COMMITTENTE:

RFI RETE FERROVIARIA ITALIANA
GRUPPO FERROVIE DELLO STATO ITALIANE

DIREZIONE LAVORI:

ITALFERR
GRUPPO FERROVIE DELLO STATO ITALIANE

APPALTATORE:

Ghella — CONSORZIO CFT — ITINERA — PIZZAROTTI FONDATA NEL 1910

PROGETTAZIONE:	PROGETTISTA:	DIRETTORE DELLA PROGETTAZIONE
RAGGRUPPAMENTO TEMPORANEO PROGETTISTI PIZZAROTTI FONDATA NEL 1910 — Sintagma — INTEGRA — AK INGEGNERIA GEOTECNICA	Ing. G.S. KALAMARAS	Ing. PIETRO MAZZOLI Responsabile integrazione fra le varie prestazioni specialistiche

PROGETTO ESECUTIVO

ITINERARIO NAPOLI-BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
I° LOTTO FUNZIONALE CANCELLO-FRASSO TELESINO E VARIANTE ALLA LINEA ROMA-NAPOLI VIA CASSINO NEL COMUNE DI MADDALONI

GALLERIA MONTE AGLIO

USCITA DI EMERGENZA KM 5+503.917
Relazione tecnica e di calcolo

APPALTATORE		SCALA:
Consorzio CFT IL DIRETTORE TECNICO Geom. C. Bianchi 10/10/2018		-

COMMESSA	LOTTO	FASE	ENTE	TIPO DOC.	OPERA/DISCIPLINA	PROGR.	REV.
IF1N	01	E	ZZ	CL	GN0800	001	C

Rev.	Descrizione	Redatto	Data	Verificato	Data	Approvato	Data	Autorizzato Data
A	Emissione	L. Gallo	10/07/2018	G. Kalamaras	10/07/2018	P. Mazzoli	10/07/2018	G. Kalamaras
B	Rev. Istruttoria ITF 29/08/18	L. Gallo	13/09/2018	G. Kalamaras	13/09/2018	P. Mazzoli	13/09/2018	
C	Recepimento istruttoria	L. Gallo	10/10/2018	G. Kalamaras	10/10/2018	P. Mazzoli	10/10/2018	
								10/10/2018

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Indice

ALLEGATI

- ALLEGATO 1: SOLLECITAZIONI E VERIFICHE DEI SOSTEGNI DI PRIMA FASE
- ALLEGATO 2: SOLLECITAZIONI NEL RIVESTIMENTO DEFINITIVO

1 PREMESSA

La presente relazione è redatta nell'ambito del Progetto Esecutivo per il raddoppio della linea Cancello-Benevento sull'itinerario Napoli-Bari e in particolare si riferisce al primo lotto funzionale compreso tra Cancello e la Stazione di Frasso Telesino/Dugenta e variante alla linea Roma-Napoli via Cassino nel comune di Maddaloni.

L'estensione del tracciato in progetto è di circa 16,5Km; nell'ambito di questa tratta è presente la galleria Monte Aglio, una galleria naturale a doppio binario lunga oltre 4Km. Oltre alla galleria principale (di linea), sono previste una serie di gallerie secondarie che ospitano le vie di fuga.

La presente relazione di calcolo illustra il dimensionamento delle sezioni tipologiche di scavo e consolidamento previste nell'ambito dell'innesto della galleria finestra al km 5+503.917 con la galleria di linea. In particolare sono trattati i seguenti aspetti:

- valutazione del comportamento atteso del cavo in corrispondenza dell'innesto;
- modello di calcolo messo a punto per la verifica delle sezioni e relative verifiche geotecniche e strutturali degli elementi che compongono le sezioni tipo.

1.1 RIFERIMENTI

1.1.1 NORMATIVA

Le verifiche statiche e la redazione della presente relazione sono state eseguite in conformità alle seguenti Normative:

- Decreto Ministero Infrastrutture 14 gennaio 2008, "Nuove norme tecniche per le costruzioni".
- Circolare n.617 del 2 febbraio 2009 Ministero Infrastrutture e Trasporti, Istruzioni per l'applicazione delle "Nuove norme tecniche per le costruzioni".

1.1.2 RACCOMANDAZIONI E SPECIFICHE TECNICHE

- Specifica tecnica ITALFERR cod. PPA0002403 rev. A "Linee guida per la progettazione geotecnica delle gallerie naturali".

1.2 CARATTERISTICHE DEI MATERIALI

CALCESTRUZZI

SPRITZ-BETON FIBRORINFORZATO:

- Rispondenza ai requisiti delle norme UNI EN 14487-1 e UNI EN 14487-2
- Classe di resistenza: C20/25
- Resistenza a compressione alle brevi stagionature:
  - a 24 ore $\geq$ 10MPa
  - a 48 ore $\geq$ 13MPa
- Curva granulometrica degli aggregati di tipo continuo con diametro massimo di 6÷8mm
- Classe di consistenza: S5
- Dosaggio in fibre: 35kg/m^3
- Energia assorbita: $\geq$ 500joule (da prove di punzonamento eseguite su piastre in cls fibrorinforzato)

- Fibre di acciaio a basso contenuto in carbonio da filo trafilato (tipo A1), diametro equivalente Ø≤0.7mm e resistenza a trazione f_{yk} = 800MPa (UNI 11037).

CALCESTRUZZO MAGRO:

- Classe R_{ck} = 15MPa (C12/15)
- Classe di esposizione ambientale X0 (UNI EN 206-1)

CALCESTRUZZO STRUTTURALE (CALOTTA E PIEDRITTI ARMATI):

- Classe R_{ck} = 30MPa (C25/30)
- Classe di esposizione ambientale XC2 (UNI EN 206-1)
- Diametro massimo degli aggregati: 32mm
- Rapporto massimo acqua/cemento: 0.60
- Classe di consistenza: S4

CALCESTRUZZO STRUTTURALE (ARCO ROVESCIO E MURETTE):

- Classe R_{ck} = 37MPa (C30/37)
- Classe di esposizione ambientale XA1 (UNI EN 206-1)
- Diametro massimo degli aggregati: 32mm
- Rapporto massimo acqua/cemento: 0.55
- Classe di consistenza: S3-S4

MARCIAPIEDI E GETTO DI REGOLAMENTO:

- Classe R_{ck} = 30MPa (C25/30)
- Classe di esposizione ambientale X0 (UNI EN 206-1)
- Diametro massimo degli aggregati: 32mm
- Rapporto massimo acqua/cemento: 0.60
- Classe di consistenza: S3-S4

ACCIAI

ACCIAIO:

- Armature: B450C controllato in stabilimento
- Centine e profilato: S275 o superiore
- Piastre: S275 o superiore
- Piastrame e travi di collegamento tiranti: S275 o superiore
- Presostegno al contorno: S355 (UNI10025)
- Catene: B450C controllato in stabilimento
- Bulloni piastre di unione centine: classe 8.8 o superiori (UNI3740/74)

COPRIFERRO:

- 5cm (±0.5cm)

INTERVENTI DI CONSOLIDAMENTO IN FASE DI SCAVO

ELEMENTI IN VETRORESINA STRUTTURALI:

- TUBI
  - Diametro esterno/interno: Ø60/40mm ad aderenza migliorata
  - Spessore medio: 10mm
  - Densità: 1.8t/m^3
  - Resistenza a trazione: f_{yk} = 450MPa
  - Resistenza al taglio: τ = 85MPa
  - Contenuto in vetro: 60%, pressione di scoppio: 80bar
  - Diametro di perforazione >100mm
- PROFILATI PIATTI
  - N° 3 piatti 40mm, sp. 6mm ad aderenza migliorata ottenuta o con riporto di sabbia quarzosa polimerizzata a caldo o con impronta negativa sul profilo strutturale, collegati al contorno di un tubo in PE PN10, Ø22mm (valvolato 2v/m per sezione C1bis)
  - Densità: 1.9 t/m^3
  - Resistenza a trazione: f_{yk} = 1000MPa
  - Resistenza al taglio: τ = 140MPa
  - Contenuto in vetro: 60%
  - Diametro di perforazione >100mm

- ELEMENTO DI RINFORZO TIPO P.E.R. GROUND H700
  - Tubi in vetroresina Ø60/40mm corrugati
  - Resistenza a trazione: f_{yk} > 450MPa
  - Resistenza al taglio: τ > 120MPa
  - Modulo elastico, E_v = 20000MPa
  - Guaina tecnica espandibile
  - Massa areica: 350g/m^2
  - Resistenza a trazione: 24kN/m

BULLONI RADIALI IN GALLERIA:

- bulloni a resistenza continua tipo SWELLEX Pm24
- diametro di perforazione: Ø=48mm
- carico di snervamento: $R_y \geq$200kN
- carico di rottura: $R_t \geq$240kN
- piastra di ancoraggio bombata tipo SWELLEX P24C, dimensioni 152x152mm

IMPERMEABILIZZAZIONE E DRENAGGI

DRENAGGI IN AVANZAMENTO IN FASE DI SCAVO:

- Tubi microfessurati in PVC ad alta resistenza (4.5MPa alla trazione), diametro esterno Ø=60mm, sp. 5mm, perforo = 100mm, rivestiti con TNT
- I primi 10.00m da bocca foro dovranno essere ciechi

IMPERMEABILIZZAZIONE IN PVC:

- Teli per impermeabilizzazione: sp. = 2±0.5mm, g = 3g/cm^2
- Strato di tessuto non tessuto di 400gr/m^2 a filo continuo

CORDOLINO IDROESPANSIVO DI TENUTA IDRAULICA (WATER-STOP):

- Composizione miscela in peso: 25% gomma butilica, 75% bentonite di sodio
- Dimensione: 20x25mm
- Peso: 0.780kg/m
- Temperatura di applicazione da -15°C a +50°C
- Stabilità alle soluzioni saline ed aggressive e resistenza all'azione inibente degli ioni calcio e magnesio
- Espansione a contatto con l'acqua: 6 volte il volume iniziale minimo senza perdita di coesione di massa e con reperibilità del fenomeno certificata per numerosi cicli di idratazione/essiccamento

SISTEMA DI IMPERMEABILIZZAZIONE COMPARTIMENTATO:

- Tubi in PVC-P ri-iniettabili tipo MAPEI IDROSTOP MULTI Ø11/19mm
- Teli per impermeabilizzazione in PVC-P: sp. = 2±0.5mm, g = 3g/cm^2
- Strato di tessuto non tessuto di 400gr/m^2 a filo continuo
- Water stop in PVC-P, larghezza 400mm, spessore 4mm con 6 scanalature di altezza 30mm, tipo MAPEPLAN WATERSTOP
- Scatole 90x90x40mm in PVC per terminali tubi ri-iniettabili
- Valvole di iniezione in PVC-P tipo MAPEPLAN, valvola di collaudo/iniezione
- Tubi in PVC Ø6/8mm per iniezione/collaudo valvole

TUBI:

- Tubi micro fessurati in PVC/tubo di scarico cieco in corrispondenza della linea al piede dell'impermeabilizzazione, Øinterno >150mm (con caratteristiche meccaniche conformi alle norme DIN 1187).

2 DESCRIZIONE DELL'OPERA

La galleria di linea denominata "Monte Aglio" ha una lunghezza complessiva di 4196m, di cui 337m in artificiale e 3859m in naturale da scavare con il metodo tradizionale.

La galleria di linea si compone delle seguenti tratte:

Tabella 1: sintesi delle tratte di cui si compone la galleria di linea.

pk inizio	pk fine	lunghezza [m]	galleria	sezione di intradosso
2+780.00	2+881.00	101	artificiale	scatolare
2+881.00	3+000.00	119	artificiale	policentrica
3+000.00	6+859.00	3859	naturale	monocentrica
6+859.00	6+917.00	58	artificiale	policentrica
6+917.00	6+976.00	59	artificiale	scatolare

L'imbocco lato Cancello si trova a pk 2+780.00 nel comune di Maddaloni, mentre l'imbocco lato Benevento si trova a pk 6+976.00 nel comune di Valle di Maddaloni.

L'imbocco lato Cancello si trova a circa 63m s.l.m, mentre l'imbocco lato Benevento si trova a circa 117m s.l.m, con una pendenza di circa il 1.3% in discesa da Benevento verso Cancello.

Le coperture massime previste per la tratta in naturale sono di circa 306m e sono localizzate nella tratta centrale della galleria, mentre agli imbocchi si registrano le coperture minime.

Il progetto prevede 4 uscite di emergenza lungo il tracciato in sotterraneo da utilizzare come vie di fuga per l'evacuazione e l'accesso dei mezzi di soccorso:

- 1° uscita di emergenza a pk 3+777.276 con collegamento diretto verso l'esterno mediante una galleria finestra di lunghezza 330m. Questa tratta di galleria è utilizzata anche in fase costruttiva al fine di creare una nuova finestra di accesso alla galleria di linea ed utilizzare così più fronti di avanzamento per lo scavo della galleria principale.
- 2° uscita di emergenza ubicata a pk 4+777.531 collegata mediante un cunicolo alla terza uscita di emergenza da cui si accede all'esterno mediante una tratta di galleria finestra.
- 3° uscita di emergenza a pk 5+503.917, collegata direttamente all'esterno con una galleria finestra di lunghezza pari a 550m circa. Alla galleria finestra si interseca anche il cunicolo di emergenza che collega la seconda e quarta uscita.
- 4° uscita di emergenza a pk 5+978.240 è collegata alla finestra di uscita mediante il cunicolo di lunghezza complessiva di 1226m posto a circa 22 di distanza dall'asse della galleria principale di linea.

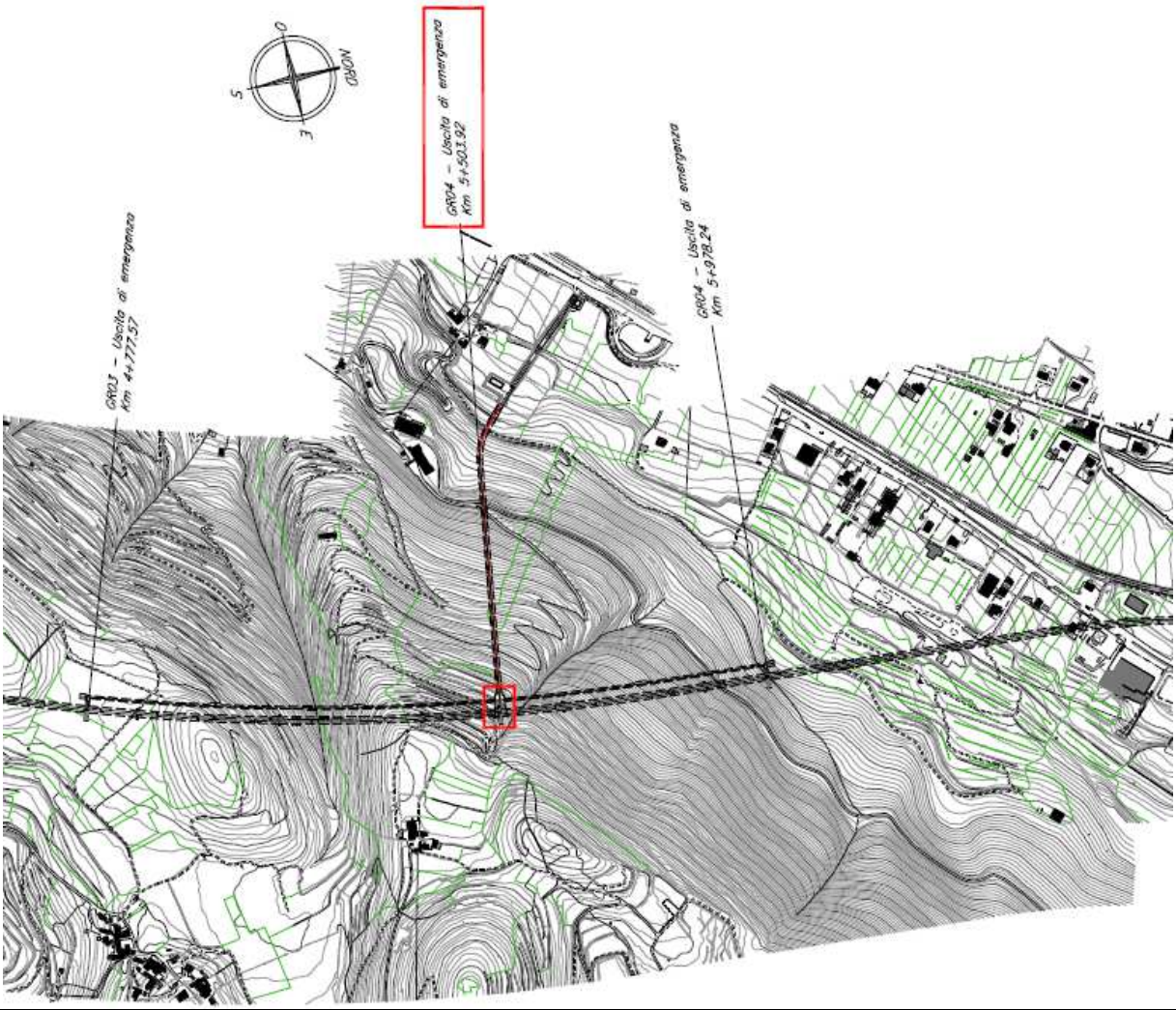


Figura 2.1: Stralcio della planimetria della galleria di linea con indicazione del nodo di innesto alla progressiva 5+503.917.

3 CARATTERIZZAZIONE GEOMECCANICA

Nella zona di innesto alla progressiva 5+503.917 le formazioni geologiche interessate dallo scavo della galleria sono costituite da calcari caratterizzati da buone proprietà meccaniche, con una copertura di 270 m circa. Per maggiori dettagli relativi all'analisi dei dati e alla stima dei parametri geotecnici e geomeccanici si rimanda al documento *Relazione geotecnica e di calcolo Galleria Monte Aglio*.

Nella tabella seguente sono riassunti i parametri geotecnici utilizzati per le analisi.

Tabella 2: parametri geomeccanici dei calcari.

Unità	GSI	H [m]	σ_0 [MPa]	γ [kN/m^3]	c'$_k$ [kPa]	ϕ'_k [°]	$C_{u,k}$ [kPa]	E_m [MPa]
RDO	45	270	6.75	25	880	38	-	6000

dove:
H è la copertura della galleria
σ_0 è la tensione geostatica a livello del cavo
γ è il peso specifico del terreno/roccia
c'$_k$ è la coesione efficace
ϕ'_k è l'angolo di attrito efficace
$C_{u,k}$ è la coesione non drenata
E_m è il modulo dell'ammasso roccioso.

4 FASE DI DIAGNOSI

Per la valutazione del comportamento deformativo in corrispondenza dell'innesto, si è utilizzato il metodo delle linee caratteristiche, che per la posizione specifica individua un comportamento dell'ammasso roccioso allo scavo di tipo elastico (A), poiché risulta σc /1.2 pc con σc = 3.61 / 1.2 x 1.90 MPa. Nella figura seguente è riportato l'andamento della linea caratteristica per l'innesto alla progressiva 5+503.917 (l'eventuale adozione del rinforzo del fronte è funzione delle effettive caratteristiche geomeccaniche dell'ammasso roccioso riscontrate durante lo scavo).

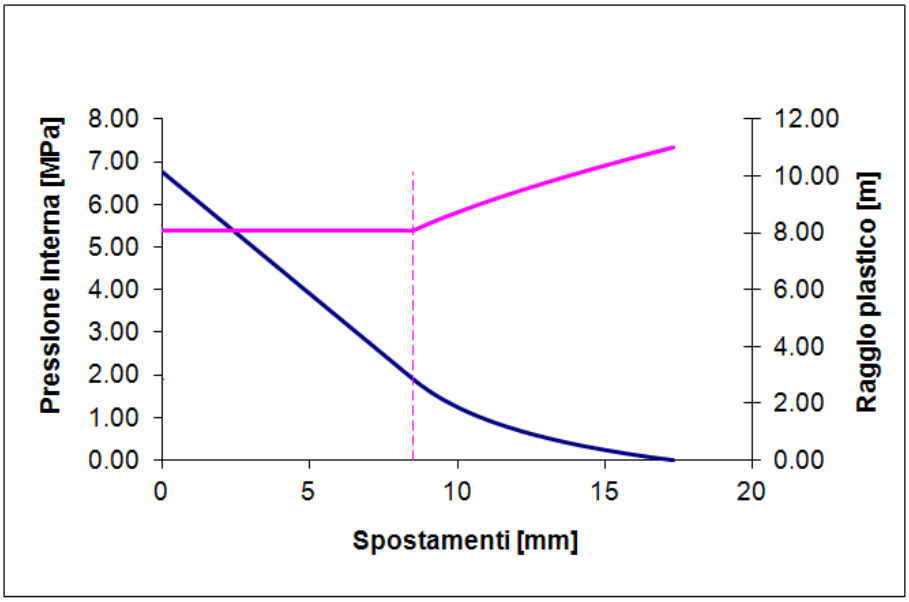


Figura 4.1: Andamento della linea caratteristica e del raggio plastico in corrispondenza dell'innesto alla progressiva 5+503.917.

5 FASE DI TERAPIA

5.1 DESCRIZIONE DEL NODO DI INNESTO

Nelle successive figure sono riportate la planimetria della zona di innesto del camerone di manovra con il cunicolo di emergenza e con la galleria di linea e la camera di esodo negli assi principali, le fasi di installazione e le centine impiegate per la realizzazione del sostegno di prima fase. Per maggiori dettagli si rimanda agli elaborati grafici.

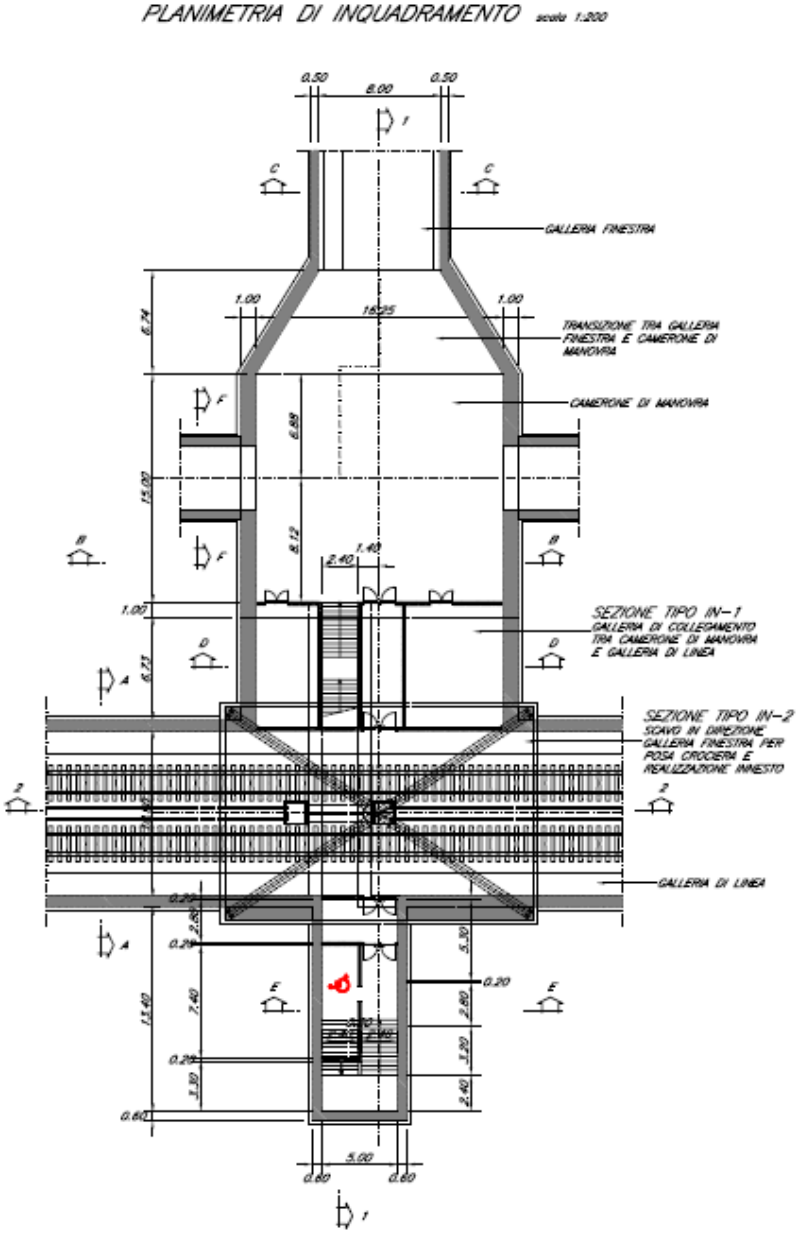


Figura 5.1: planimetria dell'innesto del camerone di manovra con il cunicolo di emergenza, con la galleria di linea e con la camera di esodo alla progressiva 5+503.917.

Nelle figure seguenti si descrivono le fasi di realizzazione dei sostegni di prima fase e dei rivestimenti definitivi delle gallerie che costituiscono l'innesto.

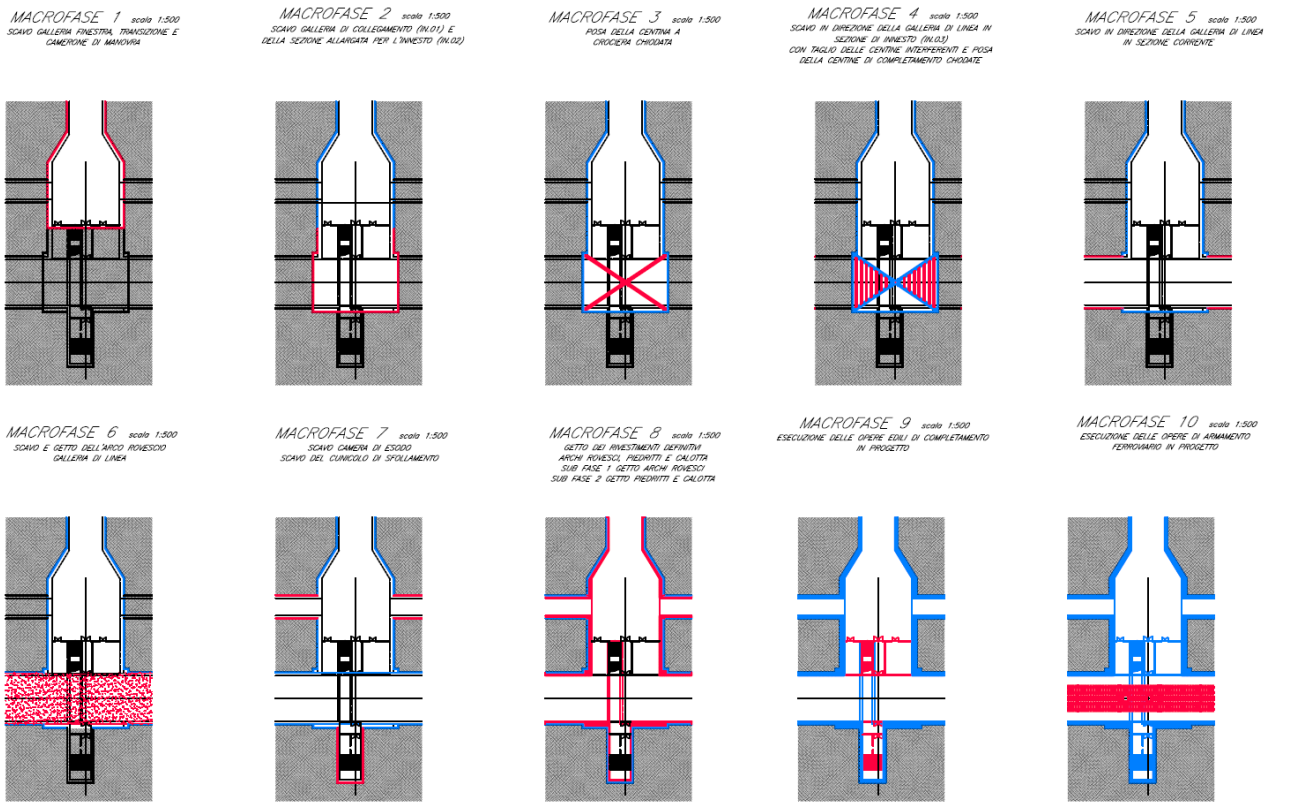


Figura 5.2: zona di innesto del camerone di manovra e della camera di esodo con la galleria di linea alla progressiva 5+503.917 – fasi di realizzazione.

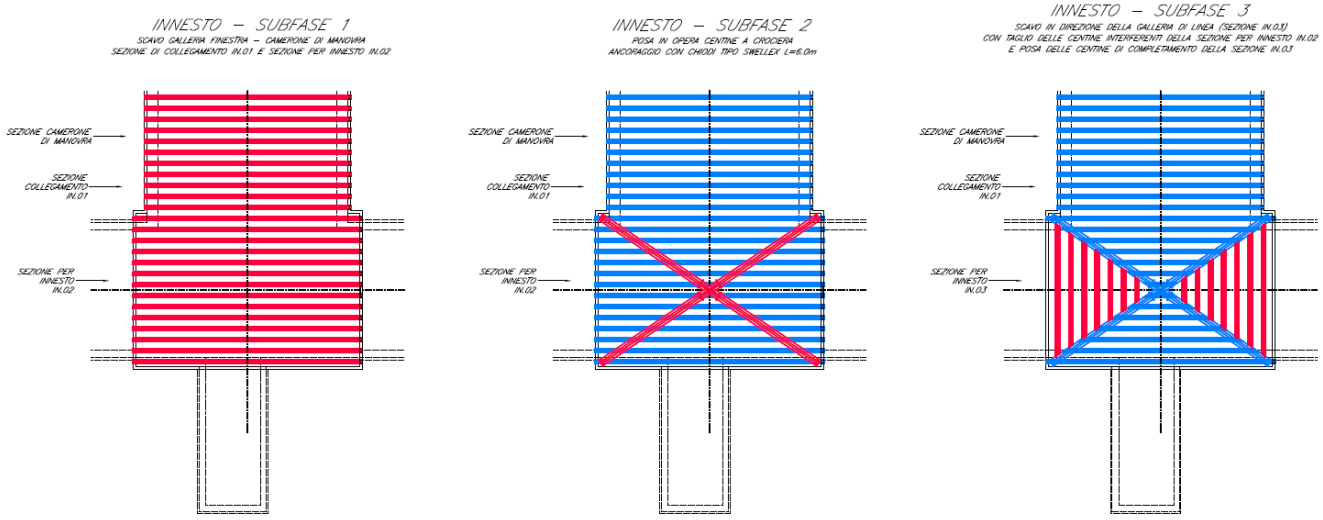


Figura 5.3: dettaglio delle fasi di montaggio del sostegno di prima fase in corrispondenza dell'innesto del camerone di manovra con la galleria di linea alla progressiva 5+503.917.

Nelle figure seguenti si illustrano le centine impiegate per la realizzazione del sostegno di prima fase nella zona di innesto IN02.
Le centine a crociera, costituite da due profili HEB220, sono installate nella zona di innesto tra la galleria di linea e il camerone di manovra. Esse sono ancorate all'ammasso roccioso mediante chiodi tipo "Swellex Pm24" di lunghezza L=4.50m e perforo ∅48 mm. In funzione delle caratteristiche dell'ammasso riscontrate in fase di scavo, la lunghezza dei chiodi potrà variare da 4.5m a 6.0m.

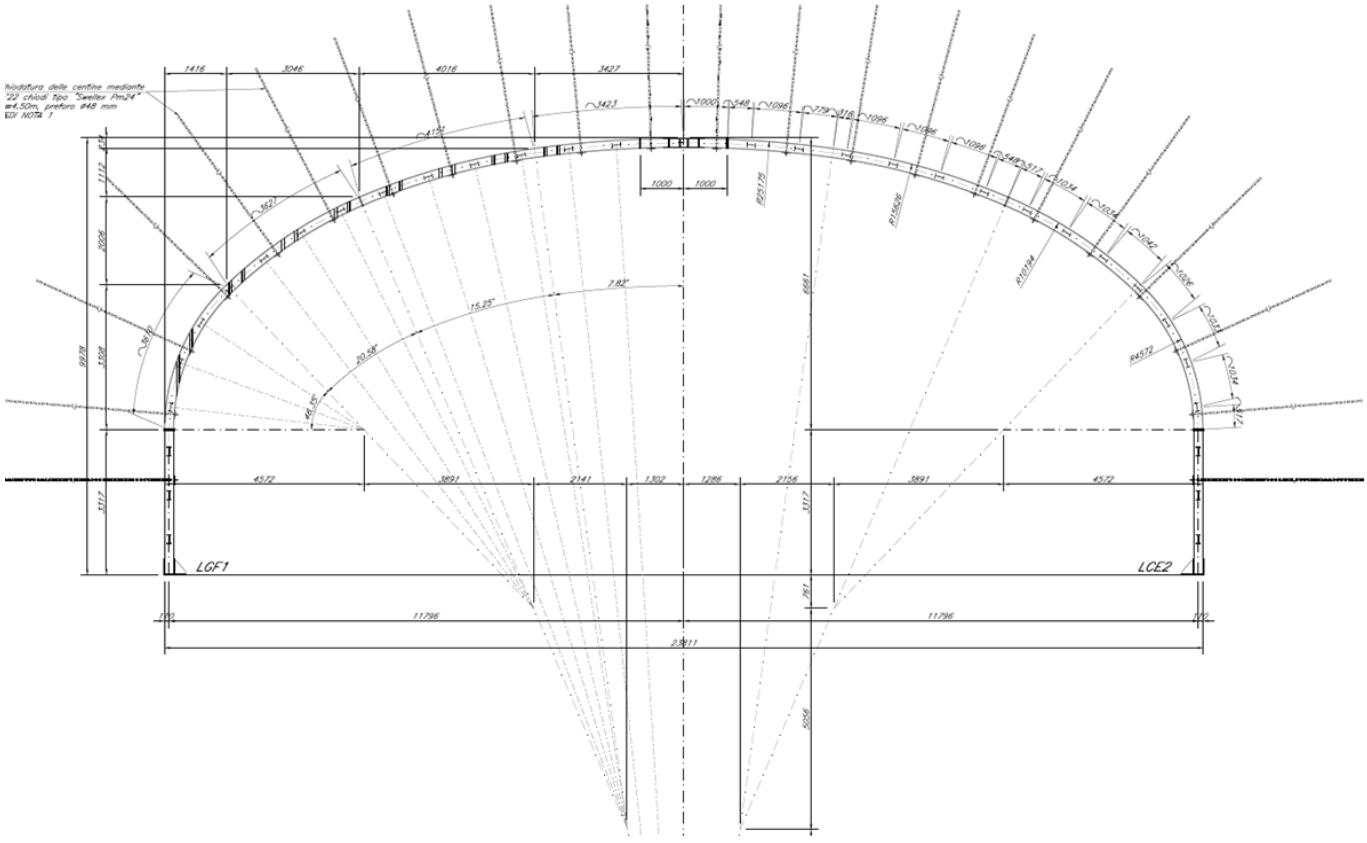


Figura 5.4: centina a crociera CC1 - CC2 utilizzata nella sezione di innesto IN02.

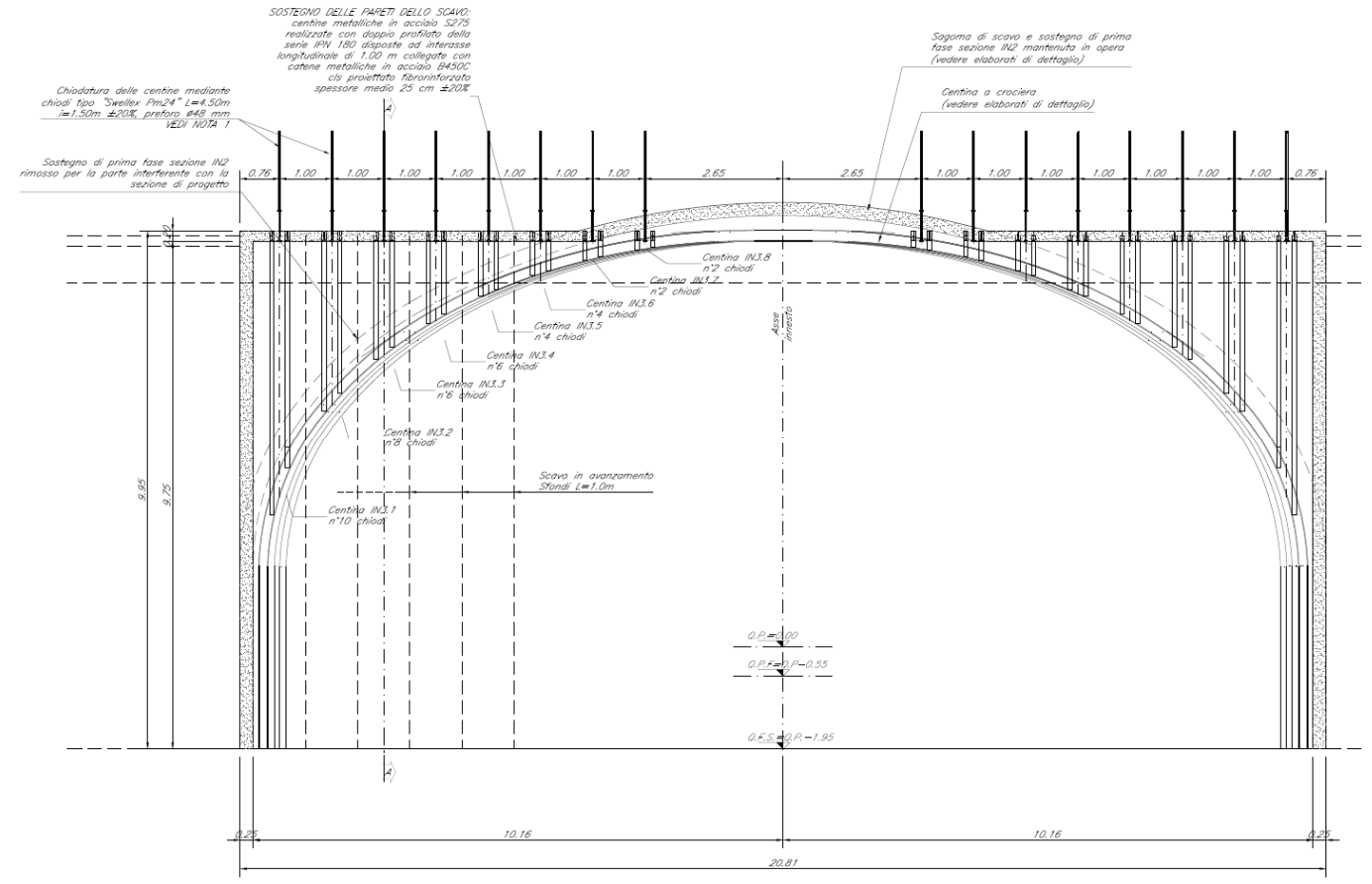


Figura 5.5: centine IN03 installate dopo la rimozione del sostegno di prima fase IN02.

5.2 DESCRIZIONE DELLE SEZIONI TIPO

Lo scavo della galleria di linea in corrispondenza dell'innesto con la camera di esodo e con il camerone di manovra sarà effettuato in tradizionale adottando la sezione tipo A2 e sarà effettuato mediante avanzamenti a piena sezione per singoli sfondi di lunghezza massima pari a 2.4m.

Di seguito sono descritte le caratteristiche principali delle sezioni adottate in corrispondenza dell'innesto.

5.2.1 SEZIONE TIPO A2 CAMERONE DI MANOVRA

La sezione tipo A2 camerone di manovra è una sezione cilindrica che prevede una bullonatura radiale del cavo e una sezione maggiorata rispetto alle sezioni correnti. Gli elementi principali che caratterizzano la sezione tipo camerone di manovra sono:

- scavo a piena sezione per sfondi massimi di 1m;
- per la sezione IN01 si utilizza un sostegno di prima fase costituito da 25cm di cls proiettato fibrorinforzato e centine realizzate con profilati IPN200 doppie a passo 1m;
- per la sezione IN02 si utilizza un sostegno di prima fase costituito da 25cm di cls proiettato fibrorinforzato e centine realizzate con profilati IPN220 doppie a passo 1m;
- chiodatura radiale mediante 21/22 chiodi tipo Swellex® Pm24 disposti in raggiere alternate di lunghezza 4.5m posti ad interasse longitudinale di 1m;

- rivestimento definitivo di spessore 1m in arco rovescio e 1m in calotta; l'arco rovescio dovrà essere gettato a una distanza massima dal fronte di 3 diametri equivalenti mentre il getto della calotta non è vincolato. Il rivestimento in corrispondenza dell'innesto è armato sia in calotta e sia in arco rovescio.

5.2.2 SEZIONE TIPO A2 GALLERIA DI LINEA

La sezione tipo A2 della galleria di linea è una sezione cilindrica che non prevede interventi di preconsolidamento del fronte e al contorno, ma solo una bullonatura radiale del cavo; è adottata per la zona di innesto alla progressiva 5+503.917 in quanto il comportamento dell'ammasso roccioso allo scavo è di tipo stabile (Categoria A).

Gli elementi principali che caratterizzano la sezione tipo A2 sono:

- scavo a piena sezione per sfondi massimi di 2.4m;
- sostegno di prima fase costituito da 20cm di cls proiettato armato con rete elettrosaldata ∅6 maglia 15x15cm e centine "automatiche" realizzate con profilati IPN180 doppie con passo 1.2m. In corso d'opera si valuterà la sostituzione della centina automatica con la centina tradizionale, con l'utilizzo di betoncino proiettato fibrorinforzato in luogo della rete elettrosaldata;
- chiodatura radiale mediante 14/15 chiodi tipo Swellex® Pm24 disposti in raggiere alternate di lunghezza 4.5m posti ad interasse longitudinale di 1.2m;
- rivestimento definitivo di spessore 80cm in arco rovescio e 70cm in calotta; l'arco rovescio dovrà essere gettato a una distanza massima dal fronte di 3 diametri equivalenti mentre il getto della calotta non è vincolato. Il rivestimento definitivo per le zone di innesto è armato sia in arco rovescio e sia in calotta, in calotta la sezione di 70cm è sormontata da un getto di riempimento variabile tra 10cm e 30cm. Il rivestimento definitivo del sottoattraversamento ha spessore 80cm ed è armato.

5.2.3 SEZIONE TIPO CAMERA DI ESODO IN CALCARI

La sezione tipo camera di esodo prevista nella formazione dei calcari con buone caratteristiche meccaniche è una sezione cilindrica che non prevede interventi di preconsolidamento del fronte, ma solo una bullonatura radiale del cavo; è adottata per la zona di innesto realizzate a profondità elevate in ammassi rocciosi consistenti.

Gli elementi principali che caratterizzano la sezione tipo camera di esodo da realizzare in calcari sono:

- scavo eseguito per i 2/3 superiori della sezione, per sfondi massimi di 1.2m;
- sostegno di prima fase costituito da 25cm di cls proiettato fibrorinforzato e centine realizzate con profilati IPN140 doppie a passo 1.2m;
- chiodatura radiale mediante 11/12 chiodi tipo Swellex® Pm24 disposti in raggiere alternate di lunghezza 3.0m posti ad interasse longitudinale di 1.2m;
- chiodatura delle pareti di fondo campo mediante 14+11 bulloni tipo Swellex® Pm24 di lunghezza 3.0m e disposti a quinconce con maglia 1.80m x 1.80m;
- rivestimento definitivo di spessore 60cm per il solettone di fondo, i piedritti, la calotta e i timpani di fondo, tutti elementi armati.

5.3 ANALISI E VERIFICA DEL NODO DI INNESTO

5.3.1 DESCRIZIONE DEL METODO DI CALCOLO ADOTTATO

Il metodo di calcolo impiegato è quello degli elementi finiti (FEM) implementato tramite il codice commerciale Midas GTS NX ver. 2.1, prodotto dalla Midas Information Technology Co., Ltd.

Midas è un programma agli elementi finiti che consente di svolgere analisi tridimensionali in campo elasto-plastico per la valutazione dello stato di sforzo e di spostamento al contorno di opere in sotterraneo e di analizzare la risposta tensio-deformativa dei sostegni installati a supporto degli scavi durante le fasi costruttive, mediante l'implementazione di analisi multi-stage.

5.3.1.1 CONDIZIONI AL CONTORNO ED INIZIALI

Il modello numerico, di dimensioni 77mx106mx297m (bxLxh), è realizzato tramite una maglia di 208305 elementi tetraedrici, le cui dimensioni variano da 14m in prossimità dei limiti del modello a 1m in corrispondenza delle strutture sotterranee. I confini del modello sono stati collocati a una distanza dalle camere di esodo e dal cunicolo tale da non risentire degli effetti di bordo. Il bordo superiore del modello coincide con il piano campagna.

Le condizioni al contorno sono state applicate al modello imponendo spostamenti nulli alle facce del modello secondo quanto specificato di seguito:

- Spostamenti nulli nelle tre direzioni x,y e z per il fondo del modello;
- Spostamenti nulli in direzione x per le facce destra/sinistra;
- Spostamenti nulli in direzione y per le facce davanti/dietro;
- Superficie superiore non vincolata.

Lo stato tensionale iniziale è stato supposto litostatico con un coefficiente di spinta a riposo k_0 per i calcari pari a 0.8. Lo stato tensionale geostatico è stato riprodotto nel modello tramite la fase 1, applicando un campo di sforzo di tipo gravitazionale.

5.3.1.2 LEGGE DI COMPORTAMENTO DEI MATERIALI

5.3.1.2.1 Ammasso roccioso

Il criterio di rottura adottato per l'ammasso roccioso è quello di Hoek & Brown, opportunamente linearizzato per la copertura corrispondente all'analisi effettuata. Per gli elementi lontani dalle opere sotterranee il materiale è stato considerato elastico.

5.3.1.2.2 Sostegno di prima fase

Il sostegno di prima fase è stato simulato con elementi shell aventi comportamento elastico. Gli elementi shell sono stati simulati con un materiale di rigidezza equivalente.

I valori dello spessore (s_{eq}) e del modulo elastico (E_{eq}) equivalente sono ricavati dalla risoluzione del seguente sistema lineare:

$$(E_s/E_c-1)*E_c*A_s/i + E_c*A_c = E_{eq}*s_{eq}$$

$$(E_s/E_c-1)*E_c*J_s/i + E_c*J_c = E_{eq}*s_{eq}^3/12$$

Dove:
E_s = modulo elastico dell'acciaio
A_s, J_s = area e momento d'inerzia delle centine a metro lineare
i = interasse centine
E_c = modulo elastico del cls proiettato
A_c, J_c = area e momento d'inerzia del cls proiettato per metro lineare.

A tergo degli elementi shell, per simulare il contatto con l'ammasso roccioso, è stata interposta un'interfaccia con le caratteristiche di rigidezza valutate secondo la relazione di Galerkin:

dove:
k_n è la rigidezza normale;
k_t è la rigidezza tangenziale;
E è il modulo elastico del terreno a tergo del sostegno di prima fase;

ν è il coefficiente di Poisson.

Cautelativamente si è ipotizzato che a lungo termine il sostegno di prima fase non sia più attivo e che tutti i carichi siano trasferiti al rivestimento definitivo.

5.3.1.2.3 Rivestimento definitivo

Il rivestimento definitivo è simulato modificando le proprietà dei medesimi elementi shell che costituiscono il sostegno di prima fase, imponendo a questi, nella fase di costruzione del rivestimento definitivo, i sui effettivi spessori e rigidezze. La legge di comportamento degli elementi del rivestimento definitivo è stata assunta di tipo elastica, con le seguenti caratteristiche di rigidezza:

—— ;

.

A lungo termine quindi, tutti i carichi geotecnici gravano sul rivestimento definitivo.

5.3.1.2.4 Consolidamento radiale al contorno dello scavo

Il consolidamento radiale al contorno del cavo è stato simulato tramite elementi embedded truss aventi le caratteristiche geometriche e di deformabilità dei bulloni di tipo "Swellex". La legge di comportamento di questi elementi è tipo elasto-plastica con cut-off a trazione pari alla resistenza di calcolo dei bulloni (146kN).

5.3.1.3 SIMULAZIONE DELLE FASI ESECUTIVE

Le fasi esecutive delle opere sono fedelmente riprodotte nel modello stramite un'analisi di tipo multi-stage. Il nodo di innesto alla progressiva 5+503.917 è caratterizzato dalle fasi costruttive riportate nel seguito.

5.3.1.4 AZIONE SISMICA

Per i nodi di innesto tra la galleria di linea e le camere di esodo/cameroni, gli effetti del sisma sono stati trascurati sulla base dei risultati delle analisi sismiche condotte per la galleria di linea a profondità elevate: tali analisi hanno infatti evidenziato effetti del tutto trascurabili sui rivestimenti definitivi.

5.3.2 MODELLO DI CALCOLO

Nel presente paragrafo si riportano le fasi adottate nel modello di calcolo e i parametri geotecnici/geomeccanici utilizzati nell'analisi.

L'analisi numerica del nodo d'innesto è stata condotta utilizzando i parametri geotecnici e la stratigrafia riportata nella tabella seguente.

Tabella 3: parametri geotecnici dei calcari linearizzati.

Unità geot.	Stratigrafia [m da p.c.]	copertura [m]	γ [kN/m^3]	c' [kPa]	φ' [°]	E [MPa]	ν [-]	k_0 [-]
RDO	-	270	25	880	38	6000	0.25	0.8

dove:

γ è il peso specifico dell'ammasso roccioso
c' è la coesione efficace
φ' è l'angolo di attrito efficace
E è il modulo dell'ammasso roccioso
n è il rapporto di Poisson
k_0 è il coefficiente di spinta a riposo.

I parametri della roccia sono stati determinati mediante linearizzazione del criterio di rottura di Hoek & Brown.

Tabella 4: parametri geomeccanici dei calcari.

GSI	UCS [MPa]	mi [-]	D [-]	Ei [MPa]
45	75	10	0.5	55000

Le fasi del modello di calcolo sono le seguenti:

Fase	Descrizione
0	Condizione iniziale geostatica
1	Scavo e installazione del sostegno di prima fase di un tratto della galleria finestra A1 pari a 14.4m in un unica fase
2-3	Scavo della galleria finestra A1 per sfondi di 2.8m per un totale di 5.6m
3-4	Installazione del sostegno di prima fase della galleria finestra A1 alla fase n+1 rispetto alle fasi di scavo
4-45	Scavo della sezione A2 del camerone per sfondi di 1m
5-47	Installazione del sostegno di prima fase del camerone A2 alla fase n+1 rispetto alle fasi di scavo
48	Installazione della centina a crociera chiodata
49	Rimozione del sostegno di prima fase della zona di intersezione con la galleria di linea
50-61	Scavo della galleria di linea A2 con sfondi di 2.4m lato Nord
51-62	Installazione del sostegno di prima fase della galleria di linea A2 alla fase n+1 rispetto alle fasi di scavo
63	Rimozione del sostegno di prima fase della zona di intersezione con la galleria di linea
64-75	Scavo della galleria di linea A2 con sfondi di 2.4m lato Sud
65-76	Installazione del sostegno di prima fase della galleria di linea A2 alla fase n+1 rispetto alle fasi di scavo
77	Getto dell'arco rovescio della galleria di linea A2
78-89	Scavo della camera di esodo per sfondi di 1.2m e del cunicolo di emergenza
79-90	Installazione del sostegno di prima fase della camera di esodo e cunicolo di emergenza alla fase n+1 rispetto alle fasi di scavo
91	Scavo del sottoattraversamento
92	Getto dell'arco rovescio della camera di esodo, del camerone, del cunicolo di emergenza e del sottoattraversamento
93	Decadimento del sostegno di prima fase e contestuale getto delle calotte

Nella tabella seguente si riporta una sintesi delle caratteristiche delle sezioni tipologiche previste in corrispondenza del nodo di innesto.

Tabella 5: sintesi delle sezioni tipologiche previste in corrispondenza del nodo d'innesto.

Sezione tipo	Camerone	Galleria di linea	Sottoattraversamento	Camere di esodo

Scavo	≤1m	≤ 2.4m	-	≤ 1.2m
Chiodatura radiale	Swellex Pm24, L=4.5m i radiale=1m i longitudinale=1m	Swellex Pm24, L=4.5m i radiale =1.20 i longitudinale =1.20m	-	Swellex Pm24, L=3.0m i radiale =1.20 i longitudinale =1.20m
Bullonatura di fondo campo		-	-	17+11 Swellex Pm24, L=3m disposti a quinconce con maglia 1.80m x 1.80m
Centine	2IPN200 (IN01), 2IPN220 (IN02), passo 1m	2IPN180, passo 1.20m	-	2IPN140, passo 1.20m
Cls proiettato	25cm	20cm	-	25cm
Rivestimento definitivo calotta	1m	70cm	80cm	60cm
Rivestimento definitivo arco rovescio / soletta piatta	1m	80cm	80cm	60cm

Nella figura seguente sono riportati la geometria e gli elementi principali del modello di calcolo tridimensionale a elmenti finiti del nodo di innesto.

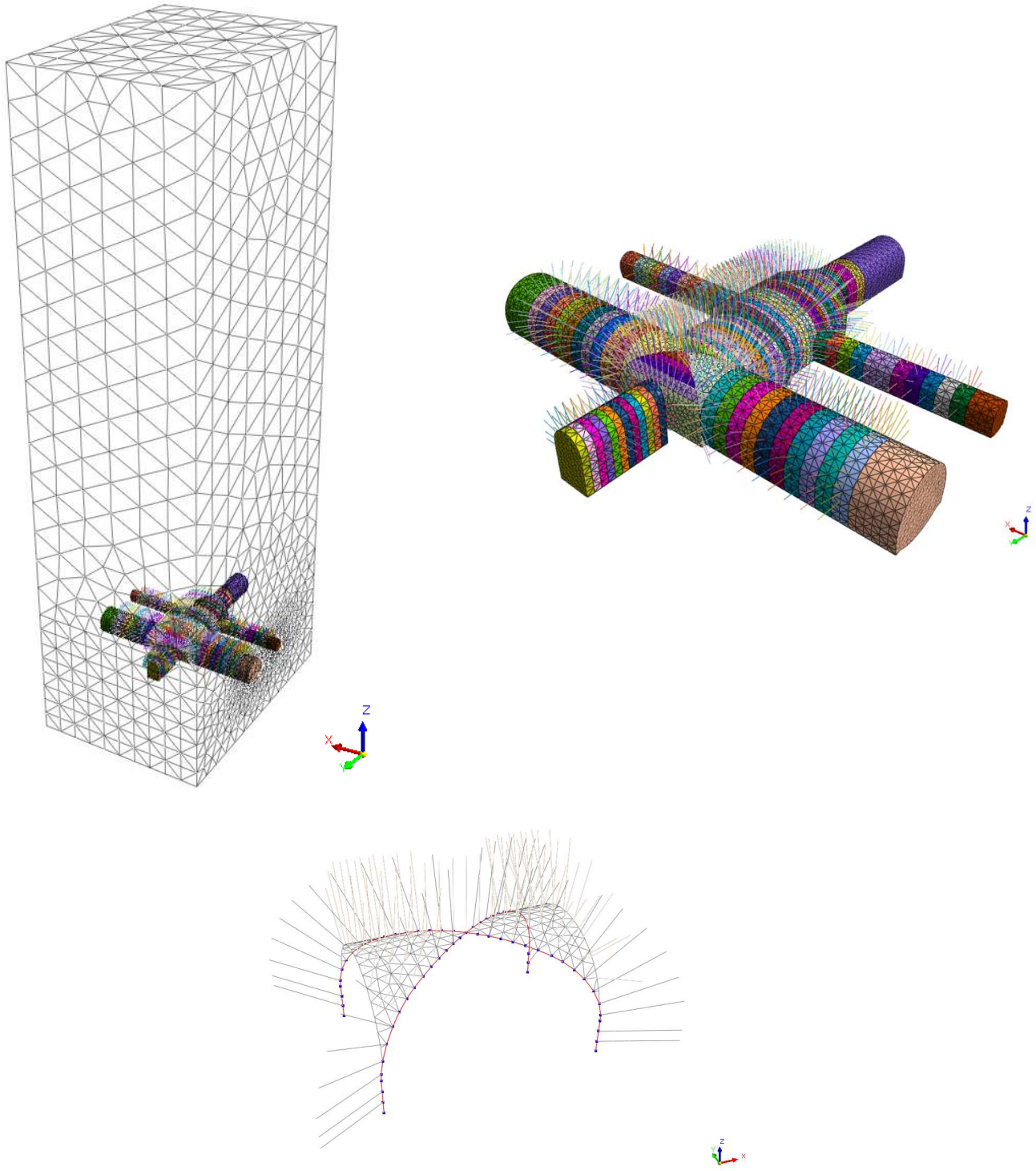


Figura 5.6: geometria ed elementi principali del modello di calcolo 3D FEM del nodo di innesto alla progressiva 5+503.917 implementato con il codice MIDAS GTS NX.

5.3.3 RISULTATI OTTENUTI IN TERMINI DI SPOSTAMENTI

Nell'immagine seguente si riportano i risultati dell'analisi numerica in termini di deformazioni al contorno del cavo sul sostegno di prima fase in corrispondenza dello stage precedente a quello di getto del rivestimento definitivo.

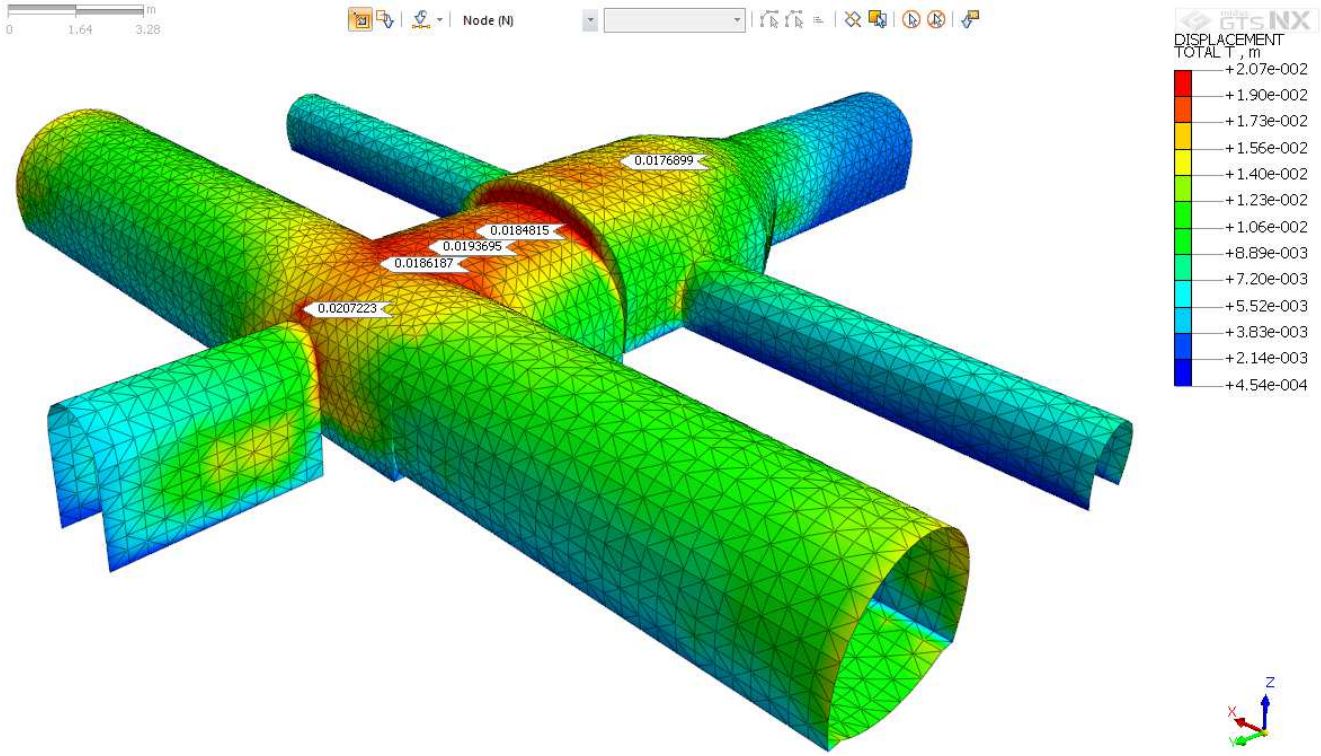


Figura 5.7: andamento degli spostamenti totali sul sostegno di prima fase per lo stage precedente a quello di getto del rivestimento definitivo (δ_{max} = 2.07cm).

Nelle figure seguenti sono mostrati nel dettaglio gli spostamenti delle centine a crociera e delle centine in direzione della galleria di linea.

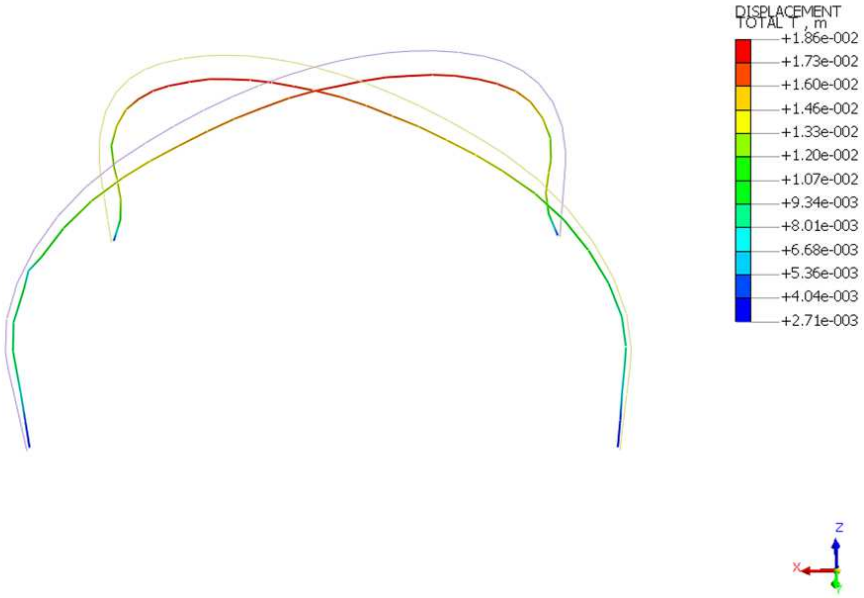


Figura 5.8: spostamenti totali delle centine a crociera, δ_{max} = 1.86cm.

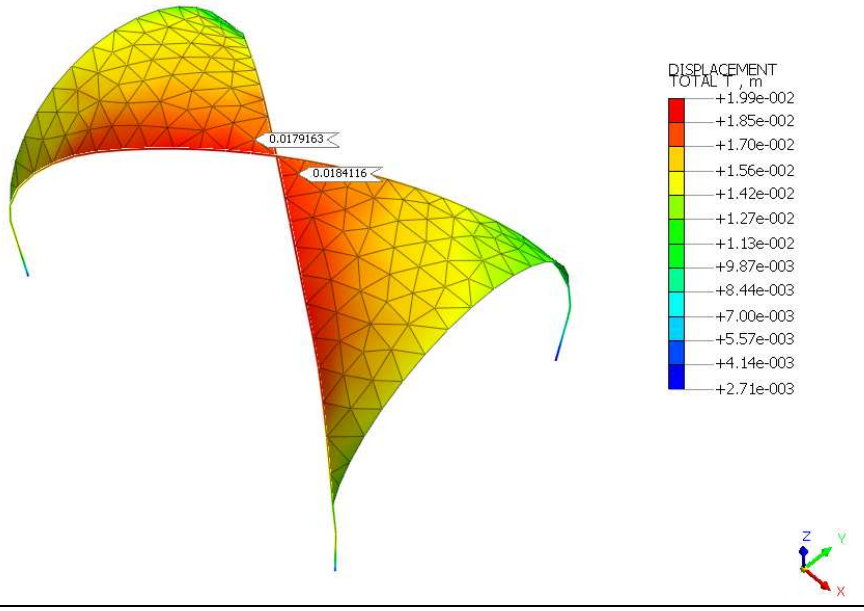


Figura 5.9: spostamenti verticali del sostegno di prima fase in direzione della galleria di linea costituito dalle centine IN03, δ_{max} = 1.8cm.

Gli spostamenti massimi subiti dalla struttura a telaio sono pari a 1.86cm e si verificano in sommità alla centina a crociera.

5.3.4 VERIFICHE STRUTTURALI DEL SOSTEGNO DI PRIMA FASE

5.3.4.1 CRITERI DI VERIFICA

Il sostegno di prima fase, così come illustrato nei precedenti paragrafi, è stato simulato nei modelli di calcolo con elementi shell a comportamento elastico lineare ove le caratteristiche geometriche e di rigidezza equivalenti sono assegnate mediante una omogeneizzazione della sezione.

Le verifiche strutturali sono condotte sulle sollecitazioni estratte dal programma di calcolo relative alle sezioni di riferimento in corrispondenza del nodo d'innesto, opportunamente amplificate mediante i coefficienti parziali sulle azioni di normativa. Le verifiche strutturali sono eseguite nella condizione A1+M1+R1.

Il sostegno di prima fase è costituito da centine metalliche e cls proiettato, pertanto ai fini delle verifiche strutturali, lo sforzo normale di compressione è ripartito tra le centine e il cls proiettato in base alle rispettive rigidezze assiali; il taglio, il momento flettente e gli eventuali sforzi di trazione localizzati sono attribuiti soltanto alle centine metalliche.

La verifica strutturale del cls proiettato è condotta secondo la seguente relazione (rif. paragrafo 2.2.1 del NTC2008)

$$\sigma_c = \frac{N_{C,d}}{A_C} \leq f_{cd}$$

Dove:
$N_{C,d}$ è la sollecitazione normale di compressione agente sul cls proiettato
A_C è l'area resistente del cls proiettato
f_{cd} è la resistenza a compressione di calcolo del cls proiettato

La verifica strutturale delle centine metalliche a taglio e presso-tenso/flessione è condotta confrontando la tensione ideale calcolata a partire dalle tensioni indotte dalle sollecitazioni agenti, con la resistenza di calcolo dell'acciaio secondo la seguente relazione (rif. paragrafo 4.2.4.1.2 del NTC2008).

$$\sigma_{s,d,\max} = \frac{N_{Sd}}{A_S} + \frac{M_{Sd}}{W_S}$$

$$\tau_{s,d} = \frac{V_{Sd}}{A_{V,S}}$$

$$\sigma_{id,s,d} = \sqrt{\sigma_{s,d,\max}^2 + 3\tau_{s,d}^2} \leq f_{yd}$$

Dove:
N_{Sd} è lo sforzo assiale di calcolo sulla centina metallica;
A_s è l'area della centina metallica
W_s è il modulo resistente elastico della centina
M_{sd} è il momento agente di calcolo
T_{sd} è il taglio agente di calcolo
$A_{v,s}$ è l'area resistente a taglio della centina
f_{yd} è la tensione di snervamento di calcolo dell'acciaio delle centine
Av,s è l'area resistente a taglio che per profilati ad I, caricati nel piano dell'anima, vale:

$$A_V = As - 2 \cdot b \cdot t_f + (t_W + 2 \cdot r) \cdot t_f$$

b: larghezza delle ali dei profilati;
r: raggio di raccordo tra anima e ala;
t_f: spessore delle ali;
t_w: spessore dell'anima.

5.3.4.2 COEFFICIENTI PARZIALI SULLE AZIONI E SULLE RESISTENZE

Le azioni permanenti utilizzate, sono riferite ai valori caratteristici ottenuti dal modello di calcolo, per cui le successive verifiche sono rapportate al valore del coefficiente parziale di sicurezza delle azioni permanenti

γ_G = 1.30. I valori di calcolo delle resistenze dei materiali si ricavano dividendo ciascun valore caratteristico per il fattore di sicurezza parziale γ_M specifico del materiale considerato (si veda la tabella seguente).

Tabella 6: coefficienti parziali sulle resistenze dei materiali.

Stato limite	Acciaio Carpenteria γ_s	Calcestruzzo γ_C
SLU	1.05	1.50

Di seguito si riportano i valori delle resistenze di calcolo, ottenute come rapporto tra la resistenza caratteristica ed il coefficiente γ_M:

$$f_d = \frac{f_k}{\gamma M}$$

Tabella 7: tensione di snervamento di calcolo delle centine metalliche.

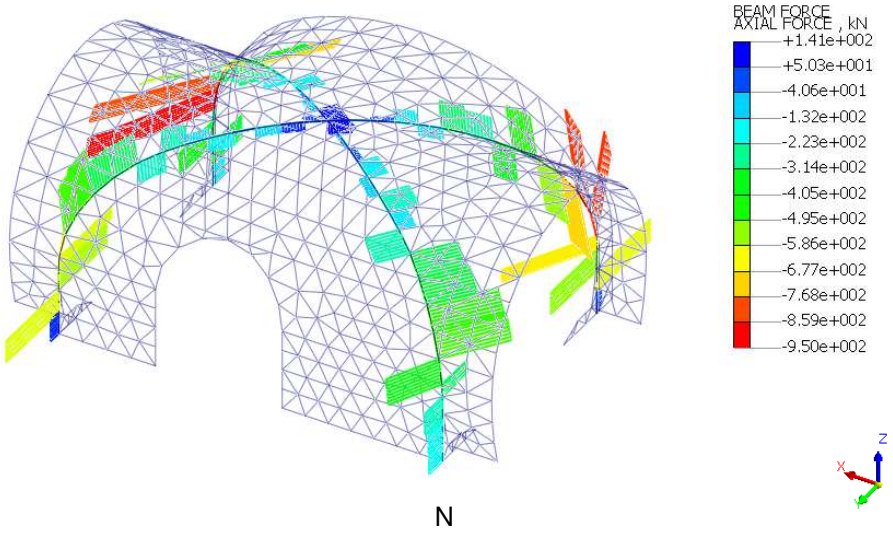
Acciaio	f_{yk} [MPa]	f_{yd} [MPa]
S275	275	261.9

Tabella 8: resistenze di calcolo del calcestruzzo proiettato.

Cls proiettato [Classe]	f_{cd} [MPa]	f_{ctd} [MPa]
C20/25	13.83	1.03

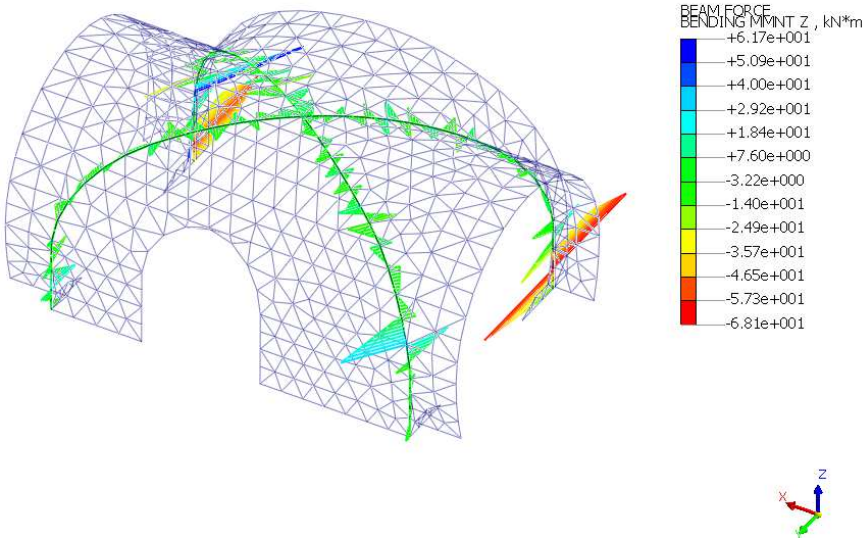
5.3.4.3 CENTINE A CROCIERA

Nella figure seguenti si riportano le sollecitazioni agenti nelle centine a crociera e nel sostegno di prima fase composto dalle centine in direzione della galleria di linea allo stage precedente alla fase di getto del rivestimento definitivo.

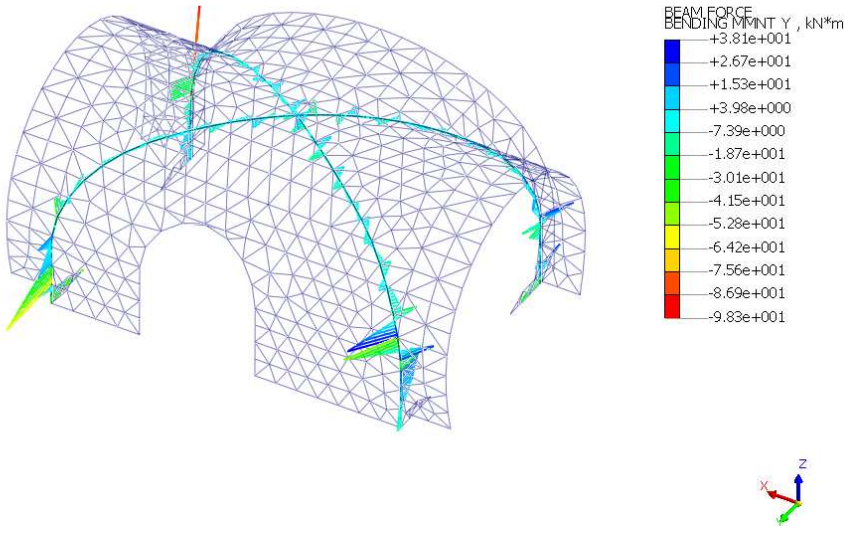


N

Figura 5.10: sollecitazioni agenti nelle centine della crociera (sforzo normale N<0 se di compressione).

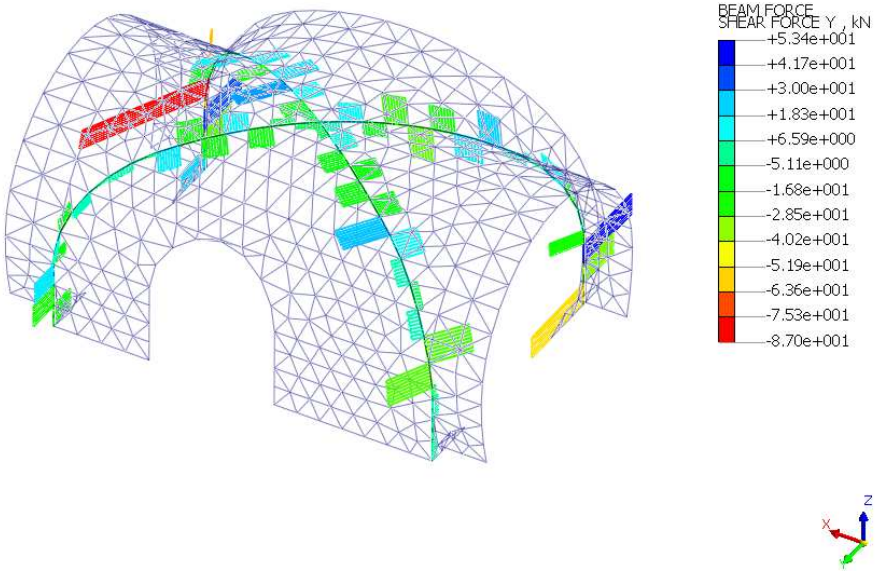


M_z (piano delle anime)

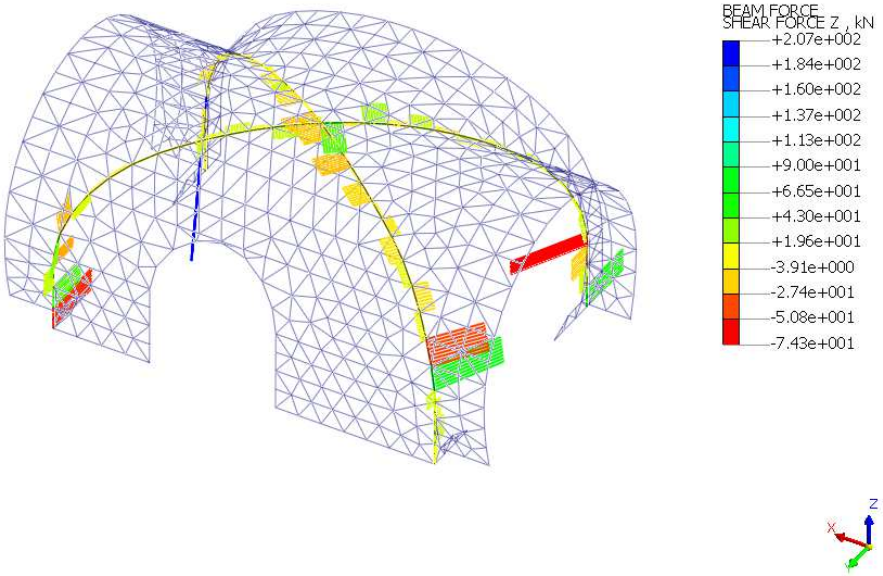


M_y (piano delle ali)

Figura 5.11: sollecitazioni agenti nelle centine della crociera (M_z momento flettente agente nel piano delle anime; M_y momento flettente agente nel piano delle ali).



T_y (anime)



T_z (ali)

Figura 5.12: sollecitazioni agenti nelle centine della crociera (T_y taglio agente parallelo alle anime; T_z taglio agente parallelo alle ali).

5.3.4.4 VERIFICHE TENSIONALI DEI PROFILATI

Le tensioni di presso-flessione e tenso-flessione nelle sezioni delle strutture di contrasto sono calcolate come segue:

$\sigma_{Ed} = N/A \pm M_y/W_x \pm M_x/W_y$.

La tensione tangenziale τ_{Ed} in asse ai profilati segue le seguenti formulazioni (a seconda della direzione di taglio maggiormente sollecitante l'elemento):

$\tau_{Ed} = \tau_y = (T_y \times S^*_x)/ (t \times J_x)$; $\tau_{Ed} = \tau_x = (T_x \times S^*_y)/ (t \times J_y)$

Da cui si ottiene una tensione ideale (criterio di Von Mises) per la sezione esaminata pari a:

$\sigma_{id} = (\sigma_{Ed}^2 + 3 \times \tau_{Ed}^2)^{0.5}$

Dove:

N : sforzo normale;
M_y : sollecitazione flettente asse forte;
M_x : sollecitazione flettente asse debole;
T_y : sollecitazione di taglio asse forte;
T_x : sollecitazione di taglio asse debole;
A : area della trave/sezione;
$W_{x/y}$: moduli di resistenza della trave/sezione nelle direzioni forte e debole;
$S^*_{x/y}$: momento statico di metà sezione della trave per le due direzioni;
$J_{x/y}$: momenti d'inerzia relativi ai due assi della trave;
t : spessore dell'anima della trave;
σ_{Ed} : tensione normale di calcolo;
τ_{Ed} : tensione tangenziale di calcolo (cautelativamente per le verifiche è stata usata la risultante dei tagli agenti contemporaneamente);

La verifica delle travi/sezioni è soddisfatta se sussiste la relazione seguente:

$\sigma_{id} \leq f_{yd} = f_{yk} / \gamma_M$

dove γ_M è il coefficiente di sicurezza per la resistenza delle membrature, pari a

$\gamma_M = 1.05$.

Tabella 5.9: verifiche tensionali per le sollecitazioni più sfavorevoli allo SLU per le centine a crociera.

Tipologia profilato	Elemento strutturale	σ_{Ed} [MPa]	τ_{Ed} [MPa]	σ_{id} [MPa]	f_{yd} [MPa]	Verifica
2xHEB220	Crociera	-167.6	64.6	201.6	261.9	$\sigma_{id}<f_{yd}$

Dalle verifiche sopra riportate si evince il soddisfacimento delle verifiche a presso-flessione delle centine a crociera.

5.3.4.5 SEZIONE TIPO A2 CAMERONE DI MANOVRA

Di seguito sono riportate le sollecitazioni (N, M e T) nel sostegno di prima fase della sezione in esame; i valori numerici (caratteristici e di calcolo) sono riportati nell'allegato specifico.

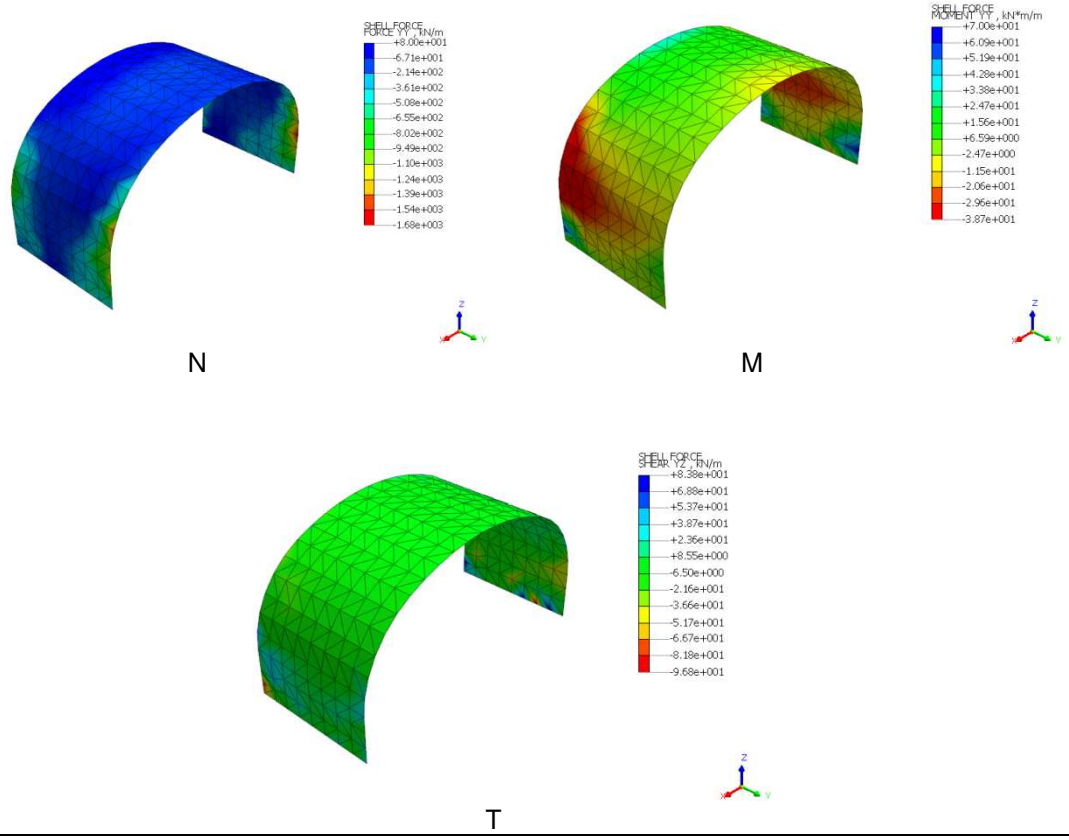


Figura 5.13: Sollecitazioni sul sostegno di prima fase del camerone di manovra sezione IN01 nell'intorno del nodo d'innesto – stage precedente alla fase di getto del rivestimento definitivo.

Tabella 10: verifiche del sostegno di prima fase (M>0 fibre tese in intradosso).

Sollecitazioni caratteristiche				Sollecitazioni SLU				Verifica calcestruzzo proiettato			Verifica centine				
N_{clsp}	N_{cen}	M_{cen}	T_{cen}	$N_{clsp,d}$	$N_{cen,d}$	$M_{cen,d}$	$T_{cen,d}$	$\sigma_{c\_clsp,d}$	f_{cd}	Verifica	$\sigma_{cen,d}$	$\tau_{cen,d}$	$\sigma_{id,cen,d}$	f_{yd}	Verifica
[kN]	[kN]	[kNm]	[kN]	[kN]	[kN]	[kNm]	[kN]	[MPa]	[MPa]	-	[MPa]	[MPa]	[MPa]	[MPa]	-
1451.7	233.1	14.9	39.5	1887.2	303.0	19.4	51.3	7.5	13.8	OK	90.7	16.4	95.1	261.9	OK
0.0	-80.0	-11.6	-12.9	0.0	-104.0	-15.1	-16.8	0.0	13.8	OK	50.8	-5.4	51.6	261.9	OK
205.7	33.0	-15.4	-96.8	267.4	42.9	-20.0	-125.8	1.1	13.8	OK	53.1	-40.3	87.7	261.9	OK

I risultati completi delle verifiche sono riprotati nell'Allegato 1.

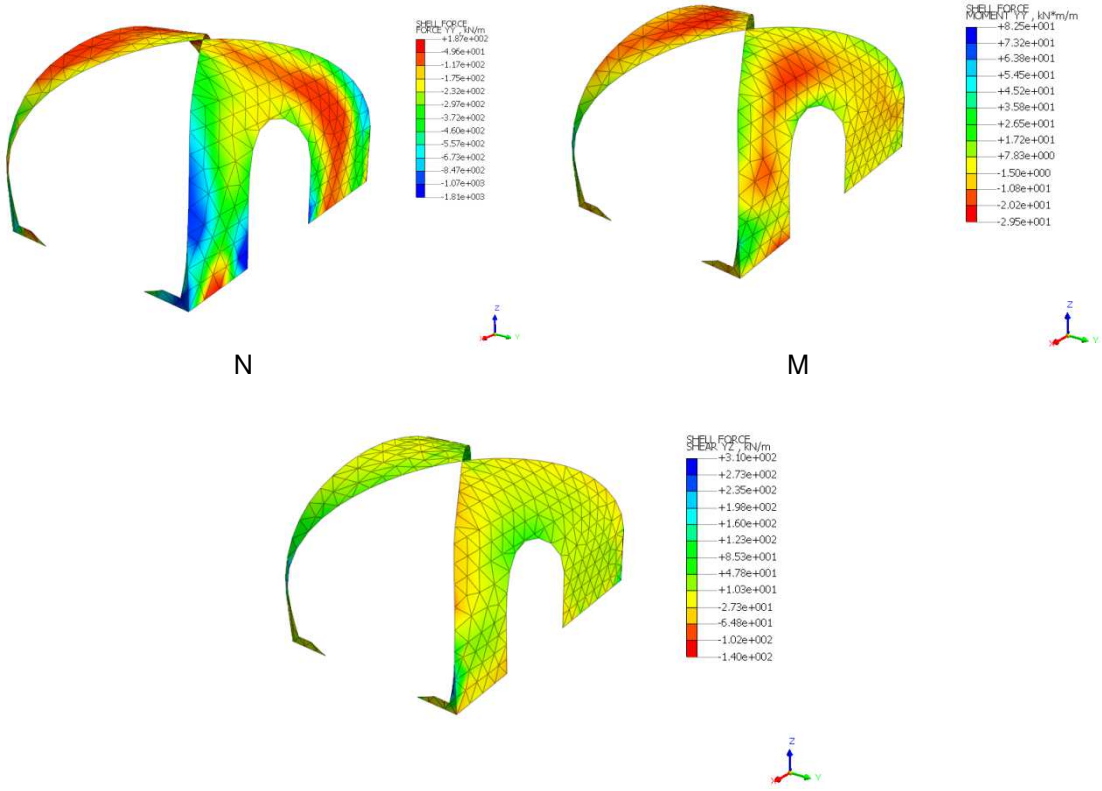


Figura 5.14: Sollecitazioni sul sostegno di prima fase del camerone di manovra sezione IN02 nell'intorno del nodo d'innesto – stage precedente alla fase di getto del rivestimento definitivo.

Tabella 11: verifiche del sostegno di prima fase (M>0 fibre tese in intradosso).

Sollecitazioni caratteristiche				Sollecitazioni SLU				Verifica calcestruzzo proiettato			Verifica centine				
N_{clsp}	N_{cen}	M_{cen}	T_{cen}	$N_{clsp,d}$	$N_{cen,d}$	$M_{cen,d}$	$T_{cen,d}$	$\sigma_{c\_clsp,d}$	f_{cd}	Verifica	$\sigma_{cen,d}$	$\tau_{cen,d}$	$\sigma_{id,cen,d}$	f_{yd}	Verifica
[kN]	[kN]	[kNm]	[kN]	[kN]	[kN]	[kNm]	[kN]	[MPa]	[MPa]	-	[MPa]	[MPa]	[MPa]	[MPa]	-
1517.4	288.1	14.2	-54.9	1972.7	374.6	18.5	-71.4	7.9	13.8	OK	80.6	-19.2	87.3	261.9	OK
0.0	-178.1	-17.8	-27.7	0.0	-231.5	-23.1	-36.0	0.0	13.8	OK	70.9	-9.7	72.9	261.9	OK
1349.4	256.2	82.5	-135.5	1754.2	333.1	107.2	-176.2	7.0	13.8	OK	235.0	-47.5	248.9	261.9	OK
116.4	22.1	28.9	310.4	151.3	28.7	37.5	403.5	0.6	13.8	OK	71.2	108.8	201.4	261.9	OK

I risultati completi delle verifiche sono riprotati nell'Allegato 1.

5.3.4.6 SEZIONE TIPO A2 LINEA

Nelle figure seguenti si riportano le sollecitazioni (N, M e T) e i risultati delle verifiche dei sostegni di prima fase IN03 (installati dopo la rimozione delle centine IN02 per la parte interferente con la sezione di progetto) e della galleria di linea; i valori numerici (caratteristici e di calcolo) sono riportati nell'allegato specifico.

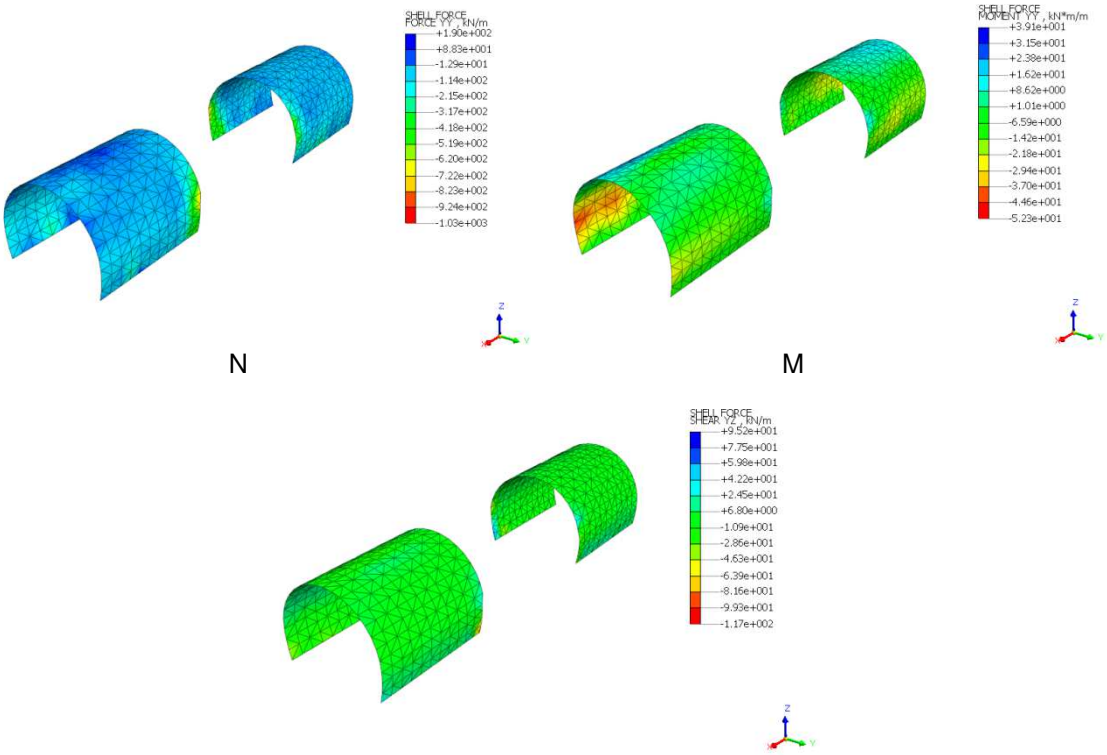


Figura 5.15: Sollecitazioni sul sostegno di prima fase della galleria di linea nell'intorno del nodo d'innesto – stage precedente alla fase di getto del rivestimento definitivo.

Tabella 12: verifiche del sostegno di prima fase (M>0 fibre tese in intradosso).

Sollecitazioni caratteristiche				Sollecitazioni SLU				Verifica calcestruzzo proiettato			Verifica centine				
N_{clsp}	N_{cen}	M_{cen}	T_{cen}	$N_{clsp,d}$	$N_{cen,d}$	$M_{cen,d}$	$T_{cen,d}$	$\sigma_{c\_clsp,d}$	f_{cd}	Verifica	$\sigma_{cen,d}$	$\tau_{cen,d}$	$\sigma_{id,cen,d}$	f_{yd}	Verifica
[kN]	[kN]	[kNm]	[kN]	[kN]	[kN]	[kNm]	[kN]	[MPa]	[MPa]	-	[MPa]	[MPa]	[MPa]	[MPa]	-
899.6	125.7	16.8	-22.8	1169.5	163.4	21.9	-29.6	5.8	13.8	OK	116.6	-13.7	119.0	261.9	OK
0.0	-189.6	3.9	-15.1	0.0	-246.4	5.0	-19.6	0.0	13.8	OK	71.8	-9.0	73.5	261.9	OK
123.7	17.3	-52.3	-6.0	160.9	22.5	-67.9	-7.8	0.8	13.8	OK	258.0	-3.6	258.1	261.9	OK
884.7	123.6	-24.6	-117.0	1150.2	160.7	-32.0	-152.1	5.8	13.8	OK	153.8	-70.2	196.1	261.9	OK

I risultati completi delle verifiche sono riprotati nell'Allegato 1.

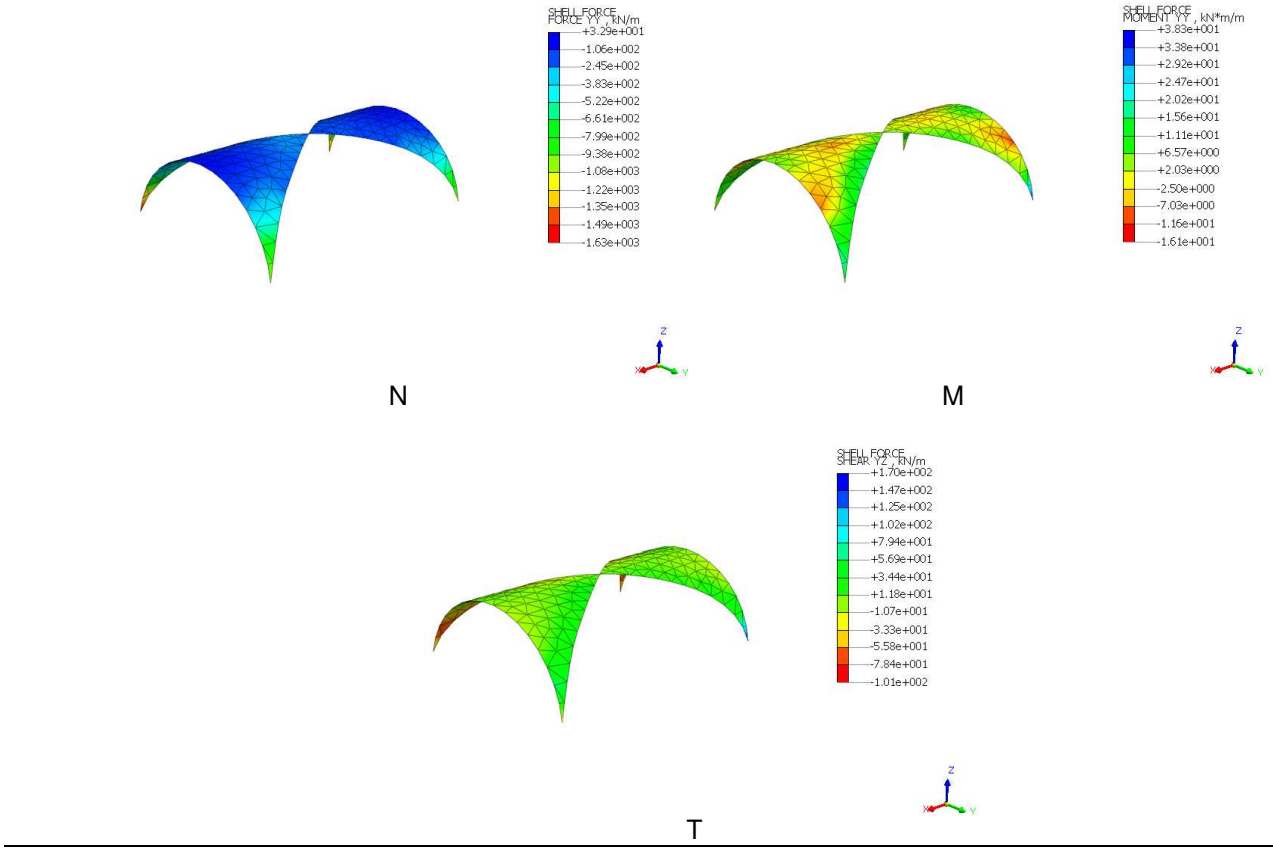


Figura 5.16: Sollecitazioni sul sostegno di prima fase IN03 – stage precedente alla fase di getto del rivestimento definitivo.

Tabella 13: verifiche del sostegno di prima fase (M>0 fibre tese in intradosso).

Sollecitazioni caratteristiche				Sollecitazioni SLU				Verifica calcestruzzo proiettato			Verifica centine				
N_{clsp}	N_{cen}	M_{cen}	T_{cen}	$N_{clsp,d}$	$N_{cen,d}$	$M_{cen,d}$	$T_{cen,d}$	$\sigma_{c\_clsp,d}$	f_{cd}	Verifica	$\sigma_{cen,d}$	$\tau_{cen,d}$	$\sigma_{id,cen,d}$	f_{yd}	Verifica
[kN]	[kN]	[kNm]	[kN]	[kN]	[kN]	[kNm]	[kN]	[MPa]	[MPa]	-	[MPa]	[MPa]	[MPa]	[MPa]	-
1438.6	193.0	0.8	-24.2	1870.2	250.8	1.0	-31.4	7.5	13.8	OK	48.2	-12.1	52.5	261.9	OK
0.0	-32.9	5.1	-8.2	0.0	-42.8	6.6	-10.7	0.0	13.8	OK	28.2	-4.1	29.1	261.9	OK
896.3	120.2	38.3	169.6	1165.2	156.3	49.8	220.5	4.7	13.8	OK	182.5	84.8	234.3	261.9	OK

I risultati completi delle verifiche sono riprotati nell'Allegato 1.

5.3.4.7 SEZIONE TIPO CAMERA DI ESODO IN CALCARI

Di seguito sono riportate le sollecitazioni (N, M e T) nel sostegno di prima fase della sezione in esame; i valori numerici (caratteristici e di calcolo) sono riportati nell'allegato specifico.

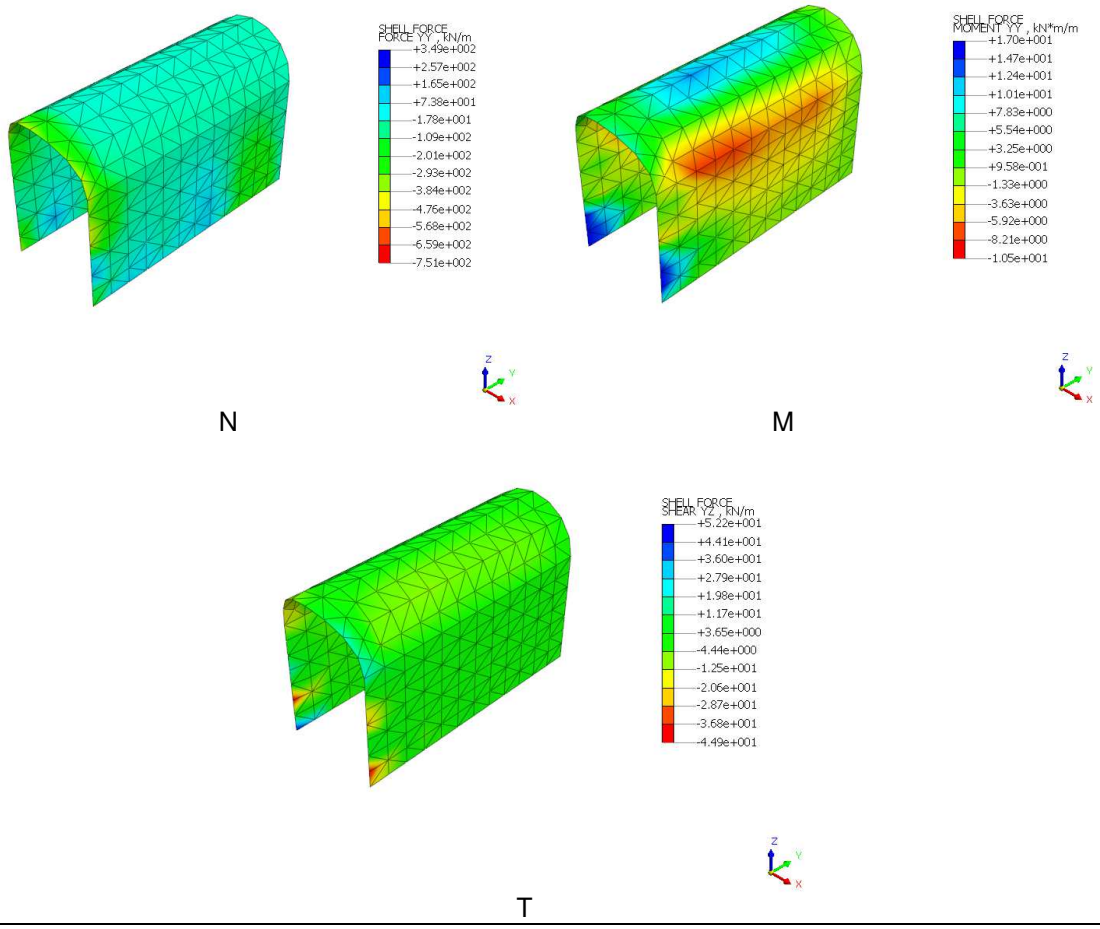


Figura 5.17: Sollecitazioni sul sostegno di prima fase della camera di esodo nell'intorno del nodo d'innesto – stage precedente alla fase di getto del rivestimento definitivo.

Tabella 14: verifiche del sostegno di prima fase (M>0 fibre tese in intradosso).

Sollecitazioni caratteristiche				Sollecitazioni SLU				Verifica calcestruzzo proiettato			Verifica centine				
N_{clsp}	N_{cen}	M_{cen}	T_{cen}	$N_{clsp,d}$	$N_{cen,d}$	$M_{cen,d}$	$T_{cen,d}$	$\sigma_{c\_clsp,d}$	f_{cd}	Verifica	$\sigma_{cen,d}$	$\tau_{cen,d}$	$\sigma_{id,cen,d}$	f_{yd}	Verifica
[kN]	[kN]	[kNm]	[kN]	[kN]	[kN]	[kNm]	[kN]	[MPa]	[MPa]	-	[MPa]	[MPa]	[MPa]	[MPa]	-
699.5	51.3	0.4	0.1	909.3	66.7	0.5	0.1	3.6	13.8	OK	25.6	0.1	25.6	261.9	OK
0.0	-348.7	-0.5	9.3	0.0	-453.4	-0.6	12.1	0.0	13.8	OK	153.0	8.6	153.7	261.9	OK
0.0	-64.8	17.0	15.2	0.0	-84.2	22.1	19.7	0.0	13.8	OK	189.9	14.1	191.4	261.9	OK
238.9	17.5	-0.5	52.2	310.5	22.8	-0.7	67.8	1.2	13.8	OK	12.5	48.3	84.6	261.9	OK

I risultati completi delle verifiche sono riprotati nell'Allegato 1.

5.3.5 VERIFICHE STRUTTURALI DEL RIVESTIMENTO DEFINITIVO

Le verifiche strutturali del rivestimento definitivo sono condotte a partire dalle sollecitazioni estrapolate dai risultati del modello di calcolo opportunamente amplificate per il coefficiente parziale γ_{G1} specifico per i diversi stati limite analizzati.

Tabella 15: fattore di sicurezza parziale dei materiali costituenti il rivestimento definitivo.

Stato limite	Acciaio γ_s	Calcestruzzo γ_c
SLU	1.15	1.50

Le verifiche strutturali di seguito riportate per ciascuna sezione tipo sono:

- in condizioni statiche (condizioni di normale esercizio):
  - Verifica a S.L.U. per flessione;
  - Verifica a S.L.U. per taglio;
  - Verifica a S.L.E. delle tensioni indotte nel calcestruzzo e nell'armatura metallica: conformemente alla normativa di riferimento, i valori limite sono pari a:
    - calcestruzzo: $\sigma_{c\ max} = 0.45 f_{ck}$
    - acciaio: $\sigma_{s\ max} = 0.8 f_{yk}$
  - Verifica a S.L.E. per fessurazione per la combinazione quasi permanente.

I valori di calcolo delle resistenze dei materiali si ricavano dividendo ciascun valore caratteristico per il fattore di sicurezza parziale γ_m specifico del materiale considerato (vedi tabella seguente).

Tabella 16: coefficienti parziali per le azioni secondo Tabella 2.6.I delle NTC2008.

Tipo di carico	Condizione	Simbolo	Approccio
Permanente	sfavorevole	γ_{G1}	A1 (STR)

Di seguito si riportano i valori delle resistenze di calcolo, ottenute come rapporto tra la resistenza caratteristica ed il coefficiente γ_m: $f_d = f_k/\gamma_m$

Tabella 17: tensione di snervamento di calcolo per l'acciaio di armatura.

Acciaio	f_{yd} [MPa]
B450C	391

Tabella 18: resistenze di calcolo per il calcestruzzo.

Classe calcestruzzo	$f_{cd\ arm}$ [MPa]	f_{ctd} [MPa]	f_{cfd} [MPa]
C25/30	14.17	1.2	1.44

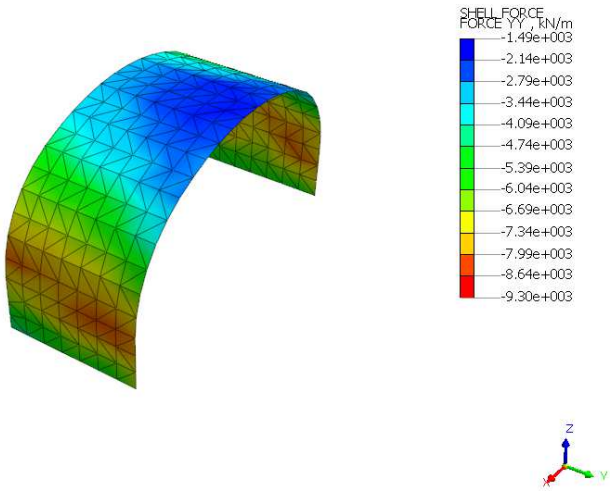
Dove:
f_{cd} = resistenza a compressione cilindrica di calcolo valutata secondo quanto riportato al paragrafo 4.1.12.1 delle NTC2008,
f_{ctd} = resistenza a trazione di calcolo valutata secondo quanto riportato al paragrafo 11.2.10.2 delle NTC2008 ,
f_{cfd} = resistenza a trazione per flessione di calcolo valutata secondo quanto riportato al paragrafo 11.2.10.2 delle NTC2008.

5.3.5.1 SEZIONE TIPO A2 CAMERONE DI MANOVRA

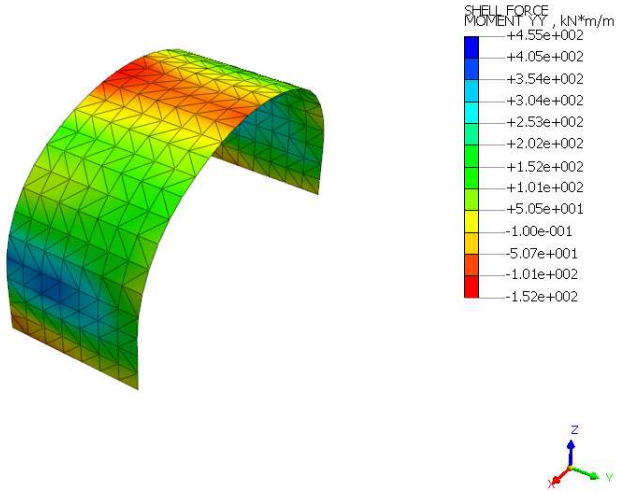
Nel presente paragrafo si illustrano le verifiche di resistenza del rivestimento definitivo della sezione A2 Camerone di manovra del nodo d'innesto. Le verifiche sono riportate per via grafica.

5.3.5.1.1 Sollecitazioni agenti

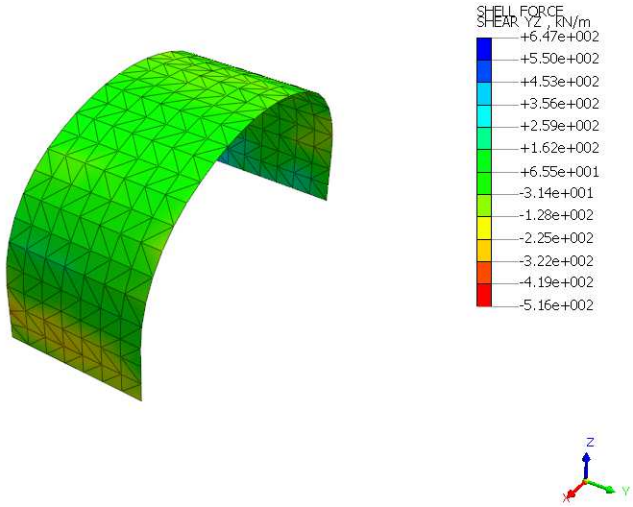
Di seguito sono riportate le sollecitazioni (N, M e T) nel rivestimento definitivo della sezione in esame; i valori numerici (caratteristici e di calcolo) sono riportati nell'allegato specifico.



N



M



T

Figura 5.18: Sollecitazioni sul sostegno definitivo del camerone di manovra nell'intorno del nodo d'innesto – calotta – (N<0 se di compressione) – stage finale.

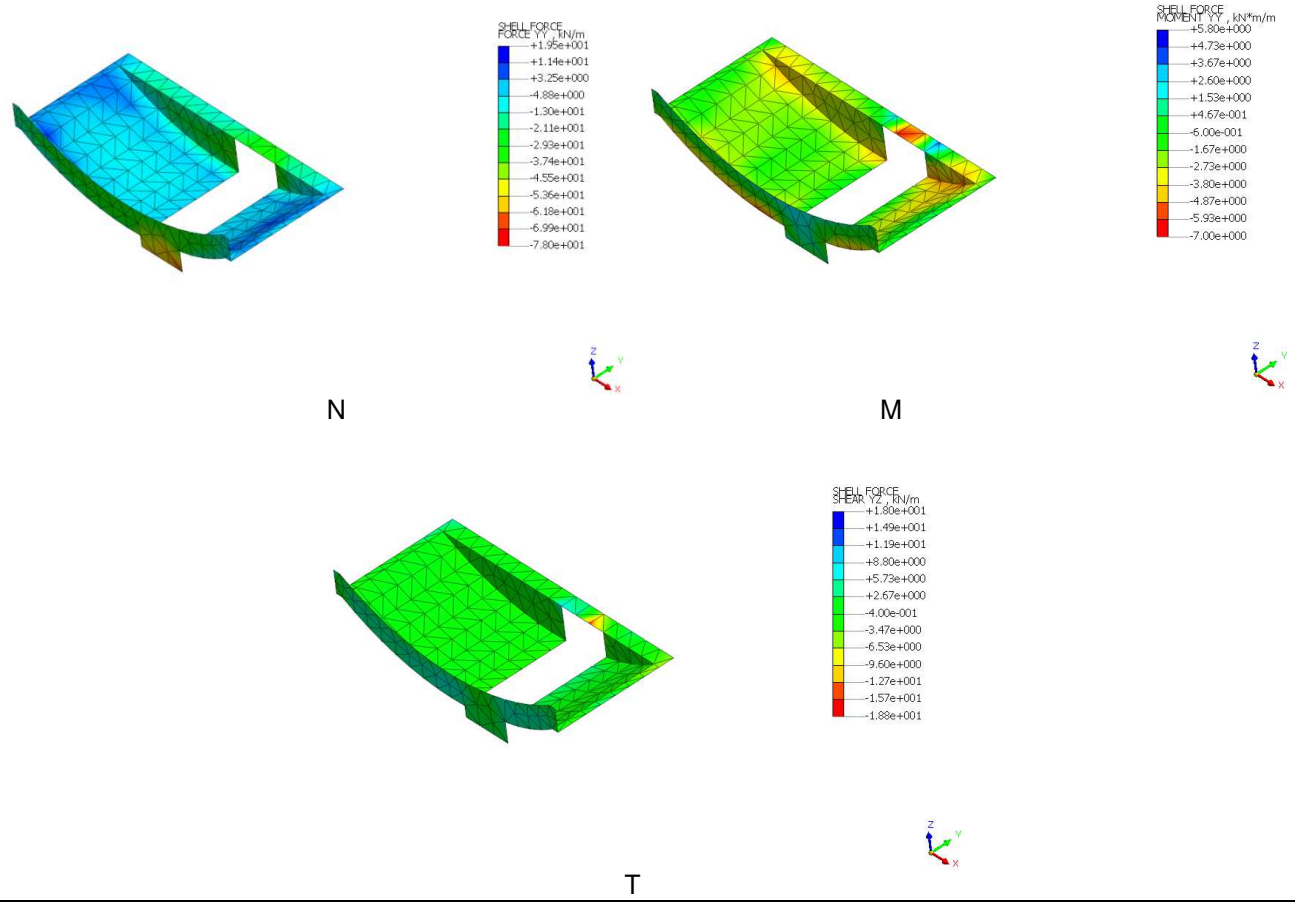


Figura 5.19: Sollecitazioni sul sostegno definitivo del camerone nell'intorno del nodo d'innesto – arco rovescio – (N<0 se di compressione) – stage finale.

5.3.5.1.2 Armatura disposta

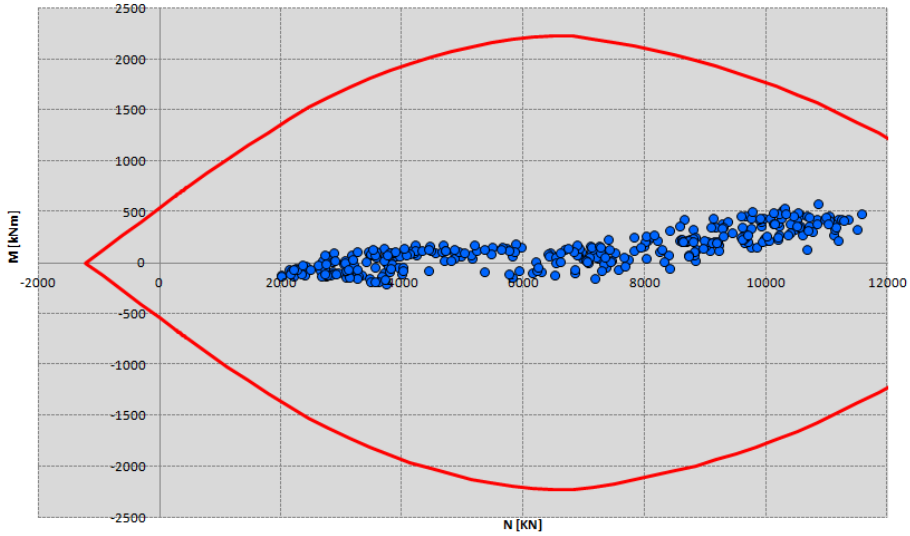
Nella tabella seguente sono riassunte le armature previste per la sezione tipo A2.

Tabella 19: armatura prevista per la sezione tipo A2.

Posizione	Armatura flettente Intradosso	Armatura flettente estradosso	Armatura a taglio	Classe calcestruzzo	Copriferro [cm]
Calotta	5Ø20/m	5Ø20/m	1Ø14/50/20	C25/30	8
Murette	5Ø20/m	5Ø20/m	1Ø14/50/20	C25/30	8
Arco rovescio	5Ø20/m	5Ø20/m	-	C25/30	8

5.3.5.1.3 Calotta – verifiche allo SLU – pressoflessione

Le verifiche allo SLU del rivestimento definitivo prevedono il confronto tra le sollecitazioni di calcolo, ottenute moltiplicando i valori caratteristici restituiti dal modello di calcolo per il coefficiente parziale γ_G = 1.3, e le resistenze di calcolo definite dai punti M_{Rd}, N_{Rd} che individuano il dominio resistente della sezione nel piano M-N.



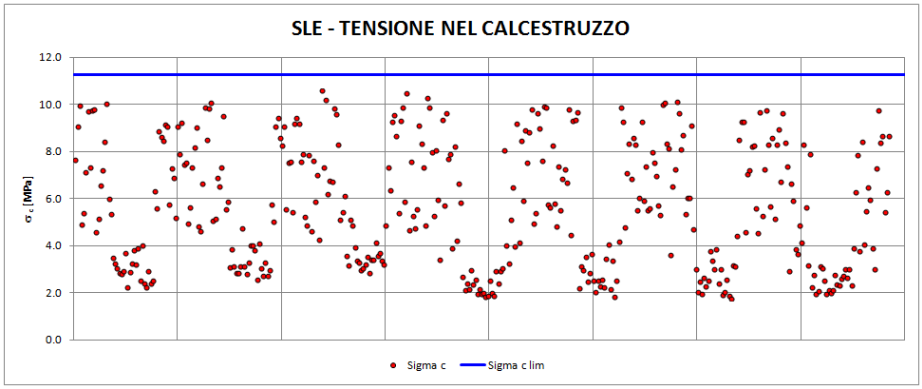
Calotta – spessore 1m – armatura: 5Φ20 in intradosso + 5Φ20 in estradosso

Figura 5.20: Verifiche allo S.L.U. per pressoflessione – calotta – dominio di resistenza della sezione e sollecitazioni di calcolo.

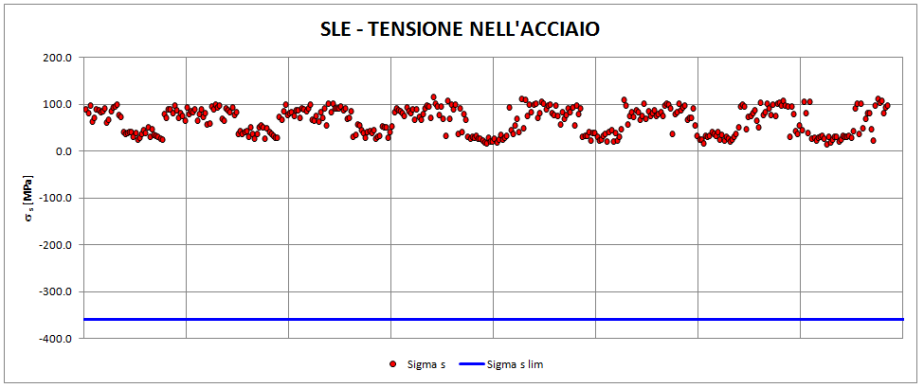
Le verifiche sono soddisfatte.

5.3.5.1.4 Calotta – verifiche allo SLE

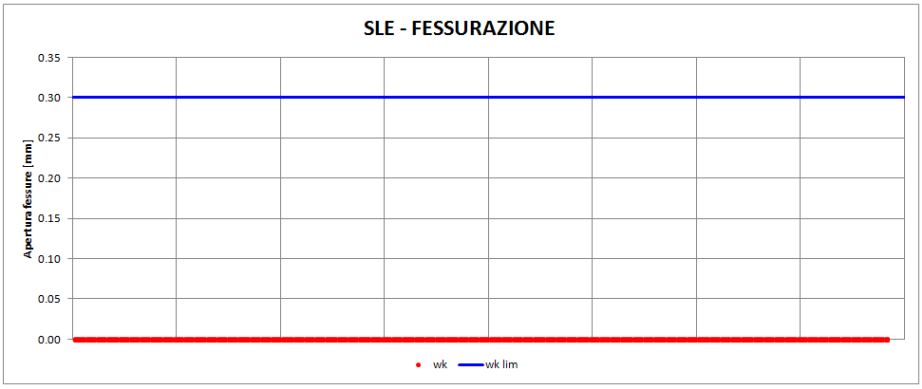
Le verifiche allo S.L.E. risultano soddisfatte quando l'ampiezza delle fessure w<0.3mm, la tensione massima nel calcestruzzo $\sigma_{c\,max} \leq 0.45 f_{ck}$ = 11.25MPa e la tensione massima nell'acciaio $\sigma_{s\,max} \leq 0.8 f_{yk}$ = 360MPa.



Tensioni di compressione nel calcestruzzo - $\sigma_c < \sigma_{c,max}$



Tensioni nell'acciaio - $\sigma_s < \sigma_{s,max}$



Apertura delle fessure – $w < w_{lim} = 0.3mm$

Figura 5.21: **Verifiche allo S.L.E. della sezione – calotta.**

Le verifiche sono soddisfatte.

5.3.5.1.5 Calotta – verifiche allo SLU per sollecitazioni taglianti

Nel caso di elementi strutturali dotati di armature trasversali a taglio occorre verificare che il taglio sollecitante di progetto (V_{Ed}) sia minore di quello resistente (V_{Rd}); essendo:

$V_{Rd} = \min (V_{Rsd}, V_{Rcd})$

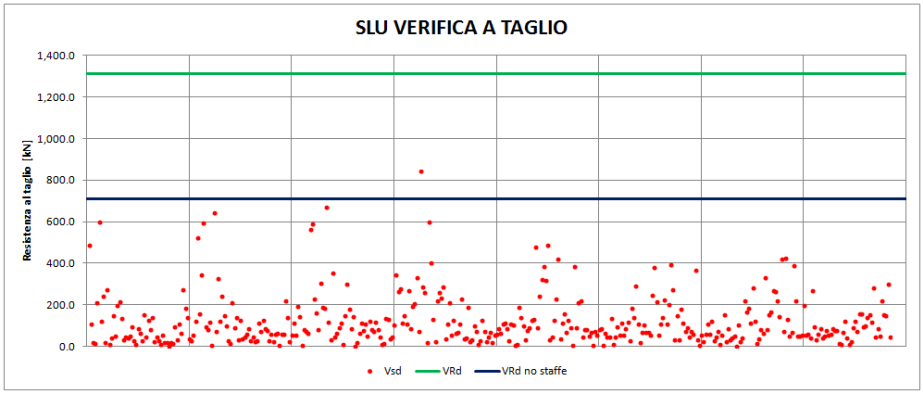
V_{Rsd}, è la resistenza di calcolo a "taglio trazione" dell'armatura trasversale

$V_{Rsd} = 0.9 \cdot d \cdot (A_{sw}/s) \cdot f_{yd} \cdot (\mathrm{ctg}\alpha + \mathrm{ctg}\theta) \cdot \sin\alpha$

V_{Rcd}, è la resistenza di calcolo a "taglio compressione" del calcestruzzo

$V_{Rcd} = 0.9 \cdot d \cdot b_w \cdot \alpha_c f'_{cd} (\mathrm{ctg}\alpha + \mathrm{ctg}\theta) / (1 + \mathrm{ctg}^2\theta)$

Per il significato delle diverse entità si rimanda al paragrafo 4.1.2.1.3.1 del NTC2008.



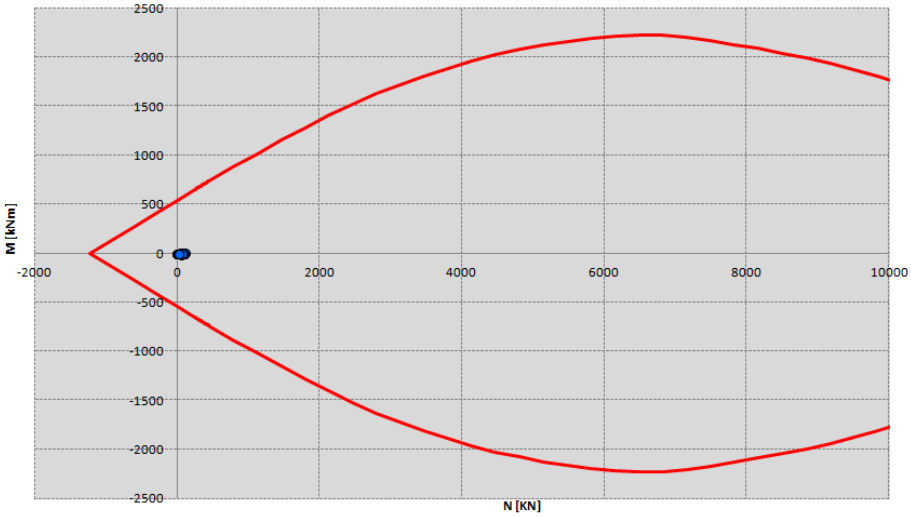
Calotta – spessore 1m – armatura a taglio: 1Φ14/50/20

Figura 5.22: Verifiche allo S.L.U. per sollecitazioni taglianti – calotta.

Le verifiche sono soddisfatte.

5.3.5.1.6 Arco rovescio – verifiche allo SLU – pressoflessione

Le verifiche allo SLU del rivestimento definitivo prevedono il confronto tra le sollecitazioni di calcolo, ottenute moltiplicando i valori caratteristici, restituiti dal modello di calcolo, per il coefficiente parziale γ_G = 1.3, e le resistenze di calcolo definite dai punti M_{Rd}, N_{Rd} che individuano il dominio resistente della sezione nel piano M-N.



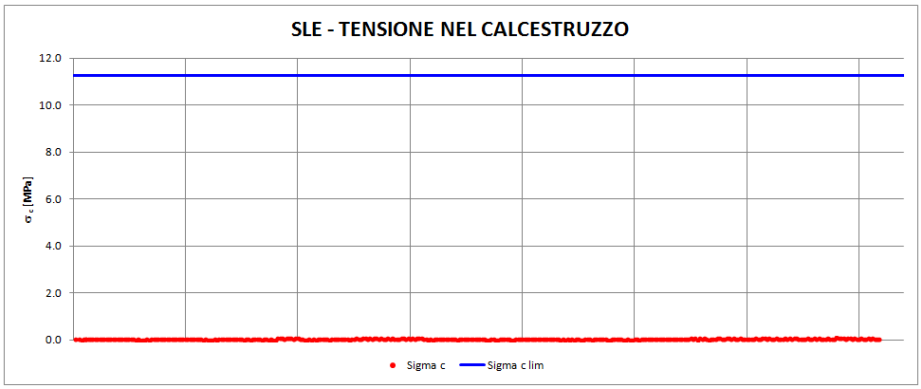
Arco rovescio – spessore 1m – armatura: 5Φ20 in intradosso + 5Φ20 in estradosso

Figura 5.23: Verifiche allo S.L.U. per pressoflessione – arco rovescio – dominio di resistenza della sezione e sollecitazioni di calcolo.

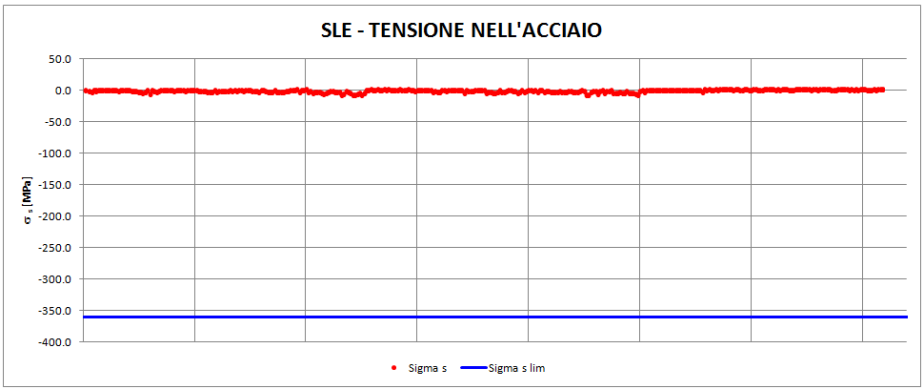
Le verifiche sono soddisfatte.

5.3.5.1.7 Arco rovescio – verifiche allo SLE

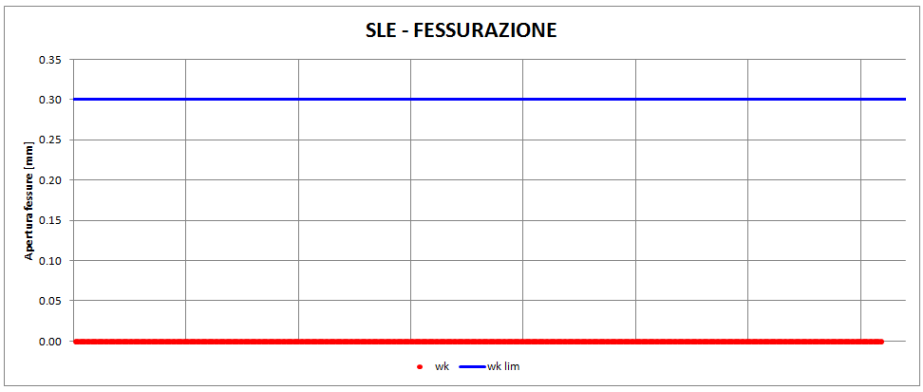
Le verifiche allo S.L.E. risultano soddisfatte quando l'ampiezza delle fessure w<0.3mm, la tensione massima nel calcestruzzo $\sigma_{c\,max} \leq 0.45 f_{ck}$ = 11.25MPa e la tensione massima nell'acciaio $\sigma_{s\,max} \leq 0.8 f_{yk}$ = 360MPa.



Tensioni di compressione nel calcestruzzo - $\sigma_c < \sigma_{c,max}$



Tensioni nell'acciaio - $\sigma_s < \sigma_{s,max}$



Apertura delle fessure – $w < w_{lim} = 0.3mm$

Figura 5.24: Verifiche allo S.L.E. della sezione – arco rovescio.

Le verifiche sono soddisfatte.

5.3.5.1.8 Arco rovescio – verifiche allo SLU per sollecitazioni taglianti

Nel caso di elementi strutturali privi di armature trasversali a taglio, occorre verificare che il taglio di progetto (V_{Ed}) sia minore di quello resistente (V_{Rd}); essendo:

$$V_{Rd} = 0{,}18 \cdot k \cdot (100 \cdot \rho_1 \cdot f_{ck}) / \gamma_c + 0{,}15 \cdot \sigma_{cp} \cdot b_w \cdot d \geq (v_{min} + 0{,}15 \cdot \sigma_{cp}) \cdot b_w \cdot d$$

con

$$k = 1 + (200/d) \cdot 1/2 \leq 2$$

$$v_{min} = 0{,}035 \cdot k^{3/2} \cdot f_{ck}^{1/2}$$

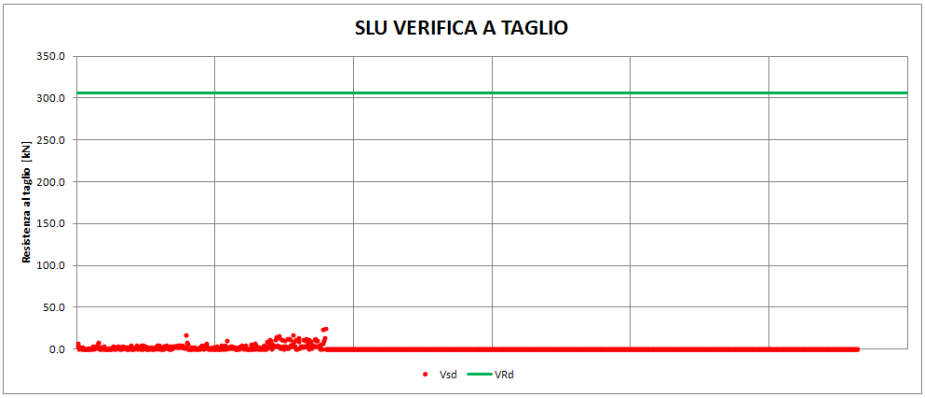
d è l'altezza utile della sezione (mm);

$\rho_1 = A_{sl} / (b_w \cdot d)$ è il rapporto geometrico di armatura longitudinale ($\leq$ 0.02);

$\sigma_{cp} = N_{Ed}/A_c$ è la tensione media di compressione nella sezione ($\leq$ 0.2 f_{cd});

b_w è la larghezza minima della sezione (mm).

Per il significato delle diverse entità si rimanda al paragrafo 4.1.2.1.3.1 del NTC2008.



Arco rovescio – spessore 1m

Figura 5.25: Verifiche allo S.L.U. per sollecitazioni taglianti – arco rovescio.

Le verifiche sono soddisfatte.

5.3.5.2 SEZIONE TIPO A2 LINEA

Nel presente paragrafo si illustrano le verifiche di resistenza del rivestimento definitivo della sezione A2 di linea del nodo d'innesto; tali verifiche sono riportate per via grafica.

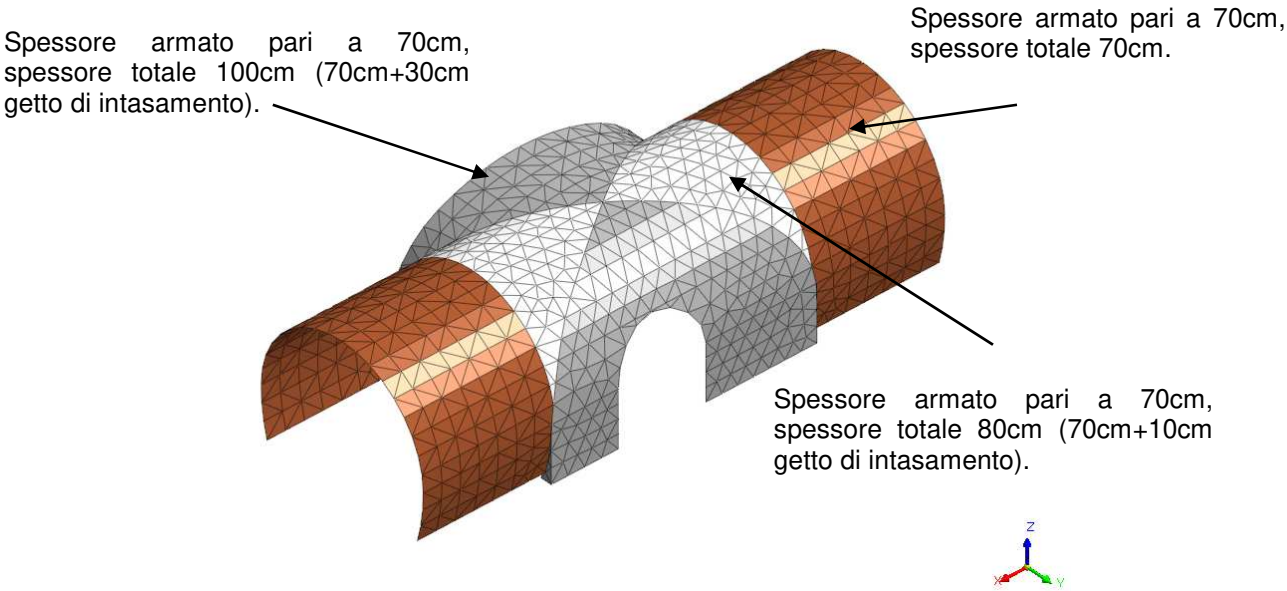


Figura 5.26: rivestimento definitivo della calotta della galleria di linea nella zona di innesto con evidenza delle diverse tipologie di rivestimento definitivo adottate.

5.3.5.2.1 Sollecitazioni agenti

Di seguito sono riportate le sollecitazioni (N, M e T) nel rivestimento definitivo della sezione in esame; i valori numerici (caratteristici e di calcolo) sono riportati nell'allegato specifico.

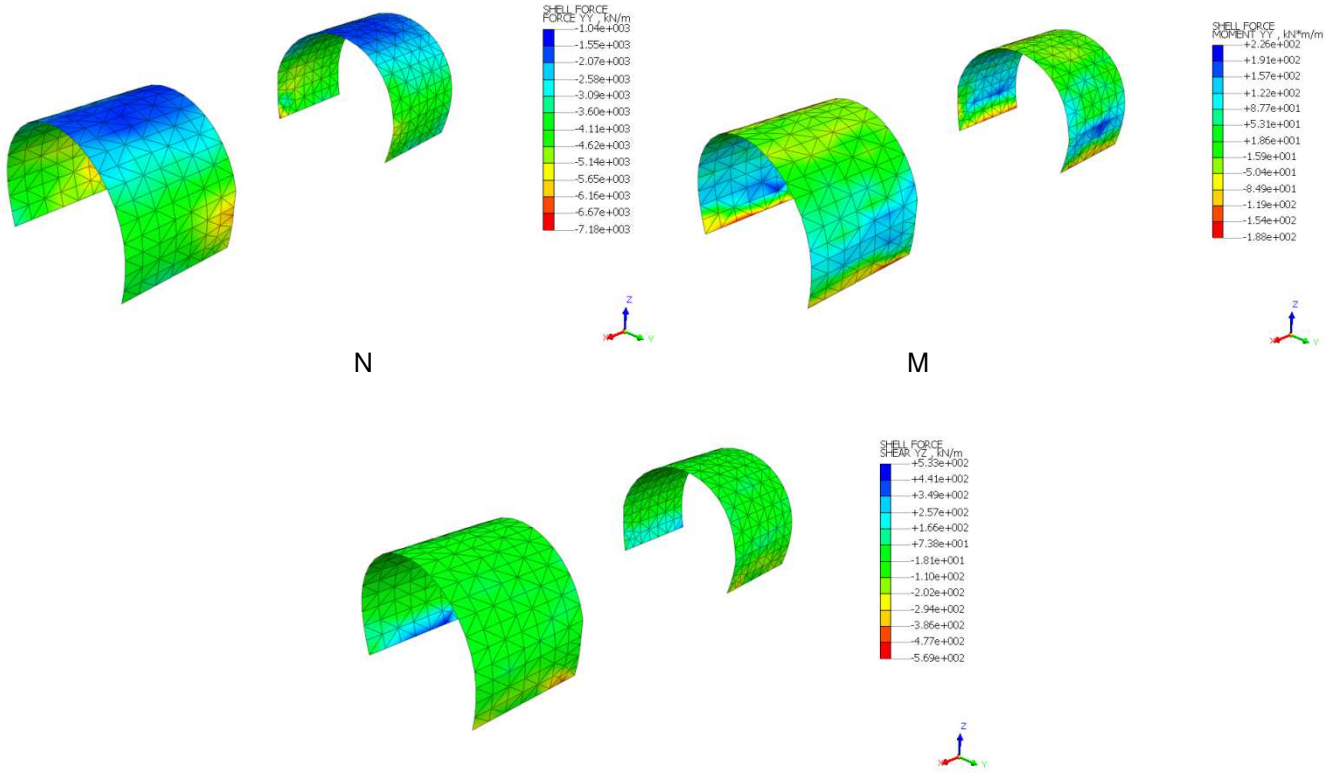


Figura 5.27: Sollecitazioni sul sostegno definitivo della galleria di linea nell'intorno del nodo d'innesto – calotta con spessore armato 70cm – (N<0 se di compressione) – stage finale.

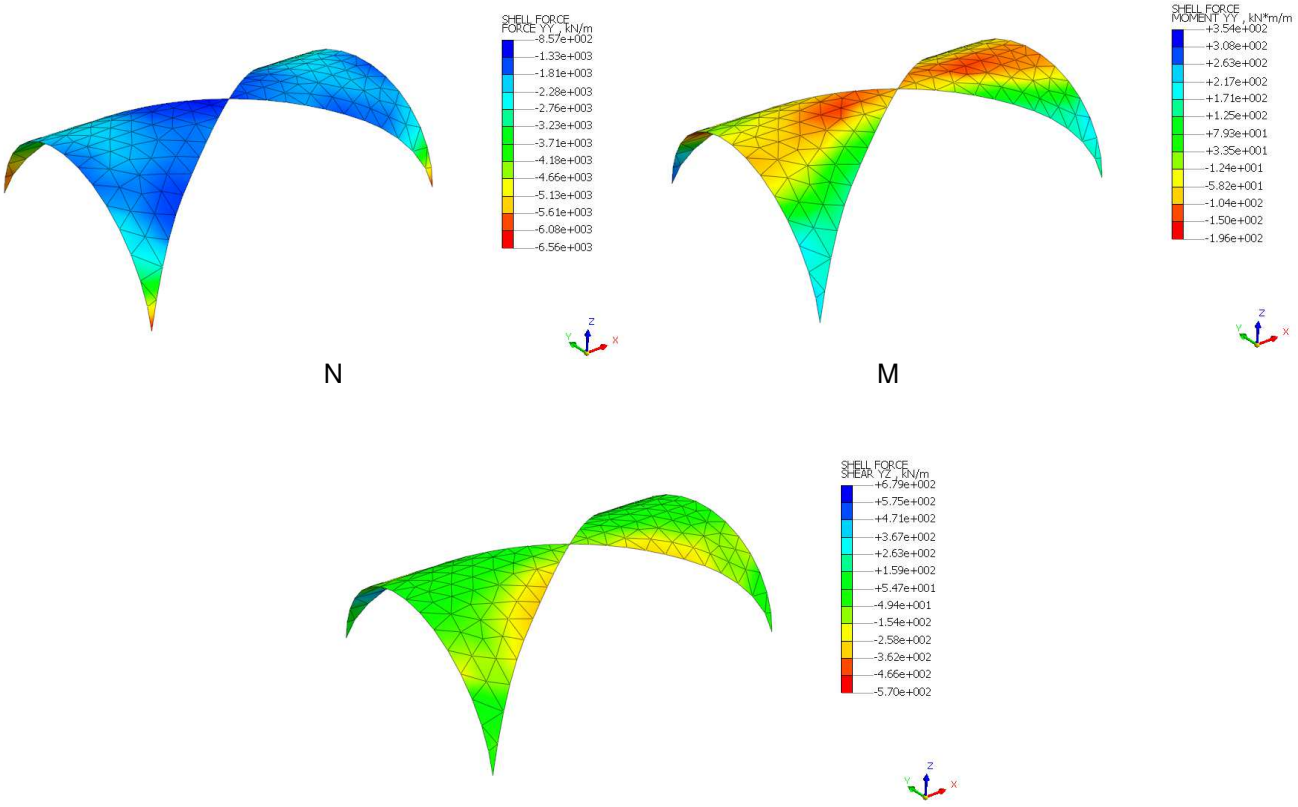


Figura 5.28: Sollecitazioni sul sostegno definitivo della galleria di linea nell'intorno del nodo d'innesto – calotta con spessore armato 70cm, spessore totale 80cm – (N<0 se di compressione) – stage finale.

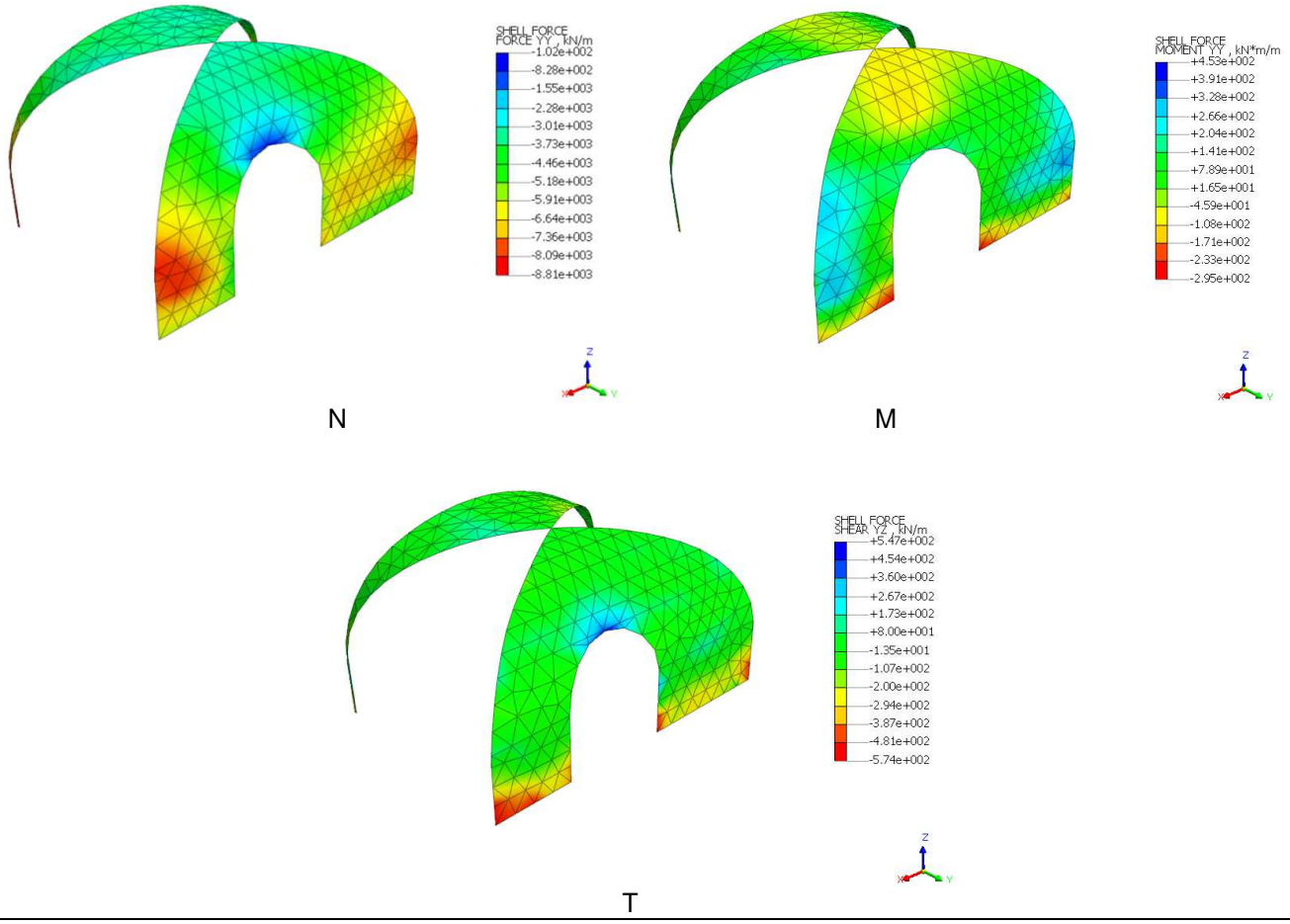


Figura 5.29: Sollecitazioni sul sostegno definitivo della galleria di linea nell'intorno del nodo d'innesto – calotta con spessore armato 70cm, spessore totale 100cm – (N<0 se di compressione) – stage finale.

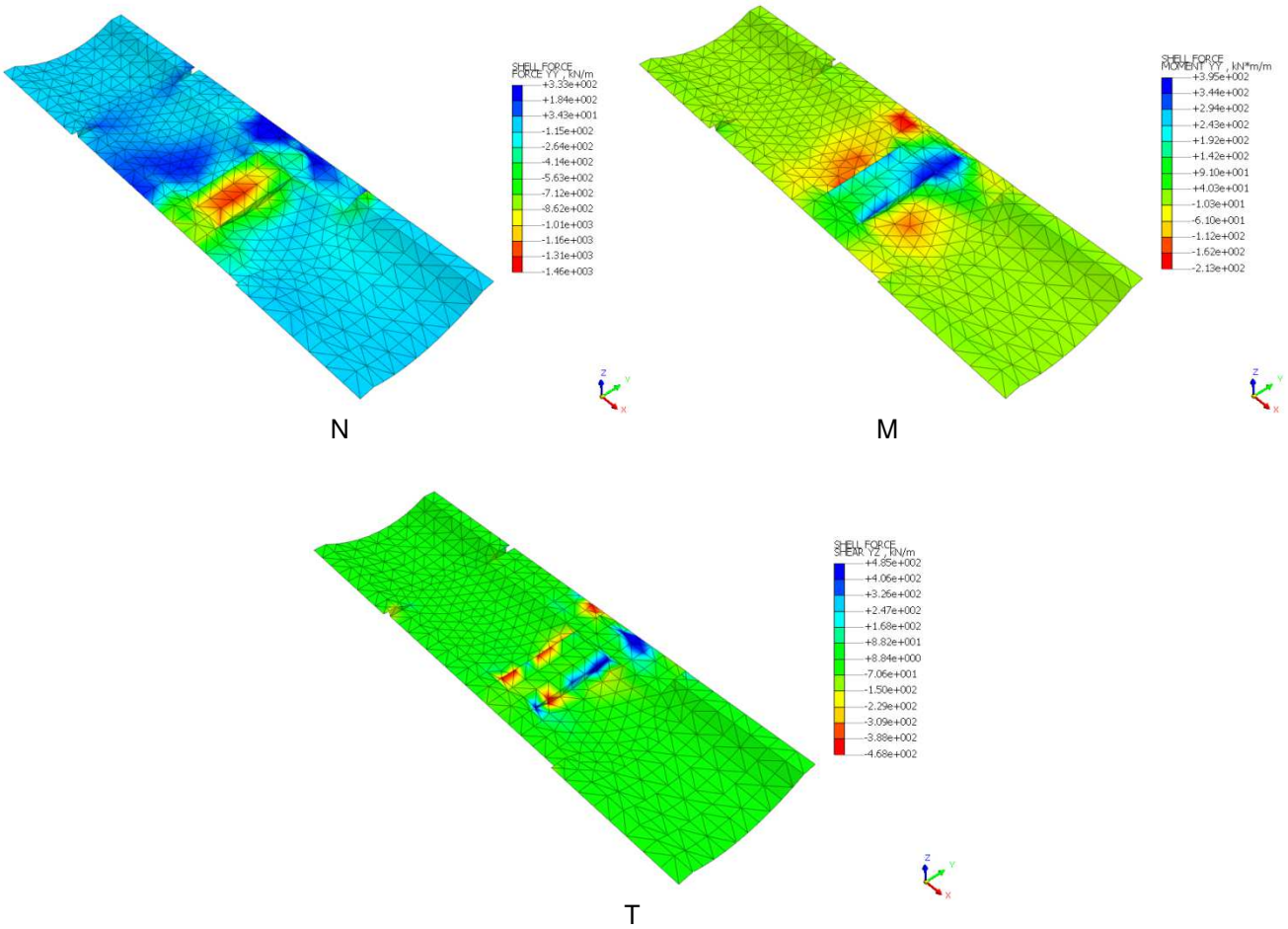


Figura 5.30: Sollecitazioni sul sostegno definitivo della galleria di linea nell'intorno del nodo d'innesto – arco rovescio – (N<0 se di compressione) – stage finale.

5.3.5.2.2 Armatura disposta

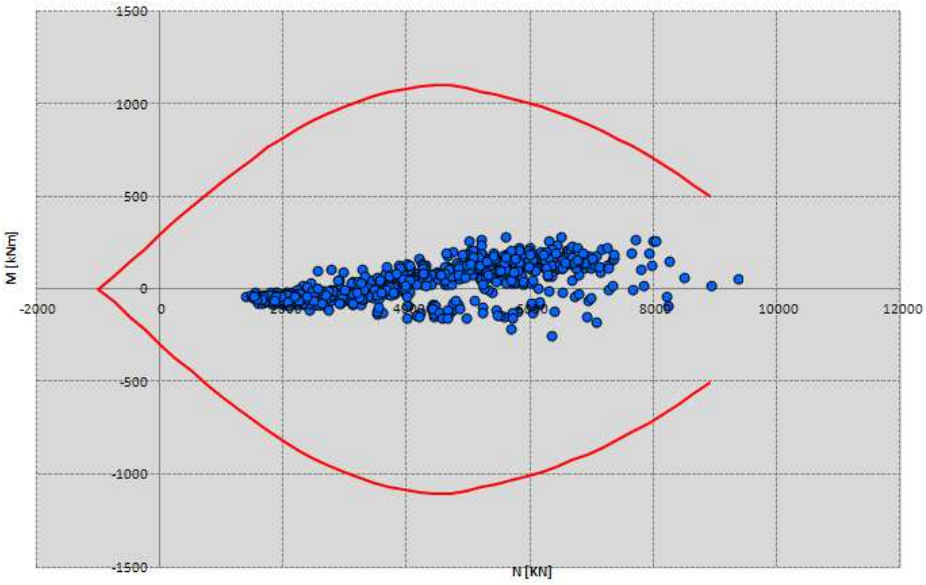
Nella tabella seguente sono riassunte le armature previste per la sezione tipo A2.

Tabella 20: armatura prevista per la sezione tipo A2.

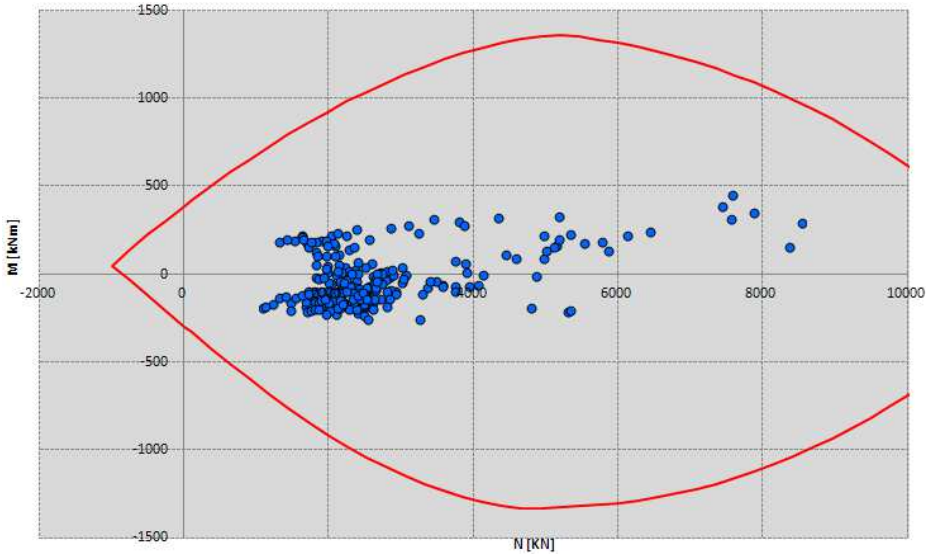
Posizione	Armatura flettente Intradosso	Armatura flettente estradosso	Armatura a taglio	Classe calcestruzzo	Copriferro [cm]
Calotta	5Ø18/m	5Ø18/m	1Ø14/50/20	C25/30	8
Murette	5Ø18/m	5Ø18/m	1Ø14/50/20	C25/30	8
Arco rovescio	5Ø20/m	5Ø20/m	1Ø14/50/33	C25/30	8
Soletta piatta in corrispondenza del sottoattraversamento	5Ø24/m	5Ø24/m	-	C25/30	8

5.3.5.2.3 Calotta – verifiche allo SLU – pressoflessione

Le verifiche allo SLU del rivestimento definitivo prevedono il confronto tra le sollecitazioni di calcolo, ottenute moltiplicando i valori caratteristici restituiti dal modello di calcolo per il coefficiente parziale γ_G = 1.3, e le resistenze di calcolo definite dai punti M_{Rd}, N_{Rd} che individuano il dominio resistente della sezione nel piano M-N.

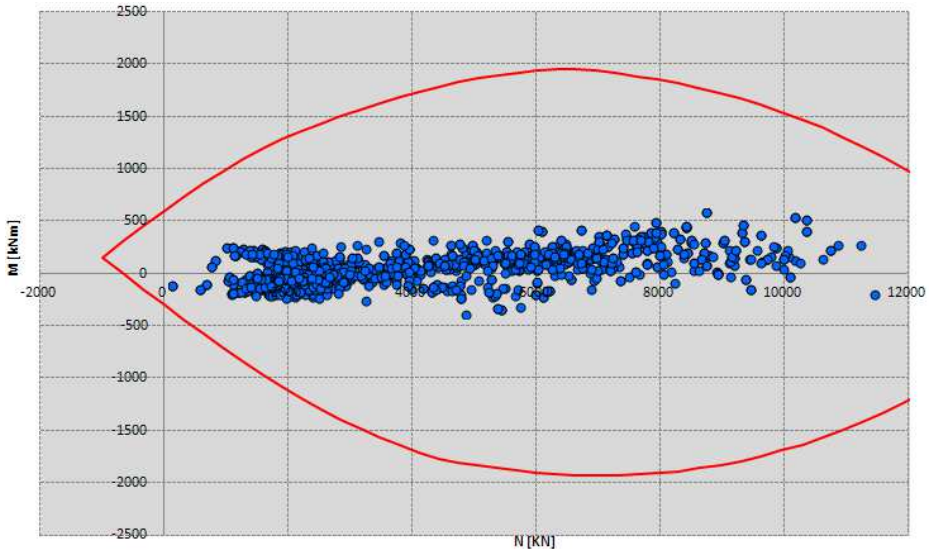


Calotta – spessore totale 70cm – armatura: 5Φ18 in intradosso + 5Φ18 in estradosso



Calotta – spessore armato 70cm, spessore totale 80cm – armatura: 5Φ18 in intradosso + 5Φ18 in estradosso

Figura 5.31: Verifiche allo S.L.U. per pressoflessione – calotta – dominio di resistenza della sezione e sollecitazioni di calcolo.



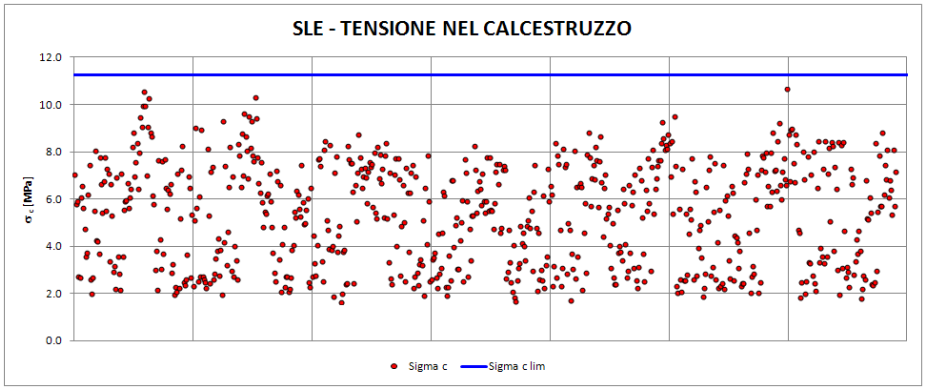
Calotta – spessore armato 70cm, spessore totale 100cm – armatura: 5Φ18 in intradosso + 5Φ18 in estradosso

Figura 5.32: Verifiche allo S.L.U. per pressoflessione – calotta – dominio di resistenza della sezione e sollecitazioni di calcolo.

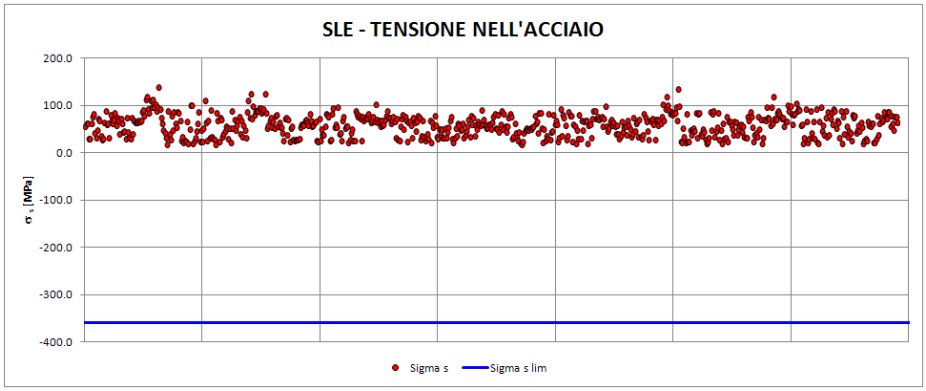
Le verifiche sono soddisfatte.

5.3.5.2.4 Calotta – verifiche allo SLE

Le verifiche allo S.L.E. risultano soddisfatte quando l'ampiezza delle fessure w<0.3mm, la tensione massima nel calcestruzzo $\sigma_{c\,max} \leq 0.45 f_{ck}$ = 11.25MPa e la tensione massima nell'acciaio $\sigma_{s\,max} \leq 0.8 f_{yk}$ = 360MPa.



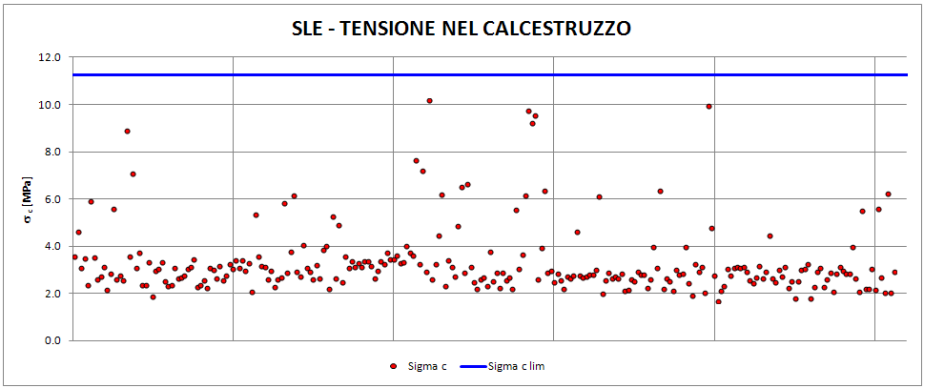
Tensioni di compressione nel calcestruzzo - $\sigma_c < \sigma_{c,max}$



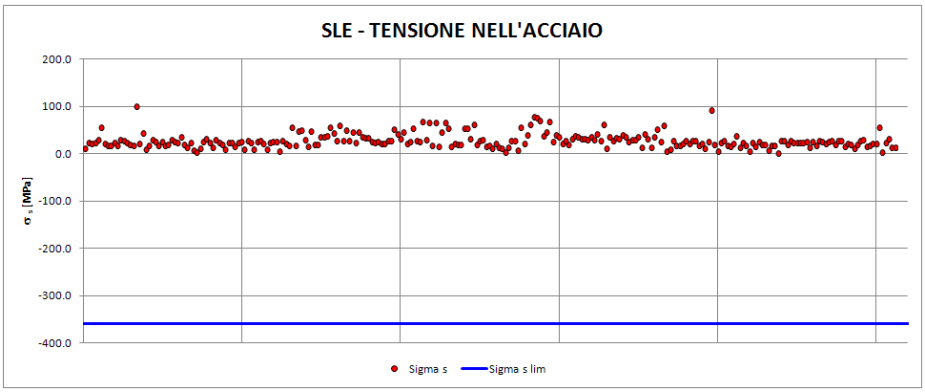
Tensioni nell'acciaio - $\sigma_s < \sigma_{s,max}$

Apertura delle fessure – $w < w_{lim} = 0.3mm$

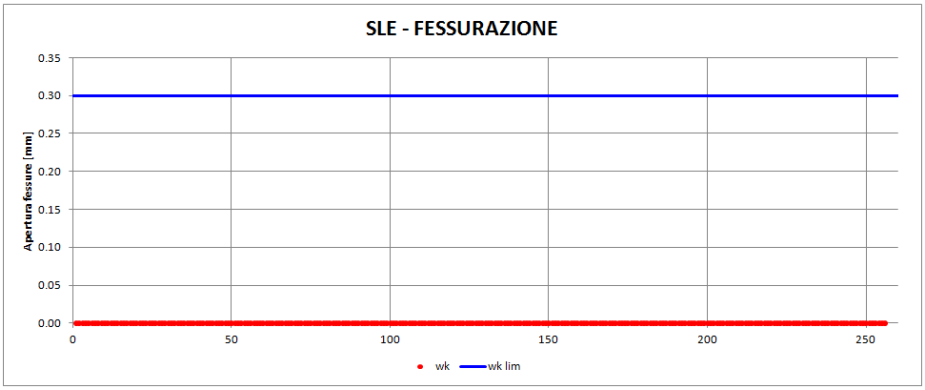
Figura 5.33: Verifiche allo S.L.E. della sezione – calotta – spessore 70cm.



Tensioni di compressione nel calcestruzzo - $\sigma_c < \sigma_{c,max}$

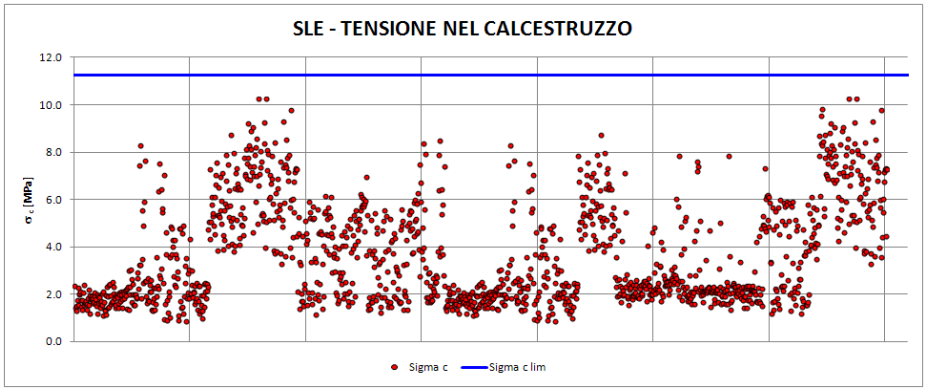


Tensioni nell'acciaio - $\sigma_s < \sigma_{s,max}$

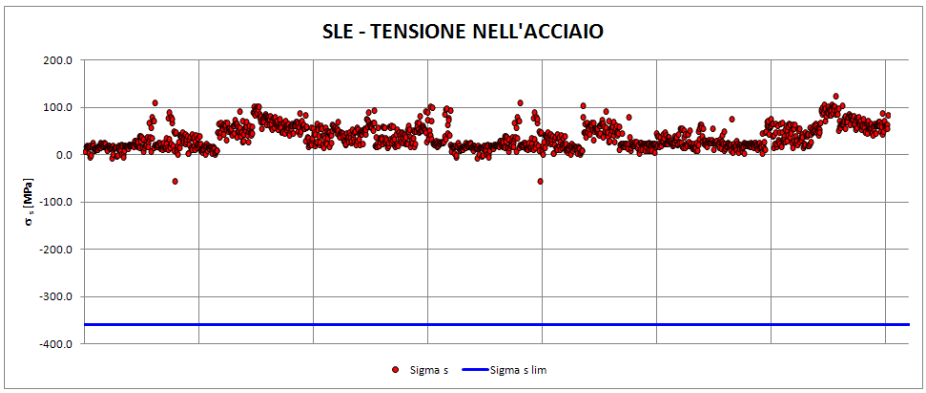


Apertura delle fessure – $w < w_{lim} = 0.3mm$

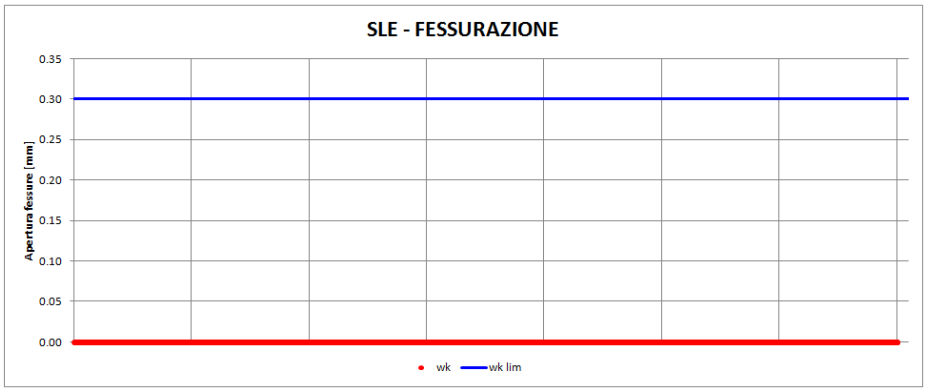
Figura 5.34: Verifiche allo S.L.E. della sezione – calotta – spessore armato 70cm, spessore totale 80cm.



Tensioni di compressione nel calcestruzzo - $\sigma_c < \sigma_{c,max}$



Tensioni nell'acciaio - $\sigma_s < \sigma_{s,max}$



Apertura delle fessure – $w < w_{lim} = 0.3mm$

Figura 5.35: Verifiche allo S.L.E. della sezione – calotta – spessore armato 70cm, spessore totale 100cm.

Le verifiche sono soddisfatte.

5.3.5.2.5 Calotta – verifiche allo SLU per sollecitazioni taglianti

Nel caso di elementi strutturali dotati di armature trasversali a taglio occorre verificare che il taglio sollecitante di progetto (V_{Ed}) sia minore di quello resistente (V_{Rd}); essendo:

$V_{Rd} = \min (V_{Rsd}, V_{Rcd})$

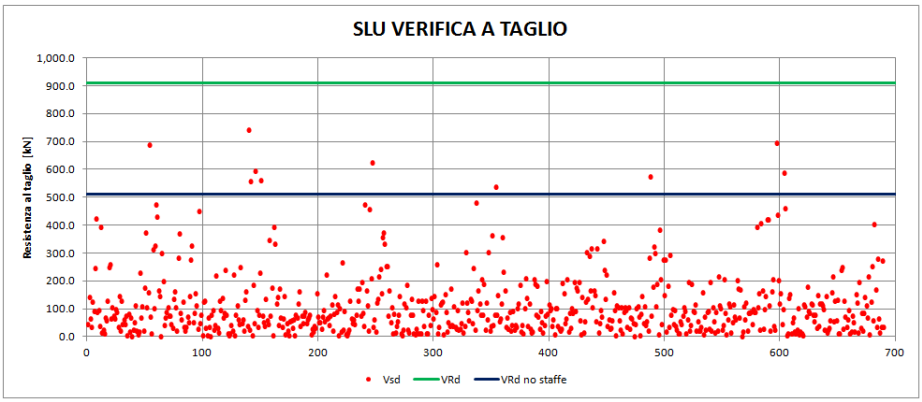
V_{Rsd}, è la resistenza di calcolo a "taglio trazione" dell'armatura trasversale

$V_{Rsd} = 0.9 \cdot d \cdot (A_{sw}/s) \cdot f_{yd} \cdot (\text{ctg}\alpha + \text{ctg}\theta) \cdot \sin\alpha$

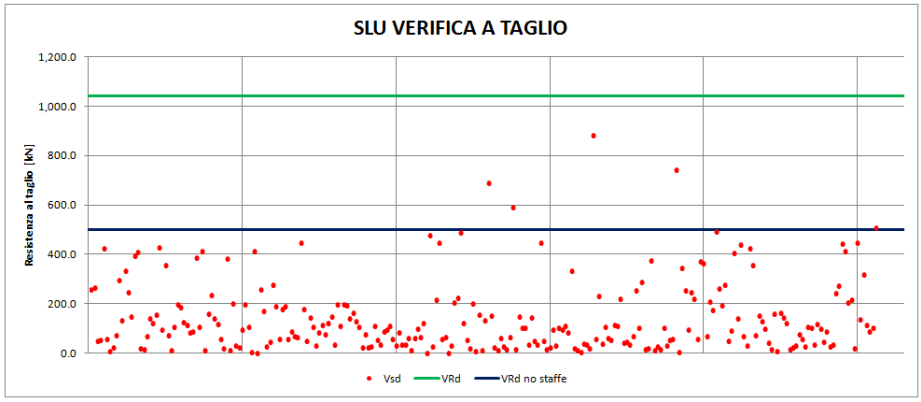
V_{Rcd}, è la resistenza di calcolo a "taglio compressione" del calcestruzzo

$V_{Rcd} = 0.9 \cdot d \cdot b_w \cdot \alpha_c f'_{cd} (\text{ctg}\alpha + \text{ctg}\theta) / (1 + \text{ctg}^2\theta)$

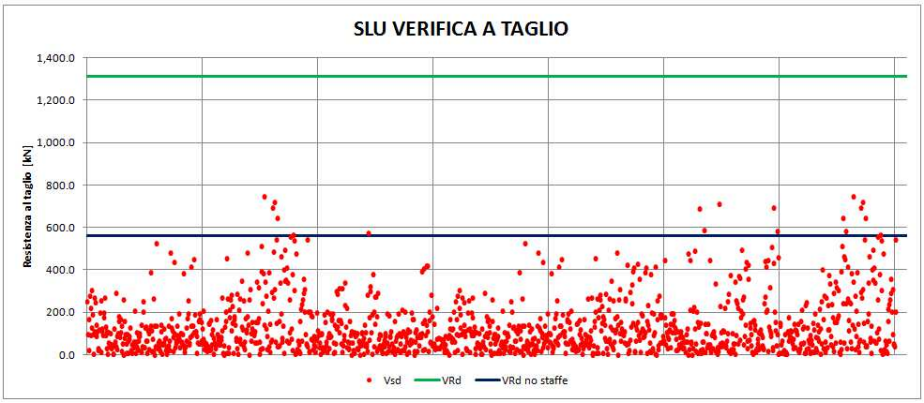
Per il significato delle diverse entità si rimanda al paragrafo 4.1.2.1.3.1 del NTC2008.



Calotta – spessore 70cm – armatura a taglio: 1Φ14/50/20



Calotta – spessore armato 70cm, spessore totale 80cm – armatura a taglio: 1Φ14/50/20



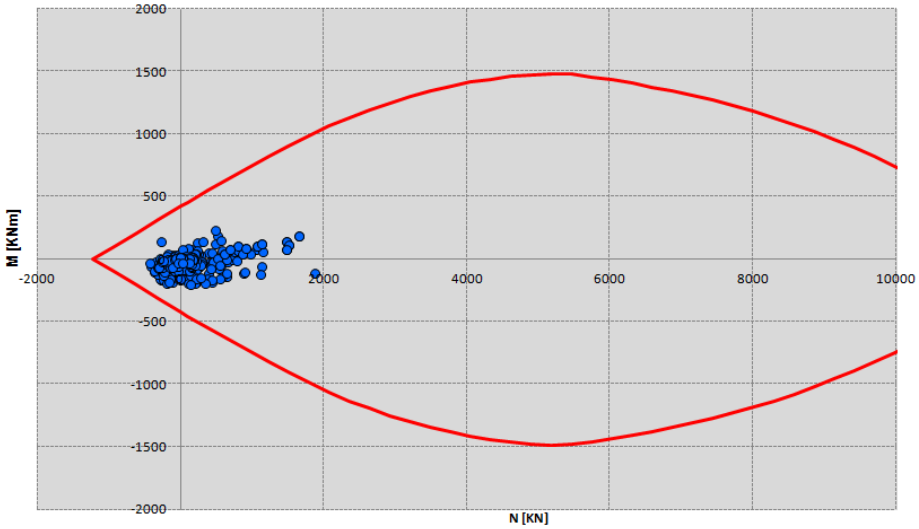
Calotta – spessore armato 70cm, spessore totale 100cm – armatura a taglio: 1Φ14/50/20

Figura 5.36: Verifiche allo S.L.U. per sollecitazioni taglianti – calotta.

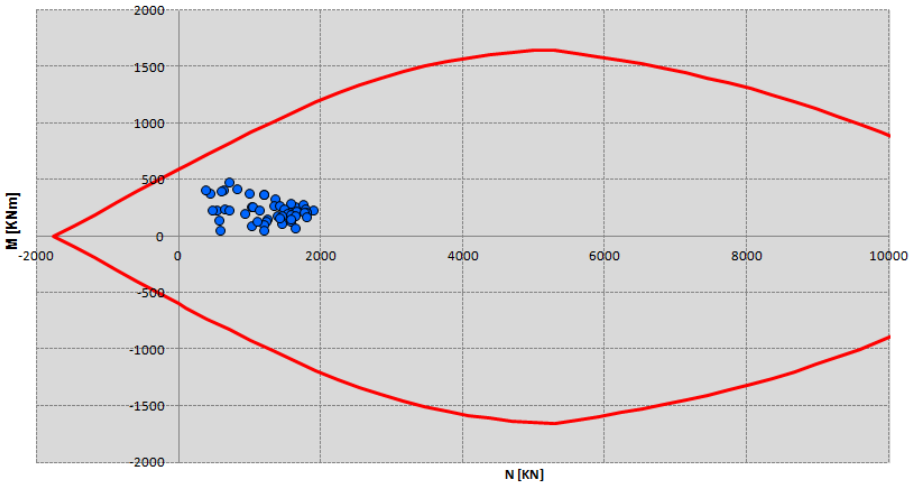
Le verifiche sono soddisfatte.

5.3.5.2.6 Arco rovescio – verifiche allo SLU – pressoflessione

Le verifiche allo SLU del rivestimento definitivo prevedono il confronto tra le sollecitazioni di calcolo, ottenute moltiplicando i valori caratteristici, restituiti dal modello di calcolo, per il coefficiente parziale γ_G = 1.3, e le resistenze di calcolo definite dai punti M_{Rd}, N_{Rd} che individuano il dominio resistente della sezione nel piano M-N.



Arco rovescio – spessore 80cm – armatura: 5Φ20 in intradosso + 5Φ20 in estradosso



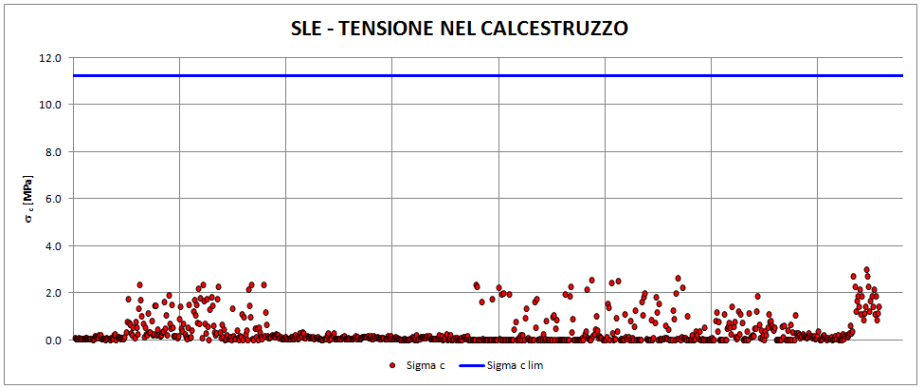
Soletta piatta – spessore 80cm – armatura: 5Φ24 in intradosso + 5Φ24 in estradosso

Figura 5.37: Verifiche allo S.L.U. per pressoflessione – arco rovescio e soletta piatta – dominio di resistenza della sezione e sollecitazioni di calcolo.

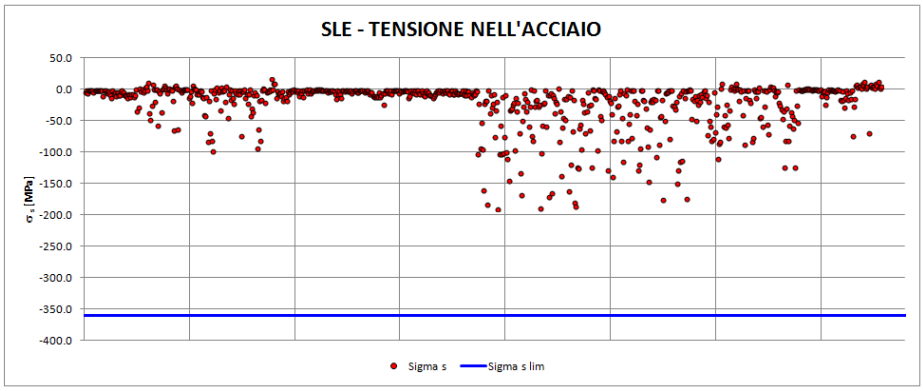
Le verifiche sono soddisfatte.

5.3.5.2.7 Arco rovescio – verifiche allo SLE

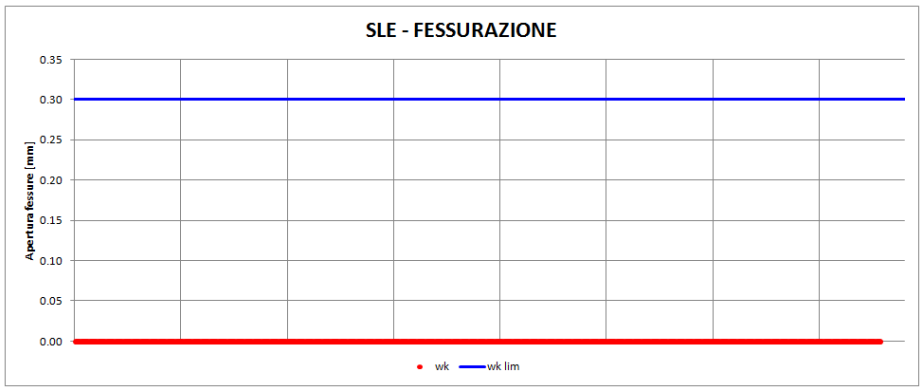
Le verifiche allo S.L.E. risultano soddisfatte quando l'ampiezza delle fessure w<0.3mm, la tensione massima nel calcestruzzo $\sigma_{c\,max} \leq 0.45 f_{ck}$ = 11.25MPa e la tensione massima nell'acciaio $\sigma_{s\,max} \leq 0.8 f_{yk}$ = 360MPa.



Tensioni di compressione nel calcestruzzo - $\sigma_c < \sigma_{c,max}$

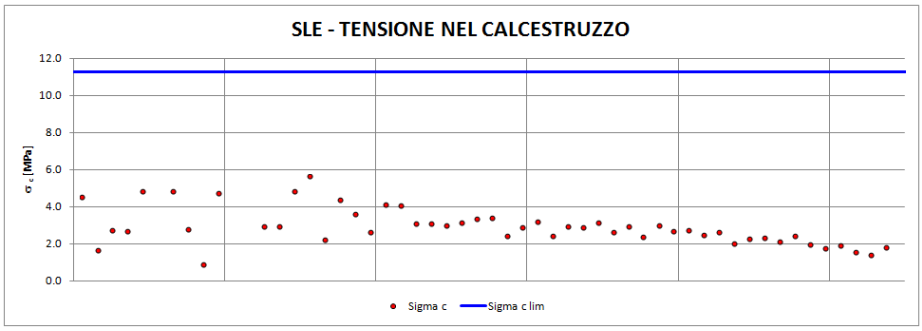


Tensioni nell'acciaio - $\sigma_s < \sigma_{s,max}$

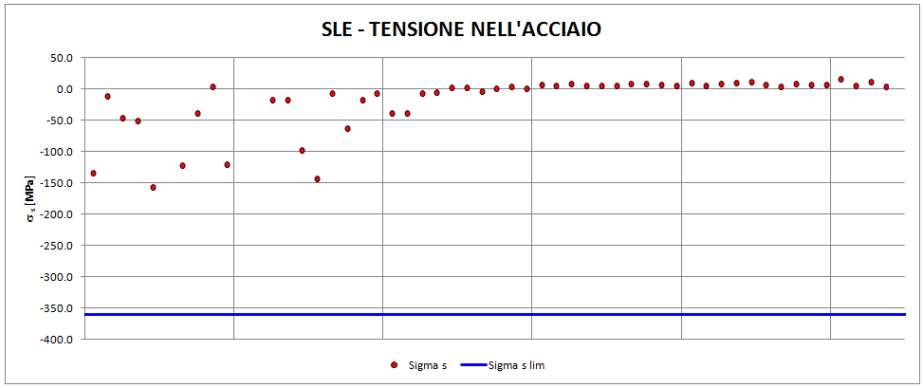


Apertura delle fessure – $w < w_{lim} = 0.3mm$

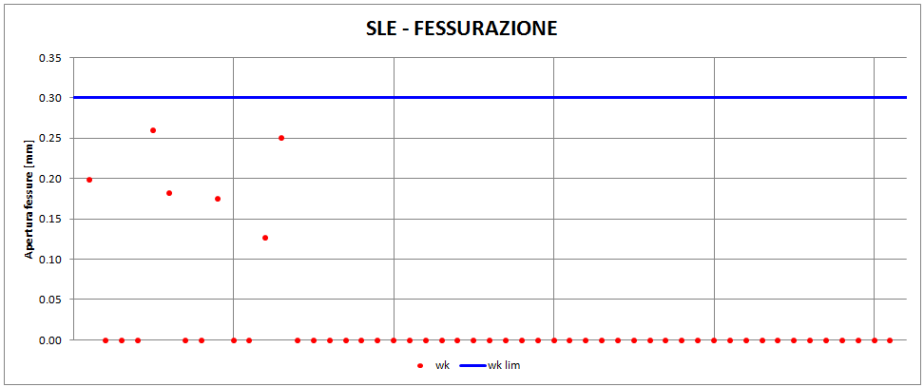
Figura 5.38: Verifiche allo S.L.E. della sezione – arco rovescio.



Tensioni di compressione nel calcestruzzo - $\sigma_c < \sigma_{c,max}$



Tensioni nell'acciaio - $\sigma_s < \sigma_{s,max}$



Apertura delle fessure – $w < w_{lim} = 0.3mm$

Figura 5.39: Verifiche allo S.L.E. della sezione – soletta piatta.

Le verifiche sono soddisfatte.

5.3.5.2.8 Arco rovescio – verifiche allo SLU per sollecitazioni taglianti

Nel caso di elementi strutturali dotati di armature trasversali a taglio occorre verificare che il taglio sollecitante di progetto (V_{Ed}) sia minore di quello resistente (V_{Rd}); essendo:

$V_{Rd} = \min (V_{Rsd}, V_{Rcd})$

V_{Rsd}, è la resistenza di calcolo a "taglio trazione" dell'armatura trasversale

$V_{Rsd} = 0.9 \cdot d \cdot (A_{sw}/s) \cdot f_{yd} \cdot (ctg\alpha + ctg\theta) \cdot sin\alpha$

V_{Rcd}, è la resistenza di calcolo a "taglio compressione" del calcestruzzo

$V_{Rcd} = 0.9 \cdot d \cdot b_w \cdot \alpha_c f'_{cd} (ctg\alpha + ctg\theta) / (1 + ctg^2\theta)$

Nel caso di elementi strutturali privi di armature trasversali a taglio, occorre verificare che il taglio di progetto (V_{Ed}) sia minore di quello resistente (V_{Rd}); essendo:

$V_{Rd} = 0{,}18 \cdot k \cdot (100 \cdot \rho_1 \cdot f_{ck}) / \gamma_c + 0{,}15 \cdot \sigma_{cp} \cdot b_w \cdot d \geq (v_{min} + 0{,}15 \cdot \sigma_{cp}) \cdot b_w \cdot d$

con

$k = 1 + (200/d) \cdot 1/2 \leq 2$

$v_{min} = 0{,}035 \cdot k^{3/2} \cdot f_{ck}^{1/2}$

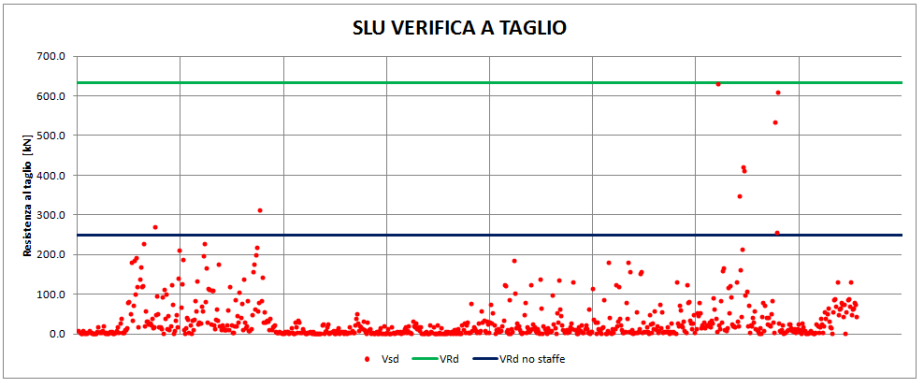
d è l'altezza utile della sezione (mm);

$\rho_1 = A_{sl} / (b_w \cdot d)$ è il rapporto geometrico di armatura longitudinale (≤ 0.02);

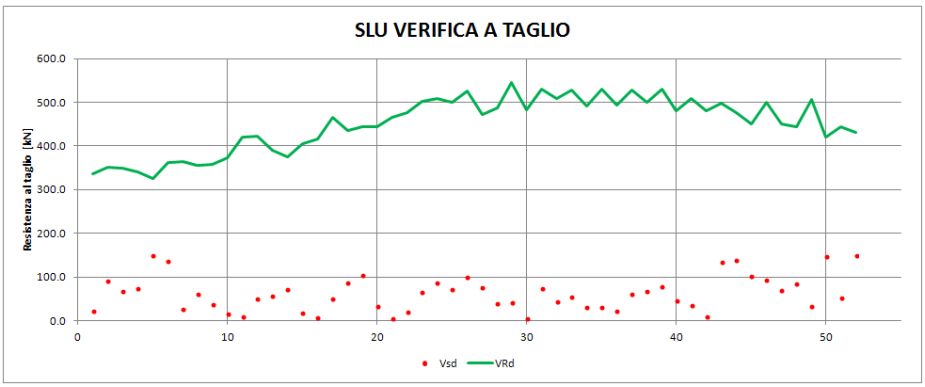
$\sigma_{cp} = N_{Ed}/A_c$ è la tensione media di compressione nella sezione ($\leq 0.2\ f_{cd}$);

b_w è la larghezza minima della sezione (mm).

Per il significato delle diverse entità si rimanda al paragrafo 4.1.2.1.3.1 del NTC2008.



Arco rovescio – spessore 80cm – armatura a taglio: 1Φ14/50/33



Soletta piatta – spessore 80cm

Figura 5.40: Verifiche allo S.L.U. per sollecitazioni taglianti – arco rovescio e soletta piatta.

Le verifiche sono soddisfatte.

5.3.5.3 SEZIONE TIPO CAMERA DI ESODO IN CALCARI

Nel presente paragrafo si illustrano le verifiche di resistenza del rivestimento definitivo della sezione camera di esodo del nodo d'innesto; tali verifiche sono riportate per via grafica.

5.3.5.3.1 Sollecitazioni agenti

Di seguito sono riportate le sollecitazioni (N, M e T) nel rivestimento definitivo della sezione in esame; i valori numerici (caratteristici e di calcolo) sono riportati nell'allegato specifico.

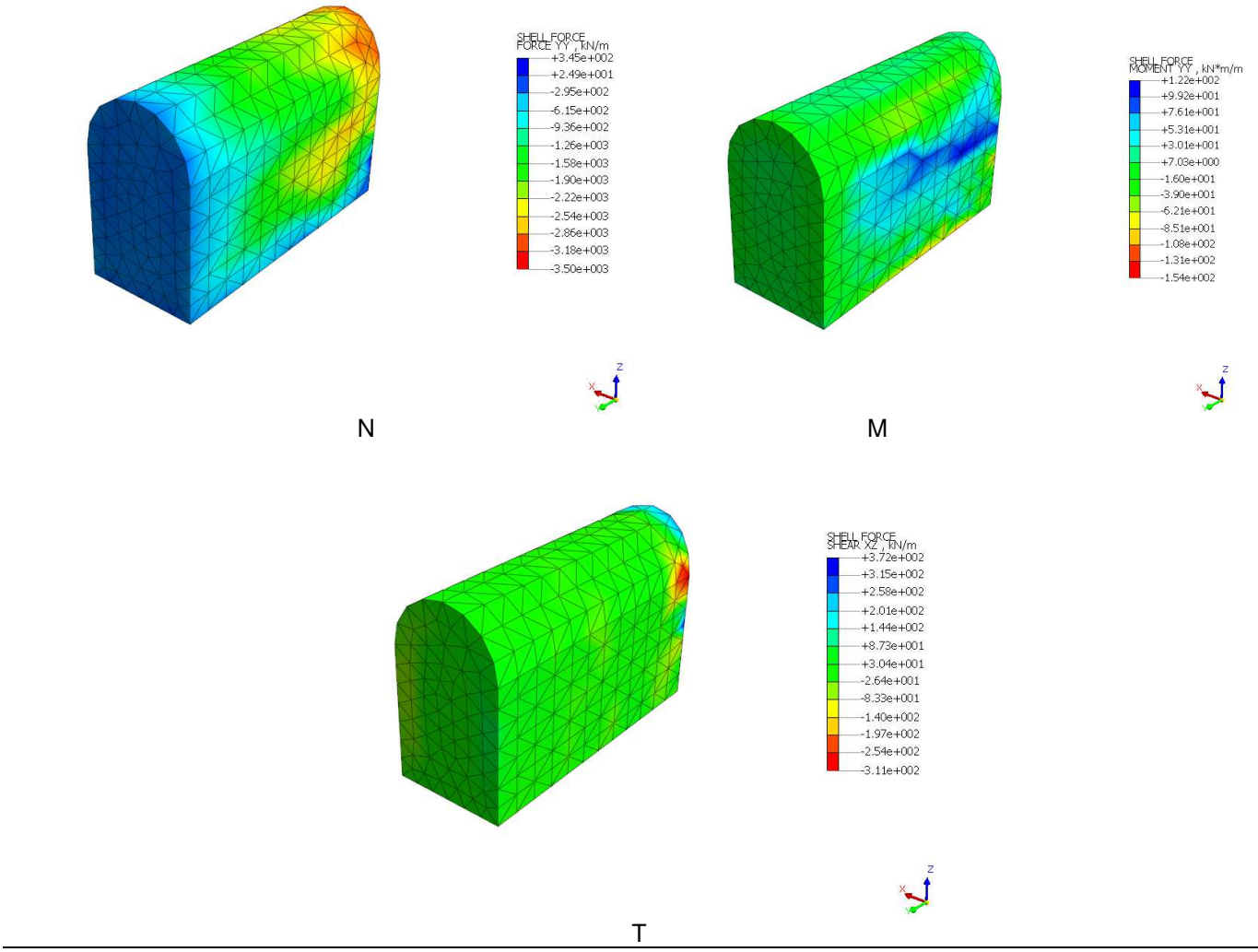


Figura 5.41: Sollecitazioni sul rivestimento definitivo della camera di esodo – (N<0 se di compressione) – stage finale.

5.3.5.3.2 Armatura disposta

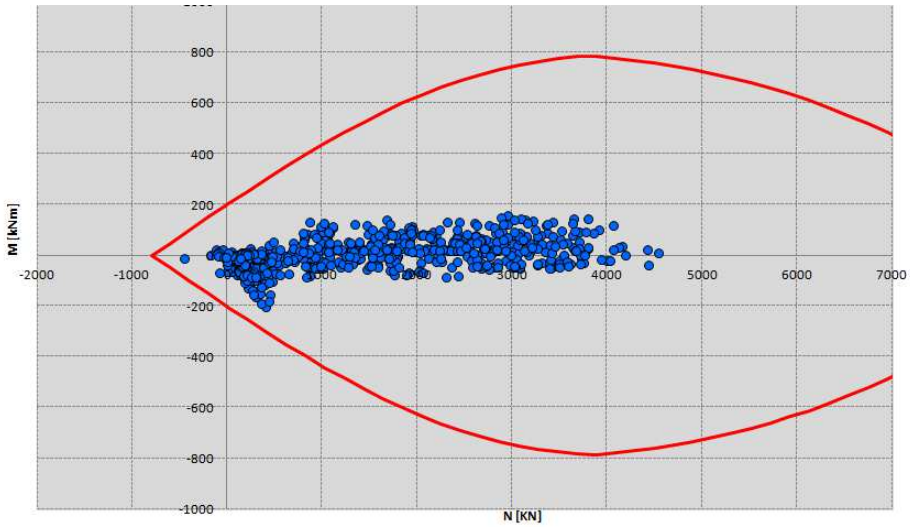
Nella tabella seguente sono riassunte le armature previste per la sezione tipo camera di esodo.

Tabella 21: armatura prevista per la sezione tipo camera di esodo.

Posizione	Armatura flettente Intradosso	Armatura flettente estradosso	Armatura a taglio	Classe calcestruzzo	Copriferro [cm]
Calotta	5Ø16/m	5Ø16/m	1Ø14/50/20	C25/30	8
Murette	5Ø16/m	5Ø16/m	1Ø14/50/20	C25/30	8
Soletta piatta	5Ø16/m	5Ø16/m	1Ø14/50/20	C25/30	8

5.3.5.3.3 Calotta e soletta piatta – verifiche allo SLU – pressoflessione

Le verifiche allo SLU del rivestimento definitivo prevedono il confronto tra le sollecitazioni di calcolo, ottenute moltiplicando i valori caratteristici restituiti dal modello di calcolo per il coefficiente parziale γ_G = 1.3, e le resistenze di calcolo definite dai punti M_{Rd}, N_{Rd} che individuano il dominio resistente della sezione nel piano M-N.



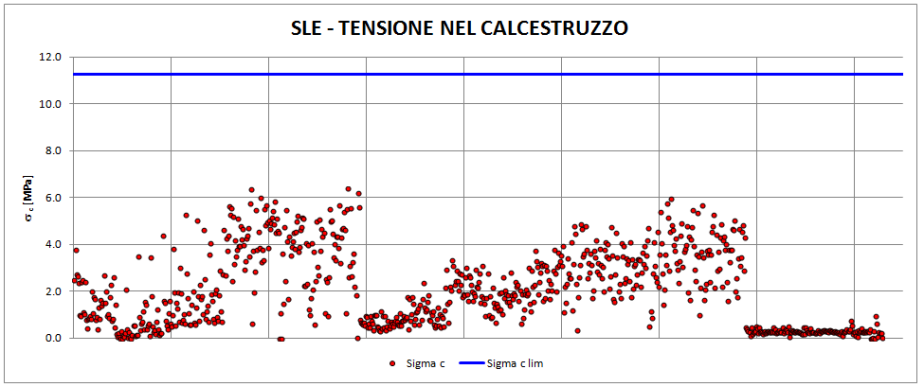
Calotta e soletta piatta – spessore 60cm – armatura: 5Φ16 in intradosso + 5Φ16 in estradosso

Figura 5.42: Verifiche allo S.L.U. per pressoflessione – calotta e soletta piatta – dominio di resistenza della sezione e sollecitazioni di calcolo.

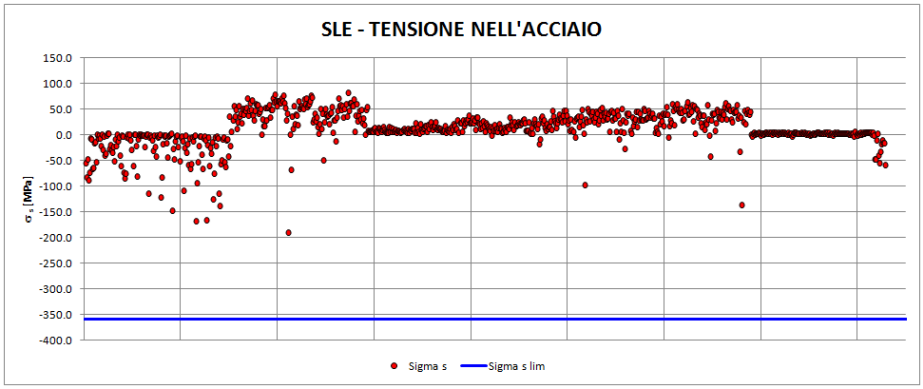
Le verifiche sono soddisfatte.

5.3.5.3.4 Calotta e soletta piatta – verifiche allo SLE

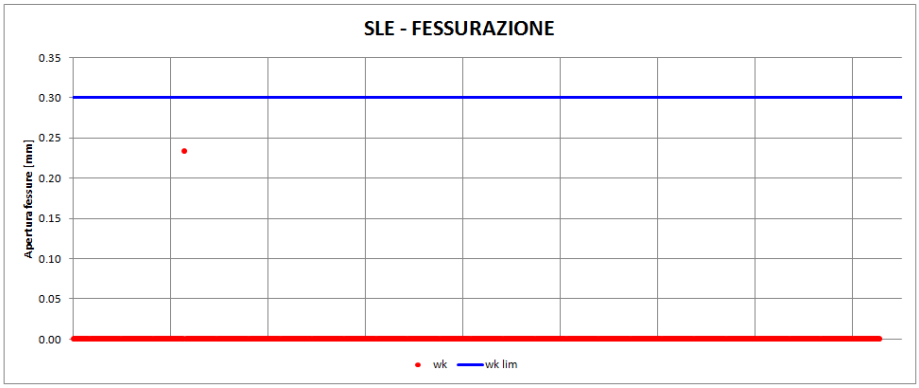
Le verifiche allo S.L.E. risultano soddisfatte quando l'ampiezza delle fessure w<0.3mm, la tensione massima nel calcestruzzo $\sigma_{c\,max} \leq 0.45 f_{ck}$ = 11.25MPa e la tensione massima nell'acciaio $\sigma_{s\,max} \leq 0.8 f_{yk}$ = 360MPa.



Tensioni di compressione nel calcestruzzo - $\sigma_c < \sigma_{c,max}$



Tensioni nell'acciaio - $\sigma_s < \sigma_{s,max}$



Apertura delle fessure – $w < w_{lim} = 0.3mm$

Figura 5.43: Verifiche allo S.L.E. della sezione – calotta e soletta piatta.

Le verifiche sono soddisfatte.

5.3.5.3.5 Calotta e soletta piatta – verifiche allo SLU per sollecitazioni taglianti

Nel caso di elementi strutturali dotati di armature trasversali a taglio occorre verificare che il taglio sollecitante di progetto (V_{Ed}) sia minore di quello resistente (V_{Rd}); essendo:

$V_{Rd} = \min (V_{Rsd}, V_{Rcd})$

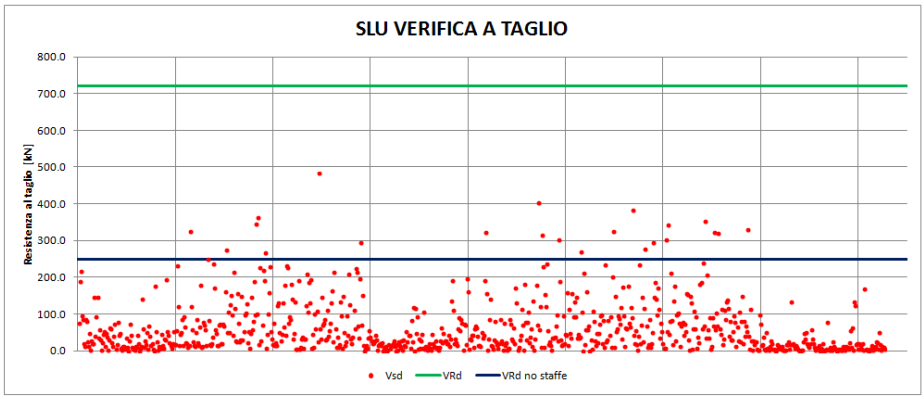
V_{Rsd}, è la resistenza di calcolo a "taglio trazione" dell'armatura trasversale

$V_{Rsd} = 0.9 \cdot d \cdot (A_{sw}/s) \cdot f_{yd} \cdot (\text{ctg}\alpha + \text{ctg}\theta) \cdot \sin\alpha$

V_{Rcd}, è la resistenza di calcolo a "taglio compressione" del calcestruzzo

$V_{Rcd} = 0.9 \cdot d \cdot b_w \cdot \alpha_c \, f'_{cd} \, (\text{ctg}\alpha + \text{ctg}\theta) / (1 + \text{ctg}^2\theta)$

Per il significato delle diverse entità si rimanda al paragrafo 4.1.2.1.3.1 del NTC2008.



Calotta e soletta piatta – spessore 60cm – armatura a taglio: 1Φ14/50/20

Figura 5.44: Verifiche allo S.L.U. per sollecitazioni taglianti – calotta e soletta piatta.

Le verifiche sono soddisfatte.

5.3.5.4 SEZIONE TIPO SOTTO ATTRAVERSAMENTO

Nel presente paragrafo si illustrano le verifiche di resistenza del rivestimento definitivo della sezione sotto attraversamento del nodo d'innesto; tali verifiche sono riportate per via grafica.

5.3.5.4.1 Sollecitazioni agenti

Di seguito sono riportate le sollecitazioni (N, M e T) nel rivestimento definitivo della sezione in esame; i valori numerici (caratteristici e di calcolo) sono riportati nell'allegato specifico.

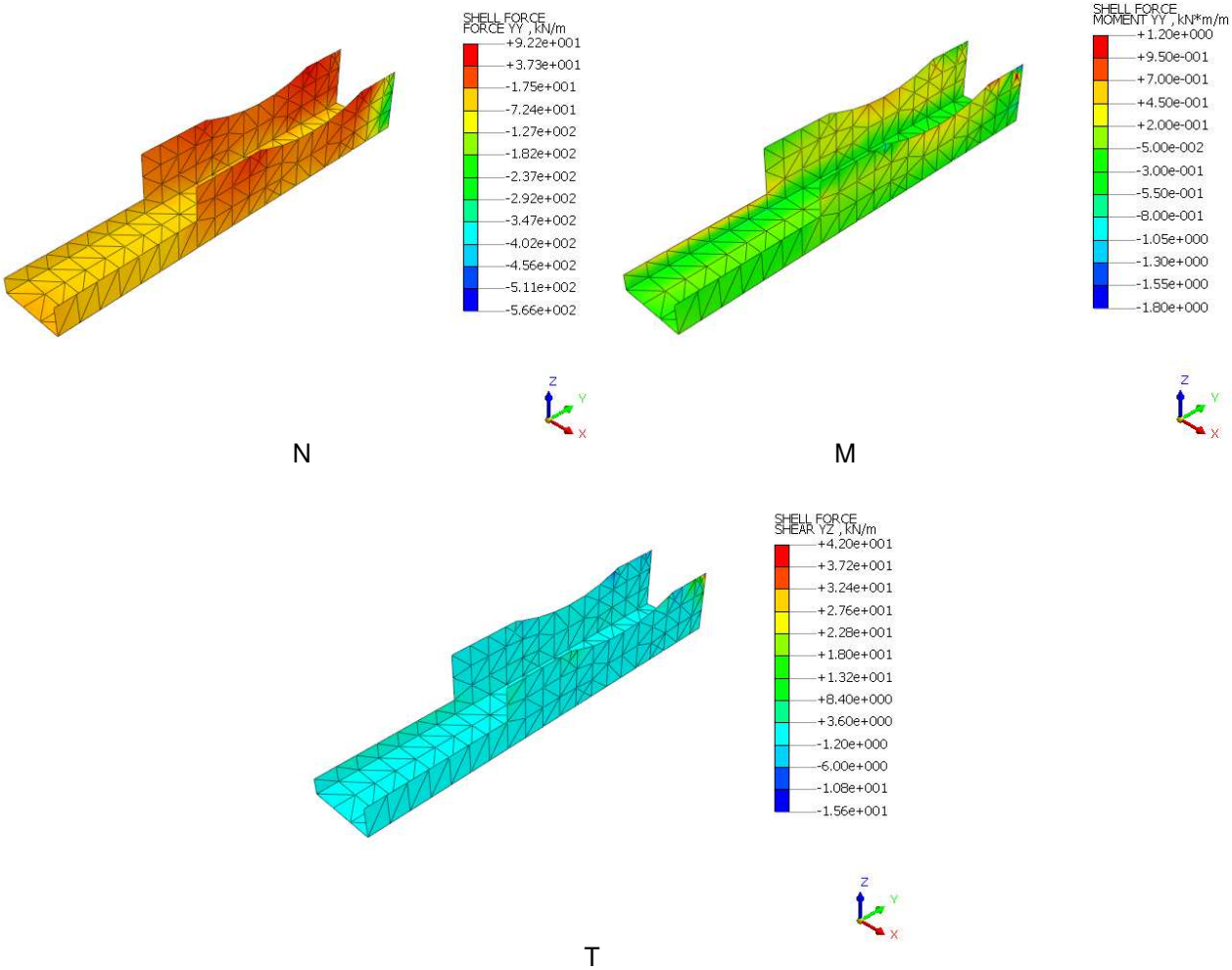


Figura 5.45: Sollecitazioni sul rivestimento definitivo del sottoattraversamento del nodo d'innesto – (N<0 se di compressione) – stage finale.

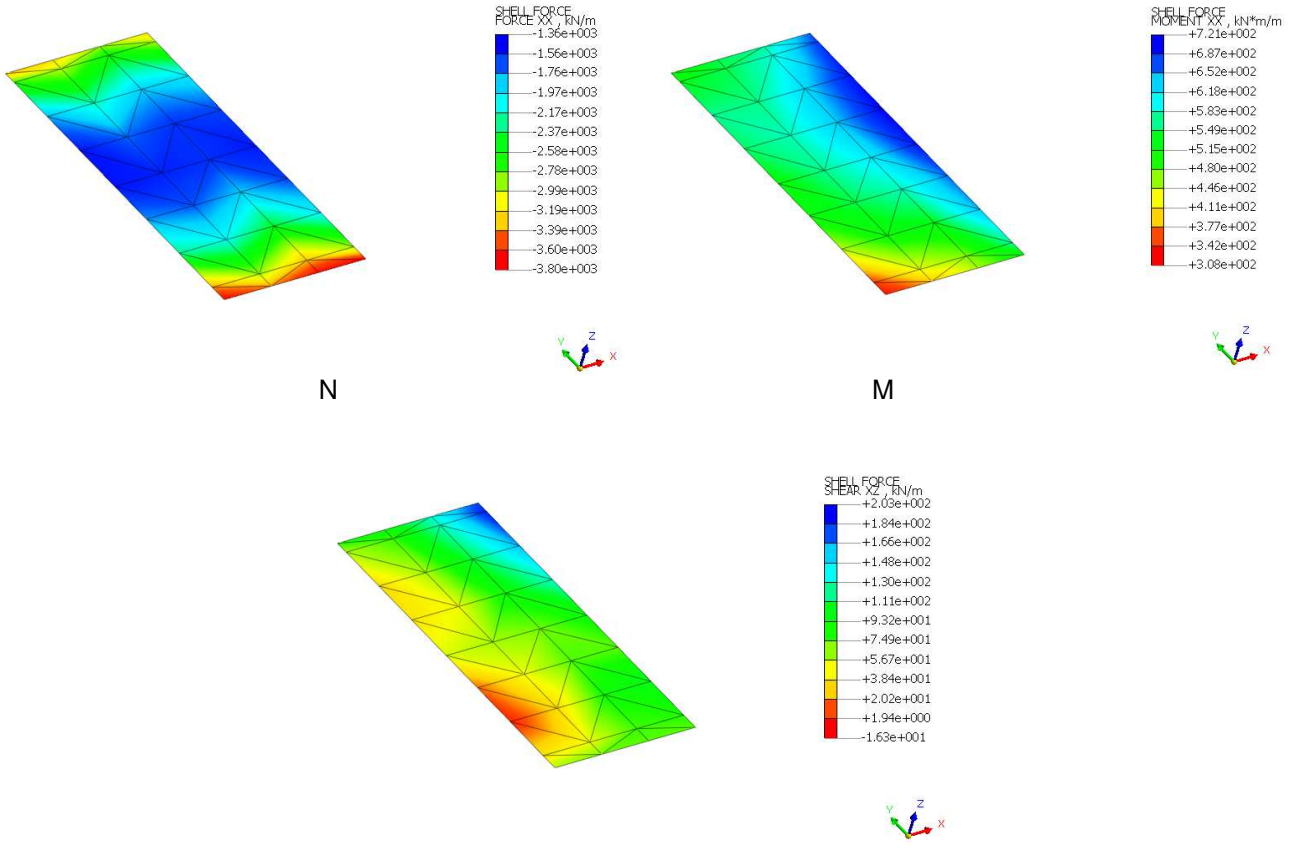


Figura 5.46: Sollecitazioni sulla soletta superiore del rivestimento definitivo del sottoattraversamento – (N<0 se di compressione) – stage finale.

Per la tratta centrale della soletta superiore del sottoattraversamento si verifica nel dettaglio la sezione forata di dimensioni 150cm x 80cm (bxh), in quanto presenta gli alloggiamenti per le due tubazioni di diametro ∅44cm. La geometria di questo dettaglio è riportata nella figura seguente.

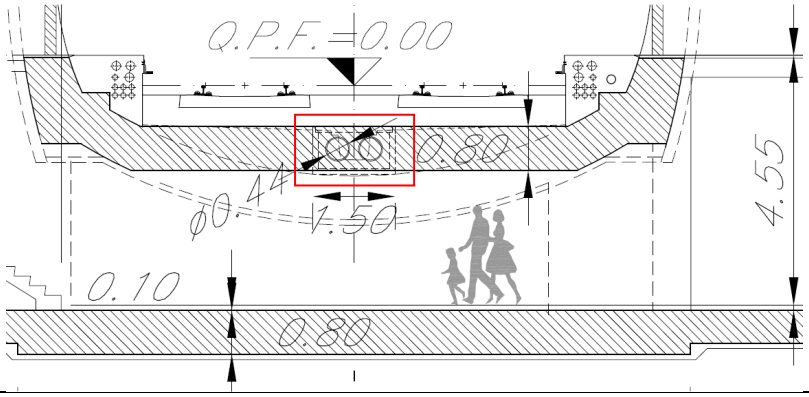


Figura 5.47: Dettaglio della soletta superiore del sottoattraversamento forata per l'alloggiamento di due tubazioni di diametro Ø44cm.

5.3.5.4.2 Armatura disposta

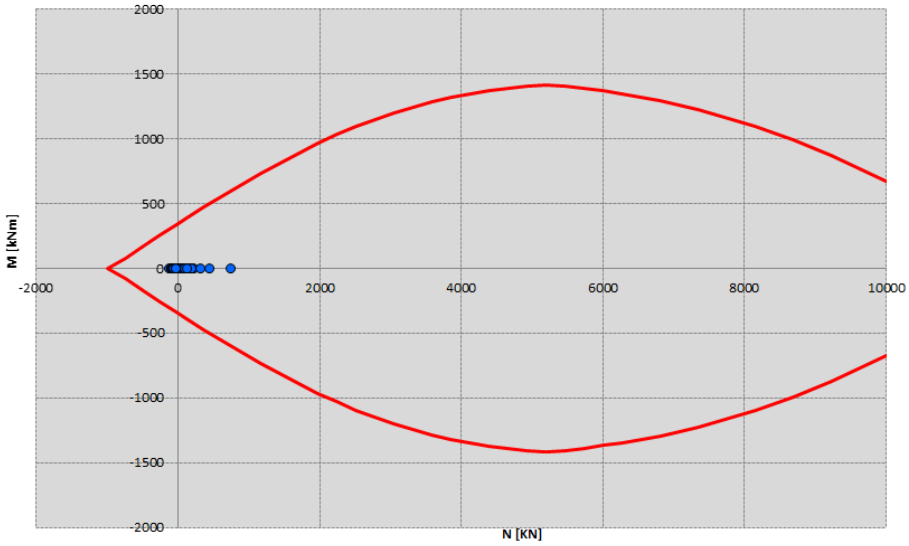
Nella tabella seguente sono riassunte le armature previste per la sezione tipo camera di esodo.

Tabella 22: armatura prevista per la sezione tipo sotto attraversamento.

Posizione	Armatura flettente Intradosso	Armatura flettente estradosso	Armatura a taglio	Classe calcestruzzo	Copriferro [cm]
Setti verticali	5Ø18/m	5Ø18/m	-	C25/30	8
Soletta di fondo	5Ø18/m	5Ø18/m	-	C25/30	8
Soletta superiore	5Ø24/m	5Ø24/m	-	C25/30	8
Soletta forata	5Ø24/m	5Ø24/m	-	C25/30	8

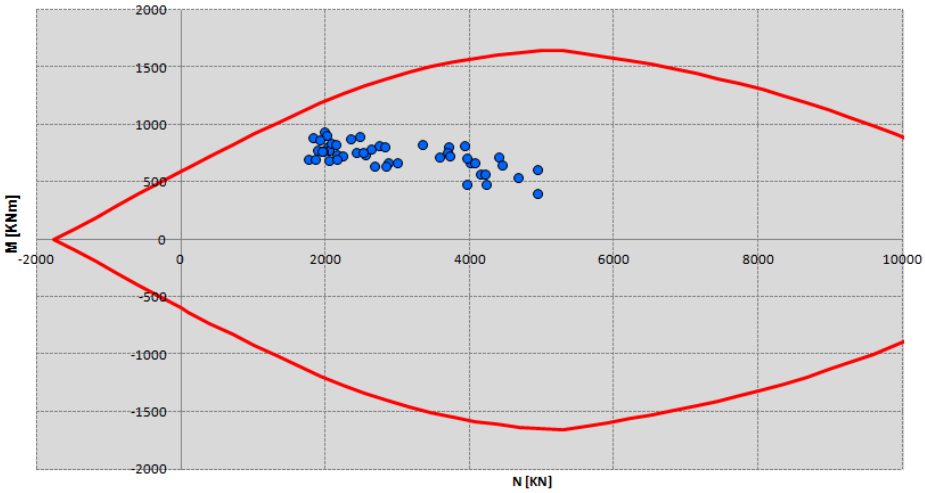
5.3.5.4.3 Setti verticali, soletta di fondo e soletta superiore – verifiche allo SLU – pressoflessione

Le verifiche allo SLU del rivestimento definitivo prevedono il confronto tra le sollecitazioni di calcolo, ottenute moltiplicando i valori caratteristici restituiti dal modello di calcolo per il coefficiente parziale γ_G = 1.3, e le resistenze di calcolo definite dai punti M_{Rd}, N_{Rd} che individuano il dominio resistente della sezione nel piano M-N.



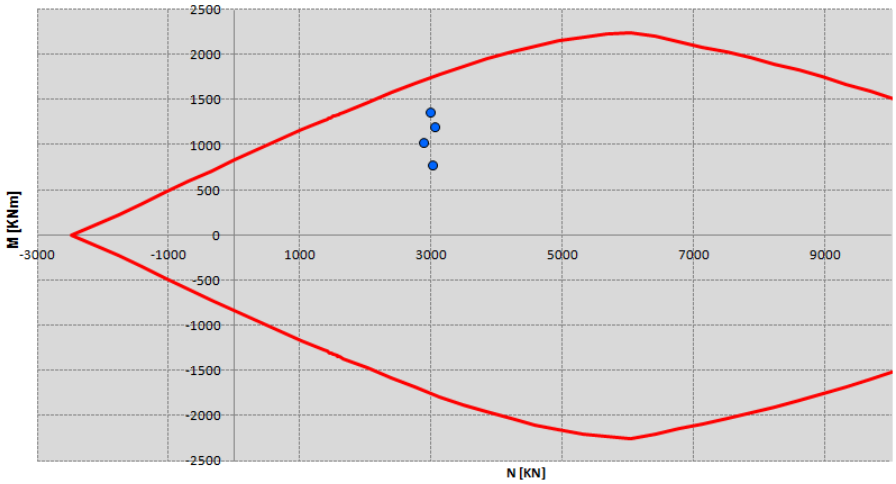
Setti verticali e soletta di fondo – spessore 80cm – armatura: 5Φ18 in intradosso + 5Φ18 in estradosso

Figura 5.48: Verifiche allo S.L.U. per pressoflessione – setti verticali e soletta di fondo – dominio di resistenza della sezione e sollecitazioni di calcolo.



Soletta superiore – spessore 80cm – armatura: 5Φ24 in intradosso + 5Φ24 in estradosso

Figura 5.49: Verifiche allo S.L.U. per pressoflessione – soletta superiore in direzione trasversale al sottoattraversamento – dominio di resistenza della sezione e sollecitazioni di calcolo.



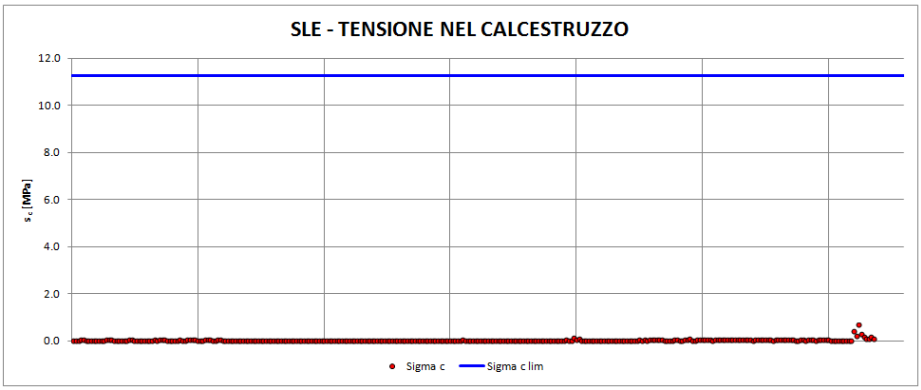
Soletta superiore forata – larghezza 150cm/spessore 80cm – armatura: Φ24 in intradosso + 5Φ24 in estradosso

Figura 5.50: Verifiche allo S.L.U. per pressoflessione – soletta superiore forata in direzione trasversale al sottoattraversamento – dominio di resistenza della sezione e sollecitazioni di calcolo.

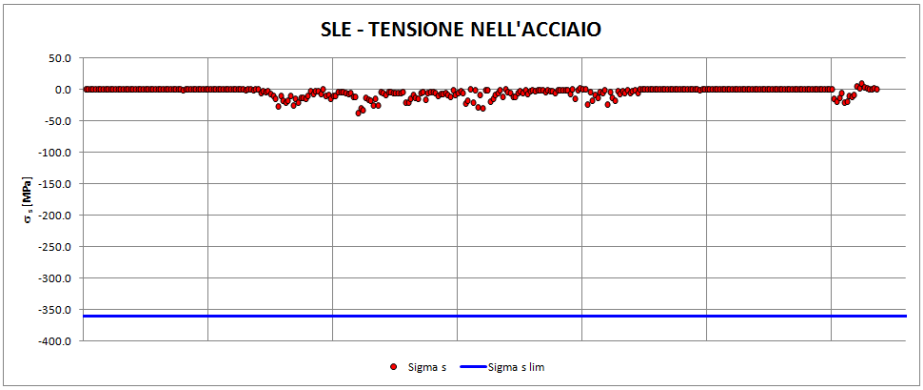
Le verifiche sono soddisfatte.

5.3.5.4.4 Setti verticali, soletta di fondo e soletta superiore – verifiche allo SLE

Le verifiche allo S.L.E. risultano soddisfatte quando l'ampiezza delle fessure w<0.3mm, la tensione massima nel calcestruzzo $\sigma_{c\,max} \leq 0.45 f_{ck} = 11.25$MPa e la tensione massima nell'acciaio $\sigma_{s\,max} \leq 0.8 f_{yk} = 360$MPa.



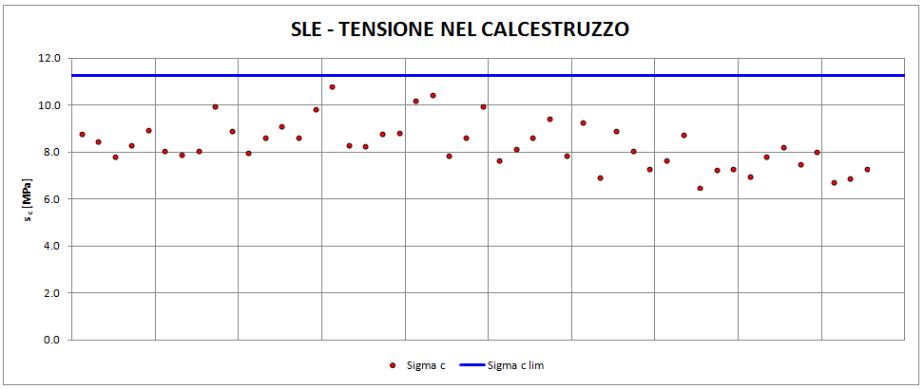
Tensioni di compressione nel calcestruzzo - $\sigma_c < \sigma_{c,max}$



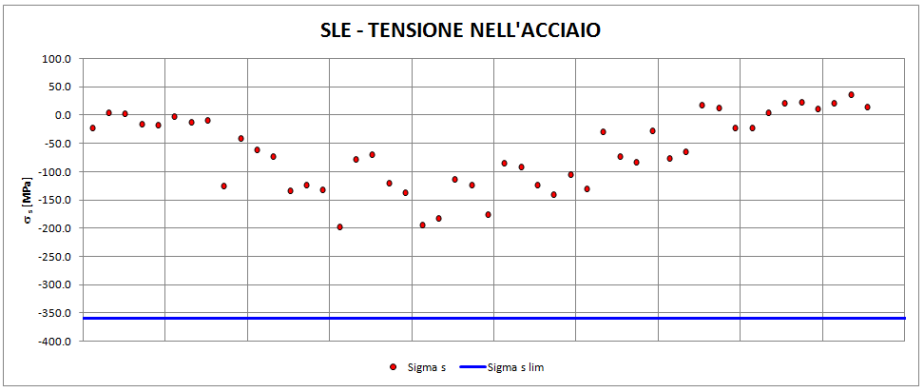
Tensioni nell'acciaio - $\sigma_s < \sigma_{s,max}$

Apertura delle fessure – $w < w_{lim} = 0.3$mm

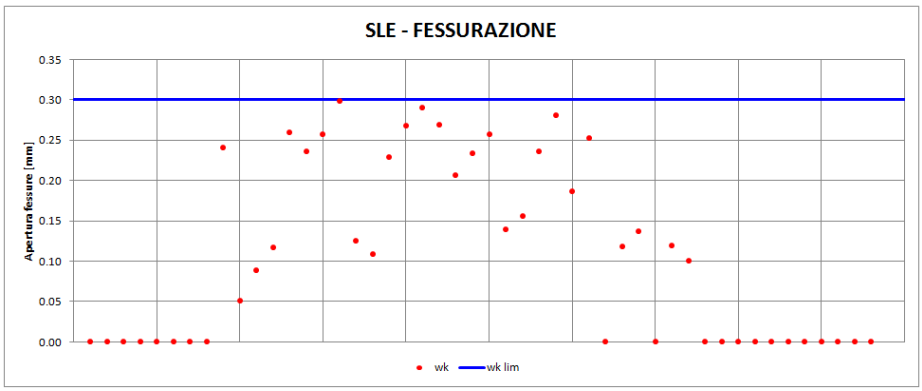
Figura 5.51: Verifiche allo S.L.E. della sezione – setti verticali e soletta di fondo.



Tensioni di compressione nel calcestruzzo - $\sigma_c < \sigma_{c,max}$

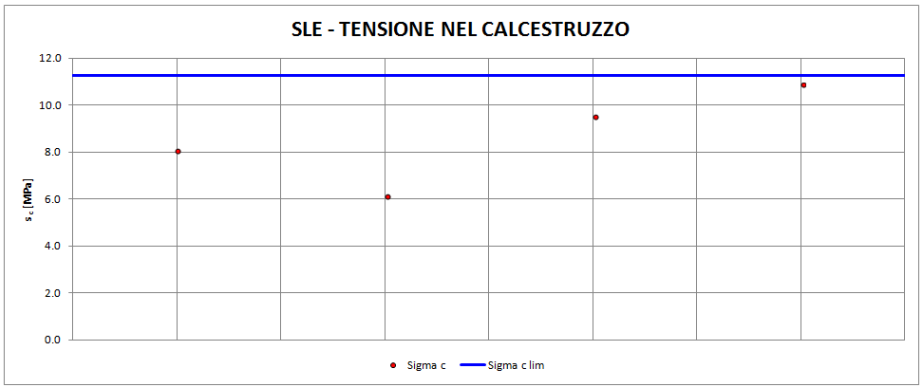


Tensioni nell'acciaio - $\sigma_s < \sigma_{s,max}$

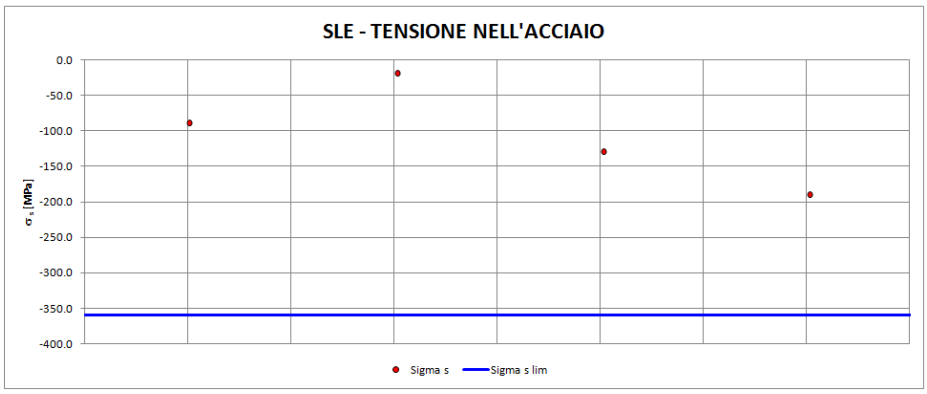


Apertura delle fessure – $w < w_{lim} = 0.3mm$

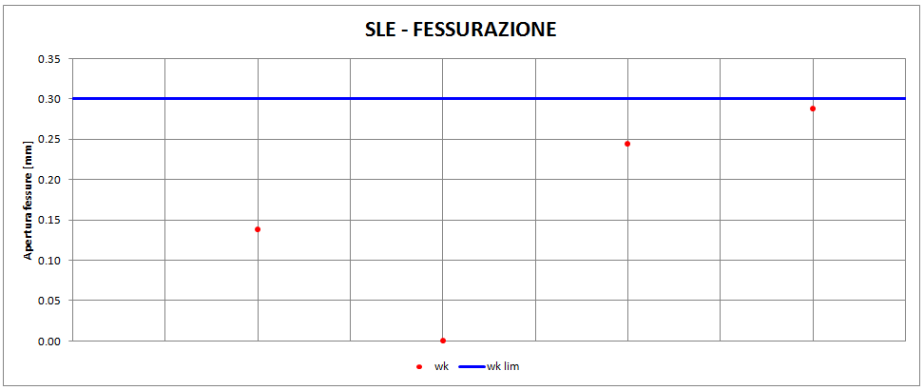
Figura 5.52: Verifiche allo S.L.E. – soletta superiore in direzione trasversale al sottoattraversamento.



Tensioni di compressione nel calcestruzzo - $\sigma_c < \sigma_{c,max}$



Tensioni nell'acciaio - $\sigma_s < \sigma_{s,max}$



Apertura delle fessure – $w < w_{lim} = 0.3mm$

Figura 5.53: Verifiche allo S.L.E. – soletta superiore forata in direzione trasversale al sottoattraversamento.

Le verifiche sono soddisfatte.

5.3.5.4.5 Calotta e soletta piatta – verifiche allo SLU per sollecitazioni taglianti

Nel caso di elementi strutturali privi di armature trasversali a taglio, occorre verificare che il taglio di progetto (V_{Ed}) sia minore di quello resistente (V_{Rd}); essendo:

$$V_{Rd} = 0{,}18 \cdot k \cdot (100 \cdot \rho_1 \cdot f_{ck}) / \gamma_c + 0{,}15 \cdot \sigma_{cp} \cdot b_w \cdot d \geq (v_{min} + 0{,}15 \cdot \sigma_{cp}) \cdot b_w \cdot d$$

con

$$k = 1 + (200/d) \cdot 1/2 \leq 2$$

$$v_{min} = 0{,}035 \cdot k^{3/2} \cdot f_{ck}^{1/2}$$

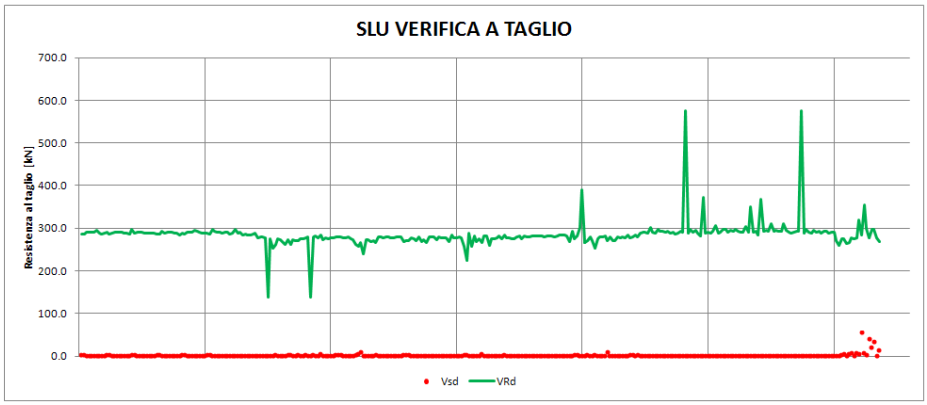
d è l'altezza utile della sezione (mm);

$\rho_1 = A_{sl} / (b_w \cdot d)$ è il rapporto geometrico di armatura longitudinale ($\leq$ 0.02);

$\sigma_{cp} = N_{Ed}/A_c$ è la tensione media di compressione nella sezione ($\leq$ 0.2 f_{cd});

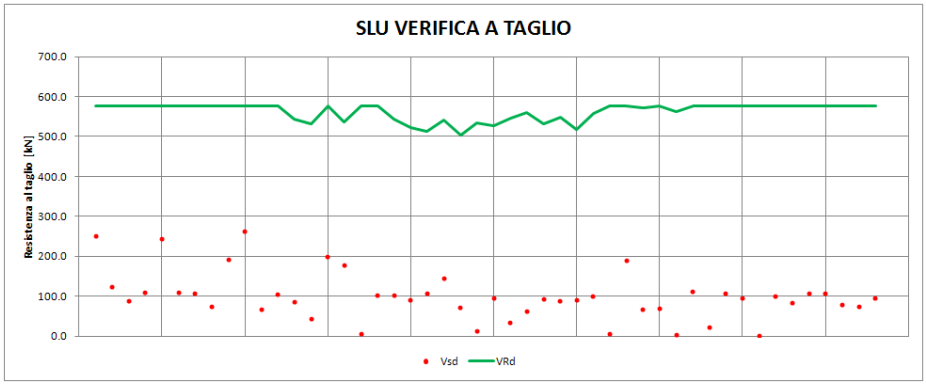
b_w è la larghezza minima della sezione (mm).

Per il significato delle diverse entità si rimanda al paragrafo 4.1.2.1.3.1 del NTC2008.



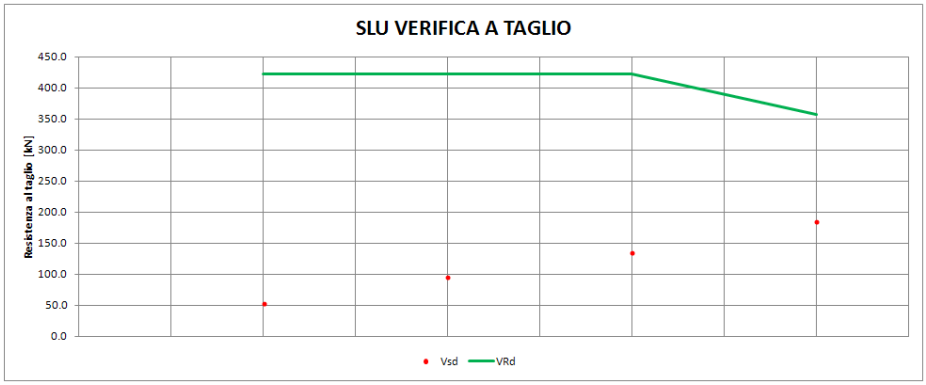
Setti verticali e soletta di fondo – spessore 80cm

Figura 5.54: Verifiche allo S.L.U. per sollecitazioni taglianti – setti verticali e soletta di fondo.



Soletta superiore – spessore 80cm

Figura 5.55: Verifiche allo S.L.U. per sollecitazioni taglianti – soletta superiore.



Soletta superiore forata – larghezza 150cm/spessore 80cm

Figura 5.56: Verifiche allo S.L.U. per sollecitazioni taglianti – soletta superiore forata.

Le verifiche sono soddisfatte.

5.3.6 VERIFICHE DELLA BULLONATURA

Nella figura seguente è riportato l'andamento degli sforzi di trazione nelle bullonature di lunghezza 3.0 e 4.5m nell'intorno del nodo di innesto per la condizione più sfavorevole (fase precedente a quella di getto del rivestimento definitivo).

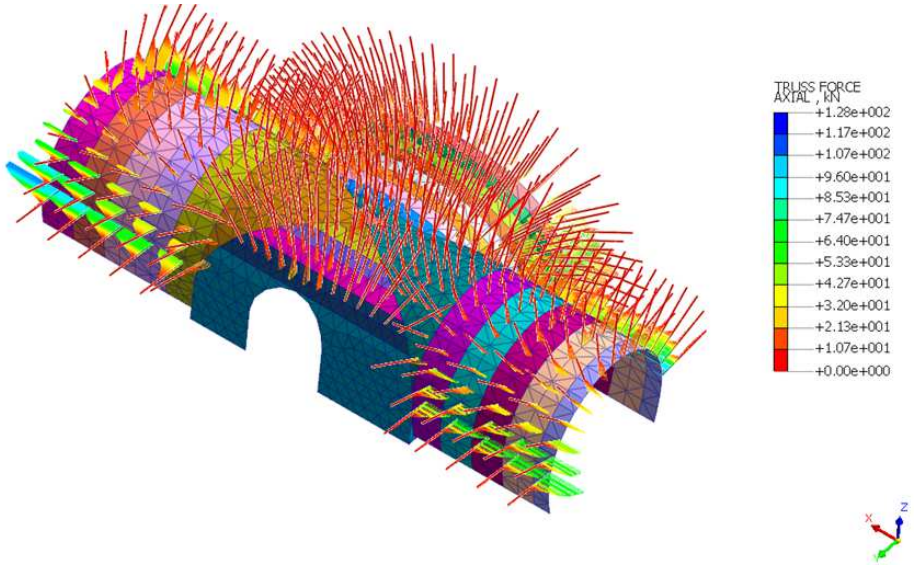


Figura 5.57: andamento degli sforzi di trazione nella bullonatura nell'intorno del nodo d'innesto IN01-IN02/galleria di linea per la condizione più sfavorevole (stage precedente alla fase di getto del rivestimento definitivo), $N_{Ed,max}$= 128KN.

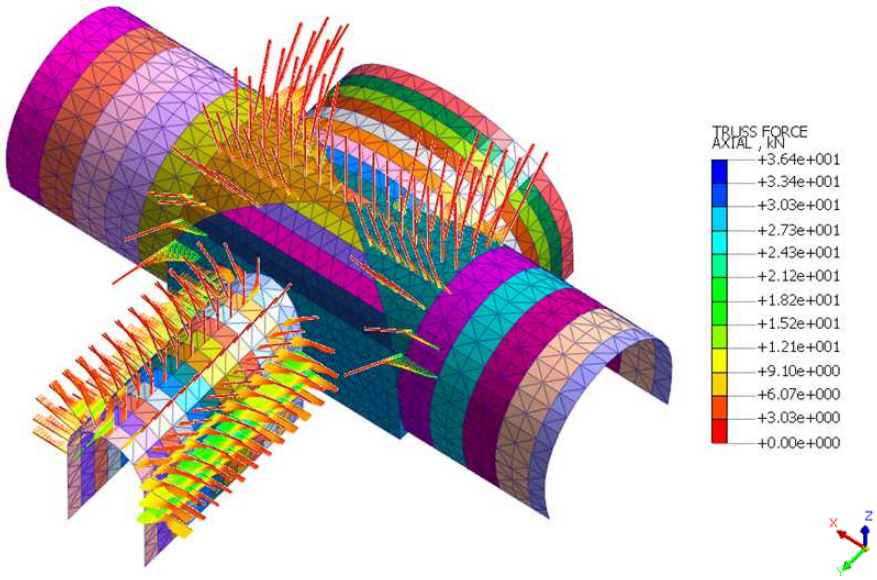


Figura 5.58: andamento degli sforzi di trazione nella bullonatura nell'intorno del nodo d'innesto IN03 /camera di esodo per la condizione più sfavorevole (stage precedente alla fase di getto del rivestimento definitivo), NEd,max = 36.4KN.

5.3.6.1 VERIFICA DI RESISTENZA DEI BULLONI SWELLEX

Per la bullonatura realizzata tramite Swellex, il carico assiale agente deve rispettare la condizione seguente:

—

dove:
N_{Ed} è il carico assiale ricavato dal modello di calcolo e amplificato per il coefficiente parziale delle azioni $\gamma_G = 1.3$;
N_{Rd} è la resistenza a trazione di calcolo dello Swellex;
σ_s è la tensione di snervamento dello Swellex;
A è l'area netta dello Swellex (320mm^2);
γ_M è il coefficiente di sicurezza per la resistenza dell'acciaio pari a 1.05.

Il massimo carico assiale da modello di calcolo risulta pari a N_{Ed} = 128 x 1.3 = 166.4kN, valore inferiore alla resistenza a trazione del bullone. La verifica è soddisfatta.

5.3.6.2 RESISTENZA ULTIMA ALLO SFILAMENTO

Per il calcolo della resistenza ultima allo sfilamento si ricorre a quanto indicato per i bulloni Swellex nel testo di riferimento "Professional Users Handbook fo Rock Bolting" [B. Sillborg, 1994]. Per il caso in esame, nel quale i bulloni Swellex hanno un diametro di perforazione di 48mm, è indicata una resistenza allo sfilamento limite pari a 130kN/m. La resistenza ultima allo sfilamento è definita tramite la formula seguente:

dove:
L_b è la lunghezza del bulbo;
R_s è la resistenza allo sfilamento limite;

In assenza di prove dirette il calcolo del valore di resistenza caratteristica R_{ak} deriva dalla seguente espressione:

——— ———

dove:
$R_{ac\ medio}$ e $R_{a,c\ min}$ sono i valori medio e minimo della resistenza R_{ac} ottenuta dal calcolo;
ξ_a sono i fattori di correlazione che dipendono dalla conoscenza del modello geotecnico di riferimento, funzione del numero dei profili di indagine eseguiti (vedi tabella seguente).

Tabella 23: fattori di correlazione per derivare la resistenza caratteristica delle prove geotecniche, in funzione del numero n di profili di indagine (Tabella 6.6 III del D.M.).

Numero di profili d'indagine	1	2	3	4	>5
ξa3	1.80	1.75	1.70	1.65	1.60
ξa4	1.80	1.70	1.65	1.60	1.55

La resistenza di calcolo, $R_{a,d}$ viene definita mediante la relazione:

—

con γ_R definito nella tabella seguente.

Tabella 24: coefficienti parziali per la resistenza degli ancoraggi (Tabella 6.6.I del D.M.).

Tipologia bulloni	γ_R	Coefficiente parziale
Temporaneo	$\gamma_{R,t}$	1.1
Permanente	$\gamma_{R,p}$	1.2

Nella tabella seguente si riassumono i valori scelti per le verifiche di sfilamento.

Tabella 25: valori di progetto per le verifiche allo sfilamento.

DESCRIZIONE DELL'AMMASSO ROCCIOSO	PARAMETRO				
	Diametro perforazione, D_p [mm]	Fattore di sbulbamento, α [-]	resistenza allo sfilamento limite, R_s [kN/m]	Fattore ξ_{a3} [-]	Coefficiente parziale $\gamma_{R,t}$ [-]
Calcari	48	1.0	130	1.8	1.1

Si ottengono le resistenze di calcolo a sfilamento dei bullone di lunghezza 3m e 4.5m rispettivamente di 197kN, 295kN. Il carico massimo di calcolo agente sui bulloni di lunghezza 3m e 4.5m è rispettivamente pari a N_{Ed} (3m) = 36.4kN·1.3 = 47.32kN e N_{Ed} (4.5m) = 128kN·1.3 = 166.4kN, le verifiche allo sfilamento sono quindi soddisfatte.

ALLEGATO 1

SOLLECITAZIONI E VERIFICHE DEI SOSTEGNI DI PRIMA FASE

Tabella 1: verifiche del sostegno di prima fase (M>0 fibre tese in intradosso) – Camerone di manovra

Sollecitazioni caratteristiche				Sollecitazioni SLU				Verifica calcestruzzo proiettato			Verifica centine				
N_{clsp}	N_{cen}	M_{cen}	T_{cen}	$N_{clsp,d}$	$N_{cen,d}$	$M_{cen,d}$	$T_{cen,d}$	$\sigma_{c\_clsp,d}$	f_{cd}	Verifica	$\sigma_{cen,d}$	$\tau_{cen,d}$	$\sigma_{id,cen,d}$	f_{yd}	Verifica
[kN]	[kN]	[kNm]	[kN]	[kN]	[kN]	[kNm]	[kN]	[MPa]	[MPa]	-	[MPa]	[MPa]	[MPa]	[MPa]	-
1451.7	233.1	14.9	39.5	1887.2	303.0	19.4	51.3	7.5	13.8	OK	90.7	16.4	95.1	261.9	OK
0.0	-80.0	-11.6	-12.9	0.0	-104.0	-15.1	-16.8	0.0	13.8	OK	50.8	-5.4	51.6	261.9	OK
0.0	-80.0	-11.6	-12.9	0.0	-104.0	-15.1	-16.8	0.0	13.8	OK	50.8	-5.4	51.6	261.9	OK
205.7	33.0	-15.4	-96.8	267.4	42.9	-20.0	-125.8	1.1	13.8	OK	53.1	-40.3	87.7	261.9	OK
5.8	0.9	-10.1	10.8	7.5	1.2	-13.1	14.1	0.0	13.8	OK	30.8	4.5	31.7	261.9	OK
7.5	1.2	-20.6	7.8	9.8	1.6	-26.8	10.2	0.0	13.8	OK	62.7	3.3	63.0	261.9	OK
15.3	2.5	-20.5	10.7	19.9	3.2	-26.6	13.9	0.1	13.8	OK	62.7	4.4	63.2	261.9	OK
16.9	2.7	-5.4	9.9	21.9	3.5	-7.0	12.8	0.1	13.8	OK	16.9	4.1	18.4	261.9	OK
0.0	-38.5	-0.9	4.7	0.0	-50.1	-1.2	6.1	0.0	13.8	OK	10.4	2.0	10.9	261.9	OK
0.0	-21.0	-12.5	10.3	0.0	-27.3	-16.3	13.3	0.0	13.8	OK	42.2	4.3	42.8	261.9	OK
37.6	6.0	-28.2	4.5	48.9	7.8	-36.6	5.8	0.2	13.8	OK	86.8	1.9	86.8	261.9	OK
20.9	3.4	-18.3	-9.2	27.1	4.4	-23.7	-11.9	0.1	13.8	OK	56.1	-3.8	56.5	261.9	OK
18.7	3.0	-27.0	2.8	24.3	3.9	-35.1	3.7	0.1	13.8	OK	82.5	1.2	82.5	261.9	OK
18.9	3.0	-26.1	-6.6	24.6	3.9	-34.0	-8.6	0.1	13.8	OK	79.9	-2.8	80.1	261.9	OK
33.2	5.3	3.1	-6.2	43.2	6.9	4.0	-8.1	0.2	13.8	OK	10.3	-2.6	11.3	261.9	OK
29.4	4.7	3.2	-5.4	38.2	6.1	4.2	-7.1	0.2	13.8	OK	10.6	-2.3	11.3	261.9	OK
9.9	1.6	-8.0	-9.8	12.9	2.1	-10.4	-12.8	0.1	13.8	OK	24.5	-4.1	25.6	261.9	OK
13.0	2.1	-8.7	-8.5	16.8	2.7	-11.3	-11.0	0.1	13.8	OK	26.8	-3.5	27.5	261.9	OK
8.4	1.4	-17.7	-10.8	10.9	1.8	-23.1	-14.0	0.0	13.8	OK	54.2	-4.5	54.7	261.9	OK
36.0	5.8	-27.2	-4.6	46.8	7.5	-35.4	-6.0	0.2	13.8	OK	83.8	-1.9	83.9	261.9	OK
22.9	3.7	-2.6	-6.8	29.7	4.8	-3.4	-8.8	0.1	13.8	OK	8.6	-2.8	9.9	261.9	OK
14.5	2.3	-1.1	-7.2	18.8	3.0	-1.4	-9.4	0.1	13.8	OK	3.7	-3.0	6.4	261.9	OK
56.7	9.1	9.2	-3.4	73.7	11.8	11.9	-4.4	0.3	13.8	OK	29.6	-1.4	29.7	261.9	OK
49.0	7.9	6.3	-5.9	63.7	10.2	8.1	-7.6	0.3	13.8	OK	20.6	-2.4	21.0	261.9	OK
56.1	9.0	9.0	-1.6	72.9	11.7	11.6	-2.0	0.3	13.8	OK	29.0	-0.6	29.0	261.9	OK
64.2	10.3	9.6	-2.3	83.5	13.4	12.4	-3.0	0.3	13.8	OK	31.1	-1.0	31.1	261.9	OK
53.0	8.5	8.6	-1.5	69.0	11.1	11.1	-1.9	0.3	13.8	OK	27.7	-0.6	27.7	261.9	OK
57.8	9.3	9.4	-0.4	75.1	12.1	12.3	-0.5	0.3	13.8	OK	30.5	-0.2	30.5	261.9	OK
38.6	6.2	6.0	-3.7	50.2	8.1	7.9	-4.8	0.2	13.8	OK	19.6	-1.5	19.8	261.9	OK
68.0	10.9	10.1	-0.9	88.4	14.2	13.2	-1.1	0.4	13.8	OK	32.9	-0.4	32.9	261.9	OK
68.8	11.1	10.2	-0.7	89.5	14.4	13.2	-0.9	0.4	13.8	OK	33.1	-0.3	33.1	261.9	OK
48.9	7.8	7.4	-2.8	63.5	10.2	9.7	-3.7	0.3	13.8	OK	24.1	-1.2	24.2	261.9	OK
41.8	6.7	8.4	7.3	54.3	8.7	10.9	9.4	0.2	13.8	OK	26.9	3.0	27.4	261.9	OK
52.7	8.5	11.0	4.5	68.5	11.0	14.3	5.9	0.3	13.8	OK	35.0	1.9	35.1	261.9	OK
39.1	6.3	9.4	2.0	50.8	8.2	12.2	2.5	0.2	13.8	OK	29.8	0.8	29.9	261.9	OK
66.3	10.6	11.4	1.2	86.1	13.8	14.8	1.5	0.3	13.8	OK	36.6	0.5	36.6	261.9	OK
30.6	4.9	7.0	4.8	39.8	6.4	9.1	6.3	0.2	13.8	OK	22.1	2.0	22.4	261.9	OK
46.5	7.5	9.9	1.3	60.4	9.7	12.9	1.7	0.2	13.8	OK	31.5	0.6	31.5	261.9	OK
60.4	9.7	12.1	2.0	78.5	12.6	15.7	2.6	0.3	13.8	OK	38.7	0.8	38.7	261.9	OK
54.2	8.7	9.6	-0.1	70.5	11.3	12.5	-0.1	0.3	13.8	OK	30.8	0.0	30.8	261.9	OK
51.1	8.2	10.1	-0.1	66.4	10.7	13.1	-0.1	0.3	13.8	OK	32.1	0.0	32.1	261.9	OK
68.9	11.1	10.9	-0.1	89.6	14.4	14.2	-0.1	0.4	13.8	OK	35.3	0.0	35.3	261.9	OK

31.7	5.1	-5.8	10.9	41.3	6.6	-7.6	14.2	0.2	13.8	OK	18.6	4.5	20.2	261.9	OK
32.5	5.2	2.7	9.8	42.3	6.8	3.5	12.8	0.2	13.8	OK	9.2	4.1	11.6	261.9	OK
61.9	9.9	-34.3	-8.6	80.5	12.9	-44.6	-11.2	0.3	13.8	OK	106.2	-3.6	106.4	261.9	OK
41.1	6.6	-26.2	9.8	53.5	8.6	-34.0	12.7	0.2	13.8	OK	80.8	4.1	81.1	261.9	OK
17.2	2.8	-28.8	3.3	22.4	3.6	-37.5	4.3	0.1	13.8	OK	88.1	1.4	88.1	261.9	OK
57.7	9.3	-34.9	3.7	75.0	12.0	-45.3	4.9	0.3	13.8	OK	107.7	1.6	107.7	261.9	OK
28.1	4.5	-26.8	-6.4	36.5	5.9	-34.8	-8.3	0.1	13.8	OK	82.2	-2.7	82.4	261.9	OK
15.3	2.5	-4.2	8.4	19.8	3.2	-5.5	11.0	0.1	13.8	OK	13.4	3.5	14.7	261.9	OK
19.2	3.1	-13.0	9.6	25.0	4.0	-17.0	12.5	0.1	13.8	OK	40.2	4.0	40.8	261.9	OK
30.7	4.9	-15.3	11.7	39.9	6.4	-20.0	15.2	0.2	13.8	OK	47.6	4.9	48.3	261.9	OK
22.4	3.6	2.5	6.7	29.1	4.7	3.3	8.7	0.1	13.8	OK	8.4	2.8	9.7	261.9	OK
18.7	3.0	-22.6	7.9	24.3	3.9	-29.4	10.2	0.1	13.8	OK	69.3	3.3	69.5	261.9	OK
121.6	19.5	-23.1	-15.1	158.1	25.4	-30.0	-19.6	0.6	13.8	OK	73.8	-6.3	74.6	261.9	OK
22.9	3.7	-17.0	-8.7	29.8	4.8	-22.2	-11.3	0.1	13.8	OK	52.5	-3.6	52.9	261.9	OK
193.1	31.0	-14.3	-17.3	251.0	40.3	-18.6	-22.5	1.0	13.8	OK	49.5	-7.2	51.1	261.9	OK
100.3	16.1	-4.7	-8.7	130.4	20.9	-6.1	-11.3	0.5	13.8	OK	17.4	-3.6	18.5	261.9	OK
101.2	16.2	1.4	20.0	131.6	21.1	1.8	26.0	0.5	13.8	OK	7.4	8.3	16.2	261.9	OK
339.0	54.4	-4.3	-18.4	440.7	70.8	-5.6	-23.9	1.8	13.8	OK	23.6	-7.6	27.1	261.9	OK
6.4	1.0	-16.8	26.5	8.3	1.3	-21.8	34.5	0.0	13.8	OK	51.2	11.1	54.6	261.9	OK
71.7	11.5	-26.9	21.1	93.2	15.0	-35.0	27.5	0.4	13.8	OK	83.9	8.8	85.3	261.9	OK
25.7	4.1	-27.1	23.8	33.4	5.4	-35.2	30.9	0.1	13.8	OK	83.0	9.9	84.8	261.9	OK
72.8	11.7	-13.4	32.0	94.7	15.2	-17.4	41.6	0.4	13.8	OK	43.0	13.3	48.9	261.9	OK
0.0	-50.6	2.8	22.3	0.0	-65.7	3.6	29.0	0.0	13.8	OK	18.3	9.3	24.4	261.9	OK
47.5	7.6	-10.7	16.3	61.8	9.9	-13.9	21.1	0.2	13.8	OK	33.9	6.8	35.8	261.9	OK
63.3	10.2	-38.5	13.5	82.3	13.2	-50.0	17.6	0.3	13.8	OK	118.9	5.6	119.3	261.9	OK
57.2	9.2	-27.8	-13.6	74.3	11.9	-36.1	-17.6	0.3	13.8	OK	86.2	-5.7	86.8	261.9	OK
65.6	10.5	-36.6	9.4	85.3	13.7	-47.6	12.2	0.3	13.8	OK	113.4	3.9	113.6	261.9	OK
57.4	9.2	-34.7	-7.5	74.6	12.0	-45.0	-9.7	0.3	13.8	OK	107.0	-3.1	107.2	261.9	OK
11.6	1.9	6.5	-12.1	15.1	2.4	8.4	-15.8	0.1	13.8	OK	20.1	-5.1	21.9	261.9	OK
7.9	1.3	5.4	-8.6	10.2	1.6	7.0	-11.1	0.0	13.8	OK	16.6	-3.6	17.7	261.9	OK
30.1	4.8	-11.0	-15.3	39.1	6.3	-14.3	-19.9	0.2	13.8	OK	34.4	-6.4	36.2	261.9	OK
28.7	4.6	-12.7	-16.8	37.3	6.0	-16.5	-21.9	0.1	13.8	OK	39.5	-7.0	41.3	261.9	OK
37.8	6.1	-23.8	-14.5	49.1	7.9	-31.0	-18.9	0.2	13.8	OK	73.6	-6.0	74.4	261.9	OK
70.1	11.3	-38.7	-3.0	91.2	14.6	-50.3	-3.9	0.4	13.8	OK	119.7	-1.3	119.7	261.9	OK
23.3	3.7	-3.6	-15.4	30.3	4.9	-4.7	-20.0	0.1	13.8	OK	11.8	-6.4	16.2	261.9	OK
10.5	1.7	-0.1	-12.1	13.7	2.2	-0.1	-15.7	0.1	13.8	OK	0.6	-5.0	8.7	261.9	OK
19.9	3.2	13.0	-4.6	25.9	4.2	17.0	-6.0	0.1	13.8	OK	40.2	-1.9	40.4	261.9	OK
20.0	3.2	9.9	-8.6	26.0	4.2	12.9	-11.2	0.1	13.8	OK	30.8	-3.6	31.4	261.9	OK
0.0	-33.0	10.7	-1.7	0.0	-42.9	13.9	-2.2	0.0	13.8	OK	38.8	-0.7	38.8	261.9	OK
27.2	4.4	12.9	-2.2	35.4	5.7	16.8	-2.9	0.1	13.8	OK	40.2	-0.9	40.2	261.9	OK
0.0	-28.2	10.8	-0.9	0.0	-36.6	14.1	-1.1	0.0	13.8	OK	38.4	-0.4	38.4	261.9	OK
0.0	-29.7	10.7	0.9	0.0	-38.6	13.9	1.2	0.0	13.8	OK	38.2	0.4	38.2	261.9	OK
0.0	-8.1	9.3	-3.8	0.0	-10.5	12.1	-5.0	0.0	13.8	OK	29.7	-1.6	29.9	261.9	OK
31.2	5.0	12.9	-0.2	40.5	6.5	16.8	-0.2	0.2	13.8	OK	40.3	-0.1	40.3	261.9	OK
35.0	5.6	12.6	0.7	45.5	7.3	16.4	0.9	0.2	13.8	OK	39.3	0.3	39.3	261.9	OK
0.0	-20.6	9.8	-3.5	0.0	-26.8	12.7	-4.5	0.0	13.8	OK	33.8	-1.4	33.9	261.9	OK
40.3	6.5	9.0	7.2	52.3	8.4	11.6	9.4	0.2	13.8	OK	28.4	3.0	28.9	261.9	OK

46.2	7.4	11.3	4.9	60.0	9.6	14.7	6.3	0.2	13.8	OK	35.7	2.0	35.9	261.9	OK
0.0	-2.3	9.5	2.2	0.0	-3.0	12.3	2.8	0.0	13.8	OK	29.2	0.9	29.2	261.9	OK
44.9	7.2	12.3	2.3	58.4	9.4	16.0	2.9	0.2	13.8	OK	38.8	0.9	38.8	261.9	OK
8.1	1.3	7.1	5.1	10.6	1.7	9.2	6.7	0.0	13.8	OK	21.8	2.1	22.1	261.9	OK
0.0	-15.7	9.8	2.4	0.0	-20.4	12.7	3.1	0.0	13.8	OK	32.8	1.0	32.9	261.9	OK
43.9	7.1	12.8	2.9	57.1	9.2	16.6	3.7	0.2	13.8	OK	40.3	1.2	40.3	261.9	OK
0.0	-33.9	10.4	1.6	0.0	-44.1	13.5	2.1	0.0	13.8	OK	38.2	0.7	38.2	261.9	OK
0.0	-23.1	10.5	0.2	0.0	-30.0	13.7	0.3	0.0	13.8	OK	36.5	0.1	36.5	261.9	OK
41.4	6.6	12.7	1.4	53.8	8.6	16.5	1.8	0.2	13.8	OK	39.7	0.6	39.8	261.9	OK
42.6	6.8	-5.5	11.1	55.4	8.9	-7.2	14.5	0.2	13.8	OK	18.2	4.6	19.9	261.9	OK
37.3	6.0	3.3	10.2	48.5	7.8	4.3	13.2	0.2	13.8	OK	11.3	4.2	13.5	261.9	OK
33.9	5.4	-32.5	-6.1	44.1	7.1	-42.3	-7.9	0.2	13.8	OK	99.8	-2.5	99.9	261.9	OK
51.1	8.2	-26.1	9.2	66.5	10.7	-34.0	12.0	0.3	13.8	OK	80.9	3.8	81.2	261.9	OK
16.5	2.7	-28.2	3.8	21.5	3.4	-36.7	5.0	0.1	13.8	OK	86.3	1.6	86.3	261.9	OK
52.6	8.4	-33.6	2.2	68.4	11.0	-43.7	2.9	0.3	13.8	OK	103.6	0.9	103.7	261.9	OK
0.0	-1.9	-27.2	-6.8	0.0	-2.4	-35.3	-8.8	0.0	13.8	OK	82.8	-2.8	83.0	261.9	OK
21.2	3.4	-2.5	9.7	27.6	4.4	-3.3	12.6	0.1	13.8	OK	8.3	4.0	10.8	261.9	OK
33.8	5.4	-11.8	11.1	43.9	7.0	-15.3	14.4	0.2	13.8	OK	36.9	4.6	37.7	261.9	OK
40.0	6.4	-15.2	11.6	52.0	8.4	-19.7	15.1	0.2	13.8	OK	47.3	4.8	48.0	261.9	OK
19.1	3.1	3.2	7.8	24.9	4.0	4.2	10.1	0.1	13.8	OK	10.4	3.2	11.8	261.9	OK
28.4	4.6	-21.5	8.9	36.9	5.9	-28.0	11.5	0.1	13.8	OK	66.3	3.7	66.6	261.9	OK
59.3	9.5	-20.2	-10.7	77.1	12.4	-26.3	-14.0	0.3	13.8	OK	63.2	-4.5	63.7	261.9	OK
0.0	-52.4	-17.5	-6.7	0.0	-68.1	-22.8	-8.6	0.0	13.8	OK	63.4	-2.8	63.6	261.9	OK
50.8	8.2	-11.2	-5.9	66.0	10.6	-14.6	-7.6	0.3	13.8	OK	35.7	-2.5	35.9	261.9	OK
0.0	-68.1	-4.9	-5.1	0.0	-88.5	-6.4	-6.7	0.0	13.8	OK	28.3	-2.1	28.5	261.9	OK
0.0	-20.2	-1.0	4.1	0.0	-26.3	-1.3	5.4	0.0	13.8	OK	6.9	1.7	7.5	261.9	OK
134.5	21.6	1.6	-5.8	174.9	28.1	2.1	-7.6	0.7	13.8	OK	9.2	-2.4	10.1	261.9	OK
523.1	84.0	-3.2	13.7	680.1	109.2	-4.1	17.8	2.7	13.8	OK	26.0	5.7	27.8	261.9	OK
473.7	76.1	0.0	27.5	615.8	98.9	0.0	35.8	2.5	13.8	OK	14.9	11.5	24.8	261.9	OK
244.9	39.3	-10.4	19.1	318.4	51.1	-13.5	24.9	1.3	13.8	OK	39.3	8.0	41.6	261.9	OK
282.2	45.3	1.8	7.7	366.8	58.9	2.4	10.0	1.5	13.8	OK	14.3	3.2	15.4	261.9	OK
373.5	60.0	2.3	1.3	485.5	78.0	3.0	1.7	1.9	13.8	OK	18.7	0.5	18.7	261.9	OK
395.4	63.5	-1.6	6.7	514.0	82.5	-2.0	8.7	2.1	13.8	OK	17.1	2.8	17.8	261.9	OK
0.0	-5.5	-3.3	-9.7	0.0	-7.1	-4.3	-12.6	0.0	13.8	OK	11.0	-4.0	13.1	261.9	OK
0.0	-22.6	1.9	-1.8	0.0	-29.4	2.5	-2.4	0.0	13.8	OK	10.1	-0.8	10.2	261.9	OK
538.4	86.5	-11.9	19.6	700.0	112.4	-15.5	25.5	2.8	13.8	OK	53.1	8.2	54.9	261.9	OK
0.0	-45.8	1.8	-3.4	0.0	-59.6	2.3	-4.4	0.0	13.8	OK	14.4	-1.4	14.6	261.9	OK
199.5	32.0	-18.9	3.9	259.3	41.6	-24.5	5.1	1.0	13.8	OK	63.5	1.6	63.6	261.9	OK
0.0	-24.2	-7.5	-11.1	0.0	-31.5	-9.8	-14.5	0.0	13.8	OK	27.6	-4.6	28.8	261.9	OK
173.3	27.8	-13.0	-10.9	225.3	36.2	-16.9	-14.2	0.9	13.8	OK	44.8	-4.6	45.5	261.9	OK
0.0	-4.7	1.9	-4.3	0.0	-6.2	2.5	-5.6	0.0	13.8	OK	6.8	-1.8	7.5	261.9	OK
67.1	10.8	-17.0	-14.8	87.2	14.0	-22.0	-19.3	0.3	13.8	OK	53.6	-6.2	54.7	261.9	OK
0.0	-6.2	-1.2	-7.8	0.0	-8.1	-1.6	-10.2	0.0	13.8	OK	4.9	-3.3	7.5	261.9	OK
47.2	7.6	-12.7	-11.5	61.4	9.9	-16.5	-15.0	0.2	13.8	OK	39.9	-4.8	40.8	261.9	OK
0.0	-44.5	-2.8	-7.8	0.0	-57.8	-3.6	-10.1	0.0	13.8	OK	17.0	-3.2	17.9	261.9	OK
13.2	2.1	1.9	0.2	17.2	2.8	2.4	0.3	0.1	13.8	OK	6.1	0.1	6.1	261.9	OK
34.6	5.6	0.1	-0.4	45.0	7.2	0.2	-0.5	0.2	13.8	OK	1.5	-0.2	1.5	261.9	OK

30.1	4.8	0.8	1.0	39.1	6.3	1.0	1.3	0.2	13.8	OK	3.3	0.4	3.4	261.9	OK
46.5	7.5	-2.3	1.4	60.4	9.7	-3.0	1.8	0.2	13.8	OK	8.4	0.6	8.5	261.9	OK
0.0	-2.3	2.9	-0.6	0.0	-3.0	3.8	-0.8	0.0	13.8	OK	9.3	-0.3	9.3	261.9	OK
21.9	3.5	3.2	-0.5	28.5	4.6	4.1	-0.7	0.1	13.8	OK	10.3	-0.2	10.4	261.9	OK
4.6	0.7	3.1	-4.2	5.9	1.0	4.1	-5.4	0.0	13.8	OK	9.6	-1.7	10.1	261.9	OK
37.3	6.0	-1.2	0.5	48.5	7.8	-1.6	0.6	0.2	13.8	OK	4.9	0.2	4.9	261.9	OK
50.3	8.1	-4.5	-0.5	65.4	10.5	-5.9	-0.7	0.3	13.8	OK	15.4	-0.2	15.4	261.9	OK
42.8	6.9	-2.1	0.5	55.6	8.9	-2.7	0.7	0.2	13.8	OK	7.6	0.2	7.6	261.9	OK
40.0	6.4	1.0	-0.6	52.1	8.4	1.3	-0.8	0.2	13.8	OK	4.3	-0.3	4.3	261.9	OK
40.9	6.6	-0.9	-1.0	53.2	8.5	-1.2	-1.3	0.2	13.8	OK	4.1	-0.4	4.2	261.9	OK
45.8	7.4	-2.5	0.1	59.5	9.6	-3.3	0.1	0.2	13.8	OK	9.1	0.0	9.1	261.9	OK
44.0	7.1	-2.3	-0.1	57.2	9.2	-3.0	-0.1	0.2	13.8	OK	8.3	0.0	8.3	261.9	OK
51.4	8.3	-4.3	-0.8	66.8	10.7	-5.5	-1.0	0.3	13.8	OK	14.5	-0.3	14.5	261.9	OK
27.1	4.4	0.4	-0.6	35.3	5.7	0.5	-0.8	0.1	13.8	OK	1.9	-0.3	2.0	261.9	OK
15.4	2.5	2.0	-0.4	20.1	3.2	2.6	-0.6	0.1	13.8	OK	6.6	-0.2	6.6	261.9	OK
21.5	3.4	2.6	2.2	27.9	4.5	3.4	2.9	0.1	13.8	OK	8.6	0.9	8.8	261.9	OK
9.4	1.5	3.0	2.6	12.2	2.0	3.9	3.4	0.0	13.8	OK	9.4	1.1	9.6	261.9	OK
0.0	-6.4	2.1	0.9	0.0	-8.3	2.7	1.2	0.0	13.8	OK	7.7	0.4	7.7	261.9	OK
79.9	12.8	-19.1	10.0	103.9	16.7	-24.9	13.0	0.4	13.8	OK	60.6	4.2	61.1	261.9	OK
0.0	-46.0	0.5	4.0	0.0	-59.8	0.7	5.3	0.0	13.8	OK	10.5	1.7	10.9	261.9	OK
0.0	-9.0	1.3	4.7	0.0	-11.7	1.7	6.1	0.0	13.8	OK	5.6	2.0	6.6	261.9	OK
0.0	-7.0	-4.1	10.6	0.0	-9.1	-5.3	13.7	0.0	13.8	OK	13.8	4.4	15.8	261.9	OK
0.0	-42.6	-5.1	8.7	0.0	-55.4	-6.6	11.2	0.0	13.8	OK	23.7	3.6	24.5	261.9	OK
0.0	-13.3	-2.2	8.4	0.0	-17.3	-2.9	10.9	0.0	13.8	OK	9.3	3.5	11.1	261.9	OK
408.1	65.5	-20.0	-22.5	530.5	85.2	-26.1	-29.3	2.1	13.8	OK	73.6	-9.4	75.4	261.9	OK
0.0	-24.5	1.2	2.0	0.0	-31.8	1.6	2.6	0.0	13.8	OK	8.5	0.8	8.6	261.9	OK
200.5	32.2	-19.6	11.5	260.7	41.9	-25.5	14.9	1.0	13.8	OK	65.8	4.8	66.3	261.9	OK
73.1	11.7	-13.6	13.8	95.0	15.3	-17.7	17.9	0.4	13.8	OK	43.6	5.7	44.7	261.9	OK
190.8	30.6	-18.8	-12.6	248.0	39.8	-24.4	-16.3	1.0	13.8	OK	63.0	-5.2	63.6	261.9	OK
0.0	-14.6	-10.5	11.4	0.0	-18.9	-13.7	14.8	0.0	13.8	OK	34.8	4.7	35.8	261.9	OK
530.4	85.2	36.5	-18.3	689.5	110.7	47.5	-23.8	2.8	13.8	OK	127.5	-7.6	128.2	261.9	OK
275.8	44.3	3.8	-27.4	358.6	57.6	4.9	-35.6	1.4	13.8	OK	20.1	-11.4	28.2	261.9	OK
423.7	68.0	20.9	48.6	550.8	88.4	27.2	63.1	2.2	13.8	OK	76.7	20.2	84.3	261.9	OK
236.6	38.0	13.8	48.6	307.5	49.4	18.0	63.2	1.2	13.8	OK	49.4	20.3	60.6	261.9	OK
565.5	90.8	7.7	-45.8	735.1	118.0	10.0	-59.6	2.9	13.8	OK	41.0	-19.1	52.7	261.9	OK
346.0	55.6	21.9	-10.3	449.8	72.2	28.5	-13.4	1.8	13.8	OK	77.3	-4.3	77.7	261.9	OK
41.5	6.7	-10.1	7.2	54.0	8.7	-13.1	9.3	0.2	13.8	OK	31.8	3.0	32.3	261.9	OK
40.4	6.5	-17.9	6.9	52.5	8.4	-23.3	9.0	0.2	13.8	OK	55.7	2.9	56.0	261.9	OK
89.3	14.3	-17.6	12.8	116.1	18.6	-22.9	16.6	0.5	13.8	OK	56.2	5.3	57.0	261.9	OK
219.9	35.3	-1.0	2.1	285.9	45.9	-1.4	2.8	1.1	13.8	OK	10.1	0.9	10.2	261.9	OK
63.8	10.2	-3.0	5.2	83.0	13.3	-3.8	6.8	0.3	13.8	OK	11.0	2.2	11.6	261.9	OK
142.0	22.8	-6.6	9.9	184.5	29.6	-8.6	12.8	0.7	13.8	OK	24.6	4.1	25.6	261.9	OK
12.0	1.9	-0.6	-4.7	15.5	2.5	-0.7	-6.1	0.1	13.8	OK	2.1	-2.0	4.0	261.9	OK
28.2	4.5	2.6	-5.3	36.7	5.9	3.4	-6.8	0.1	13.8	OK	8.7	-2.2	9.5	261.9	OK
0.0	-23.5	-14.0	-10.1	0.0	-30.5	-18.2	-13.2	0.0	13.8	OK	47.0	-4.2	47.6	261.9	OK
8.4	1.4	-1.3	-5.1	11.0	1.8	-1.7	-6.7	0.0	13.8	OK	4.3	-2.1	5.7	261.9	OK
0.0	-5.1	-13.4	-10.4	0.0	-6.6	-17.4	-13.5	0.0	13.8	OK	41.8	-4.3	42.4	261.9	OK

0.0	-1.8	-5.7	-7.7	0.0	-2.3	-7.4	-10.1	0.0	13.8	OK	17.7	-3.2	18.5	261.9	OK
0.0	-17.6	-5.8	-7.0	0.0	-22.9	-7.6	-9.1	0.0	13.8	OK	21.1	-2.9	21.7	261.9	OK
13.5	2.2	-22.5	-9.2	17.5	2.8	-29.2	-11.9	0.1	13.8	OK	68.8	-3.8	69.1	261.9	OK
28.5	4.6	2.6	-3.9	37.0	5.9	3.4	-5.1	0.1	13.8	OK	8.9	-1.6	9.4	261.9	OK
16.9	2.7	-22.8	-8.8	22.0	3.5	-29.7	-11.4	0.1	13.8	OK	69.9	-3.7	70.2	261.9	OK
29.4	4.7	-23.5	1.1	38.2	6.1	-30.5	1.5	0.2	13.8	OK	72.2	0.5	72.2	261.9	OK
61.8	9.9	-25.6	2.9	80.3	12.9	-33.3	3.7	0.3	13.8	OK	79.8	1.2	79.8	261.9	OK
61.7	9.9	7.3	-2.4	80.3	12.9	9.4	-3.1	0.3	13.8	OK	24.0	-1.0	24.1	261.9	OK
41.6	6.7	4.8	-2.8	54.1	8.7	6.2	-3.7	0.2	13.8	OK	15.8	-1.2	15.9	261.9	OK
54.8	8.8	7.4	-3.4	71.3	11.4	9.7	-4.4	0.3	13.8	OK	24.3	-1.4	24.5	261.9	OK
54.0	8.7	6.1	-2.1	70.1	11.3	7.9	-2.8	0.3	13.8	OK	20.2	-0.9	20.2	261.9	OK
66.7	10.7	7.3	-1.0	86.7	13.9	9.5	-1.3	0.3	13.8	OK	24.2	-0.4	24.2	261.9	OK
61.8	9.9	6.8	-1.0	80.3	12.9	8.8	-1.3	0.3	13.8	OK	22.4	-0.4	22.5	261.9	OK
44.5	7.2	5.1	-5.4	57.9	9.3	6.7	-7.1	0.2	13.8	OK	16.9	-2.3	17.4	261.9	OK
66.3	10.6	7.5	-1.1	86.2	13.8	9.8	-1.4	0.3	13.8	OK	24.9	-0.5	24.9	261.9	OK
65.1	10.5	7.0	-1.3	84.7	13.6	9.1	-1.7	0.3	13.8	OK	23.2	-0.6	23.2	261.9	OK
65.6	10.5	7.4	-0.5	85.3	13.7	9.6	-0.6	0.3	13.8	OK	24.5	-0.2	24.5	261.9	OK
54.1	8.7	10.3	2.3	70.4	11.3	13.4	3.0	0.3	13.8	OK	32.9	1.0	33.0	261.9	OK
49.0	7.9	8.6	0.9	63.6	10.2	11.2	1.1	0.3	13.8	OK	27.7	0.4	27.7	261.9	OK
63.3	10.2	7.7	-0.3	82.3	13.2	10.0	-0.4	0.3	13.8	OK	25.2	-0.1	25.2	261.9	OK
43.5	7.0	9.5	5.0	56.5	9.1	12.4	6.5	0.2	13.8	OK	30.3	2.1	30.5	261.9	OK
27.1	4.4	6.4	3.9	35.2	5.7	8.3	5.1	0.1	13.8	OK	20.2	1.6	20.4	261.9	OK
64.5	10.4	8.1	-0.2	83.9	13.5	10.6	-0.3	0.3	13.8	OK	26.7	-0.1	26.7	261.9	OK
39.4	6.3	8.3	1.4	51.2	8.2	10.8	1.8	0.2	13.8	OK	26.4	0.6	26.4	261.9	OK
59.8	9.6	9.0	1.2	77.7	12.5	11.7	1.6	0.3	13.8	OK	29.2	0.5	29.2	261.9	OK
57.8	9.3	8.4	-0.5	75.1	12.1	10.9	-0.6	0.3	13.8	OK	27.3	-0.2	27.3	261.9	OK
32.6	5.2	7.5	7.7	42.4	6.8	9.8	10.0	0.2	13.8	OK	23.9	3.2	24.5	261.9	OK
39.3	6.3	-33.8	4.7	51.1	8.2	-43.9	6.1	0.2	13.8	OK	103.8	2.0	103.8	261.9	OK
33.8	5.4	-28.6	4.9	44.0	7.1	-37.1	6.4	0.2	13.8	OK	87.8	2.0	87.9	261.9	OK
20.5	3.3	2.7	9.5	26.7	4.3	3.5	12.3	0.1	13.8	OK	8.8	4.0	11.2	261.9	OK
3.0	0.5	-12.9	12.1	3.9	0.6	-16.7	15.8	0.0	13.8	OK	39.2	5.0	40.2	261.9	OK
16.0	2.6	-21.1	8.8	20.8	3.3	-27.5	11.4	0.1	13.8	OK	64.7	3.6	65.0	261.9	OK
10.2	1.6	-11.9	9.1	13.2	2.1	-15.5	11.8	0.1	13.8	OK	36.6	3.8	37.2	261.9	OK
70.2	11.3	-27.7	-7.0	91.3	14.7	-36.1	-9.1	0.4	13.8	OK	86.4	-2.9	86.6	261.9	OK
9.6	1.5	-23.8	11.3	12.4	2.0	-30.9	14.7	0.0	13.8	OK	72.5	4.7	73.0	261.9	OK
17.4	2.8	2.3	5.6	22.6	3.6	3.0	7.2	0.1	13.8	OK	7.6	2.3	8.6	261.9	OK
9.8	1.6	-3.9	7.1	12.7	2.0	-5.0	9.2	0.1	13.8	OK	12.0	2.9	13.1	261.9	OK
70.3	11.3	-33.0	-11.8	91.4	14.7	-42.8	-15.3	0.4	13.8	OK	102.3	-4.9	102.6	261.9	OK
12.0	1.9	-4.7	10.8	15.6	2.5	-6.1	14.1	0.1	13.8	OK	14.6	4.5	16.6	261.9	OK
177.7	28.5	-7.1	-26.4	231.0	37.1	-9.3	-34.3	0.9	13.8	OK	27.2	-11.0	33.2	261.9	OK
324.6	52.1	-26.8	-59.4	422.0	67.8	-34.8	-77.2	1.7	13.8	OK	91.5	-24.7	101.0	261.9	OK
258.6	41.5	12.9	15.2	336.2	54.0	16.7	19.8	1.3	13.8	OK	47.2	6.3	48.5	261.9	OK
133.1	21.4	-20.5	-24.1	173.0	27.8	-26.7	-31.3	0.7	13.8	OK	66.5	-10.0	68.7	261.9	OK
92.2	14.8	-16.2	-15.7	119.8	19.2	-21.1	-20.4	0.5	13.8	OK	52.1	-6.6	53.3	261.9	OK
167.2	26.9	-4.9	-38.7	217.4	34.9	-6.4	-50.3	0.9	13.8	OK	20.1	-16.1	34.4	261.9	OK
253.4	40.7	-0.6	2.0	329.4	52.9	-0.8	2.6	1.3	13.8	OK	9.9	0.8	10.0	261.9	OK
305.6	49.1	-1.4	-0.3	397.3	63.8	-1.8	-0.3	1.6	13.8	OK	13.8	-0.1	13.8	261.9	OK

130.4	20.9	-15.4	10.7	169.5	27.2	-20.0	13.9	0.7	13.8	OK	50.7	4.5	51.3	261.9	OK
229.9	36.9	-11.9	20.3	298.8	48.0	-15.4	26.3	1.2	13.8	OK	43.3	8.4	45.7	261.9	OK
165.2	26.5	-5.4	7.5	214.8	34.5	-7.0	9.8	0.9	13.8	OK	21.6	3.1	22.2	261.9	OK
277.2	44.5	-3.5	11.8	360.3	57.9	-4.6	15.3	1.4	13.8	OK	19.3	4.9	21.1	261.9	OK
7.9	1.3	2.8	-4.5	10.2	1.6	3.6	-5.9	0.0	13.8	OK	8.7	-1.9	9.3	261.9	OK
0.0	-34.2	-3.2	-7.0	0.0	-44.5	-4.2	-9.1	0.0	13.8	OK	16.4	-2.9	17.2	261.9	OK
0.0	-37.9	-9.1	-11.2	0.0	-49.2	-11.9	-14.6	0.0	13.8	OK	35.2	-4.7	36.1	261.9	OK
156.2	25.1	-22.3	5.7	203.0	32.6	-29.0	7.4	0.8	13.8	OK	72.6	2.4	72.8	261.9	OK
75.0	12.0	-21.5	0.3	97.5	15.7	-28.0	0.3	0.4	13.8	OK	67.7	0.1	67.7	261.9	OK
0.0	-80.0	-11.6	-12.9	0.0	-104.0	-15.1	-16.8	0.0	13.8	OK	50.8	-5.4	51.6	261.9	OK
11.8	1.9	-18.6	-13.5	15.4	2.5	-24.1	-17.6	0.1	13.8	OK	56.8	-5.6	57.6	261.9	OK
0.0	-11.6	1.0	-3.1	0.0	-15.0	1.3	-4.0	0.0	13.8	OK	5.4	-1.3	5.8	261.9	OK
0.0	-65.1	-3.4	-7.4	0.0	-84.6	-4.4	-9.6	0.0	13.8	OK	23.0	-3.1	23.6	261.9	OK
0.0	-19.9	0.0	-5.7	0.0	-25.8	0.0	-7.4	0.0	13.8	OK	3.9	-2.4	5.7	261.9	OK
10.1	1.6	-19.7	-13.4	13.2	2.1	-25.6	-17.5	0.1	13.8	OK	60.2	-5.6	61.0	261.9	OK
10.7	1.7	2.6	-2.4	13.9	2.2	3.4	-3.2	0.1	13.8	OK	8.3	-1.0	8.5	261.9	OK
39.6	6.4	5.7	-2.8	51.5	8.3	7.4	-3.6	0.2	13.8	OK	18.5	-1.2	18.6	261.9	OK
57.3	9.2	3.6	-0.5	74.5	12.0	4.6	-0.7	0.3	13.8	OK	12.6	-0.2	12.6	261.9	OK
55.1	8.8	3.6	-0.1	71.6	11.5	4.7	-0.1	0.3	13.8	OK	12.7	0.0	12.7	261.9	OK
59.5	9.5	2.4	-0.8	77.3	12.4	3.2	-1.1	0.3	13.8	OK	9.3	-0.3	9.3	261.9	OK
53.2	8.5	3.7	-0.7	69.1	11.1	4.8	-0.9	0.3	13.8	OK	12.9	-0.3	12.9	261.9	OK
49.0	7.9	4.2	-0.1	63.7	10.2	5.5	-0.1	0.3	13.8	OK	14.4	0.0	14.4	261.9	OK
49.3	7.9	4.2	-1.9	64.1	10.3	5.5	-2.5	0.3	13.8	OK	14.3	-0.8	14.4	261.9	OK
25.6	4.1	3.9	-1.6	33.3	5.3	5.1	-2.0	0.1	13.8	OK	12.6	-0.7	12.7	261.9	OK
25.7	4.1	4.4	-4.9	33.4	5.4	5.7	-6.4	0.1	13.8	OK	14.2	-2.0	14.6	261.9	OK
37.8	6.1	4.4	-1.2	49.2	7.9	5.7	-1.5	0.2	13.8	OK	14.4	-0.5	14.5	261.9	OK
15.6	2.5	4.9	2.5	20.3	3.3	6.3	3.3	0.1	13.8	OK	15.3	1.1	15.4	261.9	OK
54.3	8.7	3.7	-0.2	70.6	11.3	4.9	-0.3	0.3	13.8	OK	13.1	-0.1	13.1	261.9	OK
33.2	5.3	6.6	4.7	43.2	6.9	8.5	6.1	0.2	13.8	OK	21.0	2.0	21.3	261.9	OK
50.1	8.0	4.7	-0.7	65.1	10.5	6.1	-1.0	0.3	13.8	OK	15.9	-0.3	15.9	261.9	OK
39.4	6.3	5.4	0.4	51.3	8.2	7.0	0.5	0.2	13.8	OK	17.5	0.2	17.5	261.9	OK
58.0	9.3	3.2	-0.3	75.4	12.1	4.1	-0.3	0.3	13.8	OK	11.4	-0.1	11.4	261.9	OK
52.7	8.5	4.3	1.2	68.5	11.0	5.6	1.6	0.3	13.8	OK	14.7	0.5	14.7	261.9	OK
47.0	7.6	6.6	2.1	61.1	9.8	8.5	2.7	0.2	13.8	OK	21.4	0.9	21.4	261.9	OK
20.3	3.3	5.9	6.8	26.4	4.2	7.6	8.8	0.1	13.8	OK	18.5	2.8	19.1	261.9	OK
30.3	4.9	5.8	0.5	39.4	6.3	7.5	0.7	0.2	13.8	OK	18.4	0.2	18.4	261.9	OK
1.2	0.2	2.8	7.6	1.6	0.3	3.6	9.9	0.0	13.8	OK	8.5	3.2	10.1	261.9	OK
0.7	0.1	-27.2	10.0	0.9	0.1	-35.4	13.0	0.0	13.8	OK	82.7	4.2	83.0	261.9	OK
102.3	16.4	-27.7	-8.6	133.0	21.4	-36.0	-11.2	0.5	13.8	OK	87.3	-3.6	87.6	261.9	OK
86.2	13.8	-24.7	-4.1	112.1	18.0	-32.1	-5.3	0.4	13.8	OK	77.7	-1.7	77.7	261.9	OK
0.0	-21.7	-2.4	10.2	0.0	-28.2	-3.1	13.3	0.0	13.8	OK	11.5	4.3	13.6	261.9	OK
0.0	-53.0	-7.7	12.0	0.0	-68.9	-10.0	15.5	0.0	13.8	OK	33.7	5.0	34.7	261.9	OK
0.0	-23.0	-8.1	8.5	0.0	-29.8	-10.6	11.0	0.0	13.8	OK	29.2	3.5	29.8	261.9	OK
0.0	-18.8	-15.7	10.1	0.0	-24.4	-20.4	13.2	0.0	13.8	OK	51.4	4.2	51.9	261.9	OK
0.0	-52.3	-18.2	15.0	0.0	-68.0	-23.6	19.5	0.0	13.8	OK	65.3	6.2	66.2	261.9	OK
0.0	-12.8	-1.5	5.1	0.0	-16.6	-1.9	6.7	0.0	13.8	OK	7.0	2.1	7.9	261.9	OK
3.4	0.6	2.3	3.7	4.5	0.7	3.0	4.9	0.0	13.8	OK	7.1	1.6	7.6	261.9	OK

22.4	3.6	-24.7	8.5	29.2	4.7	-32.1	11.1	0.1	13.8	OK	75.7	3.6	75.9	261.9	OK
321.1	51.6	22.1	58.5	417.4	67.0	28.7	76.1	1.7	13.8	OK	77.0	24.4	87.9	261.9	OK
244.3	39.2	-11.1	7.4	317.6	51.0	-14.5	9.7	1.3	13.8	OK	41.4	3.1	41.8	261.9	OK
241.8	38.8	-2.9	-30.6	314.4	50.5	-3.8	-39.8	1.3	13.8	OK	16.4	-12.7	27.5	261.9	OK
154.4	24.8	-14.1	-17.9	200.7	32.2	-18.3	-23.2	0.8	13.8	OK	47.6	-7.4	49.3	261.9	OK
205.7	33.0	-15.4	-96.8	267.4	42.9	-20.0	-125.8	1.1	13.8	OK	53.1	-40.3	87.7	261.9	OK
295.0	47.4	21.6	-1.6	383.5	61.6	28.0	-2.1	1.5	13.8	OK	74.7	-0.7	74.7	261.9	OK
536.9	86.2	33.3	26.0	697.9	112.1	43.2	33.8	2.8	13.8	OK	117.8	10.8	119.3	261.9	OK
1110.6	178.3	70.8	-45.0	1443.8	231.8	92.0	-58.5	5.8	13.8	OK	249.7	-18.7	251.8	261.9	OK
723.6	116.2	46.6	-14.9	940.7	151.0	60.6	-19.4	3.8	13.8	OK	164.1	-6.2	164.4	261.9	OK
228.6	36.7	66.4	83.8	297.2	47.7	86.3	108.9	1.2	13.8	OK	208.8	34.9	217.4	261.9	OK
682.8	109.6	17.9	-49.6	887.6	142.5	23.3	-64.5	3.6	13.8	OK	75.8	-20.7	83.8	261.9	OK
1175.5	188.7	7.0	-71.5	1528.1	245.4	9.1	-93.0	6.1	13.8	OK	58.0	-29.8	77.6	261.9	OK
1424.6	228.7	-5.6	-35.4	1852.0	297.4	-7.2	-46.0	7.4	13.8	OK	61.4	-14.8	66.5	261.9	OK
75.5	12.1	-1.5	10.7	98.1	15.8	-1.9	13.8	0.4	13.8	OK	6.9	4.4	10.3	261.9	OK
1101.6	176.9	-6.1	-11.0	1432.1	229.9	-7.9	-14.3	5.7	13.8	OK	52.9	-4.6	53.5	261.9	OK
255.9	41.1	-11.0	12.3	332.6	53.4	-14.3	15.9	1.3	13.8	OK	41.4	5.1	42.3	261.9	OK
8.7	1.4	-1.5	6.0	11.3	1.8	-1.9	7.8	0.0	13.8	OK	4.8	2.5	6.5	261.9	OK
162.6	26.1	-6.3	7.4	211.3	33.9	-8.2	9.6	0.8	13.8	OK	24.2	3.1	24.8	261.9	OK
108.1	17.4	-5.5	9.1	140.6	22.6	-7.2	11.8	0.6	13.8	OK	20.2	3.8	21.2	261.9	OK
354.9	57.0	-3.8	4.2	461.4	74.1	-5.0	5.5	1.8	13.8	OK	22.7	1.8	22.9	261.9	OK
650.1	104.4	-16.1	-27.4	845.1	135.7	-20.9	-35.7	3.4	13.8	OK	69.2	-11.4	72.0	261.9	OK
747.4	120.0	-5.4	0.9	971.6	156.0	-7.0	1.2	3.9	13.8	OK	39.8	0.4	39.8	261.9	OK
0.0	-17.4	-1.2	4.7	0.0	-22.6	-1.6	6.1	0.0	13.8	OK	7.1	2.0	7.9	261.9	OK
480.1	77.1	-14.1	1.7	624.2	100.2	-18.3	2.3	2.5	13.8	OK	57.7	0.7	57.8	261.9	OK
37.5	6.0	-8.0	-2.1	48.7	7.8	-10.4	-2.7	0.2	13.8	OK	25.5	-0.9	25.5	261.9	OK
26.4	4.2	-0.8	3.8	34.3	5.5	-1.0	4.9	0.1	13.8	OK	3.1	1.6	4.2	261.9	OK
23.7	3.8	-5.1	-1.7	30.7	4.9	-6.7	-2.2	0.1	13.8	OK	16.3	-0.7	16.4	261.9	OK
7.6	1.2	-3.1	-0.9	9.9	1.6	-4.0	-1.1	0.0	13.8	OK	9.7	-0.4	9.7	261.9	OK
30.5	4.9	0.8	5.8	39.7	6.4	1.1	7.6	0.2	13.8	OK	3.5	2.4	5.5	261.9	OK
0.0	-24.3	-0.3	2.5	0.0	-31.5	-0.4	3.3	0.0	13.8	OK	5.6	1.0	5.9	261.9	OK
0.0	-2.3	0.1	0.2	0.0	-2.9	0.1	0.3	0.0	13.8	OK	0.7	0.1	0.7	261.9	OK
39.6	6.4	-10.9	3.0	51.5	8.3	-14.2	3.8	0.2	13.8	OK	34.4	1.2	34.5	261.9	OK
35.3	5.7	-2.9	-0.3	45.9	7.4	-3.7	-0.5	0.2	13.8	OK	9.8	-0.1	9.8	261.9	OK
25.5	4.1	-7.7	0.7	33.2	5.3	-10.0	0.9	0.1	13.8	OK	24.1	0.3	24.1	261.9	OK
38.0	6.1	-8.6	-1.0	49.3	7.9	-11.2	-1.3	0.2	13.8	OK	27.3	-0.4	27.3	261.9	OK
0.0	-16.6	1.3	-1.7	0.0	-21.6	1.6	-2.2	0.0	13.8	OK	7.1	-0.7	7.2	261.9	OK
11.7	1.9	-2.5	1.1	15.2	2.4	-3.3	1.5	0.1	13.8	OK	8.1	0.5	8.1	261.9	OK
23.8	3.8	-7.5	1.9	30.9	5.0	-9.7	2.5	0.1	13.8	OK	23.4	0.8	23.4	261.9	OK
39.6	6.4	-12.0	4.0	51.5	8.3	-15.5	5.2	0.2	13.8	OK	37.6	1.7	37.7	261.9	OK
32.5	5.2	-4.4	0.2	42.3	6.8	-5.7	0.3	0.2	13.8	OK	14.3	0.1	14.3	261.9	OK
27.8	4.5	-0.7	-6.1	36.2	5.8	-0.9	-7.9	0.1	13.8	OK	3.0	-2.5	5.3	261.9	OK
0.0	-5.7	-0.9	0.3	0.0	-7.4	-1.2	0.4	0.0	13.8	OK	3.9	0.1	3.9	261.9	OK
28.2	4.5	0.5	-0.8	36.6	5.9	0.7	-1.0	0.1	13.8	OK	2.5	-0.3	2.5	261.9	OK
17.6	2.8	-6.1	0.0	22.9	3.7	-7.9	0.1	0.1	13.8	OK	19.0	0.0	19.0	261.9	OK
12.3	2.0	-0.6	-6.1	15.9	2.6	-0.8	-8.0	0.1	13.8	OK	2.3	-2.5	5.0	261.9	OK
1053.7	169.2	-0.6	29.9	1369.9	219.9	-0.8	38.9	5.5	13.8	OK	34.7	12.5	40.9	261.9	OK

1451.7	233.1	14.9	39.5	1887.2	303.0	19.4	51.3	7.5	13.8	OK	90.7	16.4	95.1	261.9	OK
0.0	-18.0	-0.8	-4.6	0.0	-23.4	-1.1	-6.0	0.0	13.8	OK	6.0	-1.9	6.8	261.9	OK
561.8	90.2	-6.7	14.7	730.3	117.3	-8.8	19.2	2.9	13.8	OK	38.0	6.1	39.5	261.9	OK
387.2	62.2	-3.4	-4.1	503.4	80.8	-4.4	-5.3	2.0	13.8	OK	22.4	-1.7	22.6	261.9	OK
122.7	19.7	-4.2	-8.1	159.5	25.6	-5.4	-10.5	0.6	13.8	OK	16.5	-3.4	17.5	261.9	OK
266.5	42.8	-9.5	-9.0	346.5	55.6	-12.3	-11.7	1.4	13.8	OK	37.1	-3.7	37.6	261.9	OK
798.2	128.2	-6.9	1.8	1037.7	166.6	-8.9	2.4	4.2	13.8	OK	45.8	0.8	45.8	261.9	OK
178.1	28.6	-5.1	-7.2	231.5	37.2	-6.7	-9.4	0.9	13.8	OK	21.2	-3.0	21.8	261.9	OK
66.9	10.7	-0.7	-9.1	86.9	14.0	-1.0	-11.8	0.3	13.8	OK	4.3	-3.8	7.9	261.9	OK
451.5	72.5	-8.1	1.1	586.9	94.2	-10.6	1.5	2.3	13.8	OK	38.8	0.5	38.8	261.9	OK
533.3	85.6	3.5	17.9	693.2	111.3	4.5	23.3	2.8	13.8	OK	27.2	7.5	30.1	261.9	OK
548.9	88.1	7.5	3.9	713.6	114.6	9.8	5.0	2.9	13.8	OK	40.0	1.6	40.1	261.9	OK
745.3	119.7	9.7	-1.6	968.9	155.6	12.6	-2.1	3.9	13.8	OK	52.6	-0.7	52.7	261.9	OK
532.7	85.5	-0.3	8.7	692.5	111.2	-0.4	11.4	2.8	13.8	OK	17.7	3.6	18.8	261.9	OK
196.4	31.5	0.6	-1.1	255.3	41.0	0.8	-1.4	1.0	13.8	OK	8.0	-0.5	8.0	261.9	OK
818.4	131.4	13.5	-9.3	1063.9	170.8	17.6	-12.1	4.3	13.8	OK	66.7	-3.9	67.0	261.9	OK
1517.4	288.1	14.2	-54.9	1972.7	374.6	18.5	-71.4	7.9	13.8	OK	80.6	-19.2	87.3	261.9	OK
0.0	-178.1	-17.8	-27.7	0.0	-231.5	-23.1	-36.0	0.0	13.8	OK	70.9	-9.7	72.9	261.9	OK
1349.4	256.2	82.5	-135.5	1754.2	333.1	107.2	-176.2	7.0	13.8	OK	235.0	-47.5	248.9	261.9	OK
116.4	22.1	28.9	310.4	151.3	28.7	37.5	403.5	0.6	13.8	OK	71.2	108.8	201.4	261.9	OK
1119.6	212.6	19.0	-36.0	1455.5	276.4	24.6	-46.8	5.8	13.8	OK	79.3	-12.6	82.3	261.9	OK
987.3	187.5	12.8	-28.3	1283.5	243.7	16.6	-36.8	5.1	13.8	OK	60.7	-9.9	63.1	261.9	OK
1055.5	200.4	15.6	-44.3	1372.2	260.6	20.2	-57.6	5.5	13.8	OK	69.4	-15.5	74.4	261.9	OK
607.5	115.3	0.1	1.4	789.7	150.0	0.1	1.9	3.2	13.8	OK	19.1	0.5	19.1	261.9	OK
489.1	92.9	1.3	0.6	635.9	120.7	1.7	0.8	2.5	13.8	OK	18.4	0.2	18.4	261.9	OK
1259.4	239.2	11.2	-51.6	1637.3	310.9	14.6	-67.1	6.5	13.8	OK	65.6	-18.1	72.7	261.9	OK
51.7	9.8	-3.5	56.4	67.2	12.8	-4.5	73.3	0.3	13.8	OK	9.8	19.8	35.6	261.9	OK
0.0	-17.8	-19.9	13.9	0.0	-23.1	-25.9	18.1	0.0	13.8	OK	49.5	4.9	50.2	261.9	OK
87.4	16.6	-23.4	4.9	113.6	21.6	-30.4	6.4	0.5	13.8	OK	57.4	1.7	57.4	261.9	OK
97.8	18.6	-25.5	-5.3	127.2	24.1	-33.2	-6.8	0.5	13.8	OK	62.7	-1.8	62.8	261.9	OK
91.0	17.3	-12.8	28.8	118.4	22.5	-16.6	37.4	0.5	13.8	OK	32.7	10.1	37.0	261.9	OK
91.2	17.3	-27.0	-8.1	118.5	22.5	-35.2	-10.5	0.5	13.8	OK	66.1	-2.8	66.3	261.9	OK
83.1	15.8	-1.8	12.5	108.0	20.5	-2.3	16.3	0.4	13.8	OK	6.8	4.4	10.2	261.9	OK
80.1	15.2	-16.1	51.3	104.2	19.8	-20.9	66.7	0.4	13.8	OK	40.2	18.0	50.8	261.9	OK
143.5	27.2	1.9	26.4	186.5	35.4	2.5	34.4	0.7	13.8	OK	8.9	9.3	18.4	261.9	OK
123.6	23.5	-0.1	56.1	160.7	30.5	-0.1	72.9	0.6	13.8	OK	4.1	19.6	34.3	261.9	OK
116.2	22.1	-22.5	-5.1	151.1	28.7	-29.3	-6.6	0.6	13.8	OK	56.3	-1.8	56.4	261.9	OK
103.2	19.6	-28.6	-6.2	134.2	25.5	-37.1	-8.1	0.5	13.8	OK	70.0	-2.2	70.1	261.9	OK
60.9	11.6	-17.0	13.6	79.2	15.0	-22.1	17.6	0.3	13.8	OK	41.7	4.7	42.5	261.9	OK
141.5	26.9	-22.7	2.3	184.0	34.9	-29.5	3.0	0.7	13.8	OK	57.5	0.8	57.5	261.9	OK
179.9	34.2	-10.9	29.4	233.9	44.4	-14.1	38.2	0.9	13.8	OK	31.0	10.3	35.8	261.9	OK
183.2	34.8	-13.8	46.6	238.1	45.2	-17.9	60.5	1.0	13.8	OK	37.9	16.3	47.3	261.9	OK
52.8	10.0	5.3	-1.6	68.6	13.0	6.9	-2.1	0.3	13.8	OK	14.1	-0.6	14.1	261.9	OK
188.6	35.8	8.2	-19.5	245.2	46.6	10.7	-25.4	1.0	13.8	OK	25.1	-6.8	27.7	261.9	OK
42.4	8.0	2.7	11.0	55.1	10.5	3.5	14.3	0.2	13.8	OK	7.7	3.8	10.2	261.9	OK
258.3	49.0	-4.0	14.6	335.8	63.8	-5.2	19.0	1.3	13.8	OK	17.4	5.1	19.6	261.9	OK
133.6	25.4	6.6	6.0	173.7	33.0	8.6	7.8	0.7	13.8	OK	19.6	2.1	20.0	261.9	OK

217.5	41.3	-2.3	35.6	282.7	53.7	-2.9	46.3	1.1	13.8	OK	12.1	12.5	24.8	261.9	OK
145.1	27.6	3.8	41.5	188.7	35.8	5.0	53.9	0.8	13.8	OK	13.5	14.5	28.6	261.9	OK
128.7	24.4	10.0	8.7	167.3	31.8	13.0	11.3	0.7	13.8	OK	27.5	3.0	28.0	261.9	OK
94.2	17.9	-13.5	5.5	122.5	23.3	-17.5	7.1	0.5	13.8	OK	34.4	1.9	34.6	261.9	OK
244.5	46.4	-12.7	19.9	317.9	60.4	-16.5	25.8	1.3	13.8	OK	37.2	7.0	39.2	261.9	OK
206.7	39.2	-13.3	26.4	268.6	51.0	-17.3	34.3	1.1	13.8	OK	37.5	9.2	40.8	261.9	OK
75.9	14.4	-12.0	13.2	98.6	18.7	-15.6	17.2	0.4	13.8	OK	30.4	4.6	31.4	261.9	OK
110.0	20.9	0.9	49.4	143.0	27.2	1.1	64.2	0.6	13.8	OK	5.5	17.3	30.5	261.9	OK
206.5	39.2	-8.2	45.1	268.4	51.0	-10.6	58.6	1.1	13.8	OK	25.5	15.8	37.4	261.9	OK
33.4	6.3	4.3	9.6	43.4	8.2	5.6	12.5	0.2	13.8	OK	11.1	3.4	12.5	261.9	OK
291.3	55.3	-14.8	-10.4	378.7	71.9	-19.2	-13.6	1.5	13.8	OK	43.6	-3.7	44.1	261.9	OK
135.3	25.7	5.2	-14.4	176.0	33.4	6.8	-18.8	0.7	13.8	OK	16.5	-5.1	18.7	261.9	OK
0.0	-9.5	5.7	-0.5	0.0	-12.4	7.4	-0.6	0.0	13.8	OK	14.8	-0.2	14.8	261.9	OK
302.7	57.5	-12.2	-9.2	393.5	74.7	-15.9	-12.0	1.6	13.8	OK	38.1	-3.2	38.5	261.9	OK
182.4	34.6	3.7	-7.6	237.2	45.0	4.8	-9.9	0.9	13.8	OK	14.3	-2.7	15.0	261.9	OK
449.1	85.3	23.0	-93.6	583.9	110.9	29.9	-121.6	2.3	13.8	OK	67.8	-32.8	88.4	261.9	OK
249.9	47.5	24.5	-35.9	324.9	61.7	31.8	-46.7	1.3	13.8	OK	65.1	-12.6	68.6	261.9	OK
97.0	18.4	7.8	-9.1	126.1	23.9	10.2	-11.8	0.5	13.8	OK	21.3	-3.2	22.0	261.9	OK
130.3	24.7	3.5	-21.2	169.4	32.2	4.5	-27.6	0.7	13.8	OK	12.2	-7.4	17.7	261.9	OK
366.9	69.7	3.6	-27.3	476.9	90.6	4.7	-35.5	1.9	13.8	OK	19.9	-9.6	25.9	261.9	OK
0.0	-2.6	9.1	-18.3	0.0	-3.4	11.9	-23.8	0.0	13.8	OK	21.8	-6.4	24.4	261.9	OK
101.8	19.3	1.2	-9.7	132.4	25.1	1.6	-12.6	0.5	13.8	OK	6.0	-3.4	8.4	261.9	OK
94.5	17.9	8.6	-27.5	122.9	23.3	11.2	-35.8	0.5	13.8	OK	23.1	-9.6	28.5	261.9	OK
0.0	-16.0	1.5	-11.7	0.0	-20.8	1.9	-15.2	0.0	13.8	OK	6.1	-4.1	9.4	261.9	OK
153.6	29.2	15.1	-17.7	199.7	37.9	19.6	-23.0	0.8	13.8	OK	40.0	-6.2	41.4	261.9	OK
203.7	38.7	7.2	-8.2	264.8	50.3	9.4	-10.7	1.1	13.8	OK	23.2	-2.9	23.7	261.9	OK
56.6	10.7	-20.3	-14.1	73.6	14.0	-26.4	-18.4	0.3	13.8	OK	49.3	-4.9	50.0	261.9	OK
120.2	22.8	6.1	34.6	156.3	29.7	8.0	45.0	0.6	13.8	OK	18.1	12.1	27.7	261.9	OK
11.6	2.2	-22.3	-9.9	15.1	2.9	-28.9	-12.9	0.1	13.8	OK	52.4	-3.5	52.8	261.9	OK
0.0	-43.2	-18.9	13.3	0.0	-56.2	-24.5	17.3	0.0	13.8	OK	51.2	4.7	51.8	261.9	OK
1.5	0.3	-27.9	-3.8	2.0	0.4	-36.3	-4.9	0.0	13.8	OK	65.4	-1.3	65.4	261.9	OK
53.8	10.2	-29.5	-13.6	69.9	13.3	-38.3	-17.7	0.3	13.8	OK	70.6	-4.8	71.1	261.9	OK
0.0	-29.7	-23.0	1.1	0.0	-38.6	-29.9	1.5	0.0	13.8	OK	58.6	0.4	58.6	261.9	OK
18.6	3.5	-4.0	33.1	24.2	4.6	-5.1	43.0	0.1	13.8	OK	9.8	11.6	22.4	261.9	OK
0.0	-7.1	-17.9	9.5	0.0	-9.2	-23.3	12.3	0.0	13.8	OK	43.0	3.3	43.4	261.9	OK
51.7	9.8	-6.5	61.7	67.2	12.8	-8.5	80.2	0.3	13.8	OK	16.8	21.6	41.0	261.9	OK
64.9	12.3	-20.8	-9.7	84.4	16.0	-27.0	-12.6	0.3	13.8	OK	50.7	-3.4	51.0	261.9	OK
92.2	17.5	-28.2	-14.3	119.8	22.8	-36.7	-18.5	0.5	13.8	OK	68.8	-5.0	69.4	261.9	OK
46.2	8.8	-18.2	14.0	60.0	11.4	-23.7	18.2	0.2	13.8	OK	44.1	4.9	44.9	261.9	OK
62.3	11.8	-17.0	13.1	81.0	15.4	-22.1	17.0	0.3	13.8	OK	41.7	4.6	42.4	261.9	OK
69.4	13.2	-20.6	-18.3	90.2	17.1	-26.8	-23.8	0.4	13.8	OK	50.3	-6.4	51.5	261.9	OK
171.6	32.6	6.0	41.9	223.0	42.3	7.9	54.5	0.9	13.8	OK	19.5	14.7	32.1	261.9	OK
75.4	14.3	-28.1	-3.9	98.0	18.6	-36.5	-5.0	0.4	13.8	OK	68.1	-1.4	68.1	261.9	OK
53.6	10.2	-21.6	0.9	69.7	13.2	-28.1	1.2	0.3	13.8	OK	52.3	0.3	52.3	261.9	OK
150.5	28.6	-5.7	60.6	195.7	37.2	-7.4	78.7	0.8	13.8	OK	18.0	21.2	40.9	261.9	OK
65.7	12.5	-3.1	36.1	85.4	16.2	-4.1	46.9	0.3	13.8	OK	9.3	12.6	23.8	261.9	OK
252.0	47.8	6.6	16.9	327.6	62.2	8.6	22.0	1.3	13.8	OK	23.4	5.9	25.5	261.9	OK

197.1	37.4	1.3	-27.4	256.2	48.7	1.7	-35.6	1.0	13.8	OK	9.2	-9.6	19.0	261.9	OK
286.9	54.5	19.8	-49.5	372.9	70.8	25.7	-64.3	1.5	13.8	OK	55.3	-17.3	62.9	261.9	OK
104.2	19.8	8.1	-31.7	135.5	25.7	10.6	-41.2	0.5	13.8	OK	22.2	-11.1	29.4	261.9	OK
114.9	21.8	-9.5	-16.1	149.4	28.4	-12.4	-21.0	0.6	13.8	OK	25.9	-5.7	27.7	261.9	OK
20.9	4.0	-11.7	-13.7	27.2	5.2	-15.2	-17.8	0.1	13.8	OK	27.9	-4.8	29.1	261.9	OK
286.0	54.3	-5.3	-23.5	371.9	70.6	-6.9	-30.6	1.5	13.8	OK	21.4	-8.2	25.7	261.9	OK
117.8	22.4	4.7	-35.1	153.1	29.1	6.1	-45.6	0.6	13.8	OK	14.6	-12.3	25.8	261.9	OK
166.6	31.6	8.4	-2.1	216.6	41.1	10.9	-2.8	0.9	13.8	OK	24.9	-0.8	24.9	261.9	OK
18.4	3.5	-7.9	-11.3	24.0	4.5	-10.2	-14.6	0.1	13.8	OK	18.9	-3.9	20.1	261.9	OK
135.7	25.8	-9.8	-4.8	176.4	33.5	-12.8	-6.3	0.7	13.8	OK	27.3	-1.7	27.4	261.9	OK
255.7	48.5	8.3	-32.1	332.4	63.1	10.8	-41.7	1.3	13.8	OK	27.4	-11.2	33.6	261.9	OK
74.3	14.1	-10.4	-9.7	96.6	18.3	-13.5	-12.6	0.4	13.8	OK	26.6	-3.4	27.2	261.9	OK
26.8	5.1	-12.1	-8.2	34.8	6.6	-15.7	-10.7	0.1	13.8	OK	29.0	-2.9	29.5	261.9	OK
404.8	76.9	2.2	-35.0	526.2	99.9	2.8	-45.5	2.1	13.8	OK	17.7	-12.3	27.6	261.9	OK
513.0	97.4	18.4	-97.6	666.9	126.6	23.9	-126.9	2.7	13.8	OK	59.1	-34.2	83.7	261.9	OK
132.9	25.2	-5.2	-14.6	172.8	32.8	-6.7	-18.9	0.7	13.8	OK	16.3	-5.1	18.5	261.9	OK
122.3	23.2	-7.3	-24.4	158.9	30.2	-9.5	-31.7	0.6	13.8	OK	20.9	-8.5	25.6	261.9	OK
377.3	71.6	2.5	-42.6	490.5	93.1	3.3	-55.4	2.0	13.8	OK	17.7	-14.9	31.4	261.9	OK
238.9	45.4	3.5	-22.1	310.6	59.0	4.5	-28.7	1.2	13.8	OK	15.6	-7.7	20.5	261.9	OK
554.7	105.3	14.5	-52.2	721.1	136.9	18.8	-67.8	2.9	13.8	OK	51.1	-18.3	60.1	261.9	OK
99.4	18.9	-21.6	-2.8	129.2	24.5	-28.1	-3.7	0.5	13.8	OK	53.6	-1.0	53.6	261.9	OK
271.2	51.5	6.3	13.5	352.6	66.9	8.1	17.6	1.4	13.8	OK	23.1	4.7	24.5	261.9	OK
321.9	61.1	15.0	-62.5	418.4	79.5	19.5	-81.3	1.7	13.8	OK	45.1	-21.9	58.9	261.9	OK
72.2	13.7	-18.8	-2.2	93.8	17.8	-24.4	-2.9	0.4	13.8	OK	46.2	-0.8	46.2	261.9	OK
161.4	30.6	4.1	-22.0	209.8	39.8	5.4	-28.6	0.8	13.8	OK	14.7	-7.7	19.9	261.9	OK
50.0	9.5	-7.4	-7.3	65.0	12.3	-9.6	-9.5	0.3	13.8	OK	18.8	-2.6	19.4	261.9	OK
103.1	19.6	-24.9	-4.9	134.0	25.4	-32.3	-6.4	0.5	13.8	OK	61.4	-1.7	61.5	261.9	OK
29.5	5.6	-18.5	-1.7	38.3	7.3	-24.0	-2.2	0.2	13.8	OK	44.1	-0.6	44.2	261.9	OK
142.7	27.1	-11.9	0.3	185.5	35.2	-15.5	0.4	0.7	13.8	OK	32.4	0.1	32.4	261.9	OK
48.3	9.2	-14.3	-1.1	62.8	11.9	-18.6	-1.4	0.3	13.8	OK	35.0	-0.4	35.0	261.9	OK
178.2	33.8	-13.6	-17.9	231.7	44.0	-17.7	-23.3	0.9	13.8	OK	37.4	-6.3	39.0	261.9	OK
195.1	37.0	-19.0	-8.7	253.6	48.2	-24.7	-11.3	1.0	13.8	OK	50.5	-3.1	50.8	261.9	OK
69.0	13.1	-15.5	-1.6	89.7	17.0	-20.2	-2.1	0.4	13.8	OK	38.5	-0.6	38.5	261.9	OK
120.5	22.9	-22.9	-8.9	156.7	29.8	-29.7	-11.6	0.6	13.8	OK	57.3	-3.1	57.5	261.9	OK
163.6	31.1	-22.2	-2.8	212.6	40.4	-28.9	-3.6	0.9	13.8	OK	57.1	-1.0	57.2	261.9	OK
330.8	62.8	5.0	-26.8	430.1	81.7	6.5	-34.9	1.7	13.8	OK	22.1	-9.4	27.5	261.9	OK
62.7	11.9	-22.4	-3.2	81.5	15.5	-29.1	-4.1	0.3	13.8	OK	54.2	-1.1	54.3	261.9	OK
122.1	23.2	5.9	-19.2	158.7	30.1	7.7	-25.0	0.6	13.8	OK	17.6	-6.7	21.1	261.9	OK
305.9	58.1	-9.8	-15.7	397.7	75.5	-12.8	-20.5	1.6	13.8	OK	32.5	-5.5	33.9	261.9	OK
149.6	28.4	-4.2	-11.3	194.5	36.9	-5.5	-14.7	0.8	13.8	OK	14.5	-4.0	16.1	261.9	OK
1384.8	263.0	17.0	-139.8	1800.3	341.8	22.1	-181.7	7.2	13.8	OK	83.0	-49.0	118.7	261.9	OK
1349.4	256.2	82.5	-135.5	1754.2	333.1	107.2	-176.2	7.0	13.8	OK	235.0	-47.5	248.9	261.9	OK
26.2	5.0	37.1	-5.0	34.0	6.5	48.3	-6.4	0.1	13.8	OK	87.7	-1.7	87.7	261.9	OK
0.0	-845.1	55.6	-103.8	0.0	-1098.6	72.3	-134.9	0.0	13.8	OK	269.1	-36.4	276.4	261.9	NO
33.6	6.4	39.0	2.8	43.7	8.3	50.7	3.6	0.2	13.8	OK	92.3	1.0	92.3	261.9	OK
24.0	4.5	24.6	76.3	31.1	5.9	32.0	99.2	0.1	13.8	OK	58.3	26.7	74.4	261.9	OK
181.2	34.4	5.2	0.2	235.6	44.7	6.8	0.3	0.9	13.8	OK	17.9	0.1	17.9	261.9	OK

65.9	12.5	12.8	53.3	85.6	16.3	16.6	69.3	0.3	13.8	OK	31.9	18.7	45.5	261.9	OK
229.2	43.5	9.7	7.0	298.0	56.6	12.6	9.1	1.2	13.8	OK	29.8	2.4	30.1	261.9	OK
0.0	-88.4	2.7	-48.5	0.0	-115.0	3.6	-63.0	0.0	13.8	OK	21.0	-17.0	36.1	261.9	OK
64.4	12.2	11.5	-31.0	83.7	15.9	14.9	-40.3	0.3	13.8	OK	28.9	-10.9	34.5	261.9	OK
40.6	7.7	-17.4	18.2	52.7	10.0	-22.6	23.7	0.2	13.8	OK	41.9	6.4	43.3	261.9	OK
174.6	33.2	-0.7	73.2	227.0	43.1	-0.9	95.1	0.9	13.8	OK	7.1	25.6	45.0	261.9	OK
163.7	31.1	14.1	93.9	212.8	40.4	18.3	122.0	0.9	13.8	OK	38.1	32.9	68.5	261.9	OK
283.0	53.7	4.6	79.1	368.0	69.9	6.0	102.8	1.5	13.8	OK	19.7	27.7	51.9	261.9	OK
17.9	3.4	-17.6	-3.9	23.2	4.4	-22.9	-5.1	0.1	13.8	OK	41.8	-1.4	41.9	261.9	OK
63.2	12.0	-12.8	26.4	82.2	15.6	-16.6	34.3	0.3	13.8	OK	31.9	9.2	35.7	261.9	OK
0.0	-174.7	25.6	112.3	0.0	-227.1	33.3	145.9	0.0	13.8	OK	88.6	39.3	111.8	261.9	OK
0.0	-51.8	-18.6	0.9	0.0	-67.3	-24.2	1.2	0.0	13.8	OK	52.1	0.3	52.1	261.9	OK
416.7	79.1	22.8	150.4	541.7	102.9	29.7	195.5	2.2	13.8	OK	66.4	52.7	112.9	261.9	OK
0.0	-13.8	-12.4	-3.2	0.0	-18.0	-16.1	-4.2	0.0	13.8	OK	31.3	-1.1	31.4	261.9	OK
0.0	-9.6	-16.5	-9.6	0.0	-12.5	-21.4	-12.5	0.0	13.8	OK	40.1	-3.4	40.5	261.9	OK
19.4	3.7	-11.8	-12.1	25.2	4.8	-15.4	-15.7	0.1	13.8	OK	28.3	-4.2	29.2	261.9	OK
45.3	8.6	-6.9	-6.7	58.9	11.2	-9.0	-8.8	0.2	13.8	OK	17.6	-2.4	18.1	261.9	OK
61.1	11.6	-10.3	-11.0	79.4	15.1	-13.4	-14.3	0.3	13.8	OK	25.9	-3.8	26.8	261.9	OK
0.0	-57.0	-18.1	-6.1	0.0	-74.1	-23.6	-8.0	0.0	13.8	OK	51.8	-2.2	51.9	261.9	OK
32.5	6.2	-14.3	-6.9	42.2	8.0	-18.6	-9.0	0.2	13.8	OK	34.5	-2.4	34.7	261.9	OK
0.0	-9.3	-14.0	-11.1	0.0	-12.1	-18.2	-14.5	0.0	13.8	OK	34.2	-3.9	34.9	261.9	OK
53.4	10.1	-7.9	-11.9	69.5	13.2	-10.3	-15.5	0.3	13.8	OK	20.1	-4.2	21.4	261.9	OK
0.0	-22.1	-16.8	-4.5	0.0	-28.7	-21.9	-5.9	0.0	13.8	OK	43.0	-1.6	43.1	261.9	OK
0.0	-89.4	-15.0	-3.3	0.0	-116.2	-19.6	-4.3	0.0	13.8	OK	49.9	-1.2	49.9	261.9	OK
0.0	-75.4	-15.1	-4.6	0.0	-98.0	-19.6	-6.0	0.0	13.8	OK	47.7	-1.6	47.8	261.9	OK
32.4	6.2	-13.1	-9.4	42.1	8.0	-17.1	-12.3	0.2	13.8	OK	31.7	-3.3	32.3	261.9	OK
0.0	-83.2	-13.5	-9.4	0.0	-108.2	-17.5	-12.2	0.0	13.8	OK	45.2	-3.3	45.5	261.9	OK
0.0	-100.3	-15.8	-8.5	0.0	-130.4	-20.6	-11.1	0.0	13.8	OK	53.5	-3.0	53.8	261.9	OK
0.0	-28.6	-11.3	-11.3	0.0	-37.2	-14.6	-14.7	0.0	13.8	OK	31.0	-4.0	31.8	261.9	OK
12.9	2.4	-11.3	-11.1	16.7	3.2	-14.7	-14.4	0.1	13.8	OK	26.9	-3.9	27.8	261.9	OK
0.0	-101.0	-18.2	-4.1	0.0	-131.3	-23.6	-5.3	0.0	13.8	OK	59.1	-1.4	59.2	261.9	OK
41.7	7.9	-8.3	-9.9	54.3	10.3	-10.8	-12.8	0.2	13.8	OK	20.7	-3.5	21.5	261.9	OK
0.0	-51.5	-9.7	-3.8	0.0	-66.9	-12.6	-4.9	0.0	13.8	OK	31.1	-1.3	31.2	261.9	OK
270.7	51.4	2.7	74.0	351.9	66.8	3.5	96.2	1.4	13.8	OK	14.7	25.9	47.3	261.9	OK
0.0	-53.1	-17.5	-3.9	0.0	-69.0	-22.8	-5.0	0.0	13.8	OK	49.7	-1.4	49.8	261.9	OK
1.5	0.3	-17.4	17.1	1.9	0.4	-22.7	22.2	0.0	13.8	OK	40.8	6.0	42.1	261.9	OK
157.5	29.9	10.8	89.3	204.7	38.9	14.1	116.1	0.8	13.8	OK	30.3	31.3	62.1	261.9	OK
165.5	31.4	-2.7	68.0	215.1	40.9	-3.5	88.4	0.9	13.8	OK	11.5	23.8	42.8	261.9	OK
49.3	9.4	-12.9	25.1	64.1	12.2	-16.8	32.6	0.3	13.8	OK	31.7	8.8	35.2	261.9	OK
0.0	-99.9	26.7	128.7	0.0	-129.8	34.7	167.3	0.0	13.8	OK	78.8	45.1	110.9	261.9	OK
367.8	69.8	19.8	146.7	478.1	90.8	25.8	190.7	1.9	13.8	OK	57.8	51.4	106.2	261.9	OK
0.0	-112.3	-18.5	1.0	0.0	-146.0	-24.0	1.3	0.0	13.8	OK	61.7	0.4	61.7	261.9	OK
44.7	8.5	35.8	289.0	58.1	11.0	46.6	375.7	0.2	13.8	OK	85.1	101.2	194.9	261.9	OK
150.6	28.6	-0.6	55.0	195.7	37.2	-0.8	71.5	0.8	13.8	OK	6.1	19.3	33.9	261.9	OK
116.8	22.2	-19.1	12.8	151.8	28.8	-24.8	16.6	0.6	13.8	OK	48.3	4.5	48.9	261.9	OK
157.4	29.9	-23.8	17.2	204.6	38.9	-30.9	22.4	0.8	13.8	OK	60.6	6.0	61.5	261.9	OK
164.0	31.1	0.4	-13.1	213.2	40.5	0.6	-17.0	0.9	13.8	OK	6.2	-4.6	10.0	261.9	OK

101.8	19.3	-1.9	-13.0	132.4	25.1	-2.5	-16.9	0.5	13.8	OK	7.7	-4.6	11.0	261.9	OK
163.1	31.0	-13.7	16.7	212.0	40.3	-17.7	21.7	0.8	13.8	OK	37.0	5.8	38.4	261.9	OK
162.1	30.8	-20.8	20.9	210.7	40.0	-27.0	27.1	0.8	13.8	OK	53.7	7.3	55.2	261.9	OK
169.9	32.3	-12.5	20.9	220.9	42.0	-16.2	27.1	0.9	13.8	OK	34.5	7.3	36.8	261.9	OK
1.3	0.3	-8.0	5.0	1.7	0.3	-10.3	6.5	0.0	13.8	OK	18.6	1.8	18.9	261.9	OK
195.3	37.1	-19.0	-5.2	253.9	48.2	-24.7	-6.7	1.0	13.8	OK	50.5	-1.8	50.6	261.9	OK
152.9	29.0	-5.1	44.1	198.8	37.7	-6.7	57.3	0.8	13.8	OK	16.8	15.4	31.6	261.9	OK
61.9	11.8	-17.0	5.8	80.4	15.3	-22.1	7.5	0.3	13.8	OK	41.8	2.0	41.9	261.9	OK
73.1	13.9	-1.2	-8.2	95.0	18.0	-1.6	-10.6	0.4	13.8	OK	5.2	-2.9	7.2	261.9	OK
168.7	32.0	-7.1	-22.6	219.3	41.7	-9.2	-29.4	0.9	13.8	OK	21.8	-7.9	25.8	261.9	OK
187.2	35.5	-3.9	30.0	243.3	46.2	-5.0	39.0	1.0	13.8	OK	14.9	10.5	23.5	261.9	OK
682.3	129.6	13.2	-18.9	887.0	168.4	17.2	-24.6	3.5	13.8	OK	52.3	-6.6	53.5	261.9	OK
0.0	-6.5	-5.9	-1.0	0.0	-8.5	-7.7	-1.3	0.0	13.8	OK	14.9	-0.4	14.9	261.9	OK
82.6	15.7	-6.3	-3.2	107.4	20.4	-8.3	-4.2	0.4	13.8	OK	17.4	-1.1	17.5	261.9	OK
285.1	54.1	-4.4	-12.3	370.7	70.4	-5.7	-16.0	1.5	13.8	OK	19.2	-4.3	20.6	261.9	OK
41.3	7.8	-7.4	4.9	53.7	10.2	-9.6	6.3	0.2	13.8	OK	18.6	1.7	18.8	261.9	OK
66.6	12.7	-11.4	2.0	86.6	16.4	-14.8	2.6	0.3	13.8	OK	28.7	0.7	28.7	261.9	OK
359.7	68.3	18.3	-53.0	467.7	88.8	23.7	-68.9	1.9	13.8	OK	53.9	-18.6	62.8	261.9	OK
357.1	67.8	-5.2	-28.2	464.2	88.1	-6.8	-36.7	1.9	13.8	OK	23.4	-9.9	29.0	261.9	OK
9.0	1.7	-11.6	3.9	11.7	2.2	-15.1	5.0	0.0	13.8	OK	27.5	1.4	27.6	261.9	OK
210.1	39.9	-17.0	-4.3	273.2	51.9	-22.1	-5.6	1.1	13.8	OK	46.4	-1.5	46.4	261.9	OK
40.9	7.8	-9.6	1.4	53.2	10.1	-12.4	1.8	0.2	13.8	OK	23.6	0.5	23.6	261.9	OK
459.8	87.3	13.2	-49.2	597.8	113.5	17.2	-64.0	2.4	13.8	OK	45.3	-17.2	54.3	261.9	OK
144.1	27.4	-5.6	18.6	187.4	35.6	-7.2	24.2	0.7	13.8	OK	17.5	6.5	20.9	261.9	OK
153.1	29.1	-25.5	20.9	199.1	37.8	-33.1	27.2	0.8	13.8	OK	64.3	7.3	65.6	261.9	OK
813.9	154.6	17.8	-57.8	1058.1	200.9	23.1	-75.1	4.2	13.8	OK	67.1	-20.2	75.7	261.9	OK
137.5	26.1	-19.5	0.1	178.7	33.9	-25.3	0.2	0.7	13.8	OK	49.9	0.0	49.9	261.9	OK
411.6	78.2	-9.5	-21.9	535.1	101.6	-12.4	-28.5	2.1	13.8	OK	35.2	-7.7	37.6	261.9	OK
182.0	34.6	-22.4	10.4	236.6	44.9	-29.1	13.5	0.9	13.8	OK	58.1	3.6	58.4	261.9	OK
167.3	31.8	-22.2	19.7	217.5	41.3	-28.8	25.6	0.9	13.8	OK	57.1	6.9	58.4	261.9	OK
381.3	72.4	13.8	-37.1	495.7	94.1	17.9	-48.3	2.0	13.8	OK	44.2	-13.0	49.6	261.9	OK
160.2	30.4	-24.4	14.2	208.2	39.5	-31.7	18.5	0.8	13.8	OK	62.0	5.0	62.6	261.9	OK
470.8	89.4	19.0	-59.9	612.0	116.2	24.7	-77.8	2.4	13.8	OK	59.1	-21.0	69.4	261.9	OK
37.3	7.1	-14.5	6.1	48.5	9.2	-18.9	8.0	0.2	13.8	OK	35.2	2.2	35.4	261.9	OK
140.8	26.7	-10.1	4.9	183.1	34.8	-13.1	6.4	0.7	13.8	OK	28.0	1.7	28.2	261.9	OK
0.0	-19.2	-7.3	3.6	0.0	-25.0	-9.4	4.7	0.0	13.8	OK	20.1	1.3	20.2	261.9	OK
175.9	33.4	-2.7	38.4	228.7	43.4	-3.5	50.0	0.9	13.8	OK	11.8	13.5	26.1	261.9	OK
121.6	23.1	-19.9	9.4	158.1	30.0	-25.8	12.3	0.6	13.8	OK	50.2	3.3	50.5	261.9	OK
246.1	46.7	14.0	-37.1	319.9	60.7	18.2	-48.3	1.3	13.8	OK	40.5	-13.0	46.3	261.9	OK
40.5	7.7	-9.5	9.1	52.7	10.0	-12.3	11.8	0.2	13.8	OK	23.4	3.2	24.1	261.9	OK
146.0	27.7	1.6	49.7	189.7	36.0	2.1	64.6	0.8	13.8	OK	8.3	17.4	31.3	261.9	OK
124.0	23.5	-14.7	-0.7	161.2	30.6	-19.1	-0.9	0.6	13.8	OK	38.2	-0.3	38.2	261.9	OK
157.5	29.9	-4.7	39.0	204.8	38.9	-6.2	50.7	0.8	13.8	OK	16.0	13.7	28.5	261.9	OK
47.8	9.1	-13.5	4.1	62.1	11.8	-17.5	5.3	0.2	13.8	OK	33.1	1.4	33.1	261.9	OK
191.1	36.3	0.8	46.2	248.5	47.2	1.0	60.0	1.0	13.8	OK	7.8	16.2	29.1	261.9	OK
203.6	38.7	-4.9	-24.1	264.7	50.3	-6.4	-31.3	1.1	13.8	OK	17.8	-8.4	23.1	261.9	OK
74.2	14.1	-9.1	8.8	96.4	18.3	-11.8	11.4	0.4	13.8	OK	23.6	3.1	24.2	261.9	OK

582.1	110.5	17.4	-49.6	756.7	143.7	22.6	-64.5	3.0	13.8	OK	58.8	-17.4	66.1	261.9	OK
18.4	3.5	-8.3	5.0	23.9	4.5	-10.7	6.5	0.1	13.8	OK	19.9	1.7	20.1	261.9	OK
237.3	45.1	20.3	70.0	308.5	58.6	26.4	91.0	1.2	13.8	OK	54.8	24.5	69.4	261.9	OK
204.1	38.8	17.1	129.1	265.3	50.4	22.2	167.9	1.1	13.8	OK	46.4	45.2	91.1	261.9	OK
149.3	28.4	-5.3	39.4	194.1	36.9	-6.9	51.3	0.8	13.8	OK	17.0	13.8	29.4	261.9	OK
76.6	14.6	-0.8	62.7	99.6	18.9	-1.0	81.5	0.4	13.8	OK	4.3	22.0	38.3	261.9	OK
204.1	38.8	3.2	61.3	265.4	50.4	4.2	79.6	1.1	13.8	OK	13.8	21.5	39.7	261.9	OK
22.7	4.3	-16.1	-5.1	29.6	5.6	-21.0	-6.7	0.1	13.8	OK	38.4	-1.8	38.6	261.9	OK
0.0	-17.8	-19.8	6.8	0.0	-23.1	-25.8	8.8	0.0	13.8	OK	49.3	2.4	49.5	261.9	OK
65.1	12.4	-20.9	-15.6	84.7	16.1	-27.1	-20.3	0.3	13.8	OK	50.9	-5.5	51.7	261.9	OK
56.4	10.7	-6.6	11.8	73.3	13.9	-8.6	15.3	0.3	13.8	OK	17.2	4.1	18.7	261.9	OK
44.4	8.4	-19.1	2.4	57.7	11.0	-24.8	3.2	0.2	13.8	OK	46.0	0.9	46.0	261.9	OK
31.2	5.9	-18.7	-13.7	40.5	7.7	-24.4	-17.8	0.2	13.8	OK	44.8	-4.8	45.5	261.9	OK
61.7	11.7	-18.0	-15.2	80.2	15.2	-23.4	-19.7	0.3	13.8	OK	44.1	-5.3	45.0	261.9	OK
19.9	3.8	-17.6	-3.0	25.8	4.9	-22.9	-3.9	0.1	13.8	OK	41.9	-1.1	41.9	261.9	OK
50.6	9.6	-15.6	-12.5	65.8	12.5	-20.3	-16.2	0.3	13.8	OK	38.0	-4.4	38.8	261.9	OK
0.0	-8.3	-20.9	-2.1	0.0	-10.8	-27.2	-2.7	0.0	13.8	OK	50.2	-0.7	50.2	261.9	OK
0.0	-39.6	-17.6	-10.2	0.0	-51.4	-22.9	-13.3	0.0	13.8	OK	47.7	-3.6	48.1	261.9	OK
25.6	4.9	-16.0	-17.0	33.2	6.3	-20.8	-22.1	0.1	13.8	OK	38.3	-6.0	39.7	261.9	OK
0.0	-94.3	-19.8	-4.0	0.0	-122.6	-25.7	-5.2	0.0	13.8	OK	61.7	-1.4	61.8	261.9	OK
0.0	-72.6	-17.9	-2.2	0.0	-94.4	-23.2	-2.8	0.0	13.8	OK	53.7	-0.8	53.8	261.9	OK
4.4	0.8	-14.2	-8.4	5.8	1.1	-18.5	-11.0	0.0	13.8	OK	33.3	-3.0	33.7	261.9	OK
0.0	-28.8	-21.8	-9.4	0.0	-37.5	-28.3	-12.2	0.0	13.8	OK	55.7	-3.3	56.0	261.9	OK
0.0	-8.8	-16.6	9.3	0.0	-11.5	-21.6	12.1	0.0	13.8	OK	40.2	3.3	40.6	261.9	OK
58.9	11.2	-18.2	-16.3	76.6	14.5	-23.6	-21.3	0.3	13.8	OK	44.3	-5.7	45.4	261.9	OK
0.0	-75.5	-17.1	0.3	0.0	-98.1	-22.3	0.3	0.0	13.8	OK	52.5	0.1	52.5	261.9	OK
0.0	-26.5	-7.7	18.3	0.0	-34.5	-10.0	23.8	0.0	13.8	OK	22.4	6.4	25.0	261.9	OK
97.7	18.5	-5.1	30.1	127.0	24.1	-6.6	39.2	0.5	13.8	OK	14.9	10.6	23.6	261.9	OK
111.9	21.3	3.2	68.2	145.5	27.6	4.1	88.7	0.6	13.8	OK	11.0	23.9	42.8	261.9	OK
200.9	38.2	16.8	125.6	261.2	49.6	21.9	163.3	1.0	13.8	OK	45.6	44.0	88.8	261.9	OK
224.5	42.6	18.6	66.8	291.8	55.4	24.2	86.9	1.2	13.8	OK	50.5	23.4	64.8	261.9	OK
0.0	-15.8	-0.8	62.4	0.0	-20.5	-1.0	81.2	0.0	13.8	OK	4.5	21.9	38.1	261.9	OK
116.4	22.1	28.9	310.4	151.3	28.7	37.5	403.5	0.6	13.8	OK	71.2	108.8	201.4	261.9	OK
42.0	8.0	15.2	210.8	54.6	10.4	19.8	274.0	0.2	13.8	OK	36.9	73.8	133.1	261.9	OK
448.5	85.2	19.0	14.7	583.0	110.7	24.7	19.1	2.3	13.8	OK	58.5	5.2	59.2	261.9	OK
1125.7	213.8	26.0	30.3	1463.4	277.9	33.8	39.4	5.9	13.8	OK	95.9	10.6	97.7	261.9	OK
408.3	77.5	-6.5	-15.6	530.7	100.8	-8.4	-20.3	2.1	13.8	OK	27.9	-5.5	29.5	261.9	OK
798.3	151.6	5.7	50.1	1037.8	197.1	7.4	65.1	4.2	13.8	OK	38.2	17.5	48.8	261.9	OK
0.0	-129.9	-16.2	-26.8	0.0	-168.8	-21.1	-34.8	0.0	13.8	OK	59.4	-9.4	61.5	261.9	OK
1327.9	252.2	72.8	30.5	1726.3	327.8	94.6	39.7	6.9	13.8	OK	211.6	10.7	212.4	261.9	OK
377.3	71.6	-2.2	37.8	490.5	93.1	-2.8	49.1	2.0	13.8	OK	16.9	13.2	28.5	261.9	OK
446.2	84.7	47.2	-0.7	580.0	110.1	61.4	-0.8	2.3	13.8	OK	124.4	-0.2	124.4	261.9	OK
522.3	99.2	4.5	-8.5	679.0	128.9	5.9	-11.1	2.7	13.8	OK	27.0	-3.0	27.4	261.9	OK
209.2	39.7	12.3	9.7	272.0	51.7	16.0	12.7	1.1	13.8	OK	35.4	3.4	35.9	261.9	OK
538.8	102.3	6.2	4.5	700.5	133.0	8.1	5.9	2.8	13.8	OK	31.4	1.6	31.6	261.9	OK
359.4	68.2	31.4	1.1	467.2	88.7	40.8	1.4	1.9	13.8	OK	84.7	0.4	84.7	261.9	OK
317.5	60.3	-3.1	19.8	412.8	78.4	-4.1	25.7	1.7	13.8	OK	17.3	6.9	21.0	261.9	OK

956.8	181.7	27.6	20.1	1243.9	236.2	35.9	26.2	5.0	13.8	OK	94.4	7.0	95.2	261.9	OK
84.0	15.9	5.1	-15.9	109.2	20.7	6.7	-20.7	0.4	13.8	OK	14.7	-5.6	17.5	261.9	OK
330.9	62.8	-4.7	24.1	430.1	81.7	-6.2	31.4	1.7	13.8	OK	21.4	8.4	26.0	261.9	OK
365.0	69.3	10.2	8.7	474.5	90.1	13.3	11.3	1.9	13.8	OK	35.3	3.1	35.7	261.9	OK
54.2	10.3	18.8	-14.3	70.4	13.4	24.5	-18.6	0.3	13.8	OK	45.7	-5.0	46.5	261.9	OK
0.0	-178.1	-17.8	-27.7	0.0	-231.5	-23.1	-36.0	0.0	13.8	OK	70.9	-9.7	72.9	261.9	OK
137.6	26.1	12.1	-9.2	178.8	34.0	15.7	-12.0	0.7	13.8	OK	32.6	-3.2	33.1	261.9	OK
0.0	-64.1	-7.1	-113.1	0.0	-83.4	-9.2	-147.0	0.0	13.8	OK	27.1	-39.6	73.8	261.9	OK
69.6	13.2	-0.4	-68.5	90.4	17.2	-0.5	-89.1	0.4	13.8	OK	3.2	-24.0	41.7	261.9	OK
274.8	52.2	-29.1	-50.6	357.2	67.8	-37.9	-65.8	1.4	13.8	OK	76.7	-17.7	82.6	261.9	OK
519.9	98.7	21.4	24.2	675.9	128.3	27.8	31.4	2.7	13.8	OK	66.3	8.5	67.9	261.9	OK
495.1	94.0	-2.8	35.6	643.7	122.2	-3.6	46.3	2.6	13.8	OK	21.9	12.5	30.8	261.9	OK
145.9	27.7	-4.3	-51.6	189.6	36.0	-5.6	-67.0	0.8	13.8	OK	14.6	-18.1	34.5	261.9	OK
1014.4	192.6	17.4	1.9	1318.7	250.4	22.6	2.5	5.3	13.8	OK	72.3	0.7	72.3	261.9	OK
0.0	-118.1	-7.8	-31.3	0.0	-153.5	-10.2	-40.8	0.0	13.8	OK	37.7	-11.0	42.2	261.9	OK
1219.9	231.6	25.6	-87.2	1585.9	301.1	33.3	-113.4	6.3	13.8	OK	97.9	-30.6	111.3	261.9	OK
390.0	74.1	-1.1	7.3	507.0	96.3	-1.4	9.4	2.0	13.8	OK	14.7	2.5	15.4	261.9	OK
281.2	53.4	-4.9	13.1	365.5	69.4	-6.4	17.0	1.5	13.8	OK	20.3	4.6	21.8	261.9	OK
353.9	67.2	-8.9	12.5	460.0	87.4	-11.6	16.2	1.8	13.8	OK	31.9	4.4	32.8	261.9	OK
433.3	82.3	-0.3	-11.0	563.3	107.0	-0.4	-14.4	2.3	13.8	OK	14.3	-3.9	15.8	261.9	OK
46.0	8.7	0.1	-0.4	59.8	11.4	0.1	-0.5	0.2	13.8	OK	1.6	-0.1	1.6	261.9	OK
0.0	-15.7	0.3	-5.5	0.0	-20.4	0.4	-7.2	0.0	13.8	OK	3.3	-1.9	4.7	261.9	OK
364.3	69.2	-7.3	-12.7	473.6	89.9	-9.5	-16.4	1.9	13.8	OK	28.5	-4.4	29.5	261.9	OK
265.6	50.4	-4.2	34.2	345.3	65.6	-5.4	44.5	1.4	13.8	OK	18.1	12.0	27.5	261.9	OK
519.6	98.7	7.0	-7.5	675.4	128.3	9.1	-9.8	2.7	13.8	OK	32.6	-2.6	32.9	261.9	OK
1517.4	288.1	14.2	-54.9	1972.7	374.6	18.5	-71.4	7.9	13.8	OK	80.6	-19.2	87.3	261.9	OK
46.4	8.8	-7.4	6.5	60.3	11.5	-9.7	8.5	0.2	13.8	OK	18.9	2.3	19.3	261.9	OK
43.1	8.2	-5.5	4.4	56.0	10.6	-7.1	5.7	0.2	13.8	OK	14.2	1.5	14.4	261.9	OK
167.7	31.8	-0.6	3.6	218.0	41.4	-0.8	4.7	0.9	13.8	OK	6.7	1.3	7.0	261.9	OK
299.7	56.9	-8.2	10.5	389.6	74.0	-10.6	13.6	1.6	13.8	OK	28.5	3.7	29.2	261.9	OK
258.4	49.1	1.3	6.4	336.0	63.8	1.7	8.3	1.3	13.8	OK	11.1	2.2	11.8	261.9	OK
200.6	38.1	13.7	2.4	260.7	49.5	17.8	3.2	1.0	13.8	OK	38.4	0.9	38.4	261.9	OK
155.7	29.6	1.9	0.9	202.5	38.4	2.4	1.2	0.8	13.8	OK	9.2	0.3	9.2	261.9	OK
120.4	22.9	3.0	-2.6	156.5	29.7	3.9	-3.4	0.6	13.8	OK	10.9	-0.9	11.0	261.9	OK
479.7	91.1	-21.4	14.1	623.6	118.4	-27.8	18.3	2.5	13.8	OK	64.9	4.9	65.5	261.9	OK
479.1	91.0	-1.1	-10.5	622.8	118.3	-1.5	-13.6	2.5	13.8	OK	17.6	-3.7	18.7	261.9	OK
20.6	3.9	0.6	4.6	26.8	5.1	0.7	5.9	0.1	13.8	OK	2.0	1.6	3.4	261.9	OK
376.3	71.5	-0.7	-0.3	489.2	92.9	-1.0	-0.4	2.0	13.8	OK	13.5	-0.1	13.5	261.9	OK
68.7	13.0	3.1	-8.2	89.3	17.0	4.1	-10.6	0.4	13.8	OK	9.5	-2.9	10.7	261.9	OK
274.7	52.2	3.4	2.8	357.1	67.8	4.5	3.6	1.4	13.8	OK	16.6	1.0	16.7	261.9	OK
70.7	13.4	-4.5	5.1	91.9	17.5	-5.8	6.6	0.4	13.8	OK	12.7	1.8	13.1	261.9	OK
45.8	8.7	-7.5	5.3	59.5	11.3	-9.7	6.9	0.2	13.8	OK	18.9	1.9	19.2	261.9	OK
71.6	13.6	-5.3	-6.0	93.1	17.7	-6.9	-7.8	0.4	13.8	OK	14.6	-2.1	15.0	261.9	OK
324.9	61.7	5.1	2.7	422.3	80.2	6.6	3.5	1.7	13.8	OK	22.1	0.9	22.1	261.9	OK
199.6	37.9	0.2	3.4	259.5	49.3	0.2	4.4	1.0	13.8	OK	6.6	1.2	7.0	261.9	OK
138.7	26.3	-4.2	6.3	180.3	34.2	-5.5	8.2	0.7	13.8	OK	14.2	2.2	14.8	261.9	OK
129.8	24.6	-3.0	9.3	168.7	32.0	-3.9	12.1	0.7	13.8	OK	11.0	3.3	12.4	261.9	OK

445.3	84.6	12.5	-33.0	579.0	109.9	16.2	-43.0	2.3	13.8	OK	43.1	-11.6	47.5	261.9	OK
327.4	62.2	4.4	8.6	425.7	80.8	5.7	11.2	1.7	13.8	OK	20.5	3.0	21.2	261.9	OK
356.5	67.7	15.4	7.2	463.4	88.0	20.1	9.4	1.9	13.8	OK	47.2	2.5	47.4	261.9	OK
383.3	72.8	-22.2	13.8	498.3	94.6	-28.9	17.9	2.0	13.8	OK	63.9	4.8	64.5	261.9	OK
34.6	6.6	-2.0	3.5	45.0	8.5	-2.6	4.5	0.2	13.8	OK	5.7	1.2	6.1	261.9	OK
90.4	17.2	-1.1	2.8	117.5	22.3	-1.5	3.7	0.5	13.8	OK	5.5	1.0	5.7	261.9	OK
322.6	61.3	3.1	-10.4	419.4	79.6	4.1	-13.5	1.7	13.8	OK	17.4	-3.6	18.5	261.9	OK
190.0	36.1	-9.9	11.6	247.0	46.9	-12.8	15.1	1.0	13.8	OK	29.0	4.1	29.8	261.9	OK
459.7	87.3	-16.0	4.6	597.7	113.5	-20.8	6.0	2.4	13.8	OK	51.9	1.6	51.9	261.9	OK
150.6	28.6	-11.1	9.1	195.7	37.2	-14.5	11.8	0.8	13.8	OK	30.8	3.2	31.3	261.9	OK
331.1	62.9	-16.8	17.1	430.4	81.7	-21.9	22.2	1.7	13.8	OK	49.7	6.0	50.7	261.9	OK
306.3	58.2	-2.2	0.4	398.2	75.6	-2.9	0.6	1.6	13.8	OK	14.8	0.2	14.8	261.9	OK
161.1	30.6	-4.7	5.5	209.4	39.8	-6.2	7.2	0.8	13.8	OK	16.1	1.9	16.5	261.9	OK
84.1	16.0	-1.3	3.3	109.3	20.8	-1.6	4.3	0.4	13.8	OK	5.6	1.2	5.9	261.9	OK
360.2	68.4	-3.3	19.1	468.2	88.9	-4.3	24.8	1.9	13.8	OK	19.0	6.7	22.3	261.9	OK
52.6	10.0	1.5	3.6	68.4	13.0	2.0	4.6	0.3	13.8	OK	5.3	1.2	5.7	261.9	OK
203.1	38.6	-3.1	4.4	264.0	50.1	-4.1	5.7	1.1	13.8	OK	13.7	1.5	14.0	261.9	OK
95.2	18.1	-0.5	3.0	123.7	23.5	-0.6	3.9	0.5	13.8	OK	4.1	1.0	4.5	261.9	OK
596.6	113.3	-22.3	-23.4	775.6	147.3	-29.0	-30.4	3.1	13.8	OK	70.9	-8.2	72.3	261.9	OK
312.8	59.4	0.8	1.4	406.7	77.2	1.0	1.8	1.6	13.8	OK	11.6	0.5	11.6	261.9	OK
315.1	59.8	10.6	-19.4	409.6	77.8	13.7	-25.2	1.6	13.8	OK	34.5	-6.8	36.5	261.9	OK
776.2	147.4	5.5	-23.9	1009.0	191.6	7.1	-31.1	4.0	13.8	OK	37.1	-8.4	39.8	261.9	OK
62.9	11.9	-0.2	1.3	81.8	15.5	-0.3	1.6	0.3	13.8	OK	2.4	0.4	2.6	261.9	OK
92.6	17.6	2.0	0.3	120.4	22.9	2.6	0.4	0.5	13.8	OK	7.7	0.1	7.7	261.9	OK
11.7	2.2	-5.9	4.0	15.2	2.9	-7.7	5.3	0.1	13.8	OK	14.2	1.4	14.4	261.9	OK
49.9	9.5	-3.0	3.8	64.9	12.3	-3.9	5.0	0.3	13.8	OK	8.6	1.3	8.9	261.9	OK
33.3	6.3	-3.0	4.7	43.3	8.2	-3.9	6.1	0.2	13.8	OK	8.1	1.7	8.6	261.9	OK
132.8	25.2	-4.4	6.7	172.7	32.8	-5.8	8.7	0.7	13.8	OK	14.5	2.4	15.1	261.9	OK
18.1	3.4	0.6	0.5	23.5	4.5	0.8	0.7	0.1	13.8	OK	2.1	0.2	2.1	261.9	OK
300.2	57.0	-0.1	6.5	390.3	74.1	-0.1	8.5	1.6	13.8	OK	9.6	2.3	10.3	261.9	OK
21.6	4.1	-6.6	-2.6	28.1	5.3	-8.6	-3.3	0.1	13.8	OK	16.1	-0.9	16.2	261.9	OK
240.7	45.7	-4.9	10.6	312.9	59.4	-6.3	13.8	1.3	13.8	OK	18.9	3.7	20.0	261.9	OK
34.8	6.6	-9.0	-3.1	45.2	8.6	-11.6	-4.1	0.2	13.8	OK	22.0	-1.1	22.1	261.9	OK
228.4	43.4	-13.4	-0.6	296.9	56.4	-17.5	-0.7	1.2	13.8	OK	38.6	-0.2	38.6	261.9	OK
0.0	-4.1	-6.3	-0.5	0.0	-5.3	-8.2	-0.6	0.0	13.8	OK	15.4	-0.2	15.4	261.9	OK
225.9	42.9	-11.3	-21.5	293.7	55.8	-14.7	-27.9	1.2	13.8	OK	33.6	-7.5	36.0	261.9	OK
230.5	43.8	20.6	94.5	299.7	56.9	26.8	122.8	1.2	13.8	OK	55.4	33.1	79.7	261.9	OK
84.0	15.9	-11.7	-3.6	109.2	20.7	-15.2	-4.7	0.4	13.8	OK	30.0	-1.3	30.1	261.9	OK
449.1	85.3	10.7	-48.4	583.8	110.9	13.9	-63.0	2.3	13.8	OK	39.0	-17.0	48.8	261.9	OK
0.0	-4.7	-5.6	-3.2	0.0	-6.1	-7.3	-4.2	0.0	13.8	OK	13.9	-1.1	14.0	261.9	OK
57.3	10.9	-6.3	1.1	74.5	14.1	-8.1	1.4	0.3	13.8	OK	16.4	0.4	16.4	261.9	OK
71.3	13.5	-4.3	1.6	92.6	17.6	-5.6	2.0	0.4	13.8	OK	12.3	0.5	12.3	261.9	OK
200.6	38.1	6.9	45.5	260.8	49.5	8.9	59.1	1.0	13.8	OK	22.3	15.9	35.5	261.9	OK
386.7	73.4	-1.7	-14.4	502.7	95.5	-2.2	-18.7	2.0	13.8	OK	16.0	-5.0	18.2	261.9	OK
40.2	7.6	-3.2	-2.3	52.3	9.9	-4.2	-3.0	0.2	13.8	OK	8.8	-0.8	8.9	261.9	OK
0.0	-1.6	-9.1	2.0	0.0	-2.1	-11.8	2.6	0.0	13.8	OK	21.5	0.7	21.5	261.9	OK
545.6	103.6	6.8	-24.4	709.3	134.7	8.8	-31.8	2.8	13.8	OK	33.0	-8.6	36.1	261.9	OK

76.3	14.5	-10.3	9.2	99.1	18.8	-13.4	12.0	0.4	13.8	OK	26.4	3.2	27.0	261.9	OK
599.9	113.9	7.4	-42.4	779.9	148.1	9.6	-55.1	3.1	13.8	OK	35.9	-14.8	44.2	261.9	OK
0.0	-13.7	-6.6	-0.6	0.0	-17.7	-8.6	-0.7	0.0	13.8	OK	17.7	-0.2	17.7	261.9	OK
9.7	1.8	-2.2	5.9	12.6	2.4	-2.9	7.7	0.1	13.8	OK	5.4	2.1	6.5	261.9	OK
169.8	32.2	-12.0	3.0	220.7	41.9	-15.6	3.9	0.9	13.8	OK	33.3	1.1	33.4	261.9	OK
220.5	41.9	-14.9	12.5	286.7	54.4	-19.3	16.2	1.1	13.8	OK	41.6	4.4	42.3	261.9	OK
189.0	35.9	-7.5	-14.6	245.6	46.6	-9.7	-19.0	1.0	13.8	OK	23.4	-5.1	25.1	261.9	OK
125.3	23.8	-20.6	-4.5	162.9	30.9	-26.7	-5.8	0.7	13.8	OK	52.0	-1.6	52.1	261.9	OK
462.4	87.8	-20.1	-28.4	601.1	114.1	-26.2	-36.9	2.4	13.8	OK	61.6	-9.9	63.9	261.9	OK
250.2	47.5	-23.6	-3.2	325.3	61.8	-30.6	-4.2	1.3	13.8	OK	62.9	-1.1	62.9	261.9	OK
1.5	0.3	-7.9	-0.7	2.0	0.4	-10.3	-0.9	0.0	13.8	OK	18.6	-0.2	18.6	261.9	OK
770.7	146.4	-7.1	-57.4	1002.0	190.3	-9.2	-74.6	4.0	13.8	OK	40.7	-20.1	53.6	261.9	OK
3.8	0.7	-2.7	-0.9	4.9	0.9	-3.4	-1.1	0.0	13.8	OK	6.3	-0.3	6.3	261.9	OK
103.4	19.6	2.3	-0.1	134.4	25.5	3.0	-0.1	0.5	13.8	OK	8.6	0.0	8.6	261.9	OK
19.4	3.7	-10.3	-0.3	25.2	4.8	-13.4	-0.4	0.1	13.8	OK	24.8	-0.1	24.8	261.9	OK
0.0	-25.6	-5.5	1.6	0.0	-33.3	-7.1	2.1	0.0	13.8	OK	17.0	0.6	17.0	261.9	OK
13.7	2.6	-8.4	1.8	17.9	3.4	-10.9	2.3	0.1	13.8	OK	20.0	0.6	20.0	261.9	OK
571.0	108.4	-23.2	31.3	742.2	140.9	-30.1	40.7	3.0	13.8	OK	72.0	11.0	74.4	261.9	OK
915.1	173.8	-8.8	9.0	1189.6	225.9	-11.5	11.7	4.8	13.8	OK	49.3	3.2	49.6	261.9	OK
2.4	0.5	-6.7	-3.2	3.1	0.6	-8.7	-4.1	0.0	13.8	OK	15.7	-1.1	15.8	261.9	OK
136.1	25.8	5.6	14.2	176.9	33.6	7.3	18.4	0.7	13.8	OK	17.4	5.0	19.4	261.9	OK
206.3	39.2	11.0	41.0	268.2	50.9	14.3	53.3	1.1	13.8	OK	32.1	14.4	40.6	261.9	OK
0.0	-13.6	-3.7	1.7	0.0	-17.6	-4.8	2.3	0.0	13.8	OK	10.9	0.6	11.0	261.9	OK
375.3	71.3	-3.5	5.1	487.8	92.6	-4.5	6.6	2.0	13.8	OK	19.9	1.8	20.1	261.9	OK
171.5	32.6	23.0	48.2	222.9	42.3	29.8	62.6	0.9	13.8	OK	59.0	16.9	65.9	261.9	OK
337.4	64.1	6.7	16.7	438.6	83.3	8.8	21.8	1.8	13.8	OK	26.3	5.9	28.2	261.9	OK
170.3	32.3	-2.5	14.0	221.3	42.0	-3.3	18.2	0.9	13.8	OK	11.2	4.9	14.1	261.9	OK
155.0	29.4	27.4	80.2	201.5	38.3	35.6	104.2	0.8	13.8	OK	68.9	28.1	84.4	261.9	OK
5.0	0.9	-9.6	-0.9	6.5	1.2	-12.5	-1.1	0.0	13.8	OK	22.6	-0.3	22.6	261.9	OK
791.3	150.3	9.8	-50.4	1028.7	195.3	12.7	-65.5	4.1	13.8	OK	47.6	-17.7	56.6	261.9	OK
345.7	65.6	-4.9	-14.0	449.4	85.3	-6.4	-18.2	1.8	13.8	OK	22.2	-4.9	23.8	261.9	OK
1461.7	277.6	1.5	26.8	1900.2	360.8	1.9	34.8	7.6	13.8	OK	49.1	9.4	51.7	261.9	OK
234.1	44.5	10.0	38.4	304.3	57.8	13.0	49.9	1.2	13.8	OK	30.8	13.4	38.6	261.9	OK
331.4	62.9	11.1	7.7	430.9	81.8	14.4	10.0	1.7	13.8	OK	36.3	2.7	36.6	261.9	OK
118.0	22.4	20.4	52.5	153.4	29.1	26.5	68.3	0.6	13.8	OK	51.3	18.4	60.4	261.9	OK
77.6	14.7	27.3	60.2	100.9	19.2	35.5	78.3	0.4	13.8	OK	66.2	21.1	75.6	261.9	OK
0.0	-19.7	-7.6	-1.5	0.0	-25.6	-9.9	-2.0	0.0	13.8	OK	21.1	-0.5	21.1	261.9	OK
295.2	56.1	13.8	37.3	383.7	72.9	17.9	48.4	1.5	13.8	OK	41.4	13.1	47.2	261.9	OK
167.9	31.9	19.0	84.1	218.3	41.5	24.7	109.3	0.9	13.8	OK	49.8	29.5	71.3	261.9	OK
0.0	-20.9	-4.8	-1.2	0.0	-27.1	-6.2	-1.5	0.0	13.8	OK	14.6	-0.4	14.7	261.9	OK
0.0	-15.1	-4.6	2.5	0.0	-19.6	-6.0	3.2	0.0	13.8	OK	13.4	0.9	13.4	261.9	OK
152.6	29.0	-4.0	-15.4	198.4	37.7	-5.2	-20.0	0.8	13.8	OK	14.1	-5.4	16.9	261.9	OK
76.4	14.5	0.2	3.3	99.3	18.9	0.2	4.3	0.4	13.8	OK	2.8	1.2	3.5	261.9	OK
218.1	41.4	0.5	5.4	283.5	53.8	0.7	7.0	1.1	13.8	OK	8.1	1.9	8.7	261.9	OK
822.9	156.3	16.2	-132.4	1069.7	203.1	21.0	-172.1	4.3	13.8	OK	63.5	-46.4	102.4	261.9	OK
183.5	34.8	-2.8	20.5	238.5	45.3	-3.7	26.6	1.0	13.8	OK	12.4	7.2	17.5	261.9	OK
162.0	30.8	-15.3	-2.5	210.6	40.0	-19.9	-3.2	0.8	13.8	OK	40.8	-0.9	40.8	261.9	OK

617.7	117.3	12.1	-75.5	803.1	152.5	15.7	-98.1	3.2	13.8	OK	47.5	-26.4	66.0	261.9	OK
1093.6	207.7	-3.6	-69.5	1421.7	270.0	-4.6	-90.3	5.7	13.8	OK	42.5	-24.3	59.9	261.9	OK
3.3	0.6	-6.7	2.4	4.2	0.8	-8.8	3.1	0.0	13.8	OK	15.9	0.8	15.9	261.9	OK
162.5	30.9	5.5	10.7	211.3	40.1	7.2	13.9	0.8	13.8	OK	18.0	3.7	19.2	261.9	OK
936.8	177.9	27.8	29.3	1217.9	231.3	36.1	38.1	4.9	13.8	OK	94.2	10.3	95.9	261.9	OK
333.6	63.3	-5.1	3.4	433.7	82.4	-6.6	4.5	1.7	13.8	OK	22.3	1.2	22.4	261.9	OK
52.5	10.0	-11.7	3.7	68.2	12.9	-15.3	4.8	0.3	13.8	OK	29.1	1.3	29.2	261.9	OK
979.9	186.1	15.8	-37.4	1273.9	241.9	20.6	-48.6	5.1	13.8	OK	67.6	-13.1	71.4	261.9	OK
142.4	27.0	-10.1	-2.6	185.1	35.2	-13.1	-3.3	0.7	13.8	OK	28.1	-0.9	28.1	261.9	OK
151.0	28.7	-8.5	2.2	196.4	37.3	-11.0	2.8	0.8	13.8	OK	24.5	0.8	24.6	261.9	OK
201.1	38.2	-17.5	10.9	261.5	49.7	-22.7	14.2	1.0	13.8	OK	47.2	3.8	47.6	261.9	OK
325.8	61.9	-23.9	12.7	423.5	80.4	-31.1	16.5	1.7	13.8	OK	66.1	4.4	66.6	261.9	OK
104.3	19.8	-10.2	-3.6	135.6	25.8	-13.3	-4.6	0.5	13.8	OK	27.2	-1.2	27.3	261.9	OK
0.0	-29.9	-5.3	-1.5	0.0	-38.9	-6.9	-1.9	0.0	13.8	OK	17.3	-0.5	17.4	261.9	OK
370.0	70.3	0.4	-17.0	481.1	91.3	0.5	-22.1	1.9	13.8	OK	12.4	-5.9	16.1	261.9	OK
441.5	83.8	-13.6	-25.6	573.9	109.0	-17.6	-33.3	2.3	13.8	OK	45.5	-9.0	48.1	261.9	OK
96.5	18.3	-8.2	-2.5	125.5	23.8	-10.7	-3.2	0.5	13.8	OK	22.2	-0.9	22.2	261.9	OK
171.5	32.6	-5.2	1.9	222.9	42.3	-6.7	2.5	0.9	13.8	OK	17.5	0.7	17.5	261.9	OK

Tabella 2: verifiche del sostegno di prima fase (M>0 fibre tese in intradosso) – Galleria di linea

Sollecitazioni caratteristiche				Sollecitazioni SLU				Verifica calcestruzzo proiettato			Verifica centine				
N_{clsp}	N_{cen}	M_{cen}	T_{cen}	$N_{clsp,d}$	$N_{cen,d}$	$M_{cen,d}$	$T_{cen,d}$	$\sigma_{c\_clsp,d}$	f_{cd}	Verifica	$\sigma_{cen,d}$	$\tau_{cen,d}$	$\sigma_{id,cen,d}$	f_{yd}	Verifica
[kN]	[kN]	[kNm]	[kN]	[kN]	[kN]	[kNm]	[kN]	[MPa]	[MPa]	-	[MPa]	[MPa]	[MPa]	[MPa]	-
899.6	125.7	16.8	-22.8	1169.5	163.4	21.9	-29.6	5.8	13.8	OK	116.6	-13.7	119.0	261.9	OK
0.0	-189.6	3.9	-15.1	0.0	-246.4	5.0	-19.6	0.0	13.8	OK	71.8	-9.0	73.5	261.9	OK
123.7	17.3	-52.3	-6.0	160.9	22.5	-67.9	-7.8	0.8	13.8	OK	258.0	-3.6	258.1	261.9	OK
884.7	123.6	-24.6	-117.0	1150.2	160.7	-32.0	-152.1	5.8	13.8	OK	153.8	-70.2	196.1	261.9	OK
0.0	-2.8	-1.1	1.0	0.0	-3.7	-1.4	1.4	0.0	13.8	OK	5.9	0.6	6.0	261.9	OK
29.7	4.2	-13.9	-5.4	38.6	5.4	-18.0	-7.0	0.2	13.8	OK	68.3	-3.2	68.5	261.9	OK
0.0	-19.2	-4.8	-11.9	0.0	-25.0	-6.3	-15.5	0.0	13.8	OK	28.8	-7.2	31.4	261.9	OK
0.6	0.1	-2.1	-6.4	0.8	0.1	-2.8	-8.3	0.0	13.8	OK	10.3	-3.8	12.2	261.9	OK
10.3	1.4	-13.9	-1.1	13.4	1.9	-18.1	-1.4	0.1	13.8	OK	67.9	-0.6	67.9	261.9	OK
0.0	-26.9	-8.0	-7.5	0.0	-35.0	-10.4	-9.7	0.0	13.8	OK	46.3	-4.5	47.0	261.9	OK
7.0	1.0	-5.1	-3.5	9.1	1.3	-6.6	-4.5	0.0	13.8	OK	24.8	-2.1	25.1	261.9	OK
2.3	0.3	-7.5	-2.6	2.9	0.4	-9.8	-3.4	0.0	13.8	OK	36.7	-1.6	36.8	261.9	OK
28.5	4.0	-13.0	-5.9	37.0	5.2	-16.9	-7.6	0.2	13.8	OK	64.1	-3.5	64.4	261.9	OK
32.6	4.6	-1.7	-2.4	42.4	5.9	-2.2	-3.1	0.2	13.8	OK	9.3	-1.5	9.6	261.9	OK
0.0	0.0	-19.1	-3.9	0.0	0.0	-24.9	-5.1	0.0	13.8	OK	92.6	-2.4	92.7	261.9	OK
0.0	-17.2	-9.5	-1.9	0.0	-22.4	-12.4	-2.4	0.0	13.8	OK	50.9	-1.1	51.0	261.9	OK
19.9	2.8	-3.1	4.7	25.8	3.6	-4.1	6.1	0.1	13.8	OK	15.9	2.8	16.6	261.9	OK
0.0	-3.9	8.2	1.9	0.0	-5.0	10.6	2.5	0.0	13.8	OK	40.7	1.2	40.7	261.9	OK
15.8	2.2	-15.8	4.3	20.6	2.9	-20.6	5.6	0.1	13.8	OK	77.4	2.6	77.5	261.9	OK
21.2	3.0	8.8	2.8	27.5	3.8	11.4	3.6	0.1	13.8	OK	43.5	1.7	43.6	261.9	OK
0.0	-18.0	10.3	3.7	0.0	-23.4	13.4	4.8	0.0	13.8	OK	54.9	2.2	55.0	261.9	OK
14.3	2.0	-15.7	4.8	18.5	2.6	-20.4	6.2	0.1	13.8	OK	76.5	2.9	76.7	261.9	OK
14.3	2.0	-10.1	3.0	18.6	2.6	-13.2	3.9	0.1	13.8	OK	49.6	1.8	49.7	261.9	OK
24.2	3.4	-11.9	0.2	31.5	4.4	-15.4	0.3	0.2	13.8	OK	58.5	0.1	58.5	261.9	OK
0.0	-8.4	2.1	5.8	0.0	-10.9	2.8	7.5	0.0	13.8	OK	12.7	3.5	14.1	261.9	OK
16.9	2.4	-16.3	0.4	21.9	3.1	-21.2	0.5	0.1	13.8	OK	79.7	0.2	79.7	261.9	OK
23.0	3.2	-12.5	3.5	29.8	4.2	-16.3	4.5	0.1	13.8	OK	61.5	2.1	61.6	261.9	OK
0.9	0.1	9.5	3.3	1.2	0.2	12.4	4.3	0.0	13.8	OK	46.3	2.0	46.4	261.9	OK
37.7	5.3	-1.9	6.5	48.9	6.8	-2.5	8.4	0.2	13.8	OK	10.7	3.9	12.7	261.9	OK
0.0	0.0	-8.9	3.9	0.0	0.0	-11.6	5.0	0.0	13.8	OK	43.2	2.3	43.4	261.9	OK
7.5	1.0	-1.7	6.2	9.8	1.4	-2.3	8.1	0.0	13.8	OK	8.7	3.7	10.9	261.9	OK
46.4	6.5	12.4	1.6	60.3	8.4	16.1	2.1	0.3	13.8	OK	61.7	1.0	61.7	261.9	OK
0.0	-0.5	-16.1	-2.0	0.0	-0.6	-20.9	-2.6	0.0	13.8	OK	78.1	-1.2	78.1	261.9	OK
21.8	3.1	-9.0	6.9	28.4	4.0	-11.7	9.0	0.1	13.8	OK	44.4	4.1	45.0	261.9	OK
25.3	3.5	1.9	5.2	32.9	4.6	2.5	6.8	0.2	13.8	OK	10.3	3.1	11.6	261.9	OK
23.3	3.3	-7.1	3.5	30.3	4.2	-9.3	4.6	0.2	13.8	OK	35.5	2.1	35.6	261.9	OK
25.3	3.5	-20.5	2.6	32.9	4.6	-26.7	3.4	0.2	13.8	OK	100.4	1.6	100.4	261.9	OK
31.8	4.4	-16.1	-3.8	41.4	5.8	-20.9	-5.0	0.2	13.8	OK	79.2	-2.3	79.3	261.9	OK
24.8	3.5	10.7	0.8	32.2	4.5	13.9	1.1	0.2	13.8	OK	52.6	0.5	52.7	261.9	OK
0.0	-23.6	12.3	-0.7	0.0	-30.7	16.0	-0.9	0.0	13.8	OK	66.4	-0.4	66.4	261.9	OK
9.3	1.3	-21.8	-1.9	12.0	1.7	-28.3	-2.5	0.1	13.8	OK	106.0	-1.1	106.0	261.9	OK
5.2	0.7	12.5	2.2	6.7	0.9	16.3	2.9	0.0	13.8	OK	60.8	1.3	60.9	261.9	OK

34.8	4.9	10.1	2.1	45.2	6.3	13.1	2.7	0.2	13.8	OK	50.4	1.2	50.4	261.9	OK
37.3	5.2	8.0	5.1	48.5	6.8	10.4	6.6	0.2	13.8	OK	40.1	3.0	40.4	261.9	OK
7.1	1.0	4.6	5.5	9.3	1.3	6.0	7.2	0.0	13.8	OK	22.5	3.3	23.2	261.9	OK
22.2	3.1	5.5	4.2	28.9	4.0	7.2	5.5	0.1	13.8	OK	27.5	2.5	27.9	261.9	OK
12.4	1.7	-1.6	3.7	16.1	2.2	-2.1	4.8	0.1	13.8	OK	8.5	2.2	9.3	261.9	OK
0.0	-0.1	13.6	0.5	0.0	-0.2	17.7	0.6	0.0	13.8	OK	65.9	0.3	65.9	261.9	OK
41.7	5.8	-12.6	3.0	54.2	7.6	-16.4	3.9	0.3	13.8	OK	62.7	1.8	62.8	261.9	OK
22.6	3.2	1.2	4.6	29.4	4.1	1.6	6.0	0.1	13.8	OK	6.9	2.8	8.4	261.9	OK
1.7	0.2	-11.5	-0.1	2.2	0.3	-14.9	-0.1	0.0	13.8	OK	55.7	-0.1	55.7	261.9	OK
18.4	2.6	-9.2	6.8	23.9	3.3	-11.9	8.8	0.1	13.8	OK	45.1	4.1	45.6	261.9	OK
7.1	1.0	12.1	-1.0	9.2	1.3	15.7	-1.3	0.0	13.8	OK	58.7	-0.6	58.7	261.9	OK
24.5	3.4	9.0	-2.4	31.8	4.4	11.7	-3.2	0.2	13.8	OK	44.4	-1.5	44.5	261.9	OK
0.8	0.1	5.3	-1.4	1.1	0.2	6.9	-1.8	0.0	13.8	OK	25.6	-0.8	25.7	261.9	OK
11.6	1.6	0.0	-4.4	15.0	2.1	0.0	-5.7	0.1	13.8	OK	0.5	-2.6	4.6	261.9	OK
0.0	-1.3	2.1	-5.7	0.0	-1.6	2.7	-7.4	0.0	13.8	OK	10.5	-3.4	12.0	261.9	OK
30.2	4.2	7.2	-2.5	39.2	5.5	9.3	-3.2	0.2	13.8	OK	35.9	-1.5	36.0	261.9	OK
8.7	1.2	9.3	-2.3	11.3	1.6	12.1	-3.0	0.1	13.8	OK	45.3	-1.4	45.4	261.9	OK
4.9	0.7	-10.5	-9.5	6.4	0.9	-13.7	-12.3	0.0	13.8	OK	51.2	-5.7	52.1	261.9	OK
0.0	-1.0	6.3	-3.2	0.0	-1.3	8.2	-4.1	0.0	13.8	OK	31.0	-1.9	31.2	261.9	OK
35.8	5.0	5.0	-4.6	46.5	6.5	6.5	-5.9	0.2	13.8	OK	25.6	-2.7	26.0	261.9	OK
0.0	-11.3	-10.9	-12.0	0.0	-14.7	-14.1	-15.5	0.0	13.8	OK	55.7	-7.2	57.1	261.9	OK
0.0	-3.8	-21.8	-12.5	0.0	-5.0	-28.4	-16.2	0.0	13.8	OK	106.9	-7.5	107.7	261.9	OK
29.0	4.1	-15.7	-8.0	37.7	5.3	-20.4	-10.4	0.2	13.8	OK	77.2	-4.8	77.6	261.9	OK
26.5	3.7	10.6	-1.1	34.4	4.8	13.8	-1.4	0.2	13.8	OK	52.6	-0.6	52.6	261.9	OK
7.0	1.0	13.2	-0.7	9.0	1.3	17.2	-0.9	0.0	13.8	OK	64.4	-0.4	64.4	261.9	OK
32.4	4.5	11.6	-0.2	42.1	5.9	15.1	-0.3	0.2	13.8	OK	57.5	-0.1	57.5	261.9	OK
0.0	-20.0	-4.2	-8.6	0.0	-25.9	-5.5	-11.2	0.0	13.8	OK	26.2	-5.2	27.6	261.9	OK
0.0	-9.0	11.8	-2.1	0.0	-11.7	15.3	-2.7	0.0	13.8	OK	59.5	-1.3	59.6	261.9	OK
41.5	5.8	-28.5	-8.8	54.0	7.5	-37.1	-11.4	0.3	13.8	OK	139.7	-5.3	140.0	261.9	OK
52.1	7.3	-23.2	-9.7	67.8	9.5	-30.1	-12.6	0.3	13.8	OK	114.4	-5.8	114.8	261.9	OK
0.0	-15.7	0.3	-4.4	0.0	-20.5	0.4	-5.7	0.0	13.8	OK	5.7	-2.6	7.3	261.9	OK
4.7	0.7	-4.0	-3.9	6.1	0.8	-5.2	-5.1	0.0	13.8	OK	19.6	-2.3	20.0	261.9	OK
7.9	1.1	-2.7	-3.6	10.2	1.4	-3.6	-4.6	0.1	13.8	OK	13.6	-2.1	14.1	261.9	OK
26.8	3.7	6.0	-3.2	34.9	4.9	7.8	-4.2	0.2	13.8	OK	30.1	-1.9	30.3	261.9	OK
0.0	-14.5	7.4	-4.0	0.0	-18.8	9.7	-5.2	0.0	13.8	OK	40.1	-2.4	40.3	261.9	OK
18.5	2.6	-0.7	-3.3	24.1	3.4	-0.9	-4.3	0.1	13.8	OK	4.0	-2.0	5.3	261.9	OK
0.0	-8.3	-10.7	-4.8	0.0	-10.7	-14.0	-6.2	0.0	13.8	OK	54.4	-2.9	54.6	261.9	OK
8.4	1.2	-7.4	-4.4	11.0	1.5	-9.7	-5.7	0.1	13.8	OK	36.4	-2.6	36.7	261.9	OK
39.4	5.5	10.6	-2.7	51.3	7.2	13.8	-3.5	0.3	13.8	OK	52.9	-1.6	53.0	261.9	OK
17.7	2.5	-16.9	-3.0	22.9	3.2	-21.9	-3.9	0.1	13.8	OK	82.4	-1.8	82.5	261.9	OK
26.0	3.6	-24.0	-1.0	33.8	4.7	-31.2	-1.3	0.2	13.8	OK	117.2	-0.6	117.2	261.9	OK
39.0	5.5	-15.5	-6.2	50.7	7.1	-20.2	-8.1	0.3	13.8	OK	76.7	-3.7	77.0	261.9	OK
0.0	-7.5	10.8	-0.6	0.0	-9.8	14.0	-0.7	0.0	13.8	OK	54.2	-0.3	54.2	261.9	OK
23.8	3.3	-3.0	-6.1	30.9	4.3	-4.0	-7.9	0.2	13.8	OK	15.7	-3.7	16.9	261.9	OK
20.4	2.8	2.7	-3.6	26.5	3.7	3.6	-4.6	0.1	13.8	OK	14.1	-2.1	14.5	261.9	OK
0.0	-0.8	-12.1	-5.5	0.0	-1.0	-15.7	-7.1	0.0	13.8	OK	58.6	-3.3	58.9	261.9	OK
195.7	27.3	-16.2	47.4	254.3	35.5	-21.1	61.6	1.3	13.8	OK	86.2	28.4	99.3	261.9	OK

20.0	2.8	-18.5	0.6	26.0	3.6	-24.0	0.7	0.1	13.8	OK	90.4	0.3	90.4	261.9	OK
18.8	2.6	-16.4	2.4	24.4	3.4	-21.3	3.1	0.1	13.8	OK	80.1	1.4	80.1	261.9	OK
165.0	23.1	-28.5	20.7	214.5	30.0	-37.1	26.9	1.1	13.8	OK	144.8	12.4	146.3	261.9	OK
145.2	20.3	-23.9	-1.3	188.8	26.4	-31.0	-1.7	0.9	13.8	OK	121.3	-0.8	121.3	261.9	OK
110.7	15.5	-24.8	-4.8	143.9	20.1	-32.2	-6.2	0.7	13.8	OK	124.5	-2.9	124.6	261.9	OK
104.5	14.6	-33.7	2.9	135.9	19.0	-43.8	3.7	0.7	13.8	OK	167.3	1.7	167.3	261.9	OK
243.2	34.0	-5.1	23.9	316.2	44.2	-6.6	31.0	1.6	13.8	OK	34.2	14.3	42.3	261.9	OK
64.1	9.0	-26.1	3.5	83.3	11.6	-33.9	4.5	0.4	13.8	OK	129.0	2.1	129.0	261.9	OK
328.1	45.8	-4.9	12.2	426.5	59.6	-6.3	15.9	2.1	13.8	OK	36.3	7.3	38.5	261.9	OK
103.7	14.5	-4.0	7.1	134.8	18.8	-5.2	9.2	0.7	13.8	OK	23.4	4.2	24.5	261.9	OK
215.4	30.1	-22.5	11.1	280.0	39.1	-29.3	14.4	1.4	13.8	OK	117.6	6.7	118.2	261.9	OK
0.0	-7.4	-14.4	-4.4	0.0	-9.7	-18.8	-5.7	0.0	13.8	OK	72.1	-2.6	72.2	261.9	OK
135.0	18.9	-19.5	8.5	175.4	24.5	-25.3	11.0	0.9	13.8	OK	99.5	5.1	99.9	261.9	OK
34.9	4.9	-26.7	-0.6	45.4	6.3	-34.7	-0.8	0.2	13.8	OK	130.7	-0.4	130.7	261.9	OK
0.0	-72.7	-4.6	24.4	0.0	-94.6	-6.0	31.7	0.0	13.8	OK	42.7	14.6	49.6	261.9	OK
87.7	12.3	-18.1	1.6	114.0	15.9	-23.5	2.1	0.6	13.8	OK	91.0	1.0	91.0	261.9	OK
362.3	50.6	-11.9	29.6	471.0	65.8	-15.5	38.5	2.4	13.8	OK	72.0	17.8	78.3	261.9	OK
0.0	-189.6	3.9	-15.1	0.0	-246.4	5.0	-19.6	0.0	13.8	OK	71.8	-9.0	73.5	261.9	OK
57.1	8.0	-24.6	12.8	74.3	10.4	-32.0	16.6	0.4	13.8	OK	121.4	7.7	122.1	261.9	OK
54.9	7.7	-20.9	1.6	71.4	10.0	-27.2	2.0	0.4	13.8	OK	103.4	0.9	103.4	261.9	OK
0.0	-20.3	-10.7	9.4	0.0	-26.4	-13.9	12.3	0.0	13.8	OK	57.6	5.7	58.5	261.9	OK
92.0	12.9	-21.5	-6.7	119.6	16.7	-27.9	-8.7	0.6	13.8	OK	107.7	-4.0	108.0	261.9	OK
223.9	31.3	-10.6	28.0	291.0	40.7	-13.7	36.5	1.5	13.8	OK	59.9	16.8	66.6	261.9	OK
11.2	1.6	-4.0	-0.2	14.6	2.0	-5.2	-0.3	0.1	13.8	OK	20.0	-0.1	20.0	261.9	OK
22.1	3.1	-22.5	-7.1	28.7	4.0	-29.3	-9.2	0.1	13.8	OK	110.1	-4.3	110.3	261.9	OK
21.7	3.0	-14.0	-2.9	28.2	3.9	-18.2	-3.8	0.1	13.8	OK	68.8	-1.7	68.8	261.9	OK
0.0	-43.0	-7.3	-13.3	0.0	-55.9	-9.5	-17.3	0.0	13.8	OK	47.5	-8.0	49.5	261.9	OK
36.0	5.0	7.2	-2.3	46.8	6.5	9.3	-3.0	0.2	13.8	OK	36.1	-1.4	36.2	261.9	OK
1.9	0.3	5.2	-1.6	2.4	0.3	6.7	-2.0	0.0	13.8	OK	25.0	-0.9	25.1	261.9	OK
0.0	-40.4	-2.9	0.5	0.0	-52.5	-3.8	0.6	0.0	13.8	OK	25.4	0.3	25.4	261.9	OK
21.4	3.0	2.6	-3.2	27.8	3.9	3.3	-4.1	0.1	13.8	OK	13.3	-1.9	13.7	261.9	OK
15.2	2.1	8.2	0.0	19.8	2.8	10.6	0.0	0.1	13.8	OK	40.2	0.0	40.2	261.9	OK
0.0	-15.3	9.4	0.2	0.0	-19.9	12.2	0.3	0.0	13.8	OK	49.9	0.1	49.9	261.9	OK
9.4	1.3	1.2	-2.5	12.2	1.7	1.6	-3.3	0.1	13.8	OK	6.4	-1.5	6.9	261.9	OK
8.0	1.1	10.1	-0.7	10.4	1.5	13.2	-0.9	0.1	13.8	OK	49.3	-0.4	49.3	261.9	OK
42.3	5.9	9.4	-1.2	55.0	7.7	12.2	-1.6	0.3	13.8	OK	47.2	-0.7	47.2	261.9	OK
14.9	2.1	6.5	-1.8	19.3	2.7	8.4	-2.4	0.1	13.8	OK	31.9	-1.1	31.9	261.9	OK
15.7	2.2	3.6	-1.9	20.4	2.8	4.7	-2.5	0.1	13.8	OK	18.3	-1.1	18.4	261.9	OK
26.4	3.7	1.0	-2.0	34.3	4.8	1.3	-2.6	0.2	13.8	OK	5.9	-1.2	6.3	261.9	OK
0.0	-8.3	-3.1	-1.8	0.0	-10.9	-4.1	-2.3	0.0	13.8	OK	17.5	-1.1	17.6	261.9	OK
0.0	-1.0	-4.3	-2.6	0.0	-1.3	-5.6	-3.4	0.0	13.8	OK	21.1	-1.6	21.3	261.9	OK
7.1	1.0	-1.9	-4.0	9.2	1.3	-2.4	-5.2	0.0	13.8	OK	9.4	-2.4	10.3	261.9	OK
11.9	1.7	-4.2	-2.3	15.5	2.2	-5.5	-3.0	0.1	13.8	OK	20.9	-1.4	21.0	261.9	OK
1.9	0.3	1.2	-4.3	2.5	0.3	1.6	-5.6	0.0	13.8	OK	5.9	-2.6	7.4	261.9	OK
0.0	-2.1	-3.1	-1.5	0.0	-2.7	-4.0	-2.0	0.0	13.8	OK	15.5	-0.9	15.6	261.9	OK
5.3	0.7	-4.5	-0.6	6.8	1.0	-5.8	-0.8	0.0	13.8	OK	21.8	-0.4	21.8	261.9	OK
0.0	-23.8	-8.6	-10.8	0.0	-31.0	-11.2	-14.0	0.0	13.8	OK	48.4	-6.5	49.7	261.9	OK

11.6	1.6	-13.5	-10.1	15.1	2.1	-17.6	-13.2	0.1	13.8	OK	65.9	-6.1	66.8	261.9	OK
0.0	-3.3	-6.9	-7.1	0.0	-4.3	-8.9	-9.2	0.0	13.8	OK	34.2	-4.2	35.0	261.9	OK
26.1	3.6	-0.4	-5.2	33.9	4.7	-0.6	-6.7	0.2	13.8	OK	3.2	-3.1	6.2	261.9	OK
0.0	-3.3	-9.5	-0.9	0.0	-4.3	-12.4	-1.2	0.0	13.8	OK	47.0	-0.6	47.0	261.9	OK
34.7	4.9	-14.9	-12.0	45.2	6.3	-19.4	-15.6	0.2	13.8	OK	73.5	-7.2	74.6	261.9	OK
14.7	2.1	-0.7	0.5	19.1	2.7	-1.0	0.7	0.1	13.8	OK	4.2	0.3	4.2	261.9	OK
13.8	1.9	8.6	-1.9	18.0	2.5	11.2	-2.4	0.1	13.8	OK	42.4	-1.1	42.4	261.9	OK
29.6	4.1	-1.0	-3.5	38.5	5.4	-1.3	-4.5	0.2	13.8	OK	5.9	-2.1	6.9	261.9	OK
41.0	5.7	5.0	-3.7	53.3	7.4	6.5	-4.8	0.3	13.8	OK	25.8	-2.2	26.1	261.9	OK
0.0	-8.6	7.3	-3.4	0.0	-11.2	9.5	-4.5	0.0	13.8	OK	37.8	-2.1	38.0	261.9	OK
19.7	2.8	6.9	-3.4	25.6	3.6	8.9	-4.4	0.1	13.8	OK	34.1	-2.0	34.3	261.9	OK
0.0	-40.1	-1.1	4.2	0.0	-52.1	-1.4	5.5	0.0	13.8	OK	16.5	2.5	17.1	261.9	OK
30.4	4.2	8.7	0.5	39.5	5.5	11.3	0.7	0.2	13.8	OK	43.4	0.3	43.4	261.9	OK
14.9	2.1	-0.8	1.6	19.3	2.7	-1.0	2.1	0.1	13.8	OK	4.4	1.0	4.7	261.9	OK
34.6	4.8	1.6	4.0	45.0	6.3	2.0	5.2	0.2	13.8	OK	8.9	2.4	9.8	261.9	OK
16.1	2.2	-9.9	2.1	20.9	2.9	-12.9	2.8	0.1	13.8	OK	48.8	1.3	48.8	261.9	OK
0.0	-19.3	-4.9	0.9	0.0	-25.2	-6.4	1.1	0.0	13.8	OK	29.2	0.5	29.2	261.9	OK
9.5	1.3	-9.2	5.7	12.4	1.7	-12.0	7.4	0.1	13.8	OK	45.0	3.4	45.4	261.9	OK
0.0	-15.7	-4.1	1.7	0.0	-20.5	-5.4	2.2	0.0	13.8	OK	24.4	1.0	24.4	261.9	OK
36.1	5.0	7.5	3.0	47.0	6.6	9.7	3.9	0.2	13.8	OK	37.6	1.8	37.7	261.9	OK
0.2	0.0	4.2	4.1	0.3	0.0	5.5	5.3	0.0	13.8	OK	20.4	2.5	20.8	261.9	OK
13.8	1.9	-7.9	-1.4	17.9	2.5	-10.2	-1.8	0.1	13.8	OK	38.7	-0.8	38.8	261.9	OK
0.0	-2.9	8.9	2.0	0.0	-3.7	11.6	2.6	0.0	13.8	OK	43.9	1.2	44.0	261.9	OK
5.5	0.8	-12.8	5.2	7.2	1.0	-16.7	6.7	0.0	13.8	OK	62.4	3.1	62.7	261.9	OK
20.1	2.8	-16.8	2.5	26.2	3.7	-21.8	3.3	0.1	13.8	OK	82.2	1.5	82.2	261.9	OK
11.5	1.6	-2.0	2.9	15.0	2.1	-2.6	3.7	0.1	13.8	OK	10.0	1.7	10.4	261.9	OK
25.7	3.6	8.3	2.3	33.5	4.7	10.8	3.0	0.2	13.8	OK	41.1	1.4	41.2	261.9	OK
21.3	3.0	5.5	2.2	27.7	3.9	7.1	2.8	0.1	13.8	OK	27.3	1.3	27.4	261.9	OK
0.0	-26.0	-7.6	4.9	0.0	-33.8	-9.8	6.4	0.0	13.8	OK	43.9	2.9	44.2	261.9	OK
15.0	2.1	-10.3	5.1	19.5	2.7	-13.4	6.7	0.1	13.8	OK	50.5	3.1	50.7	261.9	OK
3.3	0.5	-14.6	5.3	4.3	0.6	-18.9	6.9	0.0	13.8	OK	70.7	3.2	70.9	261.9	OK
15.2	2.1	6.2	2.1	19.7	2.8	8.1	2.8	0.1	13.8	OK	30.7	1.3	30.8	261.9	OK
0.0	0.0	-1.8	2.7	0.0	0.0	-2.3	3.5	0.0	13.8	OK	8.7	1.6	9.1	261.9	OK
12.4	1.7	-2.6	2.7	16.1	2.3	-3.3	3.6	0.1	13.8	OK	12.9	1.7	13.3	261.9	OK
10.6	1.5	10.2	0.3	13.8	1.9	13.3	0.4	0.1	13.8	OK	50.0	0.2	50.0	261.9	OK
10.1	1.4	1.9	0.6	13.1	1.8	2.4	0.8	0.1	13.8	OK	9.4	0.3	9.4	261.9	OK
29.4	4.1	3.9	2.6	38.2	5.3	5.1	3.3	0.2	13.8	OK	20.1	1.5	20.3	261.9	OK
14.3	2.0	-14.0	-1.2	18.6	2.6	-18.2	-1.6	0.1	13.8	OK	68.4	-0.7	68.4	261.9	OK
0.0	-0.3	7.7	0.6	0.0	-0.4	10.0	0.7	0.0	13.8	OK	37.2	0.3	37.2	261.9	OK
0.0	-5.7	-7.4	5.5	0.0	-7.4	-9.6	7.2	0.0	13.8	OK	37.5	3.3	37.9	261.9	OK
16.0	2.2	3.3	2.6	20.9	2.9	4.3	3.4	0.1	13.8	OK	16.5	1.6	16.7	261.9	OK
0.0	-6.0	-7.8	1.5	0.0	-7.8	-10.1	1.9	0.0	13.8	OK	39.4	0.9	39.4	261.9	OK
9.9	1.4	-3.7	1.5	12.9	1.8	-4.9	1.9	0.1	13.8	OK	18.5	0.9	18.5	261.9	OK
18.2	2.5	-4.0	2.9	23.7	3.3	-5.1	3.7	0.1	13.8	OK	19.9	1.7	20.1	261.9	OK
14.3	2.0	9.0	1.2	18.5	2.6	11.8	1.5	0.1	13.8	OK	44.4	0.7	44.4	261.9	OK
14.4	2.0	-0.8	3.4	18.7	2.6	-1.0	4.4	0.1	13.8	OK	4.3	2.0	5.5	261.9	OK
7.1	1.0	-4.9	4.6	9.2	1.3	-6.3	6.0	0.0	13.8	OK	23.8	2.8	24.3	261.9	OK

25.3	3.5	2.9	4.6	32.9	4.6	3.8	5.9	0.2	13.8	OK	15.1	2.7	15.8	261.9	OK
28.0	3.9	-13.9	-3.7	36.4	5.1	-18.1	-4.8	0.2	13.8	OK	68.4	-2.2	68.5	261.9	OK
41.6	5.8	-9.3	-1.0	54.1	7.6	-12.1	-1.3	0.3	13.8	OK	46.7	-0.6	46.7	261.9	OK
0.0	-18.6	-12.4	-7.4	0.0	-24.1	-16.1	-9.7	0.0	13.8	OK	65.3	-4.5	65.8	261.9	OK
12.1	1.7	-6.0	-13.3	15.8	2.2	-7.8	-17.3	0.1	13.8	OK	29.5	-8.0	32.6	261.9	OK
121.0	16.9	-1.0	-15.9	157.3	22.0	-1.3	-20.7	0.8	13.8	OK	9.6	-9.5	19.1	261.9	OK
40.3	5.6	-11.9	-5.2	52.4	7.3	-15.5	-6.8	0.3	13.8	OK	59.2	-3.1	59.5	261.9	OK
46.6	6.5	-3.2	-10.1	60.6	8.5	-4.2	-13.2	0.3	13.8	OK	17.5	-6.1	20.4	261.9	OK
23.4	3.3	-17.5	-2.9	30.4	4.2	-22.7	-3.7	0.2	13.8	OK	85.5	-1.7	85.6	261.9	OK
77.5	10.8	-12.9	-4.4	100.8	14.1	-16.7	-5.7	0.5	13.8	OK	65.3	-2.6	65.4	261.9	OK
8.7	1.2	-3.7	-9.8	11.3	1.6	-4.8	-12.8	0.1	13.8	OK	18.1	-5.9	20.8	261.9	OK
11.7	1.6	-12.9	1.7	15.2	2.1	-16.8	2.2	0.1	13.8	OK	63.2	1.0	63.2	261.9	OK
32.9	4.6	-7.5	-2.4	42.8	6.0	-9.8	-3.1	0.2	13.8	OK	37.7	-1.4	37.7	261.9	OK
0.0	-1.7	-1.4	-0.1	0.0	-2.2	-1.8	-0.1	0.0	13.8	OK	7.0	0.0	7.0	261.9	OK
52.8	7.4	-19.8	-7.4	68.6	9.6	-25.7	-9.6	0.3	13.8	OK	97.8	-4.4	98.1	261.9	OK
0.0	-56.5	-4.8	-12.2	0.0	-73.4	-6.3	-15.9	0.0	13.8	OK	39.1	-7.3	41.1	261.9	OK
0.0	-24.3	-1.8	-7.6	0.0	-31.6	-2.3	-9.8	0.0	13.8	OK	15.3	-4.5	17.2	261.9	OK
0.0	-2.4	-19.8	-4.6	0.0	-3.1	-25.7	-6.0	0.0	13.8	OK	96.4	-2.8	96.5	261.9	OK
0.0	-76.2	-9.7	-10.9	0.0	-99.0	-12.6	-14.2	0.0	13.8	OK	68.4	-6.5	69.3	261.9	OK
6.5	0.9	-6.8	-6.3	8.5	1.2	-8.9	-8.2	0.0	13.8	OK	33.2	-3.8	33.9	261.9	OK
0.0	-20.9	-10.1	-3.9	0.0	-27.2	-13.1	-5.0	0.0	13.8	OK	54.8	-2.3	55.0	261.9	OK
0.0	-24.7	-16.6	-8.8	0.0	-32.1	-21.6	-11.5	0.0	13.8	OK	87.5	-5.3	88.0	261.9	OK
40.9	5.7	-2.1	-2.8	53.1	7.4	-2.8	-3.7	0.3	13.8	OK	12.0	-1.7	12.4	261.9	OK
0.0	-43.3	-26.5	-6.3	0.0	-56.2	-34.5	-8.2	0.0	13.8	OK	140.5	-3.8	140.6	261.9	OK
0.0	-7.4	-14.3	-5.1	0.0	-9.7	-18.5	-6.6	0.0	13.8	OK	71.2	-3.1	71.4	261.9	OK
31.2	4.4	-3.1	9.0	40.6	5.7	-4.0	11.7	0.2	13.8	OK	16.1	5.4	18.6	261.9	OK
0.0	-33.2	12.3	2.5	0.0	-43.1	15.9	3.3	0.0	13.8	OK	68.7	1.5	68.7	261.9	OK
35.5	5.0	-23.7	5.4	46.1	6.4	-30.8	7.0	0.2	13.8	OK	116.0	3.2	116.1	261.9	OK
31.3	4.4	13.2	2.3	40.7	5.7	17.2	3.0	0.2	13.8	OK	65.1	1.4	65.2	261.9	OK
0.0	-45.7	14.2	3.1	0.0	-59.4	18.4	4.0	0.0	13.8	OK	81.4	1.9	81.4	261.9	OK
1.5	0.2	-19.3	7.2	1.9	0.3	-25.0	9.4	0.0	13.8	OK	93.4	4.3	93.7	261.9	OK
43.7	6.1	-17.1	6.1	56.8	7.9	-22.2	8.0	0.3	13.8	OK	84.4	3.7	84.6	261.9	OK
59.5	8.3	-20.5	0.4	77.4	10.8	-26.6	0.6	0.4	13.8	OK	101.6	0.3	101.6	261.9	OK
0.0	-40.0	5.0	7.6	0.0	-52.0	6.4	9.9	0.0	13.8	OK	35.2	4.6	36.1	261.9	OK
22.0	3.1	-24.3	-2.4	28.5	4.0	-31.5	-3.2	0.1	13.8	OK	118.4	-1.5	118.5	261.9	OK
24.9	3.5	-17.7	4.5	32.4	4.5	-23.0	5.9	0.2	13.8	OK	86.8	2.7	86.9	261.9	OK
0.0	-29.7	12.8	3.0	0.0	-38.6	16.6	3.9	0.0	13.8	OK	70.1	1.8	70.2	261.9	OK
54.3	7.6	-0.3	10.5	70.6	9.9	-0.4	13.6	0.4	13.8	OK	3.5	6.3	11.4	261.9	OK
0.0	-16.8	-11.7	8.1	0.0	-21.8	-15.2	10.6	0.0	13.8	OK	61.4	4.9	61.9	261.9	OK
0.0	-24.9	0.3	8.0	0.0	-32.3	0.4	10.3	0.0	13.8	OK	8.6	4.8	11.9	261.9	OK
64.8	9.0	15.6	1.1	84.2	11.8	20.3	1.4	0.4	13.8	OK	78.1	0.6	78.1	261.9	OK
0.0	-4.5	-23.9	-2.1	0.0	-5.9	-31.1	-2.8	0.0	13.8	OK	117.1	-1.3	117.1	261.9	OK
40.2	5.6	-11.8	10.3	52.3	7.3	-15.3	13.4	0.3	13.8	OK	58.7	6.2	59.7	261.9	OK
36.4	5.1	4.8	6.9	47.3	6.6	6.2	9.0	0.2	13.8	OK	24.5	4.1	25.5	261.9	OK
47.9	6.7	-10.8	8.0	62.3	8.7	-14.0	10.3	0.3	13.8	OK	54.1	4.8	54.8	261.9	OK
24.5	3.4	-27.7	4.4	31.9	4.5	-36.0	5.7	0.2	13.8	OK	135.1	2.6	135.2	261.9	OK
53.4	7.5	-24.0	-5.2	69.5	9.7	-31.3	-6.8	0.3	13.8	OK	118.6	-3.1	118.7	261.9	OK

36.4	5.1	14.4	0.5	47.3	6.6	18.7	0.6	0.2	13.8	OK	71.1	0.3	71.1	261.9	OK
0.0	-51.4	15.7	-1.1	0.0	-66.8	20.4	-1.4	0.0	13.8	OK	90.2	-0.6	90.3	261.9	OK
2.1	0.3	-30.3	-2.9	2.8	0.4	-39.4	-3.7	0.0	13.8	OK	147.0	-1.7	147.0	261.9	OK
0.0	-14.8	15.6	2.1	0.0	-19.2	20.2	2.8	0.0	13.8	OK	79.5	1.3	79.5	261.9	OK
48.1	6.7	13.9	2.0	62.6	8.7	18.1	2.6	0.3	13.8	OK	69.4	1.2	69.4	261.9	OK
50.9	7.1	12.0	5.5	66.2	9.2	15.6	7.1	0.3	13.8	OK	60.3	3.3	60.5	261.9	OK
0.0	-19.3	8.2	6.8	0.0	-25.0	10.7	8.8	0.0	13.8	OK	45.3	4.1	45.9	261.9	OK
27.2	3.8	9.7	5.6	35.4	4.9	12.6	7.3	0.2	13.8	OK	48.0	3.4	48.4	261.9	OK
0.0	-9.6	0.0	5.8	0.0	-12.5	-0.1	7.6	0.0	13.8	OK	2.9	3.5	6.7	261.9	OK
0.0	-24.4	16.2	-0.2	0.0	-31.7	21.1	-0.2	0.0	13.8	OK	85.5	-0.1	85.5	261.9	OK
70.9	9.9	-17.9	7.5	92.2	12.9	-23.2	9.7	0.5	13.8	OK	89.3	4.5	89.6	261.9	OK
35.0	4.9	4.2	7.3	45.5	6.4	5.5	9.5	0.2	13.8	OK	21.9	4.4	23.2	261.9	OK
33.1	4.6	-18.8	-2.6	43.0	6.0	-24.5	-3.4	0.2	13.8	OK	92.6	-1.6	92.6	261.9	OK
2.4	0.3	-9.1	10.3	3.1	0.4	-11.9	13.4	0.0	13.8	OK	44.3	6.2	45.6	261.9	OK
0.0	-16.6	13.8	-1.8	0.0	-21.5	18.0	-2.4	0.0	13.8	OK	71.7	-1.1	71.7	261.9	OK
32.4	4.5	11.7	-3.5	42.1	5.9	15.2	-4.6	0.2	13.8	OK	57.8	-2.1	58.0	261.9	OK
0.0	-17.3	5.9	-3.4	0.0	-22.4	7.7	-4.4	0.0	13.8	OK	33.4	-2.0	33.6	261.9	OK
35.5	5.0	-2.1	-7.5	46.2	6.5	-2.7	-9.7	0.2	13.8	OK	11.5	-4.5	13.8	261.9	OK
0.0	-10.4	0.1	-7.2	0.0	-13.5	0.1	-9.3	0.0	13.8	OK	3.2	-4.3	8.1	261.9	OK
41.8	5.8	8.7	-4.4	54.4	7.6	11.4	-5.7	0.3	13.8	OK	44.0	-2.6	44.2	261.9	OK
0.0	-12.3	10.8	-4.4	0.0	-16.0	14.0	-5.7	0.0	13.8	OK	55.7	-2.6	55.8	261.9	OK
35.9	5.0	-14.6	-8.1	46.7	6.5	-19.0	-10.5	0.2	13.8	OK	72.3	-4.9	72.8	261.9	OK
0.0	-24.1	5.8	-4.7	0.0	-31.3	7.6	-6.1	0.0	13.8	OK	35.1	-2.8	35.4	261.9	OK
55.1	7.7	5.7	-6.7	71.6	10.0	7.4	-8.7	0.4	13.8	OK	29.7	-4.0	30.5	261.9	OK
0.0	-3.3	-14.1	-7.0	0.0	-4.3	-18.4	-9.2	0.0	13.8	OK	69.5	-4.2	69.9	261.9	OK
0.0	-19.8	-20.4	-3.5	0.0	-25.8	-26.5	-4.5	0.0	13.8	OK	104.5	-2.1	104.5	261.9	OK
28.1	3.9	-18.4	-2.2	36.6	5.1	-24.0	-2.9	0.2	13.8	OK	90.4	-1.3	90.5	261.9	OK
38.6	5.4	13.9	-1.5	50.2	7.0	18.0	-1.9	0.3	13.8	OK	68.8	-0.9	68.8	261.9	OK
0.0	-13.2	15.7	-1.5	0.0	-17.2	20.4	-1.9	0.0	13.8	OK	79.7	-0.9	79.7	261.9	OK
39.8	5.6	14.4	-0.8	51.8	7.2	18.7	-1.1	0.3	13.8	OK	71.4	-0.5	71.4	261.9	OK
0.0	-24.3	-7.4	-6.7	0.0	-31.6	-9.7	-8.7	0.0	13.8	OK	42.9	-4.0	43.4	261.9	OK
0.0	-23.7	14.6	-2.4	0.0	-30.8	19.0	-3.1	0.0	13.8	OK	77.6	-1.4	77.6	261.9	OK
3.5	0.5	-22.5	-0.3	4.5	0.6	-29.3	-0.3	0.0	13.8	OK	109.3	-0.2	109.3	261.9	OK
47.8	6.7	-20.4	-2.5	62.2	8.7	-26.6	-3.3	0.3	13.8	OK	100.8	-1.5	100.9	261.9	OK
0.0	-32.9	-2.0	-6.2	0.0	-42.7	-2.6	-8.1	0.0	13.8	OK	18.8	-3.7	19.9	261.9	OK
29.3	4.1	-7.6	-7.2	38.1	5.3	-9.9	-9.3	0.2	13.8	OK	37.9	-4.3	38.6	261.9	OK
2.6	0.4	-6.4	-4.6	3.4	0.5	-8.3	-6.0	0.0	13.8	OK	31.1	-2.8	31.5	261.9	OK
38.9	5.4	8.4	-4.2	50.5	7.1	10.9	-5.5	0.3	13.8	OK	42.1	-2.5	42.3	261.9	OK
0.0	-36.8	8.9	-4.7	0.0	-47.9	11.6	-6.1	0.0	13.8	OK	53.5	-2.8	53.7	261.9	OK
40.1	5.6	-1.7	-6.4	52.1	7.3	-2.2	-8.4	0.3	13.8	OK	9.6	-3.9	11.7	261.9	OK
0.0	-18.5	-14.8	-4.1	0.0	-24.1	-19.2	-5.4	0.0	13.8	OK	76.7	-2.5	76.8	261.9	OK
46.8	6.5	-13.0	-5.3	60.9	8.5	-16.9	-6.9	0.3	13.8	OK	64.7	-3.2	64.9	261.9	OK
51.2	7.2	13.2	-3.5	66.5	9.3	17.2	-4.5	0.3	13.8	OK	65.9	-2.1	66.0	261.9	OK
50.3	7.0	-18.1	0.2	65.4	9.1	-23.5	0.3	0.3	13.8	OK	89.6	0.1	89.6	261.9	OK
0.0	-5.1	-20.8	3.3	0.0	-6.7	-27.1	4.4	0.0	13.8	OK	102.3	2.0	102.4	261.9	OK
77.1	10.8	-18.4	-4.4	100.2	14.0	-23.9	-5.7	0.5	13.8	OK	91.9	-2.6	92.0	261.9	OK
0.0	-24.0	13.4	-1.1	0.0	-31.2	17.4	-1.4	0.0	13.8	OK	71.7	-0.7	71.7	261.9	OK

60.5	8.5	-6.5	-8.0	78.7	11.0	-8.5	-10.4	0.4	13.8	OK	34.0	-4.8	35.0	261.9	OK
28.9	4.0	3.8	-6.2	37.6	5.3	4.9	-8.1	0.2	13.8	OK	19.4	-3.7	20.4	261.9	OK
27.9	3.9	-16.7	-4.0	36.2	5.1	-21.7	-5.1	0.2	13.8	OK	82.1	-2.4	82.2	261.9	OK
29.1	4.1	-4.0	10.9	37.9	5.3	-5.2	14.2	0.2	13.8	OK	20.5	6.6	23.4	261.9	OK
44.5	6.2	-15.8	4.5	57.9	8.1	-20.5	5.8	0.3	13.8	OK	78.2	2.7	78.3	261.9	OK
30.0	4.2	-9.7	6.1	39.0	5.4	-12.6	7.9	0.2	13.8	OK	48.2	3.6	48.6	261.9	OK
12.9	1.8	-13.8	10.3	16.7	2.3	-17.9	13.4	0.1	13.8	OK	67.1	6.2	68.0	261.9	OK
77.7	10.9	-17.4	6.9	101.0	14.1	-22.6	9.0	0.5	13.8	OK	87.2	4.2	87.5	261.9	OK
48.1	6.7	-18.2	1.3	62.6	8.7	-23.7	1.7	0.3	13.8	OK	90.3	0.8	90.3	261.9	OK
17.4	2.4	-21.3	5.6	22.6	3.2	-27.7	7.2	0.1	13.8	OK	104.0	3.3	104.2	261.9	OK
88.2	12.3	-4.6	24.6	114.6	16.0	-6.0	32.0	0.6	13.8	OK	25.9	14.8	36.4	261.9	OK
25.7	3.6	-18.6	6.0	33.4	4.7	-24.2	7.8	0.2	13.8	OK	91.3	3.6	91.5	261.9	OK
49.9	7.0	-4.9	20.6	64.9	9.1	-6.3	26.8	0.3	13.8	OK	25.6	12.4	33.3	261.9	OK
64.1	9.0	-2.2	6.4	83.4	11.6	-2.9	8.3	0.4	13.8	OK	13.3	3.9	14.9	261.9	OK
96.2	13.4	-17.0	7.8	125.0	17.5	-22.1	10.1	0.6	13.8	OK	86.1	4.7	86.5	261.9	OK
15.5	2.2	-13.9	2.8	20.2	2.8	-18.1	3.6	0.1	13.8	OK	67.9	1.7	67.9	261.9	OK
0.0	-28.6	-9.4	9.2	0.0	-37.1	-12.2	11.9	0.0	13.8	OK	53.5	5.5	54.4	261.9	OK
0.0	-8.6	-19.5	5.7	0.0	-11.2	-25.3	7.3	0.0	13.8	OK	96.7	3.4	96.9	261.9	OK
0.0	-28.8	-4.7	10.5	0.0	-37.5	-6.1	13.7	0.0	13.8	OK	30.7	6.3	32.6	261.9	OK
0.0	-12.4	-9.5	5.8	0.0	-16.1	-12.3	7.6	0.0	13.8	OK	49.4	3.5	49.8	261.9	OK
0.0	-3.3	-3.0	9.2	0.0	-4.2	-3.9	12.0	0.0	13.8	OK	15.5	5.5	18.3	261.9	OK
0.0	-38.8	-2.8	11.1	0.0	-50.5	-3.6	14.4	0.0	13.8	OK	24.2	6.7	26.8	261.9	OK
12.3	1.7	-13.9	8.3	16.0	2.2	-18.0	10.8	0.1	13.8	OK	67.6	5.0	68.2	261.9	OK
43.8	6.1	-17.1	5.3	56.9	7.9	-22.2	6.9	0.3	13.8	OK	84.4	3.2	84.6	261.9	OK
27.3	3.8	-10.1	5.4	35.5	5.0	-13.1	7.0	0.2	13.8	OK	50.0	3.3	50.4	261.9	OK
19.8	2.8	-17.3	4.1	25.7	3.6	-22.5	5.3	0.1	13.8	OK	84.5	2.4	84.6	261.9	OK
25.1	3.5	-3.1	5.1	32.7	4.6	-4.0	6.7	0.2	13.8	OK	16.0	3.1	16.9	261.9	OK
23.6	3.3	-2.4	-5.7	30.7	4.3	-3.2	-7.4	0.2	13.8	OK	12.7	-3.4	14.0	261.9	OK
9.6	1.3	-21.8	2.8	12.5	1.8	-28.3	3.7	0.1	13.8	OK	105.9	1.7	106.0	261.9	OK
44.3	6.2	-18.6	2.4	57.6	8.1	-24.2	3.1	0.3	13.8	OK	91.9	1.4	91.9	261.9	OK
29.1	4.1	-15.1	-0.3	37.9	5.3	-19.7	-0.4	0.2	13.8	OK	74.5	-0.2	74.5	261.9	OK
43.0	6.0	11.1	-3.2	55.9	7.8	14.4	-4.1	0.3	13.8	OK	55.4	-1.9	55.5	261.9	OK
0.0	-11.5	8.8	-2.6	0.0	-14.9	11.5	-3.4	0.0	13.8	OK	46.1	-1.6	46.1	261.9	OK
23.8	3.3	-11.1	-4.8	31.0	4.3	-14.5	-6.2	0.2	13.8	OK	54.9	-2.9	55.1	261.9	OK
27.1	3.8	6.7	-4.8	35.3	4.9	8.8	-6.2	0.2	13.8	OK	33.7	-2.9	34.1	261.9	OK
29.6	4.1	12.9	-1.7	38.5	5.4	16.8	-2.2	0.2	13.8	OK	63.8	-1.0	63.8	261.9	OK
0.0	-35.6	14.6	-0.4	0.0	-46.3	19.0	-0.5	0.0	13.8	OK	80.8	-0.2	80.8	261.9	OK
0.0	-6.0	-1.8	-6.0	0.0	-7.8	-2.3	-7.8	0.0	13.8	OK	10.2	-3.6	12.0	261.9	OK
0.0	-10.6	15.5	-2.2	0.0	-13.8	20.1	-2.8	0.0	13.8	OK	77.9	-1.3	77.9	261.9	OK
54.4	7.6	14.6	-2.8	70.8	9.9	19.0	-3.7	0.4	13.8	OK	72.7	-1.7	72.8	261.9	OK
0.0	-7.2	9.2	-4.0	0.0	-9.4	11.9	-5.2	0.0	13.8	OK	46.5	-2.4	46.7	261.9	OK
1.4	0.2	4.5	-5.9	1.8	0.3	5.9	-7.7	0.0	13.8	OK	21.9	-3.6	22.7	261.9	OK
32.8	4.6	2.4	-5.7	42.7	6.0	3.1	-7.4	0.2	13.8	OK	12.8	-3.4	14.1	261.9	OK
29.0	4.1	-8.8	-7.4	37.7	5.3	-11.4	-9.7	0.2	13.8	OK	43.7	-4.5	44.4	261.9	OK
53.9	7.5	-12.7	-4.5	70.0	9.8	-16.5	-5.8	0.4	13.8	OK	63.6	-2.7	63.8	261.9	OK
9.5	1.3	-8.3	-6.9	12.3	1.7	-10.8	-9.0	0.1	13.8	OK	40.7	-4.1	41.3	261.9	OK
17.9	2.5	-12.7	-4.0	23.3	3.3	-16.5	-5.1	0.1	13.8	OK	62.2	-2.4	62.4	261.9	OK

0.0	-20.7	2.5	-5.5	0.0	-26.9	3.3	-7.2	0.0	13.8	OK	18.0	-3.3	18.9	261.9	OK
0.0	-13.0	-8.8	-4.6	0.0	-16.9	-11.5	-6.0	0.0	13.8	OK	46.4	-2.8	46.6	261.9	OK
32.9	4.6	-7.0	-4.8	42.8	6.0	-9.1	-6.3	0.2	13.8	OK	35.2	-2.9	35.6	261.9	OK
25.4	3.6	-17.3	-4.9	33.1	4.6	-22.5	-6.4	0.2	13.8	OK	84.9	-2.9	85.1	261.9	OK
21.0	2.9	-20.1	-2.6	27.3	3.8	-26.1	-3.3	0.1	13.8	OK	98.0	-1.5	98.1	261.9	OK
3.4	0.5	-15.0	-4.6	4.5	0.6	-19.5	-6.0	0.0	13.8	OK	72.9	-2.8	73.0	261.9	OK
31.6	4.4	2.3	-4.9	41.1	5.7	3.1	-6.4	0.2	13.8	OK	12.6	-2.9	13.6	261.9	OK
0.0	-4.4	-17.6	0.2	0.0	-5.7	-22.9	0.3	0.0	13.8	OK	86.6	0.1	86.6	261.9	OK
23.4	3.3	-18.9	0.5	30.4	4.2	-24.6	0.6	0.2	13.8	OK	92.5	0.3	92.5	261.9	OK
3.3	0.5	-1.1	-4.1	4.3	0.6	-1.5	-5.3	0.0	13.8	OK	5.5	-2.4	7.0	261.9	OK
1.3	0.2	13.1	-3.8	1.8	0.2	17.0	-5.0	0.0	13.8	OK	63.4	-2.3	63.6	261.9	OK
48.0	6.7	-1.3	-6.7	62.4	8.7	-1.7	-8.7	0.3	13.8	OK	8.2	-4.0	10.7	261.9	OK
48.2	6.7	8.6	-5.2	62.6	8.7	11.2	-6.8	0.3	13.8	OK	43.7	-3.1	44.0	261.9	OK
0.0	-27.4	11.3	-4.2	0.0	-35.7	14.7	-5.4	0.0	13.8	OK	62.4	-2.5	62.5	261.9	OK
28.7	4.0	10.5	-3.1	37.3	5.2	13.6	-4.1	0.2	13.8	OK	51.9	-1.9	52.0	261.9	OK
39.6	5.5	-14.3	-2.2	51.5	7.2	-18.6	-2.9	0.3	13.8	OK	70.9	-1.3	71.0	261.9	OK
31.6	4.4	15.0	-1.0	41.1	5.7	19.5	-1.4	0.2	13.8	OK	73.8	-0.6	73.8	261.9	OK
19.6	2.7	3.8	6.8	25.4	3.6	5.0	8.9	0.1	13.8	OK	19.4	4.1	20.6	261.9	OK
37.5	5.2	6.7	8.4	48.8	6.8	8.7	10.9	0.2	13.8	OK	34.0	5.0	35.1	261.9	OK
74.5	10.4	-23.8	2.5	96.8	13.5	-30.9	3.3	0.5	13.8	OK	118.1	1.5	118.1	261.9	OK
40.2	5.6	-16.0	5.0	52.2	7.3	-20.8	6.5	0.3	13.8	OK	79.1	3.0	79.3	261.9	OK
10.2	1.4	-20.0	10.2	13.3	1.9	-26.0	13.3	0.1	13.8	OK	97.4	6.1	97.9	261.9	OK
25.6	3.6	-9.9	7.6	33.3	4.7	-12.8	9.9	0.2	13.8	OK	48.8	4.6	49.5	261.9	OK
36.4	5.1	14.6	3.0	47.3	6.6	19.0	3.9	0.2	13.8	OK	72.3	1.8	72.3	261.9	OK
0.0	-32.0	10.6	5.6	0.0	-41.6	13.8	7.3	0.0	13.8	OK	60.5	3.4	60.8	261.9	OK
50.5	7.1	-20.3	-1.6	65.7	9.2	-26.4	-2.1	0.3	13.8	OK	100.4	-1.0	100.4	261.9	OK
0.0	-19.6	15.2	1.1	0.0	-25.5	19.8	1.5	0.0	13.8	OK	79.2	0.7	79.3	261.9	OK
50.5	7.1	-25.0	1.9	65.6	9.2	-32.5	2.5	0.3	13.8	OK	123.1	1.1	123.2	261.9	OK
18.9	2.6	-30.3	-0.9	24.5	3.4	-39.4	-1.2	0.1	13.8	OK	147.4	-0.6	147.4	261.9	OK
25.9	3.6	-3.2	9.1	33.6	4.7	-4.2	11.9	0.2	13.8	OK	16.6	5.5	19.1	261.9	OK
28.1	3.9	13.7	0.3	36.6	5.1	17.8	0.4	0.2	13.8	OK	67.5	0.2	67.5	261.9	OK
21.4	3.0	12.4	2.7	27.8	3.9	16.2	3.5	0.1	13.8	OK	61.1	1.6	61.1	261.9	OK
28.7	4.0	-19.7	3.4	37.3	5.2	-25.5	4.4	0.2	13.8	OK	96.3	2.0	96.4	261.9	OK
38.3	5.3	-24.1	3.9	49.7	6.9	-31.3	5.1	0.2	13.8	OK	118.1	2.4	118.2	261.9	OK
3.9	0.5	-28.3	5.2	5.1	0.7	-36.8	6.7	0.0	13.8	OK	137.3	3.1	137.5	261.9	OK
0.0	-10.3	13.4	4.6	0.0	-13.3	17.4	6.0	0.0	13.8	OK	67.9	2.8	68.0	261.9	OK
0.0	-19.4	-3.0	8.4	0.0	-25.3	-3.9	10.9	0.0	13.8	OK	20.1	5.0	21.9	261.9	OK
27.6	3.9	-2.8	7.5	35.9	5.0	-3.7	9.8	0.2	13.8	OK	14.7	4.5	16.7	261.9	OK
0.0	-6.3	16.7	-0.6	0.0	-8.1	21.7	-0.8	0.0	13.8	OK	82.7	-0.4	82.7	261.9	OK
0.0	-13.1	7.0	4.3	0.0	-17.0	9.2	5.6	0.0	13.8	OK	37.8	2.6	38.1	261.9	OK
27.7	3.9	10.3	4.2	36.0	5.0	13.4	5.4	0.2	13.8	OK	51.1	2.5	51.3	261.9	OK
10.7	1.5	-25.9	-5.6	13.9	1.9	-33.7	-7.3	0.1	13.8	OK	126.1	-3.4	126.2	261.9	OK
0.0	-23.1	14.9	0.1	0.0	-30.0	19.3	0.1	0.0	13.8	OK	78.5	0.0	78.5	261.9	OK
36.7	5.1	-19.2	9.8	47.7	6.7	-24.9	12.8	0.2	13.8	OK	94.3	5.9	94.9	261.9	OK
0.0	-16.4	7.6	7.0	0.0	-21.3	9.9	9.1	0.0	13.8	OK	41.6	4.2	42.2	261.9	OK
1.5	0.2	-19.5	4.6	1.9	0.3	-25.3	5.9	0.0	13.8	OK	94.5	2.7	94.6	261.9	OK
13.5	1.9	-9.0	6.6	17.6	2.5	-11.7	8.6	0.1	13.8	OK	44.1	4.0	44.6	261.9	OK

50.0	7.0	-9.2	9.3	65.0	9.1	-12.0	12.1	0.3	13.8	OK	46.6	5.6	47.6	261.9	OK
0.0	-12.4	16.3	1.0	0.0	-16.1	21.2	1.3	0.0	13.8	OK	82.4	0.6	82.4	261.9	OK
0.0	-3.5	-0.2	10.4	0.0	-4.6	-0.2	13.6	0.0	13.8	OK	1.9	6.3	11.0	261.9	OK
0.0	-5.8	-10.7	10.8	0.0	-7.5	-14.0	14.0	0.0	13.8	OK	53.7	6.5	54.8	261.9	OK
23.7	3.3	9.2	4.7	30.9	4.3	11.9	6.2	0.2	13.8	OK	45.3	2.8	45.6	261.9	OK
26.6	3.7	-22.2	-9.0	34.6	4.8	-28.8	-11.8	0.2	13.8	OK	108.5	-5.4	108.9	261.9	OK
48.8	6.8	-16.9	-5.5	63.5	8.9	-21.9	-7.2	0.3	13.8	OK	83.6	-3.3	83.8	261.9	OK
0.0	-32.2	-16.6	-14.8	0.0	-41.9	-21.6	-19.2	0.0	13.8	OK	89.6	-8.9	90.9	261.9	OK
72.8	10.2	-2.2	-5.3	94.7	13.2	-2.9	-6.8	0.5	13.8	OK	13.7	-3.2	14.8	261.9	OK
96.6	13.5	-4.7	-26.2	125.5	17.5	-6.1	-34.0	0.6	13.8	OK	26.6	-15.7	38.1	261.9	OK
47.4	6.6	-18.1	-11.7	61.6	8.6	-23.6	-15.2	0.3	13.8	OK	89.7	-7.0	90.5	261.9	OK
0.0	-89.0	-4.8	-17.5	0.0	-115.7	-6.3	-22.8	0.0	13.8	OK	48.4	-10.5	51.7	261.9	OK
22.1	3.1	-27.8	-9.3	28.7	4.0	-36.1	-12.1	0.1	13.8	OK	135.4	-5.6	135.7	261.9	OK
63.6	8.9	-19.2	-7.0	82.7	11.6	-25.0	-9.1	0.4	13.8	OK	95.6	-4.2	95.9	261.9	OK
0.0	-24.9	-4.7	-13.7	0.0	-32.3	-6.0	-17.8	0.0	13.8	OK	29.5	-8.2	32.8	261.9	OK
37.9	5.3	-21.1	-2.6	49.3	6.9	-27.4	-3.4	0.2	13.8	OK	103.7	-1.6	103.7	261.9	OK
39.4	5.5	-10.2	-6.1	51.3	7.2	-13.3	-8.0	0.3	13.8	OK	50.9	-3.7	51.3	261.9	OK
16.1	2.3	-13.8	3.2	21.0	2.9	-18.0	4.2	0.1	13.8	OK	67.7	1.9	67.8	261.9	OK
5.5	0.8	-2.0	5.6	7.1	1.0	-2.6	7.3	0.0	13.8	OK	9.9	3.4	11.5	261.9	OK
0.0	-5.1	-16.1	5.0	0.0	-6.6	-21.0	6.5	0.0	13.8	OK	79.7	3.0	79.8	261.9	OK
46.3	6.5	-16.2	0.0	60.2	8.4	-21.1	0.0	0.3	13.8	OK	80.5	0.0	80.5	261.9	OK
0.0	-76.4	-8.7	8.5	0.0	-99.4	-11.3	11.0	0.0	13.8	OK	63.4	5.1	64.0	261.9	OK
0.0	-13.3	-2.8	4.0	0.0	-17.3	-3.6	5.2	0.0	13.8	OK	17.3	2.4	17.8	261.9	OK
29.6	4.1	-8.6	5.4	38.5	5.4	-11.1	7.0	0.2	13.8	OK	42.6	3.2	43.0	261.9	OK
37.1	5.2	-0.8	-7.7	48.3	6.7	-1.1	-9.9	0.2	13.8	OK	5.4	-4.6	9.6	261.9	OK
0.0	-35.6	10.4	-1.8	0.0	-46.3	13.6	-2.3	0.0	13.8	OK	60.5	-1.1	60.5	261.9	OK
43.2	6.0	-12.2	-6.7	56.1	7.8	-15.9	-8.7	0.3	13.8	OK	60.8	-4.0	61.2	261.9	OK
39.4	5.5	8.9	-5.0	51.2	7.1	11.5	-6.5	0.3	13.8	OK	44.4	-3.0	44.8	261.9	OK
49.3	6.9	13.5	-1.3	64.1	9.0	17.5	-1.7	0.3	13.8	OK	67.2	-0.8	67.2	261.9	OK
0.0	-59.5	14.4	0.2	0.0	-77.4	18.7	0.3	0.0	13.8	OK	86.2	0.1	86.2	261.9	OK
6.5	0.9	-11.7	-2.7	8.4	1.2	-15.2	-3.5	0.0	13.8	OK	56.7	-1.6	56.8	261.9	OK
0.0	-51.5	4.8	-5.1	0.0	-66.9	6.2	-6.6	0.0	13.8	OK	37.5	-3.0	37.9	261.9	OK
0.0	-40.8	-7.3	-5.7	0.0	-53.0	-9.5	-7.4	0.0	13.8	OK	46.8	-3.4	47.2	261.9	OK
56.2	7.8	-6.7	-6.9	73.0	10.2	-8.8	-9.0	0.4	13.8	OK	34.9	-4.2	35.6	261.9	OK
49.3	6.9	4.7	-5.5	64.1	9.0	6.1	-7.1	0.3	13.8	OK	24.5	-3.3	25.1	261.9	OK
0.0	-28.9	-17.3	0.2	0.0	-37.5	-22.4	0.3	0.0	13.8	OK	91.7	0.1	91.7	261.9	OK
13.5	1.9	-18.3	2.7	17.6	2.5	-23.8	3.6	0.1	13.8	OK	89.3	1.6	89.3	261.9	OK
0.0	-21.3	1.1	-3.8	0.0	-27.7	1.5	-4.9	0.0	13.8	OK	11.5	-2.3	12.2	261.9	OK
0.0	-52.6	12.3	-2.9	0.0	-68.4	15.9	-3.7	0.0	13.8	OK	74.1	-1.7	74.1	261.9	OK
45.6	6.4	11.9	-2.2	59.3	8.3	15.5	-2.8	0.3	13.8	OK	59.4	-1.3	59.4	261.9	OK
65.7	9.2	-16.0	-2.8	85.4	11.9	-20.8	-3.6	0.4	13.8	OK	80.2	-1.7	80.3	261.9	OK
31.8	4.4	6.6	7.2	41.4	5.8	8.5	9.3	0.2	13.8	OK	33.1	4.3	33.9	261.9	OK
60.1	8.4	-17.8	9.4	78.1	10.9	-23.2	12.3	0.4	13.8	OK	88.7	5.7	89.2	261.9	OK
35.1	4.9	-8.8	11.1	45.7	6.4	-11.5	14.4	0.2	13.8	OK	44.1	6.6	45.6	261.9	OK
0.0	-58.4	11.8	3.2	0.0	-75.9	15.3	4.1	0.0	13.8	OK	73.4	1.9	73.5	261.9	OK
72.1	10.1	-27.3	-1.2	93.7	13.1	-35.5	-1.6	0.5	13.8	OK	135.0	-0.7	135.0	261.9	OK
0.0	-29.9	14.5	0.7	0.0	-38.8	18.9	1.0	0.0	13.8	OK	78.8	0.4	78.8	261.9	OK

49.5	6.9	14.1	-0.1	64.3	9.0	18.3	-0.2	0.3	13.8	OK	70.2	-0.1	70.2	261.9	OK
40.6	5.7	13.2	2.5	52.8	7.4	17.2	3.2	0.3	13.8	OK	65.7	1.5	65.8	261.9	OK
44.8	6.3	-24.8	6.8	58.3	8.1	-32.2	8.8	0.3	13.8	OK	121.8	4.1	122.0	261.9	OK
39.3	5.5	-27.1	6.5	51.1	7.1	-35.2	8.4	0.3	13.8	OK	132.7	3.9	132.8	261.9	OK
0.0	-60.6	1.1	8.5	0.0	-78.8	1.5	11.1	0.0	13.8	OK	22.5	5.1	24.1	261.9	OK
0.0	-44.8	9.5	2.6	0.0	-58.2	12.4	3.4	0.0	13.8	OK	58.6	1.6	58.7	261.9	OK
0.0	-39.8	14.2	-0.4	0.0	-51.7	18.5	-0.6	0.0	13.8	OK	80.1	-0.3	80.1	261.9	OK
0.0	-26.6	-19.3	9.8	0.0	-34.5	-25.1	12.7	0.0	13.8	OK	100.8	5.9	101.3	261.9	OK
45.5	6.4	0.0	9.0	59.1	8.3	0.0	11.8	0.3	13.8	OK	1.9	5.4	9.6	261.9	OK
0.0	-5.7	-35.1	-5.3	0.0	-7.4	-45.6	-6.9	0.0	13.8	OK	171.5	-3.2	171.6	261.9	OK
0.0	-17.3	-4.7	6.6	0.0	-22.5	-6.1	8.6	0.0	13.8	OK	27.7	4.0	28.6	261.9	OK
45.8	6.4	11.0	3.4	59.5	8.3	14.3	4.5	0.3	13.8	OK	54.9	2.1	55.0	261.9	OK
11.9	1.7	-32.9	-14.0	15.4	2.2	-42.8	-18.2	0.1	13.8	OK	160.1	-8.4	160.7	261.9	OK
59.6	8.3	-22.9	-7.1	77.5	10.8	-29.8	-9.3	0.4	13.8	OK	113.4	-4.3	113.6	261.9	OK
58.2	8.1	-2.7	-3.9	75.6	10.6	-3.5	-5.0	0.4	13.8	OK	15.5	-2.3	16.0	261.9	OK
0.0	-95.2	-5.2	-24.5	0.0	-123.8	-6.7	-31.9	0.0	13.8	OK	51.6	-14.7	57.5	261.9	OK
28.8	4.0	-26.5	-5.3	37.5	5.2	-34.5	-6.8	0.2	13.8	OK	129.7	-3.2	129.8	261.9	OK
16.2	2.3	-14.7	-5.5	21.0	2.9	-19.2	-7.2	0.1	13.8	OK	72.0	-3.3	72.3	261.9	OK
173.3	24.2	-39.9	-10.5	225.3	31.5	-51.9	-13.6	1.1	13.8	OK	200.1	-6.3	200.4	261.9	OK
94.0	13.1	-41.2	0.0	122.2	17.1	-53.5	0.0	0.6	13.8	OK	203.2	0.0	203.2	261.9	OK
129.4	18.1	-5.4	-4.4	168.3	23.5	-7.0	-5.7	0.8	13.8	OK	31.0	-2.6	31.3	261.9	OK
175.4	24.5	-12.8	-26.4	228.1	31.9	-16.6	-34.3	1.1	13.8	OK	68.7	-15.8	73.9	261.9	OK
112.1	15.7	-19.6	-10.7	145.8	20.4	-25.4	-13.9	0.7	13.8	OK	99.1	-6.4	99.8	261.9	OK
137.0	19.1	-26.4	-8.3	178.2	24.9	-34.3	-10.8	0.9	13.8	OK	133.2	-5.0	133.5	261.9	OK
87.4	12.2	-48.7	-9.6	113.6	15.9	-63.4	-12.4	0.6	13.8	OK	239.6	-5.7	239.8	261.9	OK
160.6	22.4	-40.1	-24.8	208.8	29.2	-52.1	-32.3	1.0	13.8	OK	200.6	-14.9	202.2	261.9	OK
120.9	16.9	-28.7	-17.9	157.1	22.0	-37.3	-23.2	0.8	13.8	OK	143.7	-10.7	144.8	261.9	OK
24.3	3.4	-11.9	-60.1	31.6	4.4	-15.4	-78.1	0.2	13.8	OK	58.5	-36.1	85.6	261.9	OK
370.5	51.8	-15.0	-29.1	481.6	67.3	-19.5	-37.8	2.4	13.8	OK	87.3	-17.5	92.4	261.9	OK
60.7	8.5	-29.3	-3.4	78.9	11.0	-38.1	-4.4	0.4	13.8	OK	144.3	-2.0	144.4	261.9	OK
59.1	8.3	-50.0	4.9	76.8	10.7	-65.0	6.4	0.4	13.8	OK	244.7	3.0	244.8	261.9	OK
22.2	3.1	13.2	16.7	28.9	4.0	17.1	21.7	0.1	13.8	OK	64.6	10.0	66.9	261.9	OK
0.0	-51.3	14.0	14.3	0.0	-66.7	18.2	18.6	0.0	13.8	OK	82.1	8.6	83.4	261.9	OK
0.0	-68.1	-6.4	-39.4	0.0	-88.5	-8.3	-51.3	0.0	13.8	OK	49.8	-23.7	64.5	261.9	OK
0.0	-128.5	2.3	-21.8	0.0	-167.1	3.0	-28.3	0.0	13.8	OK	47.2	-13.1	52.3	261.9	OK
27.0	3.8	-37.4	18.2	35.1	4.9	-48.7	23.6	0.2	13.8	OK	182.4	10.9	183.4	261.9	OK
17.6	2.5	-6.6	17.5	22.8	3.2	-8.6	22.7	0.1	13.8	OK	32.6	10.5	37.3	261.9	OK
0.0	-113.9	-5.0	-37.1	0.0	-148.0	-6.5	-48.3	0.0	13.8	OK	56.0	-22.3	68.1	261.9	OK
39.5	5.5	-1.2	-15.2	51.4	7.2	-1.5	-19.7	0.3	13.8	OK	7.2	-9.1	17.4	261.9	OK
113.5	15.9	-39.6	-0.4	147.6	20.6	-51.5	-0.5	0.7	13.8	OK	196.3	-0.2	196.3	261.9	OK
0.0	-48.9	24.9	7.2	0.0	-63.6	32.4	9.4	0.0	13.8	OK	134.3	4.3	134.5	261.9	OK
0.0	-68.6	27.5	-4.2	0.0	-89.2	35.8	-5.5	0.0	13.8	OK	152.5	-2.5	152.6	261.9	OK
0.0	-22.7	-6.3	16.1	0.0	-29.5	-8.2	20.9	0.0	13.8	OK	37.1	9.7	40.7	261.9	OK
0.0	-34.8	21.8	-12.8	0.0	-45.3	28.3	-16.7	0.0	13.8	OK	115.2	-7.7	116.0	261.9	OK
52.7	7.4	-34.2	16.1	68.5	9.6	-44.5	20.9	0.3	13.8	OK	167.8	9.6	168.7	261.9	OK
0.0	-15.0	17.9	-10.2	0.0	-19.5	23.3	-13.2	0.0	13.8	OK	90.9	-6.1	91.6	261.9	OK
0.0	-81.8	19.0	-13.1	0.0	-106.3	24.7	-17.0	0.0	13.8	OK	114.8	-7.8	115.6	261.9	OK

5.7	0.8	7.8	14.0	7.5	1.0	10.2	18.2	0.0	13.8	OK	38.1	8.4	40.8	261.9	OK
60.8	8.5	-28.0	6.6	79.0	11.0	-36.4	8.6	0.4	13.8	OK	138.2	4.0	138.4	261.9	OK
0.9	0.1	18.7	9.5	1.1	0.2	24.3	12.4	0.0	13.8	OK	90.5	5.7	91.0	261.9	OK
0.0	-69.4	20.8	9.9	0.0	-90.2	27.1	12.8	0.0	13.8	OK	120.2	5.9	120.7	261.9	OK
0.0	-25.6	23.3	1.0	0.0	-33.3	30.3	1.2	0.0	13.8	OK	120.1	0.6	120.1	261.9	OK
32.8	4.6	-18.6	13.1	42.6	6.0	-24.2	17.0	0.2	13.8	OK	91.5	7.9	92.5	261.9	OK
0.0	-8.5	25.6	1.3	0.0	-11.1	33.3	1.7	0.0	13.8	OK	126.5	0.8	126.5	261.9	OK
30.9	4.3	-17.3	12.9	40.2	5.6	-22.5	16.7	0.2	13.8	OK	85.1	7.7	86.2	261.9	OK
0.0	-84.0	25.9	-2.1	0.0	-109.2	33.7	-2.8	0.0	13.8	OK	149.0	-1.3	149.0	261.9	OK
0.0	-12.6	-21.4	21.1	0.0	-16.3	-27.8	27.4	0.0	13.8	OK	107.1	12.6	109.3	261.9	OK
62.8	8.8	-17.6	16.6	81.7	11.4	-22.9	21.6	0.4	13.8	OK	87.8	10.0	89.5	261.9	OK
0.0	-27.5	13.8	10.3	0.0	-35.7	17.9	13.4	0.0	13.8	OK	74.3	6.2	75.1	261.9	OK
14.8	2.1	-35.1	5.8	19.3	2.7	-45.6	7.6	0.1	13.8	OK	170.6	3.5	170.7	261.9	OK
69.1	9.7	-40.5	6.3	89.9	12.6	-52.6	8.1	0.4	13.8	OK	198.7	3.8	198.8	261.9	OK
0.0	-4.7	20.2	7.6	0.0	-6.1	26.3	9.9	0.0	13.8	OK	99.4	4.6	99.7	261.9	OK
35.2	4.9	-5.5	14.9	45.7	6.4	-7.1	19.3	0.2	13.8	OK	28.0	8.9	31.9	261.9	OK
0.0	-16.9	-1.0	21.0	0.0	-22.0	-1.2	27.3	0.0	13.8	OK	9.3	12.6	23.7	261.9	OK
0.0	-102.0	22.1	-11.3	0.0	-132.6	28.7	-14.7	0.0	13.8	OK	135.5	-6.8	136.0	261.9	OK
56.1	7.8	-31.7	2.8	72.9	10.2	-41.2	3.6	0.4	13.8	OK	155.8	1.7	155.8	261.9	OK
0.0	-43.5	1.3	8.0	0.0	-56.6	1.8	10.5	0.0	13.8	OK	18.7	4.8	20.5	261.9	OK
0.0	-10.4	-17.8	2.6	0.0	-13.6	-23.1	3.4	0.0	13.8	OK	89.2	1.6	89.2	261.9	OK
0.0	-58.4	6.2	1.2	0.0	-75.9	8.0	1.5	0.0	13.8	OK	46.3	0.7	46.3	261.9	OK
17.7	2.5	-11.1	-4.4	23.0	3.2	-14.4	-5.7	0.1	13.8	OK	54.4	-2.6	54.6	261.9	OK
16.1	2.2	-2.3	-6.0	20.9	2.9	-3.0	-7.8	0.1	13.8	OK	11.7	-3.6	13.3	261.9	OK
22.0	3.1	6.1	0.0	28.6	4.0	7.9	-0.1	0.1	13.8	OK	30.2	0.0	30.2	261.9	OK
0.0	-25.8	6.3	-0.2	0.0	-33.6	8.1	-0.2	0.0	13.8	OK	37.6	-0.1	37.6	261.9	OK
16.5	2.3	4.8	-3.6	21.4	3.0	6.2	-4.7	0.1	13.8	OK	23.8	-2.2	24.1	261.9	OK
21.9	3.1	-6.5	5.5	28.5	4.0	-8.5	7.2	0.1	13.8	OK	32.4	3.3	32.9	261.9	OK
0.0	-25.5	-14.5	-9.3	0.0	-33.1	-18.9	-12.1	0.0	13.8	OK	77.4	-5.6	78.0	261.9	OK
59.0	8.2	-12.2	-7.9	76.7	10.7	-15.8	-10.2	0.4	13.8	OK	61.4	-4.7	61.9	261.9	OK
30.3	4.2	-12.0	-3.4	39.5	5.5	-15.6	-4.4	0.2	13.8	OK	59.5	-2.0	59.6	261.9	OK
42.5	5.9	6.1	-2.9	55.3	7.7	7.9	-3.7	0.3	13.8	OK	31.3	-1.7	31.4	261.9	OK
0.0	-33.1	6.2	1.3	0.0	-43.0	8.0	1.7	0.0	13.8	OK	39.1	0.8	39.2	261.9	OK
18.6	2.6	2.8	-4.3	24.2	3.4	3.6	-5.5	0.1	13.8	OK	14.2	-2.6	14.9	261.9	OK
0.0	-15.5	5.8	-2.9	0.0	-20.1	7.5	-3.8	0.0	13.8	OK	32.2	-1.7	32.4	261.9	OK
0.0	-37.7	3.1	-4.1	0.0	-49.0	4.0	-5.3	0.0	13.8	OK	25.4	-2.5	25.8	261.9	OK
34.2	4.8	2.0	-4.9	44.5	6.2	2.6	-6.4	0.2	13.8	OK	11.1	-2.9	12.2	261.9	OK
0.0	-53.0	-9.2	7.7	0.0	-68.9	-11.9	10.0	0.0	13.8	OK	59.3	4.6	59.9	261.9	OK
0.0	-83.2	-6.1	26.6	0.0	-108.2	-8.0	34.5	0.0	13.8	OK	53.0	15.9	59.8	261.9	OK
0.0	-68.9	1.5	7.3	0.0	-89.5	2.0	9.5	0.0	13.8	OK	26.6	4.4	27.6	261.9	OK
24.2	3.4	2.1	5.8	31.5	4.4	2.8	7.6	0.2	13.8	OK	11.2	3.5	12.8	261.9	OK
31.5	4.4	-21.3	-7.2	40.9	5.7	-27.7	-9.4	0.2	13.8	OK	104.5	-4.3	104.8	261.9	OK
0.0	-41.2	1.2	-5.2	0.0	-53.5	1.6	-6.7	0.0	13.8	OK	17.4	-3.1	18.2	261.9	OK
44.5	6.2	0.2	-7.8	57.9	8.1	0.2	-10.1	0.3	13.8	OK	2.6	-4.7	8.5	261.9	OK
0.0	-15.7	-4.9	-9.5	0.0	-20.4	-6.4	-12.3	0.0	13.8	OK	28.3	-5.7	30.0	261.9	OK
12.9	1.8	-7.5	-8.5	16.8	2.3	-9.7	-11.0	0.1	13.8	OK	36.7	-5.1	37.7	261.9	OK
0.0	-19.0	4.8	2.9	0.0	-24.7	6.2	3.8	0.0	13.8	OK	28.4	1.7	28.5	261.9	OK

0.0	-1.6	1.4	6.4	0.0	-2.1	1.8	8.3	0.0	13.8	OK	7.0	3.8	9.7	261.9	OK
0.0	-77.4	-6.0	22.3	0.0	-100.6	-7.7	29.0	0.0	13.8	OK	50.5	13.4	55.6	261.9	OK
40.4	5.6	-13.8	-0.4	52.5	7.3	-18.0	-0.6	0.3	13.8	OK	68.5	-0.3	68.5	261.9	OK
28.0	3.9	5.5	0.7	36.4	5.1	7.1	0.9	0.2	13.8	OK	27.7	0.4	27.7	261.9	OK
2.1	0.3	0.5	-2.2	2.8	0.4	0.6	-2.9	0.0	13.8	OK	2.5	-1.3	3.4	261.9	OK
30.2	4.2	-18.0	-7.4	39.3	5.5	-23.5	-9.7	0.2	13.8	OK	88.6	-4.5	88.9	261.9	OK
0.0	-23.0	-7.3	-5.2	0.0	-29.9	-9.5	-6.7	0.0	13.8	OK	42.0	-3.1	42.4	261.9	OK
38.0	5.3	-6.9	-5.6	49.4	6.9	-9.0	-7.3	0.2	13.8	OK	35.0	-3.4	35.5	261.9	OK
26.0	3.6	-12.8	2.7	33.7	4.7	-16.7	3.5	0.2	13.8	OK	63.2	1.6	63.3	261.9	OK
78.7	11.0	-13.9	9.0	102.4	14.3	-18.1	11.6	0.5	13.8	OK	70.6	5.4	71.2	261.9	OK
42.0	5.9	-17.8	-2.1	54.6	7.6	-23.2	-2.8	0.3	13.8	OK	88.1	-1.3	88.1	261.9	OK
0.0	-41.2	-3.1	4.8	0.0	-53.6	-4.1	6.2	0.0	13.8	OK	26.7	2.9	27.2	261.9	OK
0.0	-47.8	-9.5	3.4	0.0	-62.2	-12.4	4.4	0.0	13.8	OK	59.4	2.0	59.5	261.9	OK
0.0	-116.1	-2.3	0.2	0.0	-150.9	-3.0	0.3	0.0	13.8	OK	43.7	0.1	43.7	261.9	OK
0.0	-35.8	-13.8	3.3	0.0	-46.6	-17.9	4.2	0.0	13.8	OK	76.9	2.0	77.0	261.9	OK
0.0	-143.5	-0.5	5.0	0.0	-186.6	-0.6	6.6	0.0	13.8	OK	42.5	3.0	42.8	261.9	OK
537.4	75.1	-11.1	37.2	698.6	97.6	-14.4	48.3	3.5	13.8	OK	74.7	22.3	84.1	261.9	OK
0.0	-18.5	-17.7	7.6	0.0	-24.0	-23.0	9.8	0.0	13.8	OK	90.8	4.5	91.1	261.9	OK
284.9	39.8	-22.5	10.4	370.4	51.7	-29.3	13.6	1.9	13.8	OK	120.2	6.3	120.7	261.9	OK
131.4	18.4	-25.4	-1.0	170.9	23.9	-33.0	-1.3	0.9	13.8	OK	128.2	-0.6	128.2	261.9	OK
72.6	10.1	-16.2	5.3	94.4	13.2	-21.0	6.9	0.5	13.8	OK	81.1	3.2	81.3	261.9	OK
40.8	5.7	-22.3	5.5	53.1	7.4	-29.0	7.2	0.3	13.8	OK	109.6	3.3	109.7	261.9	OK
0.0	-5.2	-9.3	0.6	0.0	-6.8	-12.1	0.7	0.0	13.8	OK	46.6	0.3	46.6	261.9	OK
25.0	3.5	-10.9	2.6	32.5	4.5	-14.1	3.4	0.2	13.8	OK	53.6	1.6	53.7	261.9	OK
64.9	9.1	-4.7	6.9	84.4	11.8	-6.2	9.0	0.4	13.8	OK	25.5	4.1	26.5	261.9	OK
162.3	22.7	-6.9	36.8	210.9	29.5	-9.0	47.9	1.1	13.8	OK	40.0	22.1	55.4	261.9	OK
0.0	-82.9	-2.6	-2.2	0.0	-107.8	-3.4	-2.9	0.0	13.8	OK	36.0	-1.3	36.0	261.9	OK
0.0	-49.3	-11.4	9.5	0.0	-64.1	-14.8	12.3	0.0	13.8	OK	68.8	5.7	69.5	261.9	OK
14.1	2.0	-6.3	3.5	18.3	2.6	-8.2	4.5	0.1	13.8	OK	31.2	2.1	31.4	261.9	OK
22.9	3.2	-16.6	-0.7	29.8	4.2	-21.6	-1.0	0.1	13.8	OK	81.3	-0.4	81.3	261.9	OK
126.3	17.6	-19.9	13.2	164.2	22.9	-25.9	17.1	0.8	13.8	OK	101.4	7.9	102.3	261.9	OK
0.0	-7.0	-5.2	8.4	0.0	-9.1	-6.8	10.9	0.0	13.8	OK	27.3	5.1	28.6	261.9	OK
16.3	2.3	5.3	-2.5	21.2	3.0	6.8	-3.2	0.1	13.8	OK	26.1	-1.5	26.3	261.9	OK
0.0	-10.4	7.7	-1.5	0.0	-13.6	10.1	-1.9	0.0	13.8	OK	40.4	-0.9	40.5	261.9	OK
0.0	-55.1	4.3	7.4	0.0	-71.7	5.6	9.6	0.0	13.8	OK	36.4	4.4	37.2	261.9	OK
11.9	1.7	-9.7	-1.4	15.4	2.2	-12.6	-1.8	0.1	13.8	OK	47.6	-0.8	47.6	261.9	OK
28.3	4.0	-15.9	-3.0	36.8	5.1	-20.6	-3.9	0.2	13.8	OK	78.0	-1.8	78.0	261.9	OK
0.0	-17.3	4.4	-4.2	0.0	-22.5	5.8	-5.5	0.0	13.8	OK	26.3	-2.5	26.6	261.9	OK
31.1	4.3	-21.7	-1.3	40.5	5.7	-28.2	-1.8	0.2	13.8	OK	106.3	-0.8	106.3	261.9	OK
25.6	3.6	-6.4	3.9	33.3	4.7	-8.3	5.0	0.2	13.8	OK	31.8	2.3	32.1	261.9	OK
13.9	1.9	0.5	-4.3	18.1	2.5	0.6	-5.6	0.1	13.8	OK	2.9	-2.6	5.4	261.9	OK
1.2	0.2	3.4	-1.7	1.6	0.2	4.5	-2.3	0.0	13.8	OK	16.8	-1.0	16.9	261.9	OK
0.0	-59.3	-13.6	27.8	0.0	-77.1	-17.7	36.2	0.0	13.8	OK	82.4	16.7	87.3	261.9	OK
5.0	0.7	4.8	-0.3	6.4	0.9	6.2	-0.4	0.0	13.8	OK	23.4	-0.2	23.4	261.9	OK
17.8	2.5	6.4	-0.1	23.2	3.2	8.3	-0.1	0.1	13.8	OK	31.5	0.0	31.5	261.9	OK
0.0	-98.9	-9.3	9.7	0.0	-128.6	-12.0	12.6	0.0	13.8	OK	72.5	5.8	73.2	261.9	OK
0.0	-21.2	-14.2	31.7	0.0	-27.6	-18.4	41.2	0.0	13.8	OK	74.5	19.0	81.5	261.9	OK

0.0	-41.2	1.8	7.7	0.0	-53.5	2.3	9.9	0.0	13.8	OK	20.1	4.6	21.6	261.9	OK
21.1	3.0	3.6	-3.1	27.5	3.8	4.6	-4.1	0.1	13.8	OK	18.0	-1.9	18.3	261.9	OK
0.0	-29.7	5.6	-3.5	0.0	-38.6	7.2	-4.6	0.0	13.8	OK	35.2	-2.1	35.4	261.9	OK
24.4	3.4	-6.6	-3.4	31.8	4.4	-8.6	-4.4	0.2	13.8	OK	33.0	-2.0	33.2	261.9	OK
0.0	-11.1	-2.8	-4.8	0.0	-14.4	-3.7	-6.3	0.0	13.8	OK	16.8	-2.9	17.5	261.9	OK
10.8	1.5	-6.2	-3.7	14.1	2.0	-8.1	-4.9	0.1	13.8	OK	30.4	-2.2	30.7	261.9	OK
0.0	-0.8	-13.0	-0.5	0.0	-1.0	-16.9	-0.7	0.0	13.8	OK	63.4	-0.3	63.4	261.9	OK
26.4	3.7	-2.8	-4.1	34.3	4.8	-3.7	-5.4	0.2	13.8	OK	14.8	-2.5	15.4	261.9	OK
41.2	5.8	-6.8	-6.0	53.6	7.5	-8.9	-7.8	0.3	13.8	OK	34.7	-3.6	35.3	261.9	OK
27.6	3.9	-8.8	-1.7	35.9	5.0	-11.4	-2.2	0.2	13.8	OK	43.7	-1.0	43.7	261.9	OK
18.0	2.5	-12.7	-7.5	23.4	3.3	-16.5	-9.8	0.1	13.8	OK	62.0	-4.5	62.5	261.9	OK
14.0	2.0	-3.0	-6.4	18.2	2.5	-3.9	-8.3	0.1	13.8	OK	15.1	-3.8	16.5	261.9	OK
4.7	0.7	-0.5	-7.3	6.1	0.9	-0.6	-9.5	0.0	13.8	OK	2.5	-4.4	8.0	261.9	OK
0.0	-3.0	-8.2	-7.6	0.0	-3.9	-10.7	-9.8	0.0	13.8	OK	40.8	-4.5	41.6	261.9	OK
23.0	3.2	-15.4	-7.5	29.9	4.2	-20.1	-9.8	0.1	13.8	OK	75.7	-4.5	76.1	261.9	OK
0.0	-2.7	4.2	7.7	0.0	-3.5	5.5	10.0	0.0	13.8	OK	21.3	4.6	22.7	261.9	OK
7.5	1.0	1.7	4.5	9.7	1.4	2.3	5.8	0.0	13.8	OK	8.7	2.7	9.9	261.9	OK
52.8	7.4	-15.5	1.1	68.6	9.6	-20.2	1.5	0.3	13.8	OK	77.2	0.7	77.2	261.9	OK
0.0	-36.6	6.5	2.4	0.0	-47.6	8.4	3.2	0.0	13.8	OK	41.6	1.5	41.6	261.9	OK
33.7	4.7	3.1	-6.3	43.8	6.1	4.1	-8.2	0.2	13.8	OK	16.5	-3.8	17.8	261.9	OK
0.0	-27.9	7.6	3.9	0.0	-36.3	9.8	5.1	0.0	13.8	OK	44.5	2.4	44.7	261.9	OK
0.0	-18.2	-1.4	-17.3	0.0	-23.6	-1.8	-22.5	0.0	13.8	OK	12.0	-10.4	21.6	261.9	OK
0.0	-35.6	18.9	5.4	0.0	-46.3	24.6	7.0	0.0	13.8	OK	101.7	3.2	101.9	261.9	OK
55.0	7.7	-24.7	5.3	71.5	10.0	-32.2	6.8	0.4	13.8	OK	122.0	3.2	122.1	261.9	OK
34.5	4.8	-18.9	13.3	44.9	6.3	-24.6	17.3	0.2	13.8	OK	93.1	8.0	94.1	261.9	OK
43.1	6.0	-14.5	7.1	56.0	7.8	-18.9	9.3	0.3	13.8	OK	72.0	4.3	72.4	261.9	OK
0.0	-54.4	25.1	-1.0	0.0	-70.8	32.7	-1.3	0.0	13.8	OK	137.0	-0.6	137.0	261.9	OK
0.0	-20.1	14.4	-9.6	0.0	-26.1	18.7	-12.4	0.0	13.8	OK	75.2	-5.7	75.9	261.9	OK
7.6	1.1	-27.0	-8.1	9.9	1.4	-35.1	-10.6	0.0	13.8	OK	131.2	-4.9	131.5	261.9	OK
38.4	5.4	-20.1	-4.6	49.9	7.0	-26.1	-6.0	0.2	13.8	OK	98.9	-2.7	99.1	261.9	OK
6.6	0.9	-4.3	14.8	8.5	1.2	-5.5	19.2	0.0	13.8	OK	20.9	8.9	25.9	261.9	OK
0.0	-18.8	5.3	13.3	0.0	-24.4	6.9	17.3	0.0	13.8	OK	30.8	8.0	33.8	261.9	OK
4.8	0.7	18.5	11.4	6.2	0.9	24.1	14.9	0.0	13.8	OK	90.1	6.9	90.8	261.9	OK
26.8	3.7	-19.6	3.2	34.8	4.9	-25.5	4.2	0.2	13.8	OK	95.9	1.9	96.0	261.9	OK
0.0	-27.4	21.8	-0.4	0.0	-35.6	28.4	-0.5	0.0	13.8	OK	113.3	-0.2	113.3	261.9	OK
0.0	-77.9	22.2	3.6	0.0	-101.3	28.8	4.7	0.0	13.8	OK	129.3	2.2	129.3	261.9	OK
0.0	-157.8	-0.4	-43.1	0.0	-205.2	-0.5	-56.0	0.0	13.8	OK	46.0	-25.8	64.2	261.9	OK
40.8	5.7	-35.1	-0.2	53.0	7.4	-45.7	-0.3	0.3	13.8	OK	171.8	-0.1	171.8	261.9	OK
24.0	3.4	-27.3	3.3	31.2	4.4	-35.4	4.3	0.2	13.8	OK	133.0	2.0	133.0	261.9	OK
0.0	-38.3	21.3	7.7	0.0	-49.8	27.7	10.0	0.0	13.8	OK	114.1	4.6	114.4	261.9	OK
13.4	1.9	5.0	12.2	17.5	2.4	6.5	15.9	0.1	13.8	OK	24.7	7.3	27.7	261.9	OK
0.0	-3.0	10.5	13.9	0.0	-3.9	13.7	18.0	0.0	13.8	OK	51.9	8.3	53.9	261.9	OK
0.0	-80.0	-5.0	-24.2	0.0	-104.1	-6.5	-31.4	0.0	13.8	OK	46.4	-14.5	52.8	261.9	OK
0.0	-163.9	-0.3	-40.4	0.0	-213.1	-0.3	-52.5	0.0	13.8	OK	47.1	-24.3	63.1	261.9	OK
0.0	-11.7	17.4	2.0	0.0	-15.3	22.6	2.6	0.0	13.8	OK	87.6	1.2	87.6	261.9	OK
0.7	0.1	12.9	7.8	0.9	0.1	16.8	10.2	0.0	13.8	OK	62.6	4.7	63.1	261.9	OK
0.0	-76.0	14.8	-11.8	0.0	-98.8	19.2	-15.4	0.0	13.8	OK	92.8	-7.1	93.6	261.9	OK

0.0	-73.7	18.2	-16.8	0.0	-95.8	23.7	-21.8	0.0	13.8	OK	108.9	-10.1	110.3	261.9	OK
24.4	3.4	-30.2	7.0	31.7	4.4	-39.2	9.1	0.2	13.8	OK	147.2	4.2	147.4	261.9	OK
69.5	9.7	-24.8	3.9	90.3	12.6	-32.2	5.1	0.5	13.8	OK	122.8	2.3	122.9	261.9	OK
32.6	4.6	-18.5	13.1	42.4	5.9	-24.1	17.0	0.2	13.8	OK	91.1	7.8	92.1	261.9	OK
15.1	2.1	-18.5	7.6	19.6	2.7	-24.1	9.9	0.1	13.8	OK	90.4	4.6	90.7	261.9	OK
44.1	6.2	-3.5	14.2	57.4	8.0	-4.6	18.5	0.3	13.8	OK	18.8	8.5	23.9	261.9	OK
0.0	-123.5	14.9	-13.4	0.0	-160.5	19.3	-17.4	0.0	13.8	OK	106.5	-8.0	107.4	261.9	OK
22.1	3.1	-3.2	10.2	28.7	4.0	-4.1	13.3	0.1	13.8	OK	16.2	6.1	19.3	261.9	OK
20.2	2.8	4.4	10.7	26.2	3.7	5.7	13.9	0.1	13.8	OK	22.1	6.4	24.8	261.9	OK
21.5	3.0	-5.7	10.5	27.9	3.9	-7.4	13.6	0.1	13.8	OK	28.5	6.3	30.5	261.9	OK
0.0	-98.7	-6.1	-4.7	0.0	-128.3	-8.0	-6.1	0.0	13.8	OK	57.3	-2.8	57.5	261.9	OK
0.0	-40.6	-16.0	-3.6	0.0	-52.8	-20.8	-4.7	0.0	13.8	OK	88.7	-2.2	88.8	261.9	OK
0.0	-159.6	-2.7	-18.7	0.0	-207.5	-3.5	-24.3	0.0	13.8	OK	57.7	-11.2	60.9	261.9	OK
28.4	4.0	-23.0	-11.7	36.9	5.2	-29.9	-15.2	0.2	13.8	OK	112.6	-7.0	113.3	261.9	OK
0.6	0.1	-14.3	-9.1	0.8	0.1	-18.6	-11.9	0.0	13.8	OK	69.4	-5.5	70.1	261.9	OK
8.1	1.1	-21.8	-1.6	10.5	1.5	-28.4	-2.1	0.1	13.8	OK	106.1	-1.0	106.1	261.9	OK
1.2	0.2	-3.3	-7.4	1.6	0.2	-4.3	-9.6	0.0	13.8	OK	16.2	-4.4	18.0	261.9	OK
0.0	-29.5	-5.0	-20.6	0.0	-38.4	-6.5	-26.8	0.0	13.8	OK	32.5	-12.4	38.9	261.9	OK
0.0	-108.6	2.9	5.2	0.0	-141.2	3.7	6.7	0.0	13.8	OK	44.3	3.1	44.6	261.9	OK
0.0	-23.0	-22.1	-13.3	0.0	-29.9	-28.7	-17.2	0.0	13.8	OK	113.5	-8.0	114.3	261.9	OK
38.9	5.4	-32.9	-6.3	50.5	7.1	-42.8	-8.2	0.3	13.8	OK	161.1	-3.8	161.3	261.9	OK
25.3	3.5	-15.7	-13.6	32.9	4.6	-20.4	-17.7	0.2	13.8	OK	77.0	-8.1	78.3	261.9	OK
123.7	17.3	-52.3	-6.0	160.9	22.5	-67.9	-7.8	0.8	13.8	OK	258.0	-3.6	258.1	261.9	OK
32.8	4.6	-0.7	-13.4	42.7	6.0	-0.9	-17.4	0.2	13.8	OK	4.5	-8.0	14.6	261.9	OK
0.0	-95.5	1.9	13.2	0.0	-124.2	2.4	17.2	0.0	13.8	OK	35.7	8.0	38.3	261.9	OK
0.0	-77.7	16.4	-1.7	0.0	-101.0	21.4	-2.3	0.0	13.8	OK	101.4	-1.0	101.4	261.9	OK
0.0	-19.1	1.3	-5.0	0.0	-24.8	1.7	-6.5	0.0	13.8	OK	11.7	-3.0	12.8	261.9	OK
106.5	14.9	-30.8	11.1	138.5	19.3	-40.0	14.5	0.7	13.8	OK	153.1	6.7	153.6	261.9	OK
148.0	20.7	-27.1	-23.0	192.4	26.9	-35.2	-29.9	1.0	13.8	OK	137.0	-13.8	139.1	261.9	OK
28.6	4.0	-36.1	-30.1	37.2	5.2	-47.0	-39.2	0.2	13.8	OK	176.2	-18.1	178.9	261.9	OK
87.6	12.2	-23.8	-54.0	113.8	15.9	-31.0	-70.2	0.6	13.8	OK	118.9	-32.4	131.5	261.9	OK
0.0	-55.4	14.6	2.4	0.0	-72.0	19.0	3.1	0.0	13.8	OK	86.3	1.4	86.3	261.9	OK
0.0	-87.1	3.8	6.4	0.0	-113.2	5.0	8.3	0.0	13.8	OK	42.9	3.8	43.4	261.9	OK
0.0	-29.7	-10.3	45.2	0.0	-38.6	-13.4	58.8	0.0	13.8	OK	58.2	27.1	74.8	261.9	OK
124.3	17.4	-37.4	-7.3	161.6	22.6	-48.6	-9.5	0.8	13.8	OK	186.0	-4.4	186.1	261.9	OK
0.0	-116.1	13.5	-16.8	0.0	-151.0	17.5	-21.8	0.0	13.8	OK	97.8	-10.1	99.3	261.9	OK
103.6	14.5	11.0	-4.0	134.7	18.8	14.3	-5.2	0.7	13.8	OK	57.5	-2.4	57.6	261.9	OK
52.6	7.4	16.6	-2.9	68.4	9.6	21.6	-3.7	0.3	13.8	OK	82.6	-1.7	82.7	261.9	OK
23.4	3.3	8.5	10.6	30.4	4.3	11.1	13.8	0.2	13.8	OK	42.2	6.4	43.6	261.9	OK
97.4	13.6	-30.1	14.8	126.7	17.7	-39.1	19.3	0.6	13.8	OK	149.5	8.9	150.2	261.9	OK
54.1	7.6	14.4	4.9	70.3	9.8	18.7	6.4	0.4	13.8	OK	71.6	2.9	71.8	261.9	OK
0.0	-80.1	13.6	0.8	0.0	-104.2	17.6	1.1	0.0	13.8	OK	88.1	0.5	88.1	261.9	OK
34.8	4.9	16.9	3.7	45.3	6.3	21.9	4.8	0.2	13.8	OK	83.2	2.2	83.2	261.9	OK
44.8	6.3	-15.3	18.0	58.3	8.1	-19.9	23.5	0.3	13.8	OK	76.1	10.8	78.4	261.9	OK
0.0	-18.8	-7.5	11.0	0.0	-24.4	-9.7	14.3	0.0	13.8	OK	41.5	6.6	43.0	261.9	OK
0.0	-61.4	12.5	2.3	0.0	-79.9	16.3	3.0	0.0	13.8	OK	77.8	1.4	77.8	261.9	OK
0.0	-13.1	-31.8	16.0	0.0	-17.0	-41.4	20.8	0.0	13.8	OK	158.0	9.6	158.8	261.9	OK

92.6	12.9	-43.8	8.0	120.4	16.8	-57.0	10.4	0.6	13.8	OK	216.1	4.8	216.2	261.9	OK
52.9	7.4	-1.1	15.1	68.8	9.6	-1.4	19.6	0.3	13.8	OK	7.3	9.0	17.3	261.9	OK
129.7	18.1	-38.6	4.5	168.7	23.6	-50.2	5.9	0.8	13.8	OK	192.3	2.7	192.3	261.9	OK
0.0	-19.8	-22.5	-3.1	0.0	-25.8	-29.2	-4.0	0.0	13.8	OK	114.5	-1.8	114.5	261.9	OK
0.0	-35.7	-5.6	2.1	0.0	-46.4	-7.2	2.7	0.0	13.8	OK	37.0	1.2	37.0	261.9	OK
39.1	5.5	-10.2	-11.5	50.9	7.1	-13.2	-15.0	0.3	13.8	OK	50.7	-6.9	52.1	261.9	OK
17.1	2.4	3.0	-4.5	22.2	3.1	3.9	-5.8	0.1	13.8	OK	15.2	-2.7	15.9	261.9	OK
0.0	-14.5	-4.4	4.0	0.0	-18.9	-5.7	5.2	0.0	13.8	OK	25.3	2.4	25.7	261.9	OK
56.8	7.9	-0.8	-0.2	73.8	10.3	-1.0	-0.2	0.4	13.8	OK	5.9	-0.1	5.9	261.9	OK
62.6	8.7	5.3	-10.0	81.4	11.4	6.9	-12.9	0.4	13.8	OK	28.1	-6.0	29.9	261.9	OK
11.4	1.6	-6.4	-6.7	14.8	2.1	-8.3	-8.7	0.1	13.8	OK	31.4	-4.0	32.2	261.9	OK
64.9	9.1	2.5	0.9	84.4	11.8	3.2	1.2	0.4	13.8	OK	14.6	0.6	14.6	261.9	OK
92.5	12.9	0.0	-4.9	120.3	16.8	0.0	-6.4	0.6	13.8	OK	3.7	-3.0	6.3	261.9	OK
0.0	-5.2	6.8	-4.5	0.0	-6.8	8.9	-5.8	0.0	13.8	OK	34.5	-2.7	34.8	261.9	OK
96.4	13.5	-19.7	-6.8	125.3	17.5	-25.7	-8.8	0.6	13.8	OK	99.4	-4.1	99.7	261.9	OK
97.3	13.6	-2.2	0.7	126.5	17.7	-2.8	0.9	0.6	13.8	OK	14.4	0.4	14.4	261.9	OK
0.0	-53.0	7.9	5.7	0.0	-68.9	10.2	7.4	0.0	13.8	OK	53.0	3.4	53.3	261.9	OK
0.0	-94.0	2.9	-10.0	0.0	-122.2	3.8	-12.9	0.0	13.8	OK	40.3	-6.0	41.6	261.9	OK
52.8	7.4	-1.4	-10.0	68.6	9.6	-1.8	-13.0	0.3	13.8	OK	8.7	-6.0	13.5	261.9	OK
98.7	13.8	-22.4	4.2	128.3	17.9	-29.1	5.5	0.6	13.8	OK	112.2	2.5	112.3	261.9	OK
91.7	12.8	-4.3	10.1	119.2	16.6	-5.5	13.2	0.6	13.8	OK	24.2	6.1	26.4	261.9	OK
50.8	7.1	-14.5	9.2	66.1	9.2	-18.9	12.0	0.3	13.8	OK	72.3	5.5	72.9	261.9	OK
42.0	5.9	-27.5	5.0	54.6	7.6	-35.7	6.5	0.3	13.8	OK	134.9	3.0	135.0	261.9	OK
106.3	14.9	-21.2	4.1	138.2	19.3	-27.6	5.3	0.7	13.8	OK	107.0	2.4	107.0	261.9	OK
0.0	-1.6	-26.7	4.3	0.0	-2.1	-34.7	5.6	0.0	13.8	OK	129.7	2.6	129.8	261.9	OK
46.9	6.6	-16.8	-1.6	61.0	8.5	-21.9	-2.1	0.3	13.8	OK	83.4	-1.0	83.4	261.9	OK
0.0	-15.6	-13.8	5.4	0.0	-20.3	-17.9	7.0	0.0	13.8	OK	71.2	3.2	71.5	261.9	OK
34.5	4.8	-4.8	6.9	44.9	6.3	-6.2	8.9	0.2	13.8	OK	24.5	4.1	25.5	261.9	OK
0.0	-47.3	-10.1	16.2	0.0	-61.5	-13.1	21.0	0.0	13.8	OK	62.0	9.7	64.3	261.9	OK
128.8	18.0	-4.9	12.1	167.5	23.4	-6.4	15.7	0.8	13.8	OK	28.8	7.3	31.4	261.9	OK
0.0	-52.2	-15.7	11.9	0.0	-67.9	-20.4	15.4	0.0	13.8	OK	90.8	7.1	91.6	261.9	OK
129.5	18.1	-13.6	2.4	168.3	23.5	-17.7	3.2	0.8	13.8	OK	70.9	1.5	71.0	261.9	OK
20.9	2.9	-22.2	0.4	27.2	3.8	-28.9	0.6	0.1	13.8	OK	108.5	0.3	108.5	261.9	OK
24.5	3.4	-22.3	11.9	31.9	4.5	-29.0	15.5	0.2	13.8	OK	109.2	7.1	109.9	261.9	OK
23.1	3.2	-6.7	10.7	30.0	4.2	-8.7	13.9	0.2	13.8	OK	33.3	6.4	35.1	261.9	OK
41.4	5.8	3.2	0.0	53.8	7.5	4.2	0.0	0.3	13.8	OK	17.1	0.0	17.1	261.9	OK
0.0	-19.3	2.0	4.3	0.0	-25.1	2.6	5.5	0.0	13.8	OK	15.1	2.6	15.7	261.9	OK
0.0	-16.7	0.5	2.4	0.0	-21.7	0.7	3.1	0.0	13.8	OK	7.1	1.4	7.6	261.9	OK
52.2	7.3	-15.2	-5.8	67.8	9.5	-19.8	-7.5	0.3	13.8	OK	75.8	-3.5	76.0	261.9	OK
20.0	2.8	-18.8	-3.8	26.0	3.6	-24.4	-4.9	0.1	13.8	OK	91.9	-2.3	92.0	261.9	OK
0.0	-57.6	4.8	3.5	0.0	-74.9	6.2	4.5	0.0	13.8	OK	39.3	2.1	39.5	261.9	OK
16.7	2.3	-22.7	-3.5	21.7	3.0	-29.6	-4.5	0.1	13.8	OK	110.8	-2.1	110.9	261.9	OK
100.0	14.0	-2.4	-2.7	130.0	18.2	-3.1	-3.5	0.6	13.8	OK	15.5	-1.6	15.7	261.9	OK
18.3	2.6	2.7	-4.1	23.8	3.3	3.4	-5.3	0.1	13.8	OK	13.6	-2.5	14.2	261.9	OK
0.0	-26.8	4.4	1.6	0.0	-34.9	5.7	2.1	0.0	13.8	OK	28.9	1.0	29.0	261.9	OK
7.7	1.1	-1.0	4.9	10.0	1.4	-1.4	6.4	0.0	13.8	OK	5.3	2.9	7.4	261.9	OK
30.3	4.2	3.4	-1.2	39.5	5.5	4.4	-1.6	0.2	13.8	OK	17.7	-0.7	17.8	261.9	OK

79.7	11.1	1.4	1.9	103.7	14.5	1.8	2.5	0.5	13.8	OK	9.7	1.2	9.9	261.9	OK
0.0	-128.8	1.6	-1.5	0.0	-167.4	2.1	-2.0	0.0	13.8	OK	43.7	-0.9	43.7	261.9	OK
72.6	10.1	-2.6	4.5	94.3	13.2	-3.3	5.9	0.5	13.8	OK	15.2	2.7	15.9	261.9	OK
0.0	-16.6	-1.3	-0.8	0.0	-21.6	-1.7	-1.1	0.0	13.8	OK	10.8	-0.5	10.8	261.9	OK
46.2	6.5	3.7	-1.0	60.0	8.4	4.8	-1.3	0.3	13.8	OK	19.7	-0.6	19.7	261.9	OK
0.0	-52.7	3.4	2.0	0.0	-68.4	4.4	2.7	0.0	13.8	OK	31.3	1.2	31.4	261.9	OK
0.0	-5.5	-2.4	-3.0	0.0	-7.1	-3.1	-3.9	0.0	13.8	OK	13.2	-1.8	13.5	261.9	OK
0.0	-60.9	1.5	-4.6	0.0	-79.1	2.0	-5.9	0.0	13.8	OK	24.5	-2.7	24.9	261.9	OK
20.1	2.8	-5.0	-7.5	26.2	3.7	-6.5	-9.7	0.1	13.8	OK	24.9	-4.5	26.1	261.9	OK
0.0	-42.4	-13.1	-4.7	0.0	-55.1	-17.0	-6.1	0.0	13.8	OK	75.1	-2.8	75.3	261.9	OK
41.1	5.7	0.0	-5.8	53.4	7.5	0.0	-7.6	0.3	13.8	OK	1.7	-3.5	6.3	261.9	OK
59.3	8.3	-2.8	-10.3	77.1	10.8	-3.6	-13.4	0.4	13.8	OK	15.9	-6.2	19.2	261.9	OK
54.2	7.6	-10.9	-6.6	70.5	9.9	-14.2	-8.6	0.4	13.8	OK	55.2	-4.0	55.6	261.9	OK
26.1	3.7	-12.6	-10.8	34.0	4.7	-16.4	-14.0	0.2	13.8	OK	62.3	-6.5	63.3	261.9	OK
16.1	2.3	1.2	-5.0	20.9	2.9	1.5	-6.5	0.1	13.8	OK	6.3	-3.0	8.1	261.9	OK
0.0	-34.6	5.8	-3.7	0.0	-45.0	7.5	-4.8	0.0	13.8	OK	37.6	-2.2	37.8	261.9	OK
0.0	-49.5	-0.9	-6.5	0.0	-64.4	-1.2	-8.4	0.0	13.8	OK	18.3	-3.9	19.5	261.9	OK
4.1	0.6	-12.2	-11.0	5.4	0.7	-15.9	-14.3	0.0	13.8	OK	59.3	-6.6	60.4	261.9	OK
73.6	10.3	0.4	-0.2	95.7	13.4	0.5	-0.2	0.5	13.8	OK	4.9	-0.1	4.9	261.9	OK
54.7	7.6	2.2	1.7	71.1	9.9	2.9	2.2	0.4	13.8	OK	12.9	1.0	13.0	261.9	OK
76.1	10.6	-18.4	-3.6	98.9	13.8	-24.0	-4.7	0.5	13.8	OK	92.3	-2.2	92.4	261.9	OK
0.0	-19.0	1.5	2.1	0.0	-24.6	1.9	2.7	0.0	13.8	OK	12.4	1.2	12.6	261.9	OK
58.6	8.2	4.2	-2.6	76.2	10.6	5.4	-3.4	0.4	13.8	OK	22.6	-1.6	22.7	261.9	OK
0.0	-20.1	-0.5	4.2	0.0	-26.2	-0.6	5.5	0.0	13.8	OK	8.0	2.5	9.1	261.9	OK
41.9	5.9	6.1	-12.2	54.5	7.6	7.9	-15.9	0.3	13.8	OK	31.2	-7.3	33.7	261.9	OK
0.0	-61.4	19.5	4.8	0.0	-79.9	25.4	6.2	0.0	13.8	OK	111.7	2.9	111.8	261.9	OK
60.4	8.4	-31.5	7.7	78.5	11.0	-40.9	10.0	0.4	13.8	OK	154.9	4.6	155.1	261.9	OK
6.4	0.9	-16.7	18.4	8.3	1.2	-21.7	23.9	0.0	13.8	OK	81.2	11.0	83.4	261.9	OK
66.5	9.3	-19.1	13.5	86.4	12.1	-24.9	17.6	0.4	13.8	OK	95.3	8.1	96.3	261.9	OK
0.0	-54.7	21.0	-0.4	0.0	-71.2	27.3	-0.6	0.0	13.8	OK	117.1	-0.3	117.1	261.9	OK
23.8	3.3	17.3	-7.0	31.0	4.3	22.5	-9.1	0.2	13.8	OK	84.7	-4.2	85.0	261.9	OK
0.0	-1.9	-39.1	-7.1	0.0	-2.4	-50.9	-9.2	0.0	13.8	OK	190.1	-4.3	190.3	261.9	OK
81.8	11.4	-33.3	-1.6	106.3	14.9	-43.3	-2.1	0.5	13.8	OK	164.4	-1.0	164.4	261.9	OK
0.0	-48.3	-0.4	14.1	0.0	-62.8	-0.5	18.3	0.0	13.8	OK	15.5	8.5	21.3	261.9	OK
0.0	-65.4	7.7	12.7	0.0	-85.0	10.1	16.5	0.0	13.8	OK	55.8	7.6	57.3	261.9	OK
39.6	5.5	19.3	8.3	51.5	7.2	25.1	10.8	0.3	13.8	OK	95.0	5.0	95.4	261.9	OK
54.5	7.6	-29.1	8.6	70.8	9.9	-37.8	11.1	0.4	13.8	OK	143.1	5.1	143.4	261.9	OK
20.8	2.9	21.1	1.5	27.1	3.8	27.4	1.9	0.1	13.8	OK	103.1	0.9	103.1	261.9	OK
0.0	-90.2	21.3	0.9	0.0	-117.2	27.7	1.2	0.0	13.8	OK	128.5	0.6	128.5	261.9	OK
0.0	-83.9	8.3	-24.1	0.0	-109.1	10.8	-31.4	0.0	13.8	OK	63.8	-14.5	68.6	261.9	OK
38.2	5.3	-45.7	1.6	49.7	6.9	-59.4	2.1	0.2	13.8	OK	222.7	1.0	222.7	261.9	OK
76.2	10.6	-38.8	4.4	99.1	13.8	-50.4	5.7	0.5	13.8	OK	191.0	2.6	191.0	261.9	OK
0.0	-68.4	18.8	3.5	0.0	-89.0	24.4	4.6	0.0	13.8	OK	110.0	2.1	110.1	261.9	OK
22.0	3.1	7.4	12.1	28.6	4.0	9.6	15.7	0.1	13.8	OK	36.5	7.2	38.6	261.9	OK
0.0	-41.7	13.0	10.9	0.0	-54.2	16.9	14.2	0.0	13.8	OK	74.7	6.6	75.5	261.9	OK
0.0	-98.5	7.1	-14.9	0.0	-128.0	9.2	-19.3	0.0	13.8	OK	62.0	-8.9	63.9	261.9	OK
0.0	-103.7	8.8	-17.6	0.0	-134.8	11.4	-22.9	0.0	13.8	OK	71.4	-10.6	73.7	261.9	OK

21.1	3.0	20.8	1.2	27.5	3.8	27.1	1.6	0.1	13.8	OK	101.8	0.7	101.8	261.9	OK
7.8	1.1	16.6	9.1	10.2	1.4	21.5	11.8	0.1	13.8	OK	80.6	5.5	81.2	261.9	OK
0.0	-0.4	17.0	-5.5	0.0	-0.5	22.2	-7.2	0.0	13.8	OK	82.7	-3.3	82.9	261.9	OK
0.0	-75.7	19.2	-8.8	0.0	-98.4	24.9	-11.4	0.0	13.8	OK	114.0	-5.3	114.4	261.9	OK
11.6	1.6	-34.1	10.7	15.1	2.1	-44.3	14.0	0.1	13.8	OK	165.6	6.4	166.0	261.9	OK
122.4	17.1	-31.7	11.7	159.1	22.2	-41.2	15.2	0.8	13.8	OK	158.5	7.0	159.0	261.9	OK
51.0	7.1	-21.4	18.0	66.3	9.3	-27.8	23.4	0.3	13.8	OK	105.5	10.8	107.2	261.9	OK
0.0	-14.7	-21.2	14.0	0.0	-19.1	-27.5	18.2	0.0	13.8	OK	106.7	8.4	107.7	261.9	OK
60.8	8.5	-1.2	18.6	79.0	11.0	-1.5	24.2	0.4	13.8	OK	8.0	11.2	21.0	261.9	OK
0.0	-95.1	17.4	-8.0	0.0	-123.7	22.6	-10.4	0.0	13.8	OK	111.0	-4.8	111.3	261.9	OK
0.0	-9.7	-0.7	11.2	0.0	-12.6	-0.9	14.5	0.0	13.8	OK	6.2	6.7	13.2	261.9	OK
33.5	4.7	7.3	13.4	43.6	6.1	9.5	17.4	0.2	13.8	OK	36.6	8.0	39.2	261.9	OK
28.0	3.9	-5.8	15.7	36.4	5.1	-7.6	20.4	0.2	13.8	OK	29.4	9.4	33.6	261.9	OK
0.0	-13.4	-19.1	-10.7	0.0	-17.4	-24.8	-13.9	0.0	13.8	OK	96.1	-6.4	96.8	261.9	OK
17.5	2.4	-24.2	-12.0	22.7	3.2	-31.5	-15.6	0.1	13.8	OK	118.0	-7.2	118.7	261.9	OK
0.0	-47.8	-0.3	-13.1	0.0	-62.1	-0.4	-17.0	0.0	13.8	OK	14.9	-7.8	20.2	261.9	OK
0.0	-59.0	-33.4	-16.8	0.0	-76.6	-43.4	-21.8	0.0	13.8	OK	178.1	-10.1	178.9	261.9	OK
46.8	6.5	-28.6	-8.6	60.8	8.5	-37.2	-11.1	0.3	13.8	OK	140.4	-5.1	140.7	261.9	OK
42.2	5.9	-32.7	-5.3	54.8	7.7	-42.5	-6.8	0.3	13.8	OK	160.1	-3.2	160.2	261.9	OK
0.0	-32.5	-1.5	-3.9	0.0	-42.2	-1.9	-5.1	0.0	13.8	OK	16.2	-2.3	16.7	261.9	OK
0.0	-35.4	-8.0	-24.8	0.0	-46.0	-10.5	-32.2	0.0	13.8	OK	48.8	-14.9	55.2	261.9	OK
119.7	16.7	-5.9	-14.4	155.7	21.7	-7.7	-18.7	0.8	13.8	OK	33.4	-8.6	36.6	261.9	OK
0.0	-0.8	-33.6	-16.5	0.0	-1.0	-43.6	-21.5	0.0	13.8	OK	162.8	-9.9	163.7	261.9	OK
10.1	1.4	-45.3	-9.3	13.2	1.8	-58.9	-12.1	0.1	13.8	OK	219.9	-5.6	220.1	261.9	OK
77.7	10.9	-23.4	-17.0	101.0	14.1	-30.4	-22.0	0.5	13.8	OK	116.2	-10.2	117.6	261.9	OK
51.6	7.2	-17.9	-9.5	67.0	9.4	-23.2	-12.3	0.3	13.8	OK	88.6	-5.7	89.2	261.9	OK
27.5	3.8	-19.0	0.1	35.7	5.0	-24.7	0.2	0.2	13.8	OK	93.3	0.1	93.3	261.9	OK
0.0	-158.0	1.8	6.3	0.0	-205.4	2.4	8.2	0.0	13.8	OK	53.0	3.8	53.4	261.9	OK
63.9	8.9	-3.2	-7.2	83.1	11.6	-4.2	-9.4	0.4	13.8	OK	18.2	-4.3	19.7	261.9	OK
0.0	-61.3	-2.5	-7.8	0.0	-79.7	-3.2	-10.1	0.0	13.8	OK	29.2	-4.7	30.3	261.9	OK
0.0	-6.0	-9.5	-3.6	0.0	-7.7	-12.3	-4.6	0.0	13.8	OK	47.7	-2.1	47.8	261.9	OK
44.0	6.1	-25.8	-8.3	57.2	8.0	-33.6	-10.8	0.3	13.8	OK	126.8	-5.0	127.1	261.9	OK
100.4	14.0	-18.3	-17.9	130.5	18.2	-23.8	-23.3	0.7	13.8	OK	92.7	-10.8	94.6	261.9	OK
0.0	-81.8	-10.0	-11.7	0.0	-106.3	-12.9	-15.2	0.0	13.8	OK	71.1	-7.0	72.1	261.9	OK
71.3	10.0	-4.0	-26.9	92.6	12.9	-5.2	-35.0	0.5	13.8	OK	22.1	-16.1	35.6	261.9	OK
0.0	-43.9	-3.7	-11.8	0.0	-57.0	-4.8	-15.3	0.0	13.8	OK	30.2	-7.1	32.6	261.9	OK
0.0	-21.2	-9.0	-1.2	0.0	-27.5	-11.7	-1.5	0.0	13.8	OK	49.3	-0.7	49.4	261.9	OK
47.4	6.6	-29.2	0.0	61.6	8.6	-38.0	0.0	0.3	13.8	OK	143.3	0.0	143.3	261.9	OK
18.8	2.6	5.6	10.3	24.4	3.4	7.3	13.4	0.1	13.8	OK	28.0	6.2	30.0	261.9	OK
0.0	-4.6	8.0	10.7	0.0	-5.9	10.3	13.9	0.0	13.8	OK	39.8	6.4	41.3	261.9	OK
0.0	-83.9	-4.3	-31.3	0.0	-109.1	-5.6	-40.7	0.0	13.8	OK	44.5	-18.8	55.1	261.9	OK
0.0	-75.1	-3.0	-18.4	0.0	-97.6	-3.9	-23.9	0.0	13.8	OK	35.6	-11.0	40.4	261.9	OK
40.1	5.6	-23.7	9.5	52.1	7.3	-30.8	12.4	0.3	13.8	OK	116.5	5.7	116.9	261.9	OK
4.0	0.6	-4.7	9.9	5.3	0.7	-6.1	12.8	0.0	13.8	OK	22.8	5.9	25.0	261.9	OK
0.0	-100.7	-4.1	-23.4	0.0	-131.0	-5.3	-30.5	0.0	13.8	OK	48.1	-14.1	53.9	261.9	OK
12.0	1.7	3.1	-4.6	15.6	2.2	4.1	-6.0	0.1	13.8	OK	15.7	-2.8	16.4	261.9	OK
46.6	6.5	-19.7	-4.9	60.5	8.5	-25.6	-6.3	0.3	13.8	OK	97.2	-2.9	97.3	261.9	OK

0.0	-12.2	16.4	6.3	0.0	-15.8	21.3	8.2	0.0	13.8	OK	82.9	3.8	83.2	261.9	OK
0.0	-31.4	20.0	-1.0	0.0	-40.9	26.1	-1.3	0.0	13.8	OK	105.9	-0.6	105.9	261.9	OK
0.0	-2.1	-4.7	7.5	0.0	-2.7	-6.1	9.8	0.0	13.8	OK	23.2	4.5	24.5	261.9	OK
0.0	-32.5	13.4	-8.6	0.0	-42.3	17.4	-11.2	0.0	13.8	OK	74.1	-5.2	74.6	261.9	OK
17.7	2.5	-17.7	9.2	23.1	3.2	-23.0	12.0	0.1	13.8	OK	86.4	5.5	86.9	261.9	OK
1.5	0.2	8.2	-1.2	1.9	0.3	10.7	-1.6	0.0	13.8	OK	40.0	-0.7	40.0	261.9	OK
0.0	-55.1	14.6	-10.0	0.0	-71.7	19.0	-12.9	0.0	13.8	OK	86.3	-6.0	86.9	261.9	OK
0.0	-3.3	0.8	3.7	0.0	-4.3	1.0	4.8	0.0	13.8	OK	4.8	2.2	6.2	261.9	OK
11.1	1.6	-10.7	-2.4	14.5	2.0	-13.9	-3.1	0.1	13.8	OK	52.4	-1.4	52.4	261.9	OK
10.4	1.5	6.8	7.4	13.5	1.9	8.8	9.7	0.1	13.8	OK	33.3	4.5	34.2	261.9	OK
0.0	-21.0	10.8	8.4	0.0	-27.3	14.1	10.9	0.0	13.8	OK	58.3	5.0	58.9	261.9	OK
6.8	0.9	9.1	-1.2	8.8	1.2	11.8	-1.6	0.0	13.8	OK	44.4	-0.7	44.4	261.9	OK
0.0	-12.0	-9.4	6.2	0.0	-15.6	-12.2	8.1	0.0	13.8	OK	48.8	3.7	49.2	261.9	OK
0.0	-4.4	14.9	4.1	0.0	-5.7	19.4	5.4	0.0	13.8	OK	73.4	2.5	73.5	261.9	OK
22.5	3.1	-10.6	7.6	29.3	4.1	-13.8	9.9	0.1	13.8	OK	52.3	4.6	52.8	261.9	OK
0.0	-36.2	15.2	-2.3	0.0	-47.0	19.8	-3.0	0.0	13.8	OK	83.8	-1.4	83.8	261.9	OK
17.1	2.4	-15.0	12.6	22.2	3.1	-19.4	16.3	0.1	13.8	OK	73.1	7.5	74.3	261.9	OK
25.6	3.6	-10.7	7.0	33.2	4.6	-13.9	9.1	0.2	13.8	OK	52.6	4.2	53.1	261.9	OK
2.5	0.4	6.1	4.0	3.3	0.5	7.9	5.2	0.0	13.8	OK	29.6	2.4	29.9	261.9	OK
14.9	2.1	-18.9	-0.6	19.4	2.7	-24.5	-0.8	0.1	13.8	OK	91.9	-0.3	91.9	261.9	OK
35.0	4.9	-20.8	4.1	45.4	6.3	-27.1	5.4	0.2	13.8	OK	102.3	2.5	102.4	261.9	OK
5.5	0.8	10.4	4.2	7.1	1.0	13.5	5.4	0.0	13.8	OK	50.6	2.5	50.7	261.9	OK
0.1	0.0	-3.4	5.9	0.2	0.0	-4.4	7.6	0.0	13.8	OK	16.3	3.5	17.4	261.9	OK
12.8	1.8	-2.9	12.9	16.6	2.3	-3.8	16.8	0.1	13.8	OK	14.6	7.8	19.8	261.9	OK
0.0	-59.8	13.7	-3.4	0.0	-77.8	17.8	-4.4	0.0	13.8	OK	83.2	-2.0	83.3	261.9	OK
20.1	2.8	-13.0	5.7	26.1	3.6	-16.9	7.4	0.1	13.8	OK	63.8	3.4	64.1	261.9	OK
0.0	-21.4	1.6	9.1	0.0	-27.9	2.1	11.8	0.0	13.8	OK	13.9	5.4	16.8	261.9	OK
0.0	-7.8	-12.4	2.1	0.0	-10.2	-16.1	2.7	0.0	13.8	OK	62.3	1.2	62.3	261.9	OK
0.0	-21.4	4.0	-1.7	0.0	-27.8	5.2	-2.3	0.0	13.8	OK	25.5	-1.0	25.6	261.9	OK
0.0	-37.4	-5.3	-3.3	0.0	-48.6	-6.9	-4.3	0.0	13.8	OK	36.2	-2.0	36.3	261.9	OK
0.0	-15.1	-3.0	-1.0	0.0	-19.6	-3.9	-1.3	0.0	13.8	OK	18.8	-0.6	18.8	261.9	OK
15.6	2.2	3.8	0.9	20.3	2.8	5.0	1.1	0.1	13.8	OK	19.1	0.5	19.1	261.9	OK
0.0	-2.7	3.3	1.0	0.0	-3.5	4.3	1.3	0.0	13.8	OK	16.8	0.6	16.9	261.9	OK
12.0	1.7	-0.4	-0.4	15.7	2.2	-0.5	-0.6	0.1	13.8	OK	2.2	-0.3	2.3	261.9	OK
10.2	1.4	-1.5	3.1	13.2	1.8	-2.0	4.1	0.1	13.8	OK	7.8	1.9	8.4	261.9	OK
0.0	-4.7	-12.4	-7.6	0.0	-6.1	-16.1	-9.8	0.0	13.8	OK	61.3	-4.5	61.8	261.9	OK
11.1	1.6	-7.6	-2.9	14.4	2.0	-9.9	-3.7	0.1	13.8	OK	37.3	-1.7	37.4	261.9	OK
16.3	2.3	-7.9	-4.6	21.2	3.0	-10.3	-5.9	0.1	13.8	OK	39.0	-2.7	39.3	261.9	OK
27.9	3.9	3.1	-3.6	36.2	5.1	4.0	-4.7	0.2	13.8	OK	16.1	-2.2	16.5	261.9	OK
0.0	-4.5	5.9	-0.8	0.0	-5.9	7.7	-1.0	0.0	13.8	OK	29.9	-0.5	30.0	261.9	OK
9.9	1.4	0.4	-2.1	12.9	1.8	0.6	-2.7	0.1	13.8	OK	2.5	-1.3	3.3	261.9	OK
8.4	1.2	3.4	-3.0	11.0	1.5	4.4	-3.9	0.1	13.8	OK	16.8	-1.8	17.0	261.9	OK
0.0	-9.3	0.6	-3.4	0.0	-12.1	0.8	-4.4	0.0	13.8	OK	5.6	-2.0	6.6	261.9	OK
14.2	2.0	-1.6	-3.6	18.4	2.6	-2.1	-4.7	0.1	13.8	OK	8.5	-2.2	9.3	261.9	OK
0.0	-23.1	-9.4	8.8	0.0	-30.0	-12.2	11.5	0.0	13.8	OK	52.1	5.3	52.9	261.9	OK
0.0	-38.2	-4.3	16.9	0.0	-49.7	-5.6	21.9	0.0	13.8	OK	31.5	10.1	36.1	261.9	OK
0.0	-30.3	1.1	5.0	0.0	-39.4	1.4	6.5	0.0	13.8	OK	13.7	3.0	14.7	261.9	OK

19.4	2.7	0.8	1.6	25.2	3.5	1.0	2.0	0.1	13.8	OK	4.4	0.9	4.7	261.9	OK
26.8	3.7	-17.3	-5.8	34.8	4.9	-22.5	-7.5	0.2	13.8	OK	84.9	-3.5	85.1	261.9	OK
0.0	-4.3	-0.6	-4.8	0.0	-5.6	-0.7	-6.3	0.0	13.8	OK	4.0	-2.9	6.4	261.9	OK
20.4	2.8	-1.4	-4.0	26.5	3.7	-1.8	-5.2	0.1	13.8	OK	7.5	-2.4	8.6	261.9	OK
6.0	0.8	-5.3	-7.0	7.8	1.1	-6.9	-9.1	0.0	13.8	OK	26.1	-4.2	27.1	261.9	OK
0.0	-16.4	-4.8	-5.2	0.0	-21.3	-6.3	-6.7	0.0	13.8	OK	27.9	-3.1	28.4	261.9	OK
0.0	-6.0	5.8	2.3	0.0	-7.7	7.5	3.0	0.0	13.8	OK	29.7	1.4	29.8	261.9	OK
0.0	-2.2	1.1	5.1	0.0	-2.9	1.4	6.6	0.0	13.8	OK	6.0	3.1	8.0	261.9	OK
0.0	-29.4	-4.3	17.9	0.0	-38.2	-5.6	23.3	0.0	13.8	OK	29.0	10.7	34.5	261.9	OK
0.0	-2.1	-4.5	3.8	0.0	-2.7	-5.9	4.9	0.0	13.8	OK	22.4	2.3	22.7	261.9	OK
19.5	2.7	1.2	-2.5	25.3	3.5	1.5	-3.2	0.1	13.8	OK	6.5	-1.5	7.0	261.9	OK
11.3	1.6	-1.2	-0.4	14.6	2.0	-1.5	-0.5	0.1	13.8	OK	6.1	-0.2	6.1	261.9	OK
0.0	-10.7	-10.9	-7.6	0.0	-13.9	-14.2	-9.9	0.0	13.8	OK	55.9	-4.6	56.4	261.9	OK
0.0	-10.1	-5.1	-1.3	0.0	-13.1	-6.7	-1.6	0.0	13.8	OK	27.7	-0.8	27.8	261.9	OK
0.0	-9.6	-3.5	-0.2	0.0	-12.5	-4.6	-0.3	0.0	13.8	OK	19.8	-0.1	19.8	261.9	OK
21.6	3.0	-4.7	0.6	28.1	3.9	-6.2	0.8	0.1	13.8	OK	23.8	0.4	23.8	261.9	OK
68.6	9.6	-10.5	7.3	89.1	12.5	-13.6	9.4	0.4	13.8	OK	53.3	4.4	53.9	261.9	OK
13.2	1.8	-11.8	-5.5	17.1	2.4	-15.4	-7.1	0.1	13.8	OK	57.9	-3.3	58.2	261.9	OK
0.0	-2.9	-3.5	-3.9	0.0	-3.7	-4.5	-5.0	0.0	13.8	OK	17.7	-2.3	18.1	261.9	OK
0.0	-27.7	-5.2	-5.2	0.0	-36.0	-6.7	-6.7	0.0	13.8	OK	32.8	-3.1	33.3	261.9	OK
10.7	1.5	-4.6	0.0	13.9	1.9	-6.0	0.0	0.1	13.8	OK	22.8	0.0	22.8	261.9	OK
0.0	-2.6	-12.4	-4.8	0.0	-3.4	-16.2	-6.3	0.0	13.8	OK	61.0	-2.9	61.2	261.9	OK
0.0	-61.6	-4.4	9.6	0.0	-80.1	-5.8	12.5	0.0	13.8	OK	38.7	5.8	40.0	261.9	OK
283.3	39.6	-11.0	34.7	368.2	51.4	-14.3	45.2	1.8	13.8	OK	64.4	20.8	73.8	261.9	OK
0.0	-16.3	-13.8	4.7	0.0	-21.1	-18.0	6.1	0.0	13.8	OK	71.4	2.8	71.6	261.9	OK
119.2	16.6	-19.3	12.0	154.9	21.6	-25.1	15.6	0.8	13.8	OK	98.1	7.2	98.9	261.9	OK
66.0	9.2	-21.7	0.6	85.8	12.0	-28.2	0.8	0.4	13.8	OK	107.5	0.4	107.5	261.9	OK
0.0	-9.6	2.3	7.2	0.0	-12.4	2.9	9.3	0.0	13.8	OK	13.6	4.3	15.5	261.9	OK
0.9	0.1	-5.1	4.1	1.1	0.2	-6.6	5.3	0.0	13.8	OK	24.8	2.5	25.2	261.9	OK
9.5	1.3	8.0	-0.4	12.3	1.7	10.4	-0.5	0.1	13.8	OK	39.2	-0.2	39.2	261.9	OK
74.7	10.4	-6.5	2.4	97.1	13.6	-8.4	3.2	0.5	13.8	OK	34.2	1.5	34.3	261.9	OK
0.0	-4.6	8.6	-6.2	0.0	-5.9	11.2	-8.0	0.0	13.8	OK	43.0	-3.7	43.5	261.9	OK
34.1	4.8	-11.0	16.8	44.3	6.2	-14.4	21.8	0.2	13.8	OK	54.8	10.1	57.5	261.9	OK
161.0	22.5	-5.7	0.0	209.2	29.2	-7.4	0.0	1.0	13.8	OK	33.7	0.0	33.7	261.9	OK
0.0	-15.3	5.5	0.5	0.0	-19.9	7.2	0.7	0.0	13.8	OK	31.1	0.3	31.1	261.9	OK
98.4	13.8	-20.5	4.0	128.0	17.9	-26.7	5.2	0.6	13.8	OK	103.3	2.4	103.4	261.9	OK
0.0	-2.0	1.0	7.7	0.0	-2.6	1.3	10.0	0.0	13.8	OK	5.4	4.6	9.6	261.9	OK
899.6	125.7	16.8	-22.8	1169.5	163.4	21.9	-29.6	5.8	13.8	OK	116.6	-13.7	119.0	261.9	OK
159.7	22.3	-7.2	-3.7	207.6	29.0	-9.4	-4.7	1.0	13.8	OK	41.3	-2.2	41.5	261.9	OK
360.2	50.3	0.0	-26.2	468.2	65.4	0.1	-34.0	2.3	13.8	OK	14.3	-15.7	30.7	261.9	OK
719.1	100.5	7.3	-107.9	934.8	130.6	9.4	-140.3	4.7	13.8	OK	63.2	-64.8	128.8	261.9	OK
293.3	41.0	6.4	-35.0	381.3	53.3	8.3	-45.5	1.9	13.8	OK	42.2	-21.0	55.7	261.9	OK
0.0	-15.1	-9.2	8.8	0.0	-19.6	-12.0	11.5	0.0	13.8	OK	48.9	5.3	49.8	261.9	OK
24.2	3.4	5.6	5.5	31.5	4.4	7.2	7.1	0.2	13.8	OK	27.9	3.3	28.4	261.9	OK
3.0	0.4	10.0	4.9	4.0	0.6	12.9	6.4	0.0	13.8	OK	48.4	2.9	48.6	261.9	OK
0.0	-13.3	4.8	-4.0	0.0	-17.3	6.3	-5.2	0.0	13.8	OK	27.2	-2.4	27.5	261.9	OK
0.0	-8.9	3.1	-7.9	0.0	-11.5	4.0	-10.3	0.0	13.8	OK	17.3	-4.7	19.1	261.9	OK

0.0	-59.3	4.8	-0.2	0.0	-77.1	6.3	-0.2	0.0	13.8	OK	39.9	-0.1	39.9	261.9	OK
28.8	4.0	-7.9	5.3	37.4	5.2	-10.2	6.9	0.2	13.8	OK	39.3	3.2	39.7	261.9	OK
15.8	2.2	3.8	5.0	20.5	2.9	5.0	6.5	0.1	13.8	OK	19.2	3.0	19.9	261.9	OK
13.2	1.8	-0.9	6.7	17.1	2.4	-1.2	8.8	0.1	13.8	OK	5.0	4.0	8.6	261.9	OK
329.1	46.0	-0.9	14.1	427.9	59.8	-1.2	18.3	2.1	13.8	OK	17.2	8.5	22.6	261.9	OK
202.2	28.2	-9.0	3.7	262.9	36.7	-11.6	4.8	1.3	13.8	OK	51.3	2.2	51.4	261.9	OK
18.2	2.5	5.9	-0.4	23.6	3.3	7.6	-0.5	0.1	13.8	OK	29.1	-0.2	29.1	261.9	OK
21.9	3.1	-0.2	3.8	28.5	4.0	-0.3	4.9	0.1	13.8	OK	1.9	2.3	4.4	261.9	OK
32.6	4.6	-2.8	6.8	42.4	5.9	-3.6	8.8	0.2	13.8	OK	14.6	4.1	16.2	261.9	OK
16.7	2.3	1.4	1.4	21.7	3.0	1.8	1.8	0.1	13.8	OK	7.4	0.8	7.5	261.9	OK
0.0	-0.1	-1.2	5.6	0.0	-0.2	-1.5	7.2	0.0	13.8	OK	5.8	3.3	8.2	261.9	OK
58.0	8.1	-1.1	7.6	75.4	10.5	-1.4	9.9	0.4	13.8	OK	7.6	4.6	11.0	261.9	OK
0.0	-21.4	5.8	4.5	0.0	-27.8	7.6	5.8	0.0	13.8	OK	34.3	2.7	34.6	261.9	OK
82.3	11.5	-4.6	3.4	107.0	14.9	-5.9	4.4	0.5	13.8	OK	25.3	2.0	25.6	261.9	OK
9.8	1.4	4.3	1.3	12.8	1.8	5.6	1.7	0.1	13.8	OK	21.3	0.8	21.3	261.9	OK
31.1	4.4	-1.3	0.5	40.5	5.7	-1.7	0.6	0.2	13.8	OK	7.4	0.3	7.4	261.9	OK
857.3	119.8	5.1	40.3	1114.5	155.7	6.6	52.4	5.6	13.8	OK	58.1	24.2	71.7	261.9	OK
238.9	33.4	-0.5	4.9	310.5	43.4	-0.7	6.4	1.6	13.8	OK	11.9	2.9	12.9	261.9	OK
6.4	0.9	3.4	-4.4	8.3	1.2	4.4	-5.8	0.0	13.8	OK	16.8	-2.7	17.4	261.9	OK
54.4	7.6	-2.5	-4.4	70.7	9.9	-3.3	-5.7	0.4	13.8	OK	14.5	-2.6	15.2	261.9	OK
25.0	3.5	1.3	-3.5	32.5	4.5	1.7	-4.6	0.2	13.8	OK	7.3	-2.1	8.2	261.9	OK
198.1	27.7	-0.5	-3.1	257.5	36.0	-0.6	-4.0	1.3	13.8	OK	10.1	-1.8	10.6	261.9	OK
30.3	4.2	-1.8	-1.9	39.4	5.5	-2.4	-2.4	0.2	13.8	OK	10.1	-1.1	10.3	261.9	OK
21.7	3.0	-2.9	-6.5	28.2	3.9	-3.8	-8.4	0.1	13.8	OK	15.1	-3.9	16.6	261.9	OK
33.1	4.6	1.6	-4.7	43.1	6.0	2.0	-6.1	0.2	13.8	OK	8.9	-2.8	10.1	261.9	OK
11.2	1.6	1.0	-1.5	14.5	2.0	1.3	-2.0	0.1	13.8	OK	5.1	-0.9	5.3	261.9	OK
14.5	2.0	-8.4	-5.6	18.9	2.6	-10.9	-7.3	0.1	13.8	OK	41.1	-3.4	41.6	261.9	OK
13.9	1.9	-3.5	-4.7	18.1	2.5	-4.5	-6.1	0.1	13.8	OK	17.4	-2.8	18.1	261.9	OK
33.2	4.6	1.2	-2.6	43.1	6.0	1.5	-3.4	0.2	13.8	OK	6.9	-1.6	7.4	261.9	OK
129.0	18.0	-5.8	-1.9	167.7	23.4	-7.5	-2.4	0.8	13.8	OK	33.0	-1.1	33.1	261.9	OK
335.5	46.9	-2.4	6.4	436.1	60.9	-3.1	8.3	2.2	13.8	OK	24.6	3.8	25.5	261.9	OK
3.7	0.5	-0.2	-3.8	4.8	0.7	-0.3	-4.9	0.0	13.8	OK	1.3	-2.3	4.2	261.9	OK
27.3	3.8	-2.6	-4.4	35.5	5.0	-3.4	-5.8	0.2	13.8	OK	13.6	-2.7	14.4	261.9	OK
13.8	1.9	-1.3	0.6	17.9	2.5	-1.6	0.8	0.1	13.8	OK	6.6	0.4	6.6	261.9	OK
47.8	6.7	-7.0	-4.5	62.2	8.7	-9.1	-5.8	0.3	13.8	OK	35.8	-2.7	36.1	261.9	OK
106.3	14.8	-8.8	-4.2	138.1	19.3	-11.4	-5.4	0.7	13.8	OK	46.7	-2.5	46.9	261.9	OK
2.3	0.3	0.9	-2.2	3.0	0.4	1.1	-2.8	0.0	13.8	OK	4.4	-1.3	4.9	261.9	OK
43.9	6.1	-6.1	-4.8	57.0	8.0	-7.9	-6.2	0.3	13.8	OK	31.1	-2.9	31.5	261.9	OK
0.0	-15.3	-1.7	-2.1	0.0	-19.9	-2.2	-2.8	0.0	13.8	OK	12.5	-1.3	12.7	261.9	OK
368.1	51.4	8.1	22.9	478.6	66.9	10.5	29.7	2.4	13.8	OK	53.6	13.7	58.6	261.9	OK
0.0	-11.3	-3.2	-2.7	0.0	-14.7	-4.1	-3.6	0.0	13.8	OK	18.5	-1.6	18.7	261.9	OK
550.2	76.9	7.1	13.1	715.2	99.9	9.2	17.0	3.6	13.8	OK	55.7	7.9	57.3	261.9	OK
12.7	1.8	-3.0	-1.3	16.5	2.3	-3.9	-1.7	0.1	13.8	OK	15.0	-0.8	15.0	261.9	OK
112.3	15.7	-5.4	4.5	146.0	20.4	-7.0	5.9	0.7	13.8	OK	30.3	2.7	30.7	261.9	OK
216.8	30.3	0.8	7.6	281.9	39.4	1.0	9.9	1.4	13.8	OK	12.2	4.5	14.6	261.9	OK
83.0	11.6	-9.7	-10.4	107.9	15.1	-12.6	-13.5	0.5	13.8	OK	50.1	-6.2	51.2	261.9	OK
0.0	-0.2	-2.3	-5.1	0.0	-0.3	-2.9	-6.7	0.0	13.8	OK	11.0	-3.1	12.2	261.9	OK

372.2	52.0	2.6	26.7	483.9	67.6	3.3	34.7	2.4	13.8	OK	27.0	16.0	38.7	261.9	OK
17.4	2.4	-1.2	-5.4	22.7	3.2	-1.5	-7.0	0.1	13.8	OK	6.3	-3.2	8.4	261.9	OK
40.1	5.6	-4.8	-0.8	52.1	7.3	-6.3	-1.1	0.3	13.8	OK	25.0	-0.5	25.0	261.9	OK
18.4	2.6	-5.5	-1.1	23.9	3.3	-7.1	-1.5	0.1	13.8	OK	27.3	-0.7	27.3	261.9	OK
13.7	1.9	1.5	1.5	17.8	2.5	2.0	2.0	0.1	13.8	OK	8.0	0.9	8.1	261.9	OK
41.0	5.7	-6.0	1.6	53.3	7.4	-7.8	2.0	0.3	13.8	OK	30.8	0.9	30.8	261.9	OK
26.7	3.7	7.8	-1.4	34.7	4.8	10.1	-1.8	0.2	13.8	OK	38.8	-0.8	38.8	261.9	OK
0.0	-15.6	6.1	-0.4	0.0	-20.3	7.9	-0.5	0.0	13.8	OK	33.9	-0.2	33.9	261.9	OK
346.7	48.4	5.3	23.0	450.7	63.0	6.8	29.9	2.3	13.8	OK	39.0	13.8	45.7	261.9	OK
21.7	3.0	4.9	-3.0	28.2	3.9	6.3	-3.9	0.1	13.8	OK	24.4	-1.8	24.6	261.9	OK
35.0	4.9	9.7	-4.3	45.5	6.4	12.6	-5.6	0.2	13.8	OK	48.3	-2.6	48.5	261.9	OK
108.3	15.1	-5.3	3.0	140.8	19.7	-6.9	3.9	0.7	13.8	OK	29.9	1.8	30.0	261.9	OK
195.6	27.3	-6.2	7.9	254.3	35.5	-8.1	10.3	1.3	13.8	OK	37.8	4.8	38.7	261.9	OK
7.7	1.1	-4.9	-7.9	10.1	1.4	-6.3	-10.3	0.1	13.8	OK	24.0	-4.7	25.3	261.9	OK
0.0	-17.0	2.0	-4.6	0.0	-22.0	2.6	-5.9	0.0	13.8	OK	14.4	-2.7	15.2	261.9	OK
245.3	34.3	15.5	23.8	318.8	44.5	20.2	31.0	1.6	13.8	OK	84.7	14.3	88.3	261.9	OK
49.7	6.9	-4.0	4.6	64.6	9.0	-5.2	5.9	0.3	13.8	OK	21.3	2.7	21.8	261.9	OK
20.7	2.9	-0.3	-1.8	26.9	3.8	-0.4	-2.3	0.1	13.8	OK	2.1	-1.1	2.8	261.9	OK
11.5	1.6	-3.8	-3.9	15.0	2.1	-4.9	-5.1	0.1	13.8	OK	18.9	-2.3	19.3	261.9	OK
107.6	15.0	-11.2	-4.0	139.9	19.5	-14.5	-5.2	0.7	13.8	OK	58.3	-2.4	58.5	261.9	OK
47.0	6.6	-7.2	-0.1	61.1	8.5	-9.4	-0.1	0.3	13.8	OK	36.8	0.0	36.8	261.9	OK
29.1	4.1	-4.3	-4.3	37.8	5.3	-5.6	-5.6	0.2	13.8	OK	22.1	-2.6	22.5	261.9	OK
40.6	5.7	-6.7	-5.0	52.8	7.4	-8.7	-6.4	0.3	13.8	OK	34.0	-3.0	34.4	261.9	OK
0.0	-12.0	4.1	-5.6	0.0	-15.5	5.4	-7.2	0.0	13.8	OK	23.3	-3.3	24.0	261.9	OK
24.0	3.4	2.2	-6.1	31.2	4.4	2.8	-7.9	0.2	13.8	OK	11.4	-3.6	13.0	261.9	OK
0.0	-26.8	4.7	-5.2	0.0	-34.8	6.1	-6.8	0.0	13.8	OK	30.1	-3.1	30.6	261.9	OK
95.3	13.3	3.1	-10.2	123.9	17.3	4.0	-13.2	0.6	13.8	OK	18.6	-6.1	21.4	261.9	OK
74.4	10.4	-12.1	-8.4	96.8	13.5	-15.8	-10.9	0.5	13.8	OK	61.7	-5.0	62.3	261.9	OK
396.4	55.4	14.1	-64.0	515.4	72.0	18.3	-83.2	2.6	13.8	OK	83.7	-38.4	106.9	261.9	OK
252.4	35.3	9.3	-30.2	328.2	45.9	12.0	-39.3	1.6	13.8	OK	54.7	-18.1	63.1	261.9	OK
0.0	-2.4	-2.7	-0.5	0.0	-3.2	-3.5	-0.6	0.0	13.8	OK	13.9	-0.3	13.9	261.9	OK
10.6	1.5	8.0	-1.7	13.8	1.9	10.4	-2.2	0.1	13.8	OK	39.3	-1.0	39.3	261.9	OK
7.3	1.0	-1.7	-6.0	9.5	1.3	-2.2	-7.8	0.0	13.8	OK	8.5	-3.6	10.6	261.9	OK
32.3	4.5	-5.8	-7.3	42.0	5.9	-7.6	-9.5	0.2	13.8	OK	29.5	-4.4	30.5	261.9	OK
9.2	1.3	2.6	-5.5	12.0	1.7	3.4	-7.2	0.1	13.8	OK	12.9	-3.3	14.1	261.9	OK
27.2	3.8	-0.9	-11.4	35.4	4.9	-1.2	-14.8	0.2	13.8	OK	5.6	-6.9	13.1	261.9	OK
24.2	3.4	-3.6	1.4	31.5	4.4	-4.6	1.8	0.2	13.8	OK	18.2	0.8	18.3	261.9	OK
187.1	26.1	-3.2	15.2	243.2	34.0	-4.1	19.8	1.2	13.8	OK	22.6	9.1	27.6	261.9	OK
9.4	1.3	6.9	-1.3	12.2	1.7	8.9	-1.8	0.1	13.8	OK	33.7	-0.8	33.7	261.9	OK
0.0	-35.6	7.6	-0.1	0.0	-46.3	9.9	-0.2	0.0	13.8	OK	46.9	-0.1	46.9	261.9	OK
483.9	67.6	20.9	70.3	629.1	87.9	27.2	91.4	3.1	13.8	OK	120.2	42.2	140.7	261.9	OK
0.0	-23.8	6.6	2.8	0.0	-30.9	8.5	3.7	0.0	13.8	OK	38.5	1.7	38.6	261.9	OK
0.0	-9.8	6.0	2.7	0.0	-12.7	7.9	3.5	0.0	13.8	OK	32.0	1.6	32.1	261.9	OK
0.0	-12.5	-2.8	5.1	0.0	-16.2	-3.6	6.6	0.0	13.8	OK	16.9	3.0	17.7	261.9	OK
40.7	5.7	-6.4	4.4	52.9	7.4	-8.4	5.8	0.3	13.8	OK	32.8	2.7	33.1	261.9	OK
9.7	1.4	-1.4	6.8	12.6	1.8	-1.9	8.8	0.1	13.8	OK	7.4	4.1	10.2	261.9	OK
245.7	34.3	-5.6	6.3	319.4	44.6	-7.2	8.2	1.6	13.8	OK	36.5	3.8	37.1	261.9	OK

28.4	4.0	4.7	4.1	36.9	5.1	6.1	5.3	0.2	13.8	OK	23.9	2.5	24.2	261.9	OK
0.0	-20.3	4.7	2.8	0.0	-26.4	6.0	3.7	0.0	13.8	OK	28.2	1.7	28.4	261.9	OK
149.0	20.8	-2.1	-0.9	193.7	27.1	-2.7	-1.2	1.0	13.8	OK	15.9	-0.5	16.0	261.9	OK
15.2	2.1	0.0	1.5	19.8	2.8	0.0	2.0	0.1	13.8	OK	0.7	0.9	1.8	261.9	OK
3.2	0.4	-3.8	-0.4	4.2	0.6	-4.9	-0.6	0.0	13.8	OK	18.5	-0.3	18.5	261.9	OK
0.0	-39.2	-0.8	1.2	0.0	-51.0	-1.1	1.6	0.0	13.8	OK	14.9	0.7	15.0	261.9	OK
0.0	-10.4	-2.9	1.6	0.0	-13.6	-3.8	2.1	0.0	13.8	OK	16.9	1.0	17.0	261.9	OK
0.0	-20.1	-9.5	14.9	0.0	-26.1	-12.4	19.3	0.0	13.8	OK	51.9	8.9	54.1	261.9	OK
29.6	4.1	0.0	2.7	38.5	5.4	0.0	3.6	0.2	13.8	OK	1.3	1.6	3.1	261.9	OK
797.6	111.4	2.7	-30.8	1036.9	144.9	3.5	-40.1	5.2	13.8	OK	44.3	-18.5	54.7	261.9	OK
253.6	35.4	3.2	-43.5	329.7	46.1	4.1	-56.5	1.6	13.8	OK	25.3	-26.1	51.8	261.9	OK
27.7	3.9	-1.8	3.8	36.1	5.0	-2.4	5.0	0.2	13.8	OK	10.0	2.3	10.8	261.9	OK
77.6	10.8	-7.4	4.3	100.9	14.1	-9.6	5.6	0.5	13.8	OK	38.9	2.6	39.1	261.9	OK
16.5	2.3	-4.7	3.6	21.5	3.0	-6.1	4.7	0.1	13.8	OK	23.5	2.2	23.8	261.9	OK
57.3	8.0	-3.7	-2.4	74.5	10.4	-4.9	-3.1	0.4	13.8	OK	20.4	-1.4	20.5	261.9	OK
161.3	22.5	-3.3	0.9	209.7	29.3	-4.3	1.1	1.0	13.8	OK	22.5	0.5	22.5	261.9	OK
6.6	0.9	7.9	0.2	8.6	1.2	10.2	0.2	0.0	13.8	OK	38.5	0.1	38.5	261.9	OK
21.8	3.0	6.6	1.3	28.3	4.0	8.6	1.7	0.1	13.8	OK	32.9	0.8	32.9	261.9	OK
17.8	2.5	5.1	3.8	23.2	3.2	6.7	5.0	0.1	13.8	OK	25.6	2.3	25.9	261.9	OK
138.0	19.3	-5.6	11.1	179.4	25.1	-7.3	14.5	0.9	13.8	OK	32.7	6.7	34.7	261.9	OK
294.6	41.2	-2.8	-21.7	383.0	53.5	-3.7	-28.2	1.9	13.8	OK	25.2	-13.0	33.9	261.9	OK
650.0	90.8	11.6	-92.2	845.1	118.1	15.1	-119.9	4.2	13.8	OK	81.6	-55.4	125.9	261.9	OK
88.4	12.4	-14.3	23.4	114.9	16.1	-18.6	30.4	0.6	13.8	OK	72.9	14.0	76.8	261.9	OK
0.0	-16.4	-0.4	5.8	0.0	-21.3	-0.6	7.5	0.0	13.8	OK	6.7	3.5	9.0	261.9	OK
0.0	-0.5	-2.3	1.7	0.0	-0.7	-3.0	2.2	0.0	13.8	OK	11.1	1.0	11.3	261.9	OK
0.0	-41.1	-0.9	8.5	0.0	-53.5	-1.2	11.0	0.0	13.8	OK	15.9	5.1	18.2	261.9	OK
10.9	1.5	-6.3	6.3	14.2	2.0	-8.2	8.1	0.1	13.8	OK	31.0	3.8	31.7	261.9	OK
27.7	3.9	2.7	0.0	36.0	5.0	3.5	0.0	0.2	13.8	OK	14.1	0.0	14.1	261.9	OK
12.4	1.7	-0.5	-2.6	16.1	2.3	-0.6	-3.4	0.1	13.8	OK	2.9	-1.6	4.0	261.9	OK
0.1	0.0	2.1	4.6	0.2	0.0	2.8	6.0	0.0	13.8	OK	10.3	2.8	11.4	261.9	OK
444.9	62.2	7.6	43.8	578.4	80.8	9.9	56.9	2.9	13.8	OK	54.3	26.3	70.8	261.9	OK
371.6	51.9	-0.8	-41.1	483.0	67.5	-1.0	-53.4	2.4	13.8	OK	18.3	-24.7	46.4	261.9	OK
731.3	102.2	20.8	29.0	950.8	132.8	27.0	37.7	4.8	13.8	OK	129.2	17.4	132.7	261.9	OK
560.2	78.3	1.1	33.3	728.2	101.7	1.4	43.2	3.6	13.8	OK	27.0	20.0	43.9	261.9	OK
324.2	45.3	-17.9	42.9	421.5	58.9	-23.2	55.8	2.1	13.8	OK	99.2	25.8	108.7	261.9	OK
396.0	55.3	0.6	95.2	514.8	71.9	0.8	123.8	2.6	13.8	OK	18.5	57.1	100.7	261.9	OK
490.3	68.5	-34.1	-24.2	637.4	89.1	-44.4	-31.4	3.2	13.8	OK	184.5	-14.5	186.2	261.9	OK
285.8	39.9	-28.7	5.6	371.6	51.9	-37.3	7.3	1.9	13.8	OK	150.3	3.4	150.5	261.9	OK
294.6	41.2	-3.3	13.4	383.0	53.5	-4.3	17.5	1.9	13.8	OK	27.6	8.1	30.9	261.9	OK
294.4	41.1	-13.7	17.6	382.7	53.5	-17.8	22.9	1.9	13.8	OK	77.8	10.6	79.9	261.9	OK
380.0	53.1	-15.4	-15.8	494.0	69.0	-20.0	-20.6	2.5	13.8	OK	89.4	-9.5	90.9	261.9	OK
131.6	18.4	-6.6	-13.9	171.1	23.9	-8.5	-18.0	0.9	13.8	OK	36.9	-8.3	39.7	261.9	OK
244.8	34.2	-18.5	-13.6	318.2	44.5	-24.0	-17.7	1.6	13.8	OK	99.1	-8.2	100.1	261.9	OK
234.8	32.8	-10.9	-2.0	305.2	42.6	-14.1	-2.7	1.5	13.8	OK	61.8	-1.2	61.8	261.9	OK
884.7	123.6	-24.6	-117.0	1150.2	160.7	-32.0	-152.1	5.8	13.8	OK	153.8	-70.2	196.1	261.9	OK
304.6	42.6	-4.1	57.4	396.0	55.3	-5.3	74.6	2.0	13.8	OK	31.8	34.5	67.6	261.9	OK
411.4	57.5	-16.8	-7.4	534.8	74.7	-21.9	-9.7	2.7	13.8	OK	97.7	-4.5	98.0	261.9	OK

132.5	18.5	-21.0	-11.9	172.2	24.1	-27.3	-15.4	0.9	13.8	OK	106.8	-7.1	107.5	261.9	OK
223.1	31.2	-9.8	-22.1	290.0	40.5	-12.8	-28.7	1.4	13.8	OK	56.2	-13.3	60.8	261.9	OK
0.0	-88.5	-3.7	3.4	0.0	-115.1	-4.8	4.4	0.0	13.8	OK	42.6	2.0	42.8	261.9	OK
212.2	29.6	-5.9	-6.4	275.8	38.5	-7.7	-8.3	1.4	13.8	OK	36.9	-3.9	37.5	261.9	OK
439.8	61.4	8.7	56.3	571.7	79.9	11.4	73.2	2.9	13.8	OK	59.5	33.8	83.4	261.9	OK
503.4	70.3	-8.7	-53.7	654.4	91.4	-11.3	-69.8	3.3	13.8	OK	61.7	-32.2	83.2	261.9	OK
260.4	36.4	-0.3	-10.7	338.5	47.3	-0.4	-13.9	1.7	13.8	OK	11.7	-6.4	16.1	261.9	OK
537.1	75.0	-5.1	78.1	698.3	97.6	-6.6	101.5	3.5	13.8	OK	45.5	46.9	93.0	261.9	OK
66.1	9.2	-7.9	-8.0	86.0	12.0	-10.3	-10.4	0.4	13.8	OK	41.0	-4.8	41.9	261.9	OK
146.6	20.5	-6.7	-17.9	190.6	26.6	-8.7	-23.3	1.0	13.8	OK	38.1	-10.7	42.4	261.9	OK
198.1	27.7	-18.3	-14.4	257.6	36.0	-23.8	-18.7	1.3	13.8	OK	96.5	-8.6	97.7	261.9	OK
130.4	18.2	-6.9	-2.2	169.5	23.7	-8.9	-2.8	0.8	13.8	OK	38.3	-1.3	38.4	261.9	OK
487.6	68.1	0.3	0.4	633.9	88.6	0.4	0.5	3.2	13.8	OK	20.4	0.2	20.4	261.9	OK
273.0	38.1	-3.1	13.4	354.8	49.6	-4.1	17.4	1.8	13.8	OK	25.9	8.0	29.4	261.9	OK
445.5	62.2	16.5	-3.2	579.2	80.9	21.5	-4.2	2.9	13.8	OK	97.4	-1.9	97.4	261.9	OK
609.8	85.2	5.4	45.7	792.8	110.8	7.0	59.4	4.0	13.8	OK	49.9	27.4	68.9	261.9	OK
836.4	116.8	39.1	42.4	1087.3	151.9	50.8	55.2	5.4	13.8	OK	221.9	25.5	226.3	261.9	OK
190.5	26.6	-18.8	16.8	247.7	34.6	-24.4	21.8	1.2	13.8	OK	98.3	10.1	99.9	261.9	OK
632.5	88.4	7.4	-86.0	822.2	114.9	9.7	-111.8	4.1	13.8	OK	60.7	-51.6	108.0	261.9	OK
492.0	68.7	-12.5	61.7	639.6	89.4	-16.3	80.2	3.2	13.8	OK	79.9	37.0	102.4	261.9	OK
556.6	77.8	1.7	-6.2	723.6	101.1	2.2	-8.0	3.6	13.8	OK	29.8	-3.7	30.5	261.9	OK
156.3	21.8	-7.5	13.3	203.2	28.4	-9.8	17.3	1.0	13.8	OK	42.6	8.0	44.8	261.9	OK
253.9	35.5	-3.3	-3.9	330.1	46.1	-4.3	-5.1	1.7	13.8	OK	25.9	-2.3	26.2	261.9	OK
133.3	18.6	-15.7	-1.9	173.3	24.2	-20.4	-2.5	0.9	13.8	OK	81.4	-1.1	81.4	261.9	OK
177.0	24.7	-8.0	5.5	230.1	32.1	-10.4	7.2	1.2	13.8	OK	45.5	3.3	45.9	261.9	OK
277.7	38.8	-13.0	49.8	361.0	50.4	-16.9	64.8	1.8	13.8	OK	73.9	29.9	90.2	261.9	OK
280.6	39.2	-1.7	-13.6	364.7	51.0	-2.3	-17.7	1.8	13.8	OK	19.4	-8.2	24.0	261.9	OK
410.5	57.3	14.1	-32.7	533.6	74.6	18.3	-42.4	2.7	13.8	OK	84.2	-19.6	90.7	261.9	OK
289.2	40.4	-3.7	12.9	375.9	52.5	-4.8	16.8	1.9	13.8	OK	29.1	7.7	32.1	261.9	OK
318.9	44.5	-11.7	-5.0	414.5	57.9	-15.3	-6.4	2.1	13.8	OK	69.4	-3.0	69.5	261.9	OK
263.5	36.8	-27.3	-100.3	342.6	47.9	-35.5	-130.3	1.7	13.8	OK	142.7	-60.2	176.7	261.9	OK
355.6	49.7	4.4	-16.2	462.3	64.6	5.7	-21.1	2.3	13.8	OK	35.1	-9.7	38.9	261.9	OK
793.9	110.9	16.7	19.2	1032.1	144.2	21.8	25.0	5.2	13.8	OK	112.1	11.5	113.9	261.9	OK
219.3	30.6	-4.6	-85.4	285.1	39.8	-6.0	-111.0	1.4	13.8	OK	30.8	-51.3	94.0	261.9	OK
140.1	19.6	-23.9	-0.2	182.1	25.4	-31.1	-0.3	0.9	13.8	OK	121.4	-0.1	121.4	261.9	OK
0.0	-34.3	7.1	10.5	0.0	-44.6	9.2	13.7	0.0	13.8	OK	43.8	6.3	45.1	261.9	OK
0.0	-115.1	-16.3	-64.2	0.0	-149.6	-21.2	-83.4	0.0	13.8	OK	111.1	-38.5	129.6	261.9	OK
156.9	21.9	-21.0	15.1	203.9	28.5	-27.3	19.6	1.0	13.8	OK	107.9	9.1	109.0	261.9	OK
98.6	13.8	-3.9	44.1	128.2	17.9	-5.1	57.3	0.6	13.8	OK	22.7	26.5	51.1	261.9	OK
299.8	41.9	-0.4	-15.3	389.7	54.4	-0.5	-19.9	1.9	13.8	OK	13.7	-9.2	21.0	261.9	OK
227.6	31.8	-3.7	78.0	295.9	41.3	-4.9	101.4	1.5	13.8	OK	27.0	46.8	85.4	261.9	OK
325.1	45.4	-2.7	-9.5	422.6	59.0	-3.5	-12.4	2.1	13.8	OK	25.9	-5.7	27.7	261.9	OK
244.7	34.2	-7.8	-62.4	318.2	44.5	-10.2	-81.2	1.6	13.8	OK	47.5	-37.5	80.4	261.9	OK
148.4	20.7	-24.4	-10.9	192.9	27.0	-31.7	-14.1	1.0	13.8	OK	124.0	-6.5	124.5	261.9	OK
115.4	16.1	-4.8	0.2	150.1	21.0	-6.2	0.3	0.8	13.8	OK	27.7	0.1	27.7	261.9	OK
20.5	2.9	-14.4	28.2	26.6	3.7	-18.8	36.6	0.1	13.8	OK	70.7	16.9	76.6	261.9	OK
122.7	17.1	-16.5	10.6	159.6	22.3	-21.5	13.8	0.8	13.8	OK	84.8	6.4	85.5	261.9	OK

162.9	22.8	-21.2	0.1	211.8	29.6	-27.6	0.1	1.1	13.8	OK	109.1	0.1	109.1	261.9	OK
201.8	28.2	-19.3	-27.3	262.3	36.6	-25.1	-35.5	1.3	13.8	OK	101.5	-16.4	105.4	261.9	OK
206.4	28.8	-23.5	13.4	268.3	37.5	-30.5	17.4	1.3	13.8	OK	121.8	8.0	122.6	261.9	OK
0.0	-57.8	-1.5	21.1	0.0	-75.1	-1.9	27.4	0.0	13.8	OK	23.4	12.7	32.0	261.9	OK
1438.6	193.0	0.8	-24.2	1870.2	250.8	1.0	-31.4	7.5	13.8	OK	48.2	-12.1	52.5	261.9	OK
0.0	-32.9	5.1	-8.2	0.0	-42.8	6.6	-10.7	0.0	13.8	OK	28.2	-4.1	29.1	261.9	OK
896.3	120.2	38.3	169.6	1165.2	156.3	49.8	220.5	4.7	13.8	OK	182.5	84.8	234.3	261.9	OK
124.9	16.8	5.0	12.1	162.4	21.8	6.5	15.7	0.6	13.8	OK	24.0	6.0	26.2	261.9	OK
150.1	20.1	-9.7	3.5	195.1	26.2	-12.6	4.6	0.8	13.8	OK	43.7	1.8	43.8	261.9	OK
131.1	17.6	5.3	9.1	170.4	22.9	6.9	11.9	0.7	13.8	OK	25.5	4.6	26.7	261.9	OK
118.9	15.9	-1.4	9.3	154.5	20.7	-1.8	12.0	0.6	13.8	OK	9.4	4.6	12.4	261.9	OK
91.2	12.2	3.3	15.9	118.6	15.9	4.3	20.7	0.5	13.8	OK	16.3	7.9	21.4	261.9	OK
111.8	15.0	-2.7	8.7	145.3	19.5	-3.6	11.3	0.6	13.8	OK	14.6	4.3	16.4	261.9	OK
0.0	-5.3	9.6	-4.5	0.0	-6.8	12.5	-5.8	0.0	13.8	OK	40.0	-2.2	40.1	261.9	OK
77.2	10.4	-0.2	13.7	100.4	13.5	-0.2	17.8	0.4	13.8	OK	3.1	6.8	12.2	261.9	OK
80.9	10.8	3.4	3.6	105.1	14.1	4.4	4.7	0.4	13.8	OK	16.2	1.8	16.6	261.9	OK
309.7	41.5	5.0	24.0	402.7	54.0	6.5	31.2	1.6	13.8	OK	29.7	12.0	36.3	261.9	OK
53.9	7.2	-2.6	2.0	70.1	9.4	-3.4	2.6	0.3	13.8	OK	12.3	1.0	12.4	261.9	OK
113.4	15.2	-9.7	-13.3	147.4	19.8	-12.6	-17.3	0.6	13.8	OK	42.5	-6.6	44.1	261.9	OK
254.1	34.1	-16.1	-5.2	330.4	44.3	-21.0	-6.7	1.3	13.8	OK	73.0	-2.6	73.2	261.9	OK
683.1	91.6	12.6	59.1	888.1	119.1	16.4	76.8	3.6	13.8	OK	72.1	29.5	88.4	261.9	OK
671.7	90.1	8.0	29.0	873.2	117.1	10.4	37.8	3.5	13.8	OK	53.2	14.5	58.8	261.9	OK
896.3	120.2	38.3	169.6	1165.2	156.3	49.8	220.5	4.7	13.8	OK	182.5	84.8	234.3	261.9	OK
129.5	17.4	-5.1	5.1	168.3	22.6	-6.7	6.6	0.7	13.8	OK	24.8	2.6	25.2	261.9	OK
177.9	23.9	4.2	45.0	231.2	31.0	5.4	58.5	0.9	13.8	OK	22.4	22.5	45.0	261.9	OK
498.3	66.8	3.7	39.8	647.7	86.9	4.8	51.8	2.6	13.8	OK	30.5	19.9	46.0	261.9	OK
65.4	8.8	-1.6	-1.1	85.0	11.4	-2.1	-1.4	0.3	13.8	OK	8.7	-0.5	8.7	261.9	OK
182.7	24.5	4.4	3.5	237.5	31.8	5.8	4.6	0.9	13.8	OK	23.6	1.8	23.8	261.9	OK
191.9	25.7	4.6	10.5	249.5	33.5	6.0	13.7	1.0	13.8	OK	24.7	5.3	26.4	261.9	OK
65.7	8.8	0.1	7.0	85.5	11.5	0.2	9.1	0.3	13.8	OK	2.5	3.5	6.6	261.9	OK
73.7	9.9	8.9	31.9	95.8	12.9	11.5	41.4	0.4	13.8	OK	38.1	15.9	47.1	261.9	OK
142.3	19.1	7.6	5.9	185.0	24.8	9.9	7.7	0.7	13.8	OK	35.2	2.9	35.6	261.9	OK
102.8	13.8	0.7	7.5	133.6	17.9	1.0	9.8	0.5	13.8	OK	6.2	3.8	9.0	261.9	OK
66.8	9.0	-2.4	-2.5	86.8	11.6	-3.2	-3.2	0.3	13.8	OK	11.9	-1.2	12.1	261.9	OK
86.9	11.7	-2.7	-0.9	113.0	15.2	-3.5	-1.2	0.5	13.8	OK	13.5	-0.5	13.5	261.9	OK
226.1	30.3	3.5	24.6	293.9	39.4	4.6	32.0	1.2	13.8	OK	21.4	12.3	30.2	261.9	OK
37.6	5.0	0.8	-6.4	48.9	6.6	1.0	-8.3	0.2	13.8	OK	4.3	-3.2	7.1	261.9	OK
0.0	-4.5	7.4	-1.1	0.0	-5.9	9.6	-1.4	0.0	13.8	OK	30.9	-0.5	30.9	261.9	OK
49.2	6.6	-1.6	-7.5	63.9	8.6	-2.1	-9.8	0.3	13.8	OK	8.1	-3.8	10.4	261.9	OK
4.2	0.6	5.2	-0.7	5.4	0.7	6.8	-0.9	0.0	13.8	OK	21.1	-0.3	21.1	261.9	OK
167.1	22.4	-6.6	1.1	217.3	29.1	-8.6	1.4	0.9	13.8	OK	31.9	0.5	31.9	261.9	OK
23.2	3.1	1.2	-1.0	30.1	4.0	1.5	-1.3	0.1	13.8	OK	5.4	-0.5	5.5	261.9	OK
290.7	39.0	3.8	27.6	377.9	50.7	4.9	35.9	1.5	13.8	OK	24.2	13.8	34.1	261.9	OK
56.9	7.6	8.4	26.7	73.9	9.9	11.0	34.7	0.3	13.8	OK	35.8	13.3	42.6	261.9	OK
33.0	4.4	-2.7	-16.1	42.9	5.8	-3.5	-20.9	0.2	13.8	OK	11.8	-8.0	18.2	261.9	OK
6.3	0.8	3.3	-1.2	8.2	1.1	4.3	-1.6	0.0	13.8	OK	13.5	-0.6	13.6	261.9	OK
14.5	1.9	4.7	-4.5	18.9	2.5	6.1	-5.9	0.1	13.8	OK	19.3	-2.3	19.7	261.9	OK

18.5	2.5	2.1	-4.5	24.0	3.2	2.8	-5.9	0.1	13.8	OK	9.2	-2.3	10.0	261.9	OK
75.9	10.2	-2.9	-5.8	98.7	13.2	-3.7	-7.5	0.4	13.8	OK	13.9	-2.9	14.8	261.9	OK
115.0	15.4	-7.7	1.5	149.4	20.0	-10.0	2.0	0.6	13.8	OK	34.8	0.8	34.8	261.9	OK
23.6	3.2	4.9	-6.3	30.6	4.1	6.4	-8.1	0.1	13.8	OK	20.5	-3.1	21.2	261.9	OK
6.5	0.9	5.7	-8.3	8.5	1.1	7.4	-10.8	0.0	13.8	OK	23.1	-4.2	24.2	261.9	OK
53.7	7.2	-1.6	-8.8	69.8	9.4	-2.1	-11.4	0.3	13.8	OK	8.1	-4.4	11.1	261.9	OK
88.3	11.8	-7.8	-7.7	114.9	15.4	-10.2	-10.0	0.5	13.8	OK	34.4	-3.9	35.0	261.9	OK
75.8	10.2	-4.2	3.3	98.5	13.2	-5.5	4.3	0.4	13.8	OK	19.5	1.6	19.7	261.9	OK
98.4	13.2	-7.2	-5.9	127.9	17.2	-9.4	-7.7	0.5	13.8	OK	32.1	-3.0	32.5	261.9	OK
134.5	18.0	-7.6	6.3	174.8	23.5	-9.9	8.2	0.7	13.8	OK	35.0	3.1	35.4	261.9	OK
66.2	8.9	8.2	22.7	86.1	11.5	10.7	29.5	0.3	13.8	OK	35.3	11.4	40.4	261.9	OK
184.8	24.8	-7.7	11.9	240.2	32.2	-10.0	15.4	1.0	13.8	OK	36.9	5.9	38.3	261.9	OK
206.3	27.7	3.6	37.9	268.1	36.0	4.7	49.3	1.1	13.8	OK	20.9	19.0	38.9	261.9	OK
30.1	4.0	-0.2	1.0	39.1	5.2	-0.2	1.3	0.2	13.8	OK	1.7	0.5	1.9	261.9	OK
438.0	58.7	0.2	40.2	569.4	76.4	0.3	52.2	2.3	13.8	OK	14.5	20.1	37.7	261.9	OK
109.1	14.6	3.3	17.3	141.8	19.0	4.3	22.5	0.6	13.8	OK	16.7	8.7	22.5	261.9	OK
101.9	13.7	1.7	15.6	132.4	17.8	2.2	20.3	0.5	13.8	OK	10.1	7.8	16.9	261.9	OK
13.8	1.9	8.4	-0.5	17.9	2.4	10.9	-0.6	0.1	13.8	OK	34.2	-0.2	34.2	261.9	OK
146.7	19.7	7.9	12.8	190.8	25.6	10.3	16.7	0.8	13.8	OK	36.4	6.4	38.1	261.9	OK
76.8	10.3	-2.7	4.0	99.9	13.4	-3.5	5.2	0.4	13.8	OK	13.4	2.0	13.8	261.9	OK
103.0	13.8	0.0	6.0	133.9	18.0	0.0	7.8	0.5	13.8	OK	3.4	3.0	6.2	261.9	OK
34.4	4.6	-0.1	-2.4	44.8	6.0	-0.1	-3.1	0.2	13.8	OK	1.5	-1.2	2.6	261.9	OK
228.7	30.7	-9.1	2.6	297.4	39.9	-11.9	3.4	1.2	13.8	OK	44.0	1.3	44.1	261.9	OK
46.3	6.2	9.2	30.5	60.3	8.1	12.0	39.6	0.2	13.8	OK	38.7	15.2	46.8	261.9	OK
115.9	15.5	1.8	-3.7	150.6	20.2	2.3	-4.9	0.6	13.8	OK	10.9	-1.9	11.3	261.9	OK
292.2	39.2	-11.0	-0.5	379.8	50.9	-14.4	-0.7	1.5	13.8	OK	53.7	-0.3	53.7	261.9	OK
33.6	4.5	-2.6	3.0	43.7	5.9	-3.4	3.9	0.2	13.8	OK	11.5	1.5	11.8	261.9	OK
407.6	54.7	11.7	-54.6	529.9	71.1	15.2	-71.0	2.1	13.8	OK	60.1	-27.3	76.5	261.9	OK
91.9	12.3	-4.9	-1.9	119.5	16.0	-6.4	-2.5	0.5	13.8	OK	22.9	-1.0	22.9	261.9	OK
1225.4	164.3	1.0	-40.1	1593.0	213.7	1.3	-52.1	6.4	13.8	OK	42.2	-20.0	54.7	261.9	OK
481.8	64.6	3.2	-26.5	626.4	84.0	4.2	-34.5	2.5	13.8	OK	28.0	-13.3	36.2	261.9	OK
253.7	34.0	5.9	-23.9	329.8	44.2	7.7	-31.1	1.3	13.8	OK	31.8	-12.0	37.9	261.9	OK
134.8	18.1	-7.2	-4.3	175.3	23.5	-9.4	-5.7	0.7	13.8	OK	33.5	-2.2	33.7	261.9	OK
156.7	21.0	-4.6	-1.0	203.7	27.3	-6.0	-1.3	0.8	13.8	OK	23.4	-0.5	23.4	261.9	OK
0.0	-11.4	9.4	2.9	0.0	-14.8	12.3	3.8	0.0	13.8	OK	40.7	1.4	40.8	261.9	OK
45.7	6.1	4.9	-36.8	59.4	8.0	6.4	-47.8	0.2	13.8	OK	21.2	-18.4	38.3	261.9	OK
107.9	14.5	-2.5	-7.7	140.3	18.8	-3.3	-10.1	0.6	13.8	OK	13.7	-3.9	15.2	261.9	OK
79.4	10.6	-9.7	14.2	103.2	13.8	-12.6	18.4	0.4	13.8	OK	41.6	7.1	43.3	261.9	OK
213.4	28.6	-11.7	-1.9	277.4	37.2	-15.3	-2.5	1.1	13.8	OK	54.1	-0.9	54.1	261.9	OK
71.8	9.6	-3.1	1.9	93.3	12.5	-4.1	2.5	0.4	13.8	OK	14.9	1.0	15.0	261.9	OK
104.7	14.0	-4.5	-3.7	136.1	18.3	-5.9	-4.8	0.5	13.8	OK	21.6	-1.8	21.9	261.9	OK
241.1	32.3	8.9	-65.5	313.4	42.0	11.5	-85.1	1.3	13.8	OK	43.4	-32.7	71.4	261.9	OK
87.8	11.8	-4.2	-3.2	114.1	15.3	-5.4	-4.2	0.5	13.8	OK	19.6	-1.6	19.8	261.9	OK
132.6	17.8	2.8	-1.9	172.3	23.1	3.7	-2.5	0.7	13.8	OK	15.5	-0.9	15.6	261.9	OK
239.3	32.1	-8.1	-6.9	311.1	41.7	-10.5	-9.0	1.2	13.8	OK	40.1	-3.5	40.6	261.9	OK
71.4	9.6	-3.9	-2.4	92.8	12.4	-5.1	-3.2	0.4	13.8	OK	18.1	-1.2	18.2	261.9	OK
141.0	18.9	2.9	-0.4	183.3	24.6	3.7	-0.5	0.7	13.8	OK	16.0	-0.2	16.0	261.9	OK

261.2	35.0	5.0	-11.9	339.6	45.5	6.6	-15.5	1.4	13.8	OK	28.5	-5.9	30.3	261.9	OK
666.5	89.4	9.2	-57.6	866.4	116.2	12.0	-74.9	3.5	13.8	OK	58.2	-28.8	76.6	261.9	OK
111.7	15.0	-2.6	-3.3	145.2	19.5	-3.4	-4.3	0.6	13.8	OK	14.0	-1.7	14.3	261.9	OK
350.7	47.0	14.0	-69.1	455.9	61.2	18.2	-89.8	1.8	13.8	OK	67.4	-34.5	90.1	261.9	OK
5.4	0.7	2.8	2.8	7.0	0.9	3.7	3.6	0.0	13.8	OK	11.6	1.4	11.8	261.9	OK
0.0	-7.6	6.8	2.8	0.0	-9.8	8.9	3.7	0.0	13.8	OK	29.3	1.4	29.4	261.9	OK
45.9	6.2	-3.9	2.7	59.7	8.0	-5.1	3.5	0.2	13.8	OK	17.3	1.3	17.4	261.9	OK
117.7	15.8	-8.4	5.5	153.0	20.5	-10.9	7.2	0.6	13.8	OK	37.4	2.8	37.7	261.9	OK
59.9	8.0	-2.8	9.9	77.9	10.4	-3.6	12.9	0.3	13.8	OK	13.1	5.0	15.6	261.9	OK
98.5	13.2	-8.9	8.1	128.1	17.2	-11.6	10.6	0.5	13.8	OK	39.1	4.1	39.8	261.9	OK
57.3	7.7	-3.7	-3.8	74.5	10.0	-4.9	-4.9	0.3	13.8	OK	16.9	-1.9	17.2	261.9	OK
28.4	3.8	0.9	1.9	36.9	5.0	1.2	2.5	0.1	13.8	OK	4.5	1.0	4.8	261.9	OK
41.6	5.6	0.5	5.4	54.0	7.2	0.7	7.0	0.2	13.8	OK	3.4	2.7	5.8	261.9	OK
80.5	10.8	-4.9	-3.0	104.6	14.0	-6.4	-3.9	0.4	13.8	OK	22.5	-1.5	22.6	261.9	OK
128.1	17.2	-9.1	0.9	166.5	22.3	-11.8	1.1	0.7	13.8	OK	40.6	0.4	40.6	261.9	OK
28.9	3.9	-2.7	10.6	37.6	5.0	-3.5	13.8	0.2	13.8	OK	11.6	5.3	14.8	261.9	OK
10.1	1.4	5.0	2.7	13.2	1.8	6.5	3.5	0.1	13.8	OK	20.3	1.4	20.5	261.9	OK
14.3	1.9	1.4	5.6	18.6	2.5	1.9	7.3	0.1	13.8	OK	6.3	2.8	8.0	261.9	OK
12.1	1.6	8.2	1.1	15.7	2.1	10.6	1.4	0.1	13.8	OK	33.4	0.5	33.4	261.9	OK
70.7	9.5	-4.7	7.9	91.9	12.3	-6.1	10.2	0.4	13.8	OK	21.1	3.9	22.2	261.9	OK
40.6	5.5	-3.3	7.7	52.8	7.1	-4.3	10.0	0.2	13.8	OK	14.7	3.8	16.2	261.9	OK
159.7	21.4	-8.9	-9.7	207.7	27.9	-11.6	-12.6	0.8	13.8	OK	40.9	-4.9	41.7	261.9	OK
77.7	10.4	-4.4	5.3	101.0	13.6	-5.7	6.9	0.4	13.8	OK	20.0	2.7	20.5	261.9	OK
15.0	2.0	3.7	6.2	19.4	2.6	4.8	8.1	0.1	13.8	OK	15.3	3.1	16.2	261.9	OK
112.9	15.1	-4.4	0.5	146.8	19.7	-5.7	0.7	0.6	13.8	OK	21.3	0.3	21.3	261.9	OK
23.8	3.2	4.0	8.0	30.9	4.2	5.2	10.3	0.1	13.8	OK	16.8	4.0	18.2	261.9	OK
1.5	0.2	3.6	10.8	1.9	0.3	4.7	14.0	0.0	13.8	OK	14.6	5.4	17.3	261.9	OK
477.3	64.0	12.5	-79.7	620.5	83.2	16.3	-103.6	2.5	13.8	OK	65.5	-39.8	95.2	261.9	OK
71.0	9.5	-3.2	-7.2	92.3	12.4	-4.2	-9.4	0.4	13.8	OK	15.2	-3.6	16.5	261.9	OK
123.1	16.5	2.5	-25.7	160.1	21.5	3.3	-33.5	0.6	13.8	OK	14.0	-12.9	26.3	261.9	OK
227.1	30.5	-10.1	0.9	295.2	39.6	-13.1	1.2	1.2	13.8	OK	47.7	0.5	47.7	261.9	OK
117.9	15.8	0.3	-7.4	153.2	20.6	0.3	-9.6	0.6	13.8	OK	4.7	-3.7	8.0	261.9	OK
107.2	14.4	0.0	-8.0	139.3	18.7	0.1	-10.5	0.6	13.8	OK	3.5	-4.0	7.8	261.9	OK
29.3	3.9	-2.0	2.2	38.1	5.1	-2.6	2.9	0.2	13.8	OK	8.8	1.1	9.1	261.9	OK
47.9	6.4	2.5	-20.3	62.3	8.4	3.3	-26.4	0.2	13.8	OK	11.8	-10.2	21.2	261.9	OK
1012.0	135.7	8.8	-91.2	1315.6	176.4	11.4	-118.5	5.3	13.8	OK	67.1	-45.6	103.6	261.9	OK
182.6	24.5	13.2	-61.6	237.3	31.8	17.2	-80.1	0.9	13.8	OK	59.0	-30.8	79.6	261.9	OK
191.5	25.7	-9.3	-4.1	249.0	33.4	-12.1	-5.4	1.0	13.8	OK	43.4	-2.1	43.6	261.9	OK
763.1	102.3	15.1	-82.5	992.0	133.0	19.6	-107.3	4.0	13.8	OK	84.6	-41.3	110.8	261.9	OK
74.5	10.0	0.4	-1.3	96.9	13.0	0.6	-1.7	0.4	13.8	OK	4.1	-0.6	4.2	261.9	OK
27.5	3.7	5.7	-26.0	35.7	4.8	7.5	-33.7	0.1	13.8	OK	24.0	-13.0	32.9	261.9	OK
201.3	27.0	12.9	42.3	261.7	35.1	16.8	55.0	1.0	13.8	OK	58.4	21.2	68.9	261.9	OK
297.5	39.9	-11.2	3.7	386.8	51.9	-14.6	4.8	1.5	13.8	OK	54.7	1.8	54.8	261.9	OK
188.5	25.3	-5.1	13.9	245.1	32.9	-6.6	18.0	1.0	13.8	OK	26.3	6.9	28.9	261.9	OK
103.5	13.9	-8.3	-3.8	134.5	18.0	-10.8	-4.9	0.5	13.8	OK	36.9	-1.9	37.1	261.9	OK
727.9	97.6	23.4	73.3	946.3	126.9	30.4	95.3	3.8	13.8	OK	117.1	36.7	133.2	261.9	OK
53.8	7.2	-4.6	-9.1	69.9	9.4	-6.0	-11.8	0.3	13.8	OK	20.4	-4.6	21.8	261.9	OK

174.7	23.4	5.8	15.9	227.1	30.5	7.5	20.7	0.9	13.8	OK	28.9	8.0	32.0	261.9	OK
223.8	30.0	16.1	33.0	290.9	39.0	20.9	42.9	1.2	13.8	OK	71.9	16.5	77.4	261.9	OK
8.2	1.1	4.2	-4.1	10.6	1.4	5.5	-5.3	0.0	13.8	OK	17.3	-2.0	17.6	261.9	OK
0.0	-32.9	5.1	-8.2	0.0	-42.8	6.6	-10.7	0.0	13.8	OK	28.2	-4.1	29.1	261.9	OK
125.2	16.8	17.1	42.3	162.8	21.8	22.2	55.0	0.7	13.8	OK	72.9	21.2	81.6	261.9	OK
23.6	3.2	-0.6	-10.1	30.6	4.1	-0.7	-13.2	0.1	13.8	OK	3.0	-5.1	9.3	261.9	OK
88.7	11.9	14.6	46.8	115.4	15.5	18.9	60.9	0.5	13.8	OK	61.6	23.4	73.8	261.9	OK
235.0	31.5	-3.1	13.7	305.5	41.0	-4.1	17.8	1.2	13.8	OK	19.9	6.8	23.2	261.9	OK
202.1	27.1	14.8	42.7	262.8	35.2	19.2	55.5	1.1	13.8	OK	66.1	21.3	75.7	261.9	OK
161.1	21.6	17.1	-1.4	209.4	28.1	22.3	-1.9	0.8	13.8	OK	74.3	-0.7	74.3	261.9	OK
289.8	38.9	-6.6	10.4	376.7	50.5	-8.6	13.5	1.5	13.8	OK	35.7	5.2	36.8	261.9	OK
139.5	18.7	5.7	19.0	181.3	24.3	7.5	24.7	0.7	13.8	OK	27.5	9.5	32.1	261.9	OK
257.4	34.5	11.3	34.6	334.7	44.9	14.7	45.0	1.3	13.8	OK	53.8	17.3	61.5	261.9	OK
115.2	15.5	17.3	53.8	149.8	20.1	22.5	69.9	0.6	13.8	OK	73.5	26.9	87.0	261.9	OK
139.6	18.7	-6.5	2.3	181.5	24.3	-8.4	2.9	0.7	13.8	OK	30.6	1.1	30.6	261.9	OK
21.4	2.9	-0.1	-4.7	27.8	3.7	-0.1	-6.1	0.1	13.8	OK	1.1	-2.3	4.2	261.9	OK
184.0	24.7	-1.7	10.6	239.2	32.1	-2.1	13.8	1.0	13.8	OK	12.4	5.3	15.5	261.9	OK
120.6	16.2	-3.5	5.9	156.8	21.0	-4.5	7.6	0.6	13.8	OK	17.8	2.9	18.5	261.9	OK
93.9	12.6	-5.5	-1.7	122.1	16.4	-7.2	-2.2	0.5	13.8	OK	25.3	-0.9	25.4	261.9	OK
100.8	13.5	-2.8	6.3	131.0	17.6	-3.7	8.1	0.5	13.8	OK	14.6	3.1	15.5	261.9	OK
0.0	-12.9	3.1	-3.8	0.0	-16.7	4.0	-5.0	0.0	13.8	OK	15.4	-1.9	15.8	261.9	OK
9.8	1.3	0.8	-1.5	12.8	1.7	1.0	-2.0	0.1	13.8	OK	3.5	-0.8	3.7	261.9	OK
108.5	14.6	-1.1	14.2	141.0	18.9	-1.4	18.4	0.6	13.8	OK	7.6	7.1	14.5	261.9	OK
138.5	18.6	14.2	25.6	180.0	24.1	18.5	33.2	0.7	13.8	OK	61.7	12.8	65.5	261.9	OK
130.1	17.4	-1.5	12.9	169.1	22.7	-1.9	16.7	0.7	13.8	OK	10.0	6.4	15.0	261.9	OK
98.2	13.2	-4.4	4.6	127.6	17.1	-5.7	5.9	0.5	13.8	OK	20.8	2.3	21.2	261.9	OK
63.9	8.6	-3.2	2.0	83.1	11.1	-4.2	2.6	0.3	13.8	OK	14.9	1.0	15.0	261.9	OK
164.5	22.1	-3.7	14.2	213.9	28.7	-4.8	18.4	0.9	13.8	OK	20.1	7.1	23.5	261.9	OK
63.6	8.5	-4.6	-7.1	82.7	11.1	-6.0	-9.2	0.3	13.8	OK	20.6	-3.5	21.5	261.9	OK
66.8	9.0	-3.7	-5.6	86.8	11.6	-4.8	-7.3	0.3	13.8	OK	16.9	-2.8	17.6	261.9	OK
69.0	9.3	-4.9	-3.3	89.7	12.0	-6.3	-4.3	0.4	13.8	OK	21.7	-1.7	21.9	261.9	OK
113.2	15.2	-6.4	7.1	147.2	19.7	-8.4	9.2	0.6	13.8	OK	29.5	3.5	30.1	261.9	OK
14.9	2.0	-1.1	-1.9	19.4	2.6	-1.4	-2.5	0.1	13.8	OK	4.9	-1.0	5.2	261.9	OK
135.8	18.2	-7.4	-1.2	176.5	23.7	-9.7	-1.6	0.7	13.8	OK	34.2	-0.6	34.3	261.9	OK
44.9	6.0	-3.4	-0.9	58.3	7.8	-4.4	-1.1	0.2	13.8	OK	15.1	-0.4	15.1	261.9	OK
56.7	7.6	-4.7	1.5	73.7	9.9	-6.2	2.0	0.3	13.8	OK	20.9	0.8	20.9	261.9	OK
553.0	74.2	9.4	35.7	718.9	96.4	12.2	46.4	2.9	13.8	OK	55.1	17.9	63.2	261.9	OK
32.5	4.4	-2.4	-4.2	42.2	5.7	-3.1	-5.5	0.2	13.8	OK	10.6	-2.1	11.2	261.9	OK
475.4	63.8	7.7	41.9	618.0	82.9	10.0	54.5	2.5	13.8	OK	45.8	21.0	58.4	261.9	OK
183.5	24.6	1.9	23.8	238.5	32.0	2.5	30.9	1.0	13.8	OK	13.5	11.9	24.6	261.9	OK
855.9	114.8	15.8	71.9	1112.7	149.2	20.6	93.4	4.5	13.8	OK	90.6	35.9	109.9	261.9	OK
161.7	21.7	13.2	58.2	210.3	28.2	17.1	75.6	0.8	13.8	OK	58.3	29.1	77.0	261.9	OK
138.1	18.5	-1.8	13.2	179.5	24.1	-2.4	17.2	0.7	13.8	OK	11.7	6.6	16.4	261.9	OK
134.8	18.1	-9.9	-12.6	175.2	23.5	-12.9	-16.3	0.7	13.8	OK	44.2	-6.3	45.5	261.9	OK
324.6	43.5	14.3	41.1	422.0	56.6	18.5	53.5	1.7	13.8	OK	67.7	20.6	76.5	261.9	OK
142.8	19.2	15.6	13.3	185.6	24.9	20.2	17.2	0.7	13.8	OK	67.3	6.6	68.3	261.9	OK
86.9	11.7	-7.2	2.0	113.0	15.2	-9.3	2.6	0.5	13.8	OK	31.6	1.0	31.6	261.9	OK

134.7	18.1	-6.9	8.6	175.1	23.5	-9.0	11.2	0.7	13.8	OK	32.1	4.3	33.0	261.9	OK
27.3	3.7	0.0	-6.8	35.5	4.8	0.0	-8.9	0.1	13.8	OK	0.9	-3.4	6.0	261.9	OK
179.8	24.1	-6.9	10.2	233.7	31.3	-9.0	13.3	0.9	13.8	OK	33.6	5.1	34.8	261.9	OK
896.7	120.3	12.4	-31.8	1165.7	156.4	16.1	-41.3	4.7	13.8	OK	78.1	-15.9	82.8	261.9	OK
129.3	17.3	1.9	14.0	168.1	22.5	2.5	18.2	0.7	13.8	OK	11.8	7.0	16.9	261.9	OK
398.7	53.5	13.6	45.3	518.3	69.5	17.7	58.9	2.1	13.8	OK	67.4	22.6	78.0	261.9	OK
161.1	21.6	-4.8	14.9	209.4	28.1	-6.2	19.3	0.8	13.8	OK	24.3	7.4	27.5	261.9	OK
145.9	19.6	18.3	44.5	189.7	25.4	23.8	57.9	0.8	13.8	OK	78.4	22.3	87.4	261.9	OK
154.2	20.7	17.0	15.2	200.5	26.9	22.2	19.8	0.8	13.8	OK	73.6	7.6	74.8	261.9	OK
186.2	25.0	9.3	12.4	242.1	32.5	12.1	16.1	1.0	13.8	OK	43.4	6.2	44.7	261.9	OK
126.5	17.0	5.4	15.6	164.5	22.1	7.1	20.3	0.7	13.8	OK	25.9	7.8	29.2	261.9	OK
427.9	57.4	14.0	-56.6	556.3	74.6	18.2	-73.6	2.2	13.8	OK	70.0	-28.3	85.4	261.9	OK
676.8	90.8	11.9	-62.4	879.8	118.0	15.4	-81.1	3.5	13.8	OK	69.1	-31.2	87.8	261.9	OK
39.2	5.3	-3.8	0.9	51.0	6.8	-5.0	1.2	0.2	13.8	OK	16.7	0.5	16.7	261.9	OK
49.5	6.6	-5.7	0.1	64.4	8.6	-7.4	0.1	0.3	13.8	OK	24.6	0.0	24.6	261.9	OK
137.1	18.4	2.4	-29.4	178.3	23.9	3.1	-38.2	0.7	13.8	OK	14.0	-14.7	29.0	261.9	OK
1101.4	147.7	11.4	-100.8	1431.9	192.0	14.8	-131.0	5.7	13.8	OK	80.3	-50.4	118.6	261.9	OK
100.3	13.4	-8.3	-4.5	130.3	17.5	-10.9	-5.8	0.5	13.8	OK	36.8	-2.2	37.0	261.9	OK
0.0	-22.2	6.6	3.1	0.0	-28.9	8.6	4.0	0.0	13.8	OK	32.0	1.5	32.1	261.9	OK
7.2	1.0	5.2	1.6	9.3	1.2	6.7	2.1	0.0	13.8	OK	21.1	0.8	21.1	261.9	OK
101.4	13.6	-6.7	-10.2	131.8	17.7	-8.7	-13.2	0.5	13.8	OK	30.2	-5.1	31.5	261.9	OK
162.3	21.8	2.3	0.6	211.0	28.3	3.0	0.8	0.8	13.8	OK	14.5	0.3	14.6	261.9	OK
86.0	11.5	-5.6	7.8	111.9	15.0	-7.3	10.2	0.4	13.8	OK	25.3	3.9	26.2	261.9	OK
504.7	67.7	2.8	-29.2	656.1	88.0	3.7	-37.9	2.6	13.8	OK	27.2	-14.6	37.2	261.9	OK
194.3	26.1	-5.1	-6.8	252.5	33.9	-6.6	-8.8	1.0	13.8	OK	26.6	-3.4	27.3	261.9	OK
125.2	16.8	4.0	-11.5	162.7	21.8	5.2	-14.9	0.7	13.8	OK	20.2	-5.7	22.5	261.9	OK
78.1	10.5	4.4	-11.0	101.5	13.6	5.7	-14.2	0.4	13.8	OK	20.3	-5.5	22.4	261.9	OK
1438.6	193.0	0.8	-24.2	1870.2	250.8	1.0	-31.4	7.5	13.8	OK	48.2	-12.1	52.5	261.9	OK
70.5	9.5	-7.9	-0.2	91.6	12.3	-10.3	-0.2	0.4	13.8	OK	34.1	-0.1	34.1	261.9	OK
832.4	111.6	14.3	-100.9	1082.1	145.1	18.6	-131.2	4.3	13.8	OK	83.8	-50.5	121.1	261.9	OK
198.9	26.7	-9.8	-2.4	258.5	34.7	-12.8	-3.1	1.0	13.8	OK	45.9	-1.2	46.0	261.9	OK
304.2	40.8	-8.8	0.2	395.4	53.0	-11.5	0.2	1.6	13.8	OK	45.1	0.1	45.1	261.9	OK
149.6	20.1	-2.9	-3.0	194.4	26.1	-3.8	-3.9	0.8	13.8	OK	16.4	-1.5	16.6	261.9	OK
130.2	17.5	2.3	-21.8	169.2	22.7	3.0	-28.3	0.7	13.8	OK	13.5	-10.9	23.2	261.9	OK
114.9	15.4	-9.6	-0.8	149.4	20.0	-12.5	-1.0	0.6	13.8	OK	42.4	-0.4	42.4	261.9	OK
121.9	16.3	1.4	-11.9	158.4	21.2	1.8	-15.5	0.6	13.8	OK	9.4	-6.0	14.0	261.9	OK
141.2	18.9	-8.1	-1.4	183.5	24.6	-10.5	-1.9	0.7	13.8	OK	37.0	-0.7	37.0	261.9	OK
151.8	20.4	-9.3	-4.4	197.4	26.5	-12.1	-5.8	0.8	13.8	OK	42.4	-2.2	42.5	261.9	OK
73.4	9.8	-4.0	2.7	95.4	12.8	-5.2	3.5	0.4	13.8	OK	18.4	1.4	18.6	261.9	OK
218.8	29.3	-1.1	-8.1	284.4	38.1	-1.4	-10.6	1.1	13.8	OK	11.2	-4.1	13.2	261.9	OK
183.0	24.5	0.9	-2.3	237.8	31.9	1.2	-3.0	1.0	13.8	OK	9.5	-1.2	9.7	261.9	OK
118.7	15.9	-6.4	4.6	154.4	20.7	-8.3	6.0	0.6	13.8	OK	29.6	2.3	29.9	261.9	OK
245.8	33.0	-5.9	-6.0	319.5	42.9	-7.7	-7.7	1.3	13.8	OK	31.6	-3.0	32.1	261.9	OK
0.0	-7.6	4.4	5.5	0.0	-9.9	5.7	7.2	0.0	13.8	OK	19.6	2.8	20.1	261.9	OK
61.8	8.3	-2.0	8.0	80.3	10.8	-2.6	10.5	0.3	13.8	OK	9.9	4.0	12.1	261.9	OK
7.8	1.0	8.3	-34.5	10.1	1.4	10.8	-44.8	0.0	13.8	OK	33.9	-17.2	45.2	261.9	OK
189.8	25.5	16.0	-60.5	246.8	33.1	20.9	-78.6	1.0	13.8	OK	70.7	-30.2	88.0	261.9	OK

242.0	32.5	7.9	-13.9	314.5	42.2	10.3	-18.1	1.3	13.8	OK	39.6	-7.0	41.4	261.9	OK
10.9	1.5	-0.6	1.1	14.2	1.9	-0.8	1.5	0.1	13.8	OK	2.8	0.6	3.0	261.9	OK
126.9	17.0	-7.3	2.6	165.0	22.1	-9.4	3.4	0.7	13.8	OK	33.2	1.3	33.3	261.9	OK
176.0	23.6	-6.6	-5.2	228.8	30.7	-8.6	-6.7	0.9	13.8	OK	32.1	-2.6	32.4	261.9	OK
166.9	22.4	-6.6	-10.7	216.9	29.1	-8.5	-13.9	0.9	13.8	OK	31.8	-5.3	33.1	261.9	OK
103.0	13.8	-6.9	6.8	133.9	18.0	-8.9	8.8	0.5	13.8	OK	30.9	3.4	31.4	261.9	OK
40.3	5.4	-1.2	5.1	52.4	7.0	-1.6	6.6	0.2	13.8	OK	6.3	2.6	7.7	261.9	OK
0.0	-21.6	3.7	2.5	0.0	-28.1	4.8	3.2	0.0	13.8	OK	19.9	1.2	20.0	261.9	OK
50.9	6.8	8.6	-25.7	66.1	8.9	11.1	-33.4	0.3	13.8	OK	36.1	-12.9	42.5	261.9	OK
2.5	0.3	2.0	1.0	3.3	0.4	2.6	1.3	0.0	13.8	OK	8.1	0.5	8.2	261.9	OK
55.0	7.4	-4.2	-8.2	71.5	9.6	-5.5	-10.7	0.3	13.8	OK	18.7	-4.1	20.0	261.9	OK
25.9	3.5	2.9	6.6	33.7	4.5	3.7	8.6	0.1	13.8	OK	12.4	3.3	13.7	261.9	OK
10.0	1.3	-0.1	4.8	13.0	1.8	-0.2	6.2	0.1	13.8	OK	0.8	2.4	4.2	261.9	OK
42.4	5.7	-2.4	6.4	55.1	7.4	-3.1	8.4	0.2	13.8	OK	10.9	3.2	12.2	261.9	OK
214.0	28.7	12.1	-61.8	278.2	37.3	15.8	-80.3	1.1	13.8	OK	55.7	-30.9	77.2	261.9	OK
68.2	9.2	-4.3	6.0	88.7	11.9	-5.5	7.8	0.4	13.8	OK	19.3	3.0	20.0	261.9	OK
32.8	4.4	-2.5	0.1	42.6	5.7	-3.3	0.2	0.2	13.8	OK	11.1	0.1	11.1	261.9	OK
192.4	25.8	9.2	-26.0	250.2	33.6	11.9	-33.8	1.0	13.8	OK	43.1	-13.0	48.6	261.9	OK
6.3	0.8	2.8	4.0	8.2	1.1	3.7	5.2	0.0	13.8	OK	11.7	2.0	12.2	261.9	OK
117.5	15.8	-4.9	-4.9	152.7	20.5	-6.3	-6.4	0.6	13.8	OK	23.3	-2.5	23.7	261.9	OK
220.5	29.6	-8.3	8.8	286.6	38.4	-10.8	11.5	1.1	13.8	OK	40.3	4.4	41.0	261.9	OK
453.3	60.8	16.5	-86.0	589.3	79.0	21.5	-111.8	2.4	13.8	OK	80.8	-43.0	109.9	261.9	OK
72.8	9.8	-4.2	-0.1	94.7	12.7	-5.4	-0.1	0.4	13.8	OK	19.1	0.0	19.1	261.9	OK
131.0	17.6	-6.0	-9.0	170.3	22.8	-7.8	-11.7	0.7	13.8	OK	28.4	-4.5	29.5	261.9	OK
88.7	11.9	-4.4	-7.4	115.3	15.5	-5.7	-9.6	0.5	13.8	OK	20.6	-3.7	21.6	261.9	OK
326.7	43.8	17.2	-71.9	424.7	57.0	22.4	-93.5	1.7	13.8	OK	79.8	-36.0	101.3	261.9	OK
97.0	13.0	-3.4	-4.4	126.1	16.9	-4.4	-5.7	0.5	13.8	OK	16.7	-2.2	17.1	261.9	OK
19.3	2.6	-1.0	14.4	25.2	3.4	-1.4	18.7	0.1	13.8	OK	4.8	7.2	13.4	261.9	OK

Tabella 3: verifiche del sostegno di prima fase (M>0 fibre tese in intradosso) – Camera di esodo

Sollecitazioni caratteristiche				Sollecitazioni SLU				Verifica calcestruzzo proiettato			Verifica centine				
N_{clsp}	N_{cen}	M_{cen}	T_{cen}	$N_{clsp,d}$	$N_{cen,d}$	$M_{cen,d}$	$T_{cen,d}$	$\sigma_{c\_clsp,d}$	f_{cd}	Verifica	$\sigma_{cen,d}$	$\tau_{cen,d}$	$\sigma_{id,cen,d}$	f_{yd}	Verifica
[kN]	[kN]	[kNm]	[kN]	[kN]	[kN]	[kNm]	[kN]	[MPa]	[MPa]	-	[MPa]	[MPa]	[MPa]	[MPa]	-
699.5	51.3	0.4	0.1	909.3	66.7	0.5	0.1	3.6	13.8	OK	25.6	0.1	25.6	261.9	OK
0.0	-348.7	-0.5	9.3	0.0	-453.4	-0.6	12.1	0.0	13.8	OK	153.0	8.6	153.7	261.9	OK
0.0	-64.8	17.0	15.2	0.0	-84.2	22.1	19.7	0.0	13.8	OK	189.9	14.1	191.4	261.9	OK
238.9	17.5	-0.5	52.2	310.5	22.8	-0.7	67.8	1.2	13.8	OK	12.5	48.3	84.6	261.9	OK
0.0	-19.4	1.5	0.3	0.0	-25.2	2.0	0.4	0.0	13.8	OK	22.8	0.3	22.8	261.9	OK
0.0	-348.7	-0.5	9.3	0.0	-453.4	-0.6	12.1	0.0	13.8	OK	153.0	8.6	153.7	261.9	OK
0.0	-68.0	3.2	-5.3	0.0	-88.3	4.1	-6.9	0.0	13.8	OK	59.3	-4.9	59.9	261.9	OK
0.0	-152.8	3.6	-4.5	0.0	-198.7	4.7	-5.9	0.0	13.8	OK	99.4	-4.2	99.7	261.9	OK
0.0	-35.0	-0.6	3.3	0.0	-45.5	-0.8	4.3	0.0	13.8	OK	20.8	3.1	21.5	261.9	OK
0.0	-91.2	2.0	0.4	0.0	-118.6	2.5	0.6	0.0	13.8	OK	57.5	0.4	57.5	261.9	OK
0.0	-6.9	-0.7	2.7	0.0	-8.9	-1.0	3.6	0.0	13.8	OK	9.9	2.5	10.9	261.9	OK
37.1	2.7	-9.2	2.6	48.3	3.5	-12.0	3.4	0.2	13.8	OK	89.1	2.4	89.2	261.9	OK
16.5	1.2	-6.2	4.6	21.4	1.6	-8.1	6.0	0.1	13.8	OK	59.7	4.3	60.2	261.9	OK
19.0	1.4	-3.6	1.6	24.8	1.8	-4.7	2.1	0.1	13.8	OK	34.8	1.5	34.9	261.9	OK
27.1	2.0	-5.1	3.9	35.3	2.6	-6.6	5.1	0.1	13.8	OK	49.5	3.6	49.9	261.9	OK
1.1	0.1	-3.3	1.9	1.5	0.1	-4.4	2.4	0.0	13.8	OK	31.9	1.7	32.1	261.9	OK
0.0	-148.3	2.8	-0.8	0.0	-192.7	3.7	-1.1	0.0	13.8	OK	90.1	-0.8	90.2	261.9	OK
0.0	-44.8	-2.6	1.0	0.0	-58.3	-3.3	1.4	0.0	13.8	OK	43.6	1.0	43.6	261.9	OK
31.0	2.3	-9.7	-1.5	40.3	3.0	-12.6	-1.9	0.2	13.8	OK	93.1	-1.4	93.1	261.9	OK
0.0	-10.6	4.6	-7.1	0.0	-13.8	5.9	-9.2	0.0	13.8	OK	48.1	-6.6	49.4	261.9	OK
3.8	0.3	14.2	-4.0	5.0	0.4	18.5	-5.2	0.0	13.8	OK	135.3	-3.7	135.5	261.9	OK
0.0	-29.4	9.7	-2.7	0.0	-38.3	12.6	-3.5	0.0	13.8	OK	105.0	-2.5	105.1	261.9	OK
2.8	0.2	-2.6	-7.4	3.6	0.3	-3.4	-9.6	0.0	13.8	OK	24.9	-6.9	27.6	261.9	OK
22.1	1.6	-7.5	-1.1	28.8	2.1	-9.8	-1.4	0.1	13.8	OK	72.3	-1.0	72.3	261.9	OK
27.9	2.0	-3.5	-10.5	36.3	2.7	-4.5	-13.7	0.1	13.8	OK	33.8	-9.8	37.8	261.9	OK
6.9	0.5	6.8	-10.2	8.9	0.7	8.8	-13.2	0.0	13.8	OK	64.9	-9.4	66.9	261.9	OK
9.9	0.7	6.3	10.3	12.9	0.9	8.1	13.4	0.1	13.8	OK	59.9	9.6	62.1	261.9	OK
4.3	0.3	-3.3	6.4	5.6	0.4	-4.3	8.3	0.0	13.8	OK	31.4	5.9	33.0	261.9	OK
17.4	1.3	-7.1	0.2	22.6	1.7	-9.2	0.3	0.1	13.8	OK	67.8	0.2	67.8	261.9	OK
37.3	2.7	-9.9	1.3	48.4	3.6	-12.9	1.6	0.2	13.8	OK	95.9	1.2	95.9	261.9	OK
3.3	0.2	14.0	4.3	4.3	0.3	18.1	5.6	0.0	13.8	OK	133.0	4.0	133.2	261.9	OK
0.0	-28.9	9.1	3.6	0.0	-37.6	11.8	4.6	0.0	13.8	OK	98.6	3.3	98.7	261.9	OK
28.7	2.1	-4.0	10.3	37.3	2.7	-5.2	13.4	0.1	13.8	OK	38.7	9.5	42.1	261.9	OK
0.0	-11.0	3.3	7.4	0.0	-14.3	4.3	9.6	0.0	13.8	OK	36.1	6.9	38.0	261.9	OK
0.0	-68.5	-1.8	0.2	0.0	-89.0	-2.4	0.2	0.0	13.8	OK	46.5	0.2	46.5	261.9	OK
32.3	2.4	-6.4	-2.1	42.0	3.1	-8.3	-2.7	0.2	13.8	OK	61.6	-1.9	61.7	261.9	OK
0.0	-13.4	-3.4	-2.2	0.0	-17.5	-4.4	-2.9	0.0	13.8	OK	38.0	-2.1	38.1	261.9	OK
0.0	-134.4	4.5	11.1	0.0	-174.8	5.9	14.5	0.0	13.8	OK	100.6	10.3	102.1	261.9	OK
20.2	1.5	0.4	1.2	26.3	1.9	0.5	1.5	0.1	13.8	OK	4.0	1.1	4.4	261.9	OK
38.7	2.8	-0.7	-7.3	50.3	3.7	-0.9	-9.5	0.2	13.8	OK	8.1	-6.8	14.3	261.9	OK
31.7	2.3	-8.6	-5.4	41.2	3.0	-11.1	-7.0	0.2	13.8	OK	82.5	-5.0	83.0	261.9	OK
14.2	1.0	-3.4	-3.2	18.5	1.4	-4.4	-4.1	0.1	13.8	OK	32.4	-2.9	32.8	261.9	OK

12.3	0.9	-5.7	-3.5	15.9	1.2	-7.5	-4.5	0.1	13.8	OK	55.1	-3.2	55.4	261.9	OK
0.0	-13.6	-0.7	-2.3	0.0	-17.7	-0.9	-3.0	0.0	13.8	OK	12.6	-2.1	13.1	261.9	OK
0.0	-100.1	1.9	-2.9	0.0	-130.1	2.5	-3.8	0.0	13.8	OK	61.1	-2.7	61.3	261.9	OK
0.0	-26.1	-1.9	-0.6	0.0	-33.9	-2.4	-0.8	0.0	13.8	OK	28.8	-0.6	28.8	261.9	OK
0.0	-214.2	5.8	-0.3	0.0	-278.5	7.5	-0.4	0.0	13.8	OK	146.5	-0.3	146.5	261.9	OK
16.4	1.2	-2.2	-0.8	21.3	1.6	-2.9	-1.1	0.1	13.8	OK	21.5	-0.8	21.6	261.9	OK
106.4	7.8	-2.4	5.1	138.3	10.1	-3.1	6.6	0.6	13.8	OK	26.2	4.7	27.4	261.9	OK
73.4	5.4	7.5	4.0	95.5	7.0	9.7	5.2	0.4	13.8	OK	73.5	3.7	73.8	261.9	OK
116.9	8.6	3.6	-0.3	152.0	11.1	4.7	-0.4	0.6	13.8	OK	38.3	-0.3	38.3	261.9	OK
106.3	7.8	-3.0	5.3	138.2	10.1	-3.9	6.8	0.6	13.8	OK	31.8	4.9	32.9	261.9	OK
84.0	6.2	-8.9	8.6	109.2	8.0	-11.5	11.2	0.4	13.8	OK	87.1	8.0	88.2	261.9	OK
126.8	9.3	-2.2	8.9	164.8	12.1	-2.8	11.5	0.7	13.8	OK	24.8	8.2	28.6	261.9	OK
88.3	6.5	-3.1	6.0	114.7	8.4	-4.0	7.8	0.5	13.8	OK	32.3	5.5	33.7	261.9	OK
81.9	6.0	0.6	2.6	106.5	7.8	0.8	3.4	0.4	13.8	OK	8.4	2.4	9.4	261.9	OK
0.0	-324.4	4.9	-15.5	0.0	-421.8	6.4	-20.2	0.0	13.8	OK	184.9	-14.4	186.6	261.9	OK
90.6	6.6	4.0	5.8	117.8	8.6	5.2	7.5	0.5	13.8	OK	41.2	5.3	42.3	261.9	OK
0.0	-64.8	17.0	15.2	0.0	-84.2	22.1	19.7	0.0	13.8	OK	189.9	14.1	191.4	261.9	OK
302.1	22.1	-2.0	10.0	392.8	28.8	-2.7	13.0	1.6	13.8	OK	28.9	9.3	33.1	261.9	OK
6.1	0.4	-4.1	1.1	7.9	0.6	-5.4	1.4	0.0	13.8	OK	39.6	1.0	39.6	261.9	OK
139.2	10.2	0.1	2.4	181.0	13.3	0.2	3.1	0.7	13.8	OK	5.5	2.2	6.8	261.9	OK
23.8	1.7	-3.8	-12.1	31.0	2.3	-4.9	-15.7	0.1	13.8	OK	36.8	-11.2	41.6	261.9	OK
73.5	5.4	-8.1	-2.6	95.5	7.0	-10.5	-3.3	0.4	13.8	OK	79.3	-2.4	79.4	261.9	OK
0.0	-20.3	3.4	-4.6	0.0	-26.4	4.5	-6.0	0.0	13.8	OK	41.4	-4.3	42.0	261.9	OK
0.0	-26.4	6.2	-3.4	0.0	-34.3	8.0	-4.4	0.0	13.8	OK	70.1	-3.1	70.3	261.9	OK
2.2	0.2	11.9	-3.6	2.9	0.2	15.5	-4.7	0.0	13.8	OK	113.5	-3.4	113.6	261.9	OK
47.0	3.4	-10.5	-2.9	61.1	4.5	-13.6	-3.8	0.2	13.8	OK	101.1	-2.7	101.3	261.9	OK
1.6	0.1	6.0	-9.0	2.1	0.2	7.8	-11.7	0.0	13.8	OK	57.1	-8.4	58.9	261.9	OK
4.8	0.3	-2.1	-5.7	6.2	0.5	-2.7	-7.4	0.0	13.8	OK	20.2	-5.3	22.2	261.9	OK
41.9	3.1	-9.3	0.8	54.5	4.0	-12.1	1.0	0.2	13.8	OK	90.0	0.7	90.0	261.9	OK
14.0	1.0	-3.3	3.1	18.2	1.3	-4.2	4.0	0.1	13.8	OK	31.5	2.8	31.9	261.9	OK
0.0	-28.8	5.2	5.6	0.0	-37.4	6.8	7.3	0.0	13.8	OK	62.0	5.2	62.7	261.9	OK
4.8	0.4	11.1	5.2	6.3	0.5	14.4	6.7	0.0	13.8	OK	105.5	4.8	105.8	261.9	OK
0.0	-17.6	1.2	4.4	0.0	-22.9	1.6	5.8	0.0	13.8	OK	19.0	4.1	20.3	261.9	OK
10.1	0.7	4.3	8.9	13.2	1.0	5.6	11.6	0.1	13.8	OK	41.2	8.2	43.6	261.9	OK
47.4	3.5	-5.4	-0.2	61.6	4.5	-7.0	-0.2	0.2	13.8	OK	52.9	-0.2	52.9	261.9	OK
27.8	2.0	-4.3	9.6	36.2	2.7	-5.5	12.5	0.1	13.8	OK	41.5	8.9	44.2	261.9	OK
0.0	-315.6	13.1	-2.4	0.0	-410.3	17.0	-3.1	0.0	13.8	OK	259.1	-2.2	259.2	261.9	OK
67.9	5.0	-3.0	-3.7	88.2	6.5	-3.9	-4.7	0.4	13.8	OK	30.4	-3.4	31.0	261.9	OK
53.1	3.9	-0.1	-5.9	69.0	5.1	-0.1	-7.7	0.3	13.8	OK	2.3	-5.5	9.8	261.9	OK
0.0	-49.9	-4.5	-8.5	0.0	-64.9	-5.8	-11.0	0.0	13.8	OK	64.0	-7.9	65.5	261.9	OK
25.6	1.9	-0.8	-2.8	33.2	2.4	-1.1	-3.7	0.1	13.8	OK	8.6	-2.6	9.7	261.9	OK
0.0	-6.8	0.6	-2.3	0.0	-8.8	0.8	-3.0	0.0	13.8	OK	8.4	-2.1	9.2	261.9	OK
0.0	-44.3	6.3	3.0	0.0	-57.6	8.2	3.9	0.0	13.8	OK	78.7	2.8	78.9	261.9	OK
0.0	-34.6	1.1	0.3	0.0	-45.0	1.4	0.4	0.0	13.8	OK	25.1	0.3	25.1	261.9	OK
57.6	4.2	-6.9	-5.8	74.9	5.5	-8.9	-7.6	0.3	13.8	OK	67.1	-5.4	67.7	261.9	OK
32.2	2.4	-1.3	-4.5	41.8	3.1	-1.7	-5.9	0.2	13.8	OK	13.2	-4.2	15.1	261.9	OK
0.0	-184.6	15.7	10.4	0.0	-240.0	20.5	13.5	0.0	13.8	OK	228.7	9.6	229.3	261.9	OK

0.0	-166.3	4.7	2.7	0.0	-216.2	6.1	3.5	0.0	13.8	OK	115.7	2.5	115.8	261.9	OK
59.8	4.4	-3.8	-4.6	77.8	5.7	-4.9	-6.0	0.3	13.8	OK	37.8	-4.3	38.6	261.9	OK
32.0	2.3	-1.0	-2.4	41.7	3.1	-1.3	-3.2	0.2	13.8	OK	10.6	-2.3	11.3	261.9	OK
0.0	-3.1	0.0	0.0	0.0	-4.1	0.0	0.0	0.0	13.8	OK	1.4	0.0	1.4	261.9	OK
0.0	-3.3	0.0	0.0	0.0	-4.3	0.0	0.0	0.0	13.8	OK	1.5	0.0	1.5	261.9	OK
0.0	-2.9	0.0	0.0	0.0	-3.8	0.0	0.0	0.0	13.8	OK	1.3	0.0	1.3	261.9	OK
0.0	-2.9	0.0	0.0	0.0	-3.8	0.0	0.0	0.0	13.8	OK	1.4	0.0	1.4	261.9	OK
0.0	-2.6	0.0	0.1	0.0	-3.4	0.0	0.1	0.0	13.8	OK	1.1	0.1	1.1	261.9	OK
0.0	-6.6	0.0	0.0	0.0	-8.6	0.0	0.0	0.0	13.8	OK	2.9	0.0	2.9	261.9	OK
0.0	-3.0	0.0	0.0	0.0	-3.8	0.0	0.0	0.0	13.8	OK	1.3	0.0	1.3	261.9	OK
0.0	-2.0	0.0	0.0	0.0	-2.7	0.0	0.0	0.0	13.8	OK	0.9	0.0	0.9	261.9	OK
0.0	-7.0	0.0	0.0	0.0	-9.1	0.0	0.0	0.0	13.8	OK	3.0	0.0	3.0	261.9	OK
0.0	-5.0	0.0	-0.1	0.0	-6.5	0.0	-0.1	0.0	13.8	OK	2.2	-0.1	2.2	261.9	OK
0.0	-0.8	0.0	-0.1	0.0	-1.1	0.0	-0.1	0.0	13.8	OK	0.4	-0.1	0.4	261.9	OK
0.0	-3.1	0.0	0.0	0.0	-4.1	0.0	0.0	0.0	13.8	OK	1.5	0.0	1.5	261.9	OK
0.0	-2.9	0.0	0.0	0.0	-3.7	0.0	0.0	0.0	13.8	OK	1.3	0.0	1.3	261.9	OK
0.0	-3.8	0.0	0.0	0.0	-4.9	0.0	0.0	0.0	13.8	OK	1.6	0.0	1.6	261.9	OK
10.3	0.8	0.0	0.1	13.3	1.0	0.0	0.2	0.1	13.8	OK	0.4	0.1	0.5	261.9	OK
0.7	0.1	0.0	-0.1	0.9	0.1	0.0	-0.1	0.0	13.8	OK	0.4	-0.1	0.4	261.9	OK
1.8	0.1	0.0	0.3	2.4	0.2	0.0	0.4	0.0	13.8	OK	0.2	0.3	0.5	261.9	OK
0.0	-1.0	0.0	0.1	0.0	-1.3	0.0	0.2	0.0	13.8	OK	0.6	0.1	0.7	261.9	OK
0.0	-0.2	0.0	0.0	0.0	-0.3	0.0	0.0	0.0	13.8	OK	0.2	0.0	0.2	261.9	OK
3.9	0.3	0.0	-0.1	5.0	0.4	-0.1	-0.2	0.0	13.8	OK	0.5	-0.1	0.5	261.9	OK
3.4	0.2	0.0	-0.1	4.4	0.3	0.0	-0.1	0.0	13.8	OK	0.3	-0.1	0.4	261.9	OK
14.0	1.0	-0.1	-0.1	18.2	1.3	-0.1	-0.2	0.1	13.8	OK	0.9	-0.1	0.9	261.9	OK
3.2	0.2	0.0	0.0	4.2	0.3	0.1	0.0	0.0	13.8	OK	0.5	0.0	0.5	261.9	OK
13.9	1.0	0.0	-0.1	18.1	1.3	0.0	-0.1	0.1	13.8	OK	0.6	-0.1	0.7	261.9	OK
3.4	0.3	0.0	0.5	4.5	0.3	-0.1	0.7	0.0	13.8	OK	0.5	0.5	1.0	261.9	OK
14.3	1.0	0.1	0.2	18.6	1.4	0.1	0.3	0.1	13.8	OK	1.0	0.2	1.1	261.9	OK
1.5	0.1	0.0	0.0	1.9	0.1	0.0	0.1	0.0	13.8	OK	0.2	0.0	0.2	261.9	OK
15.2	1.1	0.0	0.3	19.7	1.4	0.1	0.3	0.1	13.8	OK	0.8	0.2	0.9	261.9	OK
10.8	0.8	0.0	-0.1	14.0	1.0	0.1	-0.1	0.1	13.8	OK	0.8	-0.1	0.8	261.9	OK
2.6	0.2	0.0	0.4	3.4	0.2	0.0	0.5	0.0	13.8	OK	0.3	0.3	0.7	261.9	OK
0.0	-6.6	0.0	0.1	0.0	-8.6	0.0	0.1	0.0	13.8	OK	3.0	0.1	3.0	261.9	OK
0.4	0.0	0.0	0.1	0.6	0.0	-0.1	0.2	0.0	13.8	OK	0.5	0.1	0.5	261.9	OK
0.0	-1.6	0.0	0.0	0.0	-2.0	0.0	0.0	0.0	13.8	OK	0.8	0.0	0.8	261.9	OK
3.1	0.2	0.0	-0.1	4.0	0.3	0.0	-0.1	0.0	13.8	OK	0.2	-0.1	0.3	261.9	OK
8.9	0.7	0.0	0.0	11.5	0.8	0.0	0.0	0.0	13.8	OK	0.6	0.0	0.6	261.9	OK
4.1	0.3	0.0	0.0	5.3	0.4	0.0	0.0	0.0	13.8	OK	0.2	0.0	0.2	261.9	OK
0.0	-1.4	0.0	0.0	0.0	-1.8	0.0	0.0	0.0	13.8	OK	0.9	0.0	0.9	261.9	OK
0.0	-2.2	0.0	0.0	0.0	-2.8	0.0	-0.1	0.0	13.8	OK	1.2	0.0	1.2	261.9	OK
0.0	-0.6	0.0	0.0	0.0	-0.7	0.0	0.0	0.0	13.8	OK	0.4	0.0	0.4	261.9	OK
1.3	0.1	0.0	0.0	1.7	0.1	0.0	0.0	0.0	13.8	OK	0.1	0.0	0.1	261.9	OK
6.2	0.5	0.0	0.0	8.1	0.6	0.0	0.0	0.0	13.8	OK	0.2	0.0	0.2	261.9	OK
0.5	0.0	0.0	-0.1	0.6	0.0	0.1	-0.1	0.0	13.8	OK	0.4	-0.1	0.5	261.9	OK
0.0	-1.2	0.0	0.0	0.0	-1.6	0.0	0.0	0.0	13.8	OK	0.6	0.0	0.6	261.9	OK
0.0	-1.4	0.0	0.0	0.0	-1.8	0.0	0.0	0.0	13.8	OK	0.7	0.0	0.7	261.9	OK

73.3	5.4	-2.3	-1.1	95.3	7.0	-3.0	-1.5	0.4	13.8	OK	24.1	-1.1	24.1	261.9	OK
88.6	6.5	-1.0	-0.6	115.2	8.4	-1.3	-0.8	0.5	13.8	OK	12.1	-0.6	12.2	261.9	OK
447.9	32.8	-0.4	-1.4	582.3	42.7	-0.5	-1.9	2.3	13.8	OK	18.0	-1.3	18.1	261.9	OK
623.2	45.7	-0.4	-2.0	810.2	59.4	-0.6	-2.6	3.2	13.8	OK	23.7	-1.9	23.9	261.9	OK
0.0	-43.5	-0.1	0.3	0.0	-56.6	-0.1	0.4	0.0	13.8	OK	19.1	0.3	19.1	261.9	OK
136.0	10.0	-0.3	-0.5	176.8	13.0	-0.4	-0.6	0.7	13.8	OK	7.2	-0.5	7.3	261.9	OK
35.1	2.6	-3.7	-1.0	45.7	3.3	-4.8	-1.3	0.2	13.8	OK	36.1	-0.9	36.1	261.9	OK
72.6	5.3	-1.3	-0.4	94.4	6.9	-1.7	-0.6	0.4	13.8	OK	14.5	-0.4	14.6	261.9	OK
112.1	8.2	-1.8	-1.2	145.8	10.7	-2.3	-1.5	0.6	13.8	OK	20.4	-1.1	20.5	261.9	OK
25.7	1.9	-2.6	-0.8	33.4	2.4	-3.4	-1.1	0.1	13.8	OK	26.0	-0.8	26.1	261.9	OK
129.1	9.5	-0.5	-0.3	167.8	12.3	-0.7	-0.4	0.7	13.8	OK	9.1	-0.3	9.1	261.9	OK
37.6	2.8	-2.0	-1.1	48.9	3.6	-2.6	-1.4	0.2	13.8	OK	20.5	-1.0	20.6	261.9	OK
200.2	14.7	-1.1	-1.2	260.2	19.1	-1.4	-1.6	1.0	13.8	OK	16.3	-1.2	16.4	261.9	OK
296.3	21.7	-0.9	-1.3	385.2	28.2	-1.2	-1.7	1.5	13.8	OK	17.8	-1.2	17.9	261.9	OK
10.8	0.8	-0.6	5.1	14.1	1.0	-0.8	6.6	0.1	13.8	OK	6.0	4.7	10.1	261.9	OK
10.2	0.7	3.6	3.4	13.2	1.0	4.7	4.4	0.1	13.8	OK	34.8	3.1	35.2	261.9	OK
0.0	-4.4	2.7	2.7	0.0	-5.8	3.5	3.5	0.0	13.8	OK	27.8	2.5	28.1	261.9	OK
12.5	0.9	4.8	1.4	16.3	1.2	6.3	1.8	0.1	13.8	OK	46.2	1.3	46.3	261.9	OK
9.5	0.7	-2.5	1.7	12.4	0.9	-3.3	2.2	0.0	13.8	OK	24.3	1.6	24.4	261.9	OK
15.9	1.2	-2.6	3.4	20.7	1.5	-3.3	4.4	0.1	13.8	OK	25.0	3.1	25.6	261.9	OK
0.0	-5.5	4.3	0.9	0.0	-7.1	5.6	1.2	0.0	13.8	OK	43.2	0.8	43.3	261.9	OK
0.0	-0.5	-0.2	3.3	0.0	-0.6	-0.2	4.3	0.0	13.8	OK	1.8	3.1	5.7	261.9	OK
0.0	-6.1	2.7	-2.7	0.0	-7.9	3.4	-3.6	0.0	13.8	OK	27.8	-2.5	28.2	261.9	OK
16.0	1.2	-3.7	-2.2	20.8	1.5	-4.8	-2.9	0.1	13.8	OK	36.0	-2.0	36.2	261.9	OK
7.2	0.5	3.9	-4.2	9.3	0.7	5.0	-5.5	0.0	13.8	OK	37.0	-3.9	37.6	261.9	OK
0.0	-6.5	4.3	-0.5	0.0	-8.4	5.6	-0.6	0.0	13.8	OK	43.8	-0.4	43.8	261.9	OK
0.0	-1.6	-0.7	-3.9	0.0	-2.1	-0.9	-5.1	0.0	13.8	OK	7.6	-3.6	9.8	261.9	OK
10.0	0.7	-1.3	-7.0	13.0	1.0	-1.7	-9.1	0.1	13.8	OK	12.7	-6.5	16.9	261.9	OK
20.1	1.5	-4.0	-4.9	26.2	1.9	-5.2	-6.3	0.1	13.8	OK	38.5	-4.5	39.3	261.9	OK
11.7	0.9	5.0	-1.5	15.2	1.1	6.4	-1.9	0.1	13.8	OK	47.6	-1.4	47.6	261.9	OK
699.5	51.3	0.4	0.1	909.3	66.7	0.5	0.1	3.6	13.8	OK	25.6	0.1	25.6	261.9	OK
147.9	10.8	-1.3	0.6	192.3	14.1	-1.7	0.7	0.8	13.8	OK	17.2	0.5	17.3	261.9	OK
174.0	12.8	-2.2	1.8	226.2	16.6	-2.8	2.4	0.9	13.8	OK	26.2	1.7	26.4	261.9	OK
93.3	6.8	-3.7	1.7	121.2	8.9	-4.7	2.3	0.5	13.8	OK	37.7	1.6	37.8	261.9	OK
250.0	18.3	-1.8	1.8	325.1	23.8	-2.3	2.3	1.3	13.8	OK	24.6	1.7	24.8	261.9	OK
173.1	12.7	-1.2	0.8	225.0	16.5	-1.5	1.0	0.9	13.8	OK	16.7	0.7	16.7	261.9	OK
138.0	10.1	-0.7	0.6	179.4	13.2	-0.9	0.7	0.7	13.8	OK	10.6	0.5	10.6	261.9	OK
28.6	2.1	-4.3	2.7	37.2	2.7	-5.5	3.5	0.1	13.8	OK	41.4	2.5	41.6	261.9	OK
68.5	5.0	-2.7	0.9	89.1	6.5	-3.5	1.1	0.4	13.8	OK	27.5	0.8	27.5	261.9	OK
401.6	29.4	-0.8	1.7	522.1	38.3	-1.1	2.2	2.1	13.8	OK	20.3	1.5	20.5	261.9	OK
50.9	3.7	-1.0	2.2	66.1	4.8	-1.3	2.9	0.3	13.8	OK	10.9	2.1	11.5	261.9	OK
618.2	45.3	-0.7	1.5	803.6	58.9	-0.8	1.9	3.2	13.8	OK	25.5	1.4	25.7	261.9	OK
57.5	4.2	-4.9	1.7	74.8	5.5	-6.4	2.2	0.3	13.8	OK	48.6	1.5	48.6	261.9	OK
91.3	6.7	-2.1	1.1	118.7	8.7	-2.8	1.4	0.5	13.8	OK	23.1	1.0	23.1	261.9	OK
101.2	7.4	-5.8	-2.7	131.5	9.6	-7.5	-3.5	0.5	13.8	OK	58.4	-2.5	58.5	261.9	OK
84.3	6.2	-2.8	-1.3	109.6	8.0	-3.7	-1.7	0.4	13.8	OK	29.7	-1.2	29.8	261.9	OK
361.0	26.5	-0.6	-1.7	469.3	34.4	-0.7	-2.2	1.9	13.8	OK	16.6	-1.6	16.9	261.9	OK

590.6	43.3	0.0	0.3	767.8	56.3	0.0	0.4	3.1	13.8	OK	18.5	0.3	18.5	261.9	OK
0.0	-73.1	-0.9	-3.3	0.0	-95.1	-1.2	-4.3	0.0	13.8	OK	39.9	-3.0	40.3	261.9	OK
96.1	7.0	-1.8	-1.1	124.9	9.2	-2.4	-1.5	0.5	13.8	OK	20.5	-1.1	20.6	261.9	OK
59.0	4.3	-8.7	-1.7	76.8	5.6	-11.3	-2.2	0.3	13.8	OK	85.0	-1.6	85.0	261.9	OK
74.9	5.5	-3.5	-0.8	97.3	7.1	-4.5	-1.0	0.4	13.8	OK	35.3	-0.7	35.4	261.9	OK
131.6	9.6	-4.6	-1.9	171.1	12.5	-6.0	-2.5	0.7	13.8	OK	47.9	-1.8	48.0	261.9	OK
35.2	2.6	-6.1	-1.0	45.7	3.4	-7.9	-1.3	0.2	13.8	OK	59.3	-0.9	59.3	261.9	OK
96.2	7.1	-1.8	-0.7	125.1	9.2	-2.4	-0.9	0.5	13.8	OK	20.3	-0.6	20.4	261.9	OK
47.6	3.5	-5.0	-2.2	61.9	4.5	-6.5	-2.9	0.2	13.8	OK	49.2	-2.0	49.3	261.9	OK
190.8	14.0	-2.8	-2.2	248.1	18.2	-3.7	-2.9	1.0	13.8	OK	33.0	-2.0	33.2	261.9	OK
248.8	18.2	-2.2	-2.0	323.4	23.7	-2.8	-2.6	1.3	13.8	OK	28.3	-1.9	28.5	261.9	OK
16.8	1.2	-1.2	9.8	21.9	1.6	-1.6	12.7	0.1	13.8	OK	12.0	9.0	19.7	261.9	OK
4.0	0.3	7.4	7.2	5.3	0.4	9.6	9.3	0.0	13.8	OK	70.7	6.6	71.6	261.9	OK
0.0	-10.2	5.5	5.9	0.0	-13.2	7.1	7.7	0.0	13.8	OK	56.2	5.5	57.0	261.9	OK
2.1	0.2	11.4	2.3	2.7	0.2	14.8	3.0	0.0	13.8	OK	108.4	2.2	108.5	261.9	OK
15.5	1.1	-5.9	2.9	20.1	1.5	-7.6	3.8	0.1	13.8	OK	56.5	2.7	56.7	261.9	OK
31.4	2.3	-7.1	5.2	40.9	3.0	-9.2	6.8	0.2	13.8	OK	68.5	4.8	69.0	261.9	OK
0.0	-15.1	9.4	2.0	0.0	-19.6	12.2	2.6	0.0	13.8	OK	95.5	1.9	95.6	261.9	OK
0.0	-3.4	-0.9	6.9	0.0	-4.4	-1.1	8.9	0.0	13.8	OK	9.6	6.4	14.6	261.9	OK
0.0	-8.8	4.7	-5.7	0.0	-11.5	6.1	-7.4	0.0	13.8	OK	48.4	-5.3	49.3	261.9	OK
12.5	0.9	-6.0	-2.2	16.2	1.2	-7.8	-2.8	0.1	13.8	OK	57.4	-2.0	57.5	261.9	OK
7.6	0.6	6.9	-7.4	9.8	0.7	9.0	-9.6	0.0	13.8	OK	66.0	-6.8	67.0	261.9	OK
0.0	-15.4	9.0	-2.3	0.0	-20.0	11.7	-3.0	0.0	13.8	OK	92.2	-2.2	92.3	261.9	OK
0.0	-5.9	-1.4	-6.0	0.0	-7.6	-1.8	-7.8	0.0	13.8	OK	16.0	-5.6	18.7	261.9	OK
23.3	1.7	-1.6	-9.5	30.3	2.2	-2.0	-12.4	0.1	13.8	OK	15.5	-8.8	21.8	261.9	OK
38.6	2.8	-8.0	-4.7	50.2	3.7	-10.4	-6.1	0.2	13.8	OK	77.4	-4.3	77.7	261.9	OK
4.4	0.3	11.2	-2.9	5.7	0.4	14.6	-3.8	0.0	13.8	OK	106.8	-2.7	106.9	261.9	OK
413.1	30.3	-0.8	3.5	537.0	39.4	-1.1	4.5	2.1	13.8	OK	20.7	3.2	21.4	261.9	OK
27.8	2.0	-2.5	0.6	36.1	2.6	-3.3	0.8	0.1	13.8	OK	24.8	0.6	24.8	261.9	OK
112.0	8.2	-4.5	2.2	145.5	10.7	-5.8	2.8	0.6	13.8	OK	46.1	2.0	46.2	261.9	OK
80.6	5.9	-6.8	1.4	104.8	7.7	-8.8	1.8	0.4	13.8	OK	67.0	1.3	67.0	261.9	OK
129.0	9.5	-3.6	1.1	167.7	12.3	-4.6	1.4	0.7	13.8	OK	37.9	1.0	37.9	261.9	OK
23.3	1.7	-1.6	0.9	30.3	2.2	-2.1	1.2	0.1	13.8	OK	16.4	0.9	16.5	261.9	OK
0.0	-23.1	-0.8	0.1	0.0	-30.0	-1.0	0.1	0.0	13.8	OK	17.1	0.1	17.1	261.9	OK
15.3	1.1	-6.5	3.5	19.9	1.5	-8.4	4.5	0.1	13.8	OK	62.0	3.2	62.2	261.9	OK
28.8	2.1	-4.7	0.7	37.4	2.7	-6.1	0.9	0.1	13.8	OK	45.7	0.6	45.8	261.9	OK
159.9	11.7	-2.2	1.7	207.9	15.2	-2.9	2.2	0.8	13.8	OK	26.1	1.5	26.3	261.9	OK
0.0	-99.5	0.3	-2.1	0.0	-129.3	0.4	-2.7	0.0	13.8	OK	45.4	-1.9	45.6	261.9	OK
269.4	19.8	-1.7	0.8	350.2	25.7	-2.2	1.0	1.4	13.8	OK	24.3	0.7	24.3	261.9	OK
63.9	4.7	-8.6	3.7	83.1	6.1	-11.1	4.8	0.3	13.8	OK	83.5	3.4	83.7	261.9	OK
31.8	2.3	-3.8	1.6	41.4	3.0	-4.9	2.1	0.2	13.8	OK	37.2	1.5	37.3	261.9	OK
231.4	17.0	-2.3	1.9	300.8	22.1	-3.0	2.5	1.2	13.8	OK	29.0	1.7	29.1	261.9	OK
109.5	8.0	0.2	-0.7	142.4	10.4	0.3	-0.8	0.6	13.8	OK	5.7	-0.6	5.8	261.9	OK
117.2	8.6	-1.3	4.0	152.4	11.2	-1.7	5.2	0.6	13.8	OK	16.3	3.7	17.5	261.9	OK
132.6	9.7	-0.9	1.7	172.3	12.6	-1.2	2.3	0.7	13.8	OK	12.7	1.6	13.0	261.9	OK
121.2	8.9	-2.5	1.4	157.5	11.5	-3.2	1.9	0.6	13.8	OK	27.2	1.3	27.3	261.9	OK
119.9	8.8	-1.4	0.8	155.9	11.4	-1.8	1.0	0.6	13.8	OK	16.6	0.7	16.7	261.9	OK

220.7	16.2	-2.6	2.2	286.9	21.0	-3.4	2.8	1.1	13.8	OK	31.7	2.0	31.9	261.9	OK
70.7	5.2	-8.5	2.1	91.9	6.7	-11.1	2.7	0.4	13.8	OK	83.6	1.9	83.7	261.9	OK
41.2	3.0	-5.9	1.4	53.6	3.9	-7.7	1.8	0.2	13.8	OK	57.7	1.3	57.7	261.9	OK
165.9	12.2	-4.3	1.9	215.6	15.8	-5.6	2.5	0.9	13.8	OK	46.4	1.8	46.5	261.9	OK
125.8	9.2	-5.4	2.8	163.5	12.0	-7.0	3.7	0.7	13.8	OK	55.5	2.6	55.7	261.9	OK
59.7	4.4	-4.7	2.4	77.6	5.7	-6.1	3.1	0.3	13.8	OK	46.8	2.2	47.0	261.9	OK
133.6	9.8	-1.0	2.3	173.6	12.7	-1.4	2.9	0.7	13.8	OK	14.1	2.1	14.6	261.9	OK
97.9	7.2	-3.1	0.9	127.3	9.3	-4.1	1.1	0.5	13.8	OK	32.7	0.8	32.8	261.9	OK
33.3	2.4	-7.0	-5.3	43.3	3.2	-9.1	-6.9	0.2	13.8	OK	68.1	-4.9	68.6	261.9	OK
0.0	-9.0	3.7	-4.5	0.0	-11.7	4.8	-5.8	0.0	13.8	OK	39.2	-4.2	39.9	261.9	OK
5.4	0.4	8.3	-2.1	7.0	0.5	10.8	-2.7	0.0	13.8	OK	79.6	-1.9	79.6	261.9	OK
0.0	-11.0	6.8	-1.3	0.0	-14.3	8.8	-1.7	0.0	13.8	OK	69.5	-1.2	69.5	261.9	OK
0.0	-4.6	-1.5	-5.8	0.0	-6.0	-1.9	-7.5	0.0	13.8	OK	16.0	-5.3	18.5	261.9	OK
14.9	1.1	-6.0	-2.6	19.4	1.4	-7.8	-3.4	0.1	13.8	OK	57.7	-2.4	57.8	261.9	OK
15.3	1.1	-1.7	-9.1	19.9	1.5	-2.3	-11.8	0.1	13.8	OK	17.1	-8.4	22.5	261.9	OK
4.9	0.4	5.6	-6.0	6.4	0.5	7.3	-7.8	0.0	13.8	OK	53.3	-5.6	54.1	261.9	OK
8.3	0.6	5.5	4.9	10.8	0.8	7.2	6.3	0.0	13.8	OK	52.8	4.5	53.4	261.9	OK
0.0	-1.5	-0.1	4.8	0.0	-1.9	-0.2	6.2	0.0	13.8	OK	1.8	4.4	7.9	261.9	OK
12.9	0.9	-3.6	2.2	16.8	1.2	-4.6	2.8	0.1	13.8	OK	34.4	2.0	34.6	261.9	OK
26.8	2.0	-4.4	3.5	34.9	2.6	-5.8	4.5	0.1	13.8	OK	43.2	3.2	43.5	261.9	OK
6.7	0.5	8.2	1.9	8.7	0.6	10.7	2.5	0.0	13.8	OK	78.4	1.8	78.5	261.9	OK
0.0	-9.6	7.0	1.5	0.0	-12.4	9.0	2.0	0.0	13.8	OK	70.3	1.4	70.3	261.9	OK
15.5	1.1	-0.4	6.7	20.2	1.5	-0.6	8.7	0.1	13.8	OK	4.7	6.2	11.7	261.9	OK
0.0	-6.2	4.2	4.2	0.0	-8.1	5.5	5.4	0.0	13.8	OK	42.8	3.9	43.3	261.9	OK
44.7	3.3	-1.5	-0.4	58.1	4.3	-1.9	-0.6	0.2	13.8	OK	15.6	-0.4	15.6	261.9	OK
68.1	5.0	-3.9	-1.0	88.5	6.5	-5.0	-1.3	0.4	13.8	OK	39.1	-0.9	39.1	261.9	OK
36.8	2.7	-2.8	-0.6	47.9	3.5	-3.7	-0.8	0.2	13.8	OK	28.0	-0.6	28.0	261.9	OK
0.0	-53.0	-0.1	0.5	0.0	-68.9	-0.2	0.6	0.0	13.8	OK	23.9	0.5	23.9	261.9	OK
13.3	1.0	-0.7	-0.3	17.3	1.3	-0.9	-0.4	0.1	13.8	OK	7.2	-0.3	7.2	261.9	OK
0.0	-38.9	-0.2	-0.5	0.0	-50.6	-0.2	-0.7	0.0	13.8	OK	18.2	-0.5	18.2	261.9	OK
49.9	3.7	-5.0	-2.1	64.9	4.8	-6.5	-2.8	0.3	13.8	OK	49.5	-2.0	49.6	261.9	OK
98.6	7.2	-2.5	-1.3	128.2	9.4	-3.2	-1.6	0.5	13.8	OK	26.7	-1.2	26.8	261.9	OK
19.6	1.4	-4.1	-2.2	25.5	1.9	-5.4	-2.9	0.1	13.8	OK	39.9	-2.1	40.0	261.9	OK
82.4	6.0	-1.1	-0.8	107.1	7.9	-1.4	-1.0	0.4	13.8	OK	12.9	-0.7	13.0	261.9	OK
41.5	3.0	-1.1	-0.5	54.0	4.0	-1.4	-0.6	0.2	13.8	OK	11.3	-0.4	11.4	261.9	OK
43.7	3.2	-2.2	-1.0	56.8	4.2	-2.9	-1.3	0.2	13.8	OK	22.7	-0.9	22.7	261.9	OK
0.0	-20.2	-0.6	-0.3	0.0	-26.3	-0.8	-0.4	0.0	13.8	OK	14.1	-0.3	14.1	261.9	OK
108.9	8.0	-1.9	-0.7	141.5	10.4	-2.5	-0.9	0.6	13.8	OK	21.8	-0.7	21.8	261.9	OK
0.0	-14.1	-2.0	-0.1	0.0	-18.4	-2.7	-0.1	0.0	13.8	OK	25.4	-0.1	25.4	261.9	OK
0.0	-91.9	-1.1	-0.2	0.0	-119.5	-1.4	-0.2	0.0	13.8	OK	49.7	-0.2	49.7	261.9	OK
0.0	-45.9	0.6	-2.5	0.0	-59.7	0.7	-3.3	0.0	13.8	OK	25.0	-2.4	25.4	261.9	OK
0.0	-63.5	-1.1	0.3	0.0	-82.6	-1.4	0.3	0.0	13.8	OK	37.7	0.2	37.7	261.9	OK
0.0	-48.0	-2.8	0.7	0.0	-62.4	-3.7	0.9	0.0	13.8	OK	47.2	0.7	47.2	261.9	OK
0.0	-93.9	-2.1	0.5	0.0	-122.0	-2.8	0.7	0.0	13.8	OK	60.2	0.5	60.2	261.9	OK
0.0	-3.2	-3.2	0.9	0.0	-4.2	-4.2	1.2	0.0	13.8	OK	32.1	0.9	32.1	261.9	OK
36.0	2.6	-8.4	-0.3	46.9	3.4	-10.9	-0.4	0.2	13.8	OK	80.7	-0.3	80.7	261.9	OK
0.0	-1.9	-5.7	0.7	0.0	-2.5	-7.4	0.9	0.0	13.8	OK	54.7	0.6	54.7	261.9	OK

22.2	1.6	-4.8	0.4	28.8	2.1	-6.3	0.5	0.1	13.8	OK	46.9	0.4	46.9	261.9	OK
31.3	2.3	-6.1	1.7	40.7	3.0	-8.0	2.2	0.2	13.8	OK	59.3	1.6	59.4	261.9	OK
0.0	-10.6	-4.8	1.0	0.0	-13.7	-6.2	1.3	0.0	13.8	OK	50.3	0.9	50.3	261.9	OK
0.0	-66.1	-0.8	-0.2	0.0	-85.9	-1.0	-0.3	0.0	13.8	OK	35.8	-0.2	35.8	261.9	OK
0.0	-33.4	-3.9	0.8	0.0	-43.5	-5.0	1.0	0.0	13.8	OK	51.1	0.7	51.1	261.9	OK
31.8	2.3	-7.4	-3.5	41.3	3.0	-9.6	-4.6	0.2	13.8	OK	71.1	-3.3	71.3	261.9	OK
0.0	-6.5	5.3	-6.4	0.0	-8.4	6.9	-8.3	0.0	13.8	OK	53.6	-5.9	54.6	261.9	OK
3.3	0.2	13.1	-3.5	4.3	0.3	17.0	-4.5	0.0	13.8	OK	124.9	-3.2	125.0	261.9	OK
0.0	-18.5	10.4	-2.9	0.0	-24.0	13.5	-3.8	0.0	13.8	OK	106.8	-2.7	106.9	261.9	OK
0.0	-4.2	-1.2	-5.6	0.0	-5.5	-1.6	-7.2	0.0	13.8	OK	13.4	-5.2	16.1	261.9	OK
4.5	0.3	-5.4	-1.4	5.8	0.4	-7.0	-1.8	0.0	13.8	OK	51.2	-1.3	51.2	261.9	OK
27.4	2.0	-1.1	-9.1	35.6	2.6	-1.4	-11.8	0.1	13.8	OK	11.3	-8.4	18.4	261.9	OK
9.0	0.7	7.6	-8.1	11.7	0.9	9.9	-10.6	0.0	13.8	OK	73.0	-7.5	74.2	261.9	OK
5.1	0.4	8.0	8.6	6.6	0.5	10.4	11.1	0.0	13.8	OK	76.5	7.9	77.7	261.9	OK
0.0	-2.5	-1.7	7.5	0.0	-3.3	-2.2	9.8	0.0	13.8	OK	17.3	7.0	21.1	261.9	OK
16.8	1.2	-7.1	2.7	21.8	1.6	-9.3	3.5	0.1	13.8	OK	68.4	2.5	68.6	261.9	OK
38.6	2.8	-9.1	4.7	50.2	3.7	-11.9	6.1	0.2	13.8	OK	88.1	4.3	88.4	261.9	OK
0.1	0.0	13.3	2.9	0.1	0.0	17.3	3.8	0.0	13.8	OK	126.6	2.7	126.7	261.9	OK
0.0	-18.7	10.7	2.6	0.0	-24.3	13.9	3.4	0.0	13.8	OK	109.4	2.4	109.5	261.9	OK
23.5	1.7	-1.9	10.6	30.5	2.2	-2.5	13.8	0.1	13.8	OK	19.3	9.8	25.7	261.9	OK
0.0	-10.2	5.7	7.1	0.0	-13.3	7.4	9.3	0.0	13.8	OK	58.8	6.6	59.9	261.9	OK
40.2	2.9	-3.4	-1.3	52.2	3.8	-4.4	-1.7	0.2	13.8	OK	33.7	-1.2	33.8	261.9	OK
69.3	5.1	-8.0	-1.8	90.1	6.6	-10.4	-2.3	0.4	13.8	OK	78.1	-1.7	78.1	261.9	OK
36.4	2.7	-5.9	-1.5	47.3	3.5	-7.6	-2.0	0.2	13.8	OK	57.1	-1.4	57.1	261.9	OK
64.5	4.7	-0.7	-1.0	83.9	6.2	-0.9	-1.3	0.3	13.8	OK	8.7	-0.9	8.9	261.9	OK
1.2	0.1	-2.2	-1.5	1.6	0.1	-2.9	-1.9	0.0	13.8	OK	21.4	-1.4	21.5	261.9	OK
0.0	-96.1	-0.4	-3.0	0.0	-124.9	-0.5	-3.9	0.0	13.8	OK	44.9	-2.8	45.2	261.9	OK
57.1	4.2	-9.8	-3.7	74.3	5.4	-12.7	-4.8	0.3	13.8	OK	95.1	-3.4	95.3	261.9	OK
86.8	6.4	-5.3	-2.5	112.8	8.3	-6.9	-3.3	0.5	13.8	OK	53.3	-2.3	53.4	261.9	OK
25.6	1.9	-7.5	-2.4	33.3	2.4	-9.8	-3.1	0.1	13.8	OK	72.7	-2.2	72.8	261.9	OK
56.1	4.1	-2.5	-1.7	72.9	5.3	-3.2	-2.2	0.3	13.8	OK	25.3	-1.6	25.4	261.9	OK
52.9	3.9	-2.5	-1.3	68.7	5.0	-3.3	-1.7	0.3	13.8	OK	25.7	-1.2	25.8	261.9	OK
41.6	3.0	-4.6	-1.4	54.1	4.0	-6.0	-1.8	0.2	13.8	OK	45.3	-1.3	45.4	261.9	OK
6.7	0.5	-1.3	-1.8	8.7	0.6	-1.7	-2.3	0.0	13.8	OK	12.6	-1.6	12.9	261.9	OK
90.2	6.6	-4.3	-1.8	117.3	8.6	-5.7	-2.3	0.5	13.8	OK	44.2	-1.6	44.3	261.9	OK
0.0	-10.0	-6.7	-2.3	0.0	-13.0	-8.7	-3.0	0.0	13.8	OK	68.0	-2.1	68.1	261.9	OK
0.0	-53.2	-2.9	-1.6	0.0	-69.1	-3.8	-2.1	0.0	13.8	OK	50.4	-1.5	50.5	261.9	OK
0.0	-99.1	-1.3	-1.9	0.0	-128.8	-1.8	-2.4	0.0	13.8	OK	55.1	-1.7	55.2	261.9	OK
0.0	-45.9	-0.7	-1.5	0.0	-59.7	-0.9	-1.9	0.0	13.8	OK	26.2	-1.4	26.3	261.9	OK
0.0	-131.5	-0.2	1.4	0.0	-170.9	-0.2	1.9	0.0	13.8	OK	57.8	1.3	57.8	261.9	OK
0.0	-100.6	-0.7	-1.3	0.0	-130.8	-1.0	-1.7	0.0	13.8	OK	50.0	-1.2	50.0	261.9	OK
18.2	1.3	-8.7	0.3	23.7	1.7	-11.3	0.4	0.1	13.8	OK	83.1	0.3	83.1	261.9	OK
0.0	-46.2	-3.9	-0.3	0.0	-60.0	-5.0	-0.4	0.0	13.8	OK	56.4	-0.3	56.5	261.9	OK
0.0	-25.7	-5.5	-0.8	0.0	-33.4	-7.2	-1.0	0.0	13.8	OK	63.6	-0.7	63.6	261.9	OK
0.0	-3.0	-5.8	0.4	0.0	-3.9	-7.6	0.6	0.0	13.8	OK	56.9	0.4	56.9	261.9	OK
0.0	-93.1	-1.6	-0.4	0.0	-121.0	-2.1	-0.6	0.0	13.8	OK	55.2	-0.4	55.2	261.9	OK
0.0	-11.2	-5.1	-1.9	0.0	-14.6	-6.6	-2.5	0.0	13.8	OK	53.4	-1.8	53.5	261.9	OK

0.0	-69.8	-3.8	-2.0	0.0	-90.8	-4.9	-2.6	0.0	13.8	OK	65.5	-1.8	65.6	261.9	OK
0.0	-71.6	-2.8	-0.8	0.0	-93.1	-3.7	-1.1	0.0	13.8	OK	57.5	-0.8	57.6	261.9	OK
27.2	2.0	-2.0	8.9	35.4	2.6	-2.6	11.5	0.1	13.8	OK	19.8	8.2	24.3	261.9	OK
8.6	0.6	7.4	8.9	11.2	0.8	9.6	11.6	0.0	13.8	OK	70.8	8.3	72.2	261.9	OK
0.0	-5.5	5.2	7.3	0.0	-7.2	6.7	9.5	0.0	13.8	OK	51.6	6.8	52.9	261.9	OK
1.0	0.1	13.9	3.3	1.3	0.1	18.0	4.4	0.0	13.8	OK	132.2	3.1	132.3	261.9	OK
8.3	0.6	-5.9	1.1	10.8	0.8	-7.7	1.4	0.0	13.8	OK	56.4	1.0	56.5	261.9	OK
27.6	2.0	-8.0	2.1	35.9	2.6	-10.4	2.8	0.1	13.8	OK	77.1	2.0	77.2	261.9	OK
0.0	-20.9	10.6	3.2	0.0	-27.2	13.8	4.1	0.0	13.8	OK	110.1	2.9	110.2	261.9	OK
3.1	0.2	-1.9	5.9	4.1	0.3	-2.5	7.7	0.0	13.8	OK	18.4	5.5	20.7	261.9	OK
0.0	-2.7	4.9	-7.3	0.0	-3.5	6.4	-9.4	0.0	13.8	OK	47.8	-6.7	49.2	261.9	OK
11.8	0.9	-6.0	-0.6	15.4	1.1	-7.8	-0.8	0.1	13.8	OK	57.5	-0.6	57.5	261.9	OK
7.6	0.6	6.9	-9.5	9.9	0.7	9.0	-12.3	0.0	13.8	OK	66.4	-8.8	68.1	261.9	OK
0.0	-21.6	10.6	-3.3	0.0	-28.0	13.7	-4.3	0.0	13.8	OK	109.7	-3.0	109.9	261.9	OK
3.1	0.2	-2.3	-5.5	4.0	0.3	-3.0	-7.2	0.0	13.8	OK	22.3	-5.1	24.0	261.9	OK
29.3	2.1	-2.5	-9.1	38.1	2.8	-3.2	-11.8	0.2	13.8	OK	24.7	-8.4	28.7	261.9	OK
28.8	2.1	-8.1	-2.1	37.4	2.7	-10.5	-2.7	0.1	13.8	OK	78.1	-1.9	78.2	261.9	OK
2.6	0.2	13.7	-4.2	3.3	0.2	17.8	-5.5	0.0	13.8	OK	130.1	-3.9	130.3	261.9	OK
221.5	16.2	-0.6	7.2	287.9	21.1	-0.8	9.3	1.2	13.8	OK	13.1	6.7	17.4	261.9	OK
0.0	-48.5	-2.5	0.4	0.0	-63.1	-3.2	0.6	0.0	13.8	OK	44.1	0.4	44.2	261.9	OK
0.9	0.1	-5.0	2.7	1.2	0.1	-6.5	3.5	0.0	13.8	OK	47.8	2.5	48.0	261.9	OK
10.4	0.8	-7.1	1.1	13.5	1.0	-9.2	1.4	0.1	13.8	OK	67.5	1.0	67.5	261.9	OK
12.6	0.9	-4.2	1.8	16.4	1.2	-5.4	2.4	0.1	13.8	OK	40.1	1.7	40.2	261.9	OK
0.0	-59.5	-1.8	2.3	0.0	-77.4	-2.3	3.0	0.0	13.8	OK	42.2	2.1	42.3	261.9	OK
0.0	-129.1	-0.4	0.2	0.0	-167.8	-0.5	0.3	0.0	13.8	OK	58.7	0.2	58.7	261.9	OK
1.6	0.1	-6.2	2.6	2.0	0.1	-8.0	3.4	0.0	13.8	OK	58.9	2.4	59.1	261.9	OK
0.0	-15.6	-4.8	0.3	0.0	-20.3	-6.3	0.4	0.0	13.8	OK	52.8	0.3	52.8	261.9	OK
40.5	3.0	-2.5	2.7	52.6	3.9	-3.2	3.5	0.2	13.8	OK	24.8	2.5	25.1	261.9	OK
0.0	-219.5	-0.4	1.1	0.0	-285.4	-0.5	1.5	0.0	13.8	OK	97.4	1.1	97.4	261.9	OK
158.6	11.6	-2.6	3.0	206.1	15.1	-3.4	3.9	0.8	13.8	OK	29.8	2.8	30.2	261.9	OK
18.7	1.4	-8.2	2.7	24.3	1.8	-10.6	3.5	0.1	13.8	OK	78.5	2.5	78.6	261.9	OK
0.0	-26.4	-3.9	2.0	0.0	-34.4	-5.1	2.6	0.0	13.8	OK	48.8	1.9	49.0	261.9	OK
0.0	-104.9	-2.3	1.8	0.0	-136.4	-3.0	2.4	0.0	13.8	OK	66.6	1.7	66.6	261.9	OK
0.0	-299.5	-1.0	3.6	0.0	-389.3	-1.3	4.7	0.0	13.8	OK	137.1	3.3	137.2	261.9	OK
0.0	-70.9	-0.1	1.0	0.0	-92.2	-0.1	1.3	0.0	13.8	OK	30.7	0.9	30.8	261.9	OK
0.0	-213.8	-2.1	1.3	0.0	-277.9	-2.8	1.7	0.0	13.8	OK	111.3	1.2	111.3	261.9	OK
0.0	-94.3	-3.1	1.4	0.0	-122.6	-4.0	1.8	0.0	13.8	OK	69.4	1.3	69.4	261.9	OK
0.0	-170.7	-2.0	0.7	0.0	-222.0	-2.6	0.9	0.0	13.8	OK	92.0	0.6	92.0	261.9	OK
0.0	-88.2	-3.4	1.6	0.0	-114.6	-4.4	2.1	0.0	13.8	OK	69.9	1.5	70.0	261.9	OK
18.4	1.3	-7.7	1.1	23.9	1.8	-10.0	1.4	0.1	13.8	OK	73.8	1.0	73.9	261.9	OK
0.0	-9.4	-5.2	-0.3	0.0	-12.2	-6.8	-0.4	0.0	13.8	OK	53.6	-0.3	53.6	261.9	OK
0.0	-30.5	-4.8	1.5	0.0	-39.7	-6.3	2.0	0.0	13.8	OK	59.0	1.4	59.0	261.9	OK
0.0	-10.5	-6.2	1.5	0.0	-13.7	-8.1	1.9	0.0	13.8	OK	63.6	1.4	63.7	261.9	OK
0.0	-27.2	-4.8	1.5	0.0	-35.4	-6.2	2.0	0.0	13.8	OK	57.1	1.4	57.1	261.9	OK
0.0	-185.7	-0.7	1.7	0.0	-241.4	-0.9	2.1	0.0	13.8	OK	85.7	1.5	85.7	261.9	OK
0.0	-70.6	-3.7	0.4	0.0	-91.8	-4.8	0.6	0.0	13.8	OK	65.4	0.4	65.4	261.9	OK
29.1	2.1	-7.2	-1.9	37.9	2.8	-9.3	-2.4	0.2	13.8	OK	69.3	-1.7	69.3	261.9	OK

0.0	-2.4	4.8	-6.7	0.0	-3.2	6.3	-8.7	0.0	13.8	OK	47.0	-6.2	48.2	261.9	OK
3.2	0.2	13.1	-3.9	4.1	0.3	17.0	-5.1	0.0	13.8	OK	124.4	-3.6	124.6	261.9	OK
0.0	-18.6	10.1	-3.2	0.0	-24.2	13.2	-4.1	0.0	13.8	OK	104.5	-2.9	104.6	261.9	OK
0.6	0.0	-1.8	-5.0	0.8	0.1	-2.3	-6.5	0.0	13.8	OK	16.8	-4.6	18.6	261.9	OK
4.8	0.4	-5.3	-0.5	6.3	0.5	-6.8	-0.7	0.0	13.8	OK	50.2	-0.5	50.2	261.9	OK
29.5	2.2	-1.6	-8.2	38.4	2.8	-2.0	-10.7	0.2	13.8	OK	15.8	-7.6	20.6	261.9	OK
9.4	0.7	6.9	-8.4	12.2	0.9	9.0	-11.0	0.0	13.8	OK	66.2	-7.8	67.6	261.9	OK
8.2	0.6	7.4	8.3	10.6	0.8	9.6	10.8	0.0	13.8	OK	70.9	7.7	72.1	261.9	OK
0.0	-0.2	-1.7	6.3	0.0	-0.3	-2.2	8.2	0.0	13.8	OK	16.5	5.8	19.4	261.9	OK
10.2	0.8	-6.1	1.6	13.3	1.0	-7.9	2.0	0.1	13.8	OK	58.5	1.5	58.6	261.9	OK
34.3	2.5	-8.5	2.7	44.6	3.3	-11.1	3.5	0.2	13.8	OK	82.1	2.5	82.2	261.9	OK
0.6	0.0	13.4	2.9	0.8	0.1	17.4	3.7	0.0	13.8	OK	127.5	2.7	127.6	261.9	OK
0.0	-18.7	10.4	2.8	0.0	-24.3	13.5	3.7	0.0	13.8	OK	106.6	2.6	106.7	261.9	OK
27.6	2.0	-1.7	9.1	35.8	2.6	-2.3	11.8	0.1	13.8	OK	17.4	8.4	22.7	261.9	OK
0.0	-7.0	5.2	7.0	0.0	-9.1	6.8	9.1	0.0	13.8	OK	52.8	6.5	54.0	261.9	OK
0.0	-53.9	-3.0	-0.7	0.0	-70.0	-3.8	-0.9	0.0	13.8	OK	51.1	-0.6	51.2	261.9	OK
23.1	1.7	-7.0	-1.6	30.1	2.2	-9.2	-2.0	0.1	13.8	OK	67.8	-1.4	67.8	261.9	OK
0.0	-8.9	-5.2	-0.5	0.0	-11.6	-6.8	-0.7	0.0	13.8	OK	53.2	-0.5	53.2	261.9	OK
0.0	-37.1	-0.3	0.1	0.0	-48.2	-0.3	0.1	0.0	13.8	OK	18.2	0.1	18.2	261.9	OK
0.0	-34.0	-2.0	-1.3	0.0	-44.2	-2.6	-1.6	0.0	13.8	OK	33.4	-1.2	33.4	261.9	OK
7.7	0.6	-0.9	-3.8	10.0	0.7	-1.1	-5.0	0.0	13.8	OK	8.4	-3.5	10.4	261.9	OK
28.7	2.1	-9.0	-1.8	37.3	2.7	-11.7	-2.4	0.1	13.8	OK	86.5	-1.7	86.5	261.9	OK
0.0	-8.6	-5.5	-1.6	0.0	-11.2	-7.1	-2.1	0.0	13.8	OK	55.6	-1.5	55.6	261.9	OK
7.6	0.6	-6.5	-2.5	9.9	0.7	-8.5	-3.3	0.0	13.8	OK	62.5	-2.4	62.6	261.9	OK
0.0	-80.0	-2.9	-1.5	0.0	-104.1	-3.7	-2.0	0.0	13.8	OK	61.3	-1.4	61.3	261.9	OK
0.0	-54.5	-2.2	-1.7	0.0	-70.8	-2.9	-2.2	0.0	13.8	OK	44.2	-1.6	44.3	261.9	OK
0.0	-14.4	-4.4	-1.8	0.0	-18.7	-5.7	-2.4	0.0	13.8	OK	47.7	-1.7	47.8	261.9	OK
0.0	-79.6	-0.8	-0.6	0.0	-103.4	-1.1	-0.7	0.0	13.8	OK	41.7	-0.5	41.7	261.9	OK
0.0	-21.8	-4.0	-1.2	0.0	-28.3	-5.3	-1.6	0.0	13.8	OK	47.7	-1.1	47.8	261.9	OK
27.4	2.0	-7.1	-3.6	35.6	2.6	-9.2	-4.7	0.1	13.8	OK	68.2	-3.3	68.5	261.9	OK
0.0	-24.3	-2.1	-1.6	0.0	-31.6	-2.7	-2.1	0.0	13.8	OK	30.0	-1.5	30.1	261.9	OK
74.7	5.5	-0.3	-2.5	97.1	7.1	-0.4	-3.3	0.4	13.8	OK	5.2	-2.3	6.6	261.9	OK
175.7	12.9	-0.3	-2.1	228.3	16.7	-0.4	-2.8	0.9	13.8	OK	8.3	-2.0	9.0	261.9	OK
0.0	-85.1	0.2	1.6	0.0	-110.6	0.3	2.0	0.0	13.8	OK	38.5	1.4	38.6	261.9	OK
0.0	-36.7	1.1	-2.9	0.0	-47.7	1.4	-3.8	0.0	13.8	OK	25.9	-2.7	26.3	261.9	OK
37.1	2.7	-10.3	-1.0	48.2	3.5	-13.4	-1.3	0.2	13.8	OK	99.2	-0.9	99.2	261.9	OK
0.0	-22.7	-3.1	-0.5	0.0	-29.5	-4.1	-0.6	0.0	13.8	OK	39.6	-0.4	39.6	261.9	OK
36.4	2.7	-5.4	-1.3	47.4	3.5	-7.1	-1.7	0.2	13.8	OK	52.8	-1.2	52.9	261.9	OK
4.1	0.3	-6.7	-0.6	5.3	0.4	-8.7	-0.8	0.0	13.8	OK	64.0	-0.6	64.0	261.9	OK
0.0	-48.1	-0.2	0.0	0.0	-62.5	-0.2	0.0	0.0	13.8	OK	22.0	0.0	22.0	261.9	OK
0.0	-3.2	-5.2	-3.1	0.0	-4.2	-6.7	-4.1	0.0	13.8	OK	50.5	-2.9	50.8	261.9	OK
38.4	2.8	-3.1	-2.7	49.9	3.7	-4.1	-3.5	0.2	13.8	OK	31.2	-2.5	31.4	261.9	OK
66.8	4.9	-2.0	-1.0	86.9	6.4	-2.6	-1.3	0.3	13.8	OK	21.2	-0.9	21.2	261.9	OK
29.7	2.2	-3.7	11.1	38.6	2.8	-4.9	14.5	0.2	13.8	OK	36.5	10.3	40.6	261.9	OK
7.8	0.6	7.7	11.6	10.2	0.7	10.1	15.0	0.0	13.8	OK	74.0	10.7	76.3	261.9	OK
0.0	-9.3	4.9	8.6	0.0	-12.1	6.4	11.2	0.0	13.8	OK	51.0	8.0	52.9	261.9	OK
0.0	-0.8	15.8	4.7	0.0	-1.1	20.5	6.1	0.0	13.8	OK	150.7	4.3	150.9	261.9	OK

13.2	1.0	-7.8	0.9	17.2	1.3	-10.1	1.1	0.1	13.8	OK	74.4	0.8	74.4	261.9	OK
35.5	2.6	-10.1	2.3	46.1	3.4	-13.2	3.0	0.2	13.8	OK	97.7	2.1	97.8	261.9	OK
0.0	-29.1	11.5	4.0	0.0	-37.8	15.0	5.1	0.0	13.8	OK	122.0	3.7	122.1	261.9	OK
6.1	0.4	-3.2	7.1	7.9	0.6	-4.2	9.3	0.0	13.8	OK	31.1	6.6	33.1	261.9	OK
0.0	-8.3	5.7	-8.5	0.0	-10.8	7.4	-11.0	0.0	13.8	OK	57.8	-7.8	59.4	261.9	OK
20.0	1.5	-7.9	-1.2	25.9	1.9	-10.3	-1.5	0.1	13.8	OK	75.7	-1.1	75.7	261.9	OK
4.7	0.3	8.0	-11.8	6.1	0.4	10.4	-15.4	0.0	13.8	OK	76.2	-10.9	78.5	261.9	OK
0.0	-30.4	12.0	-3.4	0.0	-39.6	15.5	-4.4	0.0	13.8	OK	126.8	-3.1	126.9	261.9	OK
5.0	0.4	-3.0	-7.6	6.6	0.5	-3.9	-9.8	0.0	13.8	OK	28.4	-7.0	30.9	261.9	OK
30.3	2.2	-3.7	-11.6	39.4	2.9	-4.8	-15.1	0.2	13.8	OK	35.9	-10.7	40.4	261.9	OK
34.4	2.5	-10.2	-2.6	44.7	3.3	-13.2	-3.4	0.2	13.8	OK	97.8	-2.4	97.8	261.9	OK
0.0	-0.2	15.9	-4.7	0.0	-0.2	20.7	-6.2	0.0	13.8	OK	151.8	-4.4	152.0	261.9	OK
144.2	10.6	-0.5	1.4	187.5	13.7	-0.6	1.8	0.8	13.8	OK	9.3	1.3	9.5	261.9	OK
0.0	-7.4	-1.0	1.0	0.0	-9.6	-1.3	1.4	0.0	13.8	OK	12.8	1.0	12.9	261.9	OK
40.4	3.0	-4.5	3.3	52.5	3.8	-5.9	4.3	0.2	13.8	OK	44.4	3.0	44.7	261.9	OK
33.6	2.5	-7.5	1.6	43.7	3.2	-9.7	2.1	0.2	13.8	OK	72.2	1.5	72.3	261.9	OK
58.9	4.3	-2.8	1.0	76.6	5.6	-3.6	1.2	0.3	13.8	OK	28.4	0.9	28.4	261.9	OK
13.9	1.0	1.2	1.2	18.1	1.3	1.6	1.6	0.1	13.8	OK	11.9	1.1	12.0	261.9	OK
0.0	-45.4	1.4	-2.0	0.0	-59.0	1.8	-2.6	0.0	13.8	OK	32.7	-1.8	32.8	261.9	OK
6.6	0.5	-7.7	4.1	8.6	0.6	-10.0	5.3	0.0	13.8	OK	73.2	3.8	73.5	261.9	OK
0.0	-5.3	-4.6	1.0	0.0	-6.9	-6.0	1.2	0.0	13.8	OK	46.3	0.9	46.3	261.9	OK
68.8	5.0	-1.1	2.6	89.4	6.6	-1.5	3.3	0.4	13.8	OK	12.9	2.4	13.6	261.9	OK
0.0	-31.6	1.8	-7.8	0.0	-41.1	2.3	-10.1	0.0	13.8	OK	30.3	-7.2	32.8	261.9	OK
134.2	9.8	0.3	-0.9	174.5	12.8	0.4	-1.1	0.7	13.8	OK	6.8	-0.8	7.0	261.9	OK
33.6	2.5	-9.7	4.0	43.7	3.2	-12.6	5.2	0.2	13.8	OK	93.3	3.7	93.5	261.9	OK
0.0	-9.3	-3.3	2.2	0.0	-12.1	-4.3	2.8	0.0	13.8	OK	35.8	2.0	36.0	261.9	OK
31.9	2.3	-2.8	1.0	41.4	3.0	-3.7	1.3	0.2	13.8	OK	28.0	0.9	28.0	261.9	OK
0.0	-276.0	0.9	-6.4	0.0	-358.8	1.1	-8.4	0.0	13.8	OK	125.9	-6.0	126.4	261.9	OK
100.0	7.3	-1.8	5.6	129.9	9.5	-2.3	7.2	0.5	13.8	OK	20.3	5.2	22.2	261.9	OK
0.0	-82.4	1.1	1.9	0.0	-107.2	1.4	2.5	0.0	13.8	OK	45.7	1.8	45.8	261.9	OK
0.0	-28.8	-2.0	2.3	0.0	-37.4	-2.7	3.0	0.0	13.8	OK	31.8	2.1	32.0	261.9	OK
0.0	-65.9	-0.3	-0.1	0.0	-85.6	-0.4	-0.2	0.0	13.8	OK	31.0	-0.1	31.0	261.9	OK
14.4	1.1	-3.6	2.9	18.8	1.4	-4.7	3.8	0.1	13.8	OK	34.6	2.7	34.9	261.9	OK
27.5	2.0	-9.5	0.6	35.8	2.6	-12.3	0.8	0.1	13.8	OK	91.0	0.6	91.0	261.9	OK
1.7	0.1	-6.6	0.4	2.2	0.2	-8.6	0.5	0.0	13.8	OK	63.0	0.4	63.0	261.9	OK
17.0	1.2	-5.6	1.3	22.0	1.6	-7.3	1.7	0.1	13.8	OK	53.9	1.2	54.0	261.9	OK
17.1	1.3	-7.0	3.1	22.2	1.6	-9.0	4.0	0.1	13.8	OK	66.8	2.8	66.9	261.9	OK
0.0	-10.0	-5.4	2.6	0.0	-13.1	-7.0	3.4	0.0	13.8	OK	55.4	2.4	55.5	261.9	OK
9.3	0.7	-1.7	3.6	12.1	0.9	-2.2	4.6	0.0	13.8	OK	16.2	3.3	17.2	261.9	OK
0.0	-24.7	-3.5	0.7	0.0	-32.1	-4.6	0.9	0.0	13.8	OK	43.9	0.6	43.9	261.9	OK
30.2	2.2	-9.0	-2.2	39.2	2.9	-11.7	-2.9	0.2	13.8	OK	86.9	-2.0	86.9	261.9	OK
0.0	-4.6	5.5	-8.1	0.0	-6.0	7.1	-10.6	0.0	13.8	OK	54.2	-7.5	55.7	261.9	OK
0.9	0.1	15.2	-4.6	1.1	0.1	19.7	-6.0	0.0	13.8	OK	144.3	-4.3	144.5	261.9	OK
0.0	-26.9	11.7	-3.6	0.0	-35.0	15.2	-4.7	0.0	13.8	OK	123.0	-3.3	123.2	261.9	OK
4.6	0.3	-2.7	-6.5	6.0	0.4	-3.6	-8.4	0.0	13.8	OK	26.2	-6.0	28.2	261.9	OK
12.3	0.9	-7.0	-0.8	15.9	1.2	-9.2	-1.1	0.1	13.8	OK	67.4	-0.7	67.5	261.9	OK
30.3	2.2	-3.1	-10.2	39.4	2.9	-4.1	-13.2	0.2	13.8	OK	30.7	-9.4	34.8	261.9	OK

6.5	0.5	7.6	-10.9	8.5	0.6	9.9	-14.1	0.0	13.8	OK	72.7	-10.1	74.8	261.9	OK
6.3	0.5	8.0	10.9	8.1	0.6	10.4	14.2	0.0	13.8	OK	76.3	10.1	78.3	261.9	OK
5.1	0.4	-2.8	6.9	6.6	0.5	-3.6	9.0	0.0	13.8	OK	26.4	6.4	28.6	261.9	OK
15.3	1.1	-7.2	1.2	19.9	1.5	-9.4	1.5	0.1	13.8	OK	69.1	1.1	69.1	261.9	OK
33.2	2.4	-9.6	2.8	43.2	3.2	-12.5	3.6	0.2	13.8	OK	92.3	2.6	92.4	261.9	OK
0.0	-1.4	15.3	4.2	0.0	-1.8	19.9	5.5	0.0	13.8	OK	146.3	3.9	146.5	261.9	OK
0.0	-26.4	11.6	3.6	0.0	-34.4	15.1	4.7	0.0	13.8	OK	122.1	3.4	122.3	261.9	OK
27.6	2.0	-3.2	10.8	35.9	2.6	-4.1	14.0	0.1	13.8	OK	31.2	10.0	35.7	261.9	OK
0.0	-8.0	5.4	8.4	0.0	-10.5	7.0	10.9	0.0	13.8	OK	55.0	7.8	56.6	261.9	OK
4.3	0.3	-2.5	-0.6	5.6	0.4	-3.3	-0.8	0.0	13.8	OK	24.4	-0.5	24.4	261.9	OK
29.0	2.1	-8.0	-1.5	37.7	2.8	-10.4	-2.0	0.2	13.8	OK	76.9	-1.4	76.9	261.9	OK
0.6	0.0	-5.3	-0.5	0.8	0.1	-6.9	-0.6	0.0	13.8	OK	50.6	-0.5	50.6	261.9	OK
0.0	-22.6	-0.2	0.8	0.0	-29.4	-0.2	1.1	0.0	13.8	OK	11.2	0.8	11.2	261.9	OK
266.4	19.5	-1.5	-2.2	346.4	25.4	-2.0	-2.8	1.4	13.8	OK	23.1	-2.0	23.4	261.9	OK
337.7	24.8	-0.3	-4.1	439.0	32.2	-0.3	-5.3	1.8	13.8	OK	12.9	-3.8	14.5	261.9	OK
26.6	1.9	-9.7	-3.7	34.6	2.5	-12.6	-4.9	0.1	13.8	OK	93.0	-3.5	93.2	261.9	OK
32.9	2.4	-5.5	-3.4	42.8	3.1	-7.1	-4.5	0.2	13.8	OK	53.2	-3.2	53.5	261.9	OK
11.9	0.9	-7.2	-3.5	15.5	1.1	-9.4	-4.6	0.1	13.8	OK	69.4	-3.3	69.6	261.9	OK
129.8	9.5	-2.4	-3.2	168.7	12.4	-3.1	-4.2	0.7	13.8	OK	26.5	-3.0	27.0	261.9	OK
22.7	1.7	-1.5	-1.8	29.5	2.2	-1.9	-2.3	0.1	13.8	OK	14.6	-1.6	14.9	261.9	OK
4.1	0.3	-4.2	-2.4	5.4	0.4	-5.4	-3.1	0.0	13.8	OK	39.7	-2.2	39.8	261.9	OK
10.8	0.8	-0.3	0.2	14.0	1.0	-0.4	0.3	0.1	13.8	OK	3.1	0.2	3.1	261.9	OK
68.2	5.0	-4.3	-2.0	88.7	6.5	-5.5	-2.7	0.4	13.8	OK	42.7	-1.9	42.8	261.9	OK
70.4	5.2	0.1	-3.7	91.5	6.7	0.1	-4.8	0.4	13.8	OK	3.2	-3.5	6.8	261.9	OK
27.5	2.0	6.4	4.5	35.8	2.6	8.3	5.9	0.1	13.8	OK	61.6	4.2	62.0	261.9	OK
47.4	3.5	-2.0	-11.3	61.6	4.5	-2.6	-14.7	0.2	13.8	OK	20.2	-10.5	27.2	261.9	OK
220.9	16.2	3.3	17.5	287.1	21.1	4.3	22.8	1.1	13.8	OK	38.3	16.2	47.5	261.9	OK
89.8	6.6	-9.4	-7.2	116.8	8.6	-12.3	-9.4	0.5	13.8	OK	92.7	-6.7	93.4	261.9	OK
238.9	17.5	-0.5	52.2	310.5	22.8	-0.7	67.8	1.2	13.8	OK	12.5	48.3	84.6	261.9	OK
315.1	23.1	7.8	21.0	409.6	30.0	10.1	27.3	1.6	13.8	OK	83.7	19.5	90.2	261.9	OK
153.1	11.2	7.2	6.1	199.0	14.6	9.4	8.0	0.8	13.8	OK	73.8	5.7	74.5	261.9	OK
321.0	23.5	6.3	5.5	417.3	30.6	8.2	7.2	1.7	13.8	OK	70.3	5.1	70.9	261.9	OK
66.2	4.9	2.4	4.2	86.1	6.3	3.1	5.4	0.3	13.8	OK	25.0	3.9	25.9	261.9	OK
100.2	7.3	-4.5	-3.6	130.2	9.5	-5.8	-4.7	0.5	13.8	OK	46.0	-3.3	46.3	261.9	OK
26.0	1.9	3.7	-7.5	33.8	2.5	4.8	-9.8	0.1	13.8	OK	36.2	-7.0	38.2	261.9	OK
181.6	13.3	7.4	14.4	236.1	17.3	9.6	18.7	0.9	13.8	OK	76.1	13.3	79.5	261.9	OK
422.2	31.0	7.4	25.3	548.9	40.2	9.6	32.8	2.2	13.8	OK	83.2	23.4	92.5	261.9	OK
497.3	36.5	-4.3	12.5	646.5	47.4	-5.6	16.2	2.6	13.8	OK	56.4	11.6	59.9	261.9	OK
30.8	2.3	5.4	-1.6	40.0	2.9	7.1	-2.0	0.2	13.8	OK	52.7	-1.5	52.7	261.9	OK
463.4	34.0	5.9	-19.0	602.5	44.2	7.7	-24.7	2.4	13.8	OK	70.7	-17.6	77.1	261.9	OK
188.9	13.8	2.5	-17.6	245.6	18.0	3.3	-22.8	1.0	13.8	OK	30.1	-16.3	41.2	261.9	OK
39.7	2.9	-3.4	6.8	51.6	3.8	-4.4	8.8	0.2	13.8	OK	33.6	6.3	35.3	261.9	OK
464.7	34.1	5.2	-19.3	604.1	44.3	6.8	-25.1	2.4	13.8	OK	64.5	-17.9	71.6	261.9	OK
76.2	5.6	0.6	-1.1	99.0	7.3	0.7	-1.5	0.4	13.8	OK	7.7	-1.0	7.9	261.9	OK
197.1	14.4	4.4	-16.3	256.2	18.8	5.8	-21.2	1.0	13.8	OK	48.4	-15.1	55.1	261.9	OK
86.3	6.3	-2.2	1.1	112.2	8.2	-2.9	1.5	0.4	13.8	OK	24.1	1.1	24.2	261.9	OK
27.2	2.0	1.3	7.5	35.3	2.6	1.7	9.8	0.1	13.8	OK	13.0	7.0	17.7	261.9	OK

180.9	13.3	5.3	-3.4	235.2	17.2	6.9	-4.4	0.9	13.8	OK	56.0	-3.2	56.2	261.9	OK
404.5	29.7	5.0	-4.2	525.9	38.6	6.5	-5.4	2.1	13.8	OK	60.0	-3.9	60.3	261.9	OK
100.7	7.4	-4.1	-1.0	131.0	9.6	-5.3	-1.3	0.5	13.8	OK	42.1	-0.9	42.2	261.9	OK
380.4	27.9	-4.1	-16.1	494.6	36.3	-5.4	-20.9	2.0	13.8	OK	51.2	-14.9	57.3	261.9	OK
188.5	13.8	1.5	-44.9	245.1	18.0	1.9	-58.4	1.0	13.8	OK	20.1	-41.6	74.8	261.9	OK
57.9	4.2	-6.8	-1.1	75.3	5.5	-8.8	-1.4	0.3	13.8	OK	66.3	-1.0	66.3	261.9	OK
119.4	8.8	2.9	13.5	155.2	11.4	3.8	17.5	0.6	13.8	OK	31.4	12.5	38.1	261.9	OK
119.7	8.8	0.3	0.9	155.6	11.4	0.4	1.2	0.6	13.8	OK	6.6	0.8	6.7	261.9	OK
85.0	6.2	0.7	14.2	110.5	8.1	0.9	18.5	0.4	13.8	OK	9.1	13.2	24.5	261.9	OK
210.5	15.4	0.9	-2.5	273.7	20.1	1.2	-3.2	1.1	13.8	OK	15.3	-2.3	15.8	261.9	OK
112.8	8.3	2.1	0.4	146.6	10.7	2.7	0.5	0.6	13.8	OK	23.6	0.3	23.6	261.9	OK
134.1	9.8	-3.9	5.6	174.3	12.8	-5.0	7.3	0.7	13.8	OK	41.0	5.2	42.0	261.9	OK
382.1	28.0	-1.7	-8.0	496.7	36.4	-2.2	-10.5	2.0	13.8	OK	27.9	-7.5	30.8	261.9	OK
233.3	17.1	3.3	-5.3	303.2	22.2	4.3	-6.9	1.2	13.8	OK	38.4	-4.9	39.4	261.9	OK
290.3	21.3	-2.4	-19.7	377.4	27.7	-3.2	-25.6	1.5	13.8	OK	32.4	-18.2	45.2	261.9	OK
277.5	20.3	-1.5	-8.6	360.7	26.4	-1.9	-11.2	1.4	13.8	OK	22.8	-8.0	26.7	261.9	OK
389.8	28.6	1.1	3.9	506.8	37.2	1.5	5.0	2.0	13.8	OK	22.9	3.6	23.8	261.9	OK
201.4	14.8	0.5	17.5	261.9	19.2	0.7	22.8	1.0	13.8	OK	11.2	16.2	30.3	261.9	OK
420.2	30.8	0.5	-25.1	546.2	40.0	0.7	-32.6	2.2	13.8	OK	18.0	-23.3	44.1	261.9	OK

ALLEGATO 2

SOLLECITAZIONI NEL RIVESTIMENTO DEFINITIVO

Tabella 1: sollecitazioni nel rivestimento definitivo (N>0: compressione, M>0: tende le fibre in intradosso) – Camerone di manovra

Calotta						Arco rovescio					
Sollecitazioni caratteristiche			Sollecitazioni di calcolo (SLU)			Sollecitazioni caratteristiche			Sollecitazioni di calcolo (SLU)		
N_k [kN]	M_k [kNm]	T_k [kN]	N_d [kN]	M_d [kNm]	T_d [kN]	N_k [kN]	M_k [kNm]	T_k [kN]	N_d [kN]	M_d [kNm]	T_d [kN]
7037	171	-375	9148	222	-487	4	1	6	5	1	7
7432	360	-81	9662	468	-105	1	1	3	1	1	4
8465	340	14	11004	442	18	-3	-2	0	-5	-3	0
4724	-69	-11	6142	-90	-14	-9	1	2	-12	1	3
5267	-66	-159	6848	-86	-207	1	-1	-2	2	-1	-3
6809	113	-459	8851	146	-596	-2	-2	1	-3	-2	1
7912	395	-93	10286	514	-121	3	-2	0	4	-3	0
6611	182	184	8595	236	239	6	-2	-1	8	-2	-1
7891	407	-13	10258	529	-17	0	-1	-2	0	-1	-3
8122	368	209	10559	478	272	3	-2	0	4	-3	0
4474	58	8	5816	75	10	2	-2	0	2	-3	0
4969	69	-31	6460	89	-41	6	-2	1	8	-2	1
6332	94	111	8231	122	145	6	-2	0	8	-2	0
6976	99	-38	9069	128	-49	4	-1	0	5	-2	0
7661	197	149	9960	256	193	3	-1	0	4	-2	1
8594	336	163	11172	437	212	-3	-2	1	-4	-2	2
5773	87	103	7504	113	133	5	-2	0	7	-3	0
5366	42	24	6976	55	31	4	-2	-1	5	-2	-1
3257	71	32	4234	93	41	2	-2	0	3	-3	0
2918	81	-31	3794	106	-40	4	-2	-1	6	-3	-1
2892	-51	38	3760	-66	50	7	-2	-1	9	-2	-2
2924	8	71	3801	11	92	0	-2	0	0	-3	0
2872	7	20	3733	9	25	-1	-1	3	-2	-2	3
2562	-84	6	3331	-109	7	-1	-3	1	-1	-4	1
3203	113	-64	4164	147	-83	-1	-3	1	-1	-4	1
2034	-53	47	2644	-69	61	-6	-3	-2	-8	-3	-2
2455	-95	18	3192	-123	24	-7	-3	-1	-9	-4	-2
2943	81	115	3825	105	149	-10	0	-3	-13	-1	-3
3499	88	34	4549	114	45	1	-1	3	1	-2	4
3005	58	-96	3906	75	-125	-18	-1	-4	-23	-1	-6
3758	56	-62	4885	73	-81	3	0	6	4	-1	8
2366	-47	-107	3076	-61	-139	-6	0	1	-7	0	2
3727	83	16	4845	107	20	-5	-2	0	-7	-3	0
2464	-9	-34	3204	-12	-45	-6	1	0	-8	1	0
2331	-1	-20	3031	-1	-26	2	-1	-2	2	-1	-3
2520	-92	-7	3276	-120	-10	-2	-1	0	-2	-1	0
2190	-58	-40	2847	-76	-51	2	-2	1	2	-3	2
2106	-94	-13	2738	-122	-18	6	-2	-1	8	-2	-2
6017	105	-12	7822	136	-16	-1	-1	-3	-1	-2	-4
5340	92	0	6942	119	0	2	-2	0	3	-3	1

7631	285	-14	9920	370	-19	1	-2	0	1	-3	0
7495	267	-8	9743	348	-11	6	-2	0	8	-2	0
7122	301	-72	9259	391	-94	4	-1	0	6	-2	0
8050	263	24	10465	342	31	4	-1	0	6	-2	1
7626	324	-82	9914	421	-107	3	-1	0	4	-1	0
5468	92	47	7108	120	61	-2	-2	1	-3	-2	1
6594	181	-208	8572	235	-270	4	-2	0	5	-3	0
6174	180	-141	8026	234	-183	4	-2	0	5	-3	0
4944	85	-107	6428	111	-139	4	-2	0	6	-3	0
7856	288	27	10213	374	35	5	-2	0	6	-3	0
6757	261	-20	8784	340	-25	3	-2	-2	4	-2	-3
7659	346	39	9957	450	51	-2	-2	1	-2	-2	2
6713	185	91	8727	241	118	-1	-2	3	-2	-2	4
6975	158	402	9067	206	523	-1	-3	0	-1	-4	0
4843	-57	120	6296	-74	157	-1	-3	1	-2	-4	1
5735	29	262	7455	38	341	-4	-2	-1	-6	-3	-1
6916	132	-456	8991	172	-593	-4	-3	-2	-5	-4	-2
6653	334	72	8648	434	93	-9	-1	-1	-11	-1	-2
7364	364	-61	9573	474	-79	0	-1	3	0	-2	4
4474	-98	89	5816	-127	116	-9	-1	-2	-11	-1	-3
4429	-71	-2	5758	-93	-2	-3	-1	0	-4	-1	-1
6785	25	-492	8821	32	-640	-5	0	-2	-6	0	-3
8095	389	54	10523	506	70	-3	-2	0	-4	-2	0
7835	185	249	10185	241	323	-7	0	-2	-9	0	-3
8203	367	-91	10664	477	-118	-1	-2	1	-1	-3	1
8490	360	185	11037	468	240	2	-2	-3	3	-2	-4
5017	51	-111	6523	67	-145	-2	-2	-2	-3	-2	-3
4920	77	-73	6396	101	-95	3	-2	1	4	-3	2
6781	71	20	8815	92	26	0	-2	-2	0	-2	-2
6443	66	9	8376	86	11	2	-2	-2	2	-3	-3
6623	183	162	8609	238	210	4	-2	0	6	-2	0
8071	326	68	10492	424	89	-3	-2	-2	-3	-3	-2
5558	42	106	7225	54	138	4	-1	0	6	-2	0
5945	36	25	7728	46	32	1	-1	1	1	-1	1
2859	62	95	3717	81	123	3	-2	0	4	-2	1
3431	103	-26	4460	134	-34	-5	-1	-2	-6	-1	-3
2847	-70	34	3701	-90	44	-2	-2	2	-2	-2	2
2898	-15	43	3768	-19	56	-2	-1	0	-3	-2	0
2946	0	64	3830	-1	84	-7	-1	4	-9	-2	5
2658	-107	20	3455	-139	26	3	-2	0	4	-3	0
4217	127	34	5482	165	45	2	-3	0	3	-3	0
2912	-60	15	3785	-78	19	1	-2	1	1	-3	1
2357	-101	18	3064	-132	24	-2	-3	0	-3	-4	0
2957	85	86	3844	110	112	-6	-2	-1	-8	-3	-2
3821	62	54	4967	81	71	-3	-3	-1	-4	-3	-1
3959	40	-95	5146	52	-124	1	-2	4	2	-3	5
3737	46	-64	4858	60	-83	-6	-1	2	-8	-2	3

2258	-71	-57	2935	-92	-74	-2	-3	0	-2	-4	0
3786	89	-19	4922	116	-25	-9	-1	-2	-12	-2	-2
3023	-25	-44	3930	-33	-58	-8	-1	-1	-10	-1	-2
2735	-21	-18	3556	-28	-23	8	-6	-2	11	-8	-2
2815	-111	-44	3659	-144	-57	9	-5	0	12	-7	-1
2388	-77	-48	3104	-101	-62	36	-5	-4	47	-6	-5
2505	-107	1	3256	-139	2	16	-3	0	20	-4	0
5511	88	-44	7164	115	-57	12	-5	0	15	-6	0
4932	59	-44	6412	77	-57	42	-5	-4	55	-7	-5
7590	334	-168	9867	434	-218	5	-6	-1	6	-8	-2
8238	285	-105	10709	370	-136	18	-5	-3	24	-6	-3
7023	345	-16	9129	449	-21	13	-5	-1	18	-6	-1
7043	281	41	9156	365	54	49	-3	0	64	-4	0
7494	347	-86	9743	451	-112	-3	-3	0	-4	-3	0
5534	50	-39	7194	65	-50	0	-2	-1	0	-3	-1
6949	165	-148	9033	215	-192	-10	-3	-2	-13	-4	-2
6906	174	-108	8978	227	-140	-7	-2	-1	-9	-3	-1
5307	67	-4	6899	87	-5	-4	-3	-1	-5	-3	-2
7832	311	-60	10182	405	-77	-6	-2	-1	-8	-3	-1
7877	349	55	10240	453	71	-9	-4	-1	-11	-5	-1
7611	349	-46	9895	453	-60	-11	-4	-2	-15	-5	-2
7088	146	432	9214	190	562	-8	-3	-1	-11	-4	-1
7502	129	454	9753	168	590	-4	-2	1	-6	-3	1
5004	-81	174	6506	-106	227	-1	-2	0	-1	-3	0
4783	-51	122	6218	-66	158	0	-2	0	0	-3	0
6585	289	62	8561	375	81	-6	-3	2	-8	-4	3
4558	-47	-233	5925	-61	-303	-6	-2	-1	-8	-3	-1
6792	204	-143	8830	265	-186	-4	-3	-1	-5	-4	-1
5511	-108	-140	7165	-140	-182	-12	-5	4	-15	-6	5
6780	96	-516	8814	125	-670	-11	-4	-1	-14	-6	-1
4114	-60	88	5348	-78	114	0	-3	0	0	-4	0
8893	381	24	11560	495	32	-3	-3	4	-4	-4	5
6675	172	271	8677	223	352	-7	-5	1	-9	-6	1
8731	337	32	11351	438	41	-13	-5	0	-17	-7	0
6394	18	48	8312	23	63	-12	-5	1	-16	-7	1
6711	66	67	8724	86	87	-12	-4	2	-15	-5	3
6701	60	-87	8711	78	-113	-6	-4	0	-8	-5	-1
8328	339	-7	10827	441	-9	-12	-5	3	-15	-7	3
7849	381	-113	10204	496	-147	-4	-5	1	-5	-6	1
7405	225	231	9626	292	300	16	-3	3	20	-4	3
5021	55	-137	6527	72	-178	24	-4	-2	31	-5	-2
5297	70	-66	6886	91	-85	55	-4	-4	72	-6	-5
6170	41	109	8021	53	142	16	-5	-1	21	-6	-1
2876	-152	-1	3739	-197	-1	27	-3	1	35	-4	2
2815	-89	14	3660	-115	18	36	-3	2	47	-4	3
4584	129	47	5959	167	62	19	-5	0	25	-6	0
4405	118	84	5727	153	110	20	-5	0	26	-6	0

3575	96	56	4648	125	73	36	-4	-3	47	-6	-4
3064	-80	81	3983	-103	106	25	-3	0	32	-3	0
2666	-137	37	3465	-178	49	37	-3	-3	49	-4	-4
2929	-30	90	3808	-40	117	15	-4	2	19	-5	3
3081	-21	61	4005	-27	79	25	-3	1	33	-4	2
3034	56	54	3945	73	71	32	-3	-3	41	-4	-3
3408	-47	-88	4431	-62	-115	17	-3	3	22	-4	3
2400	-101	-62	3120	-132	-81	34	-3	-3	44	-5	-4
2777	-139	-35	3610	-180	-45	16	-4	3	21	-5	3
2851	-121	5	3707	-157	7	17	-3	2	22	-4	3
3940	66	11	5122	86	14	18	-3	2	23	-4	3
3599	24	-103	4679	31	-133	42	-4	-4	54	-6	-5
3696	25	-99	4805	32	-129	29	-3	-2	38	-4	-3
2727	-138	-28	3545	-179	-36	15	-4	2	20	-5	2
3077	-47	-33	4000	-61	-43	9	-6	-4	12	-7	-5
4345	129	-79	5649	168	-102	16	-4	2	21	-5	3
6683	174	-264	8688	226	-343	29	-3	-2	38	-4	-3
6464	-32	-202	8403	-42	-263	25	-3	-2	33	-5	-2
7737	342	-213	10059	445	-277	12	-5	-4	15	-7	-5
7778	384	-86	10112	499	-112	28	-3	-2	37	-5	-3
7204	322	112	9365	418	145	14	-5	-1	18	-7	-1
5423	34	83	7050	44	108	17	-3	2	22	-4	3
7995	306	-204	10393	397	-265	-5	-3	-2	-7	-4	-2
7920	421	66	10296	547	86	-5	-1	-13	-6	-1	-17
5879	48	-146	7643	62	-190	-5	-3	6	-6	-4	8
8341	455	-156	10844	592	-203	-8	1	4	-11	2	6
4773	18	254	6205	24	330	3	-2	-1	4	-3	-1
6997	161	-53	9096	210	-69	2	-2	-1	3	-2	-1
5267	-39	647	6847	-51	841	-1	-2	0	-1	-3	0
4793	-26	218	6231	-34	283	4	-2	0	5	-2	0
5664	-26	-197	7363	-34	-256	6	-2	-1	8	-2	-1
7783	306	-14	10118	398	-19	1	-1	-2	1	-1	-3
7694	180	461	10002	234	599	3	-1	0	3	-2	0
7087	103	310	9213	134	403	4	-1	-1	5	-2	-1
5016	11	-100	6520	14	-130	3	-2	1	4	-2	1
9295	257	-15	12084	334	-20	1	-1	-2	1	-1	-3
8520	313	-166	11076	407	-216	-11	-1	1	-14	-2	2
7414	164	-197	9639	213	-256	6	-2	1	7	-2	1
5432	11	-176	7061	14	-229	0	-2	-1	0	-3	-1
7449	168	-220	9684	219	-286	-2	-2	0	-3	-3	0
5457	138	26	7095	179	33	-4	-2	1	-6	-2	1
2846	122	83	3700	159	107	3	-2	-1	4	-2	-1
8550	217	159	11115	282	207	3	-2	-1	4	-3	-1
5315	116	-39	6909	151	-50	3	-2	0	3	-3	0
8327	305	94	10825	397	122	0	-2	3	0	-2	4
7070	169	-48	9192	220	-63	0	-2	4	1	-2	5
7565	124	-51	9835	161	-66	-8	-3	-1	-10	-4	-2

3245	144	82	4218	187	106	0	-4	1	0	-5	1
7421	205	176	9647	267	228	-1	-4	0	-1	-5	0
3596	145	-26	4675	189	-34	-8	-2	-2	-10	-3	-3
6138	139	-28	7980	181	-37	-16	-1	-4	-20	-1	-5
5286	141	145	6872	183	188	-1	-4	1	-2	-5	1
2430	66	15	3159	85	19	3	0	3	4	1	4
2063	28	22	2681	37	29	-8	1	-5	-10	1	-7
2347	29	74	3051	37	96	-7	1	2	-9	1	2
2096	-30	53	2725	-39	69	-3	-2	0	-4	-2	0
2659	79	7	3457	103	9	3	-2	1	3	-2	1
2126	59	-19	2763	77	-24	0	-2	0	0	-2	1
2207	84	95	2869	109	124	-1	-2	-1	-1	-3	-1
1804	-43	53	2345	-55	69	0	-2	0	0	-2	-1
1695	-95	16	2204	-124	21	-11	-2	1	-14	-2	1
1547	-86	35	2010	-112	45	-7	-2	0	-9	-3	0
2013	-8	-52	2616	-11	-68	0	-1	-2	1	-1	-3
1640	-45	-12	2132	-58	-15	-4	-3	0	-5	-3	0
1664	-52	40	2163	-67	52	0	-2	0	0	-2	0
2188	-77	-45	2845	-100	-59	3	-2	-1	3	-3	-1
1660	-74	-64	2158	-96	-83	2	-2	0	2	-3	0
1848	-16	-46	2403	-21	-60	-1	-2	-2	-2	-2	-3
2738	54	-82	3559	70	-107	0	-1	0	0	-2	0
2098	68	-84	2728	89	-110	-4	-2	-1	-5	-3	-1
2505	95	66	3256	124	85	3	-2	0	4	-2	-1
2649	90	-19	3443	117	-24	2	-2	-1	3	-2	-1
7402	182	-83	9623	236	-108	-5	-3	0	-7	-3	0
3616	100	-77	4701	130	-101	-1	-2	0	-1	-2	0
2906	84	-3	3778	109	-4	-1	-2	3	-1	-2	5
4505	149	-5	5857	194	-7	-6	-3	-1	-7	-4	-2
5684	190	-143	7389	247	-186	-3	-4	0	-4	-5	1
3415	131	-106	4440	171	-138	-3	-4	1	-3	-5	1
8601	176	-74	11181	228	-96	-3	-4	-1	-4	-5	-1
3856	83	-23	5013	108	-29	-2	-2	4	-2	-3	5
8199	113	-56	10659	147	-73	0	-4	1	-1	-5	1
5644	94	67	7337	122	88	-4	-4	0	-5	-5	0
7989	234	-96	10385	304	-124	-8	1	-8	-11	1	-10
6759	196	100	8787	255	130	-2	-3	-1	-3	-4	-2
7960	221	368	10348	287	478	-5	1	2	-7	1	2
8532	302	66	11091	392	86	-5	-3	2	-6	-4	3
5070	16	183	6591	20	238	-9	-1	-1	-11	-2	-2
5625	0	248	7313	0	323	-4	-3	-1	-6	-4	-1
8557	265	-294	11125	344	-382	-6	0	-3	-7	0	-3
8141	220	243	10583	286	316	0	-1	3	0	-1	3
7057	158	-374	9174	205	-486	-1	-3	-1	-2	-4	-2
8432	341	-22	10962	443	-28	-18	-4	-2	-24	-5	-3
8481	327	-34	11026	425	-44	-19	-3	-1	-25	-4	-1
5810	-39	-95	7553	-50	-124	-3	-3	-2	-4	-4	-3

5595	-53	-173	7273	-69	-225	2	-3	0	2	-3	0
7635	172	-320	9926	223	-417	2	-3	1	3	-4	1
5584	83	28	7259	108	36	-13	-4	0	-18	-5	1
4503	97	-84	5854	126	-109	0	-3	0	0	-4	1
6710	175	120	8722	228	156	6	-2	-2	7	-3	-3
5246	93	50	6820	122	65	-7	-4	-2	-9	-5	-2
6154	173	95	8000	224	124	3	-4	1	4	-5	1
6887	119	68	8953	154	88	0	-3	1	1	-4	2
6361	110	2	8269	144	3	4	-3	-3	6	-4	-4
8232	352	294	10702	457	382	-10	-3	4	-13	-3	5
4196	78	68	5454	102	89	-10	-2	-3	-14	-2	-4
8116	284	162	10551	370	210	-6	-3	1	-8	-4	1
7505	400	-166	9756	520	-216	-2	-3	0	-2	-4	0
8039	360	-35	10451	469	-45	-7	-3	-2	-10	-4	-2
2187	20	59	2843	25	77	-6	-3	-1	-8	-4	-1
2744	92	-60	3567	120	-78	2	-3	4	2	-5	5
2677	71	37	3480	92	48	-8	-2	0	-11	-3	0
3222	82	51	4188	107	66	-10	-3	0	-14	-4	0
2052	-91	-4	2668	-118	-5	-4	-4	0	-6	-6	0
2839	22	54	3691	28	70	-11	-4	0	-14	-5	0
3241	100	40	4214	130	53	-16	-3	1	-21	-4	1
2360	-46	60	3067	-60	79	-2	-2	1	-2	-3	1
1866	-48	66	2425	-62	85	9	-2	-1	12	-2	-1
2163	-84	-1	2812	-110	-1	-9	0	4	-11	0	5
2349	5	-47	3054	7	-61	12	-2	0	16	-3	0
2609	15	-34	3392	19	-45	11	-2	0	15	-3	0
1835	-85	-33	2386	-111	-42	13	-4	1	16	-5	2
3161	77	-102	4109	100	-133	10	-1	-1	13	-1	-1
3627	105	5	4715	137	6	1	-1	5	1	-1	7
1791	-78	-32	2329	-102	-41	11	-2	0	14	-3	0
3119	71	-72	4054	93	-94	2	2	-4	3	2	-5
1719	-37	-39	2234	-48	-51	13	-3	1	17	-4	2
2386	-41	-86	3101	-54	-112	10	-2	0	13	-3	0
3729	109	40	4848	142	52	7	-1	-1	9	-1	-2
8843	263	65	11496	342	85	11	1	-2	14	1	-3
8102	276	-88	10532	359	-114	10	-2	-1	12	-3	-1
4423	104	-19	5750	135	-25	10	-2	0	13	-2	0
6251	200	-139	8126	260	-180	8	-4	1	10	-5	1
7145	279	104	9288	363	135	9	-3	1	11	-4	1
6012	199	-224	7815	259	-291	10	-2	1	13	-3	1
7381	281	82	9596	366	107	11	-3	0	14	-3	0
7130	269	-12	9269	350	-15	17	2	3	22	3	4
5134	107	-52	6674	140	-67	2	-1	-4	3	-1	-5
5695	109	77	7404	141	100	11	-3	0	14	-3	0
8270	249	49	10752	324	64	14	-1	2	18	-2	2
5471	126	-51	7112	163	-66	17	-4	0	22	-5	0
6765	168	42	8795	218	54	15	6	7	20	8	9

5440	54	189	7072	70	246	15	-2	2	19	-2	2
5718	20	292	7433	26	379	12	-5	-2	15	-7	-3
7149	210	164	9294	273	213	-6	-2	-5	-7	-3	-6
6465	249	-41	8404	324	-54	43	-5	9	57	-6	12
6304	174	-83	8195	227	-108	25	-4	8	32	-5	11
5904	-16	-105	7675	-20	-137	61	0	3	79	0	5
5409	28	-171	7032	37	-223	29	3	0	37	4	0
8444	352	-82	10978	457	-107	2	0	5	3	0	6
8641	336	-152	11234	437	-198	20	0	3	27	1	4
7730	176	-300	10048	229	-390	13	1	3	18	1	4
7375	199	-207	9588	258	-270	23	0	3	29	1	3
3101	118	22	4031	153	29	40	-4	9	51	-5	11
6099	127	113	7928	165	147	50	-4	12	65	-5	15
6616	170	25	8600	221	32	20	1	3	26	1	4
8670	331	135	11271	431	176	32	1	4	41	1	5
7937	378	-85	10318	491	-110	41	-5	10	53	-6	13
7385	188	54	9601	244	70	40	-6	12	52	-8	16
7845	221	68	10198	287	89	27	2	3	35	2	4
5078	87	-33	6602	112	-43	56	2	1	72	2	2
5566	134	56	7236	174	73	18	1	2	24	1	2
5586	129	45	7262	167	59	30	-3	9	39	-4	12
7789	300	280	10125	391	364	48	-3	9	63	-3	12
4322	106	-23	5619	138	-30	25	0	3	33	0	3
2714	76	3	3529	99	3	4	-1	0	5	-2	0
1902	-38	41	2472	-49	53	21	-2	8	27	-2	11
2119	-85	-15	2754	-110	-20	21	1	3	27	1	4
1540	-89	43	2002	-115	56	21	0	3	27	1	4
2502	-43	80	3252	-56	104	17	1	1	23	1	2
2220	25	45	2886	33	59	38	-5	10	49	-6	13
2453	33	94	3188	43	122	11	0	2	15	1	2
3322	105	21	4319	137	27	29	-1	-1	38	-1	-2
2987	96	33	3883	125	43	39	-4	10	50	-5	12
2679	78	55	3482	102	72	35	-4	9	46	-5	11
3409	109	7	4431	142	9	23	1	4	30	1	5
2094	-72	-40	2722	-94	-52	56	1	3	73	1	3
2734	70	-114	3554	91	-149	8	0	5	10	0	6
1743	-41	-17	2266	-53	-23	25	1	4	32	1	5
2102	1	-63	2733	1	-82	41	-6	13	53	-8	17
2232	-76	-25	2902	-98	-32	22	-1	7	29	-2	10
1693	-44	-32	2201	-57	-41	26	0	3	34	1	4
1808	-6	-36	2350	-8	-47	32	3	-1	41	3	-1
2706	108	0	3518	140	0	34	-4	9	44	-6	12
2879	68	-78	3743	89	-102	27	2	1	35	3	1
4020	101	17	5225	132	22	31	-4	9	40	-5	11
7701	211	31	10011	275	40	40	-1	7	52	-1	9
8219	257	-166	10685	334	-216	42	-5	10	55	-6	13
8072	284	127	10494	370	164	62	3	1	81	4	2

3989	142	-141	5186	184	-184	20	0	3	26	0	4
6166	210	-84	8016	273	-109	25	0	3	32	0	4
6269	223	-216	8149	290	-280	30	2	2	38	3	3
6991	281	90	9088	365	118	25	1	3	32	1	4
7254	239	-10	9431	311	-14	34	-4	9	44	-6	12
5176	121	26	6729	157	33	27	-2	2	35	-2	2
4121	108	-60	5358	140	-77	19	0	3	25	0	4
8570	275	-46	11141	357	-59	31	-4	8	40	-5	10
5412	17	255	7035	22	331	28	1	3	36	1	4
6630	165	-61	8619	215	-79	46	-5	10	59	-6	13
8478	304	117	11022	396	152	21	1	4	27	1	5
7449	219	128	9684	284	166	37	-1	7	48	-1	9
5646	50	206	7340	65	267	31	2	0	40	3	0
7842	198	204	10195	258	265	35	-4	9	46	-6	12
5350	-8	168	6955	-10	218	15	0	3	19	0	4
7798	151	108	10138	197	141	26	-4	7	34	-5	9
8173	207	320	10625	269	417	25	1	3	33	1	4
6908	18	56	8981	23	72	78	2	1	102	3	1
8677	248	-326	11281	323	-424	57	1	3	74	1	4
7668	195	-98	9969	254	-128	61	1	4	79	1	5
7147	99	38	9291	129	49	40	-4	9	52	-5	12
2568	82	49	3339	106	64	15	1	3	19	1	3
6784	29	-297	8819	37	-386	46	-5	10	59	-6	13
5852	56	166	7607	73	216	30	-3	8	38	-4	11
3471	99	-36	4512	129	-47	25	0	3	33	1	4
3109	127	-38	4041	165	-50	26	-4	8	34	-5	10
4430	118	-39	5759	153	-50	21	0	3	27	1	4
3670	117	149	4772	152	194	21	1	4	27	1	5
7966	124	39	10356	161	51	49	2	0	63	2	1
5754	22	44	7480	29	57	11	1	1	14	1	2
2941	63	-30	3823	82	-39	20	-3	5	26	-4	6
7806	78	-206	10148	102	-268	26	-5	0	34	-7	0
2118	-41	-72	2753	-54	-94	26	-1	18	34	-1	23
2390	84	-24	3107	109	-31	32	-7	-5	42	-9	-7
1780	-42	44	2315	-55	58	23	-1	8	30	-2	10
2090	-12	-63	2717	-15	-82	28	0	-11	36	0	-14
2674	102	31	3477	132	40	38	0	-19	49	0	-24
2695	82	35	3504	106	46						
2221	68	-58	2887	89	-76						
1493	-99	-41	1941	-128	-53						
2190	-1	-42	2847	-1	-55						
1643	-74	-64	2136	-96	-83						
1918	-52	57	2494	-68	74						
2520	67	57	3276	87	74						
2294	32	10	2982	41	13						
1910	-93	8	2484	-120	10						
2172	-93	49	2824	-121	64						

2553	53	90	3319	69	117
2610	91	-30	3393	118	-38
2437	54	7	3168	70	9
2643	84	-16	3435	109	-21
2179	-41	66	2833	-54	86
3502	101	-91	4553	131	-118
6428	22	55	8356	29	72
7576	111	121	9849	144	157
3217	129	118	4182	168	153
7878	165	70	10241	215	91
3815	75	73	4959	97	95
5188	90	107	6744	117	139
6199	97	-116	8059	127	-150
5902	58	-88	7673	75	-114
3607	84	-216	4689	110	-281
2307	142	33	2999	184	43
7180	81	66	9333	105	85
8925	225	-38	11603	293	-49
7951	141	-167	10336	183	-217
8190	153	116	10647	199	151
5653	-4	-114	7349	-5	-148
6522	4	-228	8479	5	-297
7832	215	-32	10182	279	-42

Tabella 2: sollecitazioni nel rivestimento definitivo (N>0: compressione, M>0: tende le fibre in intradosso) – Galleria di linea

Calotta						Arco rovescio					
Sollecitazioni caratteristiche			Sollecitazioni di calcolo (SLU)			Sollecitazioni caratteristiche			Sollecitazioni di calcolo (SLU)		
N_k [kN]	M_k [kNm]	T_k [kN]	N_d [kN]	M_d [kNm]	T_d [kN]	N_k [kN]	M_k [kNm]	T_k [kN]	N_d [kN]	M_d [kNm]	T_d [kN]
3844	167	-33	4997	217	-43	-19	9	-6	-25	12	-8
3628	-79	109	4716	-103	142	-40	5	-2	-52	7	-2
3645	90	48	4738	118	63	5	4	0	7	5	0
1720	-37	25	2235	-49	33	-21	4	1	-27	5	1
1697	-36	-94	2205	-46	-122	-44	8	-6	-57	11	-8
3723	94	69	4840	123	90	-55	4	1	-72	6	2
4269	71	187	5549	92	243	-14	4	-1	-18	5	-1
4119	-7	323	5355	-9	420	-50	5	1	-64	7	2
2693	-99	-66	3501	-129	-85	4	4	1	5	5	1
2060	-72	72	2677	-94	94	-19	4	-1	-25	6	-2
2557	25	28	3325	32	36	-45	8	-6	-59	11	-8
4010	-70	-300	5213	-92	-390	-72	6	-2	-93	8	-3
4293	147	11	5580	191	14	-35	5	-2	-46	7	-3
1829	-12	17	2377	-15	23	-27	4	0	-35	5	0
1419	-7	-7	1844	-9	-9	-31	4	0	-40	5	0
1729	-33	52	2247	-43	68	-21	4	0	-27	5	-1
3550	65	43	4616	84	56	-11	4	1	-14	5	1
5056	110	97	6573	142	126	23	4	-1	30	5	-1
3035	-13	-190	3945	-17	-247	-36	4	-3	-46	5	-4
3085	-6	-199	4010	-8	-258	-68	15	-12	-88	19	-16
2084	-80	50	2709	-103	65	-13	9	2	-17	12	2
4767	118	-79	6198	154	-103	-12	9	3	-16	11	5
4033	108	-56	5242	140	-73	-20	9	2	-27	12	2
3474	68	-49	4516	88	-64	-40	17	6	-52	23	7
4152	103	74	5397	133	96	-21	17	14	-27	22	18
4868	107	-68	6329	139	-88	23	8	1	30	10	2
3424	79	-26	4451	102	-34	-29	6	-1	-38	8	-1
4423	117	-111	5749	153	-144	5	5	-2	7	7	-2
4215	124	-16	5480	161	-20	-2	5	-1	-3	7	-1
2227	-32	98	2895	-42	127	22	5	0	29	6	0
4146	93	33	5389	121	43	-4	7	5	-5	9	6
3437	59	46	4468	76	60	-4	5	2	-5	6	3
2172	2	-34	2823	2	-44	9	7	4	11	9	6
2330	-2	55	3029	-2	72	18	4	0	23	6	0
1564	-10	-2	2033	-13	-2	-17	6	0	-22	8	0
4281	101	60	5566	131	79	-42	5	3	-54	6	4
2376	35	-13	3089	45	-17	0	5	2	1	7	3
1792	-38	-52	2330	-49	-67	-20	17	5	-26	22	7
1555	-7	1	2021	-10	1	-26	19	14	-34	25	18
4361	107	-19	5669	140	-24	19	6	2	25	7	3

2312	-43	38	3005	-55	49	12	12	-20	15	15	-26
3711	48	84	4825	62	109	-8	10	-29	-10	13	-37
3682	84	14	4787	109	18	9	8	2	12	11	2
3790	76	-5	4927	98	-6	21	7	2	28	10	2
3952	120	-12	5138	156	-16	4	6	-1	6	8	-2
3700	-56	-176	4810	-73	-228	4	7	8	5	9	11
3836	80	-52	4986	103	-67	16	7	8	21	9	10
3997	93	-82	5196	121	-106	-5	11	11	-7	15	14
5045	124	15	6558	161	19	-207	26	-60	-269	34	-78
5374	141	133	6986	183	172	-40	-58	-61	-52	-75	-79
4448	-86	285	5783	-112	371	401	181	-97	521	235	-126
5571	3	-79	7243	3	-102	-65	-57	-39	-84	-74	-50
6006	22	-122	7808	29	-158	-463	-40	-137	-602	-53	-178
4687	11	527	6092	14	685	-106	27	-25	-138	36	-33
4920	120	54	6397	156	70	-152	16	-55	-197	21	-72
6118	107	6	7953	139	8	-201	48	-142	-261	62	-185
5624	129	240	7311	168	312	-40	11	-76	-52	14	-99
6336	124	-77	8237	162	-100	-562	-45	-147	-730	-59	-191
6126	205	-249	7964	267	-324	-494	15	90	-643	19	118
6072	155	363	7894	201	471	-123	-23	-13	-159	-30	-17
4714	-58	329	6128	-76	427	-1126	-49	-106	-1464	-64	-138
5636	131	-125	7327	170	-162	-519	194	-130	-674	252	-169
7183	50	-111	9338	65	-144	-224	132	-91	-291	171	-119
5426	-132	0	7054	-172	-1	-156	80	-93	-203	104	-121
4856	-188	229	6313	-245	298	-715	8	-174	-929	11	-227
3709	103	-152	4822	135	-198	-115	5	15	-149	7	19
3218	130	30	4184	169	39	-51	40	-43	-67	53	-56
2125	-12	-52	2762	-15	-67	-215	10	-25	-279	13	-32
2113	86	-66	2746	112	-85	-165	-11	24	-215	-15	31
1201	-51	78	1561	-66	102	-26	-84	-18	-34	-109	-23
4915	90	-56	6390	117	-73	-120	-29	-20	-156	-37	-26
2496	85	57	3245	111	75	-82	-28	-17	-107	-37	-22
1783	-57	-33	2318	-74	-42	-42	-61	29	-55	-79	38
4618	123	-23	6004	160	-30	-198	-9	-12	-257	-11	-15
2553	24	-104	3319	31	-135	-278	3	-13	-361	3	-17
4885	99	-124	6351	129	-161	-1045	82	-207	-1359	106	-269
3856	115	-80	5013	150	-103	-875	-104	-36	-1138	-135	-47
3301	103	-16	4291	134	-21	-187	7	-73	-243	9	-94
4509	28	217	5861	37	281	-133	-38	38	-173	-50	50
4362	30	284	5670	39	369	-139	-14	13	-181	-18	16
4031	107	65	5241	139	85	-184	-4	-13	-240	-5	-17
1685	-57	-47	2190	-74	-61	-143	-14	9	-186	-18	12
1982	-53	-94	2576	-69	-122	-164	29	-71	-213	38	-93
1233	-27	24	1603	-35	31	-16	-28	1	-21	-36	1
1497	-25	-14	1946	-33	-18	-110	-122	-85	-143	-159	-111
1363	-22	25	1772	-29	32	-491	9	-29	-638	12	-37
4137	135	-55	5379	176	-71	-834	50	77	-1084	66	100

1308	-46	39	1700	-59	50	-233	-1	10	-303	-1	13
3110	90	-112	4043	117	-145	-198	-146	-35	-257	-189	-45
5152	-27	-210	6697	-35	-273	-394	54	-8	-513	70	-10
5476	76	-249	7119	99	-324	-276	40	14	-358	52	18
1386	-57	38	1802	-75	50	-638	-132	-94	-830	-171	-122
1504	-29	-64	1955	-38	-83	-249	47	-56	-323	61	-73
1758	21	-118	2286	28	-153	-168	-5	-1	-218	-6	-1
2482	29	-84	3226	38	-109	-178	3	5	-232	5	7
3982	141	20	5177	183	26	-121	-11	25	-158	-14	33
4501	35	346	5851	45	450	-121	0	-37	-157	-1	-48
1518	-57	36	1974	-75	46	-165	3	12	-215	4	16
3055	111	60	3972	144	78	-229	76	-107	-298	99	-139
1419	-39	3	1845	-51	4	-486	128	-161	-632	166	-210
3086	84	-94	4012	109	-122	-212	43	52	-276	57	67
5979	86	98	7773	111	127	-1	27	-97	-2	35	-126
3605	69	22	4686	90	29	-654	-20	-144	-850	-26	-187
1543	-40	-3	2006	-52	-3	-254	4	-8	-330	5	-10
3890	76	52	5056	99	68	-114	-6	1	-148	-7	1
1803	-27	-25	2344	-35	-33	-77	-1	12	-100	-2	15
5415	144	-1	7039	188	-1	-139	-45	31	-181	-59	41
1853	-21	59	2409	-27	77	-580	-132	28	-754	-172	36
1719	-28	-73	2235	-37	-95	-20	8	3	-26	10	4
1577	-34	-19	2050	-44	-24	-95	9	-17	-124	12	-22
1258	-50	-31	1635	-65	-40	-158	37	1	-205	48	1
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1397	101	-107	1816	132	-140
1740	16	-91	2262	20	-118
1778	-120	44	2311	-156	58
1645	-126	15	2139	-164	20
1317	123	-293	1712	160	-381
1837	-120	10	2389	-156	13
1627	-78	-154	2115	-102	-200
1422	-129	-23	1848	-167	-30
1838	-130	17	2389	-170	23
1875	-101	-72	2437	-132	-94
1564	172	-151	2033	224	-196
1921	-99	-82	2498	-129	-107
1904	-137	-3	2475	-178	-4
1397	145	-319	1815	188	-414
1892	-124	0	2460	-162	-1
1662	12	-197	2160	16	-256
2651	243	-131	3446	316	-170
1623	183	20	2110	238	26
1835	-119	-34	2386	-154	-45
1857	-114	-214	2415	-148	-278
1722	-68	-146	2239	-88	-190
1250	168	-43	1625	218	-56
1680	-40	-136	2184	-53	-176
1592	-89	-145	2070	-115	-188
1412	-120	43	1835	-156	56
3923	124	67	5100	162	87
1539	-128	-52	2001	-167	-67
2874	-48	51	3736	-62	66
3823	174	345	4970	226	448
1934	-80	-137	2514	-103	-179
1412	-128	-38	1835	-166	-49
2989	54	111	3886	70	144
1663	-133	-81	2162	-172	-105
1621	-119	24	2107	-155	31
2080	10	64	2704	13	83
2248	-70	86	2923	-90	112
2180	5	58	2834	6	76
3167	4	93	4117	5	121
2878	62	113	3742	81	147
1653	-31	-27	2149	-40	-35
3812	76	150	4956	99	195
1804	-64	83	2346	-83	109
3408	90	150	4430	117	195
1762	-48	150	2291	-63	195
2743	-45	108	3566	-58	140
1822	-114	124	2368	-148	162
2674	-29	98	3476	-37	127

2196	-65	81	2855	-85	106
2248	-79	-19	2923	-103	-24
2151	-72	60	2796	-94	77
1979	-124	-17	2573	-161	-22
1892	-134	21	2460	-174	28
1860	-117	84	2418	-152	109
1563	-97	39	2032	-126	51
1677	-116	26	2180	-151	34
2005	-121	66	2606	-158	86
1978	-108	71	2571	-141	93
2992	14	85	3890	18	110
2577	-53	43	3350	-69	56
2173	-104	24	2825	-136	32
2740	-50	64	3562	-65	83
1739	-146	27	2261	-190	35
1906	-129	25	2478	-167	33
3122	-43	47	4059	-55	62
2147	-140	9	2791	-182	12
2007	-147	47	2609	-191	61
4949	189	75	6434	246	97
2017	-102	48	2622	-133	63
4711	173	94	6124	225	122
1508	-137	1	1961	-179	2
5824	354	368	7571	461	478
1337	-120	21	1738	-155	28
2612	-26	165	3396	-34	214
3741	-6	345	4863	-8	448
3982	157	42	5176	204	55
1305	-95	49	1696	-123	63
1832	-149	-1	2381	-194	-2
1665	-137	23	2164	-179	29
1538	-109	158	2000	-142	206
3516	73	172	4571	94	224
4097	180	-376	5326	234	-489
2032	-63	94	2642	-81	123
4432	145	41	5761	189	54
1636	-142	14	2126	-185	18
1770	-48	155	2300	-63	202
1716	-22	-7	2230	-29	-9
1378	-117	-120	1792	-152	-156
1418	-119	9	1843	-155	11
1123	-120	102	1460	-156	133
1911	-178	-530	2484	-231	-689
1282	-117	117	1667	-153	152
1307	-159	17	1699	-207	22
837	-143	8	1088	-186	11
1341	-152	47	1743	-198	61

1789	-55	21	2326	-72	27
1852	-64	10	2407	-83	14
940	-128	-49	1222	-166	-64
3679	-145	453	4782	-188	589
1684	-124	-12	2189	-161	-15
2528	-81	113	3286	-105	147
4070	-162	80	5291	-210	104
6056	275	78	7872	358	101
5811	247	-26	7554	321	-34
5710	299	112	7423	388	145
2182	-9	-38	2836	-12	-50
2870	-69	28	3731	-89	36
4509	105	344	5862	136	448
1814	-89	39	2358	-116	51
2315	-31	12	3010	-41	15
2035	-14	18	2645	-18	24
1657	-105	72	2154	-136	94
1807	-53	-23	2349	-69	-30
1382	-71	79	1797	-92	103
1967	-49	73	2557	-64	94
2142	-20	86	2785	-26	112
2099	-37	65	2728	-49	85
2499	-196	-257	3249	-254	-334
1963	-57	14	2552	-74	18
1856	-60	10	2413	-78	13
2145	16	3	2789	20	4
1934	-65	-28	2514	-84	-37
2346	-1	-26	3050	-1	-34
1922	-87	-14	2499	-114	-18
4100	-154	547	5330	-200	712
1008	-98	42	1310	-127	55
2092	4	-177	2720	6	-230
1901	-76	-30	2471	-99	-39
2020	-34	80	2626	-44	104
1939	-53	45	2521	-69	59
2218	0	41	2884	0	53
2207	22	-88	2869	28	-114
1560	-35	84	2028	-45	109
1767	6	169	2297	8	220
1920	33	-32	2497	43	-42
2036	9	-35	2646	12	-46
1389	-150	27	1806	-196	35
2330	-13	-52	3029	-17	-68
2029	-54	-194	2638	-70	-253
1182	-100	80	1537	-130	104
2042	-26	-220	2654	-34	-286
3031	-49	12	3940	-64	16

1834	-109	14	2384	-142	18
4254	138	288	5531	179	374
852	-140	-8	1107	-182	-10
1133	-152	20	1473	-198	26
1749	-58	-12	2274	-76	-16
1320	-70	79	1716	-92	103
1529	-144	22	1987	-187	29
1607	-110	42	2089	-143	54
1851	-78	42	2407	-102	55
1757	-48	4	2284	-63	5
1614	-1	-265	2098	-1	-344
1797	126	-196	2336	164	-255
1672	-114	-72	2174	-148	-93
1499	151	-188	1949	196	-245
1527	-30	-168	1984	-39	-219
6558	228	42	8525	297	55
2380	218	284	3094	283	370
1170	154	-279	1521	200	-362
1400	-7	-53	1820	-9	-69
1646	-27	-159	2140	-35	-207
1332	-88	135	1732	-115	176
1603	130	-380	2084	169	-493
1579	-107	-200	2052	-139	-261
2312	34	-148	3006	44	-193
1584	140	-211	2059	182	-274
1793	-115	-37	2331	-150	-48
1549	-152	-69	2014	-198	-89
1268	158	-312	1648	206	-406
1653	-74	-108	2149	-96	-141
1410	87	-338	1833	112	-439
1834	56	-53	2384	73	-69
1645	-144	-24	2139	-187	-31
1591	82	-327	2068	107	-425
1346	148	-274	1749	192	-356
2187	209	-56	2843	271	-73
1453	-108	-117	1888	-141	-152
1008	146	-99	1310	190	-129
1895	-92	75	2463	-120	98
1785	-74	33	2321	-96	43
1628	-144	-10	2116	-187	-14
1697	-32	-123	2206	-42	-160
1594	-77	-5	2072	-100	-7
1418	-18	-126	1844	-23	-164
1584	-79	-109	2059	-102	-142
1787	-105	93	2324	-137	121
1867	-103	-12	2427	-135	-15
1501	-173	18	1951	-224	24

1482	-9	23	1927	-12	30
1363	-83	-57	1772	-108	-74
1911	-80	42	2484	-104	55
1871	-107	22	2432	-139	28
1445	-71	81	1879	-92	105
1720	-71	-80	2236	-92	-103
1839	-87	-26	2391	-113	-34
1401	45	-91	1821	59	-119
1889	-75	-76	2455	-98	-99
1933	-102	33	2513	-133	44
1421	-151	-66	1847	-197	-86
1646	-109	19	2140	-142	25
1532	-121	-25	1991	-158	-32
1824	200	186	2372	260	242
1494	-104	-211	1943	-135	-274
1621	17	-340	2107	22	-442
2973	220	-319	3865	286	-414
1247	-89	-158	1621	-116	-205
1314	-80	-165	1708	-103	-214
1677	-125	14	2181	-162	18
1510	40	-343	1964	52	-446
3851	106	-104	5006	138	-135
1089	155	-244	1415	201	-317
1509	27	-87	1962	34	-113
3332	253	-68	4332	329	-88
1072	-92	-78	1394	-119	-101
1522	128	-391	1978	166	-509
4149	141	-28	5394	184	-37
4361	166	-19	5669	216	-25
5002	-9	533	6503	-12	693
4613	33	335	5997	44	435
6161	209	-155	8010	271	-201
5092	166	89	6620	216	115
3879	137	-119	5043	179	-155
5108	183	-33	6641	238	-43
5186	177	73	6742	230	95
5347	-28	450	6952	-36	585
4623	43	352	6010	56	458
5376	133	-3	6988	173	-3
5240	112	-8	6812	146	-11
3147	42	-105	4091	55	-137
3177	28	-114	4130	37	-149
1132	-28	7	1471	-36	8
1729	-15	-37	2247	-19	-48
5165	92	-51	6714	119	-67
4080	120	-12	5304	156	-15
1271	-27	7	1652	-35	9

1680	-24	-17	2184	-32	-22
5003	95	-76	6504	123	-99
2257	-28	5	2934	-36	6
1964	-57	-11	2553	-75	-15
4151	131	-8	5396	170	-10
1724	-41	3	2241	-53	4
5163	92	86	6711	120	112
1417	-49	81	1843	-64	105
1262	-37	53	1640	-48	68
3961	103	-136	5149	134	-176
5449	98	-70	7083	128	-91
2377	-10	-64	3091	-14	-83
2881	-6	-89	3746	-8	-116
2229	-51	-87	2897	-67	-113
4452	115	59	5787	149	77
2001	-53	40	2601	-69	52
5122	137	-58	6659	178	-75
2221	-51	23	2887	-67	30
4281	115	113	5565	150	147
5000	126	-28	6500	164	-36
3315	53	-91	4310	69	-118
5271	115	89	6853	150	115
5142	117	-84	6685	153	-109
2682	-17	-75	3487	-22	-97
4295	141	17	5583	183	22
3849	111	-111	5004	144	-145
1895	-40	9	2464	-51	12
5198	124	-18	6757	161	-23
1187	-35	-23	1544	-45	-30
4801	162	-42	6241	210	-55
2114	-20	121	2748	-27	158
5184	127	164	6739	165	213
3093	45	40	4021	59	52
1815	-23	96	2359	-31	125
2290	3	-44	2977	4	-58
2137	-4	-101	2778	-5	-131
1497	-26	-7	1947	-34	-9
4583	98	7	5958	128	9
4219	85	182	5484	110	236
4435	83	191	5765	107	249
2083	0	-21	2708	0	-27
2432	-9	98	3161	-11	128
3035	19	53	3945	24	69
2483	30	-25	3228	39	-32
3290	19	46	4277	25	60
2739	-10	72	3561	-13	93
1147	-25	7	1491	-33	9

1430	-24	12	1860	-31	15
1708	-41	-56	2221	-53	-73
1569	-46	-38	2040	-59	-50
4056	120	-12	5273	156	-16
3283	69	115	4267	90	149
3262	68	93	4240	89	121
3703	95	-10	4814	123	-12
3475	65	-149	4518	85	-194
1396	-46	-22	1815	-60	-29
1408	-42	-64	1830	-55	-83
1664	-23	15	2163	-30	19
4913	156	-63	6387	202	-82
2042	-21	108	2654	-27	141
3476	68	85	4519	89	111
4586	150	-51	5962	195	-67
3699	63	-166	4809	82	-215
3791	53	5	4928	68	6
5246	157	94	6820	204	122
4071	63	-193	5293	82	-251
4405	133	-43	5727	172	-56
4616	-53	-310	6001	-69	-403
5034	115	-130	6544	150	-169
3557	-116	-25	4624	-150	-33
4386	78	-214	5702	101	-278
3803	-114	-49	4944	-149	-64
3055	-112	-10	3972	-146	-13
4762	148	-25	6190	192	-32
4010	29	-208	5213	37	-270
4132	143	-26	5372	186	-33
4913	0	179	6387	1	232
7246	112	90	9420	146	118
7724	174	290	10041	227	377
6178	5	94	8032	6	122
8345	215	-260	10849	280	-338
7347	180	-69	9551	234	-89
8630	211	-37	11219	275	-48
7525	136	-184	9783	177	-239
7687	139	30	9993	181	38
5272	9	-135	6853	12	-175
5757	-15	-224	7484	-20	-291
7554	210	-14	9820	272	-19
7070	125	-120	9191	163	-156
6717	69	44	8732	89	58
7213	-32	265	9377	-42	345
7480	117	118	9724	152	153
6753	139	-245	8779	181	-318
6867	9	132	8927	12	171

7267	113	143	9447	147	186
7007	178	234	9109	232	304
8161	118	-9	10609	153	-11
7041	135	5	9153	176	7
8253	176	47	10729	229	61
7682	110	-19	9987	143	-25
6859	4	-301	8917	6	-392
7261	-112	-393	9440	-146	-511
7086	183	188	9212	238	244
8814	-147	495	11459	-192	644
6621	25	-357	8607	33	-464
7387	87	43	9604	114	56
6795	134	-346	8834	175	-450
7010	-20	448	9112	-26	582
4418	146	186	5743	190	242
4544	54	-25	5907	70	-32
5611	93	204	7294	120	265
4224	11	-319	5491	15	-414
5862	219	-125	7621	285	-162
4901	46	-89	6372	59	-116
7887	86	-189	10253	111	-246
5125	84	-49	6663	109	-63
5335	120	186	6936	156	241
7153	309	25	9298	402	32
6034	197	-295	7844	256	-384
7398	293	108	9617	381	140
4114	-136	-574	5349	-177	-747
5979	183	-266	7773	238	-346
6358	187	96	8266	244	125
6396	266	-215	8314	346	-280
5833	21	21	7582	27	27
6926	230	68	9004	300	89
6560	84	-162	8529	109	-210
7192	244	-298	9350	317	-387
4803	35	-31	6243	46	-40
7960	401	-113	10348	521	-147
6181	80	-10	8036	104	-13
6215	153	48	8079	199	63
6484	158	-54	8429	205	-70
6701	235	-227	8711	306	-295
4699	-170	-532	6109	-221	-692
6686	165	-206	8691	214	-268
4770	-116	-555	6201	-150	-722
4173	-259	-238	5425	-337	-309
7166	367	48	9316	477	63
6934	256	117	9015	333	152
4053	-38	-417	5269	-49	-543

7820	425	-30	10166	552	-39
4748	-115	-496	6172	-149	-645
6441	147	-29	8373	191	-38
6307	310	-33	8199	404	-43
6149	315	-124	7994	410	-161
5548	86	-262	7212	112	-341
4595	-151	-149	5973	-196	-194
4972	204	-358	6463	265	-465
5574	259	47	7247	337	62
5499	208	63	7149	271	82
6132	138	-105	7971	180	-136
6151	299	-7	7996	389	-9
4966	157	-310	6456	204	-403
3650	-78	-381	4745	-101	-495
3440	-90	-272	4471	-117	-353
6467	342	52	8407	444	68
5557	126	-316	7224	164	-411
3312	-130	-261	4306	-169	-339
5366	29	-44	6975	38	-57
5426	187	45	7053	243	58
5546	236	81	7209	307	106
4130	-251	-200	5369	-326	-260
4843	135	-427	6296	175	-555
4948	147	-95	6432	192	-124
6070	272	57	7891	354	75
3364	-109	-292	4373	-142	-380
3021	-86	-16	3928	-112	-21
4718	76	-436	6133	99	-567
4396	84	-416	5715	110	-541
6715	453	-233	8729	589	-303
5992	241	5	7789	313	7
5134	134	-366	6674	175	-476
3323	-94	6	4320	-122	8
5900	277	22	7670	360	29
6473	358	15	8414	466	20
5867	264	-50	7628	343	-65
6031	306	38	7840	398	49
5849	167	15	7603	217	20
6059	197	9	7877	255	11
6091	312	-123	7918	405	-160
3614	-109	-166	4698	-141	-215
5169	88	-51	6720	115	-66
5131	155	-184	6671	201	-239
7958	319	200	10345	415	261
3200	-103	-225	4160	-134	-293
3672	-173	-274	4773	-224	-356
5356	125	-156	6963	163	-203

5293	37	-238	6880	48	-309
5385	241	75	7001	313	97
5723	251	40	7440	326	52
5811	257	-36	7555	334	-47
5907	249	-29	7679	324	-38
4012	-127	-418	5216	-165	-544
6663	116	-156	8662	151	-203

Tabella 3: sollecitazioni nel rivestimento definitivo (N>0: compressione, M>0: tende le fibre in intradosso) – Camera d'esodo

Calotta, soletta piatta e setti verticali					
Sollecitazioni caratteristiche			Sollecitazioni di calcolo (SLU)		
N_k [kN]	M_k [kNm]	T_k [kN]	N_d [kN]	M_d [kNm]	T_d [kN]
-227	-77	58	294	-100	75
-346	-117	146	450	-153	190
-302	-88	166	393	-115	216
-142	-76	73	185	-99	94
-142	-69	65	185	-90	85
-167	-35	16	216	-45	21
-150	-34	10	195	-45	12
-174	-72	66	226	-94	86
-191	-75	61	249	-98	80
-139	-37	19	180	-48	24
-139	-35	9	180	-46	12
-224	-75	37	291	-97	48
-217	-28	1	283	-36	2
-48	-14	21	62	-18	27
-204	-31	15	265	-41	19
-155	-32	16	201	-41	21
-82	-29	112	107	-38	146
-235	-29	31	305	-37	40
-246	-66	72	320	-86	93
-235	-40	112	305	-52	146
-161	-55	27	210	-71	35
-155	-52	45	201	-67	59
-192	-29	22	250	-38	29
-276	-30	1	358	-40	2
-175	-7	18	227	-9	23
-133	-42	35	172	-55	45
-75	-26	41	98	-34	53
-175	-53	9	228	-69	11
-112	-42	36	146	-55	47
-189	-51	28	245	-66	37
-283	-86	2	368	-112	3
-281	-55	23	366	-72	30
-299	-70	49	389	-91	63
-251	-34	47	326	-44	61
-148	-36	16	192	-46	21
-172	-32	10	224	-42	13
-152	-54	30	198	-70	39
-169	-68	56	220	-89	73
-185	-28	4	240	-36	5

-169	-30	12	220	-39	16
-182	-77	60	237	-100	78
83	20	33	-108	25	43
-14	-40	37	18	-52	49
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-1585	62	90	2061	81	117
-648	-64	26	842	-83	34
-341	-81	134	444	-106	174
-1036	-4	73	1347	-6	94
-2094	47	10	2722	62	13
-1852	37	48	2408	48	63
-2063	44	45	2682	58	59
-830	69	136	1078	89	176
-762	88	59	991	115	76
-1726	43	50	2244	56	65
-1271	76	90	1652	98	117
-1502	61	69	1953	80	90
-1367	-19	295	1777	-25	383
-2188	41	32	2844	53	41
-839	-29	15	1090	-37	19
-1983	-14	43	2578	-19	55
-1229	12	14	1598	15	18
-1814	14	2	2358	19	3
-1553	-47	31	2019	-61	40
-1313	14	180	1707	18	234
-1395	-34	15	1814	-44	20
-2127	-1	55	2765	-1	71
-2021	-10	113	2628	-13	147
-1589	-52	20	2066	-67	26
-1359	4	90	1767	5	117
-1554	22	214	2020	28	278
-2087	23	52	2713	30	68
-1859	15	7	2417	20	9
-1873	-62	14	2435	-81	18
-1693	-20	66	2201	-25	86
-1959	29	7	2547	38	9
-1865	80	16	2424	105	21
-2001	99	39	2602	128	50
-241	-8	226	313	-10	294
-617	12	113	803	16	147
-358	-19	144	465	-24	188
-790	98	108	1027	127	140
-2015	60	76	2620	78	99
-1325	64	132	1722	84	172
-1559	9	86	2026	11	112
-1279	24	28	1662	31	36
-2198	68	58	2857	89	75
-999	40	40	1299	52	52
-1887	39	15	2454	50	20
-2435	100	5	3165	130	6
-2409	15	6	3131	20	8
-1699	4	232	2209	5	302

-321	-53	41	418	-69	54
-980	-34	263	1273	-44	342
-1650	63	35	2145	82	46
-1368	62	62	1778	81	81
-2966	69	163	3855	90	213
-2496	78	65	3245	101	84
-1231	62	13	1600	80	17
-2546	34	105	3310	45	137
-2796	98	136	3635	128	177
-2721	34	22	3538	44	28
-2420	52	76	3145	68	99
-2164	-36	77	2813	-47	100
-2040	-33	80	2651	-42	104
-2333	-36	58	3033	-47	76
-1890	14	10	2457	18	13
-1482	38	52	1927	49	68
-1352	15	60	1758	19	77
-1997	9	33	2597	12	43
-2511	-27	56	3265	-35	73
-2861	-25	41	3719	-33	54
-1747	17	120	2271	22	157
-1989	-34	118	2586	-44	154
-2257	15	22	2935	20	29
-2125	-40	1	2763	-52	2
-2692	-34	114	3499	-44	148
-1175	-6	101	1528	-7	131
-2515	22	4	3270	29	5
-505	-55	47	656	-72	61
-2354	33	84	3060	43	109
-2424	59	47	3151	77	61
-2274	122	72	2957	159	94
-2054	45	6	2670	59	7
-1672	19	29	2174	25	38
-1222	34	17	1588	44	22
-1325	96	140	1722	124	181
-2327	108	143	3025	141	186
-1844	37	45	2397	48	59
-488	-15	184	634	-20	239
-1192	19	51	1550	24	67
-1475	87	272	1918	113	354
-2902	71	28	3773	92	36
-1640	56	158	2131	72	206
-432	-60	45	562	-78	58
-201	-65	26	261	-84	34
-1290	18	70	1677	24	92
-1977	40	4	2570	52	5
-1885	37	10	2450	48	13

-2022	37	69	2628	48	90
-825	72	51	1073	94	67
-1494	79	249	1942	103	324
-2372	50	45	3083	65	58
-2369	68	79	3080	88	102
-2219	115	53	2885	149	69
-1330	-3	245	1729	-4	319
-2274	54	46	2957	70	60
-1485	34	34	1930	44	44
-2025	-31	87	2632	-41	113
-1719	16	13	2235	21	17
-2470	25	26	3211	32	33
-2767	-31	85	3597	-41	110
-1312	-7	66	1705	-9	86
-2327	-33	102	3026	-42	133
-2509	-24	106	3262	-32	138
-2190	-20	88	2847	-26	115
-2197	-34	31	2856	-44	41
-1370	16	62	1781	21	81
-995	0	23	1293	0	30
-2188	19	22	2845	24	29
-1886	16	40	2452	20	52
-2096	-30	74	2724	-39	97
-2101	-30	60	2731	-39	78
-2656	30	9	3452	38	11
-2026	92	51	2634	119	66
-2234	96	20	2904	124	27
-231	-65	81	301	-85	105
-1497	13	19	1946	17	25
62	-51	62	-80	-66	80
-1487	69	114	1933	90	148
-2362	60	16	3071	78	20
-1336	62	63	1736	81	81
-1936	25	31	2517	32	41
-2394	48	53	3112	63	68
-2326	74	40	3024	96	52
-1734	-9	253	2254	-11	329
-2237	48	31	2909	63	41
-141	-15	4	183	-20	5
-69	-14	86	89	-18	112
-135	5	20	175	7	26
-156	1	2	202	1	2
-39	-4	21	51	-6	28
-165	-13	14	214	-17	19
-87	-2	19	113	-2	25
-140	3	4	181	3	6
-149	3	2	194	4	3

-142	4	2	184	5	3
-120	-18	75	156	-24	97
-151	-12	57	197	-16	74
-118	-3	11	153	-3	14
-130	-16	13	169	-21	17
-115	-6	28	150	-7	36
-162	2	4	210	2	5
-144	2	3	187	3	3
-80	3	38	104	4	49
-137	4	5	178	5	7
-171	3	4	223	4	5
-132	2	3	171	2	3
-170	1	10	220	1	13
-92	-11	22	120	-14	28
-177	1	16	230	1	21
-163	1	4	211	1	5
-132	4	4	171	5	5
-151	3	0	196	3	1
-144	3	2	188	4	2
-117	-17	14	153	-21	18
-168	1	10	218	1	13
-154	8	9	200	11	11
-105	5	6	137	6	8
-152	2	3	198	3	4
-166	1	10	216	1	13
-143	7	2	185	9	3
-154	1	2	200	2	3
-141	3	1	183	4	2
-195	11	2	253	14	2
-63	-8	13	82	-10	17
-161	3	13	210	4	16
-95	-14	19	123	-18	25
-164	6	4	214	8	5
-145	3	14	189	3	18
-94	-19	102	123	-25	132
-15	-2	16	19	-2	21
-159	1	11	206	2	15
-158	1	5	205	2	7
-162	5	11	210	7	15
-119	7	8	154	9	10
-118	5	3	153	6	4
-118	5	1	154	7	2
-142	4	0	184	5	0
-155	4	1	202	5	1
-137	4	1	178	6	2
-137	3	2	179	4	3
-159	0	19	206	0	25

-97	-4	37	127	-5	48
-69	-5	25	90	-7	32
-117	1	39	152	2	51
-144	-16	15	188	-21	19
-93	2	11	121	2	14
-109	-18	7	142	-23	9
-115	10	15	150	13	20
-77	-10	45	100	-13	59
-140	-4	25	182	-5	33
-105	3	16	137	5	21
-114	-16	7	148	-21	9
-142	3	2	184	4	2
-148	1	4	192	2	5
-163	1	4	211	1	5
-152	0	7	198	1	9
-128	1	11	167	1	14
-139	4	0	180	5	0
-130	10	6	169	12	8
-126	4	4	164	6	5
-123	-2	15	160	-2	20
-156	3	0	203	3	1
-131	6	2	170	8	3
-154	-3	2	200	-4	3
-176	4	3	229	6	4
-112	-12	60	145	-15	78
-174	1	1	226	1	2
-95	-11	8	123	-14	11
-102	-9	1	133	-12	2
-138	4	1	179	5	1
-62	-12	20	81	-15	26
-132	9	10	171	12	13
-158	4	6	206	5	8
-137	7	3	179	9	4
-140	3	1	182	4	1
-147	1	2	191	1	3
-122	7	4	159	9	5
-136	4	2	176	5	3
-145	3	4	189	4	5
-124	3	1	162	4	1
-137	4	2	178	6	2
-118	1	9	154	2	11
-140	4	4	182	5	5
-137	5	2	179	6	2
-70	0	9	91	0	11
-129	5	7	168	6	9
-119	6	3	155	8	4
-89	-11	18	115	-14	24

-126	-12	43	164	-15	56
-147	6	7	191	8	9
-92	-11	47	119	-14	62
-172	-7	1	223	-8	2
-148	-28	103	193	-36	133
-276	6	95	359	7	124
-51	-7	13	67	-9	17
-42	-9	14	54	-12	19
-104	-7	4	136	-9	6
-55	-1	15	71	-2	20
-169	2	3	220	2	4
-36	-1	12	47	-2	15
-155	7	3	201	10	5
-143	2	16	186	2	20
-144	6	2	188	8	3
-217	6	129	283	8	168
-157	-2	3	204	-2	4
-162	0	1	211	0	2
-159	2	1	206	2	1
-173	2	0	225	3	1
-158	2	3	205	2	4
-176	3	4	229	4	5
-101	-10	12	132	-14	15
-160	2	2	209	2	3
-88	-14	8	114	-18	11
63	7	3	-82	9	4
77	4	10	-100	5	13
12	-2	18	-16	-3	24
-113	-9	17	147	-12	22
67	-3	3	-87	-4	4
0	-27	39	0	-35	50
-3	-17	14	3	-21	18
20	-4	2	-26	-6	3
-13	8	9	17	10	12
7	-6	8	-9	-8	10
8	-6	3	-10	-7	4
67	11	8	-88	15	11

Tabella 4: sollecitazioni nel rivestimento definitivo (N>0: compressione, M>0: tende le fibre in intradosso) – Sottoattraversamento

Setti verticali e soletta di fondo					
Sollecitazioni caratteristiche			Sollecitazioni di calcolo (SLU)		
N_k [kN]	M_k [kNm]	T_k [kN]	N_d [kN]	M_d [kNm]	T_d [kN]
17	0	2	22	0	3
16	0	2	21	0	3
25	0	0	33	0	0
39	0	-1	51	0	-1
43	0	-1	56	0	-1
29	0	0	38	0	0
28	0	0	36	0	0
22	0	0	29	0	0
22	0	0	29	0	0
26	0	0	34	0	0
18	0	2	24	0	3
15	0	2	19	0	2
20	0	0	26	0	0
41	0	-1	53	0	-1
35	0	-1	45	0	-1
32	0	0	42	0	0
29	0	0	37	0	0
23	0	0	30	0	0
24	0	0	31	0	0
23	0	0	30	0	0
21	0	2	27	0	3
19	0	2	25	0	2
33	0	-1	43	0	-1
31	0	-1	40	0	-1
29	0	0	38	0	0
22	0	0	28	0	0
24	0	0	31	0	0
23	0	0	29	0	0
24	0	0	31	0	0
29	0	0	38	0	0
14	0	3	19	0	4
19	0	3	24	0	4
37	0	0	49	0	0
24	0	0	31	0	0
46	0	-1	60	0	-1
46	0	-1	60	0	-1
32	0	0	41	0	0
22	0	0	28	0	0
26	0	0	34	0	0
6	0	0	8	0	1
19	0	3	25	0	3

16	0	2	21	0	3
42	0	-1	55	0	-1
21	0	0	28	0	0
26	0	0	34	0	0
32	0	0	41	0	0
34	0	0	44	0	0
46	0	-1	59	0	-1
30	0	0	39	0	0
28	0	0	37	0	0
18	0	3	23	0	3
17	0	2	22	0	3
37	0	0	48	0	0
36	0	0	47	0	0
45	0	-1	59	0	-1
20	0	0	26	0	0
25	0	0	32	0	0
47	0	-1	61	0	-1
35	0	0	45	0	0
22	0	0	29	0	0
27	0	0	35	0	-1
22	0	1	29	0	1
26	0	-1	34	0	-1
19	0	0	24	0	1
4	0	0	5	0	-1
18	0	0	24	0	0
12	0	-1	16	0	-1
9	0	0	12	0	0
13	0	0	17	0	0
30	0	0	39	0	0
-11	0	1	-14	0	1
-5	0	0	-7	0	0
-8	0	0	-11	0	0
-6	0	1	-8	0	1
-15	0	-1	-19	0	-1
-25	0	0	-33	0	0
-38	0	1	-50	0	1
-65	0	-1	-84	0	-2
-25	0	0	-33	0	0
-43	0	0	-56	0	0
-50	0	0	-64	0	0
-43	0	1	-56	0	1
-26	0	2	-34	0	3
-62	0	-1	-81	0	-2
-36	0	0	-47	0	1
-51	0	1	-66	0	1
-32	0	2	-42	0	3
-30	0	-1	-39	1	-1

-33	0	0	-43	1	-1
-24	0	2	-31	0	2
-5	0	0	-6	0	0
-16	0	0	-21	0	0
-6	0	1	-8	0	2
-3	0	0	-4	0	-1
-17	0	-1	-22	0	-1
12	0	3	16	0	4
-25	0	1	-32	0	1
-19	0	1	-24	0	1
-34	0	0	-44	0	0
-24	1	0	-31	1	0
-25	0	0	-32	1	-1
-7	0	2	-9	0	2
-7	0	2	-9	0	2
-9	0	2	-12	0	2
-11	0	0	-14	0	0
-16	0	0	-21	0	0
-11	0	0	-15	0	0
-26	0	0	-34	0	1
-29	0	-1	-37	0	-1
-92	0	2	-120	1	2
-75	0	-3	-97	0	-4
-79	1	-6	-102	1	-8
-33	0	1	-43	0	1
-39	0	0	-50	1	0
-42	0	0	-54	1	0
-60	0	1	-79	1	1
-37	0	1	-48	0	2
-63	0	-2	-82	0	-2
-7	0	1	-9	0	1
-13	1	1	-17	1	1
-18	0	0	-24	0	1
-9	0	0	-12	0	0
-10	0	1	-13	0	1
-12	0	1	-16	0	1
-13	0	1	-16	0	1
-12	0	1	-16	1	1
-11	1	1	-14	1	1
-8	0	1	-11	0	1
-52	0	2	-68	0	2
-51	0	-2	-66	1	-3
-35	0	-2	-46	0	-2
-19	0	0	-25	0	0
-31	0	0	-40	0	0
-35	0	-1	-46	0	-1
-14	0	0	-18	0	0

-11	0	1	-14	0	1
-39	0	0	-50	0	0
-13	0	1	-17	0	1
-10	0	0	-13	0	0
-10	0	1	-13	0	1
-14	0	0	-19	0	0
-25	0	-1	-33	0	-1
-14	1	1	-18	1	1
-17	0	1	-22	0	1
-14	0	1	-18	0	1
-19	1	0	-24	1	0
-30	0	1	-39	0	1
6	0	0	8	0	0
-19	0	0	-24	0	0
-12	0	0	-16	0	-1
-4	0	0	-5	0	0
-12	0	0	-15	0	0
-55	0	-2	-71	0	-3
-45	0	2	-59	0	3
34	0	0	44	0	0
-52	0	-1	-68	0	-1
2	0	0	3	0	0
-66	1	0	-85	1	-1
-22	0	-1	-28	0	-1
-75	0	-4	-98	1	-5
0	0	0	0	0	0
0	0	-1	1	0	-1
-48	0	1	-62	0	1
-36	0	0	-46	0	0
-21	0	1	-28	0	1
-14	0	0	-18	0	0
1	0	0	1	0	0
-28	0	-1	-37	0	-1
12	0	-1	15	0	-2
-8	0	0	-11	0	-1
-11	0	0	-14	0	-1
-29	0	0	-37	0	0
-29	0	0	-38	0	0
-11	0	0	-14	0	0
-4	0	0	-5	1	0
-12	0	-1	-16	0	-1
-2	0	0	-2	0	-1
-14	0	0	-18	0	0
-5	0	-1	-7	1	-1
4	0	0	6	0	0
-4	0	0	-5	1	-1
1	0	-1	2	0	-1

3	0	0	4	0	0
1	0	0	2	0	-1
-7	0	-1	-9	1	-1
2	0	0	3	0	0
-4	0	-1	-5	0	-1
-4	0	0	-5	0	0
-14	0	-1	-18	0	-1
0	0	0	0	0	0
6	0	-1	7	0	-1
7	0	-1	9	0	-1
2	0	0	3	0	0
3	0	-1	4	0	-1
-17	0	1	-22	0	1
54	0	0	71	-1	0
-35	0	-2	-46	1	-2
0	0	2	-1	-1	3
120	0	0	156	0	0
57	0	0	74	0	0
81	-1	1	105	-1	1
-56	-1	2	-73	-1	2
-7	0	0	-9	0	0
-45	0	0	-59	0	0
-22	0	2	-29	0	2
-31	0	0	-40	0	0
-10	0	0	-13	0	0
-12	0	0	-15	0	0
3	0	0	4	0	-1
-56	-1	7	-73	-1	9
-7	0	0	-9	0	0
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-43	0	1	-56	0	1
-5	0	0	-7	0	0
-16	0	0	-20	0	0
-6	0	0	-8	0	0
-14	0	0	-18	0	0
9	0	0	12	0	0
-13	0	3	-18	0	4
-7	0	1	-9	0	2
8	0	0	11	0	0
-13	0	2	-17	0	2
28	0	0	36	0	0
27	0	0	34	0	0
37	0	-1	48	0	-1
27	0	0	36	0	0
44	0	-1	57	0	-1
25	0	0	33	0	0
36	0	-1	47	0	-1

34	0	0	44	0	0
44	0	-1	57	0	-1
43	0	-1	56	0	-1
40	0	-1	52	0	-1
44	0	-1	57	0	-1
28	0	0	36	0	0
28	0	0	36	0	0
21	0	0	27	0	0
28	0	0	36	0	1
35	0	1	45	0	1
42	0	-1	55	0	-1
23	0	1	29	0	1
26	0	0	33	0	0
34	0	0	45	0	0
33	0	0	43	0	1
66	0	0	86	0	0
28	0	0	36	0	0
2	0	0	2	0	0
46	0	0	60	0	0
38	0	-1	49	0	-1
43	0	-1	56	0	-1
37	0	-1	48	0	-1
52	0	0	67	-1	0
34	0	0	44	0	0
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37	0	0	49	0	0
36	0	0	47	0	0
34	0	0	45	0	0
33	0	0	43	0	1
40	0	0	52	0	0
35	0	0	45	0	0
34	0	0	44	0	0
34	0	0	44	0	0
38	0	0	49	0	0
39	0	-1	51	0	-1
52	0	0	68	0	0
37	0	0	49	0	0
34	0	0	44	0	0
41	0	-1	53	0	-1
43	0	-1	55	0	-1
14	-1	0	18	-1	0
42	0	0	55	0	0
39	0	0	50	0	0
39	0	0	51	0	0
56	0	0	72	0	-1
40	0	0	52	0	0
42	0	-1	55	0	-1

42	0	0	54	0	0
24	0	0	32	0	0
56	0	0	73	0	0
41	0	0	54	0	0
59	0	0	76	0	0
34	0	0	44	0	0
31	0	0	41	0	0
48	0	-1	62	0	-1
50	0	0	65	0	-1
34	0	0	44	0	0
26	0	0	33	0	0
23	0	0	31	0	0
35	0	0	46	0	0
38	0	-1	49	0	-1
21	0	0	28	0	0
31	0	0	41	0	0
36	0	0	47	0	0
42	0	-1	55	0	-1
25	0	0	33	0	0
42	0	-1	54	0	-1
42	0	-1	54	0	-1
31	0	0	41	0	0
40	0	-1	52	0	-1
39	0	-1	51	0	-1
-35	0	-1	-45	0	-1
-48	0	1	-63	0	1
-31	0	2	-40	0	2
-13	0	-4	-16	0	-5
-53	0	0	-68	0	0
-46	0	-3	-60	0	-4
-23	0	-6	-29	0	-8
-26	0	0	-33	0	0
-20	0	-6	-26	0	-7
335	0	3	436	0	4
171	0	42	222	1	55
566	1	-5	736	1	-6
242	0	-2	314	0	-3
143	-2	31	186	-2	40
77	0	-16	100	0	-20
78	1	25	101	2	33
150	-1	1	195	-1	1
94	1	10	123	1	13
Soletta superiore in direzione trasversale al sottoattraversamento					
2848	620	193	3702	805	252
3388	556	94	4404	723	123
3075	517	68	3998	672	89
2836	581	83	3686	756	108

3023	629	188	3930	818	244
3049	546	84	3963	710	110
2752	550	81	3578	715	106
2866	559	56	3726	727	73
1900	687	147	2470	893	192
2575	634	203	3348	824	263
1959	566	51	2547	735	66
2019	608	80	2625	790	105
1566	621	66	2036	808	86
1503	589	33	1954	766	43
1803	676	153	2344	879	199
1530	721	137	1989	938	178
1862	583	5	2420	758	6
1935	582	79	2515	756	103
1572	601	79	2044	782	103
1450	598	69	1885	778	90
1403	681	82	1824	886	107
1557	702	112	2024	912	145
1357	535	54	1764	696	71
1512	590	10	1965	767	13
1473	669	73	1915	869	95
1574	533	25	2046	693	33
1657	565	48	2154	735	62
1501	589	72	1951	766	93
1595	642	68	2073	835	88
1434	538	68	1864	699	89
1645	635	77	2139	826	100
2065	494	-5	2685	642	-6
2111	628	146	2744	817	189
1716	562	52	2231	730	67
2205	518	53	2866	673	69
1662	535	3	2160	696	4
2166	620	85	2816	805	110
3044	369	-16	3958	480	-21
3184	439	82	4140	570	107
2308	516	73	3000	671	95
2178	495	-1	2832	643	-2
3128	513	76	4067	667	99
3795	472	63	4933	613	82
3588	416	82	4665	540	107
3422	501	83	4448	652	108
3246	367	60	4220	477	78
3799	308	57	4939	401	74
3244	439	73	4217	570	95
Soletta superiore forata in direzione trasversale al sottoattraversamento					
2212	798	40	2875	1037	52
2314	606	73	3009	788	95

2345	934	103	3049	1214	134
2287	1058	142	2974	1375	185