

COMUNE DI CASTEL MAGGIORE

PIANO URBANISTICO ATTUATIVO RELATIVO ALL'AMBITO ASP-BA.1, IN VARIANTE AL PIANO PARTICOLAREGGIATO DEL COMPARTO D7.3

PROGETTISTA

ING. STEFANO BAROZZI
Via Yecla n°2
40054 - Budrio (Bo)

PROPRIETA'

GRANDE SOLE S.r.l.
Via Mattei, 14
40054 Budrio (Bo)

ONIX S.r.l.
Via Marconi, 43
40062 Molinella (Bo)

SPAZIO RISERVATO ALL'UFFICIO TECNICO

OGGETTO:

RELAZIONE GEOLOGICA
RELAZIONE INTEGRATIVA: Caratterizzazione sismica ai sensi
Del. Ass. Leg. E.R. 2193/2015

SCALA

TAVOLA N°

20

1°	SETTEMBRE 2018	20 Rel. geologica			
2°					
3°					
4°					
REV.	DATA	FILE	ELABORATO	VERIFICATO	APPROVATO

N. ARCHIVIO:

N. U/611

ELABORAZIONE GRAFICA



Grande Sole s.r.l.

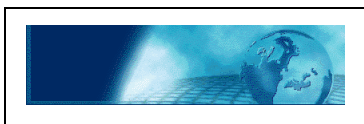
via E. Mattei, 14 - 40054 Budrio (Bo)
Tel. 051 - 802601
E mail : info@grandesole.it

COMUNE DI CASTELMAGGIORE

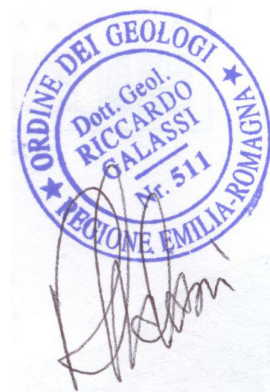
PROVINCIA DI BOLOGNA

**Relazione geologico - tecnica relativa al Piano Particolareggiato di
Iniziativa Privata all'interno della zona omogenea D - Comparto D7.3
su Via Saliceto**

Studio di Geologia Applicata Dott. Riccardo Galassi



Via Torino, 2 40068 S. Lazzaro di Savena (Bo)
Tel./ Fax 051 / 46.61.99 Cell. 334 / 6240048



OGGETTO DELL'INDAGINE

Committente: Grande Sole Srl, ONIX Srl

Data: 12/2008

Oggetto dell'incarico professionale: Relazione geologico - tecnica relativa al Piano Particolareggiato di Iniziativa Privata all'interno della zona omogenea D - Comparto D7.3 sulla Via Saliceto nel Comune di Castel Maggiore.



Fig. 1: ubicazione area di studio e di un suo significativo intorno su Foto Aerea alla scala 1:10.000 circa.

Fasi di studio:

- raccolta dati bibliografici, geologici e geognostici;
- rilevamento diretto delle caratteristiche dei terreni e dell'intorno della zona di interesse;
- elaborazione dati e stesura relazione finale

La presente relazione geologica è stata redatta sulla base delle indicazioni tecniche contenute nel D. M. 11/3/1988 e sue successive circolari applicative ed al Testo Unico n° 35/2005 approvato dall'Assemblea Generale del Consiglio Superiore dei L.L.P.P. il 30/3/2005 e recepito con D.M. 25/10/2005 e successive ordinanze

INQUADRAMENTO GEOLOGICO

L'evoluzione tettonica e sedimentaria del bacino padano ha portato alla formazione della pianura in cui è ubicato il territorio bolognese.

Un notevole numero di indagini dirette (sondaggi) o indirette (linee sismiche o geofisiche) spinte in profondità hanno messo in luce l'esistenza di strutture

tettoniche profonde Mioceniche – Pleistoceniche legate alla deformazione responsabile della formazione dell'Appennino. Parte delle anticlinali e dei trust nord vergenti, affiorano lungo il margine collinare, sollevato dal sistema noto come sovrascorrimento pedeappenninico che separa la fascia collinare in sollevamento dalla pianura, interessata invece da processi di subsidenza.

La formazione della pianura è imputabile ai processi sedimentari dei principali corsi d'acqua i cui depositi si sovrapponevano via via ai sedimenti marini e lagunari e costieri, controllati da fenomeni tettonici e glacio – eustatici.

La ricostruzione delle caratteristiche litostratigrafiche della successione quaternaria continentale (Amorosi A. e Farina. M, 1994) è caratterizzata da un'alternanza di ghiaie e peliti con scarse sabbie.

Nel loro lavoro i citati Autori individuano alcuni marker stratigrafici situati a profondità comprese tra 280 metri e 120 – 140 metri dal livello del mare, di cui il più superficiale è noto come Orizzonte Fossolo.

Quest'ultimo è suddiviso nell'Unità Alluvionale Inferiore (UQAI) ed nell'Unità di Borgo Panigale (UBP), a sua volta caratterizzata da 4 cicli di circa 30 – 40 metri di spessore. Il più recente è definito come Unità di Castenaso, la cui base grossolana (ghiaie) è posta ad una profondità di circa 40 – 50 metri dal p.c. ed ha uno spessore variabile tra 12 e 20 metri.

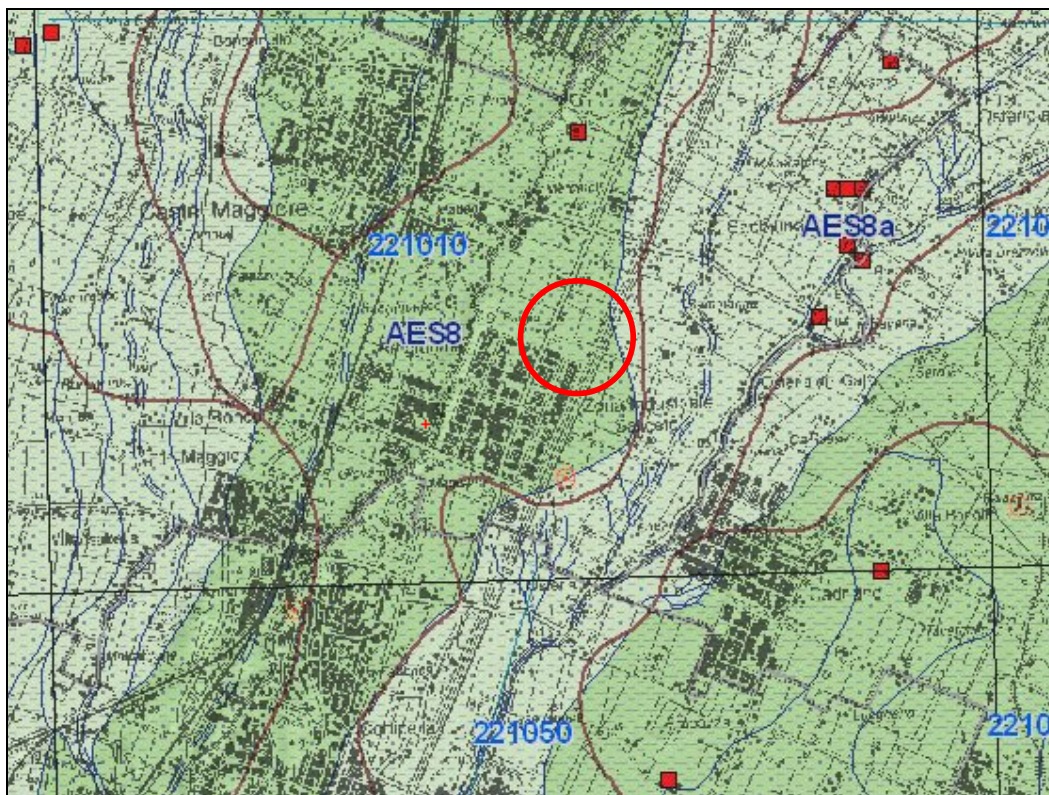


Fig. 2: ubicazione area di studio e di un suo significativo intorno su Carta Geologia della Pianura dell'Emilia Romagna alla scala 1:50.000 (RER, cartografia on-line).

Recentemente le unità stratigrafiche superficiali sono state oggetto di revisione e sono state raggruppate in Sintemi, Subsintemi e Unità. Nell'area oggetto di interesse sono state riconosciute AES8 e AES8a, rispettivamente il Subsistema di Ravenna e

l'Unità di Modena, le cui caratteristiche sono riportate nello specchietto successivo tratto dal sito web dell'Ufficio Cartografico - Servizio Geologico Sismico e dei Suoli della RER.

AES8 - Subsintema di Ravenna

Nei settori intravallivi ghiaie passanti a sabbie e limi organizzate in numerosi ordini di terrazzi alluvionali. Negli sbocchi vallivi e nella piana alluvionale ghiaie, sabbie, limi ed argille. Limite superiore dato da suoli variabili da non calcarei a calcarei. I suoli non calcarei e scarsamente calcarei hanno colore bruno scuro e bruno scuro giallastro, spessore dell'alterazione da 0,5 ad 1,5 m, contengono frequenti reperti archeologici di età del Bronzo, del Ferro e Romana. I suoli calcarei appartengono all'unità AES8a. Limite inferiore erosivo sui depositi marini e alluvionali sottostanti. Subsintema contenente una unità a limiti inconformi di rango gerarchico inferiore (AES8a) che, dove presente, ne costituisce il tetto stratigrafico. Spessore massimo in pianura di 25 metri circa.

Pleistocene sup. - Olocene (14 ka - attuale; datazione 14C).

AES8a - Unità di Modena

Nei settori intravallivi ghiaie prevalenti organizzate in 2 ordini di terrazzi alluvionali. Negli sbocchi vallivi e nella piana alluvionale ghiaie, sabbie, limi ed argille. Limite superiore sempre affiorante dato da un suolo calcareo di colore bruno olivastro e bruno grigiastro privo di reperti archeologici romani, o più antichi, non rimaneggiati. Limite inferiore dato da una superficie di erosione fluviale nelle aree intra Spessore massimo in pianura 7 metri, nel sottosuolo circa 10m.

Età post-romana (IV-VI sec. d.C. - Attuale; datazione archeologica).

Geologia: l'area ricade in una zona costituita da sedimenti in prevalenza sabbiosi e limosi appartenenti al sistema di piana alluvionale formata dal Fiume Savena, in un suo ramo abbandonato in tempi storici.

Unità geologica: Depositi alluvionali - Depositi di Piana Alluvionale - Subsintema di Ravenna.

Caratteristiche tessiturali, sedimentologiche e stratigrafiche da bibliografia: sabbie medie e fini in strati di spessore decimetrico passanti lateralmente e intercalate a sabbie fini e finissime limose, subordinatamente limi argillosi. Localmente sono presenti sabbie medie e grossolane in corpi lenticolari e nastriformi. Depositi di canale e argine prossimale.

Morfologia: l'area ricade nell'ambito della pianura intermedia, nella quale il gradiente topografico è basso e pari circa a 0,02. La zona oggetto di studio è situata a Nord della Zona Industriale Saliceto ubicata a Sud Est dell'abitato di Castel Maggiore, e si presenta sub-pianeggiante, debolmente inclinata verso NNE. Attualmente è esclusivamente a vocazione agricola, ed è delimitata a Sud dalla Via Stradellaccio, a Est dall'Autostrada A 13 Bologna Padova (dalla quale è separata da una fascia di circa 150 metri), mentre a Nord e a Ovest si trovano campi coltivati. La via Stradellaccio è caratterizzata da un rilevato di altezza superiore a 5 metri che consente l'attraversamento dell'autostrada, mentre quest'ultima corre su un rilevato che presenta una quota media di circa 1,5 metri rispetto al piano campagna circostante.

Fatta eccezione per la porzione meridionale, ove sorgono numerosi capannoni industriali o artigianali, la zona non è densamente urbanizzata, ma sono invece presenti una serie di scoli naturali che solcano i campi.

La lettura della cartografia geologica e topografica ed un rilievo della zona consentono di identificare una importante rotta fluviale del Savena, avvenuta in epoca storica, le cui propaggini settentrionali sono situate nella porzione sud della zona industriale saliceto. Per quanto riguarda la zona di progetto, invece, si può far rilevare che cade in una zona di dosso morfologico e che in corrispondenza della stessa non si segnalano processi morfodinamici attuale o pregresso.

Si evidenziano, infine, le buone caratteristiche del sistema di scolo delle acque che comprendono alcuni canali di scolo delle acque di ordine inferiore che fanno capo al sistema di smaltimento della pianura alluvionale ed ai canali di bonifica.

Il corso del Savena Abbandonato scorre circa 1200 metri a Est della zona di progetto. La sottostante Figura 3 identifica le principali caratteristiche geomorfologiche descritte nel testo.

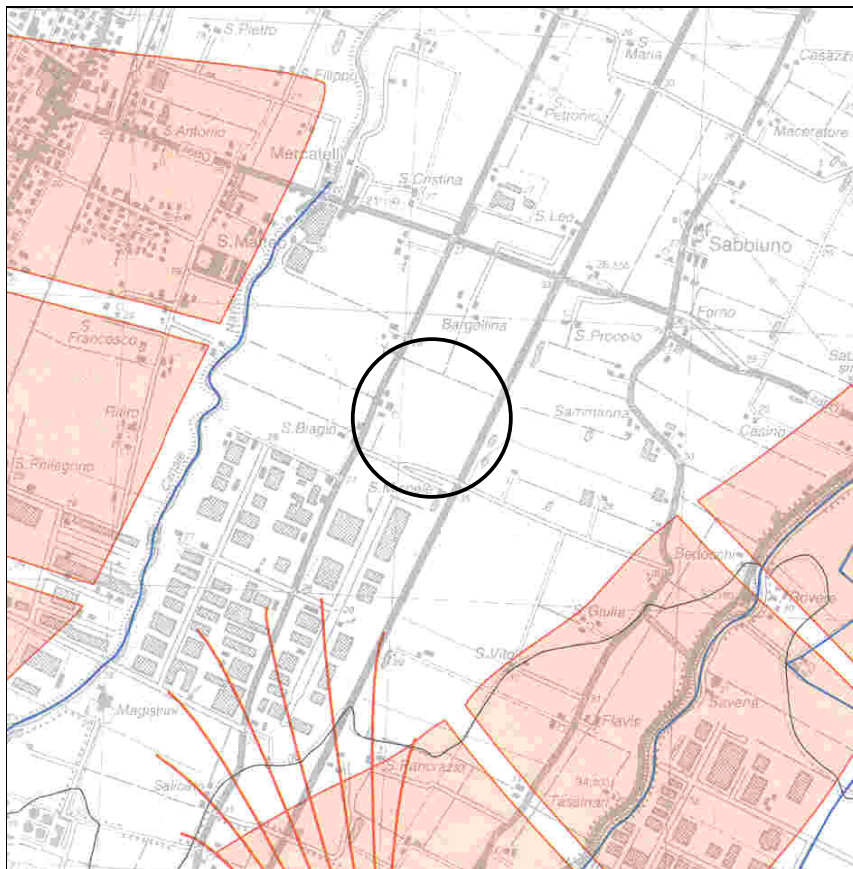


Fig. 3: Stralcio della Carta Geomorfológica del Comune di Bologna alla scala 1:25.000 (Elmi et al., 2000) con ubicazione dell'area di studio.

Idrogeologia: indicazioni bibliografiche relative alla falda consentono di definire l'esistenza della superficie piezometrica in tutta l'area oggetto di interesse.

In via generale il deflusso avviene da SE verso NW, con locali variazioni di direzione e gradiente legate alla presenza di contenute disomogeneità tessiturali nel sottosuolo (Figura 4). La direzione di deflusso è fortemente influenzata dall'alveo del Savena che nei periodi di pioggia ricarica la falda, mentre in quelli di magra funziona come dreno nei confronti della stessa.

Livello statico dal piano campagna: varia stagionalmente tra -1,5 e -3,5 metri dal p.c., e conseguentemente varia tra 27,5 e 25,5 metri s.l.m.

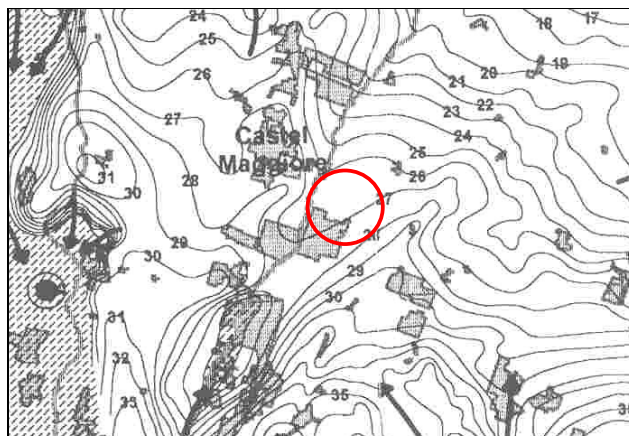


Fig. 4: Carta della superficie piezometrica della Provincia di Bologna (da Viel, 2000).

Dati geotecnici disponibili:

Lo scrivente non è in possesso di dati o relazioni pregresse che possano consentire di caratterizzare i terreni di fondazione dal punto di vista geotecnico.

OPERE DI PROGETTO

Caratteristiche delle opere di progetto: lottizzazione composta da un fabbricati industriali, con presumibili fondazioni su plinti o su platea incastrati/a ad una profondità di almeno 1,5 metri dall'attuale p.c.

INDAGINI IN SITU

Data del rilievo: Novembre 2007

Tipo di rilievo effettuato: geologico, geognostico, idrogeologico

Tipologia di prove geognostiche eseguite:

- n° 1 prova CPT [prova penetrometrica statica CPT (Cone Penetration Test) con punta meccanica tipo Begemann, spinta alla profondità di 30 mt, ed effettuate in conformità agli standard di riferimento AGI (1977) ed ISSFME (1988)],
- n° 5 prove CPTU (prove penetrometriche statiche eseguite con punta elettrica - piezocono) in grado di misurare la pressione interstiziale spinte alla profondità di circa 12 metri dal p.c.

La sottostante Figura 5 mostra l'ubicazione delle prove eseguite su stralcio di planimetria alla scala 1: 5.000 portata alla scala 1 : 3000 circa. A numerazione è consequenziale rispetto a quelle dell'area adiacente di proprietà della ditta Faro Service Srl.

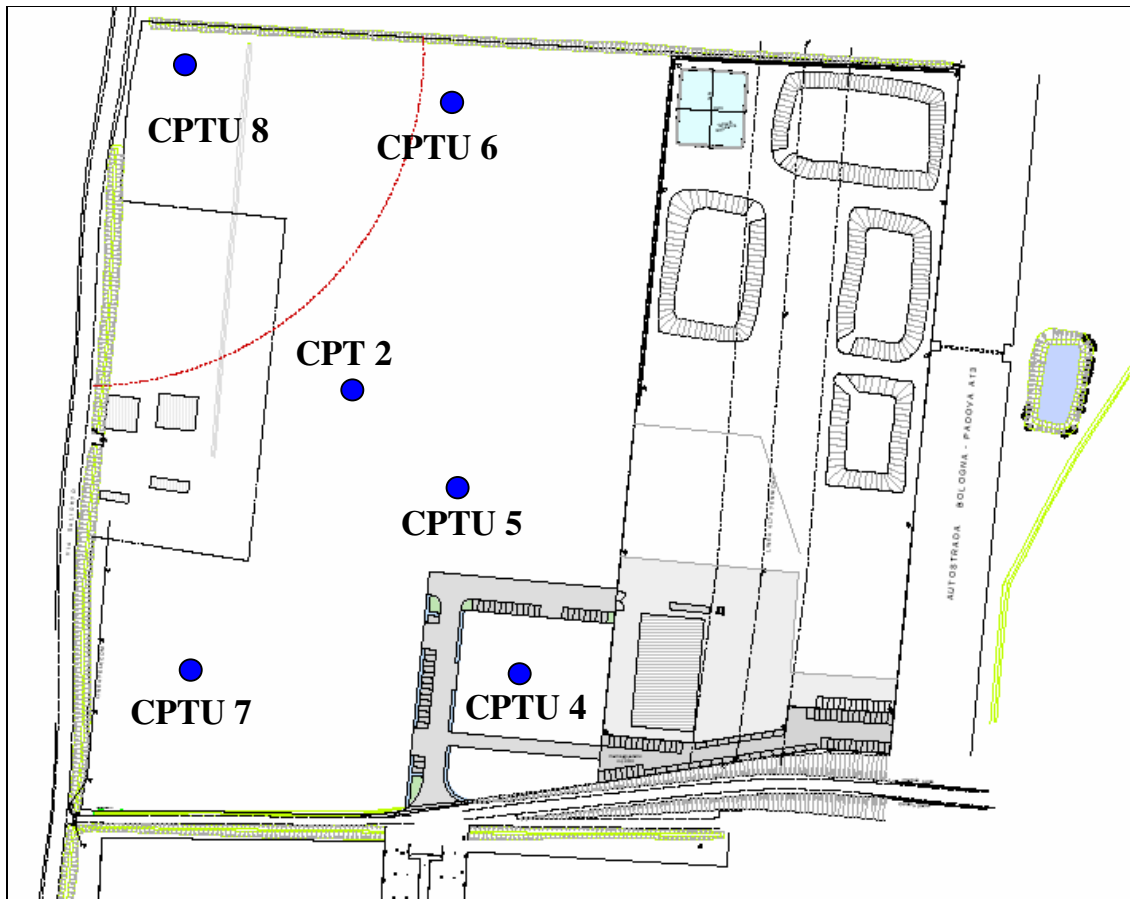


Fig. 5: ubicazione su planimetria di progetto delle 4 prove penetrometriche eseguite. CPTU = prove penetrometriche statiche con punta elettrica - piezocono. CPT = prove penetrometriche statiche con punta meccanica. La CPTU 8, invece, è stata effettuata per lo studio della zona in cui andrà posizionata l'eventuale vasca di laminazione.

RISULTATI DEL RILIEVO GEOLOGICO E DELLE INDAGINI ESEGUITE

Caratteristiche geologiche: è stata riconosciuta una sequenza litologica caratteristica di sistema fluviale di energia medio alta associabile ad una ambiente di piana alluvionale prossimale.

Litologia: alternanza di limi, argille limose e sabbie, passanti in profondità a sabbie limose e sabbie con intervalli di ghiaie.

La colonna litologica è simile in tutte le CPTU eseguite (primi 12 metri), mentre a profondità superiori la CPT 2 mostra l'esistenza di un'alternanza di livelli di argille sabbiose e limose passanti a sabbie addensate e talvolta anche ghiaiose, poi ad argille limi alternati a sabbie addensate fino alla profondità di 30 metri. Le principali bancate di sabbia e ghiaietto molto addensati sono state riconosciute tra i 25 ed i 27,5 metri, tra i 29,5 ed i 30 metri di profondità.

Le prove eseguite, dunque, presentano le stratigrafie riportate nelle tabelle che seguono.

CPTU 4

Intervallo	Litologia	Quota tetto	Quota letto
1	Alternanze di limi e argille compatti e sabbie e sabbie limose addensate	p.c.	3,40
2	Limi sabbiosi e limi poco compatti alternati a limi compatti	3,40	9,10
3	Limi sabbiosi e sabbie mediamente addensati	9,10	10,20
4	Limi argillosi e sabbiosi mediamente compatti con livelletti centimetrati di sabbie limose addensate	10,20	12,05

Quote espresse in mt dal p.c.

Acqua: presente ad una quota di -2,00 mt dal piano campagna.

CPTU 5

Intervallo	Litologia	Quota tetto	Quota letto
1	Sabbie limose e sabbie con un intervallo di limo argilloso tra 1,75 e 2,25 metri	p.c.	2,55
2	Limi sabbiosi poco consistenti/addensati	2,55	4,70
3	Limi e argille mediamente compatte	4,85	9,00
4	Sabbie e sabbie limose poco addensate o sciolte	9,00	9,85
5	Limi argillosi e argille mediamente compatte	9,85	12,05

Quote espresse in mt dal p.c.

Acqua: presente ad una quota di -2,40 mt dal piano campagna.

CPTU 6

Intervallo	Litologia	Quota tetto	Quota letto
1	Sabbie e sabbie limose poco consistenti/ addensate	p.c.	3,45
2	Limi da mediamente compatti a compatti	3,45	5,20
3	Argille e limi talvolta debolmente sabbiosi compatti	5,20	8,85
4	Sabbie mediamente addensate	8,85	10,00
5	Limi talvolta sabbiosi mediamente compatti alternati ad argille limose e limi	10,00	11,20
6	Sabbie e sabbie limose poco addensate	11,20	11,80
7	Argille e limi mediamente compatti	11,80	12,05

Quote espresse in mt dal p.c.

Acqua: presente ad una quota di -2,70 mt dal piano campagna.

CPTU 7

Intervallo	Litologia	Quota tetto	Quota letto
1	Sabbie, sabbie limose e limi sabbiosi mediamente compatti/addensati	p.c.	5,10
2	Limi argillosi e sabbiosi da mediamente compatti a compatti	5,10	6,80
3	Limi e argille mediamente consistenti	6,80	8,55
4	Limi argillosi e sabbiosi	8,55	12,05

Quote espresse in mt dal p.c.

Acqua: presente ad una quota di -2,45 mt dal piano campagna.

CPTU 8

Intervallo	Litologia	Quota tetto	Quota letto
1	Sabbie da poco addensate ad addensate	p.c.	1,75
2	Argilla e limo poco consistenti	1,75	2,85
3	Limo argilloso e limo sabbioso poco consistente/addensato	2,85	4,45
4	Limo argilloso e sabbioso consistente	4,45	6,00
5	Limo e argilla mediamente compatti	6,00	9,85
6	Limo argilloso e limo sabbioso poco consistenti/addensati	9,85	10,15
7	Limo argilloso e argilla poco consistenti	10,15	11,50
8	Sabbia e sabbia limosa poco addensata	11,50	12,03

Quote espresse in mt dal p.c.

Acqua: presente ad una quota di -2,50 mt dal piano campagna.

CPT 2

Intervallo	Litologia	Quota tetto	Quota letto
1	Limo e limo argilloso compatto	0,0	0,8
2	Sabbia limosa addensata	0,8	1,2
3	Argille limose da poco compatte a mediamente compatte	1,2	1,6
4	Limi e argille compatti	1,6	10,4
5	Limi e argille molto compatti	10,4	16,2
6	Limi e argille limose e sabbiose da mediamente compatte a compatte	16,2	24,0
7	Alternanze di limi sabbiosi e sabbie limose scarsamente addensate con livelli di argille compatte	24,0	25,2
8	Sabbie e ghiaie addensate	25,2	27,4
9	Limi e argille mediamente compatte con livelli sabbiosi decimetrici addensati	27,4	28,4
10	Sabbie molto addensate	28,4	28,8
11	Limi e argille compatte	28,8	29,4
12	Sabbie da addensate a molto addensate	29,4	30,0

Quote espresse in mt dal p.c.

Acqua: presente ad una quota di -3,5 mt dal piano campagna.

Le tabelle che seguono contengono il valore dei principali parametri del terreno ricavati dall'interpretazione dei dati numerici delle prove CPT e CPTU mediante le espressioni comunemente ritrovabili nella bibliografia specialistica del settore.

Gli intervalli di seguito riportati, rappresentano quelli interessati dai potenziali processi di rottura e da quelli di consolidamento legati all'applicazione del carico e sono stati suddivisi secondo le caratteristiche geomeccaniche: essi coincidono con quelli descritti nella ricostruzione litologica della sequenza.

I terreni a tessitura argillosa che caratterizzano i primi metri della sequenza deposizionale (primi 3 - 4 metri) sono comunemente ritrovabili nella pianura e sono caratterizzati da un elevato grado di sovraconsolidazione. Tale processo, tuttavia è soltanto apparente e legato alla risalita per capillarità delle acque di prima falda nei pori dei terreni a grana fine, risalita che determina una cementazione fittizia delle particelle (ageing). Quando esposti agli agenti atmosferici anche per brevi periodi ovvero in caso di parziale o permanente saturazione tali terreni perdono la loro forte coesione e quindi le caratteristiche meccaniche rilevate, e tornano a comportarsi

come i terreni a tessitura fine presenti negli orizzonti sottostanti. Per questo motivo i valori dei parametri contenuti nella tabella si riferiscono ai livelli superficiali che indicano valori di resistenza più scadenti tra quelli misurati.

CPTU 4 – CPTU 8

Qc medio	Cu	Φ	Go	OCR	Dr	Intervallo
1250 – 1850	45 - 60	26 - 30	10.000 - 14000	1	12 – 28	Sabbie e sabbie limose
1000 – 2200	70 - 100	21	6.000 – 10.000	2 - 4	---	Argille e limi
> 6500	---	35	18.000	3	45 - 60	Sabbie e ghiaie

CPT

Qc medio	Cu	Φ	Go	Ed	OCR	Dr	Intervallo
980	50	---	11400	4350	1,8	---	1
9300	---	30	44000	8300	> 9	88	2
3600	100	---	25400	7400	7,2	---	3
560	30	---	8400	3150	1,2	---	4
8820	40	---	10700	4100	2,5	---	5
9810	50	---	11400	4350	3	---	6
1275	85	19	13400	4780	4,2	5	7
3200	---	29	23200	3390	1	21	8
2000	85	---	17400	4190	7	---	9
4600	---	30	29000	4500	1	30	10
1840	70	---	16370	4590	6,2	---	11
2000	---	22	17400	3700	1	30	12

Qc = resistenza alla punta (KN/mq), Cu = coesione non drenata(KN/mq), Φ^* = angolo di attrito interno (°), OCR = grado di sovraconsolidazione, Dr = densità relativa (%), Go = Modulo di taglio dinamico (KN/mq).

CAPACITA' PORTANTE AMMISSIBILE E VERIFICA DELLE PRIME PLASTICIZZAZIONI DEL TERRENO DI FONDAZIONE

Per i fabbricati si ipotizza un tipo di fondazione del tipo superficiale a plinto o, in subordine, superficiale a platea con quota di incastro ad almeno 1,5 metri di profondità dal p.c.

Le stime eseguite in questo capitolo vengono riferite a tali parametri generici, cui viene associato una larghezza unitaria della fondazione pari a 1 metro.

Determinazione del carico di rottura (Qd) - fondazioni superficiali

Metodologia adottata: formula di Terzaghi

$$Qd = cN_c + q_0N_q + 1/2\gamma BN_\gamma$$

ove N_c , N_q ed N_γ rappresentano dei coefficienti adimensionali che dipendono dall'angolo di attrito interno efficace caratteristico, c = coesione efficace (KN/mq), q_0 = sovraccarico litostatico (KN/mq), γ = peso di volume del terreno e B = larghezza della base della fondazione (mt)

valida per condizioni drenate in terreni dotati di coesione ed attrito per applicazione del carico graduale
semplificata in

$$Q_d = 5,70 C_u + \gamma D$$

ove C_u = coesione non drenata

valida per condizioni non drenate in terreni prevalentemente fini per applicazione del carico rapido, senza, cioè, che sia permesso il drenaggio.

Si è inoltre tenuto conto dell'influenza della superficie freatica sul valore del carico di rottura del terreno, poichè il livello della falda potrebbe cadere, in alcuni periodi dell'anno, all'interno del cuneo sottostante la fondazione.

Determinazione del carico ammissibile o capacità portante ammissibile (Q_{ad}):

$$Q_{ad} = Q_d/3$$

ove 3 rappresenta il coefficiente di sicurezza richiesto dal D.M. 11/3/1988 e sue circolari applicative.

Verifica delle prime plasticizzazioni (stato critico) per terreni con caratteristiche coesive

La teoria si basa sul fatto che la capacità portante debba essere rappresentata dal carico critico, cioè dalle deformazioni plastiche che hanno inizio in qualche punto quando viene superata la resistenza al taglio, e non dal carico che produce la completa rottura del terreno.

Metodo adottato: teorema del collasso plastico, limite inferiore semplice per fondazioni.

$Q_r = 3,14 c_u$ cambiamento dello stato di stress sotto lo spigolo della fondazione con c_u = coesione non drenata in KN/mq

Tabella riassuntiva contenente il risultato delle verifiche

Sigla Prova	Tipo di fondazione	Q_d	Q_{ad}	Q_r	Fs1	Fs2
CPT e CPTU	Platea o plinti	195	65	108	3,00	1,66

Q_d = carico di rottura, Q_{ad} = carico ammissibile, Q_r = carico con il quale si verificano le prime plasticizzazioni del terreno (termini espressi in KN/mq).

I valori di Fs 1 ed Fs 2 risultano rispettivamente superiori a 3 e superiori a 1, come prescritto dal D.M. 11/3/1981 e successive circolari applicative.

Si fa presente, infine, che per quanto attiene i carichi applicati per breve durata (per esempio il sisma), nonostante la normativa non contenga indicazioni relative all'utilizzo di valori diversi del coefficiente di sicurezza $F_s = 3$ (che si adotta per i carichi permanenti), si ritiene che il valore della Q_{ad} possa essere incrementato di

circa un 20%. La Capacità Portante Ammissibile, dunque, solo per quel tipo di carichi avrebbe un valore di 75 KN/mq sia per fondazioni a plinto sia per fondazioni platea. Il valore indicato risulta comunque inferiore alla pressione necessaria per innescare la plasticizzazione sotto lo spigolo della fondazione (Q_r della tabella precedente).

Sulla base dei dati riportati nella precedente tabella è verificata la compatibilità tra caratteristiche geomeccaniche e idrogeologiche del terreno e tipo di fondazione previsto per l'opera di progetto.

In particolare nel caso di fondazioni a plinto, l'impronta dei plinti avrà dimensioni minime che saranno funzione dei carichi applicati. Ipotizzando luci di 6 metri tra i pilastri in elevazione ed un'altezza di circa 9,5 al colmo metri del capannone sui pilastri più caricati si potranno avere valori di 1300 KN, mentre su quelli meno caricati il valore sarà grossomodo pari a 900 KN. In conseguenza, l'impronta dei plinti potrà variare rispettivamente tra 18,6 mq e 12,8 mq.

ANALISI IN CONDIZIONI SISMICHE

LIQUEFAZIONE DEI TERRENI A TESSITURA GROSSOLANA CONTENENTI LA FALDA

Il Decreto Ministeriale 16/01/96 (G.U. 5/2/96 n° 19) recante "Norme tecniche per le costruzioni in zone sismiche", prescrive, nell'allegato al punto B10, che le verifiche del terreno e delle strutture di fondazione vanno eseguite con i metodi e i procedimenti della geotecnica, tenendo conto delle massime sollecitazioni che la struttura trasmette al terreno. Il piano di posa della fondazione deve essere spinto a profondità tali da non ricadere in zona dove risultino apprezzabili le variazioni stagionali del contenuto naturale d'acqua.

La classificazione sismica del territorio nazionale secondo il Testo Unico n° 35/2005 approvato dall'Assemblea Generale del Consiglio Superiore dei L.L.P.P. il 30/3/2005 e recepito con D.M. 25/10/2005 e successive ordinanze ed in particolare quella del Comune di Castel Maggiore, indicano che il lotto in oggetto ricade in zona sismica 3, caratterizzata da un rapporto $A/g = 0,15$ (sismicità bassa).

Valutazione del potenziale di liquefazione (Metodo empirico Seed e Idriss, 1986)

$$F_s = \tau_l / \tau_d$$

ove τ_l = resistenza del terreno e τ_d 0 tensione tangenziale ciclica normalizzata generata dal sisma ad una data profondità.

$$\tau_l / \sigma'_0 = 0,26 [0,16 \times N_a^{0,5} + (0,21 \times N_a^{0,5})]$$

σ'_0 = tensione efficace verticale, $N_a = 1,7 / \sigma'_0 + 0,7 \times N_{spt} + \Delta N_f$, con $\Delta N_f = 0$ per contenuto di fini (CF) < 0,05 ed $\Delta N_f = 10CF + 4$ per contenuto di fini > 0,1.

$$\tau_d / \sigma'_0 = 0,65 \times A/g \times \sigma_0 / \sigma'_0 (1 - 0,015z)$$

ove A = accelerazione massima alla superficie del terreno libero, g = accelerazione di gravità, σ'_0 = tensione verticale efficace agente alla profondità z , σ_0 = tensione

verticale totale agente alla profondità z , $z = 0$ profondità in metri del punto considerato.

I calcoli di verifica vengono sviluppati ipotizzando diversi valori di z e assumendo $z_w = (z - 5,2)$ spessore del terreno immerso in falda

$\gamma_d = 16$ KN/mc peso di volume del terreno non immerso in falda

$\gamma = 19$ KN/mc peso Sulla base dei dati riportati nella precedente tabella è verificata la compatibilità tra caratteristiche geomeccaniche e idrogeologiche del terreno e tipo di fondazione previsto per l'opera di progetto.

di volume della sabbia satura

N_{spt} = variabile

$\Delta N_f = 0 - 5$

A/g = valori di accelerazione.

Se F_s è inferiore all'unità vi è rischio di liquefazione dei terreni.

La tabella che segue mette in luce i valori di F_s ricavati dalla stima con metodo Imai & Tomauchi, per ogni prova penetrometrica realizzata nel comparto relativamente a gruppi di livelli saturi posti a intervalli definiti di profondità.

Valori di F_s per i livelli saturi della sequenza indagata

Sigla Prova	Intervallo saturo				
	0 - 6 metri	6 - 12 metri	12 - 18 metri	18 - 24 metri	24 - 30 metri
CPT 2	> 9	---	---	---	0,5 - 0,8
CPTU 4	0,5	0,4 - 0,6	---	---	---
CPTU 5	---	0,6 - 0,8	---	---	---
CPTU 6	> 1,6	0,5 - 0,7	---	---	---
CPTU 7	0,5 - 1,5	0,4 - 0,7	---	---	---
CPTU 8	0,5 - 1,2	0,4 - 0,9	---	---	---

La tabella mette in luce l'elevata probabilità di liquefazione dei terreni dei primi 18 metri della sequenza (porzione indagata con il numero maggiore di prove), terreni limoso sabbiosi o sabbiosi saturi con grado di addensamento da medio a scarso. Più in profondità, ove aumenta l'addensamento dei livelli granulari, il rischio associato diventa non significativo, anche se negli intervalli più profondi della CPT 2 si hanno ancora valori inferiori all'unità.

RISPOSTA SISMICA LOCALE

Con il termine risposta sismica locale si intende l'insieme delle modifiche che un moto sismico, relativo ad una formazione rocciosa di base posta ad una certa profondità nel sottosuolo, subisce attraversando gli strati di terreno sovrastanti fino alla superficie.

Per giungere alla determinazione della risposta sismica locale il sito è stato sottoposto ad una indagine geologica e geognostica che ha consentito di ricostruire i seguenti aspetti:

- stratigrafia con dettagliata definizione dell'andamento dei contatti dei livelli litologici riconosciuti,
- profili delle velocità delle onde sismiche trasversali e longitudinali entro ogni livello litologico riconosciuto,

- caratteristiche meccaniche dei terreni, con riferimento al loro comportamento dinamico,
- morfologia dell'area.

Per gli studi di risposta sismica locale finalizzati alla previsione delle azioni sismiche sui manufatti di progetto è stato caratterizzato il terreno ricostruendo il valore di V_s (velocità delle onde di taglio), G_o (Modulo di taglio a piccole deformazioni), R (rigidità sismica), E_d (Modulo di elasticità dinamico) e T (periodo fondamentale dell'intervallo) con le equazioni che seguono:

$$G_o = \gamma_t / g \times (V_s)^2 \quad (\text{Ohta e Goto, 1978})$$

Ove γ_t = peso di volume naturale e g = accelerazione di gravità (9,81 m/sec²).

$$E_d = V_p^2 \times \rho \times [(1 + \nu) \times (1 - 2\nu) / 1 - \nu]$$

Ove V_p = velocità delle onde longitudinali, ρ = densità del terreno e ν = Modulo di Poisson

$$R = \gamma_t \times V_s$$

$$T = (4 \times H) / V_s$$

Ove H = spessore dell'intervallo considerato

V_s , laddove non direttamente misurato è stato ottenuto attraverso le espressioni che correlano la velocità delle onde sismiche al numero di colpi N_{spt} , tra cui le più note sono quelle di Imai et al. (1982)

Si richiamano brevemente alcuni contenuti del decreto citato.

Il suolo è suddiviso in cinque categorie fondamentali:

Categorie	Descrizione	S
A	Formazioni litoidi o suoli omogenei molto rigidi con V_s superiori a 800 m/sec, comprendenti spessori di alterazione non superiori a 5 metri	1
B	Sabbie e ghiaie molto addensate o argille molto consistenti, di spessore superiore a 10 metri con graduale miglioramento delle caratteristiche meccaniche con la profondità e V_s comprese tra 360 m/sec e 800 m/sec,	1,25
C	Sabbie e ghiaie mediamente addensate o argille di media consistenza, in spessori variabili tra decine e centinaia di metri, con valori di V_s compresi tra 180 m/sec e 360 m/sec,	1,25
D	Sabbie e ghiaie da sciolti a poco addensati o coesivi da poco a mediamente consistenti, caratterizzati da V_s inferiore a 180 m/sec,	1,35
E	Profili di terreno costituiti da strati alluvionali superficiali, con valori di V_s simili a quelli di C e D e spessore compreso tra 5 e 20 metri giacenti su un substrato di materiale più rigido con V_s maggiore a 800 m/sec.	1,25
S1	Depositi che includono uno strato di almeno 10 metri di spessore di argille/limi di bassa consistenza con elevato indice di plasticità (>)	Servono studi speciali

	40) e contenuto in acqua, Cu (coesione non drenata) compresa tra 10 KN/mq e 20 KN/mq e Vs inferiori a 100 m/sec,	
S2	Depositi soggetti a liquefazione e argille sensitive.	

Per poter ricavare il parametro V_{s30} richiesto dalla normativa, è stata eseguita una prova geognostica spinta a 30 metri di profondità dal p.c. La tabella che segue contiene l'esito degli studi eseguiti.

Prova di riferimento	V_{s30}
	m/sec
CPT 1	165,4

Sulla base della velocità V_{s30} , considerando quanto indicato dal decreto, la sequenza presenta caratteristiche sismiche tipiche di un suolo di tipo D.

La normativa vigente (D.M. 16/1/96) indica un coefficiente di fondazione *epsilon* che tiene conto delle forze legate allo scuotimento sismico. Tale coefficiente è funzione delle caratteristiche geologiche, geotecniche, geomorfologiche, geofisiche ed idrogeologiche, e permette di dimensionare la fondazione in relazione all'amplificazione del segnale sismico iniziale proveniente dal substrato che attraversa un mezzo di diversa rigidezza entro cui le onde di taglio S aumentano la loro velocità.

Normalmente tale coefficiente è pari a 1, ma in presenza di sequenza alluvionale di spessore compreso tra 5 metri e 20 metri poggianti su materiali coesivi e/o litoidi con caratteristiche di elevata compattezza il suo valore è pari a 1,3.

Nel caso di specie tale coefficiente può essere assunto pari a 1.

Per procedere alla definizione dei parametri sismici richiesti dalla nuova normativa, dunque, va tenuto presente che il Comune di Bologna ricade in zona sismica 3, caratterizzata da un rapporto $A/g = 0,15$ (sismicità moderata) e che l'area ricade entro il reticolo ID 15175, avendo coordinate $44^{\circ} 33' 54,75''$ N e $11^{\circ} 22' 48,21''$ E.

L'accelerazione sismica di progetto (o coefficiente sismico orizzontale) vale 0,1875, mentre il coefficiente di fondazione *epsilon* può essere considerato pari a 1,0 in quanto la sequenza non poggia direttamente su materiali coesivi e/o litoidi con caratteristiche di elevata compattezza.

Secondo quanto previsto dal DM 14 Gennaio 2008, infine, ogni deduzione di carattere sismico è stata effettuata tenendo presente l'allegato B alle norme tecniche, ed in particolare i dati definiscono l'azione sismica e che si riferiscono alle coordinate topografiche dell'area di progetto, riassunti nel seguente schema.

ID	LON	LAT	Tr 30			Tr 50			Tr 72		
			ag	Fo	Tc	ag	Fo	Tc	ag	Fo	Tc
15175	11.234	44.864	0.379	2.57	0.25	0.492	2.48	0.27	0.587	2.49	0.28

Si ricorda che le tipologie di opere di progetto appartengono alla Classe II della Tabella 2.4.I del decreto citato, quelle con vita nominale V_N superiore a 50 anni ed alla classi II richiamata nel paragrafo 2.4.2, che si riferisce all'uso previsto dei fabbricati.

Pertanto in prima approssimazione il periodo di riferimento massimo ipotizzabile per l'azione sismica vale $50 \times 1,0 = 50$ anni

La normativa citata prescrive anche che nei confronti delle azioni sismiche gli stati limite, sia di esercizio che ultimi, debbano essere individuati riferendosi alle prestazioni della costruzione nel suo complesso, includendo gli elementi strutturali, quelli non strutturali e gli impianti. La sottostante tabella (Tab. 3.2.I. del DM 14/1/2008) sintetizza le probabilità di superamento nel periodo di riferimento R_V , cui riferirsi per individuare l'azione sismica agente in ciascuno degli stati limite considerati,

Tabella 3.2.I – Probabilità di superamento P_{V_R} al variare dello stato limite considerato

Stati Limite		P_{V_R} : Probabilità di superamento nel periodo di riferimento V_R
Stati limite di esercizio	SLO	81%
	SLD	63%
Stati limite ultimi	SLV	10%
	SLC	5%

Dal punto di vista topografico l'area ricade in una zona T1 della Tabella 3.2.IV, caratterizzata cioè da superficie pianeggiante. Pertanto il relativo coefficiente di amplificazione topografica vale 1,0.

Per le componenti orizzontali delle azioni sismiche, il coefficiente di amplificazione stratigrafica S_s , ricavato considerando il tipo di sottosuolo tipico dell'area di interesse (D), vale 2,2134 mentre C_c , coefficiente sempre funzione della categoria del sottosuolo è pari a 2,4056, entrambi per T_r di 50 anni

Per la zona di studio T_B = periodo corrispondente all'inizio del tratto dello spettro ad accelerazione costante = 0,2165

T_C = periodo corrispondente all'inizio del tratto a velocità costante dello spettro = 0,6495;

T_D = periodo corrispondente all'inizio del tratto a spostamento costante dello spettro = 1,8, termini espressi in secondi,

Per le componenti verticali l'amplificazione spettrale massima $F_v = 0,7486$, mentre lo spettro di risposta elastico della componente verticale S_{ve} si ricava utilizzando i parametri contenuti nella tabella seguente tratta dalla normativa del 2008, utilizzando le espressioni del paragrafo 3.2.3.2.2.

Tabella 3.2.VII – Valori dei parametri dello spettro di risposta elastico della componente verticale

Categoria di sottosuolo	S_s	T_B	T_C	T_D
A, B, C, D, E	1,0	0,05 s	0,15 s	1,0 s

Attraverso i dati raccolti, infine, è possibile definire i valori di d_g e v_g , rispettivamente lo spostamento orizzontale e la velocità orizzontale massima del terreno, pari a 0,001845 metri e 0,011808 metri/secondo.

CEDIMENTI DELLE FONDAZIONI

Il carico indotto dall'opera di progetto viene analizzato secondo la teoria di Boussinesque, ipotizzando, cioè, un insieme di carichi puntiformi (fondazione) agenti sulla superficie di un semispazio elastico, omogeneo, isotropo, illimitato e privo di peso.

Il carico verticale riferibile alla costruzione determina uno sforzo al di sotto della fondazione che influisce maggiormente in corrispondenza della quota ove è applicato e a mano a mano decresce con la profondità. Le linee che descrivono l'andamento della pressione (isostatiche) hanno un andamento tipicamente a bulbo e mostrano che l'influenza significativa dei sovraccarichi si verifica, nel tempo, fino ad una profondità pari a 4 volte la larghezza della base della fondazione (B) per una distanza di circa 1,5 B nel caso di fondazione superficiale a nastro o a plinto.

Nel caso in esame, dunque, il calcolo dei cedimenti attesi è stato eseguito considerando per la platea il contributo dell'intera colonna litologica indagata con le prove geognostiche, per le fondazioni a plinto di parte della colonna litologica interessata dalle prove geognostiche, fino ad una quota rispettivamente di 10 mt dal p.c.

Poichè le indagini hanno dimostrato, a partire dalla quota di incastro della fondazione, l'esistenza di una sequenza litologica costituita essenzialmente da terreni a tessitura grossolana (Ghiaie, sabbie o sabbie limose compresi tutti i termini intermedi) caratterizzati da "elevati" valori del coefficiente di permeabilità, alternati a terreni fini (limi o argille o terreni misti) contenenti la falda superficiale ovvero con un grado di saturazione > 90%, la stima dei cedimenti della fondazione è stata condotta analizzando sia gli abbassamenti che si verificano non appena il sovraccarico viene applicato o comunque in un breve lasso di tempo (cedimenti immediati), sia quelli imputabili alla consolidazione, analizzando, cioè, gli abbassamenti che si verificano in tempi lunghi (cedimenti di consolidazione).

L'equazione che descrive il cedimento immediato viene riferita allo spigolo della fondazione ed è

$$\Delta h = q_0 B' [(1-\mu)/E_s] (I_s I_f)$$

ove

Δh = cedimento assoluto massimo atteso, q_0 = l'intensità di pressione di contatto, B' = minima dimensione laterale dell'area reagente della base, μ = Coefficiente di Poisson, E_s = Modulo elastico del terreno, $I_s I_f$ = coefficienti di influenza dipendenti dal rapporto tra le dimensioni larghezza e lunghezza della fondazione, dallo spessore dello strato cedevole considerato, dal coefficiente di Poisson e dalla profondità del piano di posa.

L'equazione che descrive il cedimento di consolidazione viene riferita allo spigolo della fondazione ed è

$$\Delta h = m_v \Delta p H$$

ove

Δh = cedimento assoluto massimo atteso, Δp = incremento medio di pressione legato al nuovo carico, H = spessore dello strato che contribuisce al cedimento.

Fondazioni a plinto

Lo schema che segue mette in luce la stima del massimo cedimento atteso per fondazioni che hanno caratteristiche $B \times L$ compatibili con la Q_{ad} del terreno.

Il piano di posa è stato considerato ad una quota di circa 1,5 mt dal p.c. mentre il carico lordo è stato posto pari a circa 70 KN/mq (45 KN/mq di carico netto). Per la valutazione del cedimento è stata considerata una sequenza di spessore pari a 12 metri per le CPTU e circa 18 metri per la CPT, essendo stata valutata un'impronta di fondazione con $B = 4$ metri.

Tabella riassuntiva dei cedimenti massimi attesi per ogni prova eseguita

Numero della prova e tipologia	Cedimento assoluto massimo atteso (cm)
CPT 2	3,9
CPTU 4	2,75
CPTU 5	2,94
CPTU 6	2,65
CPTU 7	2,74
CPTU 8	2,69

I cedimenti massimi assoluti attesi risultano inferiori al limite superiore ammissibilità per la tipologia di struttura di progetto, essendo indicato un valore che varia da qualche centimetro a 10 centimetri per le comuni abitazioni e fino a qualche decina di centimetri per strutture industriali

Dalla tabella si evince anche i cedimenti attesi sono grossomodo uniformi con differenziali dell'ordine di qualche millimetro tra prove contigue.

Sulla scorta dei dati presentati, si ritiene che i cedimenti differenziali, che sono evidentemente legati alla struttura che li deve assorbire senza inconvenienti, possono essere considerati nella norma per la struttura, considerando (Bjerrum, 1963) i valori della distorsione angolare data dal rapporto $\Delta h/L$ (con Δh = cedimento differenziale stimato e L = luce delle fondazioni) riferita a prove contigue.

Si sottolinea, che per le fondazioni superficiali a plinto è possibile che in funzione della potenziale liquefacibilità dei livelli sabbiosi saturi presenti nei primi 12 metri di sequenza si possano verificare condizioni di cedimenti assoluti e differenziali più significativi di quelli indicati.

Fondazione a platea

Per le platee di fondazione, prima di effettuare il calcolo del cedimento atteso e dei relativi differenziali, dovrà essere stimato il carico trasmesso dall'opera al terreno mediante la struttura.

Solo in seguito, dunque sarà possibile stabilire l'effettivo cedimento atteso, per il cui calcolo si rimanda alla progettazione definitiva esecutiva.

Si sottolinea, che per le fondazioni superficiali a platea è possibile che in funzione della potenziale liquefacibilità dei livelli sabbiosi saturi presenti nei primi 12 metri di sequenza si possano verificare cedimenti assoluti e differenziali che potrebbero influenzare localmente il comportamento della struttura.

DISCUSSIONE SULLE FONDAZIONI

Il valore della capacità portante ammissibile e quello che deriva dalla verifica delle prime plasticizzazioni del terreno appartenente alla sequenza litologica descritta e ricostruita mediante le prove geognostiche risultano compatibili con tipologie di opere e con le dimensioni delle fondazioni ipotizzate (superficiali a plinto e/o superficiali a platea), così come la verifica dei cedimenti massimi assoluti attesi e dei relativi differenziali. Si dovrà porre attenzione in fase esecutiva alla stima puntuale di questi ultimi, che in funzione della fondazione prescelta per il fabbricato (plinti), potrebbero risultare al limite di tollerabilità per le strutture che costituiranno lo spiccato.

Le fondazioni saranno comunque essere poste ad una profondità maggiore della zona di normale influenza delle variazioni termiche, cioè ad una quota di circa 1,5 metri dal p.c., la stessa utilizzata per le verifiche di capacità portante e cedimenti. Tale quota consentirebbe di tenere conto della presenza della falda, delle caratteristiche di salienza e della sua naturale escursione stagionale, descritte nel capitolo che segue.

Prevedendo il piano di incastro a profondità di 1,5 metri e realizzando un vespaio sotto il primo solaio (nel caso di fondazioni a plinto), si potranno evitare assestamenti anomali legati all'espansione o al ritiro dei materiali a tessitura fine che costituiscono il primo livello coesivo che è stato ritrovato in tutte le prove nella porzione corticale della sequenza indagata.

In particolare si ritiene significativo evidenziare che una soletta a cialda permetterebbe di controllare meglio l'"espansione" dell'argilla irrigidendo la fondazione mediante setti che svolgono una funzione portante. Nel caso in esame, infatti, i terreni rilevati dalla superficie alla quota della fondazione possono essere classificati, in base all'Indice di Plasticità come "a medio potenziale cambiamento di volume".

Si tenga presente, infine, che in alcune prove alla quota di circa 2 metri dal p.c. è stata identificata una sequenza avente caratteristiche da mediocri a scadenti e, dunque, si consiglia di verificare attentamente il tipo di fondazioni da progettare in funzione della posizione del fabbricato.

INDICAZIONI PER LA REALIZZAZIONE DELLA VASCA DI LAMINAZIONE

Per quanto riguarda la vasca di laminazione di progetto, ubicata a Nord in prossimità della Via Saliceto in corrispondenza della prova CPTU 8, si fa presente che essa risulta a servizio sia della lottizzazione di progetto, sia dell'impianto di macinazione di inerti confinante a Ovest con l'area del comparto.

La prova consente di verificare che la porzione superficiale della sequenza, fino a circa 2,5 metri, è costituita da livelli sabbiosi e sabbioso limosi, con un intervallo argilloso posto a cavallo dei due metri di profondità dal p.c.

Tali livelli, maggiormente permeabili, sono soggetti a rapida saturazione durante gli eventi piovosi, ma non sono collegati con la falda confinata precedentemente descritta.

Per questo motivo, la realizzazione della vasca, che prenderà il posto del macero avrà come principale problematica l'interazione tra le pareti e il fondo scavo e la superficie piezometrica temporanea che si potrebbe formare in occasioni dei principali eventi piovosi. Da questo punto di vista sarà necessario provvedere:

- all'impermeabilizzazione delle pareti e del fondo della vasca, semplicemente mediante miscelazione di argilla e bentonite quest'ultima in percentuale non inferiore a 15% in peso. Alla miscelazione seguirà la fase di costipamento sia delle pareti sia del fondo mediante rullatura, meglio se eseguita in periodo secco. Lo spessore dell'impermeabilizzazione non dovrà essere, anche in questo caso, inferiore a 30 cm,
- la permeabilità del fondo dell'invaso dovrà risultare non superiore a 1×10^{-8} cm/sec.

Seguendo le indicazioni fornite, sarà evitata l'infiltrazione di acque di stoccaggio e acque di falda, che avverrebbe solo nel caso in cui durante i periodi piovosi le acque di infiltrazione saturino i livelli permeabili superficiali della sequenza.

IDROGEOLOGIA DEL COMPARTO CON RIFERIMENTO ALLA TUTELA DELLA FALDA

Per lo studio di progetto, si è ritenuto poco significativo realizzare una carta delle isofreatiche basata sul rilievo delle quote di acqua all'interno delle prove geognostiche eseguite. Per poter avere un quadro sufficientemente esaustivo della variazione di quota della superficie piezometrica nel tempo e della sua geometria sarebbe stato necessario realizzare almeno tre piezometri del tipo Norton a tubo aperto, verificando attraverso letture mensili le quote dell'acqua al loro interno.

Questo tipo di rilievo avrebbe avuto significato prevalentemente di tipo idrogeologico, mentre ai soli fini geotecnici si è ritenuto di poter ricavare le informazioni preliminari necessarie all'edificazione valutando attentamente i risultati della prove CPTU, sia in termini litologici sia in termini di pressioni interstiziali.

I grafici allegati alla relazione consentono di apprezzare che:

- i livelli sabbiosi e sabbioso limosi acquiferi che contengono parte della falda superficiale caratterizzano un po' tutta la sequenza indagata con le prove e con probabilità sono in comunicazione tra loro sia lateralmente che in senso verticale. Difficile tuttavia risulta una loro effettiva correlazione, anche a causa dell'esiguità dello spessore e dell'elevata frequenza nella colonna litologica. Si possono individuare orizzonti omogenei contenenti livelli sabbiosi e limoso sabbiosi decimetrici o centimetrici situati a diverse quote;
- solo il livello più superficiale o parte di esso sono contraddistinti da assenza di acqua che tuttavia in corrispondenza di eventi di pioggia intensi e/o prolungati potrebbe saturare i livelli sabbiosi fino a circa 1,2 metri di profondità dal p.c. per processi di infiltrazione diretta dalla superficie,

- i livelli acquiferi posti tra 9 e 12 metri dal p.c. invece, contengono acqua che risulta essere dotata di leggera pressione (da circa 40 a oltre 200 KN/mq), ad eccezione della CPTU 4. La pressione è legata in parte alla presenza di intervalli decimetrici a tessitura limosa e argillosa che fungono da base e da tetto per i livelli più permeabili, ed in parte alle caratteristiche di filtrazione dell'acqua e dal suo confinamento ad una certa profondità;
- i livelli acquiferi intermedi, caratterizzati da frequenti alternanze decimetriche di sabbie e sabbie limose contengono acqua che risulta essere dotata di leggera pressione (mediamente circa 50 - 80 KN/mq) e solo ove gli stessi risultano localmente confinati entro livelli argillosi (CPTU 8) l'entità della pressione aumenta;
- nelle prove eseguite non è stato ritrovato un vero e proprio livello acquiclude argilloso o limoso argilloso ad eccezione della CPTU 4. Tuttavia si può genericamente affermare che l'orizzonte intermedio, compreso cioè tra 3,5/5 e 8,5/10 metri di profondità, contiene sicuramente una maggior percentuale di livelli a tessitura fine e per questo potrebbe rappresentare a scala locale un livello che rallenta l'infiltrazione dall'alto di acqua verso la falda.

Con riferimento alle litologie prevalenti e all'andamento della pressione dell'acqua nei pori registrata nelle prove CPTU si può evidenziare che:

- al momento del rilievo l'acquifero più "superficiale", deve il suo basso grado di salienza allo scarso apporto di acqua sia per infiltrazione sia per scorrimento ipogeo;
- la quota dell'acqua alla fine delle prove è da mettere in relazione alla pressione che caratterizza i terreni limosi e sabbiosi più profondi (9 - 12 metri dal p.c.) dotati di permeabilità solo discreta, e di una lieve salienza, che permette all'acqua di raggiungere un livello statico di circa 3 - 3,5 metri dal p.c.

I dati commentati vanno riferiti al periodo di misura, che nel complesso è risultato piuttosto secco: le ultime precipitazioni e quindi gli ultimi apporti alla falda erano legati ad eventi di qualche giorno del mese di novembre, che tuttavia seguiva un lungo periodo secco. Per questo motivo, considerando i dati disponibili, si ritiene che la situazione prevedibile durante la stagione umida possa essere estremamente differente da quella descritta: la saturazione dei livelli acquiferi che costituiscono la sequenza potranno determinare, in corrispondenza di piogge prolungate o scioglimento della neve, l'innalzamento della quota piezometrica fino a circa 1 metro dal p.c. Si tenga presente che tutta la sequenza contiene orizzonti centimetrici di sabbie o sabbie limose e che nel caso descritto questi potranno risultare saturi, provocando una interazione tra scavi superficiali e falda.

Tuttavia, si ritiene che la presenza di pozzi di emungimento situati all'interno della zona industriale posta a Sud dell'area di progetto determini un depauperamento della risorsa acqua che si riflette anche sull'abbassamento della superficie piezometrica anche durante i periodi umidi dell'anno. L'effetto, dunque, fa sì che anche in periodi piovosi le variazioni del livello della piezometrica verso l'alto sia di breve durata, in quanto l'acqua comunque tende ad infiltrarsi verso il basso richiamata dalle zone di pompaggio, con una velocità proporzionale alla permeabilità del terreno, che nella zona è piuttosto rilevante.

Come evidenziato in numerosi studi eseguiti nella pianura bolognese, anche per il presente comparto la stagione piovosa, determinerà da un lato l'apporto al secondo acquifero di acque di scorrimento sotterraneo provenienti dalle zone di alimentazione esterne al comparto (nel caso specifico il subalveo del Fiume Savena che scorre a circa un chilometro a Est del lotto) e dall'altro l'infiltrazione di acque meteoriche dalla superficie entro i livelli più permeabili, saturando di fatto tutti i livelli acquiferi individuati dal presente studio. In questo modo le due falde, separate solo localmente dall'acquitrando, risulteranno ovunque in comunicazione e dotate di leggera pressione, tale per cui i due livelli idrostatici coincideranno.

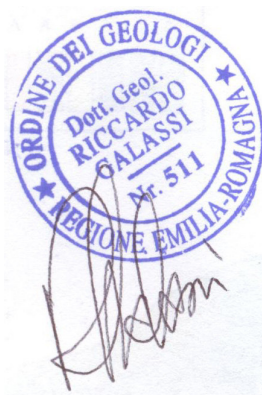
Per quanto detto, dunque, qualora i lavori di realizzazione delle fondazioni o delle urbanizzazioni dovessero essere realizzati nel periodo umido, basterà realizzare semplici drenaggi profondi non più di 1,5 metri per convogliare nel reticolo di scolo superficiale esistente le acque che potenzialmente potrebbero stagnare sul fondo scavo.

Nel caso in cui detti lavori dovessero essere perpetrati durante la stagione secca non dovrebbero invece presentarsi problemi di risalita di acqua dal basso entro lo scavo, anche in caso di acquazzoni intensi, visto che la ricarica dei livelli acquiferi sparsi all'interno della sequenza dovrebbe avvenire più lentamente e per apporti prolungati.

Per quello che riguarda la tutela della falda si può evidenziare che tra la quota di imposta della fondazione (circa 1,5 metri dal p.c.) e il tetto della superficie piezometrica rilevata con le prove si interpone uno spessore di circa 1,5 - 1,8 metri, ma che tale spessore risulta di ben 7,5 metri nel caso in cui si prendano come riferimento i livelli acquiferi più "importanti" posti a circa 9 metri dal p.c. Per questo si ritiene che l'acquitrando compreso tra quota 1,5 metri e 9 metri sia sufficiente a garantire una certa tutela della falda.

S. Lazzaro di Savena, 12/12/2008

Dott. Geol. Riccardo Galassi



NORMATIVA DI RIFERIMENTO

La stesura della seguente relazione è stata eseguita in ottemperanza alle disposizioni contenute nelle normative di riferimento elencate di seguito:

“Norme tecniche riguardanti le indagini sui terreni e sulle rocce, la stabilità dei pendii naturali e delle scarpate, i criteri generali e le prescrizioni per la progettazione, l’esecuzione e il collaudo delle opere di sostegno delle terre e delle opere di fondazioni”. D.M. 11 Marzo 1988;

Istruzioni relative alle “Norme tecniche riguardanti le indagini sui terreni e sulle rocce, la stabilità dei pendii naturali e delle scarpate, i criteri generali e le prescrizioni per la progettazione, l’esecuzione e il collaudo delle opere di sostegno delle terre e delle opere di fondazione”. Circ. Min. LL.PP. n° 30483, 24 Settembre 1988;

AGI: raccomandazioni sulla programmazione ed esecuzione delle indagini geotecniche, Giugno 1977;

AGI: raccomandazioni sulle prove geotecniche di laboratorio, Maggio 1990 (edizione provvisoria);

Eurocodice Ec7 per l’ingegneria geotecnica, Settembre 1988;

ISO 31-11: Quantities and units, Mathematical signs and symbols for use in the physical sciences and technology, 1992;

UNI ISO 2955: Rappresentazione delle unità SI e di altre unità usate nei sistemi con insiemi limitati di caratteri, 1987;

CNR-UNI: norme relative al prelievo di campioni, all’esecuzione di analisi granulometriche, alla determinazione dei limiti di consistenza, alla classificazione di una terra;

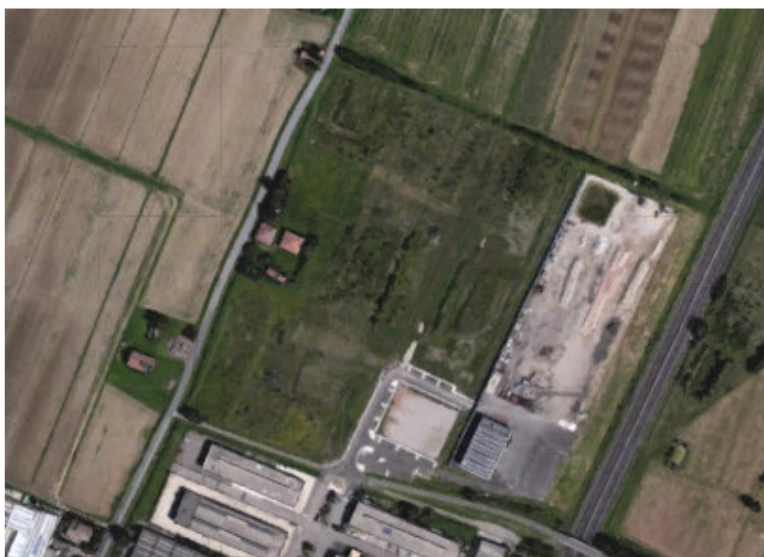
ASTM: norme relative alla descrizione di una terra, all’esecuzione di analisi granulometrica per via umida con sedimentazione ed aerometria, alla esecuzione di prova di compressione monoassiale, alla esecuzione di S.P.T., alla esecuzione di C.P.T.

CITTA' METROPOLITANA DI BOLOGNA

COMUNE DI CASTEL MAGGIORE

**Variante al Piano Particolareggiato di Iniziativa Privata relativo all'Ambito
ASP-BA.1 (ex Comparto D7.3)
Relazione geologica e sismica**

Relazione integrativa



Committenti: Grande Sole srl

Il Professionista incaricato: Dott. Geol. Piero Cavarocchi



RELAZIONE GEOLOGICO – SISMICA

INTEGRAZIONE

PREMESSA

La presente relazione integrativa è stata redatta allo scopo di ottemperare alle richieste di approfondimento degli aspetti sismici dell'area oggetto del Piano Particolareggiato di Iniziativa Privata dell'Ambito ASP-BA.1 (ex D7.3), area sita lungo Via di Saliceto, nel territorio comunale di Castel Maggiore (BO). Tali integrazioni sono state richieste dal Servizio Pianificazione Urbanistica dell'Area Pianificazione Territoriale della Città Metropolitana di Bologna in data 14 marzo 2018 (Fasc. 8.2.2.3/3/2018). In questo documento viene richiesta una caratterizzazione sismica dell'area in base a quanto contenuto nella Delibera Assemblea Legislativa Regione Emilia-Romagna n. 2193 del 21 dicembre 2015.

Nel dicembre 2008 il Dott. Geol. Riccardo Galassi ha redatto la “Relazione geologico-tecnica relativa al Piano Particolareggiato di Iniziativa Privata all'interno della zona omogenea D – Comparto D7.3 su Via Saliceto” che illustrava i risultati di un'apposita campagna di indagini geognostiche atte a ricostruire le caratteristiche litostratigrafiche e geomeccaniche dei terreni presenti all'interno del comparto, affrontando anche gli aspetti sismici.

Da allora, anche a seguito del sisma che ha colpito la Regione nel 2012, lo studio degli effetti legati all'azione sismica ha subito un notevole sviluppo che ha portato ad una valutazione, su diversi livelli di approfondimento, della pericolosità del territorio regionale: questo è stato suddiviso in aree omogenee caratterizzate da potenziali effetti locali (cedimenti, liquefazione, rottura del terreno, ecc..) che si traducono in limiti e condizioni per una corretta pianificazione.

La presente relazione prende spunto dalla zonazione sismica del territorio comunale di Castel Maggiore per proporre un approfondimento di quanto riportato nella relazione del dicembre 2008 in merito agli aspetti sismici dell'area in studio.

CARATTERISTICHE SISMICHE: MODELLO CONCETTUALE

Analisi a scala di area vasta

L'analisi che segue è stata condotta secondo le indicazioni contenute nel DM 14/1/2008 con i relativi allegati e circolari applicative.

In via preliminare si è ritenuto importante evidenziare che in corrispondenza del territorio di Castel Maggiore è presente una struttura sepolta Mio-Pleistocenica che ha un andamento grossomodo W–E, evidenziata nella sottostante figura tratta dalla Carta Sismotettonica della RER a cura di M. Boccaletti e L. Martelli (Servizio Geologico Sismico dei suoli, edizione Selca, 2004).

Principali strutture sismiche attive

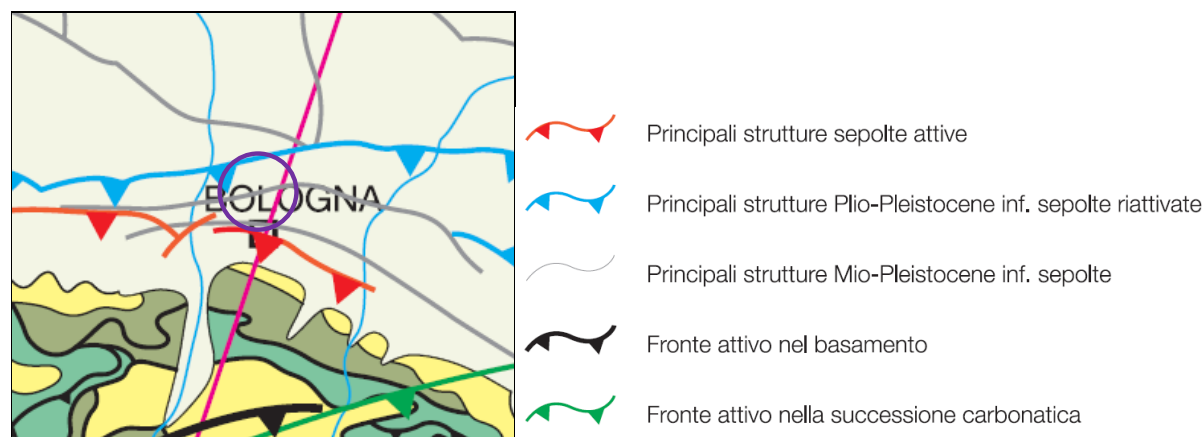


Fig. 1: estratto della Carta Sismotettonica della regione Emilia Romagna

Le sottostanti figure inquadrano la zona di studio all'interno della zonazione sismogenetica ZS9 e sono tratte dall'Appendice 2 al Rapporto conclusivo a Cura di C. Meletti e G. Valensise (Marzo 2004).

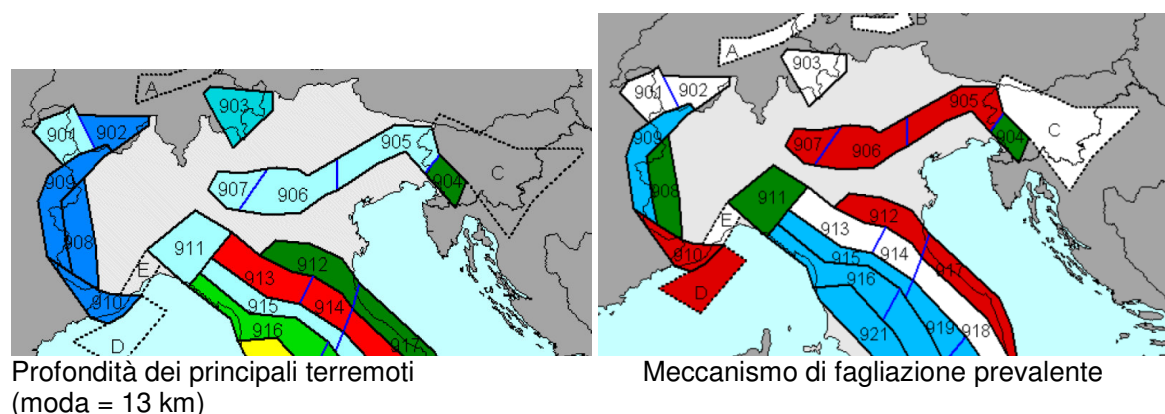


Fig. 2: estratto della zonazione sismo genetica ZS9

Le figure mettono in luce come nella zona sorgente 912, quella in cui ricade il territorio comunale di Castel Maggiore, denominata "Dorsale Ferrarese", sia caratterizzata da eventi aventi le caratteristiche indicate nello specchietto, tratti dall'atlante della sismicità strumentale (1983 – 2002) dell'INGV e rielaborati statisticamente per la definizione delle caratteristiche sismogenetiche. La zona sorgente 912 appartiene alla porzione di esterna della fascia di compressione dell'Appennino settentrionale, caratterizzata da meccanismi di fagliazione inversa prevalente, e regime tettonico debolmente compressivo

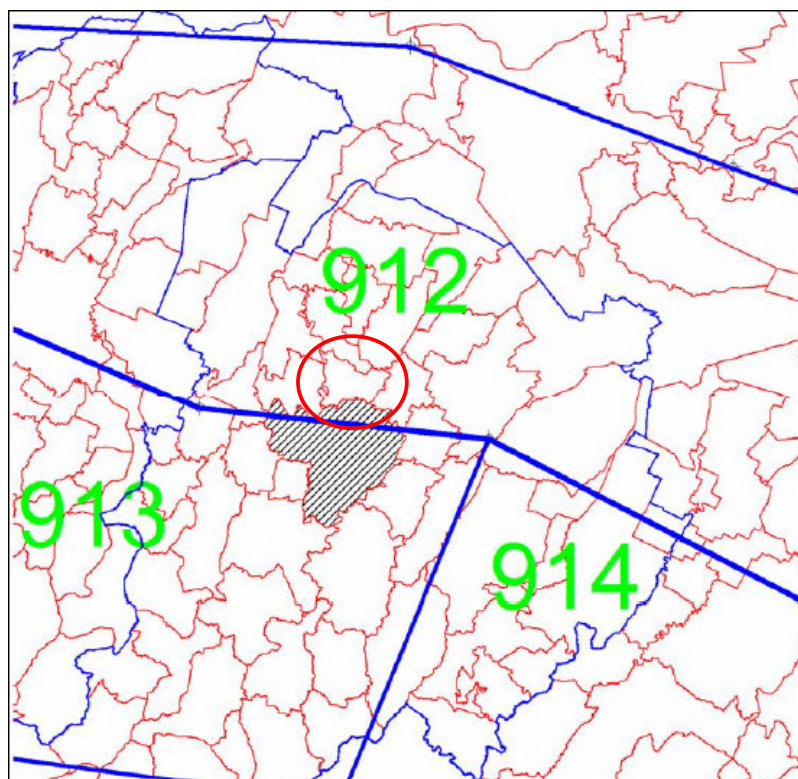


Fig. 3: dettaglio della zonizzazione sismogenetica del territorio comunale di Castel Maggiore

La tabella seguente riporta alcuni parametri sismici relativi alle zone sismogenetiche più vicine all'area di studio.

1	2	3	4	5	6	7	8	9	10
nome ZS	N ZS	DISS2 MwMax	CPTI2 MwMax	CPTI2 MwMax (classe)	CPTI2 completo 04.2	Az1	Mw Max1	Az2	Mw Max2
Dorsale Ferrarese	912	6.2	5.88	5.91	5.91	G	6.14	G	6.14
Appennino Emiliano-Romagn.	913		5.85	5.91	5.91		5.91	+1(d)	6.14
Forlivese	914		5.97	5.91	5.91		5.91	+1(d)	6.14

I dati caratteristici della sismicità hanno consentito di classificare secondo i criteri della vecchia normativa l'intero territorio nazionale: il comune di Castel Maggiore, e dunque il lotto di progetto ricade in zona sismica 3, caratterizzata da un rapporto $A/g = 0,15$ (sismicità bassa).

Pericolosità sismica

La pericolosità e il rischio sismico del territorio nazionale sono stati affrontati dal Servizio Sismico Nazionale (SSN), utilizzando il calcolo probabilistico di Cornell, risalente alla fine degli anni '60, in grado di considerare tutte le possibili sorgenti influenzanti il moto del terremoto.

Il Servizio Sismico Nazionale, per tutto il territorio nazionale, ha elaborato la pericolosità sismica di base di cui al DM 14.1.2008 che rappresenta l'elemento di conoscenza primario per la determinazione delle azioni sismiche.

La pericolosità sismica di base è definita in termini di accelerazione orizzontale massima attesa a_g in condizioni di campo libero su sito di riferimento rigido con superficie topografica orizzontale (categoria A), nonché di ordinate dello spettro di risposta elastico in accelerazione ad essa corrispondente $S_e(T)$, con riferimento a prefissate probabilità di eccedenza PVR, nel periodo di riferimento VR.

Le forme spettrali sono definite, per ciascuna delle probabilità di superamento nel periodo di

riferimento PVR, a partire dai valori dei seguenti parametri su sito di riferimento rigido orizzontale:

- ag accelerazione orizzontale massima al sito;
- Fo valore massimo del fattore di amplificazione dello spettro in accelerazione orizzontale.
- T*C periodo di inizio del tratto a velocità costante dello spettro in accelerazione orizzontale.

Le stazioni di riferimento che quantificano la pericolosità sismica di base per il territorio comunale di Castel Maggiore consentono di verificare che il territorio comunale presenta i seguenti dati di pericolosità (Figura 4):

- accelerazione di picco per suoli di tipo A con una probabilità di superamento del 10% in 50 anni per un periodo di ritorno di 475 anni. $PGA = 0,150 - 0,175$;

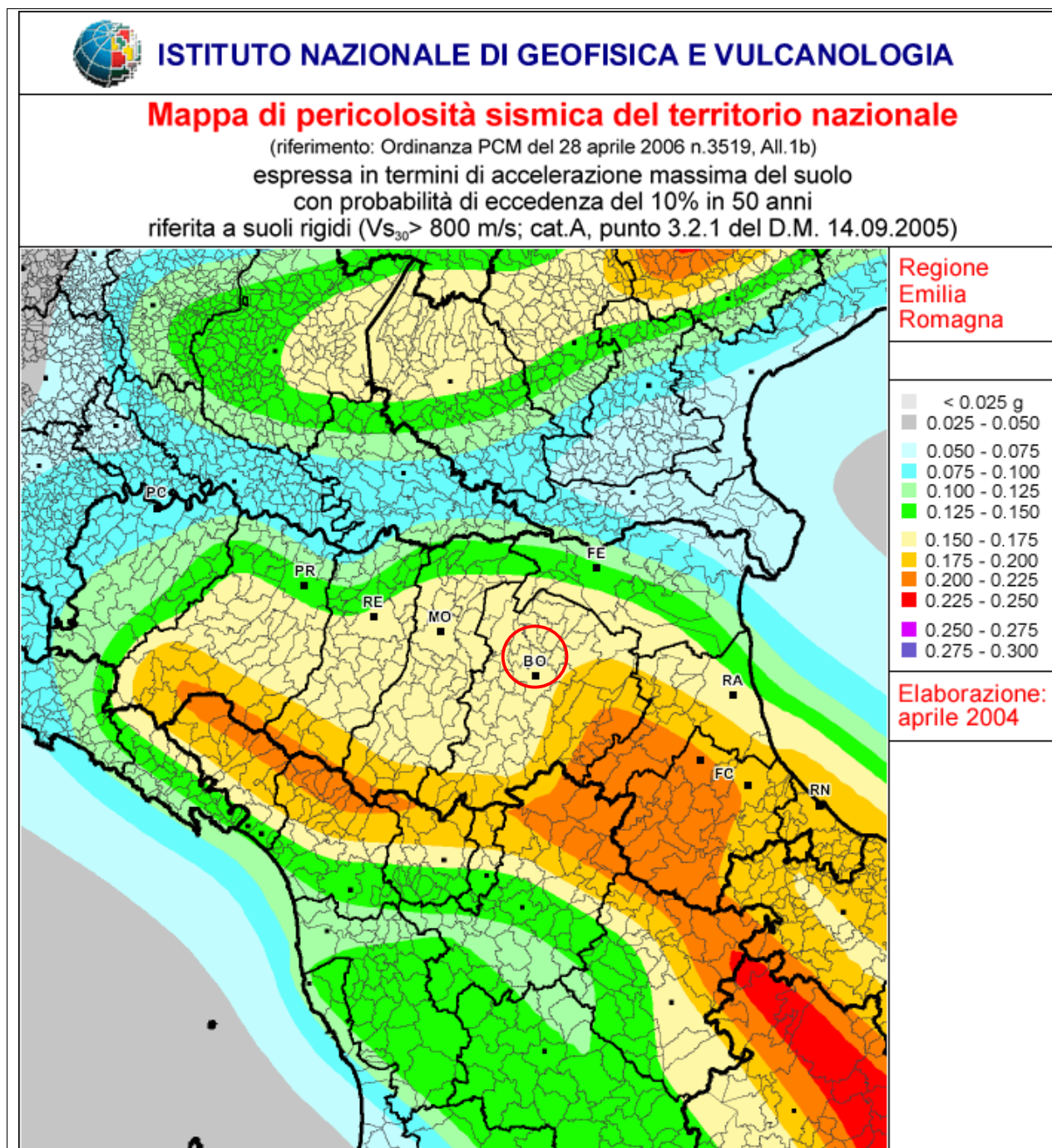


Fig. 4: pericolosità sismica prevista dall'Ordinanza PCM 3519 del 28 aprile 2006; dal sito INGV

Gli elementi di amplificazione sismica validi per il territorio comunale sono in seguito riassunti (Fig. 5):

- Sovrascorrimenti sepolti. Sono stati rappresentati i principali limiti tettonici in quanto è possibile che questi mettano a contatto litologie con caratteristiche meccaniche molto diverse e che, all'intorno di questi contatti, si possano verificare, oltre all'amplificazione, anche cedimenti differenziali. Nelle aree poste in corrispondenza di questi contatti devono essere verificate le caratteristiche meccaniche dei terreni ed eventualmente valutati il coefficiente di amplificazione litologico e i cedimenti.
- Depositi prevalentemente argillosi e limosi. Le aree ricadenti in questa classe sono potenzialmente soggette ad amplificazione caratteristiche stratigrafiche e quindi dovrà essere valutato il coefficiente di amplificazione litologico. Talora, i terreni prevalentemente argillosi possono presentare caratteristiche meccaniche scadenti ed essere soggetti a cedimenti in caso di forti scosse. In caso di caratteristiche meccaniche scadenti dovranno essere stimati anche i potenziali cedimenti.
- Depositi prevalentemente sabbiosi. La presenza di sabbie, soprattutto se incoerenti e ben classate, nei primi 20 m dal p.c., con falda acquifera a profondità minore di 15 m dal p.c., favorisce il verificarsi del fenomeno della liquefazione in caso di forti scosse sismiche (magnitudo > 5). In queste zone, pertanto, devono essere valutati, oltre a coefficiente di amplificazione litologico, anche il potenziale di liquefazione e gli eventuali cedimenti.

La Figura 5 mette in evidenza come l'isobata della base del Pliocene si trovi ad una profondità di circa 7500 metri e la presenza di una serie di sovrascorrimenti profondi nei dintorni dell'area di studio.

Principali strutture sismiche attive



Fig. 5: caratteristiche delle principali strutture attive della zona di Castel Maggiore (da Carta Geologia della Regione Emilia Romagna, on line)

L'analisi che segue è stata condotta secondo le indicazioni contenute nel DM 14/1/2008 con i relativi allegati e circolari applicative.

ANALISI SISMICA STORICA

La seguente figura 6 con la relativa tabella mostrano i principali terremoti registrati a Castel Maggiore con I_s superiore a 5.

Castel Maggiore

PlaceID IT_39511
 Coordinate (lat, lon) 44.575, 11.363
 Comune (ISTAT 2015) Castel Maggiore
 Provincia Bologna
 Regione Emilia-Romagna
 Numero di eventi riportati 20

Effetti	In occasione del terremoto del									
Int.	Anno	Me	Gi	Ho	Mi	Se	Area epicentrale	NMDP	Io	Mw
4	1889	03	08	02	57	0	Bolognese	38	5	4.53
NF	1898	01	16	13	10		Romagna settentrionale	110	6	4.59
NF	1908	06	02	22	30		Frignano	18	4-5	4.50
5	1909	01	13	00	45		Emilia Romagna orientale	867	6-7	5.36
5	1929	04	20	01	10		Bolognese	109	7	5.36
NF	1956	04	26	03	00	0	Appennino bolognese	89	6	4.74
NF	1965	11	09	15	35		Appennino reggiano	32	5	4.17
3	1971	07	15	01	33	2	Parmense	228	8	5.51
4	1983	11	09	16	29	5	Parmense	850	6-7	5.04
NF	1986	12	06	17	07	1	Ferrarese	604	6	4.43
3-4	1987	05	02	20	43	5	Reggiano	802	6	4.71
3-4	1989	09	13	21	54	0	Prealpi Vicentine	779	6-7	4.85
NF	1992	04	17	11	59	0	Appennino bolognese	56	4-5	4.11
NF	2000	05	06	22	07	0	Faentino	85	5	4.08
NF	2000	05	08	12	29	5	Faentino	126	5	4.67
NF	2000	05	10	16	52	1	Faentino	151	5-6	4.82
3	2000	06	18	07	42	0	Pianura emiliana	304	5-6	4.40
NF	2002	06	18	22	23	3	Frignano	186	4	4.30
5	2003	09	14	21	42	5	Appennino bolognese	133	6	5.24
3	2005	07	15	15	17	1	Forlivese	173	4-5	4.29

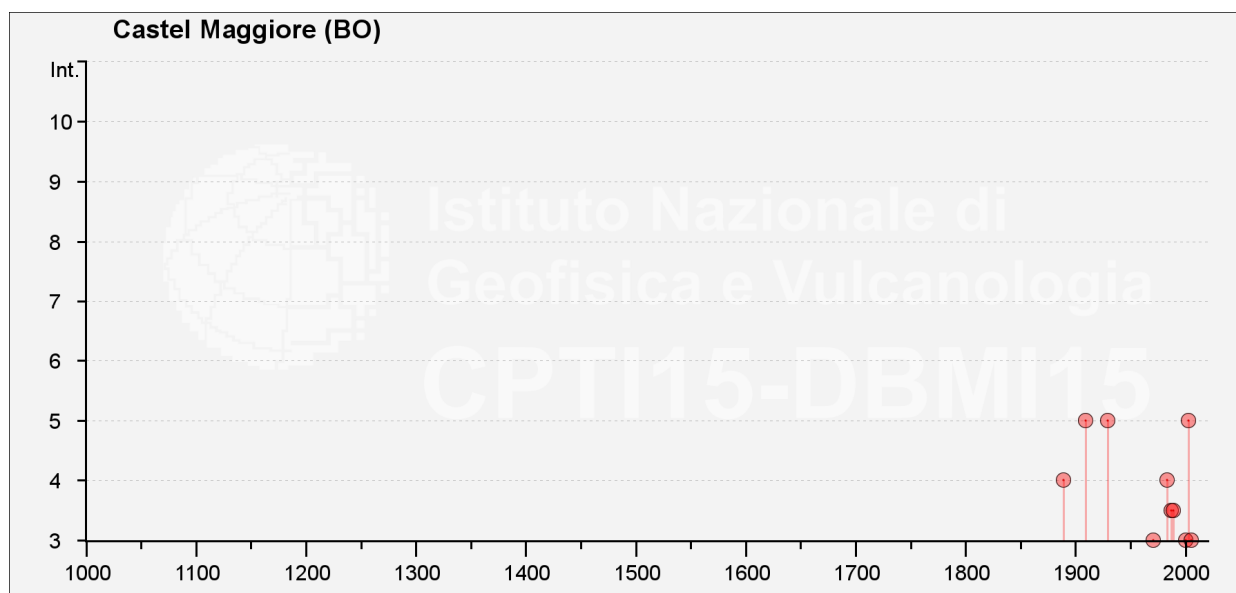


Fig.6 L'esame congiunto della tabella e della figura consente di apprezzare una serie di eventi in cui sono stati registrati superamenti della magnitudo 5

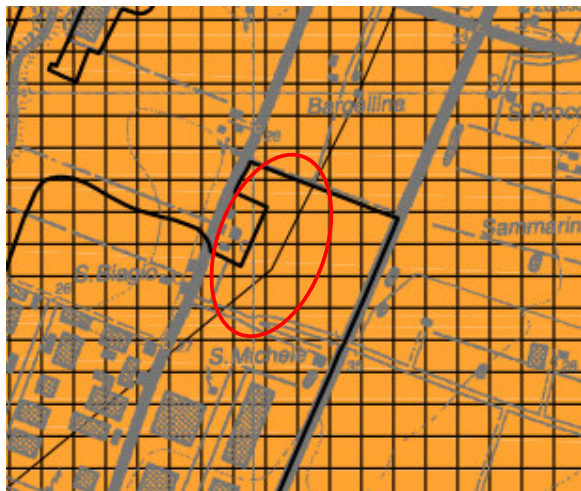
ANALISI A SCALA LOCALE

Lo strumento di pianificazione comunale che analizza gli aspetti del territorio legati alle caratteristiche sismiche è il PSC. Nel documento di aggiornamento dell'ottobre 2013 si fa riferimento a due norme ed indirizzi sovra comunali di riferimento per l'approccio alla problematica della pericolosità sismica: la Delibera dell'Assemblea Legislativa della Regione Emilia Romagna n. 112 del 2 maggio 2007 ("Indirizzi per gli studi di microzonazione sismica") e la Variante al Piano Territoriale di Coordinamento Provinciale (PTCP) in materia sismica (in particolare alla Tavola 2C - "Rischio sismico: carta delle aree suscettibili di effetti locali per l'intero territorio provinciale" e alle relative Norme Attuative).

A livello comunale le norme del PSC fanno riferimento ad uno studio di microzonazione sismica prodotto per soddisfare le richieste delle suddette norme regionali/provinciali: questo documento è costituito da una relazione di Microzonazione Sismica e da numerosi elaborati cartografici che vengono di seguito riportati nel dettaglio dell'area in studio:

- "Tavola A – Zonizzazione Sismica". Questo elaborato costituisce una revisione e rielaborazione degli esiti dell'approfondimento di I° livello eseguito negli anni precedenti dai Comuni dell'Unione Reno-Galliera e dello studio sismico contenuto nella Variante al PTCP del 2013;
- "Tavola 1 – Pericolosità Sismica – Tavola comunale delle aree suscettibili di effetti locali". Questo elaborato recepisce quanto richiesto dalla DAL n° 112/2017 in materia di approfondimenti di pericolosità sismica concernenti la propensione alla liquefazione;
- "Tavola 2 – Microzonazione Sismica semplificata". Questo elaborato rappresenta la sintesi degli approfondimenti di II° livello (risposta sismica semplificata), trasportati alla scala grafica di maggior dettaglio (1: 5000), così come richiesto dalla DAL n° 112/2017.

Di seguito vengono riportati gli estratti dalle succitate carte allegate al PSC.



MACRO AREE DEL I LIVELLO DI APPROFONDIMENTO

Variante al PTCP (Tav. 2.c - Rischio Sismico)



L1- AREA SOGGETTA AD AMPLIFICAZIONE PER CARATTERISTICHE LITOLOGICHE E POTENZIALE PRESENZA DI TERRENI PREDISPONENTI LA LIQUEFAZIONE (Sabbie prevalenti potenziali)



R- AREE INCOERENTI/INCERTE PER CARATTERISTICHE LITOLOGICHE E MORFOLOGICHE (Aree di cava, discariche e depositi terre di scavo)



C- AREA SOGGETTA AD AMPLIFICAZIONE PER CARATTERISTICHE LITOLOGICHE E A POTENZIALI CEDIMENTI (Limi e argille)



A- AREA POTENZIALMENTE SOGGETTA AD AMPLIFICAZIONE PER CARATTERISTICHE LITOLOGICHE

PSC Associato Reno Galliera (Rielaborazione Macro-zonizzazione Sismica)



AREE CARATTERIZZATE DA PROPENSIONE ALLA LIQUEFAZIONE/ADDENSAMENTO

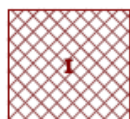
Fig.7 estratto dalla Tavola A del PSC di Castel Maggiore – Zonizzazione Sismica e relativa legenda

La cartografia mostra come l'area in esame sia inserita all'interno dell'ampia zona definita come soggetta ad amplificazione per caratteristiche litologiche e potenziale presenza di terreni predisponenti la liquefazione. In queste aree, secondo la rielaborazione sismica del PSC, esiste una propensione alla liquefazione/addensamento.

**APPROFONDIMENTI SULLE AREE SUSCETTIBILI DI EFFETTI LOCALI:
AREE OMOGENEE DI PERICOLOSITA' SISMICA**



C = POSSIBILITA' DI AMPLIFICAZIONE STRATIGRAFICA E DI CEDIMENTI POST SISMA
[equivalente a C (PTCP) = Area soggetta ad amplificazione per caratteristiche litologiche e a potenziali cedimenti]



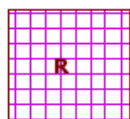
ZONA I (PSC) = POSSIBILITA' DI LIQUEFAZIONE E DI CEDIMENTI SIGNIFICATIVI
[equivalente a L2 (PTCP) = Area soggetta ad amplificazione per caratteristiche litologiche e a potenziale liquefazione - Sabbie prevalenti certe]



ZONA II (PSC) = POSSIBILITA' DI LIQUEFAZIONE CON CEDIMENTI, TESSITURE E SPESSORE DA CONTROLLARE
[equivalente a L2 (PTCP) = Area soggetta ad amplificazione per caratteristiche litologiche e a potenziale liquefazione - Sabbie prevalenti certe]



ZONA III (PSC) = LIQUEFAZIONE POCO PROBABILE DA VERIFICARE
[equivalente a L1 (PTCP) = Area soggetta ad amplificazione e potenziale presenza di terreni predisponenti la liquefazione - Sabbie prevalenti potenziali]



ZONA R (PSC) = AREE DI CAVA; DISCARICHE E DEPOSITI TERRE DI SCAVO
[equivalente a R (PTCP) = Aree incoerenti/incerte per caratteristiche litologiche e morfologiche]

**ZONE OMOGENEE: SINTESI DEI LIVELLI DI APPROFONDIMENTO DA ESPLETARE
(DAL 112/2007):**



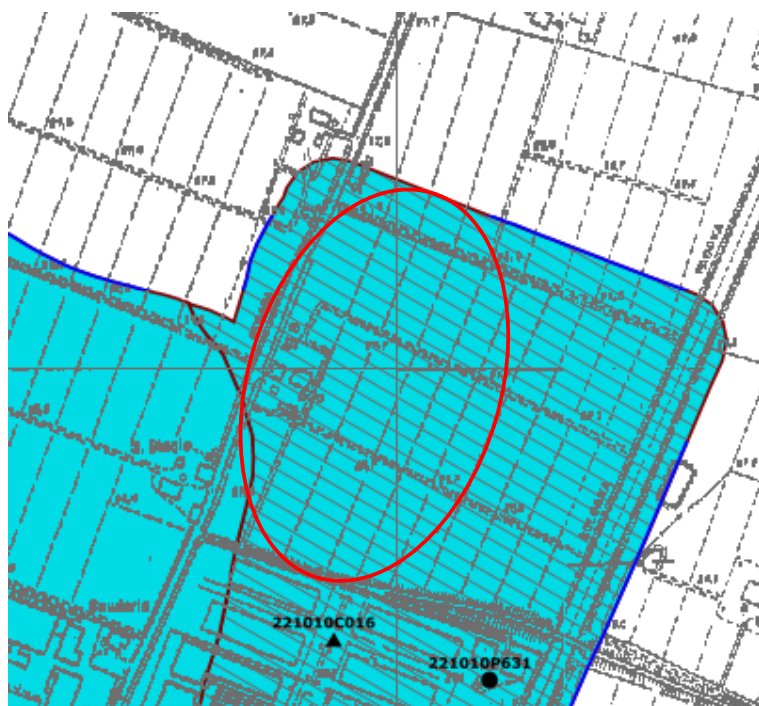
Aree che necessitano dell'analisi semplificata (secondo livello)



Aree che richiedono analisi approfondite (terzo livello)

Fig.8 estratto dalla Tavola 1 del PSC di Castel Maggiore – Pericolosità Sismica – Tavola comunale delle aree suscettibili di effetti locali e relativa legenda

La cartografia mostra come l'area in esame sia inserita all'interno del paleo alveo del Torrente Savena, in una zona che richiede un approfondimento di III° livello ed un potenziale di liquefazione da verificare seppur considerato poco probabile (ZONA III PSC).



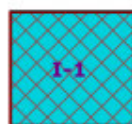
MICROZONAZIONE SEMPLIFICATA: ZONE OMOGENEE



CONTESTO= "PIANURA 1" [VS30 = 200 m/s]
 AMPLIFICAZIONE = FA (Pga) = 1.7
 FA SI (0.1s-0.5s) = 1.9
 FA SI (0.5s-1s) = 2.6
 LIQUEFAZIONE = NON RISCONTRATA



CONTESTO= "PIANURA 1" [VS30 = 200 m/s]
 AMPLIFICAZIONE = FA (Pga) = 1.7
 FA SI (0.1s-0.5s) = 1.9
 FA SI (0.5s-1s) = 2.6
 LIQUEFAZIONE = POSSIBILITA' DI LIQUEFAZIONE POCO PROBABILE DA VERIFICARE
 (RICHIESTI APPROFONDIMENTI DI III LIVELLO)



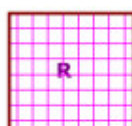
CONTESTO= "PIANURA 1" [VS30 = 200 m/s]
 AMPLIFICAZIONE = FA (Pga) = 1.7
 FA SI (0.1s-0.5s) = 1.9
 FA SI (0.5s-1s) = 2.6
 LIQUEFAZIONE = POSSIBILITA' DI LIQUEFAZIONE E DI CEDIMENTI SIGNIFICATIVI
 (RICHIESTI APPROFONDIMENTI DI III LIVELLO)



CONTESTO= "PIANURA 1" [VS30 = 300 m/s]
 AMPLIFICAZIONE = FA (Pga) = 1.6
 FA SI (0.1s-0.5s) = 1.8
 FA SI (0.5s-1s) = 2.4
 LIQUEFAZIONE = POSSIBILITA' DI LIQUEFAZIONE POCO PROBABILE DA VERIFICARE
 (RICHIESTI APPROFONDIMENTI DI III LIVELLO)



CONTESTO= "PIANURA 1" [VS30 = 300 m/s]
 AMPLIFICAZIONE = FA (Pga) = 1.6
 FA SI (0.1s-0.5s) = 1.8
 FA SI (0.5s-1s) = 2.4
 LIQUEFAZIONE = POSSIBILITA' DI LIQUEFAZIONE CON CEDIMENTI, TESSITURE
 E SPESSORI DA CONTROLLARE
 (RICHIESTI APPROFONDIMENTI DI III LIVELLO)



ZONA R = AREE DI CAVA; DISCARICHE E DEPOSITI TERRE DI SCAVO
 (RICHIESTI APPROFONDIMENTI DI III LIVELLO)

Fig.9 estratto dalla Tavola 2 del PSC di Castel Maggiore – Microzonazione Sismica semplificata e relativa legenda

La cartografia mostra come l'area in esame sia inserita all'interno della zona III- 1 descritta come contesto omogeneo "Pianura 1", con valore del parametro V_{s30} previsto pari a circa 200 m/sec e con una bassa probabilità di liquefazione (comunque da verificare). Viene confermato l'obbligo di procedere ad un approfondimento di III° livello.

Vengono inoltre indicati i valori di alcuni parametri sismici (amplificazione) che sono riportati di seguito.

Fattori di amplificazione locale semplificata

FA (PGA) = 1,7

FA SI (0,1s÷0,5 s) = 1,9

FA SI (0,5s÷1,0 s) = 2,6

Nel capitolo 6 dell'aggiornamento al PSC dell'ottobre 2013 ("Pericolosità e Microzonazione Sismica"), capitolo dedicato ai criteri applicativi degli approfondimenti richiesti in materia sismica, si rimanda ad un'appendice del RUE che avrebbe dovuto esplicitare tali criteri da seguire nelle successive fasi di pianificazione con l'intento di contribuire alla progressiva riduzione della vulnerabilità sismica dei fabbricati.

Tale appendice è stata inserita nel documento di aggiornamento del RUE comunale datato marzo 2018: in esso sono indicati i criteri da utilizzare per le verifiche sismiche di III° livello, in particolare per quanto riguarda la verifica quantitativa della liquefacibilità e dei cedimenti post sisma.

Per procedere a tali verifiche vengono indicate le metodologie per calcolare i due parametri principali da utilizzare per le verifiche ed i calcoli di cui sopra: la magnitudo di riferimento e l'accelerazione massima orizzontale al suolo.

Per quanto riguarda la magnitudo di riferimento, il documento specifica che nella scelta di questo parametro si deve considerare la Macrozonazione Sismogenetica più aggiornata (ZS9) prodotta nel 2004 dall'Istituto Nazionale di Geofisica e Vulcanologia (INGV) ed alle relative sorgenti sismogenetiche indicate nel database più recente (DISS 3.1). (si veda la Fig. 10)

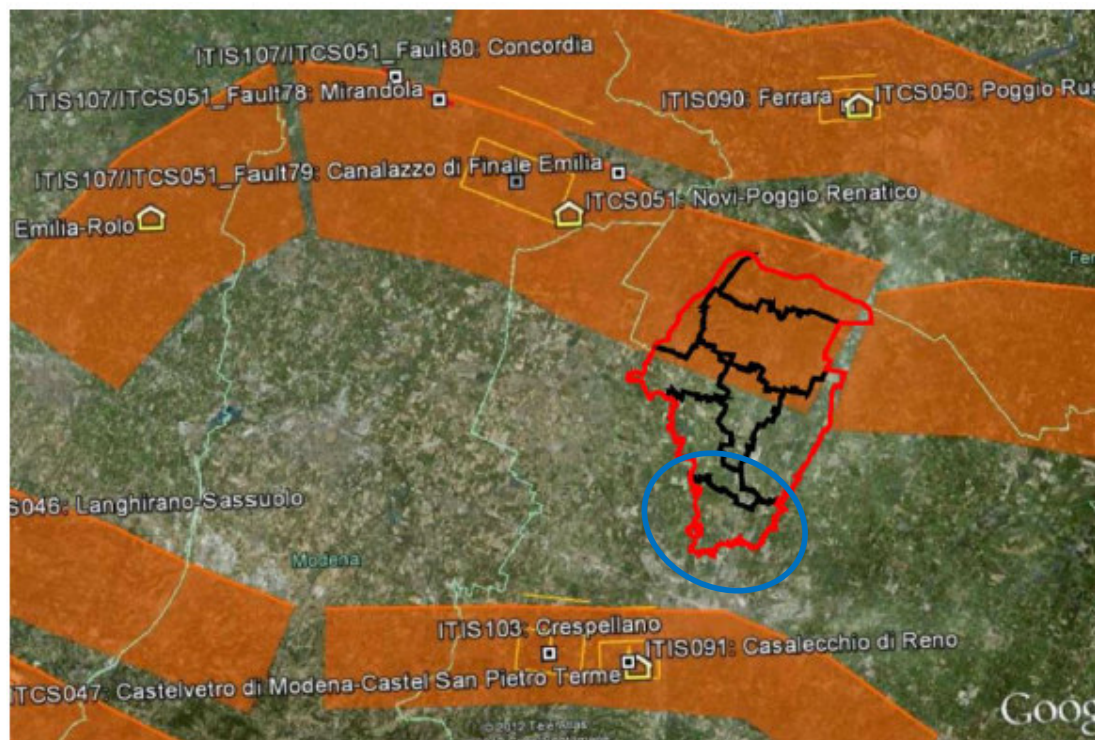


Fig.10 - distribuzione delle sorgenti sismogenetiche nel territorio di pianura delle Province di Bologna, Modena e Ferrara con l'indicazione dell'estensione dell'Unione Reno-Galliera. Nell'ovale blu è evidenziato il territorio comunale di Castel Maggiore.

Da questa carta si evidenzia come il Comune di Castel Maggiore si estende in una porzione di territorio compresa tra la zona sismogenetica ITCS051 "Novi-Poggio Renatico" a nord (alla quale

viene attribuita una magnitudo massima $M_w=5,9$) e la ITCS047 “Castelvetro di Modena-Castel San Pietro Terme” a sud (alla quale viene attribuita una magnitudo massima $M_w=5,6$).

Il documento del RUE specifica che nelle verifiche più speditive della liquefacibilità e dei cedimenti post sismici per il territorio di Castel Maggiore (valide per finalità di pianificazione) si dovrà indicare un valore di magnitudo di riferimento $\geq 5,6$; per quanto riguarda invece analisi relative a progetti di particolare impegno o per manufatti di rilevanza “strategica” viene consigliato riferirsi a quanto indicato nelle Linee Guida del gruppo di lavoro MS 2008, ovvero assumere la magnitudo attribuita dalla zonazione sismogenica ZS9 e cioè $M_w=6,14$.

Nel presente documento la valutazione della liquefacibilità e dei cedimenti post sisma è stata eseguita utilizzando il valore cautelativo di magnitudo di riferimento $M_w=6,14$.

Per quanto riguarda la scelta del valore dell'accelerazione massima orizzontale al suolo, questo deve essere calcolato partendo dal valore della a_{ref} attribuita al Comune di Castel Maggiore dalla DAL n° 112/2007: questo valore è pari a 0,166g. Questo valore deve essere moltiplicato per il Fattore di Amplificazione FA (Pga) caratteristico dell'area di studio: tale dato viene riportato nella “Tavola 2 – Microzonazione Sismica semplificata” nella versione aggiornata dell'ottobre 2013 (nel caso in esame questo valore è 1,7). Da questa operazione si ricava il valore dell'accelerazione massima orizzontale al suolo che è risultata pari a 0,28.

Viene inoltre specificato che “per le verifiche quantitative della liquefazione basate sul coefficiente di sicurezza $FS=CRR/CSR$ da penetrometrie, non è corretto basarsi su esiti di prove statiche a punta meccanica CPT, ma devono essere utilizzati dati da prove CPTU/CPTU”. Viene inoltre specificato che tali prove penetrometriche dovranno indagare il substrato per una profondità di almeno 20 metri.

Per ottemperare a questa prescrizione, in considerazione del fatto che nella relazione del 2008 erano stati presentati dati ricavati da un'apposita indagine geognostica basata sull'esecuzione di CPT o di CPTU spinte alla profondità massima di 12 metri, si è proceduto ad una integrazione della campagna geognostica che di seguito viene descritta.

INDAGINI IN SITU

Data del rilievo: aprile 2018

Tipo di rilievo effettuato: geognostico, idrogeologico e geofisico

Tipologia di prove geognostiche eseguite: n° 3 CPTU (prove penetrometriche statiche con punta elettrica e piezocono avente angolo di apertura di 60°), spinte a circa 20 metri di profondità dal p.c. ed effettuate in conformità agli standard di riferimento ISSFME (1988) come risulta dall'allegato al presente documento.

Esecuzione di n° 1 linea sismica mediante metodo MASW, per la ricostruzione delle caratteristiche sismiche dei primi 30 metri di sequenza deposizionale al di sotto della ipotetica quota della fondazione dei fabbricati previsti nel Piano Particolareggiato.

Prove CPTU: prova penetrometrica statica con punta elettrica e piezocono

La prova con piezocono (CPTU) è l'evoluzione della prova penetrometrica statica con punta meccanica (CPT).

I valori di resistenza del terreno vengono rilevati con degli estensimetri posti direttamente all'interno della punta. Questi estensimetri, con deformazioni meno che millimetriche dei componenti della punta (cono e manicotto), producono dei segnali elettrici proporzionali alle variazioni di carico e quindi alle componenti di resistenza del terreno.

I segnali elettrici (analogici) vengono digitalizzati con convertitori direttamente posti all'interno della punta (nel caso ormai più frequente di “digital cone”) e vengono memorizzati in un circuito interno. I segnali digitalizzati possono essere inviati direttamente in superficie dove è presente (oltre al circuito di sincronizzazione della profondità) una apposita “centralina” con funzioni di memorizzazione, stampante, salvataggio dati su dischetto ed eventuale trasmissione a PC.

I vantaggi rispetto alla prova statica con punta meccanica CPT sono in sintesi:

- 1) Precisione e linearità della lettura: normalmente la CPTU relativamente alla resistenza di punta ha un fondo scala di 0.01 Mpa (invece di 0.1 Mpa della punta meccanica) a parità di fondo scala (f.s.50 Mpa). Amplificando il segnale e riducendo il fondo scala è possibile arrivare ad un valore minimo rilevabile di 0.001 Mpa (f.s.20 Mpa). L'aumento di sensibilità è

indispensabile nel rilievo dei valori di resistenza di materiali molto soffici (sedimenti di fondo dei canali o rii, torbe, sabbie o limi molto sciolti, ecc.). La linearità è una caratteristica molto importante in quanto garantisce che i valori letti siano quelli reali in tutto il "range" di misura dello strumento. La linearità nella strumentazione impiegata (CPTU) è garantita dall'elettronica, mentre nella prova meccanica sono probabili starature nei valori estremi (in particolare i valori bassi, di fondamentale importanza geotecnica)

- 2) Rilievo dei valori ogni 1 cm, invece dei 20 cm della prova CPT,
- 3) Piezocono CPTU: Rilievo dei valori di sovrappressione U durante l'infissione. L'infissione della punta, in caso di terreno saturo, produce una variazione della pressione neutrale (U) inversamente proporzionale alla permeabilità. Nel piezocono ciò significa che se la punta durante l'avanzamento incontra uno strato di argilla, la U (ovvero la variazione di pressione neutra durante l'infissione) assume valori elevati, generalmente inversamente proporzionali alla permeabilità K del materiale attraversato. Quando la punta incontra uno strato di sabbia, dopo poco la U si dispone su una linea che approssima l'idrostatica. A tale proposito, nella elaborazione delle prove CPTU, si prende come U di riferimento una linea idrostatica che parte dal livello della prima falda freatica e prosegue linearmente;

Il rilievo della U in fase di avanzamento permette quindi di ottenere una classificazione del terreno molto più accurata rispetto ad altre prove. Dato che il valore della U dipende anche dalle caratteristiche di consolidazione del terreno, in termini di storia tensionale, il confronto fra diversi parametri o combinazioni dei tre parametri rilevati (Q_c, F_s, U) permette anche una classificazione del terreno in questo senso.

Il filtro, utilizzato nell'esecuzione di una CPTU può essere di metallo sinterizzato (una particolare tecnica di realizzazione di filtri in metallo) o può essere semplicemente una apertura (fessura) che connette la parete esterna della punta con la camera di misura del pressostato.

Il filtro deve essere saturato prima di ogni prova CPTU; nei piezoconi di ultima generazione, quali quello usato, la saturazione avviene con olio di silicone. Ciò permette l'impiego del piezocono anche in tratti non saturi senza per questo perdere la saturazione e senza l'impiego di artifici per non perdere la saturazione se fatta con acqua.

La Fig. sottostante indica l'ubicazione delle prove su foto aerea.

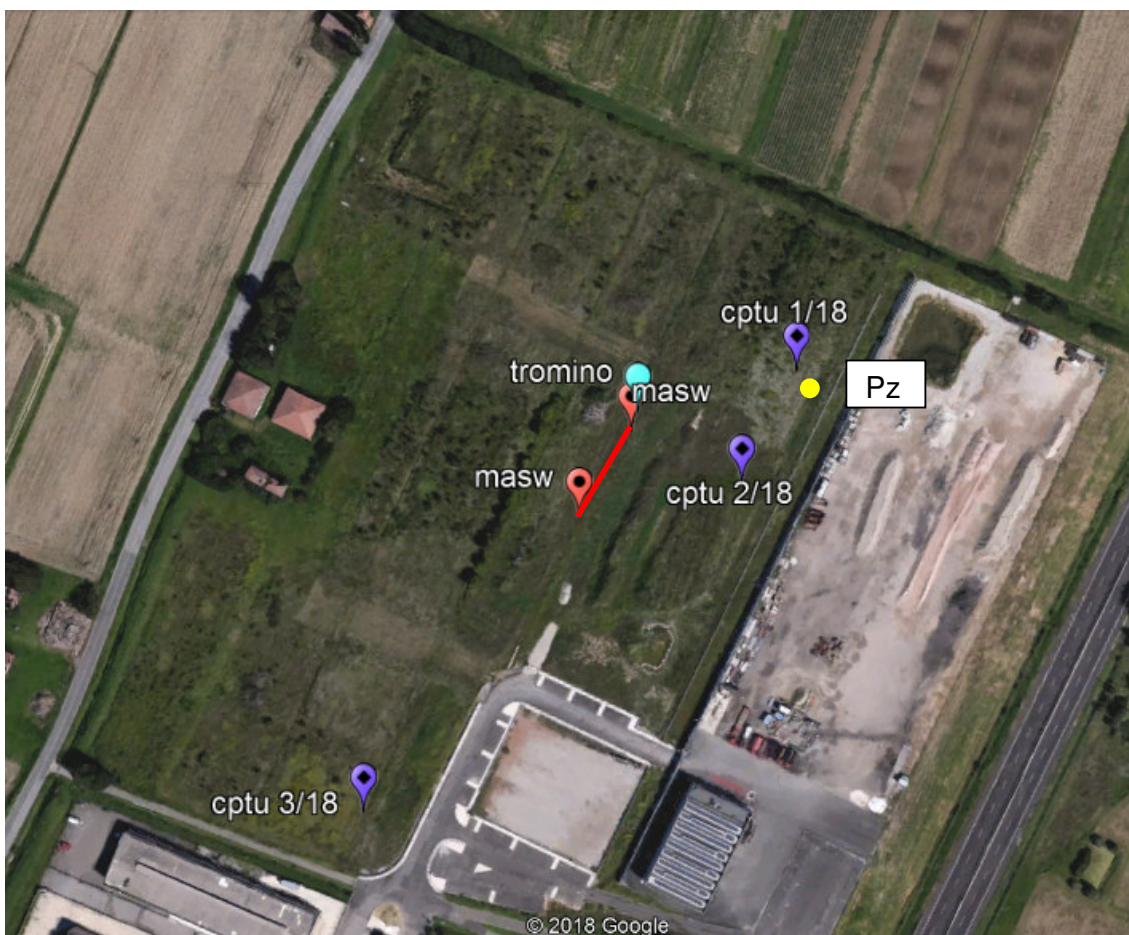


Fig. 11: Ubicazione delle prove eseguite su foto aerea. In rosso è indicata la traccia della MASW. Il cerchio giallo mostra l'ubicazione del piezometro

La documentazione fotografica seguente è stata ripresa nel corso dell'esecuzione delle indagini geognostiche.



CPTU1/18



CPTU2/18



CPTU3/18

RISULTATI DELL'INDAGINE GEOGNOSTICA

Caratteristiche geologiche: è stata riconosciuta una sequenza litologica parzialmente omogenea riconducibile ad un sistema di pianura alluvionale caratterizzata da energia da media a bassa.

Le colonne litologiche che sintetizzano gli esiti delle rispettive prove eseguite sono schematicamente riportate nelle seguenti tabelle, ove sono distinti i principali intervalli ricostruiti sulla base dell'interpretazione messa a punto da Robertson (1990 – si veda il diagramma di figura 12).

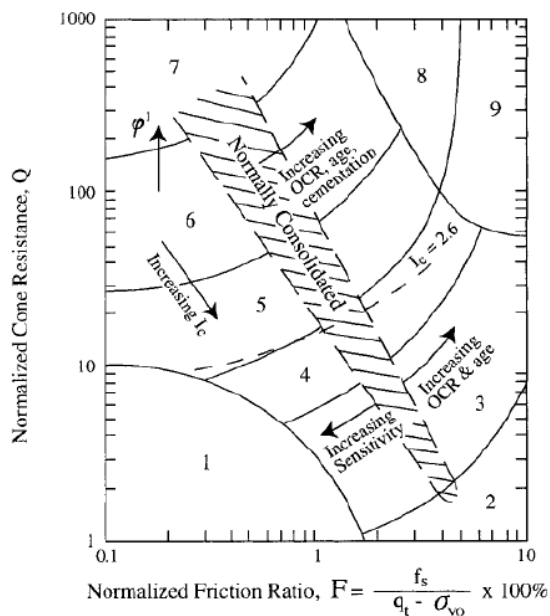


Fig. 12: Diagramma di Robertson (1990)

CPT U1

Profondità	Litologia
0,00 – 0,32	Argille limose e sabbiose
0,32 – 0,86	Argilla inorganica di media consistenza
0,86 – 3,62	Argille sabbiose e limose
3,62 – 9,02	Argilla inorganica di media consistenza
9,02 – 10,00	Limi argillosi e argille limose

10,00 – 11,38	Argilla inorganica di media consistenza
11,38 – 11,88	Limi argillosi e argille limose
11,88 – 13,96	Argilla inorganica di media consistenza
13,96 – 14,38	Limi argillosi e argille limose
14,38 – 15,46	Argilla inorganica di media consistenza
15,46 – 16,86	Argille sabbiose e limose
16,86 – 18,44	Argilla inorganica di media consistenza
18,44 – 19,04	Argille sabbiose e limose
19,04 – 19,40	Sabbie addensate o cementate

Quote espresse in mt dal p.c.

CPT U2

Profondità	Litologia
0,00 – 1,08	Stima non eseguibile
1,08 – 1,30	Argille
1,30 – 1,52	Argille sabbiose e limose
1,52 – 3,90	Limi sabbiosi
3,90 – 9,12	Argilla inorganica di media consistenza
9,12 – 10,36	Limi sabbiosi e sabbie limose
10,36 – 13,82	Argilla inorganica di media consistenza
13,82 – 14,40	Limi e limi sabbiosi
14,40 – 15,40	Argilla inorganica e limi argillosi
15,40 – 17,08	Argille sabbiose e limose
17,08 – 18,50	Argilla inorganica di media consistenza
18,50 – 21,40	Sabbie e sabbie limose con argille limose

CPT U3

Profondità	Litologia
0,00 – 0,48	Limo sabbioso e limo
0,48 – 1,74	Sabbie sciolte
1,74 – 2,22	Limo argilloso e limo sabbioso
2,22 – 2,56	Sabbie limose
2,56 – 3,24	Argille limose
3,24 – 12,24	Argilla inorganica di media consistenza
12,24 – 12,86	Limo sabbioso e limo
12,86 – 13,58	Sabbie sciolte
13,58 – 14,20	Argille limose e sabbiose
14,20 – 15,88	Argilla inorganica di media consistenza
15,88 – 16,64	Argille sabbiose e limose
16,64 – 19,08	Argilla inorganica
19,08 – 20,10	Limo sabbioso e limo
20,10 – 20,68	Argille sabbiose e limose
20,68 – 21,20	Argilla inorganica

In allegato vengono riportati i dati delle letture eseguite in sito.

I dati così raccolti sono stati inseriti nel software CLiq sviluppato dalla GeoLogiki Geotechnical Engineers per la stima della liquefacibilità e la valutazione dei cedimenti post sisma.

Liquefazione

Con tale termine s'intende la perdita totale di resistenza dei terreni saturi soggetti a sollecitazioni statiche o dinamiche, in conseguenza delle quali il terreno si comporta come una massa viscosa avendo raggiunto una condizione di fluidità. Questo comportamento è tipico delle sabbie fini sciolte quando, sotto l'azione dei carichi applicati o di forze idrodinamiche, la pressione dell'acqua dei pori aumenta progressivamente fino ad eguagliare la pressione totale di confinamento, stato nel quale gli sforzi efficaci si riducono a zero.

La liquefazione di un deposito può avvenire sia in condizioni statiche sia sotto sollecitazioni dinamiche cicliche. Vengono identificati in bibliografia tre principali meccanismi di liquefazione:

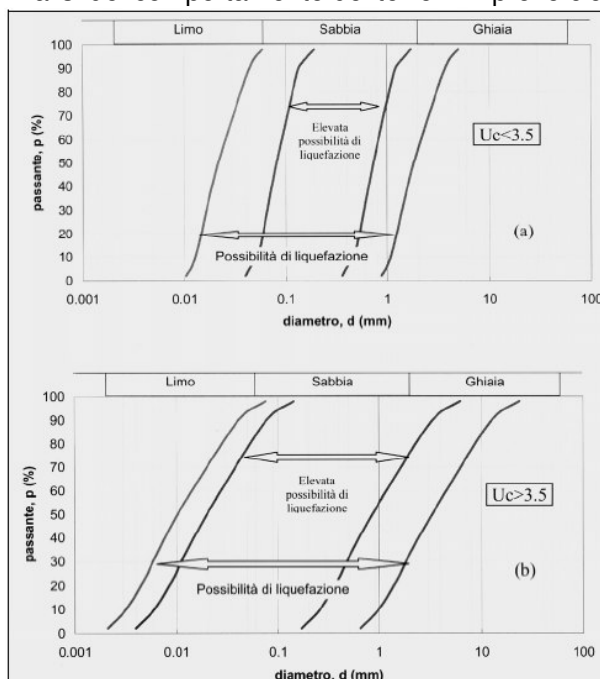
1. Liquefazione per filtrazione

2. Liquefazione per effetto di carichi monotonic crescenti
3. Liquefazione per effetto di carichi ciclici

Criteri di previsione e metodi per la valutazione del potenziale di liquefazione

Per la stima di dettaglio della probabilità di liquefazione in un deposito sabbioso in caso di sisma sarebbe necessaria la conoscenza approfondita di tutti i fattori che determinano almeno in linea potenziale, il fenomeno. Risulta chiaro che è praticamente impossibile inglobare in un unico modello matematico tutti i parametri rappresentativi della liquefazione e per questo si ricorre a delle semplificazioni basate su studi recenti:

1. Osservazione delle caratteristiche sismiche, geologiche e geotecniche dei siti colpiti da terremoti distruttivi
2. Analisi del comportamento dei terreni in prove cicliche di laboratorio in condizioni controllate.



Da tali studi derivano i primi criteri empirici di previsione, basati sulle caratteristiche granulometriche e sullo stato di addensamento, cui sono seguiti metodi via via più complessi, che tengono conto di un numero di parametri sempre più elevato. Tali metodi per la valutazione della suscettibilità alla liquefazione dei depositi sono classificabili in:

1. **Criteri empirici:** i parametri sono desunti da prove di identificazione o da misure della densità relativa ovvero da prove penetrometriche standard
2. **Metodi semplificati:** derivano dal confronto fra le sollecitazioni di taglio che producono liquefazione e quelle indotte dal terremoto e richiedono la valutazione dei parametri sia relativi all'evento sismico sia alle caratteristiche del deposito
3. **Metodi di analisi dinamica semplificata:** necessitano della determinazione della storia delle sollecitazioni delle tensioni e

deformazioni di taglio alle varie profondità, conseguente ad un input sismico, definito da una storia di accelerazioni riferibile al substrato roccioso

4. **Metodi dinamici avanzati:** vengono ricostruiti in condizioni bidimensionali mediante l'impiego di codici di calcolo ad elementi finiti o alle differenze finite ed in alcuni casi prevedono la modellazione integrata del sistema terreno-fondazione-struttura.

Motivi di esclusione della verifica a liquefazione

L'analisi preliminare della sismicità del sito e delle caratteristiche geotecniche del deposito, si permette di verificare se la probabilità che si verifichi la liquefazione sia bassa o nulla. Lo studio specifico può dunque essere omesso nel caso si manifesti almeno una delle seguenti circostanze (come richiede la NTC D.M. 14/01/08):

- eventi sismici attesi di magnitudo M inferiore a 5;
- accelerazioni massime attese al piano campagna in assenza di manufatti (condizioni di campo libero) inferiori a 0.1 g;
- profondità media stagionale della falda superiore a 15 m dal piano campagna, per piano campagna sub-orizzontale e strutture con fondazioni superficiali;
- depositi costituiti da sabbie pulite con resistenza penetrometrica normalizzata $(N1)_{60} > 30$ oppure $qc1N > 180$ dove $(N1)_{60}$ è il valore della resistenza determinata in prove penetrometriche dinamiche (Standard Penetration Test) normalizzata ad una tensione efficace verticale di 100 kPa e $qc1N$ è il valore della resistenza determinata in prove penetrometriche statiche (Cone Penetration Test) normalizzata ad una tensione efficace verticale di 100 kPa;

- distribuzione granulometrica esterna alle zone indicate nel primo grafico sotto riportato, nel caso di terreni con coefficiente di uniformità $U_c < 3,5$ e nel secondo, nel caso di terreni con coefficiente di uniformità $U_c > 3,5$.

Se lo studio mettesse in luce la suscettibilità alla liquefazione del terreno, e gli effetti conseguenti fossero tali da influire sulle condizioni di stabilità di pendii o manufatti, occorrerebbe procedere ad interventi di consolidamento del terreno e/o al trasferimento del carico agli orizzonti più profondi non suscettibili di liquefazione.

Stima della liquefacibilità – Metodo di Boulanger & Idriss (2014)

Una verifica della potenziale liquefacibilità dei terreni che costituiscono la successione stratigrafica dei primi 20 metri di profondità dal p.c. è stata eseguita utilizzando il più recente metodo di Boulanger & Idriss (2014); per questo approccio è necessario ipotizzare un sisma di riferimento, attraverso l'introduzione dell'accelerazione sismica orizzontale massima in superficie e della magnitudo di riferimento.

I risultati della verifica sono stati ottenuti ipotizzando un sisma di magnitudo 6,18 ed una accelerazione massima attesa pari a 0,28 (A/g).

E' stato inserito un dato relativo alla presenza di una falda alla profondità di 1,3 m dal p.c. Questo valore è stato misurato con una sonda piezometrica in occasione dell'esecuzione della campagna geognostica, all'interno di un piezometro rinvenuto nei pressi della CPTU1/18, installato il 31 ottobre 2017.

Questo metodo semplificato fornisce un valore del coefficiente di sicurezza F_s relativo ad ogni intervallo stratigrafico corrispondente al passo dello strumento utilizzato per l'esecuzione della prova penetrometrica (nel nostro caso specifico = 2 cm, trattandosi di una CPTU con punta elettrica). Il coefficiente F_s è dato dal rapporto tra la resistenza al taglio mobilitabile nello strato (R) e lo sforzo tangenziale indotto dal sisma (T):

$$F_s = \frac{R}{T}$$

Per valori di F_s inferiori a 1, l'intervallo specifico si intende suscettibile di liquefazione.

Partendo dal calcolo di tutti i coefficienti F_s relativi ad ogni singolo intervallo di lettura, il software utilizzato per la verifica (CLiq, elaborato dalla GeoLogisMiki) è in grado di confrontare diversi metodi di stima della liquefacibilità sulla base del calcolo di un parametro noto come Indice di Liquefazione (IL). Questo indice è definito dalla seguente relazione

$$IL = \sum_{i=1}^n F W(z) \Delta z$$

dove

n = numero degli intervalli di calcolo di F_s lungo la verticale;

$F = 1 - F_s$ per $F_s < 1$ e $F = 0$ per $F_s > 1$;

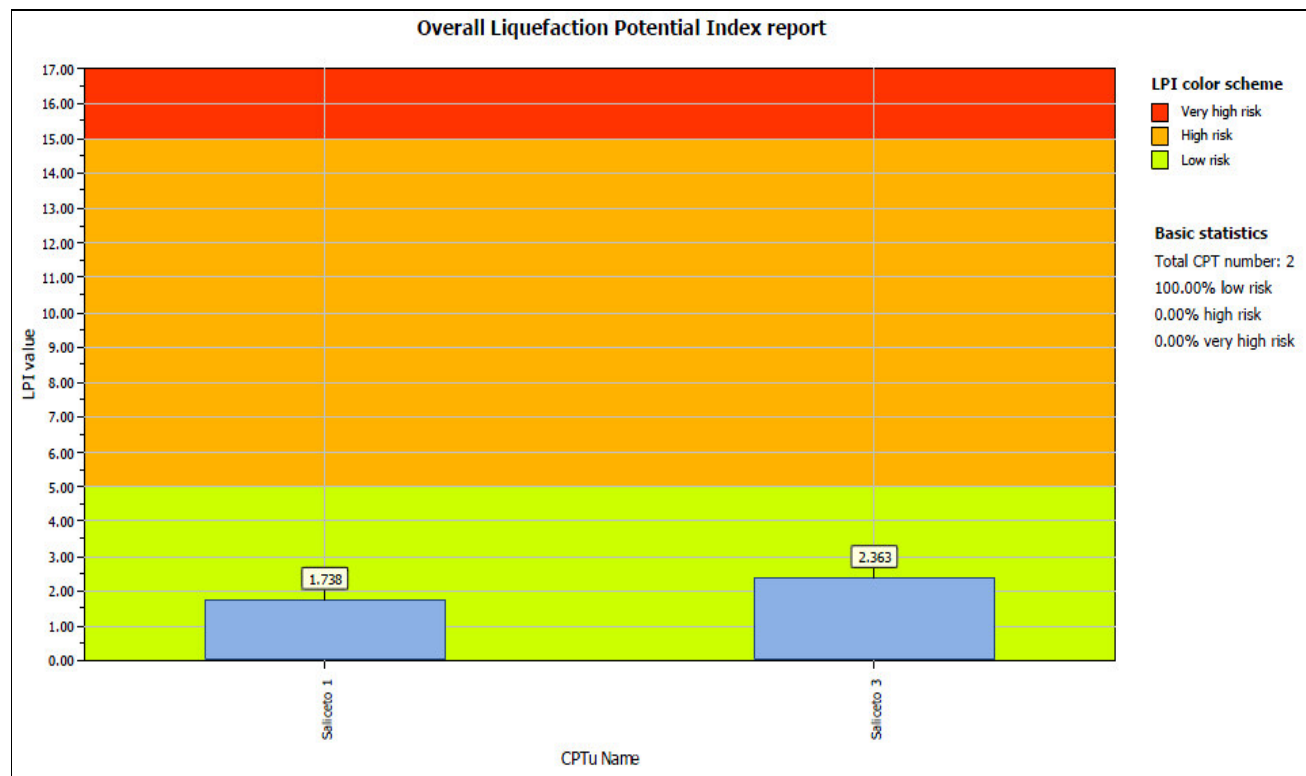
Δz = spessore dell'intervallo di calcolo

$W(z) = 10 - 0,5z$ dove z = profondità massima di calcolo (non superiore a 20 m)

Il valore numerico che si ottiene al termine dell'elaborazione deve essere confrontato con la tabella seguente per stabilire l'entità del rischio di liquefazione dell'intera successione stratigrafica.

IL	RISCHIO DI LIQUEFAZIONE
IL = 0	MOLTO BASSO
0<IL≤ 2	BASSO
2<IL≤5	MODERATO
5<IL≤15	ALTO
15<IL	MOLTO ALTO

La figura sottostante mostra i risultati del calcolo dell'indice IL (o LPI in inglese) eseguito con il metodo di Boulanger & Idriss (2014) per le CPTU: si può notare come nel caso della CPTU1 il valore dell'indice (pari a 1,738) si pone all'interno del settore relativo ad un basso rischio di liquefacibilità mentre per la CPTU3 il valore calcolato (pari a 2,363) si pone poco al di sopra del limite inferiore del settore delle sequenze a moderato rischio di liquefazione.



Cedimenti post sismici

La procedura di analisi di III° livello, dettagliatamente descritta nell'allegato 3 della Delibera della Regione Emilia Romagna n° 112/2007 "Procedure di riferimento per analisi di III° livello di approfondimento", prevede, oltre alla stima del potenziale di liquefazione, il calcolo dell'entità dei cosiddetti cedimenti post-sismici.

Le sollecitazioni di forze dinamiche temporali (come ad esempio un evento sismico) producono nei sedimenti un riordino delle particelle che si manifesta in una compattazione dello strato e quindi in un cedimento che in questo specifico caso viene denominato "post – sismico".

L'entità di questo fenomeno dipende, per i terreni incoerenti, dalla densità iniziale del deposito mentre per i terreni coesivi dal grado di sovra consolidazione; altri fattori che influenzano sono lo spessore del singolo strato ed il grado di resistenza che si sviluppa al suo interno.

I terreni che subiscono questo fenomeno sono generalmente quelli di tipo granulare (sabbie, sature e non) in quanto è proprio nei sedimenti potenzialmente liquefacibili (come sono quelli caratterizzati da una certa presenza di sabbie) che la dissipazione delle sovrappressioni provoca un riordino dei granuli e quindi una riduzione potenzialmente significativa dello spessore dello strato.

D'altronde non si può escludere che anche in sedimenti coesivi soffici e/o plastici, sollecitati da eventi sismici di una certa intensità, possano subire un riassetto delle particelle che lo compongono.

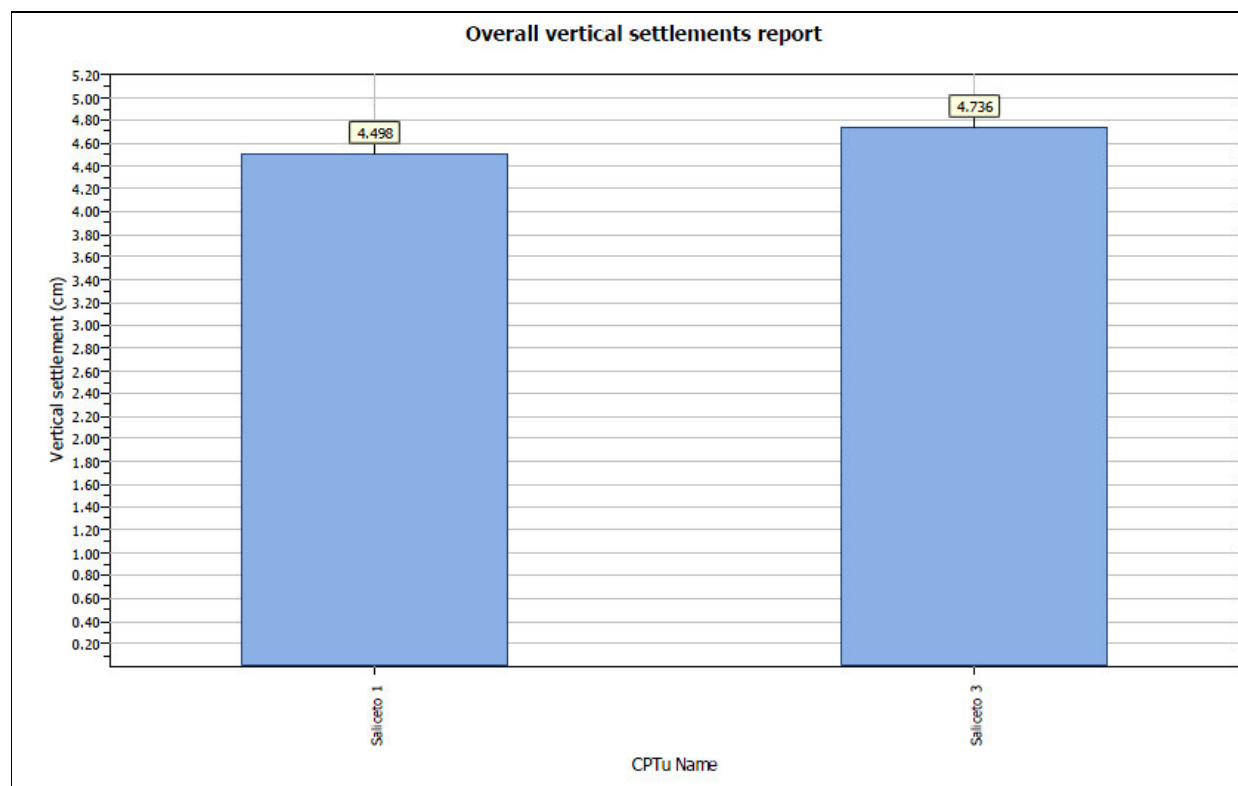
In depositi incoerenti asciutti il cedimento post-sismico avviene pressoché immediatamente, mentre nei depositi incoerenti e coesivi saturi si completa quando le sovrappressioni interstiziali, generate dalle forze dinamiche, vengono interamente dissipate.

Nel nostro caso si è proceduto nel calcolo dei cedimenti post – sismici per entrambe le penetrometrie statiche per le quali è stato valutato il potenziale di liquefazione, utilizzando, per determinare i parametri contenuti nelle formule, dati derivanti dai valori ricavati dalle prove stesse.

Il risultato delle elaborazioni numeriche, eseguite con il software CLiq ha fornito i seguenti risultati (si veda il grafico sottostante):

CPTU1=4,50 cm

CPTU3=4,74 cm



Definizione della categoria di sottosuolo

Attraverso le prove effettuate è stato possibile ricostruire la risposta sismica locale, termine con il quale si intende l'insieme delle modifiche che un moto sismico, relativo ad una formazione rocciosa di base posta ad una certa profondità nel sottosuolo, subisce attraversando gli strati di terreno sovrastanti fino alla superficie.

Il sito, infatti è stato sottoposto ad una indagine che ha consentito di ricostruire i seguenti aspetti (per via diretta ed indiretta):

- stratigrafia con dettagliata definizione dell'andamento dei contatti dei livelli litologici riconosciuti nei primi metri dal p.c.,

- profili delle velocità delle onde sismiche trasversali e longitudinali entro ogni livello litologico riconosciuto,
- caratteristiche meccaniche dei terreni, con riferimento al loro comportamento dinamico,
- morfologia dell'area.

Per gli studi di risposta sismica locale finalizzati alla previsione delle azioni sismiche sui manufatti di progetto è stato caratterizzato il terreno ricostruendo il valore di V_s (velocità delle onde di taglio), G_o (Modulo di taglio a piccole deformazioni), R (rigidità sismica), E_d (Modulo di elasticità dinamico) e T (periodo fondamentale dell'intervallo) con le equazioni che seguono:

$$G_o = \gamma_t / g \times (V_s)^2 \quad (\text{Ohta e Goto, 1978})$$

Ove γ_t = peso di volume naturale e g = accelerazione di gravità ($9,81 \text{ m/sec}^2$).

$$E_d = V_p^2 \times \rho \times [(1 + \nu) \times (1 - 2\nu) / (1 - \nu)]$$

Ove V_p = velocità delle onde longitudinali, ρ = densità del terreno e ν = Modulo di Poisson

$$R = \gamma_t \times V_s$$

$$T = (4 \times H) / V_s$$

Ove H = spessore dell'intervallo considerato

V_s , laddove non direttamente misurato è stato ottenuto attraverso le espressioni che correlano la velocità delle onde sismiche al numero di colpi N_{sp} , tra cui le più note sono quelle di Imai et al. (1982) Si richiamano brevemente alcuni contenuti del decreto citato.

Il suolo è suddiviso in cinque categorie fondamentali:

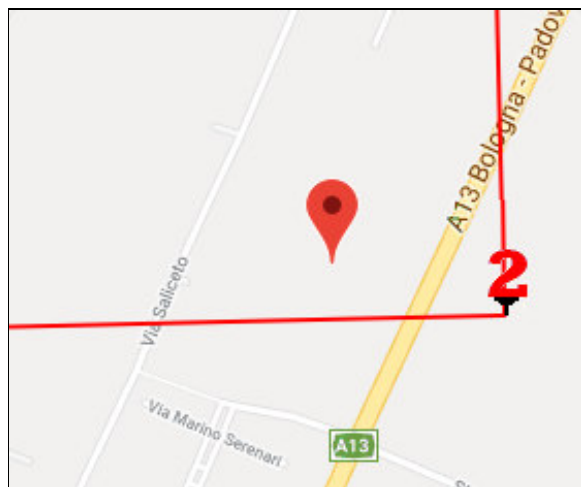
Categorie	Descrizione	S
A	Formazioni litoidi o suoli omogenei molto rigidi con V_s superiori a 800 m/sec, comprendenti spessori di alterazione non superiori a 5 metri	1
B	Sabbie e ghiaie molto addensate o argille molto consistenti, di spessore superiore a 10 metri con graduale miglioramento delle caratteristiche meccaniche con la profondità e V_s comprese tra 360 m/sec e 800 m/sec,	1,25
C	Sabbie e ghiaie mediamente addensate o argille di media consistenza, in spessori variabili tra decine e centinaia di metri, con valori di V_s compresi tra 180 m/sec e 360 m/sec,	1,25
D	Sabbie e ghiaie da sciolti a poco addensati o coesivi da poco a mediamente consistenti, caratterizzati da V_s inferiore a 180 m/sec,	1,35
E	Profili di terreno costituiti da strati alluvionali superficiali, con valori di V_s simili a quelli di C e D e spessore compreso tra 5 e 20 metri giacenti su un substrato di materiale più rigido con V_s maggiore a 800 m/sec.	1,25
S1	Depositi che includono uno strato di almeno 10 metri di spessore di argille/limi di bassa consistenza con elevato indice di plasticità (> 40) e contenuto in acqua, C_u (coesione non drenata) compresa tra 10 KN/mq e 20 KN/mq e V_s inferiori a 100 m/sec,	Servono studi speciali
S2	Depositi soggetti a liquefazione e argille sensitive.	

In base alle caratteristiche del terreno di fondazione, ricostruite mediante l'apposita campagna geofisica MASW + HVSr è stato possibile verificare che la sequenza può essere assimilata ad un suolo di tipo C. Il valore di V_s , infatti, risulta dell'ordine di circa 214 m/sec.

Per procedere alla definizione dei parametri sismici richiesti dalla nuova normativa, dunque, va tenuto presente che la zona di progetto ricade in zona sismica 3, caratterizzata da un rapporto $A/g = 0,15$ (sismicità moderata).

Analizzando l'estensione dell'area in esame lo scrivente ha potuto verificare che questa si estende a cavallo di due griglie della maglia elementare in cui è stato suddiviso l'intero territorio italiano. Di conseguenza di seguito vengono riportati i parametri sismici suddivisi per ciascuna porzione.

Parametri sismici porzione settentrionale (CPTU1/18)



Sito in esame.

latitudine: 44,566962 [°]

longitudine: 11,382208 [°]

Classe d'uso: II. Costruzioni il cui uso preveda normali affollamenti, senza contenuti pericolosi per l'ambiente e senza funzioni pubbliche e sociali essenziali. Industrie con attività non pericolose per l'ambiente. Ponti, opere infrastrutturali, reti viarie non ricadenti in Classe d'uso III o in Classe d'uso IV, reti ferroviarie la cui interruzione non provochi situazioni di emergenza. Dighe il cui collasso non provochi conseguenze rilevanti.

Vita nominale: 50 [anni]

Tipo di interpolazione: Media ponderata

Siti di riferimento.

	ID	Latitudine [°]	Longitudine [°]	Distanza [m]
Sito 1	16508	44,564970	11,315690	5274,2
Sito 2	16509	44,566230	11,385810	296,7
Sito 3	16287	44,616220	11,384040	5479,2
Sito 4	16286	44,614960	11,313840	7602,2

Parametri sismici

Categoria sottosuolo: C

Categoria topografica: T1

Periodo di riferimento: 50 anni

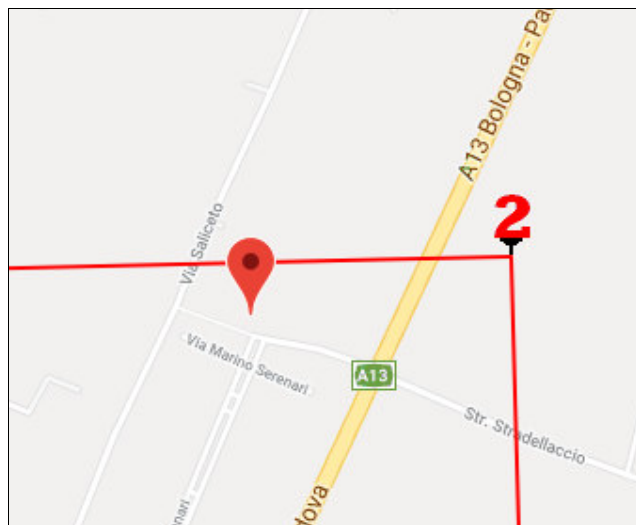
Coefficiente cu: 1

	Prob. superamento [%]	Tr [anni]	ag [g]	Fo [-]	To* [s]
Operatività (SLO)	81	30	0,051	2,476	0,259
Danno (SLD)	63	50	0,063	2,498	0,273
Salvaguardia della vita (SLV)	10	475	0,168	2,444	0,288
Prevenzione dal collasso (SLC)	5	975	0,220	2,445	0,290

Coefficienti Sismici Stabilità dei pendii

	Ss [-]	Cc [-]	St [-]	Kh [-]	Kv [-]	Amax [m/s ²]	Beta [-]
SLO	1,500	1,640	1,000	0,015	0,008	0,746	0,200
SLD	1,500	1,610	1,000	0,019	0,009	0,922	0,200
SLV	1,450	1,580	1,000	0,058	0,029	2,390	0,240
SLC	1,380	1,580	1,000	0,085	0,043	2,978	0,280

Parametri sismici porzione settentrionale (CPTU3/18)



Sito in esame.

latitudine: 44,565228 [°]

longitudine: 11,379881 [°]

Classe d'uso: II. Costruzioni il cui uso preveda normali affollamenti, senza contenuti pericolosi per l'ambiente e senza funzioni pubbliche e sociali essenziali. Industrie con attività non pericolose per l'ambiente. Ponti, opere infrastrutturali, reti viarie non ricadenti in Classe d'uso III o in Classe d'uso IV, reti ferroviarie la cui interruzione non provochi situazioni di emergenza. Dighe il cui collasso non provochi conseguenze rilevanti.

Vita nominale: 50 [anni]

Tipo di interpolazione: Media ponderata

Siti di riferimento.

	ID	Latitudine [°]	Longitudine [°]	Distanza [m]
Sito 1	16508	44,564970	11,315690	5085,4
Sito 2	16509	44,566230	11,385810	482,7
Sito 3	16731	44,516250	11,387540	5479,8
Sito 4	16730	44,515000	11,317460	7461,1

Parametri sismici

Categoria sottosuolo: C

Categoria topografica: T1

Periodo di riferimento: 50 anni

Coefficiente cu: 1

	Prob. superamento [%]	Tr [anni]	ag [g]	Fo [-]	Tc* [s]
Operatività (SLO)	81	30	0,051	2,476	0,259
Danno (SLD)	63	50	0,063	2,495	0,272
Salvaguardia della vita (SLV)	10	475	0,168	2,431	0,291
Prevenzione dal collasso (SLC)	5	975	0,220	2,439	0,293

Coefficienti Sismici Stabilità dei pendii

	Ss [-]	Cc [-]	St [-]	Kh [-]	Kv [-]	Amax [m/s ²]	Beta [-]
SLO	1,500	1,640	1,000	0,015	0,008	0,753	0,200
SLD	1,500	1,610	1,000	0,019	0,009	0,931	0,200
SLV	1,450	1,580	1,000	0,059	0,029	2,390	0,240
SLC	1,380	1,570	1,000	0,085	0,042	2,971	0,280

Si evidenzia che dal punto di vista topografico l'area ricade in una zona T1 della Tabella 3.2.IV, caratterizzata cioè da superficie pianeggiante. Pertanto il relativo coefficiente di amplificazione topografica vale 1,0.

Si ricorda che le tipologie di opere di progetto appartengono alla Classe II della Tabella 2.4.I del decreto citato, quelle con vita nominale V_N superiore a 50 anni ed alla classe II richiamate nel paragrafo 2.4.2, che si riferisce all'uso previsto dei fabbricati. Pertanto in prima approssimazione il periodo di riferimento massimo ipotizzabile per l'azione sismica vale $50 \times 1 = 50$ anni.

CONCLUSIONI

A seguito della richiesta di integrazioni contenuta nel documento a firma del responsabile del Servizio Pianificazione Urbanistica dell'Area Pianificazione territoriale della Città Metropolitana di Bologna (Fasc. 8.2.2.3/372018) si è reso necessario redigere la presente relazione integrativa alla Relazione Geologica redatta dal Dott. Geol. Riccardo Galassi nel dicembre 2008 di supporto al Piano Particolareggiato di Iniziativa Privata all'interno della zona omogenea D – Comparto D7.3 su Via Saliceto (comune di Castel Maggiore – BO).

La presente relazione contiene i risultati di un'apposita campagna di indagini geognostiche realizzata allo scopo di acquisire dati di natura tessiturale e geomeccanica sui terreni presenti nell'area di intervento: in particolare, per soddisfare le prescrizioni specifiche riportate nel documento di aggiornamento datato marzo 2018 del RUE del Comune di Castel Maggiore, sono state eseguite nuove penetrometrie statiche del tipo CPTU spinte fino alla profondità di almeno 20 metri dal pc.

La relazione geologica redatta nel 2008 era stata redatta infatti sulla base di un'adeguata campagna geognostica che ha previsto l'utilizzo della medesima tecnica di indagine (CPTU) ma queste erano state allora spinte fino a ad una profondità massima di 12 metri dal pc.

Utilizzando i dati così raccolti è stato possibile eseguire una stima preliminare della liquefacibilità dei terreni presenti nel primo sottosuolo; oltre a ciò si è proceduto al calcolo dei cedimenti post sisma.

Il livello della falda freatica è stato intercettato alla profondità di circa 1,30 m dal pc, all'interno di un piezometro installato all'interno di un foro di un sondaggio geognostico eseguito all'interno dell'area ad ottobre 2017.

La definizione della categoria sismica del sottosuolo è stata ottenuta mediante l'esecuzione di una MASW associata ad una prova HVSR: il risultato di queste prove ha permesso di stabilire che i primi 30 metri di sedimenti presenti nel sottosuolo corrispondono ad un suolo di tipo C ($V_{S30}=214$ m/sec).

I dati ricavati dall'esecuzione di due (CPTU1/18 e CPTU3/18) delle tre penetrometrie statiche eseguite sono stati utilizzati per la verifica del potenziale di liquefazione dei terreni: i valori ricavati del parametro IL mediante il metodo di Idriss & Boulanger (2014) evidenziano per la prova CPTU1/18 il basso rischio di liquefazione dei terreni mentre per la CPTU3/18 il rischio di liquefazione è risultato medio.

Sono stati altresì calcolati i cedimenti post sisma sempre in corrispondenza delle summenzionate penetrometrie statiche: i valori risultanti sono stati piuttosto omogenei (4,50 cm per la CPTU1/18 e 4,74 cm per la CPTU3/18).

I risultati delle valutazioni sopra esposti sono tali da non fornire allo scrivente elementi di giudizio contrari alla realizzazione del Piano Particolareggiato di Iniziativa Privata per l'Ambito ASP – BA.1; si esprime un giudizio di fattibilità complessivamente positivo dell'intervento previsto.

Il giudizio favorevole deve considerarsi valido per questo specifico livello di programmazione urbanistica: nelle fasi di progettazione (preliminare, definitiva ed esecutiva) la sua conferma o meno per ogni singolo fabbricato non potrà prescindere da una valutazione complessiva basata sui risultati di più approfondite e sito specifiche indagini geognostiche corredate da un'adeguata campagna di prove di laboratorio geotecnico e da approfondimenti di III° livello per quanto riguarda gli aspetti sismici, approfondimenti che dovranno soddisfare quanto riportato nelle normative vigenti (in particolare nella DAL Regione Emilia Romagna n° 2193 del 21 dicembre 2015).

Bologna, 04/05/2018

Dott. Geol. Piero Cavarocchi



Normativa di riferimento

La stesura della seguente relazione è stata eseguita in ottemperanza alle disposizioni contenute nelle normative di riferimento elencate di seguito:
AGI: raccomandazioni sulla programmazione ed esecuzione delle indagini geotecniche, Giugno 1977;
AGI: raccomandazioni sulle prove geotecniche di laboratorio, Maggio 1990 (edizione provvisoria);
Eurocodice Ec7 per l'ingegneria geotecnica, Settembre 1988;
ISO 31-11: Quantities and units, Mathematical signs and symbols for use in the physical sciences and technology, 1992;
UNI ISO 2955: Rappresentazione delle unità SI e di altre unità usate nei sistemi con insiemi limitati di caratteri, 1987;
D.M. 14 gennaio 2008: Approvazione delle nuove norme tecniche per le costruzioni";
Circolare 2 febbraio 2009, n° 617 – Istruzioni per l'applicazione delle "Nuove norme tecniche per le costruzioni" di cui al D.M. 14 gennaio 2008;
DGR 112/2007 "Indirizzi per gli studi di microzonazione sismica in Emilia Romagna per la pianificazione territoriale ed urbanistica";
DGR 2193/2015 "Art. 16 della L.R. n°20 del 24 marzo 2000. Approvazione aggiornamento dell'atto di coordinamento tecnico denominato "Indirizzi per gli studi di microzonazione sismica in Emilia Romagna per la pianificazione territoriale ed urbanistica", di cui alla Deliberazione dell'Assemblea Legislativa 2 maggio 2007, n° 112".

Bibliografia

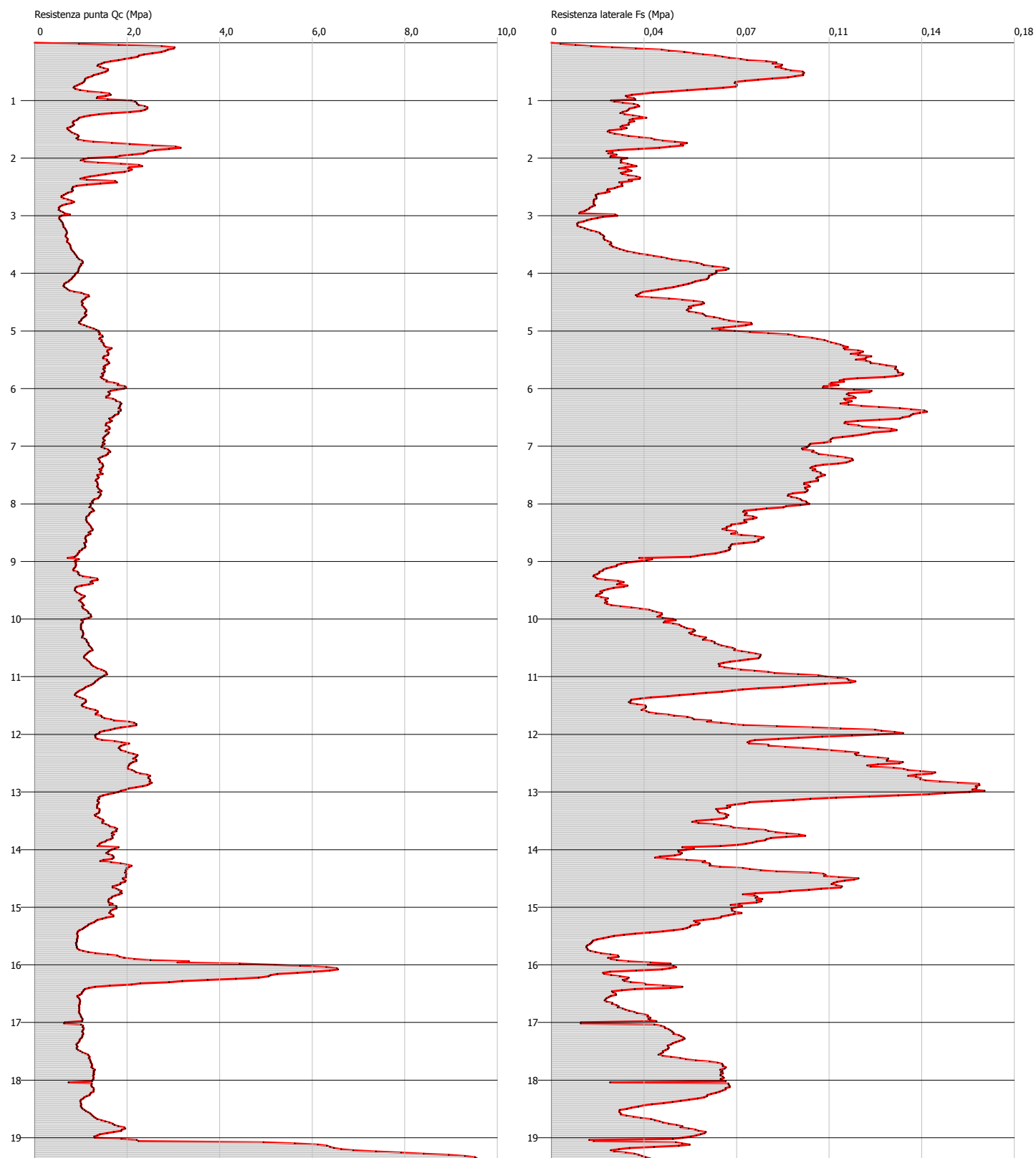
- Cestari F.: Prove geotecniche in sito; Geo-Graph Ed., Segrate, 1990.
- Lambe W.T., Whitman R.V.: Meccanica dei terreni. Dario Flaccovio Ed., Palermo, 1997.
- Leoni G.: Idrografia e bonifica del bacino del Reno. Consorzio della Bonifica Renana; Bologna, 1994.
- Marchi G.F.: Effetti delle variazioni stagionali di umidità dei terreni coesivi su fabbricati con fondazioni superficiali. Natti del Convegno "La Geotecnica in Italia e in Europa" Università degli Studi di Ferrara, 1993.
- Regione Emilia Romagna: Carta dei Rischi Geo-Ambientali; Bologna, 1994.
- Regione Emilia Romagna: Carta Tecnica Regionale; Bologna.
- Regione Emilia Romagna: I Suoli dell'Emilia Romagna; Bologna, 1994.
- F. Cestari - prove Geotecniche in sito - ed. GEO-GRAPH 1990
- M. Casadio - Il Manuale del Geologo - Pitagora Editrice
- Di Martino - Geotecnica Stradale
- P. Focardi - Prove in sito - Geologia Tecnica 1982
- Piacentini - Righi - Valutazione Compressibilità dei terreni e Consolidamento in base ai risultati di prove penetrometriche statiche - Inarcos Bologna
- P. Ventura - Interpretazione delle prove penetrometriche statiche tramite punta piezometrica
- Pelli - Ottaviani - Definizione della resistenza non drenata delle argille del Mare Adriatico mediante prove penetrometriche statiche R.I.G. 1992
- G. Sanglerat - Le Penetrometre et la reconnaissance des soils - Dunod Paris 1965
- G. Sanglerat - The Penetrometre and soil exploration - ESPC 1972
- A. Flora - Introduzione alle Indagini Geotecniche - Helvelius Edizioni
- C. Guidi - Geotecnica e Tecnica delle Fondazioni - Vol. I-II - Hoepli (1975)
- F. Gambini - Manuale dei Piloti - Ed. Scac
- Herminier - Theory for the interpretation of penetration test data - Annales I.T.B.T.P. - Congress of Zurich 1953)
- Bellotti-Jamiolkowski-Ghionna-Pedroni - Penetrometro Statico - terreni non coesivi - Atti Convegno Naz. Geotecnica 1983
- R. Lancellotta - Penetrometro Statico - terreni coesivi - Atti Convegno Naz. Geotecnica 1983
- R. Lancellotta - Meccanica dei Terreni - Elementi di Geotecnica - L.E.U. Torino
- S.G.S. - Recommended Standard for Cone Penetration Tests - June 1992
- Sunda Strumentazione Geotecnica - Manuale Uso Penetrometro Statico
- M. Carter (1983) - Geotechnical engineering-Handbook-Pentech Press-London
- F. Colleselli-Soranzo (1980) - Esercitazioni di Geotecnica - Ed. Cleup - Padova
- R.F. Craig (1985) - Soil mechanics - Van Nostrand Reinhold (UH) Co.Ltd
- R.E. Hunt (1986) - Geotechnical engineering techniques and practices - McGraw- Hill - Inc. USA
- M. Pellegrini (1982) - Geologia Applicata - Ed. Pitagora - Bologna
- G. Pilot (1982) - Foundation engineering - Ecole national des ponts et chausees - Paris
- A.G.I. (1977) - Raccomandazioni sulla programmazione ed esecuzione delle indagini geotecniche - AGI - Roma
- Larsson R. (1985) - The CPT test Equipment - testing - evaluation. An situ method for determination of stratigraphy and properties in soil profiles - S.G.I.
- P. Mayne (1992) Tentative method for estimation Gvo from Qc data in sand - Potsdam NY 1991

- Lunne, P.K. Robertson and Powell J.J.M. (1997) - Cone Penetration Test in Geotechnical Practice - B.A. & P.
- T. Lunne, A. Kleven (1981) - Role of CPT in North Sea foundation engineering - Session ASCE National Convention - S. Louis
- T. Lunne, Christoffersen H.P. (1985) - Interpretation of Cone Penetration Data for Offshore Sands - Norwegian Geotechnical Institute 1985 - Pbl. 156
- Jamiolkowski M. et al (1985) New developments in field and laboratory testing of soils
- Kulhawy F.H., Mayne P.H. (1990) - Manual on estimating soil properties for foundation design - Electric Power Research Institute 1990
- Robertson P.K., Campanella R.G., Greig J. et al. (1986) - Use of piezometer cone data - - Use in situ tests in Geotechnical Engineering - ASCE Conference 1986
- Robertson P.K., Campanella R.G. (1983) - Interpretation of cone penetration test - Canadian Geotechnical Journal - 20(4) .

GEOGNOSTICA
PROVE PENETROMETRICHE STATICHE CPTU
Elaborati grafici delle prove

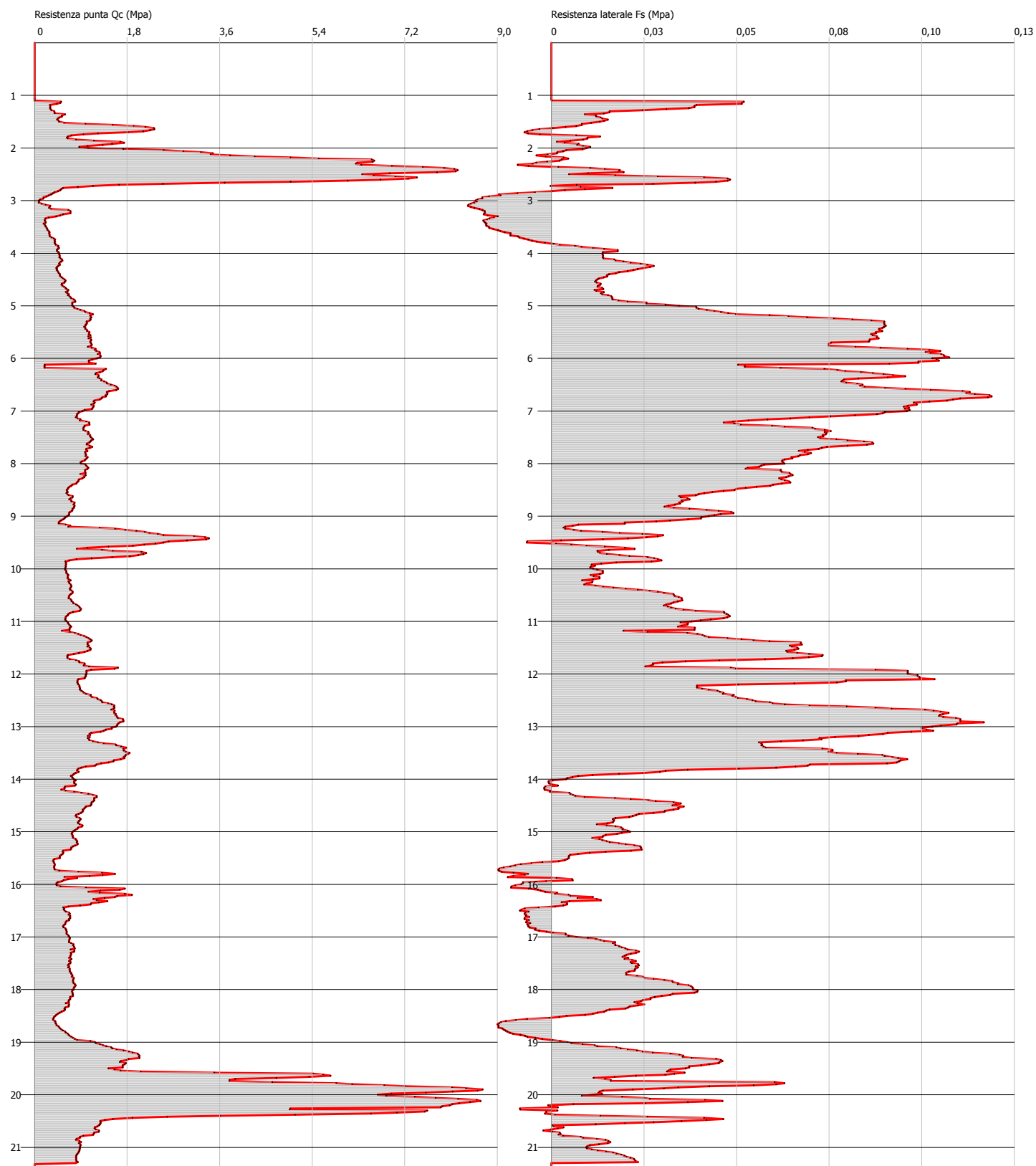
Committente: Grande Sole Budrio
Cantiere: Comparto D7.3
Località: Via di Saliceto - Castel Maggiore (BO)

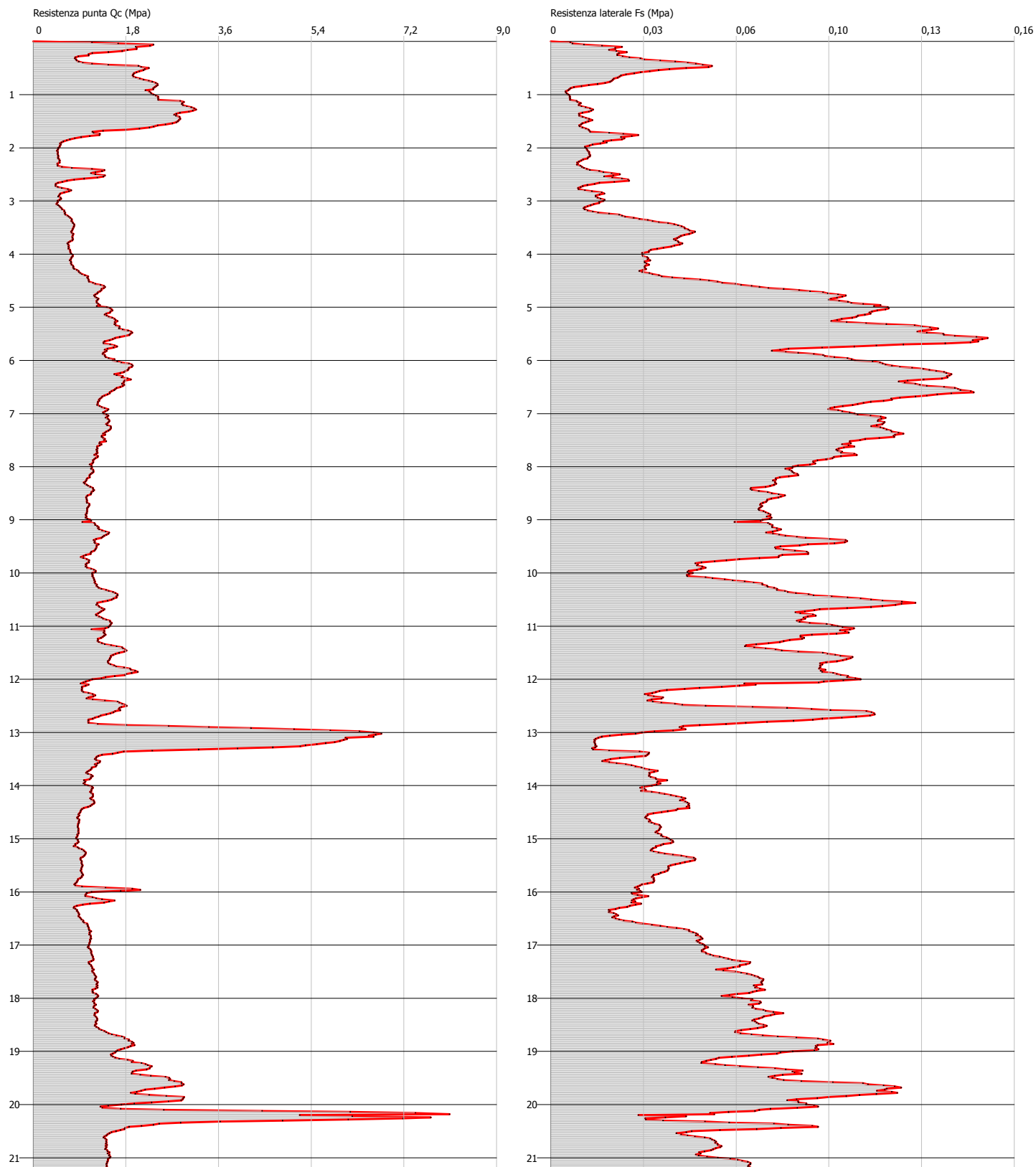
Data: 26/04/2018



Committente: Grande Sole Budrio
Cantiere: Comparto D7.3
Località: Via di Saliceto - Castel Maggiore (BO)

Data: 26/04/2018





SISMICA
RISULTATI DELL'INDAGINE MASW

PROVINCIA DI BOLOGNA

COMUNE DI CASTEL MAGGIORE

Via di Saliceto, comparto ex D7.3

COMMITTENTE:

Dott. Geol. Piero Cavarocchi
Via Murri 44 - Bologna
40137

PROGETTO:

Indagine sismica integrata per
la stima del parametro Vs30
DM 14/01/2008

RELAZIONE GEOFISICA

	dott. geol. Paolo Durante Ordine dei Geologi della Regione Abruzzo n.511	
	dott. geol. Giulio Dal Forno Ordine dei Geologi della Regione Emilia Romagna n.1294	



**Envia Studio Associato
di Geologia e Geofisica**

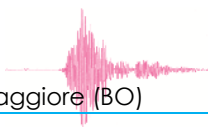
di Durante, Dal Forno e Rispoli
via G.P. da Palestrina 1/4 - 40141 Bologna
www.envia.it

Data: 30/04/2018

Rif. Commessa: 2018_0075

Ed.: Finale

TUTTI I DIRITTI SONO RISERVATI - Questo documento è di proprietà esclusiva di ENVIA Studio Associato, non può essere copiato, riprodotto o divulgato ad altri senza autorizzazione



INDICE

1.	Premessa	2
2.	Normativa di riferimento.....	2
3.	Il metodo <i>MASW</i>	4
4.	Il metodo <i>HVSR</i>	5
5.	Risultati dell'indagine sismica integrata.....	6
6.	Bibliografia.....	8

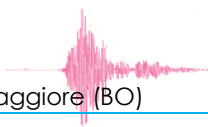
ELENCO ALLEGATI

Allegato 1 Documentazione fotografica

Allegato 2 Sismogrammi indagine *MASW*

Allegato 3 Spettro di dispersione e curva *H/V*

Allegato 4 Velocità onde S in funzione della profondità



1. Premessa

Su richiesta del Dott. Geol. Piero Cavarocchi è stata effettuata una indagine sismica integrata (MASW + HVSR) in Via di Saliceto nel Comune di Castel Maggiore, sita nel comparto ex D7.3, al fine di stimare il parametro $Vs30$ caratteristico dell'area, ossia la velocità equivalente delle onde sismiche di taglio nei primi 30 m di profondità rispetto alla quota di imposta della fondazione, come prescritto dall'art. 3.2.2 del D.M. 14 gennaio 2008.

2. Normativa di riferimento

Il D.M. 14 gennaio 2008 prevede che, ai fini della definizione dell'azione sismica di progetto, si renda necessario valutare l'effetto della risposta sismica locale mediante specifiche analisi (art. 7.11.3). In assenza di tali analisi, per la definizione dell'azione sismica si può far riferimento a un approccio semplificato che si basa sull'individuazione di categorie di sottosuolo di riferimento (cfr. Tabelle 1-2). Ai fini dell'identificazione della categoria di sottosuolo, la classificazione si effettua in base ai valori della velocità equivalente $Vs30$ di propagazione delle onde di taglio S entro i primi 30 metri di profondità. Per le fondazioni superficiali, tale profondità è riferita al piano di imposta delle stesse, mentre per le fondazioni su pali è riferita alla testa dei pali. Nel caso di opere di sostegno di terreni naturali, la profondità è riferita alla testa dell'opera. Per i muri di sostegno di terrapieni, la profondità è riferita al piano di imposta della fondazione. La stima della velocità di propagazione delle onde di taglio è fortemente raccomandata. Nei casi in cui tale determinazione non sia disponibile, il sito può essere classificato sulla base dei valori di N_{SPT} o della C_u . Le tabelle sotto riportate, oltre a una breve descrizione delle classi di sottosuolo, indicano gli intervalli dei tre parametri che individuano ciascuna di esse.

	Descrizione del profilo stratigrafico	Parametri		
		$Vs30$ (m/s)	$N_{SPT,30}$ (colpi/ 30 cm)	$C_{u,30}$ (kPa)
A	<i>Ammassi rocciosi affioranti o terreni molto rigidi</i> , caratterizzati da valori di $Vs30$ superiori a 800 m/s, eventualmente comprendenti in superficie uno strato di alterazione, con spessore massimo pari a 3 m.	> 800	-	-
B	<i>Rocce tenere e depositi di terreni a grana grossa molto addensati o terreni a grana fina molto consistenti</i> con spessori superiori a 30 m, caratterizzati da un graduale miglioramento delle proprietà meccaniche con la profondità e da valori di $Vs30$ compresi tra 360	360-800	> 50	> 250

	e 800 m/s (ovvero $N_{SPT,30} > 50$ nei terreni a grana grossa e $c_{u,30} > 250$ kPa nei terreni a grana fina)			
C	<i>Depositi di terreni a grana grossa mediamente addensati o terreni a grana fina mediamente consistenti</i> con spessori superiori a 30 m, caratterizzati da un graduale miglioramento delle proprietà meccaniche con la profondità e da valori di Vs30 compresi tra 180 e 360 m/s (ovvero $15 < N_{SPT,30} < 50$ nei terreni a grana grossa e $70 < c_{u,30} < 250$ kPa nei terreni a grana fina)	180–360	15-50	70–250
D	<i>Depositi di terreni a grana grossa scarsamente addensati o terreni a grana fina scarsamente consistenti</i> , con spessori superiori a 30 m, caratterizzati da un graduale miglioramento delle proprietà meccaniche con la profondità e da valori di Vs30 inferiori a 180 m/s (ovvero $N_{SPT,30} < 15$ nei terreni a grana grossa e $c_{u,30} < 70$ kPa nei terreni a grana fina)	< 180	< 15	< 70
E	<i>Terreni dei sottosuoli tipo C o D per spessore non superiore a 20 m</i> , posti sul substrato di riferimento (con Vs > 800m/s)			

Tabella 1 – Classificazione dei suoli secondo il D.M. 14 gennaio 2008 (Tabella 3.2.II).

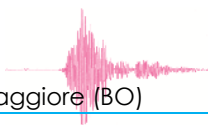
	Descrizione del profilo stratigrafico	Parametri		
		Vs30 (m/s)	$N_{SPT,30}$ (colpi/ 30 cm)	$C_{u,30}$ (kPa)
S1	Depositi di terreni caratterizzati da valori di Vs30 inferiori a 100 m/s (ovvero $10 < c_{u,30} < 20$ kPa) che includono uno strato di almeno 8 m di terreni a grana fina di bassa consistenza, oppure che includono almeno 3 m di torba o di argille altamente organiche.	< 100	-	10-20
S2	Depositi di terreni suscettibili di liquefazione, di argille sensitive o di qualsiasi altra categoria di sottosuolo non classificabile nei tipi precedenti.			

Tabella 2 – Categorie aggiuntive di sottosuolo (Tabella 3.2.III- D.M. 14 gennaio 2008).

Il valore del parametro Vs30, secondo la normativa, è calcolato mediante la seguente espressione:

$$Vs30 = \frac{30}{\sum_{i=1}^n h_i / v_i} \text{ m/s} \quad (1)$$

Dove h_i e v_i indicano lo spessore in metri e la velocità delle onde di taglio dello strato i -esimo per un totale di n strati presenti nei 30 metri al di sotto del piano fondale. Tale velocità equivalente è ottenuta imponendo l'equivalenza tra i tempi di arrivo delle onde di taglio in un terreno omogeneo equivalente, di spessore pari a 30 m, e nel terreno stratificato in esame, di spessore complessivo ancora pari a 30 m. Essa assume quindi valori differenti da quelli ottenuti dalla media delle velocità dei singoli strati pesata sui relativi spessori, soprattutto in presenza di strati molto deformabili di



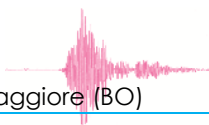
limitato spessore. Lo scopo della definizione è quello di privilegiare il contributo degli strati più deformabili (C3.2.2 Circ. Min. 617 del 2 febbraio 2009).

3. Il metodo MASW

Per mezzo della tecnica MASW (Multichannel Analysis of Surface Waves), Park et al., (1999), e quindi dello studio delle onde superficiali che comunemente dominano una porzione considerevole dei sismogrammi nelle indagini sismiche (sia per ampiezza relativa che per durata del segnale), è possibile ottenere delle stime del profilo di velocità delle onde S.

Le onde superficiali sono onde sismiche che si propagano parallelamente alla superficie del terreno, la cui ampiezza diminuisce esponenzialmente con la profondità e la cui energia si propaga in una fascia superficiale corrispondente a circa una lunghezza d'onda λ . In un mezzo reale, caratterizzato da proprietà meccaniche variabili con la profondità, le onde superficiali, in funzione di λ , penetrano strati con diverse caratteristiche e quindi la loro propagazione ne risulta influenzata in termini di velocità e tempi di arrivo: onde con λ differente si propagano a velocità di fase cf differente e pertanto si separano lungo il loro tragitto. Tale fenomeno è noto come dispersione.

L'idea su cui si fonda il metodo MASW, come altre metodologie che analizzano le onde superficiali, è quella di utilizzare il fenomeno della dispersione per derivare informazioni indirette sulle proprietà fisiche e reologiche del terreno, tra cui la densità, i parametri elastici e le velocità delle onde di taglio. A partire dall'intero campo d'onda, acquisito in campagna utilizzando un numero variabile di geofoni (di solito 12-24) allineati a spaziatura regolare (similmente a un classico esperimento di sismica a rifrazione), l'obiettivo del metodo è di derivare una curva di dispersione sperimentale velocità di fase – frequenza ($cf - f$), la cui forma è associata alle proprietà meccaniche del terreno da indagare. Tale curva si può ottenere seguendo differenti metodologie di elaborazione del campo d'onda (trasformata tempo di ritardo-*slowness*- p , trasformata $f-k$). Il risultato è una nuova rappresentazione del campo d'onda dal dominio spazio-tempo a quello frequenza-*slowness* o frequenza-velocità di fase (la *slowness* è infatti il reciproco della velocità). Dato che le onde superficiali mostrano le ampiezze e le durate maggiori nel dominio spazio-tempo, anche nel dominio frequenza-velocità di fase, i massimi dello spettro saranno relativi alle differenti frequenze con cui si propagano le onde superficiali stesse. Dall'estrazione delle coppie frequenza-velocità di fase corrispondenti ai massimi d'intensità dello spettro si deriva la curva di dispersione sperimentale. In realtà, l'interpretazione degli spettri risulta spesso complicata dall'intrecciarsi dei modi superiori rispetto a quello fondamentale e/o alla generazione e propagazione di onde guidate. Un miglioramento nell'interpretazione degli spettri può essere ottenuto dalla comparazione tra spettro osservato e, in sovrapposizione, le curve di dispersione teoriche per i diversi modi di un



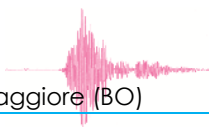
modello ritenuto plausibile per l'area in esame (Dal Moro, 2008). Generalmente quando la rigidità degli strati aumenta gradualmente con la profondità il modo fondamentale risulta predominante a tutte le frequenze. Tuttavia esistono diverse stratigrafie, con strati rigidi compresi tra strati soffici o strati soffici compresi tra strati rigidi o con variazioni brusche di rigidità con la profondità, in cui i modi superiori al primo diventano predominanti in certi intervalli di frequenza (Roma, 2006). Per la definizione del profilo di velocità delle onde di taglio è poi necessario procedere alla fase d'inversione della curva di dispersione per ottenere un modello delle proprietà fisiche del sottosuolo.

4. Il metodo HVSR

Il metodo HVSR (*Horizontal to Vertical Spectral Ratio*) proposto da Nogoshi e Igarashi (1970) e successivamente modificato da Nakamura (1989), si basa sull'analisi del rapporto spettrale tra le componenti orizzontale (H) e verticale (V) del rumore sismico registrato in un sito. Il rumore sismico è presente ovunque ed è generato sia da fenomeni atmosferici (onde oceaniche, vento) che dall'attività antropica. Il rumore sismico è indicato spesso come microtremore poiché è caratterizzato da oscillazioni molto deboli (dell'ordine dei $\mu m/s$). I microtremori sono in parte costituiti da onde di volume, P o S, ma soprattutto da onde superficiali, la cui velocità è comunque prossima a quella delle onde S (Mulargia et al., 2007). Esiste un consenso generale sull'efficacia del metodo HVSR di fornire stime sulla frequenza fondamentale di risonanza del sottosuolo, almeno nel caso di un modello semplice unidimensionale con strato soffice al di sopra di uno strato rigido (Lachet and Bard, 1994; Lermo and Chavez-Garcia, 1994; Ibs-von Seht and Wohlenberg, 1999). In questo caso semplice, tale frequenza f_0 è legata allo spessore h dello strato soffice attraverso la seguente relazione:

$$f_0 = \frac{V_s}{4h} \text{ Hz} \quad (2)$$

Naturalmente, la complessità stratigrafica del sottosuolo produce curve H/V sperimentali con svariati picchi, per le quali non è possibile applicare un modello semplice. Tuttavia, attraverso il confronto delle curve sperimentali con curve H/V sintetiche, è possibile derivare profili di velocità delle onde di taglio S nel sottosuolo, in presenza di adeguati vincoli, ottenuti da prove geognostiche dirette o da altre indagini geofisiche (Fäh et al., 2001; Castellaro and Mulargia, 2009).



La tecnica di misura del rumore sismico richiede tempi di registrazione pari a 15-20 minuti e necessita di sensori tridirezionali da sismologia con messa in bolla, digitalizzatore 24 bit con elevata dinamica, elevato guadagno ed elevata frequenza di campionamento nativo, con minimizzazione del rumore elettro/meccanico.

5. Risultati dell'indagine sismica integrata

Le indagini *MASW* sono state realizzate con sismografo "Echo 24/2002" a 24 canali prodotto da *Ambrogeo* (Piacenza) connesso a 12 geofoni verticali con frequenza propria pari a 4,5 Hz, interspaziati tra loro di 4 m per un totale di 44 m ([allegato 1](#)). I dati sono stati acquisiti e salvati da un PC portatile alimentato a batteria. La sorgente sismica utilizzata è una mazza battente di 8 kg, posta ad una distanza di 10 m dal geofono 1.

Le misure di rumore sismico sono state effettuate a una distanza ridotta dal profilo *MASW* per un tempo di registrazione pari a 20 minuti. La strumentazione utilizzata è un tromografo digitale "TrominoEngy" della *Micromed S.p.A.*

In [allegato 2](#) sono riportati i sismogrammi registrati da ognuno dei geofoni durante l'indagine *MASW*.

Lo spettro frequenza-velocità di fase, ottenuto attraverso il *software Geopsy* (Progetto *SESAME*), è riportato in [allegato 3](#) assieme alla curva *H/V* e al grafico delle componenti dei canali velocimetrici relativi alla misura di rumore sismico; per l'elaborazione sono state considerate le componenti (N-S, E-W e Up-Down). Allo spettro frequenza-velocità di fase sono sovrimposti il *picking* del modo fondamentale (crocette nere) e le curve di dispersione sintetiche del modo fondamentale e di alcuni modi superiori (pallini bianchi) per il modello statisticamente migliore ottenuto dall'inversione. Questo modello è il risultato dell'inversione della curva di dispersione sperimentale ottenuta dall'indagine *MASW* ed eseguita attraverso due *software* differenti, *WaveEq* (*Geometrics*) e *SWAMI* (*Georgia Institute of Technology*). La minima frequenza scelta nell'operazione di *picking* è pari a circa 8,7 Hz e presenta una velocità di fase di 207 m/s, valori corrispondenti indicativamente ad una profondità compresa tra 8 e 12 m. Oltre tali profondità il profilo delle velocità viene inoltre stimato attraverso *fit* della curva *H/V* ottenuta dall'acquisizione del rumore sismico.

La curva *H/V* **presenta il suo massimo a circa 0,9 Hz.**

In [allegato 4](#) sono riportati il grafico dell'andamento della velocità delle onde S in funzione della profondità, la tabella con i valori numerici e il grafico della variazione del parametro *Vs30* in funzione della profondità del piano di fondazione della struttura in progetto.

Dal modello di velocità derivato con la tecnica *MASW* è stato stimato il parametro V_{s30} rispetto all'attuale piano campagna, pari a **213,7 m/s**.

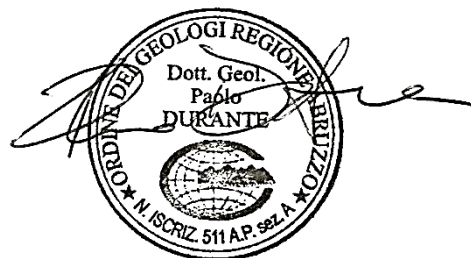
Ai sensi dell'art. 3.2.2 del D.M. 14/01/2008, unicamente sulla base del parametro V_{s30} relativo all'attuale piano campagna, il sottosuolo ricade in **categoria C**. Tuttavia il geologo incaricato sulla base della conoscenza stratigrafica dell'area, derivata dalla sua esperienza professionale e dalle indagini geognostiche condotte nel sito in oggetto, nonché considerando le caratteristiche dell'opera in progetto e la tipologia di fondazioni, è tenuto a validare l'attribuzione alla suddetta categoria e valutare se approfondire l'indagine per la definizione dei coefficienti di amplificazione stratigrafica mediante studi specifici sulla risposta sismica locale, come indicato all'art. 7.11.3 del D.M. 14/01/2008.

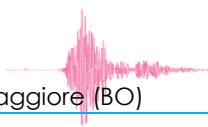
Bologna, 30 Aprile 2018

Dott. Geol. Giulio Dal Forno



Dott. Geol. Paolo Durante





6. Bibliografia

Castellaro S. and Mulargia F., (2009). The effect of velocity inversions on H/V, *Pure Appl. Geophys.* Volume 166, Number 4, 567-592.

Dal Moro, G., (2008) – *Tre divagazioni: il mito dell'inversione, MASW in Friuli, esempio di studio congiunto MASW-rifrazione* - Giornata di studio sul "Monitoraggio dinamico per la valutazione della sicurezza sismica dei ponti", Centro Internazionale di Scienze Meccaniche (CISM), Udine, 18 aprile 2008.

Fäh D., Kind F. and Giardini D., (2001). A theoretical investigation of average H/V ratios, *Geophys. J. Int.* **145**, 535-549.

Ibs-von Seht M. and J. Wohlenberg, (1999). Microtremor measurements used to map thickness of soft sediments, *Bull. Seismol. Soc. Am.* **89**, 250-259.

Lachet C. and P. Y. Bard, (1994). Numerical and theoretical investigations on the possibilities and limitation of Nakamura's technique, *J. Phys. Earth* **42**, 377-397.

Lermo J. and F. J. Chavez-Garcia, (1994). Are microtremors useful in site response evaluation?, *Bull. Seismol. Soc. Am.* **84**, 1350-1364.

Mulargia F., Castellaro S., Rossi P.L., (2007). Effetti di sito e Vs30: una risposta alla normativa antisismica. *Il Geologo dell'Emilia Romagna Anno VII-2007 N.25 - Nuova serie*

Nakamura Y., (1989). A method for dynamic characteristics estimates of subsurface using microtremor on the round surface, *QR of RTI*, **30**, 25-33.

Nogoshi M. e Igarashi T., (1970). On the propagation characteristics of microtremors, *J. Seism. Soc. Japa*, **23**, 264-280.

Park, C.B., Miller, R.D., and Xia J., (1999)- *Multichannel Analysis of surface waves* - *Geophysics*, **64**, 800-808.

Roma, V., (2006) – *Caratterizzazione sismica dei suoli con il metodo MASW (Multichannel Analysis of surface waves)*- http://www.masw.it/downloads/Opuscolo_MASW_22_Gen_2007.pdf. microtremor on the round surface, *QR of RTI*, **30**, 25-33.

NORMATIVA

D. Min. Infrastrutture 14 gennaio 2008 (Suppl. Ord. alla G.U. 4.2.2008, n. 29) – *Approvazione delle norme tecniche per le costruzioni*.

Circ. Min. Infrastrutture e Trasporti 2 febbraio 2009, n. 617 C.S.LL.PP. (Suppl.Ord. alla G.U. 26.2.2009, n. 47) – *Istruzioni per l'applicazione delle "Nuove norme tecniche per le costruzioni" di cui al decreto ministeriale 14 gennaio 2008*.

Allegato 1 – Documentazione fotografica

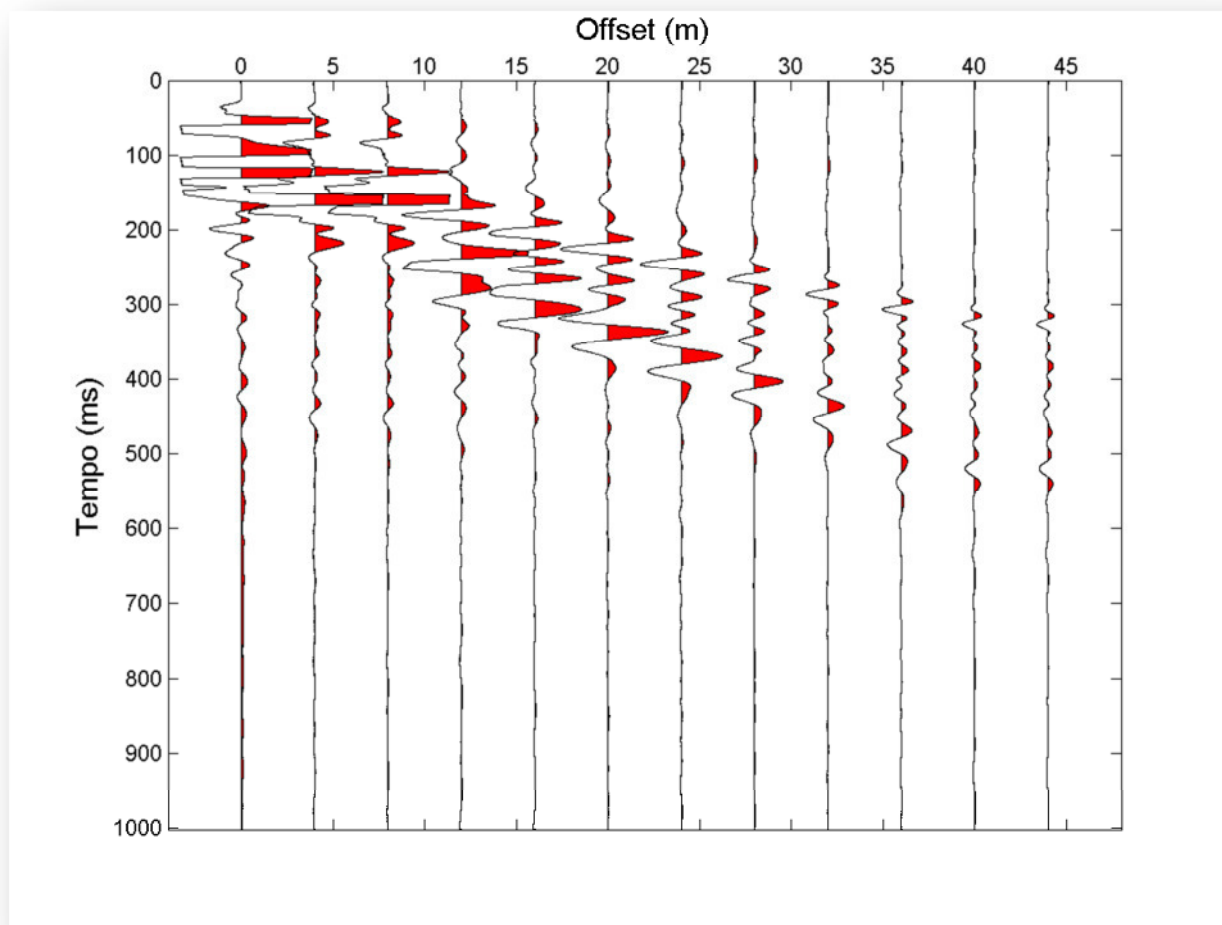


Foto 1 – Ubicazione profilo sismico



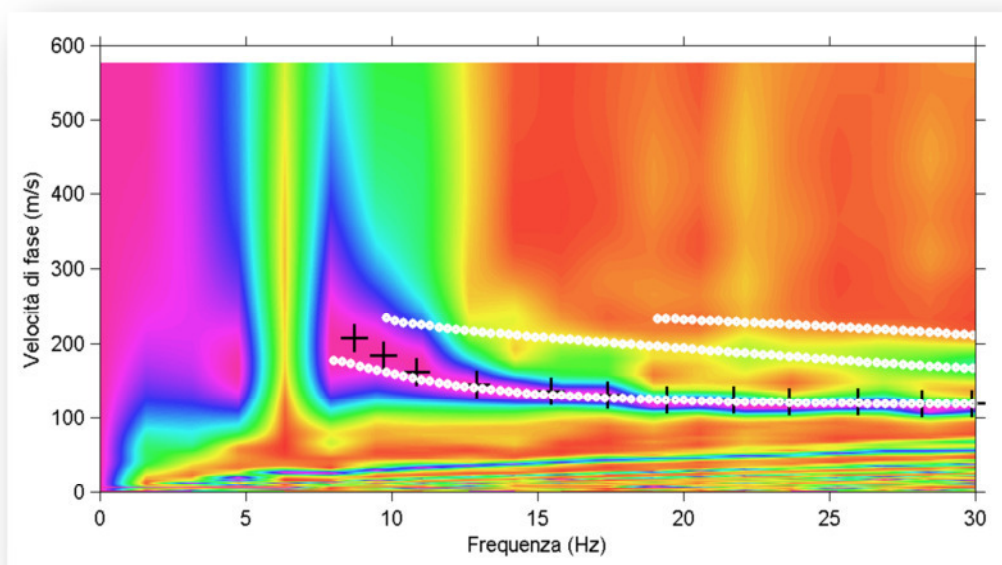
Foto 2 – Ubicazione misura HVSR

Allegato 2 – Sismogrammi



Sismogrammi acquisiti dai 12 geofoni durante l'indagine. La sorgente è posta ad una distanza di 10 m dal geofono 1. La spaziatura tra i geofoni è di 4 m.

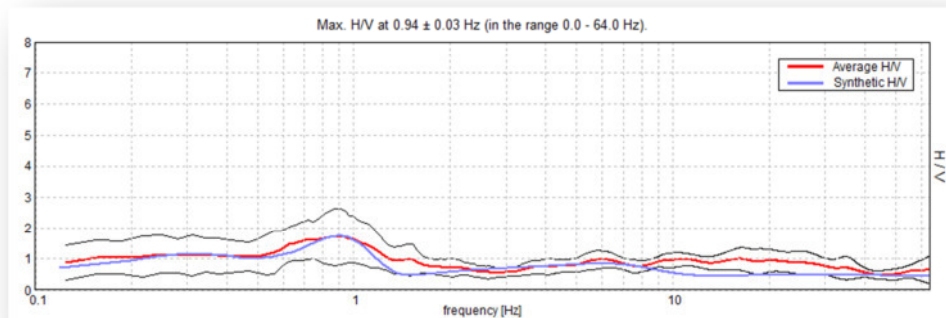
Allegato 3 – Spettro di dispersione



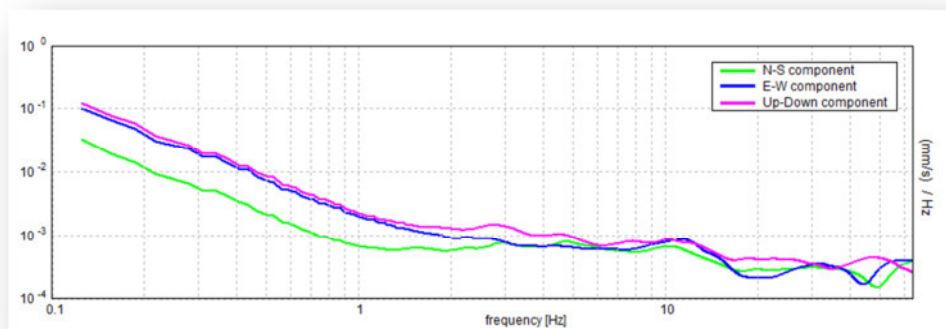
in alto: Spettro frequenza-velocità di fase dei dati acquisiti durante l'indagine. Sovrapposti allo spettro sono il picking del modo fondamentale (crocette nere) e le curve di dispersione sintetiche del modo fondamentale e di alcuni modi superiori (pallini bianchi).

in basso: Curva H/V **(A)** e andamento delle tre componenti velocimetriche (N-S, E-W, Up-Down) **(B)**

A

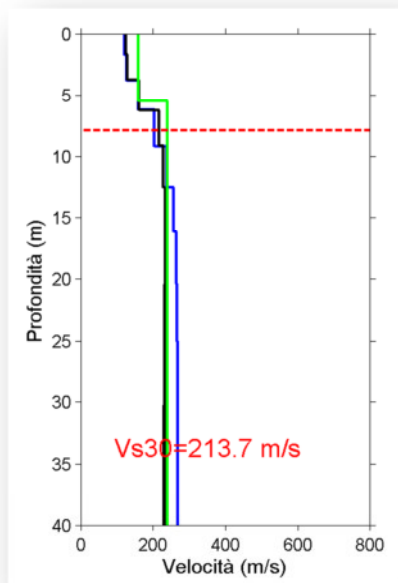


B



Allegato 4 – Velocità onde S in funzione della profondità

A



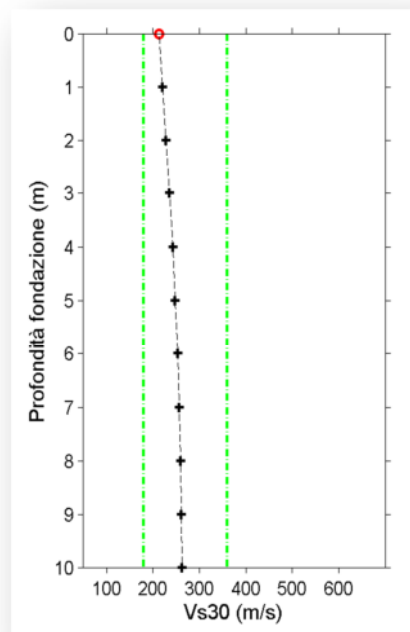
B

Spessore (m)	Vs WaveEq (m/s)	Spessore (m)	Vs SWAMI (m/s)	Spessore (m)	Vs HVSR (m/s)
1.7	124.4	1.7	121.1	5.5	160.0
2.1	129.5	2.1	127.2	62.0	240.0
2.5	162.1	2.4	159.0	300.0	480.0
2.9	216.2	3.0	203.3	inf	690.0
3.3	227.5	3.3	238.6		
3.7	232.1	3.7	257.2		
4.2	232.1	4.2	264.6		
4.6	230.6	4.6	266.8		
15.0	229.1	15.0	267.4		
inf	232.1	inf	267.4		

C

(B) La prima, terza e quinta colonna riportano gli spessori degli strati dei modelli ottenuti dall'indagine MASW (colonne 1 e 3) e dall'indagine HVSR (colonna 5). La seconda e la quarta colonna contengono le velocità stimate attraverso la tecnica MASW utilizzando i programmi WaveEq e SWAMI; la sesta colonna riporta le velocità stimate mediante inversione della curva H/V. Sono evidenziati in azzurro i valori di velocità e i relativi spessori utilizzati per il calcolo del parametro V_{s30} ; (C) andamento del parametro V_{s30} in funzione della variazione della profondità del piano fondale della struttura in progetto. Le linee in tratteggio di colore verde indicano i limiti 180 m/s e 360 m/s rispetto alla tabella 1 (crf. §2).

(A) Andamento della velocità delle onde S in funzione della profondità. Vengono riportati in nero i valori ottenuti con il programma WaveEq (Geometrics) e in blu i valori derivati con il programma SWAMI (Georgia Institute of Technology), relativamente all'indagine MASW; in verde viene indicato l'andamento ottenuto mediante inversione della curva H/V, vincolata nella parte superficiale attraverso i valori ottenuti dall'indagine MASW. La linea tratteggiata in rosso rappresenta la profondità stimata per la frequenza più bassa scelta durante l'operazione di *picking*. A profondità maggiori l'andamento delle velocità delle onde S è stimato mediante *fit* della curva H/V.



ELABORATI GRAFICI E NUMERICI DELLE VERIFICHE DI LIQUEFACIBILITÀ
E DEL CALCOLO DEI CEDIMENTI POST SISMA

TABLE OF CONTENTS

Saliceto 1 results	
Summary data report	1
Input field data	8
Cyclic stress resistance results	29
Cyclic resistance ratio results	50
Liquefaction potential index data	71
Vertical settlements summary report	82
Strength loss data report	83
 Saliceto 3 results	
Summary data report	104
Input field data	111
Cyclic stress resistance results	134
Cyclic resistance ratio results	157
Liquefaction potential index data	180
Vertical settlements summary report	192
Strength loss data report	193

LIQUEFACTION ANALYSIS REPORT

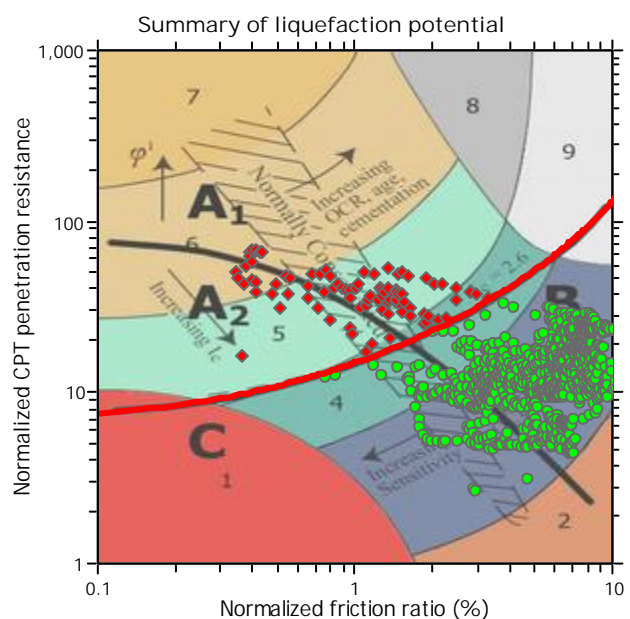
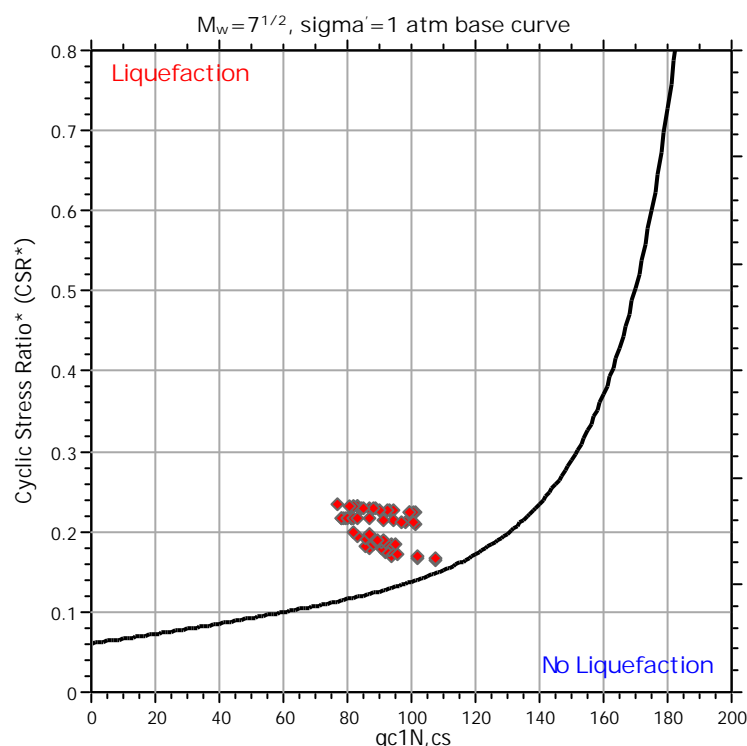
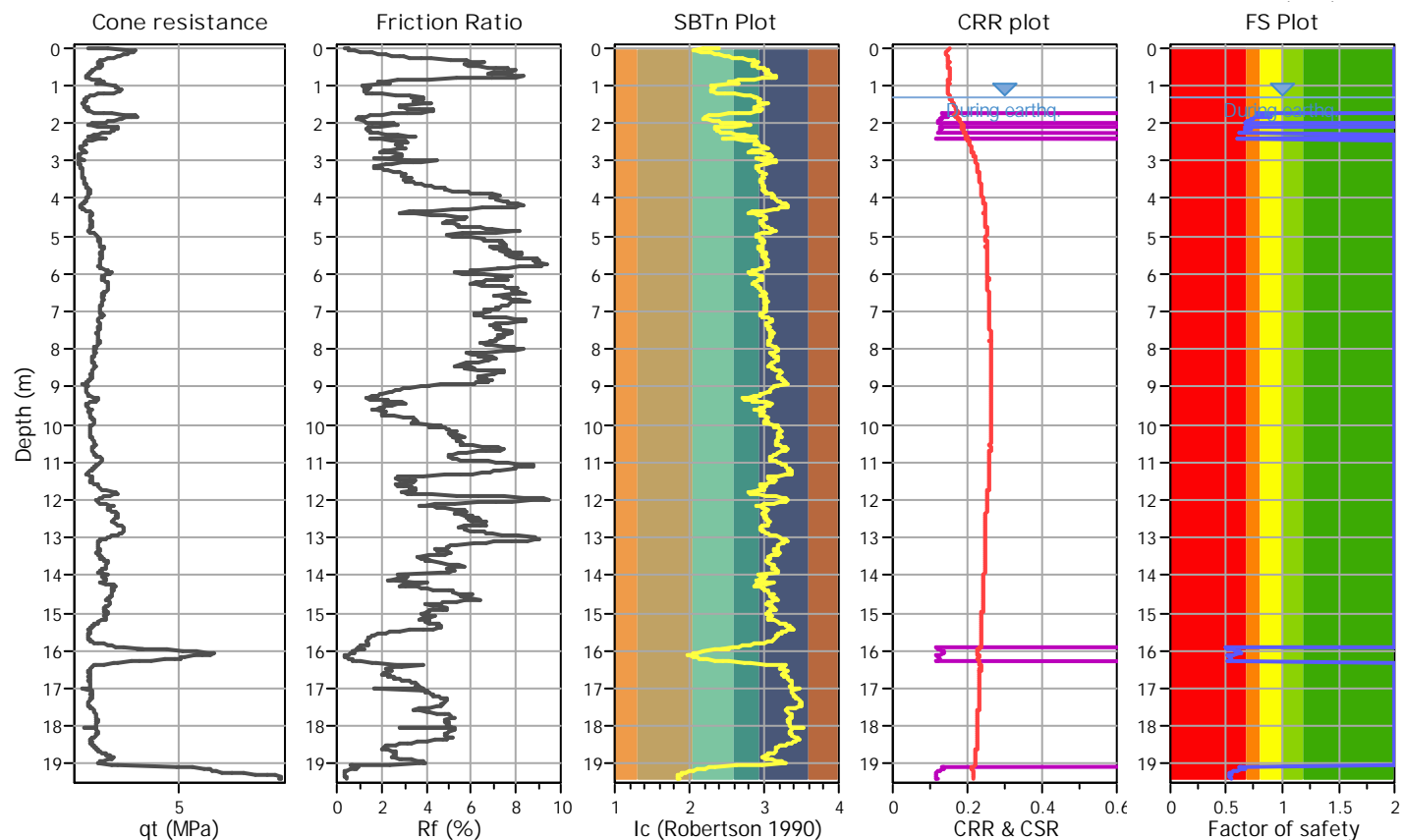
Project title : liquefacibilità e cedimenti postsismici

Location : Comparto ex D7.3 Castel Maggiore

CPT file : Saliceto 1

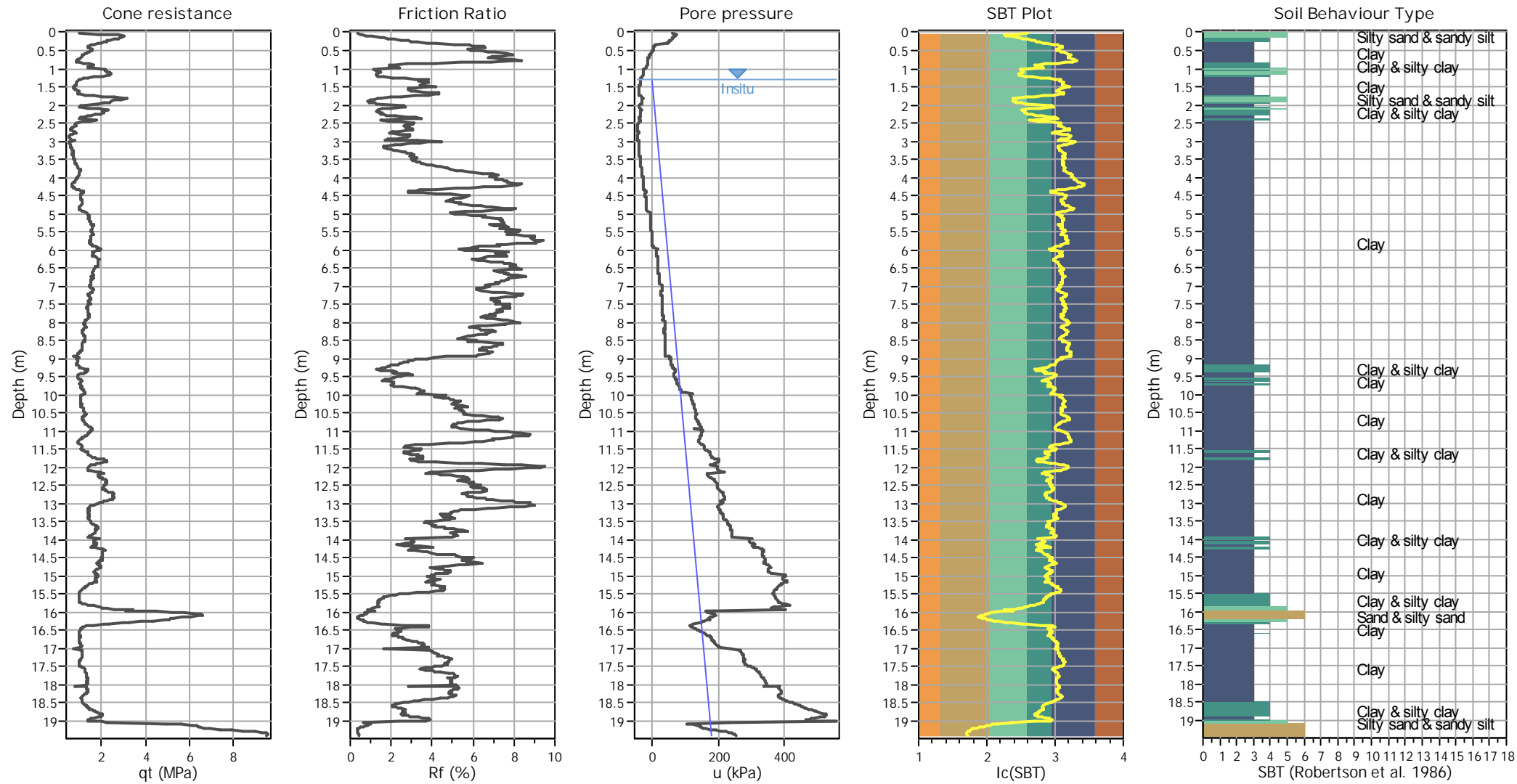
Input parameters and analysis data

Analysis method:	B&I (2014)	G.W.T. (in-situ):	1.30 m	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	1.30 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	1	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w :	6.14	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method
Peak ground acceleration:	0.28	Unit weight calculation:	Based on SBT	K applied:	Yes		



Zone A₁: Cyclic liquefaction likely depending on size and duration of cyclic loading
 Zone A₂: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
 Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
 Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



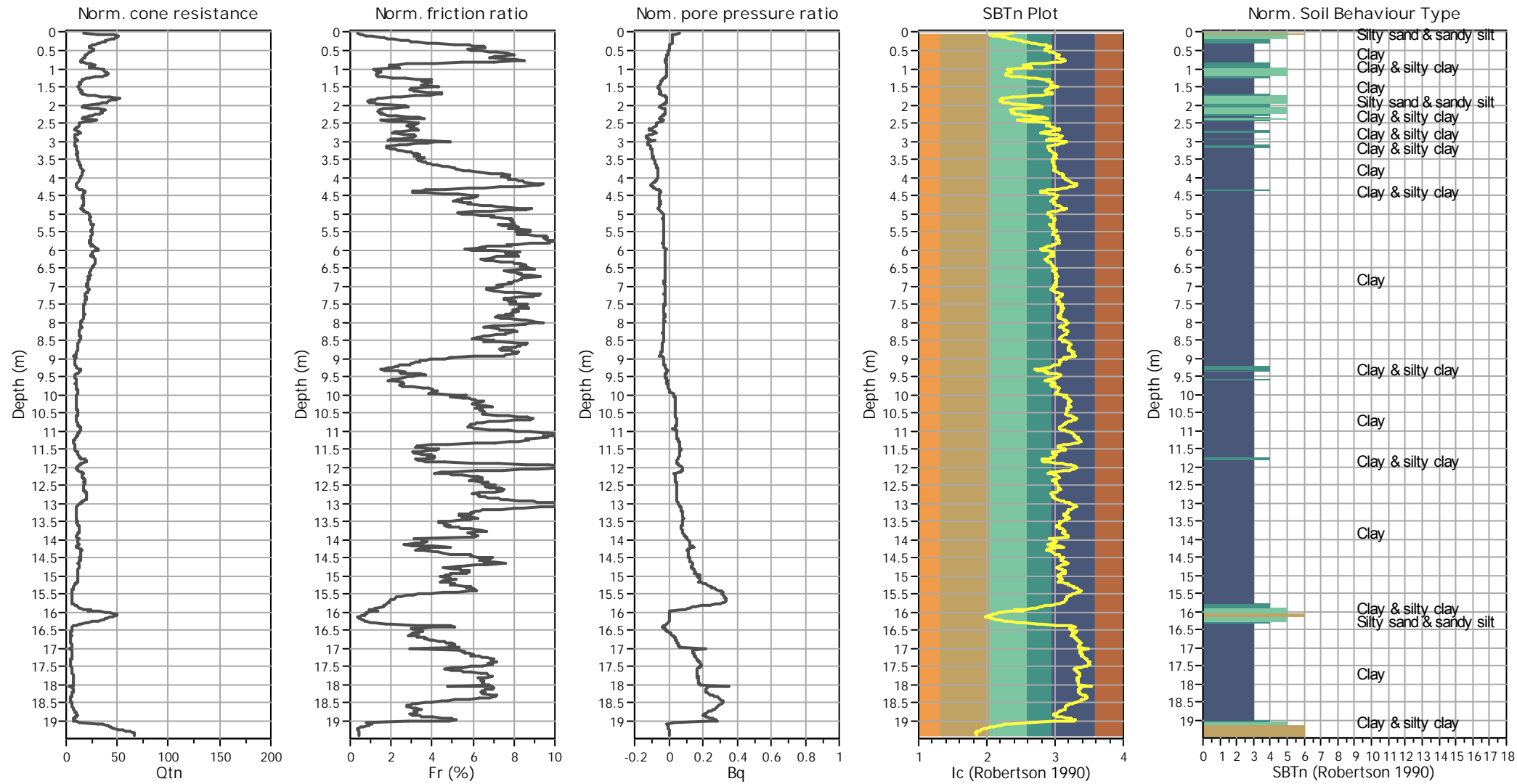
Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	1.30 m	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	1	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K applied:	Yes
Earthquake magnitude M_w :	6.14	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.28	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	1.30 m	Fill height:	N/A	Limit depth:	N/A

SBT legend

1. Sensitive fine grained	4. Clayey silt to silty	7. Gravely sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

CPT basic interpretation plots (normalized)



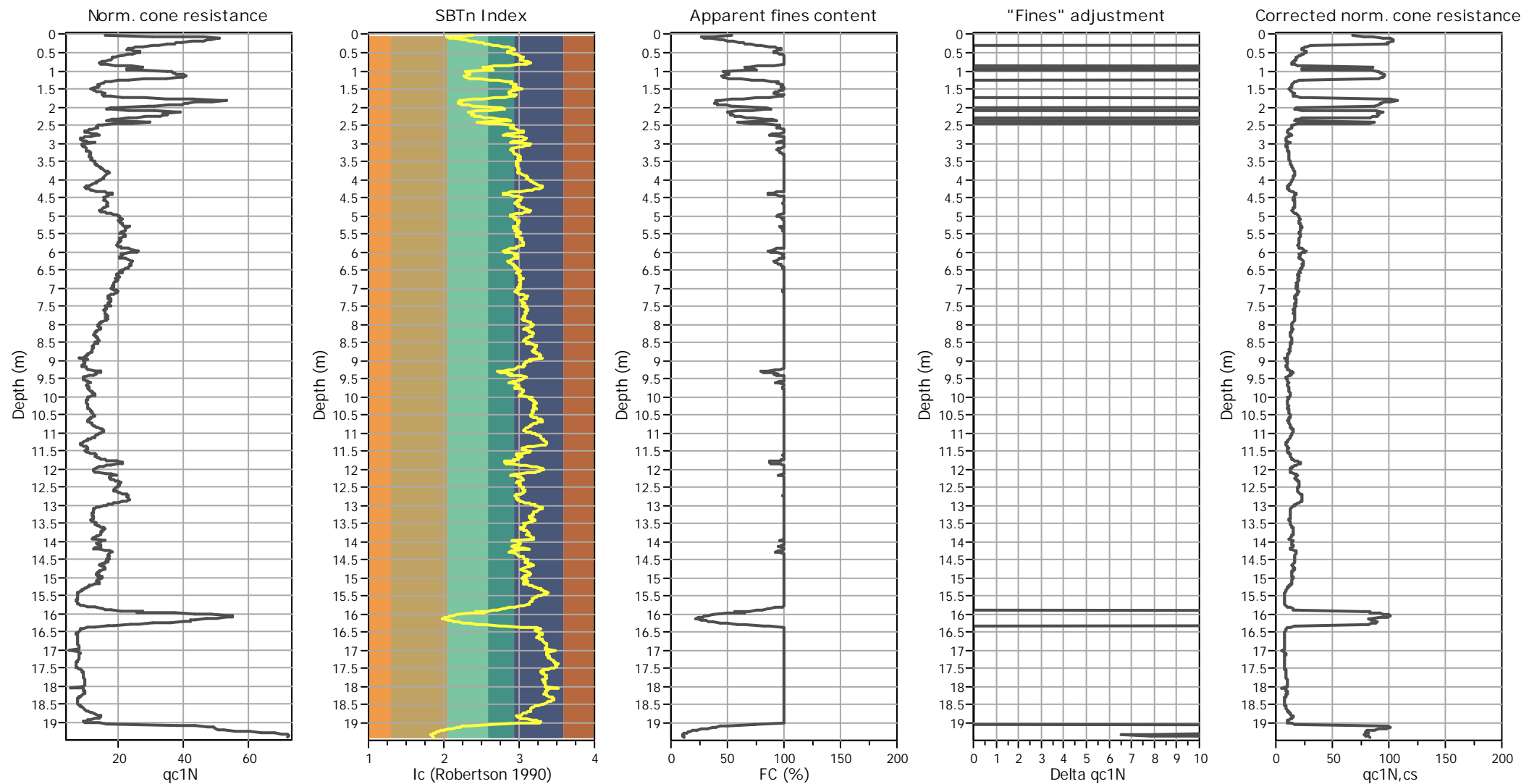
Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	1.30 m	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	1	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K applied:	Yes
Earthquake magnitude M_w :	6.14	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.28	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	1.30 m	Fill height:	N/A	Limit depth:	N/A

SBTn legend

1. Sensitive fine grained	4. Clayey silt to silty	7. Gravely sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

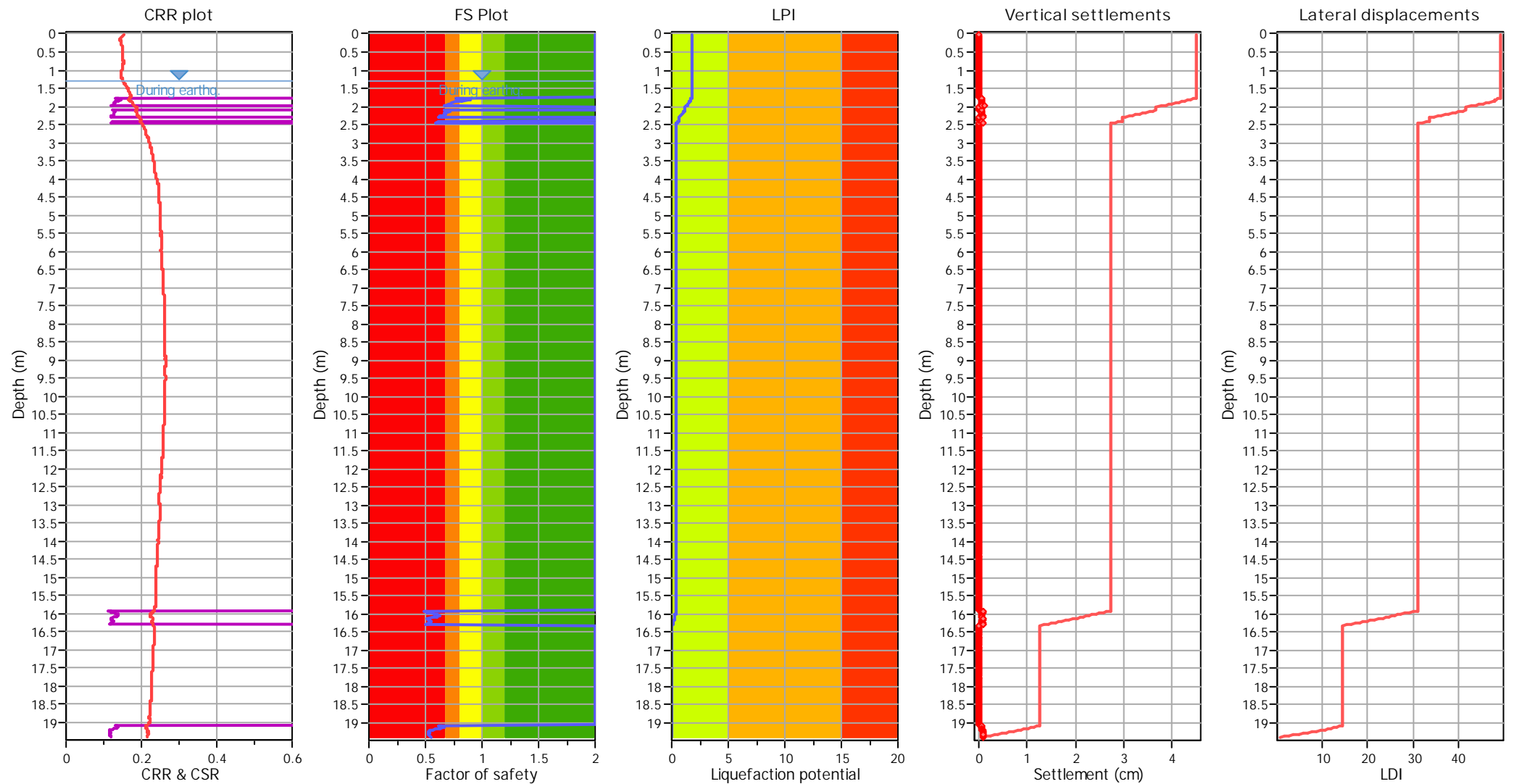
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	1.30 m	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	1	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K applied:	Yes
Earthquake magnitude M_w :	6.14	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.28	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	1.30 m	Fill height:	N/A	Limit depth:	N/A

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	1.30 m	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	1	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K applied:	Yes
Earthquake magnitude M_w :	6.14	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.28	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	1.30 m	Fill height:	N/A	Limit depth:	N/A

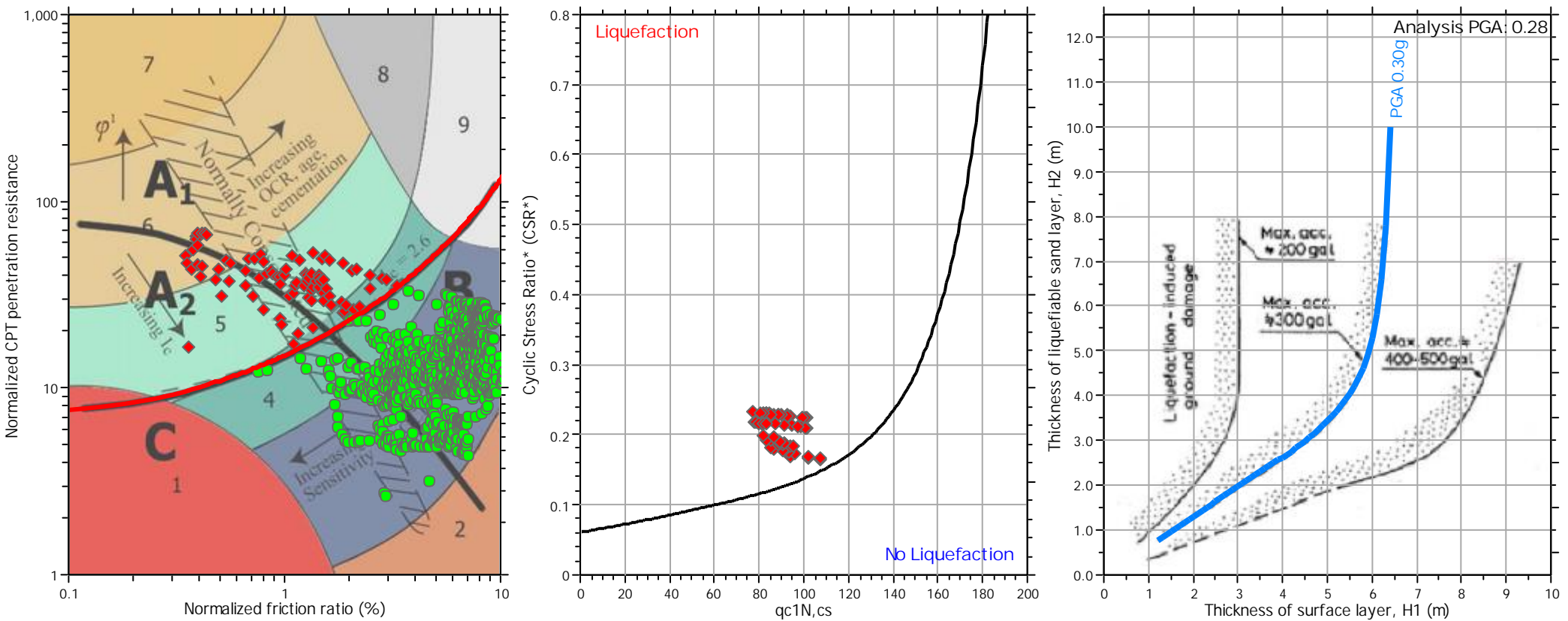
F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

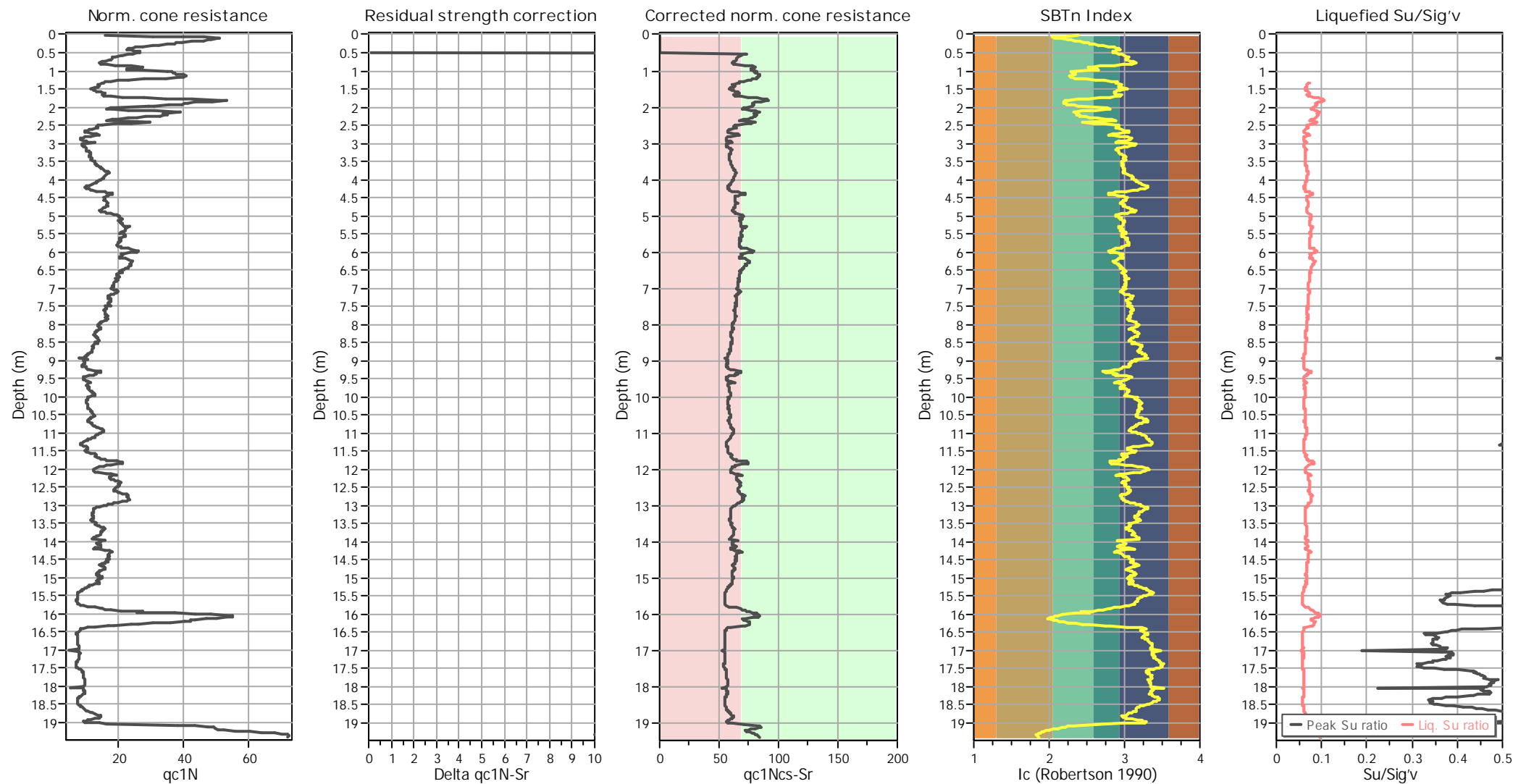
Liquefaction analysis summary plots



Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	1.30 m	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	1	Transition detect. applied:	No
Points to test:	Based on I_c value	I_c cut-off value:	2.60	K applied:	Yes
Earthquake magnitude M_w :	6.14	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.28	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	1.30 m	Fill height:	N/A	Limit depth:	N/A

Check for strength loss plots (Idriss & Boulanger (2008))



Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	1.30 m	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	1	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K applied:	Yes
Earthquake magnitude M_w :	6.14	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.28	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	1.30 m	Fill height:	N/A	Limit depth:	N/A

:: Field input data ::						
Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
1	0.02	0.96	3.51	60.98	25.68	14.42
2	0.04	1.82	9.34	71.85	18.47	15.79
3	0.06	2.75	15.45	67.11	14.13	16.53
4	0.08	3.03	23.60	66.80	15.16	17.05
5	0.10	3.01	32.76	63.39	17.75	17.43
6	0.13	2.88	42.86	63.86	20.99	17.72
7	0.14	2.83	45.61	61.53	22.01	17.78
8	0.16	2.74	51.64	59.59	24.00	17.91
9	0.18	2.55	55.22	58.11	26.54	17.96
10	0.21	2.36	58.94	54.70	29.23	18.01
11	0.22	2.26	63.62	52.37	31.46	18.08
12	0.24	2.23	66.47	51.13	32.40	18.12
13	0.26	2.09	69.12	47.87	34.79	18.15
14	0.28	1.94	73.60	44.30	38.02	18.19
15	0.30	1.81	76.07	40.50	40.68	18.20
16	0.32	1.64	83.58	6.36	45.79	18.27
17	0.34	1.51	87.47	6.13	49.72	18.29
18	0.36	1.45	86.06	5.43	50.85	18.26
19	0.38	1.38	89.67	4.11	53.64	18.28
20	0.41	1.36	89.37	3.72	54.13	18.27
21	0.42	1.42	87.16	3.26	51.92	18.26
22	0.44	1.49	89.42	3.26	50.55	18.31
23	0.46	1.59	91.13	1.47	48.62	18.36
24	0.48	1.58	93.08	1.63	49.11	18.38
25	0.50	1.54	97.67	-0.39	51.11	18.42
26	0.52	1.46	98.24	-2.25	53.25	18.41
27	0.54	1.38	97.80	-3.96	55.42	18.38
28	0.56	1.28	97.91	-5.51	58.61	18.35
29	0.58	1.24	94.73	-6.83	59.07	18.31
30	0.60	1.16	91.96	-8.30	61.59	18.24
31	0.62	1.10	85.89	-9.54	62.32	18.15
32	0.64	1.09	80.39	-10.47	61.54	18.06
33	0.66	1.08	75.33	-11.48	60.40	17.99
34	0.68	1.06	71.48	-12.72	60.05	17.92
35	0.70	1.03	71.22	-13.97	61.42	17.90
36	0.72	0.97	72.06	-15.52	64.32	17.90
37	0.74	0.92	72.10	-16.60	66.80	17.88
38	0.76	0.86	71.80	-14.20	69.68	17.85
39	0.78	0.84	66.78	-15.60	69.24	17.75
40	0.80	0.88	60.41	-16.68	65.17	17.65
41	0.82	0.98	52.78	-16.84	57.49	17.54
42	0.84	1.15	46.82	-16.53	49.29	17.46
43	0.86	1.45	39.65	-15.83	38.74	17.36
44	0.88	1.62	35.84	-15.75	33.95	17.29
45	0.90	1.65	31.23	-16.68	31.79	17.14
46	0.92	1.54	28.92	-18.62	32.78	17.02
47	0.94	1.36	29.49	-19.94	36.73	17.00
48	0.96	1.35	32.10	-20.95	38.17	17.09

:: Field input data :: (continued)						
Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
49	0.98	1.58	32.56	-20.10	33.48	17.17
50	1.00	2.09	23.18	-30.73	22.76	16.88
51	1.02	2.17	24.50	-30.26	22.34	16.96
52	1.04	2.21	27.70	-30.10	23.12	17.11
53	1.06	2.21	32.00	-30.26	24.44	17.28
54	1.08	2.25	33.60	-29.95	24.55	17.34
55	1.10	2.38	34.12	-28.48	23.35	17.38
56	1.12	2.44	32.42	-28.24	22.30	17.33
57	1.14	2.44	30.31	-28.48	21.72	17.25
58	1.16	2.39	29.89	-29.33	22.05	17.23
59	1.18	2.30	29.30	-30.03	22.72	17.19
60	1.20	2.07	27.74	-31.19	24.64	17.09
61	1.22	1.67	26.77	-32.98	29.80	16.96
62	1.24	1.39	28.41	-34.45	35.76	16.96
63	1.26	1.20	31.64	-35.61	42.08	17.03
64	1.28	1.07	34.17	-36.16	47.29	17.07
65	1.30	0.97	36.88	-36.62	52.33	17.12
66	1.32	0.94	31.64	-36.93	50.83	16.94
67	1.34	0.91	30.36	-37.32	51.33	16.88
68	1.36	0.85	32.17	-37.94	55.33	16.91
69	1.38	0.82	30.30	-38.41	55.46	16.83
70	1.40	0.84	29.95	-38.64	54.73	16.83
71	1.42	0.85	30.13	-39.03	54.01	16.84
72	1.44	0.82	27.56	-39.42	54.06	16.72
73	1.46	0.78	26.87	-40.11	55.89	16.67
74	1.48	0.71	29.27	-40.81	61.62	16.73
75	1.50	0.72	27.19	-41.04	59.72	16.65
76	1.52	0.75	22.51	-41.20	54.67	16.45
77	1.54	0.78	21.85	-41.43	52.65	16.43
78	1.56	0.81	22.76	-41.59	51.63	16.50
79	1.58	0.87	24.60	-41.67	50.07	16.62
80	1.60	0.93	27.52	-41.67	49.37	16.77
81	1.62	0.96	29.99	-41.74	49.61	16.88
82	1.64	0.94	34.05	-42.05	52.33	17.02
83	1.66	0.91	38.91	-42.44	56.14	17.16
84	1.68	0.94	39.99	-42.60	55.22	17.20
85	1.70	1.06	43.26	-42.29	51.57	17.34
86	1.72	1.27	47.98	-40.27	46.57	17.53
87	1.74	1.67	52.63	-35.61	38.55	17.74
88	1.76	2.06	50.28	-34.60	31.63	17.77
89	1.78	2.55	51.15	-32.59	26.10	17.87
90	1.80	3.05	46.05	-30.88	20.81	17.82
91	1.82	3.16	41.99	-30.57	19.19	17.73
92	1.84	2.90	33.87	-31.50	19.05	17.45
93	1.86	2.60	26.10	-31.42	19.15	17.11
94	1.88	2.46	21.42	-32.43	18.75	16.86
95	1.90	2.42	23.82	-32.12	19.92	16.97
96	1.92	2.35	22.05	-32.59	19.87	16.87

:: Field input data :: (continued)

Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
97	1.94	2.11	25.35	-33.83	23.52	16.99
98	1.96	1.85	23.17	-34.37	25.88	16.84
99	1.99	1.75	22.89	-39.26	27.06	16.80
100	2.00	1.16	29.45	-41.59	42.41	16.93
101	2.03	1.06	27.23	-42.36	44.57	16.81
102	2.04	1.00	26.95	-42.60	46.63	16.77
103	2.06	1.08	27.19	-41.98	43.79	16.81
104	2.08	1.37	26.88	-39.34	35.83	16.89
105	2.10	1.86	29.62	-36.70	28.18	17.12
106	2.12	2.26	31.12	-35.15	23.90	17.25
107	2.14	2.33	33.06	-34.99	23.79	17.33
108	2.16	2.05	28.79	-36.31	25.52	17.13
109	2.18	2.02	26.26	-36.31	24.99	17.01
110	2.20	2.10	29.73	-35.23	25.20	17.17
111	2.22	2.04	31.12	-35.23	26.43	17.21
112	2.24	1.95	28.87	-35.85	26.81	17.11
113	2.26	1.69	26.96	-37.01	29.79	16.98
114	2.28	1.54	27.59	-37.71	32.80	16.97
115	2.30	1.38	29.77	-38.25	37.02	17.01
116	2.32	1.20	32.97	-39.26	43.07	17.08
117	2.34	1.08	34.42	-39.96	47.61	17.09
118	2.36	0.99	34.29	-40.58	50.96	17.05
119	2.38	1.13	30.05	-39.96	43.99	16.95
120	2.40	1.74	31.27	-37.55	30.75	17.16
121	2.42	1.78	26.34	-37.55	28.20	16.97
122	2.44	1.42	27.42	-38.79	35.04	16.93
123	2.46	1.13	27.25	-40.35	42.51	16.83
124	2.48	0.91	27.63	-42.29	50.91	16.77
125	2.50	0.83	25.65	-43.45	53.41	16.64
126	2.52	0.82	24.58	-44.38	53.32	16.59
127	2.54	0.81	21.87	-44.61	51.96	16.45
128	2.56	0.83	21.70	-44.61	50.64	16.45
129	2.58	0.80	22.64	-44.61	52.79	16.49
130	2.60	0.72	20.94	-44.54	55.96	16.36
131	2.62	0.68	18.20	-44.38	56.53	16.17
132	2.64	0.63	17.23	-44.85	58.62	16.08
133	2.66	0.58	17.30	-45.16	62.53	16.05
134	2.68	0.58	17.58	-45.16	62.65	16.07
135	2.70	0.63	17.54	-44.85	58.94	16.10
136	2.72	0.72	16.54	-44.30	52.57	16.08
137	2.74	0.80	16.44	-43.76	48.42	16.12
138	2.76	0.85	16.44	-43.29	45.81	16.14
139	2.78	0.80	16.37	-43.76	48.16	16.11
140	2.80	0.68	16.44	-44.77	54.65	16.06
141	2.82	0.59	16.89	-45.54	61.30	16.03
142	2.84	0.55	15.85	-45.86	63.54	15.93
143	2.86	0.52	14.92	-46.01	65.20	15.84
144	2.88	0.53	14.60	-46.09	64.08	15.82

:: Field input data :: (continued)

Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
145	2.90	0.52	13.60	-46.17	63.97	15.73
146	2.92	0.56	12.87	-46.01	59.68	15.70
147	2.94	0.62	11.21	-45.86	53.47	15.58
148	2.96	0.65	10.79	-45.93	50.94	15.55
149	2.98	0.77	24.76	-42.05	56.54	16.57
150	3.00	0.58	25.60	-42.98	70.04	16.51
151	3.02	0.54	20.01	-43.29	68.98	16.19
152	3.04	0.53	17.86	-43.22	67.84	16.06
153	3.06	0.54	15.50	-42.83	64.92	15.90
154	3.08	0.56	13.76	-42.52	60.82	15.78
155	3.10	0.58	12.55	-42.36	57.90	15.68
156	3.12	0.60	10.47	-42.13	53.44	15.49
157	3.14	0.61	9.95	-41.82	52.04	15.44
158	3.16	0.62	10.08	-41.67	52.11	15.46
159	3.18	0.63	10.12	-41.51	51.37	15.47
160	3.20	0.63	11.37	-41.20	53.00	15.60
161	3.22	0.66	12.90	-40.97	52.99	15.76
162	3.25	0.67	14.04	-40.73	53.37	15.87
163	3.26	0.69	15.47	-40.42	53.82	15.99
164	3.28	0.70	17.34	-40.11	55.10	16.13
165	3.30	0.70	18.76	-40.11	56.12	16.22
166	3.32	0.69	19.08	-40.04	57.05	16.23
167	3.34	0.67	19.94	-39.96	58.87	16.28
168	3.36	0.67	20.47	-39.80	59.59	16.30
169	3.38	0.69	20.29	-39.80	58.10	16.30
170	3.40	0.72	20.36	-39.57	56.63	16.32
171	3.42	0.71	20.71	-39.18	57.04	16.34
172	3.44	0.70	21.86	-38.95	58.86	16.39
173	3.46	0.71	23.07	-38.72	59.29	16.46
174	3.48	0.74	23.24	-38.33	57.29	16.49
175	3.50	0.76	22.65	-38.02	55.69	16.47
176	3.52	0.77	23.42	-37.55	55.57	16.51
177	3.54	0.78	23.94	-37.63	55.85	16.54
178	3.56	0.79	25.29	-37.48	56.22	16.61
179	3.58	0.79	26.51	-37.32	56.82	16.66
180	3.60	0.81	28.03	-37.09	56.81	16.74
181	3.62	0.83	29.49	-36.70	56.51	16.81
182	3.64	0.86	32.02	-36.47	56.61	16.91
183	3.66	0.87	34.14	-36.23	57.25	16.99
184	3.68	0.89	37.33	-35.77	57.76	17.10
185	3.70	0.91	39.76	-35.61	58.04	17.18
186	3.72	0.92	42.78	-35.07	58.83	17.27
187	3.74	0.94	44.86	-34.68	58.58	17.34
188	3.77	0.97	46.80	-34.37	58.19	17.40
189	3.78	1.02	50.10	-33.75	57.07	17.50
190	3.80	1.04	53.99	-33.44	57.73	17.59
191	3.82	1.04	56.59	-33.21	58.66	17.64
192	3.84	1.00	58.36	-33.52	61.09	17.66

:: Field input data :: (continued)

Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
193	3.86	1.01	59.26	-33.52	61.16	17.68
194	3.88	0.98	62.62	-33.67	63.56	17.74
195	3.90	0.97	66.96	-33.75	65.50	17.81
196	3.92	0.95	68.87	-33.75	66.86	17.84
197	3.94	0.95	67.82	-33.52	66.69	17.82
198	3.96	0.95	64.07	-32.51	65.79	17.75
199	3.98	0.94	64.17	-27.08	66.35	17.75
200	4.00	0.90	63.79	-27.47	68.10	17.73
201	4.02	0.87	62.44	-27.78	69.14	17.69
202	4.04	0.87	61.29	-27.93	69.24	17.66
203	4.06	0.83	61.26	-28.16	71.34	17.65
204	4.08	0.81	61.01	-28.48	72.32	17.64
205	4.10	0.79	60.46	-28.48	73.49	17.62
206	4.12	0.75	58.03	-28.63	75.28	17.55
207	4.14	0.73	55.91	-28.71	75.96	17.49
208	4.16	0.68	54.80	-28.86	79.54	17.44
209	4.18	0.64	53.34	-28.86	82.31	17.39
210	4.20	0.64	51.36	-28.86	82.21	17.34
211	4.22	0.62	49.31	-28.71	82.43	17.29
212	4.24	0.65	47.40	-28.48	79.16	17.26
213	4.26	0.69	44.34	-27.93	74.48	17.20
214	4.28	0.72	41.60	-27.54	70.83	17.15
215	4.30	0.75	38.96	-27.16	66.95	17.09
216	4.32	0.86	35.84	-26.69	59.21	17.04
217	4.34	1.01	34.59	-24.67	51.35	17.07
218	4.36	1.06	33.96	-23.90	49.03	17.07
219	4.38	1.17	32.85	-21.41	45.02	17.06
220	4.40	1.18	33.37	-20.79	44.89	17.08
221	4.42	1.11	38.92	-21.80	49.67	17.24
222	4.44	1.09	45.69	-22.35	52.96	17.42
223	4.46	1.05	50.86	-22.89	56.63	17.53
224	4.48	1.02	55.27	-22.81	59.46	17.61
225	4.50	1.02	58.84	-22.42	60.81	17.68
226	4.52	1.04	59.33	-22.04	59.92	17.70
227	4.55	1.03	58.25	-21.80	60.22	17.67
228	4.56	1.03	55.23	-21.65	59.28	17.61
229	4.58	1.06	53.39	-21.34	57.35	17.58
230	4.60	1.08	54.33	-20.95	56.87	17.61
231	4.62	1.10	53.14	-20.48	55.76	17.59
232	4.64	1.12	52.66	-20.02	54.51	17.59
233	4.66	1.12	53.42	-20.25	55.11	17.60
234	4.68	1.09	56.20	-20.17	56.88	17.66
235	4.70	1.09	58.80	-19.79	58.02	17.71
236	4.72	1.12	59.46	-19.24	56.87	17.73
237	4.74	1.10	60.08	-19.40	57.99	17.73
238	4.76	1.07	63.24	-19.47	60.46	17.78
239	4.78	1.03	65.42	-19.79	62.62	17.81
240	4.80	1.01	66.95	-20.10	64.08	17.83

:: Field input data :: (continued)						
Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
241	4.82	1.01	69.07	-20.02	65.06	17.86
242	4.84	0.97	72.54	-19.47	68.08	17.90
243	4.86	0.96	77.64	-19.24	69.95	17.98
244	4.88	0.99	77.91	-18.23	68.28	17.99
245	4.90	1.07	75.62	-17.61	63.91	17.99
246	4.92	1.13	71.59	-16.99	60.48	17.95
247	4.94	1.20	66.98	-16.37	56.24	17.89
248	4.96	1.28	62.53	-7.45	52.36	17.84
249	4.98	1.33	65.38	-7.84	51.52	17.91
250	5.01	1.39	71.28	-7.91	51.33	18.02
251	5.02	1.39	77.18	-7.68	52.94	18.11
252	5.04	1.41	84.29	-7.53	53.84	18.22
253	5.06	1.40	92.07	-7.45	56.02	18.32
254	5.08	1.47	94.53	-6.83	54.51	18.37
255	5.10	1.47	96.30	-6.91	54.69	18.39
256	5.12	1.42	101.36	-7.14	57.42	18.43
257	5.14	1.40	103.38	-7.14	58.30	18.45
258	5.16	1.45	106.18	-6.98	57.23	18.50
259	5.18	1.44	107.47	-6.98	57.88	18.51
260	5.20	1.47	108.78	-6.52	57.28	18.53
261	5.22	1.49	110.65	-6.91	56.94	18.56
262	5.24	1.49	112.42	-7.14	57.29	18.57
263	5.26	1.51	113.39	-6.98	57.01	18.59
264	5.28	1.54	115.26	-6.52	56.54	18.61
265	5.30	1.67	113.70	-6.05	52.88	18.63
266	5.32	1.62	114.15	-5.97	54.03	18.62
267	5.34	1.57	119.25	-6.05	56.25	18.66
268	5.36	1.57	121.15	-6.21	56.68	18.68
269	5.38	1.59	119.97	-6.05	55.91	18.67
270	5.40	1.60	116.43	-5.59	55.21	18.64
271	5.42	1.59	119.34	-5.43	56.01	18.67
272	5.44	1.50	124.34	-5.43	59.19	18.69
273	5.46	1.48	122.42	-5.12	59.49	18.67
274	5.48	1.48	122.18	-4.19	59.48	18.67
275	5.50	1.57	118.43	-3.72	56.39	18.65
276	5.52	1.57	122.42	-3.88	57.11	18.69
277	5.54	1.60	123.98	-3.80	56.41	18.71
278	5.56	1.61	124.18	-3.88	56.09	18.72
279	5.58	1.58	127.65	-3.72	57.68	18.74
280	5.60	1.53	130.28	-3.96	59.48	18.75
281	5.62	1.49	134.06	-3.72	61.16	18.78
282	5.64	1.52	133.78	-3.10	60.34	18.78
283	5.66	1.48	133.68	-3.03	61.47	18.77
284	5.68	1.50	134.58	-2.87	60.98	18.78
285	5.70	1.52	134.71	-2.64	60.53	18.79
286	5.72	1.50	134.85	-2.56	61.10	18.79
287	5.74	1.45	136.83	-2.56	62.92	18.79
288	5.76	1.48	136.48	-2.02	61.97	18.79

:: Field input data :: (continued)

Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
289	5.78	1.47	133.98	-1.86	61.91	18.77
290	5.80	1.43	129.57	-1.94	62.54	18.72
291	5.82	1.46	118.98	-1.63	59.87	18.63
292	5.84	1.49	113.77	-1.24	57.78	18.59
293	5.86	1.56	112.07	-0.62	55.55	18.59
294	5.88	1.55	113.77	-0.31	56.16	18.60
295	5.90	1.72	108.94	0.70	51.01	18.59
296	5.92	1.81	108.04	1.47	48.83	18.60
297	5.94	1.80	111.64	1.63	49.78	18.64
298	5.96	1.95	105.88	15.36	45.82	18.61
299	5.98	1.99	105.57	14.20	45.13	18.61
300	6.01	1.94	109.08	13.03	46.72	18.64
301	6.02	1.78	117.61	12.10	51.23	18.69
302	6.04	1.64	124.52	11.41	55.62	18.73
303	6.06	1.59	123.72	11.41	56.81	18.71
304	6.08	1.63	115.56	11.72	54.53	18.64
305	6.10	1.62	114.87	11.64	54.55	18.63
306	6.12	1.60	115.77	11.56	55.36	18.63
307	6.14	1.55	117.50	11.41	57.16	18.64
308	6.16	1.55	118.30	11.87	57.38	18.65
309	6.18	1.69	113.82	13.42	52.91	18.64
310	6.20	1.75	114.38	14.04	51.75	18.66
311	6.22	1.77	116.80	14.51	51.88	18.68
312	6.24	1.85	115.41	15.36	49.98	18.69
313	6.26	1.88	112.39	16.06	49.04	18.66
314	6.28	1.86	115.55	15.98	49.99	18.69
315	6.30	1.85	120.51	15.91	51.02	18.74
316	6.32	1.84	127.38	15.91	52.21	18.80
317	6.34	1.82	135.46	15.98	53.92	18.86
318	6.36	1.86	139.83	16.29	53.71	18.91
319	6.38	1.86	145.11	16.60	54.33	18.95
320	6.40	1.81	146.01	16.68	55.77	18.95
321	6.42	1.82	143.26	16.60	55.23	18.93
322	6.44	1.81	140.66	16.53	55.21	18.91
323	6.46	1.73	139.83	16.06	56.90	18.88
324	6.48	1.71	139.30	15.83	57.54	18.87
325	6.50	1.68	136.56	16.06	57.85	18.84
326	6.52	1.61	135.55	16.14	59.73	18.82
327	6.54	1.63	127.60	16.84	57.93	18.75
328	6.56	1.67	119.16	17.38	55.59	18.68
329	6.58	1.63	114.30	17.69	55.85	18.63
330	6.60	1.55	113.95	17.30	57.97	18.61
331	6.62	1.55	115.41	17.30	58.53	18.62
332	6.64	1.54	119.47	17.54	59.49	18.66
333	6.66	1.60	120.85	18.08	58.14	18.68
334	6.68	1.62	127.48	18.70	58.65	18.75
335	6.70	1.62	132.23	18.70	59.51	18.79
336	6.72	1.56	134.28	18.62	61.76	18.79

:: Field input data :: (continued)

Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
337	6.74	1.53	131.78	18.78	62.10	18.77
338	6.76	1.61	125.29	19.40	58.96	18.73
339	6.78	1.59	123.41	19.32	59.13	18.71
340	6.80	1.56	120.53	19.40	59.63	18.67
341	6.82	1.53	117.27	19.40	60.07	18.63
342	6.84	1.50	113.20	19.24	60.07	18.59
343	6.86	1.48	109.39	19.32	60.18	18.54
344	6.88	1.49	108.73	19.63	59.83	18.54
345	6.90	1.52	108.10	19.94	58.89	18.54
346	6.92	1.49	108.58	19.71	59.80	18.53
347	6.94	1.48	106.02	19.71	59.91	18.50
348	6.96	1.52	100.67	28.09	57.69	18.45
349	6.98	1.47	100.25	26.85	59.07	18.44
350	7.00	1.46	99.94	26.61	59.44	18.43
351	7.02	1.45	99.35	26.69	59.69	18.42
352	7.04	1.52	97.41	27.31	57.27	18.42
353	7.06	1.59	97.72	27.62	55.40	18.44
354	7.08	1.61	101.89	27.85	55.55	18.49
355	7.10	1.64	101.36	27.78	54.87	18.49
356	7.12	1.59	103.06	27.23	56.58	18.50
357	7.14	1.58	103.97	26.54	57.03	18.51
358	7.16	1.54	107.71	26.46	58.94	18.54
359	7.18	1.47	111.29	26.15	61.79	18.56
360	7.20	1.42	114.41	25.91	64.15	18.58
361	7.22	1.38	116.91	25.99	66.24	18.59
362	7.24	1.39	117.25	26.54	65.78	18.60
363	7.26	1.42	116.00	26.92	64.86	18.59
364	7.28	1.41	114.72	27.16	64.95	18.58
365	7.30	1.46	111.56	27.85	62.54	18.56
366	7.32	1.47	105.73	28.01	61.09	18.50
367	7.34	1.48	102.78	28.16	60.28	18.47
368	7.36	1.47	101.28	28.16	60.52	18.45
369	7.38	1.45	100.66	27.93	60.93	18.44
370	7.40	1.40	102.60	27.78	63.28	18.44
371	7.42	1.44	101.52	28.32	61.57	18.44
372	7.44	1.41	103.26	28.63	62.98	18.46
373	7.46	1.43	104.64	28.71	62.93	18.47
374	7.48	1.47	104.78	29.41	61.52	18.49
375	7.50	1.36	106.41	28.71	65.86	18.48
376	7.53	1.36	104.95	29.17	65.41	18.46
377	7.54	1.39	103.53	29.41	64.29	18.45
378	7.56	1.37	103.01	29.17	64.87	18.44
379	7.58	1.33	103.73	28.86	66.56	18.44
380	7.60	1.32	103.73	28.94	67.03	18.44
381	7.62	1.35	100.64	29.56	65.33	18.41
382	7.64	1.36	98.35	29.64	64.47	18.39
383	7.66	1.37	98.28	29.72	64.27	18.39
384	7.68	1.36	99.95	29.64	64.88	18.40

:: Field input data :: (continued)

Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
385	7.70	1.35	100.47	29.72	65.51	18.41
386	7.72	1.37	98.63	30.10	64.39	18.39
387	7.74	1.39	98.76	30.41	63.97	18.40
388	7.76	1.41	99.63	30.73	63.30	18.42
389	7.78	1.45	99.39	30.96	62.17	18.42
390	7.80	1.38	98.59	30.96	64.40	18.39
391	7.82	1.42	93.87	31.35	61.84	18.35
392	7.84	1.43	92.17	31.58	61.21	18.33
393	7.86	1.41	91.96	31.81	61.96	18.32
394	7.88	1.39	93.28	31.66	62.91	18.33
395	7.90	1.37	95.50	31.81	64.25	18.36
396	7.92	1.29	96.85	30.96	67.67	18.35
397	7.94	1.27	97.33	27.39	68.85	18.35
398	7.96	1.24	99.05	37.48	70.19	18.36
399	7.98	1.26	99.36	36.62	69.65	18.37
400	8.00	1.20	100.27	35.92	72.45	18.36
401	8.02	1.22	96.83	36.00	71.02	18.33
402	8.04	1.21	91.28	36.08	69.94	18.26
403	8.06	1.19	90.20	35.92	70.92	18.23
404	8.08	1.24	83.67	36.54	66.84	18.17
405	8.10	1.27	79.61	36.70	64.97	18.12
406	8.12	1.28	74.96	36.54	63.10	18.05
407	8.14	1.23	74.54	35.69	65.22	18.03
408	8.16	1.20	75.93	35.30	67.03	18.04
409	8.18	1.18	75.38	35.46	67.47	18.03
410	8.20	1.17	75.17	35.46	68.11	18.02
411	8.22	1.12	78.36	35.07	71.15	18.05
412	8.24	1.11	79.82	35.07	72.13	18.07
413	8.26	1.12	78.39	35.15	71.61	18.05
414	8.28	1.11	74.99	35.07	71.10	18.00
415	8.30	1.13	75.06	35.61	70.23	18.00
416	8.32	1.14	75.82	36.31	70.23	18.02
417	8.34	1.16	73.60	36.78	68.36	17.99
418	8.36	1.18	69.96	37.24	66.55	17.94
419	8.38	1.21	69.82	37.55	65.54	17.95
420	8.40	1.22	68.19	38.25	64.45	17.92
421	8.42	1.23	68.19	38.64	64.19	17.93
422	8.44	1.26	66.49	38.95	62.70	17.91
423	8.46	1.25	68.15	38.87	63.42	17.93
424	8.48	1.21	71.90	38.41	66.49	17.98
425	8.50	1.17	72.18	38.56	68.30	17.97
426	8.52	1.21	69.92	38.87	65.86	17.95
427	8.54	1.16	73.88	38.10	69.40	18.00
428	8.56	1.11	79.22	37.40	73.25	18.06
429	8.58	1.10	82.55	37.32	74.67	18.10
430	8.60	1.09	81.68	37.71	74.91	18.09
431	8.62	1.11	80.40	38.10	73.90	18.08
432	8.64	1.11	80.54	38.17	73.71	18.08

:: Field input data :: (continued)

Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
433	8.66	1.11	78.98	38.33	73.34	18.06
434	8.68	1.07	74.74	38.33	74.22	17.98
435	8.70	1.09	70.23	38.72	72.27	17.91
436	8.72	1.09	69.75	38.72	71.99	17.91
437	8.74	1.10	69.68	38.72	71.53	17.91
438	8.76	1.09	69.02	38.72	72.11	17.89
439	8.78	1.03	69.54	38.48	75.01	17.88
440	8.80	1.02	69.08	38.56	75.84	17.87
441	8.82	0.97	67.73	38.25	78.32	17.83
442	8.84	0.97	65.79	38.02	77.97	17.79
443	8.86	0.93	63.77	37.86	79.36	17.74
444	8.88	0.93	59.54	38.25	77.98	17.66
445	8.90	0.90	56.76	38.33	78.96	17.60
446	8.92	0.87	54.09	38.10	80.16	17.53
447	8.94	0.72	34.10	52.29	81.67	16.93
448	8.96	0.96	39.14	53.92	67.58	17.19
449	8.98	0.89	37.05	52.92	70.89	17.10
450	9.00	0.86	33.03	52.53	69.97	16.96
451	9.02	0.90	29.21	53.15	65.80	16.83
452	9.04	0.89	27.13	53.23	64.99	16.74
453	9.06	0.90	25.53	54.16	63.36	16.68
454	9.08	0.89	25.33	54.08	63.85	16.66
455	9.10	0.88	23.28	53.46	63.03	16.56
456	9.12	0.85	21.44	54.08	63.11	16.46
457	9.14	0.83	20.26	54.78	63.44	16.38
458	9.16	0.84	19.95	56.25	62.70	16.37
459	9.18	0.93	18.63	58.42	56.85	16.33
460	9.20	0.95	18.53	59.28	55.58	16.33
461	9.22	0.94	17.83	59.82	55.54	16.28
462	9.24	0.97	16.62	61.53	52.98	16.22
463	9.26	1.04	16.27	62.77	49.96	16.22
464	9.28	1.21	17.18	65.33	44.80	16.33
465	9.30	1.35	17.84	68.05	41.05	16.42
466	9.32	1.36	20.93	69.05	42.79	16.61
467	9.34	1.24	25.89	67.35	49.27	16.82
468	9.36	1.21	28.08	66.42	51.74	16.90
469	9.38	1.26	26.48	66.80	49.01	16.85
470	9.40	1.18	25.51	66.26	51.39	16.78
471	9.42	1.02	29.57	64.24	60.44	16.90
472	9.44	0.91	28.11	62.07	65.16	16.80
473	9.46	0.88	24.19	62.07	64.44	16.61
474	9.48	0.88	21.90	63.78	63.09	16.49
475	9.50	0.87	20.38	65.56	62.38	16.41
476	9.52	0.89	18.99	67.50	59.73	16.34
477	9.54	0.92	19.72	68.43	58.95	16.39
478	9.56	0.97	18.82	69.99	55.70	16.36
479	9.58	1.01	17.60	72.08	53.14	16.29
480	9.60	1.09	17.25	74.02	49.58	16.30

:: Field input data :: (continued)						
Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
481	9.62	1.06	19.34	73.71	52.15	16.42
482	9.64	1.02	21.94	73.40	56.22	16.55
483	9.66	1.00	20.93	74.10	56.47	16.49
484	9.68	0.96	20.97	74.49	58.21	16.48
485	9.70	1.00	21.63	76.89	56.95	16.53
486	9.72	1.03	20.76	77.82	54.96	16.49
487	9.74	1.04	21.66	79.14	54.92	16.55
488	9.76	1.06	23.30	79.92	55.20	16.64
489	9.78	1.03	26.84	80.38	59.27	16.79
490	9.80	1.04	31.10	80.93	61.36	16.96
491	9.82	1.05	34.40	82.01	62.32	17.08
492	9.84	1.10	38.08	83.87	62.04	17.22
493	9.86	1.14	39.33	85.11	61.06	17.27
494	9.88	1.16	40.89	85.74	60.87	17.32
495	9.90	1.17	42.90	86.43	61.46	17.38
496	9.92	1.21	42.94	88.14	59.78	17.39
497	9.94	1.22	42.23	97.68	59.21	17.38
498	9.96	1.23	41.18	119.64	58.35	17.35
499	9.98	1.17	43.19	116.77	61.46	17.39
500	10.00	1.08	47.32	114.29	67.49	17.46
501	10.02	1.01	48.33	114.06	71.44	17.46
502	10.04	1.04	44.16	115.45	68.06	17.37
503	10.06	1.04	43.64	116.15	67.88	17.36
504	10.08	1.01	47.29	116.15	71.06	17.44
505	10.10	1.01	49.75	116.46	72.52	17.49
506	10.12	1.00	50.44	117.31	72.99	17.51
507	10.14	1.00	51.59	118.48	73.54	17.53
508	10.16	1.00	52.70	119.18	73.94	17.56
509	10.18	1.00	55.23	119.87	75.03	17.61
510	10.20	1.04	55.82	121.43	73.40	17.64
511	10.22	1.04	54.99	122.28	72.93	17.62
512	10.24	1.05	53.53	123.29	72.00	17.59
513	10.26	1.05	54.32	123.99	72.29	17.61
514	10.28	1.05	55.71	124.06	73.11	17.64
515	10.30	1.04	57.59	124.22	74.57	17.67
516	10.32	1.02	60.12	125.00	76.16	17.72
517	10.34	1.08	59.49	126.47	72.73	17.73
518	10.36	1.12	58.90	127.40	70.77	17.73
519	10.38	1.12	62.30	127.71	71.84	17.79
520	10.40	1.14	63.48	128.02	71.73	17.82
521	10.42	1.16	63.48	128.88	70.46	17.83
522	10.44	1.16	64.90	129.57	71.00	17.85
523	10.46	1.18	66.11	130.74	70.90	17.88
524	10.48	1.20	68.23	131.36	70.44	17.92
525	10.50	1.23	70.45	131.90	70.04	17.97
526	10.52	1.24	71.42	132.68	69.70	17.99
527	10.54	1.26	71.07	132.99	69.16	17.99
528	10.56	1.19	74.06	131.90	72.80	18.02

:: Field input data :: (continued)

Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
529	10.58	1.16	76.76	131.13	75.41	18.05
530	10.60	1.13	79.40	130.74	77.48	18.08
531	10.62	1.10	81.41	130.66	79.86	18.09
532	10.64	1.08	81.17	131.05	81.10	18.08
533	10.66	1.06	80.99	131.28	81.82	18.08
534	10.68	1.08	80.54	132.68	81.09	18.07
535	10.70	1.12	76.55	134.23	77.57	18.03
536	10.72	1.14	73.39	136.09	75.56	17.99
537	10.74	1.18	69.46	137.10	72.65	17.94
538	10.76	1.20	66.96	138.73	70.82	17.90
539	10.78	1.22	64.98	139.27	69.54	17.87
540	10.80	1.24	65.44	140.20	68.87	17.89
541	10.82	1.27	65.26	141.44	67.52	17.89
542	10.84	1.32	67.20	142.84	66.16	17.94
543	10.86	1.36	70.29	144.86	65.55	18.01
544	10.88	1.44	73.66	146.80	63.58	18.08
545	10.90	1.50	78.97	148.35	63.15	18.18
546	10.92	1.54	84.34	147.81	63.13	18.26
547	10.94	1.55	86.77	127.79	63.61	18.30
548	10.96	1.57	95.92	154.25	65.13	18.42
549	10.98	1.51	103.87	152.23	68.83	18.49
550	11.01	1.47	106.64	151.38	70.87	18.51
551	11.02	1.43	111.33	149.36	73.33	18.55
552	11.04	1.39	115.08	148.58	75.90	18.58
553	11.06	1.36	115.60	147.26	77.07	18.58
554	11.08	1.31	118.23	146.33	79.70	18.59
555	11.11	1.30	116.32	146.49	80.05	18.57
556	11.12	1.27	106.33	145.56	79.42	18.45
557	11.14	1.22	99.87	144.47	79.93	18.37
558	11.16	1.16	94.59	143.93	81.65	18.29
559	11.18	1.10	89.91	142.69	83.79	18.21
560	11.20	1.08	80.57	142.38	82.73	18.07
561	11.22	1.04	74.42	141.75	83.20	17.97
562	11.24	0.97	70.26	140.36	85.89	17.88
563	11.26	0.94	66.37	139.97	87.11	17.80
564	11.28	0.90	60.12	140.20	87.29	17.67
565	11.30	0.88	55.26	140.44	86.88	17.57
566	11.32	0.87	49.78	141.91	85.27	17.44
567	11.34	0.91	45.19	144.55	80.24	17.35
568	11.36	0.98	38.63	148.82	72.50	17.20
569	11.38	1.04	34.54	152.31	66.94	17.09
570	11.40	1.10	31.03	155.57	62.30	16.99
571	11.42	1.11	30.79	156.73	61.74	16.98
572	11.44	1.11	30.10	157.89	61.48	16.95
573	11.46	1.07	30.69	157.35	63.55	16.96
574	11.48	1.03	33.33	157.35	67.00	17.05
575	11.50	1.02	36.45	158.20	69.58	17.14
576	11.52	1.05	36.87	160.92	68.31	17.17

:: Field input data :: (continued)

Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
577	11.54	1.12	36.56	164.80	64.78	17.18
578	11.56	1.20	35.90	168.83	60.85	17.19
579	11.58	1.31	35.03	172.87	56.17	17.19
580	11.60	1.36	36.91	174.26	55.36	17.27
581	11.62	1.36	37.88	173.95	55.82	17.30
582	11.64	1.33	40.69	174.26	58.35	17.37
583	11.66	1.32	45.55	175.12	60.66	17.50
584	11.68	1.44	47.70	178.14	57.41	17.58
585	11.70	1.45	52.84	179.62	58.77	17.70
586	11.72	1.51	54.82	180.55	57.76	17.76
587	11.74	1.65	55.45	185.20	53.95	17.81
588	11.76	1.72	62.07	189.32	54.19	17.95
589	11.78	2.05	60.51	198.86	46.57	17.99
590	11.80	2.15	65.93	201.03	46.00	18.11
591	11.82	2.20	70.09	200.57	46.17	18.19
592	11.84	2.20	74.64	199.02	47.22	18.26
593	11.86	2.06	87.69	194.44	52.58	18.42
594	11.88	1.87	101.64	189.78	59.84	18.55
595	11.90	1.73	112.43	186.29	65.48	18.64
596	11.92	1.64	125.83	184.74	70.73	18.75
597	11.94	1.50	128.36	174.19	76.09	18.74
598	11.96	1.41	133.47	197.08	80.56	18.76
599	11.98	1.40	136.77	196.14	81.75	18.78
600	12.00	1.33	127.16	195.06	82.82	18.68
601	12.02	1.31	116.85	195.06	81.89	18.58
602	12.04	1.31	105.29	195.91	79.26	18.46
603	12.06	1.32	96.13	197.23	76.75	18.36
604	12.08	1.36	88.28	199.56	73.45	18.27
605	12.10	1.46	79.12	202.82	67.23	18.17
606	12.12	1.73	77.14	213.37	58.45	18.21
607	12.14	1.88	76.24	216.86	54.64	18.22
608	12.16	2.04	76.86	172.01	51.47	18.26
609	12.18	1.94	84.39	164.72	55.41	18.35
610	12.20	1.87	84.42	166.43	57.01	18.34
611	12.22	1.84	90.88	167.59	59.30	18.42
612	12.24	1.82	97.85	169.22	61.22	18.50
613	12.26	1.85	103.64	171.32	61.65	18.57
614	12.28	1.87	108.99	173.88	62.20	18.63
615	12.30	1.97	114.33	177.83	60.67	18.71
616	12.32	2.03	119.40	182.33	60.27	18.77
617	12.34	2.14	118.04	185.98	57.67	18.77
618	12.36	2.23	118.60	189.01	55.91	18.80
619	12.38	2.21	121.72	189.55	56.90	18.82
620	12.40	2.18	127.03	191.88	58.27	18.87
621	12.42	2.13	131.01	192.89	59.98	18.89
622	12.44	2.20	130.53	196.14	58.50	18.90
623	12.46	2.20	130.49	195.76	58.46	18.90
624	12.48	2.13	136.67	194.67	61.06	18.94

:: Field input data :: (continued)

Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
625	12.50	2.08	135.31	194.59	61.90	18.92
626	12.52	2.05	126.94	195.45	61.38	18.84
627	12.54	2.04	122.85	195.45	60.94	18.80
628	12.56	2.01	124.20	196.38	61.85	18.81
629	12.58	2.01	133.11	197.70	63.39	18.89
630	12.60	2.01	137.07	199.25	63.95	18.92
631	12.62	2.11	138.56	201.58	62.02	18.95
632	12.64	2.16	143.48	203.98	61.72	19.00
633	12.66	2.19	149.24	206.39	61.79	19.05
634	12.68	2.28	147.92	209.49	59.79	19.06
635	12.70	2.44	141.95	212.36	56.10	19.04
636	12.72	2.50	138.72	213.83	54.59	19.02
637	12.74	2.46	141.74	213.91	55.73	19.04
638	12.76	2.46	143.82	214.92	56.06	19.05
639	12.78	2.49	143.47	215.77	55.50	19.06
640	12.80	2.50	145.45	216.32	55.65	19.07
641	12.82	2.48	151.03	216.63	56.69	19.12
642	12.84	2.53	158.08	217.79	56.78	19.17
643	12.86	2.48	166.30	217.25	58.68	19.23
644	12.88	2.44	166.50	217.09	59.52	19.22
645	12.90	2.34	165.01	213.91	61.38	19.19
646	12.92	2.20	165.42	210.03	64.48	19.17
647	12.94	2.04	165.21	206.08	68.25	19.14
648	12.96	1.98	163.75	213.37	69.45	19.12
649	12.98	1.87	168.44	211.51	73.21	19.13
650	13.00	1.81	162.54	209.33	74.00	19.08
651	13.02	1.71	153.03	204.52	75.85	18.99
652	13.04	1.59	146.82	201.58	79.21	18.91
653	13.06	1.48	134.91	199.17	81.14	18.79
654	13.08	1.41	123.70	197.77	81.82	18.67
655	13.10	1.38	110.75	198.47	80.57	18.54
656	13.12	1.40	100.72	200.18	77.68	18.43
657	13.14	1.36	94.13	201.11	77.62	18.35
658	13.16	1.36	85.73	202.66	75.66	18.24
659	13.18	1.39	77.05	204.29	72.10	18.12
660	13.20	1.38	75.18	205.69	71.91	18.09
661	13.22	1.35	71.43	206.77	72.06	18.03
662	13.24	1.36	68.34	207.24	71.08	17.98
663	13.26	1.35	69.52	208.40	71.78	17.99
664	13.28	1.35	68.23	210.65	71.32	17.97
665	13.30	1.40	64.04	212.98	68.04	17.91
666	13.32	1.41	64.63	213.45	68.17	17.93
667	13.34	1.40	64.83	213.91	68.45	17.93
668	13.36	1.39	65.36	213.83	69.11	17.93
669	13.38	1.34	67.61	213.14	71.80	17.96
670	13.40	1.30	68.79	213.76	74.00	17.97
671	13.42	1.32	67.93	215.77	72.87	17.96
672	13.44	1.37	68.17	219.27	70.84	17.98

:: Field input data :: (continued)

Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
673	13.46	1.41	66.99	222.14	68.89	17.97
674	13.48	1.48	62.34	225.40	65.27	17.90
675	13.50	1.49	56.37	226.02	62.81	17.79
676	13.52	1.46	54.74	225.78	63.29	17.75
677	13.54	1.46	57.17	225.94	64.13	17.80
678	13.56	1.54	63.18	228.89	63.51	17.93
679	13.58	1.60	65.99	231.37	62.43	18.00
680	13.60	1.63	69.81	233.46	62.78	18.07
681	13.62	1.73	70.78	235.71	60.04	18.11
682	13.64	1.79	76.72	237.42	60.19	18.21
683	13.66	1.76	83.31	236.80	62.52	18.30
684	13.68	1.77	84.32	236.41	62.52	18.32
685	13.70	1.69	87.20	235.25	65.61	18.34
686	13.72	1.67	91.51	237.11	67.22	18.39
687	13.74	1.72	96.26	239.59	66.74	18.46
688	13.76	1.67	98.69	240.45	68.64	18.48
689	13.78	1.68	91.33	241.77	66.83	18.39
690	13.80	1.69	85.36	242.39	65.28	18.32
691	13.82	1.65	83.59	241.92	66.17	18.28
692	13.84	1.56	83.11	240.45	68.95	18.25
693	13.86	1.53	79.74	239.83	69.06	18.20
694	13.88	1.45	78.25	239.13	71.63	18.16
695	13.90	1.41	75.65	240.29	72.64	18.11
696	13.92	1.40	72.42	242.62	71.95	18.06
697	13.94	1.36	65.76	244.09	71.73	17.93
698	13.96	1.82	50.88	303.14	52.60	17.75
699	13.98	1.73	55.32	295.07	56.12	17.83
700	14.00	1.66	52.41	293.60	57.07	17.75
701	14.02	1.61	49.28	293.67	57.42	17.67
702	14.04	1.59	49.52	293.75	58.25	17.67
703	14.06	1.55	50.74	293.05	59.89	17.69
704	14.08	1.60	50.08	298.25	58.35	17.68
705	14.10	1.68	48.00	307.72	55.25	17.65
706	14.12	1.71	42.27	309.19	52.60	17.51
707	14.14	1.71	40.26	308.80	51.76	17.46
708	14.16	1.68	45.01	307.17	54.44	17.58
709	14.18	1.49	52.58	304.15	62.64	17.71
710	14.20	1.42	59.69	306.79	67.55	17.84
711	14.22	1.65	58.83	319.74	59.64	17.88
712	14.24	1.86	61.53	329.52	55.10	17.98
713	14.26	2.00	61.74	334.10	52.17	18.01
714	14.28	2.10	61.53	336.66	50.06	18.02
715	14.30	2.05	65.52	334.10	52.10	18.09
716	14.32	1.99	74.44	333.79	55.62	18.22
717	14.34	2.00	77.15	335.80	55.96	18.27
718	14.36	1.97	81.35	334.87	57.73	18.32
719	14.39	1.98	87.49	333.79	58.74	18.41
720	14.40	1.95	100.68	333.24	62.22	18.56

:: Field input data :: (continued)

Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
721	14.42	1.99	105.78	334.33	62.29	18.63
722	14.44	1.98	106.64	334.72	62.80	18.63
723	14.46	1.98	106.05	335.73	62.68	18.63
724	14.48	1.99	111.71	335.96	63.65	18.69
725	14.50	1.90	119.41	336.04	67.13	18.75
726	14.52	1.92	117.68	342.09	66.34	18.74
727	14.54	1.97	114.06	343.64	64.56	18.71
728	14.56	1.95	111.08	342.55	64.46	18.68
729	14.58	1.86	109.76	341.24	66.64	18.64
730	14.60	1.85	108.99	340.77	66.75	18.63
731	14.62	1.78	110.72	338.44	69.16	18.64
732	14.64	1.69	112.98	336.43	72.51	18.64
733	14.66	1.69	112.45	340.93	72.46	18.64
734	14.68	1.77	104.92	347.06	68.45	18.57
735	14.70	1.82	100.16	352.72	66.20	18.53
736	14.72	1.88	92.77	356.13	62.95	18.46
737	14.74	1.85	88.81	356.13	62.85	18.40
738	14.76	1.89	79.34	357.84	59.89	18.28
739	14.78	1.82	74.44	354.66	60.31	18.19
740	14.80	1.75	78.92	352.72	63.52	18.24
741	14.82	1.68	80.03	352.41	65.83	18.24
742	14.84	1.66	79.40	350.55	66.26	18.23
743	14.86	1.61	82.00	348.99	68.66	18.26
744	14.88	1.59	79.78	350.86	68.54	18.22
745	14.90	1.59	81.59	354.50	69.02	18.25
746	14.92	1.60	79.82	357.92	68.35	18.22
747	14.94	1.69	73.19	362.18	64.09	18.14
748	14.96	1.62	69.71	401.44	64.90	18.07
749	14.98	1.77	74.05	402.92	61.86	18.18
750	15.00	1.77	72.07	401.83	61.26	18.15
751	15.02	1.77	69.99	400.13	60.83	18.11
752	15.04	1.69	70.23	393.84	63.13	18.10
753	15.06	1.64	70.27	394.54	64.70	18.09
754	15.08	1.64	71.31	394.07	65.18	18.10
755	15.10	1.61	73.95	395.63	66.61	18.14
756	15.12	1.65	70.89	402.14	64.59	18.10
757	15.14	1.70	68.81	408.89	62.60	18.08
758	15.16	1.70	66.14	405.87	61.85	18.03
759	15.18	1.55	65.82	401.21	66.61	17.99
760	15.20	1.47	63.12	395.24	68.56	17.92
761	15.22	1.36	59.16	389.73	71.52	17.82
762	15.24	1.32	55.48	388.33	71.86	17.74
763	15.26	1.29	56.14	386.24	73.38	17.74
764	15.28	1.22	57.63	382.51	77.06	17.75
765	15.30	1.17	57.01	379.72	79.63	17.72
766	15.32	1.15	54.23	378.71	79.67	17.66
767	15.34	1.10	53.88	377.47	82.16	17.64
768	15.36	1.07	52.81	375.53	83.92	17.60

:: Field input data :: (continued)

Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
769	15.38	1.03	51.11	372.50	85.15	17.55
770	15.40	0.98	47.57	367.69	87.52	17.45
771	15.42	0.94	43.44	366.37	88.12	17.33
772	15.44	0.93	38.27	366.45	86.25	17.18
773	15.46	0.92	32.57	366.61	83.46	16.99
774	15.48	0.92	28.20	365.75	80.16	16.83
775	15.50	0.94	24.32	366.37	76.66	16.66
776	15.52	0.93	22.20	367.77	75.53	16.55
777	15.54	0.93	20.12	369.01	73.79	16.44
778	15.56	0.91	17.79	371.57	72.57	16.29
779	15.58	0.92	16.16	372.66	70.84	16.19
780	15.60	0.91	15.82	373.98	70.62	16.16
781	15.62	0.90	15.44	374.52	71.40	16.12
782	15.64	0.90	14.85	375.53	70.38	16.08
783	15.66	0.90	13.98	377.63	69.41	16.01
784	15.68	0.91	13.60	380.19	68.44	15.99
785	15.70	0.91	13.60	381.74	68.44	15.99
786	15.72	0.93	13.99	382.51	67.88	16.02
787	15.74	0.96	14.13	387.63	65.98	16.05
788	15.76	1.05	15.13	396.17	62.57	16.16
789	15.78	1.16	17.15	405.25	59.27	16.34
790	15.80	1.31	19.20	416.89	55.04	16.51
791	15.82	1.58	22.91	408.89	49.56	16.78
792	15.84	1.79	25.83	385.62	46.20	16.97
793	15.86	1.84	26.14	367.77	45.43	16.99
794	15.88	1.94	22.01	357.53	41.24	16.81
795	15.90	2.16	23.09	358.62	37.94	16.91
796	15.92	2.51	25.45	374.29	33.91	17.07
797	15.94	3.34	29.89	403.07	26.99	17.37
798	15.96	3.09	38.47	159.37	32.32	17.62
799	15.98	4.43	46.35	188.15	23.91	17.98
800	16.00	5.20	37.43	167.36	18.38	17.79
801	16.02	5.74	47.46	169.38	18.11	18.10
802	16.04	6.30	48.50	182.80	16.33	18.16
803	16.06	6.53	45.97	189.01	15.25	18.11
804	16.08	6.56	43.08	190.09	14.74	18.04
805	16.10	6.38	32.95	186.99	13.55	17.72
806	16.12	6.04	22.82	181.95	5.00	17.28
807	16.14	5.68	20.04	175.74	5.00	17.10
808	16.16	5.25	20.49	168.45	5.00	17.10
809	16.18	5.10	23.20	170.15	5.00	17.23
810	16.20	5.06	26.60	172.48	16.69	17.39
811	16.22	4.84	30.03	164.49	18.44	17.51
812	16.24	4.35	29.44	157.97	20.71	17.45
813	16.26	3.74	27.70	152.31	23.93	17.32
814	16.28	3.19	28.36	146.64	28.48	17.28
815	16.30	2.91	30.79	144.94	32.16	17.34
816	16.32	2.29	36.10	121.89	42.69	17.43

:: Field input data :: (continued)

Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
817	16.34	2.10	36.61	122.67	46.38	17.42
818	16.36	1.63	43.45	117.24	60.50	17.52
819	16.38	1.31	50.91	114.13	75.40	17.62
820	16.40	1.18	46.33	116.46	80.28	17.47
821	16.42	1.09	32.41	120.65	78.18	17.03
822	16.44	1.06	27.34	124.69	76.40	16.83
823	16.46	1.05	23.52	132.37	74.49	16.65
824	16.48	1.02	24.00	135.16	76.29	16.66
825	16.50	1.02	24.97	139.27	77.32	16.71
826	16.52	0.98	25.11	142.84	80.05	16.70
827	16.54	0.92	23.10	147.57	82.44	16.58
828	16.56	0.93	22.30	150.37	81.18	16.54
829	16.58	0.96	21.39	156.34	78.20	16.51
830	16.60	0.97	20.98	161.00	77.01	16.49
831	16.63	0.98	20.70	166.74	76.11	16.48
832	16.64	0.99	21.46	168.68	76.63	16.52
833	16.66	0.98	23.75	172.71	79.21	16.64
834	16.68	0.98	23.54	175.20	78.79	16.63
835	16.70	0.96	25.31	176.59	81.50	16.70
836	16.72	0.96	26.15	177.68	82.03	16.74
837	16.74	0.97	25.73	179.00	81.46	16.72
838	16.76	0.96	27.67	180.16	83.09	16.81
839	16.78	0.97	28.75	182.10	83.59	16.85
840	16.80	0.96	30.24	183.73	84.95	16.91
841	16.82	0.96	32.29	185.90	86.80	16.98
842	16.84	0.97	33.29	187.45	86.57	17.02
843	16.86	0.98	36.11	189.55	87.44	17.12
844	16.88	1.00	37.49	193.58	87.08	17.17
845	16.91	1.01	37.32	194.36	86.62	17.17
846	16.93	1.02	38.50	197.31	86.45	17.21
847	16.94	1.04	37.70	199.95	84.61	17.19
848	16.96	1.03	38.29	200.64	85.26	17.21
849	16.98	1.03	40.79	201.96	87.23	17.28
850	17.00	0.65	11.52	236.18	96.37	15.66
851	17.02	0.64	11.42	237.27	97.65	15.65
852	17.04	1.00	40.01	263.10	87.59	17.25
853	17.06	1.05	42.61	264.81	86.10	17.34
854	17.08	1.04	44.00	266.13	87.51	17.37
855	17.10	1.06	44.25	268.38	86.05	17.39
856	17.12	1.06	45.49	269.78	86.98	17.42
857	17.14	1.04	46.26	270.94	88.34	17.43
858	17.16	1.03	46.92	272.57	89.53	17.45
859	17.18	1.05	47.47	274.66	88.73	17.47
860	17.20	1.05	47.44	276.06	88.36	17.47
861	17.22	1.03	49.52	276.45	90.64	17.51
862	17.24	1.03	50.42	276.99	91.13	17.53
863	17.26	1.02	51.39	277.54	92.50	17.55
864	17.28	0.99	51.84	277.77	94.73	17.55

:: Field input data :: (continued)

Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
865	17.30	0.97	50.97	278.00	95.96	17.52
866	17.32	0.97	49.76	278.16	95.45	17.49
867	17.34	0.95	48.44	277.54	96.51	17.45
868	17.36	0.93	47.19	276.14	97.82	17.42
869	17.38	0.90	46.49	276.14	100.00	17.39
870	17.40	0.91	45.21	278.85	98.48	17.36
871	17.42	0.93	45.35	280.56	97.39	17.37
872	17.44	0.91	45.62	282.11	100.00	17.37
873	17.46	0.92	45.24	283.59	98.32	17.36
874	17.48	0.94	44.37	288.17	95.63	17.35
875	17.50	0.99	43.30	295.69	91.24	17.34
876	17.52	1.03	43.44	302.21	88.25	17.36
877	17.54	1.10	42.57	308.73	83.48	17.36
878	17.56	1.16	41.63	312.22	79.76	17.35
879	17.58	1.17	43.23	314.62	79.67	17.40
880	17.60	1.19	46.49	315.86	80.36	17.49
881	17.62	1.17	50.06	316.87	82.86	17.57
882	17.64	1.20	52.21	319.36	82.47	17.63
883	17.66	1.20	56.14	322.07	83.76	17.71
884	17.68	1.21	61.51	323.55	85.18	17.82
885	17.70	1.22	64.64	324.71	86.13	17.88
886	17.72	1.24	66.37	326.42	85.79	17.91
887	17.76	1.24	66.65	326.49	85.88	17.92
888	17.76	1.24	66.65	326.49	85.88	17.92
889	17.78	1.23	67.83	330.06	86.88	17.94
890	17.80	1.26	67.34	334.33	85.01	17.94
891	17.82	1.30	65.61	337.36	82.21	17.92
892	17.84	1.28	66.47	338.37	83.87	17.93
893	17.86	1.28	65.92	339.45	83.41	17.92
894	17.88	1.27	66.68	340.23	84.24	17.93
895	17.90	1.28	65.81	340.46	83.39	17.92
896	17.92	1.27	65.74	341.86	84.24	17.91
897	17.94	1.27	66.57	343.72	84.36	17.93
898	17.96	1.28	67.06	347.06	84.24	17.94
899	17.98	1.27	65.81	347.37	84.19	17.92
900	18.00	1.26	66.19	346.90	85.22	17.92
901	18.02	1.24	67.75	346.82	86.58	17.94
902	18.04	0.74	22.86	336.97	100.00	16.50
903	18.06	1.24	68.81	385.00	86.79	17.96
904	18.08	1.23	68.91	383.52	87.22	17.96
905	18.10	1.23	69.26	382.98	87.50	17.97
906	18.12	1.25	69.33	385.31	86.69	17.97
907	18.14	1.28	67.73	387.40	84.61	17.95
908	18.16	1.28	67.77	388.41	84.47	17.95
909	18.18	1.28	66.62	391.13	84.22	17.93
910	18.20	1.28	65.48	392.21	83.98	17.91
911	18.22	1.22	64.05	389.96	86.45	17.87
912	18.24	1.20	62.11	389.57	86.70	17.83

:: Field input data :: (continued)

Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
913	18.26	1.19	60.65	388.64	87.03	17.80
914	18.28	1.13	60.47	383.06	90.70	17.78
915	18.30	1.07	59.36	380.96	93.92	17.74
916	18.32	1.05	56.86	380.57	94.22	17.68
917	18.34	1.01	53.53	381.89	96.04	17.60
918	18.36	0.99	50.34	384.30	96.12	17.52
919	18.38	0.99	47.11	389.42	94.24	17.45
920	18.40	1.00	43.64	395.16	91.86	17.36
921	18.42	1.01	39.13	399.51	88.70	17.24
922	18.44	1.00	35.80	402.84	87.36	17.13
923	18.46	1.00	33.82	408.97	86.13	17.07
924	18.48	1.02	31.07	416.73	83.11	16.98
925	18.50	1.04	29.41	423.79	80.92	16.92
926	18.52	1.08	26.60	429.53	76.53	16.82
927	18.54	1.11	26.42	435.35	74.57	16.82
928	18.56	1.16	26.49	441.71	72.05	16.84
929	18.58	1.20	26.91	449.08	70.20	16.87
930	18.60	1.23	27.02	452.27	69.05	16.89
931	18.62	1.25	29.17	457.39	69.18	16.98
932	18.64	1.28	31.91	462.51	69.58	17.09
933	18.66	1.32	34.72	466.85	69.52	17.20
934	18.68	1.36	38.75	474.53	69.88	17.34
935	18.70	1.44	40.17	485.01	67.09	17.40
936	18.72	1.53	42.08	492.77	64.87	17.48
937	18.74	1.62	43.33	497.19	62.63	17.53
938	18.76	1.69	45.55	503.09	61.36	17.60
939	18.78	1.73	48.68	506.73	61.39	17.69
940	18.80	1.81	50.93	518.53	59.93	17.76
941	18.82	1.94	50.17	525.28	56.41	17.77
942	18.84	1.96	53.33	525.82	56.98	17.84
943	18.86	1.89	56.04	524.66	59.61	17.88
944	18.88	1.87	57.15	522.95	60.36	17.90
945	18.90	1.71	60.03	507.43	65.81	17.93
946	18.92	1.57	59.54	492.84	70.44	17.88
947	18.94	1.41	58.02	481.05	75.90	17.82
948	18.96	1.36	56.35	473.99	77.68	17.77
949	18.98	1.29	54.20	466.93	80.05	17.71
950	19.00	1.30	51.11	477.56	78.30	17.64
951	19.02	1.88	47.22	557.86	57.15	17.69
952	19.04	2.21	14.69	232.46	36.77	16.39
953	19.06	2.25	16.46	233.08	37.30	16.53
954	19.08	4.95	48.39	105.13	23.84	18.06
955	19.10	5.62	50.78	121.19	21.04	18.17
956	19.12	6.12	53.73	135.16	19.52	18.27
957	19.14	6.32	49.53	141.68	18.15	18.19
958	19.16	6.39	39.88	144.86	16.31	17.94
959	19.18	6.47	30.37	148.27	5.00	17.63
960	19.20	6.63	26.21	153.70	5.00	17.47

:: Field input data :: (continued)						
Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
961	19.22	6.89	23.09	162.39	5.00	17.34
962	19.24	7.38	24.47	176.20	5.00	17.43
963	19.26	7.92	28.85	192.27	5.00	17.65
964	19.28	8.41	32.28	205.84	5.00	17.80
965	19.30	8.95	33.94	222.06	5.00	17.88
966	19.32	9.30	35.16	233.23	5.00	17.94
967	19.34	9.52	36.61	241.77	5.00	18.00
968	19.36	9.56	38.14	246.27	5.00	18.04
969	19.38	9.53	39.53	249.84	5.00	18.08
970	19.40	9.48	40.22	252.55	5.00	18.10

Abbreviations

Depth:	Depth from free surface, at which CPT was performed (m)
q _c :	Measured cone resistance (MPa)
f _s :	Sleeve friction resistance (kPa)
u:	Pore pressure (kPa)
Fines content:	Percentage of fines in soil (%)
Unit weight:	Bulk soil unit weight (kN/m ³)

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data ::

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
1	0.02	0.29	0.00	0.29	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
2	0.04	0.60	0.00	0.60	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
3	0.06	0.93	0.00	0.93	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
4	0.08	1.28	0.00	1.28	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
5	0.10	1.62	0.00	1.62	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
6	0.13	2.16	0.00	2.16	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
7	0.14	2.33	0.00	2.33	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
8	0.16	2.69	0.00	2.69	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
9	0.18	3.05	0.00	3.05	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
10	0.21	3.59	0.00	3.59	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
11	0.22	3.77	0.00	3.77	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
12	0.24	4.13	0.00	4.13	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
13	0.26	4.50	0.00	4.50	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
14	0.28	4.86	0.00	4.86	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
15	0.30	5.23	0.00	5.23	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
16	0.32	5.59	0.00	5.59	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
17	0.34	5.96	0.00	5.96	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
18	0.36	6.32	0.00	6.32	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
19	0.38	6.69	0.00	6.69	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
20	0.41	7.24	0.00	7.24	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
21	0.42	7.42	0.00	7.42	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
22	0.44	7.78	0.00	7.78	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
23	0.46	8.15	0.00	8.15	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
24	0.48	8.52	0.00	8.52	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
25	0.50	8.89	0.00	8.89	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
26	0.52	9.26	0.00	9.26	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
27	0.54	9.62	0.00	9.62	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
28	0.56	9.99	0.00	9.99	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
29	0.58	10.36	0.00	10.36	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
30	0.60	10.72	0.00	10.72	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
31	0.62	11.08	0.00	11.08	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
32	0.64	11.45	0.00	11.45	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
33	0.66	11.81	0.00	11.81	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
34	0.68	12.16	0.00	12.16	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
35	0.70	12.52	0.00	12.52	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
36	0.72	12.88	0.00	12.88	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
37	0.74	13.24	0.00	13.24	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
38	0.76	13.59	0.00	13.59	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
39	0.78	13.95	0.00	13.95	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
40	0.80	14.30	0.00	14.30	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
41	0.82	14.65	0.00	14.65	1.00	0.181	1.43	0.127	1.10	1.00	2.000	No
42	0.84	15.00	0.00	15.00	1.00	0.181	1.43	0.127	1.10	1.00	2.000	No
43	0.86	15.35	0.00	15.35	1.00	0.181	1.43	0.127	1.10	1.00	2.000	No
44	0.88	15.70	0.00	15.70	1.00	0.181	1.43	0.127	1.10	1.00	2.000	No
45	0.90	16.04	0.00	16.04	1.00	0.181	1.43	0.127	1.10	1.00	2.000	No
46	0.92	16.38	0.00	16.38	1.00	0.181	1.43	0.127	1.10	1.00	2.000	No
47	0.94	16.72	0.00	16.72	1.00	0.181	1.43	0.127	1.10	1.00	2.000	No
48	0.96	17.06	0.00	17.06	1.00	0.181	1.43	0.127	1.10	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
49	0.98	17.40	0.00	17.40	0.99	0.181	1.43	0.127	1.10	1.00	2.000	No
50	1.00	17.74	0.00	17.74	0.99	0.181	1.43	0.127	1.10	1.00	2.000	No
51	1.02	18.08	0.00	18.08	0.99	0.181	1.43	0.127	1.10	1.00	2.000	No
52	1.04	18.42	0.00	18.42	0.99	0.181	1.43	0.127	1.10	1.00	2.000	No
53	1.06	18.77	0.00	18.77	0.99	0.181	1.43	0.127	1.10	1.00	2.000	No
54	1.08	19.12	0.00	19.12	0.99	0.181	1.43	0.127	1.10	1.00	2.000	No
55	1.10	19.46	0.00	19.46	0.99	0.181	1.43	0.126	1.10	1.00	2.000	No
56	1.12	19.81	0.00	19.81	0.99	0.181	1.43	0.126	1.10	1.00	2.000	No
57	1.14	20.15	0.00	20.15	0.99	0.181	1.43	0.126	1.10	1.00	2.000	No
58	1.16	20.50	0.00	20.50	0.99	0.181	1.43	0.126	1.10	1.00	2.000	No
59	1.18	20.84	0.00	20.84	0.99	0.181	1.43	0.126	1.10	1.00	2.000	No
60	1.20	21.19	0.00	21.19	0.99	0.180	1.43	0.126	1.10	1.00	2.000	No
61	1.22	21.52	0.00	21.52	0.99	0.180	1.43	0.126	1.10	1.00	2.000	No
62	1.24	21.86	0.00	21.86	0.99	0.180	1.43	0.126	1.10	1.00	2.000	No
63	1.26	22.20	0.00	22.20	0.99	0.180	1.43	0.126	1.10	1.00	2.000	No
64	1.28	22.55	0.00	22.55	0.99	0.180	1.43	0.126	1.10	1.00	2.000	No
65	1.30	22.89	0.00	22.89	0.99	0.180	1.43	0.126	1.10	1.00	2.000	No
66	1.32	23.23	0.20	23.03	0.99	0.182	1.43	0.127	1.10	1.00	0.152	No
67	1.34	23.56	0.39	23.17	0.99	0.183	1.43	0.128	1.10	1.00	0.153	No
68	1.36	23.90	0.59	23.31	0.99	0.185	1.43	0.129	1.10	1.00	0.155	No
69	1.38	24.24	0.78	23.45	0.99	0.186	1.43	0.130	1.10	1.00	0.156	No
70	1.40	24.58	0.98	23.59	0.99	0.187	1.43	0.131	1.10	1.00	0.157	No
71	1.42	24.91	1.18	23.74	0.99	0.189	1.43	0.132	1.10	1.00	0.158	No
72	1.44	25.25	1.37	23.87	0.99	0.190	1.43	0.133	1.10	1.00	0.160	No
73	1.46	25.58	1.57	24.01	0.99	0.191	1.43	0.134	1.10	1.00	0.161	No
74	1.48	25.92	1.77	24.15	0.99	0.193	1.43	0.135	1.10	1.00	0.162	No
75	1.50	26.25	1.96	24.29	0.99	0.194	1.43	0.136	1.10	1.00	0.163	No
76	1.52	26.58	2.16	24.42	0.99	0.195	1.43	0.137	1.10	1.00	0.164	No
77	1.54	26.91	2.35	24.55	0.99	0.197	1.43	0.138	1.10	1.00	0.165	No
78	1.56	27.24	2.55	24.69	0.99	0.198	1.43	0.139	1.10	1.00	0.166	No
79	1.58	27.57	2.75	24.82	0.99	0.199	1.43	0.139	1.10	1.00	0.167	No
80	1.60	27.90	2.94	24.96	0.99	0.200	1.43	0.140	1.10	1.00	0.168	No
81	1.62	28.24	3.14	25.10	0.99	0.202	1.43	0.141	1.10	1.00	0.169	No
82	1.64	28.58	3.34	25.25	0.98	0.203	1.43	0.142	1.10	1.00	0.170	No
83	1.66	28.92	3.53	25.39	0.98	0.204	1.43	0.143	1.10	1.00	0.171	No
84	1.68	29.27	3.73	25.54	0.98	0.205	1.43	0.144	1.10	1.00	0.172	No
85	1.70	29.62	3.92	25.69	0.98	0.206	1.43	0.144	1.10	1.00	0.172	No
86	1.72	29.97	4.12	25.85	0.98	0.208	1.43	0.145	1.10	1.00	0.172	No
87	1.74	30.32	4.32	26.00	0.98	0.209	1.43	0.146	1.10	1.00	0.171	No
88	1.76	30.68	4.51	26.16	0.98	0.210	1.43	0.147	1.10	1.00	0.169	No
89	1.78	31.03	4.71	26.33	0.98	0.211	1.43	0.148	1.10	1.00	0.167	No
90	1.80	31.39	4.91	26.49	0.98	0.212	1.43	0.148	1.10	1.00	0.166	No
91	1.82	31.74	5.10	26.64	0.98	0.213	1.43	0.149	1.10	1.00	0.167	No
92	1.84	32.09	5.30	26.80	0.98	0.214	1.43	0.150	1.10	1.00	0.170	No
93	1.86	32.44	5.49	26.94	0.98	0.215	1.43	0.150	1.10	1.00	0.173	No
94	1.88	32.77	5.69	27.08	0.98	0.216	1.43	0.151	1.10	1.00	0.175	No
95	1.90	33.11	5.89	27.23	0.98	0.217	1.43	0.152	1.10	1.00	0.176	No
96	1.92	33.45	6.08	27.37	0.98	0.218	1.43	0.153	1.10	1.00	0.177	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
97	1.94	33.79	6.28	27.51	0.98	0.219	1.43	0.153	1.10	1.00	0.178	No
98	1.96	34.13	6.47	27.65	0.98	0.220	1.43	0.154	1.10	1.00	0.181	No
99	1.99	34.63	6.77	27.86	0.98	0.221	1.43	0.155	1.10	1.00	0.182	No
100	2.00	34.80	6.87	27.93	0.98	0.222	1.43	0.155	1.10	1.00	0.185	No
101	2.03	35.30	7.16	28.14	0.98	0.223	1.43	0.156	1.10	1.00	0.187	No
102	2.04	35.47	7.26	28.21	0.98	0.224	1.43	0.157	1.10	1.00	0.187	No
103	2.06	35.81	7.46	28.35	0.98	0.225	1.43	0.157	1.10	1.00	0.188	No
104	2.08	36.15	7.65	28.49	0.98	0.226	1.43	0.158	1.10	1.00	0.187	No
105	2.10	36.49	7.85	28.64	0.98	0.227	1.43	0.159	1.10	1.00	0.185	No
106	2.12	36.83	8.04	28.79	0.98	0.227	1.43	0.159	1.10	1.00	0.184	No
107	2.14	37.18	8.24	28.94	0.98	0.228	1.43	0.160	1.10	1.00	0.184	No
108	2.16	37.52	8.44	29.09	0.98	0.229	1.43	0.160	1.10	1.00	0.187	No
109	2.18	37.86	8.63	29.23	0.98	0.230	1.43	0.161	1.10	1.00	0.188	No
110	2.20	38.21	8.83	29.38	0.98	0.231	1.43	0.162	1.10	1.00	0.188	No
111	2.22	38.55	9.03	29.53	0.98	0.232	1.43	0.162	1.10	1.00	0.188	No
112	2.24	38.89	9.22	29.67	0.97	0.233	1.43	0.163	1.10	1.00	0.190	No
113	2.26	39.23	9.42	29.82	0.97	0.233	1.43	0.163	1.10	1.00	0.192	No
114	2.28	39.57	9.61	29.96	0.97	0.234	1.43	0.164	1.10	1.00	0.193	No
115	2.30	39.91	9.81	30.10	0.97	0.235	1.43	0.164	1.10	1.00	0.195	No
116	2.32	40.25	10.01	30.25	0.97	0.236	1.43	0.165	1.10	1.00	0.196	No
117	2.34	40.60	10.20	30.39	0.97	0.237	1.43	0.166	1.10	1.00	0.197	No
118	2.36	40.94	10.40	30.54	0.97	0.237	1.43	0.166	1.10	1.00	0.198	No
119	2.38	41.28	10.59	30.68	0.97	0.238	1.43	0.167	1.10	1.00	0.199	No
120	2.40	41.62	10.79	30.83	0.97	0.239	1.43	0.167	1.10	1.00	0.196	No
121	2.42	41.96	10.99	30.97	0.97	0.240	1.43	0.168	1.10	1.00	0.197	No
122	2.44	42.30	11.18	31.11	0.97	0.240	1.43	0.168	1.10	1.00	0.199	No
123	2.46	42.63	11.38	31.25	0.97	0.241	1.43	0.169	1.10	1.00	0.201	No
124	2.48	42.97	11.58	31.39	0.97	0.242	1.43	0.169	1.10	1.00	0.203	No
125	2.50	43.30	11.77	31.53	0.97	0.243	1.43	0.170	1.10	1.00	0.204	No
126	2.52	43.63	11.97	31.66	0.97	0.243	1.43	0.170	1.10	1.00	0.205	No
127	2.54	43.96	12.16	31.80	0.97	0.244	1.43	0.171	1.10	1.00	0.205	No
128	2.56	44.29	12.36	31.93	0.97	0.245	1.43	0.171	1.10	1.00	0.206	No
129	2.58	44.62	12.56	32.06	0.97	0.245	1.43	0.172	1.10	1.00	0.207	No
130	2.60	44.95	12.75	32.20	0.97	0.246	1.43	0.172	1.10	1.00	0.208	No
131	2.62	45.27	12.95	32.32	0.97	0.247	1.43	0.173	1.09	1.00	0.209	No
132	2.64	45.59	13.15	32.45	0.97	0.248	1.43	0.173	1.09	1.00	0.210	No
133	2.66	45.91	13.34	32.57	0.97	0.248	1.43	0.174	1.09	1.00	0.211	No
134	2.68	46.24	13.54	32.70	0.97	0.249	1.43	0.174	1.09	1.00	0.212	No
135	2.70	46.56	13.73	32.82	0.97	0.250	1.43	0.175	1.09	1.00	0.212	No
136	2.72	46.88	13.93	32.95	0.97	0.250	1.43	0.175	1.09	1.00	0.212	No
137	2.74	47.20	14.13	33.08	0.97	0.251	1.43	0.176	1.09	1.00	0.212	No
138	2.76	47.52	14.32	33.20	0.97	0.252	1.43	0.176	1.09	1.00	0.212	No
139	2.78	47.85	14.52	33.33	0.97	0.252	1.43	0.177	1.09	1.00	0.213	No
140	2.80	48.17	14.71	33.45	0.97	0.253	1.43	0.177	1.09	1.00	0.215	No
141	2.82	48.49	14.91	33.58	0.96	0.254	1.43	0.177	1.09	1.00	0.216	No
142	2.84	48.81	15.11	33.70	0.96	0.254	1.43	0.178	1.09	1.00	0.217	No
143	2.86	49.12	15.30	33.82	0.96	0.255	1.43	0.178	1.09	1.00	0.218	No
144	2.88	49.44	15.50	33.94	0.96	0.255	1.43	0.179	1.09	1.00	0.218	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
145	2.90	49.76	15.70	34.06	0.96	0.256	1.43	0.179	1.09	1.00	0.219	No
146	2.92	50.07	15.89	34.18	0.96	0.257	1.43	0.180	1.09	1.00	0.219	No
147	2.94	50.38	16.09	34.29	0.96	0.257	1.43	0.180	1.09	1.00	0.220	No
148	2.96	50.69	16.28	34.41	0.96	0.258	1.43	0.181	1.09	1.00	0.220	No
149	2.98	51.02	16.48	34.54	0.96	0.259	1.43	0.181	1.09	1.00	0.219	No
150	3.00	51.35	16.68	34.68	0.96	0.259	1.43	0.181	1.09	1.00	0.221	No
151	3.02	51.68	16.87	34.80	0.96	0.260	1.43	0.182	1.09	1.00	0.222	No
152	3.04	52.00	17.07	34.93	0.96	0.260	1.43	0.182	1.09	1.00	0.223	No
153	3.06	52.32	17.27	35.05	0.96	0.261	1.43	0.183	1.09	1.00	0.224	No
154	3.08	52.63	17.46	35.17	0.96	0.261	1.43	0.183	1.09	1.00	0.224	No
155	3.10	52.95	17.66	35.29	0.96	0.262	1.43	0.183	1.09	1.00	0.224	No
156	3.12	53.26	17.85	35.40	0.96	0.263	1.43	0.184	1.09	1.00	0.225	No
157	3.14	53.56	18.05	35.51	0.96	0.263	1.43	0.184	1.09	1.00	0.225	No
158	3.16	53.87	18.25	35.63	0.96	0.264	1.43	0.185	1.09	1.00	0.226	No
159	3.18	54.18	18.44	35.74	0.96	0.264	1.43	0.185	1.09	1.00	0.226	No
160	3.20	54.49	18.64	35.86	0.96	0.265	1.43	0.185	1.09	1.00	0.227	No
161	3.22	54.81	18.84	35.97	0.96	0.265	1.43	0.186	1.09	1.00	0.227	No
162	3.25	55.29	19.13	36.16	0.96	0.266	1.43	0.186	1.09	1.00	0.228	No
163	3.26	55.45	19.23	36.22	0.96	0.267	1.43	0.187	1.09	1.00	0.228	No
164	3.28	55.77	19.42	36.34	0.96	0.267	1.43	0.187	1.09	1.00	0.228	No
165	3.30	56.09	19.62	36.47	0.96	0.268	1.43	0.187	1.09	1.00	0.229	No
166	3.32	56.42	19.82	36.60	0.96	0.268	1.43	0.188	1.08	1.00	0.229	No
167	3.34	56.74	20.01	36.73	0.96	0.269	1.43	0.188	1.08	1.00	0.230	No
168	3.36	57.07	20.21	36.86	0.95	0.269	1.43	0.188	1.08	1.00	0.230	No
169	3.38	57.40	20.40	36.99	0.95	0.270	1.43	0.189	1.08	1.00	0.231	No
170	3.40	57.72	20.60	37.12	0.95	0.270	1.43	0.189	1.08	1.00	0.231	No
171	3.42	58.05	20.80	37.25	0.95	0.270	1.43	0.189	1.08	1.00	0.231	No
172	3.44	58.38	20.99	37.38	0.95	0.271	1.43	0.190	1.08	1.00	0.232	No
173	3.46	58.71	21.19	37.52	0.95	0.271	1.43	0.190	1.08	1.00	0.232	No
174	3.48	59.04	21.39	37.65	0.95	0.272	1.43	0.190	1.08	1.00	0.232	No
175	3.50	59.36	21.58	37.78	0.95	0.272	1.43	0.191	1.08	1.00	0.233	No
176	3.52	59.69	21.78	37.92	0.95	0.273	1.43	0.191	1.08	1.00	0.233	No
177	3.54	60.03	21.97	38.05	0.95	0.273	1.43	0.191	1.08	1.00	0.233	No
178	3.56	60.36	22.17	38.19	0.95	0.274	1.43	0.192	1.08	1.00	0.234	No
179	3.58	60.69	22.37	38.32	0.95	0.274	1.43	0.192	1.08	1.00	0.234	No
180	3.60	61.03	22.56	38.46	0.95	0.274	1.43	0.192	1.08	1.00	0.234	No
181	3.62	61.36	22.76	38.60	0.95	0.275	1.43	0.192	1.08	1.00	0.234	No
182	3.64	61.70	22.96	38.74	0.95	0.275	1.43	0.193	1.08	1.00	0.235	No
183	3.66	62.04	23.15	38.89	0.95	0.276	1.43	0.193	1.08	1.00	0.235	No
184	3.68	62.38	23.35	39.03	0.95	0.276	1.43	0.193	1.08	1.00	0.235	No
185	3.70	62.73	23.54	39.18	0.95	0.276	1.43	0.193	1.08	1.00	0.235	No
186	3.72	63.07	23.74	39.33	0.95	0.277	1.43	0.194	1.08	1.00	0.235	No
187	3.74	63.42	23.94	39.48	0.95	0.277	1.43	0.194	1.08	1.00	0.236	No
188	3.77	63.94	24.23	39.71	0.95	0.278	1.43	0.194	1.08	1.00	0.236	No
189	3.78	64.12	24.33	39.79	0.95	0.278	1.43	0.194	1.08	1.00	0.236	No
190	3.80	64.47	24.52	39.94	0.95	0.278	1.43	0.195	1.08	1.00	0.236	No
191	3.82	64.82	24.72	40.10	0.95	0.278	1.43	0.195	1.08	1.00	0.236	No
192	3.84	65.17	24.92	40.26	0.95	0.279	1.43	0.195	1.08	1.00	0.237	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
193	3.86	65.53	25.11	40.41	0.95	0.279	1.43	0.195	1.08	1.00	0.237	No
194	3.88	65.88	25.31	40.57	0.94	0.279	1.43	0.195	1.08	1.00	0.238	No
195	3.90	66.24	25.51	40.73	0.94	0.280	1.43	0.196	1.08	1.00	0.238	No
196	3.92	66.59	25.70	40.89	0.94	0.280	1.43	0.196	1.08	1.00	0.239	No
197	3.94	66.95	25.90	41.05	0.94	0.280	1.43	0.196	1.08	1.00	0.239	No
198	3.96	67.31	26.09	41.21	0.94	0.280	1.43	0.196	1.08	1.00	0.240	No
199	3.98	67.66	26.29	41.37	0.94	0.281	1.43	0.196	1.08	1.00	0.240	No
200	4.00	68.02	26.49	41.53	0.94	0.281	1.43	0.197	1.08	1.00	0.241	No
201	4.02	68.37	26.68	41.69	0.94	0.281	1.43	0.197	1.08	1.00	0.241	No
202	4.04	68.72	26.88	41.84	0.94	0.282	1.43	0.197	1.08	1.00	0.242	No
203	4.06	69.08	27.08	42.00	0.94	0.282	1.43	0.197	1.07	1.00	0.242	No
204	4.08	69.43	27.27	42.16	0.94	0.282	1.43	0.197	1.07	1.00	0.243	No
205	4.10	69.78	27.47	42.31	0.94	0.282	1.43	0.198	1.07	1.00	0.243	No
206	4.12	70.13	27.66	42.47	0.94	0.283	1.43	0.198	1.07	1.00	0.244	No
207	4.14	70.48	27.86	42.62	0.94	0.283	1.43	0.198	1.07	1.00	0.244	No
208	4.16	70.83	28.06	42.77	0.94	0.283	1.43	0.198	1.07	1.00	0.245	No
209	4.18	71.18	28.25	42.92	0.94	0.283	1.43	0.198	1.07	1.00	0.246	No
210	4.20	71.52	28.45	43.08	0.94	0.284	1.43	0.199	1.07	1.00	0.246	No
211	4.22	71.87	28.65	43.23	0.94	0.284	1.43	0.199	1.07	1.00	0.247	No
212	4.24	72.22	28.84	43.37	0.94	0.284	1.43	0.199	1.07	1.00	0.247	No
213	4.26	72.56	29.04	43.52	0.94	0.284	1.43	0.199	1.07	1.00	0.247	No
214	4.28	72.90	29.23	43.67	0.94	0.285	1.43	0.199	1.07	1.00	0.247	No
215	4.30	73.24	29.43	43.81	0.94	0.285	1.43	0.199	1.07	1.00	0.247	No
216	4.32	73.59	29.63	43.96	0.94	0.285	1.43	0.200	1.07	1.00	0.246	No
217	4.34	73.93	29.82	44.10	0.94	0.285	1.43	0.200	1.07	1.00	0.245	No
218	4.36	74.27	30.02	44.25	0.94	0.286	1.43	0.200	1.07	1.00	0.245	No
219	4.38	74.61	30.21	44.39	0.93	0.286	1.43	0.200	1.07	1.00	0.245	No
220	4.40	74.95	30.41	44.54	0.93	0.286	1.43	0.200	1.07	1.00	0.245	No
221	4.42	75.30	30.61	44.69	0.93	0.286	1.43	0.201	1.07	1.00	0.246	No
222	4.44	75.64	30.80	44.84	0.93	0.287	1.43	0.201	1.07	1.00	0.246	No
223	4.46	75.99	31.00	44.99	0.93	0.287	1.43	0.201	1.07	1.00	0.246	No
224	4.48	76.35	31.20	45.15	0.93	0.287	1.43	0.201	1.07	1.00	0.247	No
225	4.50	76.70	31.39	45.31	0.93	0.287	1.43	0.201	1.07	1.00	0.247	No
226	4.52	77.05	31.59	45.47	0.93	0.288	1.43	0.201	1.07	1.00	0.247	No
227	4.55	77.58	31.88	45.70	0.93	0.288	1.43	0.201	1.07	1.00	0.248	No
228	4.56	77.76	31.98	45.78	0.93	0.288	1.43	0.202	1.07	1.00	0.248	No
229	4.58	78.11	32.18	45.94	0.93	0.288	1.43	0.202	1.07	1.00	0.248	No
230	4.60	78.46	32.37	46.09	0.93	0.288	1.43	0.202	1.07	1.00	0.248	No
231	4.62	78.82	32.57	46.25	0.93	0.288	1.43	0.202	1.07	1.00	0.248	No
232	4.64	79.17	32.77	46.40	0.93	0.289	1.43	0.202	1.07	1.00	0.248	No
233	4.66	79.52	32.96	46.56	0.93	0.289	1.43	0.202	1.07	1.00	0.248	No
234	4.68	79.87	33.16	46.72	0.93	0.289	1.43	0.202	1.07	1.00	0.249	No
235	4.70	80.23	33.35	46.87	0.93	0.289	1.43	0.202	1.07	1.00	0.249	No
236	4.72	80.58	33.55	47.03	0.93	0.289	1.43	0.203	1.07	1.00	0.249	No
237	4.74	80.94	33.75	47.19	0.93	0.290	1.43	0.203	1.07	1.00	0.249	No
238	4.76	81.29	33.94	47.35	0.93	0.290	1.43	0.203	1.07	1.00	0.250	No
239	4.78	81.65	34.14	47.51	0.93	0.290	1.43	0.203	1.07	1.00	0.250	No
240	4.80	82.00	34.34	47.67	0.93	0.290	1.43	0.203	1.07	1.00	0.251	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
241	4.82	82.36	34.53	47.83	0.93	0.290	1.43	0.203	1.06	1.00	0.251	No
242	4.84	82.72	34.73	47.99	0.93	0.290	1.43	0.203	1.06	1.00	0.252	No
243	4.86	83.08	34.92	48.16	0.93	0.290	1.43	0.203	1.06	1.00	0.252	No
244	4.88	83.44	35.12	48.32	0.92	0.291	1.43	0.203	1.06	1.00	0.252	No
245	4.90	83.80	35.32	48.48	0.92	0.291	1.43	0.204	1.06	1.00	0.251	No
246	4.92	84.16	35.51	48.65	0.92	0.291	1.43	0.204	1.06	1.00	0.251	No
247	4.94	84.52	35.71	48.81	0.92	0.291	1.43	0.204	1.06	1.00	0.251	No
248	4.96	84.87	35.90	48.97	0.92	0.291	1.43	0.204	1.07	1.00	0.250	No
249	4.98	85.23	36.10	49.13	0.92	0.291	1.43	0.204	1.07	1.00	0.250	No
250	5.01	85.77	36.40	49.38	0.92	0.291	1.43	0.204	1.07	1.00	0.250	No
251	5.02	85.95	36.49	49.46	0.92	0.292	1.43	0.204	1.07	1.00	0.250	No
252	5.04	86.32	36.69	49.63	0.92	0.292	1.43	0.204	1.07	1.00	0.250	No
253	5.06	86.68	36.89	49.80	0.92	0.292	1.43	0.204	1.06	1.00	0.250	No
254	5.08	87.05	37.08	49.97	0.92	0.292	1.43	0.204	1.07	1.00	0.250	No
255	5.10	87.42	37.28	50.14	0.92	0.292	1.43	0.204	1.06	1.00	0.250	No
256	5.12	87.79	37.47	50.31	0.92	0.292	1.43	0.204	1.06	1.00	0.250	No
257	5.14	88.16	37.67	50.49	0.92	0.292	1.43	0.204	1.06	1.00	0.251	No
258	5.16	88.53	37.87	50.66	0.92	0.292	1.43	0.205	1.06	1.00	0.250	No
259	5.18	88.90	38.06	50.83	0.92	0.292	1.43	0.205	1.06	1.00	0.251	No
260	5.20	89.27	38.26	51.01	0.92	0.292	1.43	0.205	1.06	1.00	0.250	No
261	5.22	89.64	38.46	51.18	0.92	0.292	1.43	0.205	1.06	1.00	0.250	No
262	5.24	90.01	38.65	51.36	0.92	0.293	1.43	0.205	1.06	1.00	0.251	No
263	5.26	90.38	38.85	51.53	0.92	0.293	1.43	0.205	1.06	1.00	0.251	No
264	5.28	90.75	39.04	51.71	0.92	0.293	1.43	0.205	1.06	1.00	0.250	No
265	5.30	91.13	39.24	51.89	0.92	0.293	1.43	0.205	1.06	1.00	0.250	No
266	5.32	91.50	39.44	52.06	0.92	0.293	1.43	0.205	1.06	1.00	0.250	No
267	5.34	91.87	39.63	52.24	0.92	0.293	1.43	0.205	1.06	1.00	0.251	No
268	5.36	92.25	39.83	52.42	0.91	0.293	1.43	0.205	1.06	1.00	0.251	No
269	5.38	92.62	40.02	52.59	0.91	0.293	1.43	0.205	1.06	1.00	0.251	No
270	5.40	92.99	40.22	52.77	0.91	0.293	1.43	0.205	1.06	1.00	0.251	No
271	5.42	93.37	40.42	52.95	0.91	0.293	1.43	0.205	1.06	1.00	0.251	No
272	5.44	93.74	40.61	53.13	0.91	0.293	1.43	0.205	1.06	1.00	0.252	No
273	5.46	94.11	40.81	53.30	0.91	0.293	1.43	0.205	1.06	1.00	0.252	No
274	5.48	94.49	41.01	53.48	0.91	0.293	1.43	0.205	1.06	1.00	0.252	No
275	5.50	94.86	41.20	53.66	0.91	0.293	1.43	0.205	1.06	1.00	0.252	No
276	5.52	95.23	41.40	53.83	0.91	0.293	1.43	0.205	1.06	1.00	0.252	No
277	5.54	95.61	41.59	54.01	0.91	0.293	1.43	0.205	1.06	1.00	0.252	No
278	5.56	95.98	41.79	54.19	0.91	0.293	1.43	0.205	1.06	1.00	0.252	No
279	5.58	96.36	41.99	54.37	0.91	0.293	1.43	0.205	1.06	1.00	0.252	No
280	5.60	96.73	42.18	54.55	0.91	0.294	1.43	0.205	1.06	1.00	0.253	No
281	5.62	97.11	42.38	54.73	0.91	0.294	1.43	0.205	1.06	1.00	0.253	No
282	5.64	97.48	42.58	54.91	0.91	0.294	1.43	0.206	1.06	1.00	0.253	No
283	5.66	97.86	42.77	55.09	0.91	0.294	1.43	0.206	1.06	1.00	0.254	No
284	5.68	98.23	42.97	55.27	0.91	0.294	1.43	0.206	1.06	1.00	0.254	No
285	5.70	98.61	43.16	55.44	0.91	0.294	1.43	0.206	1.06	1.00	0.254	No
286	5.72	98.98	43.36	55.62	0.91	0.294	1.43	0.206	1.05	1.00	0.254	No
287	5.74	99.36	43.56	55.80	0.91	0.294	1.43	0.206	1.05	1.00	0.254	No
288	5.76	99.74	43.75	55.98	0.91	0.294	1.43	0.206	1.05	1.00	0.254	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
289	5.78	100.11	43.95	56.16	0.91	0.294	1.43	0.206	1.05	1.00	0.254	No
290	5.80	100.49	44.15	56.34	0.91	0.294	1.43	0.206	1.05	1.00	0.255	No
291	5.82	100.86	44.34	56.52	0.90	0.294	1.43	0.206	1.05	1.00	0.255	No
292	5.84	101.23	44.54	56.69	0.90	0.294	1.43	0.206	1.05	1.00	0.255	No
293	5.86	101.60	44.73	56.87	0.90	0.294	1.43	0.206	1.05	1.00	0.254	No
294	5.88	101.97	44.93	57.04	0.90	0.294	1.43	0.206	1.05	1.00	0.254	No
295	5.90	102.35	45.13	57.22	0.90	0.294	1.43	0.206	1.05	1.00	0.253	No
296	5.92	102.72	45.32	57.40	0.90	0.294	1.43	0.206	1.05	1.00	0.253	No
297	5.94	103.09	45.52	57.57	0.90	0.294	1.43	0.206	1.05	1.00	0.253	No
298	5.96	103.46	45.71	57.75	0.90	0.294	1.43	0.206	1.05	1.00	0.252	No
299	5.98	103.84	45.91	57.92	0.90	0.294	1.43	0.206	1.05	1.00	0.252	No
300	6.01	104.39	46.21	58.19	0.90	0.294	1.43	0.206	1.05	1.00	0.252	No
301	6.02	104.58	46.30	58.28	0.90	0.294	1.43	0.206	1.05	1.00	0.253	No
302	6.04	104.96	46.50	58.46	0.90	0.294	1.43	0.206	1.05	1.00	0.254	No
303	6.06	105.33	46.70	58.63	0.90	0.294	1.43	0.206	1.05	1.00	0.255	No
304	6.08	105.70	46.89	58.81	0.90	0.294	1.43	0.206	1.05	1.00	0.255	No
305	6.10	106.08	47.09	58.99	0.90	0.294	1.43	0.206	1.05	1.00	0.255	No
306	6.12	106.45	47.28	59.16	0.90	0.294	1.43	0.206	1.05	1.00	0.255	No
307	6.14	106.82	47.48	59.34	0.90	0.294	1.43	0.206	1.05	1.00	0.256	No
308	6.16	107.19	47.68	59.52	0.90	0.294	1.43	0.206	1.05	1.00	0.256	No
309	6.18	107.57	47.87	59.69	0.90	0.294	1.43	0.206	1.05	1.00	0.255	No
310	6.20	107.94	48.07	59.87	0.90	0.294	1.43	0.206	1.05	1.00	0.254	No
311	6.22	108.31	48.27	60.05	0.90	0.294	1.43	0.206	1.05	1.00	0.254	No
312	6.24	108.69	48.46	60.23	0.90	0.294	1.43	0.206	1.05	1.00	0.254	No
313	6.26	109.06	48.66	60.40	0.89	0.294	1.43	0.206	1.05	1.00	0.254	No
314	6.28	109.43	48.85	60.58	0.89	0.294	1.43	0.206	1.05	1.00	0.254	No
315	6.30	109.81	49.05	60.76	0.89	0.294	1.43	0.206	1.05	1.00	0.254	No
316	6.32	110.18	49.25	60.94	0.89	0.294	1.43	0.206	1.05	1.00	0.254	No
317	6.34	110.56	49.44	61.12	0.89	0.294	1.43	0.206	1.05	1.00	0.254	No
318	6.36	110.94	49.64	61.30	0.89	0.294	1.43	0.206	1.05	1.00	0.254	No
319	6.38	111.32	49.83	61.48	0.89	0.294	1.43	0.206	1.05	1.00	0.254	No
320	6.40	111.70	50.03	61.67	0.89	0.294	1.43	0.206	1.05	1.00	0.255	No
321	6.42	112.08	50.23	61.85	0.89	0.294	1.43	0.206	1.05	1.00	0.255	No
322	6.44	112.45	50.42	62.03	0.89	0.294	1.43	0.206	1.05	1.00	0.255	No
323	6.46	112.83	50.62	62.21	0.89	0.294	1.43	0.206	1.05	1.00	0.255	No
324	6.48	113.21	50.82	62.39	0.89	0.294	1.43	0.206	1.04	1.00	0.256	No
325	6.50	113.59	51.01	62.57	0.89	0.294	1.43	0.206	1.04	1.00	0.256	No
326	6.52	113.96	51.21	62.76	0.89	0.294	1.43	0.206	1.04	1.00	0.257	No
327	6.54	114.34	51.40	62.93	0.89	0.294	1.43	0.206	1.04	1.00	0.257	No
328	6.56	114.71	51.60	63.11	0.89	0.294	1.43	0.206	1.04	1.00	0.256	No
329	6.58	115.08	51.80	63.29	0.89	0.294	1.43	0.206	1.04	1.00	0.257	No
330	6.60	115.46	51.99	63.46	0.89	0.294	1.43	0.206	1.04	1.00	0.257	No
331	6.62	115.83	52.19	63.64	0.89	0.294	1.43	0.206	1.04	1.00	0.257	No
332	6.64	116.20	52.39	63.82	0.89	0.294	1.43	0.206	1.04	1.00	0.258	No
333	6.66	116.58	52.58	63.99	0.89	0.294	1.43	0.206	1.04	1.00	0.257	No
334	6.68	116.95	52.78	64.17	0.89	0.294	1.43	0.206	1.04	1.00	0.257	No
335	6.70	117.33	52.97	64.35	0.89	0.294	1.43	0.206	1.04	1.00	0.257	No
336	6.72	117.70	53.17	64.53	0.88	0.294	1.43	0.206	1.04	1.00	0.258	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
337	6.74	118.08	53.37	64.71	0.88	0.294	1.43	0.206	1.04	1.00	0.258	No
338	6.76	118.45	53.56	64.89	0.88	0.294	1.43	0.206	1.04	1.00	0.257	No
339	6.78	118.83	53.76	65.07	0.88	0.294	1.43	0.206	1.04	1.00	0.258	No
340	6.80	119.20	53.95	65.25	0.88	0.294	1.43	0.205	1.04	1.00	0.258	No
341	6.82	119.57	54.15	65.42	0.88	0.294	1.43	0.205	1.04	1.00	0.258	No
342	6.84	119.94	54.35	65.60	0.88	0.294	1.43	0.205	1.04	1.00	0.258	No
343	6.86	120.32	54.54	65.77	0.88	0.293	1.43	0.205	1.04	1.00	0.259	No
344	6.88	120.69	54.74	65.95	0.88	0.293	1.43	0.205	1.04	1.00	0.259	No
345	6.90	121.06	54.94	66.12	0.88	0.293	1.43	0.205	1.04	1.00	0.258	No
346	6.92	121.43	55.13	66.30	0.88	0.293	1.43	0.205	1.04	1.00	0.259	No
347	6.94	121.80	55.33	66.47	0.88	0.293	1.43	0.205	1.04	1.00	0.259	No
348	6.96	122.17	55.52	66.64	0.88	0.293	1.43	0.205	1.04	1.00	0.259	No
349	6.98	122.54	55.72	66.81	0.88	0.293	1.43	0.205	1.04	1.00	0.259	No
350	7.00	122.90	55.92	66.99	0.88	0.293	1.43	0.205	1.04	1.00	0.259	No
351	7.02	123.27	56.11	67.16	0.88	0.293	1.43	0.205	1.04	1.00	0.259	No
352	7.04	123.64	56.31	67.33	0.88	0.293	1.43	0.205	1.04	1.00	0.259	No
353	7.06	124.01	56.51	67.50	0.88	0.293	1.43	0.205	1.04	1.00	0.258	No
354	7.08	124.38	56.70	67.68	0.88	0.293	1.43	0.205	1.04	1.00	0.258	No
355	7.10	124.75	56.90	67.85	0.88	0.293	1.43	0.205	1.04	1.00	0.258	No
356	7.12	125.12	57.09	68.02	0.88	0.293	1.43	0.205	1.04	1.00	0.258	No
357	7.14	125.49	57.29	68.20	0.88	0.293	1.43	0.205	1.04	1.00	0.259	No
358	7.16	125.86	57.49	68.37	0.87	0.293	1.43	0.205	1.04	1.00	0.259	No
359	7.18	126.23	57.68	68.55	0.87	0.293	1.43	0.205	1.03	1.00	0.259	No
360	7.20	126.60	57.88	68.72	0.87	0.293	1.43	0.205	1.03	1.00	0.260	No
361	7.22	126.97	58.08	68.90	0.87	0.293	1.43	0.205	1.03	1.00	0.260	No
362	7.24	127.35	58.27	69.07	0.87	0.293	1.43	0.205	1.03	1.00	0.260	No
363	7.26	127.72	58.47	69.25	0.87	0.293	1.43	0.205	1.03	1.00	0.260	No
364	7.28	128.09	58.66	69.43	0.87	0.293	1.43	0.205	1.03	1.00	0.260	No
365	7.30	128.46	58.86	69.60	0.87	0.293	1.43	0.205	1.03	1.00	0.260	No
366	7.32	128.83	59.06	69.77	0.87	0.293	1.43	0.205	1.03	1.00	0.260	No
367	7.34	129.20	59.25	69.95	0.87	0.293	1.43	0.205	1.03	1.00	0.260	No
368	7.36	129.57	59.45	70.12	0.87	0.293	1.43	0.205	1.03	1.00	0.260	No
369	7.38	129.94	59.64	70.29	0.87	0.293	1.43	0.205	1.03	1.00	0.260	No
370	7.40	130.31	59.84	70.47	0.87	0.293	1.43	0.205	1.03	1.00	0.260	No
371	7.42	130.68	60.04	70.64	0.87	0.292	1.43	0.205	1.03	1.00	0.260	No
372	7.44	131.04	60.23	70.81	0.87	0.292	1.43	0.205	1.03	1.00	0.260	No
373	7.46	131.41	60.43	70.98	0.87	0.292	1.43	0.205	1.03	1.00	0.260	No
374	7.48	131.78	60.63	71.16	0.87	0.292	1.43	0.205	1.03	1.00	0.260	No
375	7.50	132.15	60.82	71.33	0.87	0.292	1.43	0.205	1.03	1.00	0.261	No
376	7.53	132.71	61.12	71.59	0.87	0.292	1.43	0.205	1.03	1.00	0.261	No
377	7.54	132.89	61.21	71.68	0.87	0.292	1.43	0.205	1.03	1.00	0.261	No
378	7.56	133.26	61.41	71.85	0.87	0.292	1.43	0.204	1.03	1.00	0.261	No
379	7.58	133.63	61.61	72.02	0.87	0.292	1.43	0.204	1.03	1.00	0.261	No
380	7.60	134.00	61.80	72.20	0.86	0.292	1.43	0.204	1.03	1.00	0.261	No
381	7.62	134.37	62.00	72.37	0.86	0.292	1.43	0.204	1.03	1.00	0.261	No
382	7.64	134.73	62.20	72.54	0.86	0.292	1.43	0.204	1.03	1.00	0.261	No
383	7.66	135.10	62.39	72.71	0.86	0.292	1.43	0.204	1.03	1.00	0.261	No
384	7.68	135.47	62.59	72.88	0.86	0.292	1.43	0.204	1.03	1.00	0.261	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
385	7.70	135.84	62.78	73.05	0.86	0.292	1.43	0.204	1.03	1.00	0.261	No
386	7.72	136.21	62.98	73.23	0.86	0.292	1.43	0.204	1.03	1.00	0.261	No
387	7.74	136.57	63.18	73.40	0.86	0.292	1.43	0.204	1.03	1.00	0.261	No
388	7.76	136.94	63.37	73.57	0.86	0.292	1.43	0.204	1.03	1.00	0.261	No
389	7.78	137.31	63.57	73.74	0.86	0.292	1.43	0.204	1.03	1.00	0.260	No
390	7.80	137.68	63.77	73.91	0.86	0.292	1.43	0.204	1.03	1.00	0.261	No
391	7.82	138.05	63.96	74.08	0.86	0.291	1.43	0.204	1.03	1.00	0.261	No
392	7.84	138.41	64.16	74.25	0.86	0.291	1.43	0.204	1.03	1.00	0.261	No
393	7.86	138.78	64.35	74.42	0.86	0.291	1.43	0.204	1.03	1.00	0.261	No
394	7.88	139.15	64.55	74.60	0.86	0.291	1.43	0.204	1.03	1.00	0.261	No
395	7.90	139.51	64.75	74.77	0.86	0.291	1.43	0.204	1.03	1.00	0.261	No
396	7.92	139.88	64.94	74.94	0.86	0.291	1.43	0.204	1.03	1.00	0.262	No
397	7.94	140.25	65.14	75.11	0.86	0.291	1.43	0.204	1.03	1.00	0.262	No
398	7.96	140.61	65.33	75.28	0.86	0.291	1.43	0.204	1.03	1.00	0.262	No
399	7.98	140.98	65.53	75.45	0.86	0.291	1.43	0.204	1.03	1.00	0.262	No
400	8.00	141.35	65.73	75.62	0.86	0.291	1.43	0.204	1.03	1.00	0.262	No
401	8.02	141.71	65.92	75.79	0.85	0.291	1.43	0.204	1.02	1.00	0.262	No
402	8.04	142.08	66.12	75.96	0.85	0.291	1.43	0.204	1.02	1.00	0.262	No
403	8.06	142.44	66.32	76.13	0.85	0.291	1.43	0.204	1.02	1.00	0.262	No
404	8.08	142.81	66.51	76.30	0.85	0.291	1.43	0.203	1.02	1.00	0.262	No
405	8.10	143.17	66.71	76.46	0.85	0.291	1.43	0.203	1.02	1.00	0.262	No
406	8.12	143.53	66.90	76.63	0.85	0.291	1.43	0.203	1.02	1.00	0.262	No
407	8.14	143.89	67.10	76.79	0.85	0.291	1.43	0.203	1.02	1.00	0.262	No
408	8.16	144.25	67.30	76.96	0.85	0.290	1.43	0.203	1.02	1.00	0.262	No
409	8.18	144.61	67.49	77.12	0.85	0.290	1.43	0.203	1.02	1.00	0.262	No
410	8.20	144.97	67.69	77.28	0.85	0.290	1.43	0.203	1.02	1.00	0.262	No
411	8.22	145.33	67.89	77.45	0.85	0.290	1.43	0.203	1.02	1.00	0.263	No
412	8.24	145.70	68.08	77.61	0.85	0.290	1.43	0.203	1.02	1.00	0.263	No
413	8.26	146.06	68.28	77.78	0.85	0.290	1.43	0.203	1.02	1.00	0.263	No
414	8.28	146.42	68.47	77.94	0.85	0.290	1.43	0.203	1.02	1.00	0.263	No
415	8.30	146.78	68.67	78.11	0.85	0.290	1.43	0.203	1.02	1.00	0.263	No
416	8.32	147.14	68.87	78.27	0.85	0.290	1.43	0.203	1.02	1.00	0.263	No
417	8.34	147.50	69.06	78.43	0.85	0.290	1.43	0.203	1.02	1.00	0.262	No
418	8.36	147.86	69.26	78.60	0.85	0.290	1.43	0.203	1.02	1.00	0.262	No
419	8.38	148.21	69.45	78.76	0.85	0.290	1.43	0.203	1.02	1.00	0.262	No
420	8.40	148.57	69.65	78.92	0.85	0.290	1.43	0.203	1.02	1.00	0.262	No
421	8.42	148.93	69.85	79.08	0.85	0.290	1.43	0.203	1.02	1.00	0.262	No
422	8.44	149.29	70.04	79.25	0.84	0.290	1.43	0.203	1.02	1.00	0.262	No
423	8.46	149.65	70.24	79.41	0.84	0.290	1.43	0.203	1.02	1.00	0.262	No
424	8.48	150.01	70.44	79.57	0.84	0.290	1.43	0.203	1.02	1.00	0.262	No
425	8.50	150.37	70.63	79.74	0.84	0.290	1.43	0.203	1.02	1.00	0.262	No
426	8.52	150.73	70.83	79.90	0.84	0.289	1.43	0.203	1.02	1.00	0.262	No
427	8.54	151.09	71.02	80.06	0.84	0.289	1.43	0.203	1.02	1.00	0.262	No
428	8.56	151.45	71.22	80.23	0.84	0.289	1.43	0.203	1.02	1.00	0.263	No
429	8.58	151.81	71.42	80.39	0.84	0.289	1.43	0.202	1.02	1.00	0.263	No
430	8.60	152.17	71.61	80.56	0.84	0.289	1.43	0.202	1.02	1.00	0.263	No
431	8.62	152.53	71.81	80.72	0.84	0.289	1.43	0.202	1.02	1.00	0.263	No
432	8.64	152.89	72.01	80.89	0.84	0.289	1.43	0.202	1.02	1.00	0.263	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
433	8.66	153.26	72.20	81.05	0.84	0.289	1.43	0.202	1.02	1.00	0.263	No
434	8.68	153.62	72.40	81.22	0.84	0.289	1.43	0.202	1.02	1.00	0.263	No
435	8.70	153.97	72.59	81.38	0.84	0.289	1.43	0.202	1.02	1.00	0.263	No
436	8.72	154.33	72.79	81.54	0.84	0.289	1.43	0.202	1.02	1.00	0.263	No
437	8.74	154.69	72.99	81.70	0.84	0.289	1.43	0.202	1.02	1.00	0.263	No
438	8.76	155.05	73.18	81.87	0.84	0.289	1.43	0.202	1.02	1.00	0.263	No
439	8.78	155.41	73.38	82.03	0.84	0.289	1.43	0.202	1.02	1.00	0.263	No
440	8.80	155.76	73.58	82.19	0.84	0.288	1.43	0.202	1.02	1.00	0.263	No
441	8.82	156.12	73.77	82.35	0.84	0.288	1.43	0.202	1.02	1.00	0.263	No
442	8.84	156.48	73.97	82.51	0.84	0.288	1.43	0.202	1.02	1.00	0.263	No
443	8.86	156.83	74.16	82.67	0.83	0.288	1.43	0.202	1.02	1.00	0.263	No
444	8.88	157.18	74.36	82.82	0.83	0.288	1.43	0.202	1.02	1.00	0.263	No
445	8.90	157.54	74.56	82.98	0.83	0.288	1.43	0.202	1.02	1.00	0.264	No
446	8.92	157.89	74.75	83.13	0.83	0.288	1.43	0.202	1.02	1.00	0.264	No
447	8.94	158.22	74.95	83.28	0.83	0.288	1.43	0.202	1.02	1.00	0.264	No
448	8.96	158.57	75.14	83.42	0.83	0.288	1.43	0.202	1.02	1.00	0.263	No
449	8.98	158.91	75.34	83.57	0.83	0.288	1.43	0.202	1.02	1.00	0.264	No
450	9.00	159.25	75.54	83.71	0.83	0.288	1.43	0.202	1.02	1.00	0.264	No
451	9.02	159.59	75.73	83.85	0.83	0.288	1.43	0.202	1.02	1.00	0.264	No
452	9.04	159.92	75.93	83.99	0.83	0.288	1.43	0.201	1.02	1.00	0.264	No
453	9.06	160.25	76.13	84.13	0.83	0.288	1.43	0.201	1.02	1.00	0.264	No
454	9.08	160.59	76.32	84.27	0.83	0.288	1.43	0.201	1.02	1.00	0.264	No
455	9.10	160.92	76.52	84.40	0.83	0.288	1.43	0.201	1.01	1.00	0.264	No
456	9.12	161.25	76.71	84.53	0.83	0.288	1.43	0.201	1.01	1.00	0.264	No
457	9.14	161.58	76.91	84.67	0.83	0.288	1.43	0.201	1.01	1.00	0.264	No
458	9.16	161.90	77.11	84.80	0.83	0.288	1.43	0.201	1.01	1.00	0.264	No
459	9.18	162.23	77.30	84.93	0.83	0.288	1.43	0.201	1.01	1.00	0.263	No
460	9.20	162.56	77.50	85.06	0.83	0.288	1.43	0.201	1.01	1.00	0.263	No
461	9.22	162.88	77.70	85.19	0.83	0.288	1.43	0.201	1.01	1.00	0.263	No
462	9.24	163.21	77.89	85.32	0.83	0.288	1.43	0.201	1.01	1.00	0.263	No
463	9.26	163.53	78.09	85.44	0.83	0.288	1.43	0.201	1.01	1.00	0.263	No
464	9.28	163.86	78.28	85.57	0.83	0.288	1.43	0.201	1.01	1.00	0.263	No
465	9.30	164.19	78.48	85.71	0.82	0.287	1.43	0.201	1.01	1.00	0.262	No
466	9.32	164.52	78.68	85.84	0.82	0.287	1.43	0.201	1.01	1.00	0.262	No
467	9.34	164.85	78.87	85.98	0.82	0.287	1.43	0.201	1.01	1.00	0.262	No
468	9.36	165.19	79.07	86.12	0.82	0.287	1.43	0.201	1.01	1.00	0.262	No
469	9.38	165.53	79.26	86.26	0.82	0.287	1.43	0.201	1.01	1.00	0.262	No
470	9.40	165.87	79.46	86.40	0.82	0.287	1.43	0.201	1.01	1.00	0.262	No
471	9.42	166.20	79.66	86.55	0.82	0.287	1.43	0.201	1.01	1.00	0.263	No
472	9.44	166.54	79.85	86.69	0.82	0.287	1.43	0.201	1.01	1.00	0.264	No
473	9.46	166.87	80.05	86.82	0.82	0.287	1.43	0.201	1.01	1.00	0.264	No
474	9.48	167.20	80.25	86.96	0.82	0.287	1.43	0.201	1.01	1.00	0.264	No
475	9.50	167.53	80.44	87.09	0.82	0.287	1.43	0.201	1.01	1.00	0.264	No
476	9.52	167.86	80.64	87.22	0.82	0.287	1.43	0.201	1.01	1.00	0.264	No
477	9.54	168.18	80.83	87.35	0.82	0.287	1.43	0.201	1.01	1.00	0.263	No
478	9.56	168.51	81.03	87.48	0.82	0.287	1.43	0.201	1.01	1.00	0.263	No
479	9.58	168.84	81.23	87.61	0.82	0.287	1.43	0.201	1.01	1.00	0.263	No
480	9.60	169.16	81.42	87.74	0.82	0.287	1.43	0.201	1.01	1.00	0.263	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
481	9.62	169.49	81.62	87.87	0.82	0.287	1.43	0.201	1.01	1.00	0.263	No
482	9.64	169.82	81.82	88.01	0.82	0.287	1.43	0.201	1.01	1.00	0.263	No
483	9.66	170.15	82.01	88.14	0.82	0.287	1.43	0.201	1.01	1.00	0.263	No
484	9.68	170.48	82.21	88.27	0.82	0.287	1.43	0.201	1.01	1.00	0.263	No
485	9.70	170.81	82.40	88.41	0.81	0.287	1.43	0.201	1.01	1.00	0.263	No
486	9.72	171.14	82.60	88.54	0.81	0.287	1.43	0.201	1.01	1.00	0.263	No
487	9.74	171.47	82.80	88.68	0.81	0.286	1.43	0.201	1.01	1.00	0.263	No
488	9.76	171.81	82.99	88.81	0.81	0.286	1.43	0.200	1.01	1.00	0.263	No
489	9.78	172.14	83.19	88.95	0.81	0.286	1.43	0.200	1.01	1.00	0.263	No
490	9.80	172.48	83.39	89.10	0.81	0.286	1.43	0.200	1.01	1.00	0.263	No
491	9.82	172.82	83.58	89.24	0.81	0.286	1.43	0.200	1.01	1.00	0.263	No
492	9.84	173.17	83.78	89.39	0.81	0.286	1.43	0.200	1.01	1.00	0.263	No
493	9.86	173.51	83.97	89.54	0.81	0.286	1.43	0.200	1.01	1.00	0.262	No
494	9.88	173.86	84.17	89.69	0.81	0.286	1.43	0.200	1.01	1.00	0.262	No
495	9.90	174.21	84.37	89.84	0.81	0.286	1.43	0.200	1.01	1.00	0.262	No
496	9.92	174.55	84.56	89.99	0.81	0.286	1.43	0.200	1.01	1.00	0.262	No
497	9.94	174.90	84.76	90.14	0.81	0.286	1.43	0.200	1.01	1.00	0.262	No
498	9.96	175.25	84.95	90.29	0.81	0.286	1.43	0.200	1.01	1.00	0.262	No
499	9.98	175.60	85.15	90.45	0.81	0.286	1.43	0.200	1.01	1.00	0.262	No
500	10.00	175.95	85.35	90.60	0.81	0.286	1.43	0.200	1.01	1.00	0.262	No
501	10.02	176.29	85.54	90.75	0.81	0.285	1.43	0.200	1.01	1.00	0.263	No
502	10.04	176.64	85.74	90.90	0.81	0.285	1.43	0.200	1.01	1.00	0.262	No
503	10.06	176.99	85.94	91.05	0.81	0.285	1.43	0.200	1.01	1.00	0.262	No
504	10.08	177.34	86.13	91.21	0.81	0.285	1.43	0.200	1.01	1.00	0.263	No
505	10.10	177.69	86.33	91.36	0.81	0.285	1.43	0.200	1.01	1.00	0.263	No
506	10.12	178.04	86.52	91.51	0.80	0.285	1.43	0.199	1.01	1.00	0.262	No
507	10.14	178.39	86.72	91.67	0.80	0.285	1.43	0.199	1.01	1.00	0.262	No
508	10.16	178.74	86.92	91.82	0.80	0.285	1.43	0.199	1.01	1.00	0.262	No
509	10.18	179.09	87.11	91.98	0.80	0.285	1.43	0.199	1.01	1.00	0.262	No
510	10.20	179.45	87.31	92.14	0.80	0.285	1.43	0.199	1.01	1.00	0.262	No
511	10.22	179.80	87.51	92.29	0.80	0.285	1.43	0.199	1.01	1.00	0.262	No
512	10.24	180.15	87.70	92.45	0.80	0.284	1.43	0.199	1.01	1.00	0.262	No
513	10.26	180.50	87.90	92.60	0.80	0.284	1.43	0.199	1.01	1.00	0.262	No
514	10.28	180.85	88.09	92.76	0.80	0.284	1.43	0.199	1.01	1.00	0.262	No
515	10.30	181.21	88.29	92.92	0.80	0.284	1.43	0.199	1.01	1.00	0.262	No
516	10.32	181.56	88.49	93.08	0.80	0.284	1.43	0.199	1.01	1.00	0.262	No
517	10.34	181.92	88.68	93.23	0.80	0.284	1.43	0.199	1.01	1.00	0.262	No
518	10.36	182.27	88.88	93.39	0.80	0.284	1.43	0.199	1.01	1.00	0.261	No
519	10.38	182.63	89.07	93.55	0.80	0.284	1.43	0.199	1.01	1.00	0.261	No
520	10.40	182.98	89.27	93.71	0.80	0.284	1.43	0.199	1.01	1.00	0.261	No
521	10.42	183.34	89.47	93.87	0.80	0.284	1.43	0.198	1.01	1.00	0.261	No
522	10.44	183.70	89.66	94.03	0.80	0.283	1.43	0.198	1.01	1.00	0.261	No
523	10.46	184.05	89.86	94.20	0.80	0.283	1.43	0.198	1.01	1.00	0.261	No
524	10.48	184.41	90.06	94.36	0.80	0.283	1.43	0.198	1.01	1.00	0.261	No
525	10.50	184.77	90.25	94.52	0.80	0.283	1.43	0.198	1.01	1.00	0.261	No
526	10.52	185.13	90.45	94.68	0.80	0.283	1.43	0.198	1.01	1.00	0.260	No
527	10.54	185.49	90.64	94.85	0.79	0.283	1.43	0.198	1.01	1.00	0.260	No
528	10.56	185.85	90.84	95.01	0.79	0.283	1.43	0.198	1.01	1.00	0.261	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
529	10.58	186.21	91.04	95.18	0.79	0.283	1.43	0.198	1.01	1.00	0.261	No
530	10.60	186.58	91.23	95.34	0.79	0.283	1.43	0.198	1.01	1.00	0.261	No
531	10.62	186.94	91.43	95.51	0.79	0.282	1.43	0.198	1.00	1.00	0.261	No
532	10.64	187.30	91.63	95.67	0.79	0.282	1.43	0.198	1.00	1.00	0.261	No
533	10.66	187.66	91.82	95.84	0.79	0.282	1.43	0.198	1.00	1.00	0.261	No
534	10.68	188.02	92.02	96.00	0.79	0.282	1.43	0.197	1.00	1.00	0.261	No
535	10.70	188.38	92.21	96.17	0.79	0.282	1.43	0.197	1.00	1.00	0.260	No
536	10.72	188.74	92.41	96.33	0.79	0.282	1.43	0.197	1.00	1.00	0.260	No
537	10.74	189.10	92.61	96.49	0.79	0.282	1.43	0.197	1.00	1.00	0.260	No
538	10.76	189.46	92.80	96.66	0.79	0.282	1.43	0.197	1.00	1.00	0.260	No
539	10.78	189.82	93.00	96.82	0.79	0.282	1.43	0.197	1.00	1.00	0.260	No
540	10.80	190.17	93.19	96.98	0.79	0.281	1.43	0.197	1.00	1.00	0.260	No
541	10.82	190.53	93.39	97.14	0.79	0.281	1.43	0.197	1.00	1.00	0.259	No
542	10.84	190.89	93.59	97.30	0.79	0.281	1.43	0.197	1.00	1.00	0.259	No
543	10.86	191.25	93.78	97.47	0.79	0.281	1.43	0.197	1.00	1.00	0.259	No
544	10.88	191.61	93.98	97.63	0.79	0.281	1.43	0.197	1.00	1.00	0.258	No
545	10.90	191.98	94.18	97.80	0.79	0.281	1.43	0.197	1.00	1.00	0.258	No
546	10.92	192.34	94.37	97.97	0.79	0.281	1.43	0.197	1.00	1.00	0.258	No
547	10.94	192.71	94.57	98.14	0.79	0.281	1.43	0.196	1.00	1.00	0.258	No
548	10.96	193.08	94.76	98.31	0.78	0.281	1.43	0.196	1.00	1.00	0.258	No
549	10.98	193.45	94.96	98.48	0.78	0.280	1.43	0.196	1.00	1.00	0.258	No
550	11.01	194.00	95.26	98.75	0.78	0.280	1.43	0.196	1.00	1.00	0.258	No
551	11.02	194.19	95.35	98.83	0.78	0.280	1.43	0.196	1.00	1.00	0.258	No
552	11.04	194.56	95.55	99.01	0.78	0.280	1.43	0.196	1.00	1.00	0.258	No
553	11.06	194.93	95.75	99.18	0.78	0.280	1.43	0.196	1.00	1.00	0.258	No
554	11.08	195.30	95.94	99.36	0.78	0.280	1.43	0.196	1.00	1.00	0.258	No
555	11.11	195.86	96.24	99.62	0.78	0.280	1.43	0.196	1.00	1.00	0.258	No
556	11.12	196.04	96.33	99.71	0.78	0.279	1.43	0.196	1.00	1.00	0.258	No
557	11.14	196.41	96.53	99.88	0.78	0.279	1.43	0.196	1.00	1.00	0.258	No
558	11.16	196.78	96.73	100.05	0.78	0.279	1.43	0.195	1.00	1.00	0.259	No
559	11.18	197.14	96.92	100.22	0.78	0.279	1.43	0.195	1.00	1.00	0.259	No
560	11.20	197.50	97.12	100.38	0.78	0.279	1.43	0.195	1.00	1.00	0.259	No
561	11.22	197.86	97.32	100.55	0.78	0.279	1.43	0.195	1.00	1.00	0.259	No
562	11.24	198.22	97.51	100.71	0.78	0.279	1.43	0.195	1.00	1.00	0.259	No
563	11.26	198.58	97.71	100.87	0.78	0.279	1.43	0.195	1.00	1.00	0.259	No
564	11.28	198.93	97.90	101.02	0.78	0.279	1.43	0.195	1.00	1.00	0.259	No
565	11.30	199.28	98.10	101.18	0.78	0.278	1.43	0.195	1.00	1.00	0.259	No
566	11.32	199.63	98.30	101.33	0.78	0.278	1.43	0.195	1.00	1.00	0.259	No
567	11.34	199.98	98.49	101.48	0.78	0.278	1.43	0.195	1.00	1.00	0.259	No
568	11.36	200.32	98.69	101.63	0.78	0.278	1.43	0.195	1.00	1.00	0.259	No
569	11.38	200.66	98.88	101.78	0.77	0.278	1.43	0.195	1.00	1.00	0.258	No
570	11.40	201.00	99.08	101.92	0.77	0.278	1.43	0.195	1.00	1.00	0.258	No
571	11.42	201.34	99.28	102.06	0.77	0.278	1.43	0.194	1.00	1.00	0.258	No
572	11.44	201.68	99.47	102.21	0.77	0.278	1.43	0.194	1.00	1.00	0.258	No
573	11.46	202.02	99.67	102.35	0.77	0.278	1.43	0.194	1.00	1.00	0.258	No
574	11.48	202.36	99.87	102.49	0.77	0.278	1.43	0.194	1.00	1.00	0.258	No
575	11.50	202.70	100.06	102.64	0.77	0.277	1.43	0.194	1.00	1.00	0.258	No
576	11.52	203.05	100.26	102.79	0.77	0.277	1.43	0.194	1.00	1.00	0.258	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
577	11.54	203.39	100.45	102.94	0.77	0.277	1.43	0.194	1.00	1.00	0.258	No
578	11.56	203.73	100.65	103.08	0.77	0.277	1.43	0.194	1.00	1.00	0.257	No
579	11.58	204.08	100.85	103.23	0.77	0.277	1.43	0.194	1.00	1.00	0.257	No
580	11.60	204.42	101.04	103.38	0.77	0.277	1.43	0.194	1.00	1.00	0.256	No
581	11.62	204.77	101.24	103.53	0.77	0.277	1.43	0.194	1.00	1.00	0.256	No
582	11.64	205.12	101.44	103.68	0.77	0.277	1.43	0.194	1.00	1.00	0.257	No
583	11.66	205.47	101.63	103.83	0.77	0.277	1.43	0.194	1.00	1.00	0.256	No
584	11.68	205.82	101.83	103.99	0.77	0.277	1.43	0.194	1.00	1.00	0.256	No
585	11.70	206.17	102.02	104.15	0.77	0.276	1.43	0.193	1.00	1.00	0.256	No
586	11.72	206.53	102.22	104.31	0.77	0.276	1.43	0.193	1.00	1.00	0.255	No
587	11.74	206.88	102.42	104.47	0.77	0.276	1.43	0.193	1.00	1.00	0.255	No
588	11.76	207.24	102.61	104.63	0.77	0.276	1.43	0.193	1.00	1.00	0.254	No
589	11.78	207.60	102.81	104.79	0.77	0.276	1.43	0.193	1.00	1.00	0.253	No
590	11.80	207.96	103.00	104.96	0.76	0.276	1.43	0.193	1.00	1.00	0.253	No
591	11.82	208.33	103.20	105.13	0.76	0.276	1.43	0.193	1.00	1.00	0.252	No
592	11.84	208.69	103.40	105.30	0.76	0.276	1.43	0.193	1.00	1.00	0.252	No
593	11.86	209.06	103.59	105.47	0.76	0.275	1.43	0.193	1.00	1.00	0.252	No
594	11.88	209.43	103.79	105.64	0.76	0.275	1.43	0.193	1.00	1.00	0.253	No
595	11.90	209.81	103.99	105.82	0.76	0.275	1.43	0.193	1.00	1.00	0.254	No
596	11.92	210.18	104.18	106.00	0.76	0.275	1.43	0.192	1.00	1.00	0.254	No
597	11.94	210.55	104.38	106.18	0.76	0.275	1.43	0.192	1.00	1.00	0.255	No
598	11.96	210.93	104.57	106.36	0.76	0.275	1.43	0.192	1.00	1.00	0.255	No
599	11.98	211.31	104.77	106.53	0.76	0.275	1.43	0.192	1.00	1.00	0.255	No
600	12.00	211.68	104.97	106.71	0.76	0.274	1.43	0.192	1.00	1.00	0.255	No
601	12.02	212.05	105.16	106.89	0.76	0.274	1.43	0.192	1.00	1.00	0.255	No
602	12.04	212.42	105.36	107.06	0.76	0.274	1.43	0.192	1.00	1.00	0.255	No
603	12.06	212.79	105.56	107.23	0.76	0.274	1.43	0.192	1.00	1.00	0.255	No
604	12.08	213.15	105.75	107.40	0.76	0.274	1.43	0.192	1.00	1.00	0.255	No
605	12.10	213.52	105.95	107.57	0.76	0.274	1.43	0.192	0.99	1.00	0.254	No
606	12.12	213.88	106.14	107.74	0.76	0.274	1.43	0.192	0.99	1.00	0.253	No
607	12.14	214.24	106.34	107.90	0.76	0.273	1.43	0.191	0.99	1.00	0.252	No
608	12.16	214.61	106.54	108.07	0.76	0.273	1.43	0.191	0.99	1.00	0.251	No
609	12.18	214.98	106.73	108.24	0.76	0.273	1.43	0.191	0.99	1.00	0.252	No
610	12.20	215.34	106.93	108.41	0.76	0.273	1.43	0.191	0.99	1.00	0.252	No
611	12.22	215.71	107.13	108.59	0.75	0.273	1.43	0.191	0.99	1.00	0.252	No
612	12.24	216.08	107.32	108.76	0.75	0.273	1.43	0.191	0.99	1.00	0.252	No
613	12.26	216.45	107.52	108.94	0.75	0.273	1.43	0.191	0.99	1.00	0.252	No
614	12.28	216.83	107.71	109.11	0.75	0.272	1.43	0.191	0.99	1.00	0.252	No
615	12.30	217.20	107.91	109.29	0.75	0.272	1.43	0.191	0.99	1.00	0.251	No
616	12.32	217.58	108.11	109.47	0.75	0.272	1.43	0.191	0.99	1.00	0.251	No
617	12.34	217.95	108.30	109.65	0.75	0.272	1.43	0.190	0.99	1.00	0.250	No
618	12.36	218.33	108.50	109.83	0.75	0.272	1.43	0.190	0.99	1.00	0.249	No
619	12.38	218.70	108.69	110.01	0.75	0.272	1.43	0.190	0.99	1.00	0.249	No
620	12.40	219.08	108.89	110.19	0.75	0.272	1.43	0.190	0.99	1.00	0.250	No
621	12.42	219.46	109.09	110.37	0.75	0.271	1.43	0.190	0.99	1.00	0.250	No
622	12.44	219.84	109.28	110.55	0.75	0.271	1.43	0.190	0.99	1.00	0.249	No
623	12.46	220.21	109.48	110.73	0.75	0.271	1.43	0.190	0.99	1.00	0.249	No
624	12.48	220.59	109.68	110.92	0.75	0.271	1.43	0.190	0.99	1.00	0.249	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
625	12.50	220.97	109.87	111.10	0.75	0.271	1.43	0.190	0.99	1.00	0.250	No
626	12.52	221.35	110.07	111.28	0.75	0.271	1.43	0.189	0.99	1.00	0.250	No
627	12.54	221.72	110.26	111.46	0.75	0.271	1.43	0.189	0.99	1.00	0.250	No
628	12.56	222.10	110.46	111.64	0.75	0.270	1.43	0.189	0.99	1.00	0.250	No
629	12.58	222.48	110.66	111.82	0.75	0.270	1.43	0.189	0.99	1.00	0.250	No
630	12.60	222.86	110.85	112.00	0.75	0.270	1.43	0.189	0.99	1.00	0.249	No
631	12.62	223.24	111.05	112.19	0.75	0.270	1.43	0.189	0.99	1.00	0.249	No
632	12.64	223.62	111.25	112.37	0.74	0.270	1.43	0.189	0.99	1.00	0.249	No
633	12.66	224.00	111.44	112.56	0.74	0.270	1.43	0.189	0.99	1.00	0.248	No
634	12.68	224.38	111.64	112.74	0.74	0.270	1.43	0.189	0.99	1.00	0.248	No
635	12.70	224.76	111.83	112.93	0.74	0.269	1.43	0.189	0.99	1.00	0.247	No
636	12.72	225.14	112.03	113.11	0.74	0.269	1.43	0.188	0.99	1.00	0.247	No
637	12.74	225.52	112.23	113.29	0.74	0.269	1.43	0.188	0.99	1.00	0.247	No
638	12.76	225.90	112.42	113.48	0.74	0.269	1.43	0.188	0.99	1.00	0.246	No
639	12.78	226.28	112.62	113.66	0.74	0.269	1.43	0.188	0.99	1.00	0.246	No
640	12.80	226.66	112.81	113.85	0.74	0.269	1.43	0.188	0.99	1.00	0.246	No
641	12.82	227.05	113.01	114.04	0.74	0.268	1.43	0.188	0.99	1.00	0.246	No
642	12.84	227.43	113.21	114.22	0.74	0.268	1.43	0.188	0.99	1.00	0.246	No
643	12.86	227.81	113.40	114.41	0.74	0.268	1.43	0.188	0.99	1.00	0.246	No
644	12.88	228.20	113.60	114.60	0.74	0.268	1.43	0.188	0.99	1.00	0.246	No
645	12.90	228.58	113.80	114.79	0.74	0.268	1.43	0.187	0.99	1.00	0.246	No
646	12.92	228.97	113.99	114.97	0.74	0.268	1.43	0.187	0.99	1.00	0.247	No
647	12.94	229.35	114.19	115.16	0.74	0.267	1.43	0.187	0.99	1.00	0.248	No
648	12.96	229.73	114.38	115.35	0.74	0.267	1.43	0.187	0.99	1.00	0.248	No
649	12.98	230.11	114.58	115.53	0.74	0.267	1.43	0.187	0.99	1.00	0.248	No
650	13.00	230.50	114.78	115.72	0.74	0.267	1.43	0.187	0.99	1.00	0.248	No
651	13.02	230.88	114.97	115.90	0.74	0.267	1.43	0.187	0.99	1.00	0.249	No
652	13.04	231.25	115.17	116.08	0.74	0.267	1.43	0.187	0.99	1.00	0.249	No
653	13.06	231.63	115.37	116.26	0.74	0.267	1.43	0.187	0.99	1.00	0.249	No
654	13.08	232.00	115.56	116.44	0.73	0.266	1.43	0.186	0.99	1.00	0.249	No
655	13.10	232.37	115.76	116.62	0.73	0.266	1.43	0.186	0.99	1.00	0.249	No
656	13.12	232.74	115.95	116.79	0.73	0.266	1.43	0.186	0.99	1.00	0.249	No
657	13.14	233.11	116.15	116.96	0.73	0.266	1.43	0.186	0.99	1.00	0.249	No
658	13.16	233.47	116.35	117.13	0.73	0.266	1.43	0.186	0.99	1.00	0.249	No
659	13.18	233.84	116.54	117.29	0.73	0.266	1.43	0.186	0.99	1.00	0.249	No
660	13.20	234.20	116.74	117.46	0.73	0.266	1.43	0.186	0.99	1.00	0.249	No
661	13.22	234.56	116.94	117.62	0.73	0.265	1.43	0.186	0.99	1.00	0.249	No
662	13.24	234.92	117.13	117.79	0.73	0.265	1.43	0.186	0.99	1.00	0.249	No
663	13.26	235.28	117.33	117.95	0.73	0.265	1.43	0.186	0.99	1.00	0.249	No
664	13.28	235.64	117.52	118.11	0.73	0.265	1.43	0.186	0.99	1.00	0.249	No
665	13.30	236.00	117.72	118.28	0.73	0.265	1.43	0.185	0.99	1.00	0.248	No
666	13.32	236.35	117.92	118.44	0.73	0.265	1.43	0.185	0.99	1.00	0.248	No
667	13.34	236.71	118.11	118.60	0.73	0.265	1.43	0.185	0.99	1.00	0.248	No
668	13.36	237.07	118.31	118.76	0.73	0.265	1.43	0.185	0.99	1.00	0.248	No
669	13.38	237.43	118.50	118.93	0.73	0.264	1.43	0.185	0.99	1.00	0.248	No
670	13.40	237.79	118.70	119.09	0.73	0.264	1.43	0.185	0.99	1.00	0.248	No
671	13.42	238.15	118.90	119.25	0.73	0.264	1.43	0.185	0.99	1.00	0.248	No
672	13.44	238.51	119.09	119.42	0.73	0.264	1.43	0.185	0.99	1.00	0.248	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
673	13.46	238.87	119.29	119.58	0.73	0.264	1.43	0.185	0.99	1.00	0.248	No
674	13.48	239.23	119.49	119.74	0.73	0.264	1.43	0.185	0.99	1.00	0.247	No
675	13.50	239.58	119.68	119.90	0.72	0.264	1.43	0.185	0.99	1.00	0.247	No
676	13.52	239.94	119.88	120.06	0.72	0.264	1.43	0.184	0.99	1.00	0.247	No
677	13.54	240.29	120.07	120.22	0.72	0.263	1.43	0.184	0.99	1.00	0.247	No
678	13.56	240.65	120.27	120.38	0.72	0.263	1.43	0.184	0.99	1.00	0.247	No
679	13.58	241.01	120.47	120.55	0.72	0.263	1.43	0.184	0.99	1.00	0.246	No
680	13.60	241.37	120.66	120.71	0.72	0.263	1.43	0.184	0.98	1.00	0.246	No
681	13.62	241.74	120.86	120.88	0.72	0.263	1.43	0.184	0.98	1.00	0.246	No
682	13.64	242.10	121.06	121.04	0.72	0.263	1.43	0.184	0.98	1.00	0.246	No
683	13.66	242.47	121.25	121.21	0.72	0.263	1.43	0.184	0.98	1.00	0.246	No
684	13.68	242.83	121.45	121.38	0.72	0.262	1.43	0.184	0.98	1.00	0.245	No
685	13.70	243.20	121.64	121.56	0.72	0.262	1.43	0.184	0.98	1.00	0.246	No
686	13.72	243.57	121.84	121.73	0.72	0.262	1.43	0.183	0.98	1.00	0.246	No
687	13.74	243.94	122.04	121.90	0.72	0.262	1.43	0.183	0.98	1.00	0.245	No
688	13.76	244.31	122.23	122.07	0.72	0.262	1.43	0.183	0.98	1.00	0.245	No
689	13.78	244.67	122.43	122.24	0.72	0.262	1.43	0.183	0.98	1.00	0.245	No
690	13.80	245.04	122.63	122.41	0.72	0.262	1.43	0.183	0.98	1.00	0.245	No
691	13.82	245.41	122.82	122.58	0.72	0.261	1.43	0.183	0.98	1.00	0.245	No
692	13.84	245.77	123.02	122.75	0.72	0.261	1.43	0.183	0.98	1.00	0.245	No
693	13.86	246.13	123.21	122.92	0.72	0.261	1.43	0.183	0.98	1.00	0.245	No
694	13.88	246.50	123.41	123.09	0.72	0.261	1.43	0.183	0.98	1.00	0.246	No
695	13.90	246.86	123.61	123.25	0.72	0.261	1.43	0.183	0.98	1.00	0.246	No
696	13.92	247.22	123.80	123.42	0.72	0.261	1.43	0.183	0.98	1.00	0.246	No
697	13.94	247.58	124.00	123.58	0.71	0.261	1.43	0.182	0.98	1.00	0.246	No
698	13.96	247.93	124.19	123.74	0.71	0.261	1.43	0.182	0.98	1.00	0.244	No
699	13.98	248.29	124.39	123.90	0.71	0.260	1.43	0.182	0.98	1.00	0.244	No
700	14.00	248.65	124.59	124.06	0.71	0.260	1.43	0.182	0.98	1.00	0.244	No
701	14.02	249.00	124.78	124.22	0.71	0.260	1.43	0.182	0.98	1.00	0.244	No
702	14.04	249.35	124.98	124.37	0.71	0.260	1.43	0.182	0.98	1.00	0.244	No
703	14.06	249.71	125.18	124.53	0.71	0.260	1.43	0.182	0.98	1.00	0.244	No
704	14.08	250.06	125.37	124.69	0.71	0.260	1.43	0.182	0.98	1.00	0.244	No
705	14.10	250.41	125.57	124.85	0.71	0.260	1.43	0.182	0.98	1.00	0.244	No
706	14.12	250.76	125.76	125.00	0.71	0.259	1.43	0.182	0.98	1.00	0.244	No
707	14.14	251.11	125.96	125.15	0.71	0.259	1.43	0.182	0.98	1.00	0.244	No
708	14.16	251.46	126.16	125.31	0.71	0.259	1.43	0.181	0.98	1.00	0.244	No
709	14.18	251.82	126.35	125.47	0.71	0.259	1.43	0.181	0.98	1.00	0.244	No
710	14.20	252.18	126.55	125.63	0.71	0.259	1.43	0.181	0.98	1.00	0.244	No
711	14.22	252.53	126.75	125.79	0.71	0.259	1.43	0.181	0.98	1.00	0.243	No
712	14.24	252.89	126.94	125.95	0.71	0.259	1.43	0.181	0.98	1.00	0.243	No
713	14.26	253.25	127.14	126.12	0.71	0.259	1.43	0.181	0.98	1.00	0.242	No
714	14.28	253.61	127.33	126.28	0.71	0.258	1.43	0.181	0.98	1.00	0.242	No
715	14.30	253.98	127.53	126.45	0.71	0.258	1.43	0.181	0.98	1.00	0.242	No
716	14.32	254.34	127.73	126.61	0.71	0.258	1.43	0.181	0.98	1.00	0.242	No
717	14.34	254.70	127.92	126.78	0.71	0.258	1.43	0.181	0.98	1.00	0.242	No
718	14.36	255.07	128.12	126.95	0.71	0.258	1.43	0.181	0.98	1.00	0.242	No
719	14.39	255.62	128.41	127.21	0.70	0.258	1.43	0.180	0.98	1.00	0.241	No
720	14.40	255.81	128.51	127.30	0.70	0.258	1.43	0.180	0.98	1.00	0.241	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
721	14.42	256.18	128.71	127.47	0.70	0.257	1.43	0.180	0.98	1.00	0.241	No
722	14.44	256.55	128.90	127.65	0.70	0.257	1.43	0.180	0.98	1.00	0.241	No
723	14.46	256.93	129.10	127.83	0.70	0.257	1.43	0.180	0.98	1.00	0.241	No
724	14.48	257.30	129.30	128.00	0.70	0.257	1.43	0.180	0.98	1.00	0.241	No
725	14.50	257.68	129.49	128.18	0.70	0.257	1.43	0.180	0.98	1.00	0.241	No
726	14.52	258.05	129.69	128.36	0.70	0.257	1.43	0.180	0.98	1.00	0.241	No
727	14.54	258.42	129.88	128.54	0.70	0.257	1.43	0.180	0.98	1.00	0.241	No
728	14.56	258.80	130.08	128.72	0.70	0.256	1.43	0.179	0.98	1.00	0.241	No
729	14.58	259.17	130.28	128.89	0.70	0.256	1.43	0.179	0.98	1.00	0.241	No
730	14.60	259.54	130.47	129.07	0.70	0.256	1.43	0.179	0.98	1.00	0.241	No
731	14.62	259.92	130.67	129.25	0.70	0.256	1.43	0.179	0.98	1.00	0.241	No
732	14.64	260.29	130.87	129.42	0.70	0.256	1.43	0.179	0.98	1.00	0.241	No
733	14.66	260.66	131.06	129.60	0.70	0.256	1.43	0.179	0.98	1.00	0.241	No
734	14.68	261.03	131.26	129.78	0.70	0.256	1.43	0.179	0.98	1.00	0.241	No
735	14.70	261.40	131.45	129.95	0.70	0.255	1.43	0.179	0.98	1.00	0.240	No
736	14.72	261.77	131.65	130.12	0.70	0.255	1.43	0.179	0.98	1.00	0.240	No
737	14.74	262.14	131.85	130.29	0.70	0.255	1.43	0.179	0.98	1.00	0.240	No
738	14.76	262.51	132.04	130.46	0.70	0.255	1.43	0.178	0.98	1.00	0.240	No
739	14.78	262.87	132.24	130.63	0.70	0.255	1.43	0.178	0.98	1.00	0.240	No
740	14.80	263.24	132.44	130.80	0.70	0.255	1.43	0.178	0.98	1.00	0.240	No
741	14.82	263.60	132.63	130.97	0.69	0.255	1.43	0.178	0.98	1.00	0.240	No
742	14.84	263.96	132.83	131.14	0.69	0.254	1.43	0.178	0.98	1.00	0.240	No
743	14.86	264.33	133.02	131.31	0.69	0.254	1.43	0.178	0.98	1.00	0.240	No
744	14.88	264.69	133.22	131.47	0.69	0.254	1.43	0.178	0.98	1.00	0.240	No
745	14.90	265.06	133.42	131.64	0.69	0.254	1.43	0.178	0.98	1.00	0.240	No
746	14.92	265.42	133.61	131.81	0.69	0.254	1.43	0.178	0.98	1.00	0.240	No
747	14.94	265.79	133.81	131.98	0.69	0.254	1.43	0.178	0.98	1.00	0.240	No
748	14.96	266.15	134.00	132.14	0.69	0.254	1.43	0.178	0.98	1.00	0.240	No
749	14.98	266.51	134.20	132.31	0.69	0.253	1.43	0.177	0.98	1.00	0.239	No
750	15.00	266.87	134.40	132.48	0.69	0.253	1.43	0.177	0.98	1.00	0.239	No
751	15.02	267.24	134.59	132.64	0.69	0.253	1.43	0.177	0.98	1.00	0.239	No
752	15.04	267.60	134.79	132.81	0.69	0.253	1.43	0.177	0.98	1.00	0.239	No
753	15.06	267.96	134.99	132.97	0.69	0.253	1.43	0.177	0.98	1.00	0.239	No
754	15.08	268.32	135.18	133.14	0.69	0.253	1.43	0.177	0.98	1.00	0.239	No
755	15.10	268.69	135.38	133.31	0.69	0.253	1.43	0.177	0.98	1.00	0.239	No
756	15.12	269.05	135.57	133.47	0.69	0.253	1.43	0.177	0.98	1.00	0.239	No
757	15.14	269.41	135.77	133.64	0.69	0.252	1.43	0.177	0.98	1.00	0.239	No
758	15.16	269.77	135.97	133.80	0.69	0.252	1.43	0.177	0.98	1.00	0.238	No
759	15.18	270.13	136.16	133.97	0.69	0.252	1.43	0.176	0.98	1.00	0.239	No
760	15.20	270.49	136.36	134.13	0.69	0.252	1.43	0.176	0.98	1.00	0.239	No
761	15.22	270.84	136.56	134.29	0.69	0.252	1.43	0.176	0.98	1.00	0.239	No
762	15.24	271.20	136.75	134.45	0.69	0.252	1.43	0.176	0.98	1.00	0.239	No
763	15.26	271.55	136.95	134.61	0.69	0.252	1.43	0.176	0.98	1.00	0.239	No
764	15.28	271.91	137.14	134.76	0.68	0.251	1.43	0.176	0.98	1.00	0.239	No
765	15.30	272.26	137.34	134.92	0.68	0.251	1.43	0.176	0.98	1.00	0.239	No
766	15.32	272.62	137.54	135.08	0.68	0.251	1.43	0.176	0.98	1.00	0.239	No
767	15.34	272.97	137.73	135.24	0.68	0.251	1.43	0.176	0.98	1.00	0.239	No
768	15.36	273.32	137.93	135.39	0.68	0.251	1.43	0.176	0.98	1.00	0.239	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
769	15.38	273.67	138.12	135.55	0.68	0.251	1.43	0.176	0.98	1.00	0.239	No
770	15.40	274.02	138.32	135.70	0.68	0.251	1.43	0.175	0.98	1.00	0.239	No
771	15.42	274.37	138.52	135.85	0.68	0.251	1.43	0.175	0.98	1.00	0.239	No
772	15.44	274.71	138.71	136.00	0.68	0.250	1.43	0.175	0.98	1.00	0.239	No
773	15.46	275.05	138.91	136.14	0.68	0.250	1.43	0.175	0.98	1.00	0.239	No
774	15.48	275.39	139.11	136.28	0.68	0.250	1.43	0.175	0.98	1.00	0.239	No
775	15.50	275.72	139.30	136.42	0.68	0.250	1.43	0.175	0.98	1.00	0.239	No
776	15.52	276.05	139.50	136.55	0.68	0.250	1.43	0.175	0.98	1.00	0.239	No
777	15.54	276.38	139.69	136.69	0.68	0.250	1.43	0.175	0.98	1.00	0.239	No
778	15.56	276.71	139.89	136.82	0.68	0.250	1.43	0.175	0.98	1.00	0.239	No
779	15.58	277.03	140.09	136.94	0.68	0.250	1.43	0.175	0.98	1.00	0.239	No
780	15.60	277.35	140.28	137.07	0.68	0.250	1.43	0.175	0.98	1.00	0.239	No
781	15.62	277.68	140.48	137.20	0.68	0.249	1.43	0.175	0.98	1.00	0.239	No
782	15.64	278.00	140.68	137.32	0.68	0.249	1.43	0.175	0.98	1.00	0.238	No
783	15.66	278.32	140.87	137.45	0.68	0.249	1.43	0.174	0.98	1.00	0.238	No
784	15.68	278.64	141.07	137.57	0.68	0.249	1.43	0.174	0.98	1.00	0.238	No
785	15.70	278.96	141.26	137.69	0.68	0.249	1.43	0.174	0.98	1.00	0.238	No
786	15.72	279.28	141.46	137.82	0.68	0.249	1.43	0.174	0.98	1.00	0.238	No
787	15.74	279.60	141.66	137.94	0.67	0.249	1.43	0.174	0.98	1.00	0.238	No
788	15.76	279.92	141.85	138.07	0.67	0.249	1.43	0.174	0.98	1.00	0.238	No
789	15.78	280.25	142.05	138.20	0.67	0.249	1.43	0.174	0.97	1.00	0.237	No
790	15.80	280.58	142.25	138.33	0.67	0.249	1.43	0.174	0.97	1.00	0.237	No
791	15.82	280.92	142.44	138.47	0.67	0.248	1.43	0.174	0.97	1.00	0.236	No
792	15.84	281.25	142.64	138.62	0.67	0.248	1.43	0.174	0.97	1.00	0.236	No
793	15.86	281.59	142.83	138.76	0.67	0.248	1.43	0.174	0.97	1.00	0.235	No
794	15.88	281.93	143.03	138.90	0.67	0.248	1.43	0.174	0.97	1.00	0.235	No
795	15.90	282.27	143.23	139.04	0.67	0.248	1.43	0.174	0.97	1.00	0.235	No
796	15.92	282.61	143.42	139.19	0.67	0.248	1.43	0.174	0.97	1.00	0.234	No
797	15.94	282.96	143.62	139.34	0.67	0.248	1.43	0.173	0.97	1.00	0.232	No
798	15.96	283.31	143.81	139.50	0.67	0.248	1.43	0.173	0.97	1.00	0.232	No
799	15.98	283.67	144.01	139.66	0.67	0.248	1.43	0.173	0.97	1.00	0.228	No
800	16.00	284.03	144.21	139.82	0.67	0.247	1.43	0.173	0.97	1.00	0.227	No
801	16.02	284.39	144.40	139.98	0.67	0.247	1.43	0.173	0.97	1.00	0.225	No
802	16.04	284.75	144.60	140.15	0.67	0.247	1.43	0.173	0.97	1.00	0.224	No
803	16.06	285.11	144.80	140.32	0.67	0.247	1.43	0.173	0.97	1.00	0.224	No
804	16.08	285.47	144.99	140.48	0.67	0.247	1.43	0.173	0.97	1.00	0.225	No
805	16.10	285.83	145.19	140.64	0.67	0.247	1.43	0.173	0.97	1.00	0.228	No
806	16.12	286.17	145.38	140.79	0.67	0.247	1.43	0.173	0.97	1.00	0.231	No
807	16.14	286.52	145.58	140.94	0.67	0.246	1.43	0.173	0.97	1.00	0.231	No
808	16.16	286.86	145.78	141.08	0.67	0.246	1.43	0.172	0.97	1.00	0.230	No
809	16.18	287.20	145.97	141.23	0.67	0.246	1.43	0.172	0.97	1.00	0.229	No
810	16.20	287.55	146.17	141.38	0.66	0.246	1.43	0.172	0.97	1.00	0.229	No
811	16.22	287.90	146.37	141.53	0.66	0.246	1.43	0.172	0.97	1.00	0.228	No
812	16.24	288.25	146.56	141.69	0.66	0.246	1.43	0.172	0.97	1.00	0.229	No
813	16.26	288.60	146.76	141.84	0.66	0.246	1.43	0.172	0.97	1.00	0.230	No
814	16.28	288.94	146.95	141.99	0.66	0.246	1.43	0.172	0.97	1.00	0.231	No
815	16.30	289.29	147.15	142.14	0.66	0.245	1.43	0.172	0.97	1.00	0.231	No
816	16.32	289.64	147.35	142.29	0.66	0.245	1.43	0.172	0.97	1.00	0.232	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
817	16.34	289.98	147.54	142.44	0.66	0.245	1.43	0.172	0.97	1.00	0.232	No
818	16.36	290.34	147.74	142.60	0.66	0.245	1.43	0.172	0.97	1.00	0.233	No
819	16.38	290.69	147.93	142.75	0.66	0.245	1.43	0.171	0.97	1.00	0.234	No
820	16.40	291.04	148.13	142.91	0.66	0.245	1.43	0.171	0.97	1.00	0.234	No
821	16.42	291.38	148.33	143.05	0.66	0.245	1.43	0.171	0.97	1.00	0.234	No
822	16.44	291.71	148.52	143.19	0.66	0.245	1.43	0.171	0.97	1.00	0.234	No
823	16.46	292.05	148.72	143.33	0.66	0.245	1.43	0.171	0.97	1.00	0.234	No
824	16.48	292.38	148.92	143.46	0.66	0.244	1.43	0.171	0.97	1.00	0.234	No
825	16.50	292.71	149.11	143.60	0.66	0.244	1.43	0.171	0.97	1.00	0.234	No
826	16.52	293.05	149.31	143.74	0.66	0.244	1.43	0.171	0.97	1.00	0.234	No
827	16.54	293.38	149.50	143.88	0.66	0.244	1.43	0.171	0.97	1.00	0.234	No
828	16.56	293.71	149.70	144.01	0.66	0.244	1.43	0.171	0.97	1.00	0.234	No
829	16.58	294.04	149.90	144.14	0.66	0.244	1.43	0.171	0.97	1.00	0.234	No
830	16.60	294.37	150.09	144.28	0.66	0.244	1.43	0.171	0.97	1.00	0.234	No
831	16.63	294.87	150.39	144.48	0.66	0.244	1.43	0.171	0.97	1.00	0.234	No
832	16.64	295.03	150.49	144.55	0.66	0.244	1.43	0.170	0.97	1.00	0.234	No
833	16.66	295.36	150.68	144.68	0.66	0.243	1.43	0.170	0.97	1.00	0.234	No
834	16.68	295.70	150.88	144.82	0.65	0.243	1.43	0.170	0.97	1.00	0.234	No
835	16.70	296.03	151.07	144.96	0.65	0.243	1.43	0.170	0.97	1.00	0.233	No
836	16.72	296.36	151.27	145.09	0.65	0.243	1.43	0.170	0.97	1.00	0.233	No
837	16.74	296.70	151.47	145.23	0.65	0.243	1.43	0.170	0.97	1.00	0.233	No
838	16.76	297.04	151.66	145.37	0.65	0.243	1.43	0.170	0.97	1.00	0.233	No
839	16.78	297.37	151.86	145.51	0.65	0.243	1.43	0.170	0.97	1.00	0.233	No
840	16.80	297.71	152.06	145.66	0.65	0.243	1.43	0.170	0.97	1.00	0.233	No
841	16.82	298.05	152.25	145.80	0.65	0.243	1.43	0.170	0.97	1.00	0.233	No
842	16.84	298.39	152.45	145.94	0.65	0.242	1.43	0.170	0.97	1.00	0.233	No
843	16.86	298.73	152.64	146.09	0.65	0.242	1.43	0.170	0.97	1.00	0.233	No
844	16.88	299.08	152.84	146.24	0.65	0.242	1.43	0.170	0.97	1.00	0.233	No
845	16.91	299.59	153.13	146.46	0.65	0.242	1.43	0.169	0.97	1.00	0.232	No
846	16.93	299.94	153.33	146.61	0.65	0.242	1.43	0.169	0.97	1.00	0.232	No
847	16.94	300.11	153.43	146.68	0.65	0.242	1.43	0.169	0.97	1.00	0.232	No
848	16.96	300.45	153.62	146.83	0.65	0.242	1.43	0.169	0.97	1.00	0.232	No
849	16.98	300.80	153.82	146.98	0.65	0.242	1.43	0.169	0.97	1.00	0.232	No
850	17.00	301.11	154.02	147.09	0.65	0.241	1.43	0.169	0.97	1.00	0.233	No
851	17.02	301.42	154.21	147.21	0.65	0.241	1.43	0.169	0.97	1.00	0.233	No
852	17.04	301.77	154.41	147.36	0.65	0.241	1.43	0.169	0.97	1.00	0.232	No
853	17.06	302.12	154.61	147.51	0.65	0.241	1.43	0.169	0.97	1.00	0.232	No
854	17.08	302.46	154.80	147.66	0.65	0.241	1.43	0.169	0.97	1.00	0.232	No
855	17.10	302.81	155.00	147.81	0.65	0.241	1.43	0.169	0.97	1.00	0.231	No
856	17.12	303.16	155.19	147.96	0.65	0.241	1.43	0.169	0.97	1.00	0.231	No
857	17.14	303.51	155.39	148.12	0.65	0.241	1.43	0.168	0.97	1.00	0.231	No
858	17.16	303.86	155.59	148.27	0.64	0.241	1.43	0.168	0.97	1.00	0.231	No
859	17.18	304.21	155.78	148.42	0.64	0.240	1.43	0.168	0.97	1.00	0.231	No
860	17.20	304.56	155.98	148.58	0.64	0.240	1.43	0.168	0.97	1.00	0.231	No
861	17.22	304.91	156.18	148.73	0.64	0.240	1.43	0.168	0.97	1.00	0.231	No
862	17.24	305.26	156.37	148.88	0.64	0.240	1.43	0.168	0.97	1.00	0.231	No
863	17.26	305.61	156.57	149.04	0.64	0.240	1.43	0.168	0.97	1.00	0.231	No
864	17.28	305.96	156.76	149.19	0.64	0.240	1.43	0.168	0.97	1.00	0.231	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
865	17.30	306.31	156.96	149.35	0.64	0.240	1.43	0.168	0.97	1.00	0.231	No
866	17.32	306.66	157.16	149.50	0.64	0.240	1.43	0.168	0.97	1.00	0.231	No
867	17.34	307.01	157.35	149.66	0.64	0.239	1.43	0.168	0.97	1.00	0.230	No
868	17.36	307.36	157.55	149.81	0.64	0.239	1.43	0.167	0.97	1.00	0.230	No
869	17.38	307.70	157.74	149.96	0.64	0.239	1.43	0.167	0.97	1.00	0.230	No
870	17.40	308.05	157.94	150.11	0.64	0.239	1.43	0.167	0.97	1.00	0.230	No
871	17.42	308.40	158.14	150.26	0.64	0.239	1.43	0.167	0.97	1.00	0.230	No
872	17.44	308.75	158.33	150.41	0.64	0.239	1.43	0.167	0.97	1.00	0.230	No
873	17.46	309.09	158.53	150.56	0.64	0.239	1.43	0.167	0.97	1.00	0.230	No
874	17.48	309.44	158.73	150.71	0.64	0.239	1.43	0.167	0.97	1.00	0.230	No
875	17.50	309.79	158.92	150.86	0.64	0.238	1.43	0.167	0.97	1.00	0.230	No
876	17.52	310.13	159.12	151.02	0.64	0.238	1.43	0.167	0.97	1.00	0.229	No
877	17.54	310.48	159.31	151.17	0.64	0.238	1.43	0.167	0.97	1.00	0.229	No
878	17.56	310.83	159.51	151.32	0.64	0.238	1.43	0.167	0.97	1.00	0.229	No
879	17.58	311.18	159.71	151.47	0.64	0.238	1.43	0.167	0.97	1.00	0.229	No
880	17.60	311.53	159.90	151.62	0.64	0.238	1.43	0.166	0.97	1.00	0.229	No
881	17.62	311.88	160.10	151.78	0.64	0.238	1.43	0.166	0.97	1.00	0.229	No
882	17.64	312.23	160.30	151.93	0.64	0.238	1.43	0.166	0.97	1.00	0.229	No
883	17.66	312.58	160.49	152.09	0.63	0.237	1.43	0.166	0.97	1.00	0.228	No
884	17.68	312.94	160.69	152.25	0.63	0.237	1.43	0.166	0.97	1.00	0.228	No
885	17.70	313.30	160.88	152.41	0.63	0.237	1.43	0.166	0.97	1.00	0.228	No
886	17.72	313.66	161.08	152.58	0.63	0.237	1.43	0.166	0.97	1.00	0.228	No
887	17.76	314.37	161.47	152.90	0.63	0.237	1.43	0.166	0.97	1.00	0.228	No
888	17.76	314.37	161.47	152.90	0.63	0.237	1.43	0.166	0.97	1.00	0.228	No
889	17.78	314.73	161.67	153.06	0.63	0.237	1.43	0.166	0.97	1.00	0.228	No
890	17.80	315.09	161.87	153.23	0.63	0.237	1.43	0.166	0.97	1.00	0.228	No
891	17.82	315.45	162.06	153.39	0.63	0.236	1.43	0.165	0.97	1.00	0.227	No
892	17.84	315.81	162.26	153.55	0.63	0.236	1.43	0.165	0.97	1.00	0.227	No
893	17.86	316.17	162.45	153.71	0.63	0.236	1.43	0.165	0.97	1.00	0.227	No
894	17.88	316.52	162.65	153.87	0.63	0.236	1.43	0.165	0.97	1.00	0.227	No
895	17.90	316.88	162.85	154.04	0.63	0.236	1.43	0.165	0.97	1.00	0.227	No
896	17.92	317.24	163.04	154.20	0.63	0.236	1.43	0.165	0.97	1.00	0.227	No
897	17.94	317.60	163.24	154.36	0.63	0.236	1.43	0.165	0.97	1.00	0.227	No
898	17.96	317.96	163.43	154.52	0.63	0.235	1.43	0.165	0.97	1.00	0.227	No
899	17.98	318.32	163.63	154.69	0.63	0.235	1.43	0.165	0.97	1.00	0.227	No
900	18.00	318.68	163.83	154.85	0.63	0.235	1.43	0.165	0.97	1.00	0.227	No
901	18.02	319.03	164.02	155.01	0.63	0.235	1.43	0.165	0.97	1.00	0.226	No
902	18.04	319.36	164.22	155.14	0.63	0.235	1.43	0.164	0.97	1.00	0.227	No
903	18.06	319.72	164.42	155.31	0.63	0.235	1.43	0.164	0.97	1.00	0.226	No
904	18.08	320.08	164.61	155.47	0.63	0.235	1.43	0.164	0.97	1.00	0.226	No
905	18.10	320.44	164.81	155.63	0.63	0.235	1.43	0.164	0.97	1.00	0.226	No
906	18.12	320.80	165.00	155.80	0.63	0.234	1.43	0.164	0.96	1.00	0.226	No
907	18.14	321.16	165.20	155.96	0.63	0.234	1.43	0.164	0.96	1.00	0.226	No
908	18.16	321.52	165.40	156.12	0.62	0.234	1.43	0.164	0.96	1.00	0.226	No
909	18.18	321.88	165.59	156.29	0.62	0.234	1.43	0.164	0.96	1.00	0.226	No
910	18.20	322.24	165.79	156.45	0.62	0.234	1.43	0.164	0.96	1.00	0.226	No
911	18.22	322.59	165.99	156.61	0.62	0.234	1.43	0.164	0.96	1.00	0.226	No
912	18.24	322.95	166.18	156.77	0.62	0.234	1.43	0.164	0.96	1.00	0.225	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
913	18.26	323.31	166.38	156.93	0.62	0.234	1.43	0.163	0.96	1.00	0.225	No
914	18.28	323.66	166.57	157.09	0.62	0.233	1.43	0.163	0.96	1.00	0.225	No
915	18.30	324.02	166.77	157.25	0.62	0.233	1.43	0.163	0.96	1.00	0.225	No
916	18.32	324.37	166.97	157.40	0.62	0.233	1.43	0.163	0.96	1.00	0.225	No
917	18.34	324.72	167.16	157.56	0.62	0.233	1.43	0.163	0.96	1.00	0.225	No
918	18.36	325.07	167.36	157.71	0.62	0.233	1.43	0.163	0.96	1.00	0.225	No
919	18.38	325.42	167.55	157.87	0.62	0.233	1.43	0.163	0.96	1.00	0.225	No
920	18.40	325.77	167.75	158.02	0.62	0.233	1.43	0.163	0.96	1.00	0.225	No
921	18.42	326.11	167.95	158.17	0.62	0.233	1.43	0.163	0.96	1.00	0.225	No
922	18.44	326.46	168.14	158.31	0.62	0.232	1.43	0.163	0.96	1.00	0.225	No
923	18.46	326.80	168.34	158.46	0.62	0.232	1.43	0.163	0.96	1.00	0.225	No
924	18.48	327.14	168.54	158.60	0.62	0.232	1.43	0.163	0.96	1.00	0.225	No
925	18.50	327.48	168.73	158.74	0.62	0.232	1.43	0.162	0.96	1.00	0.224	No
926	18.52	327.81	168.93	158.88	0.62	0.232	1.43	0.162	0.96	1.00	0.224	No
927	18.54	328.15	169.12	159.02	0.62	0.232	1.43	0.162	0.96	1.00	0.224	No
928	18.56	328.49	169.32	159.17	0.62	0.232	1.43	0.162	0.96	1.00	0.224	No
929	18.58	328.82	169.52	159.31	0.62	0.232	1.43	0.162	0.96	1.00	0.224	No
930	18.60	329.16	169.71	159.45	0.62	0.232	1.43	0.162	0.96	1.00	0.224	No
931	18.62	329.50	169.91	159.59	0.62	0.231	1.43	0.162	0.96	1.00	0.224	No
932	18.64	329.84	170.11	159.74	0.62	0.231	1.43	0.162	0.96	1.00	0.223	No
933	18.66	330.19	170.30	159.88	0.62	0.231	1.43	0.162	0.96	1.00	0.223	No
934	18.68	330.53	170.50	160.04	0.61	0.231	1.43	0.162	0.96	1.00	0.223	No
935	18.70	330.88	170.69	160.19	0.61	0.231	1.43	0.162	0.96	1.00	0.223	No
936	18.72	331.23	170.89	160.34	0.61	0.231	1.43	0.162	0.96	1.00	0.223	No
937	18.74	331.58	171.09	160.49	0.61	0.231	1.43	0.162	0.96	1.00	0.222	No
938	18.76	331.93	171.28	160.65	0.61	0.231	1.43	0.161	0.96	1.00	0.222	No
939	18.78	332.29	171.48	160.81	0.61	0.231	1.43	0.161	0.96	1.00	0.222	No
940	18.80	332.64	171.68	160.97	0.61	0.230	1.43	0.161	0.96	1.00	0.222	No
941	18.82	333.00	171.87	161.13	0.61	0.230	1.43	0.161	0.96	1.00	0.221	No
942	18.84	333.35	172.07	161.29	0.61	0.230	1.43	0.161	0.96	1.00	0.221	No
943	18.86	333.71	172.26	161.45	0.61	0.230	1.43	0.161	0.96	1.00	0.221	No
944	18.88	334.07	172.46	161.61	0.61	0.230	1.43	0.161	0.96	1.00	0.221	No
945	18.90	334.43	172.66	161.77	0.61	0.230	1.43	0.161	0.96	1.00	0.221	No
946	18.92	334.79	172.85	161.93	0.61	0.230	1.43	0.161	0.96	1.00	0.222	No
947	18.94	335.14	173.05	162.09	0.61	0.230	1.43	0.161	0.96	1.00	0.222	No
948	18.96	335.50	173.24	162.25	0.61	0.229	1.43	0.161	0.96	1.00	0.222	No
949	18.98	335.85	173.44	162.41	0.61	0.229	1.43	0.160	0.96	1.00	0.222	No
950	19.00	336.21	173.64	162.57	0.61	0.229	1.43	0.160	0.96	1.00	0.222	No
951	19.02	336.56	173.83	162.73	0.61	0.229	1.43	0.160	0.96	1.00	0.220	No
952	19.04	336.89	174.03	162.86	0.61	0.229	1.43	0.160	0.96	1.00	0.220	No
953	19.06	337.22	174.23	162.99	0.61	0.229	1.43	0.160	0.96	1.00	0.220	No
954	19.08	337.58	174.42	163.16	0.61	0.229	1.43	0.160	0.95	1.00	0.214	No
955	19.10	337.94	174.62	163.32	0.61	0.229	1.43	0.160	0.95	1.00	0.212	No
956	19.12	338.31	174.81	163.49	0.61	0.228	1.43	0.160	0.95	1.00	0.211	No
957	19.14	338.67	175.01	163.66	0.61	0.228	1.43	0.160	0.95	1.00	0.211	No
958	19.16	339.03	175.21	163.82	0.61	0.228	1.43	0.160	0.95	1.00	0.212	No
959	19.18	339.38	175.40	163.98	0.61	0.228	1.43	0.160	0.95	1.00	0.214	No
960	19.20	339.73	175.60	164.13	0.61	0.228	1.43	0.160	0.95	1.00	0.216	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	σ_v (kPa)	u_0 (kPa)	σ'_v (kPa)	r_d	CSR	MSF	CSR_{eq}	K	User FS	CSR*	Belongs to transition
961	19.22	340.08	175.80	164.28	0.60	0.228	1.43	0.159	0.96	1.00	0.217	No
962	19.24	340.43	175.99	164.44	0.60	0.228	1.43	0.159	0.96	1.00	0.218	No
963	19.26	340.78	176.19	164.59	0.60	0.228	1.43	0.159	0.96	1.00	0.217	No
964	19.28	341.14	176.38	164.75	0.60	0.227	1.43	0.159	0.96	1.00	0.217	No
965	19.30	341.49	176.58	164.91	0.60	0.227	1.43	0.159	0.96	1.00	0.217	No
966	19.32	341.85	176.78	165.08	0.60	0.227	1.43	0.159	0.96	1.00	0.218	No
967	19.34	342.21	176.97	165.24	0.60	0.227	1.43	0.159	0.96	1.00	0.217	No
968	19.36	342.57	177.17	165.41	0.60	0.227	1.43	0.159	0.96	1.00	0.217	No
969	19.38	342.94	177.36	165.57	0.60	0.227	1.43	0.159	0.95	1.00	0.216	No
970	19.40	343.30	177.56	165.74	0.60	0.227	1.43	0.159	0.95	1.00	0.216	No

Abbreviations

Depth:	Depth from free surface, at which CPT was performed (m)
σ_v :	Total overburden pressure at test point (kPa)
u_0 :	Water pressure at test point (kPa)
σ'_v :	Effective overburden pressure based on GWT during earthquake (kPa)
r_d :	Nonlinear shear mass factor
CSR:	Cyclic Stress Ratio
MSF:	Magnitude Scaling Factor
CSR_{eq} :	CSR adjusted for M=7.5
K :	Effective overburden stress factor
CSR*:	CSR fully adjusted

:: Cyclic Resistance Ratio (CRR) calculation data ::

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
1	0.02	0.97	53.55	2.38	0.58	1.70	16.12	51.46	67.58	4.000	No	No	2.00
2	0.04	1.83	37.73	2.18	0.55	1.70	30.46	47.84	78.30	4.000	No	No	2.00
3	0.06	2.76	26.40	2.04	0.53	1.70	46.10	40.23	86.34	4.000	No	No	2.00
4	0.08	3.04	29.25	2.08	0.51	1.70	50.79	44.71	95.50	4.000	No	No	2.00
5	0.10	3.02	35.98	2.16	0.49	1.70	50.42	51.16	101.59	4.000	No	No	2.00
6	0.13	2.89	43.63	2.26	0.49	1.70	48.33	55.76	104.08	4.000	No	No	2.00
7	0.14	2.84	45.89	2.29	0.49	1.70	47.42	56.71	104.13	4.000	No	No	2.00
8	0.16	2.75	50.14	2.34	0.49	1.70	45.99	58.24	104.23	4.000	No	No	2.00
9	0.18	2.56	55.26	2.40	0.49	1.70	42.70	59.25	101.95	4.000	No	No	2.00
10	0.21	2.38	60.35	2.47	0.50	1.70	39.67	59.93	99.60	4.000	No	No	2.00
11	0.22	2.27	64.38	2.52	0.50	1.70	37.87	60.44	98.31	4.000	No	No	2.00
12	0.24	2.24	66.02	2.54	0.50	1.70	37.40	60.68	98.08	4.000	No	No	2.00
13	0.26	2.10	70.06	2.59	0.51	1.70	35.10	60.85	95.95	4.000	No	No	2.00
14	0.28	1.95	75.27	2.65	0.51	1.70	32.54	0.00	32.54	4.000	No	Yes	2.00
15	0.30	1.82	79.34	2.70	0.52	1.70	30.45	0.00	30.45	4.000	No	Yes	2.00
16	0.32	1.64	86.72	2.80	0.52	1.70	27.53	0.00	27.53	4.000	No	Yes	2.00
17	0.34	1.51	92.03	2.86	0.53	1.70	25.28	0.00	25.28	4.000	No	Yes	2.00
18	0.36	1.45	93.52	2.88	0.53	1.70	24.34	0.00	24.34	4.000	No	Yes	2.00
19	0.38	1.38	97.09	2.93	0.54	1.70	23.12	0.00	23.12	4.000	No	Yes	2.00
20	0.41	1.36	97.70	2.93	0.54	1.70	22.80	0.00	22.80	4.000	No	Yes	2.00
21	0.42	1.42	94.90	2.90	0.53	1.70	23.85	0.00	23.85	4.000	No	Yes	2.00
22	0.44	1.49	93.13	2.88	0.53	1.70	25.03	0.00	25.03	4.000	No	Yes	2.00
23	0.46	1.59	90.57	2.84	0.53	1.70	26.62	0.00	26.62	4.000	No	Yes	2.00
24	0.48	1.58	91.23	2.85	0.53	1.70	26.55	0.00	26.55	4.000	No	Yes	2.00
25	0.50	1.54	93.86	2.89	0.53	1.70	25.79	0.00	25.79	4.000	No	Yes	2.00
26	0.52	1.46	96.60	2.92	0.53	1.70	24.48	0.00	24.48	4.000	No	Yes	2.00
27	0.54	1.38	99.30	2.95	0.54	1.70	23.14	0.00	23.14	4.000	No	Yes	2.00
28	0.56	1.28	100.00	3.00	0.54	1.70	21.43	0.00	21.43	4.000	No	Yes	2.00
29	0.58	1.24	100.00	3.01	0.54	1.70	20.87	0.00	20.87	4.000	No	Yes	2.00
30	0.60	1.15	100.00	3.05	0.55	1.70	19.40	0.00	19.40	4.000	No	Yes	2.00
31	0.62	1.10	100.00	3.06	0.55	1.70	18.47	0.00	18.47	4.000	No	Yes	2.00
32	0.64	1.08	100.00	3.04	0.55	1.70	18.22	0.00	18.22	4.000	No	Yes	2.00
33	0.66	1.08	100.00	3.03	0.55	1.70	18.14	0.00	18.14	4.000	No	Yes	2.00
34	0.68	1.06	100.00	3.02	0.55	1.70	17.85	0.00	17.85	4.000	No	Yes	2.00
35	0.70	1.03	100.00	3.04	0.56	1.70	17.27	0.00	17.27	4.000	No	Yes	2.00
36	0.72	0.97	100.00	3.08	0.56	1.70	16.27	0.00	16.27	4.000	No	Yes	2.00
37	0.74	0.92	100.00	3.12	0.56	1.70	15.42	0.00	15.42	4.000	No	Yes	2.00
38	0.76	0.86	100.00	3.16	0.57	1.70	14.46	0.00	14.46	4.000	No	Yes	2.00
39	0.78	0.84	100.00	3.15	0.57	1.70	14.12	0.00	14.12	4.000	No	Yes	2.00
40	0.80	0.87	100.00	3.10	0.56	1.70	14.73	0.00	14.73	4.000	No	Yes	2.00
41	0.82	0.98	100.00	2.99	0.56	1.70	16.52	0.00	16.52	4.000	No	Yes	2.00
42	0.84	1.15	91.47	2.86	0.55	1.70	19.27	0.00	19.27	4.000	No	Yes	2.00
43	0.86	1.44	76.39	2.67	0.54	1.70	24.26	0.00	24.26	4.000	No	Yes	2.00
44	0.88	1.62	68.67	2.57	0.53	1.70	27.16	58.27	85.43	4.000	No	No	2.00
45	0.90	1.64	64.96	2.52	0.53	1.70	27.63	57.64	85.27	4.000	No	No	2.00
46	0.92	1.54	66.68	2.55	0.54	1.70	25.84	57.50	83.34	4.000	No	No	2.00
47	0.94	1.36	73.22	2.63	0.54	1.70	22.82	0.00	22.82	4.000	No	Yes	2.00
48	0.96	1.34	75.50	2.66	0.54	1.70	22.59	0.00	22.59	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)													
Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
49	0.98	1.58	67.87	2.56	0.53	1.70	26.53	57.94	84.47	4.000	No	No	2.00
50	1.00	2.08	47.51	2.31	0.52	1.70	35.03	54.26	89.28	4.000	No	No	2.00
51	1.02	2.17	46.60	2.30	0.52	1.70	36.48	54.23	90.71	4.000	No	No	2.00
52	1.04	2.20	48.29	2.32	0.52	1.70	37.02	55.11	92.13	4.000	No	No	2.00
53	1.06	2.21	51.04	2.35	0.51	1.70	37.15	56.25	93.40	4.000	No	No	2.00
54	1.08	2.24	51.28	2.35	0.51	1.70	37.74	56.50	94.23	4.000	No	No	2.00
55	1.10	2.38	48.78	2.32	0.51	1.70	39.97	56.09	96.06	4.000	No	No	2.00
56	1.12	2.44	46.53	2.29	0.51	1.70	40.96	55.35	96.31	4.000	No	No	2.00
57	1.14	2.43	45.26	2.28	0.51	1.70	40.89	54.72	95.61	4.000	No	No	2.00
58	1.16	2.38	45.98	2.29	0.51	1.70	40.07	54.86	94.93	4.000	No	No	2.00
59	1.18	2.29	47.42	2.31	0.51	1.70	38.60	55.15	93.74	4.000	No	No	2.00
60	1.20	2.07	51.45	2.36	0.52	1.70	34.78	55.77	90.55	4.000	No	No	2.00
61	1.22	1.66	61.41	2.48	0.53	1.70	28.00	56.92	84.92	4.000	No	No	2.00
62	1.24	1.38	71.66	2.61	0.54	1.70	23.32	0.00	23.32	4.000	No	Yes	2.00
63	1.26	1.19	81.41	2.73	0.55	1.70	20.06	0.00	20.06	4.000	No	Yes	2.00
64	1.28	1.06	88.78	2.82	0.56	1.70	17.90	0.00	17.90	4.000	No	Yes	2.00
65	1.30	0.96	95.42	2.91	0.56	1.70	16.21	0.00	16.21	4.000	No	Yes	2.00
66	1.32	0.93	93.49	2.88	0.56	1.70	15.79	0.00	15.79	4.000	No	Yes	2.00
67	1.34	0.91	94.14	2.89	0.56	1.70	15.33	0.00	15.33	4.000	No	Yes	2.00
68	1.36	0.84	99.19	2.95	0.57	1.70	14.22	0.00	14.22	4.000	No	Yes	2.00
69	1.38	0.82	99.35	2.95	0.57	1.70	13.83	0.00	13.83	4.000	No	Yes	2.00
70	1.40	0.83	98.45	2.94	0.57	1.70	14.01	0.00	14.01	4.000	No	Yes	2.00
71	1.42	0.84	97.55	2.93	0.57	1.70	14.31	0.00	14.31	4.000	No	Yes	2.00
72	1.44	0.81	97.61	2.93	0.57	1.70	13.78	0.00	13.78	4.000	No	Yes	2.00
73	1.46	0.77	99.88	2.96	0.57	1.70	13.05	0.00	13.05	4.000	No	Yes	2.00
74	1.48	0.70	100.00	3.05	0.58	1.70	11.84	0.00	11.84	4.000	No	Yes	2.00
75	1.50	0.71	100.00	3.02	0.57	1.70	12.00	0.00	12.00	4.000	No	Yes	2.00
76	1.52	0.74	98.37	2.94	0.57	1.70	12.53	0.00	12.53	4.000	No	Yes	2.00
77	1.54	0.77	95.84	2.91	0.57	1.70	13.02	0.00	13.02	4.000	No	Yes	2.00
78	1.56	0.80	94.52	2.89	0.57	1.70	13.59	0.00	13.59	4.000	No	Yes	2.00
79	1.58	0.86	92.51	2.87	0.57	1.70	14.60	0.00	14.60	4.000	No	Yes	2.00
80	1.60	0.92	91.57	2.86	0.56	1.70	15.57	0.00	15.57	4.000	No	Yes	2.00
81	1.62	0.95	91.90	2.86	0.56	1.70	16.03	0.00	16.03	4.000	No	Yes	2.00
82	1.64	0.93	95.43	2.91	0.56	1.70	15.78	0.00	15.78	4.000	No	Yes	2.00
83	1.66	0.90	100.00	2.96	0.56	1.70	15.22	0.00	15.22	4.000	No	Yes	2.00
84	1.68	0.93	99.05	2.95	0.56	1.70	15.75	0.00	15.75	4.000	No	Yes	2.00
85	1.70	1.06	94.45	2.89	0.55	1.70	17.85	0.00	17.85	4.000	No	Yes	2.00
86	1.72	1.26	87.80	2.81	0.54	1.70	21.31	0.00	21.31	4.000	No	Yes	2.00
87	1.74	1.66	76.09	2.66	0.53	1.70	28.02	0.00	28.02	4.000	No	Yes	2.00
88	1.76	2.05	64.67	2.52	0.51	1.70	34.50	59.54	94.04	0.130	No	No	0.77
89	1.78	2.54	54.39	2.39	0.49	1.70	42.75	58.97	101.71	0.140	No	No	0.83
90	1.80	3.04	43.22	2.25	0.48	1.70	51.12	56.23	107.35	0.148	No	No	0.89
91	1.82	3.15	39.47	2.21	0.48	1.70	52.99	54.35	107.34	0.148	No	No	0.89
92	1.84	2.90	39.13	2.20	0.49	1.70	48.73	53.10	101.83	0.140	No	No	0.82
93	1.86	2.59	39.37	2.20	0.51	1.70	43.64	52.05	95.68	0.132	No	No	0.76
94	1.88	2.45	38.41	2.19	0.52	1.70	41.23	50.83	92.06	0.128	No	No	0.73
95	1.90	2.41	41.18	2.23	0.51	1.70	40.58	52.44	93.02	0.129	No	No	0.73
96	1.92	2.35	41.07	2.23	0.52	1.70	39.49	52.10	91.59	0.127	No	No	0.72

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
97	1.94	2.10	49.12	2.33	0.52	1.70	35.39	55.03	90.42	0.126	No	No	0.71
98	1.96	1.84	53.96	2.39	0.53	1.70	30.97	55.62	86.58	0.122	No	No	0.68
99	1.99	1.75	56.26	2.42	0.53	1.70	29.44	55.92	85.36	0.121	No	No	0.66
100	2.00	1.15	81.89	2.74	0.55	1.70	19.51	0.00	19.51	4.000	No	Yes	2.00
101	2.03	1.05	85.00	2.77	0.56	1.70	17.78	0.00	17.78	4.000	No	Yes	2.00
102	2.04	0.99	87.88	2.81	0.56	1.70	16.73	0.00	16.73	4.000	No	Yes	2.00
103	2.06	1.07	83.90	2.76	0.56	1.70	18.17	0.00	18.17	4.000	No	Yes	2.00
104	2.08	1.36	71.76	2.61	0.54	1.70	23.01	0.00	23.01	4.000	No	Yes	2.00
105	2.10	1.86	58.41	2.44	0.53	1.70	31.29	57.05	88.34	0.124	No	No	0.67
106	2.12	2.25	49.93	2.34	0.51	1.70	37.88	56.01	93.89	0.130	No	No	0.71
107	2.14	2.32	49.69	2.33	0.51	1.70	39.03	56.22	95.26	0.132	No	No	0.71
108	2.16	2.04	53.23	2.38	0.52	1.70	34.35	56.29	90.63	0.126	No	No	0.68
109	2.18	2.01	52.17	2.36	0.52	1.70	33.81	55.77	89.59	0.125	No	No	0.67
110	2.20	2.09	52.59	2.37	0.52	1.70	35.26	56.31	91.57	0.127	No	No	0.68
111	2.22	2.03	55.05	2.40	0.52	1.70	34.19	56.85	91.04	0.127	No	No	0.67
112	2.24	1.94	55.78	2.41	0.52	1.70	32.68	56.67	89.34	0.125	No	No	0.66
113	2.26	1.69	61.38	2.48	0.53	1.70	28.41	57.03	85.44	0.121	No	No	0.63
114	2.28	1.53	66.70	2.55	0.54	1.70	25.78	57.48	83.26	0.119	No	No	0.62
115	2.30	1.37	73.68	2.63	0.54	1.70	23.15	0.00	23.15	4.000	No	Yes	2.00
116	2.32	1.19	82.85	2.75	0.55	1.70	20.15	0.00	20.15	4.000	No	Yes	2.00
117	2.34	1.07	89.22	2.83	0.56	1.70	18.11	0.00	18.11	4.000	No	Yes	2.00
118	2.36	0.98	93.66	2.88	0.56	1.70	16.59	0.00	16.59	4.000	No	Yes	2.00
119	2.38	1.12	84.18	2.76	0.55	1.70	18.91	0.00	18.91	4.000	No	Yes	2.00
120	2.40	1.73	63.11	2.50	0.53	1.70	29.19	57.67	86.87	0.122	No	No	0.63
121	2.42	1.77	58.45	2.44	0.53	1.70	29.90	56.68	86.58	0.122	No	No	0.62
122	2.44	1.42	70.48	2.59	0.54	1.70	23.90	57.67	81.57	0.117	No	No	0.59
123	2.46	1.12	82.05	2.74	0.55	1.70	18.97	0.00	18.97	4.000	No	Yes	2.00
124	2.48	0.90	93.60	2.88	0.56	1.70	15.24	0.00	15.24	4.000	No	Yes	2.00
125	2.50	0.82	96.79	2.92	0.57	1.70	13.91	0.00	13.91	4.000	No	Yes	2.00
126	2.52	0.81	96.68	2.92	0.57	1.70	13.72	0.00	13.72	4.000	No	Yes	2.00
127	2.54	0.80	94.95	2.90	0.57	1.70	13.55	0.00	13.55	4.000	No	Yes	2.00
128	2.56	0.82	93.25	2.88	0.57	1.70	13.97	0.00	13.97	4.000	No	Yes	2.00
129	2.58	0.79	96.01	2.91	0.57	1.70	13.47	0.00	13.47	4.000	No	Yes	2.00
130	2.60	0.71	99.96	2.96	0.57	1.70	12.12	0.00	12.12	4.000	No	Yes	2.00
131	2.62	0.67	100.00	2.97	0.58	1.70	11.35	0.00	11.35	4.000	No	Yes	2.00
132	2.64	0.62	100.00	3.00	0.58	1.70	10.60	0.00	10.60	4.000	No	Yes	2.00
133	2.66	0.57	100.00	3.06	0.58	1.70	9.76	0.00	9.76	4.000	No	Yes	2.00
134	2.68	0.57	100.00	3.06	0.58	1.70	9.80	0.00	9.80	4.000	No	Yes	2.00
135	2.70	0.62	100.00	3.01	0.58	1.70	10.62	0.00	10.62	4.000	No	Yes	2.00
136	2.72	0.71	95.74	2.91	0.58	1.70	12.05	0.00	12.05	4.000	No	Yes	2.00
137	2.74	0.79	90.31	2.84	0.57	1.70	13.35	0.00	13.35	4.000	No	Yes	2.00
138	2.76	0.84	86.75	2.80	0.57	1.70	14.31	0.00	14.31	4.000	No	Yes	2.00
139	2.78	0.79	89.96	2.84	0.57	1.70	13.43	0.00	13.43	4.000	No	Yes	2.00
140	2.80	0.67	98.34	2.94	0.58	1.70	11.47	0.00	11.47	4.000	No	Yes	2.00
141	2.82	0.59	100.00	3.04	0.58	1.70	9.97	0.00	9.97	4.000	No	Yes	2.00
142	2.84	0.55	100.00	3.07	0.59	1.70	9.30	0.00	9.30	4.000	No	Yes	2.00
143	2.86	0.52	100.00	3.10	0.59	1.70	8.80	0.00	8.80	4.000	No	Yes	2.00
144	2.88	0.52	100.00	3.08	0.59	1.70	8.94	0.00	8.94	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
145	2.90	0.51	100.00	3.08	0.59	1.70	8.75	0.00	8.75	4.000	No	Yes	2.00
146	2.92	0.55	100.00	3.02	0.58	1.70	9.40	0.00	9.40	4.000	No	Yes	2.00
147	2.94	0.61	96.87	2.92	0.58	1.70	10.33	0.00	10.33	4.000	No	Yes	2.00
148	2.96	0.64	93.63	2.88	0.58	1.70	10.85	0.00	10.85	4.000	No	Yes	2.00
149	2.98	0.76	100.00	2.97	0.57	1.70	12.86	0.00	12.86	4.000	No	Yes	2.00
150	3.00	0.58	100.00	3.16	0.58	1.70	9.80	0.00	9.80	4.000	No	Yes	2.00
151	3.02	0.53	100.00	3.15	0.59	1.70	9.12	0.00	9.12	4.000	No	Yes	2.00
152	3.04	0.52	100.00	3.13	0.59	1.70	8.95	0.00	8.95	4.000	No	Yes	2.00
153	3.06	0.53	100.00	3.09	0.59	1.70	9.01	0.00	9.01	4.000	No	Yes	2.00
154	3.08	0.55	100.00	3.03	0.58	1.70	9.42	0.00	9.42	4.000	No	Yes	2.00
155	3.10	0.57	100.00	2.99	0.58	1.70	9.73	0.00	9.73	4.000	No	Yes	2.00
156	3.12	0.60	96.83	2.92	0.58	1.70	10.13	0.00	10.13	4.000	No	Yes	2.00
157	3.14	0.61	95.05	2.90	0.58	1.70	10.31	0.00	10.31	4.000	No	Yes	2.00
158	3.16	0.61	95.14	2.90	0.58	1.70	10.34	0.00	10.34	4.000	No	Yes	2.00
159	3.18	0.62	94.19	2.89	0.58	1.70	10.55	0.00	10.55	4.000	No	Yes	2.00
160	3.20	0.62	96.28	2.92	0.58	1.70	10.55	0.00	10.55	4.000	No	Yes	2.00
161	3.22	0.65	96.26	2.92	0.58	1.70	11.03	0.00	11.03	4.000	No	Yes	2.00
162	3.25	0.66	96.75	2.92	0.58	1.70	11.27	0.00	11.27	4.000	No	Yes	2.00
163	3.26	0.68	97.31	2.93	0.58	1.70	11.54	0.00	11.54	4.000	No	Yes	2.00
164	3.28	0.69	98.90	2.95	0.58	1.70	11.68	0.00	11.68	4.000	No	Yes	2.00
165	3.30	0.69	100.00	2.96	0.58	1.70	11.75	0.00	11.75	4.000	No	Yes	2.00
166	3.32	0.68	100.00	2.98	0.58	1.70	11.58	0.00	11.58	4.000	No	Yes	2.00
167	3.34	0.67	100.00	3.01	0.58	1.70	11.31	0.00	11.31	4.000	No	Yes	2.00
168	3.36	0.66	100.00	3.02	0.58	1.70	11.25	0.00	11.25	4.000	No	Yes	2.00
169	3.38	0.68	100.00	2.99	0.58	1.70	11.59	0.00	11.59	4.000	No	Yes	2.00
170	3.40	0.71	100.00	2.97	0.57	1.70	12.01	0.00	12.01	4.000	No	Yes	2.00
171	3.42	0.71	100.00	2.98	0.57	1.70	11.97	0.00	11.97	4.000	No	Yes	2.00
172	3.44	0.69	100.00	3.01	0.58	1.70	11.74	0.00	11.74	4.000	No	Yes	2.00
173	3.46	0.70	100.00	3.01	0.58	1.70	11.87	0.00	11.87	4.000	No	Yes	2.00
174	3.48	0.73	100.00	2.98	0.57	1.70	12.45	0.00	12.45	4.000	No	Yes	2.00
175	3.50	0.75	99.63	2.96	0.57	1.70	12.79	0.00	12.79	4.000	No	Yes	2.00
176	3.52	0.77	99.48	2.96	0.57	1.70	13.00	0.00	13.00	4.000	No	Yes	2.00
177	3.54	0.77	99.82	2.96	0.57	1.70	13.03	0.00	13.03	4.000	No	Yes	2.00
178	3.56	0.78	100.00	2.97	0.57	1.70	13.20	0.00	13.20	4.000	No	Yes	2.00
179	3.58	0.78	100.00	2.98	0.57	1.70	13.27	0.00	13.27	4.000	No	Yes	2.00
180	3.60	0.80	100.00	2.97	0.57	1.70	13.57	0.00	13.57	4.000	No	Yes	2.00
181	3.62	0.82	100.00	2.97	0.57	1.70	13.95	0.00	13.95	4.000	No	Yes	2.00
182	3.64	0.85	100.00	2.97	0.57	1.70	14.39	0.00	14.39	4.000	No	Yes	2.00
183	3.66	0.86	100.00	2.98	0.57	1.70	14.56	0.00	14.56	4.000	No	Yes	2.00
184	3.68	0.88	100.00	2.99	0.56	1.70	14.93	0.00	14.93	4.000	No	Yes	2.00
185	3.70	0.90	100.00	2.99	0.56	1.70	15.23	0.00	15.23	4.000	No	Yes	2.00
186	3.72	0.91	100.00	3.01	0.56	1.70	15.43	0.00	15.43	4.000	No	Yes	2.00
187	3.74	0.94	100.00	3.00	0.56	1.70	15.80	0.00	15.80	4.000	No	Yes	2.00
188	3.77	0.96	100.00	3.00	0.56	1.69	16.16	0.00	16.16	4.000	No	Yes	2.00
189	3.78	1.02	100.00	2.98	0.56	1.68	17.01	0.00	17.01	4.000	No	Yes	2.00
190	3.80	1.04	100.00	2.99	0.56	1.68	17.25	0.00	17.25	4.000	No	Yes	2.00
191	3.82	1.04	100.00	3.00	0.56	1.67	17.21	0.00	17.21	4.000	No	Yes	2.00
192	3.84	0.99	100.00	3.04	0.56	1.67	16.54	0.00	16.54	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
193	3.86	1.00	100.00	3.04	0.56	1.67	16.59	0.00	16.59	4.000	No	Yes	2.00
194	3.88	0.97	100.00	3.07	0.56	1.67	16.14	0.00	16.14	4.000	No	Yes	2.00
195	3.90	0.96	100.00	3.10	0.56	1.67	15.94	0.00	15.94	4.000	No	Yes	2.00
196	3.92	0.95	100.00	3.12	0.56	1.66	15.68	0.00	15.68	4.000	No	Yes	2.00
197	3.94	0.95	100.00	3.12	0.56	1.66	15.60	0.00	15.60	4.000	No	Yes	2.00
198	3.96	0.94	100.00	3.10	0.56	1.66	15.47	0.00	15.47	4.000	No	Yes	2.00
199	3.98	0.93	100.00	3.11	0.56	1.65	15.27	0.00	15.27	4.000	No	Yes	2.00
200	4.00	0.90	100.00	3.14	0.56	1.65	14.70	0.00	14.70	4.000	No	Yes	2.00
201	4.02	0.87	100.00	3.15	0.57	1.65	14.26	0.00	14.26	4.000	No	Yes	2.00
202	4.04	0.86	100.00	3.15	0.57	1.65	14.10	0.00	14.10	4.000	No	Yes	2.00
203	4.06	0.83	100.00	3.18	0.57	1.65	13.54	0.00	13.54	4.000	No	Yes	2.00
204	4.08	0.81	100.00	3.19	0.57	1.65	13.25	0.00	13.25	4.000	No	Yes	2.00
205	4.10	0.79	100.00	3.21	0.57	1.65	12.90	0.00	12.90	4.000	No	Yes	2.00
206	4.12	0.75	100.00	3.23	0.57	1.65	12.27	0.00	12.27	4.000	No	Yes	2.00
207	4.14	0.73	100.00	3.24	0.57	1.65	11.92	0.00	11.92	4.000	No	Yes	2.00
208	4.16	0.68	100.00	3.28	0.58	1.65	11.10	0.00	11.10	4.000	No	Yes	2.00
209	4.18	0.64	100.00	3.31	0.58	1.65	10.47	0.00	10.47	4.000	No	Yes	2.00
210	4.20	0.63	100.00	3.31	0.58	1.64	10.32	0.00	10.32	4.000	No	Yes	2.00
211	4.22	0.62	100.00	3.32	0.58	1.64	10.10	0.00	10.10	4.000	No	Yes	2.00
212	4.24	0.64	100.00	3.28	0.58	1.64	10.48	0.00	10.48	4.000	No	Yes	2.00
213	4.26	0.68	100.00	3.22	0.58	1.63	11.06	0.00	11.06	4.000	No	Yes	2.00
214	4.28	0.71	100.00	3.17	0.58	1.62	11.50	0.00	11.50	4.000	No	Yes	2.00
215	4.30	0.75	100.00	3.12	0.57	1.62	12.04	0.00	12.04	4.000	No	Yes	2.00
216	4.32	0.85	100.00	3.01	0.57	1.61	13.59	0.00	13.59	4.000	No	Yes	2.00
217	4.34	1.01	94.17	2.89	0.56	1.60	15.94	0.00	15.94	4.000	No	Yes	2.00
218	4.36	1.06	91.12	2.85	0.56	1.59	16.71	0.00	16.71	4.000	No	Yes	2.00
219	4.38	1.16	85.65	2.78	0.56	1.58	18.20	0.00	18.20	4.000	No	Yes	2.00
220	4.40	1.17	85.46	2.78	0.56	1.58	18.35	0.00	18.35	4.000	No	Yes	2.00
221	4.42	1.10	91.97	2.86	0.56	1.58	17.27	0.00	17.27	4.000	No	Yes	2.00
222	4.44	1.09	96.22	2.92	0.56	1.57	17.01	0.00	17.01	4.000	No	Yes	2.00
223	4.46	1.05	100.00	2.97	0.56	1.57	16.33	0.00	16.33	4.000	No	Yes	2.00
224	4.48	1.02	100.00	3.01	0.56	1.57	15.88	0.00	15.88	4.000	No	Yes	2.00
225	4.50	1.02	100.00	3.03	0.56	1.57	15.81	0.00	15.81	4.000	No	Yes	2.00
226	4.52	1.04	100.00	3.02	0.56	1.57	16.14	0.00	16.14	4.000	No	Yes	2.00
227	4.55	1.03	100.00	3.03	0.56	1.56	15.88	0.00	15.88	4.000	No	Yes	2.00
228	4.56	1.02	100.00	3.01	0.56	1.56	15.83	0.00	15.83	4.000	No	Yes	2.00
229	4.58	1.05	100.00	2.98	0.56	1.56	16.24	0.00	16.24	4.000	No	Yes	2.00
230	4.60	1.07	100.00	2.98	0.56	1.55	16.51	0.00	16.51	4.000	No	Yes	2.00
231	4.62	1.09	99.71	2.96	0.56	1.55	16.74	0.00	16.74	4.000	No	Yes	2.00
232	4.64	1.12	98.17	2.94	0.56	1.54	17.12	0.00	17.12	4.000	No	Yes	2.00
233	4.66	1.11	98.92	2.95	0.56	1.54	16.97	0.00	16.97	4.000	No	Yes	2.00
234	4.68	1.09	100.00	2.98	0.56	1.54	16.63	0.00	16.63	4.000	No	Yes	2.00
235	4.70	1.08	100.00	2.99	0.56	1.54	16.51	0.00	16.51	4.000	No	Yes	2.00
236	4.72	1.12	100.00	2.98	0.56	1.53	16.98	0.00	16.98	4.000	No	Yes	2.00
237	4.74	1.10	100.00	2.99	0.56	1.53	16.62	0.00	16.62	4.000	No	Yes	2.00
238	4.76	1.06	100.00	3.03	0.56	1.53	16.09	0.00	16.09	4.000	No	Yes	2.00
239	4.78	1.03	100.00	3.06	0.56	1.53	15.59	0.00	15.59	4.000	No	Yes	2.00
240	4.80	1.01	100.00	3.08	0.56	1.53	15.26	0.00	15.26	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
241	4.82	1.00	100.00	3.09	0.56	1.53	15.14	0.00	15.14	4.000	No	Yes	2.00
242	4.84	0.96	100.00	3.14	0.57	1.53	14.55	0.00	14.55	4.000	No	Yes	2.00
243	4.86	0.96	100.00	3.16	0.57	1.52	14.43	0.00	14.43	4.000	No	Yes	2.00
244	4.88	0.99	100.00	3.14	0.56	1.52	14.89	0.00	14.89	4.000	No	Yes	2.00
245	4.90	1.07	100.00	3.08	0.56	1.51	15.99	0.00	15.99	4.000	No	Yes	2.00
246	4.92	1.12	100.00	3.03	0.56	1.50	16.74	0.00	16.74	4.000	No	Yes	2.00
247	4.94	1.20	100.00	2.97	0.55	1.50	17.79	0.00	17.79	4.000	No	Yes	2.00
248	4.96	1.28	95.46	2.91	0.55	1.49	18.83	0.00	18.83	4.000	No	Yes	2.00
249	4.98	1.33	94.38	2.89	0.55	1.49	19.54	0.00	19.54	4.000	No	Yes	2.00
250	5.01	1.39	94.14	2.89	0.55	1.48	20.32	0.00	20.32	4.000	No	Yes	2.00
251	5.02	1.38	96.20	2.92	0.55	1.48	20.23	0.00	20.23	4.000	No	Yes	2.00
252	5.04	1.41	97.33	2.93	0.54	1.47	20.55	0.00	20.55	4.000	No	Yes	2.00
253	5.06	1.40	100.00	2.96	0.54	1.47	20.30	0.00	20.30	4.000	No	Yes	2.00
254	5.08	1.46	98.18	2.94	0.54	1.47	21.22	0.00	21.22	4.000	No	Yes	2.00
255	5.10	1.47	98.40	2.94	0.54	1.46	21.27	0.00	21.27	4.000	No	Yes	2.00
256	5.12	1.41	100.00	2.98	0.54	1.46	20.45	0.00	20.45	4.000	No	Yes	2.00
257	5.14	1.40	100.00	3.00	0.55	1.46	20.21	0.00	20.21	4.000	No	Yes	2.00
258	5.16	1.45	100.00	2.98	0.54	1.46	20.90	0.00	20.90	4.000	No	Yes	2.00
259	5.18	1.44	100.00	2.99	0.54	1.45	20.69	0.00	20.69	4.000	No	Yes	2.00
260	5.20	1.47	100.00	2.98	0.54	1.45	21.04	0.00	21.04	4.000	No	Yes	2.00
261	5.22	1.49	100.00	2.98	0.54	1.45	21.33	0.00	21.33	4.000	No	Yes	2.00
262	5.24	1.49	100.00	2.98	0.54	1.44	21.28	0.00	21.28	4.000	No	Yes	2.00
263	5.26	1.51	100.00	2.98	0.54	1.44	21.47	0.00	21.47	4.000	No	Yes	2.00
264	5.28	1.54	100.00	2.97	0.54	1.44	21.82	0.00	21.82	4.000	No	Yes	2.00
265	5.30	1.67	96.12	2.91	0.53	1.43	23.53	0.00	23.53	4.000	No	Yes	2.00
266	5.32	1.62	97.57	2.93	0.54	1.43	22.92	0.00	22.92	4.000	No	Yes	2.00
267	5.34	1.57	100.00	2.97	0.54	1.43	22.20	0.00	22.20	4.000	No	Yes	2.00
268	5.36	1.57	100.00	2.97	0.54	1.43	22.11	0.00	22.11	4.000	No	Yes	2.00
269	5.38	1.59	99.90	2.96	0.54	1.42	22.36	0.00	22.36	4.000	No	Yes	2.00
270	5.40	1.59	99.04	2.95	0.54	1.42	22.37	0.00	22.37	4.000	No	Yes	2.00
271	5.42	1.58	100.00	2.96	0.54	1.42	22.19	0.00	22.19	4.000	No	Yes	2.00
272	5.44	1.50	100.00	3.01	0.54	1.42	21.05	0.00	21.05	4.000	No	Yes	2.00
273	5.46	1.48	100.00	3.01	0.54	1.42	20.74	0.00	20.74	4.000	No	Yes	2.00
274	5.48	1.48	100.00	3.01	0.54	1.42	20.69	0.00	20.69	4.000	No	Yes	2.00
275	5.50	1.57	100.00	2.97	0.54	1.41	21.79	0.00	21.79	4.000	No	Yes	2.00
276	5.52	1.56	100.00	2.98	0.54	1.41	21.74	0.00	21.74	4.000	No	Yes	2.00
277	5.54	1.60	100.00	2.97	0.54	1.40	22.17	0.00	22.17	4.000	No	Yes	2.00
278	5.56	1.61	100.00	2.96	0.54	1.40	22.32	0.00	22.32	4.000	No	Yes	2.00
279	5.58	1.58	100.00	2.99	0.54	1.40	21.78	0.00	21.78	4.000	No	Yes	2.00
280	5.60	1.53	100.00	3.01	0.54	1.40	21.12	0.00	21.12	4.000	No	Yes	2.00
281	5.62	1.49	100.00	3.04	0.54	1.40	20.62	0.00	20.62	4.000	No	Yes	2.00
282	5.64	1.52	100.00	3.03	0.54	1.39	20.93	0.00	20.93	4.000	No	Yes	2.00
283	5.66	1.48	100.00	3.04	0.54	1.39	20.40	0.00	20.40	4.000	No	Yes	2.00
284	5.68	1.50	100.00	3.04	0.54	1.39	20.64	0.00	20.64	4.000	No	Yes	2.00
285	5.70	1.52	100.00	3.03	0.54	1.39	20.82	0.00	20.82	4.000	No	Yes	2.00
286	5.72	1.50	100.00	3.04	0.54	1.39	20.55	0.00	20.55	4.000	No	Yes	2.00
287	5.74	1.45	100.00	3.06	0.55	1.39	19.89	0.00	19.89	4.000	No	Yes	2.00
288	5.76	1.48	100.00	3.05	0.54	1.38	20.23	0.00	20.23	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
289	5.78	1.47	100.00	3.05	0.55	1.38	20.05	0.00	20.05	4.000	No	Yes	2.00
290	5.80	1.43	100.00	3.06	0.55	1.38	19.46	0.00	19.46	4.000	No	Yes	2.00
291	5.82	1.46	100.00	3.02	0.55	1.38	19.77	0.00	19.77	4.000	No	Yes	2.00
292	5.84	1.49	100.00	2.99	0.54	1.37	20.24	0.00	20.24	4.000	No	Yes	2.00
293	5.86	1.56	99.46	2.96	0.54	1.37	21.09	0.00	21.09	4.000	No	Yes	2.00
294	5.88	1.55	100.00	2.96	0.54	1.37	20.92	0.00	20.92	4.000	No	Yes	2.00
295	5.90	1.72	93.73	2.88	0.54	1.36	23.08	0.00	23.08	4.000	No	Yes	2.00
296	5.92	1.81	90.86	2.85	0.53	1.35	24.21	0.00	24.21	4.000	No	Yes	2.00
297	5.94	1.80	92.12	2.86	0.53	1.35	23.97	0.00	23.97	4.000	No	Yes	2.00
298	5.96	1.95	86.76	2.80	0.53	1.35	25.91	0.00	25.91	4.000	No	Yes	2.00
299	5.98	1.99	85.80	2.78	0.53	1.34	26.38	0.00	26.38	4.000	No	Yes	2.00
300	6.01	1.94	88.01	2.81	0.53	1.34	25.63	0.00	25.63	4.000	No	Yes	2.00
301	6.02	1.78	94.01	2.89	0.54	1.34	23.56	0.00	23.56	4.000	No	Yes	2.00
302	6.04	1.64	99.54	2.96	0.54	1.35	21.79	0.00	21.79	4.000	No	Yes	2.00
303	6.06	1.59	100.00	2.97	0.54	1.35	21.13	0.00	21.13	4.000	No	Yes	2.00
304	6.08	1.63	98.20	2.94	0.54	1.34	21.53	0.00	21.53	4.000	No	Yes	2.00
305	6.10	1.62	98.22	2.94	0.54	1.34	21.46	0.00	21.46	4.000	No	Yes	2.00
306	6.12	1.60	99.23	2.95	0.54	1.34	21.14	0.00	21.14	4.000	No	Yes	2.00
307	6.14	1.55	100.00	2.98	0.54	1.34	20.45	0.00	20.45	4.000	No	Yes	2.00
308	6.16	1.55	100.00	2.98	0.54	1.34	20.41	0.00	20.41	4.000	No	Yes	2.00
309	6.18	1.70	96.17	2.91	0.54	1.33	22.24	0.00	22.24	4.000	No	Yes	2.00
310	6.20	1.76	94.68	2.90	0.54	1.33	22.95	0.00	22.95	4.000	No	Yes	2.00
311	6.22	1.77	94.85	2.90	0.54	1.32	23.09	0.00	23.09	4.000	No	Yes	2.00
312	6.24	1.85	92.39	2.87	0.53	1.32	24.10	0.00	24.10	4.000	No	Yes	2.00
313	6.26	1.88	91.14	2.85	0.53	1.32	24.40	0.00	24.40	4.000	No	Yes	2.00
314	6.28	1.86	92.40	2.87	0.53	1.32	24.10	0.00	24.10	4.000	No	Yes	2.00
315	6.30	1.85	93.74	2.88	0.53	1.31	23.93	0.00	23.93	4.000	No	Yes	2.00
316	6.32	1.84	95.27	2.90	0.53	1.31	23.82	0.00	23.82	4.000	No	Yes	2.00
317	6.34	1.82	97.44	2.93	0.53	1.31	23.49	0.00	23.49	4.000	No	Yes	2.00
318	6.36	1.86	97.17	2.93	0.53	1.31	23.96	0.00	23.96	4.000	No	Yes	2.00
319	6.38	1.87	97.95	2.94	0.53	1.30	24.00	0.00	24.00	4.000	No	Yes	2.00
320	6.40	1.81	99.73	2.96	0.53	1.30	23.29	0.00	23.29	4.000	No	Yes	2.00
321	6.42	1.82	99.06	2.95	0.53	1.30	23.37	0.00	23.37	4.000	No	Yes	2.00
322	6.44	1.81	99.04	2.95	0.54	1.30	23.18	0.00	23.18	4.000	No	Yes	2.00
323	6.46	1.74	100.00	2.98	0.54	1.30	22.26	0.00	22.26	4.000	No	Yes	2.00
324	6.48	1.71	100.00	2.99	0.54	1.30	21.90	0.00	21.90	4.000	No	Yes	2.00
325	6.50	1.69	100.00	2.99	0.54	1.30	21.55	0.00	21.55	4.000	No	Yes	2.00
326	6.52	1.61	100.00	3.02	0.54	1.30	20.62	0.00	20.62	4.000	No	Yes	2.00
327	6.54	1.64	100.00	2.99	0.54	1.30	20.85	0.00	20.85	4.000	No	Yes	2.00
328	6.56	1.67	99.50	2.96	0.54	1.29	21.30	0.00	21.30	4.000	No	Yes	2.00
329	6.58	1.63	99.82	2.96	0.54	1.29	20.77	0.00	20.77	4.000	No	Yes	2.00
330	6.60	1.56	100.00	2.99	0.55	1.29	19.79	0.00	19.79	4.000	No	Yes	2.00
331	6.62	1.55	100.00	3.00	0.55	1.29	19.67	0.00	19.67	4.000	No	Yes	2.00
332	6.64	1.54	100.00	3.01	0.55	1.29	19.57	0.00	19.57	4.000	No	Yes	2.00
333	6.66	1.60	100.00	2.99	0.54	1.28	20.25	0.00	20.25	4.000	No	Yes	2.00
334	6.68	1.63	100.00	3.00	0.54	1.28	20.52	0.00	20.52	4.000	No	Yes	2.00
335	6.70	1.62	100.00	3.02	0.54	1.28	20.48	0.00	20.48	4.000	No	Yes	2.00
336	6.72	1.56	100.00	3.05	0.55	1.28	19.66	0.00	19.66	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
337	6.74	1.54	100.00	3.05	0.55	1.28	19.35	0.00	19.35	4.000	No	Yes	2.00
338	6.76	1.61	100.00	3.01	0.55	1.27	20.22	0.00	20.22	4.000	No	Yes	2.00
339	6.78	1.60	100.00	3.01	0.55	1.27	20.00	0.00	20.00	4.000	No	Yes	2.00
340	6.80	1.56	100.00	3.02	0.55	1.27	19.58	0.00	19.58	4.000	No	Yes	2.00
341	6.82	1.53	100.00	3.02	0.55	1.27	19.16	0.00	19.16	4.000	No	Yes	2.00
342	6.84	1.51	100.00	3.02	0.55	1.27	18.86	0.00	18.86	4.000	No	Yes	2.00
343	6.86	1.48	100.00	3.02	0.55	1.27	18.53	0.00	18.53	4.000	No	Yes	2.00
344	6.88	1.49	100.00	3.02	0.55	1.27	18.62	0.00	18.62	4.000	No	Yes	2.00
345	6.90	1.52	100.00	3.01	0.55	1.26	18.95	0.00	18.95	4.000	No	Yes	2.00
346	6.92	1.50	100.00	3.02	0.55	1.26	18.62	0.00	18.62	4.000	No	Yes	2.00
347	6.94	1.48	100.00	3.02	0.55	1.26	18.38	0.00	18.38	4.000	No	Yes	2.00
348	6.96	1.52	100.00	2.99	0.55	1.26	18.83	0.00	18.83	4.000	No	Yes	2.00
349	6.98	1.47	100.00	3.01	0.55	1.26	18.24	0.00	18.24	4.000	No	Yes	2.00
350	7.00	1.46	100.00	3.01	0.55	1.26	18.07	0.00	18.07	4.000	No	Yes	2.00
351	7.02	1.45	100.00	3.02	0.55	1.26	17.93	0.00	17.93	4.000	No	Yes	2.00
352	7.04	1.52	100.00	2.98	0.55	1.25	18.73	0.00	18.73	4.000	No	Yes	2.00
353	7.06	1.59	99.27	2.95	0.55	1.25	19.56	0.00	19.56	4.000	No	Yes	2.00
354	7.08	1.62	99.46	2.96	0.55	1.25	19.85	0.00	19.85	4.000	No	Yes	2.00
355	7.10	1.64	98.62	2.95	0.55	1.24	20.12	0.00	20.12	4.000	No	Yes	2.00
356	7.12	1.59	100.00	2.97	0.55	1.24	19.50	0.00	19.50	4.000	No	Yes	2.00
357	7.14	1.59	100.00	2.98	0.55	1.24	19.39	0.00	19.39	4.000	No	Yes	2.00
358	7.16	1.55	100.00	3.01	0.55	1.24	18.89	0.00	18.89	4.000	No	Yes	2.00
359	7.18	1.48	100.00	3.05	0.55	1.24	18.04	0.00	18.04	4.000	No	Yes	2.00
360	7.20	1.43	100.00	3.08	0.55	1.24	17.40	0.00	17.40	4.000	No	Yes	2.00
361	7.22	1.38	100.00	3.11	0.56	1.24	16.84	0.00	16.84	4.000	No	Yes	2.00
362	7.24	1.40	100.00	3.10	0.56	1.24	17.02	0.00	17.02	4.000	No	Yes	2.00
363	7.26	1.42	100.00	3.09	0.56	1.24	17.25	0.00	17.25	4.000	No	Yes	2.00
364	7.28	1.41	100.00	3.09	0.56	1.23	17.14	0.00	17.14	4.000	No	Yes	2.00
365	7.30	1.47	100.00	3.06	0.55	1.23	17.78	0.00	17.78	4.000	No	Yes	2.00
366	7.32	1.48	100.00	3.04	0.55	1.23	17.89	0.00	17.89	4.000	No	Yes	2.00
367	7.34	1.49	100.00	3.03	0.55	1.23	17.98	0.00	17.98	4.000	No	Yes	2.00
368	7.36	1.47	100.00	3.03	0.55	1.23	17.78	0.00	17.78	4.000	No	Yes	2.00
369	7.38	1.46	100.00	3.04	0.55	1.22	17.57	0.00	17.57	4.000	No	Yes	2.00
370	7.40	1.40	100.00	3.07	0.56	1.22	16.88	0.00	16.88	4.000	No	Yes	2.00
371	7.42	1.45	100.00	3.05	0.55	1.22	17.40	0.00	17.40	4.000	No	Yes	2.00
372	7.44	1.42	100.00	3.07	0.56	1.22	17.03	0.00	17.03	4.000	No	Yes	2.00
373	7.46	1.43	100.00	3.06	0.56	1.22	17.15	0.00	17.15	4.000	No	Yes	2.00
374	7.48	1.48	100.00	3.04	0.55	1.22	17.66	0.00	17.66	4.000	No	Yes	2.00
375	7.50	1.36	100.00	3.11	0.56	1.22	16.28	0.00	16.28	4.000	No	Yes	2.00
376	7.53	1.37	100.00	3.10	0.56	1.21	16.33	0.00	16.33	4.000	No	Yes	2.00
377	7.54	1.39	100.00	3.08	0.56	1.21	16.60	0.00	16.60	4.000	No	Yes	2.00
378	7.56	1.37	100.00	3.09	0.56	1.21	16.37	0.00	16.37	4.000	No	Yes	2.00
379	7.58	1.33	100.00	3.11	0.56	1.21	15.88	0.00	15.88	4.000	No	Yes	2.00
380	7.60	1.32	100.00	3.12	0.56	1.21	15.74	0.00	15.74	4.000	No	Yes	2.00
381	7.62	1.35	100.00	3.10	0.56	1.21	16.06	0.00	16.06	4.000	No	Yes	2.00
382	7.64	1.37	100.00	3.09	0.56	1.21	16.18	0.00	16.18	4.000	No	Yes	2.00
383	7.66	1.37	100.00	3.08	0.56	1.20	16.24	0.00	16.24	4.000	No	Yes	2.00
384	7.68	1.37	100.00	3.09	0.56	1.20	16.16	0.00	16.16	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
385	7.70	1.36	100.00	3.10	0.56	1.20	15.99	0.00	15.99	4.000	No	Yes	2.00
386	7.72	1.38	100.00	3.08	0.56	1.20	16.23	0.00	16.23	4.000	No	Yes	2.00
387	7.74	1.39	100.00	3.08	0.56	1.20	16.37	0.00	16.37	4.000	No	Yes	2.00
388	7.76	1.42	100.00	3.07	0.56	1.20	16.66	0.00	16.66	4.000	No	Yes	2.00
389	7.78	1.45	100.00	3.05	0.56	1.19	17.04	0.00	17.04	4.000	No	Yes	2.00
390	7.80	1.38	100.00	3.09	0.56	1.19	16.22	0.00	16.22	4.000	No	Yes	2.00
391	7.82	1.43	100.00	3.05	0.56	1.19	16.74	0.00	16.74	4.000	No	Yes	2.00
392	7.84	1.44	100.00	3.04	0.56	1.19	16.83	0.00	16.83	4.000	No	Yes	2.00
393	7.86	1.42	100.00	3.05	0.56	1.19	16.55	0.00	16.55	4.000	No	Yes	2.00
394	7.88	1.40	100.00	3.06	0.56	1.19	16.33	0.00	16.33	4.000	No	Yes	2.00
395	7.90	1.38	100.00	3.08	0.56	1.19	16.05	0.00	16.05	4.000	No	Yes	2.00
396	7.92	1.30	100.00	3.13	0.56	1.19	15.10	0.00	15.10	4.000	No	Yes	2.00
397	7.94	1.27	100.00	3.15	0.56	1.18	14.80	0.00	14.80	4.000	No	Yes	2.00
398	7.96	1.25	100.00	3.16	0.57	1.18	14.51	0.00	14.51	4.000	No	Yes	2.00
399	7.98	1.27	100.00	3.16	0.56	1.18	14.68	0.00	14.68	4.000	No	Yes	2.00
400	8.00	1.21	100.00	3.19	0.57	1.18	13.99	0.00	13.99	4.000	No	Yes	2.00
401	8.02	1.22	100.00	3.17	0.57	1.18	14.16	0.00	14.16	4.000	No	Yes	2.00
402	8.04	1.22	100.00	3.16	0.57	1.18	14.09	0.00	14.09	4.000	No	Yes	2.00
403	8.06	1.19	100.00	3.17	0.57	1.18	13.77	0.00	13.77	4.000	No	Yes	2.00
404	8.08	1.25	100.00	3.12	0.57	1.17	14.42	0.00	14.42	4.000	No	Yes	2.00
405	8.10	1.27	100.00	3.09	0.56	1.17	14.65	0.00	14.65	4.000	No	Yes	2.00
406	8.12	1.29	100.00	3.07	0.56	1.17	14.84	0.00	14.84	4.000	No	Yes	2.00
407	8.14	1.24	100.00	3.10	0.57	1.17	14.19	0.00	14.19	4.000	No	Yes	2.00
408	8.16	1.20	100.00	3.12	0.57	1.17	13.80	0.00	13.80	4.000	No	Yes	2.00
409	8.18	1.19	100.00	3.13	0.57	1.17	13.65	0.00	13.65	4.000	No	Yes	2.00
410	8.20	1.18	100.00	3.14	0.57	1.17	13.47	0.00	13.47	4.000	No	Yes	2.00
411	8.22	1.13	100.00	3.18	0.57	1.17	12.94	0.00	12.94	4.000	No	Yes	2.00
412	8.24	1.12	100.00	3.19	0.57	1.16	12.81	0.00	12.81	4.000	No	Yes	2.00
413	8.26	1.13	100.00	3.18	0.57	1.16	12.84	0.00	12.84	4.000	No	Yes	2.00
414	8.28	1.12	100.00	3.18	0.57	1.16	12.73	0.00	12.73	4.000	No	Yes	2.00
415	8.30	1.14	100.00	3.16	0.57	1.16	12.94	0.00	12.94	4.000	No	Yes	2.00
416	8.32	1.14	100.00	3.16	0.57	1.16	12.99	0.00	12.99	4.000	No	Yes	2.00
417	8.34	1.17	100.00	3.14	0.57	1.16	13.29	0.00	13.29	4.000	No	Yes	2.00
418	8.36	1.19	100.00	3.11	0.57	1.16	13.48	0.00	13.48	4.000	No	Yes	2.00
419	8.38	1.21	100.00	3.10	0.57	1.15	13.74	0.00	13.74	4.000	No	Yes	2.00
420	8.40	1.23	100.00	3.09	0.57	1.15	13.90	0.00	13.90	4.000	No	Yes	2.00
421	8.42	1.24	100.00	3.08	0.57	1.15	13.98	0.00	13.98	4.000	No	Yes	2.00
422	8.44	1.26	100.00	3.06	0.57	1.15	14.26	0.00	14.26	4.000	No	Yes	2.00
423	8.46	1.26	100.00	3.07	0.57	1.15	14.20	0.00	14.20	4.000	No	Yes	2.00
424	8.48	1.21	100.00	3.11	0.57	1.15	13.66	0.00	13.66	4.000	No	Yes	2.00
425	8.50	1.18	100.00	3.14	0.57	1.15	13.21	0.00	13.21	4.000	No	Yes	2.00
426	8.52	1.22	100.00	3.11	0.57	1.14	13.67	0.00	13.67	4.000	No	Yes	2.00
427	8.54	1.16	100.00	3.15	0.57	1.14	13.06	0.00	13.06	4.000	No	Yes	2.00
428	8.56	1.12	100.00	3.20	0.57	1.14	12.53	0.00	12.53	4.000	No	Yes	2.00
429	8.58	1.11	100.00	3.22	0.57	1.14	12.42	0.00	12.42	4.000	No	Yes	2.00
430	8.60	1.10	100.00	3.22	0.57	1.14	12.31	0.00	12.31	4.000	No	Yes	2.00
431	8.62	1.12	100.00	3.21	0.57	1.14	12.46	0.00	12.46	4.000	No	Yes	2.00
432	8.64	1.12	100.00	3.21	0.57	1.14	12.51	0.00	12.51	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)													
Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
433	8.66	1.12	100.00	3.20	0.57	1.14	12.49	0.00	12.49	4.000	No	Yes	2.00
434	8.68	1.08	100.00	3.22	0.57	1.14	12.03	0.00	12.03	4.000	No	Yes	2.00
435	8.70	1.09	100.00	3.19	0.57	1.13	12.15	0.00	12.15	4.000	No	Yes	2.00
436	8.72	1.10	100.00	3.19	0.57	1.13	12.18	0.00	12.18	4.000	No	Yes	2.00
437	8.74	1.11	100.00	3.18	0.57	1.13	12.28	0.00	12.28	4.000	No	Yes	2.00
438	8.76	1.09	100.00	3.19	0.57	1.13	12.11	0.00	12.11	4.000	No	Yes	2.00
439	8.78	1.04	100.00	3.23	0.58	1.13	11.53	0.00	11.53	4.000	No	Yes	2.00
440	8.80	1.03	100.00	3.24	0.58	1.13	11.34	0.00	11.34	4.000	No	Yes	2.00
441	8.82	0.98	100.00	3.27	0.58	1.13	10.79	0.00	10.79	4.000	No	Yes	2.00
442	8.84	0.97	100.00	3.26	0.58	1.13	10.73	0.00	10.73	4.000	No	Yes	2.00
443	8.86	0.94	100.00	3.28	0.58	1.13	10.36	0.00	10.36	4.000	No	Yes	2.00
444	8.88	0.94	100.00	3.26	0.58	1.12	10.33	0.00	10.33	4.000	No	Yes	2.00
445	8.90	0.91	100.00	3.27	0.58	1.12	9.98	0.00	9.98	4.000	No	Yes	2.00
446	8.92	0.88	100.00	3.29	0.58	1.12	9.62	0.00	9.62	4.000	No	Yes	2.00
447	8.94	0.73	100.00	3.31	0.59	1.12	7.94	0.00	7.94	4.000	No	Yes	2.00
448	8.96	0.97	100.00	3.13	0.58	1.12	10.58	0.00	10.58	4.000	No	Yes	2.00
449	8.98	0.90	100.00	3.17	0.58	1.12	9.77	0.00	9.77	4.000	No	Yes	2.00
450	9.00	0.88	100.00	3.16	0.58	1.12	9.54	0.00	9.54	4.000	No	Yes	2.00
451	9.02	0.91	100.00	3.10	0.58	1.12	9.87	0.00	9.87	4.000	No	Yes	2.00
452	9.04	0.90	100.00	3.09	0.58	1.12	9.77	0.00	9.77	4.000	No	Yes	2.00
453	9.06	0.91	100.00	3.07	0.58	1.11	9.87	0.00	9.87	4.000	No	Yes	2.00
454	9.08	0.90	100.00	3.08	0.58	1.11	9.76	0.00	9.76	4.000	No	Yes	2.00
455	9.10	0.89	100.00	3.07	0.58	1.11	9.64	0.00	9.64	4.000	No	Yes	2.00
456	9.12	0.86	100.00	3.07	0.58	1.11	9.37	0.00	9.37	4.000	No	Yes	2.00
457	9.14	0.84	100.00	3.07	0.59	1.11	9.14	0.00	9.14	4.000	No	Yes	2.00
458	9.16	0.85	100.00	3.06	0.59	1.11	9.22	0.00	9.22	4.000	No	Yes	2.00
459	9.18	0.94	100.00	2.98	0.58	1.11	10.14	0.00	10.14	4.000	No	Yes	2.00
460	9.20	0.96	99.50	2.96	0.58	1.11	10.40	0.00	10.40	4.000	No	Yes	2.00
461	9.22	0.95	99.44	2.96	0.58	1.11	10.28	0.00	10.28	4.000	No	Yes	2.00
462	9.24	0.99	96.25	2.92	0.58	1.11	10.63	0.00	10.63	4.000	No	Yes	2.00
463	9.26	1.05	92.36	2.87	0.58	1.10	11.33	0.00	11.33	4.000	No	Yes	2.00
464	9.28	1.22	85.33	2.78	0.57	1.10	13.12	0.00	13.12	4.000	No	Yes	2.00
465	9.30	1.37	79.89	2.71	0.57	1.10	14.71	0.00	14.71	4.000	No	Yes	2.00
466	9.32	1.38	82.45	2.74	0.57	1.10	14.78	0.00	14.78	4.000	No	Yes	2.00
467	9.34	1.26	91.44	2.86	0.57	1.10	13.46	0.00	13.46	4.000	No	Yes	2.00
468	9.36	1.22	94.67	2.90	0.57	1.10	13.06	0.00	13.06	4.000	No	Yes	2.00
469	9.38	1.28	91.10	2.85	0.57	1.10	13.66	0.00	13.66	4.000	No	Yes	2.00
470	9.40	1.19	94.22	2.89	0.57	1.10	12.73	0.00	12.73	4.000	No	Yes	2.00
471	9.42	1.03	100.00	3.03	0.58	1.10	11.02	0.00	11.02	4.000	No	Yes	2.00
472	9.44	0.93	100.00	3.10	0.58	1.10	9.88	0.00	9.88	4.000	No	Yes	2.00
473	9.46	0.89	100.00	3.09	0.58	1.09	9.53	0.00	9.53	4.000	No	Yes	2.00
474	9.48	0.89	100.00	3.07	0.58	1.09	9.45	0.00	9.45	4.000	No	Yes	2.00
475	9.50	0.88	100.00	3.06	0.58	1.09	9.36	0.00	9.36	4.000	No	Yes	2.00
476	9.52	0.91	100.00	3.02	0.58	1.09	9.64	0.00	9.64	4.000	No	Yes	2.00
477	9.54	0.93	100.00	3.01	0.58	1.09	9.91	0.00	9.91	4.000	No	Yes	2.00
478	9.56	0.99	99.63	2.96	0.58	1.09	10.45	0.00	10.45	4.000	No	Yes	2.00
479	9.58	1.02	96.45	2.92	0.58	1.09	10.81	0.00	10.81	4.000	No	Yes	2.00
480	9.60	1.10	91.85	2.86	0.58	1.09	11.67	0.00	11.67	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
481	9.62	1.08	95.19	2.90	0.58	1.09	11.40	0.00	11.40	4.000	No	Yes	2.00
482	9.64	1.03	100.00	2.97	0.58	1.08	10.87	0.00	10.87	4.000	No	Yes	2.00
483	9.66	1.01	100.00	2.97	0.58	1.08	10.65	0.00	10.65	4.000	No	Yes	2.00
484	9.68	0.98	100.00	3.00	0.58	1.08	10.27	0.00	10.27	4.000	No	Yes	2.00
485	9.70	1.01	100.00	2.98	0.58	1.08	10.65	0.00	10.65	4.000	No	Yes	2.00
486	9.72	1.04	98.72	2.95	0.58	1.08	10.97	0.00	10.97	4.000	No	Yes	2.00
487	9.74	1.06	98.68	2.95	0.58	1.08	11.13	0.00	11.13	4.000	No	Yes	2.00
488	9.76	1.08	99.03	2.95	0.58	1.08	11.34	0.00	11.34	4.000	No	Yes	2.00
489	9.78	1.04	100.00	3.01	0.58	1.08	10.92	0.00	10.92	4.000	No	Yes	2.00
490	9.80	1.05	100.00	3.04	0.58	1.08	11.02	0.00	11.02	4.000	No	Yes	2.00
491	9.82	1.07	100.00	3.06	0.58	1.08	11.20	0.00	11.20	4.000	No	Yes	2.00
492	9.84	1.12	100.00	3.05	0.58	1.07	11.68	0.00	11.68	4.000	No	Yes	2.00
493	9.86	1.16	100.00	3.04	0.57	1.07	12.06	0.00	12.06	4.000	No	Yes	2.00
494	9.88	1.18	100.00	3.03	0.57	1.07	12.28	0.00	12.28	4.000	No	Yes	2.00
495	9.90	1.19	100.00	3.04	0.57	1.07	12.36	0.00	12.36	4.000	No	Yes	2.00
496	9.92	1.23	100.00	3.02	0.57	1.07	12.79	0.00	12.79	4.000	No	Yes	2.00
497	9.94	1.24	100.00	3.01	0.57	1.07	12.85	0.00	12.85	4.000	No	Yes	2.00
498	9.96	1.25	100.00	3.00	0.57	1.07	12.91	0.00	12.91	4.000	No	Yes	2.00
499	9.98	1.19	100.00	3.04	0.57	1.07	12.33	0.00	12.33	4.000	No	Yes	2.00
500	10.00	1.10	100.00	3.13	0.58	1.07	11.34	0.00	11.34	4.000	No	Yes	2.00
501	10.02	1.03	100.00	3.18	0.58	1.07	10.63	0.00	10.63	4.000	No	Yes	2.00
502	10.04	1.06	100.00	3.14	0.58	1.06	10.94	0.00	10.94	4.000	No	Yes	2.00
503	10.06	1.06	100.00	3.13	0.58	1.06	10.92	0.00	10.92	4.000	No	Yes	2.00
504	10.08	1.04	100.00	3.17	0.58	1.06	10.61	0.00	10.61	4.000	No	Yes	2.00
505	10.10	1.03	100.00	3.19	0.58	1.06	10.54	0.00	10.54	4.000	No	Yes	2.00
506	10.12	1.03	100.00	3.20	0.58	1.06	10.51	0.00	10.51	4.000	No	Yes	2.00
507	10.14	1.03	100.00	3.21	0.58	1.06	10.49	0.00	10.49	4.000	No	Yes	2.00
508	10.16	1.03	100.00	3.21	0.58	1.06	10.50	0.00	10.50	4.000	No	Yes	2.00
509	10.18	1.03	100.00	3.23	0.58	1.06	10.49	0.00	10.49	4.000	No	Yes	2.00
510	10.20	1.06	100.00	3.21	0.58	1.06	10.83	0.00	10.83	4.000	No	Yes	2.00
511	10.22	1.07	100.00	3.20	0.58	1.06	10.86	0.00	10.86	4.000	No	Yes	2.00
512	10.24	1.07	100.00	3.19	0.58	1.05	10.93	0.00	10.93	4.000	No	Yes	2.00
513	10.26	1.08	100.00	3.19	0.58	1.05	10.94	0.00	10.94	4.000	No	Yes	2.00
514	10.28	1.07	100.00	3.20	0.58	1.05	10.88	0.00	10.88	4.000	No	Yes	2.00
515	10.30	1.06	100.00	3.22	0.58	1.05	10.74	0.00	10.74	4.000	No	Yes	2.00
516	10.32	1.05	100.00	3.24	0.58	1.05	10.62	0.00	10.62	4.000	No	Yes	2.00
517	10.34	1.11	100.00	3.20	0.58	1.05	11.24	0.00	11.24	4.000	No	Yes	2.00
518	10.36	1.15	100.00	3.17	0.58	1.05	11.60	0.00	11.60	4.000	No	Yes	2.00
519	10.38	1.15	100.00	3.19	0.58	1.05	11.62	0.00	11.62	4.000	No	Yes	2.00
520	10.40	1.16	100.00	3.18	0.58	1.05	11.73	0.00	11.73	4.000	No	Yes	2.00
521	10.42	1.19	100.00	3.17	0.57	1.04	12.01	0.00	12.01	4.000	No	Yes	2.00
522	10.44	1.19	100.00	3.17	0.57	1.04	11.99	0.00	11.99	4.000	No	Yes	2.00
523	10.46	1.20	100.00	3.17	0.57	1.04	12.10	0.00	12.10	4.000	No	Yes	2.00
524	10.48	1.23	100.00	3.17	0.57	1.04	12.36	0.00	12.36	4.000	No	Yes	2.00
525	10.50	1.25	100.00	3.16	0.57	1.04	12.61	0.00	12.61	4.000	No	Yes	2.00
526	10.52	1.27	100.00	3.16	0.57	1.04	12.76	0.00	12.76	4.000	No	Yes	2.00
527	10.54	1.28	100.00	3.15	0.57	1.04	12.87	0.00	12.87	4.000	No	Yes	2.00
528	10.56	1.22	100.00	3.20	0.57	1.04	12.23	0.00	12.23	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
529	10.58	1.18	100.00	3.23	0.58	1.04	11.84	0.00	11.84	4.000	No	Yes	2.00
530	10.60	1.16	100.00	3.26	0.58	1.04	11.58	0.00	11.58	4.000	No	Yes	2.00
531	10.62	1.13	100.00	3.29	0.58	1.03	11.23	0.00	11.23	4.000	No	Yes	2.00
532	10.64	1.10	100.00	3.30	0.58	1.03	10.99	0.00	10.99	4.000	No	Yes	2.00
533	10.66	1.09	100.00	3.31	0.58	1.03	10.85	0.00	10.85	4.000	No	Yes	2.00
534	10.68	1.10	100.00	3.30	0.58	1.03	10.96	0.00	10.96	4.000	No	Yes	2.00
535	10.70	1.15	100.00	3.26	0.58	1.03	11.39	0.00	11.39	4.000	No	Yes	2.00
536	10.72	1.17	100.00	3.23	0.58	1.03	11.60	0.00	11.60	4.000	No	Yes	2.00
537	10.74	1.21	100.00	3.20	0.57	1.03	11.96	0.00	11.96	4.000	No	Yes	2.00
538	10.76	1.23	100.00	3.17	0.57	1.03	12.19	0.00	12.19	4.000	No	Yes	2.00
539	10.78	1.25	100.00	3.15	0.57	1.03	12.34	0.00	12.34	4.000	No	Yes	2.00
540	10.80	1.27	100.00	3.15	0.57	1.03	12.53	0.00	12.53	4.000	No	Yes	2.00
541	10.82	1.30	100.00	3.13	0.57	1.02	12.84	0.00	12.84	4.000	No	Yes	2.00
542	10.84	1.35	100.00	3.11	0.57	1.02	13.33	0.00	13.33	4.000	No	Yes	2.00
543	10.86	1.39	100.00	3.10	0.57	1.02	13.74	0.00	13.74	4.000	No	Yes	2.00
544	10.88	1.47	100.00	3.07	0.57	1.02	14.56	0.00	14.56	4.000	No	Yes	2.00
545	10.90	1.53	100.00	3.07	0.56	1.02	15.11	0.00	15.11	4.000	No	Yes	2.00
546	10.92	1.57	100.00	3.07	0.56	1.02	15.53	0.00	15.53	4.000	No	Yes	2.00
547	10.94	1.58	100.00	3.07	0.56	1.02	15.61	0.00	15.61	4.000	No	Yes	2.00
548	10.96	1.60	100.00	3.10	0.56	1.02	15.73	0.00	15.73	4.000	No	Yes	2.00
549	10.98	1.54	100.00	3.15	0.56	1.02	15.12	0.00	15.12	4.000	No	Yes	2.00
550	11.01	1.50	100.00	3.17	0.56	1.01	14.71	0.00	14.71	4.000	No	Yes	2.00
551	11.02	1.46	100.00	3.20	0.57	1.01	14.31	0.00	14.31	4.000	No	Yes	2.00
552	11.04	1.41	100.00	3.24	0.57	1.01	13.85	0.00	13.85	4.000	No	Yes	2.00
553	11.06	1.39	100.00	3.25	0.57	1.01	13.59	0.00	13.59	4.000	No	Yes	2.00
554	11.08	1.34	100.00	3.28	0.57	1.01	13.11	0.00	13.11	4.000	No	Yes	2.00
555	11.11	1.33	100.00	3.29	0.57	1.01	12.94	0.00	12.94	4.000	No	Yes	2.00
556	11.12	1.29	100.00	3.28	0.57	1.01	12.61	0.00	12.61	4.000	No	Yes	2.00
557	11.14	1.25	100.00	3.29	0.57	1.01	12.18	0.00	12.18	4.000	No	Yes	2.00
558	11.16	1.19	100.00	3.31	0.58	1.01	11.58	0.00	11.58	4.000	No	Yes	2.00
559	11.18	1.13	100.00	3.33	0.58	1.01	10.96	0.00	10.96	4.000	No	Yes	2.00
560	11.20	1.10	100.00	3.32	0.58	1.01	10.68	0.00	10.68	4.000	No	Yes	2.00
561	11.22	1.07	100.00	3.33	0.58	1.00	10.28	0.00	10.28	4.000	No	Yes	2.00
562	11.24	1.00	100.00	3.36	0.58	1.00	9.64	0.00	9.64	4.000	No	Yes	2.00
563	11.26	0.96	100.00	3.37	0.59	1.00	9.27	0.00	9.27	4.000	No	Yes	2.00
564	11.28	0.93	100.00	3.37	0.59	1.00	8.91	0.00	8.91	4.000	No	Yes	2.00
565	11.30	0.91	100.00	3.37	0.59	1.00	8.70	0.00	8.70	4.000	No	Yes	2.00
566	11.32	0.90	100.00	3.35	0.59	1.00	8.59	0.00	8.59	4.000	No	Yes	2.00
567	11.34	0.94	100.00	3.29	0.59	1.00	8.98	0.00	8.98	4.000	No	Yes	2.00
568	11.36	1.01	100.00	3.19	0.58	1.00	9.67	0.00	9.67	4.000	No	Yes	2.00
569	11.38	1.07	100.00	3.12	0.58	1.00	10.28	0.00	10.28	4.000	No	Yes	2.00
570	11.40	1.13	100.00	3.06	0.58	1.00	10.82	0.00	10.82	4.000	No	Yes	2.00
571	11.42	1.14	100.00	3.05	0.58	1.00	10.92	0.00	10.92	4.000	No	Yes	2.00
572	11.44	1.14	100.00	3.04	0.58	0.99	10.89	0.00	10.89	4.000	No	Yes	2.00
573	11.46	1.10	100.00	3.07	0.58	0.99	10.52	0.00	10.52	4.000	No	Yes	2.00
574	11.48	1.07	100.00	3.12	0.58	0.99	10.14	0.00	10.14	4.000	No	Yes	2.00
575	11.50	1.05	100.00	3.16	0.58	0.99	9.97	0.00	9.97	4.000	No	Yes	2.00
576	11.52	1.08	100.00	3.14	0.58	0.99	10.24	0.00	10.24	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
577	11.54	1.15	100.00	3.09	0.58	0.99	10.91	0.00	10.91	4.000	No	Yes	2.00
578	11.56	1.23	100.00	3.03	0.58	0.99	11.72	0.00	11.72	4.000	No	Yes	2.00
579	11.58	1.35	100.00	2.97	0.57	0.99	12.83	0.00	12.83	4.000	No	Yes	2.00
580	11.60	1.40	99.23	2.95	0.57	0.99	13.31	0.00	13.31	4.000	No	Yes	2.00
581	11.62	1.40	99.79	2.96	0.57	0.99	13.30	0.00	13.30	4.000	No	Yes	2.00
582	11.64	1.36	100.00	3.00	0.57	0.99	12.92	0.00	12.92	4.000	No	Yes	2.00
583	11.66	1.35	100.00	3.03	0.57	0.99	12.84	0.00	12.84	4.000	No	Yes	2.00
584	11.68	1.47	100.00	2.98	0.57	0.99	14.00	0.00	14.00	4.000	No	Yes	2.00
585	11.70	1.49	100.00	3.00	0.57	0.98	14.13	0.00	14.13	4.000	No	Yes	2.00
586	11.72	1.54	100.00	2.99	0.56	0.98	14.65	0.00	14.65	4.000	No	Yes	2.00
587	11.74	1.69	97.47	2.93	0.56	0.98	16.02	0.00	16.02	4.000	No	Yes	2.00
588	11.76	1.76	97.78	2.93	0.56	0.98	16.65	0.00	16.65	4.000	No	Yes	2.00
589	11.78	2.09	87.80	2.81	0.55	0.98	19.83	0.00	19.83	4.000	No	Yes	2.00
590	11.80	2.19	87.00	2.80	0.55	0.98	20.84	0.00	20.84	4.000	No	Yes	2.00
591	11.82	2.24	87.25	2.80	0.54	0.98	21.27	0.00	21.27	4.000	No	Yes	2.00
592	11.84	2.24	88.68	2.82	0.54	0.98	21.26	0.00	21.26	4.000	No	Yes	2.00
593	11.86	2.10	95.74	2.91	0.55	0.98	19.94	0.00	19.94	4.000	No	Yes	2.00
594	11.88	1.90	100.00	3.02	0.55	0.98	18.00	0.00	18.00	4.000	No	Yes	2.00
595	11.90	1.77	100.00	3.10	0.56	0.98	16.70	0.00	16.70	4.000	No	Yes	2.00
596	11.92	1.68	100.00	3.17	0.56	0.98	15.81	0.00	15.81	4.000	No	Yes	2.00
597	11.94	1.54	100.00	3.24	0.57	0.97	14.46	0.00	14.46	4.000	No	Yes	2.00
598	11.96	1.45	100.00	3.29	0.57	0.97	13.54	0.00	13.54	4.000	No	Yes	2.00
599	11.98	1.44	100.00	3.31	0.57	0.97	13.41	0.00	13.41	4.000	No	Yes	2.00
600	12.00	1.37	100.00	3.32	0.57	0.97	12.77	0.00	12.77	4.000	No	Yes	2.00
601	12.02	1.35	100.00	3.31	0.57	0.97	12.53	0.00	12.53	4.000	No	Yes	2.00
602	12.04	1.35	100.00	3.28	0.57	0.97	12.55	0.00	12.55	4.000	No	Yes	2.00
603	12.06	1.36	100.00	3.25	0.57	0.97	12.63	0.00	12.63	4.000	No	Yes	2.00
604	12.08	1.40	100.00	3.21	0.57	0.97	12.94	0.00	12.94	4.000	No	Yes	2.00
605	12.10	1.50	100.00	3.12	0.57	0.97	13.92	0.00	13.92	4.000	No	Yes	2.00
606	12.12	1.77	100.00	3.00	0.56	0.97	16.51	0.00	16.51	4.000	No	Yes	2.00
607	12.14	1.92	98.33	2.94	0.55	0.97	17.90	0.00	17.90	4.000	No	Yes	2.00
608	12.16	2.08	94.32	2.89	0.55	0.97	19.45	0.00	19.45	4.000	No	Yes	2.00
609	12.18	1.97	99.29	2.95	0.55	0.96	18.44	0.00	18.44	4.000	No	Yes	2.00
610	12.20	1.90	100.00	2.98	0.55	0.96	17.79	0.00	17.79	4.000	No	Yes	2.00
611	12.22	1.87	100.00	3.01	0.55	0.96	17.44	0.00	17.44	4.000	No	Yes	2.00
612	12.24	1.85	100.00	3.04	0.56	0.96	17.26	0.00	17.26	4.000	No	Yes	2.00
613	12.26	1.88	100.00	3.05	0.55	0.96	17.52	0.00	17.52	4.000	No	Yes	2.00
614	12.28	1.90	100.00	3.05	0.55	0.96	17.69	0.00	17.69	4.000	No	Yes	2.00
615	12.30	2.01	100.00	3.03	0.55	0.96	18.65	0.00	18.65	4.000	No	Yes	2.00
616	12.32	2.06	100.00	3.03	0.55	0.96	19.16	0.00	19.16	4.000	No	Yes	2.00
617	12.34	2.17	100.00	2.99	0.55	0.96	20.19	0.00	20.19	4.000	No	Yes	2.00
618	12.36	2.27	99.90	2.96	0.54	0.96	21.05	0.00	21.05	4.000	No	Yes	2.00
619	12.38	2.24	100.00	2.98	0.54	0.96	20.82	0.00	20.82	4.000	No	Yes	2.00
620	12.40	2.22	100.00	3.00	0.54	0.96	20.56	0.00	20.56	4.000	No	Yes	2.00
621	12.42	2.17	100.00	3.02	0.55	0.95	20.07	0.00	20.07	4.000	No	Yes	2.00
622	12.44	2.24	100.00	3.00	0.54	0.95	20.70	0.00	20.70	4.000	No	Yes	2.00
623	12.46	2.24	100.00	3.00	0.54	0.95	20.72	0.00	20.72	4.000	No	Yes	2.00
624	12.48	2.17	100.00	3.04	0.55	0.95	19.98	0.00	19.98	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
625	12.50	2.12	100.00	3.05	0.55	0.95	19.53	0.00	19.53	4.000	No	Yes	2.00
626	12.52	2.09	100.00	3.04	0.55	0.95	19.20	0.00	19.20	4.000	No	Yes	2.00
627	12.54	2.08	100.00	3.04	0.55	0.95	19.11	0.00	19.11	4.000	No	Yes	2.00
628	12.56	2.05	100.00	3.05	0.55	0.95	18.83	0.00	18.83	4.000	No	Yes	2.00
629	12.58	2.05	100.00	3.07	0.55	0.95	18.78	0.00	18.78	4.000	No	Yes	2.00
630	12.60	2.05	100.00	3.08	0.55	0.95	18.81	0.00	18.81	4.000	No	Yes	2.00
631	12.62	2.15	100.00	3.05	0.55	0.95	19.68	0.00	19.68	4.000	No	Yes	2.00
632	12.64	2.20	100.00	3.05	0.55	0.95	20.11	0.00	20.11	4.000	No	Yes	2.00
633	12.66	2.23	100.00	3.05	0.54	0.94	20.43	0.00	20.43	4.000	No	Yes	2.00
634	12.68	2.32	100.00	3.02	0.54	0.94	21.26	0.00	21.26	4.000	No	Yes	2.00
635	12.70	2.48	100.00	2.96	0.54	0.94	22.68	0.00	22.68	4.000	No	Yes	2.00
636	12.72	2.54	98.27	2.94	0.54	0.94	23.25	0.00	23.25	4.000	No	Yes	2.00
637	12.74	2.50	99.68	2.96	0.54	0.94	22.86	0.00	22.86	4.000	No	Yes	2.00
638	12.76	2.50	100.00	2.96	0.54	0.94	22.83	0.00	22.83	4.000	No	Yes	2.00
639	12.78	2.53	99.40	2.95	0.54	0.94	23.11	0.00	23.11	4.000	No	Yes	2.00
640	12.80	2.54	99.58	2.96	0.54	0.94	23.17	0.00	23.17	4.000	No	Yes	2.00
641	12.82	2.53	100.00	2.97	0.54	0.94	23.01	0.00	23.01	4.000	No	Yes	2.00
642	12.84	2.58	100.00	2.97	0.53	0.94	23.44	0.00	23.44	4.000	No	Yes	2.00
643	12.86	2.53	100.00	3.00	0.54	0.94	22.98	0.00	22.98	4.000	No	Yes	2.00
644	12.88	2.49	100.00	3.02	0.54	0.94	22.56	0.00	22.56	4.000	No	Yes	2.00
645	12.90	2.38	100.00	3.04	0.54	0.93	21.57	0.00	21.57	4.000	No	Yes	2.00
646	12.92	2.24	100.00	3.09	0.55	0.93	20.22	0.00	20.22	4.000	No	Yes	2.00
647	12.94	2.08	100.00	3.14	0.55	0.93	18.72	0.00	18.72	4.000	No	Yes	2.00
648	12.96	2.02	100.00	3.15	0.55	0.93	18.20	0.00	18.20	4.000	No	Yes	2.00
649	12.98	1.91	100.00	3.20	0.56	0.93	17.14	0.00	17.14	4.000	No	Yes	2.00
650	13.00	1.86	100.00	3.21	0.56	0.93	16.62	0.00	16.62	4.000	No	Yes	2.00
651	13.02	1.75	100.00	3.24	0.56	0.93	15.66	0.00	15.66	4.000	No	Yes	2.00
652	13.04	1.63	100.00	3.28	0.57	0.93	14.49	0.00	14.49	4.000	No	Yes	2.00
653	13.06	1.52	100.00	3.30	0.57	0.92	13.52	0.00	13.52	4.000	No	Yes	2.00
654	13.08	1.45	100.00	3.31	0.57	0.92	12.89	0.00	12.89	4.000	No	Yes	2.00
655	13.10	1.42	100.00	3.29	0.57	0.92	12.58	0.00	12.58	4.000	No	Yes	2.00
656	13.12	1.44	100.00	3.26	0.57	0.92	12.72	0.00	12.72	4.000	No	Yes	2.00
657	13.14	1.40	100.00	3.26	0.57	0.92	12.39	0.00	12.39	4.000	No	Yes	2.00
658	13.16	1.40	100.00	3.23	0.57	0.92	12.36	0.00	12.36	4.000	No	Yes	2.00
659	13.18	1.43	100.00	3.19	0.57	0.92	12.64	0.00	12.64	4.000	No	Yes	2.00
660	13.20	1.43	100.00	3.19	0.57	0.92	12.56	0.00	12.56	4.000	No	Yes	2.00
661	13.22	1.40	100.00	3.19	0.57	0.92	12.28	0.00	12.28	4.000	No	Yes	2.00
662	13.24	1.40	100.00	3.18	0.57	0.92	12.29	0.00	12.29	4.000	No	Yes	2.00
663	13.26	1.39	100.00	3.18	0.57	0.92	12.21	0.00	12.21	4.000	No	Yes	2.00
664	13.28	1.39	100.00	3.18	0.57	0.92	12.22	0.00	12.22	4.000	No	Yes	2.00
665	13.30	1.45	100.00	3.13	0.57	0.92	12.69	0.00	12.69	4.000	No	Yes	2.00
666	13.32	1.45	100.00	3.14	0.57	0.91	12.70	0.00	12.70	4.000	No	Yes	2.00
667	13.34	1.45	100.00	3.14	0.57	0.91	12.65	0.00	12.65	4.000	No	Yes	2.00
668	13.36	1.43	100.00	3.15	0.57	0.91	12.53	0.00	12.53	4.000	No	Yes	2.00
669	13.38	1.38	100.00	3.18	0.57	0.91	12.08	0.00	12.08	4.000	No	Yes	2.00
670	13.40	1.34	100.00	3.21	0.58	0.91	11.68	0.00	11.68	4.000	No	Yes	2.00
671	13.42	1.36	100.00	3.20	0.58	0.91	11.86	0.00	11.86	4.000	No	Yes	2.00
672	13.44	1.42	100.00	3.17	0.57	0.91	12.33	0.00	12.33	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
673	13.46	1.46	100.00	3.15	0.57	0.91	12.70	0.00	12.70	4.000	No	Yes	2.00
674	13.48	1.52	100.00	3.10	0.57	0.91	13.24	0.00	13.24	4.000	No	Yes	2.00
675	13.50	1.54	100.00	3.06	0.57	0.91	13.39	0.00	13.39	4.000	No	Yes	2.00
676	13.52	1.51	100.00	3.07	0.57	0.91	13.12	0.00	13.12	4.000	No	Yes	2.00
677	13.54	1.51	100.00	3.08	0.57	0.91	13.11	0.00	13.11	4.000	No	Yes	2.00
678	13.56	1.59	100.00	3.07	0.57	0.91	13.79	0.00	13.79	4.000	No	Yes	2.00
679	13.58	1.65	100.00	3.06	0.57	0.91	14.34	0.00	14.34	4.000	No	Yes	2.00
680	13.60	1.67	100.00	3.06	0.57	0.91	14.55	0.00	14.55	4.000	No	Yes	2.00
681	13.62	1.78	100.00	3.02	0.56	0.91	15.50	0.00	15.50	4.000	No	Yes	2.00
682	13.64	1.83	100.00	3.03	0.56	0.91	15.95	0.00	15.95	4.000	No	Yes	2.00
683	13.66	1.81	100.00	3.06	0.56	0.90	15.70	0.00	15.70	4.000	No	Yes	2.00
684	13.68	1.82	100.00	3.06	0.56	0.90	15.78	0.00	15.78	4.000	No	Yes	2.00
685	13.70	1.73	100.00	3.10	0.56	0.90	15.02	0.00	15.02	4.000	No	Yes	2.00
686	13.72	1.71	100.00	3.12	0.56	0.90	14.83	0.00	14.83	4.000	No	Yes	2.00
687	13.74	1.77	100.00	3.12	0.56	0.90	15.28	0.00	15.28	4.000	No	Yes	2.00
688	13.76	1.72	100.00	3.14	0.56	0.90	14.88	0.00	14.88	4.000	No	Yes	2.00
689	13.78	1.73	100.00	3.12	0.56	0.90	14.93	0.00	14.93	4.000	No	Yes	2.00
690	13.80	1.74	100.00	3.10	0.56	0.90	14.98	0.00	14.98	4.000	No	Yes	2.00
691	13.82	1.70	100.00	3.11	0.56	0.90	14.60	0.00	14.60	4.000	No	Yes	2.00
692	13.84	1.61	100.00	3.15	0.57	0.90	13.80	0.00	13.80	4.000	No	Yes	2.00
693	13.86	1.58	100.00	3.15	0.57	0.90	13.55	0.00	13.55	4.000	No	Yes	2.00
694	13.88	1.50	100.00	3.18	0.57	0.89	12.81	0.00	12.81	4.000	No	Yes	2.00
695	13.90	1.45	100.00	3.20	0.57	0.89	12.41	0.00	12.41	4.000	No	Yes	2.00
696	13.92	1.45	100.00	3.19	0.57	0.89	12.36	0.00	12.36	4.000	No	Yes	2.00
697	13.94	1.41	100.00	3.18	0.57	0.89	11.95	0.00	11.95	4.000	No	Yes	2.00
698	13.96	1.88	95.78	2.91	0.56	0.89	16.02	0.00	16.02	4.000	No	Yes	2.00
699	13.98	1.79	100.00	2.96	0.56	0.89	15.27	0.00	15.27	4.000	No	Yes	2.00
700	14.00	1.72	100.00	2.98	0.56	0.89	14.65	0.00	14.65	4.000	No	Yes	2.00
701	14.02	1.67	100.00	2.98	0.57	0.89	14.20	0.00	14.20	4.000	No	Yes	2.00
702	14.04	1.65	100.00	3.00	0.57	0.89	13.97	0.00	13.97	4.000	No	Yes	2.00
703	14.06	1.61	100.00	3.02	0.57	0.89	13.61	0.00	13.61	4.000	No	Yes	2.00
704	14.08	1.65	100.00	3.00	0.57	0.89	13.99	0.00	13.99	4.000	No	Yes	2.00
705	14.10	1.74	99.08	2.95	0.56	0.89	14.74	0.00	14.74	4.000	No	Yes	2.00
706	14.12	1.77	95.77	2.91	0.56	0.89	14.95	0.00	14.95	4.000	No	Yes	2.00
707	14.14	1.77	94.70	2.90	0.56	0.89	14.98	0.00	14.98	4.000	No	Yes	2.00
708	14.16	1.74	98.09	2.94	0.57	0.89	14.67	0.00	14.67	4.000	No	Yes	2.00
709	14.18	1.55	100.00	3.06	0.57	0.89	13.01	0.00	13.01	4.000	No	Yes	2.00
710	14.20	1.48	100.00	3.13	0.57	0.88	12.38	0.00	12.38	4.000	No	Yes	2.00
711	14.22	1.72	100.00	3.02	0.57	0.88	14.45	0.00	14.45	4.000	No	Yes	2.00
712	14.24	1.93	98.90	2.95	0.56	0.89	16.26	0.00	16.26	4.000	No	Yes	2.00
713	14.26	2.06	95.22	2.90	0.56	0.89	17.43	0.00	17.43	4.000	No	Yes	2.00
714	14.28	2.17	92.48	2.87	0.55	0.89	18.33	0.00	18.33	4.000	No	Yes	2.00
715	14.30	2.12	95.13	2.90	0.55	0.88	17.88	0.00	17.88	4.000	No	Yes	2.00
716	14.32	2.05	99.55	2.96	0.56	0.88	17.33	0.00	17.33	4.000	No	Yes	2.00
717	14.34	2.07	99.96	2.96	0.55	0.88	17.45	0.00	17.45	4.000	No	Yes	2.00
718	14.36	2.03	100.00	2.99	0.56	0.88	17.13	0.00	17.13	4.000	No	Yes	2.00
719	14.39	2.05	100.00	3.00	0.56	0.88	17.26	0.00	17.26	4.000	No	Yes	2.00
720	14.40	2.02	100.00	3.05	0.56	0.88	16.97	0.00	16.97	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
721	14.42	2.06	100.00	3.06	0.56	0.88	17.30	0.00	17.30	4.000	No	Yes	2.00
722	14.44	2.05	100.00	3.06	0.56	0.88	17.18	0.00	17.18	4.000	No	Yes	2.00
723	14.46	2.05	100.00	3.06	0.56	0.88	17.18	0.00	17.18	4.000	No	Yes	2.00
724	14.48	2.05	100.00	3.07	0.56	0.88	17.21	0.00	17.21	4.000	No	Yes	2.00
725	14.50	1.97	100.00	3.12	0.56	0.88	16.48	0.00	16.48	4.000	No	Yes	2.00
726	14.52	1.99	100.00	3.11	0.56	0.88	16.63	0.00	16.63	4.000	No	Yes	2.00
727	14.54	2.04	100.00	3.09	0.56	0.88	17.02	0.00	17.02	4.000	No	Yes	2.00
728	14.56	2.02	100.00	3.09	0.56	0.88	16.87	0.00	16.87	4.000	No	Yes	2.00
729	14.58	1.93	100.00	3.12	0.56	0.87	16.06	0.00	16.06	4.000	No	Yes	2.00
730	14.60	1.92	100.00	3.12	0.56	0.87	15.97	0.00	15.97	4.000	No	Yes	2.00
731	14.62	1.85	100.00	3.15	0.56	0.87	15.33	0.00	15.33	4.000	No	Yes	2.00
732	14.64	1.75	100.00	3.19	0.57	0.87	14.50	0.00	14.50	4.000	No	Yes	2.00
733	14.66	1.75	100.00	3.19	0.57	0.87	14.48	0.00	14.48	4.000	No	Yes	2.00
734	14.68	1.84	100.00	3.14	0.56	0.87	15.19	0.00	15.19	4.000	No	Yes	2.00
735	14.70	1.89	100.00	3.11	0.56	0.87	15.58	0.00	15.58	4.000	No	Yes	2.00
736	14.72	1.95	100.00	3.06	0.56	0.87	16.14	0.00	16.14	4.000	No	Yes	2.00
737	14.74	1.92	100.00	3.06	0.56	0.87	15.88	0.00	15.88	4.000	No	Yes	2.00
738	14.76	1.96	100.00	3.02	0.56	0.87	16.16	0.00	16.16	4.000	No	Yes	2.00
739	14.78	1.90	100.00	3.03	0.56	0.87	15.62	0.00	15.62	4.000	No	Yes	2.00
740	14.80	1.82	100.00	3.07	0.56	0.87	14.94	0.00	14.94	4.000	No	Yes	2.00
741	14.82	1.75	100.00	3.10	0.57	0.86	14.33	0.00	14.33	4.000	No	Yes	2.00
742	14.84	1.73	100.00	3.11	0.57	0.86	14.17	0.00	14.17	4.000	No	Yes	2.00
743	14.86	1.68	100.00	3.14	0.57	0.86	13.69	0.00	13.69	4.000	No	Yes	2.00
744	14.88	1.67	100.00	3.14	0.57	0.86	13.57	0.00	13.57	4.000	No	Yes	2.00
745	14.90	1.67	100.00	3.15	0.57	0.86	13.56	0.00	13.56	4.000	No	Yes	2.00
746	14.92	1.67	100.00	3.14	0.57	0.86	13.62	0.00	13.62	4.000	No	Yes	2.00
747	14.94	1.76	100.00	3.08	0.57	0.86	14.32	0.00	14.32	4.000	No	Yes	2.00
748	14.96	1.70	100.00	3.09	0.57	0.86	13.75	0.00	13.75	4.000	No	Yes	2.00
749	14.98	1.85	100.00	3.05	0.56	0.86	15.01	0.00	15.01	4.000	No	Yes	2.00
750	15.00	1.85	100.00	3.04	0.56	0.86	15.04	0.00	15.04	4.000	No	Yes	2.00
751	15.02	1.85	100.00	3.03	0.56	0.86	15.01	0.00	15.01	4.000	No	Yes	2.00
752	15.04	1.77	100.00	3.07	0.57	0.86	14.33	0.00	14.33	4.000	No	Yes	2.00
753	15.06	1.72	100.00	3.09	0.57	0.86	13.88	0.00	13.88	4.000	No	Yes	2.00
754	15.08	1.71	100.00	3.10	0.57	0.86	13.82	0.00	13.82	4.000	No	Yes	2.00
755	15.10	1.69	100.00	3.12	0.57	0.86	13.62	0.00	13.62	4.000	No	Yes	2.00
756	15.12	1.73	100.00	3.09	0.57	0.86	13.95	0.00	13.95	4.000	No	Yes	2.00
757	15.14	1.78	100.00	3.06	0.57	0.86	14.36	0.00	14.36	4.000	No	Yes	2.00
758	15.16	1.78	100.00	3.05	0.57	0.85	14.37	0.00	14.37	4.000	No	Yes	2.00
759	15.18	1.63	100.00	3.12	0.57	0.85	13.01	0.00	13.01	4.000	No	Yes	2.00
760	15.20	1.55	100.00	3.14	0.57	0.85	12.33	0.00	12.33	4.000	No	Yes	2.00
761	15.22	1.44	100.00	3.18	0.58	0.85	11.39	0.00	11.39	4.000	No	Yes	2.00
762	15.24	1.40	100.00	3.19	0.58	0.85	11.06	0.00	11.06	4.000	No	Yes	2.00
763	15.26	1.37	100.00	3.20	0.58	0.85	10.81	0.00	10.81	4.000	No	Yes	2.00
764	15.28	1.30	100.00	3.25	0.58	0.85	10.23	0.00	10.23	4.000	No	Yes	2.00
765	15.30	1.24	100.00	3.28	0.58	0.85	9.76	0.00	9.76	4.000	No	Yes	2.00
766	15.32	1.22	100.00	3.28	0.58	0.85	9.58	0.00	9.58	4.000	No	Yes	2.00
767	15.34	1.18	100.00	3.31	0.59	0.84	9.18	0.00	9.18	4.000	No	Yes	2.00
768	15.36	1.14	100.00	3.33	0.59	0.84	8.87	0.00	8.87	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
769	15.38	1.11	100.00	3.35	0.59	0.84	8.61	0.00	8.61	4.000	No	Yes	2.00
770	15.40	1.05	100.00	3.38	0.59	0.84	8.10	0.00	8.10	4.000	No	Yes	2.00
771	15.42	1.01	100.00	3.38	0.59	0.84	7.79	0.00	7.79	4.000	No	Yes	2.00
772	15.44	1.00	100.00	3.36	0.59	0.84	7.69	0.00	7.69	4.000	No	Yes	2.00
773	15.46	0.99	100.00	3.33	0.59	0.84	7.61	0.00	7.61	4.000	No	Yes	2.00
774	15.48	1.00	100.00	3.29	0.59	0.84	7.66	0.00	7.66	4.000	No	Yes	2.00
775	15.50	1.01	100.00	3.25	0.59	0.84	7.74	0.00	7.74	4.000	No	Yes	2.00
776	15.52	1.00	100.00	3.23	0.59	0.84	7.67	0.00	7.67	4.000	No	Yes	2.00
777	15.54	1.00	100.00	3.21	0.59	0.84	7.67	0.00	7.67	4.000	No	Yes	2.00
778	15.56	0.99	100.00	3.19	0.59	0.84	7.55	0.00	7.55	4.000	No	Yes	2.00
779	15.58	0.99	100.00	3.17	0.59	0.84	7.56	0.00	7.56	4.000	No	Yes	2.00
780	15.60	0.99	100.00	3.17	0.59	0.84	7.54	0.00	7.54	4.000	No	Yes	2.00
781	15.62	0.97	100.00	3.18	0.59	0.84	7.39	0.00	7.39	4.000	No	Yes	2.00
782	15.64	0.98	100.00	3.17	0.59	0.84	7.44	0.00	7.44	4.000	No	Yes	2.00
783	15.66	0.98	100.00	3.15	0.59	0.83	7.44	0.00	7.44	4.000	No	Yes	2.00
784	15.68	0.99	100.00	3.14	0.59	0.83	7.51	0.00	7.51	4.000	No	Yes	2.00
785	15.70	0.99	100.00	3.14	0.59	0.83	7.51	0.00	7.51	4.000	No	Yes	2.00
786	15.72	1.01	100.00	3.13	0.59	0.83	7.65	0.00	7.65	4.000	No	Yes	2.00
787	15.74	1.04	100.00	3.11	0.59	0.83	7.93	0.00	7.93	4.000	No	Yes	2.00
788	15.76	1.13	100.00	3.06	0.59	0.83	8.62	0.00	8.62	4.000	No	Yes	2.00
789	15.78	1.24	100.00	3.01	0.58	0.83	9.55	0.00	9.55	4.000	No	Yes	2.00
790	15.80	1.40	98.83	2.95	0.58	0.83	10.82	0.00	10.82	4.000	No	Yes	2.00
791	15.82	1.66	91.82	2.86	0.57	0.84	13.04	0.00	13.04	4.000	No	Yes	2.00
792	15.84	1.87	87.29	2.80	0.57	0.84	14.77	0.00	14.77	4.000	No	Yes	2.00
793	15.86	1.91	86.21	2.79	0.57	0.84	15.16	0.00	15.16	4.000	No	Yes	2.00
794	15.88	2.01	80.18	2.71	0.57	0.84	15.99	0.00	15.99	4.000	No	Yes	2.00
795	15.90	2.23	75.14	2.65	0.56	0.84	17.81	0.00	17.81	4.000	No	Yes	2.00
796	15.92	2.58	68.60	2.57	0.55	0.84	20.75	56.40	77.15	0.113	No	No	0.48
797	15.94	3.42	56.12	2.41	0.54	0.84	27.74	55.41	83.15	0.119	No	No	0.51
798	15.96	3.12	65.88	2.54	0.54	0.84	25.65	57.28	82.93	0.119	No	No	0.51
799	15.98	4.47	49.95	2.34	0.51	0.85	37.11	55.82	92.92	0.129	No	No	0.57
800	16.00	5.23	37.52	2.18	0.51	0.85	43.54	50.75	94.29	0.130	No	No	0.57
801	16.02	5.77	36.86	2.17	0.50	0.85	48.21	51.34	99.55	0.137	No	No	0.61
802	16.04	6.34	32.36	2.12	0.50	0.85	52.99	48.51	101.50	0.139	No	No	0.62
803	16.06	6.57	29.51	2.08	0.50	0.85	54.84	45.82	100.65	0.138	No	No	0.62
804	16.08	6.60	28.11	2.06	0.50	0.85	54.96	44.14	99.10	0.136	No	No	0.61
805	16.10	6.42	24.76	2.02	0.52	0.84	53.16	39.13	92.30	0.128	No	No	0.56
806	16.12	6.08	21.66	1.98	0.54	0.84	49.95	33.41	83.36	0.119	No	No	0.52
807	16.14	5.72	22.87	2.00	0.54	0.84	46.90	35.06	81.96	0.118	No	No	0.51
808	16.16	5.28	27.26	2.05	0.54	0.84	43.38	40.85	84.23	0.120	No	No	0.52
809	16.18	5.13	30.65	2.10	0.53	0.84	42.21	44.51	86.72	0.122	No	No	0.53
810	16.20	5.09	33.29	2.13	0.52	0.84	41.93	46.99	88.92	0.125	No	No	0.55
811	16.22	4.88	37.67	2.18	0.52	0.84	40.16	50.07	90.23	0.126	No	No	0.55
812	16.24	4.38	43.00	2.25	0.53	0.84	36.01	52.33	88.34	0.124	No	No	0.54
813	16.26	3.77	49.98	2.34	0.53	0.84	30.86	54.18	85.04	0.121	No	No	0.53
814	16.28	3.22	58.96	2.45	0.54	0.83	26.27	55.81	82.07	0.118	No	No	0.51
815	16.30	2.94	65.61	2.53	0.54	0.83	23.88	56.71	80.59	0.116	No	No	0.50
816	16.32	2.31	82.31	2.74	0.56	0.83	18.68	0.00	18.68	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
817	16.34	2.12	87.54	2.81	0.56	0.83	17.12	0.00	17.12	4.000	No	Yes	2.00
818	16.36	1.65	100.00	3.03	0.57	0.82	13.21	0.00	13.21	4.000	No	Yes	2.00
819	16.38	1.33	100.00	3.23	0.58	0.82	10.60	0.00	10.60	4.000	No	Yes	2.00
820	16.40	1.20	100.00	3.29	0.58	0.82	9.49	0.00	9.49	4.000	No	Yes	2.00
821	16.42	1.11	100.00	3.27	0.59	0.82	8.75	0.00	8.75	4.000	No	Yes	2.00
822	16.44	1.09	100.00	3.24	0.59	0.82	8.54	0.00	8.54	4.000	No	Yes	2.00
823	16.46	1.07	100.00	3.22	0.59	0.82	8.42	0.00	8.42	4.000	No	Yes	2.00
824	16.48	1.05	100.00	3.24	0.59	0.81	8.23	0.00	8.23	4.000	No	Yes	2.00
825	16.50	1.05	100.00	3.25	0.59	0.81	8.18	0.00	8.18	4.000	No	Yes	2.00
826	16.52	1.01	100.00	3.29	0.59	0.81	7.86	0.00	7.86	4.000	No	Yes	2.00
827	16.54	0.95	100.00	3.32	0.59	0.81	7.41	0.00	7.41	4.000	No	Yes	2.00
828	16.56	0.96	100.00	3.30	0.59	0.81	7.47	0.00	7.47	4.000	No	Yes	2.00
829	16.58	0.99	100.00	3.27	0.59	0.81	7.71	0.00	7.71	4.000	No	Yes	2.00
830	16.60	1.01	100.00	3.25	0.59	0.81	7.80	0.00	7.80	4.000	No	Yes	2.00
831	16.63	1.02	100.00	3.24	0.59	0.81	7.87	0.00	7.87	4.000	No	Yes	2.00
832	16.64	1.02	100.00	3.25	0.59	0.81	7.88	0.00	7.88	4.000	No	Yes	2.00
833	16.66	1.01	100.00	3.28	0.59	0.81	7.80	0.00	7.80	4.000	No	Yes	2.00
834	16.68	1.01	100.00	3.27	0.59	0.81	7.82	0.00	7.82	4.000	No	Yes	2.00
835	16.70	1.00	100.00	3.31	0.59	0.81	7.67	0.00	7.67	4.000	No	Yes	2.00
836	16.72	1.00	100.00	3.31	0.59	0.81	7.68	0.00	7.68	4.000	No	Yes	2.00
837	16.74	1.00	100.00	3.30	0.59	0.81	7.71	0.00	7.71	4.000	No	Yes	2.00
838	16.76	1.00	100.00	3.32	0.59	0.81	7.69	0.00	7.69	4.000	No	Yes	2.00
839	16.78	1.01	100.00	3.33	0.59	0.81	7.72	0.00	7.72	4.000	No	Yes	2.00
840	16.80	1.00	100.00	3.35	0.59	0.81	7.68	0.00	7.68	4.000	No	Yes	2.00
841	16.82	1.00	100.00	3.37	0.59	0.81	7.63	0.00	7.63	4.000	No	Yes	2.00
842	16.84	1.01	100.00	3.36	0.59	0.81	7.72	0.00	7.72	4.000	No	Yes	2.00
843	16.86	1.02	100.00	3.37	0.59	0.81	7.82	0.00	7.82	4.000	No	Yes	2.00
844	16.88	1.04	100.00	3.37	0.59	0.81	7.94	0.00	7.94	4.000	No	Yes	2.00
845	16.91	1.04	100.00	3.37	0.59	0.80	7.98	0.00	7.98	4.000	No	Yes	2.00
846	16.93	1.06	100.00	3.36	0.59	0.80	8.08	0.00	8.08	4.000	No	Yes	2.00
847	16.94	1.08	100.00	3.34	0.59	0.80	8.24	0.00	8.24	4.000	No	Yes	2.00
848	16.96	1.07	100.00	3.35	0.59	0.80	8.20	0.00	8.20	4.000	No	Yes	2.00
849	16.98	1.07	100.00	3.37	0.59	0.80	8.13	0.00	8.13	4.000	No	Yes	2.00
850	17.00	0.70	100.00	3.47	0.60	0.80	5.14	0.00	5.14	4.000	No	Yes	2.00
851	17.02	0.69	100.00	3.49	0.60	0.80	5.05	0.00	5.05	4.000	No	Yes	2.00
852	17.04	1.06	100.00	3.38	0.59	0.80	7.95	0.00	7.95	4.000	No	Yes	2.00
853	17.06	1.10	100.00	3.36	0.59	0.80	8.28	0.00	8.28	4.000	No	Yes	2.00
854	17.08	1.09	100.00	3.38	0.59	0.80	8.20	0.00	8.20	4.000	No	Yes	2.00
855	17.10	1.12	100.00	3.36	0.59	0.80	8.39	0.00	8.39	4.000	No	Yes	2.00
856	17.12	1.11	100.00	3.37	0.59	0.80	8.35	0.00	8.35	4.000	No	Yes	2.00
857	17.14	1.10	100.00	3.38	0.59	0.80	8.23	0.00	8.23	4.000	No	Yes	2.00
858	17.16	1.09	100.00	3.40	0.59	0.80	8.13	0.00	8.13	4.000	No	Yes	2.00
859	17.18	1.10	100.00	3.39	0.59	0.80	8.25	0.00	8.25	4.000	No	Yes	2.00
860	17.20	1.11	100.00	3.38	0.59	0.80	8.29	0.00	8.29	4.000	No	Yes	2.00
861	17.22	1.09	100.00	3.41	0.59	0.80	8.14	0.00	8.14	4.000	No	Yes	2.00
862	17.24	1.09	100.00	3.42	0.59	0.80	8.13	0.00	8.13	4.000	No	Yes	2.00
863	17.26	1.08	100.00	3.43	0.59	0.80	8.03	0.00	8.03	4.000	No	Yes	2.00
864	17.28	1.05	100.00	3.46	0.59	0.80	7.81	0.00	7.81	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
865	17.30	1.03	100.00	3.47	0.59	0.79	7.64	0.00	7.64	4.000	No	Yes	2.00
866	17.32	1.03	100.00	3.46	0.59	0.79	7.64	0.00	7.64	4.000	No	Yes	2.00
867	17.34	1.01	100.00	3.47	0.59	0.79	7.47	0.00	7.47	4.000	No	Yes	2.00
868	17.36	0.99	100.00	3.49	0.59	0.79	7.29	0.00	7.29	4.000	No	Yes	2.00
869	17.38	0.96	100.00	3.51	0.59	0.79	7.06	0.00	7.06	4.000	No	Yes	2.00
870	17.40	0.97	100.00	3.50	0.59	0.79	7.13	0.00	7.13	4.000	No	Yes	2.00
871	17.42	0.98	100.00	3.48	0.59	0.79	7.24	0.00	7.24	4.000	No	Yes	2.00
872	17.44	0.97	100.00	3.50	0.59	0.79	7.10	0.00	7.10	4.000	No	Yes	2.00
873	17.46	0.97	100.00	3.49	0.59	0.79	7.14	0.00	7.14	4.000	No	Yes	2.00
874	17.48	1.00	100.00	3.47	0.59	0.79	7.34	0.00	7.34	4.000	No	Yes	2.00
875	17.50	1.05	100.00	3.42	0.59	0.79	7.72	0.00	7.72	4.000	No	Yes	2.00
876	17.52	1.09	100.00	3.38	0.59	0.79	8.05	0.00	8.05	4.000	No	Yes	2.00
877	17.54	1.16	100.00	3.33	0.59	0.79	8.58	0.00	8.58	4.000	No	Yes	2.00
878	17.56	1.22	100.00	3.28	0.59	0.79	9.02	0.00	9.02	4.000	No	Yes	2.00
879	17.58	1.24	100.00	3.28	0.59	0.79	9.14	0.00	9.14	4.000	No	Yes	2.00
880	17.60	1.25	100.00	3.29	0.59	0.79	9.26	0.00	9.26	4.000	No	Yes	2.00
881	17.62	1.24	100.00	3.32	0.59	0.79	9.13	0.00	9.13	4.000	No	Yes	2.00
882	17.64	1.26	100.00	3.32	0.58	0.79	9.31	0.00	9.31	4.000	No	Yes	2.00
883	17.66	1.27	100.00	3.33	0.58	0.79	9.36	0.00	9.36	4.000	No	Yes	2.00
884	17.68	1.28	100.00	3.35	0.58	0.79	9.45	0.00	9.45	4.000	No	Yes	2.00
885	17.70	1.28	100.00	3.36	0.58	0.79	9.47	0.00	9.47	4.000	No	Yes	2.00
886	17.72	1.30	100.00	3.36	0.58	0.79	9.61	0.00	9.61	4.000	No	Yes	2.00
887	17.76	1.30	100.00	3.36	0.58	0.79	9.61	0.00	9.61	4.000	No	Yes	2.00
888	17.76	1.30	100.00	3.36	0.58	0.79	9.61	0.00	9.61	4.000	No	Yes	2.00
889	17.78	1.29	100.00	3.37	0.58	0.79	9.52	0.00	9.52	4.000	No	Yes	2.00
890	17.80	1.33	100.00	3.35	0.58	0.79	9.77	0.00	9.77	4.000	No	Yes	2.00
891	17.82	1.37	100.00	3.31	0.58	0.79	10.11	0.00	10.11	4.000	No	Yes	2.00
892	17.84	1.35	100.00	3.33	0.58	0.78	9.90	0.00	9.90	4.000	No	Yes	2.00
893	17.86	1.35	100.00	3.33	0.58	0.78	9.94	0.00	9.94	4.000	No	Yes	2.00
894	17.88	1.34	100.00	3.34	0.58	0.78	9.85	0.00	9.85	4.000	No	Yes	2.00
895	17.90	1.35	100.00	3.33	0.58	0.78	9.94	0.00	9.94	4.000	No	Yes	2.00
896	17.92	1.34	100.00	3.34	0.58	0.78	9.80	0.00	9.80	4.000	No	Yes	2.00
897	17.94	1.34	100.00	3.34	0.58	0.78	9.82	0.00	9.82	4.000	No	Yes	2.00
898	17.96	1.35	100.00	3.34	0.58	0.78	9.86	0.00	9.86	4.000	No	Yes	2.00
899	17.98	1.34	100.00	3.34	0.58	0.78	9.81	0.00	9.81	4.000	No	Yes	2.00
900	18.00	1.32	100.00	3.35	0.58	0.78	9.67	0.00	9.67	4.000	No	Yes	2.00
901	18.02	1.31	100.00	3.36	0.58	0.78	9.55	0.00	9.55	4.000	No	Yes	2.00
902	18.04	0.80	100.00	3.53	0.60	0.77	5.63	0.00	5.63	4.000	No	Yes	2.00
903	18.06	1.31	100.00	3.37	0.58	0.78	9.52	0.00	9.52	4.000	No	Yes	2.00
904	18.08	1.31	100.00	3.37	0.58	0.78	9.46	0.00	9.46	4.000	No	Yes	2.00
905	18.10	1.31	100.00	3.38	0.58	0.78	9.44	0.00	9.44	4.000	No	Yes	2.00
906	18.12	1.32	100.00	3.37	0.58	0.78	9.56	0.00	9.56	4.000	No	Yes	2.00
907	18.14	1.35	100.00	3.34	0.58	0.78	9.79	0.00	9.79	4.000	No	Yes	2.00
908	18.16	1.36	100.00	3.34	0.58	0.78	9.82	0.00	9.82	4.000	No	Yes	2.00
909	18.18	1.36	100.00	3.34	0.58	0.78	9.79	0.00	9.79	4.000	No	Yes	2.00
910	18.20	1.35	100.00	3.33	0.58	0.78	9.77	0.00	9.77	4.000	No	Yes	2.00
911	18.22	1.30	100.00	3.36	0.58	0.78	9.33	0.00	9.33	4.000	No	Yes	2.00
912	18.24	1.28	100.00	3.37	0.59	0.77	9.20	0.00	9.20	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
913	18.26	1.27	100.00	3.37	0.59	0.77	9.08	0.00	9.08	4.000	No	Yes	2.00
914	18.28	1.20	100.00	3.41	0.59	0.77	8.60	0.00	8.60	4.000	No	Yes	2.00
915	18.30	1.15	100.00	3.45	0.59	0.77	8.17	0.00	8.17	4.000	No	Yes	2.00
916	18.32	1.13	100.00	3.45	0.59	0.77	8.02	0.00	8.02	4.000	No	Yes	2.00
917	18.34	1.09	100.00	3.47	0.59	0.77	7.67	0.00	7.67	4.000	No	Yes	2.00
918	18.36	1.07	100.00	3.47	0.59	0.77	7.51	0.00	7.51	4.000	No	Yes	2.00
919	18.38	1.07	100.00	3.45	0.59	0.77	7.53	0.00	7.53	4.000	No	Yes	2.00
920	18.40	1.08	100.00	3.42	0.59	0.77	7.59	0.00	7.59	4.000	No	Yes	2.00
921	18.42	1.09	100.00	3.39	0.59	0.77	7.66	0.00	7.66	4.000	No	Yes	2.00
922	18.44	1.08	100.00	3.37	0.59	0.77	7.59	0.00	7.59	4.000	No	Yes	2.00
923	18.46	1.08	100.00	3.36	0.59	0.77	7.59	0.00	7.59	4.000	No	Yes	2.00
924	18.48	1.10	100.00	3.32	0.59	0.77	7.72	0.00	7.72	4.000	No	Yes	2.00
925	18.50	1.12	100.00	3.30	0.59	0.77	7.85	0.00	7.85	4.000	No	Yes	2.00
926	18.52	1.16	100.00	3.24	0.59	0.77	8.15	0.00	8.15	4.000	No	Yes	2.00
927	18.54	1.20	100.00	3.22	0.59	0.77	8.40	0.00	8.40	4.000	No	Yes	2.00
928	18.56	1.25	100.00	3.19	0.59	0.77	8.77	0.00	8.77	4.000	No	Yes	2.00
929	18.58	1.29	100.00	3.16	0.59	0.77	9.09	0.00	9.09	4.000	No	Yes	2.00
930	18.60	1.32	100.00	3.15	0.59	0.77	9.29	0.00	9.29	4.000	No	Yes	2.00
931	18.62	1.35	100.00	3.15	0.58	0.77	9.49	0.00	9.49	4.000	No	Yes	2.00
932	18.64	1.37	100.00	3.16	0.58	0.77	9.69	0.00	9.69	4.000	No	Yes	2.00
933	18.66	1.41	100.00	3.15	0.58	0.77	9.97	0.00	9.97	4.000	No	Yes	2.00
934	18.68	1.45	100.00	3.16	0.58	0.77	10.26	0.00	10.26	4.000	No	Yes	2.00
935	18.70	1.54	100.00	3.12	0.58	0.77	10.94	0.00	10.94	4.000	No	Yes	2.00
936	18.72	1.63	100.00	3.09	0.58	0.77	11.60	0.00	11.60	4.000	No	Yes	2.00
937	18.74	1.72	100.00	3.06	0.57	0.77	12.26	0.00	12.26	4.000	No	Yes	2.00
938	18.76	1.79	100.00	3.04	0.57	0.77	12.80	0.00	12.80	4.000	No	Yes	2.00
939	18.78	1.83	100.00	3.04	0.57	0.77	13.10	0.00	13.10	4.000	No	Yes	2.00
940	18.80	1.91	100.00	3.02	0.57	0.77	13.72	0.00	13.72	4.000	No	Yes	2.00
941	18.82	2.05	100.00	2.97	0.56	0.77	14.75	0.00	14.75	4.000	No	Yes	2.00
942	18.84	2.07	100.00	2.98	0.56	0.77	14.89	0.00	14.89	4.000	No	Yes	2.00
943	18.86	1.99	100.00	3.02	0.57	0.77	14.31	0.00	14.31	4.000	No	Yes	2.00
944	18.88	1.98	100.00	3.03	0.57	0.77	14.19	0.00	14.19	4.000	No	Yes	2.00
945	18.90	1.81	100.00	3.10	0.57	0.77	12.93	0.00	12.93	4.000	No	Yes	2.00
946	18.92	1.67	100.00	3.17	0.58	0.76	11.81	0.00	11.81	4.000	No	Yes	2.00
947	18.94	1.51	100.00	3.24	0.58	0.76	10.62	0.00	10.62	4.000	No	Yes	2.00
948	18.96	1.45	100.00	3.26	0.58	0.76	10.20	0.00	10.20	4.000	No	Yes	2.00
949	18.98	1.39	100.00	3.29	0.58	0.76	9.68	0.00	9.68	4.000	No	Yes	2.00
950	19.00	1.40	100.00	3.27	0.58	0.76	9.75	0.00	9.75	4.000	No	Yes	2.00
951	19.02	1.99	100.00	2.98	0.57	0.76	14.15	0.00	14.15	4.000	No	Yes	2.00
952	19.04	2.25	73.29	2.63	0.57	0.76	16.65	0.00	16.65	4.000	No	Yes	2.00
953	19.06	2.29	74.13	2.64	0.56	0.76	16.95	0.00	16.95	4.000	No	Yes	2.00
954	19.08	4.97	49.79	2.33	0.51	0.78	38.27	56.06	94.33	0.131	No	No	0.61
955	19.10	5.65	43.73	2.26	0.50	0.79	43.68	54.64	98.33	0.135	No	No	0.64
956	19.12	6.15	40.26	2.22	0.50	0.79	47.66	53.59	101.24	0.139	No	No	0.66
957	19.14	6.35	36.95	2.17	0.50	0.79	49.14	51.63	100.77	0.138	No	No	0.66
958	19.16	6.41	32.30	2.12	0.50	0.78	49.46	47.69	97.16	0.134	No	No	0.63
959	19.18	6.50	26.85	2.05	0.52	0.78	49.76	41.51	91.27	0.127	No	No	0.59
960	19.20	6.66	23.22	2.00	0.53	0.77	50.69	36.25	86.93	0.123	No	No	0.57

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q_t (MPa)	FC (%)	I_c	m	C_N	q_{c1N}	q_{c1N}	$q_{c1N,cs}$	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
961	19.22	6.92	19.30	1.95	0.54	0.77	52.30	29.11	81.41	0.117	No	No	0.54
962	19.24	7.41	16.61	1.92	0.55	0.77	55.85	23.40	79.25	0.115	No	No	0.53
963	19.26	7.96	15.47	1.91	0.54	0.77	60.05	20.93	80.98	0.117	No	No	0.54
964	19.28	8.45	14.17	1.89	0.54	0.77	63.77	17.76	81.53	0.117	No	No	0.54
965	19.30	8.99	11.78	1.86	0.55	0.77	67.60	11.39	78.99	0.115	No	No	0.53
966	19.32	9.35	10.37	1.84	0.55	0.76	70.12	7.77	77.89	0.114	No	No	0.52
967	19.34	9.57	9.84	1.84	0.55	0.76	71.80	6.51	78.30	0.114	No	No	0.53
968	19.36	9.60	10.35	1.84	0.55	0.77	72.17	7.80	79.97	0.116	No	No	0.53
969	19.38	9.58	11.12	1.85	0.54	0.77	72.13	9.80	81.92	0.118	No	No	0.54
970	19.40	9.53	11.74	1.86	0.54	0.77	71.80	11.48	83.28	0.119	No	No	0.55

Abbreviations

Depth:	Depth from free surface, at which CPT was performed (m)
q_t :	Total cone resistance
FC:	Fines content (%)
I_c :	Soil behavior type index
m:	Stress exponent
C_N :	Overburden correction factor
q_{c1N} :	Normalized and adjusted cone resistance
q_{c1N} :	Cone resistance correction factor due to fines
$q_{c1N,cs}$:	Normalized and adjusted cone resistance
CRR _{7.5} :	Cyclic resistance ratio for $M_w=7.5$
FS:	Factor of safety against soil liquefaction

:: Liquefaction Potential Index calculation data ::

Depth (m)	FS	F _L	w _z	d _z	LPI	Depth (m)	FS	F _L	w _z	d _z	LPI
0.02	2.00	0.00	9.99	0.02	0.00	0.04	2.00	0.00	9.98	0.02	0.00
0.06	2.00	0.00	9.97	0.02	0.00	0.08	2.00	0.00	9.96	0.02	0.00
0.10	2.00	0.00	9.95	0.02	0.00	0.13	2.00	0.00	9.94	0.03	0.00
0.14	2.00	0.00	9.93	0.01	0.00	0.16	2.00	0.00	9.92	0.02	0.00
0.18	2.00	0.00	9.91	0.02	0.00	0.21	2.00	0.00	9.89	0.03	0.00
0.22	2.00	0.00	9.89	0.01	0.00	0.24	2.00	0.00	9.88	0.02	0.00
0.26	2.00	0.00	9.87	0.02	0.00	0.28	2.00	0.00	9.86	0.02	0.00
0.30	2.00	0.00	9.85	0.02	0.00	0.32	2.00	0.00	9.84	0.02	0.00
0.34	2.00	0.00	9.83	0.02	0.00	0.36	2.00	0.00	9.82	0.02	0.00
0.38	2.00	0.00	9.81	0.02	0.00	0.41	2.00	0.00	9.79	0.03	0.00
0.42	2.00	0.00	9.79	0.01	0.00	0.44	2.00	0.00	9.78	0.02	0.00
0.46	2.00	0.00	9.77	0.02	0.00	0.48	2.00	0.00	9.76	0.02	0.00
0.50	2.00	0.00	9.75	0.02	0.00	0.52	2.00	0.00	9.74	0.02	0.00
0.54	2.00	0.00	9.73	0.02	0.00	0.56	2.00	0.00	9.72	0.02	0.00
0.58	2.00	0.00	9.71	0.02	0.00	0.60	2.00	0.00	9.70	0.02	0.00
0.62	2.00	0.00	9.69	0.02	0.00	0.64	2.00	0.00	9.68	0.02	0.00
0.66	2.00	0.00	9.67	0.02	0.00	0.68	2.00	0.00	9.66	0.02	0.00
0.70	2.00	0.00	9.65	0.02	0.00	0.72	2.00	0.00	9.64	0.02	0.00
0.74	2.00	0.00	9.63	0.02	0.00	0.76	2.00	0.00	9.62	0.02	0.00
0.78	2.00	0.00	9.61	0.02	0.00	0.80	2.00	0.00	9.60	0.02	0.00
0.82	2.00	0.00	9.59	0.02	0.00	0.84	2.00	0.00	9.58	0.02	0.00
0.86	2.00	0.00	9.57	0.02	0.00	0.88	2.00	0.00	9.56	0.02	0.00
0.90	2.00	0.00	9.55	0.02	0.00	0.92	2.00	0.00	9.54	0.02	0.00
0.94	2.00	0.00	9.53	0.02	0.00	0.96	2.00	0.00	9.52	0.02	0.00
0.98	2.00	0.00	9.51	0.02	0.00	1.00	2.00	0.00	9.50	0.02	0.00
1.02	2.00	0.00	9.49	0.02	0.00	1.04	2.00	0.00	9.48	0.02	0.00
1.06	2.00	0.00	9.47	0.02	0.00	1.08	2.00	0.00	9.46	0.02	0.00
1.10	2.00	0.00	9.45	0.02	0.00	1.12	2.00	0.00	9.44	0.02	0.00
1.14	2.00	0.00	9.43	0.02	0.00	1.16	2.00	0.00	9.42	0.02	0.00
1.18	2.00	0.00	9.41	0.02	0.00	1.20	2.00	0.00	9.40	0.02	0.00
1.22	2.00	0.00	9.39	0.02	0.00	1.24	2.00	0.00	9.38	0.02	0.00
1.26	2.00	0.00	9.37	0.02	0.00	1.28	2.00	0.00	9.36	0.02	0.00
1.30	2.00	0.00	9.35	0.02	0.00	1.32	2.00	0.00	9.34	0.02	0.00
1.34	2.00	0.00	9.33	0.02	0.00	1.36	2.00	0.00	9.32	0.02	0.00
1.38	2.00	0.00	9.31	0.02	0.00	1.40	2.00	0.00	9.30	0.02	0.00
1.42	2.00	0.00	9.29	0.02	0.00	1.44	2.00	0.00	9.28	0.02	0.00
1.46	2.00	0.00	9.27	0.02	0.00	1.48	2.00	0.00	9.26	0.02	0.00
1.50	2.00	0.00	9.25	0.02	0.00	1.52	2.00	0.00	9.24	0.02	0.00
1.54	2.00	0.00	9.23	0.02	0.00	1.56	2.00	0.00	9.22	0.02	0.00
1.58	2.00	0.00	9.21	0.02	0.00	1.60	2.00	0.00	9.20	0.02	0.00
1.62	2.00	0.00	9.19	0.02	0.00	1.64	2.00	0.00	9.18	0.02	0.00
1.66	2.00	0.00	9.17	0.02	0.00	1.68	2.00	0.00	9.16	0.02	0.00
1.70	2.00	0.00	9.15	0.02	0.00	1.72	2.00	0.00	9.14	0.02	0.00
1.74	2.00	0.00	9.13	0.02	0.00	1.76	0.77	0.23	9.12	0.02	0.04
1.78	0.83	0.17	9.11	0.02	0.03	1.80	0.89	0.11	9.10	0.02	0.02
1.82	0.89	0.11	9.09	0.02	0.02	1.84	0.82	0.18	9.08	0.02	0.03
1.86	0.76	0.24	9.07	0.02	0.04	1.88	0.73	0.27	9.06	0.02	0.05
1.90	0.73	0.27	9.05	0.02	0.05	1.92	0.72	0.28	9.04	0.02	0.05

:: Liquefaction Potential Index calculation data :: (continued)

Depth (m)	FS	F _L	w _z	d _z	LPI	Depth (m)	FS	F _L	w _z	d _z	LPI
1.94	0.71	0.29	9.03	0.02	0.05	1.96	0.68	0.32	9.02	0.02	0.06
1.99	0.66	0.34	9.01	0.03	0.09	2.00	2.00	0.00	9.00	0.01	0.00
2.03	2.00	0.00	8.98	0.03	0.00	2.04	2.00	0.00	8.98	0.01	0.00
2.06	2.00	0.00	8.97	0.02	0.00	2.08	2.00	0.00	8.96	0.02	0.00
2.10	0.67	0.33	8.95	0.02	0.06	2.12	0.71	0.29	8.94	0.02	0.05
2.14	0.71	0.29	8.93	0.02	0.05	2.16	0.68	0.32	8.92	0.02	0.06
2.18	0.67	0.33	8.91	0.02	0.06	2.20	0.68	0.32	8.90	0.02	0.06
2.22	0.67	0.33	8.89	0.02	0.06	2.24	0.66	0.34	8.88	0.02	0.06
2.26	0.63	0.37	8.87	0.02	0.07	2.28	0.62	0.38	8.86	0.02	0.07
2.30	2.00	0.00	8.85	0.02	0.00	2.32	2.00	0.00	8.84	0.02	0.00
2.34	2.00	0.00	8.83	0.02	0.00	2.36	2.00	0.00	8.82	0.02	0.00
2.38	2.00	0.00	8.81	0.02	0.00	2.40	0.63	0.37	8.80	0.02	0.07
2.42	0.62	0.38	8.79	0.02	0.07	2.44	0.59	0.41	8.78	0.02	0.07
2.46	2.00	0.00	8.77	0.02	0.00	2.48	2.00	0.00	8.76	0.02	0.00
2.50	2.00	0.00	8.75	0.02	0.00	2.52	2.00	0.00	8.74	0.02	0.00
2.54	2.00	0.00	8.73	0.02	0.00	2.56	2.00	0.00	8.72	0.02	0.00
2.58	2.00	0.00	8.71	0.02	0.00	2.60	2.00	0.00	8.70	0.02	0.00
2.62	2.00	0.00	8.69	0.02	0.00	2.64	2.00	0.00	8.68	0.02	0.00
2.66	2.00	0.00	8.67	0.02	0.00	2.68	2.00	0.00	8.66	0.02	0.00
2.70	2.00	0.00	8.65	0.02	0.00	2.72	2.00	0.00	8.64	0.02	0.00
2.74	2.00	0.00	8.63	0.02	0.00	2.76	2.00	0.00	8.62	0.02	0.00
2.78	2.00	0.00	8.61	0.02	0.00	2.80	2.00	0.00	8.60	0.02	0.00
2.82	2.00	0.00	8.59	0.02	0.00	2.84	2.00	0.00	8.58	0.02	0.00
2.86	2.00	0.00	8.57	0.02	0.00	2.88	2.00	0.00	8.56	0.02	0.00
2.90	2.00	0.00	8.55	0.02	0.00	2.92	2.00	0.00	8.54	0.02	0.00
2.94	2.00	0.00	8.53	0.02	0.00	2.96	2.00	0.00	8.52	0.02	0.00
2.98	2.00	0.00	8.51	0.02	0.00	3.00	2.00	0.00	8.50	0.02	0.00
3.02	2.00	0.00	8.49	0.02	0.00	3.04	2.00	0.00	8.48	0.02	0.00
3.06	2.00	0.00	8.47	0.02	0.00	3.08	2.00	0.00	8.46	0.02	0.00
3.10	2.00	0.00	8.45	0.02	0.00	3.12	2.00	0.00	8.44	0.02	0.00
3.14	2.00	0.00	8.43	0.02	0.00	3.16	2.00	0.00	8.42	0.02	0.00
3.18	2.00	0.00	8.41	0.02	0.00	3.20	2.00	0.00	8.40	0.02	0.00
3.22	2.00	0.00	8.39	0.02	0.00	3.25	2.00	0.00	8.38	0.03	0.00
3.26	2.00	0.00	8.37	0.01	0.00	3.28	2.00	0.00	8.36	0.02	0.00
3.30	2.00	0.00	8.35	0.02	0.00	3.32	2.00	0.00	8.34	0.02	0.00
3.34	2.00	0.00	8.33	0.02	0.00	3.36	2.00	0.00	8.32	0.02	0.00
3.38	2.00	0.00	8.31	0.02	0.00	3.40	2.00	0.00	8.30	0.02	0.00
3.42	2.00	0.00	8.29	0.02	0.00	3.44	2.00	0.00	8.28	0.02	0.00
3.46	2.00	0.00	8.27	0.02	0.00	3.48	2.00	0.00	8.26	0.02	0.00
3.50	2.00	0.00	8.25	0.02	0.00	3.52	2.00	0.00	8.24	0.02	0.00
3.54	2.00	0.00	8.23	0.02	0.00	3.56	2.00	0.00	8.22	0.02	0.00
3.58	2.00	0.00	8.21	0.02	0.00	3.60	2.00	0.00	8.20	0.02	0.00
3.62	2.00	0.00	8.19	0.02	0.00	3.64	2.00	0.00	8.18	0.02	0.00
3.66	2.00	0.00	8.17	0.02	0.00	3.68	2.00	0.00	8.16	0.02	0.00
3.70	2.00	0.00	8.15	0.02	0.00	3.72	2.00	0.00	8.14	0.02	0.00
3.74	2.00	0.00	8.13	0.02	0.00	3.77	2.00	0.00	8.12	0.03	0.00
3.78	2.00	0.00	8.11	0.01	0.00	3.80	2.00	0.00	8.10	0.02	0.00
3.82	2.00	0.00	8.09	0.02	0.00	3.84	2.00	0.00	8.08	0.02	0.00

:: Liquefaction Potential Index calculation data :: (continued)

Depth (m)	FS	F _L	w _z	d _z	LPI	Depth (m)	FS	F _L	w _z	d _z	LPI
3.86	2.00	0.00	8.07	0.02	0.00	3.88	2.00	0.00	8.06	0.02	0.00
3.90	2.00	0.00	8.05	0.02	0.00	3.92	2.00	0.00	8.04	0.02	0.00
3.94	2.00	0.00	8.03	0.02	0.00	3.96	2.00	0.00	8.02	0.02	0.00
3.98	2.00	0.00	8.01	0.02	0.00	4.00	2.00	0.00	8.00	0.02	0.00
4.02	2.00	0.00	7.99	0.02	0.00	4.04	2.00	0.00	7.98	0.02	0.00
4.06	2.00	0.00	7.97	0.02	0.00	4.08	2.00	0.00	7.96	0.02	0.00
4.10	2.00	0.00	7.95	0.02	0.00	4.12	2.00	0.00	7.94	0.02	0.00
4.14	2.00	0.00	7.93	0.02	0.00	4.16	2.00	0.00	7.92	0.02	0.00
4.18	2.00	0.00	7.91	0.02	0.00	4.20	2.00	0.00	7.90	0.02	0.00
4.22	2.00	0.00	7.89	0.02	0.00	4.24	2.00	0.00	7.88	0.02	0.00
4.26	2.00	0.00	7.87	0.02	0.00	4.28	2.00	0.00	7.86	0.02	0.00
4.30	2.00	0.00	7.85	0.02	0.00	4.32	2.00	0.00	7.84	0.02	0.00
4.34	2.00	0.00	7.83	0.02	0.00	4.36	2.00	0.00	7.82	0.02	0.00
4.38	2.00	0.00	7.81	0.02	0.00	4.40	2.00	0.00	7.80	0.02	0.00
4.42	2.00	0.00	7.79	0.02	0.00	4.44	2.00	0.00	7.78	0.02	0.00
4.46	2.00	0.00	7.77	0.02	0.00	4.48	2.00	0.00	7.76	0.02	0.00
4.50	2.00	0.00	7.75	0.02	0.00	4.52	2.00	0.00	7.74	0.02	0.00
4.55	2.00	0.00	7.72	0.03	0.00	4.56	2.00	0.00	7.72	0.01	0.00
4.58	2.00	0.00	7.71	0.02	0.00	4.60	2.00	0.00	7.70	0.02	0.00
4.62	2.00	0.00	7.69	0.02	0.00	4.64	2.00	0.00	7.68	0.02	0.00
4.66	2.00	0.00	7.67	0.02	0.00	4.68	2.00	0.00	7.66	0.02	0.00
4.70	2.00	0.00	7.65	0.02	0.00	4.72	2.00	0.00	7.64	0.02	0.00
4.74	2.00	0.00	7.63	0.02	0.00	4.76	2.00	0.00	7.62	0.02	0.00
4.78	2.00	0.00	7.61	0.02	0.00	4.80	2.00	0.00	7.60	0.02	0.00
4.82	2.00	0.00	7.59	0.02	0.00	4.84	2.00	0.00	7.58	0.02	0.00
4.86	2.00	0.00	7.57	0.02	0.00	4.88	2.00	0.00	7.56	0.02	0.00
4.90	2.00	0.00	7.55	0.02	0.00	4.92	2.00	0.00	7.54	0.02	0.00
4.94	2.00	0.00	7.53	0.02	0.00	4.96	2.00	0.00	7.52	0.02	0.00
4.98	2.00	0.00	7.51	0.02	0.00	5.01	2.00	0.00	7.50	0.03	0.00
5.02	2.00	0.00	7.49	0.01	0.00	5.04	2.00	0.00	7.48	0.02	0.00
5.06	2.00	0.00	7.47	0.02	0.00	5.08	2.00	0.00	7.46	0.02	0.00
5.10	2.00	0.00	7.45	0.02	0.00	5.12	2.00	0.00	7.44	0.02	0.00
5.14	2.00	0.00	7.43	0.02	0.00	5.16	2.00	0.00	7.42	0.02	0.00
5.18	2.00	0.00	7.41	0.02	0.00	5.20	2.00	0.00	7.40	0.02	0.00
5.22	2.00	0.00	7.39	0.02	0.00	5.24	2.00	0.00	7.38	0.02	0.00
5.26	2.00	0.00	7.37	0.02	0.00	5.28	2.00	0.00	7.36	0.02	0.00
5.30	2.00	0.00	7.35	0.02	0.00	5.32	2.00	0.00	7.34	0.02	0.00
5.34	2.00	0.00	7.33	0.02	0.00	5.36	2.00	0.00	7.32	0.02	0.00
5.38	2.00	0.00	7.31	0.02	0.00	5.40	2.00	0.00	7.30	0.02	0.00
5.42	2.00	0.00	7.29	0.02	0.00	5.44	2.00	0.00	7.28	0.02	0.00
5.46	2.00	0.00	7.27	0.02	0.00	5.48	2.00	0.00	7.26	0.02	0.00
5.50	2.00	0.00	7.25	0.02	0.00	5.52	2.00	0.00	7.24	0.02	0.00
5.54	2.00	0.00	7.23	0.02	0.00	5.56	2.00	0.00	7.22	0.02	0.00
5.58	2.00	0.00	7.21	0.02	0.00	5.60	2.00	0.00	7.20	0.02	0.00
5.62	2.00	0.00	7.19	0.02	0.00	5.64	2.00	0.00	7.18	0.02	0.00
5.66	2.00	0.00	7.17	0.02	0.00	5.68	2.00	0.00	7.16	0.02	0.00
5.70	2.00	0.00	7.15	0.02	0.00	5.72	2.00	0.00	7.14	0.02	0.00
5.74	2.00	0.00	7.13	0.02	0.00	5.76	2.00	0.00	7.12	0.02	0.00

:: Liquefaction Potential Index calculation data :: (continued)

Depth (m)	FS	F _L	w _z	d _z	LPI	Depth (m)	FS	F _L	w _z	d _z	LPI
5.78	2.00	0.00	7.11	0.02	0.00	5.80	2.00	0.00	7.10	0.02	0.00
5.82	2.00	0.00	7.09	0.02	0.00	5.84	2.00	0.00	7.08	0.02	0.00
5.86	2.00	0.00	7.07	0.02	0.00	5.88	2.00	0.00	7.06	0.02	0.00
5.90	2.00	0.00	7.05	0.02	0.00	5.92	2.00	0.00	7.04	0.02	0.00
5.94	2.00	0.00	7.03	0.02	0.00	5.96	2.00	0.00	7.02	0.02	0.00
5.98	2.00	0.00	7.01	0.02	0.00	6.01	2.00	0.00	7.00	0.03	0.00
6.02	2.00	0.00	6.99	0.01	0.00	6.04	2.00	0.00	6.98	0.02	0.00
6.06	2.00	0.00	6.97	0.02	0.00	6.08	2.00	0.00	6.96	0.02	0.00
6.10	2.00	0.00	6.95	0.02	0.00	6.12	2.00	0.00	6.94	0.02	0.00
6.14	2.00	0.00	6.93	0.02	0.00	6.16	2.00	0.00	6.92	0.02	0.00
6.18	2.00	0.00	6.91	0.02	0.00	6.20	2.00	0.00	6.90	0.02	0.00
6.22	2.00	0.00	6.89	0.02	0.00	6.24	2.00	0.00	6.88	0.02	0.00
6.26	2.00	0.00	6.87	0.02	0.00	6.28	2.00	0.00	6.86	0.02	0.00
6.30	2.00	0.00	6.85	0.02	0.00	6.32	2.00	0.00	6.84	0.02	0.00
6.34	2.00	0.00	6.83	0.02	0.00	6.36	2.00	0.00	6.82	0.02	0.00
6.38	2.00	0.00	6.81	0.02	0.00	6.40	2.00	0.00	6.80	0.02	0.00
6.42	2.00	0.00	6.79	0.02	0.00	6.44	2.00	0.00	6.78	0.02	0.00
6.46	2.00	0.00	6.77	0.02	0.00	6.48	2.00	0.00	6.76	0.02	0.00
6.50	2.00	0.00	6.75	0.02	0.00	6.52	2.00	0.00	6.74	0.02	0.00
6.54	2.00	0.00	6.73	0.02	0.00	6.56	2.00	0.00	6.72	0.02	0.00
6.58	2.00	0.00	6.71	0.02	0.00	6.60	2.00	0.00	6.70	0.02	0.00
6.62	2.00	0.00	6.69	0.02	0.00	6.64	2.00	0.00	6.68	0.02	0.00
6.66	2.00	0.00	6.67	0.02	0.00	6.68	2.00	0.00	6.66	0.02	0.00
6.70	2.00	0.00	6.65	0.02	0.00	6.72	2.00	0.00	6.64	0.02	0.00
6.74	2.00	0.00	6.63	0.02	0.00	6.76	2.00	0.00	6.62	0.02	0.00
6.78	2.00	0.00	6.61	0.02	0.00	6.80	2.00	0.00	6.60	0.02	0.00
6.82	2.00	0.00	6.59	0.02	0.00	6.84	2.00	0.00	6.58	0.02	0.00
6.86	2.00	0.00	6.57	0.02	0.00	6.88	2.00	0.00	6.56	0.02	0.00
6.90	2.00	0.00	6.55	0.02	0.00	6.92	2.00	0.00	6.54	0.02	0.00
6.94	2.00	0.00	6.53	0.02	0.00	6.96	2.00	0.00	6.52	0.02	0.00
6.98	2.00	0.00	6.51	0.02	0.00	7.00	2.00	0.00	6.50	0.02	0.00
7.02	2.00	0.00	6.49	0.02	0.00	7.04	2.00	0.00	6.48	0.02	0.00
7.06	2.00	0.00	6.47	0.02	0.00	7.08	2.00	0.00	6.46	0.02	0.00
7.10	2.00	0.00	6.45	0.02	0.00	7.12	2.00	0.00	6.44	0.02	0.00
7.14	2.00	0.00	6.43	0.02	0.00	7.16	2.00	0.00	6.42	0.02	0.00
7.18	2.00	0.00	6.41	0.02	0.00	7.20	2.00	0.00	6.40	0.02	0.00
7.22	2.00	0.00	6.39	0.02	0.00	7.24	2.00	0.00	6.38	0.02	0.00
7.26	2.00	0.00	6.37	0.02	0.00	7.28	2.00	0.00	6.36	0.02	0.00
7.30	2.00	0.00	6.35	0.02	0.00	7.32	2.00	0.00	6.34	0.02	0.00
7.34	2.00	0.00	6.33	0.02	0.00	7.36	2.00	0.00	6.32	0.02	0.00
7.38	2.00	0.00	6.31	0.02	0.00	7.40	2.00	0.00	6.30	0.02	0.00
7.42	2.00	0.00	6.29	0.02	0.00	7.44	2.00	0.00	6.28	0.02	0.00
7.46	2.00	0.00	6.27	0.02	0.00	7.48	2.00	0.00	6.26	0.02	0.00
7.50	2.00	0.00	6.25	0.02	0.00	7.53	2.00	0.00	6.24	0.03	0.00
7.54	2.00	0.00	6.23	0.01	0.00	7.56	2.00	0.00	6.22	0.02	0.00
7.58	2.00	0.00	6.21	0.02	0.00	7.60	2.00	0.00	6.20	0.02	0.00
7.62	2.00	0.00	6.19	0.02	0.00	7.64	2.00	0.00	6.18	0.02	0.00
7.66	2.00	0.00	6.17	0.02	0.00	7.68	2.00	0.00	6.16	0.02	0.00

:: Liquefaction Potential Index calculation data :: (continued)

Depth (m)	FS	F _L	w _z	d _z	LPI	Depth (m)	FS	F _L	w _z	d _z	LPI
7.70	2.00	0.00	6.15	0.02	0.00	7.72	2.00	0.00	6.14	0.02	0.00
7.74	2.00	0.00	6.13	0.02	0.00	7.76	2.00	0.00	6.12	0.02	0.00
7.78	2.00	0.00	6.11	0.02	0.00	7.80	2.00	0.00	6.10	0.02	0.00
7.82	2.00	0.00	6.09	0.02	0.00	7.84	2.00	0.00	6.08	0.02	0.00
7.86	2.00	0.00	6.07	0.02	0.00	7.88	2.00	0.00	6.06	0.02	0.00
7.90	2.00	0.00	6.05	0.02	0.00	7.92	2.00	0.00	6.04	0.02	0.00
7.94	2.00	0.00	6.03	0.02	0.00	7.96	2.00	0.00	6.02	0.02	0.00
7.98	2.00	0.00	6.01	0.02	0.00	8.00	2.00	0.00	6.00	0.02	0.00
8.02	2.00	0.00	5.99	0.02	0.00	8.04	2.00	0.00	5.98	0.02	0.00
8.06	2.00	0.00	5.97	0.02	0.00	8.08	2.00	0.00	5.96	0.02	0.00
8.10	2.00	0.00	5.95	0.02	0.00	8.12	2.00	0.00	5.94	0.02	0.00
8.14	2.00	0.00	5.93	0.02	0.00	8.16	2.00	0.00	5.92	0.02	0.00
8.18	2.00	0.00	5.91	0.02	0.00	8.20	2.00	0.00	5.90	0.02	0.00
8.22	2.00	0.00	5.89	0.02	0.00	8.24	2.00	0.00	5.88	0.02	0.00
8.26	2.00	0.00	5.87	0.02	0.00	8.28	2.00	0.00	5.86	0.02	0.00
8.30	2.00	0.00	5.85	0.02	0.00	8.32	2.00	0.00	5.84	0.02	0.00
8.34	2.00	0.00	5.83	0.02	0.00	8.36	2.00	0.00	5.82	0.02	0.00
8.38	2.00	0.00	5.81	0.02	0.00	8.40	2.00	0.00	5.80	0.02	0.00
8.42	2.00	0.00	5.79	0.02	0.00	8.44	2.00	0.00	5.78	0.02	0.00
8.46	2.00	0.00	5.77	0.02	0.00	8.48	2.00	0.00	5.76	0.02	0.00
8.50	2.00	0.00	5.75	0.02	0.00	8.52	2.00	0.00	5.74	0.02	0.00
8.54	2.00	0.00	5.73	0.02	0.00	8.56	2.00	0.00	5.72	0.02	0.00
8.58	2.00	0.00	5.71	0.02	0.00	8.60	2.00	0.00	5.70	0.02	0.00
8.62	2.00	0.00	5.69	0.02	0.00	8.64	2.00	0.00	5.68	0.02	0.00
8.66	2.00	0.00	5.67	0.02	0.00	8.68	2.00	0.00	5.66	0.02	0.00
8.70	2.00	0.00	5.65	0.02	0.00	8.72	2.00	0.00	5.64	0.02	0.00
8.74	2.00	0.00	5.63	0.02	0.00	8.76	2.00	0.00	5.62	0.02	0.00
8.78	2.00	0.00	5.61	0.02	0.00	8.80	2.00	0.00	5.60	0.02	0.00
8.82	2.00	0.00	5.59	0.02	0.00	8.84	2.00	0.00	5.58	0.02	0.00
8.86	2.00	0.00	5.57	0.02	0.00	8.88	2.00	0.00	5.56	0.02	0.00
8.90	2.00	0.00	5.55	0.02	0.00	8.92	2.00	0.00	5.54	0.02	0.00
8.94	2.00	0.00	5.53	0.02	0.00	8.96	2.00	0.00	5.52	0.02	0.00
8.98	2.00	0.00	5.51	0.02	0.00	9.00	2.00	0.00	5.50	0.02	0.00
9.02	2.00	0.00	5.49	0.02	0.00	9.04	2.00	0.00	5.48	0.02	0.00
9.06	2.00	0.00	5.47	0.02	0.00	9.08	2.00	0.00	5.46	0.02	0.00
9.10	2.00	0.00	5.45	0.02	0.00	9.12	2.00	0.00	5.44	0.02	0.00
9.14	2.00	0.00	5.43	0.02	0.00	9.16	2.00	0.00	5.42	0.02	0.00
9.18	2.00	0.00	5.41	0.02	0.00	9.20	2.00	0.00	5.40	0.02	0.00
9.22	2.00	0.00	5.39	0.02	0.00	9.24	2.00	0.00	5.38	0.02	0.00
9.26	2.00	0.00	5.37	0.02	0.00	9.28	2.00	0.00	5.36	0.02	0.00
9.30	2.00	0.00	5.35	0.02	0.00	9.32	2.00	0.00	5.34	0.02	0.00
9.34	2.00	0.00	5.33	0.02	0.00	9.36	2.00	0.00	5.32	0.02	0.00
9.38	2.00	0.00	5.31	0.02	0.00	9.40	2.00	0.00	5.30	0.02	0.00
9.42	2.00	0.00	5.29	0.02	0.00	9.44	2.00	0.00	5.28	0.02	0.00
9.46	2.00	0.00	5.27	0.02	0.00	9.48	2.00	0.00	5.26	0.02	0.00
9.50	2.00	0.00	5.25	0.02	0.00	9.52	2.00	0.00	5.24	0.02	0.00
9.54	2.00	0.00	5.23	0.02	0.00	9.56	2.00	0.00	5.22	0.02	0.00
9.58	2.00	0.00	5.21	0.02	0.00	9.60	2.00	0.00	5.20	0.02	0.00

:: Liquefaction Potential Index calculation data :: (continued)

Depth (m)	FS	F _L	w _z	d _z	LPI	Depth (m)	FS	F _L	w _z	d _z	LPI
9.62	2.00	0.00	5.19	0.02	0.00	9.64	2.00	0.00	5.18	0.02	0.00
9.66	2.00	0.00	5.17	0.02	0.00	9.68	2.00	0.00	5.16	0.02	0.00
9.70	2.00	0.00	5.15	0.02	0.00	9.72	2.00	0.00	5.14	0.02	0.00
9.74	2.00	0.00	5.13	0.02	0.00	9.76	2.00	0.00	5.12	0.02	0.00
9.78	2.00	0.00	5.11	0.02	0.00	9.80	2.00	0.00	5.10	0.02	0.00
9.82	2.00	0.00	5.09	0.02	0.00	9.84	2.00	0.00	5.08	0.02	0.00
9.86	2.00	0.00	5.07	0.02	0.00	9.88	2.00	0.00	5.06	0.02	0.00
9.90	2.00	0.00	5.05	0.02	0.00	9.92	2.00	0.00	5.04	0.02	0.00
9.94	2.00	0.00	5.03	0.02	0.00	9.96	2.00	0.00	5.02	0.02	0.00
9.98	2.00	0.00	5.01	0.02	0.00	10.00	2.00	0.00	5.00	0.02	0.00
10.02	2.00	0.00	4.99	0.02	0.00	10.04	2.00	0.00	4.98	0.02	0.00
10.06	2.00	0.00	4.97	0.02	0.00	10.08	2.00	0.00	4.96	0.02	0.00
10.10	2.00	0.00	4.95	0.02	0.00	10.12	2.00	0.00	4.94	0.02	0.00
10.14	2.00	0.00	4.93	0.02	0.00	10.16	2.00	0.00	4.92	0.02	0.00
10.18	2.00	0.00	4.91	0.02	0.00	10.20	2.00	0.00	4.90	0.02	0.00
10.22	2.00	0.00	4.89	0.02	0.00	10.24	2.00	0.00	4.88	0.02	0.00
10.26	2.00	0.00	4.87	0.02	0.00	10.28	2.00	0.00	4.86	0.02	0.00
10.30	2.00	0.00	4.85	0.02	0.00	10.32	2.00	0.00	4.84	0.02	0.00
10.34	2.00	0.00	4.83	0.02	0.00	10.36	2.00	0.00	4.82	0.02	0.00
10.38	2.00	0.00	4.81	0.02	0.00	10.40	2.00	0.00	4.80	0.02	0.00
10.42	2.00	0.00	4.79	0.02	0.00	10.44	2.00	0.00	4.78	0.02	0.00
10.46	2.00	0.00	4.77	0.02	0.00	10.48	2.00	0.00	4.76	0.02	0.00
10.50	2.00	0.00	4.75	0.02	0.00	10.52	2.00	0.00	4.74	0.02	0.00
10.54	2.00	0.00	4.73	0.02	0.00	10.56	2.00	0.00	4.72	0.02	0.00
10.58	2.00	0.00	4.71	0.02	0.00	10.60	2.00	0.00	4.70	0.02	0.00
10.62	2.00	0.00	4.69	0.02	0.00	10.64	2.00	0.00	4.68	0.02	0.00
10.66	2.00	0.00	4.67	0.02	0.00	10.68	2.00	0.00	4.66	0.02	0.00
10.70	2.00	0.00	4.65	0.02	0.00	10.72	2.00	0.00	4.64	0.02	0.00
10.74	2.00	0.00	4.63	0.02	0.00	10.76	2.00	0.00	4.62	0.02	0.00
10.78	2.00	0.00	4.61	0.02	0.00	10.80	2.00	0.00	4.60	0.02	0.00
10.82	2.00	0.00	4.59	0.02	0.00	10.84	2.00	0.00	4.58	0.02	0.00
10.86	2.00	0.00	4.57	0.02	0.00	10.88	2.00	0.00	4.56	0.02	0.00
10.90	2.00	0.00	4.55	0.02	0.00	10.92	2.00	0.00	4.54	0.02	0.00
10.94	2.00	0.00	4.53	0.02	0.00	10.96	2.00	0.00	4.52	0.02	0.00
10.98	2.00	0.00	4.51	0.02	0.00	11.01	2.00	0.00	4.50	0.03	0.00
11.02	2.00	0.00	4.49	0.01	0.00	11.04	2.00	0.00	4.48	0.02	0.00
11.06	2.00	0.00	4.47	0.02	0.00	11.08	2.00	0.00	4.46	0.02	0.00
11.11	2.00	0.00	4.45	0.03	0.00	11.12	2.00	0.00	4.44	0.01	0.00
11.14	2.00	0.00	4.43	0.02	0.00	11.16	2.00	0.00	4.42	0.02	0.00
11.18	2.00	0.00	4.41	0.02	0.00	11.20	2.00	0.00	4.40	0.02	0.00
11.22	2.00	0.00	4.39	0.02	0.00	11.24	2.00	0.00	4.38	0.02	0.00
11.26	2.00	0.00	4.37	0.02	0.00	11.28	2.00	0.00	4.36	0.02	0.00
11.30	2.00	0.00	4.35	0.02	0.00	11.32	2.00	0.00	4.34	0.02	0.00
11.34	2.00	0.00	4.33	0.02	0.00	11.36	2.00	0.00	4.32	0.02	0.00
11.38	2.00	0.00	4.31	0.02	0.00	11.40	2.00	0.00	4.30	0.02	0.00
11.42	2.00	0.00	4.29	0.02	0.00	11.44	2.00	0.00	4.28	0.02	0.00
11.46	2.00	0.00	4.27	0.02	0.00	11.48	2.00	0.00	4.26	0.02	0.00
11.50	2.00	0.00	4.25	0.02	0.00	11.52	2.00	0.00	4.24	0.02	0.00

:: Liquefaction Potential Index calculation data :: (continued)

Depth (m)	FS	F _L	w _z	d _z	LPI	Depth (m)	FS	F _L	w _z	d _z	LPI
11.54	2.00	0.00	4.23	0.02	0.00	11.56	2.00	0.00	4.22	0.02	0.00
11.58	2.00	0.00	4.21	0.02	0.00	11.60	2.00	0.00	4.20	0.02	0.00
11.62	2.00	0.00	4.19	0.02	0.00	11.64	2.00	0.00	4.18	0.02	0.00
11.66	2.00	0.00	4.17	0.02	0.00	11.68	2.00	0.00	4.16	0.02	0.00
11.70	2.00	0.00	4.15	0.02	0.00	11.72	2.00	0.00	4.14	0.02	0.00
11.74	2.00	0.00	4.13	0.02	0.00	11.76	2.00	0.00	4.12	0.02	0.00
11.78	2.00	0.00	4.11	0.02	0.00	11.80	2.00	0.00	4.10	0.02	0.00
11.82	2.00	0.00	4.09	0.02	0.00	11.84	2.00	0.00	4.08	0.02	0.00
11.86	2.00	0.00	4.07	0.02	0.00	11.88	2.00	0.00	4.06	0.02	0.00
11.90	2.00	0.00	4.05	0.02	0.00	11.92	2.00	0.00	4.04	0.02	0.00
11.94	2.00	0.00	4.03	0.02	0.00	11.96	2.00	0.00	4.02	0.02	0.00
11.98	2.00	0.00	4.01	0.02	0.00	12.00	2.00	0.00	4.00	0.02	0.00
12.02	2.00	0.00	3.99	0.02	0.00	12.04	2.00	0.00	3.98	0.02	0.00
12.06	2.00	0.00	3.97	0.02	0.00	12.08	2.00	0.00	3.96	0.02	0.00
12.10	2.00	0.00	3.95	0.02	0.00	12.12	2.00	0.00	3.94	0.02	0.00
12.14	2.00	0.00	3.93	0.02	0.00	12.16	2.00	0.00	3.92	0.02	0.00
12.18	2.00	0.00	3.91	0.02	0.00	12.20	2.00	0.00	3.90	0.02	0.00
12.22	2.00	0.00	3.89	0.02	0.00	12.24	2.00	0.00	3.88	0.02	0.00
12.26	2.00	0.00	3.87	0.02	0.00	12.28	2.00	0.00	3.86	0.02	0.00
12.30	2.00	0.00	3.85	0.02	0.00	12.32	2.00	0.00	3.84	0.02	0.00
12.34	2.00	0.00	3.83	0.02	0.00	12.36	2.00	0.00	3.82	0.02	0.00
12.38	2.00	0.00	3.81	0.02	0.00	12.40	2.00	0.00	3.80	0.02	0.00
12.42	2.00	0.00	3.79	0.02	0.00	12.44	2.00	0.00	3.78	0.02	0.00
12.46	2.00	0.00	3.77	0.02	0.00	12.48	2.00	0.00	3.76	0.02	0.00
12.50	2.00	0.00	3.75	0.02	0.00	12.52	2.00	0.00	3.74	0.02	0.00
12.54	2.00	0.00	3.73	0.02	0.00	12.56	2.00	0.00	3.72	0.02	0.00
12.58	2.00	0.00	3.71	0.02	0.00	12.60	2.00	0.00	3.70	0.02	0.00
12.62	2.00	0.00	3.69	0.02	0.00	12.64	2.00	0.00	3.68	0.02	0.00
12.66	2.00	0.00	3.67	0.02	0.00	12.68	2.00	0.00	3.66	0.02	0.00
12.70	2.00	0.00	3.65	0.02	0.00	12.72	2.00	0.00	3.64	0.02	0.00
12.74	2.00	0.00	3.63	0.02	0.00	12.76	2.00	0.00	3.62	0.02	0.00
12.78	2.00	0.00	3.61	0.02	0.00	12.80	2.00	0.00	3.60	0.02	0.00
12.82	2.00	0.00	3.59	0.02	0.00	12.84	2.00	0.00	3.58	0.02	0.00
12.86	2.00	0.00	3.57	0.02	0.00	12.88	2.00	0.00	3.56	0.02	0.00
12.90	2.00	0.00	3.55	0.02	0.00	12.92	2.00	0.00	3.54	0.02	0.00
12.94	2.00	0.00	3.53	0.02	0.00	12.96	2.00	0.00	3.52	0.02	0.00
12.98	2.00	0.00	3.51	0.02	0.00	13.00	2.00	0.00	3.50	0.02	0.00
13.02	2.00	0.00	3.49	0.02	0.00	13.04	2.00	0.00	3.48	0.02	0.00
13.06	2.00	0.00	3.47	0.02	0.00	13.08	2.00	0.00	3.46	0.02	0.00
13.10	2.00	0.00	3.45	0.02	0.00	13.12	2.00	0.00	3.44	0.02	0.00
13.14	2.00	0.00	3.43	0.02	0.00	13.16	2.00	0.00	3.42	0.02	0.00
13.18	2.00	0.00	3.41	0.02	0.00	13.20	2.00	0.00	3.40	0.02	0.00
13.22	2.00	0.00	3.39	0.02	0.00	13.24	2.00	0.00	3.38	0.02	0.00
13.26	2.00	0.00	3.37	0.02	0.00	13.28	2.00	0.00	3.36	0.02	0.00
13.30	2.00	0.00	3.35	0.02	0.00	13.32	2.00	0.00	3.34	0.02	0.00
13.34	2.00	0.00	3.33	0.02	0.00	13.36	2.00	0.00	3.32	0.02	0.00
13.38	2.00	0.00	3.31	0.02	0.00	13.40	2.00	0.00	3.30	0.02	0.00
13.42	2.00	0.00	3.29	0.02	0.00	13.44	2.00	0.00	3.28	0.02	0.00

:: Liquefaction Potential Index calculation data :: (continued)

Depth (m)	FS	F _L	w _z	d _z	LPI	Depth (m)	FS	F _L	w _z	d _z	LPI
13.46	2.00	0.00	3.27	0.02	0.00	13.48	2.00	0.00	3.26	0.02	0.00
13.50	2.00	0.00	3.25	0.02	0.00	13.52	2.00	0.00	3.24	0.02	0.00
13.54	2.00	0.00	3.23	0.02	0.00	13.56	2.00	0.00	3.22	0.02	0.00
13.58	2.00	0.00	3.21	0.02	0.00	13.60	2.00	0.00	3.20	0.02	0.00
13.62	2.00	0.00	3.19	0.02	0.00	13.64	2.00	0.00	3.18	0.02	0.00
13.66	2.00	0.00	3.17	0.02	0.00	13.68	2.00	0.00	3.16	0.02	0.00
13.70	2.00	0.00	3.15	0.02	0.00	13.72	2.00	0.00	3.14	0.02	0.00
13.74	2.00	0.00	3.13	0.02	0.00	13.76	2.00	0.00	3.12	0.02	0.00
13.78	2.00	0.00	3.11	0.02	0.00	13.80	2.00	0.00	3.10	0.02	0.00
13.82	2.00	0.00	3.09	0.02	0.00	13.84	2.00	0.00	3.08	0.02	0.00
13.86	2.00	0.00	3.07	0.02	0.00	13.88	2.00	0.00	3.06	0.02	0.00
13.90	2.00	0.00	3.05	0.02	0.00	13.92	2.00	0.00	3.04	0.02	0.00
13.94	2.00	0.00	3.03	0.02	0.00	13.96	2.00	0.00	3.02	0.02	0.00
13.98	2.00	0.00	3.01	0.02	0.00	14.00	2.00	0.00	3.00	0.02	0.00
14.02	2.00	0.00	2.99	0.02	0.00	14.04	2.00	0.00	2.98	0.02	0.00
14.06	2.00	0.00	2.97	0.02	0.00	14.08	2.00	0.00	2.96	0.02	0.00
14.10	2.00	0.00	2.95	0.02	0.00	14.12	2.00	0.00	2.94	0.02	0.00
14.14	2.00	0.00	2.93	0.02	0.00	14.16	2.00	0.00	2.92	0.02	0.00
14.18	2.00	0.00	2.91	0.02	0.00	14.20	2.00	0.00	2.90	0.02	0.00
14.22	2.00	0.00	2.89	0.02	0.00	14.24	2.00	0.00	2.88	0.02	0.00
14.26	2.00	0.00	2.87	0.02	0.00	14.28	2.00	0.00	2.86	0.02	0.00
14.30	2.00	0.00	2.85	0.02	0.00	14.32	2.00	0.00	2.84	0.02	0.00
14.34	2.00	0.00	2.83	0.02	0.00	14.36	2.00	0.00	2.82	0.02	0.00
14.39	2.00	0.00	2.81	0.03	0.00	14.40	2.00	0.00	2.80	0.01	0.00
14.42	2.00	0.00	2.79	0.02	0.00	14.44	2.00	0.00	2.78	0.02	0.00
14.46	2.00	0.00	2.77	0.02	0.00	14.48	2.00	0.00	2.76	0.02	0.00
14.50	2.00	0.00	2.75	0.02	0.00	14.52	2.00	0.00	2.74	0.02	0.00
14.54	2.00	0.00	2.73	0.02	0.00	14.56	2.00	0.00	2.72	0.02	0.00
14.58	2.00	0.00	2.71	0.02	0.00	14.60	2.00	0.00	2.70	0.02	0.00
14.62	2.00	0.00	2.69	0.02	0.00	14.64	2.00	0.00	2.68	0.02	0.00
14.66	2.00	0.00	2.67	0.02	0.00	14.68	2.00	0.00	2.66	0.02	0.00
14.70	2.00	0.00	2.65	0.02	0.00	14.72	2.00	0.00	2.64	0.02	0.00
14.74	2.00	0.00	2.63	0.02	0.00	14.76	2.00	0.00	2.62	0.02	0.00
14.78	2.00	0.00	2.61	0.02	0.00	14.80	2.00	0.00	2.60	0.02	0.00
14.82	2.00	0.00	2.59	0.02	0.00	14.84	2.00	0.00	2.58	0.02	0.00
14.86	2.00	0.00	2.57	0.02	0.00	14.88	2.00	0.00	2.56	0.02	0.00
14.90	2.00	0.00	2.55	0.02	0.00	14.92	2.00	0.00	2.54	0.02	0.00
14.94	2.00	0.00	2.53	0.02	0.00	14.96	2.00	0.00	2.52	0.02	0.00
14.98	2.00	0.00	2.51	0.02	0.00	15.00	2.00	0.00	2.50	0.02	0.00
15.02	2.00	0.00	2.49	0.02	0.00	15.04	2.00	0.00	2.48	0.02	0.00
15.06	2.00	0.00	2.47	0.02	0.00	15.08	2.00	0.00	2.46	0.02	0.00
15.10	2.00	0.00	2.45	0.02	0.00	15.12	2.00	0.00	2.44	0.02	0.00
15.14	2.00	0.00	2.43	0.02	0.00	15.16	2.00	0.00	2.42	0.02	0.00
15.18	2.00	0.00	2.41	0.02	0.00	15.20	2.00	0.00	2.40	0.02	0.00
15.22	2.00	0.00	2.39	0.02	0.00	15.24	2.00	0.00	2.38	0.02	0.00
15.26	2.00	0.00	2.37	0.02	0.00	15.28	2.00	0.00	2.36	0.02	0.00
15.30	2.00	0.00	2.35	0.02	0.00	15.32	2.00	0.00	2.34	0.02	0.00
15.34	2.00	0.00	2.33	0.02	0.00	15.36	2.00	0.00	2.32	0.02	0.00

:: Liquefaction Potential Index calculation data :: (continued)

Depth (m)	FS	F _L	w _z	d _z	LPI	Depth (m)	FS	F _L	w _z	d _z	LPI
15.38	2.00	0.00	2.31	0.02	0.00	15.40	2.00	0.00	2.30	0.02	0.00
15.42	2.00	0.00	2.29	0.02	0.00	15.44	2.00	0.00	2.28	0.02	0.00
15.46	2.00	0.00	2.27	0.02	0.00	15.48	2.00	0.00	2.26	0.02	0.00
15.50	2.00	0.00	2.25	0.02	0.00	15.52	2.00	0.00	2.24	0.02	0.00
15.54	2.00	0.00	2.23	0.02	0.00	15.56	2.00	0.00	2.22	0.02	0.00
15.58	2.00	0.00	2.21	0.02	0.00	15.60	2.00	0.00	2.20	0.02	0.00
15.62	2.00	0.00	2.19	0.02	0.00	15.64	2.00	0.00	2.18	0.02	0.00
15.66	2.00	0.00	2.17	0.02	0.00	15.68	2.00	0.00	2.16	0.02	0.00
15.70	2.00	0.00	2.15	0.02	0.00	15.72	2.00	0.00	2.14	0.02	0.00
15.74	2.00	0.00	2.13	0.02	0.00	15.76	2.00	0.00	2.12	0.02	0.00
15.78	2.00	0.00	2.11	0.02	0.00	15.80	2.00	0.00	2.10	0.02	0.00
15.82	2.00	0.00	2.09	0.02	0.00	15.84	2.00	0.00	2.08	0.02	0.00
15.86	2.00	0.00	2.07	0.02	0.00	15.88	2.00	0.00	2.06	0.02	0.00
15.90	2.00	0.00	2.05	0.02	0.00	15.92	0.48	0.52	2.04	0.02	0.02
15.94	0.51	0.49	2.03	0.02	0.02	15.96	0.51	0.49	2.02	0.02	0.02
15.98	0.57	0.43	2.01	0.02	0.02	16.00	0.57	0.43	2.00	0.02	0.02
16.02	0.61	0.39	1.99	0.02	0.02	16.04	0.62	0.38	1.98	0.02	0.01
16.06	0.62	0.38	1.97	0.02	0.02	16.08	0.61	0.39	1.96	0.02	0.02
16.10	0.56	0.44	1.95	0.02	0.02	16.12	0.52	0.48	1.94	0.02	0.02
16.14	0.51	0.49	1.93	0.02	0.02	16.16	0.52	0.48	1.92	0.02	0.02
16.18	0.53	0.47	1.91	0.02	0.02	16.20	0.55	0.45	1.90	0.02	0.02
16.22	0.55	0.45	1.89	0.02	0.02	16.24	0.54	0.46	1.88	0.02	0.02
16.26	0.53	0.47	1.87	0.02	0.02	16.28	0.51	0.49	1.86	0.02	0.02
16.30	0.50	0.50	1.85	0.02	0.02	16.32	2.00	0.00	1.84	0.02	0.00
16.34	2.00	0.00	1.83	0.02	0.00	16.36	2.00	0.00	1.82	0.02	0.00
16.38	2.00	0.00	1.81	0.02	0.00	16.40	2.00	0.00	1.80	0.02	0.00
16.42	2.00	0.00	1.79	0.02	0.00	16.44	2.00	0.00	1.78	0.02	0.00
16.46	2.00	0.00	1.77	0.02	0.00	16.48	2.00	0.00	1.76	0.02	0.00
16.50	2.00	0.00	1.75	0.02	0.00	16.52	2.00	0.00	1.74	0.02	0.00
16.54	2.00	0.00	1.73	0.02	0.00	16.56	2.00	0.00	1.72	0.02	0.00
16.58	2.00	0.00	1.71	0.02	0.00	16.60	2.00	0.00	1.70	0.02	0.00
16.63	2.00	0.00	1.69	0.03	0.00	16.64	2.00	0.00	1.68	0.01	0.00
16.66	2.00	0.00	1.67	0.02	0.00	16.68	2.00	0.00	1.66	0.02	0.00
16.70	2.00	0.00	1.65	0.02	0.00	16.72	2.00	0.00	1.64	0.02	0.00
16.74	2.00	0.00	1.63	0.02	0.00	16.76	2.00	0.00	1.62	0.02	0.00
16.78	2.00	0.00	1.61	0.02	0.00	16.80	2.00	0.00	1.60	0.02	0.00
16.82	2.00	0.00	1.59	0.02	0.00	16.84	2.00	0.00	1.58	0.02	0.00
16.86	2.00	0.00	1.57	0.02	0.00	16.88	2.00	0.00	1.56	0.02	0.00
16.91	2.00	0.00	1.54	0.03	0.00	16.93	2.00	0.00	1.53	0.02	0.00
16.94	2.00	0.00	1.53	0.01	0.00	16.96	2.00	0.00	1.52	0.02	0.00
16.98	2.00	0.00	1.51	0.02	0.00	17.00	2.00	0.00	1.50	0.02	0.00
17.02	2.00	0.00	1.49	0.02	0.00	17.04	2.00	0.00	1.48	0.02	0.00
17.06	2.00	0.00	1.47	0.02	0.00	17.08	2.00	0.00	1.46	0.02	0.00
17.10	2.00	0.00	1.45	0.02	0.00	17.12	2.00	0.00	1.44	0.02	0.00
17.14	2.00	0.00	1.43	0.02	0.00	17.16	2.00	0.00	1.42	0.02	0.00
17.18	2.00	0.00	1.41	0.02	0.00	17.20	2.00	0.00	1.40	0.02	0.00
17.22	2.00	0.00	1.39	0.02	0.00	17.24	2.00	0.00	1.38	0.02	0.00
17.26	2.00	0.00	1.37	0.02	0.00	17.28	2.00	0.00	1.36	0.02	0.00

:: Liquefaction Potential Index calculation data :: (continued)

Depth (m)	FS	F _L	w _z	d _z	LPI	Depth (m)	FS	F _L	w _z	d _z	LPI
17.30	2.00	0.00	1.35	0.02	0.00	17.32	2.00	0.00	1.34	0.02	0.00
17.34	2.00	0.00	1.33	0.02	0.00	17.36	2.00	0.00	1.32	0.02	0.00
17.38	2.00	0.00	1.31	0.02	0.00	17.40	2.00	0.00	1.30	0.02	0.00
17.42	2.00	0.00	1.29	0.02	0.00	17.44	2.00	0.00	1.28	0.02	0.00
17.46	2.00	0.00	1.27	0.02	0.00	17.48	2.00	0.00	1.26	0.02	0.00
17.50	2.00	0.00	1.25	0.02	0.00	17.52	2.00	0.00	1.24	0.02	0.00
17.54	2.00	0.00	1.23	0.02	0.00	17.56	2.00	0.00	1.22	0.02	0.00
17.58	2.00	0.00	1.21	0.02	0.00	17.60	2.00	0.00	1.20	0.02	0.00
17.62	2.00	0.00	1.19	0.02	0.00	17.64	2.00	0.00	1.18	0.02	0.00
17.66	2.00	0.00	1.17	0.02	0.00	17.68	2.00	0.00	1.16	0.02	0.00
17.70	2.00	0.00	1.15	0.02	0.00	17.72	2.00	0.00	1.14	0.02	0.00
17.76	2.00	0.00	1.12	0.04	0.00	17.76	2.00	0.00	1.12	0.00	0.00
17.78	2.00	0.00	1.11	0.02	0.00	17.80	2.00	0.00	1.10	0.02	0.00
17.82	2.00	0.00	1.09	0.02	0.00	17.84	2.00	0.00	1.08	0.02	0.00
17.86	2.00	0.00	1.07	0.02	0.00	17.88	2.00	0.00	1.06	0.02	0.00
17.90	2.00	0.00	1.05	0.02	0.00	17.92	2.00	0.00	1.04	0.02	0.00
17.94	2.00	0.00	1.03	0.02	0.00	17.96	2.00	0.00	1.02	0.02	0.00
17.98	2.00	0.00	1.01	0.02	0.00	18.00	2.00	0.00	1.00	0.02	0.00
18.02	2.00	0.00	0.99	0.02	0.00	18.04	2.00	0.00	0.98	0.02	0.00
18.06	2.00	0.00	0.97	0.02	0.00	18.08	2.00	0.00	0.96	0.02	0.00
18.10	2.00	0.00	0.95	0.02	0.00	18.12	2.00	0.00	0.94	0.02	0.00
18.14	2.00	0.00	0.93	0.02	0.00	18.16	2.00	0.00	0.92	0.02	0.00
18.18	2.00	0.00	0.91	0.02	0.00	18.20	2.00	0.00	0.90	0.02	0.00
18.22	2.00	0.00	0.89	0.02	0.00	18.24	2.00	0.00	0.88	0.02	0.00
18.26	2.00	0.00	0.87	0.02	0.00	18.28	2.00	0.00	0.86	0.02	0.00
18.30	2.00	0.00	0.85	0.02	0.00	18.32	2.00	0.00	0.84	0.02	0.00
18.34	2.00	0.00	0.83	0.02	0.00	18.36	2.00	0.00	0.82	0.02	0.00
18.38	2.00	0.00	0.81	0.02	0.00	18.40	2.00	0.00	0.80	0.02	0.00
18.42	2.00	0.00	0.79	0.02	0.00	18.44	2.00	0.00	0.78	0.02	0.00
18.46	2.00	0.00	0.77	0.02	0.00	18.48	2.00	0.00	0.76	0.02	0.00
18.50	2.00	0.00	0.75	0.02	0.00	18.52	2.00	0.00	0.74	0.02	0.00
18.54	2.00	0.00	0.73	0.02	0.00	18.56	2.00	0.00	0.72	0.02	0.00
18.58	2.00	0.00	0.71	0.02	0.00	18.60	2.00	0.00	0.70	0.02	0.00
18.62	2.00	0.00	0.69	0.02	0.00	18.64	2.00	0.00	0.68	0.02	0.00
18.66	2.00	0.00	0.67	0.02	0.00	18.68	2.00	0.00	0.66	0.02	0.00
18.70	2.00	0.00	0.65	0.02	0.00	18.72	2.00	0.00	0.64	0.02	0.00
18.74	2.00	0.00	0.63	0.02	0.00	18.76	2.00	0.00	0.62	0.02	0.00
18.78	2.00	0.00	0.61	0.02	0.00	18.80	2.00	0.00	0.60	0.02	0.00
18.82	2.00	0.00	0.59	0.02	0.00	18.84	2.00	0.00	0.58	0.02	0.00
18.86	2.00	0.00	0.57	0.02	0.00	18.88	2.00	0.00	0.56	0.02	0.00
18.90	2.00	0.00	0.55	0.02	0.00	18.92	2.00	0.00	0.54	0.02	0.00
18.94	2.00	0.00	0.53	0.02	0.00	18.96	2.00	0.00	0.52	0.02	0.00
18.98	2.00	0.00	0.51	0.02	0.00	19.00	2.00	0.00	0.50	0.02	0.00
19.02	2.00	0.00	0.49	0.02	0.00	19.04	2.00	0.00	0.48	0.02	0.00
19.06	2.00	0.00	0.47	0.02	0.00	19.08	0.61	0.39	0.46	0.02	0.00
19.10	0.64	0.36	0.45	0.02	0.00	19.12	0.66	0.34	0.44	0.02	0.00
19.14	0.66	0.34	0.43	0.02	0.00	19.16	0.63	0.37	0.42	0.02	0.00
19.18	0.59	0.41	0.41	0.02	0.00	19.20	0.57	0.43	0.40	0.02	0.00

:: Liquefaction Potential Index calculation data :: (continued)

Depth (m)	FS	F _L	w _z	d _z	LPI	Depth (m)	FS	F _L	w _z	d _z	LPI
19.22	0.54	0.46	0.39	0.02	0.00	19.24	0.53	0.47	0.38	0.02	0.00
19.26	0.54	0.46	0.37	0.02	0.00	19.28	0.54	0.46	0.36	0.02	0.00
19.30	0.53	0.47	0.35	0.02	0.00	19.32	0.52	0.48	0.34	0.02	0.00
19.34	0.53	0.47	0.33	0.02	0.00	19.36	0.53	0.47	0.32	0.02	0.00
19.38	0.54	0.46	0.31	0.02	0.00	19.40	0.55	0.45	0.30	0.02	0.00

Overall liquefaction potential: 1.74

LPI = 0.00 - Liquefaction risk very low

LPI between 0.00 and 5.00 - Liquefaction risk low

LPI between 5.00 and 15.00 - Liquefaction risk high

LPI > 15.00 - Liquefaction risk very high

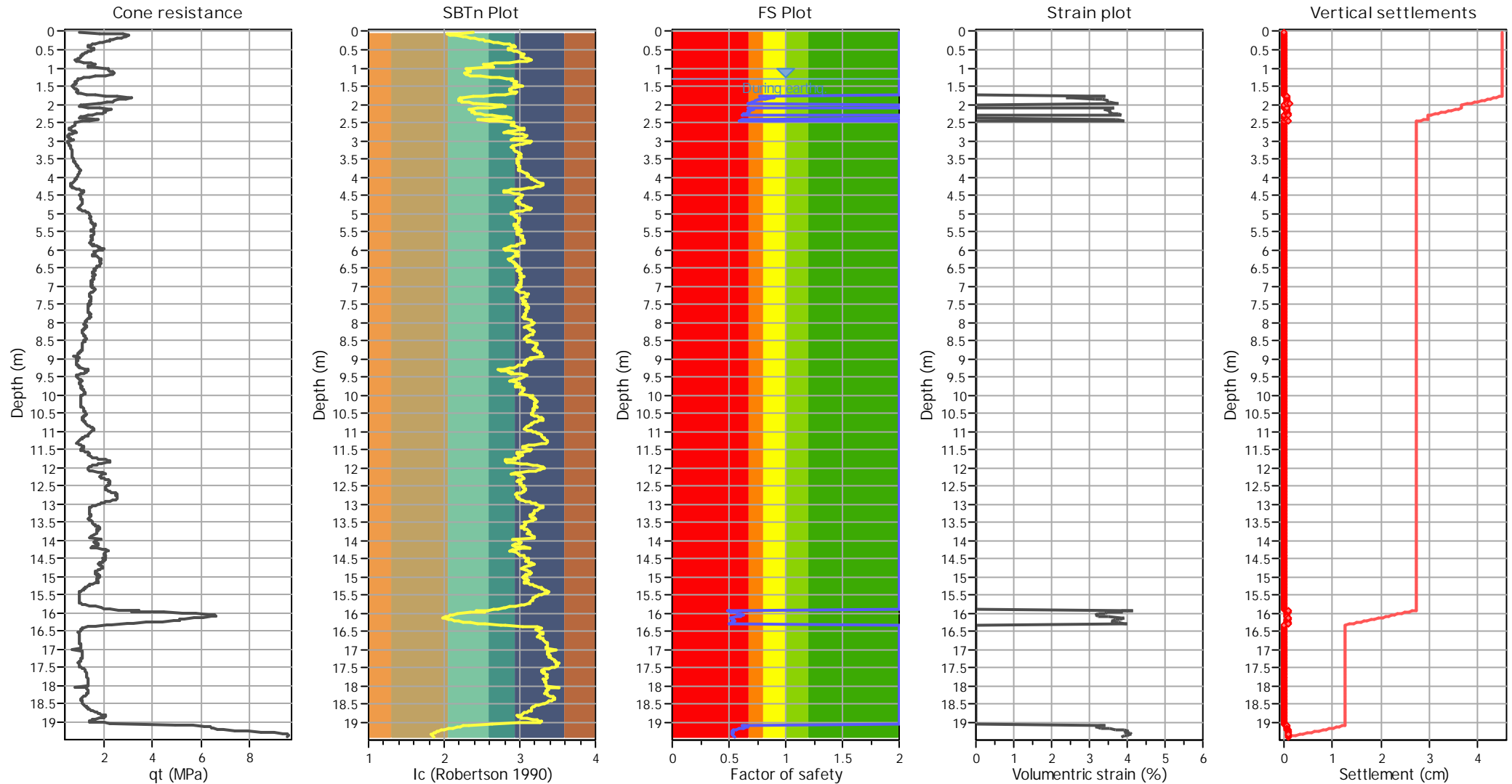
Abbreviations

FS: Calculated factor of safety for test point

F_L: 1 - FSw_z: Function value of the extend of soil liquefaction according to depthd_z: Layer thickness (m)

LPI: Liquefaction potential index value for test point

Estimation of post-earthquake settlements



Abbreviations

q_t : Total cone resistance (cone resistance q_c corrected for pore water effects)
 I_c : Soil Behaviour Type Index
 FS: Calculated Factor of Safety against liquefaction
 Volumetric strain: Post-liquefaction volumetric strain

:: Strength loss calculation Idriss & Boulanger (2008) ::

Depth (m)	q _t (MPa)	Q _{tn}	K _c	Q _{tn,cs}	I _c	S _{u(liq)} / ' _v	S _{u(peak)} / ' _v
0.02	0.97	16.54	2.24	37.04	2.38	N/A	N/A
0.04	1.83	31.10	1.63	50.66	2.18	N/A	N/A
0.06	2.76	46.93	1.36	63.80	2.04	N/A	N/A
0.08	3.04	51.67	1.42	73.19	2.08	N/A	N/A
0.10	3.02	51.28	1.58	80.97	2.16	N/A	N/A
0.13	2.89	49.15	1.82	89.48	2.26	N/A	N/A
0.14	2.84	48.22	1.91	91.87	2.29	N/A	N/A
0.16	2.75	46.75	2.08	97.29	2.34	N/A	N/A
0.18	2.56	43.41	2.33	100.96	2.40	N/A	N/A
0.21	2.38	40.32	2.61	105.10	2.47	N/A	N/A
0.22	2.27	38.49	2.86	109.97	2.52	N/A	N/A
0.24	2.24	38.00	2.97	112.73	2.54	N/A	N/A
0.26	2.10	35.65	3.26	116.06	2.59	N/A	N/A
0.28	1.95	33.04	3.67	121.23	2.65	N/A	N/A
0.30	1.82	30.90	4.03	124.42	2.70	N/A	N/A
0.32	1.64	27.82	4.75	132.30	2.80	N/A	N/A
0.34	1.51	25.54	5.34	136.47	2.86	N/A	N/A
0.36	1.45	24.58	5.52	135.65	2.88	N/A	N/A
0.38	1.38	23.32	5.96	138.96	2.93	N/A	N/A
0.41	1.36	22.99	6.04	138.80	2.93	N/A	N/A
0.42	1.42	24.05	5.69	136.72	2.90	N/A	N/A
0.44	1.49	25.24	5.47	138.16	2.88	N/A	N/A
0.46	1.59	26.84	5.18	138.95	2.84	N/A	N/A
0.48	1.58	26.76	5.25	140.54	2.85	N/A	N/A
0.50	1.54	25.98	5.56	144.45	2.89	N/A	N/A
0.52	1.46	24.64	5.90	145.30	2.92	N/A	N/A
0.54	1.38	23.27	6.24	145.30	2.95	N/A	N/A
0.56	1.28	21.53	6.77	145.65	3.00	N/A	N/A
0.58	1.24	20.95	6.84	143.30	3.01	N/A	N/A
0.60	1.15	19.44	7.26	141.23	3.05	N/A	N/A
0.62	1.10	18.49	7.39	136.55	3.06	N/A	N/A
0.64	1.08	18.23	7.25	132.22	3.04	N/A	N/A
0.66	1.08	18.14	7.06	128.13	3.03	N/A	N/A
0.68	1.06	17.84	7.00	124.93	3.02	N/A	N/A
0.70	1.03	17.24	7.23	124.70	3.04	N/A	N/A
0.72	0.97	16.21	7.73	125.29	3.08	N/A	N/A
0.74	0.92	15.34	8.16	125.11	3.12	N/A	N/A
0.76	0.86	14.38	8.66	124.49	3.16	N/A	N/A
0.78	0.84	14.01	8.58	120.29	3.15	N/A	N/A
0.80	0.87	14.62	7.87	115.12	3.10	N/A	N/A
0.82	0.98	16.44	6.58	108.17	2.99	N/A	N/A
0.84	1.15	19.21	5.28	101.43	2.86	N/A	N/A
0.86	1.44	24.27	3.76	91.37	2.67	N/A	N/A
0.88	1.62	27.20	3.15	85.74	2.57	N/A	N/A
0.90	1.64	27.66	2.90	80.08	2.52	N/A	N/A
0.92	1.54	25.84	3.01	77.83	2.55	N/A	N/A
0.94	1.36	22.77	3.50	79.72	2.63	N/A	N/A
0.96	1.34	22.53	3.69	83.12	2.66	N/A	N/A

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q_t (MPa)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
0.98	1.58	26.52	3.10	82.10	2.56	N/A	N/A
1.00	2.08	35.09	1.97	69.09	2.31	N/A	N/A
1.02	2.17	36.55	1.93	70.65	2.30	N/A	N/A
1.04	2.20	37.09	2.00	74.25	2.32	N/A	N/A
1.06	2.21	37.22	2.12	78.96	2.35	N/A	N/A
1.08	2.24	37.81	2.13	80.62	2.35	N/A	N/A
1.10	2.38	40.07	2.02	81.02	2.32	N/A	N/A
1.12	2.44	41.07	1.93	79.27	2.29	N/A	N/A
1.14	2.43	40.99	1.88	77.09	2.28	N/A	N/A
1.16	2.38	40.16	1.91	76.63	2.29	N/A	N/A
1.18	2.29	38.65	1.97	75.99	2.31	N/A	N/A
1.20	2.07	34.78	2.14	74.42	2.36	N/A	N/A
1.22	1.66	27.89	2.67	74.47	2.48	N/A	N/A
1.24	1.38	23.14	3.38	78.18	2.61	N/A	N/A
1.26	1.19	19.83	4.22	83.71	2.73	N/A	N/A
1.28	1.06	17.63	4.98	87.74	2.82	N/A	N/A
1.30	0.96	15.91	5.75	91.51	2.91	N/A	N/A
1.32	0.93	15.48	5.52	85.37	2.88	0.07	2.82
1.34	0.91	15.00	5.59	83.91	2.89	0.07	2.72
1.36	0.84	13.87	6.23	86.40	2.95	0.07	2.50
1.38	0.82	13.47	6.25	84.17	2.95	0.07	2.41
1.40	0.83	13.65	6.13	83.71	2.94	0.07	2.43
1.42	0.84	13.94	6.02	83.88	2.93	0.07	2.47
1.44	0.81	13.40	6.02	80.72	2.93	0.07	2.36
1.46	0.77	12.65	6.32	79.94	2.96	0.07	2.21
1.48	0.70	11.42	7.27	82.98	3.05	0.06	1.99
1.50	0.71	11.57	6.95	80.41	3.02	0.06	2.00
1.52	0.74	12.10	6.12	74.11	2.94	0.07	2.08
1.54	0.77	12.60	5.80	73.08	2.91	0.07	2.16
1.56	0.80	13.16	5.64	74.25	2.89	0.07	2.24
1.58	0.86	14.18	5.40	76.56	2.87	0.07	2.40
1.60	0.92	15.16	5.29	80.20	2.86	0.07	2.55
1.62	0.95	15.62	5.33	83.25	2.86	0.07	2.62
1.64	0.93	15.36	5.75	88.34	2.91	0.07	2.56
1.66	0.90	14.79	6.36	94.05	2.96	0.07	2.45
1.68	0.93	15.32	6.21	95.16	2.95	0.07	2.52
1.70	1.06	17.44	5.63	98.20	2.89	0.07	2.85
1.72	1.26	20.94	4.87	101.98	2.81	0.08	3.40
1.74	1.66	27.75	3.74	103.77	2.66	0.09	4.48
1.76	2.05	34.31	2.88	98.70	2.52	0.10	0.69
1.78	2.54	42.67	2.28	97.35	2.39	0.10	0.71
1.80	3.04	51.16	1.81	92.39	2.25	0.11	0.74
1.82	3.15	53.05	1.68	89.19	2.21	0.10	0.74
1.84	2.90	48.72	1.67	81.41	2.20	0.10	0.73
1.86	2.59	43.56	1.68	73.10	2.20	0.09	0.72
1.88	2.45	41.11	1.65	67.78	2.19	0.09	0.71
1.90	2.41	40.45	1.74	70.22	2.23	0.09	0.71
1.92	2.35	39.33	1.73	68.14	2.23	0.09	0.70

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q _t (MPa)	Q _{tn}	K _c	Q _{tn,cs}	I _c	S _{u(liq)} / 'v	S _{u(peak)} / 'v
1.94	2.10	35.17	2.04	71.63	2.33	0.09	0.69
1.96	1.84	30.68	2.26	69.34	2.39	0.09	0.67
1.99	1.75	29.10	2.38	69.21	2.42	0.09	0.67
2.00	1.15	19.04	4.27	81.24	2.74	0.08	2.86
2.03	1.05	17.27	4.58	79.04	2.77	0.08	2.58
2.04	0.99	16.21	4.88	79.08	2.81	0.08	2.41
2.06	1.07	17.66	4.46	78.84	2.76	0.08	2.62
2.08	1.36	22.57	3.39	76.40	2.61	0.09	3.33
2.10	1.86	30.96	2.49	77.23	2.44	0.09	0.67
2.12	2.25	37.64	2.07	77.97	2.34	0.09	0.70
2.14	2.32	38.80	2.06	79.98	2.33	0.10	0.70
2.16	2.04	34.04	2.22	75.71	2.38	0.09	0.69
2.18	2.01	33.50	2.17	72.81	2.36	0.09	0.68
2.20	2.09	34.96	2.19	76.67	2.37	0.09	0.69
2.22	2.03	33.87	2.31	78.40	2.40	0.09	0.69
2.24	1.94	32.33	2.35	76.05	2.41	0.09	0.68
2.26	1.69	27.99	2.67	74.69	2.48	0.09	0.66
2.28	1.53	25.32	3.01	76.31	2.55	0.09	0.65
2.30	1.37	22.65	3.54	80.14	2.63	0.09	3.16
2.32	1.19	19.60	4.36	85.46	2.75	0.08	2.72
2.34	1.07	17.53	5.03	88.08	2.83	0.08	2.42
2.36	0.98	15.98	5.54	88.44	2.88	0.07	2.20
2.38	1.12	18.32	4.49	82.33	2.76	0.08	2.51
2.40	1.73	28.75	2.78	79.79	2.50	0.09	0.67
2.42	1.77	29.46	2.50	73.55	2.44	0.09	0.67
2.44	1.42	23.37	3.29	76.81	2.59	0.09	0.64
2.46	1.12	18.36	4.28	78.63	2.74	0.08	2.47
2.48	0.90	14.56	5.53	80.53	2.88	0.07	1.95
2.50	0.82	13.21	5.92	78.23	2.92	0.07	1.76
2.52	0.81	13.01	5.91	76.82	2.92	0.07	1.73
2.54	0.80	12.83	5.69	73.05	2.90	0.07	1.70
2.56	0.82	13.25	5.49	72.70	2.88	0.07	1.74
2.58	0.79	12.74	5.82	74.17	2.91	0.07	1.67
2.60	0.71	11.37	6.33	71.95	2.96	0.06	1.48
2.62	0.67	10.58	6.42	67.93	2.97	0.06	1.37
2.64	0.62	9.82	6.77	66.44	3.00	0.06	1.27
2.66	0.57	8.95	7.42	66.45	3.06	0.06	1.15
2.68	0.57	8.99	7.44	66.88	3.06	0.06	1.15
2.70	0.62	9.81	6.82	66.93	3.01	0.06	1.26
2.72	0.71	11.26	5.79	65.21	2.91	0.07	1.44
2.74	0.79	12.58	5.15	64.73	2.84	0.07	1.60
2.76	0.84	13.54	4.76	64.43	2.80	0.07	1.71
2.78	0.79	12.65	5.11	64.60	2.84	0.07	1.59
2.80	0.67	10.65	6.12	65.14	2.94	0.06	1.34
2.82	0.59	9.13	7.21	65.85	3.04	0.06	1.14
2.84	0.55	8.44	7.59	64.08	3.07	0.06	1.05
2.86	0.52	7.92	7.88	62.43	3.10	0.06	0.98
2.88	0.52	8.06	7.69	61.98	3.08	0.06	1.00

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q_t (MPa)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
2.90	0.51	7.86	7.67	60.25	3.08	0.06	0.97
2.92	0.55	8.52	6.94	59.13	3.02	0.06	1.05
2.94	0.61	9.45	5.93	56.06	2.92	0.06	1.16
2.96	0.64	9.97	5.53	55.18	2.88	0.07	1.22
2.98	0.76	12.02	6.42	77.22	2.97	0.06	1.46
3.00	0.58	8.91	8.72	77.71	3.16	0.06	1.08
3.02	0.53	8.21	8.54	70.10	3.15	0.06	0.99
3.04	0.52	8.03	8.34	66.97	3.13	0.06	0.97
3.06	0.53	8.10	7.83	63.42	3.09	0.06	0.97
3.08	0.55	8.51	7.13	60.68	3.03	0.06	1.02
3.10	0.57	8.81	6.65	58.58	2.99	0.06	1.05
3.12	0.60	9.22	5.93	54.63	2.92	0.06	1.09
3.14	0.61	9.39	5.70	53.56	2.90	0.07	1.11
3.16	0.61	9.42	5.72	53.84	2.90	0.07	1.11
3.18	0.62	9.62	5.60	53.89	2.89	0.07	1.13
3.20	0.62	9.62	5.86	56.35	2.92	0.06	1.13
3.22	0.65	10.10	5.85	59.14	2.92	0.07	1.18
3.25	0.66	10.34	5.92	61.15	2.92	0.07	1.20
3.26	0.68	10.61	5.99	63.54	2.93	0.07	1.23
3.28	0.69	10.75	6.19	66.57	2.95	0.06	1.24
3.30	0.69	10.82	6.36	68.77	2.96	0.06	1.25
3.32	0.68	10.64	6.51	69.26	2.98	0.06	1.22
3.34	0.67	10.36	6.81	70.55	3.01	0.06	1.19
3.36	0.66	10.29	6.93	71.30	3.02	0.06	1.17
3.38	0.68	10.64	6.68	71.05	2.99	0.06	1.21
3.40	0.71	11.05	6.44	71.14	2.97	0.06	1.25
3.42	0.71	11.01	6.51	71.65	2.98	0.06	1.24
3.44	0.69	10.77	6.81	73.29	3.01	0.06	1.21
3.46	0.70	10.90	6.88	74.97	3.01	0.06	1.22
3.48	0.73	11.48	6.55	75.20	2.98	0.06	1.28
3.50	0.75	11.82	6.29	74.35	2.96	0.06	1.31
3.52	0.77	12.03	6.27	75.39	2.96	0.07	1.33
3.54	0.77	12.06	6.31	76.10	2.96	0.07	1.33
3.56	0.78	12.22	6.37	77.91	2.97	0.07	1.34
3.58	0.78	12.29	6.47	79.50	2.98	0.07	1.35
3.60	0.80	12.59	6.47	81.44	2.97	0.07	1.38
3.62	0.82	12.96	6.42	83.24	2.97	0.07	1.41
3.64	0.85	13.41	6.44	86.29	2.97	0.07	1.45
3.66	0.86	13.57	6.54	88.77	2.98	0.07	1.47
3.68	0.88	13.95	6.63	92.39	2.99	0.07	1.50
3.70	0.90	14.25	6.67	95.04	2.99	0.07	1.53
3.72	0.91	14.45	6.80	98.26	3.01	0.07	1.54
3.74	0.94	14.85	6.76	100.40	3.00	0.07	1.58
3.77	0.96	15.29	6.70	102.36	3.00	0.07	1.62
3.78	1.02	16.21	6.51	105.57	2.98	0.07	1.71
3.80	1.04	16.52	6.62	109.33	2.99	0.07	1.74
3.82	1.04	16.50	6.77	111.79	3.00	0.07	1.73
3.84	0.99	15.80	7.18	113.44	3.04	0.07	1.65

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q_t (MPa)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
3.86	1.00	15.89	7.19	114.26	3.04	0.07	1.65
3.88	0.97	15.43	7.60	117.20	3.07	0.07	1.60
3.90	0.96	15.24	7.93	120.87	3.10	0.07	1.57
3.92	0.95	14.99	8.17	122.37	3.12	0.07	1.54
3.94	0.95	14.93	8.14	121.50	3.12	0.07	1.53
3.96	0.94	14.83	7.98	118.32	3.10	0.07	1.51
3.98	0.93	14.65	8.08	118.37	3.11	0.07	1.49
4.00	0.90	14.06	8.38	117.84	3.14	0.07	1.42
4.02	0.87	13.60	8.57	116.51	3.15	0.07	1.37
4.04	0.86	13.46	8.58	115.48	3.15	0.07	1.35
4.06	0.83	12.86	8.95	115.14	3.18	0.07	1.29
4.08	0.81	12.57	9.13	114.76	3.19	0.07	1.25
4.10	0.79	12.21	9.34	114.05	3.21	0.06	1.21
4.12	0.75	11.54	9.66	111.52	3.23	0.06	1.14
4.14	0.73	11.19	9.78	109.44	3.24	0.06	1.10
4.16	0.68	10.31	10.44	107.63	3.28	0.06	1.01
4.18	0.64	9.65	10.95	105.59	3.31	0.06	0.94
4.20	0.63	9.50	10.93	103.76	3.31	0.06	0.93
4.22	0.62	9.28	10.97	101.76	3.32	0.06	0.90
4.24	0.64	9.71	10.37	100.67	3.28	0.06	0.94
4.26	0.68	10.36	9.52	98.54	3.22	0.06	1.00
4.28	0.71	10.86	8.86	96.26	3.17	0.06	1.05
4.30	0.75	11.47	8.18	93.88	3.12	0.06	1.10
4.32	0.85	13.22	6.86	90.75	3.01	0.07	1.26
4.34	1.01	15.87	5.60	88.84	2.89	0.07	1.51
4.36	1.06	16.76	5.24	87.80	2.85	0.08	1.59
4.38	1.16	18.48	4.64	85.79	2.78	0.08	1.75
4.40	1.17	18.68	4.62	86.35	2.78	0.08	1.76
4.42	1.10	17.49	5.34	93.37	2.86	0.08	1.64
4.44	1.09	17.24	5.85	100.86	2.92	0.07	1.62
4.46	1.05	16.51	6.44	106.28	2.97	0.07	1.54
4.48	1.02	16.01	6.91	110.58	3.01	0.07	1.49
4.50	1.02	15.97	7.13	113.88	3.03	0.07	1.48
4.52	1.04	16.37	6.98	114.32	3.02	0.07	1.51
4.55	1.03	16.12	7.03	113.34	3.03	0.07	1.48
4.56	1.02	16.07	6.88	110.54	3.01	0.07	1.48
4.58	1.05	16.58	6.56	108.74	2.98	0.07	1.52
4.60	1.07	16.92	6.48	109.60	2.98	0.07	1.54
4.62	1.09	17.21	6.30	108.41	2.96	0.07	1.56
4.64	1.12	17.69	6.10	107.84	2.94	0.07	1.60
4.66	1.11	17.54	6.19	108.62	2.95	0.07	1.58
4.68	1.09	17.18	6.48	111.35	2.98	0.07	1.55
4.70	1.08	17.07	6.67	113.80	2.99	0.07	1.53
4.72	1.12	17.65	6.48	114.33	2.98	0.07	1.58
4.74	1.10	17.26	6.66	114.96	2.99	0.07	1.54
4.76	1.06	16.66	7.07	117.83	3.03	0.07	1.48
4.78	1.03	16.10	7.44	119.71	3.06	0.07	1.42
4.80	1.01	15.74	7.69	120.96	3.08	0.07	1.39

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q_t (MPa)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
4.82	1.00	15.62	7.85	122.71	3.09	0.07	1.37
4.84	0.96	14.96	8.38	125.32	3.14	0.07	1.31
4.86	0.96	14.84	8.71	129.24	3.16	0.07	1.29
4.88	0.99	15.42	8.41	129.71	3.14	0.07	1.34
4.90	1.07	16.75	7.66	128.27	3.08	0.07	1.45
4.92	1.12	17.67	7.08	125.03	3.03	0.07	1.53
4.94	1.20	18.96	6.38	120.92	2.97	0.07	1.63
4.96	1.28	20.26	5.75	116.59	2.91	0.08	1.74
4.98	1.33	21.15	5.62	118.94	2.89	0.08	1.81
5.01	1.39	22.15	5.59	123.91	2.89	0.08	1.88
5.02	1.38	22.07	5.85	129.04	2.92	0.08	1.87
5.04	1.41	22.51	5.99	134.83	2.93	0.08	1.91
5.06	1.40	22.25	6.34	141.09	2.96	0.07	1.88
5.08	1.46	23.41	6.10	142.75	2.94	0.08	1.97
5.10	1.47	23.52	6.13	144.09	2.94	0.08	1.97
5.12	1.41	22.55	6.57	148.11	2.98	0.07	1.88
5.14	1.40	22.29	6.71	149.62	3.00	0.07	1.85
5.16	1.45	23.18	6.54	151.57	2.98	0.07	1.92
5.18	1.44	22.96	6.64	152.53	2.99	0.07	1.90
5.20	1.47	23.44	6.55	153.42	2.98	0.07	1.93
5.22	1.49	23.84	6.49	154.72	2.98	0.08	1.96
5.24	1.49	23.82	6.55	155.99	2.98	0.08	1.95
5.26	1.51	24.09	6.50	156.64	2.98	0.08	1.96
5.28	1.54	24.58	6.42	157.89	2.97	0.08	2.00
5.30	1.67	26.77	5.84	156.26	2.91	0.08	2.17
5.32	1.62	26.05	6.02	156.78	2.93	0.08	2.10
5.34	1.57	25.18	6.38	160.60	2.97	0.08	2.03
5.36	1.57	25.12	6.45	161.94	2.97	0.08	2.01
5.38	1.59	25.47	6.32	161.05	2.96	0.08	2.03
5.40	1.59	25.53	6.21	158.54	2.95	0.08	2.03
5.42	1.58	25.34	6.34	160.63	2.96	0.08	2.01
5.44	1.50	23.94	6.86	164.26	3.01	0.07	1.89
5.46	1.48	23.58	6.91	162.98	3.01	0.07	1.86
5.48	1.48	23.57	6.91	162.82	3.01	0.07	1.85
5.50	1.57	25.00	6.40	160.05	2.97	0.08	1.96
5.52	1.56	24.98	6.52	162.84	2.98	0.08	1.95
5.54	1.60	25.58	6.40	163.82	2.97	0.08	1.99
5.56	1.61	25.81	6.35	163.92	2.96	0.08	2.00
5.58	1.58	25.17	6.61	166.39	2.99	0.08	1.94
5.60	1.53	24.35	6.91	168.23	3.01	0.07	1.88
5.62	1.49	23.74	7.19	170.73	3.04	0.07	1.82
5.64	1.52	24.18	7.05	170.55	3.03	0.07	1.85
5.66	1.48	23.54	7.24	170.47	3.04	0.07	1.80
5.68	1.50	23.89	7.16	171.07	3.04	0.07	1.82
5.70	1.52	24.16	7.08	171.16	3.03	0.07	1.83
5.72	1.50	23.85	7.18	171.24	3.04	0.07	1.80
5.74	1.45	23.03	7.49	172.46	3.06	0.07	1.73
5.76	1.48	23.51	7.33	172.28	3.05	0.07	1.76

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q _t (MPa)	Q _{tn}	K _c	Q _{tn,cs}	I _c	S _{u(liq)} / 'v	S _{u(peak)} / 'v
5.78	1.47	23.33	7.32	170.65	3.05	0.07	1.75
5.80	1.43	22.59	7.42	167.73	3.06	0.07	1.69
5.82	1.46	23.03	6.97	160.65	3.02	0.07	1.71
5.84	1.49	23.68	6.63	156.96	2.99	0.07	1.76
5.86	1.56	24.83	6.27	155.56	2.96	0.08	1.83
5.88	1.55	24.65	6.36	156.81	2.96	0.07	1.82
5.90	1.72	27.51	5.54	152.52	2.88	0.08	2.02
5.92	1.81	29.04	5.21	151.28	2.85	0.08	2.13
5.94	1.80	28.78	5.35	154.08	2.86	0.08	2.10
5.96	1.95	31.06	4.76	147.83	2.80	0.09	2.29
5.98	1.99	31.55	4.66	146.95	2.78	0.09	2.33
6.01	1.94	30.68	4.89	150.10	2.81	0.09	2.25
6.02	1.78	28.40	5.58	158.43	2.89	0.08	2.05
6.04	1.64	26.15	6.28	164.09	2.96	0.08	1.88
6.06	1.59	25.30	6.47	163.69	2.97	0.07	1.81
6.08	1.63	25.87	6.10	157.84	2.94	0.08	1.85
6.10	1.62	25.75	6.10	157.13	2.94	0.08	1.84
6.12	1.60	25.29	6.23	157.64	2.95	0.08	1.81
6.14	1.55	24.33	6.53	158.79	2.98	0.07	1.74
6.16	1.55	24.25	6.56	159.11	2.98	0.07	1.73
6.18	1.70	26.50	5.84	154.81	2.91	0.08	1.90
6.20	1.76	27.29	5.66	154.43	2.90	0.08	1.97
6.22	1.77	27.45	5.68	155.91	2.90	0.08	1.98
6.24	1.85	28.56	5.39	153.81	2.87	0.08	2.07
6.26	1.88	28.82	5.24	151.06	2.85	0.08	2.09
6.28	1.86	28.49	5.39	153.47	2.87	0.08	2.06
6.30	1.85	28.32	5.55	157.06	2.88	0.08	2.04
6.32	1.84	28.25	5.73	161.89	2.90	0.08	2.03
6.34	1.82	27.92	6.00	167.58	2.93	0.08	2.00
6.36	1.86	28.48	5.97	169.98	2.93	0.08	2.04
6.38	1.87	28.55	6.07	173.27	2.94	0.08	2.04
6.40	1.81	27.58	6.30	173.79	2.96	0.08	1.97
6.42	1.82	27.65	6.21	171.77	2.95	0.08	1.98
6.44	1.81	27.36	6.21	169.90	2.95	0.08	1.95
6.46	1.74	26.12	6.48	169.33	2.98	0.08	1.87
6.48	1.71	25.62	6.59	168.82	2.99	0.08	1.83
6.50	1.69	25.13	6.64	166.88	2.99	0.08	1.80
6.52	1.61	23.90	6.95	166.10	3.02	0.07	1.71
6.54	1.64	24.16	6.65	160.76	2.99	0.07	1.73
6.56	1.67	24.70	6.27	154.86	2.96	0.08	1.76
6.58	1.63	24.00	6.31	151.47	2.96	0.07	1.71
6.60	1.56	22.71	6.66	151.22	2.99	0.07	1.62
6.62	1.55	22.51	6.75	152.01	3.00	0.07	1.61
6.64	1.54	22.36	6.91	154.49	3.01	0.07	1.60
6.66	1.60	23.20	6.69	155.11	2.99	0.07	1.66
6.68	1.63	23.50	6.77	159.15	3.00	0.07	1.68
6.70	1.62	23.42	6.91	161.93	3.02	0.07	1.67
6.72	1.56	22.35	7.29	162.97	3.05	0.07	1.60

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q_t (MPa)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
6.74	1.54	21.93	7.35	161.18	3.05	0.07	1.57
6.76	1.61	23.00	6.82	156.89	3.01	0.07	1.64
6.78	1.60	22.70	6.85	155.49	3.01	0.07	1.62
6.80	1.56	22.13	6.93	153.46	3.02	0.07	1.58
6.82	1.53	21.57	7.01	151.17	3.02	0.07	1.54
6.84	1.51	21.17	7.01	148.33	3.02	0.07	1.51
6.86	1.48	20.73	7.03	145.63	3.02	0.07	1.48
6.88	1.49	20.81	6.97	145.00	3.02	0.07	1.49
6.90	1.52	21.19	6.81	144.37	3.01	0.07	1.51
6.92	1.50	20.76	6.96	144.53	3.02	0.07	1.48
6.94	1.48	20.44	6.98	142.64	3.02	0.07	1.46
6.96	1.52	20.99	6.61	138.78	2.99	0.07	1.50
6.98	1.47	20.23	6.84	138.39	3.01	0.07	1.45
7.00	1.46	19.99	6.90	138.02	3.01	0.07	1.43
7.02	1.45	19.79	6.94	137.45	3.02	0.07	1.41
7.04	1.52	20.76	6.54	135.84	2.98	0.07	1.48
7.06	1.59	21.75	6.24	135.71	2.95	0.07	1.55
7.08	1.62	22.09	6.26	138.36	2.96	0.07	1.58
7.10	1.64	22.38	6.15	137.76	2.95	0.07	1.60
7.12	1.59	21.60	6.43	138.90	2.97	0.07	1.54
7.14	1.59	21.42	6.51	139.36	2.98	0.07	1.53
7.16	1.55	20.79	6.82	141.75	3.01	0.07	1.48
7.18	1.48	19.72	7.30	143.89	3.05	0.07	1.41
7.20	1.43	18.91	7.70	145.58	3.08	0.07	1.35
7.22	1.38	18.21	8.06	146.77	3.11	0.07	1.30
7.24	1.40	18.41	7.98	146.85	3.10	0.07	1.31
7.26	1.42	18.67	7.82	145.97	3.09	0.07	1.33
7.28	1.41	18.50	7.84	144.98	3.09	0.07	1.32
7.30	1.47	19.26	7.42	142.96	3.06	0.07	1.38
7.32	1.48	19.37	7.18	139.08	3.04	0.07	1.38
7.34	1.49	19.45	7.04	137.00	3.03	0.07	1.39
7.36	1.47	19.18	7.08	135.85	3.03	0.07	1.37
7.38	1.46	18.92	7.15	135.28	3.04	0.07	1.35
7.40	1.40	18.06	7.55	136.32	3.07	0.07	1.29
7.42	1.45	18.67	7.26	135.52	3.05	0.07	1.33
7.44	1.42	18.20	7.50	136.43	3.07	0.07	1.30
7.46	1.43	18.31	7.49	137.17	3.06	0.07	1.31
7.48	1.48	18.91	7.25	137.14	3.04	0.07	1.35
7.50	1.36	17.23	7.99	137.76	3.11	0.07	1.23
7.53	1.37	17.26	7.91	136.63	3.10	0.07	1.23
7.54	1.39	17.58	7.72	135.72	3.08	0.07	1.26
7.56	1.37	17.28	7.82	135.18	3.09	0.07	1.23
7.58	1.33	16.68	8.11	135.33	3.11	0.07	1.19
7.60	1.32	16.49	8.20	135.12	3.12	0.07	1.18
7.62	1.35	16.85	7.90	133.15	3.10	0.07	1.20
7.64	1.37	16.97	7.75	131.59	3.09	0.07	1.21
7.66	1.37	17.02	7.72	131.40	3.08	0.07	1.22
7.68	1.37	16.91	7.82	132.28	3.09	0.07	1.21

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q_t (MPa)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
7.70	1.36	16.69	7.93	132.41	3.10	0.07	1.19
7.72	1.38	16.95	7.74	131.17	3.08	0.07	1.21
7.74	1.39	17.10	7.67	131.13	3.08	0.07	1.22
7.76	1.42	17.42	7.55	131.58	3.07	0.07	1.24
7.78	1.45	17.84	7.36	131.32	3.05	0.07	1.27
7.80	1.38	16.86	7.74	130.55	3.09	0.07	1.20
7.82	1.43	17.45	7.30	127.46	3.05	0.07	1.25
7.84	1.44	17.53	7.20	126.21	3.04	0.07	1.25
7.86	1.42	17.19	7.33	125.92	3.05	0.07	1.23
7.88	1.40	16.91	7.49	126.61	3.06	0.07	1.21
7.90	1.38	16.57	7.72	127.85	3.08	0.07	1.18
7.92	1.30	15.44	8.31	128.25	3.13	0.07	1.10
7.94	1.27	15.07	8.51	128.26	3.15	0.07	1.08
7.96	1.25	14.75	8.75	129.01	3.16	0.07	1.05
7.98	1.27	14.92	8.65	129.15	3.16	0.07	1.07
8.00	1.21	14.10	9.15	129.09	3.19	0.07	1.01
8.02	1.22	14.28	8.90	127.04	3.17	0.07	1.02
8.04	1.22	14.19	8.71	123.51	3.16	0.07	1.01
8.06	1.19	13.80	8.88	122.53	3.17	0.07	0.99
8.08	1.25	14.53	8.16	118.61	3.12	0.07	1.04
8.10	1.27	14.78	7.84	115.89	3.09	0.07	1.06
8.12	1.29	14.98	7.52	112.64	3.07	0.07	1.07
8.14	1.24	14.22	7.88	112.10	3.10	0.07	1.02
8.16	1.20	13.76	8.20	112.80	3.12	0.07	0.98
8.18	1.19	13.57	8.27	112.26	3.13	0.07	0.97
8.20	1.18	13.35	8.38	111.93	3.14	0.07	0.95
8.22	1.13	12.74	8.92	113.61	3.18	0.06	0.91
8.24	1.12	12.57	9.09	114.33	3.19	0.06	0.90
8.26	1.13	12.59	9.00	113.33	3.18	0.06	0.90
8.28	1.12	12.45	8.91	110.95	3.18	0.06	0.89
8.30	1.14	12.68	8.76	111.02	3.16	0.06	0.91
8.32	1.14	12.73	8.76	111.44	3.16	0.06	0.91
8.34	1.17	13.06	8.43	110.03	3.14	0.07	0.93
8.36	1.19	13.26	8.11	107.53	3.11	0.07	0.95
8.38	1.21	13.53	7.94	107.42	3.10	0.07	0.97
8.40	1.23	13.71	7.75	106.22	3.09	0.07	0.98
8.42	1.24	13.78	7.70	106.13	3.08	0.07	0.98
8.44	1.26	14.08	7.45	104.87	3.06	0.07	1.01
8.46	1.26	13.99	7.57	105.95	3.07	0.07	1.00
8.48	1.21	13.37	8.10	108.30	3.11	0.07	0.95
8.50	1.18	12.85	8.42	108.20	3.14	0.07	0.92
8.52	1.22	13.36	7.99	106.75	3.11	0.07	0.95
8.54	1.16	12.66	8.61	109.04	3.15	0.06	0.90
8.56	1.12	12.05	9.29	111.96	3.20	0.06	0.86
8.58	1.11	11.91	9.55	113.78	3.22	0.06	0.85
8.60	1.10	11.78	9.59	113.05	3.22	0.06	0.84
8.62	1.12	11.93	9.41	112.30	3.21	0.06	0.85
8.64	1.12	11.98	9.38	112.31	3.21	0.06	0.86

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q_t (MPa)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
8.66	1.12	11.95	9.31	111.24	3.20	0.06	0.85
8.68	1.08	11.42	9.47	108.14	3.22	0.06	0.82
8.70	1.09	11.54	9.12	105.27	3.19	0.06	0.82
8.72	1.10	11.57	9.07	104.88	3.19	0.06	0.83
8.74	1.11	11.66	8.99	104.81	3.18	0.06	0.83
8.76	1.09	11.46	9.09	104.16	3.19	0.06	0.82
8.78	1.04	10.81	9.61	103.93	3.23	0.06	0.77
8.80	1.03	10.59	9.76	103.36	3.24	0.06	0.76
8.82	0.98	9.97	10.21	101.82	3.27	0.06	0.71
8.84	0.97	9.90	10.15	100.44	3.26	0.06	0.71
8.86	0.94	9.48	10.40	98.63	3.28	0.06	0.68
8.88	0.94	9.43	10.15	95.77	3.26	0.06	0.67
8.90	0.91	9.04	10.33	93.43	3.27	0.06	0.65
8.92	0.88	8.63	10.55	91.08	3.29	0.06	0.62
8.94	0.73	6.83	10.83	73.95	3.31	0.06	0.49
8.96	0.97	9.71	8.29	80.53	3.13	0.06	0.69
8.98	0.90	8.82	8.87	78.24	3.17	0.06	0.63
9.00	0.88	8.56	8.71	74.52	3.16	0.06	0.61
9.02	0.91	8.90	7.98	71.07	3.10	0.06	0.64
9.04	0.90	8.79	7.84	68.92	3.09	0.06	0.63
9.06	0.91	8.89	7.56	67.27	3.07	0.06	0.64
9.08	0.90	8.76	7.65	66.97	3.08	0.06	0.63
9.10	0.89	8.62	7.51	64.71	3.07	0.06	0.62
9.12	0.86	8.32	7.52	62.56	3.07	0.06	0.59
9.14	0.84	8.07	7.58	61.11	3.07	0.06	0.58
9.16	0.85	8.15	7.45	60.73	3.06	0.06	0.58
9.18	0.94	9.15	6.48	59.22	2.98	0.06	0.65
9.20	0.96	9.42	6.27	59.05	2.96	0.06	0.67
9.22	0.95	9.29	6.26	58.15	2.96	0.06	0.66
9.24	0.99	9.66	5.85	56.52	2.92	0.06	0.69
9.26	1.05	10.38	5.38	55.86	2.87	0.07	0.74
9.28	1.22	12.24	4.61	56.43	2.78	0.07	0.88
9.30	1.37	13.89	4.08	56.64	2.71	0.08	1.00
9.32	1.38	13.99	4.32	60.45	2.74	0.08	1.01
9.34	1.26	12.64	5.28	66.70	2.86	0.07	0.91
9.36	1.22	12.23	5.66	69.16	2.90	0.07	0.87
9.38	1.28	12.83	5.24	67.19	2.85	0.07	0.92
9.40	1.19	11.85	5.60	66.41	2.89	0.07	0.85
9.42	1.03	10.01	7.07	70.75	3.03	0.06	0.71
9.44	0.93	8.77	7.87	69.03	3.10	0.06	0.63
9.46	0.89	8.38	7.75	64.90	3.09	0.06	0.60
9.48	0.89	8.30	7.52	62.39	3.07	0.06	0.59
9.50	0.88	8.20	7.40	60.62	3.06	0.06	0.59
9.52	0.91	8.49	6.95	59.01	3.02	0.06	0.61
9.54	0.93	8.78	6.82	59.87	3.01	0.06	0.63
9.56	0.99	9.35	6.29	58.77	2.96	0.06	0.67
9.58	1.02	9.73	5.88	57.19	2.92	0.06	0.69
9.60	1.10	10.62	5.32	56.52	2.86	0.07	0.76

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q_t (MPa)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
9.62	1.08	10.35	5.72	59.19	2.90	0.07	0.74
9.64	1.03	9.77	6.37	62.27	2.97	0.06	0.70
9.66	1.01	9.53	6.41	61.09	2.97	0.06	0.68
9.68	0.98	9.12	6.70	61.10	3.00	0.06	0.65
9.70	1.01	9.52	6.49	61.82	2.98	0.06	0.68
9.72	1.04	9.85	6.17	60.77	2.95	0.06	0.70
9.74	1.06	10.02	6.16	61.76	2.95	0.06	0.72
9.76	1.08	10.23	6.21	63.53	2.95	0.06	0.73
9.78	1.04	9.78	6.87	67.24	3.01	0.06	0.70
9.80	1.05	9.88	7.22	71.36	3.04	0.06	0.71
9.82	1.07	10.07	7.39	74.36	3.06	0.06	0.72
9.84	1.12	10.57	7.34	77.59	3.05	0.06	0.76
9.86	1.16	10.96	7.17	78.65	3.04	0.06	0.78
9.88	1.18	11.19	7.14	79.92	3.03	0.06	0.80
9.90	1.19	11.26	7.24	81.52	3.04	0.06	0.80
9.92	1.23	11.71	6.96	81.52	3.02	0.06	0.84
9.94	1.24	11.78	6.86	80.88	3.01	0.06	0.84
9.96	1.25	11.89	6.72	79.94	3.00	0.06	0.85
9.98	1.19	11.26	7.24	81.52	3.04	0.06	0.80
10.00	1.10	10.20	8.28	84.41	3.13	0.06	0.73
10.02	1.03	9.44	8.97	84.69	3.18	0.06	0.67
10.04	1.06	9.76	8.37	81.72	3.14	0.06	0.70
10.06	1.06	9.74	8.34	81.26	3.13	0.06	0.70
10.08	1.04	9.40	8.90	83.74	3.17	0.06	0.67
10.10	1.03	9.32	9.16	85.38	3.19	0.06	0.67
10.12	1.03	9.28	9.25	85.78	3.20	0.06	0.66
10.14	1.03	9.25	9.35	86.49	3.21	0.06	0.66
10.16	1.03	9.26	9.42	87.19	3.21	0.06	0.66
10.18	1.03	9.24	9.61	88.79	3.23	0.06	0.66
10.20	1.06	9.59	9.32	89.41	3.21	0.06	0.69
10.22	1.07	9.61	9.24	88.81	3.20	0.06	0.69
10.24	1.07	9.68	9.07	87.81	3.19	0.06	0.69
10.26	1.08	9.68	9.12	88.29	3.19	0.06	0.69
10.28	1.07	9.61	9.27	89.10	3.20	0.06	0.69
10.30	1.06	9.46	9.53	90.14	3.22	0.06	0.68
10.32	1.05	9.32	9.82	91.56	3.24	0.06	0.67
10.34	1.11	9.96	9.20	91.62	3.20	0.06	0.71
10.36	1.15	10.33	8.85	91.41	3.17	0.06	0.74
10.38	1.15	10.34	9.04	93.53	3.19	0.06	0.74
10.40	1.16	10.45	9.02	94.27	3.18	0.06	0.75
10.42	1.19	10.73	8.80	94.37	3.17	0.06	0.77
10.44	1.19	10.70	8.89	95.18	3.17	0.06	0.76
10.46	1.20	10.81	8.88	95.92	3.17	0.06	0.77
10.48	1.23	11.06	8.80	97.29	3.17	0.06	0.79
10.50	1.25	11.31	8.72	98.70	3.16	0.06	0.81
10.52	1.27	11.46	8.66	99.29	3.16	0.06	0.82
10.54	1.28	11.56	8.57	99.05	3.15	0.06	0.83
10.56	1.22	10.89	9.21	100.35	3.20	0.06	0.78

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q_t (MPa)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
10.58	1.18	10.48	9.68	101.48	3.23	0.06	0.75
10.60	1.16	10.20	10.06	102.58	3.26	0.06	0.73
10.62	1.13	9.83	10.49	103.17	3.29	0.06	0.70
10.64	1.10	9.57	10.72	102.66	3.30	0.06	0.68
10.66	1.09	9.42	10.86	102.29	3.31	0.06	0.67
10.68	1.10	9.53	10.72	102.12	3.30	0.06	0.68
10.70	1.15	9.97	10.08	100.44	3.26	0.06	0.71
10.72	1.17	10.18	9.71	98.82	3.23	0.06	0.73
10.74	1.21	10.53	9.19	96.78	3.20	0.06	0.75
10.76	1.23	10.76	8.86	95.37	3.17	0.06	0.77
10.78	1.25	10.91	8.63	94.17	3.15	0.06	0.78
10.80	1.27	11.09	8.52	94.47	3.15	0.06	0.79
10.82	1.30	11.40	8.28	94.42	3.13	0.06	0.81
10.84	1.35	11.90	8.04	95.74	3.11	0.07	0.85
10.86	1.39	12.30	7.94	97.68	3.10	0.07	0.88
10.88	1.47	13.13	7.60	99.84	3.07	0.07	0.94
10.90	1.53	13.68	7.53	103.01	3.07	0.07	0.98
10.92	1.57	14.10	7.52	106.11	3.07	0.07	1.01
10.94	1.58	14.12	7.61	107.41	3.07	0.07	1.01
10.96	1.60	14.29	7.87	112.38	3.10	0.07	1.02
10.98	1.54	13.65	8.51	116.20	3.15	0.07	0.98
11.01	1.50	13.21	8.87	117.22	3.17	0.07	0.94
11.02	1.46	12.80	9.31	119.17	3.20	0.07	0.91
11.04	1.41	12.32	9.77	120.44	3.24	0.07	0.88
11.06	1.39	12.05	9.98	120.32	3.25	0.07	0.86
11.08	1.34	11.55	10.47	120.87	3.28	0.07	0.82
11.11	1.33	11.37	10.53	119.68	3.29	0.06	0.81
11.12	1.29	11.02	10.41	114.76	3.28	0.06	0.79
11.14	1.25	10.58	10.51	111.18	3.29	0.06	0.76
11.16	1.19	9.96	10.82	107.85	3.31	0.06	0.71
11.18	1.13	9.33	11.22	104.67	3.33	0.06	0.67
11.20	1.10	9.04	11.02	99.65	3.32	0.06	0.65
11.22	1.07	8.63	11.11	95.89	3.33	0.06	0.62
11.24	1.00	7.98	11.61	92.66	3.36	0.06	0.57
11.26	0.96	7.59	11.84	89.92	3.37	0.06	0.54
11.28	0.93	7.23	11.88	85.88	3.37	0.06	0.52
11.30	0.91	7.01	11.80	82.74	3.37	0.06	0.50
11.32	0.90	6.90	11.50	79.30	3.35	0.06	0.49
11.34	0.94	7.29	10.56	76.96	3.29	0.06	0.52
11.36	1.01	7.98	9.16	73.06	3.19	0.06	0.57
11.38	1.07	8.58	8.18	70.21	3.12	0.06	0.61
11.40	1.13	9.13	7.38	67.41	3.06	0.06	0.65
11.42	1.14	9.22	7.29	67.18	3.05	0.06	0.66
11.44	1.14	9.18	7.24	66.52	3.04	0.06	0.66
11.46	1.10	8.81	7.60	66.93	3.07	0.06	0.63
11.48	1.07	8.42	8.19	68.97	3.12	0.06	0.60
11.50	1.05	8.25	8.64	71.31	3.16	0.06	0.59
11.52	1.08	8.52	8.42	71.74	3.14	0.06	0.61

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q _t (MPa)	Q _{tn}	K _c	Q _{tn,cs}	I _c	S _{u(liq)} / 'v	S _{u(peak)} / 'v
11.54	1.15	9.19	7.81	71.71	3.09	0.06	0.66
11.56	1.23	9.99	7.14	71.30	3.03	0.06	0.71
11.58	1.35	11.08	6.37	70.55	2.97	0.06	0.79
11.60	1.40	11.55	6.23	72.02	2.95	0.07	0.83
11.62	1.40	11.54	6.31	72.77	2.96	0.07	0.82
11.64	1.36	11.16	6.72	74.99	3.00	0.06	0.80
11.66	1.35	11.06	7.11	78.61	3.03	0.06	0.79
11.68	1.47	12.20	6.57	80.13	2.98	0.07	0.87
11.70	1.49	12.33	6.79	83.72	3.00	0.07	0.88
11.72	1.54	12.83	6.63	85.00	2.99	0.07	0.92
11.74	1.69	14.18	6.01	85.18	2.93	0.07	1.01
11.76	1.76	14.80	6.05	89.47	2.93	0.07	1.06
11.78	2.09	17.95	4.87	87.42	2.81	0.08	1.28
11.80	2.19	18.94	4.78	90.61	2.80	0.08	1.35
11.82	2.24	19.35	4.81	93.08	2.80	0.08	1.38
11.84	2.24	19.31	4.97	95.89	2.82	0.08	1.38
11.86	2.10	17.96	5.79	104.00	2.91	0.08	1.28
11.88	1.90	16.04	6.97	111.82	3.02	0.07	1.15
11.90	1.77	14.75	7.93	116.97	3.10	0.07	1.05
11.92	1.68	13.87	8.85	122.67	3.17	0.07	0.99
11.94	1.54	12.51	9.81	122.69	3.24	0.07	0.89
11.96	1.45	11.65	10.62	123.77	3.29	0.07	0.83
11.98	1.44	11.51	10.84	124.80	3.31	0.07	0.82
12.00	1.37	10.88	11.04	120.07	3.32	0.06	0.78
12.02	1.35	10.62	10.87	115.47	3.31	0.06	0.76
12.04	1.35	10.64	10.39	110.48	3.28	0.06	0.76
12.06	1.36	10.71	9.93	106.32	3.25	0.06	0.77
12.08	1.40	11.01	9.33	102.73	3.21	0.06	0.79
12.10	1.50	11.96	8.23	98.42	3.12	0.07	0.85
12.12	1.77	14.48	6.74	97.56	3.00	0.07	1.03
12.14	1.92	15.82	6.12	96.77	2.94	0.07	1.13
12.16	2.08	17.22	5.62	96.71	2.89	0.08	1.23
12.18	1.97	16.22	6.24	101.26	2.95	0.07	1.16
12.20	1.90	15.58	6.50	101.31	2.98	0.07	1.11
12.22	1.87	15.23	6.88	104.79	3.01	0.07	1.09
12.24	1.85	15.05	7.20	108.36	3.04	0.07	1.07
12.26	1.88	15.29	7.27	111.22	3.05	0.07	1.09
12.28	1.90	15.45	7.37	113.78	3.05	0.07	1.10
12.30	2.01	16.36	7.11	116.32	3.03	0.07	1.17
12.32	2.06	16.85	7.04	118.64	3.03	0.07	1.20
12.34	2.17	17.83	6.61	117.84	2.99	0.07	1.27
12.36	2.27	18.65	6.32	117.89	2.96	0.07	1.33
12.38	2.24	18.41	6.48	119.33	2.98	0.07	1.31
12.40	2.22	18.15	6.71	121.77	3.00	0.07	1.30
12.42	2.17	17.67	6.99	123.53	3.02	0.07	1.26
12.44	2.24	18.26	6.75	123.18	3.00	0.07	1.30
12.46	2.24	18.26	6.74	123.06	3.00	0.07	1.30
12.48	2.17	17.53	7.17	125.76	3.04	0.07	1.25

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q_t (MPa)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
12.50	2.12	17.10	7.31	125.05	3.05	0.07	1.22
12.52	2.09	16.77	7.23	121.20	3.04	0.07	1.20
12.54	2.08	16.67	7.15	119.23	3.04	0.07	1.19
12.56	2.05	16.39	7.31	119.75	3.05	0.07	1.17
12.58	2.05	16.33	7.57	123.63	3.07	0.07	1.17
12.60	2.05	16.34	7.66	125.25	3.08	0.07	1.17
12.62	2.15	17.16	7.34	125.89	3.05	0.07	1.23
12.64	2.20	17.56	7.28	127.94	3.05	0.07	1.25
12.66	2.23	17.86	7.30	130.29	3.05	0.07	1.28
12.68	2.32	18.63	6.96	129.64	3.02	0.07	1.33
12.70	2.48	19.96	6.35	126.79	2.96	0.08	1.43
12.72	2.54	20.48	6.11	125.14	2.94	0.08	1.46
12.74	2.50	20.09	6.29	126.46	2.96	0.08	1.44
12.76	2.50	20.05	6.35	127.29	2.96	0.08	1.43
12.78	2.53	20.30	6.26	126.98	2.95	0.08	1.45
12.80	2.54	20.34	6.28	127.74	2.96	0.08	1.45
12.82	2.53	20.17	6.45	130.08	2.97	0.08	1.44
12.84	2.58	20.56	6.46	132.90	2.97	0.08	1.47
12.86	2.53	20.11	6.78	136.23	3.00	0.08	1.44
12.88	2.49	19.70	6.92	136.23	3.02	0.08	1.41
12.90	2.38	18.75	7.23	135.53	3.04	0.08	1.34
12.92	2.24	17.47	7.75	135.45	3.09	0.07	1.25
12.94	2.08	16.04	8.41	134.86	3.14	0.07	1.15
12.96	2.02	15.55	8.62	134.00	3.15	0.07	1.11
12.98	1.91	14.54	9.29	135.05	3.20	0.07	1.04
13.00	1.86	14.05	9.43	132.44	3.21	0.07	1.00
13.02	1.75	13.12	9.76	128.09	3.24	0.07	0.94
13.04	1.63	12.01	10.38	124.61	3.28	0.07	0.86
13.06	1.52	11.09	10.73	119.03	3.30	0.07	0.79
13.08	1.45	10.49	10.86	113.93	3.31	0.06	0.75
13.10	1.42	10.20	10.62	108.36	3.29	0.06	0.73
13.12	1.44	10.32	10.10	104.23	3.26	0.06	0.74
13.14	1.40	10.01	10.09	100.94	3.26	0.06	0.71
13.16	1.40	9.97	9.73	97.00	3.23	0.06	0.71
13.18	1.43	10.22	9.09	92.92	3.19	0.06	0.73
13.20	1.43	10.14	9.06	91.86	3.19	0.06	0.72
13.22	1.40	9.88	9.08	89.70	3.19	0.06	0.71
13.24	1.40	9.88	8.91	88.02	3.18	0.06	0.71
13.26	1.39	9.80	9.03	88.54	3.18	0.06	0.70
13.28	1.39	9.81	8.95	87.82	3.18	0.06	0.70
13.30	1.45	10.24	8.37	85.70	3.13	0.06	0.73
13.32	1.45	10.24	8.39	85.98	3.14	0.06	0.73
13.34	1.45	10.19	8.44	86.02	3.14	0.06	0.73
13.36	1.43	10.07	8.56	86.21	3.15	0.06	0.72
13.38	1.38	9.64	9.04	87.13	3.18	0.06	0.69
13.40	1.34	9.27	9.43	87.43	3.21	0.06	0.66
13.42	1.36	9.43	9.23	87.06	3.20	0.06	0.67
13.44	1.42	9.86	8.86	87.42	3.17	0.06	0.70

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q_t (MPa)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
13.46	1.46	10.20	8.52	86.92	3.15	0.06	0.73
13.48	1.52	10.71	7.89	84.47	3.10	0.07	0.76
13.50	1.54	10.83	7.47	80.93	3.06	0.07	0.77
13.52	1.51	10.57	7.55	79.84	3.07	0.07	0.76
13.54	1.51	10.56	7.70	81.26	3.08	0.07	0.75
13.56	1.59	11.18	7.59	84.87	3.07	0.07	0.80
13.58	1.65	11.68	7.41	86.50	3.06	0.07	0.83
13.60	1.67	11.87	7.46	88.61	3.06	0.07	0.85
13.62	1.78	12.73	7.00	89.16	3.02	0.07	0.91
13.64	1.83	13.14	7.03	92.36	3.03	0.07	0.94
13.66	1.81	12.90	7.42	95.74	3.06	0.07	0.92
13.68	1.82	12.96	7.42	96.20	3.06	0.07	0.93
13.70	1.73	12.26	7.95	97.44	3.10	0.07	0.88
13.72	1.71	12.08	8.23	99.41	3.12	0.07	0.86
13.74	1.77	12.49	8.15	101.72	3.12	0.07	0.89
13.76	1.72	12.11	8.48	102.63	3.14	0.07	0.86
13.78	1.73	12.15	8.16	99.16	3.12	0.07	0.87
13.80	1.74	12.19	7.89	96.22	3.10	0.07	0.87
13.82	1.70	11.83	8.05	95.19	3.11	0.07	0.85
13.84	1.61	11.09	8.53	94.61	3.15	0.07	0.79
13.86	1.58	10.85	8.55	92.78	3.15	0.07	0.78
13.88	1.50	10.17	9.01	91.62	3.18	0.06	0.73
13.90	1.45	9.80	9.19	90.04	3.20	0.06	0.70
13.92	1.45	9.75	9.06	88.35	3.19	0.06	0.70
13.94	1.41	9.38	9.02	84.62	3.18	0.06	0.67
13.96	1.88	13.16	5.79	76.25	2.91	0.07	0.94
13.98	1.79	12.45	6.36	79.17	2.96	0.07	0.89
14.00	1.72	11.88	6.51	77.35	2.98	0.07	0.85
14.02	1.67	11.47	6.57	75.33	2.98	0.07	0.82
14.04	1.65	11.25	6.71	75.45	3.00	0.07	0.80
14.06	1.61	10.92	6.98	76.19	3.02	0.07	0.78
14.08	1.65	11.27	6.72	75.73	3.00	0.07	0.80
14.10	1.74	11.95	6.22	74.28	2.95	0.07	0.85
14.12	1.77	12.13	5.79	70.29	2.91	0.07	0.87
14.14	1.77	12.15	5.66	68.81	2.90	0.07	0.87
14.16	1.74	11.86	6.09	72.17	2.94	0.07	0.85
14.18	1.55	10.35	7.44	77.03	3.06	0.06	0.74
14.20	1.48	9.77	8.29	80.98	3.13	0.06	0.70
14.22	1.72	11.65	6.94	80.82	3.02	0.07	0.83
14.24	1.93	13.28	6.19	82.25	2.95	0.07	0.95
14.26	2.06	14.34	5.72	82.10	2.90	0.07	1.02
14.28	2.17	15.14	5.40	81.70	2.87	0.08	1.08
14.30	2.12	14.72	5.71	84.14	2.90	0.07	1.05
14.32	2.05	14.21	6.28	89.21	2.96	0.07	1.02
14.34	2.07	14.31	6.33	90.60	2.96	0.07	1.02
14.36	2.03	14.02	6.62	92.78	2.99	0.07	1.00
14.39	2.05	14.12	6.79	95.81	3.00	0.07	1.01
14.40	2.02	13.85	7.37	102.07	3.05	0.07	0.99

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q_t (MPa)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
14.42	2.06	14.14	7.38	104.35	3.06	0.07	1.01
14.44	2.05	14.02	7.47	104.66	3.06	0.07	1.00
14.46	2.05	14.01	7.45	104.33	3.06	0.07	1.00
14.48	2.05	14.02	7.61	106.76	3.07	0.07	1.00
14.50	1.97	13.37	8.21	109.79	3.12	0.07	0.95
14.52	1.99	13.50	8.07	109.05	3.11	0.07	0.96
14.54	2.04	13.84	7.77	107.54	3.09	0.07	0.99
14.56	2.02	13.70	7.75	106.16	3.09	0.07	0.98
14.58	1.93	12.96	8.13	105.34	3.12	0.07	0.93
14.60	1.92	12.88	8.15	104.92	3.12	0.07	0.92
14.62	1.85	12.30	8.57	105.36	3.15	0.07	0.88
14.64	1.75	11.55	9.16	105.80	3.19	0.07	0.82
14.66	1.75	11.53	9.15	105.51	3.19	0.07	0.82
14.68	1.84	12.16	8.44	102.65	3.14	0.07	0.87
14.70	1.89	12.50	8.05	100.65	3.11	0.07	0.89
14.72	1.95	12.99	7.49	97.33	3.06	0.07	0.93
14.74	1.92	12.76	7.48	95.37	3.06	0.07	0.91
14.76	1.96	13.00	6.98	90.67	3.02	0.07	0.93
14.78	1.90	12.50	7.05	88.09	3.03	0.07	0.89
14.80	1.82	11.89	7.59	90.26	3.07	0.07	0.85
14.82	1.75	11.35	7.99	90.63	3.10	0.07	0.81
14.84	1.73	11.19	8.06	90.22	3.11	0.07	0.80
14.86	1.68	10.76	8.48	91.26	3.14	0.07	0.77
14.88	1.67	10.65	8.46	90.10	3.14	0.07	0.76
14.90	1.67	10.64	8.54	90.90	3.15	0.07	0.76
14.92	1.67	10.68	8.43	90.03	3.14	0.07	0.76
14.94	1.76	11.31	7.69	86.92	3.08	0.07	0.81
14.96	1.70	10.86	7.83	84.98	3.09	0.07	0.78
14.98	1.85	11.96	7.31	87.37	3.05	0.07	0.85
15.00	1.85	11.97	7.21	86.30	3.04	0.07	0.86
15.02	1.85	11.94	7.13	85.16	3.03	0.07	0.85
15.04	1.77	11.32	7.52	85.17	3.07	0.07	0.81
15.06	1.72	10.92	7.79	85.05	3.09	0.07	0.78
15.08	1.71	10.86	7.88	85.53	3.10	0.07	0.78
15.10	1.69	10.68	8.12	86.75	3.12	0.07	0.76
15.12	1.73	10.97	7.77	85.25	3.09	0.07	0.78
15.14	1.78	11.33	7.43	84.20	3.06	0.07	0.81
15.16	1.78	11.32	7.31	82.74	3.05	0.07	0.81
15.18	1.63	10.13	8.12	82.25	3.12	0.06	0.72
15.20	1.55	9.52	8.46	80.54	3.14	0.06	0.68
15.22	1.44	8.67	8.99	77.95	3.18	0.06	0.62
15.24	1.40	8.37	9.05	75.74	3.19	0.06	0.60
15.26	1.37	8.15	9.32	75.89	3.20	0.06	0.58
15.28	1.30	7.63	9.98	76.16	3.25	0.06	0.54
15.30	1.24	7.21	10.45	75.33	3.28	0.06	0.51
15.32	1.22	7.04	10.46	73.68	3.28	0.06	0.50
15.34	1.18	6.69	10.92	72.99	3.31	0.06	0.48
15.36	1.14	6.40	11.24	71.99	3.33	0.06	0.46

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q_t (MPa)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
15.38	1.11	6.16	11.47	70.71	3.35	0.06	0.44
15.40	1.05	5.71	11.92	68.08	3.38	0.06	0.41
15.42	1.01	5.43	12.03	65.36	3.38	0.06	0.39
15.44	1.00	5.33	11.68	62.31	3.36	0.06	0.38
15.46	0.99	5.27	11.16	58.77	3.33	0.06	0.38
15.48	1.00	5.30	10.55	55.95	3.29	0.06	0.38
15.50	1.01	5.37	9.91	53.23	3.25	0.06	0.38
15.52	1.00	5.31	9.71	51.51	3.23	0.06	0.38
15.54	1.00	5.30	9.39	49.79	3.21	0.06	0.38
15.56	0.99	5.20	9.17	47.67	3.19	0.06	0.37
15.58	0.99	5.21	8.87	46.18	3.17	0.06	0.37
15.60	0.99	5.19	8.83	45.82	3.17	0.06	0.37
15.62	0.97	5.06	8.97	45.33	3.18	0.06	0.36
15.64	0.98	5.10	8.78	44.78	3.17	0.06	0.36
15.66	0.98	5.10	8.61	43.90	3.15	0.06	0.36
15.68	0.99	5.16	8.44	43.55	3.14	0.06	0.37
15.70	0.99	5.16	8.44	43.54	3.14	0.06	0.37
15.72	1.01	5.27	8.34	44.00	3.13	0.06	0.38
15.74	1.04	5.53	8.01	44.29	3.11	0.06	0.39
15.76	1.13	6.14	7.43	45.59	3.06	0.06	0.44
15.78	1.24	6.95	6.87	47.81	3.01	0.06	0.50
15.80	1.40	8.07	6.18	49.86	2.95	0.06	0.58
15.82	1.66	9.97	5.32	53.03	2.86	0.07	0.71
15.84	1.87	11.48	4.82	55.26	2.80	0.07	0.82
15.86	1.91	11.80	4.70	55.45	2.79	0.08	0.84
15.88	2.01	12.62	4.10	51.78	2.71	0.08	0.89
15.90	2.23	14.31	3.66	52.37	2.65	0.08	1.00
15.92	2.58	17.08	3.15	53.76	2.57	0.08	0.60
15.94	3.42	23.72	2.37	56.22	2.41	0.08	0.64
15.96	3.12	21.12	2.96	62.45	2.54	0.09	0.63
15.98	4.47	31.95	2.07	66.22	2.34	0.09	0.68
16.00	5.23	38.48	1.62	62.45	2.18	0.09	0.70
16.02	5.77	42.68	1.60	68.45	2.17	0.09	0.71
16.04	6.34	47.39	1.49	70.44	2.12	0.10	0.73
16.06	6.57	49.36	1.42	70.18	2.08	0.10	0.73
16.08	6.60	49.63	1.39	69.13	2.06	0.09	0.73
16.10	6.42	48.44	1.33	64.42	2.02	0.09	0.73
16.12	6.08	45.94	1.00	45.94	1.98	0.08	0.72
16.14	5.72	42.97	1.00	42.97	2.00	0.08	0.71
16.16	5.28	39.21	1.00	39.21	2.05	0.08	0.70
16.18	5.13	37.80	1.00	37.80	2.10	0.08	0.70
16.20	5.09	37.30	1.51	56.29	2.13	0.08	0.70
16.22	4.88	35.32	1.63	57.47	2.18	0.08	0.69
16.24	4.38	31.22	1.80	56.14	2.25	0.08	0.68
16.26	3.77	26.23	2.07	54.41	2.34	0.08	0.65
16.28	3.22	21.75	2.53	54.94	2.45	0.08	0.63
16.30	2.94	19.40	2.94	57.01	2.53	0.08	0.62
16.32	2.31	14.37	4.31	61.89	2.74	0.08	1.01

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q_t (MPa)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
16.34	2.12	12.91	4.84	62.49	2.81	0.08	0.92
16.36	1.65	9.53	7.08	67.49	3.03	0.07	0.68
16.38	1.33	7.30	9.68	70.72	3.23	0.06	0.52
16.40	1.20	6.36	10.57	67.19	3.29	0.06	0.45
16.42	1.11	5.72	10.19	58.30	3.27	0.06	0.41
16.44	1.09	5.55	9.86	54.71	3.24	0.06	0.40
16.46	1.07	5.44	9.52	51.82	3.22	0.06	0.39
16.48	1.05	5.28	9.84	51.99	3.24	0.06	0.38
16.50	1.05	5.25	10.03	52.63	3.25	0.06	0.37
16.52	1.01	4.97	10.53	52.36	3.29	0.06	0.36
16.54	0.95	4.59	10.97	50.33	3.32	0.06	0.33
16.56	0.96	4.64	10.74	49.82	3.30	0.06	0.33
16.58	0.99	4.85	10.19	49.42	3.27	0.06	0.35
16.60	1.01	4.93	9.97	49.18	3.25	0.06	0.35
16.63	1.02	5.00	9.81	49.02	3.24	0.06	0.36
16.64	1.02	5.01	9.91	49.62	3.25	0.06	0.36
16.66	1.01	4.94	10.38	51.23	3.28	0.06	0.35
16.68	1.01	4.96	10.30	51.09	3.27	0.06	0.35
16.70	1.00	4.83	10.80	52.14	3.31	0.06	0.34
16.72	1.00	4.84	10.89	52.71	3.31	0.06	0.35
16.74	1.00	4.86	10.79	52.44	3.30	0.06	0.35
16.76	1.00	4.84	11.09	53.69	3.32	0.06	0.35
16.78	1.01	4.86	11.18	54.41	3.33	0.06	0.35
16.80	1.00	4.83	11.44	55.27	3.35	0.06	0.35
16.82	1.00	4.79	11.78	56.40	3.37	0.06	0.34
16.84	1.01	4.87	11.74	57.13	3.36	0.06	0.35
16.86	1.02	4.94	11.90	58.86	3.37	0.06	0.35
16.88	1.04	5.05	11.84	59.82	3.37	0.06	0.36
16.91	1.04	5.09	11.75	59.75	3.37	0.06	0.36
16.93	1.06	5.17	11.72	60.52	3.36	0.06	0.37
16.94	1.08	5.30	11.37	60.32	3.34	0.06	0.38
16.96	1.07	5.27	11.49	60.57	3.35	0.06	0.38
16.98	1.07	5.21	11.86	61.78	3.37	0.06	0.37
17.00	0.70	2.70	13.60	36.74	3.47	0.06	0.19
17.02	0.69	2.63	13.84	36.42	3.49	0.06	0.19
17.04	1.06	5.13	11.93	61.15	3.38	0.06	0.37
17.06	1.10	5.41	11.65	63.02	3.36	0.06	0.39
17.08	1.09	5.33	11.92	63.58	3.38	0.06	0.38
17.10	1.12	5.49	11.64	63.97	3.36	0.06	0.39
17.12	1.11	5.46	11.82	64.52	3.37	0.06	0.39
17.14	1.10	5.36	12.07	64.67	3.38	0.06	0.38
17.16	1.09	5.27	12.30	64.79	3.40	0.06	0.38
17.18	1.10	5.37	12.15	65.25	3.39	0.06	0.38
17.20	1.11	5.41	12.08	65.27	3.38	0.06	0.39
17.22	1.09	5.27	12.51	65.97	3.41	0.06	0.38
17.24	1.09	5.27	12.60	66.34	3.42	0.06	0.38
17.26	1.08	5.18	12.86	66.55	3.43	0.06	0.37
17.28	1.05	4.99	13.28	66.28	3.46	0.06	0.36

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q_t (MPa)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
17.30	1.03	4.84	13.52	65.49	3.47	0.06	0.35
17.32	1.03	4.84	13.42	64.91	3.46	0.06	0.35
17.34	1.01	4.69	13.62	63.91	3.47	0.06	0.34
17.36	0.99	4.53	13.88	62.89	3.49	0.06	0.32
17.38	0.96	4.33	14.30	61.97	3.51	0.06	0.31
17.40	0.97	4.40	14.00	61.56	3.50	0.06	0.31
17.42	0.98	4.48	13.79	61.86	3.48	0.06	0.32
17.44	0.97	4.37	14.10	61.63	3.50	0.06	0.31
17.46	0.97	4.40	13.97	61.54	3.49	0.06	0.31
17.48	1.00	4.58	13.46	61.60	3.47	0.06	0.33
17.50	1.05	4.90	12.62	61.86	3.42	0.06	0.35
17.52	1.09	5.18	12.06	62.50	3.38	0.06	0.37
17.54	1.16	5.63	11.16	62.83	3.33	0.06	0.40
17.56	1.22	6.00	10.48	62.84	3.28	0.06	0.43
17.58	1.24	6.10	10.46	63.81	3.28	0.06	0.44
17.60	1.25	6.20	10.59	65.63	3.29	0.06	0.44
17.62	1.24	6.08	11.05	67.23	3.32	0.06	0.43
17.64	1.26	6.24	10.98	68.47	3.32	0.06	0.45
17.66	1.27	6.27	11.22	70.34	3.33	0.06	0.45
17.68	1.28	6.35	11.48	72.84	3.35	0.06	0.45
17.70	1.28	6.36	11.66	74.18	3.36	0.06	0.45
17.72	1.30	6.48	11.59	75.08	3.36	0.06	0.46
17.76	1.30	6.47	11.61	75.13	3.36	0.06	0.46
17.76	1.30	6.47	11.61	75.13	3.36	0.06	0.46
17.78	1.29	6.40	11.80	75.45	3.37	0.06	0.46
17.80	1.33	6.60	11.45	75.58	3.35	0.06	0.47
17.82	1.37	6.89	10.93	75.25	3.31	0.06	0.49
17.84	1.35	6.70	11.24	75.32	3.33	0.06	0.48
17.86	1.35	6.74	11.15	75.10	3.33	0.06	0.48
17.88	1.34	6.66	11.31	75.27	3.34	0.06	0.48
17.90	1.35	6.73	11.15	74.98	3.33	0.06	0.48
17.92	1.34	6.61	11.30	74.75	3.34	0.06	0.47
17.94	1.34	6.63	11.33	75.10	3.34	0.06	0.47
17.96	1.35	6.66	11.31	75.32	3.34	0.06	0.48
17.98	1.34	6.61	11.30	74.69	3.34	0.06	0.47
18.00	1.32	6.50	11.49	74.63	3.35	0.06	0.46
18.02	1.31	6.39	11.74	75.06	3.36	0.06	0.46
18.04	0.80	3.12	14.59	45.56	3.53	0.06	0.22
18.06	1.31	6.41	11.78	75.46	3.37	0.06	0.46
18.08	1.31	6.36	11.86	75.39	3.37	0.06	0.45
18.10	1.31	6.33	11.91	75.46	3.38	0.06	0.45
18.12	1.32	6.43	11.76	75.63	3.37	0.06	0.46
18.14	1.35	6.62	11.37	75.27	3.34	0.06	0.47
18.16	1.36	6.63	11.35	75.28	3.34	0.06	0.47
18.18	1.36	6.61	11.30	74.74	3.34	0.06	0.47
18.20	1.35	6.59	11.26	74.20	3.33	0.06	0.47
18.22	1.30	6.23	11.72	72.96	3.36	0.06	0.44
18.24	1.28	6.11	11.76	71.91	3.37	0.06	0.44

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q_t (MPa)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
18.26	1.27	6.01	11.83	71.08	3.37	0.06	0.43
18.28	1.20	5.61	12.52	70.17	3.41	0.06	0.40
18.30	1.15	5.25	13.13	68.86	3.45	0.06	0.37
18.32	1.13	5.12	13.19	67.50	3.45	0.06	0.37
18.34	1.09	4.83	13.53	65.35	3.47	0.06	0.34
18.36	1.07	4.70	13.55	63.62	3.47	0.06	0.34
18.38	1.07	4.72	13.19	62.25	3.45	0.06	0.34
18.40	1.08	4.77	12.74	60.75	3.42	0.06	0.34
18.42	1.09	4.83	12.14	58.65	3.39	0.06	0.35
18.44	1.08	4.78	11.89	56.78	3.37	0.06	0.34
18.46	1.08	4.78	11.66	55.68	3.36	0.06	0.34
18.48	1.10	4.89	11.09	54.30	3.32	0.06	0.35
18.50	1.12	5.00	10.69	53.45	3.30	0.06	0.36
18.52	1.16	5.26	9.89	51.97	3.24	0.06	0.38
18.54	1.20	5.46	9.53	52.06	3.22	0.06	0.39
18.56	1.25	5.77	9.08	52.37	3.19	0.06	0.41
18.58	1.29	6.04	8.75	52.86	3.16	0.06	0.43
18.60	1.32	6.20	8.55	53.02	3.15	0.06	0.44
18.62	1.35	6.37	8.57	54.58	3.15	0.06	0.45
18.64	1.37	6.53	8.64	56.46	3.16	0.06	0.47
18.66	1.41	6.76	8.63	58.35	3.15	0.06	0.48
18.68	1.45	7.00	8.70	60.90	3.16	0.06	0.50
18.70	1.54	7.56	8.21	62.02	3.12	0.06	0.54
18.72	1.63	8.10	7.82	63.33	3.09	0.06	0.58
18.74	1.72	8.63	7.44	64.18	3.06	0.06	0.62
18.76	1.79	9.07	7.22	65.51	3.04	0.06	0.65
18.78	1.83	9.31	7.23	67.28	3.04	0.07	0.66
18.80	1.91	9.82	6.98	68.55	3.02	0.07	0.70
18.82	2.05	10.64	6.40	68.10	2.97	0.07	0.76
18.84	2.07	10.75	6.50	69.81	2.98	0.07	0.77
18.86	1.99	10.28	6.93	71.23	3.02	0.07	0.73
18.88	1.98	10.17	7.06	71.77	3.03	0.07	0.73
18.90	1.81	9.14	7.98	72.98	3.10	0.06	0.65
18.92	1.67	8.22	8.79	72.28	3.17	0.06	0.59
18.94	1.51	7.24	9.77	70.76	3.24	0.06	0.52
18.96	1.45	6.89	10.10	69.59	3.26	0.06	0.49
18.98	1.39	6.46	10.53	68.05	3.29	0.06	0.46
19.00	1.40	6.53	10.21	66.65	3.27	0.06	0.47
19.02	1.99	10.14	6.53	66.19	2.98	0.07	0.72
19.04	2.25	12.15	3.51	42.62	2.63	0.08	0.84
19.06	2.29	12.37	3.57	44.22	2.64	0.08	0.86
19.08	4.97	30.97	2.07	63.99	2.33	0.09	0.67
19.10	5.65	36.00	1.82	65.67	2.26	0.10	0.69
19.12	6.15	39.67	1.71	67.68	2.22	0.10	0.70
19.14	6.35	41.31	1.61	66.36	2.17	0.10	0.71
19.16	6.41	42.20	1.49	62.67	2.12	0.09	0.71
19.18	6.50	43.31	1.00	43.31	2.05	0.09	0.72
19.20	6.66	44.77	1.00	44.77	2.00	0.08	0.72

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q_t (MPa)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
19.22	6.92	47.02	1.00	47.02	1.95	0.08	0.73
19.24	7.41	50.84	1.00	50.84	1.92	0.08	0.74
19.26	7.96	54.86	1.00	54.86	1.91	0.08	0.75
19.28	8.45	58.55	1.00	58.55	1.89	0.09	0.75
19.30	8.99	62.77	1.00	62.77	1.86	0.09	0.76
19.32	9.35	65.51	1.00	65.51	1.84	0.09	0.77
19.34	9.57	67.18	1.00	67.18	1.84	0.09	0.77
19.36	9.60	67.30	1.00	67.30	1.84	0.09	0.77
19.38	9.58	66.96	1.00	66.96	1.85	0.09	0.77
19.40	9.53	66.42	1.00	66.42	1.86	0.10	0.77

Abbreviations

q_t :	Total cone resistance
K_c :	Cone resistance correction factor due to fines
$Q_{tn,cs}$:	Adjusted and corrected cone resistance due to fines
I_c :	Soil behavior type index
$S_{u(liq)}/\sigma'_v$:	Calculated liquefied undrained strength ratio
$S_{u(peak)}/\sigma'_v$:	Calculated peak undrained strength ratio

LIQUEFACTION ANALYSIS REPORT

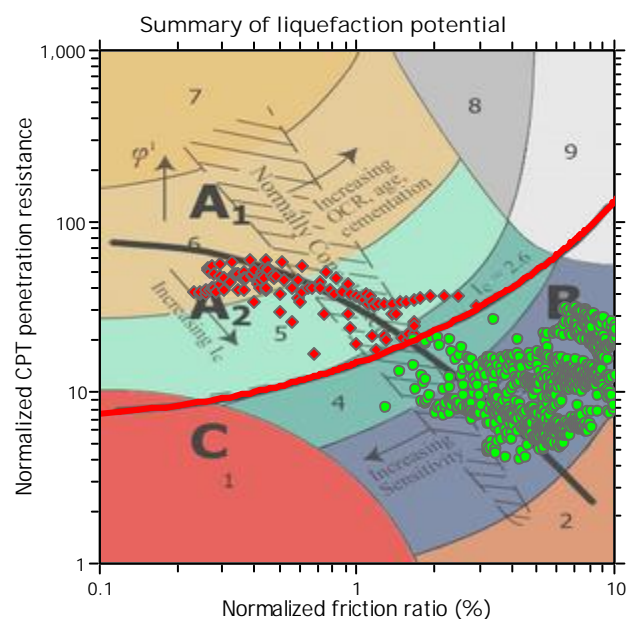
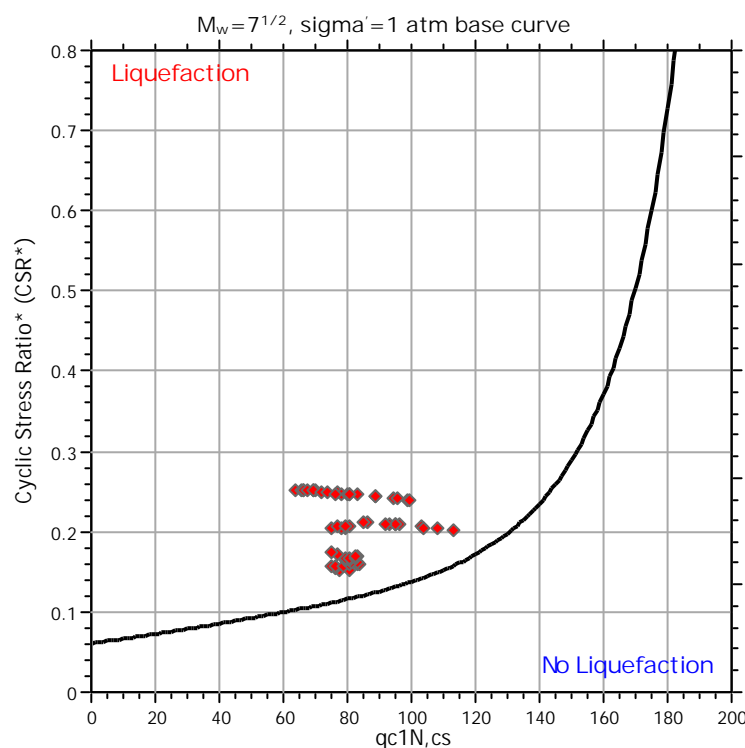
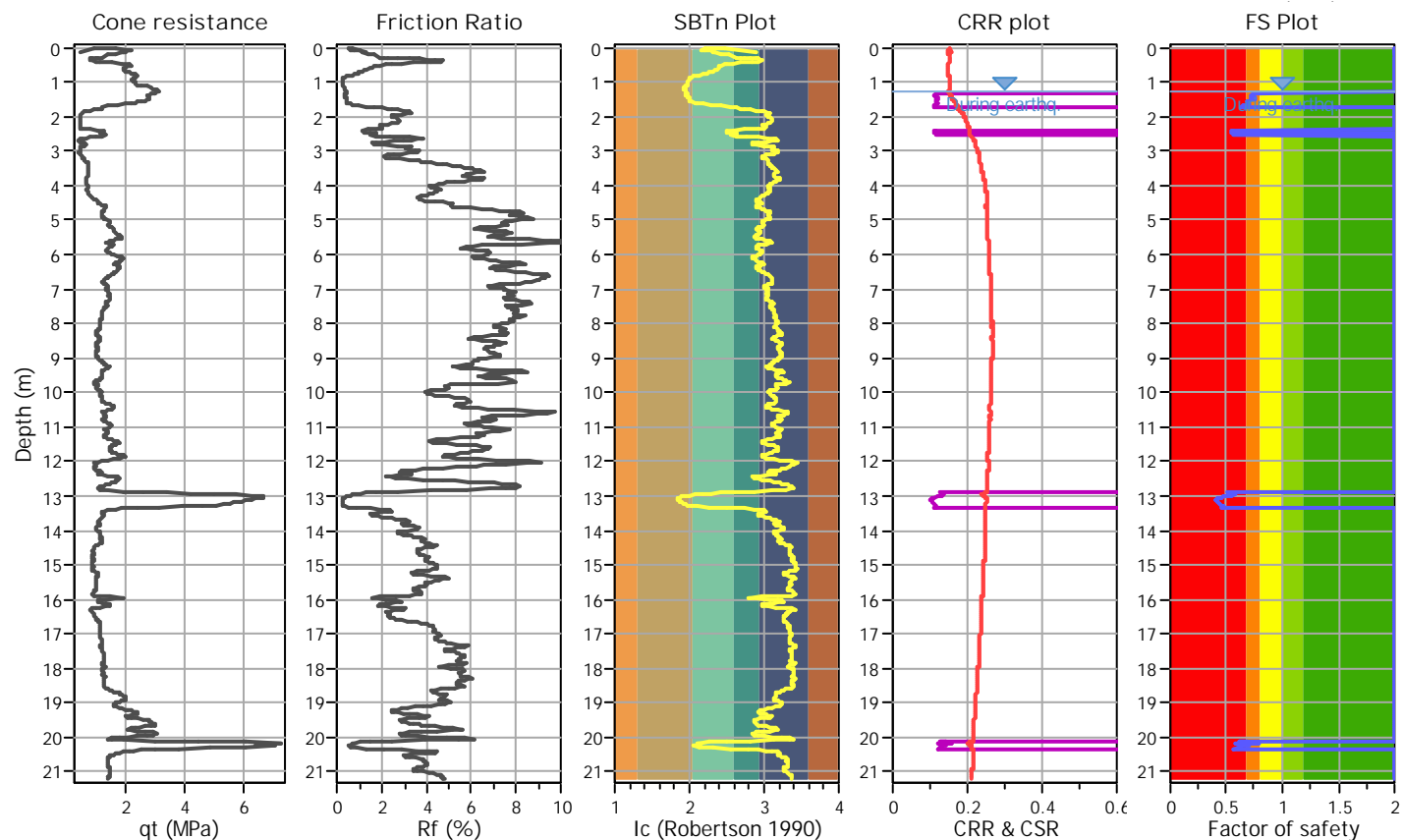
Project title : liquefacibilità e cedimenti postsismici

Location : Comparto ex D7.3 Castel Maggiore

CPT file : Saliceto 3

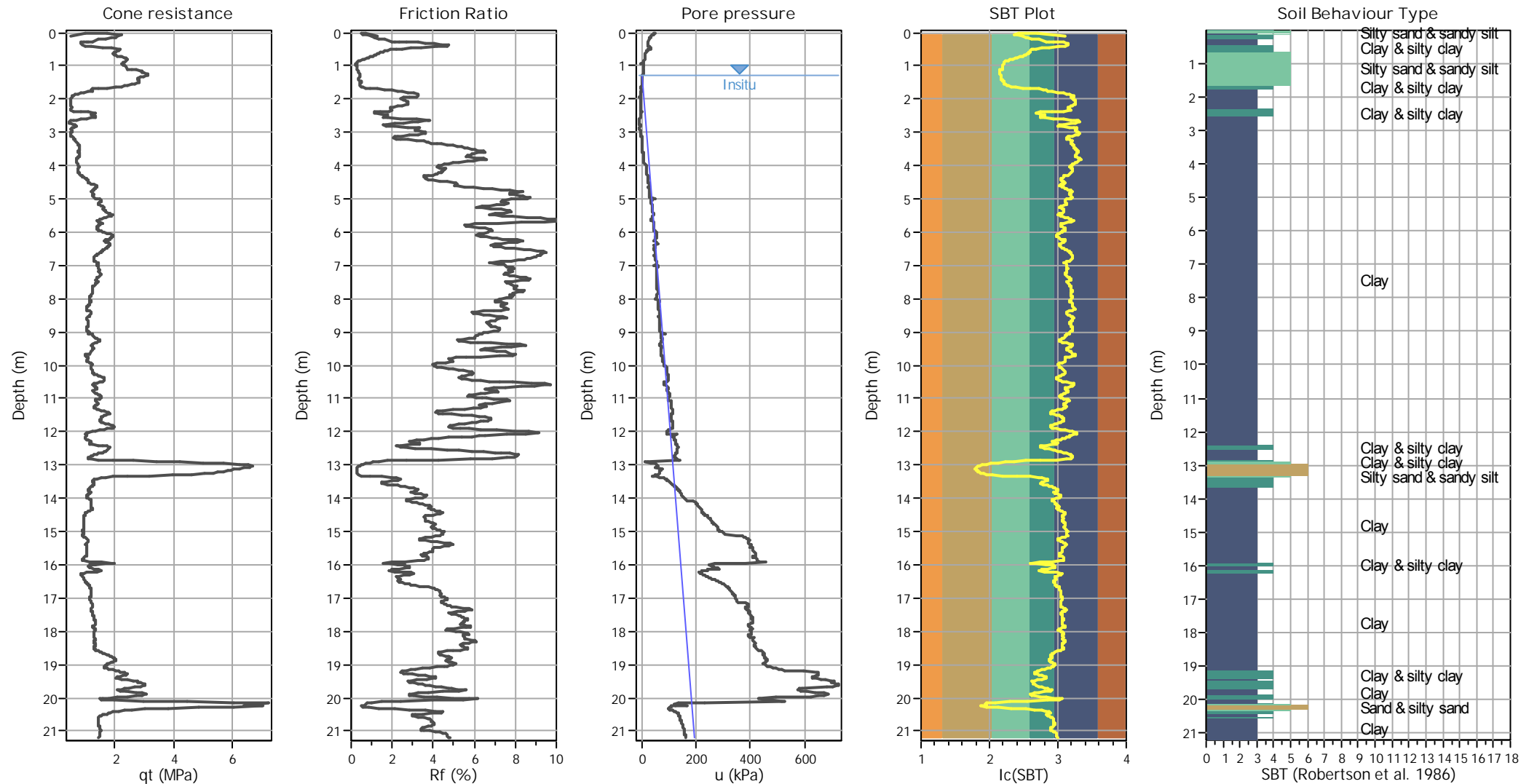
Input parameters and analysis data

Analysis method:	B&I (2014)	G.W.T. (in-situ):	1.30 m	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	1.30 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w :	6.14	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method
Peak ground acceleration:	0.28	Unit weight calculation:	Based on SBT	K applied:	Yes		



Zone A₁: Cyclic liquefaction likely depending on size and duration of cyclic loading
 Zone A₂: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
 Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
 Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



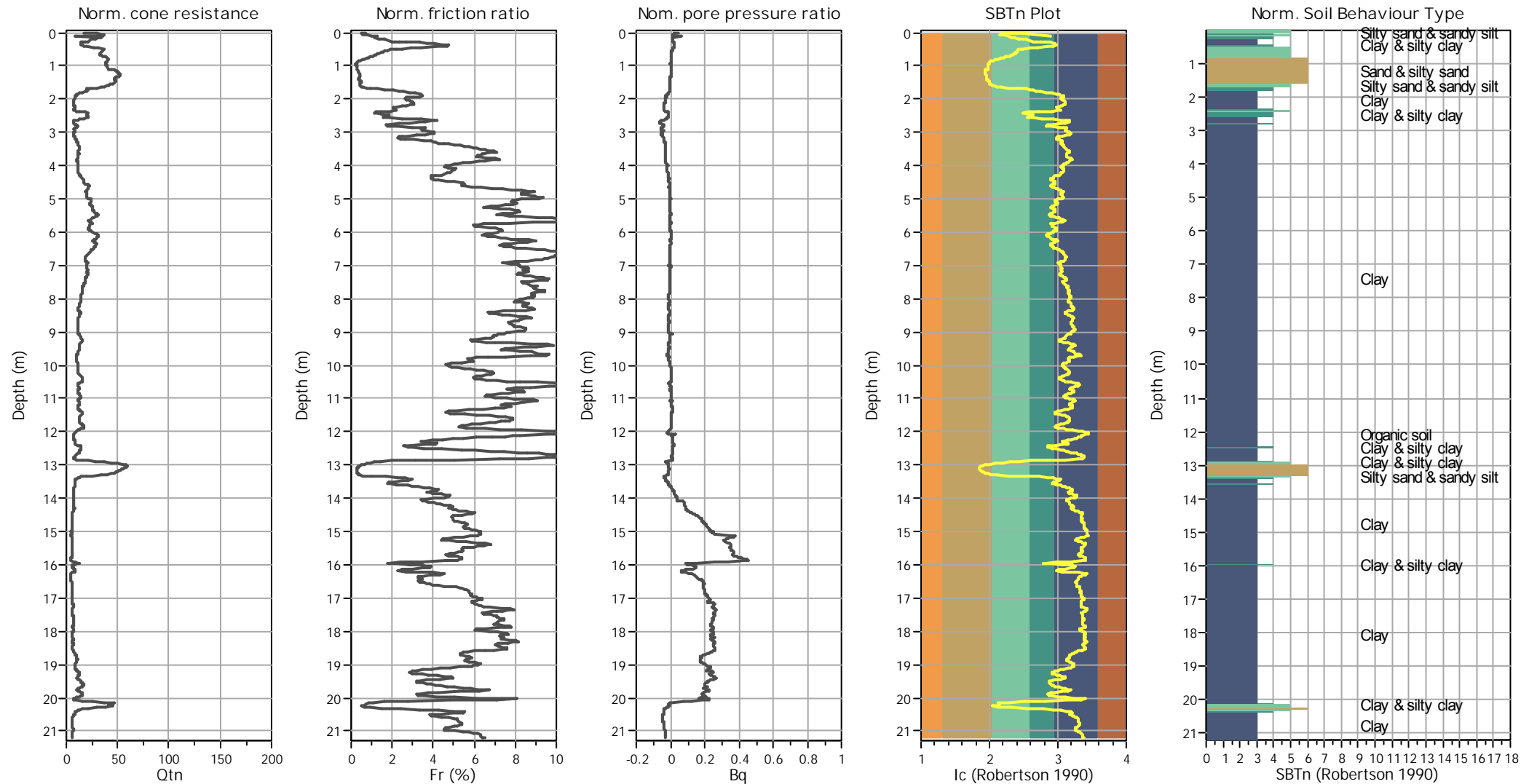
Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	1.30 m	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K applied:	Yes
Earthquake magnitude M_w :	6.14	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.28	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	1.30 m	Fill height:	N/A	Limit depth:	N/A

SBT legend

1. Sensitive fine grained	4. Clayey silt to silty	7. Gravely sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

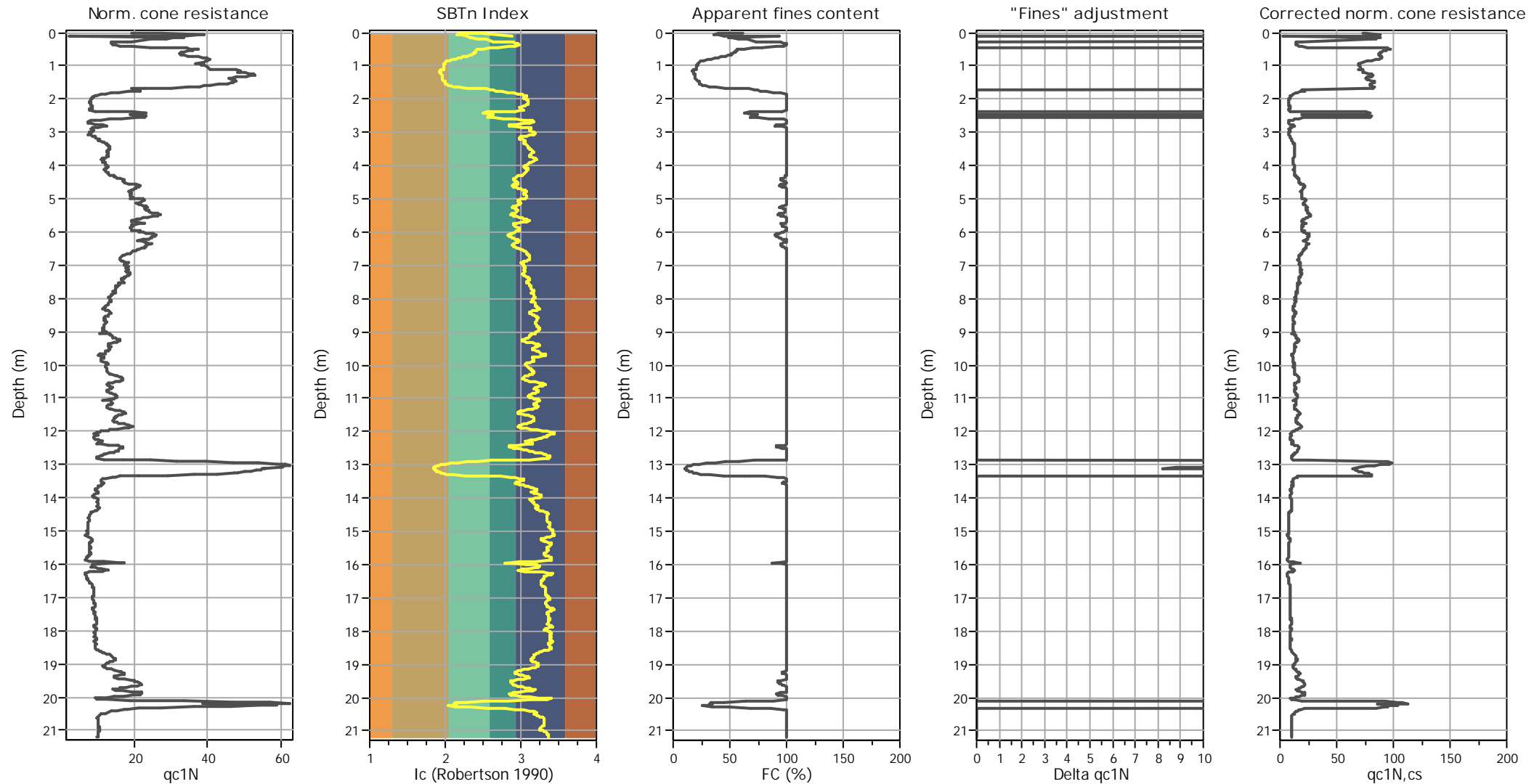
CPT basic interpretation plots (normalized)



Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	1.30 m	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K applied:	Yes
Earthquake magnitude M_w :	6.14	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.28	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	1.30 m	Fill height:	N/A	Limit depth:	N/A

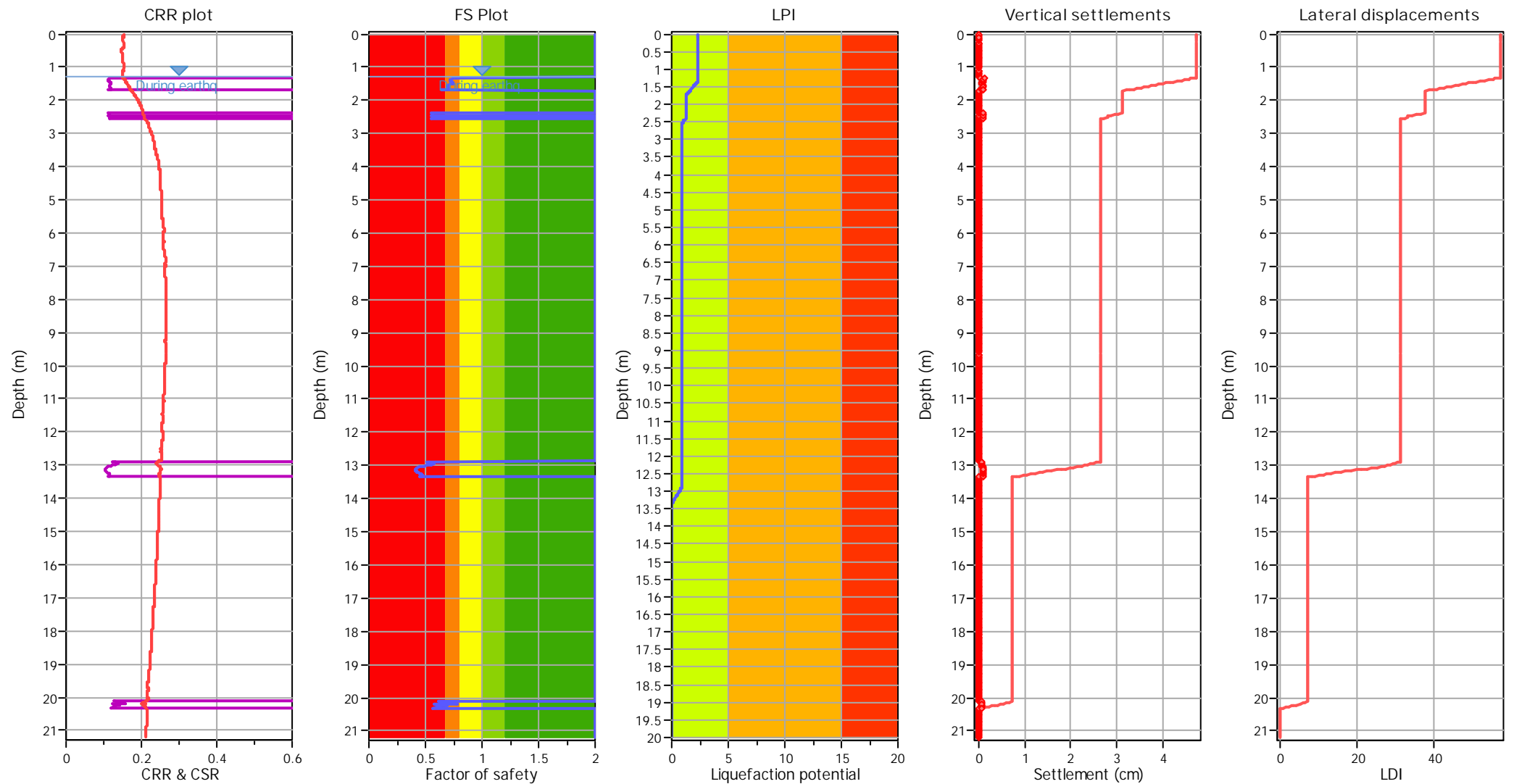
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	1.30 m	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K applied:	Yes
Earthquake magnitude M_w :	6.14	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.28	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	1.30 m	Fill height:	N/A	Limit depth:	N/A

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	1.30 m	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K applied:	Yes
Earthquake magnitude M_w :	6.14	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.28	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	1.30 m	Fill height:	N/A	Limit depth:	N/A

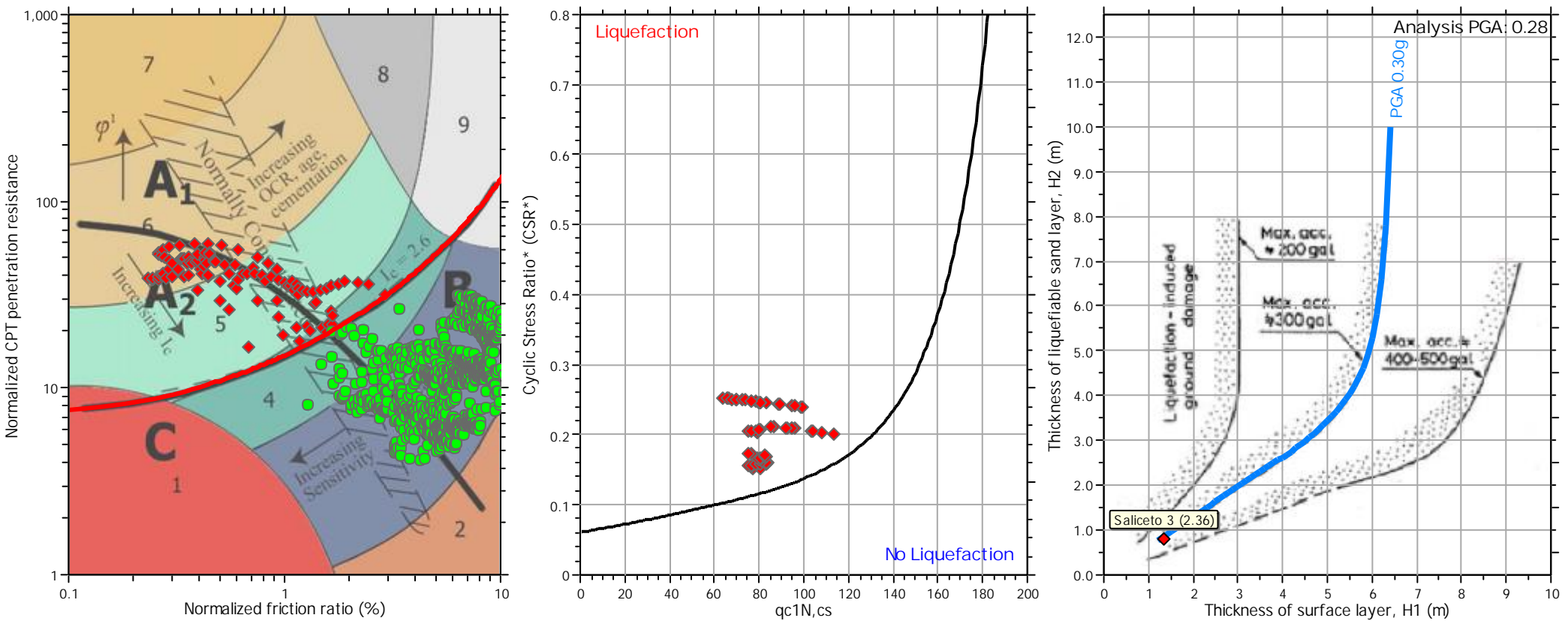
F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

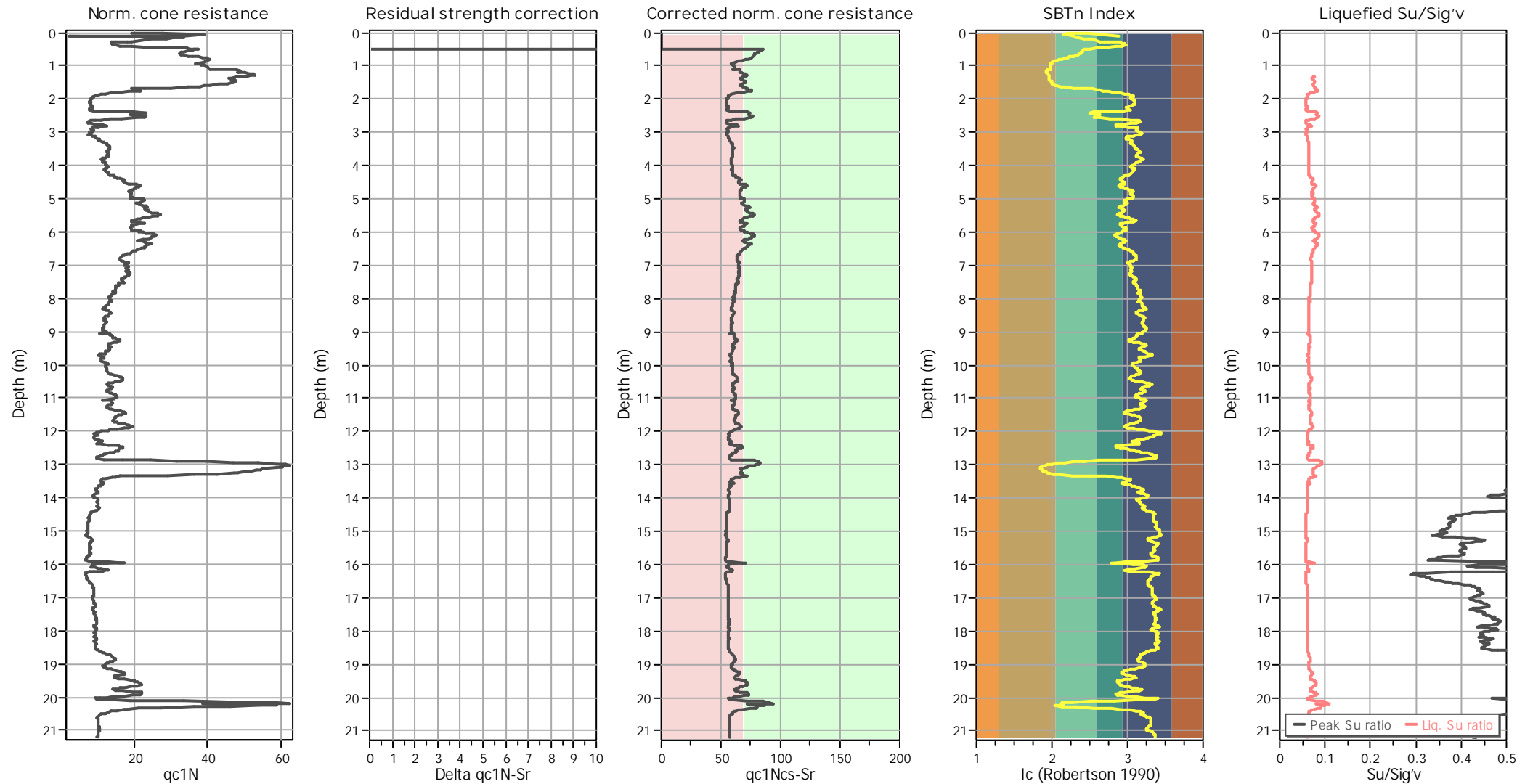
Liquefaction analysis summary plots



Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	1.30 m	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on I_c value	I_c cut-off value:	2.60	K applied:	Yes
Earthquake magnitude M_w :	6.14	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.28	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	1.30 m	Fill height:	N/A	Limit depth:	N/A

Check for strength loss plots (Idriss & Boulanger (2008))



Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	1.30 m	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K applied:	Yes
Earthquake magnitude M_w :	6.14	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.28	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	1.30 m	Fill height:	N/A	Limit depth:	N/A

:: Field input data ::						
Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
1	0.12	0.13	5.90	32.35	51.31	14.80
2	0.02	1.14	6.73	45.54	29.89	15.17
3	0.04	1.65	7.53	41.51	5.00	15.67
4	0.06	2.34	11.45	40.35	17.60	16.15
5	0.08	2.27	17.70	34.45	19.23	16.61
6	0.10	1.99	24.57	30.41	21.77	16.80
7	0.15	2.01	22.25	30.03	23.33	16.86
8	0.15	2.01	22.25	30.03	23.34	16.78
9	0.16	1.84	20.09	27.78	24.52	16.76
10	0.18	1.73	22.63	25.84	27.60	16.79
11	0.20	1.46	26.24	24.13	32.02	16.79
12	0.28	1.15	23.57	20.87	36.84	16.74
13	0.28	1.08	22.98	20.33	39.68	16.64
14	0.28	1.08	22.98	20.33	42.69	16.63
15	0.28	0.88	24.79	18.93	46.57	16.66
16	0.30	0.82	27.15	18.85	51.86	16.74
17	0.33	0.81	30.94	19.16	54.01	16.83
18	0.34	0.83	32.22	19.01	55.54	16.96
19	0.36	0.84	37.82	19.55	56.34	17.10
20	0.38	0.89	42.96	20.33	56.58	17.27
21	0.40	0.97	47.30	23.51	54.03	17.41
22	0.42	1.15	50.09	26.77	48.53	17.56
23	0.44	1.46	52.49	29.41	40.27	17.72
24	0.46	2.05	55.62	31.04	34.87	17.82
25	0.48	2.10	54.45	29.72	30.66	17.83
26	0.50	2.25	46.76	24.91	28.96	17.72
27	0.52	2.17	40.97	21.10	27.30	17.58
28	0.54	2.14	37.23	19.32	26.86	17.45
29	0.56	2.06	34.12	16.91	26.52	17.33
30	0.58	2.01	31.08	15.05	26.37	17.22
31	0.60	1.96	28.80	13.66	25.93	17.11
32	0.62	1.94	25.97	12.49	25.42	17.01
33	0.64	1.93	24.25	11.72	24.84	16.93
34	0.66	1.95	23.77	11.25	24.27	16.89
35	0.68	2.00	23.13	10.63	23.41	16.86
36	0.70	2.07	21.79	10.32	22.37	16.83
37	0.72	2.14	21.42	10.01	21.23	16.81
38	0.74	2.25	20.98	9.54	20.28	16.80
39	0.76	2.31	20.47	9.23	19.24	16.76
40	0.78	2.38	18.79	8.92	18.13	16.67
41	0.80	2.41	16.13	8.15	16.86	16.51
42	0.82	2.42	13.12	7.53	15.66	16.30
43	0.84	2.39	10.60	7.06	5.00	16.04
44	0.86	2.36	8.01	6.67	5.00	15.78
45	0.88	2.33	6.84	6.28	5.00	15.56
46	0.90	2.33	6.37	5.97	5.00	15.44
47	0.92	2.18	5.99	-3.72	5.00	15.33
48	0.94	2.26	5.10	5.97	5.00	15.25

:: Field input data :: (continued)

Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
49	0.96	2.28	5.24	5.12	5.00	15.22
50	0.98	2.29	5.52	4.73	5.00	15.30
51	1.00	2.34	6.12	4.27	5.00	15.38
52	1.03	2.38	6.47	3.96	5.00	15.46
53	1.12	2.43	6.61	3.96	5.00	15.49
54	1.12	2.43	6.61	3.96	5.00	15.50
55	1.12	2.43	6.68	3.88	5.00	15.51
56	1.12	2.43	6.68	3.88	5.00	15.66
57	1.12	2.86	8.91	3.96	5.00	15.80
58	1.14	2.93	9.19	3.88	5.00	15.98
59	1.16	2.90	10.34	3.26	5.00	16.02
60	1.18	2.89	9.79	2.79	5.00	16.04
61	1.20	2.91	9.65	2.48	5.00	16.05
62	1.22	2.98	10.59	2.41	5.00	16.14
63	1.24	3.07	12.02	2.25	5.00	16.28
64	1.26	3.13	13.51	2.17	5.00	16.41
65	1.28	3.16	14.59	1.86	5.00	16.46
66	1.30	3.10	13.97	1.32	5.00	16.45
67	1.33	3.03	13.14	1.09	5.00	16.33
68	1.34	2.85	10.93	0.31	5.00	16.18
69	1.36	2.78	9.72	0.00	5.00	16.05
70	1.38	2.74	9.79	-0.23	5.00	16.00
71	1.40	2.77	9.79	-0.31	5.00	16.05
72	1.42	2.84	11.01	-0.47	5.00	16.14
73	1.44	2.85	12.09	-0.78	5.00	16.26
74	1.46	2.85	13.21	-0.93	5.00	16.36
75	1.48	2.83	14.32	-1.24	5.00	16.38
76	1.50	2.81	13.04	-1.47	5.00	16.35
77	1.52	2.78	12.07	-1.71	5.00	16.24
78	1.54	2.70	10.90	-2.09	5.00	16.14
79	1.56	2.57	10.41	-2.56	5.00	16.04
80	1.58	2.42	9.83	-2.95	5.00	15.99
81	1.60	2.34	9.97	-3.26	5.00	15.99
82	1.62	2.26	10.91	-3.57	16.10	16.05
83	1.64	2.06	12.13	-4.11	18.23	16.12
84	1.66	1.80	13.03	-4.73	21.97	16.14
85	1.68	1.36	13.32	-5.59	26.75	16.10
86	1.70	1.15	13.60	-6.05	32.51	16.23
87	1.72	1.17	20.16	-2.87	35.52	16.48
88	1.74	1.29	25.02	-2.48	37.45	16.78
89	1.76	1.29	30.16	-2.87	39.41	16.89
90	1.78	1.10	27.98	-4.19	42.74	16.84
91	1.80	0.93	24.27	-5.28	47.44	16.71
92	1.82	0.81	25.38	-5.97	52.31	16.60
93	1.84	0.71	24.55	-6.52	56.47	16.50
94	1.86	0.65	20.91	-6.91	59.23	16.34
95	1.88	0.59	18.13	-7.22	61.60	16.20
96	1.90	0.55	19.28	-7.45	63.94	16.10

:: Field input data :: (continued)

Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
97	1.92	0.52	17.12	-9.78	64.08	16.00
98	1.94	0.54	14.46	-6.21	62.85	15.85
99	1.96	0.52	13.38	-6.75	60.96	15.71
100	1.98	0.51	11.79	-6.98	61.30	15.62
101	2.00	0.49	11.93	-7.22	61.88	15.58
102	2.02	0.49	12.34	-7.45	63.39	15.59
103	2.04	0.48	12.59	-7.45	64.69	15.61
104	2.06	0.46	12.76	-7.22	65.23	15.64
105	2.08	0.48	13.21	-6.91	65.53	15.66
106	2.10	0.48	13.21	-7.06	65.32	15.68
107	2.12	0.48	13.32	-7.14	65.45	15.69
108	2.14	0.48	13.63	-7.22	65.31	15.70
109	2.17	0.49	13.46	-7.22	64.90	15.69
110	2.18	0.49	12.90	-7.37	64.47	15.66
111	2.20	0.49	12.66	-7.37	62.88	15.60
112	2.22	0.51	11.17	-7.29	60.86	15.53
113	2.24	0.52	10.51	-7.29	58.76	15.43
114	2.26	0.51	9.75	-7.45	57.57	15.36
115	2.28	0.51	9.12	-7.60	58.31	15.30
116	2.30	0.47	9.30	-7.76	59.01	15.26
117	2.32	0.48	9.06	-7.60	60.82	15.29
118	2.34	0.47	10.20	-7.37	58.84	15.37
119	2.36	0.56	10.73	-6.52	52.93	15.52
120	2.38	0.75	11.42	-5.04	42.03	15.72
121	2.40	1.14	12.43	-2.95	33.74	15.92
122	2.42	1.39	13.51	-4.19	30.45	16.14
123	2.44	1.34	16.74	-5.59	31.26	16.29
124	2.46	1.21	18.16	-6.52	34.85	16.43
125	2.48	1.12	21.01	-7.37	37.39	16.55
126	2.50	1.21	23.82	-6.67	36.45	16.63
127	2.52	1.39	21.53	-5.59	34.10	16.61
128	2.54	1.36	18.41	-6.75	33.36	16.57
129	2.56	1.25	21.26	-7.76	37.16	16.58
130	2.58	0.99	24.56	-9.00	44.55	16.65
131	2.60	0.79	26.67	-9.78	54.04	16.66
132	2.62	0.66	26.99	-10.32	61.72	16.55
133	2.64	0.57	21.92	-10.78	67.02	16.32
134	2.66	0.48	16.79	-11.25	69.98	16.04
135	2.68	0.44	15.12	-11.41	71.19	15.79
136	2.70	0.43	12.63	-11.25	70.52	15.61
137	2.72	0.44	11.06	-10.78	66.71	15.47
138	2.74	0.48	10.30	-10.16	61.00	15.39
139	2.76	0.56	9.44	-9.31	53.77	15.40
140	2.78	0.67	9.61	-8.38	48.88	15.50
141	2.80	0.74	11.76	-8.15	48.20	15.70
142	2.82	0.70	14.19	-8.69	52.45	15.92
143	2.84	0.60	17.60	-9.93	59.37	16.04
144	2.87	0.53	18.50	-10.24	65.15	16.06

:: Field input data :: (continued)						
Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
145	2.88	0.51	16.87	-10.01	67.49	15.99
146	2.90	0.50	15.48	-9.85	67.77	15.91
147	2.92	0.49	15.52	-9.93	66.89	15.89
148	2.94	0.53	16.15	-8.15	66.29	15.95
149	2.96	0.54	17.21	-3.88	66.48	16.02
150	2.98	0.52	18.56	-4.34	69.04	16.05
151	3.00	0.47	18.14	-4.50	71.03	16.03
152	3.03	0.48	16.72	-4.50	72.14	15.97
153	3.04	0.47	16.69	-4.42	71.72	15.89
154	3.06	0.45	14.85	-4.27	70.34	15.82
155	3.08	0.48	13.77	-4.03	67.18	15.72
156	3.10	0.51	12.69	-3.65	63.33	15.65
157	3.12	0.53	11.69	-3.41	60.34	15.59
158	3.14	0.55	11.34	-3.10	58.39	15.57
159	3.16	0.56	11.69	-2.79	56.88	15.62
160	3.19	0.60	12.69	-2.56	56.81	15.73
161	3.20	0.61	14.53	-2.41	57.16	15.88
162	3.22	0.62	16.34	-2.25	59.49	16.06
163	3.24	0.61	20.12	-2.17	61.86	16.25
164	3.26	0.63	23.59	-1.94	63.02	16.41
165	3.28	0.67	24.60	-1.40	62.60	16.51
166	3.30	0.69	25.64	-1.24	61.70	16.61
167	3.32	0.72	28.62	-0.93	61.39	16.71
168	3.34	0.75	30.60	-0.54	61.80	16.82
169	3.36	0.75	33.48	-0.54	62.64	16.90
170	3.38	0.74	35.15	-0.47	63.58	16.98
171	3.40	0.76	37.34	-0.23	64.35	17.06
172	3.43	0.78	40.49	0.16	64.52	17.14
173	3.44	0.80	42.61	0.78	64.86	17.21
174	3.46	0.80	43.93	0.85	65.28	17.25
175	3.48	0.79	45.18	0.85	66.05	17.28
176	3.50	0.79	46.11	0.93	66.97	17.29
177	3.52	0.77	46.25	0.93	67.86	17.31
178	3.54	0.77	47.47	1.09	68.81	17.32
179	3.56	0.75	47.95	1.16	70.13	17.34
180	3.58	0.74	49.79	1.40	70.80	17.35
181	3.60	0.75	48.92	1.78	70.21	17.35
182	3.62	0.78	47.78	3.26	68.91	17.33
183	3.64	0.77	46.11	3.18	67.95	17.30
184	3.66	0.76	44.89	3.26	67.85	17.27
185	3.68	0.76	44.27	3.49	67.64	17.24
186	3.70	0.77	43.64	4.11	67.08	17.23
187	3.72	0.77	42.50	4.11	66.94	17.21
188	3.74	0.76	43.09	3.88	67.99	17.21
189	3.76	0.72	43.88	3.49	70.20	17.21
190	3.78	0.69	44.16	3.41	72.88	17.21
191	3.80	0.66	45.37	3.88	74.07	17.21
192	3.82	0.68	44.50	4.66	73.82	17.20

:: Field input data :: (continued)

Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
193	3.84	0.69	42.70	4.97	72.61	17.17
194	3.86	0.69	41.59	5.20	71.34	17.12
195	3.88	0.69	38.88	5.59	70.49	17.06
196	3.90	0.68	36.73	6.13	68.56	17.00
197	3.92	0.72	34.57	6.67	66.94	16.95
198	3.94	0.72	33.92	9.23	65.54	16.92
199	3.96	0.72	33.85	9.47	64.64	16.89
200	3.98	0.73	31.55	15.91	63.68	16.87
201	4.00	0.75	31.97	14.35	62.23	16.86
202	4.02	0.77	31.69	14.74	61.49	16.87
203	4.04	0.77	31.86	14.43	61.72	16.88
204	4.06	0.75	33.29	14.66	62.75	16.90
205	4.08	0.74	33.63	14.74	63.88	16.91
206	4.10	0.73	33.43	14.90	64.90	16.92
207	4.12	0.71	34.29	15.44	64.75	16.90
208	4.14	0.73	32.28	15.75	64.45	16.89
209	4.16	0.74	32.42	15.83	63.73	16.88
210	4.18	0.73	33.01	16.68	63.77	16.90
211	4.20	0.75	33.91	16.91	63.00	16.91
212	4.22	0.77	32.56	17.15	61.92	16.91
213	4.24	0.78	32.28	17.46	61.06	16.90
214	4.26	0.78	32.45	18.08	60.67	16.90
215	4.28	0.80	32.90	18.70	59.33	16.91
216	4.30	0.85	31.86	19.32	57.11	16.90
217	4.32	0.88	30.61	19.47	55.34	16.90
218	4.34	0.89	31.58	19.47	54.65	16.94
219	4.36	0.92	34.05	20.02	54.44	17.00
220	4.38	0.95	35.12	21.34	53.65	17.08
221	4.40	1.01	37.34	22.50	52.20	17.14
222	4.42	1.07	38.31	22.11	51.86	17.23
223	4.44	1.05	41.92	21.80	52.34	17.31
224	4.46	1.07	46.05	22.11	54.01	17.43
225	4.48	1.08	51.61	22.58	55.24	17.53
226	4.50	1.08	54.62	22.89	56.34	17.62
227	4.52	1.09	57.57	23.74	56.06	17.68
228	4.54	1.16	59.20	26.54	55.42	17.76
229	4.56	1.21	63.78	25.29	53.63	17.83
230	4.58	1.31	65.69	26.85	52.30	17.91
231	4.60	1.37	69.34	28.32	51.15	17.98
232	4.62	1.40	72.08	26.92	51.37	18.04
233	4.64	1.37	75.16	20.64	52.78	18.09
234	4.66	1.33	80.40	22.73	54.64	18.15
235	4.68	1.32	85.78	24.21	56.52	18.21
236	4.70	1.30	89.53	24.13	58.32	18.26
237	4.72	1.26	94.00	24.44	59.98	18.30
238	4.74	1.25	95.67	24.83	61.82	18.32
239	4.76	1.21	99.17	25.68	63.32	18.35
240	4.78	1.18	101.84	25.99	64.30	18.36

:: Field input data :: (continued)

Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
241	4.80	1.20	100.59	27.16	64.00	18.36
242	4.82	1.23	98.85	27.31	62.59	18.35
243	4.84	1.27	96.77	27.08	61.60	18.34
244	4.86	1.25	95.93	26.77	61.62	18.34
245	4.88	1.23	99.57	26.85	62.46	18.36
246	4.90	1.23	102.59	27.23	63.19	18.39
247	4.92	1.24	103.77	27.62	63.41	18.42
248	4.94	1.26	107.86	28.40	63.42	18.47
249	4.96	1.30	113.79	30.10	63.95	18.50
250	4.98	1.24	111.63	45.70	62.53	18.54
251	5.00	1.43	116.31	33.98	60.50	18.57
252	5.02	1.49	116.66	34.37	57.86	18.61
253	5.04	1.52	115.58	34.68	56.61	18.61
254	5.06	1.54	112.73	33.44	56.24	18.59
255	5.08	1.50	110.89	33.05	56.20	18.57
256	5.10	1.49	110.03	33.05	57.18	18.55
257	5.12	1.42	110.37	31.81	58.14	18.53
258	5.14	1.39	108.46	32.59	58.54	18.51
259	5.16	1.43	106.07	35.46	57.75	18.50
260	5.18	1.47	105.51	36.62	56.00	18.50
261	5.20	1.54	104.08	37.63	54.23	18.49
262	5.22	1.58	100.47	37.48	52.69	18.47
263	5.24	1.60	98.87	37.55	51.38	18.45
264	5.26	1.64	96.86	36.54	51.46	18.46
265	5.28	1.59	102.13	35.77	52.09	18.50
266	5.30	1.60	108.86	37.24	53.76	18.56
267	5.32	1.58	115.87	37.55	54.99	18.64
268	5.34	1.60	125.62	37.94	55.39	18.71
269	5.36	1.68	128.05	38.41	55.38	18.77
270	5.38	1.68	130.89	38.25	55.27	18.79
271	5.40	1.67	133.70	39.49	54.94	18.81
272	5.42	1.74	131.41	41.51	53.45	18.81
273	5.44	1.85	128.25	42.05	51.32	18.81
274	5.46	1.90	126.58	41.59	49.93	18.82
275	5.48	1.93	129.81	41.04	50.02	18.84
276	5.50	1.89	135.50	40.66	50.71	18.87
277	5.52	1.87	135.74	39.57	52.09	18.88
278	5.54	1.80	139.52	37.86	54.20	18.90
279	5.56	1.68	146.98	35.61	57.19	18.92
280	5.58	1.59	150.83	34.60	59.88	18.93
281	5.60	1.55	148.98	34.37	61.70	18.91
282	5.62	1.48	145.72	33.36	63.63	18.88
283	5.65	1.39	147.59	33.21	65.37	18.86
284	5.66	1.37	144.88	36.54	66.19	18.82
285	5.68	1.37	136.20	40.50	63.55	18.76
286	5.70	1.50	121.73	43.76	59.49	18.68
287	5.72	1.58	112.42	44.61	55.19	18.60
288	5.74	1.63	104.79	44.69	52.92	18.51

:: Field input data :: (continued)

Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
289	5.76	1.56	93.71	42.29	52.12	18.38
290	5.78	1.45	82.09	39.73	52.50	18.25
291	5.80	1.39	79.17	40.11	52.47	18.15
292	5.82	1.43	76.36	41.28	52.91	18.14
293	5.84	1.39	81.15	41.28	53.68	18.17
294	5.86	1.36	85.45	41.98	55.58	18.23
295	5.88	1.35	90.83	42.98	56.57	18.29
296	5.90	1.39	94.02	44.30	56.93	18.33
297	5.92	1.39	94.61	44.23	56.81	18.36
298	5.94	1.41	97.91	45.16	56.63	18.40
299	5.96	1.47	102.45	45.78	55.42	18.46
300	5.98	1.58	103.92	39.80	54.62	18.49
301	6.00	1.54	105.04	52.29	53.66	18.54
302	6.02	1.64	111.12	51.05	53.08	18.58
303	6.04	1.71	113.65	51.83	51.10	18.64
304	6.06	1.86	114.62	51.83	49.31	18.68
305	6.08	1.91	115.59	51.75	48.03	18.70
306	6.10	1.93	117.78	51.29	48.00	18.73
307	6.12	1.91	120.56	50.74	48.83	18.75
308	6.14	1.86	124.75	49.97	49.96	18.78
309	6.16	1.85	128.64	50.67	51.01	18.81
310	6.18	1.84	130.72	50.04	51.91	18.83
311	6.20	1.80	133.05	49.11	52.93	18.84
312	6.22	1.76	135.79	48.26	54.39	18.85
313	6.24	1.69	136.58	46.17	56.48	18.85
314	6.26	1.58	138.28	44.85	57.83	18.84
315	6.28	1.62	137.69	46.01	57.42	18.85
316	6.30	1.74	136.78	51.05	56.11	18.85
317	6.32	1.72	136.99	51.29	54.25	18.86
318	6.34	1.83	135.04	55.40	52.67	18.85
319	6.36	1.90	128.76	57.34	51.69	18.81
320	6.38	1.78	123.21	43.37	51.52	18.76
321	6.40	1.76	120.15	45.54	52.27	18.73
322	6.42	1.76	122.23	47.33	52.83	18.74
323	6.44	1.73	125.87	47.87	53.24	18.76
324	6.46	1.77	127.40	47.25	53.81	18.78
325	6.48	1.74	129.82	45.31	54.62	18.81
326	6.50	1.69	135.76	44.30	56.54	18.83
327	6.52	1.62	139.50	44.54	58.46	18.85
328	6.54	1.59	140.58	44.85	59.90	18.86
329	6.56	1.57	141.44	45.39	61.16	18.86
330	6.58	1.52	144.98	45.47	62.56	18.87
331	6.60	1.49	145.98	46.01	63.37	18.85
332	6.62	1.49	138.24	46.48	63.68	18.82
333	6.64	1.44	133.42	46.24	63.98	18.76
334	6.66	1.38	129.81	45.54	64.96	18.71
335	6.68	1.34	125.95	45.54	65.64	18.66
336	6.70	1.33	120.54	44.85	66.00	18.62

:: Field input data :: (continued)

Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
337	6.72	1.30	117.52	44.92	66.37	18.59
338	6.74	1.28	117.79	45.54	66.61	18.56
339	6.76	1.28	114.94	46.17	66.74	18.54
340	6.78	1.26	110.47	46.24	66.47	18.50
341	6.80	1.26	108.00	47.41	66.35	18.47
342	6.82	1.25	105.95	47.48	66.17	18.44
343	6.84	1.24	104.25	48.96	65.28	18.42
344	6.86	1.29	100.85	50.74	63.79	18.40
345	6.88	1.33	97.97	51.75	61.56	18.38
346	6.90	1.39	96.47	53.30	59.38	18.38
347	6.92	1.46	95.85	54.54	58.36	18.39
348	6.94	1.44	99.25	53.61	58.63	18.41
349	6.96	1.40	100.64	51.83	60.29	18.43
350	6.98	1.36	103.17	51.05	61.55	18.44
351	7.00	1.37	104.85	43.99	61.69	18.47
352	7.02	1.42	105.98	60.44	61.11	18.50
353	7.04	1.46	110.39	56.64	61.01	18.54
354	7.06	1.44	113.93	55.40	61.91	18.57
355	7.08	1.41	115.59	54.54	62.30	18.58
356	7.10	1.45	114.14	55.63	61.94	18.58
357	7.12	1.47	113.10	55.48	61.02	18.58
358	7.14	1.48	112.92	55.48	61.01	18.58
359	7.16	1.47	115.21	55.17	61.43	18.59
360	7.18	1.45	114.86	54.23	62.28	18.59
361	7.20	1.42	114.45	53.92	62.47	18.58
362	7.22	1.44	112.54	54.23	61.65	18.57
363	7.24	1.51	110.63	55.40	60.71	18.57
364	7.26	1.51	113.78	55.71	60.21	18.59
365	7.28	1.51	114.89	55.24	60.74	18.60
366	7.30	1.49	115.93	54.62	61.52	18.61
367	7.32	1.46	117.35	53.69	62.71	18.61
368	7.34	1.42	117.70	53.30	64.09	18.62
369	7.36	1.40	120.02	53.23	65.63	18.62
370	7.38	1.36	121.69	52.99	66.05	18.62
371	7.40	1.40	118.88	53.07	66.79	18.61
372	7.42	1.33	118.35	53.15	66.98	18.60
373	7.44	1.33	118.53	53.23	67.17	18.58
374	7.46	1.36	113.42	54.47	65.82	18.55
375	7.48	1.39	108.56	55.55	64.61	18.52
376	7.50	1.37	106.79	54.93	63.31	18.49
377	7.52	1.42	103.29	54.93	64.17	18.46
378	7.54	1.30	103.18	51.44	65.08	18.44
379	7.56	1.29	103.60	51.44	66.12	18.42
380	7.58	1.33	100.58	52.84	66.22	18.42
381	7.60	1.29	102.76	52.68	66.94	18.42
382	7.62	1.24	104.77	52.84	68.14	18.41
383	7.64	1.24	101.23	52.68	68.53	18.39
384	7.66	1.25	99.46	53.30	68.35	18.37

:: Field input data :: (continued)

Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
385	7.68	1.23	98.63	53.23	68.23	18.36
386	7.70	1.24	99.01	54.23	68.53	18.36
387	7.72	1.24	100.60	55.09	68.44	18.37
388	7.74	1.25	100.22	56.33	69.22	18.39
389	7.76	1.22	104.77	56.64	70.35	18.40
390	7.78	1.19	105.60	56.41	70.28	18.41
391	7.80	1.26	100.19	57.49	69.45	18.38
392	7.82	1.25	97.76	57.57	68.57	18.35
393	7.84	1.21	97.23	56.25	69.29	18.32
394	7.86	1.18	95.08	55.09	70.20	18.29
395	7.88	1.16	92.10	54.54	70.43	18.26
396	7.90	1.16	90.57	54.93	70.39	18.24
397	7.92	1.17	90.67	54.54	70.62	18.24
398	7.94	1.15	91.30	53.69	71.59	18.22
399	7.96	1.10	89.46	54.08	71.75	18.20
400	7.98	1.13	85.33	54.86	71.34	18.16
401	8.00	1.14	83.51	49.81	70.29	18.14
402	8.02	1.14	83.40	49.89	70.07	18.12
403	8.04	1.12	81.00	65.49	69.54	18.12
404	8.06	1.17	82.42	62.92	69.06	18.12
405	8.08	1.17	83.15	61.30	68.70	18.14
406	8.10	1.17	83.47	60.60	69.27	18.14
407	8.12	1.14	83.92	59.05	70.35	18.14
408	8.15	1.12	85.13	58.27	71.78	18.14
409	8.16	1.10	85.41	58.35	72.45	18.13
410	8.18	1.09	82.15	59.67	72.28	18.10
411	8.20	1.10	79.09	58.42	72.42	18.06
412	8.22	1.05	77.67	56.72	73.03	18.03
413	8.24	1.04	77.74	56.72	73.99	18.01
414	8.26	1.03	76.73	56.80	74.63	18.00
415	8.28	1.02	77.42	57.18	75.65	18.00
416	8.30	0.98	77.42	57.73	76.45	18.00
417	8.32	1.00	77.80	59.51	75.99	18.00
418	8.34	1.04	77.07	61.76	74.37	18.00
419	8.36	1.07	75.72	63.93	72.15	18.00
420	8.38	1.11	74.19	64.71	69.49	17.97
421	8.40	1.16	69.12	64.79	67.40	17.94
422	8.42	1.16	68.95	63.70	65.96	17.92
423	8.44	1.18	69.40	62.77	66.25	17.94
424	8.46	1.16	71.83	61.92	67.42	17.97
425	8.48	1.13	74.88	61.68	69.02	18.00
426	8.50	1.12	76.31	62.77	70.44	18.03
427	8.52	1.12	78.67	61.45	72.23	18.05
428	8.54	1.06	80.82	60.29	74.04	18.05
429	8.56	1.04	79.46	61.76	75.71	18.04
430	8.58	1.03	78.53	62.54	75.69	18.02
431	8.60	1.04	76.17	62.77	75.22	17.99
432	8.62	1.04	74.74	63.55	74.55	17.98

:: Field input data :: (continued)

Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
433	8.64	1.05	74.67	63.86	74.33	17.97
434	8.66	1.04	74.36	64.17	74.19	17.96
435	8.68	1.05	73.28	65.10	73.29	17.96
436	8.70	1.09	72.42	65.64	72.28	17.95
437	8.72	1.09	72.28	64.86	71.75	17.95
438	8.74	1.08	72.94	64.40	72.20	17.95
439	8.76	1.07	72.48	63.93	73.01	17.94
440	8.78	1.05	71.96	63.78	73.52	17.93
441	8.80	1.05	71.69	64.01	73.86	17.93
442	8.82	1.05	71.93	64.24	74.09	17.94
443	8.84	1.05	73.49	64.40	74.53	17.95
444	8.86	1.04	74.18	64.48	75.05	17.96
445	8.88	1.04	75.16	64.09	75.88	17.97
446	8.90	1.02	75.81	64.40	76.42	17.98
447	8.92	1.03	75.78	64.86	76.50	17.98
448	8.94	1.04	74.56	65.41	76.57	17.98
449	8.96	1.02	76.20	65.56	76.13	17.98
450	8.98	1.05	75.54	66.34	74.75	17.98
451	9.00	1.11	73.18	67.42	72.63	17.97
452	9.02	1.13	72.41	67.19	73.00	17.90
453	9.04	0.96	63.45	84.96	71.91	17.92
454	9.06	1.19	75.00	71.61	71.06	17.94
455	9.08	1.20	75.59	70.92	68.62	18.04
456	9.10	1.21	76.60	70.37	68.03	18.05
457	9.12	1.24	76.39	70.68	67.18	18.06
458	9.14	1.27	76.46	70.61	66.66	18.08
459	9.16	1.26	78.02	70.22	66.49	18.10
460	9.18	1.28	79.48	70.99	65.82	18.11
461	9.20	1.34	78.16	72.55	63.92	18.12
462	9.22	1.41	76.63	73.48	61.27	18.11
463	9.24	1.48	74.38	73.24	59.88	18.11
464	9.26	1.46	76.70	71.92	59.95	18.13
465	9.28	1.42	78.85	70.06	61.63	18.15
466	9.30	1.38	80.97	68.82	63.68	18.18
467	9.32	1.35	84.96	68.20	65.67	18.21
468	9.34	1.33	87.98	66.80	68.98	18.26
469	9.36	1.22	96.17	63.31	72.83	18.32
470	9.38	1.17	101.79	64.17	76.01	18.36
471	9.40	1.20	102.31	66.26	77.01	18.38
472	9.42	1.19	101.54	69.44	76.32	18.37
473	9.44	1.20	97.93	71.61	74.17	18.32
474	9.46	1.27	88.80	72.16	72.34	18.26
475	9.48	1.23	85.89	71.23	70.41	18.18
476	9.50	1.23	79.29	70.61	70.07	18.12
477	9.52	1.23	77.42	70.45	69.59	18.08
478	9.54	1.22	77.66	70.06	70.09	18.09
479	9.56	1.21	80.37	71.15	71.36	18.12
480	9.58	1.19	84.29	70.37	73.71	18.16

:: Field input data :: (continued)

Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
481	9.60	1.13	88.38	69.99	75.98	18.18
482	9.66	1.12	88.83	70.06	77.79	18.20
483	9.66	1.12	88.83	70.06	78.90	18.15
484	9.67	1.03	79.95	67.74	80.57	18.08
485	9.68	0.98	78.77	67.04	83.46	18.01
486	9.70	0.93	78.63	68.20	83.78	17.97
487	9.73	0.97	72.03	72.47	81.06	17.90
488	9.74	1.04	65.09	76.04	75.89	17.82
489	9.76	1.09	60.65	76.04	72.24	17.74
490	9.78	1.08	56.59	75.26	70.01	17.66
491	9.80	1.08	52.01	74.41	69.47	17.58
492	9.82	1.04	49.92	74.33	69.80	17.53
493	9.84	1.02	50.76	75.34	70.57	17.51
494	9.86	1.03	50.44	76.27	71.34	17.53
495	9.88	1.02	52.28	76.74	71.31	17.55
496	9.90	1.05	53.43	78.75	69.89	17.57
497	9.92	1.13	51.87	79.68	67.12	17.58
498	9.94	1.18	50.48	79.84	63.90	17.55
499	9.96	1.21	47.64	79.53	62.19	17.53
500	9.98	1.21	47.19	78.52	62.47	17.51
501	10.00	1.15	49.06	78.60	63.52	17.51
502	10.02	1.14	47.67	78.44	64.34	17.50
503	10.04	1.16	47.01	83.80	64.09	17.48
504	10.06	1.15	47.13	93.11	64.58	17.53
505	10.08	1.16	53.44	91.55	65.44	17.60
506	10.10	1.18	55.84	91.55	66.61	17.70
507	10.12	1.18	60.07	91.17	67.40	17.76
508	10.14	1.19	62.81	90.86	68.34	17.83
509	10.16	1.20	66.94	90.70	69.32	17.89
510	10.18	1.19	70.07	90.31	70.17	17.95
511	10.20	1.21	73.02	91.32	70.31	17.99
512	10.22	1.24	73.05	91.32	70.26	18.02
513	10.24	1.23	74.68	91.55	69.84	18.03
514	10.26	1.25	74.89	91.87	69.75	18.05
515	10.28	1.27	77.11	92.64	68.78	18.08
516	10.30	1.33	78.15	94.50	66.99	18.11
517	10.32	1.41	78.08	95.05	64.96	18.15
518	10.34	1.47	80.85	95.05	62.78	18.19
519	10.36	1.55	81.82	96.06	61.42	18.23
520	10.38	1.60	84.63	95.74	60.46	18.28
521	10.40	1.64	89.04	94.97	60.32	18.33
522	10.42	1.64	90.70	93.96	61.11	18.38
523	10.44	1.62	97.02	94.12	62.28	18.44
524	10.46	1.62	102.47	93.57	64.26	18.49
525	10.48	1.56	107.01	91.24	66.15	18.54
526	10.50	1.53	110.55	91.01	68.94	18.57
527	10.52	1.45	114.54	82.17	72.43	18.60
528	10.54	1.35	121.20	81.78	77.24	18.62

:: Field input data :: (continued)

Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
529	10.56	1.25	125.88	80.85	80.71	18.62
530	10.58	1.24	121.13	82.09	82.63	18.60
531	10.60	1.23	119.01	84.42	81.46	18.57
532	10.62	1.27	114.49	89.93	80.12	18.54
533	10.64	1.28	110.57	92.95	77.36	18.49
534	10.66	1.33	102.31	95.43	74.23	18.42
535	10.68	1.38	92.83	95.90	71.77	18.35
536	10.70	1.36	90.99	95.67	70.80	18.29
537	10.72	1.32	87.69	93.03	71.36	18.25
538	10.74	1.30	84.46	92.02	72.37	18.22
539	10.76	1.26	86.16	90.70	74.13	18.22
540	10.78	1.22	90.50	93.49	75.81	18.24
541	10.80	1.23	91.43	96.75	75.77	18.26
542	10.82	1.28	88.73	98.31	73.91	18.25
543	10.84	1.33	87.27	98.62	71.81	18.25
544	10.86	1.36	87.82	99.39	69.86	18.25
545	10.88	1.42	86.47	99.47	67.74	18.26
546	10.90	1.49	84.94	99.55	66.01	18.26
547	10.92	1.50	85.95	98.93	65.09	18.28
548	10.94	1.53	89.38	100.09	65.74	18.33
549	10.96	1.51	95.21	98.62	66.62	18.38
550	10.98	1.50	97.08	97.99	67.88	18.41
551	11.00	1.48	99.06	97.76	68.89	18.43
552	11.02	1.46	100.73	97.22	70.71	18.45
553	11.04	1.40	104.65	97.06	75.69	18.43
554	11.06	1.13	103.27	95.36	76.80	18.42
555	11.08	1.38	99.88	109.09	76.80	18.41
556	11.10	1.38	101.58	105.06	73.54	18.43
557	11.12	1.37	102.83	106.06	73.45	18.43
558	11.14	1.39	98.63	106.37	72.35	18.38
559	11.16	1.41	90.17	105.75	70.96	18.32
560	11.18	1.38	86.21	104.74	70.43	18.26
561	11.20	1.35	86.28	104.67	71.43	18.24
562	11.22	1.32	87.46	105.29	73.21	18.23
563	11.24	1.26	86.73	106.45	74.31	18.21
564	11.26	1.26	82.49	106.92	74.74	18.17
565	11.28	1.25	80.37	107.85	73.80	18.13
566	11.30	1.28	79.09	109.40	72.04	18.11
567	11.32	1.34	75.20	110.33	69.26	18.07
568	11.34	1.39	70.93	111.34	65.22	18.03
569	11.36	1.51	67.43	112.58	61.31	18.01
570	11.38	1.62	67.08	113.12	57.93	18.04
571	11.40	1.73	70.24	112.81	56.44	18.09
572	11.42	1.75	74.19	112.50	55.89	18.16
573	11.44	1.79	77.56	112.58	55.98	18.21
574	11.46	1.81	79.75	110.41	56.72	18.27
575	11.48	1.77	85.47	109.25	59.04	18.34
576	11.50	1.67	93.94	108.08	62.17	18.39

:: Field input data :: (continued)

Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
577	11.52	1.60	95.57	106.84	65.30	18.42
578	11.54	1.55	98.21	107.62	67.53	18.44
579	11.56	1.51	100.05	107.38	69.28	18.46
580	11.58	1.51	104.18	108.93	70.42	18.48
581	11.60	1.49	103.52	109.09	70.85	18.48
582	11.62	1.49	102.06	109.48	71.08	18.47
583	11.64	1.47	100.81	109.48	71.30	18.45
584	11.66	1.45	98.80	109.25	71.30	18.41
585	11.68	1.45	95.05	109.32	70.86	18.38
586	11.70	1.47	92.96	109.87	69.88	18.37
587	11.72	1.50	93.76	110.56	68.32	18.37
588	11.74	1.57	93.00	111.57	66.72	18.38
589	11.76	1.61	93.10	112.43	63.96	18.40
590	11.78	1.77	92.92	112.89	61.07	18.42
591	11.80	1.88	92.65	112.81	58.78	18.45
592	11.82	1.90	94.83	112.12	57.12	18.46
593	11.84	1.98	93.24	112.81	56.11	18.48
594	11.86	2.03	93.72	112.89	56.21	18.49
595	11.88	1.91	97.47	110.02	57.93	18.50
596	11.90	1.81	98.75	107.38	60.40	18.51
597	11.92	1.79	100.11	106.61	63.77	18.50
598	11.94	1.58	102.60	98.93	68.17	18.49
599	11.96	1.41	102.29	95.51	74.03	18.47
600	11.98	1.33	105.17	93.73	80.56	18.44
601	12.00	1.15	106.97	90.78	85.77	18.41
602	12.02	1.09	101.00	90.24	90.78	18.33
603	12.04	1.02	94.27	90.47	93.28	18.26
604	12.06	0.98	92.50	93.49	93.78	18.09
605	12.08	0.92	66.84	127.94	89.97	17.99
606	12.10	1.08	70.73	115.06	85.81	17.85
607	12.12	1.02	65.14	109.09	84.44	17.80
608	12.14	0.95	59.07	114.68	84.90	17.67
609	12.16	0.95	51.36	117.47	83.94	17.53
610	12.18	0.95	46.23	118.25	81.27	17.38
611	12.20	0.94	40.08	118.32	78.94	17.26
612	12.22	0.95	37.55	118.79	76.66	17.16
613	12.24	0.98	36.30	120.26	73.10	17.13
614	12.26	1.07	35.05	121.50	68.41	17.10
615	12.28	1.16	32.42	122.51	64.23	17.09
616	12.30	1.21	33.60	123.13	63.02	17.11
617	12.32	1.16	35.54	121.35	65.35	17.17
618	12.34	1.08	38.74	122.20	68.89	17.20
619	12.36	1.04	38.22	123.83	68.93	17.19
620	12.38	1.16	34.85	126.00	63.16	17.17
621	12.41	1.39	33.36	129.50	55.25	17.20
622	12.42	1.64	35.24	131.05	50.66	17.28
623	12.44	1.67	38.15	130.89	49.10	17.40
624	12.46	1.73	42.87	131.36	49.19	17.51

:: Field input data :: (continued)

Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
625	12.48	1.79	45.41	131.98	49.87	17.65
626	12.50	1.82	53.46	130.81	52.82	17.85
627	12.52	1.71	69.67	130.12	57.17	18.06
628	12.54	1.68	81.57	130.19	61.70	18.24
629	12.56	1.66	90.01	129.65	64.07	18.36
630	12.58	1.69	96.57	130.19	67.01	18.47
631	12.60	1.59	108.99	127.94	69.63	18.54
632	12.62	1.56	110.73	127.01	72.85	18.57
633	12.65	1.50	111.59	125.85	75.22	18.57
634	12.66	1.42	111.84	123.83	78.43	18.55
635	12.68	1.31	110.20	121.81	81.33	18.50
636	12.70	1.27	105.41	121.27	83.98	18.44
637	12.72	1.20	100.48	120.26	85.37	18.37
638	12.74	1.16	93.78	119.72	87.78	18.29
639	12.76	1.07	90.45	119.64	88.91	18.20
640	12.78	1.07	83.82	121.66	88.93	18.11
641	12.80	1.07	74.69	123.21	86.56	17.99
642	12.82	1.07	67.30	126.08	80.46	17.89
643	12.84	1.26	60.49	131.75	66.68	17.82
644	12.86	1.81	51.40	136.94	49.61	17.80
645	12.88	2.63	45.74	129.50	36.24	17.79
646	12.90	3.41	44.46	19.94	27.70	17.84
647	12.92	4.23	45.15	9.54	22.36	17.93
648	12.94	5.07	46.54	31.50	18.41	17.98
649	12.96	5.77	42.24	45.78	15.27	17.94
650	12.98	6.34	35.85	52.84	12.91	17.83
651	13.00	6.61	31.48	54.78	11.36	17.70
652	13.02	6.76	29.29	56.33	5.00	17.57
653	13.04	6.65	24.47	55.55	5.00	17.40
654	13.06	6.52	20.41	54.39	5.00	17.20
655	13.08	6.61	17.62	45.47	5.00	17.03
656	13.10	6.07	16.40	75.11	5.00	16.92
657	13.12	6.10	15.50	70.06	5.00	16.84
658	13.14	6.03	15.05	68.28	5.00	16.81
659	13.16	5.96	15.22	67.04	5.00	16.79
660	13.18	5.86	14.95	66.18	5.00	16.79
661	13.20	5.68	15.22	64.94	5.00	16.78
662	13.22	5.51	15.40	63.16	5.00	16.78
663	13.24	5.29	15.36	62.23	5.00	16.78
664	13.26	5.19	15.78	61.76	5.00	16.76
665	13.28	4.65	15.33	56.10	5.00	16.70
666	13.30	3.97	14.21	47.79	5.00	16.61
667	13.32	3.21	14.63	41.20	21.37	16.64
668	13.34	2.31	20.15	38.10	30.70	16.88
669	13.36	1.76	30.66	50.90	41.74	17.08
670	13.38	1.64	33.92	63.70	49.60	17.20
671	13.40	1.54	33.71	81.86	53.86	17.19
672	13.42	1.34	33.33	84.34	57.71	17.15

:: Field input data :: (continued)

Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
673	13.44	1.27	32.77	89.15	60.71	17.06
674	13.46	1.23	28.99	92.56	60.54	16.93
675	13.48	1.22	23.85	96.06	59.04	16.75
676	13.50	1.20	20.62	99.39	56.86	16.58
677	13.52	1.23	18.82	102.81	54.41	16.47
678	13.54	1.30	17.78	106.30	53.18	16.47
679	13.56	1.29	20.21	107.31	53.82	16.55
680	13.58	1.25	22.70	109.79	56.95	16.68
681	13.60	1.20	25.93	113.05	59.41	16.80
682	13.62	1.23	27.91	117.55	61.26	16.89
683	13.64	1.22	29.23	119.49	63.13	16.96
684	13.66	1.14	31.31	123.44	65.44	17.00
685	13.68	1.13	32.28	126.00	67.95	17.05
686	13.70	1.11	33.98	128.56	70.02	17.11
687	13.72	1.08	36.90	130.50	72.07	17.13
688	13.74	1.05	35.65	132.60	73.70	17.12
689	13.76	1.03	33.99	134.93	73.51	17.09
690	13.78	1.06	34.16	138.26	71.83	17.08
691	13.80	1.13	33.99	140.98	69.61	17.10
692	13.82	1.16	33.92	141.37	68.72	17.11
693	13.84	1.12	34.47	141.91	69.29	17.13
694	13.86	1.12	36.21	142.45	70.82	17.15
695	13.88	1.09	36.38	143.69	74.29	17.19
696	13.90	0.99	40.17	145.48	76.43	17.19
697	13.92	1.02	36.94	146.57	78.42	17.18
698	13.94	1.00	36.70	147.81	78.27	17.16
699	13.96	0.98	37.84	150.76	78.47	17.15
700	13.98	1.01	36.52	153.32	76.76	17.14
701	14.00	1.07	34.89	156.96	72.53	17.10
702	14.02	1.14	32.19	159.52	68.80	17.05
703	14.04	1.16	30.87	161.85	67.18	17.03
704	14.06	1.14	32.29	163.79	67.55	17.04
705	14.08	1.13	32.81	164.72	68.06	17.04
706	14.10	1.13	31.14	188.62	69.04	17.06
707	14.12	1.11	34.88	195.91	69.92	17.12
708	14.14	1.12	37.48	197.31	70.85	17.21
709	14.16	1.16	39.29	200.02	71.07	17.28
710	14.18	1.16	41.47	201.89	71.42	17.34
711	14.20	1.16	43.28	203.21	72.62	17.39
712	14.22	1.14	45.12	204.52	74.33	17.43
713	14.24	1.11	46.47	207.71	75.30	17.44
714	14.26	1.13	45.57	210.03	74.72	17.44
715	14.28	1.17	44.63	212.13	73.44	17.45
716	14.30	1.18	46.44	214.30	72.68	17.47
717	14.32	1.19	47.17	216.09	73.12	17.50
718	14.34	1.18	47.69	217.64	74.01	17.50
719	14.36	1.14	47.48	218.72	75.48	17.50
720	14.38	1.11	47.79	219.89	77.35	17.48

:: Field input data :: (continued)

Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
721	14.40	1.07	46.89	220.59	80.48	17.47
722	14.42	0.98	47.89	222.60	83.25	17.41
723	14.44	0.95	43.80	224.15	85.73	17.37
724	14.46	0.93	43.24	226.56	85.94	17.29
725	14.48	0.92	40.40	230.05	85.83	17.24
726	14.50	0.92	38.28	233.23	85.20	17.16
727	14.52	0.90	35.40	236.26	84.92	17.08
728	14.54	0.88	33.42	239.05	84.42	17.02
729	14.56	0.90	33.42	240.99	84.49	16.99
730	14.58	0.88	32.90	243.78	84.91	16.98
731	14.60	0.86	32.55	246.50	85.70	16.97
732	14.62	0.86	33.04	250.15	85.38	16.99
733	14.64	0.90	34.08	253.09	84.84	17.01
734	14.66	0.89	34.32	254.26	84.45	17.02
735	14.68	0.89	33.80	257.21	84.90	17.03
736	14.70	0.89	34.84	258.37	85.71	17.05
737	14.72	0.87	35.85	259.69	86.82	17.08
738	14.74	0.87	37.51	262.87	87.97	17.11
739	14.76	0.87	37.76	265.20	88.65	17.13
740	14.78	0.87	38.03	267.29	88.64	17.14
741	14.80	0.88	37.65	270.40	88.36	17.14
742	14.82	0.88	37.55	271.64	87.91	17.13
743	14.84	0.88	37.27	273.04	87.71	17.12
744	14.86	0.88	36.51	276.99	87.40	17.10
745	14.88	0.88	36.16	279.09	87.31	17.10
746	14.90	0.88	36.99	281.18	88.22	17.12
747	14.92	0.86	38.17	281.49	89.16	17.13
748	14.94	0.86	38.14	281.10	90.26	17.15
749	14.96	0.85	38.66	282.66	91.23	17.16
750	14.98	0.84	40.01	285.99	92.39	17.19
751	15.00	0.84	40.81	292.28	92.54	17.21
752	15.02	0.87	41.33	296.23	91.94	17.24
753	15.04	0.87	42.09	299.42	91.05	17.26
754	15.06	0.88	42.27	301.74	91.29	17.26
755	15.08	0.86	41.37	304.69	92.12	17.22
756	15.10	0.82	38.87	306.55	92.89	17.17
757	15.12	0.82	37.99	350.39	93.70	17.11
758	15.14	0.79	36.24	372.19	91.56	17.09
759	15.16	0.86	36.35	376.46	88.98	17.08
760	15.18	0.89	35.27	382.36	84.51	17.08
761	15.20	0.95	34.82	389.03	81.36	17.08
762	15.22	0.98	34.47	392.52	78.93	17.10
763	15.24	1.00	35.48	394.31	77.83	17.13
764	15.26	1.02	37.18	394.54	78.00	17.19
765	15.28	1.02	39.33	395.08	79.16	17.25
766	15.30	1.00	42.14	394.54	81.23	17.32
767	15.32	0.99	45.06	394.54	83.69	17.38
768	15.34	0.96	46.83	393.76	86.68	17.43

:: Field input data :: (continued)

Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
769	15.36	0.93	49.36	394.38	89.28	17.46
770	15.38	0.92	49.92	396.79	90.72	17.48
771	15.40	0.93	49.74	400.59	90.10	17.47
772	15.42	0.94	48.04	401.06	88.87	17.45
773	15.44	0.94	46.31	402.38	87.78	17.41
774	15.46	0.94	44.64	399.82	86.85	17.37
775	15.48	0.95	43.01	404.70	85.68	17.33
776	15.50	0.96	41.34	407.73	84.69	17.29
777	15.52	0.95	40.58	406.10	84.42	17.27
778	15.54	0.94	40.61	405.87	84.94	17.26
779	15.56	0.93	40.72	406.49	85.40	17.26
780	15.58	0.93	40.44	408.97	85.91	17.25
781	15.60	0.92	40.30	411.53	85.62	17.24
782	15.62	0.94	39.29	415.41	85.01	17.21
783	15.64	0.94	38.01	417.12	83.66	17.19
784	15.66	0.96	37.21	420.84	82.25	17.15
785	15.68	0.97	35.51	421.07	81.68	17.12
786	15.70	0.95	35.23	418.67	81.61	17.10
787	15.72	0.94	34.85	416.89	82.87	17.09
788	15.74	0.92	35.58	414.01	84.78	17.08
789	15.76	0.87	35.47	410.60	86.86	17.08
790	15.78	0.87	35.68	409.59	88.55	17.08
791	15.80	0.85	35.61	417.04	89.23	17.07
792	15.82	0.84	35.30	421.93	90.08	17.04
793	15.84	0.82	33.39	422.24	90.70	16.99
794	15.86	0.80	31.45	422.70	90.48	16.93
795	15.88	0.82	30.79	426.20	86.09	16.91
796	15.90	0.95	30.02	437.29	72.35	16.95
797	15.92	1.41	29.02	458.71	57.12	17.05
798	15.94	1.93	30.44	380.88	47.30	17.13
799	15.96	2.08	29.75	294.29	45.72	17.17
800	15.98	1.70	30.86	268.92	52.35	17.13
801	16.00	1.13	31.34	249.29	63.45	17.02
802	16.02	1.04	27.91	249.22	73.67	16.91
803	16.04	1.03	28.12	257.36	75.69	16.88
804	16.06	1.02	29.99	262.79	77.52	16.95
805	16.08	1.01	33.64	267.29	75.68	17.01
806	16.10	1.15	31.48	277.30	71.78	17.02
807	16.12	1.22	29.40	282.04	65.82	16.99
808	16.14	1.34	28.63	243.71	59.67	16.99
809	16.16	1.58	27.96	240.06	56.93	17.00
810	16.18	1.48	29.14	222.29	56.45	16.99
811	16.20	1.38	27.78	217.40	62.74	16.99
812	16.22	1.11	31.18	214.84	70.41	16.95
813	16.24	0.97	29.31	211.66	80.64	16.88
814	16.26	0.85	27.33	213.21	87.35	16.77
815	16.28	0.79	26.36	218.41	91.15	16.67
816	16.30	0.79	23.65	223.92	90.73	16.59

:: Field input data :: (continued)

Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
817	16.32	0.82	22.40	230.59	87.01	16.49
818	16.34	0.85	20.01	236.18	84.07	16.44
819	16.36	0.85	20.43	241.77	81.85	16.41
820	16.38	0.87	20.08	247.20	81.60	16.44
821	16.40	0.88	21.71	251.39	81.06	16.49
822	16.42	0.90	22.54	255.66	81.60	16.54
823	16.44	0.89	23.24	261.09	81.58	16.55
824	16.46	0.88	21.88	267.37	80.89	16.53
825	16.48	0.91	21.19	274.28	79.65	16.52
826	16.50	0.92	22.40	280.25	78.74	16.56
827	16.52	0.94	23.62	285.37	78.25	16.63
828	16.54	0.97	25.18	290.73	78.65	16.73
829	16.56	0.97	28.16	296.54	78.89	16.82
830	16.58	0.99	29.34	300.97	78.78	16.92
831	16.60	1.05	31.91	305.31	78.44	17.01
832	16.62	1.06	34.90	308.26	78.70	17.12
833	16.64	1.06	37.85	310.82	79.82	17.21
834	16.66	1.07	40.21	313.38	80.86	17.29
835	16.68	1.08	43.43	315.09	81.85	17.37
836	16.70	1.08	46.00	317.57	82.72	17.44
837	16.72	1.09	47.74	320.36	82.53	17.48
838	16.74	1.13	47.77	323.55	82.72	17.51
839	16.76	1.10	49.13	324.71	82.92	17.53
840	16.78	1.10	50.20	327.11	84.08	17.55
841	16.80	1.09	50.76	329.68	83.90	17.56
842	16.82	1.11	50.10	330.99	83.71	17.57
843	16.84	1.12	51.66	332.78	83.42	17.58
844	16.86	1.12	51.97	334.64	83.59	17.60
845	16.88	1.12	52.35	337.36	83.92	17.60
846	16.90	1.10	51.45	338.99	83.85	17.58
847	16.92	1.11	50.33	340.93	84.04	17.57
848	16.94	1.10	50.79	341.31	84.30	17.57
849	16.96	1.09	51.44	342.63	85.03	17.58
850	16.98	1.09	52.48	343.64	85.90	17.60
851	17.00	1.08	53.00	344.73	86.54	17.61
852	17.02	1.08	53.18	345.97	87.53	17.62
853	17.04	1.06	54.25	348.30	87.52	17.62
854	17.06	1.08	53.18	349.54	86.78	17.62
855	17.08	1.11	52.72	350.78	85.22	17.61
856	17.10	1.12	52.10	350.86	84.17	17.61
857	17.12	1.13	52.17	352.33	84.03	17.61
858	17.14	1.12	53.48	352.33	84.02	17.63
859	17.16	1.13	53.63	381.89	84.13	17.65
860	17.18	1.14	55.06	393.61	83.92	17.67
861	17.20	1.15	56.10	387.48	83.97	17.71
862	17.22	1.16	58.28	391.44	84.21	17.74
863	17.24	1.16	59.71	391.98	84.50	17.78
864	17.26	1.17	61.27	389.81	84.97	17.80

:: Field input data :: (continued)

Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
865	17.28	1.17	62.55	383.91	86.34	17.84
866	17.30	1.13	65.40	381.04	89.17	17.87
867	17.32	1.08	68.87	383.37	91.71	17.90
868	17.34	1.08	68.62	386.70	92.72	17.90
869	17.36	1.10	67.37	390.35	91.29	17.89
870	17.38	1.13	65.22	392.91	89.91	17.88
871	17.40	1.13	65.25	395.94	88.42	17.85
872	17.42	1.15	62.96	395.32	87.51	17.83
873	17.45	1.15	60.95	397.95	85.67	17.79
874	17.46	1.18	57.06	393.92	85.21	17.76
875	17.48	1.15	59.56	395.32	85.61	17.78
876	17.50	1.15	63.86	399.97	86.84	17.84
877	17.52	1.17	65.73	402.07	87.13	17.89
878	17.54	1.19	67.71	404.24	86.98	17.92
879	17.56	1.19	69.34	404.94	86.78	17.95
880	17.58	1.21	70.38	407.03	86.57	17.98
881	17.60	1.22	71.56	406.64	86.61	18.00
882	17.62	1.21	72.01	402.38	87.25	18.01
883	17.64	1.20	73.40	402.30	87.88	18.02
884	17.66	1.20	73.33	405.71	87.57	18.02
885	17.68	1.23	72.88	409.13	86.53	18.03
886	17.70	1.25	72.63	405.79	85.83	18.03
887	17.72	1.24	72.84	408.04	85.99	18.03
888	17.74	1.23	73.01	408.27	85.87	18.01
889	17.76	1.25	70.10	402.61	85.95	18.00
890	17.78	1.23	71.00	399.35	85.41	17.99
891	17.80	1.25	70.54	393.84	86.39	18.00
892	17.82	1.21	72.17	390.97	88.24	18.01
893	17.84	1.15	73.94	392.91	90.10	18.00
894	17.86	1.16	71.10	394.85	90.99	17.98
895	17.88	1.15	69.74	397.10	90.13	17.95
896	17.90	1.16	68.53	401.29	88.09	17.92
897	17.92	1.22	64.33	404.94	85.39	17.89
898	17.94	1.25	61.65	407.11	82.59	17.84
899	17.96	1.26	58.98	399.74	82.06	17.83
900	17.98	1.25	62.66	400.51	83.25	17.85
901	18.00	1.22	66.03	401.52	85.96	17.91
902	18.02	1.18	69.60	404.24	87.79	17.94
903	18.04	1.19	69.08	403.38	89.55	17.97
904	18.06	1.16	72.27	404.32	89.86	17.98
905	18.08	1.18	72.48	404.55	90.30	18.00
906	18.10	1.19	71.92	394.69	88.84	17.98
907	18.12	1.22	68.28	391.59	88.54	17.97
908	18.14	1.19	69.77	390.19	88.56	17.96
909	18.17	1.18	69.85	396.25	89.73	17.96
910	18.18	1.17	69.58	396.56	89.51	17.97
911	18.20	1.21	70.80	413.63	88.74	17.99
912	18.22	1.24	73.40	407.88	87.62	18.03

:: Field input data :: (continued)

Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
913	18.24	1.26	74.20	406.80	87.58	18.06
914	18.26	1.25	76.83	406.49	89.07	18.09
915	18.28	1.20	80.24	409.51	90.58	18.10
916	18.30	1.20	77.25	412.54	91.63	18.09
917	18.32	1.19	75.93	415.33	90.68	18.06
918	18.34	1.21	73.57	417.20	89.66	18.04
919	18.36	1.23	73.05	418.36	88.31	18.02
920	18.38	1.24	71.87	418.05	87.39	18.01
921	18.40	1.24	70.24	415.64	86.87	17.99
922	18.42	1.24	69.58	415.33	87.20	17.98
923	18.44	1.22	70.55	416.03	87.86	17.98
924	18.46	1.22	71.07	416.81	88.39	17.99
925	18.48	1.23	71.73	417.51	89.03	18.01
926	18.50	1.20	73.46	419.29	89.75	18.03
927	18.52	1.20	74.54	422.94	89.94	18.04
928	18.54	1.23	73.49	426.82	88.51	18.03
929	18.56	1.27	71.38	431.70	86.40	18.01
930	18.58	1.28	68.88	436.51	83.86	17.98
931	18.60	1.33	65.75	441.95	81.17	17.94
932	18.62	1.39	63.81	443.81	78.54	17.93
933	18.64	1.42	63.63	447.61	76.64	17.94
934	18.66	1.46	65.54	448.70	75.33	17.98
935	18.68	1.53	69.32	447.46	73.84	18.05
936	18.70	1.62	73.18	447.38	72.06	18.14
937	18.72	1.72	78.35	449.01	70.76	18.24
938	18.74	1.78	84.80	452.65	70.73	18.34
939	18.76	1.78	92.26	449.16	70.60	18.41
940	18.78	1.86	93.96	458.24	70.75	18.47
941	18.80	1.85	96.50	452.65	69.66	18.49
942	18.82	1.92	95.94	458.78	68.97	18.50
943	18.84	1.95	95.52	460.10	68.51	18.51
944	18.86	1.92	97.53	463.67	67.87	18.50
945	18.88	1.97	92.19	462.43	68.10	18.48
946	18.90	1.90	91.46	458.47	68.39	18.45
947	18.92	1.84	91.77	455.99	70.18	18.44
948	18.94	1.77	91.32	454.98	72.22	18.43
949	18.96	1.70	92.40	448.46	74.38	18.41
950	18.98	1.64	91.01	452.89	75.62	18.36
951	19.00	1.61	83.51	457.70	75.83	18.30
952	19.02	1.59	79.31	456.69	75.83	18.23
953	19.04	1.55	78.09	459.95	76.14	18.17
954	19.06	1.51	72.71	465.15	76.11	18.11
955	19.08	1.52	68.41	473.52	74.52	18.02
956	19.10	1.55	62.54	484.23	71.92	17.95
957	19.12	1.60	58.10	492.38	68.88	17.89
958	19.14	1.67	57.06	504.09	65.05	17.86
959	19.16	1.84	55.32	517.75	61.35	17.85
960	19.18	1.94	53.69	527.29	58.64	17.84

:: Field input data :: (continued)

Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
961	19.20	1.92	52.10	597.74	56.03	17.83
962	19.22	2.10	51.98	645.77	54.41	17.87
963	19.25	2.18	56.84	650.97	53.06	17.94
964	19.26	2.23	60.17	651.67	53.01	18.04
965	19.29	2.30	65.31	651.13	53.78	18.14
966	19.30	2.27	71.52	647.71	54.98	18.24
967	19.32	2.26	77.46	648.02	56.84	18.31
968	19.34	2.21	81.10	644.69	59.88	18.37
969	19.36	2.00	86.97	634.29	62.84	18.38
970	19.38	1.93	83.46	629.01	65.48	18.38
971	19.40	1.92	84.19	627.23	66.21	18.37
972	19.42	1.91	86.58	642.98	64.67	18.36
973	19.44	2.08	80.09	658.57	61.21	18.35
974	19.46	2.29	77.35	677.43	55.82	18.34
975	19.48	2.57	75.16	699.93	52.23	18.35
976	19.50	2.64	76.52	707.69	50.30	18.37
977	19.52	2.66	78.25	706.83	50.34	18.40
978	19.54	2.64	80.40	700.78	50.55	18.45
979	19.56	2.74	86.51	706.29	50.69	18.55
980	19.58	2.88	97.40	715.29	51.14	18.67
981	19.60	2.88	107.78	725.07	51.57	18.77
982	19.62	2.92	109.55	725.61	52.48	18.83
983	19.64	2.89	114.93	720.18	53.70	18.86
984	19.66	2.76	118.74	704.51	56.24	18.88
985	19.68	2.55	120.93	684.64	59.41	18.86
986	19.70	2.36	116.00	591.62	63.08	18.82
987	19.72	2.18	115.34	580.52	66.03	18.77
988	19.74	2.10	112.60	577.88	68.92	18.75
989	19.76	2.01	117.73	576.87	71.60	18.75
990	19.78	1.90	119.60	579.51	72.62	18.74
991	19.80	1.98	112.42	586.65	69.80	18.72
992	19.82	2.25	106.62	605.97	63.34	18.70
993	19.84	2.59	102.04	637.78	56.30	18.69
994	19.86	2.93	95.89	673.86	51.92	18.66
995	19.88	2.92	92.00	685.42	49.40	18.60
996	19.90	2.91	84.89	685.96	48.83	18.54
997	19.92	2.88	81.62	674.32	49.80	18.50
998	19.94	2.63	85.40	650.66	53.00	18.47
999	19.96	2.30	85.54	621.56	59.15	18.46
1000	19.98	1.96	88.25	496.26	66.63	18.41
1001	20.00	1.71	88.18	429.61	75.69	18.38
1002	20.02	1.46	90.88	429.22	84.50	18.34
1003	20.04	1.31	92.27	435.82	89.87	18.30
1004	20.06	1.34	85.09	450.40	84.61	18.26
1005	20.08	1.70	75.85	475.70	68.23	18.25
1006	20.10	2.54	72.00	514.88	47.00	18.34
1007	20.12	4.45	70.47	527.45	31.25	18.41
1008	20.14	6.16	61.38	231.91	21.64	18.43

:: Field input data :: (continued)

Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
1009	20.16	7.43	54.99	132.83	16.86	18.41
1010	20.18	8.09	56.45	120.19	16.35	18.16
1011	20.20	5.18	30.25	136.63	17.20	18.07
1012	20.22	6.20	46.70	166.20	16.63	17.91
1013	20.24	7.72	39.55	120.73	14.76	17.97
1014	20.26	7.19	32.61	105.99	14.07	17.83
1015	20.28	6.12	32.82	104.67	16.97	17.76
1016	20.30	4.85	38.79	100.01	23.60	17.89
1017	20.32	3.64	53.26	98.46	33.32	18.03
1018	20.34	2.87	61.63	95.51	45.31	18.19
1019	20.36	2.45	77.07	99.78	54.06	18.29
1020	20.38	2.34	81.96	111.96	61.12	18.39
1021	20.40	2.10	90.25	116.23	66.80	18.43
1022	20.42	1.86	92.23	122.44	71.61	18.38
1023	20.44	1.79	79.46	129.73	73.47	18.27
1024	20.46	1.77	71.06	131.90	72.26	18.09
1025	20.48	1.70	58.43	133.38	71.12	17.89
1026	20.50	1.61	48.64	134.31	71.28	17.71
1027	20.52	1.52	46.80	135.16	72.04	17.57
1028	20.54	1.48	43.40	136.32	73.81	17.53
1029	20.56	1.44	45.03	137.02	75.27	17.52
1030	20.58	1.42	47.21	137.57	77.65	17.57
1031	20.60	1.38	49.78	138.57	79.97	17.62
1032	20.62	1.37	53.14	139.74	81.49	17.68
1033	20.64	1.40	55.05	140.59	81.66	17.73
1034	20.66	1.42	55.67	141.75	81.30	17.75
1035	20.68	1.42	56.54	142.53	81.23	17.77
1036	20.70	1.42	57.06	143.38	81.42	17.78
1037	20.72	1.42	56.78	143.93	81.71	17.78
1038	20.74	1.41	57.58	145.09	81.60	17.79
1039	20.76	1.43	57.65	145.87	82.15	17.80
1040	20.78	1.41	58.96	146.26	82.08	17.81
1041	20.80	1.42	58.48	147.73	82.42	17.80
1042	20.82	1.41	56.95	148.43	82.21	17.78
1043	20.84	1.40	56.01	149.36	81.62	17.76
1044	20.86	1.44	55.35	151.61	80.59	17.74
1045	20.88	1.45	53.03	151.84	78.79	17.71
1046	20.90	1.48	51.22	151.92	78.25	17.69
1047	20.92	1.45	51.71	153.16	77.39	17.67
1048	20.94	1.48	50.08	154.01	77.50	17.66
1049	20.96	1.47	51.05	154.32	77.06	17.69
1050	20.98	1.50	53.97	154.79	77.96	17.74
1051	21.00	1.49	57.68	154.87	79.62	17.81
1052	21.02	1.45	61.98	155.33	81.67	17.88
1053	21.04	1.45	64.52	155.88	83.28	17.93
1054	21.06	1.45	66.08	156.65	84.22	17.96
1055	21.08	1.44	68.02	156.88	84.99	17.98
1056	21.10	1.43	68.93	157.51	85.77	18.00

:: Field input data :: (continued)						
Point ID	Depth (m)	q _c (MPa)	f _s (kPa)	u (kPa)	Fines content (%)	Unit weight (kN/m ³)
1057	21.12	1.42	68.89	158.28	86.01	18.00
1058	21.14	1.43	68.37	158.90	86.09	17.99
1059	21.16	1.43	68.13	159.52	85.96	17.99
1060	21.18	1.43	68.72	159.99	86.71	18.00
1061	21.20	1.39	69.37	160.30	87.47	18.00

Abbreviations

Depth:	Depth from free surface, at which CPT was performed (m)
q _c :	Measured cone resistance (MPa)
f _s :	Sleeve friction resistance (kPa)
u:	Pore pressure (kPa)
Fines content:	Percentage of fines in soil (%)
Unit weight:	Bulk soil unit weight (kN/m ³)

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data ::

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
1	0.12	1.78	0.00	1.78	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
2	0.02	0.26	0.00	0.26	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
3	0.04	0.57	0.00	0.57	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
4	0.06	0.89	0.00	0.89	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
5	0.08	1.23	0.00	1.23	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
6	0.10	1.56	0.00	1.56	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
7	0.15	2.41	0.00	2.41	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
8	0.15	2.41	0.00	2.41	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
9	0.16	2.57	0.00	2.57	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
10	0.18	2.91	0.00	2.91	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
11	0.20	3.25	0.00	3.25	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
12	0.28	4.58	0.00	4.58	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
13	0.28	4.58	0.00	4.58	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
14	0.28	4.58	0.00	4.58	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
15	0.28	4.58	0.00	4.58	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
16	0.30	4.92	0.00	4.92	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
17	0.33	5.42	0.00	5.42	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
18	0.34	5.59	0.00	5.59	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
19	0.36	5.94	0.00	5.94	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
20	0.38	6.28	0.00	6.28	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
21	0.40	6.63	0.00	6.63	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
22	0.42	6.98	0.00	6.98	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
23	0.44	7.34	0.00	7.34	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
24	0.46	7.69	0.00	7.69	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
25	0.48	8.05	0.00	8.05	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
26	0.50	8.40	0.00	8.40	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
27	0.52	8.75	0.00	8.75	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
28	0.54	9.10	0.00	9.10	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
29	0.56	9.45	0.00	9.45	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
30	0.58	9.79	0.00	9.79	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
31	0.60	10.14	0.00	10.14	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
32	0.62	10.48	0.00	10.48	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
33	0.64	10.81	0.00	10.81	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
34	0.66	11.15	0.00	11.15	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
35	0.68	11.49	0.00	11.49	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
36	0.70	11.83	0.00	11.83	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
37	0.72	12.16	0.00	12.16	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
38	0.74	12.50	0.00	12.50	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
39	0.76	12.83	0.00	12.83	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
40	0.78	13.17	0.00	13.17	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
41	0.80	13.50	0.00	13.50	1.00	0.182	1.43	0.127	1.10	1.00	2.000	No
42	0.82	13.82	0.00	13.82	1.00	0.181	1.43	0.127	1.10	1.00	2.000	No
43	0.84	14.14	0.00	14.14	1.00	0.181	1.43	0.127	1.10	1.00	2.000	No
44	0.86	14.46	0.00	14.46	1.00	0.181	1.43	0.127	1.10	1.00	2.000	No
45	0.88	14.77	0.00	14.77	1.00	0.181	1.43	0.127	1.10	1.00	2.000	No
46	0.90	15.08	0.00	15.08	1.00	0.181	1.43	0.127	1.10	1.00	2.000	No
47	0.92	15.39	0.00	15.39	1.00	0.181	1.43	0.127	1.10	1.00	2.000	No
48	0.94	15.69	0.00	15.69	1.00	0.181	1.43	0.127	1.10	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
49	0.96	16.00	0.00	16.00	1.00	0.181	1.43	0.127	1.10	1.00	2.000	No
50	0.98	16.30	0.00	16.30	0.99	0.181	1.43	0.127	1.10	1.00	2.000	No
51	1.00	16.61	0.00	16.61	0.99	0.181	1.43	0.127	1.10	1.00	2.000	No
52	1.03	17.07	0.00	17.07	0.99	0.181	1.43	0.127	1.10	1.00	2.000	No
53	1.12	18.47	0.00	18.47	0.99	0.181	1.43	0.126	1.10	1.00	2.000	No
54	1.12	18.47	0.00	18.47	0.99	0.181	1.43	0.126	1.10	1.00	2.000	No
55	1.12	18.47	0.00	18.47	0.99	0.181	1.43	0.126	1.10	1.00	2.000	No
56	1.12	18.47	0.00	18.47	0.99	0.181	1.43	0.126	1.10	1.00	2.000	No
57	1.12	18.47	0.00	18.47	0.99	0.181	1.43	0.126	1.10	1.00	2.000	No
58	1.14	18.79	0.00	18.79	0.99	0.181	1.43	0.126	1.10	1.00	2.000	No
59	1.16	19.11	0.00	19.11	0.99	0.181	1.43	0.126	1.10	1.00	2.000	No
60	1.18	19.43	0.00	19.43	0.99	0.181	1.43	0.126	1.10	1.00	2.000	No
61	1.20	19.75	0.00	19.75	0.99	0.180	1.43	0.126	1.10	1.00	2.000	No
62	1.22	20.07	0.00	20.07	0.99	0.180	1.43	0.126	1.10	1.00	2.000	No
63	1.24	20.40	0.00	20.40	0.99	0.180	1.43	0.126	1.10	1.00	2.000	No
64	1.26	20.73	0.00	20.73	0.99	0.180	1.43	0.126	1.10	1.00	2.000	No
65	1.28	21.05	0.00	21.05	0.99	0.180	1.43	0.126	1.10	1.00	2.000	No
66	1.30	21.38	0.00	21.38	0.99	0.180	1.43	0.126	1.10	1.00	2.000	No
67	1.33	21.87	0.29	21.58	0.99	0.183	1.43	0.128	1.10	1.00	0.151	No
68	1.34	22.04	0.39	21.64	0.99	0.183	1.43	0.128	1.10	1.00	0.153	No
69	1.36	22.36	0.59	21.77	0.99	0.185	1.43	0.129	1.10	1.00	0.154	No
70	1.38	22.68	0.78	21.89	0.99	0.186	1.43	0.130	1.10	1.00	0.156	No
71	1.40	23.00	0.98	22.02	0.99	0.188	1.43	0.132	1.10	1.00	0.157	No
72	1.42	23.32	1.18	22.14	0.99	0.189	1.43	0.133	1.10	1.00	0.158	No
73	1.44	23.64	1.37	22.27	0.99	0.191	1.43	0.134	1.10	1.00	0.158	No
74	1.46	23.97	1.57	22.40	0.99	0.192	1.43	0.135	1.10	1.00	0.159	No
75	1.48	24.30	1.77	22.53	0.99	0.194	1.43	0.136	1.10	1.00	0.160	No
76	1.50	24.63	1.96	22.66	0.99	0.195	1.43	0.137	1.10	1.00	0.161	No
77	1.52	24.95	2.16	22.79	0.99	0.197	1.43	0.138	1.10	1.00	0.163	No
78	1.54	25.27	2.35	22.92	0.99	0.198	1.43	0.139	1.10	1.00	0.164	No
79	1.56	25.59	2.55	23.04	0.99	0.199	1.43	0.140	1.10	1.00	0.165	No
80	1.58	25.91	2.75	23.17	0.99	0.201	1.43	0.140	1.10	1.00	0.167	No
81	1.60	26.23	2.94	23.29	0.99	0.202	1.43	0.141	1.10	1.00	0.167	No
82	1.62	26.56	3.14	23.42	0.99	0.203	1.43	0.142	1.10	1.00	0.168	No
83	1.64	26.88	3.34	23.54	0.98	0.205	1.43	0.143	1.10	1.00	0.169	No
84	1.66	27.20	3.53	23.67	0.98	0.206	1.43	0.144	1.10	1.00	0.170	No
85	1.68	27.52	3.73	23.79	0.98	0.207	1.43	0.145	1.10	1.00	0.173	No
86	1.70	27.85	3.92	23.92	0.98	0.208	1.43	0.146	1.10	1.00	0.174	No
87	1.72	28.18	4.12	24.06	0.98	0.210	1.43	0.147	1.10	1.00	0.175	No
88	1.74	28.51	4.32	24.20	0.98	0.211	1.43	0.148	1.10	1.00	0.175	No
89	1.76	28.85	4.51	24.34	0.98	0.212	1.43	0.148	1.10	1.00	0.176	No
90	1.78	29.19	4.71	24.48	0.98	0.213	1.43	0.149	1.10	1.00	0.178	No
91	1.80	29.52	4.91	24.62	0.98	0.214	1.43	0.150	1.10	1.00	0.180	No
92	1.82	29.85	5.10	24.75	0.98	0.216	1.43	0.151	1.10	1.00	0.181	No
93	1.84	30.18	5.30	24.89	0.98	0.217	1.43	0.152	1.10	1.00	0.182	No
94	1.86	30.51	5.49	25.02	0.98	0.218	1.43	0.152	1.10	1.00	0.184	No
95	1.88	30.83	5.69	25.14	0.98	0.219	1.43	0.153	1.10	1.00	0.185	No
96	1.90	31.16	5.89	25.27	0.98	0.220	1.43	0.154	1.10	1.00	0.186	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
97	1.92	31.48	6.08	25.39	0.98	0.221	1.43	0.155	1.10	1.00	0.187	No
98	1.94	31.79	6.28	25.51	0.98	0.222	1.43	0.156	1.10	1.00	0.188	No
99	1.96	32.11	6.47	25.63	0.98	0.223	1.43	0.156	1.10	1.00	0.189	No
100	1.98	32.42	6.67	25.75	0.98	0.224	1.43	0.157	1.10	1.00	0.190	No
101	2.00	32.73	6.87	25.86	0.98	0.225	1.43	0.158	1.10	1.00	0.191	No
102	2.02	33.04	7.06	25.98	0.98	0.227	1.43	0.159	1.10	1.00	0.192	No
103	2.04	33.36	7.26	26.10	0.98	0.228	1.43	0.159	1.10	1.00	0.193	No
104	2.06	33.67	7.46	26.21	0.98	0.229	1.43	0.160	1.10	1.00	0.194	No
105	2.08	33.98	7.65	26.33	0.98	0.230	1.43	0.161	1.10	1.00	0.195	No
106	2.10	34.29	7.85	26.45	0.98	0.231	1.43	0.161	1.10	1.00	0.195	No
107	2.12	34.61	8.04	26.56	0.98	0.232	1.43	0.162	1.10	1.00	0.196	No
108	2.14	34.92	8.24	26.68	0.98	0.233	1.43	0.163	1.10	1.00	0.197	No
109	2.17	35.39	8.53	26.86	0.98	0.234	1.43	0.164	1.10	1.00	0.198	No
110	2.18	35.55	8.63	26.92	0.98	0.235	1.43	0.164	1.10	1.00	0.199	No
111	2.20	35.86	8.83	27.03	0.98	0.236	1.43	0.165	1.10	1.00	0.200	No
112	2.22	36.17	9.03	27.15	0.98	0.236	1.43	0.166	1.10	1.00	0.200	No
113	2.24	36.48	9.22	27.26	0.97	0.237	1.43	0.166	1.10	1.00	0.201	No
114	2.26	36.79	9.42	27.37	0.97	0.238	1.43	0.167	1.10	1.00	0.202	No
115	2.28	37.09	9.61	27.48	0.97	0.239	1.43	0.168	1.10	1.00	0.203	No
116	2.30	37.40	9.81	27.59	0.97	0.240	1.43	0.168	1.10	1.00	0.204	No
117	2.32	37.71	10.01	27.70	0.97	0.241	1.43	0.169	1.10	1.00	0.204	No
118	2.34	38.01	10.20	27.81	0.97	0.242	1.43	0.169	1.10	1.00	0.205	No
119	2.36	38.32	10.40	27.92	0.97	0.243	1.43	0.170	1.10	1.00	0.206	No
120	2.38	38.64	10.59	28.04	0.97	0.244	1.43	0.171	1.10	1.00	0.206	No
121	2.40	38.96	10.79	28.16	0.97	0.245	1.43	0.171	1.10	1.00	0.205	No
122	2.42	39.28	10.99	28.29	0.97	0.246	1.43	0.172	1.10	1.00	0.204	No
123	2.44	39.60	11.18	28.42	0.97	0.246	1.43	0.172	1.10	1.00	0.205	No
124	2.46	39.93	11.38	28.55	0.97	0.247	1.43	0.173	1.10	1.00	0.206	No
125	2.48	40.26	11.58	28.69	0.97	0.248	1.43	0.174	1.10	1.00	0.207	No
126	2.50	40.60	11.77	28.82	0.97	0.249	1.43	0.174	1.10	1.00	0.207	No
127	2.52	40.93	11.97	28.96	0.97	0.250	1.43	0.175	1.10	1.00	0.207	No
128	2.54	41.26	12.16	29.10	0.97	0.250	1.43	0.175	1.10	1.00	0.208	No
129	2.56	41.59	12.36	29.23	0.97	0.251	1.43	0.176	1.10	1.00	0.209	No
130	2.58	41.93	12.56	29.37	0.97	0.252	1.43	0.176	1.10	1.00	0.211	No
131	2.60	42.26	12.75	29.51	0.97	0.252	1.43	0.177	1.10	1.00	0.212	No
132	2.62	42.59	12.95	29.64	0.97	0.253	1.43	0.177	1.10	1.00	0.214	No
133	2.64	42.92	13.15	29.77	0.97	0.254	1.43	0.178	1.10	1.00	0.215	No
134	2.66	43.24	13.34	29.89	0.97	0.255	1.43	0.178	1.10	1.00	0.216	No
135	2.68	43.55	13.54	30.01	0.97	0.255	1.43	0.179	1.10	1.00	0.217	No
136	2.70	43.86	13.73	30.13	0.97	0.256	1.43	0.179	1.10	1.00	0.218	No
137	2.72	44.17	13.93	30.24	0.97	0.257	1.43	0.180	1.10	1.00	0.219	No
138	2.74	44.48	14.13	30.36	0.97	0.258	1.43	0.180	1.10	1.00	0.219	No
139	2.76	44.79	14.32	30.47	0.97	0.258	1.43	0.181	1.10	1.00	0.219	No
140	2.78	45.10	14.52	30.58	0.97	0.259	1.43	0.181	1.10	1.00	0.219	No
141	2.80	45.41	14.71	30.70	0.97	0.260	1.43	0.182	1.10	1.00	0.219	No
142	2.82	45.73	14.91	30.82	0.96	0.261	1.43	0.182	1.10	1.00	0.220	No
143	2.84	46.05	15.11	30.95	0.96	0.261	1.43	0.183	1.10	1.00	0.221	No
144	2.87	46.53	15.40	31.13	0.96	0.262	1.43	0.184	1.10	1.00	0.223	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
145	2.88	46.69	15.50	31.19	0.96	0.263	1.43	0.184	1.10	1.00	0.223	No
146	2.90	47.01	15.70	31.32	0.96	0.263	1.43	0.184	1.09	1.00	0.224	No
147	2.92	47.33	15.89	31.44	0.96	0.264	1.43	0.185	1.09	1.00	0.225	No
148	2.94	47.65	16.09	31.56	0.96	0.264	1.43	0.185	1.09	1.00	0.225	No
149	2.96	47.97	16.28	31.69	0.96	0.265	1.43	0.186	1.09	1.00	0.225	No
150	2.98	48.29	16.48	31.81	0.96	0.266	1.43	0.186	1.09	1.00	0.226	No
151	3.00	48.61	16.68	31.93	0.96	0.266	1.43	0.186	1.09	1.00	0.227	No
152	3.03	49.09	16.97	32.12	0.96	0.267	1.43	0.187	1.09	1.00	0.228	No
153	3.04	49.25	17.07	32.18	0.96	0.268	1.43	0.187	1.09	1.00	0.229	No
154	3.06	49.57	17.27	32.30	0.96	0.268	1.43	0.188	1.09	1.00	0.229	No
155	3.08	49.88	17.46	32.42	0.96	0.269	1.43	0.188	1.09	1.00	0.230	No
156	3.10	50.19	17.66	32.54	0.96	0.269	1.43	0.189	1.09	1.00	0.230	No
157	3.12	50.51	17.85	32.65	0.96	0.270	1.43	0.189	1.09	1.00	0.230	No
158	3.14	50.82	18.05	32.77	0.96	0.271	1.43	0.189	1.09	1.00	0.231	No
159	3.16	51.13	18.25	32.88	0.96	0.271	1.43	0.190	1.09	1.00	0.231	No
160	3.19	51.60	18.54	33.06	0.96	0.272	1.43	0.190	1.09	1.00	0.232	No
161	3.20	51.76	18.64	33.12	0.96	0.272	1.43	0.191	1.09	1.00	0.232	No
162	3.22	52.08	18.84	33.25	0.96	0.273	1.43	0.191	1.09	1.00	0.232	No
163	3.24	52.41	19.03	33.37	0.96	0.274	1.43	0.191	1.09	1.00	0.233	No
164	3.26	52.73	19.23	33.51	0.96	0.274	1.43	0.192	1.09	1.00	0.233	No
165	3.28	53.06	19.42	33.64	0.96	0.275	1.43	0.192	1.09	1.00	0.233	No
166	3.30	53.40	19.62	33.78	0.96	0.275	1.43	0.193	1.09	1.00	0.234	No
167	3.32	53.73	19.82	33.91	0.96	0.276	1.43	0.193	1.09	1.00	0.234	No
168	3.34	54.07	20.01	34.05	0.96	0.276	1.43	0.193	1.09	1.00	0.234	No
169	3.36	54.41	20.21	34.20	0.95	0.276	1.43	0.194	1.09	1.00	0.234	No
170	3.38	54.74	20.40	34.34	0.95	0.277	1.43	0.194	1.09	1.00	0.235	No
171	3.40	55.09	20.60	34.49	0.95	0.277	1.43	0.194	1.09	1.00	0.235	No
172	3.43	55.60	20.90	34.70	0.95	0.278	1.43	0.195	1.09	1.00	0.236	No
173	3.44	55.77	20.99	34.78	0.95	0.278	1.43	0.195	1.09	1.00	0.236	No
174	3.46	56.12	21.19	34.93	0.95	0.279	1.43	0.195	1.09	1.00	0.236	No
175	3.48	56.46	21.39	35.08	0.95	0.279	1.43	0.195	1.09	1.00	0.237	No
176	3.50	56.81	21.58	35.23	0.95	0.279	1.43	0.196	1.09	1.00	0.237	No
177	3.52	57.15	21.78	35.38	0.95	0.280	1.43	0.196	1.09	1.00	0.238	No
178	3.54	57.50	21.97	35.53	0.95	0.280	1.43	0.196	1.09	1.00	0.238	No
179	3.56	57.85	22.17	35.68	0.95	0.281	1.43	0.196	1.09	1.00	0.239	No
180	3.58	58.20	22.37	35.83	0.95	0.281	1.43	0.197	1.09	1.00	0.239	No
181	3.60	58.54	22.56	35.98	0.95	0.281	1.43	0.197	1.09	1.00	0.240	No
182	3.62	58.89	22.76	36.13	0.95	0.282	1.43	0.197	1.09	1.00	0.240	No
183	3.64	59.23	22.96	36.28	0.95	0.282	1.43	0.198	1.09	1.00	0.240	No
184	3.66	59.58	23.15	36.43	0.95	0.283	1.43	0.198	1.09	1.00	0.241	No
185	3.68	59.93	23.35	36.58	0.95	0.283	1.43	0.198	1.09	1.00	0.241	No
186	3.70	60.27	23.54	36.73	0.95	0.283	1.43	0.198	1.09	1.00	0.241	No
187	3.72	60.61	23.74	36.87	0.95	0.284	1.43	0.199	1.09	1.00	0.242	No
188	3.74	60.96	23.94	37.02	0.95	0.284	1.43	0.199	1.08	1.00	0.242	No
189	3.76	61.30	24.13	37.17	0.95	0.284	1.43	0.199	1.08	1.00	0.243	No
190	3.78	61.65	24.33	37.32	0.95	0.285	1.43	0.199	1.08	1.00	0.244	No
191	3.80	61.99	24.52	37.47	0.95	0.285	1.43	0.199	1.08	1.00	0.244	No
192	3.82	62.33	24.72	37.61	0.95	0.285	1.43	0.200	1.08	1.00	0.244	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
193	3.84	62.68	24.92	37.76	0.95	0.286	1.43	0.200	1.08	1.00	0.245	No
194	3.86	63.02	25.11	37.91	0.95	0.286	1.43	0.200	1.08	1.00	0.245	No
195	3.88	63.36	25.31	38.05	0.94	0.286	1.43	0.200	1.08	1.00	0.245	No
196	3.90	63.70	25.51	38.20	0.94	0.287	1.43	0.201	1.08	1.00	0.246	No
197	3.92	64.04	25.70	38.34	0.94	0.287	1.43	0.201	1.08	1.00	0.246	No
198	3.94	64.38	25.90	38.48	0.94	0.287	1.43	0.201	1.08	1.00	0.246	No
199	3.96	64.72	26.09	38.62	0.94	0.288	1.43	0.201	1.08	1.00	0.247	No
200	3.98	65.05	26.29	38.76	0.94	0.288	1.43	0.202	1.08	1.00	0.247	No
201	4.00	65.39	26.49	38.90	0.94	0.288	1.43	0.202	1.08	1.00	0.247	No
202	4.02	65.73	26.68	39.05	0.94	0.289	1.43	0.202	1.08	1.00	0.247	No
203	4.04	66.07	26.88	39.19	0.94	0.289	1.43	0.202	1.08	1.00	0.247	No
204	4.06	66.40	27.08	39.33	0.94	0.289	1.43	0.202	1.08	1.00	0.248	No
205	4.08	66.74	27.27	39.47	0.94	0.290	1.43	0.203	1.08	1.00	0.248	No
206	4.10	67.08	27.47	39.61	0.94	0.290	1.43	0.203	1.08	1.00	0.249	No
207	4.12	67.42	27.66	39.75	0.94	0.290	1.43	0.203	1.08	1.00	0.249	No
208	4.14	67.76	27.86	39.90	0.94	0.290	1.43	0.203	1.08	1.00	0.249	No
209	4.16	68.09	28.06	40.04	0.94	0.291	1.43	0.204	1.08	1.00	0.250	No
210	4.18	68.43	28.25	40.18	0.94	0.291	1.43	0.204	1.08	1.00	0.250	No
211	4.20	68.77	28.45	40.32	0.94	0.291	1.43	0.204	1.08	1.00	0.250	No
212	4.22	69.11	28.65	40.46	0.94	0.292	1.43	0.204	1.08	1.00	0.250	No
213	4.24	69.45	28.84	40.60	0.94	0.292	1.43	0.204	1.08	1.00	0.251	No
214	4.26	69.78	29.04	40.75	0.94	0.292	1.43	0.205	1.08	1.00	0.251	No
215	4.28	70.12	29.23	40.89	0.94	0.292	1.43	0.205	1.08	1.00	0.251	No
216	4.30	70.46	29.43	41.03	0.94	0.293	1.43	0.205	1.08	1.00	0.251	No
217	4.32	70.80	29.63	41.17	0.94	0.293	1.43	0.205	1.08	1.00	0.251	No
218	4.34	71.14	29.82	41.32	0.94	0.293	1.43	0.205	1.08	1.00	0.251	No
219	4.36	71.48	30.02	41.46	0.94	0.294	1.43	0.205	1.08	1.00	0.251	No
220	4.38	71.82	30.21	41.60	0.93	0.294	1.43	0.206	1.08	1.00	0.251	No
221	4.40	72.16	30.41	41.75	0.93	0.294	1.43	0.206	1.08	1.00	0.251	No
222	4.42	72.51	30.61	41.90	0.93	0.294	1.43	0.206	1.08	1.00	0.251	No
223	4.44	72.85	30.80	42.05	0.93	0.294	1.43	0.206	1.08	1.00	0.251	No
224	4.46	73.20	31.00	42.20	0.93	0.295	1.43	0.206	1.08	1.00	0.251	No
225	4.48	73.55	31.20	42.36	0.93	0.295	1.43	0.206	1.08	1.00	0.251	No
226	4.50	73.90	31.39	42.51	0.93	0.295	1.43	0.207	1.08	1.00	0.251	No
227	4.52	74.26	31.59	42.67	0.93	0.295	1.43	0.207	1.08	1.00	0.252	No
228	4.54	74.61	31.78	42.83	0.93	0.295	1.43	0.207	1.08	1.00	0.251	No
229	4.56	74.97	31.98	42.99	0.93	0.296	1.43	0.207	1.08	1.00	0.251	No
230	4.58	75.33	32.18	43.15	0.93	0.296	1.43	0.207	1.08	1.00	0.250	No
231	4.60	75.69	32.37	43.31	0.93	0.296	1.43	0.207	1.08	1.00	0.250	No
232	4.62	76.05	32.57	43.48	0.93	0.296	1.43	0.207	1.08	1.00	0.250	No
233	4.64	76.41	32.77	43.64	0.93	0.296	1.43	0.207	1.08	1.00	0.250	No
234	4.66	76.77	32.96	43.81	0.93	0.296	1.43	0.207	1.08	1.00	0.251	No
235	4.68	77.14	33.16	43.98	0.93	0.297	1.43	0.208	1.08	1.00	0.251	No
236	4.70	77.50	33.35	44.15	0.93	0.297	1.43	0.208	1.08	1.00	0.252	No
237	4.72	77.87	33.55	44.32	0.93	0.297	1.43	0.208	1.07	1.00	0.252	No
238	4.74	78.23	33.75	44.49	0.93	0.297	1.43	0.208	1.07	1.00	0.253	No
239	4.76	78.60	33.94	44.66	0.93	0.297	1.43	0.208	1.07	1.00	0.253	No
240	4.78	78.97	34.14	44.83	0.93	0.297	1.43	0.208	1.07	1.00	0.254	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
241	4.80	79.34	34.34	45.00	0.93	0.297	1.43	0.208	1.07	1.00	0.254	No
242	4.82	79.70	34.53	45.17	0.93	0.297	1.43	0.208	1.07	1.00	0.254	No
243	4.84	80.07	34.73	45.34	0.93	0.297	1.43	0.208	1.07	1.00	0.253	No
244	4.86	80.44	34.92	45.51	0.93	0.298	1.43	0.208	1.07	1.00	0.254	No
245	4.88	80.80	35.12	45.68	0.92	0.298	1.43	0.208	1.07	1.00	0.254	No
246	4.90	81.17	35.32	45.86	0.92	0.298	1.43	0.208	1.07	1.00	0.254	No
247	4.92	81.54	35.51	46.03	0.92	0.298	1.43	0.209	1.07	1.00	0.254	No
248	4.94	81.91	35.71	46.20	0.92	0.298	1.43	0.209	1.07	1.00	0.254	No
249	4.96	82.28	35.90	46.38	0.92	0.298	1.43	0.209	1.07	1.00	0.254	No
250	4.98	82.65	36.10	46.55	0.92	0.298	1.43	0.209	1.07	1.00	0.255	No
251	5.00	83.02	36.30	46.73	0.92	0.298	1.43	0.209	1.07	1.00	0.253	No
252	5.02	83.39	36.49	46.90	0.92	0.298	1.43	0.209	1.07	1.00	0.253	No
253	5.04	83.77	36.69	47.08	0.92	0.298	1.43	0.209	1.07	1.00	0.253	No
254	5.06	84.14	36.89	47.25	0.92	0.298	1.43	0.209	1.07	1.00	0.253	No
255	5.08	84.51	37.08	47.43	0.92	0.299	1.43	0.209	1.07	1.00	0.253	No
256	5.10	84.88	37.28	47.60	0.92	0.299	1.43	0.209	1.07	1.00	0.253	No
257	5.12	85.25	37.47	47.78	0.92	0.299	1.43	0.209	1.07	1.00	0.254	No
258	5.14	85.62	37.67	47.95	0.92	0.299	1.43	0.209	1.07	1.00	0.255	No
259	5.16	85.99	37.87	48.13	0.92	0.299	1.43	0.209	1.07	1.00	0.255	No
260	5.18	86.36	38.06	48.30	0.92	0.299	1.43	0.209	1.07	1.00	0.254	No
261	5.20	86.73	38.26	48.47	0.92	0.299	1.43	0.209	1.07	1.00	0.254	No
262	5.22	87.10	38.46	48.65	0.92	0.299	1.43	0.209	1.07	1.00	0.254	No
263	5.24	87.47	38.65	48.82	0.92	0.299	1.43	0.209	1.07	1.00	0.254	No
264	5.26	87.84	38.85	48.99	0.92	0.299	1.43	0.209	1.07	1.00	0.254	No
265	5.28	88.21	39.04	49.17	0.92	0.299	1.43	0.209	1.07	1.00	0.254	No
266	5.30	88.58	39.24	49.34	0.92	0.299	1.43	0.209	1.07	1.00	0.254	No
267	5.32	88.95	39.44	49.52	0.92	0.299	1.43	0.210	1.07	1.00	0.254	No
268	5.34	89.33	39.63	49.70	0.92	0.299	1.43	0.210	1.07	1.00	0.254	No
269	5.36	89.70	39.83	49.87	0.91	0.299	1.43	0.210	1.07	1.00	0.254	No
270	5.38	90.08	40.02	50.05	0.91	0.299	1.43	0.210	1.07	1.00	0.254	No
271	5.40	90.45	40.22	50.23	0.91	0.299	1.43	0.210	1.07	1.00	0.254	No
272	5.42	90.83	40.42	50.41	0.91	0.299	1.43	0.210	1.07	1.00	0.254	No
273	5.44	91.21	40.61	50.59	0.91	0.300	1.43	0.210	1.07	1.00	0.253	No
274	5.46	91.58	40.81	50.77	0.91	0.300	1.43	0.210	1.07	1.00	0.252	No
275	5.48	91.96	41.01	50.95	0.91	0.300	1.43	0.210	1.07	1.00	0.252	No
276	5.50	92.34	41.20	51.14	0.91	0.300	1.43	0.210	1.07	1.00	0.253	No
277	5.52	92.72	41.40	51.32	0.91	0.300	1.43	0.210	1.07	1.00	0.253	No
278	5.54	93.09	41.59	51.50	0.91	0.300	1.43	0.210	1.06	1.00	0.254	No
279	5.56	93.47	41.79	51.68	0.91	0.300	1.43	0.210	1.06	1.00	0.255	No
280	5.58	93.85	41.99	51.86	0.91	0.300	1.43	0.210	1.06	1.00	0.256	No
281	5.60	94.23	42.18	52.05	0.91	0.300	1.43	0.210	1.06	1.00	0.257	No
282	5.62	94.61	42.38	52.23	0.91	0.300	1.43	0.210	1.06	1.00	0.257	No
283	5.65	95.17	42.67	52.50	0.91	0.300	1.43	0.210	1.06	1.00	0.258	No
284	5.66	95.36	42.77	52.59	0.91	0.300	1.43	0.210	1.06	1.00	0.259	No
285	5.68	95.74	42.97	52.77	0.91	0.300	1.43	0.210	1.06	1.00	0.259	No
286	5.70	96.11	43.16	52.94	0.91	0.300	1.43	0.210	1.06	1.00	0.258	No
287	5.72	96.48	43.36	53.12	0.91	0.300	1.43	0.210	1.06	1.00	0.257	No
288	5.74	96.85	43.56	53.29	0.91	0.300	1.43	0.210	1.06	1.00	0.257	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
289	5.76	97.22	43.75	53.47	0.91	0.300	1.43	0.210	1.06	1.00	0.258	No
290	5.78	97.58	43.95	53.63	0.91	0.300	1.43	0.210	1.06	1.00	0.259	No
291	5.80	97.95	44.15	53.80	0.91	0.300	1.43	0.210	1.06	1.00	0.259	No
292	5.82	98.31	44.34	53.97	0.90	0.300	1.43	0.210	1.06	1.00	0.259	No
293	5.84	98.67	44.54	54.14	0.90	0.300	1.43	0.210	1.06	1.00	0.260	No
294	5.86	99.04	44.73	54.30	0.90	0.300	1.43	0.210	1.06	1.00	0.260	No
295	5.88	99.40	44.93	54.47	0.90	0.300	1.43	0.210	1.06	1.00	0.260	No
296	5.90	99.77	45.13	54.64	0.90	0.300	1.43	0.210	1.06	1.00	0.260	No
297	5.92	100.14	45.32	54.81	0.90	0.300	1.43	0.210	1.06	1.00	0.260	No
298	5.94	100.51	45.52	54.99	0.90	0.300	1.43	0.210	1.06	1.00	0.260	No
299	5.96	100.87	45.71	55.16	0.90	0.300	1.43	0.210	1.06	1.00	0.259	No
300	5.98	101.24	45.91	55.33	0.90	0.300	1.43	0.210	1.06	1.00	0.259	No
301	6.00	101.61	46.11	55.51	0.90	0.300	1.43	0.210	1.06	1.00	0.259	No
302	6.02	101.99	46.30	55.68	0.90	0.300	1.43	0.210	1.06	1.00	0.258	No
303	6.04	102.36	46.50	55.86	0.90	0.300	1.43	0.210	1.06	1.00	0.258	No
304	6.06	102.73	46.70	56.04	0.90	0.300	1.43	0.210	1.06	1.00	0.257	No
305	6.08	103.11	46.89	56.22	0.90	0.300	1.43	0.210	1.06	1.00	0.256	No
306	6.10	103.48	47.09	56.39	0.90	0.300	1.43	0.210	1.06	1.00	0.256	No
307	6.12	103.86	47.28	56.57	0.90	0.300	1.43	0.210	1.06	1.00	0.256	No
308	6.14	104.23	47.48	56.75	0.90	0.300	1.43	0.210	1.06	1.00	0.257	No
309	6.16	104.61	47.68	56.93	0.90	0.300	1.43	0.210	1.05	1.00	0.257	No
310	6.18	104.99	47.87	57.11	0.90	0.300	1.43	0.210	1.05	1.00	0.257	No
311	6.20	105.36	48.07	57.29	0.90	0.300	1.43	0.210	1.05	1.00	0.258	No
312	6.22	105.74	48.27	57.47	0.90	0.300	1.43	0.210	1.05	1.00	0.258	No
313	6.24	106.12	48.46	57.65	0.90	0.300	1.43	0.210	1.05	1.00	0.259	No
314	6.26	106.49	48.66	57.84	0.89	0.300	1.43	0.210	1.05	1.00	0.260	No
315	6.28	106.87	48.85	58.02	0.89	0.300	1.43	0.210	1.05	1.00	0.259	No
316	6.30	107.25	49.05	58.20	0.89	0.300	1.43	0.210	1.05	1.00	0.258	No
317	6.32	107.62	49.25	58.38	0.89	0.300	1.43	0.210	1.05	1.00	0.259	No
318	6.34	108.00	49.44	58.56	0.89	0.300	1.43	0.210	1.05	1.00	0.258	No
319	6.36	108.38	49.64	58.74	0.89	0.300	1.43	0.210	1.05	1.00	0.257	No
320	6.38	108.75	49.83	58.92	0.89	0.300	1.43	0.210	1.05	1.00	0.259	No
321	6.40	109.13	50.03	59.10	0.89	0.300	1.43	0.210	1.05	1.00	0.259	No
322	6.42	109.50	50.23	59.27	0.89	0.300	1.43	0.210	1.05	1.00	0.259	No
323	6.44	109.88	50.42	59.45	0.89	0.300	1.43	0.210	1.05	1.00	0.259	No
324	6.46	110.25	50.62	59.63	0.89	0.300	1.43	0.210	1.05	1.00	0.259	No
325	6.48	110.63	50.82	59.81	0.89	0.300	1.43	0.210	1.05	1.00	0.259	No
326	6.50	111.01	51.01	59.99	0.89	0.300	1.43	0.210	1.05	1.00	0.260	No
327	6.52	111.38	51.21	60.17	0.89	0.300	1.43	0.210	1.05	1.00	0.260	No
328	6.54	111.76	51.40	60.36	0.89	0.300	1.43	0.210	1.05	1.00	0.261	No
329	6.56	112.14	51.60	60.54	0.89	0.299	1.43	0.210	1.05	1.00	0.261	No
330	6.58	112.51	51.80	60.72	0.89	0.299	1.43	0.210	1.05	1.00	0.261	No
331	6.60	112.89	51.99	60.90	0.89	0.299	1.43	0.210	1.05	1.00	0.262	No
332	6.62	113.27	52.19	61.08	0.89	0.299	1.43	0.210	1.05	1.00	0.262	No
333	6.64	113.64	52.39	61.26	0.89	0.299	1.43	0.210	1.05	1.00	0.262	No
334	6.66	114.02	52.58	61.44	0.89	0.299	1.43	0.209	1.04	1.00	0.263	No
335	6.68	114.39	52.78	61.61	0.89	0.299	1.43	0.209	1.04	1.00	0.263	No
336	6.70	114.76	52.97	61.79	0.89	0.299	1.43	0.209	1.04	1.00	0.263	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
337	6.72	115.13	53.17	61.96	0.88	0.299	1.43	0.209	1.04	1.00	0.263	No
338	6.74	115.51	53.37	62.14	0.88	0.299	1.43	0.209	1.04	1.00	0.264	No
339	6.76	115.88	53.56	62.31	0.88	0.299	1.43	0.209	1.04	1.00	0.264	No
340	6.78	116.25	53.76	62.49	0.88	0.299	1.43	0.209	1.04	1.00	0.264	No
341	6.80	116.62	53.95	62.66	0.88	0.299	1.43	0.209	1.04	1.00	0.264	No
342	6.82	116.98	54.15	62.83	0.88	0.299	1.43	0.209	1.04	1.00	0.264	No
343	6.84	117.35	54.35	63.01	0.88	0.299	1.43	0.209	1.04	1.00	0.264	No
344	6.86	117.72	54.54	63.18	0.88	0.299	1.43	0.209	1.04	1.00	0.264	No
345	6.88	118.09	54.74	63.35	0.88	0.299	1.43	0.209	1.04	1.00	0.264	No
346	6.90	118.46	54.94	63.52	0.88	0.299	1.43	0.209	1.04	1.00	0.263	No
347	6.92	118.82	55.13	63.69	0.88	0.299	1.43	0.209	1.04	1.00	0.263	No
348	6.94	119.19	55.33	63.86	0.88	0.299	1.43	0.209	1.04	1.00	0.263	No
349	6.96	119.56	55.52	64.04	0.88	0.299	1.43	0.209	1.04	1.00	0.263	No
350	6.98	119.93	55.72	64.21	0.88	0.299	1.43	0.209	1.04	1.00	0.264	No
351	7.00	120.30	55.92	64.38	0.88	0.299	1.43	0.209	1.04	1.00	0.263	No
352	7.02	120.67	56.11	64.56	0.88	0.299	1.43	0.209	1.04	1.00	0.263	No
353	7.04	121.04	56.31	64.73	0.88	0.299	1.43	0.209	1.04	1.00	0.263	No
354	7.06	121.41	56.51	64.91	0.88	0.299	1.43	0.209	1.04	1.00	0.263	No
355	7.08	121.78	56.70	65.08	0.88	0.299	1.43	0.209	1.04	1.00	0.263	No
356	7.10	122.15	56.90	65.26	0.88	0.298	1.43	0.209	1.04	1.00	0.263	No
357	7.12	122.53	57.09	65.43	0.88	0.298	1.43	0.209	1.04	1.00	0.263	No
358	7.14	122.90	57.29	65.61	0.88	0.298	1.43	0.209	1.04	1.00	0.263	No
359	7.16	123.27	57.49	65.78	0.87	0.298	1.43	0.209	1.04	1.00	0.263	No
360	7.18	123.64	57.68	65.96	0.87	0.298	1.43	0.209	1.04	1.00	0.263	No
361	7.20	124.01	57.88	66.13	0.87	0.298	1.43	0.209	1.04	1.00	0.263	No
362	7.22	124.38	58.08	66.31	0.87	0.298	1.43	0.209	1.04	1.00	0.263	No
363	7.24	124.76	58.27	66.48	0.87	0.298	1.43	0.209	1.04	1.00	0.263	No
364	7.26	125.13	58.47	66.66	0.87	0.298	1.43	0.209	1.04	1.00	0.263	No
365	7.28	125.50	58.66	66.84	0.87	0.298	1.43	0.209	1.04	1.00	0.263	No
366	7.30	125.87	58.86	67.01	0.87	0.298	1.43	0.209	1.04	1.00	0.263	No
367	7.32	126.24	59.06	67.19	0.87	0.298	1.43	0.208	1.04	1.00	0.263	No
368	7.34	126.62	59.25	67.36	0.87	0.298	1.43	0.208	1.04	1.00	0.264	No
369	7.36	126.99	59.45	67.54	0.87	0.298	1.43	0.208	1.04	1.00	0.264	No
370	7.38	127.36	59.64	67.72	0.87	0.298	1.43	0.208	1.04	1.00	0.264	No
371	7.40	127.73	59.84	67.89	0.87	0.298	1.43	0.208	1.04	1.00	0.264	No
372	7.42	128.11	60.04	68.07	0.87	0.298	1.43	0.208	1.03	1.00	0.264	No
373	7.44	128.48	60.23	68.24	0.87	0.297	1.43	0.208	1.03	1.00	0.264	No
374	7.46	128.85	60.43	68.42	0.87	0.297	1.43	0.208	1.03	1.00	0.264	No
375	7.48	129.22	60.63	68.59	0.87	0.297	1.43	0.208	1.03	1.00	0.264	No
376	7.50	129.59	60.82	68.77	0.87	0.297	1.43	0.208	1.03	1.00	0.264	No
377	7.52	129.96	61.02	68.94	0.87	0.297	1.43	0.208	1.03	1.00	0.264	No
378	7.54	130.33	61.21	69.11	0.87	0.297	1.43	0.208	1.03	1.00	0.265	No
379	7.56	130.69	61.41	69.28	0.87	0.297	1.43	0.208	1.03	1.00	0.265	No
380	7.58	131.06	61.61	69.46	0.87	0.297	1.43	0.208	1.03	1.00	0.265	No
381	7.60	131.43	61.80	69.63	0.86	0.297	1.43	0.208	1.03	1.00	0.265	No
382	7.62	131.80	62.00	69.80	0.86	0.297	1.43	0.208	1.03	1.00	0.265	No
383	7.64	132.17	62.20	69.97	0.86	0.297	1.43	0.208	1.03	1.00	0.265	No
384	7.66	132.53	62.39	70.14	0.86	0.297	1.43	0.208	1.03	1.00	0.265	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
385	7.68	132.90	62.59	70.31	0.86	0.297	1.43	0.208	1.03	1.00	0.265	No
386	7.70	133.27	62.78	70.48	0.86	0.297	1.43	0.208	1.03	1.00	0.265	No
387	7.72	133.64	62.98	70.66	0.86	0.297	1.43	0.208	1.03	1.00	0.265	No
388	7.74	134.00	63.18	70.83	0.86	0.297	1.43	0.208	1.03	1.00	0.265	No
389	7.76	134.37	63.37	71.00	0.86	0.297	1.43	0.208	1.03	1.00	0.265	No
390	7.78	134.74	63.57	71.17	0.86	0.296	1.43	0.208	1.03	1.00	0.266	No
391	7.80	135.11	63.77	71.34	0.86	0.296	1.43	0.207	1.03	1.00	0.265	No
392	7.82	135.48	63.96	71.51	0.86	0.296	1.43	0.207	1.03	1.00	0.265	No
393	7.84	135.84	64.16	71.68	0.86	0.296	1.43	0.207	1.03	1.00	0.265	No
394	7.86	136.21	64.35	71.85	0.86	0.296	1.43	0.207	1.03	1.00	0.266	No
395	7.88	136.57	64.55	72.02	0.86	0.296	1.43	0.207	1.03	1.00	0.266	No
396	7.90	136.94	64.75	72.19	0.86	0.296	1.43	0.207	1.03	1.00	0.266	No
397	7.92	137.30	64.94	72.36	0.86	0.296	1.43	0.207	1.03	1.00	0.266	No
398	7.94	137.67	65.14	72.53	0.86	0.296	1.43	0.207	1.03	1.00	0.266	No
399	7.96	138.03	65.33	72.70	0.86	0.296	1.43	0.207	1.03	1.00	0.266	No
400	7.98	138.39	65.53	72.86	0.86	0.296	1.43	0.207	1.03	1.00	0.266	No
401	8.00	138.76	65.73	73.03	0.86	0.296	1.43	0.207	1.03	1.00	0.266	No
402	8.02	139.12	65.92	73.20	0.85	0.296	1.43	0.207	1.03	1.00	0.266	No
403	8.04	139.48	66.12	73.36	0.85	0.296	1.43	0.207	1.03	1.00	0.266	No
404	8.06	139.84	66.32	73.53	0.85	0.296	1.43	0.207	1.03	1.00	0.266	No
405	8.08	140.21	66.51	73.69	0.85	0.295	1.43	0.207	1.03	1.00	0.266	No
406	8.10	140.57	66.71	73.86	0.85	0.295	1.43	0.207	1.03	1.00	0.266	No
407	8.12	140.93	66.90	74.03	0.85	0.295	1.43	0.207	1.03	1.00	0.266	No
408	8.15	141.48	67.20	74.28	0.85	0.295	1.43	0.207	1.03	1.00	0.266	No
409	8.16	141.66	67.30	74.36	0.85	0.295	1.43	0.207	1.03	1.00	0.266	No
410	8.18	142.02	67.49	74.53	0.85	0.295	1.43	0.207	1.03	1.00	0.266	No
411	8.20	142.38	67.69	74.69	0.85	0.295	1.43	0.207	1.03	1.00	0.266	No
412	8.22	142.74	67.89	74.86	0.85	0.295	1.43	0.207	1.03	1.00	0.266	No
413	8.24	143.10	68.08	75.02	0.85	0.295	1.43	0.206	1.03	1.00	0.266	No
414	8.26	143.46	68.28	75.18	0.85	0.295	1.43	0.206	1.03	1.00	0.266	No
415	8.28	143.82	68.47	75.35	0.85	0.295	1.43	0.206	1.02	1.00	0.267	No
416	8.30	144.18	68.67	75.51	0.85	0.295	1.43	0.206	1.02	1.00	0.267	No
417	8.32	144.54	68.87	75.68	0.85	0.295	1.43	0.206	1.02	1.00	0.267	No
418	8.34	144.90	69.06	75.84	0.85	0.295	1.43	0.206	1.02	1.00	0.266	No
419	8.36	145.26	69.26	76.00	0.85	0.295	1.43	0.206	1.02	1.00	0.266	No
420	8.38	145.62	69.45	76.17	0.85	0.294	1.43	0.206	1.02	1.00	0.266	No
421	8.40	145.98	69.65	76.33	0.85	0.294	1.43	0.206	1.02	1.00	0.266	No
422	8.42	146.34	69.85	76.49	0.85	0.294	1.43	0.206	1.02	1.00	0.266	No
423	8.44	146.70	70.04	76.65	0.84	0.294	1.43	0.206	1.02	1.00	0.266	No
424	8.46	147.06	70.24	76.82	0.84	0.294	1.43	0.206	1.02	1.00	0.266	No
425	8.48	147.42	70.44	76.98	0.84	0.294	1.43	0.206	1.02	1.00	0.266	No
426	8.50	147.78	70.63	77.14	0.84	0.294	1.43	0.206	1.02	1.00	0.266	No
427	8.52	148.14	70.83	77.31	0.84	0.294	1.43	0.206	1.02	1.00	0.266	No
428	8.54	148.50	71.02	77.47	0.84	0.294	1.43	0.206	1.02	1.00	0.266	No
429	8.56	148.86	71.22	77.64	0.84	0.294	1.43	0.206	1.02	1.00	0.266	No
430	8.58	149.22	71.42	77.80	0.84	0.294	1.43	0.206	1.02	1.00	0.266	No
431	8.60	149.58	71.61	77.97	0.84	0.294	1.43	0.206	1.02	1.00	0.266	No
432	8.62	149.94	71.81	78.13	0.84	0.294	1.43	0.206	1.02	1.00	0.266	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
433	8.64	150.30	72.01	78.29	0.84	0.294	1.43	0.205	1.02	1.00	0.266	No
434	8.66	150.66	72.20	78.46	0.84	0.293	1.43	0.205	1.02	1.00	0.266	No
435	8.68	151.02	72.40	78.62	0.84	0.293	1.43	0.205	1.02	1.00	0.266	No
436	8.70	151.38	72.59	78.78	0.84	0.293	1.43	0.205	1.02	1.00	0.266	No
437	8.72	151.74	72.79	78.95	0.84	0.293	1.43	0.205	1.02	1.00	0.266	No
438	8.74	152.09	72.99	79.11	0.84	0.293	1.43	0.205	1.02	1.00	0.266	No
439	8.76	152.45	73.18	79.27	0.84	0.293	1.43	0.205	1.02	1.00	0.266	No
440	8.78	152.81	73.38	79.43	0.84	0.293	1.43	0.205	1.02	1.00	0.266	No
441	8.80	153.17	73.58	79.60	0.84	0.293	1.43	0.205	1.02	1.00	0.266	No
442	8.82	153.53	73.77	79.76	0.84	0.293	1.43	0.205	1.02	1.00	0.266	No
443	8.84	153.89	73.97	79.92	0.84	0.293	1.43	0.205	1.02	1.00	0.266	No
444	8.86	154.25	74.16	80.08	0.83	0.293	1.43	0.205	1.02	1.00	0.266	No
445	8.88	154.61	74.36	80.25	0.83	0.293	1.43	0.205	1.02	1.00	0.266	No
446	8.90	154.97	74.56	80.41	0.83	0.293	1.43	0.205	1.02	1.00	0.266	No
447	8.92	155.33	74.75	80.57	0.83	0.292	1.43	0.205	1.02	1.00	0.266	No
448	8.94	155.69	74.95	80.74	0.83	0.292	1.43	0.205	1.02	1.00	0.266	No
449	8.96	156.05	75.14	80.90	0.83	0.292	1.43	0.205	1.02	1.00	0.266	No
450	8.98	156.40	75.34	81.06	0.83	0.292	1.43	0.205	1.02	1.00	0.266	No
451	9.00	156.76	75.54	81.23	0.83	0.292	1.43	0.204	1.02	1.00	0.266	No
452	9.02	157.12	75.73	81.39	0.83	0.292	1.43	0.204	1.02	1.00	0.265	No
453	9.04	157.48	75.93	81.55	0.83	0.292	1.43	0.204	1.02	1.00	0.266	No
454	9.06	157.84	76.13	81.71	0.83	0.292	1.43	0.204	1.02	1.00	0.265	No
455	9.08	158.20	76.32	81.88	0.83	0.292	1.43	0.204	1.02	1.00	0.265	No
456	9.10	158.56	76.52	82.04	0.83	0.292	1.43	0.204	1.02	1.00	0.265	No
457	9.12	158.92	76.71	82.21	0.83	0.292	1.43	0.204	1.02	1.00	0.265	No
458	9.14	159.28	76.91	82.37	0.83	0.292	1.43	0.204	1.02	1.00	0.264	No
459	9.16	159.65	77.11	82.54	0.83	0.291	1.43	0.204	1.02	1.00	0.264	No
460	9.18	160.01	77.30	82.71	0.83	0.291	1.43	0.204	1.02	1.00	0.264	No
461	9.20	160.37	77.50	82.87	0.83	0.291	1.43	0.204	1.02	1.00	0.264	No
462	9.22	160.73	77.70	83.04	0.83	0.291	1.43	0.204	1.02	1.00	0.264	No
463	9.24	161.10	77.89	83.20	0.83	0.291	1.43	0.204	1.02	1.00	0.263	No
464	9.26	161.46	78.09	83.37	0.83	0.291	1.43	0.204	1.02	1.00	0.263	No
465	9.28	161.82	78.28	83.54	0.83	0.291	1.43	0.204	1.02	1.00	0.263	No
466	9.30	162.18	78.48	83.70	0.82	0.291	1.43	0.204	1.02	1.00	0.264	No
467	9.32	162.55	78.68	83.87	0.82	0.291	1.43	0.203	1.02	1.00	0.264	No
468	9.34	162.91	78.87	84.04	0.82	0.291	1.43	0.203	1.02	1.00	0.264	No
469	9.36	163.28	79.07	84.21	0.82	0.290	1.43	0.203	1.02	1.00	0.264	No
470	9.38	163.65	79.26	84.38	0.82	0.290	1.43	0.203	1.02	1.00	0.265	No
471	9.40	164.01	79.46	84.55	0.82	0.290	1.43	0.203	1.02	1.00	0.264	No
472	9.42	164.38	79.66	84.72	0.82	0.290	1.43	0.203	1.02	1.00	0.264	No
473	9.44	164.75	79.85	84.90	0.82	0.290	1.43	0.203	1.01	1.00	0.264	No
474	9.46	165.11	80.05	85.06	0.82	0.290	1.43	0.203	1.01	1.00	0.264	No
475	9.48	165.48	80.25	85.23	0.82	0.290	1.43	0.203	1.01	1.00	0.264	No
476	9.50	165.84	80.44	85.40	0.82	0.290	1.43	0.203	1.01	1.00	0.264	No
477	9.52	166.20	80.64	85.56	0.82	0.290	1.43	0.203	1.01	1.00	0.264	No
478	9.54	166.56	80.83	85.73	0.82	0.290	1.43	0.203	1.01	1.00	0.264	No
479	9.56	166.93	81.03	85.89	0.82	0.289	1.43	0.203	1.01	1.00	0.264	No
480	9.58	167.29	81.23	86.06	0.82	0.289	1.43	0.203	1.01	1.00	0.264	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
481	9.60	167.65	81.42	86.23	0.82	0.289	1.43	0.202	1.01	1.00	0.264	No
482	9.66	168.74	82.01	86.73	0.82	0.289	1.43	0.202	1.01	1.00	0.264	No
483	9.66	168.74	82.01	86.73	0.82	0.289	1.43	0.202	1.01	1.00	0.264	No
484	9.67	168.93	82.11	86.82	0.82	0.289	1.43	0.202	1.01	1.00	0.265	No
485	9.68	169.11	82.21	86.90	0.82	0.289	1.43	0.202	1.01	1.00	0.265	No
486	9.70	169.46	82.40	87.06	0.81	0.289	1.43	0.202	1.01	1.00	0.265	No
487	9.73	170.00	82.70	87.30	0.81	0.289	1.43	0.202	1.01	1.00	0.265	No
488	9.74	170.18	82.80	87.38	0.81	0.289	1.43	0.202	1.01	1.00	0.264	No
489	9.76	170.53	82.99	87.54	0.81	0.288	1.43	0.202	1.01	1.00	0.264	No
490	9.78	170.89	83.19	87.70	0.81	0.288	1.43	0.202	1.01	1.00	0.264	No
491	9.80	171.24	83.39	87.85	0.81	0.288	1.43	0.202	1.01	1.00	0.264	No
492	9.82	171.59	83.58	88.01	0.81	0.288	1.43	0.202	1.01	1.00	0.264	No
493	9.84	171.94	83.78	88.16	0.81	0.288	1.43	0.202	1.01	1.00	0.264	No
494	9.86	172.29	83.97	88.32	0.81	0.288	1.43	0.202	1.01	1.00	0.264	No
495	9.88	172.64	84.17	88.47	0.81	0.288	1.43	0.202	1.01	1.00	0.264	No
496	9.90	172.99	84.37	88.63	0.81	0.288	1.43	0.201	1.01	1.00	0.264	No
497	9.92	173.35	84.56	88.78	0.81	0.288	1.43	0.201	1.01	1.00	0.264	No
498	9.94	173.70	84.76	88.94	0.81	0.288	1.43	0.201	1.01	1.00	0.263	No
499	9.96	174.05	84.95	89.09	0.81	0.288	1.43	0.201	1.01	1.00	0.263	No
500	9.98	174.40	85.15	89.25	0.81	0.287	1.43	0.201	1.01	1.00	0.263	No
501	10.00	174.75	85.35	89.40	0.81	0.287	1.43	0.201	1.01	1.00	0.263	No
502	10.02	175.10	85.54	89.55	0.81	0.287	1.43	0.201	1.01	1.00	0.263	No
503	10.04	175.45	85.74	89.71	0.81	0.287	1.43	0.201	1.01	1.00	0.263	No
504	10.06	175.80	85.94	89.86	0.81	0.287	1.43	0.201	1.01	1.00	0.263	No
505	10.08	176.15	86.13	90.02	0.81	0.287	1.43	0.201	1.01	1.00	0.263	No
506	10.10	176.50	86.33	90.18	0.81	0.287	1.43	0.201	1.01	1.00	0.263	No
507	10.12	176.86	86.52	90.33	0.80	0.287	1.43	0.201	1.01	1.00	0.263	No
508	10.14	177.22	86.72	90.49	0.80	0.287	1.43	0.201	1.01	1.00	0.263	No
509	10.16	177.57	86.92	90.66	0.80	0.287	1.43	0.201	1.01	1.00	0.263	No
510	10.18	177.93	87.11	90.82	0.80	0.287	1.43	0.201	1.01	1.00	0.263	No
511	10.20	178.29	87.31	90.98	0.80	0.286	1.43	0.200	1.01	1.00	0.263	No
512	10.22	178.65	87.51	91.15	0.80	0.286	1.43	0.200	1.01	1.00	0.262	No
513	10.24	179.01	87.70	91.31	0.80	0.286	1.43	0.200	1.01	1.00	0.262	No
514	10.26	179.37	87.90	91.48	0.80	0.286	1.43	0.200	1.01	1.00	0.262	No
515	10.28	179.74	88.09	91.64	0.80	0.286	1.43	0.200	1.01	1.00	0.262	No
516	10.30	180.10	88.29	91.81	0.80	0.286	1.43	0.200	1.01	1.00	0.262	No
517	10.32	180.46	88.49	91.97	0.80	0.286	1.43	0.200	1.01	1.00	0.261	No
518	10.34	180.82	88.68	92.14	0.80	0.286	1.43	0.200	1.01	1.00	0.261	No
519	10.36	181.19	88.88	92.31	0.80	0.285	1.43	0.200	1.01	1.00	0.260	No
520	10.38	181.55	89.07	92.48	0.80	0.285	1.43	0.200	1.01	1.00	0.260	No
521	10.40	181.92	89.27	92.65	0.80	0.285	1.43	0.200	1.01	1.00	0.260	No
522	10.42	182.29	89.47	92.82	0.80	0.285	1.43	0.200	1.01	1.00	0.260	No
523	10.44	182.66	89.66	92.99	0.80	0.285	1.43	0.199	1.01	1.00	0.260	No
524	10.46	183.03	89.86	93.17	0.80	0.285	1.43	0.199	1.01	1.00	0.260	No
525	10.48	183.40	90.06	93.34	0.80	0.285	1.43	0.199	1.01	1.00	0.260	No
526	10.50	183.77	90.25	93.52	0.80	0.285	1.43	0.199	1.01	1.00	0.260	No
527	10.52	184.14	90.45	93.69	0.80	0.284	1.43	0.199	1.01	1.00	0.260	No
528	10.54	184.51	90.64	93.87	0.79	0.284	1.43	0.199	1.01	1.00	0.261	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
529	10.56	184.89	90.84	94.05	0.79	0.284	1.43	0.199	1.01	1.00	0.261	No
530	10.58	185.26	91.04	94.22	0.79	0.284	1.43	0.199	1.01	1.00	0.261	No
531	10.60	185.63	91.23	94.40	0.79	0.284	1.43	0.199	1.01	1.00	0.261	No
532	10.62	186.00	91.43	94.57	0.79	0.284	1.43	0.199	1.01	1.00	0.261	No
533	10.64	186.37	91.63	94.75	0.79	0.284	1.43	0.199	1.01	1.00	0.261	No
534	10.66	186.74	91.82	94.92	0.79	0.284	1.43	0.199	1.01	1.00	0.261	No
535	10.68	187.11	92.02	95.09	0.79	0.283	1.43	0.198	1.01	1.00	0.260	No
536	10.70	187.47	92.21	95.26	0.79	0.283	1.43	0.198	1.01	1.00	0.260	No
537	10.72	187.84	92.41	95.43	0.79	0.283	1.43	0.198	1.01	1.00	0.260	No
538	10.74	188.20	92.61	95.59	0.79	0.283	1.43	0.198	1.00	1.00	0.260	No
539	10.76	188.57	92.80	95.76	0.79	0.283	1.43	0.198	1.00	1.00	0.261	No
540	10.78	188.93	93.00	95.93	0.79	0.283	1.43	0.198	1.00	1.00	0.261	No
541	10.80	189.30	93.19	96.10	0.79	0.283	1.43	0.198	1.00	1.00	0.261	No
542	10.82	189.66	93.39	96.27	0.79	0.283	1.43	0.198	1.00	1.00	0.260	No
543	10.84	190.03	93.59	96.44	0.79	0.282	1.43	0.198	1.00	1.00	0.260	No
544	10.86	190.39	93.78	96.61	0.79	0.282	1.43	0.198	1.00	1.00	0.260	No
545	10.88	190.76	93.98	96.78	0.79	0.282	1.43	0.198	1.00	1.00	0.259	No
546	10.90	191.12	94.18	96.95	0.79	0.282	1.43	0.197	1.00	1.00	0.259	No
547	10.92	191.49	94.37	97.11	0.79	0.282	1.43	0.197	1.00	1.00	0.259	No
548	10.94	191.85	94.57	97.28	0.79	0.282	1.43	0.197	1.00	1.00	0.259	No
549	10.96	192.22	94.76	97.46	0.78	0.282	1.43	0.197	1.00	1.00	0.259	No
550	10.98	192.59	94.96	97.63	0.78	0.282	1.43	0.197	1.00	1.00	0.259	No
551	11.00	192.96	95.16	97.80	0.78	0.281	1.43	0.197	1.00	1.00	0.259	No
552	11.02	193.33	95.35	97.97	0.78	0.281	1.43	0.197	1.00	1.00	0.259	No
553	11.04	193.70	95.55	98.15	0.78	0.281	1.43	0.197	1.00	1.00	0.259	No
554	11.06	194.06	95.75	98.32	0.78	0.281	1.43	0.197	1.00	1.00	0.260	No
555	11.08	194.43	95.94	98.49	0.78	0.281	1.43	0.197	1.00	1.00	0.259	No
556	11.10	194.80	96.14	98.66	0.78	0.281	1.43	0.197	1.00	1.00	0.259	No
557	11.12	195.17	96.33	98.83	0.78	0.281	1.43	0.196	1.00	1.00	0.259	No
558	11.14	195.54	96.53	99.01	0.78	0.281	1.43	0.196	1.00	1.00	0.259	No
559	11.16	195.90	96.73	99.18	0.78	0.280	1.43	0.196	1.00	1.00	0.258	No
560	11.18	196.27	96.92	99.35	0.78	0.280	1.43	0.196	1.00	1.00	0.258	No
561	11.20	196.63	97.12	99.51	0.78	0.280	1.43	0.196	1.00	1.00	0.259	No
562	11.22	197.00	97.32	99.68	0.78	0.280	1.43	0.196	1.00	1.00	0.259	No
563	11.24	197.36	97.51	99.85	0.78	0.280	1.43	0.196	1.00	1.00	0.259	No
564	11.26	197.73	97.71	100.02	0.78	0.280	1.43	0.196	1.00	1.00	0.259	No
565	11.28	198.09	97.90	100.18	0.78	0.280	1.43	0.196	1.00	1.00	0.259	No
566	11.30	198.45	98.10	100.35	0.78	0.280	1.43	0.196	1.00	1.00	0.259	No
567	11.32	198.81	98.30	100.52	0.78	0.279	1.43	0.196	1.00	1.00	0.258	No
568	11.34	199.17	98.49	100.68	0.78	0.279	1.43	0.196	1.00	1.00	0.258	No
569	11.36	199.53	98.69	100.84	0.78	0.279	1.43	0.195	1.00	1.00	0.257	No
570	11.38	199.89	98.88	101.01	0.77	0.279	1.43	0.195	1.00	1.00	0.257	No
571	11.40	200.25	99.08	101.17	0.77	0.279	1.43	0.195	1.00	1.00	0.256	No
572	11.42	200.62	99.28	101.34	0.77	0.279	1.43	0.195	1.00	1.00	0.256	No
573	11.44	200.98	99.47	101.51	0.77	0.279	1.43	0.195	1.00	1.00	0.256	No
574	11.46	201.35	99.67	101.68	0.77	0.279	1.43	0.195	1.00	1.00	0.255	No
575	11.48	201.71	99.87	101.85	0.77	0.278	1.43	0.195	1.00	1.00	0.256	No
576	11.50	202.08	100.06	102.02	0.77	0.278	1.43	0.195	1.00	1.00	0.256	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
577	11.52	202.45	100.26	102.19	0.77	0.278	1.43	0.195	1.00	1.00	0.256	No
578	11.54	202.82	100.45	102.37	0.77	0.278	1.43	0.195	1.00	1.00	0.256	No
579	11.56	203.19	100.65	102.54	0.77	0.278	1.43	0.195	1.00	1.00	0.256	No
580	11.58	203.56	100.85	102.71	0.77	0.278	1.43	0.194	1.00	1.00	0.256	No
581	11.60	203.93	101.04	102.88	0.77	0.278	1.43	0.194	1.00	1.00	0.256	No
582	11.62	204.30	101.24	103.06	0.77	0.277	1.43	0.194	1.00	1.00	0.256	No
583	11.64	204.67	101.44	103.23	0.77	0.277	1.43	0.194	1.00	1.00	0.256	No
584	11.66	205.03	101.63	103.40	0.77	0.277	1.43	0.194	1.00	1.00	0.256	No
585	11.68	205.40	101.83	103.57	0.77	0.277	1.43	0.194	1.00	1.00	0.256	No
586	11.70	205.77	102.02	103.75	0.77	0.277	1.43	0.194	1.00	1.00	0.256	No
587	11.72	206.14	102.22	103.92	0.77	0.277	1.43	0.194	1.00	1.00	0.256	No
588	11.74	206.50	102.42	104.09	0.77	0.277	1.43	0.194	1.00	1.00	0.255	No
589	11.76	206.87	102.61	104.26	0.77	0.277	1.43	0.194	1.00	1.00	0.255	No
590	11.78	207.24	102.81	104.43	0.77	0.276	1.43	0.193	1.00	1.00	0.254	No
591	11.80	207.61	103.00	104.60	0.76	0.276	1.43	0.193	1.00	1.00	0.254	No
592	11.82	207.98	103.20	104.78	0.76	0.276	1.43	0.193	1.00	1.00	0.254	No
593	11.84	208.35	103.40	104.95	0.76	0.276	1.43	0.193	1.00	1.00	0.253	No
594	11.86	208.72	103.59	105.12	0.76	0.276	1.43	0.193	1.00	1.00	0.253	No
595	11.88	209.09	103.79	105.30	0.76	0.276	1.43	0.193	1.00	1.00	0.253	No
596	11.90	209.46	103.99	105.47	0.76	0.276	1.43	0.193	1.00	1.00	0.254	No
597	11.92	209.83	104.18	105.65	0.76	0.275	1.43	0.193	1.00	1.00	0.254	No
598	11.94	210.20	104.38	105.82	0.76	0.275	1.43	0.193	1.00	1.00	0.255	No
599	11.96	210.57	104.57	105.99	0.76	0.275	1.43	0.193	1.00	1.00	0.255	No
600	11.98	210.94	104.77	106.17	0.76	0.275	1.43	0.193	1.00	1.00	0.255	No
601	12.00	211.30	104.97	106.34	0.76	0.275	1.43	0.192	1.00	1.00	0.256	No
602	12.02	211.67	105.16	106.51	0.76	0.275	1.43	0.192	1.00	1.00	0.256	No
603	12.04	212.04	105.36	106.68	0.76	0.275	1.43	0.192	1.00	1.00	0.256	No
604	12.06	212.40	105.56	106.84	0.76	0.274	1.43	0.192	1.00	1.00	0.256	No
605	12.08	212.76	105.75	107.01	0.76	0.274	1.43	0.192	1.00	1.00	0.257	No
606	12.10	213.12	105.95	107.17	0.76	0.274	1.43	0.192	1.00	1.00	0.256	No
607	12.12	213.47	106.14	107.33	0.76	0.274	1.43	0.192	1.00	1.00	0.256	No
608	12.14	213.82	106.34	107.48	0.76	0.274	1.43	0.192	1.00	1.00	0.256	No
609	12.16	214.17	106.54	107.64	0.76	0.274	1.43	0.192	1.00	1.00	0.256	No
610	12.18	214.52	106.73	107.79	0.76	0.274	1.43	0.192	0.99	1.00	0.256	No
611	12.20	214.87	106.93	107.94	0.76	0.274	1.43	0.192	0.99	1.00	0.256	No
612	12.22	215.21	107.13	108.09	0.75	0.274	1.43	0.191	0.99	1.00	0.256	No
613	12.24	215.55	107.32	108.23	0.75	0.273	1.43	0.191	0.99	1.00	0.256	No
614	12.26	215.90	107.52	108.38	0.75	0.273	1.43	0.191	0.99	1.00	0.255	No
615	12.28	216.24	107.71	108.52	0.75	0.273	1.43	0.191	0.99	1.00	0.255	No
616	12.30	216.58	107.91	108.67	0.75	0.273	1.43	0.191	0.99	1.00	0.255	No
617	12.32	216.92	108.11	108.82	0.75	0.273	1.43	0.191	0.99	1.00	0.255	No
618	12.34	217.27	108.30	108.96	0.75	0.273	1.43	0.191	0.99	1.00	0.255	No
619	12.36	217.61	108.50	109.11	0.75	0.273	1.43	0.191	0.99	1.00	0.255	No
620	12.38	217.95	108.69	109.26	0.75	0.273	1.43	0.191	0.99	1.00	0.255	No
621	12.41	218.47	108.99	109.48	0.75	0.273	1.43	0.191	0.99	1.00	0.254	No
622	12.42	218.64	109.09	109.56	0.75	0.272	1.43	0.191	0.99	1.00	0.253	No
623	12.44	218.99	109.28	109.71	0.75	0.272	1.43	0.191	0.99	1.00	0.253	No
624	12.46	219.34	109.48	109.86	0.75	0.272	1.43	0.191	0.99	1.00	0.252	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
625	12.48	219.69	109.68	110.02	0.75	0.272	1.43	0.190	0.99	1.00	0.252	No
626	12.50	220.05	109.87	110.18	0.75	0.272	1.43	0.190	0.99	1.00	0.252	No
627	12.52	220.41	110.07	110.34	0.75	0.272	1.43	0.190	0.99	1.00	0.252	No
628	12.54	220.78	110.26	110.51	0.75	0.272	1.43	0.190	0.99	1.00	0.252	No
629	12.56	221.14	110.46	110.68	0.75	0.272	1.43	0.190	0.99	1.00	0.252	No
630	12.58	221.51	110.66	110.86	0.75	0.271	1.43	0.190	0.99	1.00	0.252	No
631	12.60	221.88	110.85	111.03	0.75	0.271	1.43	0.190	0.99	1.00	0.252	No
632	12.62	222.26	111.05	111.21	0.75	0.271	1.43	0.190	0.99	1.00	0.252	No
633	12.65	222.81	111.34	111.47	0.74	0.271	1.43	0.190	0.99	1.00	0.252	No
634	12.66	223.00	111.44	111.56	0.74	0.271	1.43	0.190	0.99	1.00	0.252	No
635	12.68	223.37	111.64	111.73	0.74	0.271	1.43	0.189	0.99	1.00	0.253	No
636	12.70	223.74	111.83	111.90	0.74	0.271	1.43	0.189	0.99	1.00	0.253	No
637	12.72	224.10	112.03	112.07	0.74	0.270	1.43	0.189	0.99	1.00	0.253	No
638	12.74	224.47	112.23	112.24	0.74	0.270	1.43	0.189	0.99	1.00	0.253	No
639	12.76	224.83	112.42	112.41	0.74	0.270	1.43	0.189	0.99	1.00	0.253	No
640	12.78	225.20	112.62	112.58	0.74	0.270	1.43	0.189	0.99	1.00	0.253	No
641	12.80	225.56	112.81	112.74	0.74	0.270	1.43	0.189	0.99	1.00	0.253	No
642	12.82	225.91	113.01	112.90	0.74	0.270	1.43	0.189	0.99	1.00	0.253	No
643	12.84	226.27	113.21	113.06	0.74	0.270	1.43	0.189	0.99	1.00	0.252	No
644	12.86	226.63	113.40	113.22	0.74	0.270	1.43	0.189	0.99	1.00	0.250	No
645	12.88	226.98	113.60	113.38	0.74	0.269	1.43	0.189	0.99	1.00	0.247	No
646	12.90	227.34	113.80	113.54	0.74	0.269	1.43	0.188	0.99	1.00	0.245	No
647	12.92	227.70	113.99	113.71	0.74	0.269	1.43	0.188	0.99	1.00	0.242	No
648	12.94	228.06	114.19	113.87	0.74	0.269	1.43	0.188	0.99	1.00	0.240	No
649	12.96	228.42	114.38	114.03	0.74	0.269	1.43	0.188	0.99	1.00	0.239	No
650	12.98	228.77	114.58	114.19	0.74	0.269	1.43	0.188	0.99	1.00	0.241	No
651	13.00	229.13	114.78	114.35	0.74	0.269	1.43	0.188	0.99	1.00	0.244	No
652	13.02	229.48	114.97	114.50	0.74	0.268	1.43	0.188	0.99	1.00	0.247	No
653	13.04	229.83	115.17	114.66	0.74	0.268	1.43	0.188	0.99	1.00	0.249	No
654	13.06	230.17	115.37	114.80	0.74	0.268	1.43	0.188	0.99	1.00	0.251	No
655	13.08	230.51	115.56	114.95	0.73	0.268	1.43	0.188	0.99	1.00	0.251	No
656	13.10	230.85	115.76	115.09	0.73	0.268	1.43	0.188	0.99	1.00	0.253	No
657	13.12	231.19	115.95	115.23	0.73	0.268	1.43	0.188	0.99	1.00	0.252	No
658	13.14	231.52	116.15	115.37	0.73	0.268	1.43	0.187	0.99	1.00	0.252	No
659	13.16	231.86	116.35	115.51	0.73	0.268	1.43	0.187	0.99	1.00	0.252	No
660	13.18	232.19	116.54	115.65	0.73	0.268	1.43	0.187	0.99	1.00	0.251	No
661	13.20	232.53	116.74	115.79	0.73	0.267	1.43	0.187	0.99	1.00	0.251	No
662	13.22	232.87	116.94	115.93	0.73	0.267	1.43	0.187	0.99	1.00	0.250	No
663	13.24	233.20	117.13	116.07	0.73	0.267	1.43	0.187	0.99	1.00	0.249	No
664	13.26	233.54	117.33	116.21	0.73	0.267	1.43	0.187	0.99	1.00	0.248	No
665	13.28	233.87	117.52	116.35	0.73	0.267	1.43	0.187	0.99	1.00	0.247	No
666	13.30	234.20	117.72	116.48	0.73	0.267	1.43	0.187	0.99	1.00	0.247	No
667	13.32	234.54	117.92	116.62	0.73	0.267	1.43	0.187	0.99	1.00	0.246	No
668	13.34	234.87	118.11	116.76	0.73	0.267	1.43	0.187	0.99	1.00	0.248	No
669	13.36	235.21	118.31	116.91	0.73	0.267	1.43	0.187	0.99	1.00	0.249	No
670	13.38	235.56	118.50	117.05	0.73	0.267	1.43	0.187	0.99	1.00	0.249	No
671	13.40	235.90	118.70	117.20	0.73	0.266	1.43	0.186	0.99	1.00	0.249	No
672	13.42	236.25	118.90	117.35	0.73	0.266	1.43	0.186	0.99	1.00	0.250	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
673	13.44	236.59	119.09	117.49	0.73	0.266	1.43	0.186	0.99	1.00	0.250	No
674	13.46	236.93	119.29	117.64	0.73	0.266	1.43	0.186	0.99	1.00	0.250	No
675	13.48	237.26	119.49	117.77	0.73	0.266	1.43	0.186	0.99	1.00	0.250	No
676	13.50	237.59	119.68	117.91	0.72	0.266	1.43	0.186	0.99	1.00	0.250	No
677	13.52	237.92	119.88	118.04	0.72	0.266	1.43	0.186	0.99	1.00	0.250	No
678	13.54	238.25	120.07	118.18	0.72	0.266	1.43	0.186	0.99	1.00	0.250	No
679	13.56	238.58	120.27	118.31	0.72	0.266	1.43	0.186	0.99	1.00	0.249	No
680	13.58	238.92	120.47	118.45	0.72	0.265	1.43	0.186	0.99	1.00	0.249	No
681	13.60	239.25	120.66	118.59	0.72	0.265	1.43	0.186	0.99	1.00	0.250	No
682	13.62	239.59	120.86	118.73	0.72	0.265	1.43	0.186	0.99	1.00	0.249	No
683	13.64	239.93	121.06	118.87	0.72	0.265	1.43	0.186	0.99	1.00	0.249	No
684	13.66	240.27	121.25	119.02	0.72	0.265	1.43	0.185	0.99	1.00	0.249	No
685	13.68	240.61	121.45	119.16	0.72	0.265	1.43	0.185	0.99	1.00	0.249	No
686	13.70	240.95	121.64	119.31	0.72	0.265	1.43	0.185	0.99	1.00	0.249	No
687	13.72	241.29	121.84	119.45	0.72	0.265	1.43	0.185	0.99	1.00	0.249	No
688	13.74	241.64	122.04	119.60	0.72	0.265	1.43	0.185	0.99	1.00	0.249	No
689	13.76	241.98	122.23	119.75	0.72	0.264	1.43	0.185	0.99	1.00	0.249	No
690	13.78	242.32	122.43	119.89	0.72	0.264	1.43	0.185	0.99	1.00	0.249	No
691	13.80	242.66	122.63	120.04	0.72	0.264	1.43	0.185	0.99	1.00	0.249	No
692	13.82	243.00	122.82	120.18	0.72	0.264	1.43	0.185	0.99	1.00	0.249	No
693	13.84	243.35	123.02	120.33	0.72	0.264	1.43	0.185	0.99	1.00	0.249	No
694	13.86	243.69	123.21	120.48	0.72	0.264	1.43	0.185	0.99	1.00	0.249	No
695	13.88	244.03	123.41	120.62	0.72	0.264	1.43	0.185	0.99	1.00	0.249	No
696	13.90	244.38	123.61	120.77	0.72	0.264	1.43	0.184	0.99	1.00	0.249	No
697	13.92	244.72	123.80	120.92	0.72	0.263	1.43	0.184	0.99	1.00	0.249	No
698	13.94	245.06	124.00	121.07	0.71	0.263	1.43	0.184	0.99	1.00	0.249	No
699	13.96	245.41	124.19	121.21	0.71	0.263	1.43	0.184	0.99	1.00	0.249	No
700	13.98	245.75	124.39	121.36	0.71	0.263	1.43	0.184	0.99	1.00	0.249	No
701	14.00	246.09	124.59	121.50	0.71	0.263	1.43	0.184	0.99	1.00	0.248	No
702	14.02	246.43	124.78	121.65	0.71	0.263	1.43	0.184	0.98	1.00	0.248	No
703	14.04	246.77	124.98	121.79	0.71	0.263	1.43	0.184	0.98	1.00	0.248	No
704	14.06	247.11	125.18	121.94	0.71	0.263	1.43	0.184	0.98	1.00	0.248	No
705	14.08	247.45	125.37	122.08	0.71	0.263	1.43	0.184	0.98	1.00	0.248	No
706	14.10	247.80	125.57	122.23	0.71	0.262	1.43	0.184	0.98	1.00	0.248	No
707	14.12	248.14	125.76	122.37	0.71	0.262	1.43	0.184	0.98	1.00	0.248	No
708	14.14	248.48	125.96	122.52	0.71	0.262	1.43	0.184	0.98	1.00	0.248	No
709	14.16	248.83	126.16	122.67	0.71	0.262	1.43	0.183	0.98	1.00	0.247	No
710	14.18	249.18	126.35	122.82	0.71	0.262	1.43	0.183	0.98	1.00	0.247	No
711	14.20	249.52	126.55	122.97	0.71	0.262	1.43	0.183	0.98	1.00	0.247	No
712	14.22	249.87	126.75	123.13	0.71	0.262	1.43	0.183	0.98	1.00	0.247	No
713	14.24	250.22	126.94	123.28	0.71	0.262	1.43	0.183	0.98	1.00	0.247	No
714	14.26	250.57	127.14	123.43	0.71	0.261	1.43	0.183	0.98	1.00	0.247	No
715	14.28	250.92	127.33	123.58	0.71	0.261	1.43	0.183	0.98	1.00	0.247	No
716	14.30	251.27	127.53	123.74	0.71	0.261	1.43	0.183	0.98	1.00	0.247	No
717	14.32	251.62	127.73	123.89	0.71	0.261	1.43	0.183	0.98	1.00	0.247	No
718	14.34	251.97	127.92	124.05	0.71	0.261	1.43	0.183	0.98	1.00	0.246	No
719	14.36	252.32	128.12	124.20	0.71	0.261	1.43	0.183	0.98	1.00	0.246	No
720	14.38	252.67	128.31	124.35	0.70	0.261	1.43	0.182	0.98	1.00	0.246	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
721	14.40	253.02	128.51	124.51	0.70	0.261	1.43	0.182	0.98	1.00	0.246	No
722	14.42	253.36	128.71	124.66	0.70	0.260	1.43	0.182	0.98	1.00	0.247	No
723	14.44	253.71	128.90	124.81	0.70	0.260	1.43	0.182	0.98	1.00	0.247	No
724	14.46	254.06	129.10	124.96	0.70	0.260	1.43	0.182	0.98	1.00	0.247	No
725	14.48	254.40	129.30	125.11	0.70	0.260	1.43	0.182	0.98	1.00	0.247	No
726	14.50	254.75	129.49	125.25	0.70	0.260	1.43	0.182	0.98	1.00	0.246	No
727	14.52	255.09	129.69	125.40	0.70	0.260	1.43	0.182	0.98	1.00	0.246	No
728	14.54	255.43	129.88	125.54	0.70	0.260	1.43	0.182	0.98	1.00	0.246	No
729	14.56	255.77	130.08	125.69	0.70	0.260	1.43	0.182	0.98	1.00	0.246	No
730	14.58	256.11	130.28	125.83	0.70	0.259	1.43	0.182	0.98	1.00	0.246	No
731	14.60	256.45	130.47	125.97	0.70	0.259	1.43	0.181	0.98	1.00	0.246	No
732	14.62	256.79	130.67	126.12	0.70	0.259	1.43	0.181	0.98	1.00	0.246	No
733	14.64	257.13	130.87	126.26	0.70	0.259	1.43	0.181	0.98	1.00	0.246	No
734	14.66	257.47	131.06	126.41	0.70	0.259	1.43	0.181	0.98	1.00	0.246	No
735	14.68	257.81	131.26	126.55	0.70	0.259	1.43	0.181	0.98	1.00	0.246	No
736	14.70	258.15	131.45	126.69	0.70	0.259	1.43	0.181	0.98	1.00	0.246	No
737	14.72	258.49	131.65	126.84	0.70	0.259	1.43	0.181	0.98	1.00	0.246	No
738	14.74	258.83	131.85	126.99	0.70	0.258	1.43	0.181	0.98	1.00	0.245	No
739	14.76	259.18	132.04	127.13	0.70	0.258	1.43	0.181	0.98	1.00	0.245	No
740	14.78	259.52	132.24	127.28	0.70	0.258	1.43	0.181	0.98	1.00	0.245	No
741	14.80	259.86	132.44	127.43	0.70	0.258	1.43	0.181	0.98	1.00	0.245	No
742	14.82	260.20	132.63	127.57	0.69	0.258	1.43	0.181	0.98	1.00	0.245	No
743	14.84	260.55	132.83	127.72	0.69	0.258	1.43	0.180	0.98	1.00	0.245	No
744	14.86	260.89	133.02	127.86	0.69	0.258	1.43	0.180	0.98	1.00	0.245	No
745	14.88	261.23	133.22	128.01	0.69	0.258	1.43	0.180	0.98	1.00	0.245	No
746	14.90	261.57	133.42	128.16	0.69	0.257	1.43	0.180	0.98	1.00	0.245	No
747	14.92	261.91	133.61	128.30	0.69	0.257	1.43	0.180	0.98	1.00	0.245	No
748	14.94	262.26	133.81	128.45	0.69	0.257	1.43	0.180	0.98	1.00	0.245	No
749	14.96	262.60	134.00	128.60	0.69	0.257	1.43	0.180	0.98	1.00	0.245	No
750	14.98	262.94	134.20	128.74	0.69	0.257	1.43	0.180	0.98	1.00	0.244	No
751	15.00	263.29	134.40	128.89	0.69	0.257	1.43	0.180	0.98	1.00	0.244	No
752	15.02	263.63	134.59	129.04	0.69	0.257	1.43	0.180	0.98	1.00	0.244	No
753	15.04	263.98	134.79	129.19	0.69	0.257	1.43	0.180	0.98	1.00	0.244	No
754	15.06	264.32	134.99	129.34	0.69	0.256	1.43	0.180	0.98	1.00	0.244	No
755	15.08	264.67	135.18	129.49	0.69	0.256	1.43	0.179	0.98	1.00	0.244	No
756	15.10	265.01	135.38	129.63	0.69	0.256	1.43	0.179	0.98	1.00	0.244	No
757	15.12	265.35	135.57	129.78	0.69	0.256	1.43	0.179	0.98	1.00	0.244	No
758	15.14	265.70	135.77	129.93	0.69	0.256	1.43	0.179	0.98	1.00	0.244	No
759	15.16	266.04	135.97	130.07	0.69	0.256	1.43	0.179	0.98	1.00	0.244	No
760	15.18	266.38	136.16	130.22	0.69	0.256	1.43	0.179	0.98	1.00	0.243	No
761	15.20	266.72	136.36	130.36	0.69	0.256	1.43	0.179	0.98	1.00	0.243	No
762	15.22	267.06	136.56	130.51	0.69	0.256	1.43	0.179	0.98	1.00	0.243	No
763	15.24	267.41	136.75	130.65	0.69	0.255	1.43	0.179	0.98	1.00	0.243	No
764	15.26	267.75	136.95	130.80	0.69	0.255	1.43	0.179	0.98	1.00	0.243	No
765	15.28	268.09	137.14	130.95	0.68	0.255	1.43	0.179	0.98	1.00	0.243	No
766	15.30	268.44	137.34	131.10	0.68	0.255	1.43	0.179	0.98	1.00	0.243	No
767	15.32	268.79	137.54	131.25	0.68	0.255	1.43	0.178	0.98	1.00	0.242	No
768	15.34	269.14	137.73	131.40	0.68	0.255	1.43	0.178	0.98	1.00	0.242	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
769	15.36	269.49	137.93	131.56	0.68	0.255	1.43	0.178	0.98	1.00	0.242	No
770	15.38	269.84	138.12	131.71	0.68	0.254	1.43	0.178	0.98	1.00	0.242	No
771	15.40	270.19	138.32	131.86	0.68	0.254	1.43	0.178	0.98	1.00	0.242	No
772	15.42	270.53	138.52	132.02	0.68	0.254	1.43	0.178	0.98	1.00	0.242	No
773	15.44	270.88	138.71	132.17	0.68	0.254	1.43	0.178	0.98	1.00	0.242	No
774	15.46	271.23	138.91	132.32	0.68	0.254	1.43	0.178	0.98	1.00	0.242	No
775	15.48	271.58	139.11	132.47	0.68	0.254	1.43	0.178	0.98	1.00	0.242	No
776	15.50	271.92	139.30	132.62	0.68	0.254	1.43	0.178	0.98	1.00	0.242	No
777	15.52	272.27	139.50	132.77	0.68	0.254	1.43	0.178	0.98	1.00	0.242	No
778	15.54	272.61	139.69	132.92	0.68	0.253	1.43	0.177	0.98	1.00	0.242	No
779	15.56	272.96	139.89	133.07	0.68	0.253	1.43	0.177	0.98	1.00	0.241	No
780	15.58	273.30	140.09	133.22	0.68	0.253	1.43	0.177	0.98	1.00	0.241	No
781	15.60	273.65	140.28	133.36	0.68	0.253	1.43	0.177	0.98	1.00	0.241	No
782	15.62	273.99	140.48	133.51	0.68	0.253	1.43	0.177	0.98	1.00	0.241	No
783	15.64	274.34	140.68	133.66	0.68	0.253	1.43	0.177	0.98	1.00	0.241	No
784	15.66	274.68	140.87	133.81	0.68	0.253	1.43	0.177	0.98	1.00	0.241	No
785	15.68	275.02	141.07	133.95	0.68	0.253	1.43	0.177	0.98	1.00	0.241	No
786	15.70	275.36	141.26	134.10	0.68	0.252	1.43	0.177	0.98	1.00	0.241	No
787	15.72	275.70	141.46	134.24	0.68	0.252	1.43	0.177	0.98	1.00	0.241	No
788	15.74	276.05	141.66	134.39	0.67	0.252	1.43	0.177	0.98	1.00	0.241	No
789	15.76	276.39	141.85	134.54	0.67	0.252	1.43	0.176	0.98	1.00	0.241	No
790	15.78	276.73	142.05	134.68	0.67	0.252	1.43	0.176	0.98	1.00	0.241	No
791	15.80	277.07	142.25	134.83	0.67	0.252	1.43	0.176	0.98	1.00	0.241	No
792	15.82	277.41	142.44	134.97	0.67	0.252	1.43	0.176	0.98	1.00	0.240	No
793	15.84	277.75	142.64	135.11	0.67	0.252	1.43	0.176	0.98	1.00	0.240	No
794	15.86	278.09	142.83	135.26	0.67	0.252	1.43	0.176	0.98	1.00	0.240	No
795	15.88	278.43	143.03	135.40	0.67	0.251	1.43	0.176	0.98	1.00	0.240	No
796	15.90	278.77	143.23	135.54	0.67	0.251	1.43	0.176	0.98	1.00	0.240	No
797	15.92	279.11	143.42	135.69	0.67	0.251	1.43	0.176	0.98	1.00	0.239	No
798	15.94	279.45	143.62	135.83	0.67	0.251	1.43	0.176	0.97	1.00	0.237	No
799	15.96	279.79	143.81	135.98	0.67	0.251	1.43	0.176	0.97	1.00	0.237	No
800	15.98	280.14	144.01	136.13	0.67	0.251	1.43	0.176	0.97	1.00	0.238	No
801	16.00	280.48	144.21	136.27	0.67	0.251	1.43	0.175	0.98	1.00	0.239	No
802	16.02	280.82	144.40	136.41	0.67	0.251	1.43	0.175	0.98	1.00	0.239	No
803	16.04	281.15	144.60	136.55	0.67	0.250	1.43	0.175	0.98	1.00	0.239	No
804	16.06	281.49	144.80	136.70	0.67	0.250	1.43	0.175	0.98	1.00	0.239	No
805	16.08	281.83	144.99	136.84	0.67	0.250	1.43	0.175	0.98	1.00	0.239	No
806	16.10	282.17	145.19	136.98	0.67	0.250	1.43	0.175	0.98	1.00	0.238	No
807	16.12	282.51	145.38	137.13	0.67	0.250	1.43	0.175	0.98	1.00	0.238	No
808	16.14	282.85	145.58	137.27	0.67	0.250	1.43	0.175	0.97	1.00	0.238	No
809	16.16	283.19	145.78	137.42	0.67	0.250	1.43	0.175	0.97	1.00	0.237	No
810	16.18	283.53	145.97	137.56	0.67	0.250	1.43	0.175	0.97	1.00	0.237	No
811	16.20	283.87	146.17	137.70	0.66	0.249	1.43	0.175	0.97	1.00	0.237	No
812	16.22	284.21	146.37	137.85	0.66	0.249	1.43	0.175	0.98	1.00	0.238	No
813	16.24	284.55	146.56	137.99	0.66	0.249	1.43	0.174	0.98	1.00	0.238	No
814	16.26	284.88	146.76	138.13	0.66	0.249	1.43	0.174	0.98	1.00	0.238	No
815	16.28	285.22	146.95	138.26	0.66	0.249	1.43	0.174	0.98	1.00	0.238	No
816	16.30	285.55	147.15	138.40	0.66	0.249	1.43	0.174	0.98	1.00	0.238	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
817	16.32	285.88	147.35	138.53	0.66	0.249	1.43	0.174	0.98	1.00	0.238	No
818	16.34	286.21	147.54	138.67	0.66	0.249	1.43	0.174	0.98	1.00	0.238	No
819	16.36	286.54	147.74	138.80	0.66	0.249	1.43	0.174	0.98	1.00	0.238	No
820	16.38	286.86	147.93	138.93	0.66	0.248	1.43	0.174	0.97	1.00	0.238	No
821	16.40	287.19	148.13	139.06	0.66	0.248	1.43	0.174	0.97	1.00	0.238	No
822	16.42	287.53	148.33	139.20	0.66	0.248	1.43	0.174	0.97	1.00	0.238	No
823	16.44	287.86	148.52	139.33	0.66	0.248	1.43	0.174	0.97	1.00	0.237	No
824	16.46	288.19	148.72	139.47	0.66	0.248	1.43	0.174	0.97	1.00	0.237	No
825	16.48	288.52	148.92	139.60	0.66	0.248	1.43	0.173	0.97	1.00	0.237	No
826	16.50	288.85	149.11	139.74	0.66	0.248	1.43	0.173	0.97	1.00	0.237	No
827	16.52	289.18	149.31	139.87	0.66	0.248	1.43	0.173	0.97	1.00	0.237	No
828	16.54	289.52	149.50	140.01	0.66	0.248	1.43	0.173	0.97	1.00	0.237	No
829	16.56	289.85	149.70	140.15	0.66	0.247	1.43	0.173	0.97	1.00	0.237	No
830	16.58	290.19	149.90	140.29	0.66	0.247	1.43	0.173	0.97	1.00	0.237	No
831	16.60	290.53	150.09	140.44	0.66	0.247	1.43	0.173	0.97	1.00	0.236	No
832	16.62	290.87	150.29	140.58	0.66	0.247	1.43	0.173	0.97	1.00	0.236	No
833	16.64	291.22	150.49	140.73	0.66	0.247	1.43	0.173	0.97	1.00	0.236	No
834	16.66	291.56	150.68	140.88	0.66	0.247	1.43	0.173	0.97	1.00	0.236	No
835	16.68	291.91	150.88	141.03	0.65	0.247	1.43	0.173	0.97	1.00	0.236	No
836	16.70	292.26	151.07	141.18	0.65	0.247	1.43	0.173	0.97	1.00	0.236	No
837	16.72	292.61	151.27	141.34	0.65	0.246	1.43	0.172	0.97	1.00	0.236	No
838	16.74	292.96	151.47	141.49	0.65	0.246	1.43	0.172	0.97	1.00	0.236	No
839	16.76	293.31	151.66	141.65	0.65	0.246	1.43	0.172	0.97	1.00	0.236	No
840	16.78	293.66	151.86	141.80	0.65	0.246	1.43	0.172	0.97	1.00	0.235	No
841	16.80	294.01	152.06	141.96	0.65	0.246	1.43	0.172	0.97	1.00	0.235	No
842	16.82	294.36	152.25	142.11	0.65	0.246	1.43	0.172	0.97	1.00	0.235	No
843	16.84	294.71	152.45	142.27	0.65	0.246	1.43	0.172	0.97	1.00	0.235	No
844	16.86	295.07	152.64	142.42	0.65	0.245	1.43	0.172	0.97	1.00	0.235	No
845	16.88	295.42	152.84	142.58	0.65	0.245	1.43	0.172	0.97	1.00	0.235	No
846	16.90	295.77	153.04	142.73	0.65	0.245	1.43	0.172	0.97	1.00	0.235	No
847	16.92	296.12	153.23	142.89	0.65	0.245	1.43	0.172	0.97	1.00	0.235	No
848	16.94	296.47	153.43	143.04	0.65	0.245	1.43	0.171	0.97	1.00	0.235	No
849	16.96	296.82	153.62	143.20	0.65	0.245	1.43	0.171	0.97	1.00	0.234	No
850	16.98	297.18	153.82	143.36	0.65	0.245	1.43	0.171	0.97	1.00	0.234	No
851	17.00	297.53	154.02	143.51	0.65	0.245	1.43	0.171	0.97	1.00	0.234	No
852	17.02	297.88	154.21	143.67	0.65	0.244	1.43	0.171	0.97	1.00	0.234	No
853	17.04	298.23	154.41	143.82	0.65	0.244	1.43	0.171	0.97	1.00	0.234	No
854	17.06	298.58	154.61	143.98	0.65	0.244	1.43	0.171	0.97	1.00	0.234	No
855	17.08	298.94	154.80	144.14	0.65	0.244	1.43	0.171	0.97	1.00	0.234	No
856	17.10	299.29	155.00	144.29	0.65	0.244	1.43	0.171	0.97	1.00	0.234	No
857	17.12	299.64	155.19	144.45	0.65	0.244	1.43	0.171	0.97	1.00	0.234	No
858	17.14	299.99	155.39	144.60	0.65	0.244	1.43	0.171	0.97	1.00	0.233	No
859	17.16	300.35	155.59	144.76	0.64	0.243	1.43	0.170	0.97	1.00	0.233	No
860	17.18	300.70	155.78	144.92	0.64	0.243	1.43	0.170	0.97	1.00	0.233	No
861	17.20	301.05	155.98	145.08	0.64	0.243	1.43	0.170	0.97	1.00	0.233	No
862	17.22	301.41	156.18	145.23	0.64	0.243	1.43	0.170	0.97	1.00	0.233	No
863	17.24	301.77	156.37	145.39	0.64	0.243	1.43	0.170	0.97	1.00	0.233	No
864	17.26	302.12	156.57	145.55	0.64	0.243	1.43	0.170	0.97	1.00	0.233	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
865	17.28	302.48	156.76	145.71	0.64	0.243	1.43	0.170	0.97	1.00	0.233	No
866	17.30	302.84	156.96	145.88	0.64	0.243	1.43	0.170	0.97	1.00	0.233	No
867	17.32	303.19	157.16	146.04	0.64	0.242	1.43	0.170	0.97	1.00	0.233	No
868	17.34	303.55	157.35	146.20	0.64	0.242	1.43	0.170	0.97	1.00	0.233	No
869	17.36	303.91	157.55	146.36	0.64	0.242	1.43	0.169	0.97	1.00	0.232	No
870	17.38	304.27	157.74	146.52	0.64	0.242	1.43	0.169	0.97	1.00	0.232	No
871	17.40	304.62	157.94	146.68	0.64	0.242	1.43	0.169	0.97	1.00	0.232	No
872	17.42	304.98	158.14	146.84	0.64	0.242	1.43	0.169	0.97	1.00	0.232	No
873	17.45	305.51	158.43	147.08	0.64	0.242	1.43	0.169	0.97	1.00	0.232	No
874	17.46	305.69	158.53	147.16	0.64	0.241	1.43	0.169	0.97	1.00	0.232	No
875	17.48	306.05	158.73	147.32	0.64	0.241	1.43	0.169	0.97	1.00	0.232	No
876	17.50	306.40	158.92	147.48	0.64	0.241	1.43	0.169	0.97	1.00	0.232	No
877	17.52	306.76	159.12	147.64	0.64	0.241	1.43	0.169	0.97	1.00	0.231	No
878	17.54	307.12	159.31	147.81	0.64	0.241	1.43	0.169	0.97	1.00	0.231	No
879	17.56	307.48	159.51	147.97	0.64	0.241	1.43	0.169	0.97	1.00	0.231	No
880	17.58	307.84	159.71	148.13	0.64	0.241	1.43	0.168	0.97	1.00	0.231	No
881	17.60	308.20	159.90	148.30	0.64	0.241	1.43	0.168	0.97	1.00	0.231	No
882	17.62	308.56	160.10	148.46	0.64	0.240	1.43	0.168	0.97	1.00	0.231	No
883	17.64	308.92	160.30	148.62	0.64	0.240	1.43	0.168	0.97	1.00	0.231	No
884	17.66	309.28	160.49	148.79	0.63	0.240	1.43	0.168	0.97	1.00	0.231	No
885	17.68	309.64	160.69	148.95	0.63	0.240	1.43	0.168	0.97	1.00	0.230	No
886	17.70	310.00	160.88	149.12	0.63	0.240	1.43	0.168	0.97	1.00	0.230	No
887	17.72	310.36	161.08	149.28	0.63	0.240	1.43	0.168	0.97	1.00	0.230	No
888	17.74	310.72	161.28	149.45	0.63	0.240	1.43	0.168	0.97	1.00	0.230	No
889	17.76	311.08	161.47	149.61	0.63	0.239	1.43	0.168	0.97	1.00	0.230	No
890	17.78	311.44	161.67	149.77	0.63	0.239	1.43	0.168	0.97	1.00	0.230	No
891	17.80	311.80	161.87	149.94	0.63	0.239	1.43	0.167	0.97	1.00	0.230	No
892	17.82	312.16	162.06	150.10	0.63	0.239	1.43	0.167	0.97	1.00	0.230	No
893	17.84	312.52	162.26	150.26	0.63	0.239	1.43	0.167	0.97	1.00	0.230	No
894	17.86	312.88	162.45	150.43	0.63	0.239	1.43	0.167	0.97	1.00	0.230	No
895	17.88	313.24	162.65	150.59	0.63	0.239	1.43	0.167	0.97	1.00	0.229	No
896	17.90	313.60	162.85	150.75	0.63	0.239	1.43	0.167	0.97	1.00	0.229	No
897	17.92	313.96	163.04	150.91	0.63	0.238	1.43	0.167	0.97	1.00	0.229	No
898	17.94	314.31	163.24	151.07	0.63	0.238	1.43	0.167	0.97	1.00	0.229	No
899	17.96	314.67	163.43	151.24	0.63	0.238	1.43	0.167	0.97	1.00	0.229	No
900	17.98	315.03	163.63	151.40	0.63	0.238	1.43	0.167	0.97	1.00	0.229	No
901	18.00	315.39	163.83	151.56	0.63	0.238	1.43	0.166	0.97	1.00	0.229	No
902	18.02	315.74	164.02	151.72	0.63	0.238	1.43	0.166	0.97	1.00	0.229	No
903	18.04	316.10	164.22	151.88	0.63	0.238	1.43	0.166	0.97	1.00	0.229	No
904	18.06	316.46	164.42	152.05	0.63	0.237	1.43	0.166	0.97	1.00	0.229	No
905	18.08	316.82	164.61	152.21	0.63	0.237	1.43	0.166	0.97	1.00	0.228	No
906	18.10	317.18	164.81	152.37	0.63	0.237	1.43	0.166	0.97	1.00	0.228	No
907	18.12	317.54	165.00	152.54	0.63	0.237	1.43	0.166	0.97	1.00	0.228	No
908	18.14	317.90	165.20	152.70	0.63	0.237	1.43	0.166	0.97	1.00	0.228	No
909	18.17	318.44	165.49	152.95	0.62	0.237	1.43	0.166	0.97	1.00	0.228	No
910	18.18	318.62	165.59	153.03	0.62	0.237	1.43	0.166	0.97	1.00	0.228	No
911	18.20	318.98	165.79	153.19	0.62	0.237	1.43	0.166	0.97	1.00	0.228	No
912	18.22	319.34	165.99	153.35	0.62	0.236	1.43	0.165	0.97	1.00	0.228	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
913	18.24	319.70	166.18	153.52	0.62	0.236	1.43	0.165	0.97	1.00	0.227	No
914	18.26	320.06	166.38	153.69	0.62	0.236	1.43	0.165	0.97	1.00	0.227	No
915	18.28	320.42	166.57	153.85	0.62	0.236	1.43	0.165	0.97	1.00	0.227	No
916	18.30	320.79	166.77	154.02	0.62	0.236	1.43	0.165	0.97	1.00	0.227	No
917	18.32	321.15	166.97	154.18	0.62	0.236	1.43	0.165	0.97	1.00	0.227	No
918	18.34	321.51	167.16	154.35	0.62	0.236	1.43	0.165	0.97	1.00	0.227	No
919	18.36	321.87	167.36	154.51	0.62	0.235	1.43	0.165	0.97	1.00	0.227	No
920	18.38	322.23	167.55	154.67	0.62	0.235	1.43	0.165	0.97	1.00	0.227	No
921	18.40	322.59	167.75	154.84	0.62	0.235	1.43	0.165	0.97	1.00	0.227	No
922	18.42	322.95	167.95	155.00	0.62	0.235	1.43	0.165	0.97	1.00	0.226	No
923	18.44	323.31	168.14	155.17	0.62	0.235	1.43	0.164	0.97	1.00	0.226	No
924	18.46	323.67	168.34	155.33	0.62	0.235	1.43	0.164	0.97	1.00	0.226	No
925	18.48	324.03	168.54	155.49	0.62	0.235	1.43	0.164	0.97	1.00	0.226	No
926	18.50	324.39	168.73	155.66	0.62	0.235	1.43	0.164	0.97	1.00	0.226	No
927	18.52	324.75	168.93	155.82	0.62	0.234	1.43	0.164	0.97	1.00	0.226	No
928	18.54	325.11	169.12	155.99	0.62	0.234	1.43	0.164	0.96	1.00	0.226	No
929	18.56	325.47	169.32	156.15	0.62	0.234	1.43	0.164	0.96	1.00	0.226	No
930	18.58	325.83	169.52	156.31	0.62	0.234	1.43	0.164	0.96	1.00	0.226	No
931	18.60	326.19	169.71	156.48	0.62	0.234	1.43	0.164	0.96	1.00	0.225	No
932	18.62	326.55	169.91	156.64	0.62	0.234	1.43	0.164	0.96	1.00	0.225	No
933	18.64	326.91	170.11	156.80	0.62	0.234	1.43	0.164	0.96	1.00	0.225	No
934	18.66	327.27	170.30	156.96	0.62	0.233	1.43	0.163	0.96	1.00	0.225	No
935	18.68	327.63	170.50	157.13	0.61	0.233	1.43	0.163	0.96	1.00	0.224	No
936	18.70	327.99	170.69	157.30	0.61	0.233	1.43	0.163	0.96	1.00	0.224	No
937	18.72	328.35	170.89	157.46	0.61	0.233	1.43	0.163	0.96	1.00	0.224	No
938	18.74	328.72	171.09	157.63	0.61	0.233	1.43	0.163	0.96	1.00	0.224	No
939	18.76	329.09	171.28	157.81	0.61	0.233	1.43	0.163	0.96	1.00	0.224	No
940	18.78	329.46	171.48	157.98	0.61	0.233	1.43	0.163	0.96	1.00	0.223	No
941	18.80	329.83	171.68	158.15	0.61	0.233	1.43	0.163	0.96	1.00	0.223	No
942	18.82	330.20	171.87	158.33	0.61	0.232	1.43	0.163	0.96	1.00	0.223	No
943	18.84	330.57	172.07	158.50	0.61	0.232	1.43	0.163	0.96	1.00	0.223	No
944	18.86	330.94	172.26	158.68	0.61	0.232	1.43	0.162	0.96	1.00	0.223	No
945	18.88	331.31	172.46	158.85	0.61	0.232	1.43	0.162	0.96	1.00	0.222	No
946	18.90	331.68	172.66	159.02	0.61	0.232	1.43	0.162	0.96	1.00	0.222	No
947	18.92	332.05	172.85	159.19	0.61	0.232	1.43	0.162	0.96	1.00	0.222	No
948	18.94	332.41	173.05	159.37	0.61	0.232	1.43	0.162	0.96	1.00	0.223	No
949	18.96	332.78	173.24	159.54	0.61	0.231	1.43	0.162	0.96	1.00	0.223	No
950	18.98	333.15	173.44	159.71	0.61	0.231	1.43	0.162	0.96	1.00	0.223	No
951	19.00	333.52	173.64	159.88	0.61	0.231	1.43	0.162	0.96	1.00	0.223	No
952	19.02	333.88	173.83	160.05	0.61	0.231	1.43	0.162	0.96	1.00	0.223	No
953	19.04	334.24	174.03	160.21	0.61	0.231	1.43	0.162	0.96	1.00	0.223	No
954	19.06	334.61	174.23	160.38	0.61	0.231	1.43	0.162	0.96	1.00	0.222	No
955	19.08	334.97	174.42	160.54	0.61	0.231	1.43	0.161	0.96	1.00	0.222	No
956	19.10	335.33	174.62	160.71	0.61	0.231	1.43	0.161	0.96	1.00	0.222	No
957	19.12	335.68	174.81	160.87	0.61	0.230	1.43	0.161	0.96	1.00	0.222	No
958	19.14	336.04	175.01	161.03	0.61	0.230	1.43	0.161	0.96	1.00	0.222	No
959	19.16	336.40	175.21	161.19	0.61	0.230	1.43	0.161	0.96	1.00	0.221	No
960	19.18	336.75	175.40	161.35	0.61	0.230	1.43	0.161	0.96	1.00	0.221	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
961	19.20	337.11	175.60	161.51	0.61	0.230	1.43	0.161	0.96	1.00	0.221	No
962	19.22	337.47	175.80	161.67	0.60	0.230	1.43	0.161	0.96	1.00	0.220	No
963	19.25	338.01	176.09	161.92	0.60	0.230	1.43	0.161	0.96	1.00	0.220	No
964	19.26	338.19	176.19	162.00	0.60	0.229	1.43	0.161	0.96	1.00	0.220	No
965	19.29	338.73	176.48	162.25	0.60	0.229	1.43	0.161	0.96	1.00	0.220	No
966	19.30	338.91	176.58	162.33	0.60	0.229	1.43	0.160	0.96	1.00	0.220	No
967	19.32	339.28	176.78	162.50	0.60	0.229	1.43	0.160	0.96	1.00	0.219	No
968	19.34	339.65	176.97	162.68	0.60	0.229	1.43	0.160	0.96	1.00	0.220	No
969	19.36	340.02	177.17	162.85	0.60	0.229	1.43	0.160	0.96	1.00	0.220	No
970	19.38	340.38	177.36	163.02	0.60	0.229	1.43	0.160	0.96	1.00	0.220	No
971	19.40	340.75	177.56	163.19	0.60	0.229	1.43	0.160	0.96	1.00	0.220	No
972	19.42	341.12	177.76	163.36	0.60	0.228	1.43	0.160	0.96	1.00	0.220	No
973	19.44	341.48	177.95	163.53	0.60	0.228	1.43	0.160	0.96	1.00	0.219	No
974	19.46	341.85	178.15	163.70	0.60	0.228	1.43	0.160	0.96	1.00	0.219	No
975	19.48	342.22	178.35	163.87	0.60	0.228	1.43	0.160	0.96	1.00	0.218	No
976	19.50	342.59	178.54	164.04	0.60	0.228	1.43	0.160	0.96	1.00	0.218	No
977	19.52	342.95	178.74	164.22	0.60	0.228	1.43	0.159	0.96	1.00	0.218	No
978	19.54	343.32	178.93	164.39	0.60	0.228	1.43	0.159	0.96	1.00	0.218	No
979	19.56	343.69	179.13	164.56	0.60	0.228	1.43	0.159	0.96	1.00	0.217	No
980	19.58	344.07	179.33	164.74	0.60	0.227	1.43	0.159	0.96	1.00	0.217	No
981	19.60	344.44	179.52	164.92	0.60	0.227	1.43	0.159	0.95	1.00	0.216	No
982	19.62	344.82	179.72	165.10	0.60	0.227	1.43	0.159	0.95	1.00	0.216	No
983	19.64	345.20	179.92	165.28	0.60	0.227	1.43	0.159	0.95	1.00	0.216	No
984	19.66	345.57	180.11	165.46	0.60	0.227	1.43	0.159	0.95	1.00	0.216	No
985	19.68	345.95	180.31	165.64	0.60	0.227	1.43	0.159	0.96	1.00	0.217	No
986	19.70	346.33	180.50	165.82	0.60	0.227	1.43	0.159	0.96	1.00	0.217	No
987	19.72	346.70	180.70	166.00	0.60	0.226	1.43	0.158	0.96	1.00	0.218	No
988	19.74	347.08	180.90	166.18	0.60	0.226	1.43	0.158	0.96	1.00	0.218	No
989	19.76	347.45	181.09	166.36	0.59	0.226	1.43	0.158	0.96	1.00	0.218	No
990	19.78	347.83	181.29	166.54	0.59	0.226	1.43	0.158	0.96	1.00	0.218	No
991	19.80	348.20	181.49	166.72	0.59	0.226	1.43	0.158	0.96	1.00	0.218	No
992	19.82	348.58	181.68	166.89	0.59	0.226	1.43	0.158	0.96	1.00	0.217	No
993	19.84	348.95	181.88	167.07	0.59	0.226	1.43	0.158	0.95	1.00	0.216	No
994	19.86	349.32	182.07	167.25	0.59	0.225	1.43	0.158	0.95	1.00	0.215	No
995	19.88	349.69	182.27	167.42	0.59	0.225	1.43	0.158	0.95	1.00	0.215	No
996	19.90	350.07	182.47	167.60	0.59	0.225	1.43	0.158	0.95	1.00	0.215	No
997	19.92	350.44	182.66	167.77	0.59	0.225	1.43	0.158	0.95	1.00	0.215	No
998	19.94	350.80	182.86	167.95	0.59	0.225	1.43	0.157	0.95	1.00	0.215	No
999	19.96	351.17	183.05	168.12	0.59	0.225	1.43	0.157	0.96	1.00	0.216	No
1000	19.98	351.54	183.25	168.29	0.59	0.225	1.43	0.157	0.96	1.00	0.217	No
1001	20.00	351.91	183.45	168.46	0.59	0.225	1.43	0.157	0.96	1.00	0.217	No
1002	20.02	352.28	183.64	168.63	0.59	0.224	1.43	0.157	0.96	1.00	0.218	No
1003	20.04	352.64	183.84	168.80	0.59	0.224	1.43	0.157	0.96	1.00	0.218	No
1004	20.06	353.01	184.04	168.97	0.59	0.224	1.43	0.157	0.96	1.00	0.218	No
1005	20.08	353.37	184.23	169.14	0.59	0.224	1.43	0.157	0.96	1.00	0.217	No
1006	20.10	353.74	184.43	169.31	0.59	0.224	1.43	0.157	0.95	1.00	0.215	No
1007	20.12	354.11	184.62	169.48	0.59	0.224	1.43	0.157	0.95	1.00	0.210	No
1008	20.14	354.48	184.82	169.66	0.59	0.224	1.43	0.157	0.94	1.00	0.206	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	ν (kPa)	u_0 (kPa)	ν' (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
1009	20.16	354.84	185.02	169.83	0.59	0.224	1.43	0.156	0.94	1.00	0.204	No
1010	20.18	355.21	185.21	170.00	0.59	0.223	1.43	0.156	0.94	1.00	0.201	No
1011	20.20	355.57	185.41	170.16	0.59	0.223	1.43	0.156	0.95	1.00	0.212	No
1012	20.22	355.93	185.61	170.32	0.59	0.223	1.43	0.156	0.95	1.00	0.209	No
1013	20.24	356.29	185.80	170.49	0.59	0.223	1.43	0.156	0.94	1.00	0.205	No
1014	20.26	356.64	186.00	170.65	0.59	0.223	1.43	0.156	0.95	1.00	0.209	No
1015	20.28	357.00	186.19	170.81	0.59	0.223	1.43	0.156	0.95	1.00	0.209	No
1016	20.30	357.36	186.39	170.97	0.59	0.223	1.43	0.156	0.95	1.00	0.210	No
1017	20.32	357.72	186.59	171.13	0.59	0.223	1.43	0.156	0.95	1.00	0.212	No
1018	20.34	358.08	186.78	171.30	0.58	0.222	1.43	0.156	0.95	1.00	0.213	No
1019	20.36	358.45	186.98	171.47	0.58	0.222	1.43	0.156	0.95	1.00	0.214	No
1020	20.38	358.81	187.17	171.64	0.58	0.222	1.43	0.156	0.95	1.00	0.214	No
1021	20.40	359.18	187.37	171.81	0.58	0.222	1.43	0.155	0.95	1.00	0.214	No
1022	20.42	359.55	187.57	171.98	0.58	0.222	1.43	0.155	0.95	1.00	0.215	No
1023	20.44	359.92	187.76	172.15	0.58	0.222	1.43	0.155	0.96	1.00	0.215	No
1024	20.46	360.28	187.96	172.32	0.58	0.222	1.43	0.155	0.96	1.00	0.215	No
1025	20.48	360.64	188.16	172.48	0.58	0.222	1.43	0.155	0.96	1.00	0.215	No
1026	20.50	360.99	188.35	172.64	0.58	0.222	1.43	0.155	0.96	1.00	0.215	No
1027	20.52	361.34	188.55	172.79	0.58	0.221	1.43	0.155	0.96	1.00	0.215	No
1028	20.54	361.69	188.74	172.95	0.58	0.221	1.43	0.155	0.96	1.00	0.215	No
1029	20.56	362.04	188.94	173.10	0.58	0.221	1.43	0.155	0.96	1.00	0.215	No
1030	20.58	362.39	189.14	173.26	0.58	0.221	1.43	0.155	0.96	1.00	0.215	No
1031	20.60	362.75	189.33	173.41	0.58	0.221	1.43	0.155	0.96	1.00	0.215	No
1032	20.62	363.10	189.53	173.57	0.58	0.221	1.43	0.155	0.96	1.00	0.215	No
1033	20.64	363.45	189.73	173.73	0.58	0.221	1.43	0.154	0.96	1.00	0.215	No
1034	20.66	363.81	189.92	173.89	0.58	0.221	1.43	0.154	0.96	1.00	0.214	No
1035	20.68	364.17	190.12	174.05	0.58	0.220	1.43	0.154	0.96	1.00	0.214	No
1036	20.70	364.52	190.31	174.21	0.58	0.220	1.43	0.154	0.96	1.00	0.214	No
1037	20.72	364.88	190.51	174.37	0.58	0.220	1.43	0.154	0.96	1.00	0.214	No
1038	20.74	365.23	190.71	174.53	0.58	0.220	1.43	0.154	0.96	1.00	0.214	No
1039	20.76	365.59	190.90	174.69	0.58	0.220	1.43	0.154	0.96	1.00	0.214	No
1040	20.78	365.94	191.10	174.85	0.58	0.220	1.43	0.154	0.96	1.00	0.214	No
1041	20.80	366.30	191.29	175.01	0.58	0.220	1.43	0.154	0.96	1.00	0.214	No
1042	20.82	366.66	191.49	175.16	0.58	0.220	1.43	0.154	0.96	1.00	0.214	No
1043	20.84	367.01	191.69	175.32	0.58	0.220	1.43	0.154	0.96	1.00	0.214	No
1044	20.86	367.37	191.88	175.48	0.58	0.219	1.43	0.154	0.95	1.00	0.214	No
1045	20.88	367.72	192.08	175.64	0.58	0.219	1.43	0.154	0.95	1.00	0.213	No
1046	20.90	368.07	192.28	175.80	0.58	0.219	1.43	0.153	0.95	1.00	0.213	No
1047	20.92	368.43	192.47	175.95	0.58	0.219	1.43	0.153	0.95	1.00	0.213	No
1048	20.94	368.78	192.67	176.11	0.57	0.219	1.43	0.153	0.95	1.00	0.213	No
1049	20.96	369.13	192.86	176.27	0.57	0.219	1.43	0.153	0.95	1.00	0.213	No
1050	20.98	369.49	193.06	176.43	0.57	0.219	1.43	0.153	0.95	1.00	0.213	No
1051	21.00	369.85	193.26	176.59	0.57	0.219	1.43	0.153	0.95	1.00	0.213	No
1052	21.02	370.20	193.45	176.75	0.57	0.219	1.43	0.153	0.95	1.00	0.213	No
1053	21.04	370.56	193.65	176.91	0.57	0.218	1.43	0.153	0.95	1.00	0.213	No
1054	21.06	370.92	193.85	177.07	0.57	0.218	1.43	0.153	0.95	1.00	0.213	No
1055	21.08	371.28	194.04	177.24	0.57	0.218	1.43	0.153	0.95	1.00	0.212	No
1056	21.10	371.64	194.24	177.40	0.57	0.218	1.43	0.153	0.95	1.00	0.212	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (m)	σ_v (kPa)	u_0 (kPa)	σ'_v (kPa)	r_d	CSR	MSF	CSR _{eq}	K	User FS	CSR*	Belongs to transition
1057	21.12	372.00	194.43	177.57	0.57	0.218	1.43	0.153	0.95	1.00	0.212	No
1058	21.14	372.36	194.63	177.73	0.57	0.218	1.43	0.153	0.95	1.00	0.212	No
1059	21.16	372.72	194.83	177.89	0.57	0.218	1.43	0.152	0.95	1.00	0.212	No
1060	21.18	373.08	195.02	178.06	0.57	0.218	1.43	0.152	0.95	1.00	0.212	No
1061	21.20	373.44	195.22	178.22	0.57	0.218	1.43	0.152	0.95	1.00	0.212	No

Abbreviations

Depth:	Depth from free surface, at which CPT was performed (m)
σ_v :	Total overburden pressure at test point (kPa)
u_0 :	Water pressure at test point (kPa)
σ'_v :	Effective overburden pressure based on GWT during earthquake (kPa)
r_d :	Nonlinear shear mass factor
CSR:	Cyclic Stress Ratio
MSF:	Magnitude Scaling Factor
CSR _{eq} :	CSR adjusted for M=7.5
K :	Effective overburden stress factor
CSR*:	CSR fully adjusted

:: Cyclic Resistance Ratio (CRR) calculation data ::

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
1	0.12	0.48	94.12	2.89	0.62	1.70	2.24	0.00	2.24	4.000	No	Yes	2.00
2	0.02	0.98	61.57	2.48	0.56	1.70	19.15	54.46	73.61	4.000	No	No	2.00
3	0.04	1.72	39.39	2.20	0.56	1.70	27.71	48.24	75.95	4.000	No	No	2.00
4	0.06	2.09	35.61	2.16	0.53	1.70	39.20	48.32	87.51	4.000	No	No	2.00
5	0.08	2.21	39.56	2.21	0.52	1.70	38.09	50.84	88.93	4.000	No	No	2.00
6	0.10	2.10	45.37	2.28	0.53	1.70	33.44	52.87	86.31	4.000	No	No	2.00
7	0.15	2.01	48.74	2.32	0.53	1.70	33.68	54.42	88.10	4.000	No	No	2.00
8	0.15	1.96	48.74	2.32	0.53	1.70	33.68	54.43	88.11	4.000	No	No	2.00
9	0.16	1.86	51.20	2.35	0.53	1.70	30.79	54.61	85.40	4.000	No	No	2.00
10	0.18	1.68	57.31	2.43	0.53	1.70	29.02	56.11	85.14	4.000	No	No	2.00
11	0.20	1.45	65.37	2.53	0.54	1.70	24.54	56.85	81.39	4.000	No	No	2.00
12	0.28	1.23	73.39	2.63	0.56	1.70	19.29	0.00	19.29	4.000	No	Yes	2.00
13	0.28	1.11	77.82	2.69	0.56	1.70	18.08	0.00	18.08	4.000	No	Yes	2.00
14	0.28	1.02	82.31	2.74	0.56	1.70	18.08	0.00	18.08	4.000	No	Yes	2.00
15	0.28	0.93	87.79	2.81	0.57	1.70	14.75	0.00	14.75	4.000	No	Yes	2.00
16	0.30	0.84	94.82	2.90	0.57	1.70	13.75	0.00	13.75	4.000	No	Yes	2.00
17	0.33	0.83	97.55	2.93	0.57	1.70	13.60	0.00	13.60	4.000	No	Yes	2.00
18	0.34	0.83	99.45	2.96	0.57	1.70	13.99	0.00	13.99	4.000	No	Yes	2.00
19	0.36	0.86	100.00	2.97	0.57	1.70	14.17	0.00	14.17	4.000	No	Yes	2.00
20	0.38	0.90	100.00	2.97	0.56	1.70	14.88	0.00	14.88	4.000	No	Yes	2.00
21	0.40	1.00	97.57	2.93	0.56	1.70	16.21	0.00	16.21	4.000	No	Yes	2.00
22	0.42	1.20	90.46	2.84	0.55	1.70	19.21	0.00	19.21	4.000	No	Yes	2.00
23	0.44	1.56	78.72	2.70	0.54	1.70	24.48	0.00	24.48	4.000	No	Yes	2.00
24	0.46	1.87	70.20	2.59	0.51	1.70	34.32	60.65	94.97	4.000	No	No	2.00
25	0.48	2.14	62.96	2.50	0.51	1.70	35.20	59.34	94.54	4.000	No	No	2.00
26	0.50	2.18	59.86	2.46	0.50	1.70	37.70	59.25	96.95	4.000	No	No	2.00
27	0.52	2.19	56.74	2.42	0.51	1.70	36.42	57.99	94.40	4.000	No	No	2.00
28	0.54	2.13	55.87	2.41	0.51	1.70	35.94	57.59	93.54	4.000	No	No	2.00
29	0.56	2.07	55.21	2.40	0.52	1.70	34.61	57.02	91.63	4.000	No	No	2.00
30	0.58	2.01	54.92	2.40	0.52	1.70	33.71	56.68	90.38	4.000	No	No	2.00
31	0.60	1.97	54.06	2.39	0.52	1.70	32.86	56.17	89.03	4.000	No	No	2.00
32	0.62	1.95	53.03	2.38	0.53	1.70	32.62	55.75	88.37	4.000	No	No	2.00
33	0.64	1.94	51.86	2.36	0.53	1.70	32.46	55.30	87.76	4.000	No	No	2.00
34	0.66	1.96	50.69	2.35	0.53	1.70	32.64	54.92	87.56	4.000	No	No	2.00
35	0.68	2.01	48.90	2.32	0.53	1.70	33.48	54.44	87.92	4.000	No	No	2.00
36	0.70	2.07	46.68	2.30	0.52	1.70	34.76	53.82	88.58	4.000	No	No	2.00
37	0.72	2.16	44.16	2.26	0.52	1.70	35.98	52.93	88.91	4.000	No	No	2.00
38	0.74	2.24	42.02	2.24	0.52	1.70	37.68	52.21	89.89	4.000	No	No	2.00
39	0.76	2.32	39.58	2.21	0.52	1.70	38.82	51.02	89.84	4.000	No	No	2.00
40	0.78	2.37	36.92	2.17	0.52	1.70	39.93	49.47	89.40	4.000	No	No	2.00
41	0.80	2.41	33.74	2.13	0.53	1.70	40.51	47.08	87.59	4.000	No	No	2.00
42	0.82	2.41	30.61	2.10	0.53	1.70	40.58	44.13	84.72	4.000	No	No	2.00
43	0.84	2.39	27.46	2.06	0.54	1.70	40.08	40.49	80.57	4.000	No	No	2.00
44	0.86	2.36	24.93	2.02	0.56	1.70	39.63	37.03	76.66	4.000	No	No	2.00
45	0.88	2.34	22.98	2.00	0.56	1.70	39.17	34.00	73.17	4.000	No	No	2.00
46	0.90	2.28	22.96	2.00	0.56	1.70	39.12	33.96	73.08	4.000	No	No	2.00
47	0.92	2.26	22.40	1.99	0.58	1.70	36.63	32.66	69.29	4.000	No	No	2.00
48	0.94	2.24	22.01	1.99	0.57	1.70	37.86	32.20	70.06	4.000	No	No	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
49	0.96	2.28	20.98	1.97	0.58	1.70	38.28	30.47	68.76	4.000	No	No	2.00
50	0.98	2.31	21.11	1.98	0.58	1.70	38.50	30.73	69.23	4.000	No	No	2.00
51	1.00	2.34	21.24	1.98	0.57	1.70	39.26	31.08	70.34	4.000	No	No	2.00
52	1.03	2.38	21.07	1.98	0.57	1.70	39.98	30.89	70.86	4.000	No	No	2.00
53	1.12	2.41	20.85	1.97	0.57	1.70	40.72	30.59	71.31	4.000	No	No	2.00
54	1.12	2.43	20.68	1.97	0.57	1.70	40.72	30.28	71.00	4.000	No	No	2.00
55	1.12	2.43	20.71	1.97	0.57	1.70	40.76	30.33	71.10	4.000	No	No	2.00
56	1.12	2.57	19.44	1.96	0.58	1.70	40.77	27.91	68.67	4.000	No	No	2.00
57	1.12	2.74	17.95	1.94	0.56	1.70	47.91	25.66	73.57	4.000	No	No	2.00
58	1.14	2.89	17.23	1.93	0.56	1.70	49.08	24.15	73.23	4.000	No	No	2.00
59	1.16	2.90	17.47	1.93	0.56	1.70	48.61	24.64	73.25	4.000	No	No	2.00
60	1.18	2.90	17.76	1.93	0.56	1.70	48.47	25.28	73.75	4.000	No	No	2.00
61	1.20	2.93	17.42	1.93	0.56	1.70	48.86	24.56	73.42	4.000	No	No	2.00
62	1.22	2.99	17.47	1.93	0.56	1.70	50.07	24.81	74.88	4.000	No	No	2.00
63	1.24	3.06	18.00	1.94	0.55	1.70	51.53	26.18	77.72	4.000	No	No	2.00
64	1.26	3.12	18.68	1.95	0.55	1.70	52.46	27.80	80.26	4.000	No	No	2.00
65	1.28	3.13	19.28	1.95	0.54	1.70	53.06	29.15	82.22	4.000	No	No	2.00
66	1.30	3.10	19.65	1.96	0.54	1.70	52.02	29.81	81.83	4.000	No	No	2.00
67	1.33	2.99	19.85	1.96	0.54	1.70	50.76	30.05	80.81	0.117	No	No	0.77
68	1.34	2.89	19.79	1.96	0.55	1.70	47.83	29.54	77.37	0.114	No	No	0.74
69	1.36	2.79	19.87	1.96	0.56	1.70	46.66	29.53	76.19	0.113	No	No	0.73
70	1.38	2.77	19.77	1.96	0.56	1.70	45.98	29.25	75.23	0.112	No	No	0.72
71	1.40	2.79	20.04	1.96	0.56	1.70	46.54	29.85	76.40	0.113	No	No	0.72
72	1.42	2.82	20.47	1.97	0.55	1.70	47.68	30.84	78.53	0.115	No	No	0.73
73	1.44	2.85	21.48	1.98	0.54	1.70	47.83	32.77	80.60	0.116	No	No	0.74
74	1.46	2.84	22.88	2.00	0.54	1.70	47.89	35.23	83.13	0.119	No	No	0.75
75	1.48	2.83	23.48	2.01	0.54	1.70	47.47	36.15	83.61	0.119	No	No	0.75
76	1.50	2.81	23.46	2.01	0.54	1.70	47.16	36.06	83.22	0.119	No	No	0.74
77	1.52	2.76	22.78	2.00	0.54	1.70	46.65	34.87	81.52	0.117	No	No	0.72
78	1.54	2.68	23.03	2.00	0.55	1.70	45.35	35.08	80.43	0.116	No	No	0.71
79	1.56	2.56	24.17	2.01	0.55	1.70	43.15	36.52	79.67	0.116	No	No	0.70
80	1.58	2.44	25.98	2.04	0.55	1.70	40.58	38.66	79.25	0.115	No	No	0.69
81	1.60	2.34	28.27	2.07	0.54	1.70	39.28	41.30	80.58	0.116	No	No	0.70
82	1.62	2.22	31.77	2.11	0.54	1.70	37.87	44.72	82.59	0.118	No	No	0.70
83	1.64	2.04	37.16	2.18	0.54	1.70	34.64	48.42	83.06	0.119	No	No	0.70
84	1.66	1.74	45.79	2.28	0.54	1.70	30.21	52.25	82.46	0.118	No	No	0.69
85	1.68	1.44	55.66	2.41	0.55	1.70	22.79	53.91	76.70	0.113	No	No	0.65
86	1.70	1.23	66.22	2.54	0.56	1.70	19.37	55.54	74.91	0.111	No	No	0.64
87	1.72	1.21	71.27	2.60	0.56	1.70	19.70	0.00	19.70	4.000	No	Yes	2.00
88	1.74	1.25	74.37	2.64	0.55	1.70	21.69	0.00	21.69	4.000	No	Yes	2.00
89	1.76	1.23	77.41	2.68	0.55	1.70	21.61	0.00	21.61	4.000	No	Yes	2.00
90	1.78	1.11	82.37	2.74	0.56	1.70	18.43	0.00	18.43	4.000	No	Yes	2.00
91	1.80	0.95	88.98	2.82	0.56	1.70	15.66	0.00	15.66	4.000	No	Yes	2.00
92	1.82	0.82	95.40	2.90	0.57	1.70	13.56	0.00	13.56	4.000	No	Yes	2.00
93	1.84	0.72	100.00	2.97	0.57	1.70	11.98	0.00	11.98	4.000	No	Yes	2.00
94	1.86	0.65	100.00	3.01	0.58	1.70	10.98	0.00	10.98	4.000	No	Yes	2.00
95	1.88	0.60	100.00	3.05	0.58	1.70	9.84	0.00	9.84	4.000	No	Yes	2.00
96	1.90	0.55	100.00	3.08	0.59	1.70	9.24	0.00	9.24	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
97	1.92	0.54	100.00	3.08	0.59	1.70	8.75	0.00	8.75	4.000	No	Yes	2.00
98	1.94	0.53	100.00	3.06	0.59	1.70	9.03	0.00	9.03	4.000	No	Yes	2.00
99	1.96	0.52	100.00	3.04	0.59	1.70	8.73	0.00	8.73	4.000	No	Yes	2.00
100	1.98	0.51	100.00	3.04	0.59	1.70	8.63	0.00	8.63	4.000	No	Yes	2.00
101	2.00	0.50	100.00	3.05	0.59	1.70	8.22	0.00	8.22	4.000	No	Yes	2.00
102	2.02	0.48	100.00	3.07	0.59	1.70	8.16	0.00	8.16	4.000	No	Yes	2.00
103	2.04	0.47	100.00	3.09	0.59	1.70	8.02	0.00	8.02	4.000	No	Yes	2.00
104	2.06	0.47	100.00	3.10	0.59	1.70	7.75	0.00	7.75	4.000	No	Yes	2.00
105	2.08	0.47	100.00	3.10	0.59	1.70	8.09	0.00	8.09	4.000	No	Yes	2.00
106	2.10	0.48	100.00	3.10	0.59	1.70	8.03	0.00	8.03	4.000	No	Yes	2.00
107	2.12	0.48	100.00	3.10	0.59	1.70	7.99	0.00	7.99	4.000	No	Yes	2.00
108	2.14	0.48	100.00	3.10	0.59	1.70	8.13	0.00	8.13	4.000	No	Yes	2.00
109	2.17	0.48	100.00	3.09	0.59	1.70	8.17	0.00	8.17	4.000	No	Yes	2.00
110	2.18	0.48	100.00	3.09	0.59	1.70	8.14	0.00	8.14	4.000	No	Yes	2.00
111	2.20	0.49	100.00	3.06	0.59	1.70	8.15	0.00	8.15	4.000	No	Yes	2.00
112	2.22	0.50	100.00	3.03	0.59	1.70	8.49	0.00	8.49	4.000	No	Yes	2.00
113	2.24	0.51	100.00	3.00	0.59	1.70	8.67	0.00	8.67	4.000	No	Yes	2.00
114	2.26	0.51	100.00	2.99	0.59	1.70	8.57	0.00	8.57	4.000	No	Yes	2.00
115	2.28	0.50	100.00	3.00	0.59	1.70	8.62	0.00	8.62	4.000	No	Yes	2.00
116	2.30	0.48	100.00	3.01	0.59	1.70	7.88	0.00	7.88	4.000	No	Yes	2.00
117	2.32	0.47	100.00	3.03	0.59	1.70	7.99	0.00	7.99	4.000	No	Yes	2.00
118	2.34	0.50	100.00	3.01	0.59	1.70	7.96	0.00	7.96	4.000	No	Yes	2.00
119	2.36	0.59	96.19	2.91	0.59	1.70	9.40	0.00	9.40	4.000	No	Yes	2.00
120	2.38	0.82	81.34	2.73	0.58	1.70	12.61	0.00	12.61	4.000	No	Yes	2.00
121	2.40	1.09	68.31	2.57	0.56	1.70	19.15	55.89	75.04	0.112	No	No	0.55
122	2.42	1.29	62.58	2.49	0.55	1.70	23.25	55.86	79.11	0.115	No	No	0.56
123	2.44	1.31	64.03	2.51	0.55	1.70	22.44	55.96	78.40	0.114	No	No	0.56
124	2.46	1.22	70.16	2.59	0.55	1.70	20.27	56.55	76.82	0.113	No	No	0.55
125	2.48	1.18	74.28	2.64	0.56	1.70	18.85	0.00	18.85	4.000	No	Yes	2.00
126	2.50	1.24	72.77	2.62	0.55	1.70	20.26	0.00	20.26	4.000	No	Yes	2.00
127	2.52	1.32	68.92	2.57	0.54	1.70	23.37	57.22	80.59	0.116	No	No	0.56
128	2.54	1.33	67.67	2.56	0.55	1.70	22.83	56.82	79.65	0.116	No	No	0.56
129	2.56	1.20	73.92	2.64	0.55	1.70	20.90	0.00	20.90	4.000	No	Yes	2.00
130	2.58	1.01	84.98	2.77	0.56	1.70	16.62	0.00	16.62	4.000	No	Yes	2.00
131	2.60	0.81	97.59	2.93	0.57	1.70	13.33	0.00	13.33	4.000	No	Yes	2.00
132	2.62	0.67	100.00	3.05	0.58	1.70	11.03	0.00	11.03	4.000	No	Yes	2.00
133	2.64	0.57	100.00	3.12	0.58	1.70	9.50	0.00	9.50	4.000	No	Yes	2.00
134	2.66	0.49	100.00	3.16	0.59	1.70	8.11	0.00	8.11	4.000	No	Yes	2.00
135	2.68	0.45	100.00	3.18	0.59	1.70	7.41	0.00	7.41	4.000	No	Yes	2.00
136	2.70	0.43	100.00	3.17	0.59	1.70	7.28	0.00	7.28	4.000	No	Yes	2.00
137	2.72	0.45	100.00	3.12	0.59	1.70	7.32	0.00	7.32	4.000	No	Yes	2.00
138	2.74	0.49	100.00	3.04	0.59	1.70	8.07	0.00	8.07	4.000	No	Yes	2.00
139	2.76	0.57	97.25	2.93	0.59	1.70	9.34	0.00	9.34	4.000	No	Yes	2.00
140	2.78	0.65	90.93	2.85	0.58	1.70	11.32	0.00	11.32	4.000	No	Yes	2.00
141	2.80	0.70	90.02	2.84	0.58	1.70	12.38	0.00	12.38	4.000	No	Yes	2.00
142	2.82	0.68	95.58	2.91	0.58	1.70	11.67	0.00	11.67	4.000	No	Yes	2.00
143	2.84	0.61	100.00	3.01	0.58	1.70	10.11	0.00	10.11	4.000	No	Yes	2.00
144	2.87	0.55	100.00	3.10	0.59	1.70	8.86	0.00	8.86	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
145	2.88	0.51	100.00	3.13	0.59	1.70	8.63	0.00	8.63	4.000	No	Yes	2.00
146	2.90	0.50	100.00	3.13	0.59	1.70	8.43	0.00	8.43	4.000	No	Yes	2.00
147	2.92	0.51	100.00	3.12	0.59	1.70	8.16	0.00	8.16	4.000	No	Yes	2.00
148	2.94	0.52	100.00	3.11	0.59	1.70	8.94	0.00	8.94	4.000	No	Yes	2.00
149	2.96	0.53	100.00	3.11	0.59	1.70	9.08	0.00	9.08	4.000	No	Yes	2.00
150	2.98	0.51	100.00	3.15	0.59	1.70	8.64	0.00	8.64	4.000	No	Yes	2.00
151	3.00	0.49	100.00	3.17	0.59	1.70	7.96	0.00	7.96	4.000	No	Yes	2.00
152	3.03	0.47	100.00	3.19	0.59	1.70	8.03	0.00	8.03	4.000	No	Yes	2.00
153	3.04	0.47	100.00	3.18	0.59	1.70	7.83	0.00	7.83	4.000	No	Yes	2.00
154	3.06	0.47	100.00	3.17	0.59	1.70	7.59	0.00	7.59	4.000	No	Yes	2.00
155	3.08	0.48	100.00	3.12	0.59	1.70	8.14	0.00	8.14	4.000	No	Yes	2.00
156	3.10	0.51	100.00	3.07	0.59	1.70	8.54	0.00	8.54	4.000	No	Yes	2.00
157	3.12	0.53	100.00	3.03	0.59	1.70	8.88	0.00	8.88	4.000	No	Yes	2.00
158	3.14	0.55	100.00	3.00	0.59	1.70	9.22	0.00	9.22	4.000	No	Yes	2.00
159	3.16	0.57	100.00	2.98	0.58	1.70	9.46	0.00	9.46	4.000	No	Yes	2.00
160	3.19	0.59	100.00	2.97	0.58	1.70	10.14	0.00	10.14	4.000	No	Yes	2.00
161	3.20	0.61	100.00	2.98	0.58	1.70	10.18	0.00	10.18	4.000	No	Yes	2.00
162	3.22	0.61	100.00	3.01	0.58	1.70	10.45	0.00	10.45	4.000	No	Yes	2.00
163	3.24	0.62	100.00	3.05	0.58	1.70	10.32	0.00	10.32	4.000	No	Yes	2.00
164	3.26	0.64	100.00	3.07	0.58	1.70	10.49	0.00	10.49	4.000	No	Yes	2.00
165	3.28	0.66	100.00	3.06	0.58	1.70	11.24	0.00	11.24	4.000	No	Yes	2.00
166	3.30	0.69	100.00	3.05	0.58	1.70	11.61	0.00	11.61	4.000	No	Yes	2.00
167	3.32	0.72	100.00	3.04	0.57	1.70	12.06	0.00	12.06	4.000	No	Yes	2.00
168	3.34	0.74	100.00	3.05	0.57	1.70	12.54	0.00	12.54	4.000	No	Yes	2.00
169	3.36	0.75	100.00	3.06	0.57	1.70	12.60	0.00	12.60	4.000	No	Yes	2.00
170	3.38	0.75	100.00	3.07	0.57	1.70	12.43	0.00	12.43	4.000	No	Yes	2.00
171	3.40	0.76	100.00	3.08	0.57	1.70	12.81	0.00	12.81	4.000	No	Yes	2.00
172	3.43	0.78	100.00	3.09	0.57	1.70	13.01	0.00	13.01	4.000	No	Yes	2.00
173	3.44	0.79	100.00	3.09	0.57	1.70	13.35	0.00	13.35	4.000	No	Yes	2.00
174	3.46	0.80	100.00	3.10	0.57	1.70	13.42	0.00	13.42	4.000	No	Yes	2.00
175	3.48	0.79	100.00	3.11	0.57	1.70	13.28	0.00	13.28	4.000	No	Yes	2.00
176	3.50	0.78	100.00	3.12	0.57	1.70	13.17	0.00	13.17	4.000	No	Yes	2.00
177	3.52	0.78	100.00	3.13	0.57	1.70	12.97	0.00	12.97	4.000	No	Yes	2.00
178	3.54	0.76	100.00	3.15	0.57	1.70	12.86	0.00	12.86	4.000	No	Yes	2.00
179	3.56	0.75	100.00	3.16	0.57	1.70	12.65	0.00	12.65	4.000	No	Yes	2.00
180	3.58	0.75	100.00	3.17	0.57	1.70	12.37	0.00	12.37	4.000	No	Yes	2.00
181	3.60	0.76	100.00	3.16	0.57	1.70	12.54	0.00	12.54	4.000	No	Yes	2.00
182	3.62	0.77	100.00	3.15	0.57	1.70	13.08	0.00	13.08	4.000	No	Yes	2.00
183	3.64	0.77	100.00	3.13	0.57	1.70	12.97	0.00	12.97	4.000	No	Yes	2.00
184	3.66	0.77	100.00	3.13	0.57	1.70	12.83	0.00	12.83	4.000	No	Yes	2.00
185	3.68	0.76	100.00	3.13	0.57	1.70	12.76	0.00	12.76	4.000	No	Yes	2.00
186	3.70	0.77	100.00	3.12	0.57	1.70	12.85	0.00	12.85	4.000	No	Yes	2.00
187	3.72	0.77	100.00	3.12	0.57	1.70	12.98	0.00	12.98	4.000	No	Yes	2.00
188	3.74	0.75	100.00	3.13	0.57	1.70	12.74	0.00	12.74	4.000	No	Yes	2.00
189	3.76	0.72	100.00	3.16	0.57	1.70	12.08	0.00	12.08	4.000	No	Yes	2.00
190	3.78	0.69	100.00	3.20	0.58	1.70	11.57	0.00	11.57	4.000	No	Yes	2.00
191	3.80	0.68	100.00	3.21	0.58	1.70	11.15	0.00	11.15	4.000	No	Yes	2.00
192	3.82	0.68	100.00	3.21	0.58	1.70	11.39	0.00	11.39	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
193	3.84	0.69	100.00	3.20	0.58	1.70	11.58	0.00	11.58	4.000	No	Yes	2.00
194	3.86	0.69	100.00	3.18	0.58	1.70	11.54	0.00	11.54	4.000	No	Yes	2.00
195	3.88	0.69	100.00	3.17	0.58	1.70	11.61	0.00	11.61	4.000	No	Yes	2.00
196	3.90	0.70	100.00	3.14	0.58	1.70	11.46	0.00	11.46	4.000	No	Yes	2.00
197	3.92	0.71	100.00	3.12	0.57	1.70	12.00	0.00	12.00	4.000	No	Yes	2.00
198	3.94	0.72	100.00	3.10	0.57	1.70	12.10	0.00	12.10	4.000	No	Yes	2.00
199	3.96	0.73	100.00	3.09	0.57	1.70	12.10	0.00	12.10	4.000	No	Yes	2.00
200	3.98	0.73	100.00	3.08	0.57	1.70	12.22	0.00	12.22	4.000	No	Yes	2.00
201	4.00	0.75	100.00	3.05	0.57	1.70	12.53	0.00	12.53	4.000	No	Yes	2.00
202	4.02	0.76	100.00	3.04	0.57	1.70	12.91	0.00	12.91	4.000	No	Yes	2.00
203	4.04	0.77	100.00	3.05	0.57	1.70	12.91	0.00	12.91	4.000	No	Yes	2.00
204	4.06	0.76	100.00	3.06	0.57	1.70	12.57	0.00	12.57	4.000	No	Yes	2.00
205	4.08	0.74	100.00	3.08	0.57	1.70	12.39	0.00	12.39	4.000	No	Yes	2.00
206	4.10	0.73	100.00	3.09	0.57	1.70	12.26	0.00	12.26	4.000	No	Yes	2.00
207	4.12	0.73	100.00	3.09	0.57	1.70	11.95	0.00	11.95	4.000	No	Yes	2.00
208	4.14	0.73	100.00	3.09	0.57	1.70	12.32	0.00	12.32	4.000	No	Yes	2.00
209	4.16	0.74	100.00	3.08	0.57	1.70	12.35	0.00	12.35	4.000	No	Yes	2.00
210	4.18	0.74	100.00	3.08	0.57	1.70	12.32	0.00	12.32	4.000	No	Yes	2.00
211	4.20	0.76	100.00	3.07	0.57	1.69	12.52	0.00	12.52	4.000	No	Yes	2.00
212	4.22	0.77	100.00	3.05	0.57	1.69	12.91	0.00	12.91	4.000	No	Yes	2.00
213	4.24	0.78	100.00	3.04	0.57	1.69	12.98	0.00	12.98	4.000	No	Yes	2.00
214	4.26	0.79	100.00	3.03	0.57	1.68	12.92	0.00	12.92	4.000	No	Yes	2.00
215	4.28	0.81	100.00	3.01	0.57	1.68	13.22	0.00	13.22	4.000	No	Yes	2.00
216	4.30	0.85	100.00	2.98	0.57	1.67	13.96	0.00	13.96	4.000	No	Yes	2.00
217	4.32	0.88	99.20	2.95	0.57	1.66	14.51	0.00	14.51	4.000	No	Yes	2.00
218	4.34	0.90	98.34	2.94	0.57	1.66	14.58	0.00	14.58	4.000	No	Yes	2.00
219	4.36	0.92	98.09	2.94	0.56	1.66	14.96	0.00	14.96	4.000	No	Yes	2.00
220	4.38	0.96	97.10	2.93	0.56	1.65	15.44	0.00	15.44	4.000	No	Yes	2.00
221	4.40	1.01	95.26	2.90	0.56	1.64	16.32	0.00	16.32	4.000	No	Yes	2.00
222	4.42	1.05	94.82	2.90	0.56	1.63	17.22	0.00	17.22	4.000	No	Yes	2.00
223	4.44	1.07	95.44	2.91	0.56	1.63	16.94	0.00	16.94	4.000	No	Yes	2.00
224	4.46	1.07	97.55	2.93	0.56	1.63	17.12	0.00	17.12	4.000	No	Yes	2.00
225	4.48	1.08	99.07	2.95	0.56	1.62	17.23	0.00	17.23	4.000	No	Yes	2.00
226	4.50	1.08	100.00	2.97	0.56	1.62	17.25	0.00	17.25	4.000	No	Yes	2.00
227	4.52	1.11	100.00	2.96	0.56	1.62	17.31	0.00	17.31	4.000	No	Yes	2.00
228	4.54	1.16	99.30	2.95	0.55	1.61	18.44	0.00	18.44	4.000	No	Yes	2.00
229	4.56	1.23	97.07	2.93	0.55	1.60	19.10	0.00	19.10	4.000	No	Yes	2.00
230	4.58	1.30	95.39	2.90	0.54	1.59	20.55	0.00	20.55	4.000	No	Yes	2.00
231	4.60	1.36	93.91	2.89	0.54	1.59	21.50	0.00	21.50	4.000	No	Yes	2.00
232	4.62	1.39	94.19	2.89	0.54	1.58	21.78	0.00	21.78	4.000	No	Yes	2.00
233	4.64	1.37	96.00	2.91	0.54	1.58	21.37	0.00	21.37	4.000	No	Yes	2.00
234	4.66	1.35	98.33	2.94	0.54	1.58	20.65	0.00	20.65	4.000	No	Yes	2.00
235	4.68	1.32	100.00	2.97	0.54	1.57	20.57	0.00	20.57	4.000	No	Yes	2.00
236	4.70	1.30	100.00	3.00	0.55	1.57	20.20	0.00	20.20	4.000	No	Yes	2.00
237	4.72	1.27	100.00	3.02	0.55	1.57	19.52	0.00	19.52	4.000	No	Yes	2.00
238	4.74	1.24	100.00	3.05	0.55	1.57	19.30	0.00	19.30	4.000	No	Yes	2.00
239	4.76	1.22	100.00	3.07	0.55	1.57	18.71	0.00	18.71	4.000	No	Yes	2.00
240	4.78	1.20	100.00	3.08	0.55	1.57	18.33	0.00	18.33	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
241	4.80	1.21	100.00	3.08	0.55	1.56	18.49	0.00	18.49	4.000	No	Yes	2.00
242	4.82	1.24	100.00	3.06	0.55	1.56	18.92	0.00	18.92	4.000	No	Yes	2.00
243	4.84	1.26	100.00	3.05	0.55	1.55	19.43	0.00	19.43	4.000	No	Yes	2.00
244	4.86	1.26	100.00	3.05	0.55	1.55	19.17	0.00	19.17	4.000	No	Yes	2.00
245	4.88	1.25	100.00	3.06	0.55	1.55	18.86	0.00	18.86	4.000	No	Yes	2.00
246	4.90	1.24	100.00	3.07	0.55	1.55	18.84	0.00	18.84	4.000	No	Yes	2.00
247	4.92	1.25	100.00	3.07	0.55	1.54	18.88	0.00	18.88	4.000	No	Yes	2.00
248	4.94	1.27	100.00	3.07	0.55	1.54	19.18	0.00	19.18	4.000	No	Yes	2.00
249	4.96	1.27	100.00	3.08	0.55	1.53	19.62	0.00	19.62	4.000	No	Yes	2.00
250	4.98	1.33	100.00	3.06	0.55	1.53	18.72	0.00	18.72	4.000	No	Yes	2.00
251	5.00	1.39	100.00	3.03	0.54	1.52	21.43	0.00	21.43	4.000	No	Yes	2.00
252	5.02	1.49	100.00	2.99	0.54	1.51	22.32	0.00	22.32	4.000	No	Yes	2.00
253	5.04	1.53	100.00	2.97	0.54	1.51	22.66	0.00	22.66	4.000	No	Yes	2.00
254	5.06	1.53	100.00	2.97	0.54	1.51	22.86	0.00	22.86	4.000	No	Yes	2.00
255	5.08	1.52	100.00	2.97	0.54	1.50	22.26	0.00	22.26	4.000	No	Yes	2.00
256	5.10	1.48	100.00	2.98	0.54	1.50	22.11	0.00	22.11	4.000	No	Yes	2.00
257	5.12	1.44	100.00	2.99	0.54	1.50	21.10	0.00	21.10	4.000	No	Yes	2.00
258	5.14	1.42	100.00	3.00	0.54	1.50	20.58	0.00	20.58	4.000	No	Yes	2.00
259	5.16	1.44	100.00	2.99	0.54	1.50	21.10	0.00	21.10	4.000	No	Yes	2.00
260	5.18	1.49	100.00	2.96	0.54	1.49	21.64	0.00	21.64	4.000	No	Yes	2.00
261	5.20	1.54	97.83	2.94	0.54	1.49	22.55	0.00	22.55	4.000	No	Yes	2.00
262	5.22	1.58	95.88	2.91	0.54	1.48	23.12	0.00	23.12	4.000	No	Yes	2.00
263	5.24	1.61	94.21	2.89	0.54	1.48	23.32	0.00	23.32	4.000	No	Yes	2.00
264	5.26	1.61	94.31	2.89	0.53	1.47	23.84	0.00	23.84	4.000	No	Yes	2.00
265	5.28	1.61	95.12	2.90	0.54	1.47	23.08	0.00	23.08	4.000	No	Yes	2.00
266	5.30	1.60	97.23	2.93	0.54	1.47	23.18	0.00	23.18	4.000	No	Yes	2.00
267	5.32	1.60	98.77	2.95	0.54	1.47	22.89	0.00	22.89	4.000	No	Yes	2.00
268	5.34	1.63	99.25	2.95	0.54	1.46	23.18	0.00	23.18	4.000	No	Yes	2.00
269	5.36	1.66	99.25	2.95	0.53	1.46	24.13	0.00	24.13	4.000	No	Yes	2.00
270	5.38	1.68	99.11	2.95	0.53	1.46	24.08	0.00	24.08	4.000	No	Yes	2.00
271	5.40	1.70	98.70	2.95	0.53	1.45	23.93	0.00	23.93	4.000	No	Yes	2.00
272	5.42	1.76	96.84	2.92	0.53	1.45	24.85	0.00	24.85	4.000	No	Yes	2.00
273	5.44	1.84	94.13	2.89	0.53	1.44	26.26	0.00	26.26	4.000	No	Yes	2.00
274	5.46	1.90	92.32	2.87	0.52	1.44	27.00	0.00	27.00	4.000	No	Yes	2.00
275	5.48	1.91	92.43	2.87	0.52	1.43	27.23	0.00	27.23	4.000	No	Yes	2.00
276	5.50	1.90	93.33	2.88	0.53	1.43	26.68	0.00	26.68	4.000	No	Yes	2.00
277	5.52	1.86	95.12	2.90	0.53	1.43	26.38	0.00	26.38	4.000	No	Yes	2.00
278	5.54	1.79	97.79	2.93	0.53	1.43	25.37	0.00	25.37	4.000	No	Yes	2.00
279	5.56	1.70	100.00	2.98	0.53	1.43	23.76	0.00	23.76	4.000	No	Yes	2.00
280	5.58	1.61	100.00	3.02	0.54	1.43	22.52	0.00	22.52	4.000	No	Yes	2.00
281	5.60	1.55	100.00	3.05	0.54	1.43	21.87	0.00	21.87	4.000	No	Yes	2.00
282	5.62	1.48	100.00	3.07	0.54	1.43	20.99	0.00	20.99	4.000	No	Yes	2.00
283	5.65	1.42	100.00	3.10	0.55	1.43	19.62	0.00	19.62	4.000	No	Yes	2.00
284	5.66	1.38	100.00	3.11	0.55	1.43	19.34	0.00	19.34	4.000	No	Yes	2.00
285	5.68	1.42	100.00	3.07	0.55	1.43	19.30	0.00	19.30	4.000	No	Yes	2.00
286	5.70	1.49	100.00	3.01	0.54	1.42	20.98	0.00	20.98	4.000	No	Yes	2.00
287	5.72	1.58	99.01	2.95	0.54	1.42	22.08	0.00	22.08	4.000	No	Yes	2.00
288	5.74	1.60	96.17	2.91	0.54	1.41	22.70	0.00	22.70	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
289	5.76	1.55	95.16	2.90	0.54	1.41	21.77	0.00	21.77	4.000	No	Yes	2.00
290	5.78	1.47	95.65	2.91	0.55	1.42	20.22	0.00	20.22	4.000	No	Yes	2.00
291	5.80	1.43	95.60	2.91	0.55	1.42	19.39	0.00	19.39	4.000	No	Yes	2.00
292	5.82	1.41	96.17	2.91	0.55	1.41	19.88	0.00	19.88	4.000	No	Yes	2.00
293	5.84	1.40	97.13	2.93	0.55	1.41	19.41	0.00	19.41	4.000	No	Yes	2.00
294	5.86	1.38	99.49	2.96	0.55	1.41	18.93	0.00	18.93	4.000	No	Yes	2.00
295	5.88	1.38	100.00	2.97	0.55	1.41	18.76	0.00	18.76	4.000	No	Yes	2.00
296	5.90	1.39	100.00	2.98	0.55	1.40	19.27	0.00	19.27	4.000	No	Yes	2.00
297	5.92	1.41	100.00	2.97	0.55	1.40	19.24	0.00	19.24	4.000	No	Yes	2.00
298	5.94	1.43	100.00	2.97	0.55	1.40	19.46	0.00	19.46	4.000	No	Yes	2.00
299	5.96	1.50	99.29	2.95	0.55	1.39	20.18	0.00	20.18	4.000	No	Yes	2.00
300	5.98	1.54	98.31	2.94	0.54	1.39	21.63	0.00	21.63	4.000	No	Yes	2.00
301	6.00	1.60	97.11	2.93	0.54	1.39	21.13	0.00	21.13	4.000	No	Yes	2.00
302	6.02	1.64	96.38	2.92	0.54	1.38	22.29	0.00	22.29	4.000	No	Yes	2.00
303	6.04	1.75	93.84	2.89	0.54	1.38	23.29	0.00	23.29	4.000	No	Yes	2.00
304	6.06	1.84	91.49	2.86	0.53	1.37	25.16	0.00	25.16	4.000	No	Yes	2.00
305	6.08	1.91	89.79	2.83	0.53	1.37	25.78	0.00	25.78	4.000	No	Yes	2.00
306	6.10	1.93	89.74	2.83	0.53	1.36	25.99	0.00	25.99	4.000	No	Yes	2.00
307	6.12	1.91	90.86	2.85	0.53	1.36	25.72	0.00	25.72	4.000	No	Yes	2.00
308	6.14	1.89	92.36	2.87	0.53	1.36	24.98	0.00	24.98	4.000	No	Yes	2.00
309	6.16	1.86	93.73	2.88	0.53	1.36	24.81	0.00	24.81	4.000	No	Yes	2.00
310	6.18	1.84	94.89	2.90	0.53	1.36	24.63	0.00	24.63	4.000	No	Yes	2.00
311	6.20	1.81	96.19	2.91	0.53	1.36	24.02	0.00	24.02	4.000	No	Yes	2.00
312	6.22	1.76	98.02	2.94	0.53	1.35	23.56	0.00	23.56	4.000	No	Yes	2.00
313	6.24	1.69	100.00	2.97	0.54	1.35	22.60	0.00	22.60	4.000	No	Yes	2.00
314	6.26	1.64	100.00	2.99	0.54	1.36	21.08	0.00	21.08	4.000	No	Yes	2.00
315	6.28	1.66	100.00	2.98	0.54	1.35	21.63	0.00	21.63	4.000	No	Yes	2.00
316	6.30	1.70	100.00	2.96	0.54	1.35	23.09	0.00	23.09	4.000	No	Yes	2.00
317	6.32	1.77	97.85	2.94	0.54	1.34	22.83	0.00	22.83	4.000	No	Yes	2.00
318	6.34	1.83	95.85	2.91	0.53	1.34	24.22	0.00	24.22	4.000	No	Yes	2.00
319	6.36	1.85	94.61	2.90	0.53	1.34	25.02	0.00	25.02	4.000	No	Yes	2.00
320	6.38	1.82	94.39	2.89	0.54	1.34	23.45	0.00	23.45	4.000	No	Yes	2.00
321	6.40	1.78	95.35	2.90	0.54	1.34	23.25	0.00	23.25	4.000	No	Yes	2.00
322	6.42	1.76	96.06	2.91	0.54	1.33	23.14	0.00	23.14	4.000	No	Yes	2.00
323	6.44	1.76	96.58	2.92	0.54	1.33	22.69	0.00	22.69	4.000	No	Yes	2.00
324	6.46	1.75	97.30	2.93	0.54	1.33	23.16	0.00	23.16	4.000	No	Yes	2.00
325	6.48	1.74	98.31	2.94	0.54	1.33	22.80	0.00	22.80	4.000	No	Yes	2.00
326	6.50	1.69	100.00	2.97	0.54	1.33	22.14	0.00	22.14	4.000	No	Yes	2.00
327	6.52	1.64	100.00	3.00	0.54	1.33	21.20	0.00	21.20	4.000	No	Yes	2.00
328	6.54	1.60	100.00	3.02	0.54	1.32	20.82	0.00	20.82	4.000	No	Yes	2.00
329	6.56	1.57	100.00	3.04	0.54	1.32	20.56	0.00	20.56	4.000	No	Yes	2.00
330	6.58	1.54	100.00	3.06	0.55	1.32	19.90	0.00	19.90	4.000	No	Yes	2.00
331	6.60	1.51	100.00	3.07	0.55	1.32	19.39	0.00	19.39	4.000	No	Yes	2.00
332	6.62	1.48	100.00	3.07	0.55	1.32	19.35	0.00	19.35	4.000	No	Yes	2.00
333	6.64	1.45	100.00	3.08	0.55	1.32	18.79	0.00	18.79	4.000	No	Yes	2.00
334	6.66	1.40	100.00	3.09	0.55	1.32	18.01	0.00	18.01	4.000	No	Yes	2.00
335	6.68	1.36	100.00	3.10	0.55	1.32	17.48	0.00	17.48	4.000	No	Yes	2.00
336	6.70	1.33	100.00	3.11	0.56	1.32	17.24	0.00	17.24	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
337	6.72	1.31	100.00	3.11	0.56	1.31	16.85	0.00	16.85	4.000	No	Yes	2.00
338	6.74	1.30	100.00	3.12	0.56	1.31	16.58	0.00	16.58	4.000	No	Yes	2.00
339	6.76	1.28	100.00	3.12	0.56	1.31	16.63	0.00	16.63	4.000	No	Yes	2.00
340	6.78	1.28	100.00	3.11	0.56	1.31	16.27	0.00	16.27	4.000	No	Yes	2.00
341	6.80	1.26	100.00	3.11	0.56	1.31	16.21	0.00	16.21	4.000	No	Yes	2.00
342	6.82	1.26	100.00	3.11	0.56	1.31	16.15	0.00	16.15	4.000	No	Yes	2.00
343	6.84	1.27	100.00	3.10	0.56	1.30	16.02	0.00	16.02	4.000	No	Yes	2.00
344	6.86	1.30	100.00	3.08	0.56	1.30	16.57	0.00	16.57	4.000	No	Yes	2.00
345	6.88	1.35	100.00	3.04	0.56	1.30	17.05	0.00	17.05	4.000	No	Yes	2.00
346	6.90	1.40	100.00	3.01	0.55	1.29	17.76	0.00	17.76	4.000	No	Yes	2.00
347	6.92	1.44	100.00	3.00	0.55	1.29	18.58	0.00	18.58	4.000	No	Yes	2.00
348	6.94	1.44	100.00	3.00	0.55	1.29	18.34	0.00	18.34	4.000	No	Yes	2.00
349	6.96	1.41	100.00	3.03	0.55	1.29	17.80	0.00	17.80	4.000	No	Yes	2.00
350	6.98	1.38	100.00	3.04	0.56	1.29	17.26	0.00	17.26	4.000	No	Yes	2.00
351	7.00	1.39	100.00	3.05	0.55	1.29	17.38	0.00	17.38	4.000	No	Yes	2.00
352	7.02	1.43	100.00	3.04	0.55	1.28	18.03	0.00	18.03	4.000	No	Yes	2.00
353	7.04	1.45	100.00	3.04	0.55	1.28	18.43	0.00	18.43	4.000	No	Yes	2.00
354	7.06	1.44	100.00	3.05	0.55	1.28	18.14	0.00	18.14	4.000	No	Yes	2.00
355	7.08	1.44	100.00	3.06	0.55	1.28	17.72	0.00	17.72	4.000	No	Yes	2.00
356	7.10	1.45	100.00	3.05	0.55	1.27	18.26	0.00	18.26	4.000	No	Yes	2.00
357	7.12	1.48	100.00	3.04	0.55	1.27	18.47	0.00	18.47	4.000	No	Yes	2.00
358	7.14	1.48	100.00	3.04	0.55	1.27	18.60	0.00	18.60	4.000	No	Yes	2.00
359	7.16	1.48	100.00	3.04	0.55	1.27	18.36	0.00	18.36	4.000	No	Yes	2.00
360	7.18	1.45	100.00	3.06	0.55	1.27	18.12	0.00	18.12	4.000	No	Yes	2.00
361	7.20	1.45	100.00	3.06	0.55	1.27	17.73	0.00	17.73	4.000	No	Yes	2.00
362	7.22	1.47	100.00	3.05	0.55	1.26	17.97	0.00	17.97	4.000	No	Yes	2.00
363	7.24	1.50	100.00	3.03	0.55	1.26	18.74	0.00	18.74	4.000	No	Yes	2.00
364	7.26	1.52	100.00	3.03	0.55	1.26	18.77	0.00	18.77	4.000	No	Yes	2.00
365	7.28	1.52	100.00	3.03	0.55	1.26	18.74	0.00	18.74	4.000	No	Yes	2.00
366	7.30	1.50	100.00	3.04	0.55	1.26	18.50	0.00	18.50	4.000	No	Yes	2.00
367	7.32	1.47	100.00	3.06	0.55	1.25	18.11	0.00	18.11	4.000	No	Yes	2.00
368	7.34	1.44	100.00	3.08	0.55	1.25	17.58	0.00	17.58	4.000	No	Yes	2.00
369	7.36	1.40	100.00	3.10	0.56	1.25	17.25	0.00	17.25	4.000	No	Yes	2.00
370	7.38	1.39	100.00	3.11	0.56	1.25	16.78	0.00	16.78	4.000	No	Yes	2.00
371	7.40	1.37	100.00	3.12	0.56	1.25	17.22	0.00	17.22	4.000	No	Yes	2.00
372	7.42	1.36	100.00	3.12	0.56	1.25	16.40	0.00	16.40	4.000	No	Yes	2.00
373	7.44	1.35	100.00	3.12	0.56	1.25	16.39	0.00	16.39	4.000	No	Yes	2.00
374	7.46	1.37	100.00	3.10	0.56	1.24	16.69	0.00	16.69	4.000	No	Yes	2.00
375	7.48	1.39	100.00	3.09	0.56	1.24	17.10	0.00	17.10	4.000	No	Yes	2.00
376	7.50	1.41	100.00	3.07	0.56	1.24	16.84	0.00	16.84	4.000	No	Yes	2.00
377	7.52	1.37	100.00	3.08	0.56	1.24	17.34	0.00	17.34	4.000	No	Yes	2.00
378	7.54	1.34	100.00	3.09	0.56	1.24	15.84	0.00	15.84	4.000	No	Yes	2.00
379	7.56	1.31	100.00	3.11	0.56	1.24	15.72	0.00	15.72	4.000	No	Yes	2.00
380	7.58	1.31	100.00	3.11	0.56	1.24	16.15	0.00	16.15	4.000	No	Yes	2.00
381	7.60	1.30	100.00	3.12	0.56	1.23	15.71	0.00	15.71	4.000	No	Yes	2.00
382	7.62	1.27	100.00	3.14	0.56	1.23	15.13	0.00	15.13	4.000	No	Yes	2.00
383	7.64	1.26	100.00	3.14	0.56	1.23	15.11	0.00	15.11	4.000	No	Yes	2.00
384	7.66	1.25	100.00	3.14	0.56	1.23	15.16	0.00	15.16	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
385	7.68	1.25	100.00	3.14	0.56	1.23	14.89	0.00	14.89	4.000	No	Yes	2.00
386	7.70	1.25	100.00	3.14	0.56	1.23	15.06	0.00	15.06	4.000	No	Yes	2.00
387	7.72	1.25	100.00	3.14	0.56	1.23	14.97	0.00	14.97	4.000	No	Yes	2.00
388	7.74	1.25	100.00	3.15	0.56	1.22	15.07	0.00	15.07	4.000	No	Yes	2.00
389	7.76	1.23	100.00	3.17	0.56	1.22	14.76	0.00	14.76	4.000	No	Yes	2.00
390	7.78	1.23	100.00	3.16	0.57	1.22	14.33	0.00	14.33	4.000	No	Yes	2.00
391	7.80	1.24	100.00	3.15	0.56	1.22	15.12	0.00	15.12	4.000	No	Yes	2.00
392	7.82	1.25	100.00	3.14	0.56	1.22	15.02	0.00	15.02	4.000	No	Yes	2.00
393	7.84	1.23	100.00	3.15	0.57	1.22	14.54	0.00	14.54	4.000	No	Yes	2.00
394	7.86	1.20	100.00	3.16	0.57	1.21	14.19	0.00	14.19	4.000	No	Yes	2.00
395	7.88	1.18	100.00	3.17	0.57	1.21	13.93	0.00	13.93	4.000	No	Yes	2.00
396	7.90	1.18	100.00	3.17	0.57	1.21	13.93	0.00	13.93	4.000	No	Yes	2.00
397	7.92	1.17	100.00	3.17	0.57	1.21	13.94	0.00	13.94	4.000	No	Yes	2.00
398	7.94	1.15	100.00	3.18	0.57	1.21	13.70	0.00	13.70	4.000	No	Yes	2.00
399	7.96	1.14	100.00	3.18	0.57	1.21	13.12	0.00	13.12	4.000	No	Yes	2.00
400	7.98	1.13	100.00	3.18	0.57	1.21	13.48	0.00	13.48	4.000	No	Yes	2.00
401	8.00	1.15	100.00	3.16	0.57	1.20	13.51	0.00	13.51	4.000	No	Yes	2.00
402	8.02	1.14	100.00	3.16	0.57	1.20	13.52	0.00	13.52	4.000	No	Yes	2.00
403	8.04	1.16	100.00	3.15	0.57	1.20	13.34	0.00	13.34	4.000	No	Yes	2.00
404	8.06	1.17	100.00	3.15	0.57	1.20	13.82	0.00	13.82	4.000	No	Yes	2.00
405	8.08	1.18	100.00	3.14	0.57	1.20	13.85	0.00	13.85	4.000	No	Yes	2.00
406	8.10	1.17	100.00	3.15	0.57	1.20	13.81	0.00	13.81	4.000	No	Yes	2.00
407	8.12	1.15	100.00	3.17	0.57	1.20	13.49	0.00	13.49	4.000	No	Yes	2.00
408	8.15	1.13	100.00	3.18	0.57	1.19	13.15	0.00	13.15	4.000	No	Yes	2.00
409	8.16	1.11	100.00	3.19	0.57	1.19	12.91	0.00	12.91	4.000	No	Yes	2.00
410	8.18	1.11	100.00	3.19	0.57	1.19	12.87	0.00	12.87	4.000	No	Yes	2.00
411	8.20	1.09	100.00	3.19	0.57	1.19	12.89	0.00	12.89	4.000	No	Yes	2.00
412	8.22	1.07	100.00	3.20	0.57	1.19	12.31	0.00	12.31	4.000	No	Yes	2.00
413	8.24	1.05	100.00	3.21	0.57	1.19	12.18	0.00	12.18	4.000	No	Yes	2.00
414	8.26	1.04	100.00	3.22	0.57	1.19	12.11	0.00	12.11	4.000	No	Yes	2.00
415	8.28	1.02	100.00	3.23	0.58	1.19	11.88	0.00	11.88	4.000	No	Yes	2.00
416	8.30	1.01	100.00	3.24	0.58	1.18	11.51	0.00	11.51	4.000	No	Yes	2.00
417	8.32	1.02	100.00	3.24	0.58	1.18	11.68	0.00	11.68	4.000	No	Yes	2.00
418	8.34	1.05	100.00	3.22	0.57	1.18	12.13	0.00	12.13	4.000	No	Yes	2.00
419	8.36	1.09	100.00	3.19	0.57	1.18	12.42	0.00	12.42	4.000	No	Yes	2.00
420	8.38	1.13	100.00	3.15	0.57	1.18	12.91	0.00	12.91	4.000	No	Yes	2.00
421	8.40	1.16	100.00	3.13	0.57	1.17	13.45	0.00	13.45	4.000	No	Yes	2.00
422	8.42	1.18	100.00	3.11	0.57	1.17	13.48	0.00	13.48	4.000	No	Yes	2.00
423	8.44	1.18	100.00	3.11	0.57	1.17	13.67	0.00	13.67	4.000	No	Yes	2.00
424	8.46	1.17	100.00	3.13	0.57	1.17	13.44	0.00	13.44	4.000	No	Yes	2.00
425	8.48	1.15	100.00	3.15	0.57	1.17	13.03	0.00	13.03	4.000	No	Yes	2.00
426	8.50	1.14	100.00	3.17	0.57	1.17	12.97	0.00	12.97	4.000	No	Yes	2.00
427	8.52	1.11	100.00	3.19	0.57	1.17	12.89	0.00	12.89	4.000	No	Yes	2.00
428	8.54	1.08	100.00	3.21	0.57	1.17	12.18	0.00	12.18	4.000	No	Yes	2.00
429	8.56	1.05	100.00	3.23	0.57	1.17	11.95	0.00	11.95	4.000	No	Yes	2.00
430	8.58	1.05	100.00	3.23	0.58	1.16	11.80	0.00	11.80	4.000	No	Yes	2.00
431	8.60	1.05	100.00	3.23	0.57	1.16	11.90	0.00	11.90	4.000	No	Yes	2.00
432	8.62	1.05	100.00	3.22	0.57	1.16	11.95	0.00	11.95	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
433	8.64	1.06	100.00	3.22	0.57	1.16	11.98	0.00	11.98	4.000	No	Yes	2.00
434	8.66	1.06	100.00	3.22	0.57	1.16	11.92	0.00	11.92	4.000	No	Yes	2.00
435	8.68	1.07	100.00	3.20	0.57	1.16	11.95	0.00	11.95	4.000	No	Yes	2.00
436	8.70	1.09	100.00	3.19	0.57	1.16	12.42	0.00	12.42	4.000	No	Yes	2.00
437	8.72	1.10	100.00	3.18	0.57	1.15	12.45	0.00	12.45	4.000	No	Yes	2.00
438	8.74	1.09	100.00	3.19	0.57	1.15	12.29	0.00	12.29	4.000	No	Yes	2.00
439	8.76	1.08	100.00	3.20	0.57	1.15	12.12	0.00	12.12	4.000	No	Yes	2.00
440	8.78	1.07	100.00	3.21	0.57	1.15	11.90	0.00	11.90	4.000	No	Yes	2.00
441	8.80	1.06	100.00	3.21	0.58	1.15	11.88	0.00	11.88	4.000	No	Yes	2.00
442	8.82	1.06	100.00	3.21	0.58	1.15	11.87	0.00	11.87	4.000	No	Yes	2.00
443	8.84	1.06	100.00	3.22	0.58	1.15	11.85	0.00	11.85	4.000	No	Yes	2.00
444	8.86	1.06	100.00	3.23	0.58	1.14	11.77	0.00	11.77	4.000	No	Yes	2.00
445	8.88	1.05	100.00	3.24	0.58	1.14	11.76	0.00	11.76	4.000	No	Yes	2.00
446	8.90	1.04	100.00	3.24	0.58	1.14	11.49	0.00	11.49	4.000	No	Yes	2.00
447	8.92	1.04	100.00	3.24	0.58	1.14	11.55	0.00	11.55	4.000	No	Yes	2.00
448	8.94	1.04	100.00	3.25	0.58	1.14	11.67	0.00	11.67	4.000	No	Yes	2.00
449	8.96	1.05	100.00	3.24	0.58	1.14	11.47	0.00	11.47	4.000	No	Yes	2.00
450	8.98	1.07	100.00	3.22	0.58	1.14	11.80	0.00	11.80	4.000	No	Yes	2.00
451	9.00	1.11	100.00	3.20	0.57	1.14	12.44	0.00	12.44	4.000	No	Yes	2.00
452	9.02	1.08	100.00	3.20	0.57	1.13	12.60	0.00	12.60	4.000	No	Yes	2.00
453	9.04	1.11	100.00	3.19	0.58	1.13	10.70	0.00	10.70	4.000	No	Yes	2.00
454	9.06	1.13	100.00	3.17	0.57	1.13	13.27	0.00	13.27	4.000	No	Yes	2.00
455	9.08	1.21	100.00	3.14	0.57	1.13	13.39	0.00	13.39	4.000	No	Yes	2.00
456	9.10	1.23	100.00	3.13	0.57	1.13	13.44	0.00	13.44	4.000	No	Yes	2.00
457	9.12	1.26	100.00	3.12	0.57	1.13	13.83	0.00	13.83	4.000	No	Yes	2.00
458	9.14	1.27	100.00	3.12	0.57	1.12	14.13	0.00	14.13	4.000	No	Yes	2.00
459	9.16	1.29	100.00	3.11	0.57	1.12	13.98	0.00	13.98	4.000	No	Yes	2.00
460	9.18	1.31	100.00	3.10	0.57	1.12	14.20	0.00	14.20	4.000	No	Yes	2.00
461	9.20	1.36	100.00	3.08	0.56	1.12	14.81	0.00	14.81	4.000	No	Yes	2.00
462	9.22	1.42	100.00	3.04	0.56	1.12	15.53	0.00	15.53	4.000	No	Yes	2.00
463	9.24	1.46	100.00	3.02	0.56	1.12	16.26	0.00	16.26	4.000	No	Yes	2.00
464	9.26	1.47	100.00	3.02	0.56	1.12	16.08	0.00	16.08	4.000	No	Yes	2.00
465	9.28	1.44	100.00	3.05	0.56	1.11	15.66	0.00	15.66	4.000	No	Yes	2.00
466	9.30	1.40	100.00	3.08	0.56	1.11	15.16	0.00	15.16	4.000	No	Yes	2.00
467	9.32	1.37	100.00	3.10	0.56	1.11	14.80	0.00	14.80	4.000	No	Yes	2.00
468	9.34	1.31	100.00	3.15	0.57	1.11	14.56	0.00	14.56	4.000	No	Yes	2.00
469	9.36	1.26	100.00	3.20	0.57	1.11	13.42	0.00	13.42	4.000	No	Yes	2.00
470	9.38	1.21	100.00	3.24	0.57	1.11	12.87	0.00	12.87	4.000	No	Yes	2.00
471	9.40	1.20	100.00	3.25	0.57	1.11	13.10	0.00	13.10	4.000	No	Yes	2.00
472	9.42	1.21	100.00	3.24	0.57	1.11	13.01	0.00	13.01	4.000	No	Yes	2.00
473	9.44	1.24	100.00	3.21	0.57	1.11	13.12	0.00	13.12	4.000	No	Yes	2.00
474	9.46	1.25	100.00	3.19	0.57	1.10	13.85	0.00	13.85	4.000	No	Yes	2.00
475	9.48	1.26	100.00	3.17	0.57	1.10	13.41	0.00	13.41	4.000	No	Yes	2.00
476	9.50	1.24	100.00	3.16	0.57	1.10	13.39	0.00	13.39	4.000	No	Yes	2.00
477	9.52	1.24	100.00	3.16	0.57	1.10	13.35	0.00	13.35	4.000	No	Yes	2.00
478	9.54	1.23	100.00	3.16	0.57	1.10	13.22	0.00	13.22	4.000	No	Yes	2.00
479	9.56	1.22	100.00	3.18	0.57	1.10	13.10	0.00	13.10	4.000	No	Yes	2.00
480	9.58	1.19	100.00	3.21	0.57	1.10	12.88	0.00	12.88	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
481	9.60	1.16	100.00	3.24	0.57	1.10	12.26	0.00	12.26	4.000	No	Yes	2.00
482	9.66	1.14	100.00	3.26	0.57	1.09	12.06	0.00	12.06	4.000	No	Yes	2.00
483	9.66	1.10	100.00	3.27	0.57	1.09	12.06	0.00	12.06	4.000	No	Yes	2.00
484	9.67	1.05	100.00	3.29	0.58	1.09	11.07	0.00	11.07	4.000	No	Yes	2.00
485	9.68	0.99	100.00	3.33	0.58	1.09	10.56	0.00	10.56	4.000	No	Yes	2.00
486	9.70	0.97	100.00	3.33	0.58	1.09	9.98	0.00	9.98	4.000	No	Yes	2.00
487	9.73	1.00	100.00	3.30	0.58	1.09	10.49	0.00	10.49	4.000	No	Yes	2.00
488	9.74	1.05	100.00	3.24	0.58	1.09	11.19	0.00	11.19	4.000	No	Yes	2.00
489	9.76	1.09	100.00	3.19	0.58	1.09	11.68	0.00	11.68	4.000	No	Yes	2.00
490	9.78	1.10	100.00	3.16	0.58	1.09	11.60	0.00	11.60	4.000	No	Yes	2.00
491	9.80	1.08	100.00	3.15	0.58	1.09	11.61	0.00	11.61	4.000	No	Yes	2.00
492	9.82	1.06	100.00	3.16	0.58	1.08	11.17	0.00	11.17	4.000	No	Yes	2.00
493	9.84	1.05	100.00	3.17	0.58	1.08	10.92	0.00	10.92	4.000	No	Yes	2.00
494	9.86	1.04	100.00	3.18	0.58	1.08	11.02	0.00	11.02	4.000	No	Yes	2.00
495	9.88	1.05	100.00	3.18	0.58	1.08	10.90	0.00	10.90	4.000	No	Yes	2.00
496	9.90	1.08	100.00	3.16	0.58	1.08	11.15	0.00	11.15	4.000	No	Yes	2.00
497	9.92	1.13	100.00	3.12	0.57	1.08	12.00	0.00	12.00	4.000	No	Yes	2.00
498	9.94	1.19	100.00	3.08	0.57	1.08	12.55	0.00	12.55	4.000	No	Yes	2.00
499	9.96	1.22	100.00	3.05	0.57	1.08	12.90	0.00	12.90	4.000	No	Yes	2.00
500	9.98	1.21	100.00	3.06	0.57	1.08	12.85	0.00	12.85	4.000	No	Yes	2.00
501	10.00	1.18	100.00	3.07	0.57	1.07	12.20	0.00	12.20	4.000	No	Yes	2.00
502	10.02	1.17	100.00	3.08	0.57	1.07	12.13	0.00	12.13	4.000	No	Yes	2.00
503	10.04	1.17	100.00	3.08	0.57	1.07	12.23	0.00	12.23	4.000	No	Yes	2.00
504	10.06	1.17	100.00	3.09	0.57	1.07	12.16	0.00	12.16	4.000	No	Yes	2.00
505	10.08	1.18	100.00	3.10	0.57	1.07	12.30	0.00	12.30	4.000	No	Yes	2.00
506	10.10	1.19	100.00	3.12	0.57	1.07	12.42	0.00	12.42	4.000	No	Yes	2.00
507	10.12	1.20	100.00	3.13	0.57	1.07	12.47	0.00	12.47	4.000	No	Yes	2.00
508	10.14	1.21	100.00	3.14	0.57	1.07	12.52	0.00	12.52	4.000	No	Yes	2.00
509	10.16	1.21	100.00	3.15	0.57	1.07	12.63	0.00	12.63	4.000	No	Yes	2.00
510	10.18	1.22	100.00	3.16	0.57	1.06	12.54	0.00	12.54	4.000	No	Yes	2.00
511	10.20	1.23	100.00	3.17	0.57	1.06	12.67	0.00	12.67	4.000	No	Yes	2.00
512	10.22	1.24	100.00	3.16	0.57	1.06	12.97	0.00	12.97	4.000	No	Yes	2.00
513	10.24	1.26	100.00	3.16	0.57	1.06	12.89	0.00	12.89	4.000	No	Yes	2.00
514	10.26	1.27	100.00	3.16	0.57	1.06	13.11	0.00	13.11	4.000	No	Yes	2.00
515	10.28	1.30	100.00	3.14	0.57	1.06	13.32	0.00	13.32	4.000	No	Yes	2.00
516	10.30	1.36	100.00	3.12	0.57	1.06	13.85	0.00	13.85	4.000	No	Yes	2.00
517	10.32	1.42	100.00	3.09	0.56	1.06	14.75	0.00	14.75	4.000	No	Yes	2.00
518	10.34	1.50	100.00	3.06	0.56	1.05	15.31	0.00	15.31	4.000	No	Yes	2.00
519	10.36	1.56	100.00	3.04	0.56	1.05	16.13	0.00	16.13	4.000	No	Yes	2.00
520	10.38	1.61	100.00	3.03	0.56	1.05	16.59	0.00	16.59	4.000	No	Yes	2.00
521	10.40	1.64	100.00	3.03	0.56	1.05	16.97	0.00	16.97	4.000	No	Yes	2.00
522	10.42	1.65	100.00	3.04	0.56	1.05	17.00	0.00	17.00	4.000	No	Yes	2.00
523	10.44	1.64	100.00	3.06	0.56	1.05	16.73	0.00	16.73	4.000	No	Yes	2.00
524	10.46	1.62	100.00	3.08	0.56	1.05	16.76	0.00	16.76	4.000	No	Yes	2.00
525	10.48	1.59	100.00	3.11	0.56	1.05	16.13	0.00	16.13	4.000	No	Yes	2.00
526	10.50	1.53	100.00	3.15	0.56	1.05	15.78	0.00	15.78	4.000	No	Yes	2.00
527	10.52	1.46	100.00	3.19	0.56	1.05	14.92	0.00	14.92	4.000	No	Yes	2.00
528	10.54	1.37	100.00	3.25	0.57	1.04	13.95	0.00	13.95	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
529	10.56	1.30	100.00	3.30	0.57	1.04	12.85	0.00	12.85	4.000	No	Yes	2.00
530	10.58	1.26	100.00	3.32	0.57	1.04	12.81	0.00	12.81	4.000	No	Yes	2.00
531	10.60	1.27	100.00	3.30	0.57	1.04	12.60	0.00	12.60	4.000	No	Yes	2.00
532	10.62	1.28	100.00	3.29	0.57	1.04	13.07	0.00	13.07	4.000	No	Yes	2.00
533	10.64	1.32	100.00	3.25	0.57	1.04	13.18	0.00	13.18	4.000	No	Yes	2.00
534	10.66	1.35	100.00	3.22	0.57	1.04	13.63	0.00	13.63	4.000	No	Yes	2.00
535	10.68	1.38	100.00	3.18	0.57	1.04	14.16	0.00	14.16	4.000	No	Yes	2.00
536	10.70	1.37	100.00	3.17	0.57	1.04	13.90	0.00	13.90	4.000	No	Yes	2.00
537	10.72	1.34	100.00	3.18	0.57	1.03	13.49	0.00	13.49	4.000	No	Yes	2.00
538	10.74	1.31	100.00	3.19	0.57	1.03	13.22	0.00	13.22	4.000	No	Yes	2.00
539	10.76	1.28	100.00	3.21	0.57	1.03	12.87	0.00	12.87	4.000	No	Yes	2.00
540	10.78	1.26	100.00	3.24	0.57	1.03	12.42	0.00	12.42	4.000	No	Yes	2.00
541	10.80	1.26	100.00	3.24	0.57	1.03	12.49	0.00	12.49	4.000	No	Yes	2.00
542	10.82	1.30	100.00	3.21	0.57	1.03	13.03	0.00	13.03	4.000	No	Yes	2.00
543	10.84	1.34	100.00	3.18	0.57	1.03	13.50	0.00	13.50	4.000	No	Yes	2.00
544	10.86	1.39	100.00	3.16	0.57	1.03	13.77	0.00	13.77	4.000	No	Yes	2.00
545	10.88	1.44	100.00	3.13	0.57	1.03	14.37	0.00	14.37	4.000	No	Yes	2.00
546	10.90	1.49	100.00	3.11	0.56	1.03	15.07	0.00	15.07	4.000	No	Yes	2.00
547	10.92	1.52	100.00	3.09	0.56	1.02	15.13	0.00	15.13	4.000	No	Yes	2.00
548	10.94	1.53	100.00	3.10	0.56	1.02	15.41	0.00	15.41	4.000	No	Yes	2.00
549	10.96	1.53	100.00	3.12	0.56	1.02	15.22	0.00	15.22	4.000	No	Yes	2.00
550	10.98	1.52	100.00	3.13	0.56	1.02	15.10	0.00	15.10	4.000	No	Yes	2.00
551	11.00	1.50	100.00	3.15	0.56	1.02	14.94	0.00	14.94	4.000	No	Yes	2.00
552	11.02	1.47	100.00	3.17	0.56	1.02	14.70	0.00	14.70	4.000	No	Yes	2.00
553	11.04	1.35	100.00	3.23	0.57	1.02	14.04	0.00	14.04	4.000	No	Yes	2.00
554	11.06	1.32	100.00	3.25	0.58	1.02	11.38	0.00	11.38	4.000	No	Yes	2.00
555	11.08	1.32	100.00	3.25	0.57	1.02	13.85	0.00	13.85	4.000	No	Yes	2.00
556	11.10	1.40	100.00	3.21	0.57	1.02	13.87	0.00	13.87	4.000	No	Yes	2.00
557	11.12	1.40	100.00	3.21	0.57	1.01	13.68	0.00	13.68	4.000	No	Yes	2.00
558	11.14	1.41	100.00	3.19	0.57	1.01	13.86	0.00	13.86	4.000	No	Yes	2.00
559	11.16	1.41	100.00	3.17	0.57	1.01	14.04	0.00	14.04	4.000	No	Yes	2.00
560	11.18	1.40	100.00	3.17	0.57	1.01	13.76	0.00	13.76	4.000	No	Yes	2.00
561	11.20	1.37	100.00	3.18	0.57	1.01	13.50	0.00	13.50	4.000	No	Yes	2.00
562	11.22	1.33	100.00	3.20	0.57	1.01	13.12	0.00	13.12	4.000	No	Yes	2.00
563	11.24	1.30	100.00	3.22	0.57	1.01	12.50	0.00	12.50	4.000	No	Yes	2.00
564	11.26	1.28	100.00	3.22	0.57	1.01	12.51	0.00	12.51	4.000	No	Yes	2.00
565	11.28	1.28	100.00	3.21	0.57	1.01	12.41	0.00	12.41	4.000	No	Yes	2.00
566	11.30	1.31	100.00	3.19	0.57	1.01	12.66	0.00	12.66	4.000	No	Yes	2.00
567	11.32	1.36	100.00	3.15	0.57	1.00	13.25	0.00	13.25	4.000	No	Yes	2.00
568	11.34	1.44	100.00	3.10	0.57	1.00	13.78	0.00	13.78	4.000	No	Yes	2.00
569	11.36	1.53	100.00	3.04	0.56	1.00	14.98	0.00	14.98	4.000	No	Yes	2.00
570	11.38	1.64	100.00	2.99	0.56	1.00	16.01	0.00	16.01	4.000	No	Yes	2.00
571	11.40	1.72	100.00	2.97	0.56	1.00	17.06	0.00	17.06	4.000	No	Yes	2.00
572	11.42	1.78	99.87	2.96	0.56	1.00	17.24	0.00	17.24	4.000	No	Yes	2.00
573	11.44	1.81	99.99	2.96	0.55	1.00	17.66	0.00	17.66	4.000	No	Yes	2.00
574	11.46	1.81	100.00	2.97	0.55	1.00	17.86	0.00	17.86	4.000	No	Yes	2.00
575	11.48	1.77	100.00	3.01	0.55	1.00	17.41	0.00	17.41	4.000	No	Yes	2.00
576	11.50	1.70	100.00	3.05	0.56	1.00	16.42	0.00	16.42	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
577	11.52	1.63	100.00	3.10	0.56	1.00	15.76	0.00	15.76	4.000	No	Yes	2.00
578	11.54	1.58	100.00	3.13	0.56	0.99	15.23	0.00	15.23	4.000	No	Yes	2.00
579	11.56	1.54	100.00	3.15	0.56	0.99	14.78	0.00	14.78	4.000	No	Yes	2.00
580	11.58	1.52	100.00	3.17	0.56	0.99	14.77	0.00	14.77	4.000	No	Yes	2.00
581	11.60	1.52	100.00	3.17	0.56	0.99	14.59	0.00	14.59	4.000	No	Yes	2.00
582	11.62	1.51	100.00	3.18	0.57	0.99	14.55	0.00	14.55	4.000	No	Yes	2.00
583	11.64	1.49	100.00	3.18	0.57	0.99	14.39	0.00	14.39	4.000	No	Yes	2.00
584	11.66	1.48	100.00	3.18	0.57	0.99	14.13	0.00	14.13	4.000	No	Yes	2.00
585	11.68	1.48	100.00	3.17	0.57	0.99	14.14	0.00	14.14	4.000	No	Yes	2.00
586	11.70	1.49	100.00	3.16	0.57	0.99	14.27	0.00	14.27	4.000	No	Yes	2.00
587	11.72	1.54	100.00	3.14	0.56	0.99	14.61	0.00	14.61	4.000	No	Yes	2.00
588	11.74	1.59	100.00	3.12	0.56	0.98	15.31	0.00	15.31	4.000	No	Yes	2.00
589	11.76	1.67	100.00	3.08	0.56	0.98	15.67	0.00	15.67	4.000	No	Yes	2.00
590	11.78	1.78	100.00	3.04	0.56	0.98	17.13	0.00	17.13	4.000	No	Yes	2.00
591	11.80	1.87	100.00	3.00	0.55	0.98	18.26	0.00	18.26	4.000	No	Yes	2.00
592	11.82	1.94	100.00	2.98	0.55	0.98	18.38	0.00	18.38	4.000	No	Yes	2.00
593	11.84	1.99	100.00	2.96	0.55	0.98	19.17	0.00	19.17	4.000	No	Yes	2.00
594	11.86	2.00	100.00	2.97	0.55	0.98	19.63	0.00	19.63	4.000	No	Yes	2.00
595	11.88	1.94	100.00	2.99	0.55	0.98	18.49	0.00	18.49	4.000	No	Yes	2.00
596	11.90	1.86	100.00	3.03	0.55	0.98	17.47	0.00	17.47	4.000	No	Yes	2.00
597	11.92	1.75	100.00	3.08	0.56	0.98	17.22	0.00	17.22	4.000	No	Yes	2.00
598	11.94	1.61	100.00	3.14	0.56	0.98	15.26	0.00	15.26	4.000	No	Yes	2.00
599	11.96	1.46	100.00	3.21	0.57	0.97	13.54	0.00	13.54	4.000	No	Yes	2.00
600	11.98	1.31	100.00	3.29	0.57	0.97	12.76	0.00	12.76	4.000	No	Yes	2.00
601	12.00	1.21	100.00	3.36	0.58	0.97	11.03	0.00	11.03	4.000	No	Yes	2.00
602	12.02	1.11	100.00	3.41	0.58	0.97	10.47	0.00	10.47	4.000	No	Yes	2.00
603	12.04	1.05	100.00	3.44	0.58	0.97	9.79	0.00	9.79	4.000	No	Yes	2.00
604	12.06	0.99	100.00	3.45	0.58	0.97	9.33	0.00	9.33	4.000	No	Yes	2.00
605	12.08	1.01	100.00	3.40	0.59	0.97	8.82	0.00	8.82	4.000	No	Yes	2.00
606	12.10	1.03	100.00	3.36	0.58	0.97	10.29	0.00	10.29	4.000	No	Yes	2.00
607	12.12	1.04	100.00	3.34	0.58	0.97	9.76	0.00	9.76	4.000	No	Yes	2.00
608	12.14	1.00	100.00	3.35	0.59	0.97	9.05	0.00	9.05	4.000	No	Yes	2.00
609	12.16	0.97	100.00	3.33	0.59	0.97	9.01	0.00	9.01	4.000	No	Yes	2.00
610	12.18	0.97	100.00	3.30	0.59	0.96	9.04	0.00	9.04	4.000	No	Yes	2.00
611	12.20	0.97	100.00	3.27	0.59	0.96	8.95	0.00	8.95	4.000	No	Yes	2.00
612	12.22	0.98	100.00	3.25	0.59	0.96	9.02	0.00	9.02	4.000	No	Yes	2.00
613	12.24	1.02	100.00	3.20	0.59	0.96	9.27	0.00	9.27	4.000	No	Yes	2.00
614	12.26	1.09	100.00	3.14	0.58	0.96	10.19	0.00	10.19	4.000	No	Yes	2.00
615	12.28	1.17	100.00	3.08	0.58	0.96	10.98	0.00	10.98	4.000	No	Yes	2.00
616	12.30	1.20	100.00	3.07	0.58	0.96	11.46	0.00	11.46	4.000	No	Yes	2.00
617	12.32	1.17	100.00	3.10	0.58	0.96	11.03	0.00	11.03	4.000	No	Yes	2.00
618	12.34	1.12	100.00	3.15	0.58	0.96	10.19	0.00	10.19	4.000	No	Yes	2.00
619	12.36	1.12	100.00	3.15	0.58	0.96	9.82	0.00	9.82	4.000	No	Yes	2.00
620	12.38	1.22	100.00	3.07	0.58	0.96	10.93	0.00	10.93	4.000	No	Yes	2.00
621	12.41	1.42	99.09	2.95	0.57	0.96	13.16	0.00	13.16	4.000	No	Yes	2.00
622	12.42	1.60	93.27	2.88	0.56	0.96	15.50	0.00	15.50	4.000	No	Yes	2.00
623	12.44	1.71	91.21	2.85	0.56	0.96	15.80	0.00	15.80	4.000	No	Yes	2.00
624	12.46	1.76	91.34	2.85	0.56	0.96	16.30	0.00	16.30	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
625	12.48	1.81	92.24	2.87	0.56	0.96	16.89	0.00	16.89	4.000	No	Yes	2.00
626	12.50	1.80	96.05	2.91	0.56	0.95	17.12	0.00	17.12	4.000	No	Yes	2.00
627	12.52	1.76	100.00	2.98	0.56	0.95	16.13	0.00	16.13	4.000	No	Yes	2.00
628	12.54	1.71	100.00	3.05	0.56	0.95	15.80	0.00	15.80	4.000	No	Yes	2.00
629	12.56	1.70	100.00	3.08	0.56	0.95	15.63	0.00	15.63	4.000	No	Yes	2.00
630	12.58	1.68	100.00	3.12	0.56	0.95	15.87	0.00	15.87	4.000	No	Yes	2.00
631	12.60	1.64	100.00	3.16	0.56	0.95	14.93	0.00	14.93	4.000	No	Yes	2.00
632	12.62	1.58	100.00	3.20	0.56	0.95	14.59	0.00	14.59	4.000	No	Yes	2.00
633	12.65	1.52	100.00	3.23	0.57	0.95	14.04	0.00	14.04	4.000	No	Yes	2.00
634	12.66	1.44	100.00	3.27	0.57	0.95	13.28	0.00	13.28	4.000	No	Yes	2.00
635	12.68	1.36	100.00	3.30	0.57	0.95	12.27	0.00	12.27	4.000	No	Yes	2.00
636	12.70	1.29	100.00	3.33	0.58	0.94	11.87	0.00	11.87	4.000	No	Yes	2.00
637	12.72	1.24	100.00	3.35	0.58	0.94	11.19	0.00	11.19	4.000	No	Yes	2.00
638	12.74	1.17	100.00	3.38	0.58	0.94	10.78	0.00	10.78	4.000	No	Yes	2.00
639	12.76	1.13	100.00	3.39	0.58	0.94	9.99	0.00	9.99	4.000	No	Yes	2.00
640	12.78	1.10	100.00	3.39	0.58	0.94	9.93	0.00	9.93	4.000	No	Yes	2.00
641	12.80	1.10	100.00	3.36	0.58	0.94	9.92	0.00	9.92	4.000	No	Yes	2.00
642	12.82	1.16	100.00	3.29	0.58	0.94	9.96	0.00	9.96	4.000	No	Yes	2.00
643	12.84	1.41	100.00	3.12	0.58	0.94	11.63	0.00	11.63	4.000	No	Yes	2.00
644	12.86	1.93	91.89	2.86	0.56	0.94	16.79	0.00	16.79	4.000	No	Yes	2.00
645	12.88	2.64	72.43	2.62	0.54	0.94	24.44	0.00	24.44	4.000	No	Yes	2.00
646	12.90	3.44	57.49	2.43	0.52	0.94	31.74	56.92	88.66	0.124	No	No	0.51
647	12.92	4.24	46.65	2.30	0.51	0.94	39.36	55.00	94.36	0.131	No	No	0.54
648	12.94	5.03	37.59	2.18	0.50	0.94	47.16	51.65	98.80	0.136	No	No	0.57
649	12.96	5.73	29.56	2.08	0.50	0.94	53.69	45.65	99.35	0.137	No	No	0.57
650	12.98	6.25	22.88	2.00	0.51	0.94	58.87	36.98	95.86	0.132	No	No	0.55
651	13.00	6.58	18.15	1.94	0.52	0.94	61.26	27.67	88.93	0.125	No	No	0.51
652	13.02	6.69	15.33	1.90	0.54	0.94	62.50	20.77	83.27	0.119	No	No	0.48
653	13.04	6.66	13.42	1.88	0.55	0.93	61.31	15.53	76.85	0.113	No	No	0.45
654	13.06	6.60	11.32	1.85	0.57	0.93	59.87	9.83	69.70	0.107	No	No	0.43
655	13.08	6.41	10.90	1.85	0.58	0.93	60.69	8.78	69.46	0.107	No	No	0.43
656	13.10	6.27	10.75	1.85	0.59	0.93	55.53	8.23	63.76	0.102	No	No	0.41
657	13.12	6.08	11.59	1.86	0.58	0.93	55.80	10.35	66.15	0.104	No	No	0.41
658	13.14	6.04	11.60	1.86	0.59	0.93	55.17	10.33	65.50	0.104	No	No	0.41
659	13.16	5.96	12.11	1.86	0.59	0.93	54.46	11.62	66.08	0.104	No	No	0.41
660	13.18	5.85	13.12	1.88	0.58	0.93	53.54	14.23	67.76	0.106	No	No	0.42
661	13.20	5.70	14.43	1.89	0.58	0.93	51.95	17.55	69.50	0.107	No	No	0.43
662	13.22	5.51	16.19	1.91	0.57	0.93	50.36	21.81	72.17	0.109	No	No	0.44
663	13.24	5.34	17.84	1.94	0.56	0.93	48.38	25.46	73.84	0.111	No	No	0.44
664	13.26	5.06	20.50	1.97	0.55	0.93	47.47	30.87	78.34	0.114	No	No	0.46
665	13.28	4.61	24.64	2.02	0.55	0.93	42.59	37.12	79.71	0.116	No	No	0.47
666	13.30	3.96	31.89	2.11	0.54	0.93	36.32	44.50	80.82	0.117	No	No	0.47
667	13.32	3.17	44.48	2.27	0.54	0.93	29.39	51.42	80.81	0.117	No	No	0.47
668	13.34	2.44	63.03	2.50	0.56	0.92	21.11	55.35	76.46	0.113	No	No	0.45
669	13.36	1.92	80.92	2.72	0.57	0.92	16.01	0.00	16.01	4.000	No	Yes	2.00
670	13.38	1.66	91.88	2.86	0.57	0.92	14.95	0.00	14.95	4.000	No	Yes	2.00
671	13.40	1.52	97.36	2.93	0.57	0.92	14.02	0.00	14.02	4.000	No	Yes	2.00
672	13.42	1.40	100.00	2.99	0.57	0.92	12.14	0.00	12.14	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
673	13.44	1.30	100.00	3.03	0.58	0.92	11.48	0.00	11.48	4.000	No	Yes	2.00
674	13.46	1.26	100.00	3.03	0.58	0.92	11.17	0.00	11.17	4.000	No	Yes	2.00
675	13.48	1.24	100.00	3.01	0.58	0.92	11.05	0.00	11.05	4.000	No	Yes	2.00
676	13.50	1.23	100.00	2.98	0.58	0.92	10.82	0.00	10.82	4.000	No	Yes	2.00
677	13.52	1.26	98.05	2.94	0.58	0.92	11.08	0.00	11.08	4.000	No	Yes	2.00
678	13.54	1.29	96.50	2.92	0.58	0.92	11.73	0.00	11.73	4.000	No	Yes	2.00
679	13.56	1.30	97.31	2.93	0.58	0.91	11.65	0.00	11.65	4.000	No	Yes	2.00
680	13.58	1.27	100.00	2.98	0.58	0.91	11.29	0.00	11.29	4.000	No	Yes	2.00
681	13.60	1.25	100.00	3.01	0.58	0.91	10.79	0.00	10.79	4.000	No	Yes	2.00
682	13.62	1.24	100.00	3.04	0.58	0.91	11.08	0.00	11.08	4.000	No	Yes	2.00
683	13.64	1.22	100.00	3.07	0.58	0.91	10.94	0.00	10.94	4.000	No	Yes	2.00
684	13.66	1.19	100.00	3.10	0.58	0.91	10.25	0.00	10.25	4.000	No	Yes	2.00
685	13.68	1.15	100.00	3.13	0.58	0.91	10.17	0.00	10.17	4.000	No	Yes	2.00
686	13.70	1.14	100.00	3.16	0.58	0.91	10.00	0.00	10.00	4.000	No	Yes	2.00
687	13.72	1.11	100.00	3.19	0.58	0.91	9.69	0.00	9.69	4.000	No	Yes	2.00
688	13.74	1.08	100.00	3.21	0.58	0.91	9.43	0.00	9.43	4.000	No	Yes	2.00
689	13.76	1.08	100.00	3.21	0.59	0.91	9.20	0.00	9.20	4.000	No	Yes	2.00
690	13.78	1.10	100.00	3.18	0.58	0.91	9.52	0.00	9.52	4.000	No	Yes	2.00
691	13.80	1.14	100.00	3.16	0.58	0.91	10.08	0.00	10.08	4.000	No	Yes	2.00
692	13.82	1.16	100.00	3.14	0.58	0.91	10.33	0.00	10.33	4.000	No	Yes	2.00
693	13.84	1.16	100.00	3.15	0.58	0.90	10.03	0.00	10.03	4.000	No	Yes	2.00
694	13.86	1.14	100.00	3.17	0.58	0.90	9.99	0.00	9.99	4.000	No	Yes	2.00
695	13.88	1.10	100.00	3.22	0.58	0.90	9.75	0.00	9.75	4.000	No	Yes	2.00
696	13.90	1.06	100.00	3.24	0.59	0.90	8.80	0.00	8.80	4.000	No	Yes	2.00
697	13.92	1.03	100.00	3.27	0.59	0.90	9.05	0.00	9.05	4.000	No	Yes	2.00
698	13.94	1.03	100.00	3.27	0.59	0.90	8.90	0.00	8.90	4.000	No	Yes	2.00
699	13.96	1.02	100.00	3.27	0.59	0.90	8.68	0.00	8.68	4.000	No	Yes	2.00
700	13.98	1.05	100.00	3.25	0.59	0.90	8.93	0.00	8.93	4.000	No	Yes	2.00
701	14.00	1.10	100.00	3.19	0.58	0.90	9.48	0.00	9.48	4.000	No	Yes	2.00
702	14.02	1.16	100.00	3.15	0.58	0.90	10.15	0.00	10.15	4.000	No	Yes	2.00
703	14.04	1.18	100.00	3.12	0.58	0.90	10.29	0.00	10.29	4.000	No	Yes	2.00
704	14.06	1.18	100.00	3.13	0.58	0.90	10.10	0.00	10.10	4.000	No	Yes	2.00
705	14.08	1.17	100.00	3.14	0.58	0.90	10.00	0.00	10.00	4.000	No	Yes	2.00
706	14.10	1.16	100.00	3.15	0.58	0.90	9.99	0.00	9.99	4.000	No	Yes	2.00
707	14.12	1.16	100.00	3.16	0.58	0.90	9.78	0.00	9.78	4.000	No	Yes	2.00
708	14.14	1.17	100.00	3.17	0.58	0.90	9.94	0.00	9.94	4.000	No	Yes	2.00
709	14.16	1.19	100.00	3.18	0.58	0.89	10.24	0.00	10.24	4.000	No	Yes	2.00
710	14.18	1.20	100.00	3.18	0.58	0.89	10.25	0.00	10.25	4.000	No	Yes	2.00
711	14.20	1.20	100.00	3.20	0.58	0.89	10.25	0.00	10.25	4.000	No	Yes	2.00
712	14.22	1.18	100.00	3.22	0.58	0.89	10.08	0.00	10.08	4.000	No	Yes	2.00
713	14.24	1.17	100.00	3.23	0.58	0.89	9.75	0.00	9.75	4.000	No	Yes	2.00
714	14.26	1.18	100.00	3.22	0.58	0.89	9.92	0.00	9.92	4.000	No	Yes	2.00
715	14.28	1.20	100.00	3.21	0.58	0.89	10.33	0.00	10.33	4.000	No	Yes	2.00
716	14.30	1.23	100.00	3.20	0.58	0.89	10.41	0.00	10.41	4.000	No	Yes	2.00
717	14.32	1.23	100.00	3.20	0.58	0.89	10.45	0.00	10.45	4.000	No	Yes	2.00
718	14.34	1.21	100.00	3.21	0.58	0.89	10.32	0.00	10.32	4.000	No	Yes	2.00
719	14.36	1.19	100.00	3.23	0.58	0.89	10.01	0.00	10.01	4.000	No	Yes	2.00
720	14.38	1.15	100.00	3.25	0.58	0.89	9.73	0.00	9.73	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
721	14.40	1.10	100.00	3.29	0.58	0.89	9.33	0.00	9.33	4.000	No	Yes	2.00
722	14.42	1.04	100.00	3.33	0.59	0.89	8.59	0.00	8.59	4.000	No	Yes	2.00
723	14.44	1.00	100.00	3.35	0.59	0.88	8.29	0.00	8.29	4.000	No	Yes	2.00
724	14.46	0.98	100.00	3.36	0.59	0.88	8.13	0.00	8.13	4.000	No	Yes	2.00
725	14.48	0.97	100.00	3.36	0.59	0.88	8.03	0.00	8.03	4.000	No	Yes	2.00
726	14.50	0.96	100.00	3.35	0.59	0.88	7.97	0.00	7.97	4.000	No	Yes	2.00
727	14.52	0.94	100.00	3.35	0.59	0.88	7.82	0.00	7.82	4.000	No	Yes	2.00
728	14.54	0.94	100.00	3.34	0.59	0.88	7.63	0.00	7.63	4.000	No	Yes	2.00
729	14.56	0.93	100.00	3.34	0.59	0.88	7.79	0.00	7.79	4.000	No	Yes	2.00
730	14.58	0.92	100.00	3.35	0.59	0.88	7.60	0.00	7.60	4.000	No	Yes	2.00
731	14.60	0.91	100.00	3.35	0.59	0.88	7.42	0.00	7.42	4.000	No	Yes	2.00
732	14.62	0.92	100.00	3.35	0.59	0.88	7.49	0.00	7.49	4.000	No	Yes	2.00
733	14.64	0.94	100.00	3.34	0.59	0.88	7.78	0.00	7.78	4.000	No	Yes	2.00
734	14.66	0.94	100.00	3.34	0.59	0.88	7.72	0.00	7.72	4.000	No	Yes	2.00
735	14.68	0.94	100.00	3.35	0.59	0.88	7.67	0.00	7.67	4.000	No	Yes	2.00
736	14.70	0.93	100.00	3.35	0.59	0.88	7.68	0.00	7.68	4.000	No	Yes	2.00
737	14.72	0.93	100.00	3.37	0.59	0.88	7.55	0.00	7.55	4.000	No	Yes	2.00
738	14.74	0.92	100.00	3.38	0.59	0.87	7.55	0.00	7.55	4.000	No	Yes	2.00
739	14.76	0.92	100.00	3.39	0.59	0.87	7.49	0.00	7.49	4.000	No	Yes	2.00
740	14.78	0.92	100.00	3.39	0.59	0.87	7.47	0.00	7.47	4.000	No	Yes	2.00
741	14.80	0.93	100.00	3.38	0.59	0.87	7.55	0.00	7.55	4.000	No	Yes	2.00
742	14.82	0.93	100.00	3.38	0.59	0.87	7.56	0.00	7.56	4.000	No	Yes	2.00
743	14.84	0.93	100.00	3.38	0.59	0.87	7.56	0.00	7.56	4.000	No	Yes	2.00
744	14.86	0.93	100.00	3.37	0.59	0.87	7.53	0.00	7.53	4.000	No	Yes	2.00
745	14.88	0.93	100.00	3.37	0.59	0.87	7.56	0.00	7.56	4.000	No	Yes	2.00
746	14.90	0.93	100.00	3.38	0.59	0.87	7.56	0.00	7.56	4.000	No	Yes	2.00
747	14.92	0.92	100.00	3.39	0.59	0.87	7.34	0.00	7.34	4.000	No	Yes	2.00
748	14.94	0.91	100.00	3.41	0.59	0.87	7.39	0.00	7.39	4.000	No	Yes	2.00
749	14.96	0.91	100.00	3.42	0.59	0.87	7.32	0.00	7.32	4.000	No	Yes	2.00
750	14.98	0.90	100.00	3.43	0.59	0.87	7.16	0.00	7.16	4.000	No	Yes	2.00
751	15.00	0.91	100.00	3.43	0.59	0.87	7.19	0.00	7.19	4.000	No	Yes	2.00
752	15.02	0.92	100.00	3.42	0.59	0.87	7.41	0.00	7.41	4.000	No	Yes	2.00
753	15.04	0.93	100.00	3.42	0.59	0.87	7.44	0.00	7.44	4.000	No	Yes	2.00
754	15.06	0.93	100.00	3.42	0.59	0.87	7.54	0.00	7.54	4.000	No	Yes	2.00
755	15.08	0.91	100.00	3.43	0.59	0.86	7.32	0.00	7.32	4.000	No	Yes	2.00
756	15.10	0.90	100.00	3.44	0.59	0.86	6.99	0.00	6.99	4.000	No	Yes	2.00
757	15.12	0.88	100.00	3.44	0.59	0.86	6.98	0.00	6.98	4.000	No	Yes	2.00
758	15.14	0.90	100.00	3.42	0.60	0.86	6.68	0.00	6.68	4.000	No	Yes	2.00
759	15.16	0.92	100.00	3.39	0.59	0.86	7.34	0.00	7.34	4.000	No	Yes	2.00
760	15.18	0.98	100.00	3.34	0.59	0.86	7.55	0.00	7.55	4.000	No	Yes	2.00
761	15.20	1.02	100.00	3.30	0.59	0.86	8.05	0.00	8.05	4.000	No	Yes	2.00
762	15.22	1.05	100.00	3.27	0.59	0.86	8.34	0.00	8.34	4.000	No	Yes	2.00
763	15.24	1.08	100.00	3.26	0.59	0.86	8.50	0.00	8.50	4.000	No	Yes	2.00
764	15.26	1.09	100.00	3.26	0.59	0.86	8.69	0.00	8.69	4.000	No	Yes	2.00
765	15.28	1.09	100.00	3.28	0.59	0.86	8.65	0.00	8.65	4.000	No	Yes	2.00
766	15.30	1.08	100.00	3.30	0.59	0.86	8.52	0.00	8.52	4.000	No	Yes	2.00
767	15.32	1.07	100.00	3.33	0.59	0.86	8.39	0.00	8.39	4.000	No	Yes	2.00
768	15.34	1.04	100.00	3.37	0.59	0.86	8.16	0.00	8.16	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
769	15.36	1.01	100.00	3.40	0.59	0.86	7.83	0.00	7.83	4.000	No	Yes	2.00
770	15.38	1.00	100.00	3.41	0.59	0.86	7.73	0.00	7.73	4.000	No	Yes	2.00
771	15.40	1.01	100.00	3.40	0.59	0.86	7.81	0.00	7.81	4.000	No	Yes	2.00
772	15.42	1.02	100.00	3.39	0.59	0.86	7.96	0.00	7.96	4.000	No	Yes	2.00
773	15.44	1.02	100.00	3.38	0.59	0.85	7.96	0.00	7.96	4.000	No	Yes	2.00
774	15.46	1.02	100.00	3.37	0.59	0.85	7.92	0.00	7.92	4.000	No	Yes	2.00
775	15.48	1.03	100.00	3.35	0.59	0.85	8.00	0.00	8.00	4.000	No	Yes	2.00
776	15.50	1.03	100.00	3.34	0.59	0.85	8.08	0.00	8.08	4.000	No	Yes	2.00
777	15.52	1.03	100.00	3.34	0.59	0.85	8.02	0.00	8.02	4.000	No	Yes	2.00
778	15.54	1.03	100.00	3.35	0.59	0.85	7.94	0.00	7.94	4.000	No	Yes	2.00
779	15.56	1.02	100.00	3.35	0.59	0.85	7.85	0.00	7.85	4.000	No	Yes	2.00
780	15.58	1.01	100.00	3.36	0.59	0.85	7.84	0.00	7.84	4.000	No	Yes	2.00
781	15.60	1.01	100.00	3.35	0.59	0.85	7.73	0.00	7.73	4.000	No	Yes	2.00
782	15.62	1.02	100.00	3.35	0.59	0.85	7.85	0.00	7.85	4.000	No	Yes	2.00
783	15.64	1.03	100.00	3.33	0.59	0.85	7.89	0.00	7.89	4.000	No	Yes	2.00
784	15.66	1.04	100.00	3.31	0.59	0.85	8.01	0.00	8.01	4.000	No	Yes	2.00
785	15.68	1.04	100.00	3.31	0.59	0.85	8.11	0.00	8.11	4.000	No	Yes	2.00
786	15.70	1.04	100.00	3.31	0.59	0.85	7.91	0.00	7.91	4.000	No	Yes	2.00
787	15.72	1.02	100.00	3.32	0.59	0.85	7.87	0.00	7.87	4.000	No	Yes	2.00
788	15.74	0.99	100.00	3.34	0.59	0.85	7.66	0.00	7.66	4.000	No	Yes	2.00
789	15.76	0.97	100.00	3.37	0.59	0.85	7.26	0.00	7.26	4.000	No	Yes	2.00
790	15.78	0.95	100.00	3.39	0.59	0.84	7.24	0.00	7.24	4.000	No	Yes	2.00
791	15.80	0.94	100.00	3.39	0.59	0.84	7.12	0.00	7.12	4.000	No	Yes	2.00
792	15.82	0.92	100.00	3.40	0.59	0.84	7.03	0.00	7.03	4.000	No	Yes	2.00
793	15.84	0.91	100.00	3.41	0.59	0.84	6.82	0.00	6.82	4.000	No	Yes	2.00
794	15.86	0.90	100.00	3.41	0.60	0.84	6.66	0.00	6.66	4.000	No	Yes	2.00
795	15.88	0.94	100.00	3.36	0.60	0.84	6.79	0.00	6.79	4.000	No	Yes	2.00
796	15.90	1.15	100.00	3.19	0.59	0.84	7.89	0.00	7.89	4.000	No	Yes	2.00
797	15.92	1.51	100.00	2.98	0.58	0.85	11.74	0.00	11.74	4.000	No	Yes	2.00
798	15.94	1.88	88.79	2.82	0.56	0.85	16.13	0.00	16.13	4.000	No	Yes	2.00
799	15.96	1.97	86.62	2.80	0.56	0.85	17.43	0.00	17.43	4.000	No	Yes	2.00
800	15.98	1.69	95.45	2.91	0.57	0.85	14.20	0.00	14.20	4.000	No	Yes	2.00
801	16.00	1.34	100.00	3.07	0.58	0.84	9.42	0.00	9.42	4.000	No	Yes	2.00
802	16.02	1.12	100.00	3.21	0.59	0.84	8.65	0.00	8.65	4.000	No	Yes	2.00
803	16.04	1.08	100.00	3.23	0.59	0.84	8.49	0.00	8.49	4.000	No	Yes	2.00
804	16.06	1.07	100.00	3.26	0.59	0.84	8.40	0.00	8.40	4.000	No	Yes	2.00
805	16.08	1.11	100.00	3.23	0.59	0.84	8.38	0.00	8.38	4.000	No	Yes	2.00
806	16.10	1.18	100.00	3.18	0.58	0.84	9.53	0.00	9.53	4.000	No	Yes	2.00
807	16.12	1.29	100.00	3.10	0.58	0.84	10.11	0.00	10.11	4.000	No	Yes	2.00
808	16.14	1.43	100.00	3.02	0.58	0.84	11.08	0.00	11.08	4.000	No	Yes	2.00
809	16.16	1.51	100.00	2.98	0.57	0.84	13.11	0.00	13.11	4.000	No	Yes	2.00
810	16.18	1.52	100.00	2.97	0.57	0.84	12.22	0.00	12.22	4.000	No	Yes	2.00
811	16.20	1.36	100.00	3.06	0.58	0.84	11.38	0.00	11.38	4.000	No	Yes	2.00
812	16.22	1.19	100.00	3.17	0.59	0.84	9.11	0.00	9.11	4.000	No	Yes	2.00
813	16.24	1.02	100.00	3.29	0.59	0.83	7.94	0.00	7.94	4.000	No	Yes	2.00
814	16.26	0.91	100.00	3.37	0.59	0.83	6.99	0.00	6.99	4.000	No	Yes	2.00
815	16.28	0.85	100.00	3.42	0.60	0.83	6.52	0.00	6.52	4.000	No	Yes	2.00
816	16.30	0.85	100.00	3.41	0.60	0.83	6.45	0.00	6.45	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
817	16.32	0.87	100.00	3.37	0.60	0.83	6.71	0.00	6.71	4.000	No	Yes	2.00
818	16.34	0.89	100.00	3.34	0.59	0.83	6.98	0.00	6.98	4.000	No	Yes	2.00
819	16.36	0.91	100.00	3.31	0.59	0.83	6.97	0.00	6.97	4.000	No	Yes	2.00
820	16.38	0.92	100.00	3.31	0.59	0.83	7.13	0.00	7.13	4.000	No	Yes	2.00
821	16.40	0.93	100.00	3.30	0.59	0.83	7.20	0.00	7.20	4.000	No	Yes	2.00
822	16.42	0.94	100.00	3.31	0.59	0.83	7.33	0.00	7.33	4.000	No	Yes	2.00
823	16.44	0.94	100.00	3.31	0.59	0.83	7.24	0.00	7.24	4.000	No	Yes	2.00
824	16.46	0.94	100.00	3.30	0.59	0.83	7.20	0.00	7.20	4.000	No	Yes	2.00
825	16.48	0.96	100.00	3.28	0.59	0.83	7.40	0.00	7.40	4.000	No	Yes	2.00
826	16.50	0.98	100.00	3.27	0.59	0.83	7.54	0.00	7.54	4.000	No	Yes	2.00
827	16.52	1.00	100.00	3.27	0.59	0.83	7.66	0.00	7.66	4.000	No	Yes	2.00
828	16.54	1.02	100.00	3.27	0.59	0.83	7.94	0.00	7.94	4.000	No	Yes	2.00
829	16.56	1.04	100.00	3.27	0.59	0.83	7.91	0.00	7.91	4.000	No	Yes	2.00
830	16.58	1.06	100.00	3.27	0.59	0.83	8.06	0.00	8.06	4.000	No	Yes	2.00
831	16.60	1.09	100.00	3.27	0.59	0.83	8.54	0.00	8.54	4.000	No	Yes	2.00
832	16.62	1.12	100.00	3.27	0.59	0.82	8.60	0.00	8.60	4.000	No	Yes	2.00
833	16.64	1.12	100.00	3.28	0.59	0.82	8.63	0.00	8.63	4.000	No	Yes	2.00
834	16.66	1.13	100.00	3.30	0.59	0.82	8.71	0.00	8.71	4.000	No	Yes	2.00
835	16.68	1.14	100.00	3.31	0.59	0.82	8.79	0.00	8.79	4.000	No	Yes	2.00
836	16.70	1.15	100.00	3.32	0.59	0.82	8.78	0.00	8.78	4.000	No	Yes	2.00
837	16.72	1.16	100.00	3.32	0.59	0.82	8.84	0.00	8.84	4.000	No	Yes	2.00
838	16.74	1.17	100.00	3.32	0.59	0.82	9.13	0.00	9.13	4.000	No	Yes	2.00
839	16.76	1.17	100.00	3.32	0.59	0.82	8.89	0.00	8.89	4.000	No	Yes	2.00
840	16.78	1.16	100.00	3.34	0.59	0.82	8.90	0.00	8.90	4.000	No	Yes	2.00
841	16.80	1.17	100.00	3.33	0.59	0.82	8.83	0.00	8.83	4.000	No	Yes	2.00
842	16.82	1.17	100.00	3.33	0.59	0.82	9.02	0.00	9.02	4.000	No	Yes	2.00
843	16.84	1.18	100.00	3.33	0.59	0.82	9.06	0.00	9.06	4.000	No	Yes	2.00
844	16.86	1.19	100.00	3.33	0.59	0.82	9.02	0.00	9.02	4.000	No	Yes	2.00
845	16.88	1.18	100.00	3.33	0.59	0.82	9.08	0.00	9.08	4.000	No	Yes	2.00
846	16.90	1.18	100.00	3.33	0.59	0.82	8.91	0.00	8.91	4.000	No	Yes	2.00
847	16.92	1.17	100.00	3.34	0.59	0.82	8.95	0.00	8.95	4.000	No	Yes	2.00
848	16.94	1.17	100.00	3.34	0.59	0.82	8.91	0.00	8.91	4.000	No	Yes	2.00
849	16.96	1.16	100.00	3.35	0.59	0.82	8.80	0.00	8.80	4.000	No	Yes	2.00
850	16.98	1.16	100.00	3.36	0.59	0.82	8.77	0.00	8.77	4.000	No	Yes	2.00
851	17.00	1.15	100.00	3.36	0.59	0.82	8.68	0.00	8.68	4.000	No	Yes	2.00
852	17.02	1.14	100.00	3.38	0.59	0.81	8.64	0.00	8.64	4.000	No	Yes	2.00
853	17.04	1.14	100.00	3.38	0.59	0.81	8.49	0.00	8.49	4.000	No	Yes	2.00
854	17.06	1.15	100.00	3.37	0.59	0.81	8.69	0.00	8.69	4.000	No	Yes	2.00
855	17.08	1.17	100.00	3.35	0.59	0.81	8.90	0.00	8.90	4.000	No	Yes	2.00
856	17.10	1.19	100.00	3.34	0.59	0.81	8.99	0.00	8.99	4.000	No	Yes	2.00
857	17.12	1.20	100.00	3.34	0.59	0.81	9.06	0.00	9.06	4.000	No	Yes	2.00
858	17.14	1.20	100.00	3.33	0.59	0.81	9.01	0.00	9.01	4.000	No	Yes	2.00
859	17.16	1.21	100.00	3.34	0.59	0.81	9.04	0.00	9.04	4.000	No	Yes	2.00
860	17.18	1.22	100.00	3.33	0.59	0.81	9.12	0.00	9.12	4.000	No	Yes	2.00
861	17.20	1.23	100.00	3.33	0.59	0.81	9.20	0.00	9.20	4.000	No	Yes	2.00
862	17.22	1.24	100.00	3.34	0.59	0.81	9.28	0.00	9.28	4.000	No	Yes	2.00
863	17.24	1.24	100.00	3.34	0.59	0.81	9.29	0.00	9.29	4.000	No	Yes	2.00
864	17.26	1.25	100.00	3.35	0.58	0.81	9.36	0.00	9.36	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
865	17.28	1.23	100.00	3.36	0.58	0.81	9.32	0.00	9.32	4.000	No	Yes	2.00
866	17.30	1.20	100.00	3.39	0.59	0.81	9.02	0.00	9.02	4.000	No	Yes	2.00
867	17.32	1.17	100.00	3.42	0.59	0.81	8.59	0.00	8.59	4.000	No	Yes	2.00
868	17.34	1.16	100.00	3.43	0.59	0.81	8.61	0.00	8.61	4.000	No	Yes	2.00
869	17.36	1.18	100.00	3.42	0.59	0.81	8.72	0.00	8.72	4.000	No	Yes	2.00
870	17.38	1.20	100.00	3.40	0.59	0.81	8.95	0.00	8.95	4.000	No	Yes	2.00
871	17.40	1.21	100.00	3.39	0.59	0.81	8.98	0.00	8.98	4.000	No	Yes	2.00
872	17.42	1.22	100.00	3.38	0.59	0.80	9.10	0.00	9.10	4.000	No	Yes	2.00
873	17.45	1.24	100.00	3.35	0.59	0.80	9.10	0.00	9.10	4.000	No	Yes	2.00
874	17.46	1.24	100.00	3.35	0.58	0.80	9.34	0.00	9.34	4.000	No	Yes	2.00
875	17.48	1.24	100.00	3.35	0.59	0.80	9.11	0.00	9.11	4.000	No	Yes	2.00
876	17.50	1.24	100.00	3.37	0.59	0.80	9.10	0.00	9.10	4.000	No	Yes	2.00
877	17.52	1.25	100.00	3.37	0.59	0.80	9.27	0.00	9.27	4.000	No	Yes	2.00
878	17.54	1.26	100.00	3.37	0.58	0.80	9.39	0.00	9.39	4.000	No	Yes	2.00
879	17.56	1.28	100.00	3.37	0.58	0.80	9.43	0.00	9.43	4.000	No	Yes	2.00
880	17.58	1.29	100.00	3.36	0.58	0.80	9.58	0.00	9.58	4.000	No	Yes	2.00
881	17.60	1.30	100.00	3.37	0.58	0.80	9.67	0.00	9.67	4.000	No	Yes	2.00
882	17.62	1.29	100.00	3.37	0.58	0.80	9.55	0.00	9.55	4.000	No	Yes	2.00
883	17.64	1.28	100.00	3.38	0.58	0.80	9.46	0.00	9.46	4.000	No	Yes	2.00
884	17.66	1.29	100.00	3.38	0.58	0.80	9.48	0.00	9.48	4.000	No	Yes	2.00
885	17.68	1.31	100.00	3.36	0.58	0.80	9.72	0.00	9.72	4.000	No	Yes	2.00
886	17.70	1.32	100.00	3.36	0.58	0.80	9.89	0.00	9.89	4.000	No	Yes	2.00
887	17.72	1.32	100.00	3.36	0.58	0.80	9.78	0.00	9.78	4.000	No	Yes	2.00
888	17.74	1.32	100.00	3.36	0.58	0.80	9.66	0.00	9.66	4.000	No	Yes	2.00
889	17.76	1.32	100.00	3.36	0.58	0.80	9.83	0.00	9.83	4.000	No	Yes	2.00
890	17.78	1.32	100.00	3.35	0.58	0.80	9.67	0.00	9.67	4.000	No	Yes	2.00
891	17.80	1.31	100.00	3.36	0.58	0.80	9.81	0.00	9.81	4.000	No	Yes	2.00
892	17.82	1.28	100.00	3.38	0.58	0.79	9.51	0.00	9.51	4.000	No	Yes	2.00
893	17.84	1.25	100.00	3.40	0.59	0.79	9.02	0.00	9.02	4.000	No	Yes	2.00
894	17.86	1.23	100.00	3.41	0.59	0.79	9.06	0.00	9.06	4.000	No	Yes	2.00
895	17.88	1.24	100.00	3.40	0.59	0.79	9.03	0.00	9.03	4.000	No	Yes	2.00
896	17.90	1.26	100.00	3.38	0.59	0.79	9.10	0.00	9.10	4.000	No	Yes	2.00
897	17.92	1.29	100.00	3.35	0.58	0.79	9.56	0.00	9.56	4.000	No	Yes	2.00
898	17.94	1.33	100.00	3.32	0.58	0.79	9.78	0.00	9.78	4.000	No	Yes	2.00
899	17.96	1.33	100.00	3.31	0.58	0.79	9.87	0.00	9.87	4.000	No	Yes	2.00
900	17.98	1.32	100.00	3.33	0.58	0.79	9.73	0.00	9.73	4.000	No	Yes	2.00
901	18.00	1.29	100.00	3.36	0.58	0.79	9.48	0.00	9.48	4.000	No	Yes	2.00
902	18.02	1.28	100.00	3.38	0.59	0.79	9.20	0.00	9.20	4.000	No	Yes	2.00
903	18.04	1.26	100.00	3.40	0.59	0.79	9.26	0.00	9.26	4.000	No	Yes	2.00
904	18.06	1.26	100.00	3.40	0.59	0.79	9.04	0.00	9.04	4.000	No	Yes	2.00
905	18.08	1.26	100.00	3.41	0.59	0.79	9.21	0.00	9.21	4.000	No	Yes	2.00
906	18.10	1.28	100.00	3.39	0.59	0.79	9.22	0.00	9.22	4.000	No	Yes	2.00
907	18.12	1.28	100.00	3.39	0.58	0.79	9.49	0.00	9.49	4.000	No	Yes	2.00
908	18.14	1.27	100.00	3.39	0.59	0.79	9.24	0.00	9.24	4.000	No	Yes	2.00
909	18.17	1.26	100.00	3.40	0.59	0.79	9.12	0.00	9.12	4.000	No	Yes	2.00
910	18.18	1.26	100.00	3.40	0.59	0.79	9.07	0.00	9.07	4.000	No	Yes	2.00
911	18.20	1.29	100.00	3.39	0.58	0.79	9.34	0.00	9.34	4.000	No	Yes	2.00
912	18.22	1.32	100.00	3.38	0.58	0.79	9.59	0.00	9.59	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
913	18.24	1.33	100.00	3.38	0.58	0.78	9.76	0.00	9.76	4.000	No	Yes	2.00
914	18.26	1.32	100.00	3.39	0.58	0.78	9.66	0.00	9.66	4.000	No	Yes	2.00
915	18.28	1.30	100.00	3.41	0.59	0.78	9.25	0.00	9.25	4.000	No	Yes	2.00
916	18.30	1.28	100.00	3.42	0.59	0.78	9.25	0.00	9.25	4.000	No	Yes	2.00
917	18.32	1.28	100.00	3.41	0.59	0.78	9.18	0.00	9.18	4.000	No	Yes	2.00
918	18.34	1.29	100.00	3.40	0.58	0.78	9.34	0.00	9.34	4.000	No	Yes	2.00
919	18.36	1.31	100.00	3.38	0.58	0.78	9.48	0.00	9.48	4.000	No	Yes	2.00
920	18.38	1.32	100.00	3.37	0.58	0.78	9.57	0.00	9.57	4.000	No	Yes	2.00
921	18.40	1.33	100.00	3.37	0.58	0.78	9.59	0.00	9.59	4.000	No	Yes	2.00
922	18.42	1.32	100.00	3.37	0.58	0.78	9.55	0.00	9.55	4.000	No	Yes	2.00
923	18.44	1.31	100.00	3.38	0.58	0.78	9.37	0.00	9.37	4.000	No	Yes	2.00
924	18.46	1.30	100.00	3.39	0.58	0.78	9.34	0.00	9.34	4.000	No	Yes	2.00
925	18.48	1.30	100.00	3.39	0.58	0.78	9.43	0.00	9.43	4.000	No	Yes	2.00
926	18.50	1.29	100.00	3.40	0.59	0.78	9.23	0.00	9.23	4.000	No	Yes	2.00
927	18.52	1.29	100.00	3.40	0.59	0.78	9.19	0.00	9.19	4.000	No	Yes	2.00
928	18.54	1.32	100.00	3.39	0.58	0.78	9.42	0.00	9.42	4.000	No	Yes	2.00
929	18.56	1.35	100.00	3.36	0.58	0.78	9.73	0.00	9.73	4.000	No	Yes	2.00
930	18.58	1.38	100.00	3.33	0.58	0.78	9.83	0.00	9.83	4.000	No	Yes	2.00
931	18.60	1.42	100.00	3.30	0.58	0.78	10.19	0.00	10.19	4.000	No	Yes	2.00
932	18.62	1.47	100.00	3.27	0.58	0.78	10.62	0.00	10.62	4.000	No	Yes	2.00
933	18.64	1.51	100.00	3.25	0.58	0.78	10.88	0.00	10.88	4.000	No	Yes	2.00
934	18.66	1.56	100.00	3.23	0.58	0.78	11.22	0.00	11.22	4.000	No	Yes	2.00
935	18.68	1.63	100.00	3.21	0.58	0.78	11.72	0.00	11.72	4.000	No	Yes	2.00
936	18.70	1.71	100.00	3.19	0.57	0.78	12.41	0.00	12.41	4.000	No	Yes	2.00
937	18.72	1.80	100.00	3.17	0.57	0.78	13.23	0.00	13.23	4.000	No	Yes	2.00
938	18.74	1.85	100.00	3.17	0.57	0.78	13.64	0.00	13.64	4.000	No	Yes	2.00
939	18.76	1.90	100.00	3.17	0.57	0.78	13.63	0.00	13.63	4.000	No	Yes	2.00
940	18.78	1.92	100.00	3.17	0.57	0.78	14.28	0.00	14.28	4.000	No	Yes	2.00
941	18.80	1.97	100.00	3.16	0.57	0.78	14.23	0.00	14.23	4.000	No	Yes	2.00
942	18.82	2.00	100.00	3.15	0.56	0.78	14.74	0.00	14.74	4.000	No	Yes	2.00
943	18.84	2.02	100.00	3.14	0.56	0.78	14.96	0.00	14.96	4.000	No	Yes	2.00
944	18.86	2.04	100.00	3.13	0.56	0.78	14.68	0.00	14.68	4.000	No	Yes	2.00
945	18.88	2.02	100.00	3.14	0.56	0.78	15.07	0.00	15.07	4.000	No	Yes	2.00
946	18.90	1.99	100.00	3.14	0.57	0.78	14.50	0.00	14.50	4.000	No	Yes	2.00
947	18.92	1.93	100.00	3.16	0.57	0.77	14.08	0.00	14.08	4.000	No	Yes	2.00
948	18.94	1.86	100.00	3.19	0.57	0.77	13.54	0.00	13.54	4.000	No	Yes	2.00
949	18.96	1.80	100.00	3.22	0.57	0.77	12.97	0.00	12.97	4.000	No	Yes	2.00
950	18.98	1.74	100.00	3.23	0.57	0.77	12.47	0.00	12.47	4.000	No	Yes	2.00
951	19.00	1.71	100.00	3.24	0.57	0.77	12.25	0.00	12.25	4.000	No	Yes	2.00
952	19.02	1.68	100.00	3.24	0.57	0.77	12.10	0.00	12.10	4.000	No	Yes	2.00
953	19.04	1.64	100.00	3.24	0.58	0.77	11.73	0.00	11.73	4.000	No	Yes	2.00
954	19.06	1.62	100.00	3.24	0.58	0.77	11.42	0.00	11.42	4.000	No	Yes	2.00
955	19.08	1.62	100.00	3.22	0.58	0.77	11.47	0.00	11.47	4.000	No	Yes	2.00
956	19.10	1.65	100.00	3.19	0.58	0.77	11.73	0.00	11.73	4.000	No	Yes	2.00
957	19.12	1.70	100.00	3.15	0.57	0.77	12.08	0.00	12.08	4.000	No	Yes	2.00
958	19.14	1.80	100.00	3.09	0.57	0.77	12.66	0.00	12.66	4.000	No	Yes	2.00
959	19.16	1.92	100.00	3.04	0.57	0.77	13.92	0.00	13.92	4.000	No	Yes	2.00
960	19.18	2.01	100.00	3.00	0.56	0.77	14.70	0.00	14.70	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
961	19.20	2.10	100.00	2.96	0.57	0.77	14.52	0.00	14.52	4.000	No	Yes	2.00
962	19.22	2.19	98.05	2.94	0.56	0.77	15.99	0.00	15.99	4.000	No	Yes	2.00
963	19.25	2.30	96.35	2.92	0.56	0.77	16.59	0.00	16.59	4.000	No	Yes	2.00
964	19.26	2.37	96.29	2.92	0.56	0.77	16.93	0.00	16.93	4.000	No	Yes	2.00
965	19.29	2.40	97.27	2.93	0.56	0.77	17.49	0.00	17.49	4.000	No	Yes	2.00
966	19.30	2.41	98.75	2.95	0.56	0.77	17.22	0.00	17.22	4.000	No	Yes	2.00
967	19.32	2.37	100.00	2.98	0.56	0.77	17.18	0.00	17.18	4.000	No	Yes	2.00
968	19.34	2.28	100.00	3.02	0.56	0.77	16.72	0.00	16.72	4.000	No	Yes	2.00
969	19.36	2.17	100.00	3.06	0.56	0.77	15.11	0.00	15.11	4.000	No	Yes	2.00
970	19.38	2.08	100.00	3.10	0.56	0.76	14.59	0.00	14.59	4.000	No	Yes	2.00
971	19.40	2.05	100.00	3.11	0.57	0.76	14.47	0.00	14.47	4.000	No	Yes	2.00
972	19.42	2.10	100.00	3.09	0.57	0.76	14.42	0.00	14.42	4.000	No	Yes	2.00
973	19.44	2.23	100.00	3.04	0.56	0.76	15.72	0.00	15.72	4.000	No	Yes	2.00
974	19.46	2.45	99.78	2.96	0.56	0.77	17.29	0.00	17.29	4.000	No	Yes	2.00
975	19.48	2.64	95.29	2.90	0.55	0.77	19.49	0.00	19.49	4.000	No	Yes	2.00
976	19.50	2.77	92.80	2.87	0.55	0.77	20.04	0.00	20.04	4.000	No	Yes	2.00
977	19.52	2.79	92.86	2.87	0.55	0.77	20.16	0.00	20.16	4.000	No	Yes	2.00
978	19.54	2.82	93.12	2.88	0.55	0.77	19.98	0.00	19.98	4.000	No	Yes	2.00
979	19.56	2.89	93.32	2.88	0.54	0.77	20.77	0.00	20.77	4.000	No	Yes	2.00
980	19.58	2.98	93.89	2.89	0.54	0.77	21.86	0.00	21.86	4.000	No	Yes	2.00
981	19.60	3.04	94.45	2.89	0.54	0.77	21.86	0.00	21.86	4.000	No	Yes	2.00
982	19.62	3.04	95.62	2.91	0.54	0.77	22.16	0.00	22.16	4.000	No	Yes	2.00
983	19.64	3.00	97.16	2.93	0.54	0.77	21.88	0.00	21.88	4.000	No	Yes	2.00
984	19.66	2.87	100.00	2.97	0.54	0.77	20.85	0.00	20.85	4.000	No	Yes	2.00
985	19.68	2.69	100.00	3.01	0.55	0.76	19.24	0.00	19.24	4.000	No	Yes	2.00
986	19.70	2.49	100.00	3.07	0.55	0.76	17.74	0.00	17.74	4.000	No	Yes	2.00
987	19.72	2.33	100.00	3.11	0.56	0.76	16.30	0.00	16.30	4.000	No	Yes	2.00
988	19.74	2.21	100.00	3.15	0.56	0.76	15.68	0.00	15.68	4.000	No	Yes	2.00
989	19.76	2.12	100.00	3.18	0.56	0.76	15.03	0.00	15.03	4.000	No	Yes	2.00
990	19.78	2.08	100.00	3.20	0.57	0.75	14.13	0.00	14.13	4.000	No	Yes	2.00
991	19.80	2.16	100.00	3.16	0.56	0.76	14.79	0.00	14.79	4.000	No	Yes	2.00
992	19.82	2.40	100.00	3.07	0.56	0.76	16.84	0.00	16.84	4.000	No	Yes	2.00
993	19.84	2.72	100.00	2.97	0.55	0.76	19.41	0.00	19.41	4.000	No	Yes	2.00
994	19.86	2.94	94.90	2.90	0.54	0.76	22.07	0.00	22.07	4.000	No	Yes	2.00
995	19.88	3.05	91.62	2.86	0.54	0.76	21.93	0.00	21.93	4.000	No	Yes	2.00
996	19.90	3.04	90.86	2.85	0.54	0.76	21.83	0.00	21.83	4.000	No	Yes	2.00
997	19.92	2.94	92.15	2.86	0.54	0.76	21.59	0.00	21.59	4.000	No	Yes	2.00
998	19.94	2.73	96.28	2.92	0.55	0.76	19.68	0.00	19.68	4.000	No	Yes	2.00
999	19.96	2.42	100.00	3.01	0.56	0.75	17.14	0.00	17.14	4.000	No	Yes	2.00
1000	19.98	2.10	100.00	3.12	0.57	0.75	14.55	0.00	14.55	4.000	No	Yes	2.00
1001	20.00	1.80	100.00	3.23	0.57	0.75	12.64	0.00	12.64	4.000	No	Yes	2.00
1002	20.02	1.58	100.00	3.34	0.58	0.74	10.71	0.00	10.71	4.000	No	Yes	2.00
1003	20.04	1.46	100.00	3.40	0.58	0.74	9.58	0.00	9.58	4.000	No	Yes	2.00
1004	20.06	1.54	100.00	3.34	0.58	0.74	9.84	0.00	9.84	4.000	No	Yes	2.00
1005	20.08	1.96	100.00	3.14	0.57	0.75	12.53	0.00	12.53	4.000	No	Yes	2.00
1006	20.10	3.00	88.39	2.82	0.55	0.75	18.86	0.00	18.86	4.000	No	Yes	2.00
1007	20.12	4.47	64.02	2.51	0.51	0.77	33.69	59.16	92.85	0.129	No	No	0.61
1008	20.14	6.07	45.07	2.28	0.49	0.78	47.18	56.23	103.41	0.142	No	No	0.69

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q _t (MPa)	FC (%)	I _c	m	C _N	q _{c1N}	q _{c1N}	q _{c1N,cs}	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
1009	20.16	7.26	33.73	2.13	0.48	0.78	57.16	50.73	107.88	0.149	No	No	0.73
1010	20.18	6.92	32.42	2.12	0.47	0.78	62.56	50.62	113.18	0.158	No	No	0.78
1011	20.20	6.52	34.60	2.14	0.53	0.76	38.82	47.42	86.25	0.122	No	No	0.57
1012	20.22	6.39	33.14	2.13	0.51	0.77	46.96	47.95	94.91	0.131	No	No	0.63
1013	20.24	7.06	28.17	2.06	0.49	0.77	59.03	45.00	104.03	0.143	No	No	0.70
1014	20.26	7.03	26.23	2.04	0.51	0.77	54.47	41.52	95.99	0.132	No	No	0.64
1015	20.28	6.07	34.02	2.14	0.51	0.77	46.29	48.60	94.88	0.131	No	No	0.63
1016	20.30	4.89	49.29	2.33	0.52	0.76	36.50	55.39	91.89	0.128	No	No	0.61
1017	20.32	3.80	67.60	2.56	0.53	0.76	27.14	58.06	85.20	0.121	No	No	0.57
1018	20.34	3.00	86.05	2.79	0.55	0.75	21.24	0.00	21.24	4.000	No	Yes	2.00
1019	20.36	2.57	97.61	2.93	0.55	0.75	18.07	0.00	18.07	4.000	No	Yes	2.00
1020	20.38	2.32	100.00	3.04	0.56	0.75	17.20	0.00	17.20	4.000	No	Yes	2.00
1021	20.40	2.12	100.00	3.12	0.56	0.74	15.44	0.00	15.44	4.000	No	Yes	2.00
1022	20.42	1.94	100.00	3.18	0.57	0.74	13.62	0.00	13.62	4.000	No	Yes	2.00
1023	20.44	1.83	100.00	3.21	0.57	0.74	13.04	0.00	13.04	4.000	No	Yes	2.00
1024	20.46	1.78	100.00	3.19	0.57	0.74	12.92	0.00	12.92	4.000	No	Yes	2.00
1025	20.48	1.72	100.00	3.18	0.57	0.74	12.34	0.00	12.34	4.000	No	Yes	2.00
1026	20.50	1.64	100.00	3.18	0.58	0.74	11.69	0.00	11.69	4.000	No	Yes	2.00
1027	20.52	1.56	100.00	3.19	0.58	0.73	11.02	0.00	11.02	4.000	No	Yes	2.00
1028	20.54	1.51	100.00	3.21	0.58	0.73	10.72	0.00	10.72	4.000	No	Yes	2.00
1029	20.56	1.48	100.00	3.23	0.58	0.73	10.42	0.00	10.42	4.000	No	Yes	2.00
1030	20.58	1.44	100.00	3.26	0.58	0.73	10.29	0.00	10.29	4.000	No	Yes	2.00
1031	20.60	1.42	100.00	3.29	0.58	0.73	9.99	0.00	9.99	4.000	No	Yes	2.00
1032	20.62	1.41	100.00	3.31	0.58	0.73	9.86	0.00	9.86	4.000	No	Yes	2.00
1033	20.64	1.42	100.00	3.31	0.58	0.73	10.08	0.00	10.08	4.000	No	Yes	2.00
1034	20.66	1.44	100.00	3.30	0.58	0.73	10.27	0.00	10.27	4.000	No	Yes	2.00
1035	20.68	1.45	100.00	3.30	0.58	0.73	10.22	0.00	10.22	4.000	No	Yes	2.00
1036	20.70	1.45	100.00	3.30	0.58	0.73	10.23	0.00	10.23	4.000	No	Yes	2.00
1037	20.72	1.45	100.00	3.31	0.58	0.73	10.24	0.00	10.24	4.000	No	Yes	2.00
1038	20.74	1.45	100.00	3.31	0.58	0.73	10.15	0.00	10.15	4.000	No	Yes	2.00
1039	20.76	1.45	100.00	3.31	0.58	0.73	10.32	0.00	10.32	4.000	No	Yes	2.00
1040	20.78	1.45	100.00	3.31	0.58	0.73	10.11	0.00	10.11	4.000	No	Yes	2.00
1041	20.80	1.44	100.00	3.32	0.58	0.73	10.23	0.00	10.23	4.000	No	Yes	2.00
1042	20.82	1.44	100.00	3.31	0.58	0.73	10.12	0.00	10.12	4.000	No	Yes	2.00
1043	20.84	1.45	100.00	3.31	0.58	0.73	10.04	0.00	10.04	4.000	No	Yes	2.00
1044	20.86	1.46	100.00	3.29	0.58	0.73	10.32	0.00	10.32	4.000	No	Yes	2.00
1045	20.88	1.49	100.00	3.27	0.58	0.73	10.37	0.00	10.37	4.000	No	Yes	2.00
1046	20.90	1.49	100.00	3.27	0.58	0.73	10.62	0.00	10.62	4.000	No	Yes	2.00
1047	20.92	1.50	100.00	3.26	0.58	0.73	10.36	0.00	10.36	4.000	No	Yes	2.00
1048	20.94	1.50	100.00	3.26	0.58	0.73	10.61	0.00	10.61	4.000	No	Yes	2.00
1049	20.96	1.52	100.00	3.25	0.58	0.73	10.55	0.00	10.55	4.000	No	Yes	2.00
1050	20.98	1.52	100.00	3.26	0.58	0.73	10.74	0.00	10.74	4.000	No	Yes	2.00
1051	21.00	1.51	100.00	3.28	0.58	0.72	10.65	0.00	10.65	4.000	No	Yes	2.00
1052	21.02	1.50	100.00	3.31	0.58	0.72	10.39	0.00	10.39	4.000	No	Yes	2.00
1053	21.04	1.48	100.00	3.33	0.58	0.72	10.35	0.00	10.35	4.000	No	Yes	2.00
1054	21.06	1.48	100.00	3.34	0.58	0.72	10.34	0.00	10.34	4.000	No	Yes	2.00
1055	21.08	1.47	100.00	3.35	0.58	0.72	10.27	0.00	10.27	4.000	No	Yes	2.00
1056	21.10	1.46	100.00	3.36	0.58	0.72	10.23	0.00	10.23	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (m)	q_t (MPa)	FC (%)	I_c	m	C_N	q_{c1N}	q_{c1N}	$q_{c1N,cs}$	CRR _{7.5}	Belongs to trans. layer	Clay-like behaviour	FS
1057	21.12	1.46	100.00	3.36	0.58	0.72	10.13	0.00	10.13	4.000	No	Yes	2.00
1058	21.14	1.46	100.00	3.36	0.58	0.72	10.18	0.00	10.18	4.000	No	Yes	2.00
1059	21.16	1.46	100.00	3.36	0.58	0.72	10.15	0.00	10.15	4.000	No	Yes	2.00
1060	21.18	1.45	100.00	3.37	0.58	0.72	10.18	0.00	10.18	4.000	No	Yes	2.00
1061	21.20	1.44	100.00	3.37	0.58	0.72	9.89	0.00	9.89	4.000	No	Yes	2.00

Abbreviations

Depth: Depth from free surface, at which CPT was performed (m)

q_t : Total cone resistance

FC: Fines content (%)

I_c : Soil behavior type index

m: Stress exponent

C_N : Overburden correction factor

q_{c1N} : Normalized and adjusted cone resistance

q_{c1N} : Cone resistance correction factor due to fines

$q_{c1N,cs}$: Normalized and adjusted cone resistance

CRR_{7.5}: Cyclic resistance ratio for $M_w=7.5$

FS: Factor of safety against soil liquefaction

:: Liquefaction Potential Index calculation data ::

Depth (m)	FS	F _L	w _z	d _z	LPI	Depth (m)	FS	F _L	w _z	d _z	LPI
0.12	2.00	0.00	9.94	0.10	0.00	0.02	2.00	0.00	9.99	0.10	0.00
0.04	2.00	0.00	9.98	0.02	0.00	0.06	2.00	0.00	9.97	0.02	0.00
0.08	2.00	0.00	9.96	0.02	0.00	0.10	2.00	0.00	9.95	0.02	0.00
0.15	2.00	0.00	9.93	0.05	0.00	0.15	2.00	0.00	9.93	0.00	0.00
0.16	2.00	0.00	9.92	0.01	0.00	0.18	2.00	0.00	9.91	0.02	0.00
0.20	2.00	0.00	9.90	0.02	0.00	0.28	2.00	0.00	9.86	0.08	0.00
0.28	2.00	0.00	9.86	0.00	0.00	0.28	2.00	0.00	9.86	0.00	0.00
0.28	2.00	0.00	9.86	0.00	0.00	0.30	2.00	0.00	9.85	0.02	0.00
0.33	2.00	0.00	9.84	0.03	0.00	0.34	2.00	0.00	9.83	0.01	0.00
0.36	2.00	0.00	9.82	0.02	0.00	0.38	2.00	0.00	9.81	0.02	0.00
0.40	2.00	0.00	9.80	0.02	0.00	0.42	2.00	0.00	9.79	0.02	0.00
0.44	2.00	0.00	9.78	0.02	0.00	0.46	2.00	0.00	9.77	0.02	0.00
0.48	2.00	0.00	9.76	0.02	0.00	0.50	2.00	0.00	9.75	0.02	0.00
0.52	2.00	0.00	9.74	0.02	0.00	0.54	2.00	0.00	9.73	0.02	0.00
0.56	2.00	0.00	9.72	0.02	0.00	0.58	2.00	0.00	9.71	0.02	0.00
0.60	2.00	0.00	9.70	0.02	0.00	0.62	2.00	0.00	9.69	0.02	0.00
0.64	2.00	0.00	9.68	0.02	0.00	0.66	2.00	0.00	9.67	0.02	0.00
0.68	2.00	0.00	9.66	0.02	0.00	0.70	2.00	0.00	9.65	0.02	0.00
0.72	2.00	0.00	9.64	0.02	0.00	0.74	2.00	0.00	9.63	0.02	0.00
0.76	2.00	0.00	9.62	0.02	0.00	0.78	2.00	0.00	9.61	0.02	0.00
0.80	2.00	0.00	9.60	0.02	0.00	0.82	2.00	0.00	9.59	0.02	0.00
0.84	2.00	0.00	9.58	0.02	0.00	0.86	2.00	0.00	9.57	0.02	0.00
0.88	2.00	0.00	9.56	0.02	0.00	0.90	2.00	0.00	9.55	0.02	0.00
0.92	2.00	0.00	9.54	0.02	0.00	0.94	2.00	0.00	9.53	0.02	0.00
0.96	2.00	0.00	9.52	0.02	0.00	0.98	2.00	0.00	9.51	0.02	0.00
1.00	2.00	0.00	9.50	0.02	0.00	1.03	2.00	0.00	9.48	0.03	0.00
1.12	2.00	0.00	9.44	0.09	0.00	1.12	2.00	0.00	9.44	0.00	0.00
1.12	2.00	0.00	9.44	0.00	0.00	1.12	2.00	0.00	9.44	0.00	0.00
1.12	2.00	0.00	9.44	0.00	0.00	1.14	2.00	0.00	9.43	0.02	0.00
1.16	2.00	0.00	9.42	0.02	0.00	1.18	2.00	0.00	9.41	0.02	0.00
1.20	2.00	0.00	9.40	0.02	0.00	1.22	2.00	0.00	9.39	0.02	0.00
1.24	2.00	0.00	9.38	0.02	0.00	1.26	2.00	0.00	9.37	0.02	0.00
1.28	2.00	0.00	9.36	0.02	0.00	1.30	2.00	0.00	9.35	0.02	0.00
1.33	0.77	0.23	9.34	0.03	0.06	1.34	0.74	0.26	9.33	0.01	0.02
1.36	0.73	0.27	9.32	0.02	0.05	1.38	0.72	0.28	9.31	0.02	0.05
1.40	0.72	0.28	9.30	0.02	0.05	1.42	0.73	0.27	9.29	0.02	0.05
1.44	0.74	0.26	9.28	0.02	0.05	1.46	0.75	0.25	9.27	0.02	0.05
1.48	0.75	0.25	9.26	0.02	0.05	1.50	0.74	0.26	9.25	0.02	0.05
1.52	0.72	0.28	9.24	0.02	0.05	1.54	0.71	0.29	9.23	0.02	0.05
1.56	0.70	0.30	9.22	0.02	0.06	1.58	0.69	0.31	9.21	0.02	0.06
1.60	0.70	0.30	9.20	0.02	0.06	1.62	0.70	0.30	9.19	0.02	0.05
1.64	0.70	0.30	9.18	0.02	0.05	1.66	0.69	0.31	9.17	0.02	0.06
1.68	0.65	0.35	9.16	0.02	0.06	1.70	0.64	0.36	9.15	0.02	0.07
1.72	2.00	0.00	9.14	0.02	0.00	1.74	2.00	0.00	9.13	0.02	0.00
1.76	2.00	0.00	9.12	0.02	0.00	1.78	2.00	0.00	9.11	0.02	0.00
1.80	2.00	0.00	9.10	0.02	0.00	1.82	2.00	0.00	9.09	0.02	0.00
1.84	2.00	0.00	9.08	0.02	0.00	1.86	2.00	0.00	9.07	0.02	0.00
1.88	2.00	0.00	9.06	0.02	0.00	1.90	2.00	0.00	9.05	0.02	0.00

:: Liquefaction Potential Index calculation data :: (continued)

Depth (m)	FS	F _L	w _z	d _z	LPI	Depth (m)	FS	F _L	w _z	d _z	LPI
1.92	2.00	0.00	9.04	0.02	0.00	1.94	2.00	0.00	9.03	0.02	0.00
1.96	2.00	0.00	9.02	0.02	0.00	1.98	2.00	0.00	9.01	0.02	0.00
2.00	2.00	0.00	9.00	0.02	0.00	2.02	2.00	0.00	8.99	0.02	0.00
2.04	2.00	0.00	8.98	0.02	0.00	2.06	2.00	0.00	8.97	0.02	0.00
2.08	2.00	0.00	8.96	0.02	0.00	2.10	2.00	0.00	8.95	0.02	0.00
2.12	2.00	0.00	8.94	0.02	0.00	2.14	2.00	0.00	8.93	0.02	0.00
2.17	2.00	0.00	8.91	0.03	0.00	2.18	2.00	0.00	8.91	0.01	0.00
2.20	2.00	0.00	8.90	0.02	0.00	2.22	2.00	0.00	8.89	0.02	0.00
2.24	2.00	0.00	8.88	0.02	0.00	2.26	2.00	0.00	8.87	0.02	0.00
2.28	2.00	0.00	8.86	0.02	0.00	2.30	2.00	0.00	8.85	0.02	0.00
2.32	2.00	0.00	8.84	0.02	0.00	2.34	2.00	0.00	8.83	0.02	0.00
2.36	2.00	0.00	8.82	0.02	0.00	2.38	2.00	0.00	8.81	0.02	0.00
2.40	0.55	0.45	8.80	0.02	0.08	2.42	0.56	0.44	8.79	0.02	0.08
2.44	0.56	0.44	8.78	0.02	0.08	2.46	0.55	0.45	8.77	0.02	0.08
2.48	2.00	0.00	8.76	0.02	0.00	2.50	2.00	0.00	8.75	0.02	0.00
2.52	0.56	0.44	8.74	0.02	0.08	2.54	0.56	0.44	8.73	0.02	0.08
2.56	2.00	0.00	8.72	0.02	0.00	2.58	2.00	0.00	8.71	0.02	0.00
2.60	2.00	0.00	8.70	0.02	0.00	2.62	2.00	0.00	8.69	0.02	0.00
2.64	2.00	0.00	8.68	0.02	0.00	2.66	2.00	0.00	8.67	0.02	0.00
2.68	2.00	0.00	8.66	0.02	0.00	2.70	2.00	0.00	8.65	0.02	0.00
2.72	2.00	0.00	8.64	0.02	0.00	2.74	2.00	0.00	8.63	0.02	0.00
2.76	2.00	0.00	8.62	0.02	0.00	2.78	2.00	0.00	8.61	0.02	0.00
2.80	2.00	0.00	8.60	0.02	0.00	2.82	2.00	0.00	8.59	0.02	0.00
2.84	2.00	0.00	8.58	0.02	0.00	2.87	2.00	0.00	8.56	0.03	0.00
2.88	2.00	0.00	8.56	0.01	0.00	2.90	2.00	0.00	8.55	0.02	0.00
2.92	2.00	0.00	8.54	0.02	0.00	2.94	2.00	0.00	8.53	0.02	0.00
2.96	2.00	0.00	8.52	0.02	0.00	2.98	2.00	0.00	8.51	0.02	0.00
3.00	2.00	0.00	8.50	0.02	0.00	3.03	2.00	0.00	8.48	0.03	0.00
3.04	2.00	0.00	8.48	0.01	0.00	3.06	2.00	0.00	8.47	0.02	0.00
3.08	2.00	0.00	8.46	0.02	0.00	3.10	2.00	0.00	8.45	0.02	0.00
3.12	2.00	0.00	8.44	0.02	0.00	3.14	2.00	0.00	8.43	0.02	0.00
3.16	2.00	0.00	8.42	0.02	0.00	3.19	2.00	0.00	8.40	0.03	0.00
3.20	2.00	0.00	8.40	0.01	0.00	3.22	2.00	0.00	8.39	0.02	0.00
3.24	2.00	0.00	8.38	0.02	0.00	3.26	2.00	0.00	8.37	0.02	0.00
3.28	2.00	0.00	8.36	0.02	0.00	3.30	2.00	0.00	8.35	0.02	0.00
3.32	2.00	0.00	8.34	0.02	0.00	3.34	2.00	0.00	8.33	0.02	0.00
3.36	2.00	0.00	8.32	0.02	0.00	3.38	2.00	0.00	8.31	0.02	0.00
3.40	2.00	0.00	8.30	0.02	0.00	3.43	2.00	0.00	8.29	0.03	0.00
3.44	2.00	0.00	8.28	0.01	0.00	3.46	2.00	0.00	8.27	0.02	0.00
3.48	2.00	0.00	8.26	0.02	0.00	3.50	2.00	0.00	8.25	0.02	0.00
3.52	2.00	0.00	8.24	0.02	0.00	3.54	2.00	0.00	8.23	0.02	0.00
3.56	2.00	0.00	8.22	0.02	0.00	3.58	2.00	0.00	8.21	0.02	0.00
3.60	2.00	0.00	8.20	0.02	0.00	3.62	2.00	0.00	8.19	0.02	0.00
3.64	2.00	0.00	8.18	0.02	0.00	3.66	2.00	0.00	8.17	0.02	0.00
3.68	2.00	0.00	8.16	0.02	0.00	3.70	2.00	0.00	8.15	0.02	0.00
3.72	2.00	0.00	8.14	0.02	0.00	3.74	2.00	0.00	8.13	0.02	0.00
3.76	2.00	0.00	8.12	0.02	0.00	3.78	2.00	0.00	8.11	0.02	0.00
3.80	2.00	0.00	8.10	0.02	0.00	3.82	2.00	0.00	8.09	0.02	0.00

:: Liquefaction Potential Index calculation data :: (continued)

Depth (m)	FS	F _L	w _z	d _z	LPI	Depth (m)	FS	F _L	w _z	d _z	LPI
3.84	2.00	0.00	8.08	0.02	0.00	3.86	2.00	0.00	8.07	0.02	0.00
3.88	2.00	0.00	8.06	0.02	0.00	3.90	2.00	0.00	8.05	0.02	0.00
3.92	2.00	0.00	8.04	0.02	0.00	3.94	2.00	0.00	8.03	0.02	0.00
3.96	2.00	0.00	8.02	0.02	0.00	3.98	2.00	0.00	8.01	0.02	0.00
4.00	2.00	0.00	8.00	0.02	0.00	4.02	2.00	0.00	7.99	0.02	0.00
4.04	2.00	0.00	7.98	0.02	0.00	4.06	2.00	0.00	7.97	0.02	0.00
4.08	2.00	0.00	7.96	0.02	0.00	4.10	2.00	0.00	7.95	0.02	0.00
4.12	2.00	0.00	7.94	0.02	0.00	4.14	2.00	0.00	7.93	0.02	0.00
4.16	2.00	0.00	7.92	0.02	0.00	4.18	2.00	0.00	7.91	0.02	0.00
4.20	2.00	0.00	7.90	0.02	0.00	4.22	2.00	0.00	7.89	0.02	0.00
4.24	2.00	0.00	7.88	0.02	0.00	4.26	2.00	0.00	7.87	0.02	0.00
4.28	2.00	0.00	7.86	0.02	0.00	4.30	2.00	0.00	7.85	0.02	0.00
4.32	2.00	0.00	7.84	0.02	0.00	4.34	2.00	0.00	7.83	0.02	0.00
4.36	2.00	0.00	7.82	0.02	0.00	4.38	2.00	0.00	7.81	0.02	0.00
4.40	2.00	0.00	7.80	0.02	0.00	4.42	2.00	0.00	7.79	0.02	0.00
4.44	2.00	0.00	7.78	0.02	0.00	4.46	2.00	0.00	7.77	0.02	0.00
4.48	2.00	0.00	7.76	0.02	0.00	4.50	2.00	0.00	7.75	0.02	0.00
4.52	2.00	0.00	7.74	0.02	0.00	4.54	2.00	0.00	7.73	0.02	0.00
4.56	2.00	0.00	7.72	0.02	0.00	4.58	2.00	0.00	7.71	0.02	0.00
4.60	2.00	0.00	7.70	0.02	0.00	4.62	2.00	0.00	7.69	0.02	0.00
4.64	2.00	0.00	7.68	0.02	0.00	4.66	2.00	0.00	7.67	0.02	0.00
4.68	2.00	0.00	7.66	0.02	0.00	4.70	2.00	0.00	7.65	0.02	0.00
4.72	2.00	0.00	7.64	0.02	0.00	4.74	2.00	0.00	7.63	0.02	0.00
4.76	2.00	0.00	7.62	0.02	0.00	4.78	2.00	0.00	7.61	0.02	0.00
4.80	2.00	0.00	7.60	0.02	0.00	4.82	2.00	0.00	7.59	0.02	0.00
4.84	2.00	0.00	7.58	0.02	0.00	4.86	2.00	0.00	7.57	0.02	0.00
4.88	2.00	0.00	7.56	0.02	0.00	4.90	2.00	0.00	7.55	0.02	0.00
4.92	2.00	0.00	7.54	0.02	0.00	4.94	2.00	0.00	7.53	0.02	0.00
4.96	2.00	0.00	7.52	0.02	0.00	4.98	2.00	0.00	7.51	0.02	0.00
5.00	2.00	0.00	7.50	0.02	0.00	5.02	2.00	0.00	7.49	0.02	0.00
5.04	2.00	0.00	7.48	0.02	0.00	5.06	2.00	0.00	7.47	0.02	0.00
5.08	2.00	0.00	7.46	0.02	0.00	5.10	2.00	0.00	7.45	0.02	0.00
5.12	2.00	0.00	7.44	0.02	0.00	5.14	2.00	0.00	7.43	0.02	0.00
5.16	2.00	0.00	7.42	0.02	0.00	5.18	2.00	0.00	7.41	0.02	0.00
5.20	2.00	0.00	7.40	0.02	0.00	5.22	2.00	0.00	7.39	0.02	0.00
5.24	2.00	0.00	7.38	0.02	0.00	5.26	2.00	0.00	7.37	0.02	0.00
5.28	2.00	0.00	7.36	0.02	0.00	5.30	2.00	0.00	7.35	0.02	0.00
5.32	2.00	0.00	7.34	0.02	0.00	5.34	2.00	0.00	7.33	0.02	0.00
5.36	2.00	0.00	7.32	0.02	0.00	5.38	2.00	0.00	7.31	0.02	0.00
5.40	2.00	0.00	7.30	0.02	0.00	5.42	2.00	0.00	7.29	0.02	0.00
5.44	2.00	0.00	7.28	0.02	0.00	5.46	2.00	0.00	7.27	0.02	0.00
5.48	2.00	0.00	7.26	0.02	0.00	5.50	2.00	0.00	7.25	0.02	0.00
5.52	2.00	0.00	7.24	0.02	0.00	5.54	2.00	0.00	7.23	0.02	0.00
5.56	2.00	0.00	7.22	0.02	0.00	5.58	2.00	0.00	7.21	0.02	0.00
5.60	2.00	0.00	7.20	0.02	0.00	5.62	2.00	0.00	7.19	0.02	0.00
5.65	2.00	0.00	7.17	0.03	0.00	5.66	2.00	0.00	7.17	0.01	0.00
5.68	2.00	0.00	7.16	0.02	0.00	5.70	2.00	0.00	7.15	0.02	0.00
5.72	2.00	0.00	7.14	0.02	0.00	5.74	2.00	0.00	7.13	0.02	0.00

:: Liquefaction Potential Index calculation data :: (continued)

Depth (m)	FS	F _L	w _z	d _z	LPI	Depth (m)	FS	F _L	w _z	d _z	LPI
5.76	2.00	0.00	7.12	0.02	0.00	5.78	2.00	0.00	7.11	0.02	0.00
5.80	2.00	0.00	7.10	0.02	0.00	5.82	2.00	0.00	7.09	0.02	0.00
5.84	2.00	0.00	7.08	0.02	0.00	5.86	2.00	0.00	7.07	0.02	0.00
5.88	2.00	0.00	7.06	0.02	0.00	5.90	2.00	0.00	7.05	0.02	0.00
5.92	2.00	0.00	7.04	0.02	0.00	5.94	2.00	0.00	7.03	0.02	0.00
5.96	2.00	0.00	7.02	0.02	0.00	5.98	2.00	0.00	7.01	0.02	0.00
6.00	2.00	0.00	7.00	0.02	0.00	6.02	2.00	0.00	6.99	0.02	0.00
6.04	2.00	0.00	6.98	0.02	0.00	6.06	2.00	0.00	6.97	0.02	0.00
6.08	2.00	0.00	6.96	0.02	0.00	6.10	2.00	0.00	6.95	0.02	0.00
6.12	2.00	0.00	6.94	0.02	0.00	6.14	2.00	0.00	6.93	0.02	0.00
6.16	2.00	0.00	6.92	0.02	0.00	6.18	2.00	0.00	6.91	0.02	0.00
6.20	2.00	0.00	6.90	0.02	0.00	6.22	2.00	0.00	6.89	0.02	0.00
6.24	2.00	0.00	6.88	0.02	0.00	6.26	2.00	0.00	6.87	0.02	0.00
6.28	2.00	0.00	6.86	0.02	0.00	6.30	2.00	0.00	6.85	0.02	0.00
6.32	2.00	0.00	6.84	0.02	0.00	6.34	2.00	0.00	6.83	0.02	0.00
6.36	2.00	0.00	6.82	0.02	0.00	6.38	2.00	0.00	6.81	0.02	0.00
6.40	2.00	0.00	6.80	0.02	0.00	6.42	2.00	0.00	6.79	0.02	0.00
6.44	2.00	0.00	6.78	0.02	0.00	6.46	2.00	0.00	6.77	0.02	0.00
6.48	2.00	0.00	6.76	0.02	0.00	6.50	2.00	0.00	6.75	0.02	0.00
6.52	2.00	0.00	6.74	0.02	0.00	6.54	2.00	0.00	6.73	0.02	0.00
6.56	2.00	0.00	6.72	0.02	0.00	6.58	2.00	0.00	6.71	0.02	0.00
6.60	2.00	0.00	6.70	0.02	0.00	6.62	2.00	0.00	6.69	0.02	0.00
6.64	2.00	0.00	6.68	0.02	0.00	6.66	2.00	0.00	6.67	0.02	0.00
6.68	2.00	0.00	6.66	0.02	0.00	6.70	2.00	0.00	6.65	0.02	0.00
6.72	2.00	0.00	6.64	0.02	0.00	6.74	2.00	0.00	6.63	0.02	0.00
6.76	2.00	0.00	6.62	0.02	0.00	6.78	2.00	0.00	6.61	0.02	0.00
6.80	2.00	0.00	6.60	0.02	0.00	6.82	2.00	0.00	6.59	0.02	0.00
6.84	2.00	0.00	6.58	0.02	0.00	6.86	2.00	0.00	6.57	0.02	0.00
6.88	2.00	0.00	6.56	0.02	0.00	6.90	2.00	0.00	6.55	0.02	0.00
6.92	2.00	0.00	6.54	0.02	0.00	6.94	2.00	0.00	6.53	0.02	0.00
6.96	2.00	0.00	6.52	0.02	0.00	6.98	2.00	0.00	6.51	0.02	0.00
7.00	2.00	0.00	6.50	0.02	0.00	7.02	2.00	0.00	6.49	0.02	0.00
7.04	2.00	0.00	6.48	0.02	0.00	7.06	2.00	0.00	6.47	0.02	0.00
7.08	2.00	0.00	6.46	0.02	0.00	7.10	2.00	0.00	6.45	0.02	0.00
7.12	2.00	0.00	6.44	0.02	0.00	7.14	2.00	0.00	6.43	0.02	0.00
7.16	2.00	0.00	6.42	0.02	0.00	7.18	2.00	0.00	6.41	0.02	0.00
7.20	2.00	0.00	6.40	0.02	0.00	7.22	2.00	0.00	6.39	0.02	0.00
7.24	2.00	0.00	6.38	0.02	0.00	7.26	2.00	0.00	6.37	0.02	0.00
7.28	2.00	0.00	6.36	0.02	0.00	7.30	2.00	0.00	6.35	0.02	0.00
7.32	2.00	0.00	6.34	0.02	0.00	7.34	2.00	0.00	6.33	0.02	0.00
7.36	2.00	0.00	6.32	0.02	0.00	7.38	2.00	0.00	6.31	0.02	0.00
7.40	2.00	0.00	6.30	0.02	0.00	7.42	2.00	0.00	6.29	0.02	0.00
7.44	2.00	0.00	6.28	0.02	0.00	7.46	2.00	0.00	6.27	0.02	0.00
7.48	2.00	0.00	6.26	0.02	0.00	7.50	2.00	0.00	6.25	0.02	0.00
7.52	2.00	0.00	6.24	0.02	0.00	7.54	2.00	0.00	6.23	0.02	0.00
7.56	2.00	0.00	6.22	0.02	0.00	7.58	2.00	0.00	6.21	0.02	0.00
7.60	2.00	0.00	6.20	0.02	0.00	7.62	2.00	0.00	6.19	0.02	0.00
7.64	2.00	0.00	6.18	0.02	0.00	7.66	2.00	0.00	6.17	0.02	0.00

:: Liquefaction Potential Index calculation data :: (continued)

Depth (m)	FS	F _L	w _z	d _z	LPI	Depth (m)	FS	F _L	w _z	d _z	LPI
7.68	2.00	0.00	6.16	0.02	0.00	7.70	2.00	0.00	6.15	0.02	0.00
7.72	2.00	0.00	6.14	0.02	0.00	7.74	2.00	0.00	6.13	0.02	0.00
7.76	2.00	0.00	6.12	0.02	0.00	7.78	2.00	0.00	6.11	0.02	0.00
7.80	2.00	0.00	6.10	0.02	0.00	7.82	2.00	0.00	6.09	0.02	0.00
7.84	2.00	0.00	6.08	0.02	0.00	7.86	2.00	0.00	6.07	0.02	0.00
7.88	2.00	0.00	6.06	0.02	0.00	7.90	2.00	0.00	6.05	0.02	0.00
7.92	2.00	0.00	6.04	0.02	0.00	7.94	2.00	0.00	6.03	0.02	0.00
7.96	2.00	0.00	6.02	0.02	0.00	7.98	2.00	0.00	6.01	0.02	0.00
8.00	2.00	0.00	6.00	0.02	0.00	8.02	2.00	0.00	5.99	0.02	0.00
8.04	2.00	0.00	5.98	0.02	0.00	8.06	2.00	0.00	5.97	0.02	0.00
8.08	2.00	0.00	5.96	0.02	0.00	8.10	2.00	0.00	5.95	0.02	0.00
8.12	2.00	0.00	5.94	0.02	0.00	8.15	2.00	0.00	5.92	0.03	0.00
8.16	2.00	0.00	5.92	0.01	0.00	8.18	2.00	0.00	5.91	0.02	0.00
8.20	2.00	0.00	5.90	0.02	0.00	8.22	2.00	0.00	5.89	0.02	0.00
8.24	2.00	0.00	5.88	0.02	0.00	8.26	2.00	0.00	5.87	0.02	0.00
8.28	2.00	0.00	5.86	0.02	0.00	8.30	2.00	0.00	5.85	0.02	0.00
8.32	2.00	0.00	5.84	0.02	0.00	8.34	2.00	0.00	5.83	0.02	0.00
8.36	2.00	0.00	5.82	0.02	0.00	8.38	2.00	0.00	5.81	0.02	0.00
8.40	2.00	0.00	5.80	0.02	0.00	8.42	2.00	0.00	5.79	0.02	0.00
8.44	2.00	0.00	5.78	0.02	0.00	8.46	2.00	0.00	5.77	0.02	0.00
8.48	2.00	0.00	5.76	0.02	0.00	8.50	2.00	0.00	5.75	0.02	0.00
8.52	2.00	0.00	5.74	0.02	0.00	8.54	2.00	0.00	5.73	0.02	0.00
8.56	2.00	0.00	5.72	0.02	0.00	8.58	2.00	0.00	5.71	0.02	0.00
8.60	2.00	0.00	5.70	0.02	0.00	8.62	2.00	0.00	5.69	0.02	0.00
8.64	2.00	0.00	5.68	0.02	0.00	8.66	2.00	0.00	5.67	0.02	0.00
8.68	2.00	0.00	5.66	0.02	0.00	8.70	2.00	0.00	5.65	0.02	0.00
8.72	2.00	0.00	5.64	0.02	0.00	8.74	2.00	0.00	5.63	0.02	0.00
8.76	2.00	0.00	5.62	0.02	0.00	8.78	2.00	0.00	5.61	0.02	0.00
8.80	2.00	0.00	5.60	0.02	0.00	8.82	2.00	0.00	5.59	0.02	0.00
8.84	2.00	0.00	5.58	0.02	0.00	8.86	2.00	0.00	5.57	0.02	0.00
8.88	2.00	0.00	5.56	0.02	0.00	8.90	2.00	0.00	5.55	0.02	0.00
8.92	2.00	0.00	5.54	0.02	0.00	8.94	2.00	0.00	5.53	0.02	0.00
8.96	2.00	0.00	5.52	0.02	0.00	8.98	2.00	0.00	5.51	0.02	0.00
9.00	2.00	0.00	5.50	0.02	0.00	9.02	2.00	0.00	5.49	0.02	0.00
9.04	2.00	0.00	5.48	0.02	0.00	9.06	2.00	0.00	5.47	0.02	0.00
9.08	2.00	0.00	5.46	0.02	0.00	9.10	2.00	0.00	5.45	0.02	0.00
9.12	2.00	0.00	5.44	0.02	0.00	9.14	2.00	0.00	5.43	0.02	0.00
9.16	2.00	0.00	5.42	0.02	0.00	9.18	2.00	0.00	5.41	0.02	0.00
9.20	2.00	0.00	5.40	0.02	0.00	9.22	2.00	0.00	5.39	0.02	0.00
9.24	2.00	0.00	5.38	0.02	0.00	9.26	2.00	0.00	5.37	0.02	0.00
9.28	2.00	0.00	5.36	0.02	0.00	9.30	2.00	0.00	5.35	0.02	0.00
9.32	2.00	0.00	5.34	0.02	0.00	9.34	2.00	0.00	5.33	0.02	0.00
9.36	2.00	0.00	5.32	0.02	0.00	9.38	2.00	0.00	5.31	0.02	0.00
9.40	2.00	0.00	5.30	0.02	0.00	9.42	2.00	0.00	5.29	0.02	0.00
9.44	2.00	0.00	5.28	0.02	0.00	9.46	2.00	0.00	5.27	0.02	0.00
9.48	2.00	0.00	5.26	0.02	0.00	9.50	2.00	0.00	5.25	0.02	0.00
9.52	2.00	0.00	5.24	0.02	0.00	9.54	2.00	0.00	5.23	0.02	0.00
9.56	2.00	0.00	5.22	0.02	0.00	9.58	2.00	0.00	5.21	0.02	0.00

:: Liquefaction Potential Index calculation data :: (continued)

Depth (m)	FS	F _L	w _z	d _z	LPI	Depth (m)	FS	F _L	w _z	d _z	LPI
9.60	2.00	0.00	5.20	0.02	0.00	9.66	2.00	0.00	5.17	0.06	0.00
9.66	2.00	0.00	5.17	0.00	0.00	9.67	2.00	0.00	5.17	0.01	0.00
9.68	2.00	0.00	5.16	0.01	0.00	9.70	2.00	0.00	5.15	0.02	0.00
9.73	2.00	0.00	5.13	0.03	0.00	9.74	2.00	0.00	5.13	0.01	0.00
9.76	2.00	0.00	5.12	0.02	0.00	9.78	2.00	0.00	5.11	0.02	0.00
9.80	2.00	0.00	5.10	0.02	0.00	9.82	2.00	0.00	5.09	0.02	0.00
9.84	2.00	0.00	5.08	0.02	0.00	9.86	2.00	0.00	5.07	0.02	0.00
9.88	2.00	0.00	5.06	0.02	0.00	9.90	2.00	0.00	5.05	0.02	0.00
9.92	2.00	0.00	5.04	0.02	0.00	9.94	2.00	0.00	5.03	0.02	0.00
9.96	2.00	0.00	5.02	0.02	0.00	9.98	2.00	0.00	5.01	0.02	0.00
10.00	2.00	0.00	5.00	0.02	0.00	10.02	2.00	0.00	4.99	0.02	0.00
10.04	2.00	0.00	4.98	0.02	0.00	10.06	2.00	0.00	4.97	0.02	0.00
10.08	2.00	0.00	4.96	0.02	0.00	10.10	2.00	0.00	4.95	0.02	0.00
10.12	2.00	0.00	4.94	0.02	0.00	10.14	2.00	0.00	4.93	0.02	0.00
10.16	2.00	0.00	4.92	0.02	0.00	10.18	2.00	0.00	4.91	0.02	0.00
10.20	2.00	0.00	4.90	0.02	0.00	10.22	2.00	0.00	4.89	0.02	0.00
10.24	2.00	0.00	4.88	0.02	0.00	10.26	2.00	0.00	4.87	0.02	0.00
10.28	2.00	0.00	4.86	0.02	0.00	10.30	2.00	0.00	4.85	0.02	0.00
10.32	2.00	0.00	4.84	0.02	0.00	10.34	2.00	0.00	4.83	0.02	0.00
10.36	2.00	0.00	4.82	0.02	0.00	10.38	2.00	0.00	4.81	0.02	0.00
10.40	2.00	0.00	4.80	0.02	0.00	10.42	2.00	0.00	4.79	0.02	0.00
10.44	2.00	0.00	4.78	0.02	0.00	10.46	2.00	0.00	4.77	0.02	0.00
10.48	2.00	0.00	4.76	0.02	0.00	10.50	2.00	0.00	4.75	0.02	0.00
10.52	2.00	0.00	4.74	0.02	0.00	10.54	2.00	0.00	4.73	0.02	0.00
10.56	2.00	0.00	4.72	0.02	0.00	10.58	2.00	0.00	4.71	0.02	0.00
10.60	2.00	0.00	4.70	0.02	0.00	10.62	2.00	0.00	4.69	0.02	0.00
10.64	2.00	0.00	4.68	0.02	0.00	10.66	2.00	0.00	4.67	0.02	0.00
10.68	2.00	0.00	4.66	0.02	0.00	10.70	2.00	0.00	4.65	0.02	0.00
10.72	2.00	0.00	4.64	0.02	0.00	10.74	2.00	0.00	4.63	0.02	0.00
10.76	2.00	0.00	4.62	0.02	0.00	10.78	2.00	0.00	4.61	0.02	0.00
10.80	2.00	0.00	4.60	0.02	0.00	10.82	2.00	0.00	4.59	0.02	0.00
10.84	2.00	0.00	4.58	0.02	0.00	10.86	2.00	0.00	4.57	0.02	0.00
10.88	2.00	0.00	4.56	0.02	0.00	10.90	2.00	0.00	4.55	0.02	0.00
10.92	2.00	0.00	4.54	0.02	0.00	10.94	2.00	0.00	4.53	0.02	0.00
10.96	2.00	0.00	4.52	0.02	0.00	10.98	2.00	0.00	4.51	0.02	0.00
11.00	2.00	0.00	4.50	0.02	0.00	11.02	2.00	0.00	4.49	0.02	0.00
11.04	2.00	0.00	4.48	0.02	0.00	11.06	2.00	0.00	4.47	0.02	0.00
11.08	2.00	0.00	4.46	0.02	0.00	11.10	2.00	0.00	4.45	0.02	0.00
11.12	2.00	0.00	4.44	0.02	0.00	11.14	2.00	0.00	4.43	0.02	0.00
11.16	2.00	0.00	4.42	0.02	0.00	11.18	2.00	0.00	4.41	0.02	0.00
11.20	2.00	0.00	4.40	0.02	0.00	11.22	2.00	0.00	4.39	0.02	0.00
11.24	2.00	0.00	4.38	0.02	0.00	11.26	2.00	0.00	4.37	0.02	0.00
11.28	2.00	0.00	4.36	0.02	0.00	11.30	2.00	0.00	4.35	0.02	0.00
11.32	2.00	0.00	4.34	0.02	0.00	11.34	2.00	0.00	4.33	0.02	0.00
11.36	2.00	0.00	4.32	0.02	0.00	11.38	2.00	0.00	4.31	0.02	0.00
11.40	2.00	0.00	4.30	0.02	0.00	11.42	2.00	0.00	4.29	0.02	0.00
11.44	2.00	0.00	4.28	0.02	0.00	11.46	2.00	0.00	4.27	0.02	0.00
11.48	2.00	0.00	4.26	0.02	0.00	11.50	2.00	0.00	4.25	0.02	0.00

:: Liquefaction Potential Index calculation data :: (continued)

Depth (m)	FS	F _L	w _z	d _z	LPI	Depth (m)	FS	F _L	w _z	d _z	LPI
11.52	2.00	0.00	4.24	0.02	0.00	11.54	2.00	0.00	4.23	0.02	0.00
11.56	2.00	0.00	4.22	0.02	0.00	11.58	2.00	0.00	4.21	0.02	0.00
11.60	2.00	0.00	4.20	0.02	0.00	11.62	2.00	0.00	4.19	0.02	0.00
11.64	2.00	0.00	4.18	0.02	0.00	11.66	2.00	0.00	4.17	0.02	0.00
11.68	2.00	0.00	4.16	0.02	0.00	11.70	2.00	0.00	4.15	0.02	0.00
11.72	2.00	0.00	4.14	0.02	0.00	11.74	2.00	0.00	4.13	0.02	0.00
11.76	2.00	0.00	4.12	0.02	0.00	11.78	2.00	0.00	4.11	0.02	0.00
11.80	2.00	0.00	4.10	0.02	0.00	11.82	2.00	0.00	4.09	0.02	0.00
11.84	2.00	0.00	4.08	0.02	0.00	11.86	2.00	0.00	4.07	0.02	0.00
11.88	2.00	0.00	4.06	0.02	0.00	11.90	2.00	0.00	4.05	0.02	0.00
11.92	2.00	0.00	4.04	0.02	0.00	11.94	2.00	0.00	4.03	0.02	0.00
11.96	2.00	0.00	4.02	0.02	0.00	11.98	2.00	0.00	4.01	0.02	0.00
12.00	2.00	0.00	4.00	0.02	0.00	12.02	2.00	0.00	3.99	0.02	0.00
12.04	2.00	0.00	3.98	0.02	0.00	12.06	2.00	0.00	3.97	0.02	0.00
12.08	2.00	0.00	3.96	0.02	0.00	12.10	2.00	0.00	3.95	0.02	0.00
12.12	2.00	0.00	3.94	0.02	0.00	12.14	2.00	0.00	3.93	0.02	0.00
12.16	2.00	0.00	3.92	0.02	0.00	12.18	2.00	0.00	3.91	0.02	0.00
12.20	2.00	0.00	3.90	0.02	0.00	12.22	2.00	0.00	3.89	0.02	0.00
12.24	2.00	0.00	3.88	0.02	0.00	12.26	2.00	0.00	3.87	0.02	0.00
12.28	2.00	0.00	3.86	0.02	0.00	12.30	2.00	0.00	3.85	0.02	0.00
12.32	2.00	0.00	3.84	0.02	0.00	12.34	2.00	0.00	3.83	0.02	0.00
12.36	2.00	0.00	3.82	0.02	0.00	12.38	2.00	0.00	3.81	0.02	0.00
12.41	2.00	0.00	3.79	0.03	0.00	12.42	2.00	0.00	3.79	0.01	0.00
12.44	2.00	0.00	3.78	0.02	0.00	12.46	2.00	0.00	3.77	0.02	0.00
12.48	2.00	0.00	3.76	0.02	0.00	12.50	2.00	0.00	3.75	0.02	0.00
12.52	2.00	0.00	3.74	0.02	0.00	12.54	2.00	0.00	3.73	0.02	0.00
12.56	2.00	0.00	3.72	0.02	0.00	12.58	2.00	0.00	3.71	0.02	0.00
12.60	2.00	0.00	3.70	0.02	0.00	12.62	2.00	0.00	3.69	0.02	0.00
12.65	2.00	0.00	3.67	0.03	0.00	12.66	2.00	0.00	3.67	0.01	0.00
12.68	2.00	0.00	3.66	0.02	0.00	12.70	2.00	0.00	3.65	0.02	0.00
12.72	2.00	0.00	3.64	0.02	0.00	12.74	2.00	0.00	3.63	0.02	0.00
12.76	2.00	0.00	3.62	0.02	0.00	12.78	2.00	0.00	3.61	0.02	0.00
12.80	2.00	0.00	3.60	0.02	0.00	12.82	2.00	0.00	3.59	0.02	0.00
12.84	2.00	0.00	3.58	0.02	0.00	12.86	2.00	0.00	3.57	0.02	0.00
12.88	2.00	0.00	3.56	0.02	0.00	12.90	0.51	0.49	3.55	0.02	0.03
12.92	0.54	0.46	3.54	0.02	0.03	12.94	0.57	0.43	3.53	0.02	0.03
12.96	0.57	0.43	3.52	0.02	0.03	12.98	0.55	0.45	3.51	0.02	0.03
13.00	0.51	0.49	3.50	0.02	0.03	13.02	0.48	0.52	3.49	0.02	0.04
13.04	0.45	0.55	3.48	0.02	0.04	13.06	0.43	0.57	3.47	0.02	0.04
13.08	0.43	0.57	3.46	0.02	0.04	13.10	0.41	0.59	3.45	0.02	0.04
13.12	0.41	0.59	3.44	0.02	0.04	13.14	0.41	0.59	3.43	0.02	0.04
13.16	0.41	0.59	3.42	0.02	0.04	13.18	0.42	0.58	3.41	0.02	0.04
13.20	0.43	0.57	3.40	0.02	0.04	13.22	0.44	0.56	3.39	0.02	0.04
13.24	0.44	0.56	3.38	0.02	0.04	13.26	0.46	0.54	3.37	0.02	0.04
13.28	0.47	0.53	3.36	0.02	0.04	13.30	0.47	0.53	3.35	0.02	0.04
13.32	0.47	0.53	3.34	0.02	0.04	13.34	0.45	0.55	3.33	0.02	0.04
13.36	2.00	0.00	3.32	0.02	0.00	13.38	2.00	0.00	3.31	0.02	0.00
13.40	2.00	0.00	3.30	0.02	0.00	13.42	2.00	0.00	3.29	0.02	0.00

:: Liquefaction Potential Index calculation data :: (continued)

Depth (m)	FS	F _L	w _z	d _z	LPI	Depth (m)	FS	F _L	w _z	d _z	LPI
13.44	2.00	0.00	3.28	0.02	0.00	13.46	2.00	0.00	3.27	0.02	0.00
13.48	2.00	0.00	3.26	0.02	0.00	13.50	2.00	0.00	3.25	0.02	0.00
13.52	2.00	0.00	3.24	0.02	0.00	13.54	2.00	0.00	3.23	0.02	0.00
13.56	2.00	0.00	3.22	0.02	0.00	13.58	2.00	0.00	3.21	0.02	0.00
13.60	2.00	0.00	3.20	0.02	0.00	13.62	2.00	0.00	3.19	0.02	0.00
13.64	2.00	0.00	3.18	0.02	0.00	13.66	2.00	0.00	3.17	0.02	0.00
13.68	2.00	0.00	3.16	0.02	0.00	13.70	2.00	0.00	3.15	0.02	0.00
13.72	2.00	0.00	3.14	0.02	0.00	13.74	2.00	0.00	3.13	0.02	0.00
13.76	2.00	0.00	3.12	0.02	0.00	13.78	2.00	0.00	3.11	0.02	0.00
13.80	2.00	0.00	3.10	0.02	0.00	13.82	2.00	0.00	3.09	0.02	0.00
13.84	2.00	0.00	3.08	0.02	0.00	13.86	2.00	0.00	3.07	0.02	0.00
13.88	2.00	0.00	3.06	0.02	0.00	13.90	2.00	0.00	3.05	0.02	0.00
13.92	2.00	0.00	3.04	0.02	0.00	13.94	2.00	0.00	3.03	0.02	0.00
13.96	2.00	0.00	3.02	0.02	0.00	13.98	2.00	0.00	3.01	0.02	0.00
14.00	2.00	0.00	3.00	0.02	0.00	14.02	2.00	0.00	2.99	0.02	0.00
14.04	2.00	0.00	2.98	0.02	0.00	14.06	2.00	0.00	2.97	0.02	0.00
14.08	2.00	0.00	2.96	0.02	0.00	14.10	2.00	0.00	2.95	0.02	0.00
14.12	2.00	0.00	2.94	0.02	0.00	14.14	2.00	0.00	2.93	0.02	0.00
14.16	2.00	0.00	2.92	0.02	0.00	14.18	2.00	0.00	2.91	0.02	0.00
14.20	2.00	0.00	2.90	0.02	0.00	14.22	2.00	0.00	2.89	0.02	0.00
14.24	2.00	0.00	2.88	0.02	0.00	14.26	2.00	0.00	2.87	0.02	0.00
14.28	2.00	0.00	2.86	0.02	0.00	14.30	2.00	0.00	2.85	0.02	0.00
14.32	2.00	0.00	2.84	0.02	0.00	14.34	2.00	0.00	2.83	0.02	0.00
14.36	2.00	0.00	2.82	0.02	0.00	14.38	2.00	0.00	2.81	0.02	0.00
14.40	2.00	0.00	2.80	0.02	0.00	14.42	2.00	0.00	2.79	0.02	0.00
14.44	2.00	0.00	2.78	0.02	0.00	14.46	2.00	0.00	2.77	0.02	0.00
14.48	2.00	0.00	2.76	0.02	0.00	14.50	2.00	0.00	2.75	0.02	0.00
14.52	2.00	0.00	2.74	0.02	0.00	14.54	2.00	0.00	2.73	0.02	0.00
14.56	2.00	0.00	2.72	0.02	0.00	14.58	2.00	0.00	2.71	0.02	0.00
14.60	2.00	0.00	2.70	0.02	0.00	14.62	2.00	0.00	2.69	0.02	0.00
14.64	2.00	0.00	2.68	0.02	0.00	14.66	2.00	0.00	2.67	0.02	0.00
14.68	2.00	0.00	2.66	0.02	0.00	14.70	2.00	0.00	2.65	0.02	0.00
14.72	2.00	0.00	2.64	0.02	0.00	14.74	2.00	0.00	2.63	0.02	0.00
14.76	2.00	0.00	2.62	0.02	0.00	14.78	2.00	0.00	2.61	0.02	0.00
14.80	2.00	0.00	2.60	0.02	0.00	14.82	2.00	0.00	2.59	0.02	0.00
14.84	2.00	0.00	2.58	0.02	0.00	14.86	2.00	0.00	2.57	0.02	0.00
14.88	2.00	0.00	2.56	0.02	0.00	14.90	2.00	0.00	2.55	0.02	0.00
14.92	2.00	0.00	2.54	0.02	0.00	14.94	2.00	0.00	2.53	0.02	0.00
14.96	2.00	0.00	2.52	0.02	0.00	14.98	2.00	0.00	2.51	0.02	0.00
15.00	2.00	0.00	2.50	0.02	0.00	15.02	2.00	0.00	2.49	0.02	0.00
15.04	2.00	0.00	2.48	0.02	0.00	15.06	2.00	0.00	2.47	0.02	0.00
15.08	2.00	0.00	2.46	0.02	0.00	15.10	2.00	0.00	2.45	0.02	0.00
15.12	2.00	0.00	2.44	0.02	0.00	15.14	2.00	0.00	2.43	0.02	0.00
15.16	2.00	0.00	2.42	0.02	0.00	15.18	2.00	0.00	2.41	0.02	0.00
15.20	2.00	0.00	2.40	0.02	0.00	15.22	2.00	0.00	2.39	0.02	0.00
15.24	2.00	0.00	2.38	0.02	0.00	15.26	2.00	0.00	2.37	0.02	0.00
15.28	2.00	0.00	2.36	0.02	0.00	15.30	2.00	0.00	2.35	0.02	0.00
15.32	2.00	0.00	2.34	0.02	0.00	15.34	2.00	0.00	2.33	0.02	0.00

:: Liquefaction Potential Index calculation data :: (continued)

Depth (m)	FS	F _L	w _z	d _z	LPI	Depth (m)	FS	F _L	w _z	d _z	LPI
15.36	2.00	0.00	2.32	0.02	0.00	15.38	2.00	0.00	2.31	0.02	0.00
15.40	2.00	0.00	2.30	0.02	0.00	15.42	2.00	0.00	2.29	0.02	0.00
15.44	2.00	0.00	2.28	0.02	0.00	15.46	2.00	0.00	2.27	0.02	0.00
15.48	2.00	0.00	2.26	0.02	0.00	15.50	2.00	0.00	2.25	0.02	0.00
15.52	2.00	0.00	2.24	0.02	0.00	15.54	2.00	0.00	2.23	0.02	0.00
15.56	2.00	0.00	2.22	0.02	0.00	15.58	2.00	0.00	2.21	0.02	0.00
15.60	2.00	0.00	2.20	0.02	0.00	15.62	2.00	0.00	2.19	0.02	0.00
15.64	2.00	0.00	2.18	0.02	0.00	15.66	2.00	0.00	2.17	0.02	0.00
15.68	2.00	0.00	2.16	0.02	0.00	15.70	2.00	0.00	2.15	0.02	0.00
15.72	2.00	0.00	2.14	0.02	0.00	15.74	2.00	0.00	2.13	0.02	0.00
15.76	2.00	0.00	2.12	0.02	0.00	15.78	2.00	0.00	2.11	0.02	0.00
15.80	2.00	0.00	2.10	0.02	0.00	15.82	2.00	0.00	2.09	0.02	0.00
15.84	2.00	0.00	2.08	0.02	0.00	15.86	2.00	0.00	2.07	0.02	0.00
15.88	2.00	0.00	2.06	0.02	0.00	15.90	2.00	0.00	2.05	0.02	0.00
15.92	2.00	0.00	2.04	0.02	0.00	15.94	2.00	0.00	2.03	0.02	0.00
15.96	2.00	0.00	2.02	0.02	0.00	15.98	2.00	0.00	2.01	0.02	0.00
16.00	2.00	0.00	2.00	0.02	0.00	16.02	2.00	0.00	1.99	0.02	0.00
16.04	2.00	0.00	1.98	0.02	0.00	16.06	2.00	0.00	1.97	0.02	0.00
16.08	2.00	0.00	1.96	0.02	0.00	16.10	2.00	0.00	1.95	0.02	0.00
16.12	2.00	0.00	1.94	0.02	0.00	16.14	2.00	0.00	1.93	0.02	0.00
16.16	2.00	0.00	1.92	0.02	0.00	16.18	2.00	0.00	1.91	0.02	0.00
16.20	2.00	0.00	1.90	0.02	0.00	16.22	2.00	0.00	1.89	0.02	0.00
16.24	2.00	0.00	1.88	0.02	0.00	16.26	2.00	0.00	1.87	0.02	0.00
16.28	2.00	0.00	1.86	0.02	0.00	16.30	2.00	0.00	1.85	0.02	0.00
16.32	2.00	0.00	1.84	0.02	0.00	16.34	2.00	0.00	1.83	0.02	0.00
16.36	2.00	0.00	1.82	0.02	0.00	16.38	2.00	0.00	1.81	0.02	0.00
16.40	2.00	0.00	1.80	0.02	0.00	16.42	2.00	0.00	1.79	0.02	0.00
16.44	2.00	0.00	1.78	0.02	0.00	16.46	2.00	0.00	1.77	0.02	0.00
16.48	2.00	0.00	1.76	0.02	0.00	16.50	2.00	0.00	1.75	0.02	0.00
16.52	2.00	0.00	1.74	0.02	0.00	16.54	2.00	0.00	1.73	0.02	0.00
16.56	2.00	0.00	1.72	0.02	0.00	16.58	2.00	0.00	1.71	0.02	0.00
16.60	2.00	0.00	1.70	0.02	0.00	16.62	2.00	0.00	1.69	0.02	0.00
16.64	2.00	0.00	1.68	0.02	0.00	16.66	2.00	0.00	1.67	0.02	0.00
16.68	2.00	0.00	1.66	0.02	0.00	16.70	2.00	0.00	1.65	0.02	0.00
16.72	2.00	0.00	1.64	0.02	0.00	16.74	2.00	0.00	1.63	0.02	0.00
16.76	2.00	0.00	1.62	0.02	0.00	16.78	2.00	0.00	1.61	0.02	0.00
16.80	2.00	0.00	1.60	0.02	0.00	16.82	2.00	0.00	1.59	0.02	0.00
16.84	2.00	0.00	1.58	0.02	0.00	16.86	2.00	0.00	1.57	0.02	0.00
16.88	2.00	0.00	1.56	0.02	0.00	16.90	2.00	0.00	1.55	0.02	0.00
16.92	2.00	0.00	1.54	0.02	0.00	16.94	2.00	0.00	1.53	0.02	0.00
16.96	2.00	0.00	1.52	0.02	0.00	16.98	2.00	0.00	1.51	0.02	0.00
17.00	2.00	0.00	1.50	0.02	0.00	17.02	2.00	0.00	1.49	0.02	0.00
17.04	2.00	0.00	1.48	0.02	0.00	17.06	2.00	0.00	1.47	0.02	0.00
17.08	2.00	0.00	1.46	0.02	0.00	17.10	2.00	0.00	1.45	0.02	0.00
17.12	2.00	0.00	1.44	0.02	0.00	17.14	2.00	0.00	1.43	0.02	0.00
17.16	2.00	0.00	1.42	0.02	0.00	17.18	2.00	0.00	1.41	0.02	0.00
17.20	2.00	0.00	1.40	0.02	0.00	17.22	2.00	0.00	1.39	0.02	0.00
17.24	2.00	0.00	1.38	0.02	0.00	17.26	2.00	0.00	1.37	0.02	0.00

:: Liquefaction Potential Index calculation data :: (continued)

Depth (m)	FS	F _L	w _z	d _z	LPI	Depth (m)	FS	F _L	w _z	d _z	LPI
17.28	2.00	0.00	1.36	0.02	0.00	17.30	2.00	0.00	1.35	0.02	0.00
17.32	2.00	0.00	1.34	0.02	0.00	17.34	2.00	0.00	1.33	0.02	0.00
17.36	2.00	0.00	1.32	0.02	0.00	17.38	2.00	0.00	1.31	0.02	0.00
17.40	2.00	0.00	1.30	0.02	0.00	17.42	2.00	0.00	1.29	0.02	0.00
17.45	2.00	0.00	1.27	0.03	0.00	17.46	2.00	0.00	1.27	0.01	0.00
17.48	2.00	0.00	1.26	0.02	0.00	17.50	2.00	0.00	1.25	0.02	0.00
17.52	2.00	0.00	1.24	0.02	0.00	17.54	2.00	0.00	1.23	0.02	0.00
17.56	2.00	0.00	1.22	0.02	0.00	17.58	2.00	0.00	1.21	0.02	0.00
17.60	2.00	0.00	1.20	0.02	0.00	17.62	2.00	0.00	1.19	0.02	0.00
17.64	2.00	0.00	1.18	0.02	0.00	17.66	2.00	0.00	1.17	0.02	0.00
17.68	2.00	0.00	1.16	0.02	0.00	17.70	2.00	0.00	1.15	0.02	0.00
17.72	2.00	0.00	1.14	0.02	0.00	17.74	2.00	0.00	1.13	0.02	0.00
17.76	2.00	0.00	1.12	0.02	0.00	17.78	2.00	0.00	1.11	0.02	0.00
17.80	2.00	0.00	1.10	0.02	0.00	17.82	2.00	0.00	1.09	0.02	0.00
17.84	2.00	0.00	1.08	0.02	0.00	17.86	2.00	0.00	1.07	0.02	0.00
17.88	2.00	0.00	1.06	0.02	0.00	17.90	2.00	0.00	1.05	0.02	0.00
17.92	2.00	0.00	1.04	0.02	0.00	17.94	2.00	0.00	1.03	0.02	0.00
17.96	2.00	0.00	1.02	0.02	0.00	17.98	2.00	0.00	1.01	0.02	0.00
18.00	2.00	0.00	1.00	0.02	0.00	18.02	2.00	0.00	0.99	0.02	0.00
18.04	2.00	0.00	0.98	0.02	0.00	18.06	2.00	0.00	0.97	0.02	0.00
18.08	2.00	0.00	0.96	0.02	0.00	18.10	2.00	0.00	0.95	0.02	0.00
18.12	2.00	0.00	0.94	0.02	0.00	18.14	2.00	0.00	0.93	0.02	0.00
18.17	2.00	0.00	0.91	0.03	0.00	18.18	2.00	0.00	0.91	0.01	0.00
18.20	2.00	0.00	0.90	0.02	0.00	18.22	2.00	0.00	0.89	0.02	0.00
18.24	2.00	0.00	0.88	0.02	0.00	18.26	2.00	0.00	0.87	0.02	0.00
18.28	2.00	0.00	0.86	0.02	0.00	18.30	2.00	0.00	0.85	0.02	0.00
18.32	2.00	0.00	0.84	0.02	0.00	18.34	2.00	0.00	0.83	0.02	0.00
18.36	2.00	0.00	0.82	0.02	0.00	18.38	2.00	0.00	0.81	0.02	0.00
18.40	2.00	0.00	0.80	0.02	0.00	18.42	2.00	0.00	0.79	0.02	0.00
18.44	2.00	0.00	0.78	0.02	0.00	18.46	2.00	0.00	0.77	0.02	0.00
18.48	2.00	0.00	0.76	0.02	0.00	18.50	2.00	0.00	0.75	0.02	0.00
18.52	2.00	0.00	0.74	0.02	0.00	18.54	2.00	0.00	0.73	0.02	0.00
18.56	2.00	0.00	0.72	0.02	0.00	18.58	2.00	0.00	0.71	0.02	0.00
18.60	2.00	0.00	0.70	0.02	0.00	18.62	2.00	0.00	0.69	0.02	0.00
18.64	2.00	0.00	0.68	0.02	0.00	18.66	2.00	0.00	0.67	0.02	0.00
18.68	2.00	0.00	0.66	0.02	0.00	18.70	2.00	0.00	0.65	0.02	0.00
18.72	2.00	0.00	0.64	0.02	0.00	18.74	2.00	0.00	0.63	0.02	0.00
18.76	2.00	0.00	0.62	0.02	0.00	18.78	2.00	0.00	0.61	0.02	0.00
18.80	2.00	0.00	0.60	0.02	0.00	18.82	2.00	0.00	0.59	0.02	0.00
18.84	2.00	0.00	0.58	0.02	0.00	18.86	2.00	0.00	0.57	0.02	0.00
18.88	2.00	0.00	0.56	0.02	0.00	18.90	2.00	0.00	0.55	0.02	0.00
18.92	2.00	0.00	0.54	0.02	0.00	18.94	2.00	0.00	0.53	0.02	0.00
18.96	2.00	0.00	0.52	0.02	0.00	18.98	2.00	0.00	0.51	0.02	0.00
19.00	2.00	0.00	0.50	0.02	0.00	19.02	2.00	0.00	0.49	0.02	0.00
19.04	2.00	0.00	0.48	0.02	0.00	19.06	2.00	0.00	0.47	0.02	0.00
19.08	2.00	0.00	0.46	0.02	0.00	19.10	2.00	0.00	0.45	0.02	0.00
19.12	2.00	0.00	0.44	0.02	0.00	19.14	2.00	0.00	0.43	0.02	0.00
19.16	2.00	0.00	0.42	0.02	0.00	19.18	2.00	0.00	0.41	0.02	0.00

:: Liquefaction Potential Index calculation data :: (continued)

Depth (m)	FS	F _L	w _z	d _z	LPI	Depth (m)	FS	F _L	w _z	d _z	LPI
19.20	2.00	0.00	0.40	0.02	0.00	19.22	2.00	0.00	0.39	0.02	0.00
19.25	2.00	0.00	0.38	0.03	0.00	19.26	2.00	0.00	0.37	0.01	0.00
19.29	2.00	0.00	0.35	0.03	0.00	19.30	2.00	0.00	0.35	0.01	0.00
19.32	2.00	0.00	0.34	0.02	0.00	19.34	2.00	0.00	0.33	0.02	0.00
19.36	2.00	0.00	0.32	0.02	0.00	19.38	2.00	0.00	0.31	0.02	0.00
19.40	2.00	0.00	0.30	0.02	0.00	19.42	2.00	0.00	0.29	0.02	0.00
19.44	2.00	0.00	0.28	0.02	0.00	19.46	2.00	0.00	0.27	0.02	0.00
19.48	2.00	0.00	0.26	0.02	0.00	19.50	2.00	0.00	0.25	0.02	0.00
19.52	2.00	0.00	0.24	0.02	0.00	19.54	2.00	0.00	0.23	0.02	0.00
19.56	2.00	0.00	0.22	0.02	0.00	19.58	2.00	0.00	0.21	0.02	0.00
19.60	2.00	0.00	0.20	0.02	0.00	19.62	2.00	0.00	0.19	0.02	0.00
19.64	2.00	0.00	0.18	0.02	0.00	19.66	2.00	0.00	0.17	0.02	0.00
19.68	2.00	0.00	0.16	0.02	0.00	19.70	2.00	0.00	0.15	0.02	0.00
19.72	2.00	0.00	0.14	0.02	0.00	19.74	2.00	0.00	0.13	0.02	0.00
19.76	2.00	0.00	0.12	0.02	0.00	19.78	2.00	0.00	0.11	0.02	0.00
19.80	2.00	0.00	0.10	0.02	0.00	19.82	2.00	0.00	0.09	0.02	0.00
19.84	2.00	0.00	0.08	0.02	0.00	19.86	2.00	0.00	0.07	0.02	0.00
19.88	2.00	0.00	0.06	0.02	0.00	19.90	2.00	0.00	0.05	0.02	0.00
19.92	2.00	0.00	0.04	0.02	0.00	19.94	2.00	0.00	0.03	0.02	0.00
19.96	2.00	0.00	0.02	0.02	0.00	19.98	2.00	0.00	0.01	0.02	0.00
20.00	2.00	0.00	0.00	0.02	0.00	20.02	2.00	0.00	0.00	0.00	0.00
20.04	2.00	0.00	0.00	0.00	0.00	20.06	2.00	0.00	0.00	0.00	0.00
20.08	2.00	0.00	0.00	0.00	0.00	20.10	2.00	0.00	0.00	0.00	0.00
20.12	0.61	0.00	0.00	0.00	0.00	20.14	0.69	0.00	0.00	0.00	0.00
20.16	0.73	0.00	0.00	0.00	0.00	20.18	0.78	0.00	0.00	0.00	0.00
20.20	0.57	0.00	0.00	0.00	0.00	20.22	0.63	0.00	0.00	0.00	0.00
20.24	0.70	0.00	0.00	0.00	0.00	20.26	0.64	0.00	0.00	0.00	0.00
20.28	0.63	0.00	0.00	0.00	0.00	20.30	0.61	0.00	0.00	0.00	0.00
20.32	0.57	0.00	0.00	0.00	0.00	20.34	2.00	0.00	0.00	0.00	0.00
20.36	2.00	0.00	0.00	0.00	0.00	20.38	2.00	0.00	0.00	0.00	0.00
20.40	2.00	0.00	0.00	0.00	0.00	20.42	2.00	0.00	0.00	0.00	0.00
20.44	2.00	0.00	0.00	0.00	0.00	20.46	2.00	0.00	0.00	0.00	0.00
20.48	2.00	0.00	0.00	0.00	0.00	20.50	2.00	0.00	0.00	0.00	0.00
20.52	2.00	0.00	0.00	0.00	0.00	20.54	2.00	0.00	0.00	0.00	0.00
20.56	2.00	0.00	0.00	0.00	0.00	20.58	2.00	0.00	0.00	0.00	0.00
20.60	2.00	0.00	0.00	0.00	0.00	20.62	2.00	0.00	0.00	0.00	0.00
20.64	2.00	0.00	0.00	0.00	0.00	20.66	2.00	0.00	0.00	0.00	0.00
20.68	2.00	0.00	0.00	0.00	0.00	20.70	2.00	0.00	0.00	0.00	0.00
20.72	2.00	0.00	0.00	0.00	0.00	20.74	2.00	0.00	0.00	0.00	0.00
20.76	2.00	0.00	0.00	0.00	0.00	20.78	2.00	0.00	0.00	0.00	0.00
20.80	2.00	0.00	0.00	0.00	0.00	20.82	2.00	0.00	0.00	0.00	0.00
20.84	2.00	0.00	0.00	0.00	0.00	20.86	2.00	0.00	0.00	0.00	0.00
20.88	2.00	0.00	0.00	0.00	0.00	20.90	2.00	0.00	0.00	0.00	0.00
20.92	2.00	0.00	0.00	0.00	0.00	20.94	2.00	0.00	0.00	0.00	0.00
20.96	2.00	0.00	0.00	0.00	0.00	20.98	2.00	0.00	0.00	0.00	0.00
21.00	2.00	0.00	0.00	0.00	0.00	21.02	2.00	0.00	0.00	0.00	0.00
21.04	2.00	0.00	0.00	0.00	0.00	21.06	2.00	0.00	0.00	0.00	0.00
21.08	2.00	0.00	0.00	0.00	0.00	21.10	2.00	0.00	0.00	0.00	0.00

:: Liquefaction Potential Index calculation data :: (continued)

Depth (m)	FS	F _L	w _z	d _z	LPI	Depth (m)	FS	F _L	w _z	d _z	LPI
21.12	2.00	0.00	0.00	0.00	0.00	21.14	2.00	0.00	0.00	0.00	0.00
21.16	2.00	0.00	0.00	0.00	0.00	21.18	2.00	0.00	0.00	0.00	0.00
21.20	2.00	0.00	0.00	0.00	0.00						

Overall liquefaction potential: 2.36

LPI = 0.00 - Liquefaction risk very low

LPI between 0.00 and 5.00 - Liquefaction risk low

LPI between 5.00 and 15.00 - Liquefaction risk high

LPI > 15.00 - Liquefaction risk very high

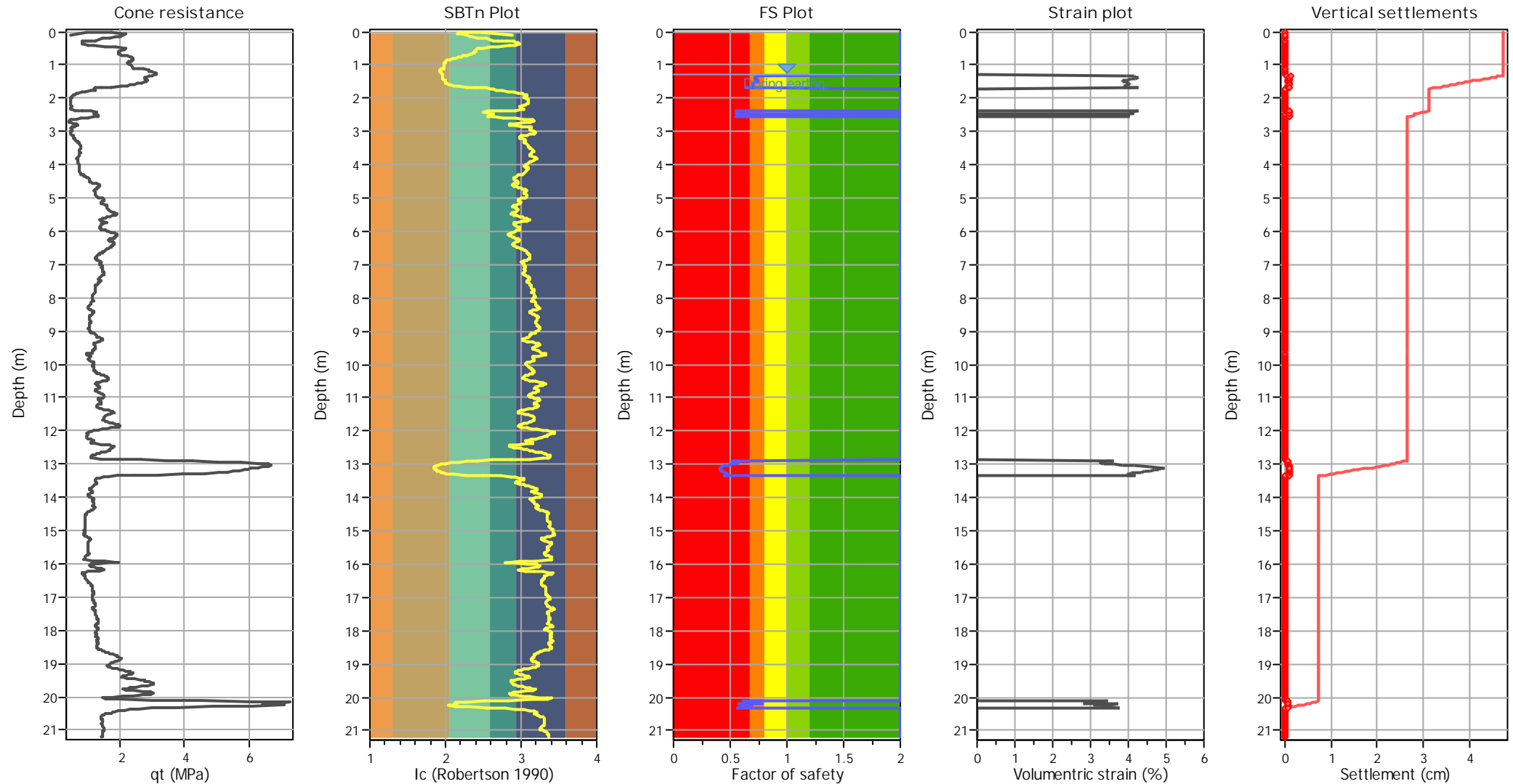
Abbreviations

FS: Calculated factor of safety for test point

F_L: 1 - FSw_z: Function value of the extend of soil liquefaction according to depthd_z: Layer thickness (m)

LPI: Liquefaction potential index value for test point

Estimation of post-earthquake settlements



Abbreviations

q_t : Total cone resistance (cone resistance q_c corrected for pore water effects)
 I_c : Soil Behaviour Type Index
 FS: Calculated Factor of Safety against liquefaction
 Volumetric strain: Post-liquefaction volumetric strain

:: Strength loss calculation Idriss & Boulanger (2008) ::

Depth (m)	q_t (MPa)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
0.12	0.48	8.08	5.59	45.17	2.89	N/A	N/A
0.02	0.98	16.72	2.68	44.79	2.48	N/A	N/A
0.04	1.72	29.20	1.00	29.20	2.20	N/A	N/A
0.06	2.09	35.58	1.57	55.82	2.16	N/A	N/A
0.08	2.21	37.49	1.68	63.14	2.21	N/A	N/A
0.10	2.10	35.61	1.88	67.13	2.28	N/A	N/A
0.15	2.01	34.11	2.02	68.91	2.32	N/A	N/A
0.15	1.96	33.21	2.02	67.10	2.32	N/A	N/A
0.16	1.86	31.63	2.13	67.33	2.35	N/A	N/A
0.18	1.68	28.53	2.43	69.44	2.43	N/A	N/A
0.20	1.45	24.63	2.92	71.99	2.53	N/A	N/A
0.28	1.23	20.91	3.52	73.49	2.63	N/A	N/A
0.28	1.11	18.72	3.89	72.83	2.69	N/A	N/A
0.28	1.02	17.19	4.31	74.04	2.74	N/A	N/A
0.28	0.93	15.72	4.87	76.56	2.81	N/A	N/A
0.30	0.84	14.20	5.68	80.62	2.90	N/A	N/A
0.33	0.83	13.94	6.02	83.85	2.93	N/A	N/A
0.34	0.83	14.07	6.26	88.14	2.96	N/A	N/A
0.36	0.86	14.50	6.39	92.70	2.97	N/A	N/A
0.38	0.90	15.25	6.43	98.09	2.97	N/A	N/A
0.40	1.00	16.96	6.02	102.07	2.93	N/A	N/A
0.42	1.20	20.20	5.16	104.34	2.84	N/A	N/A
0.44	1.56	26.32	3.97	104.53	2.70	N/A	N/A
0.46	1.87	31.72	3.27	103.60	2.59	N/A	N/A
0.48	2.14	36.17	2.77	100.05	2.50	N/A	N/A
0.50	2.18	36.87	2.58	95.02	2.46	N/A	N/A
0.52	2.19	37.10	2.40	89.15	2.42	N/A	N/A
0.54	2.13	36.04	2.36	84.96	2.41	N/A	N/A
0.56	2.07	35.11	2.32	81.57	2.40	N/A	N/A
0.58	2.01	34.06	2.31	78.61	2.40	N/A	N/A
0.60	1.97	33.37	2.26	75.59	2.39	N/A	N/A
0.62	1.95	32.94	2.21	72.96	2.38	N/A	N/A
0.64	1.94	32.86	2.16	70.95	2.36	N/A	N/A
0.66	1.96	33.14	2.11	69.78	2.35	N/A	N/A
0.68	2.01	33.92	2.03	68.76	2.32	N/A	N/A
0.70	2.07	35.03	1.94	67.82	2.30	N/A	N/A
0.72	2.16	36.45	1.84	67.06	2.26	N/A	N/A
0.74	2.24	37.81	1.76	66.70	2.24	N/A	N/A
0.76	2.32	39.14	1.68	65.93	2.21	N/A	N/A
0.78	2.37	40.09	1.61	64.35	2.17	N/A	N/A
0.80	2.41	40.67	1.52	61.84	2.13	N/A	N/A
0.82	2.41	40.72	1.45	58.88	2.10	N/A	N/A
0.84	2.39	40.41	1.00	40.41	2.06	N/A	N/A
0.86	2.36	39.93	1.00	39.93	2.02	N/A	N/A
0.88	2.34	39.60	1.00	39.60	2.00	N/A	N/A
0.90	2.28	38.57	1.00	38.57	2.00	N/A	N/A
0.92	2.26	38.12	1.00	38.12	1.99	N/A	N/A
0.94	2.24	37.83	1.00	37.83	1.99	N/A	N/A

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q_t (MPa)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
0.96	2.28	38.47	1.00	38.47	1.97	N/A	N/A
0.98	2.31	38.93	1.00	38.93	1.98	N/A	N/A
1.00	2.34	39.50	1.00	39.50	1.98	N/A	N/A
1.03	2.38	40.24	1.00	40.24	1.98	N/A	N/A
1.12	2.41	40.71	1.00	40.71	1.97	N/A	N/A
1.12	2.43	40.98	1.00	40.98	1.97	N/A	N/A
1.12	2.43	40.99	1.00	40.99	1.97	N/A	N/A
1.12	2.57	43.42	1.00	43.42	1.96	N/A	N/A
1.12	2.74	46.23	1.00	46.23	1.94	N/A	N/A
1.14	2.89	48.87	1.00	48.87	1.93	N/A	N/A
1.16	2.90	49.05	1.00	49.05	1.93	N/A	N/A
1.18	2.90	48.97	1.00	48.97	1.93	N/A	N/A
1.20	2.93	49.46	1.00	49.46	1.93	N/A	N/A
1.22	2.99	50.49	1.00	50.49	1.93	N/A	N/A
1.24	3.06	51.70	1.00	51.70	1.94	N/A	N/A
1.26	3.12	52.70	1.00	52.70	1.95	N/A	N/A
1.28	3.13	52.86	1.00	52.86	1.95	N/A	N/A
1.30	3.10	52.28	1.00	52.28	1.96	N/A	N/A
1.33	2.99	50.50	1.00	50.50	1.96	0.08	0.74
1.34	2.89	48.69	1.00	48.69	1.96	0.07	0.73
1.36	2.79	47.07	1.00	47.07	1.96	0.07	0.73
1.38	2.77	46.62	1.00	46.62	1.96	0.07	0.73
1.40	2.79	46.96	1.00	46.96	1.96	0.07	0.73
1.42	2.82	47.58	1.00	47.58	1.97	0.07	0.73
1.44	2.85	48.03	1.00	48.03	1.98	0.08	0.73
1.46	2.84	47.95	1.00	47.95	2.00	0.08	0.73
1.48	2.83	47.72	1.00	47.72	2.01	0.08	0.73
1.50	2.81	47.29	1.00	47.29	2.01	0.08	0.73
1.52	2.76	46.57	1.00	46.57	2.00	0.08	0.73
1.54	2.68	45.21	1.00	45.21	2.00	0.08	0.72
1.56	2.56	43.16	1.00	43.16	2.01	0.07	0.72
1.58	2.44	41.10	1.00	41.10	2.04	0.07	0.71
1.60	2.34	39.31	1.00	39.31	2.07	0.07	0.70
1.62	2.22	37.29	1.47	54.92	2.11	0.08	0.70
1.64	2.04	34.22	1.61	55.17	2.18	0.08	0.69
1.66	1.74	29.12	1.90	55.36	2.28	0.08	0.67
1.68	1.44	23.96	2.35	56.21	2.41	0.08	0.64
1.70	1.23	20.40	2.98	60.81	2.54	0.08	0.63
1.72	1.21	20.03	3.35	67.05	2.60	0.08	3.50
1.74	1.25	20.78	3.59	74.72	2.64	0.08	3.61
1.76	1.23	20.35	3.85	78.42	2.68	0.08	3.51
1.78	1.11	18.30	4.31	78.94	2.74	0.08	3.14
1.80	0.95	15.57	5.00	77.85	2.82	0.07	2.66
1.82	0.82	13.39	5.75	76.95	2.90	0.07	2.27
1.84	0.72	11.80	6.41	75.68	2.97	0.06	1.99
1.86	0.65	10.54	6.87	72.35	3.01	0.06	1.77
1.88	0.60	9.60	7.26	69.75	3.05	0.06	1.60
1.90	0.55	8.84	7.66	67.74	3.08	0.06	1.47

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q_t (MPa)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
1.92	0.54	8.56	7.69	65.82	3.08	0.06	1.42
1.94	0.53	8.39	7.48	62.69	3.06	0.06	1.38
1.96	0.52	8.34	7.16	59.70	3.04	0.06	1.37
1.98	0.51	8.06	7.21	58.16	3.04	0.06	1.32
2.00	0.50	7.86	7.31	57.50	3.05	0.06	1.28
2.02	0.48	7.65	7.57	57.92	3.07	0.06	1.24
2.04	0.47	7.49	7.79	58.35	3.09	0.06	1.21
2.06	0.47	7.46	7.88	58.84	3.10	0.06	1.20
2.08	0.47	7.46	7.94	59.20	3.10	0.06	1.19
2.10	0.48	7.54	7.90	59.54	3.10	0.06	1.20
2.12	0.48	7.55	7.92	59.78	3.10	0.06	1.19
2.14	0.48	7.59	7.90	59.93	3.10	0.06	1.19
2.17	0.48	7.63	7.83	59.71	3.09	0.06	1.19
2.18	0.48	7.63	7.75	59.17	3.09	0.06	1.19
2.20	0.49	7.74	7.48	57.87	3.06	0.06	1.20
2.22	0.50	7.91	7.14	56.46	3.03	0.06	1.22
2.24	0.51	8.05	6.79	54.64	3.00	0.06	1.24
2.26	0.51	8.08	6.59	53.30	2.99	0.06	1.24
2.28	0.50	7.81	6.72	52.45	3.00	0.06	1.19
2.30	0.48	7.61	6.83	51.96	3.01	0.06	1.16
2.32	0.47	7.38	7.13	52.65	3.03	0.06	1.12
2.34	0.50	7.89	6.80	53.68	3.01	0.06	1.19
2.36	0.59	9.45	5.85	55.24	2.91	0.06	1.42
2.38	0.82	13.23	4.21	55.75	2.73	0.07	1.98
2.40	1.09	17.90	3.13	55.99	2.57	0.08	0.61
2.42	1.29	21.22	2.74	58.18	2.49	0.08	0.63
2.44	1.31	21.59	2.83	61.19	2.51	0.08	0.63
2.46	1.22	20.09	3.26	65.57	2.59	0.08	0.62
2.48	1.18	19.35	3.59	69.41	2.64	0.08	2.83
2.50	1.24	20.39	3.47	70.66	2.62	0.08	2.97
2.52	1.32	21.73	3.17	68.91	2.57	0.09	0.63
2.54	1.33	21.94	3.08	67.59	2.56	0.08	0.63
2.56	1.20	19.65	3.56	69.90	2.64	0.08	2.82
2.58	1.01	16.43	4.57	75.16	2.77	0.08	2.35
2.60	0.81	13.09	6.02	78.82	2.93	0.07	1.86
2.62	0.67	10.68	7.29	77.78	3.05	0.06	1.51
2.64	0.57	8.91	8.19	72.99	3.12	0.06	1.26
2.66	0.49	7.68	8.71	66.90	3.16	0.06	1.08
2.68	0.45	6.92	8.93	61.79	3.18	0.06	0.97
2.70	0.43	6.65	8.81	58.55	3.17	0.06	0.93
2.72	0.45	6.87	8.14	55.91	3.12	0.06	0.95
2.74	0.49	7.56	7.16	54.16	3.04	0.06	1.05
2.76	0.57	8.91	5.98	53.28	2.93	0.06	1.23
2.78	0.65	10.36	5.22	54.06	2.85	0.07	1.42
2.80	0.70	11.15	5.11	57.00	2.84	0.07	1.53
2.82	0.68	10.73	5.77	61.92	2.91	0.07	1.46
2.84	0.61	9.53	6.89	65.69	3.01	0.06	1.29
2.87	0.55	8.50	7.87	66.86	3.10	0.06	1.15

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q_t (MPa)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
2.88	0.51	7.92	8.28	65.58	3.13	0.06	1.07
2.90	0.50	7.68	8.32	63.96	3.13	0.06	1.03
2.92	0.51	7.79	8.17	63.64	3.12	0.06	1.04
2.94	0.52	8.01	8.07	64.62	3.11	0.06	1.07
2.96	0.53	8.17	8.10	66.22	3.11	0.06	1.08
2.98	0.51	7.84	8.55	67.03	3.15	0.06	1.04
3.00	0.49	7.48	8.90	66.57	3.17	0.06	0.98
3.03	0.47	7.20	9.10	65.47	3.19	0.06	0.94
3.04	0.47	7.07	9.02	63.77	3.18	0.06	0.92
3.06	0.47	7.10	8.78	62.31	3.17	0.06	0.92
3.08	0.48	7.34	8.22	60.33	3.12	0.06	0.95
3.10	0.51	7.77	7.56	58.71	3.07	0.06	1.00
3.12	0.53	8.13	7.05	57.35	3.03	0.06	1.05
3.14	0.55	8.44	6.73	56.77	3.00	0.06	1.08
3.16	0.57	8.86	6.48	57.41	2.98	0.06	1.13
3.19	0.59	9.17	6.47	59.35	2.97	0.06	1.17
3.20	0.61	9.51	6.53	62.04	2.98	0.06	1.21
3.22	0.61	9.56	6.91	66.06	3.01	0.06	1.21
3.24	0.62	9.66	7.31	70.59	3.05	0.06	1.22
3.26	0.64	9.92	7.51	74.46	3.07	0.06	1.24
3.28	0.66	10.35	7.43	76.98	3.06	0.06	1.29
3.30	0.69	10.88	7.28	79.21	3.05	0.06	1.35
3.32	0.72	11.31	7.23	81.77	3.04	0.06	1.40
3.34	0.74	11.64	7.30	84.97	3.05	0.06	1.44
3.36	0.75	11.76	7.44	87.52	3.06	0.06	1.45
3.38	0.75	11.85	7.60	90.07	3.07	0.06	1.45
3.40	0.76	11.98	7.73	92.64	3.08	0.06	1.46
3.43	0.78	12.28	7.76	95.34	3.09	0.06	1.49
3.44	0.79	12.49	7.82	97.65	3.09	0.07	1.51
3.46	0.80	12.57	7.89	99.25	3.10	0.07	1.51
3.48	0.79	12.51	8.03	100.39	3.11	0.07	1.50
3.50	0.78	12.35	8.19	101.09	3.12	0.07	1.47
3.52	0.78	12.20	8.34	101.77	3.13	0.06	1.45
3.54	0.76	12.02	8.51	102.28	3.15	0.06	1.42
3.56	0.75	11.82	8.74	103.28	3.16	0.06	1.39
3.58	0.75	11.70	8.86	103.67	3.17	0.06	1.37
3.60	0.76	11.84	8.75	103.69	3.16	0.06	1.38
3.62	0.77	12.04	8.52	102.65	3.15	0.06	1.40
3.64	0.77	12.14	8.36	101.41	3.13	0.06	1.41
3.66	0.77	12.02	8.34	100.23	3.13	0.06	1.39
3.68	0.76	11.98	8.30	99.41	3.13	0.06	1.38
3.70	0.77	12.02	8.20	98.64	3.12	0.06	1.38
3.72	0.77	12.01	8.18	98.25	3.12	0.06	1.37
3.74	0.75	11.74	8.36	98.23	3.13	0.06	1.33
3.76	0.72	11.26	8.75	98.54	3.16	0.06	1.27
3.78	0.69	10.72	9.23	98.94	3.20	0.06	1.21
3.80	0.68	10.48	9.44	98.95	3.21	0.06	1.18
3.82	0.68	10.48	9.40	98.50	3.21	0.06	1.17

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q_t (MPa)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
3.84	0.69	10.61	9.18	97.39	3.20	0.06	1.18
3.86	0.69	10.68	8.95	95.61	3.18	0.06	1.18
3.88	0.69	10.63	8.80	93.60	3.17	0.06	1.17
3.90	0.70	10.78	8.46	91.26	3.14	0.06	1.19
3.92	0.71	10.95	8.18	89.55	3.12	0.06	1.20
3.94	0.72	11.16	7.94	88.56	3.10	0.06	1.22
3.96	0.73	11.24	7.78	87.45	3.09	0.06	1.22
3.98	0.73	11.39	7.62	86.74	3.08	0.06	1.23
4.00	0.75	11.66	7.37	85.96	3.05	0.06	1.26
4.02	0.76	11.88	7.25	86.10	3.04	0.06	1.28
4.04	0.77	11.89	7.28	86.62	3.05	0.06	1.27
4.06	0.76	11.71	7.46	87.34	3.06	0.06	1.25
4.08	0.74	11.49	7.65	87.90	3.08	0.06	1.22
4.10	0.73	11.27	7.83	88.23	3.09	0.06	1.20
4.12	0.73	11.24	7.80	87.71	3.09	0.06	1.19
4.14	0.73	11.27	7.75	87.34	3.09	0.06	1.19
4.16	0.74	11.39	7.63	86.88	3.08	0.06	1.20
4.18	0.74	11.47	7.63	87.51	3.08	0.06	1.20
4.20	0.76	11.68	7.50	87.60	3.07	0.06	1.22
4.22	0.77	11.94	7.32	87.36	3.05	0.06	1.24
4.24	0.78	12.10	7.17	86.81	3.04	0.06	1.25
4.26	0.79	12.23	7.11	86.95	3.03	0.06	1.26
4.28	0.81	12.61	6.88	86.79	3.01	0.07	1.30
4.30	0.85	13.20	6.52	86.03	2.98	0.07	1.35
4.32	0.88	13.71	6.23	85.43	2.95	0.07	1.40
4.34	0.90	14.10	6.12	86.25	2.94	0.07	1.43
4.36	0.92	14.46	6.09	87.99	2.94	0.07	1.47
4.38	0.96	15.12	5.96	90.11	2.93	0.07	1.53
4.40	1.01	15.98	5.73	91.55	2.90	0.07	1.61
4.42	1.05	16.56	5.68	93.97	2.90	0.07	1.66
4.44	1.07	16.88	5.75	97.10	2.91	0.07	1.69
4.46	1.07	16.92	6.02	101.81	2.93	0.07	1.68
4.48	1.08	17.07	6.21	106.09	2.95	0.07	1.69
4.50	1.08	17.18	6.39	109.83	2.97	0.07	1.70
4.52	1.11	17.67	6.35	112.16	2.96	0.07	1.74
4.54	1.16	18.40	6.24	114.88	2.95	0.07	1.81
4.56	1.23	19.66	5.96	117.09	2.93	0.07	1.92
4.58	1.30	20.86	5.75	119.84	2.90	0.08	2.03
4.60	1.36	21.92	5.57	121.99	2.89	0.08	2.13
4.62	1.39	22.26	5.60	124.68	2.89	0.08	2.15
4.64	1.37	21.98	5.82	127.96	2.91	0.08	2.12
4.66	1.35	21.56	6.12	131.91	2.94	0.08	2.07
4.68	1.32	21.16	6.42	135.89	2.97	0.07	2.02
4.70	1.30	20.77	6.72	139.52	3.00	0.07	1.98
4.72	1.27	20.32	6.99	142.07	3.02	0.07	1.93
4.74	1.24	19.79	7.30	144.47	3.05	0.07	1.87
4.76	1.22	19.37	7.56	146.34	3.07	0.07	1.82
4.78	1.20	19.10	7.72	147.48	3.08	0.07	1.79

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q_t (MPa)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
4.80	1.21	19.22	7.67	147.43	3.08	0.07	1.79
4.82	1.24	19.68	7.43	146.26	3.06	0.07	1.83
4.84	1.26	19.98	7.26	145.15	3.05	0.07	1.85
4.86	1.26	19.99	7.27	145.32	3.05	0.07	1.85
4.88	1.25	19.80	7.41	146.73	3.06	0.07	1.82
4.90	1.24	19.72	7.53	148.61	3.07	0.07	1.81
4.92	1.25	19.89	7.57	150.59	3.07	0.07	1.82
4.94	1.27	20.24	7.57	153.26	3.07	0.07	1.84
4.96	1.27	20.23	7.66	155.07	3.08	0.07	1.83
4.98	1.33	21.17	7.42	157.12	3.06	0.07	1.91
5.00	1.39	22.29	7.08	157.82	3.03	0.08	2.00
5.02	1.49	23.89	6.64	158.64	2.99	0.08	2.14
5.04	1.53	24.50	6.44	157.71	2.97	0.08	2.19
5.06	1.53	24.52	6.38	156.34	2.97	0.08	2.18
5.08	1.52	24.34	6.37	155.04	2.97	0.08	2.16
5.10	1.48	23.67	6.53	154.58	2.98	0.08	2.09
5.12	1.44	23.04	6.69	154.08	2.99	0.07	2.03
5.14	1.42	22.68	6.75	153.16	3.00	0.07	1.99
5.16	1.44	22.95	6.62	151.96	2.99	0.07	2.00
5.18	1.49	23.79	6.34	150.76	2.96	0.08	2.07
5.20	1.54	24.65	6.05	149.19	2.94	0.08	2.14
5.22	1.58	25.37	5.81	147.32	2.91	0.08	2.19
5.24	1.61	25.93	5.60	145.29	2.89	0.08	2.23
5.26	1.61	25.96	5.61	145.71	2.89	0.08	2.23
5.28	1.61	25.95	5.71	148.26	2.90	0.08	2.22
5.30	1.60	25.62	5.98	153.10	2.93	0.08	2.18
5.32	1.60	25.71	6.17	158.75	2.95	0.08	2.18
5.34	1.63	26.16	6.24	163.16	2.95	0.08	2.21
5.36	1.66	26.70	6.24	166.50	2.95	0.08	2.25
5.38	1.68	27.06	6.22	168.27	2.95	0.08	2.27
5.40	1.70	27.40	6.17	168.95	2.95	0.08	2.29
5.42	1.76	28.36	5.93	168.11	2.92	0.08	2.36
5.44	1.84	29.69	5.59	166.07	2.89	0.09	2.47
5.46	1.90	30.74	5.38	165.33	2.87	0.09	2.54
5.48	1.91	30.97	5.39	166.94	2.87	0.09	2.55
5.50	1.90	30.77	5.50	169.13	2.88	0.09	2.53
5.52	1.86	30.03	5.71	171.59	2.90	0.09	2.46
5.54	1.79	28.85	6.05	174.49	2.93	0.08	2.35
5.56	1.70	27.27	6.53	178.09	2.98	0.08	2.22
5.58	1.61	25.84	6.98	180.23	3.02	0.08	2.09
5.60	1.55	24.71	7.28	179.96	3.05	0.08	2.00
5.62	1.48	23.55	7.61	179.18	3.07	0.07	1.89
5.65	1.42	22.53	7.91	178.14	3.10	0.07	1.80
5.66	1.38	21.87	8.05	176.03	3.11	0.07	1.75
5.68	1.42	22.48	7.59	170.76	3.07	0.07	1.79
5.70	1.49	23.69	6.91	163.68	3.01	0.07	1.88
5.72	1.58	25.16	6.21	156.14	2.95	0.08	1.99
5.74	1.60	25.53	5.84	149.17	2.91	0.08	2.01

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q _t (MPa)	Q _{tn}	K _c	Q _{tn,cs}	I _c	S _{u(liq)} / 'v	S _{u(peak)} / 'v
5.76	1.55	24.76	5.72	141.60	2.90	0.08	1.95
5.78	1.47	23.39	5.78	135.16	2.91	0.08	1.83
5.80	1.43	22.62	5.77	130.59	2.91	0.08	1.77
5.82	1.41	22.32	5.84	130.41	2.91	0.08	1.74
5.84	1.40	22.17	5.96	132.20	2.93	0.07	1.72
5.86	1.38	21.73	6.27	136.24	2.96	0.07	1.68
5.88	1.38	21.72	6.43	139.64	2.97	0.07	1.68
5.90	1.39	21.88	6.49	141.99	2.98	0.07	1.68
5.92	1.41	22.22	6.47	143.75	2.97	0.07	1.70
5.94	1.43	22.64	6.44	145.81	2.97	0.07	1.73
5.96	1.50	23.70	6.24	147.95	2.95	0.07	1.81
5.98	1.54	24.46	6.11	149.57	2.94	0.08	1.86
6.00	1.60	25.41	5.96	151.48	2.93	0.08	1.92
6.02	1.64	26.18	5.87	153.67	2.92	0.08	1.98
6.04	1.75	27.97	5.56	155.46	2.89	0.08	2.10
6.06	1.84	29.54	5.28	156.00	2.86	0.09	2.21
6.08	1.91	30.76	5.09	156.53	2.83	0.09	2.30
6.10	1.93	31.06	5.08	157.86	2.83	0.09	2.31
6.12	1.91	30.75	5.21	160.20	2.85	0.09	2.28
6.14	1.89	30.28	5.38	162.98	2.87	0.09	2.24
6.16	1.86	29.85	5.54	165.52	2.88	0.08	2.20
6.18	1.84	29.48	5.68	167.57	2.90	0.08	2.17
6.20	1.81	28.98	5.84	169.36	2.91	0.08	2.12
6.22	1.76	28.12	6.08	170.91	2.94	0.08	2.06
6.24	1.69	26.86	6.42	172.34	2.97	0.08	1.96
6.26	1.64	26.05	6.64	172.87	2.99	0.07	1.89
6.28	1.66	26.32	6.57	172.88	2.98	0.08	1.91
6.30	1.70	27.14	6.35	172.47	2.96	0.08	1.96
6.32	1.77	28.34	6.06	171.62	2.94	0.08	2.04
6.34	1.83	29.19	5.80	169.42	2.91	0.08	2.10
6.36	1.85	29.32	5.65	165.66	2.90	0.08	2.11
6.38	1.82	28.81	5.62	162.05	2.89	0.08	2.08
6.40	1.78	28.00	5.74	160.73	2.90	0.08	2.01
6.42	1.76	27.68	5.83	161.35	2.91	0.08	1.99
6.44	1.76	27.63	5.89	162.88	2.92	0.08	1.98
6.46	1.75	27.50	5.98	164.57	2.93	0.08	1.97
6.48	1.74	27.28	6.11	166.81	2.94	0.08	1.95
6.50	1.69	26.37	6.42	169.42	2.97	0.08	1.88
6.52	1.64	25.46	6.74	171.61	3.00	0.07	1.82
6.54	1.60	24.73	6.98	172.60	3.02	0.07	1.77
6.56	1.57	24.12	7.19	173.48	3.04	0.07	1.72
6.58	1.54	23.47	7.43	174.29	3.06	0.07	1.68
6.60	1.51	22.91	7.56	173.32	3.07	0.07	1.64
6.62	1.48	22.40	7.62	170.62	3.07	0.07	1.60
6.64	1.45	21.77	7.67	166.94	3.08	0.07	1.55
6.66	1.40	20.93	7.84	163.99	3.09	0.07	1.49
6.68	1.36	20.23	7.95	160.90	3.10	0.07	1.44
6.70	1.33	19.70	8.02	157.95	3.11	0.07	1.41

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q _t (MPa)	Q _{tn}	K _c	Q _{tn,cs}	I _c	S _{u(liq)} / 'v	S _{u(peak)} / 'v
6.72	1.31	19.29	8.08	155.89	3.11	0.07	1.38
6.74	1.30	19.01	8.12	154.40	3.12	0.07	1.36
6.76	1.28	18.73	8.15	152.60	3.12	0.07	1.34
6.78	1.28	18.55	8.10	150.23	3.11	0.07	1.33
6.80	1.26	18.32	8.08	148.00	3.11	0.07	1.31
6.82	1.26	18.20	8.05	146.40	3.11	0.07	1.30
6.84	1.27	18.33	7.89	144.65	3.10	0.07	1.31
6.86	1.30	18.69	7.64	142.72	3.08	0.07	1.33
6.88	1.35	19.40	7.26	140.81	3.04	0.07	1.39
6.90	1.40	20.23	6.89	139.43	3.01	0.07	1.44
6.92	1.44	20.75	6.72	139.51	3.00	0.07	1.48
6.94	1.44	20.73	6.77	140.31	3.00	0.07	1.48
6.96	1.41	20.14	7.04	141.87	3.03	0.07	1.44
6.98	1.38	19.70	7.26	142.96	3.04	0.07	1.41
7.00	1.39	19.78	7.28	143.99	3.05	0.07	1.41
7.02	1.43	20.25	7.18	145.44	3.04	0.07	1.45
7.04	1.45	20.55	7.17	147.27	3.04	0.07	1.47
7.06	1.44	20.39	7.32	149.17	3.05	0.07	1.46
7.08	1.44	20.29	7.38	149.78	3.06	0.07	1.45
7.10	1.45	20.40	7.32	149.41	3.05	0.07	1.46
7.12	1.48	20.74	7.17	148.64	3.04	0.07	1.48
7.14	1.48	20.75	7.16	148.68	3.04	0.07	1.48
7.16	1.48	20.57	7.24	148.86	3.04	0.07	1.47
7.18	1.45	20.18	7.38	148.97	3.06	0.07	1.44
7.20	1.45	19.99	7.41	148.19	3.06	0.07	1.43
7.22	1.47	20.23	7.27	147.10	3.05	0.07	1.44
7.24	1.50	20.63	7.11	146.77	3.03	0.07	1.47
7.26	1.52	20.92	7.03	147.09	3.03	0.07	1.49
7.28	1.52	20.79	7.12	148.04	3.03	0.07	1.49
7.30	1.50	20.49	7.25	148.60	3.04	0.07	1.46
7.32	1.47	19.99	7.45	148.96	3.06	0.07	1.43
7.34	1.44	19.45	7.69	149.55	3.08	0.07	1.39
7.36	1.40	18.88	7.95	150.13	3.10	0.07	1.35
7.38	1.39	18.71	8.03	150.13	3.11	0.07	1.34
7.40	1.37	18.33	8.15	149.50	3.12	0.07	1.31
7.42	1.36	18.15	8.19	148.62	3.12	0.07	1.30
7.44	1.35	17.92	8.22	147.27	3.12	0.07	1.28
7.46	1.37	18.18	7.99	145.18	3.10	0.07	1.30
7.48	1.39	18.34	7.78	142.61	3.09	0.07	1.31
7.50	1.41	18.58	7.55	140.33	3.07	0.07	1.33
7.52	1.37	18.04	7.70	138.93	3.08	0.07	1.29
7.54	1.34	17.56	7.86	138.00	3.09	0.07	1.25
7.56	1.31	17.06	8.04	137.14	3.11	0.07	1.22
7.58	1.31	16.99	8.06	136.87	3.11	0.07	1.21
7.60	1.30	16.73	8.18	136.88	3.12	0.07	1.20
7.62	1.27	16.29	8.39	136.70	3.14	0.07	1.16
7.64	1.26	16.05	8.46	135.76	3.14	0.07	1.15
7.66	1.25	15.94	8.43	134.28	3.14	0.07	1.14

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q _t (MPa)	Q _{tn}	K _c	Q _{tn,cs}	I _c	S _{u(liq)} / 'v	S _{u(peak)} / 'v
7.68	1.25	15.90	8.41	133.65	3.14	0.07	1.14
7.70	1.25	15.81	8.46	133.70	3.14	0.07	1.13
7.72	1.25	15.86	8.44	133.91	3.14	0.07	1.13
7.74	1.25	15.72	8.58	134.88	3.15	0.07	1.12
7.76	1.23	15.45	8.78	135.62	3.17	0.07	1.10
7.78	1.23	15.45	8.77	135.46	3.16	0.07	1.10
7.80	1.24	15.54	8.62	133.93	3.15	0.07	1.11
7.82	1.25	15.60	8.47	132.09	3.14	0.07	1.11
7.84	1.23	15.21	8.59	130.72	3.15	0.07	1.09
7.86	1.20	14.76	8.75	129.18	3.16	0.07	1.05
7.88	1.18	14.50	8.79	127.52	3.17	0.07	1.04
7.90	1.18	14.39	8.79	126.40	3.17	0.07	1.03
7.92	1.17	14.28	8.83	126.04	3.17	0.07	1.02
7.94	1.15	13.95	9.00	125.49	3.18	0.07	1.00
7.96	1.14	13.75	9.03	124.12	3.18	0.07	0.98
7.98	1.13	13.66	8.95	122.30	3.18	0.07	0.98
8.00	1.15	13.79	8.77	120.95	3.16	0.07	0.99
8.02	1.14	13.73	8.73	119.86	3.16	0.07	0.98
8.04	1.16	13.85	8.64	119.55	3.15	0.07	0.99
8.06	1.17	13.97	8.55	119.43	3.15	0.07	1.00
8.08	1.18	14.13	8.49	119.92	3.14	0.07	1.01
8.10	1.17	13.98	8.59	120.06	3.15	0.07	1.00
8.12	1.15	13.70	8.78	120.22	3.17	0.07	0.98
8.15	1.13	13.31	9.03	120.23	3.18	0.07	0.95
8.16	1.11	13.07	9.15	119.65	3.19	0.06	0.93
8.18	1.11	12.96	9.12	118.18	3.19	0.06	0.93
8.20	1.09	12.71	9.15	116.25	3.19	0.06	0.91
8.22	1.07	12.43	9.25	115.00	3.20	0.06	0.89
8.24	1.05	12.11	9.43	114.15	3.21	0.06	0.86
8.26	1.04	11.93	9.54	113.85	3.22	0.06	0.85
8.28	1.02	11.66	9.73	113.45	3.23	0.06	0.83
8.30	1.01	11.49	9.87	113.41	3.24	0.06	0.82
8.32	1.02	11.58	9.79	113.32	3.24	0.06	0.83
8.34	1.05	11.91	9.50	113.14	3.22	0.06	0.85
8.36	1.09	12.37	9.10	112.58	3.19	0.06	0.88
8.38	1.13	12.87	8.63	110.99	3.15	0.06	0.92
8.40	1.16	13.26	8.26	109.51	3.13	0.07	0.95
8.42	1.18	13.53	8.01	108.38	3.11	0.07	0.97
8.44	1.18	13.51	8.06	108.90	3.11	0.07	0.97
8.46	1.17	13.32	8.26	110.10	3.13	0.07	0.95
8.48	1.15	13.04	8.54	111.44	3.15	0.06	0.93
8.50	1.14	12.82	8.79	112.73	3.17	0.06	0.92
8.52	1.11	12.48	9.11	113.69	3.19	0.06	0.89
8.54	1.08	12.08	9.44	113.97	3.21	0.06	0.86
8.56	1.05	11.65	9.74	113.49	3.23	0.06	0.83
8.58	1.05	11.54	9.73	112.32	3.23	0.06	0.82
8.60	1.05	11.53	9.65	111.23	3.23	0.06	0.82
8.62	1.05	11.58	9.53	110.37	3.22	0.06	0.83

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q_t (MPa)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
8.64	1.06	11.58	9.49	109.89	3.22	0.06	0.83
8.66	1.06	11.57	9.46	109.47	3.22	0.06	0.83
8.68	1.07	11.72	9.30	109.01	3.20	0.06	0.84
8.70	1.09	11.90	9.12	108.59	3.19	0.06	0.85
8.72	1.10	12.02	9.03	108.49	3.18	0.06	0.86
8.74	1.09	11.89	9.11	108.33	3.19	0.06	0.85
8.76	1.08	11.67	9.25	108.01	3.20	0.06	0.83
8.78	1.07	11.51	9.34	107.53	3.21	0.06	0.82
8.80	1.06	11.40	9.40	107.24	3.21	0.06	0.81
8.82	1.06	11.37	9.45	107.45	3.21	0.06	0.81
8.84	1.06	11.32	9.53	107.84	3.22	0.06	0.81
8.86	1.06	11.27	9.62	108.38	3.23	0.06	0.80
8.88	1.05	11.12	9.77	108.64	3.24	0.06	0.79
8.90	1.04	11.03	9.87	108.78	3.24	0.06	0.79
8.92	1.04	10.98	9.88	108.53	3.24	0.06	0.78
8.94	1.04	10.96	9.89	108.49	3.25	0.06	0.78
8.96	1.05	11.05	9.81	108.43	3.24	0.06	0.79
8.98	1.07	11.32	9.56	108.29	3.22	0.06	0.81
9.00	1.11	11.73	9.18	107.71	3.20	0.06	0.84
9.02	1.08	11.32	9.25	104.76	3.20	0.06	0.81
9.04	1.11	11.63	9.05	105.27	3.19	0.06	0.83
9.06	1.13	11.91	8.90	106.04	3.17	0.07	0.85
9.08	1.21	12.89	8.47	109.26	3.14	0.07	0.92
9.10	1.23	13.09	8.37	109.54	3.13	0.07	0.93
9.12	1.26	13.34	8.22	109.72	3.12	0.07	0.95
9.14	1.27	13.53	8.13	109.99	3.12	0.07	0.97
9.16	1.29	13.65	8.10	110.58	3.11	0.07	0.97
9.18	1.31	13.89	7.99	110.91	3.10	0.07	0.99
9.20	1.36	14.45	7.66	110.64	3.08	0.07	1.03
9.22	1.42	15.19	7.21	109.50	3.04	0.07	1.08
9.24	1.46	15.64	6.98	109.07	3.02	0.07	1.12
9.26	1.47	15.66	6.99	109.47	3.02	0.07	1.12
9.28	1.44	15.24	7.27	110.81	3.05	0.07	1.09
9.30	1.40	14.76	7.62	112.42	3.08	0.07	1.05
9.32	1.37	14.34	7.96	114.13	3.10	0.07	1.02
9.34	1.31	13.69	8.54	116.84	3.15	0.07	0.98
9.36	1.26	12.97	9.22	119.54	3.20	0.07	0.93
9.38	1.21	12.42	9.79	121.59	3.24	0.06	0.89
9.40	1.20	12.26	9.97	122.28	3.25	0.07	0.88
9.42	1.21	12.34	9.85	121.58	3.24	0.06	0.88
9.44	1.24	12.61	9.46	119.28	3.21	0.07	0.90
9.46	1.25	12.74	9.13	116.38	3.19	0.07	0.91
9.48	1.26	12.83	8.79	112.74	3.17	0.07	0.92
9.50	1.24	12.63	8.73	110.28	3.16	0.07	0.90
9.52	1.24	12.55	8.64	108.48	3.16	0.07	0.90
9.54	1.23	12.43	8.73	108.54	3.16	0.07	0.89
9.56	1.22	12.25	8.96	109.73	3.18	0.07	0.87
9.58	1.19	11.89	9.38	111.48	3.21	0.06	0.85

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q_t (MPa)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
9.60	1.16	11.51	9.79	112.67	3.24	0.06	0.82
9.66	1.14	11.16	10.11	112.88	3.26	0.06	0.80
9.66	1.10	10.75	10.32	110.91	3.27	0.06	0.77
9.67	1.05	10.20	10.62	108.40	3.29	0.06	0.73
9.68	0.99	9.45	11.16	105.49	3.33	0.06	0.68
9.70	0.97	9.24	11.22	103.65	3.33	0.06	0.66
9.73	1.00	9.45	10.71	101.27	3.30	0.06	0.68
9.74	1.05	10.06	9.77	98.32	3.24	0.06	0.72
9.76	1.09	10.45	9.11	95.26	3.19	0.06	0.75
9.78	1.10	10.59	8.72	92.32	3.16	0.06	0.76
9.80	1.08	10.39	8.62	89.64	3.15	0.06	0.74
9.82	1.06	10.14	8.68	88.05	3.16	0.06	0.72
9.84	1.05	9.92	8.82	87.49	3.17	0.06	0.71
9.86	1.04	9.82	8.95	87.92	3.18	0.06	0.70
9.88	1.05	9.89	8.95	88.54	3.18	0.06	0.71
9.90	1.08	10.24	8.70	89.01	3.16	0.06	0.73
9.92	1.13	10.81	8.21	88.77	3.12	0.06	0.77
9.94	1.19	11.42	7.66	87.45	3.08	0.06	0.82
9.96	1.22	11.71	7.36	86.24	3.05	0.06	0.84
9.98	1.21	11.58	7.41	85.80	3.06	0.06	0.83
10.00	1.18	11.29	7.59	85.70	3.07	0.06	0.81
10.02	1.17	11.07	7.73	85.54	3.08	0.06	0.79
10.04	1.17	11.05	7.69	84.99	3.08	0.06	0.79
10.06	1.17	11.12	7.77	86.40	3.09	0.06	0.79
10.08	1.18	11.18	7.92	88.52	3.10	0.06	0.80
10.10	1.19	11.27	8.12	91.55	3.12	0.06	0.81
10.12	1.20	11.34	8.26	93.65	3.13	0.06	0.81
10.14	1.21	11.40	8.42	96.07	3.14	0.06	0.81
10.16	1.21	11.42	8.60	98.14	3.15	0.06	0.82
10.18	1.22	11.46	8.75	100.22	3.16	0.06	0.82
10.20	1.23	11.57	8.77	101.45	3.17	0.06	0.83
10.22	1.24	11.68	8.76	102.36	3.16	0.06	0.83
10.24	1.26	11.82	8.69	102.73	3.16	0.06	0.84
10.26	1.27	11.94	8.67	103.52	3.16	0.07	0.85
10.28	1.30	12.27	8.50	104.28	3.14	0.07	0.88
10.30	1.36	12.83	8.19	105.05	3.12	0.07	0.92
10.32	1.42	13.51	7.84	105.91	3.09	0.07	0.97
10.34	1.50	14.30	7.46	106.70	3.06	0.07	1.02
10.36	1.56	14.93	7.23	107.99	3.04	0.07	1.07
10.38	1.61	15.49	7.07	109.56	3.03	0.07	1.11
10.40	1.64	15.78	7.05	111.22	3.03	0.07	1.13
10.42	1.65	15.81	7.18	113.54	3.04	0.07	1.13
10.44	1.64	15.72	7.38	115.98	3.06	0.07	1.12
10.46	1.62	15.40	7.72	118.82	3.08	0.07	1.10
10.48	1.59	15.05	8.04	121.04	3.11	0.07	1.08
10.50	1.53	14.39	8.53	122.77	3.15	0.07	1.03
10.52	1.46	13.62	9.15	124.58	3.19	0.07	0.97
10.54	1.37	12.58	10.02	126.04	3.25	0.07	0.90

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q_t (MPa)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
10.56	1.30	11.84	10.65	126.10	3.30	0.06	0.85
10.58	1.26	11.36	11.01	125.06	3.32	0.06	0.81
10.60	1.27	11.44	10.79	123.39	3.30	0.06	0.82
10.62	1.28	11.56	10.54	121.87	3.29	0.06	0.83
10.64	1.32	11.91	10.04	119.57	3.25	0.07	0.85
10.66	1.35	12.28	9.47	116.30	3.22	0.07	0.88
10.68	1.38	12.52	9.03	113.05	3.18	0.07	0.89
10.70	1.37	12.46	8.86	110.35	3.17	0.07	0.89
10.72	1.34	12.12	8.96	108.56	3.18	0.07	0.87
10.74	1.31	11.75	9.14	107.38	3.19	0.07	0.84
10.76	1.28	11.37	9.45	107.53	3.21	0.06	0.81
10.78	1.26	11.12	9.76	108.45	3.24	0.06	0.79
10.80	1.26	11.16	9.75	108.85	3.24	0.06	0.80
10.82	1.30	11.53	9.41	108.51	3.21	0.06	0.82
10.84	1.34	11.96	9.04	108.09	3.18	0.07	0.85
10.86	1.39	12.41	8.69	107.85	3.16	0.07	0.89
10.88	1.44	12.93	8.32	107.57	3.13	0.07	0.92
10.90	1.49	13.38	8.02	107.29	3.11	0.07	0.96
10.92	1.52	13.72	7.86	107.84	3.09	0.07	0.98
10.94	1.53	13.76	7.97	109.66	3.10	0.07	0.98
10.96	1.53	13.73	8.12	111.59	3.12	0.07	0.98
10.98	1.52	13.56	8.34	113.15	3.13	0.07	0.97
11.00	1.50	13.37	8.52	113.94	3.15	0.07	0.96
11.02	1.47	13.00	8.84	114.95	3.17	0.07	0.93
11.04	1.35	11.78	9.73	114.69	3.23	0.07	0.84
11.06	1.32	11.49	9.94	114.20	3.25	0.06	0.82
11.08	1.32	11.43	9.93	113.57	3.25	0.07	0.82
11.10	1.40	12.20	9.35	114.06	3.21	0.07	0.87
11.12	1.40	12.19	9.33	113.76	3.21	0.07	0.87
11.14	1.41	12.24	9.13	111.82	3.19	0.07	0.87
11.16	1.41	12.26	8.89	108.91	3.17	0.07	0.88
11.18	1.40	12.12	8.79	106.58	3.17	0.07	0.87
11.20	1.37	11.80	8.97	105.84	3.18	0.07	0.84
11.22	1.33	11.37	9.29	105.57	3.20	0.07	0.81
11.24	1.30	11.03	9.49	104.58	3.22	0.06	0.79
11.26	1.28	10.78	9.56	103.07	3.22	0.06	0.77
11.28	1.28	10.82	9.39	101.68	3.21	0.06	0.77
11.30	1.31	11.07	9.08	100.47	3.19	0.06	0.79
11.32	1.36	11.52	8.59	98.89	3.15	0.07	0.82
11.34	1.44	12.29	7.88	96.83	3.10	0.07	0.88
11.36	1.53	13.20	7.22	95.25	3.04	0.07	0.94
11.38	1.64	14.28	6.65	95.02	2.99	0.07	1.02
11.40	1.72	15.02	6.41	96.30	2.97	0.07	1.07
11.42	1.78	15.56	6.32	98.32	2.96	0.07	1.11
11.44	1.81	15.81	6.33	100.14	2.96	0.07	1.13
11.46	1.81	15.85	6.46	102.31	2.97	0.07	1.13
11.48	1.77	15.42	6.84	105.44	3.01	0.07	1.10
11.50	1.70	14.71	7.36	108.28	3.05	0.07	1.05

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q_t (MPa)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
11.52	1.63	13.98	7.90	110.33	3.10	0.07	1.00
11.54	1.58	13.42	8.28	111.13	3.13	0.07	0.96
11.56	1.54	13.08	8.59	112.35	3.15	0.07	0.93
11.58	1.52	12.86	8.79	113.03	3.17	0.07	0.92
11.60	1.52	12.77	8.87	113.22	3.17	0.07	0.91
11.62	1.51	12.63	8.91	112.51	3.18	0.07	0.90
11.64	1.49	12.47	8.95	111.57	3.18	0.07	0.89
11.66	1.48	12.32	8.95	110.26	3.18	0.07	0.88
11.68	1.48	12.27	8.87	108.85	3.17	0.07	0.88
11.70	1.49	12.42	8.70	108.01	3.16	0.07	0.89
11.72	1.54	12.80	8.42	107.75	3.14	0.07	0.91
11.74	1.59	13.25	8.14	107.86	3.12	0.07	0.95
11.76	1.67	14.07	7.67	107.84	3.08	0.07	1.00
11.78	1.78	15.02	7.17	107.79	3.04	0.07	1.07
11.80	1.87	15.90	6.79	108.01	3.00	0.07	1.14
11.82	1.94	16.55	6.52	107.92	2.98	0.07	1.18
11.84	1.99	16.99	6.35	107.96	2.96	0.07	1.21
11.86	2.00	17.01	6.37	108.35	2.97	0.07	1.21
11.88	1.94	16.44	6.65	109.34	2.99	0.07	1.17
11.90	1.86	15.63	7.06	110.42	3.03	0.07	1.12
11.92	1.75	14.56	7.63	111.13	3.08	0.07	1.04
11.94	1.61	13.26	8.39	111.28	3.14	0.07	0.95
11.96	1.46	11.78	9.43	111.16	3.21	0.07	0.84
11.98	1.31	10.39	10.62	110.36	3.29	0.06	0.74
12.00	1.21	9.37	11.59	108.64	3.36	0.06	0.67
12.02	1.11	8.40	12.53	105.24	3.41	0.06	0.60
12.04	1.05	7.84	13.01	101.97	3.44	0.06	0.56
12.06	0.99	7.32	13.10	95.91	3.45	0.06	0.52
12.08	1.01	7.49	12.38	92.72	3.40	0.06	0.53
12.10	1.03	7.63	11.60	88.51	3.36	0.06	0.55
12.12	1.04	7.69	11.34	87.23	3.34	0.06	0.55
12.14	1.00	7.27	11.43	83.08	3.35	0.06	0.52
12.16	0.97	7.04	11.25	79.15	3.33	0.06	0.50
12.18	0.97	7.00	10.75	75.28	3.30	0.06	0.50
12.20	0.97	7.00	10.33	72.30	3.27	0.06	0.50
12.22	0.98	7.07	9.91	70.09	3.25	0.06	0.51
12.24	1.02	7.47	9.27	69.22	3.20	0.06	0.53
12.26	1.09	8.10	8.44	68.32	3.14	0.06	0.58
12.28	1.17	8.80	7.71	67.85	3.08	0.06	0.63
12.30	1.20	9.06	7.51	68.01	3.07	0.06	0.65
12.32	1.17	8.80	7.90	69.56	3.10	0.06	0.63
12.34	1.12	8.27	8.52	70.45	3.15	0.06	0.59
12.36	1.12	8.24	8.53	70.22	3.15	0.06	0.59
12.38	1.22	9.19	7.53	69.18	3.07	0.06	0.66
12.41	1.42	11.00	6.22	68.39	2.95	0.07	0.79
12.42	1.60	12.57	5.49	68.99	2.88	0.07	0.90
12.44	1.71	13.58	5.25	71.27	2.85	0.07	0.97
12.46	1.76	14.01	5.26	73.76	2.85	0.07	1.00

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q _t (MPa)	Q _{tn}	K _c	Q _{tn,cs}	I _c	S _{u(liq)} / 'v	S _{u(peak)} / 'v
12.48	1.81	14.42	5.37	77.40	2.87	0.07	1.03
12.50	1.80	14.35	5.83	83.62	2.91	0.07	1.02
12.52	1.76	13.99	6.53	91.30	2.98	0.07	1.00
12.54	1.71	13.50	7.28	98.27	3.05	0.07	0.96
12.56	1.70	13.40	7.68	102.98	3.08	0.07	0.96
12.58	1.68	13.11	8.19	107.41	3.12	0.07	0.94
12.60	1.64	12.77	8.65	110.48	3.16	0.07	0.91
12.62	1.58	12.18	9.22	112.33	3.20	0.07	0.87
12.65	1.52	11.63	9.65	112.21	3.23	0.07	0.83
12.66	1.44	10.89	10.23	111.39	3.27	0.07	0.78
12.68	1.36	10.18	10.77	109.61	3.30	0.06	0.73
12.70	1.29	9.51	11.26	107.03	3.33	0.06	0.68
12.72	1.24	9.03	11.52	103.93	3.35	0.06	0.64
12.74	1.17	8.42	11.97	100.73	3.38	0.06	0.60
12.76	1.13	8.01	12.18	97.56	3.39	0.06	0.57
12.78	1.10	7.73	12.18	94.22	3.39	0.06	0.55
12.80	1.10	7.72	11.74	90.65	3.36	0.06	0.55
12.82	1.16	8.26	10.60	87.60	3.29	0.06	0.59
12.84	1.41	10.44	8.13	84.90	3.12	0.06	0.75
12.86	1.93	15.01	5.33	79.97	2.86	0.07	1.07
12.88	2.64	21.52	3.44	73.98	2.62	0.09	1.52
12.90	3.44	28.86	2.44	70.54	2.43	0.09	0.67
12.92	4.24	36.30	1.93	70.23	2.30	0.09	0.69
12.94	5.03	43.61	1.62	70.86	2.18	0.09	0.72
12.96	5.73	50.22	1.42	71.46	2.08	0.09	0.73
12.98	6.25	55.11	1.30	71.54	2.00	0.09	0.75
13.00	6.58	58.26	1.23	71.56	1.94	0.09	0.75
13.02	6.69	59.27	1.00	59.27	1.90	0.09	0.76
13.04	6.66	59.00	1.00	59.00	1.88	0.08	0.76
13.06	6.60	58.56	1.00	58.56	1.85	0.08	0.75
13.08	6.41	56.75	1.00	56.75	1.85	0.08	0.75
13.10	6.27	55.43	1.00	55.43	1.85	0.07	0.75
13.12	6.08	53.60	1.00	53.60	1.86	0.07	0.74
13.14	6.04	53.21	1.00	53.21	1.86	0.07	0.74
13.16	5.96	52.42	1.00	52.42	1.86	0.07	0.74
13.18	5.85	51.28	1.00	51.28	1.88	0.07	0.74
13.20	5.70	49.82	1.00	49.82	1.89	0.07	0.73
13.22	5.51	48.00	1.00	48.00	1.91	0.07	0.73
13.24	5.34	46.40	1.00	46.40	1.94	0.07	0.72
13.26	5.06	43.69	1.00	43.69	1.97	0.07	0.72
13.28	4.61	39.53	1.00	39.53	2.02	0.07	0.70
13.30	3.96	33.38	1.00	33.38	2.11	0.07	0.68
13.32	3.17	26.11	1.85	48.35	2.27	0.08	0.65
13.34	2.44	19.28	2.77	53.41	2.50	0.08	0.62
13.36	1.92	14.49	4.17	60.50	2.72	0.08	1.03
13.38	1.66	12.18	5.33	64.89	2.86	0.07	0.87
13.40	1.52	10.98	5.99	65.83	2.93	0.07	0.78
13.42	1.40	9.91	6.62	65.57	2.99	0.06	0.71

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q_t (MPa)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
13.44	1.30	9.03	7.12	64.23	3.03	0.06	0.64
13.46	1.26	8.69	7.09	61.56	3.03	0.06	0.62
13.48	1.24	8.48	6.84	57.98	3.01	0.06	0.61
13.50	1.23	8.46	6.48	54.77	2.98	0.06	0.60
13.52	1.26	8.67	6.08	52.72	2.94	0.06	0.62
13.54	1.29	8.93	5.88	52.53	2.92	0.07	0.64
13.56	1.30	8.99	5.99	53.83	2.93	0.07	0.64
13.58	1.27	8.70	6.49	56.45	2.98	0.06	0.62
13.60	1.25	8.52	6.90	58.75	3.01	0.06	0.61
13.62	1.24	8.41	7.21	60.58	3.04	0.06	0.60
13.64	1.22	8.24	7.52	62.00	3.07	0.06	0.59
13.66	1.19	7.96	7.92	63.05	3.10	0.06	0.57
13.68	1.15	7.67	8.36	64.11	3.13	0.06	0.55
13.70	1.14	7.49	8.72	65.35	3.16	0.06	0.54
13.72	1.11	7.26	9.08	65.96	3.19	0.06	0.52
13.74	1.08	7.01	9.38	65.73	3.21	0.06	0.50
13.76	1.08	6.96	9.34	65.02	3.21	0.06	0.50
13.78	1.10	7.16	9.04	64.75	3.18	0.06	0.51
13.80	1.14	7.51	8.65	64.94	3.16	0.06	0.54
13.82	1.16	7.66	8.49	65.07	3.14	0.06	0.55
13.84	1.16	7.63	8.59	65.56	3.15	0.06	0.55
13.86	1.14	7.45	8.86	66.00	3.17	0.06	0.53
13.88	1.10	7.06	9.48	66.98	3.22	0.06	0.50
13.90	1.06	6.77	9.87	66.83	3.24	0.06	0.48
13.92	1.03	6.51	10.23	66.57	3.27	0.06	0.46
13.94	1.03	6.47	10.20	65.99	3.27	0.06	0.46
13.96	1.02	6.43	10.24	65.82	3.27	0.06	0.46
13.98	1.05	6.61	9.93	65.60	3.25	0.06	0.47
14.00	1.10	7.06	9.17	64.70	3.19	0.06	0.50
14.02	1.16	7.48	8.51	63.59	3.15	0.06	0.53
14.04	1.18	7.66	8.22	63.01	3.12	0.06	0.55
14.06	1.18	7.62	8.29	63.12	3.13	0.06	0.54
14.08	1.17	7.54	8.38	63.12	3.14	0.06	0.54
14.10	1.16	7.45	8.55	63.68	3.15	0.06	0.53
14.12	1.16	7.44	8.70	64.77	3.16	0.06	0.53
14.14	1.17	7.52	8.87	66.69	3.17	0.06	0.54
14.16	1.19	7.66	8.91	68.23	3.18	0.06	0.55
14.18	1.20	7.75	8.97	69.53	3.18	0.06	0.55
14.20	1.20	7.70	9.18	70.71	3.20	0.06	0.55
14.22	1.18	7.54	9.49	71.58	3.22	0.06	0.54
14.24	1.17	7.44	9.66	71.92	3.23	0.06	0.53
14.26	1.18	7.52	9.56	71.85	3.22	0.06	0.54
14.28	1.20	7.72	9.33	71.98	3.21	0.06	0.55
14.30	1.23	7.88	9.19	72.40	3.20	0.06	0.56
14.32	1.23	7.87	9.27	72.98	3.20	0.06	0.56
14.34	1.21	7.75	9.43	73.05	3.21	0.06	0.55
14.36	1.19	7.52	9.70	72.94	3.23	0.06	0.54
14.38	1.15	7.22	10.04	72.44	3.25	0.06	0.52

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q_t (MPa)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
14.40	1.10	6.78	10.61	71.96	3.29	0.06	0.48
14.42	1.04	6.34	11.12	70.56	3.33	0.06	0.45
14.44	1.00	5.98	11.58	69.25	3.35	0.06	0.43
14.46	0.98	5.81	11.62	67.51	3.36	0.06	0.41
14.48	0.97	5.71	11.60	66.25	3.36	0.06	0.41
14.50	0.96	5.62	11.48	64.51	3.35	0.06	0.40
14.52	0.94	5.50	11.43	62.86	3.35	0.06	0.39
14.54	0.94	5.44	11.34	61.72	3.34	0.06	0.39
14.56	0.93	5.38	11.35	61.05	3.34	0.06	0.38
14.58	0.92	5.31	11.43	60.73	3.35	0.06	0.38
14.60	0.91	5.22	11.58	60.47	3.35	0.06	0.37
14.62	0.92	5.28	11.52	60.79	3.35	0.06	0.38
14.64	0.94	5.37	11.42	61.30	3.34	0.06	0.38
14.66	0.94	5.42	11.34	61.53	3.34	0.06	0.39
14.68	0.94	5.39	11.43	61.61	3.35	0.06	0.39
14.70	0.93	5.34	11.58	61.81	3.35	0.06	0.38
14.72	0.93	5.30	11.79	62.48	3.37	0.06	0.38
14.74	0.92	5.24	12.00	62.92	3.38	0.06	0.37
14.76	0.92	5.22	12.13	63.27	3.39	0.06	0.37
14.78	0.92	5.22	12.13	63.28	3.39	0.06	0.37
14.80	0.93	5.24	12.08	63.25	3.38	0.06	0.37
14.82	0.93	5.26	11.99	63.13	3.38	0.06	0.38
14.84	0.93	5.26	11.95	62.87	3.38	0.06	0.38
14.86	0.93	5.26	11.90	62.57	3.37	0.06	0.38
14.88	0.93	5.26	11.88	62.49	3.37	0.06	0.38
14.90	0.93	5.20	12.05	62.68	3.38	0.06	0.37
14.92	0.92	5.15	12.23	62.93	3.39	0.06	0.37
14.94	0.91	5.07	12.43	63.07	3.41	0.06	0.36
14.96	0.91	5.01	12.62	63.26	3.42	0.06	0.36
14.98	0.90	4.95	12.84	63.59	3.43	0.06	0.35
15.00	0.91	4.98	12.87	64.12	3.43	0.06	0.36
15.02	0.92	5.07	12.75	64.68	3.42	0.06	0.36
15.04	0.93	5.18	12.58	65.15	3.42	0.06	0.37
15.06	0.93	5.15	12.63	65.08	3.42	0.06	0.37
15.08	0.91	5.02	12.79	64.16	3.43	0.06	0.36
15.10	0.90	4.87	12.93	63.02	3.44	0.06	0.35
15.12	0.88	4.71	13.09	61.66	3.44	0.06	0.34
15.14	0.90	4.85	12.68	61.49	3.42	0.06	0.35
15.16	0.92	5.03	12.19	61.34	3.39	0.06	0.36
15.18	0.98	5.44	11.36	61.80	3.34	0.06	0.39
15.20	1.02	5.74	10.77	61.85	3.30	0.06	0.41
15.22	1.05	6.03	10.32	62.26	3.27	0.06	0.43
15.24	1.08	6.22	10.12	62.96	3.26	0.06	0.44
15.26	1.09	6.31	10.15	64.07	3.26	0.06	0.45
15.28	1.09	6.31	10.37	65.41	3.28	0.06	0.45
15.30	1.08	6.22	10.75	66.81	3.30	0.06	0.44
15.32	1.07	6.07	11.20	67.97	3.33	0.06	0.43
15.34	1.04	5.86	11.76	68.89	3.37	0.06	0.42

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q _t (MPa)	Q _{tn}	K _c	Q _{tn,cs}	I _c	S _{u(liq)} / ' _v	S _{u(peak)} / ' _v
15.36	1.01	5.66	12.25	69.31	3.40	0.06	0.40
15.38	1.00	5.55	12.52	69.55	3.41	0.06	0.40
15.40	1.01	5.59	12.40	69.39	3.40	0.06	0.40
15.42	1.02	5.66	12.17	68.88	3.39	0.06	0.40
15.44	1.02	5.68	11.97	68.02	3.38	0.06	0.41
15.46	1.02	5.69	11.79	67.12	3.37	0.06	0.41
15.48	1.03	5.73	11.57	66.25	3.35	0.06	0.41
15.50	1.03	5.75	11.39	65.52	3.34	0.06	0.41
15.52	1.03	5.73	11.34	65.01	3.34	0.06	0.41
15.54	1.03	5.66	11.44	64.75	3.35	0.06	0.40
15.56	1.02	5.61	11.52	64.60	3.35	0.06	0.40
15.58	1.01	5.54	11.62	64.41	3.36	0.06	0.40
15.60	1.01	5.54	11.56	64.11	3.35	0.06	0.40
15.62	1.02	5.56	11.45	63.65	3.35	0.06	0.40
15.64	1.03	5.64	11.20	63.16	3.33	0.06	0.40
15.66	1.04	5.72	10.94	62.50	3.31	0.06	0.41
15.68	1.04	5.72	10.83	61.92	3.31	0.06	0.41
15.70	1.04	5.67	10.82	61.34	3.31	0.06	0.41
15.72	1.02	5.53	11.05	61.13	3.32	0.06	0.40
15.74	0.99	5.33	11.41	60.83	3.34	0.06	0.38
15.76	0.97	5.14	11.79	60.62	3.37	0.06	0.37
15.78	0.95	4.98	12.11	60.29	3.39	0.06	0.36
15.80	0.94	4.91	12.24	60.09	3.39	0.06	0.35
15.82	0.92	4.79	12.40	59.37	3.40	0.06	0.34
15.84	0.91	4.65	12.52	58.24	3.41	0.06	0.33
15.86	0.90	4.58	12.48	57.17	3.41	0.06	0.33
15.88	0.94	4.90	11.65	57.11	3.36	0.06	0.35
15.90	1.15	6.40	9.13	58.45	3.19	0.06	0.46
15.92	1.51	9.09	6.52	59.27	2.98	0.06	0.65
15.94	1.88	11.81	4.98	58.79	2.82	0.08	0.84
15.96	1.97	12.47	4.74	59.14	2.80	0.08	0.89
15.98	1.69	10.38	5.75	59.73	2.91	0.07	0.74
16.00	1.34	7.81	7.58	59.15	3.07	0.06	0.56
16.02	1.12	6.14	9.37	57.52	3.21	0.06	0.44
16.04	1.08	5.84	9.73	56.89	3.23	0.06	0.42
16.06	1.07	5.77	10.07	58.10	3.26	0.06	0.41
16.08	1.11	6.08	9.73	59.17	3.23	0.06	0.43
16.10	1.18	6.58	9.03	59.46	3.18	0.06	0.47
16.12	1.29	7.35	7.99	58.70	3.10	0.06	0.53
16.14	1.43	8.37	6.94	58.06	3.02	0.06	0.60
16.16	1.51	8.94	6.49	58.01	2.98	0.07	0.64
16.18	1.52	9.01	6.41	57.76	2.97	0.06	0.64
16.20	1.36	7.83	7.46	58.43	3.06	0.06	0.56
16.22	1.19	6.58	8.79	57.87	3.17	0.06	0.47
16.24	1.02	5.31	10.64	56.43	3.29	0.06	0.38
16.26	0.91	4.55	11.89	54.09	3.37	0.06	0.33
16.28	0.85	4.12	12.60	51.92	3.42	0.06	0.29
16.30	0.85	4.04	12.52	50.64	3.41	0.06	0.29

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q_t (MPa)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
16.32	0.87	4.18	11.82	49.45	3.37	0.06	0.30
16.34	0.89	4.34	11.27	48.93	3.34	0.06	0.31
16.36	0.91	4.47	10.86	48.53	3.31	0.06	0.32
16.38	0.92	4.54	10.82	49.06	3.31	0.06	0.32
16.40	0.93	4.64	10.72	49.75	3.30	0.06	0.33
16.42	0.94	4.68	10.82	50.58	3.31	0.06	0.33
16.44	0.94	4.68	10.81	50.62	3.31	0.06	0.33
16.46	0.94	4.71	10.68	50.31	3.30	0.06	0.34
16.48	0.96	4.80	10.46	50.21	3.28	0.06	0.34
16.50	0.98	4.94	10.29	50.83	3.27	0.06	0.35
16.52	1.00	5.10	10.20	52.01	3.27	0.06	0.36
16.54	1.02	5.21	10.27	53.54	3.27	0.06	0.37
16.56	1.04	5.33	10.32	55.01	3.27	0.06	0.38
16.58	1.06	5.51	10.30	56.74	3.27	0.06	0.39
16.60	1.09	5.71	10.23	58.43	3.27	0.06	0.41
16.62	1.12	5.87	10.28	60.40	3.27	0.06	0.42
16.64	1.12	5.92	10.49	62.11	3.28	0.06	0.42
16.66	1.13	5.98	10.68	63.81	3.30	0.06	0.43
16.68	1.14	6.02	10.86	65.36	3.31	0.06	0.43
16.70	1.15	6.05	11.02	66.74	3.32	0.06	0.43
16.72	1.16	6.15	10.99	67.62	3.32	0.06	0.44
16.74	1.17	6.19	11.02	68.18	3.32	0.06	0.44
16.76	1.17	6.20	11.06	68.60	3.32	0.06	0.44
16.78	1.16	6.11	11.27	68.94	3.34	0.06	0.44
16.80	1.17	6.15	11.24	69.13	3.33	0.06	0.44
16.82	1.17	6.19	11.21	69.42	3.33	0.06	0.44
16.84	1.18	6.25	11.15	69.67	3.33	0.06	0.45
16.86	1.19	6.26	11.18	70.04	3.33	0.06	0.45
16.88	1.18	6.22	11.24	69.91	3.33	0.06	0.44
16.90	1.18	6.19	11.23	69.58	3.33	0.06	0.44
16.92	1.17	6.14	11.27	69.21	3.34	0.06	0.44
16.94	1.17	6.11	11.32	69.13	3.34	0.06	0.44
16.96	1.16	6.06	11.45	69.36	3.35	0.06	0.43
16.98	1.16	5.99	11.61	69.58	3.36	0.06	0.43
17.00	1.15	5.94	11.73	69.75	3.36	0.06	0.42
17.02	1.14	5.86	11.92	69.84	3.38	0.06	0.42
17.04	1.14	5.86	11.92	69.84	3.38	0.06	0.42
17.06	1.15	5.93	11.78	69.88	3.37	0.06	0.42
17.08	1.17	6.07	11.49	69.76	3.35	0.06	0.43
17.10	1.19	6.18	11.29	69.74	3.34	0.06	0.44
17.12	1.20	6.20	11.26	69.88	3.34	0.06	0.44
17.14	1.20	6.23	11.26	70.14	3.33	0.06	0.44
17.16	1.21	6.26	11.28	70.62	3.34	0.06	0.45
17.18	1.22	6.32	11.24	71.11	3.33	0.06	0.45
17.20	1.23	6.39	11.25	71.92	3.33	0.06	0.46
17.22	1.24	6.43	11.30	72.68	3.34	0.06	0.46
17.24	1.24	6.47	11.35	73.51	3.34	0.06	0.46
17.26	1.25	6.48	11.44	74.14	3.35	0.06	0.46

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q_t (MPa)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
17.28	1.23	6.39	11.70	74.80	3.36	0.06	0.46
17.30	1.20	6.17	12.23	75.43	3.39	0.06	0.44
17.32	1.17	5.96	12.71	75.80	3.42	0.06	0.43
17.34	1.16	5.88	12.90	75.84	3.43	0.06	0.42
17.36	1.18	5.98	12.63	75.55	3.42	0.06	0.43
17.38	1.20	6.09	12.37	75.28	3.40	0.06	0.43
17.40	1.21	6.19	12.09	74.85	3.39	0.06	0.44
17.42	1.22	6.23	11.92	74.29	3.38	0.06	0.45
17.45	1.24	6.33	11.57	73.21	3.35	0.06	0.45
17.46	1.24	6.33	11.49	72.69	3.35	0.06	0.45
17.48	1.24	6.32	11.56	73.09	3.35	0.06	0.45
17.50	1.24	6.30	11.79	74.29	3.37	0.06	0.45
17.52	1.25	6.38	11.84	75.57	3.37	0.06	0.46
17.54	1.26	6.47	11.82	76.48	3.37	0.06	0.46
17.56	1.28	6.56	11.78	77.25	3.37	0.06	0.47
17.58	1.29	6.63	11.74	77.88	3.36	0.06	0.47
17.60	1.30	6.66	11.75	78.26	3.37	0.06	0.48
17.62	1.29	6.62	11.87	78.57	3.37	0.06	0.47
17.64	1.28	6.56	11.99	78.67	3.38	0.06	0.47
17.66	1.29	6.61	11.93	78.83	3.38	0.06	0.47
17.68	1.31	6.73	11.73	78.91	3.36	0.06	0.48
17.70	1.32	6.81	11.60	78.95	3.36	0.06	0.49
17.72	1.32	6.78	11.63	78.90	3.36	0.06	0.48
17.74	1.32	6.76	11.61	78.48	3.36	0.06	0.48
17.76	1.32	6.72	11.62	78.13	3.36	0.06	0.48
17.78	1.32	6.75	11.52	77.82	3.35	0.06	0.48
17.80	1.31	6.65	11.71	77.90	3.36	0.06	0.48
17.82	1.28	6.46	12.05	77.91	3.38	0.06	0.46
17.84	1.25	6.25	12.40	77.53	3.40	0.06	0.45
17.86	1.23	6.12	12.57	76.89	3.41	0.06	0.44
17.88	1.24	6.14	12.41	76.20	3.40	0.06	0.44
17.90	1.26	6.28	12.03	75.54	3.38	0.06	0.45
17.92	1.29	6.49	11.52	74.76	3.35	0.06	0.46
17.94	1.33	6.70	11.00	73.67	3.32	0.06	0.48
17.96	1.33	6.74	10.90	73.45	3.31	0.06	0.48
17.98	1.32	6.65	11.12	73.94	3.33	0.06	0.47
18.00	1.29	6.46	11.63	75.13	3.36	0.06	0.46
18.02	1.28	6.33	11.97	75.74	3.38	0.06	0.45
18.04	1.26	6.20	12.30	76.30	3.40	0.06	0.44
18.06	1.26	6.20	12.36	76.65	3.40	0.06	0.44
18.08	1.26	6.18	12.44	76.96	3.41	0.06	0.44
18.10	1.28	6.30	12.17	76.63	3.39	0.06	0.45
18.12	1.28	6.30	12.11	76.24	3.39	0.06	0.45
18.14	1.27	6.26	12.11	75.87	3.39	0.06	0.45
18.17	1.26	6.14	12.34	75.75	3.40	0.06	0.44
18.18	1.26	6.18	12.29	75.95	3.40	0.06	0.44
18.20	1.29	6.31	12.15	76.65	3.39	0.06	0.45
18.22	1.32	6.50	11.94	77.59	3.38	0.06	0.46

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q_t (MPa)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
18.24	1.33	6.58	11.93	78.50	3.38	0.06	0.47
18.26	1.32	6.48	12.21	79.16	3.39	0.06	0.46
18.28	1.30	6.34	12.49	79.22	3.41	0.06	0.45
18.30	1.28	6.21	12.69	78.79	3.42	0.06	0.44
18.32	1.28	6.23	12.51	77.98	3.41	0.06	0.45
18.34	1.29	6.29	12.32	77.54	3.40	0.06	0.45
18.36	1.31	6.40	12.07	77.20	3.38	0.06	0.46
18.38	1.32	6.46	11.89	76.85	3.37	0.06	0.46
18.40	1.33	6.48	11.80	76.38	3.37	0.06	0.46
18.42	1.32	6.42	11.86	76.07	3.37	0.06	0.46
18.44	1.31	6.34	11.98	76.01	3.38	0.06	0.45
18.46	1.30	6.31	12.08	76.20	3.39	0.06	0.45
18.48	1.30	6.27	12.20	76.47	3.39	0.06	0.45
18.50	1.29	6.22	12.34	76.80	3.40	0.06	0.44
18.52	1.29	6.22	12.37	76.99	3.40	0.06	0.44
18.54	1.32	6.36	12.10	76.97	3.39	0.06	0.45
18.56	1.35	6.54	11.71	76.53	3.36	0.06	0.47
18.58	1.38	6.75	11.23	75.80	3.33	0.06	0.48
18.60	1.42	6.99	10.74	75.07	3.30	0.06	0.50
18.62	1.47	7.28	10.25	74.64	3.27	0.06	0.52
18.64	1.51	7.56	9.91	74.88	3.25	0.06	0.54
18.66	1.56	7.86	9.67	75.96	3.23	0.06	0.56
18.68	1.63	8.26	9.40	77.70	3.21	0.06	0.59
18.70	1.71	8.80	9.08	79.95	3.19	0.06	0.63
18.72	1.80	9.32	8.85	82.48	3.17	0.07	0.67
18.74	1.85	9.64	8.85	85.31	3.17	0.07	0.69
18.76	1.90	9.92	8.82	87.56	3.17	0.07	0.71
18.78	1.92	10.08	8.85	89.16	3.17	0.07	0.72
18.80	1.97	10.37	8.66	89.76	3.16	0.07	0.74
18.82	2.00	10.55	8.53	90.02	3.15	0.07	0.75
18.84	2.02	10.67	8.45	90.17	3.14	0.07	0.76
18.86	2.04	10.75	8.34	89.66	3.13	0.07	0.77
18.88	2.02	10.62	8.38	89.03	3.14	0.07	0.76
18.90	1.99	10.45	8.43	88.14	3.14	0.07	0.75
18.92	1.93	10.03	8.75	87.77	3.16	0.07	0.72
18.94	1.86	9.61	9.11	87.60	3.19	0.07	0.69
18.96	1.80	9.17	9.50	87.12	3.22	0.06	0.66
18.98	1.74	8.82	9.72	85.77	3.23	0.06	0.63
19.00	1.71	8.59	9.76	83.81	3.24	0.06	0.61
19.02	1.68	8.39	9.76	81.86	3.24	0.06	0.60
19.04	1.64	8.16	9.82	80.15	3.24	0.06	0.58
19.06	1.62	8.00	9.81	78.44	3.24	0.06	0.57
19.08	1.62	8.00	9.52	76.18	3.22	0.06	0.57
19.10	1.65	8.18	9.06	74.10	3.19	0.06	0.58
19.12	1.70	8.51	8.52	72.48	3.15	0.06	0.61
19.14	1.80	9.11	7.85	71.51	3.09	0.06	0.65
19.16	1.92	9.81	7.22	70.88	3.04	0.07	0.70
19.18	2.01	10.34	6.77	70.01	3.00	0.07	0.74

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q _t (MPa)	Q _{tn}	K _c	Q _{tn,cs}	I _c	S _{u(liq)} / 'v	S _{u(peak)} / 'v
19.20	2.10	10.94	6.34	69.35	2.96	0.07	0.78
19.22	2.19	11.48	6.08	69.84	2.94	0.07	0.82
19.25	2.30	12.13	5.87	71.14	2.92	0.07	0.87
19.26	2.37	12.53	5.86	73.40	2.92	0.07	0.89
19.29	2.40	12.68	5.98	75.83	2.93	0.07	0.91
19.30	2.41	12.74	6.17	78.63	2.95	0.07	0.91
19.32	2.37	12.53	6.47	81.10	2.98	0.07	0.89
19.34	2.28	11.96	6.98	83.41	3.02	0.07	0.85
19.36	2.17	11.26	7.48	84.19	3.06	0.07	0.80
19.38	2.08	10.65	7.93	84.45	3.10	0.07	0.76
19.40	2.05	10.47	8.05	84.30	3.11	0.07	0.75
19.42	2.10	10.77	7.79	83.88	3.09	0.07	0.77
19.44	2.23	11.53	7.20	82.98	3.04	0.07	0.82
19.46	2.45	12.87	6.31	81.19	2.96	0.07	0.92
19.48	2.64	14.02	5.73	80.37	2.90	0.08	1.00
19.50	2.77	14.77	5.43	80.27	2.87	0.08	1.06
19.52	2.79	14.89	5.44	81.02	2.87	0.08	1.06
19.54	2.82	15.07	5.47	82.47	2.88	0.08	1.08
19.56	2.89	15.50	5.50	85.18	2.88	0.08	1.11
19.58	2.98	15.99	5.56	88.96	2.89	0.08	1.14
19.60	3.04	16.34	5.63	92.01	2.89	0.08	1.17
19.62	3.04	16.34	5.77	94.33	2.91	0.08	1.17
19.64	3.00	16.05	5.97	95.80	2.93	0.08	1.15
19.66	2.87	15.27	6.38	97.37	2.97	0.07	1.09
19.68	2.69	14.14	6.90	97.56	3.01	0.07	1.01
19.70	2.49	12.91	7.52	97.02	3.07	0.07	0.92
19.72	2.33	11.93	8.02	95.74	3.11	0.07	0.85
19.74	2.21	11.22	8.53	95.63	3.15	0.07	0.80
19.76	2.12	10.64	9.00	95.78	3.18	0.07	0.76
19.78	2.08	10.41	9.18	95.56	3.20	0.07	0.74
19.80	2.16	10.89	8.68	94.51	3.16	0.07	0.78
19.82	2.40	12.27	7.56	92.76	3.07	0.07	0.88
19.84	2.72	14.18	6.39	90.56	2.97	0.07	1.01
19.86	2.94	15.51	5.69	88.22	2.90	0.08	1.11
19.88	3.05	16.15	5.30	85.54	2.86	0.08	1.15
19.90	3.04	16.02	5.21	83.44	2.85	0.08	1.14
19.92	2.94	15.42	5.36	82.62	2.86	0.08	1.10
19.94	2.73	14.18	5.86	83.02	2.92	0.08	1.01
19.96	2.42	12.28	6.85	84.19	3.01	0.07	0.88
19.98	2.10	10.37	8.13	84.24	3.12	0.07	0.74
20.00	1.80	8.61	9.73	83.81	3.23	0.06	0.62
20.02	1.58	7.28	11.35	82.61	3.34	0.06	0.52
20.04	1.46	6.55	12.36	80.90	3.40	0.06	0.47
20.06	1.54	7.04	11.37	80.03	3.34	0.06	0.50
20.08	1.96	9.48	8.41	79.72	3.14	0.06	0.68
20.10	3.00	15.61	4.93	77.03	2.82	0.08	1.12
20.12	4.47	25.68	2.83	72.76	2.51	0.10	0.65
20.14	6.07	37.40	1.87	70.09	2.28	0.10	0.70

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

Depth (m)	q_t (MPa)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
20.16	7.26	46.43	1.52	70.58	2.13	0.10	0.72
20.18	6.92	44.30	1.49	65.92	2.12	0.11	0.72
20.20	6.52	41.29	1.54	63.68	2.14	0.08	0.71
20.22	6.39	40.59	1.51	61.10	2.13	0.09	0.71
20.24	7.06	45.61	1.39	63.59	2.06	0.10	0.72
20.26	7.03	45.60	1.36	61.84	2.04	0.09	0.72
20.28	6.07	38.25	1.53	58.42	2.14	0.09	0.70
20.30	4.89	29.14	2.04	59.55	2.33	0.09	0.67
20.32	3.80	21.12	3.08	64.98	2.56	0.09	0.63
20.34	3.00	15.46	4.68	72.41	2.79	0.08	1.10
20.36	2.57	12.90	6.02	77.73	2.93	0.07	0.92
20.38	2.32	11.42	7.18	82.01	3.04	0.07	0.82
20.40	2.12	10.28	8.15	83.81	3.12	0.07	0.73
20.42	1.94	9.21	9.00	82.91	3.18	0.07	0.66
20.44	1.83	8.56	9.34	79.91	3.21	0.06	0.61
20.46	1.78	8.23	9.12	75.02	3.19	0.06	0.59
20.48	1.72	7.88	8.91	70.22	3.18	0.06	0.56
20.50	1.64	7.38	8.94	66.03	3.18	0.06	0.53
20.52	1.56	6.96	9.08	63.20	3.19	0.06	0.50
20.54	1.51	6.63	9.40	62.29	3.21	0.06	0.47
20.56	1.48	6.44	9.66	62.16	3.23	0.06	0.46
20.58	1.44	6.24	10.09	62.98	3.26	0.06	0.45
20.60	1.42	6.09	10.51	64.06	3.29	0.06	0.44
20.62	1.41	6.04	10.79	65.15	3.31	0.06	0.43
20.64	1.42	6.11	10.83	66.10	3.31	0.06	0.44
20.66	1.44	6.20	10.76	66.71	3.30	0.06	0.44
20.68	1.45	6.24	10.75	67.03	3.30	0.06	0.45
20.70	1.45	6.23	10.78	67.15	3.30	0.06	0.44
20.72	1.45	6.21	10.84	67.25	3.31	0.06	0.44
20.74	1.45	6.23	10.82	67.34	3.31	0.06	0.44
20.76	1.45	6.19	10.92	67.57	3.31	0.06	0.44
20.78	1.45	6.21	10.90	67.71	3.31	0.06	0.44
20.80	1.44	6.16	10.97	67.51	3.32	0.06	0.44
20.82	1.44	6.13	10.93	67.04	3.31	0.06	0.44
20.84	1.45	6.16	10.82	66.60	3.31	0.06	0.44
20.86	1.46	6.22	10.63	66.09	3.29	0.06	0.44
20.88	1.49	6.36	10.30	65.55	3.27	0.06	0.45
20.90	1.49	6.37	10.20	64.98	3.27	0.06	0.46
20.92	1.50	6.43	10.04	64.57	3.26	0.06	0.46
20.94	1.50	6.41	10.06	64.50	3.26	0.06	0.46
20.96	1.52	6.51	9.98	64.94	3.25	0.06	0.46
20.98	1.52	6.51	10.15	66.08	3.26	0.06	0.47
21.00	1.51	6.47	10.45	67.61	3.28	0.06	0.46
21.02	1.50	6.37	10.83	68.93	3.31	0.06	0.45
21.04	1.48	6.28	11.13	69.92	3.33	0.06	0.45
21.06	1.48	6.25	11.30	70.64	3.34	0.06	0.45
21.08	1.47	6.22	11.44	71.13	3.35	0.06	0.44
21.10	1.46	6.16	11.59	71.36	3.36	0.06	0.44

:: Strength loss calculation (Idriss & Boulanger (2008)) :: (continued)

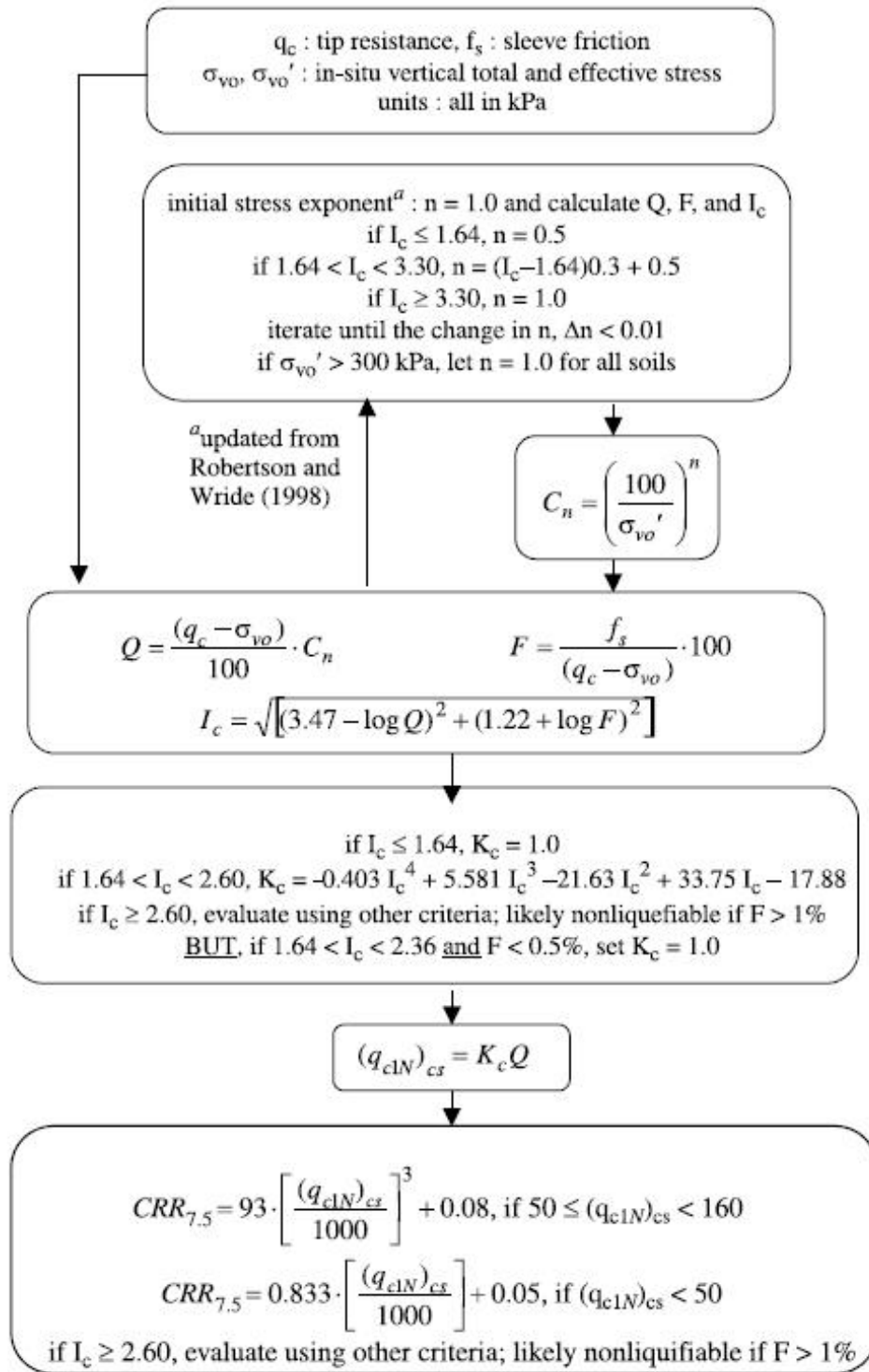
Depth (m)	q_t (MPa)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
21.12	1.46	6.13	11.63	71.34	3.36	0.06	0.44
21.14	1.46	6.11	11.65	71.18	3.36	0.06	0.44
21.16	1.46	6.12	11.62	71.15	3.36	0.06	0.44
21.18	1.45	6.04	11.77	71.11	3.37	0.06	0.43
21.20	1.44	5.97	11.91	71.11	3.37	0.06	0.43

Abbreviations

q_t :	Total cone resistance
K_c :	Cone resistance correction factor due to fines
$Q_{tn,cs}$:	Adjusted and corrected cone resistance due to fines
I_c :	Soil behavior type index
$S_{u(liq)}/\sigma'_v$:	Calculated liquefied undrained strength ratio
$S_{u(peak)}/\sigma'_v$:	Calculated peak undrained strength ratio

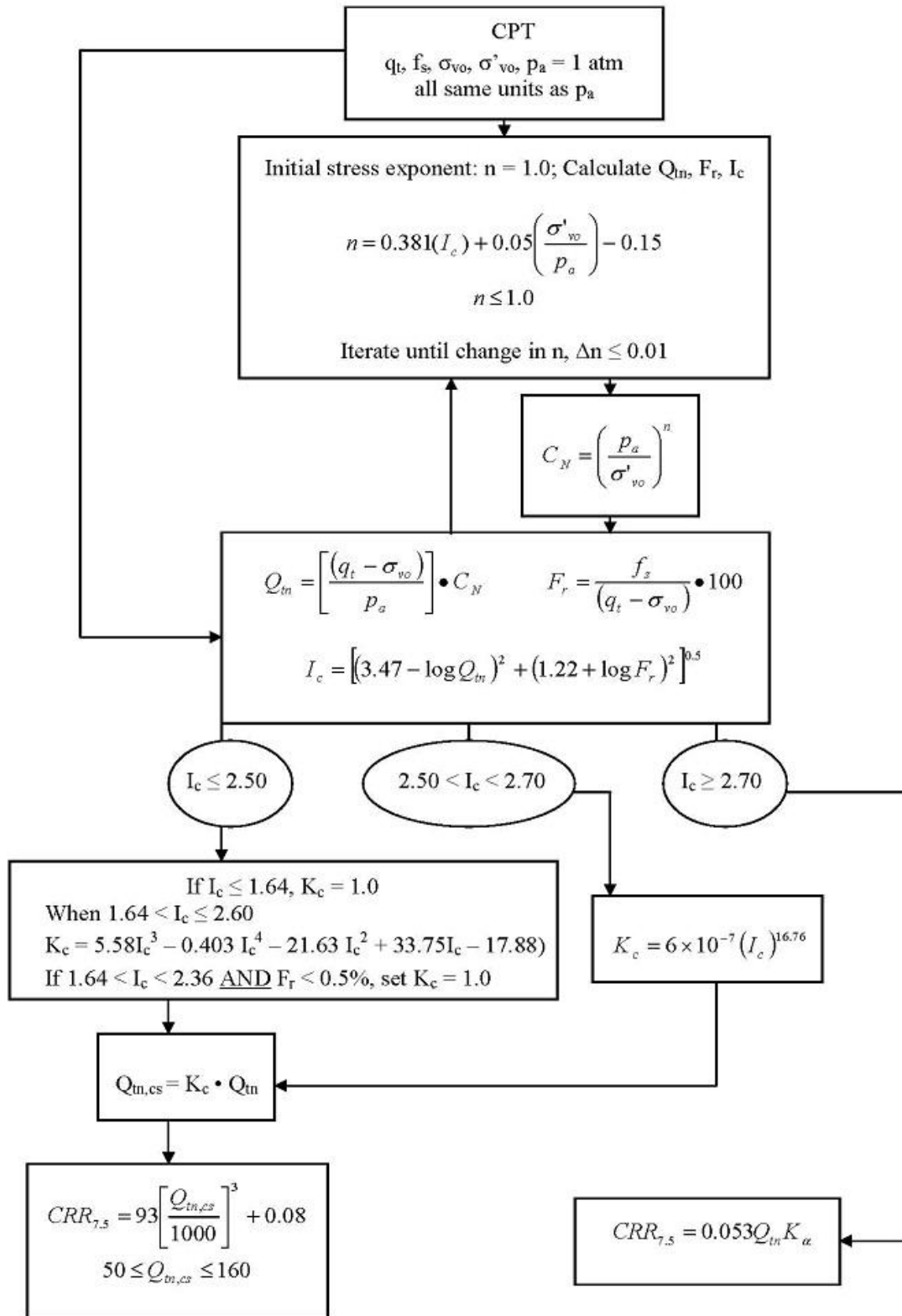
Procedure for the evaluation of soil liquefaction resistance, NCEER (1998)

Calculation of soil resistance against liquefaction is performed according to the Robertson & Wride (1998) procedure. The procedure used in the software, slightly differs from the one originally published in NCEER-97-0022 (Proceedings of the NCEER Workshop on Evaluation of Liquefaction Resistance of Soils). The revised procedure is presented below in the form of a flowchart¹:

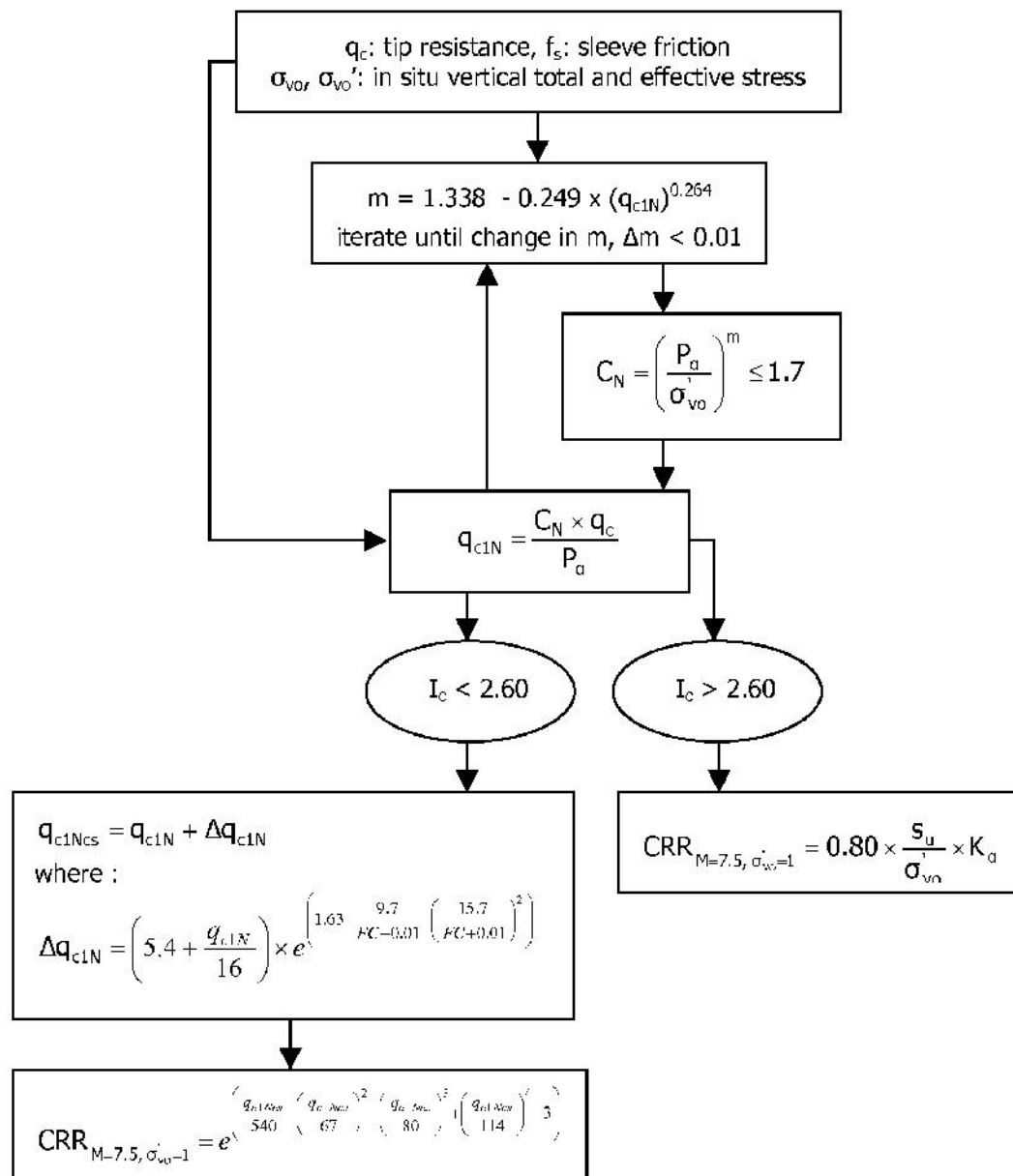


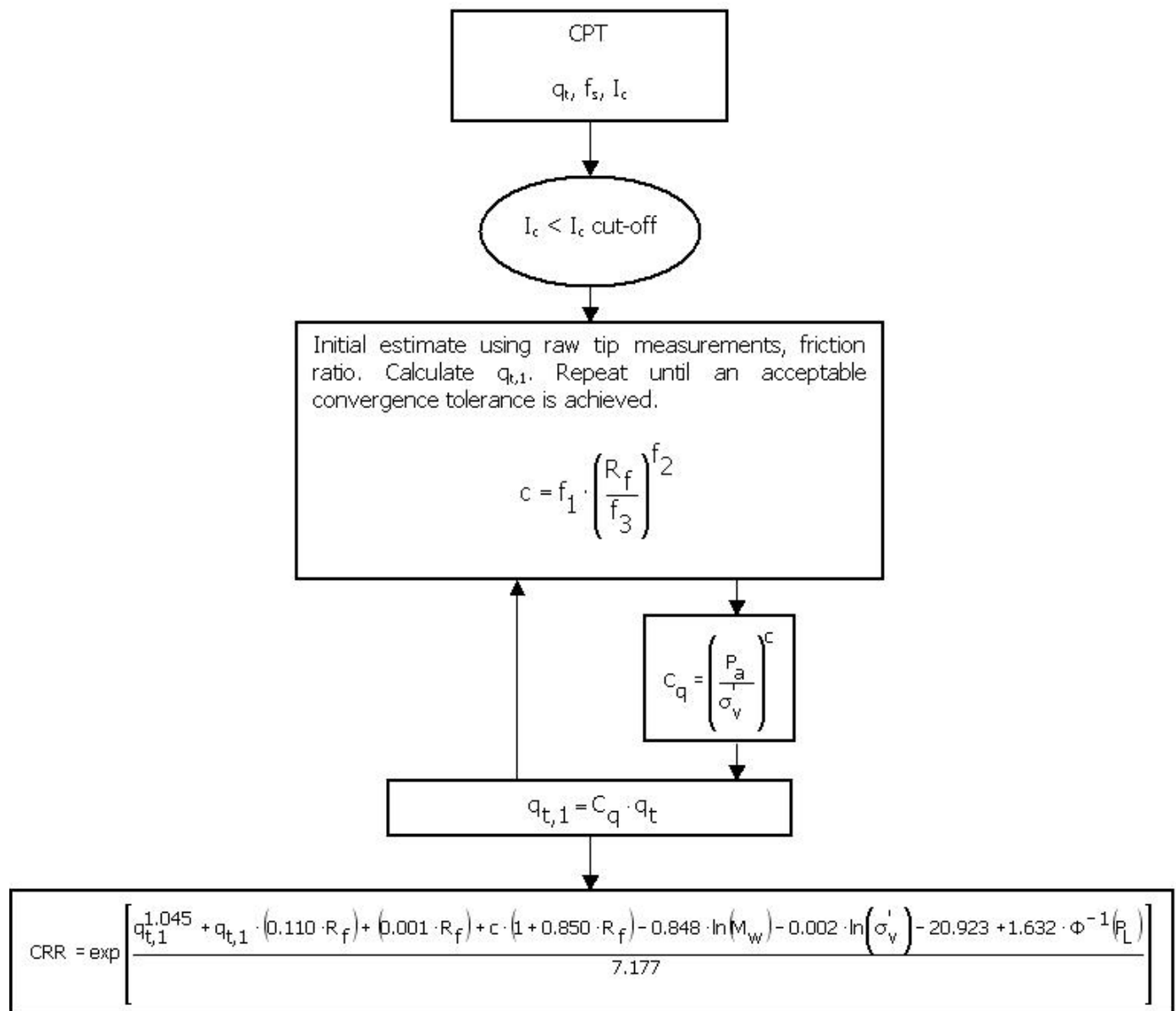
¹ "Estimating liquefaction-induced ground settlements from CPT for level ground", G. Zhang, P.K. Robertson, and R.W.I. Brachman

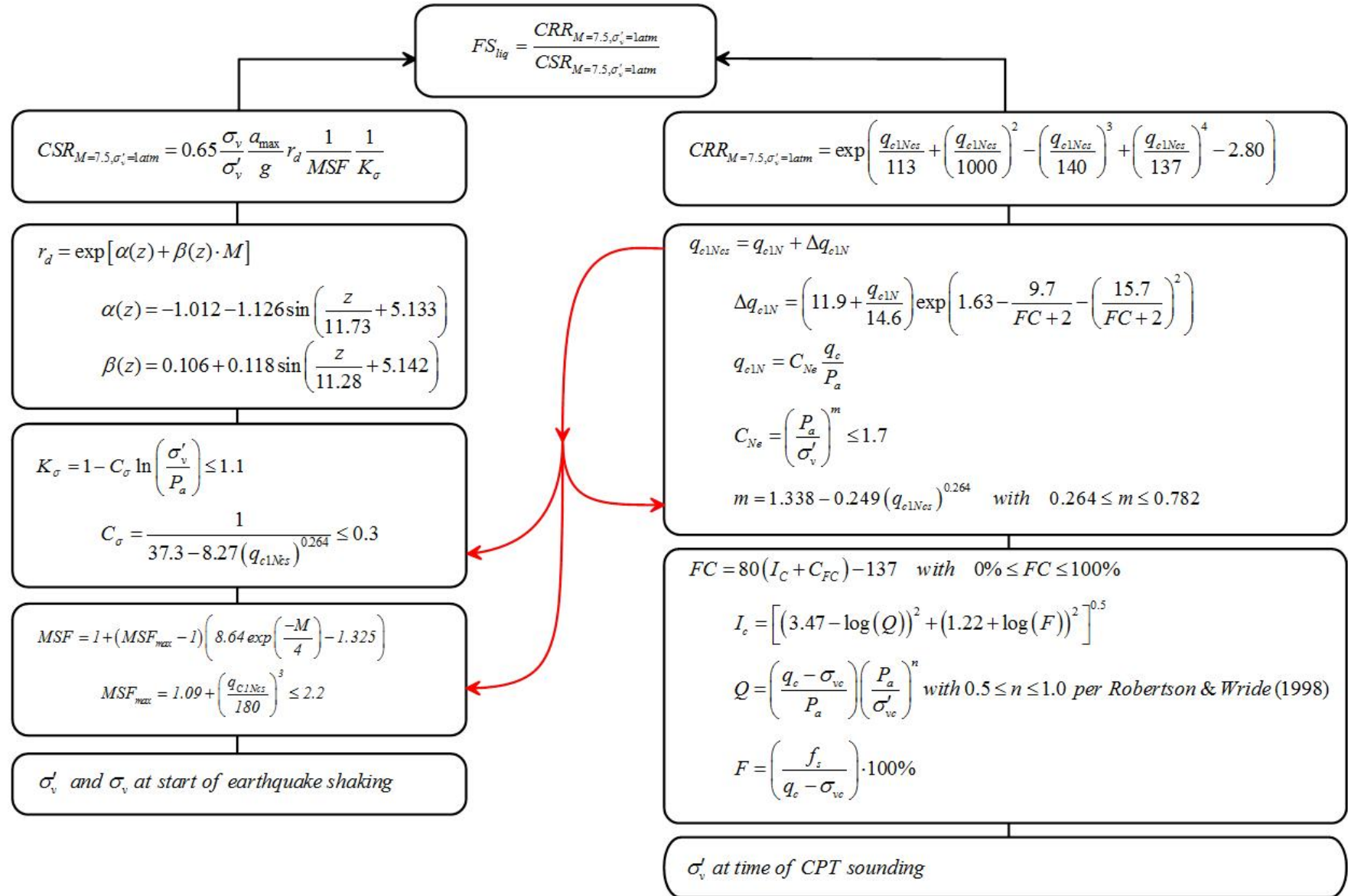
Calculation of soil resistance against liquefaction is performed according to the Robertson & Wride (1998) procedure. This procedure used in the software, slightly differs from the one originally published in NCEER-97-0022 (Proceedings of the NCEER Workshop on Evaluation of Liquefaction Resistance of Soils). The revised procedure is presented below in the form of a flowchart¹:



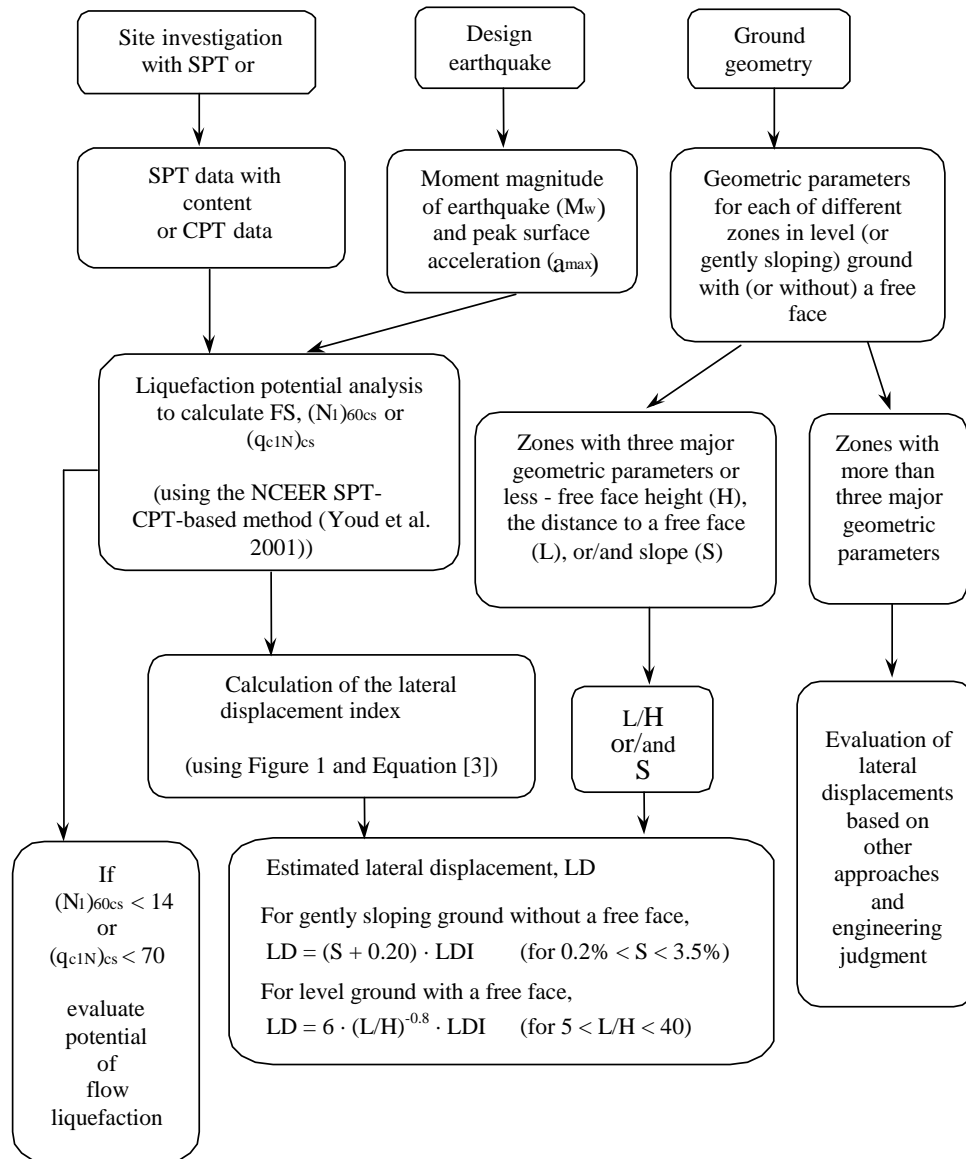
¹ P.K. Robertson, 2009. "Performance based earthquake design using the CPT", Keynote Lecture, International Conference on Performance-based Design in Earthquake Geotechnical Engineering – from case history to practice, IS-Tokyo, June 2009



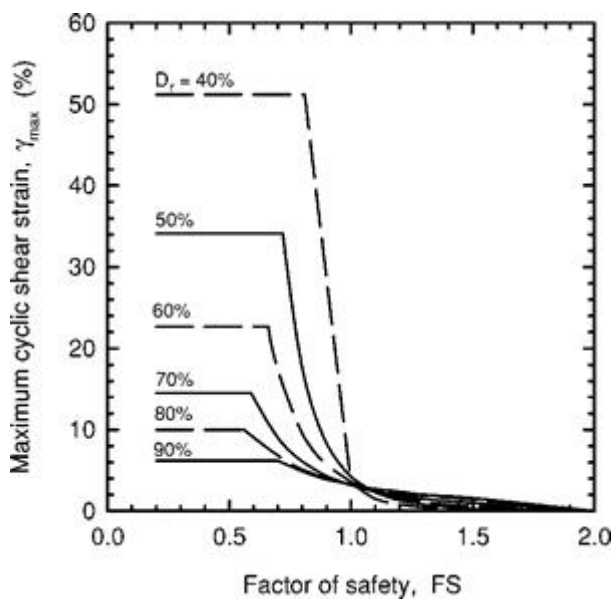




Procedure for the evaluation of liquefaction-induced lateral spreading displacements



¹ Flow chart illustrating major steps in estimating liquefaction-induced lateral spreading displacements using the proposed approach

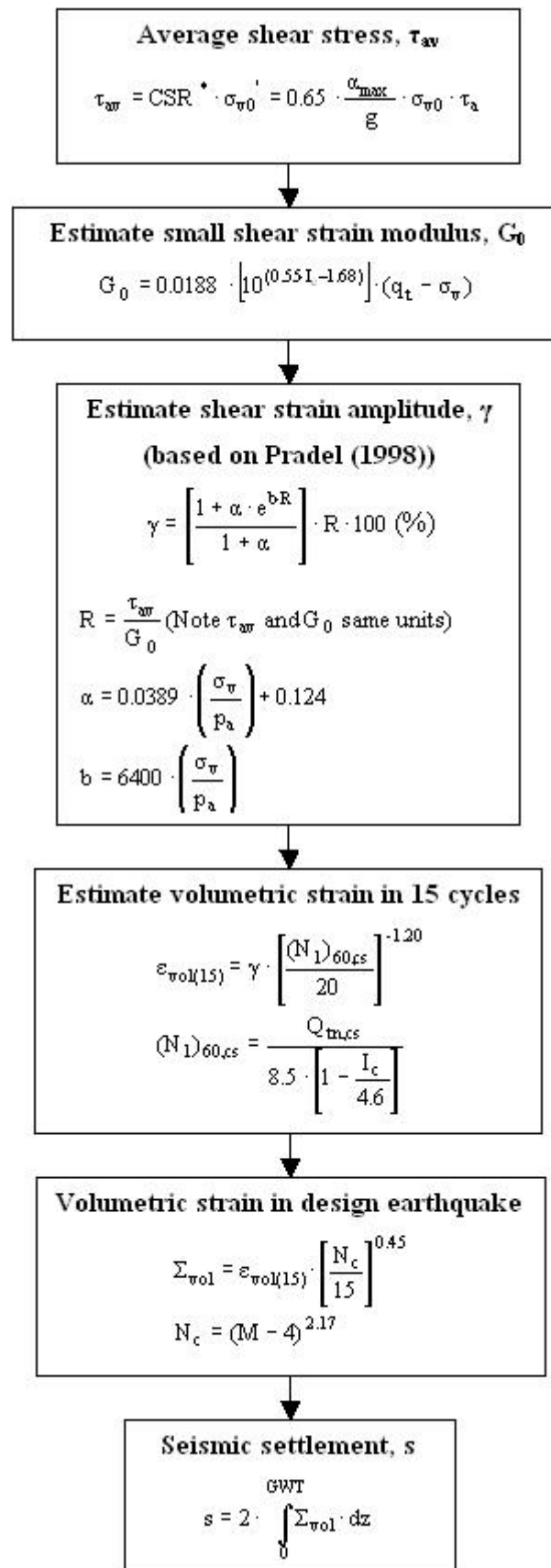


¹ Figure 1

$$LDI = \int_0^{Z_{\max}} \gamma_{\max} dz$$

¹ Equation [3]

¹ "Estimating liquefaction-induced ground settlements from CPT for level ground", G. Zhang, P.K. Robertson, and R.W.I. Brachman



Robertson, P.K. and Lisheng, S., 2010, "Estimation of seismic compression in dry soils using the CPT" FIFTH INTERNATIONAL CONFERENCE ON RECENT ADVANCES IN GEOTECHNICAL EARTHQUAKE ENGINEERING AND SOIL DYNAMICS, Symposium in honor of professor I. M. Idriss, San Diego, CA

Liquefaction Potential Index (LPI) calculation procedure

Calculation of the Liquefaction Potential Index (LPI) is used to interpret the liquefaction assessment calculations in terms of severity over depth. The calculation procedure is based on the methodology developed by Iwasaki (1982) and is adopted by AFPS.

To estimate the severity of liquefaction extent at a given site, LPI is calculated based on the following equation:

$$LPI = \int_0^{20} (10 - 0,5z) \times F_L \times dz$$

where:

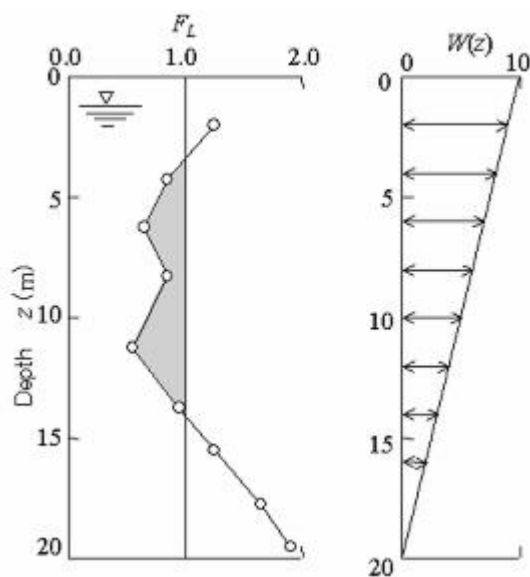
$F_L = 1 - F.S.$ when F.S. less than 1

$F_L = 0$ when F.S. greater than 1

z depth of measurement in meters

Values of LPI range between zero (0) when no test point is characterized as liquefiable and 100 when all points are characterized as susceptible to liquefaction. Iwasaki proposed four (4) discrete categories based on the numeric value of LPI:

- $LPI = 0$: Liquefaction risk is very low
- $0 < LPI \leq 5$: Liquefaction risk is low
- $5 < LPI \leq 15$: Liquefaction risk is high
- $LPI > 15$: Liquefaction risk is very high



Graphical presentation of the LPI calculation procedure

References

- Lunne, T., Robertson, P.K., and Powell, J.J.M 1997. Cone penetration testing in geotechnical practice, E & FN Spon Routledge, 352 p, ISBN 0-7514-0393-8.
- Boulanger, R.W. and Idriss, I. M., 2007. Evaluation of Cyclic Softening in Silts and Clays. ASCE Journal of Geotechnical and Geoenvironmental Engineering June, Vol. 133, No. 6 pp 641-652
- Boulanger, R.W. and Idriss, I. M., 2014. CPT AND SPT BASED LIQUEFACTION TRIGGERING PROCEDURES. DEPARTMENT OF CIVIL & ENVIRONMENTAL ENGINEERING COLLEGE OF ENGINEERING UNIVERSITY OF CALIFORNIA AT DAVIS
- Robertson, P.K. and Cabal, K.L., 2007, Guide to Cone Penetration Testing for Geotechnical Engineering. Available at no cost at <http://www.geologismiki.gr/>
- Robertson, P.K. 1990. Soil classification using the cone penetration test. Canadian Geotechnical Journal, 27 (1), 151-8.
- Robertson, P.K. and Wride, C.E., 1998. Cyclic Liquefaction and its Evaluation based on the CPT Canadian Geotechnical Journal, 1998, Vol. 35, August.
- Youd, T.L., Idriss, I.M., Andrus, R.D., Arango, I., Castro, G., Christian, J.T., Dobry, R., Finn, W.D.L., Harder, L.F., Hynes, M.E., Ishihara, K., Koester, J., Liao, S., Marcuson III, W.F., Martin, G.R., Mitchell, J.K., Moriwaki, Y., Power, M.S., Robertson, P.K., Seed, R., and Stokoe, K.H., Liquefaction Resistance of Soils: Summary Report from the 1996 NCEER and 1998 NCEER/NSF Workshop on Evaluation of Liquefaction Resistance of Soils, ASCE, Journal of Geotechnical & Geoenvironmental Engineering, Vol. 127, October, pp 817-833
- Zhang, G., Robertson, P.K., Brachman, R., 2002, Estimating Liquefaction Induced Ground Settlements from the CPT, Canadian Geotechnical Journal, 39: pp 1168-1180
- Zhang, G., Robertson, P.K., Brachman, R., 2004, Estimating Liquefaction Induced Lateral Displacements using the SPT and CPT, ASCE, Journal of Geotechnical & Geoenvironmental Engineering, Vol. 130, No. 8, 861-871
- Pradel, D., 1998, Procedure to Evaluate Earthquake-Induced Settlements in Dry Sandy Soils, ASCE, Journal of Geotechnical & Geoenvironmental Engineering, Vol. 124, No. 4, 364-368
- Iwasaki, T., 1986, Soil liquefaction studies in Japan: state-of-the-art, Soil Dynamics and Earthquake Engineering, Vol. 5, No. 1, 2-70
- Papathanassiou G., 2008, LPI-based approach for calibrating the severity of liquefaction-induced failures and for assessing the probability of liquefaction surface evidence, Eng. Geol. 96:94–104
- P.K. Robertson, 2009, Interpretation of Cone Penetration Tests - a unified approach., Canadian Geotechnical Journal, Vol. 46, No. 11, pp 1337-1355
- P.K. Robertson, 2009. "Performance based earthquake design using the CPT", Keynote Lecture, International Conference on Performance-based Design in Earthquake Geotechnical Engineering - from case history to practice, IS-Tokyo, June 2009
- Robertson, P.K. and Lisheng, S., 2010, "Estimation of seismic compression in dry soils using the CPT" FIFTH INTERNATIONAL CONFERENCE ON RECENT ADVANCES IN GEOTECHNICAL EARTHQUAKE ENGINEERING AND SOIL DYNAMICS, Symposium in honor of professor I. M. Idriss, SAN diego, CA
- R. E. S. Moss, R. B. Seed, R. E. Kayen, J. P. Stewart, A. Der Kiureghian, K. O. Cetin, CPT-Based Probabilistic and Deterministic Assessment of In Situ Seismic Soil Liquefaction Potential, Journal of Geotechnical and Geoenvironmental Engineering, Vol. 132, No. 8, August 1, 2006
- I. M. Idriss and R. W. Boulanger, 2008. Soil liquefaction during earthquakes, Earthquake Engineering Research Institute