	2	23	-23	23 333
Thermal 4{1}	0	7	-7	1	7	-7	7 338
Thermal 5{1}	0	19	-19	1	19	-19	19 339
GRT1{1}	0	26	-25	2	26	-25	26 333
GRT2{1}	0	18	-17	1	18	-17	18 335
GRT3{1}	0	21	-21	2	22	-21	22 330
GRT4{1}	0	5	-5	1	6	-5	6 329
GRT5{1}	0	18	-17	1	18	-17	18 336

*** Segment K end ***

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ADS_LINE_REV0

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RESULT PAGE 157

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)

(Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F no. type	Stress	Allow.

B13	Max P{1}					HOOP	58 86
	GR + Max P{1}	92			2.00 2-1 SUST	46	86
	TR:Amb to T1{1}			864	2.00 4-1 DISP	208	197**
	with Sus. load margin			4-2 864	2.00 208 237 4-1 DISP	208	197**
	Amb to T1{1}			588	2.00 208 237 4-1 DISP	141	201
	with Sus. load margin			742	2.00 4-1 DISP	178	197
	Amb to T3{1}			191	2.00 4-1 DISP	46	225
	Amb to T4{1}			549	2.00 4-1 DISP	132	201
	Amb to T5{1}						
	Hydrotest{1}	0	54		2.00 3-1 OCC	53	219
	Sus.+T1{1}				2.00 5-1 CRUP	98	<NOTE 1>
	Sus.+T2{1}				2.00 5-1 CRUP	81	<NOTE 1>
	Sus.+T3{1}				2.00 5-1 CRUP	90	<NOTE 1>
	Sus.+T4{1}				2.00 5-1 CRUP	57	<NOTE 1>
	Sus.+T5{1}				2.00 5-1 CRUP	79	<NOTE 1>
C06	Max P{1}					HOOP	11 116
	GR + Max P{1}	854			1.00 2-1 SUST	54	116
	TR:T1 to T3{1}			3229	1.00 4-1 DISP	185	247

ADS_LINE_REV0.txt

	Amb to T1{1}		1855	1.00	4-1 DISP	106	247
	Amb to T2{1}		645	1.00	4-1 DISP	37	247
	Amb to T3{1}		1770	1.00	4-1 DISP	102	247
	Amb to T4{1}		614	1.00	4-1 DISP	35	225
	Amb to T5{1}		426	1.00	4-1 DISP	24	247
	Hydrotest{1}	0	300	1.00	3-1 OCC	18	219
	Sus.+T1{1}			1.00	5-1 CRUP	90	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	67	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	88	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	66	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	62	<NOTE 1>
K05	Max P{1}				HOOP	11	104
	GR + Max P{1}	357		2.00	2-1 SUST	36	104
	TR:Amb to T3{1}		1548	2.00	4-1 DISP	178	247
	Amb to T1{1}		1414	2.00	4-1 DISP	162	247
	Amb to T2{1}		745	2.00	4-1 DISP	85	217
	Amb to T3{1}		1548	2.00	4-1 DISP	178	247
	Amb to T4{1}		174	2.00	4-1 DISP	20	225
	Amb to T5{1}		667	2.00	4-1 DISP	76	217
	Hydrotest{1}	0	334	2.00	3-1 OCC	29	219
	Sus.+T1{1}			2.00	5-1 CRUP	77	<NOTE 1>
	Sus.+T2{1}			2.00	5-1 CRUP	57	<NOTE 1>
	Sus.+T3{1}			2.00	5-1 CRUP	80	<NOTE 1>
	Sus.+T4{1}			2.00	5-1 CRUP	41	<NOTE 1>
	Sus.+T5{1}			2.00	5-1 CRUP	55	<NOTE 1>

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ADS_LINE_REV0

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
K21	Max P{1}					HOOP	67	86	
	GR + Max P{1}	208			2.00	2-1 SUST	45	86	
	TR:Amb to T1{1}			2332	2.00	4-1 DISP	174	197	
	Amb to T1{1}			2332	2.00	4-1 DISP	174	197	
	Amb to T2{1}			1670	2.00	4-1 DISP	125	201	

		ADS_LINE_REV0.txt					
	Amb to T3{1}		2002	2.00	4-1 DISP	149	197
	Amb to T4{1}		630	2.00	4-1 DISP	47	225
	Amb to T5{1}		1669	2.00	4-1 DISP	124	201
	Hydrotest{1}	0	78	2.00	3-1 OCC	54	219
	Sus.+T1{1}			2.00	5-1 CRUP	88	<NOTE 1>
	Sus.+T2{1}			2.00	5-1 CRUP	76	<NOTE 1>
	Sus.+T3{1}			2.00	5-1 CRUP	82	<NOTE 1>
	Sus.+T4{1}			2.00	5-1 CRUP	56	<NOTE 1>
	Sus.+T5{1}			2.00	5-1 CRUP	76	<NOTE 1>
E05	Max P{1}				HOOP	10	104
	GR + Max P{1}	180		2.00	2-1 SUST	55	104
	TR:Amb to T1{1}		398	2.00	4-1 DISP	149	247
	Amb to T1{1}		398	2.00	4-1 DISP	149	247
	Amb to T2{1}		220	2.00	4-1 DISP	82	247
	Amb to T3{1}		133	2.00	4-1 DISP	50	217
	Amb to T4{1}		91	2.00	4-1 DISP	34	247
	Amb to T5{1}		131	2.00	4-1 DISP	49	217
	Hydrotest{1}	0	83	2.00	3-1 OCC	24	219
	Sus.+T1{1}			2.00	5-1 CRUP	93	<NOTE 1>
	Sus.+T2{1}			2.00	5-1 CRUP	76	<NOTE 1>
	Sus.+T3{1}			2.00	5-1 CRUP	68	<NOTE 1>
	Sus.+T4{1}			2.00	5-1 CRUP	64	<NOTE 1>
	Sus.+T5{1}			2.00	5-1 CRUP	68	<NOTE 1>
C05 F-	Max P{1}				HOOP	11	116
	GR + Max P{1}	73		1.59	2-1 SUST	10	116
	TR:T1 to T3{1}		1525	1.59	4-1 DISP	139	247
	Amb to T1{1}		1333	1.59	4-1 DISP	121	247
	Amb to T2{1}		283	1.59	4-1 DISP	26	247
	Amb to T3{1}		503	1.59	4-1 DISP	46	247
	Amb to T4{1}		190	1.59	4-1 DISP	17	225
	Amb to T5{1}		303	1.59	4-1 DISP	28	247
	Hydrotest{1}	0	205	1.59	3-1 OCC	15	219
	Sus.+T1{1}			1.59	5-1 CRUP	41	<NOTE 1>
	Sus.+T2{1}			1.59	5-1 CRUP	17	<NOTE 1>
	Sus.+T3{1}			1.59	5-1 CRUP	22	<NOTE 1>
	Sus.+T4{1}			1.59	5-1 CRUP	15	<NOTE 1>
	Sus.+T5{1}			1.59	5-1 CRUP	17	<NOTE 1>

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Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. Load no. type			
C05 N+	Max P{1}					HOOP		11	116
	GR + Max P{1}	103			1.59	2-1 SUST		12	116
	TR:T1 to T4{1}			1484	1.59	4-1 DISP		135	225
	Amb to T1{1}			1325	1.59	4-1 DISP		121	247
	Amb to T2{1}			305	1.59	4-1 DISP		28	247
	Amb to T3{1}			513	1.59	4-1 DISP		47	247
	Amb to T4{1}			178	1.59	4-1 DISP		16	225
	Amb to T5{1}			324	1.59	4-1 DISP		30	247
	Hydrotest{1}	0	226		1.59	3-1 OCC		16	219
	Sus.+T1{1}				1.59	5-1 CRUP		43	<NOTE 1>
	Sus.+T2{1}				1.59	5-1 CRUP		19	<NOTE 1>
	Sus.+T3{1}				1.59	5-1 CRUP		24	<NOTE 1>
	Sus.+T4{1}				1.59	5-1 CRUP		16	<NOTE 1>
	Sus.+T5{1}				1.59	5-1 CRUP		20	<NOTE 1>
K03 N+	Max P{1}					HOOP		13	104
	GR + Max P{1}	363			1.78	2-1 SUST		23	104
	TR:Amb to T3{1}			2059	1.78	4-1 DISP		130	247
	Amb to T1{1}			1412	1.78	4-1 DISP		89	247
	Amb to T2{1}			601	1.78	4-1 DISP		38	217
	Amb to T3{1}			2059	1.78	4-1 DISP		130	247
	Amb to T4{1}			102	1.78	4-1 DISP		6	225
	Amb to T5{1}			524	1.78	4-1 DISP		33	217
	Hydrotest{1}	0	76		1.78	3-1 OCC		4	219
	Sus.+T1{1}				1.78	5-1 CRUP		45	<NOTE 1>
	Sus.+T2{1}				1.78	5-1 CRUP		33	<NOTE 1>
	Sus.+T3{1}				1.78	5-1 CRUP		56	<NOTE 1>
	Sus.+T4{1}				1.78	5-1 CRUP		25	<NOTE 1>
	Sus.+T5{1}				1.78	5-1 CRUP		31	<NOTE 1>
K03 F-	Max P{1}					HOOP		13	104
	GR + Max P{1}	150			1.78	2-1 SUST		13	104
	TR:Amb to T3{1}			2004	1.78	4-1 DISP		126	247
	Amb to T1{1}			1502	1.78	4-1 DISP		94	247
	Amb to T2{1}			692	1.78	4-1 DISP		44	217
	Amb to T3{1}			2004	1.78	4-1 DISP		126	247
	Amb to T4{1}			130	1.78	4-1 DISP		8	225

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Amb to T5{1}			598	1.78	4-1	DISP	38	217
Hydrotest{1}	0	52		1.78	3-1	OCC	3	219
Sus.+T1{1}				1.78	5-1	CRUP	37	<NOTE 1>
Sus.+T2{1}				1.78	5-1	CRUP	24	<NOTE 1>
Sus.+T3{1}				1.78	5-1	CRUP	45	<NOTE 1>
Sus.+T4{1}				1.78	5-1	CRUP	15	<NOTE 1>
Sus.+T5{1}				1.78	5-1	CRUP	23	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. no.	Load type		
K04	Max P{1}						HOOP	13	104
	GR + Max P{1}	163			2.00	2-1	SUST	15	104
	TR:Amb to T3{1}			1723	2.00	4-1	DISP	122	247
	Amb to T1{1}			1447	2.00	4-1	DISP	102	247
	Amb to T2{1}			724	2.00	4-1	DISP	51	217
	Amb to T3{1}			1723	2.00	4-1	DISP	122	247
	Amb to T4{1}			156	2.00	4-1	DISP	11	225
	Amb to T5{1}			640	2.00	4-1	DISP	45	217
	Hydrotest{1}	0	224		2.00	3-1	OCC	12	219
	Sus.+T1{1}				2.00	5-1	CRUP	40	<NOTE 1>
	Sus.+T2{1}				2.00	5-1	CRUP	28	<NOTE 1>
	Sus.+T3{1}				2.00	5-1	CRUP	45	<NOTE 1>
	Sus.+T4{1}				2.00	5-1	CRUP	17	<NOTE 1>
	Sus.+T5{1}				2.00	5-1	CRUP	26	<NOTE 1>
F05	Max P{1}						HOOP	10	104
	GR + Max P{1}	131			2.00	2-1	SUST	42	104
	TR:Amb to T1{1}			313	2.00	4-1	DISP	117	247
	Amb to T1{1}			313	2.00	4-1	DISP	117	247
	Amb to T2{1}			177	2.00	4-1	DISP	66	247
	Amb to T3{1}			131	2.00	4-1	DISP	49	217
	Amb to T4{1}			62	2.00	4-1	DISP	23	247
	Amb to T5{1}			124	2.00	4-1	DISP	46	217
	Hydrotest{1}	0	160		2.00	3-1	OCC	45	219

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Sus.+T1{1}		2.00	5-1	CRUP	71 <NOTE 1>
Sus.+T2{1}		2.00	5-1	CRUP	58 <NOTE 1>
Sus.+T3{1}		2.00	5-1	CRUP	54 <NOTE 1>
Sus.+T4{1}		2.00	5-1	CRUP	48 <NOTE 1>
Sus.+T5{1}		2.00	5-1	CRUP	53 <NOTE 1>

C02 N+ Max P{1}				HOOP	67	86
GR + Max P{1}	160		1.00	2-1	SUST	39 86
TR:Amb to T3{1}		3087	1.00	4-1	DISP	115 197
Amb to T1{1}		1054	1.00	4-1	DISP	39 197
Amb to T2{1}		981	1.00	4-1	DISP	37 201
Amb to T3{1}		3087	1.00	4-1	DISP	115 197
Amb to T4{1}		466	1.00	4-1	DISP	17 225
Amb to T5{1}		803	1.00	4-1	DISP	30 201
Hydrotest{1}	0 85		1.00	3-1	OCC	53 219
Sus.+T1{1}			1.00	5-1	CRUP	52 <NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	51 <NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	77 <NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	45 <NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	49 <NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code	
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
C02 N- Max P{1}						HOOP	67	86	
GR + Max P{1}		160			1.00	2-1 SUST	39	86	
TR:Amb to T3{1}				3087	1.00	4-1 DISP	115	197	
Amb to T1{1}				1054	1.00	4-1 DISP	39	197	
Amb to T2{1}				981	1.00	4-1 DISP	37	201	
Amb to T3{1}				3087	1.00	4-1 DISP	115	197	
Amb to T4{1}				466	1.00	4-1 DISP	17	225	
Amb to T5{1}				803	1.00	4-1 DISP	30	201	
Hydrotest{1}		0	85		1.00	3-1 OCC	53	219	
Sus.+T1{1}					1.00	5-1 CRUP	52	<NOTE 1>	
Sus.+T2{1}					1.00	5-1 CRUP	51	<NOTE 1>	
Sus.+T3{1}					1.00	5-1 CRUP	77	<NOTE 1>	

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Sus.+T4{1}			1.00	5-1	CRUP	45	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	49	<NOTE 1>
C02 F+ Max P{1}					HOOP	67	86
GR + Max P{1}	168		1.00	2-1	SUST	39	86
TR:Amb to T3{1}			3045	1.00	4-1	DISP	114 197
Amb to T1{1}			1276	1.00	4-1	DISP	48 197
Amb to T2{1}			1066	1.00	4-1	DISP	40 201
Amb to T3{1}			3045	1.00	4-1	DISP	114 197
Amb to T4{1}			476	1.00	4-1	DISP	18 225
Amb to T5{1}			860	1.00	4-1	DISP	32 201
Hydrotest{1}	0	100		1.00	3-1	OCC	53 219
Sus.+T1{1}			1.00	5-1	CRUP	55	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	53	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	77	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	45	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	50	<NOTE 1>
C02 F- Max P{1}					HOOP	67	86
GR + Max P{1}	168		1.00	2-1	SUST	39	86
TR:Amb to T3{1}			3045	1.00	4-1	DISP	114 197
Amb to T1{1}			1276	1.00	4-1	DISP	48 197
Amb to T2{1}			1066	1.00	4-1	DISP	40 201
Amb to T3{1}			3045	1.00	4-1	DISP	114 197
Amb to T4{1}			476	1.00	4-1	DISP	18 225
Amb to T5{1}			860	1.00	4-1	DISP	32 201
Hydrotest{1}	0	100		1.00	3-1	OCC	53 219
Sus.+T1{1}			1.00	5-1	CRUP	55	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	53	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	77	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	45	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	50	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)		
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F no. type	Stress	Allow.
-----	-----	-----	-----	-----	-----	-----	-----

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C01	Max P{1}					HOOP	67	86
	GR + Max P{1}	119		1.00	2-1	SUST	37	86
	TR:Amb to T3{1}		2959	1.00	4-1	DISP	110	197
	Amb to T1{1}		480	1.00	4-1	DISP	18	197
	Amb to T2{1}		756	1.00	4-1	DISP	28	201
	Amb to T3{1}		2959	1.00	4-1	DISP	110	197
	Amb to T4{1}		406	1.00	4-1	DISP	15	225
	Amb to T5{1}		744	1.00	4-1	DISP	28	201
	Hydrotest{1}	0	61	1.00	3-1	OCC	52	219
	Sus.+T1{1}			1.00	5-1	CRUP	43	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	47	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	74	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	43	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	47	<NOTE 1>
C10	+ Max P{1}					HOOP	67	86
	GR + Max P{1}	164		1.00	2-1	SUST	39	86
	TR:Amb to T3{1}		2957	1.00	4-1	DISP	110	197
	Amb to T1{1}		1257	1.00	4-1	DISP	47	197
	Amb to T2{1}		1048	1.00	4-1	DISP	39	201
	Amb to T3{1}		2957	1.00	4-1	DISP	110	197
	Amb to T4{1}		462	1.00	4-1	DISP	17	225
	Amb to T5{1}		852	1.00	4-1	DISP	32	201
	Hydrotest{1}	0	102	1.00	3-1	OCC	53	219
	Sus.+T1{1}			1.00	5-1	CRUP	55	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	52	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	76	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	45	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	50	<NOTE 1>
C10	- Max P{1}					HOOP	67	86
	GR + Max P{1}	164		1.00	2-1	SUST	39	86
	TR:Amb to T3{1}		2957	1.00	4-1	DISP	110	197
	Amb to T1{1}		1257	1.00	4-1	DISP	47	197
	Amb to T2{1}		1048	1.00	4-1	DISP	39	201
	Amb to T3{1}		2957	1.00	4-1	DISP	110	197
	Amb to T4{1}		462	1.00	4-1	DISP	17	225
	Amb to T5{1}		852	1.00	4-1	DISP	32	201
	Hydrotest{1}	0	102	1.00	3-1	OCC	53	219
	Sus.+T1{1}			1.00	5-1	CRUP	55	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	52	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	76	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	45	<NOTE 1>

Sus.+T5{1}

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1.00 5-1 CRUP

50 <NOTE 1>

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Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F					
B19	Max P{1}							HOOP	59	86
	GR + Max P{1}	101			2.00	2-1	SUST		39	86
	TR:Amb to T1{1}			878	2.00	4-1	DISP		109	197
	Amb to T1{1}			878	2.00	4-1	DISP		109	197
	Amb to T2{1}			595	2.00	4-1	DISP		74	201
	Amb to T3{1}			755	2.00	4-1	DISP		94	197
	Amb to T4{1}			190	2.00	4-1	DISP		24	225
	Amb to T5{1}			567	2.00	4-1	DISP		71	201
	Hydrotest{1}	0	63		2.00	3-1	OCC		51	219
	Sus.+T1{1}				2.00	5-1	CRUP		67	<NOTE 1>
	Sus.+T2{1}				2.00	5-1	CRUP		58	<NOTE 1>
	Sus.+T3{1}				2.00	5-1	CRUP		63	<NOTE 1>
	Sus.+T4{1}				2.00	5-1	CRUP		45	<NOTE 1>
	Sus.+T5{1}				2.00	5-1	CRUP		57	<NOTE 1>
D07	Max P{1}							HOOP	10	116
	GR + Max P{1}	190			1.20	2-1	SUST		40	116
	TR:T1 to T3{1}			480	1.20	4-1	DISP		108	247
	Amb to T1{1}			260	1.20	4-1	DISP		58	247
	Amb to T2{1}			216	1.20	4-1	DISP		49	247
	Amb to T3{1}			330	1.20	4-1	DISP		74	247
	Amb to T4{1}			124	1.20	4-1	DISP		28	225
	Amb to T5{1}			74	1.20	4-1	DISP		17	247
	Hydrotest{1}	0	159		1.20	3-1	OCC		30	219
	Sus.+T1{1}				1.20	5-1	CRUP		57	<NOTE 1>
	Sus.+T2{1}				1.20	5-1	CRUP		54	<NOTE 1>
	Sus.+T3{1}				1.20	5-1	CRUP		61	<NOTE 1>
	Sus.+T4{1}				1.20	5-1	CRUP		48	<NOTE 1>
	Sus.+T5{1}				1.20	5-1	CRUP		45	<NOTE 1>
K11	- Max P{1}							HOOP	67	86

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GR + Max P{1}	120	1.00	2-1	SUST	38	86
TR:T1 to T3{1}		2866	1.00	4-1	DISP	107 197
Amb to T1{1}		759	1.00	4-1	DISP	28 197
Amb to T2{1}		354	1.00	4-1	DISP	13 201
Amb to T3{1}		2346	1.00	4-1	DISP	87 197
Amb to T4{1}		236	1.00	4-1	DISP	9 225
Amb to T5{1}		97	1.00	4-1	DISP	4 201
Hydrotest{1}	0 203	1.00	3-1	OCC	57	219
Sus.+T1{1}		1.00	5-1	CRUP	47	<NOTE 1>
Sus.+T2{1}		1.00	5-1	CRUP	42	<NOTE 1>
Sus.+T3{1}		1.00	5-1	CRUP	67	<NOTE 1>
Sus.+T4{1}		1.00	5-1	CRUP	40	<NOTE 1>
Sus.+T5{1}		1.00	5-1	CRUP	39	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

B10 N+ Max P{1}						HOOP	58	86	
	GR + Max P{1}	44			1.00	2-1 SUST	34	86	
	TR:Amb to T1{1}			869	1.00	4-1 DISP	104	197	
	Amb to T1{1}			869	1.00	4-1 DISP	104	197	
	Amb to T2{1}			539	1.00	4-1 DISP	65	201	
	Amb to T3{1}			774	1.00	4-1 DISP	93	197	
	Amb to T4{1}			152	1.00	4-1 DISP	18	225	
	Amb to T5{1}			503	1.00	4-1 DISP	60	201	
	Hydrotest{1}	0	17		1.00	3-1 OCC	46	219	
	Sus.+T1{1}				1.00	5-1 CRUP	69	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	56	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	65	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	41	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	55	<NOTE 1>	
B10 N- Max P{1}						HOOP	58	86	
	GR + Max P{1}	44			1.00	2-1 SUST	34	86	
	TR:Amb to T1{1}			869	1.00	4-1 DISP	104	197	
	Amb to T1{1}			869	1.00	4-1 DISP	104	197	

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Amb to T2{1}		539	1.00	4-1 DISP	65	201
Amb to T3{1}		774	1.00	4-1 DISP	93	197
Amb to T4{1}		152	1.00	4-1 DISP	18	225
Amb to T5{1}		503	1.00	4-1 DISP	60	201
Hydrotest{1}	0 17		1.00	3-1 OCC	46	219
Sus.+T1{1}			1.00	5-1 CRUP	69	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	56	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	65	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	41	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	55	<NOTE 1>

B12 F+ Max P{1}				HOOP	58	86
GR + Max P{1}	91		1.00	2-1 SUST	40	86
TR:Amb to T1{1}		862	1.00	4-1 DISP	104	197
Amb to T1{1}		862	1.00	4-1 DISP	104	197
Amb to T2{1}		587	1.00	4-1 DISP	71	201
Amb to T3{1}		740	1.00	4-1 DISP	89	197
Amb to T4{1}		191	1.00	4-1 DISP	23	225
Amb to T5{1}		546	1.00	4-1 DISP	66	201
Hydrotest{1}	0 53		1.00	3-1 OCC	50	219
Sus.+T1{1}			1.00	5-1 CRUP	75	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	64	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	70	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	48	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	62	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)

(Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
B12 F- Max P{1}						HOOP	58 86
GR + Max P{1}		91			1.00	2-1 SUST	40 86
TR:Amb to T1{1}				862	1.00	4-1 DISP	104 197
Amb to T1{1}				862	1.00	4-1 DISP	104 197
Amb to T2{1}				587	1.00	4-1 DISP	71 201
Amb to T3{1}				740	1.00	4-1 DISP	89 197

	ADS_LINE_REV0.txt						
Amb to T4{1}		191	1.00	4-1	DISP	23	225
Amb to T5{1}		546	1.00	4-1	DISP	66	201
Hydrotest{1}	0	53	1.00	3-1	OCC	50	219
Sus.+T1{1}			1.00	5-1	CRUP	75	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	64	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	70	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	48	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	62	<NOTE 1>
K13 N+ Max P{1}					HOOP	67	86
GR + Max P{1}	162		1.00	2-1	SUST	39	86
TR:Amb to T1{1}		2754	1.00	4-1	DISP	103	197
Amb to T1{1}		2754	1.00	4-1	DISP	103	197
Amb to T2{1}		1696	1.00	4-1	DISP	63	201
Amb to T3{1}		2307	1.00	4-1	DISP	86	197
Amb to T4{1}		501	1.00	4-1	DISP	19	225
Amb to T5{1}		1702	1.00	4-1	DISP	63	201
Hydrotest{1}	0	72	1.00	3-1	OCC	52	219
Sus.+T1{1}			1.00	5-1	CRUP	73	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	60	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	68	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	45	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	60	<NOTE 1>
K13 N- Max P{1}					HOOP	67	86
GR + Max P{1}	162		1.00	2-1	SUST	39	86
TR:Amb to T1{1}		2754	1.00	4-1	DISP	103	197
Amb to T1{1}		2754	1.00	4-1	DISP	103	197
Amb to T2{1}		1696	1.00	4-1	DISP	63	201
Amb to T3{1}		2307	1.00	4-1	DISP	86	197
Amb to T4{1}		501	1.00	4-1	DISP	19	225
Amb to T5{1}		1702	1.00	4-1	DISP	63	201
Hydrotest{1}	0	72	1.00	3-1	OCC	52	219
Sus.+T1{1}			1.00	5-1	CRUP	73	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	60	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	68	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	45	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	60	<NOTE 1>

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BENTLEY

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AutoPIPE Plus 9.2.1 RESULT PAGE 166

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)		(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code	
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.

B10 F+	Max P{1}					HOOP	58	86
	GR + Max P{1}	53			1.00	2-1 SUST	36	86
	TR:Amb to T1{1}			847	1.00	4-1 DISP	102	197
	Amb to T1{1}			847	1.00	4-1 DISP	102	197
	Amb to T2{1}			521	1.00	4-1 DISP	63	201
	Amb to T3{1}			732	1.00	4-1 DISP	88	197
	Amb to T4{1}			143	1.00	4-1 DISP	17	225
	Amb to T5{1}			492	1.00	4-1 DISP	59	201
	Hydrotest{1}	0	25		1.00	3-1 OCC	47	219
	Sus.+T1{1}				1.00	5-1 CRUP	69	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	56	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	65	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	41	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	55	<NOTE 1>
B10 F-	Max P{1}					HOOP	58	86
	GR + Max P{1}	53			1.00	2-1 SUST	36	86
	TR:Amb to T1{1}			847	1.00	4-1 DISP	102	197
	Amb to T1{1}			847	1.00	4-1 DISP	102	197
	Amb to T2{1}			521	1.00	4-1 DISP	63	201
	Amb to T3{1}			732	1.00	4-1 DISP	88	197
	Amb to T4{1}			143	1.00	4-1 DISP	17	225
	Amb to T5{1}			492	1.00	4-1 DISP	59	201
	Hydrotest{1}	0	25		1.00	3-1 OCC	47	219
	Sus.+T1{1}				1.00	5-1 CRUP	69	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	56	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	65	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	41	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	55	<NOTE 1>
B12 N+	Max P{1}					HOOP	58	86
	GR + Max P{1}	83			1.00	2-1 SUST	39	86
	TR:Amb to T1{1}			842	1.00	4-1 DISP	101	197
	Amb to T1{1}			842	1.00	4-1 DISP	101	197
	Amb to T2{1}			575	1.00	4-1 DISP	69	201
	Amb to T3{1}			727	1.00	4-1 DISP	87	197
	Amb to T4{1}			189	1.00	4-1 DISP	23	225
	Amb to T5{1}			530	1.00	4-1 DISP	64	201

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Hydrotest{1}	0	45	1.00	3-1	OCC	49	219
Sus.+T1{1}			1.00	5-1	CRUP	73	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	62	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	68	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	47	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	60	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)

(Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
B12 N- Max P{1}						HOOP	58 86
GR + Max P{1}		83			1.00	2-1 SUST	39 86
TR:Amb to T1{1}				842	1.00	4-1 DISP	101 197
Amb to T1{1}				842	1.00	4-1 DISP	101 197
Amb to T2{1}				575	1.00	4-1 DISP	69 201
Amb to T3{1}				727	1.00	4-1 DISP	87 197
Amb to T4{1}				189	1.00	4-1 DISP	23 225
Amb to T5{1}				530	1.00	4-1 DISP	64 201
Hydrotest{1}		0	45		1.00	3-1 OCC	49 219
Sus.+T1{1}					1.00	5-1 CRUP	73 <NOTE 1>
Sus.+T2{1}					1.00	5-1 CRUP	62 <NOTE 1>
Sus.+T3{1}					1.00	5-1 CRUP	68 <NOTE 1>
Sus.+T4{1}					1.00	5-1 CRUP	47 <NOTE 1>
Sus.+T5{1}					1.00	5-1 CRUP	60 <NOTE 1>
K13 F- Max P{1}						HOOP	67 86
GR + Max P{1}		227			1.00	2-1 SUST	42 86
TR:Amb to T1{1}				2698	1.00	4-1 DISP	101 197
Amb to T1{1}				2698	1.00	4-1 DISP	101 197
Amb to T2{1}				1654	1.00	4-1 DISP	62 201
Amb to T3{1}				2251	1.00	4-1 DISP	84 197
Amb to T4{1}				481	1.00	4-1 DISP	18 225
Amb to T5{1}				1657	1.00	4-1 DISP	62 201
Hydrotest{1}		0	23		1.00	3-1 OCC	50 219
Sus.+T1{1}					1.00	5-1 CRUP	75 <NOTE 1>

	ADS_LINE_REV0.txt				
Sus.+T2{1}		1.00	5-1 CRUP	62	<NOTE 1>
Sus.+T3{1}		1.00	5-1 CRUP	69	<NOTE 1>
Sus.+T4{1}		1.00	5-1 CRUP	47	<NOTE 1>
Sus.+T5{1}		1.00	5-1 CRUP	62	<NOTE 1>

K13 F+ Max P{1}				HOOP	67	86
GR + Max P{1}	227		1.00	2-1 SUST	42	86
TR:Amb to T1{1}		2698	1.00	4-1 DISP	101	197
Amb to T1{1}		2698	1.00	4-1 DISP	101	197
Amb to T2{1}		1654	1.00	4-1 DISP	62	201
Amb to T3{1}		2251	1.00	4-1 DISP	84	197
Amb to T4{1}		481	1.00	4-1 DISP	18	225
Amb to T5{1}		1657	1.00	4-1 DISP	62	201
Hydrotest{1}	0	23	1.00	3-1 OCC	50	219
Sus.+T1{1}			1.00	5-1 CRUP	75	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	62	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	69	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	47	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	62	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
K02 + Max P{1}						HOOP	10	104	
GR + Max P{1}		240			1.30	2-1 SUST	37	104	
TR:T3 to T5{1}				574	1.30	4-1 DISP	100	217	
Amb to T1{1}				152	1.30	4-1 DISP	26	247	
Amb to T2{1}				133	1.30	4-1 DISP	23	217	
Amb to T3{1}				483	1.30	4-1 DISP	84	247	
Amb to T4{1}				80	1.30	4-1 DISP	14	225	
Amb to T5{1}				106	1.30	4-1 DISP	18	217	
Hydrotest{1}		0	70		1.30	3-1 OCC	10	219	
Sus.+T1{1}					1.30	5-1 CRUP	44	<NOTE 1>	
Sus.+T2{1}					1.30	5-1 CRUP	43	<NOTE 1>	
Sus.+T3{1}					1.30	5-1 CRUP	59	<NOTE 1>	
Sus.+T4{1}					1.30	5-1 CRUP	41	<NOTE 1>	

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	Sus.+T5{1}			1.30	5-1	CRUP	42	<NOTE 1>
K11	Max P{1}					HOOP	67	86
	GR + Max P{1}	114		1.00	2-1	SUST	37	86
	TR:Amb to T3{1}		2983	1.00	4-1	DISP	99	197
	Amb to T1{1}		510	1.00	4-1	DISP	17	197
	Amb to T2{1}		752	1.00	4-1	DISP	25	201
	Amb to T3{1}		2983	1.00	4-1	DISP	99	197
	Amb to T4{1}		403	1.00	4-1	DISP	13	225
	Amb to T5{1}		775	1.00	4-1	DISP	26	201
	Hydrotest{1}	0	62	1.00	3-1	OCC	52	219
	Sus.+T1{1}			1.00	5-1	CRUP	42	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	45	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	70	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	41	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	45	<NOTE 1>
B14	Max P{1}					HOOP	10	104
	GR + Max P{1}	202		1.00	2-1	SUST	43	104
	TR:T3 to T5{1}		524	1.00	4-1	DISP	98	217
	Amb to T1{1}		154	1.00	4-1	DISP	29	247
	Amb to T2{1}		120	1.00	4-1	DISP	22	217
	Amb to T3{1}		451	1.00	4-1	DISP	84	247
	Amb to T4{1}		70	1.00	4-1	DISP	13	225
	Amb to T5{1}		92	1.00	4-1	DISP	17	217
	Hydrotest{1}	0	56	1.00	3-1	OCC	11	219
	Sus.+T1{1}			1.00	5-1	CRUP	52	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	50	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	71	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	47	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	48	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

B09	- Max P{1}					HOOP	58	86	

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GR + Max P{1}		22	1.00	2-1	SUST	32	86
TR:Amb to T1{1}			805	1.00	4-1	DISP	97 197
Amb to T1{1}			805	1.00	4-1	DISP	97 197
Amb to T2{1}			499	1.00	4-1	DISP	60 201
Amb to T3{1}			729	1.00	4-1	DISP	88 197
Amb to T4{1}			142	1.00	4-1	DISP	17 225
Amb to T5{1}			464	1.00	4-1	DISP	56 201
Hydrotest{1}		0 29	1.00	3-1	OCC	47	219
Sus.+T1{1}			1.00	5-1	CRUP	64	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	52	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	61	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	38	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	50	<NOTE 1>
B09 + Max P{1}					HOOP	58	86
GR + Max P{1}		22	1.00	2-1	SUST	32	86
TR:Amb to T1{1}			805	1.00	4-1	DISP	97 197
Amb to T1{1}			805	1.00	4-1	DISP	97 197
Amb to T2{1}			499	1.00	4-1	DISP	60 201
Amb to T3{1}			729	1.00	4-1	DISP	88 197
Amb to T4{1}			142	1.00	4-1	DISP	17 225
Amb to T5{1}			464	1.00	4-1	DISP	56 201
Hydrotest{1}		0 29	1.00	3-1	OCC	47	219
Sus.+T1{1}			1.00	5-1	CRUP	64	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	52	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	61	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	38	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	50	<NOTE 1>
E09 Max P{1}					HOOP	13	104
GR + Max P{1}		518	2.00	2-1	SUST	34	104
TR:T1 to T3{1}			1314	2.00	4-1	DISP	93 217
Amb to T1{1}			587	2.00	4-1	DISP	42 247
Amb to T2{1}			658	2.00	4-1	DISP	47 247
Amb to T3{1}			805	2.00	4-1	DISP	57 217
Amb to T4{1}			553	2.00	4-1	DISP	39 247
Amb to T5{1}			623	2.00	4-1	DISP	44 217
Hydrotest{1}		0 78	2.00	3-1	OCC	5	219
Sus.+T1{1}			2.00	5-1	CRUP	44	<NOTE 1>
Sus.+T2{1}			2.00	5-1	CRUP	45	<NOTE 1>
Sus.+T3{1}			2.00	5-1	CRUP	48	<NOTE 1>
Sus.+T4{1}			2.00	5-1	CRUP	43	<NOTE 1>
Sus.+T5{1}			2.00	5-1	CRUP	45	<NOTE 1>

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Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. Load no. type			
K10	+ Max P{1}					HOOP		67	86
	GR + Max P{1}	205			1.00	2-1 SUST		41	86
	TR:T1 to T3{1}			2493	1.00	4-1 DISP		93	197
	Amb to T1{1}			810	1.00	4-1 DISP		30	197
	Amb to T2{1}			327	1.00	4-1 DISP		12	201
	Amb to T3{1}			1854	1.00	4-1 DISP		69	197
	Amb to T4{1}			159	1.00	4-1 DISP		6	225
	Amb to T5{1}			114	1.00	4-1 DISP		4	201
	Hydrotest{1}	0	135		1.00	3-1 OCC		55	219
	Sus.+T1{1}				1.00	5-1 CRUP		51	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP		45	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP		64	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP		43	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP		42	<NOTE 1>
K10	- Max P{1}					HOOP		67	86
	GR + Max P{1}	205			1.00	2-1 SUST		41	86
	TR:T1 to T3{1}			2493	1.00	4-1 DISP		93	197
	Amb to T1{1}			810	1.00	4-1 DISP		30	197
	Amb to T2{1}			327	1.00	4-1 DISP		12	201
	Amb to T3{1}			1854	1.00	4-1 DISP		69	197
	Amb to T4{1}			159	1.00	4-1 DISP		6	225
	Amb to T5{1}			114	1.00	4-1 DISP		4	201
	Hydrotest{1}	0	135		1.00	3-1 OCC		55	219
	Sus.+T1{1}				1.00	5-1 CRUP		51	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP		45	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP		64	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP		43	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP		42	<NOTE 1>
C05 F+	Max P{1}					HOOP		11	116
	GR + Max P{1}	73			1.00	2-1 SUST		10	116

		ADS_LINE_REV0.txt					
TR:T1 to T3{1}		1525	1.00	4-1 DISP	87	247	
Amb to T1{1}		1333	1.00	4-1 DISP	76	247	
Amb to T2{1}		283	1.00	4-1 DISP	16	247	
Amb to T3{1}		503	1.00	4-1 DISP	29	247	
Amb to T4{1}		190	1.00	4-1 DISP	11	225	
Amb to T5{1}		303	1.00	4-1 DISP	17	247	
Hydrotest{1}	0	205	1.00	3-1 OCC	12	219	
Sus.+T1{1}			1.00	5-1 CRUP	35	<NOTE 1>	
Sus.+T2{1}			1.00	5-1 CRUP	15	<NOTE 1>	
Sus.+T3{1}			1.00	5-1 CRUP	19	<NOTE 1>	
Sus.+T4{1}			1.00	5-1 CRUP	13	<NOTE 1>	
Sus.+T5{1}			1.00	5-1 CRUP	15	<NOTE 1>	

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code	
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

K07	Max P{1}					HOOP	67	86	
	GR + Max P{1}	1054			1.00	2-1 SUST	72	86	
	TR:T1 to T3{1}			1244	1.00	4-1 DISP	46	197	
	Amb to T1{1}			1104	1.00	4-1 DISP	41	197	
	Amb to T2{1}			685	1.00	4-1 DISP	26	201	
	Amb to T3{1}			385	1.00	4-1 DISP	14	197	
	Amb to T4{1}			184	1.00	4-1 DISP	7	225	
	Amb to T5{1}			622	1.00	4-1 DISP	23	201	
	Hydrotest{1}	0	603		1.00	3-1 OCC	72	219	
	Sus.+T1{1}				1.00	5-1 CRUP	86	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	81	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	77	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	75	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	80	<NOTE 1>	
C05 N-	Max P{1}					HOOP	11	116	
	GR + Max P{1}	103			1.00	2-1 SUST	11	116	
	TR:T1 to T4{1}			1484	1.00	4-1 DISP	85	225	
	Amb to T1{1}			1325	1.00	4-1 DISP	76	247	
	Amb to T2{1}			305	1.00	4-1 DISP	18	247	

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Amb to T3{1}		513	1.00	4-1 DISP	29	247
Amb to T4{1}		178	1.00	4-1 DISP	10	225
Amb to T5{1}		324	1.00	4-1 DISP	19	247
Hydrotest{1}	0	226	1.00	3-1 OCC	13	219
Sus.+T1{1}			1.00	5-1 CRUP	37	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	17	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	21	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	15	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	17	<NOTE 1>
K25 + Max P{1}				HOOP	67	86
GR + Max P{1}	198		1.00	2-1 SUST	40	86
TR:Amb to T1{1}		2251	1.00	4-1 DISP	84	197
Amb to T1{1}		2251	1.00	4-1 DISP	84	197
Amb to T2{1}		1373	1.00	4-1 DISP	51	201
Amb to T3{1}		1907	1.00	4-1 DISP	71	197
Amb to T4{1}		406	1.00	4-1 DISP	15	225
Amb to T5{1}		1383	1.00	4-1 DISP	52	201
Hydrotest{1}	0	337	1.00	3-1 OCC	62	219
Sus.+T1{1}			1.00	5-1 CRUP	68	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	58	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	64	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	46	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	58	<NOTE 1>

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		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no.	type	Stress	Allow.
K25 - Max P{1}							HOOP	67	86
GR + Max P{1}		198			1.00	2-1	SUST	40	86
TR:Amb to T1{1}				2251	1.00	4-1	DISP	84	197
Amb to T1{1}				2251	1.00	4-1	DISP	84	197
Amb to T2{1}				1373	1.00	4-1	DISP	51	201
Amb to T3{1}				1907	1.00	4-1	DISP	71	197
Amb to T4{1}				406	1.00	4-1	DISP	15	225

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			1383				
Amb to T5{1}				1.00	4-1 DISP	52	201
Hydrotest{1}	0	337		1.00	3-1 OCC	62	219
Sus.+T1{1}				1.00	5-1 CRUP	68	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	58	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	64	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	46	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	58	<NOTE 1>
C09 + Max P{1}					HOOP	67	86
GR + Max P{1}	322			1.00	2-1 SUST	45	86
TR:Amb to T3{1}			2242	1.00	4-1 DISP	84	197
Amb to T1{1}			1161	1.00	4-1 DISP	43	197
Amb to T2{1}			906	1.00	4-1 DISP	34	201
Amb to T3{1}			2242	1.00	4-1 DISP	84	197
Amb to T4{1}			354	1.00	4-1 DISP	13	225
Amb to T5{1}			790	1.00	4-1 DISP	29	201
Hydrotest{1}	0	141		1.00	3-1 OCC	55	219
Sus.+T1{1}				1.00	5-1 CRUP	60	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	56	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	73	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	49	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	55	<NOTE 1>
C09 - Max P{1}					HOOP	67	86
GR + Max P{1}	322			1.00	2-1 SUST	45	86
TR:Amb to T3{1}			2242	1.00	4-1 DISP	84	197
Amb to T1{1}			1161	1.00	4-1 DISP	43	197
Amb to T2{1}			906	1.00	4-1 DISP	34	201
Amb to T3{1}			2242	1.00	4-1 DISP	84	197
Amb to T4{1}			354	1.00	4-1 DISP	13	225
Amb to T5{1}			790	1.00	4-1 DISP	29	201
Hydrotest{1}	0	141		1.00	3-1 OCC	55	219
Sus.+T1{1}				1.00	5-1 CRUP	60	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	56	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	73	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	49	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	55	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F					
K06	Max P{1}							HOOP	11	104
	GR + Max P{1}	897			1.00	2-1	SUST		57	104
	TR:Amb to T1{1}			1326	1.00	4-1	DISP		76	247
	Amb to T1{1}			1326	1.00	4-1	DISP		76	247
	Amb to T2{1}			807	1.00	4-1	DISP		46	217
	Amb to T3{1}			1078	1.00	4-1	DISP		62	247
	Amb to T4{1}			226	1.00	4-1	DISP		13	225
	Amb to T5{1}			739	1.00	4-1	DISP		42	217
	Hydrotest{1}	0	641		1.00	3-1	OCC		37	219
	Sus.+T1{1}				1.00	5-1	CRUP		82	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		72	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP		77	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP		61	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP		71	<NOTE 1>
E08 F-	Max P{1}							HOOP	13	104
	GR + Max P{1}	517			1.78	2-1	SUST		30	104
	TR:T1 to T3{1}			1259	1.78	4-1	DISP		79	217
	Amb to T1{1}			571	1.78	4-1	DISP		36	247
	Amb to T2{1}			631	1.78	4-1	DISP		40	247
	Amb to T3{1}			769	1.78	4-1	DISP		48	217
	Amb to T4{1}			530	1.78	4-1	DISP		33	247
	Amb to T5{1}			598	1.78	4-1	DISP		38	217
	Hydrotest{1}	0	52		1.78	3-1	OCC		3	219
	Sus.+T1{1}				1.78	5-1	CRUP		39	<NOTE 1>
	Sus.+T2{1}				1.78	5-1	CRUP		40	<NOTE 1>
	Sus.+T3{1}				1.78	5-1	CRUP		43	<NOTE 1>
	Sus.+T4{1}				1.78	5-1	CRUP		39	<NOTE 1>
	Sus.+T5{1}				1.78	5-1	CRUP		40	<NOTE 1>
C03	Max P{1}							HOOP	67	86
	GR + Max P{1}	617			1.00	2-1	SUST		56	86
	TR:Amb to T3{1}			1760	1.00	4-1	DISP		66	197
	Amb to T1{1}			1158	1.00	4-1	DISP		43	197
	Amb to T2{1}			819	1.00	4-1	DISP		31	201
	Amb to T3{1}			1760	1.00	4-1	DISP		66	197
	Amb to T4{1}			282	1.00	4-1	DISP		10	225
	Amb to T5{1}			752	1.00	4-1	DISP		28	201
	Hydrotest{1}	0	430		1.00	3-1	OCC		66	219

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Sus.+T1{1}	1.00	5-1	CRUP	70 <NOTE 1>
Sus.+T2{1}	1.00	5-1	CRUP	66 <NOTE 1>
Sus.+T3{1}	1.00	5-1	CRUP	78 <NOTE 1>
Sus.+T4{1}	1.00	5-1	CRUP	60 <NOTE 1>
Sus.+T5{1}	1.00	5-1	CRUP	65 <NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. no.	Load type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F						
E08 N+	Max P{1}								HOOP	13	104
	GR + Max P{1}	515			1.78	2-1	SUST			30	104
	TR:T1 to T3{1}			1228	1.78	4-1	DISP			77	217
	Amb to T1{1}			564	1.78	4-1	DISP			35	247
	Amb to T2{1}			615	1.78	4-1	DISP			39	247
	Amb to T3{1}			746	1.78	4-1	DISP			47	217
	Amb to T4{1}			516	1.78	4-1	DISP			32	247
	Amb to T5{1}			581	1.78	4-1	DISP			37	217
	Hydrotest{1}	0	40		1.78	3-1	OCC			2	219
	Sus.+T1{1}				1.78	5-1	CRUP			39	<NOTE 1>
	Sus.+T2{1}				1.78	5-1	CRUP			40	<NOTE 1>
	Sus.+T3{1}				1.78	5-1	CRUP			42	<NOTE 1>
	Sus.+T4{1}				1.78	5-1	CRUP			38	<NOTE 1>
	Sus.+T5{1}				1.78	5-1	CRUP			39	<NOTE 1>
K23	Max P{1}								HOOP	75	86
	GR + Max P{1}	190			1.00	2-1	SUST			39	86
	TR:Amb to T1{1}			2638	1.00	4-1	DISP			27	197
	Amb to T1{1}			2638	1.00	4-1	DISP			27	197
	Amb to T2{1}			1865	1.00	4-1	DISP			19	201
	Amb to T3{1}			2249	1.00	4-1	DISP			23	197
	Amb to T4{1}			689	1.00	4-1	DISP			7	225
	Amb to T5{1}			1861	1.00	4-1	DISP			19	201
	Hydrotest{1}	0	143		1.00	3-1	OCC			56	219
	Sus.+T1{1}				1.00	5-1	CRUP			48	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP			45	<NOTE 1>

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	Sus.+T3{1}			1.00	5-1 CRUP	46	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	41	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	45	<NOTE 1>
K22	Max P{1}				HOOP	75	86
	GR + Max P{1}	204		2.00	2-1 SUST	40	86
	TR:Amb to T1{1}		2446	2.00	4-1 DISP	51	197
	Amb to T1{1}		2446	2.00	4-1 DISP	51	197
	Amb to T2{1}		1742	2.00	4-1 DISP	36	201
	Amb to T3{1}		2094	2.00	4-1 DISP	43	197
	Amb to T4{1}		652	2.00	4-1 DISP	13	225
	Amb to T5{1}		1741	2.00	4-1 DISP	36	201
	Hydrotest{1}	0	100	2.00	3-1 OCC	56	219
	Sus.+T1{1}			2.00	5-1 CRUP	52	<NOTE 1>
	Sus.+T2{1}			2.00	5-1 CRUP	49	<NOTE 1>
	Sus.+T3{1}			2.00	5-1 CRUP	51	<NOTE 1>
	Sus.+T4{1}			2.00	5-1 CRUP	43	<NOTE 1>
	Sus.+T5{1}			2.00	5-1 CRUP	49	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE								
(Moments in N.m)			(Stress in N/mm2)					
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code	
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
B17	Max P{1}					HOOP	58	86
	GR + Max P{1}	296			1.00	2-1 SUST	65	86
	TR:Amb to T3{1}			247	1.00	4-1 DISP	30	197
	Amb to T1{1}			97	1.00	4-1 DISP	12	197
	Amb to T2{1}			85	1.00	4-1 DISP	10	201
	Amb to T3{1}			247	1.00	4-1 DISP	30	197
	Amb to T4{1}			40	1.00	4-1 DISP	5	225
	Amb to T5{1}			30	1.00	4-1 DISP	4	201
	Hydrotest{1}	0	228		1.00	3-1 OCC	71	219
	Sus.+T1{1}				1.00	5-1 CRUP	69	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	68	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	75	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	66	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	66	<NOTE 1>

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D04	Max P{1}					HOOP	58	86
	GR + Max P{1}	247		1.00	2-1	SUST	59	86
	TR:T3 to T4{1}		148	1.00	4-1	DISP	18	197
	Amb to T1{1}		89	1.00	4-1	DISP	11	197
	Amb to T2{1}		61	1.00	4-1	DISP	7	201
	Amb to T3{1}		133	1.00	4-1	DISP	16	197
	Amb to T4{1}		45	1.00	4-1	DISP	5	225
	Amb to T5{1}		42	1.00	4-1	DISP	5	217
	Hydrotest{1}	0	251	1.00	3-1	OCC	74	219
	Sus.+T1{1}			1.00	5-1	CRUP	62	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	61	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	64	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	61	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	61	<NOTE 1>
B16	Max P{1}					HOOP	58	86
	GR + Max P{1}	289		1.00	2-1	SUST	64	86
	TR:T2 to T3{1}		317	1.00	4-1	DISP	38	197
	Amb to T1{1}		168	1.00	4-1	DISP	20	197
	Amb to T2{1}		138	1.00	4-1	DISP	17	201
	Amb to T3{1}		237	1.00	4-1	DISP	29	197
	Amb to T4{1}		63	1.00	4-1	DISP	8	225
	Amb to T5{1}		150	1.00	4-1	DISP	18	217
	Hydrotest{1}	0	133	1.00	3-1	OCC	60	219
	Sus.+T1{1}			1.00	5-1	CRUP	71	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	69	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	73	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	66	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	70	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)

(Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F no. type	Stress	Allow.
K03 N-	Max P{1}					HOOP	13
	GR + Max P{1}	363			1.00 2-1 SUST		104

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	TR:Amb to T3{1}		2059	1.00	4-1 DISP	73	247
	Amb to T1{1}		1412	1.00	4-1 DISP	50	247
	Amb to T2{1}		601	1.00	4-1 DISP	21	217
	Amb to T3{1}		2059	1.00	4-1 DISP	73	247
	Amb to T4{1}		102	1.00	4-1 DISP	4	225
	Amb to T5{1}		524	1.00	4-1 DISP	19	217
	Hydrotest{1}	0	76	1.00	3-1 OCC	3	219
	Sus.+T1{1}			1.00	5-1 CRUP	36	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	26	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	43	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	20	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	25	<NOTE 1>
B06	Max P{1}				HOOP	58	86
	GR + Max P{1}	312		1.00	2-1 SUST	67	86
	TR:T1 to T3{1}		205	1.00	4-1 DISP	25	197
	Amb to T1{1}		76	1.00	4-1 DISP	9	197
	Amb to T2{1}		43	1.00	4-1 DISP	5	201
	Amb to T3{1}		149	1.00	4-1 DISP	18	197
	Amb to T4{1}		11	1.00	4-1 DISP	1	225
	Amb to T5{1}		59	1.00	4-1 DISP	7	217
	Hydrotest{1}	0	189	1.00	3-1 OCC	66	219
	Sus.+T1{1}			1.00	5-1 CRUP	70	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	68	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	73	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	67	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	69	<NOTE 1>
E12	Max P{1}				HOOP	10	104
	GR + Max P{1}	224		1.00	2-1 SUST	47	104
	TR:Amb to T1{1}		384	1.00	4-1 DISP	72	247
	Amb to T1{1}		384	1.00	4-1 DISP	72	247
	Amb to T2{1}		227	1.00	4-1 DISP	43	247
	Amb to T3{1}		169	1.00	4-1 DISP	32	217
	Amb to T4{1}		87	1.00	4-1 DISP	16	247
	Amb to T5{1}		154	1.00	4-1 DISP	29	217
	Hydrotest{1}	0	105	1.00	3-1 OCC	20	219
	Sus.+T1{1}			1.00	5-1 CRUP	71	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	61	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	57	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	52	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	56	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
K03 F+	Max P{1}					HOOP	13	104	
	GR + Max P{1}	150			1.00	2-1 SUST	11	104	
	TR:Amb to T3{1}			2004	1.00	4-1 DISP	71	247	
	Amb to T1{1}			1502	1.00	4-1 DISP	53	247	
	Amb to T2{1}			692	1.00	4-1 DISP	24	217	
	Amb to T3{1}			2004	1.00	4-1 DISP	71	247	
	Amb to T4{1}			130	1.00	4-1 DISP	5	225	
	Amb to T5{1}			598	1.00	4-1 DISP	21	217	
	Hydrotest{1}	0	52		1.00	3-1 OCC	2	219	
	Sus.+T1{1}				1.00	5-1 CRUP	29	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	20	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	35	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	13	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	18	<NOTE 1>	
C07	Max P{1}					HOOP	11	116	
	GR + Max P{1}	536			1.00	2-1 SUST	36	116	
	TR:Amb to T1{1}			1233	1.00	4-1 DISP	71	247	
	Amb to T1{1}			1233	1.00	4-1 DISP	71	247	
	Amb to T2{1}			561	1.00	4-1 DISP	32	247	
	Amb to T3{1}			889	1.00	4-1 DISP	51	247	
	Amb to T4{1}			112	1.00	4-1 DISP	6	225	
	Amb to T5{1}			552	1.00	4-1 DISP	32	247	
	Hydrotest{1}	0	485		1.00	3-1 OCC	28	219	
	Sus.+T1{1}				1.00	5-1 CRUP	60	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	47	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	53	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	38	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	47	<NOTE 1>	
K08 +	Max P{1}					HOOP	67	86	
	GR + Max P{1}	667			1.00	2-1 SUST	58	86	
	TR:T1 to T3{1}			1678	1.00	4-1 DISP	63	197	

		ADS_LINE_REV0.txt					
Amb to T1{1}		985	1.00	4-1	DISP	37	197
Amb to T2{1}		516	1.00	4-1	DISP	19	201
Amb to T3{1}		804	1.00	4-1	DISP	30	197
Amb to T4{1}		106	1.00	4-1	DISP	4	225
Amb to T5{1}		438	1.00	4-1	DISP	16	201
Hydrotest{1}	0	261	1.00	3-1	OCC	59	219
Sus.+T1{1}			1.00	5-1	CRUP	70	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	64	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	68	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	59	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	63	<NOTE 1>

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(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.

K08	- Max P{1}					HOOP	67	86
	GR + Max P{1}	667			1.00	2-1 SUST	58	86
	TR:T1 to T3{1}			1678	1.00	4-1 DISP	63	197
	Amb to T1{1}			985	1.00	4-1 DISP	37	197
	Amb to T2{1}			516	1.00	4-1 DISP	19	201
	Amb to T3{1}			804	1.00	4-1 DISP	30	197
	Amb to T4{1}			106	1.00	4-1 DISP	4	225
	Amb to T5{1}			438	1.00	4-1 DISP	16	201
	Hydrotest{1}	0	261		1.00	3-1 OCC	59	219
	Sus.+T1{1}				1.00	5-1 CRUP	70	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	64	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	68	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	59	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	63	<NOTE 1>

B15	Max P{1}					HOOP	10	104
	GR + Max P{1}	283			1.00	2-1 SUST	58	104
	TR:Amb to T3{1}			181	1.00	4-1 DISP	34	247
	Amb to T1{1}			169	1.00	4-1 DISP	32	247
	Amb to T2{1}			136	1.00	4-1 DISP	25	217
	Amb to T3{1}			181	1.00	4-1 DISP	34	247

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	Amb to T4{1}		55	1.00	4-1 DISP	10	225
	Amb to T5{1}		137	1.00	4-1 DISP	26	217
	Hydrotest{1}	0	166	1.00	3-1 OCC	32	219
	Sus.+T1{1}			1.00	5-1 CRUP	68	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	66	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	69	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	61	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	66	<NOTE 1>
E03	Max P{1}				HOOP	58	86
	GR + Max P{1}	222		1.00	2-1 SUST	56	86
	TR:Amb to T1{1}		332	1.00	4-1 DISP	40	197
	Amb to T1{1}		332	1.00	4-1 DISP	40	197
	Amb to T2{1}		228	1.00	4-1 DISP	27	201
	Amb to T3{1}		243	1.00	4-1 DISP	29	197
	Amb to T4{1}		95	1.00	4-1 DISP	11	225
	Amb to T5{1}		184	1.00	4-1 DISP	22	217
	Hydrotest{1}	0	82	1.00	3-1 OCC	54	219
	Sus.+T1{1}			1.00	5-1 CRUP	69	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	65	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	66	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	60	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	63	<NOTE 1>

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		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

D06 F-	Max P{1}					HOOP	10	116	
	GR + Max P{1}	128			1.60	2-1 SUST	34	116	
	TR:T1 to T3{1}			229	1.60	4-1 DISP	68	247	
	Amb to T1{1}			151	1.60	4-1 DISP	45	247	
	Amb to T2{1}			67	1.60	4-1 DISP	20	247	
	Amb to T3{1}			157	1.60	4-1 DISP	47	247	
	Amb to T4{1}			50	1.60	4-1 DISP	15	225	
	Amb to T5{1}			46	1.60	4-1 DISP	14	247	

		ADS_LINE_REV0.txt					
	Hydrotest{1}	0	142	1.60	3-1	OCC	32 219
	Sus.+T1{1}			1.60	5-1	CRUP	45 <NOTE 1>
	Sus.+T2{1}			1.60	5-1	CRUP	39 <NOTE 1>
	Sus.+T3{1}			1.60	5-1	CRUP	45 <NOTE 1>
	Sus.+T4{1}			1.60	5-1	CRUP	37 <NOTE 1>
	Sus.+T5{1}			1.60	5-1	CRUP	37 <NOTE 1>
D01	Max P{1}					HOOP	58 86
	GR + Max P{1}	154		1.00	2-1	SUST	48 86
	TR:T3 to T4{1}		514	1.00	4-1	DISP	62 197
	Amb to T1{1}		138	1.00	4-1	DISP	17 197
	Amb to T2{1}		87	1.00	4-1	DISP	10 201
	Amb to T3{1}		510	1.00	4-1	DISP	61 197
	Amb to T4{1}		86	1.00	4-1	DISP	10 225
	Amb to T5{1}		92	1.00	4-1	DISP	11 217
	Hydrotest{1}	0	107	1.00	3-1	OCC	57 219
	Sus.+T1{1}			1.00	5-1	CRUP	53 <NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	51 <NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	68 <NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	51 <NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	51 <NOTE 1>
K14 F+	Max P{1}					HOOP	67 86
	GR + Max P{1}	102		1.00	2-1	SUST	37 86
	TR:Amb to T3{1}		489	1.00	4-1	DISP	18 197
	Amb to T1{1}		358	1.00	4-1	DISP	13 197
	Amb to T2{1}		355	1.00	4-1	DISP	13 201
	Amb to T3{1}		489	1.00	4-1	DISP	18 197
	Amb to T4{1}		228	1.00	4-1	DISP	9 225
	Amb to T5{1}		373	1.00	4-1	DISP	14 201
	Hydrotest{1}	0	16	1.00	3-1	OCC	50 219
	Sus.+T1{1}			1.00	5-1	CRUP	41 <NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	41 <NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	43 <NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	40 <NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	41 <NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

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ADS_LINE_REV0.txt								
(Moments in N.m)			(Stress in N/mm2)					
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code	
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.

K14 F-	Max P{1}					HOOP	67	86
	GR + Max P{1}	102			1.00	2-1 SUST	37	86
	TR:Amb to T3{1}			489	1.00	4-1 DISP	18	197
	Amb to T1{1}			358	1.00	4-1 DISP	13	197
	Amb to T2{1}			355	1.00	4-1 DISP	13	201
	Amb to T3{1}			489	1.00	4-1 DISP	18	197
	Amb to T4{1}			228	1.00	4-1 DISP	9	225
	Amb to T5{1}			373	1.00	4-1 DISP	14	201
	Hydrotest{1}	0	16		1.00	3-1 OCC	50	219
	Sus.+T1{1}				1.00	5-1 CRUP	41	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	41	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	43	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	40	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	41	<NOTE 1>
K14 N+	Max P{1}					HOOP	67	86
	GR + Max P{1}	142			1.00	2-1 SUST	38	86
	TR:Amb to T3{1}			453	1.00	4-1 DISP	17	197
	Amb to T1{1}			385	1.00	4-1 DISP	14	197
	Amb to T2{1}			266	1.00	4-1 DISP	10	201
	Amb to T3{1}			453	1.00	4-1 DISP	17	197
	Amb to T4{1}			175	1.00	4-1 DISP	7	225
	Amb to T5{1}			271	1.00	4-1 DISP	10	201
	Hydrotest{1}	0	30		1.00	3-1 OCC	51	219
	Sus.+T1{1}				1.00	5-1 CRUP	43	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	42	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	44	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	41	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	42	<NOTE 1>
K14 N-	Max P{1}					HOOP	67	86
	GR + Max P{1}	142			1.00	2-1 SUST	38	86
	TR:Amb to T3{1}			453	1.00	4-1 DISP	17	197
	Amb to T1{1}			385	1.00	4-1 DISP	14	197
	Amb to T2{1}			266	1.00	4-1 DISP	10	201
	Amb to T3{1}			453	1.00	4-1 DISP	17	197
	Amb to T4{1}			175	1.00	4-1 DISP	7	225
	Amb to T5{1}			271	1.00	4-1 DISP	10	201
	Hydrotest{1}	0	30		1.00	3-1 OCC	51	219
	Sus.+T1{1}				1.00	5-1 CRUP	43	<NOTE 1>

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Sus.+T2{1}	1.00	5-1	CRUP	42 <NOTE 1>
Sus.+T3{1}	1.00	5-1	CRUP	44 <NOTE 1>
Sus.+T4{1}	1.00	5-1	CRUP	41 <NOTE 1>
Sus.+T5{1}	1.00	5-1	CRUP	42 <NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)		Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F				
K11	+ Max P{1}						HOOP	67	86
	GR + Max P{1}	205			1.00	2-1	SUST	41	86
	TR:T1 to T3{1}			1203	1.00	4-1	DISP	45	197
	Amb to T1{1}			1203	1.00	4-1	DISP	45	197
	Amb to T2{1}			816	1.00	4-1	DISP	30	201
	Amb to T3{1}			953	1.00	4-1	DISP	36	197
	Amb to T4{1}			243	1.00	4-1	DISP	9	225
	Amb to T5{1}			749	1.00	4-1	DISP	28	201
	Hydrotest{1}	0	258		1.00	3-1	OCC	59	219
	Sus.+T1{1}				1.00	5-1	CRUP	56 <NOTE 1>	
	Sus.+T2{1}				1.00	5-1	CRUP	51 <NOTE 1>	
	Sus.+T3{1}				1.00	5-1	CRUP	53 <NOTE 1>	
	Sus.+T4{1}				1.00	5-1	CRUP	44 <NOTE 1>	
	Sus.+T5{1}				1.00	5-1	CRUP	50 <NOTE 1>	
G01	Max P{1}						HOOP	67	86
	GR + Max P{1}	0			1.00	2-1	SUST	33	86
	TR:T1 to T4{1}			0	1.00	4-1	DISP	0	197
	Amb to T1{1}			0	1.00	4-1	DISP	0	197
	Amb to T2{1}			0	1.00	4-1	DISP	0	201
	Amb to T3{1}			0	1.00	4-1	DISP	0	197
	Amb to T4{1}			0	1.00	4-1	DISP	0	225
	Amb to T5{1}			0	1.00	4-1	DISP	0	201
	Hydrotest{1}	0	0		1.00	3-1	OCC	50	219
	Sus.+T1{1}				1.00	5-1	CRUP	33 <NOTE 1>	
	Sus.+T2{1}				1.00	5-1	CRUP	33 <NOTE 1>	
	Sus.+T3{1}				1.00	5-1	CRUP	33 <NOTE 1>	

		ADS_LINE_REV0.txt					
	Sus.+T4{1}		1.00	5-1	CRUP	33	<NOTE 1>
	Sus.+T5{1}		1.00	5-1	CRUP	33	<NOTE 1>
K25	Max P{1}				HOOP	67	86
	GR + Max P{1}	0	1.00	2-1	SUST	33	86
	TR:Amb to T3{1}		0	1.00	4-1	DISP	0 197
	Amb to T1{1}		0	1.00	4-1	DISP	0 197
	Amb to T2{1}		0	1.00	4-1	DISP	0 201
	Amb to T3{1}		0	1.00	4-1	DISP	0 197
	Amb to T4{1}		0	1.00	4-1	DISP	0 225
	Amb to T5{1}		0	1.00	4-1	DISP	0 201
	Hydrotest{1}	0 0	1.00	3-1	OCC	50	219
	Sus.+T1{1}		1.00	5-1	CRUP	33	<NOTE 1>
	Sus.+T2{1}		1.00	5-1	CRUP	33	<NOTE 1>
	Sus.+T3{1}		1.00	5-1	CRUP	33	<NOTE 1>
	Sus.+T4{1}		1.00	5-1	CRUP	33	<NOTE 1>
	Sus.+T5{1}		1.00	5-1	CRUP	33	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
D06 N+	Max P{1}					HOOP	10	116	
	GR + Max P{1}	135			1.60	2-1 SUST	35	116	
	TR:T1 to T3{1}			224	1.60	4-1 DISP	67	247	
	Amb to T1{1}			149	1.60	4-1 DISP	45	247	
	Amb to T2{1}			64	1.60	4-1 DISP	19	247	
	Amb to T3{1}			154	1.60	4-1 DISP	46	247	
	Amb to T4{1}			49	1.60	4-1 DISP	15	225	
	Amb to T5{1}			46	1.60	4-1 DISP	14	247	
	Hydrotest{1}	0	149		1.60	3-1 OCC	34	219	
	Sus.+T1{1}				1.60	5-1 CRUP	46	<NOTE 1>	
	Sus.+T2{1}				1.60	5-1 CRUP	40	<NOTE 1>	
	Sus.+T3{1}				1.60	5-1 CRUP	47	<NOTE 1>	
	Sus.+T4{1}				1.60	5-1 CRUP	39	<NOTE 1>	
	Sus.+T5{1}				1.60	5-1 CRUP	39	<NOTE 1>	

ADS_LINE_REV0.txt									
B22	+	Max P{1}					HOOP	58	86
		GR + Max P{1}	104		1.00	2-1 SUST		42	86
		TR:T1 to T3{1}		289	1.00	4-1 DISP		35	197
		Amb to T1{1}		195	1.00	4-1 DISP		23	197
		Amb to T2{1}		103	1.00	4-1 DISP		12	201
		Amb to T3{1}		126	1.00	4-1 DISP		15	197
		Amb to T4{1}		21	1.00	4-1 DISP		3	225
		Amb to T5{1}		91	1.00	4-1 DISP		11	217
		Hydrotest{1}	0	191	1.00	3-1 OCC		67	219
		Sus.+T1{1}			1.00	5-1 CRUP		50	<NOTE 1>
		Sus.+T2{1}			1.00	5-1 CRUP		46	<NOTE 1>
		Sus.+T3{1}			1.00	5-1 CRUP		47	<NOTE 1>
		Sus.+T4{1}			1.00	5-1 CRUP		43	<NOTE 1>
		Sus.+T5{1}			1.00	5-1 CRUP		45	<NOTE 1>
B22	-	Max P{1}					HOOP	58	86
		GR + Max P{1}	104		1.00	2-1 SUST		42	86
		TR:T1 to T3{1}		289	1.00	4-1 DISP		35	197
		Amb to T1{1}		195	1.00	4-1 DISP		23	197
		Amb to T2{1}		103	1.00	4-1 DISP		12	201
		Amb to T3{1}		126	1.00	4-1 DISP		15	197
		Amb to T4{1}		21	1.00	4-1 DISP		3	225
		Amb to T5{1}		91	1.00	4-1 DISP		11	217
		Hydrotest{1}	0	191	1.00	3-1 OCC		67	219
		Sus.+T1{1}			1.00	5-1 CRUP		50	<NOTE 1>
		Sus.+T2{1}			1.00	5-1 CRUP		46	<NOTE 1>
		Sus.+T3{1}			1.00	5-1 CRUP		47	<NOTE 1>
		Sus.+T4{1}			1.00	5-1 CRUP		43	<NOTE 1>
		Sus.+T5{1}			1.00	5-1 CRUP		45	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
F03	Max P{1}					HOOP	58	86	
	GR + Max P{1}	164			1.00	2-1 SUST	49	86	
	TR:Amb to T1{1}			256	1.00	4-1 DISP	31	197	

ADS_LINE_REV0.txt

	Amb to T1{1}		256	1.00	4-1 DISP	31	197
	Amb to T2{1}		166	1.00	4-1 DISP	20	201
	Amb to T3{1}		146	1.00	4-1 DISP	18	197
	Amb to T4{1}		53	1.00	4-1 DISP	6	225
	Amb to T5{1}		155	1.00	4-1 DISP	19	201
	Hydrotest{1}	0	188	1.00	3-1 OCC	66	219
	Sus.+T1{1}			1.00	5-1 CRUP	59	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	56	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	55	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	51	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	55	<NOTE 1>
B21	Max P{1}				HOOP	58	86
	GR + Max P{1}	99		1.00	2-1 SUST	41	86
	TR:T1 to T3{1}		282	1.00	4-1 DISP	34	197
	Amb to T1{1}		194	1.00	4-1 DISP	23	197
	Amb to T2{1}		103	1.00	4-1 DISP	12	201
	Amb to T3{1}		117	1.00	4-1 DISP	14	197
	Amb to T4{1}		21	1.00	4-1 DISP	2	225
	Amb to T5{1}		95	1.00	4-1 DISP	11	217
	Hydrotest{1}	0	184	1.00	3-1 OCC	66	219
	Sus.+T1{1}			1.00	5-1 CRUP	49	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	45	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	46	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	42	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	45	<NOTE 1>
B08	- Max P{1}				HOOP	58	86
	GR + Max P{1}	192		1.00	2-1 SUST	52	86
	TR:Amb to T3{1}		329	1.00	4-1 DISP	40	197
	Amb to T1{1}		187	1.00	4-1 DISP	22	197
	Amb to T2{1}		155	1.00	4-1 DISP	19	201
	Amb to T3{1}		329	1.00	4-1 DISP	40	197
	Amb to T4{1}		66	1.00	4-1 DISP	8	225
	Amb to T5{1}		94	1.00	4-1 DISP	11	201
	Hydrotest{1}	0	100	1.00	3-1 OCC	56	219
	Sus.+T1{1}			1.00	5-1 CRUP	60	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	58	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	65	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	55	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	56	<NOTE 1>

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RESULT PAGE 184

EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F					
B04	Max P{1}							HOOP	58	86
	GR + Max P{1}	168			1.00	2-1	SUST		47	86
	TR:T3 to T4{1}			532	1.00	4-1	DISP		56	197
	Amb to T1{1}			136	1.00	4-1	DISP		14	197
	Amb to T2{1}			93	1.00	4-1	DISP		10	201
	Amb to T3{1}			521	1.00	4-1	DISP		55	197
	Amb to T4{1}			93	1.00	4-1	DISP		10	225
	Amb to T5{1}			93	1.00	4-1	DISP		10	217
	Hydrotest{1}	0	117		1.00	3-1	OCC		56	219
	Sus.+T1{1}				1.00	5-1	CRUP		52	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		50	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP		65	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP		50	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP		50	<NOTE 1>
F16	+ Max P{1}							HOOP	58	86
	GR + Max P{1}	153			1.00	2-1	SUST		48	86
	TR:Amb to T3{1}			91	1.00	4-1	DISP		11	197
	Amb to T1{1}			82	1.00	4-1	DISP		10	197
	Amb to T2{1}			72	1.00	4-1	DISP		9	201
	Amb to T3{1}			91	1.00	4-1	DISP		11	197
	Amb to T4{1}			26	1.00	4-1	DISP		3	225
	Amb to T5{1}			81	1.00	4-1	DISP		10	201
	Hydrotest{1}	0	173		1.00	3-1	OCC		65	219
	Sus.+T1{1}				1.00	5-1	CRUP		51	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		50	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP		51	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP		49	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP		51	<NOTE 1>
F16	- Max P{1}							HOOP	58	86
	GR + Max P{1}	153			1.00	2-1	SUST		48	86
	TR:Amb to T3{1}			91	1.00	4-1	DISP		11	197
	Amb to T1{1}			82	1.00	4-1	DISP		10	197

		ADS_LINE_REV0.txt					
Amb to T2{1}		72	1.00	4-1	DISP	9	201
Amb to T3{1}		91	1.00	4-1	DISP	11	197
Amb to T4{1}		26	1.00	4-1	DISP	3	225
Amb to T5{1}		81	1.00	4-1	DISP	10	201
Hydrotest{1}	0	173	1.00	3-1	OCC	65	219
Sus.+T1{1}			1.00	5-1	CRUP	51	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	50	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	51	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	49	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	51	<NOTE 1>

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RESULT PAGE 185

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

F17	+ Max P{1}					HOOP	58	86	
	GR + Max P{1}	119			1.00	2-1 SUST	43	86	
	TR:Amb to T3{1}			89	1.00	4-1 DISP	11	197	
	Amb to T1{1}			62	1.00	4-1 DISP	8	197	
	Amb to T2{1}			73	1.00	4-1 DISP	9	201	
	Amb to T3{1}			89	1.00	4-1 DISP	11	197	
	Amb to T4{1}			29	1.00	4-1 DISP	4	225	
	Amb to T5{1}			68	1.00	4-1 DISP	8	201	
	Hydrotest{1}	0	168		1.00	3-1 OCC	64	219	
	Sus.+T1{1}				1.00	5-1 CRUP	46	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	46	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	47	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	45	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	46	<NOTE 1>	

F17	- Max P{1}					HOOP	58	86	
	GR + Max P{1}	119			1.00	2-1 SUST	43	86	
	TR:Amb to T3{1}			89	1.00	4-1 DISP	11	197	
	Amb to T1{1}			62	1.00	4-1 DISP	8	197	
	Amb to T2{1}			73	1.00	4-1 DISP	9	201	
	Amb to T3{1}			89	1.00	4-1 DISP	11	197	
	Amb to T4{1}			29	1.00	4-1 DISP	4	225	

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Amb to T5{1}		68	1.00	4-1	DISP	8	201
Hydrotest{1}	0	168	1.00	3-1	OCC	64	219
Sus.+T1{1}			1.00	5-1	CRUP	46	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	46	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	47	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	45	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	46	<NOTE 1>
B04 - Max P{1}							
					HOOP	58	86
GR + Max P{1}	98		1.00	2-1	SUST	41	86
TR:T1 to T3{1}		532	1.00	4-1	DISP	64	197
Amb to T1{1}		155	1.00	4-1	DISP	19	197
Amb to T2{1}		81	1.00	4-1	DISP	10	201
Amb to T3{1}		466	1.00	4-1	DISP	56	197
Amb to T4{1}		68	1.00	4-1	DISP	8	225
Amb to T5{1}		102	1.00	4-1	DISP	12	217
Hydrotest{1}	0	77	1.00	3-1	OCC	53	219
Sus.+T1{1}			1.00	5-1	CRUP	47	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	44	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	60	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	44	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	45	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)		
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.

B20	+ Max P{1}					HOOP	58 86
	GR + Max P{1}	98			1.00	2-1 SUST	41 86
	TR:T1 to T3{1}			347	1.00	4-1 DISP	42 197
	Amb to T1{1}			207	1.00	4-1 DISP	25 197
	Amb to T2{1}			125	1.00	4-1 DISP	15 201
	Amb to T3{1}			206	1.00	4-1 DISP	25 197
	Amb to T4{1}			42	1.00	4-1 DISP	5 225
	Amb to T5{1}			60	1.00	4-1 DISP	7 217
	Hydrotest{1}	0	166		1.00	3-1 OCC	64 219

		ADS_LINE_REV0.txt				
	Sus.+T1{1}			1.00	5-1 CRUP	49 <NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	46 <NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	49 <NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	43 <NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	43 <NOTE 1>
B20	- Max P{1}				HOOP	58 86
	GR + Max P{1}	98		1.00	2-1 SUST	41 86
	TR:T1 to T3{1}		347	1.00	4-1 DISP	42 197
	Amb to T1{1}		207	1.00	4-1 DISP	25 197
	Amb to T2{1}		125	1.00	4-1 DISP	15 201
	Amb to T3{1}		206	1.00	4-1 DISP	25 197
	Amb to T4{1}		42	1.00	4-1 DISP	5 225
	Amb to T5{1}		60	1.00	4-1 DISP	7 217
	Hydrotest{1}	0	166	1.00	3-1 OCC	64 219
	Sus.+T1{1}			1.00	5-1 CRUP	49 <NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	46 <NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	49 <NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	43 <NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	43 <NOTE 1>
F08	Max P{1}				HOOP	13 104
	GR + Max P{1}	271		2.00	2-1 SUST	20 104
	TR:T1 to T4{1}		886	2.00	4-1 DISP	63 247
	Amb to T1{1}		625	2.00	4-1 DISP	44 247
	Amb to T2{1}		480	2.00	4-1 DISP	34 247
	Amb to T3{1}		431	2.00	4-1 DISP	30 217
	Amb to T4{1}		386	2.00	4-1 DISP	27 247
	Amb to T5{1}		413	2.00	4-1 DISP	29 217
	Hydrotest{1}	0	156	2.00	3-1 OCC	9 219
	Sus.+T1{1}			2.00	5-1 CRUP	32 <NOTE 1>
	Sus.+T2{1}			2.00	5-1 CRUP	29 <NOTE 1>
	Sus.+T3{1}			2.00	5-1 CRUP	28 <NOTE 1>
	Sus.+T4{1}			2.00	5-1 CRUP	27 <NOTE 1>
	Sus.+T5{1}			2.00	5-1 CRUP	28 <NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)

(Stress in N/mm2)

Point name	Load combination	ADS_LINE_REV0.txt				Eq. Load no. type	Code Stress	Code Allow.	
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F				
-----		-----				-----		-----	
B05	+ Max P{1}						HOOP	58	86
	GR + Max P{1}	211			1.00	2-1	SUST	54	86
	TR:T1 to T3{1}			221	1.00	4-1	DISP	27	197
	Amb to T1{1}			159	1.00	4-1	DISP	19	197
	Amb to T2{1}			100	1.00	4-1	DISP	12	201
	Amb to T3{1}			71	1.00	4-1	DISP	8	197
	Amb to T4{1}			22	1.00	4-1	DISP	3	225
	Amb to T5{1}			124	1.00	4-1	DISP	15	217
	Hydrotest{1}	0	84		1.00	3-1	OCC	54	219
	Sus.+T1{1}				1.00	5-1	CRUP	61	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP	58	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP	57	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP	55	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP	59	<NOTE 1>
E17	+ Max P{1}						HOOP	58	86
	GR + Max P{1}	179			1.00	2-1	SUST	51	86
	TR:Amb to T3{1}			244	1.00	4-1	DISP	29	197
	Amb to T1{1}			107	1.00	4-1	DISP	13	197
	Amb to T2{1}			132	1.00	4-1	DISP	16	201
	Amb to T3{1}			244	1.00	4-1	DISP	29	197
	Amb to T4{1}			58	1.00	4-1	DISP	7	225
	Amb to T5{1}			124	1.00	4-1	DISP	15	217
	Hydrotest{1}	0	135		1.00	3-1	OCC	60	219
	Sus.+T1{1}				1.00	5-1	CRUP	55	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP	56	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP	60	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP	53	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP	56	<NOTE 1>
E17	- Max P{1}						HOOP	58	86
	GR + Max P{1}	179			1.00	2-1	SUST	51	86
	TR:Amb to T3{1}			244	1.00	4-1	DISP	29	197
	Amb to T1{1}			107	1.00	4-1	DISP	13	197
	Amb to T2{1}			132	1.00	4-1	DISP	16	201
	Amb to T3{1}			244	1.00	4-1	DISP	29	197
	Amb to T4{1}			58	1.00	4-1	DISP	7	225
	Amb to T5{1}			124	1.00	4-1	DISP	15	217
	Hydrotest{1}	0	135		1.00	3-1	OCC	60	219
	Sus.+T1{1}				1.00	5-1	CRUP	55	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP	56	<NOTE 1>

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Sus.+T3{1}	1.00	5-1	CRUP	60 <NOTE 1>
Sus.+T4{1}	1.00	5-1	CRUP	53 <NOTE 1>
Sus.+T5{1}	1.00	5-1	CRUP	56 <NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
D08	Max P{1}					HOOP	10 116
	GR + Max P{1}	258			1.00	2-1 SUST	53 116
	TR:T1 to T4{1}			147	1.00	4-1 DISP	28 225
	Amb to T1{1}			115	1.00	4-1 DISP	21 247
	Amb to T2{1}			33	1.00	4-1 DISP	6 247
	Amb to T3{1}			105	1.00	4-1 DISP	20 247
	Amb to T4{1}			37	1.00	4-1 DISP	7 225
	Amb to T5{1}			39	1.00	4-1 DISP	7 247
	Hydrotest{1}	0	272		1.00	3-1 OCC	51 219
	Sus.+T1{1}				1.00	5-1 CRUP	60 <NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	55 <NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	60 <NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	55 <NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	56 <NOTE 1>
B18	Max P{1}					HOOP	59 86
	GR + Max P{1}	121			1.00	2-1 SUST	37 86
	TR:Amb to T1{1}			920	1.00	4-1 DISP	57 197
	Amb to T1{1}			920	1.00	4-1 DISP	57 197
	Amb to T2{1}			618	1.00	4-1 DISP	38 201
	Amb to T3{1}			800	1.00	4-1 DISP	50 197
	Amb to T4{1}			192	1.00	4-1 DISP	12 225
	Amb to T5{1}			608	1.00	4-1 DISP	38 201
	Hydrotest{1}	0	84		1.00	3-1 OCC	50 219
	Sus.+T1{1}				1.00	5-1 CRUP	56 <NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	50 <NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	54 <NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	41 <NOTE 1>

		ADS_LINE_REV0.txt					
	Sus.+T5{1}			1.00	5-1 CRUP	50	<NOTE 1>
E02 F+	Max P{1}				HOOP	58	86
	GR + Max P{1}	145		1.00	2-1 SUST	47	86
	TR:Amb to T1{1}		303	1.00	4-1 DISP	36	197
	Amb to T1{1}		303	1.00	4-1 DISP	36	197
	Amb to T2{1}		204	1.00	4-1 DISP	25	201
	Amb to T3{1}		248	1.00	4-1 DISP	30	197
	Amb to T4{1}		90	1.00	4-1 DISP	11	225
	Amb to T5{1}		168	1.00	4-1 DISP	20	217
	Hydrotest{1}	0	61	1.00	3-1 OCC	51	219
	Sus.+T1{1}			1.00	5-1 CRUP	59	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	55	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	56	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	50	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	53	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE								
(Moments in N.m)			(Stress in N/mm2)					
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code	
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
E02 F-	Max P{1}					HOOP	58	86
	GR + Max P{1}	145			1.00	2-1 SUST	47	86
	TR:Amb to T1{1}			303	1.00	4-1 DISP	36	197
	Amb to T1{1}			303	1.00	4-1 DISP	36	197
	Amb to T2{1}			204	1.00	4-1 DISP	25	201
	Amb to T3{1}			248	1.00	4-1 DISP	30	197
	Amb to T4{1}			90	1.00	4-1 DISP	11	225
	Amb to T5{1}			168	1.00	4-1 DISP	20	217
	Hydrotest{1}	0	61		1.00	3-1 OCC	51	219
	Sus.+T1{1}				1.00	5-1 CRUP	59	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	55	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	56	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	50	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	53	<NOTE 1>
B04	+ Max P{1}					HOOP	58	86

ADS_LINE_REV0.txt									
GR + Max P{1}	87		1.00	2-1	SUST	40	86		
TR:T1 to T3{1}		231	1.00	4-1	DISP	28	197		
Amb to T1{1}		199	1.00	4-1	DISP	24	197		
Amb to T2{1}		126	1.00	4-1	DISP	15	201		
Amb to T3{1}		82	1.00	4-1	DISP	10	197		
Amb to T4{1}		41	1.00	4-1	DISP	5	225		
Amb to T5{1}		133	1.00	4-1	DISP	16	217		
Hydrotest{1}	0	124	1.00	3-1	OCC	59	219		
Sus.+T1{1}			1.00	5-1	CRUP	48	<NOTE 1>		
Sus.+T2{1}			1.00	5-1	CRUP	45	<NOTE 1>		
Sus.+T3{1}			1.00	5-1	CRUP	43	<NOTE 1>		
Sus.+T4{1}			1.00	5-1	CRUP	41	<NOTE 1>		
Sus.+T5{1}			1.00	5-1	CRUP	45	<NOTE 1>		
E16 + Max P{1}					HOOP	58	86		
GR + Max P{1}	122		1.00	2-1	SUST	44	86		
TR:Amb to T3{1}		244	1.00	4-1	DISP	29	197		
Amb to T1{1}		150	1.00	4-1	DISP	18	197		
Amb to T2{1}		130	1.00	4-1	DISP	16	201		
Amb to T3{1}		244	1.00	4-1	DISP	29	197		
Amb to T4{1}		57	1.00	4-1	DISP	7	225		
Amb to T5{1}		132	1.00	4-1	DISP	16	217		
Hydrotest{1}	0	121	1.00	3-1	OCC	58	219		
Sus.+T1{1}			1.00	5-1	CRUP	50	<NOTE 1>		
Sus.+T2{1}			1.00	5-1	CRUP	49	<NOTE 1>		
Sus.+T3{1}			1.00	5-1	CRUP	54	<NOTE 1>		
Sus.+T4{1}			1.00	5-1	CRUP	46	<NOTE 1>		
Sus.+T5{1}			1.00	5-1	CRUP	49	<NOTE 1>		

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EN 13480 (2002) CODE COMPLIANCE									
(Moments in N.m)			(Stress in N/mm2)						
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
E16 - Max P{1}						HOOP	58	86	
GR + Max P{1}		122			1.00	2-1 SUST	44	86	
TR:Amb to T3{1}				244	1.00	4-1 DISP	29	197	
Amb to T1{1}				150	1.00	4-1 DISP	18	197	

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	Amb to T2{1}		130	1.00	4-1 DISP	16	201
	Amb to T3{1}		244	1.00	4-1 DISP	29	197
	Amb to T4{1}		57	1.00	4-1 DISP	7	225
	Amb to T5{1}		132	1.00	4-1 DISP	16	217
	Hydrotest{1}	0	121	1.00	3-1 OCC	58	219
	Sus.+T1{1}			1.00	5-1 CRUP	50	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	49	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	54	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	46	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	49	<NOTE 1>
H01	Max P{1}				HOOP	58	86
	GR + Max P{1}	0		1.00	2-1 SUST	29	86
	TR:Amb to T3{1}		0	1.00	4-1 DISP	0	197
	Amb to T1{1}		0	1.00	4-1 DISP	0	197
	Amb to T2{1}		0	1.00	4-1 DISP	0	201
	Amb to T3{1}		0	1.00	4-1 DISP	0	197
	Amb to T4{1}		0	1.00	4-1 DISP	0	225
	Amb to T5{1}		0	1.00	4-1 DISP	0	201
	Hydrotest{1}	0	0	1.00	3-1 OCC	44	219
	Sus.+T1{1}			1.00	5-1 CRUP	29	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	29	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	29	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	29	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	29	<NOTE 1>
B09	Max P{1}				HOOP	58	86
	GR + Max P{1}	0		1.00	2-1 SUST	29	86
	TR:Amb to T3{1}		0	1.00	4-1 DISP	0	197
	Amb to T1{1}		0	1.00	4-1 DISP	0	197
	Amb to T2{1}		0	1.00	4-1 DISP	0	201
	Amb to T3{1}		0	1.00	4-1 DISP	0	197
	Amb to T4{1}		0	1.00	4-1 DISP	0	225
	Amb to T5{1}		0	1.00	4-1 DISP	0	201
	Hydrotest{1}	0	0	1.00	3-1 OCC	44	219
	Sus.+T1{1}			1.00	5-1 CRUP	29	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	29	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	29	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	29	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	29	<NOTE 1>

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Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. Load no. type			
F02 F+	Max P{1}					HOOP		58	86
	GR + Max P{1}	23			1.00	2-1 SUST		32	86
	TR:T1 to T5{1}			203	1.00	4-1 DISP		24	197
	Amb to T1{1}			196	1.00	4-1 DISP		24	197
	Amb to T2{1}			121	1.00	4-1 DISP		15	201
	Amb to T3{1}			114	1.00	4-1 DISP		14	197
	Amb to T4{1}			39	1.00	4-1 DISP		5	225
	Amb to T5{1}			154	1.00	4-1 DISP		19	201
	Hydrotest{1}	0	39		1.00	3-1 OCC		48	219
	Sus.+T1{1}				1.00	5-1 CRUP		40	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP		37	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP		36	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP		33	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP		38	<NOTE 1>
F02 F-	Max P{1}					HOOP		58	86
	GR + Max P{1}	23			1.00	2-1 SUST		32	86
	TR:T1 to T5{1}			203	1.00	4-1 DISP		24	197
	Amb to T1{1}			196	1.00	4-1 DISP		24	197
	Amb to T2{1}			121	1.00	4-1 DISP		15	201
	Amb to T3{1}			114	1.00	4-1 DISP		14	197
	Amb to T4{1}			39	1.00	4-1 DISP		5	225
	Amb to T5{1}			154	1.00	4-1 DISP		19	201
	Hydrotest{1}	0	39		1.00	3-1 OCC		48	219
	Sus.+T1{1}				1.00	5-1 CRUP		40	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP		37	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP		36	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP		33	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP		38	<NOTE 1>
F02 M	Max P{1}					HOOP		58	86
	GR + Max P{1}	20			1.00	2-1 SUST		32	86
	TR:T1 to T5{1}			199	1.00	4-1 DISP		24	197
	Amb to T1{1}			190	1.00	4-1 DISP		23	197
	Amb to T2{1}			116	1.00	4-1 DISP		14	201

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Amb to T3{1}	111	1.00	4-1	DISP	13	197	
Amb to T4{1}	38	1.00	4-1	DISP	5	225	
Amb to T5{1}	153	1.00	4-1	DISP	18	201	
Hydrotest{1}	0	40	1.00	3-1 OCC	49	219	
Sus.+T1{1}		1.00	5-1	CRUP	39	<NOTE 1>	
Sus.+T2{1}		1.00	5-1	CRUP	36	<NOTE 1>	
Sus.+T3{1}		1.00	5-1	CRUP	36	<NOTE 1>	
Sus.+T4{1}		1.00	5-1	CRUP	33	<NOTE 1>	
Sus.+T5{1}		1.00	5-1	CRUP	38	<NOTE 1>	

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

F02 N+	Max P{1}					HOOP	58	86	
	GR + Max P{1}	26			1.00	2-1 SUST	32	86	
	TR:T1 to T5{1}			191	1.00	4-1 DISP	23	197	
	Amb to T1{1}			182	1.00	4-1 DISP	22	197	
	Amb to T2{1}			112	1.00	4-1 DISP	13	201	
	Amb to T3{1}			109	1.00	4-1 DISP	13	197	
	Amb to T4{1}			36	1.00	4-1 DISP	4	225	
	Amb to T5{1}			148	1.00	4-1 DISP	18	201	
	Hydrotest{1}	0	36		1.00	3-1 OCC	48	219	
	Sus.+T1{1}				1.00	5-1 CRUP	40	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	37	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	37	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	34	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	38	<NOTE 1>	
F02 N-	Max P{1}					HOOP	58	86	
	GR + Max P{1}	26			1.00	2-1 SUST	32	86	
	TR:T1 to T5{1}			191	1.00	4-1 DISP	23	197	
	Amb to T1{1}			182	1.00	4-1 DISP	22	197	
	Amb to T2{1}			112	1.00	4-1 DISP	13	201	
	Amb to T3{1}			109	1.00	4-1 DISP	13	197	
	Amb to T4{1}			36	1.00	4-1 DISP	4	225	
	Amb to T5{1}			148	1.00	4-1 DISP	18	201	

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	Hydrotest{1}	0	36	1.00	3-1	OCC	48	219
	Sus.+T1{1}			1.00	5-1	CRUP	40	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	37	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	37	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	34	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	38	<NOTE 1>
F01	Max P{1}					HOOP	58	86
	GR + Max P{1}	177		1.00	2-1	SUST	50	86
	TR:T1 to T5{1}		170	1.00	4-1	DISP	20	197
	Amb to T1{1}		147	1.00	4-1	DISP	18	197
	Amb to T2{1}		120	1.00	4-1	DISP	14	201
	Amb to T3{1}		102	1.00	4-1	DISP	12	197
	Amb to T4{1}		51	1.00	4-1	DISP	6	225
	Amb to T5{1}		113	1.00	4-1	DISP	14	201
	Hydrotest{1}	0	74	1.00	3-1	OCC	53	219
	Sus.+T1{1}			1.00	5-1	CRUP	56	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	55	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	55	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	52	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	55	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
B08	Max P{1}					HOOP	58	86	
	GR + Max P{1}	203			1.00	2-1 SUST	51	86	
	TR:T1 to T5{1}			182	1.00	4-1 DISP	19	197	
	Amb to T1{1}			156	1.00	4-1 DISP	16	197	
	Amb to T2{1}			125	1.00	4-1 DISP	13	201	
	Amb to T3{1}			104	1.00	4-1 DISP	11	197	
	Amb to T4{1}			52	1.00	4-1 DISP	6	225	
	Amb to T5{1}			119	1.00	4-1 DISP	13	201	
	Hydrotest{1}	0	93		1.00	3-1 OCC	54	219	
	Sus.+T1{1}				1.00	5-1 CRUP	56	<NOTE 1>	

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Sus.+T2{1}			1.00	5-1	CRUP	55	<NOTE 1>		
Sus.+T3{1}			1.00	5-1	CRUP	54	<NOTE 1>		
Sus.+T4{1}			1.00	5-1	CRUP	52	<NOTE 1>		
Sus.+T5{1}			1.00	5-1	CRUP	55	<NOTE 1>		
E02 N+	Max P{1}				HOOP	58	86		
	GR + Max P{1}	108	1.00	2-1	SUST	42	86		
	TR:Amb to T1{1}		279	1.00	4-1	DISP	34	197	
	Amb to T1{1}		279	1.00	4-1	DISP	34	197	
	Amb to T2{1}		188	1.00	4-1	DISP	23	201	
	Amb to T3{1}		248	1.00	4-1	DISP	30	197	
	Amb to T4{1}		84	1.00	4-1	DISP	10	225	
	Amb to T5{1}		159	1.00	4-1	DISP	19	217	
	Hydrotest{1}	0	57	1.00	3-1	OCC	51	219	
	Sus.+T1{1}			1.00	5-1	CRUP	53	<NOTE 1>	
	Sus.+T2{1}			1.00	5-1	CRUP	50	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1	CRUP	52	<NOTE 1>	
	Sus.+T4{1}			1.00	5-1	CRUP	46	<NOTE 1>	
	Sus.+T5{1}			1.00	5-1	CRUP	49	<NOTE 1>	
E02 N-	Max P{1}				HOOP	58	86		
	GR + Max P{1}	108	1.00	2-1	SUST	42	86		
	TR:Amb to T1{1}		279	1.00	4-1	DISP	34	197	
	Amb to T1{1}		279	1.00	4-1	DISP	34	197	
	Amb to T2{1}		188	1.00	4-1	DISP	23	201	
	Amb to T3{1}		248	1.00	4-1	DISP	30	197	
	Amb to T4{1}		84	1.00	4-1	DISP	10	225	
	Amb to T5{1}		159	1.00	4-1	DISP	19	217	
	Hydrotest{1}	0	57	1.00	3-1	OCC	51	219	
	Sus.+T1{1}			1.00	5-1	CRUP	53	<NOTE 1>	
	Sus.+T2{1}			1.00	5-1	CRUP	50	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1	CRUP	52	<NOTE 1>	
	Sus.+T4{1}			1.00	5-1	CRUP	46	<NOTE 1>	
	Sus.+T5{1}			1.00	5-1	CRUP	49	<NOTE 1>	

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m) (Stress in N/mm2)

Point Load Ma Mb Mc Eq. Load Code Code

name	combination	ADS_LINE_REV0.txt			no.	type	Stress	Allow.
		(Sus.)	(Occ.)	(Exp.)				

E19	Max P{1}					HOOP	58	86
	GR + Max P{1}	158			1.00	2-1 SUST	48	86
	TR:Amb to T3{1}			245	1.00	4-1 DISP	29	197
	Amb to T1{1}			139	1.00	4-1 DISP	17	197
	Amb to T2{1}			160	1.00	4-1 DISP	19	201
	Amb to T3{1}			245	1.00	4-1 DISP	29	197
	Amb to T4{1}			72	1.00	4-1 DISP	9	225
	Amb to T5{1}			125	1.00	4-1 DISP	15	217
	Hydrotest{1}	0	83		1.00	3-1 OCC	54	219
	Sus.+T1{1}				1.00	5-1 CRUP	54	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	55	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	58	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	51	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	53	<NOTE 1>
	E01	Max P{1}					HOOP	58
GR + Max P{1}		132			1.00	2-1 SUST	45	86
TR:Amb to T3{1}				248	1.00	4-1 DISP	30	197
Amb to T1{1}				205	1.00	4-1 DISP	25	197
Amb to T2{1}				202	1.00	4-1 DISP	24	201
Amb to T3{1}				248	1.00	4-1 DISP	30	197
Amb to T4{1}				92	1.00	4-1 DISP	11	225
Amb to T5{1}				134	1.00	4-1 DISP	16	217
Hydrotest{1}		0	46		1.00	3-1 OCC	49	219
Sus.+T1{1}					1.00	5-1 CRUP	53	<NOTE 1>
Sus.+T2{1}					1.00	5-1 CRUP	53	<NOTE 1>
Sus.+T3{1}					1.00	5-1 CRUP	55	<NOTE 1>
Sus.+T4{1}					1.00	5-1 CRUP	49	<NOTE 1>
Sus.+T5{1}					1.00	5-1 CRUP	50	<NOTE 1>
B05		Max P{1}					HOOP	58
	GR + Max P{1}	125			1.00	2-1 SUST	42	86
	TR:T1 to T3{1}			256	1.00	4-1 DISP	27	197
	Amb to T1{1}			222	1.00	4-1 DISP	23	197
	Amb to T2{1}			213	1.00	4-1 DISP	22	201
	Amb to T3{1}			249	1.00	4-1 DISP	26	197
	Amb to T4{1}			97	1.00	4-1 DISP	10	225
	Amb to T5{1}			137	1.00	4-1 DISP	14	217
	Hydrotest{1}	0	46		1.00	3-1 OCC	49	219
	Sus.+T1{1}				1.00	5-1 CRUP	50	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	50	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	51	<NOTE 1>

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Sus.+T4{1}	1.00	5-1	CRUP	46 <NOTE 1>
Sus.+T5{1}	1.00	5-1	CRUP	47 <NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

D12	+ Max P{1}					HOOP	58	86	
	GR + Max P{1}	83			1.00	2-1 SUST	39	86	
	TR:Amb to T3{1}			229	1.00	4-1 DISP	27	197	
	Amb to T1{1}			102	1.00	4-1 DISP	12	197	
	Amb to T2{1}			119	1.00	4-1 DISP	14	201	
	Amb to T3{1}			229	1.00	4-1 DISP	27	197	
	Amb to T4{1}			71	1.00	4-1 DISP	8	225	
	Amb to T5{1}			58	1.00	4-1 DISP	7	217	
	Hydrotest{1}	0	57		1.00	3-1 OCC	51	219	
	Sus.+T1{1}				1.00	5-1 CRUP	43	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	44	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	48	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	42	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	41	<NOTE 1>	
D12	- Max P{1}					HOOP	58	86	
	GR + Max P{1}	83			1.00	2-1 SUST	39	86	
	TR:Amb to T3{1}			229	1.00	4-1 DISP	27	197	
	Amb to T1{1}			102	1.00	4-1 DISP	12	197	
	Amb to T2{1}			119	1.00	4-1 DISP	14	201	
	Amb to T3{1}			229	1.00	4-1 DISP	27	197	
	Amb to T4{1}			71	1.00	4-1 DISP	8	225	
	Amb to T5{1}			58	1.00	4-1 DISP	7	217	
	Hydrotest{1}	0	57		1.00	3-1 OCC	51	219	
	Sus.+T1{1}				1.00	5-1 CRUP	43	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	44	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	48	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	42	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	41	<NOTE 1>	

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D11 + Max P{1}					HOOP	58	86
GR + Max P{1}	79		1.00	2-1 SUST		39	86
TR:Amb to T3{1}		317	1.00	4-1 DISP		38	197
Amb to T1{1}		135	1.00	4-1 DISP		16	197
Amb to T2{1}		168	1.00	4-1 DISP		20	201
Amb to T3{1}		317	1.00	4-1 DISP		38	197
Amb to T4{1}		95	1.00	4-1 DISP		11	225
Amb to T5{1}		74	1.00	4-1 DISP		9	217
Hydrotest{1}	0	55	1.00	3-1 OCC		50	219
Sus.+T1{1}			1.00	5-1 CRUP		44	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP		45	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP		51	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP		42	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP		42	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
D11 - Max P{1}						HOOP	58	86	
GR + Max P{1}		79			1.00	2-1 SUST	39	86	
TR:Amb to T3{1}				317	1.00	4-1 DISP	38	197	
Amb to T1{1}				135	1.00	4-1 DISP	16	197	
Amb to T2{1}				168	1.00	4-1 DISP	20	201	
Amb to T3{1}				317	1.00	4-1 DISP	38	197	
Amb to T4{1}				95	1.00	4-1 DISP	11	225	
Amb to T5{1}				74	1.00	4-1 DISP	9	217	
Hydrotest{1}		0	55		1.00	3-1 OCC	50	219	
Sus.+T1{1}					1.00	5-1 CRUP	44	<NOTE 1>	
Sus.+T2{1}					1.00	5-1 CRUP	45	<NOTE 1>	
Sus.+T3{1}					1.00	5-1 CRUP	51	<NOTE 1>	
Sus.+T4{1}					1.00	5-1 CRUP	42	<NOTE 1>	
Sus.+T5{1}					1.00	5-1 CRUP	42	<NOTE 1>	
D03 F+ Max P{1}						HOOP	58	86	
GR + Max P{1}		79			1.00	2-1 SUST	39	86	

		ADS_LINE_REV0.txt					
TR:Amb to T3{1}		386	1.00	4-1 DISP	46	197	
Amb to T1{1}		166	1.00	4-1 DISP	20	197	
Amb to T2{1}		206	1.00	4-1 DISP	25	201	
Amb to T3{1}		386	1.00	4-1 DISP	46	197	
Amb to T4{1}		115	1.00	4-1 DISP	14	225	
Amb to T5{1}		88	1.00	4-1 DISP	11	217	
Hydrotest{1}	0	49	1.00	3-1 OCC	50	219	
Sus.+T1{1}			1.00	5-1 CRUP	45	<NOTE 1>	
Sus.+T2{1}			1.00	5-1 CRUP	47	<NOTE 1>	
Sus.+T3{1}			1.00	5-1 CRUP	54	<NOTE 1>	
Sus.+T4{1}			1.00	5-1 CRUP	43	<NOTE 1>	
Sus.+T5{1}			1.00	5-1 CRUP	42	<NOTE 1>	
D03 F- Max P{1}				HOOP	58	86	
GR + Max P{1}	79		1.00	2-1 SUST	39	86	
TR:Amb to T3{1}		386	1.00	4-1 DISP	46	197	
Amb to T1{1}		166	1.00	4-1 DISP	20	197	
Amb to T2{1}		206	1.00	4-1 DISP	25	201	
Amb to T3{1}		386	1.00	4-1 DISP	46	197	
Amb to T4{1}		115	1.00	4-1 DISP	14	225	
Amb to T5{1}		88	1.00	4-1 DISP	11	217	
Hydrotest{1}	0	49	1.00	3-1 OCC	50	219	
Sus.+T1{1}			1.00	5-1 CRUP	45	<NOTE 1>	
Sus.+T2{1}			1.00	5-1 CRUP	47	<NOTE 1>	
Sus.+T3{1}			1.00	5-1 CRUP	54	<NOTE 1>	
Sus.+T4{1}			1.00	5-1 CRUP	43	<NOTE 1>	
Sus.+T5{1}			1.00	5-1 CRUP	42	<NOTE 1>	

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EN 13480 (2002) CODE COMPLIANCE								
(Moments in N.m)			(Stress in N/mm2)					
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code	
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.

D03 N+ Max P{1}						HOOP	58	86
GR + Max P{1}		71			1.00	2-1 SUST	38	86
TR:Amb to T3{1}				402	1.00	4-1 DISP	48	197
Amb to T1{1}				173	1.00	4-1 DISP	21	197
Amb to T2{1}				205	1.00	4-1 DISP	25	201

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Amb to T3{1}		402	1.00	4-1 DISP	48	197
Amb to T4{1}		112	1.00	4-1 DISP	13	225
Amb to T5{1}		90	1.00	4-1 DISP	11	217
Hydrotest{1}	0	44	1.00	3-1 OCC	49	219
Sus.+T1{1}			1.00	5-1 CRUP	45	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	46	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	54	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	42	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	41	<NOTE 1>
D03 N- Max P{1}				HOOP	58	86
GR + Max P{1}	71		1.00	2-1 SUST	38	86
TR:Amb to T3{1}		402	1.00	4-1 DISP	48	197
Amb to T1{1}		173	1.00	4-1 DISP	21	197
Amb to T2{1}		205	1.00	4-1 DISP	25	201
Amb to T3{1}		402	1.00	4-1 DISP	48	197
Amb to T4{1}		112	1.00	4-1 DISP	13	225
Amb to T5{1}		90	1.00	4-1 DISP	11	217
Hydrotest{1}	0	44	1.00	3-1 OCC	49	219
Sus.+T1{1}			1.00	5-1 CRUP	45	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	46	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	54	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	42	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	41	<NOTE 1>
D02 F+ Max P{1}				HOOP	58	86
GR + Max P{1}	14		1.00	2-1 SUST	31	86
TR:Amb to T3{1}		429	1.00	4-1 DISP	52	197
Amb to T1{1}		169	1.00	4-1 DISP	20	197
Amb to T2{1}		145	1.00	4-1 DISP	17	201
Amb to T3{1}		429	1.00	4-1 DISP	52	197
Amb to T4{1}		66	1.00	4-1 DISP	8	225
Amb to T5{1}		90	1.00	4-1 DISP	11	217
Hydrotest{1}	0	25	1.00	3-1 OCC	47	219
Sus.+T1{1}			1.00	5-1 CRUP	38	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	37	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	48	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	33	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	34	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code	
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

D02 F-	Max P{1}					HOOP	58	86	
	GR + Max P{1}	14			1.00	2-1 SUST	31	86	
	TR:Amb to T3{1}			429	1.00	4-1 DISP	52	197	
	Amb to T1{1}			169	1.00	4-1 DISP	20	197	
	Amb to T2{1}			145	1.00	4-1 DISP	17	201	
	Amb to T3{1}			429	1.00	4-1 DISP	52	197	
	Amb to T4{1}			66	1.00	4-1 DISP	8	225	
	Amb to T5{1}			90	1.00	4-1 DISP	11	217	
	Hydrotest{1}	0	25		1.00	3-1 OCC	47	219	
	Sus.+T1{1}				1.00	5-1 CRUP	38	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	37	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	48	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	33	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	34	<NOTE 1>	
D02 N+	Max P{1}					HOOP	58	86	
	GR + Max P{1}	14			1.00	2-1 SUST	31	86	
	TR:Amb to T3{1}			431	1.00	4-1 DISP	52	197	
	Amb to T1{1}			169	1.00	4-1 DISP	20	197	
	Amb to T2{1}			141	1.00	4-1 DISP	17	201	
	Amb to T3{1}			431	1.00	4-1 DISP	52	197	
	Amb to T4{1}			64	1.00	4-1 DISP	8	225	
	Amb to T5{1}			90	1.00	4-1 DISP	11	217	
	Hydrotest{1}	0	25		1.00	3-1 OCC	47	219	
	Sus.+T1{1}				1.00	5-1 CRUP	38	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	37	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	48	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	33	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	34	<NOTE 1>	
D02 N-	Max P{1}					HOOP	58	86	
	GR + Max P{1}	14			1.00	2-1 SUST	31	86	
	TR:Amb to T3{1}			431	1.00	4-1 DISP	52	197	
	Amb to T1{1}			169	1.00	4-1 DISP	20	197	
	Amb to T2{1}			141	1.00	4-1 DISP	17	201	
	Amb to T3{1}			431	1.00	4-1 DISP	52	197	

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Amb to T4{1}	64	1.00	4-1	DISP	8	225	
Amb to T5{1}	90	1.00	4-1	DISP	11	217	
Hydrotest{1}	0 25	1.00	3-1	OCC	47	219	
Sus.+T1{1}		1.00	5-1	CRUP	38	<NOTE 1>	
Sus.+T2{1}		1.00	5-1	CRUP	37	<NOTE 1>	
Sus.+T3{1}		1.00	5-1	CRUP	48	<NOTE 1>	
Sus.+T4{1}		1.00	5-1	CRUP	33	<NOTE 1>	
Sus.+T5{1}		1.00	5-1	CRUP	34	<NOTE 1>	

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
B11 F+ Max P{1}						HOOP	58 86
	GR + Max P{1}	44			1.00	2-1 SUST	34 86
	TR:Amb to T1{1}			310	1.00	4-1 DISP	37 197
	Amb to T1{1}			310	1.00	4-1 DISP	37 197
	Amb to T2{1}			146	1.00	4-1 DISP	18 201
	Amb to T3{1}			76	1.00	4-1 DISP	9 197
	Amb to T4{1}			14	1.00	4-1 DISP	2 225
	Amb to T5{1}			179	1.00	4-1 DISP	22 201
	Hydrotest{1}	0	42		1.00	3-1 OCC	49 219
	Sus.+T1{1}				1.00	5-1 CRUP	47 <NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	40 <NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	37 <NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	35 <NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	42 <NOTE 1>
B11 F- Max P{1}						HOOP	58 86
	GR + Max P{1}	44			1.00	2-1 SUST	34 86
	TR:Amb to T1{1}			310	1.00	4-1 DISP	37 197
	Amb to T1{1}			310	1.00	4-1 DISP	37 197
	Amb to T2{1}			146	1.00	4-1 DISP	18 201
	Amb to T3{1}			76	1.00	4-1 DISP	9 197
	Amb to T4{1}			14	1.00	4-1 DISP	2 225
	Amb to T5{1}			179	1.00	4-1 DISP	22 201
	Hydrotest{1}	0	42		1.00	3-1 OCC	49 219

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Sus.+T1{1}	1.00	5-1	CRUP	47	<NOTE 1>
Sus.+T2{1}	1.00	5-1	CRUP	40	<NOTE 1>
Sus.+T3{1}	1.00	5-1	CRUP	37	<NOTE 1>
Sus.+T4{1}	1.00	5-1	CRUP	35	<NOTE 1>
Sus.+T5{1}	1.00	5-1	CRUP	42	<NOTE 1>

B11 M	Max P{1}				HOOP	58	86
	GR + Max P{1}	48		1.00	2-1 SUST	35	86
	TR:Amb to T1{1}		342	1.00	4-1 DISP	41	197
	Amb to T1{1}		342	1.00	4-1 DISP	41	197
	Amb to T2{1}		167	1.00	4-1 DISP	20	201
	Amb to T3{1}		105	1.00	4-1 DISP	13	197
	Amb to T4{1}		16	1.00	4-1 DISP	2	225
	Amb to T5{1}		199	1.00	4-1 DISP	24	201
	Hydrotest{1}	0	46	1.00	3-1 OCC	49	219
	Sus.+T1{1}			1.00	5-1 CRUP	49	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	42	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	39	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	36	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	43	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. no.	Load type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F						
B11 N+	Max P{1}								HOOP	58	86
	GR + Max P{1}	50			1.00	2-1	SUST			35	86
	TR:Amb to T1{1}			383	1.00	4-1	DISP			46	197
	Amb to T1{1}			383	1.00	4-1	DISP			46	197
	Amb to T2{1}			195	1.00	4-1	DISP			23	201
	Amb to T3{1}			151	1.00	4-1	DISP			18	197
	Amb to T4{1}			22	1.00	4-1	DISP			3	225
	Amb to T5{1}			223	1.00	4-1	DISP			27	201
	Hydrotest{1}	0	46		1.00	3-1	OCC			49	219
	Sus.+T1{1}				1.00	5-1	CRUP			51	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP			43	<NOTE 1>

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Sus.+T3{1}			1.00	5-1	CRUP	41	<NOTE 1>		
Sus.+T4{1}			1.00	5-1	CRUP	36	<NOTE 1>		
Sus.+T5{1}			1.00	5-1	CRUP	44	<NOTE 1>		
B11 N- Max P{1}					HOOP	58		86	
GR + Max P{1}	50		1.00	2-1	SUST	35		86	
TR:Amb to T1{1}		383	1.00	4-1	DISP	46		197	
Amb to T1{1}		383	1.00	4-1	DISP	46		197	
Amb to T2{1}		195	1.00	4-1	DISP	23		201	
Amb to T3{1}		151	1.00	4-1	DISP	18		197	
Amb to T4{1}		22	1.00	4-1	DISP	3		225	
Amb to T5{1}		223	1.00	4-1	DISP	27		201	
Hydrotest{1}	0	46	1.00	3-1	OCC	49		219	
Sus.+T1{1}			1.00	5-1	CRUP	51	<NOTE 1>		
Sus.+T2{1}			1.00	5-1	CRUP	43	<NOTE 1>		
Sus.+T3{1}			1.00	5-1	CRUP	41	<NOTE 1>		
Sus.+T4{1}			1.00	5-1	CRUP	36	<NOTE 1>		
Sus.+T5{1}			1.00	5-1	CRUP	44	<NOTE 1>		
B08 + Max P{1}					HOOP	58		86	
GR + Max P{1}	50		1.00	2-1	SUST	35		86	
TR:Amb to T3{1}		253	1.00	4-1	DISP	30		197	
Amb to T1{1}		129	1.00	4-1	DISP	15		197	
Amb to T2{1}		75	1.00	4-1	DISP	9		201	
Amb to T3{1}		253	1.00	4-1	DISP	30		197	
Amb to T4{1}		36	1.00	4-1	DISP	4		225	
Amb to T5{1}		115	1.00	4-1	DISP	14		201	
Hydrotest{1}	0	42	1.00	3-1	OCC	49		219	
Sus.+T1{1}			1.00	5-1	CRUP	40	<NOTE 1>		
Sus.+T2{1}			1.00	5-1	CRUP	38	<NOTE 1>		
Sus.+T3{1}			1.00	5-1	CRUP	45	<NOTE 1>		
Sus.+T4{1}			1.00	5-1	CRUP	37	<NOTE 1>		
Sus.+T5{1}			1.00	5-1	CRUP	40	<NOTE 1>		

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

B05	- Max P{1}					HOOP	58	86
	GR + Max P{1}	96		1.00	2-1	SUST	41	86
	TR:T1 to T3{1}		428	1.00	4-1	DISP	51	197
	Amb to T1{1}		236	1.00	4-1	DISP	28	197
	Amb to T2{1}		182	1.00	4-1	DISP	22	201
	Amb to T3{1}		315	1.00	4-1	DISP	38	197
	Amb to T4{1}		78	1.00	4-1	DISP	9	225
	Amb to T5{1}		40	1.00	4-1	DISP	5	217
	Hydrotest{1}	0	82	1.00	3-1	OCC	54	219
	Sus.+T1{1}			1.00	5-1	CRUP	50	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	48	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	53	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	44	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	42	<NOTE 1>
K02	- Max P{1}					HOOP	13	104
	GR + Max P{1}	328		1.30	2-1	SUST	18	104
	TR:T3 to T5{1}		1260	1.30	4-1	DISP	58	217
	Amb to T1{1}		573	1.30	4-1	DISP	26	247
	Amb to T2{1}		321	1.30	4-1	DISP	15	217
	Amb to T3{1}		1196	1.30	4-1	DISP	55	247
	Amb to T4{1}		202	1.30	4-1	DISP	9	225
	Amb to T5{1}		196	1.30	4-1	DISP	9	217
	Hydrotest{1}	0	70	1.30	3-1	OCC	3	219
	Sus.+T1{1}			1.30	5-1	CRUP	24	<NOTE 1>
	Sus.+T2{1}			1.30	5-1	CRUP	21	<NOTE 1>
	Sus.+T3{1}			1.30	5-1	CRUP	32	<NOTE 1>
	Sus.+T4{1}			1.30	5-1	CRUP	20	<NOTE 1>
	Sus.+T5{1}			1.30	5-1	CRUP	20	<NOTE 1>
F14	Max P{1}					HOOP	10	104
	GR + Max P{1}	164		1.00	2-1	SUST	36	104
	TR:Amb to T1{1}		302	1.00	4-1	DISP	56	247
	Amb to T1{1}		302	1.00	4-1	DISP	56	247
	Amb to T2{1}		177	1.00	4-1	DISP	33	247
	Amb to T3{1}		140	1.00	4-1	DISP	26	217
	Amb to T4{1}		58	1.00	4-1	DISP	11	247
	Amb to T5{1}		137	1.00	4-1	DISP	26	217
	Hydrotest{1}	0	196	1.00	3-1	OCC	37	219
	Sus.+T1{1}			1.00	5-1	CRUP	54	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	47	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	44	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	39	<NOTE 1>

Sus.+T5{1}

1.00

5-1 CRUP

44 <NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. Load no. type			
A02	Max P{1}					HOOP		52	104
	GR + Max P{1}	0			1.00	2-1 SUST		23	104
	TR:T1 to T3{1}			0	1.00	4-1 DISP		0	247
	Amb to T1{1}			0	1.00	4-1 DISP		0	247
	Amb to T2{1}			0	1.00	4-1 DISP		0	217
	Amb to T3{1}			0	1.00	4-1 DISP		0	247
	Amb to T4{1}			0	1.00	4-1 DISP		0	225
	Amb to T5{1}			0	1.00	4-1 DISP		0	217
	Hydrotest{1}	0	0		1.00	3-1 OCC		2	219
	Sus.+T1{1}				1.00	5-1 CRUP		23	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP		23	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP		23	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP		23	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP		23	<NOTE 1>
A16	+ Max P{1}					HOOP		52	104
	GR + Max P{1}	0			1.00	2-1 SUST		23	104
	TR:T1 to T3{1}			0	1.00	4-1 DISP		0	247
	Amb to T1{1}			0	1.00	4-1 DISP		0	247
	Amb to T2{1}			0	1.00	4-1 DISP		0	217
	Amb to T3{1}			0	1.00	4-1 DISP		0	247
	Amb to T4{1}			0	1.00	4-1 DISP		0	225
	Amb to T5{1}			0	1.00	4-1 DISP		0	217
	Hydrotest{1}	0	0		1.00	3-1 OCC		2	219
	Sus.+T1{1}				1.00	5-1 CRUP		23	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP		23	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP		23	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP		23	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP		23	<NOTE 1>
E14	Max P{1}					HOOP		16	104

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GR + Max P{1}	518	2.00	2-1	SUST	22	104	
TR:T1 to T3{1}		1368	2.00	4-1	DISP	52	217
Amb to T1{1}		602	2.00	4-1	DISP	23	247
Amb to T2{1}		685	2.00	4-1	DISP	26	247
Amb to T3{1}		842	2.00	4-1	DISP	32	217
Amb to T4{1}		576	2.00	4-1	DISP	22	247
Amb to T5{1}		649	2.00	4-1	DISP	25	217
Hydrotest{1}	0	106	2.00	3-1	OCC	4	219
Sus.+T1{1}			2.00	5-1	CRUP	28	<NOTE 1>
Sus.+T2{1}			2.00	5-1	CRUP	28	<NOTE 1>
Sus.+T3{1}			2.00	5-1	CRUP	30	<NOTE 1>
Sus.+T4{1}			2.00	5-1	CRUP	27	<NOTE 1>
Sus.+T5{1}			2.00	5-1	CRUP	28	<NOTE 1>

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(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
-----		-----	-----	-----	-----	-----	-----	-----
E08 F+	Max P{1}					HOOP	13	104
	GR + Max P{1}	517			1.00	2-1 SUST	24	104
	TR:T1 to T3{1}			1259	1.00	4-1 DISP	45	217
	Amb to T1{1}			571	1.00	4-1 DISP	20	247
	Amb to T2{1}			631	1.00	4-1 DISP	22	247
	Amb to T3{1}			769	1.00	4-1 DISP	27	217
	Amb to T4{1}			530	1.00	4-1 DISP	19	247
	Amb to T5{1}			598	1.00	4-1 DISP	21	217
	Hydrotest{1}	0	52		1.00	3-1 OCC	2	219
	Sus.+T1{1}				1.00	5-1 CRUP	31	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	32	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	33	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	31	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	31	<NOTE 1>
F07 F-	Max P{1}					HOOP	13	104
	GR + Max P{1}	27			1.78	2-1 SUST	7	104
	TR:T1 to T4{1}			708	1.78	4-1 DISP	45	247

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Amb to T1{1}		551	1.78	4-1 DISP	35	247	
Amb to T2{1}		364	1.78	4-1 DISP	23	247	
Amb to T3{1}		274	1.78	4-1 DISP	17	217	
Amb to T4{1}		278	1.78	4-1 DISP	17	247	
Amb to T5{1}		229	1.78	4-1 DISP	14	217	
Hydrotest{1}	0	87	1.78	3-1 OCC	5	219	
Sus.+T1{1}			1.78	5-1 CRUP	16	<NOTE 1>	
Sus.+T2{1}			1.78	5-1 CRUP	13	<NOTE 1>	
Sus.+T3{1}			1.78	5-1 CRUP	12	<NOTE 1>	
Sus.+T4{1}			1.78	5-1 CRUP	12	<NOTE 1>	
Sus.+T5{1}			1.78	5-1 CRUP	11	<NOTE 1>	
F07 M Max P{1}							
				HOOP	13	104	
GR + Max P{1}	30		1.78	2-1 SUST	7	104	
TR:T1 to T4{1}		703	1.78	4-1 DISP	44	247	
Amb to T1{1}		549	1.78	4-1 DISP	35	247	
Amb to T2{1}		361	1.78	4-1 DISP	23	247	
Amb to T3{1}		270	1.78	4-1 DISP	17	217	
Amb to T4{1}		275	1.78	4-1 DISP	17	247	
Amb to T5{1}		224	1.78	4-1 DISP	14	217	
Hydrotest{1}	0	90	1.78	3-1 OCC	5	219	
Sus.+T1{1}			1.78	5-1 CRUP	16	<NOTE 1>	
Sus.+T2{1}			1.78	5-1 CRUP	13	<NOTE 1>	
Sus.+T3{1}			1.78	5-1 CRUP	12	<NOTE 1>	
Sus.+T4{1}			1.78	5-1 CRUP	12	<NOTE 1>	
Sus.+T5{1}			1.78	5-1 CRUP	11	<NOTE 1>	

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

F07 N+	Max P{1}					HOOP	13	104	
	GR + Max P{1}	33			1.78	2-1 SUST	8	104	
	TR:T1 to T4{1}			697	1.78	4-1 DISP	44	247	
	Amb to T1{1}			546	1.78	4-1 DISP	34	247	
	Amb to T2{1}			357	1.78	4-1 DISP	22	247	
	Amb to T3{1}			265	1.78	4-1 DISP	17	217	

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Amb to T4{1}			271	1.78	4-1 DISP	17	247
Amb to T5{1}			220	1.78	4-1 DISP	14	217
Hydrotest{1}	0	93		1.78	3-1 OCC	5	219
Sus.+T1{1}				1.78	5-1 CRUP	16	<NOTE 1>
Sus.+T2{1}				1.78	5-1 CRUP	13	<NOTE 1>
Sus.+T3{1}				1.78	5-1 CRUP	12	<NOTE 1>
Sus.+T4{1}				1.78	5-1 CRUP	12	<NOTE 1>
Sus.+T5{1}				1.78	5-1 CRUP	11	<NOTE 1>
E08 N- Max P{1}							HOOP
						13	104
GR + Max P{1}	515			1.00	2-1 SUST	24	104
TR:T1 to T3{1}			1228	1.00	4-1 DISP	43	217
Amb to T1{1}			564	1.00	4-1 DISP	20	247
Amb to T2{1}			615	1.00	4-1 DISP	22	247
Amb to T3{1}			746	1.00	4-1 DISP	26	217
Amb to T4{1}			516	1.00	4-1 DISP	18	247
Amb to T5{1}			581	1.00	4-1 DISP	21	217
Hydrotest{1}	0	40		1.00	3-1 OCC	2	219
Sus.+T1{1}				1.00	5-1 CRUP	31	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	32	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	33	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	30	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	31	<NOTE 1>
D06 F+ Max P{1}							HOOP
						10	116
GR + Max P{1}	128			1.00	2-1 SUST	29	116
TR:T1 to T3{1}			229	1.00	4-1 DISP	43	247
Amb to T1{1}			151	1.00	4-1 DISP	28	247
Amb to T2{1}			67	1.00	4-1 DISP	13	247
Amb to T3{1}			157	1.00	4-1 DISP	29	247
Amb to T4{1}			50	1.00	4-1 DISP	9	225
Amb to T5{1}			46	1.00	4-1 DISP	9	247
Hydrotest{1}	0	142		1.00	3-1 OCC	27	219
Sus.+T1{1}				1.00	5-1 CRUP	38	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	33	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	39	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	32	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	32	<NOTE 1>

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Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F					
D06 N-	Max P{1}							HOOP	10	116
	GR + Max P{1}	135			1.00	2-1	SUST		30	116
	TR:T1 to T3{1}			224	1.00	4-1	DISP		42	247
	Amb to T1{1}			149	1.00	4-1	DISP		28	247
	Amb to T2{1}			64	1.00	4-1	DISP		12	247
	Amb to T3{1}			154	1.00	4-1	DISP		29	247
	Amb to T4{1}			49	1.00	4-1	DISP		9	225
	Amb to T5{1}			46	1.00	4-1	DISP		9	247
	Hydrotest{1}	0	149		1.00	3-1	OCC		28	219
	Sus.+T1{1}				1.00	5-1	CRUP		39	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		34	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP		40	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP		33	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP		33	<NOTE 1>
K02	Max P{1}							HOOP	13	104
	GR + Max P{1}	141			1.30	2-1	SUST		11	104
	TR:Amb to T3{1}			853	1.30	4-1	DISP		39	247
	Amb to T1{1}			481	1.30	4-1	DISP		22	247
	Amb to T2{1}			289	1.30	4-1	DISP		13	217
	Amb to T3{1}			853	1.30	4-1	DISP		39	247
	Amb to T4{1}			151	1.30	4-1	DISP		7	225
	Amb to T5{1}			221	1.30	4-1	DISP		10	217
	Hydrotest{1}	0	21		1.30	3-1	OCC		1	219
	Sus.+T1{1}				1.30	5-1	CRUP		17	<NOTE 1>
	Sus.+T2{1}				1.30	5-1	CRUP		14	<NOTE 1>
	Sus.+T3{1}				1.30	5-1	CRUP		21	<NOTE 1>
	Sus.+T4{1}				1.30	5-1	CRUP		13	<NOTE 1>
	Sus.+T5{1}				1.30	5-1	CRUP		14	<NOTE 1>
E07 F-	Max P{1}							HOOP	13	104
	GR + Max P{1}	208			1.78	2-1	SUST		16	104
	TR:T1 to T4{1}			579	1.78	4-1	DISP		36	247
	Amb to T1{1}			481	1.78	4-1	DISP		30	247
	Amb to T2{1}			277	1.78	4-1	DISP		17	247
	Amb to T3{1}			178	1.78	4-1	DISP		11	217
	Amb to T4{1}			202	1.78	4-1	DISP		13	247

		ADS_LINE_REV0.txt					
Amb to T5{1}		151	1.78	4-1	DISP	9	217
Hydrotest{1}	0	76	1.78	3-1	OCC	4	219
Sus.+T1{1}			1.78	5-1	CRUP	23	<NOTE 1>
Sus.+T2{1}			1.78	5-1	CRUP	20	<NOTE 1>
Sus.+T3{1}			1.78	5-1	CRUP	19	<NOTE 1>
Sus.+T4{1}			1.78	5-1	CRUP	19	<NOTE 1>
Sus.+T5{1}			1.78	5-1	CRUP	18	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

E07	N+ Max P{1}					HOOP	13	104	
	GR + Max P{1}	189			1.78	2-1 SUST	15	104	
	TR:T1 to T4{1}			562	1.78	4-1 DISP	35	247	
	Amb to T1{1}			476	1.78	4-1 DISP	30	247	
	Amb to T2{1}			268	1.78	4-1 DISP	17	247	
	Amb to T3{1}			159	1.78	4-1 DISP	10	217	
	Amb to T4{1}			191	1.78	4-1 DISP	12	247	
	Amb to T5{1}			137	1.78	4-1 DISP	9	217	
	Hydrotest{1}	0	71		1.78	3-1 OCC	4	219	
	Sus.+T1{1}				1.78	5-1 CRUP	22	<NOTE 1>	
	Sus.+T2{1}				1.78	5-1 CRUP	19	<NOTE 1>	
	Sus.+T3{1}				1.78	5-1 CRUP	17	<NOTE 1>	
	Sus.+T4{1}				1.78	5-1 CRUP	18	<NOTE 1>	
	Sus.+T5{1}				1.78	5-1 CRUP	17	<NOTE 1>	
E11	Max P{1}					HOOP	16	104	
	GR + Max P{1}	505			1.20	2-1 SUST	17	104	
	TR:T1 to T3{1}			1511	1.20	4-1 DISP	34	217	
	Amb to T1{1}			644	1.20	4-1 DISP	15	247	
	Amb to T2{1}			756	1.20	4-1 DISP	17	247	
	Amb to T3{1}			939	1.20	4-1 DISP	21	217	
	Amb to T4{1}			636	1.20	4-1 DISP	14	247	
	Amb to T5{1}			717	1.20	4-1 DISP	16	217	
	Hydrotest{1}	0	194		1.20	3-1 OCC	4	219	
	Sus.+T1{1}				1.20	5-1 CRUP	21	<NOTE 1>	

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	Sus.+T2{1}		1.20	5-1	CRUP	21	<NOTE 1>
	Sus.+T3{1}		1.20	5-1	CRUP	23	<NOTE 1>
	Sus.+T4{1}		1.20	5-1	CRUP	21	<NOTE 1>
	Sus.+T5{1}		1.20	5-1	CRUP	21	<NOTE 1>
F21	Max P{1}				HOOP	16	104
	GR + Max P{1}	311	2.00	2-1	SUST	16	104
	TR:T1 to T4{1}		905	2.00	4-1	DISP	34 247
	Amb to T1{1}		633	2.00	4-1	DISP	24 247
	Amb to T2{1}		492	2.00	4-1	DISP	19 247
	Amb to T3{1}		446	2.00	4-1	DISP	17 217
	Amb to T4{1}		397	2.00	4-1	DISP	15 247
	Amb to T5{1}		430	2.00	4-1	DISP	16 217
	Hydrotest{1}	0 191	2.00	3-1	OCC	6	219
	Sus.+T1{1}		2.00	5-1	CRUP	22	<NOTE 1>
	Sus.+T2{1}		2.00	5-1	CRUP	21	<NOTE 1>
	Sus.+T3{1}		2.00	5-1	CRUP	20	<NOTE 1>
	Sus.+T4{1}		2.00	5-1	CRUP	20	<NOTE 1>
	Sus.+T5{1}		2.00	5-1	CRUP	20	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)		
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
E18	Max P{1}					HOOP	13 104
	GR + Max P{1}	443			1.00	2-1 SUST	22 104
	TR:T1 to T3{1}			914	1.00	4-1 DISP	32 217
	Amb to T1{1}			515	1.00	4-1 DISP	18 247
	Amb to T2{1}			449	1.00	4-1 DISP	16 247
	Amb to T3{1}			497	1.00	4-1 DISP	18 217
	Amb to T4{1}			373	1.00	4-1 DISP	13 247
	Amb to T5{1}			395	1.00	4-1 DISP	14 217
	Hydrotest{1}	0	78		1.00	3-1 OCC	3 219
	Sus.+T1{1}				1.00	5-1 CRUP	28 <NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	27 <NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	28 <NOTE 1>

		ADS_LINE_REV0.txt					
	Sus.+T4{1}		1.00	5-1	CRUP	26	<NOTE 1>
	Sus.+T5{1}		1.00	5-1	CRUP	26	<NOTE 1>
E13	Max P{1}				HOOP	13	104
	GR + Max P{1}	152	2.00	2-1	SUST	14	104
	TR:Amb to T1{1}		409	2.00	4-1	DISP	29 247
	Amb to T1{1}		409	2.00	4-1	DISP	29 247
	Amb to T2{1}		219	2.00	4-1	DISP	15 247
	Amb to T3{1}		108	2.00	4-1	DISP	8 217
	Amb to T4{1}		99	2.00	4-1	DISP	7 247
	Amb to T5{1}		117	2.00	4-1	DISP	8 217
	Hydrotest{1}	0 70	2.00	3-1	OCC	4	219
	Sus.+T1{1}		2.00	5-1	CRUP	21	<NOTE 1>
	Sus.+T2{1}		2.00	5-1	CRUP	18	<NOTE 1>
	Sus.+T3{1}		2.00	5-1	CRUP	16	<NOTE 1>
	Sus.+T4{1}		2.00	5-1	CRUP	16	<NOTE 1>
	Sus.+T5{1}		2.00	5-1	CRUP	16	<NOTE 1>
F07 F+	Max P{1}				HOOP	13	104
	GR + Max P{1}	27	1.00	2-1	SUST	7	104
	TR:T1 to T4{1}		708	1.00	4-1	DISP	25 247
	Amb to T1{1}		551	1.00	4-1	DISP	20 247
	Amb to T2{1}		364	1.00	4-1	DISP	13 247
	Amb to T3{1}		274	1.00	4-1	DISP	10 217
	Amb to T4{1}		278	1.00	4-1	DISP	10 247
	Amb to T5{1}		229	1.00	4-1	DISP	8 217
	Hydrotest{1}	0 87	1.00	3-1	OCC	4	219
	Sus.+T1{1}		1.00	5-1	CRUP	14	<NOTE 1>
	Sus.+T2{1}		1.00	5-1	CRUP	11	<NOTE 1>
	Sus.+T3{1}		1.00	5-1	CRUP	10	<NOTE 1>
	Sus.+T4{1}		1.00	5-1	CRUP	10	<NOTE 1>
	Sus.+T5{1}		1.00	5-1	CRUP	10	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)

(Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F no. type	Stress	Allow.

ADS_LINE_REV0.txt									
F07 N-	Max P{1}					HOOP	13	104	
	GR + Max P{1}	33		1.00	2-1	SUST	7	104	
	TR:T1 to T4{1}		697	1.00	4-1	DISP	25	247	
	Amb to T1{1}		546	1.00	4-1	DISP	19	247	
	Amb to T2{1}		357	1.00	4-1	DISP	13	247	
	Amb to T3{1}		265	1.00	4-1	DISP	9	217	
	Amb to T4{1}		271	1.00	4-1	DISP	10	247	
	Amb to T5{1}		220	1.00	4-1	DISP	8	217	
	Hydrotest{1}	0	93	1.00	3-1	OCC	4	219	
	Sus.+T1{1}			1.00	5-1	CRUP	14	<NOTE 1>	
	Sus.+T2{1}			1.00	5-1	CRUP	11	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1	CRUP	10	<NOTE 1>	
	Sus.+T4{1}			1.00	5-1	CRUP	10	<NOTE 1>	
	Sus.+T5{1}			1.00	5-1	CRUP	10	<NOTE 1>	
F20	Max P{1}					HOOP	13	104	
	GR + Max P{1}	106		2.00	2-1	SUST	12	104	
	TR:Amb to T1{1}		323	2.00	4-1	DISP	23	247	
	Amb to T1{1}		323	2.00	4-1	DISP	23	247	
	Amb to T2{1}		177	2.00	4-1	DISP	13	247	
	Amb to T3{1}		124	2.00	4-1	DISP	9	217	
	Amb to T4{1}		67	2.00	4-1	DISP	5	247	
	Amb to T5{1}		114	2.00	4-1	DISP	8	217	
	Hydrotest{1}	0	132	2.00	3-1	OCC	8	219	
	Sus.+T1{1}			2.00	5-1	CRUP	17	<NOTE 1>	
	Sus.+T2{1}			2.00	5-1	CRUP	15	<NOTE 1>	
	Sus.+T3{1}			2.00	5-1	CRUP	14	<NOTE 1>	
	Sus.+T4{1}			2.00	5-1	CRUP	13	<NOTE 1>	
	Sus.+T5{1}			2.00	5-1	CRUP	14	<NOTE 1>	
F10	Max P{1}					HOOP	16	104	
	GR + Max P{1}	437		1.20	2-1	SUST	15	104	
	TR:T1 to T4{1}		956	1.20	4-1	DISP	22	247	
	Amb to T1{1}		654	1.20	4-1	DISP	15	247	
	Amb to T2{1}		526	1.20	4-1	DISP	12	247	
	Amb to T3{1}		488	1.20	4-1	DISP	11	217	
	Amb to T4{1}		427	1.20	4-1	DISP	10	247	
	Amb to T5{1}		479	1.20	4-1	DISP	11	217	
	Hydrotest{1}	0	306	1.20	3-1	OCC	7	219	
	Sus.+T1{1}			1.20	5-1	CRUP	20	<NOTE 1>	
	Sus.+T2{1}			1.20	5-1	CRUP	19	<NOTE 1>	
	Sus.+T3{1}			1.20	5-1	CRUP	19	<NOTE 1>	
	Sus.+T4{1}			1.20	5-1	CRUP	18	<NOTE 1>	
	Sus.+T5{1}			1.20	5-1	CRUP	18	<NOTE 1>	

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

E07 F+	Max P{1}					HOOP	13	104	
	GR + Max P{1}	208			1.00	2-1 SUST	13	104	
	TR:T1 to T4{1}			579	1.00	4-1 DISP	20	247	
	Amb to T1{1}			481	1.00	4-1 DISP	17	247	
	Amb to T2{1}			277	1.00	4-1 DISP	10	247	
	Amb to T3{1}			178	1.00	4-1 DISP	6	217	
	Amb to T4{1}			202	1.00	4-1 DISP	7	247	
	Amb to T5{1}			151	1.00	4-1 DISP	5	217	
	Hydrotest{1}	0	76		1.00	3-1 OCC	3	219	
	Sus.+T1{1}				1.00	5-1 CRUP	19	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	17	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	16	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	16	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	15	<NOTE 1>	
E07 N-	Max P{1}					HOOP	13	104	
	GR + Max P{1}	189			1.00	2-1 SUST	13	104	
	TR:T1 to T4{1}			562	1.00	4-1 DISP	20	247	
	Amb to T1{1}			476	1.00	4-1 DISP	17	247	
	Amb to T2{1}			268	1.00	4-1 DISP	9	247	
	Amb to T3{1}			159	1.00	4-1 DISP	6	217	
	Amb to T4{1}			191	1.00	4-1 DISP	7	247	
	Amb to T5{1}			137	1.00	4-1 DISP	5	217	
	Hydrotest{1}	0	71		1.00	3-1 OCC	3	219	
	Sus.+T1{1}				1.00	5-1 CRUP	18	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	16	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	15	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	15	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	14	<NOTE 1>	
J03	Max P{1}					HOOP	18	104	
	GR + Max P{1}	0			1.20	2-1 SUST	8	104	

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TR:Amb to T2{1}	0	1.20	4-1	DISP	0	205
Amb to T1{1}	0	1.20	4-1	DISP	0	234
Amb to T2{1}	0	1.20	4-1	DISP	0	205
Amb to T3{1}	0	1.20	4-1	DISP	0	234
Amb to T4{1}	0	1.20	4-1	DISP	0	213
Amb to T5{1}	0	1.20	4-1	DISP	0	205
Hydrotest{1}	0	0	1.20	3-1 OCC	1	219
Sus.+T1{1}			1.20	5-1 CRUP	8	<NOTE 1>
Sus.+T2{1}			1.20	5-1 CRUP	8	<NOTE 1>
Sus.+T3{1}			1.20	5-1 CRUP	8	<NOTE 1>
Sus.+T4{1}			1.20	5-1 CRUP	8	<NOTE 1>
Sus.+T5{1}			1.20	5-1 CRUP	8	<NOTE 1>

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RESULT PAGE 210

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
J02 F+ Max P{1}						HOOP	18 104
	GR + Max P{1}	5			1.00	2-1 SUST	8 104
	TR:Amb to T2{1}			0	1.00	4-1 DISP	0 205
	Amb to T1{1}			0	1.00	4-1 DISP	0 234
	Amb to T2{1}			0	1.00	4-1 DISP	0 205
	Amb to T3{1}			0	1.00	4-1 DISP	0 234
	Amb to T4{1}			0	1.00	4-1 DISP	0 213
	Amb to T5{1}			0	1.00	4-1 DISP	0 205
	Hydrotest{1}	0	5		1.00	3-1 OCC	1 219
	Sus.+T1{1}				1.00	5-1 CRUP	8 <NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	8 <NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	8 <NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	8 <NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	8 <NOTE 1>
J02 F- Max P{1}						HOOP	18 104
	GR + Max P{1}	5			2.13	2-1 SUST	8 104
	TR:Amb to T2{1}			0	2.13	4-1 DISP	0 205
	Amb to T1{1}			0	2.13	4-1 DISP	0 234

ADS_LINE_REV0.txt									
Amb to T2{1}			0	2.13	4-1	DISP	0	205	
Amb to T3{1}			0	2.13	4-1	DISP	0	234	
Amb to T4{1}			0	2.13	4-1	DISP	0	213	
Amb to T5{1}			0	2.13	4-1	DISP	0	205	
Hydrotest{1}	0	5		2.13	3-1	OCC	1	219	
Sus.+T1{1}				2.13	5-1	CRUP	8	<NOTE 1>	
Sus.+T2{1}				2.13	5-1	CRUP	8	<NOTE 1>	
Sus.+T3{1}				2.13	5-1	CRUP	8	<NOTE 1>	
Sus.+T4{1}				2.13	5-1	CRUP	8	<NOTE 1>	
Sus.+T5{1}				2.13	5-1	CRUP	8	<NOTE 1>	
J02 N+ Max P{1}						HOOP	18	104	
GR + Max P{1}	32			2.13	2-1	SUST	9	104	
TR:Amb to T2{1}			0	2.13	4-1	DISP	0	205	
Amb to T1{1}			0	2.13	4-1	DISP	0	234	
Amb to T2{1}			0	2.13	4-1	DISP	0	205	
Amb to T3{1}			0	2.13	4-1	DISP	0	234	
Amb to T4{1}			0	2.13	4-1	DISP	0	213	
Amb to T5{1}			0	2.13	4-1	DISP	0	205	
Hydrotest{1}	0	32		2.13	3-1	OCC	1	219	
Sus.+T1{1}				2.13	5-1	CRUP	9	<NOTE 1>	
Sus.+T2{1}				2.13	5-1	CRUP	9	<NOTE 1>	
Sus.+T3{1}				2.13	5-1	CRUP	9	<NOTE 1>	
Sus.+T4{1}				2.13	5-1	CRUP	9	<NOTE 1>	
Sus.+T5{1}				2.13	5-1	CRUP	9	<NOTE 1>	

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EN 13480 (2002) CODE COMPLIANCE									
(Moments in N.m)			(Stress in N/mm2)						
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
J02 N- Max P{1}						HOOP	18	104	
GR + Max P{1}	32				1.00	2-1 SUST	8	104	
TR:Amb to T2{1}				0	1.00	4-1 DISP	0	205	
Amb to T1{1}				0	1.00	4-1 DISP	0	234	
Amb to T2{1}				0	1.00	4-1 DISP	0	205	
Amb to T3{1}				0	1.00	4-1 DISP	0	234	
Amb to T4{1}				0	1.00	4-1 DISP	0	213	

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Amb to T5{1}		0	1.00	4-1	DISP	0	205	
Hydrotest{1}	0	32	1.00	3-1	OCC	1	219	
Sus.+T1{1}			1.00	5-1	CRUP	8	<NOTE 1>	
Sus.+T2{1}			1.00	5-1	CRUP	8	<NOTE 1>	
Sus.+T3{1}			1.00	5-1	CRUP	8	<NOTE 1>	
Sus.+T4{1}			1.00	5-1	CRUP	8	<NOTE 1>	
Sus.+T5{1}			1.00	5-1	CRUP	8	<NOTE 1>	
J01 F+ Max P{1}					HOOP	18	104	
GR + Max P{1}	32		1.00	2-1	SUST	8	104	
TR:Amb to T2{1}			0	1.00	4-1	DISP	0	205
Amb to T1{1}			0	1.00	4-1	DISP	0	234
Amb to T2{1}			0	1.00	4-1	DISP	0	205
Amb to T3{1}			0	1.00	4-1	DISP	0	234
Amb to T4{1}			0	1.00	4-1	DISP	0	213
Amb to T5{1}			0	1.00	4-1	DISP	0	205
Hydrotest{1}	0	32	1.00	3-1	OCC	1	219	
Sus.+T1{1}			1.00	5-1	CRUP	8	<NOTE 1>	
Sus.+T2{1}			1.00	5-1	CRUP	8	<NOTE 1>	
Sus.+T3{1}			1.00	5-1	CRUP	8	<NOTE 1>	
Sus.+T4{1}			1.00	5-1	CRUP	8	<NOTE 1>	
Sus.+T5{1}			1.00	5-1	CRUP	8	<NOTE 1>	
J01 F- Max P{1}					HOOP	18	104	
GR + Max P{1}	32		2.13	2-1	SUST	9	104	
TR:Amb to T2{1}			0	2.13	4-1	DISP	0	205
Amb to T1{1}			0	2.13	4-1	DISP	0	234
Amb to T2{1}			0	2.13	4-1	DISP	0	205
Amb to T3{1}			0	2.13	4-1	DISP	0	234
Amb to T4{1}			0	2.13	4-1	DISP	0	213
Amb to T5{1}			0	2.13	4-1	DISP	0	205
Hydrotest{1}	0	32	2.13	3-1	OCC	1	219	
Sus.+T1{1}			2.13	5-1	CRUP	9	<NOTE 1>	
Sus.+T2{1}			2.13	5-1	CRUP	9	<NOTE 1>	
Sus.+T3{1}			2.13	5-1	CRUP	9	<NOTE 1>	
Sus.+T4{1}			2.13	5-1	CRUP	9	<NOTE 1>	
Sus.+T5{1}			2.13	5-1	CRUP	9	<NOTE 1>	

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

J01 N+	Max P{1}					HOOP	18	104	
	GR + Max P{1}	41			2.13	2-1 SUST	9	104	
	TR:Amb to T2{1}			0	2.13	4-1 DISP	0	205	
	Amb to T1{1}			0	2.13	4-1 DISP	0	234	
	Amb to T2{1}			0	2.13	4-1 DISP	0	205	
	Amb to T3{1}			0	2.13	4-1 DISP	0	234	
	Amb to T4{1}			0	2.13	4-1 DISP	0	213	
	Amb to T5{1}			0	2.13	4-1 DISP	0	205	
	Hydrotest{1}	0	41		2.13	3-1 OCC	2	219	
	Sus.+T1{1}				2.13	5-1 CRUP	9	<NOTE 1>	
	Sus.+T2{1}				2.13	5-1 CRUP	9	<NOTE 1>	
	Sus.+T3{1}				2.13	5-1 CRUP	9	<NOTE 1>	
	Sus.+T4{1}				2.13	5-1 CRUP	9	<NOTE 1>	
	Sus.+T5{1}				2.13	5-1 CRUP	9	<NOTE 1>	
J01 N-	Max P{1}					HOOP	18	104	
	GR + Max P{1}	41			1.00	2-1 SUST	9	104	
	TR:Amb to T2{1}			0	1.00	4-1 DISP	0	205	
	Amb to T1{1}			0	1.00	4-1 DISP	0	234	
	Amb to T2{1}			0	1.00	4-1 DISP	0	205	
	Amb to T3{1}			0	1.00	4-1 DISP	0	234	
	Amb to T4{1}			0	1.00	4-1 DISP	0	213	
	Amb to T5{1}			0	1.00	4-1 DISP	0	205	
	Hydrotest{1}	0	41		1.00	3-1 OCC	1	219	
	Sus.+T1{1}				1.00	5-1 CRUP	9	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	9	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	9	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	9	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	9	<NOTE 1>	
J00	Max P{1}					HOOP	18	104	
	GR + Max P{1}	58			1.00	2-1 SUST	9	104	
	TR:Amb to T2{1}			0	1.00	4-1 DISP	0	205	
	Amb to T1{1}			0	1.00	4-1 DISP	0	234	
	Amb to T2{1}			0	1.00	4-1 DISP	0	205	
	Amb to T3{1}			0	1.00	4-1 DISP	0	234	
	Amb to T4{1}			0	1.00	4-1 DISP	0	213	
	Amb to T5{1}			0	1.00	4-1 DISP	0	205	

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Hydrotest{1}	0	58	1.00	3-1	OCC	1	219
Sus.+T1{1}			1.00	5-1	CRUP	9	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	9	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	9	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	9	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	9	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no.	type	Stress	Allow.

B30	+ Max P{1}						HOOP	13	104
	GR + Max P{1}	84			1.00	2-1	SUST	9	104
	TR:Amb to T3{1}			380	1.00	4-1	DISP	13	247
	Amb to T1{1}			240	1.00	4-1	DISP	9	247
	Amb to T2{1}			151	1.00	4-1	DISP	5	217
	Amb to T3{1}			380	1.00	4-1	DISP	13	247
	Amb to T4{1}			76	1.00	4-1	DISP	3	225
	Amb to T5{1}			64	1.00	4-1	DISP	2	217
	Hydrotest{1}	0	16		1.00	3-1	OCC	1	219
	Sus.+T1{1}				1.00	5-1	CRUP	12	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP	11	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP	14	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP	10	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP	10	<NOTE 1>
B30	- Max P{1}						HOOP	13	104
	GR + Max P{1}	84			1.00	2-1	SUST	9	104
	TR:Amb to T3{1}			380	1.00	4-1	DISP	13	247
	Amb to T1{1}			240	1.00	4-1	DISP	9	247
	Amb to T2{1}			151	1.00	4-1	DISP	5	217
	Amb to T3{1}			380	1.00	4-1	DISP	13	247
	Amb to T4{1}			76	1.00	4-1	DISP	3	225
	Amb to T5{1}			64	1.00	4-1	DISP	2	217
	Hydrotest{1}	0	16		1.00	3-1	OCC	1	219
	Sus.+T1{1}				1.00	5-1	CRUP	12	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP	11	<NOTE 1>

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	Sus.+T3{1}			1.00	5-1	CRUP	14	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	10	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	10	<NOTE 1>
K01	Max P{1}					HOOP	13	104
	GR + Max P{1}	25		1.00	2-1	SUST	7	104
	TR:Amb to T3{1}		125	1.00	4-1	DISP	4	247
	Amb to T1{1}		90	1.00	4-1	DISP	3	247
	Amb to T2{1}		53	1.00	4-1	DISP	2	217
	Amb to T3{1}		125	1.00	4-1	DISP	4	247
	Amb to T4{1}		24	1.00	4-1	DISP	1	225
	Amb to T5{1}		26	1.00	4-1	DISP	1	217
	Hydrotest{1}	0	6	1.00	3-1	OCC	1	219
	Sus.+T1{1}			1.00	5-1	CRUP	8	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	8	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	8	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	7	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	7	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
A16	- Max P{1}					HOOP	13	104	
	GR + Max P{1}	11			1.00	2-1 SUST	6	104	
	TR:T1 to T3{1}			70	1.00	4-1 DISP	2	247	
	Amb to T1{1}			62	1.00	4-1 DISP	2	247	
	Amb to T2{1}			33	1.00	4-1 DISP	1	217	
	Amb to T3{1}			70	1.00	4-1 DISP	2	247	
	Amb to T4{1}			12	1.00	4-1 DISP	0	225	
	Amb to T5{1}			20	1.00	4-1 DISP	1	217	
	Hydrotest{1}	0	4		1.00	3-1 OCC	1	219	
	Sus.+T1{1}				1.00	5-1 CRUP	7	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	7	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	7	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	7	<NOTE 1>	

		ADS_LINE_REV0.txt					
	Sus.+T5{1}			1.00	5-1 CRUP	7	<NOTE 1>
A05	Max P{1}				HOOP	13	104
	GR + Max P{1}	32		1.00	2-1 SUST	7	104
	TR:Amb to T3{1}		153	1.00	4-1 DISP	5	247
	Amb to T1{1}		105	1.00	4-1 DISP	4	247
	Amb to T2{1}		63	1.00	4-1 DISP	2	217
	Amb to T3{1}		153	1.00	4-1 DISP	5	247
	Amb to T4{1}		30	1.00	4-1 DISP	1	225
	Amb to T5{1}		30	1.00	4-1 DISP	1	217
	Hydrotest{1}	0	7	1.00	3-1 OCC	1	219
	Sus.+T1{1}			1.00	5-1 CRUP	8	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	8	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	9	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	8	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	8	<NOTE 1>
A00	+ Max P{1}				HOOP	13	104
	GR + Max P{1}	11		1.20	2-1 SUST	6	104
	TR:Amb to T3{1}		72	1.20	4-1 DISP	3	247
	Amb to T1{1}		63	1.20	4-1 DISP	3	247
	Amb to T2{1}		34	1.20	4-1 DISP	1	217
	Amb to T3{1}		72	1.20	4-1 DISP	3	247
	Amb to T4{1}		12	1.20	4-1 DISP	1	225
	Amb to T5{1}		20	1.20	4-1 DISP	1	217
	Hydrotest{1}	0	4	1.20	3-1 OCC	1	219
	Sus.+T1{1}			1.20	5-1 CRUP	7	<NOTE 1>
	Sus.+T2{1}			1.20	5-1 CRUP	7	<NOTE 1>
	Sus.+T3{1}			1.20	5-1 CRUP	7	<NOTE 1>
	Sus.+T4{1}			1.20	5-1 CRUP	7	<NOTE 1>
	Sus.+T5{1}			1.20	5-1 CRUP	7	<NOTE 1>

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ADS_LINE_REV0

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RESULT PAGE 215

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
A00	- Max P{1}					HOOP	13	104	

ADS_LINE_REV0.txt									
	GR + Max P{1}	11		1.20	2-1	SUST	6	104	
	TR:Amb to T3{1}		72	1.20	4-1	DISP	3	247	
	Amb to T1{1}		63	1.20	4-1	DISP	3	247	
	Amb to T2{1}		34	1.20	4-1	DISP	1	217	
	Amb to T3{1}		72	1.20	4-1	DISP	3	247	
	Amb to T4{1}		12	1.20	4-1	DISP	1	225	
	Amb to T5{1}		20	1.20	4-1	DISP	1	217	
	Hydrotest{1}	0	4	1.20	3-1	OCC	1	219	
	Sus.+T1{1}			1.20	5-1	CRUP	7	<NOTE 1>	
	Sus.+T2{1}			1.20	5-1	CRUP	7	<NOTE 1>	
	Sus.+T3{1}			1.20	5-1	CRUP	7	<NOTE 1>	
	Sus.+T4{1}			1.20	5-1	CRUP	7	<NOTE 1>	
	Sus.+T5{1}			1.20	5-1	CRUP	7	<NOTE 1>	
K01	Max P{1}					HOOP	13	104	
	GR + Max P{1}	25		1.00	2-1	SUST	7	104	
	TR:Amb to T3{1}		125	1.00	4-1	DISP	4	247	
	Amb to T1{1}		90	1.00	4-1	DISP	3	247	
	Amb to T2{1}		53	1.00	4-1	DISP	2	217	
	Amb to T3{1}		125	1.00	4-1	DISP	4	247	
	Amb to T4{1}		24	1.00	4-1	DISP	1	225	
	Amb to T5{1}		26	1.00	4-1	DISP	1	217	
	Hydrotest{1}	0	6	1.00	3-1	OCC	1	219	
	Sus.+T1{1}			1.00	5-1	CRUP	8	<NOTE 1>	
	Sus.+T2{1}			1.00	5-1	CRUP	8	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1	CRUP	8	<NOTE 1>	
	Sus.+T4{1}			1.00	5-1	CRUP	7	<NOTE 1>	
	Sus.+T5{1}			1.00	5-1	CRUP	7	<NOTE 1>	

*** NOTE 1: No allowable stress could be calculated. ***
 *** Mechanical properties are outside of temperature range. ***

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R E S U L T S U M M A R Y

Maximum displacements (mm)

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Maximum X :	15.274	Point : K02	Load Comb.: GRT3{1}
Maximum Y :	43.754	Point : SV09	Load Comb.: GRT3{1}
Maximum Z :	88.401	Point : SV08	Load Comb.: GRT3{1}
Max. total:	91.518	Point : SV08	Load Comb.: GRT3{1}

Maximum rotations (deg)

Maximum X :	-1.472	Point : B11 F	Load Comb.: GRT3{1}
Maximum Y :	-0.799	Point : F17	Load Comb.: GRT1{1}
Maximum Z :	0.459	Point : K04	Load Comb.: GRT3{1}
Max. total:	1.489	Point : B11 F	Load Comb.: GRT3{1}

Maximum restraint forces (N)

Maximum X :	-1057	Point : C06	Load Comb.: GRT3{1}
Maximum Y :	-3160	Point : C06	Load Comb.: GRT3{1}
Maximum Z :	-8221	Point : A16	Load Comb.: Hydrotest{1}
Max. total:	8221	Point : A16	Load Comb.: Hydrotest{1}

Maximum restraint moments (N.m)

Maximum X :	2039	Point : C06	Load Comb.: GRT1{1}
Maximum Y :	-1367	Point : C06	Load Comb.: GRT1{1}
Maximum Z :	1099	Point : K23	Load Comb.: GRT1{1}
Max. total:	2643	Point : C06	Load Comb.: GRT1{1}

□

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R E S U L T S U M M A R Y

Maximum pipe forces (N)

Maximum X :	-1057	Point : K11	Load Comb.: GRT3{1}
Maximum Y :	-3160	Point : K11	Load Comb.: GRT3{1}
Maximum Z :	5496	Point : A16	Load Comb.: Gravity{1}
Max. total:	5496	Point : A16	Load Comb.: Gravity{1}

Maximum pipe moments (N.m)

Maximum X :	2755	Point : K11	Load Comb.: Thermal 3{1}

ADS_LINE_REV0.txt

Maximum Y : -1681 Point : C02 F Load Comb.: Thermal 3{1}
 Maximum Z : 1293 Point : C02 F Load Comb.: GRT1{1}
 Max. total: 3087 Point : C02 N Load Comb.: Thermal 3{1}

□

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R E S U L T S U M M A R Y

Maximum sustained stress

Point : K07
 Stress N/mm2 : 72
 Allowable N/mm2 : 86
 Ratio : 0.84
 Load combination : GR + Max P{1}

Maximum displacement stress

Point : B13
 Stress N/mm2 : 208
 Allowable N/mm2 : 237
 Ratio : 0.87
 Load combination : Max Range

Maximum occasional stress

Point : D04
 Stress N/mm2 : 74
 Allowable N/mm2 : 219
 Ratio : 0.34
 Load combination : Hydrotest{1}

Maximum hoop stress

Point : K23
 Stress N/mm2 : 75
 Allowable N/mm2 : 86
 Ratio : 0.87
 Load combination : Max P{1}

Maximum creep rupture stress

Point : B13
 Stress N/mm2 : 98
 Allowable N/mm2 : 0 < See Note 1 >
 Ratio : 0.00
 Load combination : Sus.+T1{1}

□

ADS_LINE_REV0

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R E S U L T S U M M A R Y

Maximum sustained stress ratio

Point : K07
 Stress N/mm2 : 72
 Allowable N/mm2 : 86
 Ratio : 0.84
 Load combination : GR + Max P{1}

Maximum displacement stress ratio

Point : B13
 Stress N/mm2 : 178
 Allowable N/mm2 : 197
 Ratio : 0.90
 Load combination : Amb to T3{1}

Maximum occasional stress ratio

Point : D04
 Stress N/mm2 : 74
 Allowable N/mm2 : 219
 Ratio : 0.34
 Load combination : Hydrotest{1}

Maximum hoop stress ratio

Point : K23
 Stress N/mm2 : 75
 Allowable N/mm2 : 86
 Ratio : 0.87
 Load combination : Max P{1}

Maximum creep rupture stress ratio

Point : B13
 Stress N/mm2 : 98
 Allowable N/mm2 : 0 < See Note 1 >
 Ratio : 0.00
 Load combination : Sus.+T1{1}

* * * The system satisfies EN 13480 (2002) code requirements * * *
 * * * for the selected options * * *

Warnings:

(1) Maximum creep rupture stress ratio is zero

* * * Note 1: Points were found in this stress category with * * *
 * * * mechanical properties outside of temperature range. No * * *

□

ADS_LINE_REV0

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R E S U L T S U M M A R Y

* * * allowable stress were calculated at these points.

* * *

□

ALLEGATO 5. FL INPUT E OUTPUT DEI CALCOLI AUTOPIPE

file: F_LINE_REV0.pdf

F_LINE_REV0.OUT

PIPING CODE : EN 13480
YEAR : 2002
LIFETIME (HRS) : 10000
LIFETIME MONITORING : YES
VERTICAL AXIS : Z
AMBIENT TEMPERATURE : 20.0 deg C
COMPONENT LIBRARY : AUTOPIPE
MATERIAL LIBRARY : EUROMAT
MODEL REVISION NUMBER : 193

F_LINE_REV0

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AutoPIPE Plus 9.2.1 MODEL PAGE 3

C O M P O N E N T D A T A L I S T I N G

*** SEGMENT A

From A00 to A04, DX= -100.00 mm

Run

PIPE DATA:

Pipe Id= 5S80, Material= X5CRNI18-10 1.4301, Product= Seamless tube, Source= EURO,
Composition= Austentic Stainless, Poisson= 0.300, Nom Size= 125 mm, OD= 141.30 mm, Sch= 80, Wall
Thk= 9.525 mm,
Mill= 1.191 mm, Cor= 0 mm, Pipe Density= 7930.00 kg/m3, Pipe Unit Wgt= 306.65 N/m, Content Sp Gr=
1.000,
Content Unit Wgt= 115.06 N/m, Insul Thk= 80.000 mm, Insul Material= MINERAL WOOL, Insul Density=
136.16 kg/m3,
Insul Unit Wgt= 74.26 N/m, Lining Thk= 0 mm, Long Weld factor= 1.00, Circ Weld factor= 1.00, Long
Modulus= 0.19996 E6 N/mm2,
Hoop Modulus= 0.19996 E6 N/mm2, Shear Modulus= 0.07691 E6 N/mm2, Al= 40.0, At= 35.0, fc= 166.7
N/mm2, Rp0.2= 195.0 N/mm2,
Rp1.0= 230.0 N/mm2, Rm= 500.0 N/mm2

OPERATING DATA:

P1= 5.8300 N/mm2, P2= 5.8300 N/mm2, P3= 5.8300 N/mm2, P4= 5.8300 N/mm2, T1= 224.00 deg C, T2=
224.00 deg C, T3= 224.00 deg C,
T4= 224.00 deg C, Exp1= 3.41494 mm/m, Exp2= 3.41494 mm/m, Exp3= 3.41494 mm/m, Exp4= 3.41494 mm/m,
E1= 0.18266 E6 N/mm2,
E2= 0.18266 E6 N/mm2, E3= 0.18266 E6 N/mm2, E4= 0.18266 E6 N/mm2, Rp0.2t1= 122.68 N/mm2, Rp0.2t2=
122.68 N/mm2,
Rp0.2t3= 122.68 N/mm2, Rp0.2t4= 122.68 N/mm2, Rp1.0t1= 150.20 N/mm2, Rp1.0t2= 150.20 N/mm2,
Rp1.0t3= 150.20 N/mm2,
Rp1.0t4= 150.20 N/mm2, Rmt1= 0.00 N/mm2, Rmt2= 0.00 N/mm2, Rmt3= 0.00 N/mm2, Rmt4= 0.00 N/mm2,
fcr1= 0.00 N/mm2,
fcr2= 0.00 N/mm2, fcr3= 0.00 N/mm2, fcr4= 0.00 N/mm2, fh1= 100.13 N/mm2, fh2= 100.13 N/mm2, fh3=
100.13 N/mm2,
fh4= 100.13 N/mm2

POINT DATA:

A00, Coordinates, X= 1106.40 mm, Y= -6000.00 mm, Z= 10583.00 mm

From A04 to A06, DX= -300.00 mm

Tee

COMPONENT DATA (Tee Header, Center= A04):

B16.9 welding tee, SIFI= 1.22, SIF0= 1.22

POINT DATA:

A04, Coordinates, X= 1006.40 mm, Y= -6000.00 mm, Z= 10583.00 mm

From A06 to A03, DX= -300.00 mm

Run

POINT DATA:

F_LINE_REV0.OUT

A06, Coordinates, X= 706.40 mm, Y= -6000.00 mm, Z= 10583.00 mm

SUPPORT DATA:
A06, Guide, Support Id= A06 1, Connected to Ground, Stiffness= RIGID

From A03 to A05, DX= -300.00 mm Tee

COMPONENT DATA (Tee Header, Center= A03):
B16.9 welding tee, SIFI= 1.22, SIF0= 1.22

POINT DATA:
A03, Coordinates, X= 406.40 mm, Y= -6000.00 mm, Z= 10583.00 mm

0

F_LINE_REV0

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C O M P O N E N T D A T A L I S T I N G

From A05 to A02, DX= -300.00 mm Run

POINT DATA:
A05, Coordinates, X= 106.40 mm, Y= -6000.00 mm, Z= 10583.00 mm

SUPPORT DATA:
A05, Anchor, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

From A02 to A01, DX= -200.00 mm Tee

COMPONENT DATA (Tee Header, Center= A02):
B16.9 welding tee, SIFI= 1.22, SIF0= 1.22

POINT DATA:
A02, Coordinates, X= -193.60 mm, Y= -6000.00 mm, Z= 10583.00 mm
A01, Coordinates, X= -393.60 mm, Y= -6000.00 mm, Z= 10583.00 mm

*** SEGMENT B

From A04 to B01, DZ= -3310.00 mm Tee

COMPONENT DATA (Tee Branch, Center= A04):
B16.9 welding tee, SIFI= 1.22, SIF0= 1.22

PIPE DATA:
Pipe Id= 1.5S80, Composition= Austentic Stainless, Nom Size= 40 mm, OD= 48.260 mm, Wall Thk= 5.080 mm, Mill= 0.635 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 11.18 N/m, Insul Thk= 50.000 mm, Insul Density= 136.16 kg/m3,
Insul Unit Wgt= 20.61 N/m, Long Modulus= 0.19996 E6 N/mm2, Hoop Modulus= 0.19996 E6 N/mm2, Shear Modulus= 0.07691 E6 N/mm2

POINT DATA:
A04, Coordinates, X= 1006.40 mm, Y= -6000.00 mm, Z= 10583.00 mm

From B01 to B02, DY= 511.10 mm Bend

COMPONENT DATA (Bend, TIP= B01, Near= B01 N, Mid= B01 M, Far= B01 F):
Long Elbow, Radius= 57.15 mm, Bend angle= 90.00 deg, Mid point at 50.00 percent, End flanges= 0, Flex= Auto, SIFI= 1.23, SIF0= 1.23

POINT DATA:
B01, Coordinates, X= 1006.40 mm, Y= -6000.00 mm, Z= 7273.00 mm
B01 N, Coordinates, X= 1006.40 mm, Y= -6000.00 mm, Z= 7330.15 mm
B01 M, Coordinates, X= 1006.40 mm, Y= -5983.26 mm, Z= 7289.74 mm
B01 F, Coordinates, X= 1006.40 mm, Y= -5942.85 mm, Z= 7273.00 mm

F_LINE_REV0.OUT

From B02 to FV03, DY= 384.20 mm

Valv

COMPONENT DATA (Valve):

GLOBE-F, Rating= Non-standard, Length= 384.20 mm, Valve weight = 52 kg, Actuator Auto = No,
Actuator Symbol = Yes,
Actuator weight = 80 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 408.00 mm, Surface factor=
0.00, End type= Weld neck,
[]

F_LINE_REV0

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C O M P O N E N T D A T A L I S T I N G

SIF= 1.00

POINT DATA:

B02, Coordinates, X= 1006.40 mm, Y= -5488.90 mm, Z= 7273.00 mm
B02, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No
B02 M, Coordinates, X= 1006.40 mm, Y= -5296.80 mm, Z= 7273.00 mm

SUPPORT DATA:

B02 M, Variable Spring Hanger, Support Id= B02 M1, Connected to Ground, 1 hanger(s), Stiffness=
22 N/mm, Preload= 1163 N

From FV03 to B04, DY= 422.20 mm

Run

POINT DATA:

FV03, Coordinates, X= 1006.40 mm, Y= -5104.70 mm, Z= 7273.00 mm
FV03, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End
type= Weld neck, SIF= 1.00,
Perform ANSI check= No

From B04 to B13, DY= 384.05 mm

Valv

COMPONENT DATA (Valve):

GATE-F, Rating= 2500, Length= 384.05 mm, Valve weight = 52 kg, Actuator Auto = No, Actuator
Symbol = Yes,
Actuator weight = 80 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 408.00 mm, Surface factor=
0.00, End type= Weld neck,
SIF= 1.00

OPERATING DATA (B04 M to B13):

P2= 11.6000 N/mm2, P4= 10.0000 N/mm2, T2= 322.00 deg C, T4= 57.00 deg C, Exp2= 5.23622 mm/m,
Exp4= 0.57631 mm/m,
E2= 0.17435 E6 N/mm2, E4= 0.19683 E6 N/mm2, Rp0.2t2= 107.36 N/mm2, Rp0.2t4= 176.50 N/mm2,
Rp1.0t2= 132.36 N/mm2,
Rp1.0t4= 214.08 N/mm2, fh2= 88.24 N/mm2, fh4= 142.72 N/mm2

POINT DATA:

B04, Coordinates, X= 1006.40 mm, Y= -4682.50 mm, Z= 7273.00 mm
B04, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No
B04 M, Coordinates, X= 1006.40 mm, Y= -4490.48 mm, Z= 7273.00 mm

SUPPORT DATA:

B04 M, Guide, Support Id= B04 M1, Connected to Ground, Stiffness= RIGID, Gap-Down= 0.00 mm,
Gap-Above= 100.00 mm,
Gap-Left= 0.00 mm, Gap-Right= 0.00 mm, Friction= 0.00, Gaps setting= Weightless

From B13 to B12, DY= 286.81 mm

Run

POINT DATA:

B13, Coordinates, X= 1006.40 mm, Y= -4298.45 mm, Z= 7273.00 mm
B13, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No

From B12 to B17, DY= 172.15 mm

Tee

COMPONENT DATA (Tee Header, Center= B12):
B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

0

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C O M P O N E N T D A T A L I S T I N G

POINT DATA:

B12, Coordinates, X= 1006.40 mm, Y= -4011.64 mm, Z= 7273.00 mm

From B17 to B16, DY= 321.00 mm

Run

POINT DATA:

B17, Coordinates, X= 1006.40 mm, Y= -3839.49 mm, Z= 7273.00 mm
B17, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No
B17, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No

From B16 to B06, DY= 157.30 mm

Run

POINT DATA:

B16, Coordinates, X= 1006.40 mm, Y= -3518.49 mm, Z= 7273.00 mm
B16, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No
B16, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No

From B06 to B07, DY= 2057.15 mm

Tee

COMPONENT DATA (Tee Header, Center= B06):
B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

POINT DATA:

B06, Coordinates, X= 1006.40 mm, Y= -3361.19 mm, Z= 7273.00 mm

SUPPORT DATA:

B06, Guide, Support Id= B06 2, Connected to Ground, Stiffness= RIGID, Gap-Down= 0.00 mm,
Gap-Above= 100.00 mm,
Gap-Left= 0.00 mm, Gap-Right= 0.00 mm, Friction= 0.00, Gaps setting= Weightless

From B07 to B08, DX= -336.34 mm, DY= 430.49 mm, L= 546.30 mm

Bend

COMPONENT DATA (Bend, TIP= B07, Near= B07 N, Far= B07 F):

Long Elbow, Radius= 57.15 mm, Bend angle= 38.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.23,
SIF0= 1.23

POINT DATA:

B07, Coordinates, X= 1006.40 mm, Y= -1304.04 mm, Z= 7273.00 mm
B07 N, Coordinates, X= 1006.40 mm, Y= -1323.72 mm, Z= 7273.00 mm
B07 F, Coordinates, X= 994.28 mm, Y= -1288.53 mm, Z= 7273.00 mm

SUPPORT DATA:

B07 N, Variable Spring Hanger, Support Id= B07 N2, Connected to Ground, 1 hanger(s), Stiffness= 1
N/mm, Preload= 89 N

From B08 to B09, DZ= 610.00 mm

Bend

COMPONENT DATA (Bend, TIP= B08, Near= B08 N, Far= B08 F):

Long Elbow, Radius= 57.15 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.23,

SIFO= 1.23

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C O M P O N E N T D A T A L I S T I N G

POINT DATA:

B08, Coordinates, X= 670.06 mm, Y= -873.55 mm, Z= 7273.00 mm
 B08 N, Coordinates, X= 705.25 mm, Y= -918.58 mm, Z= 7273.00 mm
 B08 F, Coordinates, X= 670.06 mm, Y= -873.55 mm, Z= 7330.15 mm

 From B09 to B15, DX= -214.04 mm, DY= 279.45 mm, L= 352.00 mm Bend

COMPONENT DATA (Bend, TIP= B09, Near= B09 N, Far= B09 F):

Long Elbow, Radius= 57.15 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.23,
 SIFO= 1.23

POINT DATA:

B09, Coordinates, X= 670.06 mm, Y= -873.55 mm, Z= 7883.00 mm
 B09 N, Coordinates, X= 670.06 mm, Y= -873.55 mm, Z= 7825.85 mm
 B09 F, Coordinates, X= 635.31 mm, Y= -828.18 mm, Z= 7883.00 mm

 From B15 to B11, DX= -54.05 mm, DY= 70.57 mm, L= 88.89 mm Redu

COMPONENT DATA (Reducer):

Length= 88.89 mm, SIF= 2.00

POINT DATA:

B15, Coordinates, X= 456.02 mm, Y= -594.10 mm, Z= 7883.00 mm
 B11, Coordinates, X= 401.97 mm, Y= -523.53 mm, Z= 7883.00 mm

SUPPORT DATA:

B11, Anchor, Tag No.= FLTORVA, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

*** SEGMENT C

 From A03 to C01, DZ= -3310.00 mm Tee

COMPONENT DATA (Tee Branch, Center= A03):

B16.9 welding tee, SIFI= 1.22, SIFO= 1.22

PIPE DATA:

Pipe Id= 1.5S80, Composition= Austenitic Stainless

OPERATING DATA:

P2= 5.8300 N/mm2, P4= 5.8300 N/mm2, T2= 224.00 deg C, T4= 224.00 deg C, Exp2= 3.41494 mm/m, Exp4= 3.41494 mm/m,
 E2= 0.18266 E6 N/mm2, E4= 0.18266 E6 N/mm2, Rp0.2t2= 122.68 N/mm2, Rp0.2t4= 122.68 N/mm2,
 Rp1.0t2= 150.20 N/mm2,
 Rp1.0t4= 150.20 N/mm2, fh2= 100.13 N/mm2, fh4= 100.13 N/mm2

POINT DATA:

A03, Coordinates, X= 406.40 mm, Y= -6000.00 mm, Z= 10583.00 mm

 From C01 to C02, DY= 511.10 mm Bend

COMPONENT DATA (Bend, TIP= C01, Near= C01 N, Mid= C01 M, Far= C01 F):

Long Elbow, Radius= 57.15 mm, Bend angle= 90.00 deg, Mid point at 50.00 percent, End flanges= 0,
 Flex= Auto, SIFI= 1.23,

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MODEL PAGE 8

C O M P O N E N T D A T A L I S T I N G

SIF0= 1.23

POINT DATA:

C01, Coordinates, X= 406.40 mm, Y= -6000.00 mm, Z= 7273.00 mm
C01 N, Coordinates, X= 406.40 mm, Y= -6000.00 mm, Z= 7330.15 mm
C01 M, Coordinates, X= 406.40 mm, Y= -5983.26 mm, Z= 7289.74 mm
C01 F, Coordinates, X= 406.40 mm, Y= -5942.85 mm, Z= 7273.00 mm

From C02 to FV05, DY= 384.20 mm

Valv

COMPONENT DATA (Valve):

GLOBE-F, Rating= Non-standard, Length= 384.20 mm, Valve weight = 52 kg, Actuator Auto = No,
Actuator Symbol = Yes,
Actuator weight = 80 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 408.00 mm, Surface factor=
0.00, End type= Weld neck,
SIF= 1.00

POINT DATA:

C02, Coordinates, X= 406.40 mm, Y= -5488.90 mm, Z= 7273.00 mm
C02, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No
C02 M, Coordinates, X= 406.40 mm, Y= -5296.80 mm, Z= 7273.00 mm

SUPPORT DATA:

C02 M, Variable Spring Hanger, Support Id= C02 M1, Connected to Ground, 1 hanger(s), Stiffness=
16 N/mm, Preload= 1128 N

From FV05 to C04, DY= 422.20 mm

Run

POINT DATA:

FV05, Coordinates, X= 406.40 mm, Y= -5104.70 mm, Z= 7273.00 mm
FV05, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End
type= Weld neck, SIF= 1.00,
Perform ANSI check= No

From C04 to C17, DY= 384.05 mm

Valv

COMPONENT DATA (Valve):

GATE-F, Rating= 2500, Length= 384.05 mm, Valve weight = 52 kg, Actuator Auto = No, Actuator
Symbol = Yes,
Actuator weight = 80 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 408.00 mm, Surface factor=
0.00, End type= Weld neck,
SIF= 1.00

OPERATING DATA (C04 M to C17):

P2= 11.6000 N/mm2, P4= 0.1300 N/mm2, T2= 322.00 deg C, T4= 57.00 deg C, Exp2= 5.23622 mm/m, Exp4=
0.57631 mm/m,
E2= 0.17435 E6 N/mm2, E4= 0.19683 E6 N/mm2, Rp0.2t2= 107.36 N/mm2, Rp0.2t4= 176.50 N/mm2,
Rp1.0t2= 132.36 N/mm2,
Rp1.0t4= 214.08 N/mm2, fh2= 88.24 N/mm2, fh4= 142.72 N/mm2

POINT DATA:

C04, Coordinates, X= 406.40 mm, Y= -4682.50 mm, Z= 7273.00 mm
C04, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No
C04 M, Coordinates, X= 406.40 mm, Y= -4490.48 mm, Z= 7273.00 mm

SUPPORT DATA:

C04 M, Guide, Support Id= C04 M1, Connected to Ground, Stiffness= RIGID, Gap-Down= 0.00 mm,
Gap-Above= 100.00 mm,
Gap-Left= 0.00 mm, Gap-Right= 0.00 mm, Friction= 0.00, Gaps setting= Weightless

F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

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C O M P O N E N T D A T A L I S T I N G

From C17 to C16, DY= 286.81 mm

Run

POINT DATA:

C17, Coordinates, X= 406.40 mm, Y= -4298.45 mm, Z= 7273.00 mm
 C17, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
 Weld neck, SIF= 1.00,
 Perform ANSI check= No

From C16 to C22, DY= 172.14 mm

Tee

COMPONENT DATA (Tee Header, Center= C16):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

POINT DATA:

C16, Coordinates, X= 406.40 mm, Y= -4011.64 mm, Z= 7273.00 mm

From C22 to C21, DY= 321.00 mm

Run

POINT DATA:

C22, Coordinates, X= 406.40 mm, Y= -3839.50 mm, Z= 7273.00 mm
 C22, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
 Weld neck, SIF= 1.00,
 Perform ANSI check= No
 C22, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
 Weld neck, SIF= 1.00,
 Perform ANSI check= No

From C21 to C06, DY= 250.00 mm

Run

POINT DATA:

C21, Coordinates, X= 406.40 mm, Y= -3518.50 mm, Z= 7273.00 mm
 C21, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
 Weld neck, SIF= 1.00,
 Perform ANSI check= No
 C21, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
 Weld neck, SIF= 1.00,
 Perform ANSI check= No

From C06 to C28, DY= 520.52 mm

Tee

COMPONENT DATA (Tee Header, Center= C06):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

POINT DATA:

C06, Coordinates, X= 406.40 mm, Y= -3268.50 mm, Z= 7273.00 mm

SUPPORT DATA:

C06, Guide, Support Id= C06 1, Connected to Ground, Stiffness= RIGID, Gap-Down= 0.00 mm,
 Gap-Above= 1000.00 mm,
 Gap-Left= 0.00 mm, Gap-Right= 0.00 mm, Friction= 0.00, Gaps setting= Weightless

From C28 to C07, DY= 520.53 mm

Run

POINT DATA:

C28, Coordinates, X= 406.40 mm, Y= -2747.98 mm, Z= 7273.00 mm

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F_LINE_REV0

09/13/2010 FEED LINE

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AutoPIPE Plus 9.2.1 MODEL PAGE 10

C O M P O N E N T D A T A L I S T I N G

 From C07 to C08, DY= 168.25 mm Tee

COMPONENT DATA (Tee Header, Center= C07):
 B16.9 welding tee, SIFI= 1.00, SIFO= 1.00

POINT DATA:
 C07, Coordinates, X= 406.40 mm, Y= -2227.45 mm, Z= 7273.00 mm

 From C08 to C18, DY= 384.05 mm Valv

COMPONENT DATA (Valve):
 GATE-F, Rating= 2500, Length= 384.05 mm, Valve weight = 52 kg, Actuator Auto = No, Actuator
 Symbol = Yes,
 Actuator weight = 80 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 408.00 mm, Surface factor=
 0.00, End type= Weld neck,
 SIF= 1.00

POINT DATA:
 C08, Coordinates, X= 406.40 mm, Y= -2059.20 mm, Z= 7273.00 mm
 C08, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
 Weld neck, SIF= 1.00,
 Perform ANSI check= No
 C08 M, Coordinates, X= 406.40 mm, Y= -1867.18 mm, Z= 7273.00 mm

SUPPORT DATA:
 C08 M, Variable Spring Hanger, Support Id= C08 M1, Connected to Ground, 1 hanger(s), Stiffness=
 29 N/mm, Preload= 1712 N

 From C18 to C10, DY= 168.40 mm Run

POINT DATA:
 C18, Coordinates, X= 406.40 mm, Y= -1675.15 mm, Z= 7273.00 mm
 C18, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
 Weld neck, SIF= 1.00,
 Perform ANSI check= No

 From C10 to C11, DY= 144.85 mm Tee

COMPONENT DATA (Tee Header, Center= C10):
 B16.9 welding tee, SIFI= 1.00, SIFO= 1.00

POINT DATA:
 C10, Coordinates, X= 406.40 mm, Y= -1506.75 mm, Z= 7273.00 mm

 From C11 to C12, DX= -167.60 mm, DY= 284.87 mm, L= 330.52 mm Bend

COMPONENT DATA (Bend, TIP= C11, Near= C11 N, Far= C11 F):
 Long Elbow, Radius= 57.15 mm, Bend angle= 30.47 deg, End flanges= 0, Flex= Auto, SIFI= 1.23,
 SIFO= 1.23

POINT DATA:
 C11, Coordinates, X= 406.40 mm, Y= -1361.90 mm, Z= 7273.00 mm
 C11 N, Coordinates, X= 406.40 mm, Y= -1377.47 mm, Z= 7273.00 mm
 C11 F, Coordinates, X= 398.51 mm, Y= -1348.49 mm, Z= 7273.00 mm

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 F_LINE_REV0

09/13/2010 FEED LINE

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 AutoPIPE Plus 9.2.1 MODEL PAGE 11

 C O M P O N E N T D A T A L I S T I N G

 From C12 to C13, DZ= 610.00 mm Bend

COMPONENT DATA (Bend, TIP= C12, Near= C12 N, Far= C12 F):
 Elbow, Radius= 57.00 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.24, SIFO=
 1.24

F_LINE_REV0.OUT

POINT DATA:

C12, Coordinates, X= 238.80 mm, Y= -1077.03 mm, Z= 7273.00 mm
 C12 N, Coordinates, X= 267.70 mm, Y= -1126.16 mm, Z= 7273.00 mm
 C12 F, Coordinates, X= 238.80 mm, Y= -1077.03 mm, Z= 7330.00 mm

SUPPORT DATA:

C12 N, Variable Spring Hanger, Support Id= C12 N1, Connected to Ground, 1 hanger(s), Stiffness= 3 N/mm, Preload= 146 N

 From C13 to C20, DX= -76.67 mm, DY= 345.82 mm, L= 354.22 mm Bend

COMPONENT DATA (Bend, TIP= C13, Near= C13 N, Far= C13 F):

Long Elbow, Radius= 57.15 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.23, SIF0= 1.23

POINT DATA:

C13, Coordinates, X= 238.80 mm, Y= -1077.03 mm, Z= 7883.00 mm
 C13 N, Coordinates, X= 238.80 mm, Y= -1077.03 mm, Z= 7825.85 mm
 C13 F, Coordinates, X= 226.43 mm, Y= -1021.24 mm, Z= 7883.00 mm

 From C20 to C15, DX= -19.24 mm, DY= 86.78 mm, L= 88.89 mm Redu

COMPONENT DATA (Reducer):

Length= 88.89 mm, SIF= 2.00

POINT DATA:

C20, Coordinates, X= 162.13 mm, Y= -731.21 mm, Z= 7883.00 mm
 C15, Coordinates, X= 142.89 mm, Y= -644.43 mm, Z= 7883.00 mm

SUPPORT DATA:

C15, Anchor, Tag No.= FLTORVB, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

*** SEGMENT D

 From A02 to D01, DZ= -2450.00 mm Tee

COMPONENT DATA (Tee Branch, Center= A02):

B16.9 welding tee, SIFI= 1.22, SIF0= 1.22

PIPE DATA:

Pipe Id= 2S80, Composition= Austentic Stainless, Nom Size= 50 mm, OD= 60.325 mm, Wall Thk= 5.537 mm, Mill= 0.692 mm, Content Sp Gr= 1.000, Content Unit Wgt= 18.67 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 23.14 N/m

OPERATING DATA:

P2= 5.8300 N/mm2, P4= 5.8300 N/mm2, T2= 224.00 deg C, T4= 224.00 deg C, Exp2= 3.41494 mm/m, Exp4= 3.41494 mm/m, E2= 0.18266 E6 N/mm2, E4= 0.18266 E6 N/mm2, Rp0.2t2= 122.68 N/mm2, Rp0.2t4= 122.68 N/mm2, Rp1.0t2= 150.20 N/mm2, Rp1.0t4= 150.20 N/mm2, fh2= 100.13 N/mm2, fh4= 100.13 N/mm2

□

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AutoPIPE Plus 9.2.1 MODEL PAGE 12

C O M P O N E N T D A T A L I S T I N G

POINT DATA:

A02, Coordinates, X= -193.60 mm, Y= -6000.00 mm, Z= 10583.00 mm

 From D01 to D02, DY= 924.60 mm Bend

COMPONENT DATA (Bend, TIP= D01, Near= D01 N, Mid= D01 M, Far= D01 F):

Long Elbow, Radius= 76.20 mm, Bend angle= 90.00 deg, Mid point at 50.00 percent, End flanges= 0, Flex= Auto, SIFI= 1.32, SIF0= 1.32

F_LINE_REV0.OUT

POINT DATA:

D01, Coordinates, X= -193.60 mm, Y= -6000.00 mm, Z= 8133.00 mm
D01 N, Coordinates, X= -193.60 mm, Y= -6000.00 mm, Z= 8209.20 mm
D01 M, Coordinates, X= -193.60 mm, Y= -5977.68 mm, Z= 8155.32 mm
D01 F, Coordinates, X= -193.60 mm, Y= -5923.80 mm, Z= 8133.00 mm

From D02 to FV06, DY= 450.80 mm

Valv

COMPONENT DATA (Valve):

GLOBE-F, Rating= 2500, Length= 450.80 mm, Valve weight = 81 kg, Actuator Auto = No, Actuator
Symbol = Yes,
Actuator weight = 0 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 439.00 mm, Surface factor=
126.00, End type= Weld neck,
SIF= 1.00

POINT DATA:

D02, Coordinates, X= -193.60 mm, Y= -5075.40 mm, Z= 8133.00 mm
D02, Flange= WELDNECK, Rating= 2500, Flange Weight= 19.10 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No
D02 M, Coordinates, X= -193.60 mm, Y= -4850.00 mm, Z= 8133.00 mm

SUPPORT DATA:

D02 M, Variable Spring Hanger, Support Id= D02 M1, Connected to Ground, 1 hanger(s), Stiffness=
29 N/mm, Preload= 1979 N

From FV06 to D04, DY= 497.60 mm

Run

POINT DATA:

FV06, Coordinates, X= -193.60 mm, Y= -4624.60 mm, Z= 8133.00 mm
FV06, Flange= WELDNECK, Rating= 2500, Flange Weight= 19.10 kg, Bolt/Nut Weight= 0.00 kg, End
type= Weld neck, SIF= 1.00,
Perform ANSI check= No

From D04 to D17, DY= 450.85 mm

Valv

COMPONENT DATA (Valve):

GATE-F, Rating= 2500, Length= 450.85 mm, Valve weight = 81 kg, Actuator Auto = No, Actuator
Symbol = Yes,
Actuator weight = 126 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 439.00 mm, Surface factor=
0.00, End type= Weld neck,
SIF= 1.00

OPERATING DATA (D04 M to D17):

P2= 11.6000 N/mm2, P4= 10.0000 N/mm2, T2= 322.00 deg C, T4= 227.00 deg C, Exp2= 5.23622 mm/m,
Exp4= 3.46912 mm/m,
E2= 0.17435 E6 N/mm2, Rp0.2t2= 107.36 N/mm2, Rp0.2t4= 122.14 N/mm2, Rp1.0t2= 132.36 N/mm2,
Rp1.0t4= 149.60 N/mm2,
fh2= 88.24 N/mm2, fh4= 99.73 N/mm2

POINT DATA:

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F_LINE_REV0

09/13/2010 FEED LINE

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AutoPIPE Plus 9.2.1 MODEL PAGE 13

C O M P O N E N T D A T A L I S T I N G

D04, Coordinates, X= -193.60 mm, Y= -4127.00 mm, Z= 8133.00 mm
D04, Flange= WELDNECK, Rating= 2500, Flange Weight= 19.10 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No
D04 M, Coordinates, X= -193.60 mm, Y= -3901.58 mm, Z= 8133.00 mm

SUPPORT DATA:

D04 M, Guide, Support Id= D04 M1, Connected to Ground, Stiffness= RIGID, Gap-Down= 0.00 mm,
Gap-Above= 100.00 mm,
Gap-Left= 0.00 mm, Gap-Right= 0.00 mm, Friction= 0.00, Gaps setting= Weightless

From D17 to D19, DY= 253.30 mm

Run

F_LINE_REV0.OUT

POINT DATA:

D17, Coordinates, X= -193.60 mm, Y= -3676.15 mm, Z= 8133.00 mm
 D17, Flange= WELDNECK, Rating= 2500, Flange Weight= 19.10 kg, Bolt/Nut Weight= 0.00 kg, End type=
 Weld neck, SIF= 1.00,
 Perform ANSI check= No

 From D19 to D23, DY= 318.43 mm

Tee

COMPONENT DATA (Tee Header, Center= D19):

B16.9 welding tee, SIFI= 1.00, SIFO= 1.00

POINT DATA:

D19, Coordinates, X= -193.60 mm, Y= -3422.85 mm, Z= 8133.00 mm

 From D23 to D22, DY= 387.20 mm

Run

POINT DATA:

D23, Coordinates, X= -193.60 mm, Y= -3104.42 mm, Z= 8133.00 mm
 D23, Flange= WELDNECK, Rating= 2500, Flange Weight= 19.10 kg, Bolt/Nut Weight= 0.00 kg, End type=
 Weld neck, SIF= 1.00,
 Perform ANSI check= No
 D23, Flange= WELDNECK, Rating= 2500, Flange Weight= 19.10 kg, Bolt/Nut Weight= 0.00 kg, End type=
 Weld neck, SIF= 1.00,
 Perform ANSI check= No

 From D22 to D26, DY= 415.12 mm

Run

POINT DATA:

D22, Coordinates, X= -193.60 mm, Y= -2717.22 mm, Z= 8133.00 mm
 D22, Flange= WELDNECK, Rating= 2500, Flange Weight= 19.10 kg, Bolt/Nut Weight= 0.00 kg, End type=
 Weld neck, SIF= 1.00,
 Perform ANSI check= No
 D22, Flange= WELDNECK, Rating= 2500, Flange Weight= 19.10 kg, Bolt/Nut Weight= 0.00 kg, End type=
 Weld neck, SIF= 1.00,
 Perform ANSI check= No

 From D26 to D07, DY= 142.53 mm

Tee

COMPONENT DATA (Tee Header, Center= D26):

Other, SIFI= 1.00, SIFO= 1.00

POINT DATA:

D26, Coordinates, X= -193.60 mm, Y= -2302.10 mm, Z= 8133.00 mm

□

F_LINE_REV0

09/13/2010 FEED LINE

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C O M P O N E N T D A T A L I S T I N G

SUPPORT DATA:

D26, Guide, Support Id= D26 1, Connected to Ground, Stiffness= RIGID, Gap-Down= 0.00 mm,
 Gap-Above= 1000.00 mm,
 Gap-Left= 0.00 mm, Gap-Right= 0.00 mm, Friction= 0.00, Gaps setting= Weightless

 From D07 to D08, DX= -260.05 mm, DY= 1186.69 mm, L= 1214.85 mm

Bend

COMPONENT DATA (Bend, TIP= D07, Near= D07 N, Far= D07 F):

Long Elbow, Radius= 76.20 mm, Bend angle= 12.36 deg, End flanges= 0, Flex= Auto, SIFI= 1.32,
 SIFO= 1.32

POINT DATA:

D07, Coordinates, X= -193.60 mm, Y= -2159.57 mm, Z= 8133.00 mm
 D07 N, Coordinates, X= -193.60 mm, Y= -2167.82 mm, Z= 8133.00 mm
 D07 F, Coordinates, X= -195.37 mm, Y= -2151.51 mm, Z= 8133.00 mm

 From D08 to D09, DZ= -860.00 mm

Bend

F_LINE_REV0.OUT

COMPONENT DATA (Bend, TIP= D08, Near= D08 N, Far= D08 F):
Long Elbow, Radius= 76.20 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.32, SIFO= 1.32

POINT DATA:

D08, Coordinates, X= -453.65 mm, Y= -972.88 mm, Z= 8133.00 mm
D08 N, Coordinates, X= -437.34 mm, Y= -1047.31 mm, Z= 8133.00 mm
D08 F, Coordinates, X= -453.65 mm, Y= -972.88 mm, Z= 8056.80 mm

SUPPORT DATA:

D08 N, Variable Spring Hanger, Support Id= D08 N1, Connected to Ground, 1 hanger(s), Stiffness= 3 N/mm, Preload= 166 N

From D09 to D18, DX= 57.55 mm, DY= -26.84 mm, L= 63.50 mm Tee

COMPONENT DATA (Tee Branch, Center= D09):
Other, SIFI= 1.00, SIFO= 1.00

POINT DATA:

D09, Coordinates, X= -453.65 mm, Y= -972.88 mm, Z= 7273.00 mm

From D18 to D11, DX= 69.06 mm, DY= -32.20 mm, L= 76.20 mm Redu

COMPONENT DATA (Reducer):
Length= 76.20 mm, SIF= 2.00

POINT DATA:

D18, Coordinates, X= -396.10 mm, Y= -999.72 mm, Z= 7273.00 mm

From D11 to D12, DX= 89.10 mm, DY= -41.55 mm, L= 98.31 mm Run

PIPE DATA:

Pipe Id= 1.5S80, Composition= Austentic Stainless, Nom Size= 40 mm, OD= 48.260 mm, Wall Thk= 5.080 mm, Mill= 0.635 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 11.18 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 20.61 N/m

POINT DATA:

□

F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

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C O M P O N E N T D A T A L I S T I N G

D11, Coordinates, X= -327.04 mm, Y= -1031.92 mm, Z= 7273.00 mm

From D12 to D13, DZ= 610.00 mm Bend

COMPONENT DATA (Bend, TIP= D12, Near= D12 N, Far= D12 F):
Long Elbow, Radius= 57.15 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.23, SIFO= 1.23

POINT DATA:

D12, Coordinates, X= -237.94 mm, Y= -1073.47 mm, Z= 7273.00 mm
D12 N, Coordinates, X= -289.74 mm, Y= -1049.32 mm, Z= 7273.00 mm
D12 F, Coordinates, X= -237.94 mm, Y= -1073.47 mm, Z= 7330.15 mm

From D13 to D14, DX= 75.85 mm, DY= 342.12 mm, L= 350.43 mm Bend

COMPONENT DATA (Bend, TIP= D13, Near= D13 N, Far= D13 F):
Long Elbow, Radius= 57.15 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.23, SIFO= 1.23

POINT DATA:

D13, Coordinates, X= -237.94 mm, Y= -1073.47 mm, Z= 7883.00 mm
D13 N, Coordinates, X= -237.94 mm, Y= -1073.47 mm, Z= 7825.85 mm
D13 F, Coordinates, X= -225.57 mm, Y= -1017.67 mm, Z= 7883.00 mm

From D14 to D27, DX= 19.24 mm, DY= 86.79 mm, L= 88.90 mm Redu

F_LINE_REV0.OUT

COMPONENT DATA (Reducer):

Length= 88.90 mm, SIF= 2.00

POINT DATA:

D14, Coordinates, X= -162.09 mm, Y= -731.35 mm, Z= 7883.00 mm

D27, Coordinates, X= -142.85 mm, Y= -644.56 mm, Z= 7883.00 mm

SUPPORT DATA:

D27, Anchor, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

*** SEGMENT E

From D09 to E06, DX= -57.55 mm, DY= 26.84 mm, L= 63.50 mm Tee

COMPONENT DATA (Tee Header, Center= D09):

Other, SIFI= 1.00, SIFO= 1.00

PIPE DATA:

Pipe Id= 2S80, Composition= Austentic Stainless, Nom Size= 50 mm, OD= 60.325 mm, Wall Thk= 5.537 mm, Mill= 0.692 mm, Content Sp Gr= 1.000, Content Unit Wgt= 18.67 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 23.14 N/m

POINT DATA:

D09, Coordinates, X= -453.65 mm, Y= -972.88 mm, Z= 7273.00 mm

□

F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

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AutoPIPE Plus 9.2.1 MODEL PAGE 16

C O M P O N E N T D A T A L I S T I N G

From E06 to E07, DX= -69.06 mm, DY= 32.20 mm, L= 76.20 mm Redu

COMPONENT DATA (Reducer):

Length= 76.20 mm, SIF= 2.00

POINT DATA:

E06, Coordinates, X= -511.20 mm, Y= -946.04 mm, Z= 7273.00 mm

From E07 to E03, DX= -89.10 mm, DY= 41.54 mm, L= 98.31 mm Run

PIPE DATA:

Pipe Id= 1.5S80, Composition= Austentic Stainless, Nom Size= 40 mm, OD= 48.260 mm, Wall Thk= 5.080 mm, Mill= 0.635 mm, Content Sp Gr= 1.000, Content Unit Wgt= 11.18 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 20.61 N/m

POINT DATA:

E07, Coordinates, X= -580.26 mm, Y= -913.84 mm, Z= 7273.00 mm

From E03 to E04, DZ= 610.00 mm Bend

COMPONENT DATA (Bend, TIP= E03, Near= E03 N, Far= E03 F):

Long Elbow, Radius= 57.15 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.23, SIFO= 1.23

POINT DATA:

E03, Coordinates, X= -669.36 mm, Y= -872.30 mm, Z= 7273.00 mm

E03 N, Coordinates, X= -617.56 mm, Y= -896.45 mm, Z= 7273.00 mm

E03 F, Coordinates, X= -669.36 mm, Y= -872.30 mm, Z= 7330.15 mm

From E04 to E05, DX= 213.44 mm, DY= 278.16 mm, L= 350.61 mm Bend

COMPONENT DATA (Bend, TIP= E04, Near= E04 N, Far= E04 F):

Long Elbow, Radius= 57.15 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.23,

SIF0= 1.23

POINT DATA:

E04, Coordinates, X= -669.36 mm, Y= -872.30 mm, Z= 7883.00 mm
 E04 N, Coordinates, X= -669.36 mm, Y= -872.30 mm, Z= 7825.85 mm
 E04 F, Coordinates, X= -634.57 mm, Y= -826.96 mm, Z= 7883.00 mm

 From E05 to E08, DX= 54.12 mm, DY= 70.53 mm, L= 88.90 mm Redu

COMPONENT DATA (Reducer):

Length= 88.90 mm, SIF= 2.00

POINT DATA:

E05, Coordinates, X= -455.92 mm, Y= -594.14 mm, Z= 7883.00 mm
 E08, Coordinates, X= -401.80 mm, Y= -523.61 mm, Z= 7883.00 mm

SUPPORT DATA:

E08, Anchor, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

 []

F_LINE_REV0

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C O M P O N E N T D A T A L I S T I N G

*** SEGMENT F

 From C10 to F01, DZ= -197.28 mm Tee

COMPONENT DATA (Tee Branch, Center= C10):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

PIPE DATA:

Pipe Id= 1.5S80, Composition= Austentic Stainless

OPERATING DATA:

P4= 0.1300 N/mm2, T4= 57.00 deg C, Exp4= 0.57631 mm/m, E4= 0.19683 E6 N/mm2, Rp0.2t4= 176.50
 N/mm2, Rp1.0t4= 214.08 N/mm2,
 fh4= 142.72 N/mm2

POINT DATA:

C10, Coordinates, X= 406.40 mm, Y= -1506.75 mm, Z= 7273.00 mm

 From F01 to F17, DX= -219.65 mm Bend

COMPONENT DATA (Bend, TIP= F01, Near= F01 N, Far= F01 F):

Long Elbow, Radius= 57.15 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.23,
 SIF0= 1.23

POINT DATA:

F01, Coordinates, X= 406.40 mm, Y= -1506.75 mm, Z= 7075.72 mm
 F01 N, Coordinates, X= 406.40 mm, Y= -1506.75 mm, Z= 7132.87 mm
 F01 F, Coordinates, X= 349.25 mm, Y= -1506.75 mm, Z= 7075.72 mm

 From F17 to F16, DX= -371.80 mm Run

POINT DATA:

F17, Coordinates, X= 186.75 mm, Y= -1506.75 mm, Z= 7075.72 mm
 F17, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
 Weld neck, SIF= 1.00,
 Perform ANSI check= No
 F17, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
 Weld neck, SIF= 1.00,
 Perform ANSI check= No

 From F16 to F02, DX= -219.65 mm Run

F_LINE_REV0.OUT

POINT DATA:

F16, Coordinates, X= -185.05 mm, Y= -1506.75 mm, Z= 7075.72 mm
 F16, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
 Weld neck, SIF= 1.00,
 Perform ANSI check= No
 F16, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
 Weld neck, SIF= 1.00,
 Perform ANSI check= No

 From F02 to F12, DX= -384.05 mm

Valv

COMPONENT DATA (Valve):

GATE-F, Rating= 2500, Length= 384.05 mm, Valve weight = 52 kg, Actuator Auto = No, Actuator
 Symbol = Yes,
 Actuator weight = 80 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 408.00 mm, Surface factor=
 0.00, End type= Weld neck,
 []

 F_LINE_REV0

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 C O M P O N E N T D A T A L I S T I N G

SIF= 1.00

POINT DATA:

F02, Coordinates, X= -404.70 mm, Y= -1506.75 mm, Z= 7075.72 mm
 F02, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
 Weld neck, SIF= 1.00,
 Perform ANSI check= No
 F02 M, Coordinates, X= -596.72 mm, Y= -1506.75 mm, Z= 7075.72 mm

SUPPORT DATA:

F02 M, Variable Spring Hanger, Support Id= F02 M1, Connected to Ground, 1 hanger(s), Stiffness=
 29 N/mm, Preload= 1716 N

 From F12 to F13, DX= -111.25 mm

Run

PIPE DATA:

Pipe Id= 1.5S40, Composition= Austentic Stainless, Sch= 40, Wall Thk= 3.683 mm, Mill= 0.460 mm,
 Content Sp Gr= 1.000,
 Content Unit Wgt= 12.87 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 20.61 N/m

OPERATING DATA:

P1= 0.1000 N/mm2, P2= 0.1000 N/mm2, P3= 1.5000 N/mm2, T1= 20.00 deg C, T2= 20.00 deg C, T3=
 198.00 deg C, Exp1= 0 mm/m,
 Exp2= 0 mm/m, Exp3= 2.94948 mm/m, E1= 0.19996 E6 N/mm2, E2= 0.19996 E6 N/mm2, E3= 0.18487 E6
 N/mm2, Rp0.2t1= 195.00 N/mm2,
 Rp0.2t2= 195.00 N/mm2, Rp0.2t3= 127.52 N/mm2, Rp1.0t1= 230.00 N/mm2, Rp1.0t2= 230.00 N/mm2,
 Rp1.0t3= 155.60 N/mm2,
 fh1= 153.33 N/mm2, fh2= 153.33 N/mm2, fh3= 103.73 N/mm2

POINT DATA:

F12, Coordinates, X= -788.75 mm, Y= -1506.75 mm, Z= 7075.72 mm
 F12, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
 Weld neck, SIF= 1.00,
 Perform ANSI check= No

 From F13 to F05, DX= -89.00 mm

Redu

COMPONENT DATA (Reducer):

Length= 89.00 mm, SIF= 2.00

POINT DATA:

F13, Coordinates, X= -900.00 mm, Y= -1506.75 mm, Z= 7075.72 mm

 From F05 to F20, DX= -309.28 mm

Run

PIPE DATA:

Pipe Id= 3S40, Composition= Austentic Stainless, Nom Size= 80 mm, OD= 88.900 mm, Wall Thk= 5.486
 mm, Mill= 0.686 mm,

F_LINE_REV0.OUT

Content Sp Gr= 1.000, Content Unit Wgt= 46.75 N/m, Insul Thk= 80.000 mm, Insul Density= 136.16 kg/m3,
Insul Unit Wgt= 56.68 N/m

POINT DATA:

F05, Coordinates, X= -989.00 mm, Y= -1506.75 mm, Z= 7075.72 mm

From F20 to F06, DX= -309.27 mm

Run

POINT DATA:

F20, Coordinates, X= -1298.28 mm, Y= -1506.75 mm, Z= 7075.72 mm

□

F_LINE_REV0

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AutoPIPE Plus 9.2.1 MODEL PAGE 19

C O M P O N E N T D A T A L I S T I N G

SUPPORT DATA:

F20, Guide, Support Id= F20 1, Connected to Ground, Stiffness= RIGID, Gap-Down= 0.00 mm,
Gap-Above= 100.00 mm,
Gap-Left= 0.00 mm, Gap-Right= 0.00 mm, Friction= 0.00, Gaps setting= Weightless

From F06 to F19, DX= -189.18 mm, DY= 519.77 mm, L= 553.13 mm

Bend

COMPONENT DATA (Bend, TIP= F06, Near= F06 N, Far= F06 F):

Long Elbow, Radius= 114.30 mm, Bend angle= 70.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.78,
SIFO= 1.78

POINT DATA:

F06, Coordinates, X= -1607.55 mm, Y= -1506.75 mm, Z= 7075.72 mm
F06 N, Coordinates, X= -1527.52 mm, Y= -1506.75 mm, Z= 7075.72 mm
F06 F, Coordinates, X= -1634.92 mm, Y= -1431.54 mm, Z= 7075.72 mm

From F19 to F07, DX= -189.19 mm, DY= 519.78 mm, L= 553.14 mm

Run

POINT DATA:

F19, Coordinates, X= -1796.73 mm, Y= -986.98 mm, Z= 7075.72 mm

SUPPORT DATA:

F19, Guide, Support Id= F19 1, Connected to Ground, Stiffness= RIGID, Gap-Down= 0.00 mm,
Gap-Above= 100.00 mm,
Gap-Left= 0.00 mm, Gap-Right= 0.00 mm, Friction= 0.00, Gaps setting= Weightless

From F07 to F08, DX= -1326.00 mm

Bend

COMPONENT DATA (Bend, TIP= F07, Near= F07 N, Far= F07 F):

Long Elbow, Radius= 114.30 mm, Bend angle= 70.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.78,
SIFO= 1.78

POINT DATA:

F07, Coordinates, X= -1985.92 mm, Y= -467.20 mm, Z= 7075.72 mm
F07 N, Coordinates, X= -1958.55 mm, Y= -542.41 mm, Z= 7075.72 mm
F07 F, Coordinates, X= -2065.95 mm, Y= -467.20 mm, Z= 7075.72 mm

From F08 to F14, DX= -200.00 mm, DY= -346.41 mm, L= 400.00 mm

Bend

COMPONENT DATA (Bend, TIP= F08, Near= F08 N, Far= F08 F):

Long Elbow, Radius= 114.30 mm, Bend angle= 60.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.78,
SIFO= 1.78

POINT DATA:

F08, Coordinates, X= -3311.92 mm, Y= -467.20 mm, Z= 7075.72 mm
F08 N, Coordinates, X= -3245.93 mm, Y= -467.20 mm, Z= 7075.72 mm
F08 F, Coordinates, X= -3344.92 mm, Y= -524.35 mm, Z= 7075.72 mm

From F14 to F10, DX= -50.80 mm, DY= -87.99 mm, L= 101.60 mm

Redu

F_LINE_REV0.OUT

COMPONENT DATA (Reducer):
Length= 101.60 mm, SIF= 2.00

POINT DATA:
F14, Coordinates, X= -3511.92 mm, Y= -813.61 mm, Z= 7075.72 mm

□

F_LINE_REV0

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AutoPIPE Plus 9.2.1 MODEL PAGE 20

C O M P O N E N T D A T A L I S T I N G

From F10 to F11, DX= -159.52 mm, DY= -276.31 mm, L= 319.05 mm Run

PIPE DATA:
Pipe Id= 4S40, Composition= Austentic Stainless, Nom Size= 100 mm, OD= 114.30 mm, Wall Thk= 6.020 mm, Mill= 0.752 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 80.51 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 65.21 N/m,
Long Modulus= 0.19996 E6 N/mm2, Hoop Modulus= 0.19996 E6 N/mm2, Shear Modulus= 0.07691 E6 N/mm2

POINT DATA:
F10, Coordinates, X= -3562.72 mm, Y= -901.60 mm, Z= 7075.72 mm
F11, Coordinates, X= -3722.24 mm, Y= -1177.91 mm, Z= 7075.72 mm
F11, Flange= SLIP-ON, Rating= 300, Flange Weight= 10.00 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No

SUPPORT DATA:
F11, Anchor, Tag No.= FLSPLIT, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

*** SEGMENT G

From C07 to G01, DZ= -197.28 mm Tee

COMPONENT DATA (Tee Branch, Center= C07):
B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

PIPE DATA:
Pipe Id= 1.5S80, Composition= Austentic Stainless, Nom Size= 40 mm, OD= 48.260 mm, Sch= 80, Wall Thk= 5.080 mm,
Mill= 0.635 mm, Content Sp Gr= 1.000, Content Unit Wgt= 11.18 N/m, Insul Thk= 50.000 mm, Insul Density= 136.16 kg/m3,
Insul Unit Wgt= 20.61 N/m, Long Modulus= 0.19996 E6 N/mm2, Hoop Modulus= 0.19996 E6 N/mm2, Shear Modulus= 0.07691 E6 N/mm2

OPERATING DATA:
P1= 5.8300 N/mm2, P2= 11.6000 N/mm2, P3= 5.8300 N/mm2, T1= 224.00 deg C, T2= 322.00 deg C, T3= 224.00 deg C,
Exp1= 3.41494 mm/m, Exp2= 5.23622 mm/m, Exp3= 3.41494 mm/m, E1= 0.18266 E6 N/mm2, E2= 0.17435 E6 N/mm2, E3= 0.18266 E6 N/mm2,
Rp0.2t1= 122.68 N/mm2, Rp0.2t2= 107.36 N/mm2, Rp0.2t3= 122.68 N/mm2, Rp1.0t1= 150.20 N/mm2, Rp1.0t2= 132.36 N/mm2,
Rp1.0t3= 150.20 N/mm2, fh1= 100.13 N/mm2, fh2= 88.24 N/mm2, fh3= 100.13 N/mm2

POINT DATA:
C07, Coordinates, X= 406.40 mm, Y= -2227.45 mm, Z= 7273.00 mm

From G01 to G16, DX= -219.65 mm Bend

COMPONENT DATA (Bend, TIP= G01, Near= G01 N, Far= G01 F):
Long Elbow, Radius= 57.15 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.23, SIF0= 1.23

POINT DATA:
G01, Coordinates, X= 406.40 mm, Y= -2227.45 mm, Z= 7075.72 mm
G01 N, Coordinates, X= 406.40 mm, Y= -2227.45 mm, Z= 7132.87 mm

F_LINE_REV0.OUT
G01 F, Coordinates, X= 349.25 mm, Y= -2227.45 mm, Z= 7075.72 mm

From G16 to G14, DX= -185.90 mm

Run

F_LINE_REV0

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AutoPIPE Plus 9.2.1 MODEL PAGE 21

C O M P O N E N T D A T A L I S T I N G

POINT DATA:

G16, Coordinates, X= 186.75 mm, Y= -2227.45 mm, Z= 7075.72 mm
G16, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No
G16, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No

From G14 to G15, DX= -185.90 mm

Run

POINT DATA:

G14, Coordinates, X= 0.85 mm, Y= -2227.45 mm, Z= 7075.72 mm

From G15 to G02, DX= -219.65 mm

Run

POINT DATA:

G15, Coordinates, X= -185.05 mm, Y= -2227.45 mm, Z= 7075.72 mm
G15, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No
G15, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No

From G02 to G11, DX= -384.05 mm

Valv

COMPONENT DATA (Valve):

GATE-F, Rating= 2500, Length= 384.05 mm, Valve weight = 52 kg, Actuator Auto = No, Actuator
Symbol = Yes,
Actuator weight = 80 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 408.00 mm, Surface factor=
0.00, End type= Weld neck,
SIF= 1.00

POINT DATA:

G02, Coordinates, X= -404.70 mm, Y= -2227.45 mm, Z= 7075.72 mm
G02, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No
G02 M, Coordinates, X= -596.72 mm, Y= -2227.45 mm, Z= 7075.72 mm

SUPPORT DATA:

G02 M, Constant Force Hanger, Support Id= G02 M1, Connected to Ground, 1 hanger(s), Preload= 2031
N

From G11 to G12, DX= -111.25 mm

Run

PIPE DATA:

Pipe Id= 1.5S40, Composition= Austentic Stainless, Sch= 40, Wall Thk= 3.683 mm, Mill= 0.460 mm,
Content Sp Gr= 1.000,
Content Unit Wgt= 12.87 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 20.61 N/m

OPERATING DATA:

P1= 0.1000 N/mm2, P2= 0.1000 N/mm2, P3= 1.5000 N/mm2, T1= 20.00 deg C, T2= 20.00 deg C, T3=
198.00 deg C, Exp1= 0 mm/m,
Exp2= 0 mm/m, Exp3= 2.94948 mm/m, E1= 0.19996 E6 N/mm2, E2= 0.19996 E6 N/mm2, E3= 0.18487 E6
N/mm2, Rp0.2t1= 195.00 N/mm2,
Rp0.2t2= 195.00 N/mm2, Rp0.2t3= 127.52 N/mm2, Rp1.0t1= 230.00 N/mm2, Rp1.0t2= 230.00 N/mm2,
Rp1.0t3= 155.60 N/mm2,

F_LINE_REV0.OUT
fh1= 153.33 N/mm2, fh2= 153.33 N/mm2, fh3= 103.73 N/mm2

POINT DATA:
G11, Coordinates, X= -788.75 mm, Y= -2227.45 mm, Z= 7075.72 mm

F_LINE_REV0

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C O M P O N E N T D A T A L I S T I N G

G11, Flange= WELDNECK, Rating= 2500, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No

From G12 to G05, DX= -89.00 mm Redu

COMPONENT DATA (Reducer):
Length= 89.00 mm, SIF= 2.00

POINT DATA:
G12, Coordinates, X= -900.00 mm, Y= -2227.45 mm, Z= 7075.72 mm

From G05 to G18, DX= -503.55 mm Run

PIPE DATA:
Pipe Id= 3S40, Composition= Austentic Stainless, Nom Size= 80 mm, OD= 88.900 mm, Wall Thk= 5.486
mm, Mill= 0.686 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 46.75 N/m, Insul Thk= 80.000 mm, Insul Density= 136.16
kg/m3,
Insul Unit Wgt= 56.68 N/m

POINT DATA:
G05, Coordinates, X= -989.00 mm, Y= -2227.45 mm, Z= 7075.72 mm

From G18 to G06, DX= -503.55 mm Run

POINT DATA:
G18, Coordinates, X= -1492.55 mm, Y= -2227.45 mm, Z= 7075.72 mm

From G06 to G17, DX= -194.61 mm, DY= 534.68 mm, L= 569.00 mm Bend

COMPONENT DATA (Bend, TIP= G06, Near= G06 N, Far= G06 F):
Long Elbow, Radius= 114.30 mm, Bend angle= 70.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.78,
SIF0= 1.78

POINT DATA:
G06, Coordinates, X= -1996.10 mm, Y= -2227.45 mm, Z= 7075.72 mm
G06 N, Coordinates, X= -1916.07 mm, Y= -2227.45 mm, Z= 7075.72 mm
G06 F, Coordinates, X= -2023.47 mm, Y= -2152.24 mm, Z= 7075.72 mm

From G17 to G07, DX= -194.61 mm, DY= 534.69 mm, DZ= 0 mm, L= 569.01 mm Run

POINT DATA:
G17, Coordinates, X= -2190.71 mm, Y= -1692.77 mm, Z= 7075.72 mm

SUPPORT DATA:
G17, Guide, Support Id= G17 1, Connected to Ground, Stiffness= RIGID, Gap-Down= 0.00 mm,
Gap-Above= 1000.00 mm,
Gap-Left= 0.00 mm, Gap-Right= 0.00 mm, Friction= 0.00, Gaps setting= Weightless

From G07 to G13, DX= -563.82 mm, DY= -205.21 mm, L= 600.00 mm Bend

COMPONENT DATA (Bend, TIP= G07, Near= G07 N, Far= G07 F):
Long Elbow, Radius= 114.30 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.78,
SIF0= 1.78

F_LINE_REV0

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C O M P O N E N T D A T A L I S T I N G

POINT DATA:

G07, Coordinates, X= -2385.32 mm, Y= -1158.08 mm, Z= 7075.72 mm
G07 N, Coordinates, X= -2346.23 mm, Y= -1265.49 mm, Z= 7075.72 mm
G07 F, Coordinates, X= -2492.73 mm, Y= -1197.17 mm, Z= 7075.72 mm

From G13 to G09, DX= -95.47 mm, DY= -34.75 mm, L= 101.60 mm Redu

COMPONENT DATA (Reducer):

Length= 101.60 mm, SIF= 2.00

POINT DATA:

G13, Coordinates, X= -2949.14 mm, Y= -1363.29 mm, Z= 7075.72 mm

From G09 to G10, DX= -378.29 mm, DY= -137.69 mm, L= 402.57 mm Run

PIPE DATA:

Pipe Id= 4S40, Composition= Austentic Stainless, Nom Size= 100 mm, OD= 114.30 mm, Wall Thk= 6.020 mm, Mill= 0.752 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 80.51 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 65.21 N/m,
Long Modulus= 0.19996 E6 N/mm2, Hoop Modulus= 0.19996 E6 N/mm2, Shear Modulus= 0.07691 E6 N/mm2

POINT DATA:

G09, Coordinates, X= -3044.61 mm, Y= -1398.04 mm, Z= 7075.72 mm
G10, Coordinates, X= -3422.90 mm, Y= -1535.73 mm, Z= 7075.72 mm
G10, Flange= SLIP-ON, Rating= 300, Flange Weight= 10.00 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No

SUPPORT DATA:

G10, Anchor, Tag No.= FLDEG, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

*** SEGMENT K-----
From B06 to K01, DZ= 43.18 mm Tee

COMPONENT DATA (Tee Branch, Center= B06):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

PIPE DATA:

Pipe Id= 1.5S80, Composition= Austentic Stainless, Nom Size= 40 mm, OD= 48.260 mm, Sch= 80, Wall Thk= 5.080 mm,
Mill= 0.635 mm, Content Sp Gr= 1.000, Content Unit Wgt= 11.18 N/m, Insul Thk= 50.000 mm, Insul Density= 136.16 kg/m3,
Insul Unit Wgt= 20.61 N/m, Long Modulus= 0.19996 E6 N/mm2, Hoop Modulus= 0.19996 E6 N/mm2, Shear Modulus= 0.07691 E6 N/mm2

OPERATING DATA:

P1= 5.8300 N/mm2, P2= 11.6000 N/mm2, P3= 5.8300 N/mm2, P4= 10.0000 N/mm2, T1= 224.00 deg C, T2= 322.00 deg C,
T3= 224.00 deg C, T4= 311.00 deg C, Exp1= 3.41494 mm/m, Exp2= 5.23622 mm/m, Exp3= 3.41494 mm/m, Exp4= 5.02682 mm/m,
E1= 0.18266 E6 N/mm2, E2= 0.17435 E6 N/mm2, E3= 0.18266 E6 N/mm2, E4= 0.17529 E6 N/mm2, Rp0.2t1= 122.68 N/mm2,
Rp0.2t2= 107.36 N/mm2, Rp0.2t3= 122.68 N/mm2, Rp0.2t4= 108.68 N/mm2, Rp1.0t1= 150.20 N/mm2, Rp1.0t2= 132.36 N/mm2,
Rp1.0t3= 150.20 N/mm2, Rp1.0t4= 133.68 N/mm2, fh1= 100.13 N/mm2, fh2= 88.24 N/mm2, fh3= 100.13 N/mm2, fh4= 89.12 N/mm2

POINT DATA:

B06, Coordinates, X= 1006.40 mm, Y= -3361.19 mm, Z= 7273.00 mm

□

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C O M P O N E N T D A T A L I S T I N G

From K01 to K15, DZ= 63.50 mm ReduCOMPONENT DATA (Reducer):
Length= 63.50 mm, SIF= 2.00POINT DATA:
K01, Coordinates, X= 1006.40 mm, Y= -3361.19 mm, Z= 7316.18 mm-----
From K15 to K22, DZ= 1400.00 mm RunPIPE DATA:
Pipe Id= 0.5S80, Composition= Austentic Stainless, Nom Size= 15 mm, OD= 21.336 mm, Wall Thk=
3.734 mm, Mill= 0.467 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 1.48 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt=
14.96 N/mOPERATING DATA:
T3= 20.00 deg C, Exp3= 0 mm/m, E3= 0.19996 E6 N/mm2, Rp0.2t3= 195.00 N/mm2, Rp1.0t3= 230.00
N/mm2, fh3= 153.33 N/mm2POINT DATA:
K15, Coordinates, X= 1006.40 mm, Y= -3361.19 mm, Z= 7379.68 mm-----
From K22 to K03, DZ= 482.12 mm RunPOINT DATA:
K22, Coordinates, X= 1006.40 mm, Y= -3361.19 mm, Z= 8779.68 mmSUPPORT DATA:
K22, Guide, Support Id= K22 1, Connected to Ground, Stiffness= RIGID-----
From K03 to K17, DY= -221.00 mm BendCOMPONENT DATA (Bend, TIP= K03, Near= K03 N, Far= K03 F):
Elbow, Radius= 21.00 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIF0=
1.00POINT DATA:
K03, Coordinates, X= 1006.40 mm, Y= -3361.19 mm, Z= 9261.80 mm
K03 N, Coordinates, X= 1006.40 mm, Y= -3361.19 mm, Z= 9240.80 mm
K03 F, Coordinates, X= 1006.40 mm, Y= -3382.19 mm, Z= 9261.80 mm-----
From K17 to K16, DY= -38.10 mm ReduCOMPONENT DATA (Reducer):
Length= 38.10 mm, SIF= 2.00POINT DATA:
K17, Coordinates, X= 1006.40 mm, Y= -3582.19 mm, Z= 9261.80 mm-----
From K16 to CH09, DY= -110.00 mm ValvCOMPONENT DATA (Valve):
□-----
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GATE-B, Rating= Non-standard, Length= 110.00 mm, Valve weight = 3 kg, Surface factor= 1.00, End type= Butt welded, SIF= 1.80, Offset= 0.000 mm

PIPE DATA:

Pipe Id= 0.75S80, Composition= Austentic Stainless, Nom Size= 20 mm, OD= 26.670 mm, Wall Thk= 3.912 mm, Mill= 0.489 mm, Content Sp Gr= 1.000, Content Unit Wgt= 2.73 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 16.08 N/m

OPERATING DATA (K16 M to CH09):

T1= 20.00 deg C, Exp1= 0 mm/m, E1= 0.19996 E6 N/mm2, Rp0.2t1= 195.00 N/mm2, Rp1.0t1= 230.00 N/mm2, fh1= 153.33 N/mm2

POINT DATA:

K16, Coordinates, X= 1006.40 mm, Y= -3620.29 mm, Z= 9261.80 mm
K16 M, Coordinates, X= 1006.40 mm, Y= -3675.29 mm, Z= 9261.80 mm

From CH09 to K18, DY= -38.10 mm Redu

COMPONENT DATA (Reducer):

Length= 38.10 mm, SIF= 2.00

POINT DATA:

CH09, Coordinates, X= 1006.40 mm, Y= -3730.29 mm, Z= 9261.80 mm

From K18 to K08, DY= -73.00 mm Run

PIPE DATA:

Pipe Id= 0.5S80, Composition= Austentic Stainless, Nom Size= 15 mm, OD= 21.336 mm, Wall Thk= 3.734 mm, Mill= 0.467 mm, Content Sp Gr= 1.000, Content Unit Wgt= 1.48 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 14.96 N/m

POINT DATA:

K18, Coordinates, X= 1006.40 mm, Y= -3768.39 mm, Z= 9261.80 mm

From K08 to K19, DY= -264.00 mm Valv

COMPONENT DATA (Valve):

GATE-F, Rating= 2500, Length= 264.00 mm, Valve weight = 12 kg, Actuator Auto = No, Actuator Symbol = Yes, Actuator weight = 19 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 313.50 mm, Surface factor= 0.00, End type= Weld neck, SIF= 1.00

POINT DATA:

K08, Coordinates, X= 1006.40 mm, Y= -3841.39 mm, Z= 9261.80 mm
K08, Flange= WELDNECK, Rating= 2500, Flange Weight= 3.60 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00, Perform ANSI check= No
K08 M, Coordinates, X= 1006.40 mm, Y= -3973.39 mm, Z= 9261.80 mm

SUPPORT DATA:

K08 M, Variable Spring Hanger, Support Id= K08 M1, Connected to Ground, 1 hanger(s), Stiffness= 7 N/mm, Preload= 484 N

From K19 to C017, DY= -169.05 mm Run

POINT DATA:

K19, Coordinates, X= 1006.40 mm, Y= -4105.39 mm, Z= 9261.80 mm

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K19, Flange= WELDNECK, Rating= 2500, Flange Weight= 3.60 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= No

From C017 to K27, DY= -627.78 mm Run

POINT DATA:

C017, Coordinates, X= 1006.40 mm, Y= -4274.44 mm, Z= 9261.80 mm
C017, Flange= WELDNECK, Rating= 2500, Flange Weight= 3.60 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= No
C017, Flange= WELDNECK, Rating= 2500, Flange Weight= 3.60 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= No

From K27 to K10, DY= -671.78 mm Run

POINT DATA:

K27, Coordinates, X= 1006.40 mm, Y= -4902.22 mm, Z= 9261.80 mm

SUPPORT DATA:

K27, Guide, Support Id= K27 1, Connected to Ground, Stiffness= RIGID

From K10 to K21, DZ= 1000.00 mm Bend

COMPONENT DATA (Bend, TIP= K10, Near= K10 N, Mid= K10 M, Far= K10 F):

Long Elbow, Radius= 38.10 mm, Bend angle= 90.00 deg, Mid point at 50.00 percent, End flanges= 0, Flex= Auto, SIFI= 1.00,
SIFO= 1.00

POINT DATA:

K10, Coordinates, X= 1006.40 mm, Y= -5574.00 mm, Z= 9261.80 mm
K10 N, Coordinates, X= 1006.40 mm, Y= -5535.90 mm, Z= 9261.80 mm
K10 M, Coordinates, X= 1006.40 mm, Y= -5562.84 mm, Z= 9272.96 mm
K10 F, Coordinates, X= 1006.40 mm, Y= -5574.00 mm, Z= 9299.90 mm

From K21 to K28, DY= 1244.00 mm Bend

COMPONENT DATA (Bend, TIP= K21, Near= K21 N, Far= K21 F):

Long Elbow, Radius= 38.10 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00,
SIFO= 1.00

POINT DATA:

K21, Coordinates, X= 1006.40 mm, Y= -5574.00 mm, Z= 10261.80 mm
K21 N, Coordinates, X= 1006.40 mm, Y= -5574.00 mm, Z= 10223.70 mm
K21 F, Coordinates, X= 1006.40 mm, Y= -5535.90 mm, Z= 10261.80 mm

From K28 to K24, DZ= 2450.00 mm Bend

COMPONENT DATA (Bend, TIP= K28, Near= K28 N, Far= K28 F):

Long Elbow, Radius= 38.10 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00,
SIFO= 1.00

POINT DATA:

K28, Coordinates, X= 1006.40 mm, Y= -4330.00 mm, Z= 10261.80 mm
K28 N, Coordinates, X= 1006.40 mm, Y= -4368.10 mm, Z= 10261.80 mm

□

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K28 F, Coordinates, X= 1006.40 mm, Y= -4330.00 mm, Z= 10299.90 mm

From K24 to K23, DZ= 5550.00 mm Run

POINT DATA:

K24, Coordinates, X= 1006.40 mm, Y= -4330.00 mm, Z= 12711.80 mm

F_LINE_REV0.OUT

SUPPORT DATA:

K24, Guide, Support Id= K24 1, Connected to Ground, Stiffness= RIGID

From K23 to K11, DZ= 3128.00 mm

Run

POINT DATA:

K23, Coordinates, X= 1006.40 mm, Y= -4330.00 mm, Z= 18261.80 mm

SUPPORT DATA:

K23, Guide, Support Id= K23 1, Connected to Ground, Stiffness= RIGID

From K11 to K26, DZ= 50.80 mm

Redu

COMPONENT DATA (Reducer):

Length= 50.80 mm, SIF= 2.00

POINT DATA:

K11, Coordinates, X= 1006.40 mm, Y= -4330.00 mm, Z= 21389.80 mm

From K26 to K20, DZ= 89.00 mm

Redu

COMPONENT DATA (Reducer):

Length= 89.00 mm, SIF= 2.00

PIPE DATA:

Pipe Id= 1.25S80, Composition= Austentic Stainless, Nom Size= 32 mm, OD= 42.164 mm, Wall Thk= 4.851 mm, Mill= 0.606 mm, Content Sp Gr= 1.000, Content Unit Wgt= 8.11 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 19.33 N/m, Long Modulus= 0.19996 E6 N/mm2, Hoop Modulus= 0.19996 E6 N/mm2, Shear Modulus= 0.07691 E6 N/mm2

POINT DATA:

K26, Coordinates, X= 1006.40 mm, Y= -4330.00 mm, Z= 21440.60 mm

From K20 to K14, DZ= 232.40 mm

Run

PIPE DATA:

Pipe Id= 2.5S80, Composition= Austentic Stainless, Nom Size= 65 mm, OD= 73.025 mm, Wall Thk= 7.010 mm, Mill= 0.876 mm, Content Sp Gr= 1.000, Content Unit Wgt= 26.80 N/m, Insul Thk= 80.000 mm, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 51.35 N/m, Long Modulus= 0.19996 E6 N/mm2, Hoop Modulus= 0.19996 E6 N/mm2, Shear Modulus= 0.07691 E6 N/mm2

POINT DATA:

K20, Coordinates, X= 1006.40 mm, Y= -4330.00 mm, Z= 21529.60 mm

K14, Coordinates, X= 1006.40 mm, Y= -4330.00 mm, Z= 21762.00 mm

K14, Flange= WELDNECK, Rating= 2500, Flange Weight= 23.60 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,

□

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Perform ANSI check= No

SUPPORT DATA:

K14, Anchor, Tag No.= FLTOEHRSA, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

*** SEGMENT L

From C06 to L17, DZ= 43.18 mm

Tee

COMPONENT DATA (Tee Branch, Center= C06):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

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PIPE DATA:

Pipe Id= 1.5S80, Composition= Austentic Stainless, Nom Size= 40 mm, OD= 48.260 mm, Wall Thk= 5.080 mm, Mill= 0.635 mm, Content Sp Gr= 1.000, Content Unit Wgt= 11.18 N/m, Insul Thk= 50.000 mm, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 20.61 N/m

OPERATING DATA:

P4= 0.1300 N/mm2, T1= 224.00 deg C, T3= 224.00 deg C, T4= 57.00 deg C, Exp1= 3.41494 mm/m, Exp3= 3.41494 mm/m, Exp4= 0.57631 mm/m, E1= 0.18266 E6 N/mm2, E3= 0.18266 E6 N/mm2, E4= 0.19683 E6 N/mm2, Rp0.2t1= 122.68 N/mm2, Rp0.2t3= 122.68 N/mm2, Rp0.2t4= 176.50 N/mm2, Rp1.0t1= 150.20 N/mm2, Rp1.0t3= 150.20 N/mm2, Rp1.0t4= 214.08 N/mm2, fh1= 100.13 N/mm2, fh3= 100.13 N/mm2, fh4= 142.72 N/mm2

POINT DATA:

C06, Coordinates, X= 406.40 mm, Y= -3268.50 mm, Z= 7273.00 mm

From L17 to L02, DZ= 63.50 mm

Redu

COMPONENT DATA (Reducer):

Length= 63.50 mm, SIF= 2.00

POINT DATA:

L17, Coordinates, X= 406.40 mm, Y= -3268.50 mm, Z= 7316.18 mm

From L02 to L03, DZ= 1882.12 mm

Run

PIPE DATA:

Pipe Id= 0.5S80, Composition= Austentic Stainless, Nom Size= 15 mm, OD= 21.336 mm, Wall Thk= 3.734 mm, Mill= 0.467 mm, Content Sp Gr= 1.000, Content Unit Wgt= 1.48 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 14.96 N/m

OPERATING DATA:

T3= 20.00 deg C, Exp3= 0 mm/m, E3= 0.19996 E6 N/mm2, Rp0.2t3= 195.00 N/mm2, Rp1.0t3= 230.00 N/mm2, fh3= 153.33 N/mm2

POINT DATA:

L02, Coordinates, X= 406.40 mm, Y= -3268.50 mm, Z= 7379.68 mm

From L03 to L21, DX= 320.00 mm

Bend

COMPONENT DATA (Bend, TIP= L03, Near= L03 N, Far= L03 F):

0

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C O M P O N E N T D A T A L I S T I N G

Long Elbow, Radius= 38.10 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIF0= 1.00

POINT DATA:

L03, Coordinates, X= 406.40 mm, Y= -3268.50 mm, Z= 9261.80 mm
L03 N, Coordinates, X= 406.40 mm, Y= -3268.50 mm, Z= 9223.70 mm
L03 F, Coordinates, X= 444.50 mm, Y= -3268.50 mm, Z= 9261.80 mm

From L21 to L04, DX= 320.00 mm, DY= 0 mm, L= 320.00 mm

Run

POINT DATA:

L21, Coordinates, X= 726.40 mm, Y= -3268.50 mm, Z= 9261.80 mm

SUPPORT DATA:

L21, Guide, Support Id= L21 1, Connected to Ground, Stiffness= RIGID

From L04 to L18, DX= 36.01 mm, DY= -128.89 mm, L= 133.83 mm

Bend

F_LINE_REV0.OUT

COMPONENT DATA (Bend, TIP= L04, Near= L04 N, Far= L04 F):
Long Elbow, Radius= 38.10 mm, Bend angle= 74.39 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIF0= 1.00

POINT DATA:

L04, Coordinates, X= 1046.40 mm, Y= -3268.50 mm, Z= 9261.80 mm
L04 N, Coordinates, X= 1017.49 mm, Y= -3268.50 mm, Z= 9261.80 mm
L04 F, Coordinates, X= 1054.18 mm, Y= -3296.35 mm, Z= 9261.80 mm

From L18 to L06, DX= 10.26 mm, DY= -36.70 mm, L= 38.11 mm Redu

COMPONENT DATA (Reducer):
Length= 38.11 mm, SIF= 2.00

POINT DATA:

L18, Coordinates, X= 1082.41 mm, Y= -3397.39 mm, Z= 9261.80 mm

From L06 to CH10, DX= 29.59 mm, DY= -105.94 mm, L= 110.00 mm Valv

COMPONENT DATA (Valve):
TCHECK-B, Rating= Non-standard, Length= 110.00 mm, Valve weight = 3 kg, Surface factor= 1.00, End type= Butt welded,
SIF= 1.80, Offset= 0.000 mm

PIPE DATA:

Pipe Id= 0.75S80, Composition= Austentic Stainless, Nom Size= 20 mm, OD= 26.670 mm, Wall Thk= 3.912 mm, Mill= 0.489 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 2.73 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 16.08 N/m

OPERATING DATA (L06 M to CH10):

T1= 20.00 deg C, Exp1= 0 mm/m, E1= 0.19996 E6 N/mm2, Rp0.2t1= 195.00 N/mm2, Rp1.0t1= 230.00 N/mm2, fh1= 153.33 N/mm2

POINT DATA:

L06, Coordinates, X= 1092.67 mm, Y= -3434.09 mm, Z= 9261.80 mm
L06 M, Coordinates, X= 1107.47 mm, Y= -3487.06 mm, Z= 9261.80 mm

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C O M P O N E N T D A T A L I S T I N G

From CH10 to L19, DX= 10.26 mm, DY= -36.70 mm, L= 38.11 mm Redu

COMPONENT DATA (Reducer):
Length= 38.11 mm, SIF= 2.00

POINT DATA:

CH10, Coordinates, X= 1122.26 mm, Y= -3540.03 mm, Z= 9261.80 mm

From L19 to L09, DX= 28.63 mm, DY= -102.46 mm, L= 106.38 mm Run

PIPE DATA:

Pipe Id= 0.5S80, Composition= Austentic Stainless, Nom Size= 15 mm, OD= 21.336 mm, Wall Thk= 3.734 mm, Mill= 0.467 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 1.48 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 14.96 N/m

POINT DATA:

L19, Coordinates, X= 1132.52 mm, Y= -3576.73 mm, Z= 9261.80 mm

From L09 to L20, DX= 71.05 mm, DY= -254.26 mm, L= 264.00 mm Valv

COMPONENT DATA (Valve):
GATE-F, Rating= 2500, Length= 264.00 mm, Valve weight = 12 kg, Actuator Auto = No, Actuator Symbol = Yes,
Actuator weight = 19 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 313.50 mm, Surface factor= 0.00, End type= Weld neck,

SIF= 1.00

POINT DATA:

L09, Coordinates, X= 1161.15 mm, Y= -3679.19 mm, Z= 9261.80 mm
 L09, Flange= WELDNECK, Rating= 2500, Flange Weight= 3.60 kg, Bolt/Nut Weight= 0.00 kg, End type=
 Weld neck, SIF= 1.00,
 Perform ANSI check= No
 L09 M, Coordinates, X= 1196.67 mm, Y= -3806.32 mm, Z= 9261.80 mm

SUPPORT DATA:

L09 M, Variable Spring Hanger, Support Id= L09 M2, Connected to Ground, 1 hanger(s), Stiffness= 2
 N/mm, Preload= 401 N

 From L20 to C018, DX= 43.52 mm, DY= -155.77 mm, L= 161.74 mm Run

POINT DATA:

L20, Coordinates, X= 1232.20 mm, Y= -3933.45 mm, Z= 9261.80 mm
 L20, Flange= WELDNECK, Rating= 2500, Flange Weight= 3.60 kg, Bolt/Nut Weight= 0.00 kg, End type=
 Weld neck, SIF= 1.00,
 Perform ANSI check= No

 From C018 to L27, DX= 33.64 mm, DY= -120.39 mm, L= 125.00 mm Run

POINT DATA:

C018, Coordinates, X= 1275.72 mm, Y= -4089.22 mm, Z= 9261.80 mm
 C018, Flange= WELDNECK, Rating= 2500, Flange Weight= 3.60 kg, Bolt/Nut Weight= 0.00 kg, End type=
 Weld neck, SIF= 1.00,
 Perform ANSI check= No
 C018, Flange= WELDNECK, Rating= 2500, Flange Weight= 3.60 kg, Bolt/Nut Weight= 0.00 kg, End type=
 Weld neck, SIF= 1.00,
 Perform ANSI check= No

 From L27 to L12, DX= 33.64 mm, DY= -120.39 mm, L= 125.00 mm Run

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C O M P O N E N T D A T A L I S T I N G

POINT DATA:

L27, Coordinates, X= 1309.36 mm, Y= -4209.61 mm, Z= 9261.80 mm

 From L12 to L25, DZ= 3000.00 mm Bend

COMPONENT DATA (Bend, TIP= L12, Near= L12 N, Far= L12 F):

Long Elbow, Radius= 38.10 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00,
 SIFO= 1.00

POINT DATA:

L12, Coordinates, X= 1343.00 mm, Y= -4330.00 mm, Z= 9261.80 mm
 L12 N, Coordinates, X= 1332.75 mm, Y= -4293.30 mm, Z= 9261.80 mm
 L12 F, Coordinates, X= 1343.00 mm, Y= -4330.00 mm, Z= 9299.90 mm

 From L25 to L24, DZ= 6000.00 mm Run

POINT DATA:

L25, Coordinates, X= 1343.00 mm, Y= -4330.00 mm, Z= 12261.80 mm

SUPPORT DATA:

L25, Guide, Support Id= L25 1, Connected to Ground, Stiffness= RIGID

 From L24 to L22, DZ= 3128.00 mm Run

POINT DATA:

L24, Coordinates, X= 1343.00 mm, Y= -4330.00 mm, Z= 18261.80 mm

SUPPORT DATA:

L24, Guide, Support Id= L24 1, Connected to Ground, Stiffness= RIGID

 From L22 to L14, DZ= 50.80 mm

Redu

COMPONENT DATA (Reducer):

Length= 50.80 mm, SIF= 2.00

POINT DATA:

L22, Coordinates, X= 1343.00 mm, Y= -4330.00 mm, Z= 21389.80 mm

 From L14 to L23

Run

PIPE DATA:

Pipe Id= 1.25S80, Composition= Austentic Stainless, Nom Size= 32 mm, OD= 42.164 mm, Wall Thk= 4.851 mm, Mill= 0.606 mm,
 Content Sp Gr= 1.000, Content Unit Wgt= 8.11 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 19.33 N/m,
 Long Modulus= 0.19996 E6 N/mm2, Hoop Modulus= 0.19996 E6 N/mm2, Shear Modulus= 0.07691 E6 N/mm2

POINT DATA:

L14, Coordinates, X= 1343.00 mm, Y= -4330.00 mm, Z= 21440.60 mm

 From L23 to L15, DZ= 89.00 mm

Redu

0

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 C O M P O N E N T D A T A L I S T I N G

COMPONENT DATA (Reducer):

Length= 89.00 mm, SIF= 2.00

POINT DATA:

L23, Coordinates, X= 1343.00 mm, Y= -4330.00 mm, Z= 21440.60 mm

 From L15 to L16, DZ= 232.40 mm

Run

PIPE DATA:

Pipe Id= 2.5S80, Composition= Austentic Stainless, Nom Size= 65 mm, OD= 73.025 mm, Wall Thk= 7.010 mm, Mill= 0.876 mm,
 Content Sp Gr= 1.000, Content Unit Wgt= 26.80 N/m, Insul Thk= 80.000 mm, Insul Density= 136.16 kg/m3,
 Insul Unit Wgt= 51.35 N/m, Long Modulus= 0.19996 E6 N/mm2, Hoop Modulus= 0.19996 E6 N/mm2, Shear Modulus= 0.07691 E6 N/mm2

POINT DATA:

L15, Coordinates, X= 1343.00 mm, Y= -4330.00 mm, Z= 21529.60 mm

L16, Coordinates, X= 1343.00 mm, Y= -4330.00 mm, Z= 21762.00 mm

L16, Flange= WELDNECK, Rating= 2500, Flange Weight= 23.60 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
 Perform ANSI check= No

SUPPORT DATA:

L16, Anchor, Tag No.= FLTOEHR SB, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

 *** SEGMENT M

 From D26 to M24, DZ= 74.21 mm

Tee

COMPONENT DATA (Tee Branch, Center= D26):

Other, SIFI= 1.00, SIFO= 1.00

PIPE DATA:

Pipe Id= 2S80, Composition= Austentic Stainless, Nom Size= 50 mm, OD= 60.325 mm, Wall Thk= 5.537 mm, Mill= 0.692 mm,
 Content Sp Gr= 1.000, Content Unit Wgt= 18.67 N/m, Insul Thk= 50.000 mm, Insul Density= 136.16

F_LINE_REV0.OUT

kg/m3,
Insul Unit Wgt= 23.14 N/m

OPERATING DATA:

P4= 10.0000 N/mm2, T1= 224.00 deg C, T3= 224.00 deg C, T4= 227.00 deg C, Exp1= 3.41494 mm/m,
Exp3= 3.41494 mm/m,
Exp4= 3.46912 mm/m, E1= 0.18266 E6 N/mm2, E3= 0.18266 E6 N/mm2, E4= 0.18241 E6 N/mm2, Rp0.2t1=
122.68 N/mm2,
Rp0.2t3= 122.68 N/mm2, Rp0.2t4= 122.14 N/mm2, Rp1.0t1= 150.20 N/mm2, Rp1.0t3= 150.20 N/mm2,
Rp1.0t4= 149.60 N/mm2,
fh1= 100.13 N/mm2, fh3= 100.13 N/mm2, fh4= 99.73 N/mm2

POINT DATA:

D26, Coordinates, X= -193.60 mm, Y= -2302.10 mm, Z= 8133.00 mm

From M24 to M02, DZ= 76.00 mm

Redu

COMPONENT DATA (Reducer):

Length= 76.00 mm, SIF= 2.00

POINT DATA:

M24, Coordinates, X= -193.60 mm, Y= -2302.10 mm, Z= 8207.21 mm

0

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C O M P O N E N T D A T A L I S T I N G

From M02 to M03, DZ= 990.14 mm

Run

PIPE DATA:

Pipe Id= 0.75S80, Composition= Austentic Stainless, Nom Size= 20 mm, OD= 26.670 mm, Wall Thk=
3.912 mm, Mill= 0.489 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 2.73 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt=
16.08 N/m

OPERATING DATA:

T3= 20.00 deg C, Exp3= 0 mm/m, E3= 0.19996 E6 N/mm2, Rp0.2t3= 195.00 N/mm2, Rp1.0t3= 230.00
N/mm2, fh3= 153.33 N/mm2

POINT DATA:

M02, Coordinates, X= -193.60 mm, Y= -2302.10 mm, Z= 8283.21 mm

From M03 to M04, DX= 229.85 mm, DY= 9.00 mm, L= 230.03 mm

Bend

COMPONENT DATA (Bend, TIP= M03, Near= M03 N, Far= M03 F):

Long Elbow, Radius= 38.10 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00,
SIFO= 1.00

POINT DATA:

M03, Coordinates, X= -193.60 mm, Y= -2302.10 mm, Z= 9273.35 mm
M03 N, Coordinates, X= -193.60 mm, Y= -2302.10 mm, Z= 9235.25 mm
M03 F, Coordinates, X= -155.53 mm, Y= -2300.61 mm, Z= 9273.35 mm

From M04 to CH11, DX= 109.92 mm, DY= 4.28 mm, L= 110.00 mm

Valv

COMPONENT DATA (Valve):

TCHECK-B, Rating= Non-standard, Length= 110.00 mm, Valve weight = 3 kg, Surface factor= 1.00, End
type= Butt welded,
SIF= 1.80, Offset= 0.000 mm

OPERATING DATA (M04 M to CH11):

T1= 20.00 deg C, T2= 20.00 deg C, Exp1= 0 mm/m, Exp2= 0 mm/m, E1= 0.19996 E6 N/mm2, E2= 0.19996
E6 N/mm2,
Rp0.2t1= 195.00 N/mm2, Rp0.2t2= 195.00 N/mm2, Rp1.0t1= 230.00 N/mm2, Rp1.0t2= 230.00 N/mm2, fh1=
153.33 N/mm2,
fh2= 153.33 N/mm2

POINT DATA:

M04, Coordinates, X= 36.25 mm, Y= -2293.10 mm, Z= 9273.35 mm

F_LINE_REV0.OUT
M04 M, Coordinates, X= 91.21 mm, Y= -2290.96 mm, Z= 9273.35 mm

From CH11 to M06, DX= 200.58 mm, DY= 7.81 mm, L= 200.73 mm Run

OPERATING DATA:
T4= 20.00 deg C, Exp4= 0 mm/m, E4= 0.19996 E6 N/mm2, Rp0.2t4= 195.00 N/mm2, Rp1.0t4= 230.00 N/mm2, fh4= 153.33 N/mm2

POINT DATA:
CH11, Coordinates, X= 146.17 mm, Y= -2288.82 mm, Z= 9273.35 mm

From M06 to M15, DX= 272.84 mm, DY= 10.62 mm, L= 273.05 mm Valv

COMPONENT DATA (Valve):
GATE-F, Rating= 2500, Length= 273.05 mm, Valve weight = 20 kg, Actuator Auto = No, Actuator Symbol = Yes,
Actuator weight = 26 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 380.00 mm, Surface factor= 0.00, End type= Weld neck,
[]

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C O M P O N E N T D A T A L I S T I N G

SIF= 1.00

POINT DATA:
M06, Coordinates, X= 346.75 mm, Y= -2281.01 mm, Z= 9273.35 mm
M06, Flange= WELDNECK, Rating= 2500, Flange Weight= 4.10 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= No
M06 M, Coordinates, X= 483.17 mm, Y= -2275.70 mm, Z= 9273.35 mm

SUPPORT DATA:
M06 M, Variable Spring Hanger, Support Id= M06 M1, Connected to Ground, 1 hanger(s), Stiffness= 9 N/mm, Preload= 669 N

From M15 to C019, DX= 183.67 mm, DY= 7.15 mm, L= 183.81 mm Run

POINT DATA:
M15, Coordinates, X= 619.59 mm, Y= -2270.39 mm, Z= 9273.35 mm
M15, Flange= WELDNECK, Rating= 2500, Flange Weight= 4.10 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= No

From C019 to M08, DX= 339.74 mm, DY= 13.24 mm, L= 340.00 mm Run

POINT DATA:
C019, Coordinates, X= 803.26 mm, Y= -2263.24 mm, Z= 9273.35 mm
C019, Flange= WELDNECK, Rating= 2500, Flange Weight= 4.10 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= No
C019, Flange= WELDNECK, Rating= 2500, Flange Weight= 4.10 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= No

From M08 to M19, DZ= 9000.00 mm Bend

COMPONENT DATA (Bend, TIP= M08, Near= M08 N, Far= M08 F):
Long Elbow, Radius= 38.10 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIFO= 1.00

POINT DATA:
M08, Coordinates, X= 1143.00 mm, Y= -2250.00 mm, Z= 9273.35 mm
M08 N, Coordinates, X= 1104.93 mm, Y= -2251.48 mm, Z= 9273.35 mm
M08 F, Coordinates, X= 1143.00 mm, Y= -2250.00 mm, Z= 9311.45 mm

From M19 to M09, DZ= 3074.35 mm Run

F_LINE_REV0.OUT

POINT DATA:

M19, Coordinates, X= 1143.00 mm, Y= -2250.00 mm, Z= 18273.35 mm

SUPPORT DATA:

M19, Guide, Support Id= M19 1, Connected to Ground, Stiffness= RIGID

From M09 to M16, DZ= 76.20 mm

Redu

COMPONENT DATA (Reducer):

Length= 76.20 mm, SIF= 2.00

0

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C O M P O N E N T D A T A L I S T I N G

POINT DATA:

M09, Coordinates, X= 1143.00 mm, Y= -2250.00 mm, Z= 21347.70 mm

From M16 to M17, DZ= 89.00 mm

Redu

COMPONENT DATA (Reducer):

Length= 89.00 mm, SIF= 2.00

PIPE DATA:

Pipe Id= 2S80, Composition= Austentic Stainless, Nom Size= 50 mm, OD= 60.325 mm, Wall Thk= 5.537 mm, Mill= 0.692 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 18.67 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 23.14 N/m

POINT DATA:

M16, Coordinates, X= 1143.00 mm, Y= -2250.00 mm, Z= 21423.90 mm

From M17 to M12, DZ= 249.10 mm

Run

PIPE DATA:

Pipe Id= 3S80, Composition= Austentic Stainless, Nom Size= 80 mm, OD= 88.900 mm, Wall Thk= 7.620 mm, Mill= 0.953 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 41.77 N/m, Insul Thk= 80.000 mm, Insul Density= 136.16 kg/m3,
Insul Unit Wgt= 56.68 N/m

POINT DATA:

M17, Coordinates, X= 1143.00 mm, Y= -2250.00 mm, Z= 21512.90 mm

M12, Coordinates, X= 1143.00 mm, Y= -2250.00 mm, Z= 21762.00 mm

M12, Flange= WELDNECK, Rating= 2500, Flange Weight= 42.60 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= No

SUPPORT DATA:

M12, Anchor, Tag No.= FLTOEHRSC, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

*** SEGMENT Q

From B12 to Q01, DZ= -136.50 mm

Tee

COMPONENT DATA (Tee Branch, Center= B12):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

PIPE DATA:

Pipe Id= 0.75S80, Composition= Austentic Stainless, Nom Size= 20 mm, OD= 26.670 mm, Wall Thk= 3.912 mm, Mill= 0.489 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 2.73 N/m, Insul Thk= 50.000 mm, Insul Density= 136.16 kg/m3,
Insul Unit Wgt= 16.08 N/m

OPERATING DATA:

F_LINE_REV0.OUT

T1= 224.00 deg C, T2= 322.00 deg C, T3= 224.00 deg C, T4= 57.00 deg C, Exp1= 3.41494 mm/m, Exp2= 5.23622 mm/m, Exp3= 3.41494 mm/m, Exp4= 0.57631 mm/m, E1= 0.18266 E6 N/mm2, E2= 0.17435 E6 N/mm2, E3= 0.18266 E6 N/mm2, E4= 0.19683 E6 N/mm2, Rp0.2t1= 122.68 N/mm2, Rp0.2t2= 107.36 N/mm2, Rp0.2t3= 122.68 N/mm2, Rp0.2t4= 176.50 N/mm2, Rp1.0t1= 150.20 N/mm2, Rp1.0t2= 132.36 N/mm2, Rp1.0t3= 150.20 N/mm2, Rp1.0t4= 214.08 N/mm2, fh1= 100.13 N/mm2, fh2= 88.24 N/mm2, fh3= 100.13 N/mm2, fh4= 142.72 N/mm2

□

F_LINE_REV0

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C O M P O N E N T D A T A L I S T I N G

POINT DATA:

B12, Coordinates, X= 1006.40 mm, Y= -4011.64 mm, Z= 7273.00 mm

From Q01 to Q02, DZ= -273.00 mm

Valv

COMPONENT DATA (Valve):

GLOBE-F, Rating= Non-standard, Length= 273.00 mm, Valve weight = 17 kg, Surface factor= 1.00, End type= Weld neck, SIF= 1.00

OPERATING DATA (Q01 M to Q02):

T1= 20.00 deg C, Exp1= 0 mm/m, E1= 0.19996 E6 N/mm2, Rp0.2t1= 195.00 N/mm2, Rp1.0t1= 230.00 N/mm2, fh1= 153.33 N/mm2

POINT DATA:

Q01, Coordinates, X= 1006.40 mm, Y= -4011.64 mm, Z= 7136.50 mm

Q01, Flange= WELDNECK, Rating= 2500, Flange Weight= 4.10 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,

Perform ANSI check= No

Q01 M, Coordinates, X= 1006.40 mm, Y= -4011.64 mm, Z= 7000.00 mm

Q02, Coordinates, X= 1006.40 mm, Y= -4011.64 mm, Z= 6863.50 mm

Q02, Flange= WELDNECK, Rating= 2500, Flange Weight= 4.10 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,

Perform ANSI check= No

*** SEGMENT R

From C16 to R01, DZ= -142.90 mm

Tee

COMPONENT DATA (Tee Branch, Center= C16):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

PIPE DATA:

Pipe Id= 0.75S80, Composition= Austentic Stainless

OPERATING DATA:

P4= 0.1300 N/mm2, T1= 224.00 deg C, Exp1= 3.41494 mm/m, E1= 0.18266 E6 N/mm2, Rp0.2t1= 122.68 N/mm2, Rp1.0t1= 150.20 N/mm2, fh1= 100.13 N/mm2

POINT DATA:

C16, Coordinates, X= 406.40 mm, Y= -4011.64 mm, Z= 7273.00 mm

From R01 to R02, DZ= -273.00 mm

Valv

COMPONENT DATA (Valve):

GLOBE-F, Rating= Non-standard, Length= 273.00 mm, Valve weight = 17 kg, Surface factor= 1.00, End type= Weld neck, SIF= 1.00

OPERATING DATA (R01 M to R02):

T1= 20.00 deg C, Exp1= 0 mm/m, E1= 0.19996 E6 N/mm2, Rp0.2t1= 195.00 N/mm2, Rp1.0t1= 230.00 N/mm2, fh1= 153.33 N/mm2

POINT DATA:

R01, Coordinates, X= 406.40 mm, Y= -4011.64 mm, Z= 7130.10 mm

F_LINE_REV0.OUT
R01, Flange= WELDNECK, Rating= 2500, Flange Weight= 4.10 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No
R01 M, Coordinates, X= 406.40 mm, Y= -4011.64 mm, Z= 6993.60 mm

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R02, Coordinates, X= 406.40 mm, Y= -4011.64 mm, Z= 6857.10 mm
R02, Flange= WELDNECK, Rating= 2500, Flange Weight= 4.10 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No

*** SEGMENT S

From D19 to S01, DZ= -142.90 mm Tee

COMPONENT DATA (Tee Branch, Center= D19):
B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

PIPE DATA:
Pipe Id= 0.75S80, Composition= Austentic Stainless

OPERATING DATA:
P4= 10.0000 N/mm2, T1= 224.00 deg C, T4= 227.00 deg C, Exp1= 3.41494 mm/m, Exp4= 3.46912 mm/m,
E1= 0.18266 E6 N/mm2,
E4= 0.18241 E6 N/mm2, Rp0.2t1= 122.68 N/mm2, Rp0.2t4= 122.14 N/mm2, Rp1.0t1= 150.20 N/mm2,
Rp1.0t4= 149.60 N/mm2,
fh1= 100.13 N/mm2, fh4= 99.73 N/mm2

POINT DATA:
D19, Coordinates, X= -193.60 mm, Y= -3422.85 mm, Z= 8133.00 mm

From S01 to S02, DZ= -273.00 mm Valv

COMPONENT DATA (Valve):
GLOBE-F, Rating= Non-standard, Length= 273.00 mm, Valve weight = 17 kg, Surface factor= 1.00, End
type= Weld neck, SIF= 1.00

OPERATING DATA (S01 M to S02):
T1= 20.00 deg C, Exp1= 0 mm/m, E1= 0.19996 E6 N/mm2, Rp0.2t1= 195.00 N/mm2, Rp1.0t1= 230.00
N/mm2, fh1= 153.33 N/mm2

POINT DATA:
S01, Coordinates, X= -193.60 mm, Y= -3422.85 mm, Z= 7990.10 mm
S01, Flange= WELDNECK, Rating= 2500, Flange Weight= 4.10 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No
S01 M, Coordinates, X= -193.60 mm, Y= -3422.85 mm, Z= 7853.60 mm
S02, Coordinates, X= -193.60 mm, Y= -3422.85 mm, Z= 7717.10 mm
S02, Flange= WELDNECK, Rating= 2500, Flange Weight= 4.10 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No

Number of points in the system: 252

Weight of Empty Pipes + Weight of Contents = Total Weight of System
2761.6 kg + 111.3 kg = 2872.9 kg

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MODEL PAGE 38

C O O R D I N A T E S D A T A L I S T I N G

POINT -----COORDINATE (mm) -----

NAME X Y Z

*** SEGMENT A

A00	1106.40	-6000.00	10583.00
A04	1006.40	-6000.00	10583.00
A06	706.40	-6000.00	10583.00
A03	406.40	-6000.00	10583.00
A05	106.40	-6000.00	10583.00
A02	-193.60	-6000.00	10583.00
A01	-393.60	-6000.00	10583.00

*** SEGMENT B

A04	1006.40	-6000.00	10583.00
B01 N	1006.40	-6000.00	7330.15
B01	1006.40	-6000.00	7273.00
B01 M	1006.40	-5983.26	7289.74
B01 F	1006.40	-5942.85	7273.00
B02	1006.40	-5488.90	7273.00
B02 M	1006.40	-5296.80	7273.00
FV03	1006.40	-5104.70	7273.00
B04	1006.40	-4682.50	7273.00
B04 M	1006.40	-4490.48	7273.00
B13	1006.40	-4298.45	7273.00
B12	1006.40	-4011.64	7273.00
B17	1006.40	-3839.49	7273.00
B16	1006.40	-3518.49	7273.00
B06	1006.40	-3361.19	7273.00
B07 N	1006.40	-1323.72	7273.00
B07	1006.40	-1304.04	7273.00
B07 F	994.28	-1288.53	7273.00
B08 N	705.25	-918.58	7273.00
B08	670.06	-873.55	7273.00
B08 F	670.06	-873.55	7330.15
B09 N	670.06	-873.55	7825.85
B09	670.06	-873.55	7883.00
B09 F	635.31	-828.18	7883.00
B15	456.02	-594.10	7883.00
B11	401.97	-523.53	7883.00

*** SEGMENT C

A03	406.40	-6000.00	10583.00
C01 N	406.40	-6000.00	7330.15
C01	406.40	-6000.00	7273.00
C01 M	406.40	-5983.26	7289.74
C01 F	406.40	-5942.85	7273.00
C02	406.40	-5488.90	7273.00
C02 M	406.40	-5296.80	7273.00
FV05	406.40	-5104.70	7273.00
C04	406.40	-4682.50	7273.00
C04 M	406.40	-4490.48	7273.00
C17	406.40	-4298.45	7273.00
C16	406.40	-4011.64	7273.00
C22	406.40	-3839.50	7273.00
C21	406.40	-3518.50	7273.00

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C O O R D I N A T E S D A T A L I S T I N G

POINT -----COORDINATE (mm) -----

F_LINE_REV0.OUT

NAME	X	Y	Z
C06	406.40	-3268.50	7273.00
C28	406.40	-2747.98	7273.00
C07	406.40	-2227.45	7273.00
C08	406.40	-2059.20	7273.00
C08 M	406.40	-1867.18	7273.00
C18	406.40	-1675.15	7273.00
C10	406.40	-1506.75	7273.00
C11 N	406.40	-1377.47	7273.00
C11	406.40	-1361.90	7273.00
C11 F	398.51	-1348.49	7273.00
C12 N	267.70	-1126.16	7273.00
C12	238.80	-1077.03	7273.00
C12 F	238.80	-1077.03	7330.00
C13 N	238.80	-1077.03	7825.85
C13	238.80	-1077.03	7883.00
C13 F	226.43	-1021.24	7883.00
C20	162.13	-731.21	7883.00
C15	142.89	-644.43	7883.00

*** SEGMENT D

A02	-193.60	-6000.00	10583.00
D01 N	-193.60	-6000.00	8209.20
D01	-193.60	-6000.00	8133.00
D01 M	-193.60	-5977.68	8155.32
D01 F	-193.60	-5923.80	8133.00
D02	-193.60	-5075.40	8133.00
D02 M	-193.60	-4850.00	8133.00
FV06	-193.60	-4624.60	8133.00
D04	-193.60	-4127.00	8133.00
D04 M	-193.60	-3901.58	8133.00
D17	-193.60	-3676.15	8133.00
D19	-193.60	-3422.85	8133.00
D23	-193.60	-3104.42	8133.00
D22	-193.60	-2717.22	8133.00
D26	-193.60	-2302.10	8133.00
D07 N	-193.60	-2167.82	8133.00
D07	-193.60	-2159.57	8133.00
D07 F	-195.37	-2151.51	8133.00
D08 N	-437.34	-1047.31	8133.00
D08	-453.65	-972.88	8133.00
D08 F	-453.65	-972.88	8056.80
D09	-453.65	-972.88	7273.00
D18	-396.10	-999.72	7273.00
D11	-327.04	-1031.92	7273.00
D12 N	-289.74	-1049.32	7273.00
D12	-237.94	-1073.47	7273.00
D12 F	-237.94	-1073.47	7330.15
D13 N	-237.94	-1073.47	7825.85
D13	-237.94	-1073.47	7883.00
D13 F	-225.57	-1017.67	7883.00
D14	-162.09	-731.35	7883.00
D27	-142.85	-644.56	7883.00

□

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C O O R D I N A T E S D A T A L I S T I N G

POINT -----COORDINATE (mm)-----

NAME	X	Y	Z

*** SEGMENT E

D09	-453.65	-972.88	7273.00
E06	-511.20	-946.04	7273.00
E07	-580.26	-913.84	7273.00
E03 N	-617.56	-896.45	7273.00

F_LINE_REV0.OUT

E03	-669.36	-872.30	7273.00
E03 F	-669.36	-872.30	7330.15
E04 N	-669.36	-872.30	7825.85
E04	-669.36	-872.30	7883.00
E04 F	-634.57	-826.96	7883.00
E05	-455.92	-594.14	7883.00
E08	-401.80	-523.61	7883.00

*** SEGMENT F

C10	406.40	-1506.75	7273.00
F01 N	406.40	-1506.75	7132.87
F01	406.40	-1506.75	7075.72
F01 F	349.25	-1506.75	7075.72
F17	186.75	-1506.75	7075.72
F16	-185.05	-1506.75	7075.72
F02	-404.70	-1506.75	7075.72
F02 M	-596.72	-1506.75	7075.72
F12	-788.75	-1506.75	7075.72
F13	-900.00	-1506.75	7075.72
F05	-989.00	-1506.75	7075.72
F20	-1298.28	-1506.75	7075.72
F06 N	-1527.52	-1506.75	7075.72
F06	-1607.55	-1506.75	7075.72
F06 F	-1634.92	-1431.54	7075.72
F19	-1796.73	-986.98	7075.72
F07 N	-1958.55	-542.41	7075.72
F07	-1985.92	-467.20	7075.72
F07 F	-2065.95	-467.20	7075.72
F08 N	-3245.93	-467.20	7075.72
F08	-3311.92	-467.20	7075.72
F08 F	-3344.92	-524.35	7075.72
F14	-3511.92	-813.61	7075.72
F10	-3562.72	-901.60	7075.72
F11	-3722.24	-1177.91	7075.72

*** SEGMENT G

C07	406.40	-2227.45	7273.00
G01 N	406.40	-2227.45	7132.87
G01	406.40	-2227.45	7075.72
G01 F	349.25	-2227.45	7075.72
G16	186.75	-2227.45	7075.72
G14	0.85	-2227.45	7075.72
G15	-185.05	-2227.45	7075.72
G02	-404.70	-2227.45	7075.72
G02 M	-596.72	-2227.45	7075.72
G11	-788.75	-2227.45	7075.72
G12	-900.00	-2227.45	7075.72

F_LINE_REV0

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C O O R D I N A T E S D A T A L I S T I N G

POINT -----COORDINATE (mm)-----

NAME	X	Y	Z
G05	-989.00	-2227.45	7075.72
G18	-1492.55	-2227.45	7075.72
G06 N	-1916.07	-2227.45	7075.72
G06	-1996.10	-2227.45	7075.72
G06 F	-2023.47	-2152.24	7075.72
G17	-2190.71	-1692.77	7075.72
G07 N	-2346.23	-1265.49	7075.72
G07	-2385.32	-1158.08	7075.72
G07 F	-2492.73	-1197.17	7075.72
G13	-2949.14	-1363.29	7075.72
G09	-3044.61	-1398.04	7075.72
G10	-3422.90	-1535.73	7075.72

*** SEGMENT K

B06	1006.40	-3361.19	7273.00
K01	1006.40	-3361.19	7316.18

F_LINE_REV0.OUT

K15	1006.40	-3361.19	7379.68
K22	1006.40	-3361.19	8779.68
K03 N	1006.40	-3361.19	9240.80
K03	1006.40	-3361.19	9261.80
K03 F	1006.40	-3382.19	9261.80
K17	1006.40	-3582.19	9261.80
K16	1006.40	-3620.29	9261.80
K16 M	1006.40	-3675.29	9261.80
CH09	1006.40	-3730.29	9261.80
K18	1006.40	-3768.39	9261.80
K08	1006.40	-3841.39	9261.80
K08 M	1006.40	-3973.39	9261.80
K19	1006.40	-4105.39	9261.80
C017	1006.40	-4274.44	9261.80
K27	1006.40	-4902.22	9261.80
K10 N	1006.40	-5535.90	9261.80
K10	1006.40	-5574.00	9261.80
K10 M	1006.40	-5562.84	9272.96
K10 F	1006.40	-5574.00	9299.90
K21 N	1006.40	-5574.00	10223.70
K21	1006.40	-5574.00	10261.80
K21 F	1006.40	-5535.90	10261.80
K28 N	1006.40	-4368.10	10261.80
K28	1006.40	-4330.00	10261.80
K28 F	1006.40	-4330.00	10299.90
K24	1006.40	-4330.00	12711.80
K23	1006.40	-4330.00	18261.80
K11	1006.40	-4330.00	21389.80
K26	1006.40	-4330.00	21440.60
K20	1006.40	-4330.00	21529.60
K14	1006.40	-4330.00	21762.00

*** SEGMENT L

C06	406.40	-3268.50	7273.00
L17	406.40	-3268.50	7316.18
L02	406.40	-3268.50	7379.68

F_LINE_REV0

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C O O R D I N A T E S D A T A L I S T I N G

POINT -----COORDINATE (mm)-----

NAME X Y Z

L03 N	406.40	-3268.50	9223.70
L03	406.40	-3268.50	9261.80
L03 F	444.50	-3268.50	9261.80
L21	726.40	-3268.50	9261.80
L04 N	1017.49	-3268.50	9261.80
L04	1046.40	-3268.50	9261.80
L04 F	1054.18	-3296.35	9261.80
L18	1082.41	-3397.39	9261.80
L06	1092.67	-3434.09	9261.80
L06 M	1107.47	-3487.06	9261.80
CH10	1122.26	-3540.03	9261.80
L19	1132.52	-3576.73	9261.80
L09	1161.15	-3679.19	9261.80
L09 M	1196.67	-3806.32	9261.80
L20	1232.20	-3933.45	9261.80
C018	1275.72	-4089.22	9261.80
L27	1309.36	-4209.61	9261.80
L12 N	1332.75	-4293.30	9261.80
L12	1343.00	-4330.00	9261.80
L12 F	1343.00	-4330.00	9299.90
L25	1343.00	-4330.00	12261.80
L24	1343.00	-4330.00	18261.80
L22	1343.00	-4330.00	21389.80
L14	1343.00	-4330.00	21440.60
L23	1343.00	-4330.00	21440.60
L15	1343.00	-4330.00	21529.60
L16	1343.00	-4330.00	21762.00

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B12	1006.40	-4011.64	7273.00
Q01	1006.40	-4011.64	7136.50
Q01 M	1006.40	-4011.64	7000.00
Q02	1006.40	-4011.64	6863.50

C16		406.40	-4011.64	7273.00
R01		406.40	-4011.64	7130.10
R01	M	406.40	-4011.64	6993.60
R02		406.40	-4011.64	6857.10

D19		-193.60	-3422.85	8133.00
S01		-193.60	-3422.85	7990.10
S01	M	-193.60	-3422.85	7853.60
S02		-193.60	-3422.85	7717.10

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F_LINE_REV0.OUT													
5S80 Stainless 1.4301	125	141.30	9.525	0	1.19	80	0	1.00	307	74.26	496	1.00	Austentic
	80											1.00	
1.5S80 Stainless 1.4301	40	48.260	5.080	0	0.63	50	0	1.00	53.59	20.61	85.38	1.00	Austentic
	80											1.00	
2S80 Stainless 1.4301	50	60.325	5.537	0	0.69	50	0	1.00	74.12	23.14	116	1.00	Austentic
	80											1.00	
3S80 Stainless 1.4301	80	88.900	7.620	0	0.95	80	0	1.00	151	56.68	250	1.00	Austentic
	80											1.00	
4S40 Stainless 1.4301	100	114.30	6.020	0	0.75	80	0	1.00	159	65.21	305	1.00	Austentic
	40											1.00	
3S40 Stainless 1.4301	80	88.900	5.486	0	0.69	80	0	1.00	112	56.68	215	1.00	Austentic
	40											1.00	
0.5S80 Stainless 1.4301	15	21.336	3.734	0	0.47	50	0	1.00	16.06	14.96	32.50	1.00	Austentic
	80											1.00	
0.75S80 Stainless 1.4301	20	26.670	3.912	0	0.49	50	0	1.00	21.75	16.08	40.56	1.00	Austentic
	80											1.00	
1.25S80 Stainless 1.4301	32	42.164	4.851	0	0.61	50	0	1.00	44.22	19.33	71.67	1.00	Austentic
	80											1.00	
2.5S80 Stainless 1.4301	65	73.025	7.010	0	0.88	80	0	1.00	113	51.35	191	1.00	Austentic
	80											1.00	
1.5S40 Stainless 1.4301	40	48.260	3.683	0	0.46	50	0	1.00	40.11	20.61	73.59	1.00	Austentic
	40											1.00	

0

F_LINE_REV0

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AutoPIPE Plus 9.2.1 MODEL PAGE 45

M A T E R I A L D A T A L I S T I N G

Material	Density	Pois.	Temper.	Modulus E6 N/mm2			Expans.	Composition
Name/[Comp.] Pipe ID	kg/m3	Al/At	deg C	Axial	Hoop	Shear	mm/m	
1.4301 5S80	7930.0	0.30	20.0	0.19996	0.19996	0.07691		Austentic Stainless
X5CRNI18-10 [Austenitic]		40.00 35.00	224.0	0.18266			3.4149	
1.4301 1.5S80	7930.0	0.30	20.0	0.19996	0.19996	0.07691		Austentic Stainless
X5CRNI18-10 [Austenitic]		40.00 35.00	224.0 322.0 57.0 227.0 311.0	0.18266 0.17435 0.19683 0.18241 0.17528			3.4149 5.2362 0.5763 3.4691 5.0268	
1.4301 3S80	7930.0	0.30	20.0	0.19996	0.19996	0.07691		Austentic Stainless
X5CRNI18-10 [Austenitic]		40.00 35.00	224.0 322.0 57.0 227.0	0.18266 0.17435 0.19683 0.18241			3.4149 5.2362 0.5763 3.4691	

F_LINE_REV0.OUT

1.4301	2S80	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless
X5CRNI18-10		40.00	224.0	0.18266				3.4149
[Austenitic]		35.00	322.0	0.17435				5.2362
			227.0	0.18241				3.4691
1.4301	1.5S40	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless
X5CRNI18-10		40.00	198.0	0.18487				2.9495
[Austenitic]		35.00	57.0	0.19683				0.5763
1.4301	3S40	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless
X5CRNI18-10		40.00	198.0	0.18487				2.9495
[Austenitic]		35.00	57.0	0.19683				0.5763
1.4301	4S40	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless
X5CRNI18-10		40.00	198.0	0.18487				2.9495
[Austenitic]		35.00	57.0	0.19683				0.5763
1.4301	0.5S80	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless
X5CRNI18-10		40.00	224.0	0.18266				3.4149
[Austenitic]		35.00	322.0	0.17435				5.2362
			311.0	0.17528				5.0268
			57.0	0.19683				0.5763
1.4301	0.75S80	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless
X5CRNI18-10		40.00	322.0	0.17435				5.2362
[Austenitic]		35.00	311.0	0.17528				5.0268
			57.0	0.19683				0.5763
			224.0	0.18266				3.4149
			227.0	0.18241				3.4691
1.4301	1.25S80	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless
X5CRNI18-10		40.00	322.0	0.17435				5.2362
[Austenitic]		35.00	311.0	0.17528				5.0268
			57.0	0.19683				0.5763

 F_LINE_REV0
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M A T E R I A L D A T A L I S T I N G

Material	Density	Pois.	Temper.	Modulus E6	N/mm2	Expans.	Composition
Name/[Comp.] Pipe ID	kg/m3	Al/At	deg C	Axial	Hoop	Shear	mm/m
1.4301	2.5S80	7930.0	0.30	20.0	0.19996	0.19996	0.07691
X5CRNI18-10		40.00	322.0	0.17435			5.2362
[Austenitic]		35.00	311.0	0.17528			5.0268
			57.0	0.19683			0.5763

 F_LINE_REV0
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M A T E R I A L A L L O W A B L E D A T A L I S T I N G

F_LINE_REV0.OUT

Material		Temper.	Proof (Rp0.2)	Proof (Rp1.0)	Tensile (Rmt)	Rupture (fcr)	Allow. (fh)
Name	Pipe ID	deg C	N/mm2	N/mm2	N/mm2	N/mm2	N/mm2
X5CRNI18-10 1.4301	5S80	20.0	195.00	230.00	500.00	0.00	166.67
		224.0	122.68	150.20	0.00	0.00	100.13
X5CRNI18-10 1.4301	1.5S80	20.0	195.00	230.00	500.00	0.00	166.67
		224.0	122.68	150.20	0.00	0.00	100.13
		322.0	107.36	132.36	0.00	0.00	88.24
		57.0	176.50	214.08	0.00	0.00	142.72
		227.0	122.14	149.60	0.00	0.00	99.73
		311.0	108.68	133.68	0.00	0.00	89.12
X5CRNI18-10 1.4301	3S80	20.0	195.00	230.00	500.00	0.00	166.67
		224.0	122.68	150.20	0.00	0.00	100.13
		322.0	107.36	132.36	0.00	0.00	88.24
		57.0	176.50	214.08	0.00	0.00	142.72
		227.0	122.14	149.60	0.00	0.00	99.73
		20.0	195.00	230.00	0.00	0.00	153.33
X5CRNI18-10 1.4301	2S80	20.0	195.00	230.00	500.00	0.00	166.67
		224.0	122.68	150.20	0.00	0.00	100.13
		322.0	107.36	132.36	0.00	0.00	88.24
		227.0	122.14	149.60	0.00	0.00	99.73
		20.0	195.00	230.00	0.00	0.00	153.33
X5CRNI18-10 1.4301	1.5S40	20.0	195.00	230.00	500.00	0.00	166.67
		20.0	195.00	230.00	0.00	0.00	153.33
		198.0	127.52	155.60	0.00	0.00	103.73
		57.0	176.50	214.08	0.00	0.00	142.72
X5CRNI18-10 1.4301	3S40	20.0	195.00	230.00	500.00	0.00	166.67
		20.0	195.00	230.00	0.00	0.00	153.33
		198.0	127.52	155.60	0.00	0.00	103.73
		57.0	176.50	214.08	0.00	0.00	142.72
X5CRNI18-10 1.4301	4S40	20.0	195.00	230.00	500.00	0.00	166.67
		20.0	195.00	230.00	0.00	0.00	153.33
		198.0	127.52	155.60	0.00	0.00	103.73
		57.0	176.50	214.08	0.00	0.00	142.72
X5CRNI18-10 1.4301	0.5S80	20.0	195.00	230.00	500.00	0.00	166.67
		224.0	122.68	150.20	0.00	0.00	100.13
		322.0	107.36	132.36	0.00	0.00	88.24
		20.0	195.00	230.00	0.00	0.00	153.33
		311.0	108.68	133.68	0.00	0.00	89.12
		57.0	176.50	214.08	0.00	0.00	142.72

□

 F_LINE_REV0
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 M A T E R I A L A L L O W A B L E D A T A L I S T I N G

 Proof Proof Tensile Rupture Allow.
 Material Temper. (Rp0.2) (Rp1.0) (Rmt) (fcr) (fh)
 Name Pipe ID deg C N/mm2 N/mm2 N/mm2 N/mm2 N/mm2

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F_LINE_REV0.OUT

```

X5CRNI18-10
1.4301      0.75S80      20.0    195.00    230.00    500.00      0.00    166.67
                        20.0    195.00    230.00      0.00      0.00    153.33
                        322.0    107.36    132.36      0.00      0.00     88.24
                        311.0    108.68    133.68      0.00      0.00     89.12
                        57.0    176.50    214.08      0.00      0.00    142.72
                        224.0    122.68    150.20      0.00      0.00    100.13
                        227.0    122.14    149.60      0.00      0.00     99.73

X5CRNI18-10
1.4301      1.25S80      20.0    195.00    230.00    500.00      0.00    166.67
                        20.0    195.00    230.00      0.00      0.00    153.33
                        322.0    107.36    132.36      0.00      0.00     88.24
                        311.0    108.68    133.68      0.00      0.00     89.12
                        57.0    176.50    214.08      0.00      0.00    142.72

X5CRNI18-10
1.4301      2.5S80      20.0    195.00    230.00    500.00      0.00    166.67
                        20.0    195.00    230.00      0.00      0.00    153.33
                        322.0    107.36    132.36      0.00      0.00     88.24
                        311.0    108.68    133.68      0.00      0.00     89.12
                        57.0    176.50    214.08      0.00      0.00    142.72

```

F_LINE_REV0

09/13/2010 FEED LINE

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FRAME POINT DATA LISTING

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POINT -----COORDINATE(mm)----- DATA
NAME      X      Y      Z      TYPE DESCRIPTION
-----
B04 M    1006.40  -4490.48  7273.00
B04 D    1006.40  -4490.48  7681.00
C04 M     406.40  -4490.48  7273.00
C04 D     406.40  -4490.48  7681.00
M06 M     483.17  -2275.70  9273.35
M06 D     483.17  -2275.70  9653.35
L09 M    1196.67  -3806.32  9261.80
L09 D    1196.67  -3806.32  9575.30
K08 M    1006.40  -3973.39  9261.80
K08 D    1006.40  -3973.39  9575.30
D04 M    -193.60  -3901.58  8133.00
D04 D    -193.60  -3901.58  8572.00
C08 M     406.40  -1867.18  7273.00
C08 D     406.40  -1867.18  7681.00
F02 M    -596.72  -1506.75  7075.72
F02 D    -596.72  -1506.75  7483.72
G02 M    -596.72  -2227.45  7075.72
G02 D    -596.72  -2227.45  7483.72
C02 M     406.40  -5296.80  7273.00
C02 D     406.40  -5296.80  7681.00
D02 M    -193.60  -4850.00  8133.00
D02 D    -193.60  -4850.00  8572.00
B02 M    1006.40  -5296.80  7273.00
B02 D    1006.40  -5296.80  7681.00

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F_LINE_REV0

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BEAM DATA LISTING

F_LINE_REV0.OUT (Length - mm , Rigid End - mm , Beta Angle - deg)								
BEAM	POINT	SEC. ID/		BETA	RIGID	RELEASE		
ID	NAME	SEC. NAME	LENGTH	ANGLE	END	Ax	Y-Y	Z-Z
-----	-----	-----	-----	-----	-----	---	---	---
B04 M	From	B04 M 0	408.00	0.00	0.00	N	N	N
	To	B04 D RIGID			0.00	N	N	N
C04 M	From	C04 M 0	408.00	0.00	0.00	N	N	N
	To	C04 D RIGID			0.00	N	N	N
M06 M	From	M06 M 0	380.00	0.00	0.00	N	N	N
	To	M06 D RIGID			0.00	N	N	N
L09 M	From	L09 M 0	313.50	0.00	0.00	N	N	N
	To	L09 D RIGID			0.00	N	N	N
K08 M	From	K08 M 0	313.50	0.00	0.00	N	N	N
	To	K08 D RIGID			0.00	N	N	N
D04 M	From	D04 M 0	439.00	0.00	0.00	N	N	N
	To	D04 D RIGID			0.00	N	N	N
C08 M	From	C08 M 0	408.00	0.00	0.00	N	N	N
	To	C08 D RIGID			0.00	N	N	N
F02 M	From	F02 M 0	408.00	0.00	0.00	N	N	N
	To	F02 D RIGID			0.00	N	N	N
G02 M	From	G02 M 0	408.00	0.00	0.00	N	N	N
	To	G02 D RIGID			0.00	N	N	N
C02 M	From	C02 M 0	408.00	0.00	0.00	N	N	N
	To	C02 D RIGID			0.00	N	N	N
D02 M	From	D02 M 0	439.00	0.00	0.00	N	N	N
	To	D02 D RIGID			0.00	N	N	N
B02 M	From	B02 M 0	408.00	0.00	0.00	N	N	N
	To	B02 D RIGID			0.00	N	N	N

□

F_LINE_REV0

09/13/2010 FEED LINE

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CROSS SECTION LISTING

Section ID/		Length(mm)		Area(cm2)		Inertia (mm4)		
Section Type		Depth/OD		Width		Thick Fthk/spc		
ID	Shape Name/Matl	CC	Axial	Y-Shear	Z-Shear	Torsion	Y-Y Bend	Z-Z Bend
-----	-----	---	-----	-----	-----	-----	-----	-----
0	W RIGID							
	RIGID		6.45	6.45	254.00 6.45	254.00 41623140	25.40 41623140	25.40 41623140

□

F_LINE_REV0

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AutoPIPE Plus 9.2.1 MODEL PAGE 52

BEAM MATERIAL LISTING

MATERIAL ID	Elastic	Poissons	Density
	modulus	ratio	kg/m3
	E6 N/mm2		
RIGID	68.948	0.300	0.00

F_LINE_REV0

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AutoPIPE Plus 9.2.1 MODEL PAGE 53

OPERATING TEMPERATURE AND PRESSURE DATA

STRESSES IN N/mm2

POINT	PRESS.	TEMPER	EXPAN.	MODULUS	0.2%	1.0%	TENSILE	CREEP
NAME CASE	N/mm2	deg C	mm/m	E6 N/mm	PROOF	PROOF	(Rmt)	(fcr)
*** SEGMENT A								
A00 T1	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
T2	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
T3	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
T4	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
A01	Same as previous point.							
*** SEGMENT B								
A04 T1	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
T2	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
T3	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
T4	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
B04 T1	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
T2	11.6000	322	5.236	0.17435	107.36	132.36	0.00	0.00u
T3	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
T4	10.0000	57.00	0.576	0.19683	176.50	214.08	0.00	0.00u
B11	Same as previous point.							
*** SEGMENT C								
A03 T1	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
T2	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
T3	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
T4	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
C04 T1	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
T2	11.6000	322	5.236	0.17435	107.36	132.36	0.00	0.00u
T3	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
T4	0.1300	57.00	0.576	0.19683	176.50	214.08	0.00	0.00u
C15	Same as previous point.							
*** SEGMENT D								
A02 T1	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
T2	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
T3	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
T4	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
D04 T1	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
T2	11.6000	322	5.236	0.17435	107.36	132.36	0.00	0.00u
T3	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
T4	10.0000	227	3.469	0.18241	122.14	149.60	0.00	0.00u
D27	Same as previous point.							
*** SEGMENT E								
D09 T1	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
T2	11.6000	322	5.236	0.17435	107.36	132.36	0.00	0.00u
T3	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
T4	10.0000	227	3.469	0.18241	122.14	149.60	0.00	0.00u
E08	Same as previous point.							
*** SEGMENT F								
C10 T1	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u

F_LINE_REV0.OUT									
F12	T2	11.6000	322	5.236	0.17435	107.36	132.36	0.00	0.00u
	T3	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
	T4	0.1300	57.00	0.576	0.19683	176.50	214.08	0.00	0.00u
	T1	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T2	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T3	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u

F_LINE_REV0

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OPERATING TEMPERATURE AND PRESSURE DATA

STRESSES IN N/mm2

POINT		PRESS.	TEMPER	EXPAN.	MODULUS	0.2%	1.0%	TENSILE	CREEP
NAME	CASE	N/mm2	deg C	mm/m	E6 N/mm	PROOF	PROOF	(Rmt)	(fcr)
----	----	-----	-----	-----	-----	-----	-----	-----	-----
F11	T4	0.1300	57.00	0.576	0.19683	176.50	214.08	0.00	0.00u
	Same as previous point.								
***	SEGMENT G								
C07	T1	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
	T2	11.6000	322	5.236	0.17435	107.36	132.36	0.00	0.00u
	T3	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
	T4	0.1300	57.00	0.576	0.19683	176.50	214.08	0.00	0.00u
G11	T1	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T2	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T3	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
	T4	0.1300	57.00	0.576	0.19683	176.50	214.08	0.00	0.00u
G10	Same as previous point.								
***	SEGMENT K								
B06	T1	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
	T2	11.6000	322	5.236	0.17435	107.36	132.36	0.00	0.00u
	T3	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
	T4	10.0000	311	5.027	0.17529	108.68	133.68	0.00	0.00u
K15	T1	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
	T2	11.6000	322	5.236	0.17435	107.36	132.36	0.00	0.00u
	T3	5.8300	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T4	10.0000	311	5.027	0.17529	108.68	133.68	0.00	0.00u
K16	T1	5.8300	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T2	11.6000	322	5.236	0.17435	107.36	132.36	0.00	0.00u
	T3	5.8300	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T4	10.0000	311	5.027	0.17529	108.68	133.68	0.00	0.00u
K14	Same as previous point.								
***	SEGMENT L								
C06	T1	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
	T2	11.6000	322	5.236	0.17435	107.36	132.36	0.00	0.00u
	T3	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
	T4	0.1300	57.00	0.576	0.19683	176.50	214.08	0.00	0.00u
L02	T1	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
	T2	11.6000	322	5.236	0.17435	107.36	132.36	0.00	0.00u
	T3	5.8300	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T4	0.1300	57.00	0.576	0.19683	176.50	214.08	0.00	0.00u
L06	T1	5.8300	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T2	11.6000	322	5.236	0.17435	107.36	132.36	0.00	0.00u
	T3	5.8300	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T4	0.1300	57.00	0.576	0.19683	176.50	214.08	0.00	0.00u
L16	Same as previous point.								
***	SEGMENT M								
D26	T1	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
	T2	11.6000	322	5.236	0.17435	107.36	132.36	0.00	0.00u
	T3	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
	T4	10.0000	227	3.469	0.18241	122.14	149.60	0.00	0.00u
M02	T1	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
	T2	11.6000	322	5.236	0.17435	107.36	132.36	0.00	0.00u
	T3	5.8300	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T4	10.0000	227	3.469	0.18241	122.14	149.60	0.00	0.00u
M04	T1	5.8300	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T2	11.6000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u

F_LINE_REV0

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OPERATING TEMPERATURE AND PRESSURE DATA

STRESSES IN N/mm2

POINT		PRESS.	TEMPER	EXPAN.	MODULUS	0.2%	1.0%	TENSILE	CREEP
NAME	CASE	N/mm2	deg C	mm/m	E6 N/mm	PROOF	PROOF	(Rmt)	(fcr)
----	----	-----	-----	-----	-----	-----	-----	-----	-----
CH11	T3	5.8300	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T4	10.0000	227	3.469	0.18241	122.14	149.60	0.00	0.00u
	T1	5.8300	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T2	11.6000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T3	5.8300	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T4	10.0000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
M12	Same as previous point.								
*** SEGMENT Q									
B12	T1	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
	T2	11.6000	322	5.236	0.17435	107.36	132.36	0.00	0.00u
	T3	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
	T4	10.0000	57.00	0.576	0.19683	176.50	214.08	0.00	0.00u
Q01	T1	5.8300	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T2	11.6000	322	5.236	0.17435	107.36	132.36	0.00	0.00u
	T3	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
	T4	10.0000	57.00	0.576	0.19683	176.50	214.08	0.00	0.00u
Q02	Same as previous point.								
*** SEGMENT R									
C16	T1	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
	T2	11.6000	322	5.236	0.17435	107.36	132.36	0.00	0.00u
	T3	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
	T4	0.1300	57.00	0.576	0.19683	176.50	214.08	0.00	0.00u
R01	T1	5.8300	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T2	11.6000	322	5.236	0.17435	107.36	132.36	0.00	0.00u
	T3	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
	T4	0.1300	57.00	0.576	0.19683	176.50	214.08	0.00	0.00u
R02	Same as previous point.								
*** SEGMENT S									
D19	T1	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
	T2	11.6000	322	5.236	0.17435	107.36	132.36	0.00	0.00u
	T3	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
	T4	10.0000	227	3.469	0.18241	122.14	149.60	0.00	0.00u
S01	T1	5.8300	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T2	11.6000	322	5.236	0.17435	107.36	132.36	0.00	0.00u
	T3	5.8300	224	3.415	0.18266	122.68	150.20	0.00	0.00u
	T4	10.0000	227	3.469	0.18241	122.14	149.60	0.00	0.00u
S02	Same as previous point.								

u User-defined value

* Non-code material for allowable stress;
Non-standard material for expansion and modulus

F_LINE_REV0

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THERMAL ANCHOR MOVEMENTS AND DISPLACEMENTS

F_LINE_REV0.OUT							
POINT		DX	DY	DZ	RX	RY	RZ
NAME	LOAD CASE	(mm)	(mm)	(mm)	(deg)	(deg)	(deg)
-----	-----	-----	-----	-----	-----	-----	-----
B11	Thermal 1	0.00	0.00	-15.91	0.000	0.000	0.000
	Thermal 2	0.00	0.00	-15.30	0.000	0.000	0.000
	Thermal 3	0.00	0.00	-15.90	0.000	0.000	0.000
	Thermal 4	0.00	0.00	-15.30	0.000	0.000	0.000
C15	Thermal 1	0.00	0.00	-15.91	0.000	0.000	0.000
	Thermal 2	0.00	0.00	-15.30	0.000	0.000	0.000
	Thermal 3	0.00	0.00	-15.90	0.000	0.000	0.000
	Thermal 4	0.00	0.00	-15.30	0.000	0.000	0.000
D27	Thermal 1	0.00	0.00	-15.91	0.000	0.000	0.000
	Thermal 2	0.00	0.00	-15.30	0.000	0.000	0.000
	Thermal 3	0.00	0.00	-15.91	0.000	0.000	0.000
	Thermal 4	0.00	0.00	-15.31	0.000	0.000	0.000
E08	Thermal 1	0.00	0.00	-15.91	0.000	0.000	0.000
	Thermal 2	0.00	0.00	-15.30	0.000	0.000	0.000
	Thermal 3	0.00	0.00	-15.91	0.000	0.000	0.000
	Thermal 4	0.00	0.00	-15.30	0.000	0.000	0.000
F11	Thermal 3	0.00	0.00	17.56	0.000	0.000	0.000
	Thermal 4	0.00	0.00	3.53	0.000	0.000	0.000
G10	Thermal 3	0.00	0.00	17.56	0.000	0.000	0.000
	Thermal 4	0.00	0.00	3.53	0.000	0.000	0.000
K14	Thermal 2	0.00	0.00	-0.77	0.000	0.000	0.000
	Thermal 4	0.00	0.00	-0.80	0.000	0.000	0.000
L16	Thermal 2	0.00	0.00	-0.77	0.000	0.000	0.000
	Thermal 4	0.00	0.00	-0.08	0.000	0.000	0.000
M12	Thermal 2	0.00	0.00	-0.77	0.000	0.000	0.000

□

F_LINE_REV0

09/13/2010 FEED LINE

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S U P P O R T D A T A L I S T I N G

Point Support	Support Conn.to	Stiff.	Gap 1	Gap 2	Fric.	GapSet	Preload Size	Figure
Name Type	ID /Dir		(mm)	(mm)	Fact.	/#hgr	(N)	

```

-----
Tag No.: <None>
A06 Guide-V A06 1 Ground Rigid 0.0 0.0 0.00
      Guide-H A06 1 Ground Rigid 0.0 0.0 0.00

Tag No.: <None>
B02 M Spr. Can B02 M1 Ground 22.063 1-Und 1163 5 FIG 82

Tag No.: <None>
B04 M Guide-V B04 M1 Ground Rigid 0.0 100.0 0.00 Weightless
      Guide-H B04 M1 Ground Rigid 0.0 0.0 0.00 Weightless

Tag No.: <None>
B06 Guide-V B06 2 Ground Rigid 0.0 100.0 0.00 Weightless
      Guide-H B06 2 Ground Rigid 0.0 0.0 0.00 Weightless

Tag No.: <None>
B07 N Spr. Can B07 N2 Ground 1.226 1-Und 89 000 FIG B-268

Tag No.: <None>
C02 M Spr. Can C02 M1 Ground 16.459 1-Und 1128 4 FIG 82

Tag No.: <None>
C04 M Guide-V C04 M1 Ground Rigid 0.0 100.0 0.00 Weightless
      Guide-H C04 M1 Ground Rigid 0.0 0.0 0.00 Weightless

Tag No.: <None>
C06 Guide-V C06 1 Ground Rigid 0.0 1000.0 0.00 Weightless
      Guide-H C06 1 Ground Rigid 0.0 0.0 0.00 Weightless

Tag No.: <None>
C08 M Spr. Can C08 M1 Ground 29.417 1-Und 1712 6 FIG 82

Tag No.: <None>
C12 N Spr. Can C12 N1 Ground 2.626 1-Und 146 00 FIG B-268

Tag No.: <None>
D02 M Spr. Can D02 M1 Ground 29.417 1-Und 1979 6 FIG 82

Tag No.: <None>
D04 M Guide-V D04 M1 Ground Rigid 0.0 100.0 0.00 Weightless
      Guide-H D04 M1 Ground Rigid 0.0 0.0 0.00 Weightless

Tag No.: <None>
D26 Guide-V D26 1 Ground Rigid 0.0 1000.0 0.00 Weightless
      Guide-H D26 1 Ground Rigid 0.0 0.0 0.00 Weightless

Tag No.: <None>
D08 N Spr. Hgr D08 N1 Ground 2.626 1-Und 166 00 FIG B-268

Tag No.: <None>
F02 M Spr. Can F02 M1 Ground 29.417 1-Und 1716 6 FIG 82

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F_LINE_REV0

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S U P P O R T D A T A L I S T I N G

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-----
Point Support Support Conn.to Stiff. Gap 1 Gap 2 Fric. GapSet Preload Size Figure
Name Type ID /Dir (mm) (mm) Fact. /#hgr (N )
-----

```

F_LINE_REV0.OUT

```

Tag No.: <None>
F20   Guide-V F20 1 Ground Rigid      0.0 100.0 0.00 Weightless
      Guide-H F20 1 Ground Rigid      0.0  0.0 0.00 Weightless

Tag No.: <None>
F19   Guide-V F19 1 Ground Rigid      0.0 100.0 0.00 Weightless
      Guide-H F19 1 Ground Rigid      0.0  0.0 0.00 Weightless

Tag No.: <None>
G02 M Cons Can G02 M1 Ground      0.000      1-Und 2031 6 FIG 82

Tag No.: <None>
G17   Guide-V G17 1 Ground Rigid      0.0 1000.0 0.00 Weightless
      Guide-H G17 1 Ground Rigid      0.0  0.0 0.00 Weightless

Tag No.: <None>
K22   Guide-V K22 1 Ground Rigid      0.0  0.0 0.00
      Guide-H K22 1 Ground Rigid      0.0  0.0 0.00
      Gap Dir.: (Gap1_V=-X, Gap2_V=+X, Gap1_H=-Y, Gap2_H=+Y)

Tag No.: <None>
K08 M Spr. Can K08 M1 Ground      7.354      1-Und 484 1 FIG 82

Tag No.: <None>
K27   Guide-V K27 1 Ground Rigid      0.0  0.0 0.00
      Guide-H K27 1 Ground Rigid      0.0  0.0 0.00

Tag No.: <None>
K24   Guide-V K24 1 Ground Rigid      0.0  0.0 0.00
      Guide-H K24 1 Ground Rigid      0.0  0.0 0.00
      Gap Dir.: (Gap1_V=-X, Gap2_V=+X, Gap1_H=-Y, Gap2_H=+Y)

Tag No.: <None>
K23   Guide-V K23 1 Ground Rigid      0.0  0.0 0.00
      Guide-H K23 1 Ground Rigid      0.0  0.0 0.00
      Gap Dir.: (Gap1_V=-X, Gap2_V=+X, Gap1_H=-Y, Gap2_H=+Y)

Tag No.: <None>
L21   Guide-V L21 1 Ground Rigid      0.0  0.0 0.00
      Guide-H L21 1 Ground Rigid      0.0  0.0 0.00

Tag No.: <None>
L09 M Spr. Can L09 M2 Ground      1.751      1-Und 401 1 FIG 98

Tag No.: <None>
L25   Guide-V L25 1 Ground Rigid      0.0  0.0 0.00
      Guide-H L25 1 Ground Rigid      0.0  0.0 0.00
      Gap Dir.: (Gap1_V=-X, Gap2_V=+X, Gap1_H=-Y, Gap2_H=+Y)

Tag No.: <None>
L24   Guide-V L24 1 Ground Rigid      0.0  0.0 0.00
      Guide-H L24 1 Ground Rigid      0.0  0.0 0.00

```

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S U P P O R T D A T A L I S T I N G

Point	Support	Support	Conn.to	Stiff.	Gap 1	Gap 2	Fric.	GapSet	Preload	Size	Figure
Name	Type	ID	/Dir		(mm)	(mm)	Fact.	/#hgr	(N)		

Gap Dir.: (Gap1_V=-X, Gap2_V=+X, Gap1_H=-Y, Gap2_H=+Y)

```

Tag No.: <None>
M06 M Spr. Can M06 M1 Ground      9.455      1-Und 669 2 FIG 82

```

```

Tag No.: <None>
M19   Guide-V M19 1 Ground Rigid      0.0  0.0 0.00

```

F_LINE_REV0.OUT
 Guide-H M19 1 Ground Rigid 0.0 0.0 0.00
 Gap Dir.: (Gap1_V=-X, Gap2_V=+X, Gap1_H=-Y, Gap2_H=+Y)

Spring Manufacturer: Anvil/Grinnell
 NOTE 1: No soil supports present in the system.
 Gap 1 : V-stop,Guide-V=down, Linestop,Incline,Tie/link=backward, Guide-H=Left
 Gap 2 : V-stop,Guide-V=Up, Linestop,Incline,Tie/link=forward, Guide-H=Right
 Stiffness units for rotation support: N.m/deg, all others: N/mm

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B E N D D A T A L I S T I N G

Point Bend Pressure Case Name Type	Radius (mm)	Angle (deg)	OD (mm)	tnom (mm)	Material	Flg/ Cuts	SIF in	SIF out	Analysis Set	Flexibility (K)	
B01 *Elbow	57L	90.0	48.3	5.1	1.4301	0/0	1.23	1.23	1	2.65	None
B07 Elbow	57L	38.0	48.3	5.1	1.4301	0/0	1.23	1.23	1	2.65	None
B08 Elbow	57L	90.0	48.3	5.1	1.4301	0/0	1.23	1.23	1	2.65	None
B09 Elbow	57L	90.0	48.3	5.1	1.4301	0/0	1.23	1.23	1	2.65	None
C01 *Elbow	57L	90.0	48.3	5.1	1.4301	0/0	1.23	1.23	1	2.65	None
C11 Elbow	57L	30.5	48.3	5.1	1.4301	0/0	1.23	1.23	1	2.65	None
C12 Elbow	57	90.0	48.3	5.1	1.4301	0/0	1.24	1.24	1	2.66	None
C13 Elbow	57L	90.0	48.3	5.1	1.4301	0/0	1.23	1.23	1	2.65	None
D01 *Elbow	76L	90.0	60.3	5.5	1.4301	0/0	1.32	1.32	1	2.93	None
D07 Elbow	76L	12.4	60.3	5.5	1.4301	0/0	1.32	1.32	1	2.93	None
D08 Elbow	76L	90.0	60.3	5.5	1.4301	0/0	1.32	1.32	1	2.93	None
D12 Elbow	57L	90.0	48.3	5.1	1.4301	0/0	1.23	1.23	1	2.65	None
D13 Elbow	57L	90.0	48.3	5.1	1.4301	0/0	1.23	1.23	1	2.65	None
E03 Elbow	57L	90.0	48.3	5.1	1.4301	0/0	1.23	1.23	1	2.65	None
E04 Elbow	57L	90.0	48.3	5.1	1.4301	0/0	1.23	1.23	1	2.65	None
F01 Elbow	57L	90.0	48.3	5.1	1.4301	0/0	1.23	1.23	1	2.65	None
F06 Elbow	114L	70.0	88.9	5.5	1.4301	0/0	1.78	1.78	1	4.58	None
F07 Elbow	114L	70.0	88.9	5.5	1.4301	0/0	1.78	1.78	1	4.58	None
F08 Elbow	114L	60.0	88.9	5.5	1.4301	0/0	1.78	1.78	1	4.58	None
G01 Elbow	57L	90.0	48.3	5.1	1.4301	0/0	1.23	1.23	1	2.65	None
G06 Elbow	114L	70.0	88.9	5.5	1.4301	0/0	1.78	1.78	1	4.58	None
G07 Elbow	114L	90.0	88.9	5.5	1.4301	0/0	1.78	1.78	1	4.58	None
K03 Elbow	21	90.0	21.3	3.7	1.4301	0/0	1.00	1.00	1	1.63	None
K10 *Elbow	38L	90.0	21.3	3.7	1.4301	0/0	1.00	1.00	1	1.00	None
K21 Elbow	38L	90.0	21.3	3.7	1.4301	0/0	1.00	1.00	1	1.00	None
K28 Elbow	38L	90.0	21.3	3.7	1.4301	0/0	1.00	1.00	1	1.00	None
L03 Elbow	38L	90.0	21.3	3.7	1.4301	0/0	1.00	1.00	1	1.00	None

						F_LINE_REV0	OUT						
L04	Elbow	38L	74.4	21.3	3.7	1.4301	0/0	1.00	1.00	1		1.00	None
L12	Elbow	38L	90.0	21.3	3.7	1.4301	0/0	1.00	1.00	1		1.00	None
M03	Elbow	38L	90.0	26.7	3.9	1.4301	0/0	1.00	1.00	1		1.43	None
M08	Elbow	38L	90.0	26.7	3.9	1.4301	0/0	1.00	1.00	1		1.43	None

* = Mid-point present
L = Long radius

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T E E D A T A L I S T I N G

Point	Point	Pipe	Pipe			**Crotch	*Crotch		
Name	Seg-Type	OD	Thk.	Material	Tee	Radius	Thick	SIF	SIF
		(mm)	(mm)		Type	(mm)	(mm)	in	out
A04	A-Header	141.3	9.5	1.4301	welding			1.22	1.22
	B-Branch	48.3	5.1	1.4301					
A03	A-Header	141.3	9.5	1.4301	welding			1.22	1.22
	C-Branch	48.3	5.1	1.4301					
A02	A-Header	141.3	9.5	1.4301	welding			1.22	1.22
	D-Branch	60.3	5.5	1.4301					
B12	B-Header	48.3	5.1	1.4301	welding			1.00	1.00
	Q-Branch	26.7	3.9	1.4301					
B06	B-Header	48.3	5.1	1.4301	welding			1.00	1.00
	K-Branch	48.3	5.1	1.4301					
C16	C-Header	48.3	5.1	1.4301	welding			1.00	1.00
	R-Branch	26.7	3.9	1.4301					
C06	C-Header	48.3	5.1	1.4301	welding			1.00	1.00
	L-Branch	48.3	5.1	1.4301					
C07	C-Header	48.3	5.1	1.4301	welding			1.00	1.00
	G-Branch	48.3	5.1	1.4301					
C10	C-Header	48.3	5.1	1.4301	welding			1.00	1.00
	F-Branch	48.3	5.1	1.4301					
D19	D-Header	60.3	5.5	1.4301	welding			1.00	1.00
	S-Branch	26.7	3.9	1.4301					
D26	D-Header	60.3	5.5	1.4301	Other			1.00	1.00
	M-Branch	60.3	5.5	1.4301					
D09	E-Header	60.3	5.5	1.4301	Other			1.00	1.00
	D-Branch	60.3	5.5	1.4301					

* = Pad thickness for reinforced tee.
**= Fillet radius for Raised tee or discontinuity dist. for Thickened tee.

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F_LINE_REV0.0UT

V A L V E D A T A L I S T I N G

Type Point /Avg. Name (mm)	/Max. Type	Dnom		Length	Valve Weight	Actuator Weight	Actuator			Joint			Size
		(mm)	Rating	(mm)	(kg)	(kg)	DX (mm)	DY (mm)	DZ (mm)	SAF	Type	SIF (mm)	
B02	GLOBE-F	40	NS	384.20	52	80	0.00	0.00	408.00	0.00	WN	1.00	
B04	GATE-F	40	2500	384.05	52	80	0.00	0.00	408.00	0.00	WN	1.00	
C02	GLOBE-F	40	NS	384.20	52	80	0.00	0.00	408.00	0.00	WN	1.00	
C04	GATE-F	40	2500	384.05	52	80	0.00	0.00	408.00	0.00	WN	1.00	
C08	GATE-F	40	2500	384.05	52	80	0.00	0.00	408.00	0.00	WN	1.00	
D02	GLOBE-F	50	2500	450.80	81	0	0.00	0.00	439.00	126.0	WN	1.00	
D04	GATE-F	50	2500	450.85	81	126	0.00	0.00	439.00	0.00	WN	1.00	
F02	GATE-F	40	2500	384.05	52	80	0.00	0.00	408.00	0.00	WN	1.00	
G02	GATE-F	40	2500	384.05	52	80	0.00	0.00	408.00	0.00	WN	1.00	
K16	GATE-B	20	NS	110.00	3					1.00	BW	1.80	
0.0 K08	GATE-F	15	2500	264.00	12	19	0.00	0.00	313.50	0.00	WN	1.00	
L06	TCHECK-B	20	NS	110.00	3					1.00	BW	1.80	
0.0 L09	GATE-F	15	2500	264.00	12	19	0.00	0.00	313.50	0.00	WN	1.00	
M04	TCHECK-B	20	NS	110.00	3					1.00	BW	1.80	
0.0 M06	GATE-F	20	2500	273.05	20	26	0.00	0.00	380.00	0.00	WN	1.00	
Q01	GLOBE-F	20	NS	273.00	17					1.00	WN	1.00	
R01	GLOBE-F	20	NS	273.00	17					1.00	WN	1.00	
S01	GLOBE-F	20	NS	273.00	17					1.00	WN	1.00	

Size/Avg. = Weld Size for S0/SW, Avg. offset for BW, Joint offset for BWT
Type/Max. = Socket welding type for SW, Maximum offset for BW,
Concave or Convex for SW and S0 (JSME)

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F L A N G E D A T A L I S T I N G

Point Name	FLG No.	Type	Dnom		Flange Weight		Bolt Weight		Joint Type	Size		Type ANSI
			(mm)	Rating	(kg)	(kg)	(kg)	(kg)		/Avg. SIF (mm)	/Max. (mm)	
B02	1	WELDNECK	40	2500	12.7	0.0	WN	1.00				No
FV03	1	WELDNECK	40	2500	12.7	0.0	WN	1.00				No
B04	1	WELDNECK	40	2500	12.7	0.0	WN	1.00				No
B13	1	WELDNECK	40	2500	12.7	0.0	WN	1.00				No
B17	1	WELDNECK	40	2500	12.7	0.0	WN	1.00				No
B17	2	WELDNECK	40	2500	12.7	0.0	WN	1.00				No
B16	1	WELDNECK	40	2500	12.7	0.0	WN	1.00				No
B16	2	WELDNECK	40	2500	12.7	0.0	WN	1.00				No
C02	1	WELDNECK	40	2500	12.7	0.0	WN	1.00				No
FV05	1	WELDNECK	40	2500	12.7	0.0	WN	1.00				No
C04	1	WELDNECK	40	2500	12.7	0.0	WN	1.00				No

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C17	1	WELDNECK	40	2500	12.7	0.0	WN	1.00		No
C22	1	WELDNECK	40	2500	12.7	0.0	WN	1.00		No
C22	2	WELDNECK	40	2500	12.7	0.0	WN	1.00		No
C21	1	WELDNECK	40	2500	12.7	0.0	WN	1.00		No
C21	2	WELDNECK	40	2500	12.7	0.0	WN	1.00		No
C08	1	WELDNECK	40	2500	12.7	0.0	WN	1.00		No
C18	1	WELDNECK	40	2500	12.7	0.0	WN	1.00		No
D02	1	WELDNECK	50	2500	19.1	0.0	WN	1.00		No
FV06	1	WELDNECK	50	2500	19.1	0.0	WN	1.00		No
D04	1	WELDNECK	50	2500	19.1	0.0	WN	1.00		No
D17	1	WELDNECK	50	2500	19.1	0.0	WN	1.00		No
D23	1	WELDNECK	50	2500	19.1	0.0	WN	1.00		No
D23	2	WELDNECK	50	2500	19.1	0.0	WN	1.00		No
D22	1	WELDNECK	50	2500	19.1	0.0	WN	1.00		No
D22	2	WELDNECK	50	2500	19.1	0.0	WN	1.00		No
F17	1	WELDNECK	40	2500	12.7	0.0	WN	1.00		No
F17	2	WELDNECK	40	2500	12.7	0.0	WN	1.00		No
F16	1	WELDNECK	40	2500	12.7	0.0	WN	1.00		No
F16	2	WELDNECK	40	2500	12.7	0.0	WN	1.00		No
F02	1	WELDNECK	40	2500	12.7	0.0	WN	1.00		No
F12	1	WELDNECK	40	2500	12.7	0.0	WN	1.00		No
F11	1	SLIP-ON	100	300	10.0	0.0	DWSO	1.20		No
G16	1	WELDNECK	40	2500	12.7	0.0	WN	1.00		No
G16	2	WELDNECK	40	2500	12.7	0.0	WN	1.00		No
G15	1	WELDNECK	40	2500	12.7	0.0	WN	1.00		No
G15	2	WELDNECK	40	2500	12.7	0.0	WN	1.00		No
G02	1	WELDNECK	40	2500	12.7	0.0	WN	1.00		No
G11	1	WELDNECK	40	2500	12.7	0.0	WN	1.00		No
G10	1	SLIP-ON	100	300	10.0	0.0	DWSO	1.20		No
K08	1	WELDNECK	15	2500	3.6	0.0	WN	1.00		No
K19	1	WELDNECK	15	2500	3.6	0.0	WN	1.00		No
C017	1	WELDNECK	15	2500	3.6	0.0	WN	1.00		No
C017	2	WELDNECK	15	2500	3.6	0.0	WN	1.00		No
K14	1	WELDNECK	65	2500	23.6	0.0	WN	1.00		No
L09	1	WELDNECK	15	2500	3.6	0.0	WN	1.00		No
L20	1	WELDNECK	15	2500	3.6	0.0	WN	1.00		No
C018	1	WELDNECK	15	2500	3.6	0.0	WN	1.00		No
C018	2	WELDNECK	15	2500	3.6	0.0	WN	1.00		No
L16	1	WELDNECK	65	2500	23.6	0.0	WN	1.00		No
M06	1	WELDNECK	20	2500	4.1	0.0	WN	1.00		No
M15	1	WELDNECK	20	2500	4.1	0.0	WN	1.00		No

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FLANGE DATA LISTING

		Flange Bolt		Size Type						
Point	FLG	Dnom	Weight	Weight	Joint	/Avg.	/Max.	ANSI		
Name	No.	Type	(mm)	Rating	(kg)	(kg)	Type	SIF	(mm)	(mm) Check
C019	1	WELDNECK	20	2500	4.1	0.0	WN	1.00		No
C019	2	WELDNECK	20	2500	4.1	0.0	WN	1.00		No
M12	1	WELDNECK	80	2500	42.6	0.0	WN	1.00		No
Q01	1	WELDNECK	20	2500	4.1	0.0	WN	1.00		No
Q02	1	WELDNECK	20	2500	4.1	0.0	WN	1.00		No
R01	1	WELDNECK	20	2500	4.1	0.0	WN	1.00		No
R02	1	WELDNECK	20	2500	4.1	0.0	WN	1.00		No
S01	1	WELDNECK	20	2500	4.1	0.0	WN	1.00		No
S02	1	WELDNECK	20	2500	4.1	0.0	WN	1.00		No

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JOINT TYPE / USER - SIF DATA LISTING

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Size

Point Name	Point Type	SIF in	SIF out	Joint Type	/Avg. (mm)	Max. (mm)	Over ride

0

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REDUCER DATA LISTING

From Point	To Point	Length (mm)	OD (mm)	OD (mm)	Thk (mm)	Thk (mm)	From Material	Cone Angle (deg)	SIF
B15	B11	88.89	48.3	88.9	5.1	7.6	1.4301		2.00t
C20	C15	88.89	48.3	88.9	5.1	7.6	1.4301		2.00t
D18	D11	76.20	60.3	48.3	5.5	5.1	1.4301		2.00t
D14	D27	88.90	48.3	88.9	5.1	7.6	1.4301		2.00t
E06	E07	76.20	60.3	48.3	5.5	5.1	1.4301		2.00t
E05	E08	88.90	48.3	88.9	5.1	7.6	1.4301		2.00t
F13	F05	89.00	48.3	88.9	3.7	5.5	1.4301		2.00t
F14	F10	101.60	88.9	114.3	5.5	6.0	1.4301		2.00t
G12	G05	89.00	48.3	88.9	3.7	5.5	1.4301		2.00t
G13	G09	101.60	88.9	114.3	5.5	6.0	1.4301		2.00t
K01	K15	63.50	48.3	21.3	5.1	3.7	1.4301		2.00t
K17	K16	38.10	21.3	26.7	3.7	3.9	1.4301		2.00t
CH09	K18	38.10	26.7	21.3	3.9	3.7	1.4301		2.00t
K11	K26	50.80	21.3	42.2	3.7	4.9	1.4301		2.00t
K26	K20	89.00	42.2	73.0	4.9	7.0	1.4301		2.00t
L17	L02	63.50	48.3	21.3	5.1	3.7	1.4301		2.00t
L18	L06	38.11	21.3	26.7	3.7	3.9	1.4301		2.00t
CH10	L19	38.11	26.7	21.3	3.9	3.7	1.4301		2.00t
L22	L14	50.80	21.3	42.2	3.7	4.9	1.4301		2.00t
L23	L15	89.00	42.2	73.0	4.9	7.0	1.4301		2.00t
M24	M02	76.00	60.3	26.7	5.5	3.9	1.4301		2.00t
M09	M16	76.20	26.7	60.3	3.9	5.5	1.4301		2.00t
M16	M17	89.00	60.3	88.9	5.5	7.6	1.4301		2.00t

t = Use SIF of 2.0

0

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RIGID PIPE DATA LISTING

From Point	To Point	Include Weight	Include Expansion	Rigid Factor

0

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R E F E R E N C E P O I N T L I S T I N G

(Force - N , Moment - N.m)

Tag No./	Refer.	Point	Seg	Coord.	Load	[Report Loads]
Ref. ID	Side	Name	Name	System	Direction	Actual Allow.
-----	-----	-----	-----	-----	-----	-----

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A N A L Y S I S S U M M A R Y

Current model revision number : 193

Static - Analysis set number 1
 Date and Time of analysis Sep 13, 2010 10:16 AM
 Model Revision Number 193
 Number of load cases 5
 Load cases analyzed GR T1 T2 T3 T4
 Description Analysis Set no. 1
 Gaps/Friction/Soil considered Yes
 Tolerance - Force, Displacement 44.48 N 0.0254 mm
 Friction - Scale Factor, Tolerance 1.00 0.10
 Ignore friction for cases E1,E2,E3 Yes
 Ignore friction for gravity case Yes
 Hanger design run No
 Cut short included No
 Thermal bowing included No
 Include Bourdon rotational effect No
 Pipe radius for Bourdon calculation ... Mean
 Occasional load analysis type Nonlinear
 Non-linear analysis summary file F_LINE_REV0.LOG
 Use default load sequence Yes
 Base load cases for nonlinear analysis

GR	=	None
T1	=	GR
T2	=	GR
T3	=	GR
T4	=	GR

Weight of contents included Yes
 Pressure stiffening case None
 Hot modulus case None
 Water elevation for buoyancy loads Not considered
 Use corroded thickness in analysis No
 Rigid stiffness factor 1000.0

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CODE COMPLIANCE COMBINATIONS

<Description>	Allowable Combination (N/mm2) D/A/P	Category	Method	Case/Combination	Factor M/S K-Factor

F_LINE_REV0.OUT

GR + Max P{1} Automatic Y Y Y	Sustain	Sum	GR[1]	1.00	
			Max Long	1.00	
Max Range Automatic Y Y Y	Expansion	Sum	Temp. Range	1.00	
Amb to T1{1} Automatic Y Y Y	Expansion	Sum	T1[1]	1.00	
Amb to T2{1} Automatic Y Y Y	Expansion	Sum	T2[1]	1.00	
Amb to T3{1} Automatic Y Y Y	Expansion	Sum	T3[1]	1.00	
Amb to T4{1} Automatic Y Y Y	Expansion	Sum	T4[1]	1.00	
**Hydrotest{1} Automatic Y Y Y	Occasion	Sum	*HY[1]	1.00	1.000
			Max Long	1.00	
Max P{1} Automatic Y Y Y	Hoop	Sum	Max Hoop	1.00	
Sus.+T1{1} Automatic Y Y Y	Creep Rupt	Sum	Max Sus	1.00	
			T1[1]	1.00	
Sus.+T2{1} Automatic Y Y Y	Creep Rupt	Sum	Max Sus	1.00	
			T2[1]	1.00	
Sus.+T3{1} Automatic Y Y Y	Creep Rupt	Sum	Max Sus	1.00	
			T3[1]	1.00	
Sus.+T4{1} Automatic Y Y Y	Creep Rupt	Sum	Max Sus	1.00	
			T4[1]	1.00	

Notes:

D/A/P: [D]efault/[A]uto-Update/[P]rint options (Y=Yes, N=No)

* indicates that the load case has not been analyzed

** indicates that the combination includes unanalyzed load case(s)
or combination(s) that include unanalyzed load case(s).

□

F_LINE_REV0

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NON-CODE COMBINATIONS

<Description>

Combination	Method	Case/Combination	Factor	D/A/P
Gravity{1}	Sum	GR[1]	1.00	Y Y Y
**Hydrotest{1}	Sum	*HY[1]	1.00	Y Y Y

F_LINE_REV0.OUT					
Thermal 1{1}	Sum	T1[1]	1.00	Y	Y Y
Thermal 2{1}	Sum	T2[1]	1.00	Y	Y Y
Thermal 3{1}	Sum	T3[1]	1.00	Y	Y Y
Thermal 4{1}	Sum	T4[1]	1.00	Y	Y Y
GRT1{1}	Sum	GR[1]	1.00	Y	Y Y
		T1[1]	1.00		
GRT2{1}	Sum	GR[1]	1.00	Y	Y Y
		T2[1]	1.00		
GRT3{1}	Sum	GR[1]	1.00	Y	Y Y
		T3[1]	1.00		
GRT4{1}	Sum	GR[1]	1.00	Y	Y Y
		T4[1]	1.00		

Notes:

D/A/P: [D]efault/[A]uto-Update/[P]rint options (Y=Yes, N=No)

* indicates that the load case has not been analyzed

** indicates that the combination includes unanalyzed load case(s) or combination(s) that include unanalyzed load case(s).

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F_LINE_REV0

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CODE COMPLIANCE

Y - Factor 0.50
Weld efficiency factor 1.00
Range reduction factor 1.00
Design Pressure Factor 1.00
Minimum stress ratio used in reports... 0.00
Number of stress points per span 0
Include corrosion in stress calcs. N
Include axial force in code stress N
Include sustain load margin Only if allowable stress is exceeded
Use single SIF Y
Set sustained/occasional SIF = 1 N
Set sustained/occasional SIF = 0.75i .. N
Apply cold/hot modulus ratio N
Disable auto code combinations N
Disable auto non-code combinations N
No. of thermal ranges to report 0
Include Max Range combination Y
Total stress Octahedral
Direct shear None
Longitudinal pressure calculation PD/4t
Inc. Axial Str and Pcase in Sustained.. N

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F_LINE_REV0

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z

F_LINE_REV0.OUT

*** Segment A begin ***

A00	Gravity{1}	0.000	0.000	-0.011	0.000	0.002	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.415	-0.005	0.013	-0.021	-0.002	-0.001
	Thermal 2{1}	3.415	-0.006	0.014	-0.026	-0.002	-0.001
	Thermal 3{1}	3.415	-0.005	0.013	-0.021	-0.002	-0.001
	Thermal 4{1}	3.415	-0.003	0.010	-0.012	-0.001	0.000
	GRT1{1}	3.415	-0.005	0.002	-0.020	0.000	-0.001
	GRT2{1}	3.415	-0.006	0.003	-0.026	0.000	-0.001
	GRT3{1}	3.415	-0.005	0.002	-0.020	0.000	-0.001
	GRT4{1}	3.415	-0.003	0.000	-0.012	0.000	0.000
A04	Gravity{1}	0.000	0.000	-0.008	0.000	0.002	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.073	-0.004	0.009	-0.021	-0.002	-0.001
	Thermal 2{1}	3.073	-0.004	0.011	-0.026	-0.002	-0.001
	Thermal 3{1}	3.073	-0.004	0.010	-0.021	-0.002	-0.001
	Thermal 4{1}	3.073	-0.002	0.008	-0.012	-0.001	0.000
	GRT1{1}	3.073	-0.004	0.001	-0.020	0.000	-0.001
	GRT2{1}	3.073	-0.004	0.002	-0.026	0.000	-0.001
	GRT3{1}	3.073	-0.004	0.001	-0.020	0.000	-0.001
	GRT4{1}	3.073	-0.002	0.000	-0.012	0.000	0.000
A06	Gravity{1}	0.000	0.000	0.000	0.000	0.001	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	2.049	0.000	0.000	-0.015	-0.001	0.000
	Thermal 2{1}	2.049	0.000	0.000	-0.019	-0.001	0.000
	Thermal 3{1}	2.049	0.000	0.000	-0.016	-0.001	0.000
	Thermal 4{1}	2.049	0.000	0.000	-0.009	-0.001	0.000
	GRT1{1}	2.049	0.000	0.000	-0.015	0.000	0.000
	GRT2{1}	2.049	0.000	0.000	-0.019	0.000	0.000
	GRT3{1}	2.049	0.000	0.000	-0.015	0.000	0.000
	GRT4{1}	2.049	0.000	0.000	-0.009	0.000	0.000
A03	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.024	0.000	0.000	-0.010	0.000	0.000
	Thermal 2{1}	1.024	0.000	0.000	-0.013	0.000	0.000
	Thermal 3{1}	1.024	0.000	0.000	-0.010	0.000	0.000
	Thermal 4{1}	1.024	0.000	0.000	-0.006	0.000	0.000
	GRT1{1}	1.024	0.000	0.000	-0.010	0.000	0.000
	GRT2{1}	1.024	0.000	0.000	-0.013	0.000	0.000

	F_LINE_REV0.0UT					
GRT3{1}	1.024	0.000	0.000	-0.010	0.000	0.000
GRT4{1}	1.024	0.000	0.000	-0.006	0.000	0.000

0

F_LINE_REV0

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RESULT PAGE 6

DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
A05	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	0.000	0.000	0.000	0.000
A02	Gravity{1}	0.000	0.000	-0.005	0.000	-0.001	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.024	-0.004	0.003	-0.009	0.001	0.001
	Thermal 2{1}	-1.024	-0.006	0.004	-0.014	0.001	0.001
	Thermal 3{1}	-1.024	-0.004	0.003	-0.010	0.001	0.001
	Thermal 4{1}	-1.024	-0.004	0.003	-0.010	0.001	0.001
	GRT1{1}	-1.024	-0.004	-0.002	-0.009	0.000	0.001
	GRT2{1}	-1.024	-0.005	-0.001	-0.013	0.000	0.001
	GRT3{1}	-1.024	-0.004	-0.002	-0.009	0.000	0.001
	GRT4{1}	-1.024	-0.004	-0.002	-0.010	0.000	0.001
A01	Gravity{1}	0.000	0.000	-0.009	0.000	-0.001	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.707	-0.007	0.005	-0.009	0.001	0.001
	Thermal 2{1}	-1.707	-0.009	0.007	-0.014	0.001	0.001
	Thermal 3{1}	-1.707	-0.007	0.005	-0.010	0.001	0.001
	Thermal 4{1}	-1.707	-0.007	0.005	-0.010	0.001	0.001
	GRT1{1}	-1.707	-0.007	-0.003	-0.009	-0.001	0.001
	GRT2{1}	-1.707	-0.009	-0.002	-0.013	0.000	0.001

	F_LINE_REV0.OUT					
GRT3{1}	-1.707	-0.007	-0.003	-0.009	0.000	0.001
GRT4{1}	-1.707	-0.007	-0.003	-0.010	0.000	0.001

*** Segment A end ***

*** Segment B begin ***

A04	Gravity{1}	0.000	0.000	-0.008	0.000	0.002	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.073	-0.004	0.009	-0.021	-0.002	-0.001
	Thermal 2{1}	3.073	-0.004	0.011	-0.026	-0.002	-0.001
	Thermal 3{1}	3.073	-0.004	0.010	-0.021	-0.002	-0.001
	Thermal 4{1}	3.073	-0.002	0.008	-0.012	-0.001	0.000
	GRT1{1}	3.073	-0.004	0.001	-0.020	0.000	-0.001
	GRT2{1}	3.073	-0.004	0.002	-0.026	0.000	-0.001
	GRT3{1}	3.073	-0.004	0.001	-0.020	0.000	-0.001
	GRT4{1}	3.073	-0.002	0.000	-0.012	0.000	0.000

0

F_LINE_REV0

09/13/2010 FEED LINE

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DISPLACEMENTS

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
B01 N	Gravity{1}	-0.016	0.067	-0.015	-0.013	0.000	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.772	-19.708	-11.081	0.135	0.046	0.029
	Thermal 2{1}	0.904	-26.951	-11.078	0.058	0.044	0.033
	Thermal 3{1}	0.768	-19.753	-11.081	0.134	0.046	0.028
	Thermal 4{1}	0.563	-8.083	-11.085	0.258	0.051	0.022
	GRT1{1}	0.756	-19.641	-11.096	0.122	0.046	0.028
	GRT2{1}	0.889	-26.884	-11.094	0.045	0.043	0.032
	GRT3{1}	0.752	-19.686	-11.096	0.121	0.046	0.028
	GRT4{1}	0.547	-8.016	-11.100	0.245	0.051	0.021
B01 M	Gravity{1}	-0.015	0.057	-0.020	-0.015	0.000	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.732	-19.524	-11.161	0.229	0.044	0.029
	Thermal 2{1}	0.865	-26.815	-11.178	0.169	0.042	0.033
	Thermal 3{1}	0.728	-19.569	-11.161	0.229	0.044	0.028
	Thermal 4{1}	0.521	-7.821	-11.134	0.326	0.049	0.022

		F_LINE_REV0.OUT					
	GRT1{1}	0.716	-19.467	-11.181	0.214	0.044	0.028
	GRT2{1}	0.850	-26.759	-11.197	0.154	0.041	0.032
	GRT3{1}	0.712	-19.513	-11.181	0.214	0.044	0.028
	GRT4{1}	0.506	-7.764	-11.154	0.311	0.049	0.021
B01 F	Gravity{1}	-0.015	0.052	-0.031	-0.016	0.000	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.699	-19.310	-11.021	0.320	0.043	0.029
	Thermal 2{1}	0.829	-26.617	-11.074	0.277	0.041	0.033
	Thermal 3{1}	0.695	-19.355	-11.021	0.320	0.043	0.029
	Thermal 4{1}	0.492	-7.581	-10.936	0.391	0.048	0.022
	GRT1{1}	0.684	-19.258	-11.052	0.304	0.042	0.028
	GRT2{1}	0.815	-26.565	-11.105	0.261	0.040	0.033
	GRT3{1}	0.680	-19.303	-11.052	0.304	0.043	0.028
	GRT4{1}	0.477	-7.529	-10.967	0.375	0.047	0.021
B02	Gravity{1}	-0.010	0.052	-0.095	0.009	0.000	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.465	-17.760	-7.498	0.520	0.031	0.029
	Thermal 2{1}	0.559	-25.068	-7.680	0.526	0.029	0.034
	Thermal 3{1}	0.462	-17.806	-7.497	0.520	0.031	0.029
	Thermal 4{1}	0.317	-6.031	-7.200	0.510	0.035	0.021
	GRT1{1}	0.455	-17.708	-7.593	0.529	0.030	0.029
	GRT2{1}	0.549	-25.016	-7.774	0.536	0.029	0.034
	GRT3{1}	0.452	-17.754	-7.591	0.529	0.030	0.029
	GRT4{1}	0.308	-5.979	-7.295	0.519	0.035	0.021

0

F_LINE_REV0

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RESULT PAGE 8

DISPLACEMENTS

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
B02 M	Gravity{1}	-0.008	0.052	-0.064	0.009	0.000	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.367	-17.104	-5.755	0.520	0.031	0.029
	Thermal 2{1}	0.444	-24.412	-5.914	0.527	0.029	0.034
	Thermal 3{1}	0.364	-17.150	-5.753	0.520	0.031	0.029
	Thermal 4{1}	0.246	-5.375	-5.492	0.509	0.035	0.021

		F_LINE_REV0.OUT					
	GRT1{1}	0.359	-17.052	-5.818	0.529	0.030	0.029
	GRT2{1}	0.436	-24.360	-5.978	0.536	0.029	0.034
	GRT3{1}	0.357	-17.098	-5.816	0.529	0.030	0.029
	GRT4{1}	0.238	-5.323	-5.555	0.519	0.035	0.021
FV03	Gravity{1}	-0.006	0.052	-0.032	0.009	0.000	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.268	-16.448	-4.012	0.519	0.031	0.029
	Thermal 2{1}	0.329	-23.756	-4.149	0.526	0.029	0.034
	Thermal 3{1}	0.267	-16.494	-4.010	0.520	0.031	0.029
	Thermal 4{1}	0.174	-4.719	-3.784	0.509	0.035	0.021
	GRT1{1}	0.263	-16.396	-4.045	0.529	0.030	0.029
	GRT2{1}	0.323	-23.704	-4.181	0.536	0.029	0.034
	GRT3{1}	0.261	-16.442	-4.042	0.529	0.030	0.029
	GRT4{1}	0.169	-4.667	-3.817	0.518	0.035	0.021
B04	Gravity{1}	-0.002	0.052	0.029	-0.009	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.075	-15.007	-0.935	0.280	0.019	0.022
	Thermal 2{1}	0.095	-22.315	-0.982	0.294	0.019	0.028
	Thermal 3{1}	0.075	-15.053	-0.934	0.279	0.019	0.022
	Thermal 4{1}	0.044	-3.278	-0.855	0.256	0.024	0.013
	GRT1{1}	0.074	-14.955	-0.906	0.271	0.019	0.022
	GRT2{1}	0.094	-22.263	-0.953	0.285	0.018	0.028
	GRT3{1}	0.073	-15.001	-0.904	0.271	0.019	0.022
	GRT4{1}	0.043	-3.226	-0.826	0.247	0.024	0.013
B04 M	Gravity{1}	0.000	0.052	0.000	-0.009	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	-14.352	0.000	0.278	0.019	0.022
	Thermal 2{1}	0.000	-21.310	0.000	0.292	0.019	0.028
	Thermal 3{1}	0.000	-14.397	0.000	0.278	0.019	0.022
	Thermal 4{1}	0.000	-3.167	0.000	0.254	0.024	0.013
	GRT1{1}	0.000	-14.299	0.000	0.269	0.019	0.022
	GRT2{1}	0.000	-21.257	0.000	0.283	0.018	0.028
	GRT3{1}	0.000	-14.345	0.000	0.269	0.019	0.022
	GRT4{1}	0.000	-3.115	0.000	0.245	0.023	0.013

□

F_LINE_REV0

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RESULT PAGE 9

D I S P L A C E M E N T S

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F_LINE_REV0.OUT

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
B13	Gravity{1}	0.002	0.052	-0.031	-0.009	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.075	-13.696	0.929	0.276	0.019	0.022
	Thermal 2{1}	-0.095	-20.304	0.976	0.290	0.019	0.028
	Thermal 3{1}	-0.074	-13.741	0.927	0.276	0.019	0.022
	Thermal 4{1}	-0.044	-3.056	0.849	0.253	0.024	0.013
	GRT1{1}	-0.073	-13.644	0.898	0.267	0.019	0.022
	GRT2{1}	-0.093	-20.252	0.945	0.281	0.018	0.028
	GRT3{1}	-0.073	-13.689	0.896	0.266	0.019	0.022
	GRT4{1}	-0.043	-3.004	0.818	0.243	0.023	0.013
B12	Gravity{1}	0.003	0.052	-0.120	-0.015	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.156	-12.717	1.705	0.044	0.012	0.009
	Thermal 2{1}	-0.201	-18.803	1.799	0.048	0.011	0.012
	Thermal 3{1}	-0.155	-12.762	1.700	0.043	0.012	0.009
	Thermal 4{1}	-0.088	-2.891	1.542	0.035	0.016	0.004
	GRT1{1}	-0.153	-12.665	1.586	0.029	0.012	0.009
	GRT2{1}	-0.198	-18.751	1.679	0.033	0.011	0.012
	GRT3{1}	-0.152	-12.710	1.581	0.028	0.012	0.009
	GRT4{1}	-0.084	-2.839	1.423	0.020	0.016	0.004
B17	Gravity{1}	0.004	0.052	-0.142	0.001	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.168	-12.129	1.656	-0.072	0.007	-0.002
	Thermal 2{1}	-0.218	-17.902	1.753	-0.074	0.007	-0.001
	Thermal 3{1}	-0.167	-12.175	1.649	-0.072	0.007	-0.002
	Thermal 4{1}	-0.091	-2.792	1.483	-0.070	0.011	-0.002
	GRT1{1}	-0.164	-12.077	1.513	-0.071	0.007	-0.002
	GRT2{1}	-0.215	-17.850	1.611	-0.073	0.007	-0.001
	GRT3{1}	-0.163	-12.123	1.507	-0.071	0.007	-0.002
	GRT4{1}	-0.087	-2.740	1.341	-0.068	0.011	-0.002
B16	Gravity{1}	0.002	0.052	-0.060	0.023	0.000	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.093	-11.034	0.747	-0.240	-0.001	-0.027
	Thermal 2{1}	-0.123	-16.222	0.798	-0.255	-0.001	-0.035
	Thermal 3{1}	-0.092	-11.079	0.743	-0.239	-0.001	-0.026
	Thermal 4{1}	-0.047	-2.608	0.654	-0.213	0.003	-0.014
	GRT1{1}	-0.091	-10.982	0.687	-0.218	-0.001	-0.026

GRT2{1}	-0.121	-16.170	0.738	-0.233	-0.001	-0.034
GRT3{1}	-0.090	-11.027	0.682	-0.217	-0.002	-0.026
GRT4{1}	-0.045	-2.556	0.594	-0.191	0.002	-0.013

RESULT PAGE 10

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z

B06	Gravity{1}	0.000	0.052	0.000	0.016	0.000	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	-10.497	0.000	-0.300	-0.006	-0.041
	Thermal 2{1}	0.000	-15.399	0.000	-0.322	-0.005	-0.055
	Thermal 3{1}	0.000	-10.542	0.000	-0.298	-0.006	-0.041
	Thermal 4{1}	0.000	-2.517	0.000	-0.259	-0.002	-0.020
	GRT1{1}	0.000	-10.445	0.000	-0.283	-0.006	-0.040
	GRT2{1}	0.000	-15.346	0.000	-0.306	-0.005	-0.054
	GRT3{1}	0.000	-10.490	0.000	-0.281	-0.006	-0.040
GRT4{1}	0.000	-2.465	0.000	-0.243	-0.002	-0.019	
B07 N	Gravity{1}	-0.046	0.052	-0.105	0.009	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	2.475	-3.543	-15.220	-0.380	-0.061	-0.024
	Thermal 2{1}	3.457	-4.735	-15.881	-0.382	-0.057	-0.041
	Thermal 3{1}	2.463	-3.589	-15.188	-0.381	-0.061	-0.025
	Thermal 4{1}	0.924	-1.346	-13.055	-0.335	-0.057	0.005
	GRT1{1}	2.429	-3.491	-15.325	-0.370	-0.061	-0.025
	GRT2{1}	3.411	-4.683	-15.986	-0.372	-0.057	-0.041
	GRT3{1}	2.417	-3.536	-15.293	-0.371	-0.061	-0.026
GRT4{1}	0.878	-1.294	-13.161	-0.325	-0.057	0.005	
B07 F	Gravity{1}	-0.046	0.052	-0.100	0.009	0.000	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	2.445	-3.420	-15.460	-0.359	-0.059	-0.013
	Thermal 2{1}	3.413	-4.545	-16.120	-0.358	-0.054	-0.025
	Thermal 3{1}	2.434	-3.465	-15.428	-0.360	-0.059	-0.014
	Thermal 4{1}	0.911	-1.328	-13.268	-0.319	-0.056	0.012
	GRT1{1}	2.400	-3.367	-15.559	-0.350	-0.059	-0.013

B08 N	GRT2{1}	3.368	-4.492	-16.220	-0.349	-0.054	-0.026
	GRT3{1}	2.388	-3.412	-15.528	-0.352	-0.059	-0.015
	GRT4{1}	0.866	-1.275	-13.368	-0.310	-0.056	0.011
	Gravity{1}	-0.039	0.058	-0.046	0.007	0.002	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.420	-2.187	-17.665	-0.213	-0.065	0.016
	Thermal 2{1}	1.903	-2.607	-18.240	-0.194	-0.060	0.013
	Thermal 3{1}	1.419	-2.224	-17.647	-0.216	-0.065	0.014
	Thermal 4{1}	0.605	-1.224	-15.294	-0.205	-0.063	0.025
	GRT1{1}	1.381	-2.130	-17.711	-0.206	-0.063	0.015
	GRT2{1}	1.864	-2.549	-18.285	-0.188	-0.057	0.012
	GRT3{1}	1.380	-2.166	-17.693	-0.209	-0.063	0.013
GRT4{1}	0.566	-1.167	-15.340	-0.198	-0.060	0.024	

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Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
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B08 F	Gravity{1}	-0.036	0.052	-0.039	0.006	0.003	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.238	-1.878	-17.651	-0.140	-0.041	0.022
	Thermal 2{1}	1.665	-2.239	-18.101	-0.113	-0.033	0.021
	Thermal 3{1}	1.238	-1.911	-17.635	-0.143	-0.041	0.020
	Thermal 4{1}	0.514	-1.046	-15.440	-0.147	-0.044	0.028
	GRT1{1}	1.202	-1.826	-17.690	-0.134	-0.038	0.020
	GRT2{1}	1.629	-2.187	-18.140	-0.107	-0.031	0.020
	GRT3{1}	1.203	-1.859	-17.674	-0.137	-0.039	0.019
	GRT4{1}	0.479	-0.994	-15.479	-0.141	-0.041	0.027
B09 N	Gravity{1}	-0.007	0.004	-0.039	0.006	0.004	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.996	-1.184	-15.959	-0.043	-0.020	0.018
	Thermal 2{1}	1.489	-1.792	-15.506	-0.018	-0.013	0.021
	Thermal 3{1}	0.994	-1.188	-15.943	-0.046	-0.020	0.017
	Thermal 4{1}	0.231	-0.211	-15.155	-0.060	-0.024	0.018
	GRT1{1}	0.989	-1.179	-15.997	-0.037	-0.015	0.017

F_LINE_REV0.OUT

	GRT2{1}	1.482	-1.788	-15.544	-0.012	-0.009	0.020
	GRT3{1}	0.987	-1.184	-15.982	-0.040	-0.016	0.016
	GRT4{1}	0.224	-0.207	-15.194	-0.054	-0.020	0.017
B09 F	Gravity{1}	-0.002	-0.002	-0.031	0.006	0.005	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.845	-1.002	-15.801	-0.030	-0.014	0.017
	Thermal 2{1}	1.278	-1.551	-15.227	-0.015	-0.012	0.020
	Thermal 3{1}	0.843	-1.004	-15.787	-0.032	-0.014	0.016
	Thermal 4{1}	0.176	-0.143	-15.171	-0.040	-0.015	0.016
	GRT1{1}	0.843	-1.004	-15.832	-0.024	-0.010	0.016
	GRT2{1}	1.276	-1.552	-15.258	-0.009	-0.008	0.019
	GRT3{1}	0.841	-1.006	-15.818	-0.026	-0.010	0.016
	GRT4{1}	0.174	-0.145	-15.202	-0.034	-0.011	0.015
B15	Gravity{1}	0.000	0.000	-0.001	0.001	0.001	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.186	-0.240	-15.907	-0.003	-0.002	0.002
	Thermal 2{1}	0.285	-0.368	-15.297	-0.002	-0.002	0.003
	Thermal 3{1}	0.186	-0.240	-15.897	-0.003	-0.002	0.002
	Thermal 4{1}	0.032	-0.040	-15.297	-0.004	-0.002	0.002
	GRT1{1}	0.186	-0.240	-15.908	-0.002	-0.001	0.002
	GRT2{1}	0.285	-0.368	-15.299	-0.001	-0.001	0.003
	GRT3{1}	0.186	-0.240	-15.898	-0.002	-0.001	0.002
	GRT4{1}	0.032	-0.040	-15.298	-0.003	-0.001	0.002

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F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

10:17 AM

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
B11	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	-15.910	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	-15.300	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	-15.900	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	-15.300	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	-15.910	0.000	0.000	0.000

	F_LINE_REV0.OUT					
GRT2{1}	0.000	0.000	-15.300	0.000	0.000	0.000
GRT3{1}	0.000	0.000	-15.900	0.000	0.000	0.000
GRT4{1}	0.000	0.000	-15.300	0.000	0.000	0.000

*** Segment B end ***

*** Segment C begin ***

A03	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.024	0.000	0.000	-0.010	0.000	0.000
	Thermal 2{1}	1.024	0.000	0.000	-0.013	0.000	0.000
	Thermal 3{1}	1.024	0.000	0.000	-0.010	0.000	0.000
	Thermal 4{1}	1.024	0.000	0.000	-0.006	0.000	0.000
	GRT1{1}	1.024	0.000	0.000	-0.010	0.000	0.000
	GRT2{1}	1.024	0.000	0.000	-0.013	0.000	0.000
	GRT3{1}	1.024	0.000	0.000	-0.010	0.000	0.000
	GRT4{1}	1.024	0.000	0.000	-0.006	0.000	0.000
C01 N	Gravity{1}	0.022	0.479	-0.008	-0.012	-0.001	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.436	-19.747	-11.091	0.127	0.011	0.043
	Thermal 2{1}	2.164	-26.396	-11.090	0.057	-0.018	0.069
	Thermal 3{1}	2.870	-20.032	-11.091	0.124	-0.028	0.090
	Thermal 4{1}	0.556	-8.996	-11.093	0.241	0.033	0.014
	GRT1{1}	1.458	-19.268	-11.099	0.115	0.010	0.044
	GRT2{1}	2.186	-25.916	-11.097	0.045	-0.019	0.070
	GRT3{1}	2.893	-19.553	-11.099	0.112	-0.029	0.091
	GRT4{1}	0.578	-8.516	-11.101	0.229	0.032	0.015
C01 M	Gravity{1}	0.023	0.469	-0.012	-0.015	-0.001	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.414	-19.569	-11.173	0.222	0.014	0.044
	Thermal 2{1}	2.156	-26.262	-11.190	0.166	-0.016	0.070
	Thermal 3{1}	2.862	-19.856	-11.174	0.219	-0.025	0.092
	Thermal 4{1}	0.527	-8.745	-11.147	0.310	0.036	0.015
	GRT1{1}	1.437	-19.099	-11.185	0.206	0.013	0.045
	GRT2{1}	2.179	-25.792	-11.202	0.151	-0.017	0.071
	GRT3{1}	2.885	-19.386	-11.186	0.203	-0.026	0.093
	GRT4{1}	0.550	-8.276	-11.159	0.295	0.035	0.016

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F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

10:17 AM
AutoPIPE Plus 9.2.1 RESULT PAGE 13

D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
C01 F	Gravity{1}	0.023	0.465	-0.024	-0.018	-0.001	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.378	-19.356	-11.039	0.313	0.016	0.046
	Thermal 2{1}	2.110	-26.064	-11.088	0.273	-0.015	0.072
	Thermal 3{1}	2.803	-19.644	-11.042	0.311	-0.022	0.095
	Thermal 4{1}	0.506	-8.510	-10.960	0.377	0.038	0.016
	GRT1{1}	1.401	-18.892	-11.063	0.296	0.015	0.047
	GRT2{1}	2.133	-25.600	-11.112	0.255	-0.016	0.073
	GRT3{1}	2.826	-19.180	-11.066	0.293	-0.024	0.096
	GRT4{1}	0.528	-8.045	-10.984	0.359	0.037	0.017
C02	Gravity{1}	0.016	0.465	-0.106	0.008	-0.002	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.991	-17.807	-7.558	0.518	0.032	0.052
	Thermal 2{1}	1.504	-24.515	-7.726	0.524	-0.006	0.081
	Thermal 3{1}	2.004	-18.095	-7.572	0.518	-0.006	0.107
	Thermal 4{1}	0.369	-6.960	-7.295	0.508	0.053	0.019
	GRT1{1}	1.006	-17.342	-7.664	0.526	0.031	0.053
	GRT2{1}	1.520	-24.050	-7.832	0.532	-0.007	0.082
	GRT3{1}	2.020	-17.630	-7.678	0.526	-0.008	0.108
	GRT4{1}	0.384	-6.495	-7.401	0.515	0.052	0.020
C02 M	Gravity{1}	0.013	0.465	-0.080	0.008	-0.002	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.815	-17.151	-5.820	0.518	0.033	0.052
	Thermal 2{1}	1.232	-23.859	-5.967	0.525	-0.006	0.081
	Thermal 3{1}	1.644	-17.439	-5.835	0.518	-0.006	0.107
	Thermal 4{1}	0.306	-6.304	-5.593	0.507	0.053	0.019
	GRT1{1}	0.827	-16.686	-5.900	0.526	0.031	0.053
	GRT2{1}	1.245	-23.394	-6.047	0.532	-0.007	0.082
	GRT3{1}	1.656	-16.974	-5.915	0.526	-0.008	0.108
	GRT4{1}	0.318	-5.839	-5.673	0.515	0.052	0.020
FV05	Gravity{1}	0.009	0.465	-0.053	0.008	-0.002	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.639	-16.495	-4.083	0.518	0.033	0.053
	Thermal 2{1}	0.960	-23.203	-4.208	0.524	-0.006	0.081
	Thermal 3{1}	1.283	-16.783	-4.098	0.518	-0.006	0.108

	F_LINE_REV0.OUT				
Thermal 4{1}	0.242 -5.648 -3.893	0.507	0.054	0.019	
GRT1{1}	0.648 -16.030 -4.136	0.526	0.031	0.053	
GRT2{1}	0.969 -22.738 -4.262	0.532	-0.007	0.082	
GRT3{1}	1.293 -16.318 -4.152	0.526	-0.008	0.108	
GRT4{1}	0.252 -5.183 -3.946	0.515	0.052	0.020	

0

F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

10:17 AM

AutoPIPE Plus 9.2.1

RESULT PAGE 14

DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
C04	Gravity{1}	0.003	0.465	0.018	-0.005	-0.002	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.213	-15.054	-0.971	0.291	0.048	0.064
	Thermal 2{1}	0.315	-21.762	-1.014	0.303	0.003	0.094
	Thermal 3{1}	0.424	-15.342	-0.979	0.293	0.008	0.126
	Thermal 4{1}	0.083	-4.207	-0.910	0.272	0.068	0.025
	GRT1{1}	0.216	-14.589	-0.953	0.285	0.045	0.064
	GRT2{1}	0.318	-21.298	-0.996	0.298	0.001	0.095
	GRT3{1}	0.427	-14.877	-0.961	0.288	0.006	0.127
	GRT4{1}	0.086	-3.742	-0.892	0.267	0.066	0.026
C04 M	Gravity{1}	0.000	0.465	0.000	-0.006	-0.002	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	-14.398	0.000	0.289	0.048	0.064
	Thermal 2{1}	0.000	-20.757	0.000	0.302	0.003	0.094
	Thermal 3{1}	0.000	-14.686	0.000	0.291	0.008	0.126
	Thermal 4{1}	0.000	-4.096	0.000	0.271	0.068	0.025
	GRT1{1}	0.000	-13.934	0.000	0.283	0.046	0.064
	GRT2{1}	0.000	-20.292	0.000	0.296	0.001	0.095
	GRT3{1}	0.000	-14.222	0.000	0.286	0.006	0.127
	GRT4{1}	0.000	-3.632	0.000	0.265	0.066	0.026
C17	Gravity{1}	-0.003	0.465	-0.020	-0.006	-0.002	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.213	-13.743	0.965	0.287	0.048	0.064
	Thermal 2{1}	-0.315	-19.751	1.008	0.300	0.003	0.094
	Thermal 3{1}	-0.424	-14.031	0.973	0.289	0.009	0.126

		F_LINE_REV0.OUT					
	Thermal 4{1}	-0.083	-3.986	0.904	0.269	0.068	0.025
	GRT1{1}	-0.216	-13.278	0.945	0.281	0.046	0.064
	GRT2{1}	-0.318	-19.287	0.988	0.294	0.001	0.095
	GRT3{1}	-0.427	-13.566	0.953	0.283	0.006	0.127
	GRT4{1}	-0.086	-3.521	0.885	0.263	0.066	0.026
C16	Gravity{1}	-0.006	0.465	-0.093	-0.013	-0.003	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.487	-12.764	1.815	0.063	0.058	0.041
	Thermal 2{1}	-0.717	-18.250	1.902	0.067	0.009	0.059
	Thermal 3{1}	-0.966	-13.052	1.835	0.065	0.019	0.080
	Thermal 4{1}	-0.192	-3.821	1.698	0.058	0.078	0.016
	GRT1{1}	-0.494	-12.299	1.722	0.050	0.056	0.041
	GRT2{1}	-0.723	-17.785	1.808	0.054	0.006	0.059
	GRT3{1}	-0.972	-12.587	1.742	0.052	0.016	0.080
	GRT4{1}	-0.198	-3.356	1.605	0.045	0.075	0.017

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F_LINE_REV0

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RESULT PAGE 15

DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
C22	Gravity{1}	-0.007	0.465	-0.112	0.002	-0.003	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.572	-12.176	1.830	-0.048	0.064	0.013
	Thermal 2{1}	-0.838	-17.349	1.923	-0.049	0.012	0.019
	Thermal 3{1}	-1.131	-12.464	1.855	-0.047	0.025	0.026
	Thermal 4{1}	-0.226	-3.722	1.709	-0.046	0.084	0.006
	GRT1{1}	-0.580	-11.711	1.718	-0.047	0.062	0.014
	GRT2{1}	-0.846	-16.884	1.811	-0.047	0.009	0.019
	GRT3{1}	-1.139	-11.999	1.743	-0.045	0.022	0.026
	GRT4{1}	-0.234	-3.257	1.597	-0.044	0.081	0.006
C21	Gravity{1}	-0.006	0.465	-0.043	0.017	-0.003	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.450	-11.081	1.086	-0.206	0.076	-0.063
	Thermal 2{1}	-0.656	-15.669	1.149	-0.216	0.019	-0.093
	Thermal 3{1}	-0.887	-11.369	1.108	-0.208	0.036	-0.126

		F_LINE_REV0.OUT					
	Thermal 4{1}	-0.180	-3.537	1.010	-0.192	0.095	-0.025
	GRT1{1}	-0.456	-10.616	1.044	-0.188	0.073	-0.064
	GRT2{1}	-0.662	-15.204	1.106	-0.199	0.016	-0.094
	GRT3{1}	-0.893	-10.904	1.065	-0.191	0.033	-0.126
	GRT4{1}	-0.186	-3.072	0.967	-0.175	0.092	-0.026
C06	Gravity{1}	0.000	0.465	0.000	-0.008	-0.003	-0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	-10.227	0.000	-0.284	0.085	-0.147
	Thermal 2{1}	0.000	-14.361	0.000	-0.303	0.024	-0.214
	Thermal 3{1}	0.000	-10.515	0.000	-0.292	0.044	-0.290
	Thermal 4{1}	0.000	-3.393	0.000	-0.263	0.103	-0.059
	GRT1{1}	0.000	-9.763	0.000	-0.292	0.081	-0.149
	GRT2{1}	0.000	-13.896	0.000	-0.311	0.020	-0.216
	GRT3{1}	0.000	-10.051	0.000	-0.300	0.041	-0.291
	GRT4{1}	0.000	-2.929	0.000	-0.271	0.100	-0.061
C28	Gravity{1}	0.019	0.465	-0.382	-0.058	-0.004	-0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.898	-8.451	-3.080	-0.388	0.092	-0.234
	Thermal 2{1}	2.794	-11.636	-3.208	-0.399	0.032	-0.346
	Thermal 3{1}	3.601	-8.739	-3.189	-0.404	0.063	-0.410
	Thermal 4{1}	0.750	-3.094	-2.848	-0.356	0.122	-0.088
	GRT1{1}	1.917	-7.986	-3.462	-0.446	0.088	-0.236
	GRT2{1}	2.813	-11.172	-3.590	-0.457	0.028	-0.348
	GRT3{1}	3.619	-8.274	-3.571	-0.462	0.059	-0.412
	GRT4{1}	0.769	-2.629	-3.230	-0.414	0.119	-0.090

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F_LINE_REV0

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
C07	Gravity{1}	0.018	0.465	-0.768	-0.013	-0.004	0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.643	-6.674	-6.965	-0.462	0.099	-0.114
	Thermal 2{1}	5.359	-8.912	-7.176	-0.470	0.040	-0.163
	Thermal 3{1}	5.901	-6.962	-7.233	-0.480	0.081	-0.003

		F_LINE_REV0.OUT					
	Thermal 4{1}	1.299	-2.795	-6.339	-0.405	0.141	-0.015
	GRT1{1}	3.661	-6.209	-7.733	-0.474	0.095	-0.111
	GRT2{1}	5.377	-8.447	-7.944	-0.483	0.036	-0.161
	GRT3{1}	5.919	-6.497	-8.001	-0.492	0.077	-0.001
	GRT4{1}	1.317	-2.330	-7.108	-0.418	0.137	-0.012
C08	Gravity{1}	0.011	0.465	-0.768	0.011	-0.005	0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.836	-6.100	-8.414	-0.523	0.117	-0.022
	Thermal 2{1}	5.639	-8.032	-8.654	-0.533	0.062	-0.034
	Thermal 3{1}	5.658	-6.388	-8.719	-0.527	0.116	0.154
	Thermal 4{1}	1.279	-2.698	-7.600	-0.452	0.164	0.025
	GRT1{1}	3.847	-5.635	-9.182	-0.511	0.112	-0.020
	GRT2{1}	5.650	-7.567	-9.422	-0.522	0.057	-0.031
	GRT3{1}	5.669	-5.923	-9.487	-0.516	0.111	0.157
	GRT4{1}	1.290	-2.233	-8.368	-0.440	0.159	0.027
C08 M	Gravity{1}	0.003	0.465	-0.729	0.012	-0.005	0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.909	-5.444	-10.168	-0.524	0.118	-0.021
	Thermal 2{1}	5.749	-7.026	-10.442	-0.534	0.063	-0.032
	Thermal 3{1}	5.139	-5.732	-10.488	-0.528	0.116	0.155
	Thermal 4{1}	1.196	-2.587	-9.115	-0.452	0.164	0.025
	GRT1{1}	3.912	-4.980	-10.897	-0.512	0.113	-0.019
	GRT2{1}	5.752	-6.562	-11.171	-0.522	0.058	-0.030
	GRT3{1}	5.142	-5.267	-11.217	-0.516	0.111	0.158
	GRT4{1}	1.199	-2.122	-9.844	-0.441	0.159	0.027
C18	Gravity{1}	-0.006	0.465	-0.690	0.012	-0.005	0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.980	-4.789	-11.923	-0.524	0.118	-0.021
	Thermal 2{1}	5.856	-6.021	-12.232	-0.534	0.063	-0.032
	Thermal 3{1}	4.617	-5.076	-12.257	-0.528	0.117	0.156
	Thermal 4{1}	1.112	-2.477	-10.631	-0.452	0.164	0.025
	GRT1{1}	3.974	-4.324	-12.614	-0.512	0.113	-0.018
	GRT2{1}	5.850	-5.556	-12.922	-0.522	0.058	-0.029
	GRT3{1}	4.612	-4.611	-12.947	-0.516	0.112	0.158
	GRT4{1}	1.106	-2.012	-11.321	-0.441	0.159	0.028

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F_LINE_REV0

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F_LINE_REV0.OUT
D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
C10	Gravity{1}	-0.019	0.465	-0.626	0.032	-0.006	0.007
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.994	-4.214	-13.472	-0.523	0.136	0.006
	Thermal 2{1}	5.873	-5.140	-13.806	-0.530	0.085	0.013
	Thermal 3{1}	4.177	-4.501	-13.756	-0.484	0.151	0.130
	Thermal 4{1}	1.045	-2.380	-11.965	-0.450	0.186	0.017
	GRT1{1}	3.975	-3.749	-14.099	-0.491	0.130	0.013
	GRT2{1}	5.854	-4.675	-14.432	-0.498	0.079	0.021
	GRT3{1}	4.157	-4.036	-14.383	-0.451	0.145	0.137
	GRT4{1}	1.026	-1.915	-12.591	-0.418	0.180	0.024
C11 N	Gravity{1}	-0.036	0.465	-0.530	0.051	0.005	0.007
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.911	-3.773	-14.672	-0.529	0.036	0.064
	Thermal 2{1}	5.751	-4.464	-15.017	-0.532	-0.029	0.090
	Thermal 3{1}	3.839	-4.060	-14.865	-0.491	0.064	0.166
	Thermal 4{1}	0.980	-2.306	-12.999	-0.458	0.119	0.040
	GRT1{1}	3.876	-3.308	-15.202	-0.478	0.041	0.071
	GRT2{1}	5.715	-3.999	-15.547	-0.481	-0.024	0.097
	GRT3{1}	3.803	-3.595	-15.395	-0.440	0.069	0.173
	GRT4{1}	0.944	-1.841	-13.529	-0.408	0.125	0.047
C11 F	Gravity{1}	-0.039	0.464	-0.501	0.058	0.009	0.007
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.844	-3.686	-14.937	-0.525	0.012	0.094
	Thermal 2{1}	5.653	-4.328	-15.292	-0.525	-0.056	0.130
	Thermal 3{1}	3.723	-3.986	-15.107	-0.490	0.043	0.183
	Thermal 4{1}	0.951	-2.296	-13.216	-0.457	0.103	0.053
	GRT1{1}	3.805	-3.222	-15.437	-0.467	0.021	0.101
	GRT2{1}	5.614	-3.864	-15.793	-0.467	-0.047	0.136
	GRT3{1}	3.684	-3.522	-15.608	-0.432	0.052	0.190
	GRT4{1}	0.912	-1.832	-13.717	-0.399	0.112	0.059
C12 N	Gravity{1}	-0.062	0.450	-0.217	0.064	0.016	0.006
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	2.900	-3.220	-16.946	-0.401	-0.140	0.143
	Thermal 2{1}	4.294	-3.562	-17.448	-0.380	-0.232	0.194
	Thermal 3{1}	2.503	-3.682	-16.937	-0.398	-0.092	0.202
	Thermal 4{1}	0.620	-2.319	-14.758	-0.376	0.005	0.071

F_LINE_REV0.OUT

GRT1{1}	2.838	-2.770	-17.163	-0.338	-0.124	0.149
GRT2{1}	4.231	-3.112	-17.665	-0.316	-0.216	0.199
GRT3{1}	2.440	-3.231	-17.154	-0.334	-0.076	0.207
GRT4{1}	0.558	-1.868	-14.974	-0.313	0.021	0.077

 F_LINE_REV0
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BENTLEY

RESULT PAGE 18

D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
C12 F	Gravity{1}	-0.054	0.392	-0.158	0.051	0.011	0.005
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	2.518	-2.815	-17.132	-0.261	-0.168	0.159
	Thermal 2{1}	3.719	-3.127	-17.554	-0.221	-0.266	0.212
	Thermal 3{1}	2.122	-3.282	-17.107	-0.295	-0.121	0.204
	Thermal 4{1}	0.537	-2.014	-15.020	-0.278	-0.010	0.080
	GRT1{1}	2.464	-2.423	-17.290	-0.210	-0.157	0.164
	GRT2{1}	3.665	-2.734	-17.712	-0.170	-0.255	0.217
	GRT3{1}	2.068	-2.890	-17.265	-0.244	-0.111	0.208
	GRT4{1}	0.483	-1.621	-15.178	-0.227	0.001	0.085
C13 N	Gravity{1}	0.006	0.037	-0.157	0.035	0.005	0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.908	-1.490	-15.443	-0.105	-0.171	0.119
	Thermal 2{1}	1.292	-2.212	-14.962	-0.065	-0.250	0.159
	Thermal 3{1}	0.880	-1.523	-15.417	-0.149	-0.136	0.128
	Thermal 4{1}	0.283	-0.342	-14.738	-0.143	-0.038	0.053
	GRT1{1}	0.914	-1.453	-15.600	-0.070	-0.166	0.122
	GRT2{1}	1.298	-2.175	-15.119	-0.030	-0.244	0.163
	GRT3{1}	0.886	-1.486	-15.575	-0.114	-0.131	0.131
	GRT4{1}	0.289	-0.305	-14.895	-0.107	-0.033	0.056
C13 F	Gravity{1}	0.009	0.002	-0.123	0.033	0.005	0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.607	-1.214	-15.389	-0.112	-0.129	0.094
	Thermal 2{1}	0.865	-1.876	-14.790	-0.090	-0.187	0.125
	Thermal 3{1}	0.606	-1.215	-15.381	-0.127	-0.100	0.098
	Thermal 4{1}	0.192	-0.184	-14.841	-0.123	-0.032	0.043

F_LINE_REV0.OUT

	GRT1{1}	0.616	-1.212	-15.511	-0.079	-0.124	0.097
	GRT2{1}	0.874	-1.874	-14.913	-0.058	-0.181	0.127
	GRT3{1}	0.615	-1.213	-15.504	-0.095	-0.094	0.100
	GRT4{1}	0.200	-0.183	-14.964	-0.090	-0.026	0.046
C20	Gravity{1}	0.000	0.000	-0.004	0.004	0.001	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.076	-0.294	-15.892	-0.017	-0.012	0.011
	Thermal 2{1}	0.114	-0.451	-15.281	-0.017	-0.016	0.015
	Thermal 3{1}	0.075	-0.294	-15.884	-0.017	-0.009	0.011
	Thermal 4{1}	0.015	-0.049	-15.285	-0.016	-0.004	0.005
	GRT1{1}	0.076	-0.294	-15.896	-0.013	-0.011	0.012
	GRT2{1}	0.114	-0.451	-15.286	-0.012	-0.015	0.016
	GRT3{1}	0.075	-0.294	-15.888	-0.012	-0.008	0.011
	GRT4{1}	0.016	-0.049	-15.289	-0.011	-0.003	0.005

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RESULT PAGE 19

D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
C15	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	-15.910	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	-15.300	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	-15.900	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	-15.300	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	-15.910	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	-15.300	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	-15.900	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	-15.300	0.000	0.000	0.000

*** Segment C end ***

*** Segment D begin ***

A02	Gravity{1}	0.000	0.000	-0.005	0.000	-0.001	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.024	-0.004	0.003	-0.009	0.001	0.001
	Thermal 2{1}	-1.024	-0.006	0.004	-0.014	0.001	0.001

Thermal 3{1}	-1.024	-0.004	0.003	-0.010	0.001	0.001
Thermal 4{1}	-1.024	-0.004	0.003	-0.010	0.001	0.001
GRT1{1}	-1.024	-0.004	-0.002	-0.009	0.000	0.001
GRT2{1}	-1.024	-0.005	-0.001	-0.013	0.000	0.001
GRT3{1}	-1.024	-0.004	-0.002	-0.009	0.000	0.001
GRT4{1}	-1.024	-0.004	-0.002	-0.010	0.000	0.001

D01 M	Gravity{1}	0.062	0.018	-0.015	-0.016	-0.005	0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.124	-11.667	-8.311	-0.048	-0.042	-0.003
	Thermal 2{1}	-0.191	-17.638	-8.348	-0.143	-0.036	-0.005
	Thermal 3{1}	-0.099	-11.673	-8.311	-0.048	-0.045	-0.002
	Thermal 4{1}	-0.143	-12.005	-8.312	-0.052	-0.041	-0.003
	GRT1{1}	-0.062	-11.649	-8.326	-0.064	-0.047	0.000
	GRT2{1}	-0.129	-17.621	-8.363	-0.159	-0.040	-0.003
	GRT3{1}	-0.037	-11.655	-8.326	-0.064	-0.049	0.001
	GRT4{1}	-0.081	-11.987	-8.327	-0.068	-0.045	-0.001

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Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
D01 F	Gravity{1}	0.061	0.011	-0.032	-0.019	-0.005	0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.104	-11.490	-8.389	0.037	-0.044	-0.003
	Thermal 2{1}	-0.172	-17.495	-8.502	-0.030	-0.036	-0.006

Thermal 3{1}	-0.079	-11.497	-8.389	0.037	-0.046	-0.002
Thermal 4{1}	-0.123	-11.830	-8.394	0.035	-0.042	-0.004
GRT1{1}	-0.043	-11.479	-8.421	0.018	-0.049	-0.001
GRT2{1}	-0.110	-17.484	-8.534	-0.049	-0.041	-0.004
GRT3{1}	-0.017	-11.486	-8.421	0.018	-0.051	0.000
GRT4{1}	-0.062	-11.819	-8.426	0.016	-0.047	-0.002

D02 M	Gravity{1}	0.020	0.011	-0.088	0.016	-0.010	0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.042	-7.826	-4.415	0.293	-0.060	-0.003
	Thermal 2{1}	-0.062	-13.832	-4.679	0.314	-0.045	-0.005
	Thermal 3{1}	-0.034	-7.832	-4.415	0.293	-0.065	-0.002
	Thermal 4{1}	-0.049	-8.166	-4.408	0.294	-0.056	-0.004
	GRT1{1}	-0.022	-7.815	-4.504	0.309	-0.070	-0.001
	GRT2{1}	-0.042	-13.820	-4.767	0.330	-0.055	-0.003
	GRT3{1}	-0.014	-7.821	-4.503	0.309	-0.075	0.000
	GRT4{1}	-0.029	-8.154	-4.497	0.311	-0.066	-0.002

FV06	Gravity{1}	0.012	0.011	-0.024	0.016	-0.010	0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.030	-7.056	-3.264	0.293	-0.060	-0.003
	Thermal 2{1}	-0.041	-13.062	-3.446	0.314	-0.045	-0.005
	Thermal 3{1}	-0.025	-7.062	-3.263	0.293	-0.065	-0.002
	Thermal 4{1}	-0.034	-7.396	-3.251	0.294	-0.056	-0.004
	GRT1{1}	-0.018	-7.045	-3.288	0.309	-0.070	-0.001
	GRT2{1}	-0.028	-13.051	-3.469	0.330	-0.055	-0.003
	GRT3{1}	-0.012	-7.051	-3.287	0.309	-0.075	0.000
	GRT4{1}	-0.022	-7.385	-3.274	0.311	-0.066	-0.002

BENTLEY

D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
D04	Gravity{1}	0.002	0.011	0.056	-0.014	-0.013	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.008	-5.358	-0.918	0.234	-0.069	-0.002
	Thermal 2{1}	-0.008	-11.365	-0.950	0.242	-0.050	-0.002
	Thermal 3{1}	-0.007	-5.365	-0.917	0.233	-0.076	-0.002
	Thermal 4{1}	-0.008	-5.698	-0.907	0.231	-0.065	-0.002
	GRT1{1}	-0.006	-5.347	-0.862	0.219	-0.082	-0.002
	GRT2{1}	-0.006	-11.353	-0.894	0.228	-0.063	-0.002
	GRT3{1}	-0.005	-5.353	-0.861	0.219	-0.088	-0.001
	GRT4{1}	-0.006	-5.687	-0.851	0.217	-0.077	-0.002
D04 M	Gravity{1}	0.000	0.011	0.000	-0.015	-0.013	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	-4.589	0.000	0.233	-0.069	-0.002
	Thermal 2{1}	0.000	-10.184	0.000	0.241	-0.050	-0.002
	Thermal 3{1}	0.000	-4.595	0.000	0.233	-0.076	-0.002
	Thermal 4{1}	0.000	-4.916	0.000	0.230	-0.065	-0.002
	GRT1{1}	0.000	-4.577	0.000	0.218	-0.082	-0.002
	GRT2{1}	0.000	-10.173	0.000	0.227	-0.063	-0.002
	GRT3{1}	0.000	-4.584	0.000	0.218	-0.088	-0.001
	GRT4{1}	0.000	-4.905	0.000	0.216	-0.077	-0.002
D17	Gravity{1}	-0.002	0.011	-0.059	-0.015	-0.013	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.008	-3.819	0.915	0.232	-0.069	-0.002
	Thermal 2{1}	0.008	-9.004	0.947	0.240	-0.050	-0.002
	Thermal 3{1}	0.007	-3.825	0.915	0.232	-0.076	-0.002
	Thermal 4{1}	0.008	-4.134	0.904	0.230	-0.065	-0.002
	GRT1{1}	0.006	-3.808	0.857	0.217	-0.082	-0.002
	GRT2{1}	0.006	-8.993	0.889	0.225	-0.063	-0.002
	GRT3{1}	0.005	-3.814	0.856	0.217	-0.088	-0.001
	GRT4{1}	0.006	-4.123	0.846	0.214	-0.077	-0.002
D19	Gravity{1}	-0.002	0.011	-0.172	-0.029	-0.014	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.014	-2.955	1.762	0.148	-0.074	-0.001
	Thermal 2{1}	0.013	-7.679	1.801	0.145	-0.053	0.000

	F_LINE_REV0.0UT					
Thermal 3{1}	0.013	-2.961	1.761	0.148	-0.081	-0.001
Thermal 4{1}	0.015	-3.256	1.735	0.144	-0.069	-0.001
GRT1{1}	0.012	-2.943	1.591	0.119	-0.088	-0.001
GRT2{1}	0.011	-7.667	1.630	0.116	-0.067	-0.001
GRT3{1}	0.011	-2.950	1.589	0.119	-0.095	-0.001
GRT4{1}	0.013	-3.245	1.564	0.116	-0.083	-0.001

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RESULT PAGE 22

D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
D23	Gravity{1}	0.000	0.011	-0.296	-0.010	-0.016	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.017	-1.868	2.254	0.025	-0.080	0.000
	Thermal 2{1}	0.011	-6.012	2.254	0.016	-0.056	0.001
	Thermal 3{1}	0.017	-1.874	2.252	0.025	-0.088	0.000
	Thermal 4{1}	0.017	-2.152	2.207	0.022	-0.074	0.000
	GRT1{1}	0.018	-1.857	1.958	0.015	-0.096	-0.001
	GRT2{1}	0.011	-6.001	1.957	0.006	-0.072	0.000
	GRT3{1}	0.017	-1.863	1.955	0.015	-0.104	-0.001
	GRT4{1}	0.017	-2.141	1.911	0.012	-0.090	0.000
D22	Gravity{1}	0.003	0.011	-0.240	0.026	-0.018	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.013	-0.547	1.852	-0.150	-0.088	0.001
	Thermal 2{1}	0.004	-3.987	1.802	-0.152	-0.060	0.001
	Thermal 3{1}	0.014	-0.553	1.849	-0.149	-0.096	0.001
	Thermal 4{1}	0.012	-0.810	1.800	-0.147	-0.081	0.001
	GRT1{1}	0.016	-0.536	1.612	-0.124	-0.105	0.001
	GRT2{1}	0.007	-3.975	1.562	-0.127	-0.078	0.001
	GRT3{1}	0.017	-0.542	1.609	-0.124	-0.114	0.001
	GRT4{1}	0.015	-0.799	1.561	-0.121	-0.099	0.001
D26	Gravity{1}	0.000	0.011	0.000	0.028	-0.020	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.869	0.000	-0.368	-0.095	0.002
	Thermal 2{1}	0.000	-1.815	0.000	-0.348	-0.065	0.000

		F_LINE_REV0.0UT					
	Thermal 3{1}	0.000	0.863	0.000	-0.367	-0.105	0.003
	Thermal 4{1}	0.000	0.629	0.000	-0.355	-0.088	0.002
	GRT1{1}	0.000	0.881	0.000	-0.340	-0.115	0.004
	GRT2{1}	0.000	-1.803	0.000	-0.320	-0.085	0.001
	GRT3{1}	0.000	0.875	0.000	-0.339	-0.125	0.004
	GRT4{1}	0.000	0.640	0.000	-0.327	-0.108	0.003
D07 N	Gravity{1}	-0.003	0.011	0.054	0.019	-0.021	0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.007	1.328	-0.950	-0.440	-0.100	0.004
	Thermal 2{1}	0.001	-1.112	-0.893	-0.411	-0.069	0.000
	Thermal 3{1}	-0.008	1.321	-0.948	-0.439	-0.109	0.004
	Thermal 4{1}	-0.006	1.094	-0.915	-0.423	-0.092	0.003
	GRT1{1}	-0.010	1.339	-0.896	-0.420	-0.121	0.005
	GRT2{1}	-0.002	-1.101	-0.838	-0.392	-0.089	0.002
	GRT3{1}	-0.011	1.333	-0.894	-0.420	-0.130	0.006
	GRT4{1}	-0.009	1.105	-0.861	-0.404	-0.113	0.005

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F_LINE_REV0

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
D07 F	Gravity{1}	-0.004	0.011	0.059	0.016	-0.021	0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.014	1.383	-1.082	-0.463	-0.102	0.004
	Thermal 2{1}	-0.009	-1.027	-1.015	-0.432	-0.070	0.001
	Thermal 3{1}	-0.015	1.377	-1.080	-0.462	-0.111	0.005
	Thermal 4{1}	-0.013	1.150	-1.042	-0.446	-0.094	0.004
	GRT1{1}	-0.017	1.394	-1.023	-0.447	-0.123	0.006
	GRT2{1}	-0.012	-1.015	-0.956	-0.416	-0.091	0.002
	GRT3{1}	-0.019	1.388	-1.022	-0.446	-0.132	0.007
	GRT4{1}	-0.016	1.162	-0.984	-0.429	-0.115	0.005
D08 N	Gravity{1}	-0.052	0.001	-0.014	-0.004	-0.013	0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.926	5.132	-13.733	-0.707	-0.032	-0.002
	Thermal 2{1}	-1.278	4.750	-12.783	-0.682	-0.016	-0.007

		F_LINE_REV0.OUT					
	Thermal 3{1}	-0.948	5.121	-13.735	-0.705	-0.036	-0.001
	Thermal 4{1}	-0.924	4.962	-13.173	-0.681	-0.028	-0.003
	GRT1{1}	-0.978	5.132	-13.747	-0.711	-0.045	0.000
	GRT2{1}	-1.330	4.751	-12.798	-0.687	-0.029	-0.005
	GRT3{1}	-1.000	5.122	-13.750	-0.710	-0.049	0.001
	GRT4{1}	-0.976	4.963	-13.187	-0.685	-0.041	0.000
D08 F	Gravity{1}	-0.040	-0.003	-0.022	-0.001	-0.010	0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.956	4.477	-14.903	-0.666	-0.004	-0.004
	Thermal 2{1}	-1.345	4.242	-14.069	-0.667	0.004	-0.009
	Thermal 3{1}	-0.975	4.468	-14.905	-0.665	-0.007	-0.003
	Thermal 4{1}	-0.958	4.342	-14.315	-0.645	-0.002	-0.004
	GRT1{1}	-0.996	4.474	-14.925	-0.667	-0.014	-0.001
	GRT2{1}	-1.385	4.239	-14.092	-0.668	-0.006	-0.006
	GRT3{1}	-1.015	4.464	-14.927	-0.666	-0.017	0.000
	GRT4{1}	-0.998	4.338	-14.337	-0.646	-0.012	-0.002
D09	Gravity{1}	0.050	0.019	-0.023	0.003	-0.004	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.602	-3.238	-17.582	-0.415	0.105	-0.031
	Thermal 2{1}	-2.013	-3.618	-18.176	-0.417	0.105	-0.036
	Thermal 3{1}	-1.591	-3.229	-17.584	-0.414	0.104	-0.031
	Thermal 4{1}	-1.599	-3.149	-17.037	-0.402	0.103	-0.031
	GRT1{1}	-1.552	-3.219	-17.605	-0.412	0.101	-0.030
	GRT2{1}	-1.963	-3.599	-18.199	-0.414	0.101	-0.035
	GRT3{1}	-1.541	-3.210	-17.607	-0.410	0.100	-0.030
	GRT4{1}	-1.549	-3.130	-17.059	-0.399	0.099	-0.030

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F_LINE_REV0

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
D18	Gravity{1}	0.051	0.020	-0.021	0.003	-0.004	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.421	-3.363	-17.501	-0.396	0.108	-0.033
	Thermal 2{1}	-1.729	-3.797	-18.093	-0.397	0.106	-0.039

		F_LINE_REV0.OUT					
	Thermal 3{1}	-1.410	-3.354	-17.503	-0.395	0.106	-0.033
	Thermal 4{1}	-1.415	-3.275	-16.959	-0.383	0.105	-0.033
	GRT1{1}	-1.371	-3.343	-17.522	-0.393	0.104	-0.032
	GRT2{1}	-1.679	-3.777	-18.114	-0.394	0.102	-0.038
	GRT3{1}	-1.360	-3.333	-17.523	-0.392	0.103	-0.032
	GRT4{1}	-1.364	-3.255	-16.979	-0.380	0.101	-0.032
D11	Gravity{1}	0.051	0.021	-0.018	0.003	-0.003	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.205	-3.515	-17.419	-0.366	0.107	-0.035
	Thermal 2{1}	-1.391	-4.015	-18.008	-0.364	0.103	-0.041
	Thermal 3{1}	-1.194	-3.505	-17.420	-0.365	0.106	-0.034
	Thermal 4{1}	-1.195	-3.428	-16.881	-0.354	0.104	-0.035
	GRT1{1}	-1.154	-3.493	-17.438	-0.363	0.104	-0.034
	GRT2{1}	-1.340	-3.994	-18.026	-0.361	0.099	-0.040
	GRT3{1}	-1.143	-3.484	-17.439	-0.362	0.103	-0.034
	GRT4{1}	-1.144	-3.407	-16.899	-0.351	0.101	-0.034
D12 N	Gravity{1}	0.051	0.022	-0.017	0.003	-0.003	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.088	-3.597	-17.382	-0.343	0.103	-0.035
	Thermal 2{1}	-1.208	-4.134	-17.967	-0.338	0.097	-0.041
	Thermal 3{1}	-1.077	-3.587	-17.382	-0.342	0.102	-0.034
	Thermal 4{1}	-1.076	-3.512	-16.845	-0.331	0.100	-0.035
	GRT1{1}	-1.037	-3.575	-17.399	-0.340	0.099	-0.034
	GRT2{1}	-1.157	-4.112	-17.985	-0.335	0.093	-0.040
	GRT3{1}	-1.026	-3.566	-17.400	-0.339	0.098	-0.033
	GRT4{1}	-1.025	-3.490	-16.862	-0.328	0.096	-0.034
D12 F	Gravity{1}	0.048	0.020	-0.015	0.003	-0.004	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.834	-3.413	-17.142	-0.275	0.082	-0.045
	Thermal 2{1}	-0.872	-4.009	-17.620	-0.262	0.071	-0.052
	Thermal 3{1}	-0.824	-3.405	-17.143	-0.273	0.081	-0.044
	Thermal 4{1}	-0.822	-3.341	-16.605	-0.264	0.079	-0.044
	GRT1{1}	-0.786	-3.393	-17.158	-0.272	0.078	-0.044
	GRT2{1}	-0.824	-3.989	-17.635	-0.260	0.066	-0.051
	GRT3{1}	-0.776	-3.385	-17.158	-0.271	0.077	-0.043
	GRT4{1}	-0.774	-3.321	-16.620	-0.261	0.075	-0.043

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F_LINE_REV0

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
D13 N	Gravity{1}	0.009	0.001	-0.015	0.002	-0.004	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.372	-1.616	-15.453	-0.164	0.036	-0.013
	Thermal 2{1}	-0.530	-2.378	-15.027	-0.143	0.023	-0.014
	Thermal 3{1}	-0.371	-1.616	-15.454	-0.163	0.036	-0.013
	Thermal 4{1}	-0.377	-1.631	-14.889	-0.155	0.035	-0.013
	GRT1{1}	-0.363	-1.615	-15.469	-0.161	0.032	-0.012
	GRT2{1}	-0.521	-2.377	-15.043	-0.141	0.019	-0.013
	GRT3{1}	-0.362	-1.615	-15.469	-0.161	0.032	-0.012
	GRT4{1}	-0.368	-1.630	-14.904	-0.153	0.031	-0.012
D13 F	Gravity{1}	0.004	-0.001	-0.012	0.002	-0.003	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.288	-1.272	-15.412	-0.138	0.029	-0.005
	Thermal 2{1}	-0.435	-1.952	-14.861	-0.122	0.019	-0.005
	Thermal 3{1}	-0.288	-1.272	-15.412	-0.138	0.028	-0.005
	Thermal 4{1}	-0.294	-1.292	-14.836	-0.131	0.028	-0.005
	GRT1{1}	-0.284	-1.273	-15.424	-0.136	0.026	-0.004
	GRT2{1}	-0.431	-1.953	-14.873	-0.119	0.016	-0.004
	GRT3{1}	-0.283	-1.273	-15.424	-0.136	0.025	-0.004
	GRT4{1}	-0.289	-1.293	-14.848	-0.129	0.025	-0.004
D14	Gravity{1}	0.000	0.000	-0.001	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.065	-0.296	-15.894	-0.018	0.004	0.000
	Thermal 2{1}	-0.100	-0.454	-15.286	-0.016	0.003	0.000
	Thermal 3{1}	-0.065	-0.296	-15.894	-0.018	0.004	0.000
	Thermal 4{1}	-0.066	-0.301	-15.294	-0.017	0.004	0.000
	GRT1{1}	-0.065	-0.296	-15.894	-0.017	0.003	0.000
	GRT2{1}	-0.100	-0.454	-15.286	-0.015	0.003	0.001
	GRT3{1}	-0.065	-0.296	-15.894	-0.017	0.003	0.000
	GRT4{1}	-0.066	-0.301	-15.295	-0.016	0.003	0.000
D27	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	-15.910	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	-15.300	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	-15.910	0.000	0.000	0.000

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Thermal 4{1}	0.000	0.000	-15.310	0.000	0.000	0.000
GRT1{1}	0.000	0.000	-15.910	0.000	0.000	0.000
GRT2{1}	0.000	0.000	-15.300	0.000	0.000	0.000
GRT3{1}	0.000	0.000	-15.910	0.000	0.000	0.000
GRT4{1}	0.000	0.000	-15.310	0.000	0.000	0.000

*** Segment D end ***

*** Segment E begin ***

□

F_LINE_REV0

09/13/2010 FEED LINE

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RESULT PAGE 26

D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
D09	Gravity{1}	0.050	0.019	-0.023	0.003	-0.004	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.602	-3.238	-17.582	-0.415	0.105	-0.031
	Thermal 2{1}	-2.013	-3.618	-18.176	-0.417	0.105	-0.036
	Thermal 3{1}	-1.591	-3.229	-17.584	-0.414	0.104	-0.031
	Thermal 4{1}	-1.599	-3.149	-17.037	-0.402	0.103	-0.031
	GRT1{1}	-1.552	-3.219	-17.605	-0.412	0.101	-0.030
	GRT2{1}	-1.963	-3.599	-18.199	-0.414	0.101	-0.035
	GRT3{1}	-1.541	-3.210	-17.607	-0.410	0.100	-0.030
	GRT4{1}	-1.549	-3.130	-17.059	-0.399	0.099	-0.030
E06	Gravity{1}	0.050	0.019	-0.025	0.003	-0.004	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.784	-3.116	-17.665	-0.396	0.107	-0.030
	Thermal 2{1}	-2.298	-3.443	-18.258	-0.395	0.109	-0.035
	Thermal 3{1}	-1.774	-3.107	-17.668	-0.395	0.106	-0.030
	Thermal 4{1}	-1.784	-3.025	-17.116	-0.384	0.105	-0.030
	GRT1{1}	-1.735	-3.097	-17.690	-0.394	0.104	-0.030
	GRT2{1}	-2.248	-3.424	-18.283	-0.392	0.105	-0.034
	GRT3{1}	-1.724	-3.089	-17.693	-0.392	0.102	-0.029
	GRT4{1}	-1.735	-3.007	-17.141	-0.381	0.101	-0.029
E07	Gravity{1}	0.049	0.018	-0.028	0.003	-0.004	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-2.003	-2.970	-17.747	-0.365	0.110	-0.030

F_LINE_REV0.OUT

	Thermal 2{1}	-2.640	-3.233	-18.333	-0.358	0.115	-0.034
	Thermal 3{1}	-1.993	-2.962	-17.750	-0.364	0.109	-0.030
	Thermal 4{1}	-2.007	-2.878	-17.193	-0.352	0.108	-0.030
	GRT1{1}	-1.954	-2.952	-17.775	-0.362	0.106	-0.029
	GRT2{1}	-2.590	-3.215	-18.361	-0.355	0.111	-0.034
	GRT3{1}	-1.943	-2.944	-17.778	-0.361	0.105	-0.029
	GRT4{1}	-1.958	-2.860	-17.221	-0.350	0.104	-0.029
E03 N	Gravity{1}	0.049	0.017	-0.030	0.002	-0.004	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-2.122	-2.891	-17.781	-0.340	0.111	-0.030
	Thermal 2{1}	-2.825	-3.120	-18.361	-0.328	0.118	-0.035
	Thermal 3{1}	-2.111	-2.883	-17.785	-0.339	0.110	-0.030
	Thermal 4{1}	-2.128	-2.799	-17.225	-0.327	0.109	-0.030
	GRT1{1}	-2.072	-2.874	-17.811	-0.337	0.108	-0.030
	GRT2{1}	-2.775	-3.102	-18.390	-0.325	0.114	-0.034
	GRT3{1}	-2.062	-2.866	-17.815	-0.336	0.107	-0.029
	GRT4{1}	-2.078	-2.781	-17.254	-0.325	0.106	-0.029

F_LINE_REV0

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RESULT PAGE 27

D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
E03 F	Gravity{1}	0.045	0.015	-0.032	0.002	-0.004	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-2.159	-2.500	-17.606	-0.250	0.132	-0.018
	Thermal 2{1}	-2.938	-2.704	-18.062	-0.220	0.153	-0.022
	Thermal 3{1}	-2.150	-2.493	-17.610	-0.249	0.131	-0.017
	Thermal 4{1}	-2.170	-2.418	-17.042	-0.238	0.131	-0.018
	GRT1{1}	-2.114	-2.485	-17.638	-0.249	0.128	-0.017
	GRT2{1}	-2.893	-2.689	-18.094	-0.218	0.149	-0.022
	GRT3{1}	-2.105	-2.478	-17.642	-0.248	0.127	-0.017
	GRT4{1}	-2.124	-2.403	-17.075	-0.237	0.127	-0.017
E04 N	Gravity{1}	0.008	0.001	-0.032	0.003	-0.005	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.119	-1.151	-15.912	-0.081	0.090	-0.033

F_LINE_REV0.OUT

	Thermal 2{1}	-1.683	-1.707	-15.465	-0.042	0.112	-0.049
	Thermal 3{1}	-1.118	-1.151	-15.916	-0.081	0.090	-0.033
	Thermal 4{1}	-1.136	-1.161	-15.321	-0.073	0.090	-0.034
	GRT1{1}	-1.111	-1.150	-15.944	-0.079	0.086	-0.033
	GRT2{1}	-1.675	-1.706	-15.497	-0.039	0.108	-0.048
	GRT3{1}	-1.110	-1.150	-15.948	-0.078	0.085	-0.032
	GRT4{1}	-1.128	-1.160	-15.354	-0.070	0.085	-0.033
E04 F	Gravity{1}	0.002	-0.002	-0.026	0.004	-0.005	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.898	-0.956	-15.792	-0.031	0.047	-0.034
	Thermal 2{1}	-1.368	-1.474	-15.226	-0.002	0.062	-0.048
	Thermal 3{1}	-0.898	-0.957	-15.796	-0.031	0.046	-0.034
	Thermal 4{1}	-0.913	-0.971	-15.194	-0.026	0.047	-0.035
	GRT1{1}	-0.896	-0.958	-15.819	-0.027	0.041	-0.033
	GRT2{1}	-1.365	-1.476	-15.252	0.002	0.057	-0.048
	GRT3{1}	-0.896	-0.958	-15.822	-0.027	0.041	-0.033
	GRT4{1}	-0.911	-0.973	-15.220	-0.022	0.042	-0.034
E05	Gravity{1}	0.000	0.000	-0.001	0.001	-0.001	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.189	-0.238	-15.909	-0.001	0.002	-0.005
	Thermal 2{1}	-0.289	-0.365	-15.301	0.002	0.003	-0.007
	Thermal 3{1}	-0.189	-0.238	-15.910	0.000	0.002	-0.005
	Thermal 4{1}	-0.192	-0.242	-15.300	0.000	0.002	-0.005
	GRT1{1}	-0.188	-0.238	-15.911	0.000	0.001	-0.005
	GRT2{1}	-0.289	-0.365	-15.302	0.003	0.002	-0.007
	GRT3{1}	-0.188	-0.238	-15.911	0.000	0.001	-0.005
	GRT4{1}	-0.192	-0.242	-15.301	0.001	0.001	-0.005

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 RESULT PAGE 28

BENTLEY

D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
E08	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	-15.910	0.000	0.000	0.000

		F_LINE_REV0.OUT					
	Thermal 2{1}	0.000	0.000	-15.300	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	-15.910	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	-15.300	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	-15.910	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	-15.300	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	-15.910	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	-15.300	0.000	0.000	0.000
*** Segment E end ***							
*** Segment F begin ***							
C10	Gravity{1}	-0.019	0.465	-0.626	0.032	-0.006	0.007
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.994	-4.214	-13.472	-0.523	0.136	0.006
	Thermal 2{1}	5.873	-5.140	-13.806	-0.530	0.085	0.013
	Thermal 3{1}	4.177	-4.501	-13.756	-0.484	0.151	0.130
	Thermal 4{1}	1.045	-2.380	-11.965	-0.450	0.186	0.017
	GRT1{1}	3.975	-3.749	-14.099	-0.491	0.130	0.013
	GRT2{1}	5.854	-4.675	-14.432	-0.498	0.079	0.021
	GRT3{1}	4.157	-4.036	-14.383	-0.451	0.145	0.137
	GRT4{1}	1.026	-1.915	-12.591	-0.418	0.180	0.024
F01 N	Gravity{1}	0.006	0.537	-0.627	0.027	-0.015	0.013
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.545	-5.453	-13.950	-0.493	0.232	-0.066
	Thermal 2{1}	5.531	-6.393	-14.539	-0.499	0.196	-0.072
	Thermal 3{1}	3.698	-5.597	-14.234	-0.419	0.233	0.014
	Thermal 4{1}	0.506	-3.442	-12.045	-0.421	0.254	-0.036
	GRT1{1}	3.551	-4.916	-14.577	-0.466	0.217	-0.054
	GRT2{1}	5.537	-5.856	-15.166	-0.472	0.181	-0.059
	GRT3{1}	3.704	-5.060	-14.861	-0.392	0.218	0.027
	GRT4{1}	0.512	-2.905	-12.672	-0.394	0.239	-0.023
F01 F	Gravity{1}	0.026	0.544	-0.649	0.020	-0.024	0.019
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.059	-5.818	-13.811	-0.452	0.390	-0.139
	Thermal 2{1}	4.968	-6.752	-14.523	-0.456	0.380	-0.157
	Thermal 3{1}	3.229	-5.921	-14.128	-0.333	0.338	-0.107
	Thermal 4{1}	0.180	-3.778	-11.757	-0.383	0.357	-0.090
	GRT1{1}	3.085	-5.274	-14.460	-0.432	0.366	-0.120
	GRT2{1}	4.994	-6.207	-15.172	-0.436	0.356	-0.138
	GRT3{1}	3.254	-5.376	-14.777	-0.313	0.313	-0.088
	GRT4{1}	0.206	-3.233	-12.406	-0.363	0.333	-0.072

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F_LINE_REV0

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RESULT PAGE 29

D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
F17	Gravity{1}	0.026	0.485	-0.716	0.013	-0.019	0.022
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	2.504	-5.346	-12.571	-0.423	0.476	-0.189
	Thermal 2{1}	4.117	-6.216	-13.288	-0.430	0.482	-0.216
	Thermal 3{1}	2.673	-5.492	-13.082	-0.263	0.397	-0.187
	Thermal 4{1}	0.086	-3.465	-10.658	-0.352	0.412	-0.126
	GRT1{1}	2.530	-4.861	-13.287	-0.410	0.457	-0.167
	GRT2{1}	4.143	-5.731	-14.004	-0.416	0.463	-0.194
	GRT3{1}	2.699	-5.007	-13.798	-0.250	0.378	-0.165
	GRT4{1}	0.112	-2.980	-11.374	-0.339	0.393	-0.104
F16	Gravity{1}	0.026	0.331	-0.719	-0.002	0.021	0.024
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.235	-3.900	-9.133	-0.358	0.553	-0.240
	Thermal 2{1}	2.170	-4.552	-9.728	-0.369	0.582	-0.278
	Thermal 3{1}	1.401	-3.928	-10.157	-0.104	0.494	-0.268
	Thermal 4{1}	-0.128	-2.492	-7.768	-0.282	0.458	-0.161
	GRT1{1}	1.261	-3.569	-9.852	-0.359	0.575	-0.217
	GRT2{1}	2.196	-4.221	-10.446	-0.371	0.603	-0.255
	GRT3{1}	1.427	-3.597	-10.876	-0.106	0.515	-0.245
	GRT4{1}	-0.102	-2.162	-8.486	-0.284	0.480	-0.137
F02	Gravity{1}	0.026	0.244	-0.592	-0.011	0.041	0.020
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.485	-2.986	-7.049	-0.319	0.522	-0.230
	Thermal 2{1}	1.020	-3.491	-7.520	-0.333	0.556	-0.267
	Thermal 3{1}	0.650	-2.914	-8.196	-0.011	0.525	-0.249
	Thermal 4{1}	-0.255	-1.885	-6.041	-0.241	0.434	-0.151
	GRT1{1}	0.511	-2.742	-7.641	-0.330	0.563	-0.209
	GRT2{1}	1.046	-3.246	-8.111	-0.344	0.597	-0.247
	GRT3{1}	0.676	-2.670	-8.788	-0.021	0.566	-0.229
	GRT4{1}	-0.229	-1.640	-6.633	-0.252	0.475	-0.130
F02 M	Gravity{1}	0.026	0.176	-0.453	-0.011	0.041	0.020

	F_LINE_REV0.OUT					
Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
Thermal 1{1}	-0.171	-2.217	-5.302	-0.319	0.521	-0.229
Thermal 2{1}	0.015	-2.595	-5.658	-0.333	0.555	-0.267
Thermal 3{1}	-0.006	-2.079	-6.436	-0.010	0.525	-0.249
Thermal 4{1}	-0.366	-1.380	-4.588	-0.241	0.433	-0.150
GRT1{1}	-0.145	-2.041	-5.755	-0.329	0.562	-0.209
GRT2{1}	0.041	-2.419	-6.111	-0.344	0.596	-0.247
GRT3{1}	0.020	-1.903	-6.889	-0.020	0.566	-0.228
GRT4{1}	-0.340	-1.204	-5.041	-0.251	0.475	-0.130

0

F_LINE_REV0

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RESULT PAGE 30

DISPLACEMENTS

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
F12	Gravity{1}	0.026	0.108	-0.315	-0.011	0.041	0.020
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.827	-1.450	-3.558	-0.318	0.520	-0.229
	Thermal 2{1}	-0.991	-1.702	-3.799	-0.333	0.554	-0.266
	Thermal 3{1}	-0.662	-1.247	-4.676	-0.009	0.525	-0.248
	Thermal 4{1}	-0.477	-0.877	-3.136	-0.240	0.433	-0.150
	GRT1{1}	-0.801	-1.342	-3.873	-0.329	0.561	-0.208
	GRT2{1}	-0.965	-1.594	-4.115	-0.343	0.595	-0.246
	GRT3{1}	-0.636	-1.139	-4.991	-0.020	0.566	-0.228
	GRT4{1}	-0.451	-0.769	-3.452	-0.251	0.474	-0.130
F13	Gravity{1}	0.026	0.075	-0.240	-0.016	0.036	0.013
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.827	-1.057	-2.644	-0.294	0.417	-0.173
	Thermal 2{1}	-0.990	-1.242	-2.824	-0.310	0.445	-0.202
	Thermal 3{1}	-0.991	-0.849	-3.655	0.051	0.526	-0.156
	Thermal 4{1}	-0.541	-0.626	-2.360	-0.214	0.364	-0.106
	GRT1{1}	-0.801	-0.982	-2.883	-0.310	0.453	-0.159
	GRT2{1}	-0.964	-1.168	-3.063	-0.326	0.482	-0.189
	GRT3{1}	-0.964	-0.774	-3.895	0.035	0.562	-0.143
	GRT4{1}	-0.515	-0.551	-2.600	-0.230	0.400	-0.093
F05	Gravity{1}	0.026	0.055	-0.184	-0.018	0.035	0.012

		F_LINE_REV0.OUT					
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.827	-0.798	-2.014	-0.288	0.392	-0.159
	Thermal 2{1}	-0.990	-0.939	-2.151	-0.305	0.418	-0.186
	Thermal 3{1}	-1.253	-0.623	-2.838	0.064	0.526	-0.133
	Thermal 4{1}	-0.592	-0.468	-1.807	-0.208	0.347	-0.095
	GRT1{1}	-0.801	-0.743	-2.198	-0.306	0.427	-0.147
	GRT2{1}	-0.964	-0.884	-2.335	-0.322	0.454	-0.175
	GRT3{1}	-1.227	-0.567	-3.022	0.046	0.561	-0.121
	GRT4{1}	-0.566	-0.413	-1.991	-0.226	0.382	-0.084
F20	Gravity{1}	0.026	0.000	0.000	-0.019	0.033	0.009
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.827	0.000	0.000	-0.281	0.351	-0.135
	Thermal 2{1}	-0.990	0.000	0.000	-0.298	0.375	-0.159
	Thermal 3{1}	-2.166	0.000	0.000	0.081	0.525	-0.094
	Thermal 4{1}	-0.771	0.000	0.000	-0.200	0.321	-0.077
	GRT1{1}	-0.800	0.000	0.000	-0.301	0.384	-0.126
	GRT2{1}	-0.964	0.000	0.000	-0.317	0.408	-0.150
	GRT3{1}	-2.140	0.000	0.000	0.062	0.558	-0.086
	GRT4{1}	-0.744	0.000	0.000	-0.220	0.353	-0.068

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F_LINE_REV0

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
F06 N	Gravity{1}	0.026	-0.030	0.125	-0.021	0.030	0.007
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.827	0.500	1.339	-0.276	0.320	-0.116
	Thermal 2{1}	-0.990	0.591	1.429	-0.293	0.341	-0.137
	Thermal 3{1}	-2.843	0.331	2.100	0.094	0.523	-0.092
	Thermal 4{1}	-0.903	0.280	1.240	-0.195	0.301	-0.068
	GRT1{1}	-0.800	0.470	1.464	-0.297	0.349	-0.109
	GRT2{1}	-0.964	0.561	1.554	-0.314	0.371	-0.131
	GRT3{1}	-2.817	0.300	2.225	0.073	0.553	-0.085
	GRT4{1}	-0.877	0.250	1.365	-0.215	0.331	-0.061
F06 F	Gravity{1}	0.022	-0.039	0.145	-0.024	0.023	0.002

		F_LINE_REV0.0UT					
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.714	0.680	1.509	-0.289	0.264	-0.070
	Thermal 2{1}	-0.856	0.805	1.611	-0.308	0.281	-0.083
	Thermal 3{1}	-2.944	0.804	3.211	0.106	0.523	-0.221
	Thermal 4{1}	-0.875	0.449	1.512	-0.199	0.270	-0.072
	GRT1{1}	-0.693	0.641	1.655	-0.313	0.288	-0.068
	GRT2{1}	-0.835	0.766	1.756	-0.332	0.305	-0.082
	GRT3{1}	-2.922	0.765	3.356	0.081	0.546	-0.219
	GRT4{1}	-0.853	0.410	1.657	-0.223	0.293	-0.070
F19	Gravity{1}	0.015	-0.041	0.000	-0.028	0.015	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.302	0.829	0.000	-0.263	0.195	-0.037
	Thermal 2{1}	-0.359	0.985	0.000	-0.280	0.208	-0.045
	Thermal 3{1}	-1.077	2.960	5.555	0.121	0.508	-0.408
	Thermal 4{1}	-0.339	0.933	0.751	-0.175	0.231	-0.095
	GRT1{1}	-0.287	0.788	0.000	-0.291	0.210	-0.037
	GRT2{1}	-0.344	0.944	0.000	-0.309	0.222	-0.045
	GRT3{1}	-1.062	2.919	5.555	0.093	0.523	-0.408
	GRT4{1}	-0.324	0.891	0.751	-0.203	0.246	-0.095
F07 N	Gravity{1}	0.011	-0.043	-0.205	-0.030	0.007	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.126	0.893	-1.429	-0.222	0.131	-0.009
	Thermal 2{1}	-0.147	1.062	-1.525	-0.236	0.140	-0.011
	Thermal 3{1}	2.090	5.590	7.909	0.116	0.487	-0.439
	Thermal 4{1}	0.353	1.473	0.118	-0.144	0.195	-0.090
	GRT1{1}	-0.115	0.850	-1.634	-0.252	0.138	-0.009
	GRT2{1}	-0.136	1.019	-1.731	-0.266	0.147	-0.011
	GRT3{1}	2.101	5.547	7.704	0.087	0.494	-0.439
	GRT4{1}	0.364	1.430	-0.087	-0.174	0.201	-0.089

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F_LINE_REV0

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
F07 F	Gravity{1}	0.011	-0.042	-0.233	-0.028	0.005	-0.001

		F_LINE_REV0.OUT					
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.130	0.874	-1.488	-0.207	0.101	0.023
	Thermal 2{1}	-0.152	1.039	-1.589	-0.220	0.108	0.028
	Thermal 3{1}	2.226	6.316	8.927	0.090	0.452	-0.125
	Thermal 4{1}	0.378	1.607	0.286	-0.135	0.176	-0.015
	GRT1{1}	-0.119	0.832	-1.721	-0.235	0.106	0.022
	GRT2{1}	-0.141	0.997	-1.821	-0.249	0.113	0.027
	GRT3{1}	2.237	6.274	8.694	0.061	0.457	-0.126
	GRT4{1}	0.389	1.565	0.053	-0.163	0.181	-0.016
F08 N	Gravity{1}	0.011	-0.008	-0.114	-0.015	0.008	-0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.130	0.112	-0.264	-0.068	0.030	0.036
	Thermal 2{1}	-0.152	0.131	-0.282	-0.073	0.032	0.043
	Thermal 3{1}	-1.214	3.952	16.768	0.004	0.275	0.279
	Thermal 4{1}	-0.294	0.821	3.099	-0.053	0.093	0.070
	GRT1{1}	-0.119	0.103	-0.377	-0.083	0.038	0.034
	GRT2{1}	-0.141	0.123	-0.396	-0.088	0.040	0.041
	GRT3{1}	-1.204	3.943	16.655	-0.011	0.282	0.277
	GRT4{1}	-0.284	0.813	2.985	-0.068	0.101	0.068
F08 F	Gravity{1}	0.009	-0.005	-0.089	-0.012	0.005	-0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.104	0.060	-0.177	-0.041	0.006	0.021
	Thermal 2{1}	-0.121	0.070	-0.190	-0.044	0.006	0.024
	Thermal 3{1}	-1.177	3.240	17.142	0.024	0.177	0.330
	Thermal 4{1}	-0.276	0.660	3.264	-0.028	0.051	0.074
	GRT1{1}	-0.094	0.055	-0.266	-0.052	0.011	0.019
	GRT2{1}	-0.111	0.065	-0.278	-0.055	0.011	0.023
	GRT3{1}	-1.168	3.235	17.053	0.013	0.182	0.329
	GRT4{1}	-0.267	0.655	3.175	-0.039	0.056	0.072
F14	Gravity{1}	0.003	-0.002	-0.028	-0.006	0.003	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.027	0.016	-0.036	-0.013	0.001	0.009
	Thermal 2{1}	-0.032	0.019	-0.038	-0.014	0.001	0.010
	Thermal 3{1}	-0.148	1.513	17.443	0.003	0.069	0.215
	Thermal 4{1}	-0.041	0.303	3.465	-0.011	0.019	0.046
	GRT1{1}	-0.025	0.015	-0.064	-0.019	0.004	0.008
	GRT2{1}	-0.029	0.017	-0.066	-0.020	0.004	0.009
	GRT3{1}	-0.145	1.512	17.414	-0.003	0.072	0.214
	GRT4{1}	-0.038	0.301	3.436	-0.017	0.022	0.045

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F_LINE_REV0

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RESULT PAGE 33

D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
F10	Gravity{1}	0.002	-0.001	-0.017	-0.005	0.002	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.016	0.009	-0.019	-0.008	0.000	0.006
	Thermal 2{1}	-0.018	0.011	-0.020	-0.009	0.000	0.007
	Thermal 3{1}	0.007	1.079	17.492	0.001	0.047	0.164
	Thermal 4{1}	-0.006	0.215	3.493	-0.007	0.013	0.035
	GRT1{1}	-0.014	0.008	-0.036	-0.013	0.003	0.006
	GRT2{1}	-0.016	0.010	-0.037	-0.014	0.003	0.007
	GRT3{1}	0.009	1.078	17.475	-0.004	0.050	0.163
	GRT4{1}	-0.004	0.214	3.476	-0.012	0.015	0.034
F11	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	17.560	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	3.530	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	17.560	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	3.530	0.000	0.000	0.000
*** Segment F end ***							
*** Segment G begin ***							
C07	Gravity{1}	0.018	0.465	-0.768	-0.013	-0.004	0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.643	-6.674	-6.965	-0.462	0.099	-0.114
	Thermal 2{1}	5.359	-8.912	-7.176	-0.470	0.040	-0.163
	Thermal 3{1}	5.901	-6.962	-7.233	-0.480	0.081	-0.003
	Thermal 4{1}	1.299	-2.795	-6.339	-0.405	0.141	-0.015
	GRT1{1}	3.661	-6.209	-7.733	-0.474	0.095	-0.111
	GRT2{1}	5.377	-8.447	-7.944	-0.483	0.036	-0.161
	GRT3{1}	5.919	-6.497	-8.001	-0.492	0.077	-0.001
	GRT4{1}	1.317	-2.330	-7.108	-0.418	0.137	-0.012

F_LINE_REV0.OUT

G01 N	Gravity{1}	0.028	0.435	-0.769	-0.011	-0.004	0.005
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.406	-7.756	-7.443	-0.424	0.104	-0.145
	Thermal 2{1}	5.266	-10.012	-7.909	-0.431	0.048	-0.199
	Thermal 3{1}	5.704	-8.092	-7.711	-0.441	0.102	0.031
	Thermal 4{1}	0.961	-3.743	-6.420	-0.370	0.140	-0.022
	GRT1{1}	3.434	-7.320	-8.212	-0.436	0.099	-0.140
	GRT2{1}	5.294	-9.576	-8.678	-0.443	0.044	-0.194
	GRT3{1}	5.732	-7.657	-8.480	-0.452	0.098	0.037
	GRT4{1}	0.989	-3.307	-7.189	-0.382	0.136	-0.017

 F_LINE_REV0

09/13/2010 FEED LINE

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RESULT PAGE 34

D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
G01 F	Gravity{1}	0.032	0.418	-0.773	-0.010	-0.003	0.007
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.095	-7.990	-7.509	-0.376	0.146	-0.183
	Thermal 2{1}	4.900	-10.196	-8.122	-0.381	0.112	-0.242
	Thermal 3{1}	5.369	-8.550	-7.727	-0.386	0.232	0.049
	Thermal 4{1}	0.783	-4.060	-6.302	-0.324	0.159	-0.038
	GRT1{1}	3.127	-7.572	-8.282	-0.386	0.143	-0.176
	GRT2{1}	4.932	-9.778	-8.895	-0.391	0.109	-0.234
	GRT3{1}	5.401	-8.132	-8.500	-0.396	0.230	0.056
	GRT4{1}	0.816	-3.642	-7.075	-0.334	0.157	-0.031
G16	Gravity{1}	0.032	0.395	-0.773	-0.008	0.006	0.009
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	2.541	-7.437	-7.051	-0.327	0.175	-0.205
	Thermal 2{1}	4.051	-9.473	-7.738	-0.331	0.156	-0.266
	Thermal 3{1}	4.816	-8.717	-6.933	-0.310	0.324	0.065
	Thermal 4{1}	0.690	-3.942	-5.829	-0.271	0.173	-0.045
	GRT1{1}	2.573	-7.043	-7.824	-0.335	0.181	-0.195
	GRT2{1}	4.083	-9.078	-8.511	-0.339	0.162	-0.257
	GRT3{1}	4.849	-8.323	-7.705	-0.317	0.330	0.074
	GRT4{1}	0.722	-3.548	-6.602	-0.279	0.179	-0.036

		F_LINE_REV0.OUT					
G14	Gravity{1}	0.032	0.362	-0.729	-0.005	0.020	0.011
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.907	-6.744	-6.442	-0.272	0.198	-0.220
	Thermal 2{1}	3.079	-8.578	-7.164	-0.275	0.195	-0.283
	Thermal 3{1}	4.185	-8.932	-5.736	-0.222	0.409	0.062
	Thermal 4{1}	0.584	-3.783	-5.247	-0.211	0.185	-0.053
	GRT1{1}	1.939	-6.383	-7.172	-0.277	0.219	-0.209
	GRT2{1}	3.111	-8.216	-7.894	-0.280	0.215	-0.272
	GRT3{1}	4.217	-8.570	-6.465	-0.227	0.430	0.073
	GRT4{1}	0.616	-3.422	-5.976	-0.216	0.205	-0.042
G15	Gravity{1}	0.032	0.325	-0.642	-0.003	0.032	0.012
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.273	-6.018	-5.774	-0.216	0.212	-0.226
	Thermal 2{1}	2.107	-7.648	-6.485	-0.218	0.221	-0.288
	Thermal 3{1}	3.553	-9.101	-4.293	-0.134	0.475	0.037
	Thermal 4{1}	0.477	-3.598	-4.634	-0.150	0.192	-0.061
	GRT1{1}	1.306	-5.693	-6.416	-0.219	0.244	-0.214
	GRT2{1}	2.139	-7.324	-7.127	-0.221	0.253	-0.276
	GRT3{1}	3.585	-8.776	-4.935	-0.137	0.507	0.048
	GRT4{1}	0.509	-3.273	-5.276	-0.153	0.225	-0.050

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F_LINE_REV0

09/13/2010 FEED LINE

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RESULT PAGE 35

DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
G02	Gravity{1}	0.032	0.279	-0.508	0.000	0.031	0.012
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.525	-5.159	-4.952	-0.151	0.214	-0.219
	Thermal 2{1}	0.959	-6.557	-5.603	-0.151	0.236	-0.278
	Thermal 3{1}	2.806	-9.141	-2.362	-0.031	0.527	-0.022
	Thermal 4{1}	0.352	-3.343	-3.890	-0.078	0.195	-0.072
	GRT1{1}	0.557	-4.880	-5.460	-0.150	0.246	-0.207
	GRT2{1}	0.991	-6.278	-6.112	-0.151	0.267	-0.266
	GRT3{1}	2.838	-8.863	-2.870	-0.031	0.558	-0.010
	GRT4{1}	0.384	-3.064	-4.398	-0.078	0.226	-0.060

		F_LINE_REV0.OUT					
G02 M	Gravity{1}	0.032	0.239	-0.404	0.000	0.031	0.012
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.131	-4.424	-4.233	-0.150	0.214	-0.219
	Thermal 2{1}	-0.047	-5.625	-4.814	-0.151	0.236	-0.278
	Thermal 3{1}	2.151	-9.065	-0.596	-0.030	0.527	-0.023
	Thermal 4{1}	0.241	-3.101	-3.237	-0.078	0.195	-0.072
	GRT1{1}	-0.099	-4.185	-4.637	-0.150	0.245	-0.207
	GRT2{1}	-0.015	-5.386	-5.218	-0.150	0.267	-0.266
	GRT3{1}	2.183	-8.826	-1.001	-0.030	0.558	-0.011
	GRT4{1}	0.273	-2.862	-3.641	-0.077	0.226	-0.060
G11	Gravity{1}	0.032	0.199	-0.301	0.000	0.031	0.012
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.787	-3.690	-3.515	-0.150	0.214	-0.219
	Thermal 2{1}	-1.052	-4.694	-4.024	-0.150	0.235	-0.278
	Thermal 3{1}	1.495	-8.986	1.169	-0.029	0.527	-0.024
	Thermal 4{1}	0.130	-2.859	-2.584	-0.077	0.195	-0.072
	GRT1{1}	-0.755	-3.491	-3.816	-0.149	0.245	-0.207
	GRT2{1}	-1.020	-4.495	-4.325	-0.150	0.266	-0.266
	GRT3{1}	1.527	-8.787	0.868	-0.029	0.557	-0.012
	GRT4{1}	0.162	-2.660	-2.885	-0.077	0.225	-0.060
G12	Gravity{1}	0.032	0.177	-0.258	0.002	0.015	0.010
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.786	-3.288	-3.117	-0.108	0.194	-0.193
	Thermal 2{1}	-1.051	-4.184	-3.583	-0.107	0.217	-0.245
	Thermal 3{1}	1.169	-8.857	2.184	0.037	0.515	-0.112
	Thermal 4{1}	0.067	-2.711	-2.213	-0.031	0.187	-0.080
	GRT1{1}	-0.754	-3.111	-3.375	-0.105	0.209	-0.183
	GRT2{1}	-1.019	-4.007	-3.841	-0.105	0.232	-0.235
	GRT3{1}	1.201	-8.680	1.925	0.039	0.530	-0.102
	GRT4{1}	0.099	-2.534	-2.472	-0.029	0.201	-0.070

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F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

10:17 AM

AutoPIPE Plus 9.2.1

RESULT PAGE 36

DISPLACEMENTS

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----

		F_LINE_REV0.OUT					
G05	Gravity{1}	0.032	0.161	-0.238	0.003	0.012	0.010
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.785	-2.993	-2.820	-0.098	0.188	-0.186
	Thermal 2{1}	-1.050	-3.809	-3.249	-0.098	0.212	-0.237
	Thermal 3{1}	0.908	-8.667	2.981	0.051	0.510	-0.134
	Thermal 4{1}	0.016	-2.586	-1.925	-0.021	0.184	-0.082
	GRT1{1}	-0.753	-2.832	-3.057	-0.096	0.201	-0.176
	GRT2{1}	-1.018	-3.648	-3.487	-0.095	0.224	-0.227
	GRT3{1}	0.940	-8.506	2.743	0.054	0.523	-0.124
	GRT4{1}	0.048	-2.424	-2.163	-0.019	0.197	-0.072
G18	Gravity{1}	0.032	0.078	-0.143	0.004	0.010	0.009
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.784	-1.432	-1.229	-0.079	0.172	-0.167
	Thermal 2{1}	-1.048	-1.818	-1.455	-0.078	0.194	-0.213
	Thermal 3{1}	-0.574	-7.258	7.393	0.082	0.490	-0.192
	Thermal 4{1}	-0.274	-1.850	-0.332	0.000	0.177	-0.086
	GRT1{1}	-0.752	-1.354	-1.372	-0.075	0.182	-0.158
	GRT2{1}	-1.016	-1.740	-1.598	-0.075	0.204	-0.205
	GRT3{1}	-0.542	-7.180	7.251	0.086	0.500	-0.183
	GRT4{1}	-0.242	-1.771	-0.475	0.004	0.187	-0.077
G06 N	Gravity{1}	0.032	0.018	-0.068	0.004	0.010	0.007
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.783	-0.280	-0.036	-0.063	0.150	-0.143
	Thermal 2{1}	-1.047	-0.340	-0.104	-0.061	0.170	-0.185
	Thermal 3{1}	-1.820	-5.613	10.906	0.108	0.458	-0.257
	Thermal 4{1}	-0.517	-1.202	0.946	0.018	0.168	-0.090
	GRT1{1}	-0.751	-0.261	-0.104	-0.058	0.160	-0.136
	GRT2{1}	-1.015	-0.322	-0.172	-0.057	0.180	-0.178
	GRT3{1}	-1.788	-5.595	10.838	0.112	0.468	-0.250
	GRT4{1}	-0.485	-1.183	0.878	0.022	0.178	-0.082
G06 F	Gravity{1}	0.025	0.007	-0.045	0.004	0.008	0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.631	-0.045	0.139	-0.063	0.126	-0.098
	Thermal 2{1}	-0.848	-0.035	0.105	-0.063	0.142	-0.129
	Thermal 3{1}	-1.705	-4.822	11.868	0.107	0.420	-0.362
	Thermal 4{1}	-0.457	-0.986	1.281	0.025	0.161	-0.093
	GRT1{1}	-0.606	-0.038	0.094	-0.059	0.134	-0.094
	GRT2{1}	-0.823	-0.027	0.060	-0.059	0.150	-0.125
	GRT3{1}	-1.680	-4.815	11.823	0.111	0.428	-0.357
	GRT4{1}	-0.432	-0.979	1.236	0.029	0.169	-0.089

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F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 37

D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
G17	Gravity{1}	0.001	-0.002	0.000	0.001	0.004	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.059	0.163	0.000	-0.050	0.084	-0.035
	Thermal 2{1}	-0.088	0.242	0.000	-0.051	0.094	-0.047
	Thermal 3{1}	0.858	-2.356	13.942	0.125	0.353	-0.378
	Thermal 4{1}	0.167	-0.460	1.985	0.040	0.142	-0.081
	GRT1{1}	-0.059	0.161	0.000	-0.049	0.089	-0.034
	GRT2{1}	-0.087	0.240	0.000	-0.051	0.098	-0.046
	GRT3{1}	0.858	-2.358	13.942	0.125	0.357	-0.377
	GRT4{1}	0.168	-0.461	1.985	0.041	0.146	-0.080
G07 N	Gravity{1}	-0.001	-0.002	-0.004	-0.002	0.001	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.023	0.176	-0.157	-0.036	0.046	0.011
	Thermal 2{1}	-0.037	0.260	-0.149	-0.038	0.050	0.015
	Thermal 3{1}	3.014	-0.146	15.731	0.116	0.282	-0.308
	Thermal 4{1}	0.594	-0.026	2.663	0.041	0.120	-0.058
	GRT1{1}	-0.023	0.174	-0.161	-0.038	0.047	0.011
	GRT2{1}	-0.038	0.257	-0.153	-0.040	0.051	0.015
	GRT3{1}	3.013	-0.148	15.727	0.114	0.283	-0.308
	GRT4{1}	0.594	-0.028	2.659	0.039	0.121	-0.058
G07 F	Gravity{1}	0.000	-0.001	-0.007	-0.002	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.043	0.131	-0.114	-0.028	0.017	0.016
	Thermal 2{1}	-0.066	0.196	-0.102	-0.029	0.017	0.023
	Thermal 3{1}	2.902	0.550	16.428	0.066	0.173	-0.103
	Thermal 4{1}	0.569	0.105	2.960	0.022	0.080	-0.020
	GRT1{1}	-0.043	0.130	-0.121	-0.030	0.016	0.016
	GRT2{1}	-0.065	0.195	-0.109	-0.031	0.016	0.023
	GRT3{1}	2.902	0.549	16.421	0.064	0.173	-0.104
	GRT4{1}	0.569	0.104	2.953	0.021	0.079	-0.020

		F_LINE_REV0.OUT					
G13	Gravity{1}	0.000	0.000	-0.005	-0.001	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.010	0.032	-0.006	-0.007	0.001	0.007
	Thermal 2{1}	-0.015	0.049	0.000	-0.007	0.000	0.011
	Thermal 3{1}	1.405	0.481	17.303	0.017	0.068	-0.014
	Thermal 4{1}	0.276	0.092	3.394	0.004	0.034	-0.003
	GRT1{1}	-0.010	0.032	-0.011	-0.008	0.001	0.007
	GRT2{1}	-0.016	0.049	-0.005	-0.008	0.000	0.011
	GRT3{1}	1.405	0.481	17.298	0.016	0.068	-0.015
	GRT4{1}	0.276	0.092	3.389	0.004	0.034	-0.003

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F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

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RESULT PAGE 38

DISPLACEMENTS

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
G09	Gravity{1}	0.000	0.000	-0.004	-0.001	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.006	0.021	-0.002	-0.005	0.000	0.006
	Thermal 2{1}	-0.010	0.032	0.002	-0.005	-0.001	0.009
	Thermal 3{1}	1.118	0.395	17.395	0.011	0.051	-0.008
	Thermal 4{1}	0.219	0.076	3.442	0.003	0.026	-0.002
	GRT1{1}	-0.006	0.021	-0.006	-0.006	0.000	0.006
	GRT2{1}	-0.010	0.032	-0.001	-0.006	-0.001	0.009
	GRT3{1}	1.118	0.396	17.391	0.011	0.051	-0.008
	GRT4{1}	0.219	0.076	3.438	0.002	0.026	-0.002
G10	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	17.560	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	3.530	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	17.560	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	3.530	0.000	0.000	0.000

F_LINE_REV0.OUT

*** Segment G end ***

*** Segment K begin ***

B06	Gravity{1}	0.000	0.052	0.000	0.016	0.000	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	-10.497	0.000	-0.300	-0.006	-0.041
	Thermal 2{1}	0.000	-15.399	0.000	-0.322	-0.005	-0.055
	Thermal 3{1}	0.000	-10.542	0.000	-0.298	-0.006	-0.041
	Thermal 4{1}	0.000	-2.517	0.000	-0.259	-0.002	-0.020
	GRT1{1}	0.000	-10.445	0.000	-0.283	-0.006	-0.040
	GRT2{1}	0.000	-15.346	0.000	-0.306	-0.005	-0.054
	GRT3{1}	0.000	-10.490	0.000	-0.281	-0.006	-0.040
	GRT4{1}	0.000	-2.465	0.000	-0.243	-0.002	-0.019
K01	Gravity{1}	0.000	0.040	0.000	0.016	0.000	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.004	-10.270	0.147	-0.301	-0.005	-0.041
	Thermal 2{1}	-0.004	-15.155	0.226	-0.325	-0.005	-0.055
	Thermal 3{1}	-0.004	-10.318	0.147	-0.299	-0.006	-0.041
	Thermal 4{1}	-0.001	-2.322	0.217	-0.259	-0.002	-0.020
	GRT1{1}	-0.004	-10.231	0.147	-0.285	-0.006	-0.040
	GRT2{1}	-0.004	-15.115	0.226	-0.308	-0.005	-0.054
	GRT3{1}	-0.004	-10.278	0.147	-0.282	-0.006	-0.040
	GRT4{1}	-0.001	-2.282	0.217	-0.242	-0.002	-0.019

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F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

10:17 AM

AutoPIPE Plus 9.2.1 RESULT PAGE 39

D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
K15	Gravity{1}	0.000	0.021	0.000	0.017	0.000	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.010	-9.933	0.364	-0.307	-0.005	-0.041
	Thermal 2{1}	-0.009	-14.787	0.559	-0.338	-0.005	-0.055
	Thermal 3{1}	-0.010	-9.984	0.364	-0.304	-0.005	-0.041
	Thermal 4{1}	-0.003	-2.036	0.536	-0.258	-0.002	-0.020
	GRT1{1}	-0.010	-9.912	0.364	-0.290	-0.005	-0.040
	GRT2{1}	-0.009	-14.766	0.559	-0.321	-0.005	-0.054
	GRT3{1}	-0.010	-9.962	0.364	-0.287	-0.006	-0.040

F_LINE_REV0.OUT							
	GRT4{1}	-0.003	-2.014	0.536	-0.241	-0.002	-0.019
K22	Gravity{1}	0.000	0.000	-0.001	-0.059	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	5.144	-0.219	0.004	-0.015
	Thermal 2{1}	0.000	0.000	7.889	-0.313	0.005	-0.020
	Thermal 3{1}	0.000	0.000	0.364	-0.315	0.004	-0.015
	Thermal 4{1}	0.000	0.000	7.574	0.195	0.002	-0.007
	GRT1{1}	0.000	0.000	5.143	-0.278	0.004	-0.015
	GRT2{1}	0.000	0.000	7.888	-0.372	0.005	-0.020
	GRT3{1}	0.000	0.000	0.363	-0.374	0.005	-0.015
	GRT4{1}	0.000	0.000	7.573	0.136	0.002	-0.007
K03 N	Gravity{1}	0.000	0.686	-0.001	-0.103	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.039	0.486	6.718	0.101	0.005	-0.007
	Thermal 2{1}	0.042	0.650	10.303	0.103	0.005	-0.009
	Thermal 3{1}	0.039	1.763	0.364	-0.123	0.005	-0.007
	Thermal 4{1}	0.015	-2.214	9.892	0.309	0.002	-0.003
	GRT1{1}	0.040	1.172	6.717	-0.002	0.005	-0.007
	GRT2{1}	0.042	1.336	10.302	0.000	0.005	-0.008
	GRT3{1}	0.040	2.449	0.363	-0.226	0.005	-0.006
	GRT4{1}	0.016	-1.527	9.891	0.205	0.002	-0.003
K03 F	Gravity{1}	0.000	0.724	0.038	-0.105	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.039	0.372	6.744	0.139	0.005	-0.006
	Thermal 2{1}	0.041	0.498	10.368	0.133	0.005	-0.008
	Thermal 3{1}	0.039	1.805	0.404	-0.101	0.005	-0.006
	Thermal 4{1}	0.015	-2.432	9.885	0.305	0.002	-0.003
	GRT1{1}	0.039	1.097	6.782	0.034	0.005	-0.006
	GRT2{1}	0.041	1.222	10.405	0.028	0.005	-0.007
	GRT3{1}	0.039	2.530	0.441	-0.206	0.005	-0.006
	GRT4{1}	0.015	-1.708	9.922	0.200	0.002	-0.003

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F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

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RESULT PAGE 40

DISPLACEMENTS

Point	Load	TRANSLATIONS (mm)	ROTATIONS (deg)

name	combination	F_LINE_REV0.0OUT			X	Y	Z
		X	Y	Z			
-----	-----	-----	-----	-----	-----	-----	-----
K17	Gravity{1}	0.000	0.724	0.404	-0.100	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.023	-0.311	6.045	0.253	0.005	-0.003
	Thermal 2{1}	0.021	-0.550	9.727	0.229	0.005	-0.004
	Thermal 3{1}	0.023	1.805	0.622	-0.027	0.005	-0.003
	Thermal 4{1}	0.008	-3.437	8.852	0.286	0.002	-0.001
	GRT1{1}	0.023	0.414	6.449	0.152	0.005	-0.003
	GRT2{1}	0.021	0.175	10.131	0.128	0.005	-0.004
	GRT3{1}	0.023	2.530	1.026	-0.127	0.005	-0.003
	GRT4{1}	0.008	-2.713	9.256	0.185	0.002	-0.001
K16	Gravity{1}	0.000	0.724	0.470	-0.098	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.021	-0.441	5.873	0.264	0.005	-0.003
	Thermal 2{1}	0.018	-0.749	9.572	0.239	0.005	-0.004
	Thermal 3{1}	0.021	1.805	0.638	-0.019	0.005	-0.003
	Thermal 4{1}	0.007	-3.629	8.663	0.283	0.002	-0.001
	GRT1{1}	0.021	0.284	6.343	0.166	0.005	-0.003
	GRT2{1}	0.019	-0.025	10.042	0.141	0.005	-0.004
	GRT3{1}	0.021	2.530	1.107	-0.117	0.005	-0.003
	GRT4{1}	0.007	-2.905	9.133	0.185	0.002	-0.001
K16 M	Gravity{1}	0.000	0.724	0.564	-0.098	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.018	-0.441	5.620	0.264	0.005	-0.003
	Thermal 2{1}	0.015	-1.037	9.343	0.239	0.005	-0.004
	Thermal 3{1}	0.018	1.805	0.656	-0.019	0.005	-0.003
	Thermal 4{1}	0.005	-3.905	8.392	0.283	0.002	-0.001
	GRT1{1}	0.018	0.284	6.184	0.166	0.005	-0.003
	GRT2{1}	0.015	-0.313	9.907	0.141	0.005	-0.004
	GRT3{1}	0.018	2.530	1.220	-0.117	0.005	-0.003
	GRT4{1}	0.006	-3.181	8.956	0.185	0.002	-0.001
CH09	Gravity{1}	0.000	0.724	0.658	-0.098	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.015	-0.441	5.367	0.264	0.005	-0.003
	Thermal 2{1}	0.011	-1.325	9.113	0.239	0.005	-0.004
	Thermal 3{1}	0.015	1.805	0.674	-0.019	0.005	-0.003
	Thermal 4{1}	0.004	-4.182	8.121	0.283	0.002	-0.001
	GRT1{1}	0.015	0.284	6.025	0.166	0.005	-0.003
	GRT2{1}	0.012	-0.601	9.771	0.141	0.005	-0.004
	GRT3{1}	0.015	2.530	1.332	-0.117	0.005	-0.003

GRT4{1} F_LINE_REV0.OUT
0.005 -3.458 8.779 0.185 0.002 -0.001

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F_LINE_REV0

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BENTLEY

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
K18	Gravity{1}	0.001	0.724	0.721	-0.091	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.013	-0.441	5.189	0.270	0.005	-0.003
	Thermal 2{1}	0.009	-1.525	8.952	0.246	0.005	-0.003
	Thermal 3{1}	0.013	1.805	0.684	-0.012	0.005	-0.003
	Thermal 4{1}	0.003	-4.374	7.934	0.279	0.002	-0.001
	GRT1{1}	0.013	0.284	5.911	0.179	0.005	-0.003
	GRT2{1}	0.009	-0.800	9.673	0.155	0.005	-0.003
	GRT3{1}	0.014	2.530	1.405	-0.103	0.005	-0.003
	GRT4{1}	0.004	-3.649	8.655	0.188	0.002	-0.001
K08	Gravity{1}	0.001	0.724	0.821	-0.064	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.010	-0.441	4.836	0.283	0.005	-0.002
	Thermal 2{1}	0.005	-1.907	8.626	0.265	0.005	-0.002
	Thermal 3{1}	0.010	1.805	0.687	0.006	0.005	-0.002
	Thermal 4{1}	0.002	-4.741	7.584	0.269	0.002	-0.001
	GRT1{1}	0.010	0.284	5.657	0.219	0.005	-0.002
	GRT2{1}	0.006	-1.183	9.447	0.201	0.005	-0.002
	GRT3{1}	0.011	2.530	1.509	-0.058	0.005	-0.002
	GRT4{1}	0.002	-4.016	8.406	0.205	0.002	-0.001
K08 M	Gravity{1}	0.001	0.724	0.968	-0.063	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.005	-0.441	4.183	0.283	0.005	-0.002
	Thermal 2{1}	0.000	-2.598	8.016	0.265	0.005	-0.002
	Thermal 3{1}	0.005	1.805	0.673	0.006	0.005	-0.002
	Thermal 4{1}	0.000	-5.404	6.965	0.269	0.002	-0.001
	GRT1{1}	0.006	0.284	5.151	0.220	0.005	-0.002
	GRT2{1}	0.000	-1.874	8.983	0.202	0.005	-0.002
	GRT3{1}	0.006	2.530	1.641	-0.057	0.005	-0.002

		F_LINE_REV0.OUT					
	GRT4{1}	0.001	-4.680	7.933	0.205	0.002	-0.001
K19	Gravity{1}	0.001	0.724	1.112	-0.062	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	-0.441	3.530	0.283	0.005	-0.002
	Thermal 2{1}	-0.005	-3.289	7.405	0.265	0.005	-0.002
	Thermal 3{1}	0.001	1.805	0.658	0.007	0.005	-0.002
	Thermal 4{1}	-0.002	-6.068	6.347	0.269	0.002	-0.001
	GRT1{1}	0.001	0.284	4.642	0.221	0.005	-0.002
	GRT2{1}	-0.005	-2.565	8.517	0.203	0.005	-0.002
	GRT3{1}	0.001	2.530	1.770	-0.056	0.005	-0.002
	GRT4{1}	-0.001	-5.343	7.459	0.206	0.002	-0.001

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F_LINE_REV0

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
C017	Gravity{1}	0.001	0.724	1.208	-0.011	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.004	-0.441	2.705	0.275	0.004	-0.001
	Thermal 2{1}	-0.010	-4.175	6.525	0.338	0.005	-0.001
	Thermal 3{1}	-0.004	1.805	0.602	0.030	0.004	-0.001
	Thermal 4{1}	-0.004	-6.918	5.522	0.299	0.002	0.000
	GRT1{1}	-0.003	0.284	3.913	0.264	0.004	-0.001
	GRT2{1}	-0.009	-3.450	7.733	0.327	0.005	-0.001
	GRT3{1}	-0.003	2.530	1.810	0.019	0.004	-0.001
	GRT4{1}	-0.003	-6.193	6.730	0.288	0.002	0.000
K27	Gravity{1}	0.000	0.724	0.000	0.314	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	-0.441	0.000	0.209	0.003	0.001
	Thermal 2{1}	0.000	-7.463	0.000	0.941	0.004	0.002
	Thermal 3{1}	0.000	1.805	0.000	0.066	0.003	0.001
	Thermal 4{1}	0.000	-10.074	0.000	0.815	0.001	0.001
	GRT1{1}	0.000	0.284	0.000	0.523	0.003	0.001
	GRT2{1}	0.000	-6.738	0.000	1.255	0.004	0.002
	GRT3{1}	0.000	2.530	0.000	0.380	0.003	0.001

		F_LINE_REV0.OUT					
	GRT4{1}	0.000	-9.349	0.000	1.129	0.001	0.001
K10 N	Gravity{1}	-0.001	0.725	-5.235	0.505	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.011	-0.441	-1.885	0.140	0.002	0.001
	Thermal 2{1}	0.019	-10.781	-11.649	0.837	0.003	0.002
	Thermal 3{1}	0.011	1.805	-0.692	0.059	0.002	0.001
	Thermal 4{1}	0.007	-13.260	-10.234	0.722	0.001	0.001
	GRT1{1}	0.011	0.284	-7.120	0.645	0.002	0.001
	GRT2{1}	0.019	-10.057	-16.883	1.342	0.003	0.002
	GRT3{1}	0.011	2.530	-5.927	0.563	0.002	0.001
	GRT4{1}	0.007	-12.535	-15.469	1.226	0.001	0.001
K10 M	Gravity{1}	-0.001	0.627	-5.470	0.496	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.012	-0.468	-1.951	0.138	0.002	0.001
	Thermal 2{1}	0.021	-11.079	-11.973	0.783	0.003	0.002
	Thermal 3{1}	0.012	1.794	-0.720	0.058	0.002	0.001
	Thermal 4{1}	0.008	-13.530	-10.507	0.671	0.001	0.001
	GRT1{1}	0.012	0.160	-7.421	0.635	0.002	0.001
	GRT2{1}	0.020	-10.451	-17.443	1.280	0.003	0.002
	GRT3{1}	0.011	2.421	-6.190	0.554	0.002	0.001
	GRT4{1}	0.007	-12.902	-15.977	1.167	0.001	0.001

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
K10 F	Gravity{1}	-0.001	0.396	-5.566	0.487	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.014	-0.532	-1.978	0.136	0.002	0.001
	Thermal 2{1}	0.022	-11.492	-11.980	0.726	0.003	0.002
	Thermal 3{1}	0.013	1.767	-0.731	0.058	0.002	0.001
	Thermal 4{1}	0.008	-13.888	-10.499	0.617	0.001	0.001
	GRT1{1}	0.013	-0.136	-7.544	0.623	0.002	0.001
	GRT2{1}	0.022	-11.096	-17.547	1.213	0.003	0.002
	GRT3{1}	0.013	2.163	-6.298	0.545	0.002	0.001

		F_LINE_REV0.OUT					
	GRT4{1}	0.008	-13.492	-16.065	1.104	0.001	0.001
K21 N	Gravity{1}	-0.001	-5.639	-5.567	0.294	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.045	-2.461	-1.978	0.114	0.002	0.002
	Thermal 2{1}	0.057	-5.590	-7.146	-1.652	0.002	0.002
	Thermal 3{1}	0.044	0.960	-0.731	0.042	0.002	0.002
	Thermal 4{1}	0.021	-7.078	-5.858	-1.646	0.001	0.001
	GRT1{1}	0.044	-8.100	-7.545	0.408	0.002	0.002
	GRT2{1}	0.056	-11.229	-12.714	-1.358	0.002	0.002
	GRT3{1}	0.043	-4.678	-6.298	0.336	0.001	0.002
	GRT4{1}	0.020	-12.717	-11.425	-1.352	0.001	0.001
K21 F	Gravity{1}	-0.001	-5.833	-5.374	0.288	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.044	-2.537	-1.901	0.115	0.001	0.002
	Thermal 2{1}	0.056	-4.246	-8.127	-1.841	0.002	0.002
	Thermal 3{1}	0.044	0.933	-0.703	0.041	0.001	0.002
	Thermal 4{1}	0.021	-5.748	-6.838	-1.826	0.001	0.001
	GRT1{1}	0.044	-8.370	-7.276	0.403	0.001	0.002
	GRT2{1}	0.056	-10.078	-13.501	-1.553	0.002	0.002
	GRT3{1}	0.043	-4.900	-6.078	0.329	0.001	0.002
	GRT4{1}	0.020	-11.581	-12.213	-1.538	0.001	0.001
K28 N	Gravity{1}	0.000	-5.833	-0.160	0.163	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.009	-2.537	-0.026	0.040	0.000	0.002
	Thermal 2{1}	0.008	1.868	-59.588	-2.098	0.000	0.002
	Thermal 3{1}	0.010	0.933	-0.019	0.029	0.000	0.002
	Thermal 4{1}	0.003	0.121	-57.241	-2.058	0.000	0.001
	GRT1{1}	0.010	-8.369	-0.186	0.204	0.000	0.002
	GRT2{1}	0.008	-3.964	-59.748	-1.934	0.000	0.002
	GRT3{1}	0.010	-4.900	-0.179	0.192	0.000	0.002
	GRT4{1}	0.003	-5.712	-57.401	-1.895	0.000	0.001

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F_LINE_REV0

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DISPLACEMENTS

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z

F_LINE_REV0.OUT

K28 F	Gravity{1}	0.000	-5.931	-0.057	0.139	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.009	-2.560	-0.001	0.032	0.000	0.002
	Thermal 2{1}	0.006	3.394	-60.746	-1.935	0.000	0.002
	Thermal 3{1}	0.009	0.914	0.000	0.028	0.000	0.002
	Thermal 4{1}	0.002	1.616	-58.381	-1.902	0.000	0.001
	GRT1{1}	0.009	-8.491	-0.058	0.171	0.000	0.002
	GRT2{1}	0.007	-2.537	-60.802	-1.796	0.000	0.002
	GRT3{1}	0.009	-5.017	-0.057	0.167	0.000	0.002
	GRT4{1}	0.003	-4.316	-58.438	-1.763	0.000	0.001
K24	Gravity{1}	0.000	0.000	-0.053	-0.201	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	-0.001	-0.077	0.000	0.001
	Thermal 2{1}	0.000	0.000	-48.125	0.780	0.000	0.002
	Thermal 3{1}	0.000	0.000	0.000	0.013	0.000	0.001
	Thermal 4{1}	0.000	0.000	-46.265	0.723	0.000	0.001
	GRT1{1}	0.000	0.000	-0.054	-0.278	0.000	0.001
	GRT2{1}	0.000	0.000	-48.178	0.578	0.000	0.002
	GRT3{1}	0.000	0.000	-0.053	-0.188	0.000	0.001
	GRT4{1}	0.000	0.000	-46.318	0.521	0.000	0.001
K23	Gravity{1}	0.000	0.000	-0.026	0.036	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.014	0.000	0.000
	Thermal 2{1}	0.000	0.000	-19.083	-0.141	0.000	0.001
	Thermal 3{1}	0.000	0.000	0.000	-0.002	0.000	0.000
	Thermal 4{1}	0.000	0.000	-18.384	-0.131	0.000	0.000
	GRT1{1}	0.000	0.000	-0.027	0.050	0.000	0.000
	GRT2{1}	0.000	0.000	-19.109	-0.105	0.000	0.001
	GRT3{1}	0.000	0.000	-0.026	0.034	0.000	0.000
	GRT4{1}	0.000	0.000	-18.411	-0.094	0.000	0.000
K11	Gravity{1}	0.000	-0.001	-0.001	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.002	-2.715	0.002	0.000	0.000
	Thermal 3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.002	-2.671	0.001	0.000	0.000
	GRT1{1}	0.000	-0.001	-0.001	-0.001	0.000	0.000
	GRT2{1}	0.000	0.002	-2.715	0.001	0.000	0.000
	GRT3{1}	0.000	-0.001	-0.001	0.000	0.000	0.000
	GRT4{1}	0.000	0.001	-2.672	0.001	0.000	0.000

 F_LINE_REV0
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BENTLEY

D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
K26	Gravity{1}	0.000	0.000	-0.001	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.001	-2.449	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.001	-2.415	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	-0.001	0.000	0.000	0.000
	GRT2{1}	0.000	0.001	-2.449	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	-0.001	0.000	0.000	0.000
	GRT4{1}	0.000	0.001	-2.416	0.000	0.000	0.000
K20	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.001	-1.983	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.001	-1.968	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	-1.983	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	-1.968	0.000	0.000	0.000
K14	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	-0.766	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	-0.800	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	-0.766	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	-0.800	0.000	0.000	0.000

F_LINE_REV0.OUT

*** Segment K end ***

*** Segment L begin ***

C06	Gravity{1}	0.000	0.465	0.000	-0.008	-0.003	-0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	-10.227	0.000	-0.284	0.085	-0.147
	Thermal 2{1}	0.000	-14.361	0.000	-0.303	0.024	-0.214
	Thermal 3{1}	0.000	-10.515	0.000	-0.292	0.044	-0.290
	Thermal 4{1}	0.000	-3.393	0.000	-0.263	0.103	-0.059
	GRT1{1}	0.000	-9.763	0.000	-0.292	0.081	-0.149
	GRT2{1}	0.000	-13.896	0.000	-0.311	0.020	-0.216
	GRT3{1}	0.000	-10.051	0.000	-0.300	0.041	-0.291
	GRT4{1}	0.000	-2.929	0.000	-0.271	0.100	-0.061

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 RESULT PAGE 46

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
L17	Gravity{1}	-0.003	0.471	0.000	-0.008	-0.003	-0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.064	-10.013	0.147	-0.285	0.086	-0.148
	Thermal 2{1}	0.018	-14.131	0.226	-0.305	0.024	-0.213
	Thermal 3{1}	0.034	-10.295	0.147	-0.292	0.044	-0.289
	Thermal 4{1}	0.078	-3.195	0.025	-0.263	0.103	-0.059
	GRT1{1}	0.062	-9.542	0.147	-0.293	0.082	-0.150
	GRT2{1}	0.015	-13.661	0.226	-0.313	0.021	-0.215
	GRT3{1}	0.031	-9.825	0.147	-0.300	0.041	-0.291
	GRT4{1}	0.075	-2.724	0.025	-0.271	0.100	-0.061
L02	Gravity{1}	-0.006	0.479	0.000	-0.008	-0.003	-0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.161	-9.696	0.364	-0.287	0.089	-0.151
	Thermal 2{1}	0.045	-13.786	0.558	-0.317	0.025	-0.209
	Thermal 3{1}	0.083	-9.971	0.364	-0.294	0.044	-0.289
	Thermal 4{1}	0.192	-2.904	0.061	-0.261	0.103	-0.059
	GRT1{1}	0.155	-9.217	0.364	-0.294	0.086	-0.153
	GRT2{1}	0.039	-13.307	0.558	-0.325	0.022	-0.211

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	GRT3{1}	0.077	-9.491	0.364	-0.301	0.041	-0.291
	GRT4{1}	0.185	-2.425	0.061	-0.269	0.099	-0.061
L03 N	Gravity{1}	-0.292	0.311	0.000	0.012	-0.017	-0.051
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	17.947	3.693	6.655	-0.505	1.152	-0.678
	Thermal 2{1}	19.566	-2.323	10.209	0.524	1.634	0.448
	Thermal 3{1}	1.595	0.640	0.365	-0.259	0.059	-0.153
	Thermal 4{1}	4.054	0.414	1.124	0.072	0.186	-0.065
	GRT1{1}	17.655	4.005	6.655	-0.493	1.135	-0.729
	GRT2{1}	19.274	-2.012	10.209	0.536	1.617	0.398
	GRT3{1}	1.303	0.951	0.364	-0.247	0.042	-0.204
	GRT4{1}	3.762	0.725	1.124	0.085	0.169	-0.116
L03 F	Gravity{1}	-0.303	0.269	0.011	0.012	-0.017	-0.052
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	18.855	3.573	5.999	-0.510	1.196	-0.694
	Thermal 2{1}	20.875	-2.391	9.282	0.663	1.727	0.477
	Thermal 3{1}	1.635	0.709	0.325	-0.245	0.060	-0.149
	Thermal 4{1}	4.202	0.320	1.019	0.087	0.193	-0.064
	GRT1{1}	18.551	3.841	6.010	-0.498	1.180	-0.746
	GRT2{1}	20.572	-2.122	9.293	0.675	1.710	0.425
	GRT3{1}	1.331	0.978	0.336	-0.233	0.043	-0.201
	GRT4{1}	3.899	0.588	1.030	0.099	0.177	-0.116

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
L21	Gravity{1}	-0.303	0.000	0.000	0.013	0.038	-0.057
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	19.817	0.000	0.000	-0.529	1.175	-0.759
	Thermal 2{1}	22.351	0.000	0.000	1.400	1.994	0.473
	Thermal 3{1}	1.635	0.000	0.000	-0.172	0.074	-0.142
	Thermal 4{1}	4.364	0.000	0.000	0.163	0.218	-0.066
	GRT1{1}	19.514	0.000	0.000	-0.516	1.213	-0.817
	GRT2{1}	22.048	0.000	0.000	1.413	2.032	0.415

F_LINE_REV0.OUT							
	GRT3{1}	1.331	0.000	0.000	-0.159	0.112	-0.199
	GRT4{1}	4.061	0.000	0.000	0.176	0.256	-0.123
L04 N	Gravity{1}	-0.303	-0.300	-0.375	0.013	0.091	-0.060
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	20.811	-4.032	-5.425	-0.548	0.966	-0.827
	Thermal 2{1}	23.875	2.151	-10.223	2.162	1.986	0.360
	Thermal 3{1}	1.635	-0.726	-0.417	-0.097	0.087	-0.144
	Thermal 4{1}	4.532	-0.354	-1.120	0.243	0.218	-0.075
	GRT1{1}	20.508	-4.332	-5.800	-0.535	1.057	-0.887
	GRT2{1}	23.572	1.851	-10.597	2.175	2.077	0.300
	GRT3{1}	1.331	-1.026	-0.792	-0.084	0.178	-0.204
	GRT4{1}	4.229	-0.654	-1.494	0.256	0.309	-0.135
L04 F	Gravity{1}	-0.333	-0.339	-0.439	0.013	0.090	-0.061
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	20.531	-4.660	-5.768	-0.547	0.930	-0.838
	Thermal 2{1}	24.234	2.229	-12.575	2.280	1.946	0.333
	Thermal 3{1}	1.565	-0.818	-0.430	-0.086	0.087	-0.144
	Thermal 4{1}	4.516	-0.418	-1.381	0.255	0.214	-0.077
	GRT1{1}	20.198	-4.999	-6.208	-0.534	1.020	-0.898
	GRT2{1}	23.901	1.890	-13.014	2.293	2.036	0.273
	GRT3{1}	1.232	-1.156	-0.869	-0.073	0.177	-0.204
	GRT4{1}	4.183	-0.757	-1.820	0.268	0.304	-0.138
L18	Gravity{1}	-0.440	-0.369	-0.500	0.005	0.084	-0.061
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	19.131	-5.423	-5.241	-0.545	0.843	-0.859
	Thermal 2{1}	24.921	1.851	-17.710	2.476	1.848	0.279
	Thermal 3{1}	1.311	-0.889	-0.339	-0.066	0.086	-0.144
	Thermal 4{1}	4.392	-0.516	-1.952	0.275	0.204	-0.082
	GRT1{1}	18.691	-5.792	-5.741	-0.540	0.927	-0.920
	GRT2{1}	24.481	1.482	-18.210	2.481	1.932	0.218
	GRT3{1}	0.871	-1.257	-0.839	-0.061	0.170	-0.205
	GRT4{1}	3.952	-0.885	-2.452	0.280	0.288	-0.143

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D I S P L A C E M E N T S

Point	Load	F_LINE_REV0.0OUT TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
L06	Gravity{1}	-0.479	-0.380	-0.517	0.001	0.082	-0.061
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	18.614	-5.703	-5.042	-0.543	0.823	-0.863
	Thermal 2{1}	25.149	1.708	-19.638	2.517	1.824	0.267
	Thermal 3{1}	1.218	-0.914	-0.314	-0.062	0.086	-0.144
	Thermal 4{1}	4.345	-0.552	-2.166	0.280	0.201	-0.083
	GRT1{1}	18.135	-6.082	-5.559	-0.542	0.904	-0.924
	GRT2{1}	24.670	1.328	-20.155	2.518	1.905	0.206
	GRT3{1}	0.739	-1.294	-0.831	-0.060	0.168	-0.205
	GRT4{1}	3.866	-0.932	-2.683	0.281	0.283	-0.144
L06 M	Gravity{1}	-0.535	-0.396	-0.539	0.001	0.082	-0.061
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	17.816	-5.926	-4.752	-0.543	0.822	-0.863
	Thermal 2{1}	25.474	1.499	-22.436	2.517	1.823	0.267
	Thermal 3{1}	1.085	-0.952	-0.279	-0.062	0.086	-0.144
	Thermal 4{1}	4.277	-0.604	-2.476	0.280	0.201	-0.083
	GRT1{1}	17.281	-6.321	-5.291	-0.542	0.904	-0.924
	GRT2{1}	24.939	1.104	-22.975	2.519	1.905	0.206
	GRT3{1}	0.549	-1.347	-0.818	-0.060	0.168	-0.205
	GRT4{1}	3.741	-0.999	-3.016	0.281	0.283	-0.144
CH10	Gravity{1}	-0.592	-0.411	-0.562	0.001	0.082	-0.061
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	17.018	-6.149	-4.462	-0.543	0.822	-0.863
	Thermal 2{1}	25.798	1.291	-25.234	2.518	1.823	0.267
	Thermal 3{1}	0.951	-0.989	-0.245	-0.062	0.086	-0.144
	Thermal 4{1}	4.208	-0.656	-2.787	0.280	0.201	-0.083
	GRT1{1}	16.426	-6.560	-5.024	-0.542	0.904	-0.924
	GRT2{1}	25.207	0.880	-25.796	2.519	1.905	0.206
	GRT3{1}	0.359	-1.400	-0.806	-0.060	0.168	-0.205
	GRT4{1}	3.617	-1.067	-3.348	0.281	0.283	-0.144
L19	Gravity{1}	-0.631	-0.422	-0.575	-0.004	0.079	-0.061
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	16.464	-6.304	-4.260	-0.541	0.802	-0.867
	Thermal 2{1}	26.020	1.146	-27.181	2.548	1.795	0.257
	Thermal 3{1}	0.859	-1.015	-0.222	-0.058	0.086	-0.144
	Thermal 4{1}	4.161	-0.692	-3.003	0.283	0.198	-0.084
	GRT1{1}	15.833	-6.726	-4.835	-0.545	0.882	-0.928
	GRT2{1}	25.389	0.723	-27.756	2.544	1.875	0.196

	F_LINE_REV0.0UT				
GRT3{1}	0.228 -1.437 -0.797	-0.062	0.165	-0.205	
GRT4{1}	3.530 -1.114 -3.578	0.279	0.278	-0.145	

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F_LINE_REV0

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z

L09	Gravity{1}	-0.740	-0.453	-0.586	-0.025	0.070	-0.061
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	14.901	-6.740	-3.684	-0.527	0.717	-0.880
	Thermal 2{1}	26.593	0.727	-32.706	2.656	1.671	0.217
	Thermal 3{1}	0.600	-1.087	-0.174	-0.044	0.084	-0.145
	Thermal 4{1}	4.024	-0.794	-3.614	0.293	0.185	-0.087
	GRT1{1}	14.161	-7.193	-4.270	-0.552	0.787	-0.942
	GRT2{1}	25.852	0.275	-33.292	2.631	1.740	0.156
	GRT3{1}	-0.140	-1.540	-0.760	-0.069	0.153	-0.206
	GRT4{1}	3.284	-1.247	-4.200	0.268	0.255	-0.148
L09 M	Gravity{1}	-0.876	-0.491	-0.573	-0.025	0.070	-0.061
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	12.947	-7.286	-2.959	-0.527	0.716	-0.881
	Thermal 2{1}	27.260	0.196	-39.635	2.657	1.669	0.217
	Thermal 3{1}	0.280	-1.177	-0.129	-0.044	0.084	-0.145
	Thermal 4{1}	3.851	-0.921	-4.378	0.293	0.185	-0.087
	GRT1{1}	12.071	-7.777	-3.532	-0.552	0.786	-0.942
	GRT2{1}	26.384	-0.294	-40.209	2.631	1.739	0.156
	GRT3{1}	-0.596	-1.667	-0.702	-0.069	0.153	-0.206
	GRT4{1}	2.975	-1.412	-4.951	0.268	0.255	-0.149
L20	Gravity{1}	-1.012	-0.529	-0.560	-0.025	0.069	-0.061
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	10.993	-7.832	-2.233	-0.527	0.715	-0.881
	Thermal 2{1}	27.928	-0.335	-46.565	2.657	1.667	0.217
	Thermal 3{1}	-0.041	-1.266	-0.084	-0.043	0.084	-0.145
	Thermal 4{1}	3.677	-1.049	-5.142	0.293	0.185	-0.087
	GRT1{1}	9.981	-8.361	-2.793	-0.552	0.785	-0.942
	GRT2{1}	26.916	-0.864	-47.125	2.631	1.737	0.155

		F_LINE_REV0.OUT					
	GRT3{1}	-1.053	-1.795	-0.645	-0.069	0.153	-0.206
	GRT4{1}	2.666	-1.577	-5.703	0.267	0.254	-0.149
C018	Gravity{1}	-1.178	-0.575	-0.471	-0.077	0.049	-0.061
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	8.591	-8.503	-1.346	-0.490	0.590	-0.885
	Thermal 2{1}	28.703	-0.998	-54.851	2.554	1.404	0.188
	Thermal 3{1}	-0.433	-1.376	-0.042	-0.034	0.077	-0.144
	Thermal 4{1}	3.462	-1.205	-6.053	0.278	0.156	-0.089
	GRT1{1}	7.413	-9.078	-1.816	-0.567	0.640	-0.946
	GRT2{1}	27.525	-1.573	-55.322	2.477	1.453	0.127
	GRT3{1}	-1.611	-1.951	-0.513	-0.111	0.126	-0.205
	GRT4{1}	2.284	-1.781	-6.523	0.201	0.206	-0.150

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F_LINE_REV0

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
L27	Gravity{1}	-1.306	-0.611	-0.294	-0.109	0.036	-0.061
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	6.732	-9.023	-0.667	-0.459	0.495	-0.884
	Thermal 2{1}	29.259	-1.521	-60.810	2.381	1.174	0.175
	Thermal 3{1}	-0.734	-1.460	-0.019	-0.030	0.071	-0.143
	Thermal 4{1}	3.294	-1.327	-6.701	0.257	0.132	-0.090
	GRT1{1}	5.426	-9.634	-0.961	-0.567	0.531	-0.945
	GRT2{1}	27.954	-2.132	-61.105	2.273	1.209	0.115
	GRT3{1}	-2.040	-2.071	-0.314	-0.138	0.107	-0.204
	GRT4{1}	1.988	-1.938	-6.995	0.148	0.167	-0.150
L12 N	Gravity{1}	-1.394	-0.635	-0.143	-0.113	0.031	-0.060
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	5.442	-9.383	-0.203	-0.435	0.429	-0.881
	Thermal 2{1}	29.634	-1.889	-64.617	2.213	1.001	0.171
	Thermal 3{1}	-0.943	-1.518	-0.005	-0.029	0.066	-0.142
	Thermal 4{1}	3.176	-1.412	-7.112	0.236	0.113	-0.089
	GRT1{1}	4.048	-10.019	-0.346	-0.548	0.460	-0.941
	GRT2{1}	28.240	-2.525	-64.760	2.100	1.032	0.111

		F_LINE_REV0.OUT					
	GRT3{1}	-2.337	-2.154	-0.148	-0.142	0.098	-0.203
	GRT4{1}	1.782	-2.048	-7.255	0.123	0.144	-0.150
L12 F	Gravity{1}	-1.412	-0.573	-0.077	-0.108	0.031	-0.060
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	5.147	-9.258	-0.002	-0.420	0.389	-0.874
	Thermal 2{1}	30.413	-3.465	-65.975	2.075	0.885	0.176
	Thermal 3{1}	-0.991	-1.524	0.002	-0.029	0.063	-0.141
	Thermal 4{1}	3.195	-1.600	-7.257	0.220	0.100	-0.089
	GRT1{1}	3.735	-9.830	-0.078	-0.528	0.420	-0.934
	GRT2{1}	29.001	-4.037	-66.052	1.966	0.916	0.116
	GRT3{1}	-2.403	-2.097	-0.075	-0.137	0.094	-0.201
	GRT4{1}	1.782	-2.172	-7.334	0.111	0.131	-0.148
L25	Gravity{1}	0.000	0.000	-0.069	0.026	0.018	-0.045
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	-0.001	-0.040	-0.237	-0.660
	Thermal 2{1}	0.000	0.000	-50.477	-0.784	-0.913	0.133
	Thermal 3{1}	0.000	0.000	0.001	-0.021	-0.002	-0.107
	Thermal 4{1}	0.000	0.000	-5.551	-0.108	-0.098	-0.067
	GRT1{1}	0.000	0.000	-0.070	-0.015	-0.219	-0.705
	GRT2{1}	0.000	0.000	-50.546	-0.758	-0.895	0.088
	GRT3{1}	0.000	0.000	-0.068	0.005	0.016	-0.152
	GRT4{1}	0.000	0.000	-5.620	-0.082	-0.081	-0.112

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F_LINE_REV0

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
L24	Gravity{1}	0.000	0.000	-0.032	-0.004	-0.003	-0.016
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.007	0.041	-0.227
	Thermal 2{1}	0.000	0.000	-19.083	0.135	0.157	0.046
	Thermal 3{1}	0.000	0.000	0.000	0.004	0.000	-0.037
	Thermal 4{1}	0.000	0.000	-2.096	0.019	0.017	-0.023
	GRT1{1}	0.000	0.000	-0.032	0.003	0.038	-0.243
	GRT2{1}	0.000	0.000	-19.114	0.130	0.154	0.030

		F_LINE_REV0.OUT					
	GRT3{1}	0.000	0.000	-0.031	-0.001	-0.003	-0.052
	GRT4{1}	0.000	0.000	-2.128	0.014	0.014	-0.039
L22	Gravity{1}	0.000	0.000	-0.001	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.001	0.000	0.000	0.000	0.000	-0.001
	Thermal 2{1}	0.002	-0.002	-2.716	-0.001	-0.002	0.000
	Thermal 3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	-0.295	0.000	0.000	0.000
	GRT1{1}	0.001	0.000	-0.001	0.000	0.000	-0.001
	GRT2{1}	0.002	-0.002	-2.717	-0.001	-0.002	0.000
	GRT3{1}	0.000	0.000	-0.001	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	-0.296	0.000	0.000	0.000
L14	Gravity{1}	0.000	0.000	-0.001	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.001	-0.001	-2.450	0.000	-0.001	0.000
	Thermal 3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	-0.265	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	-0.001	0.000	0.000	0.000
	GRT2{1}	0.001	-0.001	-2.451	0.000	-0.001	0.000
	GRT3{1}	0.000	0.000	-0.001	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	-0.266	0.000	0.000	0.000
L23	Gravity{1}	0.000	0.000	-0.001	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.001	-0.001	-2.449	0.000	-0.001	0.000
	Thermal 3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	-0.265	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	-0.001	0.000	0.000	0.000
	GRT2{1}	0.001	-0.001	-2.449	0.000	-0.001	0.000
	GRT3{1}	0.000	0.000	-0.001	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	-0.266	0.000	0.000	0.000

□

F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

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DISPLACEMENTS

Point	Load	TRANSLATIONS (mm)	ROTATIONS (deg)

		F_LINE_REV0.OUT					
name	combination	X	Y	Z	X	Y	Z
-----		-----	-----	-----	-----	-----	-----
L15	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.001	-0.001	-1.983	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	-0.214	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT2{1}	0.001	-0.001	-1.983	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	-0.214	0.000	0.000	0.000
L16	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	-0.766	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	-0.080	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	-0.766	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	-0.080	0.000	0.000	0.000
*** Segment L end ***							
*** Segment M begin ***							
D26	Gravity{1}	0.000	0.011	0.000	0.028	-0.020	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.869	0.000	-0.368	-0.095	0.002
	Thermal 2{1}	0.000	-1.815	0.000	-0.348	-0.065	0.000
	Thermal 3{1}	0.000	0.863	0.000	-0.367	-0.105	0.003
	Thermal 4{1}	0.000	0.629	0.000	-0.355	-0.088	0.002
	GRT1{1}	0.000	0.881	0.000	-0.340	-0.115	0.004
	GRT2{1}	0.000	-1.803	0.000	-0.320	-0.085	0.001
	GRT3{1}	0.000	0.875	0.000	-0.339	-0.125	0.004
	GRT4{1}	0.000	0.640	0.000	-0.327	-0.108	0.003
M24	Gravity{1}	-0.026	-0.025	0.000	0.028	-0.020	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.123	1.345	0.253	-0.367	-0.095	0.002
	Thermal 2{1}	-0.083	-1.364	0.389	-0.348	-0.064	0.000
	Thermal 3{1}	-0.136	1.338	0.253	-0.367	-0.105	0.003
	Thermal 4{1}	-0.113	1.088	0.257	-0.355	-0.087	0.002
	GRT1{1}	-0.149	1.320	0.253	-0.339	-0.115	0.003

F_LINE_REV0.OUT

GRT2{1}	-0.109	-1.389	0.389	-0.320	-0.084	0.001
GRT3{1}	-0.162	1.313	0.253	-0.339	-0.125	0.004
GRT4{1}	-0.139	1.063	0.257	-0.327	-0.107	0.003

F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 53

D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
M02	Gravity{1}	-0.053	-0.062	0.000	0.028	-0.020	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.247	1.832	0.513	-0.366	-0.092	0.002
	Thermal 2{1}	-0.165	-0.903	0.786	-0.347	-0.060	-0.001
	Thermal 3{1}	-0.274	1.824	0.513	-0.365	-0.104	0.002
	Thermal 4{1}	-0.227	1.558	0.521	-0.353	-0.084	0.002
	GRT1{1}	-0.300	1.770	0.513	-0.338	-0.112	0.003
	GRT2{1}	-0.218	-0.965	0.786	-0.319	-0.080	0.001
	GRT3{1}	-0.327	1.762	0.513	-0.337	-0.124	0.004
	GRT4{1}	-0.280	1.496	0.521	-0.325	-0.105	0.003
M03 N	Gravity{1}	-0.415	-0.470	0.000	0.021	-0.023	0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.138	7.176	3.764	-0.280	0.107	-0.021
	Thermal 2{1}	1.072	4.231	5.771	-0.273	0.212	-0.020
	Thermal 3{1}	-1.275	7.120	0.513	-0.274	-0.017	-0.021
	Thermal 4{1}	-0.018	6.722	3.823	-0.270	0.111	-0.020
	GRT1{1}	-0.553	6.706	3.763	-0.258	0.083	-0.018
	GRT2{1}	0.657	3.761	5.771	-0.252	0.188	-0.018
	GRT3{1}	-1.689	6.650	0.513	-0.253	-0.040	-0.018
	GRT4{1}	-0.433	6.252	3.823	-0.249	0.088	-0.018
M03 F	Gravity{1}	-0.430	-0.482	0.016	0.021	-0.023	0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.068	7.350	3.808	-0.273	0.124	-0.023
	Thermal 2{1}	1.419	4.406	5.812	-0.268	0.236	-0.022
	Thermal 3{1}	-1.283	7.287	0.514	-0.267	-0.009	-0.022
	Thermal 4{1}	0.193	6.891	3.867	-0.264	0.129	-0.022
	GRT1{1}	-0.362	6.868	3.824	-0.252	0.101	-0.020

F_LINE_REV0.OUT

	GRT2{1}	0.989	3.923	5.828	-0.247	0.213	-0.019
	GRT3{1}	-1.714	6.804	0.529	-0.246	-0.032	-0.020
	GRT4{1}	-0.237	6.408	3.883	-0.243	0.105	-0.019
M04	Gravity{1}	-0.431	-0.473	0.093	0.019	-0.020	0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.726	7.294	3.299	-0.251	0.157	-0.026
	Thermal 2{1}	2.426	4.367	4.907	-0.249	0.281	-0.025
	Thermal 3{1}	-1.280	7.206	0.483	-0.245	0.007	-0.026
	Thermal 4{1}	0.862	6.837	3.346	-0.243	0.160	-0.025
	GRT1{1}	0.295	6.821	3.392	-0.232	0.137	-0.023
	GRT2{1}	1.995	3.894	5.001	-0.230	0.261	-0.022
	GRT3{1}	-1.711	6.733	0.576	-0.226	-0.013	-0.023
	GRT4{1}	0.431	6.365	3.439	-0.224	0.141	-0.022

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
M04 M	Gravity{1}	-0.431	-0.470	0.113	0.019	-0.020	0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.727	7.269	3.139	-0.251	0.157	-0.026
	Thermal 2{1}	2.427	4.343	4.629	-0.249	0.281	-0.025
	Thermal 3{1}	-1.279	7.181	0.467	-0.245	0.007	-0.026
	Thermal 4{1}	1.053	6.821	3.183	-0.243	0.161	-0.025
	GRT1{1}	0.296	6.799	3.252	-0.232	0.137	-0.023
	GRT2{1}	1.996	3.874	4.742	-0.230	0.261	-0.022
	GRT3{1}	-1.710	6.712	0.580	-0.226	-0.013	-0.023
	GRT4{1}	0.622	6.351	3.296	-0.224	0.141	-0.022
CH11	Gravity{1}	-0.431	-0.467	0.133	0.019	-0.020	0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.728	7.244	2.979	-0.251	0.157	-0.026
	Thermal 2{1}	2.428	4.320	4.350	-0.249	0.281	-0.025
	Thermal 3{1}	-1.278	7.157	0.452	-0.245	0.007	-0.026
	Thermal 4{1}	1.245	6.804	3.020	-0.243	0.161	-0.025
	GRT1{1}	0.297	6.777	3.112	-0.232	0.137	-0.023

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	GRT2{1}	1.997	3.853	4.483	-0.230	0.261	-0.022
	GRT3{1}	-1.709	6.690	0.585	-0.226	-0.013	-0.023
	GRT4{1}	0.814	6.337	3.153	-0.224	0.141	-0.022
M06	Gravity{1}	-0.432	-0.456	0.158	0.016	0.012	0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.732	7.148	2.371	-0.228	0.169	-0.028
	Thermal 2{1}	2.432	4.230	3.300	-0.229	0.297	-0.027
	Thermal 3{1}	-1.274	7.063	0.378	-0.222	0.017	-0.028
	Thermal 4{1}	1.248	6.712	2.401	-0.221	0.172	-0.027
	GRT1{1}	0.300	6.692	2.529	-0.212	0.182	-0.025
	GRT2{1}	2.000	3.774	3.458	-0.212	0.309	-0.024
	GRT3{1}	-1.706	6.607	0.535	-0.206	0.029	-0.025
	GRT4{1}	0.817	6.255	2.559	-0.205	0.185	-0.024
M06 M	Gravity{1}	-0.432	-0.449	0.129	0.016	0.013	0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.735	7.081	1.947	-0.228	0.169	-0.028
	Thermal 2{1}	2.434	4.166	2.572	-0.228	0.297	-0.027
	Thermal 3{1}	-1.272	6.996	0.317	-0.222	0.017	-0.028
	Thermal 4{1}	1.251	6.646	1.970	-0.221	0.172	-0.027
	GRT1{1}	0.303	6.632	2.076	-0.212	0.182	-0.025
	GRT2{1}	2.002	3.718	2.701	-0.212	0.310	-0.024
	GRT3{1}	-1.704	6.547	0.446	-0.205	0.030	-0.025
	GRT4{1}	0.819	6.197	2.099	-0.205	0.185	-0.024

 F_LINE_REV0
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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
M15	Gravity{1}	-0.432	-0.441	0.099	0.016	0.013	0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.737	7.013	1.522	-0.227	0.169	-0.028
	Thermal 2{1}	2.437	4.103	1.844	-0.228	0.297	-0.027
	Thermal 3{1}	-1.269	6.929	0.256	-0.221	0.017	-0.028
	Thermal 4{1}	1.253	6.581	1.539	-0.220	0.172	-0.027
	GRT1{1}	0.305	6.572	1.621	-0.211	0.183	-0.025

		F_LINE_REV0.OUT					
	GRT2{1}	2.004	3.662	1.943	-0.212	0.310	-0.024
	GRT3{1}	-1.701	6.488	0.355	-0.205	0.030	-0.025
	GRT4{1}	0.821	6.139	1.638	-0.204	0.186	-0.024
C019	Gravity{1}	-0.432	-0.431	0.030	0.014	0.023	0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.741	6.920	0.962	-0.205	0.163	-0.029
	Thermal 2{1}	2.440	4.016	0.883	-0.208	0.285	-0.027
	Thermal 3{1}	-1.266	6.838	0.170	-0.200	0.020	-0.029
	Thermal 4{1}	1.257	6.491	0.971	-0.199	0.165	-0.028
	GRT1{1}	0.308	6.489	0.992	-0.191	0.186	-0.026
	GRT2{1}	2.007	3.585	0.913	-0.194	0.308	-0.024
	GRT3{1}	-1.698	6.407	0.199	-0.186	0.043	-0.026
	GRT4{1}	0.824	6.060	1.001	-0.185	0.188	-0.025
M08 N	Gravity{1}	-0.433	-0.414	-0.051	0.012	0.011	0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.747	6.765	0.102	-0.169	0.148	-0.030
	Thermal 2{1}	2.446	3.871	-0.591	-0.175	0.258	-0.028
	Thermal 3{1}	-1.260	6.684	0.019	-0.164	0.022	-0.029
	Thermal 4{1}	1.263	6.341	0.103	-0.164	0.149	-0.029
	GRT1{1}	0.314	6.350	0.052	-0.157	0.159	-0.026
	GRT2{1}	2.012	3.457	-0.642	-0.163	0.269	-0.024
	GRT3{1}	-1.693	6.270	-0.031	-0.152	0.033	-0.026
	GRT4{1}	0.830	5.926	0.052	-0.152	0.160	-0.025
M08 F	Gravity{1}	-0.426	-0.420	-0.057	0.011	0.010	0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.844	6.854	0.001	-0.161	0.143	-0.030
	Thermal 2{1}	2.614	3.966	-0.764	-0.168	0.248	-0.028
	Thermal 3{1}	-1.244	6.771	0.001	-0.157	0.022	-0.029
	Thermal 4{1}	1.360	6.428	0.001	-0.157	0.144	-0.029
	GRT1{1}	0.417	6.434	-0.056	-0.150	0.153	-0.027
	GRT2{1}	2.187	3.546	-0.822	-0.157	0.258	-0.025
	GRT3{1}	-1.671	6.351	-0.057	-0.145	0.032	-0.026
	GRT4{1}	0.934	6.008	-0.057	-0.145	0.154	-0.026

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F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

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D I S P L A C E M E N T S

F_LINE_REV0.OUT

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
M19	Gravity{1}	0.000	0.000	-0.025	-0.003	0.000	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.038	-0.020	-0.008
	Thermal 2{1}	0.000	0.000	-0.766	0.031	-0.038	-0.007
	Thermal 3{1}	0.000	0.000	0.000	0.037	0.000	-0.008
	Thermal 4{1}	0.000	0.000	0.000	0.036	-0.022	-0.007
	GRT1{1}	0.000	0.000	-0.025	0.035	-0.021	-0.007
	GRT2{1}	0.000	0.000	-0.791	0.029	-0.039	-0.006
	GRT3{1}	0.000	0.000	-0.025	0.034	0.000	-0.007
	GRT4{1}	0.000	0.000	-0.025	0.033	-0.022	-0.007
M09	Gravity{1}	0.000	0.000	-0.001	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	-0.001	0.000	0.000	0.000	0.000
	Thermal 2{1}	-0.001	-0.001	-0.766	0.000	0.000	0.000
	Thermal 3{1}	0.000	-0.001	0.000	0.000	0.000	0.000
	Thermal 4{1}	0.000	-0.001	0.000	0.000	0.000	0.000
	GRT1{1}	0.000	-0.001	-0.001	0.000	0.000	0.000
	GRT2{1}	-0.001	-0.001	-0.767	0.000	0.000	0.000
	GRT3{1}	0.000	-0.001	-0.001	0.000	0.000	0.000
	GRT4{1}	0.000	-0.001	-0.001	0.000	0.000	0.000
M16	Gravity{1}	0.000	0.000	-0.001	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	-0.766	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	-0.001	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	-0.767	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	-0.001	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	-0.001	0.000	0.000	0.000
M17	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	-0.766	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	0.000	0.000	0.000	0.000

	F_LINE_REV0.OUT					
GRT2{1}	0.000	0.000	-0.766	0.000	0.000	0.000
GRT3{1}	0.000	0.000	0.000	0.000	0.000	0.000
GRT4{1}	0.000	0.000	0.000	0.000	0.000	0.000

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F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

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RESULT PAGE 57

D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
M12	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	-0.766	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	-0.766	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	0.000	0.000	0.000	0.000

*** Segment M end ***

*** Segment Q begin ***

B12	Gravity{1}	0.003	0.052	-0.120	-0.015	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.156	-12.717	1.705	0.044	0.012	0.009
	Thermal 2{1}	-0.201	-18.803	1.799	0.048	0.011	0.012
	Thermal 3{1}	-0.155	-12.762	1.700	0.043	0.012	0.009
	Thermal 4{1}	-0.088	-2.891	1.542	0.035	0.016	0.004
	GRT1{1}	-0.153	-12.665	1.586	0.029	0.012	0.009
	GRT2{1}	-0.198	-18.751	1.679	0.033	0.011	0.012
	GRT3{1}	-0.152	-12.710	1.581	0.028	0.012	0.009
	GRT4{1}	-0.084	-2.839	1.423	0.020	0.016	0.004
Q01	Gravity{1}	0.004	0.017	-0.120	-0.015	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.184	-12.613	1.239	0.044	0.012	0.009
	Thermal 2{1}	-0.228	-18.689	1.084	0.048	0.011	0.012
	Thermal 3{1}	-0.183	-12.660	1.234	0.043	0.012	0.009

		F_LINE_REV0.0UT					
	Thermal 4{1}	-0.126	-2.808	1.464	0.035	0.016	0.004
	GRT1{1}	-0.180	-12.597	1.119	0.029	0.012	0.009
	GRT2{1}	-0.224	-18.672	0.964	0.033	0.011	0.012
	GRT3{1}	-0.179	-12.643	1.114	0.028	0.012	0.009
	GRT4{1}	-0.122	-2.791	1.343	0.020	0.016	0.004
Q01 M	Gravity{1}	0.004	-0.019	-0.120	-0.015	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.212	-12.509	1.239	0.044	0.012	0.009
	Thermal 2{1}	-0.255	-18.574	0.369	0.048	0.011	0.012
	Thermal 3{1}	-0.211	-12.558	0.768	0.043	0.012	0.009
	Thermal 4{1}	-0.163	-2.724	1.385	0.035	0.016	0.004
	GRT1{1}	-0.208	-12.528	1.119	0.029	0.012	0.009
	GRT2{1}	-0.251	-18.593	0.249	0.033	0.011	0.012
	GRT3{1}	-0.207	-12.577	0.648	0.028	0.012	0.009
	GRT4{1}	-0.159	-2.743	1.265	0.020	0.016	0.004

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F_LINE_REV0

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RESULT PAGE 58

D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
Q02	Gravity{1}	0.005	-0.055	-0.120	-0.015	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.240	-12.406	1.239	0.044	0.012	0.009
	Thermal 2{1}	-0.283	-18.460	-0.345	0.048	0.011	0.012
	Thermal 3{1}	-0.239	-12.455	0.302	0.043	0.012	0.009
	Thermal 4{1}	-0.201	-2.641	1.306	0.035	0.016	0.004
	GRT1{1}	-0.235	-12.460	1.119	0.029	0.012	0.009
	GRT2{1}	-0.278	-18.514	-0.466	0.033	0.011	0.012
	GRT3{1}	-0.234	-12.510	0.182	0.028	0.012	0.009
	GRT4{1}	-0.196	-2.696	1.186	0.020	0.016	0.004

*** Segment Q end ***

*** Segment R begin ***

C16	Gravity{1}	-0.006	0.465	-0.093	-0.013	-0.003	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.487	-12.764	1.815	0.063	0.058	0.041

		F_LINE_REV0.OUT					
	Thermal 2{1}	-0.717	-18.250	1.902	0.067	0.009	0.059
	Thermal 3{1}	-0.966	-13.052	1.835	0.065	0.019	0.080
	Thermal 4{1}	-0.192	-3.821	1.698	0.058	0.078	0.016
	GRT1{1}	-0.494	-12.299	1.722	0.050	0.056	0.041
	GRT2{1}	-0.723	-17.785	1.808	0.054	0.006	0.059
	GRT3{1}	-0.972	-12.587	1.742	0.052	0.016	0.080
	GRT4{1}	-0.198	-3.356	1.605	0.045	0.075	0.017
R01	Gravity{1}	0.000	0.433	-0.094	-0.013	-0.003	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.632	-12.608	1.327	0.063	0.058	0.041
	Thermal 2{1}	-0.738	-18.083	1.153	0.067	0.009	0.059
	Thermal 3{1}	-1.012	-12.891	1.347	0.065	0.019	0.080
	Thermal 4{1}	-0.386	-3.677	1.615	0.058	0.078	0.016
	GRT1{1}	-0.632	-12.175	1.234	0.050	0.056	0.041
	GRT2{1}	-0.738	-17.650	1.059	0.054	0.006	0.059
	GRT3{1}	-1.012	-12.458	1.254	0.052	0.016	0.080
	GRT4{1}	-0.386	-3.244	1.522	0.045	0.075	0.017
R01 M	Gravity{1}	0.006	0.402	-0.094	-0.013	-0.003	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.771	-12.459	1.327	0.063	0.058	0.041
	Thermal 2{1}	-0.759	-17.923	0.439	0.067	0.009	0.059
	Thermal 3{1}	-1.056	-12.737	0.881	0.065	0.019	0.080
	Thermal 4{1}	-0.571	-3.540	1.537	0.058	0.078	0.016
	GRT1{1}	-0.765	-12.057	1.234	0.050	0.056	0.041
	GRT2{1}	-0.753	-17.521	0.345	0.054	0.006	0.059
	GRT3{1}	-1.050	-12.334	0.788	0.052	0.016	0.080
	GRT4{1}	-0.565	-3.138	1.443	0.045	0.075	0.017

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F_LINE_REV0

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RESULT PAGE 59

DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
R02	Gravity{1}	0.012	0.372	-0.094	-0.013	-0.003	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.909	-12.310	1.327	0.063	0.058	0.041

	F_LINE_REV0.OUT					
Thermal 2{1}	-0.780	-17.763	-0.276	0.067	0.009	0.059
Thermal 3{1}	-1.100	-12.583	0.415	0.065	0.019	0.080
Thermal 4{1}	-0.756	-3.403	1.458	0.058	0.078	0.016
GRT1{1}	-0.897	-11.938	1.234	0.050	0.056	0.041
GRT2{1}	-0.768	-17.391	-0.370	0.054	0.006	0.059
GRT3{1}	-1.088	-12.211	0.321	0.052	0.016	0.080
GRT4{1}	-0.744	-3.031	1.364	0.045	0.075	0.017

*** Segment R end ***

*** Segment S begin ***

D19	Gravity{1}	-0.002	0.011	-0.172	-0.029	-0.014	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.014	-2.955	1.762	0.148	-0.074	-0.001
	Thermal 2{1}	0.013	-7.679	1.801	0.145	-0.053	0.000
	Thermal 3{1}	0.013	-2.961	1.761	0.148	-0.081	-0.001
	Thermal 4{1}	0.015	-3.256	1.735	0.144	-0.069	-0.001
	GRT1{1}	0.012	-2.943	1.591	0.119	-0.088	-0.001
	GRT2{1}	0.011	-7.667	1.630	0.116	-0.067	-0.001
	GRT3{1}	0.011	-2.950	1.589	0.119	-0.095	-0.001
	GRT4{1}	0.013	-3.245	1.564	0.116	-0.083	-0.001
S01	Gravity{1}	0.033	-0.060	-0.172	-0.029	-0.014	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.199	-2.585	1.274	0.148	-0.074	-0.001
	Thermal 2{1}	0.145	-7.318	1.053	0.145	-0.053	0.000
	Thermal 3{1}	0.216	-2.592	1.273	0.148	-0.081	-0.001
	Thermal 4{1}	0.187	-2.897	1.240	0.144	-0.069	-0.001
	GRT1{1}	0.232	-2.645	1.102	0.119	-0.088	-0.001
	GRT2{1}	0.178	-7.378	0.881	0.116	-0.067	-0.001
	GRT3{1}	0.248	-2.652	1.101	0.119	-0.095	-0.001
	GRT4{1}	0.219	-2.957	1.068	0.116	-0.083	-0.001
S01 M	Gravity{1}	0.066	-0.128	-0.172	-0.029	-0.014	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.376	-2.233	1.274	0.148	-0.074	-0.001
	Thermal 2{1}	0.272	-6.973	0.338	0.145	-0.053	0.000
	Thermal 3{1}	0.409	-2.240	0.807	0.148	-0.081	-0.001
	Thermal 4{1}	0.351	-2.553	0.766	0.144	-0.069	-0.001
	GRT1{1}	0.442	-2.361	1.102	0.119	-0.088	-0.001
	GRT2{1}	0.338	-7.101	0.166	0.116	-0.067	-0.001
	GRT3{1}	0.475	-2.368	0.634	0.119	-0.095	-0.001
	GRT4{1}	0.417	-2.681	0.594	0.116	-0.083	-0.001

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F_LINE_REV0

09/13/2010 FEED LINE

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RESULT PAGE 60

D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
S02	Gravity{1}	0.099	-0.196	-0.172	-0.029	-0.014	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.553	-1.880	1.274	0.148	-0.074	-0.001
	Thermal 2{1}	0.398	-6.628	-0.376	0.145	-0.053	0.000
	Thermal 3{1}	0.602	-1.888	0.340	0.148	-0.081	-0.001
	Thermal 4{1}	0.515	-2.210	0.293	0.144	-0.069	-0.001
	GRT1{1}	0.652	-2.076	1.102	0.119	-0.088	-0.001
	GRT2{1}	0.497	-6.824	-0.549	0.116	-0.067	-0.001
	GRT3{1}	0.701	-2.084	0.168	0.119	-0.095	-0.001
	GRT4{1}	0.614	-2.406	0.120	0.116	-0.083	-0.001
*** Segment S end ***							
B04 M	Gravity{1}	0.000	0.052	0.000	-0.009	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	-14.352	0.000	0.278	0.019	0.022
	Thermal 2{1}	0.000	-21.310	0.000	0.292	0.019	0.028
	Thermal 3{1}	0.000	-14.397	0.000	0.278	0.019	0.022
	Thermal 4{1}	0.000	-3.167	0.000	0.254	0.024	0.013
	GRT1{1}	0.000	-14.299	0.000	0.269	0.019	0.022
	GRT2{1}	0.000	-21.257	0.000	0.283	0.018	0.028
	GRT3{1}	0.000	-14.345	0.000	0.269	0.019	0.022
	GRT4{1}	0.000	-3.115	0.000	0.245	0.023	0.013
B04 D	Gravity{1}	-0.002	0.117	0.000	-0.009	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.138	-16.333	0.000	0.278	0.019	0.022
	Thermal 2{1}	0.133	-23.390	0.000	0.292	0.019	0.028
	Thermal 3{1}	0.138	-16.374	0.000	0.278	0.019	0.022
	Thermal 4{1}	0.169	-4.978	0.000	0.254	0.024	0.013
	GRT1{1}	0.136	-16.216	0.000	0.269	0.019	0.022
	GRT2{1}	0.131	-23.274	0.000	0.283	0.018	0.028
	GRT3{1}	0.137	-16.257	0.000	0.269	0.019	0.022
	GRT4{1}	0.167	-4.861	0.000	0.245	0.023	0.013
C04 M	Gravity{1}	0.000	0.465	0.000	-0.006	-0.002	0.001

	F_LINE_REV0.OUT					
Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
Thermal 1{1}	0.000	-14.398	0.000	0.289	0.048	0.064
Thermal 2{1}	0.000	-20.757	0.000	0.302	0.003	0.094
Thermal 3{1}	0.000	-14.686	0.000	0.291	0.008	0.126
Thermal 4{1}	0.000	-4.096	0.000	0.271	0.068	0.025
GRT1{1}	0.000	-13.934	0.000	0.283	0.046	0.064
GRT2{1}	0.000	-20.292	0.000	0.296	0.001	0.095
GRT3{1}	0.000	-14.222	0.000	0.286	0.006	0.127
GRT4{1}	0.000	-3.632	0.000	0.265	0.066	0.026

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F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 61

DISPLACEMENTS

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
C04 D	Gravity{1}	-0.016	0.505	0.000	-0.006	-0.002	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.340	-16.456	0.000	0.289	0.048	0.064
	Thermal 2{1}	0.021	-22.905	0.000	0.302	0.003	0.094
	Thermal 3{1}	0.060	-16.760	0.000	0.291	0.008	0.126
	Thermal 4{1}	0.484	-6.024	0.000	0.271	0.068	0.025
	GRT1{1}	0.324	-15.951	0.000	0.283	0.046	0.064
	GRT2{1}	0.005	-22.400	0.000	0.296	0.001	0.095
	GRT3{1}	0.044	-16.256	0.000	0.286	0.006	0.127
	GRT4{1}	0.468	-5.519	0.000	0.265	0.066	0.026
M06 M	Gravity{1}	-0.432	-0.449	0.129	0.016	0.013	0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.735	7.081	1.947	-0.228	0.169	-0.028
	Thermal 2{1}	2.434	4.166	2.572	-0.228	0.297	-0.027
	Thermal 3{1}	-1.272	6.996	0.317	-0.222	0.017	-0.028
	Thermal 4{1}	1.251	6.646	1.970	-0.221	0.172	-0.027
	GRT1{1}	0.303	6.632	2.076	-0.212	0.182	-0.025
	GRT2{1}	2.002	3.718	2.701	-0.212	0.310	-0.024
	GRT3{1}	-1.704	6.547	0.446	-0.205	0.030	-0.025
	GRT4{1}	0.819	6.197	2.099	-0.205	0.185	-0.024
M06 D	Gravity{1}	-0.346	-0.555	0.129	0.016	0.013	0.003

F_LINE_REV0.OUT

	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.858	8.590	1.947	-0.228	0.169	-0.028
	Thermal 2{1}	4.403	5.681	2.572	-0.228	0.297	-0.027
	Thermal 3{1}	-1.160	8.465	0.317	-0.222	0.017	-0.028
	Thermal 4{1}	2.394	8.109	1.970	-0.221	0.172	-0.027
	GRT1{1}	1.512	8.035	2.076	-0.212	0.182	-0.025
	GRT2{1}	4.057	5.126	2.701	-0.212	0.310	-0.024
	GRT3{1}	-1.505	7.910	0.446	-0.205	0.030	-0.025
	GRT4{1}	2.048	7.554	2.099	-0.205	0.185	-0.024
L09 M	Gravity{1}	-0.876	-0.491	-0.573	-0.025	0.070	-0.061
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	12.947	-7.286	-2.959	-0.527	0.716	-0.881
	Thermal 2{1}	27.260	0.196	-39.635	2.657	1.669	0.217
	Thermal 3{1}	0.280	-1.177	-0.129	-0.044	0.084	-0.145
	Thermal 4{1}	3.851	-0.921	-4.378	0.293	0.185	-0.087
	GRT1{1}	12.071	-7.777	-3.532	-0.552	0.786	-0.942
	GRT2{1}	26.384	-0.294	-40.209	2.631	1.739	0.156
	GRT3{1}	-0.596	-1.667	-0.702	-0.069	0.153	-0.206
	GRT4{1}	2.975	-1.412	-4.951	0.268	0.255	-0.149

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F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

10:17 AM

AutoPIPE Plus 9.2.1

RESULT PAGE 62

D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
L09 D	Gravity{1}	-0.496	-0.353	-0.573	-0.025	0.070	-0.061
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	16.866	-4.402	-2.959	-0.527	0.716	-0.881
	Thermal 2{1}	36.394	-14.340	-39.635	2.657	1.669	0.217
	Thermal 3{1}	0.738	-0.939	-0.129	-0.044	0.084	-0.145
	Thermal 4{1}	4.863	-2.523	-4.378	0.293	0.185	-0.087
	GRT1{1}	16.370	-4.755	-3.532	-0.552	0.786	-0.942
	GRT2{1}	35.898	-14.692	-40.209	2.631	1.739	0.156
	GRT3{1}	0.242	-1.291	-0.702	-0.069	0.153	-0.206
	GRT4{1}	4.367	-2.876	-4.951	0.268	0.255	-0.149
K08 M	Gravity{1}	0.001	0.724	0.968	-0.063	0.000	0.000

		F_LINE_REV0.OUT					
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.005	-0.441	4.183	0.283	0.005	-0.002
	Thermal 2{1}	0.000	-2.598	8.016	0.265	0.005	-0.002
	Thermal 3{1}	0.005	1.805	0.673	0.006	0.005	-0.002
	Thermal 4{1}	0.000	-5.404	6.965	0.269	0.002	-0.001
	GRT1{1}	0.006	0.284	5.151	0.220	0.005	-0.002
	GRT2{1}	0.000	-1.874	8.983	0.202	0.005	-0.002
	GRT3{1}	0.006	2.530	1.641	-0.057	0.005	-0.002
	GRT4{1}	0.001	-4.680	7.933	0.205	0.002	-0.001
K08 D	Gravity{1}	0.001	1.070	0.968	-0.063	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.030	-1.991	4.183	0.283	0.005	-0.002
	Thermal 2{1}	0.027	-4.049	8.016	0.265	0.005	-0.002
	Thermal 3{1}	0.030	1.770	0.673	0.006	0.005	-0.002
	Thermal 4{1}	0.010	-6.874	6.965	0.269	0.002	-0.001
	GRT1{1}	0.030	-0.922	5.151	0.220	0.005	-0.002
	GRT2{1}	0.027	-2.979	8.983	0.202	0.005	-0.002
	GRT3{1}	0.031	2.840	1.641	-0.057	0.005	-0.002
	GRT4{1}	0.010	-5.804	7.933	0.205	0.002	-0.001
D04 M	Gravity{1}	0.000	0.011	0.000	-0.015	-0.013	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	-4.589	0.000	0.233	-0.069	-0.002
	Thermal 2{1}	0.000	-10.184	0.000	0.241	-0.050	-0.002
	Thermal 3{1}	0.000	-4.595	0.000	0.233	-0.076	-0.002
	Thermal 4{1}	0.000	-4.916	0.000	0.230	-0.065	-0.002
	GRT1{1}	0.000	-4.577	0.000	0.218	-0.082	-0.002
	GRT2{1}	0.000	-10.173	0.000	0.227	-0.063	-0.002
	GRT3{1}	0.000	-4.584	0.000	0.218	-0.088	-0.001
	GRT4{1}	0.000	-4.905	0.000	0.216	-0.077	-0.002

□

F_LINE_REV0

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
D04 D	Gravity{1}	-0.096	0.123	0.000	-0.015	-0.013	0.000

		F_LINE_REV0.OUT					
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.532	-6.374	0.000	0.233	-0.069	-0.002
	Thermal 2{1}	-0.386	-12.032	0.000	0.241	-0.050	-0.002
	Thermal 3{1}	-0.579	-6.379	0.000	0.233	-0.076	-0.002
	Thermal 4{1}	-0.495	-6.680	0.000	0.230	-0.065	-0.002
	GRT1{1}	-0.628	-6.251	0.000	0.218	-0.082	-0.002
	GRT2{1}	-0.482	-11.909	0.000	0.227	-0.063	-0.002
	GRT3{1}	-0.675	-6.256	0.000	0.218	-0.088	-0.001
	GRT4{1}	-0.591	-6.557	0.000	0.216	-0.077	-0.002
C08 M	Gravity{1}	0.003	0.465	-0.729	0.012	-0.005	0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.909	-5.444	-10.168	-0.524	0.118	-0.021
	Thermal 2{1}	5.749	-7.026	-10.442	-0.534	0.063	-0.032
	Thermal 3{1}	5.139	-5.732	-10.488	-0.528	0.116	0.155
	Thermal 4{1}	1.196	-2.587	-9.115	-0.452	0.164	0.025
	GRT1{1}	3.912	-4.980	-10.897	-0.512	0.113	-0.019
	GRT2{1}	5.752	-6.562	-11.171	-0.522	0.058	-0.030
	GRT3{1}	5.142	-5.267	-11.217	-0.516	0.111	0.158
	GRT4{1}	1.199	-2.122	-9.844	-0.441	0.159	0.027
C08 D	Gravity{1}	-0.033	0.382	-0.729	0.012	-0.005	0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	4.747	-1.716	-10.168	-0.524	0.118	-0.021
	Thermal 2{1}	6.194	-3.225	-10.442	-0.534	0.063	-0.032
	Thermal 3{1}	5.967	-1.974	-10.488	-0.528	0.116	0.155
	Thermal 4{1}	2.363	0.632	-9.115	-0.452	0.164	0.025
	GRT1{1}	4.714	-1.334	-10.897	-0.512	0.113	-0.019
	GRT2{1}	6.162	-2.843	-11.171	-0.522	0.058	-0.030
	GRT3{1}	5.934	-1.591	-11.217	-0.516	0.111	0.158
	GRT4{1}	2.330	1.014	-9.844	-0.441	0.159	0.027
F02 M	Gravity{1}	0.026	0.176	-0.453	-0.011	0.041	0.020
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.171	-2.217	-5.302	-0.319	0.521	-0.229
	Thermal 2{1}	0.015	-2.595	-5.658	-0.333	0.555	-0.267
	Thermal 3{1}	-0.006	-2.079	-6.436	-0.010	0.525	-0.249
	Thermal 4{1}	-0.366	-1.380	-4.588	-0.241	0.433	-0.150
	GRT1{1}	-0.145	-2.041	-5.755	-0.329	0.562	-0.209
	GRT2{1}	0.041	-2.419	-6.111	-0.344	0.596	-0.247
	GRT3{1}	0.020	-1.903	-6.889	-0.020	0.566	-0.228
	GRT4{1}	-0.340	-1.204	-5.041	-0.251	0.475	-0.130

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RESULT PAGE 64

D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
F02 D	Gravity{1}	0.320	0.252	-0.453	-0.011	0.041	0.020
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.538	0.053	-5.302	-0.319	0.521	-0.229
	Thermal 2{1}	3.968	-0.225	-5.658	-0.333	0.555	-0.267
	Thermal 3{1}	3.734	-2.010	-6.436	-0.010	0.525	-0.249
	Thermal 4{1}	2.720	0.333	-4.588	-0.241	0.433	-0.150
	GRT1{1}	3.858	0.305	-5.755	-0.329	0.562	-0.209
	GRT2{1}	4.287	0.027	-6.111	-0.344	0.596	-0.247
	GRT3{1}	4.054	-1.759	-6.889	-0.020	0.566	-0.228
	GRT4{1}	3.040	0.585	-5.041	-0.251	0.475	-0.130
G02 M	Gravity{1}	0.032	0.239	-0.404	0.000	0.031	0.012
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.131	-4.424	-4.233	-0.150	0.214	-0.219
	Thermal 2{1}	-0.047	-5.625	-4.814	-0.151	0.236	-0.278
	Thermal 3{1}	2.151	-9.065	-0.596	-0.030	0.527	-0.023
	Thermal 4{1}	0.241	-3.101	-3.237	-0.078	0.195	-0.072
	GRT1{1}	-0.099	-4.185	-4.637	-0.150	0.245	-0.207
	GRT2{1}	-0.015	-5.386	-5.218	-0.150	0.267	-0.266
	GRT3{1}	2.183	-8.826	-1.001	-0.030	0.558	-0.011
	GRT4{1}	0.273	-2.862	-3.641	-0.077	0.226	-0.060
G02 D	Gravity{1}	0.252	0.237	-0.404	0.000	0.031	0.012
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.396	-3.355	-4.233	-0.150	0.214	-0.219
	Thermal 2{1}	1.631	-4.552	-4.814	-0.151	0.236	-0.278
	Thermal 3{1}	5.902	-8.851	-0.596	-0.030	0.527	-0.023
	Thermal 4{1}	1.628	-2.547	-3.237	-0.078	0.195	-0.072
	GRT1{1}	1.648	-3.118	-4.637	-0.150	0.245	-0.207
	GRT2{1}	1.883	-4.315	-5.218	-0.150	0.267	-0.266
	GRT3{1}	6.154	-8.615	-1.001	-0.030	0.558	-0.011
	GRT4{1}	1.880	-2.311	-3.641	-0.077	0.226	-0.060
C02 M	Gravity{1}	0.013	0.465	-0.080	0.008	-0.002	0.001

	F_LINE_REV0.OUT					
Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
Thermal 1{1}	0.815	-17.151	-5.820	0.518	0.033	0.052
Thermal 2{1}	1.232	-23.859	-5.967	0.525	-0.006	0.081
Thermal 3{1}	1.644	-17.439	-5.835	0.518	-0.006	0.107
Thermal 4{1}	0.306	-6.304	-5.593	0.507	0.053	0.019
GRT1{1}	0.827	-16.686	-5.900	0.526	0.031	0.053
GRT2{1}	1.245	-23.394	-6.047	0.532	-0.007	0.082
GRT3{1}	1.656	-16.974	-5.915	0.526	-0.008	0.108
GRT4{1}	0.318	-5.839	-5.673	0.515	0.052	0.020

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RESULT PAGE 65

D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
C02 D	Gravity{1}	0.000	0.409	-0.080	0.008	-0.002	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.046	-20.842	-5.820	0.518	0.033	0.052
	Thermal 2{1}	1.192	-27.595	-5.967	0.525	-0.006	0.081
	Thermal 3{1}	1.598	-21.128	-5.835	0.518	-0.006	0.107
	Thermal 4{1}	0.686	-9.917	-5.593	0.507	0.053	0.019
	GRT1{1}	1.046	-20.433	-5.900	0.526	0.031	0.053
	GRT2{1}	1.192	-27.186	-6.047	0.532	-0.007	0.082
	GRT3{1}	1.598	-20.719	-5.915	0.526	-0.008	0.108
	GRT4{1}	0.686	-9.509	-5.673	0.515	0.052	0.020
D02 M	Gravity{1}	0.020	0.011	-0.088	0.016	-0.010	0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.042	-7.826	-4.415	0.293	-0.060	-0.003
	Thermal 2{1}	-0.062	-13.832	-4.679	0.314	-0.045	-0.005
	Thermal 3{1}	-0.034	-7.832	-4.415	0.293	-0.065	-0.002
	Thermal 4{1}	-0.049	-8.166	-4.408	0.294	-0.056	-0.004
	GRT1{1}	-0.022	-7.815	-4.504	0.309	-0.070	-0.001
	GRT2{1}	-0.042	-13.820	-4.767	0.330	-0.055	-0.003
	GRT3{1}	-0.014	-7.821	-4.503	0.309	-0.075	0.000
	GRT4{1}	-0.029	-8.154	-4.497	0.311	-0.066	-0.002
D02 D	Gravity{1}	-0.055	-0.115	-0.088	0.016	-0.010	0.002

		F_LINE_REV0.OUT					
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.502	-10.068	-4.415	0.293	-0.060	-0.003
	Thermal 2{1}	-0.408	-16.234	-4.679	0.314	-0.045	-0.005
	Thermal 3{1}	-0.530	-10.075	-4.415	0.293	-0.065	-0.002
	Thermal 4{1}	-0.480	-10.420	-4.408	0.294	-0.056	-0.004
	GRT1{1}	-0.556	-10.183	-4.504	0.309	-0.070	-0.001
	GRT2{1}	-0.463	-16.349	-4.767	0.330	-0.055	-0.003
	GRT3{1}	-0.585	-10.189	-4.503	0.309	-0.075	0.000
	GRT4{1}	-0.534	-10.535	-4.497	0.311	-0.066	-0.002
B02 M	Gravity{1}	-0.008	0.052	-0.064	0.009	0.000	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.367	-17.104	-5.755	0.520	0.031	0.029
	Thermal 2{1}	0.444	-24.412	-5.914	0.527	0.029	0.034
	Thermal 3{1}	0.364	-17.150	-5.753	0.520	0.031	0.029
	Thermal 4{1}	0.246	-5.375	-5.492	0.509	0.035	0.021
	GRT1{1}	0.359	-17.052	-5.818	0.529	0.030	0.029
	GRT2{1}	0.436	-24.360	-5.978	0.536	0.029	0.034
	GRT3{1}	0.357	-17.098	-5.816	0.529	0.030	0.029
	GRT4{1}	0.238	-5.323	-5.555	0.519	0.035	0.021

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
B02 D	Gravity{1}	-0.010	-0.014	-0.064	0.009	0.000	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.585	-20.806	-5.755	0.520	0.031	0.029
	Thermal 2{1}	0.652	-28.162	-5.914	0.527	0.029	0.034
	Thermal 3{1}	0.583	-20.853	-5.753	0.520	0.031	0.029
	Thermal 4{1}	0.497	-9.003	-5.492	0.509	0.035	0.021
	GRT1{1}	0.576	-20.820	-5.818	0.529	0.030	0.029
	GRT2{1}	0.642	-28.176	-5.978	0.536	0.029	0.034
	GRT3{1}	0.573	-20.867	-5.816	0.529	0.030	0.029
	GRT4{1}	0.487	-9.017	-5.555	0.519	0.035	0.021

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AutoPIPE Plus 9.2.1 RESULT PAGE 67

S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform

Tag No.: <None> A06		Gravity{1}	down	1304	0.000	X		0.000
A06 1	Guide		rght	11	0.000	Y	11	0.000
Stiff	:RIGID		back		0.000	Z	-1304	0.000
		Hydrotest{1}	down		0.000	X		0.000
			left		0.000	Y		0.000
			back		0.000	Z		0.000
		Thermal 1{1}	up	1474	0.000	X		2.049
			left	505	0.000	Y	-505	0.000
			back		2.049	Z	1474	0.000
		Thermal 2{1}	up	1615	0.000	X		2.049
			left	609	0.000	Y	-609	0.000
			back		2.049	Z	1615	0.000
		Thermal 3{1}	up	1498	0.000	X		2.049
			left	496	0.000	Y	-496	0.000
			back		2.049	Z	1498	0.000
		Thermal 4{1}	up	1247	0.000	X		2.049
			left	336	0.000	Y	-336	0.000
			back		2.049	Z	1247	0.000
		GRT1{1}	up	170	0.000	X		2.049
			left	494	0.000	Y	-494	0.000
			back		2.049	Z	170	0.000
		GRT2{1}	up	310	0.000	X		2.049
			left	598	0.000	Y	-598	0.000
			back		2.049	Z	310	0.000
		GRT3{1}	up	194	0.000	X		2.049
			left	485	0.000	Y	-485	0.000
			back		2.049	Z	194	0.000
		GRT4{1}	down	57	0.000	X		2.049

left	325	0.000	Y	-325	0.000
back		2.049	Z	-57	0.000

Thermal 1{1}	down	127	5.755	X	0.367

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(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

[illegible]

		F_LINE_REV0.OUT					
	GRT3{1}	down	1291	5.816	X		0.357
					Y		-17.098
					Z	-1291	-5.816
	GRT4{1}	down	1286	5.555	X		0.238
					Y		-5.323
					Z	-1286	-5.555
Tag No.: <None>							
B04 M	Gravity{1}	down	2244	0.000	X	1	0.000
B04 M1 Guide		rght	1	0.000	Y		0.052
Stiff :RIGID		forw		0.052	Z	-2244	0.000
	Hydrotest{1}	down		0.000	X		0.000
		left		0.000	Y		0.000
		back		0.000	Z		0.000
	Thermal 1{1}	down	975	0.000	X	-25	0.000
		left	25	0.000	Y		-14.352
		back		14.352	Z	-975	0.000
	Thermal 2{1}	down	1028	0.000	X	-47	0.000
		left	47	0.000	Y		-21.310
		back		21.310	Z	-1028	0.000
	Thermal 3{1}	down	982	0.000	X	-25	0.000
		left	25	0.000	Y		-14.397
		back		14.397	Z	-982	0.000

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S U P P O R T F O R C E S								
(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)								
Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
		Thermal 4{1}	down	904	0.000	X	6	0.000
			rght	6	0.000	Y		-3.167
			back		3.167	Z	-904	0.000
		GRT1{1}	down	3219	0.000	X	-25	0.000
			left	25	0.000	Y		-14.299
			back		14.299	Z	-3219	0.000

GRT2{1}	down	3273	0.000	X	-46	0.000
	left	46	0.000	Y	-21.257	
	back		21.257	Z	-3273	0.000
GRT3{1}	down	3226	0.000	X	-24	0.000
	left	24	0.000	Y	-14.345	
	back		14.345	Z	-3226	0.000
GRT4{1}	down	3149	0.000	X	6	0.000
	rght	6	0.000	Y	-3.115	
	back		3.115	Z	-3149	0.000
Gravity{1}	down	605	0.000	X	-2	0.000
	left	2	0.000	Y	0.052	
	forw		0.052	Z	-605	0.000
Hydrotest{1}	down		0.000	X		0.000
	left		0.000	Y		0.000
	back		0.000	Z		0.000
Thermal 1{1}	up	165	0.000	X	98	0.000
	rght	98	0.000	Y	-10.497	
	back		10.497	Z	165	0.000
Thermal 2{1}	up	159	0.000	X	139	0.000
	rght	139	0.000	Y	-15.399	
	back		15.399	Z	159	0.000
Thermal 3{1}	up	194	0.000	X	96	0.000
	rght	96	0.000	Y	-10.542	
	back		10.542	Z	194	0.000
Thermal 4{1}	up	252	0.000	X	37	0.000
	rght	37	0.000	Y	-2.517	
	back		2.517	Z	252	0.000
GRT1{1}	down	440	0.000	X	95	0.000
	rght	95	0.000	Y	-10.445	
	back		10.445	Z	-440	0.000
GRT2{1}	down	445	0.000	X	136	0.000
	rght	136	0.000	Y	-15.346	
	back		15.346	Z	-445	0.000

1

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S U P P O R T F O R C E S								
(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)								
Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform

		GRT3{1}	down	410	0.000	X	94	0.000
			right	94	0.000	Y		-10.490
			back		10.490	Z	-410	0.000
		GRT4{1}	down	353	0.000	X	35	0.000
			right	35	0.000	Y		-2.465
			back		2.465	Z	-353	0.000
Tag No.: <None>								
B07 N		Gravity{1}	down	90	0.105	X		-0.046
B07 N2	Spr. Can					Y		0.052
Stiff :	1					Z	-90	-0.105
Preload :	89	Hydrotest{1}	down		0.000	X		0.000
						Y		0.000
						Z		0.000
		Thermal 1{1}	down	19	15.220	X		2.475
						Y		-3.543
						Z	-19	-15.220
		Thermal 2{1}	down	19	15.881	X		3.457
						Y		-4.735
						Z	-19	-15.881
		Thermal 3{1}	down	19	15.188	X		2.463
						Y		-3.589
						Z	-19	-15.188
		Thermal 4{1}	down	16	13.055	X		0.924
						Y		-1.346
						Z	-16	-13.055
		GRT1{1}	down	108	15.325	X		2.429
						Y		-3.491
						Z	-108	-15.325
		GRT2{1}	down	109	15.986	X		3.411
						Y		-4.683
						Z	-109	-15.986

F_LINE_REV0.OUT

GRT3{1}	down	108	15.293	X	2.417
				Y	-3.536
				Z	-108 -15.293
GRT4{1}	down	106	13.161	X	0.878
				Y	-1.294
				Z	-106 -13.161
Tag No.: <None> C02 M	Gravity{1}	down	1129	0.080	X 0.013
C02 M1 Spr. Can				Y	0.465

0

F_LINE_REV0

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
Stiff :	16					Z	-1129	-0.080
Preload :	1128	Hydrotest{1}	down		0.000	X		0.000
						Y		0.000
						Z		0.000
		Thermal 1{1}	down	96	5.820	X		0.815
						Y		-17.151
						Z	-96	-5.820
		Thermal 2{1}	down	98	5.967	X		1.232
						Y		-23.859
						Z	-98	-5.967
		Thermal 3{1}	down	96	5.835	X		1.644
						Y		-17.439
						Z	-96	-5.835
		Thermal 4{1}	down	92	5.593	X		0.306
						Y		-6.304
						Z	-92	-5.593
		GRT1{1}	down	1225	5.900	X		0.827
						Y		-16.686

F_LINE_REV0.OUT

					Z	-1225	-5.900
GRT2{1}	down	1227	6.047	X		1.245	
				Y		-23.394	
				Z	-1227	-6.047	
GRT3{1}	down	1225	5.915	X		1.656	
				Y		-16.974	
				Z	-1225	-5.915	
GRT4{1}	down	1221	5.673	X		0.318	
				Y		-5.839	
				Z	-1221	-5.673	
Tag No.: <None> C04 M	Gravity{1}	down	2239	0.000	X	-2	0.000
C04 M1 Guide		left	2	0.000	Y		0.465
Stiff :RIGID		forw		0.465	Z	-2239	0.000
	Hydrotest{1}	down		0.000	X		0.000
		left		0.000	Y		0.000
		back		0.000	Z		0.000
	Thermal 1{1}	down	984	0.000	X	-198	0.000
		left	198	0.000	Y		-14.398
		back		14.398	Z	-984	0.000
	Thermal 2{1}	down	1040	0.000	X	-276	0.000

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
			left	276	0.000	Y		-20.757
			back		20.757	Z	-1040	0.000
		Thermal 3{1}	down	971	0.000	X	-379	0.000
			left	379	0.000	Y		-14.686
			back		14.686	Z	-971	0.000
		Thermal 4{1}	down	873	0.000	X	-85	0.000
			left	85	0.000	Y		-4.096

F_LINE_REV0.OUT

	back		4.096	Z	-873	0.000
GRT1{1}	down	3224	0.000	X	-200	0.000
	left	200	0.000	Y		-13.934
	back		13.934	Z	-3224	0.000
GRT2{1}	down	3280	0.000	X	-277	0.000
	left	277	0.000	Y		-20.292
	back		20.292	Z	-3280	0.000
GRT3{1}	down	3210	0.000	X	-381	0.000
	left	381	0.000	Y		-14.222
	back		14.222	Z	-3210	0.000
GRT4{1}	down	3112	0.000	X	-87	0.000
	left	87	0.000	Y		-3.632
	back		3.632	Z	-3112	0.000
Gravity{1}	down	742	0.000	X	10	0.000
	rght	10	0.000	Y		0.465
	forw		0.465	Z	-742	0.000
Hydrotest{1}	down		0.000	X		0.000
	left		0.000	Y		0.000
	back		0.000	Z		0.000
Thermal 1{1}	up	142	0.000	X	618	0.000
	rght	618	0.000	Y		-10.227
	back		10.227	Z	142	0.000
Thermal 2{1}	up	183	0.000	X	906	0.000
	rght	906	0.000	Y		-14.361
	back		14.361	Z	183	0.000
Thermal 3{1}	up	264	0.000	X	1475	0.000
	rght	1475	0.000	Y		-10.515
	back		10.515	Z	264	0.000
Thermal 4{1}	up	239	0.000	X	292	0.000
	rght	292	0.000	Y		-3.393
	back		3.393	Z	239	0.000

Tag No.: <None>
C06

C06 1 Guide

Stiff :RIGID

1

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/ Supp. ID	Connect/ Type	Load Combination	L O C A L			G L O B A L		
			Dirn	Force	Deform	Dirn	Force	Deform
Tag No.: <None> C08 M C08 M1 Spr. Can Stiff : 29 Preload : 1712		GRT1{1}	down	600	0.000	X	628	0.000
			rght	628	0.000	Y		-9.763
			back		9.763	Z	-600	0.000
		GRT2{1}	down	559	0.000	X	916	0.000
			rght	916	0.000	Y		-13.896
			back		13.896	Z	-559	0.000
		GRT3{1}	down	478	0.000	X	1485	0.000
			rght	1485	0.000	Y		-10.051
			back		10.051	Z	-478	0.000
		GRT4{1}	down	503	0.000	X	302	0.000
			rght	302	0.000	Y		-2.929
			back		2.929	Z	-503	0.000
		Gravity{1}	down	1733	0.729	X		0.003
						Y		0.465
						Z	-1733	-0.729
		Hydrotest{1}	down		0.000	X		0.000
						Y		0.000
						Z		0.000
		Thermal 1{1}	down	299	10.168	X		3.909
						Y		-5.444
						Z	-299	-10.168
		Thermal 2{1}	down	307	10.442	X		5.749
						Y		-7.026
						Z	-307	-10.442
Thermal 3{1}	down	309	10.488	X		5.139		
				Y		-5.732		
				Z	-309	-10.488		
Thermal 4{1}	down	268	9.115	X		1.196		
				Y		-2.587		
				Z	-268	-9.115		
		GRT1{1}	down	2032	10.897	X		3.912

F_LINE_REV0.OUT

Y -4.980

Z -2032 -10.897

GRT2{1} down 2040 11.171

X 5.752

Y -6.562

Z -2040 -11.171

GRT3{1} down 2042 11.217

X 5.142

Y -5.267

Z -2042 -11.217

0

F_LINE_REV0

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
GRT4{1}			down	2001	9.844	X	1.199	
						Y	-2.122	
						Z	-2001	-9.844
Tag No.: <None>								
C12 N		Gravity{1}	down	147	0.217	X	-0.062	
C12 N1	Spr. Can					Y	0.450	
Stiff :	3					Z	-147	-0.217
Preload :	146	Hydrotest{1}	down		0.000	X	0.000	
						Y	0.000	
						Z	0.000	
		Thermal 1{1}	down	45	16.946	X	2.900	
						Y	-3.220	
						Z	-45	-16.946
		Thermal 2{1}	down	46	17.448	X	4.294	
						Y	-3.562	
						Z	-46	-17.448
		Thermal 3{1}	down	44	16.937	X	2.503	
						Y	-3.682	
						Z	-44	-16.937
		Thermal 4{1}	down	39	14.758	X	0.620	

F_LINE_REV0.OUT

					Y	-2.319
					Z	-39 -14.758
GRT1{1}	down	191	17.163	X		2.838
				Y		-2.770
				Z	-191	-17.163
GRT2{1}	down	193	17.665	X		4.231
				Y		-3.112
				Z	-193	-17.665
GRT3{1}	down	191	17.154	X		2.440
				Y		-3.231
				Z	-191	-17.154
GRT4{1}	down	186	14.974	X		0.558
				Y		-1.868
				Z	-186	-14.974
Tag No.: <None> D02 M	Gravity{1}	down	1982	0.088	X	0.020
D02 M1	Spr. Can				Y	0.011
Stiff :	29				Z	-1982 -0.088
Preload :	1979	Hydrotest{1}	down	0.000	X	0.000
					Y	0.000

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F_LINE_REV0

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
						Z		0.000
		Thermal 1{1}	down	130	4.415	X		-0.042
						Y		-7.826
						Z	-130	-4.415
		Thermal 2{1}	down	138	4.679	X		-0.062
						Y		-13.832
						Z	-138	-4.679

		F_LINE_REV0.OUT					
Thermal 3{1}	down	130	4.415	X		-0.034	
				Y		-7.832	
				Z	-130	-4.415	
Thermal 4{1}	down	130	4.408	X		-0.049	
				Y		-8.166	
				Z	-130	-4.408	
GRT1{1}	down	2112	4.504	X		-0.022	
				Y		-7.815	
				Z	-2112	-4.504	
GRT2{1}	down	2120	4.767	X		-0.042	
				Y		-13.820	
				Z	-2120	-4.767	
GRT3{1}	down	2112	4.503	X		-0.014	
				Y		-7.821	
				Z	-2112	-4.503	
GRT4{1}	down	2112	4.497	X		-0.029	
				Y		-8.154	
				Z	-2112	-4.497	
Tag No.: <None> D04 M Gravity{1}	down	3549	0.000	X	9	0.000	
	rght	9	0.000	Y		0.011	
	forw		0.011	Z	-3549	0.000	
Hydrotest{1}	down		0.000	X		0.000	
	left		0.000	Y		0.000	
	back		0.000	Z		0.000	
Thermal 1{1}	down	162	0.000	X	-3	0.000	
	left	3	0.000	Y		-4.589	
	back		4.589	Z	-162	0.000	
Thermal 2{1}	down	422	0.000	X	-18	0.000	
	left	18	0.000	Y		-10.184	
	back		10.184	Z	-422	0.000	
Thermal 3{1}	down	164	0.000	X	1	0.000	

0

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F_LINE_REV0.OUT
S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/ Connect/ Load			L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform

			right	1	0.000	Y		-4.595
			back		4.595	Z	-164	0.000
		Thermal 4{1}	down	213	0.000	X	-6	0.000
			left	6	0.000	Y		-4.916
			back		4.916	Z	-213	0.000
		GRT1{1}	down	3711	0.000	X	6	0.000
			right	6	0.000	Y		-4.577
			back		4.577	Z	-3711	0.000
		GRT2{1}	down	3971	0.000	X	-8	0.000
			left	8	0.000	Y		-10.173
			back		10.173	Z	-3971	0.000
		GRT3{1}	down	3713	0.000	X	10	0.000
			right	10	0.000	Y		-4.584
			back		4.584	Z	-3713	0.000
		GRT4{1}	down	3762	0.000	X	3	0.000
			right	3	0.000	Y		-4.905
			back		4.905	Z	-3762	0.000
Tag No.: <None> D26		Gravity{1}	down	702	0.000	X	-15	0.000
D26 1 Guide			left	15	0.000	Y		0.011
Stiff :RIGID			forw		0.011	Z	-702	0.000
		Hydrotest{1}	down		0.000	X		0.000
			left		0.000	Y		0.000
			back		0.000	Z		0.000
		Thermal 1{1}	down	901	0.000	X	80	0.000
			right	80	0.000	Y		0.869
			forw		0.869	Z	-901	0.000
		Thermal 2{1}	down	644	0.000	X	139	0.000
			right	139	0.000	Y		-1.815
			back		1.815	Z	-644	0.000
		Thermal 3{1}	down	881	0.000	X	76	0.000
			right	76	0.000	Y		0.863
			forw		0.863	Z	-881	0.000

F_LINE_REV0.OUT

Thermal 4{1}	down	822	0.000	X	87	0.000
	right	87	0.000	Y		0.629
	forw		0.629	Z	-822	0.000
GRT1{1}	down	1603	0.000	X	65	0.000
	right	65	0.000	Y		0.881
	forw		0.881	Z	-1603	0.000

0

F_LINE_REV0

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/ Supp. ID	Connect/ Type	Load Combination	L O C A L			G L O B A L		
			Dirn	Force	Deform	Dirn	Force	Deform
		GRT2{1}	down	1346	0.000	X	124	0.000
			right	124	0.000	Y		-1.803
			back		1.803	Z	-1346	0.000
		GRT3{1}	down	1583	0.000	X	60	0.000
			right	60	0.000	Y		0.875
			forw		0.875	Z	-1583	0.000
		GRT4{1}	down	1523	0.000	X	71	0.000
			right	71	0.000	Y		0.640
			forw		0.640	Z	-1523	0.000
Tag No.: <None> D08 N	Spr. Hgr	Gravity{1}	down	166	0.014	X		-0.052
						Y		0.001
						Z	-166	-0.014
Preload :	166	Hydrotest{1}	down		0.000	X		0.000
						Y		0.000
						Z		0.000
		Thermal 1{1}	down	36	13.733	X		-0.926
						Y		5.132
						Z	-36	-13.733
		Thermal 2{1}	down	34	12.783	X		-1.278
						Y		4.750
						Z	-34	-12.783

F_LINE_REV0.OUT

Thermal 3{1}	down	36	13.735	X	-0.948
				Y	5.121
				Z	-36 -13.735
Thermal 4{1}	down	35	13.173	X	-0.924
				Y	4.962
				Z	-35 -13.173
GRT1{1}	down	202	13.747	X	-0.978
				Y	5.132
				Z	-202 -13.747
GRT2{1}	down	200	12.798	X	-1.330
				Y	4.751
				Z	-200 -12.798
GRT3{1}	down	202	13.750	X	-1.000
				Y	5.122
				Z	-202 -13.750
GRT4{1}	down	201	13.187	X	-0.976
				Y	4.963
				Z	-201 -13.187

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F_LINE_REV0

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/ Supp. ID	Connect/ Type	Load Combination	L O C A L			G L O B A L		
			Dirn	Force	Deform	Dirn	Force	Deform

Tag No.: <None> F02 M		Gravity{1}	down	1729	0.453	X		0.026
F02 M1	Spr. Can					Y		0.176
Stiff :	29					Z	-1729	-0.453
Preload :	1716	Hydrotest{1}	down		0.000	X		0.000
						Y		0.000
						Z		0.000
		Thermal 1{1}	down	156	5.302	X		-0.171
						Y		-2.217

F_LINE_REV0.OUT

				Z	-156	-5.302
Thermal 2{1}	down	166	5.658	X		0.015
				Y		-2.595
				Z	-166	-5.658
Thermal 3{1}	down	189	6.436	X		-0.006
				Y		-2.079
				Z	-189	-6.436
Thermal 4{1}	down	135	4.588	X		-0.366
				Y		-1.380
				Z	-135	-4.588
GRT1{1}	down	1885	5.755	X		-0.145
				Y		-2.041
				Z	-1885	-5.755
GRT2{1}	down	1895	6.111	X		0.041
				Y		-2.419
				Z	-1895	-6.111
GRT3{1}	down	1918	6.889	X		0.020
				Y		-1.903
				Z	-1918	-6.889
GRT4{1}	down	1864	5.041	X		-0.340
				Y		-1.204
				Z	-1864	-5.041
Tag No.: <None> F20	Gravity{1}	down	134	0.000	X	0.026
F20 1 Guide		rght	75	0.000	Y	75 0.000
Stiff :RIGID		back		0.026	Z	-134 0.000
	Hydrotest{1}	down		0.000	X	0.000
		left		0.000	Y	0.000
		back		0.000	Z	0.000
	Thermal 1{1}	down	904	0.000	X	-0.827
		left	607	0.000	Y	-607 0.000

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F_LINE_REV0

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S U P P O R T F O R C E S

(Force - N , Moment - N.m			F_LINE_REV0.OUT , Tran. - mm , Rot. - deg)					
Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
-----			-----			-----		
			forw		0.827	Z	-904	0.000
		Thermal 2{1}	down	1014	0.000	X		-0.990
			left	696	0.000	Y	-696	0.000
			forw		0.990	Z	-1014	0.000
		Thermal 3{1}	up	134	0.000	X		-2.166
			left	5752	0.000	Y	-5752	0.000
			forw		2.166	Z	134	0.000
		Thermal 4{1}	down	682	0.000	X		-0.771
			left	1397	0.000	Y	-1397	0.000
			forw		0.771	Z	-682	0.000
		GRT1{1}	down	1038	0.000	X		-0.800
			left	532	0.000	Y	-532	0.000
			forw		0.800	Z	-1038	0.000
		GRT2{1}	down	1148	0.000	X		-0.964
			left	621	0.000	Y	-621	0.000
			forw		0.964	Z	-1148	0.000
		GRT3{1}	down		0.000	X		-2.140
			left	5677	0.000	Y	-5677	0.000
			forw		2.140	Z		0.000
		GRT4{1}	down	817	0.000	X		-0.744
			left	1322	0.000	Y	-1322	0.000
			forw		0.744	Z	-817	0.000
Tag No.: <None> F19		Gravity{1}	down	440	0.000	X	-82	0.015
F19 1	Guide		left	87	0.000	Y	-30	-0.041
Stiff	:RIGID		back		0.044	Z	-440	0.000
		Hydrotest{1}	down		0.000	X		0.000
			left		0.000	Y		0.000
			back		0.000	Z		0.000
		Thermal 1{1}	up	153	0.000	X	-57	-0.302
			left	60	0.000	Y	-21	0.829
			forw		0.883	Z	153	0.000
		Thermal 2{1}	up	187	0.000	X	-116	-0.359
			left	123	0.000	Y	-42	0.985

F_LINE_REV0.OUT

	forw		1.048	Z	187	0.000
Thermal 3{1}	up	440	5.555	X	10374	-1.077
	rght	11040	0.000	Y	3776	2.960
	forw		3.150	Z	440	5.555
Thermal 4{1}	up	440	0.751	X	2035	-0.339

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
			rght	2166	0.000	Y	741	0.933
			forw		0.992	Z	440	0.751
		GRT1{1}	down	287	0.000	X	-139	-0.287
			left	147	0.000	Y	-50	0.788
			forw		0.839	Z	-287	0.000
		GRT2{1}	down	253	0.000	X	-197	-0.344
			left	210	0.000	Y	-72	0.944
			forw		1.005	Z	-253	0.000
		GRT3{1}	up		5.555	X	10292	-1.062
			rght	10953	0.000	Y	3746	2.919
			forw		3.106	Z		5.555
		GRT4{1}	up		0.751	X	1953	-0.324
			rght	2078	0.000	Y	711	0.891
			forw		0.949	Z		0.751
Tag No.: <None>								
G02 M		Gravity{1}	down	2031	0.404	X		0.032
G02 M1	Cons Can					Y		0.239
Stiff	:FREE					Z	-2031	-0.404
Preload :	2031	Hydrotest{1}	down		0.000	X		0.000
						Y		0.000
						Z		0.000
		Thermal 1{1}	down		4.233	X		-0.131

F_LINE_REV0.OUT

				Y	-4.424
				Z	-4.233
Thermal 2{1}	down	4.814	X	-0.047	
			Y	-5.625	
			Z	-4.814	
Thermal 3{1}	down	0.596	X	2.151	
			Y	-9.065	
			Z	-0.596	
Thermal 4{1}	down	3.237	X	0.241	
			Y	-3.101	
			Z	-3.237	
GRT1{1}	down	2031 4.637	X	-0.099	
			Y	-4.185	
			Z	-2031 -4.637	
GRT2{1}	down	2031 5.218	X	-0.015	
			Y	-5.386	
			Z	-2031 -5.218	

0

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
		GRT3{1}	down	2031	1.001	X		2.183
						Y		-8.826
						Z	-2031	-1.001
		GRT4{1}	down	2031	3.641	X		0.273
						Y		-2.862
						Z	-2031	-3.641
Tag No.: <None> G17		Gravity{1}	down	417	0.000	X	80	0.001
G17 1	Guide		right	86	0.000	Y	29	-0.002
Stiff	:RIGID		back		0.002	Z	-417	0.000
		Hydrotest{1}	down		0.000	X		0.000

F_LINE_REV0.OUT

		left		0.000	Y		0.000
		back		0.000	Z		0.000
Thermal 1{1}		down	448	0.000	X	-2101	-0.059
		left	2236	0.000	Y	-765	0.163
		forw		0.174	Z	-448	0.000
Thermal 2{1}		down	558	0.000	X	-2837	-0.088
		left	3019	0.000	Y	-1032	0.242
		forw		0.257	Z	-558	0.000
Thermal 3{1}		up	417	13.942	X	-415	0.858
		left	442	0.000	Y	-151	-2.356
		back		2.507	Z	417	13.942
Thermal 4{1}		up	417	1.985	X	-472	0.167
		left	502	0.000	Y	-172	-0.460
		back		0.489	Z	417	1.985
GRT1{1}		down	865	0.000	X	-2020	-0.059
		left	2150	0.000	Y	-735	0.161
		forw		0.172	Z	-865	0.000
GRT2{1}		down	975	0.000	X	-2756	-0.087
		left	2933	0.000	Y	-1003	0.240
		forw		0.255	Z	-975	0.000
GRT3{1}		up		13.942	X	-335	0.858
		left	356	0.000	Y	-122	-2.358
		back		2.509	Z		13.942
GRT4{1}		up		1.985	X	-392	0.168
		left	417	0.000	Y	-143	-0.461
		back		0.491	Z		1.985
Tag No.: <None> K22	Gravity{1}	down	0	0.000	X	0	0.000
K22 1 Guide		rght	11	0.000	Y	11	0.000

0

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/ Connect/ Load

L O C A L

G L O B A L

Supp. ID	Type	Combination	F_LINE_REV0.OUT			Dirn	Force	Deform
			Dirn	Force	Deform			
Stiff	:RIGID		back		0.001	Z		-0.001
		Hydrotest{1}	down		0.000	X		0.000
			left		0.000	Y		0.000
			back		0.000	Z		0.000
		Thermal 1{1}	up	0	0.000	X	0	0.000
			left	23	0.000	Y	-23	0.000
			forw		5.144	Z		5.144
		Thermal 2{1}	up	0	0.000	X	0	0.000
			left	89	0.000	Y	-89	0.000
			forw		7.889	Z		7.889
		Thermal 3{1}	up	0	0.000	X	0	0.000
			left	18	0.000	Y	-18	0.000
			forw		0.364	Z		0.364
		Thermal 4{1}	up	0	0.000	X	0	0.000
			left	47	0.000	Y	-47	0.000
			forw		7.574	Z		7.574
		GRT1{1}	up	0	0.000	X	0	0.000
			left	13	0.000	Y	-13	0.000
			forw		5.143	Z		5.143
		GRT2{1}	up	0	0.000	X	0	0.000
			left	79	0.000	Y	-79	0.000
			forw		7.888	Z		7.888
		GRT3{1}	up	0	0.000	X	0	0.000
			left	7	0.000	Y	-7	0.000
			forw		0.363	Z		0.363
		GRT4{1}	up	0	0.000	X	0	0.000
			left	36	0.000	Y	-36	0.000
			forw		7.573	Z		7.573
Tag No.: <None>								
K08 M		Gravity{1}	down	477	-0.968	X		0.001
K08 M1	Spr. Can					Y		0.724
Stiff :	7					Z	-477	0.968
Preload :	484	Hydrotest{1}	down		0.000	X		0.000
						Y		0.000
						Z		0.000

Thermal 1{1}	F_LINE_REV0.0UT up	31	4.183	X	0.005
				Y	-0.441
				Z	31 4.183
Thermal 2{1}	up	59	8.016	X	0.000

0

F_LINE_REV0

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
						Y		-2.598
						Z	59	8.016
Thermal 3{1}	up		5	0.673		X		0.005
						Y		1.805
						Z	5	0.673
Thermal 4{1}	up		51	6.965		X		0.000
						Y		-5.404
						Z	51	6.965
GRT1{1}	down		446	-5.151		X		0.006
						Y		0.284
						Z	-446	5.151
GRT2{1}	down		418	-8.983		X		0.000
						Y		-1.874
						Z	-418	8.983
GRT3{1}	down		472	-1.641		X		0.006
						Y		2.530
						Z	-472	1.641
GRT4{1}	down		426	-7.933		X		0.001
						Y		-4.680
						Z	-426	7.933
Tag No.: <None> K27		Gravity{1}	down	112	0.000	X	0	0.000
K27 1	Guide		left	0	0.000	Y		0.724
Stiff	:RIGID		back		0.724	Z	-112	0.000

F_LINE_REV0.OUT

Hydrotest{1}	down		0.000	X		0.000
	left		0.000	Y		0.000
	back		0.000	Z		0.000
Thermal 1{1}	up	8	0.000	X	0	0.000
	right	0	0.000	Y		-0.441
	forw		0.441	Z	8	0.000
Thermal 2{1}	down	181	0.000	X	0	0.000
	right	0	0.000	Y		-7.463
	forw		7.463	Z	-181	0.000
Thermal 3{1}	up	6	0.000	X	0	0.000
	right	0	0.000	Y		1.805
	back		1.805	Z	6	0.000
Thermal 4{1}	down	183	0.000	X	0	0.000
	right	0	0.000	Y		-10.074
	forw		10.074	Z	-183	0.000

0

F_LINE_REV0

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/ Supp. ID	Connect/ Type	Load Combination	L O C A L			G L O B A L		
			Dirn	Force	Deform	Dirn	Force	Deform
GRT1{1}			down	104	0.000	X	0	0.000
			right	0	0.000	Y		0.284
			back		0.284	Z	-104	0.000
GRT2{1}			down	293	0.000	X	0	0.000
			right	0	0.000	Y		-6.738
			forw		6.738	Z	-293	0.000
GRT3{1}			down	106	0.000	X	0	0.000
			right	0	0.000	Y		2.530
			back		2.530	Z	-106	0.000
GRT4{1}			down	295	0.000	X	0	0.000
			right	0	0.000	Y		-9.349
			forw		9.349	Z	-295	0.000

F_LINE_REV0.OUT

Tag No.: <None>							
K24	Gravity{1}	up	0	0.000	X	0	0.000
K24 1	Guide	left	8	0.000	Y	-8	0.000
Stiff	:RIGID	back		0.053	Z		-0.053
	Hydrotest{1}	down		0.000	X		0.000
		left		0.000	Y		0.000
		back		0.000	Z		0.000
	Thermal 1{1}	up	0	0.000	X	0	0.000
		left	3	0.000	Y	-3	0.000
		back		0.001	Z		-0.001
	Thermal 2{1}	up	0	0.000	X	0	0.000
		right	43	0.000	Y	43	0.000
		back		48.125	Z		-48.125
	Thermal 3{1}	up	0	0.000	X	0	0.000
		right	0	0.000	Y	0	0.000
		forw		0.000	Z		0.000
	Thermal 4{1}	up	0	0.000	X	0	0.000
		right	41	0.000	Y	41	0.000
		back		46.265	Z		-46.265
	GRT1{1}	up	0	0.000	X	0	0.000
		left	10	0.000	Y	-10	0.000
		back		0.054	Z		-0.054
	GRT2{1}	up	0	0.000	X	0	0.000
		right	36	0.000	Y	36	0.000
		back		48.178	Z		-48.178
	GRT3{1}	up	0	0.000	X	0	0.000
		left	7	0.000	Y	-7	0.000
		back		0.053	Z		-0.053

□

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform

F_LINE_REV0.OUT							
Tag No.: <None> K23 K23 1 Guide Stiff :RIGID	GRT4{1}	up	0	0.000	X	0	0.000
		rght	34	0.000	Y	34	0.000
		back		46.318	Z		-46.318
	Gravity{1}	down	0	0.000	X	0	0.000
		rght	2	0.000	Y	2	0.000
		back		0.026	Z		-0.026
	Hydrotest{1}	down		0.000	X		0.000
		left		0.000	Y		0.000
		back		0.000	Z		0.000
	Thermal 1{1}	down	0	0.000	X	0	0.000
		rght	1	0.000	Y	1	0.000
		back		0.000	Z		0.000
	Thermal 2{1}	down	0	0.000	X	0	0.000
		left	6	0.000	Y	-6	0.000
		back		19.083	Z		-19.083
	Thermal 3{1}	down	0	0.000	X	0	0.000
		left	0	0.000	Y	0	0.000
		forw		0.000	Z		0.000
	Thermal 4{1}	down	0	0.000	X	0	0.000
		left	6	0.000	Y	-6	0.000
		back		18.384	Z		-18.384
	GRT1{1}	down	0	0.000	X	0	0.000
		rght	2	0.000	Y	2	0.000
		back		0.027	Z		-0.027
	GRT2{1}	down	0	0.000	X	0	0.000
		left	5	0.000	Y	-5	0.000
		back		19.109	Z		-19.109
	GRT3{1}	down	0	0.000	X	0	0.000
		rght	1	0.000	Y	1	0.000
		back		0.026	Z		-0.026
	GRT4{1}	down	0	0.000	X	0	0.000
		left	4	0.000	Y	-4	0.000
		back		18.411	Z		-18.411
	Gravity{1}	down	82	0.000	X	0	-0.303
		rght	1	0.000	Y	-1	0.000

Stiff	:RIGID	F_LINE_REV0.OUT back	0.303	Z	-82	0.000
	Hydrotest{1}	down	0.000	X		0.000
		left	0.000	Y		0.000

□

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S U P P O R T F O R C E S								
(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)								
Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
			back		0.000	Z		0.000
		Thermal 1{1}	up	154	0.000	X	0	19.817
			right	4	0.000	Y	-4	0.000
			forw		19.817	Z	154	0.000
		Thermal 2{1}	up	22	0.000	X	0	22.351
			right	19	0.000	Y	-19	0.000
			forw		22.351	Z	22	0.000
		Thermal 3{1}	down	10	0.000	X	0	1.635
			right	5	0.000	Y	-5	0.000
			forw		1.635	Z	-10	0.000
		Thermal 4{1}	down	3	0.000	X	0	4.364
			left	3	0.000	Y	3	0.000
			forw		4.364	Z	-3	0.000
		GRT1{1}	up	72	0.000	X	0	19.514
			right	5	0.000	Y	-5	0.000
			forw		19.514	Z	72	0.000
		GRT2{1}	down	60	0.000	X	0	22.048
			right	20	0.000	Y	-20	0.000
			forw		22.048	Z	-60	0.000
		GRT3{1}	down	92	0.000	X	0	1.331
			right	6	0.000	Y	-6	0.000
			forw		1.331	Z	-92	0.000
		GRT4{1}	down	85	0.000	X	0	4.061
			left	2	0.000	Y	2	0.000

			F_LINE_REV0.OUT forw	4.061	Z	-85	0.000
Tag No.: <None>							
L09 M	Gravity{1}	down	402	0.573	X		-0.876
L09 M2	Spr. Can				Y		-0.491
Stiff :	2				Z	-402	-0.573
Preload :	401	Hydrotest{1}	down	0.000	X		0.000
					Y		0.000
					Z		0.000
	Thermal 1{1}	down	5	2.959	X		12.947
					Y		-7.286
					Z	-5	-2.959
	Thermal 2{1}	down	69	39.635	X		27.260
					Y		0.196
					Z	-69	-39.635
	Thermal 3{1}	down	0	0.129	X		0.280

□

F_LINE_REV0

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S U P P O R T F O R C E S								
(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)								
Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
-----			----	-----	-----	----	-----	-----
						Y		-1.177
						Z	0	-0.129
	Thermal 4{1}	down	8	4.378		X		3.851
						Y		-0.921
						Z	-8	-4.378
	GRT1{1}	down	408	3.532		X		12.071
						Y		-7.777
						Z	-408	-3.532
	GRT2{1}	down	472	40.209		X		26.384
						Y		-0.294
						Z	-472	-40.209
	GRT3{1}	down	403	0.702		X		-0.596
						Y		-1.667

F_LINE_REV0.OUT

					Z	-403	-0.702
	GRT4{1}	down	410	4.951	X		2.975
					Y		-1.412
					Z	-410	-4.951
Tag No.: <None>							
L25	Gravity{1}	down	0	0.000	X	0	0.000
L25 1 Guide		right	1	0.000	Y	1	0.000
Stiff :RIGID		back		0.069	Z		-0.069
	Hydrotest{1}	down		0.000	X		0.000
		left		0.000	Y		0.000
		back		0.000	Z		0.000
	Thermal 1{1}	up	8	0.000	X	8	0.000
		right	2	0.000	Y	2	0.000
		back		0.001	Z		-0.001
	Thermal 2{1}	up	27	0.000	X	27	0.000
		left	32	0.000	Y	-32	0.000
		back		50.477	Z		-50.477
	Thermal 3{1}	up	0	0.000	X	0	0.000
		left	0	0.000	Y	0	0.000
		forw		0.001	Z		0.001
	Thermal 4{1}	up	3	0.000	X	3	0.000
		left	4	0.000	Y	-4	0.000
		back		5.551	Z		-5.551
	GRT1{1}	up	8	0.000	X	8	0.000
		right	3	0.000	Y	3	0.000
		back		0.070	Z		-0.070

0

F_LINE_REV0

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
		GRT2{1}	up	26	0.000	X	26	0.000

		F_LINE_REV0.OUT					
		left	30	0.000	Y	-30	0.000
		back		50.546	Z		-50.546
	GRT3{1}	up	0	0.000	X	0	0.000
		right	1	0.000	Y	1	0.000
		back		0.068	Z		-0.068
	GRT4{1}	up	3	0.000	X	3	0.000
		left	3	0.000	Y	-3	0.000
		back		5.620	Z		-5.620
Tag No.: <None> L24	Gravity{1}	up	0	0.000	X	0	0.000
L24 1 Guide		left	0	0.000	Y	0	0.000
Stiff :RIGID		back		0.032	Z		-0.032
	Hydrotest{1}	down		0.000	X		0.000
		left		0.000	Y		0.000
		back		0.000	Z		0.000
	Thermal 1{1}	down	2	0.000	X	-2	0.000
		right	0	0.000	Y	0	0.000
		back		0.000	Z		0.000
	Thermal 2{1}	down	6	0.000	X	-6	0.000
		right	6	0.000	Y	6	0.000
		back		19.083	Z		-19.083
	Thermal 3{1}	down	0	0.000	X	0	0.000
		right	0	0.000	Y	0	0.000
		forw		0.000	Z		0.000
	Thermal 4{1}	down	1	0.000	X	-1	0.000
		right	1	0.000	Y	1	0.000
		back		2.096	Z		-2.096
	GRT1{1}	down	2	0.000	X	-2	0.000
		right	0	0.000	Y	0	0.000
		back		0.032	Z		-0.032
	GRT2{1}	down	6	0.000	X	-6	0.000
		right	5	0.000	Y	5	0.000
		back		19.114	Z		-19.114
	GRT3{1}	up	0	0.000	X	0	0.000
		left	0	0.000	Y	0	0.000
		back		0.031	Z		-0.031
	GRT4{1}	down	1	0.000	X	-1	0.000

F_LINE_REV0.OUT				
right	1	0.000	Y	1 0.000
back		2.128	Z	-2.128

0

F_LINE_REV0

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/ Connect/		Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform

Tag No.: <None>								
M06 M		Gravity{1}	down	668	-0.129	X		-0.432
M06 M1	Spr. Can					Y		-0.449
Stiff :	9					Z	-668	0.129
Preload :	669	Hydrotest{1}	down		0.000	X		0.000
						Y		0.000
						Z		0.000
		Thermal 1{1}	up	18	1.947	X		0.735
						Y		7.081
						Z	18	1.947
		Thermal 2{1}	up	24	2.572	X		2.434
						Y		4.166
						Z	24	2.572
		Thermal 3{1}	up	3	0.317	X		-1.272
						Y		6.996
						Z	3	0.317
		Thermal 4{1}	up	19	1.970	X		1.251
						Y		6.646
						Z	19	1.970
		GRT1{1}	down	649	-2.076	X		0.303
						Y		6.632
						Z	-649	2.076
		GRT2{1}	down	643	-2.701	X		2.002
						Y		3.718
						Z	-643	2.701
		GRT3{1}	down	665	-0.446	X		-1.704

F_LINE_REV0.OUT

Y 6.547
Z -665 0.446

GRT4{1} down 649 -2.099 X 0.819
Y 6.197
Z -649 2.099

Tag No.: <None>
M19

Gravity{1} up 0 0.000 X 0 0.000
M19 1 Guide left 0 0.000 Y 0 0.000
Stiff :RIGID back 0.025 Z -0.025

Hydrotest{1} down 0.000 X 0.000
left 0.000 Y 0.000
back 0.000 Z 0.000

Thermal 1{1} up 1 0.000 X 1 0.000
right 3 0.000 Y 3 0.000

□

F_LINE_REV0

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/ Supp. ID	Connect/ Type	Load Combination	L O C A L			G L O B A L		
			Dirn	Force	Deform	Dirn	Force	Deform
			forw		0.000	Z		0.000
		Thermal 2{1}	up	3	0.000	X	3	0.000
			right	2	0.000	Y	2	0.000
			back		0.766	Z		-0.766
		Thermal 3{1}	up	0	0.000	X	0	0.000
			right	3	0.000	Y	3	0.000
			forw		0.000	Z		0.000
		Thermal 4{1}	up	2	0.000	X	2	0.000
			right	2	0.000	Y	2	0.000
			forw		0.000	Z		0.000
		GRT1{1}	up	2	0.000	X	2	0.000
			right	2	0.000	Y	2	0.000
			back		0.025	Z		-0.025

GRT2{1}	F_LINE_REV0.OUT					
	up	3	0.000	X	3	0.000
	right	2	0.000	Y	2	0.000
	back		0.791	Z		-0.791
GRT3{1}	up	0	0.000	X	0	0.000
	right	2	0.000	Y	2	0.000
	back		0.025	Z		-0.025
GRT4{1}	up	2	0.000	X	2	0.000
	right	2	0.000	Y	2	0.000
	back		0.025	Z		-0.025

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R E S T R A I N T R E A C T I O N S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A06	Guide Gravity{1} Tag No.: <None> [ID: A06 1]	0	11	-1304	1304	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	-505	1474	1558	0	0	0	0
	Thermal 2{1}	0	-609	1615	1726	0	0	0	0
	Thermal 3{1}	0	-496	1498	1578	0	0	0	0
	Thermal 4{1}	0	-336	1247	1291	0	0	0	0
	GRT1{1}	0	-494	170	523	0	0	0	0
	GRT2{1}	0	-598	310	674	0	0	0	0
	GRT3{1}	0	-485	194	522	0	0	0	0
	GRT4{1}	0	-325	-57	330	0	0	0	0
A05	Anchor Gravity{1} Tag No.: <None>	-3	21	-832	832	33	-199	-4	202
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	-577	541	791	-1529	132	167	1543
	Thermal 2{1}	3	-792	676	1041	-2041	176	230	2061
	Thermal 3{1}	2	-589	518	784	-1534	133	168	1548
	Thermal 4{1}	-4	-586	576	822	-1226	135	170	1245
	GRT1{1}	-4	-556	-291	628	-1495	-67	163	1506
	GRT2{1}	0	-771	-156	787	-2007	-23	226	2020
	GRT3{1}	-1	-568	-314	649	-1500	-66	164	1511
	GRT4{1}	-6	-565	-255	620	-1193	-64	166	1206

F_LINE_REV0.OUT

B02 M	Spr. Can Tag No.: <None>	[ID: B02 M1]							
	Gravity{1}	0	0	-1164	1164	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	-127	127	0	0	0	0
	Thermal 2{1}	0	0	-131	131	0	0	0	0
	Thermal 3{1}	0	0	-127	127	0	0	0	0
	Thermal 4{1}	0	0	-121	121	0	0	0	0
	GRT1{1}	0	0	-1291	1291	0	0	0	0
	GRT2{1}	0	0	-1295	1295	0	0	0	0
	GRT3{1}	0	0	-1291	1291	0	0	0	0
	GRT4{1}	0	0	-1286	1286	0	0	0	0
B04 M	Guide Tag No.: <None>	[ID: B04 M1]							
	Gravity{1}	1	0	-2244	2244	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-25	0	-975	975	0	0	0	0
	Thermal 2{1}	-47	0	-1028	1029	0	0	0	0
	Thermal 3{1}	-25	0	-982	982	0	0	0	0
	Thermal 4{1}	6	0	-904	904	0	0	0	0
	GRT1{1}	-25	0	-3219	3220	0	0	0	0
	GRT2{1}	-46	0	-3273	3273	0	0	0	0
	GRT3{1}	-24	0	-3226	3226	0	0	0	0
	GRT4{1}	6	0	-3149	3149	0	0	0	0

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R E S T R A I N T R E A C T I O N S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result
B06	Guide Tag No.: <None>	[ID: B06 2]							
	Gravity{1}	-2	0	-605	605	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	98	0	165	192	0	0	0	0
	Thermal 2{1}	139	0	159	211	0	0	0	0
	Thermal 3{1}	96	0	194	217	0	0	0	0
	Thermal 4{1}	37	0	252	255	0	0	0	0
	GRT1{1}	95	0	-440	450	0	0	0	0
	GRT2{1}	136	0	-445	466	0	0	0	0

		F_LINE_REV0.OUT							
	GRT3{1}	94	0	-410	421	0	0	0	0
	GRT4{1}	35	0	-353	355	0	0	0	0
B07 N	Spr. Can Tag No.: <None> [ID: B07 N2]								
	Gravity{1}	0	0	-90	90	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	-19	19	0	0	0	0
	Thermal 2{1}	0	0	-19	19	0	0	0	0
	Thermal 3{1}	0	0	-19	19	0	0	0	0
	Thermal 4{1}	0	0	-16	16	0	0	0	0
	GRT1{1}	0	0	-108	108	0	0	0	0
	GRT2{1}	0	0	-109	109	0	0	0	0
	GRT3{1}	0	0	-108	108	0	0	0	0
	GRT4{1}	0	0	-106	106	0	0	0	0
B11	Anchor Tag No.: FLTORVA								
	Gravity{1}	2	-9	-113	113	28	21	-2	35
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-60	286	163	334	-81	-50	59	112
	Thermal 2{1}	-81	366	175	413	-58	-45	70	102
	Thermal 3{1}	-59	278	162	327	-83	-50	56	112
	Thermal 4{1}	-30	180	131	225	-91	-49	47	113
	GRT1{1}	-59	277	50	287	-53	-29	56	82
	GRT2{1}	-79	357	62	371	-30	-24	68	78
	GRT3{1}	-58	269	50	280	-55	-29	54	83
	GRT4{1}	-29	171	19	175	-63	-28	44	82
C02 M	Spr. Can Tag No.: <None> [ID: C02 M1]								
	Gravity{1}	0	0	-1129	1129	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	-96	96	0	0	0	0
	Thermal 2{1}	0	0	-98	98	0	0	0	0
	Thermal 3{1}	0	0	-96	96	0	0	0	0
	Thermal 4{1}	0	0	-92	92	0	0	0	0
	GRT1{1}	0	0	-1225	1225	0	0	0	0
	GRT2{1}	0	0	-1227	1227	0	0	0	0
	GRT3{1}	0	0	-1225	1225	0	0	0	0
	GRT4{1}	0	0	-1221	1221	0	0	0	0

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F_LINE_REV0

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R E S T R A I N T R E A C T I O N S

F_LINE_REV0.OUT

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

C04 M	Guide Tag No.: <None> Gravity{1}	[ID: C04 M1] -2	0	-2239	2239	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-198	0	-984	1004	0	0	0	0
	Thermal 2{1}	-276	0	-1040	1076	0	0	0	0
	Thermal 3{1}	-379	0	-971	1042	0	0	0	0
	Thermal 4{1}	-85	0	-873	877	0	0	0	0
	GRT1{1}	-200	0	-3224	3230	0	0	0	0
	GRT2{1}	-277	0	-3280	3292	0	0	0	0
	GRT3{1}	-381	0	-3210	3233	0	0	0	0
	GRT4{1}	-87	0	-3112	3113	0	0	0	0
C06	Guide Tag No.: <None> Gravity{1}	[ID: C06 1] 10	0	-742	742	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	618	0	142	634	0	0	0	0
	Thermal 2{1}	906	0	183	924	0	0	0	0
	Thermal 3{1}	1475	0	264	1498	0	0	0	0
	Thermal 4{1}	292	0	239	377	0	0	0	0
	GRT1{1}	628	0	-600	869	0	0	0	0
	GRT2{1}	916	0	-559	1073	0	0	0	0
	GRT3{1}	1485	0	-478	1560	0	0	0	0
	GRT4{1}	302	0	-503	586	0	0	0	0
C08 M	Spr. Can Tag No.: <None> Gravity{1}	[ID: C08 M1] 0	0	-1733	1733	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	-299	299	0	0	0	0
	Thermal 2{1}	0	0	-307	307	0	0	0	0
	Thermal 3{1}	0	0	-309	309	0	0	0	0
	Thermal 4{1}	0	0	-268	268	0	0	0	0
	GRT1{1}	0	0	-2032	2032	0	0	0	0
	GRT2{1}	0	0	-2040	2040	0	0	0	0
	GRT3{1}	0	0	-2042	2042	0	0	0	0
	GRT4{1}	0	0	-2001	2001	0	0	0	0
C12 N	Spr. Can Tag No.: <None> Gravity{1}	[ID: C12 N1] 0	0	-147	147	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	-45	45	0	0	0	0
	Thermal 2{1}	0	0	-46	46	0	0	0	0
	Thermal 3{1}	0	0	-44	44	0	0	0	0

	F_LINE_REV0.OUT							
Thermal 4{1}	0	0	-39	39	0	0	0	0
GRT1{1}	0	0	-191	191	0	0	0	0
GRT2{1}	0	0	-193	193	0	0	0	0
GRT3{1}	0	0	-191	191	0	0	0	0
GRT4{1}	0	0	-186	186	0	0	0	0

0

F_LINE_REV0

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R E S T R A I N T R E A C T I O N S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

C15	Anchor Tag No.: FLTORVB Gravity{1}	28	-58	-299	306	119	24	8	122
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	433	786	1249	1538	-479	-249	299	617
	Thermal 2{1}	597	973	1362	1777	-471	-331	398	700
	Thermal 3{1}	388	483	987	1165	-446	-196	281	563
	Thermal 4{1}	143	443	924	1034	-419	-99	129	450
	GRT1{1}	461	729	950	1283	-360	-225	307	523
	GRT2{1}	625	915	1063	1535	-352	-307	406	619
	GRT3{1}	415	426	688	909	-328	-172	289	469
	GRT4{1}	171	385	625	754	-300	-75	136	338
D02 M	Spr. Can Tag No.: <None> Gravity{1}	[ID: D02 M1]							
	Hydrotest{1}	0	0	-1982	1982	0	0	0	0
	Thermal 1{1}	0	0	-130	130	0	0	0	0
	Thermal 2{1}	0	0	-138	138	0	0	0	0
	Thermal 3{1}	0	0	-130	130	0	0	0	0
	Thermal 4{1}	0	0	-130	130	0	0	0	0
	GRT1{1}	0	0	-2112	2112	0	0	0	0
	GRT2{1}	0	0	-2120	2120	0	0	0	0
	GRT3{1}	0	0	-2112	2112	0	0	0	0
	GRT4{1}	0	0	-2112	2112	0	0	0	0
D04 M	Guide Tag No.: <None> Gravity{1}	[ID: D04 M1]							
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-3	0	-162	162	0	0	0	0
	Thermal 2{1}	-18	0	-422	423	0	0	0	0

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	Thermal 3{1}	1	0	-164	164	0	0	0	0
	Thermal 4{1}	-6	0	-213	213	0	0	0	0
	GRT1{1}	6	0	-3711	3711	0	0	0	0
	GRT2{1}	-8	0	-3971	3971	0	0	0	0
	GRT3{1}	10	0	-3713	3713	0	0	0	0
	GRT4{1}	3	0	-3762	3762	0	0	0	0
D26	Guide Tag No.: <None> [ID: D26 1]	-15	0	-702	702	0	0	0	0
	Gravity{1}								
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	80	0	-901	904	0	0	0	0
	Thermal 2{1}	139	0	-644	659	0	0	0	0
	Thermal 3{1}	76	0	-881	885	0	0	0	0
	Thermal 4{1}	87	0	-822	826	0	0	0	0
	GRT1{1}	65	0	-1603	1604	0	0	0	0
	GRT2{1}	124	0	-1346	1352	0	0	0	0
	GRT3{1}	60	0	-1583	1584	0	0	0	0
	GRT4{1}	71	0	-1523	1525	0	0	0	0

F_LINE_REV0

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R E S T R A I N T R E A C T I O N S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
D08 N	Spr. Hgr Tag No.: <None> [ID: D08 N1]	0	0	-166	166	0	0	0	0
	Gravity{1}								
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	-36	36	0	0	0	0
	Thermal 2{1}	0	0	-34	34	0	0	0	0
	Thermal 3{1}	0	0	-36	36	0	0	0	0
	Thermal 4{1}	0	0	-35	35	0	0	0	0
	GRT1{1}	0	0	-202	202	0	0	0	0
	GRT2{1}	0	0	-200	200	0	0	0	0
	GRT3{1}	0	0	-202	202	0	0	0	0
	GRT4{1}	0	0	-201	201	0	0	0	0
D27	Anchor Tag No.: <None>	10	-5	-61	62	14	-7	4	16
	Gravity{1}								
	Hydrotest{1}	0	0	0	0	0	0	0	0

		F_LINE_REV0.OUT							
	Thermal 1{1}	152	300	993	1048	-462	100	9	472
	Thermal 2{1}	195	365	903	993	-413	81	16	421
	Thermal 3{1}	154	302	998	1054	-463	100	10	473
	Thermal 4{1}	150	303	950	1008	-440	96	8	450
	GRT1{1}	162	295	932	991	-448	94	14	457
	GRT2{1}	205	360	842	938	-399	74	20	406
	GRT3{1}	164	297	937	997	-449	93	14	458
	GRT4{1}	160	298	889	951	-426	89	12	435
E08	Anchor Tag No.: <None> Gravity{1}	-1	-13	-107	108	23	-21	3	31
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-233	260	-312	468	-6	35	-137	141
	Thermal 2{1}	-324	406	-370	638	49	46	-198	209
	Thermal 3{1}	-232	258	-319	471	-4	33	-136	140
	Thermal 4{1}	-235	270	-314	477	3	34	-140	144
	GRT1{1}	-234	247	-419	540	18	15	-134	136
	GRT2{1}	-325	393	-478	699	72	25	-195	210
	GRT3{1}	-233	245	-426	544	20	13	-133	135
	GRT4{1}	-235	257	-422	547	26	14	-137	140
F02 M	Spr. Can Tag No.: <None> Gravity{1}	[ID: F02 M1] 0	0	-1729	1729	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	-156	156	0	0	0	0
	Thermal 2{1}	0	0	-166	166	0	0	0	0
	Thermal 3{1}	0	0	-189	189	0	0	0	0
	Thermal 4{1}	0	0	-135	135	0	0	0	0
	GRT1{1}	0	0	-1885	1885	0	0	0	0
	GRT2{1}	0	0	-1895	1895	0	0	0	0
	GRT3{1}	0	0	-1918	1918	0	0	0	0
	GRT4{1}	0	0	-1864	1864	0	0	0	0

0

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result
F20	Guide Tag No.: <None> Gravity{1}	[ID: F20 1] 0	75	-134	154	0	0	0	0

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	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	-607	-904	1089	0	0	0	0
	Thermal 2{1}	0	-696	-1014	1230	0	0	0	0
	Thermal 3{1}	0	-5752	134	5754	0	0	0	0
	Thermal 4{1}	0	-1397	-682	1555	0	0	0	0
	GRT1{1}	0	-532	-1038	1167	0	0	0	0
	GRT2{1}	0	-621	-1148	1305	0	0	0	0
	GRT3{1}	0	-5677	0	5677	0	0	0	0
	GRT4{1}	0	-1322	-817	1554	0	0	0	0
F19	Guide Tag No.: <None> [ID: F19 1] Gravity{1}	-82	-30	-440	448	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-57	-21	153	165	0	0	0	0
	Thermal 2{1}	-116	-42	187	223	0	0	0	0
	Thermal 3{1}	10374	3776	440	11049	0	0	0	0
	Thermal 4{1}	2035	741	440	2210	0	0	0	0
	GRT1{1}	-139	-50	-287	322	0	0	0	0
	GRT2{1}	-197	-72	-253	329	0	0	0	0
	GRT3{1}	10292	3746	0	10953	0	0	0	0
	GRT4{1}	1953	711	0	2078	0	0	0	0
F11	Anchor Tag No.: FLSPLIT Gravity{1}	27	-9	-430	431	-195	103	-25	221
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	19	267	229	352	-232	21	223	323
	Thermal 2{1}	38	319	243	403	-248	24	257	358
	Thermal 3{1}	-9644	1390	-635	9764	-207	1334	6836	6968
	Thermal 4{1}	-1887	384	-75	1927	-286	387	1436	1515
	GRT1{1}	46	258	-201	331	-426	124	198	486
	GRT2{1}	65	311	-188	369	-443	126	233	516
	GRT3{1}	-9617	1381	-1066	9774	-401	1437	6811	6972
	GRT4{1}	-1860	375	-506	1964	-481	489	1411	1569
G02 M	Cons Can Tag No.: <None> [ID: G02 M1] Gravity{1}	0	0	-2031	2031	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	-2031	2031	0	0	0	0
	GRT2{1}	0	0	-2031	2031	0	0	0	0
	GRT3{1}	0	0	-2031	2031	0	0	0	0
	GRT4{1}	0	0	-2031	2031	0	0	0	0

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

G17	Guide Tag No.: <None> Gravity{1}	[ID: 80	G17 29	1]					
	Hydrotest{1}	0	0	0	426	0	0	0	0
	Thermal 1{1}	-2101	-765	-448	0	0	0	0	0
	Thermal 2{1}	-2837	-1032	-558	2280	0	0	0	0
	Thermal 3{1}	-415	-151	417	3070	0	0	0	0
	Thermal 4{1}	-472	-172	417	608	0	0	0	0
	GRT1{1}	-2020	-735	-865	653	0	0	0	0
	GRT2{1}	-2756	-1003	-975	2318	0	0	0	0
	GRT3{1}	-335	-122	0	3091	0	0	0	0
	GRT4{1}	-392	-143	0	356	0	0	0	0
G10	Anchor Tag No.: FLDEG Gravity{1}	-61	-18	-272	279	-23	37	1	44
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1271	602	284	1435	-87	-46	175	201
	Thermal 2{1}	1657	839	353	1890	-79	-84	272	295
	Thermal 3{1}	-1811	523	-748	2028	88	1416	27	1419
	Thermal 4{1}	-34	180	-491	523	-26	736	-12	736
	GRT1{1}	1210	585	12	1344	-110	-9	175	207
	GRT2{1}	1596	821	81	1797	-102	-46	272	294
	GRT3{1}	-1871	505	-1020	2190	66	1453	28	1455
	GRT4{1}	-94	162	-762	785	-49	773	-11	775
K22	Guide Tag No.: <None> Gravity{1}	[ID: 0	K22 11	1]					
	Hydrotest{1}	0	0	0	11	0	0	0	0
	Thermal 1{1}	0	-23	0	0	0	0	0	0
	Thermal 2{1}	0	-89	0	23	0	0	0	0
	Thermal 3{1}	0	-18	0	89	0	0	0	0
	Thermal 4{1}	0	-47	0	18	0	0	0	0
	GRT1{1}	0	-13	0	47	0	0	0	0
	GRT2{1}	0	-79	0	13	0	0	0	0
	GRT3{1}	0	-7	0	79	0	0	0	0

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	GRT4{1}	0	-36	0	36	0	0	0	0
K08 M	Spr. Can Tag No.: <None> [ID: K08 M1]								
	Gravity{1}	0	0	-477	477	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	31	31	0	0	0	0
	Thermal 2{1}	0	0	59	59	0	0	0	0
	Thermal 3{1}	0	0	5	5	0	0	0	0
	Thermal 4{1}	0	0	51	51	0	0	0	0
	GRT1{1}	0	0	-446	446	0	0	0	0
	GRT2{1}	0	0	-418	418	0	0	0	0
	GRT3{1}	0	0	-472	472	0	0	0	0
	GRT4{1}	0	0	-426	426	0	0	0	0

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
K27	Guide Tag No.: <None> [ID: K27 1]								
	Gravity{1}	0	0	-112	112	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	8	8	0	0	0	0
	Thermal 2{1}	0	0	-181	181	0	0	0	0
	Thermal 3{1}	0	0	6	6	0	0	0	0
	Thermal 4{1}	0	0	-183	183	0	0	0	0
	GRT1{1}	0	0	-104	104	0	0	0	0
	GRT2{1}	0	0	-293	293	0	0	0	0
	GRT3{1}	0	0	-106	106	0	0	0	0
	GRT4{1}	0	0	-295	295	0	0	0	0
K24	Guide Tag No.: <None> [ID: K24 1]								
	Gravity{1}	0	-8	0	8	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	-3	0	3	0	0	0	0
	Thermal 2{1}	0	43	0	43	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	41	0	41	0	0	0	0
	GRT1{1}	0	-10	0	10	0	0	0	0

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	GRT2{1}		0	36	0	36	0	0	0
	GRT3{1}		0	-7	0	7	0	0	0
	GRT4{1}		0	34	0	34	0	0	0
K23	Guide Tag No.: <None> [ID: K23 1]								
	Gravity{1}		0	2	0	2	0	0	0
	Hydrotest{1}		0	0	0	0	0	0	0
	Thermal 1{1}		0	1	0	1	0	0	0
	Thermal 2{1}		0	-6	0	6	0	0	0
	Thermal 3{1}		0	0	0	0	0	0	0
	Thermal 4{1}		0	-6	0	6	0	0	0
	GRT1{1}		0	2	0	2	0	0	0
	GRT2{1}		0	-5	0	5	0	0	0
	GRT3{1}		0	1	0	1	0	0	0
	GRT4{1}		0	-4	0	4	0	0	0
K14	Anchor Tag No.: FLTOEHRSA								
	Gravity{1}		0	-1	-679	679	-1	0	1
	Hydrotest{1}		0	0	0	0	0	0	0
	Thermal 1{1}		0	0	-4	4	0	0	0
	Thermal 2{1}		0	2	142	142	3	0	3
	Thermal 3{1}		0	0	0	0	0	0	0
	Thermal 4{1}		0	2	136	136	3	0	3
	GRT1{1}		0	-1	-683	683	-1	0	1
	GRT2{1}		0	2	-537	537	3	0	3
	GRT3{1}		0	-1	-679	679	-1	0	1
	GRT4{1}		0	2	-543	543	2	0	2

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R E S T R A I N T R E A C T I O N S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
L21	Guide Tag No.: <None> [ID: L21 1]								
	Gravity{1}	0	-1	-82	82	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	-4	154	154	0	0	0	0
	Thermal 2{1}	0	-19	22	29	0	0	0	0
	Thermal 3{1}	0	-5	-10	11	0	0	0	0
	Thermal 4{1}	0	3	-3	4	0	0	0	0

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	GRT1{1}	0	-5	72	72	0	0	0	0
	GRT2{1}	0	-20	-60	63	0	0	0	0
	GRT3{1}	0	-6	-92	93	0	0	0	0
	GRT4{1}	0	2	-85	85	0	0	0	0
L09 M	Spr. Can Tag No.: <None> [ID: L09 M2]								
	Gravity{1}	0	0	-402	402	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	-5	5	0	0	0	0
	Thermal 2{1}	0	0	-69	69	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	-8	8	0	0	0	0
	GRT1{1}	0	0	-408	408	0	0	0	0
	GRT2{1}	0	0	-472	472	0	0	0	0
	GRT3{1}	0	0	-403	403	0	0	0	0
	GRT4{1}	0	0	-410	410	0	0	0	0
L25	Guide Tag No.: <None> [ID: L25 1]								
	Gravity{1}	0	1	0	1	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	8	2	0	8	0	0	0	0
	Thermal 2{1}	27	-32	0	41	0	0	0	0
	Thermal 3{1}	0	0	0	1	0	0	0	0
	Thermal 4{1}	3	-4	0	5	0	0	0	0
	GRT1{1}	8	3	0	8	0	0	0	0
	GRT2{1}	26	-30	0	40	0	0	0	0
	GRT3{1}	0	1	0	1	0	0	0	0
	GRT4{1}	3	-3	0	4	0	0	0	0
L24	Guide Tag No.: <None> [ID: L24 1]								
	Gravity{1}	0	0	0	0	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-2	0	0	2	0	0	0	0
	Thermal 2{1}	-6	6	0	9	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	-1	1	0	1	0	0	0	0
	GRT1{1}	-2	0	0	2	0	0	0	0
	GRT2{1}	-6	5	0	8	0	0	0	0
	GRT3{1}	0	0	0	0	0	0	0	0
	GRT4{1}	-1	1	0	1	0	0	0	0

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R E S T R A I N T R E A C T I O N S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
L16	Anchor Tag No.: FLTOEHR SB Gravity{1}	0	0	-746	746	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	0	-5	5	0	-1	-2	2
	Thermal 2{1}	3	-2	158	158	-3	-4	0	5
	Thermal 3{1}	0	0	6	6	0	0	0	0
	Thermal 4{1}	0	0	18	18	0	0	0	1
	GRT1{1}	1	0	-751	751	0	-1	-2	2
	GRT2{1}	3	-2	-588	588	-3	-4	0	5
	GRT3{1}	0	0	-740	740	0	0	0	0
	GRT4{1}	0	0	-728	728	0	0	0	1
M06 M	Spr. Can Tag No.: <None> [ID: M06 M1] Gravity{1}	0	0	-668	668	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	18	18	0	0	0	0
	Thermal 2{1}	0	0	24	24	0	0	0	0
	Thermal 3{1}	0	0	3	3	0	0	0	0
	Thermal 4{1}	0	0	19	19	0	0	0	0
	GRT1{1}	0	0	-649	649	0	0	0	0
	GRT2{1}	0	0	-643	643	0	0	0	0
	GRT3{1}	0	0	-665	665	0	0	0	0
	GRT4{1}	0	0	-649	649	0	0	0	0
M19	Guide Tag No.: <None> [ID: M19 1] Gravity{1}	0	0	0	0	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	3	0	3	0	0	0	0
	Thermal 2{1}	3	2	0	4	0	0	0	0
	Thermal 3{1}	0	3	0	3	0	0	0	0
	Thermal 4{1}	2	2	0	3	0	0	0	0
	GRT1{1}	2	2	0	3	0	0	0	0
	GRT2{1}	3	2	0	3	0	0	0	0
	GRT3{1}	0	2	0	2	0	0	0	0
	GRT4{1}	2	2	0	3	0	0	0	0
M12	Anchor Tag No.: FLTOEHR SC Gravity{1}	0	0	-1009	1009	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	-2	4	5	-2	1	0	2

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Thermal 2{1}	-2	-1	8	8	-2	2	0	3
Thermal 3{1}	0	-1	3	3	-2	0	0	2
Thermal 4{1}	-1	-1	4	4	-2	1	0	2
GRT1{1}	-1	-1	-1005	1005	-2	1	0	2
GRT2{1}	-2	-1	-1001	1001	-2	2	0	3
GRT3{1}	0	-1	-1006	1006	-2	0	0	2
GRT4{1}	-1	-1	-1005	1005	-2	1	0	2

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

*** Segment A begin ***									
A00	Gravity{1}	0	0	0	0	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	0	0	0	0	0	0
	GRT2{1}	0	0	0	0	0	0	0	0
	GRT3{1}	0	0	0	0	0	0	0	0
	GRT4{1}	0	0	0	0	0	0	0	0
A04 -	Gravity{1}	0	0	-50	50	0	2	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	-50	50	0	2	0	2
	GRT2{1}	0	0	-50	50	0	2	0	2
	GRT3{1}	0	0	-50	50	0	2	0	2
	GRT4{1}	0	0	-50	50	0	2	0	2
A04 +	Gravity{1}	0	5	-493	493	6	2	0	6
	Hydrotest{1}	0	0	0	0	0	0	0	0

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	Thermal 1{1}	-12	-260	758	801	-396	28	4	397
	Thermal 2{1}	-11	-316	824	883	-499	26	5	500
	Thermal 3{1}	-12	-260	759	803	-397	28	4	398
	Thermal 4{1}	-12	-171	654	676	-230	29	3	232
	GRT1{1}	-12	-255	265	368	-390	29	4	391
	GRT2{1}	-11	-311	331	454	-493	28	4	494
	GRT3{1}	-12	-256	266	369	-391	29	4	392
	GRT4{1}	-12	-166	161	231	-225	31	3	227
A06 -	Gravity{1}	0	5	-642	642	6	172	1	172
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-12	-260	758	801	-396	-200	-74	450
	Thermal 2{1}	-11	-316	824	883	-499	-221	-90	553
	Thermal 3{1}	-12	-260	759	803	-397	-200	-74	450
	Thermal 4{1}	-12	-171	654	676	-230	-167	-48	289
	GRT1{1}	-12	-255	116	280	-390	-28	-73	398
	GRT2{1}	-11	-311	182	360	-493	-49	-89	504
	GRT3{1}	-12	-256	117	282	-391	-28	-73	399
	GRT4{1}	-12	-166	12	167	-225	5	-47	230

0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A06 +	Gravity{1}	0	-6	662	662	6	172	1	172
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-12	245	-716	757	-396	-200	-74	450
	Thermal 2{1}	-11	293	-791	843	-499	-221	-90	553
	Thermal 3{1}	-12	235	-739	776	-397	-200	-74	450
	Thermal 4{1}	-12	165	-592	615	-230	-167	-48	289
	GRT1{1}	-12	239	-54	245	-390	-28	-73	398
	GRT2{1}	-11	287	-129	315	-493	-49	-89	504
	GRT3{1}	-12	229	-77	242	-391	-28	-73	399
	GRT4{1}	-12	159	70	174	-225	5	-47	230
A03 -	Gravity{1}	0	-6	513	513	6	-4	-1	7
	Hydrotest{1}	0	0	0	0	0	0	0	0

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	Thermal 1{1}	-12	245	-716	757	-396	15	-1	396
	Thermal 2{1}	-11	293	-791	843	-499	16	-2	499
	Thermal 3{1}	-12	235	-739	776	-397	22	-4	397
	Thermal 4{1}	-12	165	-592	615	-230	11	1	231
	GRT1{1}	-12	239	-203	314	-390	11	-1	390
	GRT2{1}	-11	287	-277	399	-493	12	-3	494
	GRT3{1}	-12	229	-226	322	-391	17	-4	391
	GRT4{1}	-12	159	-79	178	-225	7	1	225
A03 +	Gravity{1}	0	3	44	44	18	-4	0	19
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-4	-16	15	22	-797	4	5	797
	Thermal 2{1}	-4	-20	2	21	-996	1	7	997
	Thermal 3{1}	0	-28	-8	29	-802	-3	9	802
	Thermal 4{1}	-7	-12	36	38	-476	8	3	476
	GRT1{1}	-4	-13	59	61	-779	0	5	779
	GRT2{1}	-4	-17	46	49	-978	-3	7	978
	GRT3{1}	0	-25	36	44	-783	-7	8	783
	GRT4{1}	-7	-9	80	81	-458	4	3	458
A05 -	Gravity{1}	0	3	-104	105	18	5	0	19
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-4	-16	15	22	-797	-1	0	797
	Thermal 2{1}	-4	-20	2	21	-996	1	1	996
	Thermal 3{1}	0	-28	-8	29	-802	0	0	802
	Thermal 4{1}	-7	-12	36	38	-476	-3	0	476
	GRT1{1}	-4	-13	-89	90	-779	4	1	779
	GRT2{1}	-4	-17	-103	104	-978	6	1	978
	GRT3{1}	0	-25	-113	116	-783	5	1	783
	GRT4{1}	-7	-9	-69	70	-458	2	0	458

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A05 +	Gravity{1}	3	-18	727	727	-15	204	4	204
	Hydrotest{1}	0	0	0	0	0	0	0	0

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	Thermal 1{1}	-3	561	-526	769	731	-133	-167	762
	Thermal 2{1}	-7	772	-674	1025	1044	-176	-229	1083
	Thermal 3{1}	-1	561	-526	769	732	-133	-168	762
	Thermal 4{1}	-4	574	-541	789	750	-137	-171	781
	GRT1{1}	0	543	201	579	717	71	-163	738
	GRT2{1}	-4	754	53	756	1029	28	-225	1054
	GRT3{1}	2	543	201	579	717	70	-163	739
	GRT4{1}	-1	556	186	586	735	67	-166	757
A02 -	Gravity{1}	3	-18	578	579	-15	8	-1	17
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-3	561	-526	769	731	25	1	732
	Thermal 2{1}	-7	772	-674	1025	1044	27	3	1045
	Thermal 3{1}	-1	561	-526	769	732	24	1	732
	Thermal 4{1}	-4	574	-541	789	750	25	2	751
	GRT1{1}	0	543	53	545	717	33	0	717
	GRT2{1}	-4	754	-95	760	1029	35	2	1030
	GRT3{1}	2	543	52	545	717	32	0	718
	GRT4{1}	-1	556	38	557	735	33	1	736
A02 +	Gravity{1}	0	0	99	99	0	10	0	10
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	99	99	0	10	0	10
	GRT2{1}	0	0	99	99	0	10	0	10
	GRT3{1}	0	0	99	99	0	10	0	10
	GRT4{1}	0	0	99	99	0	10	0	10
A01	Gravity{1}	0	0	0	0	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	0	0	0	0	0	0
	GRT2{1}	0	0	0	0	0	0	0	0
	GRT3{1}	0	0	0	0	0	0	0	0
	GRT4{1}	0	0	0	0	0	0	0	0

*** Segment A end ***

*** Segment B begin ***

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A04	Gravity{1}	0	-5	444	444	-6	1	0	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	12	260	-758	801	396	-28	-4	397
	Thermal 2{1}	11	316	-824	883	499	-26	-5	500
	Thermal 3{1}	12	260	-759	803	397	-28	-4	398
	Thermal 4{1}	12	171	-654	676	230	-29	-3	232
	GRT1{1}	12	255	-314	405	390	-27	-4	391
	GRT2{1}	11	311	-380	491	493	-25	-4	494
	GRT3{1}	12	256	-316	406	391	-27	-4	392
	GRT4{1}	12	166	-211	268	225	-29	-3	227
B01 N	Gravity{1}	0	-5	166	166	10	0	0	10
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	12	260	-758	801	-450	11	-4	450
	Thermal 2{1}	11	316	-824	883	-528	10	-5	529
	Thermal 3{1}	12	260	-759	803	-451	11	-4	451
	Thermal 4{1}	12	171	-654	676	-325	11	-3	325
	GRT1{1}	12	255	-592	645	-440	11	-4	440
	GRT2{1}	11	311	-658	728	-518	10	-4	518
	GRT3{1}	12	256	-593	646	-440	11	-4	441
	GRT4{1}	12	166	-488	516	-315	11	-3	315
B01 M	Gravity{1}	0	-5	162	162	8	0	0	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	12	260	-758	801	-448	11	-4	448
	Thermal 2{1}	11	316	-824	883	-527	11	-4	528
	Thermal 3{1}	12	260	-759	803	-449	11	-4	449
	Thermal 4{1}	12	171	-654	676	-321	12	-3	321
	GRT1{1}	12	255	-596	648	-440	11	-4	440
	GRT2{1}	11	311	-662	731	-520	11	-4	520
	GRT3{1}	12	256	-597	650	-441	11	-4	441
	GRT4{1}	12	166	-492	519	-313	12	-3	313

		F_LINE_REV0.OUT							
B01 F	Gravity{1}	0	-5	158	158	1	0	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	12	260	-758	801	-422	12	-3	422
	Thermal 2{1}	11	316	-824	883	-499	11	-4	499
	Thermal 3{1}	12	260	-759	803	-422	12	-3	422
	Thermal 4{1}	12	171	-654	676	-297	12	-2	297
	GRT1{1}	12	255	-600	652	-420	12	-3	420
	GRT2{1}	11	311	-666	735	-498	11	-4	498
	GRT3{1}	12	256	-601	653	-421	12	-3	421
	GRT4{1}	12	166	-496	523	-296	12	-2	296

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Point		FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result
B02 -	Gravity{1}	0	-5	120	120	-62	0	0	62
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	12	260	-758	801	-78	12	2	79
	Thermal 2{1}	11	316	-824	883	-125	11	1	126
	Thermal 3{1}	12	260	-759	803	-78	12	2	78
	Thermal 4{1}	12	171	-654	676	0	12	3	12
	GRT1{1}	12	255	-638	688	-139	12	2	140
	GRT2{1}	11	311	-704	770	-187	11	1	187
	GRT3{1}	12	256	-640	689	-139	12	2	140
	GRT4{1}	12	166	-535	560	-62	12	3	63
B02 +	Gravity{1}	0	-5	-5	7	-62	0	0	62
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	12	260	-758	801	-78	12	2	79
	Thermal 2{1}	11	316	-824	883	-125	11	1	126
	Thermal 3{1}	12	260	-759	803	-78	12	2	78
	Thermal 4{1}	12	171	-654	676	0	12	3	12
	GRT1{1}	12	255	-763	805	-139	12	2	140
	GRT2{1}	11	311	-829	886	-187	11	1	187
	GRT3{1}	12	256	-764	806	-139	12	2	140
	GRT4{1}	12	166	-659	680	-62	12	3	63

		F_LINE_REV0.OUT							
B02 M-	Gravity{1}	0	-5	-262	262	-36	0	0	36
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	12	260	-758	801	68	12	4	69
	Thermal 2{1}	11	316	-824	883	33	11	3	35
	Thermal 3{1}	12	260	-759	803	68	12	4	70
	Thermal 4{1}	12	171	-654	676	125	12	6	126
	GRT1{1}	12	255	-1020	1052	32	12	4	34
	GRT2{1}	11	311	-1086	1130	-3	11	3	12
	GRT3{1}	12	256	-1022	1053	32	12	4	35
	GRT4{1}	12	166	-916	931	89	12	6	90
B02 M+	Gravity{1}	0	-5	118	118	-36	0	0	36
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	12	260	-631	683	68	12	4	69
	Thermal 2{1}	11	316	-694	762	33	11	3	35
	Thermal 3{1}	12	260	-633	684	68	12	4	70
	Thermal 4{1}	12	171	-533	560	125	12	6	126
	GRT1{1}	12	255	-513	573	32	12	4	34
	GRT2{1}	11	311	-576	655	-3	11	3	12
	GRT3{1}	12	256	-515	575	32	12	4	35
	GRT4{1}	12	166	-415	447	89	12	6	90

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
FV03 -	Gravity{1}	0	-5	-139	139	-34	0	0	34
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	12	260	-631	683	189	12	7	190
	Thermal 2{1}	11	316	-694	762	166	11	6	167
	Thermal 3{1}	12	260	-633	684	190	12	7	190
	Thermal 4{1}	12	171	-533	560	228	12	8	228
	GRT1{1}	12	255	-770	812	155	12	7	156
	GRT2{1}	11	311	-833	889	132	11	5	133
	GRT3{1}	12	256	-772	813	156	12	7	156
	GRT4{1}	12	166	-673	693	194	12	8	194

		F_LINE_REV0.OUT							
FV03 +	Gravity{1}	0	-5	-264	264	-34	0	0	34
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	12	260	-631	683	189	12	7	190
	Thermal 2{1}	11	316	-694	762	166	11	6	167
	Thermal 3{1}	12	260	-633	684	190	12	7	190
	Thermal 4{1}	12	171	-533	560	228	12	8	228
	GRT1{1}	12	255	-895	931	155	12	7	156
	GRT2{1}	11	311	-957	1007	132	11	5	133
	GRT3{1}	12	256	-896	932	156	12	7	156
	GRT4{1}	12	166	-797	814	194	12	8	194
B04 -	Gravity{1}	0	-5	-300	300	85	0	0	85
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	12	260	-631	683	456	12	12	456
	Thermal 2{1}	11	316	-694	762	459	11	10	459
	Thermal 3{1}	12	260	-633	684	457	12	12	457
	Thermal 4{1}	12	171	-533	560	453	12	13	453
	GRT1{1}	12	255	-931	965	541	12	11	541
	GRT2{1}	11	311	-994	1041	544	11	10	544
	GRT3{1}	12	256	-932	967	542	12	12	542
	GRT4{1}	12	166	-833	850	538	12	13	538
B04 +	Gravity{1}	0	-5	-425	425	85	0	0	85
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	12	260	-631	683	456	12	12	456
	Thermal 2{1}	11	316	-694	762	459	11	10	459
	Thermal 3{1}	12	260	-633	684	457	12	12	457
	Thermal 4{1}	12	171	-533	560	453	12	13	453
	GRT1{1}	12	255	-1055	1086	541	12	11	541
	GRT2{1}	11	311	-1118	1161	544	11	10	544
	GRT3{1}	12	256	-1057	1088	542	12	12	542
	GRT4{1}	12	166	-958	972	538	12	13	538

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result

		F_LINE_REV0.OUT							
B04 M-	Gravity{1}	0	-5	-682	682	191	0	0	191
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	12	260	-631	683	577	12	14	577
	Thermal 2{1}	11	316	-694	762	592	11	12	593
	Thermal 3{1}	12	260	-633	684	578	12	14	579
	Thermal 4{1}	12	171	-533	560	555	12	16	556
	GRT1{1}	12	255	-1313	1337	768	12	14	768
	GRT2{1}	11	311	-1375	1410	784	11	12	784
	GRT3{1}	12	256	-1314	1339	770	12	14	770
	GRT4{1}	12	166	-1215	1226	747	12	16	747
B04 M+	Gravity{1}	-1	-5	778	778	191	0	0	191
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	37	260	344	433	577	12	14	577
	Thermal 2{1}	58	316	335	464	592	11	12	593
	Thermal 3{1}	37	260	349	437	578	12	14	579
	Thermal 4{1}	7	171	371	409	555	12	16	556
	GRT1{1}	36	255	1122	1152	768	12	14	768
	GRT2{1}	57	311	1113	1157	784	11	12	784
	GRT3{1}	36	256	1127	1157	770	12	14	770
	GRT4{1}	6	166	1149	1161	747	12	16	747
B13 -	Gravity{1}	-1	-5	521	521	66	0	0	66
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	37	260	344	433	511	12	21	511
	Thermal 2{1}	58	316	335	464	528	11	23	529
	Thermal 3{1}	37	260	349	437	511	12	21	512
	Thermal 4{1}	7	171	371	409	484	12	17	485
	GRT1{1}	36	255	865	903	577	12	21	578
	GRT2{1}	57	311	856	912	595	11	23	595
	GRT3{1}	36	256	870	908	578	12	21	578
	GRT4{1}	6	166	892	908	551	12	17	551
B13 +	Gravity{1}	-1	-5	397	397	66	0	0	66
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	37	260	344	433	511	12	21	511
	Thermal 2{1}	58	316	335	464	528	11	23	529
	Thermal 3{1}	37	260	349	437	511	12	21	512
	Thermal 4{1}	7	171	371	409	484	12	17	485
	GRT1{1}	36	255	741	784	577	12	21	578
	GRT2{1}	57	311	731	797	595	11	23	595
	GRT3{1}	36	256	746	789	578	12	21	578
	GRT4{1}	6	166	768	785	551	12	17	551

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
B12 -	Gravity{1}	-1	-5	372	372	-44	0	-1	44
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	37	260	344	433	412	12	32	413
	Thermal 2{1}	58	316	335	464	432	11	40	434
	Thermal 3{1}	37	260	349	437	411	12	32	413
	Thermal 4{1}	7	171	371	409	378	12	19	378
	GRT1{1}	36	255	716	761	368	12	31	370
	GRT2{1}	57	311	707	774	388	11	39	390
	GRT3{1}	36	256	721	766	367	12	31	369
	GRT4{1}	6	166	743	762	334	12	18	335
B12 +	Gravity{1}	-1	-5	117	117	-44	0	-1	44
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	37	260	344	433	412	12	32	413
	Thermal 2{1}	58	316	335	464	432	11	40	434
	Thermal 3{1}	37	260	349	437	411	12	32	413
	Thermal 4{1}	7	171	371	409	378	12	19	378
	GRT1{1}	36	255	461	529	368	12	31	370
	GRT2{1}	57	311	452	551	388	11	39	390
	GRT3{1}	36	256	466	533	367	12	31	369
	GRT4{1}	6	166	488	516	334	12	18	335
B17 -	Gravity{1}	-1	-5	103	103	-63	0	-1	63
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	37	260	344	433	353	12	38	355
	Thermal 2{1}	58	316	335	464	374	11	50	378
	Thermal 3{1}	37	260	349	437	351	12	38	353
	Thermal 4{1}	7	171	371	409	314	12	20	315
	GRT1{1}	36	255	447	516	290	12	37	293
	GRT2{1}	57	311	437	540	312	11	49	316
	GRT3{1}	36	256	452	520	288	12	37	291
	GRT4{1}	6	166	474	502	251	12	19	252
B17 +	Gravity{1}	-1	-5	-147	147	-63	0	-1	63

F_LINE_REV0.OUT								
Hydrotest{1}	0	0	0	0	0	0	0	0
Thermal 1{1}	37	260	344	433	353	12	38	355
Thermal 2{1}	58	316	335	464	374	11	50	378
Thermal 3{1}	37	260	349	437	351	12	38	353
Thermal 4{1}	7	171	371	409	314	12	20	315
GRT1{1}	36	255	198	325	290	12	37	293
GRT2{1}	57	311	188	368	312	11	49	316
GRT3{1}	36	256	203	328	288	12	37	291
GRT4{1}	6	166	225	279	251	12	19	252

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
B16 -	Gravity{1}	-1	-5	-174	174	-11	0	-1	11
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	37	260	344	433	242	12	50	248
	Thermal 2{1}	58	316	335	464	267	11	69	276
	Thermal 3{1}	37	260	349	437	239	12	50	244
	Thermal 4{1}	7	171	371	409	195	12	22	196
	GRT1{1}	36	255	170	309	231	12	49	236
	GRT2{1}	57	311	161	355	256	11	67	265
	GRT3{1}	36	256	175	312	228	12	49	233
	GRT4{1}	6	166	197	258	183	12	21	185
B16 +	Gravity{1}	-1	-5	-423	423	-11	0	-1	11
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	37	260	344	433	242	12	50	248
	Thermal 2{1}	58	316	335	464	267	11	69	276
	Thermal 3{1}	37	260	349	437	239	12	50	244
	Thermal 4{1}	7	171	371	409	195	12	22	196
	GRT1{1}	36	255	-79	270	231	12	49	236
	GRT2{1}	57	311	-88	328	256	11	67	265
	GRT3{1}	36	256	-74	268	228	12	49	233
	GRT4{1}	6	166	-52	174	183	12	21	185
B06 -	Gravity{1}	-1	-5	-436	436	56	0	-1	56

F_LINE_REV0.OUT

	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	37	260	344	433	188	12	56	197
	Thermal 2{1}	58	316	335	464	214	11	78	228
	Thermal 3{1}	37	260	349	437	184	12	55	193
	Thermal 4{1}	7	171	371	409	136	12	23	139
	GRT1{1}	36	255	-92	274	244	12	55	251
	GRT2{1}	57	311	-102	332	271	11	76	282
	GRT3{1}	36	256	-87	272	240	12	54	247
	GRT4{1}	6	166	-65	178	193	12	22	194
B06 +	Gravity{1}	2	-9	113	113	58	0	-1	58
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-60	286	144	326	169	12	57	179
	Thermal 2{1}	-81	366	155	405	175	11	78	192
	Thermal 3{1}	-59	278	144	319	170	12	56	179
	Thermal 4{1}	-30	180	115	216	138	12	24	141
	GRT1{1}	-59	277	257	382	227	12	55	234
	GRT2{1}	-79	357	268	453	233	11	77	245
	GRT3{1}	-58	269	257	377	228	12	55	234
	GRT4{1}	-29	171	228	287	196	12	22	198

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
B07 N-	Gravity{1}	2	-9	-61	62	5	0	2	5
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-60	286	144	326	-125	12	-66	142
	Thermal 2{1}	-81	366	155	405	-141	11	-86	166
	Thermal 3{1}	-59	278	144	319	-123	12	-65	140
	Thermal 4{1}	-30	180	115	216	-96	12	-38	104
	GRT1{1}	-59	277	83	295	-120	12	-64	136
	GRT2{1}	-79	357	94	378	-136	11	-84	161
	GRT3{1}	-58	269	83	288	-118	12	-63	134
	GRT4{1}	-29	171	54	182	-91	12	-36	99
B07 N+	Gravity{1}	2	-9	29	30	5	0	2	5

Hydrotest{1}	0	0	0	0	0	0	0	0
Thermal 1{1}	-60	286	163	334	-125	12	-66	142
Thermal 2{1}	-81	366	175	413	-141	11	-86	166
Thermal 3{1}	-59	278	162	327	-123	12	-65	140
Thermal 4{1}	-30	180	131	225	-96	12	-38	104
GRT1{1}	-59	277	191	342	-120	12	-64	136
GRT2{1}	-79	357	203	418	-136	11	-84	161
GRT3{1}	-58	269	191	335	-118	12	-63	134
GRT4{1}	-29	171	160	236	-91	12	-36	99

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GLOBAL FORCES & MOMENTS

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F_LINE_REV0.OUT

	Hydrotest{1}	0	0	0	0	0	0	0
	Thermal 1{1}	-60	286	163	334	-182	-39	186
	Thermal 2{1}	-81	366	175	413	-199	-43	204
	Thermal 3{1}	-59	278	162	327	-180	-39	185
	Thermal 4{1}	-30	180	131	225	-145	-30	148
	GRT1{1}	-59	277	140	316	-179	-41	184
	GRT2{1}	-79	357	152	396	-197	-44	202
	GRT3{1}	-58	269	140	309	-178	-41	183
	GRT4{1}	-29	171	109	205	-142	-32	146
B09 N	Gravity{1}	2	-9	-65	65	-2	-2	3
	Hydrotest{1}	0	0	0	0	0	0	0
	Thermal 1{1}	-60	286	163	334	-40	-10	41
	Thermal 2{1}	-81	366	175	413	-18	-3	18
	Thermal 3{1}	-59	278	162	327	-43	-10	44
	Thermal 4{1}	-30	180	131	225	-56	-15	58
	GRT1{1}	-59	277	98	300	-42	-12	44
	GRT2{1}	-79	357	110	382	-20	-5	21
	GRT3{1}	-58	269	98	292	-44	-12	46
	GRT4{1}	-29	171	66	186	-58	-18	61
B09 F	Gravity{1}	2	-9	-72	73	1	0	-1
	Hydrotest{1}	0	0	0	0	0	0	0
	Thermal 1{1}	-60	286	163	334	-31	-12	10
	Thermal 2{1}	-81	366	175	413	-5	-4	9
	Thermal 3{1}	-59	278	162	327	-34	-12	9
	Thermal 4{1}	-30	180	131	225	-51	-18	14
	GRT1{1}	-59	277	91	297	-30	-12	10
	GRT2{1}	-79	357	102	380	-4	-4	9
	GRT3{1}	-58	269	90	290	-33	-12	9
	GRT4{1}	-29	171	59	183	-51	-18	13
B15	Gravity{1}	2	-9	-98	98	21	15	-2
	Hydrotest{1}	0	0	0	0	0	0	0
	Thermal 1{1}	-60	286	163	334	-69	-41	47
	Thermal 2{1}	-81	366	175	413	-46	-36	56
	Thermal 3{1}	-59	278	162	327	-72	-41	45
	Thermal 4{1}	-30	180	131	225	-82	-42	39
	GRT1{1}	-59	277	65	290	-49	-26	45
	GRT2{1}	-79	357	77	374	-25	-20	54
	GRT3{1}	-58	269	65	283	-51	-26	44
	GRT4{1}	-29	171	33	177	-61	-26	37

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
B11	Gravity{1}	2	-9	-113	113	28	21	-2	35
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-60	286	163	334	-81	-50	59	112
	Thermal 2{1}	-81	366	175	413	-58	-45	70	102
	Thermal 3{1}	-59	278	162	327	-83	-50	56	112
	Thermal 4{1}	-30	180	131	225	-91	-49	47	113
	GRT1{1}	-59	277	50	287	-53	-29	56	82
	GRT2{1}	-79	357	62	371	-30	-24	68	78
	GRT3{1}	-58	269	50	280	-55	-29	54	83
	GRT4{1}	-29	171	19	175	-63	-28	44	82

*** Segment B end ***

*** Segment C begin ***

A03	Gravity{1}	0	-9	469	469	-13	0	0	13
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-8	262	-731	777	401	11	-6	402
	Thermal 2{1}	-7	313	-792	852	497	15	-9	498
	Thermal 3{1}	-12	264	-731	777	405	24	-12	406
	Thermal 4{1}	-5	177	-628	653	246	3	-2	246
	GRT1{1}	-8	252	-262	364	388	11	-6	389
	GRT2{1}	-7	304	-324	444	485	15	-9	485
	GRT3{1}	-12	254	-262	365	392	24	-12	393
	GRT4{1}	-5	168	-159	232	233	3	-2	233
C01 N	Gravity{1}	0	-9	191	191	17	0	0	17
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-8	262	-731	777	-449	-15	-6	450
	Thermal 2{1}	-7	313	-792	852	-522	-8	-9	522
	Thermal 3{1}	-12	264	-731	777	-452	-15	-12	453
	Thermal 4{1}	-5	177	-628	653	-332	-15	-2	332
	GRT1{1}	-8	252	-540	596	-432	-15	-6	433
	GRT2{1}	-7	304	-601	674	-505	-8	-9	505
	GRT3{1}	-12	254	-539	597	-435	-14	-12	435
	GRT4{1}	-5	168	-437	468	-315	-14	-2	315

F_LINE_REV0.OUT

C01 M	Gravity{1}	0	-9	187	188	14	0	0	14
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-8	262	-731	777	-448	-16	-6	448
	Thermal 2{1}	-7	313	-792	852	-521	-9	-9	521
	Thermal 3{1}	-12	264	-731	777	-451	-15	-12	451
	Thermal 4{1}	-5	177	-628	653	-328	-15	-2	329
	GRT1{1}	-8	252	-544	600	-433	-15	-6	434
	GRT2{1}	-7	304	-605	677	-507	-8	-9	507
	GRT3{1}	-12	254	-543	600	-436	-15	-12	437
	GRT4{1}	-5	168	-441	472	-314	-14	-2	314

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GLOBAL FORCES & MOMENTS

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

C01 F	Gravity{1}	0	-9	184	184	7	0	0	7
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-8	262	-731	777	-423	-16	-6	423
	Thermal 2{1}	-7	313	-792	852	-494	-9	-10	495
	Thermal 3{1}	-12	264	-731	777	-425	-15	-13	426
	Thermal 4{1}	-5	177	-628	653	-306	-15	-2	306
	GRT1{1}	-8	252	-548	603	-416	-15	-6	416
	GRT2{1}	-7	304	-609	681	-487	-8	-10	488
	GRT3{1}	-12	254	-547	603	-418	-15	-13	419
	GRT4{1}	-5	168	-445	475	-299	-14	-2	299
C02 -	Gravity{1}	0	-9	145	145	-68	0	0	68
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-8	262	-731	777	-91	-16	-10	93
	Thermal 2{1}	-7	313	-792	852	-135	-9	-13	136
	Thermal 3{1}	-12	264	-731	777	-94	-15	-18	97
	Thermal 4{1}	-5	177	-628	653	-21	-15	-5	26
	GRT1{1}	-8	252	-586	638	-158	-15	-10	159
	GRT2{1}	-7	304	-648	716	-202	-8	-13	203
	GRT3{1}	-12	254	-586	639	-161	-15	-18	163
	GRT4{1}	-5	168	-483	512	-88	-14	-5	90

F_LINE_REV0.OUT

C02 +	Gravity{1}	0	-9	20	22	-68	0	0	68
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-8	262	-731	777	-91	-16	-10	93
	Thermal 2{1}	-7	313	-792	852	-135	-9	-13	136
	Thermal 3{1}	-12	264	-731	777	-94	-15	-18	97
	Thermal 4{1}	-5	177	-628	653	-21	-15	-5	26
	GRT1{1}	-8	252	-711	754	-158	-15	-10	159
	GRT2{1}	-7	304	-772	830	-202	-8	-13	203
	GRT3{1}	-12	254	-710	755	-161	-15	-18	163
	GRT4{1}	-5	168	-608	631	-88	-14	-5	90
C02 M-	Gravity{1}	0	-9	-237	237	-47	0	0	47
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-8	262	-731	777	50	-16	-12	53
	Thermal 2{1}	-7	313	-792	852	17	-9	-14	24
	Thermal 3{1}	-12	264	-731	777	47	-15	-21	53
	Thermal 4{1}	-5	177	-628	653	100	-15	-6	101
	GRT1{1}	-8	252	-968	1000	3	-15	-12	19
	GRT2{1}	-7	304	-1029	1073	-29	-8	-14	34
	GRT3{1}	-12	254	-968	1000	0	-15	-21	25
	GRT4{1}	-5	168	-865	881	53	-14	-6	55

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F_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
C02 M+	Gravity{1}	0	-9	108	108	-47	0	0	47
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-8	262	-635	687	50	-16	-12	53
	Thermal 2{1}	-7	313	-694	762	17	-9	-14	24
	Thermal 3{1}	-12	264	-635	687	47	-15	-21	53
	Thermal 4{1}	-5	177	-536	565	100	-15	-6	101
	GRT1{1}	-8	252	-528	585	3	-15	-12	19
	GRT2{1}	-7	304	-587	661	-29	-8	-14	34
	GRT3{1}	-12	254	-527	585	0	-15	-21	25
	GRT4{1}	-5	168	-428	460	53	-14	-6	55

F_LINE_REV0.OUT

FV05 -	Gravity{1}	0	-9	-150	150	-43	0	0	43
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-8	262	-635	687	172	-16	-13	173
	Thermal 2{1}	-7	313	-694	762	151	-9	-16	152
	Thermal 3{1}	-12	264	-635	687	169	-15	-23	171
	Thermal 4{1}	-5	177	-536	565	203	-15	-7	203
	GRT1{1}	-8	252	-785	825	129	-15	-13	131
	GRT2{1}	-7	304	-844	897	108	-8	-16	110
	GRT3{1}	-12	254	-784	824	126	-15	-23	129
	GRT4{1}	-5	168	-686	706	160	-14	-7	161
FV05 +	Gravity{1}	0	-9	-274	274	-43	0	0	43
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-8	262	-635	687	172	-16	-13	173
	Thermal 2{1}	-7	313	-694	762	151	-9	-16	152
	Thermal 3{1}	-12	264	-635	687	169	-15	-23	171
	Thermal 4{1}	-5	177	-536	565	203	-15	-7	203
	GRT1{1}	-8	252	-910	944	129	-15	-13	131
	GRT2{1}	-7	304	-968	1015	108	-8	-16	110
	GRT3{1}	-12	254	-909	944	126	-15	-23	129
	GRT4{1}	-5	168	-810	827	160	-14	-7	161
C04 -	Gravity{1}	0	-9	-310	310	81	0	0	81
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-8	262	-635	687	440	-16	-17	441
	Thermal 2{1}	-7	313	-694	762	444	-9	-19	444
	Thermal 3{1}	-12	264	-635	687	436	-15	-28	438
	Thermal 4{1}	-5	177	-536	565	429	-15	-9	429
	GRT1{1}	-8	252	-946	979	521	-15	-16	521
	GRT2{1}	-7	304	-1004	1049	525	-8	-18	525
	GRT3{1}	-12	254	-945	978	517	-15	-28	518
	GRT4{1}	-5	168	-846	863	510	-14	-9	510

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F_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result

			F_LINE_REV0.OUT						
C04 +	Gravity{1}	0	-9	-435	435	81	0	0	81
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-8	262	-635	687	440	-16	-17	441
	Thermal 2{1}	-7	313	-694	762	444	-9	-19	444
	Thermal 3{1}	-12	264	-635	687	436	-15	-28	438
	Thermal 4{1}	-5	177	-536	565	429	-15	-9	429
	GRT1{1}	-8	252	-1070	1099	521	-15	-16	521
	GRT2{1}	-7	304	-1129	1169	525	-8	-18	525
	GRT3{1}	-12	254	-1069	1099	517	-15	-28	518
	GRT4{1}	-5	168	-971	985	510	-14	-9	510
C04 M-	Gravity{1}	0	-9	-692	692	189	0	0	189
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-8	262	-635	687	562	-16	-18	563
	Thermal 2{1}	-7	313	-694	762	577	-9	-20	578
	Thermal 3{1}	-12	264	-635	687	558	-15	-30	559
	Thermal 4{1}	-5	177	-536	565	532	-15	-10	532
	GRT1{1}	-8	252	-1327	1351	751	-15	-18	751
	GRT2{1}	-7	304	-1386	1419	766	-8	-20	766
	GRT3{1}	-12	254	-1326	1351	747	-15	-30	748
	GRT4{1}	-5	168	-1228	1239	721	-14	-10	721
C04 M+	Gravity{1}	2	-9	763	763	189	0	0	189
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	190	262	349	476	562	-16	-18	563
	Thermal 2{1}	268	313	346	539	577	-9	-20	578
	Thermal 3{1}	367	264	336	563	558	-15	-30	559
	Thermal 4{1}	80	177	337	389	532	-15	-10	532
	GRT1{1}	192	252	1112	1157	751	-15	-18	751
	GRT2{1}	270	304	1109	1182	766	-8	-20	766
	GRT3{1}	369	254	1099	1187	747	-15	-30	748
	GRT4{1}	82	168	1100	1116	721	-14	-10	721
C17 -	Gravity{1}	2	-9	506	506	67	0	0	67
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	190	262	349	476	495	-16	18	496
	Thermal 2{1}	268	313	346	539	511	-9	32	512
	Thermal 3{1}	367	264	336	563	494	-15	40	496
	Thermal 4{1}	80	177	337	389	467	-15	5	467
	GRT1{1}	192	252	855	912	562	-15	19	563
	GRT2{1}	270	304	852	944	578	-8	32	579
	GRT3{1}	369	254	842	954	561	-15	41	562
	GRT4{1}	82	168	843	863	534	-14	6	534

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)				
name	combination	X	Y	Z	Result	X	Y	Z	Result	

C17	+	Gravity{1}	2	-9	381	382	67	0	0	67
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	190	262	349	476	495	-16	18	496
		Thermal 2{1}	268	313	346	539	511	-9	32	512
		Thermal 3{1}	367	264	336	563	494	-15	40	496
		Thermal 4{1}	80	177	337	389	467	-15	5	467
		GRT1{1}	192	252	731	796	562	-15	19	563
		GRT2{1}	270	304	728	834	578	-8	32	579
		GRT3{1}	369	254	718	846	561	-15	41	562
		GRT4{1}	82	168	718	742	534	-14	6	534
C16	-	Gravity{1}	2	-9	357	357	-39	0	1	39
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	190	262	349	476	395	-16	73	402
		Thermal 2{1}	268	313	346	539	411	-9	109	426
		Thermal 3{1}	367	264	336	563	397	-15	146	424
		Thermal 4{1}	80	177	337	389	371	-15	28	372
		GRT1{1}	192	252	706	774	356	-15	74	364
		GRT2{1}	270	304	703	812	373	-8	110	388
		GRT3{1}	369	254	693	826	358	-15	147	388
		GRT4{1}	82	168	694	719	332	-14	29	333
C16	+	Gravity{1}	2	-9	102	102	-39	0	1	39
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	190	262	349	476	395	-16	73	402
		Thermal 2{1}	268	313	346	539	411	-9	109	426
		Thermal 3{1}	367	264	336	563	397	-15	146	424
		Thermal 4{1}	80	177	337	389	371	-15	28	372
		GRT1{1}	192	252	451	551	356	-15	74	364
		GRT2{1}	270	304	448	605	373	-8	110	388
		GRT3{1}	369	254	438	627	358	-15	147	388
		GRT4{1}	82	168	439	477	332	-14	29	333

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C22 - Gravity{1}	2	-9	87	88	-55	0	1	55
Hydrotest{1}	0	0	0	0	0	0	0	0
Thermal 1{1}	190	262	349	476	335	-16	106	352
Thermal 2{1}	268	313	346	539	352	-9	155	385
Thermal 3{1}	367	264	336	563	340	-15	209	399
Thermal 4{1}	80	177	337	389	313	-15	42	316
GRT1{1}	192	252	436	539	280	-15	107	300
GRT2{1}	270	304	433	595	297	-8	156	335
GRT3{1}	369	254	423	617	284	-15	210	354
GRT4{1}	82	168	424	463	257	-14	43	261

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
C22 + Gravity{1}		2	-9	-162	162	-55	0	1	55
Hydrotest{1}		0	0	0	0	0	0	0	0
Thermal 1{1}		190	262	349	476	335	-16	106	352
Thermal 2{1}		268	313	346	539	352	-9	155	385
Thermal 3{1}		367	264	336	563	340	-15	209	399
Thermal 4{1}		80	177	337	389	313	-15	42	316
GRT1{1}		192	252	187	368	280	-15	107	300
GRT2{1}		270	304	184	447	297	-8	156	335
GRT3{1}		369	254	174	481	284	-15	210	354
GRT4{1}		82	168	175	256	257	-14	43	261
C21 - Gravity{1}		2	-9	-189	190	1	0	2	2
Hydrotest{1}		0	0	0	0	0	0	0	0
Thermal 1{1}		190	262	349	476	223	-16	167	279
Thermal 2{1}		268	313	346	539	241	-9	241	341
Thermal 3{1}		367	264	336	563	232	-15	327	401
Thermal 4{1}		80	177	337	389	205	-15	67	216
GRT1{1}		192	252	160	355	224	-15	169	281
GRT2{1}		270	304	157	436	242	-8	243	343
GRT3{1}		369	254	147	472	233	-15	329	403
GRT4{1}		82	168	147	238	206	-14	69	218

			F_LINE_REV0.OUT							
C21	+	Gravity{1}	2	-9	-438	438	1	0	2	2
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	190	262	349	476	223	-16	167	279
		Thermal 2{1}	268	313	346	539	241	-9	241	341
		Thermal 3{1}	367	264	336	563	232	-15	327	401
		Thermal 4{1}	80	177	337	389	205	-15	67	216
		GRT1{1}	192	252	-89	330	224	-15	169	281
		GRT2{1}	270	304	-92	417	242	-8	243	343
		GRT3{1}	369	254	-102	460	233	-15	329	403
		GRT4{1}	82	168	-102	213	206	-14	69	218
C06	-	Gravity{1}	2	-9	-460	460	113	0	2	113
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	190	262	349	476	136	-16	214	254
		Thermal 2{1}	268	313	346	539	154	-9	308	345
		Thermal 3{1}	367	264	336	563	148	-15	419	444
		Thermal 4{1}	80	177	337	389	120	-15	87	149
		GRT1{1}	192	252	-111	336	249	-15	217	330
		GRT2{1}	270	304	-114	422	268	-8	311	410
		GRT3{1}	369	254	-124	465	261	-15	421	496
		GRT4{1}	82	168	-123	224	234	-14	90	251

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

C06	+ Gravity{1}	-8	-10	244	244	114	0	2	114
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-435	264	64	512	130	-6	208	245
	Thermal 2{1}	-660	361	53	754	119	-7	316	338
	Thermal 3{1}	-1108	269	77	1143	143	-16	420	444
	Thermal 4{1}	-214	178	91	293	125	-16	87	153
	GRT1{1}	-443	254	308	596	244	-6	210	322
	GRT2{1}	-668	351	297	811	233	-7	318	394
	GRT3{1}	-1116	260	320	1190	257	-15	422	494
	GRT4{1}	-222	169	335	436	239	-16	89	255

F_LINE_REV0.OUT									
C28	Gravity{1}	-8	-10	199	200	-1	0	-2	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-435	264	64	512	97	-6	-18	99
	Thermal 2{1}	-660	361	53	754	91	-7	-27	96
	Thermal 3{1}	-1108	269	77	1143	103	-16	-156	188
	Thermal 4{1}	-214	178	91	293	77	-16	-24	83
	GRT1{1}	-443	254	263	574	95	-6	-21	98
	GRT2{1}	-668	351	252	796	90	-7	-30	95
	GRT3{1}	-1116	260	276	1178	101	-15	-159	189
	GRT4{1}	-222	169	290	403	76	-16	-27	82
C07 -	Gravity{1}	-8	-10	155	155	-94	0	-6	94
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-435	264	64	512	64	-6	-245	253
	Thermal 2{1}	-660	361	53	754	64	-7	-371	377
	Thermal 3{1}	-1108	269	77	1143	63	-16	-733	736
	Thermal 4{1}	-214	178	91	293	30	-16	-136	140
	GRT1{1}	-443	254	219	555	-30	-6	-251	253
	GRT2{1}	-668	351	208	783	-30	-7	-378	379
	GRT3{1}	-1116	260	232	1169	-31	-15	-740	740
	GRT4{1}	-222	169	246	372	-63	-16	-142	157
C07 +	Gravity{1}	-28	-21	-99	105	-90	2	2	90
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	396	426	228	624	226	-47	-342	413
	Thermal 2{1}	520	554	258	802	235	-58	-483	540
	Thermal 3{1}	1118	-103	407	1194	195	-89	-625	661
	Thermal 4{1}	291	171	164	375	171	-57	-158	240
	GRT1{1}	368	405	129	562	136	-45	-340	369
	GRT2{1}	492	533	159	743	145	-56	-481	505
	GRT3{1}	1090	-124	309	1140	106	-87	-623	638
	GRT4{1}	264	149	65	310	81	-55	-156	184

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

		F_LINE_REV0.OUT							
C08 -	Gravity{1}	-28	-21	-113	118	-72	2	-3	72
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	396	426	228	624	188	-47	-276	337
	Thermal 2{1}	520	554	258	802	192	-58	-395	443
	Thermal 3{1}	1118	-103	407	1194	127	-89	-437	464
	Thermal 4{1}	291	171	164	375	144	-57	-109	189
	GRT1{1}	368	405	115	559	116	-45	-278	305
	GRT2{1}	492	533	145	740	120	-56	-398	419
	GRT3{1}	1090	-124	294	1136	55	-87	-440	452
	GRT4{1}	264	149	51	307	72	-55	-111	144
C08 +	Gravity{1}	-28	-21	-238	240	-72	2	-3	72
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	396	426	228	624	188	-47	-276	337
	Thermal 2{1}	520	554	258	802	192	-58	-395	443
	Thermal 3{1}	1118	-103	407	1194	127	-89	-437	464
	Thermal 4{1}	291	171	164	375	144	-57	-109	189
	GRT1{1}	368	405	-10	547	116	-45	-278	305
	GRT2{1}	492	533	20	726	120	-56	-398	419
	GRT3{1}	1090	-124	170	1110	55	-87	-440	452
	GRT4{1}	264	149	-74	312	72	-55	-111	144
C08 M-	Gravity{1}	-28	-21	-495	496	-2	2	-8	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	396	426	228	624	144	-47	-200	251
	Thermal 2{1}	520	554	258	802	142	-58	-295	333
	Thermal 3{1}	1118	-103	407	1194	49	-89	-223	245
	Thermal 4{1}	291	171	164	375	112	-57	-53	137
	GRT1{1}	368	405	-267	608	142	-45	-208	256
	GRT2{1}	492	533	-237	763	141	-56	-303	339
	GRT3{1}	1090	-124	-87	1101	47	-87	-230	251
	GRT4{1}	264	149	-331	449	110	-55	-61	138
C08 M+	Gravity{1}	-28	-21	454	455	-2	2	-8	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	396	426	527	785	144	-47	-200	251
	Thermal 2{1}	520	554	565	947	142	-58	-295	333
	Thermal 3{1}	1118	-103	716	1331	49	-89	-223	245
	Thermal 4{1}	291	171	432	548	112	-57	-53	137
	GRT1{1}	368	405	981	1123	142	-45	-208	256
	GRT2{1}	492	533	1019	1251	141	-56	-303	339
	GRT3{1}	1090	-124	1170	1604	47	-87	-230	251
	GRT4{1}	264	149	886	936	110	-55	-61	138

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
C18 -	Gravity{1}	-28	-21	197	200	-64	2	-13	65
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	396	426	527	785	43	-47	-124	139
	Thermal 2{1}	520	554	565	947	34	-58	-195	207
	Thermal 3{1}	1118	-103	716	1331	-89	-89	-8	126
	Thermal 4{1}	291	171	432	548	29	-57	3	64
	GRT1{1}	368	405	724	907	-21	-45	-137	146
	GRT2{1}	492	533	762	1052	-30	-56	-209	218
	GRT3{1}	1090	-124	913	1427	-153	-87	-21	177
	GRT4{1}	264	149	629	698	-35	-55	-10	66
C18 +	Gravity{1}	-28	-21	72	80	-64	2	-13	65
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	396	426	527	785	43	-47	-124	139
	Thermal 2{1}	520	554	565	947	34	-58	-195	207
	Thermal 3{1}	1118	-103	716	1331	-89	-89	-8	126
	Thermal 4{1}	291	171	432	548	29	-57	3	64
	GRT1{1}	368	405	599	811	-21	-45	-137	146
	GRT2{1}	492	533	637	966	-30	-56	-209	218
	GRT3{1}	1090	-124	788	1351	-153	-87	-21	177
	GRT4{1}	264	149	504	588	-35	-55	-10	66
C10 -	Gravity{1}	-28	-21	58	67	-75	2	-18	77
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	396	426	527	785	-46	-47	-57	87
	Thermal 2{1}	520	554	565	947	-62	-58	-108	137
	Thermal 3{1}	1118	-103	716	1331	-209	-89	180	290
	Thermal 4{1}	291	171	432	548	-44	-57	52	89
	GRT1{1}	368	405	585	801	-121	-45	-75	149
	GRT2{1}	492	533	623	956	-137	-56	-126	194
	GRT3{1}	1090	-124	774	1343	-284	-87	162	339
	GRT4{1}	264	149	490	576	-119	-55	34	136

			F_LINE_REV0.OUT							
C10	+	Gravity{1}	28	-58	-313	319	-100	-38	-1	107
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	433	786	1205	1503	102	339	-282	452
		Thermal 2{1}	597	973	1316	1742	92	386	-373	545
		Thermal 3{1}	388	483	943	1128	93	294	-181	358
		Thermal 4{1}	143	443	885	1000	92	226	-111	268
		GRT1{1}	461	729	892	1241	2	301	-283	413
		GRT2{1}	625	915	1003	1495	-8	348	-374	511
		GRT3{1}	415	426	630	867	-7	256	-182	314
		GRT4{1}	171	385	572	711	-8	188	-112	219

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G L O B A L F O R C E S & M O M E N T S

Point		FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result
C11 N	Gravity{1}	28	-58	-324	330	-59	-38	3	70
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	433	786	1205	1503	-54	339	-226	411
	Thermal 2{1}	597	973	1316	1742	-78	386	-296	492
	Thermal 3{1}	388	483	943	1128	-29	294	-131	323
	Thermal 4{1}	143	443	885	1000	-22	226	-93	245
	GRT1{1}	461	729	881	1233	-113	301	-223	391
	GRT2{1}	625	915	992	1488	-137	348	-293	475
	GRT3{1}	415	426	619	859	-88	256	-128	300
	GRT4{1}	171	385	561	702	-81	188	-90	224
C11 F	Gravity{1}	28	-58	-326	332	-49	-35	3	61
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	433	786	1205	1503	-89	329	-207	399
	Thermal 2{1}	597	973	1316	1742	-116	375	-271	477
	Thermal 3{1}	388	483	943	1128	-56	287	-116	315
	Thermal 4{1}	143	443	885	1000	-48	219	-85	240
	GRT1{1}	461	729	879	1231	-138	294	-204	383
	GRT2{1}	625	915	990	1486	-165	340	-268	463
	GRT3{1}	415	426	616	857	-106	251	-113	295
	GRT4{1}	171	385	559	700	-97	184	-82	223

		F_LINE_REV0.OUT							
C12 N-	Gravity{1}	28	-58	-348	354	26	9	2	27
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	433	786	1205	1503	-356	172	-8	396
	Thermal 2{1}	597	973	1316	1742	-408	203	-11	456
	Thermal 3{1}	388	483	943	1128	-266	164	34	314
	Thermal 4{1}	143	443	885	1000	-245	103	5	266
	GRT1{1}	461	729	857	1215	-331	180	-6	377
	GRT2{1}	625	915	968	1471	-383	212	-9	438
	GRT3{1}	415	426	594	841	-240	172	35	298
	GRT4{1}	171	385	537	683	-219	112	6	246
C12 N+	Gravity{1}	28	-58	-201	211	26	9	2	27
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	433	786	1249	1538	-356	172	-8	396
	Thermal 2{1}	597	973	1362	1777	-408	203	-11	456
	Thermal 3{1}	388	483	987	1165	-266	164	34	314
	Thermal 4{1}	143	443	924	1034	-245	103	5	266
	GRT1{1}	461	729	1048	1357	-331	180	-6	377
	GRT2{1}	625	915	1161	1605	-383	212	-9	438
	GRT3{1}	415	426	786	986	-240	172	35	298
	GRT4{1}	171	385	722	836	-219	112	6	246

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
C12 F	Gravity{1}	28	-58	-209	218	32	13	1	35
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	433	786	1249	1538	-373	111	36	391
	Thermal 2{1}	597	973	1362	1777	-420	130	46	442
	Thermal 3{1}	388	483	987	1165	-287	113	67	315
	Thermal 4{1}	143	443	924	1034	-265	68	24	274
	GRT1{1}	461	729	1040	1351	-341	124	37	364
	GRT2{1}	625	915	1153	1599	-388	143	48	416
	GRT3{1}	415	426	778	979	-254	126	68	292
	GRT4{1}	171	385	715	830	-232	81	26	248

		F_LINE_REV0.OUT							
C13 N	Gravity{1}	28	-58	-251	259	4	-1	1	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	433	786	1249	1538	17	-104	36	111
	Thermal 2{1}	597	973	1362	1777	63	-166	46	184
	Thermal 3{1}	388	483	987	1165	-47	-79	67	114
	Thermal 4{1}	143	443	924	1034	-45	-2	24	51
	GRT1{1}	461	729	998	1319	21	-105	37	113
	GRT2{1}	625	915	1111	1569	66	-167	48	186
	GRT3{1}	415	426	736	946	-43	-80	68	114
	GRT4{1}	171	385	672	794	-41	-3	26	49
C13 F	Gravity{1}	28	-58	-259	267	15	1	2	15
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	433	786	1249	1538	-8	-144	70	160
	Thermal 2{1}	597	973	1362	1777	42	-217	92	240
	Thermal 3{1}	388	483	987	1165	-75	-114	94	165
	Thermal 4{1}	143	443	924	1034	-71	-22	38	84
	GRT1{1}	461	729	990	1313	7	-143	72	161
	GRT2{1}	625	915	1103	1564	57	-217	94	243
	GRT3{1}	415	426	728	940	-60	-113	96	160
	GRT4{1}	171	385	665	787	-56	-21	40	72
C20	Gravity{1}	28	-58	-284	291	94	18	6	96
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	433	786	1249	1538	-370	-225	246	498
	Thermal 2{1}	597	973	1362	1777	-353	-305	327	570
	Thermal 3{1}	388	483	987	1165	-361	-177	238	467
	Thermal 4{1}	143	443	924	1034	-339	-82	108	365
	GRT1{1}	461	729	965	1294	-277	-206	253	428
	GRT2{1}	625	915	1078	1546	-259	-287	334	511
	GRT3{1}	415	426	703	921	-267	-159	244	395
	GRT4{1}	171	385	639	766	-246	-63	114	278

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result

		F_LINE_REV0.OUT							
C15	Gravity{1}	28	-58	-299	306	119	24	8	122
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	433	786	1249	1538	-479	-249	299	617
	Thermal 2{1}	597	973	1362	1777	-471	-331	398	700
	Thermal 3{1}	388	483	987	1165	-446	-196	281	563
	Thermal 4{1}	143	443	924	1034	-419	-99	129	450
	GRT1{1}	461	729	950	1283	-360	-225	307	523
	GRT2{1}	625	915	1063	1535	-352	-307	406	619
	GRT3{1}	415	426	688	909	-328	-172	289	469
	GRT4{1}	171	385	625	754	-300	-75	136	338

*** Segment C end ***

*** Segment D begin ***

A02	Gravity{1}	3	-18	479	480	-15	-2	-1	15
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-3	561	-526	769	731	25	1	732
	Thermal 2{1}	-7	772	-674	1025	1044	27	3	1045
	Thermal 3{1}	-1	561	-526	769	732	24	1	732
	Thermal 4{1}	-4	574	-541	789	750	25	2	751
	GRT1{1}	0	543	-46	545	717	23	0	717
	GRT2{1}	-4	754	-194	779	1029	25	2	1030
	GRT3{1}	2	543	-47	545	717	22	0	717
	GRT4{1}	-1	556	-62	559	735	23	1	736

D01 N	Gravity{1}	3	-18	204	205	28	5	-1	29
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-3	561	-526	769	-600	18	1	600
	Thermal 2{1}	-7	772	-674	1025	-788	11	3	788
	Thermal 3{1}	-1	561	-526	769	-600	21	1	600
	Thermal 4{1}	-4	574	-541	789	-612	17	2	613
	GRT1{1}	0	543	-322	631	-572	24	0	572
	GRT2{1}	-4	754	-470	888	-760	16	2	760
	GRT3{1}	2	543	-322	631	-572	26	0	573
	GRT4{1}	-1	556	-337	650	-584	22	1	585

D01 M	Gravity{1}	3	-18	197	198	25	5	-1	25
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-3	561	-526	769	-618	18	1	618
	Thermal 2{1}	-7	772	-674	1025	-815	10	2	815
	Thermal 3{1}	-1	561	-526	769	-619	21	1	619
	Thermal 4{1}	-4	574	-541	789	-631	16	1	631
	GRT1{1}	0	543	-329	634	-594	24	0	594
	GRT2{1}	-4	754	-477	892	-790	15	1	790
	GRT3{1}	2	543	-329	635	-594	26	0	594

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		F_LINE_REV0.OUT							
GRT4{1}		-1	556	-636	845	-261	22	0	262
D02 M-	Gravity{1}	3	-18	-1154	1154	36	5	2	36
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-3	561	-526	769	-38	18	-2	42
	Thermal 2{1}	-7	772	-674	1025	-72	10	-5	73
	Thermal 3{1}	-1	561	-526	769	-38	21	-1	43
	Thermal 4{1}	-4	574	-541	789	-34	16	-3	38
	GRT1{1}	0	543	-1680	1765	-2	24	1	24
	GRT2{1}	-4	754	-1828	1977	-36	15	-3	40
	GRT3{1}	2	543	-1680	1766	-2	26	2	26
	GRT4{1}	-1	556	-1695	1784	2	22	0	22

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
D02 M+	Gravity{1}	3	-18	828	828	36	5	2	36
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-3	561	-396	686	-38	18	-2	42
	Thermal 2{1}	-7	772	-536	940	-72	10	-5	73
	Thermal 3{1}	-1	561	-396	687	-38	21	-1	43
	Thermal 4{1}	-4	574	-411	706	-34	16	-3	38
	GRT1{1}	0	543	432	694	-2	24	1	24
	GRT2{1}	-4	754	292	808	-36	15	-3	40
	GRT3{1}	2	543	431	693	-2	26	2	26
	GRT4{1}	-1	556	417	695	2	22	0	22
FV06 -	Gravity{1}	3	-18	-231	232	-31	5	3	32
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-3	561	-396	686	51	18	-2	55
	Thermal 2{1}	-7	772	-536	940	49	10	-7	50
	Thermal 3{1}	-1	561	-396	687	52	21	-1	56
	Thermal 4{1}	-4	574	-411	706	59	16	-3	61
	GRT1{1}	0	543	-627	829	20	24	1	31
	GRT2{1}	-4	754	-767	1075	17	15	-4	23
	GRT3{1}	2	543	-627	829	20	26	2	33

		F_LINE_REV0.OUT							
	GRT4{1}	-1	556	-642	849	27	22	0	35
FV06 +	Gravity{1}	3	-18	-418	418	-31	5	3	32
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-3	561	-396	686	51	18	-2	55
	Thermal 2{1}	-7	772	-536	940	49	10	-7	50
	Thermal 3{1}	-1	561	-396	687	52	21	-1	56
	Thermal 4{1}	-4	574	-411	706	59	16	-3	61
	GRT1{1}	0	543	-814	978	20	24	1	31
	GRT2{1}	-4	754	-954	1216	17	15	-4	23
	GRT3{1}	2	543	-814	979	20	26	2	33
	GRT4{1}	-1	556	-829	998	27	22	0	35
D04 -	Gravity{1}	3	-18	-476	476	191	5	5	191
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-3	561	-396	686	248	18	-4	249
	Thermal 2{1}	-7	772	-536	940	315	10	-10	316
	Thermal 3{1}	-1	561	-396	687	249	21	-2	250
	Thermal 4{1}	-4	574	-411	706	263	16	-5	264
	GRT1{1}	0	543	-872	1027	439	24	1	440
	GRT2{1}	-4	754	-1012	1262	506	15	-6	506
	GRT3{1}	2	543	-872	1027	440	26	3	441
	GRT4{1}	-1	556	-887	1047	454	22	-1	455

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
D04 +	Gravity{1}	3	-18	-663	663	191	5	5	191
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-3	561	-396	686	248	18	-4	249
	Thermal 2{1}	-7	772	-536	940	315	10	-10	316
	Thermal 3{1}	-1	561	-396	687	249	21	-2	250
	Thermal 4{1}	-4	574	-411	706	263	16	-5	264
	GRT1{1}	0	543	-1059	1190	439	24	1	440
	GRT2{1}	-4	754	-1199	1416	506	15	-6	506
	GRT3{1}	2	543	-1059	1190	440	26	3	441

		F_LINE_REV0.OUT							
	GRT4{1}	-1	556	-1074	1209	454	22	-1	455
D04 M-	Gravity{1}	3	-18	-1064	1065	386	5	5	386
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-3	561	-396	686	337	18	-4	338
	Thermal 2{1}	-7	772	-536	940	436	10	-12	436
	Thermal 3{1}	-1	561	-396	687	338	21	-2	339
	Thermal 4{1}	-4	574	-411	706	356	16	-6	356
	GRT1{1}	0	543	-1460	1558	723	24	1	723
	GRT2{1}	-4	754	-1600	1769	822	15	-6	822
	GRT3{1}	2	543	-1461	1558	724	26	3	724
	GRT4{1}	-1	556	-1476	1577	741	22	-1	742
D04 M+	Gravity{1}	-6	-18	1249	1249	386	5	5	386
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	561	-234	607	337	18	-4	338
	Thermal 2{1}	11	772	-114	780	436	10	-12	436
	Thermal 3{1}	-2	561	-232	607	338	21	-2	339
	Thermal 4{1}	2	574	-198	607	356	16	-6	356
	GRT1{1}	-6	543	1015	1151	723	24	1	723
	GRT2{1}	5	754	1135	1362	822	15	-6	822
	GRT3{1}	-9	543	1017	1153	724	26	3	724
	GRT4{1}	-4	556	1051	1189	741	22	-1	742
D17 -	Gravity{1}	-6	-18	847	847	149	5	4	150
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	561	-234	607	390	18	-4	391
	Thermal 2{1}	11	772	-114	780	462	10	-9	462
	Thermal 3{1}	-2	561	-232	607	391	21	-3	391
	Thermal 4{1}	2	574	-198	607	400	16	-5	401
	GRT1{1}	-6	543	614	819	540	24	0	540
	GRT2{1}	5	754	733	1052	611	15	-5	611
	GRT3{1}	-9	543	615	821	540	26	1	541
	GRT4{1}	-4	556	649	855	550	22	-2	550

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

F_LINE_REV0.OUT

D17	+	Gravity{1}	-6	-18	660	660	149	5	4	150
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	0	561	-234	607	390	18	-4	391
		Thermal 2{1}	11	772	-114	780	462	10	-9	462
		Thermal 3{1}	-2	561	-232	607	391	21	-3	391
		Thermal 4{1}	2	574	-198	607	400	16	-5	401
		GRT1{1}	-6	543	426	690	540	24	0	540
		GRT2{1}	5	754	546	931	611	15	-5	611
		GRT3{1}	-9	543	428	691	540	26	1	541
		GRT4{1}	-4	556	462	723	550	22	-2	550
D19	-	Gravity{1}	-6	-18	630	631	-14	5	2	15
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	0	561	-234	607	449	18	-4	450
		Thermal 2{1}	11	772	-114	780	491	10	-6	491
		Thermal 3{1}	-2	561	-232	607	449	21	-3	450
		Thermal 4{1}	2	574	-198	607	451	16	-5	451
		GRT1{1}	-6	543	397	672	435	24	-2	436
		GRT2{1}	5	754	517	914	477	15	-4	477
		GRT3{1}	-9	543	399	674	435	26	-1	436
		GRT4{1}	-4	556	433	704	437	22	-3	437
D19	+	Gravity{1}	-6	-18	375	376	-14	5	2	15
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	0	561	-234	607	449	18	-4	450
		Thermal 2{1}	11	772	-114	780	491	10	-6	491
		Thermal 3{1}	-2	561	-232	607	449	21	-3	450
		Thermal 4{1}	2	574	-198	607	451	16	-5	451
		GRT1{1}	-6	543	142	561	435	24	-2	436
		GRT2{1}	5	754	262	798	477	15	-4	477
		GRT3{1}	-9	543	143	562	435	26	-1	436
		GRT4{1}	-4	556	177	583	437	22	-3	437
D23	-	Gravity{1}	-6	-18	338	339	-128	5	0	128
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	0	561	-234	607	524	18	-4	524
		Thermal 2{1}	11	772	-114	780	527	10	-3	527
		Thermal 3{1}	-2	561	-232	607	523	21	-4	524
		Thermal 4{1}	2	574	-198	607	514	16	-4	514
		GRT1{1}	-6	543	105	553	396	24	-4	397
		GRT2{1}	5	754	225	787	399	15	-3	400
		GRT3{1}	-9	543	107	553	395	26	-4	396
		GRT4{1}	-4	556	141	573	386	22	-4	387

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
D23 +	Gravity{1}	-6	-18	-36	41	-128	5	0	128
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	561	-234	607	524	18	-4	524
	Thermal 2{1}	11	772	-114	780	527	10	-3	527
	Thermal 3{1}	-2	561	-232	607	523	21	-4	524
	Thermal 4{1}	2	574	-198	607	514	16	-4	514
	GRT1{1}	-6	543	-270	606	396	24	-4	397
	GRT2{1}	5	754	-150	769	399	15	-3	400
	GRT3{1}	-9	543	-268	606	395	26	-4	396
	GRT4{1}	-4	556	-234	603	386	22	-4	387
D22 -	Gravity{1}	-6	-18	-81	83	-105	5	-2	105
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	561	-234	607	614	18	-4	614
	Thermal 2{1}	11	772	-114	780	571	10	1	571
	Thermal 3{1}	-2	561	-232	607	613	21	-5	613
	Thermal 4{1}	2	574	-198	607	590	16	-3	590
	GRT1{1}	-6	543	-315	627	509	24	-6	510
	GRT2{1}	5	754	-195	779	466	15	-1	466
	GRT3{1}	-9	543	-313	627	508	26	-7	509
	GRT4{1}	-4	556	-279	622	485	22	-6	486
D22 +	Gravity{1}	-6	-18	-456	456	-105	5	-2	105
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	561	-234	607	614	18	-4	614
	Thermal 2{1}	11	772	-114	780	571	10	1	571
	Thermal 3{1}	-2	561	-232	607	613	21	-5	613
	Thermal 4{1}	2	574	-198	607	590	16	-3	590
	GRT1{1}	-6	543	-689	877	509	24	-6	510
	GRT2{1}	5	754	-569	945	466	15	-1	466
	GRT3{1}	-9	543	-688	876	508	26	-7	509
	GRT4{1}	-4	556	-654	858	485	22	-6	486

F_LINE_REV0.OUT

D26 -	Gravity{1}	-6	-18	-504	504	94	5	-5	94
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	561	-234	607	711	18	-4	711
	Thermal 2{1}	11	772	-114	780	618	10	6	618
	Thermal 3{1}	-2	561	-232	607	709	21	-6	710
	Thermal 4{1}	2	574	-198	607	672	16	-2	673
	GRT1{1}	-6	543	-737	916	805	24	-9	806
	GRT2{1}	5	754	-618	975	712	15	1	713
	GRT3{1}	-9	543	-736	914	803	26	-11	804
	GRT4{1}	-4	556	-702	895	767	22	-7	767

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
D26 +	Gravity{1}	9	-18	151	153	94	5	-5	94
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-80	560	645	857	718	31	-5	718
	Thermal 2{1}	-129	771	498	927	624	28	5	624
	Thermal 3{1}	-78	560	643	856	716	27	-7	717
	Thermal 4{1}	-85	573	601	835	679	29	-3	679
	GRT1{1}	-71	542	796	965	811	37	-10	812
	GRT2{1}	-120	753	650	1002	717	33	0	718
	GRT3{1}	-69	542	795	964	810	32	-12	810
	GRT4{1}	-76	555	752	938	772	34	-8	773
D07 N	Gravity{1}	9	-18	136	137	74	5	-4	75
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-80	560	645	857	631	31	-16	632
	Thermal 2{1}	-129	771	498	927	557	28	-13	558
	Thermal 3{1}	-78	560	643	856	630	27	-18	630
	Thermal 4{1}	-85	573	601	835	598	29	-15	599
	GRT1{1}	-71	542	780	953	706	37	-20	707
	GRT2{1}	-120	753	634	992	631	33	-16	632
	GRT3{1}	-69	542	779	952	704	32	-21	705
	GRT4{1}	-76	555	737	926	672	34	-19	673

F_LINE_REV0.OUT

D07 F	Gravity{1}	9	-18	134	135	72	5	-4	72
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-80	560	645	857	621	30	-16	622
	Thermal 2{1}	-129	771	498	927	549	27	-13	550
	Thermal 3{1}	-78	560	643	856	619	26	-18	620
	Thermal 4{1}	-85	573	601	835	588	28	-15	589
	GRT1{1}	-71	542	778	951	693	35	-20	694
	GRT2{1}	-120	753	632	991	621	32	-17	622
	GRT3{1}	-69	542	777	950	691	31	-21	692
	GRT4{1}	-76	555	735	924	660	33	-19	661
D08 N-	Gravity{1}	9	-18	3	20	-3	-12	2	12
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-80	560	645	857	-91	-126	31	158
	Thermal 2{1}	-129	771	498	927	-2	-94	31	99
	Thermal 3{1}	-78	560	643	856	-91	-130	31	162
	Thermal 4{1}	-85	573	601	835	-76	-117	30	143
	GRT1{1}	-71	542	647	847	-94	-137	33	170
	GRT2{1}	-120	753	501	913	-5	-105	32	110
	GRT3{1}	-69	542	646	846	-94	-142	33	173
	GRT4{1}	-76	555	604	824	-79	-129	32	154

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F_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
D08 N+	Gravity{1}	9	-18	169	170	-3	-12	2	12
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-80	560	681	885	-91	-126	31	158
	Thermal 2{1}	-129	771	532	946	-2	-94	31	99
	Thermal 3{1}	-78	560	679	884	-91	-130	31	162
	Thermal 4{1}	-85	573	636	860	-76	-117	30	143
	GRT1{1}	-71	542	850	1010	-94	-137	33	170
	GRT2{1}	-120	753	701	1036	-5	-105	32	110
	GRT3{1}	-69	542	848	1009	-94	-142	33	173
	GRT4{1}	-76	555	805	980	-79	-129	32	154

F_LINE_REV0.OUT

D08 F	Gravity{1}	9	-18	155	156	-14	-14	2	20
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-80	560	681	885	-184	-143	34	236
	Thermal 2{1}	-129	771	532	946	-100	-112	34	154
	Thermal 3{1}	-78	560	679	884	-184	-147	35	238
	Thermal 4{1}	-85	573	636	860	-167	-134	33	216
	GRT1{1}	-71	542	836	999	-199	-157	36	255
	GRT2{1}	-120	753	687	1027	-114	-126	36	174
	GRT3{1}	-69	542	834	997	-198	-161	37	258
	GRT4{1}	-76	555	791	969	-181	-148	35	236
D09 -	Gravity{1}	9	-18	64	67	0	-7	2	7
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-80	560	681	885	-623	-206	34	657
	Thermal 2{1}	-129	771	532	946	-704	-213	34	737
	Thermal 3{1}	-78	560	679	884	-623	-208	35	658
	Thermal 4{1}	-85	573	636	860	-616	-201	33	648
	GRT1{1}	-71	542	745	924	-623	-212	36	659
	GRT2{1}	-120	753	596	968	-704	-220	36	739
	GRT3{1}	-69	542	744	923	-623	-215	37	660
	GRT4{1}	-76	555	700	897	-616	-207	35	651
D09 +	Gravity{1}	10	-5	55	56	-2	-7	0	7
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	152	300	993	1048	-319	-115	52	343
	Thermal 2{1}	195	365	903	993	-339	-81	65	354
	Thermal 3{1}	154	302	998	1054	-319	-116	53	344
	Thermal 4{1}	150	303	950	1008	-312	-108	53	335
	GRT1{1}	162	295	1048	1101	-321	-122	52	347
	GRT2{1}	205	360	958	1044	-341	-87	65	358
	GRT3{1}	164	297	1053	1107	-321	-123	53	348
	GRT4{1}	160	298	1006	1061	-315	-115	53	339

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result

F_LINE_REV0.OUT									
D18	Gravity{1}	10	-5	48	49	-1	-4	0	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	152	300	993	1048	-292	-58	31	300
	Thermal 2{1}	195	365	903	993	-315	-29	39	318
	Thermal 3{1}	154	302	998	1054	-292	-59	31	300
	Thermal 4{1}	150	303	950	1008	-287	-54	31	294
	GRT1{1}	162	295	1041	1094	-293	-62	31	301
	GRT2{1}	205	360	951	1037	-316	-33	38	320
	GRT3{1}	164	297	1046	1100	-293	-63	31	302
	GRT4{1}	160	298	998	1054	-288	-57	31	295
D11	Gravity{1}	10	-5	40	42	0	0	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	152	300	993	1048	-260	10	5	260
	Thermal 2{1}	195	365	903	993	-286	33	7	288
	Thermal 3{1}	154	302	998	1054	-260	10	6	260
	Thermal 4{1}	150	303	950	1008	-256	12	6	257
	GRT1{1}	162	295	1033	1087	-260	10	5	260
	GRT2{1}	205	360	943	1030	-285	33	7	287
	GRT3{1}	164	297	1038	1092	-260	9	5	260
	GRT4{1}	160	298	991	1046	-256	12	5	256
D12 N	Gravity{1}	10	-5	37	38	1	1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	152	300	993	1048	-243	47	-8	248
	Thermal 2{1}	195	365	903	993	-270	67	-10	278
	Thermal 3{1}	154	302	998	1054	-243	47	-8	247
	Thermal 4{1}	150	303	950	1008	-240	47	-8	245
	GRT1{1}	162	295	1030	1083	-242	48	-9	247
	GRT2{1}	205	360	939	1027	-269	68	-10	277
	GRT3{1}	164	297	1035	1089	-242	48	-9	247
	GRT4{1}	160	298	987	1043	-239	48	-8	244
D12 F	Gravity{1}	10	-5	29	31	2	2	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	152	300	993	1048	-202	90	-28	223
	Thermal 2{1}	195	365	903	993	-227	103	-33	251
	Thermal 3{1}	154	302	998	1054	-201	90	-28	222
	Thermal 4{1}	150	303	950	1008	-200	88	-27	220
	GRT1{1}	162	295	1022	1076	-200	92	-28	222
	GRT2{1}	205	360	932	1020	-226	105	-34	251
	GRT3{1}	164	297	1027	1082	-200	92	-28	222
	GRT4{1}	160	298	979	1036	-198	90	-28	219

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
D13 N	Gravity{1}	10	-5	-13	17	-1	-3	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	152	300	993	1048	-53	14	-28	61
	Thermal 2{1}	195	365	903	993	-46	6	-33	57
	Thermal 3{1}	154	302	998	1054	-52	14	-28	60
	Thermal 4{1}	150	303	950	1008	-50	14	-27	58
	GRT1{1}	162	295	980	1036	-54	12	-28	62
	GRT2{1}	205	360	889	981	-47	3	-34	58
	GRT3{1}	164	297	985	1042	-53	11	-28	61
	GRT4{1}	160	298	937	996	-50	11	-28	59
D13 F	Gravity{1}	10	-5	-21	24	0	-3	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	152	300	993	1048	-91	18	-23	96
	Thermal 2{1}	195	365	903	993	-76	6	-27	81
	Thermal 3{1}	154	302	998	1054	-90	17	-23	95
	Thermal 4{1}	150	303	950	1008	-85	17	-23	90
	GRT1{1}	162	295	972	1029	-91	15	-23	95
	GRT2{1}	205	360	882	974	-76	2	-27	81
	GRT3{1}	164	297	977	1034	-90	14	-22	94
	GRT4{1}	160	298	929	989	-85	14	-22	89
D14	Gravity{1}	10	-5	-46	47	9	-6	3	11
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	152	300	993	1048	-375	81	2	384
	Thermal 2{1}	195	365	903	993	-334	63	6	340
	Thermal 3{1}	154	302	998	1054	-376	80	2	384
	Thermal 4{1}	150	303	950	1008	-357	77	1	366
	GRT1{1}	162	295	947	1005	-366	75	5	374
	GRT2{1}	205	360	857	951	-325	58	9	330
	GRT3{1}	164	297	952	1011	-367	75	6	374
	GRT4{1}	160	298	904	965	-348	72	4	355

F_LINE_REV0.OUT

D27	Gravity{1}	10	-5	-61	62	14	-7	4	16
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	152	300	993	1048	-462	100	9	472
	Thermal 2{1}	195	365	903	993	-413	81	16	421
	Thermal 3{1}	154	302	998	1054	-463	100	10	473
	Thermal 4{1}	150	303	950	1008	-440	96	8	450
	GRT1{1}	162	295	932	991	-448	94	14	457
	GRT2{1}	205	360	842	938	-399	74	20	406
	GRT3{1}	164	297	937	997	-449	93	14	458
	GRT4{1}	160	298	889	951	-426	89	12	435

*** Segment D end ***

*** Segment E begin ***

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F_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
D09	Gravity{1}	-1	-13	9	16	2	0	3	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-233	260	-312	468	-304	-90	-19	318
	Thermal 2{1}	-324	406	-370	638	-366	-132	-31	390
	Thermal 3{1}	-232	258	-319	471	-304	-92	-18	318
	Thermal 4{1}	-235	270	-314	477	-303	-92	-20	318
	GRT1{1}	-234	247	-303	455	-302	-90	-16	316
	GRT2{1}	-325	393	-362	625	-363	-133	-29	388
	GRT3{1}	-233	245	-310	459	-302	-92	-16	316
	GRT4{1}	-235	257	-306	464	-301	-93	-18	315
E06	Gravity{1}	-1	-13	2	13	2	0	2	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-233	260	-312	468	-296	-72	-10	305
	Thermal 2{1}	-324	406	-370	638	-356	-111	-17	373
	Thermal 3{1}	-232	258	-319	471	-296	-73	-10	305
	Thermal 4{1}	-235	270	-314	477	-295	-74	-11	304
	GRT1{1}	-234	247	-311	460	-294	-73	-8	303
	GRT2{1}	-325	393	-369	630	-353	-112	-15	371

		F_LINE_REV0.OUT							
	GRT3{1}	-233	245	-317	464	-293	-74	-8	303
	GRT4{1}	-235	257	-313	469	-293	-75	-9	302
E07	Gravity{1}	-1	-13	-6	14	2	0	1	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-233	260	-312	468	-286	-51	1	290
	Thermal 2{1}	-324	406	-370	638	-344	-86	1	354
	Thermal 3{1}	-232	258	-319	471	-285	-51	1	290
	Thermal 4{1}	-235	270	-314	477	-285	-53	0	290
	GRT1{1}	-234	247	-318	465	-284	-51	1	288
	GRT2{1}	-325	393	-377	634	-341	-86	2	352
	GRT3{1}	-233	245	-325	469	-283	-52	2	288
	GRT4{1}	-235	257	-321	474	-282	-53	1	287
E03 N	Gravity{1}	-1	-13	-10	16	3	0	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-233	260	-312	468	-281	-39	6	283
	Thermal 2{1}	-324	406	-370	638	-337	-72	10	345
	Thermal 3{1}	-232	258	-319	471	-280	-40	6	283
	Thermal 4{1}	-235	270	-314	477	-279	-41	6	282
	GRT1{1}	-234	247	-322	468	-278	-39	7	281
	GRT2{1}	-325	393	-380	636	-335	-72	11	343
	GRT3{1}	-233	245	-328	471	-277	-40	7	280
	GRT4{1}	-235	257	-324	476	-277	-41	7	280

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
E03 F	Gravity{1}	-1	-13	-17	22	2	1	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-233	260	-312	468	-258	-10	14	259
	Thermal 2{1}	-324	406	-370	638	-305	-34	24	308
	Thermal 3{1}	-232	258	-319	471	-257	-10	14	258
	Thermal 4{1}	-235	270	-314	477	-256	-11	15	257
	GRT1{1}	-234	247	-329	473	-256	-9	14	257
	GRT2{1}	-325	393	-388	641	-303	-33	23	306

		F_LINE_REV0.OUT							
	GRT3{1}	-233	245	-336	477	-255	-9	14	256
	GRT4{1}	-235	257	-332	481	-254	-10	14	255
E04 N	Gravity{1}	-1	-13	-60	61	-4	1	0	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-233	260	-312	468	-130	106	14	168
	Thermal 2{1}	-324	406	-370	638	-104	127	24	165
	Thermal 3{1}	-232	258	-319	471	-130	105	14	168
	Thermal 4{1}	-235	270	-314	477	-122	105	15	162
	GRT1{1}	-234	247	-372	503	-134	107	14	172
	GRT2{1}	-325	393	-430	667	-108	128	23	169
	GRT3{1}	-233	245	-378	507	-134	106	14	172
	GRT4{1}	-235	257	-374	512	-127	106	14	166
E04 F	Gravity{1}	-1	-13	-67	69	-2	-1	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-233	260	-312	468	-101	108	-6	148
	Thermal 2{1}	-324	406	-370	638	-64	132	-5	147
	Thermal 3{1}	-232	258	-319	471	-100	108	-5	147
	Thermal 4{1}	-235	270	-314	477	-92	108	-5	142
	GRT1{1}	-234	247	-379	509	-103	107	-5	148
	GRT2{1}	-325	393	-438	672	-66	131	-5	147
	GRT3{1}	-233	245	-386	513	-103	106	-5	148
	GRT4{1}	-235	257	-382	517	-95	107	-5	143
E05	Gravity{1}	-1	-13	-92	93	16	-15	2	23
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-233	260	-312	468	-28	52	-106	122
	Thermal 2{1}	-324	406	-370	638	23	66	-153	169
	Thermal 3{1}	-232	258	-319	471	-26	51	-106	120
	Thermal 4{1}	-235	270	-314	477	-19	51	-108	121
	GRT1{1}	-234	247	-404	528	-12	37	-104	111
	GRT2{1}	-325	393	-463	689	39	51	-151	164
	GRT3{1}	-233	245	-411	532	-10	35	-103	110
	GRT4{1}	-235	257	-407	536	-3	36	-106	112

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F_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)	MOMENTS (N.m)

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F_LINE_REV0.OUT

name	combination	X	Y	Z	Result	X	Y	Z	Result

E08	Gravity{1}	-1	-13	-107	108	23	-21	3	31
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-233	260	-312	468	-6	35	-137	141
	Thermal 2{1}	-324	406	-370	638	49	46	-198	209
	Thermal 3{1}	-232	258	-319	471	-4	33	-136	140
	Thermal 4{1}	-235	270	-314	477	3	34	-140	144
	GRT1{1}	-234	247	-419	540	18	15	-134	136
	GRT2{1}	-325	393	-478	699	72	25	-195	210
	GRT3{1}	-233	245	-426	544	20	13	-133	135
	GRT4{1}	-235	257	-422	547	26	14	-137	140

*** Segment E end ***

*** Segment F begin ***

C10	Gravity{1}	-55	36	370	376	25	40	-17	50
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-38	-361	-678	769	-148	-386	225	470
	Thermal 2{1}	-77	-419	-751	863	-154	-443	265	539
	Thermal 3{1}	730	-586	-227	963	-302	-384	361	608
	Thermal 4{1}	148	-272	-453	549	-136	-284	164	354
	GRT1{1}	-93	-324	-307	456	-123	-346	208	422
	GRT2{1}	-133	-382	-380	555	-129	-403	248	491
	GRT3{1}	675	-549	144	882	-277	-344	344	560
	GRT4{1}	93	-236	-82	267	-111	-243	147	305

F01 N	Gravity{1}	-55	36	358	365	20	32	-17	42
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-38	-361	-678	769	-97	-391	225	462
	Thermal 2{1}	-77	-419	-751	863	-95	-454	265	534
	Thermal 3{1}	730	-586	-227	963	-220	-281	361	508
	Thermal 4{1}	148	-272	-453	549	-98	-263	164	325
	GRT1{1}	-93	-324	-319	464	-78	-359	208	422
	GRT2{1}	-133	-382	-392	564	-76	-422	248	495
	GRT3{1}	675	-549	132	880	-200	-249	344	470
	GRT4{1}	93	-236	-94	271	-78	-230	147	284

F01 F	Gravity{1}	-55	36	351	357	18	9	-15	25
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-38	-361	-678	769	-77	-355	204	416
	Thermal 2{1}	-77	-419	-751	863	-71	-415	241	486
	Thermal 3{1}	730	-586	-227	963	-187	-227	328	440
	Thermal 4{1}	148	-272	-453	549	-82	-228	148	284
	GRT1{1}	-93	-324	-327	470	-59	-346	189	398

F_LINE_REV0.OUT

GRT2{1}	-133	-382	-400	569	-54	-406	227	468
GRT3{1}	675	-549	124	879	-169	-218	313	417
GRT4{1}	93	-236	-102	273	-65	-219	133	265

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F_LINE_REV0

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RESULT PAGE 136

G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
F17 -	Gravity{1}	-55	36	337	343	18	-47	-9	51
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-38	-361	-678	769	-77	-244	146	295
	Thermal 2{1}	-77	-419	-751	863	-71	-293	173	348
	Thermal 3{1}	730	-586	-227	963	-187	-190	233	354
	Thermal 4{1}	148	-272	-453	549	-82	-155	104	204
	GRT1{1}	-93	-324	-341	480	-59	-291	137	327
	GRT2{1}	-133	-382	-414	579	-54	-340	164	382
	GRT3{1}	675	-549	110	877	-169	-237	224	367
	GRT4{1}	93	-236	-116	279	-65	-202	95	232
F17 +	Gravity{1}	-55	36	88	110	18	-47	-9	51
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-38	-361	-678	769	-77	-244	146	295
	Thermal 2{1}	-77	-419	-751	863	-71	-293	173	348
	Thermal 3{1}	730	-586	-227	963	-187	-190	233	354
	Thermal 4{1}	148	-272	-453	549	-82	-155	104	204
	GRT1{1}	-93	-324	-590	680	-59	-291	137	327
	GRT2{1}	-133	-382	-663	777	-54	-340	164	382
	GRT3{1}	675	-549	-139	881	-169	-237	224	367
	GRT4{1}	93	-236	-365	445	-65	-202	95	232
F16 -	Gravity{1}	-55	36	56	87	18	-74	5	76
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-38	-361	-678	769	-77	8	11	78
	Thermal 2{1}	-77	-419	-751	863	-71	-14	18	75
	Thermal 3{1}	730	-586	-227	963	-187	-106	15	215
	Thermal 4{1}	148	-272	-453	549	-82	14	2	83
	GRT1{1}	-93	-324	-622	707	-59	-66	16	90

F_LINE_REV0.OUT

	GRT2{1}	-133	-382	-695	804	-54	-88	22	105
	GRT3{1}	675	-549	-171	887	-169	-179	19	247
	GRT4{1}	93	-236	-397	471	-65	-60	7	88
F16 +	Gravity{1}	-55	36	-193	204	18	-74	5	76
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-38	-361	-678	769	-77	8	11	78
	Thermal 2{1}	-77	-419	-751	863	-71	-14	18	75
	Thermal 3{1}	730	-586	-227	963	-187	-106	15	215
	Thermal 4{1}	148	-272	-453	549	-82	14	2	83
	GRT1{1}	-93	-324	-871	934	-59	-66	16	90
	GRT2{1}	-133	-382	-944	1027	-54	-88	22	105
	GRT3{1}	675	-549	-420	966	-169	-179	19	247
	GRT4{1}	93	-236	-646	694	-65	-60	7	88

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F_LINE_REV0

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RESULT PAGE 137

G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
F02 -	Gravity{1}	-55	36	-212	222	18	-29	13	36
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-38	-361	-678	769	-77	156	-68	187
	Thermal 2{1}	-77	-419	-751	863	-71	151	-74	183
	Thermal 3{1}	730	-586	-227	963	-187	-56	-114	226
	Thermal 4{1}	148	-272	-453	549	-82	113	-57	151
	GRT1{1}	-93	-324	-890	951	-59	127	-55	151
	GRT2{1}	-133	-382	-963	1044	-54	121	-62	146
	GRT3{1}	675	-549	-438	974	-169	-85	-101	215
	GRT4{1}	93	-236	-665	711	-65	84	-45	115
F02 +	Gravity{1}	-55	36	-336	343	18	-29	13	36
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-38	-361	-678	769	-77	156	-68	187
	Thermal 2{1}	-77	-419	-751	863	-71	151	-74	183
	Thermal 3{1}	730	-586	-227	963	-187	-56	-114	226
	Thermal 4{1}	148	-272	-453	549	-82	113	-57	151
	GRT1{1}	-93	-324	-1014	1069	-59	127	-55	151

F_LINE_REV0.OUT									
	GRT2{1}	-133	-382	-1087	1160	-54	121	-62	146
	GRT3{1}	675	-549	-563	1036	-169	-85	-101	215
	GRT4{1}	93	-236	-789	829	-65	84	-45	115
F02 M-	Gravity{1}	-55	36	-593	597	18	60	20	66
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-38	-361	-678	769	-77	287	-137	327
	Thermal 2{1}	-77	-419	-751	863	-71	295	-155	341
	Thermal 3{1}	730	-586	-227	963	-187	-12	-226	294
	Thermal 4{1}	148	-272	-453	549	-82	200	-110	242
	GRT1{1}	-93	-324	-1271	1315	-59	347	-117	371
	GRT2{1}	-133	-382	-1344	1404	-54	355	-135	384
	GRT3{1}	675	-549	-820	1196	-169	48	-207	271
	GRT4{1}	93	-236	-1046	1077	-65	260	-90	283
F02 M+	Gravity{1}	-55	36	351	357	18	60	20	66
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-38	-361	-522	635	-77	287	-137	327
	Thermal 2{1}	-77	-419	-584	723	-71	295	-155	341
	Thermal 3{1}	730	-586	-37	937	-187	-12	-226	294
	Thermal 4{1}	148	-272	-318	444	-82	200	-110	242
	GRT1{1}	-93	-324	-171	378	-59	347	-117	371
	GRT2{1}	-133	-382	-233	467	-54	355	-135	384
	GRT3{1}	675	-549	314	925	-169	48	-207	271
	GRT4{1}	93	-236	33	256	-65	260	-90	283

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F_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
F12 -	Gravity{1}	-55	36	94	115	18	17	27	36
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-38	-361	-522	635	-77	387	-206	445
	Thermal 2{1}	-77	-419	-584	723	-71	407	-235	475
	Thermal 3{1}	730	-586	-37	937	-187	-5	-339	387
	Thermal 4{1}	148	-272	-318	444	-82	261	-162	318
	GRT1{1}	-93	-324	-428	545	-59	404	-180	446

F_LINE_REV0.OUT									
	GRT2{1}	-133	-382	-490	636	-54	424	-209	476
	GRT3{1}	675	-549	57	872	-169	12	-312	355
	GRT4{1}	93	-236	-224	338	-65	278	-135	316
F12 +	Gravity{1}	-55	36	-31	73	18	17	27	36
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-38	-361	-522	635	-77	387	-206	445
	Thermal 2{1}	-77	-419	-584	723	-71	407	-235	475
	Thermal 3{1}	730	-586	-37	937	-187	-5	-339	387
	Thermal 4{1}	148	-272	-318	444	-82	261	-162	318
	GRT1{1}	-93	-324	-552	647	-59	404	-180	446
	GRT2{1}	-133	-382	-615	736	-54	424	-209	476
	GRT3{1}	675	-549	-68	873	-169	12	-312	355
	GRT4{1}	93	-236	-348	431	-65	278	-135	316
F13	Gravity{1}	-55	36	-39	77	18	21	31	41
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-38	-361	-522	635	-77	445	-246	514
	Thermal 2{1}	-77	-419	-584	723	-71	472	-282	554
	Thermal 3{1}	730	-586	-37	937	-187	-1	-404	445
	Thermal 4{1}	148	-272	-318	444	-82	296	-192	363
	GRT1{1}	-93	-324	-561	654	-59	466	-216	517
	GRT2{1}	-133	-382	-623	743	-54	493	-251	556
	GRT3{1}	675	-549	-76	874	-169	20	-373	410
	GRT4{1}	93	-236	-357	438	-65	318	-162	362
F05	Gravity{1}	-55	36	-52	84	18	25	34	46
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-38	-361	-522	635	-77	491	-278	570
	Thermal 2{1}	-77	-419	-584	723	-71	524	-319	618
	Thermal 3{1}	730	-586	-37	937	-187	2	-456	493
	Thermal 4{1}	148	-272	-318	444	-82	325	-217	399
	GRT1{1}	-93	-324	-573	665	-59	517	-245	575
	GRT2{1}	-133	-382	-636	754	-54	549	-285	621
	GRT3{1}	675	-549	-89	875	-169	28	-422	456
	GRT4{1}	93	-236	-370	448	-65	350	-183	400

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F_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

F_LINE_REV0.OUT

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

F20 -	Gravity{1}	-55	36	-118	135	18	51	45	71
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-38	-361	-522	635	-77	653	-390	764
	Thermal 2{1}	-77	-419	-584	723	-71	705	-449	838
	Thermal 3{1}	730	-586	-37	937	-187	14	-637	664
	Thermal 4{1}	148	-272	-318	444	-82	423	-301	526
	GRT1{1}	-93	-324	-640	723	-59	704	-345	786
	GRT2{1}	-133	-382	-703	811	-54	756	-404	859
	GRT3{1}	675	-549	-156	884	-169	65	-592	619
	GRT4{1}	93	-236	-436	504	-65	474	-256	543
F20 +	Gravity{1}	-55	-39	16	69	18	51	45	71
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-38	246	382	456	-77	653	-390	764
	Thermal 2{1}	-77	277	429	517	-71	705	-449	838
	Thermal 3{1}	730	5166	-195	5221	-187	14	-637	664
	Thermal 4{1}	148	1125	364	1191	-82	423	-301	526
	GRT1{1}	-93	208	398	459	-59	704	-345	786
	GRT2{1}	-133	239	445	522	-54	756	-404	859
	GRT3{1}	675	5128	-179	5175	-169	65	-592	619
	GRT4{1}	93	1086	381	1155	-65	474	-256	543
F06 N	Gravity{1}	-55	-39	-33	75	18	53	36	67
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-38	246	382	456	-77	565	-334	661
	Thermal 2{1}	-77	277	429	517	-71	606	-385	722
	Thermal 3{1}	730	5166	-195	5221	-187	59	547	581
	Thermal 4{1}	148	1125	364	1191	-82	339	-43	352
	GRT1{1}	-93	208	349	417	-59	618	-297	689
	GRT2{1}	-133	239	396	481	-54	660	-349	748
	GRT3{1}	675	5128	-228	5177	-169	112	583	618
	GRT4{1}	93	1086	331	1139	-65	393	-7	398
F06 F	Gravity{1}	-55	-39	-63	92	22	58	28	68
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-38	246	382	456	-106	524	-310	618
	Thermal 2{1}	-77	277	429	517	-104	560	-361	675
	Thermal 3{1}	730	5166	-195	5221	-172	80	1157	1172
	Thermal 4{1}	148	1125	364	1191	-110	300	89	332
	GRT1{1}	-93	208	319	392	-84	582	-282	652

		F_LINE_REV0.OUT						
GRT2{1}	-133	239	366	457	-82	619	-333	707
GRT3{1}	675	5128	-258	5178	-150	138	1185	1202
GRT4{1}	93	1086	301	1131	-88	359	117	387

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RESULT PAGE 140

G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
F19 -	Gravity{1}	-55	-39	-165	178	72	77	-3	106
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-38	246	382	456	-276	462	-287	610
	Thermal 2{1}	-77	277	429	517	-294	491	-350	671
	Thermal 3{1}	730	5166	-195	5221	-85	111	2317	2322
	Thermal 4{1}	148	1125	364	1191	-272	241	337	495
	GRT1{1}	-93	208	217	315	-203	539	-290	645
	GRT2{1}	-133	239	264	380	-222	568	-353	705
	GRT3{1}	675	5128	-360	5184	-13	188	2314	2322
	GRT4{1}	93	1086	199	1108	-199	318	334	502
F19 +	Gravity{1}	27	-9	275	276	72	77	-3	106
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	19	267	229	352	-276	462	-287	610
	Thermal 2{1}	38	319	243	403	-294	491	-350	671
	Thermal 3{1}	-9644	1390	-635	9764	-85	111	2317	2322
	Thermal 4{1}	-1887	384	-75	1927	-272	241	337	495
	GRT1{1}	46	258	504	568	-203	539	-290	645
	GRT2{1}	65	311	518	607	-222	568	-353	705
	GRT3{1}	-9617	1381	-360	9723	-13	188	2314	2322
	GRT4{1}	-1860	375	199	1908	-199	318	334	502
F07 N	Gravity{1}	27	-9	173	175	-27	41	8	49
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	19	267	229	352	-377	425	-235	615
	Thermal 2{1}	38	319	243	403	-402	452	-282	667
	Thermal 3{1}	-9644	1390	-635	9764	197	214	-1745	1769
	Thermal 4{1}	-1887	384	-75	1927	-238	253	-440	561
	GRT1{1}	46	258	402	480	-404	466	-228	657

		F_LINE_REV0.OUT							
	GRT2{1}	65	311	416	523	-429	492	-274	708
	GRT3{1}	-9617	1381	-462	9727	170	255	-1738	1764
	GRT4{1}	-1860	375	98	1900	-265	294	-432	586
F07 F	Gravity{1}	27	-9	143	146	-39	24	9	47
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	19	267	229	352	-395	400	-205	598
	Thermal 2{1}	38	319	243	403	-421	425	-245	646
	Thermal 3{1}	-9644	1390	-635	9764	245	282	-2321	2351
	Thermal 4{1}	-1887	384	-75	1927	-232	262	-541	644
	GRT1{1}	46	258	372	455	-434	424	-197	638
	GRT2{1}	65	311	386	499	-460	449	-236	685
	GRT3{1}	-9617	1381	-492	9729	205	306	-2313	2342
	GRT4{1}	-1860	375	67	1899	-272	285	-532	662

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F_LINE_REV0

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RESULT PAGE 141

G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
F08 N	Gravity{1}	27	-9	-111	115	-39	5	-2	40
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	19	267	229	352	-395	130	110	430
	Thermal 2{1}	38	319	243	403	-421	139	132	462
	Thermal 3{1}	-9644	1390	-635	9764	245	1032	-681	1260
	Thermal 4{1}	-1887	384	-75	1927	-232	351	-88	430
	GRT1{1}	46	258	118	287	-434	135	108	467
	GRT2{1}	65	311	132	344	-460	144	131	499
	GRT3{1}	-9617	1381	-746	9745	205	1037	-683	1258
	GRT4{1}	-1860	375	-186	1907	-272	356	-89	456
F08 F	Gravity{1}	27	-9	-137	140	-47	17	-4	50
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	19	267	229	352	-381	108	135	419
	Thermal 2{1}	38	319	243	403	-407	115	162	453
	Thermal 3{1}	-9644	1390	-635	9764	208	1094	8	1114
	Thermal 4{1}	-1887	384	-75	1927	-237	358	58	433
	GRT1{1}	46	258	92	278	-428	125	131	465

		F_LINE_REV0.OUT							
	GRT2{1}	65	311	106	335	-453	132	158	498
	GRT3{1}	-9617	1381	-772	9747	162	1112	4	1123
	GRT4{1}	-1860	375	-212	1909	-283	375	54	473
F14	Gravity{1}	27	-9	-209	211	-97	46	-13	108
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	19	267	229	352	-315	69	174	367
	Thermal 2{1}	38	319	243	403	-337	75	204	401
	Thermal 3{1}	-9644	1390	-635	9764	25	1200	3030	3259
	Thermal 4{1}	-1887	384	-75	1927	-259	371	668	807
	GRT1{1}	46	258	20	263	-412	115	161	457
	GRT2{1}	65	311	34	319	-433	121	191	488
	GRT3{1}	-9617	1381	-844	9753	-72	1246	3016	3265
	GRT4{1}	-1860	375	-284	1919	-355	417	655	854
F10	Gravity{1}	27	-9	-235	237	-116	57	-16	130
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	19	267	229	352	-295	58	186	354
	Thermal 2{1}	38	319	243	403	-315	62	217	388
	Thermal 3{1}	-9644	1390	-635	9764	-31	1233	3949	4137
	Thermal 4{1}	-1887	384	-75	1927	-265	375	854	969
	GRT1{1}	46	258	-6	262	-411	115	170	460
	GRT2{1}	65	311	8	317	-431	120	201	491
	GRT3{1}	-9617	1381	-870	9755	-147	1290	3933	4142
	GRT4{1}	-1860	375	-311	1923	-381	432	838	1017

0

F_LINE_REV0

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RESULT PAGE 142

G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
F11	Gravity{1}	27	-9	-332	334	-195	103	-25	221
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	19	267	229	352	-232	21	223	323
	Thermal 2{1}	38	319	243	403	-248	24	257	358
	Thermal 3{1}	-9644	1390	-635	9764	-207	1334	6836	6968
	Thermal 4{1}	-1887	384	-75	1927	-286	387	1436	1515
	GRT1{1}	46	258	-103	282	-426	124	198	486

			F_LINE_REV0.OUT						
GRT2{1}	65	311	-90	330	-443	126	233	516	
GRT3{1}	-9617	1381	-967	9764	-401	1437	6811	6972	
GRT4{1}	-1860	375	-408	1941	-481	489	1411	1569	

*** Segment F end ***

*** Segment G begin ***

C07	Gravity{1}	20	12	254	255	-4	-2	-9	9
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-830	-162	-164	862	-163	41	98	194
	Thermal 2{1}	-1180	-194	-205	1213	-171	51	111	211
	Thermal 3{1}	-2226	372	-331	2281	-133	74	-108	186
	Thermal 4{1}	-506	8	-73	511	-141	41	22	149
	GRT1{1}	-811	-151	89	829	-166	39	89	193
	GRT2{1}	-1160	-182	48	1175	-175	49	103	209
	GRT3{1}	-2206	383	-77	2241	-136	72	-116	193
	GRT4{1}	-486	19	181	519	-145	40	13	151
G01 N	Gravity{1}	20	12	242	243	-5	1	-9	10
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-830	-162	-164	862	-140	-75	98	186
	Thermal 2{1}	-1180	-194	-205	1213	-144	-115	111	215
	Thermal 3{1}	-2226	372	-331	2281	-185	-238	-108	320
	Thermal 4{1}	-506	8	-73	511	-142	-29	22	147
	GRT1{1}	-811	-151	78	828	-145	-74	89	186
	GRT2{1}	-1160	-182	36	1175	-150	-114	103	214
	GRT3{1}	-2206	383	-89	2241	-190	-237	-116	325
	GRT4{1}	-486	19	169	515	-148	-28	13	151
G01 F	Gravity{1}	20	12	234	235	-6	-11	-8	15
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-830	-162	-164	862	-131	-113	88	194
	Thermal 2{1}	-1180	-194	-205	1213	-133	-170	100	238
	Thermal 3{1}	-2226	372	-331	2281	-206	-346	-87	412
	Thermal 4{1}	-506	8	-73	511	-143	-54	22	154
	GRT1{1}	-811	-151	70	827	-137	-125	81	202
	GRT2{1}	-1160	-182	29	1175	-139	-182	93	247
	GRT3{1}	-2206	383	-97	2241	-212	-358	-94	426
	GRT4{1}	-486	19	161	512	-149	-66	15	163

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F_LINE_REV0.OUT
G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

G16 -	Gravity{1}	20	12	220	221	-6	-48	-6	49
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-830	-162	-164	862	-131	-87	62	169
	Thermal 2{1}	-1180	-194	-205	1213	-133	-137	69	203
	Thermal 3{1}	-2226	372	-331	2281	-206	-293	-26	359
	Thermal 4{1}	-506	8	-73	511	-143	-42	24	151
	GRT1{1}	-811	-151	56	826	-137	-135	56	200
	GRT2{1}	-1160	-182	15	1175	-139	-185	63	240
	GRT3{1}	-2206	383	-111	2242	-212	-341	-32	403
	GRT4{1}	-486	19	147	508	-149	-91	18	175
G16 +	Gravity{1}	20	12	-29	37	-6	-48	-6	49
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-830	-162	-164	862	-131	-87	62	169
	Thermal 2{1}	-1180	-194	-205	1213	-133	-137	69	203
	Thermal 3{1}	-2226	372	-331	2281	-206	-293	-26	359
	Thermal 4{1}	-506	8	-73	511	-143	-42	24	151
	GRT1{1}	-811	-151	-193	847	-137	-135	56	200
	GRT2{1}	-1160	-182	-234	1198	-139	-185	63	240
	GRT3{1}	-2206	383	-360	2268	-212	-341	-32	403
	GRT4{1}	-486	19	-102	497	-149	-91	18	175
G14	Gravity{1}	20	12	-45	50	-6	-41	-4	42
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-830	-162	-164	862	-131	-56	32	146
	Thermal 2{1}	-1180	-194	-205	1213	-133	-99	33	169
	Thermal 3{1}	-2226	372	-331	2281	-206	-231	43	313
	Thermal 4{1}	-506	8	-73	511	-143	-29	25	148
	GRT1{1}	-811	-151	-209	850	-137	-97	28	170
	GRT2{1}	-1160	-182	-250	1201	-139	-140	29	200
	GRT3{1}	-2206	383	-376	2271	-212	-273	39	347
	GRT4{1}	-486	19	-118	500	-149	-70	21	166
G15 -	Gravity{1}	20	12	-61	65	-6	-32	-2	32
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-830	-162	-164	862	-131	-26	2	133
	Thermal 2{1}	-1180	-194	-205	1213	-133	-61	-3	146
	Thermal 3{1}	-2226	372	-331	2281	-206	-170	112	289
	Thermal 4{1}	-506	8	-73	511	-143	-15	27	146

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GRT1{1}	-811	-151	-225	855	-137	-57	0	148
GRT2{1}	-1160	-182	-266	1204	-139	-92	-5	167
GRT3{1}	-2206	383	-391	2273	-212	-201	110	312
GRT4{1}	-486	19	-134	504	-149	-47	25	158

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

G15	+ Gravity{1}	20	12	-310	311	-6	-32	-2	32
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-830	-162	-164	862	-131	-26	2	133
	Thermal 2{1}	-1180	-194	-205	1213	-133	-61	-3	146
	Thermal 3{1}	-2226	372	-331	2281	-206	-170	112	289
	Thermal 4{1}	-506	8	-73	511	-143	-15	27	146
	GRT1{1}	-811	-151	-474	951	-137	-57	0	148
	GRT2{1}	-1160	-182	-515	1282	-139	-92	-5	167
	GRT3{1}	-2206	383	-641	2329	-212	-201	110	312
	GRT4{1}	-486	19	-383	619	-149	-47	25	158
G02	- Gravity{1}	20	12	-329	329	-6	39	1	39
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-830	-162	-164	862	-131	10	-34	135
	Thermal 2{1}	-1180	-194	-205	1213	-133	-16	-46	142
	Thermal 3{1}	-2226	372	-331	2281	-206	-97	194	299
	Thermal 4{1}	-506	8	-73	511	-143	1	28	145
	GRT1{1}	-811	-151	-493	960	-137	49	-33	149
	GRT2{1}	-1160	-182	-534	1290	-139	23	-45	148
	GRT3{1}	-2206	383	-659	2334	-212	-58	195	294
	GRT4{1}	-486	19	-402	631	-149	39	29	157
G02	+ Gravity{1}	20	12	-453	454	-6	39	1	39
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-830	-162	-164	862	-131	10	-34	135
	Thermal 2{1}	-1180	-194	-205	1213	-133	-16	-46	142
	Thermal 3{1}	-2226	372	-331	2281	-206	-97	194	299
	Thermal 4{1}	-506	8	-73	511	-143	1	28	145

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	GRT1{1}	-811	-151	-617	1030	-137	49	-33	149
	GRT2{1}	-1160	-182	-658	1346	-139	23	-45	148
	GRT3{1}	-2206	383	-784	2372	-212	-58	195	294
	GRT4{1}	-486	19	-526	717	-149	39	29	157
G02 M-	Gravity{1}	20	12	-710	711	-6	150	3	150
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-830	-162	-164	862	-131	42	-65	152
	Thermal 2{1}	-1180	-194	-205	1213	-133	24	-83	158
	Thermal 3{1}	-2226	372	-331	2281	-206	-34	265	337
	Thermal 4{1}	-506	8	-73	511	-143	15	30	146
	GRT1{1}	-811	-151	-874	1202	-137	192	-62	244
	GRT2{1}	-1160	-182	-915	1489	-139	174	-80	237
	GRT3{1}	-2206	383	-1041	2469	-212	117	268	361
	GRT4{1}	-486	19	-783	922	-149	165	33	225

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
G02 M+	Gravity{1}	20	12	537	537	-6	150	3	150
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-830	-162	-164	862	-131	42	-65	152
	Thermal 2{1}	-1180	-194	-205	1213	-133	24	-83	158
	Thermal 3{1}	-2226	372	-331	2281	-206	-34	265	337
	Thermal 4{1}	-506	8	-73	511	-143	15	30	146
	GRT1{1}	-811	-151	373	905	-137	192	-62	244
	GRT2{1}	-1160	-182	331	1220	-139	174	-80	237
	GRT3{1}	-2206	383	206	2249	-212	117	268	361
	GRT4{1}	-486	19	464	672	-149	165	33	225
G11 -	Gravity{1}	20	12	280	280	-6	72	5	72
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-830	-162	-164	862	-131	73	-96	178
	Thermal 2{1}	-1180	-194	-205	1213	-133	63	-120	190
	Thermal 3{1}	-2226	372	-331	2281	-206	30	336	396
	Thermal 4{1}	-506	8	-73	511	-143	29	31	149

GRT1{1}	-811	-151	115	832	-137	145	-91	219
GRT2{1}	-1160	-182	74	1177	-139	135	-114	225
GRT3{1}	-2206	383	-51	2240	-212	102	342	415
GRT4{1}	-486	19	206	528	-149	101	37	183

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	GRT1{1}	-811	-151	-30	825	-137	149	-121	236
	GRT2{1}	-1160	-182	-71	1177	-139	147	-151	252
	GRT3{1}	-2206	383	-197	2248	-212	139	418	489
	GRT4{1}	-486	19	61	490	-149	86	41	177
G18	Gravity{1}	20	12	26	34	-6	3	14	15
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-830	-162	-164	862	-131	189	-210	311
	Thermal 2{1}	-1180	-194	-205	1213	-133	208	-256	355
	Thermal 3{1}	-2226	372	-331	2281	-206	263	598	685
	Thermal 4{1}	-506	8	-73	511	-143	80	37	168
	GRT1{1}	-811	-151	-139	836	-137	191	-197	307
	GRT2{1}	-1160	-182	-180	1188	-139	210	-243	350
	GRT3{1}	-2206	383	-305	2260	-212	265	611	699
	GRT4{1}	-486	19	-48	489	-149	83	50	177
G06 N	Gravity{1}	20	12	-66	69	-6	11	18	22
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-830	-162	-164	862	-131	258	-279	402
	Thermal 2{1}	-1180	-194	-205	1213	-133	294	-338	468
	Thermal 3{1}	-2226	372	-331	2281	-206	403	755	880
	Thermal 4{1}	-506	8	-73	511	-143	111	40	185
	GRT1{1}	-811	-151	-230	856	-137	269	-260	399
	GRT2{1}	-1160	-182	-271	1205	-139	305	-320	463
	GRT3{1}	-2206	383	-396	2274	-212	414	774	903
	GRT4{1}	-486	19	-139	506	-149	122	58	201
G06 F	Gravity{1}	20	12	-96	98	0	19	21	29
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-830	-162	-164	862	-118	276	-359	468
	Thermal 2{1}	-1180	-194	-205	1213	-118	316	-448	561
	Thermal 3{1}	-2226	372	-331	2281	-181	438	628	787
	Thermal 4{1}	-506	8	-73	511	-137	119	3	182
	GRT1{1}	-811	-151	-260	864	-118	295	-338	464
	GRT2{1}	-1160	-182	-301	1212	-117	336	-426	555
	GRT3{1}	-2206	383	-426	2279	-181	458	649	814
	GRT4{1}	-486	19	-169	515	-137	139	24	196

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F_LINE_REV0.OUT
G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

G17 -	Gravity{1}	20	12	-201	202	68	44	32	88
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-830	-162	-164	862	-43	304	-767	826
	Thermal 2{1}	-1180	-194	-205	1213	-23	351	-1022	1081
	Thermal 3{1}	-2226	372	-331	2281	-29	494	-333	596
	Thermal 4{1}	-506	8	-73	511	-104	131	-228	283
	GRT1{1}	-811	-151	-365	902	26	348	-735	814
	GRT2{1}	-1160	-182	-406	1243	45	395	-990	1067
	GRT3{1}	-2206	383	-532	2301	39	538	-301	617
	GRT4{1}	-486	19	-274	558	-35	176	-196	265
G17 +	Gravity{1}	-61	-18	217	226	68	44	32	88
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1271	602	284	1435	-43	304	-767	826
	Thermal 2{1}	1657	839	353	1890	-23	351	-1022	1081
	Thermal 3{1}	-1811	523	-748	2028	-29	494	-333	596
	Thermal 4{1}	-34	180	-491	523	-104	131	-228	283
	GRT1{1}	1210	585	500	1434	26	348	-735	814
	GRT2{1}	1596	821	569	1883	45	395	-990	1067
	GRT3{1}	-1871	505	-532	2010	39	538	-301	617
	GRT4{1}	-94	162	-274	332	-35	176	-196	265
G07 N	Gravity{1}	-61	-18	119	134	-3	18	3	19
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1271	602	284	1435	-164	259	-131	334
	Thermal 2{1}	1657	839	353	1890	-174	296	-184	389
	Thermal 3{1}	-1811	523	-748	2028	291	610	-1025	1228
	Thermal 4{1}	-34	180	-491	523	106	208	-215	317
	GRT1{1}	1210	585	402	1403	-167	278	-127	348
	GRT2{1}	1596	821	471	1856	-177	314	-180	403
	GRT3{1}	-1871	505	-630	2038	287	628	-1022	1233
	GRT4{1}	-94	162	-372	416	103	226	-211	326
G07 F	Gravity{1}	-61	-18	80	102	-11	4	-3	12
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1271	602	284	1435	-183	218	44	288
	Thermal 2{1}	1657	839	353	1890	-198	244	52	319
	Thermal 3{1}	-1811	523	-748	2028	342	720	-1072	1336
	Thermal 4{1}	-34	180	-491	523	140	280	-191	366

		F_LINE_REV0.OUT						
GRT1{1}	1210	585	364	1392	-194	222	41	298
GRT2{1}	1596	821	433	1846	-209	248	49	328
GRT3{1}	-1871	505	-668	2050	331	724	-1076	1338
GRT4{1}	-94	162	-410	451	129	283	-194	367

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
G13	Gravity{1}	-61	-18	-24	68	-6	-9	-1	11
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1271	602	284	1435	-136	88	108	195
	Thermal 2{1}	1657	839	353	1890	-140	83	160	228
	Thermal 3{1}	-1811	523	-748	2028	217	1061	-533	1207
	Thermal 4{1}	-34	180	-491	523	58	503	-103	517
	GRT1{1}	1210	585	259	1369	-142	80	107	195
	GRT2{1}	1596	821	328	1824	-146	75	159	228
	GRT3{1}	-1871	505	-773	2087	211	1052	-534	1199
	GRT4{1}	-94	162	-515	548	52	495	-104	508
G09	Gravity{1}	-61	-18	-51	81	-7	-5	-1	9
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1271	602	284	1435	-126	61	122	186
	Thermal 2{1}	1657	839	353	1890	-127	50	182	228
	Thermal 3{1}	-1811	523	-748	2028	191	1133	-420	1223
	Thermal 4{1}	-34	180	-491	523	41	550	-85	558
	GRT1{1}	1210	585	233	1364	-134	56	121	189
	GRT2{1}	1596	821	302	1820	-135	45	182	230
	GRT3{1}	-1871	505	-799	2097	184	1127	-421	1218
	GRT4{1}	-94	162	-541	573	34	545	-86	553
G10	Gravity{1}	-61	-18	-174	185	-23	37	1	44
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1271	602	284	1435	-87	-46	175	201
	Thermal 2{1}	1657	839	353	1890	-79	-84	272	295
	Thermal 3{1}	-1811	523	-748	2028	88	1416	27	1419
	Thermal 4{1}	-34	180	-491	523	-26	736	-12	736

		F_LINE_REV0.OUT						
GRT1{1}	1210	585	110	1348	-110	-9	175	207
GRT2{1}	1596	821	179	1804	-102	-46	272	294
GRT3{1}	-1871	505	-922	2146	66	1453	28	1455
GRT4{1}	-94	162	-664	690	-49	773	-11	775

*** Segment G end ***

*** Segment K begin ***

B06	Gravity{1}	0	4	55	56	-2	0	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	-26	35	43	19	0	0	19
	Thermal 2{1}	0	-50	20	54	40	0	-1	40
	Thermal 3{1}	0	-18	11	21	15	0	0	15
	Thermal 4{1}	0	-9	4	10	-2	0	0	2
	GRT1{1}	0	-22	90	93	17	0	0	17
	GRT2{1}	0	-46	75	88	38	0	-1	38
	GRT3{1}	0	-14	66	68	13	0	0	13
	GRT4{1}	0	-5	60	60	-4	0	0	4

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
K01	Gravity{1}	0	4	52	52	-1	0	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	-26	35	43	18	0	0	18
	Thermal 2{1}	0	-50	20	54	38	0	-1	38
	Thermal 3{1}	0	-18	11	21	14	0	0	14
	Thermal 4{1}	0	-9	4	10	-2	0	0	2
	GRT1{1}	0	-22	87	89	16	0	0	16
	GRT2{1}	0	-46	72	85	36	0	-1	36
	GRT3{1}	0	-14	63	64	12	0	0	12
	GRT4{1}	0	-5	56	56	-4	0	0	4
K15	Gravity{1}	0	4	48	48	-1	0	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	-26	35	43	16	0	0	16
	Thermal 2{1}	0	-50	20	54	34	0	-1	34

		F_LINE_REV0.OUT						
	Thermal 3{1}	0	-18	11	21	13	0	13
	Thermal 4{1}	0	-9	4	10	-3	0	3
	GRT1{1}	0	-22	83	86	15	0	15
	GRT2{1}	0	-46	68	82	33	0	33
	GRT3{1}	0	-14	59	61	11	0	11
	GRT4{1}	0	-5	52	53	-4	0	4
K22 -	Gravity{1}	0	4	3	5	4	0	4
	Hydrotest{1}	0	0	0	0	0	0	0
	Thermal 1{1}	0	-26	35	43	-20	0	20
	Thermal 2{1}	0	-50	20	54	-35	0	35
	Thermal 3{1}	0	-18	11	21	-12	0	12
	Thermal 4{1}	0	-9	4	10	-16	0	16
	GRT1{1}	0	-22	37	43	-15	0	15
	GRT2{1}	0	-46	23	51	-31	0	31
	GRT3{1}	0	-14	14	19	-8	0	8
	GRT4{1}	0	-5	7	9	-12	0	12
K22 +	Gravity{1}	0	-7	3	7	4	0	4
	Hydrotest{1}	0	0	0	0	0	0	0
	Thermal 1{1}	0	-2	35	35	-20	0	20
	Thermal 2{1}	0	40	20	44	-35	0	35
	Thermal 3{1}	0	0	11	11	-12	0	12
	Thermal 4{1}	0	38	4	38	-16	0	16
	GRT1{1}	0	-9	37	38	-15	0	15
	GRT2{1}	0	33	23	40	-31	0	31
	GRT3{1}	0	-7	14	15	-8	0	8
	GRT4{1}	0	31	7	32	-12	0	12

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
K03 N	Gravity{1}	0	-7	-12	14	1	0	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	-2	35	35	-21	0	0	21
	Thermal 2{1}	0	40	20	44	-17	0	-1	17

		F_LINE_REV0.OUT							
	Thermal 3{1}	0	0	11	11	-12	0	0	12
	Thermal 4{1}	0	38	4	38	2	0	0	2
	GRT1{1}	0	-9	22	24	-20	0	0	20
	GRT2{1}	0	33	8	34	-16	0	-1	16
	GRT3{1}	0	-7	-1	7	-11	0	0	11
	GRT4{1}	0	31	-8	32	3	0	0	3
K03 F	Gravity{1}	0	-7	-14	15	1	0	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	-2	35	35	-20	0	0	20
	Thermal 2{1}	0	40	20	44	-16	0	-1	16
	Thermal 3{1}	0	0	11	11	-12	0	0	12
	Thermal 4{1}	0	38	4	38	2	0	0	2
	GRT1{1}	0	-9	21	23	-19	0	0	19
	GRT2{1}	0	33	6	34	-15	0	-1	15
	GRT3{1}	0	-7	-3	7	-11	0	0	11
	GRT4{1}	0	31	-9	33	3	0	0	3
K17	Gravity{1}	0	-7	-20	21	-3	0	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	-2	35	35	-13	0	0	13
	Thermal 2{1}	0	40	20	44	-12	0	0	12
	Thermal 3{1}	0	0	11	11	-10	0	0	10
	Thermal 4{1}	0	38	4	38	3	0	0	3
	GRT1{1}	0	-9	15	17	-16	0	0	16
	GRT2{1}	0	33	0	33	-14	0	0	14
	GRT3{1}	0	-7	-9	11	-12	0	0	12
	GRT4{1}	0	31	-16	35	1	0	0	1
K16	Gravity{1}	0	-7	-21	22	-3	0	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	-2	35	35	-12	0	0	12
	Thermal 2{1}	0	40	20	44	-11	0	0	11
	Thermal 3{1}	0	0	11	11	-9	0	0	9
	Thermal 4{1}	0	38	4	38	3	0	0	3
	GRT1{1}	0	-9	13	16	-15	0	0	15
	GRT2{1}	0	33	-1	33	-14	0	0	14
	GRT3{1}	0	-7	-10	12	-13	0	0	13
	GRT4{1}	0	31	-17	36	0	0	0	0

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
K16 M	Gravity{1}	0	-7	-35	35	-5	0	0	5
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	-2	35	35	-10	0	0	10
	Thermal 2{1}	0	40	20	44	-10	0	0	10
	Thermal 3{1}	0	0	11	11	-9	0	0	9
	Thermal 4{1}	0	38	4	38	4	0	0	4
	GRT1{1}	0	-9	0	9	-15	0	0	15
	GRT2{1}	0	33	-15	36	-15	0	0	15
	GRT3{1}	0	-7	-24	25	-14	0	0	14
	GRT4{1}	0	31	-30	44	-1	0	0	1
CH09	Gravity{1}	0	-7	-48	48	-7	0	0	7
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	-2	35	35	-8	0	0	8
	Thermal 2{1}	0	40	20	44	-9	0	0	9
	Thermal 3{1}	0	0	11	11	-8	0	0	8
	Thermal 4{1}	0	38	4	38	4	0	0	4
	GRT1{1}	0	-9	-13	16	-15	0	0	15
	GRT2{1}	0	33	-28	43	-16	0	0	16
	GRT3{1}	0	-7	-37	38	-15	0	0	15
	GRT4{1}	0	31	-44	54	-3	0	0	3
K18	Gravity{1}	0	-7	-49	50	-9	0	0	9
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	-2	35	35	-7	0	0	7
	Thermal 2{1}	0	40	20	44	-8	0	0	8
	Thermal 3{1}	0	0	11	11	-8	0	0	8
	Thermal 4{1}	0	38	4	38	4	0	0	4
	GRT1{1}	0	-9	-15	17	-16	0	0	16
	GRT2{1}	0	33	-29	44	-17	0	0	17
	GRT3{1}	0	-7	-38	39	-17	0	0	17
	GRT4{1}	0	31	-45	55	-5	0	0	5
K08 -	Gravity{1}	0	-7	-52	52	-13	0	0	13
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	-2	35	35	-4	0	0	4
	Thermal 2{1}	0	40	20	44	-7	0	0	7
	Thermal 3{1}	0	0	11	11	-7	0	0	7

F_LINE_REV0.OUT

Thermal 4{1}	0	38	4	38	4	0	0	4
GRT1{1}	0	-9	-17	19	-17	0	0	17
GRT2{1}	0	33	-32	46	-19	0	0	19
GRT3{1}	0	-7	-41	41	-20	0	0	20
GRT4{1}	0	31	-48	57	-8	0	0	8

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
K08 +	Gravity{1}	0	-7	-87	87	-13	0	0	13
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	-2	35	35	-4	0	0	4
	Thermal 2{1}	0	40	20	44	-7	0	0	7
	Thermal 3{1}	0	0	11	11	-7	0	0	7
	Thermal 4{1}	0	38	4	38	4	0	0	4
	GRT1{1}	0	-9	-52	53	-17	0	0	17
	GRT2{1}	0	33	-67	75	-19	0	0	19
	GRT3{1}	0	-7	-76	76	-20	0	0	20
	GRT4{1}	0	31	-83	89	-8	0	0	8
K08 M-	Gravity{1}	0	-7	-147	147	-28	0	0	28
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	-2	35	35	1	0	0	1
	Thermal 2{1}	0	40	20	44	-4	0	0	4
	Thermal 3{1}	0	0	11	11	-5	0	0	5
	Thermal 4{1}	0	38	4	38	5	0	0	5
	GRT1{1}	0	-9	-112	113	-28	0	0	28
	GRT2{1}	0	33	-127	131	-32	0	0	32
	GRT3{1}	0	-7	-136	136	-34	0	0	34
	GRT4{1}	0	31	-143	146	-23	0	0	23
K08 M+	Gravity{1}	0	-7	146	146	-28	0	0	28
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	-2	4	5	1	0	0	1
	Thermal 2{1}	0	40	-39	56	-4	0	0	4
	Thermal 3{1}	0	0	6	6	-5	0	0	5

F_LINE_REV0.OUT

	Thermal 4{1}	0	38	-47	60	5	0	0	5
	GRT1{1}	0	-9	150	150	-28	0	0	28
	GRT2{1}	0	33	107	112	-32	0	0	32
	GRT3{1}	0	-7	152	152	-34	0	0	34
	GRT4{1}	0	31	99	103	-23	0	0	23
K19 -	Gravity{1}	0	-7	86	86	-13	0	0	13
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	-2	4	5	1	0	0	1
	Thermal 2{1}	0	40	-39	56	-9	0	0	9
	Thermal 3{1}	0	0	6	6	-5	0	0	5
	Thermal 4{1}	0	38	-47	60	-1	0	0	1
	GRT1{1}	0	-9	90	90	-12	0	0	12
	GRT2{1}	0	33	47	57	-22	0	0	22
	GRT3{1}	0	-7	92	92	-17	0	0	17
	GRT4{1}	0	31	39	50	-14	0	0	14

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
K19 +	Gravity{1}	0	-7	50	51	-13	0	0	13
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	-2	4	5	1	0	0	1
	Thermal 2{1}	0	40	-39	56	-9	0	0	9
	Thermal 3{1}	0	0	6	6	-5	0	0	5
	Thermal 4{1}	0	38	-47	60	-1	0	0	1
	GRT1{1}	0	-9	54	55	-12	0	0	12
	GRT2{1}	0	33	11	35	-22	0	0	22
	GRT3{1}	0	-7	56	57	-17	0	0	17
	GRT4{1}	0	31	3	31	-14	0	0	14
C017 -	Gravity{1}	0	-7	45	45	-5	0	0	5
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	-2	4	5	2	0	0	2
	Thermal 2{1}	0	40	-39	56	-16	0	0	16
	Thermal 3{1}	0	0	6	6	-4	0	0	4

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	Thermal 4{1}	0	38	-47	60	-9	0	0	9
	GRT1{1}	0	-9	49	50	-3	0	0	3
	GRT2{1}	0	33	6	33	-21	0	0	21
	GRT3{1}	0	-7	51	51	-8	0	0	8
	GRT4{1}	0	31	-2	31	-14	0	0	14
C017 +	Gravity{1}	0	-7	-26	27	-5	0	0	5
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	-2	4	5	2	0	0	2
	Thermal 2{1}	0	40	-39	56	-16	0	0	16
	Thermal 3{1}	0	0	6	6	-4	0	0	4
	Thermal 4{1}	0	38	-47	60	-9	0	0	9
	GRT1{1}	0	-9	-22	23	-3	0	0	3
	GRT2{1}	0	33	-65	73	-21	0	0	21
	GRT3{1}	0	-7	-20	21	-8	0	0	8
	GRT4{1}	0	31	-73	79	-14	0	0	14
K27 -	Gravity{1}	0	-7	-46	47	-27	0	0	27
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	-2	4	5	4	0	0	4
	Thermal 2{1}	0	40	-39	56	-40	0	0	40
	Thermal 3{1}	0	0	6	6	0	0	0	0
	Thermal 4{1}	0	38	-47	60	-39	0	0	39
	GRT1{1}	0	-9	-42	43	-23	0	0	23
	GRT2{1}	0	33	-85	91	-68	0	0	68
	GRT3{1}	0	-7	-40	41	-27	0	0	27
	GRT4{1}	0	31	-93	98	-66	0	0	66

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
K27 +	Gravity{1}	0	-7	66	66	-27	0	0	27
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	-2	-4	4	4	0	0	4
	Thermal 2{1}	0	40	142	148	-40	0	0	40
	Thermal 3{1}	0	0	0	0	0	0	0	0

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	Thermal 4{1}	0	38	136	141	-39	0	39
	GRT1{1}	0	-9	62	63	-23	0	23
	GRT2{1}	0	33	208	211	-68	0	68
	GRT3{1}	0	-7	66	66	-27	0	27
	GRT4{1}	0	31	202	204	-66	0	66
K10 N	Gravity{1}	0	-7	45	46	8	0	8
	Hydrotest{1}	0	0	0	0	0	0	0
	Thermal 1{1}	0	-2	-4	4	2	0	2
	Thermal 2{1}	0	40	142	148	50	0	50
	Thermal 3{1}	0	0	0	0	0	0	0
	Thermal 4{1}	0	38	136	141	47	0	47
	GRT1{1}	0	-9	42	42	10	0	10
	GRT2{1}	0	33	187	190	58	0	58
	GRT3{1}	0	-7	46	46	8	0	8
	GRT4{1}	0	31	181	184	55	0	55
K10 M	Gravity{1}	0	-7	44	45	9	0	9
	Hydrotest{1}	0	0	0	0	0	0	0
	Thermal 1{1}	0	-2	-4	4	2	0	2
	Thermal 2{1}	0	40	142	148	54	0	54
	Thermal 3{1}	0	0	0	0	0	0	0
	Thermal 4{1}	0	38	136	141	51	0	51
	GRT1{1}	0	-9	41	41	11	0	11
	GRT2{1}	0	33	186	189	63	0	63
	GRT3{1}	0	-7	45	45	9	0	9
	GRT4{1}	0	31	180	183	60	0	60
K10 F	Gravity{1}	0	-7	43	44	9	0	9
	Hydrotest{1}	0	0	0	0	0	0	0
	Thermal 1{1}	0	-2	-4	4	2	0	2
	Thermal 2{1}	0	40	142	148	57	0	57
	Thermal 3{1}	0	0	0	0	0	0	0
	Thermal 4{1}	0	38	136	141	54	0	54
	GRT1{1}	0	-9	40	41	11	0	11
	GRT2{1}	0	33	185	188	66	0	66
	GRT3{1}	0	-7	44	44	10	0	10
	GRT4{1}	0	31	179	182	63	0	63

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
K21 N	Gravity{1}	0	-7	13	15	3	0	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	-2	-4	4	0	0	0	0
	Thermal 2{1}	0	40	142	148	93	0	0	93
	Thermal 3{1}	0	0	0	0	1	0	0	1
	Thermal 4{1}	0	38	136	141	89	0	0	89
	GRT1{1}	0	-9	10	13	3	0	0	3
	GRT2{1}	0	33	155	159	96	0	0	96
	GRT3{1}	0	-7	14	15	4	0	0	4
	GRT4{1}	0	31	149	152	92	0	0	92
K21 F	Gravity{1}	0	-7	11	13	2	0	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	-2	-4	4	0	0	0	0
	Thermal 2{1}	0	40	142	148	89	0	0	89
	Thermal 3{1}	0	0	0	0	1	0	0	1
	Thermal 4{1}	0	38	136	141	85	0	0	85
	GRT1{1}	0	-9	8	12	2	0	0	2
	GRT2{1}	0	33	154	157	92	0	0	92
	GRT3{1}	0	-7	12	13	3	0	0	3
	GRT4{1}	0	31	147	150	87	0	0	87
K28 N	Gravity{1}	0	-7	-27	27	11	0	0	11
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	-2	-4	4	4	0	0	4
	Thermal 2{1}	0	40	142	148	-77	0	0	77
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	38	136	141	-74	0	0	74
	GRT1{1}	0	-9	-30	32	15	0	0	15
	GRT2{1}	0	33	116	120	-65	0	0	65
	GRT3{1}	0	-7	-26	27	11	0	0	11
	GRT4{1}	0	31	109	114	-62	0	0	62
K28 F	Gravity{1}	0	-7	-29	29	12	0	0	12
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	-2	-4	4	4	0	0	4
	Thermal 2{1}	0	40	142	148	-81	0	0	81
	Thermal 3{1}	0	0	0	0	0	0	0	0

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Thermal 4{1}	0	38	136	141	-77	0	0	77
GRT1{1}	0	-9	-32	34	16	0	0	16
GRT2{1}	0	33	114	118	-68	0	0	68
GRT3{1}	0	-7	-28	29	12	0	0	12
GRT4{1}	0	31	107	112	-65	0	0	65

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

K24 -	Gravity{1}	0	-7	-107	107	-4	0	0	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	-2	-4	4	-1	0	0	1
	Thermal 2{1}	0	40	142	148	15	0	0	15
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	38	136	141	14	0	0	14
	GRT1{1}	0	-9	-111	111	-5	0	0	5
	GRT2{1}	0	33	35	48	11	0	0	11
	GRT3{1}	0	-7	-107	107	-4	0	0	4
	GRT4{1}	0	31	29	43	10	0	0	10
K24 +	Gravity{1}	0	1	-107	107	-4	0	0	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	-4	4	-1	0	0	1
	Thermal 2{1}	0	-4	142	142	15	0	0	15
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	-3	136	136	14	0	0	14
	GRT1{1}	0	1	-111	111	-5	0	0	5
	GRT2{1}	0	-3	35	35	11	0	0	11
	GRT3{1}	0	1	-107	107	-4	0	0	4
	GRT4{1}	0	-2	29	29	10	0	0	10
K23 -	Gravity{1}	0	1	-287	287	1	0	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	-4	4	1	0	0	1
	Thermal 2{1}	0	-4	142	142	-5	0	0	5
	Thermal 3{1}	0	0	0	0	0	0	0	0

		F_LINE_REV0.OUT								
K23	+	Thermal 4{1}	0	-3	136	136	-5	0	0	5
		GRT1{1}	0	1	-291	291	2	0	0	2
		GRT2{1}	0	-3	-145	145	-4	0	0	4
		GRT3{1}	0	1	-287	287	1	0	0	1
		GRT4{1}	0	-2	-151	151	-3	0	0	3
		Gravity{1}	0	-1	-287	287	1	0	0	1
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	0	0	-4	4	1	0	0	1
		Thermal 2{1}	0	2	142	142	-5	0	0	5
		Thermal 3{1}	0	0	0	0	0	0	0	0
		Thermal 4{1}	0	2	136	136	-5	0	0	5
		GRT1{1}	0	-1	-291	291	2	0	0	2
		GRT2{1}	0	2	-145	145	-4	0	0	4
		GRT3{1}	0	-1	-287	287	1	0	0	1
		GRT4{1}	0	2	-151	151	-3	0	0	3

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
K11	Gravity{1}	0	-1	-389	389	-1	0	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	-4	4	0	0	0	0
	Thermal 2{1}	0	2	142	142	3	0	0	3
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	2	136	136	2	0	0	2
	GRT1{1}	0	-1	-393	393	-1	0	0	1
	GRT2{1}	0	2	-247	247	2	0	0	2
	GRT3{1}	0	-1	-389	389	-1	0	0	1
	GRT4{1}	0	2	-253	253	2	0	0	2
K26	Gravity{1}	0	-1	-392	392	-1	0	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	-4	4	0	0	0	0
	Thermal 2{1}	0	2	142	142	3	0	0	3
	Thermal 3{1}	0	0	0	0	0	0	0	0

		F_LINE_REV0.OUT							
	Thermal 4{1}	0	2	136	136	2	0	0	2
	GRT1{1}	0	-1	-395	395	-1	0	0	1
	GRT2{1}	0	2	-249	249	2	0	0	2
	GRT3{1}	0	-1	-391	391	-1	0	0	1
	GRT4{1}	0	2	-256	256	2	0	0	2
K20	Gravity{1}	0	-1	-403	403	-1	0	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	-4	4	0	0	0	0
	Thermal 2{1}	0	2	142	142	3	0	0	3
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	2	136	136	3	0	0	3
	GRT1{1}	0	-1	-407	407	-1	0	0	1
	GRT2{1}	0	2	-261	261	2	0	0	2
	GRT3{1}	0	-1	-403	403	-1	0	0	1
	GRT4{1}	0	2	-267	267	2	0	0	2
K14	Gravity{1}	0	-1	-448	448	-1	0	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	-4	4	0	0	0	0
	Thermal 2{1}	0	2	142	142	3	0	0	3
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	2	136	136	3	0	0	3
	GRT1{1}	0	-1	-452	452	-1	0	0	1
	GRT2{1}	0	2	-306	306	3	0	0	3
	GRT3{1}	0	-1	-447	447	-1	0	0	1
	GRT4{1}	0	2	-312	312	2	0	0	2

*** Segment K end ***

*** Segment L begin ***

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
C06	Gravity{1}	0	0	38	38	-1	0	1	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	7	-2	144	144	6	-10	6	13

		F_LINE_REV0.OUT							
	Thermal 2{1}	23	-47	111	122	35	-2	-8	36
	Thermal 3{1}	0	-5	-5	7	5	0	-2	5
	Thermal 4{1}	3	-1	7	7	-4	1	0	5
	GRT1{1}	7	-2	182	182	5	-10	7	13
	GRT2{1}	23	-47	149	158	35	-2	-7	36
	GRT3{1}	0	-5	34	34	4	0	-1	5
	GRT4{1}	2	-1	45	45	-5	1	1	5
L17	Gravity{1}	0	0	34	34	-1	0	1	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	7	-2	144	144	5	-10	6	13
	Thermal 2{1}	23	-47	111	122	33	-3	-8	34
	Thermal 3{1}	0	-5	-5	7	5	0	-2	5
	Thermal 4{1}	3	-1	7	7	-4	1	0	5
	GRT1{1}	7	-2	178	178	5	-10	7	13
	GRT2{1}	23	-47	145	154	33	-3	-7	34
	GRT3{1}	0	-5	30	30	4	0	-1	4
	GRT4{1}	2	-1	41	41	-5	1	1	5
L02	Gravity{1}	0	0	31	31	-1	0	1	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	7	-2	144	144	5	-10	6	13
	Thermal 2{1}	23	-47	111	122	30	-4	-8	32
	Thermal 3{1}	0	-5	-5	7	4	0	-2	5
	Thermal 4{1}	3	-1	7	7	-4	1	0	5
	GRT1{1}	7	-2	174	175	5	-10	7	13
	GRT2{1}	23	-47	141	151	30	-4	-7	31
	GRT3{1}	0	-5	26	27	4	0	-1	4
	GRT4{1}	2	-1	38	38	-5	1	1	5
L03 N	Gravity{1}	0	0	-29	29	0	0	1	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	7	-2	144	144	2	-23	6	24
	Thermal 2{1}	23	-47	111	122	-57	-47	-8	74
	Thermal 3{1}	0	-5	-5	7	-6	-1	-2	6
	Thermal 4{1}	3	-1	7	7	-6	-4	0	7
	GRT1{1}	7	-2	114	115	2	-23	7	24
	GRT2{1}	23	-47	81	97	-57	-46	-7	74
	GRT3{1}	0	-5	-34	34	-6	0	-1	6
	GRT4{1}	2	-1	-22	23	-6	-3	1	7

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F_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
L03 F	Gravity{1}	0	0	-31	31	0	-1	1	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	7	-2	144	144	1	-18	6	19
	Thermal 2{1}	23	-47	111	122	-59	-43	-6	73
	Thermal 3{1}	0	-5	-5	7	-6	-1	-1	6
	Thermal 4{1}	3	-1	7	7	-6	-3	0	7
	GRT1{1}	7	-2	112	113	1	-19	7	20
	GRT2{1}	23	-47	79	95	-59	-44	-6	74
	GRT3{1}	0	-5	-36	36	-6	-2	-1	6
	GRT4{1}	2	-1	-24	24	-6	-4	1	8
L21 -	Gravity{1}	0	0	-40	40	0	-11	0	11
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	7	-2	144	144	1	22	7	24
	Thermal 2{1}	23	-47	111	122	-59	-12	7	60
	Thermal 3{1}	0	-5	-5	7	-6	-2	0	6
	Thermal 4{1}	3	-1	7	7	-6	-2	0	6
	GRT1{1}	7	-2	103	104	1	12	8	14
	GRT2{1}	23	-47	70	88	-59	-23	8	64
	GRT3{1}	0	-5	-45	45	-6	-13	1	14
	GRT4{1}	2	-1	-34	34	-6	-12	1	14
L21 +	Gravity{1}	0	1	42	42	0	-11	0	11
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	7	2	-10	13	1	22	7	24
	Thermal 2{1}	23	-28	88	95	-59	-12	7	60
	Thermal 3{1}	0	0	6	6	-6	-2	0	6
	Thermal 4{1}	3	-3	10	11	-6	-2	0	6
	GRT1{1}	7	3	31	32	1	12	8	14
	GRT2{1}	23	-27	130	135	-59	-23	8	64
	GRT3{1}	0	1	47	47	-6	-13	1	14
	GRT4{1}	2	-2	52	52	-6	-12	1	14
L04 N	Gravity{1}	0	1	32	32	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	7	2	-10	13	1	19	6	21
	Thermal 2{1}	23	-28	88	95	-59	14	15	62

F_LINE_REV0.OUT

Thermal 3{1}	0	0	6	6	-6	0	0	6
Thermal 4{1}	3	-3	10	11	-6	1	1	6
GRT1{1}	7	3	22	23	1	19	7	20
GRT2{1}	23	-27	121	126	-59	14	16	62
GRT3{1}	0	1	38	38	-6	-1	0	6
GRT4{1}	2	-2	42	43	-6	1	2	6

0

F_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
L04 F	Gravity{1}	0	1	31	31	1	1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	7	2	-10	13	1	19	6	20
	Thermal 2{1}	23	-28	88	95	-56	17	16	61
	Thermal 3{1}	0	0	6	6	-6	0	0	6
	Thermal 4{1}	3	-3	10	11	-6	2	1	6
	GRT1{1}	7	3	20	22	2	20	6	21
	GRT2{1}	23	-27	119	124	-55	18	16	60
	GRT3{1}	0	1	36	36	-5	1	0	5
	GRT4{1}	2	-2	41	41	-5	3	2	6
L18	Gravity{1}	0	1	27	27	4	2	0	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	7	2	-10	13	0	19	5	20
	Thermal 2{1}	23	-28	88	95	-47	19	14	53
	Thermal 3{1}	0	0	6	6	-5	0	0	5
	Thermal 4{1}	3	-3	10	11	-5	2	1	5
	GRT1{1}	7	3	17	19	4	21	6	22
	GRT2{1}	23	-27	116	121	-44	21	14	51
	GRT3{1}	0	1	33	33	-1	2	0	2
	GRT4{1}	2	-2	37	38	-1	4	1	4
L06	Gravity{1}	0	1	26	26	5	2	0	5
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	7	2	-10	13	0	19	5	19
	Thermal 2{1}	23	-28	88	95	-44	20	14	50

F_LINE_REV0.OUT

	Thermal 3{1}	0	0	6	6	-5	0	0	5
	Thermal 4{1}	3	-3	10	11	-4	2	1	5
	GRT1{1}	7	3	16	17	5	21	5	22
	GRT2{1}	23	-27	114	120	-39	22	14	47
	GRT3{1}	0	1	32	32	0	2	0	2
	GRT4{1}	2	-2	36	36	0	4	1	4
L06 M	Gravity{1}	0	1	13	13	6	2	0	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	7	2	-10	13	-1	18	5	19
	Thermal 2{1}	23	-28	88	95	-39	22	13	47
	Thermal 3{1}	0	0	6	6	-5	0	0	5
	Thermal 4{1}	3	-3	10	11	-4	2	1	5
	GRT1{1}	7	3	2	8	5	21	5	22
	GRT2{1}	23	-27	101	107	-34	24	13	43
	GRT3{1}	0	1	18	18	1	2	0	3
	GRT4{1}	2	-2	23	23	2	5	1	5

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
CH10	Gravity{1}	0	1	-1	1	6	3	0	7
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	7	2	-10	13	-1	18	4	19
	Thermal 2{1}	23	-28	88	95	-35	23	12	43
	Thermal 3{1}	0	0	6	6	-4	0	0	4
	Thermal 4{1}	3	-3	10	11	-3	2	1	4
	GRT1{1}	7	3	-11	13	5	21	4	22
	GRT2{1}	23	-27	88	95	-29	25	12	40
	GRT3{1}	0	1	5	5	2	3	0	3
	GRT4{1}	2	-2	9	10	3	5	1	6
L19	Gravity{1}	0	1	-2	2	6	3	0	7
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	7	2	-10	13	-2	18	4	19
	Thermal 2{1}	23	-28	88	95	-31	24	12	41

F_LINE_REV0.OUT

	Thermal 3{1}	0	0	6	6	-4	0	0	4
	Thermal 4{1}	3	-3	10	11	-3	3	1	4
	GRT1{1}	7	3	-12	15	4	21	4	22
	GRT2{1}	23	-27	86	93	-25	26	12	38
	GRT3{1}	0	1	4	4	2	3	0	3
	GRT4{1}	2	-2	8	9	3	5	1	6
L09 -	Gravity{1}	0	1	-5	6	6	2	0	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	7	2	-10	13	-3	18	3	18
	Thermal 2{1}	23	-28	88	95	-22	26	10	36
	Thermal 3{1}	0	0	6	6	-4	0	0	4
	Thermal 4{1}	3	-3	10	11	-2	3	1	4
	GRT1{1}	7	3	-16	18	3	20	3	21
	GRT2{1}	23	-27	83	90	-17	29	10	35
	GRT3{1}	0	1	0	1	2	3	0	3
	GRT4{1}	2	-2	5	6	4	5	1	6
L09 +	Gravity{1}	0	1	-41	41	6	2	0	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	7	2	-10	13	-3	18	3	18
	Thermal 2{1}	23	-28	88	95	-22	26	10	36
	Thermal 3{1}	0	0	6	6	-4	0	0	4
	Thermal 4{1}	3	-3	10	11	-2	3	1	4
	GRT1{1}	7	3	-51	52	3	20	3	21
	GRT2{1}	23	-27	47	59	-17	29	10	35
	GRT3{1}	0	1	-35	35	2	3	0	3
	GRT4{1}	2	-2	-31	31	4	5	1	6

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
L09 M-	Gravity{1}	0	1	-101	101	-3	0	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	7	2	-10	13	-4	18	2	18
	Thermal 2{1}	23	-28	88	95	-11	29	8	33

		F_LINE_REV0.OUT							
	Thermal 3{1}	0	0	6	6	-3	0	0	3
	Thermal 4{1}	3	-3	10	11	-1	3	1	3
	GRT1{1}	7	3	-111	111	-7	17	2	19
	GRT2{1}	23	-27	-13	38	-15	29	8	34
	GRT3{1}	0	1	-95	95	-6	0	0	6
	GRT4{1}	2	-2	-91	91	-4	3	1	5
L09 M+	Gravity{1}	0	1	117	117	-3	0	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	7	2	-5	9	-4	18	2	18
	Thermal 2{1}	23	-28	158	162	-11	29	8	33
	Thermal 3{1}	0	0	6	6	-3	0	0	3
	Thermal 4{1}	3	-3	18	18	-1	3	1	3
	GRT1{1}	7	3	112	112	-7	17	2	19
	GRT2{1}	23	-27	275	277	-15	29	8	34
	GRT3{1}	0	1	123	123	-6	0	0	6
	GRT4{1}	2	-2	135	135	-4	3	1	5
L20 -	Gravity{1}	0	1	57	57	8	3	0	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	7	2	-5	9	-5	17	1	18
	Thermal 2{1}	23	-28	158	162	9	35	6	37
	Thermal 3{1}	0	0	6	6	-2	1	0	2
	Thermal 4{1}	3	-3	18	18	1	4	0	4
	GRT1{1}	7	3	52	53	3	20	1	21
	GRT2{1}	23	-27	215	218	17	38	6	42
	GRT3{1}	0	1	63	63	6	4	0	7
	GRT4{1}	2	-2	75	75	9	7	0	12
L20 +	Gravity{1}	0	1	22	22	8	3	0	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	7	2	-5	9	-5	17	1	18
	Thermal 2{1}	23	-28	158	162	9	35	6	37
	Thermal 3{1}	0	0	6	6	-2	1	0	2
	Thermal 4{1}	3	-3	18	18	1	4	0	4
	GRT1{1}	7	3	17	18	3	20	1	21
	GRT2{1}	23	-27	180	183	17	38	6	42
	GRT3{1}	0	1	28	28	6	4	0	7
	GRT4{1}	2	-2	40	40	9	7	0	12

□

F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

10:17 AM

G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
C018 -	Gravity{1}	0	1	17	17	11	4	0	11
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	7	2	-5	9	-6	17	0	18
	Thermal 2{1}	23	-28	158	162	33	42	4	54
	Thermal 3{1}	0	0	6	6	-1	1	0	2
	Thermal 4{1}	3	-3	18	18	4	5	0	6
	GRT1{1}	7	3	12	14	5	21	0	22
	GRT2{1}	23	-27	174	178	44	46	4	64
	GRT3{1}	0	1	23	23	10	5	0	11
	GRT4{1}	2	-2	34	35	15	8	0	17
C018 +	Gravity{1}	0	1	-54	54	11	4	0	11
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	7	2	-5	9	-6	17	0	18
	Thermal 2{1}	23	-28	158	162	33	42	4	54
	Thermal 3{1}	0	0	6	6	-1	1	0	2
	Thermal 4{1}	3	-3	18	18	4	5	0	6
	GRT1{1}	7	3	-59	60	5	21	0	22
	GRT2{1}	23	-27	104	110	44	46	4	64
	GRT3{1}	0	1	-48	48	10	5	0	11
	GRT4{1}	2	-2	-36	36	15	8	0	17
L27	Gravity{1}	0	1	-58	58	4	2	0	5
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	7	2	-5	9	-6	17	-1	18
	Thermal 2{1}	23	-28	158	162	52	47	2	71
	Thermal 3{1}	0	0	6	6	0	1	0	1
	Thermal 4{1}	3	-3	18	18	6	5	0	8
	GRT1{1}	7	3	-63	64	-2	19	-1	19
	GRT2{1}	23	-27	100	106	56	49	2	75
	GRT3{1}	0	1	-52	52	4	3	0	5
	GRT4{1}	2	-2	-40	40	10	7	0	13
L12 N	Gravity{1}	0	1	-61	61	-1	1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	7	2	-5	9	-7	17	-1	18
	Thermal 2{1}	23	-28	158	162	66	51	1	83

	F_LINE_REV0.OUT							
Thermal 3{1}	0	0	6	6	0	1	0	1
Thermal 4{1}	3	-3	18	18	8	6	0	10
GRT1{1}	7	3	-66	66	-8	17	-1	19
GRT2{1}	23	-27	97	103	65	51	1	83
GRT3{1}	0	1	-55	55	-1	2	0	2
GRT4{1}	2	-2	-43	43	7	6	0	9

□

F_LINE_REV0

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BENTLEY

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
L12 F	Gravity{1}	0	1	-63	63	-3	0	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	7	2	-5	9	-7	17	-2	18
	Thermal 2{1}	23	-28	158	162	70	52	0	87
	Thermal 3{1}	0	0	6	6	0	1	0	1
	Thermal 4{1}	3	-3	18	18	8	6	0	10
	GRT1{1}	7	3	-68	68	-10	16	-2	19
	GRT2{1}	23	-27	95	101	67	52	0	85
	GRT3{1}	0	1	-57	57	-3	1	0	3
	GRT4{1}	2	-2	-45	45	5	6	0	8
L25 -	Gravity{1}	0	1	-159	159	0	0	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	7	2	-5	9	-1	-4	-2	5
	Thermal 2{1}	23	-28	158	162	-14	-16	0	21
	Thermal 3{1}	0	0	6	6	0	0	0	0
	Thermal 4{1}	3	-3	18	18	-2	-2	0	3
	GRT1{1}	7	3	-164	164	0	-4	-2	4
	GRT2{1}	23	-27	-1	36	-13	-16	0	21
	GRT3{1}	0	1	-153	153	0	0	0	0
	GRT4{1}	2	-2	-141	141	-1	-1	0	2
L25 +	Gravity{1}	0	0	-159	159	0	0	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	0	-5	5	-1	-4	-2	5
	Thermal 2{1}	-4	3	158	158	-14	-16	0	21

F_LINE_REV0.OUT								
Thermal 3{1}	0	0	6	6	0	0	0	0
Thermal 4{1}	0	0	18	18	-2	-2	0	3
GRT1{1}	-1	0	-164	164	0	-4	-2	4
GRT2{1}	-4	3	-1	5	-13	-16	0	21
GRT3{1}	0	0	-153	153	0	0	0	0
GRT4{1}	0	0	-141	141	-1	-1	0	2
L24 - Gravity{1}	0	0	-354	354	0	0	0	0
Hydrotest{1}	0	0	0	0	0	0	0	0
Thermal 1{1}	-1	0	-5	5	0	2	-2	2
Thermal 2{1}	-4	3	158	158	5	6	0	8
Thermal 3{1}	0	0	6	6	0	0	0	0
Thermal 4{1}	0	0	18	18	1	1	0	1
GRT1{1}	-1	0	-359	359	0	1	-2	2
GRT2{1}	-4	3	-196	196	5	6	0	7
GRT3{1}	0	0	-348	348	0	0	0	0
GRT4{1}	0	0	-336	336	1	1	0	1

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F_LINE_REV0

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BENTLEY

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RESULT PAGE 165

G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
L24 +	Gravity{1}	0	0	-354	354	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	0	-5	5	0	2	-2	2
	Thermal 2{1}	3	-2	158	158	5	6	0	8
	Thermal 3{1}	0	0	6	6	0	0	0	0
	Thermal 4{1}	0	0	18	18	1	1	0	1
	GRT1{1}	1	0	-359	359	0	1	-2	2
	GRT2{1}	3	-2	-196	196	5	6	0	7
	GRT3{1}	0	0	-348	348	0	0	0	0
	GRT4{1}	0	0	-336	336	1	1	0	1
L22	Gravity{1}	0	0	-456	456	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	0	-5	5	0	-1	-2	2
	Thermal 2{1}	3	-2	158	158	-2	-3	0	4

		F_LINE_REV0.OUT							
	Thermal 3{1}	0	0	6	6	0	0	0	0
	Thermal 4{1}	0	0	18	18	0	0	0	0
	GRT1{1}	1	0	-461	461	0	-1	-2	2
	GRT2{1}	3	-2	-298	298	-2	-3	0	4
	GRT3{1}	0	0	-450	450	0	0	0	0
	GRT4{1}	0	0	-438	438	0	0	0	0
L14	Gravity{1}	0	0	-458	458	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	0	-5	5	0	-1	-2	2
	Thermal 2{1}	3	-2	158	158	-3	-3	0	4
	Thermal 3{1}	0	0	6	6	0	0	0	0
	Thermal 4{1}	0	0	18	18	0	0	0	1
	GRT1{1}	1	0	-463	463	0	-1	-2	2
	GRT2{1}	3	-2	-301	301	-2	-3	0	4
	GRT3{1}	0	0	-452	452	0	0	0	0
	GRT4{1}	0	0	-441	441	0	0	0	0
L23	Gravity{1}	0	0	-458	458	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	0	-5	5	0	-1	-2	2
	Thermal 2{1}	3	-2	158	158	-3	-3	0	4
	Thermal 3{1}	0	0	6	6	0	0	0	0
	Thermal 4{1}	0	0	18	18	0	0	0	1
	GRT1{1}	1	0	-463	463	0	-1	-2	2
	GRT2{1}	3	-2	-301	301	-2	-3	0	4
	GRT3{1}	0	0	-452	452	0	0	0	0
	GRT4{1}	0	0	-441	441	0	0	0	0

0

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RESULT PAGE 166

G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
L15	Gravity{1}	0	0	-470	470	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	0	-5	5	0	-1	-2	2
	Thermal 2{1}	3	-2	158	158	-3	-3	0	4

		F_LINE_REV0.OUT							
	Thermal 3{1}	0	0	6	6	0	0	0	0
	Thermal 4{1}	0	0	18	18	0	0	0	1
	GRT1{1}	1	0	-475	475	0	-1	-2	2
	GRT2{1}	3	-2	-312	312	-3	-3	0	4
	GRT3{1}	0	0	-464	464	0	0	0	0
	GRT4{1}	0	0	-452	452	0	0	0	0
L16	Gravity{1}	0	0	-514	514	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	0	-5	5	0	-1	-2	2
	Thermal 2{1}	3	-2	158	158	-3	-4	0	5
	Thermal 3{1}	0	0	6	6	0	0	0	0
	Thermal 4{1}	0	0	18	18	0	0	0	1
	GRT1{1}	1	0	-520	520	0	-1	-2	2
	GRT2{1}	3	-2	-357	357	-3	-4	0	5
	GRT3{1}	0	0	-509	509	0	0	0	0
	GRT4{1}	0	0	-497	497	0	0	0	1
*** Segment L end ***									
*** Segment M begin ***									
D26	Gravity{1}	0	0	47	47	0	0	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	1	23	23	-7	-13	1	15
	Thermal 2{1}	1	1	32	32	-6	-18	1	19
	Thermal 3{1}	0	1	6	6	-7	-6	1	9
	Thermal 4{1}	1	1	23	23	-6	-13	1	14
	GRT1{1}	1	1	69	69	-6	-13	1	14
	GRT2{1}	1	1	79	79	-5	-18	1	18
	GRT3{1}	0	1	53	53	-6	-6	1	9
	GRT4{1}	1	1	69	69	-6	-13	1	14
M24	Gravity{1}	0	0	38	38	0	0	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	1	23	23	-6	-13	1	15
	Thermal 2{1}	1	1	32	32	-6	-18	1	19
	Thermal 3{1}	0	1	6	6	-7	-6	1	9
	Thermal 4{1}	1	1	23	23	-6	-13	1	14
	GRT1{1}	1	1	61	61	-6	-13	1	14
	GRT2{1}	1	1	70	70	-5	-18	1	18
	GRT3{1}	0	1	44	44	-6	-6	1	9
	GRT4{1}	1	1	61	61	-6	-13	1	14

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
M02	Gravity{1}	0	0	32	32	0	0	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	1	23	23	-6	-13	1	15
	Thermal 2{1}	1	1	32	32	-5	-18	1	19
	Thermal 3{1}	0	1	6	6	-7	-6	1	9
	Thermal 4{1}	1	1	23	23	-6	-13	1	14
	GRT1{1}	1	1	55	55	-6	-13	1	14
	GRT2{1}	1	1	64	64	-5	-18	1	18
	GRT3{1}	0	1	38	38	-6	-6	1	9
	GRT4{1}	1	1	55	55	-6	-13	1	14
M03 N	Gravity{1}	0	0	-7	7	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	1	23	23	-5	-14	1	15
	Thermal 2{1}	1	1	32	32	-5	-19	1	20
	Thermal 3{1}	0	1	6	6	-6	-6	1	8
	Thermal 4{1}	1	1	23	23	-5	-14	1	15
	GRT1{1}	1	1	16	16	-5	-14	1	15
	GRT2{1}	1	1	25	25	-4	-19	1	19
	GRT3{1}	0	1	0	1	-5	-6	1	8
	GRT4{1}	1	1	16	16	-5	-13	1	14
M03 F	Gravity{1}	0	0	-9	9	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	1	23	23	-5	-13	1	14
	Thermal 2{1}	1	1	32	32	-5	-18	1	19
	Thermal 3{1}	0	1	6	6	-6	-6	1	8
	Thermal 4{1}	1	1	23	23	-5	-13	1	14
	GRT1{1}	1	1	14	14	-5	-13	1	14
	GRT2{1}	1	1	23	23	-4	-18	1	19
	GRT3{1}	0	1	-3	3	-5	-6	1	8
	GRT4{1}	1	1	14	14	-5	-13	1	14
M04	Gravity{1}	0	0	-17	17	1	-3	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	1	23	23	-6	-9	1	10

F_LINE_REV0.OUT

Thermal 2{1}	1	1	32	32	-5	-12	1	13
Thermal 3{1}	0	1	6	6	-6	-5	1	7
Thermal 4{1}	1	1	23	23	-5	-9	1	10
GRT1{1}	1	1	6	6	-5	-11	1	12
GRT2{1}	1	1	15	15	-4	-14	1	15
GRT3{1}	0	1	-11	11	-5	-7	1	9
GRT4{1}	1	1	6	6	-5	-11	1	12

□

F_LINE_REV0

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RESULT PAGE 168

G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
M04 M	Gravity{1}	0	0	-30	30	1	-4	0	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	1	23	23	-6	-7	1	9
	Thermal 2{1}	1	1	32	32	-5	-10	1	11
	Thermal 3{1}	0	1	6	6	-6	-4	1	7
	Thermal 4{1}	1	1	23	23	-5	-7	1	9
	GRT1{1}	1	1	-7	8	-5	-11	1	12
	GRT2{1}	1	1	2	2	-4	-14	1	15
	GRT3{1}	0	1	-24	24	-5	-8	1	10
	GRT4{1}	1	1	-7	7	-5	-11	1	12
CH11	Gravity{1}	0	0	-43	43	1	-6	0	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	1	23	23	-6	-6	1	8
	Thermal 2{1}	1	1	32	32	-5	-8	1	10
	Thermal 3{1}	0	1	6	6	-6	-4	1	7
	Thermal 4{1}	1	1	23	23	-5	-6	1	8
	GRT1{1}	1	1	-21	21	-5	-12	1	13
	GRT2{1}	1	1	-11	11	-4	-14	1	15
	GRT3{1}	0	1	-37	37	-5	-10	1	11
	GRT4{1}	1	1	-21	21	-5	-12	1	13
M06 -	Gravity{1}	0	0	-51	51	1	-15	0	15
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	1	23	23	-6	-2	1	6

F_LINE_REV0.OUT

Thermal 2{1}	1	1	32	32	-5	-2	1	6
Thermal 3{1}	0	1	6	6	-6	-3	1	6
Thermal 4{1}	1	1	23	23	-6	-1	1	6
GRT1{1}	1	1	-29	29	-5	-17	1	18
GRT2{1}	1	1	-20	20	-4	-17	1	18
GRT3{1}	0	1	-45	45	-5	-18	1	19
GRT4{1}	1	1	-29	29	-5	-17	1	17
M06 + Gravity{1}	0	0	-92	92	1	-15	0	15
Hydrotest{1}	0	0	0	0	0	0	0	0
Thermal 1{1}	1	1	23	23	-6	-2	1	6
Thermal 2{1}	1	1	32	32	-5	-2	1	6
Thermal 3{1}	0	1	6	6	-6	-3	1	6
Thermal 4{1}	1	1	23	23	-6	-1	1	6
GRT1{1}	1	1	-69	69	-5	-17	1	18
GRT2{1}	1	1	-60	60	-4	-17	1	18
GRT3{1}	0	1	-86	86	-5	-18	1	19
GRT4{1}	1	1	-69	69	-5	-17	1	17

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F_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
M06 M-	Gravity{1}	0	0	-190	190	2	-35	0	35
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	1	23	23	-6	1	1	6
	Thermal 2{1}	1	1	32	32	-5	2	0	6
	Thermal 3{1}	0	1	6	6	-6	-2	1	6
	Thermal 4{1}	1	1	23	23	-6	2	1	6
	GRT1{1}	1	1	-168	168	-4	-33	1	33
	GRT2{1}	1	1	-158	158	-4	-32	0	32
	GRT3{1}	0	1	-184	184	-4	-36	1	37
	GRT4{1}	1	1	-167	167	-4	-33	0	33
M06 M+	Gravity{1}	0	0	223	223	2	-35	0	35
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	1	4	4	-6	1	1	6

F_LINE_REV0.OUT

	Thermal 2{1}	1	1	8	8	-5	2	0	6
	Thermal 3{1}	0	1	3	3	-6	-2	1	6
	Thermal 4{1}	1	1	4	4	-6	2	1	6
	GRT1{1}	1	1	227	227	-4	-33	1	33
	GRT2{1}	1	1	230	230	-4	-32	0	32
	GRT3{1}	0	1	226	226	-4	-36	1	37
	GRT4{1}	1	1	227	227	-4	-33	0	33
M15 -	Gravity{1}	0	0	124	124	1	-11	0	11
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	1	4	4	-6	2	0	6
	Thermal 2{1}	1	1	8	8	-5	3	0	6
	Thermal 3{1}	0	1	3	3	-6	-1	0	6
	Thermal 4{1}	1	1	4	4	-6	2	0	6
	GRT1{1}	1	1	128	128	-5	-9	0	10
	GRT2{1}	1	1	132	132	-5	-7	0	9
	GRT3{1}	0	1	127	127	-5	-12	0	13
	GRT4{1}	1	1	128	128	-5	-9	0	10
M15 +	Gravity{1}	0	0	84	84	1	-11	0	11
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	1	4	4	-6	2	0	6
	Thermal 2{1}	1	1	8	8	-5	3	0	6
	Thermal 3{1}	0	1	3	3	-6	-1	0	6
	Thermal 4{1}	1	1	4	4	-6	2	0	6
	GRT1{1}	1	1	88	88	-5	-9	0	10
	GRT2{1}	1	1	92	92	-5	-7	0	9
	GRT3{1}	0	1	87	87	-5	-12	0	13
	GRT4{1}	1	1	88	88	-5	-9	0	10

0

F_LINE_REV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
C019 -	Gravity{1}	0	0	77	77	0	4	0	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	1	4	4	-6	3	0	7

F_LINE_REV0.OUT								
Thermal 2{1}	1	1	8	8	-5	5	0	7
Thermal 3{1}	0	1	3	3	-6	-1	0	6
Thermal 4{1}	1	1	4	4	-6	3	0	6
GRT1{1}	1	1	81	81	-6	7	0	9
GRT2{1}	1	1	84	84	-5	9	0	10
GRT3{1}	0	1	80	80	-6	3	0	6
GRT4{1}	1	1	81	81	-6	7	0	9
C019 + Gravity{1}	0	0	-4	4	0	4	0	4
Hydrotest{1}	0	0	0	0	0	0	0	0
Thermal 1{1}	1	1	4	4	-6	3	0	7
Thermal 2{1}	1	1	8	8	-5	5	0	7
Thermal 3{1}	0	1	3	3	-6	-1	0	6
Thermal 4{1}	1	1	4	4	-6	3	0	6
GRT1{1}	1	1	0	1	-6	7	0	9
GRT2{1}	1	1	4	4	-5	9	0	10
GRT3{1}	0	1	-1	1	-6	3	0	6
GRT4{1}	1	1	0	1	-6	7	0	9
M08 N Gravity{1}	0	0	-16	16	0	1	0	1
Hydrotest{1}	0	0	0	0	0	0	0	0
Thermal 1{1}	1	1	4	4	-6	4	0	7
Thermal 2{1}	1	1	8	8	-6	7	0	9
Thermal 3{1}	0	1	3	3	-6	0	0	6
Thermal 4{1}	1	1	4	4	-6	4	0	7
GRT1{1}	1	1	-12	12	-6	5	0	7
GRT2{1}	1	1	-8	9	-5	8	0	9
GRT3{1}	0	1	-13	13	-6	1	0	6
GRT4{1}	1	1	-12	12	-5	5	0	7
M08 F Gravity{1}	0	0	-19	19	0	0	0	0
Hydrotest{1}	0	0	0	0	0	0	0	0
Thermal 1{1}	1	1	4	4	-6	4	0	7
Thermal 2{1}	1	1	8	8	-6	7	0	9
Thermal 3{1}	0	1	3	3	-6	0	0	6
Thermal 4{1}	1	1	4	4	-6	4	0	7
GRT1{1}	1	1	-14	14	-6	4	0	7
GRT2{1}	1	1	-11	11	-5	8	0	9
GRT3{1}	0	1	-15	15	-5	0	0	6
GRT4{1}	1	1	-14	15	-5	4	0	7

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
M19 -	Gravity{1}	0	0	-382	382	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	1	4	4	3	-2	0	4
	Thermal 2{1}	1	1	8	8	3	-3	0	4
	Thermal 3{1}	0	1	3	3	3	0	0	3
	Thermal 4{1}	1	1	4	4	3	-2	0	4
	GRT1{1}	1	1	-378	378	3	-2	0	3
	GRT2{1}	1	1	-374	374	2	-3	0	4
	GRT3{1}	0	1	-379	379	3	0	0	3
	GRT4{1}	1	1	-378	378	3	-2	0	3
M19 +	Gravity{1}	0	0	-382	382	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	-2	4	5	3	-2	0	4
	Thermal 2{1}	-2	-1	8	8	3	-3	0	4
	Thermal 3{1}	0	-1	3	3	3	0	0	3
	Thermal 4{1}	-1	-1	4	4	3	-2	0	4
	GRT1{1}	-1	-1	-378	378	3	-2	0	3
	GRT2{1}	-2	-1	-374	374	2	-3	0	4
	GRT3{1}	0	-1	-379	379	3	0	0	3
	GRT4{1}	-1	-1	-378	378	3	-2	0	3
M09	Gravity{1}	0	0	-507	507	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	-2	4	5	-2	1	0	2
	Thermal 2{1}	-2	-1	8	8	-1	2	0	2
	Thermal 3{1}	0	-1	3	3	-2	0	0	2
	Thermal 4{1}	-1	-1	4	4	-1	1	0	2
	GRT1{1}	-1	-1	-503	503	-1	1	0	2
	GRT2{1}	-2	-1	-499	499	-1	2	0	2
	GRT3{1}	0	-1	-504	504	-1	0	0	1
	GRT4{1}	-1	-1	-503	503	-1	1	0	2
M16	Gravity{1}	0	0	-513	513	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	-2	4	5	-2	1	0	2

	F_LINE_REV0.OUT							
Thermal 2{1}	-2	-1	8	8	-1	2	0	2
Thermal 3{1}	0	-1	3	3	-2	0	0	2
Thermal 4{1}	-1	-1	4	4	-2	1	0	2
GRT1{1}	-1	-1	-509	509	-2	1	0	2
GRT2{1}	-2	-1	-505	505	-1	2	0	2
GRT3{1}	0	-1	-510	510	-2	0	0	2
GRT4{1}	-1	-1	-509	509	-1	1	0	2

0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
M17	Gravity{1}	0	0	-529	529	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	-2	4	5	-2	1	0	2
	Thermal 2{1}	-2	-1	8	8	-2	2	0	2
	Thermal 3{1}	0	-1	3	3	-2	0	0	2
	Thermal 4{1}	-1	-1	4	4	-2	1	0	2
	GRT1{1}	-1	-1	-525	525	-2	1	0	2
	GRT2{1}	-2	-1	-521	521	-1	2	0	2
	GRT3{1}	0	-1	-526	526	-2	0	0	2
	GRT4{1}	-1	-1	-525	525	-2	1	0	2
M12	Gravity{1}	0	0	-591	591	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1	-2	4	5	-2	1	0	2
	Thermal 2{1}	-2	-1	8	8	-2	2	0	3
	Thermal 3{1}	0	-1	3	3	-2	0	0	2
	Thermal 4{1}	-1	-1	4	4	-2	1	0	2
	GRT1{1}	-1	-1	-587	587	-2	1	0	2
	GRT2{1}	-2	-1	-584	584	-2	2	0	3
	GRT3{1}	0	-1	-588	588	-2	0	0	2
	GRT4{1}	-1	-1	-587	587	-2	1	0	2

*** Segment M end ***

*** Segment Q begin ***

B12	Gravity{1}	0	0	255	255	0	0	0	0

		F_LINE_REV0.OUT							
Hydrotest{1}		0	0	0	0	0	0	0	0
Thermal 1{1}		0	0	0	0	0	0	0	0
Thermal 2{1}		0	0	0	0	0	0	0	0
Thermal 3{1}		0	0	0	0	0	0	0	0
Thermal 4{1}		0	0	0	0	0	0	0	0
GRT1{1}		0	0	255	255	0	0	0	0
GRT2{1}		0	0	255	255	0	0	0	0
GRT3{1}		0	0	255	255	0	0	0	0
GRT4{1}		0	0	255	255	0	0	0	0
Q01 - Gravity{1}		0	0	249	249	0	0	0	0
Hydrotest{1}		0	0	0	0	0	0	0	0
Thermal 1{1}		0	0	0	0	0	0	0	0
Thermal 2{1}		0	0	0	0	0	0	0	0
Thermal 3{1}		0	0	0	0	0	0	0	0
Thermal 4{1}		0	0	0	0	0	0	0	0
GRT1{1}		0	0	249	249	0	0	0	0
GRT2{1}		0	0	249	249	0	0	0	0
GRT3{1}		0	0	249	249	0	0	0	0
GRT4{1}		0	0	249	249	0	0	0	0

0

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

Q01 +	Gravity{1}	0	0	209	209	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	209	209	0	0	0	0
	GRT2{1}	0	0	209	209	0	0	0	0
	GRT3{1}	0	0	209	209	0	0	0	0
	GRT4{1}	0	0	209	209	0	0	0	0
Q01 M	Gravity{1}	0	0	125	125	0	0	0	0

		F_LINE_REV0.OUT							
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	125	125	0	0	0	0
	GRT2{1}	0	0	125	125	0	0	0	0
	GRT3{1}	0	0	125	125	0	0	0	0
	GRT4{1}	0	0	125	125	0	0	0	0
Q02	Gravity{1}	0	0	40	40	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	40	40	0	0	0	0
	GRT2{1}	0	0	40	40	0	0	0	0
	GRT3{1}	0	0	40	40	0	0	0	0
	GRT4{1}	0	0	40	40	0	0	0	0

*** Segment Q end ***

*** Segment R begin ***

C16	Gravity{1}	0	0	255	255	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	255	255	0	0	0	0
	GRT2{1}	0	0	255	255	0	0	0	0
	GRT3{1}	0	0	255	255	0	0	0	0
	GRT4{1}	0	0	255	255	0	0	0	0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result

F_LINE_REV0.OUT

R01	-	Gravity{1}	0	0	249	249	0	0	0	0
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	0	0	0	0	0	0	0	0
		Thermal 2{1}	0	0	0	0	0	0	0	0
		Thermal 3{1}	0	0	0	0	0	0	0	0
		Thermal 4{1}	0	0	0	0	0	0	0	0
		GRT1{1}	0	0	249	249	0	0	0	0
		GRT2{1}	0	0	249	249	0	0	0	0
		GRT3{1}	0	0	249	249	0	0	0	0
		GRT4{1}	0	0	249	249	0	0	0	0
R01	+	Gravity{1}	0	0	209	209	0	0	0	0
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	0	0	0	0	0	0	0	0
		Thermal 2{1}	0	0	0	0	0	0	0	0
		Thermal 3{1}	0	0	0	0	0	0	0	0
		Thermal 4{1}	0	0	0	0	0	0	0	0
		GRT1{1}	0	0	209	209	0	0	0	0
		GRT2{1}	0	0	209	209	0	0	0	0
		GRT3{1}	0	0	209	209	0	0	0	0
		GRT4{1}	0	0	209	209	0	0	0	0
R01	M	Gravity{1}	0	0	125	125	0	0	0	0
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	0	0	0	0	0	0	0	0
		Thermal 2{1}	0	0	0	0	0	0	0	0
		Thermal 3{1}	0	0	0	0	0	0	0	0
		Thermal 4{1}	0	0	0	0	0	0	0	0
		GRT1{1}	0	0	125	125	0	0	0	0
		GRT2{1}	0	0	125	125	0	0	0	0
		GRT3{1}	0	0	125	125	0	0	0	0
		GRT4{1}	0	0	125	125	0	0	0	0
R02		Gravity{1}	0	0	40	40	0	0	0	0
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	0	0	0	0	0	0	0	0
		Thermal 2{1}	0	0	0	0	0	0	0	0
		Thermal 3{1}	0	0	0	0	0	0	0	0
		Thermal 4{1}	0	0	0	0	0	0	0	0
		GRT1{1}	0	0	40	40	0	0	0	0
		GRT2{1}	0	0	40	40	0	0	0	0
		GRT3{1}	0	0	40	40	0	0	0	0
		GRT4{1}	0	0	40	40	0	0	0	0

*** Segment R end ***

*** Segment S begin ***

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
D19	Gravity{1}	0	0	255	255	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	255	255	0	0	0	0
	GRT2{1}	0	0	255	255	0	0	0	0
	GRT3{1}	0	0	255	255	0	0	0	0
	GRT4{1}	0	0	255	255	0	0	0	0
S01 -	Gravity{1}	0	0	249	249	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	249	249	0	0	0	0
	GRT2{1}	0	0	249	249	0	0	0	0
	GRT3{1}	0	0	249	249	0	0	0	0
	GRT4{1}	0	0	249	249	0	0	0	0
S01 +	Gravity{1}	0	0	209	209	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	209	209	0	0	0	0
	GRT2{1}	0	0	209	209	0	0	0	0

		F_LINE_REV0.OUT							
	GRT3{1}	0	0	209	209	0	0	0	0
	GRT4{1}	0	0	209	209	0	0	0	0
S01 M	Gravity{1}	0	0	125	125	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	125	125	0	0	0	0
	GRT2{1}	0	0	125	125	0	0	0	0
	GRT3{1}	0	0	125	125	0	0	0	0
	GRT4{1}	0	0	125	125	0	0	0	0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
S02	Gravity{1}	0	0	40	40	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	40	40	0	0	0	0
	GRT2{1}	0	0	40	40	0	0	0	0
	GRT3{1}	0	0	40	40	0	0	0	0
	GRT4{1}	0	0	40	40	0	0	0	0

*** Segment S end ***

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

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F_LINE_REV0.OUT									
Point	Load	Hoop	Longitudinal		Shear	Principal		Total	
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
*** Segment A begin ***									
A00	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	0	0	0	0	0	0	270
	Hydrotest{1}	60	26	26	0	60	26	53	270
	Thermal 1{1}	0	0	0	0	0	0	0	270
	Thermal 2{1}	0	0	0	0	0	0	0	270
	Thermal 3{1}	0	0	0	0	0	0	0	270
	Thermal 4{1}	0	0	0	0	0	0	0	270
	GRT1{1}	0	0	0	0	0	0	0	270
	GRT2{1}	0	0	0	0	0	0	0	270
	GRT3{1}	0	0	0	0	0	0	0	270
	GRT4{1}	0	0	0	0	0	0	0	270
A04	- SIFI= 1.22 SIFO= 1.22 Gravity{1}	0	0	0	0	0	0	0	180
	Hydrotest{1}	60	26	26	0	60	26	53	270
	Thermal 1{1}	0	0	0	0	0	0	0	270
	Thermal 2{1}	0	0	0	0	0	0	0	270
	Thermal 3{1}	0	0	0	0	0	0	0	270
	Thermal 4{1}	0	0	0	0	0	0	0	270
	GRT1{1}	0	0	0	0	0	0	0	180
	GRT2{1}	0	0	0	0	0	0	0	180
	GRT3{1}	0	0	0	0	0	0	0	180
	GRT4{1}	0	0	0	0	0	0	0	180
A04	+ SIFI= 1.22 SIFO= 1.22 Gravity{1}	0	0	0	0	0	0	0	177
	Hydrotest{1}	60	26	26	0	60	26	53	270
	Thermal 1{1}	0	0	0	2	2	-2	3	8
	Thermal 2{1}	0	0	0	2	2	-2	4	10
	Thermal 3{1}	0	0	0	2	2	-2	3	8
	Thermal 4{1}	0	0	0	1	1	-1	2	6
	GRT1{1}	0	0	0	2	2	-2	3	7
	GRT2{1}	0	0	0	2	2	-2	4	9
	GRT3{1}	0	0	0	2	2	-2	3	7
	GRT4{1}	0	0	0	1	1	-1	2	5
A06	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	1	-1	0	1	-1	1	360
	Hydrotest{1}	60	26	26	0	60	26	53	270
	Thermal 1{1}	0	2	-2	2	3	-3	3	340
	Thermal 2{1}	0	2	-2	2	3	-3	4	338

	F_LINE_REV0.OUT						
Thermal 3{1}	0	2	-2	2	3	-3	3 340
Thermal 4{1}	0	1	-1	1	2	-2	2 344
GRT1{1}	0	1	-1	2	2	-2	3 291
GRT2{1}	0	1	-1	2	2	-2	4 299
GRT3{1}	0	1	-1	2	2	-2	3 291
GRT4{1}	0	0	0	1	1	-1	2 264

A03 - SIFI= 1.22 SIF0= 1.22

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point name	Load combination	Hoop Stress	Longitudinal Max	Min	Shear Stress	Principal Max	Min	Total Stress	Loc

	Gravity{1}	0	0	0	0	0	0	0	7
	Hydrotest{1}	60	26	26	0	60	26	53	270
	Thermal 1{1}	0	0	0	2	2	-2	3	358
	Thermal 2{1}	0	0	0	2	2	-2	4	352
	Thermal 3{1}	0	0	0	2	2	-2	3	350
	Thermal 4{1}	0	0	0	1	1	-1	2	7
	GRT1{1}	0	0	0	2	2	-2	3	355
	GRT2{1}	0	0	0	2	2	-2	4	347
	GRT3{1}	0	0	0	2	2	-2	3	347
	GRT4{1}	0	0	0	1	1	-1	2	7
A03 + SIFI= 1.22 SIF0= 1.22									
	Gravity{1}	0	0	0	0	0	0	0	6
	Hydrotest{1}	60	26	26	0	60	26	53	270
	Thermal 1{1}	0	0	0	3	3	-3	6	55
	Thermal 2{1}	0	0	0	4	4	-4	7	79
	Thermal 3{1}	0	0	0	3	3	-3	6	288
	Thermal 4{1}	0	0	0	2	2	-2	3	22
	GRT1{1}	0	0	0	3	3	-3	6	96
	GRT2{1}	0	0	0	4	4	-4	7	113
	GRT3{1}	0	0	0	3	3	-3	6	311
	GRT4{1}	0	0	0	2	2	-2	3	37
A05 - SIFI= 1.00 SIF0= 1.00									
	Gravity{1}	0	0	0	0	0	0	0	355
	Hydrotest{1}	60	26	26	0	60	26	53	270
	Thermal 1{1}	0	0	0	3	3	-3	6	25

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Thermal 2{1}	0	0	0	4	4	-4	7	131
Thermal 3{1}	0	0	0	3	3	-3	6	194
Thermal 4{1}	0	0	0	2	2	-2	3	351
GRT1{1}	0	0	0	3	3	-3	6	168
GRT2{1}	0	0	0	4	4	-4	7	166
GRT3{1}	0	0	0	3	3	-3	6	354
GRT4{1}	0	0	0	2	2	-2	3	180
A05 + SIFI= 1.00 SIFO= 1.00 Gravity{1}								
	0	2	-2	0	2	-2	2	359
Hydrotest{1}	60	26	26	0	60	26	53	270
Thermal 1{1}	0	2	-2	3	4	-4	5	309
Thermal 2{1}	0	2	-2	4	6	-6	8	307
Thermal 3{1}	0	2	-2	3	4	-4	5	309
Thermal 4{1}	0	2	-2	3	4	-4	6	309
GRT1{1}	0	1	-1	3	4	-4	5	66
GRT2{1}	0	2	-2	4	5	-5	8	263
GRT3{1}	0	1	-1	3	4	-4	5	67
GRT4{1}	0	1	-1	3	4	-4	5	248
A02 - SIFI= 1.22 SIFO= 1.22 Gravity{1}								
	0	0	0	0	0	0	0	173
Hydrotest{1}	60	26	26	0	60	26	53	270
Thermal 1{1}	0	0	0	3	3	-3	5	3
Thermal 2{1}	0	0	0	4	4	-4	7	5

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
								Loc
Thermal 3{1}		0	0	0	3	3	-3	5 2
Thermal 4{1}		0	0	0	3	3	-3	5 3
GRT1{1}		0	0	0	3	3	-3	5 180
GRT2{1}		0	0	0	4	4	-4	7 3
GRT3{1}		0	0	0	3	3	-3	5 180
GRT4{1}		0	0	0	3	3	-3	5 1
A02 + SIFI= 1.22 SIFO= 1.22 Gravity{1}								
		0	0	0	0	0	0	0 180

		F_LINE_REV0.OUT						
	Hydrotest{1}	60	26	26	0	60	26	53 270
	Thermal 1{1}	0	0	0	0	0	0	270
	Thermal 2{1}	0	0	0	0	0	0	90
	Thermal 3{1}	0	0	0	0	0	0	270
	Thermal 4{1}	0	0	0	0	0	0	270
	GRT1{1}	0	0	0	0	0	0	180
	GRT2{1}	0	0	0	0	0	0	180
	GRT3{1}	0	0	0	0	0	0	180
	GRT4{1}	0	0	0	0	0	0	180
A01	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	0	0	0	0	0	270
	Hydrotest{1}	60	26	26	0	60	26	53 270
	Thermal 1{1}	0	0	0	0	0	0	270
	Thermal 2{1}	0	0	0	0	0	0	90
	Thermal 3{1}	0	0	0	0	0	0	270
	Thermal 4{1}	0	0	0	0	0	0	270
	GRT1{1}	0	0	0	0	0	0	270
	GRT2{1}	0	0	0	0	0	0	90
	GRT3{1}	0	0	0	0	0	0	270
	GRT4{1}	0	0	0	0	0	0	270
*** Segment A end ***								
*** Segment B begin ***								
A04	SIFI= 1.22 SIFO= 1.22 Gravity{1}	0	2	0	0	2	0	2 83
	Hydrotest{1}	37	14	14	0	37	14	32 270
	Thermal 1{1}	0	70	-73	0	70	-73	73 86
	Thermal 2{1}	0	89	-91	0	89	-91	91 87
	Thermal 3{1}	0	71	-73	0	71	-73	73 86
	Thermal 4{1}	0	41	-43	0	41	-43	43 83
	GRT1{1}	0	70	-71	0	70	-71	71 86
	GRT2{1}	0	89	-90	0	89	-90	90 87
	GRT3{1}	0	70	-71	0	70	-71	71 86
	GRT4{1}	0	41	-41	0	41	-41	41 83
B01 N-	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	2	-1	0	2	-1	2 270
	Hydrotest{1}	37	14	14	0	37	14	32 270
	Thermal 1{1}	0	66	-68	0	66	-68	68 271
	Thermal 2{1}	0	77	-80	0	77	-80	80 271

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
-----	-----	-----	-----	-----	-----	-----	-----	---
	Thermal 3{1}	0	66	-68	0	66	-68	68 271
	Thermal 4{1}	0	47	-49	0	47	-49	49 272
	GRT1{1}	0	64	-66	0	64	-66	66 271
	GRT2{1}	0	76	-78	0	76	-78	78 271
	GRT3{1}	0	64	-66	0	64	-66	66 271
	GRT4{1}	0	46	-47	0	46	-47	47 272
B01 N+	SIFI= 1.23 SIF0= 1.23 Gravity{1}	0	2	-2	0	2	-2	2 0
	Hydrotest{1}	37	14	14	0	37	14	32 270
	Thermal 1{1}	0	81	-83	0	81	-83	83 1
	Thermal 2{1}	0	95	-98	0	95	-98	98 1
	Thermal 3{1}	0	81	-84	0	81	-84	84 1
	Thermal 4{1}	0	58	-60	0	58	-60	60 2
	GRT1{1}	0	80	-81	0	80	-81	81 1
	GRT2{1}	0	94	-96	0	94	-96	96 1
	GRT3{1}	0	80	-81	0	80	-81	81 1
	GRT4{1}	0	57	-58	0	57	-58	58 2
B01 M	SIFI= 1.23 SIF0= 1.23 Gravity{1}	0	2	-1	0	2	-1	2 360
	Hydrotest{1}	37	14	14	0	37	14	32 270
	Thermal 1{1}	0	81	-83	1	81	-83	83 1
	Thermal 2{1}	0	95	-98	1	95	-98	98 0
	Thermal 3{1}	0	81	-83	1	81	-83	83 1
	Thermal 4{1}	0	58	-60	1	58	-60	60 1
	GRT1{1}	0	80	-81	1	80	-81	81 1
	GRT2{1}	0	94	-96	1	94	-96	96 0
	GRT3{1}	0	80	-81	1	80	-82	82 1
	GRT4{1}	0	57	-58	1	57	-58	58 1
B01 F-	SIFI= 1.23 SIF0= 1.23 Gravity{1}	0	0	0	0	0	0	0 357
	Hydrotest{1}	37	14	14	0	37	14	32 270
	Thermal 1{1}	0	77	-77	1	77	-78	78 360
	Thermal 2{1}	0	91	-92	1	91	-92	92 360
	Thermal 3{1}	0	77	-78	1	77	-78	78 360
	Thermal 4{1}	0	54	-55	1	54	-55	55 360
	GRT1{1}	0	76	-77	1	77	-77	77 360

		F_LINE_REV0.OUT						
GRT2{1}	0	91	-92	1	91	-92	92	360
GRT3{1}	0	77	-77	1	77	-77	77	360
GRT4{1}	0	54	-54	1	54	-54	54	360
B01 F+ SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	0	0	0	0	0	0	357
Hydrotest{1}	37	14	14	0	37	14	32	270
Thermal 1{1}	0	62	-63	1	62	-63	63	360
Thermal 2{1}	0	74	-74	1	74	-74	74	360
Thermal 3{1}	0	62	-63	1	62	-63	63	360
Thermal 4{1}	0	44	-44	1	44	-44	44	360
GRT1{1}	0	62	-63	1	62	-63	63	360
GRT2{1}	0	73	-74	1	73	-74	74	360

0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
B02	GRT3{1}		0	62	-63	1	62	-63	63	360
	GRT4{1}		0	44	-44	1	44	-44	44	360
	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	9	-9	0	9	-9	9	180
	Hydrotest{1}		37	14	14	0	37	14	32	270
	Thermal 1{1}		0	11	-12	1	11	-12	12	2
	Thermal 2{1}		0	18	-19	1	18	-19	19	1
	Thermal 3{1}		0	11	-12	1	11	-12	12	2
	Thermal 4{1}		0	0	-1	1	1	-1	2	87
	GRT1{1}		0	20	-21	1	20	-21	21	1
	GRT2{1}		0	27	-28	1	27	-28	28	0
	GRT3{1}		0	20	-21	1	20	-21	21	1
GRT4{1}		0	9	-9	1	9	-10	10	3	
FV03	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	5	-5	0	5	-5	5	180
	Hydrotest{1}		37	14	14	0	37	14	32	270
	Thermal 1{1}		0	28	-28	1	28	-28	28	178
	Thermal 2{1}		0	24	-25	1	24	-25	25	178
	Thermal 3{1}		0	28	-29	1	28	-29	29	178
Thermal 4{1}		0	34	-34	1	34	-34	34	178	

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	GRT1{1}		0	23	-23	1	23	-23	23	178
	GRT2{1}		0	19	-20	1	19	-20	20	178
	GRT3{1}		0	23	-23	1	23	-24	24	178
	GRT4{1}		0	29	-29	1	29	-29	29	178
B04	SIFI= 1.00 SIFO= 1.00 Gravity{1}		0	13	-13	0	13	-13	13	0
	Hydrotest{1}		37	14	14	0	37	14	32	270
	Thermal 1{1}		0	67	-68	1	67	-68	68	179
	Thermal 2{1}		0	68	-69	1	68	-69	69	179
	Thermal 3{1}		0	67	-68	1	67	-68	68	179
	Thermal 4{1}		0	67	-67	1	67	-67	67	178
	GRT1{1}		0	80	-81	1	80	-81	81	179
	GRT2{1}		0	80	-81	1	80	-81	81	179
	GRT3{1}		0	80	-81	1	80	-81	81	179
	GRT4{1}		0	80	-80	1	80	-80	80	179
B13	SIFI= 1.00 SIFO= 1.00 Gravity{1}		0	10	-10	0	10	-10	10	0
	Hydrotest{1}		37	14	14	0	37	14	32	270
	Thermal 1{1}		0	75	-76	1	75	-76	76	178
	Thermal 2{1}		0	78	-79	1	78	-79	79	177
	Thermal 3{1}		0	75	-76	1	75	-76	76	178
	Thermal 4{1}		0	72	-72	1	72	-72	72	178
	GRT1{1}		0	85	-86	1	85	-86	86	178
	GRT2{1}		0	88	-89	1	88	-89	89	178
	GRT3{1}		0	85	-86	1	85	-86	86	178
	GRT4{1}		0	81	-82	1	81	-82	82	178

B12 - SIFI= 1.00 SIFO= 1.00

□

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	Gravity{1}	0	6	-6	0	6	-6	6	1
	Hydrotest{1}	37	14	14	0	37	14	32	270
	Thermal 1{1}	0	61	-62	1	61	-62	62	4
	Thermal 2{1}	0	64	-65	1	64	-65	65	5

		F_LINE_REV0.OUT						
	Thermal 3{1}	0	61	-61	1	61	-62	62 4
	Thermal 4{1}	0	56	-56	1	56	-56	56 3
	GRT1{1}	0	54	-55	1	54	-55	55 5
	GRT2{1}	0	57	-58	1	57	-58	58 6
	GRT3{1}	0	54	-55	1	54	-55	55 5
	GRT4{1}	0	49	-50	1	49	-50	50 3
B12	+ SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	6	-6	0	6	-6	6 1
	Hydrotest{1}	37	14	14	0	37	14	32 270
	Thermal 1{1}	0	61	-62	1	61	-62	62 4
	Thermal 2{1}	0	64	-65	1	64	-65	65 5
	Thermal 3{1}	0	61	-61	1	61	-62	62 4
	Thermal 4{1}	0	56	-56	1	56	-56	56 3
	GRT1{1}	0	54	-55	1	54	-55	55 5
	GRT2{1}	0	57	-58	1	57	-58	58 6
	GRT3{1}	0	54	-55	1	54	-55	55 5
	GRT4{1}	0	49	-50	1	49	-50	50 3
B17	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	9	-9	0	9	-9	9 179
	Hydrotest{1}	37	14	14	0	37	14	32 270
	Thermal 1{1}	0	52	-53	1	52	-53	53 174
	Thermal 2{1}	0	56	-56	1	56	-56	56 172
	Thermal 3{1}	0	52	-53	1	52	-53	53 174
	Thermal 4{1}	0	46	-47	1	46	-47	47 176
	GRT1{1}	0	43	-44	1	43	-44	44 173
	GRT2{1}	0	46	-47	1	46	-47	47 171
	GRT3{1}	0	43	-43	1	43	-43	43 173
	GRT4{1}	0	37	-38	1	37	-38	38 176
B16	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	2	-2	0	2	-2	2 174
	Hydrotest{1}	37	14	14	0	37	14	32 270
	Thermal 1{1}	0	36	-37	1	36	-37	37 168
	Thermal 2{1}	0	40	-41	1	40	-41	41 166
	Thermal 3{1}	0	36	-37	1	36	-37	37 168
	Thermal 4{1}	0	29	-29	1	29	-29	29 173
	GRT1{1}	0	35	-35	1	35	-35	35 168
	GRT2{1}	0	39	-40	1	39	-40	40 165
	GRT3{1}	0	34	-35	1	34	-35	35 168
	GRT4{1}	0	27	-28	1	27	-28	28 173
B06	- SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	8	-8	0	8	-8	8 359
	Hydrotest{1}	37	14	14	0	37	14	32 270
	Thermal 1{1}	0	29	-29	1	29	-29	30 197

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Thermal 2{1}	0	33	-34	1	33	-34	34	200

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point name	Load combination	Hoop Stress	Longitudinal Max	Longitudinal Min	Shear Stress	Principal Max	Principal Min	Total Stress	Loc
	Thermal 3{1}	0	28	-29	1	28	-29	29	197
	Thermal 4{1}	0	20	-21	1	20	-21	21	190
	GRT1{1}	0	37	-37	1	37	-38	38	193
	GRT2{1}	0	41	-42	1	41	-42	42	196
	GRT3{1}	0	36	-37	1	36	-37	37	193
	GRT4{1}	0	28	-29	1	29	-29	29	187
B06 +	SIFI= 1.00 Gravity{1}	0	9	-9	0	9	-9	9	359
	Hydrotest{1}	37	14	14	0	37	14	32	270
	Thermal 1{1}	0	26	-27	1	26	-27	27	198
	Thermal 2{1}	0	28	-29	1	28	-29	29	204
	Thermal 3{1}	0	26	-27	1	26	-27	27	198
	Thermal 4{1}	0	21	-21	1	21	-21	21	190
	GRT1{1}	0	34	-35	1	34	-35	35	194
	GRT2{1}	0	36	-37	1	36	-37	37	198
	GRT3{1}	0	34	-35	1	34	-35	35	193
	GRT4{1}	0	29	-30	1	29	-30	30	187
B07 N-	SIFI= 1.00 Gravity{1}	0	1	-1	0	1	-1	1	339
	Hydrotest{1}	37	14	14	0	37	14	32	270
	Thermal 1{1}	0	20	-21	1	21	-21	21	332
	Thermal 2{1}	0	24	-25	1	24	-25	25	329
	Thermal 3{1}	0	20	-21	1	20	-21	21	332
	Thermal 4{1}	0	15	-16	1	15	-16	16	338
	GRT1{1}	0	20	-21	1	20	-21	21	332
	GRT2{1}	0	23	-24	1	23	-24	24	328
	GRT3{1}	0	19	-20	1	19	-20	20	332
	GRT4{1}	0	14	-15	1	14	-15	15	338
B07 N+	SIFI= 1.23 Gravity{1}	0	1	-1	0	1	-1	1	69

	F_LINE_REV0.OUT							
Hydrotest{1}	37	14	14	0	37	14	32	270
Thermal 1{1}	0	25	-26	1	25	-26	26	62
Thermal 2{1}	0	30	-31	1	30	-31	31	59
Thermal 3{1}	0	25	-26	1	25	-26	26	62
Thermal 4{1}	0	19	-19	1	19	-19	19	68
GRT1{1}	0	24	-25	1	24	-25	25	62
GRT2{1}	0	29	-30	1	29	-30	30	58
GRT3{1}	0	24	-25	1	24	-25	25	62
GRT4{1}	0	18	-18	1	18	-18	18	68

B07 F- SIFI= 1.23 SIF0= 1.23

Gravity{1}	0	1	-1	0	1	-1	1	59
Hydrotest{1}	37	14	14	0	37	14	32	270
Thermal 1{1}	0	21	-22	7	23	-23	24	56
Thermal 2{1}	0	25	-26	7	27	-28	29	53
Thermal 3{1}	0	21	-21	6	22	-23	24	56
Thermal 4{1}	0	15	-15	5	16	-17	18	63
GRT1{1}	0	20	-21	6	22	-23	24	56
GRT2{1}	0	24	-25	7	26	-27	28	52

0

F_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	GRT3{1}	0	20	-21	6	22	-22	23	56
	GRT4{1}	0	14	-15	5	16	-16	17	63

B07 F+ SIFI= 1.00 SIF0= 1.00

Gravity{1}	0	1	-1	0	1	-1	1	329
Hydrotest{1}	37	14	14	0	37	14	32	270
Thermal 1{1}	0	17	-18	7	19	-20	21	326
Thermal 2{1}	0	20	-21	7	23	-23	25	323
Thermal 3{1}	0	17	-17	6	19	-19	21	326
Thermal 4{1}	0	12	-12	5	14	-14	15	333
GRT1{1}	0	16	-17	6	19	-19	20	326
GRT2{1}	0	20	-21	7	22	-23	24	322
GRT3{1}	0	16	-17	6	18	-19	20	326
GRT4{1}	0	11	-12	5	13	-14	15	333

		F_LINE_REV0.OUT							
B08 N-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	0	0	0	0	0	17
	Hydrotest{1}		37	14	14	0	37	14	270
	Thermal 1{1}		0	25	-26	7	27	-28	359
	Thermal 2{1}		0	28	-29	7	30	-31	357
	Thermal 3{1}		0	25	-26	6	27	-27	358
	Thermal 4{1}		0	20	-20	5	21	-21	2
	GRT1{1}		0	25	-26	6	27	-27	359
	GRT2{1}		0	28	-29	7	30	-31	357
	GRT3{1}		0	25	-26	6	26	-27	358
	GRT4{1}		0	20	-20	5	21	-21	2

B08 N+	SIFI= 1.23 Gravity{1}	SIFO= 1.23	0	0	0	0	0	0	17
	Hydrotest{1}		37	14	14	0	37	14	270
	Thermal 1{1}		0	31	-32	7	33	-33	359
	Thermal 2{1}		0	35	-36	7	36	-37	357
	Thermal 3{1}		0	31	-32	6	32	-33	358
	Thermal 4{1}		0	24	-25	5	25	-26	2
	GRT1{1}		0	31	-32	6	32	-33	359
	GRT2{1}		0	35	-36	7	36	-37	357
	GRT3{1}		0	31	-32	6	32	-33	358
	GRT4{1}		0	24	-25	5	25	-26	2

B08 F-	SIFI= 1.23 Gravity{1}	SIFO= 1.23	0	1	0	0	1	0	293
	Hydrotest{1}		37	14	14	0	37	14	270
	Thermal 1{1}		0	34	-34	0	34	-34	334
	Thermal 2{1}		0	37	-38	0	37	-38	334
	Thermal 3{1}		0	34	-34	0	34	-34	334
	Thermal 4{1}		0	27	-27	1	27	-27	334
	GRT1{1}		0	33	-34	0	33	-34	335
	GRT2{1}		0	37	-37	0	37	-37	335
	GRT3{1}		0	33	-34	0	33	-34	335
	GRT4{1}		0	27	-27	1	27	-27	335

B08 F+ SIFI= 1.00 SIFO= 1.00

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F_LINE_REV0

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RESULT PAGE 185

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total

name	combination	Stress	F_LINE_REV0.OUT		Stress	Max	Min	Stress	Loc
			Max	Min					
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	Gravity{1}	0	0	0	0	0	0	0	241
	Hydrotest{1}	37	14	14	0	37	14	32	270
	Thermal 1{1}	0	27	-28	0	27	-28	28	282
	Thermal 2{1}	0	30	-30	0	30	-30	30	282
	Thermal 3{1}	0	27	-28	0	27	-28	28	282
	Thermal 4{1}	0	22	-22	1	22	-22	22	282
	GRT1{1}	0	27	-27	0	27	-27	27	283
	GRT2{1}	0	30	-30	0	30	-30	30	283
	GRT3{1}	0	27	-27	0	27	-27	27	283
	GRT4{1}	0	21	-22	1	21	-22	22	283
B09 N-	SIFI= 1.00 SIF0= 1.00								
	Gravity{1}	0	1	0	0	1	0	1	137
	Hydrotest{1}	37	14	14	0	37	14	32	270
	Thermal 1{1}	0	6	-6	0	6	-6	6	284
	Thermal 2{1}	0	2	-3	0	2	-3	3	279
	Thermal 3{1}	0	6	-7	0	6	-7	7	283
	Thermal 4{1}	0	8	-9	1	8	-9	9	285
	GRT1{1}	0	6	-7	0	6	-7	7	286
	GRT2{1}	0	3	-3	0	3	-3	3	284
	GRT3{1}	0	7	-7	0	7	-7	7	285
	GRT4{1}	0	9	-9	1	9	-9	9	287
B09 N+	SIFI= 1.23 SIF0= 1.23								
	Gravity{1}	0	1	0	0	1	0	1	10
	Hydrotest{1}	37	14	14	0	37	14	32	270
	Thermal 1{1}	0	7	-8	0	7	-8	8	156
	Thermal 2{1}	0	3	-4	0	3	-4	4	152
	Thermal 3{1}	0	8	-8	0	8	-8	8	156
	Thermal 4{1}	0	10	-11	1	10	-11	11	158
	GRT1{1}	0	8	-8	0	8	-8	8	158
	GRT2{1}	0	4	-4	0	4	-4	4	157
	GRT3{1}	0	8	-9	0	8	-9	9	158
	GRT4{1}	0	11	-11	1	11	-11	11	159
B09 F-	SIFI= 1.23 SIF0= 1.23								
	Gravity{1}	0	0	0	0	0	0	0	223
	Hydrotest{1}	37	14	14	0	37	14	32	270
	Thermal 1{1}	0	6	-7	1	6	-7	7	198
	Thermal 2{1}	0	2	-3	0	2	-3	3	235
	Thermal 3{1}	0	6	-7	1	6	-7	7	195
	Thermal 4{1}	0	10	-10	1	10	-10	10	195
	GRT1{1}	0	6	-6	1	6	-6	6	197
	GRT2{1}	0	1	-2	0	1	-2	2	236

F_LINE_REV0.OUT

GRT3{1}	0	6	-7	1	6	-7	7	195
GRT4{1}	0	9	-10	1	10	-10	10	195
B09 F+ SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	0	0	0	0	0	0	43
Hydrotest{1}	37	14	14	0	37	14	32	270
Thermal 1{1}	0	5	-5	1	5	-5	5	18
Thermal 2{1}	0	1	-2	0	1	-2	2	55

0

F_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
-----	-----	-----	-----	-----	-----	-----	-----	---
	Thermal 3{1}	0	5	-6	1	5	-6	6 15
	Thermal 4{1}	0	8	-8	1	8	-8	8 15
	GRT1{1}	0	4	-5	1	5	-5	5 17
	GRT2{1}	0	1	-2	0	1	-2	2 56
	GRT3{1}	0	5	-6	1	5	-6	6 15
	GRT4{1}	0	8	-8	1	8	-8	8 15
B15	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	8	-8	0	8	-8	8 4
	Hydrotest{1}	37	14	14	0	37	14	32 270
	Thermal 1{1}	0	27	-28	1	27	-28	28 31
	Thermal 2{1}	0	23	-24	0	23	-24	24 44
	Thermal 3{1}	0	27	-28	1	28	-28	28 29
	Thermal 4{1}	0	29	-29	1	29	-29	30 23
	GRT1{1}	0	21	-21	1	21	-21	21 40
	GRT2{1}	0	18	-19	0	18	-19	19 59
	GRT3{1}	0	21	-22	1	21	-22	22 38
	GRT4{1}	0	22	-22	1	22	-22	22 30
B11	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	2	-2	0	2	-2	2 4
	Hydrotest{1}	47	19	19	0	47	19	41 270
	Thermal 1{1}	0	6	-6	0	6	-6	6 32
	Thermal 2{1}	0	5	-6	0	5	-6	6 44
	Thermal 3{1}	0	6	-6	0	6	-6	6 30
	Thermal 4{1}	0	6	-6	0	6	-6	6 25

	F_LINE_REV0.OUT							
GRT1{1}	0	4	-5	0	4	-5	5	43
GRT2{1}	0	4	-4	0	4	-4	4	60
GRT3{1}	0	4	-5	0	4	-5	5	41
GRT4{1}	0	4	-4	0	4	-4	5	34

*** Segment B end ***

*** Segment C begin ***

A03	SIFI= 1.22	SIFO= 1.22								
	Gravity{1}		0	3	-2	0	3	-2	3	90
	Hydrotest{1}		37	14	14	0	37	14	32	270
	Thermal 1{1}		0	71	-73	0	71	-73	73	92
	Thermal 2{1}		0	89	-91	1	89	-91	91	92
	Thermal 3{1}		0	72	-74	1	72	-74	74	93
	Thermal 4{1}		0	43	-45	0	43	-45	45	91
	GRT1{1}		0	70	-70	0	70	-70	70	92
	GRT2{1}		0	87	-88	1	87	-88	88	92
	GRT3{1}		0	71	-71	1	71	-71	71	94
GRT4{1}		0	42	-42	0	42	-42	42	91	
C01 N-	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	3	-2	0	3	-2	3	269
	Hydrotest{1}		37	14	14	0	37	14	32	270
	Thermal 1{1}		0	66	-68	0	66	-68	68	268
	Thermal 2{1}		0	76	-78	1	76	-78	78	269

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F_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	Thermal 3{1}	0	66	-68	1	66	-68	68	268
	Thermal 4{1}	0	48	-50	0	48	-50	50	267
	GRT1{1}	0	63	-65	0	63	-65	65	268
	GRT2{1}	0	74	-76	1	74	-76	76	269
	GRT3{1}	0	64	-65	1	64	-65	65	268
	GRT4{1}	0	46	-47	0	46	-47	47	267
C01 N+	SIFI= 1.23	SIFO= 1.23							
	Gravity{1}	0	3	-3	0	3	-3	3	359
	Hydrotest{1}	37	14	14	0	37	14	32	270
	Thermal 1{1}	0	81	-83	0	81	-83	83	358

		F_LINE_REV0.OUT							
	Thermal 2{1}	0	94	-97	1	94	-97	97	359
	Thermal 3{1}	0	82	-84	1	82	-84	84	358
	Thermal 4{1}	0	60	-62	0	60	-62	62	357
	GRT1{1}	0	78	-80	0	78	-80	80	358
	GRT2{1}	0	91	-93	1	91	-93	93	359
	GRT3{1}	0	79	-80	1	79	-80	80	358
	GRT4{1}	0	57	-58	0	57	-58	58	357
C01 M	SIFI= 1.23 Gravity{1}	0	3	-2	0	3	-2	3	359
	Hydrotest{1}	37	14	14	0	37	14	32	270
	Thermal 1{1}	0	81	-83	1	81	-83	83	358
	Thermal 2{1}	0	94	-96	0	94	-96	96	359
	Thermal 3{1}	0	81	-83	0	81	-83	83	358
	Thermal 4{1}	0	59	-61	1	59	-61	61	358
	GRT1{1}	0	78	-80	0	78	-80	80	358
	GRT2{1}	0	92	-94	0	92	-94	94	359
	GRT3{1}	0	79	-81	0	79	-81	81	357
	GRT4{1}	0	57	-58	1	57	-58	58	358
C01 F-	SIFI= 1.23 Gravity{1}	0	1	-1	0	1	-1	1	1
	Hydrotest{1}	37	14	14	0	37	14	32	270
	Thermal 1{1}	0	77	-78	1	77	-78	78	359
	Thermal 2{1}	0	90	-91	1	90	-91	91	359
	Thermal 3{1}	0	77	-78	1	77	-78	78	358
	Thermal 4{1}	0	56	-56	1	56	-56	56	360
	GRT1{1}	0	76	-76	1	76	-76	76	359
	GRT2{1}	0	89	-90	1	89	-90	90	359
	GRT3{1}	0	76	-77	1	76	-77	77	358
	GRT4{1}	0	54	-55	1	54	-55	55	360
C01 F+	SIFI= 1.00 Gravity{1}	0	1	-1	0	1	-1	1	1
	Hydrotest{1}	37	14	14	0	37	14	32	270
	Thermal 1{1}	0	62	-63	1	62	-63	63	359
	Thermal 2{1}	0	73	-74	1	73	-74	74	359
	Thermal 3{1}	0	63	-63	1	63	-63	63	358
	Thermal 4{1}	0	45	-46	1	45	-46	46	360
	GRT1{1}	0	61	-62	1	61	-62	62	359
	GRT2{1}	0	72	-73	1	72	-73	73	359

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F_LINE_REV0

09/13/2010 FEED LINE

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
	GRT3{1}	0	62	-62	1	62	-62	62 358
	GRT4{1}	0	44	-45	1	44	-45	45 360
C02	SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	10	-10	0	10	-10	10 180
	Hydrotest{1}	37	14	14	0	37	14	32 270
	Thermal 1{1}	0	13	-14	1	13	-14	14 354
	Thermal 2{1}	0	20	-21	1	20	-21	21 355
	Thermal 3{1}	0	14	-15	1	14	-15	15 349
	Thermal 4{1}	0	3	-3	1	3	-4	4 347
	GRT1{1}	0	23	-24	1	23	-24	24 356
	GRT2{1}	0	30	-30	1	30	-30	30 356
	GRT3{1}	0	24	-24	1	24	-24	24 354
	GRT4{1}	0	13	-13	1	13	-13	14 357
FV05	SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	6	-6	0	6	-6	6 180
	Hydrotest{1}	37	14	14	0	37	14	32 270
	Thermal 1{1}	0	25	-26	1	25	-26	26 184
	Thermal 2{1}	0	22	-23	1	22	-23	23 186
	Thermal 3{1}	0	25	-26	1	25	-26	26 188
	Thermal 4{1}	0	30	-30	1	30	-30	30 182
	GRT1{1}	0	19	-20	1	19	-20	20 186
	GRT2{1}	0	16	-17	1	16	-17	17 188
	GRT3{1}	0	19	-19	1	19	-19	19 190
	GRT4{1}	0	23	-24	1	24	-24	24 182
C04	SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	12	-12	0	12	-12	12 360
	Hydrotest{1}	37	14	14	0	37	14	32 270
	Thermal 1{1}	0	65	-66	1	65	-66	66 182
	Thermal 2{1}	0	65	-66	1	65	-66	66 182
	Thermal 3{1}	0	64	-65	1	64	-65	65 184
	Thermal 4{1}	0	63	-64	1	63	-64	64 181
	GRT1{1}	0	77	-78	1	77	-78	78 182
	GRT2{1}	0	77	-78	1	77	-78	78 182
	GRT3{1}	0	76	-77	1	76	-77	77 183
	GRT4{1}	0	75	-76	1	75	-76	76 181

		F_LINE_REV0.OUT							
C17	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	10	-10	0	10	-10	10 360
	Hydrotest{1}		37	14	14	0	37	14	32 270
	Thermal 1{1}		0	73	-74	1	73	-74	74 178
	Thermal 2{1}		0	75	-76	1	75	-76	76 176
	Thermal 3{1}		0	73	-74	1	73	-74	74 175
	Thermal 4{1}		0	69	-69	1	69	-70	70 179
	GRT1{1}		0	83	-84	1	83	-84	84 178
	GRT2{1}		0	85	-86	1	85	-86	86 177
	GRT3{1}		0	83	-84	1	83	-84	84 176
	GRT4{1}		0	79	-79	1	79	-79	79 179

C16 - SIFI= 1.00 SIFO= 1.00

□

F_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
	Gravity{1}	0	6	-6	0	6	-6	6 358
	Hydrotest{1}	37	14	14	0	37	14	32 270
	Thermal 1{1}	0	59	-60	1	59	-60	60 10
	Thermal 2{1}	0	63	-64	1	63	-64	64 15
	Thermal 3{1}	0	62	-63	1	62	-63	63 20
	Thermal 4{1}	0	55	-55	1	55	-55	55 4
	GRT1{1}	0	54	-54	1	54	-54	54 12
	GRT2{1}	0	57	-58	1	57	-58	58 16
	GRT3{1}	0	57	-58	1	57	-58	58 22
	GRT4{1}	0	49	-50	1	49	-50	50 5
C16 +	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	6	-6	0	6	-6 6 358
	Hydrotest{1}		37	14	14	0	37	14 32 270
	Thermal 1{1}		0	59	-60	1	59	-60 60 10
	Thermal 2{1}		0	63	-64	1	63	-64 64 15
	Thermal 3{1}		0	62	-63	1	62	-63 63 20
	Thermal 4{1}		0	55	-55	1	55	-55 55 4
	GRT1{1}		0	54	-54	1	54	-54 54 12
	GRT2{1}		0	57	-58	1	57	-58 58 16
	GRT3{1}		0	57	-58	1	57	-58 58 22

	GRT4{1}		0	F_LINE_REV0.0UT 49 -50	1	49	-50	50	5
C22	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	8 -8	0	8	-8	8	181
	Hydrotest{1}		37	14 14	0	37	14	32	270
	Thermal 1{1}		0	52 -52	1	52	-52	52	162
	Thermal 2{1}		0	57 -57	1	57	-57	57	156
	Thermal 3{1}		0	59 -59	1	59	-59	59	148
	Thermal 4{1}		0	46 -47	1	47	-47	47	172
	GRT1{1}		0	44 -45	1	44	-45	45	159
	GRT2{1}		0	49 -50	1	49	-50	50	152
	GRT3{1}		0	52 -53	1	52	-53	53	144
	GRT4{1}		0	38 -39	1	38	-39	39	170
C21	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	0 0	0	0	0	0	300
	Hydrotest{1}		37	14 14	0	37	14	32	270
	Thermal 1{1}		0	41 -42	1	41	-42	42	143
	Thermal 2{1}		0	50 -51	1	50	-51	51	135
	Thermal 3{1}		0	59 -60	1	59	-60	60	125
	Thermal 4{1}		0	32 -32	1	32	-32	32	162
	GRT1{1}		0	41 -42	1	41	-42	42	143
	GRT2{1}		0	50 -51	1	50	-51	51	135
	GRT3{1}		0	59 -60	1	59	-60	60	125
	GRT4{1}		0	32 -32	1	32	-32	32	161
C06	- SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	17 -17	0	17	-17	17	1
	Hydrotest{1}		37	14 14	0	37	14	32	270
	Thermal 1{1}		0	37 -38	1	37	-38	38	238
	Thermal 2{1}		0	51 -52	1	51	-52	52	243

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point name	Load combination	Hoop Stress	Longitudinal Max	Shear Min	Shear Stress	Principal Max	Principal Min	Total Stress	Loc
	Thermal 3{1}	0	65	-66	1	65	-66	66	251
	Thermal 4{1}	0	22	-22	1	22	-22	22	216
	GRT1{1}	0	49	-49	1	49	-49	49	221
	GRT2{1}	0	60	-61	1	60	-61	61	229

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	GRT3{1}	0	73	-74	1	73	-74	74	238
	GRT4{1}	0	37	-37	1	37	-37	37	201
C06	+ SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	17	-17	0	17	-17	17 1
	Hydrotest{1}		37	14	14	0	37	14	32 270
	Thermal 1{1}		0	36	-37	0	36	-37	37 238
	Thermal 2{1}		0	50	-51	1	50	-51	51 249
	Thermal 3{1}		0	65	-66	1	65	-66	66 251
	Thermal 4{1}		0	22	-23	1	22	-23	23 215
	GRT1{1}		0	47	-48	0	47	-48	48 221
	GRT2{1}		0	58	-59	0	58	-59	59 234
	GRT3{1}		0	73	-74	1	73	-74	74 239
	GRT4{1}		0	38	-38	1	38	-38	38 200
C28	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	0	0	0	0	0	0 119
	Hydrotest{1}		37	14	14	0	37	14	32 270
	Thermal 1{1}		0	14	-15	0	14	-15	15 191
	Thermal 2{1}		0	14	-15	1	14	-15	15 197
	Thermal 3{1}		0	27	-28	1	27	-28	28 237
	Thermal 4{1}		0	12	-12	1	12	-12	12 197
	GRT1{1}		0	14	-15	0	14	-15	15 192
	GRT2{1}		0	14	-15	0	14	-15	15 198
	GRT3{1}		0	28	-28	1	28	-28	28 237
	GRT4{1}		0	12	-12	1	12	-12	12 199
C07	- SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	14	-14	0	14	-14	14 4
	Hydrotest{1}		37	14	14	0	37	14	32 270
	Thermal 1{1}		0	37	-38	0	37	-38	38 285
	Thermal 2{1}		0	55	-56	1	55	-56	56 280
	Thermal 3{1}		0	109	-109	1	109	-109	109 275
	Thermal 4{1}		0	20	-21	1	20	-21	21 282
	GRT1{1}		0	37	-38	0	37	-38	38 263
	GRT2{1}		0	56	-57	0	56	-57	57 266
	GRT3{1}		0	109	-110	1	109	-110	110 268
	GRT4{1}		0	23	-23	1	23	-23	23 246
C07	+ SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	13	-13	0	13	-13	13 359
	Hydrotest{1}		37	14	14	0	37	14	32 270
	Thermal 1{1}		0	60	-61	3	60	-62	62 303
	Thermal 2{1}		0	79	-80	4	79	-81	81 296
	Thermal 3{1}		0	97	-97	7	98	-97	98 107
	Thermal 4{1}		0	34	-35	4	35	-35	36 317

			F_LINE_REV0.OUT					
GRT1{1}	0	54	-55	3	54	-55	55	292
GRT2{1}	0	74	-75	4	74	-75	76	287

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
	GRT3{1}	0	94	-94	6	94	-94	95 100
	GRT4{1}	0	26	-26	4	26	-27	27 298
C08	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	11	-11	0	11	-11	11 178
	Hydrotest{1}	37	14	14	0	37	14	32 270
	Thermal 1{1}	0	49	-50	3	49	-50	50 236
	Thermal 2{1}	0	64	-66	4	65	-66	66 244
	Thermal 3{1}	0	68	-67	7	68	-68	69 74
	Thermal 4{1}	0	26	-27	4	27	-28	28 217
	GRT1{1}	0	44	-45	3	44	-46	46 247
	GRT2{1}	0	61	-62	4	61	-63	63 253
	GRT3{1}	0	66	-66	6	66	-66	67 83
	GRT4{1}	0	19	-20	4	20	-21	21 237
C18	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	10	-10	0	10	-10	10 168
	Hydrotest{1}	37	14	14	0	37	14	32 270
	Thermal 1{1}	0	19	-20	3	19	-21	21 251
	Thermal 2{1}	0	29	-30	4	29	-31	31 260
	Thermal 3{1}	0	13	-13	7	16	-16	18 175
	Thermal 4{1}	0	4	-5	4	7	-7	9 174
	GRT1{1}	0	20	-21	3	21	-22	22 279
	GRT2{1}	0	30	-32	4	31	-33	33 278
	GRT3{1}	0	23	-23	6	25	-24	26 172
	GRT4{1}	0	5	-6	4	7	-8	9 344
C10	- SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	11	-11	0	11	-11	11 13
	Hydrotest{1}	37	14	14	0	37	14	32 270
	Thermal 1{1}	0	10	-11	3	11	-12	13 231
	Thermal 2{1}	0	18	-19	4	19	-20	21 240
	Thermal 3{1}	0	41	-41	7	42	-42	43 319

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Thermal 4{1}	0	10	-10	4	11	-12	13	130
GRT1{1}	0	21	-22	3	21	-22	22	212
GRT2{1}	0	27	-28	4	27	-29	29	223
GRT3{1}	0	49	-48	6	50	-49	50	330
GRT4{1}	0	18	-19	4	19	-19	20	164
C10 + SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	15	-15	3	15	-15	16	1
Hydrotest{1}	37	14	14	0	37	14	32	270
Thermal 1{1}	0	43	-46	25	55	-57	63	290
Thermal 2{1}	0	56	-58	29	68	-70	77	284
Thermal 3{1}	0	29	-31	22	41	-42	49	297
Thermal 4{1}	0	21	-22	17	30	-31	36	310
GRT1{1}	0	41	-43	22	51	-52	58	270
GRT2{1}	0	54	-57	26	64	-67	72	269
GRT3{1}	0	26	-28	19	36	-37	43	268
GRT4{1}	0	16	-17	14	24	-25	30	266

C11 N- SIFI= 1.00 SIFO= 1.00

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point name	Load combination	Hoop Stress	Longitudinal Max	Min	Shear Stress	Principal Max	Min	Total Stress	Loc

	Gravity{1}	0	9	-9	3	10	-9	10	183
	Hydrotest{1}	37	14	14	0	37	14	32	270
	Thermal 1{1}	0	33	-36	25	47	-49	56	283
	Thermal 2{1}	0	44	-47	29	58	-60	68	285
	Thermal 3{1}	0	19	-21	22	33	-34	43	282
	Thermal 4{1}	0	14	-15	17	25	-26	33	283
	GRT1{1}	0	36	-38	22	47	-48	54	297
	GRT2{1}	0	47	-49	26	58	-60	66	295
	GRT3{1}	0	22	-24	19	33	-34	41	304
	GRT4{1}	0	17	-19	14	25	-26	30	312
C11 N+ SIFI= 1.23 SIFO= 1.23									
	Gravity{1}	0	11	-11	3	12	-11	12	273
	Hydrotest{1}	37	14	14	0	37	14	32	270
	Thermal 1{1}	0	41	-44	25	53	-55	62	13

		F_LINE_REV0.OUT						
Thermal 2{1}	0	55	-57	29	67	-69	76	15
Thermal 3{1}	0	24	-25	22	37	-38	45	12
Thermal 4{1}	0	17	-18	17	27	-28	34	13
GRT1{1}	0	45	-47	22	54	-56	61	27
GRT2{1}	0	58	-61	26	68	-70	75	25
GRT3{1}	0	28	-29	19	37	-38	44	34
GRT4{1}	0	22	-23	14	28	-29	33	42
C11 F- SIFI= 1.23 SIFO= 1.23								
Gravity{1}	0	11	-11	0	11	-11	11	273
Hydrotest{1}	37	14	14	0	37	14	32	270
Thermal 1{1}	0	41	-42	24	52	-53	60	336
Thermal 2{1}	0	51	-53	28	64	-65	72	342
Thermal 3{1}	0	27	-28	20	38	-39	45	320
Thermal 4{1}	0	20	-21	16	28	-29	34	321
GRT1{1}	0	37	-38	24	49	-50	56	352
GRT2{1}	0	49	-50	28	61	-62	70	354
GRT3{1}	0	21	-22	20	33	-34	41	342
GRT4{1}	0	15	-15	15	24	-25	31	354
C11 F+ SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	9	-9	0	9	-9	9	183
Hydrotest{1}	37	14	14	0	37	14	32	270
Thermal 1{1}	0	33	-34	24	46	-47	54	246
Thermal 2{1}	0	42	-43	28	56	-57	65	252
Thermal 3{1}	0	22	-23	20	34	-35	42	230
Thermal 4{1}	0	16	-17	16	26	-26	32	231
GRT1{1}	0	30	-31	24	43	-44	52	262
GRT2{1}	0	39	-41	28	54	-55	63	264
GRT3{1}	0	17	-18	20	31	-31	39	252
GRT4{1}	0	12	-13	15	22	-23	29	264
C12 N- SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	4	-4	0	4	-4	4	356
Hydrotest{1}	37	14	14	0	37	14	32	270
Thermal 1{1}	0	32	-33	24	45	-46	54	358
Thermal 2{1}	0	36	-38	28	52	-53	62	357

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total

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F_LINE_REV0.OUT									
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
	Thermal 3{1}	0	22	-23	20	34	-35	42	13
	Thermal 4{1}	0	23	-24	16	31	-32	36	2
	GRT1{1}	0	28	-29	24	42	-43	51	358
	GRT2{1}	0	32	-34	28	48	-49	59	358
	GRT3{1}	0	18	-19	20	31	-31	39	16
	GRT4{1}	0	19	-20	15	28	-28	33	3
C12 N+	SIFI= 1.24 Gravity{1}	0	5	-5	0	5	-5	5	356
	Hydrotest{1}	37	14	14	0	37	14	32	270
	Thermal 1{1}	0	40	-41	24	51	-52	59	358
	Thermal 2{1}	0	45	-46	28	59	-60	68	357
	Thermal 3{1}	0	27	-28	20	38	-39	45	13
	Thermal 4{1}	0	29	-29	16	36	-36	40	2
	GRT1{1}	0	35	-36	24	47	-48	55	358
	GRT2{1}	0	40	-42	28	54	-56	64	358
	GRT3{1}	0	23	-23	20	34	-35	42	16
	GRT4{1}	0	24	-25	15	31	-32	36	3
C12 F-	SIFI= 1.24 Gravity{1}	0	7	-6	0	7	-6	7	351
	Hydrotest{1}	37	14	14	0	37	14	32	270
	Thermal 1{1}	0	69	-73	3	70	-73	73	313
	Thermal 2{1}	0	79	-82	3	79	-83	83	312
	Thermal 3{1}	0	55	-58	5	55	-58	59	308
	Thermal 4{1}	0	49	-51	2	49	-51	52	315
	GRT1{1}	0	65	-68	3	65	-68	68	310
	GRT2{1}	0	74	-77	4	74	-77	78	309
	GRT3{1}	0	51	-53	5	51	-54	54	303
	GRT4{1}	0	44	-46	2	44	-46	46	310
C12 F+	SIFI= 1.00 Gravity{1}	0	5	-5	0	5	-5	5	292
	Hydrotest{1}	37	14	14	0	37	14	32	270
	Thermal 1{1}	0	56	-59	3	56	-60	60	253
	Thermal 2{1}	0	63	-67	3	63	-67	67	253
	Thermal 3{1}	0	44	-47	5	45	-48	48	248
	Thermal 4{1}	0	39	-42	2	39	-42	42	256
	GRT1{1}	0	52	-55	3	52	-55	55	250
	GRT2{1}	0	60	-63	4	60	-63	63	250
	GRT3{1}	0	41	-43	5	42	-44	44	244
	GRT4{1}	0	35	-38	2	36	-38	38	251
C13 N-	SIFI= 1.00 Gravity{1}	0	5	-5	0	5	-5	5	292

	F_LINE_REV0.OUT							
Gravity{1}	0	1	0	0	1	0	1	259
Hydrotest{1}	37	14	14	0	37	14	32	270
Thermal 1{1}	0	14	-17	3	14	-18	18	9
Thermal 2{1}	0	24	-28	3	25	-29	29	21
Thermal 3{1}	0	12	-15	5	14	-17	17	329
Thermal 4{1}	0	5	-8	2	6	-8	9	273
GRT1{1}	0	14	-17	3	15	-18	18	11
GRT2{1}	0	25	-28	4	26	-29	29	22

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
-----	-----	-----	-----	-----	-----	-----	-----	---
	GRT3{1}	0	12	-15	5	14	-16	17 332
	GRT4{1}	0	5	-7	2	6	-8	8 274
C13 N+	SIFI= 1.23 SIFO= 1.23							
	Gravity{1}	0	1	0	0	1	0	1 157
	Hydrotest{1}	37	14	14	0	37	14	32 270
	Thermal 1{1}	0	17	-21	3	18	-21	22 267
	Thermal 2{1}	0	31	-34	3	31	-35	35 278
	Thermal 3{1}	0	15	-18	5	17	-20	20 227
	Thermal 4{1}	0	7	-10	2	7	-10	10 171
	GRT1{1}	0	18	-21	3	18	-21	22 269
	GRT2{1}	0	31	-35	4	32	-35	35 279
	GRT3{1}	0	16	-18	5	17	-19	20 229
	GRT4{1}	0	7	-9	2	7	-9	9 172
C13 F-	SIFI= 1.23 SIFO= 1.23							
	Gravity{1}	0	3	-3	0	3	-3	3 172
	Hydrotest{1}	37	14	14	0	37	14	32 270
	Thermal 1{1}	0	14	-16	10	19	-21	24 241
	Thermal 2{1}	0	16	-18	16	26	-28	34 266
	Thermal 3{1}	0	24	-25	7	26	-27	28 224
	Thermal 4{1}	0	15	-16	0	15	-16	16 207
	GRT1{1}	0	13	-15	10	19	-20	23 251
	GRT2{1}	0	16	-18	17	27	-28	34 275
	GRT3{1}	0	23	-24	7	25	-26	27 229
	GRT4{1}	0	13	-14	1	13	-14	14 214

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C13 F+	SIFI= 1.00	SIFO= 1.00	0	2	-2	0	2	-2	2	352
	Gravity{1}									
	Hydrotest{1}		37	14	14	0	37	14	32	270
	Thermal 1{1}		0	11	-13	10	17	-19	22	61
	Thermal 2{1}		0	12	-15	16	24	-25	32	86
	Thermal 3{1}		0	20	-21	7	22	-23	24	44
	Thermal 4{1}		0	12	-13	0	12	-13	13	27
	GRT1{1}		0	10	-12	10	17	-18	22	71
	GRT2{1}		0	13	-15	17	24	-26	32	95
	GRT3{1}		0	18	-19	7	21	-22	23	49
	GRT4{1}		0	10	-11	1	10	-11	11	34
C20	SIFI= 2.00	SIFO= 2.00	0	28	-28	0	28	-28	28	356
	Gravity{1}									
	Hydrotest{1}		37	14	14	0	37	14	32	270
	Thermal 1{1}		0	141	-143	10	142	-143	144	31
	Thermal 2{1}		0	154	-157	16	156	-158	159	39
	Thermal 3{1}		0	135	-136	7	135	-136	137	31
	Thermal 4{1}		0	108	-109	0	108	-109	109	17
	GRT1{1}		0	119	-120	10	120	-121	122	39
	GRT2{1}		0	135	-137	17	137	-139	140	47
	GRT3{1}		0	113	-114	7	114	-115	115	40
	GRT4{1}		0	82	-83	1	82	-83	83	24

C15 SIFI= 2.00 SIFO= 2.00

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
								Loc
	Gravity{1}	0	7	-7	0	7	-7	7
	Hydrotest{1}	47	19	19	0	47	19	41
	Thermal 1{1}	0	33	-33	2	33	-33	33
	Thermal 2{1}	0	36	-37	3	36	-37	37
	Thermal 3{1}	0	30	-31	1	30	-31	31
	Thermal 4{1}	0	24	-25	0	24	-25	25
	GRT1{1}	0	27	-28	2	27	-28	28
	GRT2{1}	0	31	-32	3	32	-32	32

		F_LINE_REV0.OUT						
GRT3{1}	0	25	-25	1	25	-25	25	39
GRT4{1}	0	18	-19	0	18	-19	19	24

*** Segment C end ***

*** Segment D begin ***

A02	SIFI= 1.22	SIFO= 1.22						
	Gravity{1}	0	2	-1	0	2	-1	2 97
	Hydrotest{1}	43	17	17	0	43	17	38 270
	Thermal 1{1}	0	74	-75	0	74	-75	75 92
	Thermal 2{1}	0	105	-107	0	105	-107	107 91
	Thermal 3{1}	0	74	-75	0	74	-75	75 92
	Thermal 4{1}	0	76	-77	0	76	-77	77 92
	GRT1{1}	0	73	-73	0	73	-73	73 92
	GRT2{1}	0	104	-105	0	104	-105	105 91
	GRT3{1}	0	73	-73	0	73	-73	73 92
	GRT4{1}	0	75	-75	0	75	-75	75 92

D01 N-	SIFI= 1.00	SIFO= 1.00						
	Gravity{1}	0	3	-2	0	3	-2	3 260
	Hydrotest{1}	43	17	17	0	43	17	38 270
	Thermal 1{1}	0	50	-51	0	50	-51	51 272
	Thermal 2{1}	0	65	-67	0	65	-67	67 271
	Thermal 3{1}	0	50	-51	0	50	-51	51 272
	Thermal 4{1}	0	51	-52	0	51	-52	52 272
	GRT1{1}	0	47	-48	0	47	-48	48 272
	GRT2{1}	0	63	-64	0	63	-64	64 271
	GRT3{1}	0	47	-48	0	47	-48	48 273
	GRT4{1}	0	48	-49	0	48	-49	49 272

D01 N+	SIFI= 1.32	SIFO= 1.32						
	Gravity{1}	0	3	-3	0	3	-3	3 350
	Hydrotest{1}	43	17	17	0	43	17	38 270
	Thermal 1{1}	0	66	-67	0	66	-67	67 2
	Thermal 2{1}	0	86	-88	0	86	-88	88 1
	Thermal 3{1}	0	66	-67	0	66	-67	67 2
	Thermal 4{1}	0	67	-68	0	67	-68	68 2
	GRT1{1}	0	63	-63	0	63	-63	63 2
	GRT2{1}	0	83	-84	0	83	-84	84 1
	GRT3{1}	0	63	-63	0	63	-63	63 3
	GRT4{1}	0	64	-65	0	64	-65	65 2

D01 M SIFI= 1.32 SIFO= 1.32

□

F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 196

G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
	Gravity{1}	0	3	-3	0	3	-3	3 353
	Hydrotest{1}	43	17	17	0	43	17	38 270
	Thermal 1{1}	0	67	-69	1	67	-69	69 1
	Thermal 2{1}	0	89	-91	0	89	-91	91 1
	Thermal 3{1}	0	67	-69	1	67	-69	69 1
	Thermal 4{1}	0	69	-70	0	69	-70	70 1
	GRT1{1}	0	65	-66	1	65	-66	66 2
	GRT2{1}	0	86	-88	0	86	-88	88 1
	GRT3{1}	0	65	-66	1	65	-66	66 2
	GRT4{1}	0	66	-68	1	66	-68	68 1
D01 F-	SIFI= 1.32 SIFO= 1.32							
	Gravity{1}	0	2	-2	0	2	-2	2 3
	Hydrotest{1}	43	17	17	0	43	17	38 270
	Thermal 1{1}	0	66	-67	1	66	-67	67 0
	Thermal 2{1}	0	87	-89	0	87	-89	89 0
	Thermal 3{1}	0	66	-67	1	66	-67	67 0
	Thermal 4{1}	0	67	-68	1	67	-68	68 0
	GRT1{1}	0	64	-65	1	64	-65	65 0
	GRT2{1}	0	85	-87	1	85	-87	87 0
	GRT3{1}	0	64	-65	1	64	-65	65 360
	GRT4{1}	0	66	-67	1	66	-67	67 0
D01 F+	SIFI= 1.00 SIFO= 1.00							
	Gravity{1}	0	1	-1	0	1	-1	1 3
	Hydrotest{1}	43	17	17	0	43	17	38 270
	Thermal 1{1}	0	50	-51	1	50	-51	51 0
	Thermal 2{1}	0	66	-67	0	66	-67	67 0
	Thermal 3{1}	0	50	-51	1	50	-51	51 0
	Thermal 4{1}	0	51	-52	1	51	-52	52 0
	GRT1{1}	0	49	-50	1	49	-50	50 0
	GRT2{1}	0	64	-66	1	64	-66	66 0
	GRT3{1}	0	49	-50	1	49	-50	50 360
	GRT4{1}	0	50	-51	1	50	-51	51 0
D02	SIFI= 1.00 SIFO= 1.00							
	Gravity{1}	0	9	-9	0	9	-9	9 181
	Hydrotest{1}	43	17	17	0	43	17	38 270
	Thermal 1{1}	0	12	-14	1	13	-14	14 360

		F_LINE_REV0.OUT							
	Thermal 2{1}	0	18	-20	0	18	-20	20	359
	Thermal 3{1}	0	12	-14	1	13	-14	14	360
	Thermal 4{1}	0	12	-14	1	12	-14	14	359
	GRT1{1}	0	21	-22	1	21	-22	22	0
	GRT2{1}	0	27	-28	1	27	-28	28	360
	GRT3{1}	0	21	-22	1	21	-22	22	0
	GRT4{1}	0	21	-22	1	21	-22	22	360
FV06	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	3	-3	0	3	-3	3	186
	Hydrotest{1}	43	17	17	0	43	17	38	270
	Thermal 1{1}	0	4	-5	1	4	-5	5	183
	Thermal 2{1}	0	3	-5	0	3	-5	5	188

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F_LINE_REV0

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BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 197

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total		
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc	
-----	-----		-----	-----	-----	-----	-----	-----	-----	---	
D04	Thermal 3{1}		0	4	-5	1	4	-5	5	181	
	Thermal 4{1}		0	4	-5	1	4	-6	6	183	
	GRT1{1}		0	1	-2	1	2	-3	3	178	
	GRT2{1}		0	1	-2	1	1	-2	3	192	
	GRT3{1}		0	1	-2	1	2	-3	3	174	
	GRT4{1}		0	2	-3	1	2	-3	3	181	
	SIFI= 1.00 SIFO= 1.00 Gravity{1}		0	16	-16	0	16	-16	16	359	
	Hydrotest{1}		43	17	17	0	43	17	38	270	
	Thermal 1{1}		0	20	-21	1	20	-21	21	181	
	Thermal 2{1}		0	26	-27	0	26	-27	27	182	
	Thermal 3{1}		0	20	-21	1	20	-21	21	180	
	Thermal 4{1}		0	21	-23	1	21	-23	23	181	
	GRT1{1}		0	36	-37	1	36	-37	37	180	
	GRT2{1}		0	41	-43	1	41	-43	43	181	
	GRT3{1}		0	36	-37	1	36	-37	37	180	
	GRT4{1}		0	37	-38	1	37	-39	39	180	
	D17	SIFI= 1.00 SIFO= 1.00 Gravity{1}		0	13	-12	0	13	-12	13	359
		Hydrotest{1}		43	17	17	0	43	17	38	270

F_LINE_REV0.OUT

Thermal 1{1}	0	32	-33	1	32	-33	33	181
Thermal 2{1}	0	38	-39	0	38	-39	39	181
Thermal 3{1}	0	32	-33	1	32	-33	33	180
Thermal 4{1}	0	33	-34	1	33	-34	34	181
GRT1{1}	0	44	-46	1	45	-46	46	180
GRT2{1}	0	50	-52	1	50	-52	52	181
GRT3{1}	0	45	-46	1	45	-46	46	180
GRT4{1}	0	45	-46	1	45	-47	47	180
D19 - SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	1	-1	0	1	-1	1	351
Hydrotest{1}	43	17	17	0	43	17	38	270
Thermal 1{1}	0	37	-38	1	37	-38	38	359
Thermal 2{1}	0	40	-42	0	40	-42	42	359
Thermal 3{1}	0	37	-38	1	37	-38	38	360
Thermal 4{1}	0	37	-38	1	37	-38	38	359
GRT1{1}	0	36	-37	1	36	-37	37	360
GRT2{1}	0	39	-41	1	39	-41	41	359
GRT3{1}	0	36	-37	1	36	-37	37	360
GRT4{1}	0	36	-37	1	36	-37	37	360
D19 + SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	1	-1	0	1	-1	1	351
Hydrotest{1}	43	17	17	0	43	17	38	270
Thermal 1{1}	0	37	-38	1	37	-38	38	359
Thermal 2{1}	0	40	-42	0	40	-42	42	359
Thermal 3{1}	0	37	-38	1	37	-38	38	360
Thermal 4{1}	0	37	-38	1	37	-38	38	359
GRT1{1}	0	36	-37	1	36	-37	37	360
GRT2{1}	0	39	-41	1	39	-41	41	359

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F_LINE_REV0

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BENTLEY

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RESULT PAGE 198

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc

	GRT3{1}	0	36	-37	1	36	-37	37 360
	GRT4{1}	0	36	-37	1	36	-37	37 360

D23 SIFI= 1.00 SIFO= 1.00

		F_LINE_REV0.OUT							
	Gravity{1}	0	11	-11	0	11	-11	11	180
	Hydrotest{1}	43	17	17	0	43	17	38	270
	Thermal 1{1}	0	43	-44	1	43	-44	44	180
	Thermal 2{1}	0	43	-45	0	43	-45	45	180
	Thermal 3{1}	0	43	-44	1	43	-44	44	180
	Thermal 4{1}	0	42	-43	1	42	-43	43	180
	GRT1{1}	0	33	-34	1	33	-34	34	181
	GRT2{1}	0	33	-34	1	33	-34	34	180
	GRT3{1}	0	32	-34	1	32	-34	34	181
	GRT4{1}	0	32	-33	1	32	-33	33	181
D22	SIFI= 1.00 SIFO= 1.00								
	Gravity{1}	0	9	-9	0	9	-9	9	179
	Hydrotest{1}	43	17	17	0	43	17	38	270
	Thermal 1{1}	0	51	-52	1	51	-52	52	180
	Thermal 2{1}	0	47	-48	0	47	-48	48	180
	Thermal 3{1}	0	51	-52	1	51	-52	52	180
	Thermal 4{1}	0	49	-50	1	49	-50	50	180
	GRT1{1}	0	42	-43	1	42	-43	43	181
	GRT2{1}	0	38	-40	1	38	-40	40	180
	GRT3{1}	0	42	-43	1	42	-43	43	181
	GRT4{1}	0	40	-41	1	40	-41	41	181
D26	- SIFI= 1.00 SIFO= 1.00								
	Gravity{1}	0	8	-8	0	8	-8	8	357
	Hydrotest{1}	43	17	17	0	43	17	38	270
	Thermal 1{1}	0	59	-60	1	59	-60	60	180
	Thermal 2{1}	0	51	-52	0	51	-52	52	181
	Thermal 3{1}	0	59	-60	1	59	-60	60	180
	Thermal 4{1}	0	56	-57	1	56	-57	57	180
	GRT1{1}	0	67	-68	1	67	-68	68	179
	GRT2{1}	0	59	-60	1	59	-60	60	180
	GRT3{1}	0	67	-68	1	67	-68	68	179
	GRT4{1}	0	63	-65	1	63	-65	65	179
D26	+ SIFI= 1.00 SIFO= 1.00								
	Gravity{1}	0	8	-8	0	8	-8	8	357
	Hydrotest{1}	43	17	17	0	43	17	38	270
	Thermal 1{1}	0	59	-61	1	59	-61	61	180
	Thermal 2{1}	0	51	-53	1	51	-53	53	180
	Thermal 3{1}	0	59	-60	1	59	-60	60	179
	Thermal 4{1}	0	56	-57	1	56	-57	57	180
	GRT1{1}	0	67	-68	2	67	-68	68	179
	GRT2{1}	0	59	-61	1	59	-61	61	180
	GRT3{1}	0	67	-68	1	67	-68	68	179
	GRT4{1}	0	64	-65	1	64	-65	65	179

D07 N- SIFI= 1.00 SIF0= 1.00

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F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

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RESULT PAGE 199

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	----
	Gravity{1}	0	6	-6	0	6	-6	6	3
	Hydrotest{1}	43	17	17	0	43	17	38	270
	Thermal 1{1}	0	52	-53	1	52	-53	53	181
	Thermal 2{1}	0	46	-47	1	46	-47	47	181
	Thermal 3{1}	0	52	-53	1	52	-53	53	182
	Thermal 4{1}	0	49	-51	1	49	-51	51	181
	GRT1{1}	0	58	-59	2	58	-60	60	182
	GRT2{1}	0	52	-54	1	52	-54	54	181
	GRT3{1}	0	58	-59	1	58	-59	59	182
	GRT4{1}	0	56	-57	1	56	-57	57	182
D07 N+	SIFI= 1.32 SIF0= 1.32								
	Gravity{1}	0	8	-8	0	8	-8	8	93
	Hydrotest{1}	43	17	17	0	43	17	38	270
	Thermal 1{1}	0	69	-70	1	69	-70	70	271
	Thermal 2{1}	0	61	-62	1	61	-62	62	271
	Thermal 3{1}	0	69	-70	1	69	-70	70	272
	Thermal 4{1}	0	65	-67	1	65	-67	67	271
	GRT1{1}	0	77	-78	2	77	-78	78	272
	GRT2{1}	0	69	-70	1	69	-70	70	271
	GRT3{1}	0	77	-78	1	77	-78	78	272
	GRT4{1}	0	74	-75	1	74	-75	75	272
D07 F-	SIFI= 1.32 SIF0= 1.32								
	Gravity{1}	0	8	-8	0	8	-8	8	93
	Hydrotest{1}	43	17	17	0	43	17	38	270
	Thermal 1{1}	0	67	-68	4	67	-68	69	272
	Thermal 2{1}	0	59	-61	4	59	-61	61	271
	Thermal 3{1}	0	67	-68	4	67	-68	68	272
	Thermal 4{1}	0	63	-65	4	64	-65	65	271
	GRT1{1}	0	75	-76	5	75	-76	77	272
	GRT2{1}	0	67	-68	4	67	-69	69	272

		F_LINE_REV0.OUT							
GRT3{1}	0	75	-76	5	75	-76	76	272	
GRT4{1}	0	71	-73	5	72	-73	73	272	
D07 F+ SIFI= 1.00 SIFO= 1.00									
Gravity{1}	0	6	-6	0	6	-6	6	3	
Hydrotest{1}	43	17	17	0	43	17	38	270	
Thermal 1{1}	0	51	-52	4	51	-52	52	182	
Thermal 2{1}	0	44	-46	4	45	-46	47	181	
Thermal 3{1}	0	50	-52	4	51	-52	52	182	
Thermal 4{1}	0	48	-49	4	48	-49	50	181	
GRT1{1}	0	57	-58	5	57	-58	58	182	
GRT2{1}	0	50	-52	4	51	-52	53	182	
GRT3{1}	0	56	-58	5	57	-58	58	182	
GRT4{1}	0	54	-55	5	54	-55	56	182	
D08 N- SIFI= 1.00 SIFO= 1.00									
Gravity{1}	0	1	0	0	1	-1	1	198	
Hydrotest{1}	43	17	17	0	43	17	38	270	
Thermal 1{1}	0	9	-11	4	11	-12	13	15	
Thermal 2{1}	0	2	-4	4	5	-6	8	55	

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F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal		Shear	Principal		Total	
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	Thermal 3{1}	0	10	-11	4	11	-12	13	15
	Thermal 4{1}	0	8	-9	4	10	-11	12	17
	GRT1{1}	0	10	-11	5	12	-13	14	15
	GRT2{1}	0	3	-4	4	6	-7	9	50
	GRT3{1}	0	10	-11	5	12	-13	14	15
	GRT4{1}	0	9	-10	5	11	-12	13	17

D08 N+ SIFI= 1.32 SIFO= 1.32									
Gravity{1}	0	1	-1	0	1	-1	1	18	
Hydrotest{1}	43	17	17	0	43	17	38	270	
Thermal 1{1}	0	13	-14	4	14	-15	16	195	
Thermal 2{1}	0	3	-5	4	6	-7	8	235	
Thermal 3{1}	0	13	-14	4	14	-15	16	195	
Thermal 4{1}	0	11	-12	4	12	-13	14	197	
GRT1{1}	0	13	-14	5	15	-16	17	195	

GRT2{1}	0	4	-5	4	7	-8	9	230
GRT3{1}	0	13	-15	5	15	-16	17	195
GRT4{1}	0	11	-13	5	13	-14	15	197

Gravity{1}	0	2	-2	0	2	-2	2	328
Hydrotest{1}	43	17	17	0	43	17	38	270
Thermal 1{1}	0	26	-25	1	27	-25	27	335
Thermal 2{1}	0	17	-16	1	17	-16	17	324
Thermal 3{1}	0	27	-25	1	27	-25	27	334
Thermal 4{1}	0	24	-23	1	24	-23	24	334
GRT1{1}	0	29	-27	2	29	-27	29	334
GRT2{1}	0	19	-18	1	20	-18	20	325
GRT3{1}	0	29	-27	2	29	-27	29	333
GRT4{1}	0	27	-25	1	27	-25	27	333

Grav1{1}	0	2	-1	0	2	-1	2	46
Hydrotest{1}	43	17	17	0	43	17	38	270
Thermal 1{1}	0	20	-19	1	20	-19	20	52
Thermal 2{1}	0	13	-12	1	13	-12	13	42
Thermal 3{1}	0	20	-19	1	21	-19	21	51
Thermal 4{1}	0	19	-17	1	19	-17	19	51
GRT1{1}	0	22	-20	2	22	-20	22	52
GRT2{1}	0	15	-13	1	15	-14	15	42
GRT3{1}	0	22	-20	2	22	-21	22	51
GRT4{1}	0	20	-19	1	20	-19	20	51

Grav1{1}	0	1	0	0	1	-1	1	206
Hydrotest{1}	43	17	17	0	43	17	38	270
Thermal 1{1}	0	56	-54	1	56	-54	56	133
Thermal 2{1}	0	62	-61	1	62	-61	62	132
Thermal 3{1}	0	56	-54	1	56	-54	56	133
Thermal 4{1}	0	55	-53	1	55	-53	55	133
GRT1{1}	0	56	-54	2	56	-54	56	134
GRT2{1}	0	62	-61	1	62	-61	62	132

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Point name	Load combination	F_LINE_REV0.OUT Longitudinal		Shear Stress	Principal		Total	
		Hoop Stress	Max Min		Max Min	Min	Stress	Loc
	GRT3{1}	0	56 -54	2	56 -54		56	134
	GRT4{1}	0	55 -54	1	55 -54		55	134
D09	+ SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	1 -1	0	1 -1		1	357
	Hydrotest{1}	43	17 17	0	43 17		38	270
	Thermal 1{1}	0	20 -20	10	25 -25		27	12
	Thermal 2{1}	0	19 -19	11	24 -24		27	17
	Thermal 3{1}	0	21 -21	10	25 -25		27	12
	Thermal 4{1}	0	20 -20	10	24 -24		26	13
	GRT1{1}	0	21 -21	10	25 -25		27	12
	GRT2{1}	0	19 -19	11	25 -25		28	16
	GRT3{1}	0	21 -21	10	25 -25		27	12
	GRT4{1}	0	20 -20	10	24 -24		27	12
D18	SIFI= 2.00 SIF0= 2.00 Gravity{1}	0	1 -1	0	1 -1		1	185
	Hydrotest{1}	43	17 17	0	43 17		38	270
	Thermal 1{1}	0	30 -30	10	33 -33		35	170
	Thermal 2{1}	0	27 -27	11	31 -32		34	166
	Thermal 3{1}	0	30 -30	10	33 -33		35	170
	Thermal 4{1}	0	29 -29	10	32 -32		34	169
	GRT1{1}	0	30 -31	10	33 -33		35	170
	GRT2{1}	0	28 -28	11	32 -32		34	167
	GRT3{1}	0	31 -31	10	34 -34		35	170
	GRT4{1}	0	29 -29	10	32 -32		34	170
D11	SIFI= 2.00 SIF0= 2.00 Gravity{1}	0	0 0	0	0 0		0	230
	Hydrotest{1}	37	14 14	0	37 14		32	270
	Thermal 1{1}	0	30 -30	18	38 -38		43	177
	Thermal 2{1}	0	27 -27	20	38 -38		44	175
	Thermal 3{1}	0	30 -30	18	38 -38		43	177
	Thermal 4{1}	0	29 -29	18	37 -37		42	177
	GRT1{1}	0	30 -30	18	38 -38		43	177
	GRT2{1}	0	27 -27	20	38 -38		44	176
	GRT3{1}	0	30 -30	18	38 -38		43	177
	GRT4{1}	0	29 -29	18	37 -37		42	177
D12	N- SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	0 0	0	0 0		0	347
	Hydrotest{1}	37	14 14	0	37 14		32	270
	Thermal 1{1}	0	9 -9	18	23 -23		32	188
	Thermal 2{1}	0	8 -8	20	25 -25		36	190

F_LINE_REV0.OUT

Thermal 3{1}	0	9	-9	18	23	-23	32	188
Thermal 4{1}	0	9	-9	18	22	-22	32	188
GRT1{1}	0	9	-9	18	23	-23	32	188
GRT2{1}	0	8	-8	20	24	-25	36	191
GRT3{1}	0	9	-9	18	23	-23	32	188
GRT4{1}	0	9	-9	18	22	-22	32	188

D12 N+ SIFI= 1.23 SIF0= 1.23

F_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
-----	-----	-----	-----	-----	-----	-----	-----	---
	Gravity{1}	0	0	0	0	0	0	347
	Hydrotest{1}	37	14	14	0	37	14	270
	Thermal 1{1}	0	11	-11	18	24	-24	188
	Thermal 2{1}	0	10	-10	20	26	-26	190
	Thermal 3{1}	0	11	-11	18	24	-24	188
	Thermal 4{1}	0	11	-11	18	24	-24	188
	GRT1{1}	0	11	-11	18	24	-24	188
	GRT2{1}	0	10	-10	20	26	-26	191
	GRT3{1}	0	11	-11	18	24	-24	188
	GRT4{1}	0	11	-11	18	24	-24	188
D12 F-	SIFI= 1.23 SIF0= 1.23							
	Gravity{1}	0	0	-1	0	0	-1	349
	Hydrotest{1}	37	14	14	0	37	14	270
	Thermal 1{1}	0	39	-42	2	39	-42	91
	Thermal 2{1}	0	44	-47	2	44	-47	91
	Thermal 3{1}	0	39	-42	2	39	-42	91
	Thermal 4{1}	0	39	-41	2	39	-41	91
	GRT1{1}	0	39	-42	2	39	-42	90
	GRT2{1}	0	44	-47	2	44	-47	90
	GRT3{1}	0	39	-42	2	39	-42	90
	GRT4{1}	0	38	-41	2	38	-41	90
D12 F+	SIFI= 1.00 SIF0= 1.00							
	Gravity{1}	0	0	0	0	0	0	144
	Hydrotest{1}	37	14	14	0	37	14	270

F_LINE_REV0.OUT									
Thermal 1{1}	0	31	-34	2	31	-34	34	246	
Thermal 2{1}	0	36	-38	2	36	-38	38	246	
Thermal 3{1}	0	31	-34	2	31	-34	34	246	
Thermal 4{1}	0	31	-34	2	31	-34	34	246	
GRT1{1}	0	31	-34	2	31	-34	34	245	
GRT2{1}	0	36	-38	2	36	-38	38	245	
GRT3{1}	0	31	-34	2	31	-34	34	245	
GRT4{1}	0	31	-34	2	31	-34	34	245	
D13 N- SIFI= 1.00 SIF0= 1.00									
Gravity{1}	0	0	0	0	0	0	0	162	
Hydrotest{1}	37	14	14	0	37	14	32	270	
Thermal 1{1}	0	7	-10	2	7	-10	10	255	
Thermal 2{1}	0	6	-8	2	7	-9	9	263	
Thermal 3{1}	0	6	-9	2	7	-10	10	255	
Thermal 4{1}	0	6	-9	2	7	-9	10	254	
GRT1{1}	0	7	-10	2	7	-10	10	258	
GRT2{1}	0	6	-8	2	7	-9	9	266	
GRT3{1}	0	7	-9	2	7	-10	10	258	
GRT4{1}	0	6	-9	2	7	-9	10	257	
D13 N+ SIFI= 1.23 SIF0= 1.23									
Gravity{1}	0	1	0	0	1	0	1	84	
Hydrotest{1}	37	14	14	0	37	14	32	270	
Thermal 1{1}	0	9	-11	2	9	-12	12	177	
Thermal 2{1}	0	7	-10	2	8	-10	11	185	

0

F_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	Thermal 3{1}	0	8	-11	2	9	-12	12	178
	Thermal 4{1}	0	8	-11	2	9	-11	11	177
	GRT1{1}	0	9	-11	2	9	-12	12	180
	GRT2{1}	0	7	-10	2	8	-11	11	189
	GRT3{1}	0	8	-11	2	9	-12	12	181
	GRT4{1}	0	8	-11	2	9	-11	11	180

D13 F- SIFI= 1.23 SIF0= 1.23
Gravity{1}

0 0 0 0 0 0 0 0 151

F_LINE_REV0.OUT

	Hydrotest{1}	37	14	14	0	37	14	32	270
	Thermal 1{1}	0	17	-18	0	17	-18	18	166
	Thermal 2{1}	0	14	-15	1	14	-15	15	160
	Thermal 3{1}	0	17	-18	0	17	-18	18	166
	Thermal 4{1}	0	16	-17	0	16	-17	17	165
	GRT1{1}	0	17	-18	0	17	-18	18	166
	GRT2{1}	0	14	-15	1	14	-15	15	160
	GRT3{1}	0	17	-18	0	17	-18	18	166
	GRT4{1}	0	16	-17	0	16	-17	17	165
D13 F+	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	0	0	0	0	0	0	331
	Hydrotest{1}	37	14	14	0	37	14	32	270
	Thermal 1{1}	0	14	-15	0	14	-15	15	346
	Thermal 2{1}	0	11	-12	1	11	-12	13	340
	Thermal 3{1}	0	14	-14	0	14	-14	14	346
	Thermal 4{1}	0	13	-14	0	13	-14	14	345
	GRT1{1}	0	14	-15	0	14	-15	15	346
	GRT2{1}	0	11	-12	1	11	-12	12	340
	GRT3{1}	0	13	-14	0	13	-14	14	346
	GRT4{1}	0	13	-14	0	13	-14	14	345
D14	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	3	-3	0	3	-3	3	342
	Hydrotest{1}	37	14	14	0	37	14	32	270
	Thermal 1{1}	0	113	-114	0	113	-114	114	0
	Thermal 2{1}	0	100	-101	1	100	-101	101	1
	Thermal 3{1}	0	113	-114	0	113	-114	114	0
	Thermal 4{1}	0	108	-109	0	108	-109	109	0
	GRT1{1}	0	110	-111	0	110	-111	111	1
	GRT2{1}	0	97	-98	1	97	-98	98	2
	GRT3{1}	0	110	-111	0	110	-111	111	1
	GRT4{1}	0	105	-106	0	105	-106	106	1
D27	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	1	-1	0	1	-1	1	344
	Hydrotest{1}	47	19	19	0	47	19	41	270
	Thermal 1{1}	0	26	-26	0	26	-26	26	1
	Thermal 2{1}	0	23	-23	0	23	-23	23	2
	Thermal 3{1}	0	26	-26	0	26	-26	26	1
	Thermal 4{1}	0	25	-25	0	25	-25	25	1
	GRT1{1}	0	25	-25	0	25	-25	25	2
	GRT2{1}	0	22	-22	0	22	-22	22	3

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 F_LINE_REV0

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	GRT3{1}	0	25	-25	0	25	-25	25	2
	GRT4{1}	0	24	-24	0	24	-24	24	2

*** Segment D end ***

*** Segment E begin ***

D09	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	0	0	0	0	0	250
	Hydrotest{1}		43	17	17	0	43	17	270
	Thermal 1{1}		0	17	-18	10	22	-22	185
	Thermal 2{1}		0	23	-24	11	27	-28	187
	Thermal 3{1}		0	17	-18	10	22	-22	185
	Thermal 4{1}		0	17	-18	10	22	-22	185
	GRT1{1}		0	17	-18	10	22	-22	184
	GRT2{1}		0	22	-23	11	27	-28	186
	GRT3{1}		0	17	-18	10	22	-22	184
	GRT4{1}		0	17	-18	10	22	-22	185
E06	SIFI= 2.00 Gravity{1}	SIFO= 2.00	0	0	0	0	0	0	288
	Hydrotest{1}		43	17	17	0	43	17	270
	Thermal 1{1}		0	32	-32	10	34	-35	357
	Thermal 2{1}		0	42	-43	11	44	-45	356
	Thermal 3{1}		0	32	-32	10	35	-35	357
	Thermal 4{1}		0	32	-32	10	35	-35	357
	GRT1{1}		0	31	-32	10	34	-35	358
	GRT2{1}		0	41	-42	11	44	-45	357
	GRT3{1}		0	32	-32	10	34	-35	358
	GRT4{1}		0	32	-32	10	34	-35	357
E07	SIFI= 2.00 Gravity{1}	SIFO= 2.00	0	0	0	0	0	0	311
	Hydrotest{1}		37	14	14	0	37	14	270
	Thermal 1{1}		0	49	-50	18	55	-56	0
	Thermal 2{1}		0	65	-67	20	71	-72	0
	Thermal 3{1}		0	49	-50	18	55	-56	0
	Thermal 4{1}		0	49	-50	17	55	-56	0
	GRT1{1}		0	49	-50	17	54	-55	0

F_LINE_REV0.OUT

GRT2{1}	0	65	-66	20	71	-72	75	0
GRT3{1}	0	49	-50	17	54	-55	58	1
GRT4{1}	0	49	-50	17	55	-55	58	0
E03 N- SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	0	0	0	0	0	0	341
Hydrotest{1}	37	14	14	0	37	14	32	270
Thermal 1{1}	0	22	-23	18	32	-33	38	2
Thermal 2{1}	0	30	-31	20	40	-42	47	3
Thermal 3{1}	0	22	-23	18	32	-33	38	2
Thermal 4{1}	0	23	-23	17	32	-33	38	2
GRT1{1}	0	22	-23	17	32	-33	38	2
GRT2{1}	0	30	-31	20	40	-41	47	3

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F_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	----
E03 N+		GRT3{1}	0	22	-23	17	32	-32	38	2
		GRT4{1}	0	22	-23	17	32	-33	38	2
	SIFI= 1.23	SIF0= 1.23								
		Gravity{1}	0	0	0	0	0	0	0	341
		Hydrotest{1}	37	14	14	0	37	14	32	270
		Thermal 1{1}	0	28	-29	18	36	-37	42	2
		Thermal 2{1}	0	37	-39	20	46	-47	52	3
		Thermal 3{1}	0	28	-29	18	36	-37	42	2
		Thermal 4{1}	0	28	-29	17	36	-37	42	2
		GRT1{1}	0	28	-28	17	36	-37	42	2
		GRT2{1}	0	37	-38	20	46	-47	52	3
		GRT3{1}	0	28	-28	17	36	-37	41	2
	GRT4{1}	0	28	-29	17	36	-37	41	2	
E03 F-		SIFI= 1.23								
		Gravity{1}	0	0	0	0	0	0	0	313
		Hydrotest{1}	37	14	14	0	37	14	32	270
		Thermal 1{1}	0	48	-47	1	48	-47	48	117
		Thermal 2{1}	0	57	-56	2	57	-56	57	121
	Thermal 3{1}	0	48	-47	1	48	-47	48	117	

F_LINE_REV0.OUT									
Thermal 4{1}	0	47	-46	1	47	-46	47	117	
GRT1{1}	0	47	-46	1	47	-46	47	117	
GRT2{1}	0	56	-55	2	56	-55	56	121	
GRT3{1}	0	47	-46	1	47	-46	47	117	
GRT4{1}	0	47	-46	1	47	-46	47	117	
E03 F+ SIFI= 1.00 SIF0= 1.00									
Gravity{1}	0	0	0	0	0	0	0	288	
Hydrotest{1}	37	14	14	0	37	14	32	270	
Thermal 1{1}	0	39	-38	1	39	-38	39	92	
Thermal 2{1}	0	46	-45	2	46	-45	46	96	
Thermal 3{1}	0	39	-38	1	39	-38	39	92	
Thermal 4{1}	0	38	-38	1	38	-38	39	92	
GRT1{1}	0	38	-37	1	38	-38	38	92	
GRT2{1}	0	46	-45	2	46	-45	46	96	
GRT3{1}	0	38	-37	1	38	-37	38	92	
GRT4{1}	0	38	-37	1	38	-37	38	92	
E04 N- SIFI= 1.00 SIF0= 1.00									
Gravity{1}	0	1	-1	0	1	-1	1	76	
Hydrotest{1}	37	14	14	0	37	14	32	270	
Thermal 1{1}	0	25	-24	1	25	-24	25	51	
Thermal 2{1}	0	25	-24	2	25	-24	25	39	
Thermal 3{1}	0	25	-24	1	25	-24	25	51	
Thermal 4{1}	0	24	-23	1	24	-23	24	49	
GRT1{1}	0	26	-25	1	26	-25	26	51	
GRT2{1}	0	25	-24	2	26	-24	26	40	
GRT3{1}	0	26	-25	1	26	-25	26	51	
GRT4{1}	0	25	-24	1	25	-24	25	50	

E04 N+ SIFI= 1.23 SIF0= 1.23

□

F_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	Gravity{1}	0	1	-1	0	1	-1	1	23
	Hydrotest{1}	37	14	14	0	37	14	32	270
	Thermal 1{1}	0	31	-30	1	31	-30	31	358
	Thermal 2{1}	0	30	-29	2	31	-30	31	347

F_LINE_REV0.OUT								
Thermal 3{1}	0	31	-30	1	31	-30	31	358
Thermal 4{1}	0	30	-29	1	30	-29	30	357
GRT1{1}	0	32	-31	1	32	-31	32	359
GRT2{1}	0	31	-30	2	31	-30	31	348
GRT3{1}	0	32	-31	1	32	-31	32	359
GRT4{1}	0	31	-30	1	31	-30	31	357
E04 F- SIFI= 1.23 SIFO= 1.23 Gravity{1}	0	0	0	0	0	0	0	5
Hydrotest{1}	37	14	14	0	37	14	32	270
Thermal 1{1}	0	27	-27	2	27	-27	27	178
Thermal 2{1}	0	24	-24	5	25	-25	26	178
Thermal 3{1}	0	26	-27	2	27	-27	27	178
Thermal 4{1}	0	25	-26	2	25	-26	26	178
GRT1{1}	0	27	-27	2	27	-27	27	178
GRT2{1}	0	24	-24	5	25	-25	26	178
GRT3{1}	0	27	-27	2	27	-27	27	178
GRT4{1}	0	26	-26	2	26	-26	26	178
E04 F+ SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	0	0	0	0	0	0	185
Hydrotest{1}	37	14	14	0	37	14	32	270
Thermal 1{1}	0	21	-22	2	22	-22	22	358
Thermal 2{1}	0	19	-20	5	20	-21	21	358
Thermal 3{1}	0	21	-22	2	22	-22	22	358
Thermal 4{1}	0	20	-21	2	21	-21	21	358
GRT1{1}	0	22	-22	2	22	-22	22	358
GRT2{1}	0	19	-20	5	21	-21	21	358
GRT3{1}	0	22	-22	2	22	-22	22	358
GRT4{1}	0	21	-21	2	21	-21	21	358
E05 SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	7	-7	0	7	-7	7	354
Hydrotest{1}	37	14	14	0	37	14	32	270
Thermal 1{1}	0	35	-35	2	35	-35	36	297
Thermal 2{1}	0	46	-46	5	46	-47	47	278
Thermal 3{1}	0	35	-35	2	35	-35	35	296
Thermal 4{1}	0	35	-35	2	35	-35	35	293
GRT1{1}	0	32	-32	2	32	-32	32	287
GRT2{1}	0	45	-45	5	45	-45	46	270
GRT3{1}	0	32	-32	2	32	-32	32	286
GRT4{1}	0	32	-32	2	32	-32	33	283
E08 SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	2	-2	0	2	-2	2	355
Hydrotest{1}	47	19	19	0	47	19	41	270

	F_LINE_REV0.OUT						
Thermal 1{1}	0	8	-8	0	8	-8	8 281
Thermal 2{1}	0	11	-11	1	11	-11	11 267

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F_LINE_REV0

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total	
name	combination	Stress	Max	Min	Stress	Max	Min
-----	-----	-----	-----	-----	-----	-----	-----
	Thermal 3{1}	0	8	-8	0	8	-8
	Thermal 4{1}	0	8	-8	0	8	-8
	GRT1{1}	0	7	-7	0	7	-7
	GRT2{1}	0	11	-11	1	11	-11
	GRT3{1}	0	7	-7	0	7	-7
	GRT4{1}	0	7	-8	0	8	-8

*** Segment E end ***

*** Segment F begin ***

C10	SIFI= 1.00 SIFO= 1.00						
	Gravity{1}	0	8	-6	1	8	-7
	Hydrotest{1}	37	14	14	0	37	14
	Thermal 1{1}	0	60	-62	17	65	-66
	Thermal 2{1}	0	68	-71	20	74	-76
	Thermal 3{1}	0	72	-73	27	81	-82
	Thermal 4{1}	0	46	-47	12	49	-50
	GRT1{1}	0	54	-55	15	58	-59
	GRT2{1}	0	62	-63	18	67	-68
	GRT3{1}	0	66	-65	26	74	-74
	GRT4{1}	0	40	-40	11	42	-43

F01 N-	SIFI= 1.00 SIFO= 1.00						
	Gravity{1}	0	6	-5	1	6	-5
	Hydrotest{1}	37	14	14	0	37	14
	Thermal 1{1}	0	59	-61	17	63	-65
	Thermal 2{1}	0	68	-70	20	73	-75
	Thermal 3{1}	0	53	-53	27	64	-64
	Thermal 4{1}	0	41	-42	12	44	-45
	GRT1{1}	0	54	-55	15	58	-59
	GRT2{1}	0	63	-64	18	68	-69
	GRT3{1}	0	48	-47	26	59	-58
	GRT4{1}	0	36	-36	11	39	-39

F_LINE_REV0.OUT

F01 N+	SIFI= 1.23 Gravity{1}	SIFO= 1.23	0	7	-6	1	8	-7	8	32
	Hydrotest{1}		37	14	14	0	37	14	32	270
	Thermal 1{1}		0	73	-75	17	76	-78	80	14
	Thermal 2{1}		0	84	-86	20	88	-90	92	12
	Thermal 3{1}		0	65	-66	27	75	-75	80	38
	Thermal 4{1}		0	51	-52	12	53	-55	56	20
	GRT1{1}		0	67	-68	15	70	-71	73	12
	GRT2{1}		0	78	-79	18	82	-83	85	10
	GRT3{1}		0	59	-58	26	68	-68	73	219
	GRT4{1}		0	44	-45	11	47	-47	48	19
F01 F-	SIFI= 1.23 Gravity{1}	SIFO= 1.23	0	3	-3	1	4	-4	4	239
	Hydrotest{1}		37	14	14	0	37	14	32	270
	Thermal 1{1}		0	75	-75	6	75	-75	76	30
	Thermal 2{1}		0	88	-88	5	88	-88	88	30

0

F_LINE_REV0

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RESULT PAGE 208

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
	Thermal 3{1}	0	74	-72	14	76	-74	78 235
	Thermal 4{1}	0	50	-50	6	51	-50	51 213
	GRT1{1}	0	72	-72	4	72	-72	73 29
	GRT2{1}	0	85	-85	4	85	-85	86 29
	GRT3{1}	0	71	-69	13	73	-71	74 235
	GRT4{1}	0	47	-47	5	48	-47	48 211
F01 F+	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	2	-3	1	3	-3 3 239
	Hydrotest{1}		37	14	14	0	37	14 32 270
	Thermal 1{1}		0	61	-61	6	61	-61 61 30
	Thermal 2{1}		0	71	-71	5	71	-72 72 30
	Thermal 3{1}		0	60	-58	14	63	-61 65 235
	Thermal 4{1}		0	41	-40	6	41	-41 42 213
	GRT1{1}		0	58	-59	4	59	-59 59 29
	GRT2{1}		0	69	-69	4	69	-69 69 29

			F_LINE_REV0.OUT						
	GRT3{1}		0	57	-56	13	60	-58	61 235
	GRT4{1}		0	38	-38	5	39	-38	39 211
F17	SIFI= 1.00 SIFO= 1.00								
	Gravity{1}		0	7	-7	1	7	-7	8 349
	Hydrotest{1}	37		14	14	0	37	14	32 270
	Thermal 1{1}	0		42	-42	6	43	-43	43 31
	Thermal 2{1}	0		50	-51	5	51	-51	51 31
	Thermal 3{1}	0		46	-43	14	49	-47	51 231
	Thermal 4{1}	0		28	-27	6	29	-29	30 214
	GRT1{1}	0		48	-48	4	48	-48	48 25
	GRT2{1}	0		56	-56	4	56	-56	57 26
	GRT3{1}	0		49	-47	13	52	-50	54 223
	GRT4{1}	0		33	-33	5	34	-34	34 205
F16	SIFI= 1.00 SIFO= 1.00								
	Gravity{1}	0		11	-11	1	11	-11	11 4
	Hydrotest{1}	37		14	14	0	37	14	32 270
	Thermal 1{1}	0		2	-2	6	7	-7	10 124
	Thermal 2{1}	0		3	-3	5	7	-7	10 51
	Thermal 3{1}	0		17	-15	14	25	-23	29 188
	Thermal 4{1}	0		2	-2	6	7	-7	11 350
	GRT1{1}	0		10	-10	4	12	-12	13 14
	GRT2{1}	0		13	-14	4	14	-15	15 14
	GRT3{1}	0		28	-26	13	33	-31	35 186
	GRT4{1}	0		9	-9	5	11	-11	12 187
F02	SIFI= 1.00 SIFO= 1.00								
	Gravity{1}	0		5	-5	1	5	-5	5 23
	Hydrotest{1}	37		14	14	0	37	14	32 270
	Thermal 1{1}	0		25	-25	6	26	-27	27 203
	Thermal 2{1}	0		25	-25	5	26	-26	27 206
	Thermal 3{1}	0		20	-18	14	27	-25	31 116
	Thermal 4{1}	0		19	-19	6	21	-20	22 27
	GRT1{1}	0		20	-21	4	21	-22	22 203
	GRT2{1}	0		20	-20	4	21	-21	22 207

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F_LINE_REV0

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RESULT PAGE 209

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total	
name	combination	Stress	Max Min	Stress	Max Min	Stress	Loc

F_LINE_REV0.OUT

	GRT3{1}		0	21	-19	13	26	-25	30 130
	GRT4{1}		0	14	-14	5	16	-15	16 28
F12	SIFI= 1.00 SIF0= 1.00								
	Gravity{1}		0	6	-6	2	6	-6	7 123
	Hydrotest{1}		1	0	0	0	1	0	1 270
	Thermal 1{1}		0	82	-82	7	83	-83	83 208
	Thermal 2{1}		0	88	-88	7	88	-89	89 210
	Thermal 3{1}		0	65	-62	17	69	-67	72 91
	Thermal 4{1}		0	58	-57	8	59	-58	59 32
	GRT1{1}		0	83	-83	6	83	-83	83 204
	GRT2{1}		0	88	-89	5	88	-89	89 206
	GRT3{1}		0	60	-57	16	64	-61	66 88
	GRT4{1}		0	58	-58	6	59	-58	59 26
F13	SIFI= 2.00 SIF0= 2.00								
	Gravity{1}		0	14	-14	2	14	-14	14 125
	Hydrotest{1}		1	0	0	0	1	0	1 270
	Thermal 1{1}		0	190	-190	7	190	-191	191 209
	Thermal 2{1}		0	206	-206	7	206	-206	206 211
	Thermal 3{1}		0	153	-150	17	155	-152	156 90
	Thermal 4{1}		0	132	-132	8	133	-132	133 33
	GRT1{1}		0	192	-192	6	192	-192	193 205
	GRT2{1}		0	207	-207	5	207	-207	208 207
	GRT3{1}		0	141	-139	16	143	-140	144 87
	GRT4{1}		0	134	-133	6	134	-133	134 27
F05	SIFI= 2.00 SIF0= 2.00								
	Gravity{1}		0	3	-3	0	3	-3	3 127
	Hydrotest{1}		1	0	0	0	1	0	1 270
	Thermal 1{1}		0	40	-40	1	40	-40	40 210
	Thermal 2{1}		0	43	-43	1	43	-44	44 211
	Thermal 3{1}		0	33	-32	3	33	-32	33 90
	Thermal 4{1}		0	28	-28	1	28	-28	28 34
	GRT1{1}		0	40	-41	1	40	-41	41 205
	GRT2{1}		0	44	-44	1	44	-44	44 207
	GRT3{1}		0	30	-29	3	31	-30	31 86
	GRT4{1}		0	28	-28	1	28	-28	28 28
F20	SIFI= 1.00 SIF0= 1.00								
	Gravity{1}		0	2	-2	0	2	-3	3 139
	Hydrotest{1}		1	0	0	0	1	0	1 270
	Thermal 1{1}		0	27	-27	1	27	-27	27 211
	Thermal 2{1}		0	30	-30	1	30	-30	30 212
	Thermal 3{1}		0	23	-22	3	24	-23	24 89

	F_LINE_REV0.OUT						
Thermal 4{1}	0	18	-18	1	19	-18	19 35
GRT1{1}	0	28	-28	1	28	-28	28 206
GRT2{1}	0	30	-30	1	30	-30	30 208
GRT3{1}	0	22	-21	3	22	-21	22 84
GRT4{1}	0	19	-19	1	19	-19	19 28

F06 N- SIFI= 1.00 SIF0= 1.00

F_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	Gravity{1}	0	2	-2	0	2	-2	2	146
	Hydrotest{1}	1	0	0	0	1	0	1	270
	Thermal 1{1}	0	23	-23	1	23	-23	23	211
	Thermal 2{1}	0	25	-25	1	25	-26	26	212
	Thermal 3{1}	0	20	-19	3	21	-20	21	276
	Thermal 4{1}	0	12	-12	1	12	-12	12	7
	GRT1{1}	0	24	-24	1	24	-24	24	206
	GRT2{1}	0	26	-27	1	26	-27	27	208
	GRT3{1}	0	21	-21	3	22	-21	22	281
	GRT4{1}	0	14	-14	1	14	-14	14	1

F06 N+ SIFI= 1.78 SIF0= 1.78

	Gravity{1}	0	4	-4	0	4	-4	4	56
	Hydrotest{1}	1	0	0	0	1	0	1	270
	Thermal 1{1}	0	41	-41	1	41	-41	41	121
	Thermal 2{1}	0	45	-45	1	45	-45	45	122
	Thermal 3{1}	0	35	-34	3	35	-34	36	186
	Thermal 4{1}	0	22	-21	1	22	-22	22	277
	GRT1{1}	0	43	-43	1	43	-43	43	116
	GRT2{1}	0	47	-47	1	47	-47	47	118
	GRT3{1}	0	38	-37	3	38	-37	38	191
	GRT4{1}	0	25	-25	1	25	-25	25	271

F06 F- SIFI= 1.78 SIF0= 1.78

	Gravity{1}	0	3	-3	1	3	-3	3	235
	Hydrotest{1}	1	0	0	0	1	0	1	270
	Thermal 1{1}	0	20	-20	9	24	-24	26	166
	Thermal 2{1}	0	23	-24	10	27	-27	29	165

F_LINE_REV0.OUT

Thermal 3{1}	0	70	-76	2	70	-77	77	353
Thermal 4{1}	0	5	-6	6	9	-10	12	360
GRT1{1}	0	19	-19	10	24	-24	26	157
GRT2{1}	0	22	-23	11	27	-27	29	158
GRT3{1}	0	72	-78	3	72	-78	78	355
GRT4{1}	0	7	-8	6	11	-12	14	19
F06 F+ SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	2	-2	1	2	-2	2	325
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	11	-12	9	16	-17	20	256
Thermal 2{1}	0	13	-13	10	18	-19	22	255
Thermal 3{1}	0	38	-44	2	38	-45	45	83
Thermal 4{1}	0	2	-4	6	7	-8	11	90
GRT1{1}	0	11	-11	10	17	-17	21	247
GRT2{1}	0	13	-13	11	19	-19	23	248
GRT3{1}	0	39	-45	3	39	-45	46	85
GRT4{1}	0	4	-5	6	9	-10	12	109
F19 SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	3	-3	1	4	-4	4	2
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	11	-11	9	16	-16	20	289
Thermal 2{1}	0	13	-13	10	18	-19	22	287

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F_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc

	Thermal 3{1}	0	79	-85	2	79	-85	85 89
	Thermal 4{1}	0	13	-14	6	15	-16	17 63
	GRT1{1}	0	10	-10	10	16	-17	20 271
	GRT2{1}	0	12	-13	11	19	-19	23 272
	GRT3{1}	0	79	-85	3	79	-85	85 91
	GRT4{1}	0	11	-13	6	14	-16	17 77
F07 N- SIFI= 1.00 SIFO= 1.00								
	Gravity{1}	0	1	0	1	1	-1	2 213
	Hydrotest{1}	1	0	0	0	1	0	1 270

			F_LINE_REV0.OUT					
Thermal 1{1}	0	11	-11	9	16	-17	20	312
Thermal 2{1}	0	13	-13	10	18	-18	22	308
Thermal 3{1}	0	59	-66	2	59	-66	66	262
Thermal 4{1}	0	16	-17	6	17	-19	20	287
GRT1{1}	0	11	-11	10	17	-17	21	314
GRT2{1}	0	13	-13	11	19	-19	23	311
GRT3{1}	0	59	-65	3	59	-65	66	262
GRT4{1}	0	15	-17	6	18	-19	20	289
F07 N+ SIFI= 1.78 SIF0= 1.78								
Gravity{1}	0	1	-1	1	1	-1	2	303
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	20	-20	9	23	-24	26	42
Thermal 2{1}	0	22	-23	10	26	-27	29	38
Thermal 3{1}	0	108	-114	2	108	-114	114	352
Thermal 4{1}	0	28	-30	6	29	-31	31	17
GRT1{1}	0	20	-20	10	24	-24	27	44
GRT2{1}	0	23	-23	11	27	-27	30	41
GRT3{1}	0	107	-114	3	107	-114	114	352
GRT4{1}	0	28	-29	6	29	-31	32	19
F07 F- SIFI= 1.78 SIF0= 1.78								
Gravity{1}	0	2	-2	1	2	-2	2	70
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	28	-28	7	30	-30	31	117
Thermal 2{1}	0	31	-31	7	33	-33	33	120
Thermal 3{1}	0	140	-154	4	140	-154	154	353
Thermal 4{1}	0	36	-39	4	37	-40	40	334
GRT1{1}	0	29	-29	8	31	-31	32	115
GRT2{1}	0	32	-32	8	34	-34	35	118
GRT3{1}	0	140	-153	4	140	-153	154	352
GRT4{1}	0	37	-39	5	37	-40	40	332
F07 F+ SIFI= 1.00 SIF0= 1.00								
Gravity{1}	0	1	-1	1	1	-1	2	340
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	16	-16	7	19	-19	20	27
Thermal 2{1}	0	17	-17	7	20	-20	22	30
Thermal 3{1}	0	76	-89	4	76	-90	90	263
Thermal 4{1}	0	20	-23	4	21	-23	24	244
GRT1{1}	0	17	-17	8	20	-20	21	25
GRT2{1}	0	18	-18	8	21	-21	23	28

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
-----	-----	-----	-----	-----	-----	-----	-----	---
	GRT3{1}	0	76	-89	4	76	-89	89 262
	GRT4{1}	0	20	-23	5	21	-24	24 242
F08 N-	SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	0	0	1	1	-1	1 19
	Hydrotest{1}	1	0	0	0	1	0	1 270
	Thermal 1{1}	0	6	-6	7	11	-11	14 320
	Thermal 2{1}	0	7	-7	7	12	-12	15 316
	Thermal 3{1}	0	37	-50	4	38	-51	51 213
	Thermal 4{1}	0	11	-14	4	13	-15	16 194
	GRT1{1}	0	6	-6	8	11	-11	15 321
	GRT2{1}	0	7	-7	8	12	-12	16 318
	GRT3{1}	0	37	-51	4	38	-51	51 213
	GRT4{1}	0	12	-14	5	13	-16	17 194
F08 N+	SIFI= 1.78 SIF0= 1.78 Gravity{1}	0	0	0	1	1	-1	1 109
	Hydrotest{1}	1	0	0	0	1	0	1 270
	Thermal 1{1}	0	11	-11	7	14	-14	16 50
	Thermal 2{1}	0	12	-12	7	16	-16	18 46
	Thermal 3{1}	0	71	-84	4	71	-85	85 303
	Thermal 4{1}	0	21	-24	4	22	-25	25 284
	GRT1{1}	0	11	-11	8	15	-15	17 51
	GRT2{1}	0	12	-12	8	16	-16	19 48
	GRT3{1}	0	71	-85	4	72	-85	85 303
	GRT4{1}	0	22	-24	5	23	-25	26 284
F08 F-	SIFI= 1.78 SIF0= 1.78 Gravity{1}	0	3	-3	0	3	-3	3 95
	Hydrotest{1}	1	0	0	0	1	0	1 270
	Thermal 1{1}	0	26	-25	2	26	-26	26 71
	Thermal 2{1}	0	28	-28	2	28	-28	28 68
	Thermal 3{1}	0	21	-26	19	32	-35	41 269
	Thermal 4{1}	0	24	-25	3	24	-25	26 261
	GRT1{1}	0	29	-28	2	29	-28	29 73
	GRT2{1}	0	31	-30	2	31	-30	31 71
	GRT3{1}	0	24	-29	18	34	-38	43 269
	GRT4{1}	0	27	-28	3	27	-28	28 263

F_LINE_REV0.OUT

F08 F+ SIFI= 1.00 SIF0= 1.00

Gravity{1}	0	2	-2	0	2	-2	2	5
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	15	-14	2	15	-14	15	341
Thermal 2{1}	0	16	-15	2	16	-16	16	338
Thermal 3{1}	0	10	-15	19	25	-28	36	179
Thermal 4{1}	0	13	-14	3	14	-15	15	171
GRT1{1}	0	16	-16	2	16	-16	17	343
GRT2{1}	0	17	-17	2	18	-17	18	341
GRT3{1}	0	12	-17	18	26	-29	36	179
GRT4{1}	0	15	-16	3	16	-17	17	173

F14 SIFI= 2.00 SIF0= 2.00

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F_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
Gravity{1}		0	8	-8	0	8	-8	8 7
Hydrotest{1}		1	0	0	0	1	0	1 270
Thermal 1{1}		0	25	-25	2	25	-25	25 330
Thermal 2{1}		0	28	-27	2	28	-27	28 328
Thermal 3{1}		0	216	-221	19	217	-222	223 101
Thermal 4{1}		0	55	-56	3	55	-56	56 121
GRT1{1}		0	32	-31	2	32	-31	32 339
GRT2{1}		0	34	-33	2	34	-34	34 336
GRT3{1}		0	216	-221	18	218	-223	224 103
GRT4{1}		0	59	-59	3	59	-60	60 128

F10 SIFI= 2.00 SIF0= 2.00

Gravity{1}	0	5	-5	0	5	-5	5	7
Hydrotest{1}	1	1	1	0	1	1	1	270
Thermal 1{1}	0	13	-13	1	13	-13	13	327
Thermal 2{1}	0	14	-14	1	14	-14	14	324
Thermal 3{1}	0	150	-154	10	151	-154	155	99
Thermal 4{1}	0	36	-36	2	36	-36	37	116
GRT1{1}	0	17	-17	1	17	-17	17	338
GRT2{1}	0	18	-18	1	18	-18	18	335
GRT3{1}	0	150	-154	10	151	-155	155	101

F_LINE_REV0.OUT

	GRT4{1}		0	38	-38	2	38	-38	38	123
F11	SIFI= 1.20	SIFO= 1.20								
	Gravity{1}		0	5	-5	0	5	-5	5	6
	Hydrotest{1}		1	1	1	0	1	1	1	270
	Thermal 1{1}		0	7	-7	1	7	-7	7	313
	Thermal 2{1}		0	8	-8	1	8	-8	8	311
	Thermal 3{1}		0	155	-159	10	156	-159	160	97
	Thermal 4{1}		0	34	-35	2	34	-35	35	107
	GRT1{1}		0	11	-11	1	11	-11	11	335
	GRT2{1}		0	12	-11	1	12	-11	12	332
	GRT3{1}		0	155	-159	10	156	-159	160	99
	GRT4{1}		0	35	-36	2	35	-36	36	115

*** Segment F end ***

*** Segment G begin ***

C07	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	1	0	1	1	-1	1	204
	Hydrotest{1}		37	14	14	0	37	14	32	270
	Thermal 1{1}		0	25	-25	7	27	-27	28	346
	Thermal 2{1}		0	26	-27	8	29	-29	30	344
	Thermal 3{1}		0	22	-23	8	25	-25	27	331
	Thermal 4{1}		0	22	-22	2	22	-22	22	344
	GRT1{1}		0	25	-25	7	27	-27	28	167
	GRT2{1}		0	27	-27	8	29	-29	30	164
	GRT3{1}		0	23	-23	9	26	-26	27	332
	GRT4{1}		0	23	-22	1	23	-22	23	165

G01 N- SIFI= 1.00 SIFO= 1.00

□

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
	Gravity{1}	0	1	0	1	1	-1	2
	Hydrotest{1}	37	14	14	0	37	14	32
	Thermal 1{1}	0	23	-24	7	25	-26	27
	Thermal 2{1}	0	27	-28	8	29	-30	31
	Thermal 3{1}	0	44	-45	8	46	-47	47

			F_LINE_REV0.OUT						
	Thermal 4{1}	0	21	-22	2	22	-22	22	258
	GRT1{1}	0	24	-24	7	26	-26	27	63
	GRT2{1}	0	28	-28	8	30	-30	31	53
	GRT3{1}	0	45	-45	9	46	-47	48	219
	GRT4{1}	0	23	-22	1	23	-22	23	79
G01 N+	SIFI= 1.23 Gravity{1}	0	1	-1	1	2	-1	2	281
	Hydrotest{1}	37	14	14	0	37	14	32	270
	Thermal 1{1}	0	29	-29	7	31	-31	32	62
	Thermal 2{1}	0	33	-34	8	35	-36	37	51
	Thermal 3{1}	0	55	-56	8	56	-57	57	38
	Thermal 4{1}	0	26	-27	2	27	-27	27	78
	GRT1{1}	0	30	-30	7	31	-31	32	243
	GRT2{1}	0	34	-34	8	36	-36	37	233
	GRT3{1}	0	55	-56	9	57	-57	58	39
	GRT4{1}	0	28	-27	1	28	-27	28	259
G01 F-	SIFI= 1.23 Gravity{1}	0	3	-2	0	3	-3	3	145
	Hydrotest{1}	37	14	14	0	37	14	32	270
	Thermal 1{1}	0	25	-27	10	28	-31	32	38
	Thermal 2{1}	0	34	-38	10	37	-40	42	31
	Thermal 3{1}	0	62	-69	15	66	-72	73	346
	Thermal 4{1}	0	10	-11	11	17	-18	22	22
	GRT1{1}	0	26	-28	10	29	-32	33	33
	GRT2{1}	0	36	-39	10	38	-42	43	27
	GRT3{1}	0	64	-71	16	68	-74	76	345
	GRT4{1}	0	12	-13	11	18	-19	23	13
G01 F+	SIFI= 1.00 Gravity{1}	0	2	-2	0	2	-2	2	145
	Hydrotest{1}	37	14	14	0	37	14	32	270
	Thermal 1{1}	0	20	-22	10	24	-26	28	38
	Thermal 2{1}	0	28	-31	10	31	-34	35	31
	Thermal 3{1}	0	50	-56	15	54	-60	62	346
	Thermal 4{1}	0	8	-9	11	15	-16	21	22
	GRT1{1}	0	21	-23	10	25	-27	29	33
	GRT2{1}	0	29	-32	10	32	-35	37	27
	GRT3{1}	0	52	-58	16	56	-62	64	345
	GRT4{1}	0	9	-11	11	17	-18	22	13
G16	SIFI= 1.00 Gravity{1}	0	7	-7	0	7	-7	7	173
	Hydrotest{1}	37	14	14	0	37	14	32	270
	Thermal 1{1}	0	15	-17	10	19	-21	24	36
	Thermal 2{1}	0	21	-24	10	25	-28	30	27

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total		
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc	
-----	-----		-----	-----	-----	-----	-----	-----	-----	---	
G14	Thermal 3{1}		0	40	-47	15	45	-51	54	355	
	Thermal 4{1}		0	6	-8	11	14	-15	20	29	
	GRT1{1}		0	20	-23	10	25	-27	29	23	
	GRT2{1}		0	27	-31	10	31	-34	35	19	
	GRT3{1}		0	48	-54	16	52	-58	60	355	
	GRT4{1}		0	13	-14	11	19	-20	24	11	
	SIFI= 1.00 SIFO= 1.00 Gravity{1}		0	6	-6	0	6	-6	6	175	
	Hydrotest{1}		37	14	14	0	37	14	32	270	
	Thermal 1{1}		0	8	-11	10	15	-16	20	30	
	Thermal 2{1}		0	14	-17	10	19	-22	24	18	
	Thermal 3{1}		0	32	-38	15	38	-43	46	11	
	Thermal 4{1}		0	5	-6	11	13	-14	19	41	
	GRT1{1}		0	14	-16	10	19	-21	24	16	
	GRT2{1}		0	20	-23	10	24	-27	29	12	
	GRT3{1}		0	38	-44	16	43	-49	52	8	
	GRT4{1}		0	10	-12	11	17	-18	22	17	
	G15	SIFI= 1.00 SIFO= 1.00 Gravity{1}		0	5	-5	0	5	-5	5	177
		Hydrotest{1}		37	14	14	0	37	14	32	270
		Thermal 1{1}		0	3	-5	10	11	-13	17	4
Thermal 2{1}		0	7	-11	10	14	-17	20	357		
Thermal 3{1}		0	27	-33	15	34	-39	43	33		
Thermal 4{1}		0	4	-5	11	13	-14	19	60		
GRT1{1}		0	7	-10	10	14	-16	20	0		
GRT2{1}		0	12	-15	10	18	-21	24	357		
GRT3{1}		0	31	-37	16	37	-43	46	29		
GRT4{1}		0	7	-9	11	15	-16	21	28		
G02	SIFI= 1.00 SIFO= 1.00 Gravity{1}		0	6	-6	0	6	-6	6	359	
	Hydrotest{1}		37	14	14	0	37	14	32	270	

			F_LINE_REV0.OUT						
	Thermal 1{1}		0	4	-6	10	12	-13	18 253
	Thermal 2{1}		0	5	-9	10	13	-15	19 289
	Thermal 3{1}		0	29	-35	15	35	-41	44 63
	Thermal 4{1}		0	3	-5	11	12	-13	19 92
	GRT1{1}		0	8	-10	10	15	-16	20 214
	GRT2{1}		0	6	-9	10	14	-16	20 243
	GRT3{1}		0	27	-33	16	34	-40	43 73
	GRT4{1}		0	7	-8	11	15	-16	21 144
G11	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	14	-13	1	14	-13	14 356
	Hydrotest{1}		1	0	0	0	1	0	1 270
	Thermal 1{1}		0	21	-24	12	27	-29	32 233
	Thermal 2{1}		0	23	-28	12	28	-32	35 242
	Thermal 3{1}		0	59	-67	19	65	-73	75 95
	Thermal 4{1}		0	7	-9	13	17	-19	25 133
	GRT1{1}		0	30	-34	13	35	-38	40 212
	GRT2{1}		0	31	-35	13	36	-40	42 220

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc

	GRT3{1}	0	62	-71	20	68	-76	79 107
	GRT4{1}	0	19	-21	14	26	-28	32 160
G12	SIFI= 2.00 Gravity{1}	0	21	-21	1	21	-21	21 353
	Hydrotest{1}	1	0	0	0	1	0	1 270
	Thermal 1{1}	0	53	-56	12	56	-59	60 231
	Thermal 2{1}	0	60	-64	12	62	-67	68 239
	Thermal 3{1}	0	139	-148	19	142	-150	152 100
	Thermal 4{1}	0	17	-19	13	25	-26	30 139
	GRT1{1}	0	67	-70	13	69	-72	73 216
	GRT2{1}	0	71	-75	13	73	-77	79 224
	GRT3{1}	0	147	-155	20	149	-158	159 108
	GRT4{1}	0	36	-38	14	41	-43	45 157
G05	SIFI= 2.00 Gravity{1}	0	3	-3	0	3	-3	3 350

F_LINE_REV0.OUT

	Hydrotest{1}	1	0	0	0	1	0	1	270
	Thermal 1{1}	0	11	-12	2	12	-13	13	230
	Thermal 2{1}	0	13	-14	2	13	-15	15	237
	Thermal 3{1}	0	28	-31	4	29	-32	32	103
	Thermal 4{1}	0	4	-4	3	5	-5	6	143
	GRT1{1}	0	13	-14	2	13	-15	15	219
	GRT2{1}	0	14	-16	2	15	-16	16	226
	GRT3{1}	0	30	-33	4	30	-33	33	108
	GRT4{1}	0	6	-7	3	7	-8	8	155
G18	SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	1	0	0	1	0	1	280
	Hydrotest{1}	1	0	0	0	1	0	1	270
	Thermal 1{1}	0	9	-11	2	10	-11	11	228
	Thermal 2{1}	0	11	-12	2	11	-13	13	231
	Thermal 3{1}	0	22	-25	4	22	-25	25	114
	Thermal 4{1}	0	3	-3	3	4	-5	6	155
	GRT1{1}	0	9	-10	2	10	-11	11	226
	GRT2{1}	0	11	-12	2	11	-13	13	229
	GRT3{1}	0	22	-25	4	23	-26	26	113
	GRT4{1}	0	3	-4	3	5	-5	6	149
G06 N-	SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	1	-1	0	1	-1	1	301
	Hydrotest{1}	1	0	0	0	1	0	1	270
	Thermal 1{1}	0	13	-14	2	13	-14	15	227
	Thermal 2{1}	0	15	-17	2	15	-17	17	229
	Thermal 3{1}	0	29	-32	4	29	-32	32	118
	Thermal 4{1}	0	4	-5	3	5	-6	6	160
	GRT1{1}	0	13	-14	2	13	-14	14	224
	GRT2{1}	0	15	-16	2	15	-17	17	226
	GRT3{1}	0	30	-33	4	30	-33	33	118
	GRT4{1}	0	4	-5	3	6	-6	7	154

G06 N+ SIFI= 1.78 SIF0= 1.78

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc

		F_LINE_REV0.OUT						
		0	1	-1	0	1	-1	1 211
		1	0	0	0	1	0	1 270
		0	23	-24	2	24	-25	25 137
		0	27	-29	2	28	-29	29 139
		0	52	-55	4	53	-56	56 28
		0	7	-8	3	8	-9	9 70
		0	23	-24	2	23	-24	24 134
		0	27	-29	2	27	-29	29 136
		0	54	-57	4	54	-57	57 28
		0	8	-9	3	9	-10	10 64
G06 F-	SIFI= 1.78 SIF0= 1.78	0	1	-1	0	1	-1	2 18
		1	0	0	0	1	0	1 270
		0	22	-23	5	24	-24	24 183
		0	28	-28	6	29	-30	30 180
		0	39	-40	8	40	-42	43 358
		0	5	-6	3	7	-7	7 272
		0	21	-21	6	23	-23	23 182
		0	27	-27	6	28	-28	29 179
		0	40	-42	9	42	-43	44 359
		0	5	-5	3	7	-7	8 287
G06 F+	SIFI= 1.00 SIF0= 1.00	0	1	-1	0	1	-1	1 108
		1	0	0	0	1	0	1 270
		0	13	-13	5	15	-15	16 273
		0	16	-16	6	18	-18	19 270
		0	21	-23	8	24	-26	27 88
		0	3	-3	3	5	-5	6 2
		0	12	-12	6	14	-14	15 272
		0	15	-15	6	17	-18	19 269
		0	22	-24	9	25	-27	28 89
		0	3	-3	3	5	-5	6 17
G17	SIFI= 1.00 SIF0= 1.00	0	3	-3	0	3	-3	3 158
		1	0	0	0	1	0	1 270
		0	27	-27	5	28	-28	29 265
		0	36	-36	6	37	-37	38 265
		0	12	-14	8	16	-18	20 247
		0	8	-8	3	9	-9	10 283
		0	26	-27	6	28	-28	28 259
		0	35	-36	6	37	-37	37 260
		0	12	-14	9	17	-18	21 234

F_LINE_REV0.OUT

GRT4{1}	0	7	-7	3	8	-8	9	262
G07 N- SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	0	0	0	0	0	1	133
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	5	-5	5	8	-9	11	297
Thermal 2{1}	0	7	-7	6	10	-10	13	289

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
-----	-----	-----	-----	-----	-----	-----	-----	---
	Thermal 3{1}	0	39	-41	8	41	-43	43 245
	Thermal 4{1}	0	10	-10	3	10	-11	11 232
	GRT1{1}	0	5	-5	6	9	-9	11 296
	GRT2{1}	0	7	-7	6	10	-11	13 288
	GRT3{1}	0	39	-41	9	41	-43	44 245
	GRT4{1}	0	10	-10	3	10	-11	11 231
G07 N+ SIFI= 1.78 SIFO= 1.78 Gravity{1}		0	0	0	0	1	-1	1 223
	Hydrotest{1}	1	0	0	0	1	0	1 270
	Thermal 1{1}	0	9	-9	5	12	-12	13 27
	Thermal 2{1}	0	12	-12	6	15	-15	16 19
	Thermal 3{1}	0	70	-72	8	71	-73	73 335
	Thermal 4{1}	0	17	-17	3	18	-18	18 322
	GRT1{1}	0	9	-9	6	12	-12	13 26
	GRT2{1}	0	12	-12	6	15	-15	16 18
	GRT3{1}	0	70	-72	9	71	-73	73 335
	GRT4{1}	0	17	-17	3	18	-18	18 321
G07 F- SIFI= 1.78 SIFO= 1.78 Gravity{1}		0	0	-1	0	1	-1	1 294
	Hydrotest{1}	1	0	0	0	1	0	1 270
	Thermal 1{1}	0	18	-16	2	18	-16	18 81
	Thermal 2{1}	0	20	-18	2	20	-18	21 80
	Thermal 3{1}	0	75	-77	10	76	-78	79 332
	Thermal 4{1}	0	18	-18	4	19	-19	19 132
	GRT1{1}	0	18	-17	2	19	-17	19 82

		F_LINE_REV0.OUT						
	GRT2{1}	0	21	-18	2	21	-18	21 81
	GRT3{1}	0	75	-78	10	77	-79	79 332
	GRT4{1}	0	19	-19	4	19	-19	20 311
G07 F+	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	0	0	0	0	0	0 204
	Hydrotest{1}	1	0	0	0	1	0	1 270
	Thermal 1{1}	0	11	-9	2	11	-9	11 351
	Thermal 2{1}	0	12	-9	2	12	-10	12 350
	Thermal 3{1}	0	42	-44	10	44	-46	47 242
	Thermal 4{1}	0	10	-10	4	12	-12	12 42
	GRT1{1}	0	11	-9	2	11	-9	11 352
	GRT2{1}	0	12	-10	2	12	-10	13 351
	GRT3{1}	0	42	-44	10	44	-46	47 242
	GRT4{1}	0	10	-10	4	12	-12	12 221
G13	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	0	0	0	0	-1	1 349
	Hydrotest{1}	1	0	0	0	1	0	1 270
	Thermal 1{1}	0	13	-11	2	13	-11	13 320
	Thermal 2{1}	0	16	-13	2	16	-13	16 308
	Thermal 3{1}	0	74	-76	10	76	-78	78 210
	Thermal 4{1}	0	33	-33	4	33	-33	34 13
	GRT1{1}	0	13	-11	2	13	-11	13 319
	GRT2{1}	0	15	-13	2	16	-13	16 307

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc

	GRT3{1}		0	74	-76	10	75	-77	78	210
	GRT4{1}		0	32	-33	4	33	-33	33	193
G09	SIFI= 2.00	SIFO= 2.00								
	Gravity{1}		0	0	0	0	0	0	0	340
	Hydrotest{1}		1	1	1	0	1	1	1	270
	Thermal 1{1}		0	7	-5	1	7	-5	7	310
	Thermal 2{1}		0	9	-7	1	9	-7	9	296
	Thermal 3{1}		0	40	-42	5	41	-43	43	203
	Thermal 4{1}		0	19	-19	2	20	-20	20	10

F_LINE_REV0.OUT

	GRT1{1}	0	7	-5	1	7	-5	7	309
	GRT2{1}	0	9	-7	1	9	-7	9	296
	GRT3{1}	0	40	-42	5	41	-43	43	203
	GRT4{1}	0	19	-19	2	19	-20	20	190
G10	SIFI= 1.20 SIFO= 1.20 Gravity{1}	0	1	-1	0	1	-1	1	179
	Hydrotest{1}	1	1	1	0	1	1	1	270
	Thermal 1{1}	0	5	-3	1	5	-4	5	266
	Thermal 2{1}	0	7	-5	1	7	-6	7	259
	Thermal 3{1}	0	29	-30	5	30	-31	32	179
	Thermal 4{1}	0	16	-16	2	16	-16	16	1
	GRT1{1}	0	5	-3	1	5	-4	5	280
	GRT2{1}	0	7	-5	1	7	-6	7	268
	GRT3{1}	0	30	-31	5	31	-32	33	179
	GRT4{1}	0	17	-17	2	17	-17	17	181
*** Segment G end ***									
*** Segment K begin ***									
B06	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	0	0	0	0	0	0	180
	Hydrotest{1}	37	14	14	0	37	14	32	270
	Thermal 1{1}	0	3	-3	0	3	-3	3	1
	Thermal 2{1}	0	6	-6	0	6	-6	6	0
	Thermal 3{1}	0	2	-2	0	2	-2	2	1
	Thermal 4{1}	0	0	0	0	0	0	0	177
	GRT1{1}	0	2	-3	0	2	-3	3	1
	GRT2{1}	0	6	-6	0	6	-6	6	0
	GRT3{1}	0	2	-2	0	2	-2	2	2
	GRT4{1}	0	0	-1	0	0	-1	1	178
K01	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	0	0	0	0	0	0	270
	Hydrotest{1}	37	14	14	0	37	14	32	270
	Thermal 1{1}	0	5	-5	0	5	-5	5	89
	Thermal 2{1}	0	11	-11	0	11	-11	11	90
	Thermal 3{1}	0	4	-4	0	4	-4	4	89
	Thermal 4{1}	0	1	-1	0	1	-1	1	272
	GRT1{1}	0	5	-5	0	5	-5	5	89
	GRT2{1}	0	11	-11	0	11	-11	11	90

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
K15	GRT3{1}		0	4	-4	0	4	-4	4	88
	GRT4{1}		0	1	-1	0	1	-1	1	272
	SIFI= 2.00 SIFO= 2.00 Gravity{1}		0	3	-3	0	3	-3	3	270
	Hydrotest{1}		21	6	6	0	21	6	18	270
	Thermal 1{1}		0	41	-41	0	41	-41	41	89
	Thermal 2{1}		0	88	-88	0	88	-88	88	90
	Thermal 3{1}		0	32	-32	0	32	-32	32	89
	Thermal 4{1}		0	8	-8	0	8	-8	8	272
	GRT1{1}		0	38	-38	0	38	-38	38	89
	GRT2{1}		0	85	-85	0	85	-85	85	90
	GRT3{1}		0	29	-30	0	29	-30	30	88
GRT4{1}		0	10	-11	0	10	-11	11	271	
K22	SIFI= 1.00 SIFO= 1.00 Gravity{1}		0	6	-6	0	6	-6	6	90
	Hydrotest{1}		21	6	6	0	21	6	18	270
	Thermal 1{1}		0	25	-25	0	25	-25	25	270
	Thermal 2{1}		0	45	-45	0	45	-45	45	270
	Thermal 3{1}		0	15	-16	0	15	-16	16	270
	Thermal 4{1}		0	20	-20	0	20	-20	20	270
	GRT1{1}		0	19	-20	0	19	-20	20	270
	GRT2{1}		0	40	-40	0	40	-40	40	270
	GRT3{1}		0	10	-10	0	10	-10	10	271
	GRT4{1}		0	15	-15	0	15	-15	15	270
K03 N-	SIFI= 1.00 SIFO= 1.00 Gravity{1}		0	2	-2	0	2	-2	2	270
	Hydrotest{1}		21	6	6	0	21	6	18	270
	Thermal 1{1}		0	26	-27	0	26	-27	27	270
	Thermal 2{1}		0	22	-22	0	22	-22	22	270
	Thermal 3{1}		0	15	-16	0	15	-16	16	270
	Thermal 4{1}		0	2	-2	0	2	-2	2	90
	GRT1{1}		0	25	-25	0	25	-25	25	270
	GRT2{1}		0	20	-20	0	20	-20	20	270
	GRT3{1}		0	14	-14	0	14	-14	14	90
	GRT4{1}		0	4	-4	0	4	-4	4	270
K03 N+	SIFI= 1.00 SIFO= 1.00 Gravity{1}		0	2	-2	0	2	-2	2	0

F_LINE_REV0.OUT

Hydrotest{1}	21	6	6	0	21	6	18	270
Thermal 1{1}	0	26	-27	0	26	-27	27	360
Thermal 2{1}	0	22	-22	0	22	-22	22	360
Thermal 3{1}	0	15	-16	0	15	-16	16	360
Thermal 4{1}	0	2	-2	0	2	-2	2	180
GRT1{1}	0	25	-25	0	25	-25	25	360
GRT2{1}	0	20	-20	0	20	-20	20	360
GRT3{1}	0	14	-14	0	14	-14	14	180
GRT4{1}	0	4	-4	0	4	-4	4	0

K03 F- SIFI= 1.00 SIF0= 1.00

F_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
Gravity{1}		0	1	-1	0	1	-1	1 181
Hydrotest{1}		21	6	6	0	21	6	18 270
Thermal 1{1}		0	26	-26	0	26	-26	26 1
Thermal 2{1}		0	21	-20	0	21	-20	21 182
Thermal 3{1}		0	15	-15	0	15	-15	15 182
Thermal 4{1}		0	3	-3	0	3	-3	3 355
GRT1{1}		0	25	-25	0	25	-25	25 1
GRT2{1}		0	19	-19	0	19	-19	19 182
GRT3{1}		0	14	-14	0	14	-14	14 2
GRT4{1}		0	4	-4	0	4	-4	4 357

K03 F+ SIFI= 1.00 SIF0= 1.00

Gravity{1}	0	1	-1	0	1	-1	1	1
Hydrotest{1}	21	6	6	0	21	6	18	270
Thermal 1{1}	0	26	-26	0	26	-26	26	181
Thermal 2{1}	0	21	-20	0	21	-20	21	2
Thermal 3{1}	0	15	-15	0	15	-15	15	2
Thermal 4{1}	0	3	-3	0	3	-3	3	175
GRT1{1}	0	25	-25	0	25	-25	25	181
GRT2{1}	0	19	-19	0	19	-19	19	2
GRT3{1}	0	14	-14	0	14	-14	14	182
GRT4{1}	0	4	-4	0	4	-4	4	177

K17	SIFI= 2.00 Gravity{1}	SIFO= 2.00	0	6	-6	0	6	-6	6	180
	Hydrotest{1}		21	6	6	0	21	6	18	270
	Thermal 1{1}		0	34	-34	0	34	-34	34	182
	Thermal 2{1}		0	31	-30	0	31	-30	31	2
	Thermal 3{1}		0	25	-25	0	25	-25	25	2
	Thermal 4{1}		0	8	-8	0	8	-8	8	177
	GRT1{1}		0	40	-40	0	40	-40	40	181
	GRT2{1}		0	37	-37	0	37	-37	37	2
	GRT3{1}		0	31	-31	0	31	-31	31	182
	GRT4{1}		0	2	-2	0	2	-2	2	167
K16	SIFI= 2.00 Gravity{1}	SIFO= 2.00	0	5	-5	0	5	-5	5	180
	Hydrotest{1}		25	9	9	0	25	9	22	270
	Thermal 1{1}		0	17	-17	0	17	-17	17	182
	Thermal 2{1}		0	16	-16	0	16	-16	16	2
	Thermal 3{1}		0	13	-13	0	13	-13	13	2
	Thermal 4{1}		0	5	-5	0	5	-5	5	177
	GRT1{1}		0	22	-22	0	22	-22	22	181
	GRT2{1}		0	21	-21	0	21	-21	21	2
	GRT3{1}		0	18	-18	0	18	-18	18	182
	GRT4{1}		0	0	0	0	0	0	0	125
CH09	SIFI= 2.00 Gravity{1}	SIFO= 2.00	0	10	-10	0	10	-10	10	180
	Hydrotest{1}		25	9	9	0	25	9	22	270
	Thermal 1{1}		0	11	-11	0	11	-11	11	182
	Thermal 2{1}		0	13	-13	0	13	-13	13	3

F_LINE_REV0

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(Stress in N/mm²)

Point	Load	Hoop	Longitudinal		Shear	Principal		Total	
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	Thermal 3{1}	0	12	-12	0	12	-12	12	2
	Thermal 4{1}	0	6	-5	0	6	-5	6	178
	GRT1{1}	0	22	-22	0	22	-22	22	181
	GRT2{1}	0	23	-23	0	23	-23	23	1
	GRT3{1}	0	22	-22	0	22	-22	22	181

F_LINE_REV0.OUT									
	GRT4{1}		0	5	-5	0	5	-5	5 3
K18	SIFI= 2.00 SIFO= 2.00 Gravity{1}		0	23	-23	0	23	-23	23 180
	Hydrotest{1}		21	6	6	0	21	6	18 270
	Thermal 1{1}		0	17	-17	0	17	-17	17 183
	Thermal 2{1}		0	21	-21	0	21	-21	21 3
	Thermal 3{1}		0	20	-20	0	20	-20	20 2
	Thermal 4{1}		0	10	-10	0	10	-10	10 178
	GRT1{1}		0	40	-40	0	40	-40	40 181
	GRT2{1}		0	44	-44	0	44	-44	44 1
	GRT3{1}		0	42	-42	0	42	-42	42 181
	GRT4{1}		0	13	-12	0	13	-12	13 2
K08	SIFI= 1.00 SIFO= 1.00 Gravity{1}		0	16	-16	0	16	-16	16 180
	Hydrotest{1}		21	6	6	0	21	6	18 270
	Thermal 1{1}		0	5	-5	0	5	-5	5 184
	Thermal 2{1}		0	9	-8	0	9	-8	9 3
	Thermal 3{1}		0	9	-9	0	9	-9	9 2
	Thermal 4{1}		0	6	-5	0	6	-5	6 178
	GRT1{1}		0	21	-21	0	21	-21	21 181
	GRT2{1}		0	25	-25	0	25	-25	25 1
	GRT3{1}		0	25	-25	0	25	-25	25 181
	GRT4{1}		0	11	-10	0	11	-10	11 1
K19	SIFI= 1.00 SIFO= 1.00 Gravity{1}		0	16	-16	0	16	-16	16 180
	Hydrotest{1}		21	6	6	0	21	6	18 270
	Thermal 1{1}		0	1	-1	0	1	-1	1 349
	Thermal 2{1}		0	12	-12	0	12	-12	12 2
	Thermal 3{1}		0	6	-6	0	6	-6	6 3
	Thermal 4{1}		0	2	-1	0	2	-1	2 5
	GRT1{1}		0	15	-15	0	15	-15	15 181
	GRT2{1}		0	28	-28	0	28	-28	28 1
	GRT3{1}		0	22	-22	0	22	-22	22 181
	GRT4{1}		0	18	-18	0	18	-18	18 0
C017	SIFI= 1.00 SIFO= 1.00 Gravity{1}		0	6	-6	0	6	-6	6 180
	Hydrotest{1}		21	6	6	0	21	6	18 270
	Thermal 1{1}		0	2	-2	0	2	-2	2 354
	Thermal 2{1}		0	20	-20	0	20	-20	20 1
	Thermal 3{1}		0	5	-5	0	5	-5	5 3
	Thermal 4{1}		0	12	-12	0	12	-12	12 1
	GRT1{1}		0	4	-4	0	4	-4	4 183

GRT2{1} 0 F_LINE_REV0.OUT 27 -26 0 27 -26 27 1

0

F_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
								Loc
	GRT3{1}	0	11	-11	0	11	-11	11 181
	GRT4{1}	0	18	-18	0	18	-18	18 0
K27	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	35	-35	0	35	-35	35 180
	Hydrotest{1}	21	6	6	0	21	6	18 270
	Thermal 1{1}	0	6	-6	0	6	-6	6 360
	Thermal 2{1}	0	52	-51	0	52	-51	52 0
	Thermal 3{1}	0	0	0	0	0	0	0 179
	Thermal 4{1}	0	50	-49	0	50	-49	50 0
	GRT1{1}	0	29	-30	0	29	-30	30 180
	GRT2{1}	0	87	-86	0	87	-86	87 0
	GRT3{1}	0	35	-35	0	35	-35	35 180
	GRT4{1}	0	85	-84	0	85	-84	85 0
K10 N-	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	10	-10	0	10	-10	10 360
	Hydrotest{1}	21	6	6	0	21	6	18 270
	Thermal 1{1}	0	3	-3	0	3	-3	3 360
	Thermal 2{1}	0	64	-63	0	64	-63	64 180
	Thermal 3{1}	0	1	-1	0	1	-1	1 179
	Thermal 4{1}	0	61	-60	0	61	-60	61 180
	GRT1{1}	0	12	-12	0	12	-12	12 360
	GRT2{1}	0	74	-73	0	74	-73	74 180
	GRT3{1}	0	10	-10	0	10	-10	10 360
	GRT4{1}	0	70	-70	0	70	-70	70 180
K10 N+	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	10	-10	0	10	-10	10 360
	Hydrotest{1}	21	6	6	0	21	6	18 270
	Thermal 1{1}	0	3	-3	0	3	-3	3 360
	Thermal 2{1}	0	64	-63	0	64	-63	64 180
	Thermal 3{1}	0	1	-1	0	1	-1	1 179
	Thermal 4{1}	0	61	-60	0	61	-60	61 180

F_LINE_REV0.OUT

GRT1{1}	0	12	-12	0	12	-12	12	360
GRT2{1}	0	74	-73	0	74	-73	74	180
GRT3{1}	0	10	-10	0	10	-10	10	360
GRT4{1}	0	70	-70	0	70	-70	70	180

K10 M SIFI= 1.00 SIFO= 1.00
Gravity{1}

Hydrotest{1}	21	6	6	0	21	6	18	270
Thermal 1{1}	0	2	-2	0	2	-2	2	180
Thermal 2{1}	0	69	-69	0	69	-69	69	0
Thermal 3{1}	0	1	-1	0	1	-1	1	2
Thermal 4{1}	0	65	-66	0	65	-66	66	0
GRT1{1}	0	13	-14	0	13	-14	14	0
GRT2{1}	0	80	-81	0	80	-81	81	0
GRT3{1}	0	12	-12	0	12	-12	12	0
GRT4{1}	0	76	-77	0	76	-77	77	0

K10 F- SIFI= 1.00 SIFO= 1.00

0

F_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
Gravity{1}		0	11	-12	0	11	-12	12 0
Hydrotest{1}		21	6	6	0	21	6	18 270
Thermal 1{1}		0	2	-2	0	2	-2	2 181
Thermal 2{1}		0	72	-73	0	72	-73	73 0
Thermal 3{1}		0	1	-1	0	1	-1	1 4
Thermal 4{1}		0	68	-70	0	68	-70	70 0
GRT1{1}		0	14	-14	0	14	-14	14 0
GRT2{1}		0	83	-85	0	83	-85	85 0
GRT3{1}		0	12	-12	0	12	-12	12 0
GRT4{1}		0	80	-81	0	80	-81	81 0

K10 F+ SIFI= 1.00 SIFO= 1.00
Gravity{1}

Hydrotest{1}	21	6	6	0	21	6	18	270
Thermal 1{1}	0	2	-2	0	2	-2	2	271
Thermal 2{1}	0	72	-73	0	72	-73	73	90

F_LINE_REV0.OUT								
Thermal 3{1}	0	1	-1	0	1	-1	1	94
Thermal 4{1}	0	68	-70	0	68	-70	70	90
GRT1{1}	0	14	-14	0	14	-14	14	90
GRT2{1}	0	83	-85	0	83	-85	85	90
GRT3{1}	0	12	-12	0	12	-12	12	90
GRT4{1}	0	80	-81	0	80	-81	81	90
K21 N- SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	4	-4	0	4	-4	4	90
Hydrotest{1}	21	6	6	0	21	6	18	270
Thermal 1{1}	0	0	0	0	0	0	0	87
Thermal 2{1}	0	118	-120	0	118	-120	120	90
Thermal 3{1}	0	1	-1	0	1	-1	1	92
Thermal 4{1}	0	113	-114	0	113	-114	114	90
GRT1{1}	0	3	-3	0	3	-3	3	90
GRT2{1}	0	122	-124	0	122	-124	124	90
GRT3{1}	0	4	-5	0	4	-5	5	90
GRT4{1}	0	117	-118	0	117	-118	118	90
K21 N+ SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	4	-4	0	4	-4	4	0
Hydrotest{1}	21	6	6	0	21	6	18	270
Thermal 1{1}	0	0	0	0	0	0	0	357
Thermal 2{1}	0	118	-120	0	118	-120	120	0
Thermal 3{1}	0	1	-1	0	1	-1	1	2
Thermal 4{1}	0	113	-114	0	113	-114	114	0
GRT1{1}	0	3	-3	0	3	-3	3	0
GRT2{1}	0	122	-124	0	122	-124	124	0
GRT3{1}	0	4	-5	0	4	-5	5	0
GRT4{1}	0	117	-118	0	117	-118	118	0
K21 F- SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	3	-3	0	3	-3	3	180
Hydrotest{1}	21	6	6	0	21	6	18	270
Thermal 1{1}	0	0	0	0	0	0	0	358
Thermal 2{1}	0	114	-114	0	114	-114	114	0

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F_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total	
name	combination	Stress	Max Min	Stress	Max Min	Stress	Loc

F_LINE_REV0.OUT

-----	-----	-----	-----	-----	-----	-----	-----	-----
Thermal 3{1}	0	1	-1	0	1	-1	1	1
Thermal 4{1}	0	108	-109	0	108	-109	109	0
GRT1{1}	0	3	-3	0	3	-3	3	180
GRT2{1}	0	117	-117	0	117	-117	117	0
GRT3{1}	0	4	-4	0	4	-4	4	180
GRT4{1}	0	112	-112	0	112	-112	112	0
K21 F+ SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	3	-3	0	3	-3	3	0
Hydrotest{1}	21	6	6	0	21	6	18	270
Thermal 1{1}	0	0	0	0	0	0	0	178
Thermal 2{1}	0	114	-114	0	114	-114	114	180
Thermal 3{1}	0	1	-1	0	1	-1	1	181
Thermal 4{1}	0	108	-109	0	108	-109	109	180
GRT1{1}	0	3	-3	0	3	-3	3	0
GRT2{1}	0	117	-117	0	117	-117	117	180
GRT3{1}	0	4	-4	0	4	-4	4	0
GRT4{1}	0	112	-112	0	112	-112	112	180
K28 N- SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	14	-14	0	14	-14	14	0
Hydrotest{1}	21	6	6	0	21	6	18	270
Thermal 1{1}	0	5	-5	0	5	-5	5	360
Thermal 2{1}	0	98	-98	0	98	-98	98	0
Thermal 3{1}	0	0	0	0	0	0	0	179
Thermal 4{1}	0	94	-94	0	94	-94	94	0
GRT1{1}	0	20	-20	0	20	-20	20	360
GRT2{1}	0	83	-84	0	83	-84	84	0
GRT3{1}	0	15	-15	0	15	-15	15	360
GRT4{1}	0	79	-80	0	79	-80	80	0
K28 N+ SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	14	-14	0	14	-14	14	0
Hydrotest{1}	21	6	6	0	21	6	18	270
Thermal 1{1}	0	5	-5	0	5	-5	5	360
Thermal 2{1}	0	98	-98	0	98	-98	98	0
Thermal 3{1}	0	0	0	0	0	0	0	179
Thermal 4{1}	0	94	-94	0	94	-94	94	0
GRT1{1}	0	20	-20	0	20	-20	20	360
GRT2{1}	0	83	-84	0	83	-84	84	0
GRT3{1}	0	15	-15	0	15	-15	15	360
GRT4{1}	0	79	-80	0	79	-80	80	0
K28 F- SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	16	-15	0	16	-15	16	0

	F_LINE_REV0.OUT							
Hydrotest{1}	21	6	6	0	21	6	18	270
Thermal 1{1}	0	5	-5	0	5	-5	5	0
Thermal 2{1}	0	102	-104	0	102	-104	104	360
Thermal 3{1}	0	0	0	0	0	0	0	190
Thermal 4{1}	0	98	-99	0	98	-99	99	360
GRT1{1}	0	21	-20	0	21	-20	21	0
GRT2{1}	0	87	-88	0	87	-88	88	360

0

F_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point name	Load combination	Hoop Stress	Longitudinal Max	Min	Shear Stress	Principal Max	Min	Total Stress	Loc
	GRT3{1}	0	16	-15	0	16	-15	16	0
	GRT4{1}	0	83	-84	0	83	-84	84	360
K28 F+	SIFI= 1.00 Gravity{1}	0	16	-15	0	16	-15	16	270
	Hydrotest{1}	21	6	6	0	21	6	18	270
	Thermal 1{1}	0	5	-5	0	5	-5	5	270
	Thermal 2{1}	0	102	-104	0	102	-104	104	270
	Thermal 3{1}	0	0	0	0	0	0	0	100
	Thermal 4{1}	0	98	-99	0	98	-99	99	270
	GRT1{1}	0	21	-20	0	21	-20	21	270
	GRT2{1}	0	87	-88	0	87	-88	88	270
	GRT3{1}	0	16	-15	0	16	-15	16	270
	GRT4{1}	0	83	-84	0	83	-84	84	270
K24	SIFI= 1.00 Gravity{1}	0	5	-4	0	5	-4	5	90
	Hydrotest{1}	21	6	6	0	21	6	18	270
	Thermal 1{1}	0	2	-2	0	2	-2	2	90
	Thermal 2{1}	0	18	-20	0	18	-20	20	90
	Thermal 3{1}	0	0	0	0	0	0	0	89
	Thermal 4{1}	0	17	-18	0	17	-18	18	90
	GRT1{1}	0	7	-6	0	7	-6	7	90
	GRT2{1}	0	14	-14	0	14	-14	14	90
	GRT3{1}	0	5	-4	0	5	-4	5	90
	GRT4{1}	0	13	-13	0	13	-13	13	90

F_LINE_REV0.OUT									
K23	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	3	0	0	3	0	3 270
	Hydrotest{1}		21	6	6	0	21	6	18 270
	Thermal 1{1}		0	1	-1	0	1	-1	1 270
	Thermal 2{1}		0	6	-7	0	6	-7	7 270
	Thermal 3{1}		0	0	0	0	0	0	0 269
	Thermal 4{1}		0	6	-7	0	6	-7	7 270
	GRT1{1}		0	4	-1	0	4	-1	4 270
	GRT2{1}		0	6	-4	0	6	-4	6 90
	GRT3{1}		0	3	0	0	3	0	3 270
	GRT4{1}		0	5	-4	0	5	-4	5 90
K11	SIFI= 2.00 Gravity{1}	SIFO= 2.00	0	4	0	0	4	0	4 90
	Hydrotest{1}		21	6	6	0	21	6	18 270
	Thermal 1{1}		0	1	-1	0	1	-1	1 90
	Thermal 2{1}		0	6	-7	0	6	-7	7 90
	Thermal 3{1}		0	0	0	0	0	0	0 89
	Thermal 4{1}		0	5	-7	0	5	-7	7 90
	GRT1{1}		0	4	0	0	4	0	4 90
	GRT2{1}		0	6	-4	0	6	-4	6 270
	GRT3{1}		0	3	0	0	3	0	3 90
	GRT4{1}		0	6	-3	0	6	-3	6 270

K26 SIFI= 2.00 SIFO= 2.00

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
	Gravity{1}	0	1	0	0	1	0	1 90
	Hydrotest{1}	34	13	13	0	34	13	29 270
	Thermal 1{1}	0	0	0	0	0	0	0 90
	Thermal 2{1}	0	1	-1	0	1	-1	1 90
	Thermal 3{1}	0	0	0	0	0	0	0 89
	Thermal 4{1}	0	1	-1	0	1	-1	1 90
	GRT1{1}	0	1	0	0	1	0	1 90
	GRT2{1}	0	1	0	0	1	0	1 270
	GRT3{1}	0	1	0	0	1	0	1 90

		F_LINE_REV0.OUT							
		0	1	0	0	1	0	1	270
	GRT4{1}	0							
K20	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	0	0	0	0	0	0	90
	Hydrotest{1}	41	16	16	0	41	16	36	270
	Thermal 1{1}	0	0	0	0	0	0	0	90
	Thermal 2{1}	0	0	0	0	0	0	0	90
	Thermal 3{1}	0	0	0	0	0	0	0	89
	Thermal 4{1}	0	0	0	0	0	0	0	90
	GRT1{1}	0	0	0	0	0	0	0	90
	GRT2{1}	0	0	0	0	0	0	0	270
	GRT3{1}	0	0	0	0	0	0	0	90
	GRT4{1}	0	0	0	0	0	0	0	270
K14	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	0	0	0	0	0	0	90
	Hydrotest{1}	41	16	16	0	41	16	36	270
	Thermal 1{1}	0	0	0	0	0	0	0	90
	Thermal 2{1}	0	0	0	0	0	0	0	90
	Thermal 3{1}	0	0	0	0	0	0	0	89
	Thermal 4{1}	0	0	0	0	0	0	0	90
	GRT1{1}	0	0	0	0	0	0	0	90
	GRT2{1}	0	0	0	0	0	0	0	270
	GRT3{1}	0	0	0	0	0	0	0	90
	GRT4{1}	0	0	0	0	0	0	0	270
*** Segment K end ***									
*** Segment L begin ***									
C06	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	0	0	0	0	0	0	188
	Hydrotest{1}	37	14	14	0	37	14	32	270
	Thermal 1{1}	0	1	-2	0	2	-2	2	60
	Thermal 2{1}	0	5	-5	1	5	-5	6	3
	Thermal 3{1}	0	1	-1	0	1	-1	1	177
	Thermal 4{1}	0	1	-1	0	1	-1	1	196
	GRT1{1}	0	1	-2	1	2	-2	2	62
	GRT2{1}	0	5	-5	1	5	-5	5	3
	GRT3{1}	0	1	-1	0	1	-1	1	356
	GRT4{1}	0	1	-1	0	1	-1	1	195

L17 SIFI= 2.00 SIFO= 2.00

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point name	Load combination	Hoop Stress	Longitudinal Max	Min	Shear Stress	Principal Max	Min	Total Stress	Loc
	Gravity{1}	0	0	0	0	0	0	0	262
	Hydrotest{1}	37	14	14	0	37	14	32	270
	Thermal 1{1}	0	3	-4	0	3	-4	4	29
	Thermal 2{1}	0	10	-10	1	10	-10	10	85
	Thermal 3{1}	0	1	-1	0	1	-1	1	273
	Thermal 4{1}	0	1	-1	0	1	-1	1	255
	GRT1{1}	0	3	-4	1	3	-4	4	26
	GRT2{1}	0	10	-10	1	10	-10	10	85
	GRT3{1}	0	1	-1	0	1	-1	1	94
	GRT4{1}	0	1	-2	0	1	-2	2	256
L02	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	1	-2	0	1	-2	2	260
	Hydrotest{1}	21	6	6	0	21	6	18	270
	Thermal 1{1}	0	29	-30	4	30	-31	31	27
	Thermal 2{1}	0	78	-79	5	78	-79	79	82
	Thermal 3{1}	0	12	-11	1	12	-12	12	273
	Thermal 4{1}	0	12	-12	0	12	-12	12	258
	GRT1{1}	0	28	-30	4	29	-30	31	25
	GRT2{1}	0	76	-77	5	76	-78	78	82
	GRT3{1}	0	10	-10	1	10	-10	10	94
	GRT4{1}	0	13	-13	0	13	-13	13	258
L03 N-	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	1	0	0	1	-1	1	9
	Hydrotest{1}	21	6	6	0	21	6	18	270
	Thermal 1{1}	0	29	-30	4	30	-31	31	4
	Thermal 2{1}	0	93	-94	5	94	-95	95	309
	Thermal 3{1}	0	7	-7	1	7	-7	7	97
	Thermal 4{1}	0	9	-9	0	9	-9	9	301
	GRT1{1}	0	29	-30	4	29	-31	31	4
	GRT2{1}	0	93	-94	5	93	-94	94	309
	GRT3{1}	0	7	-7	1	7	-7	7	93
	GRT4{1}	0	9	-9	0	9	-9	9	118
L03 N+	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	1	0	0	1	-1	1	9
	Hydrotest{1}	21	6	6	0	21	6	18	270
	Thermal 1{1}	0	29	-30	4	30	-31	31	4
	Thermal 2{1}	0	93	-94	5	94	-95	95	309

		F_LINE_REV0.OUT						
Thermal 3{1}	0	7	-7	1	7	-7	7	97
Thermal 4{1}	0	9	-9	0	9	-9	9	301
GRT1{1}	0	29	-30	4	29	-31	31	4
GRT2{1}	0	93	-94	5	93	-94	94	309
GRT3{1}	0	7	-7	1	7	-7	7	93
GRT4{1}	0	9	-9	0	9	-9	9	118
L03 F- SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	1	-1	0	1	-1	1	145
Hydrotest{1}	21	6	6	0	21	6	18	270
Thermal 1{1}	0	24	-25	1	25	-25	25	340
Thermal 2{1}	0	56	-56	37	74	-75	86	8

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
-----	-----	-----	-----	-----	-----	-----	-----	---
	Thermal 3{1}	0	2	-2	4	5	-5	7 60
	Thermal 4{1}	0	4	-4	4	7	-7	8 358
	GRT1{1}	0	26	-26	1	26	-26	26 339
	GRT2{1}	0	57	-57	37	75	-75	86 7
	GRT3{1}	0	2	-2	4	5	-5	7 27
	GRT4{1}	0	6	-6	4	8	-8	9 351
L03 F+ SIFI= 1.00 SIFO= 1.00								
	Gravity{1}	0	1	-1	0	1	-1	1 325
	Hydrotest{1}	21	6	6	0	21	6	18 270
	Thermal 1{1}	0	24	-25	1	25	-25	25 160
	Thermal 2{1}	0	56	-56	37	74	-75	86 188
	Thermal 3{1}	0	2	-2	4	5	-5	7 240
	Thermal 4{1}	0	4	-4	4	7	-7	8 178
	GRT1{1}	0	26	-26	1	26	-26	26 159
	GRT2{1}	0	57	-57	37	75	-75	86 187
	GRT3{1}	0	2	-2	4	5	-5	7 207
	GRT4{1}	0	6	-6	4	8	-8	9 171
L21 SIFI= 1.00 SIFO= 1.00								
	Gravity{1}	0	14	-14	0	14	-14	14 357
	Hydrotest{1}	21	6	6	0	21	6	18 270
	Thermal 1{1}	0	30	-30	1	30	-30	30 17

F_LINE_REV0.OUT

Thermal 2{1}	0	18	-18	37	47	-48	67	149
Thermal 3{1}	0	3	-3	4	5	-5	7	177
Thermal 4{1}	0	2	-2	4	5	-5	7	167
GRT1{1}	0	18	-18	1	18	-18	18	33
GRT2{1}	0	31	-31	37	56	-56	72	162
GRT3{1}	0	17	-17	4	17	-17	18	177
GRT4{1}	0	16	-16	4	17	-17	17	176
L04 N- SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	0	0	0	0	0	0	308
Hydrotest{1}	21	6	6	0	21	6	18	270
Thermal 1{1}	0	26	-26	1	26	-26	26	18
Thermal 2{1}	0	26	-26	37	53	-53	70	48
Thermal 3{1}	0	1	-1	4	4	-4	6	162
Thermal 4{1}	0	2	-2	4	5	-5	7	45
GRT1{1}	0	26	-26	1	26	-26	26	19
GRT2{1}	0	26	-26	37	53	-53	70	49
GRT3{1}	0	1	-1	4	4	-4	7	153
GRT4{1}	0	3	-3	4	5	-5	7	50
L04 N+ SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	0	0	0	0	0	0	218
Hydrotest{1}	21	6	6	0	21	6	18	270
Thermal 1{1}	0	26	-26	1	26	-26	26	288
Thermal 2{1}	0	26	-26	37	53	-53	70	318
Thermal 3{1}	0	1	-1	4	4	-4	6	72
Thermal 4{1}	0	2	-2	4	5	-5	7	315
GRT1{1}	0	26	-26	1	26	-26	26	289
GRT2{1}	0	26	-26	37	53	-53	70	319

0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
	GRT3{1}	0	1	-1	4	4	-4	7
	GRT4{1}	0	3	-3	4	5	-5	7
L04 F-	SIFI= 1.00 SIFO= 1.00	0	1	-1	1	2	-2	2
	Gravity{1}							

		F_LINE_REV0.OUT							
	Hydrotest{1}	21	6	6	0	21	6	18	270
	Thermal 1{1}	0	11	-11	12	18	-18	23	135
	Thermal 2{1}	0	66	-67	20	72	-72	75	72
	Thermal 3{1}	0	7	-7	1	7	-7	7	88
	Thermal 4{1}	0	7	-7	2	7	-7	8	75
	GRT1{1}	0	12	-12	12	20	-20	24	131
	GRT2{1}	0	65	-65	21	71	-71	74	72
	GRT3{1}	0	6	-6	1	6	-6	6	267
	GRT4{1}	0	6	-6	3	7	-7	7	69
L04 F+	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	1	-1	1	2	-2	2	186
	Hydrotest{1}	21	6	6	0	21	6	18	270
	Thermal 1{1}	0	11	-11	12	18	-18	23	225
	Thermal 2{1}	0	66	-67	20	72	-72	75	162
	Thermal 3{1}	0	7	-7	1	7	-7	7	178
	Thermal 4{1}	0	7	-7	2	7	-7	8	165
	GRT1{1}	0	12	-12	12	20	-20	24	221
	GRT2{1}	0	65	-65	21	71	-71	74	162
	GRT3{1}	0	6	-6	1	6	-6	6	357
	GRT4{1}	0	6	-6	3	7	-7	7	159
L18	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	11	-11	1	11	-11	11	181
	Hydrotest{1}	21	6	6	0	21	6	18	270
	Thermal 1{1}	0	19	-19	12	25	-25	28	226
	Thermal 2{1}	0	109	-109	20	113	-113	115	161
	Thermal 3{1}	0	13	-13	1	13	-13	13	179
	Thermal 4{1}	0	11	-11	2	11	-11	12	163
	GRT1{1}	0	28	-28	12	32	-32	35	211
	GRT2{1}	0	99	-100	21	103	-104	106	158
	GRT3{1}	0	2	-2	1	3	-3	3	346
	GRT4{1}	0	3	-3	3	5	-5	6	89
L06	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	7	-7	0	7	-7	7	181
	Hydrotest{1}	25	9	9	0	25	9	22	270
	Thermal 1{1}	0	10	-10	6	13	-13	15	227
	Thermal 2{1}	0	56	-57	11	58	-59	60	160
	Thermal 3{1}	0	7	-7	0	7	-7	7	179
	Thermal 4{1}	0	6	-6	1	6	-6	6	162
	GRT1{1}	0	16	-16	7	19	-19	20	208
	GRT2{1}	0	50	-50	12	52	-52	54	157
	GRT3{1}	0	1	-1	1	1	-1	1	203
	GRT4{1}	0	3	-3	1	3	-3	4	42

CH10 SIFI= 2.00 SIFO= 2.00

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F_LINE_REV0

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
-----	-----	-----	-----	-----	-----	-----	-----	---
	Gravity{1}	0	9	-9	0	9	-9	9 180
	Hydrotest{1}	25	9	9	0	25	9	22 270
	Thermal 1{1}	0	8	-8	6	12	-12	14 230
	Thermal 2{1}	0	43	-43	11	45	-46	47 156
	Thermal 3{1}	0	6	-6	0	6	-6	6 179
	Thermal 4{1}	0	4	-4	1	4	-4	5 158
	GRT1{1}	0	16	-16	7	18	-18	20 203
	GRT2{1}	0	34	-35	12	38	-38	40 150
	GRT3{1}	0	3	-3	1	4	-4	4 183
	GRT4{1}	0	6	-6	1	6	-6	6 16
L19	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	17	-17	1	17	-17	17 180
	Hydrotest{1}	21	6	6	0	21	6	18 270
	Thermal 1{1}	0	13	-13	12	20	-20	24 231
	Thermal 2{1}	0	68	-68	20	73	-74	76 154
	Thermal 3{1}	0	10	-10	1	10	-10	10 179
	Thermal 4{1}	0	6	-6	2	7	-7	7 156
	GRT1{1}	0	27	-27	12	32	-32	34 203
	GRT2{1}	0	53	-54	21	60	-61	64 146
	GRT3{1}	0	7	-7	1	7	-7	7 182
	GRT4{1}	0	11	-11	3	12	-12	12 14
L09	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	8	-8	1	8	-8	8 180
	Hydrotest{1}	21	6	6	0	21	6	18 270
	Thermal 1{1}	0	5	-5	12	14	-14	21 237
	Thermal 2{1}	0	22	-23	20	34	-34	41 145
	Thermal 3{1}	0	4	-4	1	4	-4	4 180
	Thermal 4{1}	0	2	-2	2	3	-3	4 145
	GRT1{1}	0	11	-11	12	19	-19	24 202
	GRT2{1}	0	17	-17	21	30	-31	39 130
	GRT3{1}	0	4	-4	1	4	-4	4 181

			F_LINE_REV0.OUT						
	GRT4{1}		0	6	-6	3	7	-7	8 10
L20	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	11	-11	1	11	-11	11 180
	Hydrotest{1}		21	6	6	0	21	6	18 270
	Thermal 1{1}		0	2	-2	12	12	-12	20 266
	Thermal 2{1}		0	24	-24	20	35	-36	42 19
	Thermal 3{1}		0	2	-2	1	3	-3	3 183
	Thermal 4{1}		0	3	-3	2	4	-4	5 10
	GRT1{1}		0	11	-11	12	19	-19	23 189
	GRT2{1}		0	34	-35	21	44	-44	50 13
	GRT3{1}		0	8	-8	1	8	-8	9 179
	GRT4{1}		0	14	-14	3	14	-14	14 2
C018	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	15	-15	1	15	-15	15 180
	Hydrotest{1}		21	6	6	0	21	6	18 270
	Thermal 1{1}		0	1	-1	12	12	-12	20 345
	Thermal 2{1}		0	55	-56	20	62	-62	66 5

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
L27		Thermal 3{1}	0	1	-1	1	2	-2	2	191
		Thermal 4{1}	0	7	-7	2	7	-7	8	2
		GRT1{1}	0	14	-14	12	21	-21	25	181
		GRT2{1}	0	70	-70	21	76	-76	79	4
		GRT3{1}	0	13	-13	1	14	-14	14	179
		GRT4{1}	0	21	-21	3	22	-22	22	0
		SIFI= 1.00 Gravity{1}	0	6	-6	1	6	-6	6	179
		SIFO= 1.00 Hydrotest{1}	21	6	6	0	21	6	18	270
		Thermal 1{1}	0	2	-2	12	13	-13	20	27
		Thermal 2{1}	0	80	-81	20	85	-85	88	2
		Thermal 3{1}	0	0	0	1	1	-1	1	233
		Thermal 4{1}	0	10	-10	2	10	-10	10	0
		GRT1{1}	0	4	-4	12	14	-14	21	165
		GRT2{1}	0	86	-86	21	91	-91	93	2

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GRT3{1}	0	5	-5	1	6	-6	6	176
GRT4{1}	0	15	-15	3	16	-16	16	360
L12 N- SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	1	-1	1	1	-1	1	8
Hydrotest{1}	21	6	6	0	21	6	18	270
Thermal 1{1}	0	3	-3	12	13	-13	20	36
Thermal 2{1}	0	98	-98	20	102	-102	104	1
Thermal 3{1}	0	1	-1	1	1	-1	1	324
Thermal 4{1}	0	12	-12	2	12	-12	12	359
GRT1{1}	0	4	-4	12	14	-14	21	29
GRT2{1}	0	97	-97	21	101	-101	104	1
GRT3{1}	0	1	-1	1	2	-2	2	43
GRT4{1}	0	11	-11	3	11	-11	12	359
L12 N+ SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	1	-1	1	1	-1	1	8
Hydrotest{1}	21	6	6	0	21	6	18	270
Thermal 1{1}	0	3	-3	12	13	-13	20	36
Thermal 2{1}	0	98	-98	20	102	-102	104	1
Thermal 3{1}	0	1	-1	1	1	-1	1	324
Thermal 4{1}	0	12	-12	2	12	-12	12	359
GRT1{1}	0	4	-4	12	14	-14	21	29
GRT2{1}	0	97	-97	21	101	-101	104	1
GRT3{1}	0	1	-1	1	2	-2	2	43
GRT4{1}	0	11	-11	3	11	-11	12	359
L12 F- SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	4	-4	0	4	-4	4	345
Hydrotest{1}	21	6	6	0	21	6	18	270
Thermal 1{1}	0	23	-23	1	23	-23	23	277
Thermal 2{1}	0	111	-112	0	111	-112	112	21
Thermal 3{1}	0	2	-2	0	2	-2	2	66
Thermal 4{1}	0	13	-13	0	13	-13	13	18
GRT1{1}	0	25	-24	1	25	-24	25	285
GRT2{1}	0	108	-109	0	108	-109	109	22

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F_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total

name	combination	F_LINE_REV0.OUT			Stress	Max	Min	Stress	Loc
		Stress	Max	Min					
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	GRT3{1}	0	4	-4	0	4	-4	4	321
	GRT4{1}	0	10	-10	0	10	-10	10	211
L12 F+	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	4	-4	0	4	-4	4	91
	Hydrotest{1}	21	6	6	0	21	6	18	270
	Thermal 1{1}	0	23	-23	1	23	-23	23	22
	Thermal 2{1}	0	111	-112	0	111	-112	112	126
	Thermal 3{1}	0	2	-2	0	2	-2	2	171
	Thermal 4{1}	0	13	-13	0	13	-13	13	124
	GRT1{1}	0	25	-24	1	25	-24	25	31
	GRT2{1}	0	108	-109	0	108	-109	109	128
	GRT3{1}	0	4	-4	0	4	-4	4	66
	GRT4{1}	0	10	-10	0	10	-10	10	317
L25	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	1	0	0	1	0	1	304
	Hydrotest{1}	21	6	6	0	21	6	18	270
	Thermal 1{1}	0	5	-5	1	6	-6	6	170
	Thermal 2{1}	0	27	-28	0	27	-28	28	319
	Thermal 3{1}	0	0	0	0	0	-1	1	276
	Thermal 4{1}	0	3	-3	0	3	-3	3	312
	GRT1{1}	0	6	-4	1	6	-4	6	176
	GRT2{1}	0	27	-27	0	27	-27	27	140
	GRT3{1}	0	1	0	0	1	0	1	341
	GRT4{1}	0	3	-2	0	3	-2	3	135
L24	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	2	1	0	2	0	2	124
	Hydrotest{1}	21	6	6	0	21	6	18	270
	Thermal 1{1}	0	2	-2	1	2	-2	3	350
	Thermal 2{1}	0	9	-11	0	9	-11	11	139
	Thermal 3{1}	0	0	0	0	0	0	0	96
	Thermal 4{1}	0	1	-1	0	1	-1	1	132
	GRT1{1}	0	4	0	1	4	-1	4	356
	GRT2{1}	0	10	-9	0	11	-9	11	320
	GRT3{1}	0	2	2	0	2	0	2	161
	GRT4{1}	0	3	1	0	3	0	3	315
L22	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	2	2	0	2	0	2	304
	Hydrotest{1}	21	6	6	0	21	6	18	270
	Thermal 1{1}	0	2	-2	1	2	-2	3	170
	Thermal 2{1}	0	9	-10	0	9	-10	10	319
	Thermal 3{1}	0	0	0	0	0	0	0	276

F_LINE_REV0.OUT

Thermal 4{1}	0	1	-1	0	1	-1	1	312
GRT1{1}	0	4	0	1	4	-1	4	176
GRT2{1}	0	11	-8	0	11	-8	11	140
GRT3{1}	0	2	2	0	2	0	2	341
GRT4{1}	0	3	1	0	3	0	3	135

L14 SIFI= 2.00 SIFO= 2.00

F_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point name	Load combination	Hoop Stress	Longitudinal Max	Min	Shear Stress	Principal Max	Min	Total Stress	Loc
	Gravity{1}	0	1	1	0	1	0	1	304
	Hydrotest{1}	34	13	13	0	34	13	29	270
	Thermal 1{1}	0	0	0	0	0	0	0	170
	Thermal 2{1}	0	1	-2	0	1	-2	2	319
	Thermal 3{1}	0	0	0	0	0	0	0	276
	Thermal 4{1}	0	0	0	0	0	0	0	312
	GRT1{1}	0	1	1	0	1	0	1	176
	GRT2{1}	0	2	-1	0	2	-1	2	140
	GRT3{1}	0	1	1	0	1	0	1	341
	GRT4{1}	0	1	1	0	1	0	1	135
L23	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	1	1	0	1	0	1	304
	Hydrotest{1}	34	13	13	0	34	13	29	270
	Thermal 1{1}	0	0	0	0	0	0	0	170
	Thermal 2{1}	0	1	-2	0	1	-2	2	319
	Thermal 3{1}	0	0	0	0	0	0	0	276
	Thermal 4{1}	0	0	0	0	0	0	0	312
	GRT1{1}	0	1	1	0	1	0	1	176
	GRT2{1}	0	2	-1	0	2	-1	2	140
	GRT3{1}	0	1	1	0	1	0	1	341
	GRT4{1}	0	1	1	0	1	0	1	135
L15	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	0	0	0	0	0	0	304
	Hydrotest{1}	41	16	16	0	41	16	36	270
	Thermal 1{1}	0	0	0	0	0	0	0	170

		F_LINE_REV0.OUT							
	Thermal 2{1}	0	0	0	0	0	0	0	319
	Thermal 3{1}	0	0	0	0	0	0	0	276
	Thermal 4{1}	0	0	0	0	0	0	0	312
	GRT1{1}	0	0	0	0	0	0	0	176
	GRT2{1}	0	1	0	0	1	0	1	140
	GRT3{1}	0	0	0	0	0	0	0	341
	GRT4{1}	0	0	0	0	0	0	0	135
L16	SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	0	0	0	0	0	0	304
	Hydrotest{1}	41	16	16	0	41	16	36	270
	Thermal 1{1}	0	0	0	0	0	0	0	170
	Thermal 2{1}	0	0	0	0	0	0	0	319
	Thermal 3{1}	0	0	0	0	0	0	0	276
	Thermal 4{1}	0	0	0	0	0	0	0	312
	GRT1{1}	0	0	0	0	0	0	0	176
	GRT2{1}	0	0	0	0	0	0	0	140
	GRT3{1}	0	0	0	0	0	0	0	341
	GRT4{1}	0	0	0	0	0	0	0	135

*** Segment L end ***

*** Segment M begin ***

D26 SIFI= 1.00 SIF0= 1.00

F_LINE_REV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	Gravity{1}	0	0	0	0	0	0	0	335
	Hydrotest{1}	43	17	17	0	43	17	38	270
	Thermal 1{1}	0	1	-1	0	1	-1	1	116
	Thermal 2{1}	0	2	-2	0	2	-2	2	107
	Thermal 3{1}	0	1	-1	0	1	-1	1	139
	Thermal 4{1}	0	1	-1	0	1	-1	1	116
	GRT1{1}	0	1	-1	0	1	-1	1	115
	GRT2{1}	0	1	-2	0	1	-2	2	106
	GRT3{1}	0	1	-1	0	1	-1	1	138
	GRT4{1}	0	1	-1	0	1	-1	1	115

F_LINE_REV0.OUT									
M24	SIFI= 2.00 Gravity{1}	SIFO= 2.00	0	0	0	0	0	0	0 115
	Hydrotest{1}		43	17	17	0	43	17	38 270
	Thermal 1{1}		0	2	-2	0	2	-2	2 334
	Thermal 2{1}		0	3	-3	0	3	-3	3 343
	Thermal 3{1}		0	1	-2	0	1	-2	2 311
	Thermal 4{1}		0	2	-2	0	2	-2	2 334
	GRT1{1}		0	2	-2	0	2	-2	2 335
	GRT2{1}		0	3	-3	0	3	-3	3 344
	GRT3{1}		0	1	-1	0	1	-1	1 312
	GRT4{1}		0	2	-2	0	2	-2	2 336
M02	SIFI= 2.00 Gravity{1}	SIFO= 2.00	0	1	-1	0	1	-1	1 115
	Hydrotest{1}		25	9	9	0	25	9	22 270
	Thermal 1{1}		0	21	-21	0	21	-21	21 334
	Thermal 2{1}		0	27	-27	0	27	-27	27 343
	Thermal 3{1}		0	13	-13	0	13	-13	13 312
	Thermal 4{1}		0	21	-21	0	21	-21	21 335
	GRT1{1}		0	20	-21	0	20	-21	21 336
	GRT2{1}		0	26	-27	0	26	-27	27 344
	GRT3{1}		0	12	-12	0	12	-12	12 313
	GRT4{1}		0	20	-20	0	20	-20	20 336
M03 N-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	0	0	0	0	0	0 296
	Hydrotest{1}		25	9	9	0	25	9	22 270
	Thermal 1{1}		0	11	-11	0	11	-11	11 339
	Thermal 2{1}		0	14	-14	0	14	-14	14 347
	Thermal 3{1}		0	6	-6	0	6	-6	6 316
	Thermal 4{1}		0	10	-11	0	10	-11	11 339
	GRT1{1}		0	10	-10	0	10	-10	10 340
	GRT2{1}		0	14	-14	0	14	-14	14 348
	GRT3{1}		0	6	-6	0	6	-6	6 137
	GRT4{1}		0	10	-10	0	10	-10	10 340
M03 N+	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	0	0	0	0	0	0 294
	Hydrotest{1}		25	9	9	0	25	9	22 270
	Thermal 1{1}		0	11	-11	0	11	-11	11 336
	Thermal 2{1}		0	14	-14	0	14	-14	14 344

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F_LINE_REV0

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
	Thermal 3{1}		0	6	-6	0	6	-6	6	314
	Thermal 4{1}		0	10	-11	0	10	-11	11	337
	GRT1{1}		0	10	-10	0	10	-10	10	338
	GRT2{1}		0	14	-14	0	14	-14	14	345
	GRT3{1}		0	6	-6	0	6	-6	6	135
	GRT4{1}		0	10	-10	0	10	-10	10	338
M03 F-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	0	0	0	0	0	0	33
	Hydrotest{1}		25	9	9	0	25	9	22	270
	Thermal 1{1}		0	9	-9	2	10	-10	10	355
	Thermal 2{1}		0	13	-13	2	13	-13	13	357
	Thermal 3{1}		0	4	-4	2	5	-5	5	348
	Thermal 4{1}		0	9	-9	2	10	-10	10	355
	GRT1{1}		0	9	-9	2	10	-10	10	355
	GRT2{1}		0	13	-13	2	13	-13	13	357
	GRT3{1}		0	4	-4	2	5	-5	5	349
	GRT4{1}		0	9	-9	2	10	-10	10	355
M03 F+	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	0	0	0	0	0	0	213
	Hydrotest{1}		25	9	9	0	25	9	22	270
	Thermal 1{1}		0	9	-9	2	10	-10	10	175
	Thermal 2{1}		0	13	-13	2	13	-13	13	177
	Thermal 3{1}		0	4	-4	2	5	-5	5	168
	Thermal 4{1}		0	9	-9	2	10	-10	10	175
	GRT1{1}		0	9	-9	2	10	-10	10	175
	GRT2{1}		0	13	-13	2	13	-13	13	177
	GRT3{1}		0	4	-4	2	5	-5	5	169
	GRT4{1}		0	9	-9	2	10	-10	10	175
M04	SIFI= 1.80 Gravity{1}	SIFO= 1.80	0	3	-3	0	3	-3	3	181
	Hydrotest{1}		25	9	9	0	25	9	22	270
	Thermal 1{1}		0	11	-11	2	11	-11	12	173
	Thermal 2{1}		0	15	-15	2	15	-15	15	176
	Thermal 3{1}		0	6	-6	2	6	-6	7	167
	Thermal 4{1}		0	11	-11	2	11	-11	11	173
	GRT1{1}		0	14	-14	2	15	-15	15	175
	GRT2{1}		0	18	-18	2	19	-19	19	177

GRT3{1}	0	9	-9	2	9	-9	10	172
GRT4{1}	0	14	-14	2	14	-14	14	175
SIFI= 1.80 SIF0= 1.80								
Gravity{1}	0	8	-8	0	8	-8	8	181
Hydrotest{1}	25	9	9	0	25	9	22	270
Thermal 1{1}	0	8	-8	2	8	-8	9	172
Thermal 2{1}	0	11	-11	2	11	-11	11	175
Thermal 3{1}	0	5	-5	2	6	-6	6	166
Thermal 4{1}	0	8	-8	2	8	-8	8	172
GRT1{1}	0	15	-15	2	16	-16	16	176
GRT2{1}	0	18	-18	2	18	-18	18	177

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Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
	GRT3{1}		0	12	-12	2	13	-13	13	175
	GRT4{1}		0	15	-15	2	15	-15	15	176
M06	SIFI= 1.00	SIF0= 1.00								
	Gravity{1}		0	11	-11	0	11	-11	11	180
	Hydrotest{1}		25	9	9	0	25	9	22	270
	Thermal 1{1}		0	1	-1	2	3	-3	4	156
	Thermal 2{1}		0	1	-1	2	3	-3	4	162
	Thermal 3{1}		0	2	-2	2	3	-3	4	164
	Thermal 4{1}		0	1	-1	2	3	-3	4	153
	GRT1{1}		0	12	-12	2	12	-12	13	178
	GRT2{1}		0	12	-12	2	12	-13	13	178
	GRT3{1}		0	13	-13	2	13	-13	13	178
	GRT4{1}		0	12	-12	2	12	-12	12	178
M15	SIFI= 1.00	SIF0= 1.00								
	Gravity{1}		0	8	-8	0	8	-8	8	180
	Hydrotest{1}		25	9	9	0	25	9	22	270
	Thermal 1{1}		0	2	-2	2	3	-3	4	11
	Thermal 2{1}		0	3	-3	2	4	-4	4	5
	Thermal 3{1}		0	1	-1	2	3	-3	4	161
	Thermal 4{1}		0	2	-2	2	3	-3	4	9

		F_LINE_REV0.OUT							
	GRT1{1}	0	6	-6	2	7	-7	7	178
	GRT2{1}	0	5	-5	2	6	-6	6	178
	GRT3{1}	0	9	-9	2	9	-9	9	178
	GRT4{1}	0	6	-6	2	7	-7	7	178
C019	SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	3	-3	0	3	-3	3	360
	Hydrotest{1}	25	9	9	0	25	9	22	270
	Thermal 1{1}	0	2	-2	2	3	-3	4	4
	Thermal 2{1}	0	4	-4	2	4	-4	5	2
	Thermal 3{1}	0	0	0	2	2	-2	4	159
	Thermal 4{1}	0	2	-2	2	3	-3	4	4
	GRT1{1}	0	5	-5	2	6	-6	6	2
	GRT2{1}	0	6	-6	2	7	-7	7	1
	GRT3{1}	0	2	-2	2	3	-3	4	4
	GRT4{1}	0	5	-5	2	6	-6	6	2
M08 N-	SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	1	-1	0	1	-1	1	1
	Hydrotest{1}	25	9	9	0	25	9	22	270
	Thermal 1{1}	0	3	-3	2	4	-4	5	359
	Thermal 2{1}	0	5	-5	2	6	-6	6	359
	Thermal 3{1}	0	0	0	2	2	-2	4	348
	Thermal 4{1}	0	3	-3	2	4	-4	5	359
	GRT1{1}	0	4	-4	2	4	-4	5	359
	GRT2{1}	0	6	-6	2	6	-6	7	359
	GRT3{1}	0	1	-1	2	2	-2	4	357
	GRT4{1}	0	4	-4	2	4	-4	5	359

M08 N+ SIFI= 1.00 SIF0= 1.00

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F_LINE_REV0

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	Gravity{1}	0	1	-1	0	1	-1	1	1
	Hydrotest{1}	25	9	9	0	25	9	22	270
	Thermal 1{1}	0	3	-3	2	4	-4	5	359
	Thermal 2{1}	0	5	-5	2	6	-6	6	359
	Thermal 3{1}	0	0	0	2	2	-2	4	348

F_LINE_REV0.OUT								
Thermal 4{1}	0	3	-3	2	4	-4	5	359
GRT1{1}	0	4	-4	2	4	-4	5	359
GRT2{1}	0	6	-6	2	6	-6	7	359
GRT3{1}	0	1	-1	2	2	-2	4	357
GRT4{1}	0	4	-4	2	4	-4	5	359
M08 F- SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	0	0	0	0	0	0	111
Hydrotest{1}	25	9	9	0	25	9	22	270
Thermal 1{1}	0	5	-5	0	5	-5	5	54
Thermal 2{1}	0	7	-7	0	7	-7	7	35
Thermal 3{1}	0	4	-4	0	4	-4	4	85
Thermal 4{1}	0	5	-5	0	5	-5	5	52
GRT1{1}	0	5	-5	0	5	-5	5	231
GRT2{1}	0	7	-6	0	7	-6	7	212
GRT3{1}	0	4	-4	0	4	-4	4	263
GRT4{1}	0	5	-5	0	5	-5	5	229
M08 F+ SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	0	0	0	0	0	0	293
Hydrotest{1}	25	9	9	0	25	9	22	270
Thermal 1{1}	0	5	-5	0	5	-5	5	236
Thermal 2{1}	0	7	-7	0	7	-7	7	217
Thermal 3{1}	0	4	-4	0	4	-4	4	267
Thermal 4{1}	0	5	-5	0	5	-5	5	234
GRT1{1}	0	5	-5	0	5	-5	5	53
GRT2{1}	0	7	-6	0	7	-6	7	34
GRT3{1}	0	4	-4	0	4	-4	4	85
GRT4{1}	0	5	-5	0	5	-5	5	51
M19 SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	2	1	0	2	0	2	96
Hydrotest{1}	25	9	9	0	25	9	22	270
Thermal 1{1}	0	3	-3	0	3	-3	3	62
Thermal 2{1}	0	3	-3	0	3	-3	3	39
Thermal 3{1}	0	2	-2	0	2	-2	2	90
Thermal 4{1}	0	3	-3	0	3	-3	3	59
GRT1{1}	0	4	-1	0	4	-1	4	240
GRT2{1}	0	4	-2	0	4	-2	4	217
GRT3{1}	0	3	-1	0	3	-1	3	270
GRT4{1}	0	4	-1	0	4	-1	4	237
M09 SIFI= 2.00 SIFO= 2.00								
Gravity{1}	0	2	2	0	2	0	2	276
Hydrotest{1}	25	9	9	0	25	9	22	270
Thermal 1{1}	0	3	-3	0	3	-3	3	242

Thermal 2{1} 0 F_LINE_REV0.OUT 0 3 -3 3 219

0

F_LINE_REV0

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BENTLEY

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
								Loc
	Thermal 3{1}	0	2	-2	0	2	-2	2 270
	Thermal 4{1}	0	2	-2	0	2	-2	2 239
	GRT1{1}	0	4	-1	0	4	-1	4 60
	GRT2{1}	0	5	-1	0	5	-1	5 37
	GRT3{1}	0	4	0	0	4	0	4 90
	GRT4{1}	0	4	-1	0	4	-1	4 57
M16	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	1	1	0	1	0	1 276
	Hydrotest{1}	43	17	17	0	43	17	38 270
	Thermal 1{1}	0	0	0	0	0	0	0 242
	Thermal 2{1}	0	0	0	0	0	0	0 219
	Thermal 3{1}	0	0	0	0	0	0	0 270
	Thermal 4{1}	0	0	0	0	0	0	0 239
	GRT1{1}	0	1	0	0	1	0	1 60
	GRT2{1}	0	1	0	0	1	0	1 37
	GRT3{1}	0	1	0	0	1	0	1 90
	GRT4{1}	0	1	0	0	1	0	1 57
M17	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	0	0	0	0	0	0 276
	Hydrotest{1}	47	19	19	0	47	19	41 270
	Thermal 1{1}	0	0	0	0	0	0	0 242
	Thermal 2{1}	0	0	0	0	0	0	0 219
	Thermal 3{1}	0	0	0	0	0	0	0 270
	Thermal 4{1}	0	0	0	0	0	0	0 239
	GRT1{1}	0	0	0	0	0	0	0 60
	GRT2{1}	0	0	0	0	0	0	0 37
	GRT3{1}	0	0	0	0	0	0	0 90
	GRT4{1}	0	0	0	0	0	0	0 57
M12	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	0	0	0	0	0	0 276
	Hydrotest{1}	47	19	19	0	47	19	41 270

F_LINE_REV0.OUT

Thermal 1{1}	0	0	0	0	0	0	0	242
Thermal 2{1}	0	0	0	0	0	0	0	219
Thermal 3{1}	0	0	0	0	0	0	0	270
Thermal 4{1}	0	0	0	0	0	0	0	239
GRT1{1}	0	0	0	0	0	0	0	60
GRT2{1}	0	0	0	0	0	0	0	37
GRT3{1}	0	0	0	0	0	0	0	90
GRT4{1}	0	0	0	0	0	0	0	57

*** Segment M end ***

*** Segment Q begin ***

B12	SIFI= 1.00	SIFO= 1.00							
	Gravity{1}		0	1	1	0	1	0	1 270
	Hydrotest{1}		25	9	9	0	25	9	22 270
	Thermal 1{1}		0	0	0	0	0	0	0 270
	Thermal 2{1}		0	0	0	0	0	0	0 270

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RESULT PAGE 240

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc

	Thermal 3{1}	0	0	0	0	0	0	0 270
	Thermal 4{1}	0	0	0	0	0	0	0 270
	GRT1{1}	0	1	1	0	1	0	1 270
	GRT2{1}	0	1	1	0	1	0	1 270
	GRT3{1}	0	1	1	0	1	0	1 270
	GRT4{1}	0	1	1	0	1	0	1 270
Q01	SIFI= 1.00							
	Gravity{1}	0	1	1	0	1	0	1 270
	Hydrotest{1}	25	9	9	0	25	9	22 270
	Thermal 1{1}	0	0	0	0	0	0	0 270
	Thermal 2{1}	0	0	0	0	0	0	0 270
	Thermal 3{1}	0	0	0	0	0	0	0 270
	Thermal 4{1}	0	0	0	0	0	0	0 270
	GRT1{1}	0	1	1	0	1	0	1 270
	GRT2{1}	0	1	1	0	1	0	1 270
	GRT3{1}	0	1	1	0	1	0	1 270

			F_LINE_REV0.OUT						
GRT4{1}	0	1	1	0	1	0	1	270	

*** Segment Q end ***

*** Segment R begin ***

C16	SIFI= 1.00	SIFO= 1.00						
	Gravity{1}		0	1	1	0	1	0 1 270
	Hydrotest{1}		25	9	9	0	25	9 22 270
	Thermal 1{1}		0	0	0	0	0	0 270
	Thermal 2{1}		0	0	0	0	0	0 270
	Thermal 3{1}		0	0	0	0	0	0 270
	Thermal 4{1}		0	0	0	0	0	0 270
	GRT1{1}		0	1	1	0	1	0 1 270
	GRT2{1}		0	1	1	0	1	0 1 270
	GRT3{1}		0	1	1	0	1	0 1 270
	GRT4{1}		0	1	1	0	1	0 1 270

R01	SIFI= 1.00	SIFO= 1.00						
	Gravity{1}		0	1	1	0	1	0 1 270
	Hydrotest{1}		25	9	9	0	25	9 22 270
	Thermal 1{1}		0	0	0	0	0	0 270
	Thermal 2{1}		0	0	0	0	0	0 270
	Thermal 3{1}		0	0	0	0	0	0 270
	Thermal 4{1}		0	0	0	0	0	0 270
	GRT1{1}		0	1	1	0	1	0 1 270
	GRT2{1}		0	1	1	0	1	0 1 270
	GRT3{1}		0	1	1	0	1	0 1 270
	GRT4{1}		0	1	1	0	1	0 1 270

*** Segment R end ***

*** Segment S begin ***

D19 SIFI= 1.00 SIFO= 1.00

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	Gravity{1}	0	1	1	0	1	0	1	270
	Hydrotest{1}	25	9	9	0	25	9	22	270
	Thermal 1{1}	0	0	0	0	0	0	0	270
	Thermal 2{1}	0	0	0	0	0	0	0	270

F_LINE_REV0.OUT

	Thermal 3{1}	0	0	0	0	0	0	270
	Thermal 4{1}	0	0	0	0	0	0	270
	GRT1{1}	0	1	1	0	1	0	270
	GRT2{1}	0	1	1	0	1	0	270
	GRT3{1}	0	1	1	0	1	0	270
	GRT4{1}	0	1	1	0	1	0	270
S01	SIFI= 1.00 SIF0= 1.00							
	Gravity{1}	0	1	1	0	1	0	270
	Hydrotest{1}	25	9	9	0	25	9	22 270
	Thermal 1{1}	0	0	0	0	0	0	270
	Thermal 2{1}	0	0	0	0	0	0	270
	Thermal 3{1}	0	0	0	0	0	0	270
	Thermal 4{1}	0	0	0	0	0	0	270
	GRT1{1}	0	1	1	0	1	0	270
	GRT2{1}	0	1	1	0	1	0	270
	GRT3{1}	0	1	1	0	1	0	270
	GRT4{1}	0	1	1	0	1	0	270

*** Segment S end ***

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AutoPIPE Plus 9.2.1 RESULT PAGE 242

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

F14	Max P{1}					Hoop	13	104	
	GR + Max P{1}	108			2.00	2-1 SUST	12	104	
	TR:Amb to T3{1}			3259	2.00	4-1 DISP	231	217**	
	with Sus. load margin			4-2		231 309			
	Amb to T1{1}			367	2.00	4-1 DISP	26	247	
	Amb to T2{1}			401	2.00	4-1 DISP	28	247	
	Amb to T3{1}			3259	2.00	4-1 DISP	231	217**	
	with Sus. load margin			4-2		231 309			
	Amb to T4{1}			807	2.00	4-1 DISP	57	240	
	Hydrotest{1}	0	0		2.00	3-1 OCC	1	219	
	Sus.+T1{1}				2.00	5-1 CRUP	18	<NOTE 1>	
	Sus.+T2{1}				2.00	5-1 CRUP	19	<NOTE 1>	
	Sus.+T3{1}				2.00	5-1 CRUP	69	<NOTE 1>	
	Sus.+T4{1}				2.00	5-1 CRUP	26	<NOTE 1>	

F_LINE_REV0.OUT

F13	Max P{1}					HOOP	10	104
	GR + Max P{1}	41		2.00	2-1	SUST	16	104
	TR:Amb to T2{1}		554	2.00	4-1	DISP	207	247
	Amb to T1{1}		514	2.00	4-1	DISP	192	247
	Amb to T2{1}		554	2.00	4-1	DISP	207	247
	Amb to T3{1}		445	2.00	4-1	DISP	166	217
	Amb to T4{1}		363	2.00	4-1	DISP	136	240
	Hydrotest{1}	0	0	2.00	3-1	OCC	0	219
	Sus.+T1{1}			2.00	5-1	CRUP	65	<NOTE 1>
	Sus.+T2{1}			2.00	5-1	CRUP	68	<NOTE 1>
	Sus.+T3{1}			2.00	5-1	CRUP	58	<NOTE 1>
	Sus.+T4{1}			2.00	5-1	CRUP	50	<NOTE 1>
G12	Max P{1}					HOOP	10	104
	GR + Max P{1}	56		2.00	2-1	SUST	21	104
	TR:T2 to T3{1}		524	2.00	4-1	DISP	196	217
	Amb to T1{1}		196	2.00	4-1	DISP	73	247
	Amb to T2{1}		212	2.00	4-1	DISP	79	247
	Amb to T3{1}		435	2.00	4-1	DISP	163	217
	Amb to T4{1}		151	2.00	4-1	DISP	56	240
	Hydrotest{1}	0	0	2.00	3-1	OCC	0	219
	Sus.+T1{1}			2.00	5-1	CRUP	39	<NOTE 1>
	Sus.+T2{1}			2.00	5-1	CRUP	40	<NOTE 1>
	Sus.+T3{1}			2.00	5-1	CRUP	61	<NOTE 1>
	Sus.+T4{1}			2.00	5-1	CRUP	35	<NOTE 1>

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 AutoPIPE Plus 9.2.1

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
C20	Max P{1}					HOOP	57 88
	GR + Max P{1}	96			2.00	2-1 SUST	49 88
	TR:Amb to T2{1}			570	2.00	4-1 DISP	169 201
	Amb to T1{1}			498	2.00	4-1 DISP	148 213
	Amb to T2{1}			570	2.00	4-1 DISP	169 201
	Amb to T3{1}			467	2.00	4-1 DISP	138 213

F_LINE_REV0.OUT

	Amb to T4{1}		365	2.00	4-1 DISP	108	240
	Hydrotest{1}	0	0	2.00	3-1 OCC	21	219
	Sus.+T1{1}			2.00	5-1 CRUP	86	<NOTE 1>
	Sus.+T2{1}			2.00	5-1 CRUP	91	<NOTE 1>
	Sus.+T3{1}			2.00	5-1 CRUP	83	<NOTE 1>
	Sus.+T4{1}			2.00	5-1 CRUP	76	<NOTE 1>
F11	Max P{1}				HOOP	16	104
	GR + Max P{1}	221		1.20	2-1 SUST	11	104
	TR:Amb to T3{1}		6968	1.20	4-1 DISP	159	217
	Amb to T1{1}		323	1.20	4-1 DISP	7	247
	Amb to T2{1}		358	1.20	4-1 DISP	8	247
	Amb to T3{1}		6968	1.20	4-1 DISP	159	217
	Amb to T4{1}		1515	1.20	4-1 DISP	35	240
	Hydrotest{1}	0	0	1.20	3-1 OCC	1	219
	Sus.+T1{1}			1.20	5-1 CRUP	13	<NOTE 1>
	Sus.+T2{1}			1.20	5-1 CRUP	14	<NOTE 1>
	Sus.+T3{1}			1.20	5-1 CRUP	55	<NOTE 1>
	Sus.+T4{1}			1.20	5-1 CRUP	21	<NOTE 1>
F10	Max P{1}				HOOP	16	104
	GR + Max P{1}	130		2.00	2-1 SUST	11	104
	TR:Amb to T3{1}		4137	2.00	4-1 DISP	157	217
	Amb to T1{1}		354	2.00	4-1 DISP	13	247
	Amb to T2{1}		388	2.00	4-1 DISP	15	247
	Amb to T3{1}		4137	2.00	4-1 DISP	157	217
	Amb to T4{1}		969	2.00	4-1 DISP	37	240
	Hydrotest{1}	0	0	2.00	3-1 OCC	1	219
	Sus.+T1{1}			2.00	5-1 CRUP	14	<NOTE 1>
	Sus.+T2{1}			2.00	5-1 CRUP	15	<NOTE 1>
	Sus.+T3{1}			2.00	5-1 CRUP	50	<NOTE 1>
	Sus.+T4{1}			2.00	5-1 CRUP	20	<NOTE 1>
F07 F-	Max P{1}				HOOP	13	104
	GR + Max P{1}	47		1.78	2-1 SUST	8	104
	TR:Amb to T3{1}		2351	1.78	4-1 DISP	148	217
	Amb to T1{1}		598	1.78	4-1 DISP	38	247
	Amb to T2{1}		646	1.78	4-1 DISP	41	247
	Amb to T3{1}		2351	1.78	4-1 DISP	148	217
	Amb to T4{1}		644	1.78	4-1 DISP	40	240
	Hydrotest{1}	0	0	1.78	3-1 OCC	1	219
	Sus.+T1{1}			1.78	5-1 CRUP	18	<NOTE 1>
	Sus.+T2{1}			1.78	5-1 CRUP	18	<NOTE 1>
	Sus.+T3{1}			1.78	5-1 CRUP	45	<NOTE 1>

Sus.+T4{1}

1.78

5-1 CRUP

18 <NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. Load no. type			
L18	Max P{1}					HOOP		32	88
	GR + Max P{1}	4			2.00	2-1 SUST		25	88
	TR:Amb to T2{1}			53	2.00	4-1 DISP		136	201
	Amb to T1{1}			20	2.00	4-1 DISP		50	213
	Amb to T2{1}			53	2.00	4-1 DISP		136	201
	Amb to T3{1}			5	2.00	4-1 DISP		13	247
	Amb to T4{1}			5	2.00	4-1 DISP		14	240
	Hydrotest{1}	0	0		2.00	3-1 OCC		12	219
	Sus.+T1{1}				2.00	5-1 CRUP		37	<NOTE 1>
	Sus.+T2{1}				2.00	5-1 CRUP		59	<NOTE 1>
	Sus.+T3{1}				2.00	5-1 CRUP		28	<NOTE 1>
	Sus.+T4{1}				2.00	5-1 CRUP		28	<NOTE 1>
K21 N+	Max P{1}					HOOP		32	88
	GR + Max P{1}	3			1.00	2-1 SUST		20	88
	TR:T1 to T2{1}			94	1.00	4-1 DISP		120	201
	Amb to T1{1}			0	1.00	4-1 DISP		0	247
	Amb to T2{1}			93	1.00	4-1 DISP		119	201
	Amb to T3{1}			1	1.00	4-1 DISP		1	247
	Amb to T4{1}			89	1.00	4-1 DISP		113	202
	Hydrotest{1}	0	0		1.00	3-1 OCC		12	219
	Sus.+T1{1}				1.00	5-1 CRUP		21	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP		60	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP		21	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP		58	<NOTE 1>
K21 N-	Max P{1}					HOOP		32	88
	GR + Max P{1}	3			1.00	2-1 SUST		20	88
	TR:T1 to T2{1}			94	1.00	4-1 DISP		120	201
	Amb to T1{1}			0	1.00	4-1 DISP		0	247
	Amb to T2{1}			93	1.00	4-1 DISP		119	201

Amb to T3{1}			1	1.00	4-1 DISP	1	247
Amb to T4{1}			89	1.00	4-1 DISP	113	202
Hydrotest{1}	0	0		1.00	3-1 OCC	12	219
Sus.+T1{1}				1.00	5-1 CRUP	21	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	60	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	21	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	58	<NOTE 1>

K21 F+ Max P{1}					HOOP	32	88
GR + Max P{1}	2		1.00	2-1	SUST	20	88
TR:T1 to T2{1}		90	1.00	4-1	DISP	115	201
Amb to T1{1}		0	1.00	4-1	DISP	0	247
Amb to T2{1}		89	1.00	4-1	DISP	114	201
Amb to T3{1}		1	1.00	4-1	DISP	1	247
Amb to T4{1}		85	1.00	4-1	DISP	109	202
Hydrotest{1}	0	0	1.00	3-1	OCC	12	219
Sus.+T1{1}			1.00	5-1	CRUP	20	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	58	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	20	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	56	<NOTE 1>

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(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
K21 F-	Max P{1}					HOOP	32	88
	GR + Max P{1}	2			1.00	2-1 SUST	20	88
	TR:T1 to T2{1}			90	1.00	4-1 DISP	115	201
	Amb to T1{1}			0	1.00	4-1 DISP	0	247
	Amb to T2{1}			89	1.00	4-1 DISP	114	201
	Amb to T3{1}			1	1.00	4-1 DISP	1	247
	Amb to T4{1}			85	1.00	4-1 DISP	109	202
	Hydrotest{1}	0	0		1.00	3-1 OCC	12	219
	Sus.+T1{1}				1.00	5-1 CRUP	20	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	58	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	20	<NOTE 1>

		F_LINE_REV0.OUT					
	Sus.+T4{1}			1.00	5-1 CRUP	56	<NOTE 1>
D14	Max P{1}				HOOP	57	88
	GR + Max P{1}	11		2.00	2-1 SUST	30	88
	TR:Amb to T3{1}		384	2.00	4-1 DISP	114	213
	Amb to T1{1}		384	2.00	4-1 DISP	114	213
	Amb to T2{1}		340	2.00	4-1 DISP	101	201
	Amb to T3{1}		384	2.00	4-1 DISP	114	213
	Amb to T4{1}		366	2.00	4-1 DISP	108	213
	Hydrotest{1}	0	0	2.00	3-1 OCC	21	219
	Sus.+T1{1}			2.00	5-1 CRUP	59	<NOTE 1>
	Sus.+T2{1}			2.00	5-1 CRUP	55	<NOTE 1>
	Sus.+T3{1}			2.00	5-1 CRUP	59	<NOTE 1>
	Sus.+T4{1}			2.00	5-1 CRUP	57	<NOTE 1>
L12 F-	Max P{1}				HOOP	32	88
	GR + Max P{1}	3		1.00	2-1 SUST	21	88
	TR:Amb to T2{1}		87	1.00	4-1 DISP	111	201
	Amb to T1{1}		18	1.00	4-1 DISP	23	247
	Amb to T2{1}		87	1.00	4-1 DISP	111	201
	Amb to T3{1}		1	1.00	4-1 DISP	2	247
	Amb to T4{1}		10	1.00	4-1 DISP	13	240
	Hydrotest{1}	0	0	1.00	3-1 OCC	12	219
	Sus.+T1{1}			1.00	5-1 CRUP	28	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	58	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	21	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	25	<NOTE 1>
L12 F+	Max P{1}				HOOP	32	88
	GR + Max P{1}	3		1.00	2-1 SUST	21	88
	TR:Amb to T2{1}		87	1.00	4-1 DISP	111	201
	Amb to T1{1}		18	1.00	4-1 DISP	23	247
	Amb to T2{1}		87	1.00	4-1 DISP	111	201
	Amb to T3{1}		1	1.00	4-1 DISP	2	247
	Amb to T4{1}		10	1.00	4-1 DISP	13	240
	Hydrotest{1}	0	0	1.00	3-1 OCC	12	219
	Sus.+T1{1}			1.00	5-1 CRUP	28	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	58	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	21	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	25	<NOTE 1>

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F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F					
F07 N+	Max P{1}							HOOP	13	104
	GR + Max P{1}	49			1.78	2-1	SUST		8	104
	TR:Amb to T3{1}			1769	1.78	4-1	DISP		111	217
	Amb to T1{1}			615	1.78	4-1	DISP		39	247
	Amb to T2{1}			667	1.78	4-1	DISP		42	247
	Amb to T3{1}			1769	1.78	4-1	DISP		111	217
	Amb to T4{1}			561	1.78	4-1	DISP		35	240
	Hydrotest{1}	0	0		1.78	3-1	OCC		1	219
	Sus.+T1{1}				1.78	5-1	CRUP		18	<NOTE 1>
	Sus.+T2{1}				1.78	5-1	CRUP		19	<NOTE 1>
	Sus.+T3{1}				1.78	5-1	CRUP		36	<NOTE 1>
	Sus.+T4{1}				1.78	5-1	CRUP		17	<NOTE 1>
C07 -	Max P{1}							HOOP	57	88
	GR + Max P{1}	94			1.00	2-1	SUST		41	88
	TR:Amb to T3{1}			736	1.00	4-1	DISP		109	213
	Amb to T1{1}			253	1.00	4-1	DISP		37	213
	Amb to T2{1}			377	1.00	4-1	DISP		56	201
	Amb to T3{1}			736	1.00	4-1	DISP		109	213
	Amb to T4{1}			140	1.00	4-1	DISP		21	240
	Hydrotest{1}	0	0		1.00	3-1	OCC		21	219
	Sus.+T1{1}				1.00	5-1	CRUP		54	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		60	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP		78	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP		48	<NOTE 1>
K28 F+	Max P{1}							HOOP	32	88
	GR + Max P{1}	12			1.00	2-1	SUST		32	88
	TR:T1 to T2{1}			85	1.00	4-1	DISP		108	201
	Amb to T1{1}			4	1.00	4-1	DISP		5	247
	Amb to T2{1}			81	1.00	4-1	DISP		103	201
	Amb to T3{1}			0	1.00	4-1	DISP		0	247
	Amb to T4{1}			77	1.00	4-1	DISP		99	202
	Hydrotest{1}	0	0		1.00	3-1	OCC		12	219
	Sus.+T1{1}				1.00	5-1	CRUP		34	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		66	<NOTE 1>

		F_LINE_REV0.OUT					
Sus.+T3{1}			1.00	5-1	CRUP	32	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	65	<NOTE 1>
K28 F- Max P{1}					HOOP	32	88
GR + Max P{1}	12		1.00	2-1	SUST	32	88
TR:T1 to T2{1}		85	1.00	4-1	DISP	108	201
Amb to T1{1}		4	1.00	4-1	DISP	5	247
Amb to T2{1}		81	1.00	4-1	DISP	103	201
Amb to T3{1}		0	1.00	4-1	DISP	0	247
Amb to T4{1}		77	1.00	4-1	DISP	99	202
Hydrotest{1}	0	0	1.00	3-1	OCC	12	219
Sus.+T1{1}			1.00	5-1	CRUP	34	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	66	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	32	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	65	<NOTE 1>

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F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

10:17 AM

AutoPIPE Plus 9.2.1

RESULT PAGE 247

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

L12 N+ Max P{1}						HOOP	32	88	
GR + Max P{1}		1			1.00	2-1 SUST	18	88	
TR:Amb to T2{1}				83	1.00	4-1 DISP	106	201	
Amb to T1{1}				18	1.00	4-1 DISP	23	247	
Amb to T2{1}				83	1.00	4-1 DISP	106	201	
Amb to T3{1}				1	1.00	4-1 DISP	2	247	
Amb to T4{1}				10	1.00	4-1 DISP	12	240	
Hydrotest{1}		0	0		1.00	3-1 OCC	12	219	
Sus.+T1{1}					1.00	5-1 CRUP	26	<NOTE 1>	
Sus.+T2{1}					1.00	5-1 CRUP	53	<NOTE 1>	
Sus.+T3{1}					1.00	5-1 CRUP	18	<NOTE 1>	
Sus.+T4{1}					1.00	5-1 CRUP	22	<NOTE 1>	
L12 N- Max P{1}						HOOP	32	88	
GR + Max P{1}		1			1.00	2-1 SUST	18	88	
TR:Amb to T2{1}				83	1.00	4-1 DISP	106	201	
Amb to T1{1}				18	1.00	4-1 DISP	23	247	

			F_LINE_REV0.0	OUT				
	Amb to T2{1}		83	1.00	4-1 DISP	106	201	
	Amb to T3{1}		1	1.00	4-1 DISP	2	247	
	Amb to T4{1}		10	1.00	4-1 DISP	12	240	
	Hydrotest{1}	0	0	1.00	3-1 OCC	12	219	
	Sus.+T1{1}			1.00	5-1 CRUP	26	<NOTE 1>	
	Sus.+T2{1}			1.00	5-1 CRUP	53	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1 CRUP	18	<NOTE 1>	
	Sus.+T4{1}			1.00	5-1 CRUP	22	<NOTE 1>	
L19	Max P{1}				HOOP	32	88	
	GR + Max P{1}	7		2.00	2-1 SUST	29	88	
	TR:Amb to T2{1}		41	2.00	4-1 DISP	105	201	
	Amb to T1{1}		19	2.00	4-1 DISP	48	247	
	Amb to T2{1}		41	2.00	4-1 DISP	105	201	
	Amb to T3{1}		4	2.00	4-1 DISP	10	247	
	Amb to T4{1}		4	2.00	4-1 DISP	10	240	
	Hydrotest{1}	0	0	2.00	3-1 OCC	12	219	
	Sus.+T1{1}			2.00	5-1 CRUP	41	<NOTE 1>	
	Sus.+T2{1}			2.00	5-1 CRUP	55	<NOTE 1>	
	Sus.+T3{1}			2.00	5-1 CRUP	32	<NOTE 1>	
	Sus.+T4{1}			2.00	5-1 CRUP	32	<NOTE 1>	
E07	Max P{1}				HOOP	57	88	
	GR + Max P{1}	3		2.00	2-1 SUST	28	88	
	TR:Amb to T2{1}		354	2.00	4-1 DISP	105	201	
	Amb to T1{1}		290	2.00	4-1 DISP	86	213	
	Amb to T2{1}		354	2.00	4-1 DISP	105	201	
	Amb to T3{1}		290	2.00	4-1 DISP	86	213	
	Amb to T4{1}		290	2.00	4-1 DISP	86	213	
	Hydrotest{1}	0	0	2.00	3-1 OCC	21	219	
	Sus.+T1{1}			2.00	5-1 CRUP	50	<NOTE 1>	
	Sus.+T2{1}			2.00	5-1 CRUP	54	<NOTE 1>	
	Sus.+T3{1}			2.00	5-1 CRUP	50	<NOTE 1>	
	Sus.+T4{1}			2.00	5-1 CRUP	50	<NOTE 1>	

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F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

10:17 AM

AutoPIPE Plus 9.2.1

RESULT PAGE 248

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m) (Stress in N/mm2)

Point Load Ma Mb Mc Eq. Load Code Code

name	combination	(Sus.)	F_LINE_REV0.0UT (Occ.) (Exp.)	S.I.F	no. type	Stress	Allow.
K28 N+	Max P{1}				HOOP	32	88
	GR + Max P{1}	11		1.00	2-1 SUST	31	88
	TR:T1 to T2{1}		81	1.00	4-1 DISP	103	201
	Amb to T1{1}		4	1.00	4-1 DISP	5	247
	Amb to T2{1}		77	1.00	4-1 DISP	98	201
	Amb to T3{1}		0	1.00	4-1 DISP	0	247
	Amb to T4{1}		74	1.00	4-1 DISP	94	202
	Hydrotest{1}	0	0	1.00	3-1 OCC	12	219
	Sus.+T1{1}			1.00	5-1 CRUP	33	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	64	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	31	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	62	<NOTE 1>
K28 N-	Max P{1}				HOOP	32	88
	GR + Max P{1}	11		1.00	2-1 SUST	31	88
	TR:T1 to T2{1}		81	1.00	4-1 DISP	103	201
	Amb to T1{1}		4	1.00	4-1 DISP	5	247
	Amb to T2{1}		77	1.00	4-1 DISP	98	201
	Amb to T3{1}		0	1.00	4-1 DISP	0	247
	Amb to T4{1}		74	1.00	4-1 DISP	94	202
	Hydrotest{1}	0	0	1.00	3-1 OCC	12	219
	Sus.+T1{1}			1.00	5-1 CRUP	33	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	64	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	31	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	62	<NOTE 1>
F06 F-	Max P{1}				HOOP	13	104
	GR + Max P{1}	68		1.78	2-1 SUST	9	104
	TR:T2 to T3{1}		1594	1.78	4-1 DISP	100	217
	Amb to T1{1}		618	1.78	4-1 DISP	39	247
	Amb to T2{1}		675	1.78	4-1 DISP	42	247
	Amb to T3{1}		1172	1.78	4-1 DISP	74	217
	Amb to T4{1}		332	1.78	4-1 DISP	21	240
	Hydrotest{1}	0	0	1.78	3-1 OCC	1	219
	Sus.+T1{1}			1.78	5-1 CRUP	19	<NOTE 1>
	Sus.+T2{1}			1.78	5-1 CRUP	20	<NOTE 1>
	Sus.+T3{1}			1.78	5-1 CRUP	28	<NOTE 1>
	Sus.+T4{1}			1.78	5-1 CRUP	15	<NOTE 1>
C07 +	Max P{1}				HOOP	57	88
	GR + Max P{1}	90		1.00	2-1 SUST	41	88
	TR:Amb to T3{1}		661	1.00	4-1 DISP	98	213

Amb to T1{1}	F_LINE_REV0.0UT	413	1.00	4-1	DISP	61	213
Amb to T2{1}		540	1.00	4-1	DISP	80	201
Amb to T3{1}		661	1.00	4-1	DISP	98	213
Amb to T4{1}		240	1.00	4-1	DISP	36	240
Hydrotest{1}	0	0	1.00	3-1	OCC	21	219
Sus.+T1{1}			1.00	5-1	CRUP	61	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	68	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	74	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	53	<NOTE 1>

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F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

10:17 AM
AutoPIPE Plus 9.2.1 RESULT PAGE 249

EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. Load no. type			
F01 N+	Max P{1}					HOOP		57	88
	GR + Max P{1}	42			1.23	2-1 SUST		34	88
	TR:Amb to T2{1}			534	1.23	4-1 DISP		98	201
	Amb to T1{1}			462	1.23	4-1 DISP		84	213
	Amb to T2{1}			534	1.23	4-1 DISP		98	201
	Amb to T3{1}			508	1.23	4-1 DISP		93	213
	Amb to T4{1}			325	1.23	4-1 DISP		59	240
	Hydrotest{1}	0	0		1.23	3-1 OCC		21	219
	Sus.+T1{1}				1.23	5-1 CRUP		57	<NOTE 1>
	Sus.+T2{1}				1.23	5-1 CRUP		60	<NOTE 1>
	Sus.+T3{1}				1.23	5-1 CRUP		59	<NOTE 1>
	Sus.+T4{1}				1.23	5-1 CRUP		50	<NOTE 1>
B01 N+	Max P{1}					HOOP		29	100
	GR + Max P{1}	10			1.23	2-1 SUST		15	100
	TR:Amb to T2{1}			529	1.23	4-1 DISP		97	213
	Amb to T1{1}			450	1.23	4-1 DISP		82	213
	Amb to T2{1}			529	1.23	4-1 DISP		97	213
	Amb to T3{1}			451	1.23	4-1 DISP		82	213
	Amb to T4{1}			325	1.23	4-1 DISP		59	213
	Hydrotest{1}	0	0		1.23	3-1 OCC		21	219
	Sus.+T1{1}				1.23	5-1 CRUP		38	<NOTE 1>
	Sus.+T2{1}				1.23	5-1 CRUP		41	<NOTE 1>

Sus.+T3{1}	1.23	5-1 CRUP	38 <NOTE 1>
Sus.+T4{1}	1.23	5-1 CRUP	31 <NOTE 1>

F19	+ Max P{1}				HOOP	13	104
	GR + Max P{1}	106		1.00	2-1 SUST	10	104
	TR:T2 to T3{1}		2703	1.00	4-1 DISP	96	217
	Amb to T1{1}		610	1.00	4-1 DISP	22	247
	Amb to T2{1}		671	1.00	4-1 DISP	24	247
	Amb to T3{1}		2322	1.00	4-1 DISP	82	217
	Amb to T4{1}		495	1.00	4-1 DISP	18	240
	Hydrotest{1}	0	0	1.00	3-1 OCC	1	219
	Sus.+T1{1}			1.00	5-1 CRUP	17	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	18	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	37	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	16	<NOTE 1>

F_LINE_REV0

BENTLEY

EN 13480 (2002) CODE COMPLIANCE								
		(Moments in N.m)			(Stress in N/mm2)			
Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
-----	-----	-----	-----	-----	-----	-----	-----	-----
F19	- Max P{1}					H00P	13	104
	GR + Max P{1}	106			1.00	2-1 SUST	10	104
	TR:T2 to T3{1}			2703	1.00	4-1 DISP	96	217
	Amb to T1{1}			610	1.00	4-1 DISP	22	247

F_LINE_REV0.OUT

	Amb to T2{1}		671	1.00	4-1 DISP	24	247
	Amb to T3{1}		2322	1.00	4-1 DISP	82	217
	Amb to T4{1}		495	1.00	4-1 DISP	18	240
	Hydrotest{1}	0	0	1.00	3-1 OCC	1	219
	Sus.+T1{1}			1.00	5-1 CRUP	17	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	18	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	37	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	16	<NOTE 1>
C01 N+	Max P{1}				HOOP	29	100
	GR + Max P{1}	17		1.23	2-1 SUST	16	100
	TR:Amb to T2{1}		522	1.23	4-1 DISP	95	213
	Amb to T1{1}		450	1.23	4-1 DISP	82	213
	Amb to T2{1}		522	1.23	4-1 DISP	95	213
	Amb to T3{1}		453	1.23	4-1 DISP	83	213
	Amb to T4{1}		332	1.23	4-1 DISP	61	213
	Hydrotest{1}	0	0	1.23	3-1 OCC	21	219
	Sus.+T1{1}			1.23	5-1 CRUP	39	<NOTE 1>
	Sus.+T2{1}			1.23	5-1 CRUP	42	<NOTE 1>
	Sus.+T3{1}			1.23	5-1 CRUP	39	<NOTE 1>
	Sus.+T4{1}			1.23	5-1 CRUP	33	<NOTE 1>
K15	Max P{1}				HOOP	32	88
	GR + Max P{1}	1		2.00	2-1 SUST	19	88
	TR:T2 to T4{1}		37	2.00	4-1 DISP	95	201
	Amb to T1{1}		16	2.00	4-1 DISP	41	213
	Amb to T2{1}		34	2.00	4-1 DISP	88	201
	Amb to T3{1}		13	2.00	4-1 DISP	32	247
	Amb to T4{1}		3	2.00	4-1 DISP	8	202
	Hydrotest{1}	0	0	2.00	3-1 OCC	12	219
	Sus.+T1{1}			2.00	5-1 CRUP	29	<NOTE 1>
	Sus.+T2{1}			2.00	5-1 CRUP	41	<NOTE 1>
	Sus.+T3{1}			2.00	5-1 CRUP	27	<NOTE 1>
	Sus.+T4{1}			2.00	5-1 CRUP	21	<NOTE 1>
C01 M	Max P{1}				HOOP	29	100
	GR + Max P{1}	14		1.23	2-1 SUST	16	100
	TR:Amb to T2{1}		521	1.23	4-1 DISP	95	213
	Amb to T1{1}		448	1.23	4-1 DISP	82	213
	Amb to T2{1}		521	1.23	4-1 DISP	95	213
	Amb to T3{1}		451	1.23	4-1 DISP	82	213
	Amb to T4{1}		329	1.23	4-1 DISP	60	213
	Hydrotest{1}	0	0	1.23	3-1 OCC	21	219
	Sus.+T1{1}			1.23	5-1 CRUP	38	<NOTE 1>

F_LINE_REV0.OUT

Sus.+T2{1}	1.23	5-1	CRUP	42 <NOTE 1>
Sus.+T3{1}	1.23	5-1	CRUP	38 <NOTE 1>
Sus.+T4{1}	1.23	5-1	CRUP	32 <NOTE 1>

F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

10:17 AM

AutoPIPE Plus 9.2.1

RESULT PAGE 251

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)

(Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
L03 N+ Max P{1}						HOOP	32 88
	GR + Max P{1}	1			1.00	2-1 SUST	17 88
	TR:Amb to T2{1}			74	1.00	4-1 DISP	94 201
	Amb to T1{1}			24	1.00	4-1 DISP	31 213
	Amb to T2{1}			74	1.00	4-1 DISP	94 201
	Amb to T3{1}			6	1.00	4-1 DISP	7 247
	Amb to T4{1}			7	1.00	4-1 DISP	9 240
	Hydrotest{1}	0	0		1.00	3-1 OCC	12 219
	Sus.+T1{1}				1.00	5-1 CRUP	28 <NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	49 <NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	20 <NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	20 <NOTE 1>
L03 N- Max P{1}						HOOP	32 88
	GR + Max P{1}	1			1.00	2-1 SUST	17 88
	TR:Amb to T2{1}			74	1.00	4-1 DISP	94 201
	Amb to T1{1}			24	1.00	4-1 DISP	31 213
	Amb to T2{1}			74	1.00	4-1 DISP	94 201
	Amb to T3{1}			6	1.00	4-1 DISP	7 247
	Amb to T4{1}			7	1.00	4-1 DISP	9 240
	Hydrotest{1}	0	0		1.00	3-1 OCC	12 219
	Sus.+T1{1}				1.00	5-1 CRUP	28 <NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	49 <NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	20 <NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	20 <NOTE 1>
L03 F+ Max P{1}						HOOP	32 88
	GR + Max P{1}	1			1.00	2-1 SUST	18 88
	TR:Amb to T2{1}			73	1.00	4-1 DISP	93 201

F_LINE_REV0.OUT

Amb to T1{1}			19	1.00	4-1 DISP	25	213
Amb to T2{1}			73	1.00	4-1 DISP	93	201
Amb to T3{1}			6	1.00	4-1 DISP	8	247
Amb to T4{1}			7	1.00	4-1 DISP	9	240
Hydrotest{1}	0	0		1.00	3-1 OCC	12	219
Sus.+T1{1}				1.00	5-1 CRUP	26	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	49	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	20	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	21	<NOTE 1>

L03 F- Max P{1}					HOOP	32	88
GR + Max P{1}	1			1.00	2-1 SUST	18	88
TR:Amb to T2{1}			73	1.00	4-1 DISP	93	201
Amb to T1{1}			19	1.00	4-1 DISP	25	213
Amb to T2{1}			73	1.00	4-1 DISP	93	201
Amb to T3{1}			6	1.00	4-1 DISP	8	247
Amb to T4{1}			7	1.00	4-1 DISP	9	240
Hydrotest{1}	0	0		1.00	3-1 OCC	12	219
Sus.+T1{1}				1.00	5-1 CRUP	26	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	49	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	20	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	21	<NOTE 1>

F_LINE_REV0

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BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 252

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)

(Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F no. type	Stress	Allow.
L02	Max P{1}				HOOP	32	88
	GR + Max P{1}	1			2.00 2-1 SUST	18	88
	TR:T2 to T4{1}			36	2.00 4-1 DISP	92	201
	Amb to T1{1}			13	2.00 4-1 DISP	34	213
	Amb to T2{1}			32	2.00 4-1 DISP	81	201
	Amb to T3{1}			5	2.00 4-1 DISP	12	247
	Amb to T4{1}			5	2.00 4-1 DISP	12	240
	Hydrotest{1}	0	0		2.00 3-1 OCC	12	219
	Sus.+T1{1}				2.00 5-1 CRUP	27	<NOTE 1>

			F_LINE_REV0.OUT				
	Sus.+T2{1}			2.00	5-1	CRUP	38 <NOTE 1>
	Sus.+T3{1}			2.00	5-1	CRUP	21 <NOTE 1>
	Sus.+T4{1}			2.00	5-1	CRUP	21 <NOTE 1>
B01 F-	Max P{1}					HOOP	29 100
	GR + Max P{1}	1		1.23	2-1	SUST	14 100
	TR:Amb to T2{1}		499	1.23	4-1	DISP	91 213
	Amb to T1{1}		422	1.23	4-1	DISP	77 213
	Amb to T2{1}		499	1.23	4-1	DISP	91 213
	Amb to T3{1}		422	1.23	4-1	DISP	77 213
	Amb to T4{1}		297	1.23	4-1	DISP	54 213
	Hydrotest{1}	0	0	1.23	3-1	OCC	21 219
	Sus.+T1{1}			1.23	5-1	CRUP	35 <NOTE 1>
	Sus.+T2{1}			1.23	5-1	CRUP	39 <NOTE 1>
	Sus.+T3{1}			1.23	5-1	CRUP	35 <NOTE 1>
	Sus.+T4{1}			1.23	5-1	CRUP	29 <NOTE 1>
C01 F-	Max P{1}					HOOP	29 100
	GR + Max P{1}	7		1.23	2-1	SUST	15 100
	TR:Amb to T2{1}		495	1.23	4-1	DISP	90 213
	Amb to T1{1}		423	1.23	4-1	DISP	77 213
	Amb to T2{1}		495	1.23	4-1	DISP	90 213
	Amb to T3{1}		426	1.23	4-1	DISP	78 213
	Amb to T4{1}		306	1.23	4-1	DISP	56 213
	Hydrotest{1}	0	0	1.23	3-1	OCC	21 219
	Sus.+T1{1}			1.23	5-1	CRUP	36 <NOTE 1>
	Sus.+T2{1}			1.23	5-1	CRUP	39 <NOTE 1>
	Sus.+T3{1}			1.23	5-1	CRUP	36 <NOTE 1>
	Sus.+T4{1}			1.23	5-1	CRUP	30 <NOTE 1>
C11 N+	Max P{1}					HOOP	57 88
	GR + Max P{1}	70		1.23	2-1	SUST	38 88
	TR:Amb to T2{1}		492	1.23	4-1	DISP	90 201
	Amb to T1{1}		411	1.23	4-1	DISP	75 213
	Amb to T2{1}		492	1.23	4-1	DISP	90 201
	Amb to T3{1}		323	1.23	4-1	DISP	59 213
	Amb to T4{1}		245	1.23	4-1	DISP	45 240
	Hydrotest{1}	0	0	1.23	3-1	OCC	21 219
	Sus.+T1{1}			1.23	5-1	CRUP	58 <NOTE 1>
	Sus.+T2{1}			1.23	5-1	CRUP	62 <NOTE 1>
	Sus.+T3{1}			1.23	5-1	CRUP	54 <NOTE 1>
	Sus.+T4{1}			1.23	5-1	CRUP	50 <NOTE 1>

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F_LINE_REV0

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BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 253

EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. no.	Load type		
L27	Max P{1}						HOOP	32	88
	GR + Max P{1}	5			1.00	2-1	SUST	22	88
	TR:Amb to T2{1}			71	1.00	4-1	DISP	90	201
	Amb to T1{1}			18	1.00	4-1	DISP	23	247
	Amb to T2{1}			71	1.00	4-1	DISP	90	201
	Amb to T3{1}			1	1.00	4-1	DISP	2	247
	Amb to T4{1}			8	1.00	4-1	DISP	10	240
	Hydrotest{1}	0	0		1.00	3-1	OCC	12	219
	Sus.+T1{1}				1.00	5-1	CRUP	30	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP	52	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP	23	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP	26	<NOTE 1>
D01 M	Max P{1}						HOOP	33	100
	GR + Max P{1}	25			1.32	2-1	SUST	18	100
	TR:Amb to T2{1}			815	1.32	4-1	DISP	90	213
	Amb to T1{1}			618	1.32	4-1	DISP	68	213
	Amb to T2{1}			815	1.32	4-1	DISP	90	213
	Amb to T3{1}			619	1.32	4-1	DISP	68	213
	Amb to T4{1}			631	1.32	4-1	DISP	70	213
	Hydrotest{1}	0	0		1.32	3-1	OCC	24	219
	Sus.+T1{1}				1.32	5-1	CRUP	35	<NOTE 1>
	Sus.+T2{1}				1.32	5-1	CRUP	41	<NOTE 1>
	Sus.+T3{1}				1.32	5-1	CRUP	35	<NOTE 1>
	Sus.+T4{1}				1.32	5-1	CRUP	36	<NOTE 1>
F12	Max P{1}						HOOP	10	104
	GR + Max P{1}	36			1.00	2-1	SUST	12	104
	TR:Amb to T2{1}			475	1.00	4-1	DISP	89	247
	Amb to T1{1}			445	1.00	4-1	DISP	83	247
	Amb to T2{1}			475	1.00	4-1	DISP	89	247
	Amb to T3{1}			387	1.00	4-1	DISP	72	217
	Amb to T4{1}			318	1.00	4-1	DISP	59	240
	Hydrotest{1}	0	0		1.00	3-1	OCC	0	219

		F_LINE_REV0.OUT				
Sus.+T1{1}			1.00	5-1	CRUP	39 <NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	41 <NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	36 <NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	32 <NOTE 1>

F01 F- Max P{1}					HOOP	57	88
GR + Max P{1}	25		1.23	2-1	SUST	31	88
TR:Amb to T2{1}		486	1.23	4-1	DISP	89	201
Amb to T1{1}		416	1.23	4-1	DISP	76	213
Amb to T2{1}		486	1.23	4-1	DISP	89	201
Amb to T3{1}		440	1.23	4-1	DISP	81	213
Amb to T4{1}		284	1.23	4-1	DISP	52	240
Hydrotest{1}	0	0	1.23	3-1	OCC	21	219
Sus.+T1{1}			1.23	5-1	CRUP	52	<NOTE 1>
Sus.+T2{1}			1.23	5-1	CRUP	55	<NOTE 1>
Sus.+T3{1}			1.23	5-1	CRUP	53	<NOTE 1>
Sus.+T4{1}			1.23	5-1	CRUP	45	<NOTE 1>

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AutoPIPE Plus 9.2.1

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
L21	+ Max P{1}					HOOP	32	88	
	GR + Max P{1}	11			1.00	2-1 SUST	31	88	
	TR:T1 to T2{1}			69	1.00	4-1 DISP	89	201	
	Amb to T1{1}			24	1.00	4-1 DISP	30	213	
	Amb to T2{1}			60	1.00	4-1 DISP	77	201	
	Amb to T3{1}			6	1.00	4-1 DISP	8	247	
	Amb to T4{1}			6	1.00	4-1 DISP	8	240	
	Hydrotest{1}	0	0		1.00	3-1 OCC	12	219	
	Sus.+T1{1}				1.00	5-1 CRUP	41	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	56	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	33	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	33	<NOTE 1>	
L21	- Max P{1}					HOOP	32	88	
	GR + Max P{1}	11			1.00	2-1 SUST	31	88	

		F_LINE_REV0	OUT					
TR:T1 to T2{1}		69	1.00	4-1	DISP	89	201	
Amb to T1{1}		24	1.00	4-1	DISP	30	213	
Amb to T2{1}		60	1.00	4-1	DISP	77	201	
Amb to T3{1}		6	1.00	4-1	DISP	8	247	
Amb to T4{1}		6	1.00	4-1	DISP	8	240	
Hydrotest{1}	0	0	1.00	3-1	OCC	12	219	
Sus.+T1{1}			1.00	5-1	CRUP	41	<NOTE 1>	
Sus.+T2{1}			1.00	5-1	CRUP	56	<NOTE 1>	
Sus.+T3{1}			1.00	5-1	CRUP	33	<NOTE 1>	
Sus.+T4{1}			1.00	5-1	CRUP	33	<NOTE 1>	
G13 Max P{1}					HOOP	13	104	
GR + Max P{1}	11		2.00	2-1	SUST	7	104	
TR:T2 to T3{1}		1250	2.00	4-1	DISP	89	217	
Amb to T1{1}		195	2.00	4-1	DISP	14	247	
Amb to T2{1}		228	2.00	4-1	DISP	16	247	
Amb to T3{1}		1207	2.00	4-1	DISP	85	217	
Amb to T4{1}		517	2.00	4-1	DISP	37	240	
Hydrotest{1}	0	0	2.00	3-1	OCC	1	219	
Sus.+T1{1}			2.00	5-1	CRUP	10	<NOTE 1>	
Sus.+T2{1}			2.00	5-1	CRUP	11	<NOTE 1>	
Sus.+T3{1}			2.00	5-1	CRUP	28	<NOTE 1>	
Sus.+T4{1}			2.00	5-1	CRUP	16	<NOTE 1>	
D01 F- Max P{1}					HOOP	33	100	
GR + Max P{1}	16		1.32	2-1	SUST	17	100	
TR:Amb to T2{1}		796	1.32	4-1	DISP	88	213	
Amb to T1{1}		603	1.32	4-1	DISP	66	213	
Amb to T2{1}		796	1.32	4-1	DISP	88	213	
Amb to T3{1}		603	1.32	4-1	DISP	67	213	
Amb to T4{1}		615	1.32	4-1	DISP	68	213	
Hydrotest{1}	0	0	1.32	3-1	OCC	24	219	
Sus.+T1{1}			1.32	5-1	CRUP	34	<NOTE 1>	
Sus.+T2{1}			1.32	5-1	CRUP	39	<NOTE 1>	
Sus.+T3{1}			1.32	5-1	CRUP	34	<NOTE 1>	
Sus.+T4{1}			1.32	5-1	CRUP	34	<NOTE 1>	

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F_LINE_REV0

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BENTLEY

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AutoPIPE Plus 9.2.1 RESULT PAGE 255

EN 13480 (2002) CODE COMPLIANCE

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		F_LINE_REV0.OUT							
		(Moments in N.m)		(Stress in N/mm2)					
Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code	
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

C11 F-	Max P{1}					HOOP	57	88	
	GR + Max P{1}	61			1.23	2-1 SUST	37	88	
	TR:Amb to T2{1}			477	1.23	4-1 DISP	87	201	
	Amb to T1{1}			399	1.23	4-1 DISP	73	213	
	Amb to T2{1}			477	1.23	4-1 DISP	87	201	
	Amb to T3{1}			315	1.23	4-1 DISP	58	213	
	Amb to T4{1}			240	1.23	4-1 DISP	44	240	
	Hydrotest{1}	0	0		1.23	3-1 OCC	21	219	
	Sus.+T1{1}				1.23	5-1 CRUP	56	<NOTE 1>	
	Sus.+T2{1}				1.23	5-1 CRUP	60	<NOTE 1>	
	Sus.+T3{1}				1.23	5-1 CRUP	52	<NOTE 1>	
	Sus.+T4{1}				1.23	5-1 CRUP	48	<NOTE 1>	
D01 N+	Max P{1}					HOOP	33	100	
	GR + Max P{1}	29			1.32	2-1 SUST	18	100	
	TR:Amb to T2{1}			788	1.32	4-1 DISP	87	213	
	Amb to T1{1}			600	1.32	4-1 DISP	66	213	
	Amb to T2{1}			788	1.32	4-1 DISP	87	213	
	Amb to T3{1}			600	1.32	4-1 DISP	66	213	
	Amb to T4{1}			613	1.32	4-1 DISP	68	213	
	Hydrotest{1}	0	0		1.32	3-1 OCC	24	219	
	Sus.+T1{1}				1.32	5-1 CRUP	35	<NOTE 1>	
	Sus.+T2{1}				1.32	5-1 CRUP	40	<NOTE 1>	
	Sus.+T3{1}				1.32	5-1 CRUP	35	<NOTE 1>	
	Sus.+T4{1}				1.32	5-1 CRUP	35	<NOTE 1>	
F08 N+	Max P{1}					HOOP	13	104	
	GR + Max P{1}	40			1.78	2-1 SUST	8	104	
	TR:T2 to T3{1}			1379	1.78	4-1 DISP	87	217	
	Amb to T1{1}			430	1.78	4-1 DISP	27	247	
	Amb to T2{1}			462	1.78	4-1 DISP	29	247	
	Amb to T3{1}			1260	1.78	4-1 DISP	79	217	
	Amb to T4{1}			430	1.78	4-1 DISP	27	240	
	Hydrotest{1}	0	0		1.78	3-1 OCC	1	219	
	Sus.+T1{1}				1.78	5-1 CRUP	15	<NOTE 1>	
	Sus.+T2{1}				1.78	5-1 CRUP	15	<NOTE 1>	
	Sus.+T3{1}				1.78	5-1 CRUP	28	<NOTE 1>	
	Sus.+T4{1}				1.78	5-1 CRUP	15	<NOTE 1>	
G11	Max P{1}					HOOP	10	104	

GR + Max P{1}	72	F_LINE_REV0.OUT	1.00	2-1	SUST	18	104
TR:T2 to T3{1}		463	1.00	4-1	DISP	87	217
Amb to T1{1}		178	1.00	4-1	DISP	33	247
Amb to T2{1}		190	1.00	4-1	DISP	36	247
Amb to T3{1}		396	1.00	4-1	DISP	74	217
Amb to T4{1}		149	1.00	4-1	DISP	28	240
Hydrotest{1}	0	0	1.00	3-1	OCC	0	219
Sus.+T1{1}			1.00	5-1	CRUP	30	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	30	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	43	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	28	<NOTE 1>

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F_LINE_REV0

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BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 256

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq.	Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
D11	Max P{1}					HOOP	57	88
	GR + Max P{1}	1			2.00	2-1 SUST	28	88
	TR:Amb to T2{1}			288	2.00	4-1 DISP	85	201
	Amb to T1{1}			260	2.00	4-1 DISP	77	213
	Amb to T2{1}			288	2.00	4-1 DISP	85	201
	Amb to T3{1}			260	2.00	4-1 DISP	77	213
	Amb to T4{1}			257	2.00	4-1 DISP	76	213
	Hydrotest{1}	0	0		2.00	3-1 OCC	21	219
	Sus.+T1{1}				2.00	5-1 CRUP	47	<NOTE 1>
	Sus.+T2{1}				2.00	5-1 CRUP	49	<NOTE 1>
	Sus.+T3{1}				2.00	5-1 CRUP	47	<NOTE 1>
	Sus.+T4{1}				2.00	5-1 CRUP	47	<NOTE 1>
G07 F-	Max P{1}					HOOP	13	104
	GR + Max P{1}	12			1.78	2-1 SUST	7	104
	TR:Amb to T3{1}			1336	1.78	4-1 DISP	84	217
	Amb to T1{1}			288	1.78	4-1 DISP	18	247
	Amb to T2{1}			319	1.78	4-1 DISP	20	247
	Amb to T3{1}			1336	1.78	4-1 DISP	84	217
	Amb to T4{1}			366	1.78	4-1 DISP	23	240
	Hydrotest{1}	0	0		1.78	3-1 OCC	1	219

F_LINE_REV0.OUT

Sus.+T1{1}			1.78	5-1	CRUP	11	<NOTE 1>
Sus.+T2{1}			1.78	5-1	CRUP	12	<NOTE 1>
Sus.+T3{1}			1.78	5-1	CRUP	28	<NOTE 1>
Sus.+T4{1}			1.78	5-1	CRUP	12	<NOTE 1>
C12 N+ Max P{1}					HOOP	57	88
GR + Max P{1}	27		1.24	2-1	SUST	32	88
TR:Amb to T2{1}		456	1.24	4-1	DISP	84	201
Amb to T1{1}		396	1.24	4-1	DISP	72	213
Amb to T2{1}		456	1.24	4-1	DISP	84	201
Amb to T3{1}		314	1.24	4-1	DISP	58	213
Amb to T4{1}		266	1.24	4-1	DISP	49	240
Hydrotest{1}	0	0	1.24	3-1	OCC	21	219
Sus.+T1{1}			1.24	5-1	CRUP	51	<NOTE 1>
Sus.+T2{1}			1.24	5-1	CRUP	54	<NOTE 1>
Sus.+T3{1}			1.24	5-1	CRUP	47	<NOTE 1>
Sus.+T4{1}			1.24	5-1	CRUP	45	<NOTE 1>
F07 F+ Max P{1}					HOOP	13	104
GR + Max P{1}	47		1.00	2-1	SUST	8	104
TR:Amb to T3{1}		2351	1.00	4-1	DISP	83	217
Amb to T1{1}		598	1.00	4-1	DISP	21	247
Amb to T2{1}		646	1.00	4-1	DISP	23	247
Amb to T3{1}		2351	1.00	4-1	DISP	83	217
Amb to T4{1}		644	1.00	4-1	DISP	23	240
Hydrotest{1}	0	0	1.00	3-1	OCC	1	219
Sus.+T1{1}			1.00	5-1	CRUP	15	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	15	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	35	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	15	<NOTE 1>

F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

10:17 AM

AutoPIPE Plus 9.2.1

RESULT PAGE 257

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)		
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
C10	Max P{1}					HOOP	57 88
	GR + Max P{1}	50			1.00	2-1 SUST	34 88

F_LINE_REV0.OUT

	TR:Amb to T3{1}		608	1.00	4-1 DISP	82	213
	Amb to T1{1}		470	1.00	4-1 DISP	63	213
	Amb to T2{1}		539	1.00	4-1 DISP	72	201
	Amb to T3{1}		608	1.00	4-1 DISP	82	213
	Amb to T4{1}		354	1.00	4-1 DISP	48	240
	Hydrotest{1}	0	0	1.00	3-1 OCC	21	219
	Sus.+T1{1}			1.00	5-1 CRUP	55	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	58	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	62	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	50	<NOTE 1>
C12 F-	Max P{1}				HOOP	57	88
	GR + Max P{1}	35		1.24	2-1 SUST	33	88
	TR:Amb to T2{1}		442	1.24	4-1 DISP	81	201
	Amb to T1{1}		391	1.24	4-1 DISP	72	213
	Amb to T2{1}		442	1.24	4-1 DISP	81	201
	Amb to T3{1}		315	1.24	4-1 DISP	58	213
	Amb to T4{1}		274	1.24	4-1 DISP	50	240
	Hydrotest{1}	0	0	1.24	3-1 OCC	21	219
	Sus.+T1{1}			1.24	5-1 CRUP	52	<NOTE 1>
	Sus.+T2{1}			1.24	5-1 CRUP	55	<NOTE 1>
	Sus.+T3{1}			1.24	5-1 CRUP	48	<NOTE 1>
	Sus.+T4{1}			1.24	5-1 CRUP	46	<NOTE 1>
C10	+ Max P{1}				HOOP	57	88
	GR + Max P{1}	107		1.00	2-1 SUST	43	88
	TR:T2 to T3{1}		545	1.00	4-1 DISP	81	201
	Amb to T1{1}		452	1.00	4-1 DISP	67	213
	Amb to T2{1}		545	1.00	4-1 DISP	81	201
	Amb to T3{1}		358	1.00	4-1 DISP	53	213
	Amb to T4{1}		268	1.00	4-1 DISP	40	240
	Hydrotest{1}	0	0	1.00	3-1 OCC	21	219
	Sus.+T1{1}			1.00	5-1 CRUP	66	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	70	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	61	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	57	<NOTE 1>
A02	Max P{1}				HOOP	33	100
	GR + Max P{1}	15		1.22	2-1 SUST	17	100
	TR:Amb to T2{1}		1045	1.22	4-1 DISP	80	213
	Amb to T1{1}		732	1.22	4-1 DISP	56	213
	Amb to T2{1}		1045	1.22	4-1 DISP	80	213
	Amb to T3{1}		732	1.22	4-1 DISP	56	213
	Amb to T4{1}		751	1.22	4-1 DISP	57	213

F_LINE_REV0.OUT

Hydrotest{1}	0	0	1.22	3-1	OCC	24	219
Sus.+T1{1}			1.22	5-1	CRUP	32	<NOTE 1>
Sus.+T2{1}			1.22	5-1	CRUP	39	<NOTE 1>
Sus.+T3{1}			1.22	5-1	CRUP	32	<NOTE 1>
Sus.+T4{1}			1.22	5-1	CRUP	33	<NOTE 1>

 F_LINE_REV0
 09/13/2010 FEED LINE
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 AutoPIPE Plus 9.2.1

BENTLEY

RESULT PAGE 258

EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. no.	Load type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F						
L04 N+ Max P{1}									HOOP	32	88
GR + Max P{1}		0			1.00		2-1	SUST	17	88	
TR:Amb to T2{1}				62	1.00		4-1	DISP	79	201	
Amb to T1{1}				21	1.00		4-1	DISP	26	213	
Amb to T2{1}				62	1.00		4-1	DISP	79	201	
Amb to T3{1}				6	1.00		4-1	DISP	7	247	
Amb to T4{1}				6	1.00		4-1	DISP	8	240	
Hydrotest{1}		0	0		1.00		3-1	OCC	12	219	
Sus.+T1{1}					1.00		5-1	CRUP	26	<NOTE 1>	
Sus.+T2{1}					1.00		5-1	CRUP	43	<NOTE 1>	
Sus.+T3{1}					1.00		5-1	CRUP	19	<NOTE 1>	
Sus.+T4{1}					1.00		5-1	CRUP	20	<NOTE 1>	
L04 N- Max P{1}									HOOP	32	88
GR + Max P{1}		0			1.00		2-1	SUST	17	88	
TR:Amb to T2{1}				62	1.00		4-1	DISP	79	201	
Amb to T1{1}				21	1.00		4-1	DISP	26	213	
Amb to T2{1}				62	1.00		4-1	DISP	79	201	
Amb to T3{1}				6	1.00		4-1	DISP	7	247	
Amb to T4{1}				6	1.00		4-1	DISP	8	240	
Hydrotest{1}		0	0		1.00		3-1	OCC	12	219	
Sus.+T1{1}					1.00		5-1	CRUP	26	<NOTE 1>	
Sus.+T2{1}					1.00		5-1	CRUP	43	<NOTE 1>	
Sus.+T3{1}					1.00		5-1	CRUP	19	<NOTE 1>	
Sus.+T4{1}					1.00		5-1	CRUP	20	<NOTE 1>	
F01 N- Max P{1}									HOOP	57	88

F_LINE_REV0.OUT

	GR + Max P{1}	42		1.00	2-1	SUST	34	88
	TR:Amb to T2{1}		534	1.00	4-1	DISP	79	201
	Amb to T1{1}		462	1.00	4-1	DISP	68	213
	Amb to T2{1}		534	1.00	4-1	DISP	79	201
	Amb to T3{1}		508	1.00	4-1	DISP	75	213
	Amb to T4{1}		325	1.00	4-1	DISP	48	240
	Hydrotest{1}	0	0	1.00	3-1	OCC	21	219
	Sus.+T1{1}			1.00	5-1	CRUP	57	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	60	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	59	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	50	<NOTE 1>
B13	Max P{1}					HOOP	57	88
	GR + Max P{1}	66		1.00	2-1	SUST	37	88
	TR:Amb to T2{1}		529	1.00	4-1	DISP	78	201
	Amb to T1{1}		511	1.00	4-1	DISP	76	213
	Amb to T2{1}		529	1.00	4-1	DISP	78	201
	Amb to T3{1}		512	1.00	4-1	DISP	76	213
	Amb to T4{1}		485	1.00	4-1	DISP	72	240
	Hydrotest{1}	0	0	1.00	3-1	OCC	21	219
	Sus.+T1{1}			1.00	5-1	CRUP	63	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	64	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	63	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	61	<NOTE 1>

 F_LINE_REV0
 09/13/2010 FEED LINE
 10:17 AM
 AutoPIPE Plus 9.2.1

BENTLEY

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
B01 N-	Max P{1}					HOOP	29 100
	GR + Max P{1}	10			1.00	2-1 SUST	15 100
	TR:Amb to T2{1}			529	1.00	4-1 DISP	78 213
	Amb to T1{1}			450	1.00	4-1 DISP	67 213
	Amb to T2{1}			529	1.00	4-1 DISP	78 213
	Amb to T3{1}			451	1.00	4-1 DISP	67 213
	Amb to T4{1}			325	1.00	4-1 DISP	48 213

			F_LINE_REV0.OUT				
Hydrotest{1}	0	0	1.00	3-1	OCC	21	219
Sus.+T1{1}			1.00	5-1	CRUP	38	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	41	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	38	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	31	<NOTE 1>
L04 F+ Max P{1}					HOOP	32	88
GR + Max P{1}	1		1.00	2-1	SUST	18	88
TR:Amb to T2{1}		61	1.00	4-1	DISP	78	201
Amb to T1{1}		20	1.00	4-1	DISP	26	213
Amb to T2{1}		61	1.00	4-1	DISP	78	201
Amb to T3{1}		6	1.00	4-1	DISP	7	247
Amb to T4{1}		6	1.00	4-1	DISP	8	240
Hydrotest{1}	0	0	1.00	3-1	OCC	12	219
Sus.+T1{1}			1.00	5-1	CRUP	27	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	44	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	21	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	21	<NOTE 1>
L04 F- Max P{1}					HOOP	32	88
GR + Max P{1}	1		1.00	2-1	SUST	18	88
TR:Amb to T2{1}		61	1.00	4-1	DISP	78	201
Amb to T1{1}		20	1.00	4-1	DISP	26	213
Amb to T2{1}		61	1.00	4-1	DISP	78	201
Amb to T3{1}		6	1.00	4-1	DISP	7	247
Amb to T4{1}		6	1.00	4-1	DISP	8	240
Hydrotest{1}	0	0	1.00	3-1	OCC	12	219
Sus.+T1{1}			1.00	5-1	CRUP	27	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	44	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	21	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	21	<NOTE 1>
C01 N- Max P{1}					HOOP	29	100
GR + Max P{1}	17		1.00	2-1	SUST	16	100
TR:Amb to T2{1}		522	1.00	4-1	DISP	77	213
Amb to T1{1}		450	1.00	4-1	DISP	67	213
Amb to T2{1}		522	1.00	4-1	DISP	77	213
Amb to T3{1}		453	1.00	4-1	DISP	67	213
Amb to T4{1}		332	1.00	4-1	DISP	49	213
Hydrotest{1}	0	0	1.00	3-1	OCC	21	219
Sus.+T1{1}			1.00	5-1	CRUP	39	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	42	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	39	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	33	<NOTE 1>

 F_LINE_REV0
 09/13/2010 FEED LINE
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BENTLEY

EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. Load no. type			
G07 N+	Max P{1}					HOOP		13	104
	GR + Max P{1}	19			1.78	2-1 SUST		7	104
	TR:Amb to T3{1}			1228	1.78	4-1 DISP		77	217
	Amb to T1{1}			334	1.78	4-1 DISP		21	247
	Amb to T2{1}			389	1.78	4-1 DISP		24	247
	Amb to T3{1}			1228	1.78	4-1 DISP		77	217
	Amb to T4{1}			317	1.78	4-1 DISP		20	240
	Hydrotest{1}	0	0		1.78	3-1 OCC		1	219
	Sus.+T1{1}				1.78	5-1 CRUP		12	<NOTE 1>
	Sus.+T2{1}				1.78	5-1 CRUP		13	<NOTE 1>
	Sus.+T3{1}				1.78	5-1 CRUP		26	<NOTE 1>
	Sus.+T4{1}				1.78	5-1 CRUP		12	<NOTE 1>
C17	Max P{1}					HOOP		57	88
	GR + Max P{1}	67			1.00	2-1 SUST		37	88
	TR:Amb to T2{1}			512	1.00	4-1 DISP		76	201
	Amb to T1{1}			496	1.00	4-1 DISP		73	213
	Amb to T2{1}			512	1.00	4-1 DISP		76	201
	Amb to T3{1}			496	1.00	4-1 DISP		73	213
	Amb to T4{1}			467	1.00	4-1 DISP		69	240
	Hydrotest{1}	0	0		1.00	3-1 OCC		21	219
	Sus.+T1{1}				1.00	5-1 CRUP		62	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP		63	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP		62	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP		61	<NOTE 1>
G01 F-	Max P{1}					HOOP		57	88
	GR + Max P{1}	15			1.23	2-1 SUST		30	88
	TR:Amb to T3{1}			412	1.23	4-1 DISP		75	213
	Amb to T1{1}			194	1.23	4-1 DISP		36	213
	Amb to T2{1}			238	1.23	4-1 DISP		44	201
	Amb to T3{1}			412	1.23	4-1 DISP		75	213

		F_LINE_REV0.0UT					
		154					
Amb to T4{1}			1.23	4-1 DISP	28	240	
Hydrotest{1}	0	0	1.23	3-1 OCC	21	219	
Sus.+T1{1}			1.23	5-1 CRUP	39	<NOTE 1>	
Sus.+T2{1}			1.23	5-1 CRUP	42	<NOTE 1>	
Sus.+T3{1}			1.23	5-1 CRUP	50	<NOTE 1>	
Sus.+T4{1}			1.23	5-1 CRUP	37	<NOTE 1>	
B01 F+ Max P{1}				HOOP	29	100	
GR + Max P{1}	1		1.00	2-1 SUST	14	100	
TR:Amb to T2{1}		499	1.00	4-1 DISP	74	213	
Amb to T1{1}		422	1.00	4-1 DISP	63	213	
Amb to T2{1}		499	1.00	4-1 DISP	74	213	
Amb to T3{1}		422	1.00	4-1 DISP	63	213	
Amb to T4{1}		297	1.00	4-1 DISP	44	213	
Hydrotest{1}	0	0	1.00	3-1 OCC	21	219	
Sus.+T1{1}			1.00	5-1 CRUP	35	<NOTE 1>	
Sus.+T2{1}			1.00	5-1 CRUP	39	<NOTE 1>	
Sus.+T3{1}			1.00	5-1 CRUP	35	<NOTE 1>	
Sus.+T4{1}			1.00	5-1 CRUP	29	<NOTE 1>	

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F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 261

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)

(Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
F08 F- Max P{1}						HOOP	13 104
GR + Max P{1}		50			1.78	2-1 SUST	8 104
TR:T2 to T3{1}				1167	1.78	4-1 DISP	73 217
Amb to T1{1}				419	1.78	4-1 DISP	26 247
Amb to T2{1}				453	1.78	4-1 DISP	28 247
Amb to T3{1}				1114	1.78	4-1 DISP	70 217
Amb to T4{1}				433	1.78	4-1 DISP	27 240
Hydrotest{1}		0	0		1.78	3-1 OCC	1 219
Sus.+T1{1}					1.78	5-1 CRUP	15 <NOTE 1>
Sus.+T2{1}					1.78	5-1 CRUP	16 <NOTE 1>
Sus.+T3{1}					1.78	5-1 CRUP	26 <NOTE 1>
Sus.+T4{1}					1.78	5-1 CRUP	15 <NOTE 1>

		F_LINE_REV0.OUT				
C01 F+ Max P{1}				HOOP	29	100
GR + Max P{1}	7		1.00	2-1 SUST	15	100
TR:Amb to T2{1}		495	1.00	4-1 DISP	73	213
Amb to T1{1}		423	1.00	4-1 DISP	63	213
Amb to T2{1}		495	1.00	4-1 DISP	73	213
Amb to T3{1}		426	1.00	4-1 DISP	63	213
Amb to T4{1}		306	1.00	4-1 DISP	45	213
Hydrotest{1}	0	0	1.00	3-1 OCC	21	219
Sus.+T1{1}			1.00	5-1 CRUP	36	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	39	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	36	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	30	<NOTE 1>
C11 N- Max P{1}				HOOP	57	88
GR + Max P{1}	70		1.00	2-1 SUST	38	88
TR:Amb to T2{1}		492	1.00	4-1 DISP	73	201
Amb to T1{1}		411	1.00	4-1 DISP	61	213
Amb to T2{1}		492	1.00	4-1 DISP	73	201
Amb to T3{1}		323	1.00	4-1 DISP	48	213
Amb to T4{1}		245	1.00	4-1 DISP	36	240
Hydrotest{1}	0	0	1.00	3-1 OCC	21	219
Sus.+T1{1}			1.00	5-1 CRUP	58	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	62	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	54	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	50	<NOTE 1>
K10 F+ Max P{1}				HOOP	32	88
GR + Max P{1}	9		1.00	2-1 SUST	28	88
TR:Amb to T2{1}		57	1.00	4-1 DISP	73	201
Amb to T1{1}		2	1.00	4-1 DISP	2	247
Amb to T2{1}		57	1.00	4-1 DISP	73	201
Amb to T3{1}		0	1.00	4-1 DISP	1	247
Amb to T4{1}		54	1.00	4-1 DISP	69	202
Hydrotest{1}	0	0	1.00	3-1 OCC	12	219
Sus.+T1{1}			1.00	5-1 CRUP	29	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	52	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	28	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	51	<NOTE 1>

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F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

10:17 AM
AutoPIPE Plus 9.2.1 RESULT PAGE 262

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code	
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

K10 F-	Max P{1}					HOOP	32	88	
	GR + Max P{1}	9			1.00	2-1 SUST	28	88	
	TR:Amb to T2{1}			57	1.00	4-1 DISP	73	201	
	Amb to T1{1}			2	1.00	4-1 DISP	2	247	
	Amb to T2{1}			57	1.00	4-1 DISP	73	201	
	Amb to T3{1}			0	1.00	4-1 DISP	1	247	
	Amb to T4{1}			54	1.00	4-1 DISP	69	202	
	Hydrotest{1}	0	0		1.00	3-1 OCC	12	219	
	Sus.+T1{1}				1.00	5-1 CRUP	29	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	52	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	28	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	51	<NOTE 1>	
L06	Max P{1}					HOOP	39	88	
	GR + Max P{1}	5			2.00	2-1 SUST	25	88	
	TR:Amb to T2{1}			50	2.00	4-1 DISP	72	201	
	Amb to T1{1}			19	2.00	4-1 DISP	28	247	
	Amb to T2{1}			50	2.00	4-1 DISP	72	201	
	Amb to T3{1}			5	2.00	4-1 DISP	7	247	
	Amb to T4{1}			5	2.00	4-1 DISP	7	240	
	Hydrotest{1}	0	0		2.00	3-1 OCC	15	219	
	Sus.+T1{1}				2.00	5-1 CRUP	32	<NOTE 1>	
	Sus.+T2{1}				2.00	5-1 CRUP	43	<NOTE 1>	
	Sus.+T3{1}				2.00	5-1 CRUP	27	<NOTE 1>	
	Sus.+T4{1}				2.00	5-1 CRUP	27	<NOTE 1>	
F01 F+	Max P{1}					HOOP	57	88	
	GR + Max P{1}	25			1.00	2-1 SUST	31	88	
	TR:Amb to T2{1}			486	1.00	4-1 DISP	72	201	
	Amb to T1{1}			416	1.00	4-1 DISP	62	213	
	Amb to T2{1}			486	1.00	4-1 DISP	72	201	
	Amb to T3{1}			440	1.00	4-1 DISP	65	213	
	Amb to T4{1}			284	1.00	4-1 DISP	42	240	
	Hydrotest{1}	0	0		1.00	3-1 OCC	21	219	
	Sus.+T1{1}				1.00	5-1 CRUP	52	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	55	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	53	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	45	<NOTE 1>	

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M12	Max P{1}					HOOP	72	153
	GR + Max P{1}	0		1.00	2-1	SUST	34	153
	TR:Amb to T2{1}		3	1.00	4-1	DISP	0	247
	Amb to T1{1}		2	1.00	4-1	DISP	0	247
	Amb to T2{1}		3	1.00	4-1	DISP	0	247
	Amb to T3{1}		2	1.00	4-1	DISP	0	247
	Amb to T4{1}		2	1.00	4-1	DISP	0	247
	Hydrotest{1}	0	0	1.00	3-1	OCC	26	219
	Sus.+T1{1}			1.00	5-1	CRUP	34	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	34	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	34	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	34	<NOTE 1>

 F_LINE_REV0
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BENTLEY

RESULT PAGE 263

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no.	type	Stress	Allow.

M17	Max P{1}						HOOP	72	153
	GR + Max P{1}	0			2.00	2-1	SUST	34	153
	TR:Amb to T2{1}			2	2.00	4-1	DISP	0	247
	Amb to T1{1}			2	2.00	4-1	DISP	0	247
	Amb to T2{1}			2	2.00	4-1	DISP	0	247
	Amb to T3{1}			2	2.00	4-1	DISP	0	247
	Amb to T4{1}			2	2.00	4-1	DISP	0	247
	Hydrotest{1}	0	0		2.00	3-1	OCC	26	219
	Sus.+T1{1}				2.00	5-1	CRUP	34	<NOTE 1>
	Sus.+T2{1}				2.00	5-1	CRUP	34	<NOTE 1>
	Sus.+T3{1}				2.00	5-1	CRUP	34	<NOTE 1>
	Sus.+T4{1}				2.00	5-1	CRUP	34	<NOTE 1>
E08	Max P{1}						HOOP	72	88
	GR + Max P{1}	31			2.00	2-1	SUST	35	88
	TR:Amb to T2{1}			209	2.00	4-1	DISP	11	201
	Amb to T1{1}			141	2.00	4-1	DISP	8	213
	Amb to T2{1}			209	2.00	4-1	DISP	11	201
	Amb to T3{1}			140	2.00	4-1	DISP	8	213

F_LINE_REV0.OUT

	Amb to T4{1}		144	2.00	4-1 DISP	8	213
	Hydrotest{1}	0	0	2.00	3-1 OCC	26	219
	Sus.+T1{1}			2.00	5-1 CRUP	37	<NOTE 1>
	Sus.+T2{1}			2.00	5-1 CRUP	38	<NOTE 1>
	Sus.+T3{1}			2.00	5-1 CRUP	37	<NOTE 1>
	Sus.+T4{1}			2.00	5-1 CRUP	37	<NOTE 1>
D27	Max P{1}				HOOP	72	88
	GR + Max P{1}	16		2.00	2-1 SUST	34	88
	TR:Amb to T3{1}		473	2.00	4-1 DISP	26	213
	Amb to T1{1}		472	2.00	4-1 DISP	26	213
	Amb to T2{1}		421	2.00	4-1 DISP	23	201
	Amb to T3{1}		473	2.00	4-1 DISP	26	213
	Amb to T4{1}		450	2.00	4-1 DISP	25	213
	Hydrotest{1}	0	0	2.00	3-1 OCC	26	219
	Sus.+T1{1}			2.00	5-1 CRUP	41	<NOTE 1>
	Sus.+T2{1}			2.00	5-1 CRUP	40	<NOTE 1>
	Sus.+T3{1}			2.00	5-1 CRUP	41	<NOTE 1>
	Sus.+T4{1}			2.00	5-1 CRUP	41	<NOTE 1>
C15	Max P{1}				HOOP	72	88
	GR + Max P{1}	122		2.00	2-1 SUST	39	88
	TR:Amb to T2{1}		700	2.00	4-1 DISP	38	201
	Amb to T1{1}		617	2.00	4-1 DISP	34	213
	Amb to T2{1}		700	2.00	4-1 DISP	38	201
	Amb to T3{1}		563	2.00	4-1 DISP	31	213
	Amb to T4{1}		450	2.00	4-1 DISP	25	240
	Hydrotest{1}	0	0	2.00	3-1 OCC	26	219
	Sus.+T1{1}			2.00	5-1 CRUP	47	<NOTE 1>
	Sus.+T2{1}			2.00	5-1 CRUP	48	<NOTE 1>
	Sus.+T3{1}			2.00	5-1 CRUP	47	<NOTE 1>
	Sus.+T4{1}			2.00	5-1 CRUP	45	<NOTE 1>

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RESULT PAGE 264

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)		
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F no. type	Stress	Allow.

F_LINE_REV0.OUT

B11	Max P{1}				HOOP	72	88
	GR + Max P{1}	35		2.00	2-1 SUST	35	88
	TR:Amb to T4{1}		113	2.00	4-1 DISP	6	240
	Amb to T1{1}		112	2.00	4-1 DISP	6	213
	Amb to T2{1}		102	2.00	4-1 DISP	6	201
	Amb to T3{1}		112	2.00	4-1 DISP	6	213
	Amb to T4{1}		113	2.00	4-1 DISP	6	240
	Hydrotest{1}	0	0	2.00	3-1 OCC	26	219
	Sus.+T1{1}			2.00	5-1 CRUP	37	<NOTE 1>
	Sus.+T2{1}			2.00	5-1 CRUP	37	<NOTE 1>
	Sus.+T3{1}			2.00	5-1 CRUP	37	<NOTE 1>
	Sus.+T4{1}			2.00	5-1 CRUP	37	<NOTE 1>
C11 F+	Max P{1}				HOOP	57	88
	GR + Max P{1}	61		1.00	2-1 SUST	37	88
	TR:Amb to T2{1}		477	1.00	4-1 DISP	71	201
	Amb to T1{1}		399	1.00	4-1 DISP	59	213
	Amb to T2{1}		477	1.00	4-1 DISP	71	201
	Amb to T3{1}		315	1.00	4-1 DISP	47	213
	Amb to T4{1}		240	1.00	4-1 DISP	36	240
	Hydrotest{1}	0	0	1.00	3-1 OCC	21	219
	Sus.+T1{1}			1.00	5-1 CRUP	56	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	60	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	52	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	48	<NOTE 1>
D07 N+	Max P{1}				HOOP	66	88
	GR + Max P{1}	75		1.32	2-1 SUST	38	88
	TR:Amb to T1{1}		632	1.32	4-1 DISP	70	213
	Amb to T1{1}		632	1.32	4-1 DISP	70	213
	Amb to T2{1}		558	1.32	4-1 DISP	62	201
	Amb to T3{1}		630	1.32	4-1 DISP	70	213
	Amb to T4{1}		599	1.32	4-1 DISP	66	213
	Hydrotest{1}	0	0	1.32	3-1 OCC	24	219
	Sus.+T1{1}			1.32	5-1 CRUP	55	<NOTE 1>
	Sus.+T2{1}			1.32	5-1 CRUP	53	<NOTE 1>
	Sus.+T3{1}			1.32	5-1 CRUP	55	<NOTE 1>
	Sus.+T4{1}			1.32	5-1 CRUP	54	<NOTE 1>
G06 N+	Max P{1}				HOOP	13	104
	GR + Max P{1}	22		1.78	2-1 SUST	7	104
	TR:T2 to T3{1}		1101	1.78	4-1 DISP	69	217
	Amb to T1{1}		402	1.78	4-1 DISP	25	247
	Amb to T2{1}		468	1.78	4-1 DISP	29	247

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Amb to T3{1}			880	1.78	4-1 DISP	55	217
Amb to T4{1}			185	1.78	4-1 DISP	12	240
Hydrotest{1}	0	0		1.78	3-1 OCC	1	219
Sus.+T1{1}				1.78	5-1 CRUP	13	<NOTE 1>
Sus.+T2{1}				1.78	5-1 CRUP	14	<NOTE 1>
Sus.+T3{1}				1.78	5-1 CRUP	21	<NOTE 1>
Sus.+T4{1}				1.78	5-1 CRUP	10	<NOTE 1>

 F_LINE_REV0

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RESULT PAGE 265

EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. no.	Load type		
K10 M	Max P{1}						HOOP	32	88
	GR + Max P{1}	9			1.00	2-1	SUST	28	88
	TR:Amb to T2{1}			54	1.00	4-1	DISP	69	201
	Amb to T1{1}			2	1.00	4-1	DISP	2	247
	Amb to T2{1}			54	1.00	4-1	DISP	69	201
	Amb to T3{1}			0	1.00	4-1	DISP	1	247
	Amb to T4{1}			51	1.00	4-1	DISP	66	202
	Hydrotest{1}	0	0		1.00	3-1	OCC	12	219
	Sus.+T1{1}				1.00	5-1	CRUP	29	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP	51	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP	28	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP	50	<NOTE 1>
K27 +	Max P{1}						HOOP	32	88
	GR + Max P{1}	27			1.00	2-1	SUST	52	88
	TR:T1 to T2{1}			45	1.00	4-1	DISP	57	201
	Amb to T1{1}			4	1.00	4-1	DISP	6	247
	Amb to T2{1}			40	1.00	4-1	DISP	51	201
	Amb to T3{1}			0	1.00	4-1	DISP	0	247
	Amb to T4{1}			39	1.00	4-1	DISP	49	202
	Hydrotest{1}	0	0		1.00	3-1	OCC	12	219
	Sus.+T1{1}				1.00	5-1	CRUP	54	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP	69	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP	52	<NOTE 1>

			F_LINE_REV0.OUT				
	Sus.+T4{1}			1.00	5-1 CRUP	68	<NOTE 1>
K27	- Max P{1}				HOOP	32	88
	GR + Max P{1}	27		1.00	2-1 SUST	52	88
	TR:T1 to T2{1}		45	1.00	4-1 DISP	57	201
	Amb to T1{1}		4	1.00	4-1 DISP	6	247
	Amb to T2{1}		40	1.00	4-1 DISP	51	201
	Amb to T3{1}		0	1.00	4-1 DISP	0	247
	Amb to T4{1}		39	1.00	4-1 DISP	49	202
	Hydrotest{1}	0	0	1.00	3-1 OCC	12	219
	Sus.+T1{1}			1.00	5-1 CRUP	54	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	69	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	52	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	68	<NOTE 1>
C08	Max P{1}				HOOP	57	88
	GR + Max P{1}	72		1.00	2-1 SUST	38	88
	TR:Amb to T3{1}		464	1.00	4-1 DISP	69	213
	Amb to T1{1}		337	1.00	4-1 DISP	50	213
	Amb to T2{1}		443	1.00	4-1 DISP	66	201
	Amb to T3{1}		464	1.00	4-1 DISP	69	213
	Amb to T4{1}		189	1.00	4-1 DISP	28	240
	Hydrotest{1}	0	0	1.00	3-1 OCC	21	219
	Sus.+T1{1}			1.00	5-1 CRUP	55	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	60	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	61	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	48	<NOTE 1>

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F_LINE_REV0

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AutoPIPE Plus 9.2.1 RESULT PAGE 266

EN 13480 (2002) CODE COMPLIANCE								
(Moments in N.m)			(Stress in N/mm2)					
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code	
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
C018 + Max P{1}						HOOP	32	88
	GR + Max P{1}	11			1.00	2-1 SUST	31	88
	TR:T2 to T3{1}			54	1.00	4-1 DISP	69	201
	Amb to T1{1}			18	1.00	4-1 DISP	23	247
	Amb to T2{1}			54	1.00	4-1 DISP	69	201

			F_LINE_REV0.00T				
Amb to T3{1}			2	1.00	4-1 DISP	2	247
Amb to T4{1}			6	1.00	4-1 DISP	8	240
Hydrotest{1}	0	0		1.00	3-1 OCC	12	219
Sus.+T1{1}				1.00	5-1 CRUP	39	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	54	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	32	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	34	<NOTE 1>
C018 - Max P{1}					HOOP	32	88
GR + Max P{1}	11			1.00	2-1 SUST	31	88
TR:T2 to T3{1}			54	1.00	4-1 DISP	69	201
Amb to T1{1}			18	1.00	4-1 DISP	23	247
Amb to T2{1}			54	1.00	4-1 DISP	69	201
Amb to T3{1}			2	1.00	4-1 DISP	2	247
Amb to T4{1}			6	1.00	4-1 DISP	8	240
Hydrotest{1}	0	0		1.00	3-1 OCC	12	219
Sus.+T1{1}				1.00	5-1 CRUP	39	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	54	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	32	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	34	<NOTE 1>
D07 F- Max P{1}					HOOP	66	88
GR + Max P{1}	72			1.32	2-1 SUST	38	88
TR:Amb to T1{1}			622	1.32	4-1 DISP	69	213
Amb to T1{1}			622	1.32	4-1 DISP	69	213
Amb to T2{1}			550	1.32	4-1 DISP	61	201
Amb to T3{1}			620	1.32	4-1 DISP	68	213
Amb to T4{1}			589	1.32	4-1 DISP	65	213
Hydrotest{1}	0	0		1.32	3-1 OCC	24	219
Sus.+T1{1}				1.32	5-1 CRUP	55	<NOTE 1>
Sus.+T2{1}				1.32	5-1 CRUP	53	<NOTE 1>
Sus.+T3{1}				1.32	5-1 CRUP	55	<NOTE 1>
Sus.+T4{1}				1.32	5-1 CRUP	54	<NOTE 1>
F06 N+ Max P{1}					HOOP	13	104
GR + Max P{1}	67			1.78	2-1 SUST	9	104
TR:T2 to T3{1}			1087	1.78	4-1 DISP	68	217
Amb to T1{1}			661	1.78	4-1 DISP	42	247
Amb to T2{1}			722	1.78	4-1 DISP	45	247
Amb to T3{1}			581	1.78	4-1 DISP	37	217
Amb to T4{1}			352	1.78	4-1 DISP	22	240
Hydrotest{1}	0	0		1.78	3-1 OCC	1	219
Sus.+T1{1}				1.78	5-1 CRUP	20	<NOTE 1>
Sus.+T2{1}				1.78	5-1 CRUP	21	<NOTE 1>

Sus.+T3{1}	F_LINE_REV0.OUT	1.78	5-1 CRUP	18 <NOTE 1>
Sus.+T4{1}		1.78	5-1 CRUP	15 <NOTE 1>

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F_LINE_REV0

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BENTLEY

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AutoPIPE Plus 9.2.1 RESULT PAGE 267

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

G06 F-	Max P{1}					HOOP	13	104	
	GR + Max P{1}	29			1.78	2-1 SUST	7	104	
	TR:T2 to T3{1}			1084	1.78	4-1 DISP	68	217	
	Amb to T1{1}			468	1.78	4-1 DISP	29	247	
	Amb to T2{1}			561	1.78	4-1 DISP	35	247	
	Amb to T3{1}			787	1.78	4-1 DISP	49	217	
	Amb to T4{1}			182	1.78	4-1 DISP	11	240	
	Hydrotest{1}	0	0		1.78	3-1 OCC	1	219	
	Sus.+T1{1}				1.78	5-1 CRUP	15	<NOTE 1>	
	Sus.+T2{1}				1.78	5-1 CRUP	16	<NOTE 1>	
	Sus.+T3{1}				1.78	5-1 CRUP	20	<NOTE 1>	
	Sus.+T4{1}				1.78	5-1 CRUP	10	<NOTE 1>	
B04	Max P{1}					HOOP	29	100	
	GR + Max P{1}	85			1.00	2-1 SUST	26	100	
	TR:Amb to T2{1}			459	1.00	4-1 DISP	68	213	
	Amb to T1{1}			456	1.00	4-1 DISP	68	213	
	Amb to T2{1}			459	1.00	4-1 DISP	68	213	
	Amb to T3{1}			457	1.00	4-1 DISP	68	213	
	Amb to T4{1}			453	1.00	4-1 DISP	67	213	
	Hydrotest{1}	0	0		1.00	3-1 OCC	21	219	
	Sus.+T1{1}				1.00	5-1 CRUP	49	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	49	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	49	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	49	<NOTE 1>	
C12 N-	Max P{1}					HOOP	57	88	
	GR + Max P{1}	27			1.00	2-1 SUST	32	88	
	TR:Amb to T2{1}			456	1.00	4-1 DISP	68	201	
	Amb to T1{1}			396	1.00	4-1 DISP	59	213	

			F_LINE_REV0	OUT				
	Amb to T2{1}		456	1.00	4-1	DISP	68	201
	Amb to T3{1}		314	1.00	4-1	DISP	47	213
	Amb to T4{1}		266	1.00	4-1	DISP	39	240
	Hydrotest{1}	0	0	1.00	3-1	OCC	21	219
	Sus.+T1{1}			1.00	5-1	CRUP	51	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	54	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	47	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	45	<NOTE 1>
A04	Max P{1}					HOOP	29	100
	GR + Max P{1}	6		1.22	2-1	SUST	14	100
	TR:Amb to T2{1}		500	1.22	4-1	DISP	67	213
	Amb to T1{1}		397	1.22	4-1	DISP	53	213
	Amb to T2{1}		500	1.22	4-1	DISP	67	213
	Amb to T3{1}		398	1.22	4-1	DISP	53	213
	Amb to T4{1}		232	1.22	4-1	DISP	31	213
	Hydrotest{1}	0	0	1.22	3-1	OCC	21	219
	Sus.+T1{1}			1.22	5-1	CRUP	29	<NOTE 1>
	Sus.+T2{1}			1.22	5-1	CRUP	33	<NOTE 1>
	Sus.+T3{1}			1.22	5-1	CRUP	29	<NOTE 1>
	Sus.+T4{1}			1.22	5-1	CRUP	23	<NOTE 1>

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F_LINE_REV0

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AutoPIPE Plus 9.2.1

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
A03	Max P{1}					HOOP	29	100	
	GR + Max P{1}	13			1.22	2-1 SUST	15	100	
	TR:Amb to T2{1}			498	1.22	4-1 DISP	67	213	
	Amb to T1{1}			402	1.22	4-1 DISP	54	213	
	Amb to T2{1}			498	1.22	4-1 DISP	67	213	
	Amb to T3{1}			406	1.22	4-1 DISP	55	213	
	Amb to T4{1}			246	1.22	4-1 DISP	33	213	
	Hydrotest{1}	0	0		1.22	3-1 OCC	21	219	
	Sus.+T1{1}				1.22	5-1 CRUP	30	<NOTE 1>	
	Sus.+T2{1}				1.22	5-1 CRUP	34	<NOTE 1>	
	Sus.+T3{1}				1.22	5-1 CRUP	30	<NOTE 1>	

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	Sus.+T4{1}		1.22	5-1	CRUP	24	<NOTE 1>
D01 F+	Max P{1}				HOOP	33	100
	GR + Max P{1}	16	1.00	2-1	SUST	17	100
	TR:Amb to T2{1}		796	1.00	4-1 DISP	66	213
	Amb to T1{1}		603	1.00	4-1 DISP	50	213
	Amb to T2{1}		796	1.00	4-1 DISP	66	213
	Amb to T3{1}		603	1.00	4-1 DISP	50	213
	Amb to T4{1}		615	1.00	4-1 DISP	51	213
	Hydrotest{1}	0 0	1.00	3-1	OCC	24	219
	Sus.+T1{1}		1.00	5-1	CRUP	34	<NOTE 1>
	Sus.+T2{1}		1.00	5-1	CRUP	39	<NOTE 1>
	Sus.+T3{1}		1.00	5-1	CRUP	34	<NOTE 1>
	Sus.+T4{1}		1.00	5-1	CRUP	34	<NOTE 1>
M16	Max P{1}				HOOP	66	153
	GR + Max P{1}	0	2.00	2-1	SUST	32	153
	TR:Amb to T2{1}		2	2.00	4-1 DISP	0	247
	Amb to T1{1}		2	2.00	4-1 DISP	0	247
	Amb to T2{1}		2	2.00	4-1 DISP	0	247
	Amb to T3{1}		2	2.00	4-1 DISP	0	247
	Amb to T4{1}		2	2.00	4-1 DISP	0	247
	Hydrotest{1}	0 0	2.00	3-1	OCC	24	219
	Sus.+T1{1}		2.00	5-1	CRUP	32	<NOTE 1>
	Sus.+T2{1}		2.00	5-1	CRUP	32	<NOTE 1>
	Sus.+T3{1}		2.00	5-1	CRUP	32	<NOTE 1>
	Sus.+T4{1}		2.00	5-1	CRUP	32	<NOTE 1>
M24	Max P{1}				HOOP	66	88
	GR + Max P{1}	1	2.00	2-1	SUST	32	88
	TR:Amb to T2{1}		19	2.00	4-1 DISP	3	201
	Amb to T1{1}		15	2.00	4-1 DISP	2	213
	Amb to T2{1}		19	2.00	4-1 DISP	3	201
	Amb to T3{1}		9	2.00	4-1 DISP	2	213
	Amb to T4{1}		14	2.00	4-1 DISP	2	213
	Hydrotest{1}	0 0	2.00	3-1	OCC	24	219
	Sus.+T1{1}		2.00	5-1	CRUP	32	<NOTE 1>
	Sus.+T2{1}		2.00	5-1	CRUP	32	<NOTE 1>
	Sus.+T3{1}		2.00	5-1	CRUP	32	<NOTE 1>
	Sus.+T4{1}		2.00	5-1	CRUP	32	<NOTE 1>

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Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F					
D26	Max P{1}							HOOP	66	88
	GR + Max P{1}	1			1.00		2-1	SUST	32	88
	TR:Amb to T2{1}			19	1.00		4-1	DISP	1	201
	Amb to T1{1}			15	1.00		4-1	DISP	1	213
	Amb to T2{1}			19	1.00		4-1	DISP	1	201
	Amb to T3{1}			9	1.00		4-1	DISP	1	213
	Amb to T4{1}			14	1.00		4-1	DISP	1	213
	Hydrotest{1}	0	0		1.00		3-1	OCC	24	219
	Sus.+T1{1}				1.00		5-1	CRUP	32	<NOTE 1>
	Sus.+T2{1}				1.00		5-1	CRUP	32	<NOTE 1>
	Sus.+T3{1}				1.00		5-1	CRUP	32	<NOTE 1>
	Sus.+T4{1}				1.00		5-1	CRUP	32	<NOTE 1>
E06	Max P{1}							HOOP	66	88
	GR + Max P{1}	3			2.00		2-1	SUST	32	88
	TR:Amb to T2{1}			373	2.00		4-1	DISP	62	201
	Amb to T1{1}			305	2.00		4-1	DISP	51	213
	Amb to T2{1}			373	2.00		4-1	DISP	62	201
	Amb to T3{1}			305	2.00		4-1	DISP	51	213
	Amb to T4{1}			304	2.00		4-1	DISP	51	213
	Hydrotest{1}	0	0		2.00		3-1	OCC	24	219
	Sus.+T1{1}				2.00		5-1	CRUP	45	<NOTE 1>
	Sus.+T2{1}				2.00		5-1	CRUP	48	<NOTE 1>
	Sus.+T3{1}				2.00		5-1	CRUP	45	<NOTE 1>
	Sus.+T4{1}				2.00		5-1	CRUP	45	<NOTE 1>
D09	Max P{1}							HOOP	66	88
	GR + Max P{1}	4			1.00		2-1	SUST	32	88
	TR:Amb to T2{1}			390	1.00		4-1	DISP	33	201
	Amb to T1{1}			318	1.00		4-1	DISP	27	213
	Amb to T2{1}			390	1.00		4-1	DISP	33	201
	Amb to T3{1}			318	1.00		4-1	DISP	27	213
	Amb to T4{1}			318	1.00		4-1	DISP	27	213
	Hydrotest{1}	0	0		1.00		3-1	OCC	24	219
	Sus.+T1{1}				1.00		5-1	CRUP	41	<NOTE 1>
	Sus.+T2{1}				1.00		5-1	CRUP	43	<NOTE 1>

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	Sus.+T3{1}			1.00	5-1	CRUP	41	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	41	<NOTE 1>
D18	Max P{1}					HOOP	66	88
	GR + Max P{1}	4		2.00	2-1	SUST	32	88
	TR:Amb to T2{1}		318	2.00	4-1	DISP	53	201
	Amb to T1{1}		300	2.00	4-1	DISP	50	213
	Amb to T2{1}		318	2.00	4-1	DISP	53	201
	Amb to T3{1}		300	2.00	4-1	DISP	50	213
	Amb to T4{1}		294	2.00	4-1	DISP	49	213
	Hydrotest{1}	0	0	2.00	3-1	OCC	24	219
	Sus.+T1{1}			2.00	5-1	CRUP	45	<NOTE 1>
	Sus.+T2{1}			2.00	5-1	CRUP	45	<NOTE 1>
	Sus.+T3{1}			2.00	5-1	CRUP	45	<NOTE 1>
	Sus.+T4{1}			2.00	5-1	CRUP	44	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

D09	+ Max P{1}					HOOP	66	88	
	GR + Max P{1}	7			1.00	2-1 SUST	32	88	
	TR:Amb to T2{1}			354	1.00	4-1 DISP	30	201	
	Amb to T1{1}			343	1.00	4-1 DISP	29	213	
	Amb to T2{1}			354	1.00	4-1 DISP	30	201	
	Amb to T3{1}			344	1.00	4-1 DISP	29	213	
	Amb to T4{1}			335	1.00	4-1 DISP	28	213	
	Hydrotest{1}	0	0		1.00	3-1 OCC	24	219	
	Sus.+T1{1}				1.00	5-1 CRUP	42	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	42	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	42	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	41	<NOTE 1>	
D09	- Max P{1}					HOOP	66	88	
	GR + Max P{1}	7			1.00	2-1 SUST	32	88	
	TR:Amb to T2{1}			737	1.00	4-1 DISP	56	201	
	Amb to T1{1}			657	1.00	4-1 DISP	50	213	

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Amb to T2{1}			737	1.00	4-1 DISP	56	201
Amb to T3{1}			658	1.00	4-1 DISP	50	213
Amb to T4{1}			648	1.00	4-1 DISP	50	213
Hydrotest{1}	0	0		1.00	3-1 OCC	24	219
Sus.+T1{1}				1.00	5-1 CRUP	49	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	51	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	49	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	49	<NOTE 1>
D08 F+ Max P{1}					HOOP	66	88
GR + Max P{1}	20			1.00	2-1 SUST	33	88
TR:Amb to T3{1}			238	1.00	4-1 DISP	20	213
Amb to T1{1}			236	1.00	4-1 DISP	20	213
Amb to T2{1}			154	1.00	4-1 DISP	13	201
Amb to T3{1}			238	1.00	4-1 DISP	20	213
Amb to T4{1}			216	1.00	4-1 DISP	18	213
Hydrotest{1}	0	0		1.00	3-1 OCC	24	219
Sus.+T1{1}				1.00	5-1 CRUP	40	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	38	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	40	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	39	<NOTE 1>
D08 F- Max P{1}					HOOP	66	88
GR + Max P{1}	20			1.32	2-1 SUST	33	88
TR:Amb to T3{1}			238	1.32	4-1 DISP	26	213
Amb to T1{1}			236	1.32	4-1 DISP	26	213
Amb to T2{1}			154	1.32	4-1 DISP	17	201
Amb to T3{1}			238	1.32	4-1 DISP	26	213
Amb to T4{1}			216	1.32	4-1 DISP	24	213
Hydrotest{1}	0	0		1.32	3-1 OCC	24	219
Sus.+T1{1}				1.32	5-1 CRUP	40	<NOTE 1>
Sus.+T2{1}				1.32	5-1 CRUP	38	<NOTE 1>
Sus.+T3{1}				1.32	5-1 CRUP	40	<NOTE 1>
Sus.+T4{1}				1.32	5-1 CRUP	39	<NOTE 1>

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F_LINE_REV0

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BENTLEY

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code

F_LINE_REV0.OUT

name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
D08 N+	Max P{1}					HOOP	66	88
	GR + Max P{1}	12			1.32	2-1 SUST	33	88
	TR:Amb to T3{1}			162	1.32	4-1 DISP	18	213
	Amb to T1{1}			158	1.32	4-1 DISP	17	213
	Amb to T2{1}			99	1.32	4-1 DISP	11	201
	Amb to T3{1}			162	1.32	4-1 DISP	18	213
	Amb to T4{1}			143	1.32	4-1 DISP	16	213
	Hydrotest{1}	0	0		1.32	3-1 OCC	24	219
	Sus.+T1{1}				1.32	5-1 CRUP	37	<NOTE 1>
	Sus.+T2{1}				1.32	5-1 CRUP	35	<NOTE 1>
	Sus.+T3{1}				1.32	5-1 CRUP	37	<NOTE 1>
	Sus.+T4{1}				1.32	5-1 CRUP	37	<NOTE 1>
D08 N-	Max P{1}					HOOP	66	88
	GR + Max P{1}	12			1.00	2-1 SUST	33	88
	TR:Amb to T3{1}			162	1.00	4-1 DISP	14	213
	Amb to T1{1}			158	1.00	4-1 DISP	13	213
	Amb to T2{1}			99	1.00	4-1 DISP	8	201
	Amb to T3{1}			162	1.00	4-1 DISP	14	213
	Amb to T4{1}			143	1.00	4-1 DISP	12	213
	Hydrotest{1}	0	0		1.00	3-1 OCC	24	219
	Sus.+T1{1}				1.00	5-1 CRUP	37	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	35	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	37	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	37	<NOTE 1>
D07 F+	Max P{1}					HOOP	66	88
	GR + Max P{1}	72			1.00	2-1 SUST	38	88
	TR:Amb to T1{1}			622	1.00	4-1 DISP	52	213
	Amb to T1{1}			622	1.00	4-1 DISP	52	213
	Amb to T2{1}			550	1.00	4-1 DISP	46	201
	Amb to T3{1}			620	1.00	4-1 DISP	52	213
	Amb to T4{1}			589	1.00	4-1 DISP	49	213
	Hydrotest{1}	0	0		1.00	3-1 OCC	24	219
	Sus.+T1{1}				1.00	5-1 CRUP	55	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	53	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	55	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	54	<NOTE 1>
D07 N-	Max P{1}					HOOP	66	88
	GR + Max P{1}	75			1.00	2-1 SUST	38	88
	TR:Amb to T1{1}			632	1.00	4-1 DISP	53	213

Amb to T1{1}			632	1.00	4-1 DISP	53	213
Amb to T2{1}			558	1.00	4-1 DISP	47	201
Amb to T3{1}			630	1.00	4-1 DISP	53	213
Amb to T4{1}			599	1.00	4-1 DISP	50	213
Hydrotest{1}	0	0		1.00	3-1 OCC	24	219
Sus.+T1{1}				1.00	5-1 CRUP	55	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	53	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	55	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	54	<NOTE 1>

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		F_LINE_REV0.OUT					
	Sus.+T2{1}			1.00	5-1 CRUP	57	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	59	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	58	<NOTE 1>
D22	+ Max P{1}				HOOP	66	88
	GR + Max P{1}	105		1.00	2-1 SUST	40	88
	TR:Amb to T1{1}		614	1.00	4-1 DISP	51	213
	Amb to T1{1}		614	1.00	4-1 DISP	51	213
	Amb to T2{1}		571	1.00	4-1 DISP	48	201
	Amb to T3{1}		613	1.00	4-1 DISP	51	213
	Amb to T4{1}		590	1.00	4-1 DISP	49	213
	Hydrotest{1}	0	0	1.00	3-1 OCC	24	219
	Sus.+T1{1}			1.00	5-1 CRUP	57	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	56	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	57	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	57	<NOTE 1>
D22	- Max P{1}				HOOP	66	88
	GR + Max P{1}	105		1.00	2-1 SUST	40	88
	TR:Amb to T1{1}		614	1.00	4-1 DISP	51	213
	Amb to T1{1}		614	1.00	4-1 DISP	51	213
	Amb to T2{1}		571	1.00	4-1 DISP	48	201
	Amb to T3{1}		613	1.00	4-1 DISP	51	213
	Amb to T4{1}		590	1.00	4-1 DISP	49	213
	Hydrotest{1}	0	0	1.00	3-1 OCC	24	219
	Sus.+T1{1}			1.00	5-1 CRUP	57	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	56	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	57	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	57	<NOTE 1>

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F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 273

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)		
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
D23	+ Max P{1}					HOOP	66 88
	GR + Max P{1}	128			1.00	2-1 SUST	42 88
	TR:Amb to T2{1}			527	1.00	4-1 DISP	44 201

			F_LINE_REV0.0UT				
	Amb to T1{1}		524	1.00	4-1 DISP	44	213
	Amb to T2{1}		527	1.00	4-1 DISP	44	201
	Amb to T3{1}		524	1.00	4-1 DISP	44	213
	Amb to T4{1}		514	1.00	4-1 DISP	43	213
	Hydrotest{1}	0	0	1.00	3-1 OCC	24	219
	Sus.+T1{1}			1.00	5-1 CRUP	57	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	57	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	57	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	57	<NOTE 1>
D23	- Max P{1}				HOOP	66	88
	GR + Max P{1}	128		1.00	2-1 SUST	42	88
	TR:Amb to T2{1}		527	1.00	4-1 DISP	44	201
	Amb to T1{1}		524	1.00	4-1 DISP	44	213
	Amb to T2{1}		527	1.00	4-1 DISP	44	201
	Amb to T3{1}		524	1.00	4-1 DISP	44	213
	Amb to T4{1}		514	1.00	4-1 DISP	43	213
	Hydrotest{1}	0	0	1.00	3-1 OCC	24	219
	Sus.+T1{1}			1.00	5-1 CRUP	57	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	57	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	57	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	57	<NOTE 1>
D19	+ Max P{1}				HOOP	66	88
	GR + Max P{1}	15		1.00	2-1 SUST	33	88
	TR:Amb to T2{1}		491	1.00	4-1 DISP	41	201
	Amb to T1{1}		450	1.00	4-1 DISP	38	213
	Amb to T2{1}		491	1.00	4-1 DISP	41	201
	Amb to T3{1}		450	1.00	4-1 DISP	38	213
	Amb to T4{1}		451	1.00	4-1 DISP	38	213
	Hydrotest{1}	0	0	1.00	3-1 OCC	24	219
	Sus.+T1{1}			1.00	5-1 CRUP	45	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	47	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	45	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	45	<NOTE 1>
D19	- Max P{1}				HOOP	66	88
	GR + Max P{1}	15		1.00	2-1 SUST	33	88
	TR:Amb to T2{1}		491	1.00	4-1 DISP	41	201
	Amb to T1{1}		450	1.00	4-1 DISP	38	213
	Amb to T2{1}		491	1.00	4-1 DISP	41	201
	Amb to T3{1}		450	1.00	4-1 DISP	38	213
	Amb to T4{1}		451	1.00	4-1 DISP	38	213
	Hydrotest{1}	0	0	1.00	3-1 OCC	24	219

Sus.+T1{1}	F_LINE_REV0.OUT	1.00	5-1	CRUP	45 <NOTE 1>
Sus.+T2{1}		1.00	5-1	CRUP	47 <NOTE 1>
Sus.+T3{1}		1.00	5-1	CRUP	45 <NOTE 1>
Sus.+T4{1}		1.00	5-1	CRUP	45 <NOTE 1>

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F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

10:17 AM

AutoPIPE Plus 9.2.1

RESULT PAGE 274

EN 13480 (2002) CODE COMPLIANCE

Point	Load	(Moments in N.m)			(Stress in N/mm2)			Code	Code
		Ma	Mb	Mc	S.I.F	Eq. Load			
name	combination	(Sus.)	(Occ.)	(Exp.)		no. type	Stress	Allow.	
D17	Max P{1}					HOOP	66	88	
	GR + Max P{1}	150			1.00	2-1 SUST	44	88	
	TR:Amb to T2{1}			462	1.00	4-1 DISP	39	201	
	Amb to T1{1}			391	1.00	4-1 DISP	33	213	
	Amb to T2{1}			462	1.00	4-1 DISP	39	201	
	Amb to T3{1}			391	1.00	4-1 DISP	33	213	
	Amb to T4{1}			401	1.00	4-1 DISP	33	213	
	Hydrotest{1}	0	0		1.00	3-1 OCC	24	219	
	Sus.+T1{1}				1.00	5-1 CRUP	55	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	57	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	55	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	55	<NOTE 1>	
C06 +	Max P{1}					HOOP	57	88	
	GR + Max P{1}	114			1.00	2-1 SUST	44	88	
	TR:Amb to T3{1}			444	1.00	4-1 DISP	66	213	
	Amb to T1{1}			245	1.00	4-1 DISP	36	213	
	Amb to T2{1}			338	1.00	4-1 DISP	50	201	
	Amb to T3{1}			444	1.00	4-1 DISP	66	213	
	Amb to T4{1}			153	1.00	4-1 DISP	23	240	
	Hydrotest{1}	0	0		1.00	3-1 OCC	21	219	
	Sus.+T1{1}				1.00	5-1 CRUP	57	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	61	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	66	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	52	<NOTE 1>	
C06 -	Max P{1}					HOOP	57	88	
	GR + Max P{1}	113			1.00	2-1 SUST	44	88	

			F_LINE_REV0.0UT					
	TR:Amb to T3{1}		444	1.00	4-1 DISP	66	213	
	Amb to T1{1}		254	1.00	4-1 DISP	38	213	
	Amb to T2{1}		345	1.00	4-1 DISP	51	201	
	Amb to T3{1}		444	1.00	4-1 DISP	66	213	
	Amb to T4{1}		149	1.00	4-1 DISP	22	240	
	Hydrotest{1}	0	0	1.00	3-1 OCC	21	219	
	Sus.+T1{1}			1.00	5-1 CRUP	57	<NOTE 1>	
	Sus.+T2{1}			1.00	5-1 CRUP	61	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1 CRUP	66	<NOTE 1>	
	Sus.+T4{1}			1.00	5-1 CRUP	52	<NOTE 1>	
C04	Max P{1}				HOOP	29	100	
	GR + Max P{1}	81		1.00	2-1 SUST	26	100	
	TR:Amb to T2{1}		444	1.00	4-1 DISP	66	213	
	Amb to T1{1}		441	1.00	4-1 DISP	65	213	
	Amb to T2{1}		444	1.00	4-1 DISP	66	213	
	Amb to T3{1}		438	1.00	4-1 DISP	65	213	
	Amb to T4{1}		429	1.00	4-1 DISP	64	213	
	Hydrotest{1}	0	0	1.00	3-1 OCC	21	219	
	Sus.+T1{1}			1.00	5-1 CRUP	48	<NOTE 1>	
	Sus.+T2{1}			1.00	5-1 CRUP	48	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1 CRUP	47	<NOTE 1>	
	Sus.+T4{1}			1.00	5-1 CRUP	47	<NOTE 1>	

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F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

10:17 AM

AutoPIPE Plus 9.2.1

RESULT PAGE 275

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
D01 N-	Max P{1}					HOOP	33	100	
	GR + Max P{1}	29			1.00	2-1 SUST	18	100	
	TR:Amb to T2{1}			788	1.00	4-1 DISP	66	213	
	Amb to T1{1}			600	1.00	4-1 DISP	50	213	
	Amb to T2{1}			788	1.00	4-1 DISP	66	213	
	Amb to T3{1}			600	1.00	4-1 DISP	50	213	
	Amb to T4{1}			613	1.00	4-1 DISP	51	213	
	Hydrotest{1}	0	0		1.00	3-1 OCC	24	219	
	Sus.+T1{1}				1.00	5-1 CRUP	35	<NOTE 1>	

F_LINE_REV0.OUT

Sus.+T2{1}			1.00	5-1	CRUP	40	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	35	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	35	<NOTE 1>
C12 F+ Max P{1}					HOOP	57	88
GR + Max P{1}	35		1.00	2-1	SUST	33	88
TR:Amb to T2{1}		442	1.00	4-1	DISP	65	201
Amb to T1{1}		391	1.00	4-1	DISP	58	213
Amb to T2{1}		442	1.00	4-1	DISP	65	201
Amb to T3{1}		315	1.00	4-1	DISP	47	213
Amb to T4{1}		274	1.00	4-1	DISP	41	240
Hydrotest{1}	0	0	1.00	3-1	OCC	21	219
Sus.+T1{1}			1.00	5-1	CRUP	52	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	55	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	48	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	46	<NOTE 1>
B12 + Max P{1}					HOOP	57	88
GR + Max P{1}	44		1.00	2-1	SUST	34	88
TR:Amb to T2{1}		434	1.00	4-1	DISP	64	201
Amb to T1{1}		413	1.00	4-1	DISP	61	213
Amb to T2{1}		434	1.00	4-1	DISP	64	201
Amb to T3{1}		413	1.00	4-1	DISP	61	213
Amb to T4{1}		378	1.00	4-1	DISP	56	240
Hydrotest{1}	0	0	1.00	3-1	OCC	21	219
Sus.+T1{1}			1.00	5-1	CRUP	54	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	55	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	54	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	53	<NOTE 1>
B12 - Max P{1}					HOOP	57	88
GR + Max P{1}	44		1.00	2-1	SUST	34	88
TR:Amb to T2{1}		434	1.00	4-1	DISP	64	201
Amb to T1{1}		413	1.00	4-1	DISP	61	213
Amb to T2{1}		434	1.00	4-1	DISP	64	201
Amb to T3{1}		413	1.00	4-1	DISP	61	213
Amb to T4{1}		378	1.00	4-1	DISP	56	240
Hydrotest{1}	0	0	1.00	3-1	OCC	21	219
Sus.+T1{1}			1.00	5-1	CRUP	54	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	55	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	54	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	53	<NOTE 1>

F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

10:17 AM

AutoPIPE Plus 9.2.1

RESULT PAGE 276

EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. Load no. type			
K10 N+	Max P{1}					HOOP		32	88
	GR + Max P{1}	8			1.00	2-1 SUST		26	88
	TR:Amb to T2{1}			50	1.00	4-1 DISP		64	201
	Amb to T1{1}			2	1.00	4-1 DISP		3	247
	Amb to T2{1}			50	1.00	4-1 DISP		64	201
	Amb to T3{1}			0	1.00	4-1 DISP		1	247
	Amb to T4{1}			47	1.00	4-1 DISP		60	202
	Hydrotest{1}	0	0		1.00	3-1 OCC		12	219
	Sus.+T1{1}				1.00	5-1 CRUP		27	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP		48	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP		27	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP		47	<NOTE 1>
K10 N-	Max P{1}					HOOP		32	88
	GR + Max P{1}	8			1.00	2-1 SUST		26	88
	TR:Amb to T2{1}			50	1.00	4-1 DISP		64	201
	Amb to T1{1}			2	1.00	4-1 DISP		3	247
	Amb to T2{1}			50	1.00	4-1 DISP		64	201
	Amb to T3{1}			0	1.00	4-1 DISP		1	247
	Amb to T4{1}			47	1.00	4-1 DISP		60	202
	Hydrotest{1}	0	0		1.00	3-1 OCC		12	219
	Sus.+T1{1}				1.00	5-1 CRUP		27	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP		48	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP		27	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP		47	<NOTE 1>
L16	Max P{1}					HOOP		63	88
	GR + Max P{1}	0			1.00	2-1 SUST		30	88
	TR:Amb to T2{1}			5	1.00	4-1 DISP		0	201
	Amb to T1{1}			2	1.00	4-1 DISP		0	247
	Amb to T2{1}			5	1.00	4-1 DISP		0	201
	Amb to T3{1}			0	1.00	4-1 DISP		0	247
	Amb to T4{1}			1	1.00	4-1 DISP		0	240
	Hydrotest{1}	0	0		1.00	3-1 OCC		23	219

Sus.+T1{1}	1.00	5-1 CRUP	30 <NOTE 1>
Sus.+T2{1}	1.00	5-1 CRUP	30 <NOTE 1>
Sus.+T3{1}	1.00	5-1 CRUP	30 <NOTE 1>
Sus.+T4{1}	1.00	5-1 CRUP	30 <NOTE 1>

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(Moments in N.m) (Stress in N/mm²)

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TR:T1 to T2{1}		3	2.00	4-1 DISP	0	201
Amb to T1{1}		0	2.00	4-1 DISP	0	247
Amb to T2{1}		3	2.00	4-1 DISP	0	201
Amb to T3{1}		0	2.00	4-1 DISP	0	247
Amb to T4{1}		3	2.00	4-1 DISP	0	202
Hydrotest{1}	0	0	2.00	3-1 OCC	23	219
Sus.+T1{1}			2.00	5-1 CRUP	30	<NOTE 1>
Sus.+T2{1}			2.00	5-1 CRUP	30	<NOTE 1>
Sus.+T3{1}			2.00	5-1 CRUP	30	<NOTE 1>
Sus.+T4{1}			2.00	5-1 CRUP	30	<NOTE 1>
E03 N+ Max P{1}				HOOP	57	88
GR + Max P{1}	3		1.23	2-1 SUST	28	88
TR:Amb to T2{1}		345	1.23	4-1 DISP	63	201
Amb to T1{1}		283	1.23	4-1 DISP	52	213
Amb to T2{1}		345	1.23	4-1 DISP	63	201
Amb to T3{1}		283	1.23	4-1 DISP	52	213
Amb to T4{1}		282	1.23	4-1 DISP	52	213
Hydrotest{1}	0	0	1.23	3-1 OCC	21	219
Sus.+T1{1}			1.23	5-1 CRUP	42	<NOTE 1>
Sus.+T2{1}			1.23	5-1 CRUP	45	<NOTE 1>
Sus.+T3{1}			1.23	5-1 CRUP	42	<NOTE 1>
Sus.+T4{1}			1.23	5-1 CRUP	42	<NOTE 1>
C16 + Max P{1}				HOOP	57	88
GR + Max P{1}	39		1.00	2-1 SUST	33	88
TR:Amb to T2{1}		426	1.00	4-1 DISP	63	201
Amb to T1{1}		402	1.00	4-1 DISP	60	213
Amb to T2{1}		426	1.00	4-1 DISP	63	201
Amb to T3{1}		424	1.00	4-1 DISP	63	213
Amb to T4{1}		372	1.00	4-1 DISP	55	240
Hydrotest{1}	0	0	1.00	3-1 OCC	21	219
Sus.+T1{1}			1.00	5-1 CRUP	53	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	54	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	54	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	52	<NOTE 1>

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 F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

10:17 AM
AutoPIPE Plus 9.2.1 RESULT PAGE 278

F_LINE_REV0.OUT

Point	Load	(Moments in N.m)			(Stress in N/mm2)			Eq. Load	Code	Code
		Ma	Mb	Mc	S.I.F	no.	type			
name	combination	(Sus.)	(Occ.)	(Exp.)				Stress	Allow.	
C16	- Max P{1}							HOOP	57	88
	GR + Max P{1}	39			1.00	2-1	SUST	33	88	
	TR:Amb to T2{1}			426	1.00	4-1	DISP	63	201	
	Amb to T1{1}			402	1.00	4-1	DISP	60	213	
	Amb to T2{1}			426	1.00	4-1	DISP	63	201	
	Amb to T3{1}			424	1.00	4-1	DISP	63	213	
	Amb to T4{1}			372	1.00	4-1	DISP	55	240	
	Hydrotest{1}	0	0		1.00	3-1	OCC	21	219	
	Sus.+T1{1}				1.00	5-1	CRUP	53	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1	CRUP	54	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1	CRUP	54	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1	CRUP	52	<NOTE 1>	
F07 N-	Max P{1}							HOOP	13	104
	GR + Max P{1}	49			1.00	2-1	SUST	8	104	
	TR:Amb to T3{1}			1769	1.00	4-1	DISP	63	217	
	Amb to T1{1}			615	1.00	4-1	DISP	22	247	
	Amb to T2{1}			667	1.00	4-1	DISP	24	247	
	Amb to T3{1}			1769	1.00	4-1	DISP	63	217	
	Amb to T4{1}			561	1.00	4-1	DISP	20	240	
	Hydrotest{1}	0	0		1.00	3-1	OCC	1	219	
	Sus.+T1{1}				1.00	5-1	CRUP	15	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1	CRUP	16	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1	CRUP	29	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1	CRUP	14	<NOTE 1>	
CH10	Max P{1}							HOOP	39	88
	GR + Max P{1}	7			2.00	2-1	SUST	27	88	
	TR:Amb to T2{1}			43	2.00	4-1	DISP	62	201	
	Amb to T1{1}			19	2.00	4-1	DISP	27	247	
	Amb to T2{1}			43	2.00	4-1	DISP	62	201	
	Amb to T3{1}			4	2.00	4-1	DISP	6	247	
	Amb to T4{1}			4	2.00	4-1	DISP	6	240	
	Hydrotest{1}	0	0		2.00	3-1	OCC	15	219	
	Sus.+T1{1}				2.00	5-1	CRUP	34	<NOTE 1>	
	Sus.+T2{1}				2.00	5-1	CRUP	42	<NOTE 1>	
	Sus.+T3{1}				2.00	5-1	CRUP	28	<NOTE 1>	
	Sus.+T4{1}				2.00	5-1	CRUP	28	<NOTE 1>	
G01 F+	Max P{1}							HOOP	57	88

F_LINE_REV0.OUT

GR + Max P{1}	15		1.00	2-1 SUST	30	88
TR:Amb to T3{1}		412	1.00	4-1 DISP	61	213
Amb to T1{1}		194	1.00	4-1 DISP	29	213
Amb to T2{1}		238	1.00	4-1 DISP	35	201
Amb to T3{1}		412	1.00	4-1 DISP	61	213
Amb to T4{1}		154	1.00	4-1 DISP	23	240
Hydrotest{1}	0	0	1.00	3-1 OCC	21	219
Sus.+T1{1}			1.00	5-1 CRUP	39	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	42	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	50	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	37	<NOTE 1>

 F_LINE_REV0
 09/13/2010 FEED LINE
 10:17 AM
 AutoPIPE Plus 9.2.1

BENTLEY

RESULT PAGE 279

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

C21	+ Max P{1}					HOOP	57	88	
	GR + Max P{1}	2			1.00	2-1 SUST	28	88	
	TR:Amb to T3{1}			401	1.00	4-1 DISP	59	213	
	Amb to T1{1}			279	1.00	4-1 DISP	41	213	
	Amb to T2{1}			341	1.00	4-1 DISP	50	201	
	Amb to T3{1}			401	1.00	4-1 DISP	59	213	
	Amb to T4{1}			216	1.00	4-1 DISP	32	240	
	Hydrotest{1}	0	0		1.00	3-1 OCC	21	219	
	Sus.+T1{1}				1.00	5-1 CRUP	42	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	45	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	48	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	39	<NOTE 1>	
C21	- Max P{1}					HOOP	57	88	
	GR + Max P{1}	2			1.00	2-1 SUST	28	88	
	TR:Amb to T3{1}			401	1.00	4-1 DISP	59	213	
	Amb to T1{1}			279	1.00	4-1 DISP	41	213	
	Amb to T2{1}			341	1.00	4-1 DISP	50	201	
	Amb to T3{1}			401	1.00	4-1 DISP	59	213	
	Amb to T4{1}			216	1.00	4-1 DISP	32	240	

			F_LINE_REV0.OUT					
	Hydrotest{1}	0	0	1.00	3-1	OCC	21	219
	Sus.+T1{1}			1.00	5-1	CRUP	42	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	45	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	48	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	39	<NOTE 1>
C22	+ Max P{1}					HOOP	57	88
	GR + Max P{1}	55		1.00	2-1	SUST	36	88
	TR:Amb to T3{1}		399	1.00	4-1	DISP	59	213
	Amb to T1{1}		352	1.00	4-1	DISP	52	213
	Amb to T2{1}		385	1.00	4-1	DISP	57	201
	Amb to T3{1}		399	1.00	4-1	DISP	59	213
	Amb to T4{1}		316	1.00	4-1	DISP	47	240
	Hydrotest{1}	0	0	1.00	3-1	OCC	21	219
	Sus.+T1{1}			1.00	5-1	CRUP	53	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	55	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	55	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	51	<NOTE 1>
C22	- Max P{1}					HOOP	57	88
	GR + Max P{1}	55		1.00	2-1	SUST	36	88
	TR:Amb to T3{1}		399	1.00	4-1	DISP	59	213
	Amb to T1{1}		352	1.00	4-1	DISP	52	213
	Amb to T2{1}		385	1.00	4-1	DISP	57	201
	Amb to T3{1}		399	1.00	4-1	DISP	59	213
	Amb to T4{1}		316	1.00	4-1	DISP	47	240
	Hydrotest{1}	0	0	1.00	3-1	OCC	21	219
	Sus.+T1{1}			1.00	5-1	CRUP	53	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	55	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	55	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	51	<NOTE 1>

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F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

10:17 AM

AutoPIPE Plus 9.2.1

RESULT PAGE 280

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

G01 N+	Max P{1}					HOOP	57	88	

		F_LINE_REV0.OUT						
	GR + Max P{1}	10		1.23	2-1	SUST	29	88
	TR:Amb to T3{1}		320	1.23	4-1	DISP	59	213
	Amb to T1{1}		186	1.23	4-1	DISP	34	213
	Amb to T2{1}		215	1.23	4-1	DISP	39	201
	Amb to T3{1}		320	1.23	4-1	DISP	59	213
	Amb to T4{1}		147	1.23	4-1	DISP	27	240
	Hydrotest{1}	0	0	1.23	3-1	OCC	21	219
	Sus.+T1{1}			1.23	5-1	CRUP	38	<NOTE 1>
	Sus.+T2{1}			1.23	5-1	CRUP	40	<NOTE 1>
	Sus.+T3{1}			1.23	5-1	CRUP	45	<NOTE 1>
	Sus.+T4{1}			1.23	5-1	CRUP	36	<NOTE 1>
L17	Max P{1}					HOOP	57	88
	GR + Max P{1}	1		2.00	2-1	SUST	28	88
	TR:T2 to T4{1}		39	2.00	4-1	DISP	11	201
	Amb to T1{1}		13	2.00	4-1	DISP	4	213
	Amb to T2{1}		34	2.00	4-1	DISP	10	201
	Amb to T3{1}		5	2.00	4-1	DISP	2	213
	Amb to T4{1}		5	2.00	4-1	DISP	1	240
	Hydrotest{1}	0	0	2.00	3-1	OCC	21	219
	Sus.+T1{1}			2.00	5-1	CRUP	29	<NOTE 1>
	Sus.+T2{1}			2.00	5-1	CRUP	30	<NOTE 1>
	Sus.+T3{1}			2.00	5-1	CRUP	28	<NOTE 1>
	Sus.+T4{1}			2.00	5-1	CRUP	28	<NOTE 1>
C06	Max P{1}					HOOP	57	88
	GR + Max P{1}	1		1.00	2-1	SUST	28	88
	TR:T2 to T4{1}		41	1.00	4-1	DISP	5	201
	Amb to T1{1}		13	1.00	4-1	DISP	2	213
	Amb to T2{1}		36	1.00	4-1	DISP	5	201
	Amb to T3{1}		5	1.00	4-1	DISP	1	213
	Amb to T4{1}		5	1.00	4-1	DISP	1	240
	Hydrotest{1}	0	0	1.00	3-1	OCC	21	219
	Sus.+T1{1}			1.00	5-1	CRUP	28	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	29	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	28	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	28	<NOTE 1>
K01	Max P{1}					HOOP	57	88
	GR + Max P{1}	1		2.00	2-1	SUST	28	88
	TR:T2 to T4{1}		40	2.00	4-1	DISP	12	201
	Amb to T1{1}		18	2.00	4-1	DISP	5	213
	Amb to T2{1}		38	2.00	4-1	DISP	11	201
	Amb to T3{1}		14	2.00	4-1	DISP	4	213

Amb to T4{1}			F_LINE_REV0.OUT 2	2.00	4-1 DISP	1	202
Hydrotest{1}	0	0		2.00	3-1 OCC	21	219
Sus.+T1{1}				2.00	5-1 CRUP	29	<NOTE 1>
Sus.+T2{1}				2.00	5-1 CRUP	31	<NOTE 1>
Sus.+T3{1}				2.00	5-1 CRUP	29	<NOTE 1>
Sus.+T4{1}				2.00	5-1 CRUP	28	<NOTE 1>

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F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

10:17 AM
AutoPIPE Plus 9.2.1 RESULT PAGE 281

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

B06	Max P{1}					HOOP	57	88	
	GR + Max P{1}	2			1.00	2-1 SUST	28	88	
	TR:T2 to T4{1}			42	1.00	4-1 DISP	6	201	
	Amb to T1{1}			19	1.00	4-1 DISP	3	213	
	Amb to T2{1}			40	1.00	4-1 DISP	5	201	
	Amb to T3{1}			15	1.00	4-1 DISP	2	213	
	Amb to T4{1}			2	1.00	4-1 DISP	0	202	
	Hydrotest{1}	0	0		1.00	3-1 OCC	21	219	
	Sus.+T1{1}				1.00	5-1 CRUP	29	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	30	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	28	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	28	<NOTE 1>	
G02	Max P{1}					HOOP	57	88	
	GR + Max P{1}	39			1.00	2-1 SUST	33	88	
	TR:Amb to T3{1}			299	1.00	4-1 DISP	44	213	
	Amb to T1{1}			135	1.00	4-1 DISP	20	213	
	Amb to T2{1}			142	1.00	4-1 DISP	21	201	
	Amb to T3{1}			299	1.00	4-1 DISP	44	213	
	Amb to T4{1}			145	1.00	4-1 DISP	22	240	
	Hydrotest{1}	0	0		1.00	3-1 OCC	21	219	
	Sus.+T1{1}				1.00	5-1 CRUP	40	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	40	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	48	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	41	<NOTE 1>	

F_LINE_REV0.OUT									
G15	+	Max P{1}					HOOP	57	88
		GR + Max P{1}	32		1.00	2-1	SUST	32	88
		TR:Amb to T3{1}		289	1.00	4-1	DISP	43	213
		Amb to T1{1}		133	1.00	4-1	DISP	20	213
		Amb to T2{1}		146	1.00	4-1	DISP	22	201
		Amb to T3{1}		289	1.00	4-1	DISP	43	213
		Amb to T4{1}		146	1.00	4-1	DISP	22	240
		Hydrotest{1}	0	0	1.00	3-1	OCC	21	219
		Sus.+T1{1}			1.00	5-1	CRUP	39	<NOTE 1>
		Sus.+T2{1}			1.00	5-1	CRUP	40	<NOTE 1>
		Sus.+T3{1}			1.00	5-1	CRUP	47	<NOTE 1>
		Sus.+T4{1}			1.00	5-1	CRUP	40	<NOTE 1>
G15	-	Max P{1}					HOOP	57	88
		GR + Max P{1}	32		1.00	2-1	SUST	32	88
		TR:Amb to T3{1}		289	1.00	4-1	DISP	43	213
		Amb to T1{1}		133	1.00	4-1	DISP	20	213
		Amb to T2{1}		146	1.00	4-1	DISP	22	201
		Amb to T3{1}		289	1.00	4-1	DISP	43	213
		Amb to T4{1}		146	1.00	4-1	DISP	22	240
		Hydrotest{1}	0	0	1.00	3-1	OCC	21	219
		Sus.+T1{1}			1.00	5-1	CRUP	39	<NOTE 1>
		Sus.+T2{1}			1.00	5-1	CRUP	40	<NOTE 1>
		Sus.+T3{1}			1.00	5-1	CRUP	47	<NOTE 1>
		Sus.+T4{1}			1.00	5-1	CRUP	40	<NOTE 1>

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F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

10:17 AM

AutoPIPE Plus 9.2.1

RESULT PAGE 282

EN 13480 (2002) CODE COMPLIANCE									
		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
G14	Max P{1}					HOOP	57	88	
	GR + Max P{1}	42			1.00	2-1 SUST	34	88	
	TR:Amb to T3{1}			313	1.00	4-1 DISP	46	213	
	Amb to T1{1}			146	1.00	4-1 DISP	22	213	
	Amb to T2{1}			169	1.00	4-1 DISP	25	201	
	Amb to T3{1}			313	1.00	4-1 DISP	46	213	
	Amb to T4{1}			148	1.00	4-1 DISP	22	240	

F_LINE_REV0.OUT

Hydrotest{1}	0	0	1.00	3-1	OCC	21	219
Sus.+T1{1}			1.00	5-1	CRUP	41	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	42	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	49	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	41	<NOTE 1>
G16 + Max P{1}					HOOP	57	88
GR + Max P{1}	49		1.00	2-1	SUST	35	88
TR:Amb to T3{1}		359	1.00	4-1	DISP	53	213
Amb to T1{1}		169	1.00	4-1	DISP	25	213
Amb to T2{1}		203	1.00	4-1	DISP	30	201
Amb to T3{1}		359	1.00	4-1	DISP	53	213
Amb to T4{1}		151	1.00	4-1	DISP	22	240
Hydrotest{1}	0	0	1.00	3-1	OCC	21	219
Sus.+T1{1}			1.00	5-1	CRUP	43	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	45	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	53	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	42	<NOTE 1>
G16 - Max P{1}					HOOP	57	88
GR + Max P{1}	49		1.00	2-1	SUST	35	88
TR:Amb to T3{1}		359	1.00	4-1	DISP	53	213
Amb to T1{1}		169	1.00	4-1	DISP	25	213
Amb to T2{1}		203	1.00	4-1	DISP	30	201
Amb to T3{1}		359	1.00	4-1	DISP	53	213
Amb to T4{1}		151	1.00	4-1	DISP	22	240
Hydrotest{1}	0	0	1.00	3-1	OCC	21	219
Sus.+T1{1}			1.00	5-1	CRUP	43	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	45	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	53	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	42	<NOTE 1>
G01 N- Max P{1}					HOOP	57	88
GR + Max P{1}	10		1.00	2-1	SUST	29	88
TR:Amb to T3{1}		320	1.00	4-1	DISP	47	213
Amb to T1{1}		186	1.00	4-1	DISP	28	213
Amb to T2{1}		215	1.00	4-1	DISP	32	201
Amb to T3{1}		320	1.00	4-1	DISP	47	213
Amb to T4{1}		147	1.00	4-1	DISP	22	240
Hydrotest{1}	0	0	1.00	3-1	OCC	21	219
Sus.+T1{1}			1.00	5-1	CRUP	38	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	40	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	45	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	36	<NOTE 1>

BENTLEY

RESULT PAGE 283

(Stress in N/mm²)

Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.

C07	Max P{1}					HOOB	57	88
	GR + Max P{1}	9			1.00	2-1 SUST	29	88
	TR:T2 to T3{1}			224	1.00	4-1 DISP	30	201
	Amb to T1{1}			194	1.00	4-1 DISP	26	213
	Amb to T2{1}			211	1.00	4-1 DISP	28	201
	Amb to T3{1}			186	1.00	4-1 DISP	25	213
	Amb to T4{1}			149	1.00	4-1 DISP	20	240
	Hydrotest{1}	0	0		1.00	3-1 OCC	21	219
	Sus.+T1{1}				1.00	5-1 CRUP	38	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	38	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	37	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	35	<NOTE 1>
	F02	Max P{1}					HOOB	57
GR + Max P{1}		36			1.00	2-1 SUST	33	88
TR:T1 to T3{1}				243	1.00	4-1 DISP	36	213
Amb to T1{1}				187	1.00	4-1 DISP	28	213
Amb to T2{1}				183	1.00	4-1 DISP	27	201
Amb to T3{1}				226	1.00	4-1 DISP	33	213
Amb to T4{1}				151	1.00	4-1 DISP	22	240
Hydrotest{1}		0	0		1.00	3-1 OCC	21	219
Sus.+T1{1}					1.00	5-1 CRUP	42	<NOTE 1>
Sus.+T2{1}					1.00	5-1 CRUP	42	<NOTE 1>
Sus.+T3{1}					1.00	5-1 CRUP	44	<NOTE 1>
Sus.+T4{1}					1.00	5-1 CRUP	40	<NOTE 1>
F16		+ Max P{1}					HOOB	57
	GR + Max P{1}	76			1.00	2-1 SUST	39	88
	TR:Amb to T3{1}			215	1.00	4-1 DISP	32	213
	Amb to T1{1}			78	1.00	4-1 DISP	12	213
	Amb to T2{1}			75	1.00	4-1 DISP	11	201
	Amb to T3{1}			215	1.00	4-1 DISP	32	213

F_LINE_REV0.OUT

Amb to T4{1}			83	1.00	4-1 DISP	12	240
Hydrotest{1}	0	0		1.00	3-1 OCC	21	219
Sus.+T1{1}				1.00	5-1 CRUP	43	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	42	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	49	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	43	<NOTE 1>
F16 - Max P{1}					HOOP	57	88
GR + Max P{1}	76			1.00	2-1 SUST	39	88
TR:Amb to T3{1}			215	1.00	4-1 DISP	32	213
Amb to T1{1}			78	1.00	4-1 DISP	12	213
Amb to T2{1}			75	1.00	4-1 DISP	11	201
Amb to T3{1}			215	1.00	4-1 DISP	32	213
Amb to T4{1}			83	1.00	4-1 DISP	12	240
Hydrotest{1}	0	0		1.00	3-1 OCC	21	219
Sus.+T1{1}				1.00	5-1 CRUP	43	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	42	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	49	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	43	<NOTE 1>

F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

10:17 AM

AutoPIPE Plus 9.2.1

RESULT PAGE 284

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)		
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
F17 + Max P{1}						HOOP	57 88
GR + Max P{1}		51			1.00	2-1 SUST	35 88
TR:Amb to T3{1}				354	1.00	4-1 DISP	52 213
Amb to T1{1}				295	1.00	4-1 DISP	44 213
Amb to T2{1}				348	1.00	4-1 DISP	52 201
Amb to T3{1}				354	1.00	4-1 DISP	52 213
Amb to T4{1}				204	1.00	4-1 DISP	30 240
Hydrotest{1}		0	0		1.00	3-1 OCC	21 219
Sus.+T1{1}					1.00	5-1 CRUP	50 <NOTE 1>
Sus.+T2{1}					1.00	5-1 CRUP	52 <NOTE 1>
Sus.+T3{1}					1.00	5-1 CRUP	53 <NOTE 1>
Sus.+T4{1}					1.00	5-1 CRUP	45 <NOTE 1>

F_LINE_REV0.OUT

F17	- Max P{1}					HOOP	57	88
	GR + Max P{1}	51		1.00	2-1	SUST	35	88
	TR:Amb to T3{1}		354	1.00	4-1	DISP	52	213
	Amb to T1{1}		295	1.00	4-1	DISP	44	213
	Amb to T2{1}		348	1.00	4-1	DISP	52	201
	Amb to T3{1}		354	1.00	4-1	DISP	52	213
	Amb to T4{1}		204	1.00	4-1	DISP	30	240
	Hydrotest{1}	0	0	1.00	3-1	OCC	21	219
	Sus.+T1{1}			1.00	5-1	CRUP	50	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	52	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	53	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	45	<NOTE 1>
E05	Max P{1}					HOOP	57	88
	GR + Max P{1}	23		2.00	2-1	SUST	33	88
	TR:Amb to T2{1}		169	2.00	4-1	DISP	50	201
	Amb to T1{1}		122	2.00	4-1	DISP	36	213
	Amb to T2{1}		169	2.00	4-1	DISP	50	201
	Amb to T3{1}		120	2.00	4-1	DISP	36	213
	Amb to T4{1}		121	2.00	4-1	DISP	36	213
	Hydrotest{1}	0	0	2.00	3-1	OCC	21	219
	Sus.+T1{1}			2.00	5-1	CRUP	42	<NOTE 1>
	Sus.+T2{1}			2.00	5-1	CRUP	45	<NOTE 1>
	Sus.+T3{1}			2.00	5-1	CRUP	41	<NOTE 1>
	Sus.+T4{1}			2.00	5-1	CRUP	42	<NOTE 1>
E04	F+ Max P{1}					HOOP	57	88
	GR + Max P{1}	2		1.00	2-1	SUST	28	88
	TR:Amb to T1{1}		148	1.00	4-1	DISP	22	213
	Amb to T1{1}		148	1.00	4-1	DISP	22	213
	Amb to T2{1}		147	1.00	4-1	DISP	22	201
	Amb to T3{1}		147	1.00	4-1	DISP	22	213
	Amb to T4{1}		142	1.00	4-1	DISP	21	213
	Hydrotest{1}	0	0	1.00	3-1	OCC	21	219
	Sus.+T1{1}			1.00	5-1	CRUP	35	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	35	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	35	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	35	<NOTE 1>

F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

10:17 AM

AutoPIPE Plus 9.2.1

RESULT PAGE 285

EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F					
E04 F-	Max P{1}							HOOP	57	88
	GR + Max P{1}	2			1.23	2-1	SUST		28	88
	TR:Amb to T1{1}			148	1.23	4-1	DISP		27	213
	Amb to T1{1}			148	1.23	4-1	DISP		27	213
	Amb to T2{1}			147	1.23	4-1	DISP		27	201
	Amb to T3{1}			147	1.23	4-1	DISP		27	213
	Amb to T4{1}			142	1.23	4-1	DISP		26	213
	Hydrotest{1}	0	0		1.23	3-1	OCC		21	219
	Sus.+T1{1}				1.23	5-1	CRUP		35	<NOTE 1>
	Sus.+T2{1}				1.23	5-1	CRUP		35	<NOTE 1>
	Sus.+T3{1}				1.23	5-1	CRUP		35	<NOTE 1>
	Sus.+T4{1}				1.23	5-1	CRUP		35	<NOTE 1>
E04 N+	Max P{1}							HOOP	57	88
	GR + Max P{1}	4			1.23	2-1	SUST		28	88
	TR:Amb to T1{1}			168	1.23	4-1	DISP		31	213
	Amb to T1{1}			168	1.23	4-1	DISP		31	213
	Amb to T2{1}			165	1.23	4-1	DISP		30	201
	Amb to T3{1}			168	1.23	4-1	DISP		31	213
	Amb to T4{1}			162	1.23	4-1	DISP		30	213
	Hydrotest{1}	0	0		1.23	3-1	OCC		21	219
	Sus.+T1{1}				1.23	5-1	CRUP		37	<NOTE 1>
	Sus.+T2{1}				1.23	5-1	CRUP		36	<NOTE 1>
	Sus.+T3{1}				1.23	5-1	CRUP		36	<NOTE 1>
	Sus.+T4{1}				1.23	5-1	CRUP		36	<NOTE 1>
E04 N-	Max P{1}							HOOP	57	88
	GR + Max P{1}	4			1.00	2-1	SUST		28	88
	TR:Amb to T1{1}			168	1.00	4-1	DISP		25	213
	Amb to T1{1}			168	1.00	4-1	DISP		25	213
	Amb to T2{1}			165	1.00	4-1	DISP		25	201
	Amb to T3{1}			168	1.00	4-1	DISP		25	213
	Amb to T4{1}			162	1.00	4-1	DISP		24	213
	Hydrotest{1}	0	0		1.00	3-1	OCC		21	219
	Sus.+T1{1}				1.00	5-1	CRUP		37	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		36	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP		36	<NOTE 1>

		F_LINE_REV0.OUT				
Sus.+T4{1}			1.00	5-1	CRUP	36 <NOTE 1>
E03 F+ Max P{1}					HOOP	57 88
GR + Max P{1}	2		1.00	2-1	SUST	28 88
TR:Amb to T2{1}		308	1.00	4-1	DISP	46 201
Amb to T1{1}		259	1.00	4-1	DISP	38 213
Amb to T2{1}		308	1.00	4-1	DISP	46 201
Amb to T3{1}		258	1.00	4-1	DISP	38 213
Amb to T4{1}		257	1.00	4-1	DISP	38 213
Hydrotest{1}	0 0		1.00	3-1	OCC	21 219
Sus.+T1{1}			1.00	5-1	CRUP	41 <NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	43 <NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	41 <NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	41 <NOTE 1>

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F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

10:17 AM
AutoPIPE Plus 9.2.1 RESULT PAGE 286

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)		(Stress in N/mm2)			
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
-----	-----	-----	-----	-----	-----	-----	-----
E03 F- Max P{1}						HOOP	57 88
GR + Max P{1}	2				1.23	2-1 SUST	28 88
TR:Amb to T2{1}				308	1.23	4-1 DISP	56 201
Amb to T1{1}				259	1.23	4-1 DISP	47 213
Amb to T2{1}				308	1.23	4-1 DISP	56 201
Amb to T3{1}				258	1.23	4-1 DISP	47 213
Amb to T4{1}				257	1.23	4-1 DISP	47 213
Hydrotest{1}	0 0				1.23	3-1 OCC	21 219
Sus.+T1{1}					1.23	5-1 CRUP	41 <NOTE 1>
Sus.+T2{1}					1.23	5-1 CRUP	43 <NOTE 1>
Sus.+T3{1}					1.23	5-1 CRUP	41 <NOTE 1>
Sus.+T4{1}					1.23	5-1 CRUP	41 <NOTE 1>
E03 N- Max P{1}						HOOP	57 88
GR + Max P{1}	3				1.00	2-1 SUST	28 88
TR:Amb to T2{1}				345	1.00	4-1 DISP	51 201
Amb to T1{1}				283	1.00	4-1 DISP	42 213
Amb to T2{1}				345	1.00	4-1 DISP	51 201

		F_LINE_REV0.OUT					
Amb to T3{1}		283	1.00	4-1 DISP	42	213	
Amb to T4{1}		282	1.00	4-1 DISP	42	213	
Hydrotest{1}	0	0	1.00	3-1 OCC	21	219	
Sus.+T1{1}			1.00	5-1 CRUP	42	<NOTE 1>	
Sus.+T2{1}			1.00	5-1 CRUP	45	<NOTE 1>	
Sus.+T3{1}			1.00	5-1 CRUP	42	<NOTE 1>	
Sus.+T4{1}			1.00	5-1 CRUP	42	<NOTE 1>	
D13 F+ Max P{1}				HOOP	57	88	
GR + Max P{1}	3		1.00	2-1 SUST	28	88	
TR:Amb to T1{1}		96	1.00	4-1 DISP	14	213	
Amb to T1{1}		96	1.00	4-1 DISP	14	213	
Amb to T2{1}		81	1.00	4-1 DISP	12	201	
Amb to T3{1}		95	1.00	4-1 DISP	14	213	
Amb to T4{1}		90	1.00	4-1 DISP	13	213	
Hydrotest{1}	0	0	1.00	3-1 OCC	21	219	
Sus.+T1{1}			1.00	5-1 CRUP	33	<NOTE 1>	
Sus.+T2{1}			1.00	5-1 CRUP	32	<NOTE 1>	
Sus.+T3{1}			1.00	5-1 CRUP	33	<NOTE 1>	
Sus.+T4{1}			1.00	5-1 CRUP	33	<NOTE 1>	
D13 F- Max P{1}				HOOP	57	88	
GR + Max P{1}	3		1.23	2-1 SUST	28	88	
TR:Amb to T1{1}		96	1.23	4-1 DISP	18	213	
Amb to T1{1}		96	1.23	4-1 DISP	18	213	
Amb to T2{1}		81	1.23	4-1 DISP	15	201	
Amb to T3{1}		95	1.23	4-1 DISP	17	213	
Amb to T4{1}		90	1.23	4-1 DISP	16	213	
Hydrotest{1}	0	0	1.23	3-1 OCC	21	219	
Sus.+T1{1}			1.23	5-1 CRUP	33	<NOTE 1>	
Sus.+T2{1}			1.23	5-1 CRUP	32	<NOTE 1>	
Sus.+T3{1}			1.23	5-1 CRUP	33	<NOTE 1>	
Sus.+T4{1}			1.23	5-1 CRUP	33	<NOTE 1>	

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F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

10:17 AM

AutoPIPE Plus 9.2.1 RESULT PAGE 287

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

F_LINE_REV0.OUT

D13 N+ Max P{1}					HOOP	57	88
GR + Max P{1}	3		1.23	2-1	SUST	28	88
TR:Amb to T1{1}		61	1.23	4-1	DISP	11	213
Amb to T1{1}		61	1.23	4-1	DISP	11	213
Amb to T2{1}		57	1.23	4-1	DISP	10	201
Amb to T3{1}		60	1.23	4-1	DISP	11	213
Amb to T4{1}		58	1.23	4-1	DISP	11	213
Hydrotest{1}	0	0	1.23	3-1	OCC	21	219
Sus.+T1{1}			1.23	5-1	CRUP	31	<NOTE 1>
Sus.+T2{1}			1.23	5-1	CRUP	31	<NOTE 1>
Sus.+T3{1}			1.23	5-1	CRUP	31	<NOTE 1>
Sus.+T4{1}			1.23	5-1	CRUP	31	<NOTE 1>
D13 N- Max P{1}					HOOP	57	88
GR + Max P{1}	3		1.00	2-1	SUST	28	88
TR:Amb to T1{1}		61	1.00	4-1	DISP	9	213
Amb to T1{1}		61	1.00	4-1	DISP	9	213
Amb to T2{1}		57	1.00	4-1	DISP	9	201
Amb to T3{1}		60	1.00	4-1	DISP	9	213
Amb to T4{1}		58	1.00	4-1	DISP	9	213
Hydrotest{1}	0	0	1.00	3-1	OCC	21	219
Sus.+T1{1}			1.00	5-1	CRUP	31	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	31	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	31	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	31	<NOTE 1>
D12 F+ Max P{1}					HOOP	57	88
GR + Max P{1}	3		1.00	2-1	SUST	28	88
TR:Amb to T2{1}		251	1.00	4-1	DISP	37	201
Amb to T1{1}		223	1.00	4-1	DISP	33	213
Amb to T2{1}		251	1.00	4-1	DISP	37	201
Amb to T3{1}		222	1.00	4-1	DISP	33	213
Amb to T4{1}		220	1.00	4-1	DISP	33	213
Hydrotest{1}	0	0	1.00	3-1	OCC	21	219
Sus.+T1{1}			1.00	5-1	CRUP	39	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	40	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	39	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	39	<NOTE 1>
D12 F- Max P{1}					HOOP	57	88
GR + Max P{1}	3		1.23	2-1	SUST	28	88
TR:Amb to T2{1}		251	1.23	4-1	DISP	46	201
Amb to T1{1}		223	1.23	4-1	DISP	41	213

Amb to T2{1}			F_LINE_REV0.0UT 251	1.23	4-1 DISP	46	201
Amb to T3{1}			222	1.23	4-1 DISP	41	213
Amb to T4{1}			220	1.23	4-1 DISP	40	213
Hydrotest{1}	0	0		1.23	3-1 OCC	21	219
Sus.+T1{1}				1.23	5-1 CRUP	39	<NOTE 1>
Sus.+T2{1}				1.23	5-1 CRUP	40	<NOTE 1>
Sus.+T3{1}				1.23	5-1 CRUP	39	<NOTE 1>
Sus.+T4{1}				1.23	5-1 CRUP	39	<NOTE 1>

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F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

10:17 AM

AutoPIPE Plus 9.2.1

RESULT PAGE 288

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
D12 N+ Max P{1}						HOOP	57 88
	GR + Max P{1}	1			1.23	2-1 SUST	28 88
	TR:Amb to T2{1}			278	1.23	4-1 DISP	51 201
	Amb to T1{1}			248	1.23	4-1 DISP	45 213
	Amb to T2{1}			278	1.23	4-1 DISP	51 201
	Amb to T3{1}			247	1.23	4-1 DISP	45 213
	Amb to T4{1}			245	1.23	4-1 DISP	45 213
	Hydrotest{1}	0	0		1.23	3-1 OCC	21 219
	Sus.+T1{1}				1.23	5-1 CRUP	40 <NOTE 1>
	Sus.+T2{1}				1.23	5-1 CRUP	42 <NOTE 1>
	Sus.+T3{1}				1.23	5-1 CRUP	40 <NOTE 1>
	Sus.+T4{1}				1.23	5-1 CRUP	40 <NOTE 1>
D12 N- Max P{1}						HOOP	57 88
	GR + Max P{1}	1			1.00	2-1 SUST	28 88
	TR:Amb to T2{1}			278	1.00	4-1 DISP	41 201
	Amb to T1{1}			248	1.00	4-1 DISP	37 213
	Amb to T2{1}			278	1.00	4-1 DISP	41 201
	Amb to T3{1}			247	1.00	4-1 DISP	37 213
	Amb to T4{1}			245	1.00	4-1 DISP	36 213
	Hydrotest{1}	0	0		1.00	3-1 OCC	21 219
	Sus.+T1{1}				1.00	5-1 CRUP	40 <NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	42 <NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	40 <NOTE 1>

Sus.+T4{1}			1.00	5-1 CRUP	40	<NOTE 1>
Max P{1}				HOOP	57	88
GR + Max P{1}	15		1.00	2-1 SUST	30	88
TR:Amb to T2{1}		240	1.00	4-1 DISP	36	201
Amb to T1{1}		160	1.00	4-1 DISP	24	213
Amb to T2{1}		240	1.00	4-1 DISP	36	201
Amb to T3{1}		165	1.00	4-1 DISP	25	213
Amb to T4{1}		84	1.00	4-1 DISP	12	240
Hydrotest{1}	0	0	1.00	3-1 OCC	21	219
Sus.+T1{1}			1.00	5-1 CRUP	38	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	42	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	38	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	34	<NOTE 1>

C13 F- Max P{1}					HOOP	57	88
GR + Max P{1}	15		1.23	2-1	SUST	30	88
TR:Amb to T2{1}		240	1.23	4-1	DISP	44	201
Amb to T1{1}		160	1.23	4-1	DISP	29	213
Amb to T2{1}		240	1.23	4-1	DISP	44	201
Amb to T3{1}		165	1.23	4-1	DISP	30	213
Amb to T4{1}		84	1.23	4-1	DISP	15	240
Hydrotest{1}	0	0	1.23	3-1	OCC	21	219
Sus.+T1{1}			1.23	5-1	CRUP	38	<NOTE 1>
Sus.+T2{1}			1.23	5-1	CRUP	42	<NOTE 1>
Sus.+T3{1}			1.23	5-1	CRUP	38	<NOTE 1>
Sus.+T4{1}			1.23	5-1	CRUP	34	<NOTE 1>

RESULT PAGE 289

Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
-----	-----	-----	-----	-----	-----	-----	-----	-----
C13 N+	Max P{1}					H00P	57	88
	GR + Max P{1}	4			1.23	2-1 SUST	28	88
	TR:T2 to T4{1}			197	1.23	4-1 DISP	36	201
	Amb to T1{1}			111	1.23	4-1 DISP	20	213
	Amb to T2{1}			184	1.23	4-1 DISP	34	201

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	Amb to T3{1}		114	1.23	4-1 DISP	21	213
	Amb to T4{1}		51	1.23	4-1 DISP	9	240
	Hydrotest{1}	0	0	1.23	3-1 OCC	21	219
	Sus.+T1{1}			1.23	5-1 CRUP	34	<NOTE 1>
	Sus.+T2{1}			1.23	5-1 CRUP	37	<NOTE 1>
	Sus.+T3{1}			1.23	5-1 CRUP	34	<NOTE 1>
	Sus.+T4{1}			1.23	5-1 CRUP	31	<NOTE 1>
C13 N-	Max P{1}				HOOP	57	88
	GR + Max P{1}	4		1.00	2-1 SUST	28	88
	TR:T2 to T4{1}		197	1.00	4-1 DISP	29	201
	Amb to T1{1}		111	1.00	4-1 DISP	17	213
	Amb to T2{1}		184	1.00	4-1 DISP	27	201
	Amb to T3{1}		114	1.00	4-1 DISP	17	213
	Amb to T4{1}		51	1.00	4-1 DISP	8	240
	Hydrotest{1}	0	0	1.00	3-1 OCC	21	219
	Sus.+T1{1}			1.00	5-1 CRUP	34	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	37	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	34	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	31	<NOTE 1>
C10 -	Max P{1}				HOOP	57	88
	GR + Max P{1}	77		1.00	2-1 SUST	39	88
	TR:T2 to T3{1}		326	1.00	4-1 DISP	48	201
	Amb to T1{1}		87	1.00	4-1 DISP	13	213
	Amb to T2{1}		137	1.00	4-1 DISP	20	201
	Amb to T3{1}		290	1.00	4-1 DISP	43	213
	Amb to T4{1}		89	1.00	4-1 DISP	13	240
	Hydrotest{1}	0	0	1.00	3-1 OCC	21	219
	Sus.+T1{1}			1.00	5-1 CRUP	43	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	46	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	53	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	43	<NOTE 1>
C18	Max P{1}				HOOP	57	88
	GR + Max P{1}	65		1.00	2-1 SUST	37	88
	TR:T2 to T3{1}		226	1.00	4-1 DISP	34	201
	Amb to T1{1}		139	1.00	4-1 DISP	21	213
	Amb to T2{1}		207	1.00	4-1 DISP	31	201
	Amb to T3{1}		126	1.00	4-1 DISP	19	213
	Amb to T4{1}		64	1.00	4-1 DISP	10	240
	Hydrotest{1}	0	0	1.00	3-1 OCC	21	219
	Sus.+T1{1}			1.00	5-1 CRUP	44	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	47	<NOTE 1>

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Sus.+T3{1}	1.00	5-1	CRUP	43 <NOTE 1>
Sus.+T4{1}	1.00	5-1	CRUP	40 <NOTE 1>

F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

10:17 AM

AutoPIPE Plus 9.2.1

RESULT PAGE 290

EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F					
C28	Max P{1}							HOOP	57	88
	GR + Max P{1}	3			1.00		2-1	SUST	28	88
	TR:Amb to T3{1}			188	1.00		4-1	DISP	28	213
	Amb to T1{1}			99	1.00		4-1	DISP	15	213
	Amb to T2{1}			96	1.00		4-1	DISP	14	201
	Amb to T3{1}			188	1.00		4-1	DISP	28	213
	Amb to T4{1}			83	1.00		4-1	DISP	12	240
	Hydrotest{1}	0	0		1.00		3-1	OCC	21	219
	Sus.+T1{1}				1.00		5-1	CRUP	33	<NOTE 1>
	Sus.+T2{1}				1.00		5-1	CRUP	33	<NOTE 1>
	Sus.+T3{1}				1.00		5-1	CRUP	37	<NOTE 1>
	Sus.+T4{1}				1.00		5-1	CRUP	32	<NOTE 1>
B15	Max P{1}							HOOP	57	88
	GR + Max P{1}	26			2.00		2-1	SUST	33	88
	TR:Amb to T4{1}			100	2.00		4-1	DISP	30	240
	Amb to T1{1}			93	2.00		4-1	DISP	28	213
	Amb to T2{1}			81	2.00		4-1	DISP	24	201
	Amb to T3{1}			95	2.00		4-1	DISP	28	213
	Amb to T4{1}			100	2.00		4-1	DISP	30	240
	Hydrotest{1}	0	0		2.00		3-1	OCC	21	219
	Sus.+T1{1}				2.00		5-1	CRUP	40	<NOTE 1>
	Sus.+T2{1}				2.00		5-1	CRUP	39	<NOTE 1>
	Sus.+T3{1}				2.00		5-1	CRUP	40	<NOTE 1>
	Sus.+T4{1}				2.00		5-1	CRUP	41	<NOTE 1>
B09 F+	Max P{1}							HOOP	57	88
	GR + Max P{1}	1			1.00		2-1	SUST	28	88
	TR:Amb to T4{1}			56	1.00		4-1	DISP	8	240
	Amb to T1{1}			35	1.00		4-1	DISP	5	213

Amb to T2{1}			11	1.00	4-1 DISP	2	201
Amb to T3{1}			37	1.00	4-1 DISP	6	213
Amb to T4{1}			56	1.00	4-1 DISP	8	240
Hydrotest{1}	0	0		1.00	3-1 OCC	21	219
Sus.+T1{1}				1.00	5-1 CRUP	29	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	28	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	30	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	30	<NOTE 1>

B09 F- Max P{1}					HOOP	57	88
GR + Max P{1}	1		1.23	2-1	SUST	28	88
TR:Amb to T4{1}		56	1.23	4-1	DISP	10	240
Amb to T1{1}		35	1.23	4-1	DISP	6	213
Amb to T2{1}		11	1.23	4-1	DISP	2	201
Amb to T3{1}		37	1.23	4-1	DISP	7	213
Amb to T4{1}		56	1.23	4-1	DISP	10	240
Hydrotest{1}	0	0	1.23	3-1	OCC	21	219
Sus.+T1{1}			1.23	5-1	CRUP	29	<NOTE 1>
Sus.+T2{1}			1.23	5-1	CRUP	28	<NOTE 1>
Sus.+T3{1}			1.23	5-1	CRUP	30	<NOTE 1>
Sus.+T4{1}			1.23	5-1	CRUP	30	<NOTE 1>

F_LINE_REV0

BENTLEY

(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
B09 N+	Max P{1}					H00P	57	88
	GR + Max P{1}	3			1.23	2-1 SUST	28	88
	TR:Amb to T4{1}			58	1.23	4-1 DISP	11	240
	Amb to T1{1}			41	1.23	4-1 DISP	8	213
	Amb to T2{1}			18	1.23	4-1 DISP	3	201
	Amb to T3{1}			44	1.23	4-1 DISP	8	213
	Amb to T4{1}			58	1.23	4-1 DISP	11	240
	Hydrotest{1}	0	0		1.23	3-1 OCC	21	219
	Sus.+T1{1}				1.23	5-1 CRUP	30	<NOTE 1>
	Sus.+T2{1}				1.23	5-1 CRUP	29	<NOTE 1>

			F_LINE_REV0.OUT				
	Sus.+T3{1}			1.23	5-1	CRUP	30 <NOTE 1>
	Sus.+T4{1}			1.23	5-1	CRUP	31 <NOTE 1>
B09 N-	Max P{1}					HOOP	57 88
	GR + Max P{1}	3		1.00	2-1	SUST	28 88
	TR:Amb to T4{1}		58	1.00	4-1	DISP	9 240
	Amb to T1{1}		41	1.00	4-1	DISP	6 213
	Amb to T2{1}		18	1.00	4-1	DISP	3 201
	Amb to T3{1}		44	1.00	4-1	DISP	6 213
	Amb to T4{1}		58	1.00	4-1	DISP	9 240
	Hydrotest{1}	0	0	1.00	3-1	OCC	21 219
	Sus.+T1{1}			1.00	5-1	CRUP	30 <NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	29 <NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	30 <NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	31 <NOTE 1>
B08 F+	Max P{1}					HOOP	57 88
	GR + Max P{1}	3		1.00	2-1	SUST	28 88
	TR:Amb to T2{1}		204	1.00	4-1	DISP	30 201
	Amb to T1{1}		186	1.00	4-1	DISP	28 213
	Amb to T2{1}		204	1.00	4-1	DISP	30 201
	Amb to T3{1}		185	1.00	4-1	DISP	27 213
	Amb to T4{1}		148	1.00	4-1	DISP	22 240
	Hydrotest{1}	0	0	1.00	3-1	OCC	21 219
	Sus.+T1{1}			1.00	5-1	CRUP	37 <NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	38 <NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	37 <NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	35 <NOTE 1>
B08 F-	Max P{1}					HOOP	57 88
	GR + Max P{1}	3		1.23	2-1	SUST	28 88
	TR:Amb to T2{1}		204	1.23	4-1	DISP	37 201
	Amb to T1{1}		186	1.23	4-1	DISP	34 213
	Amb to T2{1}		204	1.23	4-1	DISP	37 201
	Amb to T3{1}		185	1.23	4-1	DISP	34 213
	Amb to T4{1}		148	1.23	4-1	DISP	27 240
	Hydrotest{1}	0	0	1.23	3-1	OCC	21 219
	Sus.+T1{1}			1.23	5-1	CRUP	37 <NOTE 1>
	Sus.+T2{1}			1.23	5-1	CRUP	38 <NOTE 1>
	Sus.+T3{1}			1.23	5-1	CRUP	37 <NOTE 1>
	Sus.+T4{1}			1.23	5-1	CRUP	35 <NOTE 1>

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F_LINE_REV0

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AutoPIPE Plus 9.2.1

RESULT PAGE 292

EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. Load no. type			
B08 N+	Max P{1}					HOOP		57	88
	GR + Max P{1}	3			1.23	2-1 SUST		28	88
	TR:Amb to T2{1}			216	1.23	4-1 DISP		40	201
	Amb to T1{1}			194	1.23	4-1 DISP		36	213
	Amb to T2{1}			216	1.23	4-1 DISP		40	201
	Amb to T3{1}			193	1.23	4-1 DISP		35	213
	Amb to T4{1}			152	1.23	4-1 DISP		28	240
	Hydrotest{1}	0	0		1.23	3-1 OCC		21	219
	Sus.+T1{1}				1.23	5-1 CRUP		38	<NOTE 1>
	Sus.+T2{1}				1.23	5-1 CRUP		39	<NOTE 1>
	Sus.+T3{1}				1.23	5-1 CRUP		37	<NOTE 1>
	Sus.+T4{1}				1.23	5-1 CRUP		35	<NOTE 1>
B08 N-	Max P{1}					HOOP		57	88
	GR + Max P{1}	3			1.00	2-1 SUST		28	88
	TR:Amb to T2{1}			216	1.00	4-1 DISP		32	201
	Amb to T1{1}			194	1.00	4-1 DISP		29	213
	Amb to T2{1}			216	1.00	4-1 DISP		32	201
	Amb to T3{1}			193	1.00	4-1 DISP		29	213
	Amb to T4{1}			152	1.00	4-1 DISP		22	240
	Hydrotest{1}	0	0		1.00	3-1 OCC		21	219
	Sus.+T1{1}				1.00	5-1 CRUP		38	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP		39	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP		37	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP		35	<NOTE 1>
B07 F+	Max P{1}					HOOP		57	88
	GR + Max P{1}	4			1.00	2-1 SUST		28	88
	TR:Amb to T2{1}			170	1.00	4-1 DISP		25	201
	Amb to T1{1}			146	1.00	4-1 DISP		22	213
	Amb to T2{1}			170	1.00	4-1 DISP		25	201
	Amb to T3{1}			144	1.00	4-1 DISP		21	213
	Amb to T4{1}			108	1.00	4-1 DISP		16	240
	Hydrotest{1}	0	0		1.00	3-1 OCC		21	219
	Sus.+T1{1}				1.00	5-1 CRUP		35	<NOTE 1>

		F_LINE_REV0.OUT					
Sus.+T2{1}			1.00	5-1	CRUP	37	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	35	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	34	<NOTE 1>
B07 F- Max P{1}					HOOP	57	88
GR + Max P{1}	4		1.23	2-1	SUST	28	88
TR:Amb to T2{1}		170	1.23	4-1	DISP	31	201
Amb to T1{1}		146	1.23	4-1	DISP	27	213
Amb to T2{1}		170	1.23	4-1	DISP	31	201
Amb to T3{1}		144	1.23	4-1	DISP	26	213
Amb to T4{1}		108	1.23	4-1	DISP	20	240
Hydrotest{1}	0	0	1.23	3-1	OCC	21	219
Sus.+T1{1}			1.23	5-1	CRUP	35	<NOTE 1>
Sus.+T2{1}			1.23	5-1	CRUP	37	<NOTE 1>
Sus.+T3{1}			1.23	5-1	CRUP	35	<NOTE 1>
Sus.+T4{1}			1.23	5-1	CRUP	34	<NOTE 1>

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F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 293

EN 13480 (2002) CODE COMPLIANCE								
(Moments in N.m)			(Stress in N/mm2)					
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code	
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.

B07 N+ Max P{1}						HOOP	57	88
GR + Max P{1}		5			1.23	2-1 SUST	28	88
TR:Amb to T2{1}				166	1.23	4-1 DISP	30	201
Amb to T1{1}				142	1.23	4-1 DISP	26	213
Amb to T2{1}				166	1.23	4-1 DISP	30	201
Amb to T3{1}				140	1.23	4-1 DISP	26	213
Amb to T4{1}				104	1.23	4-1 DISP	19	240
Hydrotest{1}		0	0		1.23	3-1 OCC	21	219
Sus.+T1{1}					1.23	5-1 CRUP	35	<NOTE 1>
Sus.+T2{1}					1.23	5-1 CRUP	37	<NOTE 1>
Sus.+T3{1}					1.23	5-1 CRUP	35	<NOTE 1>
Sus.+T4{1}					1.23	5-1 CRUP	33	<NOTE 1>

B07 N- Max P{1}						HOOP	57	88
GR + Max P{1}		5			1.00	2-1 SUST	28	88
TR:Amb to T2{1}				166	1.00	4-1 DISP	25	201

		F_LINE_REV0.0UT					
Amb to T1{1}		142	1.00	4-1 DISP	21	213	
Amb to T2{1}		166	1.00	4-1 DISP	25	201	
Amb to T3{1}		140	1.00	4-1 DISP	21	213	
Amb to T4{1}		104	1.00	4-1 DISP	15	240	
Hydrotest{1}	0	0	1.00	3-1 OCC	21	219	
Sus.+T1{1}			1.00	5-1 CRUP	35	<NOTE 1>	
Sus.+T2{1}			1.00	5-1 CRUP	37	<NOTE 1>	
Sus.+T3{1}			1.00	5-1 CRUP	35	<NOTE 1>	
Sus.+T4{1}			1.00	5-1 CRUP	33	<NOTE 1>	
B06 + Max P{1}				HOOP	57	88	
GR + Max P{1}	58		1.00	2-1 SUST	36	88	
TR:Amb to T2{1}		192	1.00	4-1 DISP	28	201	
Amb to T1{1}		179	1.00	4-1 DISP	27	213	
Amb to T2{1}		192	1.00	4-1 DISP	28	201	
Amb to T3{1}		179	1.00	4-1 DISP	27	213	
Amb to T4{1}		141	1.00	4-1 DISP	21	240	
Hydrotest{1}	0	0	1.00	3-1 OCC	21	219	
Sus.+T1{1}			1.00	5-1 CRUP	45	<NOTE 1>	
Sus.+T2{1}			1.00	5-1 CRUP	46	<NOTE 1>	
Sus.+T3{1}			1.00	5-1 CRUP	45	<NOTE 1>	
Sus.+T4{1}			1.00	5-1 CRUP	43	<NOTE 1>	
B06 - Max P{1}				HOOP	57	88	
GR + Max P{1}	56		1.00	2-1 SUST	36	88	
TR:Amb to T2{1}		228	1.00	4-1 DISP	34	201	
Amb to T1{1}		197	1.00	4-1 DISP	29	213	
Amb to T2{1}		228	1.00	4-1 DISP	34	201	
Amb to T3{1}		193	1.00	4-1 DISP	29	213	
Amb to T4{1}		139	1.00	4-1 DISP	21	240	
Hydrotest{1}	0	0	1.00	3-1 OCC	21	219	
Sus.+T1{1}			1.00	5-1 CRUP	46	<NOTE 1>	
Sus.+T2{1}			1.00	5-1 CRUP	47	<NOTE 1>	
Sus.+T3{1}			1.00	5-1 CRUP	45	<NOTE 1>	
Sus.+T4{1}			1.00	5-1 CRUP	43	<NOTE 1>	

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F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 294

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)

(Stress in N/mm2)

Point name	Load combination	F_LINE_REV0.OUT			Eq. Load no. type	Code Stress	Code Allow.	
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)				

B16	+ Max P{1}					HOOP	57	88
	GR + Max P{1}	11			1.00	2-1 SUST	29	88
	TR:Amb to T2{1}			276	1.00	4-1 DISP	41	201
	Amb to T1{1}			248	1.00	4-1 DISP	37	213
	Amb to T2{1}			276	1.00	4-1 DISP	41	201
	Amb to T3{1}			244	1.00	4-1 DISP	36	213
	Amb to T4{1}			196	1.00	4-1 DISP	29	240
	Hydrotest{1}	0	0		1.00	3-1 OCC	21	219
	Sus.+T1{1}				1.00	5-1 CRUP	41	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	43	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	41	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	39	<NOTE 1>
B16	- Max P{1}					HOOP	57	88
	GR + Max P{1}	11			1.00	2-1 SUST	29	88
	TR:Amb to T2{1}			276	1.00	4-1 DISP	41	201
	Amb to T1{1}			248	1.00	4-1 DISP	37	213
	Amb to T2{1}			276	1.00	4-1 DISP	41	201
	Amb to T3{1}			244	1.00	4-1 DISP	36	213
	Amb to T4{1}			196	1.00	4-1 DISP	29	240
	Hydrotest{1}	0	0		1.00	3-1 OCC	21	219
	Sus.+T1{1}				1.00	5-1 CRUP	41	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	43	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	41	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	39	<NOTE 1>
B17	+ Max P{1}					HOOP	57	88
	GR + Max P{1}	63			1.00	2-1 SUST	37	88
	TR:Amb to T2{1}			378	1.00	4-1 DISP	56	201
	Amb to T1{1}			355	1.00	4-1 DISP	53	213
	Amb to T2{1}			378	1.00	4-1 DISP	56	201
	Amb to T3{1}			353	1.00	4-1 DISP	52	213
	Amb to T4{1}			315	1.00	4-1 DISP	47	240
	Hydrotest{1}	0	0		1.00	3-1 OCC	21	219
	Sus.+T1{1}				1.00	5-1 CRUP	54	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	56	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	54	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	52	<NOTE 1>
B17	- Max P{1}					HOOP	57	88
	GR + Max P{1}	63			1.00	2-1 SUST	37	88

TR:Amb to T2{1}	F_LINE_REV0.0UT	378	1.00	4-1	DISP	56	201
Amb to T1{1}		355	1.00	4-1	DISP	53	213
Amb to T2{1}		378	1.00	4-1	DISP	56	201
Amb to T3{1}		353	1.00	4-1	DISP	52	213
Amb to T4{1}		315	1.00	4-1	DISP	47	240
Hydrotest{1}	0 0		1.00	3-1	OCC	21	219
Sus.+T1{1}			1.00	5-1	CRUP	54	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	56	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	54	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	52	<NOTE 1>

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F_LINE_REV0

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BENTLEY

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

F06 F+	Max P{1}					HOOP	13	104	
	GR + Max P{1}	68			1.00	2-1 SUST	8	104	
	TR:T2 to T3{1}			1594	1.00	4-1 DISP	56	217	
	Amb to T1{1}			618	1.00	4-1 DISP	22	247	
	Amb to T2{1}			675	1.00	4-1 DISP	24	247	
	Amb to T3{1}			1172	1.00	4-1 DISP	41	217	
	Amb to T4{1}			332	1.00	4-1 DISP	12	240	
	Hydrotest{1}	0	0		1.00	3-1 OCC	1	219	
	Sus.+T1{1}				1.00	5-1 CRUP	16	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	16	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	22	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	12	<NOTE 1>	
L23	Max P{1}					HOOP	52	88	
	GR + Max P{1}	0			2.00	2-1 SUST	25	88	
	TR:Amb to T2{1}			4	2.00	4-1 DISP	2	201	
	Amb to T1{1}			2	2.00	4-1 DISP	1	247	
	Amb to T2{1}			4	2.00	4-1 DISP	2	201	
	Amb to T3{1}			0	2.00	4-1 DISP	0	247	
	Amb to T4{1}			1	2.00	4-1 DISP	0	240	
	Hydrotest{1}	0	0		2.00	3-1 OCC	19	219	
	Sus.+T1{1}				2.00	5-1 CRUP	25	<NOTE 1>	

F_LINE_REV0.OUT

	Sus.+T2{1}			2.00	5-1	CRUP	26	<NOTE 1>
	Sus.+T3{1}			2.00	5-1	CRUP	25	<NOTE 1>
	Sus.+T4{1}			2.00	5-1	CRUP	25	<NOTE 1>
L14	Max P{1}					HOOP	52	88
	GR + Max P{1}	0		2.00	2-1	SUST	25	88
	TR:Amb to T2{1}		4	2.00	4-1	DISP	2	201
	Amb to T1{1}		2	2.00	4-1	DISP	1	247
	Amb to T2{1}		4	2.00	4-1	DISP	2	201
	Amb to T3{1}		0	2.00	4-1	DISP	0	247
	Amb to T4{1}		1	2.00	4-1	DISP	0	240
	Hydrotest{1}	0	0	2.00	3-1	OCC	19	219
	Sus.+T1{1}			2.00	5-1	CRUP	25	<NOTE 1>
	Sus.+T2{1}			2.00	5-1	CRUP	26	<NOTE 1>
	Sus.+T3{1}			2.00	5-1	CRUP	25	<NOTE 1>
	Sus.+T4{1}			2.00	5-1	CRUP	25	<NOTE 1>
K26	Max P{1}					HOOP	52	88
	GR + Max P{1}	1		2.00	2-1	SUST	25	88
	TR:T1 to T2{1}		3	2.00	4-1	DISP	1	201
	Amb to T1{1}		0	2.00	4-1	DISP	0	247
	Amb to T2{1}		3	2.00	4-1	DISP	1	201
	Amb to T3{1}		0	2.00	4-1	DISP	0	247
	Amb to T4{1}		2	2.00	4-1	DISP	1	202
	Hydrotest{1}	0	0	2.00	3-1	OCC	19	219
	Sus.+T1{1}			2.00	5-1	CRUP	25	<NOTE 1>
	Sus.+T2{1}			2.00	5-1	CRUP	26	<NOTE 1>
	Sus.+T3{1}			2.00	5-1	CRUP	25	<NOTE 1>
	Sus.+T4{1}			2.00	5-1	CRUP	26	<NOTE 1>

 F_LINE_REV0
 09/13/2010 FEED LINE
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 AutoPIPE Plus 9.2.1

BENTLEY

EN 13480 (2002) CODE COMPLIANCE

Point	Load	(Moments in N.m)			(Stress in N/mm2)			Code	Code
		Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no.	type	Stress	Allow.
F08 N-	Max P{1}						HOOP	13	104
	GR + Max P{1}	40			1.00	2-1	SUST	7	104
	TR:T2 to T3{1}			1379	1.00	4-1	DISP	49	217

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	Amb to T1{1}		430	1.00	4-1 DISP	15	247
	Amb to T2{1}		462	1.00	4-1 DISP	16	247
	Amb to T3{1}		1260	1.00	4-1 DISP	45	217
	Amb to T4{1}		430	1.00	4-1 DISP	15	240
	Hydrotest{1}	0	0	1.00	3-1 OCC	1	219
	Sus.+T1{1}			1.00	5-1 CRUP	13	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	13	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	22	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	13	<NOTE 1>
G09	Max P{1}				HOOP	16	104
	GR + Max P{1}	9		2.00	2-1 SUST	7	104
	TR:T2 to T3{1}		1280	2.00	4-1 DISP	49	217
	Amb to T1{1}		186	2.00	4-1 DISP	7	247
	Amb to T2{1}		228	2.00	4-1 DISP	9	247
	Amb to T3{1}		1223	2.00	4-1 DISP	46	217
	Amb to T4{1}		558	2.00	4-1 DISP	21	240
	Hydrotest{1}	0	0	2.00	3-1 OCC	1	219
	Sus.+T1{1}			2.00	5-1 CRUP	9	<NOTE 1>
	Sus.+T2{1}			2.00	5-1 CRUP	10	<NOTE 1>
	Sus.+T3{1}			2.00	5-1 CRUP	19	<NOTE 1>
	Sus.+T4{1}			2.00	5-1 CRUP	13	<NOTE 1>
G07 F+	Max P{1}				HOOP	13	104
	GR + Max P{1}	12		1.00	2-1 SUST	6	104
	TR:Amb to T3{1}		1336	1.00	4-1 DISP	47	217
	Amb to T1{1}		288	1.00	4-1 DISP	10	247
	Amb to T2{1}		319	1.00	4-1 DISP	11	247
	Amb to T3{1}		1336	1.00	4-1 DISP	47	217
	Amb to T4{1}		366	1.00	4-1 DISP	13	240
	Hydrotest{1}	0	0	1.00	3-1 OCC	1	219
	Sus.+T1{1}			1.00	5-1 CRUP	10	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	10	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	22	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	11	<NOTE 1>
L20	Max P{1}				HOOP	32	88
	GR + Max P{1}	8		1.00	2-1 SUST	27	88
	TR:Amb to T2{1}		37	1.00	4-1 DISP	47	201
	Amb to T1{1}		18	1.00	4-1 DISP	23	247
	Amb to T2{1}		37	1.00	4-1 DISP	47	201
	Amb to T3{1}		2	1.00	4-1 DISP	3	247
	Amb to T4{1}		4	1.00	4-1 DISP	5	240
	Hydrotest{1}	0	0	1.00	3-1 OCC	12	219

F_LINE_REV0.OUT

Sus.+T1{1}	1.00	5-1	CRUP	35 <NOTE 1>
Sus.+T2{1}	1.00	5-1	CRUP	43 <NOTE 1>
Sus.+T3{1}	1.00	5-1	CRUP	28 <NOTE 1>
Sus.+T4{1}	1.00	5-1	CRUP	29 <NOTE 1>

 F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

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RESULT PAGE 297

EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)		Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F				
A01	Max P{1}						HOOP	47	100
	GR + Max P{1}	0			1.00	2-1	SUST	22	100
	TR:T2 to T3{1}			0	1.00	4-1	DISP	0	213
	Amb to T1{1}			0	1.00	4-1	DISP	0	213
	Amb to T2{1}			0	1.00	4-1	DISP	0	213
	Amb to T3{1}			0	1.00	4-1	DISP	0	213
	Amb to T4{1}			0	1.00	4-1	DISP	0	213
	Hydrotest{1}	0	0		1.00	3-1	OCC	32	219
	Sus.+T1{1}				1.00	5-1	CRUP	22	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP	22	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP	22	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP	22	<NOTE 1>
A02	+ Max P{1}						HOOP	47	100
	GR + Max P{1}	10			1.22	2-1	SUST	22	100
	TR:Amb to T2{1}			0	1.22	4-1	DISP	0	213
	Amb to T1{1}			0	1.22	4-1	DISP	0	213
	Amb to T2{1}			0	1.22	4-1	DISP	0	213
	Amb to T3{1}			0	1.22	4-1	DISP	0	213
	Amb to T4{1}			0	1.22	4-1	DISP	0	213
	Hydrotest{1}	0	0		1.22	3-1	OCC	32	219
	Sus.+T1{1}				1.22	5-1	CRUP	22	<NOTE 1>
	Sus.+T2{1}				1.22	5-1	CRUP	22	<NOTE 1>
	Sus.+T3{1}				1.22	5-1	CRUP	22	<NOTE 1>
	Sus.+T4{1}				1.22	5-1	CRUP	22	<NOTE 1>
A02	- Max P{1}						HOOP	47	100
	GR + Max P{1}	17			1.22	2-1	SUST	22	100

TR:Amb to T2{1}			1045	1.22	4-1 DISP	10	213
Amb to T1{1}			732	1.22	4-1 DISP	7	213
Amb to T2{1}			1045	1.22	4-1 DISP	10	213
Amb to T3{1}			732	1.22	4-1 DISP	7	213
Amb to T4{1}			751	1.22	4-1 DISP	7	213
Hydrotest{1}	0	0		1.22	3-1 OCC	32	219
Sus.+T1{1}				1.22	5-1 CRUP	24	<NOTE 1>
Sus.+T2{1}				1.22	5-1 CRUP	25	<NOTE 1>
Sus.+T3{1}				1.22	5-1 CRUP	24	<NOTE 1>
Sus.+T4{1}				1.22	5-1 CRUP	24	<NOTE 1>

A05	+ Max P{1}					HOOP	47	100
	GR + Max P{1}	204		1.00	2-1	SUST	23	100
	TR:Amb to T2{1}		1083	1.00	4-1	DISP	9	213
	Amb to T1{1}		762	1.00	4-1	DISP	6	213
	Amb to T2{1}		1083	1.00	4-1	DISP	9	213
	Amb to T3{1}		762	1.00	4-1	DISP	6	213
	Amb to T4{1}		781	1.00	4-1	DISP	6	213
	Hydrotest{1}	0	0	1.00	3-1	OCC	32	219
	Sus.+T1{1}			1.00	5-1	CRUP	25	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	26	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	25	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	25	<NOTE 1>

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Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
A05	- Max P{1}					H00P	47	100
	GR + Max P{1}	19			1.00	2-1 SUST	22	100
	TR:Amb to T2{1}			996	1.00	4-1 DISP	8	213
	Amb to T1{1}			797	1.00	4-1 DISP	7	213
	Amb to T2{1}			996	1.00	4-1 DISP	8	213
	Amb to T3{1}			802	1.00	4-1 DISP	7	213
	Amb to T4{1}			476	1.00	4-1 DISP	4	213
	Hydrotest{1}	0	0		1.00	3-1 OCC	32	219

F_LINE_REV0.OUT									
	Sus.+T1{1}			1.00	5-1	CRUP	24	<NOTE 1>	
	Sus.+T2{1}			1.00	5-1	CRUP	25	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1	CRUP	24	<NOTE 1>	
	Sus.+T4{1}			1.00	5-1	CRUP	23	<NOTE 1>	
A03	+ Max P{1}					HOOP	47	100	
	GR + Max P{1}	19		1.22	2-1	SUST	22	100	
	TR:Amb to T2{1}		997	1.22	4-1	DISP	10	213	
	Amb to T1{1}		797	1.22	4-1	DISP	8	213	
	Amb to T2{1}		997	1.22	4-1	DISP	10	213	
	Amb to T3{1}		802	1.22	4-1	DISP	8	213	
	Amb to T4{1}		476	1.22	4-1	DISP	5	213	
	Hydrotest{1}	0	0	1.22	3-1	OCC	32	219	
	Sus.+T1{1}			1.22	5-1	CRUP	24	<NOTE 1>	
	Sus.+T2{1}			1.22	5-1	CRUP	25	<NOTE 1>	
	Sus.+T3{1}			1.22	5-1	CRUP	24	<NOTE 1>	
	Sus.+T4{1}			1.22	5-1	CRUP	23	<NOTE 1>	
A03	- Max P{1}					HOOP	47	100	
	GR + Max P{1}	7		1.22	2-1	SUST	22	100	
	TR:Amb to T2{1}		499	1.22	4-1	DISP	5	213	
	Amb to T1{1}		396	1.22	4-1	DISP	4	213	
	Amb to T2{1}		499	1.22	4-1	DISP	5	213	
	Amb to T3{1}		397	1.22	4-1	DISP	4	213	
	Amb to T4{1}		231	1.22	4-1	DISP	2	213	
	Hydrotest{1}	0	0	1.22	3-1	OCC	32	219	
	Sus.+T1{1}			1.22	5-1	CRUP	23	<NOTE 1>	
	Sus.+T2{1}			1.22	5-1	CRUP	23	<NOTE 1>	
	Sus.+T3{1}			1.22	5-1	CRUP	23	<NOTE 1>	
	Sus.+T4{1}			1.22	5-1	CRUP	22	<NOTE 1>	
A06	+ Max P{1}					HOOP	47	100	
	GR + Max P{1}	172		1.00	2-1	SUST	23	100	
	TR:Amb to T2{1}		553	1.00	4-1	DISP	5	213	
	Amb to T1{1}		450	1.00	4-1	DISP	4	213	
	Amb to T2{1}		553	1.00	4-1	DISP	5	213	
	Amb to T3{1}		450	1.00	4-1	DISP	4	213	
	Amb to T4{1}		289	1.00	4-1	DISP	2	213	
	Hydrotest{1}	0	0	1.00	3-1	OCC	32	219	
	Sus.+T1{1}			1.00	5-1	CRUP	24	<NOTE 1>	
	Sus.+T2{1}			1.00	5-1	CRUP	25	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1	CRUP	24	<NOTE 1>	
	Sus.+T4{1}			1.00	5-1	CRUP	24	<NOTE 1>	

F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 299

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
A06	- Max P{1}					HOOP	47	100	
	GR + Max P{1}	172			1.00	2-1 SUST	23	100	
	TR:Amb to T2{1}			553	1.00	4-1 DISP	5	213	
	Amb to T1{1}			450	1.00	4-1 DISP	4	213	
	Amb to T2{1}			553	1.00	4-1 DISP	5	213	
	Amb to T3{1}			450	1.00	4-1 DISP	4	213	
	Amb to T4{1}			289	1.00	4-1 DISP	2	213	
	Hydrotest{1}	0	0		1.00	3-1 OCC	32	219	
	Sus.+T1{1}				1.00	5-1 CRUP	24	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	25	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	24	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	24	<NOTE 1>	
A04	+ Max P{1}					HOOP	47	100	
	GR + Max P{1}	6			1.22	2-1 SUST	22	100	
	TR:Amb to T2{1}			500	1.22	4-1 DISP	5	213	
	Amb to T1{1}			397	1.22	4-1 DISP	4	213	
	Amb to T2{1}			500	1.22	4-1 DISP	5	213	
	Amb to T3{1}			398	1.22	4-1 DISP	4	213	
	Amb to T4{1}			232	1.22	4-1 DISP	2	213	
	Hydrotest{1}	0	0		1.22	3-1 OCC	32	219	
	Sus.+T1{1}				1.22	5-1 CRUP	23	<NOTE 1>	
	Sus.+T2{1}				1.22	5-1 CRUP	23	<NOTE 1>	
	Sus.+T3{1}				1.22	5-1 CRUP	23	<NOTE 1>	
	Sus.+T4{1}				1.22	5-1 CRUP	22	<NOTE 1>	
A04	- Max P{1}					HOOP	47	100	
	GR + Max P{1}	2			1.22	2-1 SUST	22	100	
	TR:Amb to T2{1}			0	1.22	4-1 DISP	0	213	
	Amb to T1{1}			0	1.22	4-1 DISP	0	213	
	Amb to T2{1}			0	1.22	4-1 DISP	0	213	
	Amb to T3{1}			0	1.22	4-1 DISP	0	213	
	Amb to T4{1}			0	1.22	4-1 DISP	0	213	

			F_LINE_REV0.OUT				
	Hydrotest{1}	0	0	1.22	3-1	OCC	32 219
	Sus.+T1{1}			1.22	5-1	CRUP	22 <NOTE 1>
	Sus.+T2{1}			1.22	5-1	CRUP	22 <NOTE 1>
	Sus.+T3{1}			1.22	5-1	CRUP	22 <NOTE 1>
	Sus.+T4{1}			1.22	5-1	CRUP	22 <NOTE 1>
A00	Max P{1}					HOOP	47 100
	GR + Max P{1}	0		1.00	2-1	SUST	22 100
	TR:Amb to T2{1}		0	1.00	4-1	DISP	0 213
	Amb to T1{1}		0	1.00	4-1	DISP	0 213
	Amb to T2{1}		0	1.00	4-1	DISP	0 213
	Amb to T3{1}		0	1.00	4-1	DISP	0 213
	Amb to T4{1}		0	1.00	4-1	DISP	0 213
	Hydrotest{1}	0	0	1.00	3-1	OCC	32 219
	Sus.+T1{1}			1.00	5-1	CRUP	22 <NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	22 <NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	22 <NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	22 <NOTE 1>

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F_LINE_REV0

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AutoPIPE Plus 9.2.1

RESULT PAGE 300

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)		
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
L09	Max P{1}					HOOP	32 88
	GR + Max P{1}	6			1.00	2-1 SUST	24 88
	TR:Amb to T2{1}			36	1.00	4-1 DISP	46 201
	Amb to T1{1}			18	1.00	4-1 DISP	24 247
	Amb to T2{1}			36	1.00	4-1 DISP	46 201
	Amb to T3{1}			4	1.00	4-1 DISP	5 247
	Amb to T4{1}			4	1.00	4-1 DISP	5 240
	Hydrotest{1}	0	0		1.00	3-1 OCC	12 219
	Sus.+T1{1}				1.00	5-1 CRUP	32 <NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	40 <NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	26 <NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	26 <NOTE 1>
K22	+ Max P{1}					HOOP	32 88

		F_LINE_REV0.OUT					
	GR + Max P{1}	4		1.00	2-1 SUST	22	88
	TR:Amb to T2{1}		35	1.00	4-1 DISP	45	201
	Amb to T1{1}		20	1.00	4-1 DISP	25	213
	Amb to T2{1}		35	1.00	4-1 DISP	45	201
	Amb to T3{1}		12	1.00	4-1 DISP	16	247
	Amb to T4{1}		16	1.00	4-1 DISP	20	202
	Hydrotest{1}	0	0	1.00	3-1 OCC	12	219
	Sus.+T1{1}			1.00	5-1 CRUP	30	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	37	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	27	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	29	<NOTE 1>
K22	- Max P{1}				HOOP	32	88
	GR + Max P{1}	4		1.00	2-1 SUST	22	88
	TR:Amb to T2{1}		35	1.00	4-1 DISP	45	201
	Amb to T1{1}		20	1.00	4-1 DISP	25	213
	Amb to T2{1}		35	1.00	4-1 DISP	45	201
	Amb to T3{1}		12	1.00	4-1 DISP	16	247
	Amb to T4{1}		16	1.00	4-1 DISP	20	202
	Hydrotest{1}	0	0	1.00	3-1 OCC	12	219
	Sus.+T1{1}			1.00	5-1 CRUP	30	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	37	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	27	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	29	<NOTE 1>
F05	Max P{1}				HOOP	13	104
	GR + Max P{1}	46		2.00	2-1 SUST	9	104
	TR:Amb to T2{1}		618	2.00	4-1 DISP	44	247
	Amb to T1{1}		570	2.00	4-1 DISP	40	247
	Amb to T2{1}		618	2.00	4-1 DISP	44	247
	Amb to T3{1}		493	2.00	4-1 DISP	35	217
	Amb to T4{1}		399	2.00	4-1 DISP	28	240
	Hydrotest{1}	0	0	2.00	3-1 OCC	1	219
	Sus.+T1{1}			2.00	5-1 CRUP	19	<NOTE 1>
	Sus.+T2{1}			2.00	5-1 CRUP	19	<NOTE 1>
	Sus.+T3{1}			2.00	5-1 CRUP	17	<NOTE 1>
	Sus.+T4{1}			2.00	5-1 CRUP	16	<NOTE 1>

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F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 301

F_LINE_REV0.OUT
EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F					
G07 N-	Max P{1}							HOOP	13	104
	GR + Max P{1}	19			1.00	2-1	SUST		7	104
	TR:Amb to T3{1}			1228	1.00	4-1	DISP		43	217
	Amb to T1{1}			334	1.00	4-1	DISP		12	247
	Amb to T2{1}			389	1.00	4-1	DISP		14	247
	Amb to T3{1}			1228	1.00	4-1	DISP		43	217
	Amb to T4{1}			317	1.00	4-1	DISP		11	240
	Hydrotest{1}	0	0		1.00	3-1	OCC		1	219
	Sus.+T1{1}				1.00	5-1	CRUP		11	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		11	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP		21	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP		10	<NOTE 1>
K17	Max P{1}							HOOP	32	88
	GR + Max P{1}	3			2.00	2-1	SUST		21	88
	TR:T1 to T4{1}			16	2.00	4-1	DISP		42	202
	Amb to T1{1}			13	2.00	4-1	DISP		34	213
	Amb to T2{1}			12	2.00	4-1	DISP		30	201
	Amb to T3{1}			10	2.00	4-1	DISP		25	247
	Amb to T4{1}			3	2.00	4-1	DISP		8	202
	Hydrotest{1}	0	0		2.00	3-1	OCC		12	219
	Sus.+T1{1}				2.00	5-1	CRUP		30	<NOTE 1>
	Sus.+T2{1}				2.00	5-1	CRUP		29	<NOTE 1>
	Sus.+T3{1}				2.00	5-1	CRUP		28	<NOTE 1>
	Sus.+T4{1}				2.00	5-1	CRUP		23	<NOTE 1>
F08 F+	Max P{1}							HOOP	13	104
	GR + Max P{1}	50			1.00	2-1	SUST		8	104
	TR:T2 to T3{1}			1167	1.00	4-1	DISP		41	217
	Amb to T1{1}			419	1.00	4-1	DISP		15	247
	Amb to T2{1}			453	1.00	4-1	DISP		16	247
	Amb to T3{1}			1114	1.00	4-1	DISP		39	217
	Amb to T4{1}			433	1.00	4-1	DISP		15	240
	Hydrotest{1}	0	0		1.00	3-1	OCC		1	219
	Sus.+T1{1}				1.00	5-1	CRUP		13	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		13	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP		21	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP		13	<NOTE 1>

		F_LINE_REV0.OUT					
G05	Max P{1}				HOOP	13	104
	GR + Max P{1}	44	2.00	2-1	SUST	8	104
	TR:T2 to T3{1}	574	2.00	4-1	DISP	41	217
	Amb to T1{1}	212	2.00	4-1	DISP	15	247
	Amb to T2{1}	232	2.00	4-1	DISP	16	247
	Amb to T3{1}	469	2.00	4-1	DISP	33	217
	Amb to T4{1}	153	2.00	4-1	DISP	11	240
	Hydrotest{1}	0	0	2.00	3-1 OCC	1	219
	Sus.+T1{1}		2.00	5-1	CRUP	12	<NOTE 1>
	Sus.+T2{1}		2.00	5-1	CRUP	13	<NOTE 1>
	Sus.+T3{1}		2.00	5-1	CRUP	17	<NOTE 1>
	Sus.+T4{1}		2.00	5-1	CRUP	11	<NOTE 1>

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F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

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AutoPIPE Plus 9.2.1 RESULT PAGE 302

EN 13480 (2002) CODE COMPLIANCE								
		(Moments in N.m)			(Stress in N/mm2)			
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code	
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
D04	Max P{1}					HOOP	33	100
	GR + Max P{1}	191			1.00	2-1 SUST	32	100
	TR:Amb to T2{1}			316	1.00	4-1 DISP	26	213
	Amb to T1{1}			249	1.00	4-1 DISP	21	213
	Amb to T2{1}			316	1.00	4-1 DISP	26	213
	Amb to T3{1}			250	1.00	4-1 DISP	21	213
	Amb to T4{1}			264	1.00	4-1 DISP	22	213
	Hydrotest{1}	0	0		1.00	3-1 OCC	24	219
	Sus.+T1{1}				1.00	5-1 CRUP	39	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	41	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	39	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	39	<NOTE 1>
S01	Max P{1}					HOOP	39	88
	GR + Max P{1}	0			1.00	2-1 SUST	20	88
	TR:Amb to T3{1}			0	1.00	4-1 DISP	0	213
	Amb to T1{1}			0	1.00	4-1 DISP	0	213
	Amb to T2{1}			0	1.00	4-1 DISP	0	201
	Amb to T3{1}			0	1.00	4-1 DISP	0	213
	Amb to T4{1}			0	1.00	4-1 DISP	0	213

	Hydrotest{1}	0	0	1.00	3-1	OCC	15	219	
	Sus.+T1{1}			1.00	5-1	CRUP	20	<NOTE 1>	
	Sus.+T2{1}			1.00	5-1	CRUP	20	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1	CRUP	20	<NOTE 1>	
	Sus.+T4{1}			1.00	5-1	CRUP	20	<NOTE 1>	
D19	Max P{1}					HOOP	39	88	
	GR + Max P{1}	0		1.00	2-1	SUST	20	88	
	TR:Amb to T3{1}		0	1.00	4-1	DISP	0	213	
	Amb to T1{1}		0	1.00	4-1	DISP	0	213	
	Amb to T2{1}		0	1.00	4-1	DISP	0	201	
	Amb to T3{1}		0	1.00	4-1	DISP	0	213	
	Amb to T4{1}		0	1.00	4-1	DISP	0	213	
	Hydrotest{1}	0	0	1.00	3-1	OCC	15	219	
	Sus.+T1{1}			1.00	5-1	CRUP	20	<NOTE 1>	
	Sus.+T2{1}			1.00	5-1	CRUP	20	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1	CRUP	20	<NOTE 1>	
	Sus.+T4{1}			1.00	5-1	CRUP	20	<NOTE 1>	
	R01	Max P{1}					HOOP	39	88
		GR + Max P{1}	0		1.00	2-1	SUST	20	88
TR:Amb to T2{1}			0	1.00	4-1	DISP	0	201	
Amb to T1{1}			0	1.00	4-1	DISP	0	213	
Amb to T2{1}			0	1.00	4-1	DISP	0	201	
Amb to T3{1}			0	1.00	4-1	DISP	0	213	
Amb to T4{1}			0	1.00	4-1	DISP	0	240	
Hydrotest{1}		0	0	1.00	3-1	OCC	15	219	
Sus.+T1{1}				1.00	5-1	CRUP	20	<NOTE 1>	
Sus.+T2{1}				1.00	5-1	CRUP	20	<NOTE 1>	
Sus.+T3{1}				1.00	5-1	CRUP	20	<NOTE 1>	
Sus.+T4{1}				1.00	5-1	CRUP	20	<NOTE 1>	

F_LINE_REV0

BENTLEY

AutoPIPE Plus 9.2.1 RESULT PAGE 303

(Moments in N.m) (Stress in N/mm²)

Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
-----	-----	-----	-----	-----	-----	-----	-----	-----
C16	Max P{1}					H00P	39	88

F_LINE_REV0.OUT

	GR + Max P{1}	0		1.00	2-1 SUST	20	88
	TR:Amb to T4{1}		0	1.00	4-1 DISP	0	240
	Amb to T1{1}		0	1.00	4-1 DISP	0	213
	Amb to T2{1}		0	1.00	4-1 DISP	0	201
	Amb to T3{1}		0	1.00	4-1 DISP	0	213
	Amb to T4{1}		0	1.00	4-1 DISP	0	240
	Hydrotest{1}	0	0	1.00	3-1 OCC	15	219
	Sus.+T1{1}			1.00	5-1 CRUP	20	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	20	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	20	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	20	<NOTE 1>
Q01	Max P{1}				HOOP	39	88
	GR + Max P{1}	0		1.00	2-1 SUST	20	88
	TR:Amb to T2{1}		0	1.00	4-1 DISP	0	201
	Amb to T1{1}		0	1.00	4-1 DISP	0	213
	Amb to T2{1}		0	1.00	4-1 DISP	0	201
	Amb to T3{1}		0	1.00	4-1 DISP	0	213
	Amb to T4{1}		0	1.00	4-1 DISP	0	240
	Hydrotest{1}	0	0	1.00	3-1 OCC	15	219
	Sus.+T1{1}			1.00	5-1 CRUP	20	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	20	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	20	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	20	<NOTE 1>
B12	Max P{1}				HOOP	39	88
	GR + Max P{1}	0		1.00	2-1 SUST	20	88
	TR:Amb to T2{1}		0	1.00	4-1 DISP	0	201
	Amb to T1{1}		0	1.00	4-1 DISP	0	213
	Amb to T2{1}		0	1.00	4-1 DISP	0	201
	Amb to T3{1}		0	1.00	4-1 DISP	0	213
	Amb to T4{1}		0	1.00	4-1 DISP	0	240
	Hydrotest{1}	0	0	1.00	3-1 OCC	15	219
	Sus.+T1{1}			1.00	5-1 CRUP	20	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	20	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	20	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	20	<NOTE 1>
M09	Max P{1}				HOOP	39	153
	GR + Max P{1}	0		2.00	2-1 SUST	20	153
	TR:Amb to T2{1}		2	2.00	4-1 DISP	3	247
	Amb to T1{1}		2	2.00	4-1 DISP	3	247
	Amb to T2{1}		2	2.00	4-1 DISP	3	247
	Amb to T3{1}		2	2.00	4-1 DISP	2	247

Amb to T4{1}			2	2.00	4-1 DISP	2	247
Hydrotest{1}	0	0		2.00	3-1 OCC	15	219
Sus.+T1{1}				2.00	5-1 CRUP	21	<NOTE 1>
Sus.+T2{1}				2.00	5-1 CRUP	21	<NOTE 1>
Sus.+T3{1}				2.00	5-1 CRUP	20	<NOTE 1>
Sus.+T4{1}				2.00	5-1 CRUP	21	<NOTE 1>

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M19	- Max P{1}					HOOP	39	153
	GR + Max P{1}	0		1.00	2-1	SUST	20	153
	TR:Amb to T2{1}		4	1.00	4-1	DISP	3	247
	Amb to T1{1}		4	1.00	4-1	DISP	3	247
	Amb to T2{1}		4	1.00	4-1	DISP	3	247
	Amb to T3{1}		3	1.00	4-1	DISP	2	247
	Amb to T4{1}		4	1.00	4-1	DISP	3	247
	Hydrotest{1}	0	0	1.00	3-1	OCC	15	219
	Sus.+T1{1}			1.00	5-1	CRUP	21	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	21	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	21	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	21	<NOTE 1>

F_LINE_REV0.OUT

M08 F+ Max P{1}					HOOP	39	153
GR + Max P{1}	0		1.00	2-1	SUST	20	153
TR:Amb to T2{1}		9	1.00	4-1	DISP	7	247
Amb to T1{1}		7	1.00	4-1	DISP	5	247
Amb to T2{1}		9	1.00	4-1	DISP	7	247
Amb to T3{1}		6	1.00	4-1	DISP	4	247
Amb to T4{1}		7	1.00	4-1	DISP	5	247
Hydrotest{1}	0	0	1.00	3-1	OCC	15	219
Sus.+T1{1}			1.00	5-1	CRUP	22	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	22	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	22	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	22	<NOTE 1>
M08 F- Max P{1}					HOOP	39	153
GR + Max P{1}	0		1.00	2-1	SUST	20	153
TR:Amb to T2{1}		9	1.00	4-1	DISP	7	247
Amb to T1{1}		7	1.00	4-1	DISP	5	247
Amb to T2{1}		9	1.00	4-1	DISP	7	247
Amb to T3{1}		6	1.00	4-1	DISP	4	247
Amb to T4{1}		7	1.00	4-1	DISP	5	247
Hydrotest{1}	0	0	1.00	3-1	OCC	15	219
Sus.+T1{1}			1.00	5-1	CRUP	22	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	22	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	22	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	22	<NOTE 1>

 F_LINE_REV0
 09/13/2010 FEED LINE
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 AutoPIPE Plus 9.2.1
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BENTLEY

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no.	type	Stress	Allow.
M08 N+ Max P{1}						39	153		
GR + Max P{1}		1			1.00	2-1	SUST	20	153
TR:Amb to T2{1}				9	1.00	4-1	DISP	6	247
Amb to T1{1}				7	1.00	4-1	DISP	5	247
Amb to T2{1}				9	1.00	4-1	DISP	6	247
Amb to T3{1}				6	1.00	4-1	DISP	4	247

			F_LINE_REV0.0UT				
Amb to T4{1}			7	1.00	4-1 DISP	5	247
Hydrotest{1}	0	0		1.00	3-1 OCC	15	219
Sus.+T1{1}				1.00	5-1 CRUP	22	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	23	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	22	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	22	<NOTE 1>
M08 N- Max P{1}					HOOP	39	153
GR + Max P{1}	1			1.00	2-1 SUST	20	153
TR:Amb to T2{1}			9	1.00	4-1 DISP	6	247
Amb to T1{1}			7	1.00	4-1 DISP	5	247
Amb to T2{1}			9	1.00	4-1 DISP	6	247
Amb to T3{1}			6	1.00	4-1 DISP	4	247
Amb to T4{1}			7	1.00	4-1 DISP	5	247
Hydrotest{1}	0	0		1.00	3-1 OCC	15	219
Sus.+T1{1}				1.00	5-1 CRUP	22	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	23	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	22	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	22	<NOTE 1>
C019 + Max P{1}					HOOP	39	153
GR + Max P{1}	4			1.00	2-1 SUST	23	153
TR:Amb to T2{1}			7	1.00	4-1 DISP	5	247
Amb to T1{1}			7	1.00	4-1 DISP	5	247
Amb to T2{1}			7	1.00	4-1 DISP	5	247
Amb to T3{1}			6	1.00	4-1 DISP	4	247
Amb to T4{1}			6	1.00	4-1 DISP	5	247
Hydrotest{1}	0	0		1.00	3-1 OCC	15	219
Sus.+T1{1}				1.00	5-1 CRUP	24	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	24	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	24	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	24	<NOTE 1>
C019 - Max P{1}					HOOP	39	153
GR + Max P{1}	4			1.00	2-1 SUST	23	153
TR:Amb to T2{1}			7	1.00	4-1 DISP	5	247
Amb to T1{1}			7	1.00	4-1 DISP	5	247
Amb to T2{1}			7	1.00	4-1 DISP	5	247
Amb to T3{1}			6	1.00	4-1 DISP	4	247
Amb to T4{1}			6	1.00	4-1 DISP	5	247
Hydrotest{1}	0	0		1.00	3-1 OCC	15	219
Sus.+T1{1}				1.00	5-1 CRUP	24	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	24	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	24	<NOTE 1>

Sus.+T4{1}

F_LINE_REV0.OUT

1.00

5-1 CRUP

24 <NOTE 1>

0

F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

10:17 AM

AutoPIPE Plus 9.2.1

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F					
M15	Max P{1}							HOOP	39	153
	GR + Max P{1}	11			1.00	2-1	SUST		28	153
	TR:Amb to T2{1}			6	1.00	4-1	DISP		5	247
	Amb to T1{1}			6	1.00	4-1	DISP		5	247
	Amb to T2{1}			6	1.00	4-1	DISP		5	247
	Amb to T3{1}			6	1.00	4-1	DISP		4	247
	Amb to T4{1}			6	1.00	4-1	DISP		4	247
	Hydrotest{1}	0	0		1.00	3-1	OCC		15	219
	Sus.+T1{1}				1.00	5-1	CRUP		29	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		29	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP		29	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP		29	<NOTE 1>
M06	Max P{1}							HOOP	39	153
	GR + Max P{1}	15			1.00	2-1	SUST		31	153
	TR:Amb to T3{1}			6	1.00	4-1	DISP		5	247
	Amb to T1{1}			6	1.00	4-1	DISP		4	247
	Amb to T2{1}			6	1.00	4-1	DISP		4	247
	Amb to T3{1}			6	1.00	4-1	DISP		5	247
	Amb to T4{1}			6	1.00	4-1	DISP		4	247
	Hydrotest{1}	0	0		1.00	3-1	OCC		15	219
	Sus.+T1{1}				1.00	5-1	CRUP		32	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		32	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP		32	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP		32	<NOTE 1>
CH11	Max P{1}							HOOP	39	153
	GR + Max P{1}	6			1.80	2-1	SUST		25	153
	TR:Amb to T2{1}			10	1.80	4-1	DISP		13	247
	Amb to T1{1}			8	1.80	4-1	DISP		11	247
	Amb to T2{1}			10	1.80	4-1	DISP		13	247

			F_LINE_REV0.OUT					
	Amb to T3{1}		7	1.80	4-1 DISP	9	247	
	Amb to T4{1}		8	1.80	4-1 DISP	11	247	
	Hydrotest{1}	0	0	1.80	3-1 OCC	15	219	
	Sus.+T1{1}			1.80	5-1 CRUP	28	<NOTE 1>	
	Sus.+T2{1}			1.80	5-1 CRUP	29	<NOTE 1>	
	Sus.+T3{1}			1.80	5-1 CRUP	28	<NOTE 1>	
	Sus.+T4{1}			1.80	5-1 CRUP	28	<NOTE 1>	
M04	Max P{1}				HOOP	39	88	
	GR + Max P{1}	3		1.80	2-1 SUST	22	88	
	TR:Amb to T2{1}		13	1.80	4-1 DISP	17	201	
	Amb to T1{1}		10	1.80	4-1 DISP	13	213	
	Amb to T2{1}		13	1.80	4-1 DISP	17	201	
	Amb to T3{1}		7	1.80	4-1 DISP	10	247	
	Amb to T4{1}		10	1.80	4-1 DISP	13	213	
	Hydrotest{1}	0	0	1.80	3-1 OCC	15	219	
	Sus.+T1{1}			1.80	5-1 CRUP	26	<NOTE 1>	
	Sus.+T2{1}			1.80	5-1 CRUP	26	<NOTE 1>	
	Sus.+T3{1}			1.80	5-1 CRUP	25	<NOTE 1>	
	Sus.+T4{1}			1.80	5-1 CRUP	26	<NOTE 1>	

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F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

10:17 AM

AutoPIPE Plus 9.2.1

RESULT PAGE 307

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
M03 F+	Max P{1}					HOOP	39	88	
	GR + Max P{1}	0			1.00	2-1 SUST	20	88	
	TR:Amb to T2{1}			19	1.00	4-1 DISP	13	201	
	Amb to T1{1}			14	1.00	4-1 DISP	10	213	
	Amb to T2{1}			19	1.00	4-1 DISP	13	201	
	Amb to T3{1}			8	1.00	4-1 DISP	6	247	
	Amb to T4{1}			14	1.00	4-1 DISP	10	213	
	Hydrotest{1}	0	0		1.00	3-1 OCC	15	219	
	Sus.+T1{1}				1.00	5-1 CRUP	23	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	25	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	22	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	23	<NOTE 1>	

F_LINE_REV0.OUT

M03 F-	Max P{1}					HOOP	39	88
	GR + Max P{1}	0		1.00	2-1	SUST	20	88
	TR:Amb to T2{1}		19	1.00	4-1	DISP	13	201
	Amb to T1{1}		14	1.00	4-1	DISP	10	213
	Amb to T2{1}		19	1.00	4-1	DISP	13	201
	Amb to T3{1}		8	1.00	4-1	DISP	6	247
	Amb to T4{1}		14	1.00	4-1	DISP	10	213
	Hydrotest{1}	0	0	1.00	3-1	OCC	15	219
	Sus.+T1{1}			1.00	5-1	CRUP	23	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	25	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	22	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	23	<NOTE 1>
	M03 N+	Max P{1}					HOOP	39
GR + Max P{1}		0		1.00	2-1	SUST	20	88
TR:Amb to T2{1}			20	1.00	4-1	DISP	14	201
Amb to T1{1}			15	1.00	4-1	DISP	11	213
Amb to T2{1}			20	1.00	4-1	DISP	14	201
Amb to T3{1}			8	1.00	4-1	DISP	6	247
Amb to T4{1}			15	1.00	4-1	DISP	11	213
Hydrotest{1}		0	0	1.00	3-1	OCC	15	219
Sus.+T1{1}				1.00	5-1	CRUP	24	<NOTE 1>
Sus.+T2{1}				1.00	5-1	CRUP	25	<NOTE 1>
Sus.+T3{1}				1.00	5-1	CRUP	22	<NOTE 1>
Sus.+T4{1}				1.00	5-1	CRUP	24	<NOTE 1>
M03 N-		Max P{1}					HOOP	39
	GR + Max P{1}	0		1.00	2-1	SUST	20	88
	TR:Amb to T2{1}		20	1.00	4-1	DISP	14	201
	Amb to T1{1}		15	1.00	4-1	DISP	11	213
	Amb to T2{1}		20	1.00	4-1	DISP	14	201
	Amb to T3{1}		8	1.00	4-1	DISP	6	247
	Amb to T4{1}		15	1.00	4-1	DISP	11	213
	Hydrotest{1}	0	0	1.00	3-1	OCC	15	219
	Sus.+T1{1}			1.00	5-1	CRUP	24	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	25	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	22	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	24	<NOTE 1>

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F LINE REV0

09/13/2010 FEED LINE

BENTLEY

10:17 AM

EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. no.	Load type		
M02	Max P{1}						HOOP	39	88
	GR + Max P{1}	1			2.00	2-1	SUST	20	88
	TR:Amb to T2{1}			19	2.00	4-1	DISP	27	201
	Amb to T1{1}			15	2.00	4-1	DISP	21	213
	Amb to T2{1}			19	2.00	4-1	DISP	27	201
	Amb to T3{1}			9	2.00	4-1	DISP	13	247
	Amb to T4{1}			14	2.00	4-1	DISP	21	213
	Hydrotest{1}	0	0		2.00	3-1	OCC	15	219
	Sus.+T1{1}				2.00	5-1	CRUP	26	<NOTE 1>
	Sus.+T2{1}				2.00	5-1	CRUP	27	<NOTE 1>
	Sus.+T3{1}				2.00	5-1	CRUP	24	<NOTE 1>
	Sus.+T4{1}				2.00	5-1	CRUP	26	<NOTE 1>
CH09	Max P{1}						HOOP	39	88
	GR + Max P{1}	7			2.00	2-1	SUST	27	88
	TR:T2 to T4{1}			13	2.00	4-1	DISP	18	201
	Amb to T1{1}			8	2.00	4-1	DISP	11	247
	Amb to T2{1}			9	2.00	4-1	DISP	13	201
	Amb to T3{1}			8	2.00	4-1	DISP	12	247
	Amb to T4{1}			4	2.00	4-1	DISP	6	202
	Hydrotest{1}	0	0		2.00	3-1	OCC	15	219
	Sus.+T1{1}				2.00	5-1	CRUP	30	<NOTE 1>
	Sus.+T2{1}				2.00	5-1	CRUP	31	<NOTE 1>
	Sus.+T3{1}				2.00	5-1	CRUP	30	<NOTE 1>
	Sus.+T4{1}				2.00	5-1	CRUP	29	<NOTE 1>
K16	Max P{1}						HOOP	39	88
	GR + Max P{1}	3			2.00	2-1	SUST	23	88
	TR:T1 to T4{1}			15	2.00	4-1	DISP	22	202
	Amb to T1{1}			12	2.00	4-1	DISP	17	247
	Amb to T2{1}			11	2.00	4-1	DISP	16	201
	Amb to T3{1}			9	2.00	4-1	DISP	13	247
	Amb to T4{1}			3	2.00	4-1	DISP	5	202
	Hydrotest{1}	0	0		2.00	3-1	OCC	15	219
	Sus.+T1{1}				2.00	5-1	CRUP	28	<NOTE 1>
	Sus.+T2{1}				2.00	5-1	CRUP	27	<NOTE 1>
	Sus.+T3{1}				2.00	5-1	CRUP	27	<NOTE 1>

Sus.+T4{1}			2.00	5-1 CRUP	25	<NOTE 1>
Max P{1}				HOOP	32	88
GR + Max P{1}	9		2.00	2-1 SUST	34	88
TR:T2 to T4{1}		12	2.00	4-1 DISP	31	201
Amb to T1{1}		7	2.00	4-1 DISP	17	247
Amb to T2{1}		8	2.00	4-1 DISP	21	201
Amb to T3{1}		8	2.00	4-1 DISP	20	247
Amb to T4{1}		4	2.00	4-1 DISP	10	202
Hydrotest{1}	0	0	2.00	3-1 OCC	12	219
Sus.+T1{1}			2.00	5-1 CRUP	38	<NOTE 1>
Sus.+T2{1}			2.00	5-1 CRUP	39	<NOTE 1>
Sus.+T3{1}			2.00	5-1 CRUP	39	<NOTE 1>
Sus.+T4{1}			2.00	5-1 CRUP	36	<NOTE 1>

RESULT PAGE 309

Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.

G06 N-	Max P{1}					HOOP	13	104
	GR + Max P{1}	22			1.00	2-1 SUST	7	104
	TR:T2 to T3{1}			1101	1.00	4-1 DISP	39	217
	Amb to T1{1}			402	1.00	4-1 DISP	14	247
	Amb to T2{1}			468	1.00	4-1 DISP	17	247
	Amb to T3{1}			880	1.00	4-1 DISP	31	217
	Amb to T4{1}			185	1.00	4-1 DISP	7	240
	Hydrotest{1}	0	0		1.00	3-1 OCC	1	219
	Sus.+T1{1}				1.00	5-1 CRUP	12	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	12	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	17	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	9	<NOTE 1>
F06 N-	Max P{1}					HOOP	13	104
	GR + Max P{1}	67			1.00	2-1 SUST	8	104
	TR:T2 to T3{1}			1087	1.00	4-1 DISP	38	217
	Amb to T1{1}			661	1.00	4-1 DISP	23	247
	Amb to T2{1}			722	1.00	4-1 DISP	26	247

F_LINE_REV0.OUT

Amb to T3{1}			581	1.00	4-1 DISP	21	217
Amb to T4{1}			352	1.00	4-1 DISP	12	240
Hydrotest{1}	0	0		1.00	3-1 OCC	1	219
Sus.+T1{1}				1.00	5-1 CRUP	16	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	17	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	15	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	13	<NOTE 1>
G06 F+ Max P{1}					HOOP	13	104
GR + Max P{1}	29			1.00	2-1 SUST	7	104
TR:T2 to T3{1}			1084	1.00	4-1 DISP	38	217
Amb to T1{1}			468	1.00	4-1 DISP	17	247
Amb to T2{1}			561	1.00	4-1 DISP	20	247
Amb to T3{1}			787	1.00	4-1 DISP	28	217
Amb to T4{1}			182	1.00	4-1 DISP	6	240
Hydrotest{1}	0	0		1.00	3-1 OCC	1	219
Sus.+T1{1}				1.00	5-1 CRUP	13	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	14	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	16	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	9	<NOTE 1>
G17 + Max P{1}					HOOP	13	104
GR + Max P{1}	88			1.00	2-1 SUST	9	104
TR:Amb to T2{1}			1081	1.00	4-1 DISP	38	247
Amb to T1{1}			826	1.00	4-1 DISP	29	247
Amb to T2{1}			1081	1.00	4-1 DISP	38	247
Amb to T3{1}			596	1.00	4-1 DISP	21	217
Amb to T4{1}			283	1.00	4-1 DISP	10	240
Hydrotest{1}	0	0		1.00	3-1 OCC	1	219
Sus.+T1{1}				1.00	5-1 CRUP	19	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	22	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	16	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	13	<NOTE 1>

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F_LINE_REV0

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BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 310

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)

(Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.

F_LINE_REV0.OUT

G17	- Max P{1}					HOOP	13	104	
	GR + Max P{1}	88		1.00	2-1	SUST	9	104	
	TR:Amb to T2{1}		1081	1.00	4-1	DISP	38	247	
	Amb to T1{1}		826	1.00	4-1	DISP	29	247	
	Amb to T2{1}		1081	1.00	4-1	DISP	38	247	
	Amb to T3{1}		596	1.00	4-1	DISP	21	217	
	Amb to T4{1}		283	1.00	4-1	DISP	10	240	
	Hydrotest{1}	0	0	1.00	3-1	OCC	1	219	
	Sus.+T1{1}			1.00	5-1	CRUP	19	<NOTE 1>	
	Sus.+T2{1}			1.00	5-1	CRUP	22	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1	CRUP	16	<NOTE 1>	
	Sus.+T4{1}			1.00	5-1	CRUP	13	<NOTE 1>	
K19	Max P{1}					HOOP	32	88	
	GR + Max P{1}	13		1.00	2-1	SUST	33	88	
	TR:T1 to T2{1}		10	1.00	4-1	DISP	13	201	
	Amb to T1{1}		1	1.00	4-1	DISP	1	247	
	Amb to T2{1}		9	1.00	4-1	DISP	12	201	
	Amb to T3{1}		5	1.00	4-1	DISP	6	247	
	Amb to T4{1}		1	1.00	4-1	DISP	2	202	
	Hydrotest{1}	0	0	1.00	3-1	OCC	12	219	
	Sus.+T1{1}			1.00	5-1	CRUP	33	<NOTE 1>	
	Sus.+T2{1}			1.00	5-1	CRUP	37	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1	CRUP	35	<NOTE 1>	
	Sus.+T4{1}			1.00	5-1	CRUP	34	<NOTE 1>	
K08	Max P{1}					HOOP	32	88	
	GR + Max P{1}	13		1.00	2-1	SUST	33	88	
	TR:T3 to T4{1}		11	1.00	4-1	DISP	14	202	
	Amb to T1{1}		4	1.00	4-1	DISP	5	247	
	Amb to T2{1}		7	1.00	4-1	DISP	9	201	
	Amb to T3{1}		7	1.00	4-1	DISP	9	247	
	Amb to T4{1}		4	1.00	4-1	DISP	6	202	
	Hydrotest{1}	0	0	1.00	3-1	OCC	12	219	
	Sus.+T1{1}			1.00	5-1	CRUP	34	<NOTE 1>	
	Sus.+T2{1}			1.00	5-1	CRUP	36	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1	CRUP	36	<NOTE 1>	
	Sus.+T4{1}			1.00	5-1	CRUP	35	<NOTE 1>	
G10	Max P{1}					HOOP	16	104	
	GR + Max P{1}	44		1.20	2-1	SUST	8	104	
	TR:T2 to T3{1}		1528	1.20	4-1	DISP	35	217	
	Amb to T1{1}		201	1.20	4-1	DISP	5	247	

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Amb to T2{1}			295	1.20	4-1 DISP	7	247
Amb to T3{1}			1419	1.20	4-1 DISP	32	217
Amb to T4{1}			736	1.20	4-1 DISP	17	240
Hydrotest{1}	0	0		1.20	3-1 OCC	1	219
Sus.+T1{1}				1.20	5-1 CRUP	9	<NOTE 1>
Sus.+T2{1}				1.20	5-1 CRUP	10	<NOTE 1>
Sus.+T3{1}				1.20	5-1 CRUP	17	<NOTE 1>
Sus.+T4{1}				1.20	5-1 CRUP	13	<NOTE 1>

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F_LINE_REV0

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. Load no. type			
FV03	Max P{1}					HOOP		29	100
	GR + Max P{1}	34			1.00	2-1 SUST		19	100
	TR:Amb to T4{1}			228	1.00	4-1 DISP		34	213
	Amb to T1{1}			190	1.00	4-1 DISP		28	213
	Amb to T2{1}			167	1.00	4-1 DISP		25	213
	Amb to T3{1}			190	1.00	4-1 DISP		28	213
	Amb to T4{1}			228	1.00	4-1 DISP		34	213
	Hydrotest{1}	0	0		1.00	3-1 OCC		21	219
	Sus.+T1{1}				1.00	5-1 CRUP		28	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP		27	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP		28	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP		30	<NOTE 1>
FV06	Max P{1}					HOOP		33	100
	GR + Max P{1}	32			1.00	2-1 SUST		19	100
	TR:Amb to T4{1}			61	1.00	4-1 DISP		5	213
	Amb to T1{1}			55	1.00	4-1 DISP		5	213
	Amb to T2{1}			50	1.00	4-1 DISP		4	213
	Amb to T3{1}			56	1.00	4-1 DISP		5	213
	Amb to T4{1}			61	1.00	4-1 DISP		5	213
	Hydrotest{1}	0	0		1.00	3-1 OCC		24	219
	Sus.+T1{1}				1.00	5-1 CRUP		20	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP		20	<NOTE 1>

			F_LINE_REV0.OUT				
	Sus.+T3{1}			1.00	5-1	CRUP	20 <NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	20 <NOTE 1>
D02	Max P{1}					HOOP	33 100
	GR + Max P{1}	105		1.00	2-1	SUST	25 100
	TR:Amb to T2{1}		224	1.00	4-1	DISP	19 213
	Amb to T1{1}		157	1.00	4-1	DISP	13 213
	Amb to T2{1}		224	1.00	4-1	DISP	19 213
	Amb to T3{1}		158	1.00	4-1	DISP	13 213
	Amb to T4{1}		157	1.00	4-1	DISP	13 213
	Hydrotest{1}	0	0	1.00	3-1	OCC	24 219
	Sus.+T1{1}			1.00	5-1	CRUP	29 <NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	31 <NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	29 <NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	29 <NOTE 1>
L22	Max P{1}					HOOP	32 88
	GR + Max P{1}	0		2.00	2-1	SUST	17 88
	TR:Amb to T2{1}		4	2.00	4-1	DISP	10 201
	Amb to T1{1}		2	2.00	4-1	DISP	5 247
	Amb to T2{1}		4	2.00	4-1	DISP	10 201
	Amb to T3{1}		0	2.00	4-1	DISP	1 247
	Amb to T4{1}		0	2.00	4-1	DISP	1 240
	Hydrotest{1}	0	0	2.00	3-1	OCC	12 219
	Sus.+T1{1}			2.00	5-1	CRUP	18 <NOTE 1>
	Sus.+T2{1}			2.00	5-1	CRUP	19 <NOTE 1>
	Sus.+T3{1}			2.00	5-1	CRUP	17 <NOTE 1>
	Sus.+T4{1}			2.00	5-1	CRUP	17 <NOTE 1>

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F_LINE_REV0

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BENTLEY

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
L24	+ Max P{1}					HOOP	32	88	
	GR + Max P{1}	0			1.00	2-1 SUST	17	88	
	TR:Amb to T2{1}			8	1.00	4-1 DISP	10	201	
	Amb to T1{1}			2	1.00	4-1 DISP	3	247	

			F_LINE_REV0.OUT				
	Amb to T2{1}		8	1.00	4-1 DISP	10	201
	Amb to T3{1}		0	1.00	4-1 DISP	0	247
	Amb to T4{1}		1	1.00	4-1 DISP	1	240
	Hydrotest{1}	0	0	1.00	3-1 OCC	12	219
	Sus.+T1{1}			1.00	5-1 CRUP	18	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	20	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	17	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	17	<NOTE 1>
L24	- Max P{1}				HOOP	32	88
	GR + Max P{1}	0		1.00	2-1 SUST	17	88
	TR:Amb to T2{1}		8	1.00	4-1 DISP	10	201
	Amb to T1{1}		2	1.00	4-1 DISP	3	247
	Amb to T2{1}		8	1.00	4-1 DISP	10	201
	Amb to T3{1}		0	1.00	4-1 DISP	0	247
	Amb to T4{1}		1	1.00	4-1 DISP	1	240
	Hydrotest{1}	0	0	1.00	3-1 OCC	12	219
	Sus.+T1{1}			1.00	5-1 CRUP	18	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	20	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	17	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	17	<NOTE 1>
L25	+ Max P{1}				HOOP	32	88
	GR + Max P{1}	1		1.00	2-1 SUST	17	88
	TR:Amb to T2{1}		21	1.00	4-1 DISP	27	201
	Amb to T1{1}		5	1.00	4-1 DISP	6	247
	Amb to T2{1}		21	1.00	4-1 DISP	27	201
	Amb to T3{1}		0	1.00	4-1 DISP	1	247
	Amb to T4{1}		3	1.00	4-1 DISP	3	240
	Hydrotest{1}	0	0	1.00	3-1 OCC	12	219
	Sus.+T1{1}			1.00	5-1 CRUP	19	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	26	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	17	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	18	<NOTE 1>
L25	- Max P{1}				HOOP	32	88
	GR + Max P{1}	1		1.00	2-1 SUST	17	88
	TR:Amb to T2{1}		21	1.00	4-1 DISP	27	201
	Amb to T1{1}		5	1.00	4-1 DISP	6	247
	Amb to T2{1}		21	1.00	4-1 DISP	27	201
	Amb to T3{1}		0	1.00	4-1 DISP	1	247
	Amb to T4{1}		3	1.00	4-1 DISP	3	240
	Hydrotest{1}	0	0	1.00	3-1 OCC	12	219
	Sus.+T1{1}			1.00	5-1 CRUP	19	<NOTE 1>

Sus.+T2{1}	F_LINE_REV0.OUT	1.00	5-1 CRUP	26 <NOTE 1>
Sus.+T3{1}		1.00	5-1 CRUP	17 <NOTE 1>
Sus.+T4{1}		1.00	5-1 CRUP	18 <NOTE 1>

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F_LINE_REV0

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AutoPIPE Plus 9.2.1

RESULT PAGE 313

EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. Load no. type			
K11	Max P{1}					HOOP		32	88
	GR + Max P{1}	1			2.00	2-1 SUST		18	88
	TR:T1 to T2{1}			3	2.00	4-1 DISP		7	201
	Amb to T1{1}			0	2.00	4-1 DISP		1	247
	Amb to T2{1}			3	2.00	4-1 DISP		7	201
	Amb to T3{1}			0	2.00	4-1 DISP		0	247
	Amb to T4{1}			2	2.00	4-1 DISP		6	202
	Hydrotest{1}	0	0		2.00	3-1 OCC		12	219
	Sus.+T1{1}				2.00	5-1 CRUP		18	<NOTE 1>
	Sus.+T2{1}				2.00	5-1 CRUP		19	<NOTE 1>
	Sus.+T3{1}				2.00	5-1 CRUP		18	<NOTE 1>
	Sus.+T4{1}				2.00	5-1 CRUP		19	<NOTE 1>
K23	+ Max P{1}					HOOP		32	88
	GR + Max P{1}	1			1.00	2-1 SUST		18	88
	TR:T1 to T2{1}			6	1.00	4-1 DISP		7	201
	Amb to T1{1}			1	1.00	4-1 DISP		1	247
	Amb to T2{1}			5	1.00	4-1 DISP		7	201
	Amb to T3{1}			0	1.00	4-1 DISP		0	247
	Amb to T4{1}			5	1.00	4-1 DISP		6	202
	Hydrotest{1}	0	0		1.00	3-1 OCC		12	219
	Sus.+T1{1}				1.00	5-1 CRUP		19	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP		21	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP		18	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP		20	<NOTE 1>
K23	- Max P{1}					HOOP		32	88
	GR + Max P{1}	1			1.00	2-1 SUST		18	88
	TR:T1 to T2{1}			6	1.00	4-1 DISP		7	201

		F_LINE_REV0.OUT					
Amb to T1{1}		1	1.00	4-1	DISP	1	247
Amb to T2{1}		5	1.00	4-1	DISP	7	201
Amb to T3{1}		0	1.00	4-1	DISP	0	247
Amb to T4{1}		5	1.00	4-1	DISP	6	202
Hydrotest{1}	0	0	1.00	3-1	OCC	12	219
Sus.+T1{1}			1.00	5-1	CRUP	19	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	21	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	18	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	20	<NOTE 1>
K24 + Max P{1}					HOOP	32	88
GR + Max P{1}	4		1.00	2-1	SUST	21	88
TR:T1 to T2{1}		16	1.00	4-1	DISP	21	201
Amb to T1{1}		1	1.00	4-1	DISP	2	247
Amb to T2{1}		15	1.00	4-1	DISP	19	201
Amb to T3{1}		0	1.00	4-1	DISP	0	247
Amb to T4{1}		14	1.00	4-1	DISP	18	202
Hydrotest{1}	0	0	1.00	3-1	OCC	12	219
Sus.+T1{1}			1.00	5-1	CRUP	22	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	28	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	22	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	27	<NOTE 1>

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F_LINE_REV0

09/13/2010 FEED LINE

BENTLEY

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AutoPIPE Plus 9.2.1 RESULT PAGE 314

EN 13480 (2002) CODE COMPLIANCE								
(Moments in N.m)			(Stress in N/mm2)					
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code	
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F no. type	Stress	Allow.	

K24 - Max P{1}					HOOP	32	88	
GR + Max P{1}	4				1.00 2-1 SUST	21	88	
TR:T1 to T2{1}				16	1.00 4-1 DISP	21	201	
Amb to T1{1}				1	1.00 4-1 DISP	2	247	
Amb to T2{1}				15	1.00 4-1 DISP	19	201	
Amb to T3{1}				0	1.00 4-1 DISP	0	247	
Amb to T4{1}				14	1.00 4-1 DISP	18	202	
Hydrotest{1}	0	0			1.00 3-1 OCC	12	219	
Sus.+T1{1}					1.00 5-1 CRUP	22	<NOTE 1>	
Sus.+T2{1}					1.00 5-1 CRUP	28	<NOTE 1>	

F_LINE_REV0.OUT

Sus.+T3{1}			1.00	5-1	CRUP	22	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	27	<NOTE 1>
C017 + Max P{1}					HOOP	32	88
GR + Max P{1}	5		1.00	2-1	SUST	23	88
TR:T1 to T2{1}			18	1.00	4-1	DISP	22 201
Amb to T1{1}			2	1.00	4-1	DISP	2 247
Amb to T2{1}			16	1.00	4-1	DISP	20 201
Amb to T3{1}			4	1.00	4-1	DISP	5 247
Amb to T4{1}			9	1.00	4-1	DISP	12 202
Hydrotest{1}	0	0		1.00	3-1	OCC	12 219
Sus.+T1{1}			1.00	5-1	CRUP	24	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	29	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	24	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	27	<NOTE 1>
C017 - Max P{1}					HOOP	32	88
GR + Max P{1}	5		1.00	2-1	SUST	23	88
TR:T1 to T2{1}			18	1.00	4-1	DISP	22 201
Amb to T1{1}			2	1.00	4-1	DISP	2 247
Amb to T2{1}			16	1.00	4-1	DISP	20 201
Amb to T3{1}			4	1.00	4-1	DISP	5 247
Amb to T4{1}			9	1.00	4-1	DISP	12 202
Hydrotest{1}	0	0		1.00	3-1	OCC	12 219
Sus.+T1{1}			1.00	5-1	CRUP	24	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	29	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	24	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	27	<NOTE 1>
K03 F+ Max P{1}					HOOP	32	88
GR + Max P{1}	1		1.00	2-1	SUST	18	88
TR:T1 to T4{1}			22	1.00	4-1	DISP	29 202
Amb to T1{1}			20	1.00	4-1	DISP	26 213
Amb to T2{1}			16	1.00	4-1	DISP	20 201
Amb to T3{1}			12	1.00	4-1	DISP	15 247
Amb to T4{1}			2	1.00	4-1	DISP	3 202
Hydrotest{1}	0	0		1.00	3-1	OCC	12 219
Sus.+T1{1}			1.00	5-1	CRUP	26	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	24	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	23	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	19	<NOTE 1>

□

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F					
K03 F-	Max P{1}							HOOP	32	88
	GR + Max P{1}	1			1.00	2-1	SUST	18	88	
	TR:T1 to T4{1}			22	1.00	4-1	DISP	29	202	
	Amb to T1{1}			20	1.00	4-1	DISP	26	213	
	Amb to T2{1}			16	1.00	4-1	DISP	20	201	
	Amb to T3{1}			12	1.00	4-1	DISP	15	247	
	Amb to T4{1}			2	1.00	4-1	DISP	3	202	
	Hydrotest{1}	0	0		1.00	3-1	OCC	12	219	
	Sus.+T1{1}				1.00	5-1	CRUP	26	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1	CRUP	24	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1	CRUP	23	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1	CRUP	19	<NOTE 1>	
K03 N+	Max P{1}							HOOP	32	88
	GR + Max P{1}	1			1.00	2-1	SUST	18	88	
	TR:T1 to T4{1}			22	1.00	4-1	DISP	28	202	
	Amb to T1{1}			21	1.00	4-1	DISP	27	213	
	Amb to T2{1}			17	1.00	4-1	DISP	22	201	
	Amb to T3{1}			12	1.00	4-1	DISP	15	247	
	Amb to T4{1}			2	1.00	4-1	DISP	2	202	
	Hydrotest{1}	0	0		1.00	3-1	OCC	12	219	
	Sus.+T1{1}				1.00	5-1	CRUP	27	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1	CRUP	26	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1	CRUP	23	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1	CRUP	19	<NOTE 1>	
K03 N-	Max P{1}							HOOP	32	88
	GR + Max P{1}	1			1.00	2-1	SUST	18	88	
	TR:T1 to T4{1}			22	1.00	4-1	DISP	28	202	
	Amb to T1{1}			21	1.00	4-1	DISP	27	213	
	Amb to T2{1}			17	1.00	4-1	DISP	22	201	
	Amb to T3{1}			12	1.00	4-1	DISP	15	247	
	Amb to T4{1}			2	1.00	4-1	DISP	2	202	
	Hydrotest{1}	0	0		1.00	3-1	OCC	12	219	
	Sus.+T1{1}				1.00	5-1	CRUP	27	<NOTE 1>	

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	Sus.+T2{1}			1.00	5-1	CRUP	26	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	23	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	19	<NOTE 1>
C02	Max P{1}					HOOP	29	100
	GR + Max P{1}	68		1.00	2-1	SUST	24	100
	TR:Amb to T2{1}		136	1.00	4-1	DISP	20	213
	Amb to T1{1}		93	1.00	4-1	DISP	14	213
	Amb to T2{1}		136	1.00	4-1	DISP	20	213
	Amb to T3{1}		97	1.00	4-1	DISP	14	213
	Amb to T4{1}		26	1.00	4-1	DISP	4	213
	Hydrotest{1}	0	0	1.00	3-1	OCC	21	219
	Sus.+T1{1}			1.00	5-1	CRUP	28	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	31	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	29	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	25	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

G18	Max P{1}					HOOP	13	104	
	GR + Max P{1}	15			1.00	2-1 SUST	7	104	
	TR:T2 to T3{1}			859	1.00	4-1 DISP	30	217	
	Amb to T1{1}			311	1.00	4-1 DISP	11	247	
	Amb to T2{1}			355	1.00	4-1 DISP	13	247	
	Amb to T3{1}			685	1.00	4-1 DISP	24	217	
	Amb to T4{1}			168	1.00	4-1 DISP	6	240	
	Hydrotest{1}	0	0		1.00	3-1 OCC	1	219	
	Sus.+T1{1}				1.00	5-1 CRUP	10	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	11	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	15	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	9	<NOTE 1>	
FV05	Max P{1}					HOOP	29	100	
	GR + Max P{1}	43			1.00	2-1 SUST	20	100	
	TR:Amb to T4{1}			203	1.00	4-1 DISP	30	213	

Amb to T1{1}			173	1.00	4-1 DISP	26	213
Amb to T2{1}			152	1.00	4-1 DISP	23	213
Amb to T3{1}			171	1.00	4-1 DISP	25	213
Amb to T4{1}			203	1.00	4-1 DISP	30	213
Hydrotest{1}	0	0		1.00	3-1 OCC	21	219
Sus.+T1{1}				1.00	5-1 CRUP	29	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	28	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	29	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	30	<NOTE 1>

F20	+ Max P{1}				HOOP	13	104
	GR + Max P{1}	71		1.00	2-1 SUST	9	104
	TR:Amb to T2{1}		838	1.00	4-1 DISP	30	247
	Amb to T1{1}		764	1.00	4-1 DISP	27	247
	Amb to T2{1}		838	1.00	4-1 DISP	30	247
	Amb to T3{1}		664	1.00	4-1 DISP	24	217
	Amb to T4{1}		526	1.00	4-1 DISP	19	240
	Hydrotest{1}	0	0	1.00	3-1 OCC	1	219
	Sus.+T1{1}			1.00	5-1 CRUP	18	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	18	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	16	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	15	<NOTE 1>

F20	- Max P{1}				HOOP	13	104
	GR + Max P{1}	71		1.00	2-1 SUST	9	104
	TR:Amb to T2{1}		838	1.00	4-1 DISP	30	247
	Amb to T1{1}		764	1.00	4-1 DISP	27	247
	Amb to T2{1}		838	1.00	4-1 DISP	30	247
	Amb to T3{1}		664	1.00	4-1 DISP	24	217
	Amb to T4{1}		526	1.00	4-1 DISP	19	240
	Hydrotest{1}	0	0	1.00	3-1 OCC	1	219
	Sus.+T1{1}			1.00	5-1 CRUP	18	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	18	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	16	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	15	<NOTE 1>

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Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
B02	Max P{1}					HOOP	29	100
	GR + Max P{1}	62			1.00	2-1 SUST	23	100
	TR:Amb to T2{1}			126	1.00	4-1 DISP	19	213
	Amb to T1{1}			79	1.00	4-1 DISP	12	213
	Amb to T2{1}			126	1.00	4-1 DISP	19	213
	Amb to T3{1}			78	1.00	4-1 DISP	12	213
	Amb to T4{1}			12	1.00	4-1 DISP	2	213
	Hydrotest{1}	0	0		1.00	3-1 OCC	21	219
	Sus.+T1{1}				1.00	5-1 CRUP	27	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	29	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	27	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	24	<NOTE 1>

*** NOTE 1: No allowable stress could be calculated.
 *** Mechanical properties are outside of temperature range.

□

F_LINE_REV0

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R E S U L T S U M M A R Y

Maximum displacements (mm)

Maximum X :	36.394	Point : L09 D	Load Comb.: Thermal 2{1}
Maximum Y :	-28.176	Point : B02 D	Load Comb.: GRT2{1}
Maximum Z :	-66.052	Point : L12 F	Load Comb.: GRT2{1}
Max. total:	72.730	Point : L12 F	Load Comb.: Thermal 2{1}

Maximum rotations (deg)

Maximum X :	2.657	Point : L20	Load Comb.: Thermal 2{1}
Maximum Y :	2.077	Point : L04 N	Load Comb.: GRT2{1}
Maximum Z :	-0.946	Point : C018	Load Comb.: GRT1{1}
Max. total:	3.166	Point : L19	Load Comb.: GRT2{1}

Maximum restraint forces (N)

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Maximum X :	10374	Point : F19	Load Comb.: Thermal 3{1}
Maximum Y :	-5752	Point : F20	Load Comb.: Thermal 3{1}
Maximum Z :	-3971	Point : D04 M	Load Comb.: GRT2{1}
Max. total:	11049	Point : F19	Load Comb.: Thermal 3{1}

Maximum restraint moments (N.m)

Maximum X :	-2041	Point : A05	Load Comb.: Thermal 2{1}
Maximum Y :	1453	Point : G10	Load Comb.: GRT3{1}
Maximum Z :	6836	Point : F11	Load Comb.: Thermal 3{1}
Max. total:	6972	Point : F11	Load Comb.: GRT3{1}

□

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R E S U L T S U M M A R Y

Maximum pipe forces (N)

Maximum X :	-9644	Point : F19	Load Comb.: Thermal 3{1}
Maximum Y :	5166	Point : F20	Load Comb.: Thermal 3{1}
Maximum Z :	-1828	Point : D02 M	Load Comb.: GRT2{1}
Max. total:	9764	Point : F19	Load Comb.: Thermal 3{1}

Maximum pipe moments (N.m)

Maximum X :	1044	Point : A05	Load Comb.: Thermal 2{1}
Maximum Y :	1453	Point : G10	Load Comb.: GRT3{1}
Maximum Z :	6836	Point : F11	Load Comb.: Thermal 3{1}
Max. total:	6972	Point : F11	Load Comb.: GRT3{1}

□

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AutoPIPE Plus 9.2.1 RESULT PAGE 320

R E S U L T S U M M A R Y

Maximum sustained stress

Point : K27
Stress N/mm2 : 52
Allowable N/mm2 : 88
Ratio : 0.59
Load combination : GR + Max P{1}

Maximum displacement stress

Point : F14
Stress N/mm2 : 231
Allowable N/mm2 : 309
Ratio : 0.75
Load combination : Max Range

Maximum occasional stress

Point : A01
Stress N/mm2 : 32
Allowable N/mm2 : 219
Ratio : 0.15
Load combination : Hydrotest{1}

Maximum hoop stress

Point : M12
Stress N/mm2 : 72
Allowable N/mm2 : 153
Ratio : 0.47
Load combination : Max P{1}

Maximum creep rupture stress

Point : C20
Stress N/mm2 : 91
Allowable N/mm2 : 0 < See Note 1 >
Ratio : 0.00
Load combination : Sus.+T2{1}

□

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AutoPIPE Plus 9.2.1 RESULT PAGE 321

R E S U L T S U M M A R Y

Maximum sustained stress ratio

Point : K27
Stress N/mm2 : 52
Allowable N/mm2 : 88
Ratio : 0.59
Load combination : GR + Max P{1}

Maximum displacement stress ratio

Point : G12
Stress N/mm2 : 196
Allowable N/mm2 : 217
Ratio : 0.91
Load combination : Max Range

Maximum occasional stress ratio

F_LINE_REV0.OUT

Point : A01
Stress N/mm2 : 32
Allowable N/mm2 : 219
Ratio : 0.15
Load combination : Hydrotest{1}

Maximum hoop stress ratio

Point : E08
Stress N/mm2 : 72
Allowable N/mm2 : 88
Ratio : 0.81
Load combination : Max P{1}

Maximum creep rupture stress ratio

Point : F14
Stress N/mm2 : 18
Allowable N/mm2 : 0 < See Note 1 >
Ratio : 0.00
Load combination : Sus.+T1{1}

* * * The system satisfies EN 13480 (2002) code requirements * * *
* * * for the selected options * * *

Warnings:

(1) Maximum creep rupture stress ratio is zero

* * * Note 1: Points were found in this stress category with * * *
* * * mechanical properties outside of temperature range. No * * *

□

F_LINE_REV0

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R E S U L T S U M M A R Y

* * * allowable stress were calculated at these points.

* * *

□

ALLEGATO 6. SL INPUT E OUTPUT DEI CALCOLI AUTOPIPE

file: S_LINEREV0.pdf

S_LINEREV0.OUT
PIPING CODE : EN 13480
YEAR : 2002
LIFETIME (HRS) : 20000
LIFETIME MONITORING : NO
VERTICAL AXIS : Z
AMBIENT TEMPERATURE : 20.0 deg C
COMPONENT LIBRARY : AUTOPIPE
MATERIAL LIBRARY : EUROMAT
MODEL REVISION NUMBER : 333

□

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AutoPIPE Plus 9.2.1 MODEL PAGE 3

D E S C R I P T I O N

□

S_LINEREV0

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AutoPIPE Plus 9.2.1 MODEL PAGE 4

C O M P O N E N T D A T A L I S T I N G

*** SEGMENT A

From A00 to A07, DX= -100.00 mm

Run

PIPE DATA:

Pipe Id= 8S80, Material= X5CRNI18-10 1.4301, Product= Seamless tube, Source= EURO,
Composition= Austentic Stainless, Poisson= 0.300, Nom Size= 200 mm, OD= 219.07 mm, Sch= 80, Wall
Thk= 12.700 mm,
Mill= 1.587 mm, Cor= 0 mm, Pipe Density= 7930.00 kg/m3, Pipe Unit Wgt= 640.33 N/m, Content Sp Gr=
1.000,
Content Unit Wgt= 288.78 N/m, Insul Thk= 80.000 mm, Insul Material= MINERAL WOOL, Insul Density=
136.16 kg/m3,
Insul Unit Wgt= 100.36 N/m, Lining Thk= 0 mm, Long Weld factor= 1.00, Circ Weld factor= 1.00,
Long Modulus= 0.19996 E6 N/mm2,
Hoop Modulus= 0.19996 E6 N/mm2, Shear Modulus= 0.07691 E6 N/mm2, Al= 40.0, At= 35.0, fc= 166.7
N/mm2, Rp0.2= 195.0 N/mm2,
Rp1.0= 230.0 N/mm2, Rm= 500.0 N/mm2

OPERATING DATA:

P1= 5.8300 N/mm2, P2= 5.8300 N/mm2, P3= 5.8300 N/mm2, P4= 5.8300 N/mm2, P5= 5.8300 N/mm2, T1=
318.00 deg C, T2= 318.00 deg C,
T3= 318.00 deg C, T4= 318.00 deg C, T5= 318.00 deg C, Exp1= 5.15996 mm/m, Exp2= 5.15996 mm/m,
Exp3= 5.15996 mm/m,
Exp4= 5.15996 mm/m, Exp5= 5.15996 mm/m, E1= 0.17469 E6 N/mm2, E2= 0.17469 E6 N/mm2, E3= 0.17469
E6 N/mm2,
E4= 0.17469 E6 N/mm2, E5= 0.17469 E6 N/mm2, Rp0.2t1= 107.84 N/mm2, Rp0.2t2= 107.84 N/mm2,
Rp0.2t3= 107.84 N/mm2,
Rp0.2t4= 107.84 N/mm2, Rp0.2t5= 107.84 N/mm2, Rp1.0t1= 132.84 N/mm2, Rp1.0t2= 132.84 N/mm2,
Rp1.0t3= 132.84 N/mm2,
Rp1.0t4= 132.84 N/mm2, Rp1.0t5= 132.84 N/mm2, Rmt1= 0.00 N/mm2, Rmt2= 0.00 N/mm2, Rmt3= 0.00
N/mm2, Rmt4= 0.00 N/mm2,

S_LINEREV0.0UT
Rmt5= 0.00 N/mm2, fcr1= 0.00 N/mm2, fcr2= 0.00 N/mm2, fcr3= 0.00 N/mm2, fcr4= 0.00 N/mm2, fcr5=
0.00 N/mm2, fh1= 88.56 N/mm2,
fh2= 88.56 N/mm2, fh3= 88.56 N/mm2, fh4= 88.56 N/mm2, fh5= 88.56 N/mm2

POINT DATA:

A00, Coordinates, X= 1805.00 mm, Y= -5600.00 mm, Z= 20155.00 mm

From A07 to A01, DX= -100.00 mm

Run

POINT DATA:

A07, Coordinates, X= 1705.00 mm, Y= -5600.00 mm, Z= 20155.00 mm

From A01 to A06, DX= -322.50 mm

Tee

COMPONENT DATA (Tee Header, Center= A01):

B16.9 welding tee, SIFI= 1.35, SIF0= 1.35

POINT DATA:

A01, Coordinates, X= 1605.00 mm, Y= -5600.00 mm, Z= 20155.00 mm

From A06 to A02, DX= -322.50 mm

Run

POINT DATA:

A06, Coordinates, X= 1282.50 mm, Y= -5600.00 mm, Z= 20155.00 mm

SUPPORT DATA:

A06, Guide, Support Id= A06 1, Connected to Ground, Stiffness= RIGID

From A02 to A05, DX= -340.00 mm

Tee

□

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C O M P O N E N T D A T A L I S T I N G

COMPONENT DATA (Tee Header, Center= A02):

B16.9 welding tee, SIFI= 1.35, SIF0= 1.35

POINT DATA:

A02, Coordinates, X= 960.00 mm, Y= -5600.00 mm, Z= 20155.00 mm

From A05 to A03, DX= -340.00 mm

Run

POINT DATA:

A05, Coordinates, X= 620.00 mm, Y= -5600.00 mm, Z= 20155.00 mm

SUPPORT DATA:

A05, Anchor, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

From A03 to A04, DX= -200.00 mm

Tee

COMPONENT DATA (Tee Header, Center= A03):

B16.9 welding tee, SIFI= 1.35, SIF0= 1.35

POINT DATA:

A03, Coordinates, X= 280.00 mm, Y= -5600.00 mm, Z= 20155.00 mm

A04, Coordinates, X= 80.00 mm, Y= -5600.00 mm, Z= 20155.00 mm

*** SEGMENT B

From A01 to B01, DZ= -3310.00 mm

Tee

COMPONENT DATA (Tee Branch, Center= A01):

B16.9 welding tee, SIFI= 1.35, SIF0= 1.35

S_LINEREVO.OUT

PIPE DATA:

Pipe Id= 2.5S80, Composition= Austentic Stainless, Nom Size= 65 mm, OD= 73.025 mm, Wall Thk= 7.010 mm, Mill= 0.876 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 26.80 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 51.35 N/m,
Long Modulus= 0.19996 E6 N/mm2, Hoop Modulus= 0.19996 E6 N/mm2, Shear Modulus= 0.07691 E6 N/mm2

POINT DATA:

A01, Coordinates, X= 1605.00 mm, Y= -5600.00 mm, Z= 20155.00 mm

From B01 to B02, DY= 702.40 mm

Bend

COMPONENT DATA (Bend, TIP= B01, Near= B01 N, Mid= B01 M, Far= B01 F):

Long Elbow, Radius= 95.25 mm, Bend angle= 90.00 deg, Mid point at 50.00 percent, End flanges= 0,
Flex= Auto, SIFI= 1.25,
SIF0= 1.25

POINT DATA:

B01, Coordinates, X= 1605.00 mm, Y= -5600.00 mm, Z= 16845.00 mm
B01 N, Coordinates, X= 1605.00 mm, Y= -5600.00 mm, Z= 16940.25 mm
B01 M, Coordinates, X= 1605.00 mm, Y= -5572.10 mm, Z= 16872.90 mm
B01 F, Coordinates, X= 1605.00 mm, Y= -5504.75 mm, Z= 16845.00 mm

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AutoPIPE Plus 9.2.1 MODEL PAGE 6

C O M P O N E N T D A T A L I S T I N G

From B02 to B14, DY= 508.00 mm

Valv

COMPONENT DATA (Valve):

GATE-F, Rating= 2500, Length= 508.00 mm, Valve weight = 89 kg, Actuator Auto = No, Actuator
Symbol = Yes,
Actuator weight = 138 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 496.00 mm, Surface factor=
0.00, End type= Weld neck,
SIF= 1.00

OPERATING DATA (B02 M to B14):

P2= 11.3000 N/mm2, P4= 5.2000 N/mm2, P5= 9.3900 N/mm2, T2= 343.00 deg C, T4= 306.00 deg C, T5=
306.00 deg C,
Exp2= 5.63910 mm/m, Exp4= 4.93212 mm/m, Exp5= 4.93212 mm/m, E2= 0.17258 E6 N/mm2, E4= 0.17571 E6
N/mm2, E5= 0.17571 E6 N/mm2,
Rp0.2t2= 104.84 N/mm2, Rp0.2t4= 109.28 N/mm2, Rp0.2t5= 109.28 N/mm2, Rp1.0t2= 129.84 N/mm2,
Rp1.0t4= 134.28 N/mm2,
Rp1.0t5= 134.28 N/mm2, fh2= 86.56 N/mm2, fh4= 89.52 N/mm2, fh5= 89.52 N/mm2

POINT DATA:

B02, Coordinates, X= 1605.00 mm, Y= -4897.60 mm, Z= 16845.00 mm
B02, Flange= WELDNECK, Rating= 2500, Flange Weight= 23.60 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No
B02 M, Coordinates, X= 1605.00 mm, Y= -4643.60 mm, Z= 16845.00 mm

SUPPORT DATA:

B02 M, Variable Spring Hanger, Support Id= B02 M1, Connected to Ground, 1 hanger(s), Stiffness=
20 N/mm, Preload= 2469 N

From B14 to B17, DY= 500.00 mm

Run

POINT DATA:

B14, Coordinates, X= 1605.00 mm, Y= -4389.60 mm, Z= 16845.00 mm
B14, Flange= WELDNECK, Rating= 2500, Flange Weight= 23.60 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No

From B17 to B04, DY= 773.50 mm

Tee

COMPONENT DATA (Tee Header, Center= B17):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

POINT DATA:

B17, Coordinates, X= 1605.00 mm, Y= -3889.60 mm, Z= 16845.00 mm

From B04 to B05, DY= 781.30 mm

Tee

COMPONENT DATA (Tee Header, Center= B04):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

POINT DATA:

B04, Coordinates, X= 1605.00 mm, Y= -3116.10 mm, Z= 16845.00 mm

SUPPORT DATA:

B04, Variable Spring Hanger, Support Id= B04 1, Connected to Ground, 1 hanger(s), Stiffness= 29 N/mm, Preload= 1422 N

From B05 to B29, DX= -240.41 mm, DY= 240.41 mm, L= 339.99 mm

Bend

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C O M P O N E N T D A T A L I S T I N G

COMPONENT DATA (Bend, TIP= B05, Near= B05 N, Far= B05 F):

Long Elbow, Radius= 95.25 mm, Bend angle= 45.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.25, SIF0= 1.25

POINT DATA:

B05, Coordinates, X= 1605.00 mm, Y= -2334.80 mm, Z= 16845.00 mm

B05 N, Coordinates, X= 1605.00 mm, Y= -2374.25 mm, Z= 16845.00 mm

B05 F, Coordinates, X= 1577.10 mm, Y= -2306.90 mm, Z= 16845.00 mm

From B29 to B22, DX= -317.35 mm, DY= 317.35 mm, L= 448.80 mm

Run

POINT DATA:

B29, Coordinates, X= 1364.59 mm, Y= -2094.39 mm, Z= 16845.00 mm

B29, Flange= BLIND, Rating= 2500, Flange Weight= 24.00 kg, Bolt/Nut Weight= 0.00 kg, End type= Socket welded, SIF= 2.10, Perform ANSI check= No

B29, Flange= BLIND, Rating= 2500, Flange Weight= 24.00 kg, Bolt/Nut Weight= 0.00 kg, End type= Socket welded, SIF= 2.10, Perform ANSI check= No

From B22 to B06, DX= -409.59 mm, DY= 409.59 mm, L= 579.25 mm

Run

POINT DATA:

B22, Coordinates, X= 1047.24 mm, Y= -1777.04 mm, Z= 16845.00 mm

B22, Flange= BLIND, Rating= 2500, Flange Weight= 24.00 kg, Bolt/Nut Weight= 0.00 kg, End type= Socket welded, SIF= 2.10, Perform ANSI check= No

B22, Flange= BLIND, Rating= 2500, Flange Weight= 24.00 kg, Bolt/Nut Weight= 0.00 kg, End type= Socket welded, SIF= 2.10, Perform ANSI check= No

From B06 to B25, DX= -46.51 mm, DY= 99.68 mm, L= 110.00 mm

Bend

COMPONENT DATA (Bend, TIP= B06, Near= B06 N, Far= B06 F):

Long Elbow, Radius= 95.25 mm, Bend angle= 19.99 deg, End flanges= 0, Flex= Auto, SIFI= 1.25, SIF0= 1.25

POINT DATA:

B06, Coordinates, X= 637.65 mm, Y= -1367.45 mm, Z= 16845.00 mm

B06 N, Coordinates, X= 649.52 mm, Y= -1379.32 mm, Z= 16845.00 mm

B06 F, Coordinates, X= 630.55 mm, Y= -1352.24 mm, Z= 16845.00 mm

From B25 to B07, DX= -217.12 mm, DY= 465.69 mm, L= 513.82 mm

Run

S_LINEREV0.OUT

POINT DATA:

B25, Coordinates, X= 591.14 mm, Y= -1267.77 mm, Z= 16845.00 mm

SUPPORT DATA:

B25, Variable Spring Hanger, Support Id= B25 1, Connected to Ground, 1 hanger(s), Stiffness= 5 N/mm, Preload= 1576 N

From B07 to B08, DX= -178.07 mm, DY= -83.03 mm, L= 196.48 mm Tee

COMPONENT DATA (Tee Branch, Center= B07):

Other, SIFI= 1.00, SIF0= 1.00

POINT DATA:

0

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AutoPIPE Plus 9.2.1 MODEL PAGE 8

C O M P O N E N T D A T A L I S T I N G

B07, Coordinates, X= 374.02 mm, Y= -802.08 mm, Z= 16845.00 mm

From B08 to B16, DZ= -63.40 mm Bend

COMPONENT DATA (Bend, TIP= B08, Near= B08 N, Far= B08 F):

Elbow, Radius= 63.50 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.63, SIF0= 1.63

POINT DATA:

B08, Coordinates, X= 195.95 mm, Y= -885.11 mm, Z= 16845.00 mm

B08 N, Coordinates, X= 253.50 mm, Y= -858.28 mm, Z= 16845.00 mm

B08 F, Coordinates, X= 195.95 mm, Y= -885.11 mm, Z= 16782.23 mm

From B16 to B11, DZ= -698.60 mm Run

POINT DATA:

B16, Coordinates, X= 195.95 mm, Y= -885.11 mm, Z= 16781.60 mm

From B11 to B18, DX= -34.11 mm, DY= 153.86 mm, L= 157.60 mm Bend

COMPONENT DATA (Bend, TIP= B11, Near= B11 N, Far= B11 F):

Long Elbow, Radius= 95.25 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.25, SIF0= 1.25

POINT DATA:

B11, Coordinates, X= 195.95 mm, Y= -885.11 mm, Z= 16083.00 mm

B11 N, Coordinates, X= 195.95 mm, Y= -885.11 mm, Z= 16178.25 mm

B11 F, Coordinates, X= 175.33 mm, Y= -792.12 mm, Z= 16083.00 mm

From B18 to B13, DX= -19.26 mm, DY= 86.89 mm, L= 89.00 mm Redu

COMPONENT DATA (Reducer):

Length= 89.00 mm, SIF= 2.00

POINT DATA:

B18, Coordinates, X= 161.84 mm, Y= -731.25 mm, Z= 16083.00 mm

B13, Coordinates, X= 142.58 mm, Y= -644.36 mm, Z= 16083.00 mm

SUPPORT DATA:

B13, Anchor, Tag No.= SLTORVC1, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

*** SEGMENT C

From B07 to C01, DX= 178.06 mm, DY= 83.03 mm, L= 196.47 mm Tee

COMPONENT DATA (Tee Header, Center= B07):

Other, SIFI= 1.00, SIF0= 1.00

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PIPE DATA:

Pipe Id= 2.5S80, Composition= Austentic Stainless

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AutoPIPE Plus 9.2.1 MODEL PAGE 9

C O M P O N E N T D A T A L I S T I N G

POINT DATA:

B07, Coordinates, X= 374.02 mm, Y= -802.08 mm, Z= 16845.00 mm

From C01 to C08, DZ= -63.40 mm

Bend

COMPONENT DATA (Bend, TIP= C01, Near= C01 N, Far= C01 F):

Elbow, Radius= 63.50 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.63, SIFO= 1.63

POINT DATA:

C01, Coordinates, X= 552.08 mm, Y= -719.05 mm, Z= 16845.00 mm

C01 N, Coordinates, X= 494.53 mm, Y= -745.89 mm, Z= 16845.00 mm

C01 F, Coordinates, X= 552.08 mm, Y= -719.05 mm, Z= 16782.23 mm

From C08 to C04, DZ= -698.60 mm

Run

POINT DATA:

C08, Coordinates, X= 552.08 mm, Y= -719.05 mm, Z= 16781.60 mm

From C04 to C10, DX= -95.94 mm, DY= 125.03 mm, L= 157.60 mm

Bend

COMPONENT DATA (Bend, TIP= C04, Near= C04 N, Far= C04 F):

Long Elbow, Radius= 95.25 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.25, SIFO= 1.25

POINT DATA:

C04, Coordinates, X= 552.08 mm, Y= -719.05 mm, Z= 16083.00 mm

C04 N, Coordinates, X= 552.08 mm, Y= -719.05 mm, Z= 16178.25 mm

C04 F, Coordinates, X= 494.09 mm, Y= -643.48 mm, Z= 16083.00 mm

From C10 to C06, DX= -54.18 mm, DY= 70.61 mm, L= 89.00 mm

Redu

COMPONENT DATA (Reducer):

Length= 89.00 mm, SIF= 2.00

POINT DATA:

C10, Coordinates, X= 456.14 mm, Y= -594.02 mm, Z= 16083.00 mm

C06, Coordinates, X= 401.96 mm, Y= -523.41 mm, Z= 16083.00 mm

SUPPORT DATA:

C06, Anchor, Tag No.= SLTORVC2, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

*** SEGMENT D

From A02 to D01, DZ= -3310.00 mm

Tee

COMPONENT DATA (Tee Branch, Center= A02):

B16.9 welding tee, SIFI= 1.35, SIFO= 1.35

PIPE DATA:

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AutoPIPE Plus 9.2.1 MODEL PAGE 10

C O M P O N E N T D A T A L I S T I N G

Pipe Id= 2S80, Composition= Austentic Stainless, Nom Size= 50 mm, OD= 60.325 mm, Wall Thk= 5.537 mm, Mill= 0.692 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 18.67 N/m, Insul Thk= 50.000 mm, Insul Density= 136.16 kg/m3,
Insul Unit Wgt= 23.14 N/m

OPERATING DATA:

P2= 5.8300 N/mm2, P4= 5.8300 N/mm2, P5= 5.8300 N/mm2, T2= 318.00 deg C, T4= 318.00 deg C, T5= 318.00 deg C,
Exp2= 5.15996 mm/m, Exp4= 5.15996 mm/m, Exp5= 5.15996 mm/m, E2= 0.17469 E6 N/mm2, E4= 0.17469 E6 N/mm2, E5= 0.17469 E6 N/mm2,
Rp0.2t2= 107.84 N/mm2, Rp0.2t4= 107.84 N/mm2, Rp0.2t5= 107.84 N/mm2, Rp1.0t2= 132.84 N/mm2, Rp1.0t4= 132.84 N/mm2,
Rp1.0t5= 132.84 N/mm2, fh2= 88.56 N/mm2, fh4= 88.56 N/mm2, fh5= 88.56 N/mm2

POINT DATA:

A02, Coordinates, X= 960.00 mm, Y= -5600.00 mm, Z= 20155.00 mm

From D01 to D02, DY= 677.00 mm

Bend

COMPONENT DATA (Bend, TIP= D01, Near= D01 N, Far= D01 F):

Long Elbow, Radius= 76.20 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.32, SIFO= 1.32

POINT DATA:

D01, Coordinates, X= 960.00 mm, Y= -5600.00 mm, Z= 16845.00 mm
D01 N, Coordinates, X= 960.00 mm, Y= -5600.00 mm, Z= 16921.20 mm
D01 F, Coordinates, X= 960.00 mm, Y= -5523.80 mm, Z= 16845.00 mm

From D02 to D03, DY= 451.00 mm

Valv

COMPONENT DATA (Valve):

GATE-F, Rating= 2500, Length= 451.00 mm, Valve weight = 81 kg, Actuator Auto = No, Actuator Symbol = Yes,
Actuator weight = 126 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 439.00 mm, Surface factor= 0.00, End type= Weld neck,
SIF= 1.00

OPERATING DATA (D02 M to D03):

P2= 11.3000 N/mm2, P4= 3.4700 N/mm2, P5= 0.1900 N/mm2, T2= 343.00 deg C, T4= 259.00 deg C, T5= 118.00 deg C,
Exp2= 5.63910 mm/m, Exp4= 4.05360 mm/m, Exp5= 1.57004 mm/m, E2= 0.17258 E6 N/mm2, E4= 0.17970 E6 N/mm2, E5= 0.19165 E6 N/mm2,
Rp0.2t2= 104.84 N/mm2, Rp0.2t4= 116.56 N/mm2, Rp0.2t5= 149.60 N/mm2, Rp1.0t2= 129.84 N/mm2, Rp1.0t4= 143.20 N/mm2,
Rp1.0t5= 182.80 N/mm2, fh2= 86.56 N/mm2, fh4= 95.47 N/mm2, fh5= 121.87 N/mm2

POINT DATA:

D02, Coordinates, X= 960.00 mm, Y= -4923.00 mm, Z= 16845.00 mm
D02, Flange= WELDNECK, Rating= 2500, Flange Weight= 19.10 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= No
D02 M, Coordinates, X= 960.00 mm, Y= -4697.50 mm, Z= 16845.00 mm

SUPPORT DATA:

D02 M, Variable Spring Hanger, Support Id= D02 M1, Connected to Ground, 1 hanger(s), Stiffness= 39 N/mm, Preload= 2046 N

From D03 to D04, DY= 501.60 mm

Run

POINT DATA:

D03, Coordinates, X= 960.00 mm, Y= -4472.00 mm, Z= 16845.00 mm
D03, Flange= WELDNECK, Rating= 2500, Flange Weight= 19.10 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= No

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C O M P O N E N T D A T A L I S T I N G

From D04 to D05, DY= 632.80 mm Tee

COMPONENT DATA (Tee Header, Center= D04):
B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

POINT DATA:
D04, Coordinates, X= 960.00 mm, Y= -3970.40 mm, Z= 16845.00 mm

From D05 to D06, DY= 453.10 mm Tee

COMPONENT DATA (Tee Header, Center= D05):
B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

POINT DATA:
D05, Coordinates, X= 960.00 mm, Y= -3337.60 mm, Z= 16845.00 mm

SUPPORT DATA:
D05, Variable Spring Hanger, Support Id= D05 1, Connected to Ground, 1 hanger(s), Stiffness= 16
N/mm, Preload= 1048 N

From D06 to D09, DY= 387.20 mm Run

POINT DATA:
D06, Coordinates, X= 960.00 mm, Y= -2884.50 mm, Z= 16845.00 mm
D06, Flange= WELDNECK, Rating= 2500, Flange Weight= 19.10 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No
D06, Flange= WELDNECK, Rating= 2500, Flange Weight= 19.10 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No

From D09 to D10, DY= 453.10 mm, DZ= 0.00 mm, L= 453.10 mm Run

POINT DATA:
D09, Coordinates, X= 960.00 mm, Y= -2497.30 mm, Z= 16845.00 mm
D09, Flange= WELDNECK, Rating= 2500, Flange Weight= 19.10 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No
D09, Flange= WELDNECK, Rating= 2500, Flange Weight= 19.10 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No

From D10 to D11, DX= -280.37 mm, DY= 280.37 mm, L= 396.50 mm Bend

COMPONENT DATA (Bend, TIP= D10, Near= D10 N, Far= D10 F):
Long Elbow, Radius= 76.20 mm, Bend angle= 45.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.32,
SIF0= 1.32

POINT DATA:
D10, Coordinates, X= 960.00 mm, Y= -2044.20 mm, Z= 16845.00 mm
D10 N, Coordinates, X= 960.00 mm, Y= -2075.76 mm, Z= 16845.00 mm
D10 F, Coordinates, X= 937.68 mm, Y= -2021.88 mm, Z= 16845.00 mm

SUPPORT DATA:
D10 F, Variable Spring Hanger, Support Id= D10 F1, Connected to Ground, 1 hanger(s), Stiffness= 8
N/mm, Preload= 1104 N

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C O M P O N E N T D A T A L I S T I N G

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From D11 to D12, DX= -133.57 mm, DY= 133.57 mm, L= 188.90 mm Tee

COMPONENT DATA (Tee Header, Center= D11):
Other, SIFI= 1.00, SIFO= 1.00

POINT DATA:
D11, Coordinates, X= 679.63 mm, Y= -1763.83 mm, Z= 16845.00 mm

From D12 to D13, DX= -319.19 mm, DY= 319.19 mm, L= 451.40 mm Valv

COMPONENT DATA (Valve):
GATE-F, Rating= 2500, Length= 451.40 mm, Valve weight = 81 kg, Actuator Auto = No, Actuator
Symbol = Yes,
Actuator weight = 126 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 439.00 mm, Surface factor=
0.00, End type= Weld neck,
SIF= 1.00

POINT DATA:
D12, Coordinates, X= 546.06 mm, Y= -1630.26 mm, Z= 16845.00 mm
D12, Flange= WELDNECK, Rating= 2500, Flange Weight= 19.10 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No
D12 M, Coordinates, X= 386.47 mm, Y= -1470.66 mm, Z= 16845.00 mm

SUPPORT DATA:
D12 M, Guide, Support Id= D12 M1, Connected to Ground, Stiffness= RIGID, Gap-Down= 0.00 mm,
Gap-Above= 100.00 mm,
Gap-Left= 0.00 mm, Gap-Right= 0.00 mm, Friction= 0.00, Gaps setting= Weightless

From D13 to D14, DX= -133.57 mm, DY= 133.57 mm, L= 188.90 mm Run

POINT DATA:
D13, Coordinates, X= 226.87 mm, Y= -1311.07 mm, Z= 16845.00 mm
D13, Flange= WELDNECK, Rating= 2500, Flange Weight= 19.10 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No

From D14 to D15, DX= -290.18 mm, DY= 290.18 mm, L= 410.38 mm Tee

COMPONENT DATA (Tee Header, Center= D14):
B16.9 welding tee, SIFI= 1.00, SIFO= 1.00

POINT DATA:
D14, Coordinates, X= 93.30 mm, Y= -1177.50 mm, Z= 16845.00 mm

From D15 to D16, DZ= -762.00 mm Bend

COMPONENT DATA (Bend, TIP= D15, Near= D15 N, Mid= D15 M, Far= D15 F):
Long Elbow, Radius= 76.20 mm, Bend angle= 90.00 deg, Mid point at 50.00 percent, End flanges= 0,
Flex= Auto, SIFI= 1.32,
SIFO= 1.32

POINT DATA:
D15, Coordinates, X= -196.88 mm, Y= -887.32 mm, Z= 16845.00 mm
D15 N, Coordinates, X= -143.00 mm, Y= -941.20 mm, Z= 16845.00 mm
D15 M, Coordinates, X= -181.10 mm, Y= -903.10 mm, Z= 16822.68 mm

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C O M P O N E N T D A T A L I S T I N G

D15 F, Coordinates, X= -196.88 mm, Y= -887.32 mm, Z= 16768.80 mm

From D16 to D17, DX= 34.63 mm, DY= 156.21 mm, L= 160.00 mm Bend

S_LINEREV0.00T

COMPONENT DATA (Bend, TIP= D16, Near= D16 N, Far= D16 F):
 Long Elbow, Radius= 76.20 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.32,
 SIF0= 1.32

POINT DATA:

D16, Coordinates, X= -196.88 mm, Y= -887.32 mm, Z= 16083.00 mm
 D16 N, Coordinates, X= -196.88 mm, Y= -887.32 mm, Z= 16159.20 mm
 D16 F, Coordinates, X= -180.39 mm, Y= -812.93 mm, Z= 16083.00 mm

 From D17 to D18, DX= 19.24 mm, DY= 86.79 mm, L= 88.90 mm Redu

COMPONENT DATA (Reducer):
 Length= 88.90 mm, SIF= 2.00

POINT DATA:

D17, Coordinates, X= -162.25 mm, Y= -731.11 mm, Z= 16083.00 mm
 D18, Coordinates, X= -143.01 mm, Y= -644.32 mm, Z= 16083.00 mm

SUPPORT DATA:

D18, Anchor, Tag No.= SLTORVB, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

*** SEGMENT E

 From A03 to E01, DZ= -3010.00 mm Tee

COMPONENT DATA (Tee Branch, Center= A03):
 B16.9 welding tee, SIFI= 1.35, SIF0= 1.35

PIPE DATA:

Pipe Id= 2S80, Composition= Austentic Stainless

OPERATING DATA:

P2= 5.8300 N/mm2, P4= 5.8300 N/mm2, P5= 5.8300 N/mm2, T2= 318.00 deg C, T4= 318.00 deg C, T5= 318.00 deg C,
 Exp2= 5.15996 mm/m, Exp4= 5.15996 mm/m, Exp5= 5.15996 mm/m, E2= 0.17469 E6 N/mm2, E4= 0.17469 E6 N/mm2, E5= 0.17469 E6 N/mm2,
 Rp0.2t2= 107.84 N/mm2, Rp0.2t4= 107.84 N/mm2, Rp0.2t5= 107.84 N/mm2, Rp1.0t2= 132.84 N/mm2, Rp1.0t4= 132.84 N/mm2,
 Rp1.0t5= 132.84 N/mm2, fh2= 88.56 N/mm2, fh4= 88.56 N/mm2, fh5= 88.56 N/mm2

POINT DATA:

A03, Coordinates, X= 280.00 mm, Y= -5600.00 mm, Z= 20155.00 mm

 From E01 to E02, DY= 677.00 mm Bend

COMPONENT DATA (Bend, TIP= E01, Near= E01 N, Far= E01 F):
 Long Elbow, Radius= 76.20 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.32,
 SIF0= 1.32

POINT DATA:

□

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C O M P O N E N T D A T A L I S T I N G

E01, Coordinates, X= 280.00 mm, Y= -5600.00 mm, Z= 17145.00 mm
 E01 N, Coordinates, X= 280.00 mm, Y= -5600.00 mm, Z= 17221.20 mm
 E01 F, Coordinates, X= 280.00 mm, Y= -5523.80 mm, Z= 17145.00 mm

 From E02 to E12, DY= 450.85 mm Valv

COMPONENT DATA (Valve):

GATE-F, Rating= 2500, Length= 450.85 mm, Valve weight = 81 kg, Actuator Auto = No, Actuator Symbol = Yes,
 Actuator weight = 126 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 439.00 mm, Surface factor= 0.00, End type= Weld neck,
 SIF= 1.00

S_LINEREV0.OUT

OPERATING DATA (E02 M to E12):

P2= 11.3000 N/mm2, P4= 5.2000 N/mm2, P5= 9.3900 N/mm2, T2= 343.00 deg C, T4= 306.00 deg C, T5= 306.00 deg C,
Exp2= 5.63910 mm/m, Exp4= 4.93212 mm/m, Exp5= 4.93212 mm/m, E2= 0.17258 E6 N/mm2, E4= 0.17571 E6 N/mm2, E5= 0.17571 E6 N/mm2,
Rp0.2t2= 104.84 N/mm2, Rp0.2t4= 109.28 N/mm2, Rp0.2t5= 109.28 N/mm2, Rp1.0t2= 129.84 N/mm2, Rp1.0t4= 134.28 N/mm2, Rp1.0t5= 134.28 N/mm2, fh2= 86.56 N/mm2, fh4= 89.52 N/mm2, fh5= 89.52 N/mm2

POINT DATA:

E02, Coordinates, X= 280.00 mm, Y= -4923.00 mm, Z= 17145.00 mm
E02, Flange= WELDNECK, Rating= 2500, Flange Weight= 19.10 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= No
E02 M, Coordinates, X= 280.00 mm, Y= -4697.58 mm, Z= 17145.00 mm

SUPPORT DATA:

E02 M, Variable Spring Hanger, Support Id= E02 M1, Connected to Ground, 1 hanger(s), Stiffness= 15 N/mm, Preload= 1691 N

From E12 to E13, DY= 498.95 mm

Run

POINT DATA:

E12, Coordinates, X= 280.00 mm, Y= -4472.15 mm, Z= 17145.00 mm
E12, Flange= WELDNECK, Rating= 2500, Flange Weight= 19.10 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= No

From E13 to E04, DY= 415.60 mm

Tee

COMPONENT DATA (Tee Header, Center= E13):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

POINT DATA:

E13, Coordinates, X= 280.00 mm, Y= -3973.20 mm, Z= 17145.00 mm

From E04 to E17, DY= 808.20 mm

Tee

COMPONENT DATA (Tee Header, Center= E04):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

POINT DATA:

E04, Coordinates, X= 280.00 mm, Y= -3557.60 mm, Z= 17145.00 mm

SUPPORT DATA:

E04, Variable Spring Hanger, Support Id= E04 1, Connected to Ground, 1 hanger(s), Stiffness= 29 N/mm, Preload= 1365 N

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C O M P O N E N T D A T A L I S T I N G

From E17 to E16, DY= 387.20 mm

Run

POINT DATA:

E17, Coordinates, X= 280.00 mm, Y= -2749.40 mm, Z= 17145.00 mm
E17, Flange= WELDNECK, Rating= 2500, Flange Weight= 19.10 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= No
E17, Flange= WELDNECK, Rating= 2500, Flange Weight= 19.10 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= No

From E16 to E05, DY= 808.20 mm

Run

POINT DATA:

E16, Coordinates, X= 280.00 mm, Y= -2362.20 mm, Z= 17145.00 mm

S_LINEREV0.OUT

E16, Flange= WELDNECK, Rating= 2500, Flange Weight= 19.10 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= No
E16, Flange= WELDNECK, Rating= 2500, Flange Weight= 19.10 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= No

From E05 to E06, DX= -832.51 mm, DY= 480.65 mm, L= 961.30 mm Bend

COMPONENT DATA (Bend, TIP= E05, Near= E05 N, Far= E05 F):
Long Elbow, Radius= 76.20 mm, Bend angle= 60.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.32,
SIFO= 1.32

POINT DATA:

E05, Coordinates, X= 280.00 mm, Y= -1554.00 mm, Z= 17145.00 mm
E05 N, Coordinates, X= 280.00 mm, Y= -1597.99 mm, Z= 17145.00 mm
E05 F, Coordinates, X= 241.90 mm, Y= -1532.00 mm, Z= 17145.00 mm

From E06 to E07, DZ= -300.00 mm Bend

COMPONENT DATA (Bend, TIP= E06, Near= E06 N, Far= E06 F):
Long Elbow, Radius= 76.20 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.32,
SIFO= 1.32

POINT DATA:

E06, Coordinates, X= -552.51 mm, Y= -1073.35 mm, Z= 17145.00 mm
E06 N, Coordinates, X= -486.52 mm, Y= -1111.45 mm, Z= 17145.00 mm
E06 F, Coordinates, X= -552.51 mm, Y= -1073.35 mm, Z= 17068.80 mm

SUPPORT DATA:

E06 N, Variable Spring Hanger, Support Id= E06 N1, Connected to Ground, 1 hanger(s), Stiffness= 3 N/mm, Preload= 804 N

From E07 to E08, DY= 353.00 mm Bend

COMPONENT DATA (Bend, TIP= E07, Near= E07 N, Far= E07 F):
Long Elbow, Radius= 76.20 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.32,
SIFO= 1.32

POINT DATA:

E07, Coordinates, X= -552.51 mm, Y= -1073.35 mm, Z= 16845.00 mm
E07 N, Coordinates, X= -552.51 mm, Y= -1073.35 mm, Z= 16921.20 mm
E07 F, Coordinates, X= -552.51 mm, Y= -997.15 mm, Z= 16845.00 mm

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C O M P O N E N T D A T A L I S T I N G

From E08 to E09, DZ= -762.00 mm Bend

COMPONENT DATA (Bend, TIP= E08, Near= E08 N, Far= E08 F):
Long Elbow, Radius= 76.20 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.32,
SIFO= 1.32

POINT DATA:

E08, Coordinates, X= -552.51 mm, Y= -720.35 mm, Z= 16845.00 mm
E08 N, Coordinates, X= -552.51 mm, Y= -796.55 mm, Z= 16845.00 mm
E08 F, Coordinates, X= -552.51 mm, Y= -720.35 mm, Z= 16768.80 mm

From E09 to E14, DX= 96.67 mm, DY= 125.98 mm, L= 158.80 mm Bend

COMPONENT DATA (Bend, TIP= E09, Near= E09 N, Far= E09 F):
Long Elbow, Radius= 76.20 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.32,
SIFO= 1.32

POINT DATA:

E09, Coordinates, X= -552.51 mm, Y= -720.35 mm, Z= 16083.00 mm
E09 N, Coordinates, X= -552.51 mm, Y= -720.35 mm, Z= 16159.20 mm

S_LINEREV0.OUT
E09 F, Coordinates, X= -506.12 mm, Y= -659.90 mm, Z= 16083.00 mm

From E14 to E11, DX= 54.12 mm, DY= 70.53 mm, L= 88.90 mm Redu

COMPONENT DATA (Reducer):
Length= 88.90 mm, SIF= 2.00

POINT DATA:
E14, Coordinates, X= -455.84 mm, Y= -594.37 mm, Z= 16083.00 mm
E11, Coordinates, X= -401.72 mm, Y= -523.84 mm, Z= 16083.00 mm

SUPPORT DATA:
E11, Anchor, Tag No.= SLTORVA, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

*** SEGMENT F

From D11 to F21, DX= -110.59 mm, DY= -110.59 mm, DZ= 0.00 mm, L= 156.40 mm Tee

COMPONENT DATA (Tee Branch, Center= D11):
Other, SIFI= 1.00, SIFO= 1.00

PIPE DATA:
Pipe Id= 2S80, Composition= Austentic Stainless

OPERATING DATA:
P4= 3.4700 N/mm2, P5= 0.1900 N/mm2, T4= 259.00 deg C, T5= 118.00 deg C, Exp4= 4.05360 mm/m, Exp5= 1.57004 mm/m,
E4= 0.17970 E6 N/mm2, E5= 0.19165 E6 N/mm2, Rp0.2t4= 116.56 N/mm2, Rp0.2t5= 149.60 N/mm2,
Rp1.0t4= 143.20 N/mm2,
Rp1.0t5= 182.80 N/mm2, fh4= 95.47 N/mm2, fh5= 121.87 N/mm2

POINT DATA:
D11, Coordinates, X= 679.63 mm, Y= -1763.83 mm, Z= 16845.00 mm

0

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C O M P O N E N T D A T A L I S T I N G

From F21 to C014, DX= -273.79 mm, DY= -273.80 mm, L= 387.20 mm Run

POINT DATA:
F21, Coordinates, X= 569.04 mm, Y= -1874.42 mm, Z= 16845.00 mm
F21, Flange= WELDNECK, Rating= 2500, Flange Weight= 19.10 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= No
F21, Flange= WELDNECK, Rating= 2500, Flange Weight= 19.10 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= No

From C014 to F17, DX= -110.59 mm, DY= -110.59 mm, L= 156.40 mm Run

POINT DATA:
C014, Coordinates, X= 295.25 mm, Y= -2148.22 mm, Z= 16845.00 mm
C014, Flange= WELDNECK, Rating= 2500, Flange Weight= 19.10 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= No
C014, Flange= WELDNECK, Rating= 2500, Flange Weight= 19.10 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= No

From F17 to F15, DX= 64.79 mm, DY= -285.33 mm, L= 292.59 mm Bend

COMPONENT DATA (Bend, TIP= F17, Near= F17 N, Far= F17 F):
Long Elbow, Radius= 76.20 mm, Bend angle= 57.79 deg, End flanges= 0, Flex= Auto, SIFI= 1.32, SIFO= 1.32

S_LINEREVO.OUT

POINT DATA:

F17, Coordinates, X= 184.66 mm, Y= -2258.81 mm, Z= 16845.00 mm
F17 N, Coordinates, X= 214.40 mm, Y= -2229.07 mm, Z= 16845.00 mm
F17 F, Coordinates, X= 193.97 mm, Y= -2299.82 mm, Z= 16845.00 mm

From F15 to F14, DX= 99.87 mm, DY= -439.80 mm, L= 451.00 mm Valv

COMPONENT DATA (Valve):

SCHECK-F, Rating= 2500, Length= 451.00 mm, Valve weight = 81 kg, Actuator Auto = No, Actuator
Symbol = Yes,
Actuator weight = 126 kg, Actuator DX = 428.00 mm, DY = 97.00 mm, DZ = 310.42 mm, Surface factor=
0.00, End type= Weld neck,
SIF= 1.00

POINT DATA:

F15, Coordinates, X= 249.45 mm, Y= -2544.14 mm, Z= 16845.00 mm
F15, Flange= WELDNECK, Rating= 2500, Flange Weight= 19.10 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No
F15, Flange= WELDNECK, Rating= 2500, Flange Weight= 19.10 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No
F15 M, Coordinates, X= 299.38 mm, Y= -2764.04 mm, Z= 16845.00 mm

SUPPORT DATA:

F15 M, Variable Spring Hanger, Support Id= F15 M1, Connected to Ground, 1 hanger(s), Stiffness=
26 N/mm, Preload= 3820 N

From F14 to F02, DX= 47.81 mm, DY= -210.54 mm, L= 215.90 mm Run

PIPE DATA:

Pipe Id= 2S40, Composition= Austentic Stainless, Sch= 40, Wall Thk= 3.912 mm, Mill= 0.489 mm,
Content Sp Gr= 1.000,
[]

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C O M P O N E N T D A T A L I S T I N G

Content Unit Wgt= 21.22 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 23.14 N/m

OPERATING DATA:

P1= 0.1000 N/mm2, P2= 1.5000 N/mm2, P3= 1.5000 N/mm2, P4= 1.5000 N/mm2, T1= 20.00 deg C, T2=
20.00 deg C, T3= 198.00 deg C,
T4= 198.00 deg C, Exp1= 0 mm/m, Exp2= 0 mm/m, Exp3= 2.94948 mm/m, Exp4= 2.94948 mm/m, E1= 0.19996
E6 N/mm2,
E2= 0.19996 E6 N/mm2, E3= 0.18487 E6 N/mm2, E4= 0.18487 E6 N/mm2, Rp0.2t1= 195.00 N/mm2, Rp0.2t2=
195.00 N/mm2,
Rp0.2t3= 127.52 N/mm2, Rp0.2t4= 127.52 N/mm2, Rp1.0t1= 230.00 N/mm2, Rp1.0t2= 230.00 N/mm2,
Rp1.0t3= 155.60 N/mm2,
Rp1.0t4= 155.60 N/mm2, fh1= 153.33 N/mm2, fh2= 153.33 N/mm2, fh3= 103.73 N/mm2, fh4= 103.73 N/mm2

POINT DATA:

F14, Coordinates, X= 349.32 mm, Y= -2983.94 mm, Z= 16845.00 mm
F14, Flange= WELDNECK, Rating= 2500, Flange Weight= 19.10 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No

From F02 to F22, DX= 19.68 mm, DY= -86.69 mm, L= 88.90 mm Redu

COMPONENT DATA (Reducer):

Length= 88.90 mm, SIF= 2.00

POINT DATA:

F02, Coordinates, X= 397.12 mm, Y= -3194.48 mm, Z= 16845.00 mm

From F22 to F11, DX= 30.67 mm, DY= -135.06 mm, L= 138.50 mm Run

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PIPE DATA:

Pipe Id= 3S40, Composition= Austentic Stainless, Nom Size= 80 mm, OD= 88.900 mm, Wall Thk= 5.486 mm, Mill= 0.686 mm,
 Content Sp Gr= 1.000, Content Unit Wgt= 46.75 N/m, Insul Thk= 80.000 mm, Insul Density= 136.16 kg/m3,
 Insul Unit Wgt= 56.68 N/m

POINT DATA:

F22, Coordinates, X= 416.80 mm, Y= -3281.17 mm, Z= 16845.00 mm

 From F11 to F12, DX= -164.87 mm, DY= -164.87 mm, L= 233.16 mm Bend

COMPONENT DATA (Bend, TIP= F11, Near= F11 N, Far= F11 F):

Long Elbow, Radius= 114.30 mm, Bend angle= 57.79 deg, End flanges= 0, Flex= Auto, SIFI= 1.78, SIFO= 1.78

POINT DATA:

F11, Coordinates, X= 447.47 mm, Y= -3416.23 mm, Z= 16845.00 mm
 F11 N, Coordinates, X= 433.50 mm, Y= -3354.71 mm, Z= 16845.00 mm
 F11 F, Coordinates, X= 402.86 mm, Y= -3460.84 mm, Z= 16845.00 mm

 From F12 to F05, DX= -714.37 mm, DY= 715.05 mm, L= 1010.75 mm Bend

COMPONENT DATA (Bend, TIP= F12, Near= F12 N, Far= F12 F):

Long Elbow, Radius= 114.30 mm, Bend angle= 90.03 deg, End flanges= 0, Flex= Auto, SIFI= 1.78, SIFO= 1.78

POINT DATA:

F12, Coordinates, X= 282.60 mm, Y= -3581.10 mm, Z= 16845.00 mm
 F12 N, Coordinates, X= 363.46 mm, Y= -3500.24 mm, Z= 16845.00 mm
 F12 F, Coordinates, X= 201.78 mm, Y= -3500.20 mm, Z= 16845.00 mm

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AutoPIPE Plus 9.2.1 MODEL PAGE 19

C O M P O N E N T D A T A L I S T I N G

 From F05 to F23, DX= -155.57 mm, DY= -155.56 mm, L= 220.00 mm Bend

COMPONENT DATA (Bend, TIP= F05, Near= F05 N, Far= F05 F):

Long Elbow, Radius= 114.30 mm, Bend angle= 90.03 deg, End flanges= 0, Flex= Auto, SIFI= 1.78, SIFO= 1.78

POINT DATA:

F05, Coordinates, X= -431.77 mm, Y= -2866.05 mm, Z= 16845.00 mm
 F05 N, Coordinates, X= -350.95 mm, Y= -2946.94 mm, Z= 16845.00 mm
 F05 F, Coordinates, X= -512.63 mm, Y= -2946.90 mm, Z= 16845.00 mm

 From F23 to F10, DX= -71.84 mm, DY= -71.84 mm, L= 101.60 mm Redu

COMPONENT DATA (Reducer):

Length= 101.60 mm, SIF= 2.00

POINT DATA:

F23, Coordinates, X= -587.34 mm, Y= -3021.61 mm, Z= 16845.00 mm

 From F10 to F13, DX= -102.53 mm, DY= -102.53 mm, L= 145.00 mm Run

PIPE DATA:

Pipe Id= 4S40, Composition= Austentic Stainless, Nom Size= 100 mm, OD= 114.30 mm, Wall Thk= 6.020 mm, Mill= 0.752 mm,
 Content Sp Gr= 1.000, Content Unit Wgt= 80.51 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 65.20 N/m

POINT DATA:

F10, Coordinates, X= -659.18 mm, Y= -3093.45 mm, Z= 16845.00 mm
 F13, Coordinates, X= -761.71 mm, Y= -3195.98 mm, Z= 16845.00 mm
 F13, Flange= SLIP-ON, Rating= 300, Flange Weight= 10.00 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,

Perform ANSI check= No

SUPPORT DATA:

F13, Anchor, Tag No.= SLDEG, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

*** SEGMENT J

From D05 to J01, DZ= 57.15 mm

Tee

COMPONENT DATA (Tee Branch, Center= D05):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

PIPE DATA:

Pipe Id= 1.25S80, Composition= Austentic Stainless, Nom Size= 32 mm, OD= 42.164 mm, Sch= 80, Wall Thk= 4.851 mm, Mill= 0.606 mm, Content Sp Gr= 1.000, Content Unit Wgt= 8.11 N/m, Insul Thk= 40.000 mm, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 13.79 N/m

OPERATING DATA:

P1= 5.8300 N/mm2, P2= 11.3000 N/mm2, P3= 5.8300 N/mm2, P4= 3.4700 N/mm2, T1= 274.00 deg C, T2= 320.00 deg C, T3= 274.00 deg C, T4= 242.00 deg C, Exp1= 4.33154 mm/m, Exp2= 5.19800 mm/m, Exp3= 4.33154 mm/m, Exp4= 3.74168 mm/m, E1= 0.17842 E6 N/mm2, E2= 0.17452 E6 N/mm2, E3= 0.17842 E6 N/mm2, E4= 0.18114 E6 N/mm2, Rp0.2t1= 114.16 N/mm2,

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C O M P O N E N T D A T A L I S T I N G

Rp0.2t2= 107.60 N/mm2, Rp0.2t3= 114.16 N/mm2, Rp0.2t4= 119.44 N/mm2, Rp1.0t1= 140.20 N/mm2, Rp1.0t2= 132.60 N/mm2, Rp1.0t3= 140.20 N/mm2, Rp1.0t4= 146.60 N/mm2, fh1= 93.47 N/mm2, fh2= 88.40 N/mm2, fh3= 93.47 N/mm2, fh4= 97.73 N/mm2

POINT DATA:

D05, Coordinates, X= 960.00 mm, Y= -3337.60 mm, Z= 16845.00 mm

From J01 to J02, DZ= 908.85 mm

Run

POINT DATA:

J01, Coordinates, X= 960.00 mm, Y= -3337.60 mm, Z= 16902.15 mm

From J02 to HV22, DZ= 184.00 mm

Valv

COMPONENT DATA (Valve):

GLOBE-B, Rating= Non-standard, Length= 184.00 mm, Valve weight = 27 kg, Surface factor= 0.00, End type= Butt welded, SIF= 1.80, Offset= 0.000 mm

POINT DATA:

J02, Coordinates, X= 960.00 mm, Y= -3337.60 mm, Z= 17811.00 mm
J02 M, Coordinates, X= 960.00 mm, Y= -3337.60 mm, Z= 17903.00 mm

From HV22 to J04, DZ= 351.00 mm

Run

POINT DATA:

HV22, Coordinates, X= 960.00 mm, Y= -3337.60 mm, Z= 17995.00 mm

From J04 to J05, DX= 383.00 mm

Bend

COMPONENT DATA (Bend, TIP= J04, Near= J04 N, Far= J04 F):

Long Elbow, Radius= 47.62 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.18, SIF0= 1.18

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POINT DATA:

J04, Coordinates, X= 960.00 mm, Y= -3337.60 mm, Z= 18346.00 mm
 J04 N, Coordinates, X= 960.00 mm, Y= -3337.60 mm, Z= 18298.38 mm
 J04 F, Coordinates, X= 1007.63 mm, Y= -3337.60 mm, Z= 18346.00 mm

 From J05 to J17, DZ= 300.00 mm

Bend

COMPONENT DATA (Bend, TIP= J05, Near= J05 N, Far= J05 F):

Long Elbow, Radius= 47.62 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.18, SIFO= 1.18

POINT DATA:

J05, Coordinates, X= 1343.00 mm, Y= -3337.60 mm, Z= 18346.00 mm
 J05 N, Coordinates, X= 1295.38 mm, Y= -3337.60 mm, Z= 18346.00 mm
 J05 F, Coordinates, X= 1343.00 mm, Y= -3337.60 mm, Z= 18393.62 mm

 From J17 to J13, DZ= 1500.00 mm

Run

POINT DATA:

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 C O M P O N E N T D A T A L I S T I N G

J17, Coordinates, X= 1343.00 mm, Y= -3337.60 mm, Z= 18646.00 mm

SUPPORT DATA:

J17, Guide, Support Id= J17 1, Connected to Ground, Stiffness= RIGID

 From J13 to J14, DX= 900.00 mm

Bend

COMPONENT DATA (Bend, TIP= J13, Near= J13 N, Far= J13 F):

Long Elbow, Radius= 47.62 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.18, SIFO= 1.18

POINT DATA:

J13, Coordinates, X= 1343.00 mm, Y= -3337.60 mm, Z= 20146.00 mm
 J13 N, Coordinates, X= 1343.00 mm, Y= -3337.60 mm, Z= 20098.38 mm
 J13 F, Coordinates, X= 1390.63 mm, Y= -3337.60 mm, Z= 20146.00 mm

SUPPORT DATA:

J13 F, Variable Spring Hanger, Support Id= J13 F1, Connected to Ground, 1 hanger(s), Stiffness= 3 N/mm, Preload= 270 N

 From J14 to J15, DZ= 900.00 mm

Bend

COMPONENT DATA (Bend, TIP= J14, Near= J14 N, Far= J14 F):

Long Elbow, Radius= 47.62 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.18, SIFO= 1.18

POINT DATA:

J14, Coordinates, X= 2243.00 mm, Y= -3337.60 mm, Z= 20146.00 mm
 J14 N, Coordinates, X= 2195.38 mm, Y= -3337.60 mm, Z= 20146.00 mm
 J14 F, Coordinates, X= 2243.00 mm, Y= -3337.60 mm, Z= 20193.62 mm

 From J15 to J11, DX= -900.00 mm

Bend

COMPONENT DATA (Bend, TIP= J15, Near= J15 N, Far= J15 F):

Long Elbow, Radius= 47.62 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.18, SIFO= 1.18

POINT DATA:

J15, Coordinates, X= 2243.00 mm, Y= -3337.60 mm, Z= 21046.00 mm
 J15 N, Coordinates, X= 2243.00 mm, Y= -3337.60 mm, Z= 20998.37 mm
 J15 F, Coordinates, X= 2195.38 mm, Y= -3337.60 mm, Z= 21046.00 mm

 From J11 to J18, DZ= 1326.00 mm

Bend

S_LINEREV0.OUT

COMPONENT DATA (Bend, TIP= J11, Near= J11 N, Far= J11 F):
Long Elbow, Radius= 47.62 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.18, SIFO= 1.18

POINT DATA:

J11, Coordinates, X= 1343.00 mm, Y= -3337.60 mm, Z= 21046.00 mm
J11 N, Coordinates, X= 1390.63 mm, Y= -3337.60 mm, Z= 21046.00 mm
J11 F, Coordinates, X= 1343.00 mm, Y= -3337.60 mm, Z= 21093.62 mm

From J18 to J07, DZ= 3326.00 mm

Run

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POINT DATA:

J18, Coordinates, X= 1343.00 mm, Y= -3337.60 mm, Z= 22372.00 mm

SUPPORT DATA:

J18, Guide, Support Id= J18 1, Connected to Ground, Stiffness= RIGID

From J07 to J08, DY= -417.60 mm

Tee

COMPONENT DATA (Tee Branch, Center= J07):

B16.9 welding tee, SIFI= 1.00, SIFO= 1.00

POINT DATA:

J07, Coordinates, X= 1343.00 mm, Y= -3337.60 mm, Z= 25698.00 mm

From J08 to J09, DY= -89.00 mm

Redu

COMPONENT DATA (Reducer):

Length= 89.00 mm, SIF= 2.00

POINT DATA:

J08, Coordinates, X= 1343.00 mm, Y= -3755.20 mm, Z= 25698.00 mm

From J09 to J10, DY= -152.40 mm

Run

PIPE DATA:

Pipe Id= 2.5S80, Composition= Austentic Stainless, Nom Size= 65 mm, OD= 73.025 mm, Wall Thk= 7.010 mm, Mill= 0.876 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 26.80 N/m, Insul Thk= 80.000 mm, Insul Density= 136.16 kg/m3,
Insul Unit Wgt= 51.35 N/m

POINT DATA:

J09, Coordinates, X= 1343.00 mm, Y= -3844.20 mm, Z= 25698.00 mm
J10, Coordinates, X= 1343.00 mm, Y= -3996.60 mm, Z= 25698.00 mm
J10, Flange= WELDNECK, Rating= 2500, Flange Weight= 23.60 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= No

SUPPORT DATA:

J10, Anchor, Tag No.= SLTOEHRSB, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

*** SEGMENT K

From J07 to K01, DZ= 47.60 mm

Tee

COMPONENT DATA (Tee Header, Center= J07):

B16.9 welding tee, SIFI= 1.00, SIFO= 1.00

PIPE DATA:

Pipe Id= 1.25S80, Composition= Austentic Stainless, Nom Size= 32 mm, OD= 42.164 mm, Wall Thk=

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4.851 mm, Mill= 0.606 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 8.11 N/m, Insul Thk= 40.000 mm, Insul Density= 136.16
kg/m3,
Insul Unit Wgt= 13.79 N/m

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C O M P O N E N T D A T A L I S T I N G

POINT DATA:

J07, Coordinates, X= 1343.00 mm, Y= -3337.60 mm, Z= 25698.00 mm

From K01 to K02, DZ= 50.80 mm

Redu

COMPONENT DATA (Reducer):

Length= 50.80 mm, SIF= 2.00

POINT DATA:

K01, Coordinates, X= 1343.00 mm, Y= -3337.60 mm, Z= 25745.60 mm

From K02 to SV14, DZ= 333.00 mm

Valv

COMPONENT DATA (Valve):

NS, Rating= Non-standard, Length= 333.00 mm, Valve weight = 2 kg, Surface factor= 1.00, End type=
Screwed (threaded),
SIF= 2.30

PIPE DATA:

Pipe Id= 0.5S80, Composition= Austentic Stainless, Nom Size= 15 mm, OD= 21.336 mm, Wall Thk=
3.734 mm, Mill= 0.467 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 1.48 N/m, Insul Thk= 50.000 mm, Insul Density= 136.16
kg/m3,
Insul Unit Wgt= 14.96 N/m

POINT DATA:

K02, Coordinates, X= 1343.00 mm, Y= -3337.60 mm, Z= 25796.40 mm
K02 M, Coordinates, X= 1343.00 mm, Y= -3337.60 mm, Z= 25962.90 mm
SV14, Coordinates, X= 1343.00 mm, Y= -3337.60 mm, Z= 26129.40 mm

*** SEGMENT L

From B04 to L01, DZ= 69.85 mm

Tee

COMPONENT DATA (Tee Branch, Center= B04):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

PIPE DATA:

Pipe Id= 2S80, Composition= Austentic Stainless, Nom Size= 50 mm, OD= 60.325 mm, Wall Thk= 5.537
mm, Mill= 0.692 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 18.67 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt=
23.14 N/m

OPERATING DATA:

P4= 5.2000 N/mm2, P5= 9.3900 N/mm2, T4= 265.50 deg C, T5= 306.00 deg C, Exp4= 4.17380 mm/m, Exp5=
4.93212 mm/m,
E4= 0.17914 E6 N/mm2, E5= 0.17571 E6 N/mm2, Rp0.2t4= 115.52 N/mm2, Rp0.2t5= 109.28 N/mm2,
Rp1.0t4= 141.90 N/mm2,
Rp1.0t5= 134.28 N/mm2, fh4= 94.60 N/mm2, fh5= 89.52 N/mm2

POINT DATA:

B04, Coordinates, X= 1605.00 mm, Y= -3116.10 mm, Z= 16845.00 mm

From L01 to L02, DZ= 560.15 mm

Run

POINT DATA:

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C O M P O N E N T D A T A L I S T I N G

L01, Coordinates, X= 1605.00 mm, Y= -3116.10 mm, Z= 16914.85 mm

From L02 to HV23, DZ= 257.00 mm

Valv

COMPONENT DATA (Valve):

GLOBE-B, Rating= 2500, Length= 257.00 mm, Valve weight = 50 kg, Surface factor= 0.00, End type=
Butt welded, SIF= 1.00,
Offset= 0.000 mm

POINT DATA:

L02, Coordinates, X= 1605.00 mm, Y= -3116.10 mm, Z= 17475.00 mm

L02 M, Coordinates, X= 1605.00 mm, Y= -3116.10 mm, Z= 17603.50 mm

From HV23 to L03, DZ= 253.00 mm

Run

POINT DATA:

HV23, Coordinates, X= 1605.00 mm, Y= -3116.10 mm, Z= 17732.00 mm

From L03 to L05, DX= -462.00 mm

Bend

COMPONENT DATA (Bend, TIP= L03, Near= L03 N, Far= L03 F):

Long Elbow, Radius= 76.20 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.32,
SIFO= 1.32

POINT DATA:

L03, Coordinates, X= 1605.00 mm, Y= -3116.10 mm, Z= 17985.00 mm

L03 N, Coordinates, X= 1605.00 mm, Y= -3116.10 mm, Z= 17908.80 mm

L03 F, Coordinates, X= 1528.80 mm, Y= -3116.10 mm, Z= 17985.00 mm

From L05 to L12, DZ= 1500.00 mm

Bend

COMPONENT DATA (Bend, TIP= L05, Near= L05 N, Far= L05 F):

Long Elbow, Radius= 76.20 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.32,
SIFO= 1.32

POINT DATA:

L05, Coordinates, X= 1143.00 mm, Y= -3116.10 mm, Z= 17985.00 mm

L05 N, Coordinates, X= 1219.20 mm, Y= -3116.10 mm, Z= 17985.00 mm

L05 F, Coordinates, X= 1143.00 mm, Y= -3116.10 mm, Z= 18061.20 mm

From L12 to L11, DZ= 3000.00 mm

Run

POINT DATA:

L12, Coordinates, X= 1143.00 mm, Y= -3116.10 mm, Z= 19485.00 mm

SUPPORT DATA:

L12, Guide, Support Id= L12 1, Connected to Ground, Stiffness= RIGID

From L11 to L07, DZ= 3213.00 mm

Run

POINT DATA:

L11, Coordinates, X= 1143.00 mm, Y= -3116.10 mm, Z= 22485.00 mm

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SUPPORT DATA:

L11, Guide, Support Id= L11 1, Connected to Ground, Stiffness= FREE

From L07 to L08, DY= 221.50 mm Tee

COMPONENT DATA (Tee Branch, Center= L07):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

POINT DATA:

L07, Coordinates, X= 1143.00 mm, Y= -3116.10 mm, Z= 25698.00 mm

From L08 to L09, DY= 89.00 mm Redu

COMPONENT DATA (Reducer):

Length= 89.00 mm, SIF= 2.00

POINT DATA:

L08, Coordinates, X= 1143.00 mm, Y= -2894.60 mm, Z= 25698.00 mm

From L09 to L10, DY= 177.80 mm Run

PIPE DATA:

Pipe Id= 3S80, Composition= Austentic Stainless, Nom Size= 80 mm, OD= 88.900 mm, Wall Thk= 7.620 mm, Mill= 0.953 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 41.77 N/m, Insul Thk= 80.000 mm, Insul Density= 136.16 kg/m3,
Insul Unit Wgt= 56.68 N/m

POINT DATA:

L09, Coordinates, X= 1143.00 mm, Y= -2805.60 mm, Z= 25698.00 mm
L10, Coordinates, X= 1143.00 mm, Y= -2627.80 mm, Z= 25698.00 mm
L10, Flange= WELDNECK, Rating= 2500, Flange Weight= 42.60 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= No

SUPPORT DATA:

L10, Anchor, Tag No.= SLTOEHRSC, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

*** SEGMENT M

From L07 to M01, DZ= 63.50 mm Tee

COMPONENT DATA (Tee Header, Center= L07):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

PIPE DATA:

Pipe Id= 2S80, Composition= Austentic Stainless, Nom Size= 50 mm, OD= 60.325 mm, Wall Thk= 5.537 mm, Mill= 0.692 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 18.67 N/m, Insul Thk= 50.000 mm, Insul Density= 136.16 kg/m3,
Insul Unit Wgt= 23.14 N/m

POINT DATA:

L07, Coordinates, X= 1143.00 mm, Y= -3116.10 mm, Z= 25698.00 mm

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C O M P O N E N T D A T A L I S T I N G

From M01 to M02, DZ= 76.00 mm Redu

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COMPONENT DATA (Reducer):
Length= 76.00 mm, SIF= 2.00

POINT DATA:

M01, Coordinates, X= 1143.00 mm, Y= -3116.10 mm, Z= 25761.50 mm

From M02 to SV15, DZ= 333.00 mm

Valv

COMPONENT DATA (Valve):

NS, Rating= Non-standard, Length= 333.00 mm, Valve weight = 2 kg, Surface factor= 1.00, End type= Screwed (threaded),
SIF= 2.30

PIPE DATA:

Pipe Id= 0.5S80, Composition= Austentic Stainless, Nom Size= 15 mm, OD= 21.336 mm, Wall Thk= 3.734 mm, Mill= 0.467 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 1.48 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 14.96 N/m

POINT DATA:

M02, Coordinates, X= 1143.00 mm, Y= -3116.10 mm, Z= 25837.50 mm
M02 M, Coordinates, X= 1143.00 mm, Y= -3116.10 mm, Z= 26004.00 mm
SV15, Coordinates, X= 1143.00 mm, Y= -3116.10 mm, Z= 26170.50 mm

*** SEGMENT N

From B17 to N01, DZ= 165.10 mm

Tee

COMPONENT DATA (Tee Branch, Center= B17):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

PIPE DATA:

Pipe Id= 1S80, Composition= Austentic Stainless, Nom Size= 25 mm, OD= 33.401 mm, Wall Thk= 4.547 mm, Mill= 0.568 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 4.55 N/m, Insul Thk= 80.000 mm, Insul Density= 136.16 kg/m3,
Insul Unit Wgt= 38.06 N/m

OPERATING DATA:

T1= 318.00 deg C, T2= 343.00 deg C, T3= 318.00 deg C, T4= 306.00 deg C, Exp1= 5.15996 mm/m, Exp2= 5.63910 mm/m,
Exp3= 5.15996 mm/m, Exp4= 4.93212 mm/m, E1= 0.17469 E6 N/mm2, E2= 0.17258 E6 N/mm2, E3= 0.17469 E6 N/mm2,
E4= 0.17571 E6 N/mm2, Rp0.2t1= 107.84 N/mm2, Rp0.2t2= 104.84 N/mm2, Rp0.2t3= 107.84 N/mm2,
Rp0.2t4= 109.28 N/mm2,
Rp1.0t1= 132.84 N/mm2, Rp1.0t2= 129.84 N/mm2, Rp1.0t3= 132.84 N/mm2, Rp1.0t4= 134.28 N/mm2, fh1= 88.56 N/mm2,
fh2= 86.56 N/mm2, fh3= 88.56 N/mm2, fh4= 89.52 N/mm2

POINT DATA:

B17, Coordinates, X= 1605.00 mm, Y= -3889.60 mm, Z= 16845.00 mm

From N01 to HV05, DZ= 308.00 mm

Valv

COMPONENT DATA (Valve):

GLOBE-F, Rating= Non-standard, Length= 308.00 mm, Valve weight = 20 kg, Surface factor= 1.00, End type= Weld neck, SIF= 1.00

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POINT DATA:

N01, Coordinates, X= 1605.00 mm, Y= -3889.60 mm, Z= 17010.10 mm
N01, Flange= WELDNECK, Rating= 2500, Flange Weight= 5.90 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= No
N01 M, Coordinates, X= 1605.00 mm, Y= -3889.60 mm, Z= 17164.10 mm

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HV05, Coordinates, X= 1605.00 mm, Y= -3889.60 mm, Z= 17318.10 mm
HV05, Flange= WELDNECK, Rating= 2500, Flange Weight= 5.90 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No

*** SEGMENT P

From E13 to P01, DZ= 152.40 mm Tee

COMPONENT DATA (Tee Branch, Center= E13):
B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

PIPE DATA:
Pipe Id= 1S80, Composition= Austentic Stainless

POINT DATA:
E13, Coordinates, X= 280.00 mm, Y= -3973.20 mm, Z= 17145.00 mm

From P01 to H24, DZ= 308.00 mm Valv

COMPONENT DATA (Valve):
GLOBE-F, Rating= Non-standard, Length= 308.00 mm, Valve weight = 20 kg, Surface factor= 1.00, End
type= Weld neck, SIF= 1.00

POINT DATA:
P01, Coordinates, X= 280.00 mm, Y= -3973.20 mm, Z= 17297.40 mm
P01, Flange= WELDNECK, Rating= 2500, Flange Weight= 5.90 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No
H24, Coordinates, X= 280.00 mm, Y= -3973.20 mm, Z= 17605.40 mm
H24, Flange= SLIP-ON, Rating= 2500, Flange Weight= 5.90 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No
H24, Coordinates, X= 280.00 mm, Y= -3973.20 mm, Z= 17605.40 mm
H24, Flange= SLIP-ON, Rating= 2500, Flange Weight= 5.90 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No

*** SEGMENT R

From D04 to R01, DZ= 152.40 mm Tee

COMPONENT DATA (Tee Branch, Center= D04):
B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

PIPE DATA:
Pipe Id= 1S80, Composition= Austentic Stainless

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OPERATING DATA:
P4= 3.4700 N/mm2, P5= 0.1900 N/mm2, T4= 259.00 deg C, T5= 118.00 deg C, Exp4= 4.05360 mm/m, Exp5=
1.57004 mm/m,
E4= 0.17970 E6 N/mm2, E5= 0.19165 E6 N/mm2, Rp0.2t4= 116.56 N/mm2, Rp0.2t5= 149.60 N/mm2,
Rp1.0t4= 143.20 N/mm2,
Rp1.0t5= 182.80 N/mm2, fh4= 95.47 N/mm2, fh5= 121.87 N/mm2

POINT DATA:
D04, Coordinates, X= 960.00 mm, Y= -3970.40 mm, Z= 16845.00 mm

From R01 to HV25, DZ= 308.00 mm Valv

COMPONENT DATA (Valve):

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GLOBE-F, Rating= Non-standard, Length= 308.00 mm, Valve weight = 20 kg, Surface factor= 1.00, End type= Weld neck, SIF= 1.00

POINT DATA:

R01, Coordinates, X= 960.00 mm, Y= -3970.40 mm, Z= 16997.40 mm
 R01, Flange= WELDNECK, Rating= 2500, Flange Weight= 5.90 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
 Perform ANSI check= No
 R01 M, Coordinates, X= 960.00 mm, Y= -3970.40 mm, Z= 17151.40 mm
 HV25, Coordinates, X= 960.00 mm, Y= -3970.40 mm, Z= 17305.40 mm
 HV25, Flange= WELDNECK, Rating= 2500, Flange Weight= 5.90 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
 Perform ANSI check= No

*** SEGMENT S

From D14 to S01, DX= -129.75 mm, DY= -129.75 mm, DZ= 0.00 mm, L= 183.50 mm Tee

COMPONENT DATA (Tee Branch, Center= D14):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

PIPE DATA:

Pipe Id= 2S80, Composition= Austentic Stainless, Nom Size= 50 mm, OD= 60.325 mm, Wall Thk= 5.537 mm, Mill= 0.692 mm,
 Content Sp Gr= 1.0000, Content Unit Wgt= 18.67 N/m, Insul Thk= 50.000 mm, Insul Density= 136.16 kg/m3,
 Insul Unit Wgt= 23.14 N/m

POINT DATA:

D14, Coordinates, X= 93.30 mm, Y= -1177.50 mm, Z= 16845.00 mm

From S01 to C013, DX= -273.80 mm, DY= -273.79 mm, L= 387.20 mm Run

POINT DATA:

S01, Coordinates, X= -36.45 mm, Y= -1307.25 mm, Z= 16845.00 mm
 S01, Flange= WELDNECK, Rating= 300, Flange Weight= 3.90 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
 Perform ANSI check= No
 S01, Flange= WELDNECK, Rating= 300, Flange Weight= 3.90 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
 Perform ANSI check= No

From C013 to S04, DX= -91.43 mm, DY= -91.43 mm, L= 129.30 mm Run

POINT DATA:

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C013, Coordinates, X= -310.25 mm, Y= -1581.04 mm, Z= 16845.00 mm
 C013, Flange= WELDNECK, Rating= 300, Flange Weight= 3.90 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
 Perform ANSI check= No
 C013, Flange= WELDNECK, Rating= 300, Flange Weight= 3.90 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
 Perform ANSI check= No

From S04 to S16, DX= -51.68 mm, DY= 18.81 mm, L= 55.00 mm Bend

COMPONENT DATA (Bend, TIP= S04, Near= S04 N, Far= S04 F):

Long Elbow, Radius= 76.20 mm, Bend angle= 65.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.32, SIF0= 1.32

POINT DATA:

S04, Coordinates, X= -401.68 mm, Y= -1672.47 mm, Z= 16845.00 mm
 S04 N, Coordinates, X= -367.36 mm, Y= -1638.15 mm, Z= 16845.00 mm
 S04 F, Coordinates, X= -447.30 mm, Y= -1655.87 mm, Z= 16845.00 mm

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From S16 to S05, DX= -119.34 mm, DY= 43.44 mm, L= 127.00 mm Run

POINT DATA:

S16, Coordinates, X= -453.36 mm, Y= -1653.66 mm, Z= 16845.00 mm

From S05 to S06, DX= -423.80 mm, DY= 154.25 mm, L= 451.00 mm Valv

COMPONENT DATA (Valve):

GATE-F, Rating= 2500, Length= 451.00 mm, Valve weight = 81 kg, Actuator Auto = No, Actuator
Symbol = Yes,
Actuator weight = 126 kg, Actuator DX = 0.00 mm, DY = 0.00 mm, DZ = 439.00 mm, Surface factor=
0.00, End type= Weld neck,
SIF= 1.00

POINT DATA:

S05, Coordinates, X= -572.70 mm, Y= -1610.23 mm, Z= 16845.00 mm
S05, Flange= WELDNECK, Rating= 2500, Flange Weight= 19.10 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No
S05 M, Coordinates, X= -784.60 mm, Y= -1533.10 mm, Z= 16845.00 mm

SUPPORT DATA:

S05 M, Variable Spring Hanger, Support Id= S05 M1, Connected to Ground, 1 hanger(s), Stiffness=
13 N/mm, Preload= 3145 N

From S06 to S07, DX= -119.34 mm, DY= 43.44 mm, L= 127.00 mm Run

PIPE DATA:

Pipe Id= 2S40, Composition= Austentic Stainless, Sch= 40, Wall Thk= 3.912 mm, Mill= 0.489 mm,
Content Sp Gr= 1.000,
Content Unit Wgt= 21.22 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 23.14 N/m

OPERATING DATA:

P1= 0.1000 N/mm2, P2= 1.5000 N/mm2, P3= 1.5000 N/mm2, P4= 1.5000 N/mm2, T1= 20.00 deg C, T2=
20.00 deg C, T3= 198.00 deg C,
T4= 198.00 deg C, Exp1= 0 mm/m, Exp2= 0 mm/m, Exp3= 2.94948 mm/m, Exp4= 2.94948 mm/m, E1= 0.19996
E6 N/mm2,
E2= 0.19996 E6 N/mm2, E3= 0.18487 E6 N/mm2, E4= 0.18487 E6 N/mm2, Rp0.2t1= 195.00 N/mm2, Rp0.2t2=
195.00 N/mm2,
Rp0.2t3= 127.52 N/mm2, Rp0.2t4= 127.52 N/mm2, Rp1.0t1= 230.00 N/mm2, Rp1.0t2= 230.00 N/mm2,
Rp1.0t3= 155.60 N/mm2,
Rp1.0t4= 155.60 N/mm2, fh1= 153.33 N/mm2, fh2= 153.33 N/mm2, fh3= 103.73 N/mm2, fh4= 103.73 N/mm2

POINT DATA:

□

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C O M P O N E N T D A T A L I S T I N G

S06, Coordinates, X= -996.50 mm, Y= -1455.98 mm, Z= 16845.00 mm
S06, Flange= WELDNECK, Rating= 2500, Flange Weight= 19.10 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No

From S07 to S08, DX= -83.63 mm, DY= 30.44 mm, L= 89.00 mm Redu

COMPONENT DATA (Reducer):

Length= 89.00 mm, SIF= 2.00

POINT DATA:

S07, Coordinates, X= -1115.84 mm, Y= -1412.54 mm, Z= 16845.00 mm

From S08 to S09, DX= -70.95 mm, DY= 25.82 mm, L= 75.50 mm Run

PIPE DATA:

Pipe Id= 3S40, Composition= Austentic Stainless, Nom Size= 80 mm, OD= 88.900 mm, Wall Thk= 5.486

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mm, Mill= 0.686 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 46.75 N/m, Insul Thk= 80.000 mm, Insul Density= 136.16
kg/m3,
Insul Unit Wgt= 56.68 N/m

POINT DATA:

S08, Coordinates, X= -1199.47 mm, Y= -1382.10 mm, Z= 16845.00 mm

From S09 to S10, DX= -337.25 mm, DY= -337.25 mm, DZ= 0.00 mm, L= 476.94 mm Bend

COMPONENT DATA (Bend, TIP= S09, Near= S09 N, Far= S09 F):

Long Elbow, Radius= 114.30 mm, Bend angle= 65.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.78,
SIFO= 1.78

POINT DATA:

S09, Coordinates, X= -1270.42 mm, Y= -1356.28 mm, Z= 16845.00 mm
S09 N, Coordinates, X= -1202.00 mm, Y= -1381.18 mm, Z= 16845.00 mm
S09 F, Coordinates, X= -1321.91 mm, Y= -1407.77 mm, Z= 16845.00 mm

From S10 to S15, DX= 247.82 mm, DY= -429.22 mm, L= 495.63 mm Bend

COMPONENT DATA (Bend, TIP= S10, Near= S10 N, Far= S10 F):

Long Elbow, Radius= 114.30 mm, Bend angle= 75.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.78,
SIFO= 1.78

POINT DATA:

S10, Coordinates, X= -1607.67 mm, Y= -1693.53 mm, Z= 16845.00 mm
S10 N, Coordinates, X= -1545.65 mm, Y= -1631.51 mm, Z= 16845.00 mm
S10 F, Coordinates, X= -1563.81 mm, Y= -1769.48 mm, Z= 16845.00 mm

From S15 to S11, DX= 247.81 mm, DY= -429.22 mm, L= 495.63 mm Run

POINT DATA:

S15, Coordinates, X= -1359.85 mm, Y= -2122.75 mm, Z= 16845.00 mm

SUPPORT DATA:

S15, Guide, Support Id= S15 1, Connected to Ground, Stiffness= RIGID, Gap-Down= 0.00 mm,
Gap-Above= 100.00 mm,
Gap-Left= 0.00 mm, Gap-Right= 0.00 mm, Friction= 0.00, Gaps setting= Weightless

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C O M P O N E N T D A T A L I S T I N G

From S11 to S12, DX= -38.82 mm, DY= -144.89 mm, L= 150.00 mm Bend

COMPONENT DATA (Bend, TIP= S11, Near= S11 N, Far= S11 F):

Long Elbow, Radius= 114.30 mm, Bend angle= 45.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.78,
SIFO= 1.78

POINT DATA:

S11, Coordinates, X= -1112.04 mm, Y= -2551.97 mm, Z= 16845.00 mm
S11 N, Coordinates, X= -1135.71 mm, Y= -2510.97 mm, Z= 16845.00 mm
S11 F, Coordinates, X= -1124.29 mm, Y= -2597.70 mm, Z= 16845.00 mm

From S12 to S13, DX= -26.30 mm, DY= -98.14 mm, L= 101.60 mm Redu

COMPONENT DATA (Reducer):

Length= 101.60 mm, SIF= 2.00

POINT DATA:

S12, Coordinates, X= -1150.86 mm, Y= -2696.86 mm, Z= 16845.00 mm

From S13 to S14, DX= -37.53 mm, DY= -140.06 mm, L= 145.00 mm Run

PIPE DATA:

S_LINEREV0.OUT

Pipe Id= 4S40, Composition= Austentic Stainless, Nom Size= 100 mm, OD= 114.30 mm, Wall Thk= 6.020 mm, Mill= 0.752 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 80.51 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 65.20 N/m

POINT DATA:

S13, Coordinates, X= -1177.16 mm, Y= -2795.00 mm, Z= 16845.00 mm
S14, Coordinates, X= -1214.69 mm, Y= -2935.06 mm, Z= 16845.00 mm
S14, Flange= WELDNECK, Rating= 300, Flange Weight= 9.50 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= No

SUPPORT DATA:

S14, Anchor, Tag No.= SLSPLIT, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

*** SEGMENT T

From E04 to T01, DZ= 57.15 mm Tee

COMPONENT DATA (Tee Branch, Center= E04):
B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

PIPE DATA:

Pipe Id= 1.25S80, Composition= Austentic Stainless, Nom Size= 32 mm, OD= 42.164 mm, Sch= 80, Wall Thk= 4.851 mm,
Mill= 0.606 mm, Content Sp Gr= 1.000, Content Unit Wgt= 8.11 N/m, Insul Thk= 40.000 mm, Insul Density= 136.16 kg/m3,
Insul Unit Wgt= 13.79 N/m

OPERATING DATA:

P1= 5.8300 N/mm2, P2= 11.3000 N/mm2, P3= 5.8300 N/mm2, P4= 5.2000 N/mm2, P5= 9.3900 N/mm2, T1= 318.00 deg C,
T2= 320.00 deg C, T3= 274.00 deg C, T4= 265.50 deg C, T5= 306.00 deg C, Exp1= 5.15996 mm/m, Exp2= 5.19800 mm/m,
Exp3= 4.33154 mm/m, Exp4= 4.17380 mm/m, Exp5= 4.93212 mm/m, E1= 0.17469 E6 N/mm2, E2= 0.17452 E6 N/mm2, E3= 0.17842 E6 N/mm2,
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C O M P O N E N T D A T A L I S T I N G

E4= 0.17914 E6 N/mm2, E5= 0.17571 E6 N/mm2, Rp0.2t1= 107.84 N/mm2, Rp0.2t2= 107.60 N/mm2, Rp0.2t3= 114.16 N/mm2,
Rp0.2t4= 115.52 N/mm2, Rp0.2t5= 109.28 N/mm2, Rp1.0t1= 132.84 N/mm2, Rp1.0t2= 132.60 N/mm2, Rp1.0t3= 140.20 N/mm2,
Rp1.0t4= 141.90 N/mm2, Rp1.0t5= 134.28 N/mm2, fh1= 88.56 N/mm2, fh2= 88.40 N/mm2, fh3= 93.47 N/mm2, fh4= 94.60 N/mm2,
fh5= 89.52 N/mm2

POINT DATA:

E04, Coordinates, X= 280.00 mm, Y= -3557.60 mm, Z= 17145.00 mm

From T01 to T02, DZ= 608.85 mm Run

OPERATING DATA:

T1= 274.00 deg C, Exp1= 4.33154 mm/m, E1= 0.17842 E6 N/mm2, Rp0.2t1= 114.16 N/mm2, Rp1.0t1= 140.20 N/mm2, fh1= 93.47 N/mm2

POINT DATA:

T01, Coordinates, X= 280.00 mm, Y= -3557.60 mm, Z= 17202.15 mm

From T02 to T03, DZ= 184.00 mm Valv

COMPONENT DATA (Valve):

GLOBE-B, Rating= Non-standard, Length= 184.00 mm, Valve weight = 27 kg, Surface factor= 1.00, End type= Butt welded,
SIF= 1.80, Offset= 0.000 mm

S_LINEREV0.OUT

POINT DATA:

T02, Coordinates, X= 280.00 mm, Y= -3557.60 mm, Z= 17811.00 mm
T02 M, Coordinates, X= 280.00 mm, Y= -3557.60 mm, Z= 17903.00 mm

From T03 to T04, DZ= 351.00 mm

Run

POINT DATA:

T03, Coordinates, X= 280.00 mm, Y= -3557.60 mm, Z= 17995.00 mm

From T04 to T05, DX= 726.40 mm

Bend

COMPONENT DATA (Bend, TIP= T04, Near= T04 N, Far= T04 F):

Long Elbow, Radius= 47.62 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.18, SIFO= 1.18

POINT DATA:

T04, Coordinates, X= 280.00 mm, Y= -3557.60 mm, Z= 18346.00 mm
T04 N, Coordinates, X= 280.00 mm, Y= -3557.60 mm, Z= 18298.38 mm
T04 F, Coordinates, X= 327.62 mm, Y= -3557.60 mm, Z= 18346.00 mm

From T05 to T11, DZ= 500.00 mm

Bend

COMPONENT DATA (Bend, TIP= T05, Near= T05 N, Mid= T05 M, Far= T05 F):

Long Elbow, Radius= 47.62 mm, Bend angle= 90.00 deg, Mid point at 50.00 percent, End flanges= 0, Flex= Auto, SIFI= 1.18, SIFO= 1.18

POINT DATA:

T05, Coordinates, X= 1006.40 mm, Y= -3557.60 mm, Z= 18346.00 mm
T05 N, Coordinates, X= 958.78 mm, Y= -3557.60 mm, Z= 18346.00 mm

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C O M P O N E N T D A T A L I S T I N G

T05 M, Coordinates, X= 992.45 mm, Y= -3557.60 mm, Z= 18359.95 mm
T05 F, Coordinates, X= 1006.40 mm, Y= -3557.60 mm, Z= 18393.62 mm

From T11 to T10, DZ= 3100.00 mm

Run

POINT DATA:

T11, Coordinates, X= 1006.40 mm, Y= -3557.60 mm, Z= 18846.00 mm

SUPPORT DATA:

T11, Guide, Support Id= T11 1, Connected to Ground, Stiffness= RIGID

From T10 to T06, DZ= 3752.00 mm

Run

POINT DATA:

T10, Coordinates, X= 1006.40 mm, Y= -3557.60 mm, Z= 21946.00 mm

SUPPORT DATA:

T10, Guide, Support Id= T10 1, Connected to Ground, Stiffness= RIGID

From T06 to T07, DY= -197.60 mm

Tee

COMPONENT DATA (Tee Branch, Center= T06):

B16.9 welding tee, SIFI= 1.00, SIFO= 1.00

POINT DATA:

T06, Coordinates, X= 1006.40 mm, Y= -3557.60 mm, Z= 25698.00 mm

From T07 to T08, DY= -89.00 mm

Redu

COMPONENT DATA (Reducer):

Length= 89.00 mm, SIF= 2.00

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POINT DATA:

T07, Coordinates, X= 1006.40 mm, Y= -3755.20 mm, Z= 25698.00 mm

From T08 to T09, DY= -152.40 mm

Run

PIPE DATA:

Pipe Id= 2.5S80, Composition= Austentic Stainless, Nom Size= 65 mm, OD= 73.025 mm, Wall Thk= 7.010 mm, Mill= 0.876 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 26.80 N/m, Insul Thk= 80.000 mm, Insul Density= 136.16 kg/m3,
Insul Unit Wgt= 51.35 N/m

POINT DATA:

T08, Coordinates, X= 1006.40 mm, Y= -3844.20 mm, Z= 25698.00 mm
T09, Coordinates, X= 1006.40 mm, Y= -3996.60 mm, Z= 25698.00 mm
T09, Flange= WELDNECK, Rating= 2500, Flange Weight= 23.60 kg, Bolt/Nut Weight= 0.00 kg, End type= Weld neck, SIF= 1.00,
Perform ANSI check= No

SUPPORT DATA:

T09, Anchor, Tag No.= SLTOEHRSA, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

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C O M P O N E N T D A T A L I S T I N G

*** SEGMENT U

From T06 to U01, DZ= 47.60 mm

Tee

COMPONENT DATA (Tee Header, Center= T06):

B16.9 welding tee, SIFI= 1.00, SIF0= 1.00

PIPE DATA:

Pipe Id= 1.25S80, Composition= Austentic Stainless, Nom Size= 32 mm, OD= 42.164 mm, Wall Thk= 4.851 mm, Mill= 0.606 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 8.11 N/m, Insul Thk= 40.000 mm, Insul Density= 136.16 kg/m3,
Insul Unit Wgt= 13.79 N/m

POINT DATA:

T06, Coordinates, X= 1006.40 mm, Y= -3557.60 mm, Z= 25698.00 mm

From U01 to U02, DZ= 50.80 mm

Redu

COMPONENT DATA (Reducer):

Length= 50.80 mm, SIF= 2.00

POINT DATA:

U01, Coordinates, X= 1006.40 mm, Y= -3557.60 mm, Z= 25745.60 mm

From U02 to SV13, DZ= 333.00 mm

Valv

COMPONENT DATA (Valve):

NS, Rating= Non-standard, Length= 333.00 mm, Valve weight = 2 kg, Surface factor= 1.00, End type= Screwed (threaded),
SIF= 2.30

PIPE DATA:

Pipe Id= 0.5S80, Composition= Austentic Stainless, Nom Size= 15 mm, OD= 21.336 mm, Wall Thk= 3.734 mm, Mill= 0.467 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 1.48 N/m, Insul Thk= 50.000 mm, Insul Density= 136.16 kg/m3,
Insul Unit Wgt= 14.96 N/m

POINT DATA:

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U02, Coordinates, X= 1006.40 mm, Y= -3557.60 mm, Z= 25796.40 mm
 U02 M, Coordinates, X= 1006.40 mm, Y= -3557.60 mm, Z= 25962.90 mm
 SV13, Coordinates, X= 1006.40 mm, Y= -3557.60 mm, Z= 26129.40 mm

 Number of points in the system: 241

Weight of Empty Pipes + Weight of Contents = Total Weight of System
 2976.8 kg + 180.5 kg = 3157.3 kg

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 C O O R D I N A T E S D A T A L I S T I N G

POINT -----COORDINATE (mm)-----

NAME X Y Z

*** SEGMENT A

A00	1805.00	-5600.00	20155.00
A07	1705.00	-5600.00	20155.00
A01	1605.00	-5600.00	20155.00
A06	1282.50	-5600.00	20155.00
A02	960.00	-5600.00	20155.00
A05	620.00	-5600.00	20155.00
A03	280.00	-5600.00	20155.00
A04	80.00	-5600.00	20155.00

*** SEGMENT B

A01	1605.00	-5600.00	20155.00
B01 N	1605.00	-5600.00	16940.25
B01	1605.00	-5600.00	16845.00
B01 M	1605.00	-5572.10	16872.90
B01 F	1605.00	-5504.75	16845.00
B02	1605.00	-4897.60	16845.00
B02 M	1605.00	-4643.60	16845.00
B14	1605.00	-4389.60	16845.00
B17	1605.00	-3889.60	16845.00
B04	1605.00	-3116.10	16845.00
B05 N	1605.00	-2374.25	16845.00
B05	1605.00	-2334.80	16845.00
B05 F	1577.10	-2306.90	16845.00
B29	1364.59	-2094.39	16845.00
B22	1047.24	-1777.04	16845.00
B06 N	649.52	-1379.32	16845.00
B06	637.65	-1367.45	16845.00
B06 F	630.55	-1352.24	16845.00
B25	591.14	-1267.77	16845.00
B07	374.02	-802.08	16845.00
B08 N	253.50	-858.28	16845.00
B08	195.95	-885.11	16845.00
B08 F	195.95	-885.11	16782.23
B16	195.95	-885.11	16781.60
B11 N	195.95	-885.11	16178.25
B11	195.95	-885.11	16083.00
B11 F	175.33	-792.12	16083.00
B18	161.84	-731.25	16083.00
B13	142.58	-644.36	16083.00

*** SEGMENT C

B07	374.02	-802.08	16845.00
C01 N	494.53	-745.89	16845.00
C01	552.08	-719.05	16845.00
C01 F	552.08	-719.05	16782.23
C08	552.08	-719.05	16781.60
C04 N	552.08	-719.05	16178.25
C04	552.08	-719.05	16083.00
C04 F	494.09	-643.48	16083.00

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C10	456.14	-594.02	16083.00
C06	401.96	-523.41	16083.00

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C O O R D I N A T E S D A T A L I S T I N G

POINT -----COORDINATE (mm)-----

NAME	X	Y	Z

*** SEGMENT D

A02	960.00	-5600.00	20155.00
D01 N	960.00	-5600.00	16921.20
D01	960.00	-5600.00	16845.00
D01 F	960.00	-5523.80	16845.00
D02	960.00	-4923.00	16845.00
D02 M	960.00	-4697.50	16845.00
D03	960.00	-4472.00	16845.00
D04	960.00	-3970.40	16845.00
D05	960.00	-3337.60	16845.00
D06	960.00	-2884.50	16845.00
D09	960.00	-2497.30	16845.00
D10 N	960.00	-2075.76	16845.00
D10	960.00	-2044.20	16845.00
D10 F	937.68	-2021.88	16845.00
D11	679.63	-1763.83	16845.00
D12	546.06	-1630.26	16845.00
D12 M	386.47	-1470.66	16845.00
D13	226.87	-1311.07	16845.00
D14	93.30	-1177.50	16845.00
D15 N	-143.00	-941.20	16845.00
D15	-196.88	-887.32	16845.00
D15 M	-181.10	-903.10	16822.68
D15 F	-196.88	-887.32	16768.80
D16 N	-196.88	-887.32	16159.20
D16	-196.88	-887.32	16083.00
D16 F	-180.39	-812.93	16083.00
D17	-162.25	-731.11	16083.00
D18	-143.01	-644.32	16083.00

*** SEGMENT E

A03	280.00	-5600.00	20155.00
E01 N	280.00	-5600.00	17221.20
E01	280.00	-5600.00	17145.00
E01 F	280.00	-5523.80	17145.00
E02	280.00	-4923.00	17145.00
E02 M	280.00	-4697.58	17145.00
E12	280.00	-4472.15	17145.00
E13	280.00	-3973.20	17145.00
E04	280.00	-3557.60	17145.00
E17	280.00	-2749.40	17145.00
E16	280.00	-2362.20	17145.00
E05 N	280.00	-1597.99	17145.00
E05	280.00	-1554.00	17145.00
E05 F	241.90	-1532.00	17145.00
E06 N	-486.52	-1111.45	17145.00
E06	-552.51	-1073.35	17145.00
E06 F	-552.51	-1073.35	17068.80
E07 N	-552.51	-1073.35	16921.20
E07	-552.51	-1073.35	16845.00
E07 F	-552.51	-997.15	16845.00
E08 N	-552.51	-796.55	16845.00

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C O O R D I N A T E S D A T A L I S T I N G

POINT -----COORDINATE (mm)-----

NAME X Y Z

E08	-552.51	-720.35	16845.00
E08 F	-552.51	-720.35	16768.80
E09 N	-552.51	-720.35	16159.20
E09	-552.51	-720.35	16083.00
E09 F	-506.12	-659.90	16083.00
E14	-455.84	-594.37	16083.00
E11	-401.72	-523.84	16083.00

*** SEGMENT F

D11	679.63	-1763.83	16845.00
F21	569.04	-1874.42	16845.00
C014	295.25	-2148.22	16845.00
F17 N	214.40	-2229.07	16845.00
F17	184.66	-2258.81	16845.00
F17 F	193.97	-2299.82	16845.00
F15	249.45	-2544.14	16845.00
F15 M	299.38	-2764.04	16845.00
F14	349.32	-2983.94	16845.00
F02	397.12	-3194.48	16845.00
F22	416.80	-3281.17	16845.00
F11 N	433.50	-3354.71	16845.00
F11	447.47	-3416.23	16845.00
F11 F	402.86	-3460.84	16845.00
F12 N	363.46	-3500.24	16845.00
F12	282.60	-3581.10	16845.00
F12 F	201.78	-3500.20	16845.00
F05 N	-350.95	-2946.94	16845.00
F05	-431.77	-2866.05	16845.00
F05 F	-512.63	-2946.90	16845.00
F23	-587.34	-3021.61	16845.00
F10	-659.18	-3093.45	16845.00
F13	-761.71	-3195.98	16845.00

*** SEGMENT J

D05	960.00	-3337.60	16845.00
J01	960.00	-3337.60	16902.15
J02	960.00	-3337.60	17811.00
J02 M	960.00	-3337.60	17903.00
HV22	960.00	-3337.60	17995.00
J04 N	960.00	-3337.60	18298.38
J04	960.00	-3337.60	18346.00
J04 F	1007.63	-3337.60	18346.00
J05 N	1295.38	-3337.60	18346.00
J05	1343.00	-3337.60	18346.00
J05 F	1343.00	-3337.60	18393.62
J17	1343.00	-3337.60	18646.00
J13 N	1343.00	-3337.60	20098.38
J13	1343.00	-3337.60	20146.00
J13 F	1390.63	-3337.60	20146.00
J14 N	2195.38	-3337.60	20146.00
J14	2243.00	-3337.60	20146.00
J14 F	2243.00	-3337.60	20193.62

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C O O R D I N A T E S D A T A L I S T I N G

POINT -----COORDINATE (mm)-----

NAME X Y Z

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-----
J15 N      2243.00   -3337.60   20998.37
J15        2243.00   -3337.60   21046.00
J15 F      2195.38   -3337.60   21046.00
J11 N      1390.63   -3337.60   21046.00
J11        1343.00   -3337.60   21046.00
J11 F      1343.00   -3337.60   21093.62
J18        1343.00   -3337.60   22372.00
J07        1343.00   -3337.60   25698.00
J08        1343.00   -3755.20   25698.00
J09        1343.00   -3844.20   25698.00
J10        1343.00   -3996.60   25698.00

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*** SEGMENT K
J07        1343.00   -3337.60   25698.00
K01        1343.00   -3337.60   25745.60
K02        1343.00   -3337.60   25796.40
K02 M      1343.00   -3337.60   25962.90
SV14       1343.00   -3337.60   26129.40

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*** SEGMENT L
B04        1605.00   -3116.10   16845.00
L01        1605.00   -3116.10   16914.85
L02        1605.00   -3116.10   17475.00
L02 M      1605.00   -3116.10   17603.50
HV23       1605.00   -3116.10   17732.00
L03 N      1605.00   -3116.10   17908.80
L03        1605.00   -3116.10   17985.00
L03 F      1528.80   -3116.10   17985.00
L05 N      1219.20   -3116.10   17985.00
L05        1143.00   -3116.10   17985.00
L05 F      1143.00   -3116.10   18061.20
L12        1143.00   -3116.10   19485.00
L11        1143.00   -3116.10   22485.00
L07        1143.00   -3116.10   25698.00
L08        1143.00   -2894.60   25698.00
L09        1143.00   -2805.60   25698.00
L10        1143.00   -2627.80   25698.00

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*** SEGMENT M
L07        1143.00   -3116.10   25698.00
M01        1143.00   -3116.10   25761.50
M02        1143.00   -3116.10   25837.50
M02 M      1143.00   -3116.10   26004.00
SV15       1143.00   -3116.10   26170.50

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*** SEGMENT N
B17        1605.00   -3889.60   16845.00
N01        1605.00   -3889.60   17010.10
N01 M      1605.00   -3889.60   17164.10
HV05       1605.00   -3889.60   17318.10

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*** SEGMENT P

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C O O R D I N A T E S D A T A L I S T I N G

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POINT  -----COORDINATE (mm)-----

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NAME      X          Y          Z

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E13        280.00   -3973.20   17145.00
P01        280.00   -3973.20   17297.40
H24        280.00   -3973.20   17605.40

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*** SEGMENT R
D04        960.00   -3970.40   16845.00
R01        960.00   -3970.40   16997.40
R01 M      960.00   -3970.40   17151.40

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S_LINEREVO.OUT
HV25 960.00 -3970.40 17305.40

*** SEGMENT S

D14	93.30	-1177.50	16845.00
S01	-36.45	-1307.25	16845.00
C013	-310.25	-1581.04	16845.00
S04 N	-367.36	-1638.15	16845.00
S04	-401.68	-1672.47	16845.00
S04 F	-447.30	-1655.87	16845.00
S16	-453.36	-1653.66	16845.00
S05	-572.70	-1610.23	16845.00
S05 M	-784.60	-1533.10	16845.00
S06	-996.50	-1455.98	16845.00
S07	-1115.84	-1412.54	16845.00
S08	-1199.47	-1382.10	16845.00
S09 N	-1202.00	-1381.18	16845.00
S09	-1270.42	-1356.28	16845.00
S09 F	-1321.91	-1407.77	16845.00
S10 N	-1545.65	-1631.51	16845.00
S10	-1607.67	-1693.53	16845.00
S10 F	-1563.81	-1769.48	16845.00
S15	-1359.85	-2122.75	16845.00
S11 N	-1135.71	-2510.97	16845.00
S11	-1112.04	-2551.97	16845.00
S11 F	-1124.29	-2597.70	16845.00
S12	-1150.86	-2696.86	16845.00
S13	-1177.16	-2795.00	16845.00
S14	-1214.69	-2935.06	16845.00

*** SEGMENT T

E04	280.00	-3557.60	17145.00
T01	280.00	-3557.60	17202.15
T02	280.00	-3557.60	17811.00
T02 M	280.00	-3557.60	17903.00
T03	280.00	-3557.60	17995.00
T04 N	280.00	-3557.60	18298.38
T04	280.00	-3557.60	18346.00
T04 F	327.62	-3557.60	18346.00
T05 N	958.78	-3557.60	18346.00
T05	1006.40	-3557.60	18346.00
T05 M	992.45	-3557.60	18359.95
T05 F	1006.40	-3557.60	18393.62
T11	1006.40	-3557.60	18846.00
T10	1006.40	-3557.60	21946.00

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C O O R D I N A T E S D A T A L I S T I N G

POINT -----COORDINATE (mm)-----

NAME	X	Y	Z

T06	1006.40	-3557.60	25698.00
T07	1006.40	-3755.20	25698.00
T08	1006.40	-3844.20	25698.00
T09	1006.40	-3996.60	25698.00

*** SEGMENT U

T06	1006.40	-3557.60	25698.00
U01	1006.40	-3557.60	25745.60
U02	1006.40	-3557.60	25796.40
U02 M	1006.40	-3557.60	25962.90
SV13	1006.40	-3557.60	26129.40

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P I P E D A T A L I S T I N G

Pipe ID/ Material	Nom/ O.D. Sch mm	-----Thickness(mm)----- W.Th. Corr Mill Insu Ling	Spec Grav	Weight(N/m) Pipe Other Total	ZL/ ZC	Composition
8S80 Stainless 1.4301	200 219.07 80	12.70 0 1.59 80 0	1.00	640 100 1029	1.00 1.00	Austentic
2.5S80 Stainless 1.4301	65 73.025 80	7.010 0 0.88 80 0	1.00	113 51.35 191	1.00 1.00	Austentic
1.5S80 Stainless 1.4301	40 48.260 80	5.080 0 0.63 50 0	1.00	53.59 20.61 85.38	1.00 1.00	Austentic
3S80 Stainless 1.4301	80 88.900 80	7.620 0 0.95 80 0	1.00	151 56.68 250	1.00 1.00	Austentic
3S40 Stainless 1.4301	80 88.900 40	5.486 0 0.69 80 0	1.00	112 56.68 215	1.00 1.00	Austentic
4S40 Stainless 1.4301	100 114.30 40	6.020 0 0.75 80 0	1.00	159 65.20 305	1.00 1.00	Austentic
1.25S80 Stainless 1.4301	32 42.164 80	4.851 0 0.61 40 0	1.00	44.22 13.79 66.12	1.00 1.00	Austentic
0.5S80 Stainless 1.4301	15 21.336 80	3.734 0 0.47 50 0	1.00	16.06 14.96 32.50	1.00 1.00	Austentic
2S80 Stainless 1.4301	50 60.325 80	5.537 0 0.69 50 0	1.00	74.12 23.14 116	1.00 1.00	Austentic
1S80 Stainless 1.4301	25 33.401 80	4.547 0 0.57 80 0	1.00	32.05 38.06 74.66	1.00 1.00	Austentic
2S40 Stainless 1.4301	50 60.325 40	3.912 0 0.49 50 0	1.00	53.91 23.14 98.27	1.00 1.00	Austentic

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AutoPIPE Plus 9.2.1 MODEL PAGE 42

M A T E R I A L D A T A L I S T I N G

Material Name/[Comp.]	Pipe ID	Density kg/m3	Pois. Al/At	Temper. deg C	Modulus E6 N/mm2 Axial	Expans. mm/m	Composition
1.4301	8S80	7930.0	0.30	20.0	0.19996	0.07691	Austentic Stainless
X5CRNI18-10 [Austenitic]			40.00 35.00	318.0	0.17469	5.1600	

S_LINEREVO.OUT									
1.4301	2.5S80	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless	
X5CRNI18-10		40.00		318.0	0.17469			5.1600	
[Austenitic]		35.00		343.0	0.17258			5.6391	
				306.0	0.17571			4.9321	
				274.0	0.17842			4.3315	
				320.0	0.17452			5.1980	
				242.0	0.18114			3.7417	
				118.0	0.19165			1.5700	
				265.5	0.17914			4.1738	
1.4301	3S80	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless	
X5CRNI18-10		40.00		318.0	0.17469			5.1600	
[Austenitic]		35.00		343.0	0.17258			5.6391	
				306.0	0.17571			4.9321	
				259.0	0.17970			4.0536	
				118.0	0.19165			1.5700	
				274.0	0.17842			4.3315	
				320.0	0.17452			5.1980	
				265.5	0.17914			4.1738	
1.4301	2S80	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless	
X5CRNI18-10		40.00		318.0	0.17469			5.1600	
[Austenitic]		35.00		343.0	0.17258			5.6391	
				259.0	0.17970			4.0536	
				118.0	0.19165			1.5700	
				306.0	0.17571			4.9321	
				274.0	0.17842			4.3315	
				320.0	0.17452			5.1980	
				265.5	0.17914			4.1738	
1.4301	2S40	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless	
X5CRNI18-10		40.00		198.0	0.18487			2.9495	
[Austenitic]		35.00		118.0	0.19165			1.5700	
1.4301	3S40	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless	
X5CRNI18-10		40.00		198.0	0.18487			2.9495	
[Austenitic]		35.00		118.0	0.19165			1.5700	
1.4301	4S40	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless	
X5CRNI18-10		40.00		198.0	0.18487			2.9495	
[Austenitic]		35.00		118.0	0.19165			1.5700	

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AutoPIPE Plus 9.2.1 MODEL PAGE 43

M A T E R I A L D A T A L I S T I N G

Material		Density	Pois.	Temper.	Modulus E6 N/mm2			Expans.	Composition
Name/[Comp.]	Pipe ID	kg/m3	Al/At	deg C	Axial	Hoop	Shear	mm/m	
1.4301	1.25S80	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless	
X5CRNI18-10		40.00		274.0	0.17842			4.3315	
[Austenitic]		35.00		320.0	0.17452			5.1980	
				242.0	0.18114			3.7417	
				118.0	0.19165			1.5700	
				318.0	0.17469			5.1600	
				265.5	0.17914			4.1738	
				306.0	0.17571			4.9321	
1.4301	0.5S80	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless	
X5CRNI18-10		40.00		274.0	0.17842			4.3315	
[Austenitic]		35.00		320.0	0.17452			5.1980	
				242.0	0.18114			3.7417	

S_LINEREVO.0UT

118.0	0.19165	1.5700
265.5	0.17914	4.1738
306.0	0.17571	4.9321

1.4301	1S80	7930.0	0.30	20.0	0.19996	0.19996	0.07691	Austentic Stainless

X5CRNI18-10	40.00	318.0	0.17469	5.1600
[Austenitic]	35.00	343.0	0.17258	5.6391
		306.0	0.17571	4.9321
		259.0	0.17970	4.0536
		118.0	0.19165	1.5700

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AutoPIPE Plus 9.2.1 MODEL PAGE 44

M A T E R I A L A L L O W A B L E D A T A L I S T I N G

Material		Temper.	Proof (Rp0.2)	Proof (Rp1.0)	Tensile (Rmt)	Rupture (fcr)	Allow. (fh)
Name	Pipe ID	deg C	N/mm2	N/mm2	N/mm2	N/mm2	N/mm2
X5CRNI18-10							
1.4301	8S80	20.0	195.00	230.00	500.00	0.00	166.67
		318.0	107.84	132.84	0.00	0.00	88.56
X5CRNI18-10							
1.4301	2.5S80	20.0	195.00	230.00	500.00	0.00	166.67
		318.0	107.84	132.84	0.00	0.00	88.56
		343.0	104.84	129.84	0.00	0.00	86.56
		306.0	109.28	134.28	0.00	0.00	89.52
		274.0	114.16	140.20	0.00	0.00	93.47
		320.0	107.60	132.60	0.00	0.00	88.40
		242.0	119.44	146.60	0.00	0.00	97.73
		118.0	149.60	182.80	0.00	0.00	121.87
		265.5	115.52	141.90	0.00	0.00	94.60
X5CRNI18-10							
1.4301	3S80	20.0	195.00	230.00	500.00	0.00	166.67
		318.0	107.84	132.84	0.00	0.00	88.56
		343.0	104.84	129.84	0.00	0.00	86.56
		306.0	109.28	134.28	0.00	0.00	89.52
		259.0	116.56	143.20	0.00	0.00	95.47
		118.0	149.60	182.80	0.00	0.00	121.87
		274.0	114.16	140.20	0.00	0.00	93.47
		320.0	107.60	132.60	0.00	0.00	88.40
		265.5	115.52	141.90	0.00	0.00	94.60
X5CRNI18-10							
1.4301	2S80	20.0	195.00	230.00	500.00	0.00	166.67
		318.0	107.84	132.84	0.00	0.00	88.56
		343.0	104.84	129.84	0.00	0.00	86.56
		259.0	116.56	143.20	0.00	0.00	95.47
		118.0	149.60	182.80	0.00	0.00	121.87
		306.0	109.28	134.28	0.00	0.00	89.52
		274.0	114.16	140.20	0.00	0.00	93.47
		320.0	107.60	132.60	0.00	0.00	88.40
		265.5	115.52	141.90	0.00	0.00	94.60
X5CRNI18-10							
1.4301	2S40	20.0	195.00	230.00	500.00	0.00	166.67
		20.0	195.00	230.00	0.00	0.00	153.33
		198.0	127.52	155.60	0.00	0.00	103.73
		118.0	149.60	182.80	0.00	0.00	121.87
X5CRNI18-10							
1.4301	3S40	20.0	195.00	230.00	500.00	0.00	166.67
		20.0	195.00	230.00	0.00	0.00	153.33
		198.0	127.52	155.60	0.00	0.00	103.73
		118.0	149.60	182.80	0.00	0.00	121.87

S_LINEREV0.OUT

X5CRNI18-10							
1.4301	4S40	20.0	195.00	230.00	500.00	0.00	166.67
		20.0	195.00	230.00	0.00	0.00	153.33
		198.0	127.52	155.60	0.00	0.00	103.73
		118.0	149.60	182.80	0.00	0.00	121.87

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M A T E R I A L A L L O W A B L E D A T A L I S T I N G

			Proof	Proof	Tensile	Rupture	Allow.
Material		Temper.	(Rp0.2)	(Rp1.0)	(Rmt)	(fcr)	(fh)
Name	Pipe ID	deg C	N/mm2	N/mm2	N/mm2	N/mm2	N/mm2

X5CRNI18-10							
1.4301	1.25S80	20.0	195.00	230.00	500.00	0.00	166.67
		274.0	114.16	140.20	0.00	0.00	93.47
		320.0	107.60	132.60	0.00	0.00	88.40
		242.0	119.44	146.60	0.00	0.00	97.73
		118.0	149.60	182.80	0.00	0.00	121.87
		318.0	107.84	132.84	0.00	0.00	88.56
		265.5	115.52	141.90	0.00	0.00	94.60
		306.0	109.28	134.28	0.00	0.00	89.52
X5CRNI18-10							
1.4301	0.5S80	20.0	195.00	230.00	500.00	0.00	166.67
		274.0	114.16	140.20	0.00	0.00	93.47
		320.0	107.60	132.60	0.00	0.00	88.40
		242.0	119.44	146.60	0.00	0.00	97.73
		118.0	149.60	182.80	0.00	0.00	121.87
		265.5	115.52	141.90	0.00	0.00	94.60
		306.0	109.28	134.28	0.00	0.00	89.52
X5CRNI18-10							
1.4301	1S80	20.0	195.00	230.00	500.00	0.00	166.67
		318.0	107.84	132.84	0.00	0.00	88.56
		343.0	104.84	129.84	0.00	0.00	86.56
		306.0	109.28	134.28	0.00	0.00	89.52
		259.0	116.56	143.20	0.00	0.00	95.47
		118.0	149.60	182.80	0.00	0.00	121.87

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AutoPIPE Plus 9.2.1 MODEL PAGE 46

F R A M E P O I N T D A T A L I S T I N G

POINT	-----COORDINATE(mm)			DATA
NAME	X	Y	Z	TYPE DESCRIPTION

E02 M	280.00	-4697.58	17145.00	
E02 D	280.00	-4697.58	17584.00	
D02 M	960.00	-4697.50	16845.00	
D02 D	960.00	-4697.50	17284.00	
B02 M	1605.00	-4643.60	16845.00	
B02 D	1605.00	-4643.60	17341.00	

S_LINEREV0.OUT

D12 M 386.47 -1470.66 16845.00
 D12 D 386.47 -1470.66 17284.00
 S05 M -784.60 -1533.10 16845.00
 S05 D -784.60 -1533.10 17284.00
 F15 M 299.38 -2764.04 16845.00
 F15 D 727.38 -2667.04 17155.42

S_LINEREV0

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AutoPIPE Plus 9.2.1 MODEL PAGE 47

BEAM DATA LISTING

(Length - mm , Rigid End - mm , Beta Angle - deg)

BEAM	POINT	SEC. ID/	BETA	RIGID	RELEASE
ID	NAME	SEC. NAME	ANGLE	END	Ax Y-Y Z-Z
E02 M	From	E02 M 0	439.00	0.00	0.00 N N N
	To	E02 D RIGID			0.00 N N N
D02 M	From	D02 M 0	439.00	0.00	0.00 N N N
	To	D02 D RIGID			0.00 N N N
B02 M	From	B02 M 0	496.00	0.00	0.00 N N N
	To	B02 D RIGID			0.00 N N N
D12 M	From	D12 M 0	439.00	0.00	0.00 N N N
	To	D12 D RIGID			0.00 N N N
S05 M	From	S05 M 0	439.00	0.00	0.00 N N N
	To	S05 D RIGID			0.00 N N N
F15 M	From	F15 M 0	537.54	0.00	0.00 N N N
	To	F15 D RIGID			0.00 N N N

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CROSS SECTION LISTING

Section ID/	Length(mm)	Area(cm2)	Inertia (mm4)
Section Type	Depth/OD	Width	Thick Fthk/spc
ID Shape Name/Mat l	CC	Axial Y-Shear Z-Shear	Torsion Y-Y Bend Z-Z Bend
0 W RIGID		254.00 254.00 25.40 25.40	
RIGID	6.45 6.45	6.45 41623140 41623140 41623140	

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BEAM MATERIAL LISTING

	Elastic		
	modulus	Poissons	Density
MATERIAL ID	E6 N/mm2	ratio	kg/m3
-----	-----	-----	-----
RIGID	68.948	0.300	0.00

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OPERATING TEMPERATURE AND PRESSURE DATA

STRESSES IN N/mm2

POINT		PRESS.	TEMPER	EXPAN.	MODULUS	0.2%	1.0%	TENSILE	CREEP
NAME	CASE	N/mm2	deg C	mm/m	E6 N/mm	PROOF	PROOF	(Rmt)	(fcr)
----	----	-----	-----	-----	-----	-----	-----	-----	-----
*** SEGMENT A									
A00	T1	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T2	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T3	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T4	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T5	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
A04	Same as previous point.								
*** SEGMENT B									
A01	T1	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T2	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T3	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T4	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T5	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
B02	T1	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T2	11.3000	343	5.639	0.17258	104.84	129.84	0.00	0.00u
	T3	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T4	5.2000	306	4.932	0.17571	109.28	134.28	0.00	0.00u
	T5	9.3900	306	4.932	0.17571	109.28	134.28	0.00	0.00u
B13	Same as previous point.								
*** SEGMENT C									
B07	T1	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T2	11.3000	343	5.639	0.17258	104.84	129.84	0.00	0.00u
	T3	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T4	5.2000	306	4.932	0.17571	109.28	134.28	0.00	0.00u
	T5	9.3900	306	4.932	0.17571	109.28	134.28	0.00	0.00u
C06	Same as previous point.								
*** SEGMENT D									
A02	T1	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T2	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T3	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T4	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T5	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
D02	T1	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T2	11.3000	343	5.639	0.17258	104.84	129.84	0.00	0.00u
	T3	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T4	3.4700	259	4.054	0.17970	116.56	143.20	0.00	0.00u
	T5	0.1900	118	1.570	0.19165	149.60	182.80	0.00	0.00u
D15 F	T1	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T2	11.3000	343	5.639u	0.17258	104.84	129.84	0.00	0.00u
	T3	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T4	3.4700	259	4.054	0.17970	116.56	143.20	0.00	0.00u
	T5	0.1900	118	1.570	0.19165	149.60	182.80	0.00	0.00u
D16 N	T1	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T2	11.3000	343	5.639	0.17258	104.84	129.84	0.00	0.00u

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T3	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
T4	3.4700	259	4.054	0.17970	116.56	143.20	0.00	0.00u
T5	0.1900	118	1.570	0.19165	149.60	182.80	0.00	0.00u

D18 Same as previous point.

*** SEGMENT E

A03	T1	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u

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OPERATING TEMPERATURE AND PRESSURE DATA

STRESSES IN N/mm2

POINT		PRESS.	TEMPER	EXPAN.	MODULUS	0.2%	1.0%	TENSILE	CREEP
NAME	CASE	N/mm2	deg C	mm/m	E6 N/mm	PROOF	PROOF	(Rmt)	(fcr)

E02	T2	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T3	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T4	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T5	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T1	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T2	11.3000	343	5.639	0.17258	104.84	129.84	0.00	0.00u
	T3	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T4	5.2000	306	4.932	0.17571	109.28	134.28	0.00	0.00u
E11	T5	9.3900	306	4.932	0.17571	109.28	134.28	0.00	0.00u
	Same as previous point.								

*** SEGMENT F

D11	T1	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T2	11.3000	343	5.639	0.17258	104.84	129.84	0.00	0.00u
	T3	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T4	3.4700	259	4.054	0.17970	116.56	143.20	0.00	0.00u
	T5	0.1900	118	1.570	0.19165	149.60	182.80	0.00	0.00u
F14	T1	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T2	1.5000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T3	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
	T4	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
	T5	0.1900	118	1.570	0.19165	149.60	182.80	0.00	0.00u
F13	Same as previous point.								

*** SEGMENT J

D05	T1	5.8300	274	4.332	0.17842	114.16	140.20	0.00	0.00u
	T2	11.3000	320	5.198	0.17452	107.60	132.60	0.00	0.00u
	T3	5.8300	274	4.332	0.17842	114.16	140.20	0.00	0.00u
	T4	3.4700	242	3.742	0.18114	119.44	146.60	0.00	0.00u
	T5	0.1900	118	1.570	0.19165	149.60	182.80	0.00	0.00u
J10	Same as previous point.								

*** SEGMENT K

J07	T1	5.8300	274	4.332	0.17842	114.16	140.20	0.00	0.00u
	T2	11.3000	320	5.198	0.17452	107.60	132.60	0.00	0.00u
	T3	5.8300	274	4.332	0.17842	114.16	140.20	0.00	0.00u
	T4	3.4700	242	3.742	0.18114	119.44	146.60	0.00	0.00u
	T5	0.1900	118	1.570	0.19165	149.60	182.80	0.00	0.00u
SV14	Same as previous point.								

*** SEGMENT L

B04	T1	5.8300	274	4.332	0.17842	114.16	140.20	0.00	0.00u
	T2	11.3000	320	5.198	0.17452	107.60	132.60	0.00	0.00u
	T3	5.8300	274	4.332	0.17842	114.16	140.20	0.00	0.00u
	T4	5.2000	266	4.174	0.17914	115.52	141.90	0.00	0.00u
	T5	9.3900	306	4.932	0.17571	109.28	134.28	0.00	0.00u
L10	Same as previous point.								

*** SEGMENT M

L07	T1	5.8300	274	4.332	0.17842	114.16	140.20	0.00	0.00u
	T2	11.3000	320	5.198	0.17452	107.60	132.60	0.00	0.00u
	T3	5.8300	274	4.332	0.17842	114.16	140.20	0.00	0.00u
	T4	5.2000	266	4.174	0.17914	115.52	141.90	0.00	0.00u
	T5	9.3900	306	4.932	0.17571	109.28	134.28	0.00	0.00u

SV15 Same as previous point.

*** SEGMENT N

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OPERATING TEMPERATURE AND PRESSURE DATA

STRESSES IN N/mm2

POINT		PRESS.	TEMPER	EXPAN.	MODULUS	0.2%	1.0%	TENSILE	CREEP
NAME	CASE	N/mm2	deg C	mm/m	E6 N/mm	PROOF	PROOF	(Rmt)	(fcr)
----	----	-----	-----	-----	-----	-----	-----	-----	-----
B17	T1	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T2	11.3000	343	5.639	0.17258	104.84	129.84	0.00	0.00u
	T3	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T4	5.2000	306	4.932	0.17571	109.28	134.28	0.00	0.00u
	T5	9.3900	306	4.932	0.17571	109.28	134.28	0.00	0.00u
HV05	Same as previous point.								
*** SEGMENT P									
E13	T1	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T2	11.3000	343	5.639	0.17258	104.84	129.84	0.00	0.00u
	T3	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T4	5.2000	306	4.932	0.17571	109.28	134.28	0.00	0.00u
	T5	9.3900	306	4.932	0.17571	109.28	134.28	0.00	0.00u
H24	Same as previous point.								
*** SEGMENT R									
D04	T1	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T2	11.3000	343	5.639	0.17258	104.84	129.84	0.00	0.00u
	T3	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T4	3.4700	259	4.054	0.17970	116.56	143.20	0.00	0.00u
	T5	0.1900	118	1.570	0.19165	149.60	182.80	0.00	0.00u
HV25	Same as previous point.								
*** SEGMENT S									
D14	T1	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T2	11.3000	343	5.639	0.17258	104.84	129.84	0.00	0.00u
	T3	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T4	3.4700	259	4.054	0.17970	116.56	143.20	0.00	0.00u
	T5	0.1900	118	1.570	0.19165	149.60	182.80	0.00	0.00u
S06	T1	0.1000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T2	1.5000	20.00	0.000	0.19996	195.00	230.00	0.00	0.00u
	T3	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
	T4	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
	T5	0.1900	118	1.570	0.19165	149.60	182.80	0.00	0.00u
S14	Same as previous point.								
*** SEGMENT T									
E04	T1	5.8300	318	5.160	0.17469	107.84	132.84	0.00	0.00u
	T2	11.3000	320	5.198	0.17452	107.60	132.60	0.00	0.00u
	T3	5.8300	274	4.332	0.17842	114.16	140.20	0.00	0.00u
	T4	5.2000	266	4.174	0.17914	115.52	141.90	0.00	0.00u
	T5	9.3900	306	4.932	0.17571	109.28	134.28	0.00	0.00u
T01	T1	5.8300	274	4.332	0.17842	114.16	140.20	0.00	0.00u
	T2	11.3000	320	5.198	0.17452	107.60	132.60	0.00	0.00u
	T3	5.8300	274	4.332	0.17842	114.16	140.20	0.00	0.00u
	T4	5.2000	266	4.174	0.17914	115.52	141.90	0.00	0.00u
	T5	9.3900	306	4.932	0.17571	109.28	134.28	0.00	0.00u
T09	Same as previous point.								
*** SEGMENT U									
T06	T1	5.8300	274	4.332	0.17842	114.16	140.20	0.00	0.00u
	T2	11.3000	320	5.198	0.17452	107.60	132.60	0.00	0.00u
	T3	5.8300	274	4.332	0.17842	114.16	140.20	0.00	0.00u
	T4	5.2000	266	4.174	0.17914	115.52	141.90	0.00	0.00u
	T5	9.3900	306	4.932	0.17571	109.28	134.28	0.00	0.00u
SV13	Same as previous point.								

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STRESSES IN N/mm²

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THERMAL ANCHOR MOVEMENTS AND DISPLACEMENTS

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S_LINEREVO.OUT							
	Thermal	2	0.00	0.00	43.43	0.000	0.000
	Thermal	3	0.00	0.00	43.43	0.000	0.000
	Thermal	4	0.00	0.00	43.43	0.000	0.000
	Thermal	5	0.00	0.00	41.80	0.000	0.000
F13	Thermal	2	0.00	0.00	25.81	0.000	0.000
	Thermal	3	0.00	0.00	25.81	0.000	0.000
	Thermal	4	0.00	0.00	25.81	0.000	0.000
	Thermal	5	0.00	0.00	14.00	0.000	0.000
J10	Thermal	1	0.00	0.00	20.67	0.000	0.000
	Thermal	2	0.00	0.00	24.67	0.000	0.000
	Thermal	3	0.00	0.00	20.67	0.000	0.000
	Thermal	4	0.00	0.00	17.93	0.000	0.000
	Thermal	5	0.00	0.00	8.78	0.000	0.000
L10	Thermal	1	0.00	0.00	20.67	0.000	0.000
	Thermal	2	0.00	0.00	24.67	0.000	0.000
	Thermal	3	0.00	0.00	20.67	0.000	0.000
	Thermal	4	0.00	0.00	20.02	0.000	0.000
	Thermal	5	0.00	0.00	23.45	0.000	0.000
S14	Thermal	2	0.00	0.00	25.81	0.000	0.000
	Thermal	3	0.00	0.00	25.81	0.000	0.000
	Thermal	4	0.00	0.00	25.81	0.000	0.000
	Thermal	5	0.00	0.00	14.00	0.000	0.000
T09	Thermal	1	0.00	0.00	20.67	0.000	0.000
	Thermal	2	0.00	0.00	24.67	0.000	0.000
	Thermal	3	0.00	0.00	20.67	0.000	0.000
	Thermal	4	0.00	0.00	20.02	0.000	0.000
	Thermal	5	0.00	0.00	23.45	0.000	0.000

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S U P P O R T D A T A L I S T I N G

Point Name	Support Type	Support ID	Conn.to /Dir	Stiff.	Gap 1 (mm)	Gap 2 (mm)	Fric. Fact.	GapSet /#hgr	Preload (N)	Size	Figure

Tag No.: <None>											
A06	Guide-V	A06	1	Ground	Rigid	0.0	0.0	0.00			
	Guide-H	A06	1	Ground	Rigid	0.0	0.0	0.00			

S_LINEREV0.OUT

Tag No.: <None>
B02 M Spr. Hgr B02 M1 Ground 19.611 1-Und 2469 7 FIG B-268

Tag No.: <None>
B04 Spr. Can B04 1 Ground 29.417 1-Und 1422 6 FIG 82

Tag No.: <None>
B25 Spr. Can B25 1 Ground 5.428 1-Und 1576 5 FIG 98

Tag No.: <None>
D02 M Spr. Hgr D02 M1 Ground 39.222 1-Und 2046 7 FIG 82

Tag No.: <None>
D05 Spr. Can D05 1 Ground 16.459 1-Und 1048 4 FIG 82

Tag No.: <None>
D10 F Spr. Hgr D10 F1 Ground 8.230 1-Und 1104 4 FIG B-268

Tag No.: <None>
D12 M Guide-V D12 M1 Ground Rigid 0.0 100.0 0.00 Weightless
Guide-H D12 M1 Ground Rigid 0.0 0.0 0.00 Weightless

Tag No.: <None>
E02 M Spr. Hgr E02 M1 Ground 14.708 1-Und 1691 6 FIG B-268

Tag No.: <None>
E04 Spr. Can E04 1 Ground 29.417 1-Und 1365 6 FIG 82

Tag No.: <None>
E06 N Spr. Can E06 N1 Ground 2.977 1-Und 804 3 FIG 98

Tag No.: <None>
F15 M Spr. Can F15 M1 Ground 26.265 1-Und 3820 8 FIG B-268

Tag No.: <None>
J17 Guide-V J17 1 Ground Rigid 0.0 0.0 0.00
Guide-H J17 1 Ground Rigid 0.0 0.0 0.00
Gap Dir.: (Gap1_V=-X, Gap2_V=+X, Gap1_H=-Y, Gap2_H=+Y)

Tag No.: <None>
J13 F Spr. Hgr J13 F1 Ground 2.626 1-Und 270 00 FIG B-268

Tag No.: <None>
J18 Guide-V J18 1 Ground Rigid 0.0 0.0 0.00
Guide-H J18 1 Ground Rigid 0.0 0.0 0.00
Gap Dir.: (Gap1_V=-X, Gap2_V=+X, Gap1_H=-Y, Gap2_H=+Y)

□

S_LINEREV0

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S U P P O R T D A T A L I S T I N G

Point Name	Support Type	Support ID	Conn.to /Dir	Stiff.	Gap 1 (mm)	Gap 2 (mm)	Fric. Fact.	GapSet /#hgr	Preload (N)	Size	Figure

Tag No.: <None>
L12 Guide-V L12 1 Ground Rigid 0.0 0.0 0.00
Guide-H L12 1 Ground Rigid 0.0 0.0 0.00
Gap Dir.: (Gap1_V=-X, Gap2_V=+X, Gap1_H=-Y, Gap2_H=+Y)

S_LINEREVO.OUT

Tag No.: <None>

L11 Guide-V L11 1 Ground 0.000 0.0 0.0 0.00
 Guide-H L11 1 Ground 0.000 0.0 0.0 0.00
 Gap Dir.: (Gap1_V=-X, Gap2_V=+X, Gap1_H=-Y, Gap2_H=+Y)

Tag No.: <None>

S05 M Spr. Can S05 M1 Ground 13.132 1-Und 3145 8 FIG 98

Tag No.: <None>

S15 Guide-V S15 1 Ground Rigid 0.0 100.0 0.00 Weightless
 Guide-H S15 1 Ground Rigid 0.0 0.0 0.00 Weightless

Tag No.: <None>

T11 Guide-V T11 1 Ground Rigid 0.0 0.0 0.00
 Guide-H T11 1 Ground Rigid 0.0 0.0 0.00
 Gap Dir.: (Gap1_V=-X, Gap2_V=+X, Gap1_H=-Y, Gap2_H=+Y)

Tag No.: <None>

T10 Guide-V T10 1 Ground Rigid 0.0 0.0 0.00
 Guide-H T10 1 Ground Rigid 0.0 0.0 0.00
 Gap Dir.: (Gap1_V=-X, Gap2_V=+X, Gap1_H=-Y, Gap2_H=+Y)

Spring Manufacturer: Anvil/Grinnell

NOTE 1: No soil supports present in the system.

Gap 1 : V-stop,Guide-V=down, Linestop,Incline,Tie/link=backward, Guide-H=Left

Gap 2 : V-stop,Guide-V=Up , Linestop,Incline,Tie/link=forward , Guide-H=Right

Stiffness units for rotation support: N.m/deg , all others: N/mm

□

S_LINEREVO

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B E N D D A T A L I S T I N G

Point Bend Pressure Case Name Type	Radius (mm)	Angle (deg)	OD (mm)	tnom (mm)	Material	Flg/ Cuts	SIF in	SIF out	Analysis Set	Flexibility (K)		
B01	*Elbow	95L	90.0	73.0	7.0	1.4301	0/0	1.25	1.25	1	2.69	None
B05	Elbow	95L	45.0	73.0	7.0	1.4301	0/0	1.25	1.25	1	2.69	None
B06	Elbow	95L	20.0	73.0	7.0	1.4301	0/0	1.25	1.25	1	2.69	None
B08	Elbow	64	90.0	73.0	7.0	1.4301	0/0	1.63	1.63	1	4.04	None
B11	Elbow	95L	90.0	73.0	7.0	1.4301	0/0	1.25	1.25	1	2.69	None
C01	Elbow	64	90.0	73.0	7.0	1.4301	0/0	1.63	1.63	1	4.04	None
C04	Elbow	95L	90.0	73.0	7.0	1.4301	0/0	1.25	1.25	1	2.69	None
D01	Elbow	76L	90.0	60.3	5.5	1.4301	0/0	1.32	1.32	1	2.93	None
D10	Elbow	76L	45.0	60.3	5.5	1.4301	0/0	1.32	1.32	1	2.93	None
D15	*Elbow	76L	90.0	60.3	5.5	1.4301	0/0	1.32	1.32	1	2.93	None
D16	Elbow	76L	90.0	60.3	5.5	1.4301	0/0	1.32	1.32	1	2.93	None
E01	Elbow	76L	90.0	60.3	5.5	1.4301	0/0	1.32	1.32	1	2.93	None
E05	Elbow	76L	60.0	60.3	5.5	1.4301	0/0	1.32	1.32	1	2.93	None
E06	Elbow	76L	90.0	60.3	5.5	1.4301	0/0	1.32	1.32	1	2.93	None
E07	Elbow	76L	90.0	60.3	5.5	1.4301	0/0	1.32	1.32	1	2.93	None
E08	Elbow	76L	90.0	60.3	5.5	1.4301	0/0	1.32	1.32	1	2.93	None
E09	Elbow	76L	90.0	60.3	5.5	1.4301	0/0	1.32	1.32	1	2.93	None

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F17	Elbow	76L	57.8	60.3	5.5	1.4301	0/0	1.32	1.32	1	2.93	None
F11	Elbow	114L	57.8	88.9	5.5	1.4301	0/0	1.78	1.78	1	4.58	None
F12	Elbow	114L	90.0	88.9	5.5	1.4301	0/0	1.78	1.78	1	4.58	None
F05	Elbow	114L	90.0	88.9	5.5	1.4301	0/0	1.78	1.78	1	4.58	None
J04	Elbow	48L	90.0	42.2	4.9	1.4301	0/0	1.18	1.18	1	2.49	None
J05	Elbow	48L	90.0	42.2	4.9	1.4301	0/0	1.18	1.18	1	2.49	None
J13	Elbow	48L	90.0	42.2	4.9	1.4301	0/0	1.18	1.18	1	2.49	None
J14	Elbow	48L	90.0	42.2	4.9	1.4301	0/0	1.18	1.18	1	2.49	None
J15	Elbow	48L	90.0	42.2	4.9	1.4301	0/0	1.18	1.18	1	2.49	None
J11	Elbow	48L	90.0	42.2	4.9	1.4301	0/0	1.18	1.18	1	2.49	None
L03	Elbow	76L	90.0	60.3	5.5	1.4301	0/0	1.32	1.32	1	2.93	None
L05	Elbow	76L	90.0	60.3	5.5	1.4301	0/0	1.32	1.32	1	2.93	None
S04	Elbow	76L	65.0	60.3	5.5	1.4301	0/0	1.32	1.32	1	2.93	None
S09	Elbow	114L	65.0	88.9	5.5	1.4301	0/0	1.78	1.78	1	4.58	None
S10	Elbow	114L	75.0	88.9	5.5	1.4301	0/0	1.78	1.78	1	4.58	None
S11	Elbow	114L	45.0	88.9	5.5	1.4301	0/0	1.78	1.78	1	4.58	None
T04	Elbow	48L	90.0	42.2	4.9	1.4301	0/0	1.18	1.18	1	2.49	None
T05	*Elbow	48L	90.0	42.2	4.9	1.4301	0/0	1.18	1.18	1	2.49	None

* = Mid-point present

L = Long radius

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T E E D A T A L I S T I N G

Point Name	Point Seg-Type	Pipe		Material	Tee Type	**Crotch *Crotch		SIF in	SIF out
		OD (mm)	Thk. (mm)			Radius (mm)	Thick (mm)		
A01	A-Header B-Branch	219.1 73.0	12.7 7.0	1.4301 1.4301	welding			1.35	1.35
A02	A-Header D-Branch	219.1 60.3	12.7 5.5	1.4301 1.4301	welding			1.35	1.35
A03	A-Header E-Branch	219.1 60.3	12.7 5.5	1.4301 1.4301	welding			1.35	1.35
B17	B-Header N-Branch	73.0 33.4	7.0 4.5	1.4301 1.4301	welding			1.00	1.00
B04	B-Header L-Branch	73.0 60.3	7.0 5.5	1.4301 1.4301	welding			1.00	1.00
B07	C-Header B-Branch	73.0 73.0	7.0 7.0	1.4301 1.4301	Other			1.00	1.00
D04	D-Header R-Branch	60.3 33.4	5.5 4.5	1.4301 1.4301	welding			1.00	1.00
D05	D-Header	60.3	5.5	1.4301	welding			1.00	1.00

	J-Branch	42.2	4.9	1.4301	S_LINEREV0.OUT		
D11	D-Header	60.3	5.5	1.4301	Other	1.00	1.00
	F-Branch	60.3	5.5	1.4301			
D14	D-Header	60.3	5.5	1.4301	welding	1.00	1.00
	S-Branch	60.3	5.5	1.4301			
E13	E-Header	60.3	5.5	1.4301	welding	1.00	1.00
	P-Branch	33.4	4.5	1.4301			
E04	E-Header	60.3	5.5	1.4301	welding	1.00	1.00
	T-Branch	42.2	4.9	1.4301			
J07	K-Header	42.2	4.9	1.4301	welding	1.00	1.00
	J-Branch	42.2	4.9	1.4301			
L07	M-Header	60.3	5.5	1.4301	welding	1.00	1.00
	L-Branch	60.3	5.5	1.4301			
T06	U-Header	42.2	4.9	1.4301	welding	1.00	1.00
	T-Branch	42.2	4.9	1.4301			

* = Pad thickness for reinforced tee.

**= Fillet radius for Raised tee or discontinuity dist. for Thickened tee.

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V A L V E D A T A L I S T I N G

Type Point		Dnom		Length		Valve Weight	Actuator Weight	Actuator			Joint		Size
/Avg. Name	/Max. Type	(mm)	Rating	(mm)	(kg)	(kg)		DX	DY	DZ	SAF	Type	SIF (mm)
(mm)								(mm)	(mm)	(mm)			
B02	GATE-F	65	2500	508.00	89	138		0.00	0.00	496.00	0.00	WN	1.00
D02	GATE-F	50	2500	451.00	81	126		0.00	0.00	439.00	0.00	WN	1.00
D12	GATE-F	50	2500	451.40	81	126		0.00	0.00	439.00	0.00	WN	1.00
E02	GATE-F	50	2500	450.85	81	126		0.00	0.00	439.00	0.00	WN	1.00
F15	SCHECK-F	50	2500	451.00	81	126	428.00	97.00	310.42		0.00	WN	1.00
J02	GLOBE-B	32	NS	184.00	27						0.00	BW	1.80
0.0													
K02	NS	15	NS	333.00	2						1.00	TJ	2.30
L02	GLOBE-B	50	2500	257.00	50						0.00	BW	1.00
0.0													
M02	NS	15	NS	333.00	2						1.00	TJ	2.30
N01	GLOBE-F	25	NS	308.00	20						1.00	WN	1.00
P01	GLOBE-F	25	NS	308.00	20						1.00	WN	1.00
R01	GLOBE-F	25	NS	308.00	20						1.00	WN	1.00
S05	GATE-F	50	2500	451.00	81	126		0.00	0.00	439.00	0.00	WN	1.00
T02	GLOBE-B	32	NS	184.00	27						1.00	BW	1.80
0.0													
U02	NS	15	NS	333.00	2						1.00	TJ	2.30

Size/Avg. = Weld Size for SO/SW, Avg. offset for BW, Joint offset for BWT

Type/Max. = Socket welding type for SW, Maximum offset for BW,
Concave or Convex for SW and SO (JSME)

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F L A N G E D A T A L I S T I N G

					Flange	Bolt		Size		Type	
Point	FLG	Dnom			Weight	Weight	Joint		/Avg.	/Max.	ANSI
Name	No.	Type	(mm)	Rating	(kg)	(kg)	Type	SIF	(mm)	(mm)	Check

B02	1	WELDNECK	65	2500	23.6	0.0	WN	1.00			No
B14	1	WELDNECK	65	2500	23.6	0.0	WN	1.00			No
B29	1	BLIND	65	2500	24.0	0.0	SW	2.10			No
B29	2	BLIND	65	2500	24.0	0.0	SW	2.10			No
B22	1	BLIND	65	2500	24.0	0.0	SW	2.10			No
B22	2	BLIND	65	2500	24.0	0.0	SW	2.10			No
D02	1	WELDNECK	50	2500	19.1	0.0	WN	1.00			No
D03	1	WELDNECK	50	2500	19.1	0.0	WN	1.00			No
D06	1	WELDNECK	50	2500	19.1	0.0	WN	1.00			No
D06	2	WELDNECK	50	2500	19.1	0.0	WN	1.00			No
D09	1	WELDNECK	50	2500	19.1	0.0	WN	1.00			No
D09	2	WELDNECK	50	2500	19.1	0.0	WN	1.00			No
D12	1	WELDNECK	50	2500	19.1	0.0	WN	1.00			No
D13	1	WELDNECK	50	2500	19.1	0.0	WN	1.00			No
E02	1	WELDNECK	50	2500	19.1	0.0	WN	1.00			No
E12	1	WELDNECK	50	2500	19.1	0.0	WN	1.00			No
E17	1	WELDNECK	50	2500	19.1	0.0	WN	1.00			No
E17	2	WELDNECK	50	2500	19.1	0.0	WN	1.00			No
E16	1	WELDNECK	50	2500	19.1	0.0	WN	1.00			No
E16	2	WELDNECK	50	2500	19.1	0.0	WN	1.00			No
F21	1	WELDNECK	50	2500	19.1	0.0	WN	1.00			No
F21	2	WELDNECK	50	2500	19.1	0.0	WN	1.00			No
C014	1	WELDNECK	50	2500	19.1	0.0	WN	1.00			No
C014	2	WELDNECK	50	2500	19.1	0.0	WN	1.00			No
F15	1	WELDNECK	50	2500	19.1	0.0	WN	1.00			No
F15	2	WELDNECK	50	2500	19.1	0.0	WN	1.00			No
F14	1	WELDNECK	50	2500	19.1	0.0	WN	1.00			No
F13	1	SLIP-ON	100	300	10.0	0.0	WN	1.00			No
J10	1	WELDNECK	65	2500	23.6	0.0	WN	1.00			No
L10	1	WELDNECK	80	2500	42.6	0.0	WN	1.00			No
N01	1	WELDNECK	25	2500	5.9	0.0	WN	1.00			No
HV05	1	WELDNECK	25	2500	5.9	0.0	WN	1.00			No
P01	1	WELDNECK	25	2500	5.9	0.0	WN	1.00			No
H24	1	SLIP-ON	25	2500	5.9	0.0	WN	1.00			No
R01	1	WELDNECK	25	2500	5.9	0.0	WN	1.00			No
HV25	1	WELDNECK	25	2500	5.9	0.0	WN	1.00			No
S01	1	WELDNECK	50	300	3.9	0.0	WN	1.00			No
S01	2	WELDNECK	50	300	3.9	0.0	WN	1.00			No
C013	1	WELDNECK	50	300	3.9	0.0	WN	1.00			No
C013	2	WELDNECK	50	300	3.9	0.0	WN	1.00			No
S05	1	WELDNECK	50	2500	19.1	0.0	WN	1.00			No
S06	1	WELDNECK	50	2500	19.1	0.0	WN	1.00			No
S14	1	WELDNECK	100	300	9.5	0.0	WN	1.00			No
T09	1	WELDNECK	65	2500	23.6	0.0	WN	1.00			No

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J O I N T T Y P E / U S E R - S I F D A T A L I S T I N G

				Size			
Point	Point	SIF	SIF	Joint	/Avg.	Max.	Over
Name	Type	in	out	Type	(mm)	(mm)	ride

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REDUCER DATA LISTING

From	To	Length	From	To	Thk	Thk	From	Cone	SIF
Point	Point	(mm)	(mm)	(mm)	(mm)	(mm)	Material	Angle	(deg)
B18	B13	89.00	73.0	88.9	7.0	7.6	1.4301		2.00t
C10	C06	89.00	73.0	88.9	7.0	7.6	1.4301		2.00t
D17	D18	88.90	60.3	88.9	5.5	7.6	1.4301		2.00t
E14	E11	88.90	60.3	88.9	5.5	7.6	1.4301		2.00t
F02	F22	88.90	60.3	88.9	3.9	5.5	1.4301		2.00t
F23	F10	101.60	88.9	114.3	5.5	6.0	1.4301		2.00t
J08	J09	89.00	42.2	73.0	4.9	7.0	1.4301		2.00t
K01	K02	50.80	42.2	21.3	4.9	3.7	1.4301		2.00t
L08	L09	89.00	60.3	88.9	5.5	7.6	1.4301		2.00t
M01	M02	76.00	60.3	21.3	5.5	3.7	1.4301		2.00t
S07	S08	89.00	60.3	88.9	3.9	5.5	1.4301		2.00t
S12	S13	101.60	88.9	114.3	5.5	6.0	1.4301		2.00t
T07	T08	89.00	42.2	73.0	4.9	7.0	1.4301		2.00t
U01	U02	50.80	42.2	21.3	4.9	3.7	1.4301		2.00t

t = Use SIF of 2.0

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RIGID PIPE DATA LISTING

From	To	Include	Include	Rigid
Point	Point	Weight	Expansion	Factor

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REFERENCE POINT LISTING

(Force - N , Moment - N.m)

Tag No./	Refer.	Point	Seg	Coord.	Load	[Report Loads]
Ref. ID	Side	Name	Name	System	Direction	Actual Allow.

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A N A L Y S I S S U M M A R Y

Current model revision number : 333

Static - Analysis set number 1
 Date and Time of analysis Sep 27, 2010 12:01 PM
 Model Revision Number 333
 Number of load cases 6
 Load cases analyzed GR T1 T2 T3 T4 T5
 Description Analysis Set no. 1
 Gaps/Friction/Soil considered Yes
 Tolerance - Force, Displacement 44.48 N 0.0254 mm
 Friction - Scale Factor, Tolerance 1.00 0.10
 Ignore friction for cases E1,E2,E3 Yes
 Ignore friction for gravity case Yes
 Hanger design run No
 Cut short included No
 Thermal bowing included No
 Include Bourdon rotational effect No
 Pipe radius for Bourdon calculation ... Mean
 Occasional load analysis type Nonlinear
 Non-linear analysis summary file S_LINEREV0.LOG
 Use default load sequence Yes
 Base load cases for nonlinear analysis

GR	=	None
T1	=	GR
T2	=	GR
T3	=	GR
T4	=	GR
T5	=	GR

Weight of contents included Yes
 Pressure stiffening case None
 Hot modulus case None
 Water elevation for buoyancy loads Not considered
 Use corroded thickness in analysis No
 Rigid stiffness factor 1000.0

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CODE COMPLIANCE COMBINATIONS

<Description> Allowable Combination (N/mm ²) D/A/P	Category	Method	Case/Combination	Factor M/S K-Factor
GR + Max P{1} Automatic Y Y Y	Sustain	Sum	GR[1] Max Long	1.00 1.00
Max Range Automatic Y Y Y	Expansion	Sum	Temp. Range	1.00
Amb to T1{1} Automatic Y Y Y	Expansion	Sum	T1[1]	1.00
Amb to T2{1} Automatic Y Y Y	Expansion	Sum	T2[1]	1.00

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Amb to T3{1} Automatic Y Y Y	Expansion	Sum	T3[1]	1.00	
Amb to T4{1} Automatic Y Y Y	Expansion	Sum	T4[1]	1.00	
Amb to T5{1} Automatic Y Y Y	Expansion	Sum	T5[1]	1.00	
**Hydrotest{1} Automatic Y Y Y	Occasion	Sum	*HY[1]	1.00	1.000
			Max Long	1.00	
Max P{1} Automatic Y Y Y	Hoop	Sum	Max Hoop	1.00	
Sus.+T1{1} Automatic Y Y Y	Creep Rupt	Sum	Max Sus	1.00	
			T1[1]	1.00	
Sus.+T2{1} Automatic Y Y Y	Creep Rupt	Sum	Max Sus	1.00	
			T2[1]	1.00	
Sus.+T3{1} Automatic Y Y Y	Creep Rupt	Sum	Max Sus	1.00	
			T3[1]	1.00	
Sus.+T4{1} Automatic Y Y Y	Creep Rupt	Sum	Max Sus	1.00	
			T4[1]	1.00	
Sus.+T5{1} Automatic Y Y Y	Creep Rupt	Sum	Max Sus	1.00	
			T5[1]	1.00	

Notes:

D/A/P: [D]efault/[A]uto-Update/[P]rint options (Y=Yes, N=No)

* indicates that the load case has not been analyzed

** indicates that the combination includes unanalyzed load case(s)
or combination(s) that include unanalyzed load case(s).

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NON-CODE COMBINATIONS

<Description>

Combination	Method	Case/Combination	Factor	D/A/P
Gravity{1}	Sum	GR[1]	1.00	Y Y Y
**Hydrotest{1}	Sum	*HY[1]	1.00	Y Y Y
Thermal 1{1}	Sum	T1[1]	1.00	Y Y Y
Thermal 2{1}	Sum	T2[1]	1.00	Y Y Y
Thermal 3{1}	Sum	T3[1]	1.00	Y Y Y
Thermal 4{1}	Sum	T4[1]	1.00	Y Y Y

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Thermal 5{1}	Sum	T5[1]	1.00	Y Y Y
GRT1{1}	Sum	GR[1] T1[1]	1.00 1.00	Y Y Y
GRT2{1}	Sum	GR[1] T2[1]	1.00 1.00	Y Y Y
GRT3{1}	Sum	GR[1] T3[1]	1.00 1.00	Y Y Y
GRT4{1}	Sum	GR[1] T4[1]	1.00 1.00	Y Y Y
GRT5{1}	Sum	GR[1] T5[1]	1.00 1.00	Y Y Y

Notes:

D/A/P: [D]efault/[A]uto-Update/[P]rint options (Y=Yes, N=No)

* indicates that the load case has not been analyzed

** indicates that the combination includes unanalyzed load case(s)
or combination(s) that include unanalyzed load case(s).

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CODE COMPLIANCE

Y - Factor 0.50
 Weld efficiency factor 1.00
 Range reduction factor 1.00
 Design Pressure Factor 1.00
 Minimum stress ratio used in reports... 0.00
 Number of stress points per span 0
 Include corrosion in stress calcs. N
 Include axial force in code stress N
 Include sustain load margin Only if allowable stress is exceeded
 Use single SIF Y
 Set sustained/occasional SIF = 1 N
 Set sustained/occasional SIF = 0.75i .. N
 Apply cold/hot modulus ratio N
 Disable auto code combinations N
 Disable auto non-code combinations N
 No. of thermal ranges to report 0
 Include Max Range combination Y
 Total stress Octahedral
 Direct shear None
 Longitudinal pressure calculation PD/4t
 Inc. Axial Str and Pcase in Sustained.. N

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----

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*** Segment A begin ***

A00	Gravity{1}	0.000	0.000	-0.012	0.000	0.001	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	6.115	-0.008	0.012	-0.015	-0.002	-0.001
	Thermal 2{1}	6.115	-0.009	0.012	-0.016	-0.002	-0.001
	Thermal 3{1}	6.115	-0.008	0.011	-0.015	-0.002	-0.001
	Thermal 4{1}	6.115	-0.008	0.011	-0.015	-0.001	-0.001
	Thermal 5{1}	6.115	-0.008	0.011	-0.013	-0.001	-0.001
	GRT1{1}	6.115	-0.008	0.000	-0.015	0.000	-0.001
	GRT2{1}	6.115	-0.009	0.000	-0.016	0.000	-0.001
	GRT3{1}	6.115	-0.008	-0.001	-0.015	0.000	-0.001
	GRT4{1}	6.115	-0.008	-0.001	-0.015	0.000	-0.001
	GRT5{1}	6.115	-0.008	-0.001	-0.013	0.000	-0.001
A07	Gravity{1}	0.000	0.000	-0.010	0.000	0.001	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	5.599	-0.007	0.009	-0.015	-0.002	-0.001
	Thermal 2{1}	5.599	-0.007	0.009	-0.016	-0.002	-0.001
	Thermal 3{1}	5.599	-0.007	0.009	-0.015	-0.002	-0.001
	Thermal 4{1}	5.599	-0.007	0.008	-0.015	-0.001	-0.001
	Thermal 5{1}	5.599	-0.006	0.008	-0.013	-0.001	-0.001
	GRT1{1}	5.599	-0.007	-0.001	-0.015	0.000	-0.001
	GRT2{1}	5.599	-0.007	-0.001	-0.016	0.000	-0.001
	GRT3{1}	5.599	-0.007	-0.001	-0.015	0.000	-0.001
	GRT4{1}	5.599	-0.007	-0.001	-0.015	0.000	-0.001
	GRT5{1}	5.599	-0.006	-0.002	-0.013	0.000	-0.001
A01	Gravity{1}	0.000	0.000	-0.007	0.000	0.001	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	5.083	-0.005	0.006	-0.015	-0.002	-0.001
	Thermal 2{1}	5.083	-0.005	0.006	-0.016	-0.002	-0.001
	Thermal 3{1}	5.083	-0.005	0.006	-0.015	-0.002	-0.001
	Thermal 4{1}	5.083	-0.005	0.006	-0.015	-0.001	-0.001
	Thermal 5{1}	5.083	-0.005	0.006	-0.013	-0.001	-0.001
	GRT1{1}	5.083	-0.005	-0.001	-0.015	0.000	-0.001
	GRT2{1}	5.083	-0.005	-0.001	-0.016	0.000	-0.001
	GRT3{1}	5.083	-0.005	-0.001	-0.015	0.000	-0.001
	GRT4{1}	5.083	-0.005	-0.001	-0.015	0.000	-0.001
	GRT5{1}	5.083	-0.005	-0.002	-0.013	0.000	-0.001

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
A06	Gravity{1}	0.000	0.000	0.000	0.000	0.001	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.419	0.000	0.000	-0.011	-0.001	0.000
	Thermal 2{1}	3.419	0.000	0.000	-0.012	-0.001	0.000
	Thermal 3{1}	3.419	0.000	0.000	-0.011	-0.001	0.000
	Thermal 4{1}	3.419	0.000	0.000	-0.011	-0.001	0.000
	Thermal 5{1}	3.419	0.000	0.000	-0.009	-0.001	0.000
	GRT1{1}	3.419	0.000	0.000	-0.011	0.000	0.000
	GRT2{1}	3.419	0.000	0.000	-0.012	0.000	0.000
	GRT3{1}	3.419	0.000	0.000	-0.011	0.000	0.000
	GRT4{1}	3.419	0.000	0.000	-0.011	0.000	0.000
	GRT5{1}	3.419	0.000	0.000	-0.009	0.000	0.000
A02	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.754	0.000	0.000	-0.007	0.000	0.000
	Thermal 2{1}	1.754	0.000	0.000	-0.008	0.000	0.000
	Thermal 3{1}	1.754	0.000	0.000	-0.007	0.000	0.000
	Thermal 4{1}	1.754	0.000	0.000	-0.007	0.000	0.000
	Thermal 5{1}	1.754	0.000	0.000	-0.006	0.000	0.000
	GRT1{1}	1.754	0.000	0.000	-0.007	0.000	0.000
	GRT2{1}	1.754	0.000	0.000	-0.007	0.000	0.000
	GRT3{1}	1.754	0.000	0.000	-0.007	0.000	0.000
	GRT4{1}	1.754	0.000	0.000	-0.007	0.000	0.000
	GRT5{1}	1.754	0.000	0.000	-0.005	0.000	0.000
A05	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 5{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	0.000	0.000	0.000	0.000

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	GRT4{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT5{1}	0.000	0.000	0.000	0.000	0.000	0.000
A03	Gravity{1}	0.000	0.000	-0.003	0.000	-0.001	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.754	-0.002	0.002	-0.003	0.000	0.000
	Thermal 2{1}	-1.754	-0.002	0.002	-0.003	0.001	0.000
	Thermal 3{1}	-1.754	-0.002	0.002	-0.003	0.000	0.000
	Thermal 4{1}	-1.754	-0.001	0.002	-0.003	0.000	0.000
	Thermal 5{1}	-1.754	-0.001	0.002	-0.003	0.001	0.000
	GRT1{1}	-1.754	-0.001	-0.001	-0.003	0.000	0.000
	GRT2{1}	-1.754	-0.001	-0.001	-0.003	0.000	0.000
	GRT3{1}	-1.754	-0.001	-0.001	-0.003	0.000	0.000
	GRT4{1}	-1.754	-0.001	-0.001	-0.003	0.000	0.000
	GRT5{1}	-1.754	-0.001	-0.001	-0.003	0.000	0.000

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
A04	Gravity{1}	0.000	0.000	-0.005	0.000	-0.001	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-2.786	-0.002	0.004	-0.003	0.000	0.000
	Thermal 2{1}	-2.786	-0.002	0.004	-0.003	0.001	0.000
	Thermal 3{1}	-2.786	-0.002	0.004	-0.003	0.000	0.000
	Thermal 4{1}	-2.786	-0.002	0.003	-0.003	0.000	0.000
	Thermal 5{1}	-2.786	-0.002	0.004	-0.003	0.001	0.000
	GRT1{1}	-2.786	-0.002	-0.002	-0.003	0.000	0.000
	GRT2{1}	-2.786	-0.002	-0.001	-0.003	0.000	0.000
	GRT3{1}	-2.786	-0.002	-0.002	-0.003	0.000	0.000
	GRT4{1}	-2.786	-0.002	-0.002	-0.003	0.000	0.000
	GRT5{1}	-2.786	-0.002	-0.001	-0.003	0.000	0.000

*** Segment A end ***
 *** Segment B begin ***

A01	Gravity{1}	0.000	0.000	-0.007	0.000	0.001	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000

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	Thermal 1{1}	5.083	-0.005	0.006	-0.015	-0.002	-0.001
	Thermal 2{1}	5.083	-0.005	0.006	-0.016	-0.002	-0.001
	Thermal 3{1}	5.083	-0.005	0.006	-0.015	-0.002	-0.001
	Thermal 4{1}	5.083	-0.005	0.006	-0.015	-0.001	-0.001
	Thermal 5{1}	5.083	-0.005	0.006	-0.013	-0.001	-0.001
	GRT1{1}	5.083	-0.005	-0.001	-0.015	0.000	-0.001
	GRT2{1}	5.083	-0.005	-0.001	-0.016	0.000	-0.001
	GRT3{1}	5.083	-0.005	-0.001	-0.015	0.000	-0.001
	GRT4{1}	5.083	-0.005	-0.001	-0.015	0.000	-0.001
	GRT5{1}	5.083	-0.005	-0.002	-0.013	0.000	-0.001
B01 N	Gravity{1}	-1.751	-0.658	-0.015	-0.034	0.048	-0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	11.735	-23.222	-16.582	-0.343	-0.097	-0.158
	Thermal 2{1}	12.301	-25.255	-16.583	-0.416	-0.104	-0.174
	Thermal 3{1}	11.733	-23.223	-16.582	-0.343	-0.097	-0.158
	Thermal 4{1}	11.481	-22.326	-16.582	-0.322	-0.092	-0.153
	Thermal 5{1}	11.541	-22.488	-16.584	-0.364	-0.089	-0.157
	GRT1{1}	9.984	-23.880	-16.597	-0.377	-0.049	-0.162
	GRT2{1}	10.550	-25.913	-16.598	-0.450	-0.056	-0.178
	GRT3{1}	9.982	-23.881	-16.597	-0.377	-0.049	-0.162
	GRT4{1}	9.730	-22.984	-16.597	-0.356	-0.044	-0.157
	GRT5{1}	9.790	-23.146	-16.598	-0.399	-0.041	-0.160

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
B01 M	Gravity{1}	-1.806	-0.700	-0.033	-0.038	0.048	-0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	11.917	-23.444	-17.075	-0.274	-0.080	-0.159
	Thermal 2{1}	12.497	-25.566	-17.113	-0.352	-0.085	-0.175
	Thermal 3{1}	11.915	-23.445	-17.075	-0.274	-0.080	-0.159
	Thermal 4{1}	11.655	-22.524	-17.065	-0.253	-0.075	-0.154
	Thermal 5{1}	11.712	-22.741	-17.090	-0.305	-0.071	-0.158
	GRT1{1}	10.111	-24.145	-17.107	-0.312	-0.031	-0.163

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	GRT2{1}	10.692	-26.266	-17.146	-0.390	-0.037	-0.179
	GRT3{1}	10.109	-24.145	-17.108	-0.312	-0.031	-0.163
	GRT4{1}	9.849	-23.224	-17.097	-0.292	-0.027	-0.158
	GRT5{1}	9.906	-23.441	-17.123	-0.343	-0.022	-0.161
B01 F	Gravity{1}	-1.825	-0.720	-0.080	-0.041	0.048	-0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	12.142	-23.218	-17.496	-0.202	-0.068	-0.162
	Thermal 2{1}	12.744	-25.378	-17.629	-0.284	-0.073	-0.178
	Thermal 3{1}	12.140	-23.219	-17.496	-0.202	-0.068	-0.162
	Thermal 4{1}	11.871	-22.288	-17.463	-0.182	-0.064	-0.156
	Thermal 5{1}	11.931	-22.532	-17.555	-0.243	-0.059	-0.160
	GRT1{1}	10.317	-23.938	-17.576	-0.243	-0.020	-0.166
	GRT2{1}	10.919	-26.098	-17.709	-0.325	-0.024	-0.182
	GRT3{1}	10.315	-23.939	-17.576	-0.243	-0.020	-0.166
	GRT4{1}	10.046	-23.008	-17.543	-0.223	-0.016	-0.160
	GRT5{1}	10.106	-23.252	-17.635	-0.284	-0.010	-0.164
B02	Gravity{1}	-1.774	-0.720	-0.485	-0.029	0.050	-0.006
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	13.903	-20.087	-18.473	0.018	0.016	-0.165
	Thermal 2{1}	14.682	-22.247	-19.515	-0.069	0.020	-0.182
	Thermal 3{1}	13.902	-20.088	-18.473	0.018	0.016	-0.165
	Thermal 4{1}	13.571	-19.157	-18.245	0.034	0.019	-0.159
	Thermal 5{1}	13.669	-19.401	-19.100	-0.046	0.029	-0.163
	GRT1{1}	12.129	-20.807	-18.958	-0.011	0.065	-0.171
	GRT2{1}	12.908	-22.967	-20.000	-0.098	0.070	-0.188
	GRT3{1}	12.127	-20.808	-18.958	-0.011	0.065	-0.171
	GRT4{1}	11.797	-19.877	-18.730	0.005	0.068	-0.166
	GRT5{1}	11.895	-20.120	-19.584	-0.075	0.078	-0.169
B02 M	Gravity{1}	-1.747	-0.720	-0.613	-0.029	0.050	-0.006
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	14.636	-18.777	-18.393	0.018	0.016	-0.165
	Thermal 2{1}	15.489	-20.815	-19.821	-0.068	0.021	-0.182
	Thermal 3{1}	14.634	-18.777	-18.393	0.018	0.016	-0.165
	Thermal 4{1}	14.278	-17.904	-18.092	0.035	0.019	-0.159
	Thermal 5{1}	14.391	-18.148	-19.301	-0.045	0.029	-0.163
	GRT1{1}	12.889	-19.496	-19.006	-0.010	0.066	-0.171
	GRT2{1}	13.742	-21.534	-20.433	-0.097	0.070	-0.188
	GRT3{1}	12.887	-19.497	-19.006	-0.010	0.066	-0.171
	GRT4{1}	12.531	-18.624	-18.705	0.006	0.068	-0.166
	GRT5{1}	12.644	-18.868	-19.914	-0.074	0.079	-0.169

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
B14	Gravity{1}	-1.719	-0.720	-0.741	-0.029	0.050	-0.006
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	15.368	-17.466	-18.309	0.019	0.017	-0.165
	Thermal 2{1}	16.295	-19.383	-20.122	-0.067	0.021	-0.182
	Thermal 3{1}	15.366	-17.467	-18.309	0.019	0.017	-0.165
	Thermal 4{1}	14.985	-16.652	-17.934	0.036	0.019	-0.159
	Thermal 5{1}	15.113	-16.895	-19.498	-0.044	0.029	-0.163
	GRT1{1}	13.648	-18.186	-19.050	-0.009	0.066	-0.171
	GRT2{1}	14.576	-20.102	-20.862	-0.096	0.071	-0.188
	GRT3{1}	13.647	-18.186	-19.050	-0.009	0.066	-0.171
	GRT4{1}	13.265	-17.371	-18.675	0.007	0.069	-0.166
	GRT5{1}	13.393	-17.615	-20.238	-0.073	0.079	-0.169
B17	Gravity{1}	-1.640	-0.720	-0.861	0.000	0.051	-0.012
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	16.652	-14.887	-17.232	0.234	0.086	-0.125
	Thermal 2{1}	17.710	-16.564	-19.727	0.167	0.098	-0.138
	Thermal 3{1}	16.650	-14.888	-17.232	0.234	0.086	-0.125
	Thermal 4{1}	16.222	-14.187	-16.732	0.245	0.087	-0.121
	Thermal 5{1}	16.372	-14.430	-18.965	0.174	0.102	-0.122
	GRT1{1}	15.011	-15.607	-18.092	0.234	0.137	-0.138
	GRT2{1}	16.070	-17.284	-20.587	0.167	0.148	-0.151
	GRT3{1}	15.010	-15.608	-18.092	0.234	0.137	-0.138
	GRT4{1}	14.582	-14.906	-17.593	0.245	0.138	-0.133
	GRT5{1}	14.732	-15.150	-19.826	0.175	0.152	-0.134
B04	Gravity{1}	-1.392	-0.720	-0.827	-0.015	0.052	-0.025
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	17.720	-10.898	-11.493	0.630	0.193	-0.024
	Thermal 2{1}	18.896	-12.204	-14.562	0.618	0.216	-0.028
	Thermal 3{1}	17.719	-10.899	-11.493	0.630	0.194	-0.024
	Thermal 4{1}	17.242	-10.374	-10.906	0.631	0.192	-0.022
	Thermal 5{1}	17.386	-10.617	-13.869	0.599	0.213	-0.019

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	GRT1{1}	16.328	-11.618	-12.321	0.615	0.246	-0.050
	GRT2{1}	17.504	-12.924	-15.389	0.602	0.268	-0.053
	GRT3{1}	16.327	-11.618	-12.321	0.615	0.246	-0.050
	GRT4{1}	15.850	-11.093	-11.734	0.616	0.244	-0.048
	GRT5{1}	15.994	-11.337	-14.696	0.584	0.265	-0.045
B05 N	Gravity{1}	-0.980	-0.719	-1.288	-0.039	0.060	-0.037
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	16.789	-7.074	0.558	1.150	0.602	0.172
	Thermal 2{1}	17.936	-8.025	-2.263	1.194	0.657	0.179
	Thermal 3{1}	16.789	-7.075	0.558	1.150	0.602	0.172
	Thermal 4{1}	16.313	-6.718	1.067	1.138	0.593	0.170
	Thermal 5{1}	16.411	-6.962	-2.061	1.141	0.628	0.173
	GRT1{1}	15.810	-7.793	-0.730	1.111	0.662	0.135
	GRT2{1}	16.956	-8.744	-3.552	1.155	0.717	0.143
	GRT3{1}	15.809	-7.794	-0.730	1.111	0.662	0.135
	GRT4{1}	15.333	-7.438	-0.222	1.099	0.653	0.133
	GRT5{1}	15.431	-7.681	-3.350	1.102	0.688	0.136

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
B05 F	Gravity{1}	-0.935	-0.701	-1.301	-0.032	0.062	-0.038
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	16.412	-6.829	2.269	1.230	0.662	0.228
	Thermal 2{1}	17.535	-7.752	-0.467	1.283	0.722	0.237
	Thermal 3{1}	16.411	-6.829	2.269	1.230	0.662	0.228
	Thermal 4{1}	15.945	-6.487	2.757	1.216	0.651	0.224
	Thermal 5{1}	16.040	-6.731	-0.345	1.225	0.689	0.226
	GRT1{1}	15.476	-7.530	0.968	1.197	0.724	0.189
	GRT2{1}	16.599	-8.453	-1.768	1.251	0.785	0.199
	GRT3{1}	15.475	-7.530	0.968	1.197	0.724	0.189
	GRT4{1}	15.010	-7.188	1.456	1.184	0.714	0.186
	GRT5{1}	15.105	-7.432	-1.646	1.193	0.752	0.187
B29	Gravity{1}	-0.789	-0.555	-1.152	-0.015	0.069	-0.040

		S_LINEREVO.OUT					
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	14.335	-6.714	9.640	1.300	0.759	0.294
	Thermal 2{1}	15.317	-7.575	7.366	1.366	0.825	0.306
	Thermal 3{1}	14.334	-6.714	9.640	1.300	0.759	0.294
	Thermal 4{1}	13.933	-6.404	10.029	1.284	0.746	0.289
	Thermal 5{1}	14.026	-6.651	7.126	1.303	0.786	0.289
	GRT1{1}	13.546	-7.268	8.489	1.285	0.828	0.254
	GRT2{1}	14.527	-8.129	6.214	1.351	0.895	0.266
	GRT3{1}	13.545	-7.269	8.488	1.285	0.828	0.254
	GRT4{1}	13.144	-6.959	8.878	1.269	0.815	0.249
	GRT5{1}	13.236	-7.205	5.974	1.288	0.856	0.249
B22	Gravity{1}	-0.567	-0.332	-0.728	0.013	0.082	-0.039
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	10.909	-6.867	21.312	1.306	0.803	0.339
	Thermal 2{1}	11.666	-7.649	19.817	1.382	0.872	0.353
	Thermal 3{1}	10.908	-6.868	21.312	1.306	0.803	0.339
	Thermal 4{1}	10.611	-6.599	21.532	1.288	0.790	0.333
	Thermal 5{1}	10.708	-6.840	18.985	1.316	0.830	0.332
	GRT1{1}	10.342	-7.200	20.583	1.319	0.885	0.300
	GRT2{1}	11.099	-7.981	19.089	1.395	0.954	0.314
	GRT3{1}	10.341	-7.200	20.583	1.319	0.885	0.300
	GRT4{1}	10.044	-6.931	20.804	1.301	0.871	0.294
	GRT5{1}	10.141	-7.172	18.257	1.329	0.911	0.292
B06 N	Gravity{1}	-0.309	-0.075	-0.056	0.014	0.063	-0.034
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	6.558	-7.117	35.245	1.145	0.691	0.305
	Thermal 2{1}	7.030	-7.802	34.731	1.220	0.748	0.317
	Thermal 3{1}	6.558	-7.117	35.245	1.145	0.691	0.304
	Thermal 4{1}	6.393	-6.896	35.254	1.128	0.679	0.299
	Thermal 5{1}	6.501	-7.127	33.178	1.161	0.712	0.298
	GRT1{1}	6.249	-7.191	35.188	1.159	0.754	0.271
	GRT2{1}	6.720	-7.877	34.675	1.234	0.811	0.284
	GRT3{1}	6.249	-7.192	35.188	1.159	0.754	0.271
	GRT4{1}	6.084	-6.971	35.197	1.142	0.742	0.265
	GRT5{1}	6.192	-7.201	33.122	1.175	0.774	0.264

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
B06 F	Gravity{1}	-0.293	-0.064	-0.031	0.008	0.057	-0.032
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	6.319	-7.076	36.001	1.103	0.659	0.290
	Thermal 2{1}	6.776	-7.753	35.541	1.176	0.714	0.303
	Thermal 3{1}	6.319	-7.076	36.001	1.103	0.659	0.290
	Thermal 4{1}	6.161	-6.860	35.998	1.087	0.648	0.285
	Thermal 5{1}	6.270	-7.090	33.949	1.120	0.679	0.284
	GRT1{1}	6.026	-7.140	35.970	1.111	0.715	0.258
	GRT2{1}	6.482	-7.816	35.510	1.184	0.770	0.270
	GRT3{1}	6.026	-7.140	35.970	1.111	0.715	0.258
	GRT4{1}	5.868	-6.924	35.967	1.095	0.704	0.253
	GRT5{1}	5.976	-7.154	33.918	1.127	0.735	0.252
B25	Gravity{1}	-0.247	-0.042	0.013	0.001	0.046	-0.031
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	5.698	-6.835	38.038	1.058	0.617	0.275
	Thermal 2{1}	6.118	-7.480	37.721	1.129	0.668	0.287
	Thermal 3{1}	5.698	-6.835	38.037	1.058	0.617	0.275
	Thermal 4{1}	5.557	-6.635	38.004	1.043	0.606	0.270
	Thermal 5{1}	5.667	-6.864	36.024	1.075	0.635	0.269
	GRT1{1}	5.452	-6.877	38.050	1.059	0.663	0.244
	GRT2{1}	5.872	-7.522	37.734	1.131	0.714	0.256
	GRT3{1}	5.452	-6.877	38.050	1.059	0.663	0.244
	GRT4{1}	5.310	-6.677	38.017	1.044	0.653	0.239
	GRT5{1}	5.421	-6.906	36.036	1.076	0.682	0.238
B07	Gravity{1}	-0.039	0.055	0.012	-0.010	0.002	-0.019
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	2.773	-5.277	47.107	0.684	0.325	0.161
	Thermal 2{1}	3.010	-5.735	47.450	0.736	0.351	0.168
	Thermal 3{1}	2.773	-5.277	47.107	0.684	0.325	0.161
	Thermal 4{1}	2.715	-5.167	46.936	0.674	0.320	0.158
	Thermal 5{1}	2.830	-5.393	45.290	0.702	0.335	0.158
	GRT1{1}	2.734	-5.222	47.119	0.674	0.327	0.142
	GRT2{1}	2.972	-5.680	47.462	0.726	0.353	0.149
	GRT3{1}	2.734	-5.222	47.119	0.674	0.327	0.142
	GRT4{1}	2.676	-5.111	46.948	0.664	0.322	0.139
	GRT5{1}	2.792	-5.338	45.301	0.692	0.337	0.138

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B08 N	Gravity{1}	-0.057	0.094	0.019	-0.008	-0.002	-0.018
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	2.301	-5.888	47.104	0.611	0.278	0.144
	Thermal 2{1}	2.487	-6.386	47.449	0.658	0.300	0.150
	Thermal 3{1}	2.301	-5.888	47.104	0.611	0.278	0.144
	Thermal 4{1}	2.267	-5.759	46.934	0.602	0.274	0.141
	Thermal 5{1}	2.382	-5.984	45.290	0.628	0.287	0.141
	GRT1{1}	2.244	-5.794	47.123	0.603	0.276	0.126
	GRT2{1}	2.430	-6.292	47.467	0.650	0.298	0.132
	GRT3{1}	2.244	-5.794	47.123	0.603	0.276	0.126
	GRT4{1}	2.211	-5.665	46.952	0.594	0.272	0.124
	GRT5{1}	2.325	-5.890	45.309	0.619	0.285	0.123

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
B08 F	Gravity{1}	-0.060	0.101	0.019	-0.009	-0.005	-0.014
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.814	-5.546	46.758	0.515	0.201	0.153
	Thermal 2{1}	1.956	-6.015	47.070	0.555	0.216	0.160
	Thermal 3{1}	1.814	-5.546	46.758	0.515	0.201	0.153
	Thermal 4{1}	1.796	-5.418	46.603	0.506	0.199	0.150
	Thermal 5{1}	1.897	-5.616	44.960	0.529	0.210	0.151
	GRT1{1}	1.755	-5.445	46.777	0.506	0.196	0.139
	GRT2{1}	1.896	-5.914	47.089	0.547	0.212	0.146
	GRT3{1}	1.755	-5.445	46.777	0.506	0.196	0.139
	GRT4{1}	1.736	-5.318	46.622	0.497	0.195	0.136
	GRT5{1}	1.837	-5.515	44.979	0.520	0.206	0.136
B16	Gravity{1}	-0.060	0.101	0.019	-0.009	-0.005	-0.014
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.812	-5.540	46.754	0.514	0.201	0.153
	Thermal 2{1}	1.954	-6.009	47.067	0.555	0.216	0.160
	Thermal 3{1}	1.812	-5.540	46.754	0.514	0.201	0.153
	Thermal 4{1}	1.793	-5.413	46.600	0.506	0.199	0.150
	Thermal 5{1}	1.895	-5.610	44.957	0.528	0.210	0.150

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	GRT1{1}	1.753	-5.440	46.773	0.506	0.196	0.138
	GRT2{1}	1.894	-5.908	47.086	0.546	0.212	0.145
	GRT3{1}	1.753	-5.440	46.773	0.506	0.196	0.138
	GRT4{1}	1.734	-5.312	46.618	0.497	0.194	0.136
	GRT5{1}	1.835	-5.510	44.976	0.520	0.206	0.136
B11 N	Gravity{1}	-0.012	0.010	0.018	-0.008	-0.004	-0.005
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.420	-1.521	43.640	0.244	0.076	0.050
	Thermal 2{1}	0.454	-1.660	43.663	0.264	0.082	0.053
	Thermal 3{1}	0.420	-1.521	43.640	0.244	0.076	0.050
	Thermal 4{1}	0.407	-1.461	43.623	0.240	0.076	0.050
	Thermal 5{1}	0.415	-1.475	41.980	0.251	0.082	0.050
	GRT1{1}	0.408	-1.511	43.658	0.236	0.072	0.045
	GRT2{1}	0.442	-1.650	43.681	0.256	0.078	0.047
	GRT3{1}	0.408	-1.511	43.658	0.236	0.072	0.045
	GRT4{1}	0.395	-1.451	43.641	0.232	0.072	0.045
	GRT5{1}	0.403	-1.465	41.998	0.243	0.078	0.045
B11 F	Gravity{1}	-0.002	0.000	0.007	-0.004	-0.001	-0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.181	-0.760	43.362	0.056	0.016	0.012
	Thermal 2{1}	0.197	-0.831	43.357	0.060	0.018	0.012
	Thermal 3{1}	0.181	-0.760	43.362	0.056	0.016	0.012
	Thermal 4{1}	0.173	-0.726	43.363	0.055	0.017	0.012
	Thermal 5{1}	0.174	-0.726	41.731	0.057	0.018	0.012
	GRT1{1}	0.179	-0.760	43.369	0.052	0.015	0.010
	GRT2{1}	0.195	-0.831	43.364	0.056	0.016	0.011
	GRT3{1}	0.179	-0.760	43.369	0.052	0.015	0.010
	GRT4{1}	0.172	-0.727	43.370	0.051	0.015	0.010
	GRT5{1}	0.172	-0.727	41.737	0.053	0.017	0.010

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
B18	Gravity{1}	-0.001	0.000	0.003	-0.002	-0.001	-0.001

S_LINEREVO.OUT

	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.103	-0.448	43.409	0.027	0.008	0.006
	Thermal 2{1}	0.112	-0.489	43.407	0.029	0.009	0.006
	Thermal 3{1}	0.103	-0.448	43.409	0.027	0.008	0.006
	Thermal 4{1}	0.098	-0.428	43.409	0.027	0.008	0.005
	Thermal 5{1}	0.098	-0.428	41.778	0.028	0.009	0.006
	GRT1{1}	0.102	-0.448	43.411	0.025	0.007	0.005
	GRT2{1}	0.111	-0.489	43.410	0.027	0.008	0.005
	GRT3{1}	0.102	-0.448	43.411	0.025	0.007	0.005
	GRT4{1}	0.098	-0.428	43.412	0.025	0.007	0.005
	GRT5{1}	0.098	-0.428	41.781	0.026	0.008	0.005
B13	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	43.430	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	43.430	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	43.430	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	43.430	0.000	0.000	0.000
	Thermal 5{1}	0.000	0.000	41.800	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	43.430	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	43.430	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	43.430	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	43.430	0.000	0.000	0.000
	GRT5{1}	0.000	0.000	41.800	0.000	0.000	0.000
*** Segment B end ***							
*** Segment C begin ***							
B07	Gravity{1}	-0.039	0.055	0.012	-0.010	0.002	-0.019
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	2.773	-5.277	47.107	0.684	0.325	0.161
	Thermal 2{1}	3.010	-5.735	47.450	0.736	0.351	0.168
	Thermal 3{1}	2.773	-5.277	47.107	0.684	0.325	0.161
	Thermal 4{1}	2.715	-5.167	46.936	0.674	0.320	0.158
	Thermal 5{1}	2.830	-5.393	45.290	0.702	0.335	0.158
	GRT1{1}	2.734	-5.222	47.119	0.674	0.327	0.142
	GRT2{1}	2.972	-5.680	47.462	0.726	0.353	0.149
	GRT3{1}	2.734	-5.222	47.119	0.674	0.327	0.142
	GRT4{1}	2.676	-5.111	46.948	0.664	0.322	0.139
	GRT5{1}	2.792	-5.338	45.301	0.692	0.337	0.138

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
C01 N	Gravity{1}	-0.020	0.016	0.000	-0.008	0.002	-0.018
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.245	-4.667	47.101	0.583	0.281	0.147
	Thermal 2{1}	3.534	-5.084	47.441	0.629	0.304	0.154
	Thermal 3{1}	3.245	-4.667	47.101	0.583	0.281	0.147
	Thermal 4{1}	3.162	-4.576	46.931	0.575	0.277	0.144
	Thermal 5{1}	3.278	-4.803	45.283	0.601	0.289	0.144
	GRT1{1}	3.224	-4.651	47.101	0.576	0.283	0.129
	GRT2{1}	3.513	-5.068	47.441	0.621	0.306	0.136
	GRT3{1}	3.224	-4.651	47.101	0.576	0.283	0.129
	GRT4{1}	3.142	-4.560	46.931	0.567	0.278	0.126
	GRT5{1}	3.258	-4.787	45.282	0.593	0.291	0.126
C01 F	Gravity{1}	-0.013	-0.005	-0.004	-0.003	0.000	-0.014
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.187	-3.873	46.751	0.409	0.255	0.076
	Thermal 2{1}	3.476	-4.229	47.058	0.443	0.277	0.079
	Thermal 3{1}	3.187	-3.873	46.751	0.409	0.255	0.076
	Thermal 4{1}	3.098	-3.798	46.596	0.403	0.250	0.075
	Thermal 5{1}	3.202	-3.999	44.947	0.426	0.261	0.073
	GRT1{1}	3.174	-3.878	46.747	0.406	0.255	0.062
	GRT2{1}	3.463	-4.234	47.054	0.440	0.277	0.065
	GRT3{1}	3.174	-3.878	46.747	0.406	0.255	0.062
	GRT4{1}	3.085	-3.803	46.592	0.401	0.250	0.061
	GRT5{1}	3.188	-4.004	44.943	0.423	0.261	0.060
C08	Gravity{1}	-0.013	-0.005	-0.004	-0.003	0.000	-0.014
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.184	-3.868	46.748	0.408	0.255	0.076
	Thermal 2{1}	3.473	-4.224	47.054	0.442	0.277	0.079
	Thermal 3{1}	3.185	-3.869	46.748	0.408	0.255	0.076
	Thermal 4{1}	3.095	-3.793	46.593	0.403	0.250	0.075
	Thermal 5{1}	3.199	-3.994	44.944	0.425	0.261	0.073
	GRT1{1}	3.171	-3.874	46.743	0.405	0.255	0.062
	GRT2{1}	3.460	-4.230	47.050	0.439	0.277	0.065
	GRT3{1}	3.171	-3.874	46.743	0.405	0.255	0.062

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	GRT4{1}	3.082	-3.798	46.589	0.400	0.250	0.061
	GRT5{1}	3.185	-3.999	44.940	0.423	0.261	0.059
C04 N	Gravity{1}	-0.006	-0.007	-0.004	0.001	-0.001	-0.005
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.017	-1.148	43.641	0.146	0.147	0.039
	Thermal 2{1}	1.109	-1.258	43.659	0.161	0.160	0.041
	Thermal 3{1}	1.017	-1.148	43.641	0.146	0.147	0.039
	Thermal 4{1}	0.977	-1.103	43.624	0.145	0.143	0.038
	Thermal 5{1}	0.985	-1.119	41.975	0.157	0.150	0.037
	GRT1{1}	1.010	-1.156	43.637	0.148	0.146	0.033
	GRT2{1}	1.103	-1.265	43.655	0.162	0.160	0.035
	GRT3{1}	1.010	-1.156	43.637	0.148	0.146	0.033
	GRT4{1}	0.970	-1.110	43.620	0.146	0.143	0.032
	GRT5{1}	0.978	-1.126	41.971	0.158	0.149	0.032

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
C04 F	Gravity{1}	-0.002	-0.001	-0.002	0.001	0.000	-0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.494	-0.605	43.346	0.042	0.045	0.015
	Thermal 2{1}	0.539	-0.661	43.337	0.046	0.049	0.016
	Thermal 3{1}	0.494	-0.605	43.346	0.042	0.045	0.015
	Thermal 4{1}	0.472	-0.578	43.347	0.041	0.044	0.015
	Thermal 5{1}	0.472	-0.578	41.712	0.045	0.045	0.015
	GRT1{1}	0.492	-0.606	43.344	0.043	0.045	0.014
	GRT2{1}	0.537	-0.663	43.336	0.047	0.049	0.015
	GRT3{1}	0.492	-0.606	43.344	0.043	0.045	0.014
	GRT4{1}	0.471	-0.579	43.345	0.042	0.044	0.013
	GRT5{1}	0.471	-0.579	41.710	0.046	0.046	0.013
C10	Gravity{1}	-0.001	0.000	-0.001	0.001	0.000	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.286	-0.359	43.400	0.023	0.024	0.009
	Thermal 2{1}	0.313	-0.392	43.397	0.025	0.026	0.009

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	Thermal 3{1}	0.286	-0.359	43.400	0.023	0.024	0.009
	Thermal 4{1}	0.274	-0.343	43.400	0.022	0.023	0.009
	Thermal 5{1}	0.274	-0.343	41.768	0.024	0.024	0.008
	GRT1{1}	0.286	-0.359	43.399	0.023	0.024	0.008
	GRT2{1}	0.312	-0.393	43.396	0.026	0.026	0.008
	GRT3{1}	0.286	-0.359	43.399	0.023	0.024	0.008
	GRT4{1}	0.273	-0.343	43.400	0.023	0.023	0.008
	GRT5{1}	0.273	-0.343	41.768	0.025	0.024	0.008
C06	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	43.430	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	43.430	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	43.430	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	43.430	0.000	0.000	0.000
	Thermal 5{1}	0.000	0.000	41.800	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	43.430	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	43.430	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	43.430	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	43.430	0.000	0.000	0.000
	GRT5{1}	0.000	0.000	41.800	0.000	0.000	0.000

*** Segment C end ***

*** Segment D begin ***

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
A02	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.754	0.000	0.000	-0.007	0.000	0.000
	Thermal 2{1}	1.754	0.000	0.000	-0.008	0.000	0.000
	Thermal 3{1}	1.754	0.000	0.000	-0.007	0.000	0.000
	Thermal 4{1}	1.754	0.000	0.000	-0.007	0.000	0.000
	Thermal 5{1}	1.754	0.000	0.000	-0.006	0.000	0.000
	GRT1{1}	1.754	0.000	0.000	-0.007	0.000	0.000
	GRT2{1}	1.754	0.000	0.000	-0.007	0.000	0.000

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	GRT3{1}	1.754	0.000	0.000	-0.007	0.000	0.000
	GRT4{1}	1.754	0.000	0.000	-0.007	0.000	0.000
	GRT5{1}	1.754	0.000	0.000	-0.005	0.000	0.000
D01 N	Gravity{1}	0.282	0.073	-0.010	-0.068	-0.003	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	2.354	-27.198	-16.676	-0.214	-0.030	-0.063
	Thermal 2{1}	-2.248	-29.712	-16.675	-0.192	0.108	-0.094
	Thermal 3{1}	-1.536	-27.124	-16.675	-0.145	0.093	-0.084
	Thermal 4{1}	-1.330	-22.333	-16.676	-0.070	0.091	-0.073
	Thermal 5{1}	1.367	-11.540	-16.678	0.074	0.022	-0.037
	GRT1{1}	2.636	-27.125	-16.686	-0.283	-0.033	-0.062
	GRT2{1}	-1.966	-29.639	-16.685	-0.260	0.105	-0.094
	GRT3{1}	-1.254	-27.051	-16.685	-0.213	0.090	-0.084
	GRT4{1}	-1.048	-22.261	-16.686	-0.139	0.088	-0.073
	GRT5{1}	1.649	-11.468	-16.688	0.006	0.019	-0.037
D01 F	Gravity{1}	0.285	-0.033	-0.126	-0.097	-0.002	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	2.484	-26.984	-17.166	0.007	-0.035	-0.068
	Thermal 2{1}	-2.263	-29.448	-17.101	0.069	0.107	-0.099
	Thermal 3{1}	-1.545	-26.802	-17.047	0.106	0.094	-0.089
	Thermal 4{1}	-1.352	-21.924	-16.969	0.157	0.093	-0.077
	Thermal 5{1}	1.386	-10.969	-16.832	0.239	0.025	-0.038
	GRT1{1}	2.769	-27.017	-17.293	-0.090	-0.037	-0.067
	GRT2{1}	-1.978	-29.481	-17.228	-0.028	0.105	-0.099
	GRT3{1}	-1.259	-26.835	-17.174	0.010	0.092	-0.089
	GRT4{1}	-1.067	-21.957	-17.096	0.060	0.091	-0.076
	GRT5{1}	1.671	-11.002	-16.959	0.142	0.023	-0.037
D02	Gravity{1}	0.276	-0.033	-1.160	-0.082	0.002	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.243	-23.885	-15.438	0.292	-0.048	-0.078
	Thermal 2{1}	-1.134	-26.350	-14.425	0.406	0.108	-0.117
	Thermal 3{1}	-0.534	-23.704	-14.054	0.430	0.099	-0.104
	Thermal 4{1}	-0.483	-18.826	-13.630	0.448	0.101	-0.090
	Thermal 5{1}	1.808	-7.870	-13.139	0.439	0.037	-0.042
	GRT1{1}	3.519	-23.918	-16.598	0.210	-0.046	-0.076
	GRT2{1}	-0.858	-26.383	-15.585	0.324	0.110	-0.116
	GRT3{1}	-0.258	-23.737	-15.215	0.348	0.101	-0.103
	GRT4{1}	-0.206	-18.859	-14.791	0.366	0.103	-0.088
	GRT5{1}	2.084	-7.903	-14.300	0.357	0.039	-0.041

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
D02 M	Gravity{1}	0.271	-0.033	-1.483	-0.082	0.002	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.548	-22.722	-14.288	0.292	-0.048	-0.078
	Thermal 2{1}	-0.673	-25.078	-12.824	0.407	0.108	-0.117
	Thermal 3{1}	-0.123	-22.540	-12.359	0.431	0.099	-0.104
	Thermal 4{1}	-0.130	-17.912	-11.866	0.449	0.101	-0.090
	Thermal 5{1}	1.974	-7.516	-11.409	0.440	0.037	-0.042
	GRT1{1}	3.819	-22.755	-15.771	0.211	-0.046	-0.076
	GRT2{1}	-0.402	-25.111	-14.307	0.325	0.110	-0.116
	GRT3{1}	0.148	-22.573	-13.843	0.349	0.101	-0.103
	GRT4{1}	0.141	-17.945	-13.349	0.367	0.103	-0.088
	GRT5{1}	2.245	-7.549	-12.892	0.358	0.039	-0.041
D03	Gravity{1}	0.265	-0.033	-1.805	-0.082	0.002	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.854	-21.558	-13.136	0.293	-0.048	-0.078
	Thermal 2{1}	-0.211	-23.807	-11.220	0.408	0.108	-0.117
	Thermal 3{1}	0.288	-21.377	-10.662	0.431	0.099	-0.104
	Thermal 4{1}	0.224	-16.998	-10.100	0.449	0.101	-0.090
	Thermal 5{1}	2.140	-7.162	-9.677	0.440	0.037	-0.042
	GRT1{1}	4.119	-21.591	-14.941	0.211	-0.046	-0.076
	GRT2{1}	0.054	-23.840	-13.025	0.326	0.110	-0.116
	GRT3{1}	0.553	-21.410	-12.467	0.350	0.101	-0.103
	GRT4{1}	0.489	-17.031	-11.905	0.367	0.103	-0.088
	GRT5{1}	2.405	-7.195	-11.482	0.358	0.039	-0.041
D04	Gravity{1}	0.242	-0.033	-2.143	0.004	0.006	0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	4.580	-18.971	-10.116	0.395	-0.060	-0.088
	Thermal 2{1}	0.920	-20.980	-7.182	0.508	0.108	-0.142
	Thermal 3{1}	1.284	-18.790	-6.451	0.524	0.103	-0.124
	Thermal 4{1}	1.078	-14.966	-5.794	0.529	0.108	-0.106
	Thermal 5{1}	2.516	-6.375	-5.607	0.487	0.046	-0.043
	GRT1{1}	4.822	-19.004	-12.259	0.399	-0.054	-0.084

GRT2{1}	1.162	-21.013	-9.326	0.512	0.114	-0.138
GRT3{1}	1.526	-18.823	-8.594	0.528	0.109	-0.120
GRT4{1}	1.320	-14.999	-7.937	0.533	0.113	-0.102
GRT5{1}	2.758	-6.408	-7.750	0.492	0.052	-0.039
Gravity{1}	0.173	-0.033	-1.739	0.046	0.010	0.009
Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
Thermal 1{1}	5.640	-15.708	-5.097	0.511	-0.074	-0.104
Thermal 2{1}	2.688	-17.413	-1.125	0.578	0.109	-0.180
Thermal 3{1}	2.805	-15.527	-0.271	0.585	0.109	-0.153
Thermal 4{1}	2.374	-12.402	0.395	0.583	0.116	-0.130
Thermal 5{1}	2.995	-5.383	0.024	0.528	0.059	-0.043
GRT1{1}	5.812	-15.740	-6.837	0.557	-0.064	-0.095
GRT2{1}	2.861	-17.446	-2.865	0.624	0.119	-0.171
GRT3{1}	2.978	-15.560	-2.010	0.631	0.119	-0.144
GRT4{1}	2.546	-12.435	-1.345	0.628	0.126	-0.121
GRT5{1}	3.167	-5.416	-1.716	0.574	0.069	-0.034

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DISPLACEMENTS

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
D06	Gravity{1}	0.098	-0.033	-1.353	0.061	0.010	0.010
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	6.650	-13.372	0.065	0.786	0.015	-0.144
	Thermal 2{1}	4.382	-14.861	4.418	0.804	0.254	-0.239
	Thermal 3{1}	4.249	-13.191	5.251	0.793	0.247	-0.203
	Thermal 4{1}	3.601	-10.568	5.808	0.770	0.247	-0.172
	Thermal 5{1}	3.421	-4.673	4.826	0.680	0.144	-0.060
	GRT1{1}	6.747	-13.405	-1.288	0.847	0.025	-0.135
	GRT2{1}	4.480	-14.894	3.065	0.864	0.264	-0.229
	GRT3{1}	4.346	-13.224	3.898	0.854	0.257	-0.194
	GRT4{1}	3.698	-10.600	4.455	0.831	0.257	-0.163
	GRT5{1}	3.519	-4.706	3.473	0.740	0.154	-0.050
D09	Gravity{1}	0.037	-0.032	-0.847	0.086	0.010	0.008
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000

Thermal 1{1}	7.655	-11.376	6.066	0.984	0.092	-0.148
Thermal 2{1}	6.053	-12.680	10.264	0.912	0.378	-0.248
Thermal 3{1}	5.661	-11.196	10.996	0.893	0.366	-0.208
Thermal 4{1}	4.791	-9.000	11.358	0.860	0.359	-0.174
Thermal 5{1}	3.816	-4.066	9.777	0.781	0.217	-0.053
GRT1{1}	7.692	-11.409	5.219	1.070	0.101	-0.140
GRT2{1}	6.090	-12.712	9.417	0.998	0.388	-0.240
GRT3{1}	5.698	-11.228	10.149	0.979	0.376	-0.200
GRT4{1}	4.828	-9.033	10.511	0.946	0.369	-0.166
GRT5{1}	3.853	-4.099	8.930	0.867	0.227	-0.045

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S_LINEREVO.OUT

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
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D11	Gravity{1}	-0.010	-0.031	-0.053	-0.006	0.028	-0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	7.718	-7.152	21.954	1.349	0.227	-0.089
	Thermal 2{1}	7.194	-7.675	24.927	0.868	0.608	-0.173
	Thermal 3{1}	6.404	-6.748	25.298	0.850	0.585	-0.130
	Thermal 4{1}	5.399	-5.533	25.127	0.820	0.566	-0.094
	Thermal 5{1}	3.669	-2.934	22.405	0.929	0.353	0.010
	GRT1{1}	7.708	-7.183	21.901	1.343	0.255	-0.091
	GRT2{1}	7.184	-7.706	24.875	0.862	0.635	-0.176
	GRT3{1}	6.395	-6.779	25.245	0.844	0.613	-0.133
	GRT4{1}	5.389	-5.564	25.074	0.814	0.594	-0.096
	GRT5{1}	3.659	-2.965	22.352	0.923	0.381	0.008
D12	Gravity{1}	-0.002	-0.023	-0.020	-0.016	0.023	-0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	6.999	-6.498	25.826	1.476	0.261	0.089
	Thermal 2{1}	6.632	-6.736	28.498	0.969	0.614	-0.019
	Thermal 3{1}	5.849	-5.929	28.772	0.947	0.593	-0.015
	Thermal 4{1}	4.934	-4.919	28.485	0.918	0.573	0.003
	Thermal 5{1}	3.334	-2.853	25.549	1.040	0.372	0.086
	GRT1{1}	6.997	-6.521	25.807	1.460	0.284	0.085
	GRT2{1}	6.630	-6.759	28.479	0.953	0.637	-0.024
	GRT3{1}	5.847	-5.952	28.752	0.931	0.616	-0.019
	GRT4{1}	4.933	-4.942	28.465	0.902	0.596	-0.002
	GRT5{1}	3.332	-2.876	25.530	1.024	0.395	0.082
D12 M	Gravity{1}	0.011	-0.011	0.000	-0.016	0.023	-0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	5.925	-5.925	30.668	1.478	0.261	0.090
	Thermal 2{1}	5.784	-5.784	32.910	0.970	0.614	-0.019
	Thermal 3{1}	5.066	-5.066	33.064	0.948	0.593	-0.015
	Thermal 4{1}	4.280	-4.280	32.639	0.919	0.573	0.003
	Thermal 5{1}	2.842	-2.842	29.484	1.041	0.372	0.086
	GRT1{1}	5.936	-5.936	30.668	1.461	0.284	0.086
	GRT2{1}	5.794	-5.794	32.910	0.954	0.637	-0.023
	GRT3{1}	5.076	-5.076	33.064	0.932	0.616	-0.019
	GRT4{1}	4.290	-4.290	32.639	0.902	0.596	-0.002
	GRT5{1}	2.853	-2.853	29.484	1.025	0.395	0.082
D13	Gravity{1}	0.023	0.002	0.019	-0.016	0.023	-0.004

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Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
Thermal 1{1}	4.850	-5.353	35.513	1.478	0.261	0.090
Thermal 2{1}	4.936	-4.831	37.323	0.971	0.613	-0.019
Thermal 3{1}	4.284	-4.200	37.357	0.949	0.592	-0.015
Thermal 4{1}	3.627	-3.639	36.794	0.919	0.573	0.002
Thermal 5{1}	2.351	-2.833	33.421	1.042	0.371	0.086
GRT1{1}	4.873	-5.351	35.532	1.462	0.284	0.086
GRT2{1}	4.959	-4.830	37.342	0.955	0.636	-0.023
GRT3{1}	4.307	-4.199	37.376	0.933	0.615	-0.020
GRT4{1}	3.650	-3.637	36.813	0.903	0.596	-0.002
GRT5{1}	2.374	-2.831	33.439	1.026	0.394	0.082

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
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D14	Gravity{1}	0.035	0.013	0.026	-0.022	0.022	-0.005
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.911	-4.918	39.483	1.470	0.160	0.132
	Thermal 2{1}	4.183	-4.083	40.916	0.960	0.506	0.035
	Thermal 3{1}	3.636	-3.475	40.847	0.933	0.487	-0.003
	Thermal 4{1}	3.102	-3.085	40.176	0.908	0.470	-0.004
	Thermal 5{1}	1.975	-2.791	36.652	1.045	0.283	0.052
	GRT1{1}	3.946	-4.905	39.508	1.448	0.183	0.126
	GRT2{1}	4.218	-4.070	40.942	0.937	0.529	0.030
	GRT3{1}	3.671	-3.461	40.873	0.911	0.509	-0.008
	GRT4{1}	3.136	-3.072	40.202	0.885	0.493	-0.010
	GRT5{1}	2.010	-2.778	36.678	1.023	0.305	0.047
D15 N	Gravity{1}	0.060	0.038	0.005	-0.016	0.010	-0.006
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.925	-4.472	46.055	1.040	0.374	0.203
	Thermal 2{1}	2.548	-3.059	46.675	0.685	0.535	0.089
	Thermal 3{1}	2.253	-2.426	46.395	0.649	0.514	0.059
	Thermal 4{1}	2.004	-2.273	45.563	0.640	0.489	0.051
	Thermal 5{1}	1.263	-2.767	41.947	0.766	0.363	0.093

		S_LINEREV0.OUT					
	GRT1{1}	1.985	-4.434	46.060	1.024	0.384	0.197
	GRT2{1}	2.608	-3.020	46.681	0.669	0.545	0.082
	GRT3{1}	2.312	-2.387	46.400	0.633	0.524	0.053
	GRT4{1}	2.064	-2.235	45.568	0.624	0.500	0.045
	GRT5{1}	1.323	-2.729	41.952	0.750	0.373	0.087
D15 M	Gravity{1}	0.060	0.037	0.002	-0.013	0.009	-0.006
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.468	-4.066	46.787	0.810	0.278	0.216
	Thermal 2{1}	2.092	-2.683	47.276	0.508	0.421	0.096
	Thermal 3{1}	1.842	-2.065	46.967	0.469	0.399	0.070
	Thermal 4{1}	1.650	-1.950	46.140	0.467	0.377	0.061
	Thermal 5{1}	1.022	-2.516	42.585	0.594	0.266	0.101
	GRT1{1}	1.528	-4.029	46.789	0.797	0.287	0.209
	GRT2{1}	2.152	-2.646	47.278	0.495	0.431	0.090
	GRT3{1}	1.902	-2.028	46.969	0.456	0.408	0.064
	GRT4{1}	1.710	-1.913	46.142	0.454	0.386	0.055
	GRT5{1}	1.082	-2.479	42.587	0.581	0.275	0.095
D15 F	Gravity{1}	0.054	0.029	0.001	-0.008	0.008	-0.007
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.100	-3.424	46.778	0.532	0.207	0.228
	Thermal 2{1}	1.632	-2.244	47.201	0.308	0.316	0.101
	Thermal 3{1}	1.418	-1.666	46.900	0.265	0.293	0.077
	Thermal 4{1}	1.267	-1.563	46.128	0.272	0.272	0.068
	Thermal 5{1}	0.761	-2.063	42.712	0.392	0.180	0.108
	GRT1{1}	1.154	-3.395	46.779	0.523	0.215	0.221
	GRT2{1}	1.686	-2.216	47.202	0.300	0.324	0.095
	GRT3{1}	1.471	-1.637	46.902	0.257	0.301	0.071
	GRT4{1}	1.320	-1.534	46.129	0.264	0.280	0.061
	GRT5{1}	0.815	-2.034	42.713	0.384	0.188	0.102

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
D16 N	Gravity{1}	0.000	0.000	0.001	0.000	0.003	-0.002

		S_LINEREVO.OUT					
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.194	-1.323	43.650	0.041	0.053	0.064
	Thermal 2{1}	-0.254	-1.372	43.777	-0.010	0.073	0.022
	Thermal 3{1}	-0.256	-1.223	43.768	-0.040	0.059	0.011
	Thermal 4{1}	-0.213	-0.966	43.670	-0.027	0.047	0.007
	Thermal 5{1}	-0.089	-0.435	41.769	0.040	0.016	0.020
	GRT1{1}	-0.193	-1.322	43.651	0.041	0.056	0.062
	GRT2{1}	-0.254	-1.372	43.778	-0.010	0.076	0.021
	GRT3{1}	-0.256	-1.222	43.769	-0.040	0.062	0.009
	GRT4{1}	-0.213	-0.966	43.671	-0.026	0.050	0.005
	GRT5{1}	-0.089	-0.435	41.770	0.040	0.018	0.018
D16 F	Gravity{1}	-0.001	0.000	0.000	0.000	0.001	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.188	-0.869	43.328	0.051	0.005	0.011
	Thermal 2{1}	-0.225	-0.946	43.367	0.029	0.016	-0.005
	Thermal 3{1}	-0.212	-0.864	43.376	0.020	0.010	-0.008
	Thermal 4{1}	-0.172	-0.677	43.373	0.023	0.006	-0.009
	Thermal 5{1}	-0.071	-0.260	41.715	0.042	-0.005	-0.003
	GRT1{1}	-0.189	-0.868	43.328	0.051	0.007	0.010
	GRT2{1}	-0.226	-0.946	43.368	0.029	0.017	-0.006
	GRT3{1}	-0.213	-0.864	43.377	0.020	0.011	-0.009
	GRT4{1}	-0.173	-0.677	43.373	0.023	0.007	-0.010
	GRT5{1}	-0.072	-0.260	41.716	0.042	-0.004	-0.004
D17	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.100	-0.447	43.399	0.026	-0.001	0.001
	Thermal 2{1}	-0.114	-0.488	43.409	0.017	0.003	-0.004
	Thermal 3{1}	-0.105	-0.446	43.411	0.014	0.002	-0.005
	Thermal 4{1}	-0.084	-0.350	43.411	0.015	0.000	-0.005
	Thermal 5{1}	-0.035	-0.135	41.775	0.021	-0.003	-0.003
	GRT1{1}	-0.100	-0.447	43.399	0.026	0.000	0.001
	GRT2{1}	-0.114	-0.488	43.410	0.017	0.004	-0.004
	GRT3{1}	-0.106	-0.446	43.411	0.014	0.002	-0.005
	GRT4{1}	-0.085	-0.350	43.411	0.015	0.001	-0.006
	GRT5{1}	-0.035	-0.134	41.775	0.021	-0.003	-0.003
D18	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	43.430	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	43.430	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	43.430	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	43.430	0.000	0.000	0.000

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Thermal 5{1}	0.000	0.000	41.800	0.000	0.000	0.000
GRT1{1}	0.000	0.000	43.430	0.000	0.000	0.000
GRT2{1}	0.000	0.000	43.430	0.000	0.000	0.000
GRT3{1}	0.000	0.000	43.430	0.000	0.000	0.000
GRT4{1}	0.000	0.000	43.430	0.000	0.000	0.000
GRT5{1}	0.000	0.000	41.800	0.000	0.000	0.000

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DISPLACEMENTS

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
*** Segment D end ***							
*** Segment E begin ***							
A03	Gravity{1}	0.000	0.000	-0.003	0.000	-0.001	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.754	-0.002	0.002	-0.003	0.000	0.000
	Thermal 2{1}	-1.754	-0.002	0.002	-0.003	0.001	0.000
	Thermal 3{1}	-1.754	-0.002	0.002	-0.003	0.000	0.000
	Thermal 4{1}	-1.754	-0.001	0.002	-0.003	0.000	0.000
	Thermal 5{1}	-1.754	-0.001	0.002	-0.003	0.001	0.000
	GRT1{1}	-1.754	-0.001	-0.001	-0.003	0.000	0.000
	GRT2{1}	-1.754	-0.001	-0.001	-0.003	0.000	0.000
	GRT3{1}	-1.754	-0.001	-0.001	-0.003	0.000	0.000
	GRT4{1}	-1.754	-0.001	-0.001	-0.003	0.000	0.000
	GRT5{1}	-1.754	-0.001	-0.001	-0.003	0.000	0.000
E01 N	Gravity{1}	-0.110	-0.497	-0.013	-0.081	0.028	-0.046
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-8.251	-29.241	-15.133	-0.413	0.162	-0.048
	Thermal 2{1}	-10.069	-31.969	-15.133	-0.486	0.208	-0.044
	Thermal 3{1}	-8.224	-29.228	-15.133	-0.412	0.161	-0.048
	Thermal 4{1}	-7.943	-28.206	-15.133	-0.389	0.154	-0.048
	Thermal 5{1}	-9.712	-28.916	-15.133	-0.427	0.201	-0.040
	GRT1{1}	-8.361	-29.737	-15.146	-0.494	0.190	-0.094
	GRT2{1}	-10.179	-32.466	-15.146	-0.567	0.236	-0.090
	GRT3{1}	-8.334	-29.725	-15.146	-0.493	0.189	-0.094
	GRT4{1}	-8.053	-28.702	-15.146	-0.470	0.182	-0.094

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	GRT5{1}	-9.822	-29.412	-15.146	-0.508	0.228	-0.086
E01 F	Gravity{1}	-0.091	-0.619	-0.147	-0.110	0.036	-0.047
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-8.392	-29.294	-15.892	-0.195	0.151	-0.054
	Thermal 2{1}	-10.275	-32.119	-15.987	-0.265	0.195	-0.051
	Thermal 3{1}	-8.363	-29.280	-15.891	-0.195	0.150	-0.054
	Thermal 4{1}	-8.074	-28.229	-15.864	-0.175	0.144	-0.054
	Thermal 5{1}	-9.914	-28.992	-15.920	-0.220	0.188	-0.047
	GRT1{1}	-8.482	-29.913	-16.039	-0.305	0.186	-0.101
	GRT2{1}	-10.365	-32.738	-16.134	-0.375	0.230	-0.098
	GRT3{1}	-8.454	-29.900	-16.038	-0.304	0.186	-0.101
	GRT4{1}	-8.165	-28.848	-16.011	-0.285	0.180	-0.101
	GRT5{1}	-10.004	-29.612	-16.067	-0.330	0.224	-0.093

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
E02	Gravity{1}	0.422	-0.619	-1.302	-0.090	0.063	-0.050
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-7.728	-26.196	-16.073	0.150	0.117	-0.076
	Thermal 2{1}	-9.636	-29.021	-16.853	0.090	0.153	-0.076
	Thermal 3{1}	-7.699	-26.182	-16.065	0.150	0.116	-0.076
	Thermal 4{1}	-7.417	-25.131	-15.864	0.164	0.112	-0.075
	Thermal 5{1}	-9.326	-25.894	-16.443	0.111	0.149	-0.070
	GRT1{1}	-7.305	-26.815	-17.375	0.060	0.180	-0.127
	GRT2{1}	-9.214	-29.640	-18.155	0.001	0.216	-0.126
	GRT3{1}	-7.276	-26.801	-17.367	0.061	0.179	-0.127
	GRT4{1}	-6.995	-25.750	-17.166	0.074	0.175	-0.125
	GRT5{1}	-8.903	-26.513	-17.745	0.021	0.212	-0.121
E02 M	Gravity{1}	0.620	-0.619	-1.654	-0.089	0.063	-0.050
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-7.427	-25.033	-15.482	0.151	0.117	-0.076
	Thermal 2{1}	-9.336	-27.749	-16.496	0.091	0.153	-0.076
	Thermal 3{1}	-7.398	-25.019	-15.471	0.152	0.116	-0.076

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	Thermal 4{1}	-7.121	-24.019	-15.217	0.165	0.112	-0.075
	Thermal 5{1}	-9.048	-24.782	-16.006	0.112	0.149	-0.071
	GRT1{1}	-6.807	-25.652	-17.136	0.062	0.180	-0.127
	GRT2{1}	-8.716	-28.369	-18.150	0.002	0.216	-0.126
	GRT3{1}	-6.778	-25.638	-17.125	0.062	0.179	-0.127
	GRT4{1}	-6.501	-24.638	-16.871	0.076	0.175	-0.126
	GRT5{1}	-8.429	-25.401	-17.659	0.022	0.212	-0.121
E12	Gravity{1}	0.817	-0.619	-2.005	-0.089	0.063	-0.050
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-7.126	-23.870	-14.886	0.152	0.117	-0.077
	Thermal 2{1}	-9.036	-26.478	-16.134	0.092	0.153	-0.076
	Thermal 3{1}	-7.097	-23.856	-14.872	0.153	0.116	-0.077
	Thermal 4{1}	-6.824	-22.907	-14.566	0.166	0.112	-0.075
	Thermal 5{1}	-8.771	-23.670	-15.564	0.113	0.149	-0.071
	GRT1{1}	-6.309	-24.489	-16.891	0.063	0.180	-0.127
	GRT2{1}	-8.218	-27.097	-18.139	0.003	0.215	-0.127
	GRT3{1}	-6.280	-24.475	-16.877	0.064	0.179	-0.127
	GRT4{1}	-6.007	-23.526	-16.570	0.077	0.175	-0.126
	GRT5{1}	-7.954	-24.290	-17.569	0.024	0.212	-0.121
E13	Gravity{1}	1.235	-0.619	-2.573	-0.054	0.085	-0.045
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-6.253	-21.297	-12.506	0.395	0.089	-0.127
	Thermal 2{1}	-8.119	-23.666	-14.190	0.356	0.118	-0.138
	Thermal 3{1}	-6.225	-21.283	-12.486	0.396	0.088	-0.126
	Thermal 4{1}	-5.971	-20.448	-12.087	0.403	0.085	-0.123
	Thermal 5{1}	-7.919	-21.211	-13.526	0.357	0.117	-0.128
	GRT1{1}	-5.018	-21.916	-15.078	0.341	0.174	-0.172
	GRT2{1}	-6.884	-24.285	-16.763	0.302	0.203	-0.183
	GRT3{1}	-4.990	-21.902	-15.059	0.342	0.174	-0.172
	GRT4{1}	-4.736	-21.067	-14.660	0.349	0.171	-0.168
	GRT5{1}	-6.683	-21.830	-16.099	0.303	0.202	-0.174

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z

S_LINEREVO.OUT

E04	Gravity{1}	1.538	-0.619	-3.066	-0.099	0.104	-0.038
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-5.148	-19.154	-8.900	0.599	0.066	-0.180
	Thermal 2{1}	-6.890	-21.324	-10.791	0.582	0.089	-0.204
	Thermal 3{1}	-5.121	-19.140	-8.877	0.600	0.065	-0.180
	Thermal 4{1}	-4.898	-18.400	-8.443	0.602	0.064	-0.174
	Thermal 5{1}	-6.769	-19.163	-10.177	0.568	0.090	-0.191
	GRT1{1}	-3.610	-19.773	-11.966	0.501	0.170	-0.218
	GRT2{1}	-5.352	-21.943	-13.857	0.484	0.193	-0.242
	GRT3{1}	-3.583	-19.759	-11.943	0.501	0.169	-0.218
	GRT4{1}	-3.360	-19.019	-11.509	0.503	0.167	-0.212
	GRT5{1}	-5.231	-19.782	-13.244	0.469	0.194	-0.229
E17	Gravity{1}	1.949	-0.619	-5.025	-0.123	0.188	-0.022
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.101	-14.988	4.070	1.170	0.228	-0.350
	Thermal 2{1}	-2.291	-16.771	2.353	1.206	0.257	-0.401
	Thermal 3{1}	-1.080	-14.974	4.093	1.169	0.227	-0.350
	Thermal 4{1}	-0.983	-14.418	4.446	1.157	0.222	-0.338
	Thermal 5{1}	-2.461	-15.181	2.412	1.147	0.246	-0.376
	GRT1{1}	0.848	-15.607	-0.955	1.046	0.416	-0.373
	GRT2{1}	-0.342	-17.390	-2.672	1.083	0.445	-0.423
	GRT3{1}	0.868	-15.593	-0.932	1.046	0.415	-0.372
	GRT4{1}	0.966	-15.037	-0.579	1.034	0.410	-0.361
	GRT5{1}	-0.512	-15.800	-2.613	1.024	0.434	-0.398
E16	Gravity{1}	2.089	-0.619	-5.618	-0.048	0.228	-0.020
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.277	-12.992	12.472	1.299	0.305	-0.342
	Thermal 2{1}	0.448	-14.590	11.057	1.351	0.338	-0.398
	Thermal 3{1}	1.293	-12.978	12.493	1.299	0.305	-0.342
	Thermal 4{1}	1.313	-12.510	12.750	1.283	0.298	-0.330
	Thermal 5{1}	0.108	-13.273	10.679	1.281	0.321	-0.373
	GRT1{1}	3.365	-13.611	6.855	1.251	0.534	-0.362
	GRT2{1}	2.536	-15.209	5.439	1.303	0.566	-0.417
	GRT3{1}	3.382	-13.597	6.876	1.251	0.533	-0.361
	GRT4{1}	3.402	-13.129	7.133	1.235	0.527	-0.350
	GRT5{1}	2.197	-13.892	5.061	1.233	0.549	-0.393
E05 N	Gravity{1}	2.354	-0.618	-5.374	0.064	0.308	-0.022
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	4.871	-9.053	30.104	1.282	0.458	-0.157
	Thermal 2{1}	4.755	-10.285	29.468	1.343	0.497	-0.206

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Thermal 3{1}	4.877	-9.040	30.118	1.281	0.458	-0.157
Thermal 4{1}	4.764	-8.745	30.146	1.264	0.449	-0.149
Thermal 5{1}	4.173	-9.508	28.126	1.272	0.468	-0.196
GRT1{1}	7.225	-9.671	24.730	1.346	0.766	-0.180
GRT2{1}	7.109	-10.904	24.094	1.406	0.805	-0.228
GRT3{1}	7.232	-9.658	24.744	1.345	0.766	-0.179
GRT4{1}	7.118	-9.364	24.773	1.328	0.757	-0.172
GRT5{1}	6.527	-10.127	22.752	1.336	0.776	-0.219

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
E05 F	Gravity{1}	2.381	-0.602	-5.082	0.078	0.321	-0.025
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	4.808	-8.649	31.862	1.234	0.465	-0.066
	Thermal 2{1}	4.727	-9.820	31.322	1.293	0.504	-0.108
	Thermal 3{1}	4.814	-8.635	31.876	1.233	0.465	-0.065
	Thermal 4{1}	4.702	-8.360	31.878	1.217	0.456	-0.060
	Thermal 5{1}	4.164	-9.092	29.881	1.226	0.475	-0.106
	GRT1{1}	7.189	-9.251	26.780	1.312	0.787	-0.091
	GRT2{1}	7.108	-10.422	26.240	1.371	0.826	-0.133
	GRT3{1}	7.195	-9.238	26.793	1.311	0.786	-0.090
	GRT4{1}	7.083	-8.963	26.796	1.294	0.777	-0.085
	GRT5{1}	6.545	-9.695	24.799	1.303	0.796	-0.131
E06 N	Gravity{1}	2.562	-0.288	-0.359	0.070	0.296	-0.020
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.825	-6.876	45.546	0.800	0.426	0.061
	Thermal 2{1}	0.652	-7.400	45.862	0.843	0.456	0.031
	Thermal 3{1}	0.826	-6.870	45.550	0.799	0.426	0.061
	Thermal 4{1}	0.859	-6.728	45.338	0.790	0.418	0.063
	Thermal 5{1}	0.644	-6.901	43.622	0.803	0.429	0.023
	GRT1{1}	3.387	-7.164	45.187	0.869	0.722	0.041
	GRT2{1}	3.214	-7.688	45.503	0.912	0.752	0.011
	GRT3{1}	3.389	-7.158	45.190	0.869	0.722	0.041

		S_LINEREV0.OUT					
	GRT4{1}	3.421	-7.016	44.978	0.859	0.714	0.043
	GRT5{1}	3.206	-7.189	43.263	0.872	0.725	0.003
E06 F	Gravity{1}	2.218	-0.197	0.002	0.044	0.253	-0.015
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.002	-5.814	46.080	0.638	0.287	0.054
	Thermal 2{1}	-0.214	-6.238	46.415	0.672	0.306	0.026
	Thermal 3{1}	0.003	-5.810	46.082	0.637	0.287	0.054
	Thermal 4{1}	0.057	-5.689	45.874	0.631	0.282	0.056
	Thermal 5{1}	-0.143	-5.802	44.178	0.642	0.289	0.019
	GRT1{1}	2.220	-6.011	46.081	0.682	0.540	0.039
	GRT2{1}	2.004	-6.435	46.417	0.715	0.559	0.011
	GRT3{1}	2.221	-6.008	46.084	0.681	0.539	0.040
	GRT4{1}	2.275	-5.886	45.876	0.675	0.535	0.042
	GRT5{1}	2.075	-5.999	44.179	0.686	0.541	0.005
E07 N	Gravity{1}	1.590	-0.097	0.001	0.033	0.235	-0.010
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.675	-4.267	45.319	0.570	0.241	0.030
	Thermal 2{1}	-0.935	-4.608	45.583	0.600	0.256	0.003
	Thermal 3{1}	-0.673	-4.264	45.321	0.569	0.241	0.031
	Thermal 4{1}	-0.608	-4.158	45.147	0.564	0.237	0.033
	Thermal 5{1}	-0.822	-4.242	43.450	0.575	0.242	-0.001
	GRT1{1}	0.915	-4.364	45.320	0.603	0.476	0.020
	GRT2{1}	0.656	-4.705	45.585	0.634	0.491	-0.007
	GRT3{1}	0.918	-4.362	45.323	0.603	0.476	0.021
	GRT4{1}	0.982	-4.255	45.148	0.597	0.472	0.023
	GRT5{1}	0.768	-4.339	43.452	0.608	0.476	-0.011

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Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
E07 F	Gravity{1}	1.312	-0.066	0.024	0.009	0.205	-0.012
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.954	-3.182	45.572	0.438	0.166	-0.014
	Thermal 2{1}	-1.194	-3.449	45.836	0.462	0.176	-0.041

		S_LINEREV0.OUT					
	Thermal 3{1}	-0.952	-3.180	45.574	0.437	0.166	-0.014
	Thermal 4{1}	-0.887	-3.097	45.412	0.434	0.164	-0.011
	Thermal 5{1}	-1.062	-3.167	43.729	0.444	0.167	-0.042
	GRT1{1}	0.358	-3.247	45.596	0.447	0.371	-0.026
	GRT2{1}	0.118	-3.515	45.859	0.471	0.381	-0.053
	GRT3{1}	0.360	-3.245	45.598	0.446	0.371	-0.025
	GRT4{1}	0.424	-3.163	45.436	0.443	0.369	-0.022
	GRT5{1}	0.250	-3.232	43.753	0.453	0.372	-0.054
E08 N	Gravity{1}	1.346	-0.065	0.040	0.003	0.172	-0.008
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.878	-2.148	46.957	0.345	0.100	-0.025
	Thermal 2{1}	-1.026	-2.319	47.297	0.365	0.104	-0.050
	Thermal 3{1}	-0.878	-2.146	46.957	0.345	0.100	-0.025
	Thermal 4{1}	-0.824	-2.109	46.785	0.343	0.099	-0.022
	Thermal 5{1}	-0.895	-2.178	45.138	0.353	0.099	-0.049
	GRT1{1}	0.467	-2.213	46.996	0.348	0.273	-0.033
	GRT2{1}	0.319	-2.385	47.337	0.368	0.277	-0.058
	GRT3{1}	0.468	-2.211	46.997	0.348	0.272	-0.032
	GRT4{1}	0.522	-2.174	46.824	0.346	0.272	-0.029
	GRT5{1}	0.450	-2.244	45.177	0.356	0.272	-0.057
E08 F	Gravity{1}	1.150	-0.060	0.043	0.005	0.142	-0.011
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.923	-1.459	46.931	0.154	0.039	-0.040
	Thermal 2{1}	-1.042	-1.577	47.256	0.163	0.040	-0.062
	Thermal 3{1}	-0.923	-1.457	46.931	0.154	0.039	-0.040
	Thermal 4{1}	-0.873	-1.438	46.775	0.155	0.040	-0.037
	Thermal 5{1}	-0.909	-1.496	45.140	0.162	0.039	-0.060
	GRT1{1}	0.227	-1.520	46.975	0.159	0.181	-0.051
	GRT2{1}	0.107	-1.637	47.299	0.168	0.181	-0.073
	GRT3{1}	0.227	-1.518	46.975	0.159	0.181	-0.051
	GRT4{1}	0.277	-1.499	46.818	0.160	0.181	-0.048
	GRT5{1}	0.240	-1.557	45.183	0.168	0.181	-0.071
E09 N	Gravity{1}	0.060	0.000	0.042	0.002	0.062	0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.858	-0.971	43.789	-0.006	-0.026	-0.030
	Thermal 2{1}	-0.944	-1.058	43.821	-0.006	-0.030	-0.038
	Thermal 3{1}	-0.857	-0.971	43.789	-0.006	-0.026	-0.030
	Thermal 4{1}	-0.820	-0.929	43.771	-0.004	-0.025	-0.028
	Thermal 5{1}	-0.831	-0.927	42.136	0.000	-0.028	-0.036
	GRT1{1}	-0.798	-0.971	43.831	-0.003	0.036	-0.027
	GRT2{1}	-0.884	-1.058	43.864	-0.004	0.031	-0.036

	S_LINEREV0.OUT					
GRT3{1}	-0.798	-0.971	43.831	-0.003	0.036	-0.027
GRT4{1}	-0.760	-0.930	43.814	-0.001	0.037	-0.026
GRT5{1}	-0.771	-0.927	42.179	0.002	0.034	-0.033

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z

E09 F	Gravity{1}	-0.001	0.001	0.015	0.003	0.022	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.560	-0.685	43.412	0.001	-0.015	-0.016
	Thermal 2{1}	-0.614	-0.748	43.410	0.001	-0.016	-0.019
	Thermal 3{1}	-0.560	-0.685	43.412	0.001	-0.015	-0.016
	Thermal 4{1}	-0.536	-0.655	43.412	0.001	-0.014	-0.016
	Thermal 5{1}	-0.538	-0.653	41.780	0.003	-0.015	-0.018
	GRT1{1}	-0.561	-0.684	43.426	0.004	0.008	-0.017
	GRT2{1}	-0.614	-0.747	43.425	0.004	0.006	-0.021
	GRT3{1}	-0.561	-0.684	43.426	0.004	0.008	-0.017
	GRT4{1}	-0.537	-0.654	43.426	0.005	0.008	-0.017
	GRT5{1}	-0.539	-0.652	41.795	0.006	0.008	-0.019
E14	Gravity{1}	0.000	0.000	0.003	0.001	0.007	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.285	-0.359	43.425	0.002	-0.006	-0.007
	Thermal 2{1}	-0.312	-0.392	43.424	0.002	-0.006	-0.008
	Thermal 3{1}	-0.285	-0.359	43.425	0.002	-0.006	-0.007
	Thermal 4{1}	-0.273	-0.343	43.425	0.002	-0.006	-0.007
	Thermal 5{1}	-0.273	-0.343	41.794	0.002	-0.006	-0.008
	GRT1{1}	-0.285	-0.359	43.428	0.002	0.002	-0.007
	GRT2{1}	-0.312	-0.392	43.427	0.002	0.001	-0.009
	GRT3{1}	-0.285	-0.359	43.428	0.002	0.002	-0.007
	GRT4{1}	-0.273	-0.343	43.428	0.002	0.002	-0.007
	GRT5{1}	-0.273	-0.343	41.798	0.003	0.002	-0.008
E11	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	43.430	0.000	0.000	0.000

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Thermal 2{1}	0.000	0.000	43.430	0.000	0.000	0.000
Thermal 3{1}	0.000	0.000	43.430	0.000	0.000	0.000
Thermal 4{1}	0.000	0.000	43.430	0.000	0.000	0.000
Thermal 5{1}	0.000	0.000	41.800	0.000	0.000	0.000
GRT1{1}	0.000	0.000	43.430	0.000	0.000	0.000
GRT2{1}	0.000	0.000	43.430	0.000	0.000	0.000
GRT3{1}	0.000	0.000	43.430	0.000	0.000	0.000
GRT4{1}	0.000	0.000	43.430	0.000	0.000	0.000
GRT5{1}	0.000	0.000	41.800	0.000	0.000	0.000

*** Segment E end ***

*** Segment F begin ***

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
D11	Gravity{1}	-0.010	-0.031	-0.053	-0.006	0.028	-0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	7.718	-7.152	21.954	1.349	0.227	-0.089
	Thermal 2{1}	7.194	-7.675	24.927	0.868	0.608	-0.173
	Thermal 3{1}	6.404	-6.748	25.298	0.850	0.585	-0.130
	Thermal 4{1}	5.399	-5.533	25.127	0.820	0.566	-0.094
	Thermal 5{1}	3.669	-2.934	22.405	0.929	0.353	0.010
	GRT1{1}	7.708	-7.183	21.901	1.343	0.255	-0.091
	GRT2{1}	7.184	-7.706	24.875	0.862	0.635	-0.176
	GRT3{1}	6.395	-6.779	25.245	0.844	0.613	-0.133
	GRT4{1}	5.389	-5.564	25.074	0.814	0.594	-0.096
	GRT5{1}	3.659	-2.965	22.352	0.923	0.381	0.008
F21	Gravity{1}	-0.014	-0.027	0.035	-0.008	0.053	-0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	6.796	-7.369	19.815	1.273	0.181	-0.259
	Thermal 2{1}	6.073	-7.798	24.528	0.737	0.580	-0.326
	Thermal 3{1}	5.450	-6.930	24.884	0.725	0.558	-0.254
	Thermal 4{1}	4.662	-5.689	24.731	0.698	0.540	-0.195
	Thermal 5{1}	3.440	-3.051	21.348	0.842	0.323	-0.061
	GRT1{1}	6.783	-7.396	19.850	1.265	0.234	-0.261

GRT2{1}	6.060	-7.825	24.563	0.729	0.633	-0.328
GRT3{1}	5.436	-6.957	24.919	0.717	0.611	-0.256
GRT4{1}	4.648	-5.716	24.766	0.691	0.593	-0.197
GRT5{1}	3.427	-3.078	21.382	0.834	0.375	-0.063

C014	Gravity{1}	-0.020	-0.020	0.516	-0.020	0.122	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.523	-6.912	14.852	1.064	0.089	-0.461
	Thermal 2{1}	2.458	-7.261	24.312	0.436	0.490	-0.482
	Thermal 3{1}	2.451	-6.747	24.595	0.435	0.470	-0.355
	Thermal 4{1}	2.319	-5.558	24.472	0.417	0.456	-0.277
	Thermal 5{1}	2.457	-2.925	19.210	0.624	0.248	-0.146
	GRT1{1}	3.502	-6.933	15.368	1.044	0.211	-0.461
	GRT2{1}	2.437	-7.281	24.828	0.416	0.612	-0.483
	GRT3{1}	2.430	-6.767	25.112	0.415	0.592	-0.356
	GRT4{1}	2.299	-5.578	24.989	0.397	0.578	-0.278
	GRT5{1}	2.437	-2.945	19.726	0.604	0.370	-0.147
F17 N	Gravity{1}	-0.021	-0.019	0.733	-0.022	0.141	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	2.449	-6.670	13.507	0.997	0.068	-0.460
	Thermal 2{1}	1.325	-7.037	24.426	0.353	0.458	-0.467
	Thermal 3{1}	1.544	-6.671	24.682	0.355	0.439	-0.329
	Thermal 4{1}	1.610	-5.502	24.564	0.339	0.426	-0.255
	Thermal 5{1}	2.120	-2.840	18.708	0.560	0.226	-0.147
	GRT1{1}	2.427	-6.689	14.240	0.975	0.209	-0.460
	GRT2{1}	1.303	-7.056	25.160	0.331	0.599	-0.468
	GRT3{1}	1.523	-6.690	25.415	0.333	0.580	-0.330
	GRT4{1}	1.589	-5.521	25.297	0.317	0.567	-0.256
	GRT5{1}	2.099	-2.860	19.442	0.538	0.367	-0.147

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Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
F17 F	Gravity{1}	-0.022	-0.019	0.819	-0.028	0.157	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000

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	Thermal 1{1}	1.798	-6.871	12.365	0.891	0.072	-0.421
	Thermal 2{1}	0.673	-7.271	24.226	0.236	0.453	-0.402
	Thermal 3{1}	1.086	-6.922	24.471	0.241	0.435	-0.245
	Thermal 4{1}	1.256	-5.700	24.366	0.228	0.422	-0.186
	Thermal 5{1}	1.915	-2.899	18.156	0.465	0.227	-0.133
	GRT1{1}	1.777	-6.890	13.184	0.863	0.229	-0.421
	GRT2{1}	0.651	-7.290	25.045	0.208	0.610	-0.402
	GRT3{1}	1.064	-6.941	25.289	0.213	0.592	-0.245
	GRT4{1}	1.235	-5.720	25.184	0.200	0.579	-0.186
	GRT5{1}	1.894	-2.918	18.975	0.437	0.384	-0.133
F15	Gravity{1}	-0.019	-0.019	0.759	-0.020	0.202	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.347	-8.521	8.798	0.750	0.052	-0.406
	Thermal 2{1}	-0.617	-9.007	23.102	0.101	0.404	-0.365
	Thermal 3{1}	0.473	-8.382	23.332	0.110	0.389	-0.196
	Thermal 4{1}	0.806	-6.840	23.285	0.101	0.378	-0.147
	Thermal 5{1}	1.454	-3.405	16.221	0.346	0.200	-0.130
	GRT1{1}	0.328	-8.539	9.557	0.729	0.254	-0.405
	GRT2{1}	-0.636	-9.026	23.861	0.081	0.606	-0.365
	GRT3{1}	0.454	-8.400	24.091	0.089	0.590	-0.195
	GRT4{1}	0.786	-6.858	24.044	0.080	0.580	-0.146
	GRT5{1}	1.435	-3.423	16.980	0.326	0.402	-0.129
F15 M	Gravity{1}	-0.017	-0.018	0.661	-0.020	0.202	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.954	-10.009	5.878	0.748	0.052	-0.406
	Thermal 2{1}	-1.737	-10.566	22.364	0.100	0.404	-0.366
	Thermal 3{1}	-0.022	-9.687	22.573	0.109	0.388	-0.196
	Thermal 4{1}	0.445	-7.859	22.571	0.100	0.378	-0.147
	Thermal 5{1}	1.035	-3.863	14.721	0.345	0.200	-0.130
	GRT1{1}	-0.971	-10.027	6.539	0.728	0.254	-0.406
	GRT2{1}	-1.754	-10.584	23.025	0.080	0.606	-0.365
	GRT3{1}	-0.038	-9.705	23.234	0.089	0.590	-0.196
	GRT4{1}	0.429	-7.877	23.232	0.080	0.580	-0.146
	GRT5{1}	1.018	-3.881	15.382	0.325	0.402	-0.129
F14	Gravity{1}	-0.014	-0.017	0.561	-0.019	0.201	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-2.257	-11.498	2.964	0.747	0.051	-0.407
	Thermal 2{1}	-2.860	-12.124	21.629	0.099	0.403	-0.366
	Thermal 3{1}	-0.519	-10.993	21.819	0.108	0.388	-0.197
	Thermal 4{1}	0.083	-8.878	21.861	0.099	0.378	-0.148
	Thermal 5{1}	0.614	-4.322	13.224	0.344	0.199	-0.130

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GRT1{1}	-2.271	-11.516	3.525	0.727	0.253	-0.406
GRT2{1}	-2.874	-12.142	22.190	0.080	0.605	-0.366
GRT3{1}	-0.533	-11.010	22.380	0.089	0.589	-0.197
GRT4{1}	0.069	-8.896	22.421	0.079	0.579	-0.147
GRT5{1}	0.600	-4.339	13.785	0.325	0.401	-0.130

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
F02	Gravity{1}	-0.012	-0.017	0.435	0.011	0.095	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-4.020	-11.892	0.552	0.548	0.020	-0.566
	Thermal 2{1}	-4.502	-12.491	21.061	0.046	0.371	-0.544
	Thermal 3{1}	-1.445	-11.850	21.233	0.053	0.357	-0.404
	Thermal 4{1}	-0.605	-9.682	21.311	0.047	0.349	-0.320
	Thermal 5{1}	0.085	-4.787	12.005	0.239	0.176	-0.205
	GRT1{1}	-4.032	-11.909	0.987	0.558	0.115	-0.565
	GRT2{1}	-4.514	-12.508	21.497	0.057	0.466	-0.544
	GRT3{1}	-1.457	-11.867	21.669	0.064	0.452	-0.404
	GRT4{1}	-0.616	-9.699	21.746	0.058	0.444	-0.320
	GRT5{1}	0.073	-4.804	12.440	0.250	0.271	-0.204
F22	Gravity{1}	-0.012	-0.017	0.387	0.012	0.075	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-4.900	-12.091	-0.255	0.511	0.014	-0.601
	Thermal 2{1}	-5.352	-12.682	20.870	0.042	0.367	-0.585
	Thermal 3{1}	-2.030	-12.250	21.037	0.049	0.353	-0.452
	Thermal 4{1}	-1.058	-10.053	21.126	0.043	0.345	-0.360
	Thermal 5{1}	-0.205	-4.995	11.597	0.223	0.172	-0.221
	GRT1{1}	-4.911	-12.107	0.132	0.522	0.088	-0.601
	GRT2{1}	-5.364	-12.699	21.258	0.054	0.441	-0.584
	GRT3{1}	-2.041	-12.267	21.424	0.061	0.428	-0.451
	GRT4{1}	-1.070	-10.070	21.513	0.055	0.420	-0.360
	GRT5{1}	-0.217	-5.012	11.984	0.235	0.247	-0.221
F11 N	Gravity{1}	-0.011	-0.017	0.351	0.011	0.066	0.000

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	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-5.681	-12.267	-0.904	0.495	0.011	-0.618
	Thermal 2{1}	-6.113	-12.854	20.711	0.042	0.365	-0.604
	Thermal 3{1}	-2.573	-12.600	20.873	0.048	0.352	-0.474
	Thermal 4{1}	-1.482	-10.376	20.972	0.043	0.344	-0.379
	Thermal 5{1}	-0.467	-5.175	11.266	0.216	0.171	-0.229
	GRT1{1}	-5.692	-12.284	-0.553	0.506	0.077	-0.618
	GRT2{1}	-6.124	-12.870	21.062	0.053	0.431	-0.604
	GRT3{1}	-2.584	-12.617	21.224	0.060	0.417	-0.474
	GRT4{1}	-1.493	-10.393	21.323	0.054	0.410	-0.379
	GRT5{1}	-0.478	-5.192	11.617	0.227	0.236	-0.229
F11 F	Gravity{1}	-0.012	-0.017	0.366	0.006	0.050	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-6.936	-11.881	-1.717	0.395	0.022	-0.740
	Thermal 2{1}	-7.360	-12.467	20.824	0.050	0.360	-0.747
	Thermal 3{1}	-3.692	-12.584	20.968	0.055	0.347	-0.644
	Thermal 4{1}	-2.400	-10.424	21.073	0.050	0.339	-0.521
	Thermal 5{1}	-0.990	-5.194	10.993	0.181	0.173	-0.285
	GRT1{1}	-6.947	-11.898	-1.351	0.401	0.072	-0.740
	GRT2{1}	-7.371	-12.483	21.190	0.056	0.409	-0.747
	GRT3{1}	-3.704	-12.601	21.334	0.060	0.396	-0.644
	GRT4{1}	-2.412	-10.440	21.439	0.055	0.389	-0.521
	GRT5{1}	-1.001	-5.211	11.359	0.186	0.223	-0.286

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
F12 N	Gravity{1}	-0.012	-0.016	0.395	0.002	0.044	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-7.450	-11.366	-1.971	0.381	0.018	-0.751
	Thermal 2{1}	-7.879	-11.946	21.037	0.052	0.358	-0.760
	Thermal 3{1}	-4.258	-12.250	21.169	0.056	0.345	-0.660
	Thermal 4{1}	-2.880	-10.175	21.272	0.052	0.338	-0.535
	Thermal 5{1}	-1.250	-5.057	10.989	0.176	0.171	-0.290

		S_LINEREVO.OUT					
	GRT1{1}	-7.462	-11.383	-1.576	0.383	0.062	-0.751
	GRT2{1}	-7.891	-11.963	21.431	0.054	0.402	-0.760
	GRT3{1}	-4.270	-12.266	21.564	0.059	0.389	-0.661
	GRT4{1}	-2.892	-10.191	21.667	0.054	0.382	-0.535
	GRT5{1}	-1.262	-5.074	11.384	0.178	0.215	-0.291
F12 F	Gravity{1}	-0.012	-0.014	0.444	-0.012	-0.007	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-7.416	-9.082	-1.940	0.306	-0.005	-0.838
	Thermal 2{1}	-7.833	-9.592	22.005	0.063	0.324	-0.877
	Thermal 3{1}	-4.670	-10.108	22.103	0.066	0.312	-0.825
	Thermal 4{1}	-3.302	-8.433	22.187	0.062	0.306	-0.674
	Thermal 5{1}	-1.486	-4.156	11.447	0.152	0.148	-0.336
	GRT1{1}	-7.427	-9.096	-1.496	0.294	-0.011	-0.839
	GRT2{1}	-7.844	-9.606	22.450	0.051	0.317	-0.878
	GRT3{1}	-4.681	-10.123	22.548	0.054	0.306	-0.827
	GRT4{1}	-3.314	-8.447	22.632	0.050	0.300	-0.675
	GRT5{1}	-1.498	-4.170	11.891	0.140	0.142	-0.337
F05 N	Gravity{1}	0.000	-0.002	0.066	-0.015	-0.025	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.136	-1.528	0.085	0.120	0.005	-0.651
	Thermal 2{1}	0.141	-1.616	25.326	0.054	0.213	-0.690
	Thermal 3{1}	1.345	-0.830	25.344	0.054	0.206	-0.669
	Thermal 4{1}	1.321	-0.546	25.351	0.052	0.202	-0.547
	Thermal 5{1}	0.701	-0.232	13.807	0.074	0.102	-0.265
	GRT1{1}	0.136	-1.530	0.152	0.105	-0.020	-0.652
	GRT2{1}	0.141	-1.618	25.393	0.039	0.188	-0.691
	GRT3{1}	1.345	-0.832	25.410	0.040	0.181	-0.670
	GRT4{1}	1.321	-0.549	25.417	0.038	0.177	-0.548
	GRT5{1}	0.701	-0.234	13.873	0.059	0.077	-0.266
F05 F	Gravity{1}	0.000	0.000	0.014	-0.006	-0.011	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.322	-0.326	0.086	0.053	0.005	-0.171
	Thermal 2{1}	0.338	-0.343	25.724	0.026	0.067	-0.180
	Thermal 3{1}	1.060	0.404	25.729	0.026	0.065	-0.174
	Thermal 4{1}	1.001	0.464	25.729	0.025	0.064	-0.142
	Thermal 5{1}	0.522	0.258	13.994	0.033	0.033	-0.070
	GRT1{1}	0.323	-0.327	0.100	0.047	-0.006	-0.171
	GRT2{1}	0.339	-0.344	25.738	0.019	0.056	-0.180
	GRT3{1}	1.061	0.404	25.742	0.020	0.054	-0.174
	GRT4{1}	1.002	0.463	25.743	0.019	0.053	-0.143
	GRT5{1}	0.523	0.257	14.008	0.027	0.023	-0.070

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
F23	Gravity{1}	0.000	0.000	0.007	-0.003	-0.006	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.143	-0.146	0.037	0.029	0.002	-0.098
	Thermal 2{1}	0.150	-0.153	25.770	0.012	0.038	-0.103
	Thermal 3{1}	0.659	0.367	25.772	0.012	0.036	-0.099
	Thermal 4{1}	0.632	0.393	25.772	0.012	0.036	-0.081
	Thermal 5{1}	0.332	0.214	13.996	0.017	0.019	-0.040
	GRT1{1}	0.144	-0.146	0.045	0.026	-0.004	-0.098
	GRT2{1}	0.151	-0.154	25.777	0.010	0.031	-0.103
	GRT3{1}	0.659	0.367	25.779	0.010	0.030	-0.099
	GRT4{1}	0.633	0.393	25.779	0.009	0.029	-0.081
	GRT5{1}	0.332	0.214	14.003	0.015	0.012	-0.040
F10	Gravity{1}	0.000	0.000	0.003	-0.001	-0.003	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.048	-0.050	0.012	0.014	0.001	-0.050
	Thermal 2{1}	0.050	-0.052	25.796	0.005	0.019	-0.052
	Thermal 3{1}	0.351	0.252	25.796	0.005	0.018	-0.050
	Thermal 4{1}	0.342	0.262	25.797	0.005	0.018	-0.041
	Thermal 5{1}	0.181	0.141	13.998	0.008	0.009	-0.020
	GRT1{1}	0.048	-0.050	0.015	0.013	-0.002	-0.050
	GRT2{1}	0.050	-0.052	25.799	0.004	0.016	-0.052
	GRT3{1}	0.351	0.252	25.799	0.004	0.015	-0.050
	GRT4{1}	0.342	0.261	25.799	0.004	0.015	-0.041
	GRT5{1}	0.181	0.141	14.001	0.007	0.006	-0.020
F13	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	25.810	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	25.810	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	25.810	0.000	0.000	0.000

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Thermal 5{1}	0.000	0.000	14.000	0.000	0.000	0.000
GRT1{1}	0.000	0.000	0.000	0.000	0.000	0.000
GRT2{1}	0.000	0.000	25.810	0.000	0.000	0.000
GRT3{1}	0.000	0.000	25.810	0.000	0.000	0.000
GRT4{1}	0.000	0.000	25.810	0.000	0.000	0.000
GRT5{1}	0.000	0.000	14.000	0.000	0.000	0.000

*** Segment F end ***

*** Segment J begin ***

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
D05	Gravity{1}	0.173	-0.033	-1.739	0.046	0.010	0.009
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	5.640	-15.708	-5.097	0.511	-0.074	-0.104
	Thermal 2{1}	2.688	-17.413	-1.125	0.578	0.109	-0.180
	Thermal 3{1}	2.805	-15.527	-0.271	0.585	0.109	-0.153
	Thermal 4{1}	2.374	-12.402	0.395	0.583	0.116	-0.130
	Thermal 5{1}	2.995	-5.383	0.024	0.528	0.059	-0.043
	GRT1{1}	5.812	-15.740	-6.837	0.557	-0.064	-0.095
	GRT2{1}	2.861	-17.446	-2.865	0.624	0.119	-0.171
	GRT3{1}	2.978	-15.560	-2.010	0.631	0.119	-0.144
	GRT4{1}	2.546	-12.435	-1.345	0.628	0.126	-0.121
	GRT5{1}	3.167	-5.416	-1.716	0.574	0.069	-0.034
J01	Gravity{1}	0.183	-0.076	-1.740	0.042	0.011	0.010
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	5.548	-16.167	-4.850	0.413	-0.107	-0.075
	Thermal 2{1}	2.771	-17.934	-0.828	0.468	0.060	-0.147
	Thermal 3{1}	2.890	-16.056	-0.023	0.480	0.063	-0.122
	Thermal 4{1}	2.468	-12.935	0.608	0.488	0.074	-0.102
	Thermal 5{1}	3.040	-5.876	0.114	0.463	0.033	-0.025
	GRT1{1}	5.732	-16.244	-6.589	0.455	-0.096	-0.066
	GRT2{1}	2.954	-18.010	-2.568	0.510	0.071	-0.137
	GRT3{1}	3.073	-16.133	-1.763	0.522	0.074	-0.112
	GRT4{1}	2.651	-13.011	-1.131	0.530	0.085	-0.093

GRT5{1}	3.223	-5.953	-1.626	0.505	0.044	-0.015

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Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
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HV22	Gravity{1}	0.338	-0.340	-1.742	-0.003	-0.001	0.025
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.232	-11.274	-0.119	-0.614	-0.330	0.380
	Thermal 2{1}	-1.030	-12.397	4.848	-0.695	-0.286	0.373
	Thermal 3{1}	-0.598	-11.501	4.707	-0.624	-0.269	0.367

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	Thermal 4{1}	-0.493	-9.877	4.694	-0.509	-0.237	0.333
	Thermal 5{1}	0.742	-6.023	1.828	-0.241	-0.185	0.265
	GRT1{1}	0.570	-11.614	-1.860	-0.617	-0.331	0.404
	GRT2{1}	-0.693	-12.737	3.107	-0.697	-0.286	0.398
	GRT3{1}	-0.261	-11.841	2.965	-0.626	-0.269	0.391
	GRT4{1}	-0.155	-10.217	2.953	-0.512	-0.238	0.357
	GRT5{1}	1.080	-6.363	0.086	-0.244	-0.185	0.290
J04 N	Gravity{1}	0.286	-0.310	-1.742	-0.008	-0.020	0.029
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.298	-7.825	1.195	-0.668	-0.236	0.531
	Thermal 2{1}	-2.268	-8.496	6.424	-0.755	-0.165	0.547
	Thermal 3{1}	-1.787	-7.980	6.020	-0.684	-0.165	0.529
	Thermal 4{1}	-1.545	-6.973	5.828	-0.568	-0.146	0.478
	Thermal 5{1}	-0.165	-4.576	2.304	-0.292	-0.150	0.362
	GRT1{1}	-1.012	-8.135	-0.547	-0.676	-0.256	0.561
	GRT2{1}	-1.982	-8.806	4.682	-0.763	-0.185	0.576
	GRT3{1}	-1.500	-8.290	4.278	-0.692	-0.185	0.559
	GRT4{1}	-1.259	-7.283	4.087	-0.576	-0.166	0.507
	GRT5{1}	0.121	-4.886	0.562	-0.301	-0.170	0.391
J04 F	Gravity{1}	0.266	-0.277	-1.718	-0.010	-0.034	0.031
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.264	-6.801	1.554	-0.672	-0.157	0.581
	Thermal 2{1}	-2.127	-7.382	6.753	-0.761	-0.062	0.604
	Thermal 3{1}	-1.690	-6.942	6.315	-0.691	-0.075	0.583
	Thermal 4{1}	-1.464	-6.075	6.085	-0.577	-0.066	0.526
	Thermal 5{1}	-0.205	-4.011	2.485	-0.304	-0.115	0.395
	GRT1{1}	-0.999	-7.078	-0.163	-0.683	-0.190	0.612
	GRT2{1}	-1.861	-7.659	5.036	-0.771	-0.096	0.635
	GRT3{1}	-1.425	-7.219	4.597	-0.701	-0.108	0.614
	GRT4{1}	-1.199	-6.352	4.367	-0.587	-0.099	0.558
	GRT5{1}	0.060	-4.288	0.767	-0.314	-0.149	0.426
J05 N	Gravity{1}	0.266	-0.114	-1.510	-0.014	-0.047	0.033
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.019	-3.725	2.107	-0.648	-0.078	0.625
	Thermal 2{1}	-0.632	-4.168	6.772	-0.733	0.033	0.655
	Thermal 3{1}	-0.445	-3.843	6.432	-0.669	0.009	0.631
	Thermal 4{1}	-0.388	-3.281	6.187	-0.564	0.009	0.569
	Thermal 5{1}	0.246	-1.926	2.960	-0.310	-0.081	0.423
	GRT1{1}	0.247	-3.839	0.597	-0.663	-0.124	0.658
	GRT2{1}	-0.366	-4.282	5.262	-0.748	-0.013	0.688
	GRT3{1}	-0.179	-3.957	4.922	-0.684	-0.037	0.664

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GRT4{1}	-0.123	-3.395	4.678	-0.578	-0.038	0.602
GRT5{1}	0.512	-2.040	1.451	-0.324	-0.127	0.456

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
J05 F	Gravity{1}	0.226	-0.074	-1.470	-0.016	-0.049	0.033
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.136	-2.674	2.370	-0.634	-0.054	0.615
	Thermal 2{1}	-0.346	-3.023	6.985	-0.717	0.054	0.644
	Thermal 3{1}	-0.221	-2.769	6.624	-0.656	0.028	0.621
	Thermal 4{1}	-0.195	-2.344	6.353	-0.554	0.025	0.561
	Thermal 5{1}	0.259	-1.317	3.099	-0.309	-0.071	0.419
	GRT1{1}	0.361	-2.748	0.900	-0.650	-0.103	0.648
	GRT2{1}	-0.120	-3.096	5.515	-0.733	0.005	0.677
	GRT3{1}	0.005	-2.843	5.154	-0.672	-0.021	0.654
	GRT4{1}	0.031	-2.417	4.883	-0.570	-0.025	0.594
	GRT5{1}	0.484	-1.391	1.629	-0.325	-0.120	0.452
J17	Gravity{1}	0.000	0.000	-1.470	-0.017	-0.054	0.032
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	3.462	-0.565	0.001	0.590
	Thermal 2{1}	0.000	0.000	8.295	-0.638	0.115	0.617
	Thermal 3{1}	0.000	0.000	7.716	-0.585	0.083	0.595
	Thermal 4{1}	0.000	0.000	7.296	-0.496	0.074	0.538
	Thermal 5{1}	0.000	0.000	3.495	-0.280	-0.041	0.403
	GRT1{1}	0.000	0.000	1.993	-0.582	-0.053	0.622
	GRT2{1}	0.000	0.000	6.826	-0.655	0.061	0.649
	GRT3{1}	0.000	0.000	6.247	-0.602	0.029	0.628
	GRT4{1}	0.000	0.000	5.827	-0.513	0.020	0.570
	GRT5{1}	0.000	0.000	2.025	-0.297	-0.095	0.435
J13 N	Gravity{1}	-1.189	0.391	-1.468	-0.012	-0.012	0.028
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	5.384	7.980	9.749	-0.124	0.409	0.443
	Thermal 2{1}	9.439	9.000	15.839	-0.140	0.621	0.459

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	Thermal 3{1}	8.003	8.261	14.002	-0.129	0.539	0.446
	Thermal 4{1}	7.154	6.967	12.726	-0.107	0.482	0.406
	Thermal 5{1}	1.863	3.917	5.773	-0.059	0.178	0.312
	GRT1{1}	4.196	8.371	8.281	-0.137	0.398	0.471
	GRT2{1}	8.251	9.391	14.371	-0.152	0.609	0.488
	GRT3{1}	6.814	8.651	12.534	-0.141	0.527	0.474
	GRT4{1}	5.966	7.357	11.258	-0.119	0.470	0.434
	GRT5{1}	0.674	4.307	4.306	-0.071	0.166	0.340
J13 F	Gravity{1}	-1.194	0.424	-1.467	-0.011	0.006	0.028
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	5.945	8.434	9.591	-0.097	0.453	0.427
	Thermal 2{1}	10.222	9.479	15.538	-0.110	0.678	0.442
	Thermal 3{1}	8.674	8.720	13.732	-0.101	0.589	0.430
	Thermal 4{1}	7.748	7.377	12.477	-0.083	0.528	0.392
	Thermal 5{1}	2.093	4.215	5.688	-0.045	0.200	0.303
	GRT1{1}	4.751	8.858	8.124	-0.109	0.459	0.455
	GRT2{1}	9.028	9.902	14.071	-0.121	0.684	0.470
	GRT3{1}	7.480	9.144	12.265	-0.112	0.596	0.458
	GRT4{1}	6.554	7.801	11.011	-0.095	0.534	0.420
	GRT5{1}	0.899	4.639	4.221	-0.056	0.207	0.331

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
J14 N	Gravity{1}	-1.194	0.796	-1.930	-0.004	0.043	0.025
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	9.431	14.297	3.342	0.083	0.343	0.426
	Thermal 2{1}	14.405	15.561	6.403	0.093	0.486	0.445
	Thermal 3{1}	12.160	14.628	5.758	0.086	0.426	0.430
	Thermal 4{1}	10.759	12.751	5.338	0.075	0.382	0.390
	Thermal 5{1}	3.357	8.345	2.850	0.046	0.161	0.294
	GRT1{1}	8.237	15.094	1.413	0.079	0.386	0.451
	GRT2{1}	13.211	16.357	4.473	0.089	0.529	0.470
	GRT3{1}	10.966	15.424	3.828	0.082	0.470	0.455

		S_LINEREVO.OUT					
	GRT4{1}	9.565	13.547	3.409	0.071	0.425	0.415
	GRT5{1}	2.162	9.142	0.921	0.041	0.205	0.319
J14 F	Gravity{1}	-1.158	0.820	-1.965	-0.003	0.043	0.024
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	9.873	14.574	3.291	0.105	0.248	0.431
	Thermal 2{1}	14.981	15.844	6.288	0.118	0.341	0.452
	Thermal 3{1}	12.655	14.905	5.646	0.108	0.301	0.436
	Thermal 4{1}	11.196	13.005	5.231	0.094	0.270	0.394
	Thermal 5{1}	3.544	8.547	2.803	0.057	0.121	0.296
	GRT1{1}	8.715	15.394	1.326	0.102	0.291	0.455
	GRT2{1}	13.822	16.664	4.323	0.114	0.383	0.475
	GRT3{1}	11.497	15.725	3.680	0.105	0.343	0.460
	GRT4{1}	10.038	13.825	3.266	0.091	0.312	0.418
	GRT5{1}	2.386	9.367	0.837	0.054	0.164	0.319
J15 N	Gravity{1}	-0.458	0.820	-1.965	0.004	0.066	0.017
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	10.343	12.425	6.775	0.182	-0.186	0.509
	Thermal 2{1}	15.198	13.439	10.468	0.204	-0.313	0.546
	Thermal 3{1}	12.916	12.687	9.129	0.188	-0.267	0.519
	Thermal 4{1}	11.433	11.093	8.240	0.162	-0.238	0.463
	Thermal 5{1}	3.932	7.403	4.065	0.097	-0.069	0.324
	GRT1{1}	9.885	13.245	4.809	0.186	-0.120	0.527
	GRT2{1}	14.740	14.258	8.503	0.207	-0.247	0.564
	GRT3{1}	12.458	13.507	7.163	0.192	-0.201	0.536
	GRT4{1}	10.975	11.913	6.275	0.165	-0.173	0.480
	GRT5{1}	3.474	8.222	2.100	0.100	-0.003	0.342
J15 F	Gravity{1}	-0.400	0.802	-1.905	0.005	0.077	0.017
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	9.951	11.843	6.772	0.188	-0.287	0.520
	Thermal 2{1}	14.645	12.807	10.376	0.210	-0.461	0.559
	Thermal 3{1}	12.448	12.091	9.043	0.194	-0.396	0.530
	Thermal 4{1}	11.021	10.568	8.157	0.166	-0.355	0.472
	Thermal 5{1}	3.786	7.050	4.058	0.099	-0.114	0.328
	GRT1{1}	9.551	12.645	4.868	0.193	-0.209	0.537
	GRT2{1}	14.245	13.609	8.471	0.215	-0.384	0.576
	GRT3{1}	12.048	12.893	7.139	0.199	-0.319	0.547
	GRT4{1}	10.621	11.370	6.253	0.171	-0.277	0.489
	GRT5{1}	3.386	7.852	2.154	0.104	-0.037	0.345

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
J11 N	Gravity{1}	-0.400	0.591	-0.704	0.016	0.074	0.014
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	6.465	4.419	1.113	0.209	-0.425	0.519
	Thermal 2{1}	10.462	4.788	1.457	0.231	-0.671	0.562
	Thermal 3{1}	8.962	4.507	1.356	0.215	-0.579	0.530
	Thermal 4{1}	8.010	3.838	1.280	0.183	-0.518	0.470
	Thermal 5{1}	2.522	2.434	1.731	0.111	-0.175	0.320
	GRT1{1}	6.065	5.010	0.409	0.225	-0.352	0.532
	GRT2{1}	10.062	5.379	0.753	0.247	-0.598	0.575
	GRT3{1}	8.562	5.097	0.652	0.230	-0.505	0.544
	GRT4{1}	7.610	4.429	0.576	0.199	-0.444	0.484
	GRT5{1}	2.122	3.025	1.026	0.127	-0.101	0.333
J11 F	Gravity{1}	-0.348	0.565	-0.648	0.017	0.056	0.014
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	5.924	3.818	0.976	0.209	-0.389	0.509
	Thermal 2{1}	9.682	4.133	1.161	0.231	-0.619	0.551
	Thermal 3{1}	8.298	3.891	1.094	0.215	-0.533	0.520
	Thermal 4{1}	7.422	3.299	1.039	0.183	-0.477	0.461
	Thermal 5{1}	2.311	2.078	1.665	0.111	-0.158	0.314
	GRT1{1}	5.576	4.383	0.328	0.227	-0.333	0.522
	GRT2{1}	9.335	4.698	0.513	0.248	-0.563	0.565
	GRT3{1}	7.950	4.456	0.446	0.232	-0.477	0.534
	GRT4{1}	7.074	3.864	0.391	0.200	-0.421	0.474
	GRT5{1}	1.963	2.643	1.017	0.129	-0.102	0.327
J18	Gravity{1}	0.000	0.000	-0.646	0.034	-0.003	0.010
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	6.510	0.087	-0.153	0.379
	Thermal 2{1}	0.000	0.000	7.801	0.087	-0.255	0.412
	Thermal 3{1}	0.000	0.000	6.627	0.086	-0.218	0.389
	Thermal 4{1}	0.000	0.000	5.818	0.072	-0.195	0.344
	Thermal 5{1}	0.000	0.000	3.670	0.052	-0.058	0.233
	GRT1{1}	0.000	0.000	5.863	0.121	-0.156	0.390
	GRT2{1}	0.000	0.000	7.154	0.121	-0.259	0.422

		S_LINEREV0.OUT					
	GRT3{1}	0.000	0.000	5.981	0.120	-0.222	0.399
	GRT4{1}	0.000	0.000	5.172	0.106	-0.198	0.355
	GRT5{1}	0.000	0.000	3.024	0.087	-0.061	0.244
J07	Gravity{1}	-0.005	0.000	-0.638	-0.096	0.001	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.192	2.854	20.908	0.019	0.030	0.043
	Thermal 2{1}	-0.231	3.425	25.076	0.042	0.051	0.051
	Thermal 3{1}	-0.212	2.854	21.023	0.036	0.044	0.047
	Thermal 4{1}	-0.188	2.466	18.253	0.034	0.039	0.042
	Thermal 5{1}	-0.109	1.035	8.888	0.009	0.011	0.025
	GRT1{1}	-0.197	2.854	20.270	-0.077	0.031	0.044
	GRT2{1}	-0.236	3.425	24.439	-0.054	0.052	0.052
	GRT3{1}	-0.217	2.854	20.385	-0.060	0.044	0.048
	GRT4{1}	-0.193	2.466	17.615	-0.062	0.040	0.043
	GRT5{1}	-0.114	1.035	8.250	-0.087	0.012	0.026

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
J08	Gravity{1}	0.000	0.000	-0.051	-0.026	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.009	1.046	20.696	0.013	0.003	0.005
	Thermal 2{1}	-0.011	1.255	24.710	0.020	0.005	0.006
	Thermal 3{1}	-0.010	1.046	20.705	0.017	0.004	0.006
	Thermal 4{1}	-0.009	0.903	17.961	0.016	0.004	0.005
	Thermal 5{1}	-0.005	0.379	8.792	0.006	0.001	0.003
	GRT1{1}	-0.009	1.046	20.645	-0.013	0.003	0.005
	GRT2{1}	-0.011	1.255	24.660	-0.006	0.005	0.007
	GRT3{1}	-0.010	1.046	20.654	-0.009	0.004	0.006
	GRT4{1}	-0.009	0.903	17.911	-0.010	0.004	0.005
	GRT5{1}	-0.005	0.379	8.741	-0.020	0.001	0.003
J09	Gravity{1}	0.000	0.000	-0.019	-0.013	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.003	0.660	20.680	0.006	0.001	0.002

		S_LINEREVO.OUT					
	Thermal 2{1}	-0.004	0.792	24.685	0.010	0.002	0.003
	Thermal 3{1}	-0.004	0.660	20.683	0.009	0.002	0.003
	Thermal 4{1}	-0.003	0.570	17.942	0.008	0.002	0.002
	Thermal 5{1}	-0.002	0.239	8.784	0.003	0.000	0.001
	GRT1{1}	-0.003	0.660	20.661	-0.006	0.001	0.002
	GRT2{1}	-0.004	0.792	24.666	-0.003	0.002	0.003
	GRT3{1}	-0.004	0.660	20.664	-0.004	0.002	0.003
	GRT4{1}	-0.003	0.570	17.923	-0.005	0.002	0.002
	GRT5{1}	-0.002	0.239	8.766	-0.010	0.000	0.001
J10	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	20.670	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	24.670	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	20.670	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	17.930	0.000	0.000	0.000
	Thermal 5{1}	0.000	0.000	8.780	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	20.670	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	24.670	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	20.670	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	17.930	0.000	0.000	0.000
	GRT5{1}	0.000	0.000	8.780	0.000	0.000	0.000

*** Segment J end ***

*** Segment K begin ***

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
J07	Gravity{1}	-0.005	0.000	-0.638	-0.096	0.001	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.192	2.854	20.908	0.019	0.030	0.043
	Thermal 2{1}	-0.231	3.425	25.076	0.042	0.051	0.051
	Thermal 3{1}	-0.212	2.854	21.023	0.036	0.044	0.047
	Thermal 4{1}	-0.188	2.466	18.253	0.034	0.039	0.042
	Thermal 5{1}	-0.109	1.035	8.888	0.009	0.011	0.025
	GRT1{1}	-0.197	2.854	20.270	-0.077	0.031	0.044

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	GRT2{1}	-0.236	3.425	24.439	-0.054	0.052	0.052
	GRT3{1}	-0.217	2.854	20.385	-0.060	0.044	0.048
	GRT4{1}	-0.193	2.466	17.615	-0.062	0.040	0.043
	GRT5{1}	-0.114	1.035	8.250	-0.087	0.012	0.026
K01	Gravity{1}	-0.004	0.080	-0.638	-0.096	0.001	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.167	2.839	21.114	0.019	0.030	0.043
	Thermal 2{1}	-0.189	3.390	25.324	0.042	0.051	0.051
	Thermal 3{1}	-0.176	2.824	21.229	0.036	0.044	0.047
	Thermal 4{1}	-0.156	2.437	18.431	0.034	0.039	0.042
	Thermal 5{1}	-0.099	1.027	8.963	0.009	0.011	0.025
	GRT1{1}	-0.171	2.918	20.476	-0.077	0.031	0.044
	GRT2{1}	-0.193	3.470	24.686	-0.054	0.052	0.052
	GRT3{1}	-0.180	2.904	20.591	-0.060	0.044	0.048
	GRT4{1}	-0.161	2.517	17.793	-0.062	0.040	0.043
	GRT5{1}	-0.104	1.107	8.325	-0.087	0.012	0.026
K02	Gravity{1}	-0.004	0.165	-0.638	-0.096	0.001	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.140	2.822	21.334	0.019	0.030	0.043
	Thermal 2{1}	-0.143	3.353	25.588	0.042	0.051	0.051
	Thermal 3{1}	-0.137	2.792	21.449	0.036	0.044	0.047
	Thermal 4{1}	-0.122	2.407	18.621	0.034	0.039	0.042
	Thermal 5{1}	-0.090	1.020	9.043	0.009	0.011	0.025
	GRT1{1}	-0.144	2.986	20.696	-0.077	0.031	0.044
	GRT2{1}	-0.147	3.518	24.950	-0.054	0.052	0.052
	GRT3{1}	-0.141	2.957	20.811	-0.060	0.044	0.048
	GRT4{1}	-0.125	2.572	17.983	-0.062	0.040	0.043
	GRT5{1}	-0.094	1.184	8.405	-0.087	0.012	0.026
K02 M	Gravity{1}	-0.002	0.444	-0.638	-0.096	0.001	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.053	2.766	22.055	0.019	0.030	0.043
	Thermal 2{1}	0.005	3.232	26.453	0.042	0.051	0.051
	Thermal 3{1}	-0.011	2.688	22.170	0.036	0.044	0.047
	Thermal 4{1}	-0.008	2.309	19.244	0.034	0.039	0.042
	Thermal 5{1}	-0.058	0.994	9.304	0.009	0.011	0.025
	GRT1{1}	-0.055	3.210	21.417	-0.077	0.031	0.044
	GRT2{1}	0.003	3.675	25.815	-0.054	0.052	0.052
	GRT3{1}	-0.013	3.131	21.532	-0.060	0.044	0.048
	GRT4{1}	-0.010	2.752	18.606	-0.062	0.040	0.043
	GRT5{1}	-0.060	1.438	8.666	-0.087	0.012	0.026

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
SV14	Gravity{1}	0.000	0.722	-0.638	-0.096	0.001	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.034	2.711	22.776	0.019	0.030	0.043
	Thermal 2{1}	0.154	3.110	27.319	0.042	0.051	0.051
	Thermal 3{1}	0.115	2.583	22.891	0.036	0.044	0.047
	Thermal 4{1}	0.105	2.210	19.867	0.034	0.039	0.042
	Thermal 5{1}	-0.026	0.969	9.566	0.009	0.011	0.025
	GRT1{1}	0.034	3.433	22.138	-0.077	0.031	0.044
	GRT2{1}	0.154	3.832	26.681	-0.054	0.052	0.052
	GRT3{1}	0.115	3.306	22.253	-0.060	0.044	0.048
	GRT4{1}	0.105	2.932	19.229	-0.062	0.040	0.043
	GRT5{1}	-0.026	1.691	8.928	-0.087	0.012	0.026

*** Segment K end ***

*** Segment L begin ***

B04	Gravity{1}	-1.392	-0.720	-0.827	-0.015	0.052	-0.025
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	17.720	-10.898	-11.493	0.630	0.193	-0.024
	Thermal 2{1}	18.896	-12.204	-14.562	0.618	0.216	-0.028
	Thermal 3{1}	17.719	-10.899	-11.493	0.630	0.194	-0.024
	Thermal 4{1}	17.242	-10.374	-10.906	0.631	0.192	-0.022
	Thermal 5{1}	17.386	-10.617	-13.869	0.599	0.213	-0.019
	GRT1{1}	16.328	-11.618	-12.321	0.615	0.246	-0.050
	GRT2{1}	17.504	-12.924	-15.389	0.602	0.268	-0.053
	GRT3{1}	16.327	-11.618	-12.321	0.615	0.246	-0.050
	GRT4{1}	15.850	-11.093	-11.734	0.616	0.244	-0.048
	GRT5{1}	15.994	-11.337	-14.696	0.584	0.265	-0.045
L01	Gravity{1}	-1.329	-0.701	-0.827	-0.015	0.051	-0.025
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	17.926	-11.623	-11.192	0.562	0.144	-0.042
	Thermal 2{1}	19.127	-12.913	-14.200	0.548	0.163	-0.046
	Thermal 3{1}	17.925	-11.624	-11.192	0.562	0.144	-0.042

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Thermal 4{1}	17.447	-11.101	-10.616	0.564	0.144	-0.040
Thermal 5{1}	17.615	-11.306	-13.526	0.534	0.163	-0.037
GRT1{1}	16.597	-12.325	-12.019	0.547	0.195	-0.067
GRT2{1}	17.797	-13.615	-15.027	0.533	0.214	-0.071
GRT3{1}	16.595	-12.325	-12.019	0.547	0.195	-0.067
GRT4{1}	16.118	-11.802	-11.443	0.549	0.195	-0.065
GRT5{1}	16.286	-12.008	-14.353	0.519	0.214	-0.062

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
L02	Gravity{1}	-0.835	-0.570	-0.828	-0.012	0.053	-0.022
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	17.353	-14.739	-8.774	0.103	-0.266	-0.185
	Thermal 2{1}	18.572	-15.833	-11.298	0.078	-0.283	-0.194
	Thermal 3{1}	17.352	-14.740	-8.775	0.103	-0.266	-0.185
	Thermal 4{1}	16.913	-14.266	-8.287	0.111	-0.258	-0.180
	Thermal 5{1}	17.190	-14.239	-10.773	0.093	-0.257	-0.175
	GRT1{1}	16.518	-15.309	-9.603	0.091	-0.213	-0.207
	GRT2{1}	17.737	-16.403	-12.127	0.066	-0.230	-0.216
	GRT3{1}	16.517	-15.310	-9.603	0.091	-0.213	-0.207
	GRT4{1}	16.078	-14.836	-9.115	0.099	-0.205	-0.202
	GRT5{1}	16.355	-14.808	-11.601	0.081	-0.204	-0.197
L02 M	Gravity{1}	-0.716	-0.542	-0.828	-0.012	0.053	-0.022
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	16.755	-14.970	-8.218	0.103	-0.267	-0.185
	Thermal 2{1}	17.935	-16.008	-10.631	0.078	-0.284	-0.194
	Thermal 3{1}	16.754	-14.971	-8.218	0.103	-0.267	-0.185
	Thermal 4{1}	16.333	-14.515	-7.750	0.110	-0.259	-0.180
	Thermal 5{1}	16.611	-14.447	-10.139	0.092	-0.258	-0.175
	GRT1{1}	16.039	-15.512	-9.046	0.090	-0.214	-0.207
	GRT2{1}	17.220	-16.550	-11.459	0.065	-0.231	-0.216
	GRT3{1}	16.038	-15.513	-9.046	0.090	-0.214	-0.207
	GRT4{1}	15.617	-15.057	-8.578	0.098	-0.206	-0.202

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	GRT5{1}	15.896	-14.989	-10.967	0.080	-0.205	-0.197
HV23	Gravity{1}	-0.597	-0.515	-0.828	-0.012	0.053	-0.022
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	16.154	-15.199	-7.661	0.102	-0.268	-0.185
	Thermal 2{1}	17.296	-16.181	-9.963	0.077	-0.286	-0.194
	Thermal 3{1}	16.153	-15.200	-7.661	0.102	-0.268	-0.185
	Thermal 4{1}	15.751	-14.762	-7.214	0.110	-0.260	-0.181
	Thermal 5{1}	16.031	-14.653	-9.505	0.092	-0.259	-0.175
	GRT1{1}	15.557	-15.714	-8.489	0.089	-0.215	-0.207
	GRT2{1}	16.700	-16.696	-10.791	0.064	-0.232	-0.217
	GRT3{1}	15.557	-15.714	-8.490	0.089	-0.215	-0.207
	GRT4{1}	15.155	-15.276	-8.042	0.097	-0.207	-0.203
	GRT5{1}	15.434	-15.168	-10.333	0.079	-0.206	-0.197
L03 N	Gravity{1}	-0.423	-0.477	-0.828	-0.012	0.060	-0.021
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	15.113	-15.368	-6.898	0.012	-0.407	-0.230
	Thermal 2{1}	16.178	-16.270	-9.047	-0.015	-0.440	-0.241
	Thermal 3{1}	15.112	-15.368	-6.899	0.012	-0.407	-0.230
	Thermal 4{1}	14.741	-14.956	-6.479	0.021	-0.396	-0.225
	Thermal 5{1}	15.006	-14.796	-8.636	0.006	-0.406	-0.219
	GRT1{1}	14.690	-15.845	-7.726	0.000	-0.348	-0.251
	GRT2{1}	15.755	-16.747	-9.875	-0.026	-0.380	-0.262
	GRT3{1}	14.689	-15.845	-7.726	0.000	-0.348	-0.252
	GRT4{1}	14.318	-15.434	-7.307	0.009	-0.336	-0.246
	GRT5{1}	14.583	-15.273	-9.464	-0.006	-0.346	-0.240

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
L03 F	Gravity{1}	-0.337	-0.434	-0.736	-0.011	0.073	-0.020
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	14.107	-14.943	-7.341	-0.112	-0.665	-0.303
	Thermal 2{1}	15.048	-15.793	-9.494	-0.140	-0.727	-0.315
	Thermal 3{1}	14.107	-14.944	-7.342	-0.112	-0.664	-0.303

		S_LINEREV0.OUT					
	Thermal 4{1}	13.766	-14.553	-6.913	-0.101	-0.647	-0.297
	Thermal 5{1}	13.949	-14.384	-9.045	-0.113	-0.677	-0.289
	GRT1{1}	13.771	-15.377	-8.077	-0.123	-0.592	-0.323
	GRT2{1}	14.711	-16.228	-10.230	-0.152	-0.654	-0.336
	GRT3{1}	13.770	-15.378	-8.078	-0.123	-0.592	-0.323
	GRT4{1}	13.429	-14.987	-7.649	-0.113	-0.574	-0.317
	GRT5{1}	13.612	-14.818	-9.781	-0.124	-0.604	-0.309
L05 N	Gravity{1}	-0.337	-0.327	-0.339	-0.011	0.069	-0.019
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	12.766	-13.212	-11.266	-0.283	-0.740	-0.328
	Thermal 2{1}	13.439	-13.991	-13.786	-0.314	-0.807	-0.341
	Thermal 3{1}	12.766	-13.213	-11.266	-0.283	-0.740	-0.328
	Thermal 4{1}	12.474	-12.858	-10.736	-0.271	-0.721	-0.321
	Thermal 5{1}	12.422	-12.733	-13.051	-0.277	-0.753	-0.313
	GRT1{1}	12.430	-13.540	-11.604	-0.294	-0.671	-0.347
	GRT2{1}	13.102	-14.319	-14.124	-0.325	-0.738	-0.361
	GRT3{1}	12.429	-13.540	-11.604	-0.294	-0.671	-0.347
	GRT4{1}	12.137	-13.185	-11.075	-0.282	-0.652	-0.340
	GRT5{1}	12.086	-13.061	-13.389	-0.288	-0.685	-0.332
L05 F	Gravity{1}	-0.265	-0.288	-0.257	-0.011	0.045	-0.019
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	11.516	-12.310	-11.891	-0.386	-0.654	-0.349
	Thermal 2{1}	12.047	-13.030	-14.428	-0.418	-0.703	-0.363
	Thermal 3{1}	11.515	-12.311	-11.891	-0.386	-0.654	-0.349
	Thermal 4{1}	11.258	-11.982	-11.350	-0.373	-0.638	-0.342
	Thermal 5{1}	11.118	-11.864	-13.644	-0.375	-0.654	-0.333
	GRT1{1}	11.251	-12.598	-12.149	-0.396	-0.609	-0.368
	GRT2{1}	11.782	-13.318	-14.686	-0.428	-0.658	-0.382
	GRT3{1}	11.251	-12.598	-12.149	-0.396	-0.609	-0.368
	GRT4{1}	10.993	-12.270	-11.608	-0.383	-0.593	-0.361
	GRT5{1}	10.854	-12.152	-13.901	-0.385	-0.609	-0.352
L12	Gravity{1}	0.000	0.000	-0.254	-0.014	-0.005	-0.015
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	-5.747	-0.435	-0.303	-0.287
	Thermal 2{1}	0.000	0.000	-7.053	-0.455	-0.309	-0.298
	Thermal 3{1}	0.000	0.000	-5.747	-0.435	-0.303	-0.287
	Thermal 4{1}	0.000	0.000	-5.430	-0.425	-0.297	-0.281
	Thermal 5{1}	0.000	0.000	-6.646	-0.416	-0.283	-0.273
	GRT1{1}	0.000	0.000	-6.001	-0.449	-0.308	-0.302
	GRT2{1}	0.000	0.000	-7.307	-0.469	-0.314	-0.313
	GRT3{1}	0.000	0.000	-6.001	-0.449	-0.308	-0.302

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GRT4{1}	0.000	0.000	-5.684	-0.439	-0.302	-0.296
GRT5{1}	0.000	0.000	-6.900	-0.430	-0.288	-0.289

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
L11	Gravity{1}	-0.080	0.789	-0.243	-0.009	0.001	-0.008
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-4.655	4.269	7.200	0.147	0.062	-0.154
	Thermal 2{1}	-4.748	4.199	8.486	0.160	0.063	-0.160
	Thermal 3{1}	-4.654	4.269	7.200	0.147	0.061	-0.154
	Thermal 4{1}	-4.558	4.181	7.045	0.143	0.060	-0.151
	Thermal 5{1}	-4.350	3.743	8.099	0.149	0.057	-0.147
	GRT1{1}	-4.735	5.057	6.957	0.138	0.063	-0.162
	GRT2{1}	-4.828	4.988	8.243	0.151	0.064	-0.168
	GRT3{1}	-4.734	5.058	6.957	0.138	0.063	-0.162
	GRT4{1}	-4.638	4.970	6.802	0.134	0.061	-0.159
	GRT5{1}	-4.430	4.532	7.856	0.140	0.059	-0.155
L07	Gravity{1}	-0.002	0.000	-0.225	0.045	0.001	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.040	-2.115	21.066	-0.063	0.030	-0.012
	Thermal 2{1}	-0.041	-2.538	25.129	-0.074	0.031	-0.013
	Thermal 3{1}	-0.040	-2.115	21.066	-0.063	0.030	-0.012
	Thermal 4{1}	-0.039	-2.038	20.405	-0.061	0.030	-0.012
	Thermal 5{1}	-0.038	-2.408	23.890	-0.072	0.028	-0.012
	GRT1{1}	-0.042	-2.115	20.841	-0.018	0.031	-0.013
	GRT2{1}	-0.043	-2.538	24.904	-0.029	0.031	-0.013
	GRT3{1}	-0.042	-2.115	20.841	-0.018	0.031	-0.013
	GRT4{1}	-0.041	-2.038	20.181	-0.016	0.030	-0.013
	GRT5{1}	-0.040	-2.408	23.665	-0.027	0.029	-0.012
L08	Gravity{1}	0.000	0.000	-0.064	0.025	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.008	-1.156	20.795	-0.048	0.008	-0.004
	Thermal 2{1}	-0.008	-1.387	24.814	-0.055	0.008	-0.004

		S_LINEREV0.OUT					
	Thermal 3{1}	-0.008	-1.156	20.795	-0.048	0.008	-0.004
	Thermal 4{1}	-0.008	-1.113	20.142	-0.046	0.008	-0.004
	Thermal 5{1}	-0.008	-1.316	23.588	-0.053	0.007	-0.004
	GRT1{1}	-0.008	-1.156	20.732	-0.022	0.008	-0.004
	GRT2{1}	-0.009	-1.387	24.750	-0.030	0.008	-0.004
	GRT3{1}	-0.008	-1.156	20.732	-0.022	0.008	-0.004
	GRT4{1}	-0.008	-1.113	20.078	-0.021	0.008	-0.004
	GRT5{1}	-0.008	-1.316	23.524	-0.027	0.008	-0.004
L09	Gravity{1}	0.000	0.000	-0.029	0.016	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.003	-0.770	20.729	-0.030	0.004	-0.002
	Thermal 2{1}	-0.003	-0.924	24.737	-0.035	0.004	-0.002
	Thermal 3{1}	-0.003	-0.770	20.729	-0.030	0.004	-0.002
	Thermal 4{1}	-0.003	-0.742	20.077	-0.030	0.004	-0.002
	Thermal 5{1}	-0.003	-0.877	23.514	-0.033	0.004	-0.002
	GRT1{1}	-0.003	-0.770	20.699	-0.015	0.004	-0.002
	GRT2{1}	-0.004	-0.924	24.708	-0.019	0.004	-0.002
	GRT3{1}	-0.003	-0.770	20.699	-0.015	0.004	-0.002
	GRT4{1}	-0.003	-0.742	20.048	-0.014	0.004	-0.002
	GRT5{1}	-0.003	-0.877	23.485	-0.018	0.004	-0.002

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
L10	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	20.670	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	24.670	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	20.670	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	20.020	0.000	0.000	0.000
	Thermal 5{1}	0.000	0.000	23.450	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	20.670	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	24.670	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	20.670	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	20.020	0.000	0.000	0.000
	GRT5{1}	0.000	0.000	23.450	0.000	0.000	0.000

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GRT5{1}	0.000	0.000	23.450	0.000	0.000	0.000

*** Segment L end ***

*** Segment M begin ***

L07	Gravity{1}	-0.002	0.000	-0.225	0.045	0.001	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.040	-2.115	21.066	-0.063	0.030	-0.012
	Thermal 2{1}	-0.041	-2.538	25.129	-0.074	0.031	-0.013
	Thermal 3{1}	-0.040	-2.115	21.066	-0.063	0.030	-0.012
	Thermal 4{1}	-0.039	-2.038	20.405	-0.061	0.030	-0.012
	Thermal 5{1}	-0.038	-2.408	23.890	-0.072	0.028	-0.012
	GRT1{1}	-0.042	-2.115	20.841	-0.018	0.031	-0.013
	GRT2{1}	-0.043	-2.538	24.904	-0.029	0.031	-0.013
	GRT3{1}	-0.042	-2.115	20.841	-0.018	0.031	-0.013
	GRT4{1}	-0.041	-2.038	20.181	-0.016	0.030	-0.013
	GRT5{1}	-0.040	-2.408	23.665	-0.027	0.029	-0.012
M01	Gravity{1}	-0.001	-0.050	-0.225	0.045	0.001	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.007	-2.045	21.341	-0.063	0.030	-0.012
	Thermal 2{1}	-0.007	-2.455	25.459	-0.074	0.031	-0.013
	Thermal 3{1}	-0.007	-2.045	21.341	-0.063	0.030	-0.012
	Thermal 4{1}	-0.006	-1.970	20.670	-0.061	0.030	-0.012
	Thermal 5{1}	-0.007	-2.328	24.203	-0.072	0.028	-0.012
	GRT1{1}	-0.008	-2.095	21.116	-0.018	0.031	-0.013
	GRT2{1}	-0.008	-2.506	25.234	-0.029	0.031	-0.013
	GRT3{1}	-0.008	-2.095	21.116	-0.018	0.031	-0.013
	GRT4{1}	-0.008	-2.020	20.446	-0.016	0.030	-0.013
	GRT5{1}	-0.008	-2.378	23.978	-0.027	0.029	-0.012

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
M02	Gravity{1}	-0.001	-0.110	-0.225	0.045	0.001	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.034	-1.962	21.670	-0.063	0.030	-0.012

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	Thermal 2{1}	0.034	-2.357	25.854	-0.074	0.031	-0.013
	Thermal 3{1}	0.034	-1.962	21.670	-0.063	0.030	-0.012
	Thermal 4{1}	0.033	-1.889	20.988	-0.061	0.030	-0.012
	Thermal 5{1}	0.031	-2.233	24.578	-0.072	0.028	-0.012
	GRT1{1}	0.033	-2.072	21.445	-0.018	0.031	-0.013
	GRT2{1}	0.033	-2.467	25.629	-0.029	0.031	-0.013
	GRT3{1}	0.033	-2.072	21.445	-0.018	0.031	-0.013
	GRT4{1}	0.032	-1.999	20.763	-0.016	0.030	-0.013
	GRT5{1}	0.030	-2.343	24.353	-0.027	0.029	-0.012
M02 M	Gravity{1}	0.001	-0.242	-0.225	0.045	0.001	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.122	-1.779	22.391	-0.063	0.030	-0.012
	Thermal 2{1}	0.123	-2.140	26.720	-0.074	0.031	-0.013
	Thermal 3{1}	0.122	-1.779	22.391	-0.063	0.030	-0.012
	Thermal 4{1}	0.119	-1.711	21.683	-0.061	0.030	-0.012
	Thermal 5{1}	0.113	-2.023	25.399	-0.072	0.028	-0.012
	GRT1{1}	0.123	-2.021	22.166	-0.018	0.031	-0.013
	GRT2{1}	0.124	-2.382	26.495	-0.029	0.031	-0.013
	GRT3{1}	0.123	-2.021	22.166	-0.018	0.031	-0.013
	GRT4{1}	0.120	-1.953	21.458	-0.016	0.030	-0.013
	GRT5{1}	0.114	-2.265	25.174	-0.027	0.029	-0.012
SV15	Gravity{1}	0.002	-0.374	-0.225	0.045	0.001	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.210	-1.597	23.112	-0.063	0.030	-0.012
	Thermal 2{1}	0.213	-1.924	27.585	-0.074	0.031	-0.013
	Thermal 3{1}	0.210	-1.597	23.112	-0.063	0.030	-0.012
	Thermal 4{1}	0.205	-1.533	22.378	-0.061	0.030	-0.012
	Thermal 5{1}	0.195	-1.814	26.220	-0.072	0.028	-0.012
	GRT1{1}	0.212	-1.970	22.887	-0.018	0.031	-0.013
	GRT2{1}	0.216	-2.298	27.360	-0.029	0.031	-0.013
	GRT3{1}	0.212	-1.970	22.887	-0.018	0.031	-0.013
	GRT4{1}	0.208	-1.907	22.153	-0.016	0.030	-0.013
	GRT5{1}	0.198	-2.187	25.996	-0.027	0.029	-0.012

*** Segment M end ***

*** Segment N begin ***

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
B17	Gravity{1}	-1.640	-0.720	-0.861	0.000	0.051	-0.012
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	16.652	-14.887	-17.232	0.234	0.086	-0.125
	Thermal 2{1}	17.710	-16.564	-19.727	0.167	0.098	-0.138
	Thermal 3{1}	16.650	-14.888	-17.232	0.234	0.086	-0.125
	Thermal 4{1}	16.222	-14.187	-16.732	0.245	0.087	-0.121
	Thermal 5{1}	16.372	-14.430	-18.965	0.174	0.102	-0.122
	GRT1{1}	15.011	-15.607	-18.092	0.234	0.137	-0.138
	GRT2{1}	16.070	-17.284	-20.587	0.167	0.148	-0.151
	GRT3{1}	15.010	-15.608	-18.092	0.234	0.137	-0.138
	GRT4{1}	14.582	-14.906	-17.593	0.245	0.138	-0.133
	GRT5{1}	14.732	-15.150	-19.826	0.175	0.152	-0.134
N01	Gravity{1}	-1.495	-0.720	-0.861	0.000	0.051	-0.012
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	16.900	-15.561	-16.380	0.234	0.086	-0.125
	Thermal 2{1}	17.991	-17.044	-18.796	0.167	0.098	-0.138
	Thermal 3{1}	16.898	-15.562	-16.380	0.234	0.086	-0.125
	Thermal 4{1}	16.473	-14.894	-15.918	0.245	0.087	-0.121
	Thermal 5{1}	16.665	-14.933	-18.151	0.174	0.102	-0.122
	GRT1{1}	15.405	-16.281	-17.241	0.234	0.137	-0.138
	GRT2{1}	16.496	-17.764	-19.657	0.167	0.148	-0.151
	GRT3{1}	15.404	-16.282	-17.241	0.234	0.137	-0.138
	GRT4{1}	14.978	-15.614	-16.779	0.245	0.138	-0.133
	GRT5{1}	15.170	-15.653	-19.012	0.175	0.152	-0.134
N01 M	Gravity{1}	-1.359	-0.720	-0.861	0.000	0.051	-0.012
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	17.131	-16.189	-15.585	0.234	0.086	-0.125
	Thermal 2{1}	18.253	-17.492	-17.927	0.167	0.098	-0.138
	Thermal 3{1}	17.130	-16.190	-15.585	0.234	0.086	-0.125
	Thermal 4{1}	16.707	-15.553	-15.158	0.245	0.087	-0.121
	Thermal 5{1}	16.938	-15.402	-17.391	0.174	0.102	-0.122
	GRT1{1}	15.772	-16.910	-16.446	0.234	0.137	-0.138
	GRT2{1}	16.894	-18.212	-18.788	0.167	0.148	-0.151
	GRT3{1}	15.771	-16.911	-16.446	0.234	0.137	-0.138
	GRT4{1}	15.348	-16.274	-16.020	0.245	0.138	-0.133
	GRT5{1}	15.579	-16.122	-18.253	0.175	0.152	-0.133

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HV05	Gravity{1}	-1.223	-0.721	-0.861	0.000	0.051	-0.012
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	17.362	-16.818	-14.790	0.234	0.086	-0.125
	Thermal 2{1}	18.515	-17.940	-17.059	0.167	0.098	-0.138
	Thermal 3{1}	17.361	-16.819	-14.790	0.234	0.086	-0.125
	Thermal 4{1}	16.941	-16.213	-14.399	0.245	0.087	-0.121
	Thermal 5{1}	17.210	-15.870	-16.632	0.174	0.102	-0.122
	GRT1{1}	16.139	-17.539	-15.652	0.234	0.137	-0.138
	GRT2{1}	17.292	-18.660	-17.920	0.167	0.148	-0.151
	GRT3{1}	16.138	-17.539	-15.652	0.234	0.137	-0.138
	GRT4{1}	15.718	-16.933	-15.260	0.245	0.138	-0.133
	GRT5{1}	15.988	-16.591	-17.493	0.175	0.152	-0.134

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
*** Segment N end ***							
*** Segment P begin ***							
E13	Gravity{1}	1.235	-0.619	-2.573	-0.054	0.085	-0.045
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-6.253	-21.297	-12.506	0.395	0.089	-0.127
	Thermal 2{1}	-8.119	-23.666	-14.190	0.356	0.118	-0.138
	Thermal 3{1}	-6.225	-21.283	-12.486	0.396	0.088	-0.126
	Thermal 4{1}	-5.971	-20.448	-12.087	0.403	0.085	-0.123
	Thermal 5{1}	-7.919	-21.211	-13.526	0.357	0.117	-0.128
	GRT1{1}	-5.018	-21.916	-15.078	0.341	0.174	-0.172
	GRT2{1}	-6.884	-24.285	-16.763	0.302	0.203	-0.183
	GRT3{1}	-4.990	-21.902	-15.059	0.342	0.174	-0.172
	GRT4{1}	-4.736	-21.067	-14.660	0.349	0.171	-0.168
	GRT5{1}	-6.683	-21.830	-16.099	0.303	0.202	-0.174
P01	Gravity{1}	1.462	-0.475	-2.573	-0.054	0.085	-0.045
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-6.017	-22.348	-11.719	0.395	0.089	-0.127
	Thermal 2{1}	-7.806	-24.613	-13.330	0.356	0.118	-0.138

		S_LINEREV0.OUT					
	Thermal 3{1}	-5.990	-22.336	-11.700	0.396	0.088	-0.126
	Thermal 4{1}	-5.744	-21.521	-11.336	0.403	0.085	-0.123
	Thermal 5{1}	-7.608	-22.161	-12.774	0.357	0.117	-0.128
	GRT1{1}	-4.555	-22.823	-14.292	0.341	0.174	-0.172
	GRT2{1}	-6.344	-25.088	-15.904	0.302	0.203	-0.183
	GRT3{1}	-4.528	-22.811	-14.273	0.342	0.174	-0.172
	GRT4{1}	-4.282	-21.996	-13.909	0.349	0.171	-0.168
	GRT5{1}	-6.146	-22.636	-15.347	0.303	0.202	-0.174
H24	Gravity{1}	1.920	-0.184	-2.573	-0.054	0.085	-0.045
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-5.538	-24.472	-10.130	0.395	0.089	-0.127
	Thermal 2{1}	-7.172	-26.526	-11.594	0.356	0.118	-0.138
	Thermal 3{1}	-5.514	-24.463	-10.110	0.396	0.088	-0.126
	Thermal 4{1}	-5.284	-23.689	-9.817	0.403	0.085	-0.123
	Thermal 5{1}	-6.980	-24.080	-11.255	0.357	0.117	-0.128
	GRT1{1}	-3.618	-24.656	-12.703	0.341	0.174	-0.172
	GRT2{1}	-5.252	-26.709	-14.167	0.302	0.203	-0.183
	GRT3{1}	-3.594	-24.647	-12.683	0.342	0.174	-0.172
	GRT4{1}	-3.364	-23.872	-12.390	0.349	0.171	-0.168
	GRT5{1}	-5.060	-24.263	-13.828	0.303	0.202	-0.174

*** Segment P end ***

*** Segment R begin ***

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
D04	Gravity{1}	0.242	-0.033	-2.143	0.004	0.006	0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	4.580	-18.971	-10.116	0.395	-0.060	-0.088
	Thermal 2{1}	0.920	-20.980	-7.182	0.508	0.108	-0.142
	Thermal 3{1}	1.284	-18.790	-6.451	0.524	0.103	-0.124
	Thermal 4{1}	1.078	-14.966	-5.794	0.529	0.108	-0.106
	Thermal 5{1}	2.516	-6.375	-5.607	0.487	0.046	-0.043
	GRT1{1}	4.822	-19.004	-12.259	0.399	-0.054	-0.084
	GRT2{1}	1.162	-21.013	-9.326	0.512	0.114	-0.138

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	GRT3{1}	1.526	-18.823	-8.594	0.528	0.109	-0.120
	GRT4{1}	1.320	-14.999	-7.937	0.533	0.113	-0.102
	GRT5{1}	2.758	-6.408	-7.750	0.492	0.052	-0.039
R01	Gravity{1}	0.257	-0.043	-2.144	0.004	0.006	0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	4.421	-20.022	-9.330	0.395	-0.060	-0.088
	Thermal 2{1}	1.207	-22.330	-6.323	0.508	0.108	-0.142
	Thermal 3{1}	1.559	-20.183	-5.665	0.524	0.103	-0.124
	Thermal 4{1}	1.364	-16.372	-5.176	0.529	0.108	-0.106
	Thermal 5{1}	2.639	-7.672	-5.367	0.487	0.046	-0.043
	GRT1{1}	4.678	-20.066	-11.473	0.399	-0.054	-0.084
	GRT2{1}	1.464	-22.373	-8.467	0.512	0.114	-0.138
	GRT3{1}	1.815	-20.226	-7.808	0.528	0.109	-0.120
	GRT4{1}	1.621	-16.416	-7.320	0.533	0.113	-0.102
	GRT5{1}	2.896	-7.715	-7.511	0.492	0.052	-0.039
R01 M	Gravity{1}	0.272	-0.054	-2.144	0.004	0.006	0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	4.261	-21.085	-8.535	0.395	-0.060	-0.088
	Thermal 2{1}	1.498	-23.694	-5.455	0.508	0.108	-0.142
	Thermal 3{1}	1.836	-21.590	-4.870	0.524	0.103	-0.124
	Thermal 4{1}	1.654	-17.794	-4.552	0.529	0.108	-0.106
	Thermal 5{1}	2.764	-8.982	-5.126	0.487	0.046	-0.043
	GRT1{1}	4.533	-21.139	-10.679	0.399	-0.054	-0.084
	GRT2{1}	1.770	-23.748	-7.598	0.512	0.114	-0.138
	GRT3{1}	2.108	-21.644	-7.014	0.528	0.109	-0.120
	GRT4{1}	1.926	-17.848	-6.696	0.533	0.113	-0.102
	GRT5{1}	3.036	-9.036	-7.270	0.492	0.052	-0.039
HV25	Gravity{1}	0.287	-0.065	-2.144	0.004	0.006	0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	4.100	-22.147	-7.740	0.395	-0.060	-0.088
	Thermal 2{1}	1.788	-25.058	-4.586	0.508	0.108	-0.142
	Thermal 3{1}	2.114	-22.997	-4.075	0.524	0.103	-0.124
	Thermal 4{1}	1.943	-19.215	-3.927	0.529	0.108	-0.106
	Thermal 5{1}	2.888	-10.292	-4.884	0.487	0.046	-0.043
	GRT1{1}	4.387	-22.212	-9.884	0.399	-0.054	-0.084
	GRT2{1}	2.075	-25.123	-6.730	0.512	0.114	-0.138
	GRT3{1}	2.401	-23.062	-6.219	0.528	0.109	-0.120
	GRT4{1}	2.230	-19.280	-6.071	0.533	0.113	-0.102
	GRT5{1}	3.175	-10.358	-7.028	0.492	0.052	-0.039

□

S_LINEREV0

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RESULT PAGE 49

D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
*** Segment R end ***							
*** Segment S begin ***							
D14	Gravity{1}	0.035	0.013	0.026	-0.022	0.022	-0.005
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.911	-4.918	39.483	1.470	0.160	0.132
	Thermal 2{1}	4.183	-4.083	40.916	0.960	0.506	0.035
	Thermal 3{1}	3.636	-3.475	40.847	0.933	0.487	-0.003
	Thermal 4{1}	3.102	-3.085	40.176	0.908	0.470	-0.004
	Thermal 5{1}	1.975	-2.791	36.652	1.045	0.283	0.052
	GRT1{1}	3.946	-4.905	39.508	1.448	0.183	0.126
	GRT2{1}	4.218	-4.070	40.942	0.937	0.529	0.030
	GRT3{1}	3.671	-3.461	40.873	0.911	0.509	-0.008
	GRT4{1}	3.136	-3.072	40.202	0.885	0.493	-0.010
	GRT5{1}	2.010	-2.778	36.678	1.023	0.305	0.047
S01	Gravity{1}	0.024	0.024	0.138	-0.025	0.029	-0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.488	-5.830	36.151	1.461	-0.145	0.077
	Thermal 2{1}	3.542	-4.902	39.676	0.929	0.301	0.033
	Thermal 3{1}	2.922	-4.094	39.624	0.905	0.285	-0.046
	Thermal 4{1}	2.508	-3.540	38.985	0.878	0.277	-0.061
	Thermal 5{1}	1.785	-3.008	34.691	1.024	0.070	-0.036
	GRT1{1}	3.512	-5.806	36.290	1.436	-0.116	0.073
	GRT2{1}	3.566	-4.878	39.814	0.904	0.330	0.029
	GRT3{1}	2.946	-4.070	39.762	0.880	0.314	-0.050
	GRT4{1}	2.532	-3.516	39.123	0.854	0.306	-0.065
	GRT5{1}	1.809	-2.984	34.829	0.999	0.099	-0.040
C013	Gravity{1}	0.011	0.036	0.404	-0.018	0.032	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	2.043	-7.202	27.504	1.293	-0.642	-0.112
	Thermal 2{1}	1.933	-6.371	36.096	0.779	-0.048	-0.094
	Thermal 3{1}	0.928	-4.916	36.084	0.761	-0.058	-0.221
	Thermal 4{1}	0.751	-3.996	35.565	0.737	-0.052	-0.223

Thermal 5{1}	0.830	-2.911	29.511	0.882	-0.281	-0.171
GRT1{1}	2.054	-7.166	27.908	1.275	-0.610	-0.113
GRT2{1}	1.944	-6.335	36.500	0.761	-0.016	-0.095
GRT3{1}	0.939	-4.880	36.489	0.743	-0.026	-0.223
GRT4{1}	0.762	-3.959	35.969	0.719	-0.020	-0.224
GRT5{1}	0.841	-2.874	29.916	0.864	-0.249	-0.173

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Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
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S04 N	Gravity{1}	0.010	0.037	0.452	-0.014	0.030	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.613	-7.360	25.560	1.232	-0.720	-0.165
	Thermal 2{1}	1.498	-6.578	35.261	0.734	-0.107	-0.141
	Thermal 3{1}	0.390	-4.966	35.258	0.717	-0.115	-0.272
	Thermal 4{1}	0.279	-3.985	34.769	0.694	-0.107	-0.264
	Thermal 5{1}	0.559	-2.818	28.342	0.836	-0.338	-0.191
	GRT1{1}	1.623	-7.323	26.012	1.218	-0.690	-0.165
	GRT2{1}	1.509	-6.541	35.713	0.720	-0.077	-0.141
	GRT3{1}	0.400	-4.928	35.710	0.703	-0.085	-0.273
	GRT4{1}	0.289	-3.947	35.221	0.680	-0.077	-0.265
	GRT5{1}	0.569	-2.781	28.794	0.823	-0.308	-0.192
S04 F	Gravity{1}	0.010	0.037	0.490	-0.005	0.018	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.147	-7.095	24.080	1.166	-0.856	-0.334
	Thermal 2{1}	1.002	-6.363	34.812	0.686	-0.214	-0.300
	Thermal 3{1}	-0.109	-4.552	34.805	0.670	-0.220	-0.438
	Thermal 4{1}	-0.129	-3.590	34.338	0.648	-0.207	-0.394
	Thermal 5{1}	0.372	-2.539	27.544	0.786	-0.437	-0.242
	GRT1{1}	1.157	-7.058	24.570	1.160	-0.837	-0.333
	GRT2{1}	1.013	-6.327	35.303	0.681	-0.196	-0.299
	GRT3{1}	-0.099	-4.516	35.295	0.665	-0.202	-0.436
	GRT4{1}	-0.119	-3.553	34.828	0.643	-0.189	-0.392
	GRT5{1}	0.383	-2.503	28.034	0.781	-0.419	-0.241

		S_LINEREV0.OUT					
S16	Gravity{1}	0.010	0.036	0.492	-0.005	0.018	0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	1.129	-7.047	24.034	1.161	-0.859	-0.338
	Thermal 2{1}	0.980	-6.318	34.816	0.682	-0.217	-0.304
	Thermal 3{1}	-0.123	-4.494	34.807	0.667	-0.223	-0.442
	Thermal 4{1}	-0.138	-3.538	34.340	0.645	-0.209	-0.397
	Thermal 5{1}	0.372	-2.510	27.528	0.782	-0.440	-0.243
	GRT1{1}	1.139	-7.011	24.526	1.156	-0.841	-0.337
	GRT2{1}	0.990	-6.282	35.308	0.678	-0.199	-0.303
	GRT3{1}	-0.113	-4.458	35.299	0.662	-0.205	-0.440
	GRT4{1}	-0.128	-3.502	34.832	0.640	-0.192	-0.395
	GRT5{1}	0.382	-2.473	28.020	0.777	-0.422	-0.242
S05	Gravity{1}	0.009	0.032	0.520	0.005	0.007	0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.799	-6.041	23.024	1.071	-0.909	-0.402
	Thermal 2{1}	0.566	-5.367	34.801	0.617	-0.263	-0.363
	Thermal 3{1}	-0.376	-3.276	34.770	0.603	-0.267	-0.499
	Thermal 4{1}	-0.299	-2.479	34.317	0.582	-0.252	-0.441
	Thermal 5{1}	0.377	-1.912	27.129	0.714	-0.479	-0.261
	GRT1{1}	0.808	-6.009	23.544	1.076	-0.902	-0.399
	GRT2{1}	0.575	-5.334	35.321	0.621	-0.255	-0.361
	GRT3{1}	-0.367	-3.244	35.290	0.608	-0.260	-0.497
	GRT4{1}	-0.291	-2.447	34.837	0.587	-0.245	-0.439
	GRT5{1}	0.386	-1.880	27.649	0.719	-0.472	-0.259

S_LINEREV0

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Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
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S05 M	Gravity{1}	0.006	0.024	0.552	0.005	0.007	0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.247	-4.156	21.101	1.070	-0.910	-0.402
	Thermal 2{1}	-0.140	-3.588	34.659	0.616	-0.263	-0.363
	Thermal 3{1}	-0.796	-1.031	34.591	0.602	-0.268	-0.500
	Thermal 4{1}	-0.564	-0.535	34.167	0.581	-0.252	-0.441

		S_LINEREVO.OUT					
	Thermal 5{1}	0.396	-0.826	26.317	0.713	-0.479	-0.261
	GRT1{1}	0.253	-4.133	21.653	1.074	-0.903	-0.400
	GRT2{1}	-0.134	-3.564	35.211	0.621	-0.256	-0.361
	GRT3{1}	-0.791	-1.007	35.143	0.607	-0.261	-0.497
	GRT4{1}	-0.559	-0.511	34.719	0.586	-0.246	-0.439
	GRT5{1}	0.401	-0.802	26.869	0.718	-0.472	-0.259
S06	Gravity{1}	0.002	0.015	0.582	0.005	0.006	0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.305	-2.271	19.177	1.069	-0.909	-0.402
	Thermal 2{1}	-0.845	-1.810	34.515	0.615	-0.263	-0.363
	Thermal 3{1}	-1.218	1.213	34.410	0.601	-0.268	-0.499
	Thermal 4{1}	-0.830	1.409	34.016	0.580	-0.252	-0.440
	Thermal 5{1}	0.414	0.260	25.505	0.712	-0.479	-0.261
	GRT1{1}	-0.303	-2.257	19.759	1.074	-0.903	-0.399
	GRT2{1}	-0.843	-1.795	35.097	0.620	-0.257	-0.360
	GRT3{1}	-1.215	1.228	34.993	0.606	-0.261	-0.496
	GRT4{1}	-0.827	1.423	34.598	0.585	-0.246	-0.438
	GRT5{1}	0.417	0.275	26.087	0.717	-0.473	-0.258
S07	Gravity{1}	0.001	0.010	0.587	0.017	-0.007	0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.025	-1.508	18.154	1.010	-0.814	-0.316
	Thermal 2{1}	-0.599	-1.139	34.426	0.559	-0.243	-0.266
	Thermal 3{1}	-1.229	2.271	34.303	0.547	-0.247	-0.376
	Thermal 4{1}	-0.879	2.365	33.924	0.527	-0.232	-0.341
	Thermal 5{1}	0.415	0.844	25.067	0.659	-0.431	-0.229
	GRT1{1}	-0.025	-1.498	18.741	1.027	-0.821	-0.314
	GRT2{1}	-0.598	-1.129	35.012	0.576	-0.250	-0.264
	GRT3{1}	-1.229	2.281	34.889	0.564	-0.254	-0.374
	GRT4{1}	-0.878	2.375	34.511	0.544	-0.240	-0.339
	GRT5{1}	0.415	0.854	25.654	0.676	-0.439	-0.227
S08	Gravity{1}	0.000	0.007	0.583	0.022	-0.010	0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.136	-1.068	17.521	0.995	-0.776	-0.280
	Thermal 2{1}	-0.465	-0.774	34.368	0.543	-0.233	-0.226
	Thermal 3{1}	-1.286	2.880	34.234	0.531	-0.237	-0.327
	Thermal 4{1}	-0.952	2.929	33.865	0.511	-0.223	-0.301
	Thermal 5{1}	0.402	1.219	24.795	0.645	-0.412	-0.217
	GRT1{1}	0.135	-1.061	18.104	1.017	-0.786	-0.278
	GRT2{1}	-0.465	-0.767	34.952	0.564	-0.243	-0.224
	GRT3{1}	-1.286	2.887	34.817	0.553	-0.247	-0.325
	GRT4{1}	-0.953	2.936	34.448	0.533	-0.233	-0.299

GRT5{1} S_LINEREV0.OUT 0.402 1.227 25.378 0.666 -0.422 -0.215

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S_LINEREV0

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RESULT PAGE 52

DISPLACEMENTS

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
S09 N	Gravity{1}	0.000	0.007	0.583	0.022	-0.010	0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.140	-1.056	17.503	0.995	-0.775	-0.279
	Thermal 2{1}	-0.461	-0.764	34.367	0.542	-0.233	-0.225
	Thermal 3{1}	-1.288	2.897	34.232	0.531	-0.236	-0.326
	Thermal 4{1}	-0.955	2.945	33.863	0.511	-0.223	-0.301
	Thermal 5{1}	0.402	1.230	24.787	0.644	-0.411	-0.216
	GRT1{1}	0.140	-1.049	18.086	1.017	-0.786	-0.277
	GRT2{1}	-0.462	-0.757	34.950	0.564	-0.243	-0.224
	GRT3{1}	-1.289	2.904	34.815	0.553	-0.247	-0.324
	GRT4{1}	-0.955	2.952	34.446	0.533	-0.233	-0.299
	GRT5{1}	0.401	1.238	25.370	0.666	-0.421	-0.215
S09 F	Gravity{1}	0.000	0.004	0.545	0.026	-0.015	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.075	-0.614	15.560	0.965	-0.637	-0.133
	Thermal 2{1}	-0.495	-0.447	33.670	0.522	-0.191	-0.067
	Thermal 3{1}	-1.707	3.311	33.534	0.511	-0.194	-0.131
	Thermal 4{1}	-1.379	3.342	33.200	0.491	-0.183	-0.142
	Thermal 5{1}	0.136	1.592	23.703	0.622	-0.337	-0.163
	GRT1{1}	0.075	-0.609	16.105	0.991	-0.651	-0.132
	GRT2{1}	-0.495	-0.443	34.215	0.548	-0.206	-0.067
	GRT3{1}	-1.707	3.315	34.079	0.537	-0.209	-0.130
	GRT4{1}	-1.379	3.347	33.745	0.517	-0.198	-0.142
	GRT5{1}	0.136	1.596	24.248	0.648	-0.352	-0.162
S10 N	Gravity{1}	0.003	0.002	0.379	0.030	-0.012	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.295	-0.239	9.547	0.941	-0.520	-0.063
	Thermal 2{1}	-0.608	-0.330	30.992	0.493	-0.158	0.001
	Thermal 3{1}	-2.681	2.970	30.885	0.484	-0.160	-0.037

		S_LINEREV0.OUT					
	Thermal 4{1}	-2.430	3.077	30.669	0.464	-0.151	-0.062
	Thermal 5{1}	-0.781	1.807	20.105	0.597	-0.277	-0.124
	GRT1{1}	-0.293	-0.237	9.927	0.971	-0.532	-0.063
	GRT2{1}	-0.605	-0.329	31.371	0.523	-0.170	0.001
	GRT3{1}	-2.679	2.972	31.264	0.514	-0.172	-0.036
	GRT4{1}	-2.427	3.079	31.049	0.494	-0.163	-0.061
	GRT5{1}	-0.779	1.809	20.484	0.627	-0.289	-0.124
S10 F	Gravity{1}	0.002	0.002	0.304	0.029	-0.009	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.298	-0.207	7.308	0.801	-0.408	0.044
	Thermal 2{1}	-0.480	-0.322	29.864	0.407	-0.119	0.085
	Thermal 3{1}	-2.611	2.592	29.776	0.400	-0.121	0.118
	Thermal 4{1}	-2.438	2.706	29.607	0.383	-0.114	0.084
	Thermal 5{1}	-0.985	1.642	18.706	0.501	-0.215	-0.023
	GRT1{1}	-0.295	-0.205	7.612	0.830	-0.416	0.043
	GRT2{1}	-0.478	-0.321	30.167	0.437	-0.127	0.085
	GRT3{1}	-2.609	2.593	30.080	0.429	-0.129	0.118
	GRT4{1}	-2.435	2.708	29.911	0.412	-0.122	0.084
	GRT5{1}	-0.982	1.643	19.010	0.530	-0.223	-0.024

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RESULT PAGE 53

DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
S15	Gravity{1}	0.000	0.000	0.154	0.024	-0.003	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.015	-0.027	3.904	0.643	-0.216	0.033
	Thermal 2{1}	0.020	-0.035	27.896	0.322	-0.055	0.048
	Thermal 3{1}	-1.173	2.032	27.855	0.317	-0.056	0.124
	Thermal 4{1}	-1.180	2.043	27.765	0.303	-0.053	0.107
	Thermal 5{1}	-0.637	1.104	16.475	0.399	-0.111	0.029
	GRT1{1}	0.015	-0.026	4.058	0.668	-0.219	0.033
	GRT2{1}	0.020	-0.034	28.050	0.347	-0.058	0.048
	GRT3{1}	-1.174	2.033	28.009	0.341	-0.059	0.124
	GRT4{1}	-1.180	2.044	27.919	0.327	-0.056	0.107
	GRT5{1}	-0.637	1.104	16.629	0.424	-0.114	0.029

S_LINEREV0.OUT

S11 N	Gravity{1}	0.000	0.000	0.027	0.014	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.051	-0.006	0.847	0.390	-0.053	-0.008
	Thermal 2{1}	0.070	-0.007	26.221	0.196	-0.004	-0.012
	Thermal 3{1}	0.118	1.251	26.215	0.192	-0.005	0.066
	Thermal 4{1}	0.096	1.253	26.196	0.184	-0.004	0.070
	Thermal 5{1}	0.016	0.670	14.518	0.242	-0.023	0.045
	GRT1{1}	0.051	-0.006	0.874	0.405	-0.052	-0.008
	GRT2{1}	0.069	-0.007	26.248	0.210	-0.003	-0.012
	GRT3{1}	0.118	1.251	26.242	0.206	-0.004	0.066
	GRT4{1}	0.095	1.253	26.223	0.198	-0.004	0.070
	GRT5{1}	0.015	0.670	14.545	0.256	-0.023	0.045
S11 F	Gravity{1}	0.000	0.000	0.012	0.005	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.035	-0.008	0.432	0.158	-0.047	-0.009
	Thermal 2{1}	0.046	-0.010	26.012	0.078	-0.008	-0.012
	Thermal 3{1}	0.217	1.009	26.009	0.077	-0.009	0.022
	Thermal 4{1}	0.203	1.012	26.000	0.073	-0.008	0.026
	Thermal 5{1}	0.085	0.543	14.261	0.097	-0.023	0.020
	GRT1{1}	0.035	-0.008	0.444	0.163	-0.048	-0.009
	GRT2{1}	0.046	-0.010	26.024	0.083	-0.008	-0.012
	GRT3{1}	0.217	1.009	26.021	0.082	-0.009	0.022
	GRT4{1}	0.202	1.012	26.012	0.078	-0.008	0.026
	GRT5{1}	0.085	0.543	14.273	0.102	-0.023	0.020
S12	Gravity{1}	0.000	0.000	0.005	0.003	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.019	-0.004	0.195	0.091	-0.027	-0.007
	Thermal 2{1}	0.025	-0.005	25.901	0.045	-0.005	-0.009
	Thermal 3{1}	0.168	0.708	25.900	0.044	-0.005	0.012
	Thermal 4{1}	0.160	0.710	25.895	0.042	-0.005	0.015
	Thermal 5{1}	0.073	0.380	14.118	0.056	-0.013	0.012
	GRT1{1}	0.019	-0.004	0.200	0.094	-0.027	-0.007
	GRT2{1}	0.025	-0.005	25.906	0.047	-0.005	-0.009
	GRT3{1}	0.168	0.708	25.905	0.047	-0.005	0.012
	GRT4{1}	0.160	0.710	25.900	0.045	-0.005	0.015
	GRT5{1}	0.073	0.380	14.123	0.058	-0.013	0.012

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
S13	Gravity{1}	0.000	0.000	0.001	0.001	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.007	-0.002	0.065	0.046	-0.014	-0.004
	Thermal 2{1}	0.010	-0.002	25.840	0.022	-0.003	-0.006
	Thermal 3{1}	0.104	0.415	25.840	0.022	-0.003	0.005
	Thermal 4{1}	0.101	0.415	25.838	0.021	-0.003	0.007
	Thermal 5{1}	0.049	0.222	14.039	0.028	-0.007	0.007
	GRT1{1}	0.007	-0.002	0.067	0.047	-0.014	-0.004
	GRT2{1}	0.010	-0.002	25.842	0.024	-0.003	-0.006
	GRT3{1}	0.104	0.415	25.841	0.023	-0.003	0.006
	GRT4{1}	0.101	0.415	25.840	0.022	-0.003	0.007
	GRT5{1}	0.049	0.222	14.041	0.029	-0.007	0.007
S14	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	25.810	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	25.810	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	25.810	0.000	0.000	0.000
	Thermal 5{1}	0.000	0.000	14.000	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	0.000	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	25.810	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	25.810	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	25.810	0.000	0.000	0.000
	GRT5{1}	0.000	0.000	14.000	0.000	0.000	0.000

*** Segment S end ***

*** Segment T begin ***

E04	Gravity{1}	1.538	-0.619	-3.066	-0.099	0.104	-0.038
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-5.148	-19.154	-8.900	0.599	0.066	-0.180
	Thermal 2{1}	-6.890	-21.324	-10.791	0.582	0.089	-0.204
	Thermal 3{1}	-5.121	-19.140	-8.877	0.600	0.065	-0.180
	Thermal 4{1}	-4.898	-18.400	-8.443	0.602	0.064	-0.174
	Thermal 5{1}	-6.769	-19.163	-10.177	0.568	0.090	-0.191
	GRT1{1}	-3.610	-19.773	-11.966	0.501	0.170	-0.218
	GRT2{1}	-5.352	-21.943	-13.857	0.484	0.193	-0.242

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GRT3{1}	-3.583	-19.759	-11.943	0.501	0.169	-0.218
GRT4{1}	-3.360	-19.019	-11.509	0.503	0.167	-0.212
GRT5{1}	-5.231	-19.782	-13.244	0.469	0.194	-0.229

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
T01	Gravity{1}	1.637	-0.523	-3.066	-0.095	0.094	-0.040
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-5.103	-19.704	-8.605	0.507	0.028	-0.121
	Thermal 2{1}	-6.824	-21.855	-10.495	0.485	0.048	-0.140
	Thermal 3{1}	-5.077	-19.690	-8.630	0.507	0.028	-0.120
	Thermal 4{1}	-4.855	-18.953	-8.205	0.511	0.027	-0.116
	Thermal 5{1}	-6.700	-19.682	-9.896	0.476	0.052	-0.132
	GRT1{1}	-3.466	-20.226	-11.672	0.412	0.122	-0.160
	GRT2{1}	-5.187	-22.377	-13.561	0.390	0.142	-0.180
	GRT3{1}	-3.439	-20.213	-11.696	0.412	0.122	-0.160
	GRT4{1}	-3.218	-19.476	-11.271	0.416	0.121	-0.156
	GRT5{1}	-5.063	-20.205	-12.962	0.382	0.146	-0.172
T02	Gravity{1}	2.002	0.276	-3.067	-0.058	-0.034	-0.057
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-5.752	-20.764	-5.974	-0.226	-0.048	0.515
	Thermal 2{1}	-7.293	-22.466	-7.336	-0.284	-0.022	0.536
	Thermal 3{1}	-5.732	-20.755	-5.998	-0.226	-0.049	0.515
	Thermal 4{1}	-5.501	-20.143	-5.669	-0.208	-0.049	0.504
	Thermal 5{1}	-7.044	-20.513	-6.899	-0.241	-0.010	0.494
	GRT1{1}	-3.750	-20.488	-9.041	-0.285	-0.081	0.458
	GRT2{1}	-5.291	-22.190	-10.403	-0.342	-0.055	0.479
	GRT3{1}	-3.730	-20.479	-9.065	-0.284	-0.082	0.458
	GRT4{1}	-3.498	-19.867	-8.736	-0.266	-0.082	0.448
	GRT5{1}	-5.042	-20.237	-9.966	-0.299	-0.044	0.438
T02 M	Gravity{1}	1.948	0.369	-3.067	-0.058	-0.034	-0.057
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-5.828	-20.400	-5.575	-0.227	-0.047	0.516

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	Thermal 2{1}	-7.328	-22.009	-6.858	-0.285	-0.021	0.537
	Thermal 3{1}	-5.810	-20.392	-5.599	-0.226	-0.048	0.516
	Thermal 4{1}	-5.579	-19.808	-5.285	-0.209	-0.048	0.505
	Thermal 5{1}	-7.060	-20.126	-6.445	-0.241	-0.009	0.495
	GRT1{1}	-3.880	-20.031	-8.642	-0.285	-0.081	0.459
	GRT2{1}	-5.380	-21.640	-9.925	-0.343	-0.055	0.480
	GRT3{1}	-3.862	-20.023	-8.666	-0.285	-0.082	0.459
	GRT4{1}	-3.630	-19.439	-8.352	-0.267	-0.082	0.448
	GRT5{1}	-5.111	-19.756	-9.512	-0.300	-0.043	0.439
T03	Gravity{1}	1.894	0.463	-3.067	-0.058	-0.034	-0.057
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-5.904	-20.035	-5.177	-0.228	-0.047	0.517
	Thermal 2{1}	-7.361	-21.552	-6.380	-0.285	-0.021	0.538
	Thermal 3{1}	-5.887	-20.028	-5.201	-0.227	-0.048	0.517
	Thermal 4{1}	-5.656	-19.472	-4.901	-0.209	-0.048	0.506
	Thermal 5{1}	-7.074	-19.738	-5.992	-0.242	-0.009	0.496
	GRT1{1}	-4.010	-19.572	-8.244	-0.286	-0.081	0.460
	GRT2{1}	-5.468	-21.089	-9.447	-0.344	-0.055	0.481
	GRT3{1}	-3.993	-19.565	-8.268	-0.285	-0.082	0.460
	GRT4{1}	-3.762	-19.009	-7.968	-0.268	-0.082	0.449
	GRT5{1}	-5.181	-19.275	-9.058	-0.300	-0.043	0.439

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
T04 N	Gravity{1}	1.485	0.742	-3.066	-0.048	-0.122	-0.065
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-5.496	-18.458	-3.865	-0.346	0.228	0.833
	Thermal 2{1}	-6.718	-19.659	-4.806	-0.407	0.295	0.875
	Thermal 3{1}	-5.485	-18.453	-3.890	-0.346	0.227	0.833
	Thermal 4{1}	-5.278	-17.997	-3.638	-0.327	0.218	0.815
	Thermal 5{1}	-6.416	-18.096	-4.498	-0.357	0.287	0.809
	GRT1{1}	-4.011	-17.716	-6.932	-0.394	0.106	0.768
	GRT2{1}	-5.233	-18.916	-7.873	-0.455	0.172	0.809

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	GRT3{1}	-4.000	-17.711	-6.956	-0.394	0.105	0.768
	GRT4{1}	-3.792	-17.254	-6.704	-0.375	0.095	0.750
	GRT5{1}	-4.930	-17.354	-7.565	-0.405	0.164	0.743
T04 F	Gravity{1}	1.366	0.725	-2.934	-0.044	-0.179	-0.069
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-5.035	-17.406	-3.965	-0.392	0.442	0.948
	Thermal 2{1}	-6.152	-18.518	-4.935	-0.453	0.538	0.996
	Thermal 3{1}	-5.025	-17.401	-3.988	-0.391	0.440	0.948
	Thermal 4{1}	-4.835	-16.976	-3.731	-0.372	0.424	0.927
	Thermal 5{1}	-5.873	-17.057	-4.625	-0.401	0.514	0.921
	GRT1{1}	-3.669	-16.681	-6.899	-0.436	0.263	0.878
	GRT2{1}	-4.786	-17.794	-7.869	-0.496	0.359	0.927
	GRT3{1}	-3.659	-16.677	-6.922	-0.435	0.261	0.878
	GRT4{1}	-3.469	-16.252	-6.665	-0.416	0.245	0.858
	GRT5{1}	-4.507	-16.332	-7.559	-0.444	0.336	0.852
T05 N	Gravity{1}	1.366	-0.078	-0.456	-0.023	-0.223	-0.074
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-2.305	-5.301	-10.436	-0.506	0.528	1.164
	Thermal 2{1}	-2.875	-5.773	-12.675	-0.560	0.633	1.226
	Thermal 3{1}	-2.295	-5.298	-10.438	-0.506	0.527	1.163
	Thermal 4{1}	-2.204	-5.134	-9.953	-0.487	0.508	1.138
	Thermal 5{1}	-2.764	-5.264	-11.987	-0.507	0.603	1.135
	GRT1{1}	-0.938	-5.379	-10.892	-0.529	0.305	1.090
	GRT2{1}	-1.508	-5.850	-13.131	-0.583	0.410	1.152
	GRT3{1}	-0.928	-5.376	-10.894	-0.528	0.303	1.090
	GRT4{1}	-0.837	-5.212	-10.409	-0.510	0.284	1.064
	GRT5{1}	-1.397	-5.342	-12.443	-0.530	0.380	1.061
T05 M	Gravity{1}	1.314	-0.116	-0.329	-0.021	-0.207	-0.074
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-2.043	-4.494	-10.665	-0.512	0.449	1.159
	Thermal 2{1}	-2.560	-4.916	-12.952	-0.566	0.542	1.221
	Thermal 3{1}	-2.033	-4.491	-10.667	-0.512	0.447	1.158
	Thermal 4{1}	-1.952	-4.346	-10.174	-0.494	0.431	1.133
	Thermal 5{1}	-2.464	-4.474	-12.250	-0.513	0.517	1.130
	GRT1{1}	-0.728	-4.610	-10.994	-0.534	0.241	1.085
	GRT2{1}	-1.245	-5.031	-13.280	-0.587	0.335	1.147
	GRT3{1}	-0.719	-4.607	-10.995	-0.533	0.240	1.085
	GRT4{1}	-0.637	-4.462	-10.502	-0.515	0.223	1.060
	GRT5{1}	-1.150	-4.589	-12.579	-0.534	0.309	1.056

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
T05 F	Gravity{1}	1.198	-0.122	-0.279	-0.019	-0.190	-0.073
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.745	-3.908	-10.622	-0.519	0.366	1.154
	Thermal 2{1}	-2.199	-4.283	-12.901	-0.572	0.447	1.215
	Thermal 3{1}	-1.736	-3.906	-10.623	-0.519	0.364	1.154
	Thermal 4{1}	-1.666	-3.778	-10.132	-0.501	0.351	1.129
	Thermal 5{1}	-2.120	-3.895	-12.203	-0.519	0.427	1.125
	GRT1{1}	-0.547	-4.030	-10.902	-0.539	0.176	1.080
	GRT2{1}	-1.001	-4.405	-13.181	-0.591	0.257	1.142
	GRT3{1}	-0.538	-4.027	-10.902	-0.538	0.174	1.080
	GRT4{1}	-0.468	-3.899	-10.411	-0.520	0.161	1.055
	GRT5{1}	-0.922	-4.017	-12.483	-0.538	0.237	1.052
T11	Gravity{1}	0.000	0.000	-0.278	-0.013	-0.118	-0.069
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	-8.667	-0.425	0.134	1.084
	Thermal 2{1}	0.000	0.000	-10.555	-0.465	0.175	1.142
	Thermal 3{1}	0.000	0.000	-8.668	-0.425	0.133	1.084
	Thermal 4{1}	0.000	0.000	-8.248	-0.411	0.127	1.061
	Thermal 5{1}	0.000	0.000	-9.976	-0.423	0.170	1.057
	GRT1{1}	0.000	0.000	-8.945	-0.438	0.016	1.015
	GRT2{1}	0.000	0.000	-10.833	-0.477	0.057	1.073
	GRT3{1}	0.000	0.000	-8.946	-0.438	0.015	1.015
	GRT4{1}	0.000	0.000	-8.526	-0.424	0.009	0.992
	GRT5{1}	0.000	0.000	-10.255	-0.436	0.052	0.988
T10	Gravity{1}	0.000	0.000	-0.267	0.017	0.033	-0.039
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	4.732	0.083	-0.038	0.607
	Thermal 2{1}	0.000	0.000	5.526	0.087	-0.050	0.639
	Thermal 3{1}	0.000	0.000	4.731	0.083	-0.038	0.607
	Thermal 4{1}	0.000	0.000	4.663	0.080	-0.036	0.594
	Thermal 5{1}	0.000	0.000	5.282	0.078	-0.049	0.592
	GRT1{1}	0.000	0.000	4.465	0.100	-0.005	0.568

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	GRT2{1}	0.000	0.000	5.259	0.105	-0.017	0.601
	GRT3{1}	0.000	0.000	4.464	0.100	-0.005	0.568
	GRT4{1}	0.000	0.000	4.396	0.097	-0.003	0.555
	GRT5{1}	0.000	0.000	5.015	0.096	-0.015	0.553
T06	Gravity{1}	0.006	0.000	-0.246	-0.061	-0.004	-0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.070	1.901	20.949	0.061	0.004	0.029
	Thermal 2{1}	-0.074	2.282	24.989	0.070	0.006	0.031
	Thermal 3{1}	-0.070	1.901	20.949	0.061	0.004	0.029
	Thermal 4{1}	-0.069	1.832	20.290	0.059	0.004	0.029
	Thermal 5{1}	-0.069	2.165	23.750	0.066	0.006	0.029
	GRT1{1}	-0.064	1.901	20.703	0.000	0.000	0.027
	GRT2{1}	-0.068	2.282	24.743	0.009	0.002	0.029
	GRT3{1}	-0.064	1.901	20.702	0.000	0.000	0.027
	GRT4{1}	-0.063	1.832	20.043	-0.002	0.000	0.026
	GRT5{1}	-0.063	2.165	23.504	0.005	0.002	0.027

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
T07	Gravity{1}	0.001	0.000	-0.060	-0.028	-0.001	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.009	1.046	20.742	0.034	0.001	0.006
	Thermal 2{1}	-0.010	1.255	24.752	0.038	0.001	0.006
	Thermal 3{1}	-0.009	1.046	20.742	0.034	0.001	0.006
	Thermal 4{1}	-0.009	1.008	20.090	0.032	0.001	0.006
	Thermal 5{1}	-0.009	1.191	23.527	0.036	0.001	0.006
	GRT1{1}	-0.009	1.046	20.682	0.005	0.000	0.005
	GRT2{1}	-0.009	1.255	24.693	0.010	0.000	0.006
	GRT3{1}	-0.009	1.046	20.682	0.005	0.000	0.005
	GRT4{1}	-0.008	1.008	20.030	0.004	0.000	0.005
	GRT5{1}	-0.008	1.191	23.468	0.008	0.000	0.005
T08	Gravity{1}	0.000	0.000	-0.023	-0.015	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000

		S_LINEREV0.OUT					
	Thermal 1{1}	-0.003	0.660	20.699	0.018	0.000	0.002
	Thermal 2{1}	-0.003	0.792	24.703	0.020	0.000	0.003
	Thermal 3{1}	-0.003	0.660	20.699	0.018	0.000	0.002
	Thermal 4{1}	-0.003	0.636	20.048	0.017	0.000	0.002
	Thermal 5{1}	-0.003	0.752	23.481	0.019	0.000	0.002
	GRT1{1}	-0.003	0.660	20.675	0.003	0.000	0.002
	GRT2{1}	-0.003	0.792	24.679	0.006	0.000	0.002
	GRT3{1}	-0.003	0.660	20.675	0.003	0.000	0.002
	GRT4{1}	-0.003	0.636	20.024	0.002	0.000	0.002
	GRT5{1}	-0.003	0.752	23.457	0.004	0.000	0.002
T09	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	20.670	0.000	0.000	0.000
	Thermal 2{1}	0.000	0.000	24.670	0.000	0.000	0.000
	Thermal 3{1}	0.000	0.000	20.670	0.000	0.000	0.000
	Thermal 4{1}	0.000	0.000	20.020	0.000	0.000	0.000
	Thermal 5{1}	0.000	0.000	23.450	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	20.670	0.000	0.000	0.000
	GRT2{1}	0.000	0.000	24.670	0.000	0.000	0.000
	GRT3{1}	0.000	0.000	20.670	0.000	0.000	0.000
	GRT4{1}	0.000	0.000	20.020	0.000	0.000	0.000
	GRT5{1}	0.000	0.000	23.450	0.000	0.000	0.000

*** Segment T end ***

*** Segment U begin ***

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S_LINEREV0

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DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
T06	Gravity{1}	0.006	0.000	-0.246	-0.061	-0.004	-0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.070	1.901	20.949	0.061	0.004	0.029
	Thermal 2{1}	-0.074	2.282	24.989	0.070	0.006	0.031
	Thermal 3{1}	-0.070	1.901	20.949	0.061	0.004	0.029
	Thermal 4{1}	-0.069	1.832	20.290	0.059	0.004	0.029
	Thermal 5{1}	-0.069	2.165	23.750	0.066	0.006	0.029

S_LINEREVO.OUT

	GRT1{1}	-0.064	1.901	20.703	0.000	0.000	0.027
	GRT2{1}	-0.068	2.282	24.743	0.009	0.002	0.029
	GRT3{1}	-0.064	1.901	20.702	0.000	0.000	0.027
	GRT4{1}	-0.063	1.832	20.043	-0.002	0.000	0.026
	GRT5{1}	-0.063	2.165	23.504	0.005	0.002	0.027
U01	Gravity{1}	0.002	0.051	-0.246	-0.061	-0.004	-0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.066	1.850	21.155	0.061	0.004	0.029
	Thermal 2{1}	-0.069	2.223	25.237	0.070	0.006	0.031
	Thermal 3{1}	-0.066	1.851	21.155	0.061	0.004	0.029
	Thermal 4{1}	-0.065	1.783	20.488	0.059	0.004	0.029
	Thermal 5{1}	-0.064	2.110	23.985	0.066	0.006	0.029
	GRT1{1}	-0.064	1.901	20.909	0.000	0.000	0.027
	GRT2{1}	-0.067	2.274	24.990	0.009	0.002	0.029
	GRT3{1}	-0.064	1.901	20.908	0.000	0.000	0.027
	GRT4{1}	-0.063	1.834	20.242	-0.002	0.000	0.026
	GRT5{1}	-0.062	2.161	23.739	0.005	0.002	0.027
U02	Gravity{1}	-0.001	0.105	-0.246	-0.061	-0.004	-0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.063	1.796	21.375	0.061	0.004	0.029
	Thermal 2{1}	-0.064	2.161	25.501	0.070	0.006	0.031
	Thermal 3{1}	-0.063	1.796	21.375	0.061	0.004	0.029
	Thermal 4{1}	-0.061	1.730	20.700	0.059	0.004	0.029
	Thermal 5{1}	-0.059	2.051	24.236	0.066	0.006	0.029
	GRT1{1}	-0.064	1.901	21.129	0.000	0.000	0.027
	GRT2{1}	-0.066	2.266	25.254	0.009	0.002	0.029
	GRT3{1}	-0.064	1.901	21.128	0.000	0.000	0.027
	GRT4{1}	-0.063	1.835	20.454	-0.002	0.000	0.026
	GRT5{1}	-0.060	2.156	23.989	0.005	0.002	0.027
U02 M	Gravity{1}	-0.013	0.283	-0.247	-0.061	-0.004	-0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.050	1.617	22.097	0.061	0.004	0.029
	Thermal 2{1}	-0.047	1.956	26.366	0.070	0.006	0.031
	Thermal 3{1}	-0.050	1.618	22.096	0.061	0.004	0.029
	Thermal 4{1}	-0.049	1.558	21.395	0.059	0.004	0.029
	Thermal 5{1}	-0.042	1.859	25.057	0.066	0.006	0.029
	GRT1{1}	-0.063	1.901	21.850	0.000	0.000	0.027
	GRT2{1}	-0.061	2.239	26.120	0.009	0.002	0.029
	GRT3{1}	-0.063	1.901	21.850	0.000	0.000	0.027
	GRT4{1}	-0.063	1.841	21.149	-0.002	0.000	0.026
	GRT5{1}	-0.056	2.142	24.810	0.005	0.002	0.027

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*** Segment U end ***

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S_LINEREV0.OUT

	Thermal 4{1}	-6.263	-25.283	-15.217	0.165	0.112	-0.075
	Thermal 5{1}	-7.906	-25.638	-16.006	0.112	0.149	-0.071
	GRT1{1}	-5.430	-26.123	-17.136	0.062	0.180	-0.127
	GRT2{1}	-7.065	-28.384	-18.150	0.002	0.216	-0.126
	GRT3{1}	-5.406	-26.115	-17.125	0.062	0.179	-0.127
	GRT4{1}	-5.163	-25.218	-16.871	0.076	0.175	-0.126
	GRT5{1}	-6.806	-25.573	-17.659	0.022	0.212	-0.121
D02 M	Gravity{1}	0.271	-0.033	-1.483	-0.082	0.002	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.548	-22.722	-14.288	0.292	-0.048	-0.078
	Thermal 2{1}	-0.673	-25.078	-12.824	0.407	0.108	-0.117
	Thermal 3{1}	-0.123	-22.540	-12.359	0.431	0.099	-0.104
	Thermal 4{1}	-0.130	-17.912	-11.866	0.449	0.101	-0.090
	Thermal 5{1}	1.974	-7.516	-11.409	0.440	0.037	-0.042
	GRT1{1}	3.819	-22.755	-15.771	0.211	-0.046	-0.076
	GRT2{1}	-0.402	-25.111	-14.307	0.325	0.110	-0.116
	GRT3{1}	0.148	-22.573	-13.843	0.349	0.101	-0.103
	GRT4{1}	0.141	-17.945	-13.349	0.367	0.103	-0.088
	GRT5{1}	2.245	-7.549	-12.892	0.358	0.039	-0.041

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
D02 D	Gravity{1}	0.287	0.595	-1.483	-0.082	0.002	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.177	-24.963	-14.288	0.292	-0.048	-0.078
	Thermal 2{1}	0.152	-28.198	-12.824	0.407	0.108	-0.117
	Thermal 3{1}	0.635	-25.842	-12.359	0.431	0.099	-0.104
	Thermal 4{1}	0.643	-21.348	-11.866	0.449	0.101	-0.090
	Thermal 5{1}	2.255	-10.886	-11.409	0.440	0.037	-0.042
	GRT1{1}	3.464	-24.368	-15.771	0.211	-0.046	-0.076
	GRT2{1}	0.439	-27.604	-14.307	0.325	0.110	-0.116
	GRT3{1}	0.922	-25.248	-13.843	0.349	0.101	-0.103
	GRT4{1}	0.930	-20.754	-13.349	0.367	0.103	-0.088

		S_LINEREVO.OUT					
	GRT5{1}	2.542	-10.291	-12.892	0.358	0.039	-0.041
B02 M	Gravity{1}	-1.747	-0.720	-0.613	-0.029	0.050	-0.006
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	14.636	-18.777	-18.393	0.018	0.016	-0.165
	Thermal 2{1}	15.489	-20.815	-19.821	-0.068	0.021	-0.182
	Thermal 3{1}	14.634	-18.777	-18.393	0.018	0.016	-0.165
	Thermal 4{1}	14.278	-17.904	-18.092	0.035	0.019	-0.159
	Thermal 5{1}	14.391	-18.148	-19.301	-0.045	0.029	-0.163
	GRT1{1}	12.889	-19.496	-19.006	-0.010	0.066	-0.171
	GRT2{1}	13.742	-21.534	-20.433	-0.097	0.070	-0.188
	GRT3{1}	12.887	-19.497	-19.006	-0.010	0.066	-0.171
	GRT4{1}	12.531	-18.624	-18.705	0.006	0.068	-0.166
	GRT5{1}	12.644	-18.868	-19.914	-0.074	0.079	-0.169
B02 D	Gravity{1}	-1.318	-0.470	-0.613	-0.029	0.050	-0.006
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	14.776	-18.936	-18.393	0.018	0.016	-0.165
	Thermal 2{1}	15.668	-20.223	-19.821	-0.068	0.021	-0.182
	Thermal 3{1}	14.775	-18.937	-18.393	0.018	0.016	-0.165
	Thermal 4{1}	14.442	-18.208	-18.092	0.035	0.019	-0.159
	Thermal 5{1}	14.643	-17.759	-19.301	-0.045	0.029	-0.163
	GRT1{1}	13.459	-19.406	-19.006	-0.010	0.066	-0.171
	GRT2{1}	14.350	-20.692	-20.434	-0.097	0.070	-0.188
	GRT3{1}	13.457	-19.407	-19.006	-0.010	0.066	-0.171
	GRT4{1}	13.124	-18.678	-18.705	0.006	0.068	-0.166
	GRT5{1}	13.325	-18.229	-19.914	-0.074	0.079	-0.169
D12 M	Gravity{1}	0.011	-0.011	0.000	-0.016	0.023	-0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	5.925	-5.925	30.668	1.478	0.261	0.090
	Thermal 2{1}	5.784	-5.784	32.910	0.970	0.614	-0.019
	Thermal 3{1}	5.066	-5.066	33.064	0.948	0.593	-0.015
	Thermal 4{1}	4.280	-4.280	32.639	0.919	0.573	0.003
	Thermal 5{1}	2.842	-2.842	29.484	1.041	0.372	0.086
	GRT1{1}	5.936	-5.936	30.668	1.461	0.284	0.086
	GRT2{1}	5.794	-5.794	32.910	0.954	0.637	-0.023
	GRT3{1}	5.076	-5.076	33.064	0.932	0.616	-0.019
	GRT4{1}	4.290	-4.290	32.639	0.902	0.596	-0.002
	GRT5{1}	2.853	-2.853	29.484	1.025	0.395	0.082

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S_LINEREVO

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
D12 D	Gravity{1}	0.187	0.113	0.000	-0.016	0.023	-0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	7.928	-17.246	30.668	1.478	0.261	0.090
	Thermal 2{1}	10.486	-13.220	32.910	0.970	0.614	-0.019
	Thermal 3{1}	9.608	-12.333	33.064	0.948	0.593	-0.015
	Thermal 4{1}	8.671	-11.318	32.639	0.919	0.573	0.003
	Thermal 5{1}	5.691	-10.820	29.484	1.041	0.372	0.086
	GRT1{1}	8.115	-17.133	30.668	1.461	0.284	0.086
	GRT2{1}	10.673	-13.107	32.910	0.954	0.637	-0.023
	GRT3{1}	9.795	-12.220	33.064	0.932	0.616	-0.019
	GRT4{1}	8.858	-11.205	32.639	0.902	0.596	-0.002
	GRT5{1}	5.878	-10.707	29.484	1.025	0.395	0.082
S05 M	Gravity{1}	0.006	0.024	0.552	0.005	0.007	0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.247	-4.156	21.101	1.070	-0.910	-0.402
	Thermal 2{1}	-0.140	-3.588	34.659	0.616	-0.263	-0.363
	Thermal 3{1}	-0.796	-1.031	34.591	0.602	-0.268	-0.500
	Thermal 4{1}	-0.564	-0.535	34.167	0.581	-0.252	-0.441
	Thermal 5{1}	0.396	-0.826	26.317	0.713	-0.479	-0.261
	GRT1{1}	0.253	-4.133	21.653	1.074	-0.903	-0.400
	GRT2{1}	-0.134	-3.564	35.211	0.621	-0.256	-0.361
	GRT3{1}	-0.791	-1.007	35.143	0.607	-0.261	-0.497
	GRT4{1}	-0.559	-0.511	34.719	0.586	-0.246	-0.439
	GRT5{1}	0.401	-0.802	26.869	0.718	-0.472	-0.259
S05 D	Gravity{1}	0.057	-0.013	0.552	0.005	0.007	0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-6.722	-12.352	21.101	1.070	-0.910	-0.402
	Thermal 2{1}	-2.154	-8.306	34.659	0.616	-0.263	-0.363
	Thermal 3{1}	-2.848	-5.642	34.591	0.602	-0.268	-0.500
	Thermal 4{1}	-2.498	-4.989	34.167	0.581	-0.252	-0.441
	Thermal 5{1}	-3.275	-6.288	26.317	0.713	-0.479	-0.261
	GRT1{1}	-6.665	-12.365	21.653	1.074	-0.903	-0.400
	GRT2{1}	-2.097	-8.319	35.211	0.621	-0.256	-0.361
	GRT3{1}	-2.791	-5.656	35.143	0.607	-0.261	-0.497

		S_LINEREV0.OUT					
	GRT4{1}	-2.442	-5.002	34.719	0.586	-0.246	-0.439
	GRT5{1}	-3.219	-6.301	26.869	0.718	-0.472	-0.259
F15 M	Gravity{1}	-0.017	-0.018	0.661	-0.020	0.202	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.954	-10.009	5.878	0.748	0.052	-0.406
	Thermal 2{1}	-1.737	-10.566	22.364	0.100	0.404	-0.366
	Thermal 3{1}	-0.022	-9.687	22.573	0.109	0.388	-0.196
	Thermal 4{1}	0.445	-7.859	22.571	0.100	0.378	-0.147
	Thermal 5{1}	1.035	-3.863	14.721	0.345	0.200	-0.130
	GRT1{1}	-0.971	-10.027	6.539	0.728	0.254	-0.406
	GRT2{1}	-1.754	-10.584	23.025	0.080	0.606	-0.365
	GRT3{1}	-0.038	-9.705	23.234	0.089	0.590	-0.196
	GRT4{1}	0.429	-7.877	23.232	0.080	0.580	-0.146
	GRT5{1}	1.018	-3.881	15.382	0.325	0.402	-0.129

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S_LINEREV0

09/27/2010 STEAMLINE

BENTLEY

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RESULT PAGE 63

DISPLACEMENTS

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
F15 D	Gravity{1}	1.077	0.096	-0.883	-0.020	0.202	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.014	-17.099	6.759	0.748	0.052	-0.406
	Thermal 2{1}	1.069	-13.839	19.518	0.100	0.404	-0.366
	Thermal 3{1}	2.415	-11.743	19.857	0.109	0.388	-0.196
	Thermal 4{1}	2.742	-9.495	19.916	0.100	0.378	-0.147
	Thermal 5{1}	2.336	-6.703	13.814	0.345	0.200	-0.130
	GRT1{1}	1.091	-17.003	5.876	0.728	0.254	-0.406
	GRT2{1}	2.146	-13.743	18.635	0.080	0.606	-0.365
	GRT3{1}	3.492	-11.647	18.974	0.089	0.590	-0.196
	GRT4{1}	3.819	-9.399	19.033	0.080	0.580	-0.146
	GRT5{1}	3.413	-6.607	12.931	0.325	0.402	-0.129

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S_LINEREV0

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RESULT PAGE 64

S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/ Connect/ Load			L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform

Tag No.: <None> A06		Gravity{1}	down	3035	0.000	X		0.000
A06 1	Guide		rght	42	0.000	Y	42	0.000
Stiff	:RIGID		forw		0.000	Z	-3035	0.000
		Hydrotest{1}	down		0.000	X		0.000
			left		0.000	Y		0.000
			back		0.000	Z		0.000
		Thermal 1{1}	up	1052	0.000	X		3.419
			left	1644	0.000	Y	-1644	0.000
			back		3.419	Z	1052	0.000
		Thermal 2{1}	up	861	0.000	X		3.419
			left	1702	0.000	Y	-1702	0.000
			back		3.419	Z	861	0.000
		Thermal 3{1}	up	983	0.000	X		3.419
			left	1670	0.000	Y	-1670	0.000
			back		3.419	Z	983	0.000
		Thermal 4{1}	up	965	0.000	X		3.419
			left	1608	0.000	Y	-1608	0.000
			back		3.419	Z	965	0.000
		Thermal 5{1}	up	836	0.000	X		3.419
			left	1444	0.000	Y	-1444	0.000
			back		3.419	Z	836	0.000
		GRT1{1}	down	1983	0.000	X		3.419
			left	1602	0.000	Y	-1602	0.000
			back		3.419	Z	-1983	0.000
		GRT2{1}	down	2174	0.000	X		3.419
			left	1660	0.000	Y	-1660	0.000
			back		3.419	Z	-2174	0.000
		GRT3{1}	down	2052	0.000	X		3.419
			left	1628	0.000	Y	-1628	0.000
			back		3.419	Z	-2052	0.000

		S_LINEREV0.OUT				
GRT4{1}	down	2070	0.000	X		3.419
	left	1566	0.000	Y	-1566	0.000
	back		3.419	Z	-2070	0.000
GRT5{1}	down	2198	0.000	X		3.419
	left	1402	0.000	Y	-1402	0.000
	back		3.419	Z	-2198	0.000
Tag No.: <None> B02 M	Gravity{1}	down	2481	0.613	X	-1.747

0

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/ Supp. ID	Connect/ Type	Load Combination	L O C A L			G L O B A L		
			Dirn	Force	Deform	Dirn	Force	Deform
B02 M1	Spr. Hgr					Y		-0.720
Stiff :	20					Z	-2481	-0.613
Preload :	2469	Hydrotest{1}	down		0.000	X		0.000
						Y		0.000
						Z		0.000
		Thermal 1{1}	down	361	18.393	X		14.636
						Y		-18.777
						Z	-361	-18.393
		Thermal 2{1}	down	389	19.821	X		15.489
						Y		-20.815
						Z	-389	-19.821
		Thermal 3{1}	down	361	18.393	X		14.634
						Y		-18.777
						Z	-361	-18.393
		Thermal 4{1}	down	355	18.092	X		14.278
						Y		-17.904
						Z	-355	-18.092
		Thermal 5{1}	down	379	19.301	X		14.391
						Y		-18.148
						Z	-379	-19.301

S_LINEREV0.OUT

Tag No.: <None> B04 B04 1 Spr. Can Stiff : 29	GRT1{1}	down	2841	19.006	X	12.889
					Y	-19.496
					Z	-2841 -19.006
	GRT2{1}	down	2869	20.433	X	13.742
					Y	-21.534
					Z	-2869 -20.433
	GRT3{1}	down	2841	19.006	X	12.887
					Y	-19.497
					Z	-2841 -19.006
	GRT4{1}	down	2836	18.705	X	12.531
					Y	-18.624
					Z	-2836 -18.705
	GRT5{1}	down	2859	19.914	X	12.644
					Y	-18.868
					Z	-2859 -19.914
	Gravity{1}	down	1446	0.827	X	-1.392
					Y	-0.720
					Z	-1446 -0.827

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
-----	-----	-----	----	-----	-----	----	-----	-----
Preload :	1422	Hydrotest{1}	down		0.000	X		0.000
						Y		0.000
						Z		0.000
		Thermal 1{1}	down	338	11.493	X		17.720
						Y		-10.898
						Z	-338	-11.493
		Thermal 2{1}	down	428	14.562	X		18.896
						Y		-12.204
						Z	-428	-14.562

S_LINEREV0.OUT

Thermal 3{1}	down	338	11.493	X	17.719	
				Y	-10.899	
				Z	-338 -11.493	
Thermal 4{1}	down	321	10.906	X	17.242	
				Y	-10.374	
				Z	-321 -10.906	
Thermal 5{1}	down	408	13.869	X	17.386	
				Y	-10.617	
				Z	-408 -13.869	
GRT1{1}	down	1784	12.321	X	16.328	
				Y	-11.618	
				Z	-1784 -12.321	
GRT2{1}	down	1875	15.389	X	17.504	
				Y	-12.924	
				Z	-1875 -15.389	
GRT3{1}	down	1784	12.321	X	16.327	
				Y	-11.618	
				Z	-1784 -12.321	
GRT4{1}	down	1767	11.734	X	15.850	
				Y	-11.093	
				Z	-1767 -11.734	
GRT5{1}	down	1854	14.696	X	15.994	
				Y	-11.337	
				Z	-1854 -14.696	
Tag No.: <None> B25	Gravity{1}	down	1576	-0.013	X	-0.247
B25 1 Spr. Can					Y	-0.042
Stiff : 5					Z	-1576 0.013
Preload : 1576	Hydrotest{1}	down	0.000	X	0.000	
				Y	0.000	
				Z	0.000	

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S_LINEREV0.OUT
S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/ Supp. ID	Connect/ Type	Load Combination	L O C A L			G L O B A L		
			Dirn	Force	Deform	Dirn	Force	Deform
		Thermal 1{1}	up	207	38.038	X		5.698
						Y		-6.835
						Z	207	38.038
		Thermal 2{1}	up	205	37.721	X		6.118
						Y		-7.480
						Z	205	37.721
		Thermal 3{1}	up	207	38.037	X		5.698
						Y		-6.835
						Z	207	38.037
		Thermal 4{1}	up	206	38.004	X		5.557
						Y		-6.635
						Z	206	38.004
		Thermal 5{1}	up	196	36.024	X		5.667
						Y		-6.864
						Z	196	36.024
		GRT1{1}	down	1370	-38.050	X		5.452
						Y		-6.877
						Z	-1370	38.050
		GRT2{1}	down	1372	-37.734	X		5.872
						Y		-7.522
						Z	-1372	37.734
		GRT3{1}	down	1370	-38.050	X		5.452
						Y		-6.877
						Z	-1370	38.050
		GRT4{1}	down	1370	-38.017	X		5.310
						Y		-6.677
						Z	-1370	38.017
		GRT5{1}	down	1381	-36.036	X		5.421
						Y		-6.906
						Z	-1381	36.036
Tag No.: <None> D02 M		Gravity{1}	down	2105	1.483	X		0.271
D02 M1	Spr. Hgr					Y		-0.033

Stiff : 39 S_LINEREV0.OUT Z -2105 -1.483

Preload : 2046 Hydrotest{1} down 0.000 X 0.000

Y 0.000

Z 0.000

Thermal 1{1} down 560 14.288 X 3.548

Y -22.722

Z -560 -14.288

0

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/ Supp. ID	Connect/ Type	Load Combination	L O C A L			G L O B A L		
			Dirn	Force	Deform	Dirn	Force	Deform
		Thermal 2{1}	down	503	12.824	X	-0.673	
						Y	-25.078	
						Z	-503	-12.824
		Thermal 3{1}	down	485	12.359	X	-0.123	
						Y	-22.540	
						Z	-485	-12.359
		Thermal 4{1}	down	465	11.866	X	-0.130	
						Y	-17.912	
						Z	-465	-11.866
		Thermal 5{1}	down	448	11.409	X	1.974	
						Y	-7.516	
						Z	-448	-11.409
		GRT1{1}	down	2665	15.771	X	3.819	
						Y	-22.755	
						Z	-2665	-15.771
		GRT2{1}	down	2608	14.307	X	-0.402	
						Y	-25.111	
						Z	-2608	-14.307
		GRT3{1}	down	2589	13.843	X	0.148	
						Y	-22.573	

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				Z	-2589	-13.843
	GRT4{1}	down	2570	13.349	X	0.141
				Y		-17.945
				Z	-2570	-13.349
	GRT5{1}	down	2552	12.892	X	2.245
				Y		-7.549
				Z	-2552	-12.892
Tag No.: <None>						
D05	Gravity{1}	down	1077	1.739	X	0.173
D05 1	Spr. Can			Y		-0.033
Stiff :	16			Z	-1077	-1.739
Preload :	1048	Hydrotest{1}	down		0.000	0.000
				Y		0.000
				Z		0.000
	Thermal 1{1}	down	84	5.097	X	5.640
				Y		-15.708
				Z	-84	-5.097
	Thermal 2{1}	down	19	1.125	X	2.688
				Y		-17.413
				Z	-19	-1.125

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
		Thermal 3{1}	down	4	0.271	X		2.805
						Y		-15.527
						Z	-4	-0.271
		Thermal 4{1}	up	6	0.395	X		2.374
						Y		-12.402
						Z	6	0.395
		Thermal 5{1}	up	0	0.024	X		2.995
						Y		-5.383

Z	0	0.024

GRT1{1}	down	1160	6.837	X	5.812
				Y	-15.740
				Z	-1160 -6.837

GRT2{1}	down	1095	2.865	X	2.861
				Y	-17.446
				Z	-1095 -2.865

GRT3{1}	down	1081	2.010	X	2.978
				Y	-15.560
				Z	-1081 -2.010

GRT4{1}	down	1070	1.345	X	2.546
				Y	-12.435
				Z	-1070 -1.345

GRT5{1}	down	1076	1.716	X	3.167
				Y	-5.416
				Z	-1076 -1.716

Tag No.: <None>
D10 F
D10 F1 Spr. Hgr
Stiff : 8

Gravity{1}	down	1105	0.174	X	-0.012
				Y	-0.033
				Z	-1105 -0.174

```
Preload :    1104
```

Hydrotest{1}	down	0.000	X	0.000
			Y	0.000
			Z	0.000

Thermal 1{1}	up	125	15.174	X	8.647
				Y	-8.884
				Z	125 15.174

Thermal 2{1}	up	150	18.231	X	7.852
				Y	-9.924
				Z	150 18.231

Thermal 3{1}	up	155	18.785	X	7.129
				Y	-8.684
				Z	155 18.785

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/ Supp. ID	Connect/ Type	Load Combination	L O C A L			G L O B A L					
			Dirn	Force	Deform	Dirn	Force	Deform			
Tag No.: <None> D12 M	Guide Stiff :RIGID	Thermal 4{1}	up	155	18.845	X		5.995			
						Y		-7.027			
						Z	155	18.845			
		Thermal 5{1}	up	138	16.781	X		4.095			
						Y		-3.317			
						Z	138	16.781			
		GRT1{1}	down	980	-15.000	X		8.635			
						Y		-8.917			
						Z	-980	15.000			
		GRT2{1}	down	955	-18.056	X		7.840			
						Y		-9.958			
						Z	-955	18.056			
		GRT3{1}	down	951	-18.610	X		7.117			
						Y		-8.717			
						Z	-951	18.610			
		GRT4{1}	down	950	-18.671	X		5.983			
						Y		-7.061			
						Z	-950	18.671			
		GRT5{1}	down	967	-16.607	X		4.084			
						Y		-3.350			
						Z	-967	16.607			
		Gravity{1}	down	2465	0.000	X	12	0.011			
						right	17	0.000	Y	12	-0.011
						back		0.015	Z	-2465	0.000
Hydrotest{1}	down		0.000	X		0.000					
				left		0.000	Y		0.000		
				back		0.000	Z		0.000		
Thermal 1{1}	up	2465	30.668	X	2974	5.925					
				right	4206	0.000	Y	2974	-5.925		
				back		8.379	Z	2465	30.668		
Thermal 2{1}	up	2465	32.910	X	4061	5.784					

		S_LINEREV0.OUT				
	right	5743	0.000	Y	4061	-5.784
	back		8.179	Z	2465	32.910
Thermal 3{1}	up	2465	33.064	X	4259	5.066
	right	6023	0.000	Y	4259	-5.066
	back		7.164	Z	2465	33.064
Thermal 4{1}	up	2465	32.639	X	3302	4.280
	right	4669	0.000	Y	3302	-4.280
	back		6.053	Z	2465	32.639

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
-----	-----	-----	----	-----	-----	----	-----	-----
		Thermal 5{1}	up	2465	29.484	X	642	2.842
			right	907	0.000	Y	642	-2.842
			back		4.020	Z	2465	29.484
		GRT1{1}	up		30.668	X	2986	5.936
			right	4224	0.000	Y	2986	-5.936
			back		8.394	Z		30.668
		GRT2{1}	up		32.910	X	4073	5.794
			right	5760	0.000	Y	4073	-5.794
			back		8.194	Z		32.910
		GRT3{1}	up		33.064	X	4271	5.076
			right	6040	0.000	Y	4271	-5.076
			back		7.179	Z		33.064
		GRT4{1}	up		32.639	X	3314	4.290
			right	4686	0.000	Y	3314	-4.290
			back		6.068	Z		32.639
		GRT5{1}	up		29.484	X	654	2.853
			right	924	0.000	Y	654	-2.853
			back		4.035	Z		29.484
Tag No.: <None> E02 M		Gravity{1}	down	1715	1.654	X		0.620

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E02 M1	Spr. Hgr				Y	-0.619
Stiff	:	15			Z	-1715 -1.654
Preload	:	1691	Hydrotest{1}	down	0.000	X 0.000
					Y	0.000
					Z	0.000
			Thermal 1{1}	down	228 15.482	X -7.427
					Y	-25.033
					Z	-228 -15.482
			Thermal 2{1}	down	243 16.496	X -9.336
					Y	-27.749
					Z	-243 -16.496
			Thermal 3{1}	down	228 15.471	X -7.398
					Y	-25.019
					Z	-228 -15.471
			Thermal 4{1}	down	224 15.217	X -7.121
					Y	-24.019
					Z	-224 -15.217
			Thermal 5{1}	down	235 16.006	X -9.048
					Y	-24.782
					Z	-235 -16.006

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
		GRT1{1}	down	1943	17.136	X	-6.807	
						Y	-25.652	
						Z	-1943 -17.136	
		GRT2{1}	down	1958	18.150	X	-8.716	
						Y	-28.369	
						Z	-1958 -18.150	
		GRT3{1}	down	1943	17.125	X	-6.778	

Y		-25.638
Z	-1943	-17.125

GRT5{1}	down	1950	17.659	X	-8.429
				Y	-25.401
				Z	-1950 -17.659

Preload :	1365	Hydrotest{1}	down	0.000	X	0.000
					Y	0.000
					Z	0.000

Thermal 2{1}	down	317	10.791	X	-6.890
				Y	-21.324
				Z	-317 -10.791

Thermal 4{1}	down	248	8.443	X	-4.898
				Y	-18.400
				Z	-248 -8.443

Thermal 5{1}	down	299	10.177	X	-6.769
				Y	-19.163
				Z	-299 -10.177

GRT1{1}	down	1717	11.966	X	-3.610
				Y	-19.773
				Z	-1717 -11.966

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S U P P O R T F O R C E S								
(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)								
Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
		GRT2{1}	down	1773	13.857	X		-5.352
						Y		-21.943
						Z	-1773	-13.857
		GRT3{1}	down	1717	11.943	X		-3.583
						Y		-19.759
						Z	-1717	-11.943
		GRT4{1}	down	1704	11.509	X		-3.360
						Y		-19.019
						Z	-1704	-11.509
		GRT5{1}	down	1755	13.244	X		-5.231
						Y		-19.782
						Z	-1755	-13.244
	Tag No.: <None> E06 N	Gravity{1}	down	805	0.359	X		2.562
						Y		-0.288
						Z	-805	-0.359
	E06 N1 Spr. Can Stiff : 3					X		0.000
						Y		0.000
						Z		0.000
Preload : 804		Hydrotest{1}	down		0.000	X		0.000
						Y		0.000
						Z		0.000
		Thermal 1{1}	up	136	45.546	X		0.825
						Y		-6.876
						Z	136	45.546
		Thermal 2{1}	up	137	45.862	X		0.652
						Y		-7.400
						Z	137	45.862
		Thermal 3{1}	up	136	45.550	X		0.826
						Y		-6.870
						Z	136	45.550
		Thermal 4{1}	up	135	45.338	X		0.859
						Y		-6.728
						Z	135	45.338

Thermal 5{1}	S_LINEREV0.OUT up	130	43.622	X	0.644
				Y	-6.901
				Z	130 43.622
GRT1{1}	down	670	-45.187	X	3.387
				Y	-7.164
				Z	-670 45.187
GRT2{1}	down	669	-45.503	X	3.214
				Y	-7.688
				Z	-669 45.503

0

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
		GRT3{1}	down	670	-45.190	X	3.389	
						Y	-7.158	
						Z	-670	45.190
		GRT4{1}	down	670	-44.978	X	3.421	
						Y	-7.016	
						Z	-670	44.978
		GRT5{1}	down	676	-43.263	X	3.206	
						Y	-7.189	
						Z	-676	43.263
Tag No.: <None>								
F15 M		Gravity{1}	down	3803	-0.661	X	-0.017	
F15 M1	Spr. Can					Y	-0.018	
Stiff :	26					Z	-3803	0.661
Preload :	3820	Hydrotest{1}	down		0.000	X	0.000	
						Y	0.000	
						Z	0.000	
		Thermal 1{1}	up	154	5.878	X	-0.954	
						Y	-10.009	
						Z	154	5.878

Thermal 2{1}	up	587	22.364	X	-1.737
				Y	-10.566
				Z	587 22.364
Thermal 3{1}	up	593	22.573	X	-0.022
				Y	-9.687
				Z	593 22.573
Thermal 4{1}	up	593	22.571	X	0.445
				Y	-7.859
				Z	593 22.571
Thermal 5{1}	up	387	14.721	X	1.035
				Y	-3.863
				Z	387 14.721
GRT1{1}	down	3649	-6.539	X	-0.971
				Y	-10.027
				Z	-3649 6.539
GRT2{1}	down	3216	-23.025	X	-1.754
				Y	-10.584
				Z	-3216 23.025
GRT3{1}	down	3210	-23.234	X	-0.038
				Y	-9.705
				Z	-3210 23.234

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Point/ Supp. ID	Connect/ Type	Load Combination	L O C A L			G L O B A L		
			Dirn	Force	Deform	Dirn	Force	Deform
		GRT4{1}	down	3210	-23.232	X		0.429
						Y		-7.877
						Z	-3210	23.232
		GRT5{1}	down	3416	-15.382	X		1.018
						Y		-3.881
						Z	-3416	15.382

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Tag No.: <None>
J17

J17 1 Guide

Stiff :RIGID

Gravity{1}	down	50	0.000	X	-50	0.000
	left	12	0.000	Y	-12	0.000
	back		1.470	Z		-1.470
Hydrotest{1}	down		0.000	X		0.000
	left		0.000	Y		0.000
	back		0.000	Z		0.000
Thermal 1{1}	up	262	0.000	X	262	0.000
	left	483	0.000	Y	-483	0.000
	forw		3.462	Z		3.462
Thermal 2{1}	up	354	0.000	X	354	0.000
	left	548	0.000	Y	-548	0.000
	forw		8.295	Z		8.295
Thermal 3{1}	up	324	0.000	X	324	0.000
	left	513	0.000	Y	-513	0.000
	forw		7.716	Z		7.716
Thermal 4{1}	up	295	0.000	X	295	0.000
	left	454	0.000	Y	-454	0.000
	forw		7.296	Z		7.296
Thermal 5{1}	up	167	0.000	X	167	0.000
	left	298	0.000	Y	-298	0.000
	forw		3.495	Z		3.495
GRT1{1}	up	211	0.000	X	211	0.000
	left	495	0.000	Y	-495	0.000
	forw		1.993	Z		1.993
GRT2{1}	up	304	0.000	X	304	0.000
	left	560	0.000	Y	-560	0.000
	forw		6.826	Z		6.826
GRT3{1}	up	274	0.000	X	274	0.000
	left	525	0.000	Y	-525	0.000
	forw		6.247	Z		6.247
GRT4{1}	up	244	0.000	X	244	0.000
	left	466	0.000	Y	-466	0.000
	forw		5.827	Z		5.827

□

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S U P P O R T F O R C E S								
(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)								
Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform

		GRT5{1}	up	117	0.000	X	117	0.000
			left	310	0.000	Y	-310	0.000
			forw		2.025	Z		2.025
Tag No.: <None>								
J13 F		Gravity{1}	down	273	1.467	X		-1.194
J13 F1	Spr. Hgr					Y		0.424
Stiff :	3					Z	-273	-1.467
Preload :	270	Hydrotest{1}	down		0.000	X		0.000
						Y		0.000
						Z		0.000
		Thermal 1{1}	up	25	9.591	X		5.945
						Y		8.434
						Z	25	9.591
		Thermal 2{1}	up	41	15.538	X		10.222
						Y		9.479
						Z	41	15.538
		Thermal 3{1}	up	36	13.732	X		8.674
						Y		8.720
						Z	36	13.732
		Thermal 4{1}	up	33	12.477	X		7.748
						Y		7.377
						Z	33	12.477
		Thermal 5{1}	up	15	5.688	X		2.093
						Y		4.215
						Z	15	5.688
		GRT1{1}	down	248	-8.124	X		4.751
						Y		8.858
						Z	-248	8.124
		GRT2{1}	down	233	-14.071	X		9.028
						Y		9.902
						Z	-233	14.071

GRT3{1}	down	237 -12.265	X	7.480
			Y	9.144
			Z	-237 12.265
GRT4{1}	down	241 -11.011	X	6.554
			Y	7.801
			Z	-241 11.011
GRT5{1}	down	258 -4.221	X	0.899
			Y	4.639
			Z	-258 4.221

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Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
Tag No.: J18	<None>							
		Gravity{1}	up	28	0.000	X	28	0.000
J18 1	Guide		left	13	0.000	Y	-13	0.000
Stiff	:RIGID		back		0.646	Z		-0.646
		Hydrotest{1}	down		0.000	X		0.000
			left		0.000	Y		0.000
			back		0.000	Z		0.000
		Thermal 1{1}	up	8	0.000	X	8	0.000
			rght	98	0.000	Y	98	0.000
			forw		6.510	Z		6.510
		Thermal 2{1}	up	29	0.000	X	29	0.000
			rght	115	0.000	Y	115	0.000
			forw		7.801	Z		7.801
		Thermal 3{1}	up	23	0.000	X	23	0.000
			rght	104	0.000	Y	104	0.000
			forw		6.627	Z		6.627
		Thermal 4{1}	up	20	0.000	X	20	0.000
			rght	89	0.000	Y	89	0.000

		S_LINEREV0.OUT					
		forw		5.818	Z		5.818
Thermal 5{1}	down	2	0.000	X	-2	0.000	
	right	48	0.000	Y	48	0.000	
	forw		3.670	Z		3.670	
GRT1{1}	up	36	0.000	X	36	0.000	
	right	85	0.000	Y	85	0.000	
	forw		5.863	Z		5.863	
GRT2{1}	up	57	0.000	X	57	0.000	
	right	102	0.000	Y	102	0.000	
	forw		7.154	Z		7.154	
GRT3{1}	up	51	0.000	X	51	0.000	
	right	90	0.000	Y	90	0.000	
	forw		5.981	Z		5.981	
GRT4{1}	up	48	0.000	X	48	0.000	
	right	76	0.000	Y	76	0.000	
	forw		5.172	Z		5.172	
GRT5{1}	up	26	0.000	X	26	0.000	
	right	35	0.000	Y	35	0.000	
	forw		3.024	Z		3.024	
Tag No.: <None>							
L12	Gravity{1}	up	69	0.000	X	69	0.000
L12 1	Guide	right	12	0.000	Y	12	0.000

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S U P P O R T F O R C E S								
(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)								
Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform

Stiff	:RIGID		back		0.254	Z		-0.254
		Hydrotest{1}	down		0.000	X		0.000
			left		0.000	Y		0.000
			back		0.000	Z		0.000
		Thermal 1{1}	down	56	0.000	X	-56	0.000
			left	732	0.000	Y	-732	0.000

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	back		5.747	Z		-5.747
Thermal 2{1}	down	103	0.000	X	-103	0.000
	left	761	0.000	Y	-761	0.000
	back		7.053	Z		-7.053
Thermal 3{1}	down	56	0.000	X	-56	0.000
	left	732	0.000	Y	-732	0.000
	back		5.747	Z		-5.747
Thermal 4{1}	down	52	0.000	X	-52	0.000
	left	719	0.000	Y	-719	0.000
	back		5.430	Z		-5.430
Thermal 5{1}	down	106	0.000	X	-106	0.000
	left	709	0.000	Y	-709	0.000
	back		6.646	Z		-6.646
GRT1{1}	up	13	0.000	X	13	0.000
	left	720	0.000	Y	-720	0.000
	back		6.001	Z		-6.001
GRT2{1}	down	34	0.000	X	-34	0.000
	left	750	0.000	Y	-750	0.000
	back		7.307	Z		-7.307
GRT3{1}	up	13	0.000	X	13	0.000
	left	720	0.000	Y	-720	0.000
	back		6.001	Z		-6.001
GRT4{1}	up	17	0.000	X	17	0.000
	left	707	0.000	Y	-707	0.000
	back		5.684	Z		-5.684
GRT5{1}	down	37	0.000	X	-37	0.000
	left	698	0.000	Y	-698	0.000
	back		6.900	Z		-6.900
Tag No.: <None> L11	Gravity{1}	down	0.080	X		-0.080
L11 1 Guide		rght	0.789	Y		0.789
Stiff :FREE		back	0.243	Z		-0.243
	Hydrotest{1}	down	0.000	X		0.000

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S U P P O R T F O R C E S								
(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)								
Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
			left	0.000		Y		0.000
			back	0.000		Z		0.000
Thermal 1{1}			down	4.655		X		-4.655
			right	4.269		Y		4.269
			forw	7.200		Z		7.200
Thermal 2{1}			down	4.748		X		-4.748
			right	4.199		Y		4.199
			forw	8.486		Z		8.486
Thermal 3{1}			down	4.654		X		-4.654
			right	4.269		Y		4.269
			forw	7.200		Z		7.200
Thermal 4{1}			down	4.558		X		-4.558
			right	4.181		Y		4.181
			forw	7.045		Z		7.045
Thermal 5{1}			down	4.350		X		-4.350
			right	3.743		Y		3.743
			forw	8.099		Z		8.099
GRT1{1}			down	4.735		X		-4.735
			right	5.057		Y		5.057
			forw	6.957		Z		6.957
GRT2{1}			down	4.828		X		-4.828
			right	4.988		Y		4.988
			forw	8.243		Z		8.243
GRT3{1}			down	4.734		X		-4.734
			right	5.058		Y		5.058
			forw	6.957		Z		6.957
GRT4{1}			down	4.638		X		-4.638
			right	4.970		Y		4.970
			forw	6.802		Z		6.802
GRT5{1}			down	4.430		X		-4.430
			right	4.532		Y		4.532

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				Y		-3.564			
				Z	-2682	35.211			
GRT3{1}		down	2683	-35.143	X	-0.791			
				Y		-1.007			
				Z	-2683	35.143			
GRT4{1}		down	2689	-34.719	X	-0.559			
				Y		-0.511			
				Z	-2689	34.719			
GRT5{1}		down	2792	-26.869	X	0.401			
				Y		-0.802			
				Z	-2792	26.869			
Tag No.: <None> S15	Gravity{1}		up		0.154	X	30	0.000	
S15	1	Guide	left	34	0.000	Y	17	0.000	
Stiff	:RIGID		back		0.000	Z		0.154	
Hydrotest{1}		down		0.000	X			0.000	
				left	0.000	Y		0.000	
				back	0.000	Z		0.000	
Thermal 1{1}		up		3.904	X	-3839		0.015	
				rght	4433	0.000	Y	-2217	-0.027
				forw		0.031	Z		3.904

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
		Thermal 2{1}	up		27.896	X	-4889	0.020
			rght	5645	0.000	Y	-2823	-0.035
			forw		0.040	Z		27.896
		Thermal 3{1}	up		27.855	X	-3321	-1.173
			rght	3834	0.000	Y	-1917	2.032
			back		2.347	Z		27.855
		Thermal 4{1}	up		27.765	X	-1868	-1.180

right	2157	0.000	Y	-1079	2.043
back		2.359	Z		27.765
up		16.475	X	1037	-0.637
left	1198	0.000	Y	599	1.104
back		1.275	Z		16.475
up		4.058	X	-3810	0.015
right	4399	0.000	Y	-2200	-0.026
forw		0.030	Z		4.058
up		28.050	X	-4859	0.020
right	5611	0.000	Y	-2805	-0.034
forw		0.040	Z		28.050
up		28.009	X	-3291	-1.174
right	3800	0.000	Y	-1900	2.033
back		2.347	Z		28.009
up		27.919	X	-1839	-1.180
right	2123	0.000	Y	-1062	2.044
back		2.360	Z		27.919
up		16.629	X	1067	-0.637
left	1232	0.000	Y	616	1.104
back		1.275	Z		16.629
down	26	0.000	X	-26	0.000
right	15	0.000	Y	15	0.000
back		0.278	Z		-0.278
down		0.000	X		0.000
left		0.000	Y		0.000
back		0.000	Z		0.000
up	545	0.000	X	545	0.000
left	520	0.000	Y	-520	0.000
back		8.667	Z		-8.667
up	606	0.000	X	606	0.000
left	556	0.000	Y	-556	0.000
back		10.555	Z		-10.555

```
T11  1  Guide
Stiff  :RIGID
```

Gravity{1}	down	26	0.000	X	-26	0.000
	right	15	0.000	Y	15	0.000
	back		0.278	Z		-0.278
Hydrotest{1}	down		0.000	X		0.000
	left		0.000	Y		0.000
	back		0.000	Z		0.000
Thermal 1{1}	up	545	0.000	X	545	0.000
	left	520	0.000	Y	-520	0.000
	back		8.667	Z		-8.667
Thermal 2{1}	up	606	0.000	X	606	0.000
	left	556	0.000	Y	-556	0.000
	back		10.555	Z		-10.555

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S U P P O R T F O R C E S								
(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)								
Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
		Thermal 3{1}	up	544	0.000	X	544	0.000
			left	520	0.000	Y	-520	0.000
			back		8.668	Z		-8.668
		Thermal 4{1}	up	529	0.000	X	529	0.000
			left	508	0.000	Y	-508	0.000
			back		8.248	Z		-8.248
		Thermal 5{1}	up	564	0.000	X	564	0.000
			left	514	0.000	Y	-514	0.000
			back		9.976	Z		-9.976
		GRT1{1}	up	519	0.000	X	519	0.000
			left	505	0.000	Y	-505	0.000
			back		8.945	Z		-8.945
		GRT2{1}	up	580	0.000	X	580	0.000
			left	541	0.000	Y	-541	0.000
			back		10.833	Z		-10.833
		GRT3{1}	up	518	0.000	X	518	0.000
			left	505	0.000	Y	-505	0.000
			back		8.946	Z		-8.946
		GRT4{1}	up	503	0.000	X	503	0.000
			left	492	0.000	Y	-492	0.000
			back		8.526	Z		-8.526
		GRT5{1}	up	538	0.000	X	538	0.000
			left	499	0.000	Y	-499	0.000
			back		10.255	Z		-10.255
Tag No.: <None> T10	1 Guide Stiff :RIGID	Gravity{1}	down	23	0.000	X	-23	0.000
			left	8	0.000	Y	-8	0.000
			back		0.267	Z		-0.267
		Hydrotest{1}	down		0.000	X		0.000
			left		0.000	Y		0.000
			back		0.000	Z		0.000

Thermal 1{1}	S LINEREVO.OUT					
	up	26	0.000	X	26	0.000
	right	105	0.000	Y	105	0.000
	forw		4.732	Z		4.732
Thermal 2{1}	up	34	0.000	X	34	0.000
	right	117	0.000	Y	117	0.000
	forw		5.526	Z		5.526
Thermal 3{1}	up	26	0.000	X	26	0.000
	right	105	0.000	Y	105	0.000
	forw		4.731	Z		4.731

0

S LINEREVO

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S U P P O R T F O R C E S								
(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)								
Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform
Thermal 4{1}			up	24	0.000	X	24	0.000
			right	102	0.000	Y	102	0.000
			forw		4.663	Z		4.663
Thermal 5{1}			up	33	0.000	X	33	0.000
			right	107	0.000	Y	107	0.000
			forw		5.282	Z		5.282
GRT1{1}			up	3	0.000	X	3	0.000
			right	98	0.000	Y	98	0.000
			forw		4.465	Z		4.465
GRT2{1}			up	11	0.000	X	11	0.000
			right	109	0.000	Y	109	0.000
			forw		5.259	Z		5.259
GRT3{1}			up	3	0.000	X	3	0.000
			right	98	0.000	Y	98	0.000
			forw		4.464	Z		4.464
GRT4{1}			up	2	0.000	X	2	0.000
			right	94	0.000	Y	94	0.000
			forw		4.396	Z		4.396

GRT5{1}	S_LINEREV0.OUT						
	up	10	0.000	X	10	0.000	
	right	99	0.000	Y	99	0.000	
	forw		5.015	Z		5.015	

0

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R E S T R A I N T R E A C T I O N S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A06	Guide Tag No.: <None> Gravity{1}	[ID: A06 1] 0 42 -3035 3035				0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	-1644	1052	1951	0	0	0	0
	Thermal 2{1}	0	-1702	861	1907	0	0	0	0
	Thermal 3{1}	0	-1670	983	1938	0	0	0	0
	Thermal 4{1}	0	-1608	965	1875	0	0	0	0
	Thermal 5{1}	0	-1444	836	1669	0	0	0	0
	GRT1{1}	0	-1602	-1983	2549	0	0	0	0
	GRT2{1}	0	-1660	-2174	2736	0	0	0	0
	GRT3{1}	0	-1628	-2052	2620	0	0	0	0
	GRT4{1}	0	-1566	-2070	2596	0	0	0	0
	GRT5{1}	0	-1402	-2198	2607	0	0	0	0
A05	Anchor Tag No.: <None> Gravity{1}	4	81	-1287	1289	98	-447	-29	459
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	138	-287	-235	396	-3561	313	235	3583
	Thermal 2{1}	120	-335	-87	367	-3815	352	240	3839
	Thermal 3{1}	128	-309	-94	347	-3612	307	230	3632
	Thermal 4{1}	128	-272	-113	321	-3397	301	230	3418
	Thermal 5{1}	136	-200	-250	348	-3015	343	244	3044
	GRT1{1}	142	-207	-1522	1542	-3463	-134	206	3472
	GRT2{1}	123	-255	-1374	1403	-3717	-95	211	3724
	GRT3{1}	131	-228	-1380	1405	-3514	-140	201	3522
	GRT4{1}	132	-191	-1399	1419	-3299	-146	201	3308
	GRT5{1}	140	-119	-1536	1547	-2917	-104	215	2927
B02 M	Spr. Hgr Tag No.: <None> Gravity{1}	[ID: B02 M1] 0 0 -2481 2481				0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0

S_LINEREV0.OUT

Thermal 1{1}	0	0	-361	361	0	0	0	0
Thermal 2{1}	0	0	-389	389	0	0	0	0
Thermal 3{1}	0	0	-361	361	0	0	0	0
Thermal 4{1}	0	0	-355	355	0	0	0	0
Thermal 5{1}	0	0	-379	379	0	0	0	0
GRT1{1}	0	0	-2841	2841	0	0	0	0
GRT2{1}	0	0	-2869	2869	0	0	0	0
GRT3{1}	0	0	-2841	2841	0	0	0	0
GRT4{1}	0	0	-2836	2836	0	0	0	0
GRT5{1}	0	0	-2859	2859	0	0	0	0

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R E S T R A I N T R E A C T I O N S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

B04	Spr. Can Tag No.: <None> Gravity{1}	[ID: B04 1] 0	0	-1446	1446	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	-338	338	0	0	0	0
	Thermal 2{1}	0	0	-428	428	0	0	0	0
	Thermal 3{1}	0	0	-338	338	0	0	0	0
	Thermal 4{1}	0	0	-321	321	0	0	0	0
	Thermal 5{1}	0	0	-408	408	0	0	0	0
	GRT1{1}	0	0	-1784	1784	0	0	0	0
	GRT2{1}	0	0	-1875	1875	0	0	0	0
	GRT3{1}	0	0	-1784	1784	0	0	0	0
	GRT4{1}	0	0	-1767	1767	0	0	0	0
	GRT5{1}	0	0	-1854	1854	0	0	0	0
B25	Spr. Can Tag No.: <None> Gravity{1}	[ID: B25 1] 0	0	-1576	1576	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	207	207	0	0	0	0
	Thermal 2{1}	0	0	205	205	0	0	0	0
	Thermal 3{1}	0	0	207	207	0	0	0	0
	Thermal 4{1}	0	0	206	206	0	0	0	0
	Thermal 5{1}	0	0	196	196	0	0	0	0

	S_LINEREV0.OUT							
GRT1{1}	0	0	-1370	1370	0	0	0	0
GRT2{1}	0	0	-1372	1372	0	0	0	0
GRT3{1}	0	0	-1370	1370	0	0	0	0
GRT4{1}	0	0	-1370	1370	0	0	0	0
GRT5{1}	0	0	-1381	1381	0	0	0	0

B13	Anchor Tag No.: SLTORVC1								
	Gravity{1}	-22	23	419	420	-121	-36	-37	131
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-534	-212	472	744	1224	340	225	1290
	Thermal 2{1}	-572	-267	570	850	1316	364	230	1385
	Thermal 3{1}	-534	-212	472	744	1224	340	225	1290
	Thermal 4{1}	-507	-200	455	709	1204	343	225	1272
	Thermal 5{1}	-482	-242	536	760	1251	374	228	1326
	GRT1{1}	-556	-189	891	1067	1103	304	188	1159
	GRT2{1}	-594	-244	989	1179	1196	329	194	1255
	GRT3{1}	-556	-189	891	1067	1103	304	188	1159
	GRT4{1}	-529	-177	873	1036	1083	307	188	1141
	GRT5{1}	-504	-219	955	1101	1130	338	191	1195

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R E S T R A I N T R E A C T I O N S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
C06	Anchor Tag No.: SLTORVC2								
	Gravity{1}	-24	-46	-196	203	32	18	-42	56
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	419	1598	-3019	3441	1171	1121	456	1684
	Thermal 2{1}	483	1672	-3306	3736	1287	1228	482	1843
	Thermal 3{1}	419	1598	-3019	3441	1171	1121	456	1684
	Thermal 4{1}	393	1559	-2956	3365	1156	1094	443	1652
	Thermal 5{1}	411	1533	-3123	3503	1246	1147	440	1750
	GRT1{1}	395	1552	-3215	3591	1202	1139	413	1707
	GRT2{1}	459	1626	-3502	3888	1319	1246	440	1867
	GRT3{1}	395	1551	-3215	3591	1202	1139	413	1707
	GRT4{1}	369	1512	-3152	3516	1188	1112	400	1675
	GRT5{1}	387	1486	-3319	3657	1278	1165	398	1774

S_LINEREV0.OUT									
D02 M	Spr. Hgr	Tag No.: <None>	[ID: D02 M1]						
	Gravity{1}		0	0	-2105	2105	0	0	0
	Hydrotest{1}		0	0	0	0	0	0	0
	Thermal 1{1}		0	0	-560	560	0	0	0
	Thermal 2{1}		0	0	-503	503	0	0	0
	Thermal 3{1}		0	0	-485	485	0	0	0
	Thermal 4{1}		0	0	-465	465	0	0	0
	Thermal 5{1}		0	0	-448	448	0	0	0
	GRT1{1}		0	0	-2665	2665	0	0	0
	GRT2{1}		0	0	-2608	2608	0	0	0
	GRT3{1}		0	0	-2589	2589	0	0	0
	GRT4{1}		0	0	-2570	2570	0	0	0
	GRT5{1}		0	0	-2552	2552	0	0	0
D05	Spr. Can	Tag No.: <None>	[ID: D05 1]						
	Gravity{1}		0	0	-1077	1077	0	0	0
	Hydrotest{1}		0	0	0	0	0	0	0
	Thermal 1{1}		0	0	-84	84	0	0	0
	Thermal 2{1}		0	0	-19	19	0	0	0
	Thermal 3{1}		0	0	-4	4	0	0	0
	Thermal 4{1}		0	0	6	6	0	0	0
	Thermal 5{1}		0	0	0	0	0	0	0
	GRT1{1}		0	0	-1160	1160	0	0	0
	GRT2{1}		0	0	-1095	1095	0	0	0
	GRT3{1}		0	0	-1081	1081	0	0	0
	GRT4{1}		0	0	-1070	1070	0	0	0
	GRT5{1}		0	0	-1076	1076	0	0	0

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R E S T R A I N T R E A C T I O N S

Point	Load	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
D10 F	Spr. Hgr								
	Gravity{1}	0	0	-1105	1105	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	125	125	0	0	0	0
	Thermal 2{1}	0	0	150	150	0	0	0	0
	Thermal 3{1}	0	0	155	155	0	0	0	0

		S_LINEREV0.OUT							
	Thermal 4{1}	0	0	155	155	0	0	0	0
	Thermal 5{1}	0	0	138	138	0	0	0	0
	GRT1{1}	0	0	-980	980	0	0	0	0
	GRT2{1}	0	0	-955	955	0	0	0	0
	GRT3{1}	0	0	-951	951	0	0	0	0
	GRT4{1}	0	0	-950	950	0	0	0	0
	GRT5{1}	0	0	-967	967	0	0	0	0
D12 M	Guide Tag No.: <None> [ID: D12 M1]								
	Gravity{1}	12	12	-2465	2465	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	2974	2974	2465	4876	0	0	0	0
	Thermal 2{1}	4061	4061	2465	6249	0	0	0	0
	Thermal 3{1}	4259	4259	2465	6508	0	0	0	0
	Thermal 4{1}	3302	3302	2465	5280	0	0	0	0
	Thermal 5{1}	642	642	2465	2627	0	0	0	0
	GRT1{1}	2986	2986	0	4224	0	0	0	0
	GRT2{1}	4073	4073	0	5760	0	0	0	0
	GRT3{1}	4271	4271	0	6040	0	0	0	0
	GRT4{1}	3314	3314	0	4686	0	0	0	0
	GRT5{1}	654	654	0	924	0	0	0	0
D18	Anchor Tag No.: SLTORVB								
	Gravity{1}	-7	-57	7	58	-3	10	-6	12
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-322	3402	-5618	6575	1083	-108	0	1088
	Thermal 2{1}	-667	2565	-4246	5006	713	19	-174	734
	Thermal 3{1}	-733	2714	-4233	5081	627	-24	-219	664
	Thermal 4{1}	-782	2559	-4125	4917	646	-55	-231	688
	Thermal 5{1}	-695	2419	-4378	5050	870	-160	-159	899
	GRT1{1}	-329	3345	-5610	6540	1080	-98	-7	1085
	GRT2{1}	-674	2509	-4239	4972	711	28	-181	734
	GRT3{1}	-740	2657	-4225	5046	624	-14	-225	664
	GRT4{1}	-789	2502	-4118	4883	643	-46	-238	687
	GRT5{1}	-702	2362	-4370	5017	868	-151	-165	896

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R E S T R A I N T R E A C T I O N S

Point	Load	FORCES (N)	MOMENTS (N.m)

name	combination	S_LINEREV0.OUT								
		X	Y	Z	Result	X	Y	Z	Result	

E02 M	Spr. Hgr Tag No.: <None> Gravity{1}	[ID: E02 M1]	0	0	-1715	1715	0	0	0	0
	Hydrotest{1}		0	0	0	0	0	0	0	0
	Thermal 1{1}		0	0	-228	228	0	0	0	0
	Thermal 2{1}		0	0	-243	243	0	0	0	0
	Thermal 3{1}		0	0	-228	228	0	0	0	0
	Thermal 4{1}		0	0	-224	224	0	0	0	0
	Thermal 5{1}		0	0	-235	235	0	0	0	0
	GRT1{1}		0	0	-1943	1943	0	0	0	0
	GRT2{1}		0	0	-1958	1958	0	0	0	0
	GRT3{1}		0	0	-1943	1943	0	0	0	0
	GRT4{1}		0	0	-1939	1939	0	0	0	0
	GRT5{1}		0	0	-1950	1950	0	0	0	0
E04	Spr. Can Tag No.: <None> Gravity{1}	[ID: E04 1]	0	0	-1455	1455	0	0	0	0
	Hydrotest{1}		0	0	0	0	0	0	0	0
	Thermal 1{1}		0	0	-262	262	0	0	0	0
	Thermal 2{1}		0	0	-317	317	0	0	0	0
	Thermal 3{1}		0	0	-261	261	0	0	0	0
	Thermal 4{1}		0	0	-248	248	0	0	0	0
	Thermal 5{1}		0	0	-299	299	0	0	0	0
	GRT1{1}		0	0	-1717	1717	0	0	0	0
	GRT2{1}		0	0	-1773	1773	0	0	0	0
	GRT3{1}		0	0	-1717	1717	0	0	0	0
	GRT4{1}		0	0	-1704	1704	0	0	0	0
	GRT5{1}		0	0	-1755	1755	0	0	0	0
E06 N	Spr. Can Tag No.: <None> Gravity{1}	[ID: E06 N1]	0	0	-805	805	0	0	0	0
	Hydrotest{1}		0	0	0	0	0	0	0	0
	Thermal 1{1}		0	0	136	136	0	0	0	0
	Thermal 2{1}		0	0	137	137	0	0	0	0
	Thermal 3{1}		0	0	136	136	0	0	0	0
	Thermal 4{1}		0	0	135	135	0	0	0	0
	Thermal 5{1}		0	0	130	130	0	0	0	0
	GRT1{1}		0	0	-670	670	0	0	0	0
	GRT2{1}		0	0	-669	669	0	0	0	0
	GRT3{1}		0	0	-670	670	0	0	0	0
	GRT4{1}		0	0	-670	670	0	0	0	0
	GRT5{1}		0	0	-676	676	0	0	0	0

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R E S T R A I N T R E A C T I O N S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
E11	Anchor Tag No.: SLTORVA Gravity{1}	24	-68	202	214	-11	208	-7	209
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-486	1082	-918	1499	99	-188	-275	348
	Thermal 2{1}	-532	1138	-976	1591	107	-205	-315	391
	Thermal 3{1}	-485	1081	-917	1499	98	-188	-275	347
	Thermal 4{1}	-472	1057	-900	1466	102	-182	-266	338
	Thermal 5{1}	-494	1052	-913	1478	115	-189	-295	369
	GRT1{1}	-461	1013	-716	1324	87	20	-282	296
	GRT2{1}	-507	1070	-775	1415	96	3	-321	335
	GRT3{1}	-461	1013	-716	1324	87	20	-281	295
	GRT4{1}	-448	989	-698	1291	91	26	-273	288
	GRT5{1}	-470	984	-712	1302	104	20	-301	320
F15 M	Spr. Can Tag No.: <None> Gravity{1}	0	0	-3803	3803	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	154	154	0	0	0	0
	Thermal 2{1}	0	0	587	587	0	0	0	0
	Thermal 3{1}	0	0	593	593	0	0	0	0
	Thermal 4{1}	0	0	593	593	0	0	0	0
	Thermal 5{1}	0	0	387	387	0	0	0	0
	GRT1{1}	0	0	-3649	3649	0	0	0	0
	GRT2{1}	0	0	-3216	3216	0	0	0	0
	GRT3{1}	0	0	-3210	3210	0	0	0	0
	GRT4{1}	0	0	-3210	3210	0	0	0	0
	GRT5{1}	0	0	-3416	3416	0	0	0	0
F13	Anchor Tag No.: SLDEG Gravity{1}	-5	-7	242	242	-22	-222	-5	223
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-270	-4007	190	4020	909	-61	-3809	3916
	Thermal 2{1}	-500	-4264	-959	4399	141	1213	-3991	4174
	Thermal 3{1}	-787	-4266	-928	4436	150	1172	-3832	4010
	Thermal 4{1}	-662	-3509	-919	3687	139	1153	-3138	3346
	Thermal 5{1}	-142	-1676	-390	1727	427	548	-1555	1703

S_LINEREV0.OUT

GRT1{1}	-275	-4013	432	4046	887	-283	-3814	3926
GRT2{1}	-505	-4271	-718	4360	118	991	-3996	4119
GRT3{1}	-792	-4273	-686	4399	128	950	-3837	3955
GRT4{1}	-667	-3516	-677	3642	116	931	-3143	3280
GRT5{1}	-148	-1683	-148	1696	405	326	-1560	1644

0

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R E S T R A I N T R E A C T I O N S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
J17	Guide Tag No.: <None> Gravity{1}	[ID: J17_1] -50	-12	0	52	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	262	-483	0	549	0	0	0	0
	Thermal 2{1}	354	-548	0	652	0	0	0	0
	Thermal 3{1}	324	-513	0	606	0	0	0	0
	Thermal 4{1}	295	-454	0	541	0	0	0	0
	Thermal 5{1}	167	-298	0	342	0	0	0	0
	GRT1{1}	211	-495	0	538	0	0	0	0
	GRT2{1}	304	-560	0	637	0	0	0	0
	GRT3{1}	274	-525	0	592	0	0	0	0
	GRT4{1}	244	-466	0	526	0	0	0	0
	GRT5{1}	117	-310	0	332	0	0	0	0
J13 F	Spr. Hgr Tag No.: <None> Gravity{1}	[ID: J13 F1] 0	0	-273	273	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	25	25	0	0	0	0
	Thermal 2{1}	0	0	41	41	0	0	0	0
	Thermal 3{1}	0	0	36	36	0	0	0	0
	Thermal 4{1}	0	0	33	33	0	0	0	0
	Thermal 5{1}	0	0	15	15	0	0	0	0
	GRT1{1}	0	0	-248	248	0	0	0	0
	GRT2{1}	0	0	-233	233	0	0	0	0
	GRT3{1}	0	0	-237	237	0	0	0	0
	GRT4{1}	0	0	-241	241	0	0	0	0
	GRT5{1}	0	0	-258	258	0	0	0	0

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J18	Guide Tag No.: <None> [ID: J18 1]								
	Gravity{1}	28	-13	0	31	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	8	98	0	99	0	0	0	0
	Thermal 2{1}	29	115	0	118	0	0	0	0
	Thermal 3{1}	23	104	0	106	0	0	0	0
	Thermal 4{1}	20	89	0	91	0	0	0	0
	Thermal 5{1}	-2	48	0	48	0	0	0	0
	GRT1{1}	36	85	0	92	0	0	0	0
	GRT2{1}	57	102	0	116	0	0	0	0
	GRT3{1}	51	90	0	104	0	0	0	0
	GRT4{1}	48	76	0	90	0	0	0	0
	GRT5{1}	26	35	0	43	0	0	0	0

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R E S T R A I N T R E A C T I O N S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result
J10	Anchor Tag No.: SLTOEHRB								
	Gravity{1}	0	12	-731	731	-268	0	1	268
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-22	-39	300	303	140	17	42	147
	Thermal 2{1}	-37	-47	439	443	216	30	54	225
	Thermal 3{1}	-32	-42	383	387	188	25	49	196
	Thermal 4{1}	-28	-36	343	346	170	23	43	177
	Thermal 5{1}	-8	-18	136	137	64	6	22	68
	GRT1{1}	-23	-27	-431	432	-127	18	43	136
	GRT2{1}	-38	-35	-292	296	-52	30	55	81
	GRT3{1}	-32	-30	-348	350	-80	26	50	97
	GRT4{1}	-29	-25	-388	390	-98	23	44	110
	GRT5{1}	-9	-7	-595	595	-204	7	23	205
L12	Guide Tag No.: <None> [ID: L12 1]								
	Gravity{1}	69	12	0	70	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-56	-732	0	734	0	0	0	0
	Thermal 2{1}	-103	-761	0	768	0	0	0	0
	Thermal 3{1}	-56	-732	0	734	0	0	0	0

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Thermal 4{1}	-52	-719	0	720	0	0	0	0
Thermal 5{1}	-106	-709	0	717	0	0	0	0
GRT1{1}	13	-720	0	720	0	0	0	0
GRT2{1}	-34	-750	0	750	0	0	0	0
GRT3{1}	13	-720	0	720	0	0	0	0
GRT4{1}	17	-707	0	707	0	0	0	0
GRT5{1}	-37	-698	0	699	0	0	0	0

L11	Guide Tag No.: <None> [ID: L11 1]	0	0	0	0	0	0	0
	Gravity{1}	0	0	0	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0
	GRT1{1}	0	0	0	0	0	0	0
	GRT2{1}	0	0	0	0	0	0	0
	GRT3{1}	0	0	0	0	0	0	0
	GRT4{1}	0	0	0	0	0	0	0
	GRT5{1}	0	0	0	0	0	0	0

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R E S T R A I N T R E A C T I O N S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
L10	Anchor Tag No.: SLTOEHRSC								
	Gravity{1}	-1	-6	-1796	1796	617	2	-3	617
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-53	105	3045	3048	-1236	98	-69	1242
	Thermal 2{1}	-54	113	3466	3468	-1419	100	-71	1424
	Thermal 3{1}	-53	105	3045	3048	-1236	98	-69	1242
	Thermal 4{1}	-52	103	2967	2969	-1204	96	-67	1210
	Thermal 5{1}	-50	104	3294	3296	-1354	91	-65	1359
	GRT1{1}	-54	99	1249	1254	-619	99	-72	631
	GRT2{1}	-55	107	1670	1674	-802	101	-74	811
	GRT3{1}	-54	99	1249	1254	-619	99	-72	631

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	GRT4{1}	-53	96	1171	1176	-587	97	-70	599
	GRT5{1}	-51	98	1497	1501	-737	93	-68	746
S05 M	Spr. Can Tag No.: <None>	[ID: S05 M1]							
	Gravity{1}	0	0	-3138	3138	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	277	277	0	0	0	0
	Thermal 2{1}	0	0	455	455	0	0	0	0
	Thermal 3{1}	0	0	454	454	0	0	0	0
	Thermal 4{1}	0	0	449	449	0	0	0	0
	Thermal 5{1}	0	0	346	346	0	0	0	0
	GRT1{1}	0	0	-2861	2861	0	0	0	0
	GRT2{1}	0	0	-2682	2682	0	0	0	0
	GRT3{1}	0	0	-2683	2683	0	0	0	0
	GRT4{1}	0	0	-2689	2689	0	0	0	0
	GRT5{1}	0	0	-2792	2792	0	0	0	0
S15	Guide Tag No.: <None>	[ID: S15 1]							
	Gravity{1}	30	17	0	34	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-3839	-2217	0	4433	0	0	0	0
	Thermal 2{1}	-4889	-2823	0	5645	0	0	0	0
	Thermal 3{1}	-3321	-1917	0	3834	0	0	0	0
	Thermal 4{1}	-1868	-1079	0	2157	0	0	0	0
	Thermal 5{1}	1037	599	0	1198	0	0	0	0
	GRT1{1}	-3810	-2200	0	4399	0	0	0	0
	GRT2{1}	-4859	-2805	0	5611	0	0	0	0
	GRT3{1}	-3291	-1900	0	3800	0	0	0	0
	GRT4{1}	-1839	-1062	0	2123	0	0	0	0
	GRT5{1}	1067	616	0	1232	0	0	0	0

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R E S T R A I N T R E A C T I O N S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
S14	Anchor Tag No.: SLSPLIT								
	Gravity{1}	-11	-4	-182	182	89	-7	4	89
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1215	806	2118	2571	3480	-1007	-378	3643

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Thermal 2{1}	1673	1556	893	2454	1671	-258	-494	1762
Thermal 3{1}	284	245	886	962	1646	-266	382	1711
Thermal 4{1}	-263	-355	835	945	1568	-250	538	1677
Thermal 5{1}	-1004	-1369	1214	2088	2116	-516	519	2239
GRT1{1}	1204	803	1936	2417	3569	-1014	-375	3729
GRT2{1}	1662	1553	712	2383	1760	-266	-491	1847
GRT3{1}	273	242	704	792	1735	-273	386	1798
GRT4{1}	-274	-359	653	794	1657	-257	542	1762
GRT5{1}	-1015	-1373	1032	1995	2205	-523	522	2325

T11	Guide Tag No.: <None>	[ID: T11 1]						
	Gravity{1}	-26 15	0	30	0	0	0	0
	Hydrotest{1}	0 0	0	0	0	0	0	0
	Thermal 1{1}	545 -520	0	753	0	0	0	0
	Thermal 2{1}	606 -556	0	822	0	0	0	0
	Thermal 3{1}	544 -520	0	753	0	0	0	0
	Thermal 4{1}	529 -508	0	733	0	0	0	0
	Thermal 5{1}	564 -514	0	763	0	0	0	0
	GRT1{1}	519 -505	0	724	0	0	0	0
	GRT2{1}	580 -541	0	793	0	0	0	0
	GRT3{1}	518 -505	0	724	0	0	0	0
	GRT4{1}	503 -492	0	704	0	0	0	0
	GRT5{1}	538 -499	0	734	0	0	0	0

T10	Guide Tag No.: <None>	[ID: T10 1]						
	Gravity{1}	-23 -8	0	24	0	0	0	0
	Hydrotest{1}	0 0	0	0	0	0	0	0
	Thermal 1{1}	26 105	0	108	0	0	0	0
	Thermal 2{1}	34 117	0	121	0	0	0	0
	Thermal 3{1}	26 105	0	108	0	0	0	0
	Thermal 4{1}	24 102	0	105	0	0	0	0
	Thermal 5{1}	33 107	0	112	0	0	0	0
	GRT1{1}	3 98	0	98	0	0	0	0
	GRT2{1}	11 109	0	110	0	0	0	0
	GRT3{1}	3 98	0	98	0	0	0	0
	GRT4{1}	2 94	0	94	0	0	0	0
	GRT5{1}	10 99	0	100	0	0	0	0

0

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

T09	Anchor Tag No.: SLTOEHRSA Gravity{1}	4	7	-1071	1071	-334	-5	-5	335
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-5	-30	1055	1055	408	5	44	411
	Thermal 2{1}	-6	-34	1205	1206	467	7	47	469
	Thermal 3{1}	-5	-30	1053	1053	408	5	44	410
	Thermal 4{1}	-5	-29	1019	1020	395	5	43	397
	Thermal 5{1}	-6	-32	1130	1131	438	6	43	440
	GRT1{1}	0	-24	-17	29	74	0	39	84
	GRT2{1}	-2	-27	134	137	132	2	42	139
	GRT3{1}	0	-24	-19	30	73	0	39	83
	GRT4{1}	0	-23	-52	57	60	0	38	71
	GRT5{1}	-2	-25	59	64	104	2	39	111

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

*** Segment A begin ***									
A00	Gravity{1}	0	0	0	0	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	0	0	0	0	0	0
	GRT2{1}	0	0	0	0	0	0	0	0
	GRT3{1}	0	0	0	0	0	0	0	0
	GRT4{1}	0	0	0	0	0	0	0	0
	GRT5{1}	0	0	0	0	0	0	0	0
A07	Gravity{1}	0	0	-103	103	0	5	0	5

S_LINEREV0.OUT

	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	-103	103	0	5	0	5
	GRT2{1}	0	0	-103	103	0	5	0	5
	GRT3{1}	0	0	-103	103	0	5	0	5
	GRT4{1}	0	0	-103	103	0	5	0	5
	GRT5{1}	0	0	-103	103	0	5	0	5
A01 -	Gravity{1}	0	0	-206	206	0	21	0	21
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	-206	206	0	21	0	21
	GRT2{1}	0	0	-206	206	0	21	0	21
	GRT3{1}	0	0	-206	206	0	21	0	21
	GRT4{1}	0	0	-206	206	0	21	0	21
	GRT5{1}	0	0	-206	206	0	21	0	21

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

A01 +	Gravity{1}	-21	17	-1166	1167	-2	95	-2	95
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	224	-759	-7	791	-1505	-443	-105	1572
	Thermal 2{1}	245	-757	-117	804	-1564	-483	-116	1641
	Thermal 3{1}	224	-759	-7	791	-1504	-443	-105	1572
	Thermal 4{1}	218	-742	4	774	-1461	-429	-102	1526
	Thermal 5{1}	227	-686	-115	731	-1407	-440	-104	1478

			S_LINEREVO.OUT						
	GRT1{1}	203	-742	-1173	1402	-1507	-348	-108	1550
	GRT2{1}	224	-739	-1284	1498	-1566	-388	-118	1618
	GRT3{1}	203	-741	-1173	1402	-1507	-348	-108	1550
	GRT4{1}	196	-725	-1162	1384	-1463	-333	-104	1504
	GRT5{1}	205	-668	-1282	1460	-1409	-345	-107	1455
A06	- Gravity{1}	-21	17	-1498	1499	-2	525	3	525
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	224	-759	-7	791	-1505	-441	-350	1607
	Thermal 2{1}	245	-757	-117	804	-1564	-446	-360	1666
	Thermal 3{1}	224	-759	-7	791	-1504	-441	-350	1606
	Thermal 4{1}	218	-742	4	774	-1461	-430	-341	1560
	Thermal 5{1}	227	-686	-115	731	-1407	-403	-325	1499
	GRT1{1}	203	-742	-1505	1690	-1507	84	-347	1549
	GRT2{1}	224	-739	-1616	1791	-1566	80	-357	1608
	GRT3{1}	203	-741	-1505	1690	-1507	84	-347	1548
	GRT4{1}	196	-725	-1494	1673	-1463	95	-338	1504
	GRT5{1}	205	-668	-1614	1758	-1409	122	-322	1451
A06	+ Gravity{1}	-21	-24	1536	1537	-2	525	3	525
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	224	885	-1058	1398	-1505	-441	-350	1607
	Thermal 2{1}	245	946	-978	1382	-1564	-446	-360	1666
	Thermal 3{1}	224	911	-989	1364	-1504	-441	-350	1606
	Thermal 4{1}	218	865	-961	1311	-1461	-430	-341	1560
	Thermal 5{1}	227	758	-952	1238	-1407	-403	-325	1499
	GRT1{1}	203	860	478	1005	-1507	84	-347	1549
	GRT2{1}	224	921	558	1100	-1566	80	-357	1608
	GRT3{1}	203	887	547	1062	-1507	84	-347	1548
	GRT4{1}	196	841	576	1038	-1463	95	-338	1504
	GRT5{1}	205	734	585	960	-1409	122	-322	1451
A02	- Gravity{1}	-21	-24	1204	1205	-2	83	-5	83
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	224	885	-1058	1398	-1505	-100	-65	1510
	Thermal 2{1}	245	946	-978	1382	-1564	-130	-55	1570
	Thermal 3{1}	224	911	-989	1364	-1504	-122	-56	1510
	Thermal 4{1}	218	865	-961	1311	-1461	-120	-62	1467
	Thermal 5{1}	227	758	-952	1238	-1407	-96	-81	1413
	GRT1{1}	203	860	146	896	-1507	-17	-69	1509
	GRT2{1}	224	921	226	975	-1566	-47	-60	1568
	GRT3{1}	203	887	215	935	-1507	-39	-61	1508
	GRT4{1}	196	841	244	897	-1463	-37	-67	1465
	GRT5{1}	205	734	253	803	-1409	-13	-86	1412

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)				
name	combination	X	Y	Z	Result	X	Y	Z	Result	

A02	+	Gravity{1}	-17	27	417	418	54	74	-5	92
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	218	349	-452	611	-2452	-102	-84	2456
		Thermal 2{1}	221	330	-282	487	-2632	-49	-83	2634
		Thermal 3{1}	207	327	-311	497	-2503	-59	-81	2505
		Thermal 4{1}	205	350	-330	523	-2319	-63	-84	2321
		Thermal 5{1}	233	413	-438	645	-1933	-97	-92	1938
		GRT1{1}	202	376	-35	428	-2398	-27	-88	2400
		GRT2{1}	204	356	135	432	-2578	25	-88	2579
		GRT3{1}	191	354	106	416	-2449	15	-86	2450
		GRT4{1}	188	376	87	429	-2265	11	-89	2267
		GRT5{1}	216	440	-21	491	-1879	-23	-97	1882
A05	-	Gravity{1}	-17	27	67	74	54	-8	4	55
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	218	349	-452	611	-2452	52	35	2453
		Thermal 2{1}	221	330	-282	487	-2632	47	29	2632
		Thermal 3{1}	207	327	-311	497	-2503	47	30	2503
		Thermal 4{1}	205	350	-330	523	-2319	49	35	2320
		Thermal 5{1}	233	413	-438	645	-1933	52	49	1935
		GRT1{1}	202	376	-385	574	-2398	44	40	2399
		GRT2{1}	204	356	-215	464	-2578	39	33	2578
		GRT3{1}	191	354	-244	471	-2449	39	34	2449
		GRT4{1}	188	376	-263	496	-2265	41	39	2266
		GRT5{1}	216	440	-371	615	-1879	44	53	1881
A05	+	Gravity{1}	-20	-54	1354	1355	-44	439	33	442
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	80	636	-217	677	1109	-261	-200	1157
		Thermal 2{1}	102	665	-195	700	1183	-304	-211	1240
		Thermal 3{1}	80	636	-218	677	1109	-260	-200	1157
		Thermal 4{1}	76	622	-218	663	1078	-252	-195	1124

		S_LINEREV0.OUT								
A03	-	Thermal 5{1}	96	613	-188	649	1082	-291	-195	1137
		GRT1{1}	60	582	1137	1279	1065	178	-167	1093
		GRT2{1}	81	611	1159	1313	1139	134	-178	1161
		GRT3{1}	60	582	1136	1278	1065	179	-167	1093
		GRT4{1}	56	568	1136	1271	1034	187	-162	1063
		GRT5{1}	76	559	1166	1295	1037	148	-162	1060
		Gravity{1}	-20	-54	1004	1005	-44	38	15	60
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	80	636	-217	677	1109	-187	16	1125
		Thermal 2{1}	102	665	-195	700	1183	-238	15	1207
		Thermal 3{1}	80	636	-218	677	1109	-186	16	1125
		Thermal 4{1}	76	622	-218	663	1078	-178	16	1092
		Thermal 5{1}	96	613	-188	649	1082	-227	13	1105
		GRT1{1}	60	582	787	981	1065	-149	31	1076
		GRT2{1}	81	611	809	1017	1139	-200	30	1157
	GRT3{1}	60	582	786	980	1065	-148	31	1076	
	GRT4{1}	56	568	786	971	1034	-140	31	1043	
	GRT5{1}	76	559	816	992	1037	-189	29	1055	

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A03	+ Gravity{1}	0	0	206	206	0	21	0	21
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	206	206	0	21	0	21
	GRT2{1}	0	0	206	206	0	21	0	21
	GRT3{1}	0	0	206	206	0	21	0	21
	GRT4{1}	0	0	206	206	0	21	0	21
	GRT5{1}	0	0	206	206	0	21	0	21

		S_LINEREV0.OUT							
A04	Gravity{1}	0	0	0	0	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	0	0	0	0	0	0
	GRT2{1}	0	0	0	0	0	0	0	0
	GRT3{1}	0	0	0	0	0	0	0	0
	GRT4{1}	0	0	0	0	0	0	0	0
	GRT5{1}	0	0	0	0	0	0	0	0

*** Segment A end ***

*** Segment B begin ***

A01	Gravity{1}	21	-17	960	961	2	-75	2	75
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-224	759	7	791	1505	443	105	1572
	Thermal 2{1}	-245	757	117	804	1564	483	116	1641
	Thermal 3{1}	-224	759	7	791	1504	443	105	1572
	Thermal 4{1}	-218	742	-4	774	1461	429	102	1526
	Thermal 5{1}	-227	686	115	731	1407	440	104	1478
	GRT1{1}	-203	742	967	1235	1507	368	108	1555
	GRT2{1}	-224	739	1078	1326	1566	409	118	1623
	GRT3{1}	-203	741	967	1235	1507	368	108	1555
	GRT4{1}	-196	725	957	1216	1463	354	104	1508
	GRT5{1}	-205	668	1076	1283	1409	365	107	1460

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
B01 N	Gravity{1}	21	-17	346	347	58	-6	2	58
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-224	759	7	791	-935	-277	105	981
	Thermal 2{1}	-245	757	117	804	-868	-305	116	928
	Thermal 3{1}	-224	759	7	791	-935	-277	105	981

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	Thermal 4{1}	-218	742	-4	774	-926	-271	102	971
	Thermal 5{1}	-227	686	115	731	-797	-288	104	854
	GRT1{1}	-203	742	352	846	-877	-283	108	928
	GRT2{1}	-224	739	463	901	-810	-312	118	876
	GRT3{1}	-203	741	352	846	-877	-283	108	928
	GRT4{1}	-196	725	342	825	-868	-278	104	918
	GRT5{1}	-205	668	461	837	-739	-295	107	802
B01 M	Gravity{1}	21	-17	331	333	50	-5	3	50
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-224	759	7	791	-986	-292	99	1033
	Thermal 2{1}	-245	757	117	804	-923	-322	109	983
	Thermal 3{1}	-224	759	7	791	-986	-292	99	1033
	Thermal 4{1}	-218	742	-4	774	-976	-286	96	1022
	Thermal 5{1}	-227	686	115	731	-846	-304	98	904
	GRT1{1}	-203	742	338	840	-936	-297	102	988
	GRT2{1}	-224	739	449	893	-873	-327	112	939
	GRT3{1}	-203	741	338	840	-936	-297	102	988
	GRT4{1}	-196	725	328	820	-926	-291	99	976
	GRT5{1}	-205	668	447	829	-796	-308	101	860
B01 F	Gravity{1}	21	-17	317	318	28	-4	4	29
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-224	759	7	791	-1008	-299	84	1054
	Thermal 2{1}	-245	757	117	804	-952	-329	93	1011
	Thermal 3{1}	-224	759	7	791	-1008	-299	84	1054
	Thermal 4{1}	-218	742	-4	774	-997	-292	81	1042
	Thermal 5{1}	-227	686	115	731	-873	-310	83	930
	GRT1{1}	-203	742	324	834	-979	-303	88	1029
	GRT2{1}	-224	739	435	886	-923	-333	97	986
	GRT3{1}	-203	741	324	834	-979	-303	88	1029
	GRT4{1}	-196	725	313	814	-968	-296	85	1016
	GRT5{1}	-205	668	432	822	-845	-314	87	905
B02 -	Gravity{1}	21	-17	201	203	-129	-4	17	130
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-224	759	7	791	-1012	-299	-52	1056
	Thermal 2{1}	-245	757	117	804	-1023	-329	-56	1076
	Thermal 3{1}	-224	759	7	791	-1012	-299	-52	1056
	Thermal 4{1}	-218	742	-4	774	-994	-292	-51	1038
	Thermal 5{1}	-227	686	115	731	-943	-310	-55	994
	GRT1{1}	-203	742	208	796	-1141	-303	-35	1181
	GRT2{1}	-224	739	319	836	-1152	-333	-39	1200
	GRT3{1}	-203	741	208	796	-1141	-303	-35	1181

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GRT4{1}	-196	725	197	777	-1123	-296	-34	1162
GRT5{1}	-205	668	316	767	-1072	-314	-37	1117

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result
B02 +	Gravity{1}	21	-17	-30	41	-129	-4	17	130
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-224	759	7	791	-1012	-299	-52	1056
	Thermal 2{1}	-245	757	117	804	-1023	-329	-56	1076
	Thermal 3{1}	-224	759	7	791	-1012	-299	-52	1056
	Thermal 4{1}	-218	742	-4	774	-994	-292	-51	1038
	Thermal 5{1}	-227	686	115	731	-943	-310	-55	994
	GRT1{1}	-203	742	-24	769	-1141	-303	-35	1181
	GRT2{1}	-224	739	87	777	-1152	-333	-39	1200
	GRT3{1}	-203	741	-24	769	-1141	-303	-35	1181
	GRT4{1}	-196	725	-34	752	-1123	-296	-34	1162
	GRT5{1}	-205	668	85	704	-1072	-314	-37	1117
B02 M-	Gravity{1}	21	-17	-474	474	-65	-4	23	69
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-224	759	7	791	-1013	-299	-109	1062
	Thermal 2{1}	-245	757	117	804	-1053	-329	-119	1109
	Thermal 3{1}	-224	759	7	791	-1013	-299	-109	1062
	Thermal 4{1}	-218	742	-4	774	-993	-292	-107	1041
	Thermal 5{1}	-227	686	115	731	-972	-310	-112	1026
	GRT1{1}	-203	742	-467	899	-1078	-303	-86	1123
	GRT2{1}	-224	739	-356	851	-1118	-333	-96	1170
	GRT3{1}	-203	741	-467	899	-1078	-303	-86	1123
	GRT4{1}	-196	725	-478	890	-1058	-296	-84	1102
	GRT5{1}	-205	668	-358	786	-1037	-314	-90	1087
B02 M+	Gravity{1}	21	-17	654	654	-65	-4	23	69
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-224	759	367	872	-1013	-299	-109	1062
	Thermal 2{1}	-245	757	506	943	-1053	-329	-119	1109

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	Thermal 3{1}	-224	759	367	872	-1013	-299	-109	1062
	Thermal 4{1}	-218	742	351	850	-993	-292	-107	1041
	Thermal 5{1}	-227	686	494	875	-972	-310	-112	1026
	GRT1{1}	-203	742	1021	1278	-1078	-303	-86	1123
	GRT2{1}	-224	739	1160	1394	-1118	-333	-96	1170
	GRT3{1}	-203	741	1021	1278	-1078	-303	-86	1123
	GRT4{1}	-196	725	1005	1255	-1058	-296	-84	1102
	GRT5{1}	-205	668	1148	1344	-1037	-314	-90	1087
B14 -	Gravity{1}	21	-17	211	212	-175	-4	28	177
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-224	759	367	872	-1107	-299	-166	1158
	Thermal 2{1}	-245	757	506	943	-1181	-329	-181	1240
	Thermal 3{1}	-224	759	367	872	-1107	-299	-166	1158
	Thermal 4{1}	-218	742	351	850	-1082	-292	-162	1133
	Thermal 5{1}	-227	686	494	875	-1097	-310	-170	1153
	GRT1{1}	-203	742	578	962	-1281	-303	-138	1324
	GRT2{1}	-224	739	717	1054	-1356	-333	-153	1405
	GRT3{1}	-203	741	578	962	-1281	-303	-138	1324
	GRT4{1}	-196	725	562	938	-1257	-296	-134	1298
	GRT5{1}	-205	668	704	992	-1272	-314	-142	1318

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GLOBAL FORCES & MOMENTS

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
B14 +	Gravity{1}	21	-17	-21	35	-175	-4	28	177
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-224	759	367	872	-1107	-299	-166	1158
	Thermal 2{1}	-245	757	506	943	-1181	-329	-181	1240
	Thermal 3{1}	-224	759	367	872	-1107	-299	-166	1158
	Thermal 4{1}	-218	742	351	850	-1082	-292	-162	1133
	Thermal 5{1}	-227	686	494	875	-1097	-310	-170	1153
	GRT1{1}	-203	742	347	843	-1281	-303	-138	1324
	GRT2{1}	-224	739	485	912	-1356	-333	-153	1405
	GRT3{1}	-203	741	347	843	-1281	-303	-138	1324

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		GRT4{1}	-196	725	330	821	-1257	-296	-134	1298
		GRT5{1}	-205	668	473	844	-1272	-314	-142	1318
B17	-	Gravity{1}	21	-17	-116	120	-140	-4	39	146
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	-224	759	367	872	-1290	-299	-278	1353
		Thermal 2{1}	-245	757	506	943	-1434	-329	-304	1503
		Thermal 3{1}	-224	759	367	872	-1290	-299	-278	1353
		Thermal 4{1}	-218	742	351	850	-1258	-292	-271	1319
		Thermal 5{1}	-227	686	494	875	-1344	-310	-283	1408
		GRT1{1}	-203	742	251	809	-1431	-303	-239	1482
		GRT2{1}	-224	739	390	865	-1575	-333	-265	1631
		GRT3{1}	-203	741	251	809	-1431	-303	-239	1482
		GRT4{1}	-196	725	235	787	-1398	-296	-232	1448
		GRT5{1}	-205	668	377	794	-1485	-314	-244	1537
B17	+	Gravity{1}	21	-17	-458	458	-140	-4	39	146
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	-224	759	367	872	-1290	-299	-278	1353
		Thermal 2{1}	-245	757	506	943	-1434	-329	-304	1503
		Thermal 3{1}	-224	759	367	872	-1290	-299	-278	1353
		Thermal 4{1}	-218	742	351	850	-1258	-292	-271	1319
		Thermal 5{1}	-227	686	494	875	-1344	-310	-283	1408
		GRT1{1}	-203	742	-90	774	-1431	-303	-239	1482
		GRT2{1}	-224	739	49	774	-1575	-333	-265	1631
		GRT3{1}	-203	741	-90	774	-1431	-303	-239	1482
		GRT4{1}	-196	725	-107	759	-1398	-296	-232	1448
		GRT5{1}	-205	668	36	700	-1485	-314	-244	1537
B04	-	Gravity{1}	21	-17	-606	606	271	-4	55	276
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	-224	759	367	872	-1574	-299	-451	1665
		Thermal 2{1}	-245	757	506	943	-1826	-329	-494	1920
		Thermal 3{1}	-224	759	367	872	-1574	-299	-451	1665
		Thermal 4{1}	-218	742	351	850	-1529	-292	-439	1618
		Thermal 5{1}	-227	686	494	875	-1726	-310	-459	1813
		GRT1{1}	-203	742	-238	805	-1304	-303	-396	1396
		GRT2{1}	-224	739	-99	779	-1555	-333	-438	1650
		GRT3{1}	-203	741	-238	805	-1304	-303	-396	1396
		GRT4{1}	-196	725	-255	793	-1258	-296	-384	1349
		GRT5{1}	-205	668	-112	708	-1455	-314	-403	1543

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RESULT PAGE 102

G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
B04 +	Gravity{1}	-46	-23	557	560	279	-23	60	286
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-115	1385	-2340	2722	-2826	-1184	-698	3143
	Thermal 2{1}	-88	1405	-2531	2897	-3110	-1278	-749	3444
	Thermal 3{1}	-115	1385	-2340	2721	-2826	-1184	-698	3143
	Thermal 4{1}	-114	1359	-2295	2670	-2763	-1160	-682	3074
	Thermal 5{1}	-71	1291	-2392	2719	-2930	-1202	-697	3243
	GRT1{1}	-161	1362	-1782	2249	-2548	-1208	-638	2891
	GRT2{1}	-135	1382	-1974	2414	-2831	-1302	-688	3191
	GRT3{1}	-161	1362	-1782	2249	-2548	-1208	-638	2891
	GRT4{1}	-160	1336	-1738	2198	-2485	-1184	-622	2822
	GRT5{1}	-117	1268	-1834	2233	-2651	-1226	-637	2989
B05 N	Gravity{1}	-46	-23	415	419	-82	-23	26	89
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-115	1385	-2340	2722	-1090	-1184	-783	1790
	Thermal 2{1}	-88	1405	-2531	2897	-1232	-1278	-814	1953
	Thermal 3{1}	-115	1385	-2340	2721	-1090	-1184	-783	1790
	Thermal 4{1}	-114	1359	-2295	2670	-1061	-1160	-766	1749
	Thermal 5{1}	-71	1291	-2392	2719	-1155	-1202	-750	1828
	GRT1{1}	-161	1362	-1924	2363	-1173	-1208	-757	1846
	GRT2{1}	-135	1382	-2116	2531	-1314	-1302	-788	2011
	GRT3{1}	-161	1362	-1924	2363	-1173	-1208	-757	1846
	GRT4{1}	-160	1336	-1880	2311	-1143	-1184	-740	1804
	GRT5{1}	-117	1268	-1976	2351	-1238	-1226	-724	1886
B05 F	Gravity{1}	-46	-23	401	405	-110	-35	22	117
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-115	1385	-2340	2722	-933	-1119	-752	1640
	Thermal 2{1}	-88	1405	-2531	2897	-1061	-1208	-781	1787
	Thermal 3{1}	-115	1385	-2340	2721	-933	-1119	-752	1640
	Thermal 4{1}	-114	1359	-2295	2670	-906	-1096	-736	1601
	Thermal 5{1}	-71	1291	-2392	2719	-994	-1136	-718	1672
	GRT1{1}	-161	1362	-1939	2375	-1043	-1154	-730	1718
	GRT2{1}	-135	1382	-2130	2543	-1171	-1242	-759	1868

		S_LINEREV0.OUT								
B29	-	GRT3{1}	-161	1362	-1939	2375	-1043	-1154	-730	1718
		GRT4{1}	-160	1336	-1894	2323	-1016	-1131	-714	1680
		GRT5{1}	-117	1268	-1991	2363	-1104	-1170	-696	1753
		Gravity{1}	-46	-23	344	348	-189	-114	7	221
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	-115	1385	-2340	2722	-435	-622	-482	899
		Thermal 2{1}	-88	1405	-2531	2897	-523	-670	-501	987
		Thermal 3{1}	-115	1385	-2340	2721	-435	-622	-482	899
		Thermal 4{1}	-114	1359	-2295	2670	-418	-608	-471	876
		Thermal 5{1}	-71	1291	-2392	2719	-486	-627	-459	917
		GRT1{1}	-161	1362	-1996	2422	-625	-736	-475	1076
		GRT2{1}	-135	1382	-2188	2591	-712	-784	-494	1168
		GRT3{1}	-161	1362	-1996	2422	-625	-736	-475	1076
		GRT4{1}	-160	1336	-1952	2370	-607	-722	-464	1052
		GRT5{1}	-117	1268	-2048	2411	-675	-741	-452	1100

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RESULT PAGE 103

G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
B29	+ Gravity{1}	-46	-23	-127	137	-189	-114	7	221
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-115	1385	-2340	2722	-435	-622	-482	899
	Thermal 2{1}	-88	1405	-2531	2897	-523	-670	-501	987
	Thermal 3{1}	-115	1385	-2340	2721	-435	-622	-482	899
	Thermal 4{1}	-114	1359	-2295	2670	-418	-608	-471	876
	Thermal 5{1}	-71	1291	-2392	2719	-486	-627	-459	917
	GRT1{1}	-161	1362	-2467	2823	-625	-736	-475	1076
	GRT2{1}	-135	1382	-2658	2999	-712	-784	-494	1168
	GRT3{1}	-161	1362	-2467	2823	-625	-736	-475	1076
	GRT4{1}	-160	1336	-2422	2771	-607	-722	-464	1052
	GRT5{1}	-117	1268	-2519	2822	-675	-741	-452	1100
B22	- Gravity{1}	-46	-23	-213	219	-135	-60	-15	149
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-115	1385	-2340	2722	307	121	-79	339

		S_LINEREV0.OUT							
	Thermal 2{1}	-88	1405	-2531	2897	280	134	-84	322
	Thermal 3{1}	-115	1385	-2340	2721	307	121	-79	339
	Thermal 4{1}	-114	1359	-2295	2670	310	120	-76	341
	Thermal 5{1}	-71	1291	-2392	2719	273	132	-72	312
	GRT1{1}	-161	1362	-2553	2898	172	61	-94	205
	GRT2{1}	-135	1382	-2744	3076	145	74	-98	190
	GRT3{1}	-161	1362	-2553	2898	172	61	-94	205
	GRT4{1}	-160	1336	-2508	2846	175	60	-91	206
	GRT5{1}	-117	1268	-2605	2899	138	72	-87	178
B22 +	Gravity{1}	-46	-23	-684	685	-135	-60	-15	149
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-115	1385	-2340	2722	307	121	-79	339
	Thermal 2{1}	-88	1405	-2531	2897	280	134	-84	322
	Thermal 3{1}	-115	1385	-2340	2721	307	121	-79	339
	Thermal 4{1}	-114	1359	-2295	2670	310	120	-76	341
	Thermal 5{1}	-71	1291	-2392	2719	273	132	-72	312
	GRT1{1}	-161	1362	-3023	3320	172	61	-94	205
	GRT2{1}	-135	1382	-3215	3502	145	74	-98	190
	GRT3{1}	-161	1362	-3023	3320	172	61	-94	205
	GRT4{1}	-160	1336	-2979	3268	175	60	-91	206
	GRT5{1}	-117	1268	-3075	3328	138	72	-87	178
B06 N	Gravity{1}	-46	-23	-791	793	158	233	-42	285
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-115	1385	-2340	2722	1238	1051	426	1679
	Thermal 2{1}	-88	1405	-2531	2897	1287	1140	440	1775
	Thermal 3{1}	-115	1385	-2340	2721	1238	1051	426	1679
	Thermal 4{1}	-114	1359	-2295	2670	1223	1033	419	1655
	Thermal 5{1}	-71	1291	-2392	2719	1224	1083	413	1686
	GRT1{1}	-161	1362	-3131	3418	1396	1285	384	1935
	GRT2{1}	-135	1382	-3323	3601	1445	1374	398	2033
	GRT3{1}	-161	1362	-3131	3418	1396	1285	384	1935
	GRT4{1}	-160	1336	-3086	3367	1381	1266	376	1911
	GRT5{1}	-117	1268	-3183	3428	1383	1316	371	1945

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G L O B A L F O R C E S & M O M E N T S

Point	Load	S_LINEREV0.OUT FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

B06 F	Gravity{1}	-46	-23	-797	799	180	248	-44	310
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-115	1385	-2340	2722	1301	1096	449	1759
	Thermal 2{1}	-88	1405	-2531	2897	1356	1188	464	1862
	Thermal 3{1}	-115	1385	-2340	2721	1301	1096	449	1759
	Thermal 4{1}	-114	1359	-2295	2670	1285	1076	441	1733
	Thermal 5{1}	-71	1291	-2392	2719	1289	1128	436	1768
	GRT1{1}	-161	1362	-3137	3424	1481	1344	405	2040
	GRT2{1}	-135	1382	-3329	3607	1535	1437	420	2144
	GRT3{1}	-161	1362	-3137	3424	1481	1344	405	2040
	GRT4{1}	-160	1336	-3093	3373	1465	1325	397	2014
	GRT5{1}	-117	1268	-3189	3434	1469	1377	392	2051
B25 -	Gravity{1}	-46	-23	-815	817	248	280	-49	377
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-115	1385	-2340	2722	1499	1188	494	1975
	Thermal 2{1}	-88	1405	-2531	2897	1569	1288	512	2094
	Thermal 3{1}	-115	1385	-2340	2721	1499	1188	494	1975
	Thermal 4{1}	-114	1359	-2295	2670	1479	1167	485	1945
	Thermal 5{1}	-71	1291	-2392	2719	1491	1223	480	1987
	GRT1{1}	-161	1362	-3155	3440	1746	1468	445	2324
	GRT2{1}	-135	1382	-3347	3623	1817	1568	463	2445
	GRT3{1}	-161	1362	-3155	3440	1746	1468	445	2324
	GRT4{1}	-160	1336	-3111	3389	1727	1447	436	2295
	GRT5{1}	-117	1268	-3207	3450	1739	1503	432	2338
B25 +	Gravity{1}	-46	-23	761	763	248	280	-49	377
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-115	1385	-2546	2901	1499	1188	494	1975
	Thermal 2{1}	-88	1405	-2736	3077	1569	1288	512	2094
	Thermal 3{1}	-115	1385	-2546	2901	1499	1188	494	1975
	Thermal 4{1}	-114	1359	-2502	2849	1479	1167	485	1945
	Thermal 5{1}	-71	1291	-2587	2892	1491	1223	480	1987
	GRT1{1}	-161	1362	-1785	2251	1746	1468	445	2324
	GRT2{1}	-135	1382	-1975	2414	1817	1568	463	2445
	GRT3{1}	-161	1362	-1785	2251	1746	1468	445	2324
	GRT4{1}	-160	1336	-1740	2200	1727	1447	436	2295
	GRT5{1}	-117	1268	-1826	2226	1739	1503	432	2338
B07 -	Gravity{1}	-46	-23	663	665	-84	126	-75	169
	Hydrotest{1}	0	0	0	0	0	0	0	0

		S_LINEREV0.OUT						
Thermal 1{1}	-115	1385	-2546	2901	2684	1741	741	3284
Thermal 2{1}	-88	1405	-2736	3077	2844	1882	776	3497
Thermal 3{1}	-115	1385	-2546	2901	2684	1741	741	3284
Thermal 4{1}	-114	1359	-2502	2849	2644	1710	727	3232
Thermal 5{1}	-71	1291	-2587	2892	2696	1784	728	3314
GRT1{1}	-161	1362	-1883	2330	2601	1866	666	3269
GRT2{1}	-135	1382	-2073	2495	2760	2008	701	3484
GRT3{1}	-161	1362	-1883	2330	2601	1866	666	3269
GRT4{1}	-160	1336	-1839	2278	2560	1835	652	3217
GRT5{1}	-117	1268	-1925	2307	2612	1910	652	3301

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
B07 +	Gravity{1}	-22	23	639	640	-47	115	-38	130
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-534	-212	472	744	1136	856	358	1467
	Thermal 2{1}	-572	-267	570	850	1203	932	382	1569
	Thermal 3{1}	-534	-212	472	744	1136	856	358	1467
	Thermal 4{1}	-507	-200	455	709	1123	834	351	1442
	Thermal 5{1}	-482	-242	536	760	1151	865	360	1484
	GRT1{1}	-556	-189	1111	1257	1089	971	320	1494
	GRT2{1}	-594	-244	1209	1369	1155	1047	344	1597
	GRT3{1}	-556	-189	1111	1257	1089	971	320	1494
	GRT4{1}	-529	-177	1093	1227	1076	949	313	1468
	GRT5{1}	-504	-219	1175	1297	1104	980	321	1511
B08 N	Gravity{1}	-22	23	613	614	-12	40	-34	54
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-534	-212	472	744	1163	799	363	1457
	Thermal 2{1}	-572	-267	570	850	1235	863	382	1554
	Thermal 3{1}	-534	-212	472	744	1163	799	363	1457
	Thermal 4{1}	-507	-200	455	709	1149	779	355	1433
	Thermal 5{1}	-482	-242	536	760	1181	800	358	1471
	GRT1{1}	-556	-189	1086	1235	1151	839	328	1461
	GRT2{1}	-594	-244	1183	1346	1223	903	348	1559

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	GRT3{1}	-556	-189	1086	1235	1151	839	328	1461
	GRT4{1}	-529	-177	1068	1205	1136	819	321	1437
	GRT5{1}	-504	-219	1149	1274	1169	840	323	1476
B08 F	Gravity{1}	-22	23	595	595	3	4	-32	33
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-534	-212	472	744	1189	738	365	1446
	Thermal 2{1}	-572	-267	570	850	1267	794	382	1543
	Thermal 3{1}	-534	-212	472	744	1189	738	365	1446
	Thermal 4{1}	-507	-200	455	709	1173	721	357	1423
	Thermal 5{1}	-482	-242	536	760	1211	739	357	1463
	GRT1{1}	-556	-189	1067	1218	1191	742	332	1442
	GRT2{1}	-594	-244	1164	1330	1269	798	350	1540
	GRT3{1}	-556	-189	1067	1218	1191	742	332	1442
	GRT4{1}	-529	-177	1049	1188	1176	725	325	1419
	GRT5{1}	-504	-219	1130	1257	1213	743	324	1459
B16	Gravity{1}	-22	23	594	595	3	4	-32	33
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-534	-212	472	744	1189	738	365	1446
	Thermal 2{1}	-572	-267	570	850	1267	794	382	1543
	Thermal 3{1}	-534	-212	472	744	1189	738	365	1446
	Thermal 4{1}	-507	-200	455	709	1174	721	357	1423
	Thermal 5{1}	-482	-242	536	760	1211	739	357	1463
	GRT1{1}	-556	-189	1067	1218	1192	741	332	1442
	GRT2{1}	-594	-244	1164	1330	1270	798	350	1540
	GRT3{1}	-556	-189	1067	1218	1192	741	332	1442
	GRT4{1}	-529	-177	1049	1188	1176	725	325	1419
	GRT5{1}	-504	-219	1130	1257	1214	742	324	1459

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
B11 N	Gravity{1}	-22	23	479	480	-12	-10	-32	36
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-534	-212	472	744	1317	416	365	1429

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	Thermal 2{1}	-572	-267	570	850	1428	449	382	1545
	Thermal 3{1}	-534	-212	472	744	1317	416	365	1429
	Thermal 4{1}	-507	-200	455	709	1294	415	357	1405
	Thermal 5{1}	-482	-242	536	760	1357	448	357	1473
	GRT1{1}	-556	-189	951	1118	1306	406	332	1407
	GRT2{1}	-594	-244	1049	1230	1417	439	350	1524
	GRT3{1}	-556	-189	951	1118	1306	406	332	1407
	GRT4{1}	-529	-177	934	1088	1283	406	325	1384
	GRT5{1}	-504	-219	1015	1154	1346	438	324	1452
B11 F	Gravity{1}	-22	23	450	452	-57	-21	-34	69
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-534	-212	472	744	1294	355	311	1377
	Thermal 2{1}	-572	-267	570	850	1401	383	323	1488
	Thermal 3{1}	-534	-212	472	744	1294	355	311	1377
	Thermal 4{1}	-507	-200	455	709	1271	358	306	1355
	Thermal 5{1}	-482	-242	536	760	1330	391	307	1420
	GRT1{1}	-556	-189	923	1094	1237	334	277	1311
	GRT2{1}	-594	-244	1020	1205	1344	361	289	1422
	GRT3{1}	-556	-189	923	1094	1237	334	277	1311
	GRT4{1}	-529	-177	905	1063	1214	336	272	1289
	GRT5{1}	-504	-219	986	1129	1274	370	273	1354
B18	Gravity{1}	-22	23	438	440	-84	-27	-35	95
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-534	-212	472	744	1265	349	275	1341
	Thermal 2{1}	-572	-267	570	850	1366	375	285	1445
	Thermal 3{1}	-534	-212	472	744	1265	349	275	1341
	Thermal 4{1}	-507	-200	455	709	1243	351	273	1320
	Thermal 5{1}	-482	-242	536	760	1298	384	274	1381
	GRT1{1}	-556	-189	911	1084	1181	321	240	1247
	GRT2{1}	-594	-244	1008	1195	1282	348	250	1352
	GRT3{1}	-556	-189	911	1084	1181	321	240	1247
	GRT4{1}	-529	-177	893	1053	1160	324	238	1227
	GRT5{1}	-504	-219	974	1118	1214	357	239	1288
B13	Gravity{1}	-22	23	419	420	-121	-36	-37	131
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-534	-212	472	744	1224	340	225	1290
	Thermal 2{1}	-572	-267	570	850	1316	364	230	1385
	Thermal 3{1}	-534	-212	472	744	1224	340	225	1290
	Thermal 4{1}	-507	-200	455	709	1204	343	225	1272
	Thermal 5{1}	-482	-242	536	760	1251	374	228	1326
	GRT1{1}	-556	-189	891	1067	1103	304	188	1159

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GRT2{1}	-594	-244	989	1179	1196	329	194	1255
GRT3{1}	-556	-189	891	1067	1103	304	188	1159
GRT4{1}	-529	-177	873	1036	1083	307	188	1141
GRT5{1}	-504	-219	955	1101	1130	338	191	1195

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result
-----		-----	-----	-----	-----	-----	-----	-----	-----
*** Segment B end ***									
*** Segment C begin ***									
B07	Gravity{1}	-24	-46	24	57	-36	10	-37	53
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	419	1598	-3019	3441	1548	885	383	1824
	Thermal 2{1}	483	1672	-3306	3736	1641	951	394	1937
	Thermal 3{1}	419	1598	-3019	3441	1548	885	383	1824
	Thermal 4{1}	393	1559	-2956	3365	1521	876	376	1795
	Thermal 5{1}	411	1533	-3123	3503	1545	920	368	1835
	GRT1{1}	395	1552	-2995	3396	1512	895	346	1791
	GRT2{1}	459	1626	-3282	3691	1605	961	357	1904
	GRT3{1}	395	1551	-2995	3396	1512	895	346	1791
	GRT4{1}	369	1512	-2932	3320	1484	886	339	1762
	GRT5{1}	387	1486	-3099	3459	1508	930	331	1803
C01 N	Gravity{1}	-24	-46	-1	52	-37	12	-33	51
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	419	1598	-3019	3441	1718	521	214	1808
	Thermal 2{1}	483	1672	-3306	3736	1827	552	220	1921
	Thermal 3{1}	419	1598	-3019	3441	1718	521	214	1808
	Thermal 4{1}	393	1559	-2956	3365	1687	520	211	1778
	Thermal 5{1}	411	1533	-3123	3503	1720	543	206	1816
	GRT1{1}	395	1552	-3020	3418	1681	533	181	1772
	GRT2{1}	459	1626	-3307	3714	1790	564	187	1886
	GRT3{1}	395	1551	-3020	3418	1681	533	181	1772
	GRT4{1}	369	1512	-2958	3342	1650	531	178	1742
	GRT5{1}	387	1486	-3124	3482	1683	555	174	1781

		S_LINEREV0.OUT							
C01 F	Gravity{1}	-24	-46	-20	56	-34	10	-31	47
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	419	1598	-3019	3441	1697	375	134	1743
	Thermal 2{1}	483	1672	-3306	3736	1809	394	137	1857
	Thermal 3{1}	419	1598	-3019	3441	1697	375	134	1743
	Thermal 4{1}	393	1559	-2956	3365	1667	375	132	1714
	Thermal 5{1}	411	1533	-3123	3503	1707	391	130	1756
	GRT1{1}	395	1552	-3039	3435	1663	385	103	1710
	GRT2{1}	459	1626	-3326	3731	1775	403	106	1824
	GRT3{1}	395	1551	-3039	3435	1663	385	103	1710
	GRT4{1}	369	1512	-2977	3359	1634	385	101	1681
	GRT5{1}	387	1486	-3143	3499	1673	400	99	1723

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result
C08	Gravity{1}	-24	-46	-21	56	-34	10	-31	47
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	419	1598	-3019	3441	1696	375	134	1742
	Thermal 2{1}	483	1672	-3306	3736	1808	394	137	1856
	Thermal 3{1}	419	1598	-3019	3441	1696	375	134	1742
	Thermal 4{1}	393	1559	-2956	3365	1666	376	132	1713
	Thermal 5{1}	411	1533	-3123	3503	1706	391	130	1755
	GRT1{1}	395	1552	-3039	3435	1662	385	103	1710
	GRT2{1}	459	1626	-3327	3731	1774	403	106	1823
	GRT3{1}	395	1551	-3039	3435	1662	385	103	1710
	GRT4{1}	369	1512	-2977	3359	1633	385	101	1680
	GRT5{1}	387	1486	-3144	3499	1672	400	99	1722
C04 N	Gravity{1}	-24	-46	-136	146	-6	-5	-31	32
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	419	1598	-3019	3441	732	628	134	974
	Thermal 2{1}	483	1672	-3306	3736	799	686	137	1062
	Thermal 3{1}	419	1598	-3019	3441	732	628	134	974
	Thermal 4{1}	393	1559	-2956	3365	726	613	132	959

		S_LINEREV0.OUT							
	Thermal 5{1}	411	1533	-3123	3503	781	639	130	1017
	GRT1{1}	395	1552	-3155	3538	726	623	103	962
	GRT2{1}	459	1626	-3442	3834	793	681	106	1051
	GRT3{1}	395	1551	-3155	3538	726	623	103	962
	GRT4{1}	369	1512	-3092	3462	720	608	101	948
	GRT5{1}	387	1486	-3259	3603	775	634	99	1006
C04 F	Gravity{1}	-24	-46	-165	173	10	2	-35	37
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	419	1598	-3019	3441	808	843	258	1196
	Thermal 2{1}	483	1672	-3306	3736	890	923	270	1311
	Thermal 3{1}	419	1598	-3019	3441	808	843	258	1196
	Thermal 4{1}	393	1559	-2956	3365	801	821	252	1175
	Thermal 5{1}	411	1533	-3123	3503	871	859	250	1249
	GRT1{1}	395	1552	-3183	3563	818	844	223	1197
	GRT2{1}	459	1626	-3471	3860	900	925	235	1312
	GRT3{1}	395	1551	-3183	3563	818	844	223	1197
	GRT4{1}	369	1512	-3121	3487	811	823	217	1176
	GRT5{1}	387	1486	-3288	3629	881	861	214	1250
C10	Gravity{1}	-24	-46	-176	184	18	8	-38	43
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	419	1598	-3019	3441	958	957	339	1396
	Thermal 2{1}	483	1672	-3306	3736	1054	1049	358	1529
	Thermal 3{1}	419	1598	-3019	3441	958	957	339	1396
	Thermal 4{1}	393	1559	-2956	3365	947	934	330	1370
	Thermal 5{1}	411	1533	-3123	3503	1026	977	328	1454
	GRT1{1}	395	1552	-3195	3574	976	965	301	1406
	GRT2{1}	459	1626	-3482	3871	1072	1057	320	1539
	GRT3{1}	395	1551	-3195	3574	976	966	301	1406
	GRT4{1}	369	1512	-3133	3498	966	942	292	1380
	GRT5{1}	387	1486	-3299	3639	1044	986	290	1465

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result

		S_LINEREV0.OUT							
C06	Gravity{1}	-24	-46	-196	203	32	18	-42	56
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	419	1598	-3019	3441	1171	1121	456	1684
	Thermal 2{1}	483	1672	-3306	3736	1287	1228	482	1843
	Thermal 3{1}	419	1598	-3019	3441	1171	1121	456	1684
	Thermal 4{1}	393	1559	-2956	3365	1156	1094	443	1652
	Thermal 5{1}	411	1533	-3123	3503	1246	1147	440	1750
	GRT1{1}	395	1552	-3215	3591	1202	1139	413	1707
	GRT2{1}	459	1626	-3502	3888	1319	1246	440	1867
	GRT3{1}	395	1551	-3215	3591	1202	1139	413	1707
	GRT4{1}	369	1512	-3152	3516	1188	1112	400	1675
	GRT5{1}	387	1486	-3319	3657	1278	1165	398	1774

*** Segment C end ***

*** Segment D begin ***

A02	Gravity{1}	-5	-51	787	789	-56	9	0	57
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	6	536	-607	809	947	2	19	947
	Thermal 2{1}	24	616	-696	930	1068	-82	28	1071
	Thermal 3{1}	17	584	-678	895	998	-63	25	1000
	Thermal 4{1}	13	516	-630	814	858	-57	22	861
	Thermal 5{1}	-6	345	-514	619	526	1	11	526
	GRT1{1}	1	485	181	517	891	11	19	891
	GRT2{1}	20	565	91	572	1012	-72	28	1015
	GRT3{1}	12	533	109	544	942	-54	25	944
	GRT4{1}	8	464	157	490	802	-48	22	804
	GRT5{1}	-11	294	274	401	470	10	11	470
D01 N	Gravity{1}	-5	-51	413	416	109	-6	0	110
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	6	536	-607	809	-785	21	19	786
	Thermal 2{1}	24	616	-696	930	-924	-3	28	925
	Thermal 3{1}	17	584	-678	895	-891	-9	25	891
	Thermal 4{1}	13	516	-630	814	-809	-14	22	809
	Thermal 5{1}	-6	345	-514	619	-588	-18	11	589
	GRT1{1}	1	485	-194	522	-676	15	19	676
	GRT2{1}	20	565	-284	632	-815	-9	28	815
	GRT3{1}	12	533	-265	595	-781	-16	25	782
	GRT4{1}	8	464	-218	513	-699	-21	22	700
	GRT5{1}	-11	294	-101	311	-479	-25	11	480

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RESULT PAGE 110

G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
D01 F	Gravity{1}	-5	-51	399	402	83	-7	0	83
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	6	536	-607	809	-780	22	19	781
	Thermal 2{1}	24	616	-696	930	-918	-1	30	919
	Thermal 3{1}	17	584	-678	895	-884	-8	27	884
	Thermal 4{1}	13	516	-630	814	-800	-13	23	800
	Thermal 5{1}	-6	345	-514	619	-575	-19	11	576
	GRT1{1}	1	485	-208	527	-697	15	19	698
	GRT2{1}	20	565	-298	639	-835	-8	30	836
	GRT3{1}	12	533	-279	602	-801	-15	26	802
	GRT4{1}	8	464	-232	519	-717	-20	22	718
	GRT5{1}	-11	294	-115	316	-493	-25	10	494
D02 -	Gravity{1}	-5	-51	329	333	-136	-7	-3	136
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	6	536	-607	809	-416	22	23	417
	Thermal 2{1}	24	616	-696	930	-500	-1	45	502
	Thermal 3{1}	17	584	-678	895	-476	-8	37	478
	Thermal 4{1}	13	516	-630	814	-421	-13	31	423
	Thermal 5{1}	-6	345	-514	619	-267	-19	7	267
	GRT1{1}	1	485	-278	558	-552	15	20	552
	GRT2{1}	20	565	-367	674	-636	-8	41	637
	GRT3{1}	12	533	-349	637	-612	-15	33	613
	GRT4{1}	8	464	-301	554	-557	-20	28	558
	GRT5{1}	-11	294	-185	347	-403	-25	4	404
D02 +	Gravity{1}	-5	-51	142	151	-136	-7	-3	136
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	6	536	-607	809	-416	22	23	417
	Thermal 2{1}	24	616	-696	930	-500	-1	45	502
	Thermal 3{1}	17	584	-678	895	-476	-8	37	478
	Thermal 4{1}	13	516	-630	814	-421	-13	31	423
	Thermal 5{1}	-6	345	-514	619	-267	-19	7	267
	GRT1{1}	1	485	-465	671	-552	15	20	552
	GRT2{1}	20	565	-554	792	-636	-8	41	637
	GRT3{1}	12	533	-536	756	-612	-15	33	613

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	GRT4{1}	8	464	-489	674	-557	-20	28	558
	GRT5{1}	-11	294	-372	474	-403	-25	4	404
D02 M-	Gravity{1}	-5	-51	-260	265	-123	-7	-4	123
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	6	536	-607	809	-279	22	24	281
	Thermal 2{1}	24	616	-696	930	-343	-1	50	346
	Thermal 3{1}	17	584	-678	895	-323	-8	40	326
	Thermal 4{1}	13	516	-630	814	-279	-13	34	281
	Thermal 5{1}	-6	345	-514	619	-151	-19	6	152
	GRT1{1}	1	485	-866	993	-402	15	20	402
	GRT2{1}	20	565	-956	1110	-465	-8	46	468
	GRT3{1}	12	533	-938	1079	-446	-15	36	448
	GRT4{1}	8	464	-890	1004	-402	-20	29	403
	GRT5{1}	-11	294	-774	827	-274	-25	1	275

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RESULT PAGE 111

G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
D02 M+	Gravity{1}	-5	-51	609	612	-123	-7	-4	123
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	6	536	-46	538	-279	22	24	281
	Thermal 2{1}	24	616	-193	646	-343	-1	50	346
	Thermal 3{1}	17	584	-193	615	-323	-8	40	326
	Thermal 4{1}	13	516	-165	541	-279	-13	34	281
	Thermal 5{1}	-6	345	-66	351	-151	-19	6	152
	GRT1{1}	1	485	563	743	-402	15	20	402
	GRT2{1}	20	565	416	702	-465	-8	46	468
	GRT3{1}	12	533	416	676	-446	-15	36	448
	GRT4{1}	8	464	445	643	-402	-20	29	403
	GRT5{1}	-11	294	543	617	-274	-25	1	275
D03 -	Gravity{1}	-5	-51	208	214	-215	-7	-5	215
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	6	536	-46	538	-268	22	26	271
	Thermal 2{1}	24	616	-193	646	-299	-1	56	304

Thermal 3{1}	17	584	-193	615	-280	-8	44	284
Thermal 4{1}	13	516	-165	541	-242	-13	37	245
Thermal 5{1}	-6	345	-66	351	-136	-19	4	137
GRT1{1}	1	485	162	511	-483	15	20	484
GRT2{1}	20	565	15	565	-514	-8	50	517
GRT3{1}	12	533	15	533	-495	-15	39	497
GRT4{1}	8	464	43	466	-457	-20	31	458
GRT5{1}	-11	294	142	326	-351	-25	-1	352

D03	+	Gravity{1}	-5	-51	21	55	-215	-7	-5	215
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	6	536	-46	538	-268	22	26	271
		Thermal 2{1}	24	616	-193	646	-299	-1	56	304
		Thermal 3{1}	17	584	-193	615	-280	-8	44	284
		Thermal 4{1}	13	516	-165	541	-242	-13	37	245
		Thermal 5{1}	-6	345	-66	351	-136	-19	4	137
		GRT1{1}	1	485	-25	485	-483	15	20	484
		GRT2{1}	20	565	-172	591	-514	-8	50	517
		GRT3{1}	12	533	-172	560	-495	-15	39	497
		GRT4{1}	8	464	-144	486	-457	-20	31	458
		GRT5{1}	-11	294	-46	297	-351	-25	-1	352
D04	-	Gravity{1}	-5	-51	-37	64	-211	-7	-8	211
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	6	536	-46	538	-245	22	29	248
		Thermal 2{1}	24	616	-193	646	-202	-1	68	213
		Thermal 3{1}	17	584	-193	615	-183	-8	53	191
		Thermal 4{1}	13	516	-165	541	-159	-13	43	166
		Thermal 5{1}	-6	345	-66	351	-103	-19	1	104
		GRT1{1}	1	485	-83	492	-456	15	21	457
		GRT2{1}	20	565	-231	610	-413	-8	60	417
		GRT3{1}	12	533	-231	581	-394	-15	45	397
		GRT4{1}	8	464	-202	507	-370	-20	36	372
		GRT5{1}	-11	294	-104	312	-313	-25	-6	314

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Point Load FORCES (N) MOMENTS (N.m)

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name	combination	X	Y	Z	Result	X	Y	Z	Result

D04	+ Gravity{1}	-5	-51	-378	381	-211	-7	-8	211
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	6	536	-46	538	-245	22	29	248
	Thermal 2{1}	24	616	-193	646	-202	-1	68	213
	Thermal 3{1}	17	584	-193	615	-183	-8	53	191
	Thermal 4{1}	13	516	-165	541	-159	-13	43	166
	Thermal 5{1}	-6	345	-66	351	-103	-19	1	104
	GRT1{1}	1	485	-424	644	-456	15	21	457
	GRT2{1}	20	565	-571	803	-413	-8	60	417
	GRT3{1}	12	533	-571	781	-394	-15	45	397
	GRT4{1}	8	464	-543	714	-370	-20	36	372
	GRT5{1}	-11	294	-444	532	-313	-25	-6	314
D05	- Gravity{1}	-5	-51	-451	454	52	-7	-11	53
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	6	536	-46	538	-216	22	32	220
	Thermal 2{1}	24	616	-193	646	-80	-1	83	116
	Thermal 3{1}	17	584	-193	615	-61	-8	63	88
	Thermal 4{1}	13	516	-165	541	-55	-13	52	77
	Thermal 5{1}	-6	345	-66	351	-61	-19	-2	63
	GRT1{1}	1	485	-497	694	-165	15	22	167
	GRT2{1}	20	565	-644	857	-29	-8	72	78
	GRT3{1}	12	533	-644	836	-9	-15	52	55
	GRT4{1}	8	464	-616	771	-3	-20	41	46
	GRT5{1}	-11	294	-517	595	-9	-25	-13	30
D05	+ Gravity{1}	18	-38	321	324	28	0	-6	28
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-242	960	-287	1030	-830	-191	167	868
	Thermal 2{1}	-321	1096	-654	1316	-775	-311	238	868
	Thermal 3{1}	-298	1035	-608	1237	-718	-297	208	804
	Thermal 4{1}	-273	917	-547	1102	-646	-280	181	727
	Thermal 5{1}	-163	613	-218	671	-470	-183	84	511
	GRT1{1}	-224	922	34	949	-802	-191	161	840
	GRT2{1}	-303	1058	-333	1150	-747	-311	231	842
	GRT3{1}	-280	997	-286	1075	-690	-297	202	778
	GRT4{1}	-255	879	-226	943	-618	-280	174	700
	GRT5{1}	-145	576	104	603	-442	-183	77	485
D06	- Gravity{1}	18	-38	269	272	-106	0	2	106
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-242	960	-287	1030	-700	-191	58	728

Thermal 2{1}	-321	1096	-654	1316	-478	-311	92	578
Thermal 3{1}	-298	1035	-608	1237	-442	-297	73	538
Thermal 4{1}	-273	917	-547	1102	-398	-280	57	490
Thermal 5{1}	-163	613	-218	671	-371	-183	10	414
GRT1{1}	-224	922	-18	949	-806	-191	60	830
GRT2{1}	-303	1058	-385	1166	-584	-311	94	669
GRT3{1}	-280	997	-339	1090	-549	-297	75	628
GRT4{1}	-255	879	-278	957	-504	-280	59	579
GRT5{1}	-145	576	51	596	-477	-183	11	511

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

D06	+ Gravity{1}	18	-38	-106	114	-106	0	2	106
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-242	960	-287	1030	-700	-191	58	728
	Thermal 2{1}	-321	1096	-654	1316	-478	-311	92	578
	Thermal 3{1}	-298	1035	-608	1237	-442	-297	73	538
	Thermal 4{1}	-273	917	-547	1102	-398	-280	57	490
	Thermal 5{1}	-163	613	-218	671	-371	-183	10	414
	GRT1{1}	-224	922	-393	1027	-806	-191	60	830
	GRT2{1}	-303	1058	-760	1338	-584	-311	94	669
	GRT3{1}	-280	997	-713	1258	-549	-297	75	628
	GRT4{1}	-255	879	-653	1124	-504	-280	59	579
	GRT5{1}	-145	576	-323	676	-477	-183	11	511
D09	- Gravity{1}	18	-38	-151	156	-57	0	9	57
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-242	960	-287	1030	-588	-191	-36	620
	Thermal 2{1}	-321	1096	-654	1316	-225	-311	-33	385
	Thermal 3{1}	-298	1035	-608	1237	-207	-297	-42	365
	Thermal 4{1}	-273	917	-547	1102	-186	-280	-49	340
	Thermal 5{1}	-163	613	-218	671	-287	-183	-53	344
	GRT1{1}	-224	922	-438	1045	-645	-191	-27	673
	GRT2{1}	-303	1058	-805	1364	-281	-311	-24	420

		S_LINEREV0.OUT							
	GRT3{1}	-280	997	-758	1284	-264	-297	-34	399
	GRT4{1}	-255	879	-698	1151	-243	-280	-40	372
	GRT5{1}	-145	576	-368	699	-344	-183	-45	392
D09 +	Gravity{1}	18	-38	-525	527	-57	0	9	57
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-242	960	-287	1030	-588	-191	-36	620
	Thermal 2{1}	-321	1096	-654	1316	-225	-311	-33	385
	Thermal 3{1}	-298	1035	-608	1237	-207	-297	-42	365
	Thermal 4{1}	-273	917	-547	1102	-186	-280	-49	340
	Thermal 5{1}	-163	613	-218	671	-287	-183	-53	344
	GRT1{1}	-224	922	-813	1249	-645	-191	-27	673
	GRT2{1}	-303	1058	-1179	1613	-281	-311	-24	420
	GRT3{1}	-280	997	-1133	1535	-264	-297	-34	399
	GRT4{1}	-255	879	-1072	1410	-243	-280	-40	372
	GRT5{1}	-145	576	-743	951	-344	-183	-45	392
D10 N	Gravity{1}	18	-38	-574	576	175	0	16	176
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-242	960	-287	1030	-467	-191	-138	523
	Thermal 2{1}	-321	1096	-654	1316	51	-311	-168	357
	Thermal 3{1}	-298	1035	-608	1237	49	-297	-168	345
	Thermal 4{1}	-273	917	-547	1102	45	-280	-164	327
	Thermal 5{1}	-163	613	-218	671	-195	-183	-122	294
	GRT1{1}	-224	922	-861	1281	-292	-191	-121	369
	GRT2{1}	-303	1058	-1228	1649	226	-311	-152	413
	GRT3{1}	-280	997	-1182	1572	224	-297	-152	402
	GRT4{1}	-255	879	-1121	1447	220	-280	-148	385
	GRT5{1}	-145	576	-792	990	-20	-183	-106	212

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RESULT PAGE 114

G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
D10 F-	Gravity{1}	18	-38	-581	583	206	13	16	207
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-242	960	-287	1030	-452	-185	-129	505

		S_LINEREVO.OUT							
D10 F+	Thermal 2{1}	-321	1096	-654	1316	86	-297	-161	348
	Thermal 3{1}	-298	1035	-608	1237	82	-284	-161	336
	Thermal 4{1}	-273	917	-547	1102	74	-268	-158	320
	Thermal 5{1}	-163	613	-218	671	-183	-178	-117	281
	GRT1{1}	-224	922	-868	1286	-245	-171	-113	320
	GRT2{1}	-303	1058	-1235	1655	292	-283	-145	432
	GRT3{1}	-280	997	-1189	1577	288	-270	-144	421
	GRT4{1}	-255	879	-1128	1453	280	-255	-142	404
	GRT5{1}	-145	576	-799	995	23	-165	-101	194
	Gravity{1}	18	-38	524	526	206	13	16	207
Hydrotest{1}	0	0	0	0	0	0	0	0	
D11 -	Thermal 1{1}	-242	960	-412	1072	-452	-185	-129	505
	Thermal 2{1}	-321	1096	-804	1397	86	-297	-161	348
	Thermal 3{1}	-298	1035	-762	1320	82	-284	-161	336
	Thermal 4{1}	-273	917	-702	1187	74	-268	-158	320
	Thermal 5{1}	-163	613	-356	728	-183	-178	-117	281
	GRT1{1}	-224	922	112	955	-245	-171	-113	320
	GRT2{1}	-303	1058	-280	1136	292	-283	-145	432
	GRT3{1}	-280	997	-238	1063	288	-270	-144	421
	GRT4{1}	-255	879	-178	932	280	-255	-142	404
	GRT5{1}	-145	576	168	617	23	-165	-101	194
D11 +	Gravity{1}	18	-38	482	484	76	-116	11	140
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-242	960	-412	1072	-345	-78	56	358
	Thermal 2{1}	-321	1096	-804	1397	294	-89	39	310
	Thermal 3{1}	-298	1035	-762	1320	279	-87	30	293
	Thermal 4{1}	-273	917	-702	1187	255	-87	8	270
	Thermal 5{1}	-163	613	-356	728	-92	-86	-1	126
	GRT1{1}	-224	922	70	951	-269	-195	67	339
	GRT2{1}	-303	1058	-323	1147	370	-206	50	427
	GRT3{1}	-280	997	-281	1073	355	-204	41	411
GRT4{1}	-255	879	-220	941	332	-203	19	389	
GRT5{1}	-145	576	126	607	-15	-203	10	204	
D11 -	Gravity{1}	23	-31	54	67	65	39	14	77
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	28	4966	-757	5024	-827	-351	-1524	1769
	Thermal 2{1}	178	5360	-433	5380	-633	-143	-1400	1543
	Thermal 3{1}	489	5301	-427	5341	-607	-147	-1160	1318
	Thermal 4{1}	389	4426	-376	4459	-606	-142	-964	1147
	Thermal 5{1}	-21	2290	-353	2317	-691	-219	-659	979
	GRT1{1}	52	4935	-703	4985	-762	-312	-1509	1719

		S_LINEREV0.OUT						
GRT2{1}	202	5329	-378	5346	-568	-105	-1385	1501
GRT3{1}	512	5270	-373	5308	-542	-109	-1146	1273
GRT4{1}	412	4395	-322	4426	-541	-103	-950	1098
GRT5{1}	3	2259	-299	2278	-626	-181	-644	916

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
D12 -	Gravity{1}	23	-31	32	51	59	33	13	69
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	28	4966	-757	5024	-726	-250	-857	1150
	Thermal 2{1}	178	5360	-433	5380	-575	-85	-660	880
	Thermal 3{1}	489	5301	-427	5341	-550	-90	-387	679
	Thermal 4{1}	389	4426	-376	4459	-556	-91	-321	648
	Thermal 5{1}	-21	2290	-353	2317	-644	-172	-356	755
	GRT1{1}	52	4935	-725	4988	-667	-217	-843	1097
	GRT2{1}	202	5329	-400	5348	-516	-53	-647	829
	GRT3{1}	512	5270	-395	5310	-491	-57	-374	620
	GRT4{1}	412	4395	-344	4428	-496	-59	-308	587
	GRT5{1}	3	2259	-320	2281	-584	-139	-342	691
D12 +	Gravity{1}	23	-31	-155	160	59	33	13	69
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	28	4966	-757	5024	-726	-250	-857	1150
	Thermal 2{1}	178	5360	-433	5380	-575	-85	-660	880
	Thermal 3{1}	489	5301	-427	5341	-550	-90	-387	679
	Thermal 4{1}	389	4426	-376	4459	-556	-91	-321	648
	Thermal 5{1}	-21	2290	-353	2317	-644	-172	-356	755
	GRT1{1}	52	4935	-912	5019	-667	-217	-843	1097
	GRT2{1}	202	5329	-588	5365	-516	-53	-647	829
	GRT3{1}	512	5270	-583	5327	-491	-57	-374	620
	GRT4{1}	412	4395	-531	4446	-496	-59	-308	587
	GRT5{1}	3	2259	-508	2315	-584	-139	-342	691
D12 M-	Gravity{1}	23	-31	-556	558	116	90	12	147
	Hydrotest{1}	0	0	0	0	0	0	0	0

			S_LINEREV0.OUT						
	Thermal 1{1}	28	4966	-757	5024	-605	-129	-59	622
	Thermal 2{1}	178	5360	-433	5380	-506	-16	224	554
	Thermal 3{1}	489	5301	-427	5341	-482	-22	537	722
	Thermal 4{1}	389	4426	-376	4459	-495	-31	447	668
	Thermal 5{1}	-21	2290	-353	2317	-587	-116	7	599
	GRT1{1}	52	4935	-1314	5107	-489	-39	-47	493
	GRT2{1}	202	5329	-989	5423	-390	73	236	462
	GRT3{1}	512	5270	-984	5385	-366	68	549	663
	GRT4{1}	412	4395	-933	4512	-379	58	460	599
	GRT5{1}	3	2259	-909	2435	-471	-26	19	472
D12 M+	Gravity{1}	11	-43	673	675	116	90	12	147
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-2946	1992	-3222	4799	-605	-129	-59	622
	Thermal 2{1}	-3882	1299	-2898	5016	-506	-16	224	554
	Thermal 3{1}	-3770	1042	-2893	4865	-482	-22	537	722
	Thermal 4{1}	-2913	1124	-2842	4222	-495	-31	447	668
	Thermal 5{1}	-662	1648	-2818	3331	-587	-116	7	599
	GRT1{1}	-2935	1949	-2549	4349	-489	-39	-47	493
	GRT2{1}	-3871	1256	-2225	4638	-390	73	236	462
	GRT3{1}	-3759	999	-2220	4478	-366	68	549	663
	GRT4{1}	-2902	1081	-2168	3780	-379	58	460	599
	GRT5{1}	-651	1605	-2145	2757	-471	-26	19	472

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
D13 -	Gravity{1}	11	-43	272	275	41	14	7	44
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-2946	1992	-3222	4799	-91	385	-212	449
	Thermal 2{1}	-3882	1299	-2898	5016	-44	446	-189	486
	Thermal 3{1}	-3770	1042	-2893	4865	-20	440	102	452
	Thermal 4{1}	-2913	1124	-2842	4222	-42	422	162	454
	Thermal 5{1}	-662	1648	-2818	3331	-138	334	164	396
	GRT1{1}	-2935	1949	-2951	4595	-51	400	-205	452
	GRT2{1}	-3871	1256	-2626	4843	-3	460	-181	495

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	GRT3{1}	-3759	999	-2621	4690	20	454	109	467
	GRT4{1}	-2902	1081	-2570	4024	-1	436	169	468
	GRT5{1}	-651	1605	-2546	3079	-97	348	171	400
D13	+	Gravity{1}	11	-43	84	96	41	14	44
		Hydrotest{1}	0	0	0	0	0	0	0
		Thermal 1{1}	-2946	1992	-3222	4799	-91	385	-212
		Thermal 2{1}	-3882	1299	-2898	5016	-44	446	-189
		Thermal 3{1}	-3770	1042	-2893	4865	-20	440	102
		Thermal 4{1}	-2913	1124	-2842	4222	-42	422	162
		Thermal 5{1}	-662	1648	-2818	3331	-138	334	164
		GRT1{1}	-2935	1949	-3138	4718	-51	400	-205
		GRT2{1}	-3871	1256	-2813	4947	-3	460	-181
		GRT3{1}	-3759	999	-2808	4797	20	454	109
		GRT4{1}	-2902	1081	-2757	4146	-1	436	169
		GRT5{1}	-651	1605	-2733	3236	-97	348	171
D14	-	Gravity{1}	11	-43	63	77	31	4	3
		Hydrotest{1}	0	0	0	0	0	0	0
		Thermal 1{1}	-2946	1992	-3222	4799	339	816	-339
		Thermal 2{1}	-3882	1299	-2898	5016	343	833	-534
		Thermal 3{1}	-3770	1042	-2893	4865	366	826	-263
		Thermal 4{1}	-2913	1124	-2842	4222	338	802	-77
		Thermal 5{1}	-662	1648	-2818	3331	239	710	296
		GRT1{1}	-2935	1949	-3160	4732	370	820	-336
		GRT2{1}	-3871	1256	-2835	4960	374	838	-531
		GRT3{1}	-3759	999	-2830	4810	397	830	-260
		GRT4{1}	-2902	1081	-2779	4161	368	806	-74
		GRT5{1}	-651	1605	-2755	3255	270	715	298
D14	+	Gravity{1}	-7	-57	170	180	3	56	11
		Hydrotest{1}	0	0	0	0	0	0	0
		Thermal 1{1}	-322	3402	-5618	6575	680	-1191	-633
		Thermal 2{1}	-667	2565	-4246	5006	404	-477	-425
		Thermal 3{1}	-733	2714	-4233	5081	438	-465	-469
		Thermal 4{1}	-782	2559	-4125	4917	396	-434	-419
		Thermal 5{1}	-695	2419	-4378	5050	380	-665	-360
		GRT1{1}	-329	3345	-5447	6401	683	-1134	-622
		GRT2{1}	-674	2509	-4076	4833	407	-420	-414
		GRT3{1}	-740	2657	-4062	4910	441	-409	-459
		GRT4{1}	-789	2502	-3955	4746	399	-378	-408
		GRT5{1}	-702	2362	-4207	4876	383	-609	-349

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
D15 N	Gravity{1}	-7	-57	132	144	-32	21	-4	39
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-322	3402	-5618	6575	2008	137	95	2014
	Thermal 2{1}	-667	2565	-4246	5006	1407	527	24	1503
	Thermal 3{1}	-733	2714	-4233	5081	1438	535	-1	1534
	Thermal 4{1}	-782	2559	-4125	4917	1371	540	1	1474
	Thermal 5{1}	-695	2419	-4378	5050	1414	369	48	1462
	GRT1{1}	-329	3345	-5486	6434	1975	158	91	1983
	GRT2{1}	-674	2509	-4115	4866	1375	547	19	1480
	GRT3{1}	-740	2657	-4101	4942	1406	556	-6	1511
	GRT4{1}	-789	2502	-3994	4778	1338	561	-4	1451
	GRT5{1}	-702	2362	-4246	4909	1381	390	43	1436
D15 M	Gravity{1}	-7	-57	125	137	-36	16	-7	40
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-322	3402	-5618	6575	2146	344	213	2183
	Thermal 2{1}	-667	2565	-4246	5006	1512	674	96	1658
	Thermal 3{1}	-733	2714	-4233	5081	1539	680	74	1684
	Thermal 4{1}	-782	2559	-4125	4917	1471	680	68	1622
	Thermal 5{1}	-695	2419	-4378	5050	1527	521	113	1617
	GRT1{1}	-329	3345	-5493	6440	2110	359	206	2150
	GRT2{1}	-674	2509	-4122	4872	1476	689	89	1631
	GRT3{1}	-740	2657	-4108	4948	1503	695	67	1657
	GRT4{1}	-789	2502	-4001	4784	1435	696	62	1596
	GRT5{1}	-702	2362	-4253	4915	1491	536	107	1588
D15 F	Gravity{1}	-7	-57	118	131	-35	13	-8	38
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-322	3402	-5618	6575	2051	415	261	2109
	Thermal 2{1}	-667	2565	-4246	5006	1441	705	126	1609
	Thermal 3{1}	-733	2714	-4233	5081	1459	707	105	1625
	Thermal 4{1}	-782	2559	-4125	4917	1398	703	96	1568
	Thermal 5{1}	-695	2419	-4378	5050	1466	552	141	1572
	GRT1{1}	-329	3345	-5500	6446	2016	428	253	2077

GRT2{1}	-674	2509	-4129	4878	1406	718	118	1583
GRT3{1}	-740	2657	-4115	4954	1424	720	98	1599
GRT4{1}	-789	2502	-4007	4790	1363	716	89	1543
GRT5{1}	-702	2362	-4260	4921	1431	566	133	1544

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

D16 F	Gravity{1}	-7	-57	33	66	1	9	-7	12
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-322	3402	-5618	6575	136	102	181	248
	Thermal 2{1}	-667	2565	-4246	5006	-3	177	34	181
	Thermal 3{1}	-733	2714	-4233	5081	-87	135	6	160
	Thermal 4{1}	-782	2559	-4125	4917	-50	99	-4	111
	Thermal 5{1}	-695	2419	-4378	5050	132	3	49	141
	GRT1{1}	-329	3345	-5584	6518	137	111	174	247
	GRT2{1}	-674	2509	-4213	4950	-2	186	27	188
	GRT3{1}	-740	2657	-4199	5024	-86	143	-1	167
	GRT4{1}	-789	2502	-4092	4861	-48	108	-11	119
	GRT5{1}	-702	2362	-4344	4995	133	12	42	140

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	Thermal 1{1}	-322	3402	-5618	6575	595	0	93	603
	Thermal 2{1}	-667	2565	-4246	5006	345	100	-67	365
	Thermal 3{1}	-733	2714	-4233	5081	259	58	-103	285
	Thermal 4{1}	-782	2559	-4125	4917	288	24	-114	311
	Thermal 5{1}	-695	2419	-4378	5050	490	-76	-52	499
	GRT1{1}	-329	3345	-5594	6526	594	9	86	600
	GRT2{1}	-674	2509	-4223	4958	343	110	-74	368
	GRT3{1}	-740	2657	-4209	5032	258	67	-110	289
	GRT4{1}	-789	2502	-4102	4869	287	33	-121	313
	GRT5{1}	-702	2362	-4354	5003	489	-67	-59	497
D18	Gravity{1}	-7	-57	7	58	-3	10	-6	12
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-322	3402	-5618	6575	1083	-108	0	1088
	Thermal 2{1}	-667	2565	-4246	5006	713	19	-174	734
	Thermal 3{1}	-733	2714	-4233	5081	627	-24	-219	664
	Thermal 4{1}	-782	2559	-4125	4917	646	-55	-231	688
	Thermal 5{1}	-695	2419	-4378	5050	870	-160	-159	899
	GRT1{1}	-329	3345	-5610	6540	1080	-98	-7	1085
	GRT2{1}	-674	2509	-4239	4972	711	28	-181	734
	GRT3{1}	-740	2657	-4225	5046	624	-14	-225	664
	GRT4{1}	-789	2502	-4118	4883	643	-46	-238	687
	GRT5{1}	-702	2362	-4370	5017	868	-151	-165	896

*** Segment D end ***

*** Segment E begin ***

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RESULT PAGE 119

G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

A03	Gravity{1}	-20	-54	798	800	-44	17	15	50
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	80	636	-217	677	1109	-187	16	1125
	Thermal 2{1}	102	665	-195	700	1183	-238	15	1207
	Thermal 3{1}	80	636	-218	677	1109	-186	16	1125
	Thermal 4{1}	76	622	-218	663	1078	-178	16	1092

			S_LINEREVO.OUT						
E01 N	Thermal 5{1}	96	613	-188	649	1082	-227	13	1105
	GRT1{1}	60	582	581	825	1065	-169	31	1079
	GRT2{1}	81	611	603	863	1139	-221	30	1161
	GRT3{1}	60	582	580	824	1065	-169	31	1079
	GRT4{1}	56	568	580	814	1034	-160	31	1046
	GRT5{1}	76	559	610	831	1037	-209	29	1059
	Gravity{1}	-20	-54	458	461	114	-42	15	122
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	80	636	-217	677	-757	48	16	759
	Thermal 2{1}	102	665	-195	700	-768	60	15	770
	Thermal 3{1}	80	636	-218	677	-757	48	16	759
	Thermal 4{1}	76	622	-218	663	-746	45	16	747
Thermal 5{1}	96	613	-188	649	-718	55	13	720	
GRT1{1}	60	582	241	633	-643	6	31	644	
GRT2{1}	81	611	263	670	-654	18	30	655	
GRT3{1}	60	582	240	633	-644	6	31	644	
GRT4{1}	56	568	240	619	-632	4	31	633	
GRT5{1}	76	559	270	626	-604	13	29	605	
E01 F	Gravity{1}	-20	-54	444	448	84	-43	14	95
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	80	636	-217	677	-789	54	22	791
	Thermal 2{1}	102	665	-195	700	-804	67	22	807
	Thermal 3{1}	80	636	-218	677	-789	54	22	791
	Thermal 4{1}	76	622	-218	663	-776	51	22	778
	Thermal 5{1}	96	613	-188	649	-750	62	21	753
	GRT1{1}	60	582	227	628	-705	11	36	706
	GRT2{1}	81	611	249	665	-720	24	36	721
	GRT3{1}	60	582	226	628	-706	11	36	707
	GRT4{1}	56	568	226	614	-693	8	35	694
	GRT5{1}	76	559	256	620	-666	19	34	667
E02 -	Gravity{1}	-20	-54	374	379	-162	-43	1	168
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	80	636	-217	677	-659	54	70	664
	Thermal 2{1}	102	665	-195	700	-687	67	83	695
	Thermal 3{1}	80	636	-218	677	-659	54	70	664
	Thermal 4{1}	76	622	-218	663	-646	51	67	651
	Thermal 5{1}	96	613	-188	649	-637	62	79	645
	GRT1{1}	60	582	157	606	-821	11	72	824
	GRT2{1}	81	611	180	642	-849	24	85	853
	GRT3{1}	60	582	157	606	-821	11	71	824
	GRT4{1}	56	568	157	591	-808	8	69	811

GRT5{1} 76 S_LINEREV0.OUT 559 186 594 -799 19 80 803

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
E02 +	Gravity{1}	-20	-54	187	196	-162	-43	1	168
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	80	636	-217	677	-659	54	70	664
	Thermal 2{1}	102	665	-195	700	-687	67	83	695
	Thermal 3{1}	80	636	-218	677	-659	54	70	664
	Thermal 4{1}	76	622	-218	663	-646	51	67	651
	Thermal 5{1}	96	613	-188	649	-637	62	79	645
	GRT1{1}	60	582	-30	586	-821	11	72	824
	GRT2{1}	81	611	-8	617	-849	24	85	853
	GRT3{1}	60	582	-31	586	-821	11	71	824
	GRT4{1}	56	568	-31	571	-808	8	69	811
	GRT5{1}	76	559	-1	565	-799	19	80	803
E02 M-	Gravity{1}	-20	-54	-214	222	-159	-43	-3	165
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	80	636	-217	677	-610	54	88	618
	Thermal 2{1}	102	665	-195	700	-643	67	106	655
	Thermal 3{1}	80	636	-218	677	-609	54	88	618
	Thermal 4{1}	76	622	-218	663	-597	51	85	605
	Thermal 5{1}	96	613	-188	649	-595	62	100	606
	GRT1{1}	60	582	-432	727	-769	11	85	773
	GRT2{1}	81	611	-409	740	-802	24	103	809
	GRT3{1}	60	582	-432	728	-768	11	85	773
	GRT4{1}	56	568	-432	716	-755	8	81	760
	GRT5{1}	76	559	-402	693	-754	19	97	760
E02 M+	Gravity{1}	-20	-54	265	271	-159	-43	-3	165
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	80	636	11	641	-610	54	88	618
	Thermal 2{1}	102	665	48	674	-643	67	106	655
	Thermal 3{1}	80	636	10	641	-609	54	88	618

		S_LINEREV0.OUT							
E12	- Thermal 4{1}	76	622	6	626	-597	51	85	605
	Thermal 5{1}	96	613	47	623	-595	62	100	606
	GRT1{1}	60	582	276	647	-769	11	85	773
	GRT2{1}	81	611	313	691	-802	24	103	809
	GRT3{1}	60	582	275	647	-768	11	85	773
	GRT4{1}	56	568	271	632	-755	8	81	760
	GRT5{1}	76	559	312	645	-754	19	97	760
	Gravity{1}	-20	-54	-136	148	-173	-43	-8	179
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	80	636	11	641	-612	54	106	624
	Thermal 2{1}	102	665	48	674	-654	67	129	670
	Thermal 3{1}	80	636	10	641	-612	54	106	623
	Thermal 4{1}	76	622	6	626	-598	51	102	609
	Thermal 5{1}	96	613	47	623	-605	62	122	621
	GRT1{1}	60	582	-126	599	-785	11	99	792
GRT2{1}	81	611	-88	623	-827	24	121	836	
GRT3{1}	60	582	-126	599	-785	11	98	791	
GRT4{1}	56	568	-130	585	-771	8	94	777	
GRT5{1}	76	559	-89	571	-779	19	114	787	

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S_LINEREV0

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RESULT PAGE 121

G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
E12 +	Gravity{1}	-20	-54	-324	329	-173	-43	-8	179
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	80	636	11	641	-612	54	106	624
	Thermal 2{1}	102	665	48	674	-654	67	129	670
	Thermal 3{1}	80	636	10	641	-612	54	106	623
	Thermal 4{1}	76	622	6	626	-598	51	102	609
	Thermal 5{1}	96	613	47	623	-605	62	122	621
	GRT1{1}	60	582	-313	664	-785	11	99	792
	GRT2{1}	81	611	-276	675	-827	24	121	836
	GRT3{1}	60	582	-314	664	-785	11	98	791
	GRT4{1}	56	568	-318	653	-771	8	94	777
	GRT5{1}	76	559	-276	628	-779	19	114	787

S_LINEREV0.OUT

E13	-	Gravity{1}	-20	-54	-382	386	2	-43	-18	47
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	80	636	11	641	-617	54	146	637
		Thermal 2{1}	102	665	48	674	-678	67	180	704
		Thermal 3{1}	80	636	10	641	-617	54	146	636
		Thermal 4{1}	76	622	6	626	-601	51	140	619
		Thermal 5{1}	96	613	47	623	-629	62	170	654
		GRT1{1}	60	582	-371	693	-615	11	128	628
		GRT2{1}	81	611	-334	701	-675	24	162	695
		GRT3{1}	60	582	-372	693	-614	11	128	628
		GRT4{1}	56	568	-375	683	-598	8	122	611
		GRT5{1}	76	559	-334	656	-626	19	152	645
E13	+	Gravity{1}	-20	-54	-622	624	2	-43	-18	47
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	80	636	11	641	-617	54	146	637
		Thermal 2{1}	102	665	48	674	-678	67	180	704
		Thermal 3{1}	80	636	10	641	-617	54	146	636
		Thermal 4{1}	76	622	6	626	-601	51	140	619
		Thermal 5{1}	96	613	47	623	-629	62	170	654
		GRT1{1}	60	582	-611	846	-615	11	128	628
		GRT2{1}	81	611	-574	842	-675	24	162	695
		GRT3{1}	60	582	-612	847	-614	11	128	628
		GRT4{1}	56	568	-616	839	-598	8	122	611
		GRT5{1}	76	559	-574	805	-626	19	152	645
E04	-	Gravity{1}	-20	-54	-670	672	271	-43	-26	276
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	80	636	11	641	-622	54	179	649
		Thermal 2{1}	102	665	48	674	-697	67	222	735
		Thermal 3{1}	80	636	10	641	-621	54	179	648
		Thermal 4{1}	76	622	6	626	-603	51	171	629
		Thermal 5{1}	96	613	47	623	-649	62	210	685
		GRT1{1}	60	582	-659	882	-351	11	153	383
		GRT2{1}	81	611	-622	876	-427	24	196	470
		GRT3{1}	60	582	-660	882	-350	11	153	382
		GRT4{1}	56	568	-664	875	-333	8	145	363
		GRT5{1}	76	559	-622	840	-378	19	184	420

S_LINEREV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
E04 +	Gravity{1}	24	-68	672	676	297	-101	-34	315
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-486	1082	-782	1420	-1205	-194	461	1305
	Thermal 2{1}	-532	1138	-840	1511	-1312	-202	522	1426
	Thermal 3{1}	-485	1081	-782	1420	-1204	-194	461	1304
	Thermal 4{1}	-472	1057	-765	1387	-1175	-191	447	1272
	Thermal 5{1}	-494	1052	-784	1402	-1221	-187	488	1328
	GRT1{1}	-461	1013	-111	1119	-909	-295	427	1047
	GRT2{1}	-507	1070	-168	1196	-1015	-303	488	1166
	GRT3{1}	-461	1013	-110	1119	-908	-295	427	1045
	GRT4{1}	-448	989	-93	1089	-879	-292	413	1014
	GRT5{1}	-470	984	-112	1096	-924	-288	454	1069
E17 -	Gravity{1}	24	-68	578	582	-208	-101	-14	232
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-486	1082	-782	1420	-573	-194	69	609
	Thermal 2{1}	-532	1138	-840	1511	-633	-202	92	671
	Thermal 3{1}	-485	1081	-782	1420	-573	-194	68	609
	Thermal 4{1}	-472	1057	-765	1387	-557	-191	65	593
	Thermal 5{1}	-494	1052	-784	1402	-588	-187	88	623
	GRT1{1}	-461	1013	-204	1132	-781	-295	54	837
	GRT2{1}	-507	1070	-262	1213	-841	-303	78	898
	GRT3{1}	-461	1013	-204	1132	-781	-295	54	836
	GRT4{1}	-448	989	-187	1101	-765	-292	51	821
	GRT5{1}	-470	984	-206	1110	-796	-288	74	850
E17 +	Gravity{1}	24	-68	203	216	-208	-101	-14	232
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-486	1082	-782	1420	-573	-194	69	609
	Thermal 2{1}	-532	1138	-840	1511	-633	-202	92	671
	Thermal 3{1}	-485	1081	-782	1420	-573	-194	68	609
	Thermal 4{1}	-472	1057	-765	1387	-557	-191	65	593
	Thermal 5{1}	-494	1052	-784	1402	-588	-187	88	623
	GRT1{1}	-461	1013	-579	1255	-781	-295	54	837
	GRT2{1}	-507	1070	-637	1345	-841	-303	78	898
	GRT3{1}	-461	1013	-578	1255	-781	-295	54	836
	GRT4{1}	-448	989	-561	1222	-765	-292	51	821

		S_LINEREV0.OUT							
	GRT5{1}	-470	984	-580	1235	-796	-288	74	850
E16	- Gravity{1}	24	-68	158	174	-278	-101	-5	296
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-486	1082	-782	1420	-270	-194	-119	354
	Thermal 2{1}	-532	1138	-840	1511	-308	-202	-113	385
	Thermal 3{1}	-485	1081	-782	1420	-270	-194	-120	353
	Thermal 4{1}	-472	1057	-765	1387	-261	-191	-118	344
	Thermal 5{1}	-494	1052	-784	1402	-284	-187	-103	356
	GRT1{1}	-461	1013	-624	1276	-549	-295	-124	635
	GRT2{1}	-507	1070	-681	1366	-586	-303	-118	670
	GRT3{1}	-461	1013	-623	1276	-548	-295	-124	635
	GRT4{1}	-448	989	-606	1243	-539	-292	-123	625
	GRT5{1}	-470	984	-625	1257	-562	-288	-108	641

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

E16 +	Gravity{1}	24	-68	-216	228	-278	-101	-5	296
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-486	1082	-782	1420	-270	-194	-119	354
	Thermal 2{1}	-532	1138	-840	1511	-308	-202	-113	385
	Thermal 3{1}	-485	1081	-782	1420	-270	-194	-120	353
	Thermal 4{1}	-472	1057	-765	1387	-261	-191	-118	344
	Thermal 5{1}	-494	1052	-784	1402	-284	-187	-103	356
	GRT1{1}	-461	1013	-998	1496	-549	-295	-124	635
	GRT2{1}	-507	1070	-1056	1587	-586	-303	-118	670
	GRT3{1}	-461	1013	-998	1495	-548	-295	-124	635
	GRT4{1}	-448	989	-981	1463	-539	-292	-123	625
	GRT5{1}	-470	984	-1000	1479	-562	-288	-108	641
E05 N	Gravity{1}	24	-68	-305	313	-79	-101	14	129
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-486	1082	-782	1420	327	-194	-491	621
	Thermal 2{1}	-532	1138	-840	1511	334	-202	-520	650
	Thermal 3{1}	-485	1081	-782	1420	327	-194	-491	621

S_LINEREV0.OUT

	Thermal 4{1}	-472	1057	-765	1387	323	-191	-479	608
	Thermal 5{1}	-494	1052	-784	1402	314	-187	-481	604
	GRT1{1}	-461	1013	-1087	1556	248	-295	-477	613
	GRT2{1}	-507	1070	-1145	1647	255	-303	-506	642
	GRT3{1}	-461	1013	-1086	1556	248	-295	-477	613
	GRT4{1}	-448	989	-1070	1524	244	-292	-465	601
	GRT5{1}	-470	984	-1088	1541	235	-288	-467	597
E05 F	Gravity{1}	24	-68	-314	322	-59	-89	13	108
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-486	1082	-782	1420	379	-164	-481	634
	Thermal 2{1}	-532	1138	-840	1511	389	-170	-511	665
	Thermal 3{1}	-485	1081	-782	1420	379	-164	-481	634
	Thermal 4{1}	-472	1057	-765	1387	374	-161	-470	622
	Thermal 5{1}	-494	1052	-784	1402	366	-157	-473	619
	GRT1{1}	-461	1013	-1096	1563	320	-254	-469	622
	GRT2{1}	-507	1070	-1154	1654	331	-259	-499	652
	GRT3{1}	-461	1013	-1096	1562	320	-254	-469	622
	GRT4{1}	-448	989	-1079	1530	315	-251	-457	609
	GRT5{1}	-470	984	-1098	1547	307	-246	-461	606
E06 N-	Gravity{1}	24	-68	-412	418	94	175	-27	200
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-486	1082	-782	1420	708	405	102	822
	Thermal 2{1}	-532	1138	-840	1511	742	442	94	869
	Thermal 3{1}	-485	1081	-782	1420	708	405	102	822
	Thermal 4{1}	-472	1057	-765	1387	695	396	101	806
	Thermal 5{1}	-494	1052	-784	1402	696	414	85	814
	GRT1{1}	-461	1013	-1194	1633	802	580	75	993
	GRT2{1}	-507	1070	-1251	1723	836	617	68	1041
	GRT3{1}	-461	1013	-1193	1632	802	580	76	992
	GRT4{1}	-448	989	-1176	1601	789	571	74	977
	GRT5{1}	-470	984	-1195	1618	790	589	58	987

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S_LINEREV0

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GLOBAL FORCES & MOMENTS

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result

S_LINEREVO.OUT

E06 N+	Gravity{1}	24	-68	394	400	94	175	-27	200
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-486	1082	-918	1499	708	405	102	822
	Thermal 2{1}	-532	1138	-976	1591	742	442	94	869
	Thermal 3{1}	-485	1081	-917	1499	708	405	102	822
	Thermal 4{1}	-472	1057	-900	1466	695	396	101	806
	Thermal 5{1}	-494	1052	-913	1478	696	414	85	814
	GRT1{1}	-461	1013	-524	1231	802	580	75	993
	GRT2{1}	-507	1070	-583	1320	836	617	68	1041
	GRT3{1}	-461	1013	-523	1230	802	580	76	992
	GRT4{1}	-448	989	-506	1197	789	571	74	977
	GRT5{1}	-470	984	-520	1208	790	589	58	987
E06 F	Gravity{1}	24	-68	380	387	84	151	-30	176
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-486	1082	-918	1499	660	429	155	803
	Thermal 2{1}	-532	1138	-976	1591	693	466	149	848
	Thermal 3{1}	-485	1081	-917	1499	660	429	155	802
	Thermal 4{1}	-472	1057	-900	1466	649	419	153	787
	Thermal 5{1}	-494	1052	-913	1478	650	436	135	795
	GRT1{1}	-461	1013	-538	1237	745	580	125	952
	GRT2{1}	-507	1070	-596	1326	777	617	119	999
	GRT3{1}	-461	1013	-537	1236	745	580	125	952
	GRT4{1}	-448	989	-520	1203	733	570	123	937
	GRT5{1}	-470	984	-533	1214	735	587	105	946
E07 N	Gravity{1}	24	-68	363	370	94	155	-30	184
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-486	1082	-918	1499	501	357	155	634
	Thermal 2{1}	-532	1138	-976	1591	525	387	149	669
	Thermal 3{1}	-485	1081	-917	1499	501	357	155	634
	Thermal 4{1}	-472	1057	-900	1466	493	349	153	623
	Thermal 5{1}	-494	1052	-913	1478	495	363	135	629
	GRT1{1}	-461	1013	-555	1244	595	512	125	795
	GRT2{1}	-507	1070	-614	1334	619	542	119	832
	GRT3{1}	-461	1013	-554	1244	595	512	125	795
	GRT4{1}	-448	989	-537	1211	587	504	123	784
	GRT5{1}	-470	984	-551	1221	589	518	105	792
E07 F	Gravity{1}	24	-68	349	356	72	157	-28	175
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-486	1082	-918	1499	488	320	118	596
	Thermal 2{1}	-532	1138	-976	1591	513	347	109	628

S_LINEREV0.OUT

Thermal 3{1}	-485	1081	-917	1499	488	320	118	595
Thermal 4{1}	-472	1057	-900	1466	481	313	117	586
Thermal 5{1}	-494	1052	-913	1478	485	326	98	592
GRT1{1}	-461	1013	-569	1250	561	477	90	742
GRT2{1}	-507	1070	-627	1340	585	504	80	776
GRT3{1}	-461	1013	-568	1250	561	477	90	741
GRT4{1}	-448	989	-551	1217	554	470	89	731
GRT5{1}	-470	984	-564	1228	557	482	69	740

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S_LINEREV0

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RESULT PAGE 125

G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
E08 N	Gravity{1}	24	-68	326	334	5	157	-23	158
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-486	1082	-918	1499	672	320	20	745
	Thermal 2{1}	-532	1138	-976	1591	708	347	2	789
	Thermal 3{1}	-485	1081	-917	1499	672	320	21	745
	Thermal 4{1}	-472	1057	-900	1466	662	313	22	732
	Thermal 5{1}	-494	1052	-913	1478	668	326	-1	743
	GRT1{1}	-461	1013	-592	1261	677	477	-3	828
	GRT2{1}	-507	1070	-651	1351	713	504	-21	873
	GRT3{1}	-461	1013	-592	1261	677	477	-3	828
	GRT4{1}	-448	989	-574	1228	666	470	-1	815
	GRT5{1}	-470	984	-588	1239	673	482	-25	828
E08 F	Gravity{1}	24	-68	312	320	-14	158	-22	161
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-486	1082	-918	1499	660	283	-17	718
	Thermal 2{1}	-532	1138	-976	1591	696	306	-39	762
	Thermal 3{1}	-485	1081	-917	1499	660	283	-16	718
	Thermal 4{1}	-472	1057	-900	1466	650	277	-14	706
	Thermal 5{1}	-494	1052	-913	1478	657	288	-39	719
	GRT1{1}	-461	1013	-606	1268	646	442	-38	783
	GRT2{1}	-507	1070	-665	1358	682	465	-60	827
	GRT3{1}	-461	1013	-605	1267	645	441	-38	783

		S_LINEREV0.OUT							
	GRT4{1}	-448	989	-588	1234	635	436	-36	771
	GRT5{1}	-470	984	-602	1245	643	446	-61	785
E09 N	Gravity{1}	24	-68	241	252	27	173	-22	177
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-486	1082	-918	1499	1	-13	-17	21
	Thermal 2{1}	-532	1138	-976	1591	2	-18	-39	42
	Thermal 3{1}	-485	1081	-917	1499	0	-13	-16	21
	Thermal 4{1}	-472	1057	-900	1466	6	-11	-14	18
	Thermal 5{1}	-494	1052	-913	1478	16	-13	-39	44
	GRT1{1}	-461	1013	-677	1303	28	160	-38	167
	GRT2{1}	-507	1070	-735	1394	29	156	-60	169
	GRT3{1}	-461	1013	-676	1303	27	160	-38	167
	GRT4{1}	-448	989	-659	1270	33	163	-36	170
	GRT5{1}	-470	984	-672	1281	43	160	-61	176
E09 F	Gravity{1}	24	-68	227	239	18	186	-17	188
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-486	1082	-918	1499	-26	-93	-96	136
	Thermal 2{1}	-532	1138	-976	1591	-26	-103	-123	163
	Thermal 3{1}	-485	1081	-917	1499	-27	-93	-96	136
	Thermal 4{1}	-472	1057	-900	1466	-21	-88	-91	129
	Thermal 5{1}	-494	1052	-913	1478	-9	-93	-118	151
	GRT1{1}	-461	1013	-690	1310	-8	93	-113	147
	GRT2{1}	-507	1070	-749	1401	-7	82	-140	163
	GRT3{1}	-461	1013	-690	1310	-8	93	-113	147
	GRT4{1}	-448	989	-672	1277	-2	97	-108	146
	GRT5{1}	-470	984	-686	1288	9	92	-135	164

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
E14	Gravity{1}	24	-68	218	229	4	197	-12	197
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-486	1082	-918	1499	34	-139	-182	232
	Thermal 2{1}	-532	1138	-976	1591	38	-153	-216	267

		S_LINEREV0.OUT							
	Thermal 3{1}	-485	1081	-917	1499	34	-139	-182	231
	Thermal 4{1}	-472	1057	-900	1466	38	-134	-176	224
	Thermal 5{1}	-494	1052	-913	1478	51	-139	-203	252
	GRT1{1}	-461	1013	-700	1315	38	58	-194	206
	GRT2{1}	-507	1070	-759	1407	42	45	-227	236
	GRT3{1}	-461	1013	-700	1315	37	58	-194	206
	GRT4{1}	-448	989	-682	1282	42	63	-188	202
	GRT5{1}	-470	984	-696	1293	54	58	-215	229
E11	Gravity{1}	24	-68	202	214	-11	208	-7	209
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-486	1082	-918	1499	99	-188	-275	348
	Thermal 2{1}	-532	1138	-976	1591	107	-205	-315	391
	Thermal 3{1}	-485	1081	-917	1499	98	-188	-275	347
	Thermal 4{1}	-472	1057	-900	1466	102	-182	-266	338
	Thermal 5{1}	-494	1052	-913	1478	115	-189	-295	369
	GRT1{1}	-461	1013	-716	1324	87	20	-282	296
	GRT2{1}	-507	1070	-775	1415	96	3	-321	335
	GRT3{1}	-461	1013	-716	1324	87	20	-281	295
	GRT4{1}	-448	989	-698	1291	91	26	-273	288
	GRT5{1}	-470	984	-712	1302	104	20	-301	320

*** Segment E end ***

*** Segment F begin ***

D11	Gravity{1}	-5	-7	428	428	11	-155	-3	155
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-270	-4007	345	4031	482	272	1580	1674
	Thermal 2{1}	-500	-4264	-372	4309	927	54	1439	1712
	Thermal 3{1}	-787	-4266	-335	4351	886	60	1190	1485
	Thermal 4{1}	-662	-3509	-326	3586	861	55	972	1300
	Thermal 5{1}	-142	-1676	-3	1682	599	133	658	900
	GRT1{1}	-275	-4013	773	4096	494	117	1576	1656
	GRT2{1}	-505	-4271	56	4301	938	-101	1436	1718
	GRT3{1}	-792	-4273	93	4346	897	-95	1187	1491
	GRT4{1}	-667	-3516	102	3580	873	-100	969	1308
	GRT5{1}	-148	-1683	425	1742	610	-22	655	895

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G L O B A L F O R C E S & M O M E N T S

S_LINEREVO.OUT

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

F21 -	Gravity{1}	-5	-7	410	410	58	-201	-3	209
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-270	-4007	345	4031	520	234	1166	1299
	Thermal 2{1}	-500	-4264	-372	4309	886	95	1023	1356
	Thermal 3{1}	-787	-4266	-335	4351	849	97	805	1174
	Thermal 4{1}	-662	-3509	-326	3586	825	91	657	1059
	Thermal 5{1}	-142	-1676	-3	1682	599	133	488	784
	GRT1{1}	-275	-4013	754	4093	578	33	1163	1299
	GRT2{1}	-505	-4271	38	4301	943	-106	1019	1393
	GRT3{1}	-792	-4273	75	4346	907	-104	802	1215
	GRT4{1}	-667	-3516	84	3580	883	-110	654	1104
	GRT5{1}	-148	-1683	406	1738	656	-68	485	819
F21 +	Gravity{1}	-5	-7	35	36	58	-201	-3	209
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-270	-4007	345	4031	520	234	1166	1299
	Thermal 2{1}	-500	-4264	-372	4309	886	95	1023	1356
	Thermal 3{1}	-787	-4266	-335	4351	849	97	805	1174
	Thermal 4{1}	-662	-3509	-326	3586	825	91	657	1059
	Thermal 5{1}	-142	-1676	-3	1682	599	133	488	784
	GRT1{1}	-275	-4013	380	4041	578	33	1163	1299
	GRT2{1}	-505	-4271	-337	4314	943	-106	1019	1393
	GRT3{1}	-792	-4273	-300	4356	907	-104	802	1215
	GRT4{1}	-667	-3516	-291	3590	883	-110	654	1104
	GRT5{1}	-148	-1683	32	1690	656	-68	485	819
C014 -	Gravity{1}	-5	-7	-10	13	61	-205	-4	214
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-270	-4007	345	4031	615	140	143	647
	Thermal 2{1}	-500	-4264	-372	4309	784	197	-8	808
	Thermal 3{1}	-787	-4266	-335	4351	757	189	-147	794
	Thermal 4{1}	-662	-3509	-326	3586	736	180	-122	767
	Thermal 5{1}	-142	-1676	-3	1682	598	134	68	616
	GRT1{1}	-275	-4013	335	4037	676	-65	140	693
	GRT2{1}	-505	-4271	-382	4317	845	-8	-12	845
	GRT3{1}	-792	-4273	-345	4359	818	-16	-151	832
	GRT4{1}	-667	-3516	-336	3594	797	-25	-126	807
	GRT5{1}	-148	-1683	-13	1690	659	-70	64	666
C014 +	Gravity{1}	-5	-7	-385	385	61	-205	-4	214

	S_LINEREV0.OUT							
	0	0	0	0	0	0	0	0
Hydrotest{1}								
Thermal 1{1}	-270	-4007	345	4031	615	140	143	647
Thermal 2{1}	-500	-4264	-372	4309	784	197	-8	808
Thermal 3{1}	-787	-4266	-335	4351	757	189	-147	794
Thermal 4{1}	-662	-3509	-326	3586	736	180	-122	767
Thermal 5{1}	-142	-1676	-3	1682	598	134	68	616
GRT1{1}	-275	-4013	-40	4023	676	-65	140	693
GRT2{1}	-505	-4271	-756	4366	845	-8	-12	845
GRT3{1}	-792	-4273	-719	4405	818	-16	-151	832
GRT4{1}	-667	-3516	-710	3648	797	-25	-126	807
GRT5{1}	-148	-1683	-388	1733	659	-70	64	666

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
F17 N	Gravity{1}	-5	-7	-398	398	30	-173	-4	176
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-270	-4007	345	4031	643	112	-159	671
	Thermal 2{1}	-500	-4264	-372	4309	754	227	-312	847
	Thermal 3{1}	-787	-4266	-335	4351	730	216	-429	874
	Thermal 4{1}	-662	-3509	-326	3586	710	206	-352	819
	Thermal 5{1}	-142	-1676	-3	1682	598	135	-56	615
	GRT1{1}	-275	-4013	-53	4023	672	-61	-163	694
	GRT2{1}	-505	-4271	-770	4369	783	54	-316	847
	GRT3{1}	-792	-4273	-733	4407	760	43	-432	875
	GRT4{1}	-667	-3516	-723	3651	739	33	-356	821
	GRT5{1}	-148	-1683	-401	1736	627	-39	-60	631
F17 F	Gravity{1}	-5	-7	-407	407	1	-165	-4	165
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-270	-4007	345	4031	667	105	-222	711
	Thermal 2{1}	-500	-4264	-372	4309	728	234	-364	847
	Thermal 3{1}	-787	-4266	-335	4351	706	223	-460	872
	Thermal 4{1}	-662	-3509	-326	3586	687	213	-377	812
	Thermal 5{1}	-142	-1676	-3	1682	597	135	-80	617
	GRT1{1}	-275	-4013	-62	4023	668	-60	-225	708

GRT2{1}	-505	-4271	-779	4370	729	70	-368	819
GRT3{1}	-792	-4273	-742	4408	708	58	-464	848
GRT4{1}	-667	-3516	-732	3653	688	48	-381	787
GRT5{1}	-148	-1683	-410	1739	598	-30	-84	605

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result
F15 M-	Gravity{1}	-5	-7	-1212	1212	-324	-239	0	403
	Hydrotest{1}	0	0	0	0	0	0	0	0

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	Thermal 1{1}	-270	-4007	345	4031	827	141	326	900
	Thermal 2{1}	-500	-4264	-372	4309	555	195	317	668
	Thermal 3{1}	-787	-4266	-335	4351	551	188	355	682
	Thermal 4{1}	-662	-3509	-326	3586	535	179	300	639
	Thermal 5{1}	-142	-1676	-3	1682	596	134	163	632
	GRT1{1}	-275	-4013	-867	4115	503	-98	326	607
	GRT2{1}	-505	-4271	-1584	4583	231	-44	317	394
	GRT3{1}	-792	-4273	-1547	4612	227	-51	355	424
	GRT4{1}	-667	-3516	-1537	3895	211	-60	299	371
	GRT5{1}	-148	-1683	-1215	2081	272	-105	162	333
F15 M+	Gravity{1}	-5	-7	1356	1356	-444	290	0	530
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-270	-4007	190	4020	827	141	326	900
	Thermal 2{1}	-500	-4264	-959	4399	555	195	317	668
	Thermal 3{1}	-787	-4266	-928	4436	551	188	355	682
	Thermal 4{1}	-662	-3509	-919	3687	535	179	300	639
	Thermal 5{1}	-142	-1676	-390	1727	596	134	163	632
	GRT1{1}	-275	-4013	1546	4310	383	431	326	663
	GRT2{1}	-505	-4271	396	4319	111	485	317	590
	GRT3{1}	-792	-4273	428	4366	107	478	355	604
	GRT4{1}	-667	-3516	437	3605	91	469	299	564
	GRT5{1}	-148	-1683	966	1946	152	424	162	479
F14 -	Gravity{1}	-5	-7	954	954	-190	348	1	396
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-270	-4007	190	4020	869	151	586	1059
	Thermal 2{1}	-500	-4264	-959	4399	344	147	640	741
	Thermal 3{1}	-787	-4266	-928	4436	347	141	741	830
	Thermal 4{1}	-662	-3509	-919	3687	333	133	621	717
	Thermal 5{1}	-142	-1676	-390	1727	510	115	278	592
	GRT1{1}	-275	-4013	1145	4183	679	498	587	1027
	GRT2{1}	-505	-4271	-5	4300	154	495	641	825
	GRT3{1}	-792	-4273	26	4346	157	489	742	902
	GRT4{1}	-667	-3516	36	3579	143	481	622	799
	GRT5{1}	-148	-1683	564	1781	320	462	279	628
F14 +	Gravity{1}	-5	-7	767	767	-190	348	1	396
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-270	-4007	190	4020	869	151	586	1059
	Thermal 2{1}	-500	-4264	-959	4399	344	147	640	741
	Thermal 3{1}	-787	-4266	-928	4436	347	141	741	830
	Thermal 4{1}	-662	-3509	-919	3687	333	133	621	717
	Thermal 5{1}	-142	-1676	-390	1727	510	115	278	592

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GRT1{1}	-275	-4013	957	4135	679	498	587	1027
GRT2{1}	-505	-4271	-192	4305	154	495	641	825
GRT3{1}	-792	-4273	-161	4348	157	489	742	902
GRT4{1}	-667	-3516	-152	3582	143	481	622	799
GRT5{1}	-148	-1683	377	1731	320	462	279	628

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
F02	Gravity{1}	-5	-7	746	746	-31	384	3	385
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-270	-4007	190	4020	909	160	834	1244
	Thermal 2{1}	-500	-4264	-959	4399	142	102	949	965
	Thermal 3{1}	-787	-4266	-928	4436	152	97	1111	1125
	Thermal 4{1}	-662	-3509	-919	3687	140	89	928	942
	Thermal 5{1}	-142	-1676	-390	1727	428	96	388	585
	GRT1{1}	-275	-4013	936	4130	878	544	837	1329
	GRT2{1}	-505	-4271	-214	4306	111	485	952	1074
	GRT3{1}	-792	-4273	-182	4349	121	481	1113	1219
	GRT4{1}	-667	-3516	-173	3583	109	473	930	1049
	GRT5{1}	-148	-1683	356	1727	397	480	390	735
F22	Gravity{1}	-5	-7	732	732	33	398	3	400
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-270	-4007	190	4020	926	164	936	1327
	Thermal 2{1}	-500	-4264	-959	4399	59	83	1076	1081
	Thermal 3{1}	-787	-4266	-928	4436	71	79	1263	1267
	Thermal 4{1}	-662	-3509	-919	3687	60	71	1054	1058
	Thermal 5{1}	-142	-1676	-390	1727	394	88	433	592
	GRT1{1}	-275	-4013	922	4127	959	562	939	1455
	GRT2{1}	-505	-4271	-227	4306	92	481	1080	1186
	GRT3{1}	-792	-4273	-196	4350	104	477	1266	1357
	GRT4{1}	-667	-3516	-187	3583	94	469	1057	1161
	GRT5{1}	-148	-1683	342	1724	427	487	436	781
F11 N	Gravity{1}	-5	-7	716	716	86	410	4	420

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	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-270	-4007	190	4020	940	167	1023	1399
	Thermal 2{1}	-500	-4264	-959	4399	-12	67	1184	1186
	Thermal 3{1}	-787	-4266	-928	4436	3	63	1392	1393
	Thermal 4{1}	-662	-3509	-919	3687	-7	56	1161	1163
	Thermal 5{1}	-142	-1676	-390	1727	366	82	471	602
	GRT1{1}	-275	-4013	906	4124	1026	577	1027	1562
	GRT2{1}	-505	-4271	-244	4307	75	477	1188	1283
	GRT3{1}	-792	-4273	-212	4351	89	474	1396	1477
	GRT4{1}	-667	-3516	-203	3584	79	466	1165	1257
	GRT5{1}	-148	-1683	326	1721	452	492	475	820
F11 F	Gravity{1}	-5	-7	691	691	161	389	4	421
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-270	-4007	190	4020	960	161	929	1345
	Thermal 2{1}	-500	-4264	-959	4399	-114	96	1107	1117
	Thermal 3{1}	-787	-4266	-928	4436	-96	92	1345	1351
	Thermal 4{1}	-662	-3509	-919	3687	-105	84	1124	1132
	Thermal 5{1}	-142	-1676	-390	1727	324	94	435	551
	GRT1{1}	-275	-4013	881	4118	1121	550	933	1559
	GRT2{1}	-505	-4271	-269	4309	48	485	1111	1213
	GRT3{1}	-792	-4273	-237	4352	66	481	1349	1433
	GRT4{1}	-667	-3516	-228	3586	56	473	1128	1225
	GRT5{1}	-148	-1683	301	1716	485	483	439	814

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
F12 N	Gravity{1}	-5	-7	679	679	188	362	4	408
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-270	-4007	190	4020	967	153	782	1253
	Thermal 2{1}	-500	-4264	-959	4399	-151	134	958	980
	Thermal 3{1}	-787	-4266	-928	4436	-132	128	1208	1221
	Thermal 4{1}	-662	-3509	-919	3687	-141	120	1012	1029
	Thermal 5{1}	-142	-1676	-390	1727	309	109	375	498

		S_LINEREVO.OUT							
	GRT1{1}	-275	-4013	869	4116	1156	516	786	1489
	GRT2{1}	-505	-4271	-280	4310	37	496	963	1083
	GRT3{1}	-792	-4273	-249	4353	56	490	1212	1308
	GRT4{1}	-667	-3516	-240	3587	47	482	1016	1126
	GRT5{1}	-148	-1683	289	1714	497	471	379	783
F12 F	Gravity{1}	-5	-7	640	640	189	256	3	318
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-270	-4007	190	4020	967	123	134	984
	Thermal 2{1}	-500	-4264	-959	4399	-151	289	269	423
	Thermal 3{1}	-787	-4266	-928	4436	-132	278	518	602
	Thermal 4{1}	-662	-3509	-919	3687	-141	268	444	538
	Thermal 5{1}	-142	-1676	-390	1727	309	172	104	368
	GRT1{1}	-275	-4013	831	4108	1156	378	137	1224
	GRT2{1}	-505	-4271	-319	4312	38	544	272	610
	GRT3{1}	-792	-4273	-288	4355	57	534	521	748
	GRT4{1}	-667	-3516	-278	3589	48	524	448	691
	GRT5{1}	-148	-1683	250	1708	498	428	107	665
F05 N	Gravity{1}	-5	-7	472	472	-119	-52	-4	129
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-270	-4007	190	4020	862	17	-2230	2391
	Thermal 2{1}	-500	-4264	-959	4399	379	819	-2364	2531
	Thermal 3{1}	-787	-4266	-928	4436	381	791	-2275	2439
	Thermal 4{1}	-662	-3509	-919	3687	367	776	-1861	2050
	Thermal 5{1}	-142	-1676	-390	1727	524	388	-902	1113
	GRT1{1}	-275	-4013	662	4077	743	-34	-2234	2355
	GRT2{1}	-505	-4271	-487	4328	261	767	-2368	2503
	GRT3{1}	-792	-4273	-456	4369	263	739	-2279	2410
	GRT4{1}	-667	-3516	-447	3606	249	724	-1865	2016
	GRT5{1}	-148	-1683	82	1691	406	336	-905	1047
F05 F	Gravity{1}	-5	-7	433	433	-120	-125	-5	173
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-270	-4007	190	4020	862	-13	-2878	3004
	Thermal 2{1}	-500	-4264	-959	4399	380	974	-3054	3228
	Thermal 3{1}	-787	-4266	-928	4436	381	941	-2965	3134
	Thermal 4{1}	-662	-3509	-919	3687	367	925	-2429	2625
	Thermal 5{1}	-142	-1676	-390	1727	525	451	-1173	1361
	GRT1{1}	-275	-4013	624	4071	742	-138	-2883	2980
	GRT2{1}	-505	-4271	-526	4332	260	849	-3058	3185
	GRT3{1}	-792	-4273	-495	4374	262	816	-2970	3091
	GRT4{1}	-667	-3516	-485	3611	248	800	-2433	2573
	GRT5{1}	-148	-1683	43	1690	405	326	-1177	1287

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
F23	Gravity{1}	-5	-7	410	411	-88	-156	-5	180
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-270	-4007	190	4020	876	-28	-3157	3277
	Thermal 2{1}	-500	-4264	-959	4399	308	1046	-3335	3509
	Thermal 3{1}	-787	-4266	-928	4436	312	1010	-3225	3394
	Thermal 4{1}	-662	-3509	-919	3687	299	993	-2641	2838
	Thermal 5{1}	-142	-1676	-390	1727	495	480	-1287	1460
	GRT1{1}	-275	-4013	601	4068	788	-184	-3162	3264
	GRT2{1}	-505	-4271	-549	4335	220	889	-3340	3463
	GRT3{1}	-792	-4273	-517	4376	224	854	-3230	3348
	GRT4{1}	-667	-3516	-508	3615	211	837	-2646	2783
	GRT5{1}	-148	-1683	21	1690	407	324	-1292	1393
F10	Gravity{1}	-5	-7	384	384	-59	-185	-5	194
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-270	-4007	190	4020	890	-41	-3426	3540
	Thermal 2{1}	-500	-4264	-959	4399	239	1115	-3605	3781
	Thermal 3{1}	-787	-4266	-928	4436	245	1077	-3475	3646
	Thermal 4{1}	-662	-3509	-919	3687	233	1059	-2846	3046
	Thermal 5{1}	-142	-1676	-390	1727	467	508	-1397	1559
	GRT1{1}	-275	-4013	574	4064	830	-226	-3431	3537
	GRT2{1}	-505	-4271	-575	4339	179	930	-3610	3732
	GRT3{1}	-792	-4273	-544	4379	186	892	-3480	3597
	GRT4{1}	-667	-3516	-535	3618	173	874	-2851	2987
	GRT5{1}	-148	-1683	-6	1690	408	323	-1402	1496
F13	Gravity{1}	-5	-7	340	340	-22	-222	-5	223
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-270	-4007	190	4020	909	-61	-3809	3916
	Thermal 2{1}	-500	-4264	-959	4399	141	1213	-3991	4174
	Thermal 3{1}	-787	-4266	-928	4436	150	1172	-3832	4010
	Thermal 4{1}	-662	-3509	-919	3687	139	1153	-3138	3346

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Thermal 5{1}	-142	-1676	-390	1727	427	548	-1555	1703
GRT1{1}	-275	-4013	530	4058	887	-283	-3814	3926
GRT2{1}	-505	-4271	-620	4345	118	991	-3996	4119
GRT3{1}	-792	-4273	-588	4385	128	950	-3837	3955
GRT4{1}	-667	-3516	-579	3625	116	931	-3143	3280
GRT5{1}	-148	-1683	-50	1690	405	326	-1560	1644

*** Segment F end ***

*** Segment J begin ***

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
D05	Gravity{1}	-23	-13	304	305	24	-7	-4	25
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	248	-424	325	589	614	213	-135	663
	Thermal 2{1}	346	-480	480	762	694	310	-154	776
	Thermal 3{1}	315	-451	419	691	657	289	-145	732
	Thermal 4{1}	286	-401	376	620	591	267	-129	661
	Thermal 5{1}	157	-269	151	346	409	164	-86	449
	GRT1{1}	225	-437	629	799	638	206	-139	684
	GRT2{1}	323	-493	784	981	718	303	-159	796
	GRT3{1}	292	-464	723	908	681	282	-149	752
	GRT4{1}	264	-415	680	839	615	260	-134	680
	GRT5{1}	134	-282	455	552	433	157	-90	470
J01	Gravity{1}	-23	-13	300	301	23	-6	-4	24
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	248	-424	325	589	589	199	-135	636
	Thermal 2{1}	346	-480	480	762	667	291	-154	744
	Thermal 3{1}	315	-451	419	691	631	271	-145	702
	Thermal 4{1}	286	-401	376	620	568	251	-129	634
	Thermal 5{1}	157	-269	151	346	394	155	-86	432
	GRT1{1}	225	-437	626	796	613	193	-139	657
	GRT2{1}	323	-493	780	978	690	285	-159	763
	GRT3{1}	292	-464	719	905	654	265	-149	722
	GRT4{1}	264	-415	676	836	591	245	-134	653

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	GRT5{1}	134	-282	451	549	417	150	-90	452
J02	Gravity{1}	-23	-13	240	242	11	15	-4	19
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	248	-424	325	589	204	-26	-135	246
	Thermal 2{1}	346	-480	480	762	231	-24	-154	279
	Thermal 3{1}	315	-451	419	691	221	-15	-145	265
	Thermal 4{1}	286	-401	376	620	203	-10	-129	241
	Thermal 5{1}	157	-269	151	346	150	13	-86	173
	GRT1{1}	225	-437	565	749	215	-12	-139	257
	GRT2{1}	323	-493	720	931	242	-9	-159	290
	GRT3{1}	292	-464	659	858	232	0	-149	276
	GRT4{1}	264	-415	616	788	214	5	-134	252
	GRT5{1}	134	-282	391	501	161	27	-90	187
J02 M	Gravity{1}	-23	-13	106	109	10	17	-4	20
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	248	-424	325	589	165	-49	-135	219
	Thermal 2{1}	346	-480	480	762	187	-55	-154	249
	Thermal 3{1}	315	-451	419	691	180	-44	-145	235
	Thermal 4{1}	286	-401	376	620	166	-36	-129	213
	Thermal 5{1}	157	-269	151	346	125	-2	-86	152
	GRT1{1}	225	-437	431	654	175	-32	-139	226
	GRT2{1}	323	-493	586	831	197	-38	-159	256
	GRT3{1}	292	-464	525	759	190	-27	-149	243
	GRT4{1}	264	-415	482	688	176	-19	-134	222
	GRT5{1}	134	-282	257	405	135	15	-90	163

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
HV22	Gravity{1}	-23	-13	-28	38	9	19	-4	21
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	248	-424	325	589	126	-72	-135	198
	Thermal 2{1}	346	-480	480	762	143	-87	-154	228
	Thermal 3{1}	315	-451	419	691	138	-73	-145	213

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	Thermal 4{1}	286	-401	376	620	129	-62	-129	193
	Thermal 5{1}	157	-269	151	346	100	-16	-86	133
	GRT1{1}	225	-437	297	575	135	-53	-139	201
	GRT2{1}	323	-493	452	743	151	-68	-159	230
	GRT3{1}	292	-464	391	674	147	-54	-149	216
	GRT4{1}	264	-415	348	602	138	-43	-134	197
	GRT5{1}	134	-282	123	336	109	3	-90	142
J04 N	Gravity{1}	-23	-13	-48	55	5	26	-4	27
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	248	-424	325	589	-2	-147	-135	200
	Thermal 2{1}	346	-480	480	762	-3	-192	-154	246
	Thermal 3{1}	315	-451	419	691	1	-168	-145	222
	Thermal 4{1}	286	-401	376	620	7	-149	-129	197
	Thermal 5{1}	157	-269	151	346	19	-64	-86	109
	GRT1{1}	225	-437	277	564	2	-121	-139	185
	GRT2{1}	323	-493	432	731	2	-166	-159	230
	GRT3{1}	292	-464	371	662	6	-142	-149	206
	GRT4{1}	264	-415	328	591	12	-123	-134	182
	GRT5{1}	134	-282	103	329	23	-38	-90	101
J04 F	Gravity{1}	-23	-13	-53	59	4	25	-4	25
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	248	-424	325	589	-23	-143	-115	185
	Thermal 2{1}	346	-480	480	762	-26	-186	-132	229
	Thermal 3{1}	315	-451	419	691	-20	-163	-123	205
	Thermal 4{1}	286	-401	376	620	-12	-145	-110	182
	Thermal 5{1}	157	-269	151	346	6	-64	-73	98
	GRT1{1}	225	-437	272	562	-19	-119	-119	169
	GRT2{1}	323	-493	427	728	-22	-161	-135	212
	GRT3{1}	292	-464	366	659	-16	-138	-127	189
	GRT4{1}	264	-415	323	588	-8	-120	-114	166
	GRT5{1}	134	-282	98	327	10	-40	-77	87
J05 N	Gravity{1}	-23	-13	-72	77	4	7	0	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	248	-424	325	589	-23	-50	7	55
	Thermal 2{1}	346	-480	480	762	-26	-48	7	55
	Thermal 3{1}	315	-451	419	691	-20	-42	6	47
	Thermal 4{1}	286	-401	376	620	-12	-37	5	39
	Thermal 5{1}	157	-269	151	346	6	-21	4	22
	GRT1{1}	225	-437	253	553	-19	-43	7	48
	GRT2{1}	323	-493	408	717	-22	-41	7	47
	GRT3{1}	292	-464	347	649	-16	-36	6	40

GRT4{1}	264	-415	304	578	-8	-30	6	32
GRT5{1}	134	-282	79	322	10	-14	4	18

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

J05 F	Gravity{1}	-23	-13	-77	81	3	4	1	5
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	248	-424	325	589	-43	-46	27	69
	Thermal 2{1}	346	-480	480	762	-49	-41	29	70
	Thermal 3{1}	315	-451	419	691	-42	-37	28	62
	Thermal 4{1}	286	-401	376	620	-31	-33	25	51
	Thermal 5{1}	157	-269	151	346	-7	-21	17	28
	GRT1{1}	225	-437	248	551	-39	-42	28	64
	GRT2{1}	323	-493	403	714	-45	-37	30	66
	GRT3{1}	292	-464	342	646	-38	-33	29	58
	GRT4{1}	264	-415	299	575	-28	-28	25	47
	GRT5{1}	134	-282	74	321	-4	-17	18	25
J17 -	Gravity{1}	-23	-13	-94	97	0	10	1	10
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	248	-424	325	589	-150	-109	27	187
	Thermal 2{1}	346	-480	480	762	-170	-129	29	215
	Thermal 3{1}	315	-451	419	691	-155	-117	28	196
	Thermal 4{1}	286	-401	376	620	-132	-105	25	171
	Thermal 5{1}	157	-269	151	346	-75	-61	17	98
	GRT1{1}	225	-437	232	543	-150	-99	28	182
	GRT2{1}	323	-493	386	705	-170	-119	30	209
	GRT3{1}	292	-464	325	638	-155	-107	29	191
	GRT4{1}	264	-415	282	567	-132	-95	25	165
	GRT5{1}	134	-282	57	318	-75	-51	18	92
J17 +	Gravity{1}	28	-2	-94	98	0	10	1	10
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-14	59	325	331	-150	-109	27	187
	Thermal 2{1}	-9	68	480	485	-170	-129	29	215

Thermal 3{1}	-9	62	419	424	-155	-117	28	196
Thermal 4{1}	-8	53	376	379	-132	-105	25	171
Thermal 5{1}	-10	29	151	154	-75	-61	17	98
GRT1{1}	14	58	232	239	-150	-99	28	182
GRT2{1}	19	66	386	392	-170	-119	30	209
GRT3{1}	18	60	325	331	-155	-107	29	191
GRT4{1}	19	51	282	287	-132	-95	25	165
GRT5{1}	17	28	57	66	-75	-51	18	92

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result
J13 F-	Gravity{1}	28	-2	-195	197	-2	-41	1	41
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-14	59	325	331	-61	-73	24	98
	Thermal 2{1}	-9	68	480	485	-68	-93	26	118
	Thermal 3{1}	-9	62	419	424	-63	-83	25	107
	Thermal 4{1}	-8	53	376	379	-53	-74	22	94
	Thermal 5{1}	-10	29	151	154	-31	-38	16	51
	GRT1{1}	14	58	131	144	-63	-113	25	132
	GRT2{1}	19	66	285	293	-70	-134	27	153
	GRT3{1}	18	60	224	233	-65	-124	26	142

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	GRT4{1}	19	51	181	189	-55	-115	23	130
	GRT5{1}	17	28	-44	55	-33	-78	16	87
J13 F+	Gravity{1}	28	-2	79	83	-2	-41	1	41
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-14	59	300	306	-61	-73	24	98
	Thermal 2{1}	-9	68	439	444	-68	-93	26	118
	Thermal 3{1}	-9	62	383	388	-63	-83	25	107
	Thermal 4{1}	-8	53	343	347	-53	-74	22	94
	Thermal 5{1}	-10	29	136	140	-31	-38	16	51
	GRT1{1}	14	58	379	383	-63	-113	25	132
	GRT2{1}	19	66	518	522	-70	-134	27	153
	GRT3{1}	18	60	462	466	-65	-124	26	142
	GRT4{1}	19	51	422	425	-55	-115	23	130
	GRT5{1}	17	28	215	217	-33	-78	16	87
	J14 N	Gravity{1}	28	-2	25	38	-2	1	2
Hydrotest{1}		0	0	0	0	0	0	0	0
Thermal 1{1}		-14	59	300	306	-61	169	-23	181
Thermal 2{1}		-9	68	439	444	-68	260	-28	271
Thermal 3{1}		-9	62	383	388	-63	225	-25	235
Thermal 4{1}		-8	53	343	347	-53	202	-20	209
Thermal 5{1}		-10	29	136	140	-31	72	-8	78
GRT1{1}		14	58	326	331	-63	170	-21	183
GRT2{1}		19	66	464	469	-70	262	-26	272
GRT3{1}		18	60	408	413	-65	226	-23	237
GRT4{1}		19	51	368	372	-55	203	-18	211
GRT5{1}		17	28	161	165	-33	73	-6	80
J14 F		Gravity{1}	28	-2	21	34	-2	1	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-14	59	300	306	-58	184	-26	195
	Thermal 2{1}	-9	68	439	444	-65	282	-32	291
	Thermal 3{1}	-9	62	383	388	-60	244	-28	253
	Thermal 4{1}	-8	53	343	347	-51	218	-23	225
	Thermal 5{1}	-10	29	136	140	-29	79	-10	84
	GRT1{1}	14	58	321	326	-60	185	-24	196
	GRT2{1}	19	66	459	465	-67	283	-30	292
	GRT3{1}	18	60	404	408	-62	245	-26	254
	GRT4{1}	19	51	363	368	-53	219	-21	227
	GRT5{1}	17	28	157	160	-32	80	-8	86

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
J15 N	Gravity{1}	28	-2	-33	43	-4	-21	2	22
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-14	59	300	306	-10	195	-26	197
	Thermal 2{1}	-9	68	439	444	-10	289	-32	291
	Thermal 3{1}	-9	62	383	388	-10	251	-28	253
	Thermal 4{1}	-8	53	343	347	-8	225	-23	226
	Thermal 5{1}	-10	29	136	140	-5	87	-10	88
	GRT1{1}	14	58	267	274	-14	174	-24	176
	GRT2{1}	19	66	406	412	-14	267	-30	269
	GRT3{1}	18	60	350	356	-14	230	-26	232
	GRT4{1}	19	51	310	315	-12	204	-21	205
	GRT5{1}	17	28	103	108	-9	66	-8	67
J15 F	Gravity{1}	28	-2	-38	47	-4	-21	2	21
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-14	59	300	306	-7	181	-23	183
	Thermal 2{1}	-9	68	439	444	-7	268	-28	270
	Thermal 3{1}	-9	62	383	388	-7	234	-25	235
	Thermal 4{1}	-8	53	343	347	-6	209	-20	210
	Thermal 5{1}	-10	29	136	140	-4	81	-8	82
	GRT1{1}	14	58	262	269	-11	161	-21	162
	GRT2{1}	19	66	401	407	-11	247	-26	249
	GRT3{1}	18	60	345	351	-11	213	-23	214
	GRT4{1}	19	51	305	310	-9	188	-18	189
	GRT5{1}	17	28	98	104	-8	60	-6	61
J11 N	Gravity{1}	28	-2	-91	95	-4	31	1	31
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-14	59	300	306	-7	-60	24	65
	Thermal 2{1}	-9	68	439	444	-7	-85	26	89
	Thermal 3{1}	-9	62	383	388	-7	-75	25	79
	Thermal 4{1}	-8	53	343	347	-6	-67	22	71
	Thermal 5{1}	-10	29	136	140	-4	-28	16	32
	GRT1{1}	14	58	209	218	-11	-29	25	40
	GRT2{1}	19	66	348	355	-11	-54	27	61

		S_LINEREV0.OUT							
	GRT3{1}	18	60	292	299	-11	-44	26	52
	GRT4{1}	19	51	252	258	-9	-36	23	44
	GRT5{1}	17	28	45	56	-8	3	16	18
J11 F	Gravity{1}	28	-2	-96	100	-4	34	1	34
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-14	59	300	306	-4	-74	27	79
	Thermal 2{1}	-9	68	439	444	-4	-106	29	110
	Thermal 3{1}	-9	62	383	388	-4	-92	28	97
	Thermal 4{1}	-8	53	343	347	-3	-83	25	86
	Thermal 5{1}	-10	29	136	140	-3	-34	17	38
	GRT1{1}	14	58	204	213	-8	-40	28	49
	GRT2{1}	19	66	343	350	-8	-72	30	78
	GRT3{1}	18	60	287	294	-8	-58	29	65
	GRT4{1}	19	51	247	253	-7	-49	25	55
	GRT5{1}	17	28	40	52	-6	0	18	19

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Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
J18 -	Gravity{1}	28	-2	-180	182	-6	-1	1	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-14	59	300	306	72	-56	27	95
	Thermal 2{1}	-9	68	439	444	83	-94	29	129
	Thermal 3{1}	-9	62	383	388	75	-81	28	113
	Thermal 4{1}	-8	53	343	347	64	-72	25	100
	Thermal 5{1}	-10	29	136	140	35	-21	17	44
	GRT1{1}	14	58	120	134	66	-57	28	92
	GRT2{1}	19	66	259	268	77	-96	30	127
	GRT3{1}	18	60	203	212	69	-82	29	111
	GRT4{1}	19	51	163	172	59	-73	25	97
	GRT5{1}	17	28	-44	55	29	-22	18	41
J18 +	Gravity{1}	0	12	-180	181	-6	-1	1	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-22	-39	300	303	72	-56	27	95

		S_LINEREV0.OUT							
	Thermal 2{1}	-37	-47	439	443	83	-94	29	129
	Thermal 3{1}	-32	-42	383	387	75	-81	28	113
	Thermal 4{1}	-28	-36	343	346	64	-72	25	100
	Thermal 5{1}	-8	-18	136	137	35	-21	17	44
	GRT1{1}	-23	-27	120	125	66	-57	28	92
	GRT2{1}	-38	-35	259	264	77	-96	30	127
	GRT3{1}	-32	-30	203	207	69	-82	29	111
	GRT4{1}	-29	-25	163	167	59	-73	25	97
	GRT5{1}	-9	-7	-44	46	29	-22	18	41
J07 -	Gravity{1}	0	12	-400	400	33	0	1	33
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-22	-39	300	303	-57	17	27	66
	Thermal 2{1}	-37	-47	439	443	-73	30	29	84
	Thermal 3{1}	-32	-42	383	387	-64	25	28	75
	Thermal 4{1}	-28	-36	343	346	-56	23	25	66
	Thermal 5{1}	-8	-18	136	137	-26	6	17	32
	GRT1{1}	-23	-27	-100	106	-24	18	28	41
	GRT2{1}	-38	-35	39	65	-40	30	30	59
	GRT3{1}	-32	-30	-17	47	-31	26	29	49
	GRT4{1}	-29	-25	-57	69	-23	23	25	41
	GRT5{1}	-9	-7	-264	264	7	7	18	20
J07 +	Gravity{1}	0	12	-431	431	33	0	1	33
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-22	-39	300	303	-57	17	27	66
	Thermal 2{1}	-37	-47	439	443	-73	30	29	84
	Thermal 3{1}	-32	-42	383	387	-64	25	28	75
	Thermal 4{1}	-28	-36	343	346	-56	23	25	66
	Thermal 5{1}	-8	-18	136	137	-26	6	17	32
	GRT1{1}	-23	-27	-131	136	-24	18	28	41
	GRT2{1}	-38	-35	8	52	-40	30	30	59
	GRT3{1}	-32	-30	-48	65	-31	26	29	49
	GRT4{1}	-29	-25	-88	96	-23	23	25	41
	GRT5{1}	-9	-7	-295	295	7	7	18	20

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Point	Load	S_LINEREV0.OUT FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

J08	Gravity{1}	0	12	-459	459	-153	0	1	153
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-22	-39	300	303	68	17	37	79
	Thermal 2{1}	-37	-47	439	443	110	30	45	122
	Thermal 3{1}	-32	-42	383	387	96	25	41	107
	Thermal 4{1}	-28	-36	343	346	87	23	36	97
	Thermal 5{1}	-8	-18	136	137	31	6	20	37
	GRT1{1}	-23	-27	-159	162	-85	18	37	94
	GRT2{1}	-38	-35	-20	55	-43	30	46	69
	GRT3{1}	-32	-30	-76	88	-57	26	42	75
	GRT4{1}	-29	-25	-116	122	-66	23	37	79
	GRT5{1}	-9	-7	-323	323	-122	7	21	124
J09	Gravity{1}	0	12	-470	470	-194	0	1	194
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-22	-39	300	303	95	17	39	104
	Thermal 2{1}	-37	-47	439	443	149	30	48	159
	Thermal 3{1}	-32	-42	383	387	130	25	44	139
	Thermal 4{1}	-28	-36	343	346	117	23	39	126
	Thermal 5{1}	-8	-18	136	137	43	6	21	48
	GRT1{1}	-23	-27	-170	174	-99	18	40	108
	GRT2{1}	-38	-35	-31	60	-45	30	49	73
	GRT3{1}	-32	-30	-87	98	-64	26	45	82
	GRT4{1}	-29	-25	-127	133	-76	23	40	89
	GRT5{1}	-9	-7	-334	334	-151	7	22	153
J10	Gravity{1}	0	12	-499	499	-268	0	1	268
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-22	-39	300	303	140	17	42	147
	Thermal 2{1}	-37	-47	439	443	216	30	54	225
	Thermal 3{1}	-32	-42	383	387	188	25	49	196
	Thermal 4{1}	-28	-36	343	346	170	23	43	177
	Thermal 5{1}	-8	-18	136	137	64	6	22	68
	GRT1{1}	-23	-27	-199	202	-127	18	43	136
	GRT2{1}	-38	-35	-60	79	-52	30	55	81
	GRT3{1}	-32	-30	-116	124	-80	26	50	97
	GRT4{1}	-29	-25	-156	161	-98	23	44	110
	GRT5{1}	-9	-7	-363	363	-204	7	23	205

*** Segment J end ***

*** Segment K begin ***

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
J07	Gravity{1}	0	0	31	31	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	31	31	0	0	0	0
	GRT2{1}	0	0	31	31	0	0	0	0
	GRT3{1}	0	0	31	31	0	0	0	0
	GRT4{1}	0	0	31	31	0	0	0	0
	GRT5{1}	0	0	31	31	0	0	0	0
K01	Gravity{1}	0	0	28	28	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	28	28	0	0	0	0
	GRT2{1}	0	0	28	28	0	0	0	0
	GRT3{1}	0	0	28	28	0	0	0	0
	GRT4{1}	0	0	28	28	0	0	0	0
	GRT5{1}	0	0	28	28	0	0	0	0
K02	Gravity{1}	0	0	25	25	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0

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	GRT1{1}	0	0	25	25	0	0	0	0
	GRT2{1}	0	0	25	25	0	0	0	0
	GRT3{1}	0	0	25	25	0	0	0	0
	GRT4{1}	0	0	25	25	0	0	0	0
	GRT5{1}	0	0	25	25	0	0	0	0
K02 M	Gravity{1}	0	0	13	13	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	13	13	0	0	0	0
	GRT2{1}	0	0	13	13	0	0	0	0
	GRT3{1}	0	0	13	13	0	0	0	0
	GRT4{1}	0	0	13	13	0	0	0	0
	GRT5{1}	0	0	13	13	0	0	0	0

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

SV14	Gravity{1}	0	0	0	0	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	0	0	0	0	0	0
	GRT2{1}	0	0	0	0	0	0	0	0
	GRT3{1}	0	0	0	0	0	0	0	0
	GRT4{1}	0	0	0	0	0	0	0	0
	GRT5{1}	0	0	0	0	0	0	0	0

*** Segment K end ***

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*** Segment L begin ***
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		S_LINEREVO.OUT							
	Thermal 4{1}	-104	-616	2967	3032	846	934	243	1283
	Thermal 5{1}	-156	-605	3294	3352	822	991	239	1309
	GRT1{1}	-41	-621	3256	3314	853	931	242	1285
	GRT2{1}	-89	-643	3676	3733	871	1025	250	1368
	GRT3{1}	-41	-621	3256	3315	853	931	242	1285
	GRT4{1}	-36	-611	3177	3236	842	910	238	1262
	GRT5{1}	-88	-599	3504	3556	818	967	234	1288
L02 M	Gravity{1}	68	6	-37	78	-3	-32	-5	33
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-109	-626	3045	3111	776	969	247	1266
	Thermal 2{1}	-157	-648	3466	3530	792	1069	255	1354
	Thermal 3{1}	-109	-626	3045	3111	776	969	247	1266
	Thermal 4{1}	-104	-616	2967	3032	767	947	243	1242
	Thermal 5{1}	-156	-605	3294	3352	744	1011	239	1278
	GRT1{1}	-41	-621	3008	3072	773	936	242	1238
	GRT2{1}	-89	-643	3429	3490	788	1036	250	1326
	GRT3{1}	-41	-621	3008	3072	773	936	242	1238
	GRT4{1}	-36	-611	2930	2993	763	915	238	1215
	GRT5{1}	-88	-599	3256	3312	741	978	234	1249
HV23	Gravity{1}	68	6	-285	293	-3	-41	-5	41
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-109	-626	3045	3111	696	983	247	1229
	Thermal 2{1}	-157	-648	3466	3530	708	1089	255	1324
	Thermal 3{1}	-109	-626	3045	3111	696	983	247	1229
	Thermal 4{1}	-104	-616	2967	3032	688	960	243	1206
	Thermal 5{1}	-156	-605	3294	3352	667	1031	239	1250
	GRT1{1}	-41	-621	2760	2830	693	942	242	1194
	GRT2{1}	-89	-643	3181	3247	706	1048	250	1288
	GRT3{1}	-41	-621	2760	2830	693	942	242	1194
	GRT4{1}	-36	-611	2682	2751	685	920	238	1171
	GRT5{1}	-88	-599	3009	3069	664	990	234	1215
L03 N	Gravity{1}	68	6	-305	313	-2	-53	-5	53
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-109	-626	3045	3111	585	1002	247	1186
	Thermal 2{1}	-157	-648	3466	3530	594	1116	255	1290
	Thermal 3{1}	-109	-626	3045	3111	585	1002	247	1186
	Thermal 4{1}	-104	-616	2967	3032	579	979	243	1163
	Thermal 5{1}	-156	-605	3294	3352	560	1058	239	1221
	GRT1{1}	-41	-621	2740	2810	583	949	242	1140
	GRT2{1}	-89	-643	3161	3227	592	1064	250	1243
	GRT3{1}	-41	-621	2740	2810	583	949	242	1140

			S_LINEREV0.OUT						
GRT4{1}	-36	-611	2662	2731	577	926	238	1117	
GRT5{1}	-88	-599	2988	3049	558	1005	234	1173	

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
L03 F	Gravity{1}	68	6	-319	326	-1	-34	-4	34
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-109	-626	3045	3111	537	778	199	966
	Thermal 2{1}	-157	-648	3466	3530	544	864	206	1042
	Thermal 3{1}	-109	-626	3045	3111	537	778	199	966
	Thermal 4{1}	-104	-616	2967	3032	532	761	196	948
	Thermal 5{1}	-156	-605	3294	3352	514	819	193	986
	GRT1{1}	-41	-621	2726	2796	536	744	194	937
	GRT2{1}	-89	-643	3147	3213	543	830	201	1012
	GRT3{1}	-41	-621	2726	2796	536	744	194	937
	GRT4{1}	-36	-611	2648	2718	530	727	191	920
	GRT5{1}	-88	-599	2974	3035	512	785	188	956
L05 N	Gravity{1}	68	6	-355	362	-1	70	-3	70
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-109	-626	3045	3111	537	-165	5	562
	Thermal 2{1}	-157	-648	3466	3530	544	-209	5	583
	Thermal 3{1}	-109	-626	3045	3111	537	-165	5	562
	Thermal 4{1}	-104	-616	2967	3032	532	-158	5	555
	Thermal 5{1}	-156	-605	3294	3352	514	-201	5	551
	GRT1{1}	-41	-621	2690	2761	536	-94	2	544
	GRT2{1}	-89	-643	3111	3178	543	-139	2	560
	GRT3{1}	-41	-621	2690	2761	536	-94	2	544
	GRT4{1}	-36	-611	2612	2683	530	-88	2	538
	GRT5{1}	-88	-599	2938	3000	512	-130	3	529
L05 F	Gravity{1}	68	6	-369	375	-1	93	-2	93
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-109	-626	3045	3111	490	-388	-43	626
	Thermal 2{1}	-157	-648	3466	3530	495	-461	-44	678

		S_LINEREV0.OUT							
	Thermal 3{1}	-109	-626	3045	3111	490	-388	-43	627
	Thermal 4{1}	-104	-616	2967	3032	485	-376	-42	615
	Thermal 5{1}	-156	-605	3294	3352	468	-440	-41	643
	GRT1{1}	-41	-621	2676	2748	489	-296	-45	573
	GRT2{1}	-89	-643	3097	3164	494	-368	-47	618
	GRT3{1}	-41	-621	2676	2748	489	-296	-45	573
	GRT4{1}	-36	-611	2598	2669	484	-284	-44	563
	GRT5{1}	-88	-599	2925	2987	467	-347	-43	583
L12	- Gravity{1}	68	6	-534	538	7	-4	-2	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-109	-626	3045	3111	-402	-233	-43	467
	Thermal 2{1}	-157	-648	3466	3530	-428	-238	-44	492
	Thermal 3{1}	-109	-626	3045	3111	-402	-233	-43	467
	Thermal 4{1}	-104	-616	2967	3032	-392	-228	-42	456
	Thermal 5{1}	-156	-605	3294	3352	-394	-218	-41	452
	GRT1{1}	-41	-621	2511	2587	-395	-237	-45	463
	GRT2{1}	-89	-643	2932	3003	-421	-242	-47	488
	GRT3{1}	-41	-621	2511	2587	-395	-237	-45	463
	GRT4{1}	-36	-611	2433	2509	-385	-232	-44	452
	GRT5{1}	-88	-599	2760	2825	-387	-222	-43	448

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
L12 +	Gravity{1}	-1	-6	-534	534	7	-4	-2	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-53	105	3045	3048	-402	-233	-43	467
	Thermal 2{1}	-54	113	3466	3468	-428	-238	-44	492
	Thermal 3{1}	-53	105	3045	3048	-402	-233	-43	467
	Thermal 4{1}	-52	103	2967	2969	-392	-228	-42	456
	Thermal 5{1}	-50	104	3294	3296	-394	-218	-41	452
	GRT1{1}	-54	99	2511	2514	-395	-237	-45	463
	GRT2{1}	-55	107	2932	2935	-421	-242	-47	488
	GRT3{1}	-54	99	2511	2514	-395	-237	-45	463
	GRT4{1}	-53	96	2433	2436	-385	-232	-44	452

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		GRT5{1}	-51	98	2760	2762	-387	-222	-43	448
L11	-	Gravity{1}	-1	-6	-882	882	-11	-1	-2	12
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	-53	105	3045	3048	-87	-73	-43	121
		Thermal 2{1}	-54	113	3466	3468	-89	-75	-44	125
		Thermal 3{1}	-53	105	3045	3048	-87	-73	-43	121
		Thermal 4{1}	-52	103	2967	2969	-85	-72	-42	119
		Thermal 5{1}	-50	104	3294	3296	-81	-68	-41	114
		GRT1{1}	-54	99	2163	2166	-98	-75	-45	131
		GRT2{1}	-55	107	2584	2587	-101	-76	-47	135
		GRT3{1}	-54	99	2163	2166	-98	-75	-45	131
		GRT4{1}	-53	96	2085	2088	-96	-73	-44	129
		GRT5{1}	-51	98	2412	2414	-92	-70	-43	123
L11	+	Gravity{1}	-1	-6	-882	882	-11	-1	-2	12
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	-53	105	3045	3048	-87	-73	-43	121
		Thermal 2{1}	-54	113	3466	3468	-89	-75	-44	125
		Thermal 3{1}	-53	105	3045	3048	-87	-73	-43	121
		Thermal 4{1}	-52	103	2967	2969	-85	-72	-42	119
		Thermal 5{1}	-50	104	3294	3296	-81	-68	-41	114
		GRT1{1}	-54	99	2163	2166	-98	-75	-45	131
		GRT2{1}	-55	107	2584	2587	-101	-76	-47	135
		GRT3{1}	-54	99	2163	2166	-98	-75	-45	131
		GRT4{1}	-53	96	2085	2088	-96	-73	-44	129
		GRT5{1}	-51	98	2412	2414	-92	-70	-43	123
L07	-	Gravity{1}	-1	-6	-1254	1254	-31	2	-2	31
		Hydrotest{1}	0	0	0	0	0	0	0	0
		Thermal 1{1}	-53	105	3045	3048	251	98	-43	273
		Thermal 2{1}	-54	113	3466	3468	274	100	-44	294
		Thermal 3{1}	-53	105	3045	3048	251	98	-43	273
		Thermal 4{1}	-52	103	2967	2969	245	96	-42	266
		Thermal 5{1}	-50	104	3294	3296	254	91	-41	273
		GRT1{1}	-54	99	1791	1795	220	99	-45	246
		GRT2{1}	-55	107	2212	2215	242	101	-47	267
		GRT3{1}	-54	99	1791	1795	220	99	-45	246
		GRT4{1}	-53	96	1713	1716	214	97	-44	239
		GRT5{1}	-51	98	2039	2042	223	93	-43	246

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
L07 +	Gravity{1}	-1	-6	-1292	1292	-31	2	-2	31
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-53	105	3045	3048	251	98	-43	273
	Thermal 2{1}	-54	113	3466	3468	274	100	-44	294
	Thermal 3{1}	-53	105	3045	3048	251	98	-43	273
	Thermal 4{1}	-52	103	2967	2969	245	96	-42	266
	Thermal 5{1}	-50	104	3294	3296	254	91	-41	273
	GRT1{1}	-54	99	1753	1756	220	99	-45	246
	GRT2{1}	-55	107	2174	2177	242	101	-47	267
	GRT3{1}	-54	99	1753	1757	220	99	-45	246
	GRT4{1}	-53	96	1675	1678	214	97	-44	239
	GRT5{1}	-51	98	2001	2004	223	93	-43	246
L08	Gravity{1}	-1	-6	-1318	1318	258	2	-3	258
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-53	105	3045	3048	-423	98	-55	438
	Thermal 2{1}	-54	113	3466	3468	-494	100	-56	507
	Thermal 3{1}	-53	105	3045	3048	-423	98	-55	438
	Thermal 4{1}	-52	103	2967	2969	-412	96	-53	427
	Thermal 5{1}	-50	104	3294	3296	-475	91	-52	487
	GRT1{1}	-54	99	1727	1731	-165	99	-57	201
	GRT2{1}	-55	107	2148	2151	-236	101	-59	264
	GRT3{1}	-54	99	1727	1731	-165	99	-57	201
	GRT4{1}	-53	96	1649	1653	-154	97	-56	191
	GRT5{1}	-51	98	1975	1979	-217	93	-54	242
L09	Gravity{1}	-1	-6	-1334	1334	376	2	-3	376
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-53	105	3045	3048	-694	98	-59	704
	Thermal 2{1}	-54	113	3466	3468	-803	100	-61	811
	Thermal 3{1}	-53	105	3045	3048	-694	98	-59	704
	Thermal 4{1}	-52	103	2967	2969	-677	96	-58	686
	Thermal 5{1}	-50	104	3294	3296	-768	91	-56	776
	GRT1{1}	-54	99	1711	1715	-318	99	-62	339
	GRT2{1}	-55	107	2132	2135	-427	101	-64	443
	GRT3{1}	-54	99	1711	1715	-318	99	-62	339

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	GRT4{1}	-53	96	1633	1636	-300	97	-61	322
	GRT5{1}	-51	98	1959	1962	-392	93	-59	407
L10	Gravity{1}	-1	-6	-1379	1379	617	2	-3	617
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-53	105	3045	3048	-1236	98	-69	1242
	Thermal 2{1}	-54	113	3466	3468	-1419	100	-71	1424
	Thermal 3{1}	-53	105	3045	3048	-1236	98	-69	1242
	Thermal 4{1}	-52	103	2967	2969	-1204	96	-67	1210
	Thermal 5{1}	-50	104	3294	3296	-1354	91	-65	1359
	GRT1{1}	-54	99	1666	1670	-619	99	-72	631
	GRT2{1}	-55	107	2087	2091	-802	101	-74	811
	GRT3{1}	-54	99	1667	1670	-619	99	-72	631
	GRT4{1}	-53	96	1588	1592	-587	97	-70	599
	GRT5{1}	-51	98	1915	1918	-737	93	-68	746

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

*** Segment L end ***

*** Segment M begin ***

L07	Gravity{1}	0	0	38	38	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	38	38	0	0	0	0
	GRT2{1}	0	0	38	38	0	0	0	0
	GRT3{1}	0	0	38	38	0	0	0	0
	GRT4{1}	0	0	38	38	0	0	0	0
	GRT5{1}	0	0	38	38	0	0	0	0

M01	Gravity{1}	0	0	31	31	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0

Thermal 1{1}	0	0	0	0	0	0	0	0
Thermal 2{1}	0	0	0	0	0	0	0	0
Thermal 3{1}	0	0	0	0	0	0	0	0
Thermal 4{1}	0	0	0	0	0	0	0	0
Thermal 5{1}	0	0	0	0	0	0	0	0
GRT1{1}	0	0	31	31	0	0	0	0
GRT2{1}	0	0	31	31	0	0	0	0
GRT3{1}	0	0	31	31	0	0	0	0
GRT4{1}	0	0	31	31	0	0	0	0
GRT5{1}	0	0	31	31	0	0	0	0
Gravity{1}	0	0	25	25	0	0	0	0
Hydrotest{1}	0	0	0	0	0	0	0	0
Thermal 1{1}	0	0	0	0	0	0	0	0
Thermal 2{1}	0	0	0	0	0	0	0	0
Thermal 3{1}	0	0	0	0	0	0	0	0
Thermal 4{1}	0	0	0	0	0	0	0	0
Thermal 5{1}	0	0	0	0	0	0	0	0
GRT1{1}	0	0	25	25	0	0	0	0
GRT2{1}	0	0	25	25	0	0	0	0
GRT3{1}	0	0	25	25	0	0	0	0
GRT4{1}	0	0	25	25	0	0	0	0
GRT5{1}	0	0	25	25	0	0	0	0

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result
M02 M	Gravity{1}	0	0	13	13	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	13	13	0	0	0	0

		S_LINEREV0.OUT							
	GRT2{1}	0	0	13	13	0	0	0	0
	GRT3{1}	0	0	13	13	0	0	0	0
	GRT4{1}	0	0	13	13	0	0	0	0
	GRT5{1}	0	0	13	13	0	0	0	0
SV15	Gravity{1}	0	0	0	0	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	0	0	0	0	0	0
	GRT2{1}	0	0	0	0	0	0	0	0
	GRT3{1}	0	0	0	0	0	0	0	0
	GRT4{1}	0	0	0	0	0	0	0	0
	GRT5{1}	0	0	0	0	0	0	0	0

*** Segment M end ***

*** Segment N begin ***

B17	Gravity{1}	0	0	341	341	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	341	341	0	0	0	0
	GRT2{1}	0	0	341	341	0	0	0	0
	GRT3{1}	0	0	341	341	0	0	0	0
	GRT4{1}	0	0	341	341	0	0	0	0
	GRT5{1}	0	0	341	341	0	0	0	0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result

			S_LINEREV0.OUT							
N01 -	Gravity{1}	0	0	329	329	0	0	0	0	
	Hydrotest{1}	0	0	0	0	0	0	0	0	
	Thermal 1{1}	0	0	0	0	0	0	0	0	
	Thermal 2{1}	0	0	0	0	0	0	0	0	
	Thermal 3{1}	0	0	0	0	0	0	0	0	
	Thermal 4{1}	0	0	0	0	0	0	0	0	
	Thermal 5{1}	0	0	0	0	0	0	0	0	
	GRT1{1}	0	0	329	329	0	0	0	0	
	GRT2{1}	0	0	329	329	0	0	0	0	
	GRT3{1}	0	0	329	329	0	0	0	0	
	GRT4{1}	0	0	329	329	0	0	0	0	
	GRT5{1}	0	0	329	329	0	0	0	0	
	N01 +	Gravity{1}	0	0	271	271	0	0	0	0
Hydrotest{1}		0	0	0	0	0	0	0	0	
Thermal 1{1}		0	0	0	0	0	0	0	0	
Thermal 2{1}		0	0	0	0	0	0	0	0	
Thermal 3{1}		0	0	0	0	0	0	0	0	
Thermal 4{1}		0	0	0	0	0	0	0	0	
Thermal 5{1}		0	0	0	0	0	0	0	0	
GRT1{1}		0	0	271	271	0	0	0	0	
GRT2{1}		0	0	271	271	0	0	0	0	
GRT3{1}		0	0	271	271	0	0	0	0	
GRT4{1}		0	0	271	271	0	0	0	0	
GRT5{1}		0	0	271	271	0	0	0	0	
N01 M		Gravity{1}	0	0	164	164	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0	
	Thermal 1{1}	0	0	0	0	0	0	0	0	
	Thermal 2{1}	0	0	0	0	0	0	0	0	
	Thermal 3{1}	0	0	0	0	0	0	0	0	
	Thermal 4{1}	0	0	0	0	0	0	0	0	
	Thermal 5{1}	0	0	0	0	0	0	0	0	
	GRT1{1}	0	0	164	164	0	0	0	0	
	GRT2{1}	0	0	164	164	0	0	0	0	
	GRT3{1}	0	0	164	164	0	0	0	0	
	GRT4{1}	0	0	164	164	0	0	0	0	
	GRT5{1}	0	0	164	164	0	0	0	0	
	HV05	Gravity{1}	0	0	58	58	0	0	0	0
Hydrotest{1}		0	0	0	0	0	0	0	0	
Thermal 1{1}		0	0	0	0	0	0	0	0	
Thermal 2{1}		0	0	0	0	0	0	0	0	
Thermal 3{1}		0	0	0	0	0	0	0	0	

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Thermal 4{1}	0	0	0	0	0	0	0	0
Thermal 5{1}	0	0	0	0	0	0	0	0
GRT1{1}	0	0	58	58	0	0	0	0
GRT2{1}	0	0	58	58	0	0	0	0
GRT3{1}	0	0	58	58	0	0	0	0
GRT4{1}	0	0	58	58	0	0	0	0
GRT5{1}	0	0	58	58	0	0	0	0

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

*** Segment N end ***

*** Segment P begin ***

E13	Gravity{1}	0	0	240	240	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	240	240	0	0	0	0
	GRT2{1}	0	0	240	240	0	0	0	0
	GRT3{1}	0	0	240	240	0	0	0	0
	GRT4{1}	0	0	240	240	0	0	0	0
	GRT5{1}	0	0	240	240	0	0	0	0
P01 -	Gravity{1}	0	0	229	229	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	229	229	0	0	0	0
	GRT2{1}	0	0	229	229	0	0	0	0
	GRT3{1}	0	0	229	229	0	0	0	0

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	GRT4{1}	0	0	229	229	0	0	0	0
	GRT5{1}	0	0	229	229	0	0	0	0
P01 +	Gravity{1}	0	0	171	171	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	171	171	0	0	0	0
	GRT2{1}	0	0	171	171	0	0	0	0
	GRT3{1}	0	0	171	171	0	0	0	0
	GRT4{1}	0	0	171	171	0	0	0	0
	GRT5{1}	0	0	171	171	0	0	0	0

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GLOBAL FORCES & MOMENTS

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
H24	Gravity{1}	0	0	58	58	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	58	58	0	0	0	0
	GRT2{1}	0	0	58	58	0	0	0	0
	GRT3{1}	0	0	58	58	0	0	0	0
	GRT4{1}	0	0	58	58	0	0	0	0
	GRT5{1}	0	0	58	58	0	0	0	0

*** Segment P end ***

*** Segment R begin ***

D04	Gravity{1}	0	0	340	340	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0

Thermal 1{1}	0	0	0	0	0	0	0	0
Thermal 2{1}	0	0	0	0	0	0	0	0
Thermal 3{1}	0	0	0	0	0	0	0	0
Thermal 4{1}	0	0	0	0	0	0	0	0
Thermal 5{1}	0	0	0	0	0	0	0	0
GRT1{1}	0	0	340	340	0	0	0	0
GRT2{1}	0	0	340	340	0	0	0	0
GRT3{1}	0	0	340	340	0	0	0	0
GRT4{1}	0	0	340	340	0	0	0	0
GRT5{1}	0	0	340	340	0	0	0	0

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result
R01	+	-----							
	Gravity{1}	0	0	271	271	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	271	271	0	0	0	0

		S_LINEREV0.OUT							
	GRT2{1}	0	0	271	271	0	0	0	0
	GRT3{1}	0	0	271	271	0	0	0	0
	GRT4{1}	0	0	271	271	0	0	0	0
	GRT5{1}	0	0	271	271	0	0	0	0
R01 M	Gravity{1}	0	0	164	164	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	164	164	0	0	0	0
	GRT2{1}	0	0	164	164	0	0	0	0
	GRT3{1}	0	0	164	164	0	0	0	0
	GRT4{1}	0	0	164	164	0	0	0	0
	GRT5{1}	0	0	164	164	0	0	0	0
HV25	Gravity{1}	0	0	58	58	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	58	58	0	0	0	0
	GRT2{1}	0	0	58	58	0	0	0	0
	GRT3{1}	0	0	58	58	0	0	0	0
	GRT4{1}	0	0	58	58	0	0	0	0
	GRT5{1}	0	0	58	58	0	0	0	0

*** Segment R end ***

*** Segment S begin ***

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S_LINEREV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result

		S_LINEREVO.OUT							
D14	Gravity{1}	19	14	-108	110	28	-52	-8	59
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-2625	-1410	2395	3823	-341	2006	293	2056
	Thermal 2{1}	-3216	-1266	1349	3710	-61	1310	-109	1316
	Thermal 3{1}	-3037	-1672	1340	3717	-72	1291	207	1310
	Thermal 4{1}	-2131	-1434	1284	2872	-58	1236	342	1284
	Thermal 5{1}	33	-771	1560	1740	-141	1375	655	1530
	GRT1{1}	-2606	-1397	2287	3738	-313	1954	286	2000
	GRT2{1}	-3197	-1253	1241	3651	-33	1258	-116	1264
	GRT3{1}	-3018	-1658	1232	3658	-44	1239	199	1256
	GRT4{1}	-2113	-1420	1176	2804	-31	1184	334	1231
	GRT5{1}	51	-757	1452	1638	-113	1323	647	1477
S01 -	Gravity{1}	19	14	-129	131	12	-37	-9	40
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-2625	-1410	2395	3823	-30	1696	451	1755
	Thermal 2{1}	-3216	-1266	1349	3710	114	1135	144	1150
	Thermal 3{1}	-3037	-1672	1340	3717	102	1118	384	1186
	Thermal 4{1}	-2131	-1434	1284	2872	108	1070	433	1159
	Thermal 5{1}	33	-771	1560	1740	62	1173	551	1297
	GRT1{1}	-2606	-1397	2266	3725	-18	1659	442	1717
	GRT2{1}	-3197	-1253	1220	3644	127	1098	136	1114
	GRT3{1}	-3018	-1658	1211	3651	114	1081	375	1150
	GRT4{1}	-2113	-1420	1154	2795	120	1033	424	1123
	GRT5{1}	51	-757	1431	1619	74	1136	542	1261
S01 +	Gravity{1}	19	14	-206	207	12	-37	-9	40
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-2625	-1410	2395	3823	-30	1696	451	1755
	Thermal 2{1}	-3216	-1266	1349	3710	114	1135	144	1150
	Thermal 3{1}	-3037	-1672	1340	3717	102	1118	384	1186
	Thermal 4{1}	-2131	-1434	1284	2872	108	1070	433	1159
	Thermal 5{1}	33	-771	1560	1740	62	1173	551	1297
	GRT1{1}	-2606	-1397	2190	3679	-18	1659	442	1717
	GRT2{1}	-3197	-1253	1143	3619	127	1098	136	1114
	GRT3{1}	-3018	-1658	1134	3626	114	1081	375	1150
	GRT4{1}	-2113	-1420	1078	2765	120	1033	424	1123
	GRT5{1}	51	-757	1354	1552	74	1136	542	1261
C013 -	Gravity{1}	19	14	-250	252	-50	26	-10	57
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-2625	-1410	2395	3823	626	1040	784	1445
	Thermal 2{1}	-3216	-1266	1349	3710	484	766	678	1131
	Thermal 3{1}	-3037	-1672	1340	3717	469	751	758	1165

	S_LINEREV0.OUT							
Thermal 4{1}	-2131	-1434	1284	2872	460	718	623	1056
Thermal 5{1}	33	-771	1560	1740	489	746	331	951
GRT1{1}	-2606	-1397	2145	3653	576	1066	774	1437
GRT2{1}	-3197	-1253	1098	3605	433	791	668	1123
GRT3{1}	-3018	-1658	1089	3612	419	776	748	1156
GRT4{1}	-2113	-1420	1033	2747	409	744	613	1048
GRT5{1}	51	-757	1309	1513	439	772	321	944

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
C013 +	Gravity{1}	19	14	-327	328	-50	26	-10	57
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-2625	-1410	2395	3823	626	1040	784	1445
	Thermal 2{1}	-3216	-1266	1349	3710	484	766	678	1131
	Thermal 3{1}	-3037	-1672	1340	3717	469	751	758	1165
	Thermal 4{1}	-2131	-1434	1284	2872	460	718	623	1056
	Thermal 5{1}	33	-771	1560	1740	489	746	331	951
	GRT1{1}	-2606	-1397	2068	3608	576	1066	774	1437
	GRT2{1}	-3197	-1253	1022	3582	433	791	668	1123
	GRT3{1}	-3018	-1658	1013	3590	419	776	748	1156
	GRT4{1}	-2113	-1420	957	2719	409	744	613	1048
	GRT5{1}	51	-757	1233	1448	439	772	321	944
S04 N	Gravity{1}	19	14	-336	337	-69	45	-10	83
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-2625	-1410	2395	3823	763	903	853	1458
	Thermal 2{1}	-3216	-1266	1349	3710	561	689	789	1188
	Thermal 3{1}	-3037	-1672	1340	3717	545	674	835	1204
	Thermal 4{1}	-2131	-1434	1284	2872	533	645	663	1068
	Thermal 5{1}	33	-771	1560	1740	578	657	285	920
	GRT1{1}	-2606	-1397	2059	3603	693	948	843	1445
	GRT2{1}	-3197	-1253	1012	3580	491	733	779	1177
	GRT3{1}	-3018	-1658	1004	3587	476	719	825	1194
	GRT4{1}	-2113	-1420	947	2716	464	690	653	1057
	GRT5{1}	51	-757	1223	1440	509	701	275	909

S_LINEREV0.OUT

S04 F	Gravity{1}	19	14	-346	347	-75	72	-9	105
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-2625	-1410	2395	3823	805	712	787	1332
	Thermal 2{1}	-3216	-1266	1349	3710	584	581	745	1111
	Thermal 3{1}	-3037	-1672	1340	3717	569	567	756	1103
	Thermal 4{1}	-2131	-1434	1284	2872	556	542	586	973
	Thermal 5{1}	33	-771	1560	1740	605	532	223	836
	GRT1{1}	-2606	-1397	2049	3597	730	784	777	1323
	GRT2{1}	-3197	-1253	1002	3577	509	653	736	1108
	GRT3{1}	-3018	-1658	994	3584	494	639	746	1100
	GRT4{1}	-2113	-1420	937	2713	480	614	577	970
	GRT5{1}	51	-757	1213	1431	530	604	213	832
S16	Gravity{1}	19	14	-347	348	-74	74	-9	105
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-2625	-1410	2395	3823	800	697	772	1312
	Thermal 2{1}	-3216	-1266	1349	3710	582	573	730	1095
	Thermal 3{1}	-3037	-1672	1340	3717	566	559	739	1086
	Thermal 4{1}	-2131	-1434	1284	2872	553	535	573	959
	Thermal 5{1}	33	-771	1560	1740	602	523	218	826
	GRT1{1}	-2606	-1397	2048	3597	725	771	763	1305
	GRT2{1}	-3197	-1253	1002	3577	507	647	721	1093
	GRT3{1}	-3018	-1658	993	3584	492	633	729	1084
	GRT4{1}	-2113	-1420	936	2712	478	609	564	958
	GRT5{1}	51	-757	1213	1430	528	597	209	823

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GLOBAL FORCES & MOMENTS

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
S05 -	Gravity{1}	19	14	-362	363	-59	117	-7	131
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-2625	-1410	2395	3823	696	411	490	945
	Thermal 2{1}	-3216	-1266	1349	3710	523	412	440	798
	Thermal 3{1}	-3037	-1672	1340	3717	508	399	407	764
	Thermal 4{1}	-2131	-1434	1284	2872	497	381	309	699

		S_LINEREV0.OUT							
S05 +	Thermal 5{1}	33	-771	1560	1740	534	336	128	644
	GRT1{1}	-2606	-1397	2033	3588	637	528	483	958
	GRT2{1}	-3197	-1253	987	3573	464	528	433	825
	GRT3{1}	-3018	-1658	978	3580	449	515	400	792
	GRT4{1}	-2113	-1420	922	2707	438	498	302	729
	GRT5{1}	51	-757	1198	1418	475	453	121	668
	Gravity{1}	19	14	-549	550	-59	117	-7	131
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-2625	-1410	2395	3823	696	411	490	945
	Thermal 2{1}	-3216	-1266	1349	3710	523	412	440	798
	Thermal 3{1}	-3037	-1672	1340	3717	508	399	407	764
	Thermal 4{1}	-2131	-1434	1284	2872	497	381	309	699
	Thermal 5{1}	33	-771	1560	1740	534	336	128	644
	GRT1{1}	-2606	-1397	1846	3486	637	528	483	958
GRT2{1}	-3197	-1253	800	3526	464	528	433	825	
S05 M-	GRT3{1}	-3018	-1658	791	3534	449	515	400	792
	GRT4{1}	-2113	-1420	734	2650	438	498	302	729
	GRT5{1}	51	-757	1011	1264	475	453	121	668
	Gravity{1}	19	14	-951	951	-1	275	-3	275
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-2625	-1410	2395	3823	511	-96	-11	520
	Thermal 2{1}	-3216	-1266	1349	3710	419	126	-77	444
	Thermal 3{1}	-3037	-1672	1340	3717	405	115	-181	458
	Thermal 4{1}	-2131	-1434	1284	2872	398	109	-159	442
	Thermal 5{1}	33	-771	1560	1740	414	6	-33	415
	GRT1{1}	-2606	-1397	1445	3291	510	179	-14	540
	GRT2{1}	-3197	-1253	398	3457	418	401	-79	585
	GRT3{1}	-3018	-1658	389	3466	404	390	-184	591
	GRT4{1}	-2113	-1420	333	2567	397	385	-162	576
GRT5{1}	51	-757	609	973	413	281	-36	501	
S05 M+	Gravity{1}	19	14	952	952	-1	275	-3	275
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-2625	-1410	2118	3656	511	-96	-11	520
	Thermal 2{1}	-3216	-1266	893	3570	419	126	-77	444
	Thermal 3{1}	-3037	-1672	886	3578	405	115	-181	458
	Thermal 4{1}	-2131	-1434	835	2701	398	109	-159	442
	Thermal 5{1}	33	-771	1214	1438	414	6	-33	415
	GRT1{1}	-2606	-1397	3070	4262	510	179	-14	540
	GRT2{1}	-3197	-1253	1845	3898	418	401	-79	585
	GRT3{1}	-3018	-1658	1837	3903	404	390	-184	591
	GRT4{1}	-2113	-1420	1786	3110	397	385	-162	576

S_LINEREV0.OUT

GRT5{1} 51 -757 2166 2295 413 281 -36 501

S_LINEREV0

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

S06 -	Gravity{1}	19	14	550	551	-59	116	2	130
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-2625	-1410	2118	3656	348	-545	-512	825
	Thermal 2{1}	-3216	-1266	893	3570	350	-63	-593	692
	Thermal 3{1}	-3037	-1672	886	3578	336	-73	-770	843
	Thermal 4{1}	-2131	-1434	835	2701	334	-68	-627	714
	Thermal 5{1}	33	-771	1214	1438	320	-251	-194	451
	GRT1{1}	-2606	-1397	2668	3983	288	-429	-511	727
	GRT2{1}	-3197	-1253	1444	3725	291	53	-591	661
	GRT3{1}	-3018	-1658	1436	3731	277	44	-768	818
	GRT4{1}	-2113	-1420	1385	2898	275	49	-626	685
	GRT5{1}	51	-757	1764	1920	261	-135	-192	351
S06 +	Gravity{1}	19	14	363	364	-59	116	2	130
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-2625	-1410	2118	3656	348	-545	-512	825
	Thermal 2{1}	-3216	-1266	893	3570	350	-63	-593	692
	Thermal 3{1}	-3037	-1672	886	3578	336	-73	-770	843
	Thermal 4{1}	-2131	-1434	835	2701	334	-68	-627	714
	Thermal 5{1}	33	-771	1214	1438	320	-251	-194	451
	GRT1{1}	-2606	-1397	2481	3860	288	-429	-511	727
	GRT2{1}	-3197	-1253	1256	3656	291	53	-591	661
	GRT3{1}	-3018	-1658	1248	3663	277	44	-768	818
	GRT4{1}	-2113	-1420	1198	2813	275	49	-626	685
	GRT5{1}	51	-757	1577	1750	261	-135	-192	351
S07	Gravity{1}	19	14	350	351	-75	74	4	105
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-2625	-1410	2118	3656	256	-798	-795	1155
	Thermal 2{1}	-3216	-1266	893	3570	311	-170	-884	952
	Thermal 3{1}	-3037	-1672	886	3578	298	-178	-1101	1154

S_LINEREV0.OUT

	Thermal 4{1}	-2131	-1434	835	2701	297	-167	-891	954
	Thermal 5{1}	33	-771	1214	1438	268	-396	-284	556
	GRT1{1}	-2606	-1397	2468	3852	181	-724	-791	1087
	GRT2{1}	-3197	-1253	1244	3652	237	-96	-880	916
	GRT3{1}	-3018	-1658	1236	3659	223	-105	-1097	1124
	GRT4{1}	-2113	-1420	1185	2808	223	-93	-887	919
	GRT5{1}	51	-757	1564	1739	193	-322	-280	469
S08	Gravity{1}	19	14	336	337	-85	45	6	96
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-2625	-1410	2118	3656	191	-975	-993	1404
	Thermal 2{1}	-3216	-1266	893	3570	284	-245	-1088	1151
	Thermal 3{1}	-3037	-1672	886	3578	271	-252	-1333	1384
	Thermal 4{1}	-2131	-1434	835	2701	272	-237	-1076	1135
	Thermal 5{1}	33	-771	1214	1438	231	-498	-348	650
	GRT1{1}	-2606	-1397	2454	3843	106	-930	-987	1360
	GRT2{1}	-3197	-1253	1230	3647	199	-200	-1082	1118
	GRT3{1}	-3018	-1658	1222	3654	186	-207	-1327	1356
	GRT4{1}	-2113	-1420	1171	2802	187	-192	-1070	1103
	GRT5{1}	51	-757	1550	1726	146	-453	-342	586

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GLOBAL FORCES & MOMENTS

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
S09 N	Gravity{1}	19	14	336	337	-85	44	6	96
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-2625	-1410	2118	3656	189	-980	-998	1412
	Thermal 2{1}	-3216	-1266	893	3570	283	-247	-1094	1157
	Thermal 3{1}	-3037	-1672	886	3578	270	-255	-1340	1391
	Thermal 4{1}	-2131	-1434	835	2701	271	-239	-1081	1140
	Thermal 5{1}	33	-771	1214	1438	230	-501	-350	653
	GRT1{1}	-2606	-1397	2454	3842	104	-936	-993	1368
	GRT2{1}	-3197	-1253	1229	3647	198	-203	-1088	1124
	GRT3{1}	-3018	-1658	1221	3654	185	-210	-1334	1363
	GRT4{1}	-2113	-1420	1171	2802	186	-195	-1075	1109

		S_LINEREVO.OUT							
GRT5{1}		51	-757	1550	1726	144	-457	-344	590
S09 F	Gravity{1}	19	14	308	309	-77	5	7	78
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-2625	-1410	2118	3656	245	-1234	-1098	1670
	Thermal 2{1}	-3216	-1266	893	3570	307	-354	-1160	1251
	Thermal 3{1}	-3037	-1672	886	3578	294	-361	-1460	1532
	Thermal 4{1}	-2131	-1434	835	2701	293	-339	-1197	1278
	Thermal 5{1}	33	-771	1214	1438	262	-646	-443	826
	GRT1{1}	-2606	-1397	2426	3825	168	-1229	-1091	1652
	GRT2{1}	-3197	-1253	1201	3638	230	-349	-1153	1227
	GRT3{1}	-3018	-1658	1194	3645	217	-355	-1453	1511
	GRT4{1}	-2113	-1420	1143	2790	216	-334	-1190	1254
	GRT5{1}	51	-757	1522	1701	185	-641	-436	797
S10 N	Gravity{1}	19	14	240	241	-16	-56	6	58
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-2625	-1410	2118	3656	719	-1708	-826	2029
	Thermal 2{1}	-3216	-1266	893	3570	507	-554	-724	1043
	Thermal 3{1}	-3037	-1672	886	3578	492	-559	-1154	1374
	Thermal 4{1}	-2131	-1434	835	2701	480	-526	-1041	1261
	Thermal 5{1}	33	-771	1214	1438	533	-918	-623	1231
	GRT1{1}	-2606	-1397	2358	3782	704	-1764	-820	2069
	GRT2{1}	-3197	-1253	1133	3616	491	-610	-718	1063
	GRT3{1}	-3018	-1658	1125	3623	476	-615	-1149	1387
	GRT4{1}	-2113	-1420	1075	2763	464	-582	-1035	1275
	GRT5{1}	51	-757	1454	1640	518	-974	-617	1264
S10 F	Gravity{1}	19	14	208	209	15	-60	4	62
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-2625	-1410	2118	3656	1012	-1747	-490	2077
	Thermal 2{1}	-3216	-1266	893	3570	630	-570	-303	902
	Thermal 3{1}	-3037	-1672	886	3578	614	-575	-766	1138
	Thermal 4{1}	-2131	-1434	835	2701	595	-541	-773	1115
	Thermal 5{1}	33	-771	1214	1438	701	-940	-641	1337
	GRT1{1}	-2606	-1397	2326	3762	1027	-1807	-486	2134
	GRT2{1}	-3197	-1253	1101	3606	645	-631	-300	951
	GRT3{1}	-3018	-1658	1093	3613	629	-635	-762	1175
	GRT4{1}	-2113	-1420	1042	2751	610	-602	-769	1151
	GRT5{1}	51	-757	1422	1612	716	-1000	-638	1386

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S_LINEREVO

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

S15 -	Gravity{1}	19	14	120	122	73	-27	-6	78
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-2625	-1410	2118	3656	1760	-1315	725	2313
	Thermal 2{1}	-3216	-1266	893	3570	946	-388	1091	1495
	Thermal 3{1}	-3037	-1672	886	3578	927	-394	648	1198
	Thermal 4{1}	-2131	-1434	835	2701	890	-371	273	1002
	Thermal 5{1}	33	-771	1214	1438	1130	-692	-496	1415
	GRT1{1}	-2606	-1397	2238	3708	1833	-1342	719	2383
	GRT2{1}	-3197	-1253	1013	3580	1019	-415	1085	1545
	GRT3{1}	-3018	-1658	1005	3588	1000	-421	642	1261
	GRT4{1}	-2113	-1420	955	2719	963	-398	267	1076
	GRT5{1}	51	-757	1334	1535	1203	-719	-502	1488
S15 +	Gravity{1}	-11	-4	120	120	73	-27	-6	78
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1215	806	2118	2571	1760	-1315	725	2313
	Thermal 2{1}	1673	1556	893	2454	946	-388	1091	1495
	Thermal 3{1}	284	245	886	962	927	-394	648	1198
	Thermal 4{1}	-263	-355	835	945	890	-371	273	1002
	Thermal 5{1}	-1004	-1369	1214	2088	1130	-692	-496	1415
	GRT1{1}	1204	803	2238	2665	1833	-1342	719	2383
	GRT2{1}	1662	1553	1013	2490	1019	-415	1085	1545
	GRT3{1}	273	242	1005	1069	1000	-421	642	1261
	GRT4{1}	-274	-359	955	1056	963	-398	267	1076
	GRT5{1}	-1015	-1373	1334	2167	1203	-719	-502	1488
S11 N	Gravity{1}	-11	-4	23	26	101	-11	-1	101
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1215	806	2118	2571	2582	-840	73	2716
	Thermal 2{1}	1673	1556	893	2454	1293	-188	92	1309
	Thermal 3{1}	284	245	886	962	1271	-196	483	1373
	Thermal 4{1}	-263	-355	835	945	1214	-184	454	1310
	Thermal 5{1}	-1004	-1369	1214	2088	1601	-420	201	1668
	GRT1{1}	1204	803	2141	2584	2683	-851	72	2815
	GRT2{1}	1662	1553	917	2452	1393	-199	92	1410
	GRT3{1}	273	242	909	979	1371	-207	482	1468

		S_LINEREV0.OUT							
	GRT4{1}	-274	-359	858	970	1315	-195	454	1405
	GRT5{1}	-1015	-1373	1237	2109	1702	-431	200	1767
S11 F	Gravity{1}	-11	-4	4	12	102	-11	0	102
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1215	806	2118	2571	2766	-816	-42	2884
	Thermal 2{1}	1673	1556	893	2454	1370	-178	-70	1383
	Thermal 3{1}	284	245	886	962	1347	-186	456	1434
	Thermal 4{1}	-263	-355	835	945	1287	-174	481	1385
	Thermal 5{1}	-1004	-1369	1214	2088	1706	-406	304	1780
	GRT1{1}	1204	803	2122	2568	2868	-826	-41	2985
	GRT2{1}	1662	1553	897	2445	1472	-188	-70	1486
	GRT3{1}	273	242	890	961	1449	-196	456	1532
	GRT4{1}	-274	-359	839	953	1389	-185	482	1481
	GRT5{1}	-1015	-1373	1218	2097	1808	-417	304	1880

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
S12	Gravity{1}	-11	-4	-18	21	101	-10	1	102
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1215	806	2118	2571	2976	-872	-141	3104
	Thermal 2{1}	1673	1556	893	2454	1459	-201	-195	1485
	Thermal 3{1}	284	245	886	962	1435	-209	434	1514
	Thermal 4{1}	-263	-355	835	945	1370	-196	498	1470
	Thermal 5{1}	-1004	-1369	1214	2088	1827	-439	367	1914
	GRT1{1}	1204	803	2100	2550	3077	-883	-139	3204
	GRT2{1}	1662	1553	875	2437	1560	-212	-194	1586
	GRT3{1}	273	242	868	941	1536	-220	435	1612
	GRT4{1}	-274	-359	817	933	1471	-207	499	1567
	GRT5{1}	-1015	-1373	1196	2085	1928	-449	368	2014
S13	Gravity{1}	-11	-4	-44	46	98	-10	2	99
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1215	806	2118	2571	3184	-928	-239	3325
	Thermal 2{1}	1673	1556	893	2454	1546	-225	-318	1595

		S_LINEREV0.OUT							
	Thermal 3{1}	284	245	886	962	1522	-233	413	1594
	Thermal 4{1}	-263	-355	835	945	1451	-218	514	1555
	Thermal 5{1}	-1004	-1369	1214	2088	1946	-471	430	2048
	GRT1{1}	1204	803	2074	2528	3282	-937	-236	3421
	GRT2{1}	1662	1553	849	2428	1644	-235	-316	1691
	GRT3{1}	273	242	841	917	1620	-242	415	1690
	GRT4{1}	-274	-359	790	910	1550	-228	517	1649
	GRT5{1}	-1015	-1373	1170	2070	2044	-480	432	2144
S14	Gravity{1}	-11	-4	-89	89	89	-7	4	89
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1215	806	2118	2571	3480	-1007	-378	3643
	Thermal 2{1}	1673	1556	893	2454	1671	-258	-494	1762
	Thermal 3{1}	284	245	886	962	1646	-266	382	1711
	Thermal 4{1}	-263	-355	835	945	1568	-250	538	1677
	Thermal 5{1}	-1004	-1369	1214	2088	2116	-516	519	2239
	GRT1{1}	1204	803	2029	2492	3569	-1014	-375	3729
	GRT2{1}	1662	1553	805	2413	1760	-266	-491	1847
	GRT3{1}	273	242	797	876	1735	-273	386	1798
	GRT4{1}	-274	-359	746	872	1657	-257	542	1762
	GRT5{1}	-1015	-1373	1125	2045	2205	-523	522	2325

*** Segment S end ***

*** Segment T begin ***

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
E04	Gravity{1}	-45	14	114	123	-26	58	8	64
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	566	-445	1055	1277	584	248	-282	694
	Thermal 2{1}	633	-473	1205	1441	615	269	-300	735
	Thermal 3{1}	565	-445	1053	1275	584	248	-282	694
	Thermal 4{1}	548	-435	1019	1237	572	242	-275	679
	Thermal 5{1}	591	-439	1130	1349	572	249	-278	683
	GRT1{1}	521	-431	1169	1350	558	306	-274	693
	GRT2{1}	589	-459	1319	1516	589	327	-292	734

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	GRT3{1}	521	-431	1167	1348	558	306	-274	693
	GRT4{1}	504	-421	1133	1310	546	300	-268	678
	GRT5{1}	546	-424	1244	1424	546	307	-270	682
T01	Gravity{1}	-45	14	110	120	-25	60	8	66
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	566	-445	1055	1277	558	216	-282	662
	Thermal 2{1}	633	-473	1205	1441	588	233	-300	700
	Thermal 3{1}	565	-445	1053	1275	558	216	-282	661
	Thermal 4{1}	548	-435	1019	1237	547	211	-275	648
	Thermal 5{1}	591	-439	1130	1349	547	216	-278	651
	GRT1{1}	521	-431	1165	1347	533	276	-274	660
	GRT2{1}	589	-459	1315	1512	562	293	-292	698
	GRT3{1}	521	-431	1163	1345	533	276	-274	660
	GRT4{1}	504	-421	1129	1306	522	271	-268	646
	GRT5{1}	546	-424	1241	1420	522	276	-270	649
T02	Gravity{1}	-45	14	70	84	-17	87	8	89
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	566	-445	1055	1277	287	-129	-282	422
	Thermal 2{1}	633	-473	1205	1441	299	-152	-300	450
	Thermal 3{1}	565	-445	1053	1275	287	-128	-282	422
	Thermal 4{1}	548	-435	1019	1237	282	-123	-275	413
	Thermal 5{1}	591	-439	1130	1349	280	-144	-278	420
	GRT1{1}	521	-431	1125	1312	271	-41	-274	387
	GRT2{1}	589	-459	1275	1478	283	-65	-292	412
	GRT3{1}	521	-431	1123	1310	271	-41	-274	387
	GRT4{1}	504	-421	1089	1272	266	-36	-268	379
	GRT5{1}	546	-424	1200	1385	264	-57	-270	382
T02 M	Gravity{1}	-45	14	-66	80	-15	91	8	93
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	566	-445	1055	1277	246	-181	-282	416
	Thermal 2{1}	633	-473	1205	1441	256	-211	-300	447
	Thermal 3{1}	565	-445	1053	1275	246	-180	-282	415
	Thermal 4{1}	548	-435	1019	1237	242	-174	-275	406
	Thermal 5{1}	591	-439	1130	1349	240	-198	-278	417
	GRT1{1}	521	-431	989	1198	231	-89	-274	369
	GRT2{1}	589	-459	1140	1362	241	-119	-292	397
	GRT3{1}	521	-431	987	1197	231	-89	-274	369
	GRT4{1}	504	-421	954	1158	227	-82	-268	360
	GRT5{1}	546	-424	1065	1270	225	-107	-270	367

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
T03	Gravity{1}	-45	14	-201	206	-14	95	8	97
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	566	-445	1055	1277	205	-233	-282	419
	Thermal 2{1}	633	-473	1205	1441	212	-269	-300	455
	Thermal 3{1}	565	-445	1053	1275	205	-232	-282	419
	Thermal 4{1}	548	-435	1019	1237	202	-224	-275	409
	Thermal 5{1}	591	-439	1130	1349	199	-253	-278	425
	GRT1{1}	521	-431	854	1089	191	-137	-274	361
	GRT2{1}	589	-459	1004	1251	198	-173	-292	393
	GRT3{1}	521	-431	852	1088	191	-137	-274	361
	GRT4{1}	504	-421	818	1049	188	-129	-268	352
	GRT5{1}	546	-424	930	1159	186	-157	-270	364
T04 N	Gravity{1}	-45	14	-221	226	-10	109	8	110
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	566	-445	1055	1277	70	-404	-282	498
	Thermal 2{1}	633	-473	1205	1441	69	-461	-300	554
	Thermal 3{1}	565	-445	1053	1275	70	-404	-282	497
	Thermal 4{1}	548	-435	1019	1237	70	-391	-275	483
	Thermal 5{1}	591	-439	1130	1349	66	-432	-278	518
	GRT1{1}	521	-431	834	1074	60	-295	-274	407
	GRT2{1}	589	-459	984	1235	59	-352	-292	461
	GRT3{1}	521	-431	832	1072	60	-295	-274	407
	GRT4{1}	504	-421	798	1034	60	-282	-268	393
	GRT5{1}	546	-424	909	1143	57	-323	-270	425
T04 F	Gravity{1}	-45	14	-226	231	-9	100	7	101
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	566	-445	1055	1277	49	-381	-261	464
	Thermal 2{1}	633	-473	1205	1441	46	-434	-277	517
	Thermal 3{1}	565	-445	1053	1275	49	-380	-261	464
	Thermal 4{1}	548	-435	1019	1237	49	-368	-255	450
	Thermal 5{1}	591	-439	1130	1349	46	-406	-257	483
	GRT1{1}	521	-431	829	1070	40	-281	-254	380

GRT2{1}	589	-459	979	1231	37	-333	-270	431
GRT3{1}	521	-431	827	1068	40	-280	-254	380
GRT4{1}	504	-421	793	1030	40	-268	-248	367
GRT5{1}	546	-424	905	1139	37	-306	-250	397

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result
T05 M	Gravity{1}	-45	14	-270	274	-9	-64	-2	64
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	566	-445	1055	1277	43	312	35	317
	Thermal 2{1}	633	-473	1205	1441	40	359	37	363
	Thermal 3{1}	565	-445	1053	1275	43	312	35	317
	Thermal 4{1}	548	-435	1019	1237	43	302	35	307
	Thermal 5{1}	591	-439	1130	1349	39	337	34	341
	GRT1{1}	521	-431	785	1036	34	249	33	253
	GRT2{1}	589	-459	935	1197	31	295	35	299
	GRT3{1}	521	-431	783	1034	34	248	33	252
	GRT4{1}	504	-421	749	996	35	238	32	243
	GRT5{1}	546	-424	860	1104	31	274	32	277

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Thermal 1{1}	566	-445	1055	1277	28	308	42	312
Thermal 2{1}	633	-473	1205	1441	24	354	44	358
Thermal 3{1}	565	-445	1053	1275	28	307	42	311
Thermal 4{1}	548	-435	1019	1237	29	297	41	302
Thermal 5{1}	591	-439	1130	1349	25	333	41	337
GRT1{1}	521	-431	782	1034	19	242	39	246
GRT2{1}	589	-459	933	1195	15	288	41	292
GRT3{1}	521	-431	780	1032	19	241	39	245
GRT4{1}	504	-421	747	994	20	231	38	235
GRT5{1}	546	-424	858	1102	16	267	38	270

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Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

T10 -	Gravity{1}	-19	-1	-507	508	-5	12	-3	13
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	21	75	1055	1058	59	-13	42	73
	Thermal 2{1}	27	83	1205	1208	65	-17	44	81
	Thermal 3{1}	21	75	1053	1056	59	-13	42	73
	Thermal 4{1}	20	73	1019	1022	57	-12	41	71
	Thermal 5{1}	27	75	1130	1133	60	-17	41	74
	GRT1{1}	2	74	547	552	54	-1	39	66
	GRT2{1}	9	82	698	703	61	-5	41	73
	GRT3{1}	2	74	545	550	54	-1	39	66
	GRT4{1}	1	72	512	517	52	-1	38	64
	GRT5{1}	8	74	623	627	55	-5	38	67
T10 +	Gravity{1}	4	7	-507	508	-5	12	-3	13
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-5	-30	1055	1055	59	-13	42	73
	Thermal 2{1}	-6	-34	1205	1206	65	-17	44	81
	Thermal 3{1}	-5	-30	1053	1053	59	-13	42	73
	Thermal 4{1}	-5	-29	1019	1020	57	-12	41	71
	Thermal 5{1}	-6	-32	1130	1131	60	-17	41	74
	GRT1{1}	0	-24	547	548	54	-1	39	66
	GRT2{1}	-2	-27	698	698	61	-5	41	73
	GRT3{1}	0	-24	545	546	54	-1	39	66
	GRT4{1}	0	-23	512	512	52	-1	38	64
	GRT5{1}	-2	-25	623	623	55	-5	38	67
T06 -	Gravity{1}	4	7	-756	756	20	-5	-3	20
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-5	-30	1055	1055	-55	5	42	69
	Thermal 2{1}	-6	-34	1205	1206	-62	7	44	76
	Thermal 3{1}	-5	-30	1053	1053	-55	5	42	69
	Thermal 4{1}	-5	-29	1019	1020	-53	5	41	67
	Thermal 5{1}	-6	-32	1130	1131	-58	6	41	71
	GRT1{1}	0	-24	299	300	-35	0	39	52
	GRT2{1}	-2	-27	450	451	-43	2	41	59
	GRT3{1}	0	-24	297	298	-35	0	39	52
	GRT4{1}	0	-23	264	265	-33	0	38	51
	GRT5{1}	-2	-25	375	376	-38	2	38	54
T06 +	Gravity{1}	4	7	-786	786	20	-5	-3	20

S_LINEREV0.OUT

Hydrotest{1}	0	0	0	0	0	0	0	0
Thermal 1{1}	-5	-30	1055	1055	-55	5	42	69
Thermal 2{1}	-6	-34	1205	1206	-62	7	44	76
Thermal 3{1}	-5	-30	1053	1053	-55	5	42	69
Thermal 4{1}	-5	-29	1019	1020	-53	5	41	67
Thermal 5{1}	-6	-32	1130	1131	-58	6	41	71
GRT1{1}	0	-24	268	269	-35	0	39	52
GRT2{1}	-2	-27	419	420	-43	2	41	59
GRT3{1}	0	-24	267	268	-35	0	39	52
GRT4{1}	0	-23	233	234	-33	0	38	51
GRT5{1}	-2	-25	344	345	-38	2	38	54

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GLOBAL FORCES & MOMENTS

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
T07	Gravity{1}	4	7	-799	799	-137	-5	-3	137
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-5	-30	1055	1055	154	5	43	160
	Thermal 2{1}	-6	-34	1205	1206	176	7	45	182
	Thermal 3{1}	-5	-30	1053	1053	153	5	43	159
	Thermal 4{1}	-5	-29	1019	1020	149	5	42	154
	Thermal 5{1}	-6	-32	1130	1131	165	6	42	171
	GRT1{1}	0	-24	255	256	17	0	39	42
	GRT2{1}	-2	-27	406	407	39	2	42	57
	GRT3{1}	0	-24	253	255	16	0	39	42
	GRT4{1}	0	-23	220	221	12	0	38	40
	GRT5{1}	-2	-25	331	332	28	2	38	48
T08	Gravity{1}	4	7	-811	811	-209	-5	-4	209
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-5	-30	1055	1055	248	5	43	251
	Thermal 2{1}	-6	-34	1205	1206	283	7	46	287
	Thermal 3{1}	-5	-30	1053	1053	247	5	43	251
	Thermal 4{1}	-5	-29	1019	1020	239	5	42	243
	Thermal 5{1}	-6	-32	1130	1131	266	6	42	269

		S_LINEREV0.OUT							
	GRT1{1}	0	-24	244	245	39	0	39	55
	GRT2{1}	-2	-27	394	395	75	2	42	85
	GRT3{1}	0	-24	242	243	38	0	39	55
	GRT4{1}	0	-23	208	210	31	0	38	49
	GRT5{1}	-2	-25	320	321	57	2	38	69
T09	Gravity{1}	4	7	-840	840	-334	-5	-5	335
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-5	-30	1055	1055	408	5	44	411
	Thermal 2{1}	-6	-34	1205	1206	467	7	47	469
	Thermal 3{1}	-5	-30	1053	1053	408	5	44	410
	Thermal 4{1}	-5	-29	1019	1020	395	5	43	397
	Thermal 5{1}	-6	-32	1130	1131	438	6	43	440
	GRT1{1}	0	-24	215	216	74	0	39	84
	GRT2{1}	-2	-27	365	366	132	2	42	139
	GRT3{1}	0	-24	213	214	73	0	39	83
	GRT4{1}	0	-23	179	181	60	0	38	71
	GRT5{1}	-2	-25	290	292	104	2	39	111

*** Segment T end ***

*** Segment U begin ***

□

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
T06	Gravity{1}	0	0	31	31	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	31	31	0	0	0	0
	GRT2{1}	0	0	31	31	0	0	0	0
	GRT3{1}	0	0	31	31	0	0	0	0
	GRT4{1}	0	0	31	31	0	0	0	0
	GRT5{1}	0	0	31	31	0	0	0	0

S_LINEREV0.OUT

U01	Gravity{1}	0	0	28	28	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	28	28	0	0	0	0
	GRT2{1}	0	0	28	28	0	0	0	0
	GRT3{1}	0	0	28	28	0	0	0	0
	GRT4{1}	0	0	28	28	0	0	0	0
	GRT5{1}	0	0	28	28	0	0	0	0
U02	Gravity{1}	0	0	25	25	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	25	25	0	0	0	0
	GRT2{1}	0	0	25	25	0	0	0	0
	GRT3{1}	0	0	25	25	0	0	0	0
	GRT4{1}	0	0	25	25	0	0	0	0
	GRT5{1}	0	0	25	25	0	0	0	0
U02 M	Gravity{1}	0	0	13	13	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	13	13	0	0	0	0
	GRT2{1}	0	0	13	13	0	0	0	0
	GRT3{1}	0	0	13	13	0	0	0	0
	GRT4{1}	0	0	13	13	0	0	0	0
	GRT5{1}	0	0	13	13	0	0	0	0

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

SV13	Gravity{1}	0	0	0	0	0	0	0	0
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	0	0	0	0	0	0
	GRT2{1}	0	0	0	0	0	0	0	0
	GRT3{1}	0	0	0	0	0	0	0	0
	GRT4{1}	0	0	0	0	0	0	0	0
	GRT5{1}	0	0	0	0	0	0	0	0

*** Segment U end ***

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
*** Segment A begin ***									
A00	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	0	0	0	0	0	0	270
	Hydrotest{1}	71	31	31	0	71	31	62	270
	Thermal 1{1}	0	0	0	0	0	0	0	270
	Thermal 2{1}	0	0	0	0	0	0	0	270
	Thermal 3{1}	0	0	0	0	0	0	0	270
	Thermal 4{1}	0	0	0	0	0	0	0	270
	Thermal 5{1}	0	0	0	0	0	0	0	270
	GRT1{1}	0	0	0	0	0	0	0	270
	GRT2{1}	0	0	0	0	0	0	0	270
	GRT3{1}	0	0	0	0	0	0	0	270

S_LINEREV0.OUT

	GRT4{1}	0	0	0	0	0	0	0	270
	GRT5{1}	0	0	0	0	0	0	0	270
A07	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	0	0	0	0	0	0	0
	Hydrotest{1}	71	31	31	0	71	31	62	270
	Thermal 1{1}	0	0	0	0	0	0	0	270
	Thermal 2{1}	0	0	0	0	0	0	0	270
	Thermal 3{1}	0	0	0	0	0	0	0	270
	Thermal 4{1}	0	0	0	0	0	0	0	270
	Thermal 5{1}	0	0	0	0	0	0	0	270
	GRT1{1}	0	0	0	0	0	0	0	0
	GRT2{1}	0	0	0	0	0	0	0	0
	GRT3{1}	0	0	0	0	0	0	0	0
	GRT4{1}	0	0	0	0	0	0	0	0
	GRT5{1}	0	0	0	0	0	0	0	0
A01	- SIFI= 1.35 SIFO= 1.35 Gravity{1}	0	0	0	0	0	0	0	180
	Hydrotest{1}	71	31	31	0	71	31	62	270
	Thermal 1{1}	0	0	0	0	0	0	0	270
	Thermal 2{1}	0	0	0	0	0	0	0	270
	Thermal 3{1}	0	0	0	0	0	0	0	270
	Thermal 4{1}	0	0	0	0	0	0	0	270
	Thermal 5{1}	0	0	0	0	0	0	0	270
	GRT1{1}	0	0	0	0	0	0	0	180
	GRT2{1}	0	0	0	0	0	0	0	180
	GRT3{1}	0	0	0	0	0	0	0	180
	GRT4{1}	0	0	0	0	0	0	0	180
	GRT5{1}	0	0	0	0	0	0	0	180
A01	+ SIFI= 1.35 SIFO= 1.35 Gravity{1}	0	0	0	0	0	0	0	359
	Hydrotest{1}	71	31	31	0	71	31	62	270
	Thermal 1{1}	0	2	-2	2	3	-3	4	13
	Thermal 2{1}	0	2	-2	2	3	-3	4	13
	Thermal 3{1}	0	2	-2	2	3	-3	4	13
	Thermal 4{1}	0	2	-1	2	3	-3	3	13

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GENERAL PIPE STRESS REPORT

S_LINEREV0.OUT
(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc

A06	Thermal 5{1}		0	2	-1	2	3	-3	3	13
	GRT1{1}		0	1	-1	2	3	-3	3	17
	GRT2{1}		0	1	-1	2	3	-3	4	17
	GRT3{1}		0	1	-1	2	3	-3	3	17
	GRT4{1}		0	1	-1	2	3	-2	3	17
	GRT5{1}		0	1	-1	2	2	-2	3	17
	SIFI= 1.00 Gravity{1} SIF0= 1.00		0	1	-1	0	1	-1	1	180
	Hydrotest{1}		71	31	31	0	71	31	62	270
	Thermal 1{1}		0	1	-1	2	3	-3	4	142
	Thermal 2{1}		0	1	-1	2	3	-3	4	141
	Thermal 3{1}		0	1	-1	2	3	-3	4	142
	Thermal 4{1}		0	1	-1	2	3	-3	3	142
	Thermal 5{1}		0	1	-1	2	3	-2	3	141
	GRT1{1}		0	1	-1	2	2	-2	3	76
	GRT2{1}		0	1	-1	2	2	-2	4	77
	GRT3{1}		0	1	-1	2	2	-2	3	76
	GRT4{1}		0	1	-1	2	2	-2	3	74
	GRT5{1}		0	1	-1	2	2	-2	3	69
	A02 -	SIFI= 1.35 Gravity{1} SIF0= 1.35		0	0	0	0	0	0	0
Hydrotest{1}		71	31	31	0	71	31	62	270	
Thermal 1{1}		0	0	0	2	2	-2	3	33	
Thermal 2{1}		0	1	0	2	2	-2	3	23	
Thermal 3{1}		0	0	0	2	2	-2	3	25	
Thermal 4{1}		0	0	0	2	2	-2	3	27	
Thermal 5{1}		0	0	0	2	2	-2	3	40	
GRT1{1}		0	0	0	2	2	-2	3	77	
GRT2{1}		0	0	0	2	2	-2	3	52	
GRT3{1}		0	0	0	2	2	-2	3	57	
GRT4{1}		0	0	0	2	2	-2	3	61	
GRT5{1}		0	0	0	2	2	-2	3	81	
A02 +		SIFI= 1.35 Gravity{1} SIF0= 1.35		0	0	0	0	0	0	0
	Hydrotest{1}		71	31	31	0	71	31	62	270
	Thermal 1{1}		0	0	0	3	3	-3	5	39
	Thermal 2{1}		0	0	0	3	3	-3	6	60
	Thermal 3{1}		0	0	0	3	3	-3	5	54
	Thermal 4{1}		0	0	0	3	3	-3	5	53

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Thermal 5{1}	0	0	0	2	3	-3	4	43
GRT1{1}	0	0	0	3	3	-3	5	73
GRT2{1}	0	0	0	3	3	-3	6	106
GRT3{1}	0	0	0	3	3	-3	5	100
GRT4{1}	0	0	0	3	3	-3	5	97
GRT5{1}	0	0	0	2	3	-2	4	77
A05 - SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	0	0	0	0	0	0	28
Hydrotest{1}	71	31	31	0	71	31	62	270

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
-----	-----	-----	-----	-----	-----	-----	-----	---
Thermal 1{1}		0	0	0	3	3	-3	5 326
Thermal 2{1}		0	0	0	3	3	-3	6 328
Thermal 3{1}		0	0	0	3	3	-3	5 328
Thermal 4{1}		0	0	0	3	3	-3	5 325
Thermal 5{1}		0	0	0	2	3	-2	4 317
GRT1{1}		0	0	0	3	3	-3	5 318
GRT2{1}		0	0	0	3	3	-3	6 319
GRT3{1}		0	0	0	3	3	-3	5 319
GRT4{1}		0	0	0	3	3	-3	5 316
GRT5{1}		0	0	0	2	2	-2	4 309
A05 + SIFI= 1.00 SIFO= 1.00 Gravity{1}		0	1	-1	0	1	-1	1 176
Hydrotest{1}		71	31	31	0	71	31	62 270
Thermal 1{1}		0	1	-1	1	2	-2	3 142
Thermal 2{1}		0	1	-1	1	2	-2	3 145
Thermal 3{1}		0	1	-1	1	2	-2	3 142
Thermal 4{1}		0	1	-1	1	2	-2	2 142
Thermal 5{1}		0	1	-1	1	2	-2	2 146
GRT1{1}		0	1	-1	1	2	-2	2 43
GRT2{1}		0	1	-1	1	2	-2	3 53
GRT3{1}		0	1	-1	1	2	-2	2 43
GRT4{1}		0	1	-1	1	2	-2	2 41

		S_LINEREV0.OUT							
		0	1	-1	1	2	-2	2	48
A03	- SIFI= 1.35 Gravity{1}	0	0	0	0	0	0	0	22
	Hydrotest{1}	71	31	31	0	71	31	62	270
	Thermal 1{1}	0	1	-1	1	2	-2	2	355
	Thermal 2{1}	0	1	-1	1	2	-2	3	356
	Thermal 3{1}	0	1	-1	1	2	-2	2	355
	Thermal 4{1}	0	1	-1	1	2	-2	2	355
	Thermal 5{1}	0	1	-1	1	2	-2	2	357
	GRT1{1}	0	1	-1	1	2	-2	2	348
	GRT2{1}	0	1	-1	1	2	-2	3	352
	GRT3{1}	0	1	-1	1	2	-2	2	348
	GRT4{1}	0	0	0	1	2	-2	2	347
	GRT5{1}	0	1	-1	1	2	-2	2	351
A03	+ SIFI= 1.35 Gravity{1}	0	0	0	0	0	0	0	180
	Hydrotest{1}	71	31	31	0	71	31	62	270
	Thermal 1{1}	0	0	0	0	0	0	0	270
	Thermal 2{1}	0	0	0	0	0	0	0	270
	Thermal 3{1}	0	0	0	0	0	0	0	270
	Thermal 4{1}	0	0	0	0	0	0	0	90
	Thermal 5{1}	0	0	0	0	0	0	0	270
	GRT1{1}	0	0	0	0	0	0	0	180
	GRT2{1}	0	0	0	0	0	0	0	180
	GRT3{1}	0	0	0	0	0	0	0	180
	GRT4{1}	0	0	0	0	0	0	0	180
	GRT5{1}	0	0	0	0	0	0	0	180

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
-----	-----	-----	-----	-----	-----	-----	-----	---
A04	SIFI= 1.00 Gravity{1}	0	0	0	0	0	0	0 270
	Hydrotest{1}	71	31	31	0	71	31	62 270
	Thermal 1{1}	0	0	0	0	0	0	0 270
	Thermal 2{1}	0	0	0	0	0	0	0 270

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Thermal 3{1}	0	0	0	0	0	0	0	270
Thermal 4{1}	0	0	0	0	0	0	0	90
Thermal 5{1}	0	0	0	0	0	0	0	270
GRT1{1}	0	0	0	0	0	0	0	270
GRT2{1}	0	0	0	0	0	0	0	270
GRT3{1}	0	0	0	0	0	0	0	270
GRT4{1}	0	0	0	0	0	0	0	90
GRT5{1}	0	0	0	0	0	0	0	270

*** Segment A end ***

*** Segment B begin ***

A01	SIFI= 1.35	SIFO= 1.35						
	Gravity{1}		0	5	-4	0	5	-4
							5	182
	Hydrotest{1}		41	16	16	0	41	16
							36	270
	Thermal 1{1}		0	97	-97	2	97	-97
							97	286
	Thermal 2{1}		0	101	-101	3	101	-101
							101	287
	Thermal 3{1}		0	97	-97	2	97	-97
							97	286
	Thermal 4{1}		0	94	-94	2	94	-94
							94	106
	Thermal 5{1}		0	91	-91	2	91	-91
							91	287
	GRT1{1}		0	96	-95	2	97	-95
							97	284
	GRT2{1}		0	101	-99	3	101	-99
							101	285
	GRT3{1}		0	96	-95	2	97	-95
							97	284
	GRT4{1}		0	94	-92	2	94	-92
							94	284
	GRT5{1}		0	91	-89	2	91	-89
							91	285
B01 N-	SIFI= 1.00	SIFO= 1.00						
	Gravity{1}		0	3	-2	0	3	-2
							3	276
	Hydrotest{1}		41	16	16	0	41	16
							36	270
	Thermal 1{1}		0	44	-44	2	45	-45
							45	73
	Thermal 2{1}		0	42	-42	3	42	-42
							42	71
	Thermal 3{1}		0	44	-44	2	45	-45
							45	73
	Thermal 4{1}		0	44	-44	2	44	-44
							44	254
	Thermal 5{1}		0	39	-39	2	39	-39
							39	70
	GRT1{1}		0	42	-42	2	42	-42
							42	72
	GRT2{1}		0	40	-39	3	40	-39
							40	69
	GRT3{1}		0	42	-42	2	42	-42
							42	72
	GRT4{1}		0	42	-41	2	42	-41
							42	72
	GRT5{1}		0	37	-36	2	37	-36
							37	68
B01 N+	SIFI= 1.25	SIFO= 1.25						
	Gravity{1}		0	4	-3	0	4	-3
							4	6
	Hydrotest{1}		41	16	16	0	41	16
							36	270
	Thermal 1{1}		0	55	-55	2	56	-56
							56	163
	Thermal 2{1}		0	52	-52	3	53	-52
							53	161
	Thermal 3{1}		0	55	-55	2	56	-56
							56	163

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
-----	-----	-----	-----	-----	-----	-----	-----	---
	Thermal 4{1}	0	55	-55	2	55	-55	55 344
	Thermal 5{1}	0	48	-48	2	48	-48	48 160
	GRT1{1}	0	53	-52	2	53	-52	53 162
	GRT2{1}	0	50	-49	3	50	-49	50 159
	GRT3{1}	0	53	-52	2	53	-52	53 162
	GRT4{1}	0	52	-52	2	52	-52	52 162
	GRT5{1}	0	46	-45	2	46	-45	46 158
B01 M	SIFI= 1.25 Gravity{1}	SIF0= 1.25	0	3	-3	0	3	-3 3 1
	Hydrotest{1}	41	16	16	0	41	16	36 270
	Thermal 1{1}	0	56	-57	6	57	-58	58 352
	Thermal 2{1}	0	53	-53	7	54	-54	55 351
	Thermal 3{1}	0	56	-57	6	57	-58	58 352
	Thermal 4{1}	0	56	-56	6	56	-57	57 352
	Thermal 5{1}	0	49	-49	6	49	-50	50 350
	GRT1{1}	0	54	-54	6	54	-55	55 352
	GRT2{1}	0	50	-51	7	51	-51	52 350
	GRT3{1}	0	54	-54	6	54	-55	55 352
	GRT4{1}	0	53	-53	6	54	-54	55 352
	GRT5{1}	0	46	-46	7	47	-47	48 350
B01 F-	SIFI= 1.25 Gravity{1}	SIF0= 1.25	0	2	-2	0	2	-2 2 351
	Hydrotest{1}	41	16	16	0	41	16	36 270
	Thermal 1{1}	0	57	-58	7	58	-59	59 5
	Thermal 2{1}	0	54	-55	7	55	-56	56 6
	Thermal 3{1}	0	57	-58	7	58	-59	59 5
	Thermal 4{1}	0	56	-57	7	57	-58	59 5
	Thermal 5{1}	0	49	-50	7	50	-51	52 5
	GRT1{1}	0	55	-56	7	56	-57	58 5
	GRT2{1}	0	52	-53	8	53	-54	55 6
	GRT3{1}	0	55	-56	7	56	-57	58 5
	GRT4{1}	0	55	-56	7	56	-57	57 5

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GRT5{1}			0	48	-49	7	49	-50	50	6
B01 F+ SIFI= 1.00 SIFO= 1.00										
Gravity{1}			0	1	-1	0	1	-1	1	351
Hydrotest{1}			41	16	16	0	41	16	36	270
Thermal 1{1}			0	46	-47	7	47	-48	48	5
Thermal 2{1}			0	43	-44	7	44	-45	46	6
Thermal 3{1}			0	46	-47	7	47	-48	48	5
Thermal 4{1}			0	45	-46	7	46	-47	48	5
Thermal 5{1}			0	39	-40	7	41	-42	42	5
GRT1{1}			0	44	-45	7	45	-46	47	5
GRT2{1}			0	42	-43	8	43	-44	45	6
GRT3{1}			0	44	-45	7	45	-46	47	5
GRT4{1}			0	44	-45	7	45	-46	46	5
GRT5{1}			0	38	-39	7	40	-40	41	6
B02 SIFI= 1.00 SIFO= 1.00										
Gravity{1}			0	6	-6	0	6	-6	6	188

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
								Loc

	Hydrotest{1}	41	16	16	0	41	16	36 270
	Thermal 1{1}	0	46	-47	7	47	-48	48 357
	Thermal 2{1}	0	46	-47	7	47	-48	49 357
	Thermal 3{1}	0	46	-47	7	47	-48	48 357
	Thermal 4{1}	0	45	-46	7	46	-47	47 357
	Thermal 5{1}	0	43	-44	7	44	-45	45 357
	GRT1{1}	0	52	-53	7	52	-53	54 358
	GRT2{1}	0	52	-53	8	53	-54	55 358
	GRT3{1}	0	52	-53	7	52	-53	54 358
	GRT4{1}	0	51	-52	7	52	-53	53 358
	GRT5{1}	0	48	-49	7	49	-50	51 358
B14	SIFI= 1.00 SIFO= 1.00							
	Gravity{1}	0	8	-8	0	8	-8	8 189
	Hydrotest{1}	41	16	16	0	41	16	36 270
	Thermal 1{1}	0	50	-52	7	51	-52	53 351

		S_LINEREVO.OUT							
Thermal 2{1}	0	54	-55	7	55	-56	57	351	
Thermal 3{1}	0	50	-52	7	51	-52	53	351	
Thermal 4{1}	0	49	-50	7	50	-51	52	351	
Thermal 5{1}	0	50	-51	7	51	-52	53	351	
GRT1{1}	0	58	-59	7	59	-60	60	354	
GRT2{1}	0	62	-63	8	63	-64	64	354	
GRT3{1}	0	58	-59	7	59	-60	60	354	
GRT4{1}	0	57	-58	7	58	-59	59	354	
GRT5{1}	0	58	-59	7	59	-60	60	354	
B17 - SIFI= 1.00 SIFO= 1.00									
Gravity{1}	0	7	-7	0	7	-7	7	165	
Hydrotest{1}	41	16	16	0	41	16	36	270	
Thermal 1{1}	0	60	-61	7	60	-61	62	12	
Thermal 2{1}	0	66	-67	7	67	-68	69	12	
Thermal 3{1}	0	60	-61	7	60	-61	62	12	
Thermal 4{1}	0	58	-59	7	59	-60	60	12	
Thermal 5{1}	0	62	-63	7	63	-64	64	12	
GRT1{1}	0	66	-67	7	66	-67	68	9	
GRT2{1}	0	72	-73	8	73	-74	74	10	
GRT3{1}	0	66	-67	7	66	-67	68	9	
GRT4{1}	0	64	-65	7	65	-66	66	9	
GRT5{1}	0	68	-69	7	69	-70	70	9	
B17 + SIFI= 1.00 SIFO= 1.00									
Gravity{1}	0	7	-7	0	7	-7	7	165	
Hydrotest{1}	41	16	16	0	41	16	36	270	
Thermal 1{1}	0	60	-61	7	60	-61	62	12	
Thermal 2{1}	0	66	-67	7	67	-68	69	12	
Thermal 3{1}	0	60	-61	7	60	-61	62	12	
Thermal 4{1}	0	58	-59	7	59	-60	60	12	
Thermal 5{1}	0	62	-63	7	63	-64	64	12	
GRT1{1}	0	66	-67	7	66	-67	68	9	
GRT2{1}	0	72	-73	8	73	-74	74	10	
GRT3{1}	0	66	-67	7	66	-67	68	9	
GRT4{1}	0	64	-65	7	65	-66	66	9	

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total

S_LINEREVO.0UT									
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
		-----	-----	-----	-----	-----	-----	-----	---
	GRT5{1}	0	68	-69	7	69	-70	70	9
B04	- SIFI= 1.00 SIF0= 1.00								
	Gravity{1}	0	13	-13	0	13	-13	13	12
	Hydrotest{1}	41	16	16	0	41	16	36	270
	Thermal 1{1}	0	74	-75	7	75	-76	76	16
	Thermal 2{1}	0	86	-87	7	86	-87	88	15
	Thermal 3{1}	0	74	-75	7	75	-76	76	16
	Thermal 4{1}	0	72	-73	7	73	-74	74	16
	Thermal 5{1}	0	81	-82	7	82	-82	83	15
	GRT1{1}	0	62	-63	7	62	-63	64	17
	GRT2{1}	0	73	-74	8	74	-75	75	16
	GRT3{1}	0	62	-63	7	62	-63	64	17
	GRT4{1}	0	59	-60	7	60	-61	62	17
	GRT5{1}	0	68	-69	7	69	-70	70	15
B04	+ SIFI= 1.00 SIF0= 1.00								
	Gravity{1}	0	13	-13	1	13	-13	13	12
	Hydrotest{1}	41	16	16	0	41	16	36	270
	Thermal 1{1}	0	132	-134	27	137	-139	142	14
	Thermal 2{1}	0	145	-147	29	150	-152	155	14
	Thermal 3{1}	0	132	-134	27	137	-139	142	14
	Thermal 4{1}	0	129	-131	26	134	-136	138	14
	Thermal 5{1}	0	136	-138	27	142	-143	146	13
	GRT1{1}	0	119	-121	28	125	-127	130	14
	GRT2{1}	0	132	-134	30	138	-140	143	14
	GRT3{1}	0	119	-121	28	125	-127	130	14
	GRT4{1}	0	116	-118	27	122	-124	127	14
	GRT5{1}	0	123	-125	28	129	-131	134	14
B05	N- SIFI= 1.00 SIF0= 1.00								
	Gravity{1}	0	4	-4	1	4	-4	4	197
	Hydrotest{1}	41	16	16	0	41	16	36	270
	Thermal 1{1}	0	60	-62	27	71	-72	78	324
	Thermal 2{1}	0	66	-68	29	77	-79	85	327
	Thermal 3{1}	0	60	-62	27	71	-72	78	324
	Thermal 4{1}	0	59	-61	26	69	-71	76	324
	Thermal 5{1}	0	62	-64	27	72	-74	79	327
	GRT1{1}	0	63	-65	28	73	-75	80	327
	GRT2{1}	0	69	-71	30	80	-82	87	329
	GRT3{1}	0	63	-65	28	73	-75	80	327
	GRT4{1}	0	61	-63	27	71	-73	78	327
	GRT5{1}	0	64	-66	28	75	-76	82	330

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B05 N+ SIFI= 1.25 SIFO= 1.25
Gravity{1}

	0	5	-5	1	5	-5	5	287
Hydrotest{1}	41	16	16	0	41	16	36	270
Thermal 1{1}	0	75	-77	27	84	-86	90	54
Thermal 2{1}	0	83	-85	29	92	-94	99	57
Thermal 3{1}	0	75	-77	27	84	-86	90	54
Thermal 4{1}	0	73	-75	26	82	-84	88	54
Thermal 5{1}	0	77	-79	27	86	-88	92	57

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
	GRT1{1}		0	78	-80	28	87	-89	93	57
	GRT2{1}		0	86	-88	30	95	-97	102	59
	GRT3{1}		0	78	-80	28	87	-89	93	57
	GRT4{1}		0	77	-78	27	85	-87	91	57
	GRT5{1}		0	81	-82	28	89	-91	96	60
B05 F-	SIFI= 1.25 Gravity{1}	SIFO= 1.25	0	6	-6	1	6	-6	6	102
	Hydrotest{1}		41	16	16	0	41	16	36	270
	Thermal 1{1}		0	92	-94	3	92	-94	94	63
	Thermal 2{1}		0	101	-102	2	101	-102	102	64
	Thermal 3{1}		0	92	-94	3	92	-94	94	63
	Thermal 4{1}		0	90	-91	3	90	-92	92	63
	Thermal 5{1}		0	94	-96	2	94	-96	96	64
	GRT1{1}		0	97	-98	2	97	-98	98	65
	GRT2{1}		0	105	-107	1	105	-107	107	66
	GRT3{1}		0	97	-98	2	97	-98	98	65
	GRT4{1}		0	95	-96	2	95	-96	96	65
	GRT5{1}		0	99	-100	1	99	-100	100	67
B05 F+	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	5	-5	1	5	-5	5	12
	Hydrotest{1}		41	16	16	0	41	16	36	270
	Thermal 1{1}		0	74	-75	3	74	-75	75	333
	Thermal 2{1}		0	81	-82	2	81	-82	82	334
	Thermal 3{1}		0	74	-75	3	74	-75	75	333

Thermal 4{1}	0	72	-73	3	72	-74	74	333
Thermal 5{1}	0	75	-77	2	75	-77	77	334
GRT1{1}	0	77	-79	2	78	-79	79	335
GRT2{1}	0	84	-86	1	84	-86	86	336
GRT3{1}	0	77	-79	2	78	-79	79	335
GRT4{1}	0	76	-77	2	76	-77	77	335
GRT5{1}	0	79	-81	1	79	-81	81	337

B29	SIFI= 2.10 Gravity{1}	SIFO= 2.10	0	21	-21	1	21	-21	21	2
	Hydrotest{1}		41	16	16	0	41	16	36	270
	Thermal 1{1}		0	84	-86	3	85	-86	86	327
	Thermal 2{1}		0	93	-95	2	93	-95	95	329
	Thermal 3{1}		0	84	-86	3	85	-86	86	327
	Thermal 4{1}		0	82	-84	3	82	-84	84	327
	Thermal 5{1}		0	87	-88	2	87	-88	88	330
	GRT1{1}		0	102	-103	2	102	-103	103	334
	GRT2{1}		0	111	-112	1	111	-112	113	335
	GRT3{1}		0	102	-103	2	102	-103	103	334
	GRT4{1}		0	100	-101	2	100	-101	101	334
GRT5{1}		0	104	-106	1	105	-106	106	336	
B22	SIFI= 2.10 Gravity{1}	SIFO= 2.10	0	13	-13	1	13	-13	13	354
	Hydrotest{1}		41	16	16	0	41	16	36	270
	Thermal 1{1}		0	29	-31	3	30	-31	31	195

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(Stress in N/mm²)

Point	Load	Hoop	Longitudinal		Shear	Principal		Total	
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	Thermal 2{1}	0	28	-30	2	29	-30	30	196
	Thermal 3{1}	0	29	-31	3	30	-31	31	195
	Thermal 4{1}	0	29	-31	3	30	-31	31	194
	Thermal 5{1}	0	28	-29	2	28	-29	29	194
	GRT1{1}	0	17	-19	2	18	-19	19	210
	GRT2{1}	0	17	-18	1	17	-18	18	212
	GRT3{1}	0	17	-19	2	18	-19	19	210

			S_LINEREVO.OUT					
GRT4{1}	0	17	-19	2	18	-19	19	209
GRT5{1}	0	16	-17	1	16	-17	17	210
B06 N- SIFI= 1.00 SIF0= 1.00								
Gravity{1}	0	13	-13	1	13	-13	13	189
Hydrotest{1}	41	16	16	0	41	16	36	270
Thermal 1{1}	0	76	-77	3	76	-77	77	165
Thermal 2{1}	0	80	-82	2	80	-82	82	166
Thermal 3{1}	0	76	-77	3	76	-77	77	165
Thermal 4{1}	0	74	-76	3	75	-76	76	165
Thermal 5{1}	0	76	-77	2	76	-77	77	166
GRT1{1}	0	87	-89	2	87	-89	89	169
GRT2{1}	0	92	-93	1	92	-93	93	169
GRT3{1}	0	87	-89	2	87	-89	89	169
GRT4{1}	0	86	-88	2	86	-88	88	169
GRT5{1}	0	88	-89	1	88	-89	89	169
B06 N+ SIFI= 1.25 SIF0= 1.25								
Gravity{1}	0	16	-16	1	16	-16	16	99
Hydrotest{1}	41	16	16	0	41	16	36	270
Thermal 1{1}	0	94	-96	3	95	-96	96	75
Thermal 2{1}	0	100	-101	2	100	-102	102	76
Thermal 3{1}	0	94	-96	3	95	-96	96	75
Thermal 4{1}	0	93	-94	3	93	-95	95	75
Thermal 5{1}	0	95	-96	2	95	-96	96	76
GRT1{1}	0	109	-111	2	109	-111	111	79
GRT2{1}	0	115	-116	1	115	-116	116	79
GRT3{1}	0	109	-111	2	109	-111	111	79
GRT4{1}	0	108	-109	2	108	-109	109	79
GRT5{1}	0	110	-111	1	110	-111	111	79
B06 F- SIFI= 1.25 SIF0= 1.25								
Gravity{1}	0	15	-15	3	16	-16	17	279
Hydrotest{1}	41	16	16	0	41	16	36	270
Thermal 1{1}	0	96	-98	10	97	-99	99	75
Thermal 2{1}	0	101	-103	11	102	-104	105	75
Thermal 3{1}	0	96	-98	10	97	-99	99	75
Thermal 4{1}	0	95	-96	10	96	-97	98	75
Thermal 5{1}	0	96	-98	11	97	-99	99	75
GRT1{1}	0	110	-112	13	112	-114	114	78
GRT2{1}	0	115	-117	15	117	-119	120	78
GRT3{1}	0	110	-112	13	112	-114	114	78
GRT4{1}	0	109	-111	13	110	-112	113	78
GRT5{1}	0	110	-112	14	112	-114	115	78

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc

B06 F+	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	12	-12	3	13	-13	14	9
	Hydrotest{1}		41	16	16	0	41	16	36	270
	Thermal 1{1}		0	77	-79	10	78	-80	80	165
	Thermal 2{1}		0	81	-83	11	82	-84	85	165
	Thermal 3{1}		0	77	-79	10	78	-80	80	165
	Thermal 4{1}		0	76	-77	10	77	-79	79	165
	Thermal 5{1}		0	77	-78	11	78	-80	81	165
	GRT1{1}		0	88	-90	13	90	-92	93	168
	GRT2{1}		0	92	-94	15	95	-96	97	168
	GRT3{1}		0	88	-90	13	90	-92	93	168
	GRT4{1}		0	87	-89	13	89	-91	92	168
GRT5{1}		0	88	-90	14	90	-92	93	168	
B25	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	16	-16	3	16	-16	17	8
	Hydrotest{1}		41	16	16	0	41	16	36	270
	Thermal 1{1}		0	87	-89	10	88	-90	90	165
	Thermal 2{1}		0	92	-94	11	93	-95	96	165
	Thermal 3{1}		0	87	-89	10	88	-90	90	165
	Thermal 4{1}		0	86	-87	10	87	-88	89	165
	Thermal 5{1}		0	87	-89	11	88	-90	91	166
	GRT1{1}		0	102	-103	13	103	-105	106	169
	GRT2{1}		0	107	-108	15	109	-110	111	169
	GRT3{1}		0	102	-103	13	103	-105	106	169
	GRT4{1}		0	100	-102	13	102	-104	105	169
GRT5{1}		0	102	-104	14	104	-105	106	169	
B07 -	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	4	-4	3	6	-6	7	343
	Hydrotest{1}		41	16	16	0	41	16	36	270
	Thermal 1{1}		0	147	-149	10	148	-150	150	283
	Thermal 2{1}		0	157	-159	11	158	-160	160	283
	Thermal 3{1}		0	147	-149	10	148	-150	150	283
Thermal 4{1}		0	145	-147	10	146	-148	148	283	

		S_LINEREV0.OUT						
Thermal 5{1}	0	149	-150	11	149	-151	152	283
GRT1{1}	0	146	-147	14	147	-149	149	282
GRT2{1}	0	155	-157	15	157	-158	159	282
GRT3{1}	0	146	-147	14	147	-149	149	282
GRT4{1}	0	143	-145	13	145	-146	147	282
GRT5{1}	0	147	-149	14	148	-150	151	282

B07 + SIFI= 1.00 SIFO= 1.00
Gravity{1}

Hydrotest{1}	41	16	16	0	41	16	36	270
Thermal 1{1}	0	21	-22	32	44	-44	59	320
Thermal 2{1}	0	23	-24	34	47	-48	63	319
Thermal 3{1}	0	21	-22	32	44	-44	59	320
Thermal 4{1}	0	20	-21	31	43	-43	58	321
Thermal 5{1}	0	21	-22	32	44	-45	60	320
GRT1{1}	0	24	-24	32	46	-46	60	307
GRT2{1}	0	26	-27	34	49	-50	65	307

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S_LINEREV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point name	Load combination	Hoop Stress	Longitudinal Max	Min	Shear Stress	Principal Max	Min	Total Stress	Loc
	GRT3{1}	0	24	-24	32	46	-46	60	307
	GRT4{1}	0	23	-24	31	45	-45	59	308
	GRT5{1}	0	24	-25	32	46	-47	61	307

B08 N- SIFI= 1.00 SIFO= 1.00
Gravity{1}

Hydrotest{1}	41	16	16	0	41	16	36	270
Thermal 1{1}	0	19	-20	32	43	-43	58	123
Thermal 2{1}	0	21	-22	34	46	-46	62	124
Thermal 3{1}	0	19	-20	32	43	-43	58	123
Thermal 4{1}	0	19	-19	31	42	-42	57	122
Thermal 5{1}	0	19	-20	32	43	-43	59	122
GRT1{1}	0	19	-20	32	43	-43	59	130
GRT2{1}	0	21	-21	34	46	-46	63	131
GRT3{1}	0	19	-20	32	43	-43	59	130
GRT4{1}	0	19	-19	31	42	-42	58	129
GRT5{1}	0	19	-19	32	43	-43	59	130

S_LINEREVO.OUT

B08 N+ SIFI= 1.63	SIFO= 1.63								
Gravity{1}		0	4	-4	0	4	-4	4	40
Hydrotest{1}		41	16	16	0	41	16	36	270
Thermal 1{1}		0	31	-32	32	51	-52	64	303
Thermal 2{1}		0	33	-34	34	55	-55	68	305
Thermal 3{1}		0	31	-32	32	51	-52	64	303
Thermal 4{1}		0	30	-31	31	50	-50	62	302
Thermal 5{1}		0	31	-31	32	51	-51	64	303
GRT1{1}		0	31	-32	32	51	-52	64	311
GRT2{1}		0	33	-34	34	55	-55	68	312
GRT3{1}		0	31	-32	32	51	-52	64	311
GRT4{1}		0	30	-31	31	50	-50	63	310
GRT5{1}		0	30	-31	32	51	-51	64	310

B08 F- SIFI= 1.63	SIFO= 1.63								
Gravity{1}		0	1	0	1	1	-1	1	240
Hydrotest{1}		41	16	16	0	41	16	36	270
Thermal 1{1}		0	104	-104	8	105	-104	105	263
Thermal 2{1}		0	112	-111	9	112	-112	113	263
Thermal 3{1}		0	104	-104	8	105	-104	105	263
Thermal 4{1}		0	103	-102	8	103	-103	104	263
Thermal 5{1}		0	106	-105	8	107	-106	107	264
GRT1{1}		0	105	-104	8	106	-104	106	263
GRT2{1}		0	112	-111	8	113	-111	113	263
GRT3{1}		0	105	-104	8	106	-104	106	263
GRT4{1}		0	104	-102	8	104	-103	104	263
GRT5{1}		0	107	-105	8	107	-106	107	264

B08 F+ SIFI= 1.00	SIFO= 1.00								
Gravity{1}		0	1	0	1	1	-1	1	214
Hydrotest{1}		41	16	16	0	41	16	36	270
Thermal 1{1}		0	64	-63	8	65	-65	66	238
Thermal 2{1}		0	69	-68	9	70	-69	70	238
Thermal 3{1}		0	64	-63	8	65	-65	66	238

0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc

S_LINEREVO.OUT									

	Thermal 4{1}	0	63	-62	8	64	-64	65	238
	Thermal 5{1}	0	65	-64	8	66	-65	67	239
	GRT1{1}	0	65	-63	8	66	-64	66	238
	GRT2{1}	0	69	-68	8	70	-68	71	238
	GRT3{1}	0	65	-63	8	66	-64	66	238
	GRT4{1}	0	64	-62	7	65	-63	65	238
	GRT5{1}	0	66	-64	7	66	-65	67	239
B16	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	1	0	1	1	-1	1	214
	Hydrotest{1}	41	16	16	0	41	16	36	270
	Thermal 1{1}	0	64	-63	8	65	-65	66	238
	Thermal 2{1}	0	69	-68	9	70	-69	70	238
	Thermal 3{1}	0	64	-63	8	65	-65	66	238
	Thermal 4{1}	0	63	-62	8	64	-64	65	238
	Thermal 5{1}	0	65	-64	8	66	-65	67	239
	GRT1{1}	0	65	-63	8	66	-64	66	238
	GRT2{1}	0	69	-68	8	70	-68	71	238
	GRT3{1}	0	65	-63	8	66	-64	66	238
	GRT4{1}	0	64	-62	7	65	-63	65	238
	GRT5{1}	0	66	-64	7	66	-65	67	239
B11 N-	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	1	0	1	1	-1	2	50
	Hydrotest{1}	41	16	16	0	41	16	36	270
	Thermal 1{1}	0	63	-63	8	64	-64	65	252
	Thermal 2{1}	0	69	-68	9	70	-69	70	253
	Thermal 3{1}	0	63	-63	8	64	-64	65	252
	Thermal 4{1}	0	62	-62	8	63	-63	64	252
	Thermal 5{1}	0	66	-65	8	67	-66	67	252
	GRT1{1}	0	63	-62	8	64	-63	64	253
	GRT2{1}	0	68	-67	8	69	-68	70	253
	GRT3{1}	0	63	-62	8	64	-63	64	253
	GRT4{1}	0	62	-61	7	63	-62	63	252
	GRT5{1}	0	65	-64	7	66	-65	66	252
B11 N+	SIFI= 1.25 SIFO= 1.25 Gravity{1}	0	1	-1	1	2	-1	2	152
	Hydrotest{1}	41	16	16	0	41	16	36	270
	Thermal 1{1}	0	79	-78	8	80	-79	80	355
	Thermal 2{1}	0	86	-85	9	86	-86	87	355
	Thermal 3{1}	0	79	-78	8	80	-79	80	355
	Thermal 4{1}	0	78	-77	8	78	-78	79	355
	Thermal 5{1}	0	82	-81	8	82	-82	83	354
	GRT1{1}	0	78	-77	8	79	-78	79	355

S_LINEREV0.OUT

GRT2{1}	0	85	-84	8	86	-84	86	355
GRT3{1}	0	78	-77	8	79	-78	79	355
GRT4{1}	0	77	-76	7	78	-77	78	355
GRT5{1}	0	81	-80	7	82	-80	82	354

B11 F- SIFI= 1.25 SIFO= 1.25
Gravity{1}

0	4	-4	0	4	-4	4	330

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RESULT PAGE 178

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	Hydrotest{1}	41	16	16	0	41	16	36	270
	Thermal 1{1}	0	78	-78	2	78	-78	78	347
	Thermal 2{1}	0	85	-84	2	85	-84	85	347
	Thermal 3{1}	0	78	-78	2	78	-78	78	347
	Thermal 4{1}	0	77	-77	2	77	-77	77	347
	Thermal 5{1}	0	81	-80	2	81	-81	81	347
	GRT1{1}	0	74	-74	1	75	-74	75	348
	GRT2{1}	0	81	-81	1	81	-81	81	348
	GRT3{1}	0	74	-74	1	75	-74	75	348
	GRT4{1}	0	73	-73	1	73	-73	73	348
	GRT5{1}	0	77	-77	2	77	-77	77	348
B11 F+	SIFI= 1.00								
	SIFO= 1.00								
	Gravity{1}	0	3	-3	0	3	-3	3	330
	Hydrotest{1}	41	16	16	0	41	16	36	270
	Thermal 1{1}	0	63	-63	2	63	-63	63	347
	Thermal 2{1}	0	68	-68	2	68	-68	68	347
	Thermal 3{1}	0	63	-63	2	63	-63	63	347
	Thermal 4{1}	0	62	-62	2	62	-62	62	347
	Thermal 5{1}	0	65	-65	2	65	-65	65	347
	GRT1{1}	0	60	-60	1	60	-60	60	348
	GRT2{1}	0	65	-65	1	65	-65	65	348
	GRT3{1}	0	60	-60	1	60	-60	60	348
	GRT4{1}	0	59	-59	1	59	-59	59	348
	GRT5{1}	0	62	-62	2	62	-62	62	348

B18 SIFI= 2.00 SIFO= 2.00

		S_LINEREVO.OUT						
Gravity{1}	0	9	-9	0	9	-9	9	338
Hydrotest{1}	41	16	16	0	41	16	36	270
Thermal 1{1}	0	122	-122	2	122	-122	122	348
Thermal 2{1}	0	132	-131	2	132	-132	132	349
Thermal 3{1}	0	122	-122	2	122	-122	122	348
Thermal 4{1}	0	120	-120	2	120	-120	120	348
Thermal 5{1}	0	126	-126	2	126	-126	126	349
GRT1{1}	0	114	-114	1	114	-114	114	349
GRT2{1}	0	123	-123	1	123	-123	123	349
GRT3{1}	0	114	-114	1	114	-114	114	349
GRT4{1}	0	112	-112	1	112	-112	112	349
GRT5{1}	0	117	-117	2	117	-117	117	349

B13	SIFI= 2.00	SIFO= 2.00						
Gravity{1}	0	7	-7	0	7	-7	7	344
Hydrotest{1}	47	19	19	0	47	19	41	270
Thermal 1{1}	0	71	-71	1	71	-71	71	350
Thermal 2{1}	0	76	-76	1	76	-76	76	350
Thermal 3{1}	0	71	-71	1	71	-71	71	350
Thermal 4{1}	0	70	-70	1	70	-70	70	350
Thermal 5{1}	0	73	-72	1	73	-72	73	350
GRT1{1}	0	64	-63	1	64	-63	64	351
GRT2{1}	0	69	-69	1	69	-69	69	351
GRT3{1}	0	64	-63	1	64	-63	64	351
GRT4{1}	0	63	-62	1	63	-62	63	350

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	GRT5{1}	0	65	-65	1	65	-65	65	351

*** Segment B end ***

*** Segment C begin ***

B07	SIFI= 1.00	SIFO= 1.00							
Gravity{1}	0	2	-2	1	2	-2	2	146	
Hydrotest{1}	41	16	16	0	41	16	36	270	
Thermal 1{1}	0	18	-19	41	50	-51	73	201	
Thermal 2{1}	0	19	-20	43	53	-54	77	203	

Thermal 3{1}	0	18	-19	41	50	-51	73	201
Thermal 4{1}	0	18	-19	40	50	-51	72	202
Thermal 5{1}	0	18	-19	41	51	-52	73	206
GRT1{1}	0	17	-18	40	49	-50	71	206
GRT2{1}	0	18	-19	42	52	-53	76	208
GRT3{1}	0	17	-18	40	49	-50	71	206
GRT4{1}	0	17	-18	39	48	-49	70	207
GRT5{1}	0	17	-18	40	50	-50	72	212

Gravity{1}	0	2	-2	1	2	-2	2	129
Hydrotest{1}	41	16	16	0	41	16	36	270
Thermal 1{1}	0	14	-16	41	48	-49	72	140
Thermal 2{1}	0	15	-17	43	51	-52	76	141
Thermal 3{1}	0	14	-16	41	48	-49	72	140
Thermal 4{1}	0	14	-15	40	47	-48	71	139
Thermal 5{1}	0	14	-15	41	48	-49	72	139
GRT1{1}	0	13	-14	40	47	-47	70	141
GRT2{1}	0	13	-15	42	50	-50	75	143
GRT3{1}	0	13	-14	40	47	-47	70	141
GRT4{1}	0	12	-13	39	46	-46	69	141
GRT5{1}	0	12	-13	40	46	-47	71	140

Gravity{1}	0	3	-3	1	3	-3	3	308
Hydrotest{1}	41	16	16	0	41	16	36	270
Thermal 1{1}	0	24	-26	40	55	-55	75	318
Thermal 2{1}	0	26	-27	43	58	-59	79	320
Thermal 3{1}	0	24	-26	40	55	-55	75	318
Thermal 4{1}	0	24	-25	40	53	-54	73	318
Thermal 5{1}	0	23	-25	41	54	-55	75	317
GRT1{1}	0	21	-23	40	52	-53	73	320
GRT2{1}	0	23	-24	42	55	-56	77	321
GRT3{1}	0	21	-23	40	52	-53	73	320
GRT4{1}	0	21	-22	39	51	-52	71	319
GRT5{1}	0	20	-21	40	51	-52	73	319

Hydrotest{1}	41	16	16	0	41	16	36	270
Thermal 1{1}	0	127	-132	3	128	-132	132	283

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
	Thermal 2{1}	0	136	-140	3	136	-140	140 283
	Thermal 3{1}	0	127	-132	3	128	-132	132 283
	Thermal 4{1}	0	125	-129	3	125	-130	130 282
	Thermal 5{1}	0	128	-133	3	128	-133	133 282
	GRT1{1}	0	125	-129	2	125	-129	129 282
	GRT2{1}	0	133	-138	2	133	-138	138 282
	GRT3{1}	0	125	-129	2	125	-129	129 282
	GRT4{1}	0	123	-127	2	123	-127	127 282
	GRT5{1}	0	126	-130	2	126	-130	130 282
C01 F+	SIFI= 1.00 Gravity{1}	0	2	-2	1	2	-2	2 286
	Hydrotest{1}	41	16	16	0	41	16	36 270
	Thermal 1{1}	0	77	-81	3	77	-81	81 78
	Thermal 2{1}	0	82	-87	3	82	-87	87 78
	Thermal 3{1}	0	77	-81	3	77	-81	81 78
	Thermal 4{1}	0	76	-80	3	76	-80	80 77
	Thermal 5{1}	0	78	-82	3	78	-82	82 77
	GRT1{1}	0	76	-80	2	76	-80	80 77
	GRT2{1}	0	81	-85	2	81	-85	85 77
	GRT3{1}	0	76	-80	2	76	-80	80 77
	GRT4{1}	0	74	-79	2	75	-79	79 77
	GRT5{1}	0	76	-81	2	76	-81	81 77
C08	SIFI= 1.00 Gravity{1}	0	2	-2	1	2	-2	2 286
	Hydrotest{1}	41	16	16	0	41	16	36 270
	Thermal 1{1}	0	77	-81	3	77	-81	81 78
	Thermal 2{1}	0	82	-87	3	82	-87	87 78
	Thermal 3{1}	0	77	-81	3	77	-81	81 78
	Thermal 4{1}	0	76	-80	3	76	-80	80 77
	Thermal 5{1}	0	78	-82	3	78	-82	82 77
	GRT1{1}	0	76	-80	2	76	-80	80 77
	GRT2{1}	0	81	-85	2	81	-85	85 77
	GRT3{1}	0	76	-80	2	76	-80	80 77
	GRT4{1}	0	74	-79	2	74	-79	79 77
	GRT5{1}	0	76	-81	2	76	-81	81 77

		S_LINEREVO.OUT							
C04 N-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	0	0	1	1	-1	1 230
	Hydrotest{1}		41	16	16	0	41	16	36 270
	Thermal 1{1}		0	42	-46	3	42	-46	46 49
	Thermal 2{1}		0	46	-50	3	46	-50	51 49
	Thermal 3{1}		0	42	-46	3	42	-46	46 49
	Thermal 4{1}		0	41	-45	3	41	-46	46 50
	Thermal 5{1}		0	44	-48	3	44	-48	48 51
	GRT1{1}		0	41	-46	2	42	-46	46 49
	GRT2{1}		0	45	-50	2	45	-50	50 49
	GRT3{1}		0	41	-46	2	42	-46	46 49
	GRT4{1}		0	41	-45	2	41	-45	45 50
	GRT5{1}		0	43	-48	2	44	-48	48 51

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RESULT PAGE 181

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc

C04 N+	SIFI= 1.25 Gravity{1}	SIFO= 1.25	0	0	-1	1	1	-1 358
	Hydrotest{1}		41	16	16	0	41	16 36 270
	Thermal 1{1}		0	53	-57	3	53	-57 57 177
	Thermal 2{1}		0	58	-62	3	58	-62 62 177
	Thermal 3{1}		0	53	-57	3	53	-57 57 177
	Thermal 4{1}		0	52	-56	3	52	-56 56 177
	Thermal 5{1}		0	55	-60	3	55	-60 60 178
	GRT1{1}		0	52	-57	2	52	-57 57 177
	GRT2{1}		0	57	-62	2	57	-62 62 177
	GRT3{1}		0	52	-57	2	52	-57 57 177
	GRT4{1}		0	51	-56	2	52	-56 56 177
	GRT5{1}		0	55	-59	2	55	-59 59 178
C04 F-	SIFI= 1.25 Gravity{1}	SIFO= 1.25	0	2	-2	0	2	-2 76
	Hydrotest{1}		41	16	16	0	41	16 36 270
	Thermal 1{1}		0	67	-68	4	67	-68 68 167
	Thermal 2{1}		0	73	-74	4	73	-75 75 168
	Thermal 3{1}		0	67	-68	4	67	-68 68 167

		S_LINEREV0.OUT							
Thermal 4{1}	0	65	-67	4	66	-67	67	167	
Thermal 5{1}	0	70	-71	3	70	-71	71	168	
GRT1{1}	0	67	-68	4	67	-68	68	169	
GRT2{1}	0	73	-75	4	73	-75	75	170	
GRT3{1}	0	67	-68	4	67	-68	68	169	
GRT4{1}	0	66	-67	4	66	-67	67	169	
GRT5{1}	0	70	-71	3	70	-71	71	170	
C04 F+ SIFI= 1.00 SIFO= 1.00									
Gravity{1}	0	2	-2	0	2	-2	2	76	
Hydrotest{1}	41	16	16	0	41	16	36	270	
Thermal 1{1}	0	53	-55	4	54	-55	55	167	
Thermal 2{1}	0	58	-60	4	59	-60	60	168	
Thermal 3{1}	0	53	-55	4	54	-55	55	167	
Thermal 4{1}	0	52	-54	4	53	-54	54	167	
Thermal 5{1}	0	56	-57	3	56	-57	57	168	
GRT1{1}	0	53	-55	4	54	-55	55	169	
GRT2{1}	0	59	-60	4	59	-60	60	170	
GRT3{1}	0	53	-55	4	54	-55	55	169	
GRT4{1}	0	52	-54	4	53	-54	54	169	
GRT5{1}	0	56	-57	3	56	-57	58	170	
C10 SIFI= 2.00 SIFO= 2.00									
Gravity{1}	0	4	-4	0	4	-4	4	63	
Hydrotest{1}	41	16	16	0	41	16	36	270	
Thermal 1{1}	0	126	-127	4	126	-127	127	166	
Thermal 2{1}	0	138	-139	4	138	-139	139	166	
Thermal 3{1}	0	126	-127	4	126	-127	127	166	
Thermal 4{1}	0	123	-125	4	123	-125	125	166	
Thermal 5{1}	0	131	-133	3	131	-133	133	167	
GRT1{1}	0	127	-128	4	127	-128	128	168	
GRT2{1}	0	139	-140	4	139	-140	140	168	

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	GRT3{1}	0	127	-128	4	127	-128	128	168
	GRT4{1}	0	124	-126	4	124	-126	126	168

S_LINEREVO.OUT

	GRT5{1}		0	132	-134	3	132	-134	134	169
C06	SIFI= 2.00 SIFO= 2.00									
	Gravity{1}		0	3	-3	0	3	-3	3	50
	Hydrotest{1}		47	19	19	0	47	19	41	270
	Thermal 1{1}		0	91	-92	2	91	-92	92	164
	Thermal 2{1}		0	100	-101	3	100	-101	101	165
	Thermal 3{1}		0	91	-92	2	91	-92	92	164
	Thermal 4{1}		0	90	-91	2	90	-91	91	164
	Thermal 5{1}		0	95	-96	2	95	-96	96	165
	GRT1{1}		0	93	-94	2	93	-94	94	166
	GRT2{1}		0	101	-102	3	101	-102	102	166
	GRT3{1}		0	93	-94	2	93	-94	94	166
	GRT4{1}		0	91	-92	2	91	-92	92	166
	GRT5{1}		0	96	-97	2	97	-98	98	167
*** Segment C end ***										
*** Segment D begin ***										
A02	SIFI= 1.35 SIFO= 1.35									
	Gravity{1}		0	7	-6	0	7	-6	7	81
	Hydrotest{1}		43	17	17	0	43	17	38	270
	Thermal 1{1}		0	106	-108	1	106	-108	108	90
	Thermal 2{1}		0	120	-122	1	120	-122	122	86
	Thermal 3{1}		0	112	-114	1	112	-114	114	86
	Thermal 4{1}		0	97	-98	1	97	-98	98	86
	Thermal 5{1}		0	59	-60	0	59	-60	60	90
	GRT1{1}		0	101	-101	1	101	-101	101	271
	GRT2{1}		0	115	-115	1	115	-115	115	266
	GRT3{1}		0	107	-107	1	107	-107	107	267
	GRT4{1}		0	91	-91	1	91	-91	91	267
	GRT5{1}		0	53	-53	0	53	-53	53	271
D01 N-	SIFI= 1.00 SIFO= 1.00									
	Gravity{1}		0	10	-9	0	10	-9	10	273
	Hydrotest{1}		43	17	17	0	43	17	38	270
	Thermal 1{1}		0	65	-66	1	65	-66	66	272
	Thermal 2{1}		0	76	-78	1	76	-78	78	270
	Thermal 3{1}		0	74	-75	1	74	-75	75	269
	Thermal 4{1}		0	67	-68	1	67	-68	68	269
	Thermal 5{1}		0	49	-50	0	49	-50	50	268
	GRT1{1}		0	56	-57	1	56	-57	57	271
	GRT2{1}		0	68	-68	1	68	-68	68	269
	GRT3{1}		0	65	-66	1	65	-66	66	269
	GRT4{1}		0	58	-59	1	58	-59	59	268
	GRT5{1}		0	40	-40	0	40	-40	40	267

S_LINEREVO.0UT

D01 N+ SIFI= 1.32 SIFO= 1.32
Gravity{1}

0 13 -12 0 13 -12 13 3

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point name	Load combination	Hoop Stress	Longitudinal Max	Min	Shear Stress	Principal Max	Min	Total Stress	Loc

	Hydrotest{1}	43	17	17	0	43	17	38	270
	Thermal 1{1}	0	86	-87	1	86	-87	87	2
	Thermal 2{1}	0	101	-103	1	101	-103	103	360
	Thermal 3{1}	0	98	-99	1	98	-99	99	359
	Thermal 4{1}	0	89	-90	1	89	-90	90	359
	Thermal 5{1}	0	64	-65	0	64	-65	65	358
	GRT1{1}	0	74	-75	1	74	-75	75	1
	GRT2{1}	0	90	-90	1	90	-90	90	359
	GRT3{1}	0	86	-86	1	86	-86	87	359
	GRT4{1}	0	77	-77	1	77	-77	77	358
	GRT5{1}	0	53	-53	0	53	-53	53	357

D01 F- SIFI= 1.32 SIFO= 1.32
Gravity{1}

0 9 -9 0 9 -9 9 0

	Hydrotest{1}	43	17	17	0	43	17	38	270
	Thermal 1{1}	0	86	-87	1	86	-87	87	1
	Thermal 2{1}	0	101	-102	0	101	-102	102	2
	Thermal 3{1}	0	97	-98	0	97	-98	98	2
	Thermal 4{1}	0	88	-89	1	88	-89	89	2
	Thermal 5{1}	0	63	-64	1	63	-64	64	1
	GRT1{1}	0	76	-77	1	76	-77	77	2
	GRT2{1}	0	92	-93	0	92	-93	93	2
	GRT3{1}	0	88	-89	1	88	-89	89	2
	GRT4{1}	0	79	-80	1	79	-80	80	2
	GRT5{1}	0	54	-55	1	54	-55	55	1

D01 F+ SIFI= 1.00 SIFO= 1.00
Gravity{1}

0 7 -7 0 7 -7 7 0

	Hydrotest{1}	43	17	17	0	43	17	38	270
	Thermal 1{1}	0	65	-66	1	65	-66	66	1
	Thermal 2{1}	0	76	-77	0	76	-77	77	2
	Thermal 3{1}	0	73	-74	0	73	-74	74	2

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	Thermal 4{1}	0	66	-67	1	66	-67	67	2
	Thermal 5{1}	0	48	-48	1	48	-48	48	1
	GRT1{1}	0	58	-59	1	58	-59	59	2
	GRT2{1}	0	69	-70	0	69	-70	70	2
	GRT3{1}	0	66	-67	1	66	-67	67	2
	GRT4{1}	0	59	-60	1	59	-60	60	2
	GRT5{1}	0	41	-41	1	41	-41	42	1
D02	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	11	-11	0	11	-11	11	179
	Hydrotest{1}	43	17	17	0	43	17	38	270
	Thermal 1{1}	0	34	-35	1	34	-35	35	3
	Thermal 2{1}	0	41	-43	0	41	-43	43	5
	Thermal 3{1}	0	39	-41	0	39	-41	41	4
	Thermal 4{1}	0	35	-36	1	35	-36	36	4
	Thermal 5{1}	0	22	-23	1	22	-23	23	2
	GRT1{1}	0	46	-47	1	46	-47	47	2
	GRT2{1}	0	53	-54	0	53	-54	54	4
	GRT3{1}	0	51	-52	1	51	-52	52	3
	GRT4{1}	0	46	-47	1	46	-47	47	3

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
D03	GRT5{1}		0	33	-34	1	33	-34	34	1
	SIFI= 1.00 SIFO= 1.00 Gravity{1}		0	18	-18	0	18	-18	18	179
	Hydrotest{1}		43	17	17	0	43	17	38	270
	Thermal 1{1}		0	22	-23	1	22	-23	23	5
	Thermal 2{1}		0	25	-26	0	25	-26	26	11
	Thermal 3{1}		0	23	-24	0	23	-24	24	9
	Thermal 4{1}		0	20	-21	1	20	-21	21	9
	Thermal 5{1}		0	11	-12	1	11	-12	12	2
	GRT1{1}		0	40	-41	1	40	-41	41	2
	GRT2{1}		0	43	-44	0	43	-44	44	6
GRT3{1}		0	41	-42	1	41	-42	42	4	

		S_LINEREV0.OUT						
	GRT4{1}	0	38	-39	1	38	-39	39 4
	GRT5{1}	0	29	-30	1	29	-30	30 360
D04	- SIFI= 1.00 SIF0= 1.00							
	Gravity{1}	0	18	-18	0	18	-18	18 182
	Hydrotest{1}	43	17	17	0	43	17	38 270
	Thermal 1{1}	0	20	-21	1	20	-21	21 353
	Thermal 2{1}	0	17	-18	0	17	-18	18 341
	Thermal 3{1}	0	15	-17	0	15	-17	17 344
	Thermal 4{1}	0	13	-14	1	13	-14	14 345
	Thermal 5{1}	0	8	-9	1	8	-9	9 359
	GRT1{1}	0	38	-39	1	38	-39	39 357
	GRT2{1}	0	34	-35	0	34	-35	35 352
	GRT3{1}	0	33	-34	1	33	-34	34 354
	GRT4{1}	0	31	-32	1	31	-32	32 355
	GRT5{1}	0	26	-26	1	26	-27	27 1
D04	+ SIFI= 1.00 SIF0= 1.00							
	Gravity{1}	0	18	-18	0	18	-18	18 182
	Hydrotest{1}	43	17	17	0	43	17	38 270
	Thermal 1{1}	0	20	-21	1	20	-21	21 353
	Thermal 2{1}	0	17	-18	0	17	-18	18 341
	Thermal 3{1}	0	15	-17	0	15	-17	17 344
	Thermal 4{1}	0	13	-14	1	13	-14	14 345
	Thermal 5{1}	0	8	-9	1	8	-9	9 359
	GRT1{1}	0	38	-39	1	38	-39	39 357
	GRT2{1}	0	34	-35	0	34	-35	35 352
	GRT3{1}	0	33	-34	1	33	-34	34 354
	GRT4{1}	0	31	-32	1	31	-32	32 355
	GRT5{1}	0	26	-26	1	26	-27	27 1
D05	- SIFI= 1.00 SIF0= 1.00							
	Gravity{1}	0	4	-4	0	4	-4	4 348
	Hydrotest{1}	43	17	17	0	43	17	38 270
	Thermal 1{1}	0	18	-19	1	18	-19	19 351
	Thermal 2{1}	0	9	-10	0	9	-10	10 314
	Thermal 3{1}	0	7	-8	0	7	-8	8 314
	Thermal 4{1}	0	6	-7	1	6	-7	7 317
	Thermal 5{1}	0	5	-5	1	5	-6	6 2

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GENERAL PIPE STRESS REPORT

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S_LINEREVO.OUT
(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
D05		GRT1{1}	0	13	-14	1	13	-14	14	353
		GRT2{1}	0	6	-7	0	6	-7	7	292
		GRT3{1}	0	4	-5	1	4	-5	5	280
		GRT4{1}	0	3	-4	1	3	-4	4	275
		GRT5{1}	0	1	-2	1	2	-2	2	56
	+ SIFI= 1.00	SIFO= 1.00								
		Gravity{1}	0	2	-2	0	2	-2	2	347
		Hydrotest{1}	43	17	17	0	43	17	38	270
		Thermal 1{1}	0	70	-72	8	71	-73	73	349
		Thermal 2{1}	0	66	-69	13	69	-71	72	343
		Thermal 3{1}	0	61	-63	12	64	-66	67	344
		Thermal 4{1}	0	55	-57	12	57	-59	60	344
		Thermal 5{1}	0	39	-40	8	41	-42	43	350
		GRT1{1}	0	67	-69	8	68	-70	71	349
		GRT2{1}	0	64	-66	13	67	-69	70	343
D06		GRT3{1}	0	59	-61	12	61	-64	65	344
		GRT4{1}	0	53	-55	12	55	-57	58	344
		GRT5{1}	0	37	-38	8	38	-40	40	350
		SIFI= 1.00	SIFO= 1.00							
		Gravity{1}	0	9	-9	0	9	-9	9	181
		Hydrotest{1}	43	17	17	0	43	17	38	270
		Thermal 1{1}	0	58	-60	8	59	-61	61	5
		Thermal 2{1}	0	40	-42	13	43	-46	47	11
		Thermal 3{1}	0	36	-39	12	40	-42	44	9
		Thermal 4{1}	0	33	-35	12	36	-38	40	8
		Thermal 5{1}	0	30	-32	8	32	-33	34	2
		GRT1{1}	0	66	-68	8	67	-69	70	4
		GRT2{1}	0	48	-51	13	52	-54	55	9
		GRT3{1}	0	45	-47	12	48	-50	52	8
		GRT4{1}	0	41	-43	12	45	-46	48	7
D09		GRT5{1}	0	39	-40	8	41	-42	43	1
		SIFI= 1.00	SIFO= 1.00							
		Gravity{1}	0	5	-5	0	5	-5	5	189
		Hydrotest{1}	43	17	17	0	43	17	38	270
		Thermal 1{1}	0	48	-50	8	49	-51	52	357
		Thermal 2{1}	0	18	-20	13	25	-26	30	352
		Thermal 3{1}	0	17	-19	12	23	-25	29	348
	Thermal 4{1}	0	15	-17	12	21	-23	26	345	

S_LINEREV0.OUT									
Thermal 5{1}	0	24	-25	8	26	-27	28	349	
GRT1{1}	0	53	-55	8	54	-56	57	358	
GRT2{1}	0	22	-25	13	28	-30	33	355	
GRT3{1}	0	21	-23	12	27	-29	32	353	
GRT4{1}	0	20	-21	12	25	-27	29	351	
GRT5{1}	0	28	-30	8	30	-31	32	353	
D10 N- SIFI= 1.00 SIFO= 1.00 Gravity{1}									
	0	15	-15	0	15	-15	15	355	
Hydrotest{1}	43	17	17	0	43	17	38	270	
Thermal 1{1}	0	40	-42	8	41	-43	44	344	

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S_LINEREV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point name	Load combination	Hoop Stress	Longitudinal Max	Longitudinal Min	Shear Stress	Principal Max	Principal Min	Total Stress	Loc

	Thermal 2{1}	0	14	-16	13	21	-23	28	253
	Thermal 3{1}	0	14	-16	12	21	-23	27	254
	Thermal 4{1}	0	13	-15	12	20	-21	25	255
	Thermal 5{1}	0	19	-20	8	21	-22	24	328
	GRT1{1}	0	25	-27	8	28	-30	31	337
	GRT2{1}	0	22	-24	13	28	-30	33	214
	GRT3{1}	0	22	-24	12	27	-29	32	214
	GRT4{1}	0	21	-23	12	26	-28	31	214
	GRT5{1}	0	8	-10	8	13	-14	16	281
D10 N+ SIFI= 1.32 SIFO= 1.32 Gravity{1}									
		0	19	-19	0	19	-19	19	85
	Hydrotest{1}	43	17	17	0	43	17	38	270
	Thermal 1{1}	0	53	-55	8	54	-56	56	74
	Thermal 2{1}	0	18	-21	13	25	-27	30	343
	Thermal 3{1}	0	18	-20	12	24	-26	30	344
	Thermal 4{1}	0	18	-20	12	24	-25	28	345
	Thermal 5{1}	0	25	-26	8	27	-28	29	58
	GRT1{1}	0	34	-36	8	36	-38	38	67
	GRT2{1}	0	29	-31	13	34	-36	38	304
	GRT3{1}	0	29	-31	12	33	-35	38	304
	GRT4{1}	0	28	-30	12	32	-34	36	304
	GRT5{1}	0	11	-12	8	15	-16	18	11

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D10 F-	SIFI= 1.32	SIFO= 1.32	0	17	-17	6	19	-19	20	84
	Gravity{1}									
	Hydrotest{1}		43	17	17	0	43	17	38	270
	Thermal 1{1}		0	51	-53	8	52	-54	54	74
	Thermal 2{1}		0	23	-25	11	28	-30	32	43
	Thermal 3{1}		0	23	-25	11	27	-29	31	42
	Thermal 4{1}		0	22	-24	10	26	-28	30	41
	Thermal 5{1}		0	30	-32	0	30	-32	32	65
	GRT1{1}		0	34	-36	2	34	-36	36	69
	GRT2{1}		0	15	-17	17	26	-27	34	357
	GRT3{1}		0	15	-17	16	26	-27	33	355
	GRT4{1}		0	15	-17	16	25	-26	32	353
	GRT5{1}		0	15	-16	6	17	-18	19	45
D10 F+	SIFI= 1.00	SIFO= 1.00	0	13	-13	6	15	-15	16	354
	Gravity{1}									
	Hydrotest{1}		43	17	17	0	43	17	38	270
	Thermal 1{1}		0	38	-40	8	40	-41	42	344
	Thermal 2{1}		0	17	-19	11	23	-25	28	313
	Thermal 3{1}		0	17	-19	11	22	-24	27	312
	Thermal 4{1}		0	17	-18	10	21	-23	25	311
	Thermal 5{1}		0	23	-24	0	23	-24	24	335
	GRT1{1}		0	26	-27	2	26	-27	27	339
	GRT2{1}		0	11	-13	17	23	-25	32	267
	GRT3{1}		0	11	-13	16	23	-24	31	265
	GRT4{1}		0	11	-13	16	22	-23	30	263
	GRT5{1}		0	11	-12	6	14	-15	16	315

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
D11	- SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	3	-2	6	7	-7	10 68
	Hydrotest{1}		43	17	17	0	43	17	38 270
	Thermal 1{1}		0	25	-26	8	27	-29	30 259
	Thermal 2{1}		0	11	-14	11	18	-20	24 105

		S_LINEREV0.OUT						
	Thermal 3{1}	0	11	-13	11	17	-19	23 102
	Thermal 4{1}	0	9	-11	10	16	-17	21 94
	Thermal 5{1}	0	10	-11	0	10	-11	11 270
	GRT1{1}	0	27	-29	2	27	-29	29 258
	GRT2{1}	0	10	-12	17	22	-24	32 113
	GRT3{1}	0	9	-11	16	21	-23	30 111
	GRT4{1}	0	7	-9	16	20	-21	29 102
	GRT5{1}	0	12	-13	6	14	-15	17 266
D11	+ SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	6	-6	1	6	-6	6 281
	Hydrotest{1}	43	17	17	0	43	17	38 270
	Thermal 1{1}	0	141	-149	14	143	-150	151 331
	Thermal 2{1}	0	122	-129	14	123	-131	132 339
	Thermal 3{1}	0	103	-110	14	105	-112	113 335
	Thermal 4{1}	0	89	-95	14	91	-97	98 331
	Thermal 5{1}	0	75	-79	14	78	-81	82 316
	GRT1{1}	0	137	-145	13	139	-146	147 333
	GRT2{1}	0	118	-126	14	120	-128	128 341
	GRT3{1}	0	100	-107	13	101	-108	109 338
	GRT4{1}	0	85	-91	13	87	-93	94 334
	GRT5{1}	0	70	-74	13	73	-76	77 318
D12	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	6	-6	1	6	-6	6 348
	Hydrotest{1}	43	17	17	0	43	17	38 270
	Thermal 1{1}	0	88	-96	14	90	-98	99 309
	Thermal 2{1}	0	64	-71	14	67	-74	76 305
	Thermal 3{1}	0	46	-53	14	50	-57	58 319
	Thermal 4{1}	0	44	-50	14	48	-53	55 325
	Thermal 5{1}	0	55	-58	14	58	-61	63 328
	GRT1{1}	0	84	-91	13	86	-93	94 307
	GRT2{1}	0	60	-67	14	63	-70	71 302
	GRT3{1}	0	41	-48	13	45	-52	53 316
	GRT4{1}	0	39	-45	13	43	-48	50 322
	GRT5{1}	0	50	-53	13	53	-56	58 326
D13	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	3	-3	1	4	-3	4 350
	Hydrotest{1}	43	17	17	0	43	17	38 270
	Thermal 1{1}	0	21	-28	14	28	-34	37 226
	Thermal 2{1}	0	25	-32	14	31	-38	41 214
	Thermal 3{1}	0	23	-30	14	29	-35	38 161
	Thermal 4{1}	0	23	-29	14	30	-35	38 149
	Thermal 5{1}	0	16	-20	14	24	-27	31 130
	GRT1{1}	0	23	-30	13	29	-35	38 220

S_LINEREVO.OUT

GRT2{1} 0 27 -35 14 33 -39 42 209

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point name	Load combination	Hoop Stress	Longitudinal Max	Min	Shear Stress	Principal Max	Min	Total Stress	Loc
	GRT3{1}	0	26	-33	13	31	-37	40	162
	GRT4{1}	0	26	-32	13	32	-37	39	151
	GRT5{1}	0	19	-22	13	26	-28	32	136
D14 -	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	2	-2	1	2	-2	3	277
	Hydrotest{1}	43	17	17	0	43	17	38	270
	Thermal 1{1}	0	70	-78	14	73	-80	81	67
	Thermal 2{1}	0	79	-86	14	81	-89	90	57
	Thermal 3{1}	0	70	-77	14	73	-80	81	73
	Thermal 4{1}	0	65	-71	14	67	-73	74	85
	Thermal 5{1}	0	60	-63	14	63	-66	67	114
	GRT1{1}	0	72	-79	13	74	-81	83	68
	GRT2{1}	0	80	-88	14	83	-90	91	58
	GRT3{1}	0	72	-79	13	74	-81	82	73
	GRT4{1}	0	67	-73	13	69	-75	76	85
	GRT5{1}	0	62	-65	13	64	-67	69	113
D14 +	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	4	-4	2	4	-4	5	284
	Hydrotest{1}	43	17	17	0	43	17	38	270
	Thermal 1{1}	0	58	-64	55	91	-96	115	330
	Thermal 2{1}	0	33	-38	26	48	-51	59	353
	Thermal 3{1}	0	37	-42	27	51	-55	62	358
	Thermal 4{1}	0	33	-38	25	46	-50	57	356
	Thermal 5{1}	0	32	-37	31	51	-54	65	331
	GRT1{1}	0	56	-61	54	88	-92	111	333
	GRT2{1}	0	32	-37	24	45	-49	56	359
	GRT3{1}	0	36	-41	25	49	-53	60	3
	GRT4{1}	0	32	-37	23	44	-48	54	2
	GRT5{1}	0	30	-34	29	48	-51	61	335

D15 N- SIFI= 1.00 SIFO= 1.00

S_LINEREVO.OUT								
Gravity{1}	0	1	-1	2	2	-2	3	153
Hydrotest{1}	43	17	17	0	43	17	38	270
Thermal 1{1}	0	124	-130	55	145	-150	161	176
Thermal 2{1}	0	112	-117	26	118	-122	125	179
Thermal 3{1}	0	114	-119	27	120	-125	128	180
Thermal 4{1}	0	110	-115	25	116	-120	123	180
Thermal 5{1}	0	103	-108	31	112	-116	120	178
GRT1{1}	0	123	-129	54	143	-148	159	177
GRT2{1}	0	111	-116	24	116	-121	123	179
GRT3{1}	0	113	-118	25	119	-123	126	180
GRT4{1}	0	110	-115	23	114	-119	121	180
GRT5{1}	0	102	-107	29	110	-114	118	178

D15 N+ SIFI= 1.32 SIFO= 1.32

Gravity{1}	0	1	-1	2	2	-2	3	333
Hydrotest{1}	43	17	17	0	43	17	38	270
Thermal 1{1}	0	165	-170	55	182	-187	195	356
Thermal 2{1}	0	148	-153	26	153	-158	160	359
Thermal 3{1}	0	151	-156	27	156	-161	163	0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
								Loc
Thermal 4{1}		0	147	-152	25	151	-155	157 360
Thermal 5{1}		0	137	-142	31	144	-148	151 358
GRT1{1}		0	164	-169	54	180	-185	193 357
GRT2{1}		0	148	-152	24	152	-156	158 359
GRT3{1}		0	150	-155	25	155	-159	161 0
GRT4{1}		0	146	-151	23	149	-154	156 0
GRT5{1}		0	136	-141	29	142	-146	149 358

D15 M SIFI= 1.32 SIFO= 1.32

Gravity{1}	0	3	-3	1	3	-3	4	55
Hydrotest{1}	43	17	17	0	43	17	38	270
Thermal 1{1}	0	205	-217	44	214	-226	230	23
Thermal 2{1}	0	170	-180	20	172	-182	183	13
Thermal 3{1}	0	173	-183	20	175	-185	186	14
Thermal 4{1}	0	167	-177	19	169	-179	180	13

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Thermal 5{1}	0	161	-171	24	165	-175	176	16
GRT1{1}	0	203	-215	43	211	-223	227	23
GRT2{1}	0	168	-177	19	170	-180	181	12
GRT3{1}	0	171	-181	19	173	-183	184	13
GRT4{1}	0	165	-175	17	167	-176	177	12
GRT5{1}	0	159	-169	23	163	-172	174	16
D15 F- SIFI= 1.32 SIF0= 1.32								
Gravity{1}	0	4	-4	0	4	-4	4	66
Hydrotest{1}	43	17	17	0	43	17	38	270
Thermal 1{1}	0	225	-237	11	225	-237	237	34
Thermal 2{1}	0	172	-181	5	173	-182	182	19
Thermal 3{1}	0	174	-183	4	175	-183	183	19
Thermal 4{1}	0	168	-177	4	168	-177	177	18
Thermal 5{1}	0	168	-177	6	168	-178	178	24
GRT1{1}	0	222	-233	11	222	-234	234	33
GRT2{1}	0	170	-178	5	170	-179	179	18
GRT3{1}	0	172	-180	4	172	-180	181	18
GRT4{1}	0	166	-174	4	166	-174	174	17
GRT5{1}	0	165	-174	6	165	-174	174	23
D15 F+ SIFI= 1.00 SIF0= 1.00								
Gravity{1}	0	3	-3	0	3	-3	3	111
Hydrotest{1}	43	17	17	0	43	17	38	270
Thermal 1{1}	0	169	-181	11	170	-181	182	79
Thermal 2{1}	0	129	-138	5	130	-139	139	64
Thermal 3{1}	0	131	-140	4	131	-140	140	64
Thermal 4{1}	0	126	-135	4	126	-135	135	63
Thermal 5{1}	0	126	-135	6	126	-136	136	69
GRT1{1}	0	166	-178	11	167	-178	179	78
GRT2{1}	0	127	-136	5	128	-136	136	63
GRT3{1}	0	129	-138	4	129	-138	138	63
GRT4{1}	0	124	-133	4	124	-133	133	62
GRT5{1}	0	124	-133	6	124	-133	133	68
D16 N- SIFI= 1.00 SIF0= 1.00								
Gravity{1}	0	1	-1	0	1	-1	1	178

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	S_LINEREVO.OUT Longitudinal		Shear	Principal		Total	
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc

	Hydrotest{1}	43	17	17	0	43	17	38	270
	Thermal 1{1}	0	12	-24	11	19	-28	31	354
	Thermal 2{1}	0	22	-31	5	24	-32	33	338
	Thermal 3{1}	0	23	-32	4	24	-32	32	323
	Thermal 4{1}	0	19	-28	4	20	-28	28	325
	Thermal 5{1}	0	6	-15	6	10	-17	18	356
	GRT1{1}	0	13	-25	11	19	-29	31	354
	GRT2{1}	0	23	-32	5	24	-33	33	338
	GRT3{1}	0	23	-32	4	24	-33	33	324
	GRT4{1}	0	20	-28	4	20	-29	29	325
	GRT5{1}	0	7	-16	6	10	-18	19	356
D16 N+	SIFI= 1.32 Gravity{1}	0	1	-1	0	1	-1	1	255
	Hydrotest{1}	43	17	17	0	43	17	38	270
	Thermal 1{1}	0	18	-30	11	23	-34	36	72
	Thermal 2{1}	0	31	-40	5	32	-41	41	55
	Thermal 3{1}	0	31	-40	4	32	-41	41	41
	Thermal 4{1}	0	26	-35	4	27	-35	36	42
	Thermal 5{1}	0	10	-19	6	12	-20	21	73
	GRT1{1}	0	19	-31	11	24	-34	36	72
	GRT2{1}	0	32	-41	5	33	-42	42	56
	GRT3{1}	0	32	-41	4	33	-41	42	42
	GRT4{1}	0	27	-36	4	28	-36	36	43
	GRT5{1}	0	11	-20	6	13	-21	22	74
D16 F-	SIFI= 1.32 Gravity{1}	0	1	-1	0	1	-1	1	97
	Hydrotest{1}	43	17	17	0	43	17	38	270
	Thermal 1{1}	0	20	-27	5	21	-28	28	121
	Thermal 2{1}	0	3	-8	7	9	-13	15	40
	Thermal 3{1}	0	10	-15	5	12	-17	17	3
	Thermal 4{1}	0	5	-10	4	7	-11	12	357
	Thermal 5{1}	0	13	-17	1	13	-18	18	159
	GRT1{1}	0	19	-26	6	21	-27	28	122
	GRT2{1}	0	3	-8	8	9	-13	15	32
	GRT3{1}	0	10	-15	5	12	-17	18	359
	GRT4{1}	0	6	-10	4	8	-12	12	351
	GRT5{1}	0	13	-17	2	13	-17	17	162
D16 F+	SIFI= 1.00 Gravity{1}	0	1	-1	0	1	-1	1	97
	Hydrotest{1}	43	17	17	0	43	17	38	270

Thermal 1{1}	0	14	-21	5	16	-22	23	121
Thermal 2{1}	0	2	-7	7	8	-11	14	40
Thermal 3{1}	0	7	-12	5	9	-14	15	3
Thermal 4{1}	0	3	-8	4	6	-10	10	357
Thermal 5{1}	0	9	-14	1	9	-14	14	159
GRT1{1}	0	14	-21	6	16	-22	23	122
GRT2{1}	0	2	-7	8	8	-12	15	32
GRT3{1}	0	7	-12	5	10	-14	15	359
GRT4{1}	0	4	-8	4	6	-10	11	351

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(Stress in N/mm²)

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S_LINEREVO.OUT								
GRT1{1}	0	57	-61	2	57	-61	61	180
GRT2{1}	0	38	-40	2	38	-40	40	195
GRT3{1}	0	35	-37	2	35	-37	37	200
GRT4{1}	0	36	-39	1	36	-39	39	200
GRT5{1}	0	48	-50	1	48	-50	50	191

*** Segment D end ***

*** Segment E begin ***

A03	SIFI= 1.35	SIFO= 1.35						
	Gravity{1}	0	6	-5	1	6	-5	6 68
	Hydrotest{1}	43	17	17	0	43	17	38 270
	Thermal 1{1}	0	127	-127	1	127	-127	127 80
	Thermal 2{1}	0	136	-137	1	136	-137	137 79
	Thermal 3{1}	0	127	-127	1	127	-127	127 80
	Thermal 4{1}	0	123	-124	1	123	-124	124 81
	Thermal 5{1}	0	125	-125	1	125	-125	125 78
	GRT1{1}	0	123	-121	1	123	-121	123 261
	GRT2{1}	0	132	-131	1	132	-131	132 259
	GRT3{1}	0	123	-121	1	123	-121	123 261
	GRT4{1}	0	119	-118	1	119	-118	119 261
	GRT5{1}	0	120	-119	1	120	-119	120 259
E01 N-	SIFI= 1.00	SIFO= 1.00						
	Gravity{1}	0	11	-10	1	11	-10	11 290
	Hydrotest{1}	43	17	17	0	43	17	38 270
	Thermal 1{1}	0	63	-64	1	63	-64	64 274

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
-----	-----	-----	-----	-----	-----	-----	-----	---
	Thermal 2{1}	0	64	-65	1	64	-65	65 274
	Thermal 3{1}	0	63	-64	1	63	-64	64 274
	Thermal 4{1}	0	62	-63	1	62	-63	63 273
	Thermal 5{1}	0	60	-60	1	60	-60	60 274
	GRT1{1}	0	54	-53	1	54	-53	54 91
	GRT2{1}	0	55	-54	1	55	-54	55 92
	GRT3{1}	0	54	-53	1	54	-54	54 91
	GRT4{1}	0	53	-53	1	53	-53	53 90

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GRT5{1}			0	51	-50	1	51	-50	51	91
E01 N+	SIFI= 1.32	SIFO= 1.32								
	Gravity{1}		0	14	-13	1	14	-13	14	20
	Hydrotest{1}		43	17	17	0	43	17	38	270
	Thermal 1{1}		0	83	-84	1	83	-84	84	4
	Thermal 2{1}		0	85	-85	1	85	-85	85	4
	Thermal 3{1}		0	83	-84	1	83	-84	84	4
	Thermal 4{1}		0	82	-83	1	82	-83	83	3
	Thermal 5{1}		0	79	-80	1	79	-80	80	4
	GRT1{1}		0	71	-71	1	71	-71	71	181
	GRT2{1}		0	72	-72	1	72	-72	72	182
	GRT3{1}		0	71	-71	1	71	-71	71	181
	GRT4{1}		0	70	-69	1	70	-69	70	180
	GRT5{1}		0	67	-66	1	67	-66	67	181
E01 F-	SIFI= 1.32	SIFO= 1.32								
	Gravity{1}		0	9	-9	2	10	-10	10	351
	Hydrotest{1}		43	17	17	0	43	17	38	270
	Thermal 1{1}		0	86	-88	2	86	-88	88	2
	Thermal 2{1}		0	88	-89	3	88	-89	90	2
	Thermal 3{1}		0	86	-88	2	86	-88	88	2
	Thermal 4{1}		0	85	-86	2	85	-86	86	2
	Thermal 5{1}		0	82	-83	3	82	-83	84	2
	GRT1{1}		0	77	-79	0	77	-79	79	3
	GRT2{1}		0	79	-80	1	79	-80	80	3
	GRT3{1}		0	77	-79	0	77	-79	79	3
	GRT4{1}		0	76	-77	0	76	-77	77	3
	GRT5{1}		0	73	-74	1	73	-74	74	3
E01 F+	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	7	-7	2	8	-7	8	351
	Hydrotest{1}		43	17	17	0	43	17	38	270
	Thermal 1{1}		0	65	-67	2	65	-67	67	2
	Thermal 2{1}		0	66	-68	3	67	-68	68	2
	Thermal 3{1}		0	65	-67	2	65	-67	67	2
	Thermal 4{1}		0	64	-66	2	64	-66	66	2
	Thermal 5{1}		0	62	-63	3	62	-63	63	2
	GRT1{1}		0	58	-60	0	58	-60	60	3
	GRT2{1}		0	60	-61	1	60	-61	61	3
	GRT3{1}		0	58	-60	0	58	-60	60	3
	GRT4{1}		0	57	-59	0	57	-59	59	3
	GRT5{1}		0	55	-56	1	55	-56	56	3

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
E02	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	14	-13	2	14	-14	14	181
	Hydrotest{1}		43	17	17	0	43	17	38	270
	Thermal 1{1}		0	55	-56	2	55	-56	56	6
	Thermal 2{1}		0	57	-58	3	57	-59	59	7
	Thermal 3{1}		0	55	-56	2	55	-56	56	6
	Thermal 4{1}		0	54	-55	2	54	-55	55	6
	Thermal 5{1}		0	53	-54	3	53	-54	54	7
	GRT1{1}		0	68	-69	0	68	-69	69	5
	GRT2{1}		0	71	-72	1	71	-72	72	6
	GRT3{1}		0	68	-69	0	68	-69	69	5
	GRT4{1}		0	67	-68	0	67	-68	68	5
GRT5{1}		0	66	-68	1	66	-68	68	6	
E12	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	15	-14	2	15	-15	15	177
	Hydrotest{1}		43	17	17	0	43	17	38	270
	Thermal 1{1}		0	51	-53	2	51	-53	53	10
	Thermal 2{1}		0	55	-56	3	55	-56	57	11
	Thermal 3{1}		0	51	-53	2	51	-53	53	10
	Thermal 4{1}		0	50	-51	2	50	-51	51	10
	Thermal 5{1}		0	51	-52	3	51	-52	52	11
	GRT1{1}		0	65	-67	0	65	-67	67	7
	GRT2{1}		0	69	-70	1	69	-70	70	8
	GRT3{1}		0	65	-67	0	65	-67	67	7
	GRT4{1}		0	64	-65	0	64	-65	65	7
GRT5{1}		0	65	-66	1	65	-66	66	8	
E13	- SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	2	-1	2	3	-3	4	278
	Hydrotest{1}		43	17	17	0	43	17	38	270
	Thermal 1{1}		0	52	-54	2	52	-54	54	347
	Thermal 2{1}		0	58	-59	3	58	-59	59	345
	Thermal 3{1}		0	52	-54	2	52	-54	54	347
	Thermal 4{1}		0	51	-52	2	51	-52	52	347
Thermal 5{1}		0	54	-55	3	54	-55	55	345	

GRT1{1}	0	52	-53	0	52	-53	53	348
GRT2{1}	0	57	-59	1	57	-59	59	347
GRT3{1}	0	52	-53	0	52	-53	53	348
GRT4{1}	0	50	-52	0	50	-52	52	348
GRT5{1}	0	53	-54	1	53	-54	54	346

Gravity{1}	0	2	-1	2	3	-3	4	278
Hydrotest{1}	43	17	17	0	43	17	38	270
Thermal 1{1}	0	52	-54	2	52	-54	54	347
Thermal 2{1}	0	58	-59	3	58	-59	59	345
Thermal 3{1}	0	52	-54	2	52	-54	54	347
Thermal 4{1}	0	51	-52	2	51	-52	52	347
Thermal 5{1}	0	54	-55	3	54	-55	55	345
GRT1{1}	0	52	-53	0	52	-53	53	348
GRT2{1}	0	57	-59	1	57	-59	59	347

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Point	Load	Hoop	Longitudinal		Shear	Principal		Total	
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	GRT3{1}	0	52	-53	0	52	-53	53	348
	GRT4{1}	0	50	-52	0	50	-52	52	348
	GRT5{1}	0	53	-54	1	53	-54	54	346

Gravity{1}	0	23	-23	2	23	-23	23	354
Hydrotest{1}	43	17	17	0	43	17	38	270
Thermal 1{1}	0	53	-55	2	53	-55	55	344
Thermal 2{1}	0	60	-62	3	61	-62	62	342
Thermal 3{1}	0	53	-55	2	53	-55	55	344
Thermal 4{1}	0	52	-53	2	52	-53	53	344
Thermal 5{1}	0	56	-58	3	56	-58	58	342
GRT1{1}	0	31	-33	0	31	-33	33	336
GRT2{1}	0	39	-40	1	39	-40	40	335
GRT3{1}	0	31	-32	0	31	-32	33	336
GRT4{1}	0	30	-31	0	30	-31	31	336
GRT5{1}	0	34	-36	1	35	-36	36	334

S_LINEREVO.0UT

E04 + SIFI= 1.00 SIFO= 1.00
Gravity{1}

0	25	-25	4	26	-26	26	353
Hydrotest{1}	43	17	17	0	43	17	270
Thermal 1{1}	0	107	-109	8	107	-110	339
Thermal 2{1}	0	117	-119	8	117	-120	338
Thermal 3{1}	0	107	-109	8	107	-109	339
Thermal 4{1}	0	104	-106	8	104	-107	339
Thermal 5{1}	0	109	-111	8	109	-111	338
GRT1{1}	0	83	-85	12	85	-87	335
GRT2{1}	0	93	-95	13	95	-97	334
GRT3{1}	0	83	-85	12	84	-87	335
GRT4{1}	0	80	-82	12	82	-84	335
GRT5{1}	0	85	-87	12	87	-89	334

E17 SIFI= 1.00 SIFO= 1.00
Gravity{1}

0	17	-17	4	18	-18	19	176
Hydrotest{1}	43	17	17	0	43	17	270
Thermal 1{1}	0	47	-49	8	48	-51	7
Thermal 2{1}	0	52	-55	8	54	-56	8
Thermal 3{1}	0	47	-49	8	48	-51	7
Thermal 4{1}	0	46	-48	8	47	-49	7
Thermal 5{1}	0	49	-51	8	50	-52	9
GRT1{1}	0	64	-66	12	67	-69	4
GRT2{1}	0	69	-72	13	72	-74	5
GRT3{1}	0	64	-66	12	67	-69	4
GRT4{1}	0	63	-65	12	65	-67	4
GRT5{1}	0	66	-68	12	68	-70	5

E16 SIFI= 1.00 SIFO= 1.00
Gravity{1}

0	23	-23	4	24	-24	24	179
Hydrotest{1}	43	17	17	0	43	17	270
Thermal 1{1}	0	24	-26	8	26	-28	336
Thermal 2{1}	0	26	-29	8	29	-31	340
Thermal 3{1}	0	24	-26	8	26	-28	336

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S_LINEREVO

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total	
name	combination	Stress	Max	Min	Stress	Max	Min
-----	-----	-----	-----	-----	-----	-----	-----

S_LINEREVO.OUT								
Thermal 4{1}	0	23	-25	8	25	-27	29	336
Thermal 5{1}	0	24	-26	8	26	-28	30	340
GRT1{1}	0	46	-48	12	49	-51	53	347
GRT2{1}	0	49	-51	13	52	-54	56	349
GRT3{1}	0	46	-48	12	49	-51	53	347
GRT4{1}	0	45	-47	12	48	-50	52	347
GRT5{1}	0	47	-49	12	50	-52	53	349
E05 N- SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	7	-7	4	9	-9	10	190
Hydrotest{1}	43	17	17	0	43	17	38	270
Thermal 1{1}	0	48	-50	8	49	-52	52	236
Thermal 2{1}	0	50	-53	8	52	-54	55	237
Thermal 3{1}	0	48	-50	8	49	-52	52	236
Thermal 4{1}	0	47	-49	8	48	-51	51	236
Thermal 5{1}	0	47	-49	8	48	-50	51	237
GRT1{1}	0	44	-46	12	47	-49	51	242
GRT2{1}	0	46	-48	13	49	-52	53	243
GRT3{1}	0	44	-46	12	47	-49	51	242
GRT4{1}	0	43	-45	12	46	-48	50	242
GRT5{1}	0	43	-45	12	46	-48	49	243
E05 N+ SIFI= 1.32 SIFO= 1.32								
Gravity{1}	0	9	-9	4	11	-10	12	280
Hydrotest{1}	43	17	17	0	43	17	38	270
Thermal 1{1}	0	64	-66	8	65	-67	68	326
Thermal 2{1}	0	67	-69	8	68	-70	71	327
Thermal 3{1}	0	64	-66	8	65	-67	68	326
Thermal 4{1}	0	63	-65	8	64	-66	66	326
Thermal 5{1}	0	62	-64	8	63	-65	66	327
GRT1{1}	0	58	-60	12	61	-63	64	332
GRT2{1}	0	61	-64	13	64	-66	67	333
GRT3{1}	0	58	-60	12	61	-63	64	332
GRT4{1}	0	57	-59	12	59	-61	63	332
GRT5{1}	0	57	-59	12	59	-61	62	333
E05 F- SIFI= 1.32 SIFO= 1.32								
Gravity{1}	0	12	-12	0	12	-12	12	277
Hydrotest{1}	43	17	17	0	43	17	38	270
Thermal 1{1}	0	52	-54	17	57	-59	62	354
Thermal 2{1}	0	56	-58	18	61	-63	65	355
Thermal 3{1}	0	52	-54	17	57	-59	62	354
Thermal 4{1}	0	51	-53	17	56	-58	61	354
Thermal 5{1}	0	51	-53	17	56	-58	61	354
GRT1{1}	0	51	-53	17	56	-58	61	7

		S_LINEREV0.OUT						
GRT2{1}	0	54	-56	17	59	-61	64	7
GRT3{1}	0	51	-53	17	56	-58	61	7
GRT4{1}	0	50	-52	17	55	-57	59	7
GRT5{1}	0	50	-52	16	55	-57	59	7

E05 F+ SIFI= 1.00	SIFO= 1.00							
Gravity{1}	0	9	-9	0	9	-9	9	187

0

S_LINEREV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
Hydrotest{1}		43	17	17	0	43	17	38 270
Thermal 1{1}		0	39	-41	17	46	-48	51 264
Thermal 2{1}		0	42	-44	18	48	-50	54 265
Thermal 3{1}		0	39	-41	17	46	-48	51 264
Thermal 4{1}		0	38	-40	17	45	-47	50 264
Thermal 5{1}		0	39	-41	17	45	-47	50 264
GRT1{1}		0	38	-40	17	45	-47	50 277
GRT2{1}		0	41	-43	17	47	-49	52 277
GRT3{1}		0	38	-40	17	45	-47	50 277
GRT4{1}		0	38	-39	17	44	-45	49 277
GRT5{1}		0	38	-40	16	44	-46	49 277

E06 N- SIFI= 1.00	SIFO= 1.00							
Gravity{1}	0	17	-17	0	17	-17	17	8
Hydrotest{1}	43	17	17	0	43	17	38	270
Thermal 1{1}	0	58	-60	17	63	-65	67	172
Thermal 2{1}	0	62	-65	18	67	-69	71	173
Thermal 3{1}	0	58	-60	17	63	-65	67	172
Thermal 4{1}	0	57	-59	17	62	-64	66	172
Thermal 5{1}	0	58	-60	17	63	-65	67	173
GRT1{1}	0	75	-77	17	78	-80	82	175
GRT2{1}	0	79	-81	17	82	-84	86	176
GRT3{1}	0	75	-77	17	78	-80	82	175
GRT4{1}	0	74	-75	17	77	-79	81	175
GRT5{1}	0	75	-77	16	78	-80	82	176

E06 N+ SIFI= 1.32	SIFO= 1.32							
Gravity{1}	0	22	-22	0	22	-22	22	188

S_LINEREV0.OUT

Hydrotest{1}	43	17	17	0	43	17	38	270
Thermal 1{1}	0	78	-80	17	81	-83	85	352
Thermal 2{1}	0	83	-85	18	86	-88	90	353
Thermal 3{1}	0	78	-80	17	81	-83	85	352
Thermal 4{1}	0	76	-78	17	80	-81	83	352
Thermal 5{1}	0	77	-79	17	81	-83	84	353
GRT1{1}	0	99	-101	17	102	-104	105	355
GRT2{1}	0	104	-106	17	107	-109	111	356
GRT3{1}	0	99	-101	17	102	-104	105	355
GRT4{1}	0	97	-99	17	100	-102	103	355
GRT5{1}	0	99	-101	16	102	-103	105	356
E06 F- SIFI= 1.32 SIF0= 1.32								
Gravity{1}	0	19	-19	1	20	-19	20	179
Hydrotest{1}	43	17	17	0	43	17	38	270
Thermal 1{1}	0	86	-88	6	86	-88	89	27
Thermal 2{1}	0	91	-93	6	92	-94	94	26
Thermal 3{1}	0	86	-88	6	86	-88	89	27
Thermal 4{1}	0	84	-86	6	85	-87	87	27
Thermal 5{1}	0	85	-87	6	86	-88	88	26
GRT1{1}	0	104	-105	5	104	-105	105	22
GRT2{1}	0	109	-110	5	109	-110	110	22
GRT3{1}	0	104	-105	5	104	-105	105	22
GRT4{1}	0	102	-103	5	102	-103	103	22

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
								Loc

	GRT5{1}	0	103	-104	4	103	-104	105
								21
E06 F+ SIFI= 1.00 SIF0= 1.00								
	Gravity{1}	0	15	-14	1	15	-14	15
	Hydrotest{1}	43	17	17	0	43	17	38
	Thermal 1{1}	0	65	-67	6	65	-67	68
	Thermal 2{1}	0	69	-71	6	69	-71	72
	Thermal 3{1}	0	65	-67	6	65	-67	68
	Thermal 4{1}	0	64	-65	6	64	-66	66
								57

		S_LINEREVO.OUT						
Thermal 5{1}		0	64	-66	6	65	-67	67 56
GRT1{1}		0	78	-79	5	79	-80	80 52
GRT2{1}		0	82	-83	5	83	-84	84 52
GRT3{1}		0	78	-79	5	79	-80	80 52
GRT4{1}		0	77	-78	5	77	-78	79 52
GRT5{1}		0	78	-79	4	78	-79	79 51
E07 N- SIFI= 1.00 SIFO= 1.00								
Gravity{1}		0	16	-15	1	16	-15	16 211
Hydrotest{1}		43	17	17	0	43	17	38 270
Thermal 1{1}		0	50	-52	6	51	-53	54 55
Thermal 2{1}		0	53	-55	6	54	-56	57 54
Thermal 3{1}		0	50	-52	6	51	-53	53 55
Thermal 4{1}		0	50	-51	6	50	-52	53 55
Thermal 5{1}		0	50	-52	6	51	-53	53 54
GRT1{1}		0	65	-66	5	65	-67	67 49
GRT2{1}		0	68	-69	5	68	-70	70 49
GRT3{1}		0	65	-66	5	65	-67	67 49
GRT4{1}		0	64	-65	5	64	-66	66 49
GRT5{1}		0	65	-66	4	65	-66	67 49
E07 N+ SIFI= 1.32 SIFO= 1.32								
Gravity{1}		0	20	-20	1	20	-20	20 301
Hydrotest{1}		43	17	17	0	43	17	38 270
Thermal 1{1}		0	67	-69	6	68	-69	70 145
Thermal 2{1}		0	71	-73	6	71	-74	74 144
Thermal 3{1}		0	67	-69	6	67	-69	70 145
Thermal 4{1}		0	66	-68	6	66	-68	68 145
Thermal 5{1}		0	67	-69	6	67	-69	69 144
GRT1{1}		0	86	-87	5	86	-87	88 139
GRT2{1}		0	90	-91	5	90	-92	92 139
GRT3{1}		0	86	-87	5	86	-87	88 139
GRT4{1}		0	85	-86	5	85	-86	86 139
GRT5{1}		0	86	-87	4	86	-87	87 139
E07 F- SIFI= 1.32 SIFO= 1.32								
Gravity{1}		0	9	-9	7	12	-12	14 21
Hydrotest{1}		43	17	17	0	43	17	38 270
Thermal 1{1}		0	54	-57	13	57	-60	61 166
Thermal 2{1}		0	57	-59	14	60	-62	64 168
Thermal 3{1}		0	54	-57	13	57	-60	61 166
Thermal 4{1}		0	54	-56	13	57	-59	60 166
Thermal 5{1}		0	53	-56	14	57	-59	60 169

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
E07 F+		GRT1{1}	0	62	-64	20	67	-69	72	171
		GRT2{1}	0	64	-66	21	70	-72	76	172
		GRT3{1}	0	62	-64	20	67	-69	72	171
		GRT4{1}	0	61	-63	20	67	-68	71	171
		GRT5{1}	0	61	-63	20	67	-69	72	173
	SIFI= 1.00	SIF0= 1.00								
		Gravity{1}	0	7	-6	7	11	-10	13	21
		Hydrotest{1}	43	17	17	0	43	17	38	270
		Thermal 1{1}	0	41	-43	13	45	-47	49	166
		Thermal 2{1}	0	43	-45	14	47	-49	51	168
		Thermal 3{1}	0	41	-43	13	45	-47	49	166
		Thermal 4{1}	0	40	-42	13	44	-46	48	166
		Thermal 5{1}	0	40	-42	14	44	-46	48	169
		GRT1{1}	0	46	-48	20	54	-56	59	171
		GRT2{1}	0	48	-50	21	56	-58	62	172
E08 N-		GRT3{1}	0	46	-48	20	54	-56	59	171
		GRT4{1}	0	46	-48	20	53	-55	59	171
		GRT5{1}	0	46	-48	20	53	-55	59	173
	SIFI= 1.00	SIF0= 1.00								
		Gravity{1}	0	2	-2	7	8	-8	12	78
		Hydrotest{1}	43	17	17	0	43	17	38	270
		Thermal 1{1}	0	55	-57	13	58	-60	62	178
		Thermal 2{1}	0	58	-60	14	61	-64	65	180
		Thermal 3{1}	0	55	-57	13	58	-60	62	178
		Thermal 4{1}	0	54	-56	13	57	-59	61	178
		Thermal 5{1}	0	55	-57	14	58	-60	62	180
		GRT1{1}	0	55	-58	20	62	-64	67	180
		GRT2{1}	0	58	-61	21	65	-67	71	182
		GRT3{1}	0	55	-58	20	62	-64	67	180
		GRT4{1}	0	55	-57	20	61	-63	66	180
	GRT5{1}	0	55	-57	20	62	-64	67	182	
E08 N+	SIFI= 1.32	SIF0= 1.32								
		Gravity{1}	0	3	-3	7	8	-8	12	258
	Hydrotest{1}	43	17	17	0	43	17	38	270	

		S_LINEREVO.OUT						
Thermal 1{1}	0	73	-75	13	75	-78	79	358
Thermal 2{1}	0	77	-79	14	80	-82	83	360
Thermal 3{1}	0	73	-75	13	75	-78	79	358
Thermal 4{1}	0	72	-74	13	74	-76	78	358
Thermal 5{1}	0	73	-75	14	75	-77	78	0
GRT1{1}	0	74	-76	20	79	-81	83	0
GRT2{1}	0	78	-80	21	83	-85	88	2
GRT3{1}	0	74	-76	20	79	-81	83	0
GRT4{1}	0	72	-75	20	77	-79	82	0
GRT5{1}	0	73	-75	20	78	-80	83	2
E08 F- SIFI= 1.32 SIFO= 1.32								
Gravity{1}	0	18	-17	1	18	-17	18	85
Hydrotest{1}	43	17	17	0	43	17	38	270
Thermal 1{1}	0	78	-80	1	78	-80	80	337

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S_LINEREVO

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	----
	Thermal 2{1}	0	83	-85	2	83	-85	85	336
	Thermal 3{1}	0	78	-80	1	78	-80	80	337
	Thermal 4{1}	0	77	-79	1	77	-79	79	337
	Thermal 5{1}	0	78	-80	2	78	-80	80	336
	GRT1{1}	0	86	-87	2	86	-87	87	326
	GRT2{1}	0	90	-92	3	90	-92	92	326
	GRT3{1}	0	86	-87	2	86	-87	87	326
	GRT4{1}	0	84	-86	1	84	-86	86	326
	GRT5{1}	0	86	-87	3	86	-87	87	325

E08 F+ SIFI= 1.00 SIFO= 1.00									
	Gravity{1}	0	14	-13	1	14	-13	14	175
	Hydrotest{1}	43	17	17	0	43	17	38	270
	Thermal 1{1}	0	59	-61	1	59	-61	61	67
	Thermal 2{1}	0	62	-65	2	63	-65	65	66
	Thermal 3{1}	0	59	-61	1	59	-61	61	67
	Thermal 4{1}	0	58	-60	1	58	-60	60	67
	Thermal 5{1}	0	59	-61	2	59	-61	61	66
	GRT1{1}	0	65	-66	2	65	-66	66	56

GRT2{1}	0	68	-70	3	68	-70	70	56
GRT3{1}	0	65	-66	2	65	-66	66	56
GRT4{1}	0	64	-65	1	64	-65	65	56
GRT5{1}	0	65	-66	3	65	-66	66	55

0	15	-14	1	15	-14	15	189
43	17	17	0	43	17	38	270
0	0	-2	1	1	-2	2	177
0	0	-3	2	2	-3	4	173
0	0	-2	1	1	-2	2	178
0	0	-2	1	1	-2	2	153
0	1	-3	2	2	-3	4	130
0	13	-14	2	13	-14	15	10
0	12	-14	3	13	-14	15	11
0	13	-14	2	13	-14	15	10
0	13	-15	1	13	-15	15	11
0	13	-15	3	14	-15	15	15

0	20	-19	1	20	-19	20	241
43	17	17	0	43	17	38	270
0	0	-2	1	1	-3	3	229
0	1	-3	2	2	-4	4	226
0	0	-2	1	1	-3	3	231
0	0	-2	1	1	-2	2	205
0	1	-3	2	2	-4	4	182
0	17	-19	2	17	-19	19	62
0	17	-18	3	17	-19	19	63
0	17	-19	2	17	-19	19	62
0	18	-19	1	18	-19	19	64
0	18	-19	3	18	-19	19	68

Point	Load	Hoop	Longitudinal		Shear	Principal		Total	
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc

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		S_LINEREVO.OUT						
	Gravity{1}	0	11	-11	7	14	-14	16 170
	Hydrotest{1}	43	17	17	0	43	17	38 270
	Thermal 1{1}	0	11	-12	4	12	-13	14 250
	Thermal 2{1}	0	14	-15	4	15	-16	17 251
	Thermal 3{1}	0	11	-12	4	12	-13	13 250
	Thermal 4{1}	0	10	-11	3	11	-12	13 248
	Thermal 5{1}	0	14	-15	3	14	-15	16 247
	GRT1{1}	0	14	-15	3	14	-15	16 299
	GRT2{1}	0	16	-17	3	17	-18	18 292
	GRT3{1}	0	14	-15	3	14	-15	16 299
	GRT4{1}	0	13	-14	3	14	-15	15 299
	GRT5{1}	0	15	-16	3	16	-17	17 290
E09 F+ SIFI= 1.00 SIFO= 1.00								
	Gravity{1}	0	8	-8	7	12	-12	14 170
	Hydrotest{1}	43	17	17	0	43	17	38 270
	Thermal 1{1}	0	8	-9	4	9	-10	11 250
	Thermal 2{1}	0	10	-12	4	12	-13	14 251
	Thermal 3{1}	0	8	-9	4	9	-10	11 250
	Thermal 4{1}	0	8	-9	3	9	-10	11 248
	Thermal 5{1}	0	10	-11	3	11	-12	13 247
	GRT1{1}	0	10	-11	3	11	-12	12 299
	GRT2{1}	0	12	-13	3	13	-14	14 292
	GRT3{1}	0	10	-11	3	11	-12	12 299
	GRT4{1}	0	10	-11	3	11	-12	12 299
	GRT5{1}	0	11	-12	3	12	-13	14 290
E14 SIFI= 2.00 SIFO= 2.00								
	Gravity{1}	0	20	-20	7	22	-22	23 174
	Hydrotest{1}	43	17	17	0	43	17	38 270
	Thermal 1{1}	0	35	-36	4	35	-37	37 239
	Thermal 2{1}	0	41	-42	4	41	-42	43 240
	Thermal 3{1}	0	35	-36	4	35	-37	37 239
	Thermal 4{1}	0	34	-35	3	35	-36	36 238
	Thermal 5{1}	0	39	-40	3	40	-41	41 238
	GRT1{1}	0	32	-33	3	32	-33	33 272
	GRT2{1}	0	37	-39	3	38	-39	39 268
	GRT3{1}	0	32	-33	3	32	-33	33 272
	GRT4{1}	0	31	-32	3	31	-32	32 272
	GRT5{1}	0	35	-36	3	36	-37	37 268
E11 SIFI= 2.00 SIFO= 2.00								
	Gravity{1}	0	7	-7	2	8	-8	8 177
	Hydrotest{1}	47	19	19	0	47	19	41 270
	Thermal 1{1}	0	18	-19	1	18	-19	19 235
	Thermal 2{1}	0	20	-21	1	21	-21	21 236

S_LINEREVO.OUT

Thermal 3{1}	0	18	-19	1	18	-19	19	235
Thermal 4{1}	0	18	-18	1	18	-18	18	234
Thermal 5{1}	0	19	-20	1	20	-20	20	235
GRT1{1}	0	15	-16	1	16	-16	16	259
GRT2{1}	0	18	-18	1	18	-18	18	257

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point name	Load combination	Hoop Stress	Longitudinal Max	Min	Shear Stress	Principal Max	Min	Total Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	GRT3{1}	0	15	-16	1	16	-16	16	259
	GRT4{1}	0	15	-16	1	15	-16	16	258
	GRT5{1}	0	17	-17	1	17	-17	17	257
*** Segment E end ***									
*** Segment F begin ***									
D11	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	10	-10	4	11	-11	12 92
	Hydrotest{1}		43	17	17	0	43	17	38 270
	Thermal 1{1}		0	129	-136	22	133	-139	141 5
	Thermal 2{1}		0	127	-134	29	133	-140	143 23
	Thermal 3{1}		0	107	-114	28	114	-121	124 26
	Thermal 4{1}		0	91	-97	27	98	-104	108 30
	Thermal 5{1}		0	60	-63	22	67	-69	73 27
	GRT1{1}		0	130	-137	18	133	-139	140 10
	GRT2{1}		0	131	-138	25	136	-142	145 27
	GRT3{1}		0	111	-119	24	116	-123	126 31
	GRT4{1}		0	96	-102	23	101	-107	110 35
	GRT5{1}		0	65	-68	17	69	-72	74 34
F21	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	15	-15	4	16	-16	17 359
	Hydrotest{1}		43	17	17	0	43	17	38 270
	Thermal 1{1}		0	96	-102	22	101	-107	109 80
	Thermal 2{1}		0	94	-101	29	102	-109	113 61
	Thermal 3{1}		0	77	-84	28	86	-93	97 57
	Thermal 4{1}		0	67	-73	27	76	-82	87 52
	Thermal 5{1}		0	48	-51	22	56	-58	63 56

			S_LINEREV0.OUT						
	GRT1{1}		0	99	-105	18	102	-108	110 72
	GRT2{1}		0	102	-109	25	107	-114	117 54
	GRT3{1}		0	86	-93	24	92	-99	102 48
	GRT4{1}		0	77	-83	23	83	-89	92 43
	GRT5{1}		0	58	-60	17	62	-65	67 43
C014	SIFI= 1.00	SIFO= 1.00							
	Gravity{1}		0	16	-16	4	17	-17	17 359
	Hydrotest{1}		43	17	17	0	43	17	38 270
	Thermal 1{1}		0	27	-34	22	40	-45	51 23
	Thermal 2{1}		0	31	-38	29	48	-54	63 359
	Thermal 3{1}		0	32	-39	28	48	-54	62 340
	Thermal 4{1}		0	31	-37	27	47	-52	60 343
	Thermal 5{1}		0	27	-29	22	39	-41	48 12
	GRT1{1}		0	42	-48	18	49	-54	58 15
	GRT2{1}		0	47	-54	25	57	-64	69 359
	GRT3{1}		0	47	-55	24	57	-63	68 346
	GRT4{1}		0	47	-53	23	56	-61	66 348
	GRT5{1}		0	42	-45	17	48	-51	54 7
F17 N-	SIFI= 1.00	SIFO= 1.00							
	Gravity{1}		0	12	-12	4	13	-13	14 358

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
	Hydrotest{1}	43	17	17	0	43	17	38 270
	Thermal 1{1}	0	31	-37	22	43	-48	54 337
	Thermal 2{1}	0	37	-44	29	53	-58	67 320
	Thermal 3{1}	0	43	-51	28	57	-63	70 310
	Thermal 4{1}	0	39	-45	27	53	-58	65 315
	Thermal 5{1}	0	26	-29	22	39	-41	47 350
	GRT1{1}	0	42	-49	18	49	-55	58 343
	GRT2{1}	0	47	-54	25	58	-64	69 328
	GRT3{1}	0	52	-59	24	61	-68	72 320
	GRT4{1}	0	48	-54	23	57	-63	67 324
	GRT5{1}	0	38	-41	17	45	-47	51 353

			S_LINEREVO.00T							
F17 N+	SIFI= 1.32	SIFO= 1.32								
	Gravity{1}		0	16	-16	4	17	-17	17	88
	Hydrotest{1}		43	17	17	0	43	17	38	270
	Thermal 1{1}		0	42	-48	22	51	-57	62	67
	Thermal 2{1}		0	50	-57	29	63	-69	76	50
	Thermal 3{1}		0	58	-66	28	69	-76	82	40
	Thermal 4{1}		0	52	-58	27	64	-69	75	45
	Thermal 5{1}		0	35	-38	22	46	-48	53	80
	GRT1{1}		0	57	-63	18	62	-68	70	73
	GRT2{1}		0	63	-70	25	72	-78	82	58
	GRT3{1}		0	70	-77	24	77	-84	87	50
	GRT4{1}		0	65	-71	23	72	-77	81	54
	GRT5{1}		0	51	-54	17	56	-59	62	83
F17 F-	SIFI= 1.32	SIFO= 1.32								
	Gravity{1}		0	4	-4	7	9	-9	12	276
	Hydrotest{1}		43	17	17	0	43	17	38	270
	Thermal 1{1}		0	74	-82	2	74	-82	82	72
	Thermal 2{1}		0	89	-97	3	89	-97	97	64
	Thermal 3{1}		0	92	-100	3	92	-100	100	58
	Thermal 4{1}		0	86	-93	2	86	-93	93	62
	Thermal 5{1}		0	66	-70	0	66	-70	70	83
	GRT1{1}		0	71	-79	9	72	-80	80	71
	GRT2{1}		0	86	-94	4	86	-94	94	63
	GRT3{1}		0	89	-97	4	89	-97	97	57
	GRT4{1}		0	83	-90	4	83	-90	90	61
	GRT5{1}		0	63	-66	7	63	-67	67	82
F17 F+	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	3	-3	7	8	-8	12	186
	Hydrotest{1}		43	17	17	0	43	17	38	270
	Thermal 1{1}		0	55	-63	2	55	-63	63	342
	Thermal 2{1}		0	66	-75	3	66	-75	75	334
	Thermal 3{1}		0	68	-77	3	69	-77	77	328
	Thermal 4{1}		0	64	-71	2	64	-71	71	332
	Thermal 5{1}		0	50	-53	0	50	-53	53	353
	GRT1{1}		0	52	-61	9	54	-62	62	341
	GRT2{1}		0	64	-72	4	64	-72	73	333
	GRT3{1}		0	66	-74	4	66	-75	75	327
	GRT4{1}		0	62	-69	4	62	-69	69	331

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
F15	GRT5{1}		0	47	-50	7	48	-51	52	352
	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	12	-12	7	15	-15	17	181
	Hydrotest{1}		43	17	17	0	43	17	38	270
	Thermal 1{1}		0	60	-68	2	60	-68	68	5
	Thermal 2{1}		0	52	-60	3	52	-60	60	360
	Thermal 3{1}		0	51	-59	3	51	-59	59	357
	Thermal 4{1}		0	50	-56	2	50	-57	57	358
	Thermal 5{1}		0	50	-53	0	50	-53	53	4
	GRT1{1}		0	48	-56	9	49	-57	58	6
	GRT2{1}		0	40	-48	4	40	-49	49	359
	GRT3{1}		0	39	-47	4	39	-48	48	356
GRT4{1}		0	38	-45	4	38	-45	45	357	
GRT5{1}		0	38	-41	7	39	-42	43	6	
F14	SIFI= 1.00									
	Gravity{1}		0	12	-12	21	27	-27	38	179
	Hydrotest{1}		1	0	0	0	1	0	1	270
	Thermal 1{1}		0	110	-121	2	110	-121	121	34
	Thermal 2{1}		0	75	-86	4	75	-86	86	60
	Thermal 3{1}		0	84	-96	3	85	-96	96	63
	Thermal 4{1}		0	73	-83	3	73	-83	83	60
	Thermal 5{1}		0	62	-67	0	62	-67	67	28
	GRT1{1}		0	100	-111	18	103	-114	116	37
	GRT2{1}		0	69	-81	24	77	-88	92	68
	GRT3{1}		0	80	-91	24	87	-97	100	71
	GRT4{1}		0	68	-78	24	76	-84	88	68
GRT5{1}		0	52	-57	21	59	-63	67	34	
F02	SIFI= 2.00									
	Gravity{1}		0	12	-12	21	28	-28	38	3
	Hydrotest{1}		1	0	0	0	1	0	1	270
	Thermal 1{1}		0	265	-276	2	265	-276	276	42
	Thermal 2{1}		0	204	-215	4	204	-215	216	80
	Thermal 3{1}		0	239	-250	3	239	-250	250	81
	Thermal 4{1}		0	200	-210	3	200	-210	210	80
	Thermal 5{1}		0	125	-130	0	125	-130	130	41
	GRT1{1}		0	274	-286	18	276	-287	287	41
GRT2{1}		0	207	-218	24	209	-221	222	77	

GRT3{1}	0	241	-253	24	244	-255	256	79
GRT4{1}	0	203	-212	24	206	-215	216	77
GRT5{1}	0	135	-139	21	138	-142	144	38
SIFI= 2.00 SIF0= 2.00								
Gravity{1}	0	9	-9	7	12	-12	14	2
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	91	-97	1	91	-97	97	45
Thermal 2{1}	0	74	-79	1	74	-79	79	86
Thermal 3{1}	0	87	-92	1	87	-92	92	86
Thermal 4{1}	0	73	-77	1	73	-77	77	86
Thermal 5{1}	0	41	-43	0	41	-43	43	47

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Point	Load	Hoop	Longitudinal	Shear	Principal	Total				
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc	
-----	-----	-----	-----	-----	-----	-----	-----	-----	---	
	GRT1{1}	0	98	-103	6	98	-103	103	42	
	GRT2{1}	0	75	-81	8	76	-81	82	80	
	GRT3{1}	0	88	-94	8	89	-94	95	81	
	GRT4{1}	0	74	-78	8	75	-79	80	80	
	GRT5{1}	0	47	-49	7	48	-50	51	40	
F11 N-	SIFI= 1.00 Gravity{1}	SIF0= 1.00	0	6	-6	7	11	-11	13	1
	Hydrotest{1}		1	0	0	0	1	0	1	270
	Thermal 1{1}		0	47	-52	1	47	-52	52	47
	Thermal 2{1}		0	39	-45	1	39	-45	45	90
	Thermal 3{1}		0	46	-52	1	47	-52	52	89
	Thermal 4{1}		0	39	-43	1	39	-43	43	90
	Thermal 5{1}		0	20	-22	0	20	-22	22	52
	GRT1{1}		0	51	-57	6	52	-57	58	42
	GRT2{1}		0	40	-45	8	41	-47	47	81
	GRT3{1}		0	47	-53	8	48	-54	54	82
	GRT4{1}		0	39	-44	8	41	-45	46	81
	GRT5{1}		0	25	-27	7	26	-28	29	41
F11 N+	SIFI= 1.78 Gravity{1}	SIF0= 1.78	0	11	-11	7	14	-14	16	271

S_LINEREVO.OUT									
Hydrotest{1}	1	0	0	0	1	0	1	270	
Thermal 1{1}	0	85	-91	1	85	-91	91	317	
Thermal 2{1}	0	72	-77	1	72	-77	77	360	
Thermal 3{1}	0	85	-90	1	85	-90	90	359	
Thermal 4{1}	0	71	-75	1	71	-75	75	360	
Thermal 5{1}	0	37	-39	0	37	-39	39	322	
GRT1{1}	0	93	-99	6	94	-99	99	312	
GRT2{1}	0	73	-78	8	74	-79	80	351	
GRT3{1}	0	86	-91	8	87	-92	92	352	
GRT4{1}	0	72	-76	8	73	-77	78	351	
GRT5{1}	0	45	-47	7	46	-48	48	311	
F11 F- SIFI= 1.78 SIF0= 1.78									
Gravity{1}	0	10	-10	7	14	-14	16	89	
Hydrotest{1}	1	0	0	0	1	0	1	270	
Thermal 1{1}	0	66	-70	14	69	-73	75	329	
Thermal 2{1}	0	68	-73	0	68	-73	73	8	
Thermal 3{1}	0	82	-87	0	82	-87	87	6	
Thermal 4{1}	0	69	-73	0	69	-73	73	7	
Thermal 5{1}	0	28	-30	5	29	-31	31	339	
GRT1{1}	0	62	-66	21	68	-72	75	337	
GRT2{1}	0	70	-75	7	71	-75	76	16	
GRT3{1}	0	84	-89	7	85	-90	90	12	
GRT4{1}	0	71	-75	7	72	-76	76	15	
GRT5{1}	0	27	-29	12	31	-33	35	360	
F11 F+ SIFI= 1.00 SIF0= 1.00									
Gravity{1}	0	6	-6	7	10	-10	13	179	
Hydrotest{1}	1	0	0	0	1	0	1	270	
Thermal 1{1}	0	36	-41	14	41	-45	47	59	

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RESULT PAGE 205

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point name	Load combination	Hoop Stress	Longitudinal Max	Longitudinal Min	Shear Stress	Principal Max	Principal Min	Total Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	Thermal 2{1}	0	37	-42	0	37	-42	42	98
	Thermal 3{1}	0	45	-50	0	45	-50	50	96
	Thermal 4{1}	0	38	-42	0	38	-42	42	97
	Thermal 5{1}	0	16	-17	5	17	-19	20	69

S_LINEREVO.OUT								
GRT1{1}	0	34	-38	21	44	-47	53	67
GRT2{1}	0	38	-43	7	40	-44	45	106
GRT3{1}	0	46	-51	7	47	-52	53	102
GRT4{1}	0	39	-43	7	40	-44	45	105
GRT5{1}	0	15	-16	12	21	-23	27	90
F12 N- SIFI= 1.00 SIF0= 1.00								
Gravity{1}	0	4	-4	7	9	-9	13	178
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	32	-36	14	37	-41	44	54
Thermal 2{1}	0	32	-37	0	32	-37	37	102
Thermal 3{1}	0	41	-46	0	41	-46	46	99
Thermal 4{1}	0	34	-38	0	34	-38	38	100
Thermal 5{1}	0	13	-15	5	15	-17	18	69
GRT1{1}	0	30	-34	21	41	-44	50	60
GRT2{1}	0	34	-38	7	35	-39	40	109
GRT3{1}	0	42	-47	7	43	-48	48	104
GRT4{1}	0	36	-40	7	37	-41	41	107
GRT5{1}	0	13	-14	12	20	-21	25	87
F12 N+ SIFI= 1.78 SIF0= 1.78								
Gravity{1}	0	8	-8	7	12	-12	14	88
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	59	-63	14	62	-66	68	324
Thermal 2{1}	0	59	-64	0	59	-64	64	12
Thermal 3{1}	0	74	-79	0	74	-79	79	9
Thermal 4{1}	0	63	-67	0	63	-67	67	10
Thermal 5{1}	0	24	-26	5	25	-27	28	339
GRT1{1}	0	55	-59	21	62	-66	69	330
GRT2{1}	0	62	-66	7	62	-67	67	19
GRT3{1}	0	76	-81	7	77	-82	82	14
GRT4{1}	0	65	-69	7	65	-69	70	17
GRT5{1}	0	23	-25	12	28	-30	32	357
F12 F- SIFI= 1.78 SIF0= 1.78								
Gravity{1}	0	20	-20	1	20	-20	20	269
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	51	-47	11	53	-50	54	260
Thermal 2{1}	0	20	-16	6	21	-18	22	200
Thermal 3{1}	0	35	-31	5	36	-32	36	191
Thermal 4{1}	0	30	-27	5	31	-28	31	191
Thermal 5{1}	0	23	-22	2	23	-22	23	253
GRT1{1}	0	71	-67	10	72	-68	73	263
GRT2{1}	0	33	-29	6	34	-30	35	237
GRT3{1}	0	44	-40	6	44	-41	45	219

		S_LINEREVO.0UT						
GRT4{1}	0	39	-37	6	40	-37	41	222
GRT5{1}	0	42	-41	1	42	-41	42	261

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc

F12 F+	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	11	-11	1	11	-11	11 359
	Hydrotest{1}		1	0	0	0	1	0	1 270
	Thermal 1{1}		0	30	-26	11	33	-30	35 350
	Thermal 2{1}		0	12	-8	6	14	-11	15 290
	Thermal 3{1}		0	20	-17	5	22	-18	22 281
	Thermal 4{1}		0	17	-15	5	19	-16	20 281
	Thermal 5{1}		0	13	-12	2	14	-12	14 343
	GRT1{1}		0	41	-37	10	43	-39	44 353
	GRT2{1}		0	19	-16	6	21	-18	22 327
	GRT3{1}		0	25	-22	6	27	-23	27 309
	GRT4{1}		0	23	-20	6	24	-22	25 312
	GRT5{1}		0	24	-23	1	24	-23	24 351
F05 N-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	4	-4	1	4	-4	5 178
	Hydrotest{1}		1	0	0	0	1	0	1 270
	Thermal 1{1}		0	84	-80	11	85	-81	86 74
	Thermal 2{1}		0	91	-87	6	91	-87	91 70
	Thermal 3{1}		0	87	-84	5	88	-84	88 70
	Thermal 4{1}		0	73	-70	5	74	-71	74 67
	Thermal 5{1}		0	40	-38	2	40	-39	40 54
	GRT1{1}		0	83	-79	10	84	-80	85 77
	GRT2{1}		0	90	-86	6	90	-86	90 73
	GRT3{1}		0	86	-83	6	87	-83	87 73
	GRT4{1}		0	72	-69	6	72	-69	72 70
	GRT5{1}		0	38	-36	1	38	-36	38 60
F05 N+	SIFI= 1.78 Gravity{1}	SIFO= 1.78	0	8	-8	1	8	-8	8 268
	Hydrotest{1}		1	0	0	0	1	0	1 270
	Thermal 1{1}		0	147	-144	11	148	-145	149 164

			S_LINEREVO.OUT						
	GRT2{1}		0	107	-112	14	109	-113	114 262
	GRT3{1}		0	104	-109	13	105	-110	111 262
	GRT4{1}		0	85	-89	13	87	-91	92 261
	GRT5{1}		0	41	-43	9	43	-44	45 273
F23	SIFI= 2.00	SIFO= 2.00							
	Gravity{1}		0	3	-3	3	5	-5	6 354
	Hydrotest{1}		1	0	0	0	1	0	1 270
	Thermal 1{1}		0	226	-230	11	226	-231	231 281
	Thermal 2{1}		0	237	-241	17	238	-242	243 261
	Thermal 3{1}		0	228	-233	17	230	-235	235 261
	Thermal 4{1}		0	188	-192	16	190	-194	194 259
	Thermal 5{1}		0	90	-92	12	92	-94	94 270
	GRT1{1}		0	227	-231	8	227	-231	232 282
	GRT2{1}		0	236	-241	14	237	-242	242 262
	GRT3{1}		0	228	-233	13	229	-234	234 262
	GRT4{1}		0	188	-192	13	189	-193	193 261
	GRT5{1}		0	91	-92	9	92	-93	94 273
F10	SIFI= 2.00	SIFO= 2.00							
	Gravity{1}		0	3	-3	2	4	-4	4 357
	Hydrotest{1}		1	1	1	0	1	1	1 270
	Thermal 1{1}		0	131	-134	6	131	-134	134 281
	Thermal 2{1}		0	137	-141	9	138	-141	141 260
	Thermal 3{1}		0	132	-136	9	133	-136	136 260
	Thermal 4{1}		0	109	-112	9	110	-112	113 258
	Thermal 5{1}		0	52	-54	7	53	-54	55 269
	GRT1{1}		0	132	-135	4	132	-135	135 282
	GRT2{1}		0	137	-140	7	137	-141	141 262
	GRT3{1}		0	132	-135	7	132	-136	136 262
	GRT4{1}		0	108	-111	7	109	-112	112 260
	GRT5{1}		0	53	-54	5	53	-54	55 272
F13	SIFI= 1.00	SIFO= 1.00							
	Gravity{1}		0	3	-3	2	3	-3	4 358
	Hydrotest{1}		1	1	1	0	1	1	1 270
	Thermal 1{1}		0	72	-75	6	72	-75	76 280
	Thermal 2{1}		0	75	-79	9	77	-80	80 259
	Thermal 3{1}		0	72	-76	9	73	-77	77 259

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GENERAL PIPE STRESS REPORT

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S_LINEREVO.OUT
(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
	Thermal	4{1}	0	60	-63	9	61	-64	64	257
	Thermal	5{1}	0	29	-30	7	30	-32	32	267
	GRT1{1}		0	73	-76	4	73	-76	76	282
	GRT2{1}		0	75	-78	7	76	-79	79	261
	GRT3{1}		0	72	-75	7	73	-76	76	261
	GRT4{1}		0	59	-62	7	60	-63	63	260
	GRT5{1}		0	29	-30	5	30	-31	31	272
*** Segment F end ***										
*** Segment J begin ***										
D05	SIFI= 1.00	SIF0= 1.00								
	Gravity{1}		0	5	-6	0	5	-6	6	17
	Hydrotest{1}		34	13	13	0	34	13	29	270
	Thermal 1{1}		0	135	-137	14	137	-138	139	341
	Thermal 2{1}		0	159	-160	16	160	-162	163	336
	Thermal 3{1}		0	150	-151	15	151	-153	153	336
	Thermal 4{1}		0	135	-136	14	136	-138	138	336
	Thermal 5{1}		0	92	-93	9	93	-94	94	338
	GRT1{1}		0	139	-141	15	141	-143	144	342
	GRT2{1}		0	162	-165	17	164	-166	167	337
	GRT3{1}		0	153	-156	16	155	-157	158	338
	GRT4{1}		0	139	-141	14	140	-142	143	337
	GRT5{1}		0	96	-97	9	97	-98	99	340
J01	SIFI= 1.00	SIF0= 1.00								
	Gravity{1}		0	5	-6	0	5	-6	6	76
	Hydrotest{1}		34	13	13	0	34	13	29	270
	Thermal 1{1}		0	130	-131	14	131	-132	133	109
	Thermal 2{1}		0	152	-153	16	153	-155	156	114
	Thermal 3{1}		0	143	-145	15	145	-146	147	113
	Thermal 4{1}		0	129	-131	14	131	-132	133	114
	Thermal 5{1}		0	88	-89	9	89	-90	90	112
	GRT1{1}		0	133	-136	15	135	-137	138	107
	GRT2{1}		0	155	-158	17	157	-160	160	112
	GRT3{1}		0	147	-149	16	148	-151	152	112
	GRT4{1}		0	133	-135	14	134	-137	137	112
	GRT5{1}		0	92	-94	9	93	-95	95	110
J02	SIFI= 1.80	SIF0= 1.80								
	Gravity{1}		0	7	-7	0	7	-7	7	143
	Hydrotest{1}		34	13	13	0	34	13	29	270

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Thermal 1{1}	0	77	-78	14	80	-81	82	83
Thermal 2{1}	0	87	-88	16	90	-91	93	84
Thermal 3{1}	0	83	-84	15	86	-87	88	86
Thermal 4{1}	0	76	-77	14	78	-80	81	87
Thermal 5{1}	0	56	-57	9	58	-58	59	95
GRT1{1}	0	80	-82	15	83	-85	86	87
GRT2{1}	0	90	-93	17	93	-95	97	88
GRT3{1}	0	86	-89	16	89	-91	93	90
GRT4{1}	0	80	-82	14	82	-84	85	91

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
HV22	GRT5{1}		0	61	-62	9	62	-64	64	100
	SIFI= 1.80	SIFO= 1.80								
	Gravity{1}		0	8	-8	0	8	-8	8	336
	Hydrotest{1}		34	13	13	0	34	13	29	270
	Thermal 1{1}		0	54	-55	14	58	-59	61	60
	Thermal 2{1}		0	62	-64	16	66	-68	70	59
	Thermal 3{1}		0	58	-60	15	62	-63	65	62
	Thermal 4{1}		0	53	-55	14	57	-58	59	64
	Thermal 5{1}		0	38	-39	9	40	-41	42	81
	GRT1{1}		0	54	-55	15	58	-59	61	69
	GRT2{1}		0	62	-63	17	66	-67	70	66
	GRT3{1}		0	58	-60	16	62	-64	66	70
	GRT4{1}		0	54	-55	14	57	-58	60	73
GRT5{1}		0	41	-41	9	43	-43	44	91	
J04 N-	SIFI= 1.00									
	Gravity{1}		0	6	-5	0	6	-5	6	350
	Hydrotest{1}		34	13	13	0	34	13	29	270
	Thermal 1{1}		0	30	-31	14	36	-37	40	359
	Thermal 2{1}		0	39	-41	16	45	-47	50	359
	Thermal 3{1}		0	34	-36	15	40	-41	45	0
	Thermal 4{1}		0	31	-32	14	36	-37	40	3
	Thermal 5{1}		0	14	-14	9	18	-19	21	16
GRT1{1}		0	25	-26	15	32	-32	36	1	

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GRT2{1}	0	34	-36	17	41	-42	46	1
GRT3{1}	0	29	-30	16	36	-37	41	2
GRT4{1}	0	25	-27	14	32	-33	36	5
GRT5{1}	0	9	-10	9	15	-15	19	32

J04 N+ SIFI= 1.18 SIFO= 1.18
Gravity{1}

	0	7	-6	0	7	-6	7	350
Hydrotest{1}	34	13	13	0	34	13	29	270
Thermal 1{1}	0	36	-37	14	41	-42	44	359
Thermal 2{1}	0	47	-48	16	52	-53	56	359
Thermal 3{1}	0	41	-42	15	46	-47	50	0
Thermal 4{1}	0	36	-38	14	41	-42	44	3
Thermal 5{1}	0	16	-17	9	20	-21	23	16
GRT1{1}	0	30	-31	15	36	-36	40	1
GRT2{1}	0	40	-42	17	46	-48	51	1
GRT3{1}	0	35	-36	16	41	-42	45	2
GRT4{1}	0	30	-31	14	36	-37	40	5
GRT5{1}	0	11	-11	9	16	-17	20	32

J04 F- SIFI= 1.18 SIFO= 1.18
Gravity{1}

	0	6	-6	0	6	-6	6	351
Hydrotest{1}	34	13	13	0	34	13	29	270
Thermal 1{1}	0	45	-46	2	45	-46	46	39
Thermal 2{1}	0	56	-57	3	56	-57	57	35
Thermal 3{1}	0	50	-51	2	50	-51	51	37
Thermal 4{1}	0	45	-46	1	45	-46	46	37
Thermal 5{1}	0	24	-24	1	24	-24	24	49

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
								Loc
GRT1{1}		0	41	-42	2	41	-42	42
GRT2{1}		0	52	-53	2	52	-53	53
GRT3{1}		0	46	-47	2	46	-47	47
GRT4{1}		0	41	-41	1	41	-42	42
GRT5{1}		0	21	-22	1	21	-22	22

J04 F+ SIFI= 1.00 SIFO= 1.00

		S_LINEREVO.OUT							
	Gravity{1}	0	5	-5	0	5	-5	5	171
	Hydrotest{1}	34	13	13	0	34	13	29	270
	Thermal 1{1}	0	38	-39	2	38	-39	39	219
	Thermal 2{1}	0	47	-48	3	47	-48	49	215
	Thermal 3{1}	0	42	-43	2	42	-43	44	217
	Thermal 4{1}	0	38	-39	1	38	-39	39	217
	Thermal 5{1}	0	20	-21	1	20	-21	21	229
	GRT1{1}	0	35	-36	2	35	-36	36	225
	GRT2{1}	0	44	-45	2	44	-45	45	220
	GRT3{1}	0	39	-40	2	39	-40	40	223
	GRT4{1}	0	34	-35	1	34	-35	35	223
	GRT5{1}	0	18	-18	1	18	-18	18	243
J05 N-	SIFI= 1.00	SIF0= 1.00							
	Gravity{1}	0	1	-1	0	2	-1	2	181
	Hydrotest{1}	34	13	13	0	34	13	29	270
	Thermal 1{1}	0	10	-11	2	11	-11	12	172
	Thermal 2{1}	0	9	-11	3	10	-11	12	172
	Thermal 3{1}	0	8	-10	2	9	-10	10	172
	Thermal 4{1}	0	7	-8	1	7	-8	9	172
	Thermal 5{1}	0	4	-5	1	4	-5	5	169
	GRT1{1}	0	9	-10	2	9	-10	10	171
	GRT2{1}	0	8	-9	2	9	-10	10	171
	GRT3{1}	0	7	-8	2	7	-8	9	170
	GRT4{1}	0	6	-7	1	6	-7	7	170
	GRT5{1}	0	3	-3	1	3	-4	4	163
J05 N+	SIFI= 1.18	SIF0= 1.18							
	Gravity{1}	0	2	-2	0	2	-2	2	181
	Hydrotest{1}	34	13	13	0	34	13	29	270
	Thermal 1{1}	0	12	-13	2	12	-13	14	172
	Thermal 2{1}	0	11	-13	3	12	-13	13	172
	Thermal 3{1}	0	10	-11	2	10	-12	12	172
	Thermal 4{1}	0	9	-10	1	9	-10	10	172
	Thermal 5{1}	0	5	-6	1	5	-6	6	169
	GRT1{1}	0	10	-11	2	11	-12	12	171
	GRT2{1}	0	10	-11	2	10	-11	12	171
	GRT3{1}	0	9	-10	2	9	-10	10	170
	GRT4{1}	0	7	-8	1	7	-8	8	170
	GRT5{1}	0	3	-4	1	4	-4	4	163
J05 F-	SIFI= 1.18	SIF0= 1.18							
	Gravity{1}	0	1	-1	0	1	-1	1	141
	Hydrotest{1}	34	13	13	0	34	13	29	270
	Thermal 1{1}	0	15	-16	3	16	-17	17	137

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
	Thermal 2{1}		0	15	-17	3	16	-17	17	130
	Thermal 3{1}		0	13	-15	3	14	-15	15	132
	Thermal 4{1}		0	10	-12	3	11	-12	13	136
	Thermal 5{1}		0	5	-6	2	6	-6	7	162
	GRT1{1}		0	14	-15	3	14	-15	16	137
	GRT2{1}		0	14	-15	3	15	-16	16	129
	GRT3{1}		0	12	-13	3	13	-14	14	131
	GRT4{1}		0	9	-10	3	10	-11	11	136
	GRT5{1}		0	4	-4	2	5	-5	5	168
J05 F+	SIFI= 1.00	SIF0= 1.00								
	Gravity{1}		0	1	-1	0	1	-1	1	321
	Hydrotest{1}		34	13	13	0	34	13	29	270
	Thermal 1{1}		0	13	-14	3	13	-14	15	317
	Thermal 2{1}		0	13	-14	3	13	-15	15	310
	Thermal 3{1}		0	11	-12	3	12	-13	13	312
	Thermal 4{1}		0	9	-10	3	9	-11	11	316
	Thermal 5{1}		0	4	-5	2	5	-5	6	342
	GRT1{1}		0	12	-13	3	12	-13	14	317
	GRT2{1}		0	12	-13	3	12	-14	14	309
	GRT3{1}		0	10	-11	3	11	-12	12	311
	GRT4{1}		0	8	-9	3	9	-10	10	316
	GRT5{1}		0	3	-4	2	4	-5	5	348
J17	SIFI= 1.00	SIF0= 1.00								
	Gravity{1}		0	2	-2	0	2	-2	2	0
	Hydrotest{1}		34	13	13	0	34	13	29	270
	Thermal 1{1}		0	38	-39	3	38	-40	40	306
	Thermal 2{1}		0	44	-45	3	44	-46	46	307
	Thermal 3{1}		0	40	-41	3	40	-42	42	307
	Thermal 4{1}		0	35	-36	3	35	-36	36	308
	Thermal 5{1}		0	20	-20	2	20	-21	21	309
	GRT1{1}		0	37	-38	3	37	-38	38	303
	GRT2{1}		0	43	-44	3	43	-44	44	305

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GRT3{1}	0	39	-40	3	39	-40	40	305	
GRT4{1}	0	34	-35	3	34	-35	35	306	
GRT5{1}	0	19	-19	2	19	-19	19	304	
J13 N- SIFI= 1.00 SIF0= 1.00 Gravity{1}									
	0	7	-6	0	7	-6	7	176	
Hydrotest{1}	34	13	13	0	34	13	29	270	
Thermal 1{1}	0	22	-23	3	23	-24	24	324	
Thermal 2{1}	0	28	-29	3	28	-30	30	328	
Thermal 3{1}	0	25	-26	3	25	-27	27	328	
Thermal 4{1}	0	22	-23	3	22	-24	24	329	
Thermal 5{1}	0	11	-12	2	12	-12	12	325	
GRT1{1}	0	28	-29	3	29	-29	29	331	
GRT2{1}	0	34	-35	3	34	-35	35	333	
GRT3{1}	0	31	-32	3	31	-32	32	333	
GRT4{1}	0	28	-29	3	28	-29	29	335	
GRT5{1}	0	17	-17	2	18	-18	18	156	

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GENERAL PIPE STRESS REPORT									
(Stress in N/mm2)									
Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc

J13 N+	SIFI= 1.18 SIF0= 1.18 Gravity{1}	0	8	-7	0	8	-7	8	176
	Hydrotest{1}	34	13	13	0	34	13	29	270
	Thermal 1{1}	0	26	-28	3	27	-28	28	324
	Thermal 2{1}	0	33	-35	3	33	-35	35	328
	Thermal 3{1}	0	30	-31	3	30	-31	31	328
	Thermal 4{1}	0	26	-27	3	26	-28	28	329
	Thermal 5{1}	0	13	-14	2	14	-14	14	325
	GRT1{1}	0	33	-34	3	34	-34	34	331
	GRT2{1}	0	40	-41	3	40	-41	41	333
	GRT3{1}	0	37	-38	3	37	-38	38	333
	GRT4{1}	0	33	-34	3	34	-34	34	335
	GRT5{1}	0	21	-20	2	21	-21	21	156
J13 F-	SIFI= 1.18 SIF0= 1.18 Gravity{1}	0	10	-10	0	10	-10	10	359
	Hydrotest{1}	34	13	13	0	34	13	29	270

S_LINEREV0.OUT

Thermal 1{1}	0	19	-19	6	21	-21	22	161
Thermal 2{1}	0	24	-24	7	26	-26	27	164
Thermal 3{1}	0	21	-21	7	23	-23	24	163
Thermal 4{1}	0	19	-19	6	21	-21	22	163
Thermal 5{1}	0	10	-10	3	11	-11	12	158
GRT1{1}	0	29	-29	7	30	-30	31	347
GRT2{1}	0	34	-34	7	35	-35	36	349
GRT3{1}	0	31	-31	7	33	-33	33	348
GRT4{1}	0	29	-29	6	30	-30	31	349
GRT5{1}	0	20	-20	3	20	-20	21	348

J13 F+ SIFI= 1.00 SIFO= 1.00
Gravity{1}

Gravity{1}	0	8	-9	0	8	-9	9	179
Hydrotest{1}	34	13	13	0	34	13	29	270
Thermal 1{1}	0	16	-16	6	18	-18	19	341
Thermal 2{1}	0	20	-20	7	22	-22	24	344
Thermal 3{1}	0	18	-18	7	20	-20	21	343
Thermal 4{1}	0	16	-16	6	18	-18	19	343
Thermal 5{1}	0	9	-9	3	10	-10	10	338
GRT1{1}	0	24	-24	7	26	-26	27	167
GRT2{1}	0	28	-29	7	30	-30	31	169
GRT3{1}	0	26	-26	7	28	-28	29	168
GRT4{1}	0	25	-25	6	26	-26	27	169
GRT5{1}	0	17	-17	3	17	-17	18	168

J14 N- SIFI= 1.00 SIFO= 1.00
Gravity{1}

Gravity{1}	0	0	-1	0	1	-1	1	60
Hydrotest{1}	34	13	13	0	34	13	29	270
Thermal 1{1}	0	36	-36	6	37	-37	37	172
Thermal 2{1}	0	55	-55	7	56	-56	56	174
Thermal 3{1}	0	47	-47	7	48	-48	49	174
Thermal 4{1}	0	42	-42	6	43	-43	44	174
Thermal 5{1}	0	15	-15	3	16	-16	16	173
GRT1{1}	0	36	-36	7	37	-37	38	353
GRT2{1}	0	55	-55	7	56	-56	57	354

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RESULT PAGE 213

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total

name	combination	S_LINEREV0.OUT							Loc
		Stress	Max	Min	Stress	Max	Min	Stress	
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	GRT3{1}	0	48	-48	7	49	-49	49	354
	GRT4{1}	0	43	-43	6	43	-43	44	355
	GRT5{1}	0	15	-15	3	16	-16	16	355
J14 N+	SIFI= 1.18 Gravity{1}	0	1	-1	0	1	-1	1	60
	Hydrotest{1}	34	13	13	0	34	13	29	270
	Thermal 1{1}	0	42	-42	6	43	-43	44	172
	Thermal 2{1}	0	65	-65	7	66	-66	66	174
	Thermal 3{1}	0	56	-56	7	57	-57	57	174
	Thermal 4{1}	0	50	-50	6	51	-51	51	174
	Thermal 5{1}	0	18	-18	3	18	-18	19	173
	GRT1{1}	0	42	-43	7	43	-44	44	353
	GRT2{1}	0	65	-65	7	66	-66	66	354
	GRT3{1}	0	56	-56	7	57	-57	58	354
	GRT4{1}	0	50	-50	6	51	-51	51	355
	GRT5{1}	0	18	-18	3	19	-19	19	355
J14 F-	SIFI= 1.18 Gravity{1}	0	1	-1	0	1	-1	1	67
	Hydrotest{1}	34	13	13	0	34	13	29	270
	Thermal 1{1}	0	47	-48	3	47	-48	49	17
	Thermal 2{1}	0	71	-72	3	71	-73	73	13
	Thermal 3{1}	0	62	-63	3	62	-63	63	14
	Thermal 4{1}	0	55	-56	2	55	-56	56	13
	Thermal 5{1}	0	21	-21	1	21	-21	21	20
	GRT1{1}	0	48	-49	3	48	-49	49	18
	GRT2{1}	0	71	-73	3	71	-73	73	13
	GRT3{1}	0	62	-63	3	62	-63	63	14
	GRT4{1}	0	55	-57	2	55	-57	57	14
	GRT5{1}	0	21	-22	1	21	-22	22	22
J14 F+	SIFI= 1.00 Gravity{1}	0	1	-1	0	1	-1	1	247
	Hydrotest{1}	34	13	13	0	34	13	29	270
	Thermal 1{1}	0	40	-41	3	40	-41	41	197
	Thermal 2{1}	0	60	-61	3	60	-62	62	193
	Thermal 3{1}	0	52	-53	3	52	-53	54	194
	Thermal 4{1}	0	46	-48	2	46	-48	48	193
	Thermal 5{1}	0	17	-18	1	17	-18	18	200
	GRT1{1}	0	40	-41	3	40	-41	42	198
	GRT2{1}	0	60	-62	3	60	-62	62	193
	GRT3{1}	0	52	-54	3	52	-54	54	194
	GRT4{1}	0	47	-48	2	47	-48	48	194

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GRT5{1}	0	18	-18	1	18	-18	18	202
J15 N- SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	5	-4	0	5	-4	5	170
Hydrotest{1}	34	13	13	0	34	13	29	270
Thermal 1{1}	0	40	-41	3	41	-42	42	183
Thermal 2{1}	0	60	-61	3	60	-61	62	182
Thermal 3{1}	0	52	-53	3	52	-54	54	182

0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
-----	-----	-----	-----	-----	-----	-----	-----	---
	Thermal 4{1}	0	47	-48	2	47	-48	48 182
	Thermal 5{1}	0	18	-19	1	18	-19	19 184
	GRT1{1}	0	36	-37	3	36	-37	37 184
	GRT2{1}	0	55	-57	3	56	-57	57 183
	GRT3{1}	0	48	-49	3	48	-49	49 183
	GRT4{1}	0	42	-43	2	42	-43	43 183
	GRT5{1}	0	14	-14	1	14	-14	14 188
J15 N+ SIFI= 1.18 SIFO= 1.18 Gravity{1}	0	5	-5	0	5	-5	5	350
	Hydrotest{1}	34	13	13	0	34	13	29 270
	Thermal 1{1}	0	48	-49	3	48	-49	49 3
	Thermal 2{1}	0	71	-72	3	71	-72	73 2
	Thermal 3{1}	0	62	-63	3	62	-63	63 2
	Thermal 4{1}	0	55	-56	2	55	-56	57 2
	Thermal 5{1}	0	21	-22	1	21	-22	22 4
	GRT1{1}	0	43	-44	3	43	-44	44 4
	GRT2{1}	0	66	-67	3	66	-67	67 3
	GRT3{1}	0	57	-58	3	57	-58	58 3
	GRT4{1}	0	50	-51	2	50	-51	51 3
	GRT5{1}	0	16	-17	1	16	-17	17 8
J15 F- SIFI= 1.18 SIFO= 1.18 Gravity{1}	0	5	-5	0	5	-5	5	6
	Hydrotest{1}	34	13	13	0	34	13	29 270
	Thermal 1{1}	0	45	-45	1	45	-45	45 7

S_LINEREVO.OUT									
Thermal 2{1}	0	67	-67	1	67	-67	67	6	
Thermal 3{1}	0	58	-58	1	58	-58	58	6	
Thermal 4{1}	0	52	-52	1	52	-52	52	6	
Thermal 5{1}	0	20	-20	0	20	-20	20	6	
GRT1{1}	0	40	-40	1	40	-40	40	188	
GRT2{1}	0	62	-62	1	62	-62	62	186	
GRT3{1}	0	53	-53	1	53	-53	53	186	
GRT4{1}	0	47	-47	1	47	-47	47	186	
GRT5{1}	0	15	-15	1	15	-15	15	186	
J15 F+ SIFI= 1.00 SIFO= 1.00									
Gravity{1}	0	4	-4	0	4	-4	4	186	
Hydrotest{1}	34	13	13	0	34	13	29	270	
Thermal 1{1}	0	38	-38	1	38	-38	38	187	
Thermal 2{1}	0	56	-57	1	56	-57	57	186	
Thermal 3{1}	0	49	-49	1	49	-49	49	186	
Thermal 4{1}	0	44	-44	1	44	-44	44	186	
Thermal 5{1}	0	17	-17	0	17	-17	17	186	
GRT1{1}	0	34	-34	1	34	-34	34	8	
GRT2{1}	0	52	-52	1	52	-52	52	6	
GRT3{1}	0	45	-45	1	45	-45	45	6	
GRT4{1}	0	40	-40	1	40	-40	40	6	
GRT5{1}	0	13	-13	1	13	-13	13	6	
J11 N- SIFI= 1.00 SIFO= 1.00									
Gravity{1}	0	7	-6	0	7	-6	7	359	

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
								Loc
Hydrotest{1}		34	13	13	0	34	13	29 270
Thermal 1{1}		0	14	-14	1	14	-14	14 22
Thermal 2{1}		0	19	-19	1	19	-19	19 17
Thermal 3{1}		0	16	-16	1	16	-17	17 18
Thermal 4{1}		0	15	-15	1	15	-15	15 18
Thermal 5{1}		0	7	-7	0	7	-7	7 29
GRT1{1}		0	8	-8	1	8	-8	8 221
GRT2{1}		0	13	-13	1	13	-13	13 206

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GRT3{1}	0	11	-11	1	11	-11	11	210
GRT4{1}	0	9	-9	1	9	-9	9	213
GRT5{1}	0	3	-3	1	4	-4	4	279
J11 N+ SIFI= 1.18 SIF0= 1.18 Gravity{1}	0	8	-8	0	8	-8	8	359
Hydrotest{1}	34	13	13	0	34	13	29	270
Thermal 1{1}	0	16	-16	1	16	-16	16	22
Thermal 2{1}	0	22	-22	1	22	-22	22	17
Thermal 3{1}	0	19	-20	1	19	-20	20	18
Thermal 4{1}	0	17	-17	1	17	-17	17	18
Thermal 5{1}	0	8	-8	0	8	-8	8	29
GRT1{1}	0	10	-10	1	10	-10	10	221
GRT2{1}	0	15	-15	1	15	-15	15	206
GRT3{1}	0	13	-13	1	13	-13	13	210
GRT4{1}	0	11	-11	1	11	-11	11	213
GRT5{1}	0	4	-4	1	4	-4	4	279
J11 F- SIFI= 1.18 SIF0= 1.18 Gravity{1}	0	9	-8	0	9	-8	9	6
Hydrotest{1}	34	13	13	0	34	13	29	270
Thermal 1{1}	0	18	-19	3	18	-19	19	357
Thermal 2{1}	0	25	-27	3	26	-27	27	358
Thermal 3{1}	0	22	-24	3	23	-24	24	357
Thermal 4{1}	0	20	-21	3	20	-21	22	358
Thermal 5{1}	0	8	-9	2	9	-9	9	356
GRT1{1}	0	10	-10	3	11	-11	12	349
GRT2{1}	0	17	-18	3	18	-19	19	354
GRT3{1}	0	14	-15	3	15	-16	16	352
GRT4{1}	0	12	-13	3	12	-13	13	352
GRT5{1}	0	2	-2	2	3	-3	4	272
J11 F+ SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	7	-7	0	7	-7	7	6
Hydrotest{1}	34	13	13	0	34	13	29	270
Thermal 1{1}	0	15	-16	3	15	-16	17	357
Thermal 2{1}	0	21	-23	3	22	-23	24	358
Thermal 3{1}	0	19	-20	3	19	-20	21	357
Thermal 4{1}	0	17	-18	3	17	-18	18	358
Thermal 5{1}	0	7	-7	2	7	-8	8	356
GRT1{1}	0	8	-9	3	9	-10	10	349
GRT2{1}	0	14	-16	3	15	-16	17	354
GRT3{1}	0	12	-13	3	13	-14	14	352
GRT4{1}	0	10	-11	3	11	-11	12	352

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
J18		GRT5{1}	0	1	-1	2	3	-3	3	272
		SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	2	-1	0	2	-1	2	103
		Hydrotest{1}	34	13	13	0	34	13	29	270
		Thermal 1{1}	0	19	-20	3	19	-20	20	52
		Thermal 2{1}	0	26	-27	3	26	-27	28	41
		Thermal 3{1}	0	22	-24	3	23	-24	24	43
		Thermal 4{1}	0	20	-21	3	20	-21	21	42
		Thermal 5{1}	0	8	-9	2	9	-9	9	59
		GRT1{1}	0	18	-19	3	19	-19	19	49
		GRT2{1}	0	25	-26	3	26	-27	27	39
		GRT3{1}	0	22	-23	3	22	-23	23	40
		GRT4{1}	0	19	-20	3	20	-20	20	39
		GRT5{1}	0	8	-8	2	8	-8	8	233
J07	-	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	8	-6	0	8	-6	8	359
		Hydrotest{1}	34	13	13	0	34	13	29	270
		Thermal 1{1}	0	12	-13	3	13	-14	14	17
		Thermal 2{1}	0	16	-17	3	16	-18	18	22
		Thermal 3{1}	0	14	-15	3	14	-16	16	21
		Thermal 4{1}	0	12	-13	3	13	-14	14	22
		Thermal 5{1}	0	5	-6	2	6	-6	7	14
		GRT1{1}	0	6	-6	3	8	-7	8	216
		GRT2{1}	0	10	-11	3	11	-11	12	37
		GRT3{1}	0	8	-8	3	9	-9	10	219
		GRT4{1}	0	7	-7	3	8	-8	8	225
		GRT5{1}	0	3	-2	2	4	-3	4	317
	J07	+	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	7	-7	0	7	-7	7
		Hydrotest{1}	34	13	13	0	34	13	29	270
		Thermal 1{1}	0	13	-13	2	13	-14	14	205
		Thermal 2{1}	0	16	-17	3	17	-17	17	202
		Thermal 3{1}	0	15	-15	3	15	-15	15	203

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	Thermal 4{1}	0	13	-13	2	13	-13	14	204
	Thermal 5{1}	0	6	-7	1	7	-7	7	213
	GRT1{1}	0	8	-8	2	8	-8	8	229
	GRT2{1}	0	10	-11	3	11	-11	12	217
	GRT3{1}	0	9	-9	3	10	-10	10	222
	GRT4{1}	0	7	-7	2	8	-8	8	228
	GRT5{1}	0	4	-4	1	4	-4	4	292
J08	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	64	-64	0	64	-64	64	360
	Hydrotest{1}	34	13	13	0	34	13	29	270
	Thermal 1{1}	0	32	-32	2	32	-32	33	28
	Thermal 2{1}	0	50	-50	3	50	-50	50	22
	Thermal 3{1}	0	43	-44	3	44	-44	44	23
	Thermal 4{1}	0	39	-40	2	40	-40	40	23
	Thermal 5{1}	0	15	-16	1	15	-16	16	33

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
J09		GRT1{1}	0	39	-39	2	39	-39	39	156
		GRT2{1}	0	26	-26	3	27	-27	27	133
		GRT3{1}	0	30	-30	3	30	-30	30	144
		GRT4{1}	0	32	-32	2	32	-32	32	150
		GRT5{1}	0	52	-52	1	52	-52	52	170
		SIFI= 2.00 Gravity{1}	0	18	-18	0	18	-18	18	360
		SIFO= 2.00 Hydrotest{1}	41	16	16	0	41	16	36	270
		Thermal 1{1}	0	9	-9	0	9	-9	9	22
		Thermal 2{1}	0	14	-14	1	14	-14	14	18
		Thermal 3{1}	0	12	-13	1	12	-13	13	19
		Thermal 4{1}	0	11	-11	1	11	-11	11	18
		Thermal 5{1}	0	4	-4	0	4	-4	4	26
		GRT1{1}	0	10	-10	0	10	-10	10	158
	GRT2{1}	0	6	-6	1	6	-6	6	132	
	GRT3{1}	0	7	-7	1	7	-7	7	145	

			S_LINEREVO.OUT						
	GRT4{1}		0	8	-8	1	8	-8	8 152
	GRT5{1}		0	14	-14	0	14	-14	14 172
J10	SIFI= 1.00	SIFO= 1.00							
	Gravity{1}		0	12	-12	0	12	-12	12 360
	Hydrotest{1}		41	16	16	0	41	16	36 270
	Thermal 1{1}		0	7	-7	0	7	-7	7 17
	Thermal 2{1}		0	10	-10	1	10	-10	10 14
	Thermal 3{1}		0	9	-9	1	9	-9	9 15
	Thermal 4{1}		0	8	-8	1	8	-8	8 14
	Thermal 5{1}		0	3	-3	0	3	-3	3 19
	GRT1{1}		0	6	-6	0	6	-6	6 161
	GRT2{1}		0	3	-3	1	4	-4	4 133
	GRT3{1}		0	4	-4	1	4	-4	4 148
	GRT4{1}		0	5	-5	1	5	-5	5 156
	GRT5{1}		0	9	-9	0	9	-9	9 173

*** Segment J end ***

*** Segment K begin ***

J07	SIFI= 1.00	SIFO= 1.00							
	Gravity{1}		0	0	0	0	0	0	0 270
	Hydrotest{1}		34	13	13	0	34	13	29 270
	Thermal 1{1}		0	0	0	0	0	0	0 90
	Thermal 2{1}		0	0	0	0	0	0	0 90
	Thermal 3{1}		0	0	0	0	0	0	0 90
	Thermal 4{1}		0	0	0	0	0	0	0 90
	Thermal 5{1}		0	0	0	0	0	0	0 90
	GRT1{1}		0	0	0	0	0	0	0 270
	GRT2{1}		0	0	0	0	0	0	0 270
	GRT3{1}		0	0	0	0	0	0	0 270
	GRT4{1}		0	0	0	0	0	0	0 270
	GRT5{1}		0	0	0	0	0	0	0 270

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal		Shear	Principal		Total	
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
K01	SIFI= 2.00								
	Gravity{1}	0	0	0	0	0	0	0	270

S_LINEREVO.OUT

	Hydrotest{1}	34	13	13	0	34	13	29	270
	Thermal 1{1}	0	0	0	0	0	0	0	90
	Thermal 2{1}	0	0	0	0	0	0	0	90
	Thermal 3{1}	0	0	0	0	0	0	0	90
	Thermal 4{1}	0	0	0	0	0	0	0	90
	Thermal 5{1}	0	0	0	0	0	0	0	90
	GRT1{1}	0	0	0	0	0	0	0	270
	GRT2{1}	0	0	0	0	0	0	0	270
	GRT3{1}	0	0	0	0	0	0	0	270
	GRT4{1}	0	0	0	0	0	0	0	270
	GRT5{1}	0	0	0	0	0	0	0	270
K02	SIFI= 2.30 SIFO= 2.30 Gravity{1}	0	0	0	0	0	0	0	270
	Hydrotest{1}	21	6	6	0	21	6	18	270
	Thermal 1{1}	0	0	0	0	0	0	0	90
	Thermal 2{1}	0	0	0	0	0	0	0	90
	Thermal 3{1}	0	0	0	0	0	0	0	90
	Thermal 4{1}	0	0	0	0	0	0	0	90
	Thermal 5{1}	0	0	0	0	0	0	0	90
	GRT1{1}	0	0	0	0	0	0	0	270
	GRT2{1}	0	0	0	0	0	0	0	270
	GRT3{1}	0	0	0	0	0	0	0	270
	GRT4{1}	0	0	0	0	0	0	0	270
	GRT5{1}	0	0	0	0	0	0	0	270
*** Segment K end ***									
*** Segment L begin ***									
B04	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	1	-2	0	1	-2	2	248
	Hydrotest{1}	43	17	17	0	43	17	38	270
	Thermal 1{1}	0	125	-131	10	126	-132	132	325
	Thermal 2{1}	0	130	-137	11	131	-138	138	324
	Thermal 3{1}	0	125	-131	10	126	-132	132	325
	Thermal 4{1}	0	123	-129	10	124	-130	130	325
	Thermal 5{1}	0	122	-129	10	122	-129	130	323
	GRT1{1}	0	125	-132	10	126	-133	133	324
	GRT2{1}	0	130	-138	10	131	-138	139	323
	GRT3{1}	0	125	-132	10	126	-133	133	324
	GRT4{1}	0	123	-130	10	124	-131	131	324
	GRT5{1}	0	122	-129	10	123	-130	130	323
L01	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	1	-2	0	1	-2	2	207
	Hydrotest{1}	43	17	17	0	43	17	38	270

		S_LINEREV0.OUT						
Thermal 1{1}	0	122	-129	10	123	-129	130	126
Thermal 2{1}	0	127	-134	11	128	-135	136	128
Thermal 3{1}	0	122	-129	10	123	-129	130	126

0

S_LINEREV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total	
name	combination	Stress	Max	Min	Stress	Max	Min

|--|--|--|--|--|--|--|--|

Thermal 4{1}	0	120	-127	10	121	-127	128	126
Thermal 5{1}	0	119	-126	10	120	-127	127	128
GRT1{1}	0	122	-129	10	123	-130	130	127
GRT2{1}	0	127	-135	10	128	-136	136	128
GRT3{1}	0	122	-129	10	123	-130	130	127
GRT4{1}	0	120	-127	10	121	-128	128	127
GRT5{1}	0	119	-127	10	120	-128	128	128

L02	SIFI= 1.00 SIFO= 1.00							
Gravity{1}	0	2	-2	0	2	-2	2	350
Hydrotest{1}	43	17	17	0	43	17	38	270
Thermal 1{1}	0	104	-110	10	105	-111	112	138
Thermal 2{1}	0	110	-118	11	111	-119	119	140
Thermal 3{1}	0	104	-110	10	105	-111	112	138
Thermal 4{1}	0	102	-108	10	103	-109	110	138
Thermal 5{1}	0	104	-111	10	105	-112	112	140
GRT1{1}	0	102	-109	10	103	-110	110	138
GRT2{1}	0	108	-116	10	109	-117	118	140
GRT3{1}	0	102	-109	10	103	-110	110	138
GRT4{1}	0	100	-107	10	101	-108	108	137
GRT5{1}	0	102	-109	10	103	-110	111	140

HV23	SIFI= 1.00 SIFO= 1.00							
Gravity{1}	0	4	-3	0	4	-3	4	176
Hydrotest{1}	43	17	17	0	43	17	38	270
Thermal 1{1}	0	97	-104	10	98	-105	105	145
Thermal 2{1}	0	105	-112	11	106	-113	114	147
Thermal 3{1}	0	97	-104	10	98	-105	105	145
Thermal 4{1}	0	96	-102	10	97	-103	103	144
Thermal 5{1}	0	99	-106	10	100	-107	107	147
GRT1{1}	0	95	-101	10	96	-102	102	144

S_LINEREV0.OUT

GRT2{1}			0	102	-109	10	103	-110	110	146
GRT3{1}			0	95	-101	10	96	-102	102	144
GRT4{1}			0	93	-99	10	94	-100	100	143
GRT5{1}			0	96	-103	10	97	-104	104	146
L03 N-	SIFI= 1.00	SIFO= 1.00								
Gravity{1}			0	5	-4	0	5	-4	5	178
Hydrotest{1}			43	17	17	0	43	17	38	270
Thermal 1{1}			0	94	-100	10	95	-101	102	150
Thermal 2{1}			0	102	-109	11	103	-110	111	152
Thermal 3{1}			0	94	-100	10	95	-101	102	150
Thermal 4{1}			0	92	-98	10	93	-99	100	149
Thermal 5{1}			0	96	-103	10	98	-104	105	152
GRT1{1}			0	90	-96	10	91	-97	97	148
GRT2{1}			0	98	-105	10	99	-106	106	151
GRT3{1}			0	90	-96	10	91	-97	97	148
GRT4{1}			0	88	-94	10	89	-95	95	148
GRT5{1}			0	93	-99	10	94	-100	101	151
L03 N+	SIFI= 1.32	SIFO= 1.32								
Gravity{1}			0	6	-6	0	6	-6	6	358

0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
								Loc

Hydrotest{1}		43	17	17	0	43	17	38 270
Thermal 1{1}		0	125	-131	10	126	-132	132 330
Thermal 2{1}		0	136	-143	11	137	-144	144 332
Thermal 3{1}		0	125	-131	10	126	-132	132 330
Thermal 4{1}		0	122	-129	10	123	-129	130 329
Thermal 5{1}		0	129	-136	10	129	-136	137 332
GRT1{1}		0	120	-126	10	121	-127	127 328
GRT2{1}		0	131	-138	10	132	-138	139 331
GRT3{1}		0	120	-126	10	121	-127	127 328
GRT4{1}		0	118	-123	10	118	-124	124 328
GRT5{1}		0	124	-130	10	124	-131	131 331

L03 F- SIFI= 1.32 SIFO= 1.32

S_LINEREVO.OUT								
Gravity{1}	0	4	-4	0	4	-4	4	353
Hydrotest{1}	43	17	17	0	43	17	38	270
Thermal 1{1}	0	88	-89	22	94	-94	97	346
Thermal 2{1}	0	98	-98	23	103	-103	106	347
Thermal 3{1}	0	88	-89	22	94	-94	97	346
Thermal 4{1}	0	87	-87	22	92	-92	95	346
Thermal 5{1}	0	93	-93	21	97	-98	100	347
GRT1{1}	0	85	-85	22	90	-90	93	345
GRT2{1}	0	94	-94	23	99	-99	102	346
GRT3{1}	0	85	-85	22	90	-90	93	345
GRT4{1}	0	83	-83	22	88	-88	91	345
GRT5{1}	0	89	-89	21	94	-94	97	347
L03 F+ SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	3	-3	0	3	-3	3	173
Hydrotest{1}	43	17	17	0	43	17	38	270
Thermal 1{1}	0	67	-67	22	74	-74	78	166
Thermal 2{1}	0	74	-74	23	80	-81	84	167
Thermal 3{1}	0	67	-67	22	74	-74	78	166
Thermal 4{1}	0	65	-66	22	72	-72	76	166
Thermal 5{1}	0	70	-70	21	76	-76	80	167
GRT1{1}	0	64	-64	22	71	-71	75	165
GRT2{1}	0	71	-71	23	78	-78	81	166
GRT3{1}	0	64	-64	22	71	-71	75	165
GRT4{1}	0	63	-63	22	70	-70	74	165
GRT5{1}	0	67	-67	21	74	-74	77	167
L05 N- SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	6	-6	0	6	-6	6	2
Hydrotest{1}	43	17	17	0	43	17	38	270
Thermal 1{1}	0	14	-14	22	30	-30	41	2
Thermal 2{1}	0	17	-18	23	33	-33	43	1
Thermal 3{1}	0	14	-14	22	30	-30	41	2
Thermal 4{1}	0	13	-13	22	30	-30	41	2
Thermal 5{1}	0	17	-17	21	31	-32	41	1
GRT1{1}	0	8	-8	22	27	-27	40	1
GRT2{1}	0	11	-12	23	29	-29	41	1
GRT3{1}	0	8	-8	22	27	-27	40	1
GRT4{1}	0	7	-7	22	26	-26	39	1

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S_LINEREVO

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S_LINEREVO.OUT

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
	GRT5{1}		0	11	-11	21	27	-28	39	1
L05 N+	SIFI= 1.32	SIF0= 1.32								
	Gravity{1}		0	8	-8	0	8	-8	8	2
	Hydrotest{1}		43	17	17	0	43	17	38	270
	Thermal 1{1}		0	18	-18	22	33	-33	43	2
	Thermal 2{1}		0	23	-23	23	37	-37	46	1
	Thermal 3{1}		0	18	-18	22	33	-33	43	2
	Thermal 4{1}		0	17	-18	22	32	-33	42	2
	Thermal 5{1}		0	22	-22	21	35	-35	43	1
	GRT1{1}		0	10	-10	22	28	-28	40	1
	GRT2{1}		0	15	-15	23	32	-32	42	1
	GRT3{1}		0	10	-10	22	28	-28	40	1
	GRT4{1}		0	10	-10	22	27	-28	40	1
GRT5{1}		0	14	-14	21	30	-30	40	1	
L05 F-	SIFI= 1.32	SIF0= 1.32								
	Gravity{1}		0	11	-10	0	11	-10	11	1
	Hydrotest{1}		43	17	17	0	43	17	38	270
	Thermal 1{1}		0	66	-72	2	66	-72	72	52
	Thermal 2{1}		0	71	-78	2	71	-78	78	47
	Thermal 3{1}		0	66	-72	2	66	-72	72	52
	Thermal 4{1}		0	65	-71	2	65	-71	71	52
	Thermal 5{1}		0	67	-74	2	67	-74	74	47
	GRT1{1}		0	60	-66	2	60	-66	66	59
	GRT2{1}		0	65	-71	2	65	-71	71	53
	GRT3{1}		0	60	-66	2	60	-66	66	59
	GRT4{1}		0	59	-65	2	59	-65	65	60
GRT5{1}		0	61	-67	2	61	-67	67	53	
L05 F+	SIFI= 1.00	SIF0= 1.00								
	Gravity{1}		0	8	-7	0	8	-7	8	1
	Hydrotest{1}		43	17	17	0	43	17	38	270
	Thermal 1{1}		0	49	-55	2	49	-55	55	52
	Thermal 2{1}		0	53	-60	2	53	-60	60	47
	Thermal 3{1}		0	49	-55	2	49	-55	55	52
	Thermal 4{1}		0	48	-54	2	48	-54	54	52
	Thermal 5{1}		0	50	-57	2	50	-57	57	47
	GRT1{1}		0	45	-51	2	45	-51	51	59
	GRT2{1}		0	48	-55	2	48	-55	55	53

			S_LINEREV0.OUT						
	GRT3{1}		0	45	-51	2	45	-51	51 59
	GRT4{1}		0	44	-50	2	44	-50	50 60
	GRT5{1}		0	45	-52	2	46	-52	52 53
L12	SIFI= 1.00 SIFO= 1.00 Gravity{1}		0	1	0	0	1	0	1 240
	Hydrotest{1}		43	17	17	0	43	17	38 270
	Thermal 1{1}		0	36	-42	2	36	-42	42 300
	Thermal 2{1}		0	37	-45	2	37	-45	45 299
	Thermal 3{1}		0	36	-42	2	36	-42	42 300
	Thermal 4{1}		0	35	-41	2	35	-41	41 300
	Thermal 5{1}		0	34	-41	2	34	-41	41 299

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S_LINEREV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
	GRT1{1}	0	36	-41	2	36	-41	41 301
	GRT2{1}	0	37	-44	2	38	-44	44 300
	GRT3{1}	0	36	-41	2	36	-41	41 301
	GRT4{1}	0	35	-40	2	35	-40	40 301
	GRT5{1}	0	34	-40	2	34	-40	40 300
L11	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	2	0	0	2	0	2 96
	Hydrotest{1}	43	17	17	0	43	17	38 270
	Thermal 1{1}	0	6	-13	2	7	-13	13 310
	Thermal 2{1}	0	6	-13	2	7	-14	14 310
	Thermal 3{1}	0	6	-13	2	7	-13	13 310
	Thermal 4{1}	0	6	-12	2	7	-13	13 310
	Thermal 5{1}	0	5	-12	2	6	-13	13 310
	GRT1{1}	0	8	-13	2	8	-13	13 307
	GRT2{1}	0	8	-13	2	8	-14	14 307
	GRT3{1}	0	8	-13	2	8	-13	13 307
	GRT4{1}	0	8	-12	2	8	-13	13 307
	GRT5{1}	0	7	-12	2	8	-12	13 307
L07	- SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	4	-1	0	4	-1	4 3
	Hydrotest{1}	43	17	17	0	43	17	38 270

S_LINEREV0.OUT

Thermal 1{1}	0	19	-26	2	19	-26	26	339
Thermal 2{1}	0	21	-28	2	21	-28	28	340
Thermal 3{1}	0	19	-26	2	19	-26	26	339
Thermal 4{1}	0	19	-25	2	19	-25	25	339
Thermal 5{1}	0	19	-26	2	19	-26	26	340
GRT1{1}	0	18	-22	2	18	-22	22	336
GRT2{1}	0	20	-24	2	20	-24	24	337
GRT3{1}	0	18	-22	2	18	-22	22	336
GRT4{1}	0	18	-21	2	18	-22	22	335
GRT5{1}	0	18	-22	2	18	-22	23	337

L07 + SIFI= 1.00 SIFO= 1.00

Gravity{1}	0	3	-3	0	3	-3	3	184
Hydrotest{1}	43	17	17	0	43	17	38	270
Thermal 1{1}	0	21	-21	4	22	-22	23	170
Thermal 2{1}	0	23	-23	4	24	-24	24	171
Thermal 3{1}	0	21	-21	4	22	-22	23	170
Thermal 4{1}	0	21	-21	4	21	-22	22	170
Thermal 5{1}	0	21	-22	4	22	-22	23	171
GRT1{1}	0	19	-19	4	20	-20	20	168
GRT2{1}	0	21	-21	4	21	-22	22	169
GRT3{1}	0	19	-19	4	20	-20	20	168
GRT4{1}	0	18	-18	4	19	-19	20	168
GRT5{1}	0	19	-19	4	20	-20	20	169

L08 SIFI= 2.00 SIFO= 2.00

Gravity{1}	0	43	-43	0	43	-43	43	1
Hydrotest{1}	43	17	17	0	43	17	38	270
Thermal 1{1}	0	71	-71	4	71	-72	72	353

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S_LINEREV0

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RESULT PAGE 223

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	Thermal 2{1}	0	83	-83	4	83	-83	84	353
	Thermal 3{1}	0	71	-71	4	71	-72	72	353
	Thermal 4{1}	0	69	-70	4	70	-70	70	353
	Thermal 5{1}	0	80	-80	4	80	-80	80	354

		S_LINEREVO.OUT						
	GRT1{1}	0	29	-29	4	30	-30	30 341
	GRT2{1}	0	41	-41	4	41	-41	41 346
	GRT3{1}	0	29	-29	4	30	-30	30 341
	GRT4{1}	0	27	-28	4	28	-28	28 340
	GRT5{1}	0	37	-37	4	38	-38	38 346
L09	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	21	-21	0	21	-21	21 0
	Hydrotest{1}	47	19	19	0	47	19	41 270
	Thermal 1{1}	0	38	-38	1	38	-38	38 355
	Thermal 2{1}	0	44	-44	1	44	-44	44 356
	Thermal 3{1}	0	38	-38	1	38	-38	38 355
	Thermal 4{1}	0	37	-37	1	37	-37	37 355
	Thermal 5{1}	0	42	-42	1	42	-42	42 356
	GRT1{1}	0	18	-18	1	18	-18	18 349
	GRT2{1}	0	24	-24	1	24	-24	24 351
	GRT3{1}	0	18	-18	1	18	-18	18 349
	GRT4{1}	0	17	-17	1	17	-17	17 349
	GRT5{1}	0	22	-22	1	22	-22	22 351
L10	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	17	-17	0	17	-17	17 0
	Hydrotest{1}	47	19	19	0	47	19	41 270
	Thermal 1{1}	0	34	-34	1	34	-34	34 357
	Thermal 2{1}	0	39	-39	1	39	-39	39 357
	Thermal 3{1}	0	34	-34	1	34	-34	34 357
	Thermal 4{1}	0	33	-33	1	33	-33	33 357
	Thermal 5{1}	0	37	-37	1	37	-37	37 357
	GRT1{1}	0	17	-17	1	17	-17	17 353
	GRT2{1}	0	22	-22	1	22	-22	22 355
	GRT3{1}	0	17	-17	1	17	-17	17 353
	GRT4{1}	0	16	-16	1	16	-16	16 353
	GRT5{1}	0	20	-20	1	20	-20	20 355
*** Segment L end ***								
*** Segment M begin ***								
L07	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	0	0	0	0	0	0 270
	Hydrotest{1}	43	17	17	0	43	17	38 270
	Thermal 1{1}	0	0	0	0	0	0	0 90
	Thermal 2{1}	0	0	0	0	0	0	0 90
	Thermal 3{1}	0	0	0	0	0	0	0 90
	Thermal 4{1}	0	0	0	0	0	0	0 90
	Thermal 5{1}	0	0	0	0	0	0	0 90
	GRT1{1}	0	0	0	0	0	0	0 270
	GRT2{1}	0	0	0	0	0	0	0 270

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
M01	GRT3{1}		0	0	0	0	0	0	0	270
	GRT4{1}		0	0	0	0	0	0	0	270
	GRT5{1}		0	0	0	0	0	0	0	270
	SIFI= 2.00 SIFO= 2.00 Gravity{1}		0	0	0	0	0	0	0	270
	Hydrotest{1}		43	17	17	0	43	17	38	270
	Thermal 1{1}		0	0	0	0	0	0	0	90
	Thermal 2{1}		0	0	0	0	0	0	0	90
	Thermal 3{1}		0	0	0	0	0	0	0	90
	Thermal 4{1}		0	0	0	0	0	0	0	90
	Thermal 5{1}		0	0	0	0	0	0	0	90
	GRT1{1}		0	0	0	0	0	0	0	270
	GRT2{1}		0	0	0	0	0	0	0	270
	GRT3{1}		0	0	0	0	0	0	0	270
	GRT4{1}		0	0	0	0	0	0	0	270
	GRT5{1}		0	0	0	0	0	0	0	270
M02	SIFI= 2.30 SIFO= 2.30 Gravity{1}		0	0	0	0	0	0	0	270
	Hydrotest{1}		21	6	6	0	21	6	18	270
	Thermal 1{1}		0	0	0	0	0	0	0	90
	Thermal 2{1}		0	0	0	0	0	0	0	90
	Thermal 3{1}		0	0	0	0	0	0	0	90
	Thermal 4{1}		0	0	0	0	0	0	0	90
	Thermal 5{1}		0	0	0	0	0	0	0	90
	GRT1{1}		0	0	0	0	0	0	0	270
	GRT2{1}		0	0	0	0	0	0	0	270
	GRT3{1}		0	0	0	0	0	0	0	270
	GRT4{1}		0	0	0	0	0	0	0	270
	GRT5{1}		0	0	0	0	0	0	0	270

*** Segment M end ***

*** Segment N begin ***

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B17	SIFI= 1.00	SIFO= 1.00							
	Gravity{1}		0	-1	-1	0	0	-1	1 270
	Hydrotest{1}		28	10	10	0	28	10	24 270
	Thermal 1{1}		0	0	0	0	0	0	0 90
	Thermal 2{1}		0	0	0	0	0	0	0 90
	Thermal 3{1}		0	0	0	0	0	0	0 90
	Thermal 4{1}		0	0	0	0	0	0	0 90
	Thermal 5{1}		0	0	0	0	0	0	0 90
	GRT1{1}		0	-1	-1	0	0	-1	1 270
	GRT2{1}		0	-1	-1	0	0	-1	1 270
	GRT3{1}		0	-1	-1	0	0	-1	1 270
	GRT4{1}		0	-1	-1	0	0	-1	1 270
	GRT5{1}		0	-1	-1	0	0	-1	1 270
N01	SIFI= 1.00	SIFO= 1.00							
	Gravity{1}		0	-1	-1	0	0	-1	1 270

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
	Hydrotest{1}	28	10	10	0	28	10	24 270
	Thermal 1{1}	0	0	0	0	0	0	0 90
	Thermal 2{1}	0	0	0	0	0	0	0 90
	Thermal 3{1}	0	0	0	0	0	0	0 90
	Thermal 4{1}	0	0	0	0	0	0	0 90
	Thermal 5{1}	0	0	0	0	0	0	0 90
	GRT1{1}	0	-1	-1	0	0	-1	1 270
	GRT2{1}	0	-1	-1	0	0	-1	1 270
	GRT3{1}	0	-1	-1	0	0	-1	1 270
	GRT4{1}	0	-1	-1	0	0	-1	1 270
	GRT5{1}	0	-1	-1	0	0	-1	1 270

*** Segment N end ***
 *** Segment P begin ***

E13	SIFI= 1.00	SIFO= 1.00						
	Gravity{1}		0	-1	-1	0	0	-1 1 270
	Hydrotest{1}		28	10	10	0	28	10 24 270
	Thermal 1{1}		0	0	0	0	0	0 270

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	Thermal 2{1}	0	0	0	0	0	0	0	270
	Thermal 3{1}	0	0	0	0	0	0	0	270
	Thermal 4{1}	0	0	0	0	0	0	0	270
	Thermal 5{1}	0	0	0	0	0	0	0	270
	GRT1{1}	0	-1	-1	0	0	-1	1	270
	GRT2{1}	0	-1	-1	0	0	-1	1	270
	GRT3{1}	0	-1	-1	0	0	-1	1	270
	GRT4{1}	0	-1	-1	0	0	-1	1	270
	GRT5{1}	0	-1	-1	0	0	-1	1	270
P01	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	-1	-1	0	0	-1	1	270
	Hydrotest{1}	28	10	10	0	28	10	24	270
	Thermal 1{1}	0	0	0	0	0	0	0	270
	Thermal 2{1}	0	0	0	0	0	0	0	270
	Thermal 3{1}	0	0	0	0	0	0	0	270
	Thermal 4{1}	0	0	0	0	0	0	0	270
	Thermal 5{1}	0	0	0	0	0	0	0	270
	GRT1{1}	0	-1	-1	0	0	-1	1	270
	GRT2{1}	0	-1	-1	0	0	-1	1	270
	GRT3{1}	0	-1	-1	0	0	-1	1	270
	GRT4{1}	0	-1	-1	0	0	-1	1	270
	GRT5{1}	0	-1	-1	0	0	-1	1	270
*** Segment P end ***									
*** Segment R begin ***									
D04	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	-1	-1	0	0	-1	1	270
	Hydrotest{1}	28	10	10	0	28	10	24	270
	Thermal 1{1}	0	0	0	0	0	0	0	90

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
	Thermal 2{1}	0	0	0	0	0	0	90
	Thermal 3{1}	0	0	0	0	0	0	90
	Thermal 4{1}	0	0	0	0	0	0	90

		S_LINEREVO.OUT							
	Thermal 5{1}	0	0	0	0	0	0	90	
	GRT1{1}	0	-1	-1	0	0	-1	1	270
	GRT2{1}	0	-1	-1	0	0	-1	1	270
	GRT3{1}	0	-1	-1	0	0	-1	1	270
	GRT4{1}	0	-1	-1	0	0	-1	1	270
	GRT5{1}	0	-1	-1	0	0	-1	1	270
R01	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	-1	-1	0	0	-1	1	270
	Hydrotest{1}	28	10	10	0	28	10	24	270
	Thermal 1{1}	0	0	0	0	0	0	0	90
	Thermal 2{1}	0	0	0	0	0	0	0	90
	Thermal 3{1}	0	0	0	0	0	0	0	90
	Thermal 4{1}	0	0	0	0	0	0	0	90
	Thermal 5{1}	0	0	0	0	0	0	0	90
	GRT1{1}	0	-1	-1	0	0	-1	1	270
	GRT2{1}	0	-1	-1	0	0	-1	1	270
	GRT3{1}	0	-1	-1	0	0	-1	1	270
	GRT4{1}	0	-1	-1	0	0	-1	1	270
	GRT5{1}	0	-1	-1	0	0	-1	1	270
*** Segment R end ***									
*** Segment S begin ***									
D14	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	5	-5	1	5	-5	5	278
	Hydrotest{1}	43	17	17	0	43	17	38	270
	Thermal 1{1}	0	138	-144	49	153	-159	167	280
	Thermal 2{1}	0	78	-85	37	93	-99	106	264
	Thermal 3{1}	0	79	-86	36	93	-99	106	282
	Thermal 4{1}	0	79	-84	35	92	-97	104	290
	Thermal 5{1}	0	104	-105	36	116	-117	123	301
	GRT1{1}	0	133	-139	48	149	-154	162	280
	GRT2{1}	0	74	-80	36	88	-94	102	263
	GRT3{1}	0	74	-81	35	88	-94	102	282
	GRT4{1}	0	74	-80	34	88	-92	99	291
	GRT5{1}	0	100	-101	36	111	-112	119	303
S01	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	3	-3	1	3	-3	3	166
	Hydrotest{1}	43	17	17	0	43	17	38	270
	Thermal 1{1}	0	106	-112	49	125	-130	140	160
	Thermal 2{1}	0	58	-65	37	76	-81	91	169
	Thermal 3{1}	0	64	-71	36	81	-86	95	152
	Thermal 4{1}	0	65	-70	35	80	-84	92	148
	Thermal 5{1}	0	80	-81	36	94	-95	102	145
	GRT1{1}	0	103	-109	48	122	-127	137	160

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GRT2{1} 0 55 -62 36 73 -78 88 169

0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point name	Load combination	Hoop Stress	Longitudinal Max	Min	Shear Stress	Principal Max	Min	Total Stress	Loc
	GRT3{1}	0	62	-69	35	78	-83	92	151
	GRT4{1}	0	62	-67	34	77	-81	89	147
	GRT5{1}	0	77	-78	36	91	-92	99	144
C013	SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	5	-5	1	5	-5	5	10
	Hydrotest{1}	43	17	17	0	43	17	38	270
	Thermal 1{1}	0	67	-73	49	93	-98	112	110
	Thermal 2{1}	0	56	-62	37	74	-79	89	106
	Thermal 3{1}	0	62	-69	36	78	-84	93	105
	Thermal 4{1}	0	52	-57	35	69	-73	83	106
	Thermal 5{1}	0	31	-32	36	55	-56	71	119
	GRT1{1}	0	68	-74	48	93	-98	112	114
	GRT2{1}	0	56	-63	36	74	-79	89	111
	GRT3{1}	0	62	-69	35	78	-84	92	109
	GRT4{1}	0	52	-58	34	69	-73	82	111
	GRT5{1}	0	33	-34	36	56	-56	70	126
S04 N-	SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	7	-7	1	7	-7	7	7
	Hydrotest{1}	43	17	17	0	43	17	38	270
	Thermal 1{1}	0	69	-75	49	94	-99	113	97
	Thermal 2{1}	0	63	-70	37	80	-86	95	97
	Thermal 3{1}	0	67	-74	36	82	-88	97	96
	Thermal 4{1}	0	53	-58	35	70	-75	84	97
	Thermal 5{1}	0	24	-25	36	50	-51	68	101
	GRT1{1}	0	69	-75	48	94	-99	112	102
	GRT2{1}	0	63	-70	36	80	-85	94	102
	GRT3{1}	0	67	-74	35	82	-88	96	102
	GRT4{1}	0	54	-59	34	70	-74	83	104
	GRT5{1}	0	25	-26	36	50	-51	67	116

S04 N+ SIFI= 1.32 SIF0= 1.32

S_LINEREVO.OUT								
Gravity{1}	0	9	-9	1	9	-9	9	277
Hydrotest{1}	43	17	17	0	43	17	38	270
Thermal 1{1}	0	92	-98	49	113	-118	130	7
Thermal 2{1}	0	84	-91	37	98	-104	111	7
Thermal 3{1}	0	89	-96	36	102	-108	115	6
Thermal 4{1}	0	71	-76	35	85	-90	97	7
Thermal 5{1}	0	31	-33	36	55	-56	71	11
GRT1{1}	0	92	-98	48	113	-118	129	12
GRT2{1}	0	85	-91	36	98	-104	111	12
GRT3{1}	0	90	-96	35	102	-108	114	12
GRT4{1}	0	72	-77	34	85	-90	97	14
GRT5{1}	0	33	-34	36	56	-57	71	26

S04 F- SIFI= 1.32 SIFO= 1.32

Gravity{1}	0	5	-5	4	7	-7	8	283
Hydrotest{1}	43	17	17	0	43	17	38	270
Thermal 1{1}	0	133	-138	21	137	-141	143	50
Thermal 2{1}	0	114	-119	15	115	-121	122	45
Thermal 3{1}	0	113	-118	14	115	-120	121	44

0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
								Loc
Thermal 4{1}		0	99	-102	14	101	-104	105 50
Thermal 5{1}		0	82	-81	16	85	-85	87 253
GRT1{1}		0	136	-141	17	139	-143	144 52
GRT2{1}		0	116	-122	11	117	-123	123 47
GRT3{1}		0	116	-121	10	117	-121	122 46
GRT4{1}		0	102	-105	10	103	-106	107 52
GRT5{1}		0	86	-86	12	88	-87	89 254

S04 F+ SIFI= 1.00 SIFO= 1.00

Gravity{1}	0	4	-4	4	6	-6	8	13
Hydrotest{1}	43	17	17	0	43	17	38	270
Thermal 1{1}	0	101	-105	21	105	-109	111	140
Thermal 2{1}	0	85	-91	15	88	-93	94	135
Thermal 3{1}	0	85	-90	14	87	-92	93	134
Thermal 4{1}	0	75	-78	14	77	-80	82	140

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	Thermal 5{1}	0	62	-62	16	66	-66	68	343
	GRT1{1}	0	103	-107	17	106	-110	111	142
	GRT2{1}	0	87	-93	11	89	-94	95	137
	GRT3{1}	0	87	-92	10	88	-93	94	136
	GRT4{1}	0	77	-80	10	78	-81	82	142
	GRT5{1}	0	65	-65	12	68	-67	69	344
S16	SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	4	-4	4	6	-6	8	12
	Hydrotest{1}	43	17	17	0	43	17	38	270
	Thermal 1{1}	0	99	-103	21	103	-107	109	140
	Thermal 2{1}	0	84	-89	15	86	-92	93	135
	Thermal 3{1}	0	84	-88	14	86	-91	92	134
	Thermal 4{1}	0	73	-77	14	76	-79	80	140
	Thermal 5{1}	0	61	-61	16	65	-65	67	343
	GRT1{1}	0	101	-105	17	104	-108	110	142
	GRT2{1}	0	86	-91	11	87	-93	93	137
	GRT3{1}	0	86	-91	10	87	-92	92	136
	GRT4{1}	0	76	-79	10	77	-80	81	143
	GRT5{1}	0	65	-64	12	67	-66	68	344
S05	SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	7	-7	4	9	-9	10	4
	Hydrotest{1}	43	17	17	0	43	17	38	270
	Thermal 1{1}	0	64	-68	21	71	-75	78	142
	Thermal 2{1}	0	57	-63	15	61	-66	67	142
	Thermal 3{1}	0	55	-59	14	58	-63	64	143
	Thermal 4{1}	0	50	-53	14	53	-56	58	150
	Thermal 5{1}	0	43	-43	16	49	-48	52	346
	GRT1{1}	0	70	-74	17	74	-78	80	146
	GRT2{1}	0	63	-68	11	65	-70	71	147
	GRT3{1}	0	61	-65	10	62	-67	68	148
	GRT4{1}	0	56	-59	10	58	-61	62	154
	GRT5{1}	0	50	-50	12	53	-53	55	348
S06	SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	10	-10	5	12	-12	13	359

0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	S_LINEREVO.OUT Longitudinal		Shear	Principal		Total	
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
	Hydrotest{1}	1	0	0	0	1	0	1	270
	Thermal 1{1}	0	67	-73	28	78	-83	88	308
	Thermal 2{1}	0	61	-69	19	67	-74	76	264
	Thermal 3{1}	0	81	-87	19	85	-91	93	267
	Thermal 4{1}	0	66	-71	18	71	-75	77	265
	Thermal 5{1}	0	26	-25	21	37	-37	45	123
	GRT1{1}	0	62	-68	23	69	-74	78	301
	GRT2{1}	0	63	-70	14	66	-73	74	256
	GRT3{1}	0	82	-88	13	84	-90	91	260
	GRT4{1}	0	68	-72	13	70	-74	75	257
	GRT5{1}	0	22	-21	16	30	-29	35	101
S07	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	10	-10	5	12	-12	13	355
	Hydrotest{1}	1	0	0	0	1	0	1	270
	Thermal 1{1}	0	222	-228	28	226	-231	233	310
	Thermal 2{1}	0	189	-197	19	191	-198	199	273
	Thermal 3{1}	0	237	-243	19	238	-245	246	273
	Thermal 4{1}	0	192	-197	18	194	-198	199	274
	Thermal 5{1}	0	87	-87	21	92	-91	95	135
	GRT1{1}	0	216	-221	23	218	-224	225	308
	GRT2{1}	0	188	-195	14	189	-196	197	271
	GRT3{1}	0	236	-242	13	236	-243	243	271
	GRT4{1}	0	191	-195	13	192	-196	197	271
	GRT5{1}	0	80	-79	16	83	-83	85	130
S08	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	1	-1	2	2	-2	3	336
	Hydrotest{1}	1	0	0	0	1	0	1	270
	Thermal 1{1}	0	91	-94	9	92	-95	95	311
	Thermal 2{1}	0	76	-79	6	76	-80	80	277
	Thermal 3{1}	0	93	-97	6	94	-97	97	276
	Thermal 4{1}	0	76	-78	6	76	-78	78	277
	Thermal 5{1}	0	37	-37	7	38	-38	39	138
	GRT1{1}	0	90	-93	7	91	-94	94	310
	GRT2{1}	0	75	-79	5	76	-79	79	276
	GRT3{1}	0	93	-96	4	93	-96	96	276
	GRT4{1}	0	75	-77	4	75	-77	78	276
	GRT5{1}	0	36	-36	5	37	-36	37	138
S09 N-	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	0	0	2	2	-2	3	334
	Hydrotest{1}	1	0	0	0	1	0	1	270

Thermal 1{1}	0	45	-48	9	47	-50	50	311
Thermal 2{1}	0	37	-41	6	38	-42	42	277
Thermal 3{1}	0	46	-49	6	47	-50	50	276
Thermal 4{1}	0	38	-40	6	38	-40	41	277
Thermal 5{1}	0	19	-18	7	21	-21	22	138
GRT1{1}	0	45	-47	7	46	-49	49	310
GRT2{1}	0	37	-41	5	38	-41	41	276
GRT3{1}	0	46	-49	4	46	-49	50	276
GRT4{1}	0	37	-39	4	38	-40	40	276

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(Stress in N/mm²)

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S_LINEREV0.OUT								
GRT1{1}	0	91	-95	13	92	-96	97	42
GRT2{1}	0	75	-79	1	75	-79	79	20
GRT3{1}	0	93	-97	2	93	-97	97	16
GRT4{1}	0	77	-80	1	77	-80	80	18
GRT5{1}	0	45	-46	6	46	-47	47	53

S09 F+ SIFI= 1.00 SIF0= 1.00

Gravity{1}	0	2	-2	1	2	-2	3	353
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	52	-56	12	55	-58	60	314
Thermal 2{1}	0	42	-46	1	42	-46	46	292
Thermal 3{1}	0	52	-57	1	52	-57	57	288
Thermal 4{1}	0	43	-47	1	43	-47	47	290
Thermal 5{1}	0	27	-28	5	28	-29	29	325
GRT1{1}	0	50	-54	13	53	-57	59	312
GRT2{1}	0	41	-45	1	41	-46	46	290
GRT3{1}	0	51	-56	2	51	-56	56	286
GRT4{1}	0	43	-46	1	43	-46	46	288
GRT5{1}	0	25	-26	6	27	-27	28	323

S10 N- SIFI= 1.00 SIF0= 1.00

Gravity{1}	0	1	-1	1	2	-2	2	192
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	65	-69	12	68	-72	73	334
Thermal 2{1}	0	35	-39	1	35	-39	39	316
Thermal 3{1}	0	46	-51	1	46	-51	51	303
Thermal 4{1}	0	43	-46	1	43	-46	46	304
Thermal 5{1}	0	42	-43	5	43	-43	44	329

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
-----	-----	-----	-----	-----	-----	-----	-----	---
GRT1{1}		0	66	-70	13	69	-73	74
GRT2{1}		0	35	-40	1	35	-40	40
GRT3{1}		0	47	-51	2	47	-51	51
GRT4{1}		0	43	-47	1	43	-47	47
GRT5{1}		0	43	-44	6	44	-44	45

			S_LINEREVO.00T						
S10 N+	SIFI= 1.78 Gravity{1}	SIFO= 1.78	0	2	-2	1	2	-2	2 282
	Hydrotest{1}		1	0	0	0	1	0	1 270
	Thermal 1{1}		0	118	-122	12	119	-123	124 64
	Thermal 2{1}		0	63	-68	1	63	-68	68 46
	Thermal 3{1}		0	84	-89	1	84	-89	89 33
	Thermal 4{1}		0	78	-81	1	78	-81	81 34
	Thermal 5{1}		0	75	-76	5	75	-76	76 59
	GRT1{1}		0	119	-123	13	121	-125	125 65
	GRT2{1}		0	64	-69	1	64	-69	69 47
	GRT3{1}		0	85	-89	2	85	-89	89 34
	GRT4{1}		0	78	-82	1	78	-82	82 36
	GRT5{1}		0	76	-77	6	77	-78	78 60
S10 F-	SIFI= 1.78 Gravity{1}	SIFO= 1.78	0	1	-1	1	2	-2	2 78
	Hydrotest{1}		1	0	0	0	1	0	1 270
	Thermal 1{1}		0	31	-31	36	54	-54	69 180
	Thermal 2{1}		0	26	-25	14	32	-31	36 221
	Thermal 3{1}		0	51	-51	14	54	-54	56 198
	Thermal 4{1}		0	51	-51	14	54	-54	56 18
	Thermal 5{1}		0	41	-42	21	49	-50	55 12
	GRT1{1}		0	31	-31	37	55	-55	71 178
	GRT2{1}		0	25	-24	15	32	-31	36 219
	GRT3{1}		0	50	-50	15	54	-54	57 197
	GRT4{1}		0	50	-51	15	54	-54	57 16
	GRT5{1}		0	40	-41	22	50	-51	56 11
S10 F+	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	1	-1	1	1	-1	2 348
	Hydrotest{1}		1	0	0	0	1	0	1 270
	Thermal 1{1}		0	17	-17	36	45	-45	64 90
	Thermal 2{1}		0	15	-14	14	23	-23	29 131
	Thermal 3{1}		0	28	-28	14	34	-34	38 108
	Thermal 4{1}		0	29	-29	14	34	-34	37 288
	Thermal 5{1}		0	23	-24	21	35	-36	43 282
	GRT1{1}		0	17	-17	37	46	-46	66 88
	GRT2{1}		0	14	-13	15	24	-23	30 129
	GRT3{1}		0	28	-28	15	35	-35	39 107
	GRT4{1}		0	28	-29	15	34	-35	38 286
	GRT5{1}		0	22	-23	22	36	-36	44 281
S15	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	2	-2	1	2	-2	3 173
	Hydrotest{1}		1	0	0	0	1	0	1 270
	Thermal 1{1}		0	40	-40	36	61	-61	74 220

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
	Thermal	2{1}	0	45	-44	14	49	-48	51	240
	Thermal	3{1}	0	31	-31	14	37	-37	40	227
	Thermal	4{1}	0	23	-23	14	29	-29	33	25
	Thermal	5{1}	0	28	-29	21	39	-40	46	322
	GRT1{1}		0	41	-41	37	63	-63	76	218
	GRT2{1}		0	46	-45	15	50	-50	53	238
	GRT3{1}		0	33	-32	15	39	-39	42	224
	GRT4{1}		0	24	-25	15	31	-31	35	23
	GRT5{1}		0	29	-30	22	41	-42	48	324
S11 N-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	3	-3	1	3	-3	3	179
	Hydrotest{1}		1	0	0	0	1	0	1	270
	Thermal	1{1}	0	64	-64	36	80	-80	89	182
	Thermal	2{1}	0	37	-36	14	42	-41	44	185
	Thermal	3{1}	0	39	-39	14	44	-44	47	206
	Thermal	4{1}	0	37	-38	14	42	-42	44	25
	Thermal	5{1}	0	42	-43	21	50	-51	56	10
	GRT1{1}		0	67	-67	37	83	-83	93	182
	GRT2{1}		0	40	-39	15	45	-44	48	185
	GRT3{1}		0	42	-42	15	47	-47	50	204
	GRT4{1}		0	40	-40	15	45	-45	48	24
	GRT5{1}		0	45	-46	22	53	-54	59	9
S11 N+	SIFI= 1.78 Gravity{1}	SIFO= 1.78	0	5	-5	1	5	-5	5	89
	Hydrotest{1}		1	0	0	0	1	0	1	270
	Thermal	1{1}	0	114	-114	36	125	-124	130	92
	Thermal	2{1}	0	65	-64	14	68	-67	70	95
	Thermal	3{1}	0	70	-70	14	73	-73	74	116
	Thermal	4{1}	0	67	-67	14	69	-70	71	295
	Thermal	5{1}	0	75	-76	21	80	-81	84	280
	GRT1{1}		0	120	-119	37	130	-130	135	92
	GRT2{1}		0	70	-70	15	73	-73	75	95

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GRT3{1}	0	75	-75	15	78	-78	79	114
GRT4{1}	0	71	-72	15	74	-74	76	294
GRT5{1}	0	80	-81	22	85	-86	89	279
S11 F- SIFI= 1.78 SIF0= 1.78 Gravity{1}	0	6	-6	0	6	-6	6	270
Hydrotest{1}	1	0	0	0	1	0	1	270
Thermal 1{1}	0	182	-181	1	182	-181	182	89
Thermal 2{1}	0	88	-85	3	88	-85	88	87
Thermal 3{1}	0	90	-89	3	90	-89	90	109
Thermal 4{1}	0	86	-87	3	86	-87	87	290
Thermal 5{1}	0	111	-113	1	111	-113	113	280
GRT1{1}	0	188	-187	1	188	-187	188	89
GRT2{1}	0	94	-91	4	94	-91	94	87
GRT3{1}	0	96	-95	3	96	-96	96	107
GRT4{1}	0	92	-93	3	92	-93	93	289
GRT5{1}	0	117	-119	1	117	-119	119	279

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
-----	-----	-----	-----	-----	-----	-----	-----	---
S11 F+ SIFI= 1.00 SIF0= 1.00 Gravity{1}		0	4	-4	0	4	-4	4
Hydrotest{1}		1	0	0	0	1	0	1
Thermal 1{1}		0	103	-101	1	103	-101	103
Thermal 2{1}		0	50	-47	3	50	-47	50
Thermal 3{1}		0	51	-50	3	51	-50	51
Thermal 4{1}		0	48	-49	3	49	-49	49
Thermal 5{1}		0	62	-64	1	62	-64	64
GRT1{1}		0	106	-105	1	106	-105	106
GRT2{1}		0	53	-51	4	54	-51	54
GRT3{1}		0	54	-54	3	54	-54	54
GRT4{1}		0	52	-52	3	52	-53	53
GRT5{1}		0	65	-68	1	65	-68	68
S12 SIFI= 2.00 SIF0= 2.00 Gravity{1}		0	7	-7	0	7	-7	7

		S_LINEREVO.OUT							
	Hydrotest{1}	1	0	0	0	1	0	1	270
	Thermal 1{1}	0	220	-219	1	220	-219	220	177
	Thermal 2{1}	0	106	-103	3	106	-103	106	172
	Thermal 3{1}	0	107	-106	3	107	-106	107	197
	Thermal 4{1}	0	103	-104	3	103	-104	104	20
	Thermal 5{1}	0	134	-137	1	134	-137	137	11
	GRT1{1}	0	228	-226	1	228	-226	228	178
	GRT2{1}	0	113	-110	4	113	-110	113	173
	GRT3{1}	0	114	-113	3	114	-113	114	196
	GRT4{1}	0	110	-110	3	110	-111	111	19
	GRT5{1}	0	141	-144	1	141	-144	144	11
S13	SIFI= 2.00 SIF0= 2.00 Gravity{1}	0	4	-4	0	4	-4	4	1
	Hydrotest{1}	1	1	1	0	1	1	1	270
	Thermal 1{1}	0	127	-126	1	127	-126	127	176
	Thermal 2{1}	0	61	-59	2	61	-59	61	168
	Thermal 3{1}	0	60	-60	2	60	-60	60	195
	Thermal 4{1}	0	59	-59	2	59	-59	59	19
	Thermal 5{1}	0	77	-78	0	77	-78	78	12
	GRT1{1}	0	130	-129	1	130	-129	130	176
	GRT2{1}	0	65	-63	2	65	-63	65	169
	GRT3{1}	0	64	-64	2	64	-64	64	194
	GRT4{1}	0	62	-62	2	62	-62	63	18
	GRT5{1}	0	81	-82	1	81	-82	82	12
S14	SIFI= 1.00 SIF0= 1.00 Gravity{1}	0	2	-2	0	2	-2	2	2
	Hydrotest{1}	1	1	1	0	1	1	1	270
	Thermal 1{1}	0	70	-69	1	70	-69	70	174
	Thermal 2{1}	0	34	-32	2	34	-32	34	164
	Thermal 3{1}	0	32	-32	2	33	-32	33	193
	Thermal 4{1}	0	31	-32	2	32	-32	32	19
	Thermal 5{1}	0	42	-43	0	42	-43	43	13
	GRT1{1}	0	71	-70	1	71	-70	71	174
	GRT2{1}	0	36	-34	2	36	-34	36	164

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total

S_LINEREVO.0UT									
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc

	GRT3{1}	0	34	-34	2	34	-34	34	192
	GRT4{1}	0	33	-33	2	33	-34	34	18
	GRT5{1}	0	43	-45	1	43	-45	45	13
*** Segment S end ***									
*** Segment T begin ***									
E04	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	13	-13	1	13	-13	14	246
	Hydrotest{1}	34	13	13	0	34	13	29	270
	Thermal 1{1}	0	131	-135	30	137	-141	144	337
	Thermal 2{1}	0	138	-143	31	145	-149	153	336
	Thermal 3{1}	0	131	-135	30	137	-141	144	337
	Thermal 4{1}	0	128	-132	29	134	-138	141	337
	Thermal 5{1}	0	129	-133	29	135	-139	142	336
	GRT1{1}	0	131	-135	29	137	-141	144	331
	GRT2{1}	0	139	-143	31	145	-150	153	331
	GRT3{1}	0	131	-135	29	137	-141	144	331
	GRT4{1}	0	128	-132	28	134	-138	141	331
	GRT5{1}	0	129	-133	28	135	-139	142	331
T01	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	13	-14	1	14	-14	14	203
	Hydrotest{1}	34	13	13	0	34	13	29	270
	Thermal 1{1}	0	124	-127	30	130	-134	137	111
	Thermal 2{1}	0	130	-135	31	137	-141	145	112
	Thermal 3{1}	0	124	-127	30	130	-134	137	111
	Thermal 4{1}	0	121	-125	29	128	-131	134	111
	Thermal 5{1}	0	121	-125	29	128	-132	135	112
	GRT1{1}	0	124	-128	29	130	-134	137	117
	GRT2{1}	0	131	-135	31	137	-142	145	118
	GRT3{1}	0	124	-128	29	130	-134	137	117
	GRT4{1}	0	121	-125	28	127	-131	134	117
	GRT5{1}	0	121	-126	28	128	-132	135	118
T02	SIFI= 1.80 SIFO= 1.80 Gravity{1}	0	33	-34	1	33	-34	34	191
	Hydrotest{1}	34	13	13	0	34	13	29	270
	Thermal 1{1}	0	117	-120	30	124	-127	131	66
	Thermal 2{1}	0	125	-129	31	132	-136	140	63
	Thermal 3{1}	0	117	-120	30	124	-127	131	66
	Thermal 4{1}	0	114	-118	29	121	-125	128	66
	Thermal 5{1}	0	117	-121	29	124	-127	131	63
	GRT1{1}	0	101	-105	29	109	-113	116	81

		S_LINEREV0.OUT							
GRT2{1}		0	107	-112	31	115	-119	124	77
GRT3{1}		0	101	-105	29	109	-112	116	81
GRT4{1}		0	99	-103	28	107	-110	114	82
GRT5{1}		0	100	-104	28	107	-111	115	78

T03	SIFI= 1.80 Gravity{1}	SIFO= 1.80	0	37	-36	1	37	-36	37	8

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc

T04 N-	Hydrotest{1}		34	13	13	0	34	13	29	270
	Thermal 1{1}		0	115	-119	30	122	-126	129	41
	Thermal 2{1}		0	127	-131	31	134	-138	142	38
	Thermal 3{1}		0	115	-119	30	122	-126	129	41
	Thermal 4{1}		0	112	-116	29	119	-122	126	42
	Thermal 5{1}		0	119	-123	29	126	-130	133	38
	GRT1{1}		0	87	-90	29	96	-99	103	54
	GRT2{1}		0	98	-101	31	106	-110	114	49
	GRT3{1}		0	87	-90	29	96	-98	103	54
	GRT4{1}		0	85	-87	28	93	-96	100	56
	GRT5{1}		0	90	-93	28	98	-101	105	50
	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	23	-23	1	23	-23	23	5
	Hydrotest{1}		34	13	13	0	34	13	29	270
	Thermal 1{1}		0	84	-88	30	93	-97	102	10
	Thermal 2{1}		0	96	-100	31	105	-109	114	8
	Thermal 3{1}		0	84	-88	30	93	-97	101	10
	Thermal 4{1}		0	81	-85	29	91	-94	99	10
	Thermal 5{1}		0	90	-93	29	98	-102	106	9
	GRT1{1}		0	62	-65	29	73	-76	82	12
	GRT2{1}		0	73	-76	31	84	-87	93	10
	GRT3{1}		0	62	-64	29	73	-75	81	12
	GRT4{1}		0	59	-62	28	70	-73	79	12
	GRT5{1}		0	67	-70	28	77	-80	86	10
	Gravity{1}		0	27	-27	1	28	-27	28	5

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Hydrotest{1}	34	13	13	0	34	13	29	270
Thermal 1{1}	0	100	-104	30	108	-111	115	10
Thermal 2{1}	0	113	-118	31	121	-125	130	8
Thermal 3{1}	0	100	-103	30	108	-111	115	10
Thermal 4{1}	0	97	-100	29	105	-108	112	10
Thermal 5{1}	0	106	-110	29	114	-117	121	9
GRT1{1}	0	73	-76	29	83	-86	91	12
GRT2{1}	0	87	-90	31	96	-100	105	10
GRT3{1}	0	73	-76	29	83	-86	91	12
GRT4{1}	0	70	-73	28	80	-82	87	12
GRT5{1}	0	80	-83	28	89	-92	96	10
T04 F- SIFI= 1.18 SIFO= 1.18 Gravity{1}								
Hydrotest{1}	34	13	13	0	34	13	29	270
Thermal 1{1}	0	113	-115	5	114	-116	116	34
Thermal 2{1}	0	126	-129	5	127	-129	129	33
Thermal 3{1}	0	113	-115	5	113	-115	116	34
Thermal 4{1}	0	110	-112	5	110	-112	112	35
Thermal 5{1}	0	118	-120	5	118	-120	120	32
GRT1{1}	0	93	-95	4	93	-95	95	42
GRT2{1}	0	105	-107	4	105	-108	108	39
GRT3{1}	0	93	-95	4	93	-95	95	42
GRT4{1}	0	89	-91	4	90	-91	92	43

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point name	Load combination	Hoop Stress	Longitudinal Max	Longitudinal Min	Shear Stress	Principal Max	Principal Min	Total Stress	Loc

	GRT5{1}	0	97	-99	4	97	-99	99	39
T04 F+ SIFI= 1.00 SIFO= 1.00 Gravity{1}									
	Hydrotest{1}	34	13	13	0	34	13	29	270
	Thermal 1{1}	0	96	-98	5	96	-98	98	214
	Thermal 2{1}	0	107	-109	5	107	-109	109	213
	Thermal 3{1}	0	96	-98	5	96	-98	98	214
	Thermal 4{1}	0	93	-95	5	93	-95	95	215

		S_LINEREVO.OUT						
		100	-102	5	100	-102	102	212
Thermal 5{1}	0							
GRT1{1}	0	78	-80	4	79	-80	80	222
GRT2{1}	0	89	-91	4	89	-91	91	219
GRT3{1}	0	78	-80	4	78	-80	80	222
GRT4{1}	0	76	-77	4	76	-78	78	223
GRT5{1}	0	82	-84	4	82	-84	84	219
T05 N- SIFI= 1.00 SIFO= 1.00								
Gravity{1}	0	12	-12	1	12	-12	12	2
Hydrotest{1}	34	13	13	0	34	13	29	270
Thermal 1{1}	0	59	-61	5	59	-61	61	4
Thermal 2{1}	0	68	-70	5	68	-70	70	4
Thermal 3{1}	0	59	-61	5	59	-61	61	4
Thermal 4{1}	0	57	-59	5	57	-59	59	4
Thermal 5{1}	0	64	-66	5	64	-66	66	4
GRT1{1}	0	47	-49	4	48	-49	50	5
GRT2{1}	0	56	-58	4	56	-58	58	4
GRT3{1}	0	47	-49	4	48	-49	50	5
GRT4{1}	0	45	-47	4	46	-47	48	5
GRT5{1}	0	52	-54	4	52	-54	54	4
T05 N+ SIFI= 1.18 SIFO= 1.18								
Gravity{1}	0	14	-14	1	14	-14	14	2
Hydrotest{1}	34	13	13	0	34	13	29	270
Thermal 1{1}	0	70	-72	5	70	-72	72	4
Thermal 2{1}	0	80	-82	5	80	-83	83	4
Thermal 3{1}	0	70	-72	5	70	-72	72	4
Thermal 4{1}	0	67	-69	5	68	-70	70	4
Thermal 5{1}	0	75	-77	5	76	-78	78	4
GRT1{1}	0	56	-58	4	56	-58	58	5
GRT2{1}	0	66	-69	4	67	-69	69	4
GRT3{1}	0	56	-58	4	56	-58	58	5
GRT4{1}	0	54	-56	4	54	-56	56	5
GRT5{1}	0	62	-64	4	62	-64	64	4
T05 M SIFI= 1.18 SIFO= 1.18								
Gravity{1}	0	16	-15	1	16	-15	16	356
Hydrotest{1}	34	13	13	0	34	13	29	270
Thermal 1{1}	0	75	-79	6	76	-80	80	359
Thermal 2{1}	0	87	-91	6	87	-92	92	360
Thermal 3{1}	0	75	-79	6	76	-80	80	359
Thermal 4{1}	0	73	-77	6	73	-77	77	359
Thermal 5{1}	0	81	-86	5	82	-86	86	359

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
	GRT1{1}	0	60	-63	5	60	-64	64 360
	GRT2{1}	0	71	-75	5	72	-75	75 1
	GRT3{1}	0	60	-63	5	60	-63	64 360
	GRT4{1}	0	57	-61	5	58	-61	61 360
	GRT5{1}	0	66	-70	5	66	-70	70 0
T05 F-	SIFI= 1.18 SIFO= 1.18 Gravity{1}	0	17	-16	0	17	-16	17 353
	Hydrotest{1}	34	13	13	0	34	13	29 270
	Thermal 1{1}	0	75	-78	4	75	-79	79 355
	Thermal 2{1}	0	86	-90	5	86	-90	90 356
	Thermal 3{1}	0	75	-78	4	75	-79	79 355
	Thermal 4{1}	0	72	-76	4	73	-76	76 354
	Thermal 5{1}	0	81	-85	4	81	-85	85 356
	GRT1{1}	0	59	-62	4	59	-62	62 355
	GRT2{1}	0	70	-73	4	70	-73	74 357
	GRT3{1}	0	59	-61	4	59	-62	62 355
	GRT4{1}	0	56	-59	4	57	-59	59 355
	GRT5{1}	0	65	-68	4	65	-68	68 357
T05 F+	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	14	-13	0	14	-13	14 173
	Hydrotest{1}	34	13	13	0	34	13	29 270
	Thermal 1{1}	0	63	-67	4	63	-67	67 175
	Thermal 2{1}	0	72	-77	5	73	-77	77 176
	Thermal 3{1}	0	63	-66	4	63	-67	67 175
	Thermal 4{1}	0	61	-64	4	61	-65	65 174
	Thermal 5{1}	0	68	-72	4	68	-72	72 176
	GRT1{1}	0	49	-52	4	50	-53	53 175
	GRT2{1}	0	59	-62	4	59	-62	63 177
	GRT3{1}	0	49	-52	4	50	-52	53 175
	GRT4{1}	0	47	-50	4	48	-50	50 175
	GRT5{1}	0	55	-58	4	55	-58	58 177
T11	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	10	-9	0	10	-9	10 178
	Hydrotest{1}	34	13	13	0	34	13	29 270

		S_LINEREVO.OUT							
Thermal 1{1}		0	36	-40	4	37	-40	41	253
Thermal 2{1}		0	40	-44	5	41	-45	45	250
Thermal 3{1}		0	36	-40	4	37	-40	41	253
Thermal 4{1}		0	35	-38	4	35	-39	39	254
Thermal 5{1}		0	37	-41	4	37	-41	42	249
GRT1{1}		0	36	-38	4	36	-39	39	268
GRT2{1}		0	39	-42	4	39	-43	43	263
GRT3{1}		0	35	-38	4	36	-39	39	268
GRT4{1}		0	34	-37	4	35	-37	38	269
GRT5{1}		0	36	-38	4	36	-39	39	263
T10 SIFI= 1.00 SIFO= 1.00									
Gravity{1}		0	4	-2	0	4	-2	4	23
Hydrotest{1}		34	13	13	0	34	13	29	270
Thermal 1{1}		0	11	-14	4	12	-16	16	78

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RESULT PAGE 238

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total				
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc	
-----	-----	-----	-----	-----	-----	-----	-----	-----	---	
T06	Thermal 2{1}	0	12	-16	5	14	-17	18	75	
	Thermal 3{1}	0	11	-14	4	12	-16	16	78	
	Thermal 4{1}	0	10	-14	4	12	-15	16	78	
	Thermal 5{1}	0	11	-15	4	13	-16	17	75	
	GRT1{1}	0	10	-12	4	12	-13	14	89	
	GRT2{1}	0	11	-14	4	13	-15	16	85	
	GRT3{1}	0	10	-12	4	12	-13	14	89	
	GRT4{1}	0	10	-12	4	11	-13	14	89	
	GRT5{1}	0	11	-13	4	12	-14	14	85	
	- SIFI= 1.00 Gravity{1} SIFO= 1.00		0	6	-3	0	6	-3	6	13
	Hydrotest{1}	34	13	13	0	34	13	29	270	
	Thermal 1{1}	0	10	-13	4	11	-15	15	5	
	Thermal 2{1}	0	11	-15	5	13	-17	17	6	
	Thermal 3{1}	0	10	-13	4	11	-15	15	5	
	Thermal 4{1}	0	9	-13	4	11	-14	15	5	
Thermal 5{1}	0	10	-14	4	12	-15	16	6		
GRT1{1}	0	7	-8	4	9	-10	11	0		

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	GRT2{1}	0	8	-10	4	10	-11	12	3
	GRT3{1}	0	7	-8	4	9	-10	11	0
	GRT4{1}	0	6	-7	4	8	-9	10	0
	GRT5{1}	0	7	-9	4	9	-10	11	3
T06	+ SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	4	-4	0	4	-4	4	188
	Hydrotest{1}	34	13	13	0	34	13	29	270
	Thermal 1{1}	0	14	-14	1	14	-14	14	217
	Thermal 2{1}	0	16	-16	1	16	-16	16	215
	Thermal 3{1}	0	14	-14	1	14	-14	14	217
	Thermal 4{1}	0	14	-14	0	14	-14	14	218
	Thermal 5{1}	0	15	-15	1	15	-15	15	215
	GRT1{1}	0	11	-11	0	11	-11	11	228
	GRT2{1}	0	12	-12	0	12	-12	12	224
	GRT3{1}	0	11	-11	0	11	-11	11	228
	GRT4{1}	0	11	-11	0	11	-11	11	229
	GRT5{1}	0	11	-11	0	11	-11	11	225
T07	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	57	-57	0	57	-57	57	1
	Hydrotest{1}	34	13	13	0	34	13	29	270
	Thermal 1{1}	0	67	-67	1	67	-67	67	15
	Thermal 2{1}	0	76	-76	1	76	-76	76	14
	Thermal 3{1}	0	67	-67	1	67	-67	67	15
	Thermal 4{1}	0	65	-65	0	65	-65	65	16
	Thermal 5{1}	0	71	-72	1	71	-72	72	14
	GRT1{1}	0	18	-18	0	18	-18	18	67
	GRT2{1}	0	24	-24	0	24	-24	24	47
	GRT3{1}	0	18	-18	0	18	-18	18	67
	GRT4{1}	0	17	-17	0	17	-17	17	73
	GRT5{1}	0	20	-20	0	20	-20	20	53

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
-----	-----	-----	-----	-----	-----	-----	-----	-----
T08	SIFI= 2.00 SIFO= 2.00							

		S_LINEREVO.OUT							
	Gravity{1}	0	19	-19	0	19	-19	19	1
	Hydrotest{1}	41	16	16	0	41	16	36	270
	Thermal 1{1}	0	23	-23	0	23	-23	23	10
	Thermal 2{1}	0	26	-26	0	26	-26	26	9
	Thermal 3{1}	0	23	-23	0	23	-23	23	10
	Thermal 4{1}	0	22	-22	0	22	-22	22	10
	Thermal 5{1}	0	25	-25	0	25	-25	25	9
	GRT1{1}	0	5	-5	0	5	-5	5	45
	GRT2{1}	0	8	-8	0	8	-8	8	29
	GRT3{1}	0	5	-5	0	5	-5	5	45
	GRT4{1}	0	4	-4	0	4	-4	4	51
	GRT5{1}	0	6	-6	0	6	-6	6	34
T09	SIFI= 1.00 SIFO= 1.00								
	Gravity{1}	0	15	-15	0	15	-15	15	1
	Hydrotest{1}	41	16	16	0	41	16	36	270
	Thermal 1{1}	0	19	-19	0	19	-19	19	6
	Thermal 2{1}	0	21	-21	0	21	-21	21	6
	Thermal 3{1}	0	19	-19	0	19	-19	19	6
	Thermal 4{1}	0	18	-18	0	18	-18	18	6
	Thermal 5{1}	0	20	-20	0	20	-20	20	6
	GRT1{1}	0	4	-4	0	4	-4	4	28
	GRT2{1}	0	6	-6	0	6	-6	6	18
	GRT3{1}	0	4	-4	0	4	-4	4	28
	GRT4{1}	0	3	-3	0	3	-3	3	32
	GRT5{1}	0	5	-5	0	5	-5	5	20
*** Segment T end ***									
*** Segment U begin ***									
T06	SIFI= 1.00 SIFO= 1.00								
	Gravity{1}	0	0	0	0	0	0	0	270
	Hydrotest{1}	34	13	13	0	34	13	29	270
	Thermal 1{1}	0	0	0	0	0	0	0	90
	Thermal 2{1}	0	0	0	0	0	0	0	90
	Thermal 3{1}	0	0	0	0	0	0	0	90
	Thermal 4{1}	0	0	0	0	0	0	0	90
	Thermal 5{1}	0	0	0	0	0	0	0	90
	GRT1{1}	0	0	0	0	0	0	0	270
	GRT2{1}	0	0	0	0	0	0	0	270
	GRT3{1}	0	0	0	0	0	0	0	270
	GRT4{1}	0	0	0	0	0	0	0	270
	GRT5{1}	0	0	0	0	0	0	0	270
U01	SIFI= 2.00 SIFO= 2.00								
	Gravity{1}	0	0	0	0	0	0	0	270
	Hydrotest{1}	34	13	13	0	34	13	29	270

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Thermal 1{1}	0	0	0	0	0	0	0	90
Thermal 2{1}	0	0	0	0	0	0	0	90
Thermal 3{1}	0	0	0	0	0	0	0	90

 S_LINEREV0

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total	
name	combination	Stress	Max	Min	Stress	Max	Min
	Thermal 4{1}	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0
	GRT1{1}	0	0	0	0	0	0
	GRT2{1}	0	0	0	0	0	0
	GRT3{1}	0	0	0	0	0	0
	GRT4{1}	0	0	0	0	0	0
	GRT5{1}	0	0	0	0	0	0
U02	SIFI= 2.30 SIF0= 2.30 Gravity{1}	0	0	0	0	0	0
	Hydrotest{1}	21	6	6	0	21	6
	Thermal 1{1}	0	0	0	0	0	0
	Thermal 2{1}	0	0	0	0	0	0
	Thermal 3{1}	0	0	0	0	0	0
	Thermal 4{1}	0	0	0	0	0	0
	Thermal 5{1}	0	0	0	0	0	0
	GRT1{1}	0	0	0	0	0	0
	GRT2{1}	0	0	0	0	0	0
	GRT3{1}	0	0	0	0	0	0
	GRT4{1}	0	0	0	0	0	0
	GRT5{1}	0	0	0	0	0	0

*** Segment U end ***

 S_LINEREV0

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AutoPIPE Plus 9.2.1 RESULT PAGE 241

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)		S_LINEREV0.OUT (Stress in N/mm2)				
Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
-----	-----	-----	-----	-----	-----	-----	-----	-----
F02	Max P{1}					HOOP	12	104
	GR + Max P{1}	385			2.00	2-1 SUST	69	104
	TR:Amb to T1{1}			1244	2.00	4-1 DISP	271	247**
	with Sus. load margin Amb to T1{1}			4-2 1244	2.00	271 282 4-1 DISP	271	247**
	with Sus. load margin Amb to T2{1}			4-2 965	2.00	271 282 4-1 DISP	210	247
	Amb to T3{1}			1125	2.00	4-1 DISP	245	217**
	with Sus. load margin Amb to T4{1}			4-2 942	2.00	245 252 4-1 DISP	205	217
	Amb to T5{1}			585	2.00	4-1 DISP	127	229
	Hydrotest{1}	0	0		2.00	3-1 OCC	1	219
	Sus.+T1{1}				2.00	5-1 CRUP	136	<NOTE 1>
	Sus.+T2{1}				2.00	5-1 CRUP	121	<NOTE 1>
	Sus.+T3{1}				2.00	5-1 CRUP	130	<NOTE 1>
	Sus.+T4{1}				2.00	5-1 CRUP	120	<NOTE 1>
	Sus.+T5{1}				2.00	5-1 CRUP	101	<NOTE 1>
	S07	Max P{1}					HOOP	12
GR + Max P{1}		105			2.00	2-1 SUST	23	104
TR:Amb to T1{1}				1155	2.00	4-1 DISP	251	247**
with Sus. load margin Amb to T1{1}				4-2 1155	2.00	251 327 4-1 DISP	251	247**
with Sus. load margin Amb to T2{1}				4-2 952	2.00	251 327 4-1 DISP	207	247
Amb to T3{1}				1154	2.00	4-1 DISP	251	217**
with Sus. load margin Amb to T4{1}				4-2 954	2.00	251 297 4-1 DISP	208	217
Amb to T5{1}				556	2.00	4-1 DISP	121	229
Hydrotest{1}		0	0		2.00	3-1 OCC	1	219
Sus.+T1{1}					2.00	5-1 CRUP	86	<NOTE 1>
Sus.+T2{1}					2.00	5-1 CRUP	75	<NOTE 1>
Sus.+T3{1}					2.00	5-1 CRUP	86	<NOTE 1>
Sus.+T4{1}					2.00	5-1 CRUP	75	<NOTE 1>
Sus.+T5{1}					2.00	5-1 CRUP	53	<NOTE 1>
F23		Max P{1}					HOOP	13
	GR + Max P{1}	180			2.00	2-1 SUST	16	104
	TR:Amb to T2{1}			3509	2.00	4-1 DISP	248	247**
	with Sus. load margin Amb to T1{1}			4-2 3277	2.00	248 335 4-1 DISP	232	247
	Amb to T2{1}			3509	2.00	4-1 DISP	248	247**
	with Sus. load margin			4-2		248 335		

Amb to T3{1}			S_LINEREV0.0UT 3394	2.00	4-1 DISP	240	217**
with Sus. load margin			4-2 2838	2.00	240 305 4-1 DISP	201	217
Amb to T4{1}			1460	2.00	4-1 DISP	103	229
Amb to T5{1}				2.00	3-1 OCC	1	219
Hydrotest{1}	0	0		2.00	5-1 CRUP	74	<NOTE 1>
Sus.+T1{1}				2.00	5-1 CRUP	78	<NOTE 1>
Sus.+T2{1}				2.00	5-1 CRUP	76	<NOTE 1>
Sus.+T3{1}				2.00	5-1 CRUP		

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)		Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F				
	Sus.+T4{1}				2.00	5-1 CRUP	66	<NOTE 1>	
	Sus.+T5{1}				2.00	5-1 CRUP	41	<NOTE 1>	
D15 M	Max P{1}					HOOP	65	87	
	GR + Max P{1}	40			1.32	2-1 SUST	34	87	
	TR:Amb to T1{1}			2183	1.32	4-1 DISP	241	201**	
	with Sus. load margin			4-2	241	254			
	Amb to T1{1}			2183	1.32	4-1 DISP	241	201**	
	with Sus. load margin			4-2	241	254			
	Amb to T2{1}			1658	1.32	4-1 DISP	183	198	
	Amb to T3{1}			1684	1.32	4-1 DISP	186	201	
	Amb to T4{1}			1622	1.32	4-1 DISP	179	209	
	Amb to T5{1}			1617	1.32	4-1 DISP	178	229	
	Hydrotest{1}	0	0		1.32	3-1 OCC	24	219	
	Sus.+T1{1}				1.32	5-1 CRUP	95	<NOTE 1>	
	Sus.+T2{1}				1.32	5-1 CRUP	80	<NOTE 1>	
	Sus.+T3{1}				1.32	5-1 CRUP	81	<NOTE 1>	
	Sus.+T4{1}				1.32	5-1 CRUP	79	<NOTE 1>	
	Sus.+T5{1}				1.32	5-1 CRUP	79	<NOTE 1>	
D15 F-	Max P{1}					HOOP	65	87	
	GR + Max P{1}	38			1.32	2-1 SUST	34	87	
	TR:Amb to T1{1}			2109	1.32	4-1 DISP	233	201**	
	with Sus. load margin			4-2	233	254			
	Amb to T1{1}			2109	1.32	4-1 DISP	233	201**	
	with Sus. load margin			4-2	233	254			
	Amb to T2{1}			1609	1.32	4-1 DISP	177	198	

		S_LINEREVO.OUT					
Amb to T3{1}		1625	1.32	4-1 DISP	179	201	
Amb to T4{1}		1568	1.32	4-1 DISP	173	209	
Amb to T5{1}		1572	1.32	4-1 DISP	173	229	
Hydrotest{1}	0	0	1.32	3-1 OCC	24	219	
Sus.+T1{1}			1.32	5-1 CRUP	93	<NOTE 1>	
Sus.+T2{1}			1.32	5-1 CRUP	79	<NOTE 1>	
Sus.+T3{1}			1.32	5-1 CRUP	79	<NOTE 1>	
Sus.+T4{1}			1.32	5-1 CRUP	78	<NOTE 1>	
Sus.+T5{1}			1.32	5-1 CRUP	78	<NOTE 1>	
D15 N+ Max P{1}				HOOP	65	87	
GR + Max P{1}	39		1.32	2-1 SUST	34	87	
TR:Amb to T1{1}		2014	1.32	4-1 DISP	222	201**	
with Sus. load margin		4-2		222	254		
Amb to T1{1}		2014	1.32	4-1 DISP	222	201**	
with Sus. load margin		4-2		222	254		
Amb to T2{1}		1503	1.32	4-1 DISP	166	198	
Amb to T3{1}		1534	1.32	4-1 DISP	169	201	
Amb to T4{1}		1474	1.32	4-1 DISP	163	209	
Amb to T5{1}		1462	1.32	4-1 DISP	161	229	
Hydrotest{1}	0	0	1.32	3-1 OCC	24	219	
Sus.+T1{1}			1.32	5-1 CRUP	90	<NOTE 1>	
Sus.+T2{1}			1.32	5-1 CRUP	76	<NOTE 1>	
Sus.+T3{1}			1.32	5-1 CRUP	77	<NOTE 1>	
Sus.+T4{1}			1.32	5-1 CRUP	75	<NOTE 1>	

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AutoPIPE Plus 9.2.1 RESULT PAGE 243

EN 13480 (2002) CODE COMPLIANCE								
(Moments in N.m)			(Stress in N/mm2)					
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code	
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.

	Sus.+T5{1}				1.32	5-1 CRUP	75	<NOTE 1>
S12								
	Max P{1}					HOOP	13	104
	GR + Max P{1}	102			2.00	2-1 SUST	11	104
	TR:Amb to T1{1}			3104	2.00	4-1 DISP	220	247
	Amb to T1{1}			3104	2.00	4-1 DISP	220	247
	Amb to T2{1}			1485	2.00	4-1 DISP	105	247
	Amb to T3{1}			1514	2.00	4-1 DISP	107	217
	Amb to T4{1}			1470	2.00	4-1 DISP	104	217

S_LINEREV0.OUT

Amb to T5{1}		1914	2.00	4-1	DISP	136	229
Hydrotest{1}	0	0	2.00	3-1	OCC	1	219
Sus.+T1{1}			2.00	5-1	CRUP	66	<NOTE 1>
Sus.+T2{1}			2.00	5-1	CRUP	38	<NOTE 1>
Sus.+T3{1}			2.00	5-1	CRUP	38	<NOTE 1>
Sus.+T4{1}			2.00	5-1	CRUP	37	<NOTE 1>
Sus.+T5{1}			2.00	5-1	CRUP	45	<NOTE 1>
F05 F- Max P{1}					HOOP	13	104
GR + Max P{1}	173		1.78	2-1	SUST	14	104
TR:Amb to T2{1}		3228	1.78	4-1	DISP	203	247
Amb to T1{1}		3004	1.78	4-1	DISP	189	247
Amb to T2{1}		3228	1.78	4-1	DISP	203	247
Amb to T3{1}		3134	1.78	4-1	DISP	197	217
Amb to T4{1}		2625	1.78	4-1	DISP	165	217
Amb to T5{1}		1361	1.78	4-1	DISP	86	229
Hydrotest{1}	0	0	1.78	3-1	OCC	1	219
Sus.+T1{1}			1.78	5-1	CRUP	61	<NOTE 1>
Sus.+T2{1}			1.78	5-1	CRUP	65	<NOTE 1>
Sus.+T3{1}			1.78	5-1	CRUP	64	<NOTE 1>
Sus.+T4{1}			1.78	5-1	CRUP	55	<NOTE 1>
Sus.+T5{1}			1.78	5-1	CRUP	36	<NOTE 1>
S11 F- Max P{1}					HOOP	13	104
GR + Max P{1}	102		1.78	2-1	SUST	11	104
TR:Amb to T1{1}		2884	1.78	4-1	DISP	181	247
Amb to T1{1}		2884	1.78	4-1	DISP	181	247
Amb to T2{1}		1383	1.78	4-1	DISP	87	247
Amb to T3{1}		1434	1.78	4-1	DISP	90	217
Amb to T4{1}		1385	1.78	4-1	DISP	87	217
Amb to T5{1}		1780	1.78	4-1	DISP	112	229
Hydrotest{1}	0	0	1.78	3-1	OCC	1	219
Sus.+T1{1}			1.78	5-1	CRUP	56	<NOTE 1>
Sus.+T2{1}			1.78	5-1	CRUP	33	<NOTE 1>
Sus.+T3{1}			1.78	5-1	CRUP	33	<NOTE 1>
Sus.+T4{1}			1.78	5-1	CRUP	33	<NOTE 1>
Sus.+T5{1}			1.78	5-1	CRUP	39	<NOTE 1>

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		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

D15 F+	Max P{1}					HOOP	65	87	
	GR + Max P{1}	38			1.00	2-1 SUST	34	87	
	TR:Amb to T1{1}			2109	1.00	4-1 DISP	176	201	
	Amb to T1{1}			2109	1.00	4-1 DISP	176	201	
	Amb to T2{1}			1609	1.00	4-1 DISP	134	198	
	Amb to T3{1}			1625	1.00	4-1 DISP	136	201	
	Amb to T4{1}			1568	1.00	4-1 DISP	131	209	
	Amb to T5{1}			1572	1.00	4-1 DISP	131	229	
	Hydrotest{1}	0	0		1.00	3-1 OCC	24	219	
	Sus.+T1{1}				1.00	5-1 CRUP	93	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	79	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	79	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	78	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	78	<NOTE 1>	
T03	Max P{1}					HOOP	50	88	
	GR + Max P{1}	97			1.80	2-1 SUST	52	88	
	TR:Amb to T2{1}			455	1.80	4-1 DISP	172	201	
	Amb to T1{1}			419	1.80	4-1 DISP	158	207	
	Amb to T2{1}			455	1.80	4-1 DISP	172	201	
	Amb to T3{1}			419	1.80	4-1 DISP	158	207	
	Amb to T4{1}			409	1.80	4-1 DISP	154	208	
	Amb to T5{1}			425	1.80	4-1 DISP	160	203	
	Hydrotest{1}	0	0		1.80	3-1 OCC	19	219	
	Sus.+T1{1}				1.80	5-1 CRUP	91	<NOTE 1>	
	Sus.+T2{1}				1.80	5-1 CRUP	95	<NOTE 1>	
	Sus.+T3{1}				1.80	5-1 CRUP	91	<NOTE 1>	
	Sus.+T4{1}				1.80	5-1 CRUP	90	<NOTE 1>	
	Sus.+T5{1}				1.80	5-1 CRUP	92	<NOTE 1>	
S11 N+	Max P{1}					HOOP	13	104	
	GR + Max P{1}	101			1.78	2-1 SUST	11	104	
	TR:Amb to T1{1}			2716	1.78	4-1 DISP	171	247	
	Amb to T1{1}			2716	1.78	4-1 DISP	171	247	
	Amb to T2{1}			1309	1.78	4-1 DISP	82	247	
	Amb to T3{1}			1373	1.78	4-1 DISP	86	217	
	Amb to T4{1}			1310	1.78	4-1 DISP	82	217	
	Amb to T5{1}			1668	1.78	4-1 DISP	105	229	

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Hydrotest{1}	0	0	1.78	3-1	OCC	1 219
Sus.+T1{1}			1.78	5-1	CRUP	54 <NOTE 1>
Sus.+T2{1}			1.78	5-1	CRUP	31 <NOTE 1>
Sus.+T3{1}			1.78	5-1	CRUP	32 <NOTE 1>
Sus.+T4{1}			1.78	5-1	CRUP	31 <NOTE 1>
Sus.+T5{1}			1.78	5-1	CRUP	37 <NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

T02	Max P{1}					HOOP	50	88	
	GR + Max P{1}	89			1.80	2-1 SUST	50	88	
	TR:Amb to T2{1}			450	1.80	4-1 DISP	170	201	
	Amb to T1{1}			422	1.80	4-1 DISP	159	207	
	Amb to T2{1}			450	1.80	4-1 DISP	170	201	
	Amb to T3{1}			422	1.80	4-1 DISP	159	207	
	Amb to T4{1}			413	1.80	4-1 DISP	156	208	
	Amb to T5{1}			420	1.80	4-1 DISP	158	203	
	Hydrotest{1}	0	0		1.80	3-1 OCC	19	219	
	Sus.+T1{1}				1.80	5-1 CRUP	90	<NOTE 1>	
	Sus.+T2{1}				1.80	5-1 CRUP	92	<NOTE 1>	
	Sus.+T3{1}				1.80	5-1 CRUP	90	<NOTE 1>	
	Sus.+T4{1}				1.80	5-1 CRUP	89	<NOTE 1>	
	Sus.+T5{1}				1.80	5-1 CRUP	89	<NOTE 1>	
D15 N-	Max P{1}					HOOP	65	87	
	GR + Max P{1}	39			1.00	2-1 SUST	34	87	
	TR:Amb to T1{1}			2014	1.00	4-1 DISP	168	201	
	Amb to T1{1}			2014	1.00	4-1 DISP	168	201	
	Amb to T2{1}			1503	1.00	4-1 DISP	125	198	
	Amb to T3{1}			1534	1.00	4-1 DISP	128	201	
	Amb to T4{1}			1474	1.00	4-1 DISP	123	209	
	Amb to T5{1}			1462	1.00	4-1 DISP	122	229	
	Hydrotest{1}	0	0		1.00	3-1 OCC	24	219	
	Sus.+T1{1}				1.00	5-1 CRUP	90	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	76	<NOTE 1>	

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Sus.+T3{1}			1.00	5-1	CRUP	77	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	75	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	75	<NOTE 1>
S04 N+ Max P{1}					HOOP	65	87
GR + Max P{1}	83		1.32	2-1	SUST	38	87
TR:Amb to T1{1}		1458	1.32	4-1	DISP	161	201
Amb to T1{1}		1458	1.32	4-1	DISP	161	201
Amb to T2{1}		1188	1.32	4-1	DISP	131	198
Amb to T3{1}		1204	1.32	4-1	DISP	133	201
Amb to T4{1}		1068	1.32	4-1	DISP	118	209
Amb to T5{1}		920	1.32	4-1	DISP	101	229
Hydrotest{1}	0	0	1.32	3-1	OCC	24	219
Sus.+T1{1}			1.32	5-1	CRUP	78	<NOTE 1>
Sus.+T2{1}			1.32	5-1	CRUP	71	<NOTE 1>
Sus.+T3{1}			1.32	5-1	CRUP	71	<NOTE 1>
Sus.+T4{1}			1.32	5-1	CRUP	67	<NOTE 1>
Sus.+T5{1}			1.32	5-1	CRUP	63	<NOTE 1>

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		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no.	type	Stress	Allow.
F05 N+ Max P{1}							HOOP	13	104
GR + Max P{1}		129			1.78	2-1	SUST	12	104
TR:Amb to T2{1}				2531	1.78	4-1	DISP	159	247
Amb to T1{1}				2391	1.78	4-1	DISP	150	247
Amb to T2{1}				2531	1.78	4-1	DISP	159	247
Amb to T3{1}				2439	1.78	4-1	DISP	153	217
Amb to T4{1}				2050	1.78	4-1	DISP	129	217
Amb to T5{1}				1113	1.78	4-1	DISP	70	229
Hydrotest{1}		0	0		1.78	3-1	OCC	1	219
Sus.+T1{1}					1.78	5-1	CRUP	50	<NOTE 1>
Sus.+T2{1}					1.78	5-1	CRUP	52	<NOTE 1>
Sus.+T3{1}					1.78	5-1	CRUP	51	<NOTE 1>
Sus.+T4{1}					1.78	5-1	CRUP	44	<NOTE 1>

			S_LINEREV0.OUT				
	Sus.+T5{1}			1.78	5-1 CRUP	30	<NOTE 1>
D14	Max P{1}				HOOP	65	87
	GR + Max P{1}	59		1.00	2-1 SUST	35	87
	TR:Amb to T1{1}		2056	1.00	4-1 DISP	158	201
	Amb to T1{1}		2056	1.00	4-1 DISP	158	201
	Amb to T2{1}		1316	1.00	4-1 DISP	101	198
	Amb to T3{1}		1310	1.00	4-1 DISP	100	201
	Amb to T4{1}		1284	1.00	4-1 DISP	98	209
	Amb to T5{1}		1530	1.00	4-1 DISP	117	229
	Hydrotest{1}	0	0	1.00	3-1 OCC	24	219
	Sus.+T1{1}			1.00	5-1 CRUP	88	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	69	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	69	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	68	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	74	<NOTE 1>
B04	+ Max P{1}				HOOP	62	87
	GR + Max P{1}	286		1.00	2-1 SUST	42	87
	TR:Amb to T2{1}		3444	1.00	4-1 DISP	157	198
	Amb to T1{1}		3143	1.00	4-1 DISP	143	201
	Amb to T2{1}		3444	1.00	4-1 DISP	157	198
	Amb to T3{1}		3143	1.00	4-1 DISP	143	201
	Amb to T4{1}		3074	1.00	4-1 DISP	140	203
	Amb to T5{1}		3243	1.00	4-1 DISP	148	203
	Hydrotest{1}	0	0	1.00	3-1 OCC	23	219
	Sus.+T1{1}			1.00	5-1 CRUP	90	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	95	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	90	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	89	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	92	<NOTE 1>

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		(Moments in N.m)			(Stress in N/mm2)		
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F no. type	Stress	Allow.
J01	Max P{1}				HOOP	50	88

		S_LINEREV0.OUT				
GR + Max P{1}	24		1.00	2-1 SUST	30	88
TR:Amb to T2{1}		744	1.00	4-1 DISP	156	201
Amb to T1{1}		636	1.00	4-1 DISP	133	207
Amb to T2{1}		744	1.00	4-1 DISP	156	201
Amb to T3{1}		702	1.00	4-1 DISP	147	207
Amb to T4{1}		634	1.00	4-1 DISP	133	211
Amb to T5{1}		432	1.00	4-1 DISP	91	229
Hydrotest{1}	0	0	1.00	3-1 OCC	19	219
Sus.+T1{1}			1.00	5-1 CRUP	74	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	82	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	79	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	74	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	60	<NOTE 1>
D11 + Max P{1}				HOOP	65	87
GR + Max P{1}	77		1.00	2-1 SUST	37	87
TR:T1 to T2{1}		1769	1.00	4-1 DISP	148	198
Amb to T1{1}		1769	1.00	4-1 DISP	148	201
Amb to T2{1}		1543	1.00	4-1 DISP	129	198
Amb to T3{1}		1318	1.00	4-1 DISP	110	201
Amb to T4{1}		1147	1.00	4-1 DISP	96	209
Amb to T5{1}		979	1.00	4-1 DISP	82	229
Hydrotest{1}	0	0	1.00	3-1 OCC	24	219
Sus.+T1{1}			1.00	5-1 CRUP	86	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	80	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	74	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	69	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	64	<NOTE 1>
S04 F- Max P{1}				HOOP	65	87
GR + Max P{1}	105		1.32	2-1 SUST	40	87
TR:Amb to T1{1}		1332	1.32	4-1 DISP	147	201
Amb to T1{1}		1332	1.32	4-1 DISP	147	201
Amb to T2{1}		1111	1.32	4-1 DISP	123	198
Amb to T3{1}		1103	1.32	4-1 DISP	122	201
Amb to T4{1}		973	1.32	4-1 DISP	107	209
Amb to T5{1}		836	1.32	4-1 DISP	92	229
Hydrotest{1}	0	0	1.32	3-1 OCC	24	219
Sus.+T1{1}			1.32	5-1 CRUP	77	<NOTE 1>
Sus.+T2{1}			1.32	5-1 CRUP	70	<NOTE 1>
Sus.+T3{1}			1.32	5-1 CRUP	70	<NOTE 1>
Sus.+T4{1}			1.32	5-1 CRUP	67	<NOTE 1>
Sus.+T5{1}			1.32	5-1 CRUP	63	<NOTE 1>

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Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. no.	Load type		
T01	+ Max P{1}						HOOP	50	88
	GR + Max P{1}	66			1.00	2-1	SUST	38	88
	TR:Amb to T2{1}			700	1.00	4-1	DISP	147	201
	Amb to T1{1}			662	1.00	4-1	DISP	139	207
	Amb to T2{1}			700	1.00	4-1	DISP	147	201
	Amb to T3{1}			661	1.00	4-1	DISP	139	207
	Amb to T4{1}			648	1.00	4-1	DISP	136	208
	Amb to T5{1}			651	1.00	4-1	DISP	136	203
	Hydrotest{1}	0	0		1.00	3-1	OCC	19	219
	Sus.+T1{1}				1.00	5-1	CRUP	85	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP	87	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP	85	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP	84	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP	84	<NOTE 1>
T01	- Max P{1}						HOOP	50	88
	GR + Max P{1}	66			1.00	2-1	SUST	38	88
	TR:Amb to T2{1}			700	1.00	4-1	DISP	147	201
	Amb to T1{1}			662	1.00	4-1	DISP	139	201
	Amb to T2{1}			700	1.00	4-1	DISP	147	201
	Amb to T3{1}			661	1.00	4-1	DISP	139	207
	Amb to T4{1}			648	1.00	4-1	DISP	136	208
	Amb to T5{1}			651	1.00	4-1	DISP	136	203
	Hydrotest{1}	0	0		1.00	3-1	OCC	19	219
	Sus.+T1{1}				1.00	5-1	CRUP	85	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP	87	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP	85	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP	84	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP	84	<NOTE 1>
S01	+ Max P{1}						HOOP	65	87
	GR + Max P{1}	40			1.00	2-1	SUST	34	87
	TR:Amb to T1{1}			1755	1.00	4-1	DISP	147	201

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Amb to T1{1}			1755	1.00	4-1 DISP	147	201
Amb to T2{1}			1150	1.00	4-1 DISP	96	198
Amb to T3{1}			1186	1.00	4-1 DISP	99	201
Amb to T4{1}			1159	1.00	4-1 DISP	97	209
Amb to T5{1}			1297	1.00	4-1 DISP	108	229
Hydrotest{1}	0	0		1.00	3-1 OCC	24	219
Sus.+T1{1}				1.00	5-1 CRUP	83	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	66	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	67	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	66	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	70	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

S01	Max P{1}					HOOP	65	87	
	GR + Max P{1}	40			1.00	2-1 SUST	34	87	
	TR:Amb to T1{1}			1755	1.00	4-1 DISP	147	201	
	Amb to T1{1}			1755	1.00	4-1 DISP	147	201	
	Amb to T2{1}			1150	1.00	4-1 DISP	96	198	
	Amb to T3{1}			1186	1.00	4-1 DISP	99	201	
	Amb to T4{1}			1159	1.00	4-1 DISP	97	209	
	Amb to T5{1}			1297	1.00	4-1 DISP	108	229	
	Hydrotest{1}	0	0		1.00	3-1 OCC	24	219	
	Sus.+T1{1}				1.00	5-1 CRUP	83	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	66	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	67	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	66	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	70	<NOTE 1>	
D05	Max P{1}					HOOP	50	88	
	GR + Max P{1}	25			1.00	2-1 SUST	29	88	
	TR:Amb to T2{1}			776	1.00	4-1 DISP	146	201	
	Amb to T1{1}			663	1.00	4-1 DISP	125	207	
	Amb to T2{1}			776	1.00	4-1 DISP	146	201	

		S_LINEREV0.OUT					
Amb to T3{1}		732	1.00	4-1 DISP	138	207	
Amb to T4{1}		661	1.00	4-1 DISP	125	211	
Amb to T5{1}		449	1.00	4-1 DISP	85	229	
Hydrotest{1}	0	0	1.00	3-1 OCC	19	219	
Sus.+T1{1}			1.00	5-1 CRUP	71	<NOTE 1>	
Sus.+T2{1}			1.00	5-1 CRUP	78	<NOTE 1>	
Sus.+T3{1}			1.00	5-1 CRUP	75	<NOTE 1>	
Sus.+T4{1}			1.00	5-1 CRUP	71	<NOTE 1>	
Sus.+T5{1}			1.00	5-1 CRUP	58	<NOTE 1>	

B07 - Max P{1}				HOOP	62	87	
GR + Max P{1}	169		1.00	2-1 SUST	36	87	
TR:Amb to T2{1}		3497	1.00	4-1 DISP	146	198	
Amb to T1{1}		3284	1.00	4-1 DISP	137	201	
Amb to T2{1}		3497	1.00	4-1 DISP	146	198	
Amb to T3{1}		3284	1.00	4-1 DISP	137	201	
Amb to T4{1}		3232	1.00	4-1 DISP	135	203	
Amb to T5{1}		3314	1.00	4-1 DISP	138	203	
Hydrotest{1}	0	0	1.00	3-1 OCC	23	219	
Sus.+T1{1}			1.00	5-1 CRUP	82	<NOTE 1>	
Sus.+T2{1}			1.00	5-1 CRUP	85	<NOTE 1>	
Sus.+T3{1}			1.00	5-1 CRUP	82	<NOTE 1>	
Sus.+T4{1}			1.00	5-1 CRUP	81	<NOTE 1>	
Sus.+T5{1}			1.00	5-1 CRUP	82	<NOTE 1>	

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S_LINEREV0

09/27/2010 STEAMLINE

BENTLEY

12:34 PM

AutoPIPE Plus 9.2.1

RESULT PAGE 250

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
F10	Max P{1}					HOOP	16	104	
	GR + Max P{1}	194			2.00	2-1 SUST	13	104	
	TR:Amb to T2{1}			3781	2.00	4-1 DISP	144	247	
	Amb to T1{1}			3540	2.00	4-1 DISP	134	247	
	Amb to T2{1}			3781	2.00	4-1 DISP	144	247	
	Amb to T3{1}			3646	2.00	4-1 DISP	138	217	
	Amb to T4{1}			3046	2.00	4-1 DISP	116	217	
	Amb to T5{1}			1559	2.00	4-1 DISP	59	229	

S_LINEREVO.OUT

Hydrotest{1}	0	0	2.00	3-1	OCC	1	219
Sus.+T1{1}			2.00	5-1	CRUP	46	<NOTE 1>
Sus.+T2{1}			2.00	5-1	CRUP	49	<NOTE 1>
Sus.+T3{1}			2.00	5-1	CRUP	47	<NOTE 1>
Sus.+T4{1}			2.00	5-1	CRUP	42	<NOTE 1>
Sus.+T5{1}			2.00	5-1	CRUP	27	<NOTE 1>
C01 N+ Max P{1}					HOOP	62	87
GR + Max P{1}	51		1.63	2-1	SUST	32	87
TR:Amb to T2{1}		1921	1.63	4-1	DISP	143	198
Amb to T1{1}		1808	1.63	4-1	DISP	135	201
Amb to T2{1}		1921	1.63	4-1	DISP	143	198
Amb to T3{1}		1808	1.63	4-1	DISP	135	201
Amb to T4{1}		1778	1.63	4-1	DISP	132	203
Amb to T5{1}		1816	1.63	4-1	DISP	135	203
Hydrotest{1}	0	0	1.63	3-1	OCC	23	219
Sus.+T1{1}			1.63	5-1	CRUP	66	<NOTE 1>
Sus.+T2{1}			1.63	5-1	CRUP	68	<NOTE 1>
Sus.+T3{1}			1.63	5-1	CRUP	66	<NOTE 1>
Sus.+T4{1}			1.63	5-1	CRUP	65	<NOTE 1>
Sus.+T5{1}			1.63	5-1	CRUP	66	<NOTE 1>
L03 N+ Max P{1}					HOOP	65	88
GR + Max P{1}	53		1.32	2-1	SUST	35	88
TR:Amb to T2{1}		1290	1.32	4-1	DISP	142	201
Amb to T1{1}		1186	1.32	4-1	DISP	131	207
Amb to T2{1}		1290	1.32	4-1	DISP	142	201
Amb to T3{1}		1186	1.32	4-1	DISP	131	207
Amb to T4{1}		1163	1.32	4-1	DISP	128	208
Amb to T5{1}		1221	1.32	4-1	DISP	135	203
Hydrotest{1}	0	0	1.32	3-1	OCC	24	219
Sus.+T1{1}			1.32	5-1	CRUP	68	<NOTE 1>
Sus.+T2{1}			1.32	5-1	CRUP	71	<NOTE 1>
Sus.+T3{1}			1.32	5-1	CRUP	68	<NOTE 1>
Sus.+T4{1}			1.32	5-1	CRUP	68	<NOTE 1>
Sus.+T5{1}			1.32	5-1	CRUP	69	<NOTE 1>

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 S_LINEREVO
 09/27/2010 STEAMLINE
 12:34 PM
 AutoPIPE Plus 9.2.1

BENTLEY

RESULT PAGE 251

S_LINEREVO.OUT

Point	Load	(Moments in N.m)			(Stress in N/mm2)			Code	Code
		Ma	Mb	Mc	S.I.F	Eq. Load			
name	combination	(Sus.)	(Occ.)	(Exp.)		no. type	Stress	Allow.	

C10	Max P{1}					HOOP	62	87	
	GR + Max P{1}	43			2.00	2-1 SUST	32	87	
	TR:Amb to T2{1}			1529	2.00	4-1 DISP	139	198	
	Amb to T1{1}			1396	2.00	4-1 DISP	127	201	
	Amb to T2{1}			1529	2.00	4-1 DISP	139	198	
	Amb to T3{1}			1396	2.00	4-1 DISP	127	201	
	Amb to T4{1}			1370	2.00	4-1 DISP	125	203	
	Amb to T5{1}			1454	2.00	4-1 DISP	133	203	
	Hydrotest{1}	0	0		2.00	3-1 OCC	23	219	
	Sus.+T1{1}				2.00	5-1 CRUP	64	<NOTE 1>	
	Sus.+T2{1}				2.00	5-1 CRUP	67	<NOTE 1>	
	Sus.+T3{1}				2.00	5-1 CRUP	64	<NOTE 1>	
	Sus.+T4{1}				2.00	5-1 CRUP	64	<NOTE 1>	
	Sus.+T5{1}				2.00	5-1 CRUP	66	<NOTE 1>	
E04	Max P{1}					HOOP	50	88	
	GR + Max P{1}	64			1.00	2-1 SUST	37	88	
	TR:Amb to T2{1}			735	1.00	4-1 DISP	139	201	
	Amb to T1{1}			694	1.00	4-1 DISP	131	201	
	Amb to T2{1}			735	1.00	4-1 DISP	139	201	
	Amb to T3{1}			694	1.00	4-1 DISP	131	207	
	Amb to T4{1}			679	1.00	4-1 DISP	128	208	
	Amb to T5{1}			683	1.00	4-1 DISP	129	203	
	Hydrotest{1}	0	0		1.00	3-1 OCC	19	219	
	Sus.+T1{1}				1.00	5-1 CRUP	80	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	83	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	80	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	79	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	80	<NOTE 1>	
C01 F-	Max P{1}					HOOP	62	87	
	GR + Max P{1}	47			1.63	2-1 SUST	32	87	
	TR:Amb to T2{1}			1857	1.63	4-1 DISP	138	198	
	Amb to T1{1}			1743	1.63	4-1 DISP	130	201	
	Amb to T2{1}			1857	1.63	4-1 DISP	138	198	
	Amb to T3{1}			1743	1.63	4-1 DISP	130	201	
	Amb to T4{1}			1714	1.63	4-1 DISP	128	203	
	Amb to T5{1}			1756	1.63	4-1 DISP	131	203	
	Hydrotest{1}	0	0		1.63	3-1 OCC	23	219	

	S_LINEREV0.OUT			
Sus.+T1{1}	1.63	5-1	CRUP	65 <NOTE 1>
Sus.+T2{1}	1.63	5-1	CRUP	67 <NOTE 1>
Sus.+T3{1}	1.63	5-1	CRUP	65 <NOTE 1>
Sus.+T4{1}	1.63	5-1	CRUP	64 <NOTE 1>
Sus.+T5{1}	1.63	5-1	CRUP	65 <NOTE 1>

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S_LINEREV0

09/27/2010 STEAMLINE

BENTLEY

12:34 PM

AutoPIPE Plus 9.2.1

RESULT PAGE 252

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
T04 N+	Max P{1}					HOOP	50 88
	GR + Max P{1}	110			1.18	2-1 SUST	48 88
	TR:Amb to T2{1}			554	1.18	4-1 DISP	137 201
	Amb to T1{1}			498	1.18	4-1 DISP	123 207
	Amb to T2{1}			554	1.18	4-1 DISP	137 201
	Amb to T3{1}			497	1.18	4-1 DISP	123 207
	Amb to T4{1}			483	1.18	4-1 DISP	120 208
	Amb to T5{1}			518	1.18	4-1 DISP	128 203
	Hydrotest{1}	0	0		1.18	3-1 OCC	19 219
	Sus.+T1{1}				1.18	5-1 CRUP	82 <NOTE 1>
	Sus.+T2{1}				1.18	5-1 CRUP	86 <NOTE 1>
	Sus.+T3{1}				1.18	5-1 CRUP	82 <NOTE 1>
	Sus.+T4{1}				1.18	5-1 CRUP	81 <NOTE 1>
	Sus.+T5{1}				1.18	5-1 CRUP	84 <NOTE 1>
L01	Max P{1}					HOOP	65 88
	GR + Max P{1}	17			1.00	2-1 SUST	32 88
	TR:Amb to T2{1}			1588	1.00	4-1 DISP	133 201
	Amb to T1{1}			1522	1.00	4-1 DISP	127 207
	Amb to T2{1}			1588	1.00	4-1 DISP	133 201
	Amb to T3{1}			1522	1.00	4-1 DISP	127 207
	Amb to T4{1}			1498	1.00	4-1 DISP	125 208
	Amb to T5{1}			1490	1.00	4-1 DISP	124 203
	Hydrotest{1}	0	0		1.00	3-1 OCC	24 219
	Sus.+T1{1}				1.00	5-1 CRUP	75 <NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	76 <NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	75 <NOTE 1>

Sus.+T4{1}			1.00	5-1 CRUP	74	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	74	<NOTE 1>
Max P{1}				HOOP	62	87
GR + Max P{1}	95		2.00	2-1 SUST	36	87
TR:Amb to T2{1}		1445	2.00	4-1 DISP	132	198
Amb to T1{1}		1341	2.00	4-1 DISP	122	201
Amb to T2{1}		1445	2.00	4-1 DISP	132	198
Amb to T3{1}		1341	2.00	4-1 DISP	122	201
Amb to T4{1}		1320	2.00	4-1 DISP	120	203
Amb to T5{1}		1381	2.00	4-1 DISP	126	203
Hydrotest{1}	0	0	2.00	3-1 OCC	23	219
Sus.+T1{1}			2.00	5-1 CRUP	66	<NOTE 1>
Sus.+T2{1}			2.00	5-1 CRUP	69	<NOTE 1>
Sus.+T3{1}			2.00	5-1 CRUP	66	<NOTE 1>
Sus.+T4{1}			2.00	5-1 CRUP	66	<NOTE 1>
Sus.+T5{1}			2.00	5-1 CRUP	67	<NOTE 1>

S10 F-	Max P{1}					HOOP	13	104
	GR + Max P{1}	62		1.78	2-1	SUST	9	104
	TR:Amb to T1{1}		2077	1.78	4-1	DISP	131	247
	Amb to T1{1}		2077	1.78	4-1	DISP	131	247
	Amb to T2{1}		902	1.78	4-1	DISP	57	247
	Amb to T3{1}		1138	1.78	4-1	DISP	72	217
	Amb to T4{1}		1115	1.78	4-1	DISP	70	217
	Amb to T5{1}		1337	1.78	4-1	DISP	84	229
	Hydrotest{1}	0	0	1.78	3-1	OCC	1	219
	Sus.+T1{1}			1.78	5-1	CRUP	42	<NOTE 1>
	Sus.+T2{1}			1.78	5-1	CRUP	23	<NOTE 1>
	Sus.+T3{1}			1.78	5-1	CRUP	27	<NOTE 1>
	Sus.+T4{1}			1.78	5-1	CRUP	27	<NOTE 1>
	Sus.+T5{1}			1.78	5-1	CRUP	30	<NOTE 1>
	T04 F-	Max P{1}					HOOP	50
GR + Max P{1}		101		1.18	2-1	SUST	46	88
TR:Amb to T2{1}			517	1.18	4-1	DISP	128	201
Amb to T1{1}			464	1.18	4-1	DISP	115	207
Amb to T2{1}			517	1.18	4-1	DISP	128	201
Amb to T3{1}			464	1.18	4-1	DISP	115	207
Amb to T4{1}			450	1.18	4-1	DISP	112	208
Amb to T5{1}			483	1.18	4-1	DISP	120	203
Hydrotest{1}		0	0	1.18	3-1	OCC	19	219
Sus.+T1{1}				1.18	5-1	CRUP	78	<NOTE 1>
Sus.+T2{1}				1.18	5-1	CRUP	82	<NOTE 1>
Sus.+T3{1}				1.18	5-1	CRUP	78	<NOTE 1>
Sus.+T4{1}				1.18	5-1	CRUP	77	<NOTE 1>
Sus.+T5{1}				1.18	5-1	CRUP	79	<NOTE 1>

S_LINEREV0

BENTLEY

AutoPIPE Plus 9.2.1 RESULT PAGE 254

(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
-----	-----	-----	-----	-----	-----	-----	-----	-----
S10 N+ Max P{1}						H00P	13	104
	GR + Max P{1}	58			1.78	2-1 SUST	9	104

			S_LINEREV0.OUT				
	TR:Amb to T1{1}		2029	1.78	4-1 DISP	128	247
	Amb to T1{1}		2029	1.78	4-1 DISP	128	247
	Amb to T2{1}		1043	1.78	4-1 DISP	66	247
	Amb to T3{1}		1374	1.78	4-1 DISP	86	217
	Amb to T4{1}		1261	1.78	4-1 DISP	79	217
	Amb to T5{1}		1231	1.78	4-1 DISP	77	229
	Hydrotest{1}	0	0	1.78	3-1 OCC	1	219
	Sus.+T1{1}			1.78	5-1 CRUP	41	<NOTE 1>
	Sus.+T2{1}			1.78	5-1 CRUP	25	<NOTE 1>
	Sus.+T3{1}			1.78	5-1 CRUP	30	<NOTE 1>
	Sus.+T4{1}			1.78	5-1 CRUP	29	<NOTE 1>
	Sus.+T5{1}			1.78	5-1 CRUP	28	<NOTE 1>
S13	Max P{1}				HOOP	16	104
	GR + Max P{1}	99		2.00	2-1 SUST	10	104
	TR:Amb to T1{1}		3325	2.00	4-1 DISP	126	247
	Amb to T1{1}		3325	2.00	4-1 DISP	126	247
	Amb to T2{1}		1595	2.00	4-1 DISP	61	247
	Amb to T3{1}		1594	2.00	4-1 DISP	61	217
	Amb to T4{1}		1555	2.00	4-1 DISP	59	217
	Amb to T5{1}		2048	2.00	4-1 DISP	78	229
	Hydrotest{1}	0	0	2.00	3-1 OCC	1	219
	Sus.+T1{1}			2.00	5-1 CRUP	41	<NOTE 1>
	Sus.+T2{1}			2.00	5-1 CRUP	25	<NOTE 1>
	Sus.+T3{1}			2.00	5-1 CRUP	25	<NOTE 1>
	Sus.+T4{1}			2.00	5-1 CRUP	25	<NOTE 1>
	Sus.+T5{1}			2.00	5-1 CRUP	29	<NOTE 1>
D14	+ Max P{1}				HOOP	65	87
	GR + Max P{1}	57		1.00	2-1 SUST	36	87
	TR:Amb to T2{1}		1510	1.00	4-1 DISP	126	198
	Amb to T1{1}		1510	1.00	4-1 DISP	126	201
	Amb to T2{1}		756	1.00	4-1 DISP	63	198
	Amb to T3{1}		793	1.00	4-1 DISP	66	201
	Amb to T4{1}		722	1.00	4-1 DISP	60	209
	Amb to T5{1}		846	1.00	4-1 DISP	71	229
	Hydrotest{1}	0	0	1.00	3-1 OCC	24	219
	Sus.+T1{1}			1.00	5-1 CRUP	78	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	57	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	58	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	56	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	59	<NOTE 1>

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S_LINEREV0

09/27/2010 STEAMLINE

BENTLEY

12:34 PM

AutoPIPE Plus 9.2.1

RESULT PAGE 255

EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. Load no. type			
B04	Max P{1}					HOOP		65	88
	GR + Max P{1}	21			1.00	2-1 SUST		32	88
	TR:Amb to T2{1}			1617	1.00	4-1 DISP		124	201
	Amb to T1{1}			1553	1.00	4-1 DISP		119	207
	Amb to T2{1}			1617	1.00	4-1 DISP		124	201
	Amb to T3{1}			1553	1.00	4-1 DISP		119	207
	Amb to T4{1}			1528	1.00	4-1 DISP		117	208
	Amb to T5{1}			1517	1.00	4-1 DISP		116	203
	Hydrotest{1}	0	0		1.00	3-1 OCC		24	219
	Sus.+T1{1}				1.00	5-1 CRUP		72	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP		74	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP		72	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP		71	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP		71	<NOTE 1>
S04 N-	Max P{1}					HOOP		65	87
	GR + Max P{1}	83			1.00	2-1 SUST		38	87
	TR:Amb to T1{1}			1458	1.00	4-1 DISP		122	201
	Amb to T1{1}			1458	1.00	4-1 DISP		122	201
	Amb to T2{1}			1188	1.00	4-1 DISP		99	198
	Amb to T3{1}			1204	1.00	4-1 DISP		101	201
	Amb to T4{1}			1068	1.00	4-1 DISP		89	209
	Amb to T5{1}			920	1.00	4-1 DISP		77	229
	Hydrotest{1}	0	0		1.00	3-1 OCC		24	219
	Sus.+T1{1}				1.00	5-1 CRUP		78	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP		71	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP		71	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP		67	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP		63	<NOTE 1>
C013 +	Max P{1}					HOOP		65	87
	GR + Max P{1}	57			1.00	2-1 SUST		36	87
	TR:Amb to T1{1}			1445	1.00	4-1 DISP		121	201
	Amb to T1{1}			1445	1.00	4-1 DISP		121	201

Amb to T2{1}			1131	1.00	4-1 DISP	94	198
Amb to T3{1}			1165	1.00	4-1 DISP	97	201
Amb to T4{1}			1056	1.00	4-1 DISP	88	209
Amb to T5{1}			951	1.00	4-1 DISP	79	229
Hydrotest{1}	0	0		1.00	3-1 OCC	24	219
Sus.+T1{1}				1.00	5-1 CRUP	76	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	67	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	68	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	65	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	62	<NOTE 1>

		S_LINEREV0.OUT					
Amb to T4{1}		1272	1.00	4-1 DISP	106	203	
Amb to T5{1}		1328	1.00	4-1 DISP	111	203	
Hydrotest{1}	0	0	1.00	3-1 OCC	24	219	
Sus.+T1{1}			1.00	5-1 CRUP	93	<NOTE 1>	
Sus.+T2{1}			1.00	5-1 CRUP	97	<NOTE 1>	
Sus.+T3{1}			1.00	5-1 CRUP	93	<NOTE 1>	
Sus.+T4{1}			1.00	5-1 CRUP	93	<NOTE 1>	
Sus.+T5{1}			1.00	5-1 CRUP	94	<NOTE 1>	
T04 N- Max P{1}				HOOP	50	88	
GR + Max P{1}	110		1.00	2-1 SUST	48	88	
TR:Amb to T2{1}		554	1.00	4-1 DISP	116	201	
Amb to T1{1}		498	1.00	4-1 DISP	104	207	
Amb to T2{1}		554	1.00	4-1 DISP	116	201	
Amb to T3{1}		497	1.00	4-1 DISP	104	207	
Amb to T4{1}		483	1.00	4-1 DISP	101	208	
Amb to T5{1}		518	1.00	4-1 DISP	108	203	
Hydrotest{1}	0	0	1.00	3-1 OCC	19	219	
Sus.+T1{1}			1.00	5-1 CRUP	82	<NOTE 1>	
Sus.+T2{1}			1.00	5-1 CRUP	86	<NOTE 1>	
Sus.+T3{1}			1.00	5-1 CRUP	82	<NOTE 1>	
Sus.+T4{1}			1.00	5-1 CRUP	81	<NOTE 1>	
Sus.+T5{1}			1.00	5-1 CRUP	84	<NOTE 1>	

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S_LINEREV0

09/27/2010 STEAMLINE

BENTLEY

12:34 PM

AutoPIPE Plus 9.2.1 RESULT PAGE 257

EN 13480 (2002) CODE COMPLIANCE								
		(Moments in N.m)			(Stress in N/mm2)			
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code	
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.

L02	Max P{1}					HOOP	65	88
	GR + Max P{1}	24			1.00	2-1 SUST	33	88
	TR:Amb to T2{1}			1389	1.00	4-1 DISP	116	201
	Amb to T1{1}			1306	1.00	4-1 DISP	109	207
	Amb to T2{1}			1389	1.00	4-1 DISP	116	201
	Amb to T3{1}			1306	1.00	4-1 DISP	109	207
	Amb to T4{1}			1283	1.00	4-1 DISP	107	208
	Amb to T5{1}			1309	1.00	4-1 DISP	109	203
	Hydrotest{1}	0	0		1.00	3-1 OCC	24	219

S_LINEREV0.OUT

	Sus.+T1{1}		1.00	5-1	CRUP	69	<NOTE 1>
	Sus.+T2{1}		1.00	5-1	CRUP	71	<NOTE 1>
	Sus.+T3{1}		1.00	5-1	CRUP	69	<NOTE 1>
	Sus.+T4{1}		1.00	5-1	CRUP	69	<NOTE 1>
	Sus.+T5{1}		1.00	5-1	CRUP	69	<NOTE 1>
B08 N+	Max P{1}				HOOP	62	87
	GR + Max P{1}	54	1.63	2-1	SUST	32	87
	TR:Amb to T2{1}		1554	1.63	4-1	DISP	116 198
	Amb to T1{1}		1457	1.63	4-1	DISP	109 201
	Amb to T2{1}		1554	1.63	4-1	DISP	116 198
	Amb to T3{1}		1457	1.63	4-1	DISP	109 201
	Amb to T4{1}		1433	1.63	4-1	DISP	107 203
	Amb to T5{1}		1471	1.63	4-1	DISP	110 203
	Hydrotest{1}	0 0	1.63	3-1	OCC	23	219
	Sus.+T1{1}		1.63	5-1	CRUP	60	<NOTE 1>
	Sus.+T2{1}		1.63	5-1	CRUP	61	<NOTE 1>
	Sus.+T3{1}		1.63	5-1	CRUP	60	<NOTE 1>
	Sus.+T4{1}		1.63	5-1	CRUP	59	<NOTE 1>
	Sus.+T5{1}		1.63	5-1	CRUP	60	<NOTE 1>
F14	Max P{1}				HOOP	12	104
	GR + Max P{1}	396	1.00	2-1	SUST	49	104
	TR:Amb to T1{1}		1059	1.00	4-1	DISP	115 247
	Amb to T1{1}		1059	1.00	4-1	DISP	115 247
	Amb to T2{1}		741	1.00	4-1	DISP	81 247
	Amb to T3{1}		830	1.00	4-1	DISP	90 217
	Amb to T4{1}		717	1.00	4-1	DISP	78 217
	Amb to T5{1}		592	1.00	4-1	DISP	64 229
	Hydrotest{1}	0 0	1.00	3-1	OCC	1	219
	Sus.+T1{1}		1.00	5-1	CRUP	87	<NOTE 1>
	Sus.+T2{1}		1.00	5-1	CRUP	76	<NOTE 1>
	Sus.+T3{1}		1.00	5-1	CRUP	79	<NOTE 1>
	Sus.+T4{1}		1.00	5-1	CRUP	75	<NOTE 1>
	Sus.+T5{1}		1.00	5-1	CRUP	70	<NOTE 1>

 S_LINEREV0
 09/27/2010 STEAMLINE
 12:34 PM
 AutoPIPE Plus 9.2.1

BENTLEY

S_LINEREV0.OUT

Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
-----	-----	-----	-----	-----	-----	-----	-----	-----
B08 F-	Max P{1}					HOOP	62	87
	GR + Max P{1}	33			1.63	2-1 SUST	31	87
	TR:Amb to T2{1}			1543	1.63	4-1 DISP	115	198
	Amb to T1{1}			1446	1.63	4-1 DISP	108	201
	Amb to T2{1}			1543	1.63	4-1 DISP	115	198
	Amb to T3{1}			1446	1.63	4-1 DISP	108	201
	Amb to T4{1}			1423	1.63	4-1 DISP	106	203
	Amb to T5{1}			1463	1.63	4-1 DISP	109	203
	Hydrotest{1}	0	0		1.63	3-1 OCC	23	219
	Sus.+T1{1}				1.63	5-1 CRUP	58	<NOTE 1>
	Sus.+T2{1}				1.63	5-1 CRUP	60	<NOTE 1>
	Sus.+T3{1}				1.63	5-1 CRUP	58	<NOTE 1>
	Sus.+T4{1}				1.63	5-1 CRUP	58	<NOTE 1>
	Sus.+T5{1}				1.63	5-1 CRUP	59	<NOTE 1>
L03 F-	Max P{1}					HOOP	65	88
	GR + Max P{1}	34			1.32	2-1 SUST	34	88
	TR:Amb to T2{1}			1042	1.32	4-1 DISP	115	201
	Amb to T1{1}			966	1.32	4-1 DISP	107	207
	Amb to T2{1}			1042	1.32	4-1 DISP	115	201
	Amb to T3{1}			966	1.32	4-1 DISP	107	207
	Amb to T4{1}			948	1.32	4-1 DISP	105	208
	Amb to T5{1}			986	1.32	4-1 DISP	109	203
	Hydrotest{1}	0	0		1.32	3-1 OCC	24	219
	Sus.+T1{1}				1.32	5-1 CRUP	61	<NOTE 1>
	Sus.+T2{1}				1.32	5-1 CRUP	63	<NOTE 1>
	Sus.+T3{1}				1.32	5-1 CRUP	61	<NOTE 1>
	Sus.+T4{1}				1.32	5-1 CRUP	60	<NOTE 1>
	Sus.+T5{1}				1.32	5-1 CRUP	61	<NOTE 1>
F05 F+	Max P{1}					HOOP	13	104
	GR + Max P{1}	173			1.00	2-1 SUST	12	104
	TR:Amb to T2{1}			3228	1.00	4-1 DISP	114	247
	Amb to T1{1}			3004	1.00	4-1 DISP	106	247
	Amb to T2{1}			3228	1.00	4-1 DISP	114	247
	Amb to T3{1}			3134	1.00	4-1 DISP	111	217
	Amb to T4{1}			2625	1.00	4-1 DISP	93	217
	Amb to T5{1}			1361	1.00	4-1 DISP	48	229
	Hydrotest{1}	0	0		1.00	3-1 OCC	1	219
	Sus.+T1{1}				1.00	5-1 CRUP	48	<NOTE 1>

Sus.+T2{1}	S_LINEREV0.OUT	1.00	5-1 CRUP	50 <NOTE 1>
Sus.+T3{1}		1.00	5-1 CRUP	49 <NOTE 1>
Sus.+T4{1}		1.00	5-1 CRUP	43 <NOTE 1>
Sus.+T5{1}		1.00	5-1 CRUP	28 <NOTE 1>

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AutoPIPE Plus 9.2.1

RESULT PAGE 259

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

F21	+ Max P{1}					HOOP	65	87	
	GR + Max P{1}	209			1.00	2-1 SUST	48	87	
	TR:Amb to T2{1}			1356	1.00	4-1 DISP	113	198	
	Amb to T1{1}			1299	1.00	4-1 DISP	108	201	
	Amb to T2{1}			1356	1.00	4-1 DISP	113	198	
	Amb to T3{1}			1174	1.00	4-1 DISP	98	201	
	Amb to T4{1}			1059	1.00	4-1 DISP	88	209	
	Amb to T5{1}			784	1.00	4-1 DISP	65	229	
	Hydrotest{1}	0	0		1.00	3-1 OCC	24	219	
	Sus.+T1{1}				1.00	5-1 CRUP	84	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	86	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	81	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	78	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	70	<NOTE 1>	
F21	- Max P{1}					HOOP	65	87	
	GR + Max P{1}	209			1.00	2-1 SUST	48	87	
	TR:Amb to T2{1}			1356	1.00	4-1 DISP	113	198	
	Amb to T1{1}			1299	1.00	4-1 DISP	108	201	
	Amb to T2{1}			1356	1.00	4-1 DISP	113	198	
	Amb to T3{1}			1174	1.00	4-1 DISP	98	201	
	Amb to T4{1}			1059	1.00	4-1 DISP	88	209	
	Amb to T5{1}			784	1.00	4-1 DISP	65	229	
	Hydrotest{1}	0	0		1.00	3-1 OCC	24	219	
	Sus.+T1{1}				1.00	5-1 CRUP	84	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	86	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	81	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	78	<NOTE 1>	

Sus.+T5{1}			1.00	5-1 CRUP	70	<NOTE 1>
Max P{1}				HOOP	65	87
GR + Max P{1}	105		1.00	2-1 SUST	40	87
TR:Amb to T1{1}		1332	1.00	4-1 DISP	111	201
Amb to T1{1}		1332	1.00	4-1 DISP	111	201
Amb to T2{1}		1111	1.00	4-1 DISP	93	198
Amb to T3{1}		1103	1.00	4-1 DISP	92	201
Amb to T4{1}		973	1.00	4-1 DISP	81	209
Amb to T5{1}		836	1.00	4-1 DISP	70	229
Hydrotest{1}	0	0	1.00	3-1 OCC	24	219
Sus.+T1{1}			1.00	5-1 CRUP	77	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	70	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	70	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	67	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	63	<NOTE 1>

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Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
B05 N+	Max P{1}					HOOP	62	87
	GR + Max P{1}	89			1.25	2-1 SUST	34	87
	TR:Amb to T2{1}			1953	1.25	4-1 DISP	111	198
	Amb to T1{1}			1790	1.25	4-1 DISP	102	201
	Amb to T2{1}			1953	1.25	4-1 DISP	111	198
	Amb to T3{1}			1790	1.25	4-1 DISP	102	201
	Amb to T4{1}			1749	1.25	4-1 DISP	99	203
	Amb to T5{1}			1828	1.25	4-1 DISP	104	203
	Hydrotest{1}	0	0		1.25	3-1 OCC	23	219
	Sus.+T1{1}				1.25	5-1 CRUP	61	<NOTE 1>
	Sus.+T2{1}				1.25	5-1 CRUP	63	<NOTE 1>
	Sus.+T3{1}				1.25	5-1 CRUP	61	<NOTE 1>
	Sus.+T4{1}				1.25	5-1 CRUP	60	<NOTE 1>
	Sus.+T5{1}				1.25	5-1 CRUP	61	<NOTE 1>

HV23	Max P{1}	H00P	65	88

GR + Max P{1}	41	1.00	2-1 SUST	34	88
TR:Amb to T2{1}		1324	1.00	4-1 DISP	201
Amb to T1{1}		1229	1.00	4-1 DISP	207
Amb to T2{1}		1324	1.00	4-1 DISP	201
Amb to T3{1}		1229	1.00	4-1 DISP	207
Amb to T4{1}		1206	1.00	4-1 DISP	208
Amb to T5{1}		1250	1.00	4-1 DISP	203
Hydrotest{1}	0	0	1.00	3-1 OCC	219
Sus.+T1{1}			1.00	5-1 CRUP	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	<NOTE 1>

S16	Max P{1}					HOOP	65	87
	GR + Max P{1}	105		1.00	2-1	SUST	40	87
	TR:Amb to T1{1}		1312	1.00	4-1	DISP	110	201
	Amb to T1{1}		1312	1.00	4-1	DISP	110	201
	Amb to T2{1}		1095	1.00	4-1	DISP	91	198
	Amb to T3{1}		1086	1.00	4-1	DISP	91	201
	Amb to T4{1}		959	1.00	4-1	DISP	80	209
	Amb to T5{1}		826	1.00	4-1	DISP	69	229
	Hydrotest{1}	0	0	1.00	3-1	OCC	24	219
	Sus.+T1{1}			1.00	5-1	CRUP	76	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	70	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	70	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	66	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	63	<NOTE 1>

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AutoPIPE Plus 9.2.1 RESULT PAGE 261

(Moments in N.m) (Stress in N/mm²)

Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
-----	-----	-----	-----	-----	-----	-----	-----	-----
T04 F+ Max P{1}						H00P	50	88
	GR + Max P{1}	101			1.00	2-1 SUST	46	88
	TR:Amb to T2{1}			517	1.00	4-1 DISP	108	201

			S_LINEREVO.00T				
Amb to T1{1}			464	1.00	4-1 DISP	97	207
Amb to T2{1}			517	1.00	4-1 DISP	108	201
Amb to T3{1}			464	1.00	4-1 DISP	97	207
Amb to T4{1}			450	1.00	4-1 DISP	94	208
Amb to T5{1}			483	1.00	4-1 DISP	101	203
Hydrotest{1}	0	0		1.00	3-1 OCC	19	219
Sus.+T1{1}				1.00	5-1 CRUP	78	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	82	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	78	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	77	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	79	<NOTE 1>
L03 N- Max P{1}					HOOP	65	88
GR + Max P{1}	53			1.00	2-1 SUST	35	88
TR:Amb to T2{1}			1290	1.00	4-1 DISP	108	201
Amb to T1{1}			1186	1.00	4-1 DISP	99	207
Amb to T2{1}			1290	1.00	4-1 DISP	108	201
Amb to T3{1}			1186	1.00	4-1 DISP	99	207
Amb to T4{1}			1163	1.00	4-1 DISP	97	208
Amb to T5{1}			1221	1.00	4-1 DISP	102	203
Hydrotest{1}	0	0		1.00	3-1 OCC	24	219
Sus.+T1{1}				1.00	5-1 CRUP	68	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	71	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	68	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	68	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	69	<NOTE 1>
B06 F- Max P{1}					HOOP	62	87
GR + Max P{1}	310			1.25	2-1 SUST	44	87
TR:Amb to T2{1}			1862	1.25	4-1 DISP	106	198
Amb to T1{1}			1759	1.25	4-1 DISP	100	201
Amb to T2{1}			1862	1.25	4-1 DISP	106	198
Amb to T3{1}			1759	1.25	4-1 DISP	100	201
Amb to T4{1}			1733	1.25	4-1 DISP	99	203
Amb to T5{1}			1768	1.25	4-1 DISP	101	203
Hydrotest{1}	0	0		1.25	3-1 OCC	23	219
Sus.+T1{1}				1.25	5-1 CRUP	70	<NOTE 1>
Sus.+T2{1}				1.25	5-1 CRUP	72	<NOTE 1>
Sus.+T3{1}				1.25	5-1 CRUP	70	<NOTE 1>
Sus.+T4{1}				1.25	5-1 CRUP	70	<NOTE 1>
Sus.+T5{1}				1.25	5-1 CRUP	70	<NOTE 1>

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S_LINEREVO

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AutoPIPE Plus 9.2.1

RESULT PAGE 262

EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F					
J02	Max P{1}							HOOP	50	88
	GR + Max P{1}	19			1.80	2-1	SUST		30	88
	TR:Amb to T2{1}			279	1.80	4-1	DISP		105	201
	Amb to T1{1}			246	1.80	4-1	DISP		93	207
	Amb to T2{1}			279	1.80	4-1	DISP		105	201
	Amb to T3{1}			265	1.80	4-1	DISP		100	207
	Amb to T4{1}			241	1.80	4-1	DISP		91	211
	Amb to T5{1}			173	1.80	4-1	DISP		65	229
	Hydrotest{1}	0	0		1.80	3-1	OCC		19	219
	Sus.+T1{1}				1.80	5-1	CRUP		53	<NOTE 1>
	Sus.+T2{1}				1.80	5-1	CRUP		56	<NOTE 1>
	Sus.+T3{1}				1.80	5-1	CRUP		55	<NOTE 1>
	Sus.+T4{1}				1.80	5-1	CRUP		53	<NOTE 1>
	Sus.+T5{1}				1.80	5-1	CRUP		46	<NOTE 1>
S09 F-	Max P{1}							HOOP	13	104
	GR + Max P{1}	78			1.78	2-1	SUST		10	104
	TR:Amb to T1{1}			1670	1.78	4-1	DISP		105	247
	Amb to T1{1}			1670	1.78	4-1	DISP		105	247
	Amb to T2{1}			1251	1.78	4-1	DISP		79	247
	Amb to T3{1}			1532	1.78	4-1	DISP		96	217
	Amb to T4{1}			1278	1.78	4-1	DISP		80	217
	Amb to T5{1}			826	1.78	4-1	DISP		52	229
	Hydrotest{1}	0	0		1.78	3-1	OCC		1	219
	Sus.+T1{1}				1.78	5-1	CRUP		36	<NOTE 1>
	Sus.+T2{1}				1.78	5-1	CRUP		29	<NOTE 1>
	Sus.+T3{1}				1.78	5-1	CRUP		34	<NOTE 1>
	Sus.+T4{1}				1.78	5-1	CRUP		30	<NOTE 1>
	Sus.+T5{1}				1.78	5-1	CRUP		23	<NOTE 1>
S11 F+	Max P{1}							HOOP	13	104
	GR + Max P{1}	102			1.00	2-1	SUST		10	104
	TR:Amb to T1{1}			2884	1.00	4-1	DISP		102	247
	Amb to T1{1}			2884	1.00	4-1	DISP		102	247
	Amb to T2{1}			1383	1.00	4-1	DISP		49	247

Amb to T3{1}			1434	1.00	4-1 DISP	51	217
Amb to T4{1}			1385	1.00	4-1 DISP	49	217
Amb to T5{1}			1780	1.00	4-1 DISP	63	229
Hydrotest{1}	0	0		1.00	3-1 OCC	1	219
Sus.+T1{1}				1.00	5-1 CRUP	44	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	26	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	27	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	26	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	31	<NOTE 1>

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Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
-----	-----	-----	-----	-----	-----	-----	-----	-----
D01 N+	Max P{1}					HOOP	33	89
	GR + Max P{1}	110			1.32	2-1 SUST	25	89
	TR:Amb to T2{1}			925	1.32	4-1 DISP	102	201
	Amb to T1{1}			786	1.32	4-1 DISP	87	201
	Amb to T2{1}			925	1.32	4-1 DISP	102	201
	Amb to T3{1}			891	1.32	4-1 DISP	98	201
	Amb to T4{1}			809	1.32	4-1 DISP	89	201
	Amb to T5{1}			589	1.32	4-1 DISP	65	201
	Hydrotest{1}	0	0		1.32	3-1 OCC	24	219
	Sus.+T1{1}				1.32	5-1 CRUP	47	<NOTE 1>
	Sus.+T2{1}				1.32	5-1 CRUP	51	<NOTE 1>
	Sus.+T3{1}				1.32	5-1 CRUP	50	<NOTE 1>
	Sus.+T4{1}				1.32	5-1 CRUP	48	<NOTE 1>
	Sus.+T5{1}				1.32	5-1 CRUP	41	<NOTE 1>
B05 F-	Max P{1}					HOOP	62	87
	GR + Max P{1}	117			1.25	2-1 SUST	35	87
	TR:Amb to T2{1}			1787	1.25	4-1 DISP	102	198
	Amb to T1{1}			1640	1.25	4-1 DISP	93	201
	Amb to T2{1}			1787	1.25	4-1 DISP	102	198
	Amb to T3{1}			1640	1.25	4-1 DISP	93	201
	Amb to T4{1}			1601	1.25	4-1 DISP	91	203

		S_LINEREV0.OUT					
		1672		1.25	4-1 DISP	95	203
Amb to T5{1}							
Hydrotest{1}	0	0		1.25	3-1 OCC	23	219
Sus.+T1{1}				1.25	5-1 CRUP	60	<NOTE 1>
Sus.+T2{1}				1.25	5-1 CRUP	62	<NOTE 1>
Sus.+T3{1}				1.25	5-1 CRUP	60	<NOTE 1>
Sus.+T4{1}				1.25	5-1 CRUP	59	<NOTE 1>
Sus.+T5{1}				1.25	5-1 CRUP	60	<NOTE 1>
D01 F- Max P{1}					HOOP	33	89
GR + Max P{1}	83			1.32	2-1 SUST	23	89
TR:Amb to T2{1}			919	1.32	4-1 DISP	101	201
Amb to T1{1}			781	1.32	4-1 DISP	86	201
Amb to T2{1}			919	1.32	4-1 DISP	101	201
Amb to T3{1}			884	1.32	4-1 DISP	98	201
Amb to T4{1}			800	1.32	4-1 DISP	88	201
Amb to T5{1}			576	1.32	4-1 DISP	64	201
Hydrotest{1}	0	0		1.32	3-1 OCC	24	219
Sus.+T1{1}				1.32	5-1 CRUP	45	<NOTE 1>
Sus.+T2{1}				1.32	5-1 CRUP	48	<NOTE 1>
Sus.+T3{1}				1.32	5-1 CRUP	47	<NOTE 1>
Sus.+T4{1}				1.32	5-1 CRUP	45	<NOTE 1>
Sus.+T5{1}				1.32	5-1 CRUP	39	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE								
(Moments in N.m)			(Stress in N/mm2)					
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code	
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.

C06	Max P{1}					HOOP	70	87
	GR + Max P{1}	56			2.00	2-1 SUST	35	87
	TR:Amb to T2{1}			1843	2.00	4-1 DISP	101	198
	Amb to T1{1}			1684	2.00	4-1 DISP	92	201
	Amb to T2{1}			1843	2.00	4-1 DISP	101	198
	Amb to T3{1}			1684	2.00	4-1 DISP	92	201
	Amb to T4{1}			1652	2.00	4-1 DISP	91	203
	Amb to T5{1}			1750	2.00	4-1 DISP	96	203
	Hydrotest{1}	0	0		2.00	3-1 OCC	26	219
	Sus.+T1{1}				2.00	5-1 CRUP	58	<NOTE 1>

Sus.+T2{1}	2.00	5-1 CRUP	61 <NOTE 1>
Sus.+T3{1}	2.00	5-1 CRUP	58 <NOTE 1>
Sus.+T4{1}	2.00	5-1 CRUP	58 <NOTE 1>
Sus.+T5{1}	2.00	5-1 CRUP	59 <NOTE 1>

D17	Max P{1}					HOOP	65	87
	GR + Max P{1}	12		2.00	2-1	SUST	32	87
	TR:Amb to T1{1}		603	2.00	4-1	DISP	101	201
	Amb to T1{1}		603	2.00	4-1	DISP	101	201
	Amb to T2{1}		365	2.00	4-1	DISP	61	198
	Amb to T3{1}		285	2.00	4-1	DISP	48	201
	Amb to T4{1}		311	2.00	4-1	DISP	52	209
	Amb to T5{1}		499	2.00	4-1	DISP	83	229
	Hydrotest{1}	0	0	2.00	3-1	OCC	24	219
	Sus.+T1{1}			2.00	5-1	CRUP	57	<NOTE 1>
	Sus.+T2{1}			2.00	5-1	CRUP	47	<NOTE 1>
	Sus.+T3{1}			2.00	5-1	CRUP	44	<NOTE 1>
	Sus.+T4{1}			2.00	5-1	CRUP	45	<NOTE 1>
	Sus.+T5{1}			2.00	5-1	CRUP	53	<NOTE 1>

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Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code

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name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
S08	Max P{1}					HOOP	13	104
	GR + Max P{1}	96			2.00	2-1 SUST	11	104
	TR:Amb to T1{1}			1404	2.00	4-1 DISP	99	247
	Amb to T1{1}			1404	2.00	4-1 DISP	99	247
	Amb to T2{1}			1151	2.00	4-1 DISP	81	247
	Amb to T3{1}			1384	2.00	4-1 DISP	98	217
	Amb to T4{1}			1135	2.00	4-1 DISP	80	217
	Amb to T5{1}			650	2.00	4-1 DISP	46	229
	Hydrotest{1}	0	0		2.00	3-1 OCC	1	219
	Sus.+T1{1}				2.00	5-1 CRUP	36	<NOTE 1>
	Sus.+T2{1}				2.00	5-1 CRUP	32	<NOTE 1>
	Sus.+T3{1}				2.00	5-1 CRUP	36	<NOTE 1>
	Sus.+T4{1}				2.00	5-1 CRUP	31	<NOTE 1>
	Sus.+T5{1}				2.00	5-1 CRUP	23	<NOTE 1>
F17 N+	Max P{1}					HOOP	65	87
	GR + Max P{1}	176			1.32	2-1 SUST	45	87
	TR:Amb to T3{1}			874	1.32	4-1 DISP	96	201
	Amb to T1{1}			671	1.32	4-1 DISP	74	201
	Amb to T2{1}			847	1.32	4-1 DISP	93	198
	Amb to T3{1}			874	1.32	4-1 DISP	96	201
	Amb to T4{1}			819	1.32	4-1 DISP	90	209
	Amb to T5{1}			615	1.32	4-1 DISP	68	229
	Hydrotest{1}	0	0		1.32	3-1 OCC	24	219
	Sus.+T1{1}				1.32	5-1 CRUP	64	<NOTE 1>
	Sus.+T2{1}				1.32	5-1 CRUP	69	<NOTE 1>
	Sus.+T3{1}				1.32	5-1 CRUP	70	<NOTE 1>
	Sus.+T4{1}				1.32	5-1 CRUP	68	<NOTE 1>
	Sus.+T5{1}				1.32	5-1 CRUP	63	<NOTE 1>
F17 F-	Max P{1}					HOOP	65	87
	GR + Max P{1}	165			1.32	2-1 SUST	45	87
	TR:Amb to T3{1}			872	1.32	4-1 DISP	96	201
	Amb to T1{1}			711	1.32	4-1 DISP	78	201
	Amb to T2{1}			847	1.32	4-1 DISP	93	198
	Amb to T3{1}			872	1.32	4-1 DISP	96	201
	Amb to T4{1}			812	1.32	4-1 DISP	90	209
	Amb to T5{1}			617	1.32	4-1 DISP	68	229
	Hydrotest{1}	0	0		1.32	3-1 OCC	24	219
	Sus.+T1{1}				1.32	5-1 CRUP	64	<NOTE 1>
	Sus.+T2{1}				1.32	5-1 CRUP	68	<NOTE 1>

Sus.+T3{1}	S_LINEREV0.OUT	1.32	5-1	CRUP	69 <NOTE 1>
Sus.+T4{1}		1.32	5-1	CRUP	67 <NOTE 1>
Sus.+T5{1}		1.32	5-1	CRUP	62 <NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. no.	Load type		
S11 N-	Max P{1}						HOOP	13	104
	GR + Max P{1}	101			1.00	2-1	SUST	10	104
	TR:Amb to T1{1}			2716	1.00	4-1	DISP	96	247
	Amb to T1{1}			2716	1.00	4-1	DISP	96	247
	Amb to T2{1}			1309	1.00	4-1	DISP	46	247
	Amb to T3{1}			1373	1.00	4-1	DISP	49	217
	Amb to T4{1}			1310	1.00	4-1	DISP	46	217
	Amb to T5{1}			1668	1.00	4-1	DISP	59	229
	Hydrotest{1}	0	0		1.00	3-1	OCC	1	219
	Sus.+T1{1}				1.00	5-1	CRUP	42	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP	25	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP	26	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP	25	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP	29	<NOTE 1>
D12	Max P{1}						HOOP	65	87
	GR + Max P{1}	69			1.00	2-1	SUST	37	87
	TR:Amb to T1{1}			1150	1.00	4-1	DISP	96	201
	Amb to T1{1}			1150	1.00	4-1	DISP	96	201
	Amb to T2{1}			880	1.00	4-1	DISP	73	198
	Amb to T3{1}			679	1.00	4-1	DISP	57	201
	Amb to T4{1}			648	1.00	4-1	DISP	54	209
	Amb to T5{1}			755	1.00	4-1	DISP	63	229
	Hydrotest{1}	0	0		1.00	3-1	OCC	24	219
	Sus.+T1{1}				1.00	5-1	CRUP	69	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP	61	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP	55	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP	55	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP	58	<NOTE 1>

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E06	N+	Max	P{1}			HOOP	65	87			
		GR +	Max	P{1}	200	1.32	2-1	SUST	48	87	
		TR:	Amb	to	T2{1}	869	1.32	4-1	DISP	96	198
		Amb	to	T1{1}	822	1.32	4-1	DISP	91	201	
		Amb	to	T2{1}	869	1.32	4-1	DISP	96	198	
		Amb	to	T3{1}	822	1.32	4-1	DISP	91	201	
		Amb	to	T4{1}	806	1.32	4-1	DISP	89	203	
		Amb	to	T5{1}	814	1.32	4-1	DISP	90	203	
		Hydrotest	{1}		0	0	1.32	3-1	OCC	24	219
		Sus. +	T1{1}			1.32	5-1	CRUP	70	<NOTE 1>	
		Sus. +	T2{1}			1.32	5-1	CRUP	72	<NOTE 1>	
		Sus. +	T3{1}			1.32	5-1	CRUP	70	<NOTE 1>	
		Sus. +	T4{1}			1.32	5-1	CRUP	70	<NOTE 1>	
		Sus. +	T5{1}			1.32	5-1	CRUP	70	<NOTE 1>	

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)

(Stress in N/mm²)

Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
B25	- Max P{1}					HOOP	62	87
	GR + Max P{1}	377			1.00	2-1 SUST	47	87
	TR:Amb to T2{1}			2094	1.00	4-1 DISP	95	198
	Amb to T1{1}			1975	1.00	4-1 DISP	90	201
	Amb to T2{1}			2094	1.00	4-1 DISP	95	198
	Amb to T3{1}			1975	1.00	4-1 DISP	90	201
	Amb to T4{1}			1945	1.00	4-1 DISP	89	203
	Amb to T5{1}			1987	1.00	4-1 DISP	91	203
	Hydrotest{1}	0	0		1.00	3-1 OCC	23	219
	Sus.+T1{1}				1.00	5-1 CRUP	77	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	78	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	77	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	76	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	77	<NOTE 1>
B25	+ Max P{1}					HOOP	62	87
	GR + Max P{1}	377			1.00	2-1 SUST	47	87

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TR:Amb to T2{1}		2094	1.00	4-1 DISP	95	198
Amb to T1{1}		1975	1.00	4-1 DISP	90	201
Amb to T2{1}		2094	1.00	4-1 DISP	95	198
Amb to T3{1}		1975	1.00	4-1 DISP	90	201
Amb to T4{1}		1945	1.00	4-1 DISP	89	203
Amb to T5{1}		1987	1.00	4-1 DISP	91	203
Hydrotest{1}	0 0		1.00	3-1 OCC	23	219
Sus.+T1{1}			1.00	5-1 CRUP	77	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	78	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	77	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	76	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	77	<NOTE 1>
B29 + Max P{1}				HOOP	62	87
GR + Max P{1}	221		2.10	2-1 SUST	45	87
TR:Amb to T2{1}		987	2.10	4-1 DISP	94	198
Amb to T1{1}		899	2.10	4-1 DISP	86	201
Amb to T2{1}		987	2.10	4-1 DISP	94	198
Amb to T3{1}		899	2.10	4-1 DISP	86	201
Amb to T4{1}		876	2.10	4-1 DISP	84	203
Amb to T5{1}		917	2.10	4-1 DISP	88	203
Hydrotest{1}	0 0		2.10	3-1 OCC	23	219
Sus.+T1{1}			2.10	5-1 CRUP	67	<NOTE 1>
Sus.+T2{1}			2.10	5-1 CRUP	69	<NOTE 1>
Sus.+T3{1}			2.10	5-1 CRUP	67	<NOTE 1>
Sus.+T4{1}			2.10	5-1 CRUP	66	<NOTE 1>
Sus.+T5{1}			2.10	5-1 CRUP	67	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

Point	Load	(Moments in N.m)			(Stress in N/mm2)			Code	Code
		Ma	Mb	Mc	Eq. Load	no. type	Stress		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F				
B29 - Max P{1}						HOOP	62	87	
GR + Max P{1}	221				2.10	2-1 SUST	45	87	
TR:Amb to T2{1}				987	2.10	4-1 DISP	94	198	
Amb to T1{1}				899	2.10	4-1 DISP	86	201	

			S_LINEREV0.OUT				
	Amb to T2{1}		987	2.10	4-1 DISP	94	198
	Amb to T3{1}		899	2.10	4-1 DISP	86	201
	Amb to T4{1}		876	2.10	4-1 DISP	84	203
	Amb to T5{1}		917	2.10	4-1 DISP	88	203
	Hydrotest{1}	0	0	2.10	3-1 OCC	23	219
	Sus.+T1{1}			2.10	5-1 CRUP	67	<NOTE 1>
	Sus.+T2{1}			2.10	5-1 CRUP	69	<NOTE 1>
	Sus.+T3{1}			2.10	5-1 CRUP	67	<NOTE 1>
	Sus.+T4{1}			2.10	5-1 CRUP	66	<NOTE 1>
	Sus.+T5{1}			2.10	5-1 CRUP	67	<NOTE 1>
F22	Max P{1}				HOOP	13	104
	GR + Max P{1}	400		2.00	2-1 SUST	27	104
	TR:Amb to T1{1}		1327	2.00	4-1 DISP	94	247
	Amb to T1{1}		1327	2.00	4-1 DISP	94	247
	Amb to T2{1}		1081	2.00	4-1 DISP	77	247
	Amb to T3{1}		1267	2.00	4-1 DISP	90	217
	Amb to T4{1}		1058	2.00	4-1 DISP	75	217
	Amb to T5{1}		592	2.00	4-1 DISP	42	229
	Hydrotest{1}	0	0	2.00	3-1 OCC	1	219
	Sus.+T1{1}			2.00	5-1 CRUP	51	<NOTE 1>
	Sus.+T2{1}			2.00	5-1 CRUP	46	<NOTE 1>
	Sus.+T3{1}			2.00	5-1 CRUP	50	<NOTE 1>
	Sus.+T4{1}			2.00	5-1 CRUP	46	<NOTE 1>
	Sus.+T5{1}			2.00	5-1 CRUP	38	<NOTE 1>
E06 F-	Max P{1}				HOOP	65	87
	GR + Max P{1}	176		1.32	2-1 SUST	45	87
	TR:Amb to T2{1}		848	1.32	4-1 DISP	94	198
	Amb to T1{1}		803	1.32	4-1 DISP	89	201
	Amb to T2{1}		848	1.32	4-1 DISP	94	198
	Amb to T3{1}		802	1.32	4-1 DISP	88	201
	Amb to T4{1}		787	1.32	4-1 DISP	87	203
	Amb to T5{1}		795	1.32	4-1 DISP	88	203
	Hydrotest{1}	0	0	1.32	3-1 OCC	24	219
	Sus.+T1{1}			1.32	5-1 CRUP	68	<NOTE 1>
	Sus.+T2{1}			1.32	5-1 CRUP	69	<NOTE 1>
	Sus.+T3{1}			1.32	5-1 CRUP	68	<NOTE 1>
	Sus.+T4{1}			1.32	5-1 CRUP	67	<NOTE 1>
	Sus.+T5{1}			1.32	5-1 CRUP	68	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F					
A03	Max P{1}							HOOP	33	89
	GR + Max P{1}	50			1.35	2-1	SUST		19	89
	TR:Amb to T2{1}			1207	1.35	4-1	DISP		92	201
	Amb to T1{1}			1125	1.35	4-1	DISP		86	201
	Amb to T2{1}			1207	1.35	4-1	DISP		92	201
	Amb to T3{1}			1125	1.35	4-1	DISP		86	201
	Amb to T4{1}			1092	1.35	4-1	DISP		84	201
	Amb to T5{1}			1105	1.35	4-1	DISP		85	201
	Hydrotest{1}	0	0		1.35	3-1	OCC		24	219
	Sus.+T1{1}				1.35	5-1	CRUP		40	<NOTE 1>
	Sus.+T2{1}				1.35	5-1	CRUP		42	<NOTE 1>
	Sus.+T3{1}				1.35	5-1	CRUP		40	<NOTE 1>
	Sus.+T4{1}				1.35	5-1	CRUP		40	<NOTE 1>
	Sus.+T5{1}				1.35	5-1	CRUP		40	<NOTE 1>
S06	Max P{1}							HOOP	12	104
	GR + Max P{1}	130			1.00	2-1	SUST		20	104
	TR:Amb to T3{1}			843	1.00	4-1	DISP		92	217
	Amb to T1{1}			825	1.00	4-1	DISP		90	247
	Amb to T2{1}			692	1.00	4-1	DISP		75	247
	Amb to T3{1}			843	1.00	4-1	DISP		92	217
	Amb to T4{1}			714	1.00	4-1	DISP		78	217
	Amb to T5{1}			451	1.00	4-1	DISP		49	229
	Hydrotest{1}	0	0		1.00	3-1	OCC		1	219
	Sus.+T1{1}				1.00	5-1	CRUP		50	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		45	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP		51	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP		46	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP		36	<NOTE 1>
T05 M	Max P{1}							HOOP	50	88
	GR + Max P{1}	64			1.18	2-1	SUST		38	88
	TR:Amb to T2{1}			363	1.18	4-1	DISP		90	201
	Amb to T1{1}			317	1.18	4-1	DISP		79	207
	Amb to T2{1}			363	1.18	4-1	DISP		90	201
	Amb to T3{1}			317	1.18	4-1	DISP		78	207

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Amb to T4{1}			307	1.18	4-1 DISP	76	208
Amb to T5{1}			341	1.18	4-1 DISP	85	203
Hydrotest{1}	0	0		1.18	3-1 OCC	19	219
Sus.+T1{1}				1.18	5-1 CRUP	60	<NOTE 1>
Sus.+T2{1}				1.18	5-1 CRUP	63	<NOTE 1>
Sus.+T3{1}				1.18	5-1 CRUP	60	<NOTE 1>
Sus.+T4{1}				1.18	5-1 CRUP	59	<NOTE 1>
Sus.+T5{1}				1.18	5-1 CRUP	62	<NOTE 1>

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S_LINEREV0

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. Load no. type			
F05 N-	Max P{1}					HOOP		13	104
	GR + Max P{1}	129			1.00	2-1 SUST		11	104
	TR:Amb to T2{1}			2531	1.00	4-1 DISP		90	247
	Amb to T1{1}			2391	1.00	4-1 DISP		85	247
	Amb to T2{1}			2531	1.00	4-1 DISP		90	247
	Amb to T3{1}			2439	1.00	4-1 DISP		86	217
	Amb to T4{1}			2050	1.00	4-1 DISP		73	217
	Amb to T5{1}			1113	1.00	4-1 DISP		39	229
	Hydrotest{1}	0	0		1.00	3-1 OCC		1	219
	Sus.+T1{1}				1.00	5-1 CRUP		39	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP		41	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP		39	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP		35	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP		24	<NOTE 1>
B05 N-	Max P{1}					HOOP		62	87
	GR + Max P{1}	89			1.00	2-1 SUST		34	87
	TR:Amb to T2{1}			1953	1.00	4-1 DISP		89	198
	Amb to T1{1}			1790	1.00	4-1 DISP		82	201
	Amb to T2{1}			1953	1.00	4-1 DISP		89	198
	Amb to T3{1}			1790	1.00	4-1 DISP		82	201
	Amb to T4{1}			1749	1.00	4-1 DISP		80	203
	Amb to T5{1}			1828	1.00	4-1 DISP		83	203

			S_LINEREV0.OUT				
Hydrotest{1}	0	0	1.00	3-1	OCC	23	219
Sus.+T1{1}			1.00	5-1	CRUP	61	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	63	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	61	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	60	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	61	<NOTE 1>
E01 F- Max P{1}					HOOP	33	89
GR + Max P{1}	95		1.32	2-1	SUST	24	89
TR:Amb to T2{1}		807	1.32	4-1	DISP	89	201
Amb to T1{1}		791	1.32	4-1	DISP	87	201
Amb to T2{1}		807	1.32	4-1	DISP	89	201
Amb to T3{1}		791	1.32	4-1	DISP	87	201
Amb to T4{1}		778	1.32	4-1	DISP	86	201
Amb to T5{1}		753	1.32	4-1	DISP	83	201
Hydrotest{1}	0	0	1.32	3-1	OCC	24	219
Sus.+T1{1}			1.32	5-1	CRUP	46	<NOTE 1>
Sus.+T2{1}			1.32	5-1	CRUP	46	<NOTE 1>
Sus.+T3{1}			1.32	5-1	CRUP	46	<NOTE 1>
Sus.+T4{1}			1.32	5-1	CRUP	45	<NOTE 1>
Sus.+T5{1}			1.32	5-1	CRUP	45	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
S09 N+ Max P{1}						HOOP	13	104	
GR + Max P{1}		96			1.78	2-1 SUST	11	104	
TR:Amb to T1{1}				1412	1.78	4-1 DISP	89	247	
Amb to T1{1}				1412	1.78	4-1 DISP	89	247	
Amb to T2{1}				1157	1.78	4-1 DISP	73	247	
Amb to T3{1}				1391	1.78	4-1 DISP	87	217	
Amb to T4{1}				1140	1.78	4-1 DISP	72	217	
Amb to T5{1}				653	1.78	4-1 DISP	41	229	
Hydrotest{1}		0	0		1.78	3-1 OCC	1	219	
Sus.+T1{1}					1.78	5-1 CRUP	33	<NOTE 1>	
Sus.+T2{1}					1.78	5-1 CRUP	29	<NOTE 1>	

S_LINEREV0.OUT

	Sus.+T3{1}			1.78	5-1	CRUP	32	<NOTE 1>
	Sus.+T4{1}			1.78	5-1	CRUP	29	<NOTE 1>
	Sus.+T5{1}			1.78	5-1	CRUP	21	<NOTE 1>
T05 F-	Max P{1}					HOOP	50	88
	GR + Max P{1}	67		1.18	2-1	SUST	39	88
	TR:Amb to T2{1}		358	1.18	4-1	DISP	89	201
	Amb to T1{1}		312	1.18	4-1	DISP	77	207
	Amb to T2{1}		358	1.18	4-1	DISP	89	201
	Amb to T3{1}		311	1.18	4-1	DISP	77	207
	Amb to T4{1}		302	1.18	4-1	DISP	75	208
	Amb to T5{1}		337	1.18	4-1	DISP	83	203
	Hydrotest{1}	0	0	1.18	3-1	OCC	19	219
	Sus.+T1{1}			1.18	5-1	CRUP	60	<NOTE 1>
	Sus.+T2{1}			1.18	5-1	CRUP	63	<NOTE 1>
	Sus.+T3{1}			1.18	5-1	CRUP	60	<NOTE 1>
	Sus.+T4{1}			1.18	5-1	CRUP	60	<NOTE 1>
	Sus.+T5{1}			1.18	5-1	CRUP	62	<NOTE 1>
B07	Max P{1}					HOOP	62	87
	GR + Max P{1}	53		1.00	2-1	SUST	32	87
	TR:Amb to T2{1}		1937	1.00	4-1	DISP	88	198
	Amb to T1{1}		1824	1.00	4-1	DISP	83	201
	Amb to T2{1}		1937	1.00	4-1	DISP	88	198
	Amb to T3{1}		1824	1.00	4-1	DISP	83	201
	Amb to T4{1}		1795	1.00	4-1	DISP	82	203
	Amb to T5{1}		1835	1.00	4-1	DISP	84	203
	Hydrotest{1}	0	0	1.00	3-1	OCC	23	219
	Sus.+T1{1}			1.00	5-1	CRUP	60	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	61	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	60	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	59	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	60	<NOTE 1>

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 S_LINEREV0
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 AutoPIPE Plus 9.2.1

 EN 13480 (2002) CODE COMPLIANCE
 (Moments in N.m) (Stress in N/mm2)
 Point Load Ma Mb Mc Eq. Load Code Code
 name combination (Sus.) (Occ.) (Exp.) S.I.F no. type Stress Allow.
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S_LINEREV0.OUT

F11 N+ Max P{1}					HOOP	13	104
GR + Max P{1}	420		1.78	2-1 SUST		26	104
TR:Amb to T1{1}			1399	1.78	4-1 DISP	88	247
Amb to T1{1}			1399	1.78	4-1 DISP	88	247
Amb to T2{1}			1186	1.78	4-1 DISP	75	247
Amb to T3{1}			1393	1.78	4-1 DISP	88	217
Amb to T4{1}			1163	1.78	4-1 DISP	73	217
Amb to T5{1}			602	1.78	4-1 DISP	38	229
Hydrotest{1}	0	0		1.78	3-1 OCC	1	219
Sus.+T1{1}				1.78	5-1 CRUP	48	<NOTE 1>
Sus.+T2{1}				1.78	5-1 CRUP	45	<NOTE 1>
Sus.+T3{1}				1.78	5-1 CRUP	48	<NOTE 1>
Sus.+T4{1}				1.78	5-1 CRUP	44	<NOTE 1>
Sus.+T5{1}				1.78	5-1 CRUP	35	<NOTE 1>
B11 N+ Max P{1}					HOOP	62	87
GR + Max P{1}	36		1.25	2-1 SUST		31	87
TR:Amb to T2{1}			1545	1.25	4-1 DISP	88	198
Amb to T1{1}			1429	1.25	4-1 DISP	81	201
Amb to T2{1}			1545	1.25	4-1 DISP	88	198
Amb to T3{1}			1429	1.25	4-1 DISP	81	201
Amb to T4{1}			1405	1.25	4-1 DISP	80	203
Amb to T5{1}			1473	1.25	4-1 DISP	84	203
Hydrotest{1}	0	0		1.25	3-1 OCC	23	219
Sus.+T1{1}				1.25	5-1 CRUP	53	<NOTE 1>
Sus.+T2{1}				1.25	5-1 CRUP	55	<NOTE 1>
Sus.+T3{1}				1.25	5-1 CRUP	53	<NOTE 1>
Sus.+T4{1}				1.25	5-1 CRUP	52	<NOTE 1>
Sus.+T5{1}				1.25	5-1 CRUP	53	<NOTE 1>
C01 N- Max P{1}					HOOP	62	87
GR + Max P{1}	51		1.00	2-1 SUST		32	87
TR:Amb to T2{1}			1921	1.00	4-1 DISP	88	198
Amb to T1{1}			1808	1.00	4-1 DISP	82	201
Amb to T2{1}			1921	1.00	4-1 DISP	88	198
Amb to T3{1}			1808	1.00	4-1 DISP	82	201
Amb to T4{1}			1778	1.00	4-1 DISP	81	203
Amb to T5{1}			1816	1.00	4-1 DISP	83	203
Hydrotest{1}	0	0		1.00	3-1 OCC	23	219
Sus.+T1{1}				1.00	5-1 CRUP	59	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	61	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	59	<NOTE 1>

Sus.+T4{1}	S_LINEREV0.OUT	1.00	5-1 CRUP	59 <NOTE 1>
Sus.+T5{1}		1.00	5-1 CRUP	59 <NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

B04	- Max P{1}					HOOP	62	87	
	GR + Max P{1}	276			1.00	2-1 SUST	42	87	
	TR:Amb to T2{1}			1920	1.00	4-1 DISP	88	198	
	Amb to T1{1}			1665	1.00	4-1 DISP	76	201	
	Amb to T2{1}			1920	1.00	4-1 DISP	88	198	
	Amb to T3{1}			1665	1.00	4-1 DISP	76	201	
	Amb to T4{1}			1618	1.00	4-1 DISP	74	203	
	Amb to T5{1}			1813	1.00	4-1 DISP	83	203	
	Hydrotest{1}	0	0		1.00	3-1 OCC	23	219	
	Sus.+T1{1}				1.00	5-1 CRUP	67	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	71	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	67	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	67	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	70	<NOTE 1>	
D14	- Max P{1}					HOOP	65	87	
	GR + Max P{1}	31			1.00	2-1 SUST	33	87	
	TR:Amb to T2{1}			1047	1.00	4-1 DISP	87	198	
	Amb to T1{1}			946	1.00	4-1 DISP	79	201	
	Amb to T2{1}			1047	1.00	4-1 DISP	87	198	
	Amb to T3{1}			941	1.00	4-1 DISP	79	201	
	Amb to T4{1}			873	1.00	4-1 DISP	73	209	
	Amb to T5{1}			805	1.00	4-1 DISP	67	229	
	Hydrotest{1}	0	0		1.00	3-1 OCC	24	219	
	Sus.+T1{1}				1.00	5-1 CRUP	60	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	63	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	60	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	58	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	56	<NOTE 1>	

		S_LINEREV0.OUT				
E08 N+	Max P{1}				HOOP	65 87
	GR + Max P{1}	158	1.32	2-1 SUST	44	87
	TR:Amb to T2{1}		789 1.32	4-1 DISP	87	198
	Amb to T1{1}		745 1.32	4-1 DISP	82	201
	Amb to T2{1}		789 1.32	4-1 DISP	87	198
	Amb to T3{1}		745 1.32	4-1 DISP	82	201
	Amb to T4{1}		732 1.32	4-1 DISP	81	203
	Amb to T5{1}		743 1.32	4-1 DISP	82	203
	Hydrotest{1}	0 0	1.32	3-1 OCC	24	219
	Sus.+T1{1}		1.32	5-1 CRUP	65	<NOTE 1>
	Sus.+T2{1}		1.32	5-1 CRUP	66	<NOTE 1>
	Sus.+T3{1}		1.32	5-1 CRUP	65	<NOTE 1>
	Sus.+T4{1}		1.32	5-1 CRUP	64	<NOTE 1>
	Sus.+T5{1}		1.32	5-1 CRUP	65	<NOTE 1>

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AutoPIPE Plus 9.2.1

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EN 13480 (2002) CODE COMPLIANCE								
(Moments in N.m)			(Stress in N/mm2)					
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code	
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.

L03 F+	Max P{1}					HOOP	65	88
	GR + Max P{1}	34			1.00	2-1 SUST	34	88
	TR:Amb to T2{1}			1042	1.00	4-1 DISP	87	201
	Amb to T1{1}			966	1.00	4-1 DISP	81	207
	Amb to T2{1}			1042	1.00	4-1 DISP	87	201
	Amb to T3{1}			966	1.00	4-1 DISP	81	207
	Amb to T4{1}			948	1.00	4-1 DISP	79	208
	Amb to T5{1}			986	1.00	4-1 DISP	82	203
	Hydrotest{1}	0	0		1.00	3-1 OCC	24	219
	Sus.+T1{1}				1.00	5-1 CRUP	61	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	63	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	61	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	60	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	61	<NOTE 1>

T07	Max P{1}					HOOP	50	88
	GR + Max P{1}	137			2.00	2-1 SUST	68	88
	TR:Amb to T2{1}			182	2.00	4-1 DISP	76	201

Amb to T1{1}			160	2.00	4-1 DISP	67	207
Amb to T2{1}			182	2.00	4-1 DISP	76	201
Amb to T3{1}			159	2.00	4-1 DISP	67	207
Amb to T4{1}			154	2.00	4-1 DISP	65	208
Amb to T5{1}			171	2.00	4-1 DISP	72	203
Hydrotest{1}	0	0		2.00	3-1 OCC	19	219
Sus.+T1{1}				2.00	5-1 CRUP	84	<NOTE 1>
Sus.+T2{1}				2.00	5-1 CRUP	87	<NOTE 1>
Sus.+T3{1}				2.00	5-1 CRUP	84	<NOTE 1>
Sus.+T4{1}				2.00	5-1 CRUP	84	<NOTE 1>
Sus.+T5{1}				2.00	5-1 CRUP	86	<NOTE 1>

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AutoPIPE Plus 9.2.1 RESULT PAGE 275

Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
-----	-----	-----	-----	-----	-----	-----	-----	-----
J08	Max P{1}					H00P	50	88
	GR + Max P{1}	153			2.00	2-1 SUST	72	88
	TR:Amb to T2{1}			122	2.00	4-1 DISP	51	201
	Amb to T1{1}			79	2.00	4-1 DISP	33	207
	Amb to T2{1}			122	2.00	4-1 DISP	51	201

	S_LINEREV0.OUT						
Amb to T3{1}		107	2.00	4-1	DISP	45	207
Amb to T4{1}		97	2.00	4-1	DISP	41	211
Amb to T5{1}		37	2.00	4-1	DISP	16	229
Hydrotest{1}	0	0	2.00	3-1	OCC	19	219
Sus.+T1{1}			2.00	5-1	CRUP	81	<NOTE 1>
Sus.+T2{1}			2.00	5-1	CRUP	85	<NOTE 1>
Sus.+T3{1}			2.00	5-1	CRUP	84	<NOTE 1>
Sus.+T4{1}			2.00	5-1	CRUP	83	<NOTE 1>
Sus.+T5{1}			2.00	5-1	CRUP	76	<NOTE 1>
E01 N+ Max P{1}					HOOP	33	89
GR + Max P{1}	122		1.32	2-1	SUST	26	89
TR:Amb to T2{1}		770	1.32	4-1	DISP	85	201
Amb to T1{1}		759	1.32	4-1	DISP	84	201
Amb to T2{1}		770	1.32	4-1	DISP	85	201
Amb to T3{1}		759	1.32	4-1	DISP	84	201
Amb to T4{1}		747	1.32	4-1	DISP	82	201
Amb to T5{1}		720	1.32	4-1	DISP	79	201
Hydrotest{1}	0	0	1.32	3-1	OCC	24	219
Sus.+T1{1}			1.32	5-1	CRUP	47	<NOTE 1>
Sus.+T2{1}			1.32	5-1	CRUP	48	<NOTE 1>
Sus.+T3{1}			1.32	5-1	CRUP	47	<NOTE 1>
Sus.+T4{1}			1.32	5-1	CRUP	47	<NOTE 1>
Sus.+T5{1}			1.32	5-1	CRUP	46	<NOTE 1>
F11 F- Max P{1}					HOOP	13	104
GR + Max P{1}	421		1.78	2-1	SUST	26	104
TR:Amb to T3{1}		1351	1.78	4-1	DISP	85	217
Amb to T1{1}		1345	1.78	4-1	DISP	85	247
Amb to T2{1}		1117	1.78	4-1	DISP	70	247
Amb to T3{1}		1351	1.78	4-1	DISP	85	217
Amb to T4{1}		1132	1.78	4-1	DISP	71	217
Amb to T5{1}		551	1.78	4-1	DISP	35	229
Hydrotest{1}	0	0	1.78	3-1	OCC	1	219
Sus.+T1{1}			1.78	5-1	CRUP	47	<NOTE 1>
Sus.+T2{1}			1.78	5-1	CRUP	44	<NOTE 1>
Sus.+T3{1}			1.78	5-1	CRUP	47	<NOTE 1>
Sus.+T4{1}			1.78	5-1	CRUP	44	<NOTE 1>
Sus.+T5{1}			1.78	5-1	CRUP	35	<NOTE 1>

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12:34 PM

EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. Load no. type			
B06 F+	Max P{1}					HOOP		62	87
	GR + Max P{1}	310			1.00	2-1 SUST		44	87
	TR:Amb to T2{1}			1862	1.00	4-1 DISP		85	198
	Amb to T1{1}			1759	1.00	4-1 DISP		80	201
	Amb to T2{1}			1862	1.00	4-1 DISP		85	198
	Amb to T3{1}			1759	1.00	4-1 DISP		80	201
	Amb to T4{1}			1733	1.00	4-1 DISP		79	203
	Amb to T5{1}			1768	1.00	4-1 DISP		81	203
	Hydrotest{1}	0	0		1.00	3-1 OCC		23	219
	Sus.+T1{1}				1.00	5-1 CRUP		70	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP		72	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP		70	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP		70	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP		70	<NOTE 1>
L08	Max P{1}					HOOP		65	88
	GR + Max P{1}	258			2.00	2-1 SUST		63	88
	TR:Amb to T2{1}			507	2.00	4-1 DISP		85	201
	Amb to T1{1}			438	2.00	4-1 DISP		73	207
	Amb to T2{1}			507	2.00	4-1 DISP		85	201
	Amb to T3{1}			438	2.00	4-1 DISP		73	207
	Amb to T4{1}			427	2.00	4-1 DISP		71	208
	Amb to T5{1}			487	2.00	4-1 DISP		81	203
	Hydrotest{1}	0	0		2.00	3-1 OCC		24	219
	Sus.+T1{1}				2.00	5-1 CRUP		81	<NOTE 1>
	Sus.+T2{1}				2.00	5-1 CRUP		84	<NOTE 1>
	Sus.+T3{1}				2.00	5-1 CRUP		81	<NOTE 1>
	Sus.+T4{1}				2.00	5-1 CRUP		81	<NOTE 1>
	Sus.+T5{1}				2.00	5-1 CRUP		83	<NOTE 1>
C01 F+	Max P{1}					HOOP		62	87
	GR + Max P{1}	47			1.00	2-1 SUST		32	87
	TR:Amb to T2{1}			1857	1.00	4-1 DISP		85	198
	Amb to T1{1}			1743	1.00	4-1 DISP		79	201
	Amb to T2{1}			1857	1.00	4-1 DISP		85	198
	Amb to T3{1}			1743	1.00	4-1 DISP		79	201
	Amb to T4{1}			1714	1.00	4-1 DISP		78	203

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Amb to T5{1}			1756	1.00	4-1 DISP	80	203
Hydrotest{1}	0	0		1.00	3-1 OCC	23	219
Sus.+T1{1}				1.00	5-1 CRUP	58	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	60	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	58	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	58	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	58	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. no.	Load type		
C08	Max P{1}						HOOP	62	87
	GR + Max P{1}	47			1.00	2-1	SUST	32	87
	TR:Amb to T2{1}			1856	1.00	4-1	DISP	85	198
	Amb to T1{1}			1742	1.00	4-1	DISP	79	201
	Amb to T2{1}			1856	1.00	4-1	DISP	85	198
	Amb to T3{1}			1742	1.00	4-1	DISP	79	201
	Amb to T4{1}			1713	1.00	4-1	DISP	78	203
	Amb to T5{1}			1755	1.00	4-1	DISP	80	203
	Hydrotest{1}	0	0		1.00	3-1	OCC	23	219
	Sus.+T1{1}				1.00	5-1	CRUP	58	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP	60	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP	58	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP	58	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP	58	<NOTE 1>
B11 F-	Max P{1}						HOOP	62	87
	GR + Max P{1}	69			1.25	2-1	SUST	33	87
	TR:Amb to T2{1}			1488	1.25	4-1	DISP	85	198
	Amb to T1{1}			1377	1.25	4-1	DISP	78	201
	Amb to T2{1}			1488	1.25	4-1	DISP	85	198
	Amb to T3{1}			1377	1.25	4-1	DISP	78	201
	Amb to T4{1}			1355	1.25	4-1	DISP	77	203
	Amb to T5{1}			1420	1.25	4-1	DISP	81	203
	Hydrotest{1}	0	0		1.25	3-1	OCC	23	219

	S_LINEREV0.OUT				
Sus.+T1{1}		1.25	5-1	CRUP	54 <NOTE 1>
Sus.+T2{1}		1.25	5-1	CRUP	55 <NOTE 1>
Sus.+T3{1}		1.25	5-1	CRUP	54 <NOTE 1>
Sus.+T4{1}		1.25	5-1	CRUP	53 <NOTE 1>
Sus.+T5{1}		1.25	5-1	CRUP	54 <NOTE 1>

E08 F- Max P{1}				HOOP	65	87
GR + Max P{1}	161		1.32	2-1 SUST	44	87
TR:Amb to T2{1}		762	1.32	4-1 DISP	84	198
Amb to T1{1}		718	1.32	4-1 DISP	79	201
Amb to T2{1}		762	1.32	4-1 DISP	84	198
Amb to T3{1}		718	1.32	4-1 DISP	79	201
Amb to T4{1}		706	1.32	4-1 DISP	78	203
Amb to T5{1}		719	1.32	4-1 DISP	79	203
Hydrotest{1}	0	0	1.32	3-1 OCC	24	219
Sus.+T1{1}			1.32	5-1 CRUP	64	<NOTE 1>
Sus.+T2{1}			1.32	5-1 CRUP	65	<NOTE 1>
Sus.+T3{1}			1.32	5-1 CRUP	64	<NOTE 1>
Sus.+T4{1}			1.32	5-1 CRUP	64	<NOTE 1>
Sus.+T5{1}			1.32	5-1 CRUP	64	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
A02	Max P{1}					HOOP	33	89	
	GR + Max P{1}	57			1.35	2-1 SUST	19	89	
	TR:Amb to T2{1}			1071	1.35	4-1 DISP	82	201	
	Amb to T1{1}			947	1.35	4-1 DISP	73	201	
	Amb to T2{1}			1071	1.35	4-1 DISP	82	201	
	Amb to T3{1}			1000	1.35	4-1 DISP	77	201	
	Amb to T4{1}			861	1.35	4-1 DISP	66	201	
	Amb to T5{1}			526	1.35	4-1 DISP	40	201	
	Hydrotest{1}	0	0		1.35	3-1 OCC	24	219	
	Sus.+T1{1}				1.35	5-1 CRUP	37	<NOTE 1>	
	Sus.+T2{1}				1.35	5-1 CRUP	40	<NOTE 1>	
	Sus.+T3{1}				1.35	5-1 CRUP	38	<NOTE 1>	

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Sus.+T4{1}				1.35	5-1	CRUP	36	<NOTE 1>
Sus.+T5{1}				1.35	5-1	CRUP	29	<NOTE 1>
T05 N+ Max P{1}						HOOP	50	88
GR + Max P{1}				56	1.18	2-1	SUST	36 88
TR:Amb to T2{1}				331	1.18	4-1	DISP	82 201
Amb to T1{1}				290	1.18	4-1	DISP	72 207
Amb to T2{1}				331	1.18	4-1	DISP	82 201
Amb to T3{1}				289	1.18	4-1	DISP	72 207
Amb to T4{1}				280	1.18	4-1	DISP	69 208
Amb to T5{1}				311	1.18	4-1	DISP	77 203
Hydrotest{1}				0 0	1.18	3-1	OCC	19 219
Sus.+T1{1}					1.18	5-1	CRUP	57 <NOTE 1>
Sus.+T2{1}					1.18	5-1	CRUP	59 <NOTE 1>
Sus.+T3{1}					1.18	5-1	CRUP	56 <NOTE 1>
Sus.+T4{1}					1.18	5-1	CRUP	56 <NOTE 1>
Sus.+T5{1}					1.18	5-1	CRUP	58 <NOTE 1>
S15 - Max P{1}						HOOP	13	104
GR + Max P{1}				78	1.00	2-1	SUST	9 104
TR:Amb to T1{1}				2313	1.00	4-1	DISP	82 247
Amb to T1{1}				2313	1.00	4-1	DISP	82 247
Amb to T2{1}				1495	1.00	4-1	DISP	53 247
Amb to T3{1}				1198	1.00	4-1	DISP	42 217
Amb to T4{1}				1002	1.00	4-1	DISP	35 217
Amb to T5{1}				1415	1.00	4-1	DISP	50 229
Hydrotest{1}				0 0	1.00	3-1	OCC	1 219
Sus.+T1{1}					1.00	5-1	CRUP	36 <NOTE 1>
Sus.+T2{1}					1.00	5-1	CRUP	26 <NOTE 1>
Sus.+T3{1}					1.00	5-1	CRUP	23 <NOTE 1>
Sus.+T4{1}					1.00	5-1	CRUP	21 <NOTE 1>
Sus.+T5{1}					1.00	5-1	CRUP	26 <NOTE 1>

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 EN 13480 (2002) CODE COMPLIANCE
 (Moments in N.m) (Stress in N/mm2)
 Point Load Ma Mb Mc Eq. Load Code Code
 name combination (Sus.) (Occ.) (Exp.) S.I.F no. type Stress Allow.

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S15	+	Max P{1}				HOOP	13	104
		GR + Max P{1}	78		1.00	2-1 SUST	9	104
		TR:Amb to T1{1}		2313	1.00	4-1 DISP	82	247
		Amb to T1{1}		2313	1.00	4-1 DISP	82	247
		Amb to T2{1}		1495	1.00	4-1 DISP	53	247
		Amb to T3{1}		1198	1.00	4-1 DISP	42	217
		Amb to T4{1}		1002	1.00	4-1 DISP	35	217
		Amb to T5{1}		1415	1.00	4-1 DISP	50	229
		Hydrotest{1}	0	0	1.00	3-1 OCC	1	219
		Sus.+T1{1}			1.00	5-1 CRUP	36	<NOTE 1>
		Sus.+T2{1}			1.00	5-1 CRUP	26	<NOTE 1>
		Sus.+T3{1}			1.00	5-1 CRUP	23	<NOTE 1>
		Sus.+T4{1}			1.00	5-1 CRUP	21	<NOTE 1>
		Sus.+T5{1}			1.00	5-1 CRUP	26	<NOTE 1>
B05	F+	Max P{1}				HOOP	62	87
		GR + Max P{1}	117		1.00	2-1 SUST	35	87
		TR:Amb to T2{1}		1787	1.00	4-1 DISP	81	198
		Amb to T1{1}		1640	1.00	4-1 DISP	75	201
		Amb to T2{1}		1787	1.00	4-1 DISP	81	198
		Amb to T3{1}		1640	1.00	4-1 DISP	75	201
		Amb to T4{1}		1601	1.00	4-1 DISP	73	203
		Amb to T5{1}		1672	1.00	4-1 DISP	76	203
		Hydrotest{1}	0	0	1.00	3-1 OCC	23	219
		Sus.+T1{1}			1.00	5-1 CRUP	60	<NOTE 1>
		Sus.+T2{1}			1.00	5-1 CRUP	62	<NOTE 1>
		Sus.+T3{1}			1.00	5-1 CRUP	60	<NOTE 1>
		Sus.+T4{1}			1.00	5-1 CRUP	59	<NOTE 1>
		Sus.+T5{1}			1.00	5-1 CRUP	60	<NOTE 1>
B06	N-	Max P{1}				HOOP	62	87
		GR + Max P{1}	285		1.00	2-1 SUST	42	87
		TR:Amb to T2{1}		1775	1.00	4-1 DISP	81	198
		Amb to T1{1}		1679	1.00	4-1 DISP	77	201
		Amb to T2{1}		1775	1.00	4-1 DISP	81	198
		Amb to T3{1}		1679	1.00	4-1 DISP	77	201
		Amb to T4{1}		1655	1.00	4-1 DISP	75	203
		Amb to T5{1}		1686	1.00	4-1 DISP	77	203
		Hydrotest{1}	0	0	1.00	3-1 OCC	23	219
		Sus.+T1{1}			1.00	5-1 CRUP	68	<NOTE 1>
		Sus.+T2{1}			1.00	5-1 CRUP	69	<NOTE 1>
		Sus.+T3{1}			1.00	5-1 CRUP	68	<NOTE 1>
		Sus.+T4{1}			1.00	5-1 CRUP	68	<NOTE 1>

Sus.+T5{1} S_LINEREV0.OUT 1.00 5-1 CRUP 68 <NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F					
F13	Max P{1}							HOOP	16	104
	GR + Max P{1}	223			1.00	2-1	SUST		11	104
	TR:Amb to T2{1}			4174	1.00	4-1	DISP		79	247
	Amb to T1{1}			3916	1.00	4-1	DISP		74	247
	Amb to T2{1}			4174	1.00	4-1	DISP		79	247
	Amb to T3{1}			4010	1.00	4-1	DISP		76	217
	Amb to T4{1}			3346	1.00	4-1	DISP		64	217
	Amb to T5{1}			1703	1.00	4-1	DISP		32	229
	Hydrotest{1}	0	0		1.00	3-1	OCC		1	219
	Sus.+T1{1}				1.00	5-1	CRUP		36	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		38	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP		37	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP		33	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP		22	<NOTE 1>
S05	Max P{1}							HOOP	65	87
	GR + Max P{1}	131			1.00	2-1	SUST		42	87
	TR:Amb to T1{1}			945	1.00	4-1	DISP		79	201
	Amb to T1{1}			945	1.00	4-1	DISP		79	201
	Amb to T2{1}			798	1.00	4-1	DISP		67	198
	Amb to T3{1}			764	1.00	4-1	DISP		64	201
	Amb to T4{1}			699	1.00	4-1	DISP		58	209
	Amb to T5{1}			644	1.00	4-1	DISP		54	229
	Hydrotest{1}	0	0		1.00	3-1	OCC		24	219
	Sus.+T1{1}				1.00	5-1	CRUP		68	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		64	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP		63	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP		61	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP		60	<NOTE 1>
F12 N+	Max P{1}							HOOP	13	104

		S_LINEREV0.OUT					
GR + Max P{1}	408		1.78	2-1	SUST	25	104
TR:Amb to T1{1}		1253	1.78	4-1	DISP	79	247
Amb to T1{1}		1253	1.78	4-1	DISP	79	247
Amb to T2{1}		980	1.78	4-1	DISP	62	247
Amb to T3{1}		1221	1.78	4-1	DISP	77	217
Amb to T4{1}		1029	1.78	4-1	DISP	65	217
Amb to T5{1}		498	1.78	4-1	DISP	31	229
Hydrotest{1}	0	0	1.78	3-1	OCC	1	219
Sus.+T1{1}			1.78	5-1	CRUP	45	<NOTE 1>
Sus.+T2{1}			1.78	5-1	CRUP	41	<NOTE 1>
Sus.+T3{1}			1.78	5-1	CRUP	45	<NOTE 1>
Sus.+T4{1}			1.78	5-1	CRUP	42	<NOTE 1>
Sus.+T5{1}			1.78	5-1	CRUP	33	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

D01 N-	Max P{1}					HOOP	33	89	
	GR + Max P{1}	110			1.00	2-1 SUST	25	89	
	TR:Amb to T2{1}			925	1.00	4-1 DISP	77	201	
	Amb to T1{1}			786	1.00	4-1 DISP	66	201	
	Amb to T2{1}			925	1.00	4-1 DISP	77	201	
	Amb to T3{1}			891	1.00	4-1 DISP	74	201	
	Amb to T4{1}			809	1.00	4-1 DISP	68	201	
	Amb to T5{1}			589	1.00	4-1 DISP	49	201	
	Hydrotest{1}	0	0		1.00	3-1 OCC	24	219	
	Sus.+T1{1}				1.00	5-1 CRUP	47	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	51	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	50	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	48	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	41	<NOTE 1>	
D01 F+	Max P{1}					HOOP	33	89	
	GR + Max P{1}	83			1.00	2-1 SUST	23	89	
	TR:Amb to T2{1}			919	1.00	4-1 DISP	77	201	
	Amb to T1{1}			781	1.00	4-1 DISP	65	201	

Amb to T2{1}			919	1.00	4-1 DISP	77	201
Amb to T3{1}			884	1.00	4-1 DISP	74	201
Amb to T4{1}			800	1.00	4-1 DISP	67	201
Amb to T5{1}			576	1.00	4-1 DISP	48	201
Hydrotest{1}	0	0		1.00	3-1 OCC	24	219
Sus.+T1{1}				1.00	5-1 CRUP	45	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	48	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	47	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	45	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	39	<NOTE 1>

B13	Max P{1}					HOOP	70	87
	GR + Max P{1}	131		2.00	2-1	SUST	38	87
	TR:Amb to T2{1}		1385	2.00	4-1	DISP	76	198
	Amb to T1{1}		1290	2.00	4-1	DISP	71	201
	Amb to T2{1}		1385	2.00	4-1	DISP	76	198
	Amb to T3{1}		1290	2.00	4-1	DISP	71	201
	Amb to T4{1}		1272	2.00	4-1	DISP	70	203
	Amb to T5{1}		1326	2.00	4-1	DISP	73	203
	Hydrotest{1}	0	0	2.00	3-1	OCC	26	219
	Sus.+T1{1}			2.00	5-1	CRUP	56	<NOTE 1>
	Sus.+T2{1}			2.00	5-1	CRUP	57	<NOTE 1>
	Sus.+T3{1}			2.00	5-1	CRUP	56	<NOTE 1>
	Sus.+T4{1}			2.00	5-1	CRUP	56	<NOTE 1>
Sus.+T5{1}			2.00	5-1	CRUP	57	<NOTE 1>	

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(Moments in N.m) (Stress in N/mm²)

Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
T05 F+	Max P{1}					H00P	50	88
	GR + Max P{1}	67			1.00	2-1 SUST	39	88
	TR:Amb to T2{1}			358	1.00	4-1 DISP	75	201
	Amb to T1{1}			312	1.00	4-1 DISP	65	207
	Amb to T2{1}			358	1.00	4-1 DISP	75	201
	Amb to T3{1}			311	1.00	4-1 DISP	65	207

		S_LINEREV0.OUT					
Amb to T4{1}		302	1.00	4-1	DISP	63	208
Amb to T5{1}		337	1.00	4-1	DISP	71	203
Hydrotest{1}	0	0	1.00	3-1	OCC	19	219
Sus.+T1{1}			1.00	5-1	CRUP	60	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	63	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	60	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	60	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	62	<NOTE 1>
L05 F- Max P{1}					HOOP	65	88
GR + Max P{1}	93		1.32	2-1	SUST	39	88
TR:Amb to T2{1}		678	1.32	4-1	DISP	75	201
Amb to T1{1}		626	1.32	4-1	DISP	69	207
Amb to T2{1}		678	1.32	4-1	DISP	75	201
Amb to T3{1}		627	1.32	4-1	DISP	69	207
Amb to T4{1}		615	1.32	4-1	DISP	68	208
Amb to T5{1}		643	1.32	4-1	DISP	71	203
Hydrotest{1}	0	0	1.32	3-1	OCC	24	219
Sus.+T1{1}			1.32	5-1	CRUP	56	<NOTE 1>
Sus.+T2{1}			1.32	5-1	CRUP	57	<NOTE 1>
Sus.+T3{1}			1.32	5-1	CRUP	56	<NOTE 1>
Sus.+T4{1}			1.32	5-1	CRUP	56	<NOTE 1>
Sus.+T5{1}			1.32	5-1	CRUP	56	<NOTE 1>
C04 F- Max P{1}					HOOP	62	87
GR + Max P{1}	37		1.25	2-1	SUST	31	87
TR:Amb to T2{1}		1311	1.25	4-1	DISP	75	198
Amb to T1{1}		1196	1.25	4-1	DISP	68	201
Amb to T2{1}		1311	1.25	4-1	DISP	75	198
Amb to T3{1}		1196	1.25	4-1	DISP	68	201
Amb to T4{1}		1175	1.25	4-1	DISP	67	203
Amb to T5{1}		1249	1.25	4-1	DISP	71	203
Hydrotest{1}	0	0	1.25	3-1	OCC	23	219
Sus.+T1{1}			1.25	5-1	CRUP	49	<NOTE 1>
Sus.+T2{1}			1.25	5-1	CRUP	51	<NOTE 1>
Sus.+T3{1}			1.25	5-1	CRUP	49	<NOTE 1>
Sus.+T4{1}			1.25	5-1	CRUP	49	<NOTE 1>
Sus.+T5{1}			1.25	5-1	CRUP	50	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

E04	- Max P{1}					HOOP	65	87	
	GR + Max P{1}	276			1.00	2-1 SUST	54	87	
	TR:Amb to T2{1}			735	1.00	4-1 DISP	61	198	
	Amb to T1{1}			649	1.00	4-1 DISP	54	201	
	Amb to T2{1}			735	1.00	4-1 DISP	61	198	
	Amb to T3{1}			648	1.00	4-1 DISP	54	201	
	Amb to T4{1}			629	1.00	4-1 DISP	53	203	
	Amb to T5{1}			685	1.00	4-1 DISP	57	203	
	Hydrotest{1}	0	0		1.00	3-1 OCC	24	219	
	Sus.+T1{1}				1.00	5-1 CRUP	72	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	74	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	72	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	71	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	73	<NOTE 1>	
F12	F- Max P{1}					HOOP	13	104	
	GR + Max P{1}	318			1.78	2-1 SUST	21	104	
	TR:T1 to T3{1}			1175	1.78	4-1 DISP	74	217	
	Amb to T1{1}			984	1.78	4-1 DISP	62	247	
	Amb to T2{1}			423	1.78	4-1 DISP	27	247	
	Amb to T3{1}			602	1.78	4-1 DISP	38	217	
	Amb to T4{1}			538	1.78	4-1 DISP	34	217	
	Amb to T5{1}			368	1.78	4-1 DISP	23	229	
	Hydrotest{1}	0	0		1.78	3-1 OCC	1	219	
	Sus.+T1{1}				1.78	5-1 CRUP	37	<NOTE 1>	
	Sus.+T2{1}				1.78	5-1 CRUP	28	<NOTE 1>	
	Sus.+T3{1}				1.78	5-1 CRUP	31	<NOTE 1>	
	Sus.+T4{1}				1.78	5-1 CRUP	30	<NOTE 1>	
	Sus.+T5{1}				1.78	5-1 CRUP	27	<NOTE 1>	
E07	N+ Max P{1}					HOOP	65	87	
	GR + Max P{1}	184			1.32	2-1 SUST	46	87	
	TR:Amb to T2{1}			669	1.32	4-1 DISP	74	198	
	Amb to T1{1}			634	1.32	4-1 DISP	70	201	
	Amb to T2{1}			669	1.32	4-1 DISP	74	198	
	Amb to T3{1}			634	1.32	4-1 DISP	70	201	
	Amb to T4{1}			623	1.32	4-1 DISP	69	203	
	Amb to T5{1}			629	1.32	4-1 DISP	69	203	

Hydrotest{1}	0	0	1.32	3-1	OCC	24	219
Sus.+T1{1}			1.32	5-1	CRUP	64	<NOTE 1>
Sus.+T2{1}			1.32	5-1	CRUP	65	<NOTE 1>
Sus.+T3{1}			1.32	5-1	CRUP	64	<NOTE 1>
Sus.+T4{1}			1.32	5-1	CRUP	63	<NOTE 1>
Sus.+T5{1}			1.32	5-1	CRUP	64	<NOTE 1>

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Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
S10 F+	Max P{1}					HOOP	13	104
	GR + Max P{1}	62			1.00	2-1 SUST	8	104
	TR:Amb to T1{1}			2077	1.00	4-1 DISP	74	247
	Amb to T1{1}			2077	1.00	4-1 DISP	74	247
	Amb to T2{1}			902	1.00	4-1 DISP	32	247
	Amb to T3{1}			1138	1.00	4-1 DISP	40	217
	Amb to T4{1}			1115	1.00	4-1 DISP	39	217
	Amb to T5{1}			1337	1.00	4-1 DISP	47	229
	Hydrotest{1}	0	0		1.00	3-1 OCC	1	219
	Sus.+T1{1}				1.00	5-1 CRUP	33	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	19	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	22	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	21	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	24	<NOTE 1>
E05 F-	Max P{1}					HOOP	65	87
	GR + Max P{1}	108			1.32	2-1 SUST	40	87
	TR:Amb to T2{1}			665	1.32	4-1 DISP	73	198
	Amb to T1{1}			634	1.32	4-1 DISP	70	201
	Amb to T2{1}			665	1.32	4-1 DISP	73	198
	Amb to T3{1}			634	1.32	4-1 DISP	70	201
	Amb to T4{1}			622	1.32	4-1 DISP	69	203
	Amb to T5{1}			619	1.32	4-1 DISP	68	203
	Hydrotest{1}	0	0		1.32	3-1 OCC	24	219
	Sus.+T1{1}				1.32	5-1 CRUP	57	<NOTE 1>

	Sus.+T2{1}	S_LINEREV0.OUT	1.32	5-1	CRUP	58	<NOTE 1>
	Sus.+T3{1}		1.32	5-1	CRUP	57	<NOTE 1>
	Sus.+T4{1}		1.32	5-1	CRUP	57	<NOTE 1>
	Sus.+T5{1}		1.32	5-1	CRUP	57	<NOTE 1>

F17 N-	Max P{1}				HOOP	65	87
	GR + Max P{1}	176		1.00	2-1 SUST	45	87
	TR:Amb to T3{1}		874	1.00	4-1 DISP	73	201
	Amb to T1{1}		671	1.00	4-1 DISP	56	201
	Amb to T2{1}		847	1.00	4-1 DISP	71	198
	Amb to T3{1}		874	1.00	4-1 DISP	73	201
	Amb to T4{1}		819	1.00	4-1 DISP	68	209
	Amb to T5{1}		615	1.00	4-1 DISP	51	229
	Hydrotest{1}	0	0	1.00	3-1 OCC	24	219
	Sus.+T1{1}			1.00	5-1 CRUP	64	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	69	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	70	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	68	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	63	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
F17 F+	Max P{1}					HOOP	65 87
	GR + Max P{1}	165			1.00	2-1 SUST	45 87
	TR:Amb to T3{1}			872	1.00	4-1 DISP	73 201
	Amb to T1{1}			711	1.00	4-1 DISP	59 201
	Amb to T2{1}			847	1.00	4-1 DISP	71 198
	Amb to T3{1}			872	1.00	4-1 DISP	73 201
	Amb to T4{1}			812	1.00	4-1 DISP	68 209
	Amb to T5{1}			617	1.00	4-1 DISP	52 229
	Hydrotest{1}	0	0		1.00	3-1 OCC	24 219
	Sus.+T1{1}				1.00	5-1 CRUP	64 <NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	68 <NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	69 <NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	67 <NOTE 1>

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Sus.+T5{1}			1.00	5-1	CRUP	62	<NOTE 1>
E06 N-	Max P{1}				HOOP	65	87
	GR + Max P{1}	200	1.00	2-1	SUST	48	87
	TR:Amb to T2{1}		869	1.00	4-1	DISP	73 198
	Amb to T1{1}		822	1.00	4-1	DISP	69 201
	Amb to T2{1}		869	1.00	4-1	DISP	73 198
	Amb to T3{1}		822	1.00	4-1	DISP	69 201
	Amb to T4{1}		806	1.00	4-1	DISP	67 203
	Amb to T5{1}		814	1.00	4-1	DISP	68 203
	Hydrotest{1}	0 0		1.00	3-1	OCC	24 219
	Sus.+T1{1}			1.00	5-1	CRUP	70 <NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	72 <NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	70 <NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	70 <NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	70 <NOTE 1>
D05 +	Max P{1}				HOOP	65	87
	GR + Max P{1}	28		1.00	2-1	SUST	33 87
	TR:Amb to T2{1}		868	1.00	4-1	DISP	72 198
	Amb to T1{1}		868	1.00	4-1	DISP	72 201
	Amb to T2{1}		868	1.00	4-1	DISP	72 198
	Amb to T3{1}		804	1.00	4-1	DISP	67 201
	Amb to T4{1}		727	1.00	4-1	DISP	61 209
	Amb to T5{1}		511	1.00	4-1	DISP	43 229
	Hydrotest{1}	0 0		1.00	3-1	OCC	24 219
	Sus.+T1{1}			1.00	5-1	CRUP	57 <NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	57 <NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	56 <NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	53 <NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	47 <NOTE 1>

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 EN 13480 (2002) CODE COMPLIANCE
 (Moments in N.m) (Stress in N/mm2)
 Point Load Ma Mb Mc Eq. Load Code Code
 name combination (Sus.) (Occ.) (Exp.) S.I.F no. type Stress Allow.

 J14 F- Max P{1} HOOP 50 88

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GR + Max P{1}	3		1.18	2-1	SUST	25	88
TR:Amb to T2{1}		291	1.18	4-1	DISP	72	201
Amb to T1{1}		195	1.18	4-1	DISP	48	207
Amb to T2{1}		291	1.18	4-1	DISP	72	201
Amb to T3{1}		253	1.18	4-1	DISP	63	207
Amb to T4{1}		225	1.18	4-1	DISP	56	211
Amb to T5{1}		84	1.18	4-1	DISP	21	229
Hydrotest{1}	0	0	1.18	3-1	OCC	19	219
Sus.+T1{1}			1.18	5-1	CRUP	39	<NOTE 1>
Sus.+T2{1}			1.18	5-1	CRUP	46	<NOTE 1>
Sus.+T3{1}			1.18	5-1	CRUP	43	<NOTE 1>
Sus.+T4{1}			1.18	5-1	CRUP	41	<NOTE 1>
Sus.+T5{1}			1.18	5-1	CRUP	31	<NOTE 1>
J15 N+ Max P{1}					HOOP	50	88
GR + Max P{1}	22		1.18	2-1	SUST	29	88
TR:Amb to T2{1}		291	1.18	4-1	DISP	72	201
Amb to T1{1}		197	1.18	4-1	DISP	49	207
Amb to T2{1}		291	1.18	4-1	DISP	72	201
Amb to T3{1}		253	1.18	4-1	DISP	63	207
Amb to T4{1}		226	1.18	4-1	DISP	56	211
Amb to T5{1}		88	1.18	4-1	DISP	22	229
Hydrotest{1}	0	0	1.18	3-1	OCC	19	219
Sus.+T1{1}			1.18	5-1	CRUP	43	<NOTE 1>
Sus.+T2{1}			1.18	5-1	CRUP	49	<NOTE 1>
Sus.+T3{1}			1.18	5-1	CRUP	47	<NOTE 1>
Sus.+T4{1}			1.18	5-1	CRUP	45	<NOTE 1>
Sus.+T5{1}			1.18	5-1	CRUP	35	<NOTE 1>
S10 N- Max P{1}					HOOP	13	104
GR + Max P{1}	58		1.00	2-1	SUST	8	104
TR:Amb to T1{1}		2029	1.00	4-1	DISP	72	247
Amb to T1{1}		2029	1.00	4-1	DISP	72	247
Amb to T2{1}		1043	1.00	4-1	DISP	37	247
Amb to T3{1}		1374	1.00	4-1	DISP	49	217
Amb to T4{1}		1261	1.00	4-1	DISP	45	217
Amb to T5{1}		1231	1.00	4-1	DISP	44	229
Hydrotest{1}	0	0	1.00	3-1	OCC	1	219
Sus.+T1{1}			1.00	5-1	CRUP	32	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	20	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	24	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	23	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	23	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. no.	Load type		
E05 N+	Max P{1}						HOOP	65	87
	GR + Max P{1}	129			1.32	2-1	SUST	42	87
	TR:Amb to T2{1}			650	1.32	4-1	DISP	72	198
	Amb to T1{1}			621	1.32	4-1	DISP	68	201
	Amb to T2{1}			650	1.32	4-1	DISP	72	198
	Amb to T3{1}			621	1.32	4-1	DISP	68	201
	Amb to T4{1}			608	1.32	4-1	DISP	67	203
	Amb to T5{1}			604	1.32	4-1	DISP	67	203
	Hydrotest{1}	0	0		1.32	3-1	OCC	24	219
	Sus.+T1{1}				1.32	5-1	CRUP	59	<NOTE 1>
	Sus.+T2{1}				1.32	5-1	CRUP	60	<NOTE 1>
	Sus.+T3{1}				1.32	5-1	CRUP	59	<NOTE 1>
	Sus.+T4{1}				1.32	5-1	CRUP	58	<NOTE 1>
	Sus.+T5{1}				1.32	5-1	CRUP	58	<NOTE 1>
B07 +	Max P{1}						HOOP	62	87
	GR + Max P{1}	130			1.00	2-1	SUST	35	87
	TR:Amb to T2{1}			1569	1.00	4-1	DISP	72	198
	Amb to T1{1}			1467	1.00	4-1	DISP	67	201
	Amb to T2{1}			1569	1.00	4-1	DISP	72	198
	Amb to T3{1}			1467	1.00	4-1	DISP	67	201
	Amb to T4{1}			1442	1.00	4-1	DISP	66	203
	Amb to T5{1}			1484	1.00	4-1	DISP	68	203
	Hydrotest{1}	0	0		1.00	3-1	OCC	23	219
	Sus.+T1{1}				1.00	5-1	CRUP	58	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP	59	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP	58	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP	57	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP	58	<NOTE 1>
C014 +	Max P{1}						HOOP	65	87
	GR + Max P{1}	214			1.00	2-1	SUST	49	87

TR:Amb to T2{1}	S_LINEREV0.OUT	808	1.00	4-1	DISP	67	198
Amb to T1{1}		647	1.00	4-1	DISP	54	201
Amb to T2{1}		808	1.00	4-1	DISP	67	198
Amb to T3{1}		794	1.00	4-1	DISP	66	201
Amb to T4{1}		767	1.00	4-1	DISP	64	209
Amb to T5{1}		616	1.00	4-1	DISP	51	229
Hydrotest{1}	0 0		1.00	3-1	OCC	24	219
Sus.+T1{1}			1.00	5-1	CRUP	67	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	71	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	71	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	70	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	66	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code	
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

C014 - Max P{1}						HOOP	65	87	
	GR + Max P{1}	214			1.00	2-1 SUST	49	87	
	TR:Amb to T2{1}			808	1.00	4-1 DISP	67	198	
	Amb to T1{1}			647	1.00	4-1 DISP	54	201	
	Amb to T2{1}			808	1.00	4-1 DISP	67	198	
	Amb to T3{1}			794	1.00	4-1 DISP	66	201	
	Amb to T4{1}			767	1.00	4-1 DISP	64	209	
	Amb to T5{1}			616	1.00	4-1 DISP	51	229	
	Hydrotest{1}	0	0		1.00	3-1 OCC	24	219	
	Sus.+T1{1}				1.00	5-1 CRUP	67	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	71	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	71	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	70	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	66	<NOTE 1>	
B08 N- Max P{1}						HOOP	62	87	
	GR + Max P{1}	54			1.00	2-1 SUST	32	87	
	TR:Amb to T2{1}			1554	1.00	4-1 DISP	71	198	
	Amb to T1{1}			1457	1.00	4-1 DISP	66	201	
	Amb to T2{1}			1554	1.00	4-1 DISP	71	198	

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Amb to T3{1}			1457	1.00	4-1 DISP	66	201
Amb to T4{1}			1433	1.00	4-1 DISP	65	203
Amb to T5{1}			1471	1.00	4-1 DISP	67	203
Hydrotest{1}	0	0		1.00	3-1 OCC	23	219
Sus.+T1{1}				1.00	5-1 CRUP	54	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	56	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	54	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	54	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	54	<NOTE 1>
E06 F+ Max P{1}					HOOP	65	87
GR + Max P{1}	176			1.00	2-1 SUST	45	87
TR:Amb to T2{1}			848	1.00	4-1 DISP	71	198
Amb to T1{1}			803	1.00	4-1 DISP	67	201
Amb to T2{1}			848	1.00	4-1 DISP	71	198
Amb to T3{1}			802	1.00	4-1 DISP	67	201
Amb to T4{1}			787	1.00	4-1 DISP	66	203
Amb to T5{1}			795	1.00	4-1 DISP	66	203
Hydrotest{1}	0	0		1.00	3-1 OCC	24	219
Sus.+T1{1}				1.00	5-1 CRUP	68	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	69	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	68	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	67	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	68	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no.	type	Stress	Allow.

B11 N-	Max P{1}					HOOP		62	87
	GR + Max P{1}	36			1.00	2-1 SUST		31	87
	TR:Amb to T2{1}			1545	1.00	4-1 DISP		70	198
	Amb to T1{1}			1429	1.00	4-1 DISP		65	201
	Amb to T2{1}			1545	1.00	4-1 DISP		70	198
	Amb to T3{1}			1429	1.00	4-1 DISP		65	201
	Amb to T4{1}			1405	1.00	4-1 DISP		64	203

		S_LINEREV0.OUT 1473					
Amb to T5{1}			1.00	4-1	DISP	67	203
Hydrotest{1}	0	0	1.00	3-1	OCC	23	219
Sus.+T1{1}			1.00	5-1	CRUP	53	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	55	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	53	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	52	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	53	<NOTE 1>
B08 F+ Max P{1}					HOOP	62	87
GR + Max P{1}	33		1.00	2-1	SUST	31	87
TR:Amb to T2{1}		1543	1.00	4-1	DISP	70	198
Amb to T1{1}		1446	1.00	4-1	DISP	66	201
Amb to T2{1}		1543	1.00	4-1	DISP	70	198
Amb to T3{1}		1446	1.00	4-1	DISP	66	201
Amb to T4{1}		1423	1.00	4-1	DISP	65	203
Amb to T5{1}		1463	1.00	4-1	DISP	67	203
Hydrotest{1}	0	0	1.00	3-1	OCC	23	219
Sus.+T1{1}			1.00	5-1	CRUP	53	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	54	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	53	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	53	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	53	<NOTE 1>
B16 Max P{1}					HOOP	62	87
GR + Max P{1}	33		1.00	2-1	SUST	31	87
TR:Amb to T2{1}		1543	1.00	4-1	DISP	70	198
Amb to T1{1}		1446	1.00	4-1	DISP	66	201
Amb to T2{1}		1543	1.00	4-1	DISP	70	198
Amb to T3{1}		1446	1.00	4-1	DISP	66	201
Amb to T4{1}		1423	1.00	4-1	DISP	65	203
Amb to T5{1}		1463	1.00	4-1	DISP	67	203
Hydrotest{1}	0	0	1.00	3-1	OCC	23	219
Sus.+T1{1}			1.00	5-1	CRUP	53	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	54	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	53	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	53	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	53	<NOTE 1>

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S_LINEREVO.OUT
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Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F					
F15	Max P{1}							HOOP	65	87
	GR + Max P{1}	214			1.00	2-1	SUST		49	87
	TR:Amb to T1{1}			764	1.00	4-1	DISP		64	201
	Amb to T1{1}			764	1.00	4-1	DISP		64	201
	Amb to T2{1}			672	1.00	4-1	DISP		56	198
	Amb to T3{1}			658	1.00	4-1	DISP		55	201
	Amb to T4{1}			638	1.00	4-1	DISP		53	209
	Amb to T5{1}			613	1.00	4-1	DISP		51	229
	Hydrotest{1}	0	0		1.00	3-1	OCC		24	219
	Sus.+T1{1}				1.00	5-1	CRUP		70	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		67	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP		67	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP		66	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP		66	<NOTE 1>
L10	Max P{1}							HOOP	70	88
	GR + Max P{1}	617			1.00	2-1	SUST		50	88
	TR:Amb to T2{1}			1424	1.00	4-1	DISP		39	201
	Amb to T1{1}			1242	1.00	4-1	DISP		34	207
	Amb to T2{1}			1424	1.00	4-1	DISP		39	201
	Amb to T3{1}			1242	1.00	4-1	DISP		34	207
	Amb to T4{1}			1210	1.00	4-1	DISP		33	208
	Amb to T5{1}			1359	1.00	4-1	DISP		37	203
	Hydrotest{1}	0	0		1.00	3-1	OCC		26	219
	Sus.+T1{1}				1.00	5-1	CRUP		61	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		63	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP		61	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP		61	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP		62	<NOTE 1>
L09	Max P{1}							HOOP	70	88
	GR + Max P{1}	376			2.00	2-1	SUST		48	88
	TR:Amb to T2{1}			811	2.00	4-1	DISP		44	201
	Amb to T1{1}			704	2.00	4-1	DISP		39	207
	Amb to T2{1}			811	2.00	4-1	DISP		44	201
	Amb to T3{1}			704	2.00	4-1	DISP		39	207
	Amb to T4{1}			686	2.00	4-1	DISP		38	208
	Amb to T5{1}			776	2.00	4-1	DISP		43	203
	Hydrotest{1}	0	0		2.00	3-1	OCC		26	219

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Sus.+T1{1}	2.00	5-1	CRUP	58 <NOTE 1>
Sus.+T2{1}	2.00	5-1	CRUP	60 <NOTE 1>
Sus.+T3{1}	2.00	5-1	CRUP	58 <NOTE 1>
Sus.+T4{1}	2.00	5-1	CRUP	58 <NOTE 1>
Sus.+T5{1}	2.00	5-1	CRUP	59 <NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. no.	Load type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F						
E11	Max P{1}								HOOP	70	87
	GR + Max P{1}	209			2.00		2-1	SUST		42	87
	TR:Amb to T2{1}			391	2.00		4-1	DISP		21	198
	Amb to T1{1}			348	2.00		4-1	DISP		19	201
	Amb to T2{1}			391	2.00		4-1	DISP		21	198
	Amb to T3{1}			347	2.00		4-1	DISP		19	201
	Amb to T4{1}			338	2.00		4-1	DISP		19	203
	Amb to T5{1}			369	2.00		4-1	DISP		20	203
	Hydrotest{1}	0	0		2.00		3-1	OCC		26	219
	Sus.+T1{1}				2.00		5-1	CRUP		46	<NOTE 1>
	Sus.+T2{1}				2.00		5-1	CRUP		47	<NOTE 1>
	Sus.+T3{1}				2.00		5-1	CRUP		46	<NOTE 1>
	Sus.+T4{1}				2.00		5-1	CRUP		46	<NOTE 1>
	Sus.+T5{1}				2.00		5-1	CRUP		47	<NOTE 1>
D18	Max P{1}								HOOP	70	87
	GR + Max P{1}	12			2.00		2-1	SUST		33	87
	TR:Amb to T1{1}			1088	2.00		4-1	DISP		60	201
	Amb to T1{1}			1088	2.00		4-1	DISP		60	201
	Amb to T2{1}			734	2.00		4-1	DISP		40	198
	Amb to T3{1}			664	2.00		4-1	DISP		36	201
	Amb to T4{1}			688	2.00		4-1	DISP		38	209
	Amb to T5{1}			899	2.00		4-1	DISP		49	229
	Hydrotest{1}	0	0		2.00		3-1	OCC		26	219
	Sus.+T1{1}				2.00		5-1	CRUP		48	<NOTE 1>
	Sus.+T2{1}				2.00		5-1	CRUP		44	<NOTE 1>

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	Sus.+T3{1}		2.00	5-1	CRUP	43	<NOTE 1>
	Sus.+T4{1}		2.00	5-1	CRUP	43	<NOTE 1>
	Sus.+T5{1}		2.00	5-1	CRUP	46	<NOTE 1>
T05 N-	Max P{1}				HOOP	50	88
	GR + Max P{1}	56	1.00	2-1	SUST	36	88
	TR:Amb to T2{1}		331	1.00	4-1	DISP	69 201
	Amb to T1{1}		290	1.00	4-1	DISP	61 207
	Amb to T2{1}		331	1.00	4-1	DISP	69 201
	Amb to T3{1}		289	1.00	4-1	DISP	61 207
	Amb to T4{1}		280	1.00	4-1	DISP	59 208
	Amb to T5{1}		311	1.00	4-1	DISP	65 203
	Hydrotest{1}	0 0	1.00	3-1	OCC	19	219
	Sus.+T1{1}		1.00	5-1	CRUP	57	<NOTE 1>
	Sus.+T2{1}		1.00	5-1	CRUP	59	<NOTE 1>
	Sus.+T3{1}		1.00	5-1	CRUP	56	<NOTE 1>
	Sus.+T4{1}		1.00	5-1	CRUP	56	<NOTE 1>
	Sus.+T5{1}		1.00	5-1	CRUP	58	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)		
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F no. type	Stress	Allow.
E07 F-	Max P{1}					HOOP 65	87
	GR + Max P{1}	175			1.32 2-1 SUST	45	87
	TR:Amb to T2{1}			628	1.32 4-1 DISP	69	198
	Amb to T1{1}			596	1.32 4-1 DISP	66	201
	Amb to T2{1}			628	1.32 4-1 DISP	69	198
	Amb to T3{1}			595	1.32 4-1 DISP	66	201
	Amb to T4{1}			586	1.32 4-1 DISP	65	203
	Amb to T5{1}			592	1.32 4-1 DISP	65	203
	Hydrotest{1}	0	0		1.32 3-1 OCC	24	219
	Sus.+T1{1}				1.32 5-1 CRUP	62	<NOTE 1>
	Sus.+T2{1}				1.32 5-1 CRUP	63	<NOTE 1>
	Sus.+T3{1}				1.32 5-1 CRUP	62	<NOTE 1>
	Sus.+T4{1}				1.32 5-1 CRUP	62	<NOTE 1>
	Sus.+T5{1}				1.32 5-1 CRUP	62	<NOTE 1>

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S14	Max P{1}					HOOP	16	104
	GR + Max P{1}	89		1.00	2-1	SUST	9	104
	TR:Amb to T1{1}		3643	1.00	4-1	DISP	69	247
	Amb to T1{1}		3643	1.00	4-1	DISP	69	247
	Amb to T2{1}		1762	1.00	4-1	DISP	33	247
	Amb to T3{1}		1711	1.00	4-1	DISP	32	217
	Amb to T4{1}		1677	1.00	4-1	DISP	32	217
	Amb to T5{1}		2239	1.00	4-1	DISP	43	229
	Hydrotest{1}	0	0	1.00	3-1	OCC	1	219
	Sus.+T1{1}			1.00	5-1	CRUP	32	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	20	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	20	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	19	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	23	<NOTE 1>
E17	+ Max P{1}					HOOP	65	87
	GR + Max P{1}	232		1.00	2-1	SUST	50	87
	TR:Amb to T2{1}		671	1.00	4-1	DISP	56	198
	Amb to T1{1}		609	1.00	4-1	DISP	51	201
	Amb to T2{1}		671	1.00	4-1	DISP	56	198
	Amb to T3{1}		609	1.00	4-1	DISP	51	201
	Amb to T4{1}		593	1.00	4-1	DISP	49	203
	Amb to T5{1}		623	1.00	4-1	DISP	52	203
	Hydrotest{1}	0	0	1.00	3-1	OCC	24	219
	Sus.+T1{1}			1.00	5-1	CRUP	67	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	69	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	67	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	67	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	67	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)

(Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
E17	- Max P{1}					HOOP	65 87
	GR + Max P{1}	232			1.00	2-1 SUST	50 87

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TR:Amb to T2{1}			671	1.00	4-1 DISP	56	198
Amb to T1{1}			609	1.00	4-1 DISP	51	201
Amb to T2{1}			671	1.00	4-1 DISP	56	198
Amb to T3{1}			609	1.00	4-1 DISP	51	201
Amb to T4{1}			593	1.00	4-1 DISP	49	203
Amb to T5{1}			623	1.00	4-1 DISP	52	203
Hydrotest{1}	0	0		1.00	3-1 OCC	24	219
Sus.+T1{1}				1.00	5-1 CRUP	67	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	69	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	67	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	67	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	67	<NOTE 1>
B17 + Max P{1}					HOOP	62	87
GR + Max P{1}	146			1.00	2-1 SUST	36	87
TR:Amb to T2{1}			1503	1.00	4-1 DISP	69	198
Amb to T1{1}			1353	1.00	4-1 DISP	62	201
Amb to T2{1}			1503	1.00	4-1 DISP	69	198
Amb to T3{1}			1353	1.00	4-1 DISP	62	201
Amb to T4{1}			1319	1.00	4-1 DISP	60	203
Amb to T5{1}			1408	1.00	4-1 DISP	64	203
Hydrotest{1}	0	0		1.00	3-1 OCC	23	219
Sus.+T1{1}				1.00	5-1 CRUP	57	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	59	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	57	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	56	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	57	<NOTE 1>
B17 - Max P{1}					HOOP	62	87
GR + Max P{1}	146			1.00	2-1 SUST	36	87
TR:Amb to T2{1}			1503	1.00	4-1 DISP	69	198
Amb to T1{1}			1353	1.00	4-1 DISP	62	201
Amb to T2{1}			1503	1.00	4-1 DISP	69	198
Amb to T3{1}			1353	1.00	4-1 DISP	62	201
Amb to T4{1}			1319	1.00	4-1 DISP	60	203
Amb to T5{1}			1408	1.00	4-1 DISP	64	203
Hydrotest{1}	0	0		1.00	3-1 OCC	23	219
Sus.+T1{1}				1.00	5-1 CRUP	57	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	59	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	57	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	56	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	57	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
A01	Max P{1}					HOOP	32	89	
	GR + Max P{1}	75			1.35	2-1 SUST	18	89	
	TR:Amb to T2{1}			1641	1.35	4-1 DISP	68	201	
	Amb to T1{1}			1572	1.35	4-1 DISP	66	201	
	Amb to T2{1}			1641	1.35	4-1 DISP	68	201	
	Amb to T3{1}			1572	1.35	4-1 DISP	66	201	
	Amb to T4{1}			1526	1.35	4-1 DISP	64	201	
	Amb to T5{1}			1478	1.35	4-1 DISP	62	201	
	Hydrotest{1}	0	0		1.35	3-1 OCC	23	219	
	Sus.+T1{1}				1.35	5-1 CRUP	34	<NOTE 1>	
	Sus.+T2{1}				1.35	5-1 CRUP	35	<NOTE 1>	
	Sus.+T3{1}				1.35	5-1 CRUP	34	<NOTE 1>	
	Sus.+T4{1}				1.35	5-1 CRUP	33	<NOTE 1>	
	Sus.+T5{1}				1.35	5-1 CRUP	33	<NOTE 1>	
B11 F+	Max P{1}					HOOP	62	87	
	GR + Max P{1}	69			1.00	2-1 SUST	33	87	
	TR:Amb to T2{1}			1488	1.00	4-1 DISP	68	198	
	Amb to T1{1}			1377	1.00	4-1 DISP	63	201	
	Amb to T2{1}			1488	1.00	4-1 DISP	68	198	
	Amb to T3{1}			1377	1.00	4-1 DISP	63	201	
	Amb to T4{1}			1355	1.00	4-1 DISP	62	203	
	Amb to T5{1}			1420	1.00	4-1 DISP	65	203	
	Hydrotest{1}	0	0		1.00	3-1 OCC	23	219	
	Sus.+T1{1}				1.00	5-1 CRUP	54	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	55	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	54	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	53	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	54	<NOTE 1>	
E01 F+	Max P{1}					HOOP	33	89	
	GR + Max P{1}	95			1.00	2-1 SUST	24	89	
	TR:Amb to T2{1}			807	1.00	4-1 DISP	67	201	

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Amb to T1{1}		791	1.00	4-1	DISP	66	201
Amb to T2{1}		807	1.00	4-1	DISP	67	201
Amb to T3{1}		791	1.00	4-1	DISP	66	201
Amb to T4{1}		778	1.00	4-1	DISP	65	201
Amb to T5{1}		753	1.00	4-1	DISP	63	201
Hydrotest{1}	0	0	1.00	3-1	OCC	24	219
Sus.+T1{1}			1.00	5-1	CRUP	46	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	46	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	46	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	45	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	45	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq.	Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
J14 N+	Max P{1}					HOOP	50	88
	GR + Max P{1}	3			1.18	2-1 SUST	25	88
	TR:Amb to T2{1}			271	1.18	4-1 DISP	67	201
	Amb to T1{1}			181	1.18	4-1 DISP	45	207
	Amb to T2{1}			271	1.18	4-1 DISP	67	201
	Amb to T3{1}			235	1.18	4-1 DISP	58	207
	Amb to T4{1}			209	1.18	4-1 DISP	52	211
	Amb to T5{1}			78	1.18	4-1 DISP	19	229
	Hydrotest{1}	0	0		1.18	3-1 OCC	19	219
	Sus.+T1{1}				1.18	5-1 CRUP	38	<NOTE 1>
	Sus.+T2{1}				1.18	5-1 CRUP	44	<NOTE 1>
	Sus.+T3{1}				1.18	5-1 CRUP	42	<NOTE 1>
	Sus.+T4{1}				1.18	5-1 CRUP	40	<NOTE 1>
	Sus.+T5{1}				1.18	5-1 CRUP	31	<NOTE 1>
J15 F-	Max P{1}					HOOP	50	88
	GR + Max P{1}	21			1.18	2-1 SUST	29	88
	TR:Amb to T2{1}			270	1.18	4-1 DISP	67	201
	Amb to T1{1}			183	1.18	4-1 DISP	45	207
	Amb to T2{1}			270	1.18	4-1 DISP	67	201
	Amb to T3{1}			235	1.18	4-1 DISP	58	207

Amb to T4{1}			210	1.18	4-1 DISP	52	211
Amb to T5{1}			82	1.18	4-1 DISP	20	229
Hydrotest{1}	0	0		1.18	3-1 OCC	19	219
Sus.+T1{1}				1.18	5-1 CRUP	42	<NOTE 1>
Sus.+T2{1}				1.18	5-1 CRUP	48	<NOTE 1>
Sus.+T3{1}				1.18	5-1 CRUP	45	<NOTE 1>
Sus.+T4{1}				1.18	5-1 CRUP	44	<NOTE 1>
Sus.+T5{1}				1.18	5-1 CRUP	35	<NOTE 1>

E14	Max P{1}				HOOP	65	87
	GR + Max P{1}	197		2.00	2-1 SUST	56	87
	TR:Amb to T2{1}		267	2.00	4-1 DISP	45	198
	Amb to T1{1}		232	2.00	4-1 DISP	39	201
	Amb to T2{1}		267	2.00	4-1 DISP	45	198
	Amb to T3{1}		231	2.00	4-1 DISP	39	201
	Amb to T4{1}		224	2.00	4-1 DISP	37	203
	Amb to T5{1}		252	2.00	4-1 DISP	42	203
	Hydrotest{1}	0	0	2.00	3-1 OCC	24	219
	Sus.+T1{1}			2.00	5-1 CRUP	65	<NOTE 1>
	Sus.+T2{1}			2.00	5-1 CRUP	67	<NOTE 1>
	Sus.+T3{1}			2.00	5-1 CRUP	65	<NOTE 1>
	Sus.+T4{1}			2.00	5-1 CRUP	65	<NOTE 1>
Sus.+T5{1}			2.00	5-1 CRUP	66	<NOTE 1>	

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Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
E16	+ Max P{1}					H00P	65	87
	GR + Max P{1}	296			1.00	2-1 SUST	55	87
	TR:Amb to T2{1}			385	1.00	4-1 DISP	32	198
	Amb to T1{1}			354	1.00	4-1 DISP	30	201
	Amb to T2{1}			385	1.00	4-1 DISP	32	198
	Amb to T3{1}			353	1.00	4-1 DISP	30	201
	Amb to T4{1}			344	1.00	4-1 DISP	29	203
	Amb to T5{1}			356	1.00	4-1 DISP	30	203

		S_LINEREV0.OUT					
Hydrotest{1}	0	0	1.00	3-1	OCC	24	219
Sus.+T1{1}			1.00	5-1	CRUP	65	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	66	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	65	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	65	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	65	<NOTE 1>
E16 - Max P{1}					HOOP	65	87
GR + Max P{1}	296		1.00	2-1	SUST	55	87
TR:Amb to T2{1}		385	1.00	4-1	DISP	32	198
Amb to T1{1}		354	1.00	4-1	DISP	30	201
Amb to T2{1}		385	1.00	4-1	DISP	32	198
Amb to T3{1}		353	1.00	4-1	DISP	30	201
Amb to T4{1}		344	1.00	4-1	DISP	29	203
Amb to T5{1}		356	1.00	4-1	DISP	30	203
Hydrotest{1}	0	0	1.00	3-1	OCC	24	219
Sus.+T1{1}			1.00	5-1	CRUP	65	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	66	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	65	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	65	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	65	<NOTE 1>
E08 N- Max P{1}					HOOP	65	87
GR + Max P{1}	158		1.00	2-1	SUST	44	87
TR:Amb to T2{1}		789	1.00	4-1	DISP	66	198
Amb to T1{1}		745	1.00	4-1	DISP	62	201
Amb to T2{1}		789	1.00	4-1	DISP	66	198
Amb to T3{1}		745	1.00	4-1	DISP	62	201
Amb to T4{1}		732	1.00	4-1	DISP	61	203
Amb to T5{1}		743	1.00	4-1	DISP	62	203
Hydrotest{1}	0	0	1.00	3-1	OCC	24	219
Sus.+T1{1}			1.00	5-1	CRUP	65	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	66	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	65	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	64	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	65	<NOTE 1>

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Point name	Load combination	(Moments in N.m)			S_LINEREV0.OUT (Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. no.	Load type		
E08 F+	Max P{1}						HOOP	65	87
	GR + Max P{1}	161			1.00	2-1	SUST	44	87
	TR:Amb to T2{1}			762	1.00	4-1	DISP	64	198
	Amb to T1{1}			718	1.00	4-1	DISP	60	201
	Amb to T2{1}			762	1.00	4-1	DISP	64	198
	Amb to T3{1}			718	1.00	4-1	DISP	60	201
	Amb to T4{1}			706	1.00	4-1	DISP	59	203
	Amb to T5{1}			719	1.00	4-1	DISP	60	203
	Hydrotest{1}	0	0		1.00	3-1	OCC	24	219
	Sus.+T1{1}				1.00	5-1	CRUP	64	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP	65	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP	64	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP	64	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP	64	<NOTE 1>
E07 N-	Max P{1}						HOOP	65	87
	GR + Max P{1}	184			1.00	2-1	SUST	46	87
	TR:Amb to T2{1}			669	1.00	4-1	DISP	56	198
	Amb to T1{1}			634	1.00	4-1	DISP	53	201
	Amb to T2{1}			669	1.00	4-1	DISP	56	198
	Amb to T3{1}			634	1.00	4-1	DISP	53	201
	Amb to T4{1}			623	1.00	4-1	DISP	52	203
	Amb to T5{1}			629	1.00	4-1	DISP	53	203
	Hydrotest{1}	0	0		1.00	3-1	OCC	24	219
	Sus.+T1{1}				1.00	5-1	CRUP	64	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP	65	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP	64	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP	63	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP	64	<NOTE 1>
M01	Max P{1}						HOOP	65	88
	GR + Max P{1}	0			2.00	2-1	SUST	31	88
	TR:Amb to T1{1}			0	2.00	4-1	DISP	0	207
	Amb to T1{1}			0	2.00	4-1	DISP	0	207
	Amb to T2{1}			0	2.00	4-1	DISP	0	201
	Amb to T3{1}			0	2.00	4-1	DISP	0	207
	Amb to T4{1}			0	2.00	4-1	DISP	0	208
	Amb to T5{1}			0	2.00	4-1	DISP	0	203
	Hydrotest{1}	0	0		2.00	3-1	OCC	24	219
	Sus.+T1{1}				2.00	5-1	CRUP	31	<NOTE 1>

S_LINEREV0.OUT

Sus.+T2{1}	2.00	5-1	CRUP	31 <NOTE 1>
Sus.+T3{1}	2.00	5-1	CRUP	31 <NOTE 1>
Sus.+T4{1}	2.00	5-1	CRUP	31 <NOTE 1>
Sus.+T5{1}	2.00	5-1	CRUP	31 <NOTE 1>

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Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. Load no. type			
L07	Max P{1}					HOOP	65	88	
	GR + Max P{1}	0			1.00	2-1 SUST	31	88	
	TR:Amb to T1{1}			0	1.00	4-1 DISP	0	207	
	Amb to T1{1}			0	1.00	4-1 DISP	0	207	
	Amb to T2{1}			0	1.00	4-1 DISP	0	201	
	Amb to T3{1}			0	1.00	4-1 DISP	0	207	
	Amb to T4{1}			0	1.00	4-1 DISP	0	208	
	Amb to T5{1}			0	1.00	4-1 DISP	0	203	
	Hydrotest{1}	0	0		1.00	3-1 OCC	24	219	
	Sus.+T1{1}				1.00	5-1 CRUP	31	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	31	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	31	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	31	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	31	<NOTE 1>	
L07 +	Max P{1}					HOOP	65	88	
	GR + Max P{1}	31			1.00	2-1 SUST	33	88	
	TR:Amb to T2{1}			294	1.00	4-1 DISP	23	201	
	Amb to T1{1}			273	1.00	4-1 DISP	21	207	
	Amb to T2{1}			294	1.00	4-1 DISP	23	201	
	Amb to T3{1}			273	1.00	4-1 DISP	21	207	
	Amb to T4{1}			266	1.00	4-1 DISP	20	208	
	Amb to T5{1}			273	1.00	4-1 DISP	21	203	
	Hydrotest{1}	0	0		1.00	3-1 OCC	24	219	
	Sus.+T1{1}				1.00	5-1 CRUP	40	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	41	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	40	<NOTE 1>	

		S_LINEREV0.OUT					
	Sus.+T4{1}			1.00	5-1 CRUP	40	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	40	<NOTE 1>
L07	- Max P{1}				HOOP	65	88
	GR + Max P{1}	31		1.00	2-1 SUST	33	88
	TR:Amb to T2{1}		294	1.00	4-1 DISP	25	201
	Amb to T1{1}		273	1.00	4-1 DISP	23	207
	Amb to T2{1}		294	1.00	4-1 DISP	25	201
	Amb to T3{1}		273	1.00	4-1 DISP	23	207
	Amb to T4{1}		266	1.00	4-1 DISP	22	208
	Amb to T5{1}		273	1.00	4-1 DISP	23	203
	Hydrotest{1}	0	0	1.00	3-1 OCC	24	219
	Sus.+T1{1}			1.00	5-1 CRUP	41	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	42	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	41	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	41	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	41	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)		(Stress in N/mm2)			
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
L11	+ Max P{1}					HOOP	65 88
	GR + Max P{1}	12			1.00	2-1 SUST	32 88
	TR:Amb to T2{1}			125	1.00	4-1 DISP	10 201
	Amb to T1{1}			121	1.00	4-1 DISP	10 207
	Amb to T2{1}			125	1.00	4-1 DISP	10 201
	Amb to T3{1}			121	1.00	4-1 DISP	10 207
	Amb to T4{1}			119	1.00	4-1 DISP	10 208
	Amb to T5{1}			114	1.00	4-1 DISP	9 203
	Hydrotest{1}	0	0		1.00	3-1 OCC	24 219
	Sus.+T1{1}				1.00	5-1 CRUP	35 <NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	35 <NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	35 <NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	35 <NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	35 <NOTE 1>

S_LINEREV0.OUT									
L11	-	Max P{1}					HOOP	65	88
		GR + Max P{1}	12		1.00	2-1 SUST		32	88
		TR:Amb to T2{1}		125	1.00	4-1 DISP		10	201
		Amb to T1{1}		121	1.00	4-1 DISP		10	207
		Amb to T2{1}		125	1.00	4-1 DISP		10	201
		Amb to T3{1}		121	1.00	4-1 DISP		10	207
		Amb to T4{1}		119	1.00	4-1 DISP		10	208
		Amb to T5{1}		114	1.00	4-1 DISP		9	203
		Hydrotest{1}	0	0	1.00	3-1 OCC		24	219
		Sus.+T1{1}			1.00	5-1 CRUP		35	<NOTE 1>
		Sus.+T2{1}			1.00	5-1 CRUP		35	<NOTE 1>
		Sus.+T3{1}			1.00	5-1 CRUP		35	<NOTE 1>
		Sus.+T4{1}			1.00	5-1 CRUP		35	<NOTE 1>
		Sus.+T5{1}			1.00	5-1 CRUP		35	<NOTE 1>
L12	+	Max P{1}					HOOP	65	88
		GR + Max P{1}	8		1.00	2-1 SUST		31	88
		TR:Amb to T2{1}		492	1.00	4-1 DISP		41	201
		Amb to T1{1}		467	1.00	4-1 DISP		39	207
		Amb to T2{1}		492	1.00	4-1 DISP		41	201
		Amb to T3{1}		467	1.00	4-1 DISP		39	207
		Amb to T4{1}		456	1.00	4-1 DISP		38	208
		Amb to T5{1}		452	1.00	4-1 DISP		38	203
		Hydrotest{1}	0	0	1.00	3-1 OCC		24	219
		Sus.+T1{1}			1.00	5-1 CRUP		44	<NOTE 1>
		Sus.+T2{1}			1.00	5-1 CRUP		45	<NOTE 1>
		Sus.+T3{1}			1.00	5-1 CRUP		44	<NOTE 1>
		Sus.+T4{1}			1.00	5-1 CRUP		44	<NOTE 1>
		Sus.+T5{1}			1.00	5-1 CRUP		44	<NOTE 1>

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		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no.	type	Stress	Allow.
L12	- Max P{1}						HOOP	65	88
	GR + Max P{1}	8			1.00	2-1	SUST	31	88
	TR:Amb to T2{1}			492	1.00	4-1	DISP	41	201

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Amb to T1{1}		467	1.00	4-1 DISP	39	207
Amb to T2{1}		492	1.00	4-1 DISP	41	201
Amb to T3{1}		467	1.00	4-1 DISP	39	207
Amb to T4{1}		456	1.00	4-1 DISP	38	208
Amb to T5{1}		452	1.00	4-1 DISP	38	203
Hydrotest{1}	0	0	1.00	3-1 OCC	24	219
Sus.+T1{1}			1.00	5-1 CRUP	44	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	45	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	44	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	44	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	44	<NOTE 1>
L05 F+ Max P{1}				HOOP	65	88
GR + Max P{1}	93		1.00	2-1 SUST	39	88
TR:Amb to T2{1}		678	1.00	4-1 DISP	57	201
Amb to T1{1}		626	1.00	4-1 DISP	52	207
Amb to T2{1}		678	1.00	4-1 DISP	57	201
Amb to T3{1}		627	1.00	4-1 DISP	52	207
Amb to T4{1}		615	1.00	4-1 DISP	51	208
Amb to T5{1}		643	1.00	4-1 DISP	54	203
Hydrotest{1}	0	0	1.00	3-1 OCC	24	219
Sus.+T1{1}			1.00	5-1 CRUP	56	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	57	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	56	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	56	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	56	<NOTE 1>
L05 N+ Max P{1}				HOOP	65	88
GR + Max P{1}	70		1.32	2-1 SUST	37	88
TR:Amb to T2{1}		583	1.32	4-1 DISP	64	201
Amb to T1{1}		562	1.32	4-1 DISP	62	207
Amb to T2{1}		583	1.32	4-1 DISP	64	201
Amb to T3{1}		562	1.32	4-1 DISP	62	207
Amb to T4{1}		555	1.32	4-1 DISP	61	208
Amb to T5{1}		551	1.32	4-1 DISP	61	203
Hydrotest{1}	0	0	1.32	3-1 OCC	24	219
Sus.+T1{1}			1.32	5-1 CRUP	52	<NOTE 1>
Sus.+T2{1}			1.32	5-1 CRUP	53	<NOTE 1>
Sus.+T3{1}			1.32	5-1 CRUP	52	<NOTE 1>
Sus.+T4{1}			1.32	5-1 CRUP	52	<NOTE 1>
Sus.+T5{1}			1.32	5-1 CRUP	52	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F					
L05 N-	Max P{1}							HOOP	65	88
	GR + Max P{1}	70			1.00	2-1	SUST		37	88
	TR:Amb to T2{1}			583	1.00	4-1	DISP		49	201
	Amb to T1{1}			562	1.00	4-1	DISP		47	207
	Amb to T2{1}			583	1.00	4-1	DISP		49	201
	Amb to T3{1}			562	1.00	4-1	DISP		47	207
	Amb to T4{1}			555	1.00	4-1	DISP		46	208
	Amb to T5{1}			551	1.00	4-1	DISP		46	203
	Hydrotest{1}	0	0		1.00	3-1	OCC		24	219
	Sus.+T1{1}				1.00	5-1	CRUP		52	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		53	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP		52	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP		52	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP		52	<NOTE 1>
E09 F+	Max P{1}							HOOP	65	87
	GR + Max P{1}	188			1.00	2-1	SUST		46	87
	TR:Amb to T2{1}			163	1.00	4-1	DISP		14	198
	Amb to T1{1}			136	1.00	4-1	DISP		11	201
	Amb to T2{1}			163	1.00	4-1	DISP		14	198
	Amb to T3{1}			136	1.00	4-1	DISP		11	201
	Amb to T4{1}			129	1.00	4-1	DISP		11	203
	Amb to T5{1}			151	1.00	4-1	DISP		13	203
	Hydrotest{1}	0	0		1.00	3-1	OCC		24	219
	Sus.+T1{1}				1.00	5-1	CRUP		50	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		51	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP		50	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP		50	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP		51	<NOTE 1>
E09 F-	Max P{1}							HOOP	65	87
	GR + Max P{1}	188			1.32	2-1	SUST		46	87
	TR:Amb to T2{1}			163	1.32	4-1	DISP		18	198
	Amb to T1{1}			136	1.32	4-1	DISP		15	201

	S_LINEREV0.OUT						
Amb to T2{1}	163	1.32	4-1	DISP	18	198	
Amb to T3{1}	136	1.32	4-1	DISP	15	201	
Amb to T4{1}	129	1.32	4-1	DISP	14	203	
Amb to T5{1}	151	1.32	4-1	DISP	17	203	
Hydrotest{1}	0	0	1.32	3-1 OCC	24	219	
Sus.+T1{1}		1.32	5-1	CRUP	50	<NOTE 1>	
Sus.+T2{1}		1.32	5-1	CRUP	51	<NOTE 1>	
Sus.+T3{1}		1.32	5-1	CRUP	50	<NOTE 1>	
Sus.+T4{1}		1.32	5-1	CRUP	50	<NOTE 1>	
Sus.+T5{1}		1.32	5-1	CRUP	51	<NOTE 1>	

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

E09 N+	Max P{1}					HOOP	65	87	
	GR + Max P{1}	177			1.32	2-1 SUST	46	87	
	TR:Amb to T5{1}			44	1.32	4-1 DISP	5	203	
	Amb to T1{1}			21	1.32	4-1 DISP	2	201	
	Amb to T2{1}			42	1.32	4-1 DISP	5	198	
	Amb to T3{1}			21	1.32	4-1 DISP	2	201	
	Amb to T4{1}			18	1.32	4-1 DISP	2	203	
	Amb to T5{1}			44	1.32	4-1 DISP	5	203	
	Hydrotest{1}	0	0		1.32	3-1 OCC	24	219	
	Sus.+T1{1}				1.32	5-1 CRUP	46	<NOTE 1>	
	Sus.+T2{1}				1.32	5-1 CRUP	47	<NOTE 1>	
	Sus.+T3{1}				1.32	5-1 CRUP	46	<NOTE 1>	
	Sus.+T4{1}				1.32	5-1 CRUP	46	<NOTE 1>	
	Sus.+T5{1}				1.32	5-1 CRUP	47	<NOTE 1>	

E09 N-	Max P{1}					HOOP	65	87	
	GR + Max P{1}	177			1.00	2-1 SUST	46	87	
	TR:Amb to T5{1}			44	1.00	4-1 DISP	4	203	
	Amb to T1{1}			21	1.00	4-1 DISP	2	201	
	Amb to T2{1}			42	1.00	4-1 DISP	4	198	
	Amb to T3{1}			21	1.00	4-1 DISP	2	201	
	Amb to T4{1}			18	1.00	4-1 DISP	2	203	

S_LINEREV0.OUT

Amb to T5{1}		44	1.00	4-1 DISP	4	203
Hydrotest{1}	0	0	1.00	3-1 OCC	24	219
Sus.+T1{1}			1.00	5-1 CRUP	46	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	47	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	46	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	46	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	47	<NOTE 1>
E07 F+ Max P{1}				HOOP	65	87
GR + Max P{1}	175		1.00	2-1 SUST	45	87
TR:Amb to T2{1}		628	1.00	4-1 DISP	52	198
Amb to T1{1}		596	1.00	4-1 DISP	50	201
Amb to T2{1}		628	1.00	4-1 DISP	52	198
Amb to T3{1}		595	1.00	4-1 DISP	50	201
Amb to T4{1}		586	1.00	4-1 DISP	49	203
Amb to T5{1}		592	1.00	4-1 DISP	49	203
Hydrotest{1}	0	0	1.00	3-1 OCC	24	219
Sus.+T1{1}			1.00	5-1 CRUP	62	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	63	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	62	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	62	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	62	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)		
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
E05 F+ Max P{1}						HOOP	65 87
GR + Max P{1}		108			1.00	2-1 SUST	40 87
TR:Amb to T2{1}				665	1.00	4-1 DISP	55 198
Amb to T1{1}				634	1.00	4-1 DISP	53 201
Amb to T2{1}				665	1.00	4-1 DISP	55 198
Amb to T3{1}				634	1.00	4-1 DISP	53 201
Amb to T4{1}				622	1.00	4-1 DISP	52 203
Amb to T5{1}				619	1.00	4-1 DISP	52 203
Hydrotest{1}		0	0		1.00	3-1 OCC	24 219

			S_LINEREV0.OUT				
	Sus.+T1{1}			1.00	5-1 CRUP	57	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	58	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	57	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	57	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	57	<NOTE 1>
E05 N-	Max P{1}				HOOP	65	87
	GR + Max P{1}	129		1.00	2-1 SUST	42	87
	TR:Amb to T2{1}		650	1.00	4-1 DISP	54	198
	Amb to T1{1}		621	1.00	4-1 DISP	52	201
	Amb to T2{1}		650	1.00	4-1 DISP	54	198
	Amb to T3{1}		621	1.00	4-1 DISP	52	201
	Amb to T4{1}		608	1.00	4-1 DISP	51	203
	Amb to T5{1}		604	1.00	4-1 DISP	50	203
	Hydrotest{1}	0	0	1.00	3-1 OCC	24	219
	Sus.+T1{1}			1.00	5-1 CRUP	59	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	60	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	59	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	58	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	58	<NOTE 1>
E13 +	Max P{1}				HOOP	65	87
	GR + Max P{1}	47		1.00	2-1 SUST	35	87
	TR:Amb to T2{1}		704	1.00	4-1 DISP	59	198
	Amb to T1{1}		637	1.00	4-1 DISP	53	201
	Amb to T2{1}		704	1.00	4-1 DISP	59	198
	Amb to T3{1}		636	1.00	4-1 DISP	53	201
	Amb to T4{1}		619	1.00	4-1 DISP	52	203
	Amb to T5{1}		654	1.00	4-1 DISP	55	203
	Hydrotest{1}	0	0	1.00	3-1 OCC	24	219
	Sus.+T1{1}			1.00	5-1 CRUP	52	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	54	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	52	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	52	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	53	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)

(Stress in N/mm2)

Point	Load	Ma	S_LINEREV0.0UT Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.

E13	- Max P{1}					HOOP	65	87
	GR + Max P{1}	47			1.00	2-1 SUST	35	87
	TR:Amb to T2{1}			704	1.00	4-1 DISP	59	198
	Amb to T1{1}			637	1.00	4-1 DISP	53	201
	Amb to T2{1}			704	1.00	4-1 DISP	59	198
	Amb to T3{1}			636	1.00	4-1 DISP	53	201
	Amb to T4{1}			619	1.00	4-1 DISP	52	203
	Amb to T5{1}			654	1.00	4-1 DISP	55	203
	Hydrotest{1}	0	0		1.00	3-1 OCC	24	219
	Sus.+T1{1}				1.00	5-1 CRUP	52	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	54	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	52	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	52	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	53	<NOTE 1>
E12	Max P{1}					HOOP	65	87
	GR + Max P{1}	179			1.00	2-1 SUST	46	87
	TR:Amb to T2{1}			670	1.00	4-1 DISP	56	198
	Amb to T1{1}			624	1.00	4-1 DISP	52	201
	Amb to T2{1}			670	1.00	4-1 DISP	56	198
	Amb to T3{1}			623	1.00	4-1 DISP	52	201
	Amb to T4{1}			609	1.00	4-1 DISP	51	203
	Amb to T5{1}			621	1.00	4-1 DISP	52	203
	Hydrotest{1}	0	0		1.00	3-1 OCC	24	219
	Sus.+T1{1}				1.00	5-1 CRUP	63	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	64	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	63	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	63	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	63	<NOTE 1>
D16 F+	Max P{1}					HOOP	65	87
	GR + Max P{1}	12			1.00	2-1 SUST	32	87
	TR:T1 to T3{1}			285	1.00	4-1 DISP	24	201
	Amb to T1{1}			248	1.00	4-1 DISP	21	201
	Amb to T2{1}			181	1.00	4-1 DISP	15	198
	Amb to T3{1}			160	1.00	4-1 DISP	13	201
	Amb to T4{1}			111	1.00	4-1 DISP	9	209
	Amb to T5{1}			141	1.00	4-1 DISP	12	229
	Hydrotest{1}	0	0		1.00	3-1 OCC	24	219
	Sus.+T1{1}				1.00	5-1 CRUP	39	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	37	<NOTE 1>

S_LINEREV0.OUT

Sus.+T3{1}	1.00	5-1	CRUP	36 <NOTE 1>
Sus.+T4{1}	1.00	5-1	CRUP	35 <NOTE 1>
Sus.+T5{1}	1.00	5-1	CRUP	36 <NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
D16 F-	Max P{1}					HOOP	65 87
	GR + Max P{1}	12			1.32	2-1 SUST	32 87
	TR:T1 to T3{1}			285	1.32	4-1 DISP	31 201
	Amb to T1{1}			248	1.32	4-1 DISP	27 201
	Amb to T2{1}			181	1.32	4-1 DISP	20 198
	Amb to T3{1}			160	1.32	4-1 DISP	18 201
	Amb to T4{1}			111	1.32	4-1 DISP	12 209
	Amb to T5{1}			141	1.32	4-1 DISP	16 229
	Hydrotest{1}	0	0		1.32	3-1 OCC	24 219
	Sus.+T1{1}				1.32	5-1 CRUP	39 <NOTE 1>
	Sus.+T2{1}				1.32	5-1 CRUP	37 <NOTE 1>
	Sus.+T3{1}				1.32	5-1 CRUP	36 <NOTE 1>
	Sus.+T4{1}				1.32	5-1 CRUP	35 <NOTE 1>
	Sus.+T5{1}				1.32	5-1 CRUP	36 <NOTE 1>
D16 N+	Max P{1}					HOOP	65 87
	GR + Max P{1}	12			1.32	2-1 SUST	32 87
	TR:Amb to T2{1}			346	1.32	4-1 DISP	38 198
	Amb to T1{1}			342	1.32	4-1 DISP	38 201
	Amb to T2{1}			346	1.32	4-1 DISP	38 198
	Amb to T3{1}			342	1.32	4-1 DISP	38 201
	Amb to T4{1}			294	1.32	4-1 DISP	32 209
	Amb to T5{1}			191	1.32	4-1 DISP	21 229
	Hydrotest{1}	0	0		1.32	3-1 OCC	24 219
	Sus.+T1{1}				1.32	5-1 CRUP	41 <NOTE 1>
	Sus.+T2{1}				1.32	5-1 CRUP	41 <NOTE 1>
	Sus.+T3{1}				1.32	5-1 CRUP	41 <NOTE 1>
	Sus.+T4{1}				1.32	5-1 CRUP	40 <NOTE 1>

		S_LINEREV0.OUT	1.32	5-1	CRUP	37	<NOTE 1>
D16 N-	Max P{1}				HOOP	65	87
	GR + Max P{1}	12	1.00	2-1	SUST	32	87
	TR:Amb to T2{1}		346	1.00	4-1 DISP	29	198
	Amb to T1{1}		342	1.00	4-1 DISP	29	201
	Amb to T2{1}		346	1.00	4-1 DISP	29	198
	Amb to T3{1}		342	1.00	4-1 DISP	29	201
	Amb to T4{1}		294	1.00	4-1 DISP	25	209
	Amb to T5{1}		191	1.00	4-1 DISP	16	229
	Hydrotest{1}	0 0	1.00	3-1	OCC	24	219
	Sus.+T1{1}		1.00	5-1	CRUP	41	<NOTE 1>
	Sus.+T2{1}		1.00	5-1	CRUP	41	<NOTE 1>
	Sus.+T3{1}		1.00	5-1	CRUP	41	<NOTE 1>
	Sus.+T4{1}		1.00	5-1	CRUP	40	<NOTE 1>
	Sus.+T5{1}		1.00	5-1	CRUP	37	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE								
(Moments in N.m)			(Stress in N/mm2)					
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code	
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
D13	Max P{1}					HOOP	65	87
	GR + Max P{1}	44			1.00	2-1 SUST	34	87
	TR:Amb to T2{1}			486	1.00	4-1 DISP	41	198
	Amb to T1{1}			449	1.00	4-1 DISP	38	201
	Amb to T2{1}			486	1.00	4-1 DISP	41	198
	Amb to T3{1}			452	1.00	4-1 DISP	38	201
	Amb to T4{1}			454	1.00	4-1 DISP	38	209
	Amb to T5{1}			396	1.00	4-1 DISP	33	229
	Hydrotest{1}	0	0		1.00	3-1 OCC	24	219
	Sus.+T1{1}				1.00	5-1 CRUP	47	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	48	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	47	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	47	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	45	<NOTE 1>
D11	- Max P{1}					HOOP	65	87

		S_LINEREV0.OUT					
GR + Max P{1}	140		1.00	2-1	SUST	42	87
TR:T1 to T2{1}		639	1.00	4-1	DISP	53	198
Amb to T1{1}		358	1.00	4-1	DISP	30	201
Amb to T2{1}		310	1.00	4-1	DISP	26	198
Amb to T3{1}		293	1.00	4-1	DISP	24	201
Amb to T4{1}		270	1.00	4-1	DISP	23	209
Amb to T5{1}		126	1.00	4-1	DISP	11	229
Hydrotest{1}	0	0	1.00	3-1	OCC	24	219
Sus.+T1{1}			1.00	5-1	CRUP	52	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	51	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	51	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	50	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	46	<NOTE 1>
D10 F+ Max P{1}					HOOP	65	87
GR + Max P{1}	207		1.00	2-1	SUST	48	87
TR:T1 to T2{1}		550	1.00	4-1	DISP	46	198
Amb to T1{1}		505	1.00	4-1	DISP	42	201
Amb to T2{1}		348	1.00	4-1	DISP	29	198
Amb to T3{1}		336	1.00	4-1	DISP	28	201
Amb to T4{1}		320	1.00	4-1	DISP	27	209
Amb to T5{1}		281	1.00	4-1	DISP	23	229
Hydrotest{1}	0	0	1.00	3-1	OCC	24	219
Sus.+T1{1}			1.00	5-1	CRUP	62	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	58	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	57	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	57	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	56	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

D10 F-	Max P{1}					HOOP	65	87	
	GR + Max P{1}	207			1.32	2-1 SUST	48	87	
	TR:T1 to T2{1}			550	1.32	4-1 DISP	61	198	
	Amb to T1{1}			505	1.32	4-1 DISP	56	201	

Amb to T2{1}			348	1.32	4-1 DISP	38	198
Amb to T3{1}			336	1.32	4-1 DISP	37	201
Amb to T4{1}			320	1.32	4-1 DISP	35	209
Amb to T5{1}			281	1.32	4-1 DISP	31	229
Hydrotest{1}	0	0		1.32	3-1 OCC	24	219
Sus.+T1{1}				1.32	5-1 CRUP	62	<NOTE 1>
Sus.+T2{1}				1.32	5-1 CRUP	58	<NOTE 1>
Sus.+T3{1}				1.32	5-1 CRUP	57	<NOTE 1>
Sus.+T4{1}				1.32	5-1 CRUP	57	<NOTE 1>
Sus.+T5{1}				1.32	5-1 CRUP	56	<NOTE 1>

D10	N+	Max	P{1}				HOOP	65	87
		GR + Max	P{1}	176		1.32	2-1 SUST	45	87
		TR:T1 to T2{1}			533	1.32	4-1 DISP	59	198
		Amb to T1{1}			523	1.32	4-1 DISP	58	201
		Amb to T2{1}			357	1.32	4-1 DISP	39	198
		Amb to T3{1}			345	1.32	4-1 DISP	38	201
		Amb to T4{1}			327	1.32	4-1 DISP	36	209
		Amb to T5{1}			294	1.32	4-1 DISP	32	229
		Hydrotest{1}	0	0		1.32	3-1 OCC	24	219
		Sus.+T1{1}				1.32	5-1 CRUP	60	<NOTE 1>
		Sus.+T2{1}				1.32	5-1 CRUP	55	<NOTE 1>
		Sus.+T3{1}				1.32	5-1 CRUP	55	<NOTE 1>
		Sus.+T4{1}				1.32	5-1 CRUP	55	<NOTE 1>
		Sus.+T5{1}				1.32	5-1 CRUP	54	<NOTE 1>

D10 N-	Max P{1}				HOOP	65	87
	GR + Max P{1}	176		1.00	2-1 SUST	45	87
	TR:T1 to T2{1}		533	1.00	4-1 DISP	44	198
	Amb to T1{1}		523	1.00	4-1 DISP	44	201
	Amb to T2{1}		357	1.00	4-1 DISP	30	198
	Amb to T3{1}		345	1.00	4-1 DISP	29	201
	Amb to T4{1}		327	1.00	4-1 DISP	27	209
	Amb to T5{1}		294	1.00	4-1 DISP	25	229
	Hydrotest{1}	0	0	1.00	3-1 OCC	24	219
	Sus.+T1{1}			1.00	5-1 CRUP	60	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	55	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	55	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	55	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	54	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. Load no. type			
D09	+ Max P{1}					HOOP		65	87
	GR + Max P{1}	57			1.00	2-1 SUST		36	87
	TR:Amb to T1{1}			620	1.00	4-1 DISP		52	201
	Amb to T1{1}			620	1.00	4-1 DISP		52	201
	Amb to T2{1}			385	1.00	4-1 DISP		32	198
	Amb to T3{1}			365	1.00	4-1 DISP		30	201
	Amb to T4{1}			340	1.00	4-1 DISP		28	209
	Amb to T5{1}			344	1.00	4-1 DISP		29	229
	Hydrotest{1}	0	0		1.00	3-1 OCC		24	219
	Sus.+T1{1}				1.00	5-1 CRUP		53	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP		46	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP		46	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP		45	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP		45	<NOTE 1>
D09	- Max P{1}					HOOP		65	87
	GR + Max P{1}	57			1.00	2-1 SUST		36	87
	TR:Amb to T1{1}			620	1.00	4-1 DISP		52	201
	Amb to T1{1}			620	1.00	4-1 DISP		52	201
	Amb to T2{1}			385	1.00	4-1 DISP		32	198
	Amb to T3{1}			365	1.00	4-1 DISP		30	201
	Amb to T4{1}			340	1.00	4-1 DISP		28	209
	Amb to T5{1}			344	1.00	4-1 DISP		29	229
	Hydrotest{1}	0	0		1.00	3-1 OCC		24	219
	Sus.+T1{1}				1.00	5-1 CRUP		53	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP		46	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP		46	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP		45	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP		45	<NOTE 1>
D06	+ Max P{1}					HOOP		65	87
	GR + Max P{1}	106			1.00	2-1 SUST		40	87
	TR:Amb to T1{1}			728	1.00	4-1 DISP		61	201
	Amb to T1{1}			728	1.00	4-1 DISP		61	201
	Amb to T2{1}			578	1.00	4-1 DISP		48	198

	S_LINEREVO.OUT						
Amb to T3{1}		538	1.00	4-1 DISP	45	201	
Amb to T4{1}		490	1.00	4-1 DISP	41	209	
Amb to T5{1}		414	1.00	4-1 DISP	35	229	
Hydrotest{1}	0	0	1.00	3-1 OCC	24	219	
Sus.+T1{1}			1.00	5-1 CRUP	60	<NOTE 1>	
Sus.+T2{1}			1.00	5-1 CRUP	56	<NOTE 1>	
Sus.+T3{1}			1.00	5-1 CRUP	55	<NOTE 1>	
Sus.+T4{1}			1.00	5-1 CRUP	53	<NOTE 1>	
Sus.+T5{1}			1.00	5-1 CRUP	51	<NOTE 1>	

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		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no.	type	Stress	Allow.
D06	- Max P{1}						HOOP	65	87
	GR + Max P{1}	106			1.00	2-1	SUST	40	87
	TR:Amb to T1{1}			728	1.00	4-1	DISP	61	201
	Amb to T1{1}			728	1.00	4-1	DISP	61	201
	Amb to T2{1}			578	1.00	4-1	DISP	48	198
	Amb to T3{1}			538	1.00	4-1	DISP	45	201
	Amb to T4{1}			490	1.00	4-1	DISP	41	209
	Amb to T5{1}			414	1.00	4-1	DISP	35	229
	Hydrotest{1}	0	0		1.00	3-1	OCC	24	219
	Sus.+T1{1}				1.00	5-1	CRUP	60	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP	56	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP	55	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP	53	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP	51	<NOTE 1>
D05	- Max P{1}						HOOP	65	87
	GR + Max P{1}	53			1.00	2-1	SUST	35	87
	TR:Amb to T2{1}			220	1.00	4-1	DISP	18	198
	Amb to T1{1}			220	1.00	4-1	DISP	18	201
	Amb to T2{1}			116	1.00	4-1	DISP	10	198
	Amb to T3{1}			88	1.00	4-1	DISP	7	201
	Amb to T4{1}			77	1.00	4-1	DISP	6	209
	Amb to T5{1}			63	1.00	4-1	DISP	5	229

Hydrotest{1}	0	0	1.00	3-1	OCC	24	219
Sus.+T1{1}			1.00	5-1	CRUP	41	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	38	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	38	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	37	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	37	<NOTE 1>

D04	+	Max	P{1}					HOOP	65	87		
		GR	+	Max	P{1}	211	1.00	2-1	SUST	48	87	
		TR:	Amb	to	T1{1}		248	1.00	4-1	DISP	21	201
		Amb	to	T1{1}			248	1.00	4-1	DISP	21	201
		Amb	to	T2{1}			213	1.00	4-1	DISP	18	198
		Amb	to	T3{1}			191	1.00	4-1	DISP	16	201
		Amb	to	T4{1}			166	1.00	4-1	DISP	14	209
		Amb	to	T5{1}			104	1.00	4-1	DISP	9	229
		Hydrotest	{1}			0	0	1.00	3-1	OCC	24	219
		Sus.	+	T1{1}				1.00	5-1	CRUP	55	<NOTE 1>
		Sus.	+	T2{1}				1.00	5-1	CRUP	54	<NOTE 1>
		Sus.	+	T3{1}				1.00	5-1	CRUP	54	<NOTE 1>
		Sus.	+	T4{1}				1.00	5-1	CRUP	53	<NOTE 1>
		Sus.	+	T5{1}				1.00	5-1	CRUP	51	<NOTE 1>

S_LINEREV0

BENTLEY

(Moments in N.m) (Stress in N/mm²)

Point	Load	Ma	Mb	Mc		Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
D04	- Max P{1}					H00P	65	87
	GR + Max P{1}	211			1.00	2-1 SUST	48	87
	TR:Amb to T1{1}			248	1.00	4-1 DISP	21	201
	Amb to T1{1}			248	1.00	4-1 DISP	21	201
	Amb to T2{1}			213	1.00	4-1 DISP	18	198
	Amb to T3{1}			191	1.00	4-1 DISP	16	201
	Amb to T4{1}			166	1.00	4-1 DISP	14	209
	Amb to T5{1}			104	1.00	4-1 DISP	9	229
	Hydrotest{1}	0	0		1.00	3-1 OCC	24	219
	Sus.+T1{1}				1.00	5-1 CRUP	55	<NOTE 1>

			S_LINEREV0.0UT					
	Sus.+T2{1}			1.00	5-1	CRUP	54	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	54	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	53	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	51	<NOTE 1>
D03	Max P{1}					HOOP	65	87
	GR + Max P{1}	215		1.00	2-1	SUST	49	87
	TR:Amb to T2{1}		304	1.00	4-1	DISP	25	198
	Amb to T1{1}		271	1.00	4-1	DISP	23	201
	Amb to T2{1}		304	1.00	4-1	DISP	25	198
	Amb to T3{1}		284	1.00	4-1	DISP	24	201
	Amb to T4{1}		245	1.00	4-1	DISP	20	209
	Amb to T5{1}		137	1.00	4-1	DISP	11	229
	Hydrotest{1}	0	0	1.00	3-1	OCC	24	219
	Sus.+T1{1}			1.00	5-1	CRUP	56	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	57	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	57	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	56	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	53	<NOTE 1>
E01 N-	Max P{1}					HOOP	33	89
	GR + Max P{1}	122		1.00	2-1	SUST	26	89
	TR:Amb to T2{1}		770	1.00	4-1	DISP	64	201
	Amb to T1{1}		759	1.00	4-1	DISP	63	201
	Amb to T2{1}		770	1.00	4-1	DISP	64	201
	Amb to T3{1}		759	1.00	4-1	DISP	63	201
	Amb to T4{1}		747	1.00	4-1	DISP	62	201
	Amb to T5{1}		720	1.00	4-1	DISP	60	201
	Hydrotest{1}	0	0	1.00	3-1	OCC	24	219
	Sus.+T1{1}			1.00	5-1	CRUP	47	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	48	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	47	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	47	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	46	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m) (Stress in N/mm2)

Point Load Ma Mb Mc Eq. Load Code Code

name	combination	S_LINEREV0.OUT			S.I.F	no. type	Stress	Allow.
		(Sus.)	(Occ.)	(Exp.)				

T09	Max P{1}					HOOP	62	88
	GR + Max P{1}	335			1.00	2-1 SUST	45	88
	TR:Amb to T2{1}			469	1.00	4-1 DISP	21	201
	Amb to T1{1}			411	1.00	4-1 DISP	19	207
	Amb to T2{1}			469	1.00	4-1 DISP	21	201
	Amb to T3{1}			410	1.00	4-1 DISP	19	207
	Amb to T4{1}			397	1.00	4-1 DISP	18	208
	Amb to T5{1}			440	1.00	4-1 DISP	20	203
	Hydrotest{1}	0	0		1.00	3-1 OCC	23	219
	Sus.+T1{1}				1.00	5-1 CRUP	51	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	52	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	51	<NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	51	<NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	51	<NOTE 1>
	T08	Max P{1}					HOOP	62
GR + Max P{1}		209			2.00	2-1 SUST	44	88
TR:Amb to T2{1}				287	2.00	4-1 DISP	26	201
Amb to T1{1}				251	2.00	4-1 DISP	23	207
Amb to T2{1}				287	2.00	4-1 DISP	26	201
Amb to T3{1}				251	2.00	4-1 DISP	23	207
Amb to T4{1}				243	2.00	4-1 DISP	22	208
Amb to T5{1}				269	2.00	4-1 DISP	25	203
Hydrotest{1}		0	0		2.00	3-1 OCC	23	219
Sus.+T1{1}					2.00	5-1 CRUP	49	<NOTE 1>
Sus.+T2{1}					2.00	5-1 CRUP	50	<NOTE 1>
Sus.+T3{1}					2.00	5-1 CRUP	49	<NOTE 1>
Sus.+T4{1}					2.00	5-1 CRUP	49	<NOTE 1>
Sus.+T5{1}					2.00	5-1 CRUP	50	<NOTE 1>
J10		Max P{1}					HOOP	62
	GR + Max P{1}	268			1.00	2-1 SUST	42	88
	TR:Amb to T2{1}			225	1.00	4-1 DISP	10	201
	Amb to T1{1}			147	1.00	4-1 DISP	7	207
	Amb to T2{1}			225	1.00	4-1 DISP	10	201
	Amb to T3{1}			196	1.00	4-1 DISP	9	207
	Amb to T4{1}			177	1.00	4-1 DISP	8	211
	Amb to T5{1}			68	1.00	4-1 DISP	3	229
	Hydrotest{1}	0	0		1.00	3-1 OCC	23	219
	Sus.+T1{1}				1.00	5-1 CRUP	44	<NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	45	<NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	45	<NOTE 1>

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Sus.+T4{1}	1.00	5-1	CRUP	44 <NOTE 1>
Sus.+T5{1}	1.00	5-1	CRUP	43 <NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. Load no. type			
J09	Max P{1}					HOOP	62	88	
	GR + Max P{1}	194			2.00	2-1 SUST	43	88	
	TR:Amb to T2{1}			159	2.00	4-1 DISP	15	201	
	Amb to T1{1}			104	2.00	4-1 DISP	9	207	
	Amb to T2{1}			159	2.00	4-1 DISP	15	201	
	Amb to T3{1}			139	2.00	4-1 DISP	13	207	
	Amb to T4{1}			126	2.00	4-1 DISP	11	211	
	Amb to T5{1}			48	2.00	4-1 DISP	4	229	
	Hydrotest{1}	0	0		2.00	3-1 OCC	23	219	
	Sus.+T1{1}				2.00	5-1 CRUP	45	<NOTE 1>	
	Sus.+T2{1}				2.00	5-1 CRUP	46	<NOTE 1>	
	Sus.+T3{1}				2.00	5-1 CRUP	46	<NOTE 1>	
	Sus.+T4{1}				2.00	5-1 CRUP	46	<NOTE 1>	
	Sus.+T5{1}				2.00	5-1 CRUP	44	<NOTE 1>	
C04 F+	Max P{1}					HOOP	62	87	
	GR + Max P{1}	37			1.00	2-1 SUST	31	87	
	TR:Amb to T2{1}			1311	1.00	4-1 DISP	60	198	
	Amb to T1{1}			1196	1.00	4-1 DISP	55	201	
	Amb to T2{1}			1311	1.00	4-1 DISP	60	198	
	Amb to T3{1}			1196	1.00	4-1 DISP	55	201	
	Amb to T4{1}			1175	1.00	4-1 DISP	54	203	
	Amb to T5{1}			1249	1.00	4-1 DISP	57	203	
	Hydrotest{1}	0	0		1.00	3-1 OCC	23	219	
	Sus.+T1{1}				1.00	5-1 CRUP	49	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	51	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	49	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	49	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	50	<NOTE 1>	

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C04 N+ Max P{1}					HOOP	62	87
GR + Max P{1}	32		1.25	2-1 SUST		31	87
TR:Amb to T2{1}		1062	1.25	4-1 DISP		60	198
Amb to T1{1}		974	1.25	4-1 DISP		55	201
Amb to T2{1}		1062	1.25	4-1 DISP		60	198
Amb to T3{1}		974	1.25	4-1 DISP		55	201
Amb to T4{1}		959	1.25	4-1 DISP		55	203
Amb to T5{1}		1017	1.25	4-1 DISP		58	203
Hydrotest{1}	0	0	1.25	3-1 OCC		23	219
Sus.+T1{1}			1.25	5-1 CRUP		46	<NOTE 1>
Sus.+T2{1}			1.25	5-1 CRUP		47	<NOTE 1>
Sus.+T3{1}			1.25	5-1 CRUP		46	<NOTE 1>
Sus.+T4{1}			1.25	5-1 CRUP		45	<NOTE 1>
Sus.+T5{1}			1.25	5-1 CRUP		46	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. Load no. type			
C04 N- Max P{1}						HOOP		62	87
GR + Max P{1}		32			1.00	2-1 SUST		31	87
TR:Amb to T2{1}				1062	1.00	4-1 DISP		48	198
Amb to T1{1}				974	1.00	4-1 DISP		44	201
Amb to T2{1}				1062	1.00	4-1 DISP		48	198
Amb to T3{1}				974	1.00	4-1 DISP		44	201
Amb to T4{1}				959	1.00	4-1 DISP		44	203
Amb to T5{1}				1017	1.00	4-1 DISP		46	203
Hydrotest{1}		0	0		1.00	3-1 OCC		23	219
Sus.+T1{1}					1.00	5-1 CRUP		46	<NOTE 1>
Sus.+T2{1}					1.00	5-1 CRUP		47	<NOTE 1>
Sus.+T3{1}					1.00	5-1 CRUP		46	<NOTE 1>
Sus.+T4{1}					1.00	5-1 CRUP		45	<NOTE 1>
Sus.+T5{1}					1.00	5-1 CRUP		46	<NOTE 1>
B22 + Max P{1}						HOOP		62	87
GR + Max P{1}		149			2.10	2-1 SUST		40	87

		S_LINEREV0.OUT						
TR:Amb to T4{1}		341	2.10	4-1	DISP	33	203	
Amb to T1{1}		339	2.10	4-1	DISP	32	201	
Amb to T2{1}		322	2.10	4-1	DISP	31	198	
Amb to T3{1}		339	2.10	4-1	DISP	32	201	
Amb to T4{1}		341	2.10	4-1	DISP	33	203	
Amb to T5{1}		312	2.10	4-1	DISP	30	203	
Hydrotest{1}	0	0	2.10	3-1	OCC	23	219	
Sus.+T1{1}			2.10	5-1	CRUP	48	<NOTE 1>	
Sus.+T2{1}			2.10	5-1	CRUP	48	<NOTE 1>	
Sus.+T3{1}			2.10	5-1	CRUP	48	<NOTE 1>	
Sus.+T4{1}			2.10	5-1	CRUP	48	<NOTE 1>	
Sus.+T5{1}			2.10	5-1	CRUP	48	<NOTE 1>	
B22 - Max P{1}					HOOP	62	87	
GR + Max P{1}	149		2.10	2-1	SUST	40	87	
TR:Amb to T4{1}		341	2.10	4-1	DISP	33	203	
Amb to T1{1}		339	2.10	4-1	DISP	32	201	
Amb to T2{1}		322	2.10	4-1	DISP	31	198	
Amb to T3{1}		339	2.10	4-1	DISP	32	201	
Amb to T4{1}		341	2.10	4-1	DISP	33	203	
Amb to T5{1}		312	2.10	4-1	DISP	30	203	
Hydrotest{1}	0	0	2.10	3-1	OCC	23	219	
Sus.+T1{1}			2.10	5-1	CRUP	48	<NOTE 1>	
Sus.+T2{1}			2.10	5-1	CRUP	48	<NOTE 1>	
Sus.+T3{1}			2.10	5-1	CRUP	48	<NOTE 1>	
Sus.+T4{1}			2.10	5-1	CRUP	48	<NOTE 1>	
Sus.+T5{1}			2.10	5-1	CRUP	48	<NOTE 1>	

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

B14	Max P{1}					HOOP	62	87	
	GR + Max P{1}	177			1.00	2-1 SUST	37	87	
	TR:Amb to T2{1}			1240	1.00	4-1 DISP	57	198	
	Amb to T1{1}			1158	1.00	4-1 DISP	53	201	
	Amb to T2{1}			1240	1.00	4-1 DISP	57	198	

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Amb to T3{1}		1158	1.00	4-1 DISP	53	201
Amb to T4{1}		1133	1.00	4-1 DISP	52	203
Amb to T5{1}		1153	1.00	4-1 DISP	53	203
Hydrotest{1}	0	0	1.00	3-1 OCC	23	219
Sus.+T1{1}			1.00	5-1 CRUP	55	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	56	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	55	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	55	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	55	<NOTE 1>
J04 N+ Max P{1}				HOOP	50	88
GR + Max P{1}	27		1.18	2-1 SUST	30	88
TR:Amb to T2{1}		246	1.18	4-1 DISP	61	201
Amb to T1{1}		200	1.18	4-1 DISP	49	207
Amb to T2{1}		246	1.18	4-1 DISP	61	201
Amb to T3{1}		222	1.18	4-1 DISP	55	207
Amb to T4{1}		197	1.18	4-1 DISP	49	211
Amb to T5{1}		109	1.18	4-1 DISP	27	229
Hydrotest{1}	0	0	1.18	3-1 OCC	19	219
Sus.+T1{1}			1.18	5-1 CRUP	44	<NOTE 1>
Sus.+T2{1}			1.18	5-1 CRUP	47	<NOTE 1>
Sus.+T3{1}			1.18	5-1 CRUP	46	<NOTE 1>
Sus.+T4{1}			1.18	5-1 CRUP	44	<NOTE 1>
Sus.+T5{1}			1.18	5-1 CRUP	38	<NOTE 1>
J14 F+ Max P{1}				HOOP	50	88
GR + Max P{1}	3		1.00	2-1 SUST	25	88
TR:Amb to T2{1}		291	1.00	4-1 DISP	61	201
Amb to T1{1}		195	1.00	4-1 DISP	41	207
Amb to T2{1}		291	1.00	4-1 DISP	61	201
Amb to T3{1}		253	1.00	4-1 DISP	53	207
Amb to T4{1}		225	1.00	4-1 DISP	47	211
Amb to T5{1}		84	1.00	4-1 DISP	18	229
Hydrotest{1}	0	0	1.00	3-1 OCC	19	219
Sus.+T1{1}			1.00	5-1 CRUP	39	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	46	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	43	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	41	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	31	<NOTE 1>

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 S_LINEREV0

EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F					
J15 N-	Max P{1}							HOOP	50	88
	GR + Max P{1}	22			1.00	2-1	SUST		29	88
	TR:Amb to T2{1}			291	1.00	4-1	DISP		61	201
	Amb to T1{1}			197	1.00	4-1	DISP		41	207
	Amb to T2{1}			291	1.00	4-1	DISP		61	201
	Amb to T3{1}			253	1.00	4-1	DISP		53	207
	Amb to T4{1}			226	1.00	4-1	DISP		47	211
	Amb to T5{1}			88	1.00	4-1	DISP		18	229
	Hydrotest{1}	0	0		1.00	3-1	OCC		19	219
	Sus.+T1{1}				1.00	5-1	CRUP		43	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		49	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP		47	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP		45	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP		35	<NOTE 1>
B01 F-	Max P{1}							HOOP	32	89
	GR + Max P{1}	29			1.25	2-1	SUST		17	89
	TR:Amb to T1{1}			1054	1.25	4-1	DISP		60	201
	Amb to T1{1}			1054	1.25	4-1	DISP		60	201
	Amb to T2{1}			1011	1.25	4-1	DISP		57	201
	Amb to T3{1}			1054	1.25	4-1	DISP		60	201
	Amb to T4{1}			1042	1.25	4-1	DISP		59	201
	Amb to T5{1}			930	1.25	4-1	DISP		53	201
	Hydrotest{1}	0	0		1.25	3-1	OCC		23	219
	Sus.+T1{1}				1.25	5-1	CRUP		33	<NOTE 1>
	Sus.+T2{1}				1.25	5-1	CRUP		32	<NOTE 1>
	Sus.+T3{1}				1.25	5-1	CRUP		33	<NOTE 1>
	Sus.+T4{1}				1.25	5-1	CRUP		32	<NOTE 1>
	Sus.+T5{1}				1.25	5-1	CRUP		31	<NOTE 1>
S09 F+	Max P{1}							HOOP	13	104
	GR + Max P{1}	78			1.00	2-1	SUST		9	104
	TR:Amb to T1{1}			1670	1.00	4-1	DISP		59	247
	Amb to T1{1}			1670	1.00	4-1	DISP		59	247
	Amb to T2{1}			1251	1.00	4-1	DISP		44	247
	Amb to T3{1}			1532	1.00	4-1	DISP		54	217

Amb to T4{1}			S_LINEREV0.0UT 1278	1.00	4-1 DISP	45	217
Amb to T5{1}			826	1.00	4-1 DISP	29	229
Hydrotest{1}	0	0		1.00	3-1 OCC	1	219
Sus.+T1{1}				1.00	5-1 CRUP	29	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	24	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	27	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	24	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	19	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
B01 M	Max P{1}					HOOP	32 89
	GR + Max P{1}	50			1.25	2-1 SUST	17 89
	TR:Amb to T1{1}			1033	1.25	4-1 DISP	59 201
	Amb to T1{1}			1033	1.25	4-1 DISP	59 201
	Amb to T2{1}			983	1.25	4-1 DISP	56 201
	Amb to T3{1}			1033	1.25	4-1 DISP	59 201
	Amb to T4{1}			1022	1.25	4-1 DISP	58 201
	Amb to T5{1}			904	1.25	4-1 DISP	51 201
	Hydrotest{1}	0	0		1.25	3-1 OCC	23 219
	Sus.+T1{1}				1.25	5-1 CRUP	33 <NOTE 1>
	Sus.+T2{1}				1.25	5-1 CRUP	32 <NOTE 1>
	Sus.+T3{1}				1.25	5-1 CRUP	33 <NOTE 1>
	Sus.+T4{1}				1.25	5-1 CRUP	33 <NOTE 1>
	Sus.+T5{1}				1.25	5-1 CRUP	31 <NOTE 1>
E02	Max P{1}					HOOP	33 89
	GR + Max P{1}	168			1.00	2-1 SUST	30 89
	TR:Amb to T2{1}			695	1.00	4-1 DISP	58 201
	Amb to T1{1}			664	1.00	4-1 DISP	55 201
	Amb to T2{1}			695	1.00	4-1 DISP	58 201
	Amb to T3{1}			664	1.00	4-1 DISP	55 201
	Amb to T4{1}			651	1.00	4-1 DISP	54 201
	Amb to T5{1}			645	1.00	4-1 DISP	54 201
	Hydrotest{1}	0	0		1.00	3-1 OCC	24 219

S_LINEREV0.OUT

Sus.+T1{1}	1.00	5-1	CRUP	48	<NOTE 1>
Sus.+T2{1}	1.00	5-1	CRUP	49	<NOTE 1>
Sus.+T3{1}	1.00	5-1	CRUP	48	<NOTE 1>
Sus.+T4{1}	1.00	5-1	CRUP	48	<NOTE 1>
Sus.+T5{1}	1.00	5-1	CRUP	48	<NOTE 1>

J04 F- Max P{1}				HOOP	50	88
GR + Max P{1}	25		1.18	2-1 SUST	30	88
TR:Amb to T2{1}		229	1.18	4-1 DISP	57	201
Amb to T1{1}		185	1.18	4-1 DISP	46	207
Amb to T2{1}		229	1.18	4-1 DISP	57	201
Amb to T3{1}		205	1.18	4-1 DISP	51	207
Amb to T4{1}		182	1.18	4-1 DISP	45	211
Amb to T5{1}		98	1.18	4-1 DISP	24	229
Hydrotest{1}	0	0	1.18	3-1 OCC	19	219
Sus.+T1{1}			1.18	5-1 CRUP	43	<NOTE 1>
Sus.+T2{1}			1.18	5-1 CRUP	46	<NOTE 1>
Sus.+T3{1}			1.18	5-1 CRUP	44	<NOTE 1>
Sus.+T4{1}			1.18	5-1 CRUP	43	<NOTE 1>
Sus.+T5{1}			1.18	5-1 CRUP	37	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. no.	Load type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F						
J14 N- Max P{1}								HOOP	50	88	
GR + Max P{1}		3			1.00	2-1	SUST	25	88		
TR:Amb to T2{1}				271	1.00	4-1	DISP	57	201		
Amb to T1{1}				181	1.00	4-1	DISP	38	207		
Amb to T2{1}				271	1.00	4-1	DISP	57	201		
Amb to T3{1}				235	1.00	4-1	DISP	49	207		
Amb to T4{1}				209	1.00	4-1	DISP	44	211		
Amb to T5{1}				78	1.00	4-1	DISP	16	229		
Hydrotest{1}		0	0		1.00	3-1	OCC	19	219		
Sus.+T1{1}					1.00	5-1	CRUP	38	<NOTE 1>		
Sus.+T2{1}					1.00	5-1	CRUP	44	<NOTE 1>		

		S_LINEREV0.OUT				
Sus.+T3{1}			1.00	5-1 CRUP	42	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	40	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	31	<NOTE 1>
J15 F+ Max P{1}				HOOP	50	88
GR + Max P{1}	21		1.00	2-1 SUST	29	88
TR:Amb to T2{1}		270	1.00	4-1 DISP	57	201
Amb to T1{1}		183	1.00	4-1 DISP	38	207
Amb to T2{1}		270	1.00	4-1 DISP	57	201
Amb to T3{1}		235	1.00	4-1 DISP	49	207
Amb to T4{1}		210	1.00	4-1 DISP	44	211
Amb to T5{1}		82	1.00	4-1 DISP	17	229
Hydrotest{1}	0	0	1.00	3-1 OCC	19	219
Sus.+T1{1}			1.00	5-1 CRUP	42	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	48	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	45	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	44	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	35	<NOTE 1>
B01 N+ Max P{1}				HOOP	32	89
GR + Max P{1}	58		1.25	2-1 SUST	18	89
TR:Amb to T1{1}		981	1.25	4-1 DISP	56	201
Amb to T1{1}		981	1.25	4-1 DISP	56	201
Amb to T2{1}		928	1.25	4-1 DISP	53	201
Amb to T3{1}		981	1.25	4-1 DISP	56	201
Amb to T4{1}		971	1.25	4-1 DISP	55	201
Amb to T5{1}		854	1.25	4-1 DISP	49	201
Hydrotest{1}	0	0	1.25	3-1 OCC	23	219
Sus.+T1{1}			1.25	5-1 CRUP	33	<NOTE 1>
Sus.+T2{1}			1.25	5-1 CRUP	32	<NOTE 1>
Sus.+T3{1}			1.25	5-1 CRUP	33	<NOTE 1>
Sus.+T4{1}			1.25	5-1 CRUP	33	<NOTE 1>
Sus.+T5{1}			1.25	5-1 CRUP	31	<NOTE 1>

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AutoPIPE Plus 9.2.1 RESULT PAGE 318

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

S_LINEREVO.OUT

A04	Max P{1}					HOOP	55	89
	GR + Max P{1}	0		1.00	2-1	SUST	25	89
	TR:T4 to T5{1}		0	1.00	4-1	DISP	0	201
	Amb to T1{1}		0	1.00	4-1	DISP	0	201
	Amb to T2{1}		0	1.00	4-1	DISP	0	201
	Amb to T3{1}		0	1.00	4-1	DISP	0	201
	Amb to T4{1}		0	1.00	4-1	DISP	0	201
	Amb to T5{1}		0	1.00	4-1	DISP	0	201
	Hydrotest{1}	0	0	1.00	3-1	OCC	38	219
	Sus.+T1{1}			1.00	5-1	CRUP	25	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	25	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	25	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	25	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	25	<NOTE 1>
A03	+ Max P{1}					HOOP	55	89
	GR + Max P{1}	21		1.35	2-1	SUST	25	89
	TR:Amb to T4{1}		0	1.35	4-1	DISP	0	201
	Amb to T1{1}		0	1.35	4-1	DISP	0	201
	Amb to T2{1}		0	1.35	4-1	DISP	0	201
	Amb to T3{1}		0	1.35	4-1	DISP	0	201
	Amb to T4{1}		0	1.35	4-1	DISP	0	201
	Amb to T5{1}		0	1.35	4-1	DISP	0	201
	Hydrotest{1}	0	0	1.35	3-1	OCC	38	219
	Sus.+T1{1}			1.35	5-1	CRUP	25	<NOTE 1>
	Sus.+T2{1}			1.35	5-1	CRUP	25	<NOTE 1>
	Sus.+T3{1}			1.35	5-1	CRUP	25	<NOTE 1>
	Sus.+T4{1}			1.35	5-1	CRUP	25	<NOTE 1>
	Sus.+T5{1}			1.35	5-1	CRUP	25	<NOTE 1>
A03	- Max P{1}					HOOP	55	89
	GR + Max P{1}	60		1.35	2-1	SUST	25	89
	TR:Amb to T4{1}		1207	1.35	4-1	DISP	4	201
	Amb to T1{1}		1125	1.35	4-1	DISP	4	201
	Amb to T2{1}		1207	1.35	4-1	DISP	4	201
	Amb to T3{1}		1125	1.35	4-1	DISP	4	201
	Amb to T4{1}		1092	1.35	4-1	DISP	4	201
	Amb to T5{1}		1105	1.35	4-1	DISP	4	201
	Hydrotest{1}	0	0	1.35	3-1	OCC	38	219
	Sus.+T1{1}			1.35	5-1	CRUP	26	<NOTE 1>
	Sus.+T2{1}			1.35	5-1	CRUP	26	<NOTE 1>
	Sus.+T3{1}			1.35	5-1	CRUP	26	<NOTE 1>
	Sus.+T4{1}			1.35	5-1	CRUP	26	<NOTE 1>

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Sus.+T5{1}

1.35

5-1 CRUP

26 <NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
A05	+ Max P{1}					HOOP	55	89	
	GR + Max P{1}	442			1.00	2-1 SUST	26	89	
	TR:Amb to T2{1}			1240	1.00	4-1 DISP	3	201	
	Amb to T1{1}			1157	1.00	4-1 DISP	3	201	
	Amb to T2{1}			1240	1.00	4-1 DISP	3	201	
	Amb to T3{1}			1157	1.00	4-1 DISP	3	201	
	Amb to T4{1}			1124	1.00	4-1 DISP	3	201	
	Amb to T5{1}			1137	1.00	4-1 DISP	3	201	
	Hydrotest{1}	0	0		1.00	3-1 OCC	38	219	
	Sus.+T1{1}				1.00	5-1 CRUP	27	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	27	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	27	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	27	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	27	<NOTE 1>	
A05	- Max P{1}					HOOP	55	89	
	GR + Max P{1}	55			1.00	2-1 SUST	25	89	
	TR:Amb to T2{1}			2632	1.00	4-1 DISP	7	201	
	Amb to T1{1}			2453	1.00	4-1 DISP	6	201	
	Amb to T2{1}			2632	1.00	4-1 DISP	7	201	
	Amb to T3{1}			2503	1.00	4-1 DISP	6	201	
	Amb to T4{1}			2320	1.00	4-1 DISP	6	201	
	Amb to T5{1}			1935	1.00	4-1 DISP	5	201	
	Hydrotest{1}	0	0		1.00	3-1 OCC	38	219	
	Sus.+T1{1}				1.00	5-1 CRUP	27	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	27	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	27	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	27	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	27	<NOTE 1>	
A02	+ Max P{1}					HOOP	55	89	

S_LINEREV0.OUT

GR + Max P{1}	92		1.35	2-1	SUST	25	89
TR:Amb to T2{1}		2634	1.35	4-1	DISP	9	201
Amb to T1{1}		2456	1.35	4-1	DISP	8	201
Amb to T2{1}		2634	1.35	4-1	DISP	9	201
Amb to T3{1}		2505	1.35	4-1	DISP	8	201
Amb to T4{1}		2321	1.35	4-1	DISP	8	201
Amb to T5{1}		1938	1.35	4-1	DISP	7	201
Hydrotest{1}	0	0	1.35	3-1	OCC	38	219
Sus.+T1{1}			1.35	5-1	CRUP	27	<NOTE 1>
Sus.+T2{1}			1.35	5-1	CRUP	28	<NOTE 1>
Sus.+T3{1}			1.35	5-1	CRUP	27	<NOTE 1>
Sus.+T4{1}			1.35	5-1	CRUP	27	<NOTE 1>
Sus.+T5{1}			1.35	5-1	CRUP	27	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

A02	- Max P{1}					HOOP	55	89	
	GR + Max P{1}	83			1.35	2-1 SUST	25	89	
	TR:Amb to T2{1}			1570	1.35	4-1 DISP	5	201	
	Amb to T1{1}			1510	1.35	4-1 DISP	5	201	
	Amb to T2{1}			1570	1.35	4-1 DISP	5	201	
	Amb to T3{1}			1510	1.35	4-1 DISP	5	201	
	Amb to T4{1}			1467	1.35	4-1 DISP	5	201	
	Amb to T5{1}			1413	1.35	4-1 DISP	5	201	
	Hydrotest{1}	0	0		1.35	3-1 OCC	38	219	
	Sus.+T1{1}				1.35	5-1 CRUP	27	<NOTE 1>	
	Sus.+T2{1}				1.35	5-1 CRUP	27	<NOTE 1>	
	Sus.+T3{1}				1.35	5-1 CRUP	27	<NOTE 1>	
	Sus.+T4{1}				1.35	5-1 CRUP	27	<NOTE 1>	
	Sus.+T5{1}				1.35	5-1 CRUP	27	<NOTE 1>	
A06	+ Max P{1}					HOOP	55	89	
	GR + Max P{1}	525			1.00	2-1 SUST	26	89	
	TR:Amb to T2{1}			1666	1.00	4-1 DISP	4	201	

		S_LINEREV0.OUT					
Amb to T1{1}		1607	1.00	4-1 DISP	4	201	
Amb to T2{1}		1666	1.00	4-1 DISP	4	201	
Amb to T3{1}		1606	1.00	4-1 DISP	4	201	
Amb to T4{1}		1560	1.00	4-1 DISP	4	201	
Amb to T5{1}		1499	1.00	4-1 DISP	4	201	
Hydrotest{1}	0	0	1.00	3-1 OCC	38	219	
Sus.+T1{1}			1.00	5-1 CRUP	28	<NOTE 1>	
Sus.+T2{1}			1.00	5-1 CRUP	28	<NOTE 1>	
Sus.+T3{1}			1.00	5-1 CRUP	28	<NOTE 1>	
Sus.+T4{1}			1.00	5-1 CRUP	28	<NOTE 1>	
Sus.+T5{1}			1.00	5-1 CRUP	28	<NOTE 1>	
A06 - Max P{1}					HOOP	55	89
GR + Max P{1}	525		1.00	2-1 SUST	26	89	
TR:Amb to T2{1}		1666	1.00	4-1 DISP	4	201	
Amb to T1{1}		1607	1.00	4-1 DISP	4	201	
Amb to T2{1}		1666	1.00	4-1 DISP	4	201	
Amb to T3{1}		1606	1.00	4-1 DISP	4	201	
Amb to T4{1}		1560	1.00	4-1 DISP	4	201	
Amb to T5{1}		1499	1.00	4-1 DISP	4	201	
Hydrotest{1}	0	0	1.00	3-1 OCC	38	219	
Sus.+T1{1}			1.00	5-1 CRUP	28	<NOTE 1>	
Sus.+T2{1}			1.00	5-1 CRUP	28	<NOTE 1>	
Sus.+T3{1}			1.00	5-1 CRUP	28	<NOTE 1>	
Sus.+T4{1}			1.00	5-1 CRUP	28	<NOTE 1>	
Sus.+T5{1}			1.00	5-1 CRUP	28	<NOTE 1>	

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

A01	+ Max P{1}					HOOP	55	89	
	GR + Max P{1}	95			1.35	2-1 SUST	25	89	
	TR:Amb to T4{1}			1641	1.35	4-1 DISP	6	201	
	Amb to T1{1}			1572	1.35	4-1 DISP	5	201	
	Amb to T2{1}			1641	1.35	4-1 DISP	6	201	
	Amb to T3{1}			1572	1.35	4-1 DISP	5	201	

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Amb to T4{1}		1526	1.35	4-1	DISP	5	201
Amb to T5{1}		1478	1.35	4-1	DISP	5	201
Hydrotest{1}	0	0	1.35	3-1	OCC	38	219
Sus.+T1{1}			1.35	5-1	CRUP	27	<NOTE 1>
Sus.+T2{1}			1.35	5-1	CRUP	27	<NOTE 1>
Sus.+T3{1}			1.35	5-1	CRUP	27	<NOTE 1>
Sus.+T4{1}			1.35	5-1	CRUP	27	<NOTE 1>
Sus.+T5{1}			1.35	5-1	CRUP	27	<NOTE 1>
A01 - Max P{1}					HOOP	55	89
GR + Max P{1}	21		1.35	2-1	SUST	25	89
TR:Amb to T4{1}		0	1.35	4-1	DISP	0	201
Amb to T1{1}		0	1.35	4-1	DISP	0	201
Amb to T2{1}		0	1.35	4-1	DISP	0	201
Amb to T3{1}		0	1.35	4-1	DISP	0	201
Amb to T4{1}		0	1.35	4-1	DISP	0	201
Amb to T5{1}		0	1.35	4-1	DISP	0	201
Hydrotest{1}	0	0	1.35	3-1	OCC	38	219
Sus.+T1{1}			1.35	5-1	CRUP	25	<NOTE 1>
Sus.+T2{1}			1.35	5-1	CRUP	25	<NOTE 1>
Sus.+T3{1}			1.35	5-1	CRUP	25	<NOTE 1>
Sus.+T4{1}			1.35	5-1	CRUP	25	<NOTE 1>
Sus.+T5{1}			1.35	5-1	CRUP	25	<NOTE 1>
A07 Max P{1}					HOOP	55	89
GR + Max P{1}	5		1.00	2-1	SUST	25	89
TR:Amb to T2{1}		0	1.00	4-1	DISP	0	201
Amb to T1{1}		0	1.00	4-1	DISP	0	201
Amb to T2{1}		0	1.00	4-1	DISP	0	201
Amb to T3{1}		0	1.00	4-1	DISP	0	201
Amb to T4{1}		0	1.00	4-1	DISP	0	201
Amb to T5{1}		0	1.00	4-1	DISP	0	201
Hydrotest{1}	0	0	1.00	3-1	OCC	38	219
Sus.+T1{1}			1.00	5-1	CRUP	25	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	25	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	25	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	25	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	25	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F					
A00	Max P{1}							HOOP	55	89
	GR + Max P{1}	0			1.00	2-1	SUST		25	89
	TR:Amb to T2{1}			0	1.00	4-1	DISP		0	201
	Amb to T1{1}			0	1.00	4-1	DISP		0	201
	Amb to T2{1}			0	1.00	4-1	DISP		0	201
	Amb to T3{1}			0	1.00	4-1	DISP		0	201
	Amb to T4{1}			0	1.00	4-1	DISP		0	201
	Amb to T5{1}			0	1.00	4-1	DISP		0	201
	Hydrotest{1}	0	0		1.00	3-1	OCC		38	219
	Sus.+T1{1}				1.00	5-1	CRUP		25	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		25	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP		25	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP		25	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP		25	<NOTE 1>
J04 N-	Max P{1}							HOOP	50	88
	GR + Max P{1}	27			1.00	2-1	SUST		30	88
	TR:Amb to T2{1}			246	1.00	4-1	DISP		52	201
	Amb to T1{1}			200	1.00	4-1	DISP		42	207
	Amb to T2{1}			246	1.00	4-1	DISP		52	201
	Amb to T3{1}			222	1.00	4-1	DISP		46	207
	Amb to T4{1}			197	1.00	4-1	DISP		41	211
	Amb to T5{1}			109	1.00	4-1	DISP		23	229
	Hydrotest{1}	0	0		1.00	3-1	OCC		19	219
	Sus.+T1{1}				1.00	5-1	CRUP		44	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP		47	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP		46	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP		44	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP		38	<NOTE 1>
U01	Max P{1}							HOOP	50	88
	GR + Max P{1}	0			2.00	2-1	SUST		25	88
	TR:Amb to T1{1}			0	2.00	4-1	DISP		0	207
	Amb to T1{1}			0	2.00	4-1	DISP		0	207
	Amb to T2{1}			0	2.00	4-1	DISP		0	201
	Amb to T3{1}			0	2.00	4-1	DISP		0	207
	Amb to T4{1}			0	2.00	4-1	DISP		0	208

		S_LINEREV0.OUT					
Amb to T5{1}		0	2.00	4-1 DISP	0	203	
Hydrotest{1}	0	0	2.00	3-1 OCC	19	219	
Sus.+T1{1}			2.00	5-1 CRUP	25	<NOTE 1>	
Sus.+T2{1}			2.00	5-1 CRUP	25	<NOTE 1>	
Sus.+T3{1}			2.00	5-1 CRUP	25	<NOTE 1>	
Sus.+T4{1}			2.00	5-1 CRUP	25	<NOTE 1>	
Sus.+T5{1}			2.00	5-1 CRUP	25	<NOTE 1>	

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		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

T06	Max P{1}					HOOP	50	88	
	GR + Max P{1}	0			1.00	2-1 SUST	25	88	
	TR:Amb to T4{1}			0	1.00	4-1 DISP	0	208	
	Amb to T1{1}			0	1.00	4-1 DISP	0	207	
	Amb to T2{1}			0	1.00	4-1 DISP	0	201	
	Amb to T3{1}			0	1.00	4-1 DISP	0	207	
	Amb to T4{1}			0	1.00	4-1 DISP	0	208	
	Amb to T5{1}			0	1.00	4-1 DISP	0	203	
	Hydrotest{1}	0	0		1.00	3-1 OCC	19	219	
	Sus.+T1{1}				1.00	5-1 CRUP	25	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	25	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	25	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	25	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	25	<NOTE 1>	
T06 +	Max P{1}					HOOP	50	88	
	GR + Max P{1}	20			1.00	2-1 SUST	28	88	
	TR:Amb to T2{1}			76	1.00	4-1 DISP	14	201	
	Amb to T1{1}			69	1.00	4-1 DISP	13	207	
	Amb to T2{1}			76	1.00	4-1 DISP	14	201	
	Amb to T3{1}			69	1.00	4-1 DISP	13	207	
	Amb to T4{1}			67	1.00	4-1 DISP	13	208	
	Amb to T5{1}			71	1.00	4-1 DISP	13	203	
	Hydrotest{1}	0	0		1.00	3-1 OCC	19	219	
	Sus.+T1{1}				1.00	5-1 CRUP	33	<NOTE 1>	

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Sus.+T2{1}			1.00	5-1	CRUP	33	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	33	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	33	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	33	<NOTE 1>
T06 - Max P{1}					HOOP	50	88
GR + Max P{1}	20		1.00	2-1	SUST	29	88
TR:Amb to T2{1}		76	1.00	4-1	DISP	16	201
Amb to T1{1}		69	1.00	4-1	DISP	14	207
Amb to T2{1}		76	1.00	4-1	DISP	16	201
Amb to T3{1}		69	1.00	4-1	DISP	14	207
Amb to T4{1}		67	1.00	4-1	DISP	14	208
Amb to T5{1}		71	1.00	4-1	DISP	15	203
Hydrotest{1}	0	0	1.00	3-1	OCC	19	219
Sus.+T1{1}			1.00	5-1	CRUP	34	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	34	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	34	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	33	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	34	<NOTE 1>

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Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. Load no. type			
T10 + Max P{1}						HOOP	50	88	
GR + Max P{1}		13			1.00	2-1 SUST	27	88	
TR:Amb to T2{1}				81	1.00	4-1 DISP	17	201	
Amb to T1{1}				73	1.00	4-1 DISP	15	207	
Amb to T2{1}				81	1.00	4-1 DISP	17	201	
Amb to T3{1}				73	1.00	4-1 DISP	15	207	
Amb to T4{1}				71	1.00	4-1 DISP	15	208	
Amb to T5{1}				74	1.00	4-1 DISP	16	203	
Hydrotest{1}		0	0		1.00	3-1 OCC	19	219	
Sus.+T1{1}					1.00	5-1 CRUP	32	<NOTE 1>	
Sus.+T2{1}					1.00	5-1 CRUP	33	<NOTE 1>	
Sus.+T3{1}					1.00	5-1 CRUP	32	<NOTE 1>	

		S_LINEREV0.OUT					
Sus.+T4{1}			1.00	5-1	CRUP	32	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	32	<NOTE 1>
T10	- Max P{1}				HOOP	50	88
	GR + Max P{1}	13	1.00	2-1	SUST	27	88
	TR:Amb to T2{1}		81	1.00	4-1	DISP	17 201
	Amb to T1{1}		73	1.00	4-1	DISP	15 207
	Amb to T2{1}		81	1.00	4-1	DISP	17 201
	Amb to T3{1}		73	1.00	4-1	DISP	15 207
	Amb to T4{1}		71	1.00	4-1	DISP	15 208
	Amb to T5{1}		74	1.00	4-1	DISP	16 203
	Hydrotest{1}	0 0	1.00	3-1	OCC	19	219
	Sus.+T1{1}		1.00	5-1	CRUP	32	<NOTE 1>
	Sus.+T2{1}		1.00	5-1	CRUP	33	<NOTE 1>
	Sus.+T3{1}		1.00	5-1	CRUP	32	<NOTE 1>
	Sus.+T4{1}		1.00	5-1	CRUP	32	<NOTE 1>
	Sus.+T5{1}		1.00	5-1	CRUP	32	<NOTE 1>
T11	+ Max P{1}				HOOP	50	88
	GR + Max P{1}	46	1.00	2-1	SUST	34	88
	TR:Amb to T2{1}		207	1.00	4-1	DISP	43 201
	Amb to T1{1}		186	1.00	4-1	DISP	39 207
	Amb to T2{1}		207	1.00	4-1	DISP	43 201
	Amb to T3{1}		186	1.00	4-1	DISP	39 207
	Amb to T4{1}		180	1.00	4-1	DISP	38 208
	Amb to T5{1}		190	1.00	4-1	DISP	40 203
	Hydrotest{1}	0 0	1.00	3-1	OCC	19	219
	Sus.+T1{1}		1.00	5-1	CRUP	47	<NOTE 1>
	Sus.+T2{1}		1.00	5-1	CRUP	49	<NOTE 1>
	Sus.+T3{1}		1.00	5-1	CRUP	47	<NOTE 1>
	Sus.+T4{1}		1.00	5-1	CRUP	47	<NOTE 1>
	Sus.+T5{1}		1.00	5-1	CRUP	47	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)

(Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F no. type	Stress	Allow.

S_LINEREV0.OUT									
T11	-	Max P{1}					HOOP	50	88
		GR + Max P{1}	46		1.00	2-1	SUST	34	88
		TR:Amb to T2{1}		207	1.00	4-1	DISP	43	201
		Amb to T1{1}		186	1.00	4-1	DISP	39	207
		Amb to T2{1}		207	1.00	4-1	DISP	43	201
		Amb to T3{1}		186	1.00	4-1	DISP	39	207
		Amb to T4{1}		180	1.00	4-1	DISP	38	208
		Amb to T5{1}		190	1.00	4-1	DISP	40	203
		Hydrotest{1}	0	0	1.00	3-1	OCC	19	219
		Sus.+T1{1}			1.00	5-1	CRUP	47	<NOTE 1>
		Sus.+T2{1}			1.00	5-1	CRUP	49	<NOTE 1>
		Sus.+T3{1}			1.00	5-1	CRUP	47	<NOTE 1>
		Sus.+T4{1}			1.00	5-1	CRUP	47	<NOTE 1>
		Sus.+T5{1}			1.00	5-1	CRUP	47	<NOTE 1>
K01		Max P{1}					HOOP	50	88
		GR + Max P{1}	0		2.00	2-1	SUST	25	88
		TR:Amb to T2{1}		0	2.00	4-1	DISP	0	201
		Amb to T1{1}		0	2.00	4-1	DISP	0	207
		Amb to T2{1}		0	2.00	4-1	DISP	0	201
		Amb to T3{1}		0	2.00	4-1	DISP	0	207
		Amb to T4{1}		0	2.00	4-1	DISP	0	211
		Amb to T5{1}		0	2.00	4-1	DISP	0	229
		Hydrotest{1}	0	0	2.00	3-1	OCC	19	219
		Sus.+T1{1}			2.00	5-1	CRUP	25	<NOTE 1>
		Sus.+T2{1}			2.00	5-1	CRUP	25	<NOTE 1>
		Sus.+T3{1}			2.00	5-1	CRUP	25	<NOTE 1>
		Sus.+T4{1}			2.00	5-1	CRUP	25	<NOTE 1>
		Sus.+T5{1}			2.00	5-1	CRUP	25	<NOTE 1>
J07		Max P{1}					HOOP	50	88
		GR + Max P{1}	0		1.00	2-1	SUST	25	88
		TR:Amb to T2{1}		0	1.00	4-1	DISP	0	201
		Amb to T1{1}		0	1.00	4-1	DISP	0	207
		Amb to T2{1}		0	1.00	4-1	DISP	0	201
		Amb to T3{1}		0	1.00	4-1	DISP	0	207
		Amb to T4{1}		0	1.00	4-1	DISP	0	211
		Amb to T5{1}		0	1.00	4-1	DISP	0	229
		Hydrotest{1}	0	0	1.00	3-1	OCC	19	219
		Sus.+T1{1}			1.00	5-1	CRUP	25	<NOTE 1>
		Sus.+T2{1}			1.00	5-1	CRUP	25	<NOTE 1>
		Sus.+T3{1}			1.00	5-1	CRUP	25	<NOTE 1>
		Sus.+T4{1}			1.00	5-1	CRUP	25	<NOTE 1>
		Sus.+T5{1}			1.00	5-1	CRUP	25	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

J07	+ Max P{1}					HOOP	50	88	
	GR + Max P{1}	33			1.00	2-1 SUST	31	88	
	TR:Amb to T2{1}			84	1.00	4-1 DISP	16	201	
	Amb to T1{1}			66	1.00	4-1 DISP	12	207	
	Amb to T2{1}			84	1.00	4-1 DISP	16	201	
	Amb to T3{1}			75	1.00	4-1 DISP	14	207	
	Amb to T4{1}			66	1.00	4-1 DISP	12	211	
	Amb to T5{1}			32	1.00	4-1 DISP	6	229	
	Hydrotest{1}	0	0		1.00	3-1 OCC	19	219	
	Sus.+T1{1}				1.00	5-1 CRUP	35	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	36	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	36	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	35	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	33	<NOTE 1>	
J07	- Max P{1}					HOOP	50	88	
	GR + Max P{1}	33			1.00	2-1 SUST	32	88	
	TR:Amb to T2{1}			84	1.00	4-1 DISP	18	201	
	Amb to T1{1}			66	1.00	4-1 DISP	14	207	
	Amb to T2{1}			84	1.00	4-1 DISP	18	201	
	Amb to T3{1}			75	1.00	4-1 DISP	16	207	
	Amb to T4{1}			66	1.00	4-1 DISP	14	211	
	Amb to T5{1}			32	1.00	4-1 DISP	7	229	
	Hydrotest{1}	0	0		1.00	3-1 OCC	19	219	
	Sus.+T1{1}				1.00	5-1 CRUP	36	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	37	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	37	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	36	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	34	<NOTE 1>	
J18	+ Max P{1}					HOOP	50	88	
	GR + Max P{1}	6			1.00	2-1 SUST	26	88	

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TR:Amb to T2{1}	129	1.00	4-1 DISP	27	201
Amb to T1{1}	95	1.00	4-1 DISP	20	207
Amb to T2{1}	129	1.00	4-1 DISP	27	201
Amb to T3{1}	113	1.00	4-1 DISP	24	207
Amb to T4{1}	100	1.00	4-1 DISP	21	211
Amb to T5{1}	44	1.00	4-1 DISP	9	229
Hydrotest{1}	0	0	1.00 3-1 OCC	19	219
Sus.+T1{1}		1.00	5-1 CRUP	32	<NOTE 1>
Sus.+T2{1}		1.00	5-1 CRUP	35	<NOTE 1>
Sus.+T3{1}		1.00	5-1 CRUP	34	<NOTE 1>
Sus.+T4{1}		1.00	5-1 CRUP	33	<NOTE 1>
Sus.+T5{1}		1.00	5-1 CRUP	29	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
J18 - Max P{1}						HOOP	50 88
	GR + Max P{1}	6			1.00	2-1 SUST	26 88
	TR:Amb to T2{1}			129	1.00	4-1 DISP	27 201
	Amb to T1{1}			95	1.00	4-1 DISP	20 207
	Amb to T2{1}			129	1.00	4-1 DISP	27 201
	Amb to T3{1}			113	1.00	4-1 DISP	24 207
	Amb to T4{1}			100	1.00	4-1 DISP	21 211
	Amb to T5{1}			44	1.00	4-1 DISP	9 229
	Hydrotest{1}	0	0		1.00	3-1 OCC	19 219
	Sus.+T1{1}				1.00	5-1 CRUP	32 <NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	35 <NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	34 <NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	33 <NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	29 <NOTE 1>
J11 F+ Max P{1}						HOOP	50 88
	GR + Max P{1}	34			1.00	2-1 SUST	32 88
	TR:Amb to T2{1}			110	1.00	4-1 DISP	23 201
	Amb to T1{1}			79	1.00	4-1 DISP	16 207

			S_LINEREVO.OUT				
Amb to T2{1}			110	1.00	4-1 DISP	23	201
Amb to T3{1}			97	1.00	4-1 DISP	20	207
Amb to T4{1}			86	1.00	4-1 DISP	18	211
Amb to T5{1}			38	1.00	4-1 DISP	8	229
Hydrotest{1}	0	0		1.00	3-1 OCC	19	219
Sus.+T1{1}				1.00	5-1 CRUP	37	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	39	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	38	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	38	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	34	<NOTE 1>

J11 F- Max P{1}					HOOP	50	88
GR + Max P{1}	34			1.18	2-1 SUST	32	88
TR:Amb to T2{1}			110	1.18	4-1 DISP	27	201
Amb to T1{1}			79	1.18	4-1 DISP	20	207
Amb to T2{1}			110	1.18	4-1 DISP	27	201
Amb to T3{1}			97	1.18	4-1 DISP	24	207
Amb to T4{1}			86	1.18	4-1 DISP	21	211
Amb to T5{1}			38	1.18	4-1 DISP	9	229
Hydrotest{1}	0	0		1.18	3-1 OCC	19	219
Sus.+T1{1}				1.18	5-1 CRUP	37	<NOTE 1>
Sus.+T2{1}				1.18	5-1 CRUP	39	<NOTE 1>
Sus.+T3{1}				1.18	5-1 CRUP	38	<NOTE 1>
Sus.+T4{1}				1.18	5-1 CRUP	38	<NOTE 1>
Sus.+T5{1}				1.18	5-1 CRUP	34	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
J11 N+ Max P{1}						HOOP	50	88	
GR + Max P{1}		31			1.18	2-1 SUST	31	88	
TR:Amb to T2{1}				89	1.18	4-1 DISP	22	201	
Amb to T1{1}				65	1.18	4-1 DISP	16	207	
Amb to T2{1}				89	1.18	4-1 DISP	22	201	
Amb to T3{1}				79	1.18	4-1 DISP	20	207	
Amb to T4{1}				71	1.18	4-1 DISP	17	211	

Amb to T5{1}			32	1.18	4-1 DISP	8	229
Hydrotest{1}	0	0		1.18	3-1 OCC	19	219
Sus.+T1{1}				1.18	5-1 CRUP	36	<NOTE 1>
Sus.+T2{1}				1.18	5-1 CRUP	37	<NOTE 1>
Sus.+T3{1}				1.18	5-1 CRUP	37	<NOTE 1>
Sus.+T4{1}				1.18	5-1 CRUP	36	<NOTE 1>
Sus.+T5{1}				1.18	5-1 CRUP	33	<NOTE 1>

J11 N-	Max P{1}				HOOP	50	88
	GR + Max P{1}	31	1.00	2-1	SUST	31	88
	TR:Amb to T2{1}		89	1.00	4-1 DISP	19	201
	Amb to T1{1}		65	1.00	4-1 DISP	14	207
	Amb to T2{1}		89	1.00	4-1 DISP	19	201
	Amb to T3{1}		79	1.00	4-1 DISP	17	207
	Amb to T4{1}		71	1.00	4-1 DISP	15	211
	Amb to T5{1}		32	1.00	4-1 DISP	7	229
	Hydrotest{1}	0	0	1.00	3-1 OCC	19	219
	Sus.+T1{1}			1.00	5-1 CRUP	36	<NOTE 1>
	Sus.+T2{1}			1.00	5-1 CRUP	37	<NOTE 1>
	Sus.+T3{1}			1.00	5-1 CRUP	37	<NOTE 1>
	Sus.+T4{1}			1.00	5-1 CRUP	36	<NOTE 1>
	Sus.+T5{1}			1.00	5-1 CRUP	33	<NOTE 1>

J13 F+ Max P{1}					HOOP	50	88
GR + Max P{1}	41		1.00	2-1	SUST	33	88
TR:Amb to T2{1}		118	1.00	4-1	DISP	25	201
Amb to T1{1}		98	1.00	4-1	DISP	20	207
Amb to T2{1}		118	1.00	4-1	DISP	25	201
Amb to T3{1}		107	1.00	4-1	DISP	22	207
Amb to T4{1}		94	1.00	4-1	DISP	20	211
Amb to T5{1}		51	1.00	4-1	DISP	11	229
Hydrotest{1}	0	0	1.00	3-1	OCC	19	219
Sus.+T1{1}			1.00	5-1	CRUP	40	<NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	41	<NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	41	<NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	40	<NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	37	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
J13 F-	Max P{1}					HOOP	50	88	
	GR + Max P{1}	41			1.18	2-1 SUST	33	88	
	TR:Amb to T2{1}			118	1.18	4-1 DISP	29	201	
	Amb to T1{1}			98	1.18	4-1 DISP	24	207	
	Amb to T2{1}			118	1.18	4-1 DISP	29	201	
	Amb to T3{1}			107	1.18	4-1 DISP	26	207	
	Amb to T4{1}			94	1.18	4-1 DISP	23	211	
	Amb to T5{1}			51	1.18	4-1 DISP	13	229	
	Hydrotest{1}	0	0		1.18	3-1 OCC	19	219	
	Sus.+T1{1}				1.18	5-1 CRUP	40	<NOTE 1>	
	Sus.+T2{1}				1.18	5-1 CRUP	41	<NOTE 1>	
	Sus.+T3{1}				1.18	5-1 CRUP	41	<NOTE 1>	
	Sus.+T4{1}				1.18	5-1 CRUP	40	<NOTE 1>	
	Sus.+T5{1}				1.18	5-1 CRUP	37	<NOTE 1>	
J13 N+	Max P{1}					HOOP	50	88	
	GR + Max P{1}	30			1.18	2-1 SUST	31	88	
	TR:Amb to T2{1}			139	1.18	4-1 DISP	35	201	
	Amb to T1{1}			112	1.18	4-1 DISP	28	207	
	Amb to T2{1}			139	1.18	4-1 DISP	35	201	
	Amb to T3{1}			126	1.18	4-1 DISP	31	207	
	Amb to T4{1}			111	1.18	4-1 DISP	27	211	
	Amb to T5{1}			58	1.18	4-1 DISP	14	229	
	Hydrotest{1}	0	0		1.18	3-1 OCC	19	219	
	Sus.+T1{1}				1.18	5-1 CRUP	39	<NOTE 1>	
	Sus.+T2{1}				1.18	5-1 CRUP	41	<NOTE 1>	
	Sus.+T3{1}				1.18	5-1 CRUP	40	<NOTE 1>	
	Sus.+T4{1}				1.18	5-1 CRUP	39	<NOTE 1>	
	Sus.+T5{1}				1.18	5-1 CRUP	35	<NOTE 1>	
J13 N-	Max P{1}					HOOP	50	88	
	GR + Max P{1}	30			1.00	2-1 SUST	31	88	
	TR:Amb to T2{1}			139	1.00	4-1 DISP	29	201	
	Amb to T1{1}			112	1.00	4-1 DISP	24	207	
	Amb to T2{1}			139	1.00	4-1 DISP	29	201	
	Amb to T3{1}			126	1.00	4-1 DISP	26	207	
	Amb to T4{1}			111	1.00	4-1 DISP	23	211	
	Amb to T5{1}			58	1.00	4-1 DISP	12	229	

	S_LINEREV0.OUT					
Hydrotest{1}	0	0	1.00	3-1	OCC	19 219
Sus.+T1{1}			1.00	5-1	CRUP	39 <NOTE 1>
Sus.+T2{1}			1.00	5-1	CRUP	41 <NOTE 1>
Sus.+T3{1}			1.00	5-1	CRUP	40 <NOTE 1>
Sus.+T4{1}			1.00	5-1	CRUP	39 <NOTE 1>
Sus.+T5{1}			1.00	5-1	CRUP	35 <NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
J17	+ Max P{1}					HOOP	50	88	
	GR + Max P{1}	10			1.00	2-1 SUST	27	88	
	TR:Amb to T2{1}			215	1.00	4-1 DISP	45	201	
	Amb to T1{1}			187	1.00	4-1 DISP	39	207	
	Amb to T2{1}			215	1.00	4-1 DISP	45	201	
	Amb to T3{1}			196	1.00	4-1 DISP	41	207	
	Amb to T4{1}			171	1.00	4-1 DISP	36	211	
	Amb to T5{1}			98	1.00	4-1 DISP	20	229	
	Hydrotest{1}	0	0		1.00	3-1 OCC	19	219	
	Sus.+T1{1}				1.00	5-1 CRUP	40	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	42	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	40	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	39	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	33	<NOTE 1>	
J17	- Max P{1}					HOOP	50	88	
	GR + Max P{1}	10			1.00	2-1 SUST	27	88	
	TR:Amb to T2{1}			215	1.00	4-1 DISP	45	201	
	Amb to T1{1}			187	1.00	4-1 DISP	39	207	
	Amb to T2{1}			215	1.00	4-1 DISP	45	201	
	Amb to T3{1}			196	1.00	4-1 DISP	41	207	
	Amb to T4{1}			171	1.00	4-1 DISP	36	211	
	Amb to T5{1}			98	1.00	4-1 DISP	20	229	
	Hydrotest{1}	0	0		1.00	3-1 OCC	19	219	
	Sus.+T1{1}				1.00	5-1 CRUP	40	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	42	<NOTE 1>	

Sus.+T3{1}			1.00	5-1 CRUP	40	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	39	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	33	<NOTE 1>
Max P{1}				HOOP	50	88
GR + Max P{1}	5		1.00	2-1 SUST	26	88
TR:Amb to T2{1}		70	1.00	4-1 DISP	15	201
Amb to T1{1}		69	1.00	4-1 DISP	14	207
Amb to T2{1}		70	1.00	4-1 DISP	15	201
Amb to T3{1}		62	1.00	4-1 DISP	13	207
Amb to T4{1}		51	1.00	4-1 DISP	11	211
Amb to T5{1}		28	1.00	4-1 DISP	6	229
Hydrotest{1}	0	0	1.00	3-1 OCC	19	219
Sus.+T1{1}			1.00	5-1 CRUP	30	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	31	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	30	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	29	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	28	<NOTE 1>

		(Moments in N.m)		(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code	
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.	
-----	-----	-----	-----	-----	-----	-----	-----	
J05 F-	Max P{1}					HOOP	50 88	
	GR + Max P{1}	5			1.18	2-1 SUST	26 88	
	TR:Amb to T2{1}			70	1.18	4-1 DISP	17 201	
	Amb to T1{1}			69	1.18	4-1 DISP	17 207	
	Amb to T2{1}			70	1.18	4-1 DISP	17 201	
	Amb to T3{1}			62	1.18	4-1 DISP	15 207	
	Amb to T4{1}			51	1.18	4-1 DISP	13 211	
	Amb to T5{1}			28	1.18	4-1 DISP	7 229	
	Hydrotest{1}	0	0		1.18	3-1 OCC	19 219	
	Sus.+T1{1}				1.18	5-1 CRUP	30 <NOTE 1>	
	Sus.+T2{1}				1.18	5-1 CRUP	31 <NOTE 1>	
	Sus.+T3{1}				1.18	5-1 CRUP	30 <NOTE 1>	
	Sus.+T4{1}				1.18	5-1 CRUP	29 <NOTE 1>	

Sus.+T5{1}		S_LINEREV0.OUT		1.18	5-1 CRUP	28	<NOTE 1>
J05 N+ Max P{1}					HOOP	50	88
GR + Max P{1}	8		1.18	2-1 SUST		26	88
TR:Amb to T1{1}		55	1.18	4-1 DISP		14	207
Amb to T1{1}		55	1.18	4-1 DISP		14	207
Amb to T2{1}		55	1.18	4-1 DISP		14	201
Amb to T3{1}		47	1.18	4-1 DISP		12	207
Amb to T4{1}		39	1.18	4-1 DISP		10	211
Amb to T5{1}		22	1.18	4-1 DISP		5	229
Hydrotest{1}	0	0	1.18	3-1 OCC		19	219
Sus.+T1{1}			1.18	5-1 CRUP		30	<NOTE 1>
Sus.+T2{1}			1.18	5-1 CRUP		30	<NOTE 1>
Sus.+T3{1}			1.18	5-1 CRUP		29	<NOTE 1>
Sus.+T4{1}			1.18	5-1 CRUP		29	<NOTE 1>
Sus.+T5{1}			1.18	5-1 CRUP		28	<NOTE 1>
J05 N- Max P{1}					HOOP	50	88
GR + Max P{1}	8		1.00	2-1 SUST		26	88
TR:Amb to T1{1}		55	1.00	4-1 DISP		12	207
Amb to T1{1}		55	1.00	4-1 DISP		12	207
Amb to T2{1}		55	1.00	4-1 DISP		11	201
Amb to T3{1}		47	1.00	4-1 DISP		10	207
Amb to T4{1}		39	1.00	4-1 DISP		8	211
Amb to T5{1}		22	1.00	4-1 DISP		5	229
Hydrotest{1}	0	0	1.00	3-1 OCC		19	219
Sus.+T1{1}			1.00	5-1 CRUP		30	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP		30	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP		29	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP		29	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP		28	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no.	type	Stress	Allow.
J04 F+ Max P{1}						HOOP		50	88

		S_LINEREV0.OUT				
GR + Max P{1}	25		1.00	2-1 SUST	30	88
TR:Amb to T2{1}		229	1.00	4-1 DISP	48	201
Amb to T1{1}		185	1.00	4-1 DISP	39	207
Amb to T2{1}		229	1.00	4-1 DISP	48	201
Amb to T3{1}		205	1.00	4-1 DISP	43	207
Amb to T4{1}		182	1.00	4-1 DISP	38	211
Amb to T5{1}		98	1.00	4-1 DISP	20	229
Hydrotest{1}	0	0	1.00	3-1 OCC	19	219
Sus.+T1{1}			1.00	5-1 CRUP	43	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	46	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	44	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	43	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	37	<NOTE 1>
S09 N- Max P{1}				HOOP	13	104
GR + Max P{1}	96		1.00	2-1 SUST	9	104
TR:Amb to T1{1}		1412	1.00	4-1 DISP	50	247
Amb to T1{1}		1412	1.00	4-1 DISP	50	247
Amb to T2{1}		1157	1.00	4-1 DISP	41	247
Amb to T3{1}		1391	1.00	4-1 DISP	49	217
Amb to T4{1}		1140	1.00	4-1 DISP	40	217
Amb to T5{1}		653	1.00	4-1 DISP	23	229
Hydrotest{1}	0	0	1.00	3-1 OCC	1	219
Sus.+T1{1}			1.00	5-1 CRUP	26	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	23	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	26	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	23	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	17	<NOTE 1>
F11 N- Max P{1}				HOOP	13	104
GR + Max P{1}	420		1.00	2-1 SUST	21	104
TR:Amb to T1{1}		1399	1.00	4-1 DISP	50	247
Amb to T1{1}		1399	1.00	4-1 DISP	50	247
Amb to T2{1}		1186	1.00	4-1 DISP	42	247
Amb to T3{1}		1393	1.00	4-1 DISP	49	217
Amb to T4{1}		1163	1.00	4-1 DISP	41	217
Amb to T5{1}		602	1.00	4-1 DISP	21	229
Hydrotest{1}	0	0	1.00	3-1 OCC	1	219
Sus.+T1{1}			1.00	5-1 CRUP	37	<NOTE 1>
Sus.+T2{1}			1.00	5-1 CRUP	35	<NOTE 1>
Sus.+T3{1}			1.00	5-1 CRUP	37	<NOTE 1>
Sus.+T4{1}			1.00	5-1 CRUP	35	<NOTE 1>
Sus.+T5{1}			1.00	5-1 CRUP	28	<NOTE 1>

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Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. no.	Load type		
B02	Max P{1}						HOOP	32	89
	GR + Max P{1}	130			1.00	2-1	SUST	21	89
	TR:Amb to T2{1}			1076	1.00	4-1	DISP	49	201
	Amb to T1{1}			1056	1.00	4-1	DISP	48	201
	Amb to T2{1}			1076	1.00	4-1	DISP	49	201
	Amb to T3{1}			1056	1.00	4-1	DISP	48	201
	Amb to T4{1}			1038	1.00	4-1	DISP	47	201
	Amb to T5{1}			994	1.00	4-1	DISP	45	201
	Hydrotest{1}	0	0		1.00	3-1	OCC	23	219
	Sus.+T1{1}				1.00	5-1	CRUP	37	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP	37	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP	37	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP	37	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP	36	<NOTE 1>
B01 F+	Max P{1}						HOOP	32	89
	GR + Max P{1}	29			1.00	2-1	SUST	17	89
	TR:Amb to T1{1}			1054	1.00	4-1	DISP	48	201
	Amb to T1{1}			1054	1.00	4-1	DISP	48	201
	Amb to T2{1}			1011	1.00	4-1	DISP	46	201
	Amb to T3{1}			1054	1.00	4-1	DISP	48	201
	Amb to T4{1}			1042	1.00	4-1	DISP	47	201
	Amb to T5{1}			930	1.00	4-1	DISP	42	201
	Hydrotest{1}	0	0		1.00	3-1	OCC	23	219
	Sus.+T1{1}				1.00	5-1	CRUP	33	<NOTE 1>
	Sus.+T2{1}				1.00	5-1	CRUP	32	<NOTE 1>
	Sus.+T3{1}				1.00	5-1	CRUP	33	<NOTE 1>
	Sus.+T4{1}				1.00	5-1	CRUP	32	<NOTE 1>
	Sus.+T5{1}				1.00	5-1	CRUP	31	<NOTE 1>
F11 F+	Max P{1}						HOOP	13	104
	GR + Max P{1}	421			1.00	2-1	SUST	21	104
	TR:Amb to T3{1}			1351	1.00	4-1	DISP	48	217

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Amb to T1{1}			1345	1.00	4-1 DISP	48	247
Amb to T2{1}			1117	1.00	4-1 DISP	40	247
Amb to T3{1}			1351	1.00	4-1 DISP	48	217
Amb to T4{1}			1132	1.00	4-1 DISP	40	217
Amb to T5{1}			551	1.00	4-1 DISP	19	229
Hydrotest{1}	0	0		1.00	3-1 OCC	1	219
Sus.+T1{1}				1.00	5-1 CRUP	37	<NOTE 1>
Sus.+T2{1}				1.00	5-1 CRUP	34	<NOTE 1>
Sus.+T3{1}				1.00	5-1 CRUP	37	<NOTE 1>
Sus.+T4{1}				1.00	5-1 CRUP	34	<NOTE 1>
Sus.+T5{1}				1.00	5-1 CRUP	27	<NOTE 1>

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		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

B01 N-	Max P{1}					HOOP	32	89	
	GR + Max P{1}	58			1.00	2-1 SUST	18	89	
	TR:Amb to T1{1}			981	1.00	4-1 DISP	45	201	
	Amb to T1{1}			981	1.00	4-1 DISP	45	201	
	Amb to T2{1}			928	1.00	4-1 DISP	42	201	
	Amb to T3{1}			981	1.00	4-1 DISP	45	201	
	Amb to T4{1}			971	1.00	4-1 DISP	44	201	
	Amb to T5{1}			854	1.00	4-1 DISP	39	201	
	Hydrotest{1}	0	0		1.00	3-1 OCC	23	219	
	Sus.+T1{1}				1.00	5-1 CRUP	33	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	32	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	33	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	33	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	31	<NOTE 1>	
F12 N-	Max P{1}					HOOP	13	104	
	GR + Max P{1}	408			1.00	2-1 SUST	21	104	
	TR:Amb to T1{1}			1253	1.00	4-1 DISP	44	247	
	Amb to T1{1}			1253	1.00	4-1 DISP	44	247	
	Amb to T2{1}			980	1.00	4-1 DISP	35	247	

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	Amb to T3{1}		1221	1.00	4-1 DISP	43	217	
	Amb to T4{1}		1029	1.00	4-1 DISP	36	217	
	Amb to T5{1}		498	1.00	4-1 DISP	18	229	
	Hydrotest{1}	0	0	1.00	3-1 OCC	1	219	
	Sus.+T1{1}			1.00	5-1 CRUP	35	<NOTE 1>	
	Sus.+T2{1}			1.00	5-1 CRUP	32	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1 CRUP	35	<NOTE 1>	
	Sus.+T4{1}			1.00	5-1 CRUP	33	<NOTE 1>	
	Sus.+T5{1}			1.00	5-1 CRUP	26	<NOTE 1>	
D02	Max P{1}				HOOP	33	89	
	GR + Max P{1}	136		1.00	2-1 SUST	27	89	
	TR:Amb to T2{1}		502	1.00	4-1 DISP	42	201	
	Amb to T1{1}		417	1.00	4-1 DISP	35	201	
	Amb to T2{1}		502	1.00	4-1 DISP	42	201	
	Amb to T3{1}		478	1.00	4-1 DISP	40	201	
	Amb to T4{1}		423	1.00	4-1 DISP	35	201	
	Amb to T5{1}		267	1.00	4-1 DISP	22	201	
	Hydrotest{1}	0	0	1.00	3-1 OCC	24	219	
	Sus.+T1{1}			1.00	5-1 CRUP	39	<NOTE 1>	
	Sus.+T2{1}			1.00	5-1 CRUP	41	<NOTE 1>	
	Sus.+T3{1}			1.00	5-1 CRUP	41	<NOTE 1>	
	Sus.+T4{1}			1.00	5-1 CRUP	39	<NOTE 1>	
	Sus.+T5{1}			1.00	5-1 CRUP	35	<NOTE 1>	

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		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
R01	Max P{1}					HOOP	42	87	
	GR + Max P{1}	0			1.00	2-1 SUST	21	87	
	TR:T1 to T5{1}			0	1.00	4-1 DISP	0	201	
	Amb to T1{1}			0	1.00	4-1 DISP	0	201	
	Amb to T2{1}			0	1.00	4-1 DISP	0	198	
	Amb to T3{1}			0	1.00	4-1 DISP	0	201	
	Amb to T4{1}			0	1.00	4-1 DISP	0	209	
	Amb to T5{1}			0	1.00	4-1 DISP	0	229	

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	Hydrotest{1}	0	0	1.00	3-1	OCC	16	219
	Sus.+T1{1}			1.00	5-1	CRUP	21	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	21	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	21	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	21	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	21	<NOTE 1>
D04	Max P{1}					HOOP	42	87
	GR + Max P{1}	0		1.00	2-1	SUST	21	87
	TR:Amb to T4{1}		0	1.00	4-1	DISP	0	209
	Amb to T1{1}		0	1.00	4-1	DISP	0	201
	Amb to T2{1}		0	1.00	4-1	DISP	0	198
	Amb to T3{1}		0	1.00	4-1	DISP	0	201
	Amb to T4{1}		0	1.00	4-1	DISP	0	209
	Amb to T5{1}		0	1.00	4-1	DISP	0	229
	Hydrotest{1}	0	0	1.00	3-1	OCC	16	219
	Sus.+T1{1}			1.00	5-1	CRUP	21	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	21	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	21	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	21	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	21	<NOTE 1>
P01	Max P{1}					HOOP	42	87
	GR + Max P{1}	0		1.00	2-1	SUST	21	87
	TR:Amb to T5{1}		0	1.00	4-1	DISP	0	203
	Amb to T1{1}		0	1.00	4-1	DISP	0	201
	Amb to T2{1}		0	1.00	4-1	DISP	0	198
	Amb to T3{1}		0	1.00	4-1	DISP	0	201
	Amb to T4{1}		0	1.00	4-1	DISP	0	203
	Amb to T5{1}		0	1.00	4-1	DISP	0	203
	Hydrotest{1}	0	0	1.00	3-1	OCC	16	219
	Sus.+T1{1}			1.00	5-1	CRUP	21	<NOTE 1>
	Sus.+T2{1}			1.00	5-1	CRUP	21	<NOTE 1>
	Sus.+T3{1}			1.00	5-1	CRUP	21	<NOTE 1>
	Sus.+T4{1}			1.00	5-1	CRUP	21	<NOTE 1>
	Sus.+T5{1}			1.00	5-1	CRUP	21	<NOTE 1>

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Point	Load	(Moments in N.m)			(Stress in N/mm2)			Code	Code
		Ma	Mb	Mc		Eq. Load			
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

E13	Max P{1}					HOOP	42	87	
	GR + Max P{1}	0			1.00	2-1 SUST	21	87	
	TR:Amb to T2{1}			0	1.00	4-1 DISP	0	198	
	Amb to T1{1}			0	1.00	4-1 DISP	0	201	
	Amb to T2{1}			0	1.00	4-1 DISP	0	198	
	Amb to T3{1}			0	1.00	4-1 DISP	0	201	
	Amb to T4{1}			0	1.00	4-1 DISP	0	203	
	Amb to T5{1}			0	1.00	4-1 DISP	0	203	
	Hydrotest{1}	0	0		1.00	3-1 OCC	16	219	
	Sus.+T1{1}				1.00	5-1 CRUP	21	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	21	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	21	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	21	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	21	<NOTE 1>	
N01	Max P{1}					HOOP	42	87	
	GR + Max P{1}	0			1.00	2-1 SUST	21	87	
	TR:Amb to T2{1}			0	1.00	4-1 DISP	0	198	
	Amb to T1{1}			0	1.00	4-1 DISP	0	201	
	Amb to T2{1}			0	1.00	4-1 DISP	0	198	
	Amb to T3{1}			0	1.00	4-1 DISP	0	201	
	Amb to T4{1}			0	1.00	4-1 DISP	0	203	
	Amb to T5{1}			0	1.00	4-1 DISP	0	203	
	Hydrotest{1}	0	0		1.00	3-1 OCC	16	219	
	Sus.+T1{1}				1.00	5-1 CRUP	21	<NOTE 1>	
	Sus.+T2{1}				1.00	5-1 CRUP	21	<NOTE 1>	
	Sus.+T3{1}				1.00	5-1 CRUP	21	<NOTE 1>	
	Sus.+T4{1}				1.00	5-1 CRUP	21	<NOTE 1>	
	Sus.+T5{1}				1.00	5-1 CRUP	21	<NOTE 1>	
B17	Max P{1}					HOOP	42	87	
	GR + Max P{1}	0			1.00	2-1 SUST	21	87	
	TR:Amb to T2{1}			0	1.00	4-1 DISP	0	198	
	Amb to T1{1}			0	1.00	4-1 DISP	0	201	
	Amb to T2{1}			0	1.00	4-1 DISP	0	198	
	Amb to T3{1}			0	1.00	4-1 DISP	0	201	
	Amb to T4{1}			0	1.00	4-1 DISP	0	203	
	Amb to T5{1}			0	1.00	4-1 DISP	0	203	
	Hydrotest{1}	0	0		1.00	3-1 OCC	16	219	

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Sus.+T1{1}	1.00	5-1	CRUP	21 <NOTE 1>
Sus.+T2{1}	1.00	5-1	CRUP	21 <NOTE 1>
Sus.+T3{1}	1.00	5-1	CRUP	21 <NOTE 1>
Sus.+T4{1}	1.00	5-1	CRUP	21 <NOTE 1>
Sus.+T5{1}	1.00	5-1	CRUP	21 <NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
F12 F+	Max P{1}					HOOP	13 104
	GR + Max P{1}	318			1.00	2-1 SUST	17 104
	TR:T1 to T3{1}			1175	1.00	4-1 DISP	42 217
	Amb to T1{1}			984	1.00	4-1 DISP	35 247
	Amb to T2{1}			423	1.00	4-1 DISP	15 247
	Amb to T3{1}			602	1.00	4-1 DISP	21 217
	Amb to T4{1}			538	1.00	4-1 DISP	19 217
	Amb to T5{1}			368	1.00	4-1 DISP	13 229
	Hydrotest{1}	0	0		1.00	3-1 OCC	1 219
	Sus.+T1{1}				1.00	5-1 CRUP	29 <NOTE 1>
	Sus.+T2{1}				1.00	5-1 CRUP	22 <NOTE 1>
	Sus.+T3{1}				1.00	5-1 CRUP	24 <NOTE 1>
	Sus.+T4{1}				1.00	5-1 CRUP	24 <NOTE 1>
	Sus.+T5{1}				1.00	5-1 CRUP	22 <NOTE 1>
U02	Max P{1}					HOOP	31 88
	GR + Max P{1}	0			2.30	2-1 SUST	16 88
	TR:Amb to T5{1}			0	2.30	4-1 DISP	0 203
	Amb to T1{1}			0	2.30	4-1 DISP	0 207
	Amb to T2{1}			0	2.30	4-1 DISP	0 201
	Amb to T3{1}			0	2.30	4-1 DISP	0 207
	Amb to T4{1}			0	2.30	4-1 DISP	0 208
	Amb to T5{1}			0	2.30	4-1 DISP	0 203
	Hydrotest{1}	0	0		2.30	3-1 OCC	12 219
	Sus.+T1{1}				2.30	5-1 CRUP	16 <NOTE 1>
	Sus.+T2{1}				2.30	5-1 CRUP	16 <NOTE 1>
	Sus.+T3{1}				2.30	5-1 CRUP	16 <NOTE 1>

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	Sus.+T4{1}			2.30	5-1	CRUP	16	<NOTE 1>
	Sus.+T5{1}			2.30	5-1	CRUP	16	<NOTE 1>
M02	Max P{1}					HOOP	31	88
	GR + Max P{1}	0		2.30	2-1	SUST	16	88
	TR:Amb to T3{1}		0	2.30	4-1	DISP	0	207
	Amb to T1{1}		0	2.30	4-1	DISP	0	207
	Amb to T2{1}		0	2.30	4-1	DISP	0	201
	Amb to T3{1}		0	2.30	4-1	DISP	0	207
	Amb to T4{1}		0	2.30	4-1	DISP	0	208
	Amb to T5{1}		0	2.30	4-1	DISP	0	203
	Hydrotest{1}	0	0	2.30	3-1	OCC	12	219
	Sus.+T1{1}			2.30	5-1	CRUP	16	<NOTE 1>
	Sus.+T2{1}			2.30	5-1	CRUP	16	<NOTE 1>
	Sus.+T3{1}			2.30	5-1	CRUP	16	<NOTE 1>
	Sus.+T4{1}			2.30	5-1	CRUP	16	<NOTE 1>
	Sus.+T5{1}			2.30	5-1	CRUP	16	<NOTE 1>

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(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq.	Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
K02	Max P{1}					HOOP	31	88
	GR + Max P{1}	0			2.30	2-1 SUST	16	88
	TR:Amb to T2{1}			0	2.30	4-1 DISP	0	201
	Amb to T1{1}			0	2.30	4-1 DISP	0	207
	Amb to T2{1}			0	2.30	4-1 DISP	0	201
	Amb to T3{1}			0	2.30	4-1 DISP	0	207
	Amb to T4{1}			0	2.30	4-1 DISP	0	211
	Amb to T5{1}			0	2.30	4-1 DISP	0	229
	Hydrotest{1}	0	0		2.30	3-1 OCC	12	219
	Sus.+T1{1}				2.30	5-1 CRUP	16	<NOTE 1>
	Sus.+T2{1}				2.30	5-1 CRUP	16	<NOTE 1>
	Sus.+T3{1}				2.30	5-1 CRUP	16	<NOTE 1>
	Sus.+T4{1}				2.30	5-1 CRUP	16	<NOTE 1>
	Sus.+T5{1}				2.30	5-1 CRUP	16	<NOTE 1>

*** NOTE 1: No allowable stress could be calculated. ***
*** Mechanical properties are outside of temperature range. ***

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R E S U L T S U M M A R Y

Maximum displacements (mm)

Maximum X :	19.127	Point : L01	Load Comb.: Thermal 2{1}
Maximum Y :	-32.738	Point : E01 F	Load Comb.: GRT2{1}
Maximum Z :	47.467	Point : B08 N	Load Comb.: GRT2{1}
Max. total:	47.944	Point : B08 N	Load Comb.: GRT2{1}

Maximum rotations (deg)

Maximum X :	1.478	Point : D13	Load Comb.: Thermal 1{1}
Maximum Y :	0.954	Point : B22	Load Comb.: GRT2{1}
Maximum Z :	1.226	Point : T05 N	Load Comb.: Thermal 2{1}
Max. total:	1.719	Point : B22	Load Comb.: GRT2{1}

Maximum restraint forces (N)

Maximum X :	-4889	Point : S15	Load Comb.: Thermal 2{1}
Maximum Y :	-4273	Point : F13	Load Comb.: GRT3{1}
Maximum Z :	-5618	Point : D18	Load Comb.: Thermal 1{1}
Max. total:	6575	Point : D18	Load Comb.: Thermal 1{1}

Maximum restraint moments (N.m)

Maximum X :	-3815	Point : A05	Load Comb.: Thermal 2{1}
Maximum Y :	1246	Point : C06	Load Comb.: GRT2{1}
Maximum Z :	-3996	Point : F13	Load Comb.: GRT2{1}
Max. total:	4174	Point : F13	Load Comb.: Thermal 2{1}

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R E S U L T S U M M A R Y

Maximum pipe forces (N)

Maximum X :	-3882	Point : D12 M	Load Comb.: Thermal 2{1}
Maximum Y :	5360	Point : D11	Load Comb.: Thermal 2{1}
Maximum Z :	-5618	Point : D15 N	Load Comb.: Thermal 1{1}
Max. total:	6575	Point : D15 N	Load Comb.: Thermal 1{1}

Maximum pipe moments (N.m)

Maximum X :	3569	Point : S14	Load Comb.: GRT1{1}
Maximum Y :	2008	Point : B07	Load Comb.: GRT2{1}
Maximum Z :	-3996	Point : F13	Load Comb.: GRT2{1}
Max. total:	4174	Point : F13	Load Comb.: Thermal 2{1}

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R E S U L T S U M M A R Y

Maximum sustained stress

Point	:	J08
Stress N/mm2	:	72
Allowable N/mm2	:	88
Ratio	:	0.82
Load combination	:	GR + Max P{1}

Maximum displacement stress

Point	:	F02
Stress N/mm2	:	271
Allowable N/mm2	:	282
Ratio	:	0.96
Load combination	:	Max Range

Maximum occasional stress

Point	:	A04
Stress N/mm2	:	38
Allowable N/mm2	:	219
Ratio	:	0.17
Load combination	:	Hydrotest{1}

Maximum hoop stress

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Point : C06
Stress N/mm2 : 70
Allowable N/mm2 : 87
Ratio : 0.81
Load combination : Max P{1}

Maximum creep rupture stress

Point : F02
Stress N/mm2 : 136
Allowable N/mm2 : 0 < See Note 1 >
Ratio : 0.00
Load combination : Sus.+T1{1}

0

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R E S U L T S U M M A R Y

Maximum sustained stress ratio

Point : J08
Stress N/mm2 : 72
Allowable N/mm2 : 88
Ratio : 0.82
Load combination : GR + Max P{1}

Maximum displacement stress ratio

Point : F02
Stress N/mm2 : 245
Allowable N/mm2 : 252
Ratio : 0.97
Load combination : Amb to T3{1}

Maximum occasional stress ratio

Point : A04
Stress N/mm2 : 38
Allowable N/mm2 : 219
Ratio : 0.17
Load combination : Hydrotest{1}

Maximum hoop stress ratio

Point : C06
Stress N/mm2 : 70
Allowable N/mm2 : 87
Ratio : 0.81
Load combination : Max P{1}

Maximum creep rupture stress ratio

Point : F02
Stress N/mm2 : 136
Allowable N/mm2 : 0 < See Note 1 >
Ratio : 0.00
Load combination : Sus.+T1{1}

* * * The system satisfies EN 13480 (2002) code requirements * * *
* * * for the selected options * * *

Warnings:

(1) Maximum creep rupture stress ratio is zero

S_LINEREV0.OUT

* * * Note 1: Points were found in this stress category with
* * * mechanical properties outside of temperature range. No

* * *
* * *

□

S_LINEREV0

09/27/2010 STEAMLINE

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R E S U L T S U M M A R Y

* * * allowable stress were calculated at these points.

* * *

□

ALLEGATO 7. DW to RC LIQUID LINE INPUT E OUTPUT DEI CALCOLI AUTOPIPE

file: DRYWELL TO CAVITYLIQUIDLINEREV0.pdf

DRYWELL TO CAVITYLIQUIDLINEREV0.OUT

DRYWELL TO CAVITYLIQUIDLINEREV0

09/13/2010 DW TO CAVITY LIQUID LINE

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AutoPIPE Plus 9.2.1 MODEL PAGE 1

[illegible]

Pipe Stress Analysis and Design Program

Version: 09.02.01.07

Edition: Plus

Developed and Maintained by

BENTLEY SYSTEMS, INCORPORATED
1600 Riviera Ave., Suite 300
Walnut Creek, CA 94596

!

DRYWELL TO CAVITYLIQUIDLINEREVO0

09/13/2010 DW TO CAVITY LIQUID LINE

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AutoPIPE Plus 9.2.1 MODEL PAGE 2

```
*****
**
**          AUTOPIPE SYSTEM INFORMATION          **
**
*****
```

SYSTEM NAME : DRYWELL TO CAVITYLIQUIDLINEREVO0

PROJECT ID : DW TO CAVITY LIQUID LINE

PREPARED BY : CONGIU

CHECKED BY : ACHILLI

1ST APPROVER : _____

2ND APPROVER : _____

DRYWELL TO CAVITYLIQUIDLINEREV0.OUT
: EN 13480
PIPING CODE
YEAR : 2002
LIFETIME (HRS) : 200000
LIFETIME MONITORING : NO
VERTICAL AXIS : Z
AMBIENT TEMPERATURE : 20.0 deg C
COMPONENT LIBRARY : AUTOPIPE
MATERIAL LIBRARY : EUROMAT
MODEL REVISION NUMBER : 9

0

DRYWELL TO CAVITYLIQUIDLINEREV0

09/13/2010 DW TO CAVITY LIQUID LINE

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AutoPIPE Plus 9.2.1 MODEL PAGE 3

C O M P O N E N T D A T A L I S T I N G

*** SEGMENT A

From A00 to A01, DY= -120.80 mm

Run

PIPE DATA:

Pipe Id= 5S40, Material= X5CRNI18-10 1.4301, Product= Seamless tube, Source= EURO,
Composition= Austentic Stainless, Poisson= 0.300, Nom Size= 125 mm, OD= 141.30 mm, Sch= 40, Wall
Thk= 6.553 mm,
Mill= 0.819 mm, Cor= 0 mm, Pipe Density= 7930.00 kg/m3, Pipe Unit Wgt= 215.73 N/m, Content Sp Gr=
1.000,
Content Unit Wgt= 126.52 N/m, Insul Thk= 80.000 mm, Insul Material= MINERAL WOOL, Insul Density=
136.16 kg/m3,
Insul Unit Wgt= 74.26 N/m, Lining Thk= 0 mm, Long Weld factor= 1.00, Circ Weld factor= 1.00, Long
Modulus= 0.19996 E6 N/mm2,
Hoop Modulus= 0.19996 E6 N/mm2, Shear Modulus= 0.07691 E6 N/mm2, Al= 40.0, At= 35.0, fc= 166.7
N/mm2, Rp0.2= 195.0 N/mm2,
Rp1.0= 230.0 N/mm2, Rm= 500.0 N/mm2

OPERATING DATA:

P1= 1.5000 N/mm2, T1= 198.00 deg C, Exp1= 2.94948 mm/m, E1= 0.18487 E6 N/mm2, Rp0.2t1= 127.52
N/mm2, Rp1.0t1= 155.60 N/mm2,
Rmt1= 0.00 N/mm2, fcr1= 0.00 N/mm2, fh1= 103.73 N/mm2

POINT DATA:

A00, Coordinates, X= -4062.50 mm, Y= -2447.73 mm, Z= 9562.00 mm
A00, Flange= SLIP-ON, Rating= 300, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No

SUPPORT DATA:

A00, Anchor, Tag No.= TODW2, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ=
Rigid

From A01 to A11, DY= -127.00 mm

Redu

COMPONENT DATA (Reducer):

Length= 127.00 mm, SIF= 2.00

POINT DATA:

A01, Coordinates, X= -4062.50 mm, Y= -2568.53 mm, Z= 9562.00 mm

From A11 to A03, DY= -223.67 mm

Run

PIPE DATA:

Pipe Id= 4S40, Composition= Austentic Stainless, Nom Size= 100 mm, OD= 114.30 mm, Wall Thk= 6.020
mm, Mill= 0.752 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 80.51 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt=

DRYWELL TO CAVITYLIQUIDLINEREV0.OUT

65.20 N/m

POINT DATA:

A11, Coordinates, X= -4062.50 mm, Y= -2695.53 mm, Z= 9562.00 mm

From A03 to A14, DX= -482.20 mm, DY= -64.24 mm, DZ= 80.30 mm, L= 493.04 mm Bend

COMPONENT DATA (Bend, TIP= A03, Near= A03 N, Far= A03 F):

Long Elbow, Radius= 152.40 mm, Bend angle= 82.51 deg, End flanges= 0, Flex= Auto, SIFI= 1.95, SIFO= 1.95

POINT DATA:

A03, Coordinates, X= -4062.50 mm, Y= -2919.20 mm, Z= 9562.00 mm

A03 N, Coordinates, X= -4062.50 mm, Y= -2785.52 mm, Z= 9562.00 mm

0

DRYWELL TO CAVITYLIQUIDLINEREV0

09/13/2010 DW TO CAVITY LIQUID LINE

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AutoPIPE Plus 9.2.1 MODEL PAGE 4

C O M P O N E N T D A T A L I S T I N G

A03 F, Coordinates, X= -4193.24 mm, Y= -2936.62 mm, Z= 9583.77 mm

From A14 to A16, DX= -22.08 mm, DY= -571.86 mm, DZ= 19.98 mm, L= 572.63 mm Bend

COMPONENT DATA (Bend, TIP= A14, Near= A14 N, Far= A14 F):

Long Elbow, Radius= 152.40 mm, Bend angle= 80.01 deg, End flanges= 0, Flex= Auto, SIFI= 1.95, SIFO= 1.95

POINT DATA:

A14, Coordinates, X= -4544.70 mm, Y= -2983.44 mm, Z= 9642.30 mm

A14 N, Coordinates, X= -4419.62 mm, Y= -2966.78 mm, Z= 9621.47 mm

A14 F, Coordinates, X= -4549.63 mm, Y= -3111.16 mm, Z= 9646.76 mm

From A16 to A04, DX= 472.62 mm, DY= -105.85 mm, DZ= 16.92 mm, L= 484.62 mm Bend

COMPONENT DATA (Bend, TIP= A16, Near= A16 N, Far= A16 F):

Short Elbow, Radius= 101.60 mm, Bend angle= 79.53 deg, End flanges= 0, Flex= Auto, SIFI= 2.56, SIFO= 2.56

POINT DATA:

A16, Coordinates, X= -4566.78 mm, Y= -3555.30 mm, Z= 9662.28 mm

A16 N, Coordinates, X= -4563.52 mm, Y= -3470.87 mm, Z= 9659.33 mm

A16 F, Coordinates, X= -4484.33 mm, Y= -3573.77 mm, Z= 9665.23 mm

From A04 to A17, DX= 0.46 mm, DY= -249.85 mm, DZ= 8.73 mm, L= 250.00 mm Bend

COMPONENT DATA (Bend, TIP= A04, Near= A04 N, Far= A04 F):

Short Elbow, Radius= 101.60 mm, Bend angle= 77.21 deg, End flanges= 0, Flex= Auto, SIFI= 2.56, SIFO= 2.56

POINT DATA:

A04, Coordinates, X= -4094.16 mm, Y= -3661.15 mm, Z= 9679.20 mm

A04 N, Coordinates, X= -4173.28 mm, Y= -3643.43 mm, Z= 9676.37 mm

A04 F, Coordinates, X= -4094.01 mm, Y= -3742.23 mm, Z= 9682.03 mm

From A17 to A15, DX= 333.81 mm, DZ= 17.38 mm, L= 334.26 mm Bend

COMPONENT DATA (Bend, TIP= A17, Near= A17 N, Far= A17 F):

Long Elbow, Radius= 152.40 mm, Bend angle= 89.79 deg, End flanges= 0, Flex= Auto, SIFI= 1.95, SIFO= 1.95

POINT DATA:

A17, Coordinates, X= -4093.70 mm, Y= -3911.00 mm, Z= 9687.93 mm

A17 N, Coordinates, X= -4093.98 mm, Y= -3759.25 mm, Z= 9682.63 mm

A17 F, Coordinates, X= -3942.06 mm, Y= -3911.00 mm, Z= 9695.83 mm

From A15 to A13, DX= 1399.94 mm, DZ= 72.96 mm, L= 1401.84 mm Tee

COMPONENT DATA (Tee Header, Center= A15):

DRYWELL TO CAVITYLIQUIDLINEREV0.OUT
B16.9 welding tee, SIFI= 1.45, SIF0= 1.45

POINT DATA:

A15, Coordinates, X= -3759.89 mm, Y= -3911.00 mm, Z= 9705.31 mm

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09/13/2010 DW TO CAVITY LIQUID LINE

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AutoPIPE Plus 9.2.1 MODEL PAGE 5

C O M P O N E N T D A T A L I S T I N G

From A13 to A06, DX= 126.81 mm, DZ= 6.92 mm, L= 127.00 mm Redu

COMPONENT DATA (Reducer):

Length= 127.00 mm, SIF= 2.00

POINT DATA:

A13, Coordinates, X= -2359.95 mm, Y= -3911.00 mm, Z= 9778.26 mm

From A06 to A08, DX= 468.15 mm, DZ= 24.67 mm, L= 468.80 mm Run

PIPE DATA:

Pipe Id= 5S40, Composition= Austentic Stainless, Nom Size= 125 mm, OD= 141.30 mm, Wall Thk= 6.553 mm, Mill= 0.819 mm, Content Sp Gr= 1.000, Content Unit Wgt= 126.52 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 74.26 N/m

POINT DATA:

A06, Coordinates, X= -2233.14 mm, Y= -3911.00 mm, Z= 9785.19 mm

From A08 to A09, DX= 288.99 mm, DZ= 15.15 mm, L= 289.39 mm Run

POINT DATA:

A08, Coordinates, X= -1764.99 mm, Y= -3911.00 mm, Z= 9809.85 mm
A08, Flange= SLIP-ON, Rating= 300, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on, SIF= 1.20, Perform ANSI check= No
A08, Flange= SLIP-ON, Rating= 300, Flange Weight= 12.70 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on, SIF= 1.20, Perform ANSI check= No

From A09 to A10, DZ= 190.00 mm Bend

COMPONENT DATA (Bend, TIP= A09, Near= A09 N, Far= A09 F):

Long Elbow, Radius= 190.50 mm, Bend angle= 87.00 deg, End flanges= 0, Flex= Auto, SIFI= 2.13, SIF0= 2.13

POINT DATA:

A09, Coordinates, X= -1476.00 mm, Y= -3911.00 mm, Z= 9825.00 mm
A09 N, Coordinates, X= -1656.52 mm, Y= -3911.00 mm, Z= 9815.54 mm
A09 F, Coordinates, X= -1476.00 mm, Y= -3911.00 mm, Z= 10005.78 mm
A10, Coordinates, X= -1476.00 mm, Y= -3911.00 mm, Z= 10015.00 mm

SUPPORT DATA:

A10, Anchor, Tag No.= TOCAV2, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

*** SEGMENT C

From A15 to C01, DX= 5.48 mm, DZ= -104.51 mm, L= 104.65 mm Tee

COMPONENT DATA (Tee Branch, Center= A15):

B16.9 welding tee, SIFI= 1.45, SIF0= 1.45

PIPE DATA:

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DRYWELL TO CAVITYLIQUIDLINEREV0
DRYWELL TO CAVITYLIQUIDLINEREV0.OUT

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AutoPIPE Plus 9.2.1 MODEL PAGE 6

C O M P O N E N T D A T A L I S T I N G

Pipe Id= 4S40, Composition= Austentic Stainless, Nom Size= 100 mm, OD= 114.30 mm, Wall Thk= 6.020 mm, Mill= 0.752 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 80.51 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 65.20 N/m

POINT DATA:

A15, Coordinates, X= -3759.89 mm, Y= -3911.00 mm, Z= 9705.31 mm

From C01 to C02, DX= 7.73 mm, DZ= -147.40 mm, L= 147.60 mm Run

POINT DATA:

C01, Coordinates, X= -3754.41 mm, Y= -3911.00 mm, Z= 9600.80 mm

From C02 to C03, DX= 18.64 mm, DZ= -355.51 mm, L= 356.00 mm Valv

COMPONENT DATA (Valve):

GLOBE-F, Rating= Non-standard, Length= 356.00 mm, Valve weight = 59 kg, Surface factor= 1.00, End type= Weld neck, SIF= 1.00

POINT DATA:

C02, Coordinates, X= -3746.68 mm, Y= -3911.00 mm, Z= 9453.40 mm

C02, Flange= SLIP-ON, Rating= 300, Flange Weight= 10.00 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on,

SIF= 1.20, Perform ANSI check= No

C02 M, Coordinates, X= -3737.36 mm, Y= -3911.00 mm, Z= 9275.64 mm

C03, Coordinates, X= -3728.04 mm, Y= -3911.00 mm, Z= 9097.89 mm

C03, Flange= SLIP-ON, Rating= 300, Flange Weight= 10.00 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on,

SIF= 1.20, Perform ANSI check= No

Number of points in the system: 31

Weight of Empty Pipes + Weight of Contents = Total Weight of System
241.5 kg + 49.7 kg = 291.2 kg

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AutoPIPE Plus 9.2.1 MODEL PAGE 7

C O O R D I N A T E S D A T A L I S T I N G

POINT -----COORDINATE (mm)-----

NAME X Y Z

*** SEGMENT A

A00	-4062.50	-2447.73	9562.00
A01	-4062.50	-2568.53	9562.00
A11	-4062.50	-2695.53	9562.00
A03 N	-4062.50	-2785.52	9562.00
A03	-4062.50	-2919.20	9562.00
A03 F	-4193.24	-2936.62	9583.77
A14 N	-4419.62	-2966.78	9621.47
A14	-4544.70	-2983.44	9642.30

DRYWELL TO CAVITYLIQUIDLINEREV0.OUT

A14 F	-4549.63	-3111.16	9646.76
A16 N	-4563.52	-3470.87	9659.33
A16	-4566.78	-3555.30	9662.28
A16 F	-4484.33	-3573.77	9665.23
A04 N	-4173.28	-3643.43	9676.37
A04	-4094.16	-3661.15	9679.20
A04 F	-4094.01	-3742.23	9682.03
A17 N	-4093.98	-3759.25	9682.63
A17	-4093.70	-3911.00	9687.93
A17 F	-3942.06	-3911.00	9695.83
A15	-3759.89	-3911.00	9705.31
A13	-2359.95	-3911.00	9778.26
A06	-2233.14	-3911.00	9785.19
A08	-1764.99	-3911.00	9809.85
A09 N	-1656.52	-3911.00	9815.54
A09	-1476.00	-3911.00	9825.00
A09 F	-1476.00	-3911.00	10005.78
A10	-1476.00	-3911.00	10015.00

*** SEGMENT C

A15	-3759.89	-3911.00	9705.31
C01	-3754.41	-3911.00	9600.80
C02	-3746.68	-3911.00	9453.40
C02 M	-3737.36	-3911.00	9275.64
C03	-3728.04	-3911.00	9097.89

DRYWELL TO CAVITYLIQUIDLINEREV0

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AutoPIPE Plus 9.2.1 MODEL PAGE 8

PIPE DATA LISTING

Pipe ID/ Material	Nom/ O.D. Sch mm	-----Thickness(mm)----- W.Th. Corr Mill Insu Ling	Spec Grav	Weight(N/m) Pipe Other Total	ZL/ ZC	Composition
3S40 Stainless 1.4301	80 88.900 40	5.486 0 0.69 80 0	1.00	112 56.68 215	1.00	Austentic
2S40 Stainless 1.4301	50 60.325 40	3.912 0 0.49 50 0	1.00	53.91 23.14 98.27	1.00	Austentic
5S40 Stainless 1.4301	125 141.30 40	6.553 0 0.82 80 0	1.00	216 74.26 417	1.00	Austentic
4S40 Stainless 1.4301	100 114.30 40	6.020 0 0.75 80 0	1.00	159 65.20 305	1.00	Austentic

DRYWELL TO CAVITYLIQUIDLINEREV0

09/13/2010 DW TO CAVITY LIQUID LINE

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AutoPIPE Plus 9.2.1 MODEL PAGE 9

MATERIAL DATA LISTING

Material Name/[Comp.]	Pipe ID	Density kg/m3	Pois. Al/At	Temper. deg C	Modulus E6 N/mm2 Axial	Expans. Hoop	Composition

DRYWELL TO CAVITYLIQUIDLINEREV0.OUT

ID	Material	Temp (deg C)	Pressure (N/mm2)	Stress (N/mm2)	Strain (mm/m)	Modulus (E6 N/mm)	0.2% Proof (N/mm2)	1.0% Proof (N/mm2)	Tensile (N/mm2)	Rupture (N/mm2)	Allow. (N/mm2)
1.4301	5S40	7930.0	0.30	20.0	0.19996	0.19996	0.07691				Austentic Stainless
X5CRNI18-10			40.00	198.0	0.18487					2.9495	
[Austenitic]			35.00								
1.4301	4S40	7930.0	0.30	20.0	0.19996	0.19996	0.07691				Austentic Stainless
X5CRNI18-10			40.00	198.0	0.18487					2.9495	
[Austenitic]			35.00								

DRYWELL TO CAVITYLIQUIDLINEREV0

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AutoPIPE Plus 9.2.1 MODEL PAGE 10

M A T E R I A L A L L O W A B L E D A T A L I S T I N G

Material	Pipe ID	Temp. (deg C)	Proof (Rp0.2) (N/mm2)	Proof (Rp1.0) (N/mm2)	Tensile (Rmt) (N/mm2)	Rupture (fcr) (N/mm2)	Allow. (fh) (N/mm2)
X5CRNI18-10	5S40	20.0	195.00	230.00	500.00	0.00	166.67
1.4301		198.0	127.52	155.60	0.00	0.00	103.73
X5CRNI18-10	4S40	20.0	195.00	230.00	500.00	0.00	166.67
1.4301		198.0	127.52	155.60	0.00	0.00	103.73

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AutoPIPE Plus 9.2.1 MODEL PAGE 11

OPERATING TEMPERATURE AND PRESSURE DATA

STRESSES IN N/mm2

POINT NAME	CASE	PRESS. N/mm2	TEMPER. deg C	EXPAN. mm/m	MODULUS E6 N/mm	0.2% PROOF	1.0% PROOF	TENSILE (Rmt)	CREEP (fcr)
*** SEGMENT A									
A00 T1		1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
A10		Same as previous point.							
*** SEGMENT C									
A15 T1		1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
C03		Same as previous point.							

u User-defined value
* Non-code material for allowable stress;
Non-standard material for expansion and modulus

DRYWELL TO CAVITYLIQUIDLINEREV0

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AutoPIPE Plus 9.2.1 MODEL PAGE 12

THERMAL ANCHOR MOVEMENTS AND DISPLACEMENTS

POINT NAME	LOAD CASE	DX (mm)	DY (mm)	DZ (mm)	RX (deg)	RY (deg)	RZ (deg)
A00	Thermal 1	0.00	0.00	26.81	0.000	0.000	0.000
A10	Thermal 1	0.00	0.00	0.42	0.000	0.000	0.000

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S U P P O R T D A T A L I S T I N G

Point Support Name Type	Support Conn.to ID /Dir	Stiff.	Gap 1 (mm)	Gap 2 (mm)	Fric. Fact.	GapSet /#hgr	Preload (N)	Size	Figure

Spring Manufacturer: Anvil/Grinnell
NOTE 1: No soil supports present in the system.
Gap 1 : V-stop,Guide-V=down, Linestop,Incline,Tie/link=backward, Guide-H=Left
Gap 2 : V-stop,Guide-V=Up , Linestop,Incline,Tie/link=forward , Guide-H=Right
Stiffness units for rotation support: N.m/deg , all others: N/mm

□

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AutoPIPE Plus 9.2.1 MODEL PAGE 14

B E N D D A T A L I S T I N G

Point Bend Pressure Case Name Type	Radius (mm)	Angle (deg)	OD (mm)	tnom (mm)	Material	Flg/ Cuts	SIF in	SIF out	Analysis Set	Flexibility (K)	
A03 Elbow	152L	82.5	114.3	6.0	1.4301	0/0	1.95	1.95	1	5.27	None
A14 Elbow	152L	80.0	114.3	6.0	1.4301	0/0	1.95	1.95	1	5.27	None
A16 Elbow	102S	79.5	114.3	6.0	1.4301	0/0	2.56	2.56	1	7.91	None
A04 Elbow	102S	77.2	114.3	6.0	1.4301	0/0	2.56	2.56	1	7.91	None
A17 Elbow	152L	89.8	114.3	6.0	1.4301	0/0	1.95	1.95	1	5.27	None
A09 Elbow	191L	87.0	141.3	6.6	1.4301	0/0	2.13	2.13	1	6.00	None

DRYWELL TO CAVITYLIQUIDLINEREV0.OUT

L = Long radius
S = Short radius

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T E E D A T A L I S T I N G

		Pipe	Pipe			**Crotch	*Crotch		
Point	Point	OD	Thk.	Material	Tee	Radius	Thick	SIF	SIF
Name	Seg-Type	(mm)	(mm)		Type	(mm)	(mm)	in	out
A15	A-Header	114.3	6.0	1.4301	welding			1.45	1.45
	C-Branch	114.3	6.0	1.4301					

* = Pad thickness for reinforced tee.

**= Fillet radius for Raised tee or discontinuity dist. for Thickened tee.

DRYWELL TO CAVITYLIQUIDLINEREV0

09/13/2010 DW TO CAVITY LIQUID LINE

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AutoPIPE Plus 9.2.1 MODEL PAGE 16

V A L V E D A T A L I S T I N G

Type					Valve	Actuator			Actuator			Size
Point			Dnom	Length	Weight	Weight	DX	DY	DZ	Joint		
/Avg.	/Max.		(mm)	(mm)	(kg)	(kg)	(mm)	(mm)	(mm)	SAF	Type	SIF (mm)
Name	Type		(mm)	(mm)	(kg)	(kg)	(mm)	(mm)	(mm)			
C02	GLOBE-F	100 NS	356.00	59						1.00	WN	1.00

DRYWELL TO CAVITYLIQUIDLINEREV0

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AutoPIPE Plus 9.2.1 MODEL PAGE 17

F L A N G E D A T A L I S T I N G

						Flange	Bolt			Size	Type
Point	FLG	Dnom	Weight	Weight	Joint			/Avg.	/Max.	ANSI	
Name	No.	Type	(mm)	(kg)	(kg)	Type	SIF	(mm)	(mm)	Check	
A00	1	SLIP-ON	125	300	12.7	0.0 DWSO	1.20			No	
A08	1	SLIP-ON	125	300	12.7	0.0 DWSO	1.20			No	
A08	2	SLIP-ON	125	300	12.7	0.0 DWSO	1.20			No	
C02	1	SLIP-ON	100	300	10.0	0.0 DWSO	1.20			No	
C03	1	SLIP-ON	100	300	10.0	0.0 DWSO	1.20			No	

DRYWELL TO CAVITYLIQUIDLINEREV0.OUT

DRYWELL TO CAVITYLIQUIDLINEREV0

09/13/2010 DW TO CAVITY LIQUID LINE

BENTLEY

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AutoPIPE Plus 9.2.1 MODEL PAGE 18

J O I N T T Y P E / U S E R - S I F D A T A L I S T I N G

Size

Point	Point	SIF	SIF	Joint	/Avg.	Max.	Over
Name	Type	in	out	Type	(mm)	(mm)	ride

0

DRYWELL TO CAVITYLIQUIDLINEREV0

09/13/2010 DW TO CAVITY LIQUID LINE

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AutoPIPE Plus 9.2.1 MODEL PAGE 19

R E D U C E R D A T A L I S T I N G

From	To	Length	OD	OD	Thk	Thk	Cone
Point	Point	(mm)	(mm)	(mm)	(mm)	(mm)	Angle
						Material	(deg)
A01	A11	127.00	141.3	114.3	6.6	6.0	1.4301
A13	A06	127.00	114.3	141.3	6.0	6.6	1.4301

t = Use SIF of 2.0

0

DRYWELL TO CAVITYLIQUIDLINEREV0

09/13/2010 DW TO CAVITY LIQUID LINE

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AutoPIPE Plus 9.2.1 MODEL PAGE 20

R I G I D P I P E D A T A L I S T I N G

From	To	Include	Include	Rigid
Point	Point	Weight	Expansion	Factor

0

DRYWELL TO CAVITYLIQUIDLINEREV0

09/13/2010 DW TO CAVITY LIQUID LINE

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AutoPIPE Plus 9.2.1 MODEL PAGE 21

R E F E R E N C E P O I N T L I S T I N G

(Force - N , Moment - N.m)

DRYWELL TO CAVITYLIQUIDLINEREV0.OUT

Tag No./	Refer.	Point	Seg	Coord.	Load	[Report Loads]
Ref. ID	Side	Name	Name	System	Direction	Actual Allow.
-----	-----	-----	-----	-----	-----	-----

□

DRYWELL TO CAVITYLIQUIDLINEREV0

09/13/2010 DW TO CAVITY LIQUID LINE

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AutoPIPE Plus 9.2.1 RESULT PAGE 1

A N A L Y S I S S U M M A R Y

Current model revision number : 9

Static - Analysis set number	1
Date and Time of analysis	Sep 13, 2010 10:30 AM
Model Revision Number	9
Number of load cases	3
Load cases analyzed	GR HY T1
Description	Analysis Set no. 1
Gaps/Friction/Soil considered	No
Hanger design run	No
Cut short included	No
Thermal bowing included	No
Include Bourdon rotational effect	No
Pipe radius for Bourdon calculation ...	Mean
Weight of contents included	Yes
Pressure stiffening case	None
Hot modulus case	None
Water elevation for buoyancy loads	Not considered
Use corroded thickness in analysis	No
Rigid stiffness factor	1000.0

□

DRYWELL TO CAVITYLIQUIDLINEREV0

09/13/2010 DW TO CAVITY LIQUID LINE

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AutoPIPE Plus 9.2.1 RESULT PAGE 2

CODE COMPLIANCE COMBINATIONS

<Description> Allowable Combination (N/mm2) D/A/P	Category	Method	Case/Combination	Factor	M/S	K-Factor
GR + Max P{1} Automatic Y Y Y	Sustain	Sum	GR[1] Max Long	1.00 1.00		
Max Range Automatic Y Y Y	Expansion	Sum	Temp. Range	1.00		
Amb to T1{1} Automatic Y Y Y	Expansion	Sum	T1[1]	1.00		
Hydrotest{1} Automatic Y Y Y	Occasion	Sum	HY[1] Max Long	1.00 1.00		1.000
Max P{1} Automatic Y Y Y	Hoop	Sum	Max Hoop	1.00		
Sus.+T1{1}	Creep Rupt	Sum	Max Sus	1.00		

Automatic Y Y Y DRYWELL TO CAVITYLIQUIDLINEREV0.OUT
T1[1] 1.00

Notes:

D/A/P: [D]efault/[A]uto-Update/[P]rint options (Y=Yes, N=No)

DRYWELL TO CAVITYLIQUIDLINEREV0

09/13/2010 DW TO CAVITY LIQUID LINE

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AutoPIPE Plus 9.2.1 RESULT PAGE 3

NON-CODE COMBINATIONS

<Description>

Combination	Method	Case/Combination	Factor	D/A/P
Gravity{1}	Sum	GR[1]	1.00	Y Y Y
Hydrotest{1}	Sum	HY[1]	1.00	Y Y Y
Thermal 1{1}	Sum	T1[1]	1.00	Y Y Y
GRT1{1}	Sum	GR[1] T1[1]	1.00 1.00	Y Y Y

Notes:

D/A/P: [D]efault/[A]uto-Update/[P]rint options (Y=Yes, N=No)

DRYWELL TO CAVITYLIQUIDLINEREV0

09/13/2010 DW TO CAVITY LIQUID LINE

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AutoPIPE Plus 9.2.1 RESULT PAGE 4

CODE COMPLIANCE

Y - Factor 0.50
Weld efficiency factor 1.00
Range reduction factor 1.00
Design Pressure Factor 1.00
Minimum stress ratio used in reports... 0.00
Number of stress points per span 0
Include corrosion in stress calcs. N
Include axial force in code stress N
Include sustain load margin Only if allowable stress is exceeded
Use single SIF Y
Set sustained/occasional SIF = 1 N
Set sustained/occasional SIF = 0.75i .. N
Apply cold/hot modulus ratio N
Disable auto code combinations N
Disable auto non-code combinations N
No. of thermal ranges to report 0
Include Max Range combination Y
Total stress Octahedral
Direct shear None
Longitudinal pressure calculation PD/4t
Inc. Axial Str and Pcase in Sustained.. N

DRYWELL TO CAVITYLIQUIDLINEREV0

10:31 AM
AutoPIPE Plus 9.2.1 RESULT PAGE 5

HYDROTEST LOAD :

Load case : HY
Specific gravity : 1.00
Temperature load case : Ambient
Temperature load case factor : 1.00
Pressure load case : P1
Pressure load case factor : 1.50
Include insulation : No
Included Segments - A C

DRYWELL TO CAVITYLIQUIDLINEREV0

09/13/2010 DW TO CAVITY LIQUID LINE

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AutoPIPE Plus 9.2.1 RESULT PAGE 6

D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
*** Segment A begin ***							
A00	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	26.810	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	26.810	0.000	0.000	0.000
A01	Gravity{1}	0.000	0.000	-0.009	0.007	-0.002	0.000
	Hydrotest{1}	0.000	-0.003	-0.008	0.006	-0.002	0.000
	Thermal 1{1}	-0.038	-0.356	26.794	0.013	0.004	-0.029
	GRT1{1}	-0.037	-0.356	26.784	0.019	0.002	-0.029
A11	Gravity{1}	0.001	0.000	-0.036	0.016	-0.005	0.001
	Hydrotest{1}	0.000	-0.005	-0.032	0.014	-0.004	0.000
	Thermal 1{1}	-0.153	-0.730	26.744	0.029	0.009	-0.067
	GRT1{1}	-0.152	-0.730	26.707	0.044	0.004	-0.066
A03 N	Gravity{1}	0.003	0.000	-0.069	0.023	-0.008	0.001
	Hydrotest{1}	0.001	-0.007	-0.060	0.021	-0.007	0.000
	Thermal 1{1}	-0.292	-0.995	26.684	0.043	0.015	-0.101
	GRT1{1}	-0.289	-0.995	26.615	0.067	0.007	-0.100

DRYWELL TO CAVITYLIQUIDLINEREV0.OUT

A03 F	Gravity{1}	-0.002	-0.036	-0.284	0.085	-0.042	0.007
	Hydrotest{1}	-0.009	-0.037	-0.248	0.075	-0.036	0.004
	Thermal 1{1}	-1.330	-0.729	26.516	0.110	0.012	-0.431
	GRT1{1}	-1.332	-0.766	26.233	0.195	-0.030	-0.424
A14 N	Gravity{1}	-0.026	-0.127	-0.502	0.103	-0.041	0.007
	Hydrotest{1}	-0.035	-0.108	-0.437	0.091	-0.035	0.004
	Thermal 1{1}	-2.227	0.916	26.655	0.149	0.044	-0.484
	GRT1{1}	-2.253	0.789	26.153	0.252	0.003	-0.477
A14 F	Gravity{1}	-0.009	-0.202	-0.894	0.133	-0.040	0.017
	Hydrotest{1}	-0.031	-0.170	-0.781	0.117	-0.035	0.011
	Thermal 1{1}	-4.042	1.670	26.561	0.158	0.132	-0.626
	GRT1{1}	-4.051	1.467	25.668	0.291	0.092	-0.610
A16 N	Gravity{1}	0.090	-0.237	-1.776	0.141	-0.025	0.017
	Hydrotest{1}	0.035	-0.206	-1.558	0.125	-0.021	0.012
	Thermal 1{1}	-8.031	0.727	25.567	0.176	0.234	-0.624
	GRT1{1}	-7.941	0.490	23.791	0.317	0.209	-0.607
A16 F	Gravity{1}	0.121	-0.226	-2.014	0.150	-0.010	0.019
	Hydrotest{1}	0.058	-0.203	-1.769	0.133	-0.008	0.014
	Thermal 1{1}	-8.789	-0.325	24.817	0.238	0.357	-0.469
	GRT1{1}	-8.668	-0.551	22.803	0.387	0.347	-0.450
A04 N	Gravity{1}	0.142	-0.152	-2.157	0.146	-0.007	0.019
	Hydrotest{1}	0.080	-0.152	-1.900	0.129	-0.005	0.014
	Thermal 1{1}	-8.343	-2.997	22.460	0.224	0.413	-0.425
	GRT1{1}	-8.201	-3.148	20.303	0.370	0.406	-0.407

□

DRYWELL TO CAVITYLIQUIDLINEREV0

09/13/2010 DW TO CAVITY LIQUID LINE

BENTLEY

10:31 AM

AutoPIPE Plus 9.2.1

RESULT PAGE 7

D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
A04 F	Gravity{1}	0.172	-0.140	-2.383	0.131	-0.016	0.017
	Hydrotest{1}	0.105	-0.146	-2.102	0.116	-0.013	0.014
	Thermal 1{1}	-8.652	-3.830	21.447	0.230	0.477	-0.271
	GRT1{1}	-8.480	-3.970	19.064	0.361	0.461	-0.254

DRYWELL TO CAVITYLIQUIDLINEREV0.OUT

A17 N	Gravity{1}	0.177	-0.142	-2.422	0.130	-0.016	0.017
	Hydrotest{1}	0.109	-0.147	-2.137	0.116	-0.014	0.014
	Thermal 1{1}	-8.728	-3.883	21.380	0.229	0.480	-0.268
	GRT1{1}	-8.551	-4.024	18.958	0.360	0.463	-0.251
A17 F	Gravity{1}	0.214	-0.128	-2.664	0.103	-0.039	0.014
	Hydrotest{1}	0.142	-0.139	-2.353	0.091	-0.034	0.013
	Thermal 1{1}	-8.631	-4.634	19.486	0.194	0.548	0.010
	GRT1{1}	-8.418	-4.762	16.822	0.298	0.508	0.025
A15	Gravity{1}	0.207	-0.100	-2.533	0.095	-0.045	0.013
	Hydrotest{1}	0.139	-0.115	-2.238	0.084	-0.039	0.012
	Thermal 1{1}	-8.005	-4.565	17.744	0.173	0.561	0.049
	GRT1{1}	-7.798	-4.665	15.212	0.268	0.516	0.062
A13	Gravity{1}	0.125	0.035	-0.962	0.031	-0.072	0.003
	Hydrotest{1}	0.092	0.021	-0.851	0.028	-0.063	0.003
	Thermal 1{1}	-3.218	-1.627	4.964	0.018	0.430	0.138
	GRT1{1}	-3.093	-1.592	4.002	0.050	0.358	0.141
A06	Gravity{1}	0.117	0.037	-0.803	0.027	-0.071	0.002
	Hydrotest{1}	0.087	0.025	-0.711	0.024	-0.062	0.003
	Thermal 1{1}	-2.795	-1.327	4.054	0.010	0.408	0.132
	GRT1{1}	-2.678	-1.290	3.251	0.037	0.337	0.134
A08	Gravity{1}	0.088	0.035	-0.247	0.017	-0.063	0.000
	Hydrotest{1}	0.071	0.028	-0.222	0.015	-0.056	0.000
	Thermal 1{1}	-1.257	-0.351	1.061	-0.013	0.336	0.102
	GRT1{1}	-1.170	-0.316	0.814	0.005	0.273	0.102
A09 N	Gravity{1}	0.081	0.032	-0.129	0.015	-0.061	-0.001
	Hydrotest{1}	0.068	0.027	-0.118	0.013	-0.053	0.000
	Thermal 1{1}	-0.906	-0.163	0.457	-0.018	0.317	0.092
	GRT1{1}	-0.825	-0.132	0.328	-0.003	0.256	0.091
A09 F	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.392	0.000	0.001	0.001
	GRT1{1}	0.000	0.000	0.392	0.000	0.001	0.001
A10	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	0.419	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	0.419	0.000	0.000	0.000

*** Segment A end ***

□

DRYWELL TO CAVITYLIQUIDLINEREV0

09/13/2010 DW TO CAVITY LIQUID LINE

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AutoPIPE Plus 9.2.1

RESULT PAGE 8

D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
*** Segment C begin ***							
A15	Gravity{1}	0.207	-0.100	-2.533	0.095	-0.045	0.013
	Hydrotest{1}	0.139	-0.115	-2.238	0.084	-0.039	0.012
	Thermal 1{1}	-8.005	-4.565	17.744	0.173	0.561	0.049
	GRT1{1}	-7.798	-4.665	15.212	0.268	0.516	0.062
C01	Gravity{1}	0.289	0.074	-2.528	0.095	-0.045	0.013
	Hydrotest{1}	0.211	0.040	-2.236	0.084	-0.039	0.012
	Thermal 1{1}	-9.012	-4.244	17.383	0.173	0.561	0.049
	GRT1{1}	-8.723	-4.170	14.854	0.268	0.516	0.062
C02	Gravity{1}	0.403	0.320	-2.523	0.095	-0.045	0.013
	Hydrotest{1}	0.311	0.257	-2.234	0.084	-0.039	0.012
	Thermal 1{1}	-10.433	-3.793	16.872	0.173	0.561	0.049
	GRT1{1}	-10.029	-3.473	14.349	0.268	0.517	0.062
C02 M	Gravity{1}	0.542	0.616	-2.516	0.095	-0.045	0.013
	Hydrotest{1}	0.433	0.519	-2.227	0.084	-0.039	0.012
	Thermal 1{1}	-12.146	-3.248	16.257	0.173	0.561	0.049
	GRT1{1}	-11.605	-2.632	13.741	0.268	0.517	0.062
C03	Gravity{1}	0.680	0.913	-2.508	0.095	-0.045	0.013
	Hydrotest{1}	0.554	0.782	-2.221	0.084	-0.039	0.012
	Thermal 1{1}	-13.860	-2.704	15.641	0.173	0.561	0.049
	GRT1{1}	-13.180	-1.791	13.133	0.268	0.517	0.062

*** Segment C end ***

□

DRYWELL TO CAVITYLIQUIDLINEREV0

09/13/2010 DW TO CAVITY LIQUID LINE

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AutoPIPE Plus 9.2.1

RESULT PAGE 9

R E S T R A I N T R E A C T I O N S

DRYWELL TO CAVITYLIQUIDLINEREV0.OUT

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

A00	Anchor Tag No.: TODW2 Gravity{1}	58	39	-1626	1627	1340	-292	52	1372
	Hydrotest{1}	20	45	-1414	1415	1170	-251	16	1197
	Thermal 1{1}	-5657	1941	-2527	6493	2449	532	-5647	6178
	GRT1{1}	-5599	1981	-4153	7247	3789	240	-5595	6761
A10	Anchor Tag No.: TOCAV2 Gravity{1}	-58	-39	-1241	1243	355	-834	134	916
	Hydrotest{1}	-20	-45	-1090	1091	312	-737	131	811
	Thermal 1{1}	5657	-1941	2527	6493	370	3442	2391	4207
	GRT1{1}	5599	-1981	1286	6077	724	2608	2526	3702

0

DRYWELL TO CAVITYLIQUIDLINEREV0

09/13/2010 DW TO CAVITY LIQUID LINE

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AutoPIPE Plus 9.2.1

RESULT PAGE 10

G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result
-----		-----	-----	-----	-----	-----	-----	-----	-----
*** Segment A begin ***									
A00	Gravity{1}	-58	-39	1501	1503	-1340	292	-52	1372
	Hydrotest{1}	-20	-45	1290	1291	-1170	251	-16	1197
	Thermal 1{1}	5657	-1941	2527	6493	-2449	-532	5647	6178
	GRT1{1}	5599	-1981	4028	7176	-3789	-240	5595	6761
A01	Gravity{1}	-58	-39	1451	1452	-1162	292	-45	1199
	Hydrotest{1}	-20	-45	1248	1249	-1017	251	-13	1047
	Thermal 1{1}	5657	-1941	2527	6493	-2143	-532	4964	5433
	GRT1{1}	5599	-1981	3978	7148	-3305	-240	4919	5931
A11	Gravity{1}	-58	-39	1405	1407	-980	292	-38	1023
	Hydrotest{1}	-20	-45	1211	1212	-861	251	-11	896
	Thermal 1{1}	5657	-1941	2527	6493	-1823	-532	4245	4651
	GRT1{1}	5599	-1981	3932	7123	-2803	-240	4208	5061
A03 N	Gravity{1}	-58	-39	1377	1379	-855	292	-32	904
	Hydrotest{1}	-20	-45	1190	1191	-753	251	-9	793
	Thermal 1{1}	5657	-1941	2527	6493	-1595	-532	3736	4097

		DRYWELL TO CAVITYLIQUIDLINEREVO.0UT							
GRT1{1}		5599	-1981	3905	7108	-2450	-240	3704	4448
A03 F	Gravity{1}	-58	-39	1311	1312	-652	118	-29	663
	Hydrotest{1}	-20	-45	1137	1138	-577	100	-12	586
	Thermal 1{1}	5657	-1941	2527	6493	-1256	-985	2628	3075
	GRT1{1}	5599	-1981	3838	7071	-1907	-867	2599	3338
A14 N	Gravity{1}	-58	-39	1240	1242	-615	-168	-36	638
	Hydrotest{1}	-20	-45	1082	1083	-545	-150	-21	566
	Thermal 1{1}	5657	-1941	2527	6493	-1253	-1771	2018	2962
	GRT1{1}	5599	-1981	3767	7033	-1867	-1939	1982	3343
A14 F	Gravity{1}	-58	-39	1175	1177	-443	-325	-33	550
	Hydrotest{1}	-20	-45	1031	1032	-395	-288	-24	489
	Thermal 1{1}	5657	-1941	2527	6493	-937	-2242	948	2609
	GRT1{1}	5599	-1981	3702	6998	-1379	-2567	916	3055
A16 N	Gravity{1}	-58	-39	1065	1068	-40	-340	-13	342
	Hydrotest{1}	-20	-45	944	945	-40	-302	-17	305
	Thermal 1{1}	5657	-1941	2527	6493	-52	-2349	-1113	2600
	GRT1{1}	5599	-1981	3592	6941	-92	-2688	-1126	2916
A16 F	Gravity{1}	-58	-39	1022	1025	67	-257	-4	266
	Hydrotest{1}	-20	-45	910	912	55	-228	-12	235
	Thermal 1{1}	5657	-1941	2527	6493	196	-2182	-1542	2679
	GRT1{1}	5599	-1981	3549	6919	264	-2439	-1545	2899
A04 N	Gravity{1}	-58	-39	925	928	135	46	13	143
	Hydrotest{1}	-20	-45	834	835	116	43	4	124
	Thermal 1{1}	5657	-1941	2527	6493	351	-1459	-1332	2006
	GRT1{1}	5599	-1981	3452	6869	486	-1412	-1319	1993

□

DRYWELL TO CAVITYLIQUIDLINEREVO

09/13/2010 DW TO CAVITY LIQUID LINE

BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 11

G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A04 F	Gravity{1}	-58	-39	883	886	224	119	22	254
	Hydrotest{1}	-20	-45	801	803	196	108	9	224
	Thermal 1{1}	5657	-1941	2527	6493	590	-1291	-1737	2243

		DRYWELL	TO CAVITY	LIQUID	LINE	REV0	OUT		
GRT1{1}		5599	-1981	3410	6849	813	-1172	-1715	2231
A17 N	Gravity{1}	-58	-39	878	881	239	119	22	268
	Hydrotest{1}	-20	-45	797	799	210	108	10	236
	Thermal 1{1}	5657	-1941	2527	6493	631	-1294	-1833	2331
	GRT1{1}	5599	-1981	3405	6846	870	-1175	-1810	2327
A17 F	Gravity{1}	-58	-39	805	808	367	246	37	444
	Hydrotest{1}	-20	-45	740	741	327	224	20	397
	Thermal 1{1}	5657	-1941	2527	6493	989	-985	-2396	2773
	GRT1{1}	5599	-1981	3332	6810	1356	-739	-2359	2820
A15 -	Gravity{1}	-58	-39	750	753	367	388	44	536
	Hydrotest{1}	-20	-45	696	698	326	355	28	483
	Thermal 1{1}	5657	-1941	2527	6493	971	-578	-2043	2334
	GRT1{1}	5599	-1981	3277	6783	1338	-190	-1998	2412
A15 +	Gravity{1}	-58	-39	-154	169	367	407	44	550
	Hydrotest{1}	-20	-45	-168	175	326	374	28	497
	Thermal 1{1}	5657	-1941	2527	6493	971	-578	-2043	2334
	GRT1{1}	5599	-1981	2373	6396	1338	-171	-1998	2411
A13	Gravity{1}	-58	-39	-581	586	364	-103	100	391
	Hydrotest{1}	-20	-45	-504	506	323	-95	91	349
	Thermal 1{1}	5657	-1941	2527	6493	829	2547	675	2763
	GRT1{1}	5599	-1981	1946	6250	1193	2444	775	2828
A06	Gravity{1}	-58	-39	-627	631	364	-179	105	419
	Hydrotest{1}	-20	-45	-541	543	323	-161	97	373
	Thermal 1{1}	5657	-1941	2527	6493	816	2828	921	3085
	GRT1{1}	5599	-1981	1900	6236	1179	2649	1026	3076
A08 -	Gravity{1}	-58	-39	-823	826	363	-517	123	644
	Hydrotest{1}	-20	-45	-701	703	322	-451	118	567
	Thermal 1{1}	5657	-1941	2527	6493	768	3872	1830	4351
	GRT1{1}	5599	-1981	1705	6179	1131	3355	1953	4043
A08 +	Gravity{1}	-58	-39	-1072	1074	363	-517	123	644
	Hydrotest{1}	-20	-45	-950	952	322	-451	118	567
	Thermal 1{1}	5657	-1941	2527	6493	768	3872	1830	4351
	GRT1{1}	5599	-1981	1455	6115	1131	3355	1953	4043
A09 N	Gravity{1}	-58	-39	-1117	1119	363	-636	127	743
	Hydrotest{1}	-20	-45	-988	989	321	-556	123	654
	Thermal 1{1}	5657	-1941	2527	6493	757	4114	2041	4654
	GRT1{1}	5599	-1981	1410	6104	1119	3478	2168	4249

DRYWELL TO CAVITYLIQUIDLINEREV0

09/13/2010 DW TO CAVITY LIQUID LINE

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RESULT PAGE 12

G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A09 F	Gravity{1}	-58	-39	-1237	1239	355	-834	134	917
	Hydrotest{1}	-20	-45	-1087	1088	313	-737	131	812
	Thermal 1{1}	5657	-1941	2527	6493	387	3494	2391	4252
	GRT1{1}	5599	-1981	1290	6078	743	2660	2526	3742
A10	Gravity{1}	-58	-39	-1241	1243	355	-834	134	916
	Hydrotest{1}	-20	-45	-1090	1091	312	-737	131	811
	Thermal 1{1}	5657	-1941	2527	6493	370	3442	2391	4207
	GRT1{1}	5599	-1981	1286	6077	724	2608	2526	3702
*** Segment A end ***									
*** Segment C begin ***									
A15	Gravity{1}	0	0	904	904	0	-19	0	19
	Hydrotest{1}	0	0	864	864	0	-18	0	18
	Thermal 1{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	904	904	0	-19	0	19
C01	Gravity{1}	0	0	872	872	0	-14	0	14
	Hydrotest{1}	0	0	839	839	0	-14	0	14
	Thermal 1{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	872	872	0	-14	0	14
C02 -	Gravity{1}	0	0	827	827	0	-8	0	8
	Hydrotest{1}	0	0	803	803	0	-7	0	7
	Thermal 1{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	827	827	0	-8	0	8
C02 +	Gravity{1}	0	0	729	729	0	-8	0	8
	Hydrotest{1}	0	0	705	705	0	-7	0	7
	Thermal 1{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	729	729	0	-8	0	8
C02 M	Gravity{1}	0	0	413	413	0	-2	0	2
	Hydrotest{1}	0	0	402	402	0	-2	0	2
	Thermal 1{1}	0	0	0	0	0	0	0	0

		DRYWELL TO CAVITYLIQUIDLINEREV0.OUT							
	GRT1{1}	0	0	413	413	0	-2	0	2
C03	Gravity{1}	0	0	98	98	0	0	0	0
	Hydrotest{1}	0	0	98	98	0	0	0	0
	Thermal 1{1}	0	0	0	0	0	0	0	0
	GRT1{1}	0	0	98	98	0	0	0	0

*** Segment C end ***

□

DRYWELL TO CAVITYLIQUIDLINEREV0

09/13/2010 DW TO CAVITY LIQUID LINE

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AutoPIPE Plus 9.2.1 RESULT PAGE 13

G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---

*** Segment A begin ***

A00	SIFI= 1.20 Gravity{1}	SIFO= 1.20	0	18	-18	2	18	-18	18	182
	Hydrotest{1}		23	26	-5	1	27	-5	26	181
	Thermal 1{1}		0	82	-83	3	82	-83	84	113
	GRT1{1}		0	90	-91	1	90	-92	92	124
A01	SIFI= 2.00 Gravity{1}	SIFO= 2.00	0	26	-26	2	26	-26	26	182
	Hydrotest{1}		23	33	-12	1	33	-12	31	181
	Thermal 1{1}		0	120	-122	3	120	-122	122	113
	GRT1{1}		0	132	-133	1	132	-133	133	124
A11	SIFI= 2.00 Gravity{1}	SIFO= 2.00	0	37	-37	3	37	-37	38	182
	Hydrotest{1}		20	42	-24	2	42	-24	38	181
	Thermal 1{1}		0	174	-176	5	175	-177	177	113
	GRT1{1}		0	191	-193	2	191	-193	193	124
A03 N-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	16	-16	3	17	-17	17	182
	Hydrotest{1}		20	23	-5	2	25	-6	24	181
	Thermal 1{1}		0	76	-78	5	77	-78	79	113
	GRT1{1}		0	83	-85	2	83	-85	85	123
A03 N+	SIFI= 1.95 Gravity{1}	SIFO= 1.95	0	32	-32	3	32	-32	32	102
	Hydrotest{1}		20	37	-19	2	37	-19	34	100
	Thermal 1{1}		0	150	-152	5	150	-152	152	33

		DRYWELL TO CAVITYLIQUIDLINEREV0.OUT							
GRT1{1}		0	164	-166	2	164	-166	166	43
A03 F-	SIFI= 1.95 Gravity{1}	SIFO= 1.95	0	9	-9	6	12	-12	14 124
	Hydrotest{1}		20	16	1	5	24	0	22 122
	Thermal 1{1}		0	95	-90	17	98	-93	100 162
	GRT1{1}		0	88	-84	23	94	-89	97 166
A03 F+	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	4	-5	6	9	-9	11 213
	Hydrotest{1}		20	13	5	5	23	3	20 210
	Thermal 1{1}		0	50	-45	17	55	-51	58 251
	GRT1{1}		0	46	-42	23	56	-52	61 255
A14 N-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	3	-3	6	8	-8	11 302
	Hydrotest{1}		20	12	6	5	23	5	20 305
	Thermal 1{1}		0	47	-43	17	53	-48	56 228
	GRT1{1}		0	46	-42	23	56	-52	61 224

A14 N+ SIFI= 1.95 SIFO= 1.95

□

DRYWELL TO CAVITYLIQUIDLINEREV0

09/13/2010 DW TO CAVITY LIQUID LINE

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RESULT PAGE 14

G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
A14 F-	Gravity{1}		0	6	-6	6	10	-10	12	31
	Hydrotest{1}		20	14	4	5	23	2	21	34
	Thermal 1{1}		0	90	-85	17	93	-89	95	317
	GRT1{1}		0	88	-84	23	94	-90	97	314
	SIFI= 1.95 Gravity{1}		0	16	-16	3	17	-17	17	285
	Hydrotest{1}		20	23	-5	3	25	-6	24	284
	Thermal 1{1}		0	44	-46	22	53	-55	60	234
	GRT1{1}		0	55	-57	25	65	-67	72	246
A14 F+	SIFI= 1.00 Gravity{1}		0	8	-8	3	9	-9	10	186
	Hydrotest{1}		20	16	2	3	22	1	20	185
	Thermal 1{1}		0	22	-24	22	36	-37	45	134
	GRT1{1}		0	28	-30	25	43	-44	53	147

DRYWELL TO CAVITYLIQUIDLINEREV0.OUT									
A16 N-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	1	-1	3	4	-4	6 222
	Hydrotest{1}		20	10	8	3	21	8	18 225
	Thermal 1{1}		0	22	-24	22	35	-37	45 272
	GRT1{1}		0	22	-24	25	39	-40	50 271
A16 N+	SIFI= 2.56 Gravity{1}	SIFO= 2.56	0	2	-2	3	4	-4	6 311
	Hydrotest{1}		20	11	7	3	21	6	18 313
	Thermal 1{1}		0	57	-59	22	65	-66	70 0
	GRT1{1}		0	58	-60	25	68	-69	74 359
A16 F-	SIFI= 2.56 Gravity{1}	SIFO= 2.56	0	11	-11	1	12	-12	12 94
	Hydrotest{1}		20	19	-1	1	21	-1	21 276
	Thermal 1{1}		0	124	-130	6	124	-130	130 309
	GRT1{1}		0	133	-139	7	134	-139	140 306
A16 F+	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	4	-4	1	5	-5	5 2
	Hydrotest{1}		20	13	5	1	20	5	18 184
	Thermal 1{1}		0	47	-52	6	47	-53	53 217
	GRT1{1}		0	50	-56	7	51	-57	57 214
A04 N-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	1	-1	1	2	-2	2 186
	Hydrotest{1}		20	10	8	1	20	8	18 0
	Thermal 1{1}		0	33	-39	6	34	-40	40 225
	GRT1{1}		0	32	-38	7	34	-39	40 227
A04 N+	SIFI= 2.56 Gravity{1}	SIFO= 2.56	0	4	-4	1	4	-4	4 98
	Hydrotest{1}		20	12	6	1	20	6	18 272
	Thermal 1{1}		0	90	-96	6	90	-96	96 137
	GRT1{1}		0	87	-93	7	88	-93	94 138

0

DRYWELL TO CAVITYLIQUIDLINEREV0

09/13/2010 DW TO CAVITY LIQUID LINE

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AutoPIPE Plus 9.2.1 RESULT PAGE 15

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
A04 F-	SIFI= 2.56 Gravity{1}	SIFO= 2.56	0	11	-11	1	11	-11
								11 275

			DRYWELL TO CAVITYLIQUIDLINEREV0.OUT						
			20	19	-1	1	21	-1	21 272
	Hydrotest{1}		0	90	-92	12	92	-94	94 197
	Thermal 1{1}		0	93	-95	11	94	-96	97 203
	GRT1{1}								
A04 F+	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	4	-4	1	5	-5	5 7
	Hydrotest{1}		20	13	5	1	20	5	18 4
	Thermal 1{1}		0	35	-37	12	38	-40	42 288
	GRT1{1}		0	36	-38	11	39	-40	42 295
A17 N-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	5	-5	1	5	-5	5 6
	Hydrotest{1}		20	13	5	1	20	5	18 4
	Thermal 1{1}		0	37	-39	12	40	-42	44 289
	GRT1{1}		0	38	-40	11	41	-42	44 295
A17 N+	SIFI= 1.95 Gravity{1}	SIFO= 1.95	0	9	-9	1	9	-9	9 93
	Hydrotest{1}		20	17	1	1	21	1	20 91
	Thermal 1{1}		0	72	-74	12	74	-76	77 16
	GRT1{1}		0	75	-77	11	76	-78	79 22
A17 F-	SIFI= 1.95 Gravity{1}	SIFO= 1.95	0	9	-9	3	10	-10	11 276
	Hydrotest{1}		20	17	1	3	22	0	21 93
	Thermal 1{1}		0	95	-100	8	96	-101	101 340
	GRT1{1}		0	91	-97	12	93	-98	99 345
A17 F+	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	5	-5	3	7	-7	8 184
	Hydrotest{1}		20	13	5	3	21	4	19 1
	Thermal 1{1}		0	47	-53	8	49	-54	55 248
	GRT1{1}		0	45	-51	12	48	-54	55 253
A15 -	SIFI= 1.45 Gravity{1}	SIFO= 1.45	0	11	-11	3	12	-12	12 356
	Hydrotest{1}		20	19	-1	3	23	-1	21 178
	Thermal 1{1}		0	57	-63	8	58	-64	64 285
	GRT1{1}		0	54	-60	12	57	-62	63 275
A15 +	SIFI= 1.45 Gravity{1}	SIFO= 1.45	0	11	-11	3	12	-12	13 356
	Hydrotest{1}		20	19	-1	3	23	-2	22 178
	Thermal 1{1}		0	57	-63	8	58	-64	64 285
	GRT1{1}		0	54	-60	12	57	-62	63 275
A13	SIFI= 2.00 Gravity{1}	SIFO= 2.00	0	5	-5	4	7	-7	8 322
	Hydrotest{1}		20	14	4	3	21	4	19 142
	Thermal 1{1}		0	97	-102	8	97	-103	103 14

DRYWELL TO CAVITYLIQUIDLINEREV0

09/13/2010 DW TO CAVITY LIQUID LINE

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RESULT PAGE 16

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal	Shear	Principal	Total	
name	combination		Stress	Max	Min	Max	Min	Stress Loc
	GRT1{1}		0	94	-99	12	95 -101	101 16
A06	SIFI= 2.00 Gravity{1}	SIFO= 2.00	0	4	-4	2	5 -5	6 335
	Hydrotest{1}		23	15	6	2	24 6	21 154
	Thermal 1{1}		0	64	-68	5	65 -69	69 17
	GRT1{1}		0	61	-65	7	62 -66	66 20
A08	SIFI= 1.20 Gravity{1}	SIFO= 1.20	0	7	-7	2	8 -8	8 349
	Hydrotest{1}		23	17	4	2	24 4	22 167
	Thermal 1{1}		0	55	-59	5	56 -60	60 25
	GRT1{1}		0	50	-54	7	51 -55	55 29
A09 N-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	7	-7	2	8 -8	8 350
	Hydrotest{1}		23	17	4	2	24 4	22 169
	Thermal 1{1}		0	49	-53	5	50 -54	54 26
	GRT1{1}		0	43	-48	7	45 -49	49 31
A09 N+	SIFI= 2.13 Gravity{1}	SIFO= 2.13	0	15	-15	2	16 -16	16 350
	Hydrotest{1}		23	24	-3	2	25 -3	25 169
	Thermal 1{1}		0	107	-111	5	107 -111	111 26
	GRT1{1}		0	95	-99	7	95 -99	100 31
A09 F-	SIFI= 2.13 Gravity{1}	SIFO= 2.13	0	22	-21	1	22 -21	22 23
	Hydrotest{1}		23	30	-8	1	30 -8	28 203
	Thermal 1{1}		0	83	-85	13	85 -87	88 354
	GRT1{1}		0	65	-66	14	68 -69	71 344
A09 F+	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	11	-10	1	11 -10	11 203
	Hydrotest{1}		23	20	2	1	23 2	22 23
	Thermal 1{1}		0	38	-40	13	43 -44	46 174
	GRT1{1}		0	30	-31	14	36 -37	40 164
A10	SIFI= 1.00	SIFO= 1.00						

	DRYWELL TO CAVITYLIQUIDLINEREV0.OUT							
Gravity{1}	0	11	-10	1	11	-10	11	203
Hydrotest{1}	23	20	2	1	23	2	22	23
Thermal 1{1}	0	38	-40	13	42	-44	46	174
GRT1{1}	0	30	-31	14	35	-36	39	164

*** Segment A end ***

*** Segment C begin ***

A15	SIFI= 1.45	SIFO= 1.45						
	Gravity{1}		0	1	0	0	1	0
	Hydrotest{1}		20	10	9	0	20	9
	Thermal 1{1}		0	0	0	0	0	0

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DRYWELL TO CAVITYLIQUIDLINEREV0

09/13/2010 DW TO CAVITY LIQUID LINE

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AutoPIPE Plus 9.2.1 RESULT PAGE 17

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal	Shear	Principal	Total	
name	combination		Stress	Max	Min	Max	Min	Stress Loc
	GRT1{1}		0	1	0	0	1	0
C01	SIFI= 1.00	SIFO= 1.00						
	Gravity{1}		0	1	0	0	1	0
	Hydrotest{1}		20	10	9	0	20	9
	Thermal 1{1}		0	0	0	0	0	0
	GRT1{1}		0	1	0	0	1	0
C02	SIFI= 1.20	SIFO= 1.20						
	Gravity{1}		0	1	0	0	1	0
	Hydrotest{1}		20	10	9	0	20	9
	Thermal 1{1}		0	0	0	0	0	0
	GRT1{1}		0	1	0	0	1	0

*** Segment C end ***

□

DRYWELL TO CAVITYLIQUIDLINEREV0

09/13/2010 DW TO CAVITY LIQUID LINE

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)

(Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.

DRYWELL TO CAVITYLIQUIDLINEREV0.OUT

A11	Max P{1}					HOOP	16	104
	GR + Max P{1}	1023		2.00	2-1	SUST	36	104
	TR:Amb to T1{1}		4651	2.00	4-1	DISP	177	217
	Amb to T1{1}		4651	2.00	4-1	DISP	177	217
	Hydrotest{1}	0	896	2.00	3-1	OCC	36	219
	Sus.+T1{1}			2.00	5-1	CRUP	80	<NOTE 1>
A03 N+	Max P{1}					HOOP	16	104
	GR + Max P{1}	904		1.95	2-1	SUST	32	104
	TR:Amb to T1{1}		4097	1.95	4-1	DISP	152	217
	Amb to T1{1}		4097	1.95	4-1	DISP	152	217
	Hydrotest{1}	0	793	1.95	3-1	OCC	33	219
	Sus.+T1{1}			1.95	5-1	CRUP	70	<NOTE 1>
A16 F-	Max P{1}					HOOP	16	104
	GR + Max P{1}	266		2.56	2-1	SUST	17	104
	TR:Amb to T1{1}		2679	2.56	4-1	DISP	130	217
	Amb to T1{1}		2679	2.56	4-1	DISP	130	217
	Hydrotest{1}	0	235	2.56	3-1	OCC	19	219
	Sus.+T1{1}			2.56	5-1	CRUP	49	<NOTE 1>
A16 N+	Max P{1}					HOOP	16	104
	GR + Max P{1}	342		2.56	2-1	SUST	20	104
	TR:Amb to T1{1}		2600	2.56	4-1	DISP	126	217
	Amb to T1{1}		2600	2.56	4-1	DISP	126	217
	Hydrotest{1}	0	305	2.56	3-1	OCC	22	219
	Sus.+T1{1}			2.56	5-1	CRUP	51	<NOTE 1>
A01	Max P{1}					HOOP	18	104
	GR + Max P{1}	1199		2.00	2-1	SUST	28	104
	TR:Amb to T1{1}		5433	2.00	4-1	DISP	122	217
	Amb to T1{1}		5433	2.00	4-1	DISP	122	217
	Hydrotest{1}	0	1047	2.00	3-1	OCC	30	219
	Sus.+T1{1}			2.00	5-1	CRUP	59	<NOTE 1>
A03 F-	Max P{1}					HOOP	16	104
	GR + Max P{1}	663		1.95	2-1	SUST	26	104
	TR:Amb to T1{1}		3075	1.95	4-1	DISP	114	217
	Amb to T1{1}		3075	1.95	4-1	DISP	114	217
	Hydrotest{1}	0	586	1.95	3-1	OCC	27	219
	Sus.+T1{1}			1.95	5-1	CRUP	54	<NOTE 1>
A09 N+	Max P{1}					HOOP	18	104
	GR + Max P{1}	743		2.13	2-1	SUST	21	104

DRYWELL TO CAVITYLIQUIDLINEREV0.OUT

TR:Amb to T1{1}			4654	2.13	4-1	DISP	111	217
Amb to T1{1}			4654	2.13	4-1	DISP	111	217
Hydrotest{1}	0	654		2.13	3-1	OCC	24	219
Sus.+T1{1}				2.13	5-1	CRUP	49	<NOTE 1>

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DRYWELL TO CAVITYLIQUIDLINEREV0

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Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F					
A14 N+	Max P{1}							HOOP	16	104
	GR + Max P{1}	638			1.95	2-1	SUST	25	104	
	TR:Amb to T1{1}			2962	1.95	4-1	DISP	110	217	
	Amb to T1{1}			2962	1.95	4-1	DISP	110	217	
	Hydrotest{1}	0	566		1.95	3-1	OCC	26	219	
	Sus.+T1{1}				1.95	5-1	CRUP	52	<NOTE 1>	
A04 F-	Max P{1}							HOOP	16	104
	GR + Max P{1}	254			2.56	2-1	SUST	16	104	
	TR:Amb to T1{1}			2243	2.56	4-1	DISP	109	217	
	Amb to T1{1}			2243	2.56	4-1	DISP	109	217	
	Hydrotest{1}	0	224		2.56	3-1	OCC	19	219	
	Sus.+T1{1}				2.56	5-1	CRUP	44	<NOTE 1>	
A13	Max P{1}							HOOP	16	104
	GR + Max P{1}	391			2.00	2-1	SUST	18	104	
	TR:Amb to T1{1}			2763	2.00	4-1	DISP	105	217	
	Amb to T1{1}			2763	2.00	4-1	DISP	105	217	
	Hydrotest{1}	0	349		2.00	3-1	OCC	21	219	
	Sus.+T1{1}				2.00	5-1	CRUP	44	<NOTE 1>	
A17 F-	Max P{1}							HOOP	16	104
	GR + Max P{1}	444			1.95	2-1	SUST	19	104	
	TR:Amb to T1{1}			2773	1.95	4-1	DISP	103	217	
	Amb to T1{1}			2773	1.95	4-1	DISP	103	217	
	Hydrotest{1}	0	397		1.95	3-1	OCC	22	219	
	Sus.+T1{1}				1.95	5-1	CRUP	45	<NOTE 1>	
A09 F-	Max P{1}							HOOP	18	104

DRYWELL TO CAVITYLIQUIDLINEREV0.OUT

GR + Max P{1}	917		2.13	2-1	SUST	24	104
TR:Amb to T1{1}			4252	2.13	4-1	DISP	101 217
Amb to T1{1}			4252	2.13	4-1	DISP	101 217
Hydrotest{1}	0	812		2.13	3-1	OCC	27 219
Sus.+T1{1}				2.13	5-1	CRUP	50 <NOTE 1>
A04 N+ Max P{1}						HOOP	16 104
GR + Max P{1}	143			2.56	2-1	SUST	12 104
TR:Amb to T1{1}			2006	2.56	4-1	DISP	97 217
Amb to T1{1}			2006	2.56	4-1	DISP	97 217
Hydrotest{1}	0	124		2.56	3-1	OCC	15 219
Sus.+T1{1}				2.56	5-1	CRUP	37 <NOTE 1>
A14 F- Max P{1}						HOOP	16 104
GR + Max P{1}	550			1.95	2-1	SUST	22 104
TR:Amb to T1{1}			2609	1.95	4-1	DISP	97 217
Amb to T1{1}			2609	1.95	4-1	DISP	97 217
Hydrotest{1}	0	489		1.95	3-1	OCC	24 219
Sus.+T1{1}				1.95	5-1	CRUP	47 <NOTE 1>

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		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
A17 N+ Max P{1}							HOOP	16	104
GR + Max P{1}		268			1.95	2-1	SUST	15	104
TR:Amb to T1{1}				2331	1.95	4-1	DISP	86	217
Amb to T1{1}				2331	1.95	4-1	DISP	86	217
Hydrotest{1}		0	236		1.95	3-1	OCC	17	219
Sus.+T1{1}					1.95	5-1	CRUP	36	<NOTE 1>
A00 Max P{1}							HOOP	18	104
GR + Max P{1}		1372			1.20	2-1	SUST	23	104
TR:Amb to T1{1}				6178	1.20	4-1	DISP	83	217
Amb to T1{1}				6178	1.20	4-1	DISP	83	217
Hydrotest{1}		0	1197		1.20	3-1	OCC	26	219
Sus.+T1{1}					1.20	5-1	CRUP	47	<NOTE 1>

DRYWELL TO CAVITYLIQUIDLINEREV0.OUT

A03 N-	Max P{1}					HOOP	16	104
	GR + Max P{1}	904		1.00	2-1	SUST	24	104
	TR:Amb to T1{1}		4097	1.00	4-1	DISP	78	217
	Amb to T1{1}		4097	1.00	4-1	DISP	78	217
	Hydrotest{1}	0	793	1.00	3-1	OCC	26	219
	Sus.+T1{1}			1.00	5-1	CRUP	50	<NOTE 1>
A06	Max P{1}					HOOP	18	104
	GR + Max P{1}	419		2.00	2-1	SUST	15	104
	TR:Amb to T1{1}		3085	2.00	4-1	DISP	69	217
	Amb to T1{1}		3085	2.00	4-1	DISP	69	217
	Hydrotest{1}	0	373	2.00	3-1	OCC	18	219
	Sus.+T1{1}			2.00	5-1	CRUP	32	<NOTE 1>
A15 +	Max P{1}					HOOP	16	104
	GR + Max P{1}	550		1.45	2-1	SUST	18	104
	TR:Amb to T1{1}		2334	1.45	4-1	DISP	64	217
	Amb to T1{1}		2334	1.45	4-1	DISP	64	217
	Hydrotest{1}	0	497	1.45	3-1	OCC	21	219
	Sus.+T1{1}			1.45	5-1	CRUP	35	<NOTE 1>
A15 -	Max P{1}					HOOP	16	104
	GR + Max P{1}	536		1.45	2-1	SUST	18	104
	TR:Amb to T1{1}		2334	1.45	4-1	DISP	64	217
	Amb to T1{1}		2334	1.45	4-1	DISP	64	217
	Hydrotest{1}	0	483	1.45	3-1	OCC	21	219
	Sus.+T1{1}			1.45	5-1	CRUP	34	<NOTE 1>
A08 +	Max P{1}					HOOP	18	104
	GR + Max P{1}	644		1.20	2-1	SUST	15	104
	TR:Amb to T1{1}		4351	1.20	4-1	DISP	58	217
	Amb to T1{1}		4351	1.20	4-1	DISP	58	217
	Hydrotest{1}	0	567	1.20	3-1	OCC	18	219
	Sus.+T1{1}			1.20	5-1	CRUP	32	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F no. type	Stress	Allow.

DRYWELL TO CAVITYLIQUIDLINEREV0.OUT

A08 - Max P{1}					HOOP	18	104
GR + Max P{1}	644		1.20	2-1	SUST	15	104
TR:Amb to T1{1}		4351	1.20	4-1	DISP	58	217
Amb to T1{1}		4351	1.20	4-1	DISP	58	217
Hydrotest{1}	0	567	1.20	3-1	OCC	18	219
Sus.+T1{1}			1.20	5-1	CRUP	32	<NOTE 1>
A03 F+ Max P{1}					HOOP	16	104
GR + Max P{1}	663		1.00	2-1	SUST	20	104
TR:Amb to T1{1}		3075	1.00	4-1	DISP	58	217
Amb to T1{1}		3075	1.00	4-1	DISP	58	217
Hydrotest{1}	0	586	1.00	3-1	OCC	22	219
Sus.+T1{1}			1.00	5-1	CRUP	39	<NOTE 1>
A14 N- Max P{1}					HOOP	16	104
GR + Max P{1}	638		1.00	2-1	SUST	19	104
TR:Amb to T1{1}		2962	1.00	4-1	DISP	56	217
Amb to T1{1}		2962	1.00	4-1	DISP	56	217
Hydrotest{1}	0	566	1.00	3-1	OCC	21	219
Sus.+T1{1}			1.00	5-1	CRUP	38	<NOTE 1>
A17 F+ Max P{1}					HOOP	16	104
GR + Max P{1}	444		1.00	2-1	SUST	16	104
TR:Amb to T1{1}		2773	1.00	4-1	DISP	53	217
Amb to T1{1}		2773	1.00	4-1	DISP	53	217
Hydrotest{1}	0	397	1.00	3-1	OCC	18	219
Sus.+T1{1}			1.00	5-1	CRUP	33	<NOTE 1>
A09 N- Max P{1}					HOOP	18	104
GR + Max P{1}	743		1.00	2-1	SUST	16	104
TR:Amb to T1{1}		4654	1.00	4-1	DISP	52	217
Amb to T1{1}		4654	1.00	4-1	DISP	52	217
Hydrotest{1}	0	654	1.00	3-1	OCC	19	219
Sus.+T1{1}			1.00	5-1	CRUP	34	<NOTE 1>
A16 F+ Max P{1}					HOOP	16	104
GR + Max P{1}	266		1.00	2-1	SUST	12	104
TR:Amb to T1{1}		2679	1.00	4-1	DISP	51	217
Amb to T1{1}		2679	1.00	4-1	DISP	51	217
Hydrotest{1}	0	235	1.00	3-1	OCC	15	219
Sus.+T1{1}			1.00	5-1	CRUP	29	<NOTE 1>
A14 F+ Max P{1}					HOOP	16	104
GR + Max P{1}	550		1.00	2-1	SUST	18	104

TR:Amb to T1{1}	2609	1.00	4-1	DISP	50	217
Amb to T1{1}	2609	1.00	4-1	DISP	50	217
Hydrotest{1}	0	489	1.00	3-1 OCC	20	219
Sus.+T1{1}			1.00	5-1 CRUP	34	<NOTE 1>

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 DRYWELL TO CAVITYLIQUIDLINEREV0

09/13/2010 DW TO CAVITY LIQUID LINE

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F					
A16 N-	Max P{1}							HOOP	16	104
	GR + Max P{1}	342			1.00	2-1	SUST		14	104
	TR:Amb to T1{1}			2600	1.00	4-1	DISP		49	217
	Amb to T1{1}			2600	1.00	4-1	DISP		49	217
	Hydrotest{1}	0	305		1.00	3-1	OCC		16	219
	Sus.+T1{1}				1.00	5-1	CRUP		30	<NOTE 1>
A09 F+	Max P{1}							HOOP	18	104
	GR + Max P{1}	917			1.00	2-1	SUST		18	104
	TR:Amb to T1{1}			4252	1.00	4-1	DISP		48	217
	Amb to T1{1}			4252	1.00	4-1	DISP		48	217
	Hydrotest{1}	0	812		1.00	3-1	OCC		21	219
	Sus.+T1{1}				1.00	5-1	CRUP		34	<NOTE 1>
A10	Max P{1}							HOOP	18	104
	GR + Max P{1}	916			1.00	2-1	SUST		18	104
	TR:Amb to T1{1}			4207	1.00	4-1	DISP		47	217
	Amb to T1{1}			4207	1.00	4-1	DISP		47	217
	Hydrotest{1}	0	811		1.00	3-1	OCC		21	219
	Sus.+T1{1}				1.00	5-1	CRUP		34	<NOTE 1>
A17 N-	Max P{1}							HOOP	16	104
	GR + Max P{1}	268			1.00	2-1	SUST		12	104
	TR:Amb to T1{1}			2331	1.00	4-1	DISP		44	217
	Amb to T1{1}			2331	1.00	4-1	DISP		44	217
	Hydrotest{1}	0	236		1.00	3-1	OCC		15	219
	Sus.+T1{1}				1.00	5-1	CRUP		27	<NOTE 1>
A04 F+	Max P{1}							HOOP	16	104

DRYWELL TO CAVITYLIQUIDLINEREVO.0UT									
	GR + Max P{1}	254		1.00	2-1	SUST	12	104	
	TR:Amb to T1{1}		2243	1.00	4-1	DISP	43	217	
	Amb to T1{1}		2243	1.00	4-1	DISP	43	217	
	Hydrotest{1}	0	224	1.00	3-1	OCC	15	219	
	Sus.+T1{1}			1.00	5-1	CRUP	26	<NOTE 1>	
A04 N-	Max P{1}					HOOP	16	104	
	GR + Max P{1}	143		1.00	2-1	SUST	10	104	
	TR:Amb to T1{1}		2006	1.00	4-1	DISP	38	217	
	Amb to T1{1}		2006	1.00	4-1	DISP	38	217	
	Hydrotest{1}	0	124	1.00	3-1	OCC	13	219	
	Sus.+T1{1}			1.00	5-1	CRUP	23	<NOTE 1>	
C02	Max P{1}					HOOP	16	104	
	GR + Max P{1}	8		1.20	2-1	SUST	7	104	
	TR:Amb to T1{1}		0	1.20	4-1	DISP	0	217	
	Amb to T1{1}		0	1.20	4-1	DISP	0	217	
	Hydrotest{1}	0	7	1.20	3-1	OCC	11	219	
	Sus.+T1{1}			1.20	5-1	CRUP	7	<NOTE 1>	

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EN 13480 (2002) CODE COMPLIANCE									
(Moments in N.m)			(Stress in N/mm2)						
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
C01	Max P{1}					HOOP	16	104	
	GR + Max P{1}	14			1.00	2-1 SUST	7	104	
	TR:Amb to T1{1}			0	1.00	4-1 DISP	0	217	
	Amb to T1{1}			0	1.00	4-1 DISP	0	217	
	Hydrotest{1}	0	14		1.00	3-1 OCC	11	219	
	Sus.+T1{1}				1.00	5-1 CRUP	7	<NOTE 1>	
A15	Max P{1}					HOOP	16	104	
	GR + Max P{1}	19			1.45	2-1 SUST	7	104	
	TR:Amb to T1{1}			0	1.45	4-1 DISP	0	217	
	Amb to T1{1}			0	1.45	4-1 DISP	0	217	
	Hydrotest{1}	0	18		1.45	3-1 OCC	11	219	
	Sus.+T1{1}				1.45	5-1 CRUP	7	<NOTE 1>	

DRYWELL TO CAVITYLIQUIDLINEREV0.OUT

*** NOTE 1: No allowable stress could be calculated. ***
 *** Mechanical properties are outside of temperature range. ***

DRYWELL TO CAVITYLIQUIDLINEREV0

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R E S U L T S U M M A R Y

Maximum displacements (mm)

Maximum X :	-13.860	Point : C03	Load Comb.: Thermal 1{1}
Maximum Y :	-4.762	Point : A17 F	Load Comb.: GRT1{1}
Maximum Z :	26.810	Point : A00	Load Comb.: Thermal 1{1}
Max. total:	26.919	Point : A14 F	Load Comb.: Thermal 1{1}

Maximum rotations (deg)

Maximum X :	0.387	Point : A16 F	Load Comb.: GRT1{1}
Maximum Y :	0.561	Point : A15	Load Comb.: Thermal 1{1}
Maximum Z :	-0.626	Point : A14 F	Load Comb.: Thermal 1{1}
Max. total:	0.716	Point : A16 N	Load Comb.: GRT1{1}

Maximum restraint forces (N)

Maximum X :	-5657	Point : A00	Load Comb.: Thermal 1{1}
Maximum Y :	1981	Point : A00	Load Comb.: GRT1{1}
Maximum Z :	-4153	Point : A00	Load Comb.: GRT1{1}
Max. total:	7247	Point : A00	Load Comb.: GRT1{1}

Maximum restraint moments (N.m)

Maximum X :	3789	Point : A00	Load Comb.: GRT1{1}
Maximum Y :	3442	Point : A10	Load Comb.: Thermal 1{1}
Maximum Z :	-5647	Point : A00	Load Comb.: Thermal 1{1}
Max. total:	6761	Point : A00	Load Comb.: GRT1{1}

DRYWELL TO CAVITYLIQUIDLINEREV0

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R E S U L T S U M M A R Y

Maximum pipe forces (N)

Maximum X :	5657	Point : A03 F	Load Comb.: Thermal 1{1}
Maximum Y :	-1981	Point : A17 N	Load Comb.: GRT1{1}
Maximum Z :	4028	Point : A00	Load Comb.: GRT1{1}
Max. total:	7176	Point : A00	Load Comb.: GRT1{1}

Maximum pipe moments (N.m)

Maximum X :	-3789	Point : A00	Load Comb.: GRT1{1}
Maximum Y :	4114	Point : A09 N	Load Comb.: Thermal 1{1}
Maximum Z :	5647	Point : A00	Load Comb.: Thermal 1{1}
Max. total:	6761	Point : A00	Load Comb.: GRT1{1}

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DRYWELL TO CAVITYLIQUIDLINEREV0

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R E S U L T S U M M A R Y

Maximum sustained stress

Point	:	A11
Stress N/mm2	:	36
Allowable N/mm2	:	104
Ratio	:	0.35
Load combination	:	GR + Max P{1}

Maximum displacement stress

Point	:	A11
Stress N/mm2	:	177
Allowable N/mm2	:	217
Ratio	:	0.82
Load combination	:	Max Range

Maximum occasional stress

Point	:	A11
Stress N/mm2	:	36
Allowable N/mm2	:	219
Ratio	:	0.17
Load combination	:	Hydrotest{1}

Maximum hoop stress

DRYWELL TO CAVITYLIQUIDLINEREV0.OUT
Point : A01
Stress N/mm2 : 18
Allowable N/mm2 : 104
Ratio : 0.17
Load combination : Max P{1}

Maximum creep rupture stress

Point : A11
Stress N/mm2 : 80
Allowable N/mm2 : 0 < See Note 1 >
Ratio : 0.00
Load combination : Sus.+T1{1}

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DRYWELL TO CAVITYLIQUIDLINEREV0

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R E S U L T S U M M A R Y -----

Maximum sustained stress ratio

Point : A11
Stress N/mm2 : 36
Allowable N/mm2 : 104
Ratio : 0.35
Load combination : GR + Max P{1}

Maximum displacement stress ratio

Point : A11
Stress N/mm2 : 177
Allowable N/mm2 : 217
Ratio : 0.82
Load combination : Max Range

Maximum occasional stress ratio

Point : A11
Stress N/mm2 : 36
Allowable N/mm2 : 219
Ratio : 0.17
Load combination : Hydrotest{1}

Maximum hoop stress ratio

Point : A01
Stress N/mm2 : 18
Allowable N/mm2 : 104
Ratio : 0.17
Load combination : Max P{1}

Maximum creep rupture stress ratio

Point : A11
Stress N/mm2 : 80
Allowable N/mm2 : 0 < See Note 1 >
Ratio : 0.00
Load combination : Sus.+T1{1}

* * * The system satisfies EN 13480 (2002) code requirements * * *
* * * for the selected options * * *

Warnings:

(1) Maximum creep rupture stress ratio is zero

DRYWELL TO CAVITYLIQUIDLINEREV0.OUT
* * * Note 1: Points were found in this stress category with * * *
* * * mechanical properties outside of temperature range. No * * *

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DRYWELL TO CAVITYLIQUIDLINEREV0

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AutoPIPE Plus 9.2.1 RESULT PAGE 28

R E S U L T S U M M A R Y

* * * allowable stress were calculated at these points. * * *

□

ALLEGATO 8. DW to RC GAS LINE INPUT E OUTPUT DEI CALCOLI AUTOPIPE

file: CAVITYTODRYWELLGASRETURNLINEREV0.pdf

CAVITYTODRYWELLGASRETURNLINEREV0.OUT
PIPING CODE : EN 13480
YEAR : 2002
LIFETIME (HRS) : 200000
LIFETIME MONITORING : NO
VERTICAL AXIS : Z
AMBIENT TEMPERATURE : 20.0 deg C
COMPONENT LIBRARY : AUTOPIPE
MATERIAL LIBRARY : EUROMAT
MODEL REVISION NUMBER : 19

□

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AutoPIPE Plus 9.2.1 MODEL PAGE 3

C O M P O N E N T D A T A L I S T I N G

*** SEGMENT A

From A00 to A02, DX= -199.55 mm, DY= 165.66 mm, L= 259.35 mm Run

PIPE DATA:

Pipe Id= 3S40, Material= X5CRNI18-10 1.4301, Product= Seamless tube, Source= EURO,
Composition= Austentic Stainless, Poisson= 0.300, Nom Size= 80 mm, OD= 88.900 mm, Sch= 40, Wall
Thk= 5.486 mm,
Mill= 0.686 mm, Cor= 0 mm, Pipe Density= 7930.00 kg/m3, Pipe Unit Wgt= 111.81 N/m, Content Sp Gr=
1.000,
Content Unit Wgt= 46.75 N/m, Insul Thk= 80.000 mm, Insul Material= MINERAL WOOL, Insul Density=
136.16 kg/m3,
Insul Unit Wgt= 56.68 N/m, Lining Thk= 0 mm, Long Weld factor= 1.00, Circ Weld factor= 1.00, Long
Modulus= 0.19996 E6 N/mm2,
Hoop Modulus= 0.19996 E6 N/mm2, Shear Modulus= 0.07691 E6 N/mm2, Al= 40.0, At= 35.0, fc= 166.7
N/mm2, Rp0.2= 195.0 N/mm2,
Rp1.0= 230.0 N/mm2, Rm= 500.0 N/mm2

OPERATING DATA:

P1= 1.5000 N/mm2, T1= 198.00 deg C, Exp1= 2.94948 mm/m, E1= 0.18487 E6 N/mm2, Rp0.2t1= 127.52
N/mm2, Rp1.0t1= 155.60 N/mm2,
Rmt1= 0.00 N/mm2, fcr1= 0.00 N/mm2, fh1= 103.73 N/mm2

POINT DATA:

A00, Coordinates, X= -2255.68 mm, Y= -3267.05 mm, Z= 10640.00 mm
A00, Flange= SLIP-ON, Rating= 300, Flange Weight= 6.40 kg, Bolt/Nut Weight= 0.00 kg, End type=
Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No

SUPPORT DATA:

A00, Anchor, Tag No.= TOCAV1, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ=
Rigid

From A02 to A08, DX= -68.48 mm, DY= 56.85 mm, L= 89.00 mm Redu

COMPONENT DATA (Reducer):

Length= 89.00 mm, SIF= 2.00

POINT DATA:

A02, Coordinates, X= -2455.23 mm, Y= -3101.39 mm, Z= 10640.00 mm

From A08 to A11, DX= -367.58 mm, DY= 305.18 mm, L= 477.76 mm Run

PIPE DATA:

Pipe Id= 2S40, Composition= Austentic Stainless, Nom Size= 50 mm, OD= 60.325 mm, Wall Thk= 3.912
mm, Mill= 0.489 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 21.22 N/m, Insul Thk= 50.000 mm, Insul Density= 136.16

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kg/m3,

Insul Unit Wgt= 23.14 N/m

POINT DATA:

A08, Coordinates, X= -2523.71 mm, Y= -3044.54 mm, Z= 10640.00 mm

From A11 to A09, DX= 565.69 mm, DY= 565.69 mm, L= 800.00 mm Bend

COMPONENT DATA (Bend, TIP= A11, Near= A11 N, Far= A11 F):

Long Elbow, Radius= 76.20 mm, Bend angle= 95.30 deg, End flanges= 0, Flex= Auto, SIFI= 1.73,
SIFO= 1.73

POINT DATA:

A11, Coordinates, X= -2891.29 mm, Y= -2739.36 mm, Z= 10640.00 mm

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C O M P O N E N T D A T A L I S T I N G

A11 N, Coordinates, X= -2826.97 mm, Y= -2792.76 mm, Z= 10640.00 mm

A11 F, Coordinates, X= -2832.18 mm, Y= -2680.25 mm, Z= 10640.00 mm

From A09 to A12, DX= -735.15 mm, DY= 610.35 mm, L= 955.50 mm Bend

COMPONENT DATA (Bend, TIP= A09, Near= A09 N, Far= A09 F):

Long Elbow, Radius= 76.20 mm, Bend angle= 95.30 deg, End flanges= 0, Flex= Auto, SIFI= 1.73,
SIFO= 1.73

POINT DATA:

A09, Coordinates, X= -2325.60 mm, Y= -2173.67 mm, Z= 10640.00 mm

A09 N, Coordinates, X= -2384.71 mm, Y= -2232.78 mm, Z= 10640.00 mm

A09 F, Coordinates, X= -2389.92 mm, Y= -2120.27 mm, Z= 10640.00 mm

From A12 to A10, DX= -565.69 mm, DY= -565.69 mm, L= 800.00 mm Bend

COMPONENT DATA (Bend, TIP= A12, Near= A12 N, Far= A12 F):

Long Elbow, Radius= 76.20 mm, Bend angle= 84.70 deg, End flanges= 0, Flex= Auto, SIFI= 1.73,
SIFO= 1.73

POINT DATA:

A12, Coordinates, X= -3060.75 mm, Y= -1563.32 mm, Z= 10640.00 mm

A12 N, Coordinates, X= -3007.31 mm, Y= -1607.69 mm, Z= 10640.00 mm

A12 F, Coordinates, X= -3109.87 mm, Y= -1612.43 mm, Z= 10640.00 mm

From A10 to A03, DX= -436.06 mm, DY= 362.00 mm, L= 566.74 mm Bend

COMPONENT DATA (Bend, TIP= A10, Near= A10 N, Far= A10 F):

Long Elbow, Radius= 76.20 mm, Bend angle= 84.70 deg, End flanges= 0, Flex= Auto, SIFI= 1.73,
SIFO= 1.73

POINT DATA:

A10, Coordinates, X= -3626.44 mm, Y= -2129.00 mm, Z= 10640.00 mm

A10 N, Coordinates, X= -3577.33 mm, Y= -2079.89 mm, Z= 10640.00 mm

A10 F, Coordinates, X= -3679.88 mm, Y= -2084.64 mm, Z= 10640.00 mm

From A03 to A07, DZ= -250.00 mm Bend

COMPONENT DATA (Bend, TIP= A03, Near= A03 N, Far= A03 F):

Long Elbow, Radius= 76.20 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.73,
SIFO= 1.73

POINT DATA:

A03, Coordinates, X= -4062.50 mm, Y= -1767.00 mm, Z= 10640.00 mm

A03 N, Coordinates, X= -4003.87 mm, Y= -1815.67 mm, Z= 10640.00 mm

A03 F, Coordinates, X= -4062.50 mm, Y= -1767.00 mm, Z= 10563.80 mm

From A07 to A05, DZ= -89.00 mm Redu

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COMPONENT DATA (Reducer):
Length= 89.00 mm, SIF= 2.00

POINT DATA:
A07, Coordinates, X= -4062.50 mm, Y= -1767.00 mm, Z= 10390.00 mm

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C O M P O N E N T D A T A L I S T I N G

From A05 to A06, DZ= -86.00 mm Run

PIPE DATA:

Pipe Id= 3S40, Composition= Austentic Stainless, Nom Size= 80 mm, OD= 88.900 mm, Wall Thk= 5.486 mm, Mill= 0.686 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 46.75 N/m, Insul Thk= 80.000 mm, Insul Density= 136.16 kg/m3,
Insul Unit Wgt= 56.68 N/m

POINT DATA:

A05, Coordinates, X= -4062.50 mm, Y= -1767.00 mm, Z= 10301.00 mm
A06, Coordinates, X= -4062.50 mm, Y= -1767.00 mm, Z= 10215.00 mm
A06, Flange= SLIP-ON, Rating= 300, Flange Weight= 6.40 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No

SUPPORT DATA:

A06, Anchor, Tag No.= TODW1, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

Number of points in the system: 21

Weight of Empty Pipes + Weight of Contents = Total Weight of System
49.9 kg + 10.2 kg = 60.1 kg

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AutoPIPE Plus 9.2.1 MODEL PAGE 6

C O O R D I N A T E S D A T A L I S T I N G

POINT -----COORDINATE (mm)-----

NAME X Y Z

*** SEGMENT A

A00	-2255.68	-3267.05	10640.00
A02	-2455.23	-3101.39	10640.00
A08	-2523.71	-3044.54	10640.00
A11 N	-2826.97	-2792.76	10640.00
A11	-2891.29	-2739.36	10640.00
A11 F	-2832.18	-2680.25	10640.00
A09 N	-2384.71	-2232.78	10640.00
A09	-2325.60	-2173.67	10640.00
A09 F	-2389.92	-2120.27	10640.00
A12 N	-3007.31	-1607.69	10640.00

```

                                CAVITYTODRYWELLGASRETURNLINEREV0.OUT
A12      -3060.75    -1563.32    10640.00
A12 F     -3109.87    -1612.43    10640.00
A10 N     -3577.33    -2079.89    10640.00
A10      -3626.44    -2129.00    10640.00
A10 F     -3679.88    -2084.64    10640.00
A03 N     -4003.87    -1815.67    10640.00
A03      -4062.50    -1767.00    10640.00
A03 F     -4062.50    -1767.00    10563.80
A07      -4062.50    -1767.00    10390.00
A05      -4062.50    -1767.00    10301.00
A06      -4062.50    -1767.00    10215.00

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AutoPIPE Plus 9.2.1 MODEL PAGE 7

PIPE DATA LISTING

Pipe ID/ Material	Nom/ O.D. Sch mm	-----Thickness(mm)----- W.Th. Corr Mill Insu Ling	Spec Grav	Weight(N/m) Pipe Other Total	ZL/ ZC	Composition
3S40 Stainless 1.4301	80 88.900 40	5.486 0 0.69 80 0	1.00	112 56.68 215	1.00	Austentic
2S40 Stainless 1.4301	50 60.325 40	3.912 0 0.49 50 0	1.00	53.91 23.14 98.27	1.00	Austentic

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AutoPIPE Plus 9.2.1 MODEL PAGE 8

MATERIAL DATA LISTING

Material Name/[Comp.]	Pipe ID	Density kg/m3	Pois. Al/At	Temper. deg C	Modulus E6 N/mm2 Axial	Hoop	Shear	Expans. mm/m	Composition
1.4301 X5CRNI18-10 [Austenitic]	3S40	7930.0	0.30	20.0	0.19996	0.19996	0.07691		Austentic Stainless
			40.00 35.00	198.0	0.18487			2.9495	
1.4301 X5CRNI18-10 [Austenitic]	2S40	7930.0	0.30	20.0	0.19996	0.19996	0.07691		Austentic Stainless
			40.00 35.00	198.0	0.18487			2.9495	

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AutoPIPE Plus 9.2.1 MODEL PAGE 9

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M A T E R I A L A L L O W A B L E D A T A L I S T I N G

			Proof	Proof	Tensile	Rupture	Allow.
Material		Temper.	(Rp0.2)	(Rp1.0)	(Rmt)	(fcr)	(fh)
Name	Pipe ID	deg C	N/mm2	N/mm2	N/mm2	N/mm2	N/mm2

X5CRNI18-10 1.4301	3S40	20.0	195.00	230.00	500.00	0.00	166.67
		198.0	127.52	155.60	0.00	0.00	103.73
X5CRNI18-10 1.4301	2S40	20.0	195.00	230.00	500.00	0.00	166.67
		198.0	127.52	155.60	0.00	0.00	103.73

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AutoPIPE Plus 9.2.1 MODEL PAGE 10

OPERATING TEMPERATURE AND PRESSURE DATA

STRESSES IN N/mm2

POINT		PRESS.	TEMPER	EXPAN.	MODULUS	0.2%	1.0%	TENSILE	CREEP
NAME	CASE	N/mm2	deg C	mm/m	E6 N/mm	PROOF	PROOF	(Rmt)	(fcr)
----	----	-----	-----	-----	-----	-----	-----	-----	-----
*** SEGMENT A									
A00	T1	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
A06	Same as previous point.								

u User-defined value

* Non-code material for allowable stress;
Non-standard material for expansion and modulus

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AutoPIPE Plus 9.2.1 MODEL PAGE 11

THERMAL ANCHOR MOVEMENTS AND DISPLACEMENTS

POINT		DX	DY	DZ	RX	RY	RZ
NAME	LOAD CASE	(mm)	(mm)	(mm)	(deg)	(deg)	(deg)

A00	Thermal 1	0.00	0.00	2.74	0.000	0.000	0.000
A06	Thermal 1	0.00	0.00	29.24	0.000	0.000	0.000

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AutoPIPE Plus 9.2.1 MODEL PAGE 12

S U P P O R T D A T A L I S T I N G

Point Name	Support Type	Support ID	Conn.to /Dir	Stiff.	Gap 1 (mm)	Gap 2 (mm)	Fric. Fact.	GapSet /#hgr	Preload (N)	Size	Figure

Spring Manufacturer: Anvil/Grinnell

NOTE 1: No soil supports present in the system.

Gap 1 : V-stop,Guide-V=down, Linestop,Incline,Tie/link=backward, Guide-H=Left

Gap 2 : V-stop,Guide-V=Up , Linestop,Incline,Tie/link=forward , Guide-H=Right

Stiffness units for rotation support: N.m/deg , all others: N/mm

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AutoPIPE Plus 9.2.1 MODEL PAGE 13

B E N D D A T A L I S T I N G

Point Name	Bend Type	Radius (mm)	Angle (deg)	OD (mm)	tnom (mm)	Material	Flg/Cuts	SIF in	SIF out	Analysis Set	Flexibility (K)	
A11	Elbow	76L	95.3	60.3	3.9	1.4301	0/0	1.73	1.73	1	4.40	None
A09	Elbow	76L	95.3	60.3	3.9	1.4301	0/0	1.73	1.73	1	4.40	None
A12	Elbow	76L	84.7	60.3	3.9	1.4301	0/0	1.73	1.73	1	4.40	None
A10	Elbow	76L	84.7	60.3	3.9	1.4301	0/0	1.73	1.73	1	4.40	None
A03	Elbow	76L	90.0	60.3	3.9	1.4301	0/0	1.73	1.73	1	4.40	None

L = Long radius

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AutoPIPE Plus 9.2.1 MODEL PAGE 14

T E E D A T A L I S T I N G

Point Name	Point Seg-Type	Pipe OD (mm)	Pipe Thk. (mm)	Material	Tee Type	**Crotch Radius (mm)	*Crotch Thick (mm)	SIF in	SIF out

* = Pad thickness for reinforced tee.

**= Fillet radius for Raised tee or discontinuity dist. for Thickened tee.

[]

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AutoPIPE Plus 9.2.1 MODEL PAGE 15

V A L V E D A T A L I S T I N G

Type	Point	Dnom	Length	Valve Weight	Actuator Weight	DX	DY	DZ	Joint	Size
/Avg.	/Max.									
Name	Type	(mm)	Rating	(mm)	(kg)	(kg)	(mm)	(mm)	(mm)	SAF Type SIF (mm)

[]

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AutoPIPE Plus 9.2.1 MODEL PAGE 16

F L A N G E D A T A L I S T I N G

Point	FLG	Dnom	Flange Weight	Bolt Weight	Joint	Size	Type
Name	No.	Type	(mm)	Rating	(kg)	(kg)	Type
			(mm)				
A00	1	SLIP-ON	80	300	6.4	0.0	DWSO
A06	1	SLIP-ON	80	300	6.4	0.0	DWSO

[]

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J O I N T T Y P E / U S E R - S I F D A T A L I S T I N G

Point	Point	SIF	SIF	Joint	Size	Over
Name	Type	in	out	Type	(mm)	(mm) ride

[]

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AutoPIPE Plus 9.2.1 MODEL PAGE 18

R E D U C E R D A T A L I S T I N G

OD	OD	Thk	Thk	Cone

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From Point	To Point	Length (mm)	From (mm)	To (mm)	From (mm)	To (mm)	From Material	Angle (deg)	SIF
A02	A08	89.00	88.9	60.3	5.5	3.9	1.4301		2.00t
A07	A05	89.00	60.3	88.9	3.9	5.5	1.4301		2.00t

t = Use SIF of 2.0

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AutoPIPE Plus 9.2.1 MODEL PAGE 19

R I G I D P I P E D A T A L I S T I N G

From Point	To Point	Include Weight	Include Expansion	Rigid Factor

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AutoPIPE Plus 9.2.1 MODEL PAGE 20

R E F E R E N C E P O I N T L I S T I N G

(Force - N , Moment - N.m)

Tag No./	Refer.	Point	Seg	Coord.	Load	[Report Loads]
Ref. ID	Side	Name	Name	System	Direction	Actual Allow.

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AutoPIPE Plus 9.2.1 RESULT PAGE 1

A N A L Y S I S S U M M A R Y

Current model revision number : 19

Static - Analysis set number	1
Date and Time of analysis	Sep 13, 2010 10:26 AM
Model Revision Number	19
Number of load cases	3
Load cases analyzed	GR HY T1
Description	Analysis Set no. 1
Gaps/Friction/Soil considered	No
Hanger design run	No
Cut short included	No
Thermal bowing included	No
Include Bourdon rotational effect	No

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 Pipe radius for Bourdon calculation ... Mean
 Weight of contents included Yes
 Pressure stiffening case None
 Hot modulus case None
 Water elevation for buoyancy loads Not considered
 Use corroded thickness in analysis No
 Rigid stiffness factor 1000.0

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AutoPIPE Plus 9.2.1 RESULT PAGE 2

CODE COMPLIANCE COMBINATIONS

<Description> Allowable Combination (N/mm2) D/A/P		Category	Method	Case/Combination	Factor	M/S	K-Factor
GR + Max P{1} Automatic Y Y Y		Sustain	Sum	GR[1] Max Long	1.00 1.00		
Max Range Automatic Y Y Y		Expansion	Sum	Temp. Range	1.00		
Amb to T1{1} Automatic Y Y Y		Expansion	Sum	T1[1]	1.00		
Hydrotest{1} Automatic Y Y Y		Occasion	Sum	HY[1] Max Long	1.00 1.00		1.000
Max P{1} Automatic Y Y Y		Hoop	Sum	Max Hoop	1.00		
Sus.+T1{1} Automatic Y Y Y		Creep Rupt	Sum	Max Sus T1[1]	1.00 1.00		

Notes:

D/A/P: [D]efault/[A]uto-Update/[P]rint options (Y=Yes, N=No)

□

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AutoPIPE Plus 9.2.1 RESULT PAGE 3

NON-CODE COMBINATIONS

<Description> Combination	Method	Case/Combination	Factor	D/A/P
Gravity{1}	Sum	GR[1]	1.00	Y Y Y
Hydrotest{1}	Sum	HY[1]	1.00	Y Y Y
Thermal 1{1}	Sum	T1[1]	1.00	Y Y Y

GRT1{1} CAVITYTODRYWELLGASRETURNLINEREV0.OUT
Sum GR[1] 1.00 Y Y Y
T1[1] 1.00

Notes:

D/A/P: [D]efault/[A]uto-Update/[P]rint options (Y=Yes, N=No)

□

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AutoPIPE Plus 9.2.1 RESULT PAGE 4

CODE COMPLIANCE

Y - Factor 0.50
Weld efficiency factor 1.00
Range reduction factor 1.00
Design Pressure Factor 1.00
Minimum stress ratio used in reports... 0.00
Number of stress points per span 0
Include corrosion in stress calcs. N
Include axial force in code stress N
Include sustain load margin Only if allowable stress is exceeded
Use single SIF Y
Set sustained/occasional SIF = 1 N
Set sustained/occasional SIF = 0.75i .. N
Apply cold/hot modulus ratio N
Disable auto code combinations N
Disable auto non-code combinations N
No. of thermal ranges to report 0
Include Max Range combination Y
Total stress Octahedral
Direct shear None
Longitudinal pressure calculation PD/4t
Inc. Axial Str and Pcase in Sustained.. N

□

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AutoPIPE Plus 9.2.1 RESULT PAGE 5

HYDROTEST LOAD :

Load case : HY
Specific gravity : 1.00
Temperature load case : Ambient
Temperature load case factor : 1.00
Pressure load case : P1
Pressure load case factor : 1.50
Include insulation : No
Included Segments - A

□

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AutoPIPE Plus 9.2.1 RESULT PAGE 6

D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
*** Segment A begin ***							
A00	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	2.740	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	2.740	0.000	0.000	0.000
A02	Gravity{1}	0.001	0.001	-0.017	-0.009	-0.001	0.000
	Hydrotest{1}	-0.002	0.003	-0.013	-0.007	-0.001	0.000
	Thermal 1{1}	-0.560	0.522	2.843	0.038	0.024	-0.019
	GRT1{1}	-0.560	0.522	2.826	0.029	0.023	-0.019
A08	Gravity{1}	0.001	0.001	-0.030	-0.014	-0.001	-0.001
	Hydrotest{1}	-0.003	0.004	-0.023	-0.011	-0.001	-0.001
	Thermal 1{1}	-0.737	0.719	2.930	0.061	0.038	-0.031
	GRT1{1}	-0.736	0.720	2.900	0.047	0.037	-0.032
A11 N	Gravity{1}	0.007	0.008	-0.158	-0.054	0.016	-0.002
	Hydrotest{1}	-0.001	0.015	-0.120	-0.041	0.012	-0.002
	Thermal 1{1}	-1.236	1.936	4.137	0.257	0.131	-0.146
	GRT1{1}	-1.229	1.944	3.980	0.203	0.147	-0.148
A11 F	Gravity{1}	0.012	0.008	-0.287	-0.079	0.028	-0.003
	Hydrotest{1}	0.005	0.017	-0.219	-0.060	0.022	-0.004
	Thermal 1{1}	-0.819	2.247	4.834	0.426	0.179	-0.285
	GRT1{1}	-0.807	2.255	4.547	0.347	0.208	-0.288
A09 N	Gravity{1}	0.044	-0.023	-1.280	-0.090	0.046	-0.004
	Hydrotest{1}	0.046	-0.011	-0.977	-0.068	0.035	-0.005
	Thermal 1{1}	2.936	1.132	6.681	0.589	0.423	-0.295
	GRT1{1}	2.980	1.109	5.402	0.499	0.469	-0.299
A09 F	Gravity{1}	0.053	-0.023	-1.449	-0.086	0.048	-0.005
	Hydrotest{1}	0.055	-0.009	-1.106	-0.065	0.037	-0.004
	Thermal 1{1}	3.392	1.451	7.891	0.602	0.530	-0.175
	GRT1{1}	3.445	1.428	6.442	0.516	0.578	-0.180
A12 N	Gravity{1}	0.091	0.023	-1.572	-0.067	0.060	-0.003
	Hydrotest{1}	0.077	0.036	-1.198	-0.051	0.046	-0.002
	Thermal 1{1}	2.193	3.706	19.955	0.412	0.781	0.047
	GRT1{1}	2.283	3.729	18.383	0.345	0.841	0.044

CAVITYTODRYWELL GASRETURN TNEREV@ OUT

A12 F	Gravity{1}	0.091	0.028	-1.452	-0.062	0.068	-0.001
	Hydrotest{1}	0.076	0.038	-1.106	-0.048	0.052	0.000
	Thermal 1{1}	1.936	3.471	21.342	0.347	0.804	0.197
	GRT1{1}	2.027	3.499	19.890	0.284	0.872	0.195
A10 N	Gravity{1}	0.089	0.029	-0.445	-0.034	0.076	0.001
	Hydrotest{1}	0.077	0.024	-0.334	-0.026	0.058	0.002
	Thermal 1{1}	2.551	0.100	25.477	0.198	0.690	0.244
	GRT1{1}	2.640	0.129	25.032	0.164	0.766	0.245

0

CAVITYTODRYWELLGASRETURNLINEREV0

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RESULT PAGE 7

DISPLACEMENTS

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
A10 F	Gravity{1}	0.089	0.027	-0.314	-0.023	0.068	0.002
	Hydrotest{1}	0.076	0.020	-0.234	-0.018	0.052	0.002
	Thermal 1{1}	2.284	-0.284	26.587	0.192	0.561	0.165
	GRT1{1}	2.373	-0.257	26.273	0.169	0.628	0.167
A03 N	Gravity{1}	0.077	0.013	-0.036	-0.002	0.046	0.003
	Hydrotest{1}	0.059	0.010	-0.021	-0.002	0.035	0.003
	Thermal 1{1}	0.710	-0.238	30.114	0.160	0.368	0.102
	GRT1{1}	0.787	-0.226	30.078	0.158	0.414	0.105
A03 F	Gravity{1}	0.036	0.006	0.000	-0.003	0.017	-0.001
	Hydrotest{1}	0.028	0.005	0.005	-0.002	0.013	-0.001
	Thermal 1{1}	0.206	-0.069	30.266	0.037	0.103	0.037
	GRT1{1}	0.242	-0.063	30.265	0.034	0.119	0.036
A07	Gravity{1}	0.005	0.001	0.000	-0.001	0.004	0.000
	Hydrotest{1}	0.004	0.001	0.002	-0.001	0.003	0.000
	Thermal 1{1}	0.025	-0.007	29.754	0.007	0.022	0.009
	GRT1{1}	0.030	-0.006	29.754	0.006	0.026	0.009
A05	Gravity{1}	0.001	0.000	0.000	0.000	0.001	0.000
	Hydrotest{1}	0.001	0.000	0.001	0.000	0.001	0.000
	Thermal 1{1}	0.004	-0.001	29.491	0.002	0.007	0.003
	GRT1{1}	0.005	-0.001	29.491	0.002	0.008	0.003

CAVITYTODRYWELLGASRETURNLINEREV0.OUT

A06	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	29.238	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	29.238	0.000	0.000	0.000

*** Segment A end ***

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CAVITYTODRYWELLGASRETURNLINEREV0

09/13/2010 CAVITYTODRYWELLGASRETURNLINE

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R E S T R A I N T R E A C T I O N S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result
A00	Anchor Tag No.: TOCAV1								
	Gravity{1}	5	2	-321	321	-152	-59	-6	163
	Hydrotest{1}	6	0	-258	258	-116	-45	-6	124
	Thermal 1{1}	527	-321	575	844	643	503	-330	880
	GRT1{1}	532	-320	254	671	491	444	-336	742
A06	Anchor Tag No.: TODW1								
	Gravity{1}	-5	-2	-269	269	-11	68	-5	69
	Hydrotest{1}	-6	0	-220	220	-9	51	-3	52
	Thermal 1{1}	-527	321	-575	844	83	311	120	344
	GRT1{1}	-532	320	-843	1047	72	379	115	403

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CAVITYTODRYWELLGASRETURNLINEREV0

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G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result
A00	Gravity{1}	-5	-2	258	258	152	59	6	163
	Hydrotest{1}	-6	0	195	196	116	45	6	124
	Thermal 1{1}	-527	321	-575	844	-643	-503	330	880

*** Segment A begin ***

		CAVITY	TODRY	WELL	GAS	RETURN	LINE	REV	0. OUT
	GRT1{1}	-532	320	-316	697	-491	-444	336	742
A02	Gravity{1}	-5	-2	202	202	113	13	5	114
	Hydrotest{1}	-6	0	154	154	87	10	5	87
	Thermal 1{1}	-527	321	-575	844	-548	-388	307	738
	GRT1{1}	-532	320	-372	724	-434	-375	312	653
A08	Gravity{1}	-5	-2	188	189	102	0	5	102
	Hydrotest{1}	-6	0	144	144	78	0	5	78
	Thermal 1{1}	-527	321	-575	844	-515	-349	299	690
	GRT1{1}	-532	320	-386	731	-413	-349	304	620
A11 N	Gravity{1}	-5	-2	150	150	60	-51	3	79
	Hydrotest{1}	-6	0	114	114	46	-39	3	60
	Thermal 1{1}	-527	321	-575	844	-370	-175	264	487
	GRT1{1}	-532	320	-425	752	-310	-226	266	467
A11 F	Gravity{1}	-5	-2	137	137	44	-52	2	68
	Hydrotest{1}	-6	0	105	105	33	-40	3	52
	Thermal 1{1}	-527	321	-575	844	-306	-172	206	407
	GRT1{1}	-532	320	-437	759	-262	-224	208	403
A09 N	Gravity{1}	-5	-2	75	75	-4	-5	1	6
	Hydrotest{1}	-6	0	57	58	-3	-4	0	5
	Thermal 1{1}	-527	321	-575	844	-48	-429	-174	465
	GRT1{1}	-532	320	-500	797	-52	-433	-173	470
A09 F	Gravity{1}	-5	-2	63	63	-12	-5	0	13
	Hydrotest{1}	-6	0	48	48	-9	-4	-1	10
	Thermal 1{1}	-527	321	-575	844	16	-426	-231	485
	GRT1{1}	-532	320	-512	805	5	-431	-231	489
A12 N	Gravity{1}	-5	-2	-16	17	-24	-19	-4	31
	Hydrotest{1}	-6	0	-13	14	-18	-15	-4	23
	Thermal 1{1}	-527	321	-575	844	311	-71	-303	440
	GRT1{1}	-532	320	-591	857	287	-90	-307	430
A12 F	Gravity{1}	-5	-2	-27	28	-24	-17	-4	29
	Hydrotest{1}	-6	0	-21	22	-18	-13	-4	23
	Thermal 1{1}	-527	321	-575	844	308	-12	-268	408
	GRT1{1}	-532	320	-602	865	284	-29	-271	394
A10 N	Gravity{1}	-5	-2	-92	92	-52	11	-2	53
	Hydrotest{1}	-6	0	-71	71	-40	9	-1	40
	Thermal 1{1}	-527	321	-575	844	39	257	129	290
	GRT1{1}	-532	320	-667	911	-12	268	127	296

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RESULT PAGE 10

G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A10 F	Gravity{1}	-5	-2	-103	103	-52	21	-2	56
	Hydrotest{1}	-6	0	-79	79	-40	16	-1	43
	Thermal 1{1}	-527	321	-575	844	37	315	165	358
	GRT1{1}	-532	320	-678	919	-15	337	162	374
A03 N	Gravity{1}	-5	-2	-145	145	-19	61	-4	64
	Hydrotest{1}	-6	0	-111	111	-14	47	-3	49
	Thermal 1{1}	-527	321	-575	844	191	502	127	552
	GRT1{1}	-532	320	-719	950	173	563	122	601
A03 F	Gravity{1}	-5	-2	-156	157	-11	70	-5	71
	Hydrotest{1}	-6	0	-120	120	-9	53	-3	54
	Thermal 1{1}	-527	321	-575	844	195	495	120	545
	GRT1{1}	-532	320	-731	959	183	565	115	605
A07	Gravity{1}	-5	-2	-174	174	-11	69	-5	70
	Hydrotest{1}	-6	0	-133	133	-9	52	-3	53
	Thermal 1{1}	-527	321	-575	844	139	404	120	443
	GRT1{1}	-532	320	-748	972	128	472	115	503
A05	Gravity{1}	-5	-2	-187	188	-11	68	-5	69
	Hydrotest{1}	-6	0	-143	143	-9	52	-3	52
	Thermal 1{1}	-527	321	-575	844	110	357	120	392
	GRT1{1}	-532	320	-762	983	99	425	115	451
A06	Gravity{1}	-5	-2	-206	206	-11	68	-5	69
	Hydrotest{1}	-6	0	-157	157	-9	51	-3	52
	Thermal 1{1}	-527	321	-575	844	83	311	120	344
	GRT1{1}	-532	320	-781	997	72	379	115	403

*** Segment A end ***

CAVITYTODRYWELLGASRETURNLINEREV0

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RESULT PAGE 11

G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm²)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
-----	-----	-----	-----	-----	-----	-----	-----	-----
*** Segment A begin ***								
A00	SIFI= 1.20 Gravity{1}	0	6	-6	1	6	-6	7
	Hydrotest{1}	17	12	3	1	17	3	16
	Thermal 1{1}	0	36	-37	3	36	-37	37
	GRT1{1}	0	31	-32	2	31	-32	32
A02	SIFI= 2.00 Gravity{1}	0	6	-6	1	6	-6	6
	Hydrotest{1}	17	12	3	1	17	3	16
	Thermal 1{1}	0	50	-51	3	51	-51	51
	GRT1{1}	0	45	-46	2	45	-46	46
A08	SIFI= 2.00 Gravity{1}	0	14	-14	4	15	-15	16
	Hydrotest{1}	16	18	-4	3	20	-4	19
	Thermal 1{1}	0	145	-146	9	145	-147	147
	GRT1{1}	0	132	-134	5	133	-134	135
A11 N-	SIFI= 1.00 Gravity{1}	0	0	0	4	4	-4	7
	Hydrotest{1}	16	7	7	3	17	6	15
	Thermal 1{1}	0	49	-50	9	50	-52	53
	GRT1{1}	0	49	-51	5	49	-51	51
A11 N+	SIFI= 1.73 Gravity{1}	0	1	-1	4	5	-5	7
	Hydrotest{1}	16	8	6	3	17	5	15
	Thermal 1{1}	0	85	-87	9	86	-88	88
	GRT1{1}	0	85	-87	5	86	-87	88
A11 F-	SIFI= 1.73 Gravity{1}	0	13	-13	0	13	-13	13
	Hydrotest{1}	16	17	-3	0	17	-3	18
	Thermal 1{1}	0	43	-43	18	50	-49	53
	GRT1{1}	0	40	-39	19	47	-47	51
A11 F+	SIFI= 1.00 Gravity{1}	0	7	-7	0	7	-7	7
	Hydrotest{1}	16	13	1	0	16	1	16
	Thermal 1{1}	0	25	-24	18	35	-34	40
	GRT1{1}	0	23	-23	19	34	-33	40

CAVITYTODRYWELLGASRETURNLINEREV0.OUT

A09 N- SIFI= 1.00 SIFO= 1.00

Gravity{1}	0	0	0	0	0	0	1	304
Hydrotest{1}	16	7	7	0	16	7	14	204
Thermal 1{1}	0	35	-35	18	43	-43	47	33
GRT1{1}	0	35	-35	19	43	-43	48	33

A09 N+ SIFI= 1.73 SIFO= 1.73

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CAVITYTODRYWELLGASRETURNLINEREV0

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RESULT PAGE 12

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
-----	-----	-----	-----	-----	-----	-----	-----	---
	Gravity{1}	0	0	0	0	0	0	1 34
	Hydrotest{1}	16	7	7	0	16	7	14 294
	Thermal 1{1}	0	61	-60	18	66	-65	68 123
	GRT1{1}	0	61	-60	19	66	-65	69 123
A09 F- SIFI= 1.73 SIFO= 1.73	Gravity{1}	0	2	-2	0	2	-2	2 91
	Hydrotest{1}	16	9	5	0	16	5	14 84
	Thermal 1{1}	0	73	-75	15	76	-78	80 54
	GRT1{1}	0	75	-77	15	78	-79	81 55
A09 F+ SIFI= 1.00 SIFO= 1.00	Gravity{1}	0	1	-1	0	1	-1	1 1
	Hydrotest{1}	16	8	6	0	16	6	14 354
	Thermal 1{1}	0	42	-44	15	47	-49	51 324
	GRT1{1}	0	43	-45	15	48	-49	52 325
A12 N- SIFI= 1.00 SIFO= 1.00	Gravity{1}	0	3	-3	0	3	-3	3 353
	Hydrotest{1}	16	10	5	0	16	5	15 350
	Thermal 1{1}	0	36	-37	15	41	-43	46 245
	GRT1{1}	0	35	-37	15	40	-42	45 250
A12 N+ SIFI= 1.73 SIFO= 1.73	Gravity{1}	0	6	-6	0	6	-6	6 83
	Hydrotest{1}	16	11	3	0	16	3	15 80
	Thermal 1{1}	0	62	-64	15	66	-68	70 335
	GRT1{1}	0	61	-63	15	64	-66	68 340
A12 F- SIFI= 1.73 SIFO= 1.73	Gravity{1}	0	1	-1	2	2	-2	3 308

CAVITYTODRYWELLGASRETURNLINEREV0.OUT

Hydrotest{1}	16	8	6	1	16	6	14	318
Thermal 1{1}	0	66	-66	11	68	-68	69	40
GRT1{1}	0	66	-66	10	67	-68	68	39
A12 F+ SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	1	-1	2	2	-2	3	218
Hydrotest{1}	16	8	6	1	16	6	14	228
Thermal 1{1}	0	38	-38	11	41	-41	43	310
GRT1{1}	0	38	-38	10	40	-41	42	309
A10 N- SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	5	-5	2	5	-5	6	183
Hydrotest{1}	16	11	3	1	16	3	15	182
Thermal 1{1}	0	22	-22	11	27	-27	30	140
GRT1{1}	0	25	-26	10	29	-29	31	147
A10 N+ SIFI= 1.73 SIFO= 1.73 Gravity{1}	0	8	-8	2	9	-9	9	93
Hydrotest{1}	16	13	1	1	17	1	16	92
Thermal 1{1}	0	38	-38	11	41	-41	43	50
GRT1{1}	0	44	-45	10	46	-47	48	57

 CAVITYTODRYWELLGASRETURNLINEREV0
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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point name	Load combination	Hoop Stress	Longitudinal Max	Longitudinal Min	Shear Stress	Principal Max	Principal Min	Total Stress	Loc
A10 F- SIFI= 1.73 SIFO= 1.73 Gravity{1}		0	3	-3	3	5	-5	6	262
Hydrotest{1}		16	9	5	2	17	4	15	265
Thermal 1{1}		0	58	-60	9	60	-61	62	58
GRT1{1}		0	55	-57	12	58	-59	61	57
A10 F+ SIFI= 1.00 SIFO= 1.00 Gravity{1}		0	2	-2	3	4	-4	5	352
Hydrotest{1}		16	8	6	2	17	5	15	355
Thermal 1{1}		0	33	-35	9	36	-37	39	148
GRT1{1}		0	31	-33	12	36	-37	40	147
A03 N- SIFI= 1.00 SIFO= 1.00 Gravity{1}		0	4	-4	3	5	-5	6	187
Hydrotest{1}		16	10	4	2	17	4	15	186

			CAVITYTODRYWELLGASRETURNLINEREV0.OUT							
Thermal 1{1}			0	56	-58	9	58	-59	60	166
GRT1{1}			0	60	-62	12	62	-64	65	167
A03 N+	SIFI= 1.73	SIFO= 1.73								
Gravity{1}			0	7	-7	3	8	-8	8	7
Hydrotest{1}			16	12	2	2	17	2	16	6
Thermal 1{1}			0	98	-100	9	99	-100	101	346
GRT1{1}			0	104	-106	12	106	-107	108	347
A03 F-	SIFI= 1.73	SIFO= 1.73								
Gravity{1}			0	13	-14	0	13	-14	14	311
Hydrotest{1}			16	17	-3	0	17	-3	18	311
Thermal 1{1}			0	99	-101	7	100	-102	102	342
GRT1{1}			0	111	-113	6	111	-113	114	338
A03 F+	SIFI= 1.00	SIFO= 1.00								
Gravity{1}			0	7	-8	0	7	-8	8	351
Hydrotest{1}			16	13	1	0	16	1	16	351
Thermal 1{1}			0	57	-59	7	58	-59	60	21
GRT1{1}			0	64	-66	6	64	-66	67	18
A07	SIFI= 2.00	SIFO= 2.00								
Gravity{1}			0	15	-15	0	15	-15	15	351
Hydrotest{1}			16	18	-5	0	18	-5	19	351
Thermal 1{1}			0	92	-94	7	93	-94	94	19
GRT1{1}			0	105	-108	6	106	-108	108	15
A05	SIFI= 2.00	SIFO= 2.00								
Gravity{1}			0	5	-5	0	5	-5	5	351
Hydrotest{1}			17	11	4	0	17	4	16	350
Thermal 1{1}			0	26	-27	2	26	-27	27	17
GRT1{1}			0	30	-31	2	30	-32	32	13
A06	SIFI= 1.20	SIFO= 1.20								
Gravity{1}			0	3	-3	0	3	-3	3	351
Hydrotest{1}			17	10	5	0	17	5	15	350
Thermal 1{1}			0	13	-14	2	14	-14	15	15

□

CAVITYTODRYWELLGASRETURNLINEREV0

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AutoPIPE Plus 9.2.1 RESULT PAGE 14

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
-----	-----	-----	-----	-----	-----	-----	-----	---
	GRT1{1}	0	16	-17	2	16	-17	17

CAVITYTODRYWELLGASRETURNLINEREV0.OUT

*** Segment A end ***

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AutoPIPE Plus 9.2.1

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EN 13480 (2002) CODE COMPLIANCE

Point	Load	(Moments in N.m)			(Stress in N/mm2)			Code	Code
		Ma	Mb	Mc	S.I.F	Eq. Load			
name	combination	(Sus.)	(Occ.)	(Exp.)		no. type	Stress	Allow.	
A08	Max P{1}					HOOP	12	104	
	GR + Max P{1}	102			2.00	2-1 SUST	23	104	
	TR:Amb to T1{1}			690	2.00	4-1 DISP	150	217	
	Amb to T1{1}			690	2.00	4-1 DISP	150	217	
	Hydrotest{1}	0	78		2.00	3-1 OCC	21	219	
	Sus.+T1{1}				2.00	5-1 CRUP	60	<NOTE 1>	
A03 N+	Max P{1}					HOOP	12	104	
	GR + Max P{1}	64			1.73	2-1 SUST	15	104	
	TR:Amb to T1{1}			552	1.73	4-1 DISP	104	217	
	Amb to T1{1}			552	1.73	4-1 DISP	104	217	
	Hydrotest{1}	0	49		1.73	3-1 OCC	16	219	
	Sus.+T1{1}				1.73	5-1 CRUP	41	<NOTE 1>	
A03 F-	Max P{1}					HOOP	12	104	
	GR + Max P{1}	71			1.73	2-1 SUST	16	104	
	TR:Amb to T1{1}			545	1.73	4-1 DISP	103	217	
	Amb to T1{1}			545	1.73	4-1 DISP	103	217	
	Hydrotest{1}	0	54		1.73	3-1 OCC	16	219	
	Sus.+T1{1}				1.73	5-1 CRUP	41	<NOTE 1>	
A07	Max P{1}					HOOP	12	104	
	GR + Max P{1}	70			2.00	2-1 SUST	17	104	
	TR:Amb to T1{1}			443	2.00	4-1 DISP	97	217	
	Amb to T1{1}			443	2.00	4-1 DISP	97	217	
	Hydrotest{1}	0	53		2.00	3-1 OCC	17	219	
	Sus.+T1{1}				2.00	5-1 CRUP	41	<NOTE 1>	
A11 N+	Max P{1}					HOOP	12	104	
	GR + Max P{1}	79			1.73	2-1 SUST	17	104	
	TR:Amb to T1{1}			487	1.73	4-1 DISP	92	217	
	Amb to T1{1}			487	1.73	4-1 DISP	92	217	

CAVITYTODRYWELLGASRETURNLINEREV0.OUT

Hydrotest{1}	0	60	1.73	3-1	OCC	17	219
Sus.+T1{1}			1.73	5-1	CRUP	40	<NOTE 1>
A09 F- Max P{1}					HOOP	12	104
GR + Max P{1}	13		1.73	2-1	SUST	8	104
TR:Amb to T1{1}		485	1.73	4-1	DISP	91	217
Amb to T1{1}		485	1.73	4-1	DISP	91	217
Hydrotest{1}	0	10	1.73	3-1	OCC	10	219
Sus.+T1{1}			1.73	5-1	CRUP	30	<NOTE 1>
A09 N+ Max P{1}					HOOP	12	104
GR + Max P{1}	6		1.73	2-1	SUST	7	104
TR:Amb to T1{1}		465	1.73	4-1	DISP	88	217
Amb to T1{1}		465	1.73	4-1	DISP	88	217
Hydrotest{1}	0	5	1.73	3-1	OCC	9	219
Sus.+T1{1}			1.73	5-1	CRUP	29	<NOTE 1>

 CAVITYTODRYWELLGASRETURNLINEREV0
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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F no. type	Stress	Allow.
A12 N+ Max P{1}					HOOP	12	104
GR + Max P{1}		31		1.73	2-1 SUST	10	104
TR:Amb to T1{1}				440	1.73 4-1 DISP	83	217
Amb to T1{1}				440	1.73 4-1 DISP	83	217
Hydrotest{1}		0	23	1.73	3-1 OCC	12	219
Sus.+T1{1}				1.73	5-1 CRUP	31	<NOTE 1>
A12 F- Max P{1}					HOOP	12	104
GR + Max P{1}		29		1.73	2-1 SUST	10	104
TR:Amb to T1{1}				408	1.73 4-1 DISP	77	217
Amb to T1{1}				408	1.73 4-1 DISP	77	217
Hydrotest{1}		0	23	1.73	3-1 OCC	12	219
Sus.+T1{1}				1.73	5-1 CRUP	29	<NOTE 1>
A11 F- Max P{1}					HOOP	12	104
GR + Max P{1}		68		1.73	2-1 SUST	15	104
TR:Amb to T1{1}				407	1.73 4-1 DISP	77	217

CAVITYTODRYWELLGASRETURNLINEREV0.OUT

Amb to T1{1}			407	1.73	4-1 DISP	77	217
Hydrotest{1}	0	52		1.73	3-1 OCC	16	219
Sus.+T1{1}				1.73	5-1 CRUP	35	<NOTE 1>
A10 F- Max P{1}					HOOP	12	104
GR + Max P{1}	56			1.73	2-1 SUST	14	104
TR:Amb to T1{1}			358	1.73	4-1 DISP	67	217
Amb to T1{1}			358	1.73	4-1 DISP	67	217
Hydrotest{1}	0	43		1.73	3-1 OCC	15	219
Sus.+T1{1}				1.73	5-1 CRUP	31	<NOTE 1>
A03 N- Max P{1}					HOOP	12	104
GR + Max P{1}	64			1.00	2-1 SUST	13	104
TR:Amb to T1{1}			552	1.00	4-1 DISP	60	217
Amb to T1{1}			552	1.00	4-1 DISP	60	217
Hydrotest{1}	0	49		1.00	3-1 OCC	14	219
Sus.+T1{1}				1.00	5-1 CRUP	33	<NOTE 1>
A03 F+ Max P{1}					HOOP	12	104
GR + Max P{1}	71			1.00	2-1 SUST	13	104
TR:Amb to T1{1}			545	1.00	4-1 DISP	59	217
Amb to T1{1}			545	1.00	4-1 DISP	59	217
Hydrotest{1}	0	54		1.00	3-1 OCC	15	219
Sus.+T1{1}				1.00	5-1 CRUP	33	<NOTE 1>
A10 N+ Max P{1}					HOOP	12	104
GR + Max P{1}	53			1.73	2-1 SUST	13	104
TR:Amb to T1{1}			290	1.73	4-1 DISP	55	217
Amb to T1{1}			290	1.73	4-1 DISP	55	217
Hydrotest{1}	0	40		1.73	3-1 OCC	14	219
Sus.+T1{1}				1.73	5-1 CRUP	27	<NOTE 1>

CAVITYTODRYWELLGASRETURNLINEREV0

09/13/2010 CAVITYTODRYWELLGASRETURNLINE

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

A11 N- Max P{1}						HOOP	12	104	
GR + Max P{1}		79			1.00	2-1 SUST	14	104	

CAVITYTODRYWELLGASRETURNLINEREV0.OUT

	TR:Amb to T1{1}			487	1.00	4-1 DISP	53	217
	Amb to T1{1}			487	1.00	4-1 DISP	53	217
	Hydrotest{1}	0	60		1.00	3-1 OCC	15	219
	Sus.+T1{1}				1.00	5-1 CRUP	32	<NOTE 1>
A09 F+	Max P{1}					HOOP	12	104
	GR + Max P{1}	13			1.00	2-1 SUST	7	104
	TR:Amb to T1{1}			485	1.00	4-1 DISP	53	217
	Amb to T1{1}			485	1.00	4-1 DISP	53	217
	Hydrotest{1}	0	10		1.00	3-1 OCC	10	219
	Sus.+T1{1}				1.00	5-1 CRUP	25	<NOTE 1>
A02	Max P{1}					HOOP	13	104
	GR + Max P{1}	114			2.00	2-1 SUST	12	104
	TR:Amb to T1{1}			738	2.00	4-1 DISP	52	217
	Amb to T1{1}			738	2.00	4-1 DISP	52	217
	Hydrotest{1}	0	87		2.00	3-1 OCC	14	219
	Sus.+T1{1}				2.00	5-1 CRUP	25	<NOTE 1>
A09 N-	Max P{1}					HOOP	12	104
	GR + Max P{1}	6			1.00	2-1 SUST	6	104
	TR:Amb to T1{1}			465	1.00	4-1 DISP	51	217
	Amb to T1{1}			465	1.00	4-1 DISP	51	217
	Hydrotest{1}	0	5		1.00	3-1 OCC	9	219
	Sus.+T1{1}				1.00	5-1 CRUP	23	<NOTE 1>
A12 N-	Max P{1}					HOOP	12	104
	GR + Max P{1}	31			1.00	2-1 SUST	9	104
	TR:Amb to T1{1}			440	1.00	4-1 DISP	48	217
	Amb to T1{1}			440	1.00	4-1 DISP	48	217
	Hydrotest{1}	0	23		1.00	3-1 OCC	11	219
	Sus.+T1{1}				1.00	5-1 CRUP	25	<NOTE 1>
A12 F+	Max P{1}					HOOP	12	104
	GR + Max P{1}	29			1.00	2-1 SUST	9	104
	TR:Amb to T1{1}			408	1.00	4-1 DISP	44	217
	Amb to T1{1}			408	1.00	4-1 DISP	44	217
	Hydrotest{1}	0	23		1.00	3-1 OCC	11	219
	Sus.+T1{1}				1.00	5-1 CRUP	24	<NOTE 1>
A11 F+	Max P{1}					HOOP	12	104
	GR + Max P{1}	68			1.00	2-1 SUST	13	104
	TR:Amb to T1{1}			407	1.00	4-1 DISP	44	217
	Amb to T1{1}			407	1.00	4-1 DISP	44	217
	Hydrotest{1}	0	52		1.00	3-1 OCC	14	219

Sus.+T1{1} CAVITYTODRYWELLGASRETURNLINEREV0.OUT 1.00 5-1 CRUP 28 <NOTE 1>

0

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RESULT PAGE 18

EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F					
A10 F+	Max P{1}							HOOP	12	104
	GR + Max P{1}	56			1.00	2-1	SUST		12	104
	TR:Amb to T1{1}			358	1.00	4-1	DISP		39	217
	Amb to T1{1}			358	1.00	4-1	DISP		39	217
	Hydrotest{1}	0	43		1.00	3-1	OCC		13	219
	Sus.+T1{1}				1.00	5-1	CRUP		25	<NOTE 1>
A00	Max P{1}							HOOP	13	104
	GR + Max P{1}	163			1.20	2-1	SUST		12	104
	TR:Amb to T1{1}			880	1.20	4-1	DISP		37	217
	Amb to T1{1}			880	1.20	4-1	DISP		37	217
	Hydrotest{1}	0	124		1.20	3-1	OCC		14	219
	Sus.+T1{1}				1.20	5-1	CRUP		22	<NOTE 1>
A10 N-	Max P{1}							HOOP	12	104
	GR + Max P{1}	53			1.00	2-1	SUST		12	104
	TR:Amb to T1{1}			290	1.00	4-1	DISP		32	217
	Amb to T1{1}			290	1.00	4-1	DISP		32	217
	Hydrotest{1}	0	40		1.00	3-1	OCC		13	219
	Sus.+T1{1}				1.00	5-1	CRUP		22	<NOTE 1>
A05	Max P{1}							HOOP	13	104
	GR + Max P{1}	69			2.00	2-1	SUST		10	104
	TR:Amb to T1{1}			392	2.00	4-1	DISP		28	217
	Amb to T1{1}			392	2.00	4-1	DISP		28	217
	Hydrotest{1}	0	52		2.00	3-1	OCC		12	219
	Sus.+T1{1}				2.00	5-1	CRUP		17	<NOTE 1>
A06	Max P{1}							HOOP	13	104
	GR + Max P{1}	69			1.20	2-1	SUST		9	104
	TR:Amb to T1{1}			344	1.20	4-1	DISP		15	217
	Amb to T1{1}			344	1.20	4-1	DISP		15	217

Hydrotest{1}	CAVITYTODRYWELLGASRETURNLINEREV0.OUT						
	0 52 1.20 3-1 OCC 11 219						
Sus.+T1{1}	1.20 5-1 CRUP 13 <NOTE 1>						

*** NOTE 1: No allowable stress could be calculated. ***
 *** Mechanical properties are outside of temperature range. ***

CAVITYTODRYWELLGASRETURNLINEREV0

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AutoPIPE Plus 9.2.1 RESULT PAGE 19

R E S U L T S U M M A R Y

Maximum displacements (mm)

Maximum X :	3.445	Point : A09 F	Load Comb.: GRT1{1}
Maximum Y :	3.729	Point : A12 N	Load Comb.: GRT1{1}
Maximum Z :	30.266	Point : A03 F	Load Comb.: Thermal 1{1}
Max. total:	30.266	Point : A03 F	Load Comb.: Thermal 1{1}

Maximum rotations (deg)

Maximum X :	0.602	Point : A09 F	Load Comb.: Thermal 1{1}
Maximum Y :	0.872	Point : A12 F	Load Comb.: GRT1{1}
Maximum Z :	-0.299	Point : A09 N	Load Comb.: GRT1{1}
Max. total:	0.937	Point : A12 F	Load Comb.: GRT1{1}

Maximum restraint forces (N)

Maximum X :	532	Point : A00	Load Comb.: GRT1{1}
Maximum Y :	-321	Point : A00	Load Comb.: Thermal 1{1}
Maximum Z :	-843	Point : A06	Load Comb.: GRT1{1}
Max. total:	1047	Point : A06	Load Comb.: GRT1{1}

Maximum restraint moments (N.m)

Maximum X :	643	Point : A00	Load Comb.: Thermal 1{1}
Maximum Y :	503	Point : A00	Load Comb.: Thermal 1{1}
Maximum Z :	-336	Point : A00	Load Comb.: GRT1{1}
Max. total:	880	Point : A00	Load Comb.: Thermal 1{1}

CAVITYTODRYWELLGASRETURNLINEREV0

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AutoPIPE Plus 9.2.1 RESULT PAGE 20

R E S U L T S U M M A R Y

Maximum pipe forces (N)

Maximum X :	-532	Point : A03 N	Load Comb.: GRT1{1}
Maximum Y :	321	Point : A02	Load Comb.: Thermal 1{1}
Maximum Z :	-781	Point : A06	Load Comb.: GRT1{1}
Max. total:	997	Point : A06	Load Comb.: GRT1{1}

Maximum pipe moments (N.m)

Maximum X :	-643	Point : A00	Load Comb.: Thermal 1{1}
Maximum Y :	565	Point : A03 F	Load Comb.: GRT1{1}
Maximum Z :	336	Point : A00	Load Comb.: GRT1{1}
Max. total:	880	Point : A00	Load Comb.: Thermal 1{1}

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R E S U L T S U M M A R Y

Maximum sustained stress

Point	:	A08
Stress N/mm2	:	23
Allowable N/mm2	:	104
Ratio	:	0.22
Load combination	:	GR + Max P{1}

Maximum displacement stress

Point	:	A08
Stress N/mm2	:	150
Allowable N/mm2	:	217
Ratio	:	0.69
Load combination	:	Max Range

Maximum occasional stress

Point	:	A08
Stress N/mm2	:	21
Allowable N/mm2	:	219

CAVITYTODRYWELLGASRETURNLINEREV0.OUT
Ratio : 0.10
Load combination : Hydrotest{1}

Maximum hoop stress

Point : A02
Stress N/mm2 : 13
Allowable N/mm2 : 104
Ratio : 0.13
Load combination : Max P{1}

Maximum creep rupture stress

Point : A08
Stress N/mm2 : 60
Allowable N/mm2 : 0 < See Note 1 >
Ratio : 0.00
Load combination : Sus.+T1{1}

0

CAVITYTODRYWELLGASRETURNLINEREV0

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AutoPIPE Plus 9.2.1 RESULT PAGE 22

R E S U L T S U M M A R Y

Maximum sustained stress ratio

Point : A08
Stress N/mm2 : 23
Allowable N/mm2 : 104
Ratio : 0.22
Load combination : GR + Max P{1}

Maximum displacement stress ratio

Point : A08
Stress N/mm2 : 150
Allowable N/mm2 : 217
Ratio : 0.69
Load combination : Max Range

Maximum occasional stress ratio

Point : A08
Stress N/mm2 : 21
Allowable N/mm2 : 219
Ratio : 0.10
Load combination : Hydrotest{1}

Maximum hoop stress ratio

Point : A02
Stress N/mm2 : 13
Allowable N/mm2 : 104
Ratio : 0.13
Load combination : Max P{1}

Maximum creep rupture stress ratio

Point : A08
Stress N/mm2 : 60
Allowable N/mm2 : 0 < See Note 1 >
Ratio : 0.00
Load combination : Sus.+T1{1}

* * * The system satisfies EN 13480 (2002) code requirements * * *
* * * for the selected options * * *

CAVITYTODRYWELLGASRETURNLINEREV0.OUT

Warnings:

(1) Maximum creep rupture stress ratio is zero

* * * Note 1: Points were found in this stress category with * * *
* * * mechanical properties outside of temperature range. No * * *

□

CAVITYTODRYWELLGASRETURNLINEREV0

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AutoPIPE Plus 9.2.1 RESULT PAGE 23

R E S U L T S U M M A R Y

* * * allowable stress were calculated at these points.

* * *

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ALLEGATO 9. DW to PSS-A INPUT E OUTPUT DEI CALCOLI AUTOPIPE

DRYWELL TO PSSAREV0.pdf

DRYWELL TO PSSAREV0.OUT

DRYWELL TO PSSAREV0

09/13/2010 DRYWELL TO PSSA

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AutoPIPE Plus 9.2.1 MODEL PAGE 1

[illegible]

Pipe Stress Analysis and Design Program

Version: 09.02.01.07

Edition: Plus

Developed and Maintained by

BENTLEY SYSTEMS, INCORPORATED
1600 Riviera Ave., Suite 300
Walnut Creek, CA 94596

!

DRYWELL TO PSSAREV0

09/13/2010 DRYWELL TO PSSA

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AutoPIPE Plus 9.2.1 MODEL PAGE 2

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*****
**
**          AUTOPIPE SYSTEM INFORMATION          **
**
*****
```

SYSTEM NAME : DRYWELL TO PSSAREV0

PROJECT ID : DRYWELL TO PSSA

PREPARED BY : CONGIU

CHECKED BY : ACHILLI

1ST APPROVER : _____

2ND APPROVER : _____

DRYWELL TO PSSAREV0.OUT
PIPING CODE : EN 13480
YEAR : 2002
LIFETIME (HRS) : 200000
LIFETIME MONITORING : NO
VERTICAL AXIS : Z
AMBIENT TEMPERATURE : 20.0 deg C
COMPONENT LIBRARY : AUTOPIPE
MATERIAL LIBRARY : EUROMAT
MODEL REVISION NUMBER : 50

0

DRYWELL TO PSSAREV0

09/13/2010 DRYWELL TO PSSA

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AutoPIPE Plus 9.2.1 MODEL PAGE 3

C O M P O N E N T D A T A L I S T I N G

*** SEGMENT A

From C032 to A01, DX= -160.21 mm, DY= 160.42 mm, L= 226.72 mm Run

PIPE DATA:

Pipe Id= 1.5S40, Material= X5CRNI18-10 1.4301, Product= Seamless tube, Source= EURO,
Composition= Austentic Stainless, Poisson= 0.300, Nom Size= 40 mm, OD= 48.260 mm, Sch= 40, Wall
Thk= 3.683 mm,
Mill= 0.460 mm, Cor= 0 mm, Pipe Density= 7930.00 kg/m3, Pipe Unit Wgt= 40.11 N/m, Content Sp Gr=
1.000,
Content Unit Wgt= 12.87 N/m, Insul Thk= 50.000 mm, Insul Material= MINERAL WOOL, Insul Density=
136.16 kg/m3,
Insul Unit Wgt= 20.61 N/m, Lining Thk= 0 mm, Long Weld factor= 1.00, Circ Weld factor= 1.00, Long
Modulus= 0.19996 E6 N/mm2,
Hoop Modulus= 0.19996 E6 N/mm2, Shear Modulus= 0.07691 E6 N/mm2, Al= 40.0, At= 35.0, fc= 166.7
N/mm2, Rp0.2= 195.0 N/mm2,
Rp1.0= 230.0 N/mm2, Rm= 500.0 N/mm2

OPERATING DATA:

P1= 1.5000 N/mm2, T1= 198.00 deg C, Exp1= 2.94948 mm/m, E1= 0.18487 E6 N/mm2, Rp0.2t1= 127.52
N/mm2, Rp1.0t1= 155.60 N/mm2,
Rmt1= 0.00 N/mm2, fcr1= 0.00 N/mm2, fh1= 103.73 N/mm2

POINT DATA:

C032, Coordinates, X= -2190.66 mm, Y= -3196.38 mm, Z= 20664.00 mm
C032, Flange= SLIP-ON, Rating= 300, Flange Weight= 2.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No

SUPPORT DATA:

C032, Anchor, Tag No.= TODW1, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ=
Rigid

From A01 to A11, DX= -44.87 mm, DY= 44.93 mm, L= 63.50 mm Redu

COMPONENT DATA (Reducer):

Length= 63.50 mm, SIF= 2.00

POINT DATA:

A01, Coordinates, X= -2350.87 mm, Y= -3035.96 mm, Z= 20664.00 mm

From A11 to A03, DX= -424.00 mm, DY= 424.53 mm, L= 600.00 mm Run

PIPE DATA:

Pipe Id= 1S40, Composition= Austentic Stainless, Nom Size= 25 mm, OD= 33.401 mm, Wall Thk= 3.378
mm, Mill= 0.422 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 5.47 N/m, Insul Thk= 40.000 mm, Insul Density= 136.16

DRYWELL TO PSSAREV0.OUT

kg/m3,
Insul Unit Wgt= 12.32 N/m

POINT DATA:

A11, Coordinates, X= -2395.74 mm, Y= -2991.03 mm, Z= 20664.00 mm

From A03 to A04, DX= -1710.99 mm, DY= -3.74 mm, DZ= -298.00 mm, L= 1736.75 mm

COMPONENT DATA (Bend, TIP= A03, Near= A03 N, Far= A03 F):
Long Elbow, Radius= 38.10 mm, Bend angle= 46.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.31,
SIFO= 1.31

POINT DATA:

A03, Coordinates, X= -2819.74 mm, Y= -2566.50 mm, Z= 20664.00 mm

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C O M P O N E N T D A T A L I S T I N G

A03 N, Coordinates, X= -2808.31 mm, Y= -2577.94 mm, Z= 20664.00 mm
A03 F, Coordinates, X= -2835.67 mm, Y= -2566.53 mm, Z= 20661.22 mm

From A04 to A20, DZ= -2750.50 mm Bend

COMPONENT DATA (Bend, TIP= A04, Near= A04 N, Far= A04 F):
Long Elbow, Radius= 38.10 mm, Bend angle= 80.12 deg, End flanges= 0, Flex= Auto, SIFI= 1.31,
SIFO= 1.31

POINT DATA:

A04, Coordinates, X= -4530.73 mm, Y= -2570.24 mm, Z= 20366.00 mm
A04 N, Coordinates, X= -4499.17 mm, Y= -2570.17 mm, Z= 20371.50 mm
A04 F, Coordinates, X= -4530.73 mm, Y= -2570.24 mm, Z= 20333.96 mm

From A20 to A12, DZ= -3162.50 mm Run

POINT DATA:

A20, Coordinates, X= -4530.73 mm, Y= -2570.24 mm, Z= 17615.50 mm

SUPPORT DATA:

A20, Guide, Support Id= A20 1, Connected to Ground, Stiffness= RIGID

From A12 to A06, DZ= -89.00 mm Redu

COMPONENT DATA (Reducer):

Length= 89.00 mm, SIF= 2.00

POINT DATA:

A12, Coordinates, X= -4530.73 mm, Y= -2570.24 mm, Z= 14453.00 mm

From A06 to A07, DZ= -76.00 mm Run

PIPE DATA:

Pipe Id= 2.5S40, Composition= Austentic Stainless, Nom Size= 65 mm, OD= 73.025 mm, Wall Thk= 5.156 mm, Mill= 0.645 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 30.28 N/m, Insul Thk= 80.000 mm, Insul Density= 136.16 kg/m3,
Insul Unit Wgt= 51.35 N/m

POINT DATA:

A06, Coordinates, X= -4530.73 mm, Y= -2570.24 mm, Z= 14364.00 mm

From A07 to A15, DZ= -3376.20 mm Tee

COMPONENT DATA (Tee Header, Center= A07):

B16.9 welding tee, SIFI= 1.18, SIFO= 1.18

POINT DATA:

A07, Coordinates, X= -4530.73 mm, Y= -2570.24 mm, Z= 14288.00 mm

DRYWELL TO PSSAREV0.OUT

From A15 to A14, DZ= -335.60 mm

Run

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C O M P O N E N T D A T A L I S T I N G

POINT DATA:

A15, Coordinates, X= -4530.73 mm, Y= -2570.24 mm, Z= 10911.80 mm
A15, Flange= SLIP-ON, Rating= 300, Flange Weight= 4.50 kg, Bolt/Nut Weight= 0.00 kg, End type=
Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No
A15, Flange= SLIP-ON, Rating= 300, Flange Weight= 4.50 kg, Bolt/Nut Weight= 0.00 kg, End type=
Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No

From A14 to A18, DZ= -1000.00 mm

Run

POINT DATA:

A14, Coordinates, X= -4530.73 mm, Y= -2570.24 mm, Z= 10576.20 mm
A14, Flange= SLIP-ON, Rating= 300, Flange Weight= 4.50 kg, Bolt/Nut Weight= 0.00 kg, End type=
Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No
A14, Flange= SLIP-ON, Rating= 300, Flange Weight= 4.50 kg, Bolt/Nut Weight= 0.00 kg, End type=
Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No

From A18 to A08, DZ= -2376.20 mm

Run

POINT DATA:

A18, Coordinates, X= -4530.73 mm, Y= -2570.24 mm, Z= 9576.20 mm

SUPPORT DATA:

A18, Guide, Support Id= A18 1, Connected to Ground, Stiffness= RIGID

From A08 to A09, DX= 448.23 mm, DY= -448.26 mm, DZ= -565.00 mm, L= 849.16 mm

COMPONENT DATA (Bend, TIP= A08, Near= A08 N, Far= A08 F):

Long Elbow, Radius= 95.25 mm, Bend angle= 48.29 deg, End flanges= 0, Flex= Auto, SIFI= 1.59,
SIFO= 1.59

POINT DATA:

A08, Coordinates, X= -4530.73 mm, Y= -2570.24 mm, Z= 7200.00 mm
A08 N, Coordinates, X= -4530.73 mm, Y= -2570.24 mm, Z= 7242.70 mm
A08 F, Coordinates, X= -4508.19 mm, Y= -2592.78 mm, Z= 7171.59 mm

From A09 to A10, DZ= -420.00 mm

Bend

COMPONENT DATA (Bend, TIP= A09, Near= A09 N, Far= A09 F):

Long Elbow, Radius= 95.25 mm, Bend angle= 48.29 deg, End flanges= 0, Flex= Auto, SIFI= 1.59,
SIFO= 1.59

POINT DATA:

A09, Coordinates, X= -4082.50 mm, Y= -3018.50 mm, Z= 6635.00 mm
A09 N, Coordinates, X= -4105.04 mm, Y= -2995.96 mm, Z= 6663.41 mm
A09 F, Coordinates, X= -4082.50 mm, Y= -3018.50 mm, Z= 6592.30 mm
A10, Coordinates, X= -4082.50 mm, Y= -3018.50 mm, Z= 6215.00 mm
A10, Flange= SLIP-ON, Rating= 300, Flange Weight= 4.50 kg, Bolt/Nut Weight= 0.00 kg, End type=
Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No

SUPPORT DATA:

A10, Anchor, Tag No.= TOPSSA, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ=
Rigid

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C O M P O N E N T D A T A L I S T I N G

*** SEGMENT B

From A07 to B09, DX= 196.76 mm, DY= 0.43 mm, DZ= 35.88 mm, L= 200.01 mm Tee

COMPONENT DATA (Tee Branch, Center= A07):
B16.9 welding tee, SIFI= 1.18, SIF0= 1.18

PIPE DATA:
Pipe Id= 2.5S40, Composition= Austentic Stainless

POINT DATA:
A07, Coordinates, X= -4530.73 mm, Y= -2570.24 mm, Z= 14288.00 mm

From B09 to B02, DX= 1052.83 mm, DY= 2.30 mm, DZ= 191.98 mm, L= 1070.19 mm Run

POINT DATA:
B09, Coordinates, X= -4333.97 mm, Y= -2569.81 mm, Z= 14323.88 mm

From B02 to CH07, DX= 300.05 mm, DY= 0.66 mm, DZ= 54.71 mm, L= 305.00 mm Valv

COMPONENT DATA (Valve):
GLOBE-F, Rating= 600, Length= 305.00 mm, Valve weight = 43 kg, Surface factor= 4.60, End type= Weld neck, SIF= 1.00

POINT DATA:
B02, Coordinates, X= -3281.14 mm, Y= -2567.51 mm, Z= 14515.86 mm
B02, Flange= SLIP-ON, Rating= 600, Flange Weight= 5.80 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No
B02 M, Coordinates, X= -3131.12 mm, Y= -2567.18 mm, Z= 14543.22 mm

SUPPORT DATA:
B02 M, Guide, Support Id= B02 M1, Connected to Ground, Stiffness= RIGID, Gap-Down= 0.00 mm, Gap-Above= 100.00 mm,
Gap-Left= 0.00 mm, Gap-Right= 0.00 mm, Friction= 0.00, Gaps setting= Weightless

From CH07 to B08, DX= 161.34 mm, DY= 0.35 mm, DZ= 29.43 mm, L= 164.00 mm Run

POINT DATA:
CH07, Coordinates, X= -2981.09 mm, Y= -2566.85 mm, Z= 14570.57 mm
CH07, Flange= SLIP-ON, Rating= 600, Flange Weight= 5.80 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No

From B08 to B07, DX= 417.35 mm, DY= -417.87 mm, L= 590.59 mm Bend

COMPONENT DATA (Bend, TIP= B08, Near= B08 N, Far= B08 F):
Long Elbow, Radius= 95.25 mm, Bend angle= 46.08 deg, End flanges= 0, Flex= Auto, SIFI= 1.59, SIF0= 1.59

POINT DATA:
B08, Coordinates, X= -2819.75 mm, Y= -2566.50 mm, Z= 14600.00 mm
B08 N, Coordinates, X= -2859.60 mm, Y= -2566.59 mm, Z= 14592.74 mm
B08 F, Coordinates, X= -2791.13 mm, Y= -2595.16 mm, Z= 14600.00 mm

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DRYWELL TO PSSAREV0.OUT

C O M P O N E N T D A T A L I S T I N G

From B07 to B05, DX= 72.08 mm, DY= -72.17 mm, L= 102.00 mm Redu

COMPONENT DATA (Reducer):
Length= 102.00 mm, SIF= 2.00

POINT DATA:
B07, Coordinates, X= -2402.40 mm, Y= -2984.37 mm, Z= 14600.00 mm

From B05 to B06, DX= 139.66 mm, DY= -139.84 mm, L= 197.64 mm Run

PIPE DATA:
Pipe Id= 4S40, Composition= Austentic Stainless, Nom Size= 100 mm, OD= 114.30 mm, Wall Thk= 6.020 mm, Mill= 0.752 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 80.51 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 65.20 N/m

POINT DATA:
B05, Coordinates, X= -2330.32 mm, Y= -3056.54 mm, Z= 14600.00 mm
B06, Coordinates, X= -2190.66 mm, Y= -3196.38 mm, Z= 14600.00 mm
B06, Flange= SLIP-ON, Rating= 300, Flange Weight= 10.00 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No

SUPPORT DATA:
B06, Anchor, Tag No.= TODW2, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

Number of points in the system: 34

Weight of Empty Pipes + Weight of Contents = Total Weight of System
279.3 kg + 40.5 kg = 319.8 kg

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C O O R D I N A T E S D A T A L I S T I N G

POINT -----COORDINATE (mm)-----

NAME X Y Z

*** SEGMENT A

C032	-2190.66	-3196.38	20664.00
A01	-2350.87	-3035.96	20664.00
A11	-2395.74	-2991.03	20664.00
A03 N	-2808.31	-2577.94	20664.00
A03	-2819.74	-2566.50	20664.00
A03 F	-2835.67	-2566.53	20661.22
A04 N	-4499.17	-2570.17	20371.50
A04	-4530.73	-2570.24	20366.00
A04 F	-4530.73	-2570.24	20333.96
A20	-4530.73	-2570.24	17615.50
A12	-4530.73	-2570.24	14453.00
A06	-4530.73	-2570.24	14364.00
A07	-4530.73	-2570.24	14288.00
A15	-4530.73	-2570.24	10911.80
A14	-4530.73	-2570.24	10576.20
A18	-4530.73	-2570.24	9576.20
A08 N	-4530.73	-2570.24	7242.70

DRYWELL TO PSSAREV0.OUT

A08	-4530.73	-2570.24	7200.00
A08 F	-4508.19	-2592.78	7171.59
A09 N	-4105.04	-2995.96	6663.41
A09	-4082.50	-3018.50	6635.00
A09 F	-4082.50	-3018.50	6592.30
A10	-4082.50	-3018.50	6215.00

*** SEGMENT B

A07	-4530.73	-2570.24	14288.00
B09	-4333.97	-2569.81	14323.88
B02	-3281.14	-2567.51	14515.86
B02 M	-3131.12	-2567.18	14543.22
CH07	-2981.09	-2566.85	14570.57
B08 N	-2859.60	-2566.59	14592.74
B08	-2819.75	-2566.50	14600.00
B08 F	-2791.13	-2595.16	14600.00
B07	-2402.40	-2984.37	14600.00
B05	-2330.32	-3056.54	14600.00
B06	-2190.66	-3196.38	14600.00

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PIPE DATA LISTING

Pipe ID/ Material	Nom/ O.D. Sch mm	-----Thickness(mm)----- W.Th. Corr Mill Insu Ling	Spec Grav	Weight(N/m) Pipe Other Total	ZL/ ZC	Composition
2.5S40 Stainless 1.4301	65 73.025 40	5.156 0 0.64 80 0	1.00	85.50 51.35 167	1.00	Austentic
1.5S40 Stainless 1.4301	40 48.260 40	3.683 0 0.46 50 0	1.00	40.11 20.61 73.59	1.00	Austentic
1S40 Stainless 1.4301	25 33.401 40	3.378 0 0.42 40 0	1.00	24.78 12.32 42.56	1.00	Austentic
4S40 Stainless 1.4301	100 114.30 40	6.020 0 0.75 80 0	1.00	159 65.20 305	1.00	Austentic

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MATERIAL DATA LISTING

Material Name/[Comp.]	Pipe ID	Density kg/m3	Pois. Al/At	Temper. deg C	Modulus E6 N/mm2 Axial	Modulus E6 N/mm2 Hoop	Modulus E6 N/mm2 Shear	Expans. mm/m	Composition
1.4301 X5CRNI18-10 [Austenitic]	1.5S40	7930.0	0.30	20.0	0.19996	0.19996	0.07691		Austentic Stainless
			40.00 35.00	198.0	0.18487			2.9495	
1.4301	1S40	7930.0	0.30	20.0	0.19996	0.19996	0.07691		Austentic Stainless

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X5CRNI18-10 [Austenitic]			40.00 35.00	198.0	0.18487			2.9495	
1.4301	2.5S40	7930.0	0.30	20.0	0.19996	0.19996	0.07691		Austentic Stainless
X5CRNI18-10 [Austenitic]			40.00 35.00	198.0	0.18487			2.9495	
1.4301	4S40	7930.0	0.30	20.0	0.19996	0.19996	0.07691		Austentic Stainless
X5CRNI18-10 [Austenitic]			40.00 35.00	198.0	0.18487			2.9495	

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M A T E R I A L A L L O W A B L E D A T A L I S T I N G

Material		Temper.	Proof	Proof	Tensile	Rupture	Allow.
Name	Pipe ID	deg C	(Rp0.2)	(Rp1.0)	(Rmt)	(fcr)	(fh)
			N/mm2	N/mm2	N/mm2	N/mm2	N/mm2
X5CRNI18-10 1.4301	1.5S40	20.0 198.0	195.00 127.52	230.00 155.60	500.00 0.00	0.00 0.00	166.67 103.73
X5CRNI18-10 1.4301	1S40	20.0 198.0	195.00 127.52	230.00 155.60	500.00 0.00	0.00 0.00	166.67 103.73
X5CRNI18-10 1.4301	2.5S40	20.0 198.0	195.00 127.52	230.00 155.60	500.00 0.00	0.00 0.00	166.67 103.73
X5CRNI18-10 1.4301	4S40	20.0 198.0	195.00 127.52	230.00 155.60	500.00 0.00	0.00 0.00	166.67 103.73

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OPERATING TEMPERATURE AND PRESSURE DATA

STRESSES IN N/mm2

POINT	PRESS.	TEMPER	EXPAN.	MODULUS	0.2%	1.0%	TENSILE	CREEP
NAME	CASE	N/mm2	deg C	mm/m	E6 N/mm	PROOF	PROOF	(Rmt)
								(fcr)
*** SEGMENT A								
C032 T1	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
A10	Same as previous point.							
*** SEGMENT B								
A07 T1	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u

B06 Same as previous point.

u User-defined value
 * Non-code material for allowable stress;
 Non-standard material for expansion and modulus

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THERMAL ANCHOR MOVEMENTS AND DISPLACEMENTS

POINT			DX	DY	DZ	RX	RY	RZ
NAME	LOAD	CASE	(mm)	(mm)	(mm)	(deg)	(deg)	(deg)
C032	Thermal	1	0.00	0.00	40.02	0.000	0.000	0.000
A10	Thermal	1	0.00	0.00	14.36	0.000	0.000	0.000
B06	Thermal	1	0.00	0.00	17.47	0.000	0.000	0.000

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S U P P O R T D A T A L I S T I N G

Point	Support	Support	Conn.to	Stiff.	Gap 1	Gap 2	Fric.	GapSet	Preload	Size	Figure
Name	Type	ID	/Dir		(mm)	(mm)	Fact.	/#hgr	(N)		

Tag No.: <None>

A20 Guide-V A20 1 Ground Rigid 0.0 0.0 0.00
 Guide-H A20 1 Ground Rigid 0.0 0.0 0.00
 Gap Dir.: (Gap1_V=-X, Gap2_V=+X, Gap1_H=-Y, Gap2_H=+Y)

Tag No.: <None>

A18 Guide-V A18 1 Ground Rigid 0.0 0.0 0.00
 Guide-H A18 1 Ground Rigid 0.0 0.0 0.00
 Gap Dir.: (Gap1_V=-X, Gap2_V=+X, Gap1_H=-Y, Gap2_H=+Y)

Tag No.: <None>

B02 M Guide-V B02 M1 Ground Rigid 0.0 100.0 0.00 Weightless
 Guide-H B02 M1 Ground Rigid 0.0 0.0 0.00 Weightless

Spring Manufacturer: Anvil/Grinnell

NOTE 1: No soil supports present in the system.

Gap 1 : V-stop,Guide-V=down, Linestop,Incline,Tie/link=backward, Guide-H=Left
 Gap 2 : V-stop,Guide-V=Up , Linestop,Incline,Tie/link=forward , Guide-H=Right
 Stiffness units for rotation support: N.m/deg , all others: N/mm

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B E N D D A T A L I S T I N G

Point Bend Pressure Case Name Type	Radius (mm)	Angle (deg)	OD (mm)	tnom (mm)	Material	Flg/ Cuts	SIF in	SIF out	Analysis Set	Flexibility (K)	
A03 Elbow	38L	46.0	33.4	3.4	1.4301	0/0	1.31	1.31	1	2.89	None
A04 Elbow	38L	80.1	33.4	3.4	1.4301	0/0	1.31	1.31	1	2.89	None
A08 Elbow	95L	48.3	73.0	5.2	1.4301	0/0	1.59	1.59	1	3.87	None
A09 Elbow	95L	48.3	73.0	5.2	1.4301	0/0	1.59	1.59	1	3.87	None
B08 Elbow	95L	46.1	73.0	5.2	1.4301	0/0	1.59	1.59	1	3.87	None

L = Long radius

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T E E D A T A L I S T I N G

Point Name	Point Seg-Type	Pipe OD (mm)	Pipe Thk. (mm)	Material	Tee Type	**Crotch Radius (mm)	*Crotch Thick (mm)	SIF in	SIF out
A07	A-Header B-Branch	73.0 73.0	5.2 5.2	1.4301 1.4301	welding			1.18	1.18

* = Pad thickness for reinforced tee.

**= Fillet radius for Raised tee or discontinuity dist. for Thickened tee.

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V A L V E D A T A L I S T I N G

Type Point /Avg. Name (mm)	Point /Max. Type	Dnom (mm)	Length (mm)	Weight (kg)	Valve Weight (kg)	Actuator Weight (kg)	Actuator DX (mm)	Actuator DY (mm)	Actuator DZ (mm)	Joint SAF	Joint Type	Size SIF (mm)
B02	GLOBE-F	65	600	305.00	43					4.60	WN	1.00

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FLANGE DATA LISTING

			Flange		Bolt		Size		Type		
Point	FLG		Dnom	Weight	Weight	Joint	/Avg.	/Max.	ANSI		
Name	No.	Type	(mm)	Rating	(kg)	(kg)	Type	SIF	(mm)	(mm)	Check
C032	1	SLIP-ON	40	300	2.7	0.0	DWSO	1.20			No
A15	1	SLIP-ON	65	300	4.5	0.0	DWSO	1.20			No
A15	2	SLIP-ON	65	300	4.5	0.0	DWSO	1.20			No
A14	1	SLIP-ON	65	300	4.5	0.0	DWSO	1.20			No
A14	2	SLIP-ON	65	300	4.5	0.0	DWSO	1.20			No
A10	1	SLIP-ON	65	300	4.5	0.0	DWSO	1.20			No
B02	1	SLIP-ON	65	600	5.8	0.0	DWSO	1.20			No
CH07	1	SLIP-ON	65	600	5.8	0.0	DWSO	1.20			No
B06	1	SLIP-ON	100	300	10.0	0.0	DWSO	1.20			No

DRYWELL TO PSSAREV0

09/13/2010 DRYWELL TO PSSA

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AutoPIPE Plus 9.2.1 MODEL PAGE 19

JOINT TYPE / USER - SIF DATA LISTING

				Size			
Point	Point	SIF	SIF	Joint	/Avg.	Max.	Over
Name	Type	in	out	Type	(mm)	(mm)	ride

DRYWELL TO PSSAREV0

09/13/2010 DRYWELL TO PSSA

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AutoPIPE Plus 9.2.1 MODEL PAGE 20

REDUCER DATA LISTING

			OD	OD	Thk	Thk				Cone
From	To	Length	From	To	From	To	From	Angle	SIF	
Point	Point	(mm)	(mm)	(mm)	(mm)	(mm)	Material	(deg)		

A01	A11	63.50	48.3	33.4	3.7	3.4	1.4301		2.00t	
A12	A06	89.00	33.4	73.0	3.4	5.2	1.4301		2.00t	
B07	B05	102.00	73.0	114.3	5.2	6.0	1.4301		2.00t	

t = Use SIF of 2.0

DRYWELL TO PSSAREV0

09/13/2010 DRYWELL TO PSSA

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From	To	Include	Include	Rigid
Point	Point	Weight	Expansion	Factor
-----	-----	-----	-----	-----

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AutoPIPE Plus 9.2.1 MODEL PAGE 22

Tag No./	Refer.	Point	Seg	Coord.	Load	[Report Loads]
Ref. ID	Side	Name	Name	System	Direction	Actual Allow.
-----	-----	-----	----	-----	-----	-----

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AutoPIPE Plus 9.2.1 RESULT PAGE 1

```

Static - Analysis set number ..... 1
Date and Time of analysis ..... Sep 13, 2010    10:50 AM
Model Revision Number ..... 50
Number of load cases ..... 2
Load cases analyzed ..... GR T1
Description ..... Analysis Set no. 1
Gaps/Friction/Soil considered ..... Yes
Tolerance - Force, Displacement ..... 44.48 N    0.0254 mm
Friction - Scale Factor, Tolerance .... 1.00    0.10
Ignore friction for cases E1,E2,E3 .... Yes
Ignore friction for gravity case ..... Yes
Hanger design run ..... No
Cut short included ..... No
Thermal bowing included ..... No
Include Bourdon rotational effect ..... No
Pipe radius for Bourdon calculation ... Mean
Occasional load analysis type ..... Nonlinear
Non-linear analysis summary file ..... DRYWELL TO PSSAREV0.LOG
Use default load sequence ..... Yes
Base load cases for nonlinear analysis

GR = None
T1 = GR

Weight of contents included ..... Yes
Pressure stiffening case ..... None
Hot modulus case ..... None
Water elevation for buoyancy loads .... Not considered
Use corroded thickness in analysis .... No
Rigid stiffness factor ..... 1000.0

```

DRYWELL TO PSSAREV0

09/13/2010 DRYWELL TO PSSA

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AutoPIPE Plus 9.2.1 RESULT PAGE 2

CODE COMPLIANCE COMBINATIONS

<Description> Allowable Combination (N/mm2) D/A/P	Category	Method	Case/Combination	Factor	M/S	K-Factor
GR + Max P{1} Automatic Y Y Y	Sustain	Sum	GR[1] Max Long	1.00 1.00		
Max Range Automatic Y Y Y	Expansion	Sum	Temp. Range	1.00		
Amb to T1{1} Automatic Y Y Y	Expansion	Sum	T1[1]	1.00		
**Hydrotest{1} Automatic Y Y Y	Occasion	Sum	*HY[1] Max Long	1.00 1.00		1.000
Max P{1} Automatic Y Y Y	Hoop	Sum	Max Hoop	1.00		
Sus.+T1{1} Automatic Y Y Y	Creep Rupt	Sum	Max Sus T1[1]	1.00 1.00		

Notes:

D/A/P: [D]efault/[A]uto-Update/[P]rint options (Y=Yes, N=No)

* indicates that the load case has not been analyzed

** indicates that the combination includes unanalyzed load case(s)
or combination(s) that include unanalyzed load case(s).

DRYWELL TO PSSAREV0

09/13/2010 DRYWELL TO PSSA

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AutoPIPE Plus 9.2.1 RESULT PAGE 3

NON-CODE COMBINATIONS

<Description> Combination	Method	Case/Combination	Factor	D/A/P
Gravity{1}	Sum	GR[1]	1.00	Y Y Y
**Hydrotest{1}	Sum	*HY[1]	1.00	Y Y Y
Thermal 1{1}	Sum	T1[1]	1.00	Y Y Y
GRT1{1}	Sum	GR[1] T1[1]	1.00 1.00	Y Y Y

Notes:

D/A/P: [D]efault/[A]uto-Update/[P]rint options (Y=Yes, N=No)

* indicates that the load case has not been analyzed

** indicates that the combination includes unanalyzed load case(s)
or combination(s) that include unanalyzed load case(s).

□

DRYWELL TO PSSAREV0

09/13/2010 DRYWELL TO PSSA

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AutoPIPE Plus 9.2.1 RESULT PAGE 4

CODE COMPLIANCE

Y - Factor 0.50
Weld efficiency factor 1.00
Range reduction factor 1.00
Design Pressure Factor 1.00
Minimum stress ratio used in reports... 0.00
Number of stress points per span 0
Include corrosion in stress calcs. N
Include axial force in code stress N
Include sustain load margin Only if allowable stress is exceeded
Use single SIF Y
Set sustained/occasional SIF = 1 N
Set sustained/occasional SIF = 0.75i .. N
Apply cold/hot modulus ratio N
Disable auto code combinations N
Disable auto non-code combinations N
No. of thermal ranges to report 0
Include Max Range combination Y
Total stress Octahedral
Direct shear None
Longitudinal pressure calculation PD/4t
Inc. Axial Str and Pcase in Sustained.. N

□

DRYWELL TO PSSAREV0

09/13/2010 DRYWELL TO PSSA

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AutoPIPE Plus 9.2.1 RESULT PAGE 5

D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
*** Segment A begin ***							
C032	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	40.020	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	40.020	0.000	0.000	0.000
A01	Gravity{1}	0.002	0.002	-0.045	-0.013	-0.016	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.459	0.487	40.109	0.015	0.046	-0.009

DRYWELL TO PSSAREV0.OUT							
	GRT1{1}	-0.457	0.489	40.064	0.001	0.030	-0.010
A11	Gravity{1}	0.003	0.003	-0.073	-0.018	-0.023	-0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.582	0.628	40.167	0.020	0.068	-0.013
	GRT1{1}	-0.579	0.631	40.094	0.002	0.045	-0.015
A03 N	Gravity{1}	0.045	0.045	-0.810	-0.051	-0.082	-0.009
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.569	2.076	42.173	0.043	0.380	-0.039
	GRT1{1}	-1.524	2.121	41.363	-0.008	0.298	-0.048
A03 F	Gravity{1}	0.051	0.047	-0.860	-0.050	-0.083	-0.009
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.661	2.130	42.362	0.047	0.407	-0.037
	GRT1{1}	-1.611	2.176	41.502	-0.003	0.324	-0.046
A04 N	Gravity{1}	0.204	0.216	-1.741	-0.018	0.021	-0.012
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-8.860	2.791	54.665	-0.014	0.254	-0.003
	GRT1{1}	-8.656	3.007	52.924	-0.032	0.275	-0.015
A04 F	Gravity{1}	0.191	0.211	-1.730	-0.017	0.018	-0.012
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-9.087	2.781	54.678	-0.018	0.172	0.000
	GRT1{1}	-8.896	2.993	52.948	-0.034	0.189	-0.011
A20	Gravity{1}	0.000	0.000	-1.726	0.001	0.014	-0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	46.663	-0.103	-0.193	0.082
	GRT1{1}	0.000	0.000	44.938	-0.102	-0.179	0.079
A12	Gravity{1}	0.112	-0.062	-1.715	-0.005	-0.072	0.008
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-9.615	-4.785	37.339	0.001	0.489	0.176
	GRT1{1}	-9.503	-4.847	35.624	-0.004	0.417	0.184
A06	Gravity{1}	0.224	-0.070	-1.714	-0.005	-0.073	0.008
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-10.377	-4.782	37.077	0.003	0.492	0.177
	GRT1{1}	-10.152	-4.851	35.362	-0.002	0.419	0.185

□

DRYWELL TO PSSAREV0

09/13/2010 DRYWELL TO PSSA

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AutoPIPE Plus 9.2.1

RESULT PAGE 6

D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
A07	Gravity{1}	0.322	-0.076	-1.714	-0.005	-0.074	0.008
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-11.030	-4.778	36.852	0.003	0.493	0.177
	GRT1{1}	-10.708	-4.853	35.138	-0.001	0.419	0.185
A15	Gravity{1}	1.217	-0.635	-1.708	0.008	0.036	0.006
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-5.890	-2.286	26.922	0.082	-0.336	0.084
	GRT1{1}	-4.673	-2.921	25.214	0.090	-0.300	0.090
A14	Gravity{1}	0.981	-0.563	-1.707	0.017	0.044	0.006
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-3.986	-1.782	25.935	0.090	-0.310	0.075
	GRT1{1}	-3.005	-2.346	24.228	0.107	-0.266	0.081
A18	Gravity{1}	0.000	0.000	-1.702	0.050	0.067	0.005
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	22.994	0.114	-0.117	0.047
	GRT1{1}	0.000	0.000	21.292	0.164	-0.049	0.053
A08 N	Gravity{1}	-1.368	1.255	-1.688	-0.054	-0.059	0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.667	2.872	16.131	-0.046	0.028	-0.017
	GRT1{1}	-3.035	4.127	14.442	-0.100	-0.031	-0.013
A08 F	Gravity{1}	-1.270	1.167	-1.623	-0.093	-0.098	0.004
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.615	2.711	15.955	-0.096	-0.020	-0.020
	GRT1{1}	-2.885	3.878	14.332	-0.189	-0.118	-0.016
A09 N	Gravity{1}	-0.247	0.234	-0.065	-0.090	-0.094	0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.148	0.328	15.631	-0.098	-0.048	-0.020
	GRT1{1}	-0.395	0.562	15.566	-0.188	-0.142	-0.017
A09 F	Gravity{1}	-0.158	0.150	-0.003	-0.048	-0.050	0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.048	0.163	15.470	-0.052	-0.020	-0.013
	GRT1{1}	-0.206	0.313	15.467	-0.100	-0.070	-0.011

A10	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	14.360	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	14.360	0.000	0.000	0.000

*** Segment A end ***

*** Segment B begin ***

□

 DRYWELL TO PSSAREV0

09/13/2010 DRYWELL TO PSSA

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AutoPIPE Plus 9.2.1

RESULT PAGE 7

 D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
A07	Gravity{1}	0.322	-0.076	-1.714	-0.005	-0.074	0.008
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-11.030	-4.778	36.852	0.003	0.493	0.177
	GRT1{1}	-10.708	-4.853	35.138	-0.001	0.419	0.185
B09	Gravity{1}	0.273	-0.047	-1.447	-0.001	-0.081	0.008
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-10.110	-4.162	35.087	-0.001	0.587	0.181
	GRT1{1}	-9.837	-4.209	33.640	-0.001	0.507	0.189
B02	Gravity{1}	0.028	0.010	-0.101	0.023	-0.039	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-4.796	-0.560	23.479	-0.021	0.592	0.206
	GRT1{1}	-4.768	-0.549	23.377	0.002	0.553	0.206
B02 M	Gravity{1}	0.009	0.000	0.002	0.023	-0.039	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-4.072	-0.009	22.010	-0.021	0.591	0.206
	GRT1{1}	-4.063	-0.009	22.012	0.002	0.552	0.206
CH07	Gravity{1}	-0.009	-0.010	0.104	0.023	-0.039	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-3.349	0.542	20.544	-0.021	0.590	0.206
	GRT1{1}	-3.358	0.532	20.648	0.002	0.551	0.206
B08 N	Gravity{1}	-0.022	-0.020	0.173	0.025	-0.028	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-2.776	0.981	19.424	-0.020	0.527	0.194

DRYWELL TO PSSAREV0.OUT							
	GRT1{1}	-2.798	0.961	19.597	0.005	0.499	0.194
B08 F	Gravity{1}	-0.024	-0.022	0.180	0.031	-0.010	0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-2.432	1.107	18.914	-0.048	0.393	0.146
	GRT1{1}	-2.455	1.085	19.093	-0.017	0.383	0.149
B07	Gravity{1}	-0.003	-0.002	0.020	0.008	0.003	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.666	0.582	17.549	-0.005	0.054	0.025
	GRT1{1}	-0.669	0.580	17.568	0.003	0.057	0.027
B05	Gravity{1}	-0.001	-0.001	0.009	0.004	0.002	0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.429	0.395	17.501	-0.002	0.027	0.013
	GRT1{1}	-0.430	0.394	17.510	0.002	0.029	0.014
B06	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	17.470	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	17.470	0.000	0.000	0.000

*** Segment B end ***

□

DRYWELL TO PSSAREV0

09/13/2010 DRYWELL TO PSSA

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AutoPIPE Plus 9.2.1 RESULT PAGE 8

S U P P O R T F O R C E S								
(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)								
Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform

Tag No.: <None>								
A20		Gravity{1}	down	7	0.000	X	-7	0.000
A20 1	Guide		right	1	0.000	Y	-1	0.000
Stiff	:RIGID		forw		1.726	Z		-1.726
		Hydrotest{1}	down		0.000	X		0.000
			left		0.000	Y		0.000
			back		0.000	Z		0.000
		Thermal 1{1}	down	41	0.000	X	-41	0.000
			right	6	0.000	Y	-6	0.000
			back		46.663	Z		46.663

DRYWELL TO PSSAREV0.OUT

	GRT1{1}	down	48	0.000	X	-48	0.000
		right	6	0.000	Y	-6	0.000
		back		44.938	Z		44.938
Tag No.: <None> A18	Gravity{1}	down	134	0.000	X	-134	0.000
A18 1 Guide		left	185	0.000	Y	185	0.000
Stiff :RIGID		forw		1.702	Z		-1.702
	Hydrotest{1}	down		0.000	X		0.000
		left		0.000	Y		0.000
		back		0.000	Z		0.000
	Thermal 1{1}	down	802	0.000	X	-802	0.000
		left	178	0.000	Y	178	0.000
		back		22.994	Z		22.994
	GRT1{1}	down	936	0.000	X	-936	0.000
		left	363	0.000	Y	363	0.000
		back		21.292	Z		21.292
Tag No.: <None> B02 M	Gravity{1}	down	1568	0.000	X	282	0.009
B02 M1 Guide		right	203	0.000	Y	-202	0.000
Stiff :RIGID		forw		0.009	Z	-1543	0.002
	Hydrotest{1}	down		0.000	X		0.000
		left		0.000	Y		0.000
		back		0.000	Z		0.000
	Thermal 1{1}	up	1568	22.384	X	-284	-4.072
		left	1304	0.000	Y	1304	-0.009
		back		0.058	Z	1543	22.010
	GRT1{1}	up		22.384	X	-2	-4.063
		left	1101	0.000	Y	1101	-0.009
		back		0.049	Z		22.012

□

DRYWELL TO PSSAREV0

09/13/2010 DRYWELL TO PSSA

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AutoPIPE Plus 9.2.1 RESULT PAGE 9

R E S T R A I N T R E A C T I O N S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result

DRYWELL TO PSSAREV0.OUT

C032	Anchor Gravity{1}	Tag No.: TODW1		2	1	-108	108	-33	-38	-3	50
	Hydrotest{1}			0	0	0	0	0	0	0	0
	Thermal 1{1}			37	0	73	82	42	91	-21	102
	GRT1{1}			40	1	-35	53	9	53	-24	59
A20	Guide Gravity{1}	Tag No.: <None> [ID: A20 1]	-7	-1	0	7	0	0	0	0	0
	Hydrotest{1}			0	0	0	0	0	0	0	0
	Thermal 1{1}			-41	-6	0	42	0	0	0	0
	GRT1{1}			-48	-6	0	48	0	0	0	0
A18	Guide Gravity{1}	Tag No.: <None> [ID: A18 1]	-134	185	0	229	0	0	0	0	0
	Hydrotest{1}			0	0	0	0	0	0	0	0
	Thermal 1{1}			-802	178	0	821	0	0	0	0
	GRT1{1}			-936	363	0	1004	0	0	0	0
A10	Anchor Gravity{1}	Tag No.: TOPSSA		142	-159	-1745	1758	-251	-267	8	367
	Hydrotest{1}			0	0	0	0	0	0	0	0
	Thermal 1{1}			416	-177	-1815	1871	-272	-39	-60	281
	GRT1{1}			558	-337	-3560	3620	-523	-306	-51	608
B02 M	Guide Gravity{1}	Tag No.: <None> [ID: B02 M1]	282	-202	-1543	1582	0	0	0	0	0
	Hydrotest{1}			0	0	0	0	0	0	0	0
	Thermal 1{1}			-284	1304	1543	2040	0	0	0	0
	GRT1{1}			-2	1101	0	1101	0	0	0	0
B06	Anchor Gravity{1}	Tag No.: TODW2		-286	176	225	404	237	128	50	274
	Hydrotest{1}			0	0	0	0	0	0	0	0
	Thermal 1{1}			674	-1299	199	1477	84	1271	742	1474
	GRT1{1}			388	-1123	424	1261	322	1398	792	1639

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DRYWELL TO PSSAREV0

09/13/2010 DRYWELL TO PSSA

BENTLEY

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AutoPIPE Plus 9.2.1 RESULT PAGE 10

G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result

*** Segment A begin ***		DRYWELL TO PSSAREV0.OUT							
C032	Gravity{1}	-2	-1	82	82	33	38	3	50
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-37	0	-73	82	-42	-91	21	102
	GRT1{1}	-40	-1	9	41	-9	-53	24	59
A01	Gravity{1}	-2	-1	65	65	22	26	2	34
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-37	0	-73	82	-30	-79	15	86
	GRT1{1}	-40	-1	-8	40	-9	-53	17	56
A11	Gravity{1}	-2	-1	61	61	19	23	2	30
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-37	0	-73	82	-27	-76	13	81
	GRT1{1}	-40	-1	-11	41	-9	-52	16	55
A03 N	Gravity{1}	-2	-1	37	37	-2	3	1	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-37	0	-73	82	3	-46	-2	46
	GRT1{1}	-40	-1	-36	54	1	-43	-1	43
A03 F	Gravity{1}	-2	-1	35	35	-2	2	1	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-37	0	-73	82	4	-44	-3	44
	GRT1{1}	-40	-1	-38	55	2	-42	-2	42
A04 N	Gravity{1}	-2	-1	-37	37	-2	2	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-37	0	-73	82	4	67	-3	67
	GRT1{1}	-40	-1	-109	116	2	69	-3	69
A04 F	Gravity{1}	-2	-1	-39	39	-2	3	0	4
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-37	0	-73	82	4	68	-3	68
	GRT1{1}	-40	-1	-112	119	2	71	-3	71
A20 -	Gravity{1}	-2	-1	-155	155	0	-3	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-37	0	-73	82	4	-34	-3	34
	GRT1{1}	-40	-1	-227	231	5	-37	-3	37
A20 +	Gravity{1}	4	0	-155	155	0	-3	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	4	5	-73	73	4	-34	-3	34
	GRT1{1}	8	5	-227	228	5	-37	-3	37
A12	Gravity{1}	4	0	-289	289	0	10	0	10

	DRYWELL TO PSSAREV0.OUT							
Hydrotest{1}	0	0	0	0	0	0	0	0
Thermal 1{1}	4	5	-73	73	-13	-21	-3	25
GRT1{1}	8	5	-362	362	-12	-11	-3	17

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DRYWELL TO PSSAREV0

09/13/2010 DRYWELL TO PSSA

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AutoPIPE Plus 9.2.1 RESULT PAGE 11

G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A06	Gravity{1}	4	0	-298	299	0	10	0	10
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	4	5	-73	73	-13	-21	-3	25
	GRT1{1}	8	5	-371	371	-13	-10	-3	17
A07 -	Gravity{1}	4	0	-311	311	0	11	0	11
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	4	5	-73	73	-14	-20	-3	25
	GRT1{1}	8	5	-384	384	-13	-10	-3	17
A07 +	Gravity{1}	9	26	-130	132	35	-87	1	94
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-386	1	-1815	1856	-51	1197	47	1199
	GRT1{1}	-378	27	-1945	1981	-15	1111	48	1112
A15 -	Gravity{1}	9	26	-694	694	-52	-58	1	78
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-386	1	-1815	1856	-53	-107	47	128
	GRT1{1}	-378	27	-2509	2537	-105	-164	48	201
A15 +	Gravity{1}	9	26	-782	783	-52	-58	1	78
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-386	1	-1815	1856	-53	-107	47	128
	GRT1{1}	-378	27	-2597	2625	-105	-164	48	201
A14 -	Gravity{1}	9	26	-838	839	-61	-55	1	82
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-386	1	-1815	1856	-53	-236	47	247
	GRT1{1}	-378	27	-2653	2680	-114	-291	48	316
A14 +	Gravity{1}	9	26	-926	927	-61	-55	1	82

		DRYWELL TO PSSAREV0.OUT							
		0	0	0	0	0	0	0	0
	Hydrotest{1}								
	Thermal 1{1}	-386	1	-1815	1856	-53	-236	47	247
	GRT1{1}	-378	27	-2742	2768	-114	-291	48	316
A18 -	Gravity{1}	9	26	-1094	1094	-87	-46	1	99
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-386	1	-1815	1856	-54	-622	47	627
	GRT1{1}	-378	27	-2909	2933	-141	-669	48	685
A18 +	Gravity{1}	142	-159	-1094	1114	-87	-46	1	99
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	416	-177	-1815	1871	-54	-622	47	627
	GRT1{1}	558	-337	-2909	2981	-141	-669	48	685
A08 N	Gravity{1}	142	-159	-1483	1499	285	286	1	404
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	416	-177	-1815	1871	360	347	47	502
	GRT1{1}	558	-337	-3299	3362	644	633	48	905

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DRYWELL TO PSSAREV0

09/13/2010 DRYWELL TO PSSA

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AutoPIPE Plus 9.2.1

RESULT PAGE 12

G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A08 F	Gravity{1}	142	-159	-1497	1512	262	263	1	371
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	416	-177	-1815	1871	331	336	42	474
	GRT1{1}	558	-337	-3312	3376	594	598	43	844
A09 N	Gravity{1}	142	-159	-1625	1639	-286	-294	8	410
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	416	-177	-1815	1871	-311	-185	-54	365
	GRT1{1}	558	-337	-3440	3501	-596	-479	-46	766
A09 F	Gravity{1}	142	-159	-1638	1652	-311	-321	8	447
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	416	-177	-1815	1871	-339	-196	-60	396
	GRT1{1}	558	-337	-3453	3514	-650	-517	-51	832
A10	Gravity{1}	142	-159	-1701	1714	-251	-267	8	367

		DRYWELL TO PSSAREV0.OUT							
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	416	-177	-1815	1871	-272	-39	-60	281
	GRT1{1}	558	-337	-3516	3576	-523	-306	-51	608

*** Segment A end ***

*** Segment B begin ***

A07	Gravity{1}	-4	-26	-182	184	-35	97	-1	103
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	390	5	1742	1786	37	-1218	-50	1219
	GRT1{1}	386	-21	1561	1608	2	-1120	-51	1122
B09	Gravity{1}	-4	-26	-215	217	-36	58	4	69
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	390	5	1742	1786	36	-889	-51	891
	GRT1{1}	386	-21	1527	1575	0	-831	-47	832
B02 -	Gravity{1}	-4	-26	-394	395	-40	-261	31	266
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	390	5	1742	1786	33	871	-55	873
	GRT1{1}	386	-21	1348	1403	-7	609	-23	610
B02 +	Gravity{1}	-4	-26	-451	452	-40	-261	31	266
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	390	5	1742	1786	33	871	-55	873
	GRT1{1}	386	-21	1292	1348	-7	609	-23	610
B02 M-	Gravity{1}	-4	-26	-702	703	-41	-348	35	352
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	390	5	1742	1786	33	1121	-55	1123
	GRT1{1}	386	-21	1040	1110	-8	774	-20	774

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DRYWELL TO PSSAREV0

09/13/2010 DRYWELL TO PSSA

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AutoPIPE Plus 9.2.1 RESULT PAGE 13

G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
B02 M+	Gravity{1}	-286	176	841	905	-41	-348	35	352
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	674	-1299	199	1477	33	1121	-55	1123
	GRT1{1}	388	-1123	1040	1579	-8	774	-20	774

DRYWELL TO PSSAREV0.OUT

CH07 -	Gravity{1}	-286	176	589	678	-36	-233	9	236
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	674	-1299	199	1477	-3	1133	140	1142
	GRT1{1}	388	-1123	789	1426	-39	900	149	913
CH07 +	Gravity{1}	-286	176	532	630	-36	-233	9	236
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	674	-1299	199	1477	-3	1133	140	1142
	GRT1{1}	388	-1123	732	1395	-39	900	149	913
B08 N	Gravity{1}	-286	176	512	612	-32	-163	-13	167
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	674	-1299	199	1477	-32	1142	298	1181
	GRT1{1}	388	-1123	711	1385	-64	979	285	1022
B08 F	Gravity{1}	-286	176	499	602	-17	-126	-17	128
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	674	-1299	199	1477	-36	1151	368	1209
	GRT1{1}	388	-1123	698	1378	-52	1025	351	1084
B07	Gravity{1}	-286	176	407	528	160	50	26	169
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	674	-1299	199	1477	42	1228	610	1372
	GRT1{1}	388	-1123	606	1334	202	1278	636	1442
B05	Gravity{1}	-286	176	383	510	188	78	34	207
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	674	-1299	199	1477	56	1243	655	1406
	GRT1{1}	388	-1123	582	1323	245	1321	689	1510
B06	Gravity{1}	-286	176	323	466	237	128	50	274
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	674	-1299	199	1477	84	1271	742	1474
	GRT1{1}	388	-1123	522	1298	322	1398	792	1639

*** Segment B end ***

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DRYWELL TO PSSAREV0

09/13/2010 DRYWELL TO PSSA

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RESULT PAGE 14

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total
name	combination	Stress	Max Min	Stress	Max Min	Stress Loc

DRYWELL TO PSSAREV0.OUT

*** Segment A begin ***

C032	SIFI= 1.20 Gravity{1}	SIFO= 1.20	0	11	-11	0	11	-11	11	177
	Hydrotest{1}		14	6	6	0	14	6	12	270
	Thermal 1{1}		0	22	-22	3	22	-22	22	13
	GRT1{1}		0	11	-11	3	12	-12	12	29
A01	SIFI= 2.00 Gravity{1}	SIFO= 2.00	0	13	-13	0	13	-13	13	176
	Hydrotest{1}		14	6	6	0	14	6	12	270
	Thermal 1{1}		0	29	-30	3	30	-30	30	11
	GRT1{1}		0	18	-18	3	18	-18	18	22
A11	SIFI= 2.00 Gravity{1}	SIFO= 2.00	0	27	-27	1	27	-27	27	176
	Hydrotest{1}		10	4	4	0	10	4	9	270
	Thermal 1{1}		0	68	-68	8	69	-69	69	10
	GRT1{1}		0	42	-42	7	43	-43	44	20
A03 N-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	1	-1	1	1	-1	1	138
	Hydrotest{1}		10	4	4	0	10	4	9	270
	Thermal 1{1}		0	14	-14	8	17	-18	20	356
	GRT1{1}		0	13	-14	7	16	-17	18	358
A03 N+	SIFI= 1.31 Gravity{1}	SIFO= 1.31	0	1	-1	1	1	-1	1	241
	Hydrotest{1}		10	4	4	0	10	4	9	270
	Thermal 1{1}		0	18	-18	8	21	-21	23	100
	GRT1{1}		0	17	-18	7	20	-20	22	101
A03 F-	SIFI= 1.31 Gravity{1}	SIFO= 1.31	0	1	-1	0	1	-1	2	69
	Hydrotest{1}		10	4	4	0	10	4	9	270
	Thermal 1{1}		0	26	-26	1	26	-26	26	96
	GRT1{1}		0	25	-25	0	25	-25	25	97
A03 F+	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	1	-1	0	1	-1	1	329
	Hydrotest{1}		10	4	4	0	10	4	9	270
	Thermal 1{1}		0	20	-20	1	20	-20	20	356
	GRT1{1}		0	19	-19	0	19	-19	19	357
A04 N-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	1	-1	0	1	-1	1	180
	Hydrotest{1}		10	4	4	0	10	4	9	270
	Thermal 1{1}		0	31	-31	1	31	-31	31	183
	GRT1{1}		0	32	-32	0	32	-32	32	183

DRYWELL TO PSSAREV0.OUT

A04 N+ SIFI= 1.31 SIFO= 1.31

0

DRYWELL TO PSSAREV0

09/13/2010 DRYWELL TO PSSA

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AutoPIPE Plus 9.2.1 RESULT PAGE 15

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
A04 F-	Gravity{1}		0	1	-1	0	1	-2	2	360
	Hydrotest{1}		10	4	4	0	10	4	9	270
	Thermal 1{1}		0	40	-40	1	40	-40	40	3
	GRT1{1}		0	41	-42	0	41	-42	42	3
	SIFI= 1.31 Gravity{1}		0	2	-2	0	2	-2	2	333
	SIFO= 1.31									
	Hydrotest{1}		10	4	4	0	10	4	9	270
	Thermal 1{1}		0	40	-41	1	40	-41	41	3
A04 F+	GRT1{1}		0	42	-43	1	42	-43	43	2
	SIFI= 1.00 Gravity{1}		0	2	-2	0	2	-2	2	333
	SIFO= 1.00									
	Hydrotest{1}		10	4	4	0	10	4	9	270
A20	Thermal 1{1}		0	31	-31	1	31	-31	31	3
	GRT1{1}		0	32	-33	1	32	-33	33	1
	SIFI= 1.00 Gravity{1}		0	1	-2	0	1	-2	2	178
	SIFO= 1.00									
A12	Hydrotest{1}		10	4	4	0	10	4	9	270
	Thermal 1{1}		0	15	-16	1	15	-16	16	172
	GRT1{1}		0	16	-18	1	16	-18	18	173
	SIFI= 2.00 Gravity{1}		0	8	-10	0	8	-10	10	2
A06	SIFO= 2.00									
	Hydrotest{1}		15	6	6	0	15	6	13	270
	Thermal 1{1}		0	3	-3	0	3	-3	3	213
	GRT1{1}		0	2	-2	0	2	-2	2	231
A07	-	SIFI= 1.18 Gravity{1}	0	0	-1	0	0	-1	1	358
		SIFO= 1.18								

DRYWELL TO PSSAREV0.OUT

			Hydrotest{1}	15	6	6	0	15	6	13	270
			Thermal 1{1}	0	2	-2	0	2	-2	2	146
			GRT1{1}	0	1	-1	0	1	-1	1	126
A07	+ SIFI= 1.18	SIFO= 1.18									
			Gravity{1}	0	6	-6	0	6	-6	6	202
			Hydrotest{1}	15	6	6	0	15	6	13	270
			Thermal 1{1}	0	79	-83	1	79	-83	83	2
			GRT1{1}	0	73	-77	1	73	-77	77	1
A15	SIFI= 1.20	SIFO= 1.20									
			Gravity{1}	0	5	-6	0	5	-6	6	222
			Hydrotest{1}	15	6	6	0	15	6	13	270
			Thermal 1{1}	0	7	-10	1	7	-10	10	206
			GRT1{1}	0	11	-16	1	11	-16	16	213

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DRYWELL TO PSSAREV0

09/13/2010 DRYWELL TO PSSA

BENTLEY

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AutoPIPE Plus 9.2.1 RESULT PAGE 16

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
A14	SIFI= 1.20 Gravity{1}	SIFO= 1.20	0	5	-6	0	5	-6	6	228
	Hydrotest{1}		15	6	6	0	15	6	13	270
	Thermal 1{1}		0	15	-18	1	15	-18	18	193
	GRT1{1}		0	19	-24	1	19	-24	24	201
A18	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	5	-7	0	5	-7	7	242
	Hydrotest{1}		15	6	6	0	15	6	13	270
	Thermal 1{1}		0	34	-37	1	34	-38	38	185
	GRT1{1}		0	37	-42	1	37	-42	42	192
A08 N-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	22	-24	0	22	-24	24	45
	Hydrotest{1}		15	6	6	0	15	6	13	270
	Thermal 1{1}		0	27	-30	1	27	-30	30	46
	GRT1{1}		0	49	-55	1	49	-55	55	45
A08 N+	SIFI= 1.59 Gravity{1}	SIFO= 1.59	0	35	-38	0	35	-38	38	360
	Hydrotest{1}		15	6	6	0	15	6	13	270

			DRYWELL TO PSSAREV0.OUT						
Thermal 1{1}			0	44	-47	1	44	-47	47 1
GRT1{1}			0	79	-85	1	79	-85	85 0
A08 F- SIFI= 1.59	SIFO= 1.59								
Gravity{1}			0	33	-35	0	33	-35	35 0
Hydrotest{1}			15	6	6	0	15	6	13 270
Thermal 1{1}			0	42	-44	1	42	-44	44 4
GRT1{1}			0	74	-79	1	74	-79	79 2
A08 F+ SIFI= 1.00	SIFO= 1.00								
Gravity{1}			0	20	-22	0	20	-22	22 0
Hydrotest{1}			15	6	6	0	15	6	13 270
Thermal 1{1}			0	26	-28	1	26	-29	29 4
GRT1{1}			0	46	-51	1	46	-51	51 2
A09 N- SIFI= 1.00	SIFO= 1.00								
Gravity{1}			0	22	-25	0	22	-25	25 179
Hydrotest{1}			15	6	6	0	15	6	13 270
Thermal 1{1}			0	20	-22	1	20	-22	22 196
GRT1{1}			0	41	-46	1	41	-46	46 187
A09 N+ SIFI= 1.59	SIFO= 1.59								
Gravity{1}			0	36	-39	0	36	-39	39 359
Hydrotest{1}			15	6	6	0	15	6	13 270
Thermal 1{1}			0	32	-35	1	32	-35	35 16
GRT1{1}			0	67	-72	1	67	-72	72 7
A09 F- SIFI= 1.59	SIFO= 1.59								
Gravity{1}			0	39	-42	0	39	-42	42 359
Hydrotest{1}			15	6	6	0	15	6	13 270
Thermal 1{1}			0	34	-37	2	34	-37	37 15

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DRYWELL TO PSSAREV0

09/13/2010 DRYWELL TO PSSA

BENTLEY

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc

	GRT1{1}	0	73	-79	1	73	-79	79 7
A09 F+ SIFI= 1.00	SIFO= 1.00							
Gravity{1}		0	24	-27	0	24	-27	27 224
Hydrotest{1}		15	6	6	0	15	6	13 270
Thermal 1{1}		0	21	-24	2	21	-24	24 240
GRT1{1}		0	44	-51	1	45	-51	51 232

DRYWELL TO PSSAREV0.OUT

A10	SIFI= 1.20 Gravity{1}	SIFO= 1.20	0	24	-27	0	24	-27	27	223
	Hydrotest{1}		15	6	6	0	15	6	13	270
	Thermal 1{1}		0	17	-21	2	17	-21	21	262
	GRT1{1}		0	39	-45	1	39	-45	45	240

*** Segment A end ***

*** Segment B begin ***

A07	SIFI= 1.18 Gravity{1}	SIFO= 1.18	0	7	-7	1	7	-7	7	357
	Hydrotest{1}		15	6	6	0	15	6	13	270
	Thermal 1{1}		0	82	-83	1	82	-83	83	357
	GRT1{1}		0	75	-76	0	75	-76	76	357

B09	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	3	-3	1	4	-4	4	190
	Hydrotest{1}		15	6	6	0	15	6	13	270
	Thermal 1{1}		0	50	-52	1	50	-52	52	184
	GRT1{1}		0	47	-48	0	47	-48	48	183

B02	SIFI= 1.20 Gravity{1}	SIFO= 1.20	0	18	-18	1	18	-18	18	352
	Hydrotest{1}		15	6	6	0	15	6	13	270
	Thermal 1{1}		0	59	-61	1	59	-61	61	356
	GRT1{1}		0	41	-43	0	41	-43	43	358

CH07	SIFI= 1.20 Gravity{1}	SIFO= 1.20	0	16	-16	1	16	-16	16	356
	Hydrotest{1}		15	6	6	0	15	6	13	270
	Thermal 1{1}		0	78	-79	1	78	-79	79	7
	GRT1{1}		0	62	-63	0	62	-63	63	10

B08 N-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	10	-9	1	10	-9	10	2
	Hydrotest{1}		15	6	6	0	15	6	13	270
	Thermal 1{1}		0	67	-68	1	67	-68	68	15
	GRT1{1}		0	58	-59	0	58	-59	59	17

B08 N+	SIFI= 1.59 Gravity{1}	SIFO= 1.59	0	15	-15	1	15	-15	15	262
	Hydrotest{1}		15	6	6	0	15	6	13	270
	Thermal 1{1}		0	107	-108	1	107	-108	108	275

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DRYWELL TO PSSAREV0

09/13/2010 DRYWELL TO PSSA

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DRYWELL TO PSSAREV0.OUT
G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point name	Load combination	Hoop Stress	Longitudinal Max	Min	Shear Stress	Principal Max	Min	Total Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	GRT1{1}	0	93	-94	0	93	-94	94	276
B08 F-	SIFI= 1.59 SIFO= 1.59 Gravity{1}	0	10	-9	2	10	-10	10	265
	Hydrotest{1}	15	6	6	0	15	6	13	270
	Thermal 1{1}	0	78	-80	24	85	-87	91	281
	GRT1{1}	0	69	-71	22	76	-77	81	283
B08 F+	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	6	-6	2	7	-6	7	9
	Hydrotest{1}	15	6	6	0	15	6	13	270
	Thermal 1{1}	0	49	-51	24	59	-61	66	25
	GRT1{1}	0	43	-45	22	52	-54	59	27
B07	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	18	-17	2	18	-17	18	190
	Hydrotest{1}	15	6	6	0	15	6	13	270
	Thermal 1{1}	0	123	-126	24	128	-130	133	34
	GRT1{1}	0	139	-141	22	143	-145	146	31
B05	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	7	-7	1	8	-7	8	190
	Hydrotest{1}	20	9	9	0	20	9	18	270
	Thermal 1{1}	0	42	-44	8	44	-45	46	36
	GRT1{1}	0	49	-50	7	50	-51	52	32
B06	SIFI= 1.20 SIFO= 1.20 Gravity{1}	0	6	-6	1	6	-6	6	191
	Hydrotest{1}	20	9	9	0	20	9	18	270
	Thermal 1{1}	0	27	-28	8	29	-30	31	38
	GRT1{1}	0	33	-34	7	34	-35	36	33

*** Segment B end ***

DRYWELL TO PSSAREV0

09/13/2010 DRYWELL TO PSSA

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AutoPIPE Plus 9.2.1 RESULT PAGE 19

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)

(Stress in N/mm2)

Point name	Load combination	Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. Load no. type	Code Stress	Code Allow.
-----	-----	-----	-----	-----	-----	-----	-----	-----

DRYWELL TO PSSAREV0.OUT

B07	Max P{1}				HOOP	11	104
	GR + Max P{1}	169		2.00	2-1 SUST	20	104
	TR:Amb to T1{1}		1372	2.00	4-1 DISP	157	217
	Amb to T1{1}		1372	2.00	4-1 DISP	157	217
	Hydrotest{1}	0	0	2.00	3-1 OCC	8	219
	Sus.+T1{1}			2.00	5-1 CRUP	59	<NOTE 1>
B08 F-	Max P{1}				HOOP	11	104
	GR + Max P{1}	128		1.59	2-1 SUST	14	104
	TR:Amb to T1{1}		1209	1.59	4-1 DISP	110	217
	Amb to T1{1}		1209	1.59	4-1 DISP	110	217
	Hydrotest{1}	0	0	1.59	3-1 OCC	8	219
	Sus.+T1{1}			1.59	5-1 CRUP	42	<NOTE 1>
B08 N+	Max P{1}				HOOP	11	104
	GR + Max P{1}	167		1.59	2-1 SUST	17	104
	TR:Amb to T1{1}		1181	1.59	4-1 DISP	108	217
	Amb to T1{1}		1181	1.59	4-1 DISP	108	217
	Hydrotest{1}	0	0	1.59	3-1 OCC	8	219
	Sus.+T1{1}			1.59	5-1 CRUP	44	<NOTE 1>
A07 +	Max P{1}				HOOP	11	104
	GR + Max P{1}	94		1.18	2-1 SUST	11	104
	TR:Amb to T1{1}		1199	1.18	4-1 DISP	81	217
	Amb to T1{1}		1199	1.18	4-1 DISP	81	217
	Hydrotest{1}	0	0	1.18	3-1 OCC	8	219
	Sus.+T1{1}			1.18	5-1 CRUP	34	<NOTE 1>
CH07	Max P{1}				HOOP	11	104
	GR + Max P{1}	236		1.20	2-1 SUST	19	104
	TR:Amb to T1{1}		1142	1.20	4-1 DISP	79	217
	Amb to T1{1}		1142	1.20	4-1 DISP	79	217
	Hydrotest{1}	0	0	1.20	3-1 OCC	8	219
	Sus.+T1{1}			1.20	5-1 CRUP	41	<NOTE 1>
A07	Max P{1}				HOOP	11	104
	GR + Max P{1}	103		1.18	2-1 SUST	11	104
	TR:Amb to T1{1}		1219	1.18	4-1 DISP	77	217
	Amb to T1{1}		1219	1.18	4-1 DISP	77	217
	Hydrotest{1}	0	0	1.18	3-1 OCC	8	219
	Sus.+T1{1}			1.18	5-1 CRUP	33	<NOTE 1>
A11	Max P{1}				HOOP	8	104
	GR + Max P{1}	30		2.00	2-1 SUST	24	104
	TR:Amb to T1{1}		81	2.00	4-1 DISP	75	217

DRYWELL TO PSSAREV0.OUT

Amb to T1{1}			81	2.00	4-1 DISP	75	217
Hydrotest{1}	0	0		2.00	3-1 OCC	6	219
Sus.+T1{1}				2.00	5-1 CRUP	43	<NOTE 1>

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DRYWELL TO PSSAREV0

09/13/2010 DRYWELL TO PSSA

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AutoPIPE Plus 9.2.1

RESULT PAGE 20

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F no. type	Stress	Allow.
B08 F+	Max P{1}					HOOP 11	104
	GR + Max P{1}	128			1.00 2-1 SUST	13	104
	TR:Amb to T1{1}			1209	1.00 4-1 DISP	69	217
	Amb to T1{1}			1209	1.00 4-1 DISP	69	217
	Hydrotest{1}	0	0		1.00 3-1 OCC	8	219
	Sus.+T1{1}				1.00 5-1 CRUP	36	<NOTE 1>
B08 N-	Max P{1}					HOOP 11	104
	GR + Max P{1}	167			1.00 2-1 SUST	15	104
	TR:Amb to T1{1}			1181	1.00 4-1 DISP	68	217
	Amb to T1{1}			1181	1.00 4-1 DISP	68	217
	Hydrotest{1}	0	0		1.00 3-1 OCC	8	219
	Sus.+T1{1}				1.00 5-1 CRUP	37	<NOTE 1>
B02	Max P{1}					HOOP 11	104
	GR + Max P{1}	266			1.20 2-1 SUST	21	104
	TR:Amb to T1{1}			873	1.20 4-1 DISP	60	217
	Amb to T1{1}			873	1.20 4-1 DISP	60	217
	Hydrotest{1}	0	0		1.20 3-1 OCC	8	219
	Sus.+T1{1}				1.20 5-1 CRUP	37	<NOTE 1>
B05	Max P{1}					HOOP 16	104
	GR + Max P{1}	207			2.00 2-1 SUST	13	104
	TR:Amb to T1{1}			1406	2.00 4-1 DISP	53	217
	Amb to T1{1}			1406	2.00 4-1 DISP	53	217
	Hydrotest{1}	0	0		2.00 3-1 OCC	11	219
	Sus.+T1{1}				2.00 5-1 CRUP	26	<NOTE 1>
B09	Max P{1}					HOOP 11	104
	GR + Max P{1}	69			1.00 2-1 SUST	9	104

DRYWELL TO PSSAREV0.OUT

TR:Amb to T1{1}			891	1.00	4-1 DISP	51	217
Amb to T1{1}			891	1.00	4-1 DISP	51	217
Hydrotest{1}	0	0		1.00	3-1 OCC	8	219
Sus.+T1{1}				1.00	5-1 CRUP	26	<NOTE 1>
A08 N+ Max P{1}					HOOP	11	104
GR + Max P{1}	404			1.59	2-1 SUST	33	104
TR:Amb to T1{1}			502	1.59	4-1 DISP	46	217
Amb to T1{1}			502	1.59	4-1 DISP	46	217
Hydrotest{1}	0	0		1.59	3-1 OCC	8	219
Sus.+T1{1}				1.59	5-1 CRUP	44	<NOTE 1>
A09 F- Max P{1}					HOOP	11	104
GR + Max P{1}	447			1.59	2-1 SUST	36	104
TR:Amb to T1{1}			396	1.59	4-1 DISP	36	217
Amb to T1{1}			396	1.59	4-1 DISP	36	217
Hydrotest{1}	0	0		1.59	3-1 OCC	8	219
Sus.+T1{1}				1.59	5-1 CRUP	45	<NOTE 1>

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DRYWELL TO PSSAREV0

09/13/2010 DRYWELL TO PSSA

BENTLEY

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. Load no. type			
A08 F- Max P{1}						HOOP		11	104
GR + Max P{1}		371			1.59	2-1 SUST		31	104
TR:Amb to T1{1}				474	1.59	4-1 DISP		43	217
Amb to T1{1}				474	1.59	4-1 DISP		43	217
Hydrotest{1}		0	0		1.59	3-1 OCC		8	219
Sus.+T1{1}					1.59	5-1 CRUP		41	<NOTE 1>
A09 N+ Max P{1}						HOOP		11	104
GR + Max P{1}		410			1.59	2-1 SUST		33	104
TR:Amb to T1{1}				365	1.59	4-1 DISP		33	217
Amb to T1{1}				365	1.59	4-1 DISP		33	217
Hydrotest{1}		0	0		1.59	3-1 OCC		8	219
Sus.+T1{1}					1.59	5-1 CRUP		42	<NOTE 1>
A04 F- Max P{1}						HOOP		8	104

DRYWELL TO PSSAREV0.OUT

	GR + Max P{1}	4		1.31	2-1 SUST	5	104	
	TR:Amb to T1{1}			68	1.31	4-1 DISP	41	217
	Amb to T1{1}			68	1.31	4-1 DISP	41	217
	Hydrotest{1}	0	0		1.31	3-1 OCC	6	219
	Sus.+T1{1}				1.31	5-1 CRUP	16	<NOTE 1>
A04 N+	Max P{1}				HOOP	8	104	
	GR + Max P{1}	3		1.31	2-1 SUST	5	104	
	TR:Amb to T1{1}			67	1.31	4-1 DISP	40	217
	Amb to T1{1}			67	1.31	4-1 DISP	40	217
	Hydrotest{1}	0	0		1.31	3-1 OCC	6	219
	Sus.+T1{1}				1.31	5-1 CRUP	15	<NOTE 1>
A09 F+	Max P{1}				HOOP	11	104	
	GR + Max P{1}	447		1.00	2-1 SUST	31	104	
	TR:Amb to T1{1}			396	1.00	4-1 DISP	23	217
	Amb to T1{1}			396	1.00	4-1 DISP	23	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	8	219
	Sus.+T1{1}				1.00	5-1 CRUP	39	<NOTE 1>
A08 N-	Max P{1}				HOOP	11	104	
	GR + Max P{1}	404		1.00	2-1 SUST	28	104	
	TR:Amb to T1{1}			502	1.00	4-1 DISP	29	217
	Amb to T1{1}			502	1.00	4-1 DISP	29	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	8	219
	Sus.+T1{1}				1.00	5-1 CRUP	38	<NOTE 1>
A18	+ Max P{1}				HOOP	11	104	
	GR + Max P{1}	99		1.00	2-1 SUST	11	104	
	TR:Amb to T1{1}			627	1.00	4-1 DISP	36	217
	Amb to T1{1}			627	1.00	4-1 DISP	36	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	8	219
	Sus.+T1{1}				1.00	5-1 CRUP	23	<NOTE 1>

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DRYWELL TO PSSAREV0

09/13/2010 DRYWELL TO PSSA

BENTLEY

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EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)		
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F no. type	Stress	Allow.
-----	-----	-----	-----	-----	-----	-----	-----

DRYWELL TO PSSAREV0.OUT

A18	- Max P{1}					HOOP	11	104
	GR + Max P{1}	99		1.00	2-1	SUST	11	104
	TR:Amb to T1{1}		627	1.00	4-1	DISP	36	217
	Amb to T1{1}		627	1.00	4-1	DISP	36	217
	Hydrotest{1}	0	0	1.00	3-1	OCC	8	219
	Sus.+T1{1}			1.00	5-1	CRUP	23	<NOTE 1>
A09	N- Max P{1}					HOOP	11	104
	GR + Max P{1}	410		1.00	2-1	SUST	29	104
	TR:Amb to T1{1}		365	1.00	4-1	DISP	21	217
	Amb to T1{1}		365	1.00	4-1	DISP	21	217
	Hydrotest{1}	0	0	1.00	3-1	OCC	8	219
	Sus.+T1{1}			1.00	5-1	CRUP	36	<NOTE 1>
A08	F+ Max P{1}					HOOP	11	104
	GR + Max P{1}	371		1.00	2-1	SUST	27	104
	TR:Amb to T1{1}		474	1.00	4-1	DISP	27	217
	Amb to T1{1}		474	1.00	4-1	DISP	27	217
	Hydrotest{1}	0	0	1.00	3-1	OCC	8	219
	Sus.+T1{1}			1.00	5-1	CRUP	36	<NOTE 1>
B06	Max P{1}					HOOP	16	104
	GR + Max P{1}	274		1.20	2-1	SUST	12	104
	TR:Amb to T1{1}		1474	1.20	4-1	DISP	34	217
	Amb to T1{1}		1474	1.20	4-1	DISP	34	217
	Hydrotest{1}	0	0	1.20	3-1	OCC	11	219
	Sus.+T1{1}			1.20	5-1	CRUP	22	<NOTE 1>
A01	Max P{1}					HOOP	10	104
	GR + Max P{1}	34		2.00	2-1	SUST	14	104
	TR:Amb to T1{1}		86	2.00	4-1	DISP	32	217
	Amb to T1{1}		86	2.00	4-1	DISP	32	217
	Hydrotest{1}	0	0	2.00	3-1	OCC	7	219
	Sus.+T1{1}			2.00	5-1	CRUP	22	<NOTE 1>
A10	Max P{1}					HOOP	11	104
	GR + Max P{1}	367		1.20	2-1	SUST	26	104
	TR:Amb to T1{1}		281	1.20	4-1	DISP	19	217
	Amb to T1{1}		281	1.20	4-1	DISP	19	217
	Hydrotest{1}	0	0	1.20	3-1	OCC	8	219
	Sus.+T1{1}			1.20	5-1	CRUP	32	<NOTE 1>
A04	F+ Max P{1}					HOOP	8	104
	GR + Max P{1}	4		1.00	2-1	SUST	5	104
	TR:Amb to T1{1}		68	1.00	4-1	DISP	31	217

Amb to T1{1}	DRYWELL TO PSSAREV0.OUT		68	1.00	4-1 DISP	31	217
Hydrotest{1}	0	0		1.00	3-1 OCC	6	219
Sus.+T1{1}				1.00	5-1 CRUP	16	<NOTE 1>

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DRYWELL TO PSSAREV0

09/13/2010 DRYWELL TO PSSA

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AutoPIPE Plus 9.2.1 RESULT PAGE 23

EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)		Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F				
A04 N-	Max P{1}						HOOP	8	104
	GR + Max P{1}	3			1.00	2-1 SUST		5	104
	TR:Amb to T1{1}			67	1.00	4-1 DISP		31	217
	Amb to T1{1}			67	1.00	4-1 DISP		31	217
	Hydrotest{1}	0	0		1.00	3-1 OCC		6	219
	Sus.+T1{1}				1.00	5-1 CRUP		15	<NOTE 1>
A03 N+	Max P{1}						HOOP	8	104
	GR + Max P{1}	3			1.31	2-1 SUST		5	104
	TR:Amb to T1{1}			46	1.31	4-1 DISP		27	217
	Amb to T1{1}			46	1.31	4-1 DISP		27	217
	Hydrotest{1}	0	0		1.31	3-1 OCC		6	219
	Sus.+T1{1}				1.31	5-1 CRUP		12	<NOTE 1>
A03 F-	Max P{1}						HOOP	8	104
	GR + Max P{1}	3			1.31	2-1 SUST		5	104
	TR:Amb to T1{1}			44	1.31	4-1 DISP		26	217
	Amb to T1{1}			44	1.31	4-1 DISP		26	217
	Hydrotest{1}	0	0		1.31	3-1 OCC		6	219
	Sus.+T1{1}				1.31	5-1 CRUP		12	<NOTE 1>
C032	Max P{1}						HOOP	10	104
	GR + Max P{1}	50			1.20	2-1 SUST		14	104
	TR:Amb to T1{1}			102	1.20	4-1 DISP		23	217
	Amb to T1{1}			102	1.20	4-1 DISP		23	217
	Hydrotest{1}	0	0		1.20	3-1 OCC		7	219
	Sus.+T1{1}				1.20	5-1 CRUP		21	<NOTE 1>
A12	Max P{1}						HOOP	8	104
	GR + Max P{1}	10			2.00	2-1 SUST		11	104

		DRYWELL TO PSSAREV0.OUT						
TR:Amb to T1{1}		25	2.00	4-1	DISP	23	217	
Amb to T1{1}		25	2.00	4-1	DISP	23	217	
Hydrotest{1}	0 0		2.00	3-1	OCC	6	219	
Sus.+T1{1}			2.00	5-1	CRUP	16	<NOTE 1>	
A03 N- Max P{1} HOOP 8 104								
GR + Max P{1}	3		1.00	2-1	SUST	5	104	
TR:Amb to T1{1}		46	1.00	4-1	DISP	21	217	
Amb to T1{1}		46	1.00	4-1	DISP	21	217	
Hydrotest{1}	0 0		1.00	3-1	OCC	6	219	
Sus.+T1{1}			1.00	5-1	CRUP	12	<NOTE 1>	
A03 F+ Max P{1} HOOP 8 104								
GR + Max P{1}	3		1.00	2-1	SUST	5	104	
TR:Amb to T1{1}		44	1.00	4-1	DISP	20	217	
Amb to T1{1}		44	1.00	4-1	DISP	20	217	
Hydrotest{1}	0 0		1.00	3-1	OCC	6	219	
Sus.+T1{1}			1.00	5-1	CRUP	12	<NOTE 1>	

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DRYWELL TO PSSAREV0

09/13/2010 DRYWELL TO PSSA

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EN 13480 (2002) CODE COMPLIANCE								
		(Moments in N.m)			(Stress in N/mm2)			
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code	
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
A14	+ Max P{1}					HOOP	11	104
	GR + Max P{1}	82			1.20	2-1 SUST	10	104
	TR:Amb to T1{1}			247	1.20	4-1 DISP	17	217
	Amb to T1{1}			247	1.20	4-1 DISP	17	217
	Hydrotest{1}	0	0		1.20	3-1 OCC	8	219
	Sus.+T1{1}				1.20	5-1 CRUP	15	<NOTE 1>
A14	- Max P{1}					HOOP	11	104
	GR + Max P{1}	82			1.20	2-1 SUST	10	104
	TR:Amb to T1{1}			247	1.20	4-1 DISP	17	217
	Amb to T1{1}			247	1.20	4-1 DISP	17	217
	Hydrotest{1}	0	0		1.20	3-1 OCC	8	219
	Sus.+T1{1}				1.20	5-1 CRUP	15	<NOTE 1>
A20	+ Max P{1}					HOOP	8	104

DRYWELL TO PSSAREV0.OUT									
GR + Max P{1}	3		1.00	2-1	SUST	5	104		
TR:Amb to T1{1}		34	1.00	4-1	DISP	16	217		
Amb to T1{1}		34	1.00	4-1	DISP	16	217		
Hydrotest{1}	0	0	1.00	3-1	OCC	6	219		
Sus.+T1{1}			1.00	5-1	CRUP	10	<NOTE 1>		
A20 - Max P{1}					HOOP	8	104		
GR + Max P{1}	3		1.00	2-1	SUST	5	104		
TR:Amb to T1{1}		34	1.00	4-1	DISP	16	217		
Amb to T1{1}		34	1.00	4-1	DISP	16	217		
Hydrotest{1}	0	0	1.00	3-1	OCC	6	219		
Sus.+T1{1}			1.00	5-1	CRUP	10	<NOTE 1>		
A15 + Max P{1}					HOOP	11	104		
GR + Max P{1}	78		1.20	2-1	SUST	10	104		
TR:Amb to T1{1}		128	1.20	4-1	DISP	9	217		
Amb to T1{1}		128	1.20	4-1	DISP	9	217		
Hydrotest{1}	0	0	1.20	3-1	OCC	8	219		
Sus.+T1{1}			1.20	5-1	CRUP	12	<NOTE 1>		
A15 - Max P{1}					HOOP	11	104		
GR + Max P{1}	78		1.20	2-1	SUST	10	104		
TR:Amb to T1{1}		128	1.20	4-1	DISP	9	217		
Amb to T1{1}		128	1.20	4-1	DISP	9	217		
Hydrotest{1}	0	0	1.20	3-1	OCC	8	219		
Sus.+T1{1}			1.20	5-1	CRUP	12	<NOTE 1>		
A07 - Max P{1}					HOOP	11	104		
GR + Max P{1}	11		1.18	2-1	SUST	6	104		
TR:Amb to T1{1}		25	1.18	4-1	DISP	2	217		
Amb to T1{1}		25	1.18	4-1	DISP	2	217		
Hydrotest{1}	0	0	1.18	3-1	OCC	8	219		
Sus.+T1{1}			1.18	5-1	CRUP	6	<NOTE 1>		

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DRYWELL TO PSSAREV0

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EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)

(Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.

A06	Max P{1}	DRYWELL TO PSSAREV0.OUT			HOOP	11	104
	GR + Max P{1}	10	2.00	2-1 SUST	6	104	
	TR:Amb to T1{1}		25 2.00	4-1 DISP	3	217	
	Amb to T1{1}		25 2.00	4-1 DISP	3	217	
	Hydrotest{1}	0 0	2.00	3-1 OCC	8	219	
	Sus.+T1{1}		2.00	5-1 CRUP	7	<NOTE 1>	

*** NOTE 1: No allowable stress could be calculated. ***
 *** Mechanical properties are outside of temperature range. ***

DRYWELL TO PSSAREV0

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 AutoPIPE Plus 9.2.1 RESULT PAGE 26

R E S U L T S U M M A R Y

Maximum displacements (mm)

Maximum X :	-11.030	Point : A07	Load Comb.: Thermal 1{1}
Maximum Y :	-4.853	Point : A07	Load Comb.: GRT1{1}
Maximum Z :	54.678	Point : A04 F	Load Comb.: Thermal 1{1}
Max. total:	55.498	Point : A04 F	Load Comb.: Thermal 1{1}

Maximum rotations (deg)

Maximum X :	-0.189	Point : A08 F	Load Comb.: GRT1{1}
Maximum Y :	0.592	Point : B02	Load Comb.: Thermal 1{1}
Maximum Z :	0.206	Point : B02 M	Load Comb.: GRT1{1}
Max. total:	0.627	Point : B02	Load Comb.: Thermal 1{1}

Maximum restraint forces (N)

Maximum X :	-936	Point : A18	Load Comb.: GRT1{1}
Maximum Y :	1304	Point : B02 M	Load Comb.: Thermal 1{1}
Maximum Z :	-3560	Point : A10	Load Comb.: GRT1{1}
Max. total:	3620	Point : A10	Load Comb.: GRT1{1}

Maximum restraint moments (N.m)

Maximum X :	-523	Point : A10	Load Comb.: GRT1{1}
Maximum Y :	1398	Point : B06	Load Comb.: GRT1{1}
Maximum Z :	792	Point : B06	Load Comb.: GRT1{1}

DRYWELL TO PSSAREV0.OUT

Max. total: 1639 Point : B06 Load Comb.: GRT1{1}

0

DRYWELL TO PSSAREV0

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R E S U L T S U M M A R Y

Maximum pipe forces (N)

Maximum X :	674	Point : B08 N	Load Comb.: Thermal 1{1}
Maximum Y :	-1299	Point : B02 M	Load Comb.: Thermal 1{1}
Maximum Z :	-3516	Point : A10	Load Comb.: GRT1{1}
Max. total:	3576	Point : A10	Load Comb.: GRT1{1}

Maximum pipe moments (N.m)

Maximum X :	-650	Point : A09 F	Load Comb.: GRT1{1}
Maximum Y :	1398	Point : B06	Load Comb.: GRT1{1}
Maximum Z :	792	Point : B06	Load Comb.: GRT1{1}
Max. total:	1639	Point : B06	Load Comb.: GRT1{1}

0

DRYWELL TO PSSAREV0

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R E S U L T S U M M A R Y

Maximum sustained stress

Point	:	A09 F
Stress N/mm2	:	36
Allowable N/mm2	:	104
Ratio	:	0.35
Load combination	:	GR + Max P{1}

Maximum displacement stress

Point	:	B07
Stress N/mm2	:	157
Allowable N/mm2	:	217

DRYWELL TO PSSAREV0.OUT
Ratio : 0.73
Load combination : Max Range

Maximum occasional stress

Point : B05
Stress N/mm2 : 11
Allowable N/mm2 : 219
Ratio : 0.05
Load combination : Hydrotest{1}

Maximum hoop stress

Point : B05
Stress N/mm2 : 16
Allowable N/mm2 : 104
Ratio : 0.15
Load combination : Max P{1}

Maximum creep rupture stress

Point : B07
Stress N/mm2 : 59
Allowable N/mm2 : 0 < See Note 1 >
Ratio : 0.00
Load combination : Sus.+T1{1}

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DRYWELL TO PSSAREV0

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R E S U L T S U M M A R Y

Maximum sustained stress ratio

Point : A09 F
Stress N/mm2 : 36
Allowable N/mm2 : 104
Ratio : 0.35
Load combination : GR + Max P{1}

Maximum displacement stress ratio

Point : B07
Stress N/mm2 : 157
Allowable N/mm2 : 217
Ratio : 0.73
Load combination : Max Range

Maximum occasional stress ratio

Point : B05
Stress N/mm2 : 11
Allowable N/mm2 : 219
Ratio : 0.05
Load combination : Hydrotest{1}

Maximum hoop stress ratio

Point : B05
Stress N/mm2 : 16
Allowable N/mm2 : 104
Ratio : 0.15
Load combination : Max P{1}

Maximum creep rupture stress ratio

Point : B07
Stress N/mm2 : 59

DRYWELL TO PSSAREV0.OUT
Allowable N/mm2 : 0 < See Note 1 >
Ratio : 0.00
Load combination : Sus.+T1{1}

* * * The system satisfies EN 13480 (2002) code requirements * * *
* * * for the selected options * * *

Warnings:
(1) Maximum creep rupture stress ratio is zero

* * * Note 1: Points were found in this stress category with * * *
* * * mechanical properties outside of temperature range. No * * *

□

DRYWELL TO PSSAREV0

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AutoPIPE Plus 9.2.1 RESULT PAGE 30

R E S U L T S U M M A R Y

* * * allowable stress were calculated at these points. * * *

□

ALLEGATO 10. DW to PSS-B INPUT E OUTPUT DEI CALCOLI AUTOPIPE

file: DRYWELL TO PSSBREV0.pdf

DRYWELL TO PSSBREV0.OUT

DRYWELL TO PSSBREV0

09/13/2010 DRYWELL TO PSSB

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AutoPIPE Plus 9.2.1 MODEL PAGE 1

[illegible]

Pipe Stress Analysis and Design Program

Version: 09.02.01.07

Edition: Plus

Developed and Maintained by

BENTLEY SYSTEMS, INCORPORATED
1600 Riviera Ave., Suite 300
Walnut Creek, CA 94596

!

DRYWELL TO PSSBREV0

09/13/2010 DRYWELL TO PSSB

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AutoPIPE Plus 9.2.1 MODEL PAGE 2

```
*****
**
**          AUTOPIPE SYSTEM INFORMATION          **
**
*****
```

SYSTEM NAME : DRYWELL TO PSSBREV0

PROJECT ID : DRYWELL T0 PSSB

PREPARED BY : CONGIU

CHECKED BY : ACHILLI

1ST APPROVER : _____

2ND APPROVER : _____

DRYWELL TO PSSBREV0.OUT
PIPING CODE : EN 13480
YEAR : 2002
LIFETIME (HRS) : 200000
LIFETIME MONITORING : NO
VERTICAL AXIS : Z
AMBIENT TEMPERATURE : 20.0 deg C
COMPONENT LIBRARY : AUTOPIPE
MATERIAL LIBRARY : EUROMAT
MODEL REVISION NUMBER : 51

□

DRYWELL TO PSSBREV0

09/13/2010 DRYWELL TO PSSB

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AutoPIPE Plus 9.2.1 MODEL PAGE 3

C O M P O N E N T D A T A L I S T I N G

*** SEGMENT A

From A00 to A01, DX= -154.59 mm, DY= -108.25 mm, L= 188.72 mm Run

PIPE DATA:

Pipe Id= 1.5S40, Material= X5CRNI18-10 1.4301, Product= Seamless tube, Source= EURO,
Composition= Austentic Stainless, Poisson= 0.300, Nom Size= 40 mm, OD= 48.260 mm, Sch= 40, Wall
Thk= 3.683 mm,
Mill= 0.460 mm, Cor= 0 mm, Pipe Density= 7930.00 kg/m3, Pipe Unit Wgt= 40.11 N/m, Content Sp Gr=
1.000,
Content Unit Wgt= 12.87 N/m, Insul Thk= 50.000 mm, Insul Material= MINERAL WOOL, Insul Density=
136.16 kg/m3,
Insul Unit Wgt= 20.61 N/m, Lining Thk= 0 mm, Long Weld factor= 1.00, Circ Weld factor= 1.00, Long
Modulus= 0.19996 E6 N/mm2,
Hoop Modulus= 0.19996 E6 N/mm2, Shear Modulus= 0.07691 E6 N/mm2, Al= 40.0, At= 35.0, fc= 166.7
N/mm2, Rp0.2= 195.0 N/mm2,
Rp1.0= 230.0 N/mm2, Rm= 500.0 N/mm2

OPERATING DATA:

P1= 1.5000 N/mm2, T1= 198.00 deg C, Exp1= 2.94948 mm/m, E1= 0.18487 E6 N/mm2, Rp0.2t1= 127.52
N/mm2, Rp1.0t1= 155.60 N/mm2,
Rmt1= 0.00 N/mm2, fcr1= 0.00 N/mm2, fh1= 103.73 N/mm2

POINT DATA:

A00, Coordinates, X= -2303.64 mm, Y= -4490.94 mm, Z= 20664.00 mm
A00, Flange= SLIP-ON, Rating= 300, Flange Weight= 2.70 kg, Bolt/Nut Weight= 0.00 kg, End type=
Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No

SUPPORT DATA:

A00, Anchor, Tag No.= TODW1, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ=
Rigid

From A01 to A11, DX= -52.02 mm, DY= -36.42 mm, L= 63.50 mm Redu

COMPONENT DATA (Reducer):

Length= 63.50 mm, SIF= 2.00

POINT DATA:

A01, Coordinates, X= -2458.23 mm, Y= -4599.19 mm, Z= 20664.00 mm

From A11 to A03, DX= -286.70 mm, DY= -200.75 mm, L= 350.00 mm Run

PIPE DATA:

Pipe Id= 1S40, Composition= Austentic Stainless, Nom Size= 25 mm, OD= 33.401 mm, Wall Thk= 3.378
mm, Mill= 0.422 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 5.47 N/m, Insul Thk= 40.000 mm, Insul Density= 136.16

DRYWELL TO PSSBREV0.0UT

kg/m3,
Insul Unit Wgt= 12.32 N/m

POINT DATA:

A11, Coordinates, X= -2510.25 mm, Y= -4635.61 mm, Z= 20664.00 mm

From A03 to A04, DX= -1696.55 mm, DY= -215.64 mm, DZ= -298.00 mm, L= 1735.97 mm

COMPONENT DATA (Bend, TIP= A03, Near= A03 N, Far= A03 F):
Long Elbow, Radius= 38.10 mm, Bend angle= 29.33 deg, End flanges= 0, Flex= Auto, SIFI= 1.31,
SIFO= 1.31

POINT DATA:

A03, Coordinates, X= -2796.95 mm, Y= -4836.36 mm, Z= 20664.00 mm

DRYWELL TO PSSBREV0

09/13/2010 DRYWELL TO PSSB

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AutoPIPE Plus 9.2.1 MODEL PAGE 4

C O M P O N E N T D A T A L I S T I N G

A03 N, Coordinates, X= -2788.78 mm, Y= -4830.64 mm, Z= 20664.00 mm
A03 F, Coordinates, X= -2806.69 mm, Y= -4837.60 mm, Z= 20662.29 mm

From A04 to A16, DZ= -2956.50 mm Bend

COMPONENT DATA (Bend, TIP= A04, Near= A04 N, Far= A04 F):
Long Elbow, Radius= 38.10 mm, Bend angle= 80.12 deg, End flanges= 0, Flex= Auto, SIFI= 1.31,
SIFO= 1.31

POINT DATA:

A04, Coordinates, X= -4493.50 mm, Y= -5052.00 mm, Z= 20366.00 mm
A04 N, Coordinates, X= -4462.19 mm, Y= -5048.02 mm, Z= 20371.50 mm
A04 F, Coordinates, X= -4493.50 mm, Y= -5052.00 mm, Z= 20333.96 mm

From A16 to A12, DZ= -2956.50 mm Run

POINT DATA:

A16, Coordinates, X= -4493.50 mm, Y= -5052.00 mm, Z= 17409.50 mm

SUPPORT DATA:

A16, Guide, Support Id= A16 1, Connected to Ground, Stiffness= RIGID

From A12 to A06, DZ= -89.00 mm Redu

COMPONENT DATA (Reducer):

Length= 89.00 mm, SIF= 2.00

POINT DATA:

A12, Coordinates, X= -4493.50 mm, Y= -5052.00 mm, Z= 14453.00 mm

From A06 to A07, DZ= -76.00 mm Run

PIPE DATA:

Pipe Id= 2.5S40, Composition= Austentic Stainless, Nom Size= 65 mm, OD= 73.025 mm, Wall Thk= 5.156 mm, Mill= 0.645 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 30.28 N/m, Insul Thk= 80.000 mm, Insul Density= 136.16 kg/m3,
Insul Unit Wgt= 51.35 N/m

POINT DATA:

A06, Coordinates, X= -4493.50 mm, Y= -5052.00 mm, Z= 14364.00 mm

From A07 to A17, DZ= -2000.00 mm Tee

COMPONENT DATA (Tee Header, Center= A07):

B16.9 welding tee, SIFI= 1.18, SIFO= 1.18

POINT DATA:

A07, Coordinates, X= -4493.50 mm, Y= -5052.00 mm, Z= 14288.00 mm

DRYWELL TO PSSBREV0.0UT

From A17 to A15, DZ= -1312.60 mm Run

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DRYWELL TO PSSBREV0

09/13/2010 DRYWELL TO PSSB

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AutoPIPE Plus 9.2.1 MODEL PAGE 5

C O M P O N E N T D A T A L I S T I N G

POINT DATA:

A17, Coordinates, X= -4493.50 mm, Y= -5052.00 mm, Z= 12288.00 mm

SUPPORT DATA:

A17, Guide, Support Id= A17 1, Connected to Ground, Stiffness= RIGID

From A15 to A13, DZ= -167.80 mm Run

POINT DATA:

A15, Coordinates, X= -4493.50 mm, Y= -5052.00 mm, Z= 10975.40 mm

A15, Flange= WELDNECK, Rating= 300, Flange Weight= 4.80 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No
A15, Flange= WELDNECK, Rating= 300, Flange Weight= 4.80 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No

From A13 to A14, DZ= -167.80 mm Run

POINT DATA:

A13, Coordinates, X= -4493.50 mm, Y= -5052.00 mm, Z= 10807.60 mm

From A14 to A08, DZ= -3439.80 mm Run

POINT DATA:

A14, Coordinates, X= -4493.50 mm, Y= -5052.00 mm, Z= 10639.80 mm

A14, Flange= WELDNECK, Rating= 300, Flange Weight= 4.80 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No
A14, Flange= WELDNECK, Rating= 300, Flange Weight= 4.80 kg, Bolt/Nut Weight= 0.00 kg, End type=
Weld neck, SIF= 1.00,
Perform ANSI check= No

From A08 to A09, DX= 411.00 mm, DY= 514.00 mm, DZ= -683.00 mm, L= 948.48 mm

COMPONENT DATA (Bend, TIP= A08, Near= A08 N, Far= A08 F):

Long Elbow, Radius= 95.25 mm, Bend angle= 43.94 deg, End flanges= 0, Flex= Auto, SIFI= 1.59,
SIFO= 1.59

POINT DATA:

A08, Coordinates, X= -4493.50 mm, Y= -5052.00 mm, Z= 7200.00 mm

A08 N, Coordinates, X= -4493.50 mm, Y= -5052.00 mm, Z= 7238.42 mm

A08 F, Coordinates, X= -4476.85 mm, Y= -5031.18 mm, Z= 7172.33 mm

From A09 to A10, DZ= -302.00 mm Bend

COMPONENT DATA (Bend, TIP= A09, Near= A09 N, Far= A09 F):

Long Elbow, Radius= 95.25 mm, Bend angle= 43.94 deg, End flanges= 0, Flex= Auto, SIFI= 1.59,
SIFO= 1.59

POINT DATA:

A09, Coordinates, X= -4082.50 mm, Y= -4538.00 mm, Z= 6517.00 mm

A09 N, Coordinates, X= -4099.15 mm, Y= -4558.82 mm, Z= 6544.67 mm

A09 F, Coordinates, X= -4082.50 mm, Y= -4538.00 mm, Z= 6478.58 mm

A10, Coordinates, X= -4082.50 mm, Y= -4538.00 mm, Z= 6215.00 mm

A10, Flange= SLIP-ON, Rating= 300, Flange Weight= 4.50 kg, Bolt/Nut Weight= 0.00 kg, End type=
Double Weld Slip-on,

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DRYWELL TO PSSBREV0

09/13/2010 DRYWELL TO PSSB

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AutoPIPE Plus 9.2.1 MODEL PAGE 6

C O M P O N E N T D A T A L I S T I N G

SIF= 1.20, Perform ANSI check= No

SUPPORT DATA:

A10, Anchor, Tag No.= TOPSSB, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

*** SEGMENT B

From A07 to B02, DX= 1356.34 mm, DZ= 225.40 mm, L= 1374.94 mm Tee

COMPONENT DATA (Tee Branch, Center= A07):
B16.9 welding tee, SIFI= 1.18, SIF0= 1.18

PIPE DATA:

Pipe Id= 2.5S40, Composition= Austentic Stainless

POINT DATA:

A07, Coordinates, X= -4493.50 mm, Y= -5052.00 mm, Z= 14288.00 mm

From B02 to CH08, DX= 300.87 mm, DZ= 50.00 mm, L= 305.00 mm Valve

COMPONENT DATA (Valve):
GLOBE-F, Rating= 600, Length= 305.00 mm, Valve weight = 43 kg, Surface factor= 4.60, End type= Weld neck, SIF= 1.00

POINT DATA:

B02, Coordinates, X= -3137.16 mm, Y= -5052.00 mm, Z= 14513.40 mm
B02, Flange= SLIP-ON, Rating= 600, Flange Weight= 5.40 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No
B02 M, Coordinates, X= -2986.72 mm, Y= -5052.00 mm, Z= 14538.40 mm

SUPPORT DATA:

B02 M, Guide, Support Id= B02 M1, Connected to Ground, Stiffness= RIGID, Gap-Down= 0.00 mm, Gap-Above= 100.00 mm,
Gap-Left= 0.00 mm, Gap-Right= 0.00 mm, Friction= 0.00, Gaps setting= Weightless

From CH08 to B08, DX= 220.26 mm, DZ= 36.60 mm, L= 223.28 mm Run

POINT DATA:

CH08, Coordinates, X= -2836.29 mm, Y= -5052.00 mm, Z= 14563.40 mm
CH08, Flange= SLIP-ON, Rating= 600, Flange Weight= 5.40 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No

From B08 to B07, DX= 211.99 mm, DY= 212.28 mm, L= 300.00 mm Bend

COMPONENT DATA (Bend, TIP= B08, Near= B08 N, Far= B08 F):

Long Elbow, Radius= 95.25 mm, Bend angle= 45.81 deg, End flanges= 0, Flex= Auto, SIFI= 1.59, SIF0= 1.59

POINT DATA:

B08, Coordinates, X= -2616.03 mm, Y= -5052.00 mm, Z= 14600.00 mm
B08 N, Coordinates, X= -2655.72 mm, Y= -5052.00 mm, Z= 14593.40 mm
B08 F, Coordinates, X= -2587.59 mm, Y= -5023.52 mm, Z= 14600.00 mm

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C O M P O N E N T D A T A L I S T I N G

From B07 to B05, DX= 72.08 mm, DY= 72.17 mm, L= 102.00 mm Redu

COMPONENT DATA (Reducer):
Length= 102.00 mm, SIF= 2.00

POINT DATA:
B07, Coordinates, X= -2404.04 mm, Y= -4839.72 mm, Z= 14600.00 mm

From B05 to B06, DX= 140.22 mm, DY= 140.38 mm, L= 198.41 mm Run

PIPE DATA:
Pipe Id= 4S40, Composition= Austentic Stainless, Nom Size= 100 mm, OD= 114.30 mm, Wall Thk= 6.020 mm, Mill= 0.752 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 80.51 N/m, Insul Density= 136.16 kg/m3, Insul Unit Wgt= 65.20 N/m

POINT DATA:
B05, Coordinates, X= -2331.96 mm, Y= -4767.55 mm, Z= 14600.00 mm
B06, Coordinates, X= -2191.74 mm, Y= -4627.17 mm, Z= 14600.00 mm
B06, Flange= SLIP-ON, Rating= 300, Flange Weight= 10.00 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No

SUPPORT DATA:
B06, Anchor, Tag No.= TODW2, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

Number of points in the system: 34

Weight of Empty Pipes + Weight of Contents = Total Weight of System
276.5 kg + 39.9 kg = 316.4 kg

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C O O R D I N A T E S D A T A L I S T I N G

POINT -----COORDINATE (mm)-----

NAME X Y Z

*** SEGMENT A

A00	-2303.64	-4490.94	20664.00
A01	-2458.23	-4599.19	20664.00
A11	-2510.25	-4635.61	20664.00
A03 N	-2788.78	-4830.64	20664.00
A03	-2796.95	-4836.36	20664.00
A03 F	-2806.69	-4837.60	20662.29
A04 N	-4462.19	-5048.02	20371.50
A04	-4493.50	-5052.00	20366.00
A04 F	-4493.50	-5052.00	20333.96
A16	-4493.50	-5052.00	17409.50
A12	-4493.50	-5052.00	14453.00
A06	-4493.50	-5052.00	14364.00
A07	-4493.50	-5052.00	14288.00
A17	-4493.50	-5052.00	12288.00
A15	-4493.50	-5052.00	10975.40
A13	-4493.50	-5052.00	10807.60
A14	-4493.50	-5052.00	10639.80

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A08 N	-4493.50	-5052.00	7238.42
A08	-4493.50	-5052.00	7200.00
A08 F	-4476.85	-5031.18	7172.33
A09 N	-4099.15	-4558.82	6544.67
A09	-4082.50	-4538.00	6517.00
A09 F	-4082.50	-4538.00	6478.58
A10	-4082.50	-4538.00	6215.00

*** SEGMENT B

A07	-4493.50	-5052.00	14288.00
B02	-3137.16	-5052.00	14513.40
B02 M	-2986.72	-5052.00	14538.40
CH08	-2836.29	-5052.00	14563.40
B08 N	-2655.72	-5052.00	14593.40
B08	-2616.03	-5052.00	14600.00
B08 F	-2587.59	-5023.52	14600.00
B07	-2404.04	-4839.72	14600.00
B05	-2331.96	-4767.55	14600.00
B06	-2191.74	-4627.17	14600.00

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 AutoPIPE Plus 9.2.1 MODEL PAGE 9

 P I P E D A T A L I S T I N G

Pipe ID/ Material	Nom/ O.D. Sch mm	-----Thickness(mm)----- W.Th. Corr Mill Insu Ling	Spec Grav	Weight(N/m) Pipe Other Total	ZL/ ZC	Composition

2.5S40 Stainless 1.4301	65 73.025 40	5.156 0 0.64 80 0	1.00	85.50 51.35 167	1.00	Austentic

1.5S40 Stainless 1.4301	40 48.260 40	3.683 0 0.46 50 0	1.00	40.11 20.61 73.59	1.00	Austentic

1S40 Stainless 1.4301	25 33.401 40	3.378 0 0.42 40 0	1.00	24.78 12.32 42.56	1.00	Austentic

4S40 Stainless 1.4301	100 114.30 40	6.020 0 0.75 80 0	1.00	159 65.20 305	1.00	Austentic

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 M A T E R I A L D A T A L I S T I N G

Material Name/[Comp.]	Pipe ID	Density kg/m3	Pois. Al/At	Temper. deg C	Modulus E6 N/mm2 Axial	Hoop	Shear	Expans. mm/m	Composition

1.4301	1.5S40	7930.0	0.30	20.0	0.19996	0.19996	0.07691		Austentic Stainless
X5CRNI18-10 [Austenitic]			40.00 35.00	198.0	0.18487			2.9495	
1.4301	1S40	7930.0	0.30	20.0	0.19996	0.19996	0.07691		Austentic Stainless

DRYWELL TO PSSBREV0.0UT

X5CRNI18-10 [Austenitic]			40.00 35.00	198.0	0.18487			2.9495	
1.4301	2.5S40	7930.0	0.30	20.0	0.19996	0.19996	0.07691		Austentic Stainless
X5CRNI18-10 [Austenitic]			40.00 35.00	198.0	0.18487			2.9495	
1.4301	4S40	7930.0	0.30	20.0	0.19996	0.19996	0.07691		Austentic Stainless
X5CRNI18-10 [Austenitic]			40.00 35.00	198.0	0.18487			2.9495	

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M A T E R I A L A L L O W A B L E D A T A L I S T I N G

Material		Temper.	Proof	Proof	Tensile	Rupture	Allow.
			(Rp0.2)	(Rp1.0)	(Rmt)	(fcr)	(fh)
Name	Pipe ID	deg C	N/mm2	N/mm2	N/mm2	N/mm2	N/mm2
X5CRNI18-10 1.4301	1.5S40	20.0 198.0	195.00 127.52	230.00 155.60	500.00 0.00	0.00 0.00	166.67 103.73
X5CRNI18-10 1.4301	1S40	20.0 198.0	195.00 127.52	230.00 155.60	500.00 0.00	0.00 0.00	166.67 103.73
X5CRNI18-10 1.4301	2.5S40	20.0 198.0	195.00 127.52	230.00 155.60	500.00 0.00	0.00 0.00	166.67 103.73
X5CRNI18-10 1.4301	4S40	20.0 198.0	195.00 127.52	230.00 155.60	500.00 0.00	0.00 0.00	166.67 103.73

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OPERATING TEMPERATURE AND PRESSURE DATA

STRESSES IN N/mm2

POINT		PRESS.	TEMPER	EXPAN.	MODULUS	0.2%	1.0%	TENSILE	CREEP
NAME	CASE	N/mm2	deg C	mm/m	E6 N/mm	PROOF	PROOF	(Rmt)	(fcr)
----	----	-----	-----	-----	-----	-----	-----	-----	-----
*** SEGMENT A									
A00	T1	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u
A10	Same as previous point.								
*** SEGMENT B									
A07	T1	1.5000	198	2.949	0.18487	127.52	155.60	0.00	0.00u

B06 Same as previous point.

u User-defined value
 * Non-code material for allowable stress;
 Non-standard material for expansion and modulus

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THERMAL ANCHOR MOVEMENTS AND DISPLACEMENTS

POINT			DX	DY	DZ	RX	RY	RZ
NAME	LOAD	CASE	(mm)	(mm)	(mm)	(deg)	(deg)	(deg)
A00	Thermal	1	0.00	0.00	40.02	0.000	0.000	0.000
A10	Thermal	1	0.00	0.00	14.36	0.000	0.000	0.000
B06	Thermal	1	0.00	0.00	17.47	0.000	0.000	0.000

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S U P P O R T D A T A L I S T I N G

Point	Support	Support	Conn.to	Stiff.	Gap 1	Gap 2	Fric.	GapSet	Preload	Size	Figure
Name	Type	ID	/Dir		(mm)	(mm)	Fact.	/#hgr	(N)		

Tag No.: <None>

A16 Guide-V A16 1 Ground Rigid 0.0 0.0 0.00
 Guide-H A16 1 Ground Rigid 0.0 0.0 0.00
 Gap Dir.: (Gap1_V=-X, Gap2_V=+X, Gap1_H=-Y, Gap2_H=+Y)

Tag No.: <None>

A17 Guide-V A17 1 Ground Rigid 0.0 0.0 0.00
 Guide-H A17 1 Ground Rigid 0.0 0.0 0.00
 Gap Dir.: (Gap1_V=-X, Gap2_V=+X, Gap1_H=-Y, Gap2_H=+Y)

Tag No.: <None>

B02 M Guide-V B02 M1 Ground Rigid 0.0 100.0 0.00 Weightless
 Guide-H B02 M1 Ground Rigid 0.0 0.0 0.00 Weightless

Spring Manufacturer: Anvil/Grinnell

NOTE 1: No soil supports present in the system.

Gap 1 : V-stop,Guide-V=down, Linestop,Incline,Tie/link=backward, Guide-H=Left
 Gap 2 : V-stop,Guide-V=Up , Linestop,Incline,Tie/link=forward , Guide-H=Right
 Stiffness units for rotation support: N.m/deg , all others: N/mm

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B E N D D A T A L I S T I N G

Point Pressure Name	Bend Case Type	Radius (mm)	Angle (deg)	OD (mm)	tnom (mm)	Material	Flg/ Cuts	SIF in	SIF out	Analysis Set	Flexibility (K)	
A03	Elbow	38L	29.3	33.4	3.4	1.4301	0/0	1.31	1.31	1	2.89	None
A04	Elbow	38L	80.1	33.4	3.4	1.4301	0/0	1.31	1.31	1	2.89	None
A08	Elbow	95L	43.9	73.0	5.2	1.4301	0/0	1.59	1.59	1	3.87	None
A09	Elbow	95L	43.9	73.0	5.2	1.4301	0/0	1.59	1.59	1	3.87	None
B08	Elbow	95L	45.8	73.0	5.2	1.4301	0/0	1.59	1.59	1	3.87	None

L = Long radius

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T E E D A T A L I S T I N G

Point Name	Point Seg-Type	Pipe OD (mm)	Pipe Thk. (mm)	Material	Tee Type	**Crotch Radius (mm)	*Crotch Thick (mm)	SIF in	SIF out
A07	A-Header B-Branch	73.0 73.0	5.2 5.2	1.4301 1.4301	welding			1.18	1.18

* = Pad thickness for reinforced tee.

**= Fillet radius for Raised tee or discontinuity dist. for Thickened tee.

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V A L V E D A T A L I S T I N G

Type Point /Avg. Name (mm)	Point /Max. Type	Dnom (mm)	Length Rating	Valve Weight (kg)	Actuator Weight (kg)	Actuator DX (mm)	Actuator DY (mm)	Actuator DZ (mm)	Joint SAF	Joint Type	SIF	Size (mm)
B02	GLOBE-F	65	600	305.00	43				4.60	WN	1.00	

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FLANGE DATA LISTING

					Flange	Bolt			Size	Type	
Point	FLG		Dnom		Weight	Weight	Joint		/Avg.	/Max.	ANSI
Name	No.	Type	(mm)	Rating	(kg)	(kg)	Type	SIF	(mm)	(mm)	Check
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
A00	1	SLIP-ON	40	300	2.7	0.0	DWSO	1.20			No
A15	1	WELDNECK	65	300	4.8	0.0	WN	1.00			No
A15	2	WELDNECK	65	300	4.8	0.0	WN	1.00			No
A14	1	WELDNECK	65	300	4.8	0.0	WN	1.00			No
A14	2	WELDNECK	65	300	4.8	0.0	WN	1.00			No
A10	1	SLIP-ON	65	300	4.5	0.0	DWSO	1.20			No
B02	1	SLIP-ON	65	600	5.4	0.0	DWSO	1.20			No
CH08	1	SLIP-ON	65	600	5.4	0.0	DWSO	1.20			No
B06	1	SLIP-ON	100	300	10.0	0.0	DWSO	1.20			No

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JOINT TYPE / USER - SIF DATA LISTING

				Size			
Point	Point	SIF	SIF	Joint	/Avg.	Max.	Over
Name	Type	in	out	Type	(mm)	(mm)	ride
-----	-----	-----	-----	-----	-----	-----	-----

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REDUCER DATA LISTING

			OD	OD	Thk	Thk			
From	To	Length	From	To	From	To	From	Angle	SIF
Point	Point	(mm)	(mm)	(mm)	(mm)	(mm)	Material	(deg)	

A01	A11	63.50	48.3	33.4	3.7	3.4	1.4301		2.00t
A12	A06	89.00	33.4	73.0	3.4	5.2	1.4301		2.00t
B07	B05	102.00	73.0	114.3	5.2	6.0	1.4301		2.00t

t = Use SIF of 2.0

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From	To	Include	Include	Rigid
Point	Point	Weight	Expansion	Factor
-----	-----	-----	-----	-----

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<u>Tag No./</u>	<u>Refer.</u>	<u>Point</u>	<u>Seg</u>	<u>Coord.</u>	<u>Load</u>	<u>[Report Loads]</u>	
<u>Ref. ID</u>	<u>Side</u>	<u>Name</u>	<u>Name</u>	<u>System</u>	<u>Direction</u>	<u>Actual</u>	<u>Allow.</u>
<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>

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Static - Analysis set number ..... 1
Date and Time of analysis ..... Sep 13, 2010    10:54 AM
Model Revision Number ..... 51
Number of load cases ..... 2
Load cases analyzed ..... GR T1
Description ..... Analysis Set no. 1
Gaps/Friction/Soil considered ..... Yes
Tolerance - Force, Displacement ..... 44.48 N    0.0254 mm
Friction - Scale Factor, Tolerance ... 1.00    0.10
Ignore friction for cases E1,E2,E3 .... Yes
Ignore friction for gravity case ..... Yes
Hanger design run ..... No
Cut short included ..... No
Thermal bowing included ..... No
Include Bourdon rotational effect ..... No
Pipe radius for Bourdon calculation ... Mean
Occasional load analysis type ..... Nonlinear
Non-linear analysis summary file ..... DRYWELL TO PSSBREV0.LOG
Use default load sequence ..... Yes
Base load cases for nonlinear analysis

GR = None
T1 = GR

Weight of contents included ..... Yes
Pressure stiffening case ..... None
Hot modulus case ..... None
Water elevation for buoyancy loads ... Not considered
Use corroded thickness in analysis .... No
Rigid stiffness factor ..... 1000.0

```

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AutoPIPE Plus 9.2.1 RESULT PAGE 2

CODE COMPLIANCE COMBINATIONS

<Description> Allowable Combination (N/mm2) D/A/P	Category	Method	Case/Combination	Factor	M/S	K-Factor
GR + Max P{1} Automatic Y Y Y	Sustain	Sum	GR[1] Max Long	1.00 1.00		
Max Range Automatic Y Y Y	Expansion	Sum	Temp. Range	1.00		
Amb to T1{1} Automatic Y Y Y	Expansion	Sum	T1[1]	1.00		
**Hydrotest{1} Automatic Y Y Y	Occasion	Sum	*HY[1] Max Long	1.00 1.00		1.000
Max P{1} Automatic Y Y Y	Hoop	Sum	Max Hoop	1.00		
Sus.+T1{1} Automatic Y Y Y	Creep Rupt	Sum	Max Sus T1[1]	1.00 1.00		

Notes:

D/A/P: [D]efault/[A]uto-Update/[P]rint options (Y=Yes, N=No)

* indicates that the load case has not been analyzed

** indicates that the combination includes unanalyzed load case(s)
or combination(s) that include unanalyzed load case(s).

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NON-CODE COMBINATIONS

<Description> Combination	Method	Case/Combination	Factor	D/A/P
Gravity{1}	Sum	GR[1]	1.00	Y Y Y
**Hydrotest{1}	Sum	*HY[1]	1.00	Y Y Y
Thermal 1{1}	Sum	T1[1]	1.00	Y Y Y
GRT1{1}	Sum	GR[1] T1[1]	1.00 1.00	Y Y Y

Notes:

D/A/P: [D]efault/[A]uto-Update/[P]rint options (Y=Yes, N=No)

* indicates that the load case has not been analyzed

** indicates that the combination includes unanalyzed load case(s)
or combination(s) that include unanalyzed load case(s).

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CODE COMPLIANCE

Y - Factor 0.50
Weld efficiency factor 1.00
Range reduction factor 1.00
Design Pressure Factor 1.00
Minimum stress ratio used in reports... 0.00
Number of stress points per span 0
Include corrosion in stress calcs. N
Include axial force in code stress N
Include sustain load margin Only if allowable stress is exceeded
Use single SIF Y
Set sustained/occasional SIF = 1 N
Set sustained/occasional SIF = 0.75i .. N
Apply cold/hot modulus ratio N
Disable auto code combinations N
Disable auto non-code combinations N
No. of thermal ranges to report 0
Include Max Range combination Y
Total stress Octahedral
Direct shear None
Longitudinal pressure calculation PD/4t
Inc. Axial Str and Pcase in Sustained.. N

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D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
*** Segment A begin ***							
A00	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	40.020	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	40.020	0.000	0.000	0.000
A01	Gravity{1}	0.000	0.000	-0.028	0.007	-0.015	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.451	-0.327	40.088	-0.010	0.041	0.005

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	GRT1{1}	-0.450	-0.327	40.060	-0.004	0.026	0.006
A11	Gravity{1}	0.001	-0.001	-0.051	0.009	-0.022	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.600	-0.440	40.145	-0.015	0.064	0.008
	GRT1{1}	-0.599	-0.441	40.094	-0.006	0.042	0.008
A03 N	Gravity{1}	0.005	-0.007	-0.362	0.021	-0.075	0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.361	-1.102	41.089	-0.041	0.270	0.024
	GRT1{1}	-1.356	-1.109	40.727	-0.020	0.195	0.026
A03 F	Gravity{1}	0.008	-0.007	-0.389	0.022	-0.080	0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.419	-1.132	41.178	-0.047	0.295	0.025
	GRT1{1}	-1.411	-1.139	40.789	-0.025	0.215	0.028
A04 N	Gravity{1}	0.314	-0.035	-2.116	0.003	-0.008	0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-8.291	-2.959	52.525	-0.040	0.257	0.025
	GRT1{1}	-7.976	-2.994	50.409	-0.037	0.249	0.028
A04 F	Gravity{1}	0.319	-0.035	-2.120	0.002	-0.006	0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-8.519	-3.005	52.542	-0.028	0.177	0.022
	GRT1{1}	-8.200	-3.041	50.422	-0.026	0.171	0.025
A16	Gravity{1}	0.000	0.000	-2.116	0.005	0.021	-0.009
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	43.920	0.128	-0.094	-0.059
	GRT1{1}	0.000	0.000	41.804	0.133	-0.073	-0.069
A12	Gravity{1}	0.161	0.331	-2.106	0.000	-0.067	-0.021
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-9.237	4.158	35.204	-0.067	0.230	-0.142
	GRT1{1}	-9.076	4.489	33.098	-0.067	0.163	-0.163
A06	Gravity{1}	0.266	0.331	-2.106	-0.001	-0.068	-0.021
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-9.592	4.052	34.941	-0.069	0.228	-0.142
	GRT1{1}	-9.326	4.383	32.836	-0.070	0.160	-0.164

□

DRYWELL TO PSSBREV0

09/13/2010 DRYWELL TO PSSB

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AutoPIPE Plus 9.2.1

RESULT PAGE 6

D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
A07	Gravity{1}	0.356	0.330	-2.106	-0.001	-0.068	-0.021
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-9.894	3.959	34.717	-0.070	0.227	-0.142
	GRT1{1}	-9.538	4.289	32.612	-0.071	0.159	-0.164
A17	Gravity{1}	0.000	0.000	-2.105	-0.035	0.057	-0.017
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	28.842	-0.155	-0.366	-0.100
	GRT1{1}	0.000	0.000	26.737	-0.190	-0.309	-0.116
A15	Gravity{1}	-1.420	-1.244	-2.103	-0.066	0.062	-0.014
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.987	-3.873	24.986	-0.169	-0.014	-0.071
	GRT1{1}	2.567	-5.118	22.883	-0.235	0.048	-0.085
A13	Gravity{1}	-1.599	-1.437	-2.102	-0.066	0.060	-0.013
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.980	-4.363	24.493	-0.165	0.018	-0.068
	GRT1{1}	2.381	-5.801	22.391	-0.231	0.078	-0.081
A14	Gravity{1}	-1.771	-1.631	-2.102	-0.066	0.058	-0.013
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	3.884	-4.839	24.000	-0.160	0.046	-0.064
	GRT1{1}	2.113	-6.470	21.898	-0.225	0.104	-0.077
A08 N	Gravity{1}	-1.623	-1.866	-2.087	0.112	-0.098	-0.005
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-2.715	-5.398	14.009	0.231	-0.034	0.008
	GRT1{1}	-4.338	-7.264	11.922	0.343	-0.132	0.004
A08 F	Gravity{1}	-1.496	-1.723	-2.006	0.139	-0.119	-0.005
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-2.598	-5.037	13.933	0.285	-0.090	0.008
	GRT1{1}	-4.095	-6.760	11.927	0.424	-0.209	0.003
A09 N	Gravity{1}	-0.167	-0.199	-0.054	0.102	-0.085	-0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.234	-0.458	15.243	0.201	-0.102	0.014
	GRT1{1}	-0.401	-0.656	15.189	0.303	-0.188	0.012

		DRYWELL TO PSSBREV0.OUT					
A09 F	Gravity{1}	-0.094	-0.113	-0.002	0.049	-0.041	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.104	-0.222	15.134	0.097	-0.047	0.007
	GRT1{1}	-0.198	-0.335	15.133	0.147	-0.089	0.006
A10	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	14.360	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	14.360	0.000	0.000	0.000

*** Segment A end ***

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 DRYWELL TO PSSBREV0

09/13/2010 DRYWELL TO PSSB

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 AutoPIPE Plus 9.2.1 RESULT PAGE 7

D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
*** Segment B begin ***							
A07	Gravity{1}	0.356	0.330	-2.106	-0.001	-0.068	-0.021
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-9.894	3.959	34.717	-0.070	0.227	-0.142
	GRT1{1}	-9.538	4.289	32.612	-0.071	0.159	-0.164
B02	Gravity{1}	0.021	-0.003	-0.080	-0.019	-0.031	-0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-3.761	0.442	22.475	-0.009	0.536	-0.170
	GRT1{1}	-3.739	0.439	22.395	-0.028	0.505	-0.172
B02 M	Gravity{1}	0.008	0.000	0.001	-0.019	-0.031	-0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-3.083	0.000	21.143	-0.009	0.535	-0.170
	GRT1{1}	-3.076	0.000	21.144	-0.028	0.504	-0.172
CH08	Gravity{1}	-0.006	0.003	0.082	-0.019	-0.031	-0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-2.406	-0.442	19.814	-0.009	0.534	-0.170
	GRT1{1}	-2.412	-0.439	19.896	-0.028	0.503	-0.172
B08 N	Gravity{1}	-0.015	0.011	0.136	-0.021	-0.010	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.626	-0.945	18.401	-0.006	0.419	-0.143

DRYWELL TO PSSBREV0.OUT

	GRT1{1}	-1.641	-0.933	18.537	-0.027	0.409	-0.144
B08 F	Gravity{1}	-0.014	0.012	0.125	-0.024	0.005	-0.003
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-1.335	-0.995	18.026	0.029	0.256	-0.075
	GRT1{1}	-1.349	-0.983	18.151	0.004	0.260	-0.078
B07	Gravity{1}	-0.004	0.004	0.034	-0.011	0.006	-0.002
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.650	-0.600	17.563	0.006	0.064	-0.017
	GRT1{1}	-0.654	-0.597	17.598	-0.005	0.070	-0.019
B05	Gravity{1}	-0.002	0.002	0.016	-0.006	0.004	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.422	-0.404	17.507	0.003	0.032	-0.008
	GRT1{1}	-0.424	-0.402	17.523	-0.004	0.036	-0.009
B06	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	17.470	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	17.470	0.000	0.000	0.000

*** Segment B end ***

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DRYWELL TO PSSBREV0

09/13/2010 DRYWELL TO PSSB

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S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/ Connect/ Load			L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform

Tag No.: <None>								
A16		Gravity{1}	down	4	0.000	X	-4	0.000
A16 1	Guide		left	1	0.000	Y	1	0.000
Stiff	:RIGID		forw		2.116	Z		-2.116
		Hydrotest{1}	down		0.000	X		0.000
			left		0.000	Y		0.000
			back		0.000	Z		0.000
		Thermal 1{1}	down	56	0.000	X	-56	0.000
			left	7	0.000	Y	7	0.000
			back		43.920	Z		43.920

DRYWELL TO PSSBREV0.OUT

		GRT1{1}	down	60	0.000	X	-60	0.000
			left	8	0.000	Y	8	0.000
			back		41.804	Z		41.804
Tag No.: <None> A17		Gravity{1}	up	64	0.000	X	64	0.000
A17 1	Guide		right	117	0.000	Y	-117	0.000
Stiff	:RIGID		forw		2.105	Z		-2.105
		Hydrotest{1}	down		0.000	X		0.000
			left		0.000	Y		0.000
			back		0.000	Z		0.000
		Thermal 1{1}	down	1655	0.000	X	-1655	0.000
			right	99	0.000	Y	-99	0.000
			back		28.842	Z		28.842
		GRT1{1}	down	1591	0.000	X	-1591	0.000
			right	216	0.000	Y	-216	0.000
			back		26.737	Z		26.737
Tag No.: <None> B02 M		Gravity{1}	down	2297	0.000	X	377	0.008
B02 M1	Guide		left	313	0.000	Y	313	0.000
Stiff	:RIGID		forw		0.008	Z	-2266	0.001
		Hydrotest{1}	down		0.000	X		0.000
			left		0.000	Y		0.000
			back		0.000	Z		0.000
		Thermal 1{1}	up	2297	21.363	X	-377	-3.083
			right	1580	0.000	Y	-1580	0.000
			forw		0.424	Z	2266	21.143
		GRT1{1}	up		21.363	X		-3.076
			right	1267	0.000	Y	-1267	0.000
			forw		0.432	Z		21.144

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DRYWELL TO PSSBREV0

09/13/2010 DRYWELL TO PSSB

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AutoPIPE Plus 9.2.1 RESULT PAGE 9

R E S T R A I N T R E A C T I O N S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

DRYWELL TO PSSBREV0.OUT

A00	Anchor Gravity{1}	Tag No.: TODW1		0	-1	-103	103	21	-40	1	45
	Hydrotest{1}			0	0	0	0	0	0	0	0
	Thermal 1{1}			37	2	81	90	-36	100	15	107
	GRT1{1}			37	1	-22	43	-15	60	15	64
A16	Guide Gravity{1}	Tag No.: <None>	[ID: A16 1]	-4	1	0	4	0	0	0	0
	Hydrotest{1}			0	0	0	0	0	0	0	0
	Thermal 1{1}			-56	7	0	57	0	0	0	0
	GRT1{1}			-60	8	0	61	0	0	0	0
A17	Guide Gravity{1}	Tag No.: <None>	[ID: A17 1]	64	-117	0	134	0	0	0	0
	Hydrotest{1}			0	0	0	0	0	0	0	0
	Thermal 1{1}			-1655	-99	0	1658	0	0	0	0
	GRT1{1}			-1591	-216	0	1605	0	0	0	0
A10	Anchor Gravity{1}	Tag No.: TOPSSB		41	62	-1524	1526	409	-343	-9	533
	Hydrotest{1}			0	0	0	0	0	0	0	0
	Thermal 1{1}			241	103	-2615	2629	808	-366	45	888
	GRT1{1}			282	166	-4140	4153	1217	-709	36	1409
B02 M	Guide Gravity{1}	Tag No.: <None>	[ID: B02 M1]	377	313	-2266	2318	0	0	0	0
	Hydrotest{1}			0	0	0	0	0	0	0	0
	Thermal 1{1}			-377	-1580	2266	2788	0	0	0	0
	GRT1{1}			0	-1267	0	1267	0	0	0	0
B06	Anchor Gravity{1}	Tag No.: TODW2		-478	-259	755	930	-379	281	-75	478
	Hydrotest{1}			0	0	0	0	0	0	0	0
	Thermal 1{1}			1810	1567	268	2409	-97	1505	-418	1565
	GRT1{1}			1332	1309	1023	2129	-476	1786	-493	1913

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DRYWELL TO PSSBREV0

09/13/2010 DRYWELL TO PSSB

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AutoPIPE Plus 9.2.1 RESULT PAGE 10

G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

*** Segment A begin ***		DRYWELL TO PSSBREV0.OUT							
A00	Gravity{1}	0	1	77	77	-21	40	-1	45
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-37	-2	-81	90	36	-100	-15	107
	GRT1{1}	-37	-1	-5	38	15	-60	-15	64
A01	Gravity{1}	0	1	63	63	-13	29	-1	32
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-37	-2	-81	90	27	-88	-11	92
	GRT1{1}	-37	-1	-19	42	14	-58	-12	61
A11	Gravity{1}	0	1	59	59	-11	26	-1	28
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-37	-2	-81	90	24	-83	-10	87
	GRT1{1}	-37	-1	-22	43	13	-57	-10	60
A03 N	Gravity{1}	0	1	45	45	-1	12	0	12
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-37	-2	-81	90	8	-61	-3	61
	GRT1{1}	-37	-1	-37	52	7	-49	-3	50
A03 F	Gravity{1}	0	1	44	44	-1	11	0	11
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-37	-2	-81	90	8	-59	-3	60
	GRT1{1}	-37	-1	-38	53	7	-48	-3	49
A04 N	Gravity{1}	0	1	-28	28	1	-2	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-37	-2	-81	90	-9	65	3	66
	GRT1{1}	-37	-1	-110	116	-8	63	3	64
A04 F	Gravity{1}	0	1	-31	31	1	-1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-37	-2	-81	90	-9	66	3	67
	GRT1{1}	-37	-1	-112	118	-9	65	3	66
A16 -	Gravity{1}	0	1	-155	155	-1	-1	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-37	-2	-81	90	-4	-42	3	43
	GRT1{1}	-37	-1	-237	239	-5	-44	3	44
A16 +	Gravity{1}	3	-1	-155	155	-1	-1	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	19	-9	-81	84	-4	-42	3	43
	GRT1{1}	23	-9	-237	238	-5	-44	3	44
A12	Gravity{1}	3	-1	-281	281	1	9	0	9

	DRYWELL TO PSSBREV0.OUT								
Hydrotest{1}	0	0	0	0	0	0	0	0	0
Thermal 1{1}	19	-9	-81	84	21	15	3	26	
GRT1{1}	23	-9	-362	363	22	24	3	33	

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DRYWELL TO PSSBREV0

09/13/2010 DRYWELL TO PSSB

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AutoPIPE Plus 9.2.1

RESULT PAGE 11

G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

A06	Gravity{1}	3	-1	-290	290	1	9	0	9
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	19	-9	-81	84	22	16	3	28
	GRT1{1}	23	-9	-372	373	23	26	3	35
A07 -	Gravity{1}	3	-1	-303	303	1	9	0	10
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	19	-9	-81	84	23	18	3	29
	GRT1{1}	23	-9	-384	385	24	27	3	37
A07 +	Gravity{1}	105	-55	100	155	-17	-244	-4	245
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1414	4	-2615	2973	99	2073	-37	2076
	GRT1{1}	-1309	-51	-2515	2836	82	1829	-41	1831
A17 -	Gravity{1}	105	-55	-234	262	93	-34	-4	99
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-1414	4	-2615	2973	91	-755	-37	761
	GRT1{1}	-1309	-51	-2849	3136	184	-789	-41	811
A17 +	Gravity{1}	41	62	-234	245	93	-34	-4	99
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	241	103	-2615	2629	91	-755	-37	761
	GRT1{1}	282	166	-2849	2868	184	-789	-41	811
A15 -	Gravity{1}	41	62	-453	459	11	19	-4	22
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	241	103	-2615	2629	-45	-438	-37	442
	GRT1{1}	282	166	-3069	3086	-34	-419	-41	423
A15 +	Gravity{1}	41	62	-547	552	11	19	-4	22

		DRYWELL TO PSSBREV0.OUT							
		0	0	0	0	0	0	0	0
	Hydrotest{1}								
	Thermal 1{1}	241	103	-2615	2629	-45	-438	-37	442
	GRT1{1}	282	166	-3163	3180	-34	-419	-41	423
A13	Gravity{1}	41	62	-575	580	1	26	-4	26
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	241	103	-2615	2629	-62	-398	-37	404
	GRT1{1}	282	166	-3191	3208	-62	-372	-41	379
A14 -	Gravity{1}	41	62	-603	608	-10	33	-4	34
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	241	103	-2615	2629	-79	-357	-37	368
	GRT1{1}	282	166	-3219	3235	-89	-325	-41	339
A14 +	Gravity{1}	41	62	-698	702	-10	33	-4	34
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	241	103	-2615	2629	-79	-357	-37	368
	GRT1{1}	282	166	-3313	3329	-89	-325	-41	339

□

DRYWELL TO PSSBREV0

09/13/2010 DRYWELL TO PSSB

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AutoPIPE Plus 9.2.1

RESULT PAGE 12

G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A08 N	Gravity{1}	41	62	-1266	1268	-222	171	-4	280
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	241	103	-2615	2629	-431	462	-37	633
	GRT1{1}	282	166	-3882	3895	-653	633	-41	910
A08 F	Gravity{1}	41	62	-1278	1280	-200	152	-4	251
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	241	103	-2615	2629	-383	435	-33	580
	GRT1{1}	282	166	-3894	3907	-583	587	-37	828
A09 N	Gravity{1}	41	62	-1424	1426	399	-332	-9	520
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	241	103	-2615	2629	788	-402	42	885
	GRT1{1}	282	166	-4039	4053	1187	-735	33	1396
A09 F	Gravity{1}	41	62	-1436	1438	425	-354	-9	553

		DRYWELL TO PSSBREV0.OUT							
		0	0	0	0	0	0	0	0
	Hydrotest{1}								
	Thermal 1{1}	241	103	-2615	2629	835	-430	45	940
	GRT1{1}	282	166	-4052	4065	1260	-783	36	1484
A10	Gravity{1}	41	62	-1480	1482	409	-343	-9	533
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	241	103	-2615	2629	808	-366	45	888
	GRT1{1}	282	166	-4096	4109	1217	-709	36	1409

*** Segment A end ***

*** Segment B begin ***

A07	Gravity{1}	-102	54	-403	419	18	254	4	255
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1433	-13	2534	2911	-76	-2055	39	2057
	GRT1{1}	1332	41	2131	2513	-58	-1801	44	1803
B02 -	Gravity{1}	-102	54	-633	644	30	-426	-69	433
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1433	-13	2534	2911	-79	1059	57	1063
	GRT1{1}	1332	41	1901	2321	-49	632	-12	634
B02 +	Gravity{1}	-102	54	-686	696	30	-426	-69	433
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1433	-13	2534	2911	-79	1059	57	1063
	GRT1{1}	1332	41	1848	2278	-49	632	-12	634
B02 M-	Gravity{1}	-102	54	-938	945	32	-546	-77	552
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1433	-13	2534	2911	-79	1404	59	1407
	GRT1{1}	1332	41	1596	2079	-48	858	-18	860

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DRYWELL TO PSSBREV0

09/13/2010 DRYWELL TO PSSB

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AutoPIPE Plus 9.2.1 RESULT PAGE 13

G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
B02 M+	Gravity{1}	-478	-259	1329	1436	32	-546	-77	552
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1810	1567	268	2409	-79	1404	59	1407
	GRT1{1}	1332	1309	1596	2456	-48	858	-18	860

DRYWELL TO PSSBREV0.OUT

CH08 -	Gravity{1}	-478	-259	1077	1207	25	-353	-38	356
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1810	1567	268	2409	-40	1399	-177	1411
	GRT1{1}	1332	1309	1345	2301	-15	1046	-215	1068
CH08 +	Gravity{1}	-478	-259	1024	1159	25	-353	-38	356
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1810	1567	268	2409	-40	1399	-177	1411
	GRT1{1}	1332	1309	1292	2270	-15	1046	-215	1068
B08 N	Gravity{1}	-478	-259	994	1133	17	-156	9	158
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1810	1567	268	2409	7	1393	-460	1467
	GRT1{1}	1332	1309	1261	2253	24	1237	-452	1317
B08 F	Gravity{1}	-478	-259	981	1121	-12	-86	13	88
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1810	1567	268	2409	9	1399	-515	1491
	GRT1{1}	1332	1309	1249	2246	-3	1314	-503	1406
B07	Gravity{1}	-478	-259	937	1084	-189	90	-28	211
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1810	1567	268	2409	-40	1449	-470	1524
	GRT1{1}	1332	1309	1205	2222	-228	1539	-498	1633
B05	Gravity{1}	-478	-259	913	1063	-255	157	-44	303
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1810	1567	268	2409	-59	1468	-453	1537
	GRT1{1}	1332	1309	1181	2209	-315	1625	-496	1728
B06	Gravity{1}	-478	-259	853	1011	-379	281	-75	478
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1810	1567	268	2409	-97	1505	-418	1565
	GRT1{1}	1332	1309	1121	2178	-476	1786	-493	1913

*** Segment B end ***

□

DRYWELL TO PSSBREV0

09/13/2010 DRYWELL TO PSSB

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AutoPIPE Plus 9.2.1

RESULT PAGE 14

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total
name	combination	Stress	Max Min	Stress	Max Min	Stress Loc

DRYWELL TO PSSBREV0.OUT

*** Segment A begin ***

A00	SIFI= 1.20 Gravity{1}	SIFO= 1.20	0	10	-10	1	10	-10	10	1
	Hydrotest{1}		14	6	6	0	14	6	12	270
	Thermal 1{1}		0	23	-23	3	24	-24	24	352
	GRT1{1}		0	13	-14	2	14	-14	14	345
A01	SIFI= 2.00 Gravity{1}	SIFO= 2.00	0	12	-12	1	12	-12	12	1
	Hydrotest{1}		14	6	6	0	14	6	12	270
	Thermal 1{1}		0	33	-33	3	33	-33	33	353
	GRT1{1}		0	21	-21	2	21	-22	22	348
A11	SIFI= 2.00 Gravity{1}	SIFO= 2.00	0	26	-26	1	26	-26	26	1
	Hydrotest{1}		10	4	4	0	10	4	9	270
	Thermal 1{1}		0	76	-76	6	76	-77	77	353
	GRT1{1}		0	51	-51	5	51	-51	52	349
A03 N-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	5	-5	1	5	-5	5	3
	Hydrotest{1}		10	4	4	0	10	4	9	270
	Thermal 1{1}		0	25	-25	6	27	-27	27	357
	GRT1{1}		0	20	-20	5	21	-22	22	356
A03 N+	SIFI= 1.31 Gravity{1}	SIFO= 1.31	0	6	-6	1	6	-6	7	252
	Hydrotest{1}		10	4	4	0	10	4	9	270
	Thermal 1{1}		0	33	-33	6	34	-34	35	247
	GRT1{1}		0	27	-27	5	27	-28	28	245
A03 F-	SIFI= 1.31 Gravity{1}	SIFO= 1.31	0	7	-7	0	7	-7	7	255
	Hydrotest{1}		10	4	4	0	10	4	9	270
	Thermal 1{1}		0	36	-36	0	36	-36	36	249
	GRT1{1}		0	29	-29	0	29	-29	29	248
A03 F+	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	5	-5	0	5	-5	5	3
	Hydrotest{1}		10	4	4	0	10	4	9	270
	Thermal 1{1}		0	27	-28	0	27	-28	28	358
	GRT1{1}		0	22	-23	0	22	-23	23	356
A04 N-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	1	-1	0	1	-1	1	8
	Hydrotest{1}		10	4	4	0	10	4	9	270
	Thermal 1{1}		0	30	-30	0	30	-30	30	178
	GRT1{1}		0	29	-29	0	29	-29	29	177

DRYWELL TO PSSBREV0.OUT

A04 N+ SIFI= 1.31 SIFO= 1.31

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DRYWELL TO PSSBREV0

09/13/2010 DRYWELL TO PSSB

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RESULT PAGE 15

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress Loc
	Gravity{1}	0	1	-1	0	1	-1	1 188
	Hydrotest{1}	10	4	4	0	10	4	9 270
	Thermal 1{1}	0	39	-40	0	39	-40	40 358
	GRT1{1}	0	38	-38	0	38	-38	38 357
A04 F-	SIFI= 1.31 SIFO= 1.31							
	Gravity{1}	0	1	-1	0	1	-1	1 154
	Hydrotest{1}	10	4	4	0	10	4	9 270
	Thermal 1{1}	0	40	-40	1	40	-40	40 359
	GRT1{1}	0	39	-40	1	39	-40	40 360
A04 F+	SIFI= 1.00 SIFO= 1.00							
	Gravity{1}	0	0	-1	0	0	-1	1 147
	Hydrotest{1}	10	4	4	0	10	4	9 270
	Thermal 1{1}	0	30	-31	1	30	-31	31 352
	GRT1{1}	0	30	-31	1	30	-31	31 353
A16	SIFI= 1.00 SIFO= 1.00							
	Gravity{1}	0	0	-1	0	0	-1	1 211
	Hydrotest{1}	10	4	4	0	10	4	9 270
	Thermal 1{1}	0	19	-20	1	19	-20	20 186
	GRT1{1}	0	20	-21	1	20	-21	21 187
A12	SIFI= 2.00 SIFO= 2.00							
	Gravity{1}	0	7	-9	0	7	-9	9 8
	Hydrotest{1}	10	4	4	0	10	4	9 270
	Thermal 1{1}	0	23	-24	1	23	-24	24 55
	GRT1{1}	0	29	-31	1	29	-31	31 44
A06	SIFI= 2.00 SIFO= 2.00							
	Gravity{1}	0	1	-1	0	1	-1	1 8
	Hydrotest{1}	15	6	6	0	15	6	13 270
	Thermal 1{1}	0	3	-3	0	3	-3	3 53
	GRT1{1}	0	4	-4	0	4	-4	4 42
A07 -	SIFI= 1.18 SIFO= 1.18							
	Gravity{1}	0	0	-1	0	0	-1	1 351

DRYWELL TO PSSBREV0.OUT

	Hydrotest{1}	15	6	6	0	15	6	13	270
	Thermal 1{1}	0	2	-2	0	2	-2	2	308
	GRT1{1}	0	2	-3	0	2	-3	3	319
A07	+ SIFI= 1.18 Gravity{1}	0	17	-16	0	17	-16	17	356
	Hydrotest{1}	15	6	6	0	15	6	13	270
	Thermal 1{1}	0	138	-142	1	138	-143	143	357
	GRT1{1}	0	121	-126	1	121	-126	126	357
A17	SIFI= 1.00 Gravity{1}	0	5	-6	0	5	-6	6	110
	Hydrotest{1}	15	6	6	0	15	6	13	270
	Thermal 1{1}	0	41	-46	1	41	-46	46	173
	GRT1{1}	0	44	-49	1	44	-49	49	167

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DRYWELL TO PSSBREV0

09/13/2010 DRYWELL TO PSSB

BENTLEY

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
-----	-----	-----	-----	-----	-----	-----	-----	---
A15	SIFI= 1.00 Gravity{1}	0	1	-2	0	1	-2	2
	Hydrotest{1}	15	6	6	0	15	6	13
	Thermal 1{1}	0	23	-28	1	23	-28	28
	GRT1{1}	0	21	-27	1	21	-27	27
A13	SIFI= 1.00 Gravity{1}	0	1	-2	0	1	-2	2
	Hydrotest{1}	15	6	6	0	15	6	13
	Thermal 1{1}	0	21	-25	1	21	-26	26
	GRT1{1}	0	19	-25	1	19	-25	25
A14	SIFI= 1.00 Gravity{1}	0	1	-3	0	1	-3	3
	Hydrotest{1}	15	6	6	0	15	6	13
	Thermal 1{1}	0	19	-23	1	19	-23	23
	GRT1{1}	0	16	-22	1	16	-22	22
A08 N-	SIFI= 1.00 Gravity{1}	0	15	-17	0	15	-17	17
	Hydrotest{1}	15	6	6	0	15	6	13

			DRYWELL TO PSSBREV0.OUT						
Thermal 1{1}			0	34	-39	1	34	-39	39 317
GRT1{1}			0	49	-56	1	49	-56	56 314
A08 N+ SIFI= 1.59	SIFO= 1.59								
Gravity{1}			0	24	-27	0	24	-27	27 359
Hydrotest{1}			15	6	6	0	15	6	13 270
Thermal 1{1}			0	55	-60	1	55	-60	60 8
GRT1{1}			0	79	-86	1	79	-86	86 5
A08 F- SIFI= 1.59	SIFO= 1.59								
Gravity{1}			0	22	-24	0	22	-24	24 358
Hydrotest{1}			15	6	6	0	15	6	13 270
Thermal 1{1}			0	50	-54	3	50	-54	54 5
GRT1{1}			0	72	-78	3	72	-78	78 3
A08 F+ SIFI= 1.00	SIFO= 1.00								
Gravity{1}			0	14	-15	0	14	-15	15 358
Hydrotest{1}			15	6	6	0	15	6	13 270
Thermal 1{1}			0	31	-35	3	31	-35	35 5
GRT1{1}			0	44	-50	3	45	-50	50 3
A09 N- SIFI= 1.00	SIFO= 1.00								
Gravity{1}			0	29	-31	0	29	-31	31 181
Hydrotest{1}			15	6	6	0	15	6	13 270
Thermal 1{1}			0	49	-52	3	49	-52	53 170
GRT1{1}			0	77	-83	3	77	-83	83 174
A09 N+ SIFI= 1.59	SIFO= 1.59								
Gravity{1}			0	46	-48	0	46	-48	48 1
Hydrotest{1}			15	6	6	0	15	6	13 270
Thermal 1{1}			0	78	-82	3	78	-82	82 350

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DRYWELL TO PSSBREV0

09/13/2010 DRYWELL TO PSSB

BENTLEY

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AutoPIPE Plus 9.2.1 RESULT PAGE 17

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total		
name	combination	Stress	Max	Min	Stress	Max	Min	Stress
-----	-----	-----	-----	-----	-----	-----	-----	-----
	GRT1{1}	0	124	-130	3	124	-130	130 354
A09 F- SIFI= 1.59	SIFO= 1.59							
Gravity{1}		0	49	-52	0	49	-52	52 1
Hydrotest{1}		15	6	6	0	15	6	13 270
Thermal 1{1}		0	83	-88	1	83	-88	88 349
GRT1{1}		0	131	-139	1	132	-139	139 353

DRYWELL TO PSSBREV0.OUT

A09 F+	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	30	-33	0	30	-33	33	130
	Hydrotest{1}		15	6	6	0	15	6	13	270
	Thermal 1{1}		0	51	-56	1	52	-56	56	117
	GRT1{1}		0	81	-89	1	81	-89	89	122

A10	SIFI= 1.20 Gravity{1}	SIFO= 1.20	0	35	-38	0	35	-38	38	130
	Hydrotest{1}		15	6	6	0	15	6	13	270
	Thermal 1{1}		0	59	-63	1	59	-63	63	114
	GRT1{1}		0	93	-101	1	93	-101	101	120

*** Segment A end ***

*** Segment B begin ***

A07	SIFI= 1.18 Gravity{1}	SIFO= 1.18	0	17	-17	1	17	-17	17	360
	Hydrotest{1}		15	6	6	0	15	6	13	270
	Thermal 1{1}		0	137	-140	2	137	-140	141	1
	GRT1{1}		0	120	-123	1	120	-123	123	2

B02	SIFI= 1.20 Gravity{1}	SIFO= 1.20	0	30	-30	1	30	-30	30	10
	Hydrotest{1}		15	6	6	0	15	6	13	270
	Thermal 1{1}		0	71	-75	2	71	-75	75	4
	GRT1{1}		0	42	-45	1	42	-45	45	360

CH08	SIFI= 1.20 Gravity{1}	SIFO= 1.20	0	25	-24	1	25	-24	25	7
	Hydrotest{1}		15	6	6	0	15	6	13	270
	Thermal 1{1}		0	95	-99	2	95	-99	99	353
	GRT1{1}		0	72	-75	1	72	-75	75	349

B08 N-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	9	-9	1	9	-9	9	358
	Hydrotest{1}		15	6	6	0	15	6	13	270
	Thermal 1{1}		0	82	-86	2	82	-86	86	342
	GRT1{1}		0	74	-77	1	74	-77	77	340

B08 N+	SIFI= 1.59 Gravity{1}	SIFO= 1.59	0	15	-14	1	15	-14	15	97
	Hydrotest{1}		15	6	6	0	15	6	13	270
	Thermal 1{1}		0	132	-135	2	132	-135	135	81

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DRYWELL TO PSSBREV0

09/13/2010 DRYWELL TO PSSB

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RESULT PAGE 18

DRYWELL TO PSSBREV0.OUT
G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point name	Load combination	Hoop Stress	Longitudinal Max	Min	Shear Stress	Principal Max	Min	Total Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
	GRT1{1}	0	118	-121	1	119	-121	121	79
B08 F-	SIFI= 1.59 SIFO= 1.59 Gravity{1}	0	5	-4	2	6	-5	6	90
	Hydrotest{1}	15	6	6	0	15	6	13	270
	Thermal 1{1}	0	99	-103	29	107	-111	114	76
	GRT1{1}	0	95	-98	27	102	-105	108	75
B08 F+	SIFI= 1.00 SIFO= 1.00 Gravity{1}	0	4	-3	2	4	-4	5	346
	Hydrotest{1}	15	6	6	0	15	6	13	270
	Thermal 1{1}	0	61	-66	29	73	-76	82	332
	GRT1{1}	0	59	-62	27	69	-72	78	332
B07	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	23	-22	2	23	-23	24	172
	Hydrotest{1}	15	6	6	0	15	6	13	270
	Thermal 1{1}	0	130	-134	29	136	-140	143	336
	GRT1{1}	0	153	-156	27	157	-160	163	338
B05	SIFI= 2.00 SIFO= 2.00 Gravity{1}	0	11	-11	1	11	-11	12	171
	Hydrotest{1}	20	9	9	0	20	9	18	270
	Thermal 1{1}	0	43	-46	9	45	-47	48	337
	GRT1{1}	0	54	-56	9	56	-58	58	340
B06	SIFI= 1.20 SIFO= 1.20 Gravity{1}	0	11	-11	1	11	-11	11	171
	Hydrotest{1}	20	9	9	0	20	9	18	270
	Thermal 1{1}	0	26	-29	9	29	-32	33	340
	GRT1{1}	0	37	-39	9	39	-41	42	343

*** Segment B end ***

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DRYWELL TO PSSBREV0

09/13/2010 DRYWELL TO PSSB

BENTLEY

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AutoPIPE Plus 9.2.1 RESULT PAGE 19

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)

(Stress in N/mm2)

Point name	Load combination	Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. Load no. type	Code Stress	Code Allow.
-----	-----	-----	-----	-----	-----	-----	-----	-----

DRYWELL TO PSSBREV0.OUT

B07	Max P{1}					HOOP	11	104
	GR + Max P{1}	211		2.00	2-1	SUST	23	104
	TR:Amb to T1{1}		1524	2.00	4-1	DISP	175	217
	Amb to T1{1}		1524	2.00	4-1	DISP	175	217
	Hydrotest{1}	0	0	2.00	3-1	OCC	8	219
	Sus.+T1{1}			2.00	5-1	CRUP	67	<NOTE 1>
A07	+ Max P{1}					HOOP	11	104
	GR + Max P{1}	245		1.18	2-1	SUST	19	104
	TR:Amb to T1{1}		2076	1.18	4-1	DISP	140	217
	Amb to T1{1}		2076	1.18	4-1	DISP	140	217
	Hydrotest{1}	0	0	1.18	3-1	OCC	8	219
	Sus.+T1{1}			1.18	5-1	CRUP	59	<NOTE 1>
B08 F-	Max P{1}					HOOP	11	104
	GR + Max P{1}	88		1.59	2-1	SUST	11	104
	TR:Amb to T1{1}		1491	1.59	4-1	DISP	136	217
	Amb to T1{1}		1491	1.59	4-1	DISP	136	217
	Hydrotest{1}	0	0	1.59	3-1	OCC	8	219
	Sus.+T1{1}			1.59	5-1	CRUP	45	<NOTE 1>
B08 N+	Max P{1}					HOOP	11	104
	GR + Max P{1}	158		1.59	2-1	SUST	16	104
	TR:Amb to T1{1}		1467	1.59	4-1	DISP	134	217
	Amb to T1{1}		1467	1.59	4-1	DISP	134	217
	Hydrotest{1}	0	0	1.59	3-1	OCC	8	219
	Sus.+T1{1}			1.59	5-1	CRUP	49	<NOTE 1>
A07	Max P{1}					HOOP	11	104
	GR + Max P{1}	255		1.18	2-1	SUST	19	104
	TR:Amb to T1{1}		2057	1.18	4-1	DISP	130	217
	Amb to T1{1}		2057	1.18	4-1	DISP	130	217
	Hydrotest{1}	0	0	1.18	3-1	OCC	8	219
	Sus.+T1{1}			1.18	5-1	CRUP	56	<NOTE 1>
CH08	Max P{1}					HOOP	11	104
	GR + Max P{1}	356		1.20	2-1	SUST	26	104
	TR:Amb to T1{1}		1411	1.20	4-1	DISP	97	217
	Amb to T1{1}		1411	1.20	4-1	DISP	97	217
	Hydrotest{1}	0	0	1.20	3-1	OCC	8	219
	Sus.+T1{1}			1.20	5-1	CRUP	53	<NOTE 1>
A09 F-	Max P{1}					HOOP	11	104
	GR + Max P{1}	553		1.59	2-1	SUST	43	104
	TR:Amb to T1{1}		940	1.59	4-1	DISP	86	217

DRYWELL TO PSSBREV0.OUT

Amb to T1{1}			940	1.59	4-1 DISP	86	217
Hydrotest{1}	0	0		1.59	3-1 OCC	8	219
Sus.+T1{1}				1.59	5-1 CRUP	65	<NOTE 1>

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DRYWELL TO PSSBREV0

09/13/2010 DRYWELL TO PSSB

BENTLEY

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AutoPIPE Plus 9.2.1

RESULT PAGE 20

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F no. type	Stress	Allow.
B08 F+	Max P{1}					HOOP 11	104
	GR + Max P{1}	88			1.00 2-1 SUST	10	104
	TR:Amb to T1{1}			1491	1.00 4-1 DISP	86	217
	Amb to T1{1}			1491	1.00 4-1 DISP	86	217
	Hydrotest{1}	0	0		1.00 3-1 OCC	8	219
	Sus.+T1{1}				1.00 5-1 CRUP	39	<NOTE 1>
B08 N-	Max P{1}					HOOP 11	104
	GR + Max P{1}	158			1.00 2-1 SUST	14	104
	TR:Amb to T1{1}			1467	1.00 4-1 DISP	84	217
	Amb to T1{1}			1467	1.00 4-1 DISP	84	217
	Hydrotest{1}	0	0		1.00 3-1 OCC	8	219
	Sus.+T1{1}				1.00 5-1 CRUP	42	<NOTE 1>
A09 N+	Max P{1}					HOOP 11	104
	GR + Max P{1}	520			1.59 2-1 SUST	41	104
	TR:Amb to T1{1}			885	1.59 4-1 DISP	81	217
	Amb to T1{1}			885	1.59 4-1 DISP	81	217
	Hydrotest{1}	0	0		1.59 3-1 OCC	8	219
	Sus.+T1{1}				1.59 5-1 CRUP	61	<NOTE 1>
A11	Max P{1}					HOOP 8	104
	GR + Max P{1}	28			2.00 2-1 SUST	23	104
	TR:Amb to T1{1}			87	2.00 4-1 DISP	80	217
	Amb to T1{1}			87	2.00 4-1 DISP	80	217
	Hydrotest{1}	0	0		2.00 3-1 OCC	6	219
	Sus.+T1{1}				2.00 5-1 CRUP	43	<NOTE 1>
B02	Max P{1}					HOOP 11	104
	GR + Max P{1}	433			1.20 2-1 SUST	30	104

DRYWELL TO PSSBREV0.OUT

	TR:Amb to T1{1}			1063	1.20	4-1 DISP	73	217
	Amb to T1{1}			1063	1.20	4-1 DISP	73	217
	Hydrotest{1}	0	0		1.20	3-1 OCC	8	219
	Sus.+T1{1}				1.20	5-1 CRUP	50	<NOTE 1>
A10	Max P{1}					HOOP	11	104
	GR + Max P{1}	533			1.20	2-1 SUST	36	104
	TR:Amb to T1{1}			888	1.20	4-1 DISP	61	217
	Amb to T1{1}			888	1.20	4-1 DISP	61	217
	Hydrotest{1}	0	0		1.20	3-1 OCC	8	219
	Sus.+T1{1}				1.20	5-1 CRUP	53	<NOTE 1>
B05	Max P{1}					HOOP	16	104
	GR + Max P{1}	303			2.00	2-1 SUST	16	104
	TR:Amb to T1{1}			1537	2.00	4-1 DISP	58	217
	Amb to T1{1}			1537	2.00	4-1 DISP	58	217
	Hydrotest{1}	0	0		2.00	3-1 OCC	11	219
	Sus.+T1{1}				2.00	5-1 CRUP	30	<NOTE 1>

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DRYWELL TO PSSBREV0

09/13/2010 DRYWELL TO PSSB

BENTLEY

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AutoPIPE Plus 9.2.1 RESULT PAGE 21

EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. Load no. type			
A08 N+	Max P{1}					HOOP	11	104	
	GR + Max P{1}	280			1.59	2-1 SUST	24	104	
	TR:Amb to T1{1}			633	1.59	4-1 DISP	58	217	
	Amb to T1{1}			633	1.59	4-1 DISP	58	217	
	Hydrotest{1}	0	0		1.59	3-1 OCC	8	219	
	Sus.+T1{1}				1.59	5-1 CRUP	39	<NOTE 1>	
A09 F+	Max P{1}					HOOP	11	104	
	GR + Max P{1}	553			1.00	2-1 SUST	37	104	
	TR:Amb to T1{1}			940	1.00	4-1 DISP	54	217	
	Amb to T1{1}			940	1.00	4-1 DISP	54	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	8	219	
	Sus.+T1{1}				1.00	5-1 CRUP	55	<NOTE 1>	
A08 F-	Max P{1}					HOOP	11	104	

DRYWELL TO PSSBREV0.OUT

	GR + Max P{1}	251		1.59	2-1 SUST	22	104	
	TR:Amb to T1{1}			580	1.59	4-1 DISP	53	217
	Amb to T1{1}			580	1.59	4-1 DISP	53	217
	Hydrotest{1}	0	0		1.59	3-1 OCC	8	219
	Sus.+T1{1}				1.59	5-1 CRUP	36	<NOTE 1>
A09 N-	Max P{1}				HOOP	11	104	
	GR + Max P{1}	520		1.00	2-1 SUST	35	104	
	TR:Amb to T1{1}			885	1.00	4-1 DISP	51	217
	Amb to T1{1}			885	1.00	4-1 DISP	51	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	8	219
	Sus.+T1{1}				1.00	5-1 CRUP	52	<NOTE 1>
A17	+ Max P{1}				HOOP	11	104	
	GR + Max P{1}	99		1.00	2-1 SUST	11	104	
	TR:Amb to T1{1}			761	1.00	4-1 DISP	44	217
	Amb to T1{1}			761	1.00	4-1 DISP	44	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	8	219
	Sus.+T1{1}				1.00	5-1 CRUP	26	<NOTE 1>
A17	- Max P{1}				HOOP	11	104	
	GR + Max P{1}	99		1.00	2-1 SUST	11	104	
	TR:Amb to T1{1}			761	1.00	4-1 DISP	44	217
	Amb to T1{1}			761	1.00	4-1 DISP	44	217
	Hydrotest{1}	0	0		1.00	3-1 OCC	8	219
	Sus.+T1{1}				1.00	5-1 CRUP	26	<NOTE 1>
A04 F-	Max P{1}				HOOP	8	104	
	GR + Max P{1}	1		1.31	2-1 SUST	4	104	
	TR:Amb to T1{1}			67	1.31	4-1 DISP	40	217
	Amb to T1{1}			67	1.31	4-1 DISP	40	217
	Hydrotest{1}	0	0		1.31	3-1 OCC	6	219
	Sus.+T1{1}				1.31	5-1 CRUP	14	<NOTE 1>

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DRYWELL TO PSSBREV0

09/13/2010 DRYWELL TO PSSB

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AutoPIPE Plus 9.2.1 RESULT PAGE 22

EN 13480 (2002) CODE COMPLIANCE

		(Moments in N.m)			(Stress in N/mm2)		
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F no. type	Stress	Allow.
-----	-----	-----	-----	-----	-----	-----	-----

DRYWELL TO PSSBREV0.OUT

A04 N+ Max P{1}					HOOP	8	104
GR + Max P{1}	2		1.31	2-1	SUST	5	104
TR:Amb to T1{1}			66	1.31	4-1 DISP	39	217
Amb to T1{1}			66	1.31	4-1 DISP	39	217
Hydrotest{1}	0	0		1.31	3-1 OCC	6	219
Sus.+T1{1}				1.31	5-1 CRUP	15	<NOTE 1>
A03 N+ Max P{1}					HOOP	8	104
GR + Max P{1}	12		1.31	2-1	SUST	9	104
TR:Amb to T1{1}			61	1.31	4-1 DISP	37	217
Amb to T1{1}			61	1.31	4-1 DISP	37	217
Hydrotest{1}	0	0		1.31	3-1 OCC	6	219
Sus.+T1{1}				1.31	5-1 CRUP	19	<NOTE 1>
A08 N- Max P{1}					HOOP	11	104
GR + Max P{1}	280		1.00	2-1	SUST	21	104
TR:Amb to T1{1}			633	1.00	4-1 DISP	36	217
Amb to T1{1}			633	1.00	4-1 DISP	36	217
Hydrotest{1}	0	0		1.00	3-1 OCC	8	219
Sus.+T1{1}				1.00	5-1 CRUP	33	<NOTE 1>
A03 F- Max P{1}					HOOP	8	104
GR + Max P{1}	11		1.31	2-1	SUST	9	104
TR:Amb to T1{1}			60	1.31	4-1 DISP	36	217
Amb to T1{1}			60	1.31	4-1 DISP	36	217
Hydrotest{1}	0	0		1.31	3-1 OCC	6	219
Sus.+T1{1}				1.31	5-1 CRUP	18	<NOTE 1>
B06 Max P{1}					HOOP	16	104
GR + Max P{1}	478		1.20	2-1	SUST	16	104
TR:Amb to T1{1}			1565	1.20	4-1 DISP	36	217
Amb to T1{1}			1565	1.20	4-1 DISP	36	217
Hydrotest{1}	0	0		1.20	3-1 OCC	11	219
Sus.+T1{1}				1.20	5-1 CRUP	26	<NOTE 1>
A01 Max P{1}					HOOP	10	104
GR + Max P{1}	32		2.00	2-1	SUST	14	104
TR:Amb to T1{1}			92	2.00	4-1 DISP	35	217
Amb to T1{1}			92	2.00	4-1 DISP	35	217
Hydrotest{1}	0	0		2.00	3-1 OCC	7	219
Sus.+T1{1}				2.00	5-1 CRUP	23	<NOTE 1>
A08 F+ Max P{1}					HOOP	11	104
GR + Max P{1}	251		1.00	2-1	SUST	20	104
TR:Amb to T1{1}			580	1.00	4-1 DISP	33	217

Amb to T1{1}	DRYWELL TO PSSBREV0.OUT		580	1.00	4-1 DISP	33	217
Hydrotest{1}	0	0		1.00	3-1 OCC	8	219
Sus.+T1{1}				1.00	5-1 CRUP	31	<NOTE 1>

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DRYWELL TO PSSBREV0

09/13/2010 DRYWELL TO PSSB

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)		Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F				
A04 F+ Max P{1}							HOOP	8	104
GR + Max P{1}		1			1.00	2-1 SUST		4	104
TR:Amb to T1{1}				67	1.00	4-1 DISP		31	217
Amb to T1{1}				67	1.00	4-1 DISP		31	217
Hydrotest{1}		0	0		1.00	3-1 OCC		6	219
Sus.+T1{1}					1.00	5-1 CRUP		14	<NOTE 1>
A04 N- Max P{1}							HOOP	8	104
GR + Max P{1}		2			1.00	2-1 SUST		5	104
TR:Amb to T1{1}				66	1.00	4-1 DISP		30	217
Amb to T1{1}				66	1.00	4-1 DISP		30	217
Hydrotest{1}		0	0		1.00	3-1 OCC		6	219
Sus.+T1{1}					1.00	5-1 CRUP		15	<NOTE 1>
A03 N- Max P{1}							HOOP	8	104
GR + Max P{1}		12			1.00	2-1 SUST		9	104
TR:Amb to T1{1}				61	1.00	4-1 DISP		28	217
Amb to T1{1}				61	1.00	4-1 DISP		28	217
Hydrotest{1}		0	0		1.00	3-1 OCC		6	219
Sus.+T1{1}					1.00	5-1 CRUP		19	<NOTE 1>
A03 F+ Max P{1}							HOOP	8	104
GR + Max P{1}		11			1.00	2-1 SUST		9	104
TR:Amb to T1{1}				60	1.00	4-1 DISP		27	217
Amb to T1{1}				60	1.00	4-1 DISP		27	217
Hydrotest{1}		0	0		1.00	3-1 OCC		6	219
Sus.+T1{1}					1.00	5-1 CRUP		18	<NOTE 1>
A15 + Max P{1}							HOOP	11	104
GR + Max P{1}		22			1.00	2-1 SUST		7	104

DRYWELL TO PSSBREV0.OUT									
	TR:Amb to T1{1}			442	1.00	4-1 DISP	25	217	
	Amb to T1{1}			442	1.00	4-1 DISP	25	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	8	219	
	Sus.+T1{1}				1.00	5-1 CRUP	15	<NOTE 1>	
A15	- Max P{1}					HOOP	11	104	
	GR + Max P{1}	22			1.00	2-1 SUST	7	104	
	TR:Amb to T1{1}			442	1.00	4-1 DISP	25	217	
	Amb to T1{1}			442	1.00	4-1 DISP	25	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	8	219	
	Sus.+T1{1}				1.00	5-1 CRUP	15	<NOTE 1>	
A00	Max P{1}					HOOP	10	104	
	GR + Max P{1}	45			1.20	2-1 SUST	13	104	
	TR:Amb to T1{1}			107	1.20	4-1 DISP	24	217	
	Amb to T1{1}			107	1.20	4-1 DISP	24	217	
	Hydrotest{1}	0	0		1.20	3-1 OCC	7	219	
	Sus.+T1{1}				1.20	5-1 CRUP	20	<NOTE 1>	

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DRYWELL TO PSSBREV0

09/13/2010 DRYWELL TO PSSB

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AutoPIPE Plus 9.2.1 RESULT PAGE 24

EN 13480 (2002) CODE COMPLIANCE									
(Moments in N.m)				(Stress in N/mm2)					
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	
A12	Max P{1}					HOOP	8	104	
	GR + Max P{1}	9			2.00	2-1 SUST	10	104	
	TR:Amb to T1{1}			26	2.00	4-1 DISP	24	217	
	Amb to T1{1}			26	2.00	4-1 DISP	24	217	
	Hydrotest{1}	0	0		2.00	3-1 OCC	6	219	
	Sus.+T1{1}				2.00	5-1 CRUP	16	<NOTE 1>	
A13	Max P{1}					HOOP	11	104	
	GR + Max P{1}	26			1.00	2-1 SUST	7	104	
	TR:Amb to T1{1}			404	1.00	4-1 DISP	23	217	
	Amb to T1{1}			404	1.00	4-1 DISP	23	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	8	219	
	Sus.+T1{1}				1.00	5-1 CRUP	15	<NOTE 1>	
A14	+ Max P{1}					HOOP	11	104	

DRYWELL TO PSSBREV0.OUT									
GR + Max P{1}	34		1.00	2-1	SUST	7	104		
TR:Amb to T1{1}		368	1.00	4-1	DISP	21	217		
Amb to T1{1}		368	1.00	4-1	DISP	21	217		
Hydrotest{1}	0	0	1.00	3-1	OCC	8	219		
Sus.+T1{1}			1.00	5-1	CRUP	14	<NOTE 1>		
A14 - Max P{1}					HOOP	11	104		
GR + Max P{1}	34		1.00	2-1	SUST	7	104		
TR:Amb to T1{1}		368	1.00	4-1	DISP	21	217		
Amb to T1{1}		368	1.00	4-1	DISP	21	217		
Hydrotest{1}	0	0	1.00	3-1	OCC	8	219		
Sus.+T1{1}			1.00	5-1	CRUP	14	<NOTE 1>		
A16 + Max P{1}					HOOP	8	104		
GR + Max P{1}	2		1.00	2-1	SUST	4	104		
TR:Amb to T1{1}		43	1.00	4-1	DISP	20	217		
Amb to T1{1}		43	1.00	4-1	DISP	20	217		
Hydrotest{1}	0	0	1.00	3-1	OCC	6	219		
Sus.+T1{1}			1.00	5-1	CRUP	11	<NOTE 1>		
A16 - Max P{1}					HOOP	8	104		
GR + Max P{1}	2		1.00	2-1	SUST	4	104		
TR:Amb to T1{1}		43	1.00	4-1	DISP	20	217		
Amb to T1{1}		43	1.00	4-1	DISP	20	217		
Hydrotest{1}	0	0	1.00	3-1	OCC	6	219		
Sus.+T1{1}			1.00	5-1	CRUP	11	<NOTE 1>		
A07 - Max P{1}					HOOP	11	104		
GR + Max P{1}	10		1.18	2-1	SUST	6	104		
TR:Amb to T1{1}		29	1.18	4-1	DISP	2	217		
Amb to T1{1}		29	1.18	4-1	DISP	2	217		
Hydrotest{1}	0	0	1.18	3-1	OCC	8	219		
Sus.+T1{1}			1.18	5-1	CRUP	6	<NOTE 1>		

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DRYWELL TO PSSBREV0

09/13/2010 DRYWELL TO PSSB

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AutoPIPE Plus 9.2.1

RESULT PAGE 25

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)

(Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.

		DRYWELL TO PSSBREV0.OUT				
A06	Max P{1}				HOOP	11 104
	GR + Max P{1}	9	2.00	2-1	SUST	6 104
	TR:Amb to T1{1}		28 2.00	4-1	DISP	3 217
	Amb to T1{1}		28 2.00	4-1	DISP	3 217
	Hydrotest{1}	0 0	2.00	3-1	OCC	8 219
	Sus.+T1{1}		2.00	5-1	CRUP	7 <NOTE 1>

*** NOTE 1: No allowable stress could be calculated. ***
 *** Mechanical properties are outside of temperature range. ***

DRYWELL TO PSSBREV0

09/13/2010 DRYWELL TO PSSB

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R E S U L T S U M M A R Y

Maximum displacements (mm)

Maximum X :	-9.894	Point : A07	Load Comb.: Thermal 1{1}
Maximum Y :	-7.264	Point : A08 N	Load Comb.: GRT1{1}
Maximum Z :	52.542	Point : A04 F	Load Comb.: Thermal 1{1}
Max. total:	53.313	Point : A04 F	Load Comb.: Thermal 1{1}

Maximum rotations (deg)

Maximum X :	0.424	Point : A08 F	Load Comb.: GRT1{1}
Maximum Y :	0.536	Point : B02	Load Comb.: Thermal 1{1}
Maximum Z :	-0.172	Point : B02	Load Comb.: GRT1{1}
Max. total:	0.562	Point : B02	Load Comb.: Thermal 1{1}

Maximum restraint forces (N)

Maximum X :	1810	Point : B06	Load Comb.: Thermal 1{1}
Maximum Y :	-1580	Point : B02 M	Load Comb.: Thermal 1{1}
Maximum Z :	-4140	Point : A10	Load Comb.: GRT1{1}
Max. total:	4153	Point : A10	Load Comb.: GRT1{1}

Maximum restraint moments (N.m)

Maximum X :	1217	Point : A10	Load Comb.: GRT1{1}
Maximum Y :	1786	Point : B06	Load Comb.: GRT1{1}
Maximum Z :	-493	Point : B06	Load Comb.: GRT1{1}

DRYWELL TO PSSBREV0.OUT

Max. total: 1913 Point : B06 Load Comb.: GRT1{1}

0

DRYWELL TO PSSBREV0

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AutoPIPE Plus 9.2.1 RESULT PAGE 27

R E S U L T S U M M A R Y

Maximum pipe forces (N)

Maximum X :	1810	Point : B02 M	Load Comb.: Thermal 1{1}
Maximum Y :	1567	Point : B02 M	Load Comb.: Thermal 1{1}
Maximum Z :	-4096	Point : A10	Load Comb.: GRT1{1}
Max. total:	4109	Point : A10	Load Comb.: GRT1{1}

Maximum pipe moments (N.m)

Maximum X :	1260	Point : A09 F	Load Comb.: GRT1{1}
Maximum Y :	2073	Point : A07	Load Comb.: Thermal 1{1}
Maximum Z :	-515	Point : B08 F	Load Comb.: Thermal 1{1}
Max. total:	2076	Point : A07	Load Comb.: Thermal 1{1}

0

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AutoPIPE Plus 9.2.1 RESULT PAGE 28

R E S U L T S U M M A R Y

Maximum sustained stress

Point	:	A09 F
Stress N/mm2	:	43
Allowable N/mm2	:	104
Ratio	:	0.42
Load combination	:	GR + Max P{1}

Maximum displacement stress

Point	:	B07
Stress N/mm2	:	175
Allowable N/mm2	:	217

DRYWELL TO PSSBREV0.OUT
Ratio : 0.81
Load combination : Max Range

Maximum occasional stress

Point : B05
Stress N/mm2 : 11
Allowable N/mm2 : 219
Ratio : 0.05
Load combination : Hydrotest{1}

Maximum hoop stress

Point : B05
Stress N/mm2 : 16
Allowable N/mm2 : 104
Ratio : 0.15
Load combination : Max P{1}

Maximum creep rupture stress

Point : B07
Stress N/mm2 : 67
Allowable N/mm2 : 0 < See Note 1 >
Ratio : 0.00
Load combination : Sus.+T1{1}

□

DRYWELL TO PSSBREV0

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AutoPIPE Plus 9.2.1 RESULT PAGE 29

R E S U L T S U M M A R Y

Maximum sustained stress ratio

Point : A09 F
Stress N/mm2 : 43
Allowable N/mm2 : 104
Ratio : 0.42
Load combination : GR + Max P{1}

Maximum displacement stress ratio

Point : B07
Stress N/mm2 : 175
Allowable N/mm2 : 217
Ratio : 0.81
Load combination : Max Range

Maximum occasional stress ratio

Point : B05
Stress N/mm2 : 11
Allowable N/mm2 : 219
Ratio : 0.05
Load combination : Hydrotest{1}

Maximum hoop stress ratio

Point : B05
Stress N/mm2 : 16
Allowable N/mm2 : 104
Ratio : 0.15
Load combination : Max P{1}

Maximum creep rupture stress ratio

Point : B07
Stress N/mm2 : 67

DRYWELL TO PSSBREV0.OUT
Allowable N/mm2 : 0 < See Note 1 >
Ratio : 0.00
Load combination : Sus.+T1{1}

* * * The system satisfies EN 13480 (2002) code requirements * * *
* * * for the selected options * * *

Warnings:
(1) Maximum creep rupture stress ratio is zero

* * * Note 1: Points were found in this stress category with * * *
* * * mechanical properties outside of temperature range. No * * *

□

DRYWELL TO PSSBREV0

09/13/2010 DRYWELL TO PSSB

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AutoPIPE Plus 9.2.1 RESULT PAGE 30

R E S U L T S U M M A R Y

* * * allowable stress were calculated at these points. * * *

□

ALLEGATO 11. PSS-A to LGMS-A INPUT E OUTPUT DEI CALCOLI AUTOPIPE

file: LGMSATOPSSAREV0.pdf

LGMSATOPSSAREV0.OUT
PIPING CODE : EN 13480
YEAR : 2002
LIFETIME (HRS) : 200000
LIFETIME MONITORING : NO
VERTICAL AXIS : Z
AMBIENT TEMPERATURE : 20.0 deg C
COMPONENT LIBRARY : AUTOPIPE
MATERIAL LIBRARY : EUROMAT
MODEL REVISION NUMBER : 29

□

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AutoPIPE Plus 9.2.1 MODEL PAGE 3

C O M P O N E N T D A T A L I S T I N G

*** SEGMENT A

From A00 to A01, DX= -34.75 mm, DY= -15.69 mm, DZ= 110.78 mm, L= 117.16 mm Run

PIPE DATA:

Pipe Id= 2S40, Material= X5CRNI18-10 1.4301, Product= Seamless tube, Source= EURO,
Composition= Austentic Stainless, Poisson= 0.300, Nom Size= 50 mm, OD= 60.325 mm, Sch= 40, Wall
Thk= 3.912 mm,
Mill= 0.489 mm, Cor= 0 mm, Pipe Density= 7930.00 kg/m3, Pipe Unit Wgt= 53.91 N/m, Content Sp Gr=
1.000,
Content Unit Wgt= 21.22 N/m, Insul Thk= 50.000 mm, Insul Material= MINERAL WOOL, Insul Density=
136.16 kg/m3,
Insul Unit Wgt= 23.14 N/m, Lining Thk= 0 mm, Long Weld factor= 1.00, Circ Weld factor= 1.00, Long
Modulus= 0.19996 E6 N/mm2,
Hoop Modulus= 0.19996 E6 N/mm2, Shear Modulus= 0.07691 E6 N/mm2, Al= 40.0, At= 35.0, fc= 166.7
N/mm2, Rp0.2= 195.0 N/mm2,
Rp1.0= 230.0 N/mm2, Rm= 500.0 N/mm2

OPERATING DATA:

P1= 1.5000 N/mm2, T1= 198.00 deg C, Exp1= 2.94948 mm/m, E1= 0.18487 E6 N/mm2, Rp0.2t1= 127.52
N/mm2, Rp1.0t1= 155.60 N/mm2,
Rmt1= 0.00 N/mm2, fcr1= 0.00 N/mm2, fh1= 103.73 N/mm2

POINT DATA:

A00, Coordinates, X= -4484.01 mm, Y= -3188.93 mm, Z= 6138.40 mm
A00, Flange= SLIP-ON, Rating= 300, Flange Weight= 3.20 kg, Bolt/Nut Weight= 0.00 kg, End type=
Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No

SUPPORT DATA:

A00, Anchor, Tag No.= TOPSSA, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ=
Rigid

From A01 to A09, DX= -22.61 mm, DY= -10.21 mm, DZ= 72.05 mm, L= 76.20 mm Redu

COMPONENT DATA (Reducer):

Length= 76.20 mm, SIF= 2.00

POINT DATA:

A01, Coordinates, X= -4518.76 mm, Y= -3204.62 mm, Z= 6249.18 mm

From A09 to A03, DX= -148.34 mm, DY= -66.97 mm, DZ= 472.77 mm, L= 500.00 mm

PIPE DATA:

Pipe Id= 0.5S40, Composition= Austentic Stainless, Nom Size= 15 mm, OD= 21.336 mm, Wall Thk=
2.769 mm, Mill= 0.346 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 1.92 N/m, Insul Thk= 40.000 mm, Insul Density= 136.16

kg/m3,
Insul Unit Wgt= 10.29 N/m

POINT DATA:

A09, Coordinates, X= -4541.37 mm, Y= -3214.83 mm, Z= 6321.23 mm

From A03 to A04, DX= -872.79 mm, DY= -209.70 mm, L= 897.63 mm Bend

COMPONENT DATA (Bend, TIP= A03, Near= A03 N, Far= A03 F):

Long Elbow, Radius= 38.10 mm, Bend angle= 71.35 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIFO= 1.00

POINT DATA:

A03, Coordinates, X= -4689.71 mm, Y= -3281.80 mm, Z= 6794.00 mm

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AutoPIPE Plus 9.2.1 MODEL PAGE 4

C O M P O N E N T D A T A L I S T I N G

A03 N, Coordinates, X= -4681.59 mm, Y= -3278.14 mm, Z= 6768.14 mm

A03 F, Coordinates, X= -4716.31 mm, Y= -3288.19 mm, Z= 6794.00 mm

From A04 to A14, DZ= 1002.62 mm Bend

COMPONENT DATA (Bend, TIP= A04, Near= A04 N, Far= A04 F):

Long Elbow, Radius= 38.10 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIFO= 1.00

POINT DATA:

A04, Coordinates, X= -5562.50 mm, Y= -3491.50 mm, Z= 6794.00 mm

A04 N, Coordinates, X= -5525.45 mm, Y= -3482.60 mm, Z= 6794.00 mm

A04 F, Coordinates, X= -5562.50 mm, Y= -3491.50 mm, Z= 6832.10 mm

From A14 to OR13, DZ= 1002.63 mm Run

POINT DATA:

A14, Coordinates, X= -5562.50 mm, Y= -3491.50 mm, Z= 7796.62 mm

SUPPORT DATA:

A14, Guide, Support Id= A14 1, Connected to Ground, Stiffness= RIGID

From OR13 to A13, DZ= 3007.88 mm Run

POINT DATA:

OR13, Coordinates, X= -5562.50 mm, Y= -3491.50 mm, Z= 8799.25 mm

OR13, Flange= SLIP-ON, Rating= 300, Flange Weight= 0.90 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on,

SIF= 1.20, Perform ANSI check= No

OR13, Flange= SLIP-ON, Rating= 300, Flange Weight= 0.90 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on,

SIF= 1.20, Perform ANSI check= No

From A13 to A05, DZ= 3007.87 mm Run

POINT DATA:

A13, Coordinates, X= -5562.50 mm, Y= -3491.50 mm, Z= 11807.13 mm

SUPPORT DATA:

A13, Guide, Support Id= A13 1, Connected to Ground, Stiffness= RIGID, Gap -X= 0.00 mm, Gap +X= 0.00 mm, Gap -Y= 100.00 mm,

Gap +Y= 100.00 mm, Friction= 0.00, Gaps setting= Weightless

A13, Guide, Support Id= A13 2, Connected to Ground, Stiffness= RIGID

From A05 to A11, DX= 1300.00 mm Bend

COMPONENT DATA (Bend, TIP= A05, Near= A05 N, Far= A05 F):

Long Elbow, Radius= 38.10 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIFO= 1.00

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POINT DATA:

A05, Coordinates, X= -5562.50 mm, Y= -3491.50 mm, Z= 14815.00 mm
A05 N, Coordinates, X= -5562.50 mm, Y= -3491.50 mm, Z= 14776.90 mm
A05 F, Coordinates, X= -5524.40 mm, Y= -3491.50 mm, Z= 14815.00 mm

□

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AutoPIPE Plus 9.2.1 MODEL PAGE 5

C O M P O N E N T D A T A L I S T I N G

SUPPORT DATA:

A05 F, Variable Spring Hanger, Support Id= A05 F1, Connected to Ground, 1 hanger(s), Stiffness= 1 N/mm, Preload= 278 N

From A11 to A10, DX= 76.20 mm

Redu

COMPONENT DATA (Reducer):

Length= 76.20 mm, SIF= 2.00

POINT DATA:

A11, Coordinates, X= -4262.50 mm, Y= -3491.50 mm, Z= 14815.00 mm

From A10 to A07, DX= 123.80 mm

Run

PIPE DATA:

Pipe Id= 2S40, Composition= Austentic Stainless, Nom Size= 50 mm, OD= 60.325 mm, Wall Thk= 3.912 mm, Mill= 0.489 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 21.22 N/m, Insul Thk= 50.000 mm, Insul Density= 136.16 kg/m3,
Insul Unit Wgt= 23.14 N/m

POINT DATA:

A10, Coordinates, X= -4186.30 mm, Y= -3491.50 mm, Z= 14815.00 mm

From A07 to A08, DZ= -200.28 mm

Bend

COMPONENT DATA (Bend, TIP= A07, Near= A07 N, Far= A07 F):

Long Elbow, Radius= 76.20 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.73, SIFO= 1.73

POINT DATA:

A07, Coordinates, X= -4062.50 mm, Y= -3491.50 mm, Z= 14815.00 mm
A07 N, Coordinates, X= -4138.70 mm, Y= -3491.50 mm, Z= 14815.00 mm
A07 F, Coordinates, X= -4062.50 mm, Y= -3491.50 mm, Z= 14738.80 mm
A08, Coordinates, X= -4062.50 mm, Y= -3491.50 mm, Z= 14614.72 mm
A08, Flange= SLIP-ON, Rating= 300, Flange Weight= 3.20 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No

SUPPORT DATA:

A08, Anchor, Tag No.= TOLGMSA, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

Number of points in the system: 21

Weight of Empty Pipes + Weight of Contents = Total Weight of System
37.1 kg + 3.2 kg = 40.2 kg

□

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AutoPIPE Plus 9.2.1 MODEL PAGE 6

C O O R D I N A T E S D A T A L I S T I N G

POINT -----COORDINATE (mm)-----

NAME X Y Z

*** SEGMENT A

A00	-4484.01	-3188.93	6138.40
A01	-4518.76	-3204.62	6249.18
A09	-4541.37	-3214.83	6321.23
A03 N	-4681.59	-3278.14	6768.14
A03	-4689.71	-3281.80	6794.00
A03 F	-4716.31	-3288.19	6794.00
A04 N	-5525.45	-3482.60	6794.00
A04	-5562.50	-3491.50	6794.00
A04 F	-5562.50	-3491.50	6832.10
A14	-5562.50	-3491.50	7796.62
OR13	-5562.50	-3491.50	8799.25
A13	-5562.50	-3491.50	11807.13
A05 N	-5562.50	-3491.50	14776.90
A05	-5562.50	-3491.50	14815.00
A05 F	-5524.40	-3491.50	14815.00
A11	-4262.50	-3491.50	14815.00
A10	-4186.30	-3491.50	14815.00
A07 N	-4138.70	-3491.50	14815.00
A07	-4062.50	-3491.50	14815.00
A07 F	-4062.50	-3491.50	14738.80
A08	-4062.50	-3491.50	14614.72

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AutoPIPE Plus 9.2.1 MODEL PAGE 7

P I P E D A T A L I S T I N G

Pipe ID/ Material	Nom/ O.D. Sch mm	-----Thickness(mm)----- W.Th. Corr Mill Insu Ling	Spec Grav	Weight(N/m) Pipe Other Total	ZL/ ZC	Composition
2S40 Stainless 1.4301	50 60.325 40	3.912 0 0.49 50 0	1.00	53.91 23.14 98.27	1.00	Austentic
0.5S40 Stainless 1.4301	15 21.336 40	2.769 0 0.35 40 0	1.00	12.56 10.29 24.77	1.00	Austentic

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AutoPIPE Plus 9.2.1 MODEL PAGE 8

M A T E R I A L D A T A L I S T I N G

Material Name/[Comp.]	Pipe ID	Density kg/m3	Pois. Al/At	Temper. deg C	Modulus E6 N/mm2 Axial	Expans. Hoop	Composition
					Shear	mm/m	

LGMSATOPSSAREV0.0UT

```

-----
1.4301      2S40      7930.0  0.30    20.0  0.19996  0.19996  0.07691      Austentic Stainless
X5CRNI18-10      40.00  198.0  0.18487      2.9495
[Austenitic]      35.00
1.4301      0.5S40    7930.0  0.30    20.0  0.19996  0.19996  0.07691      Austentic Stainless
X5CRNI18-10      40.00  198.0  0.18487      2.9495
[Austenitic]      35.00

```

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AutoPIPE Plus 9.2.1 MODEL PAGE 9

M A T E R I A L A L L O W A B L E D A T A L I S T I N G

```

-----
Material              Proof      Proof      Tensile  Rupture  Allow.
                      Temper. (Rp0.2) (Rp1.0) (Rmt)   (fcr)   (fh)
                      Name   Pipe ID deg C   N/mm2   N/mm2   N/mm2   N/mm2   N/mm2
-----
X5CRNI18-10
1.4301      2S40      20.0   195.00  230.00  500.00   0.00   166.67
                      198.0   127.52  155.60   0.00   0.00   103.73
X5CRNI18-10
1.4301      0.5S40    20.0   195.00  230.00  500.00   0.00   166.67
                      198.0   127.52  155.60   0.00   0.00   103.73

```

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AutoPIPE Plus 9.2.1 MODEL PAGE 10

OPERATING TEMPERATURE AND PRESSURE DATA

STRESSES IN N/mm2

```

-----
POINT      PRESS. TEMPER  EXPAN.      MODULUS  0.2%   1.0%  TENSILE  CREEP
NAME CASE   N/mm2 deg C   mm/m      E6 N/mm PROOF  PROOF  (Rmt)  (fcr)
-----
*** SEGMENT A
A00 T1    1.5000    198    2.949    0.18487  127.52  155.60   0.00   0.00u
A08 Same as previous point.

```

u User-defined value

```

* Non-code material for allowable stress;
  Non-standard material for expansion and modulus

```

```

[]
-----

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AutoPIPE Plus 9.2.1 MODEL PAGE 11

THERMAL ANCHOR MOVEMENTS AND DISPLACEMENTS

POINT NAME	LOAD CASE	DX (mm)	DY (mm)	DZ (mm)	RX (deg)	RY (deg)	RZ (deg)
A00	Thermal 1	0.00	0.00	14.08	0.000	0.000	0.000
A08	Thermal 1	0.00	0.00	8.36	0.000	0.000	0.000

□

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AutoPIPE Plus 9.2.1 MODEL PAGE 12

S U P P O R T D A T A L I S T I N G

Point Name	Support Type	Support ID	Conn.to /Dir	Stiff.	Gap 1 (mm)	Gap 2 (mm)	Fric. Fact.	GapSet /#hgr	Preload (N)	Size	Figure

Tag No.: <None>

A14 Guide-V A14 1 Ground Rigid 0.0 0.0 0.00
Guide-H A14 1 Ground Rigid 0.0 0.0 0.00
Gap Dir.: (Gap1_V=-X, Gap2_V=+X, Gap1_H=-Y, Gap2_H=+Y)

Tag No.: <None>

A13 Guide-V A13 1 Ground Rigid 0.0 0.0 0.00 Weightless
Guide-H A13 1 Ground Rigid 100.0 100.0 0.00 Weightless
Gap Dir.: (Gap1_V=-X, Gap2_V=+X, Gap1_H=-Y, Gap2_H=+Y)

Tag No.: <None>

A13 Guide-V A13 2 Ground Rigid 0.0 0.0 0.00
Guide-H A13 2 Ground Rigid 0.0 0.0 0.00
Gap Dir.: (Gap1_V=-X, Gap2_V=+X, Gap1_H=-Y, Gap2_H=+Y)

Tag No.: <None>

A05 F Spr. Hgr A05 F1 Ground 1.226 1-Und 278 0 FIG 98

Spring Manufacturer: Anvil/Grinnell

NOTE 1: No soil supports present in the system.

Gap 1 : V-stop, Guide-V=down, Linestop, Incline, Tie/link=backward, Guide-H=Left

Gap 2 : V-stop, Guide-V=Up, Linestop, Incline, Tie/link=forward, Guide-H=Right

Stiffness units for rotation support: N.m/deg, all others: N/mm

□

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AutoPIPE Plus 9.2.1 MODEL PAGE 13

B E N D D A T A L I S T I N G

LGMSATOPSSAREV0.0UT												
Point Pressure	Bend Case	Radius	Angle	OD	tnom	Material	Flg/	SIF	SIF	Analysis	Flexibility	
Name	Type	(mm)	(deg)	(mm)	(mm)		Cuts	in	out	Set	(K)	
A03	Elbow	38L	71.4	21.3	2.8	1.4301	0/0	1.00	1.00	1	1.35	None
A04	Elbow	38L	90.0	21.3	2.8	1.4301	0/0	1.00	1.00	1	1.35	None
A05	Elbow	38L	90.0	21.3	2.8	1.4301	0/0	1.00	1.00	1	1.35	None
A07	Elbow	76L	90.0	60.3	3.9	1.4301	0/0	1.73	1.73	1	4.40	None

L = Long radius

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AutoPIPE Plus 9.2.1 MODEL PAGE 14

TEE DATA LISTING

		Pipe				**Crotch		*Crotch				
Point	Point	OD	Thk.	Material	Tee	Radius	Thick	SIF	SIF			
Name	Seg-Type	(mm)	(mm)		Type	(mm)	(mm)	in	out			

* = Pad thickness for reinforced tee.

**= Fillet radius for Raised tee or discontinuity dist. for Thickened tee.

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AutoPIPE Plus 9.2.1 MODEL PAGE 15

VALVE DATA LISTING

				Valve		Actuator		Actuator					Size
Type	Point	Dnom	Length	Weight	Weight	DX	DY	DZ	Joint				
/Avg.	/Max.	(mm)	(mm)	(kg)	(kg)	(mm)	(mm)	(mm)	SAF	Type	SIF	(mm)	
Name	Type	(mm)	Rating	(mm)	(kg)	(kg)	(mm)	(mm)	(mm)	SAF	Type	SIF	(mm)

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AutoPIPE Plus 9.2.1 MODEL PAGE 16

FLANGE DATA LISTING

				Flange		Bolt		Size		Type		
Point	FLG	Dnom	Weight	Weight	Joint			/Avg.	/Max.	ANSI		
Name	No.	Type	(mm)	Rating	(kg)	(kg)	Type	SIF	(mm)	(mm)	Check	

LGMSATOPSSAREV0.OUT

```

-----
A00      1  SLIP-ON      50    300    3.2    0.0 DWSO    1.20          No
OR13     1  SLIP-ON      15    300    0.9    0.0 DWSO    1.20          No
OR13     2  SLIP-ON      15    300    0.9    0.0 DWSO    1.20          No
A08      1  SLIP-ON      50    300    3.2    0.0 DWSO    1.20          No

```

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AutoPIPE Plus 9.2.1 MODEL PAGE 17

JOINT TYPE / USER - SIF DATA LISTING

Size

```

Point Point      SIF      SIF      Joint /Avg. Max. Over
Name  Type              in      out      Type (mm) (mm) ride
-----

```

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AutoPIPE Plus 9.2.1 MODEL PAGE 18

REDUCER DATA LISTING

```

              OD      OD      Thk      Thk              Cone
From  To      Length  From  To      From  To      From      Angle  SIF
Point Point    (mm)    (mm)  (mm)  (mm)  (mm)  Material (deg)
-----
A01   A09      76.20   60.3  21.3   3.9   2.8   1.4301      2.00t
A11   A10      76.20   21.3  60.3   2.8   3.9   1.4301      2.00t

```

t = Use SIF of 2.0

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RIGID PIPE DATA LISTING

```

From  To      Include  Include      Rigid
Point Point    Weight   Expansion   Factor
-----

```

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R E F E R E N C E P O I N T L I S T I N G

(Force - N , Moment - N.m)

Tag No./	Refer.	Point	Seg	Coord.	Load	[Report Loads]
Ref. ID	Side	Name	Name	System	Direction	Actual Allow.
-----	-----	-----	-----	-----	-----	-----

[]

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A N A L Y S I S S U M M A R Y

Current model revision number : 29

Static - Analysis set number 1
 Date and Time of analysis Sep 13, 2010 10:39 AM
 Model Revision Number 29
 Number of load cases 2
 Load cases analyzed GR T1
 Description Analysis Set no. 1
 Gaps/Friction/Soil considered Yes
 Tolerance - Force, Displacement 44.48 N 0.0254 mm
 Friction - Scale Factor, Tolerance 1.00 0.10
 Ignore friction for cases E1,E2,E3 Yes
 Ignore friction for gravity case Yes
 Hanger design run No
 Cut short included No
 Thermal bowing included No
 Include Bourdon rotational effect No
 Pipe radius for Bourdon calculation ... Mean
 Occasional load analysis type Nonlinear
 Non-linear analysis summary file LGMSATOPSSAREV0.LOG
 Use default load sequence Yes
 Base load cases for nonlinear analysis

	GR	= None
	T1	= GR

Weight of contents included Yes
 Pressure stiffening case None
 Hot modulus case None
 Water elevation for buoyancy loads Not considered
 Use corroded thickness in analysis No
 Rigid stiffness factor 1000.0

[]

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AutoPIPE Plus 9.2.1 RESULT PAGE 2

CODE COMPLIANCE COMBINATIONS

<Description> Allowable Combination (N/mm2) D/A/P	Category	Method	Case/Combination	Factor M/S K-Factor
GR + Max P{1} Automatic Y Y Y	Sustain	Sum	GR[1]	1.00

			Max Long	1.00
Max Range	Expansion	Sum	Temp. Range	1.00
Automatic Y Y Y				
Amb to T1{1}	Expansion	Sum	T1[1]	1.00
Automatic Y Y Y				
Max P{1}	Hoop	Sum	Max Hoop	1.00
Automatic Y Y Y				
Sus.+T1{1}	Creep Rupt	Sum	Max Sus	1.00
Automatic Y Y Y			T1[1]	1.00

Notes:

D/A/P: [D]efault/[A]uto-Update/[P]rint options (Y=Yes, N=No)

□

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NON-CODE COMBINATIONS

<Description>

Combination	Method	Case/Combination	Factor	D/A/P
-----	-----	-----	-----	-----
Gravity{1}	Sum	GR[1]	1.00	Y Y Y
Thermal 1{1}	Sum	T1[1]	1.00	Y Y Y
GT1{1}	Sum	GR[1]	1.00	Y Y Y
		T1[1]	1.00	

Notes:

D/A/P: [D]efault/[A]uto-Update/[P]rint options (Y=Yes, N=No)

□

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AutoPIPE Plus 9.2.1 RESULT PAGE 4

CODE COMPLIANCE

Y - Factor 0.50
 Weld efficiency factor 1.00
 Range reduction factor 1.00
 Design Pressure Factor 1.00
 Minimum stress ratio used in reports... 0.00
 Number of stress points per span 0
 Include corrosion in stress calcs. N
 Include axial force in code stress N
 Include sustain load margin Only if allowable stress is exceeded
 Use single SIF Y
 Set sustained/occasional SIF = 1 N
 Set sustained/occasional SIF = 0.75i .. N
 Apply cold/hot modulus ratio N
 Disable auto code combinations N
 Disable auto non-code combinations N

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 No. of thermal ranges to report 0
 Include Max Range combination Y
 Total stress Octahedral
 Direct shear None
 Longitudinal pressure calculation PD/4t
 Inc. Axial Str and Pcase in Sustained.. N

0

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RESULT PAGE 5

D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
*** Segment A begin ***							
A00	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	14.080	0.000	0.000	0.000
	GT1{1}	0.000	0.000	14.080	0.000	0.000	0.000
A01	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.104	-0.047	14.406	0.001	-0.002	0.000
	GT1{1}	-0.104	-0.047	14.406	0.001	-0.002	0.000
A09	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.177	-0.080	14.616	0.003	-0.009	0.000
	GT1{1}	-0.177	-0.080	14.616	0.003	-0.008	0.000
A03 N	Gravity{1}	0.246	0.062	0.086	-0.018	0.078	-0.004
	Thermal 1{1}	-2.523	-0.832	15.246	0.141	-0.527	0.004
	GT1{1}	-2.277	-0.770	15.332	0.123	-0.449	0.000
A03 F	Gravity{1}	0.283	0.073	0.143	-0.022	0.095	-0.004
	Thermal 1{1}	-2.877	-0.930	14.946	0.161	-0.611	0.001
	GT1{1}	-2.594	-0.857	15.089	0.139	-0.516	-0.003
A04 N	Gravity{1}	0.271	0.121	2.281	-0.024	0.112	-0.003
	Thermal 1{1}	-5.295	-1.367	4.339	0.086	-0.376	-0.015
	GT1{1}	-5.023	-1.246	6.621	0.062	-0.264	-0.018
A04 F	Gravity{1}	0.334	0.136	2.351	-0.017	0.084	-0.003
	Thermal 1{1}	-5.592	-1.425	4.233	0.048	-0.224	-0.015
	GT1{1}	-5.258	-1.289	6.583	0.031	-0.140	-0.018
A14	Gravity{1}	0.000	0.000	2.352	0.017	-0.058	-0.003
	Thermal 1{1}	0.000	0.000	7.075	-0.125	0.533	-0.012
	GT1{1}	0.000	0.000	9.426	-0.108	0.476	-0.015

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OR13	Gravity{1}	-0.564	-0.182	2.354	0.005	-0.011	-0.003
	Thermal 1{1}	6.680	1.329	10.029	-0.033	0.236	-0.009
	GT1{1}	6.116	1.147	12.383	-0.029	0.226	-0.012
A13	Gravity{1}	0.000	0.000	2.366	-0.004	-0.001	-0.002
	Thermal 1{1}	0.000	0.000	18.892	0.031	-0.436	-0.001
	GT1{1}	0.000	0.000	21.258	0.027	-0.437	-0.003
A05 N	Gravity{1}	-0.028	0.024	2.385	0.001	0.044	-0.002
	Thermal 1{1}	-4.959	-0.134	27.642	-0.008	0.835	0.008
	GT1{1}	-4.988	-0.110	30.028	-0.007	0.879	0.006
A05 F	Gravity{1}	0.003	0.023	2.352	0.001	0.060	-0.002
	Thermal 1{1}	-4.272	-0.123	27.165	-0.008	0.914	0.008
	GT1{1}	-4.269	-0.101	29.517	-0.007	0.974	0.006

0

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RESULT PAGE 6

D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
A11	Gravity{1}	0.003	0.000	0.012	0.000	0.006	0.000
	Thermal 1{1}	-0.550	-0.001	9.109	0.000	0.066	0.000
	GT1{1}	-0.548	-0.001	9.121	0.000	0.072	0.000
A10	Gravity{1}	0.003	0.000	0.006	0.000	0.004	0.000
	Thermal 1{1}	-0.326	0.000	9.033	0.000	0.048	0.000
	GT1{1}	-0.323	0.000	9.038	0.000	0.052	0.000
A07 N	Gravity{1}	0.003	0.000	0.003	0.000	0.003	0.000
	Thermal 1{1}	-0.185	0.000	8.994	0.000	0.045	0.000
	GT1{1}	-0.183	0.000	8.997	0.000	0.048	0.000
A07 F	Gravity{1}	0.001	0.000	0.000	0.000	0.001	0.000
	Thermal 1{1}	0.010	0.000	8.726	0.000	0.009	0.000
	GT1{1}	0.010	0.000	8.726	0.000	0.009	0.000
A08	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	8.360	0.000	0.000	0.000
	GT1{1}	0.000	0.000	8.360	0.000	0.000	0.000

*** Segment A end ***

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AutoPIPE Plus 9.2.1 RESULT PAGE 7

S U P P O R T F O R C E S								
(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)								
Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform

Tag No.: <None> A14		Gravity{1}	up	11	0.000	X	11	0.000
A14 1	Guide		rght	3	0.000	Y	3	0.000
Stiff	:RIGID		forw		2.352	Z		2.352
		Thermal 1{1}	down	58	0.000	X	-58	0.000
			left	16	0.000	Y	-16	0.000
			forw		7.075	Z		7.075
		GT1{1}	down	46	0.000	X	-46	0.000
			left	13	0.000	Y	-13	0.000
			forw		9.426	Z		9.426
Tag No.: <None> A13		Gravity{1}	down	1	0.000	X	-1	0.000
A13 1	Guide		left		0.000	Y		0.000
Stiff	:RIGID		forw		2.366	Z		2.366
		Thermal 1{1}	down	5	0.000	X	-5	0.000
			left		0.000	Y		0.000
			forw		18.892	Z		18.892
		GT1{1}	down	5	0.000	X	-5	0.000
			left		0.000	Y		0.000
			forw		21.258	Z		21.258
Tag No.: <None> A13		Gravity{1}	down	1	0.000	X	-1	0.000
A13 2	Guide		left	0	0.000	Y	0	0.000
Stiff	:RIGID		forw		2.366	Z		2.366
		Thermal 1{1}	down	5	0.000	X	-5	0.000
			rght	1	0.000	Y	1	0.000
			forw		18.892	Z		18.892

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GT1{1}		down	5	0.000	X	-5	0.000
		right	1	0.000	Y	1	0.000
		forw		21.258	Z		21.258
Tag No.: <None>	Gravity{1}	down	275	-2.352	X		0.003
A05 F					Y		0.023
A05 F1	Spr. Hgr				Z	-275	2.352
Stiff :	1						
Preload :	278 Thermal 1{1}	up	33	27.165	X		-4.272
					Y		-0.123
					Z	33	27.165
GT1{1}		down	242	-29.517	X		-4.269
					Y		-0.101
					Z	-242	29.517

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RESULT PAGE 8

R E S T R A I N T R E A C T I O N S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result
A00	Anchor Tag No.: TOPSSA								
	Gravity{1}	-11	-3	-53	54	0	-1	0	1
	Thermal 1{1}	57	15	-95	111	7	-16	1	18
	GT1{1}	46	12	-148	155	7	-17	1	19
A14	Guide Tag No.: <None>								
	Gravity{1}	[ID: A14 1]							
		11	3	0	11	0	0	0	0
	Thermal 1{1}	-58	-16	0	60	0	0	0	0
	GT1{1}	-46	-13	0	48	0	0	0	0
A13	Guide Tag No.: <None>								
	Gravity{1}	[ID: A13 1]							
		-1	0	0	1	0	0	0	0
	Thermal 1{1}	-5	0	0	5	0	0	0	0
	GT1{1}	-5	0	0	5	0	0	0	0
A13	Guide Tag No.: <None>								
	Gravity{1}	[ID: A13 2]							
		-1	0	0	1	0	0	0	0
	Thermal 1{1}	-5	1	0	5	0	0	0	0
	GT1{1}	-5	1	0	5	0	0	0	0
A05 F	Spr. Hgr Tag No.: <None>								
	Gravity{1}	[ID: A05 F1]							
		0	0	-275	275	0	0	0	0

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	Thermal 1{1}		0	0	33	33	0	0	0	0
	GT1{1}		0	0	-242	242	0	0	0	0
A08	Anchor Tag No.: TOLGMSA									
	Gravity{1}		1	0	-67	67	0	5	0	5
	Thermal 1{1}		10	0	62	62	0	70	0	70
	GT1{1}		11	0	-5	12	0	74	0	74

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RESULT PAGE 9

G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

*** Segment A begin ***									
A00	Gravity{1}	11	3	22	24	0	1	0	1
	Thermal 1{1}	-57	-15	95	111	-7	16	-1	18
	GT1{1}	-46	-12	117	126	-7	17	-1	19
A01	Gravity{1}	11	3	10	15	0	-1	0	1
	Thermal 1{1}	-57	-15	95	111	-7	19	-1	20
	GT1{1}	-46	-12	105	115	-7	19	-1	20
A09	Gravity{1}	11	3	5	12	0	-2	0	2
	Thermal 1{1}	-57	-15	95	111	-7	21	-1	22
	GT1{1}	-46	-12	100	111	-7	20	0	21
A03 N	Gravity{1}	11	3	-6	13	1	-6	0	6
	Thermal 1{1}	-57	-15	95	111	-8	33	1	34
	GT1{1}	-46	-12	89	101	-6	27	1	28
A03 F	Gravity{1}	11	3	-7	13	1	-6	0	6
	Thermal 1{1}	-57	-15	95	111	-7	31	1	32
	GT1{1}	-46	-12	87	100	-6	25	1	26
A04 N	Gravity{1}	11	3	-28	30	-2	8	0	8
	Thermal 1{1}	-57	-15	95	111	11	-45	0	47
	GT1{1}	-46	-12	67	82	9	-37	0	39
A04 F	Gravity{1}	11	3	-30	31	-2	9	0	9
	Thermal 1{1}	-57	-15	95	111	12	-47	0	48
	GT1{1}	-46	-12	65	81	9	-38	0	39

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A14 -	Gravity{1}	11	3	-53	55	0	-1	0	1
	Thermal 1{1}	-57	-15	95	111	-3	8	0	8
	GT1{1}	-46	-12	41	63	-2	6	0	7
A14 +	Gravity{1}	-1	0	-53	53	0	-1	0	1
	Thermal 1{1}	1	1	95	95	-3	8	0	8
	GT1{1}	0	1	41	41	-2	6	0	7
OR13 -	Gravity{1}	-1	0	-78	78	0	-1	0	1
	Thermal 1{1}	1	1	95	95	-2	7	0	7
	GT1{1}	0	1	17	17	-2	6	0	6
OR13 +	Gravity{1}	-1	0	-96	96	0	-1	0	1
	Thermal 1{1}	1	1	95	95	-2	7	0	7
	GT1{1}	0	1	-1	1	-2	6	0	6
A13 -	Gravity{1}	-1	0	-170	170	0	1	0	1
	Thermal 1{1}	1	1	95	95	1	4	0	4
	GT1{1}	0	1	-76	76	1	5	0	5

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RESULT PAGE 10

G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A13 +	Gravity{1}	1	0	-170	170	0	1	0	1
	Thermal 1{1}	10	0	95	95	1	4	0	4
	GT1{1}	11	0	-76	76	1	5	0	5
A05 N	Gravity{1}	1	0	-244	244	0	-1	0	1
	Thermal 1{1}	10	0	95	95	0	-25	0	25
	GT1{1}	11	0	-149	150	0	-27	0	27
A05 F-	Gravity{1}	1	0	-245	245	0	-11	0	11
	Thermal 1{1}	10	0	95	95	0	-22	0	22
	GT1{1}	11	0	-151	151	0	-33	0	33
A05 F+	Gravity{1}	1	0	29	29	0	-11	0	11
	Thermal 1{1}	10	0	62	62	0	-22	0	22
	GT1{1}	11	0	91	92	0	-33	0	33

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A11	Gravity{1}	1	0	-2	2	0	6	0	6
	Thermal 1{1}	10	0	62	62	0	56	0	56
	GT1{1}	11	0	60	61	0	62	0	62
A10	Gravity{1}	1	0	-7	7	0	6	0	6
	Thermal 1{1}	10	0	62	62	0	60	0	60
	GT1{1}	11	0	55	56	0	66	0	66
A07 N	Gravity{1}	1	0	-11	11	0	6	0	6
	Thermal 1{1}	10	0	62	62	0	63	0	63
	GT1{1}	11	0	50	51	0	69	0	69
A07 F	Gravity{1}	1	0	-23	23	0	5	0	5
	Thermal 1{1}	10	0	62	62	0	69	0	69
	GT1{1}	11	0	39	40	0	73	0	73
A08	Gravity{1}	1	0	-35	35	0	5	0	5
	Thermal 1{1}	10	0	62	62	0	70	0	70
	GT1{1}	11	0	26	28	0	74	0	74

*** Segment A end ***

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GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc

*** Segment A begin ***										
A00	SIFI= 1.20	SIF0= 1.20								
	Gravity{1}		0	0	0	0	0	0	0	174
	Thermal 1{1}		0	2	-2	0	2	-2	2	180
	GT1{1}		0	2	-3	0	2	-3	3	179
A01	SIFI= 2.00	SIF0= 2.00								
	Gravity{1}		0	0	0	0	0	0	0	351
	Thermal 1{1}		0	4	-5	0	4	-5	5	177
	GT1{1}		0	4	-4	0	4	-4	4	177
A09	SIFI= 2.00	SIF0= 2.00								
	Gravity{1}		0	5	-5	0	5	-5	5	351
	Thermal 1{1}		0	66	-68	1	66	-68	68	175
	GT1{1}		0	61	-63	1	61	-63	63	175

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A03 N-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	10	-10	0	10	-10	10	169
	Thermal 1{1}		0	50	-52	1	50	-52	52	169
	GT1{1}		0	41	-42	1	41	-42	42	169
A03 N+	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	10	-10	0	10	-10	10	1
	Thermal 1{1}		0	50	-52	1	50	-52	52	0
	GT1{1}		0	41	-42	1	41	-42	42	0
A03 F-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	10	-10	0	10	-10	10	3
	Thermal 1{1}		0	48	-49	0	48	-49	49	2
	GT1{1}		0	38	-39	0	38	-39	39	2
A03 F+	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	10	-10	0	10	-10	10	179
	Thermal 1{1}		0	48	-49	0	48	-49	49	178
	GT1{1}		0	38	-39	0	38	-39	39	178
A04 N-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	13	-12	0	13	-12	13	0
	Thermal 1{1}		0	70	-71	0	70	-71	71	360
	GT1{1}		0	57	-58	0	57	-58	58	360
A04 N+	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	13	-12	0	13	-12	13	0
	Thermal 1{1}		0	70	-71	0	70	-71	71	360
	GT1{1}		0	57	-58	0	57	-58	58	360
A04 F-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	14	-13	0	14	-13	14	0
	Thermal 1{1}		0	72	-73	0	72	-73	73	0
	GT1{1}		0	58	-59	0	58	-59	59	0

0

LGMSATOPSSAREV0

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RESULT PAGE 12

GENERAL PIPE STRESS REPORT

(Stress in N/mm2)

Point	Load	Hoop	Longitudinal	Shear	Principal	Total			
name	combination	Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----	-----	-----	-----	-----	-----	-----	-----	---
A04 F+	SIFI= 1.00 Gravity{1}	0	14	-13	0	14	-13	14	14
	Thermal 1{1}	0	72	-73	0	72	-73	73	14

			LGMSATOPSSAREV0.OUT						
GT1{1}			0	58	-59	0	58	-59	59 14
A14	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	3	-2	0	3	-2	3 194
	Thermal 1{1}		0	12	-13	0	12	-13	13 199
	GT1{1}		0	10	-10	0	10	-10	10 200
OR13	SIFI= 1.20 Gravity{1}	SIFO= 1.20	0	2	-1	0	2	-1	2 196
	Thermal 1{1}		0	12	-13	0	12	-13	13 195
	GT1{1}		0	11	-11	0	11	-11	11 195
A13	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	2	0	0	2	0	2 8
	Thermal 1{1}		0	6	-7	0	6	-7	7 170
	GT1{1}		0	8	-7	0	8	-7	8 352
A05 N-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	4	-1	0	4	-1	4 181
	Thermal 1{1}		0	38	-39	0	38	-39	39 360
	GT1{1}		0	41	-39	0	41	-39	41 180
A05 N+	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	4	-1	0	4	-1	4 181
	Thermal 1{1}		0	38	-39	0	38	-39	39 360
	GT1{1}		0	41	-39	0	41	-39	41 180
A05 F-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	16	-16	0	16	-16	16 0
	Thermal 1{1}		0	33	-33	0	33	-33	33 0
	GT1{1}		0	49	-50	0	49	-50	50 0
A05 F+	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	16	-16	0	16	-16	16 180
	Thermal 1{1}		0	33	-33	0	33	-33	33 180
	GT1{1}		0	49	-50	0	49	-50	50 180
A11	SIFI= 2.00 Gravity{1}	SIFO= 2.00	0	19	-19	0	19	-19	19 360
	Thermal 1{1}		0	167	-167	0	167	-167	167 0
	GT1{1}		0	186	-186	0	186	-186	186 0
A10	SIFI= 2.00 Gravity{1}	SIFO= 2.00	0	1	-1	0	1	-1	1 359
	Thermal 1{1}		0	13	-13	0	13	-13	13 0
	GT1{1}		0	14	-14	0	14	-14	14 0
A07 N-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	1	-1	0	1	-1	1 359

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
A07 N+	Thermal 1{1}		0	7	-7	0	7	-7	7	0
	GT1{1}		0	7	-8	0	7	-8	8	0
	SIFI= 1.73	SIF0= 1.73								
	Gravity{1}		0	1	-1	0	1	-1	1	179
	Thermal 1{1}		0	12	-12	0	12	-12	12	180
A07 F-	GT1{1}		0	13	-13	0	13	-13	13	180
	SIFI= 1.73	SIF0= 1.73								
	Gravity{1}		0	1	-1	0	1	-1	1	180
	Thermal 1{1}		0	13	-13	0	13	-13	13	360
	GT1{1}		0	14	-14	0	14	-14	14	360
A07 F+	SIFI= 1.00	SIF0= 1.00								
	Gravity{1}		0	0	-1	0	0	-1	1	0
	Thermal 1{1}		0	8	-7	0	8	-7	8	180
	GT1{1}		0	8	-8	0	8	-8	8	180
A08	SIFI= 1.20	SIF0= 1.20								
	Gravity{1}		0	1	-1	0	1	-1	1	0
	Thermal 1{1}		0	9	-9	0	9	-9	9	180
	GT1{1}		0	10	-10	0	10	-10	10	180

*** Segment A end ***

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RESULT PAGE 14

EN 13480 (2002) CODE COMPLIANCE

(Moments in N.m)

(Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
A11	Max P{1}					HOOP	6 104
	GR + Max P{1}	6			2.00	2-1 SUST	17 104
	TR:Amb to T1{1}			56	2.00	4-1 DISP	167 217
	Amb to T1{1}			56	2.00	4-1 DISP	167 217
	Sus.+T1{1}				2.00	5-1 CRUP	59 <NOTE 1>

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A04 F+ Max P{1}				HOOP	6	104
GR + Max P{1}	9	1.00	2-1	SUST	16	104
TR:Amb to T1{1}		48	1.00	4-1	DISP	72 217
Amb to T1{1}		48	1.00	4-1	DISP	72 217
Sus.+T1{1}		1.00	5-1	CRUP	40	<NOTE 1>
A04 F- Max P{1}				HOOP	6	104
GR + Max P{1}	9	1.00	2-1	SUST	16	104
TR:Amb to T1{1}		48	1.00	4-1	DISP	72 217
Amb to T1{1}		48	1.00	4-1	DISP	72 217
Sus.+T1{1}		1.00	5-1	CRUP	40	<NOTE 1>
A04 N+ Max P{1}				HOOP	6	104
GR + Max P{1}	8	1.00	2-1	SUST	15	104
TR:Amb to T1{1}		47	1.00	4-1	DISP	70 217
Amb to T1{1}		47	1.00	4-1	DISP	70 217
Sus.+T1{1}		1.00	5-1	CRUP	39	<NOTE 1>
A04 N- Max P{1}				HOOP	6	104
GR + Max P{1}	8	1.00	2-1	SUST	15	104
TR:Amb to T1{1}		47	1.00	4-1	DISP	70 217
Amb to T1{1}		47	1.00	4-1	DISP	70 217
Sus.+T1{1}		1.00	5-1	CRUP	39	<NOTE 1>
A09 Max P{1}				HOOP	6	104
GR + Max P{1}	2	2.00	2-1	SUST	7	104
TR:Amb to T1{1}		22	2.00	4-1	DISP	67 217
Amb to T1{1}		22	2.00	4-1	DISP	67 217
Sus.+T1{1}		2.00	5-1	CRUP	23	<NOTE 1>
A03 N+ Max P{1}				HOOP	6	104
GR + Max P{1}	6	1.00	2-1	SUST	13	104
TR:Amb to T1{1}		34	1.00	4-1	DISP	51 217
Amb to T1{1}		34	1.00	4-1	DISP	51 217
Sus.+T1{1}		1.00	5-1	CRUP	30	<NOTE 1>
A03 N- Max P{1}				HOOP	6	104
GR + Max P{1}	6	1.00	2-1	SUST	13	104
TR:Amb to T1{1}		34	1.00	4-1	DISP	51 217
Amb to T1{1}		34	1.00	4-1	DISP	51 217
Sus.+T1{1}		1.00	5-1	CRUP	30	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F					
A03 F+	Max P{1}							HOOP	6	104
	GR + Max P{1}	6			1.00	2-1	SUST		13	104
	TR:Amb to T1{1}			32	1.00	4-1	DISP		48	217
	Amb to T1{1}			32	1.00	4-1	DISP		48	217
	Sus.+T1{1}				1.00	5-1	CRUP		29	<NOTE 1>
A03 F-	Max P{1}							HOOP	6	104
	GR + Max P{1}	6			1.00	2-1	SUST		13	104
	TR:Amb to T1{1}			32	1.00	4-1	DISP		48	217
	Amb to T1{1}			32	1.00	4-1	DISP		48	217
	Sus.+T1{1}				1.00	5-1	CRUP		29	<NOTE 1>
A05 N+	Max P{1}							HOOP	6	104
	GR + Max P{1}	1			1.00	2-1	SUST		5	104
	TR:Amb to T1{1}			25	1.00	4-1	DISP		38	217
	Amb to T1{1}			25	1.00	4-1	DISP		38	217
	Sus.+T1{1}				1.00	5-1	CRUP		18	<NOTE 1>
A05 N-	Max P{1}							HOOP	6	104
	GR + Max P{1}	1			1.00	2-1	SUST		5	104
	TR:Amb to T1{1}			25	1.00	4-1	DISP		38	217
	Amb to T1{1}			25	1.00	4-1	DISP		38	217
	Sus.+T1{1}				1.00	5-1	CRUP		18	<NOTE 1>
A05 F+	Max P{1}							HOOP	6	104
	GR + Max P{1}	11			1.00	2-1	SUST		19	104
	TR:Amb to T1{1}			22	1.00	4-1	DISP		33	217
	Amb to T1{1}			22	1.00	4-1	DISP		33	217
	Sus.+T1{1}				1.00	5-1	CRUP		30	<NOTE 1>
A05 F-	Max P{1}							HOOP	6	104
	GR + Max P{1}	11			1.00	2-1	SUST		19	104
	TR:Amb to T1{1}			22	1.00	4-1	DISP		33	217
	Amb to T1{1}			22	1.00	4-1	DISP		33	217
	Sus.+T1{1}				1.00	5-1	CRUP		30	<NOTE 1>
A10	Max P{1}							HOOP	12	104
	GR + Max P{1}	6			2.00	2-1	SUST		7	104

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TR:Amb to T1{1}		60	2.00	4-1 DISP	13	217
Amb to T1{1}		60	2.00	4-1 DISP	13	217
Sus.+T1{1}			2.00	5-1 CRUP	10	<NOTE 1>
A07 F- Max P{1}				HOOP	12	104
GR + Max P{1}	5		1.73	2-1 SUST	6	104
TR:Amb to T1{1}		69	1.73	4-1 DISP	13	217
Amb to T1{1}		69	1.73	4-1 DISP	13	217
Sus.+T1{1}			1.73	5-1 CRUP	10	<NOTE 1>

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EN 13480 (2002) CODE COMPLIANCE

Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F	Eq. Load no. type			
OR13 + Max P{1}						HOOP	6	104	
GR + Max P{1}		1			1.20	2-1 SUST	4	104	
TR:Amb to T1{1}				7	1.20	4-1 DISP	13	217	
Amb to T1{1}				7	1.20	4-1 DISP	13	217	
Sus.+T1{1}					1.20	5-1 CRUP	8	<NOTE 1>	
OR13 - Max P{1}						HOOP	6	104	
GR + Max P{1}		1			1.20	2-1 SUST	4	104	
TR:Amb to T1{1}				7	1.20	4-1 DISP	13	217	
Amb to T1{1}				7	1.20	4-1 DISP	13	217	
Sus.+T1{1}					1.20	5-1 CRUP	8	<NOTE 1>	
A08 Max P{1}						HOOP	12	104	
GR + Max P{1}		5			1.20	2-1 SUST	6	104	
TR:Amb to T1{1}				70	1.20	4-1 DISP	9	217	
Amb to T1{1}				70	1.20	4-1 DISP	9	217	
Sus.+T1{1}					1.20	5-1 CRUP	9	<NOTE 1>	
A07 F+ Max P{1}						HOOP	12	104	
GR + Max P{1}		5			1.00	2-1 SUST	6	104	
TR:Amb to T1{1}				69	1.00	4-1 DISP	7	217	
Amb to T1{1}				69	1.00	4-1 DISP	7	217	
Sus.+T1{1}					1.00	5-1 CRUP	9	<NOTE 1>	

LGMSATOPSSAREV0.OUT							
A07 N+	Max P{1}			HOOP	12	104	
	GR + Max P{1}	6	1.73	2-1 SUST	7	104	
	TR:Amb to T1{1}		63	1.73	4-1 DISP	12	217
	Amb to T1{1}		63	1.73	4-1 DISP	12	217
	Sus.+T1{1}		1.73	5-1 CRUP	10	<NOTE 1>	
A07 N-	Max P{1}			HOOP	12	104	
	GR + Max P{1}	6	1.00	2-1 SUST	6	104	
	TR:Amb to T1{1}		63	1.00	4-1 DISP	7	217
	Amb to T1{1}		63	1.00	4-1 DISP	7	217
	Sus.+T1{1}		1.00	5-1 CRUP	9	<NOTE 1>	
A01	Max P{1}			HOOP	12	104	
	GR + Max P{1}	1	2.00	2-1 SUST	6	104	
	TR:Amb to T1{1}		20	2.00	4-1 DISP	4	217
	Amb to T1{1}		20	2.00	4-1 DISP	4	217
	Sus.+T1{1}		2.00	5-1 CRUP	7	<NOTE 1>	
A00	Max P{1}			HOOP	12	104	
	GR + Max P{1}	1	1.20	2-1 SUST	6	104	
	TR:Amb to T1{1}		18	1.20	4-1 DISP	2	217
	Amb to T1{1}		18	1.20	4-1 DISP	2	217
	Sus.+T1{1}		1.20	5-1 CRUP	7	<NOTE 1>	

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EN 13480 (2002) CODE COMPLIANCE								
		(Moments in N.m)		(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code	
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.
-----		-----		-----		-----		-----
A14	+ Max P{1}					HOOP	6	104
	GR + Max P{1}	1			1.00	2-1 SUST	5	104
	TR:Amb to T1{1}			8	1.00	4-1 DISP	12	217
	Amb to T1{1}			8	1.00	4-1 DISP	12	217
	Sus.+T1{1}				1.00	5-1 CRUP	9	<NOTE 1>
A14	- Max P{1}					HOOP	6	104
	GR + Max P{1}	1			1.00	2-1 SUST	5	104
	TR:Amb to T1{1}			8	1.00	4-1 DISP	12	217
	Amb to T1{1}			8	1.00	4-1 DISP	12	217

		LGMSATOPSSAREV0.0UT				
	Sus.+T1{1}		1.00	5-1 CRUP	9	<NOTE 1>
A13	+ Max P{1}			HOOP	6	104
	GR + Max P{1}	1	1.00	2-1 SUST	4	104
	TR:Amb to T1{1}		4	1.00	4-1 DISP	6
	Amb to T1{1}		4	1.00	4-1 DISP	6
	Sus.+T1{1}		1.00	5-1 CRUP	6	<NOTE 1>
A13	- Max P{1}			HOOP	6	104
	GR + Max P{1}	1	1.00	2-1 SUST	4	104
	TR:Amb to T1{1}		4	1.00	4-1 DISP	6
	Amb to T1{1}		4	1.00	4-1 DISP	6
	Sus.+T1{1}		1.00	5-1 CRUP	6	<NOTE 1>

*** NOTE 1: No allowable stress could be calculated. ***
 *** Mechanical properties are outside of temperature range. ***

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R E S U L T S U M M A R Y

Maximum displacements (mm)

Maximum X :	6.680	Point : 0R13	Load Comb.: Thermal 1{1}
Maximum Y :	-1.425	Point : A04 F	Load Comb.: Thermal 1{1}
Maximum Z :	30.028	Point : A05 N	Load Comb.: GT1{1}
Max. total:	30.439	Point : A05 N	Load Comb.: GT1{1}

Maximum rotations (deg)

Maximum X :	0.161	Point : A03 F	Load Comb.: Thermal 1{1}
Maximum Y :	0.974	Point : A05 F	Load Comb.: GT1{1}
Maximum Z :	-0.018	Point : A04 N	Load Comb.: GT1{1}
Max. total:	0.974	Point : A05 F	Load Comb.: GT1{1}

Maximum restraint forces (N)

Maximum X :	-58	Point : A14	Load Comb.: Thermal 1{1}
Maximum Y :	-16	Point : A14	Load Comb.: Thermal 1{1}
Maximum Z :	-275	Point : A05 F	Load Comb.: Gravity{1}

LGMSATOPSSAREV0.0UT

Max. total: 275 Point : A05 F Load Comb.: Gravity{1}

Maximum restraint moments (N.m)

Maximum X : 7 Point : A00 Load Comb.: GT1{1}
 Maximum Y : 74 Point : A08 Load Comb.: GT1{1}
 Maximum Z : 1 Point : A00 Load Comb.: Thermal 1{1}
 Max. total: 74 Point : A08 Load Comb.: GT1{1}

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R E S U L T S U M M A R Y

Maximum pipe forces (N)

Maximum X : -57 Point : A00 Load Comb.: Thermal 1{1}
 Maximum Y : -15 Point : A09 Load Comb.: Thermal 1{1}
 Maximum Z : -245 Point : A05 F Load Comb.: Gravity{1}
 Max. total: 245 Point : A05 F Load Comb.: Gravity{1}

Maximum pipe moments (N.m)

Maximum X : 12 Point : A04 F Load Comb.: Thermal 1{1}
 Maximum Y : 74 Point : A08 Load Comb.: GT1{1}
 Maximum Z : -1 Point : A00 Load Comb.: Thermal 1{1}
 Max. total: 74 Point : A08 Load Comb.: GT1{1}

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R E S U L T S U M M A R Y

Maximum sustained stress

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Point : A05 F
 Stress N/mm2 : 19
 Allowable N/mm2 : 104
 Ratio : 0.18
 Load combination : GR + Max P{1}

Maximum displacement stress

Point : A11
 Stress N/mm2 : 167
 Allowable N/mm2 : 217
 Ratio : 0.77
 Load combination : Max Range

Maximum hoop stress

Point : A10
 Stress N/mm2 : 12
 Allowable N/mm2 : 104
 Ratio : 0.12
 Load combination : Max P{1}

Maximum creep rupture stress

Point : A11
 Stress N/mm2 : 59
 Allowable N/mm2 : 0 < See Note 1 >
 Ratio : 0.00
 Load combination : Sus.+T1{1}

0

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AutoPIPE Plus 9.2.1 RESULT PAGE 21

R E S U L T S U M M A R Y

Maximum sustained stress ratio

Point : A05 F
 Stress N/mm2 : 19
 Allowable N/mm2 : 104
 Ratio : 0.18
 Load combination : GR + Max P{1}

Maximum displacement stress ratio

Point : A11
 Stress N/mm2 : 167
 Allowable N/mm2 : 217
 Ratio : 0.77
 Load combination : Max Range

Maximum hoop stress ratio

Point : A10
 Stress N/mm2 : 12
 Allowable N/mm2 : 104
 Ratio : 0.12
 Load combination : Max P{1}

Maximum creep rupture stress ratio

Point : A11
 Stress N/mm2 : 59
 Allowable N/mm2 : 0 < See Note 1 >
 Ratio : 0.00
 Load combination : Sus.+T1{1}

LGMSATOPSSAREV0.OUT

* * * The system satisfies EN 13480 (2002) code requirements * * *
* * * for the selected options * * *

Warnings:

(1) Maximum creep rupture stress ratio is zero

* * * Note 1: Points were found in this stress category with * * *
* * * mechanical properties outside of temperature range. No * * *
* * * allowable stress were calculated at these points. * * *

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ALLEGATO 12. PSS-B to LGMS-B INPUT E OUTPUT DEI CALCOLI AUTOPIPE

file: LGMSB TO PSSBREV0.pdf

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                                LGMSB TO PSSBREV0.OUT
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LGMSB TO PSSBREV0
09/13/2010 LGMSBT0 PSSB                                BENTLEY
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AutoPIPE Plus 9.2.1      MODEL  PAGE    1
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Pipe Stress Analysis and Design Program

Edition: Plus

BENTLEY SYSTEMS, INCORPORATED
1600 Riviera Ave., Suite 300
Walnut Creek, CA 94596

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LGMSB TO PSSBREV0
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SYSTEM NAME : LGMSB TO PSSBREV0

PROJECT ID : LGMSBT0 PSSB

PREPARED BY : CONGIU

CHECKED BY : ACHILLI

1ST APPROVER : _____

2ND APPROVER : _____

LGMSB TO PSSBREV0.OUT
PIPING CODE : EN 13480
YEAR : 2002
LIFETIME (HRS) : 200000
LIFETIME MONITORING : NO
VERTICAL AXIS : Z
AMBIENT TEMPERATURE : 20.0 deg C
COMPONENT LIBRARY : AUTOPIPE
MATERIAL LIBRARY : EUROMAT
MODEL REVISION NUMBER : 23

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LGMSB TO PSSBREV0

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AutoPIPE Plus 9.2.1 MODEL PAGE 3

C O M P O N E N T D A T A L I S T I N G

*** SEGMENT A

From A00 to A01, DX= -32.82 mm, DY= -17.30 mm, DZ= 107.63 mm, L= 113.84 mm Run

PIPE DATA:

Pipe Id= 2S40, Material= X5CRNI18-10 1.4301, Product= Seamless tube, Source= EURO,
Composition= Austenitic Stainless, Poisson= 0.300, Nom Size= 50 mm, OD= 60.325 mm, Sch= 40, Wall
Thk= 3.912 mm,
Mill= 0.489 mm, Cor= 0 mm, Pipe Density= 7930.00 kg/m3, Pipe Unit Wgt= 53.91 N/m, Content Sp Gr=
1.000,
Content Unit Wgt= 21.22 N/m, Insul Thk= 50.000 mm, Insul Material= MINERAL WOOL, Insul Density=
136.16 kg/m3,
Insul Unit Wgt= 23.14 N/m, Lining Thk= 0 mm, Long Weld factor= 1.00, Circ Weld factor= 1.00, Long
Modulus= 0.19996 E6 N/mm2,
Hoop Modulus= 0.19996 E6 N/mm2, Shear Modulus= 0.07691 E6 N/mm2, Al= 40.0, At= 35.0, fc= 166.7
N/mm2, Rp0.2= 195.0 N/mm2,
Rp1.0= 230.0 N/mm2, Rm= 500.0 N/mm2

OPERATING DATA:

P1= 1.5000 N/mm2, T1= 198.00 deg C, Exp1= 2.94948 mm/m, E1= 0.18487 E6 N/mm2, Rp0.2t1= 127.52
N/mm2, Rp1.0t1= 155.60 N/mm2,
Rmt1= 0.00 N/mm2, fcr1= 0.00 N/mm2, fh1= 103.73 N/mm2

POINT DATA:

A00, Coordinates, X= -4468.62 mm, Y= -4743.29 mm, Z= 6141.64 mm
A00, Flange= SLIP-ON, Rating= 300, Flange Weight= 3.20 kg, Bolt/Nut Weight= 0.00 kg, End type=
Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No

SUPPORT DATA:

A00, Anchor, Tag No.= TOPSSB, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ=
Rigid

From A01 to A10, DX= -21.97 mm, DY= -11.58 mm, DZ= 72.04 mm, L= 76.20 mm Redu

COMPONENT DATA (Reducer):

Length= 76.20 mm, SIF= 2.00

POINT DATA:

A01, Coordinates, X= -4501.44 mm, Y= -4760.59 mm, Z= 6249.27 mm

From A10 to A03, DX= -144.19 mm, DY= -75.99 mm, DZ= 472.69 mm, L= 500.00 mm

PIPE DATA:

Pipe Id= 0.5S40, Composition= Austenitic Stainless, Nom Size= 15 mm, OD= 21.336 mm, Wall Thk=
2.769 mm, Mill= 0.346 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 1.92 N/m, Insul Thk= 40.000 mm, Insul Density= 136.16

LGMSB TO PSSBREV0.OUT

kg/m3,
Insul Unit Wgt= 10.29 N/m

POINT DATA:

A10, Coordinates, X= -4523.41 mm, Y= -4772.17 mm, Z= 6321.31 mm

From A03 to A04, DX= -753.88 mm, DY= -351.38 mm, L= 831.75 mm Bend

COMPONENT DATA (Bend, TIP= A03, Near= A03 N, Far= A03 F):

Long Elbow, Radius= 38.10 mm, Bend angle= 71.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIFO= 1.00

POINT DATA:

A03, Coordinates, X= -4667.60 mm, Y= -4848.16 mm, Z= 6794.00 mm

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C O M P O N E N T D A T A L I S T I N G

A03 N, Coordinates, X= -4659.76 mm, Y= -4844.03 mm, Z= 6768.31 mm

A03 F, Coordinates, X= -4692.23 mm, Y= -4859.64 mm, Z= 6794.00 mm

From A04 to A12, DZ= 1002.63 mm Bend

COMPONENT DATA (Bend, TIP= A04, Near= A04 N, Far= A04 F):

Elbow, Radius= 38.10 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIFO= 1.00

POINT DATA:

A04, Coordinates, X= -5421.48 mm, Y= -5199.54 mm, Z= 6794.00 mm

A04 N, Coordinates, X= -5386.95 mm, Y= -5183.44 mm, Z= 6794.00 mm

A04 F, Coordinates, X= -5421.48 mm, Y= -5199.54 mm, Z= 6832.10 mm

From A12 to OR14, DZ= 1002.62 mm Run

POINT DATA:

A12, Coordinates, X= -5421.48 mm, Y= -5199.54 mm, Z= 7796.63 mm

SUPPORT DATA:

A12, Guide, Support Id= A12 1, Connected to Ground, Stiffness= RIGID

From OR14 to A13, DZ= 3007.87 mm Run

POINT DATA:

OR14, Coordinates, X= -5421.48 mm, Y= -5199.54 mm, Z= 8799.25 mm

OR14, Flange= SLIP-ON, Rating= 300, Flange Weight= 0.90 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on,

SIF= 1.20, Perform ANSI check= No

OR14, Flange= SLIP-ON, Rating= 300, Flange Weight= 0.90 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on,

SIF= 1.20, Perform ANSI check= No

From A13 to A05, DZ= 3007.88 mm Run

POINT DATA:

A13, Coordinates, X= -5421.48 mm, Y= -5199.54 mm, Z= 11807.12 mm

SUPPORT DATA:

A13, Guide, Support Id= A13 2, Connected to Ground, Stiffness= RIGID

From A05 to A11, DX= 1178.09 mm, DY= 549.64 mm, L= 1300.00 mm Bend

COMPONENT DATA (Bend, TIP= A05, Near= A05 N, Far= A05 F):

Elbow, Radius= 38.10 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.00, SIFO= 1.00

POINT DATA:

A05, Coordinates, X= -5421.48 mm, Y= -5199.54 mm, Z= 14815.00 mm

LGMSB TO PSSBREV0.OUT
A05 N, Coordinates, X= -5421.48 mm, Y= -5199.54 mm, Z= 14776.90 mm
A05 F, Coordinates, X= -5386.95 mm, Y= -5183.43 mm, Z= 14815.00 mm

SUPPORT DATA:
A05 F, Variable Spring Hanger, Support Id= A05 F1, Connected to Ground, 1 hanger(s), Stiffness= 1 N/mm, Preload= 286 N

□

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C O M P O N E N T D A T A L I S T I N G

From A11 to A07, DX= 69.05 mm, DY= 32.22 mm, L= 76.20 mm Redu

COMPONENT DATA (Reducer):
Length= 76.20 mm, SIF= 2.00

POINT DATA:
A11, Coordinates, X= -4243.39 mm, Y= -4649.90 mm, Z= 14815.00 mm

From A07 to A08, DX= 111.84 mm, DY= 52.18 mm, L= 123.41 mm Run

PIPE DATA:
Pipe Id= 2S40, Composition= Austentic Stainless, Nom Size= 50 mm, OD= 60.325 mm, Wall Thk= 3.912 mm, Mill= 0.489 mm,
Content Sp Gr= 1.000, Content Unit Wgt= 21.22 N/m, Insul Thk= 50.000 mm, Insul Density= 136.16 kg/m3,
Insul Unit Wgt= 23.14 N/m

POINT DATA:
A07, Coordinates, X= -4174.34 mm, Y= -4617.68 mm, Z= 14815.00 mm

From A08 to A09, DZ= -200.00 mm Bend

COMPONENT DATA (Bend, TIP= A08, Near= A08 N, Far= A08 F):
Long Elbow, Radius= 76.20 mm, Bend angle= 90.00 deg, End flanges= 0, Flex= Auto, SIFI= 1.73, SIFO= 1.73

POINT DATA:
A08, Coordinates, X= -4062.50 mm, Y= -4565.50 mm, Z= 14815.00 mm
A08 N, Coordinates, X= -4131.55 mm, Y= -4597.72 mm, Z= 14815.00 mm
A08 F, Coordinates, X= -4062.50 mm, Y= -4565.50 mm, Z= 14738.80 mm
A09, Coordinates, X= -4062.50 mm, Y= -4565.50 mm, Z= 14615.00 mm
A09, Flange= SLIP-ON, Rating= 300, Flange Weight= 3.20 kg, Bolt/Nut Weight= 0.00 kg, End type= Double Weld Slip-on,
SIF= 1.20, Perform ANSI check= No

SUPPORT DATA:
A09, Anchor, Tag No.= TOLGMSB, KTX= Rigid, KTY= Rigid, KTZ= Rigid, KRX= Rigid, KRY= Rigid, KRZ= Rigid

Number of points in the system: 21

Weight of Empty Pipes + Weight of Contents = Total Weight of System
36.9 kg + 3.1 kg = 40.0 kg

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C O O R D I N A T E S D A T A L I S T I N G

POINT -----COORDINATE (mm)-----

NAME X Y Z

*** SEGMENT A

A00	-4468.62	-4743.29	6141.64
A01	-4501.44	-4760.59	6249.27
A10	-4523.41	-4772.17	6321.31
A03 N	-4659.76	-4844.03	6768.31
A03	-4667.60	-4848.16	6794.00
A03 F	-4692.23	-4859.64	6794.00
A04 N	-5386.95	-5183.44	6794.00
A04	-5421.48	-5199.54	6794.00
A04 F	-5421.48	-5199.54	6832.10
A12	-5421.48	-5199.54	7796.63
OR14	-5421.48	-5199.54	8799.25
A13	-5421.48	-5199.54	11807.12
A05 N	-5421.48	-5199.54	14776.90
A05	-5421.48	-5199.54	14815.00
A05 F	-5386.95	-5183.43	14815.00
A11	-4243.39	-4649.90	14815.00
A07	-4174.34	-4617.68	14815.00
A08 N	-4131.55	-4597.72	14815.00
A08	-4062.50	-4565.50	14815.00
A08 F	-4062.50	-4565.50	14738.80
A09	-4062.50	-4565.50	14615.00

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P I P E D A T A L I S T I N G

Pipe ID/ Material	Nom/ O.D. Sch mm	-----Thickness(mm)----- W.Th. Corr Mill Insu Ling	Spec Grav	Weight(N/m) Pipe Other Total	ZL/ ZC	Composition
2S40 Stainless 1.4301	50 60.325 40	3.912 0 0.49 50 0	1.00	53.91 23.14 98.27	1.00	Austentic
0.5S40 Stainless 1.4301	15 21.336 40	2.769 0 0.35 40 0	1.00	12.56 10.29 24.77	1.00	Austentic

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M A T E R I A L D A T A L I S T I N G

Material Name/[Comp.]	Pipe ID	Density kg/m3	Pois. Al/At	Temper. deg C	Modulus E6 N/mm2 Axial Hoop Shear	Expans. mm/m	Composition

1.4301 2S40 7930.0 0.30 LGMSB TO PSSBREV0.OUT 20.0 0.19996 0.19996 0.07691 Austentic Stainless
 X5CRNI18-10 40.00 198.0 0.18487 2.9495
 [Austenitic] 35.00

1.4301 0.5S40 7930.0 0.30 20.0 0.19996 0.19996 0.07691 Austentic Stainless
 X5CRNI18-10 40.00 198.0 0.18487 2.9495
 [Austenitic] 35.00

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M A T E R I A L A L L O W A B L E D A T A L I S T I N G

Material		Proof	Proof	Tensile	Rupture	Allow.
Name	Pipe ID	Temper. (deg C)	(Rp0.2) (N/mm2)	(Rp1.0) (N/mm2)	(Rmt) (N/mm2)	(fcr) (N/mm2)
X5CRNI18-10	2S40	20.0	195.00	230.00	500.00	166.67
1.4301		198.0	127.52	155.60	0.00	103.73
X5CRNI18-10	0.5S40	20.0	195.00	230.00	500.00	166.67
1.4301		198.0	127.52	155.60	0.00	103.73

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OPERATING TEMPERATURE AND PRESSURE DATA

STRESSES IN N/mm2

POINT	PRESS.	TEMPER	EXPAN.	MODULUS	0.2%	1.0%	TENSILE	CREEP
NAME	CASE	N/mm2	deg C	mm/m	E6 N/mm	PROOF	PROOF	(Rmt) (fcr)
***	SEGMENT A							
A00	T1	1.5000	198	2.949	0.18487	127.52	155.60	0.00 0.00u
A09	Same as previous point.							

u User-defined value

* Non-code material for allowable stress;
 Non-standard material for expansion and modulus

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THERMAL ANCHOR MOVEMENTS AND DISPLACEMENTS

POINT NAME	LOAD CASE	DX (mm)	DY (mm)	DZ (mm)	RX (deg)	RY (deg)	RZ (deg)
A00	Thermal 1	0.00	0.00	14.09	0.000	0.000	0.000
A09	Thermal 1	0.00	0.00	8.36	0.000	0.000	0.000

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S U P P O R T D A T A L I S T I N G

Point Support Name Type	Support Conn.to ID /Dir	Stiff.	Gap 1 (mm)	Gap 2 (mm)	Fric. Fact.	GapSet /#hgr	Preload (N)	Size	Figure

Tag No.: <None>
 A12 Guide-V A12 1 Ground Rigid 0.0 0.0 0.00
 Guide-H A12 1 Ground Rigid 0.0 0.0 0.00
 Gap Dir.: (Gap1_V=-X, Gap2_V=+X, Gap1_H=-Y, Gap2_H=+Y)

Tag No.: <None>
 A13 Guide-V A13 2 Ground Rigid 0.0 0.0 0.00
 Guide-H A13 2 Ground Rigid 0.0 0.0 0.00
 Gap Dir.: (Gap1_V=-X, Gap2_V=+X, Gap1_H=-Y, Gap2_H=+Y)

Tag No.: <None>
 A05 F Spr. Hgr A05 F1 Ground 1.226 1-Und 286 0 FIG 98

Spring Manufacturer: Anvil/Grinnell

NOTE 1: No soil supports present in the system.

Gap 1 : V-stop, Guide-V=down, Linestop, Incline, Tie/link=backward, Guide-H=Left

Gap 2 : V-stop, Guide-V=Up, Linestop, Incline, Tie/link=forward, Guide-H=Right

Stiffness units for rotation support: N.m/deg, all others: N/mm

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B E N D D A T A L I S T I N G

Point Bend Pressure Case Name Type	Radius (mm)	Angle (deg)	OD (mm)	tnom (mm)	Material	Flg/ Cuts	SIF in	SIF out	Analysis Set	Flexibility (K)	
A03 Elbow	38L	71.0	21.3	2.8	1.4301	0/0	1.00	1.00	1	1.35	None

LGMSB TO PSSBREV0.OUT

Point	Component	Size	Angle	Radius	Material	Weight	Length	Height	Width	Volume	Area	Mass
A04	Elbow	38	90.0	21.3	2.8 1.4301	0/0	1.00	1.00	1	1.35	None	
A05	Elbow	38	90.0	21.3	2.8 1.4301	0/0	1.00	1.00	1	1.35	None	
A08	Elbow	76L	90.0	60.3	3.9 1.4301	0/0	1.73	1.73	1	4.40	None	

L = Long radius

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TEE DATA LISTING

Point	Point	Pipe	Pipe	Material	Tee	**Crotch	*Crotch	SIF	SIF
Name	Seg-Type	OD	Thk.		Type	Radius	Thick	in	out
		(mm)	(mm)			(mm)	(mm)		
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

* = Pad thickness for reinforced tee.

**= Fillet radius for Raised tee or discontinuity dist. for Thickened tee.

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VALVE DATA LISTING

Type	Point	Dnom	Length	Valve	Actuator	Actuator	Size
/Avg.	/Max.			Weight	Weight	DX	
Name	Type	(mm)	(mm)	(kg)	(kg)	(mm)	(mm)
(mm)		Rating					
-----	-----	-----	-----	-----	-----	-----	-----

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FLANGE DATA LISTING

Point	FLG	Dnom	Flange	Bolt	Size	Type
Name	No.	Type	Weight	Weight	Joint	/Avg. /Max. ANSI
			(kg)	(kg)	Type	SIF (mm) (mm) Check
A00	1	SLIP-ON	50	300	3.2	0.0 DWSO 1.20 No
OR14	1	SLIP-ON	15	300	0.9	0.0 DWSO 1.20 No
OR14	2	SLIP-ON	15	300	0.9	0.0 DWSO 1.20 No
A09	1	SLIP-ON	50	300	3.2	0.0 DWSO 1.20 No

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 J O I N T T Y P E / U S E R - S I F D A T A L I S T I N G

Size

Point	Point	SIF	SIF	Joint	/Avg.	Max.	Over
Name	Type	in	out	Type	(mm)	(mm)	ride

 []

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 R E D U C E R D A T A L I S T I N G

From	To	Length	OD	OD	Thk	Thk	Cone	SIF
Point	Point	(mm)	(mm)	(mm)	(mm)	(mm)	Angle	
						Material	(deg)	
A01	A10	76.20	60.3	21.3	3.9	2.8	1.4301	2.00t
A11	A07	76.20	21.3	60.3	2.8	3.9	1.4301	2.00t

t = Use SIF of 2.0

 []

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 R I G I D P I P E D A T A L I S T I N G

From	To	Include	Include	Rigid
Point	Point	Weight	Expansion	Factor

 []

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 R E F E R E N C E P O I N T L I S T I N G

(Force - N , Moment - N.m)

LGMSB TO PSSBREV0.OUT

Tag No./	Refer.	Point	Seg	Coord.	Load	[Report Loads]
Ref. ID	Side	Name	Name	System	Direction	Actual Allow.
-----	-----	-----	-----	-----	-----	-----

□

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AutoPIPE Plus 9.2.1 RESULT PAGE 1

A N A L Y S I S S U M M A R Y

Current model revision number : 23

Static - Analysis set number 1
 Date and Time of analysis Sep 13, 2010 10:46 AM
 Model Revision Number 23
 Number of load cases 2
 Load cases analyzed GR T1
 Description Analysis Set no. 1
 Gaps/Friction/Soil considered No
 Hanger design run No
 Cut short included No
 Thermal bowing included No
 Include Bourdon rotational effect No
 Pipe radius for Bourdon calculation ... Mean
 Weight of contents included Yes
 Pressure stiffening case None
 Hot modulus case None
 Water elevation for buoyancy loads Not considered
 Use corroded thickness in analysis No
 Rigid stiffness factor 1000.0

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AutoPIPE Plus 9.2.1 RESULT PAGE 2

CODE COMPLIANCE COMBINATIONS

<Description> Allowable Combination (N/mm2) D/A/P	Category	Method	Case/Combination	Factor	M/S	K-Factor
GR + Max P{1} Automatic Y Y Y	Sustain	Sum	GR[1] Max Long	1.00 1.00		
Max Range Automatic Y Y Y	Expansion	Sum	Temp. Range	1.00		
Amb to T1{1} Automatic Y Y Y	Expansion	Sum	T1[1]	1.00		
**Hydrotest{1} Automatic Y Y Y	Occasion	Sum	*HY[1] Max Long	1.00 1.00		1.000
Max P{1} Automatic Y Y Y	Hoop	Sum	Max Hoop	1.00		
Sus.+T1{1}	Creep Rupt	Sum	Max Sus	1.00		

Automatic Y Y Y LGMSB TO PSSBREV0.OUT
T1[1] 1.00

Notes:

D/A/P: [D]efault/[A]uto-Update/[P]rint options (Y=Yes, N=No)

* indicates that the load case has not been analyzed

** indicates that the combination includes unanalyzed load case(s)
or combination(s) that include unanalyzed load case(s).

□

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AutoPIPE Plus 9.2.1 RESULT PAGE 3

NON-CODE COMBINATIONS

<Description>

Combination	Method	Case/Combination	Factor	D/A/P
Gravity{1}	Sum	GR[1]	1.00	Y Y Y
**Hydrotest{1}	Sum	*HY[1]	1.00	Y Y Y
Thermal 1{1}	Sum	T1[1]	1.00	Y Y Y
GRT1{1}	Sum	GR[1] T1[1]	1.00 1.00	Y Y Y

Notes:

D/A/P: [D]efault/[A]uto-Update/[P]rint options (Y=Yes, N=No)

* indicates that the load case has not been analyzed

** indicates that the combination includes unanalyzed load case(s)
or combination(s) that include unanalyzed load case(s).

□

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AutoPIPE Plus 9.2.1 RESULT PAGE 4

CODE COMPLIANCE

Y - Factor 0.50
Weld efficiency factor 1.00
Range reduction factor 1.00
Design Pressure Factor 1.00
Minimum stress ratio used in reports... 0.00
Number of stress points per span 0
Include corrosion in stress calcs. N
Include axial force in code stress N
Include sustain load margin Only if allowable stress is exceeded
Use single SIF Y
Set sustained/occasional SIF = 1 N
Set sustained/occasional SIF = 0.75i .. N
Apply cold/hot modulus ratio N
Disable auto code combinations N
Disable auto non-code combinations N
No. of thermal ranges to report 0

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 Include Max Range combination Y
 Total stress Octahedral
 Direct shear None
 Longitudinal pressure calculation PD/4t
 Inc. Axial Str and Pcase in Sustained.. N

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RESULT PAGE 5

D I S P L A C E M E N T S

Point	Load	TRANSLATIONS (mm)			ROTATIONS (deg)		
name	combination	X	Y	Z	X	Y	Z
-----	-----	-----	-----	-----	-----	-----	-----
*** Segment A begin ***							
A00	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	14.090	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	14.090	0.000	0.000	0.000
A01	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.099	-0.052	14.407	0.001	-0.002	0.000
	GRT1{1}	-0.099	-0.052	14.407	0.001	-0.002	0.000
A10	Gravity{1}	0.001	0.000	0.000	0.000	0.001	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.170	-0.089	14.617	0.004	-0.008	0.000
	GRT1{1}	-0.169	-0.089	14.617	0.004	-0.007	0.000
A03 N	Gravity{1}	0.360	0.171	0.138	-0.049	0.106	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-2.383	-1.178	15.240	0.231	-0.487	0.003
	GRT1{1}	-2.022	-1.006	15.378	0.182	-0.382	0.002
A03 F	Gravity{1}	0.411	0.196	0.219	-0.059	0.125	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-2.708	-1.334	14.946	0.266	-0.563	0.002
	GRT1{1}	-2.298	-1.139	15.165	0.207	-0.437	0.001
A04 N	Gravity{1}	0.406	0.205	2.730	-0.058	0.127	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-4.753	-2.296	5.526	0.162	-0.354	0.000
	GRT1{1}	-4.347	-2.091	8.256	0.104	-0.227	-0.001
A04 F	Gravity{1}	0.476	0.238	2.815	-0.043	0.094	-0.001

LGMSB TO PSSBREV0.OUT

	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-5.031	-2.423	5.416	0.096	-0.214	0.000
	GRT1{1}	-4.555	-2.185	8.230	0.054	-0.120	-0.001
A12	Gravity{1}	0.000	0.000	2.816	0.034	-0.072	-0.001
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	8.258	-0.231	0.487	0.000
	GRT1{1}	0.000	0.000	11.074	-0.197	0.415	-0.001
OR14	Gravity{1}	-0.701	-0.336	2.818	0.006	-0.013	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	6.136	2.907	11.212	-0.103	0.219	0.000
	GRT1{1}	5.434	2.571	14.030	-0.097	0.206	-0.001
A13	Gravity{1}	0.000	0.000	2.831	0.000	-0.001	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	20.074	0.192	-0.410	0.000
	GRT1{1}	0.000	0.000	22.905	0.193	-0.411	0.000

□

LGMSB TO PSSBREV0

09/13/2010 LGMSBT0 PSSB

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AutoPIPE Plus 9.2.1

RESULT PAGE 6

D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
A05 N	Gravity{1}	-0.036	-0.015	2.851	-0.026	0.056	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-4.522	-2.114	28.824	-0.376	0.805	0.000
	GRT1{1}	-4.559	-2.130	31.675	-0.402	0.860	0.000
A05 F	Gravity{1}	0.003	0.003	2.806	-0.034	0.072	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-3.867	-1.808	28.309	-0.411	0.881	0.000
	GRT1{1}	-3.864	-1.805	31.115	-0.445	0.953	0.000
A11	Gravity{1}	0.003	0.002	0.016	-0.003	0.007	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.496	-0.231	9.118	-0.030	0.064	0.000
	GRT1{1}	-0.492	-0.230	9.134	-0.033	0.070	0.000
A07	Gravity{1}	0.003	0.002	0.008	-0.002	0.004	0.000

LGMSB TO PSSBREV0.OUT

	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.292	-0.136	9.037	-0.022	0.046	0.000
	GRT1{1}	-0.289	-0.135	9.045	-0.024	0.051	0.000
A08 N	Gravity{1}	0.003	0.002	0.004	-0.002	0.004	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	-0.166	-0.077	8.996	-0.020	0.043	0.000
	GRT1{1}	-0.162	-0.076	9.000	-0.022	0.048	0.000
A08 F	Gravity{1}	0.001	0.000	0.000	0.000	0.001	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.009	0.004	8.725	-0.004	0.009	0.000
	GRT1{1}	0.010	0.005	8.725	-0.004	0.009	0.000
A09	Gravity{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Hydrotest{1}	0.000	0.000	0.000	0.000	0.000	0.000
	Thermal 1{1}	0.000	0.000	8.360	0.000	0.000	0.000
	GRT1{1}	0.000	0.000	8.360	0.000	0.000	0.000

*** Segment A end ***

0

LGMSB TO PSSBREV0

09/13/2010 LGMSBT0 PSSB

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AutoPIPE Plus 9.2.1 RESULT PAGE 7

S U P P O R T F O R C E S

(Force - N , Moment - N.m , Tran. - mm , Rot. - deg)

Point/	Connect/	Load	L O C A L			G L O B A L		
Supp. ID	Type	Combination	Dirn	Force	Deform	Dirn	Force	Deform

Tag No.: <None>								
A12		Gravity{1}	up	13	0.000	X	13	0.000
A12 1	Guide		right	6	0.000	Y	6	0.000
Stiff	:RIGID		forw		2.816	Z		2.816
		Hydrotest{1}	down		0.000	X		0.000
			left		0.000	Y		0.000
			back		0.000	Z		0.000
		Thermal 1{1}	down	53	0.000	X	-53	0.000
			left	25	0.000	Y	-25	0.000
			forw		8.258	Z		8.258
		GRT1{1}	down	39	0.000	X	-39	0.000
			left	19	0.000	Y	-19	0.000

		LGMSB TO PSSBREV0.OUT					
		forw		11.074	Z		11.074
Tag No.: <None>							
A13	Gravity{1}	down	2	0.000	X	-2	0.000
A13 2	Guide	left	1	0.000	Y	-1	0.000
Stiff	:RIGID	forw		2.831	Z		2.831
	Hydrotest{1}	down		0.000	X		0.000
		left		0.000	Y		0.000
		back		0.000	Z		0.000
	Thermal 1{1}	down	9	0.000	X	-9	0.000
		left	4	0.000	Y	-4	0.000
		forw		20.074	Z		20.074
	GRT1{1}	down	11	0.000	X	-11	0.000
		left	5	0.000	Y	-5	0.000
		forw		22.905	Z		22.905
Tag No.: <None>							
A05 F	Gravity{1}	down	283	-2.806	X		0.003
A05 F1	Spr. Hgr				Y		0.003
Stiff	: 1				Z	-283	2.806
Preload :	286 Hydrotest{1}	down		0.000	X		0.000
					Y		0.000
					Z		0.000
	Thermal 1{1}	up	35	28.309	X		-3.867
					Y		-1.808
					Z	35	28.309
	GRT1{1}	down	248	-31.115	X		-3.864
					Y		-1.805
					Z	-248	31.115

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LGMSB TO PSSBREV0

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R E S T R A I N T R E A C T I O N S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result

A00	Anchor Tag No.: TOPSSB	-13	-6	-45	47	0	1	0	1
	Gravity{1}								

LGMSB TO PSSBREV0.OUT

	Hydrotest{1}		0	0	0	0	0	0	0	
	Thermal 1{1}		52	24	-100	115	9	-17	0	19
	GRT1{1}		39	19	-145	152	8	-16	0	18
A12	Guide Tag No.: <None>	[ID: A12 1]								
	Gravity{1}	13 6	0	15	0	0	0	0	0	0
	Hydrotest{1}		0	0	0	0	0	0	0	0
	Thermal 1{1}		-53	-25	0	58	0	0	0	0
	GRT1{1}		-39	-19	0	44	0	0	0	0
A13	Guide Tag No.: <None>	[ID: A13 2]								
	Gravity{1}	-2 -1	0	2	0	0	0	0	0	0
	Hydrotest{1}		0	0	0	0	0	0	0	0
	Thermal 1{1}		-9	-4	0	10	0	0	0	0
	GRT1{1}		-11	-5	0	12	0	0	0	0
A05 F	Spr. Hgr Tag No.: <None>	[ID: A05 F1]								
	Gravity{1}	0 0	-283	283	0	0	0	0	0	0
	Hydrotest{1}		0	0	0	0	0	0	0	0
	Thermal 1{1}		0	0	35	35	0	0	0	0
	GRT1{1}		0	0	-248	248	0	0	0	0
A09	Anchor Tag No.: TOLGMSB									
	Gravity{1}		1	0	-65	65	-3	6	0	7
	Hydrotest{1}		0	0	0	0	0	0	0	0
	Thermal 1{1}		10	4	65	66	-31	67	0	74
	GRT1{1}		11	5	1	12	-34	73	0	81

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LGMSB TO PSSBREV0

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AutoPIPE Plus 9.2.1 RESULT PAGE 9

G L O B A L F O R C E S & M O M E N T S

Point	Load	FORCES (N)				MOMENTS (N.m)			
name	combination	X	Y	Z	Result	X	Y	Z	Result
-----		-----				-----			
*** Segment A begin ***									
A00	Gravity{1}	13	6	14	19	0	-1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-52	-24	100	115	-9	17	0	19
	GRT1{1}	-39	-19	114	122	-8	16	0	18
A01	Gravity{1}	13	6	2	14	1	-2	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0

		LGMSB TO PSSBREV0.OUT							
	Thermal 1{1}	-52	-24	100	115	-9	19	0	21
	GRT1{1}	-39	-19	103	111	-8	17	0	19
A10	Gravity{1}	13	6	-2	14	1	-3	0	3
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-52	-24	100	115	-10	20	0	23
	GRT1{1}	-39	-19	98	107	-9	17	0	19
A03 N	Gravity{1}	13	6	-14	20	4	-8	0	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-52	-24	100	115	-14	30	0	33
	GRT1{1}	-39	-19	86	97	-10	22	0	25
A03 F	Gravity{1}	13	6	-15	20	3	-7	0	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-52	-24	100	115	-13	28	0	31
	GRT1{1}	-39	-19	85	96	-9	21	0	23
A04 N	Gravity{1}	13	6	-34	37	-4	10	0	11
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-52	-24	100	115	20	-42	0	46
	GRT1{1}	-39	-19	66	79	15	-32	0	35
A04 F	Gravity{1}	13	6	-36	38	-5	10	0	11
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-52	-24	100	115	20	-43	0	48
	GRT1{1}	-39	-19	65	78	15	-33	0	36
A12 -	Gravity{1}	13	6	-59	61	1	-2	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	-52	-24	100	115	-3	7	0	8
	GRT1{1}	-39	-19	41	60	-2	5	0	6
A12 +	Gravity{1}	-1	0	-59	59	1	-2	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	0	100	100	-3	7	0	8
	GRT1{1}	0	0	41	41	-2	5	0	6
OR14 -	Gravity{1}	-1	0	-84	84	1	-1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	0	100	100	-3	6	0	7
	GRT1{1}	0	0	16	16	-2	5	0	6

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 LGMSB TO PSSBREV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
OR14 +	Gravity{1}	-1	0	-102	102	1	-1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	0	100	100	-3	6	0	7
	GRT1{1}	0	0	-2	2	-2	5	0	6
A13 -	Gravity{1}	-1	0	-176	176	0	1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	1	0	100	100	-2	4	0	5
	GRT1{1}	0	0	-76	76	-2	5	0	6
A13 +	Gravity{1}	1	0	-176	176	0	1	0	1
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	10	4	100	101	-2	4	0	5
	GRT1{1}	11	5	-76	77	-2	5	0	6
A05 N	Gravity{1}	1	0	-250	250	1	-2	0	2
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	10	4	100	101	11	-24	0	27
	GRT1{1}	11	5	-150	150	12	-26	0	29
A05 F-	Gravity{1}	1	0	-251	251	5	-11	0	12
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	10	4	100	101	10	-21	0	24
	GRT1{1}	11	5	-151	152	15	-32	0	35
A05 F+	Gravity{1}	1	0	31	31	5	-11	0	12
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	10	4	65	66	10	-21	0	24
	GRT1{1}	11	5	97	97	15	-32	0	35
A11	Gravity{1}	1	0	0	1	-3	7	0	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	10	4	65	66	-25	53	0	59
	GRT1{1}	11	5	65	66	-28	61	0	67
A07	Gravity{1}	1	0	-5	5	-3	7	0	8
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	10	4	65	66	-27	58	0	64
	GRT1{1}	11	5	61	62	-30	65	0	72

LGMSB TO PSSBREV0.OUT

A08 N	Gravity{1}	1	0	-9	9	-3	7	0	7
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	10	4	65	66	-28	61	0	67
	GRT1{1}	11	5	56	57	-32	68	0	75
A08 F	Gravity{1}	1	0	-21	21	-3	6	0	6
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	10	4	65	66	-31	66	0	73
	GRT1{1}	11	5	44	46	-34	72	0	79

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LGMSB TO PSSBREV0

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (N.m)			
		X	Y	Z	Result	X	Y	Z	Result
A09	Gravity{1}	1	0	-33	33	-3	6	0	7
	Hydrotest{1}	0	0	0	0	0	0	0	0
	Thermal 1{1}	10	4	65	66	-31	67	0	74
	GRT1{1}	11	5	32	34	-34	73	0	81

*** Segment A end ***

□

LGMSB TO PSSBREV0

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point name	Load combination	Hoop Stress	Longitudinal Max	Min	Shear Stress	Principal		Total Stress	Loc
						Max	Min		
A00	SIFI= 1.20 SIF0= 1.20								
	Gravity{1}	0	0	0	0	0	0	0	2
	Hydrotest{1}	16	7	7	0	16	7	14	270
	Thermal 1{1}	0	2	-3	0	2	-3	3	180
	GRT1{1}	0	2	-3	0	2	-3	3	180

*** Segment A begin ***

LGMSB TO PSSBREV0.OUT

A01	SIFI= 2.00	SIFO= 2.00								
	Gravity{1}		0	1	-1	0	1	-1	1	179
	Hydrotest{1}		16	7	7	0	16	7	14	270
	Thermal 1{1}		0	4	-5	0	4	-5	5	179
	GRT1{1}		0	4	-4	0	4	-4	4	179
A10	SIFI= 2.00	SIFO= 2.00								
	Gravity{1}		0	10	-10	0	10	-10	10	178
	Hydrotest{1}		8	3	3	0	8	3	7	270
	Thermal 1{1}		0	67	-69	0	67	-69	69	179
	GRT1{1}		0	57	-59	0	57	-59	59	179
A03 N-	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	13	-12	0	13	-12	13	177
	Hydrotest{1}		8	3	3	0	8	3	7	270
	Thermal 1{1}		0	49	-50	0	49	-50	50	177
	GRT1{1}		0	36	-37	0	36	-37	37	177
A03 N+	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	13	-12	0	13	-12	13	0
	Hydrotest{1}		8	3	3	0	8	3	7	270
	Thermal 1{1}		0	49	-50	0	49	-50	50	0
	GRT1{1}		0	36	-37	0	36	-37	37	360
A03 F-	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	12	-12	0	12	-12	12	1
	Hydrotest{1}		8	3	3	0	8	3	7	270
	Thermal 1{1}		0	46	-47	0	46	-47	47	1
	GRT1{1}		0	34	-34	0	34	-34	34	1
A03 F+	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	12	-12	0	12	-12	12	180
	Hydrotest{1}		8	3	3	0	8	3	7	270
	Thermal 1{1}		0	46	-47	0	46	-47	47	180
	GRT1{1}		0	34	-34	0	34	-34	34	180
A04 N-	SIFI= 1.00	SIFO= 1.00								
	Gravity{1}		0	16	-16	0	16	-16	16	0
	Hydrotest{1}		8	3	3	0	8	3	7	270
	Thermal 1{1}		0	69	-69	0	69	-69	69	0
	GRT1{1}		0	53	-53	0	53	-53	53	0

A04 N+ SIFI= 1.00 SIFO= 1.00

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LGMSB TO PSSBREV0

09/13/2010 LGMSBTO PSSB

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RESULT PAGE 13

GENERAL PIPE STRESS REPORT

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LGMSB TO PSSBREV0.OUT

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----	-----		-----	-----	-----	-----	-----	-----	-----	---
A04 F-	Gravity{1}		0	16	-16	0	16	-16	16	0
	Hydrotest{1}		8	3	3	0	8	3	7	270
	Thermal 1{1}		0	69	-69	0	69	-69	69	0
	GRT1{1}		0	53	-53	0	53	-53	53	0
	SIFI= 1.00 Gravity{1}		0	17	-17	0	17	-17	17	0
	Hydrotest{1}		8	3	3	0	8	3	7	270
	Thermal 1{1}		0	71	-72	0	71	-72	72	0
	GRT1{1}		0	54	-55	0	54	-55	55	0
A04 F+	SIFI= 1.00 Gravity{1}		0	17	-17	0	17	-17	17	25
	Hydrotest{1}		8	3	3	0	8	3	7	270
	Thermal 1{1}		0	71	-72	0	71	-72	72	25
	GRT1{1}		0	54	-55	0	54	-55	55	25
A12	SIFI= 1.00 Gravity{1}		0	3	-3	0	3	-3	3	205
	Hydrotest{1}		8	3	3	0	8	3	7	270
	Thermal 1{1}		0	11	-12	0	11	-12	12	206
	GRT1{1}		0	8	-9	0	8	-9	9	206
OR14	SIFI= 1.20 Gravity{1}		0	3	-2	0	3	-2	3	205
	Hydrotest{1}		8	3	3	0	8	3	7	270
	Thermal 1{1}		0	12	-13	0	12	-13	13	205
	GRT1{1}		0	10	-10	0	10	-10	10	205
A13	SIFI= 1.00 Gravity{1}		0	3	0	0	3	0	3	25
	Hydrotest{1}		8	3	3	0	8	3	7	270
	Thermal 1{1}		0	6	-7	0	6	-7	7	205
	GRT1{1}		0	9	-8	0	9	-8	9	25
A05 N-	SIFI= 1.00 Gravity{1}		0	5	-2	0	5	-2	5	205
	Hydrotest{1}		8	3	3	0	8	3	7	270
	Thermal 1{1}		0	40	-41	0	40	-41	41	25
	GRT1{1}		0	44	-43	0	44	-43	44	205
A05 N+	SIFI= 1.00 Gravity{1}		0	5	-2	0	5	-2	5	180
	Hydrotest{1}		8	3	3	0	8	3	7	270
	Thermal 1{1}		0	40	-41	0	40	-41	41	360

GRT1{1}		LGMSB TO PSSBREV0.OUT	0	44	-43	0	44	-43	44	180
A05 F-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	17	-18	0	17	-18	18	0
	Hydrotest{1}		8	3	3	0	8	3	7	270
	Thermal 1{1}		0	35	-35	0	35	-35	35	0
	GRT1{1}		0	53	-53	0	53	-53	53	0

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LGMSB TO PSSBREV0

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G E N E R A L P I P E S T R E S S R E P O R T

(Stress in N/mm2)

Point	Load		Hoop	Longitudinal		Shear	Principal		Total	
name	combination		Stress	Max	Min	Stress	Max	Min	Stress	Loc
-----			-----	-----	-----	-----	-----	-----	-----	---
A05 F+	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	17	-18	0	17	-18	18	180
	Hydrotest{1}		8	3	3	0	8	3	7	270
	Thermal 1{1}		0	35	-35	0	35	-35	35	180
	GRT1{1}		0	53	-53	0	53	-53	53	180
A11	SIFI= 2.00 Gravity{1}	SIFO= 2.00	0	24	-24	0	24	-24	24	360
	Hydrotest{1}		8	3	3	0	8	3	7	270
	Thermal 1{1}		0	177	-177	0	177	-177	177	0
	GRT1{1}		0	201	-201	0	201	-201	201	0
A07	SIFI= 2.00 Gravity{1}	SIFO= 2.00	0	2	-2	0	2	-2	2	360
	Hydrotest{1}		16	7	7	0	16	7	14	270
	Thermal 1{1}		0	14	-14	0	14	-14	14	0
	GRT1{1}		0	16	-16	0	16	-16	16	0
A08 N-	SIFI= 1.00 Gravity{1}	SIFO= 1.00	0	1	-1	0	1	-1	1	360
	Hydrotest{1}		16	7	7	0	16	7	14	270
	Thermal 1{1}		0	7	-7	0	7	-7	7	0
	GRT1{1}		0	8	-8	0	8	-8	8	0
A08 N+	SIFI= 1.73 Gravity{1}	SIFO= 1.73	0	1	-1	0	1	-1	1	180
	Hydrotest{1}		16	7	7	0	16	7	14	270
	Thermal 1{1}		0	13	-13	0	13	-13	13	180
	GRT1{1}		0	14	-14	0	14	-14	14	180

LGMSB TO PSSBREV0.OUT									
A08 F-	SIFI= 1.73	SIFO= 1.73	0	1	-1	0	1	-1	1 180
	Gravity{1}								
	Hydrotest{1}		16	7	7	0	16	7	14 270
	Thermal 1{1}		0	14	-14	0	14	-14	14 360
	GRT1{1}		0	15	-15	0	15	-15	15 360
A08 F+	SIFI= 1.00	SIFO= 1.00	0	1	-1	0	1	-1	1 335
	Gravity{1}								
	Hydrotest{1}		16	7	7	0	16	7	14 270
	Thermal 1{1}		0	8	-8	0	8	-8	8 155
	GRT1{1}		0	9	-9	0	9	-9	9 155
A09	SIFI= 1.20	SIFO= 1.20	0	1	-1	0	1	-1	1 335
	Gravity{1}								
	Hydrotest{1}		16	7	7	0	16	7	14 270
	Thermal 1{1}		0	10	-10	0	10	-10	10 155
	GRT1{1}		0	11	-11	0	11	-11	11 155

*** Segment A end ***

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		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

A11	Max P{1}					HOOP	6	104	
	GR + Max P{1}	8			2.00	2-1 SUST	21	104	
	TR:Amb to T1{1}			59	2.00	4-1 DISP	177	217	
	Amb to T1{1}			59	2.00	4-1 DISP	177	217	
	Hydrotest{1}	0	0		2.00	3-1 OCC	4	219	
	Sus.+T1{1}				2.00	5-1 CRUP	65	<NOTE 1>	
A04 F+	Max P{1}					HOOP	6	104	
	GR + Max P{1}	11			1.00	2-1 SUST	20	104	
	TR:Amb to T1{1}			48	1.00	4-1 DISP	71	217	
	Amb to T1{1}			48	1.00	4-1 DISP	71	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	4	219	
	Sus.+T1{1}				1.00	5-1 CRUP	44	<NOTE 1>	
A04 F-	Max P{1}					HOOP	6	104	
	GR + Max P{1}	11			1.00	2-1 SUST	20	104	
	TR:Amb to T1{1}			48	1.00	4-1 DISP	71	217	

LGMSB TO PSSBREV0.OUT

Amb to T1{1}			48	1.00	4-1 DISP	71	217
Hydrotest{1}	0	0		1.00	3-1 OCC	4	219
Sus.+T1{1}				1.00	5-1 CRUP	44	<NOTE 1>
A04 N+ Max P{1}					HOOP	6	104
GR + Max P{1}	11			1.00	2-1 SUST	19	104
TR:Amb to T1{1}			46	1.00	4-1 DISP	69	217
Amb to T1{1}			46	1.00	4-1 DISP	69	217
Hydrotest{1}	0	0		1.00	3-1 OCC	4	219
Sus.+T1{1}				1.00	5-1 CRUP	42	<NOTE 1>
A04 N- Max P{1}					HOOP	6	104
GR + Max P{1}	11			1.00	2-1 SUST	19	104
TR:Amb to T1{1}			46	1.00	4-1 DISP	69	217
Amb to T1{1}			46	1.00	4-1 DISP	69	217
Hydrotest{1}	0	0		1.00	3-1 OCC	4	219
Sus.+T1{1}				1.00	5-1 CRUP	42	<NOTE 1>
A10 Max P{1}					HOOP	6	104
GR + Max P{1}	3			2.00	2-1 SUST	11	104
TR:Amb to T1{1}			23	2.00	4-1 DISP	68	217
Amb to T1{1}			23	2.00	4-1 DISP	68	217
Hydrotest{1}	0	0		2.00	3-1 OCC	4	219
Sus.+T1{1}				2.00	5-1 CRUP	28	<NOTE 1>
A03 N+ Max P{1}					HOOP	6	104
GR + Max P{1}	8			1.00	2-1 SUST	15	104
TR:Amb to T1{1}			33	1.00	4-1 DISP	49	217
Amb to T1{1}			33	1.00	4-1 DISP	49	217
Hydrotest{1}	0	0		1.00	3-1 OCC	4	219
Sus.+T1{1}				1.00	5-1 CRUP	32	<NOTE 1>

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(Moments in N.m) (Stress in N/mm2)

Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress Allow.
A03 N- Max P{1}						HOOP	6 104
GR + Max P{1}		8			1.00	2-1 SUST	15 104

LGMSB TO PSSBREV0.OUT

TR:Amb to T1{1}			33	1.00	4-1 DISP	49	217
Amb to T1{1}			33	1.00	4-1 DISP	49	217
Hydrotest{1}	0	0		1.00	3-1 OCC	4	219
Sus.+T1{1}				1.00	5-1 CRUP	32	<NOTE 1>
A03 F+ Max P{1}					HOOP	6	104
GR + Max P{1}	8			1.00	2-1 SUST	15	104
TR:Amb to T1{1}			31	1.00	4-1 DISP	46	217
Amb to T1{1}			31	1.00	4-1 DISP	46	217
Hydrotest{1}	0	0		1.00	3-1 OCC	4	219
Sus.+T1{1}				1.00	5-1 CRUP	31	<NOTE 1>
A03 F- Max P{1}					HOOP	6	104
GR + Max P{1}	8			1.00	2-1 SUST	15	104
TR:Amb to T1{1}			31	1.00	4-1 DISP	46	217
Amb to T1{1}			31	1.00	4-1 DISP	46	217
Hydrotest{1}	0	0		1.00	3-1 OCC	4	219
Sus.+T1{1}				1.00	5-1 CRUP	31	<NOTE 1>
A05 N+ Max P{1}					HOOP	6	104
GR + Max P{1}	2			1.00	2-1 SUST	6	104
TR:Amb to T1{1}			27	1.00	4-1 DISP	40	217
Amb to T1{1}			27	1.00	4-1 DISP	40	217
Hydrotest{1}	0	0		1.00	3-1 OCC	4	219
Sus.+T1{1}				1.00	5-1 CRUP	19	<NOTE 1>
A05 N- Max P{1}					HOOP	6	104
GR + Max P{1}	2			1.00	2-1 SUST	6	104
TR:Amb to T1{1}			27	1.00	4-1 DISP	40	217
Amb to T1{1}			27	1.00	4-1 DISP	40	217
Hydrotest{1}	0	0		1.00	3-1 OCC	4	219
Sus.+T1{1}				1.00	5-1 CRUP	19	<NOTE 1>
A05 F+ Max P{1}					HOOP	6	104
GR + Max P{1}	12			1.00	2-1 SUST	20	104
TR:Amb to T1{1}			24	1.00	4-1 DISP	35	217
Amb to T1{1}			24	1.00	4-1 DISP	35	217
Hydrotest{1}	0	0		1.00	3-1 OCC	4	219
Sus.+T1{1}				1.00	5-1 CRUP	32	<NOTE 1>
A05 F- Max P{1}					HOOP	6	104
GR + Max P{1}	12			1.00	2-1 SUST	20	104
TR:Amb to T1{1}			24	1.00	4-1 DISP	35	217
Amb to T1{1}			24	1.00	4-1 DISP	35	217
Hydrotest{1}	0	0		1.00	3-1 OCC	4	219

Sus.+T1{1}

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1.00

5-1 CRUP

32 <NOTE 1>

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LGMSB TO PSSBREV0

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Point name	Load combination	(Moments in N.m)			(Stress in N/mm2)			Eq. Load no. type	Code Stress	Code Allow.
		Ma (Sus.)	Mb (Occ.)	Mc (Exp.)	S.I.F					
A07	Max P{1}							HOOP	12	104
	GR + Max P{1}	8			2.00		2-1 SUST		7	104
	TR:Amb to T1{1}			64	2.00		4-1 DISP		14	217
	Amb to T1{1}			64	2.00		4-1 DISP		14	217
	Hydrotest{1}	0	0		2.00		3-1 OCC		9	219
	Sus.+T1{1}				2.00		5-1 CRUP		11	<NOTE 1>
A08 F-	Max P{1}							HOOP	12	104
	GR + Max P{1}	6			1.73		2-1 SUST		7	104
	TR:Amb to T1{1}			73	1.73		4-1 DISP		14	217
	Amb to T1{1}			73	1.73		4-1 DISP		14	217
	Hydrotest{1}	0	0		1.73		3-1 OCC		9	219
	Sus.+T1{1}				1.73		5-1 CRUP		10	<NOTE 1>
A08 N+	Max P{1}							HOOP	12	104
	GR + Max P{1}	7			1.73		2-1 SUST		7	104
	TR:Amb to T1{1}			67	1.73		4-1 DISP		13	217
	Amb to T1{1}			67	1.73		4-1 DISP		13	217
	Hydrotest{1}	0	0		1.73		3-1 OCC		9	219
	Sus.+T1{1}				1.73		5-1 CRUP		10	<NOTE 1>
OR14 +	Max P{1}							HOOP	6	104
	GR + Max P{1}	1			1.20		2-1 SUST		5	104
	TR:Amb to T1{1}			7	1.20		4-1 DISP		12	217
	Amb to T1{1}			7	1.20		4-1 DISP		12	217
	Hydrotest{1}	0	0		1.20		3-1 OCC		4	219
	Sus.+T1{1}				1.20		5-1 CRUP		8	<NOTE 1>
OR14 -	Max P{1}							HOOP	6	104
	GR + Max P{1}	1			1.20		2-1 SUST		5	104
	TR:Amb to T1{1}			7	1.20		4-1 DISP		12	217
	Amb to T1{1}			7	1.20		4-1 DISP		12	217

		LGMSB TO PSSBREV0.OUT					
	Hydrotest{1}	0	0	1.20	3-1 OCC	4	219
	Sus.+T1{1}			1.20	5-1 CRUP	8	<NOTE 1>
A09	Max P{1}				HOOP	12	104
	GR + Max P{1}	7		1.20	2-1 SUST	6	104
	TR:Amb to T1{1}		74	1.20	4-1 DISP	10	217
	Amb to T1{1}		74	1.20	4-1 DISP	10	217
	Hydrotest{1}	0	0	1.20	3-1 OCC	9	219
	Sus.+T1{1}			1.20	5-1 CRUP	9	<NOTE 1>
A08 F+	Max P{1}				HOOP	12	104
	GR + Max P{1}	6		1.00	2-1 SUST	6	104
	TR:Amb to T1{1}		73	1.00	4-1 DISP	8	217
	Amb to T1{1}		73	1.00	4-1 DISP	8	217
	Hydrotest{1}	0	0	1.00	3-1 OCC	9	219
	Sus.+T1{1}			1.00	5-1 CRUP	9	<NOTE 1>

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		(Moments in N.m)			(Stress in N/mm2)				
Point	Load	Ma	Mb	Mc	Eq. Load	Code	Code		
name	combination	(Sus.)	(Occ.)	(Exp.)	S.I.F	no. type	Stress	Allow.	

A08 N-	Max P{1}					HOOP	12	104	
	GR + Max P{1}	7			1.00	2-1 SUST	7	104	
	TR:Amb to T1{1}			67	1.00	4-1 DISP	7	217	
	Amb to T1{1}			67	1.00	4-1 DISP	7	217	
	Hydrotest{1}	0	0		1.00	3-1 OCC	9	219	
	Sus.+T1{1}				1.00	5-1 CRUP	9	<NOTE 1>	
A01	Max P{1}					HOOP	12	104	
	GR + Max P{1}	2			2.00	2-1 SUST	6	104	
	TR:Amb to T1{1}			21	2.00	4-1 DISP	5	217	
	Amb to T1{1}			21	2.00	4-1 DISP	5	217	
	Hydrotest{1}	0	0		2.00	3-1 OCC	9	219	
	Sus.+T1{1}				2.00	5-1 CRUP	7	<NOTE 1>	
A00	Max P{1}					HOOP	12	104	
	GR + Max P{1}	1			1.20	2-1 SUST	6	104	
	TR:Amb to T1{1}			19	1.20	4-1 DISP	2	217	

	LGMSB TO PSSBREV0.OUT						
Amb to T1{1}		19	1.20	4-1	DISP	2	217
Hydrotest{1}	0	0	1.20	3-1	OCC	9	219
Sus.+T1{1}			1.20	5-1	CRUP	7	<NOTE 1>
A12 + Max P{1}					HOOP	6	104
GR + Max P{1}	2		1.00	2-1	SUST	6	104
TR:Amb to T1{1}			8	1.00	4-1	DISP	12
Amb to T1{1}			8	1.00	4-1	DISP	12
Hydrotest{1}	0	0	1.00	3-1	OCC	4	219
Sus.+T1{1}			1.00	5-1	CRUP	10	<NOTE 1>
A12 - Max P{1}					HOOP	6	104
GR + Max P{1}	2		1.00	2-1	SUST	6	104
TR:Amb to T1{1}			8	1.00	4-1	DISP	12
Amb to T1{1}			8	1.00	4-1	DISP	12
Hydrotest{1}	0	0	1.00	3-1	OCC	4	219
Sus.+T1{1}			1.00	5-1	CRUP	10	<NOTE 1>
A13 + Max P{1}					HOOP	6	104
GR + Max P{1}	1		1.00	2-1	SUST	4	104
TR:Amb to T1{1}			5	1.00	4-1	DISP	7
Amb to T1{1}			5	1.00	4-1	DISP	7
Hydrotest{1}	0	0	1.00	3-1	OCC	4	219
Sus.+T1{1}			1.00	5-1	CRUP	7	<NOTE 1>
A13 - Max P{1}					HOOP	6	104
GR + Max P{1}	1		1.00	2-1	SUST	4	104
TR:Amb to T1{1}			5	1.00	4-1	DISP	7
Amb to T1{1}			5	1.00	4-1	DISP	7
Hydrotest{1}	0	0	1.00	3-1	OCC	4	219
Sus.+T1{1}			1.00	5-1	CRUP	7	<NOTE 1>

*** NOTE 1: No allowable stress could be calculated. ***
 *** Mechanical properties are outside of temperature range. ***

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 LGMSB TO PSSBREV0

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 R E S U L T S U M M A R Y

Maximum displacements (mm)

Maximum X :	6.136	Point : OR14	Load Comb.: Thermal 1{1}
Maximum Y :	2.907	Point : OR14	Load Comb.: Thermal 1{1}
Maximum Z :	31.675	Point : A05 N	Load Comb.: GRT1{1}
Max. total:	32.072	Point : A05 N	Load Comb.: GRT1{1}

Maximum rotations (deg)

Maximum X :	-0.445	Point : A05 F	Load Comb.: GRT1{1}
Maximum Y :	0.953	Point : A05 F	Load Comb.: GRT1{1}
Maximum Z :	0.003	Point : A03 N	Load Comb.: Thermal 1{1}
Max. total:	1.051	Point : A05 F	Load Comb.: GRT1{1}

Maximum restraint forces (N)

Maximum X :	-53	Point : A12	Load Comb.: Thermal 1{1}
Maximum Y :	-25	Point : A12	Load Comb.: Thermal 1{1}
Maximum Z :	-283	Point : A05 F	Load Comb.: Gravity{1}
Max. total:	283	Point : A05 F	Load Comb.: Gravity{1}

Maximum restraint moments (N.m)

Maximum X :	-34	Point : A09	Load Comb.: GRT1{1}
Maximum Y :	73	Point : A09	Load Comb.: GRT1{1}
Maximum Z :	0	Point : A00	Load Comb.: Thermal 1{1}
Max. total:	81	Point : A09	Load Comb.: GRT1{1}

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R E S U L T S U M M A R Y

Maximum pipe forces (N)

Maximum X :	-52	Point : A01	Load Comb.: Thermal 1{1}
Maximum Y :	-24	Point : A03 N	Load Comb.: Thermal 1{1}
Maximum Z :	-251	Point : A05 F	Load Comb.: Gravity{1}
Max. total:	251	Point : A05 F	Load Comb.: Gravity{1}

Maximum pipe moments (N.m)

LGMSB TO PSSBREV0.OUT

 Maximum X : -34 Point : A09 Load Comb.: GRT1{1}
 Maximum Y : 73 Point : A09 Load Comb.: GRT1{1}
 Maximum Z : 0 Point : A00 Load Comb.: Thermal 1{1}
 Max. total: 81 Point : A09 Load Comb.: GRT1{1}

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 R E S U L T S U M M A R Y

Maximum sustained stress

Point : A11
 Stress N/mm2 : 21
 Allowable N/mm2 : 104
 Ratio : 0.20
 Load combination : GR + Max P{1}

Maximum displacement stress

Point : A11
 Stress N/mm2 : 177
 Allowable N/mm2 : 217
 Ratio : 0.82
 Load combination : Max Range

Maximum occasional stress

Point : A07
 Stress N/mm2 : 9
 Allowable N/mm2 : 219
 Ratio : 0.04
 Load combination : Hydrotest{1}

Maximum hoop stress

Point : A07
 Stress N/mm2 : 12
 Allowable N/mm2 : 104
 Ratio : 0.12
 Load combination : Max P{1}

Maximum creep rupture stress

Point : A11
 Stress N/mm2 : 65
 Allowable N/mm2 : 0 < See Note 1 >
 Ratio : 0.00
 Load combination : Sus.+T1{1}

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R E S U L T S U M M A R Y

Maximum sustained stress ratio

Point : A11
Stress N/mm2 : 21
Allowable N/mm2 : 104
Ratio : 0.20
Load combination : GR + Max P{1}

Maximum displacement stress ratio

Point : A11
Stress N/mm2 : 177
Allowable N/mm2 : 217
Ratio : 0.82
Load combination : Max Range

Maximum occasional stress ratio

Point : A07
Stress N/mm2 : 9
Allowable N/mm2 : 219
Ratio : 0.04
Load combination : Hydrotest{1}

Maximum hoop stress ratio

Point : A07
Stress N/mm2 : 12
Allowable N/mm2 : 104
Ratio : 0.12
Load combination : Max P{1}

Maximum creep rupture stress ratio

Point : A11
Stress N/mm2 : 65
Allowable N/mm2 : 0 < See Note 1 >
Ratio : 0.00
Load combination : Sus.+T1{1}

* * * The system satisfies EN 13480 (2002) code requirements * * *
* * * for the selected options * * *

Warnings:

(1) Maximum creep rupture stress ratio is zero

* * * Note 1: Points were found in this stress category with * * *
* * * mechanical properties outside of temperature range. No * * *

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R E S U L T S U M M A R Y

* * * allowable stress were calculated at these points.

* * *

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ALLEGATO 13. FILES DISEGNI SOLID EDGE**CARTELLA: AA_SE_SPES-3**