

massimiliano plazzi

CN = plazzi
massimiliano
O = non presente
C = IT

DOTT. PLAZZI MASSIMILIANO
STUDIO TECNICO
INDAGINI GEOLOGICHE ED AMBIENTALI, PREVENZIONE INCENDI
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**CARATTERIZZAZIONE E MODELLAZIONE GEOLOGICA DEL SITO,
MODELLO LITOSTRATIGRAFICO, GEOTECNICO, MODELLAZIONE
SISMICA CONCERNENTE LA "PERICOLOSITÀ SISMICA LOCALE" E
LA CLASSIFICAZIONE SISMICA DELLA CATEGORIA DEL SUOLO**

Ai sensi del Decreto Ministeriale 14 gennaio 2008 «Nuove norme tecniche per le costruzioni» e della Circolare 2 febbraio 2009, n. 617 Istruzioni per l'applicazione delle «Nuove norme tecniche per le costruzioni»

COMMITTENTE: BALTUR SPA

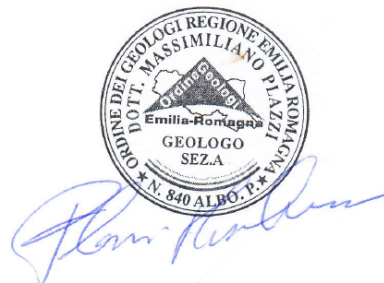
UBICAZIONE INTERVENTO: VIA FERRARESE 10 - CENTO FERRARA

PROGETTO: PIANO DELLA RICOSTRUZIONE - COMUNE DI CENTO

Modifica della destinazione d'uso di una zona attualmente identificata come G1 in D1

FERRARA li 19/12/2014

DOTT. GEOL. PLAZZI MASSIMILIANO



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1 PREMESSA

Il presente lavoro, redatto ai sensi del Decreto Ministeriale 14 gennaio 2008 «Nuove norme tecniche per le costruzioni» e della Circolare 2 febbraio 2009, n. 617 Istruzioni per l'applicazione delle «Nuove norme tecniche per le costruzioni» di cui al decreto ministeriale 14 gennaio 2008, si prefigge lo scopo di effettuare la Caratterizzazione e Modellazione Geologica del sito, il modello litostratigrafico, geotecnico, la Modellazione Sismica concernente la “Pericolosità Sismica di base” e la classificazione sismica della categoria del suolo.

L'intervento riguarda un lotto di terreno la cui ubicazione è riportata nella figura 1, oggetto del PIANO DI RICOSTRUZIONE DEL COMUNE DI CENTO. In tale lotto non si prevede di realizzare nessuna costruzione, si richiede esclusivamente che venga modificata la destinazione d'uso di una zona attualmente identificata come G1 (lotto evidenziato nella fig. 1 parallelo a via Fava) in D1.

Lo studio è finalizzato, come indicato nella specifica tecnica del Comune di Cento sulle relazioni geologico-tecniche, alla definizione della stratigrafia, dei parametri geomeccanici e delle caratteristiche sismiche dei terreni presenti nell'area, nonché del livello statico della falda locale, fornendo anche una stima delle sue fluttuazioni massime (anche su base bibliografica).

In base alle dimensioni dell'area e dei dati già disponibili sono state realizzate 3 prove penetrometriche statiche:

- due con punta elettrica CPTU, spinta alla profondità di m. 24 alla quale si è avuto rifiuto dello strumento
- una con punta meccanica spinte alla profondità di m. 20.

Sono stati utilizzati inoltre i dati derivanti da una prova SCPTU eseguita in data 31.1.2014 all'interno della proprietà della Ditta Baltur in prossimità dell'area in esame.

L'ubicazione delle prove è riportata in fig. 2.

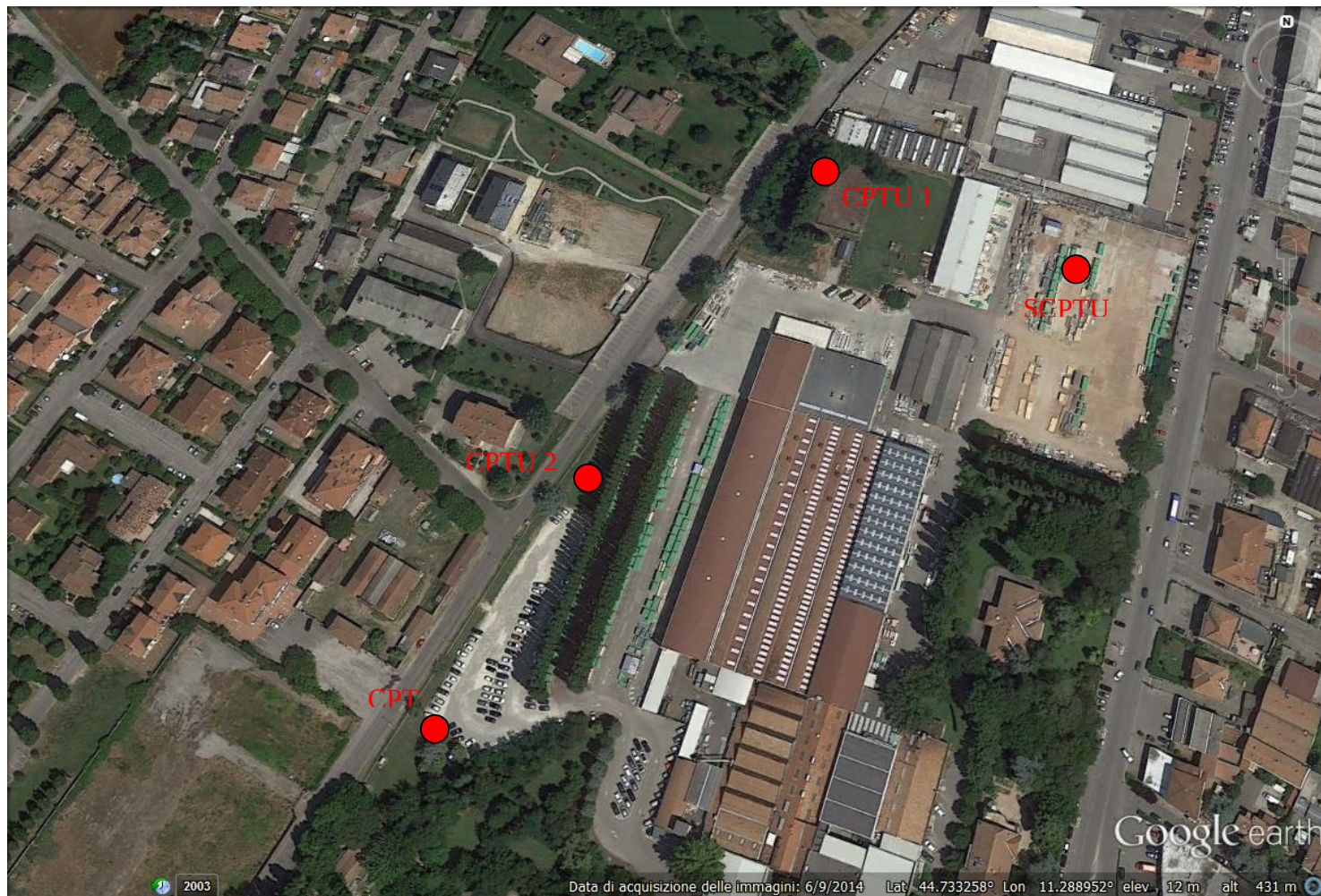


Fig. 2: ubicazione intervento ed indagini geognostiche

2 **MODELLAZIONE GEOLOGICA DEL SITO**

2.1 INQUADRAMENTO GEOLOGICO

L'area d'indagine è ubicata nell'ampio bacino sedimentario della Pianura Padana, formatosi in relazione all'evoluzione pliocenica dell'avanfossa padano-adriatica.

Il substrato pre-pliocenico è caratterizzato da una struttura complessa, nota come "Dorsale Ferrarese", contraddistinta da una serie di pieghe allungate in direzione all'incirca WNW-ESE, vergenti a NNE e spesso interessate da lineamenti tettonici quali faglie inverse e sovrascorrimenti. In particolare le pieghe ferraresi si accavallano a nord, al bordo della monoclinale pedealpina, ad est a quello della monoclinale adriatica e a sud sono confinate nell'arco delle pieghe romagnole. Tali pieghe nel passato rappresentavano zone di alto strutturale e già durante il Pliocene e poi successivamente nel Quaternario, subirono fenomeni di erosione cui si accompagnarono processi di sedimentazione nelle depressioni adiacenti. Lo spessore dei depositi sedimentari del Pliocene-Quaternario è, in relazione a quanto detto, variabile con massimi di 3-4 Km nelle depressioni nell'area più orientale (Comacchio ed in corrispondenza del litorale attuale), e minimi (poche centinaia di metri) nelle aree di alto strutturale (zona di Casaglia).

Per fenomeni congiunti di sedimentazione e subsidenza, si giunse, nel tempo, al completo ricoprimento delle strutture, con sedimenti di ambiente deposizionale marino fino al Pliocene superiore, lagunare-marino nel Pleistocene e prevalentemente continentale nell'Olocene. La successione dei depositi plio-quaternari mostra pertanto carattere complessivamente regressivo con alla base sabbie e peliti torbiditiche cui segue un prisma sedimentario fluvio-deltizio, progredante, ricoperto da depositi continentali.

Nel Quaternario più recente infatti la sedimentazione prevale sulla subsidenza e il bacino comincia a colmarsi con depositi alluvionali sopra i più antichi depositi marini; questo processo viene complicato, soprattutto al limite orientale della Pianura Padana dalle continue variazioni eustatiche marine provocate dalle note fasi glaciali e interglaciali. Durante la glaciazione Würmiana, durata da 60 – 70.000 anni fa a 17 – 20.000 anni fa, si ha la principale regressione marina con il livello del mare più basso di 100 m rispetto all'attuale. In seguito si registra una nuova trasgressione marina durata sino a 5000 anni fa, quando nuovamente la linea di spiaggia ricomincia a spostarsi verso est sino ad occupare la posizione attuale. Più precisamente circa 5000 anni fa la

linea di costa si era stabilizzata molto più ad ovest della posizione attuale (linea che passa a quasi 5 km ad ovest di Ostellato), e i sedimenti che la identificano si trovano sepolti da qualche metro di materiale alluvionale di età posteriore. I cordoni di dune di età etrusca (datati archeologicamente) rappresentano le più antiche linee di costa tuttora affioranti. In questa variazione altimetrica dei cordoni di dune si può riconoscere un effetto della subsidenza generale, che evidentemente ha avuto più tempo di agire su quelli più antichi che non su quelli più recenti.

Alcune delle strutture indicate, ancora geologicamente attive, hanno influenzato in epoca recente non solo gli andamenti dei principali corsi fluviali ma hanno determinato anche un aumento del fenomeno della subsidenza, già particolarmente importante nel territorio, accentuato da cause antropiche quali le estrazioni di metano (cessate nel 1964), i prelievi di acqua dalle falde idriche sotterranee oltre che dall'azione svolta dalle recenti bonifiche.

2.2 CARATTERIZZAZIONE GEOLOGICA DEL SITO

2.2.1 Modello litostratigrafico

I dati ricavati dalle prove penetrometriche statiche forniscono utili indicazioni per il riconoscimento di massima dei terreni attraversati. L'analisi è stata effettuata sulla base dei presupposti di *Robertson 1990*, i risultati sono stati riprodotti nel fascicolo allegato.

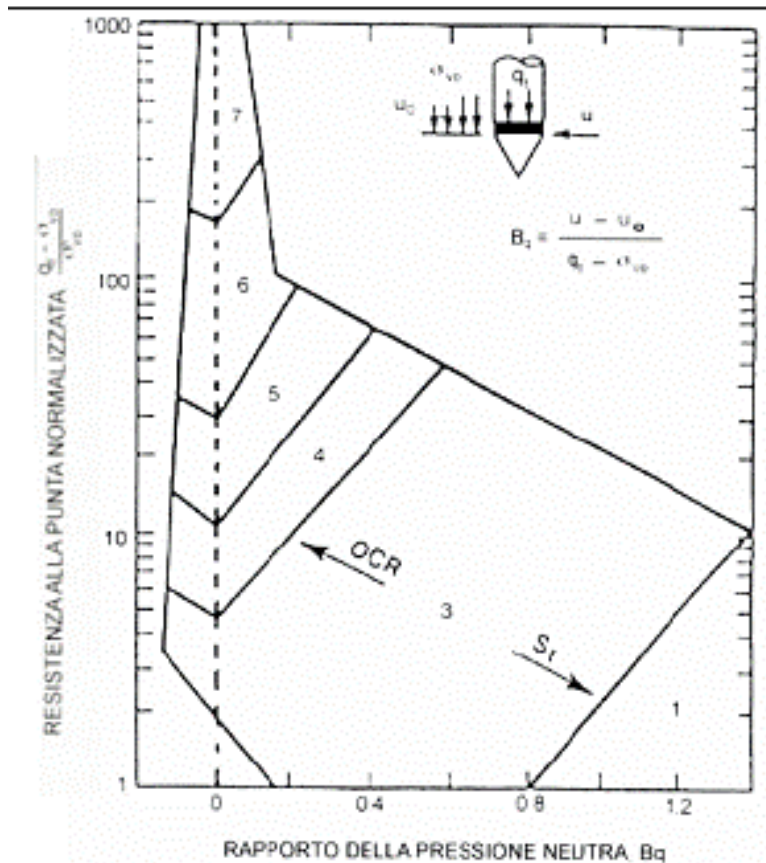
Metodo di Robertson 1990 – Punta elettrica

Il metodo si basa sul rapporto fra la resistenza alla punta normalizzata rispetto alle tensioni verticali totale ed efficace e frizione laterale normalizzata anch'essa in base alle caratteristiche della punta e ai valori della tensione verticale totale. Robertson sintetizza questo rapporto in un unico indice detto Indice di compattezza sulla base del quale viene identificata la litologia. Viene utilizzato per i terreni fuori falda e nei terreni sotto falda per comparare i dati ottenibili con il piezocono.

Metodo di Campanella - Robertson 1996 – Piezocono

Il metodo, elaborato dallo stesso Robertson nel 1990 e modificato nel 1996, si basa sul raffronto fra la resistenza alla punta R_p , normalizzata rispetto alla pressione efficace σ_v0 , ed il rapporto delle pressioni interstiziali DU .

La definizione litologica viene dedotta mediante confronto dei dati sopra riportati con l'abaco di Robertson, di seguito riportato.



Abaco di Robertson

Le 3 prove geognostiche realizzate e la prova SCPTU eseguita precedentemente in prossimità dell'area risultano correlabili e consentono di elaborare un modello stratigrafico di massima per l'area in esame, che evidenzia la presenza di terreni di natura prevalentemente argilloso limosa. In particolare, sino alla profondità indagata (m. 30), si distinguono a partire dal piano campagna:

- da 0 a 1 metro terreno di riporto
- da 1 metro a 3 - 4 metri un terreno di natura mista, limoso argilloso.
- dai 4 ai 15 metri è presente un livello di natura coesiva, argilloso e argilloso limoso
- dai 15 ai 20 metri è presente un livello limoso sabbioso di natura mista avente spessore maggiore nella prova CPTU1. Tale Livello non si riscontra nella prova CPT
- dai 20 metri sino alla massima profondità indagata si ha un livello argilloso limoso di natura coesiva.

2.2.2 Modello idrogeologico

Il modello idrogeologico generale del sottosuolo nell'area in esame può essere schematizzato come un acquifero multifalda costituito da falde idriche profonde confinate, tra loro sovrapposte, e localmente una falda freatica di modesto spessore e potenzialità, contenuta in depositi permeabili sabbioso-limosi.

La zona di intervento è sottoposta ad un regime idraulico artificiale. L'alimentazione della falda freatica avviene attraverso le perdite subalveo dei canali principali, dall'irrigazione e dalle acque meteoriche; i canali di scolo fungono invece da linee preferenziali di drenaggio.

Durante l'esecuzione della prova penetrometrica si è potuta registrare anche la profondità della falda freatica dal piano campagna in data 17 Dicembre 2014, che risulta essere pari mediamente a m. 2,0.

Dai dati bibliografici derivanti dalle indagini effettuate in zona, si hanno valori di oscillazione variabili da 2 metri a 3 metri dal piano campagna.

DATA		PROFONDITA' FALDA DA PC IN METRI
31.1.2014	SCPTU	3,0
17.12.2014	CPTU1	1,9
	CPTU2	2,0
	CPT	1,95

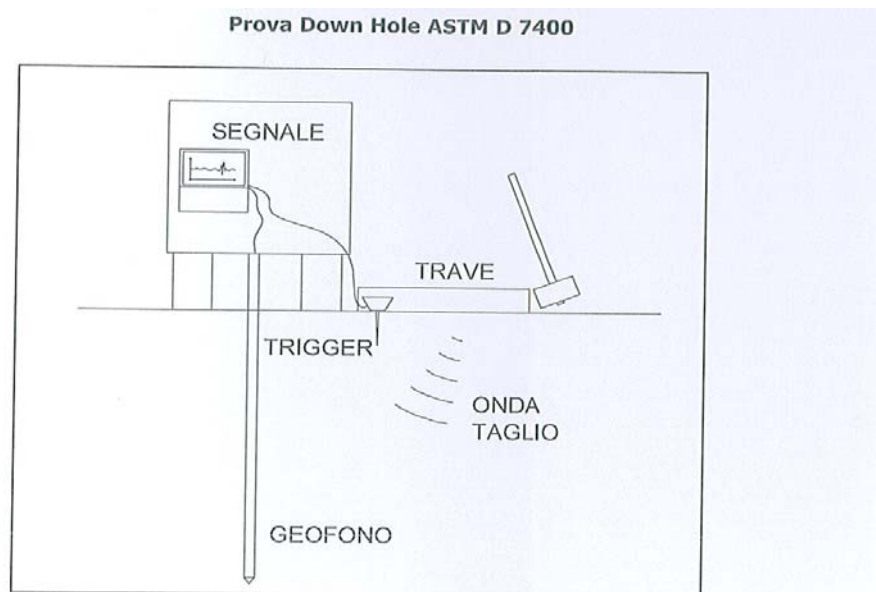
la quota minima riscontrata nelle varie campagne di indagini risulta essere pari a m. 1.9 dal piano campagna

2.2.3 Sismicità

In base a quanto stabilito dal D.M. 14.1.2008, la stima della pericolosità sismica viene definita mediante un approccio “sito dipendente”, di seguito analizzato.

ANALISI DEL TERRENO E CATEGORIA DI SOTTOSUOLO

Per determinare la categoria di sottosuolo, ci si è basati sui valori di V_s rilevati direttamente tramite la SCPTU effettuata in prossimità dell'area in esame.



Profondità (m)	Ts (ms)	L (m)	Vs (m/s)	Vis (m/s)
1.0	T0	1.42	-	-
2.0	4.17	2.24	198	198
3.0	11.74	3.17	149	122
4.0	19.32	4.13	140	127
5.0	28.45	5.10	129	107
6.0	37.59	6.08	124	108
7.0	43.67	7.07	129	162
8.0	49.66	8.06	134	165
9.0	54.94	9.05	139	188
10.0	60.02	10.04	144	195
11.0	65.65	11.03	146	176
12.0	71.07	12.02	149	183
13.0	75.84	13.02	153	208
14.0	80.41	14.01	157	218
15.0	85.17	15.01	160	209
16.0	89.74	16.00	163	218
17.0	93.22	17.00	167	285
18.0	96.61	17.99	172	294
19.0	100.54	18.98	175	252
20.0	104.73	19.98	177	238
21.0	109.08	20.97	179	228
22.0	113.24	21.96	181	239
23.0	117.20	22.96	184	251
24.0	121.56	23.95	185	228
25.0	125.61	24.94	187	245
26.0	130.02	25.93	189	225
27.0	134.31	26.93	190	231
28.0	138.85	27.92	191	218
29.0	143.26	28.91	192	225
30.0	147.38	29.90	193	241

CATEGORIA SOTTOSUOLO
C
$V_{s,30} = 193 \text{ m/s}$

Intervallo di profondità considerato per il calcolo della $V_{s,30}$: m 1.0 - 30.0

D = Distanza centro trave generatrice onde di taglio - verticale di prov 1.00
 Profondità = Profondità punta da piano campagna
 Ts = Tempo percorrenza onda di taglio
 L = Lunghezza percorso onda di taglio
 Vs = Velocità onde di taglio da piano campagna alla profondità indic = 30.0 m
 Vis = Velocità onde di taglio nello strato di terreno compreso fra le due profondità indicate
 N.B.: il calcolo del percorso delle onde di taglio viene corretto per l'inclinazione zenitale e per la deriva azimutale della punta



elletipi s.r.l.

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P IVA e Codice Fiscale n. 00174600387

Laboratorio aut. dal Ministero Infrastrutture e Trasporti P.C.S. LL.PP. S.T.G. in base al D.P.R. n. 380/01 art. 59 circ. n. 349/98 Dec. n° 53362 del 09/05/2005

AZIENDA CON SISTEMA DI GESTIONE
INTEGRATO CERTIFICATO DA DNV
UNI EN ISO 9001/2000
UNI EN ISO 14001

COMMITTENTE: **GEOHYDRODATA di Corrado Ballotta e C. S.a.s. via Porta a Mare, 9 - 45100 Rovigo (RO)**

CANTIERE: **Baltur SpA - Via Ferrarese, 10 - Cento (FE)**

CPT N° **SCPTU 1**

PROF. FALDA (m da p.c.) **3.00**

PUNTA: Tecnopenta G1-CPL2IN (matr. 111010)[a = 0.66]

DATA **31/01/14**

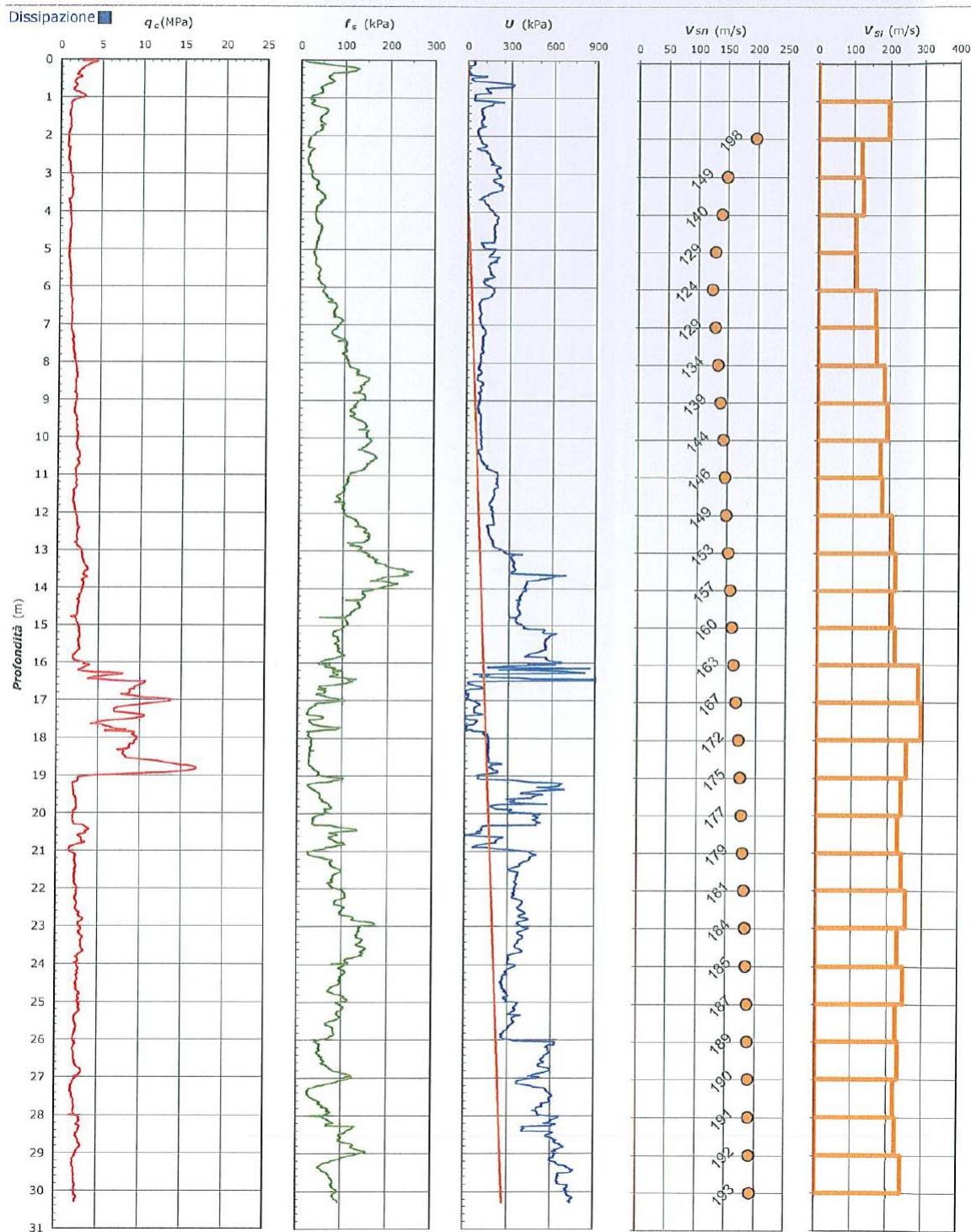
PREFORO (m da p.c.)

LAT. (WGS 84): **44.734671°**

COMMESSA -

C. SITO N°:

LONG. (WGS 84): **11.290907°**



Lo Sperimentatore:
dott. geol. Massimo Romagnoli

xxxx_SCPTU Baltur Cento.xls - pag 4 di 6

Il Direttore del Laboratorio:
dott. geol. PhD Gianluca Ferioli

Come stabilito nella tabella 3.2.II, essendo il valore di Vs30 superiore a 180 m/sec il sito in esame ricade nella **categoria di sottosuolo C** secondo la tab. 3.2.II delle NTC 2008

STIMA DELLA PERICOLOSITA' SISMICA E DELL'AZIONE DI PROGETTO

Il sito in esame presenta le seguenti caratteristiche utilizzate per la determinazione dei parametri spettrali forniti nel reticolo di riferimento riportato nella tabella 1 dell'allegato B del D.M. 14 gennaio 2008:

Sito in esame.

latitudine: 44,73475

longitudine: 11,290435

TIPO DI COSTRUZIONE	2
VITA NOMINALE VN	> 50 ANNI
CLASSE D'USO	2
COEFFICIENTE D'USO CU	1
VITA DI RIFERIMENTO Vr= VN*CU	50

Siti di riferimento

Sito 1 ID: 15841 Lat: 44,7136Lon: 11,2400 Distanza: 4627,759

Sito 2 ID: 15842 Lat: 44,7149Lon: 11,3102 Distanza: 2703,733

Sito 3 ID: 15620 Lat: 44,7649Lon: 11,3085 Distanza: 3642,810

Sito 4 ID: 15619 Lat: 44,7636Lon: 11,2381 Distanza: 5229,952

Parametri sismici

Categoria sottosuolo: C

Categoria topografica: T1

Periodo di riferimento: 50anni

Coefficiente cu: 1

Operatività (SLO):

Probabilità di superamento: 81 %

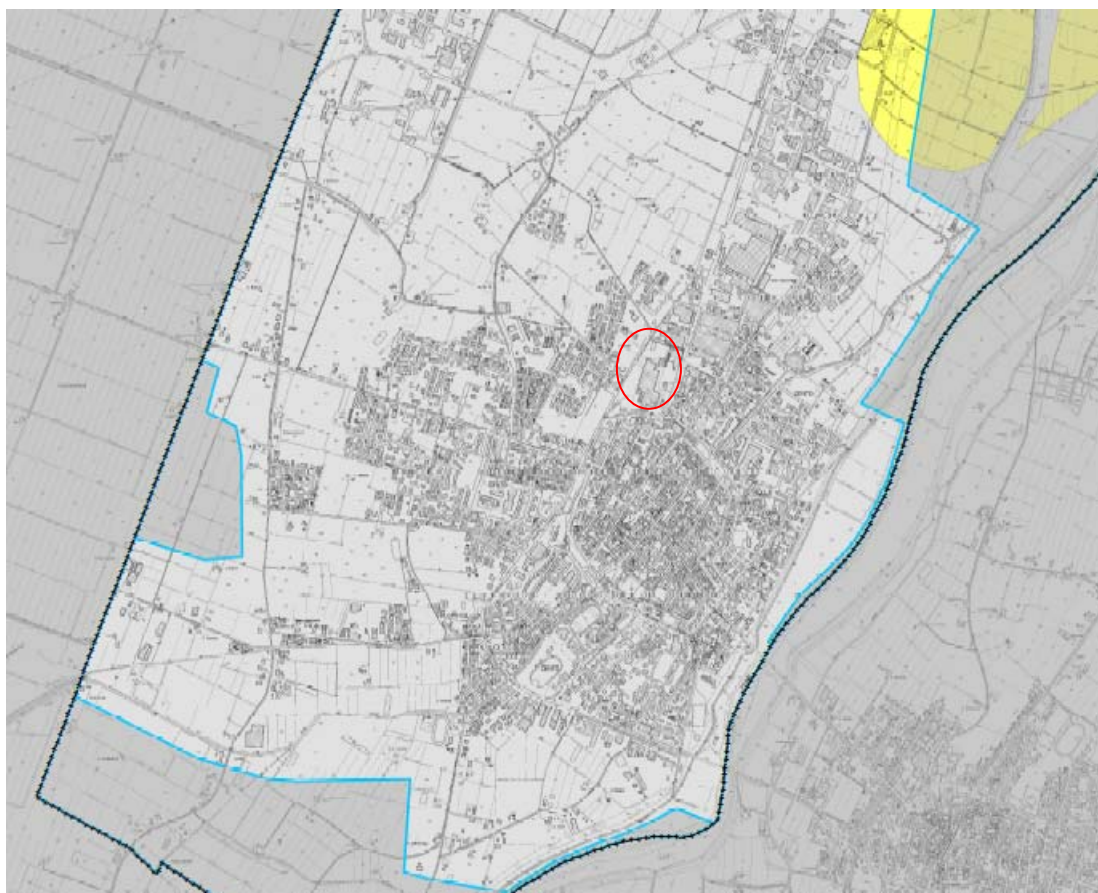
Tr: 30 [anni]
 ag: 0,043 g
 Fo: 2,510
 Tc*: 0,256 [s]
 Danno (SLD):
 Probabilità di superamento: 63 %
 Tr: 50 [anni]
 ag: 0,056 g
 Fo: 2,482
 Tc*: 0,269 [s]
 Salvaguardia della vita (SLV):
 Probabilità di superamento: 10 %
 Tr: 475 [anni]
 ag: 0,157 g
 Fo: 2,591
 Tc*: 0,272 [s]
 Prevenzione dal collasso (SLC):
 Probabilità di superamento: 5 %
 Tr: 975 [anni]
 ag: 0,209 g
 Fo: 2,536
 Tc*: 0,279 [s]

Coefficienti Sismici

	Ss [-]	Cc [-]	St [-]	Kh [-]	Kv [-]	Amax [m/s ²]	Beta [-]
SLO	1,500	1,650	1,000	0,013	0,007	0,639	0,200
SLD	1,500	1,620	1,000	0,017	0,008	0,821	0,200
SLV	1,460	1,610	1,000	0,055	0,027	2,244	0,240
SLC	1,380	1,600	1,000	0,081	0,040	2,832	0,280

2.2.4 Liquefazione o addensamento dei terreni in condizioni sismiche

L'area in esame ricade in una zona classificata come L nella carta delle microzone omogenee in prospettiva sismica della Regione Emilia Romagna (Ordinanza del Commissario delegato per la ricostruzione n. 70 del 13 novembre 2012) della quale si allega uno stralcio.



Legenda

A	Zona suscettibile di amplificazione. E' ritenuta sufficiente la stima del fattore di amplificazione tramite procedure semplificate. (secondo livello di approfondimento)
A	Ambito non interessato dallo studio di microzonazione sismica
L	Zona potenzialmente suscettibile di liquefazione. Occorre valutare il fattore di amplificazione e verificare la presenza di condizioni predisponenti la liquefazione; nel caso sia confermata la presenza di tali condizioni occorre stimare l'indice di liquefazione (terzo livello di approfondimento) . Ai fini della progettazione (Norme Tecniche per le Costruzioni 2008), nelle aree in cui è confermata la presenza di condizioni predisponenti la liquefazione (categoria di sottosuolo S2) non è ammessa la definizione dell'azione sismica tramite l'approccio semplificato descritto al punto 3.2.2 delle Norme Tecniche per le Costruzioni di cui al D.M. 14/01/2008.
L	Ambito non interessato dallo studio di microzonazione sismica

Il fenomeno della liquefazione dei terreni in condizioni sismiche interessa essenzialmente eventuali depositi sabbiosi saturi. Nel terreno si possono generare fenomeni di liquefazione se la scossa sismica produce un numero di cicli tale da far sì che la pressione interstiziale uguagli la pressione di confinamento.

Per determinare la pericolosità del sito nei confronti del fenomeno della liquefazione dei terreni o di un elevato addensamento, è quindi necessario individuare la presenza di zone caratterizzate dalla presenza di fattori predisponenti, come depositi sabbiosi a profondità dal piano di posa delle fondazioni inferiore a m. 20 con percentuale di contenuto di argilla o limo inferiore al 20 % e indice di plasticità inferiore a 10, poco addensati.

Dal modello litostratigrafico si evince la presenza di livelli sabbioso limosi potenzialmente liquefacibili di dimensioni significative aventi caratteristiche tali da richiedere la verifica di suscettibilità alla liquefazione.

Per la verifica alla liquefazione si è fatto interamente riferimento alla delibera dell'assemblea legislativa della Regione Emilia Romagna n. 112 del 2 maggio 2007.

Il fattore di sicurezza nei confronti di fenomeni di liquefazione è stato valutato in accordo alle indicazioni fornite da Robertson e Wride (1998). In accordo a tale proposta è possibile stimare la resistenza ciclica del terreno a partire dai risultati di prove CPT a punta elettrica.

Il calcolo del coefficiente di sicurezza F_s individua con $F_s < 1,0$ la possibilità che avvenga la liquefazione, mentre $F_s > 1,0$ esclude la possibilità del fenomeno. Nel caso specifico la verifica alla liquefazione è stata effettuata su tutta la verticale di indagine per entrambe le prove effettuate nei primi 20 m.

La verifica è stata effettuata con l'ausilio del software Cliq prodotto dalla Ditta Geologismiki Geotechnical Engineers -Serrai (Grecia).

La verifica è stata articolata secondo le seguenti fasi:

- Determinazione dei parametri necessari ai calcoli, dall'elaborazione della prova penetrometrica statica; nello specifico si tratta delle resistenze di punta q_c e laterale f_s , della pressione atmosferica P_a , della tensione litostatica totale σ_v0 e tensione litostatica efficace σ'_{v0} .
- Definizione del tipo di suolo attraverso l'indice I_c (Robertson e Wride, 1998), definito come:

$$I_c = [(3,47 - \log Q)^2 + (1,22 + \log F)^2]^{0,5}$$

Con:

$$Q = [(q_c - \sigma_{v0}) / P_a] * [(P_a / \sigma'_{v0})^n]$$

$$F = [f_s / (q_c - \sigma_{v0})] * 100\%$$

- Calcolo della resistenza conica normalizzata Q, con adeguato esponente n (nel caso in esame pari a 0,5).
- Calcolo della resistenza penetrometrica statica normalizzata qc1N

$$(q_{c1N}) = C_q * (q_c / P_a)$$

Con $C_q = (P_a / \sigma'_{v0})^n$, in cui n = è l'esponente utilizzato per calcolare I_c .

- Trasformazione della resistenza penetrometrica statica normalizzata qc1N in resistenza penetrometrica statica normalizzata equivalente a sabbia pulita (qc1N)CS attraverso la relazione:

$$(q_{c1N})_{CS} = K_c * (q_{c1N})$$

In cui K_c , nel caso $I_c > 1,64$ rispetta la seguente equazione, proposta da Robertson e Wride (1998):

$$K_c = -0,403 I_c^4 + 5,581 I_c^3 - 21,63 I_c^2 + 33,75 I_c - 17,88$$

- Calcolo della capacità del terreno di resistere alla liquefazione, CRRM, a partire dalla definizione della resistenza a liquefazione per un terremoto di magnitudo 7,5 (CRR7,5), dalla definizione del fattore di correzione della Magnitudo MSF (da Idriss, 1995):

$$CRR_{7,5} = 93 [(q_{c1N})_{CS} / 1000]^3 + 0,08$$

$$MSF = 10^{0,99} / M^{1,13}$$

$$CRR_M = CRR_{7,5} MSF$$

Dove M è la magnitudine di riferimento per l'area di intervento (nel caso specifico è stata usata la magnitudine regionale massima $M = 6,14$, senza ricorrere al processo di disaggregazione, anche alla luce dei recenti episodi sismici che hanno interessato la pianura padana emiliana).

- Correzione della CRRM in CRReq per il fattore K_a (funzione della topografia) e K_s (funzione della pressione litostatica efficace).

$$CRReq = CRRM K_a K_s$$

- Calcolo del fattore di sicurezza a liquefazione come rapporto tra la capacità di resistenza a liquefazione e la domanda richiesta per il sito in esame:

$$F_s \text{ liq} = CR_{Req} / CSR$$

In cui:

$$CSR = 0,65 (a_{max} / g) * (s'V_0 / s'V_0) * r_d$$

In cui, a sua volta, $a_{max} = a_g * (ST * SS)$. In questa formula a_g è l'accelerazione di riferimento per il sito interessato; ST è il coefficiente di amplificazione topografico, SS è il coefficiente di amplificazione dipendente dalla categoria di suolo, r_d è un coefficiente di riduzione con la profondità.

Nel caso in esame per le condizioni SLV $a_{max} = a_g * (ST * SS) = 0,157 * 1 * 1,46 = 0,23$

La determinazione del potenziale a liquefazione (IL o LPI), è stata effettuata con la seguente relazione:

$$LPI = \int_0^{20} (10 - 0,5z) \times F_L \times dz$$

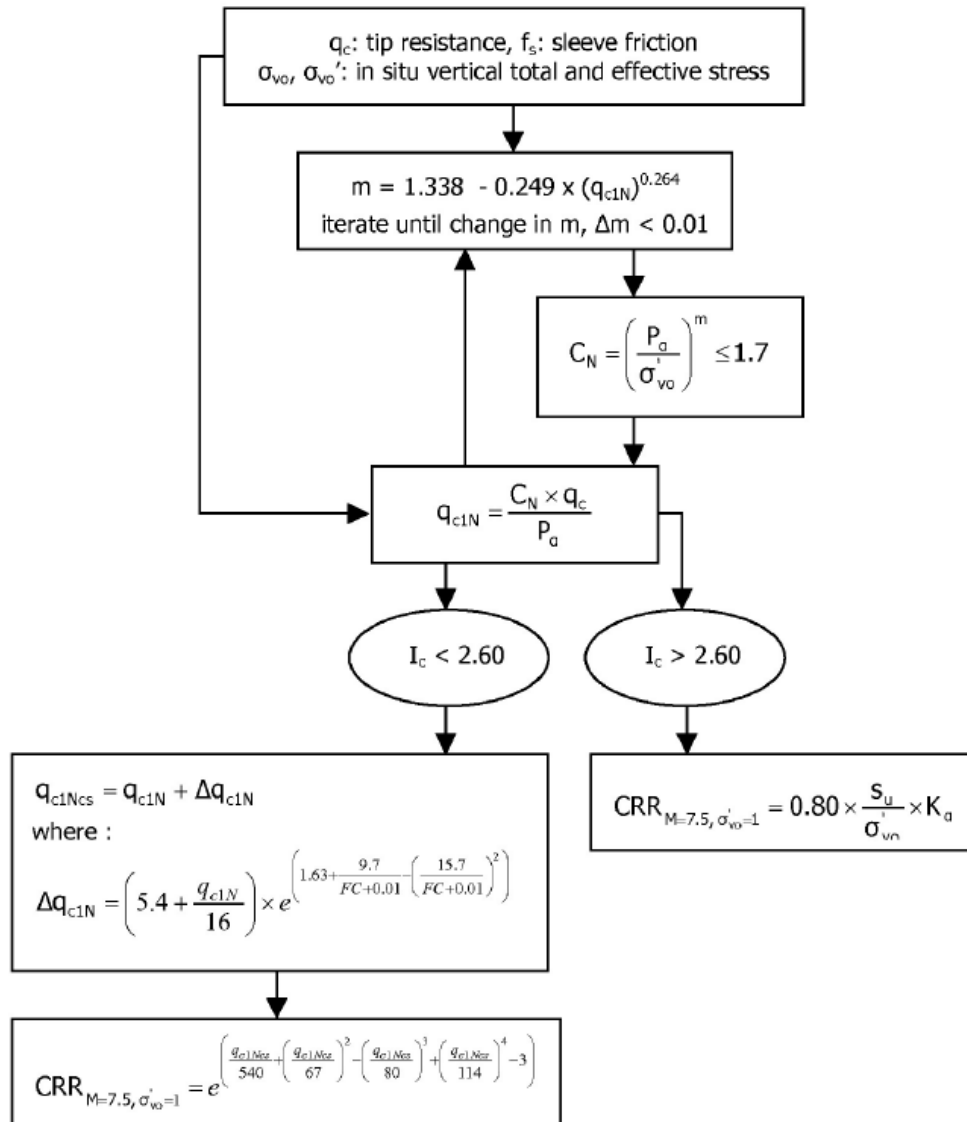
where:

$F_L = 1 - F.S.$ when F.S. less than 1

$F_L = 0$ when F.S. greater than 1

z depth of measurment in meters

Procedure for the evaluation of soil liquefaction resistance, Idriss & Boulanger (2008)

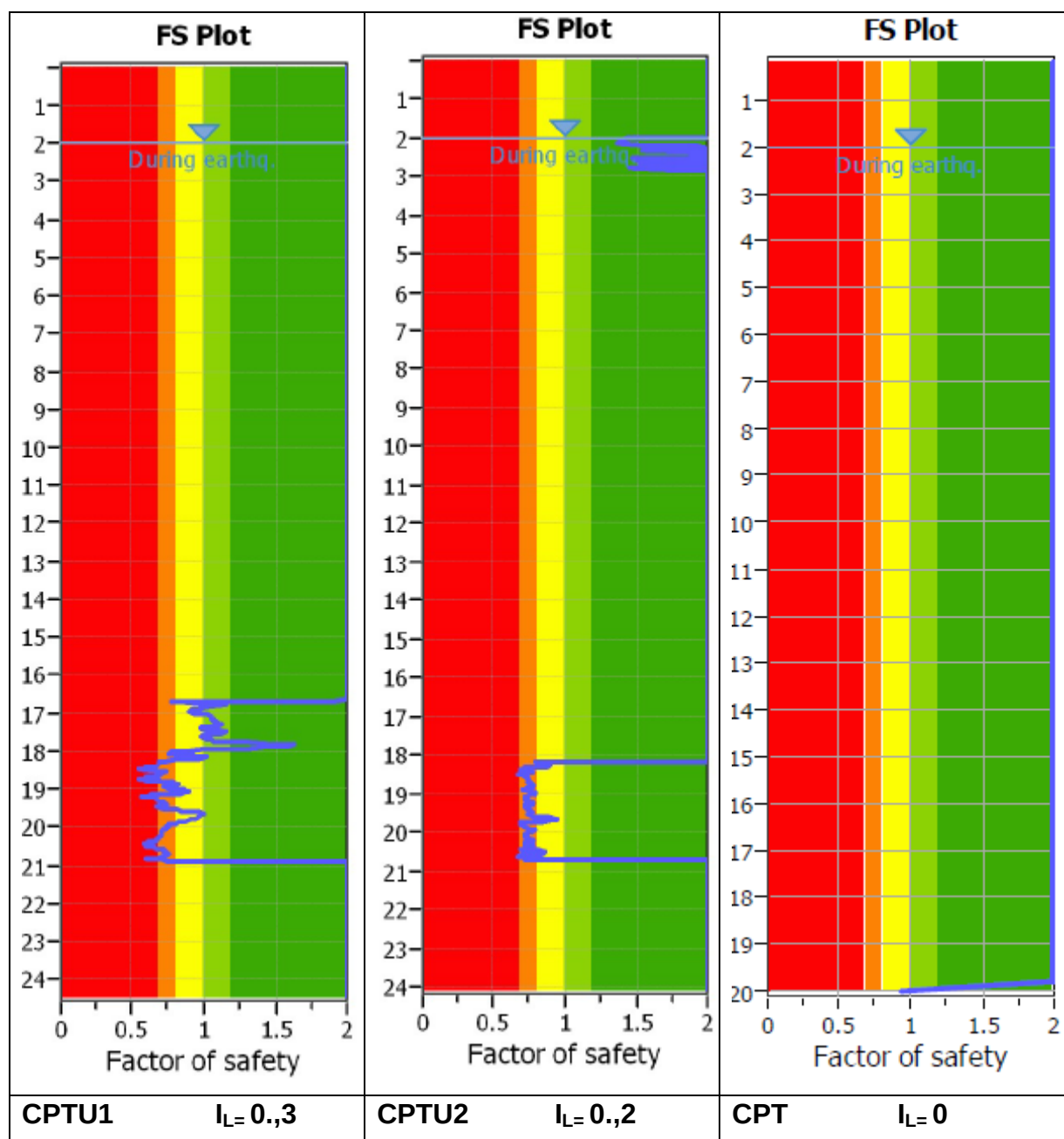


Risultati ottenuti

Dai diagrammi riassuntivi di seguito riportati si evince la presenza di un livello caratterizzato da un fattore di sicurezza F_s inferiore a 1, avente spessore di qualche metro alla profondità di circa 17 metri. Tale livello è assente in corrispondenza della CPT.

L'indice del potenziale di liquefazione I_L ricavato con i metodi semplificati risulta per ciascuna verticale indagata inferiore a 0,3. Il rischio di liquefazione è BASSO.

In allegato si riporta il report completo della verifica eseguita, comprensivo delle elaborazioni per ogni singola lettura.



Diagrammi Verifica liquefazione

3 MODELLAZIONE GEOTECNICA DEL SITO

3.1 CARATTERIZZAZIONE GEOTECNICA

Di seguito sono elencate le modalità di valutazione dei principali.

Parametri geotecnici (validità orientativa) – simboli, correlazioni, bibliografia:

- D_r - densità relativa (terreni granulari N.C. - norm.cons.) [correlazioni: D_r - R_p - σ'_{vo}] (Schmertmann 1976);
- Φ - angolo di attrito interno efficace (terreni granulari) correlazioni: Φ' - D_r - R_p - σ'_{vo} (Meyerhof - sabbie limose);
- M_o - modulo di deformazione edometrico (terreni coesivi e granulari) [corr.: M_o - R_p natura] (Sanglerat 1972 - Mitchell & Gardner 1975 - Ricceri et al. 1974 - Holden 1973);
- C_u - coesione non drenata (terreni coesivi) correlazioni C_u - R_p . Raccomandazioni A.G.I. 1977 - Ricceri et al. 1974 - Marsland et al. 1974/1979;
- OCR - grado di sovraconsolidazione (terreni coesivi) [correlaz.: OCR - C_u - σ'_{vo}] (Ladd et al. 1972/1974/1977 - Lancellotta 1983).

Per quanto riguarda le caratteristiche geotecniche ed i valori dei relativi parametri medi dei vari strati per ciascuna prova, si rimanda alle tabelle di seguito riportate.

CPT

PROVA PENETROMETRICA STATICA MECCANICA SEZIONE GEOTECNICA														riferimento		cento baltur							
														n° verb.accett.									
Committente: baltur spa										U.M.: kg/cm²													
Cantiere: piano ricostruzione										1													
Località: via ferrarese cento																							
Param. cento baltur [1]							NATURA COESIVA					NATURA GRANULARE											
H.m da	a	qc U.M.	qc/fs	γ' t/m³	σ'vo U.M.	Vs m/s	Cu U.M.	OCR %	Eu50 U.M.	Eu25 U.M.	Mo U.M.	Dr %	Sc (°)	Ca (°)	Ko (°)	DB (°)	DM (°)	Me (°)	FLs	FLI	E'50 U.M.	E'25 U.M.	Mo U.M.
0,20	6,80	10,8	13,35	1,0	0,45	140	0,48	11,8	105,0	157,5	34	68	39	34	32	30	39	28	--	--	45,6	68,3	82,0
6,80	19,60	32,3	15,52	1,0	1,34	151	1,11	5,3	356,4	534,6	97	26	34	26	22	21	29	29	--	--	53,9	80,9	97,0
19,60	20,00	63,5	55,95	1,0	1,98	167	2,07	6,7	503,5	755,2	186	40	36	27	24	22	31	32	--	--	105,8	158,8	190,5

CPTU1

PROVA PENETROMETRICA STATICA MECCANICA SEZIONE GEOTECNICA														riferimento		cento baltur							
														n° verb.accett.									
Committente: baltur spa										U.M.: kg/cm²													
Cantiere: piano ricostruzione										1													
Località: via ferrarese cento																							
Param. cento baltur [2]							NATURA COESIVA						NATURA GRANULARE										
H.m da	a	qc U.M.	qc/fs	γ' t/m³	σ'vo U.M.	Vs m/s	Cu U.M.	OCR %	Eu50 U.M.	Eu25 U.M.	Mo U.M.	Dr %	Sc (°)	Ca (°)	Ko (°)	DB (°)	DM (°)	Me (°)	FLs	FLI	E'50 U.M.	E'25 U.M.	Mo U.M.
0,00	1,40	22,1	36,22	1,9	0,15	146	0,59	29,8	100,2	150,3	45	100	43	43	40	37	45	30	--	--	76,7	115,0	138,0
1,40	16,00	16,3	18,70	0,9	0,97	142	0,67	4,2	268,2	402,3	54	13	33	24	21	20	27	27	--	--	32,9	49,3	59,1
16,00	20,40	80,6	280,67	1,0	1,87	176	0,70	2,1	385,6	578,4	52	45	37	28	25	23	32	32	--	--	134,4	201,6	241,9
20,40	24,00	21,2	25,88	0,9	2,25	145	0,81	1,7	465,4	698,1	63	2	31	21	18	17	25	28	--	--	37,1	55,6	66,7

CPTU2

PROVA PENETROMETRICA STATICA MECCANICA														riferimento		cento baltur							
SEZIONE GEOTECNICA														n° verb.accett.									
Committente: baltur spa										U.M.: kg/cm²													
Cantiere: piano ricostruzione										1													
Località: via ferrarese cento																							
Param. cento baltur [3]							NATURA COESIVA					NATURA GRANULARE											
H.m da	a	qc U.M.	qc/fs	γ' t/m³	σ'vo U.M.	Vs m/s	Cu U.M.	OCR %	Eu50 U.M.	Eu25 U.M.	Mo U.M.	Dr %	Sc (°)	Ca (°)	Ko (°)	DB (°)	DM (°)	Me (°)	FLs	FLI	E'50 U.M.	E'25 U.M.	Mo U.M.
0,00	2,60	15,5	30,00	1,9	0,27	142	0,64	28,3	110,3	165,4	49	39	36	30	27	25	34	27	--	--	26,8	40,3	48,3
2,60	17,80	17,5	18,52	1,9	1,97	143	0,71	2,1	395,8	593,6	57	2	31	21	17	16	25	27	--	--	35,8	53,7	64,5
17,80	20,80	71,5	204,79	2,0	3,74	171	0,75	0,8	450,0	675,0	56	27	35	24	21	19	28	32	--	--	119,2	178,8	214,6
20,80	24,00	22,5	23,21	1,9	4,34	146	0,91	0,9	548,2	822,4	76	--	31	17	13	12	25	28	--	--	37,5	56,3	67,5

4. CONCLUSIONI

Dalle indagini effettuate si riscontra una situazione caratterizzata dalla presenza di terreni a medio bassa energia di deposito.

La profondità della falda dal piano campagna risulta essere al momento dell'esecuzione delle indagini di circa m.2,0.

E' stata effettuata la classificazione sismica del suolo ai sensi delle NTC (DM 14/01/08) tramite misura diretta delle Vs30 dalla quale risulta che **il sito esaminato presenta un suolo tipo C**

I parametri spettrali, i cui valori sono riportati in allegato e nell'apposito paragrafo, sono stati determinati utilizzando il reticolo di riferimento riportato nella tabella 1 dell'allegato B del D.M. 14 gennaio 2008:

Sito in esame.

latitudine: 44,73475

longitudine: 11,290435

TIPO DI COSTRUZIONE	2
VITA NOMINALE VN	> 50 ANNI
CLASSE D'USO	2
COEFFICIENTE D'USO CU	1
VITA DI RIFERIMENTO Vr= Vn*CU	50

Per quanto riguarda il rischio liquefazione si evince la presenza di un livello caratterizzato da un fattore di sicurezza Fs inferiore a 1, avente spessore di qualche metro alla profondità di circa 17 metri. Tale livello è assente in corrispondenza della CPT.

L'indice del potenziale di liquefazione I_L ricavato con i metodi semplificati risulta per ciascuna verticale indagata inferiore a 0,3. Il rischio di liquefazione è BASSO.

ALLEGATO A: RISULTATI DELLE PROVE PENETROMETRICHE

- **Report CPT**
- **Report CPTU1**
- **Report CPTU2**

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PROVA PENETROMETRICA STATICA MECCANICA **LETTURE CAMPAGNA E VALORI TRASFORMATI**

CPT	1
riferimento	cento baltur
certificato n°	
n° verb. accett.	

Committente: baltur spa	U.M.: kg/cm²	Data eseg.: 17/12/2014
Cantiere: piano ricostruzione	Pagina: 1	Data certificato: 19/12/2014
Località: via ferrarese cento	Elaborato:	Falda: -1,95 m

H m	L1 -	L2 -	Lt -	qc kg/cm²	fs kg/cm²	F -	Rf %	H m	L1 -	L2 -	Lt -	qc kg/cm²	fs kg/cm²	F -	Rf %
0,20	0,0	0,0		0,00	0,73	0		15,20	41,0	82,0		41,00	2,27	18	5,5
0,40	9,0	20,0		9,00	0,80	11	8,9	15,40	35,0	69,0		35,00	3,07	11	8,8
0,60	12,0	24,0		12,00	1,73	7	14,4	15,60	47,0	93,0		47,00	3,13	15	6,7
0,80	25,0	51,0		25,00	2,00	13	8,0	15,80	47,0	94,0		47,00	3,07	15	6,5
1,00	29,0	59,0		29,00	1,87	16	6,4	16,00	47,0	93,0		47,00	3,20	15	6,8
1,20	28,0	56,0		28,00	0,87	32	3,1	16,20	49,0	97,0		49,00	3,33	15	6,8
1,40	12,0	25,0		12,00	0,87	14	7,3	16,40	51,0	101,0		51,00	2,67	19	5,2
1,60	10,0	23,0		10,00	0,87	11	8,7	16,60	38,0	78,0		38,00	2,27	17	6,0
1,80	11,0	24,0		11,00	1,07	10	9,7	16,80	35,0	69,0		35,00	2,33	15	6,7
2,00	14,0	30,0		14,00	0,93	15	6,6	17,00	37,0	72,0		37,00	2,00	19	5,4
2,20	11,0	25,0		11,00	1,13	10	10,3	17,20	35,0	65,0		35,00	1,73	20	4,9
2,40	5,0	22,0		5,00	0,67	7	13,4	17,40	31,0	57,0		31,00	1,73	18	5,6
2,60	8,0	18,0		8,00	0,60	13	7,5	17,60	30,0	56,0		30,00	2,00	15	6,7
2,80	8,0	17,0		8,00	0,53	15	6,6	17,80	35,0	65,0		35,00	1,67	21	4,8
3,00	8,0	16,0		8,00	0,47	17	5,9	18,00	26,0	51,0		26,00	1,53	17	5,9
3,20	7,0	14,0		7,00	0,47	15	6,7	18,20	23,0	46,0		23,00	1,60	14	7,0
3,40	7,0	14,0		7,00	0,40	18	5,7	18,40	27,0	51,0		27,00	1,47	18	5,4
3,60	7,0	13,0		7,00	0,47	15	6,7	18,60	26,0	48,0		26,00	1,40	19	5,4
3,80	7,0	14,0		7,00	0,40	18	5,7	18,80	24,0	45,0		24,00	1,73	14	7,2
4,00	7,0	13,0		7,00	0,47	15	6,7	19,00	31,0	57,0		31,00	1,73	18	5,6
4,20	7,0	14,0		7,00	0,53	13	7,6	19,20	39,0	65,0		39,00	1,67	23	4,3
4,40	8,0	16,0		8,00	0,47	17	5,9	19,40	31,0	56,0		31,00	1,60	19	5,2
4,60	7,0	14,0		7,00	0,47	15	6,7	19,60	31,0	55,0		31,00	1,47	21	4,7
4,80	8,0	15,0		8,00	0,53	15	6,6	19,80	62,0	84,0		62,00	2,27	27	3,7
5,00	8,0	16,0		8,00	0,47	17	5,9	20,00	65,0	99,0		65,00			
5,20	6,0	13,0		6,00	0,53	11	8,8								
5,40	7,0	15,0		7,00	0,47	15	6,7								
5,60	7,0	14,0		7,00	0,60	12	8,6								
5,80	8,0	17,0		8,00	0,93	9	11,6								
6,00	11,0	25,0		11,00	0,80	14	7,3								
6,20	12,0	24,0		12,00	0,60	20	5,0								
6,40	10,0	19,0		10,00	0,93	11	9,3								
6,60	14,0	28,0		14,00	1,27	11	9,1								
6,80	19,0	38,0		19,00	1,53	12	8,1								
7,00	23,0	46,0		23,00	1,67	14	7,3								
7,20	25,0	50,0		25,00	1,40	18	5,6								
7,40	24,0	45,0		24,00	1,80	13	7,5								
7,60	26,0	53,0		26,00	1,67	16	6,4								
7,80	24,0	49,0		24,00	1,60	15	6,7								
8,00	22,0	46,0		22,00	1,87	12	8,5								
8,20	26,0	54,0		26,00	2,00	13	7,7								
8,40	28,0	58,0		28,00	1,93	15	6,9								
8,60	26,0	55,0		26,00	2,00	13	7,7								
8,80	29,0	59,0		29,00	2,00	15	6,9								
9,00	32,0	62,0		32,00	1,93	17	6,0								
9,20	28,0	57,0		28,00	1,80	16	6,4								
9,40	25,0	52,0		25,00	1,53	16	6,1								
9,60	20,0	43,0		20,00	1,73	12	8,7								
9,80	25,0	51,0		25,00	1,47	17	5,9								
10,00	23,0	45,0		23,00	1,60	14	7,0								
10,20	25,0	49,0		25,00	2,00	13	8,0								
10,40	32,0	62,0		32,00	2,20	15	6,9								
10,60	34,0	67,0		34,00	2,33	15	6,9								
10,80	36,0	71,0		36,00	2,27	16	6,3								
11,00	34,0	68,0		34,00	2,07	16	6,1								
11,20	31,0	62,0		31,00	2,33	13	7,5								
11,40	34,0	69,0		34,00	2,60	13	7,6								
11,60	37,0	76,0		37,00	1,80	21	4,9								
11,80	26,0	53,0		26,00	1,60	16	6,2								
12,00	24,0	48,0		24,00	1,80	13	7,5								
12,20	27,0	54,0		27,00	1,93	14	7,1								
12,40	29,0	58,0		29,00	2,13	14	7,3								
12,60	33,0	65,0		33,00	2,27	15	6,9								
12,80	37,0	71,0		37,00	2,40	15	6,5								
13,00	41,0	77,0		41,00	2,13	19	5,2								
13,20	34,0	66,0		34,00	2,00	17	5,9								
13,40	31,0	61,0		31,00	1,87	17	6,0								
13,60	28,0	56,0		28,00	2,27	12	8,1								
13,80	35,0	69,0		35,00	2,67	13	7,6								
14,00	41,0	81,0		41,00	2,93	14	7,1								
14,20	45,0	89,0		45,00	2,27	20	5,0								
14,40	34,0	68,0		34,00	2,73	12	8,0								
14,60	40,0	81,0		40,00	2,80	14	7,0								
14,80	42,0	84,0		42,00	2,60	16	6,2								
15,00	38,0	77,0		38,00	2,73	14	7,2								

H = profondità
L1 = prima lettura (punta)
L2 = seconda lettura (punta + laterale)
Lt = terza lettura (totale)
CT = 10,00 costante di trasformazione

qc = resistenza di punta
fs = resistenza laterale calcolata
0.20 m sopra quota qc
F = rapporto Begemann (qc / fs)
Rf = rapporto Schmertmann (fs / qc)*100

FON076

Software by dott. Geol. Diego Merlin 0425-840820

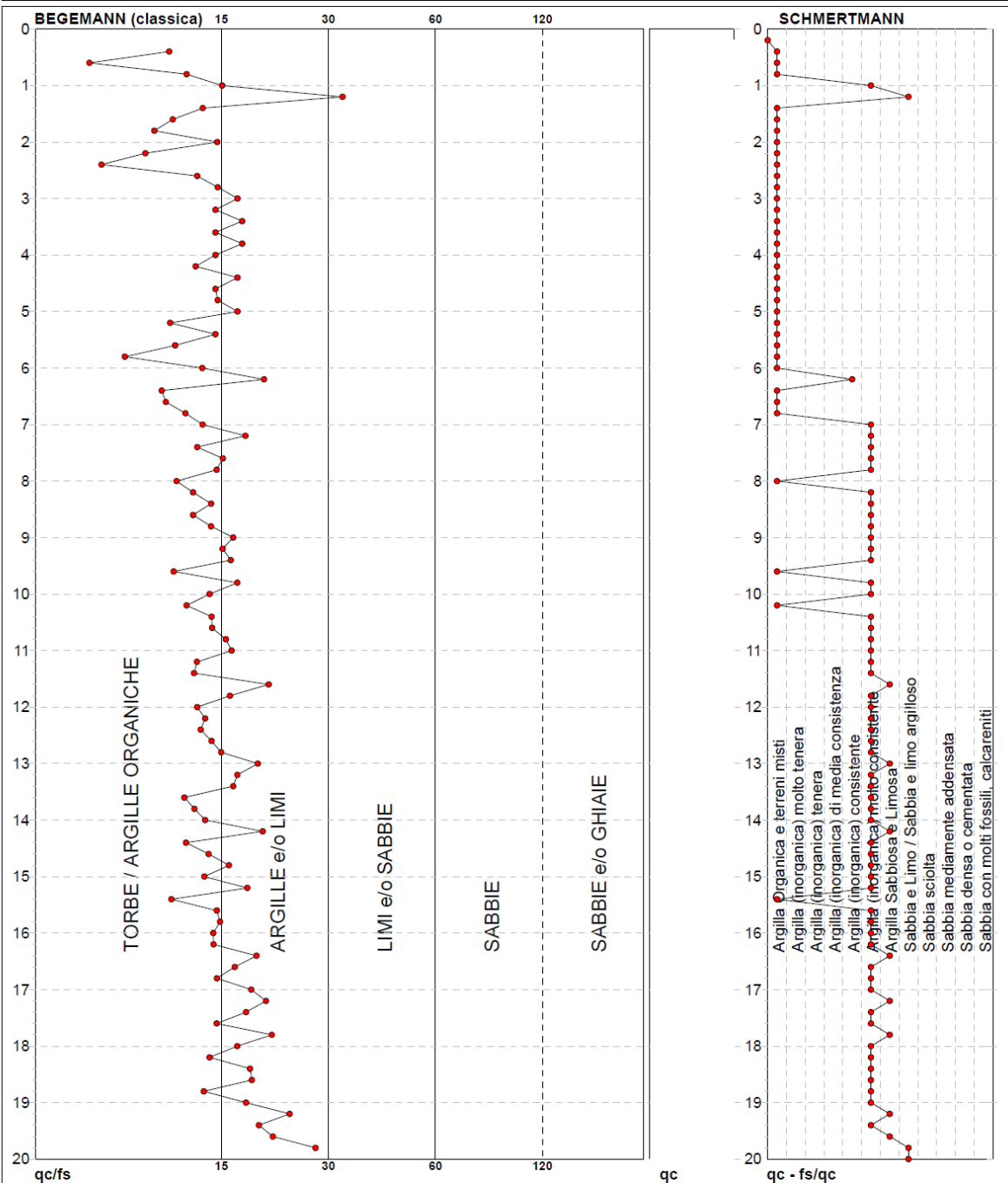
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PROVA PENETROMETRICA STATICA MECCANICA DIAGRAMMI LITOLOGIA

CPT	1
riferimento	cento baltur
certificato n°	
n° verb. accett.	

Committente: baltur spa
Cantiere: piano ricostruzione
Località: via ferrarese cento

U.M.: kg/cm²
Scala: 1:100
Pagina: 1
Elaborato: Falda: -1,95 m



Torbe / Argille org. :	54 punti, 54,55%	Argilla Organica e terreni misti:	34 punti, 34,34%	Argilla Sabbiosa e Limosa:	8 punti, 8,08%
Argille e/o Limi :	44 punti, 44,44%	Argilla (inorganica) consistente:	1 punti, 1,01%	Sabbia e Limo / Sabbia e limo arg.:	2 punti, 2,02%
Limi e/o Sabbie :	1 punti, 1,01%	Argilla (inorganica) molto consist.:	53 punti, 53,54%		

FON076

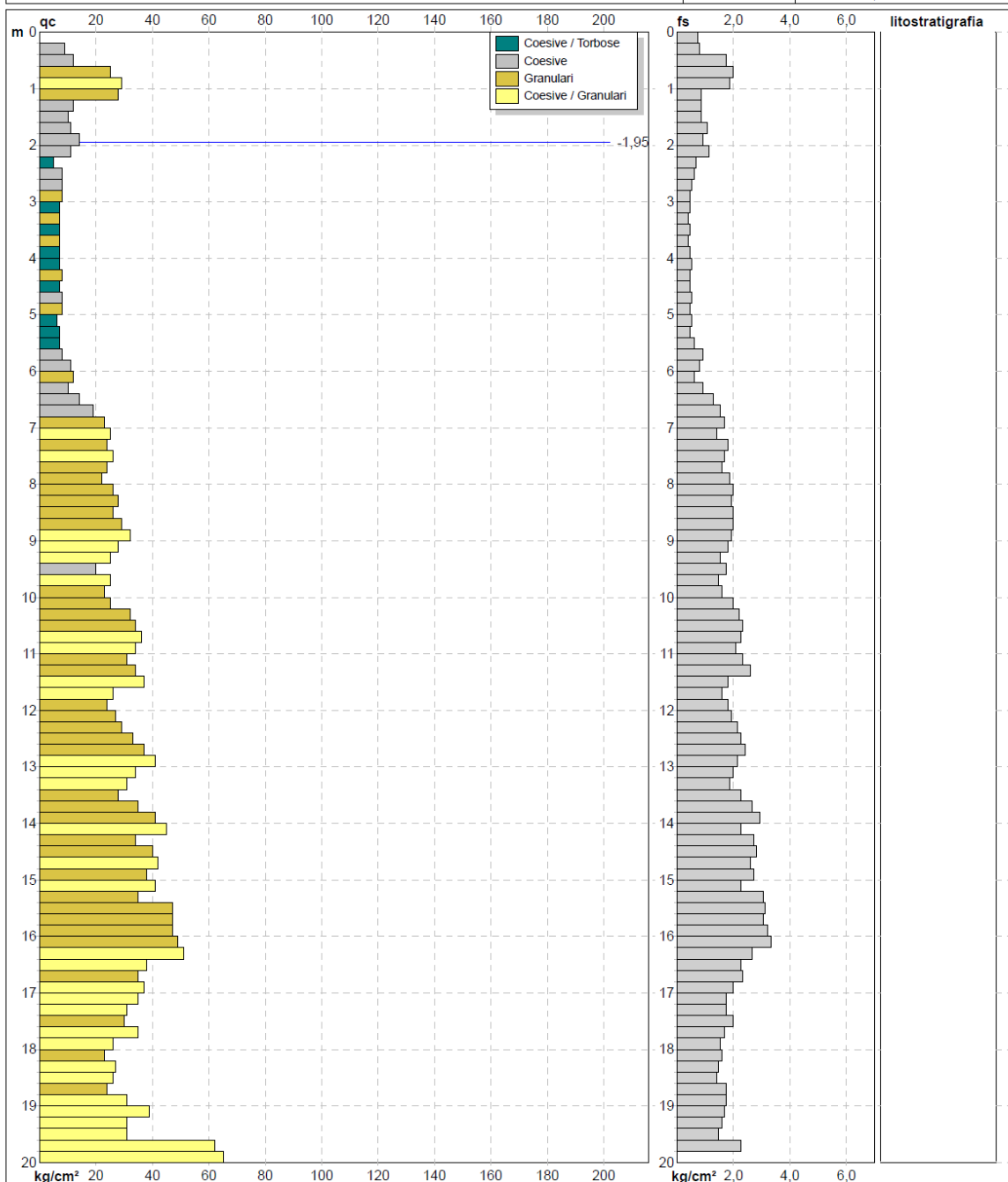
Software by dott. Geol. Diego Merlin 0425-840820

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PROVA PENETROMETRICA STATICA MECCANICA **DIAGRAMMI DI RESISTENZA E LITOLOGIA**

CPT	1
riferimento	cento baltur
certificato n°	
n° verb. accett.	

Committente: baltur spa	U.M.: kg/cm²	Data esec.: 17/12/2014
Cantiere: piano ricostruzione	Scala: 1:100	Data certificato: 19/12/2014
Località: via ferrarese cento	Pagina: 1	Quota inizio: Piano Campagna
	Elaborato:	Falda: -1,95 m



Litologia: Personalizzata	Preforo: m
Penetrometro: SP200	Corr.astine: kg/ml
Responsabile: ,1 6,905301 62,655333 5,04666	Cod. punta:
Assistente:	

FON076

Software by dott. Geol. Diego Merlin 0425-840820

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PROVA PENETROMETRICA STATICA MECCANICA

PARAMETRI GEOTECNICI

CPT	1
riferimento	cento baltur
certificato n°	
n° verb. accett.	

Committente: baltur spa	U.M.: kg/cm²	Data exec.: 17/12/2014
Cantiere: piano ricostruzione	Pagina: 1	Data certificato: 19/12/2014
Località: via ferrarese cento	Elaborato:	Falda: -1,95 m

NATURA COESIVA										NATURA GRANULARE														
Prof. m	qc U.M.	qc/fs	zone	γ' t/m ³	σ'_{vo} U.M.	Vs m/s	Cu U.M.	OCR %	Eu50 U.M.	Eu25 U.M.	Mo U.M.	Dr %	Sc (°)	Ca (°)	Ko (°)	DB (°)	DM (°)	Me (°)	FL1 U.M.	FL2 U.M.	E'50 U.M.	E'25 U.M.	Mo U.M.	
0,20	-	-	2	1,85	0,04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0,40	9,00	11,25	2	1,88	0,07	-	0,45	59,4	76,5	114,8	37,8	-	-	-	-	-	-	-	-	-	-	-	-	-
0,60	12,00	6,94	2	1,92	0,11	-	0,57	47,6	97,1	145,7	44,6	-	-	-	-	-	-	-	-	-	-	-	-	-
0,80	25,00	12,50	4	1,94	0,15	-	0,91	58,8	154,5	231,8	75,0	70	40	35	32	30	39	28	-	-	41,7	62,5	75,0	
1,00	29,00	15,51	4	1,96	0,19	-	0,98	48,6	167,1	250,7	87,0	70	40	35	32	30	39	29	-	-	48,3	72,5	87,0	
1,20	28,00	32,18	3	1,87	0,23	-	-	-	-	-	-	64	39	34	31	29	38	28	-	-	46,7	70,0	84,0	
1,40	12,00	13,79	2	1,92	0,27	-	0,57	16,3	97,1	145,7	44,6	-	-	-	-	-	-	-	-	-	-	-	-	-
1,60	10,00	11,49	2	1,90	0,30	-	0,50	11,7	85,0	127,5	40,0	-	-	-	-	-	-	-	-	-	-	-	-	-
1,80	11,00	10,28	2	1,91	0,34	-	0,54	11,0	91,2	136,8	42,5	-	-	-	-	-	-	-	-	-	-	-	-	-
2,00	14,00	15,05	2	0,94	0,36	-	0,64	12,7	108,2	162,3	48,2	-	-	-	-	-	-	-	-	-	-	-	-	-
2,20	11,00	9,73	2	0,91	0,38	-	0,54	9,7	91,9	137,8	42,5	-	-	-	-	-	-	-	-	-	-	-	-	-
2,40	5,00	7,46	1	0,46	0,39	-	0,25	3,6	20,7	31,1	7,5	-	-	-	-	-	-	-	-	-	-	-	-	-
2,60	8,00	13,33	2	0,86	0,41	-	0,40	6,2	106,7	160,1	35,2	-	-	-	-	-	-	-	-	-	-	-	-	-
2,80	8,00	15,09	2	0,86	0,42	-	0,40	5,8	113,0	169,5	35,2	-	-	-	-	-	-	-	-	-	-	-	-	-
3,00	8,00	17,02	2	0,86	0,44	-	0,40	5,6	119,2	178,8	35,2	-	-	-	-	-	-	-	-	-	-	-	-	-
3,20	7,00	14,89	1	0,46	0,45	-	0,35	4,6	22,9	34,3	10,5	-	-	-	-	-	-	-	-	-	-	-	-	-
3,40	7,00	17,50	2	0,84	0,47	-	0,35	4,4	130,4	195,5	32,2	-	-	-	-	-	-	-	-	-	-	-	-	-
3,60	7,00	14,89	1	0,46	0,48	-	0,35	4,3	23,7	35,6	10,5	-	-	-	-	-	-	-	-	-	-	-	-	-
3,80	7,00	17,50	2	0,84	0,49	-	0,35	4,1	137,6	206,4	32,2	-	-	-	-	-	-	-	-	-	-	-	-	-
4,00	7,00	14,89	1	0,46	0,50	-	0,35	4,0	24,5	36,8	10,5	-	-	-	-	-	-	-	-	-	-	-	-	-
4,20	7,00	13,21	1	0,46	0,51	-	0,35	3,9	25,6	38,4	10,5	-	-	-	-	-	-	-	-	-	-	-	-	-
4,40	8,00	17,02	2	0,86	0,53	-	0,40	4,4	147,5	221,2	35,2	-	-	-	-	-	-	-	-	-	-	-	-	-
4,60	7,00	14,89	1	0,46	0,54	-	0,35	3,7	28,3	42,5	10,5	-	-	-	-	-	-	-	-	-	-	-	-	-
4,80	8,00	15,09	2	0,86	0,55	-	0,40	4,2	155,0	232,5	35,2	-	-	-	-	-	-	-	-	-	-	-	-	-
5,00	8,00	17,02	2	0,86	0,57	-	0,40	4,0	159,6	239,4	35,2	-	-	-	-	-	-	-	-	-	-	-	-	-
5,20	6,00	11,32	1	0,46	0,58	-	0,30	2,7	31,8	47,7	9,0	-	-	-	-	-	-	-	-	-	-	-	-	-
5,40	7,00	14,89	1	0,46	0,59	-	0,35	3,3	32,6	48,8	10,5	-	-	-	-	-	-	-	-	-	-	-	-	-
5,60	7,00	11,67	1	0,46	0,60	-	0,35	3,2	33,2	49,7	10,5	-	-	-	-	-	-	-	-	-	-	-	-	-
5,80	8,00	8,60	2	0,86	0,62	-	0,40	3,7	174,2	261,2	35,2	-	-	-	-	-	-	-	-	-	-	-	-	-
6,00	11,00	13,75	2	0,91	0,64	-	0,54	5,1	174,8	262,2	42,5	-	-	-	-	-	-	-	-	-	-	-	-	-
6,20	12,00	20,00	2	0,92	0,65	-	0,57	5,3	178,5	267,7	44,6	-	-	-	-	-	-	-	-	-	-	-	-	-
6,40	10,00	10,75	2	0,90	0,67	-	0,50	4,3	187,5	281,3	40,0	-	-	-	-	-	-	-	-	-	-	-	-	-
6,60	14,00	11,02	2	0,94	0,69	-	0,64	5,7	185,6	278,5	48,2	-	-	-	-	-	-	-	-	-	-	-	-	-
6,80	19,00	12,42	4	0,99	0,71	-	0,78	7,0	178,1	267,1	58,1	-	-	-	-	-	-	-	-	-	-	-	-	-
7,00	23,00	13,77	4	0,94	0,73	-	0,87	7,8	176,1	264,2	69,0	29	35	27	24	22	31	28	-	-	38,3	57,5	69,0	
7,20	25,00	17,86	4	0,94	0,75	-	0,91	8,0	179,4	269,1	75,0	31	35	27	24	23	31	28	-	-	41,7	62,5	75,0	
7,40	24,00	13,33	4	0,94	0,77	-	0,89	7,6	187,2	280,8	72,0	29	35	27	24	22	30	28	-	-	40,0	60,0	72,0	
7,60	26,00	15,57	4	0,95	0,79	-	0,93	7,7	190,4	285,6	78,0	32	35	27	24	23	31	28	-	-	43,3	65,0	78,0	
7,80	24,00	15,00	4	0,94	0,80	-	0,89	7,1	200,6	300,9	72,0	28	35	27	23	22	30	28	-	-	40,0	60,0	72,0	
8,00	22,00	11,76	4	0,93	0,82	-	0,85	6,5	212,1	318,2	66,0	25	34	26	23	22	30	28	-	-	36,7	55,0	66,0	
8,20	26,00	13,00	4	0,95	0,84	-	0,93	7,1	210,2	315,3	78,0	30	35	27	24	22	30	28	-	-	43,3	65,0	78,0	
8,40	28,00	14,51	4	0,96	0,86	-	0,97	7,2	213,4	320,1	84,0	32	35	27	24	22	31	28	-	-	46,7	70,0	84,0	
8,60	26,00	13,00	4	0,95	0,88	-	0,93	6,7	224,2	336,4	78,0	29	35	27	23	22	30	28	-	-	43,3	65,0	78,0	
8,80	29,00	14,50	4	0,96	0,90	-	0,98	7,0	225,4	338,2	87,0	32	35	27	24	22	31	29	-	-	48,3	72,5	87,0	
9,00	32,00	16,58	4	0,97	0,92	-	1,07	7,6	224,3	336,4	96,0	35	35	27	24	23	31	29	-	-	53,3	80,0	96,0	
9,20	28,00	15,56	4	0,96	0,94	-	0,97	6,5	241,6	362,4	84,0	30	35	27	23	22	30	28	-	-	46,7	70,0	84,0	
9,40	25,00	16,34	4	0,94	0,96	-	0,91	5,9	254,6	381,9	75,0	25	34	26	23	21	29	28	-	-	41,7	62,5	75,0	
9,60	20,00	11,56	4	0,93	0,98	-	0,80	4,9	269,9	404,8	60,0	17	33	25	22	20	28	27	-	-	33,3	50,0	60,0	
9,80	25,00	17,01	4	0,94	0,99	-	0,91	5,6	268,0	402,1	75,0	24	34	26	23	21	29	28	-	-	41,7	62,5	75,0	
10,00	23,00	14,38	4	0,94	1,01	-	0,87	5,2	277,9	416,9	69,0	21	34	25	22	21	29	28	-	-	38,3	57,5	69,0	
10,20	25,00	12,50	4	0,94	1,03	-	0,91	5,4	281,2	421,8	75,0	24	34	26	22	21	29	28	-	-	41,7	62,5	75,0	
10,40	32,00	14,55	4	0,97	1,05	-	1,07	6,4	272,5	408,7	96,0	32	35	27	24	22	30	29	-	-	53,3	80,0	96,0	
10,60	34,00	14,59	4	0,98	1,07	-	1,13	6,7	272,4	408,6	102,0	33	35	27	24	22	31	29	-	-	56,7	85,0	102,0	
10,80	36,00	15,86	4	0,99	1,09	-	1,20	7,1	272,5	408,8	108,0	35	35	27	24	23	31	30	-	-	60,0	90,0	108,0	
11,00	34,00	16,43	4	0,98	1,11	-	1,13	6,4	287,0	430,5	102,0	32	35	27	24	22	30	29	-	-	56,7	85,0	102,0	
11,20	31,00	13,30	4	0,97	1,13	-	1,03	5,6	304,4	456,7	93,0	29	35	26	23	22	30	29	-	-	51,7	77,5	93,0	
11,40	34,00	13,08	4	0,98	1,15	-	1,13	6,2	301,4	452,1	102,0	32	35	27	23	22	30	29	-	-	56,7	85,0	102,0	
11,60	37,00	20,56	4	1,23	1,17	-	1,23	6,7	297,7	446,6	111,0	34	35	27	24	22	31	30	-	-	61,7	92,5	111,0	
11,80	26,00	16,25	4	0,95	1,19	-	0,93	4,6	330,7	496,1	78,0	21	34	25	22	21	28							

Committente: Dott. Geol. Plazzi
Cantiere: Cento, via Ferrarese (FE)
Data: 17/12/2014

ID Prova: CPTU 1
Profondità falda: a mt 2.00 da p.c.
Prefor:-

Profondità massima raggiunta: 24.44 mt
Punta sismica: Tecnopenta G1-CPL2IN - SISMI
RIF. 156-146F

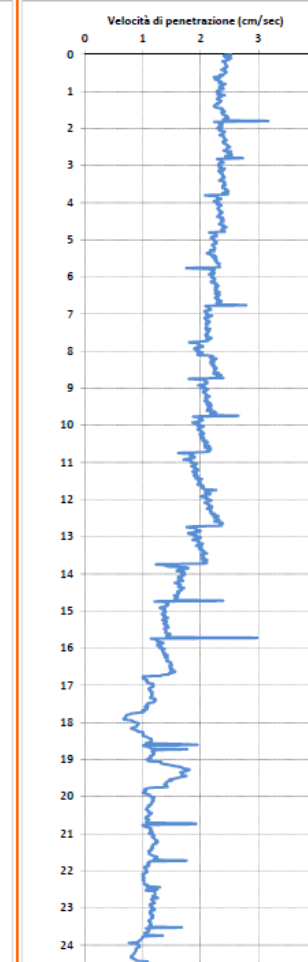
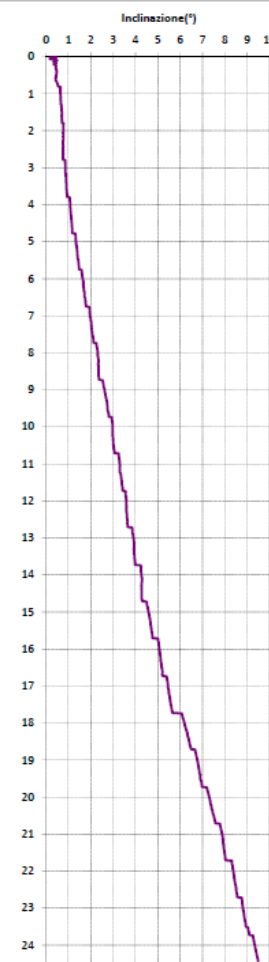
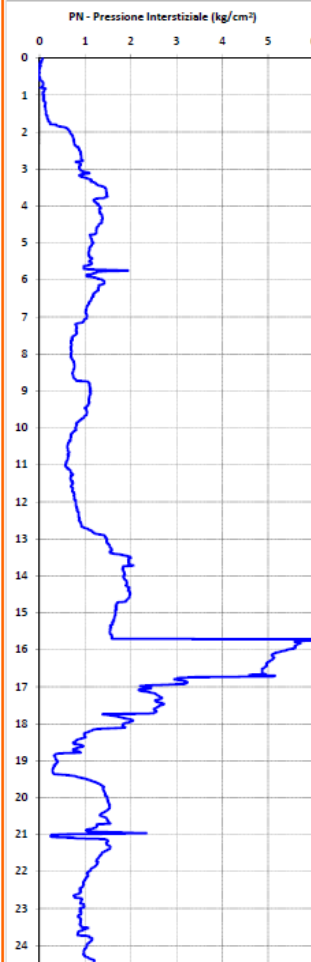
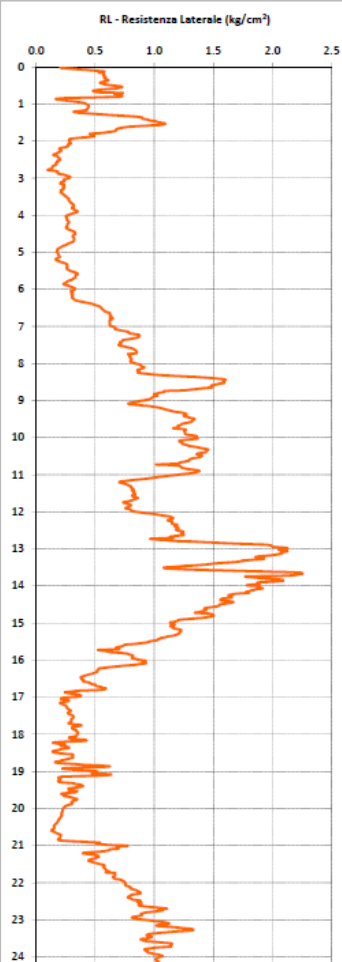
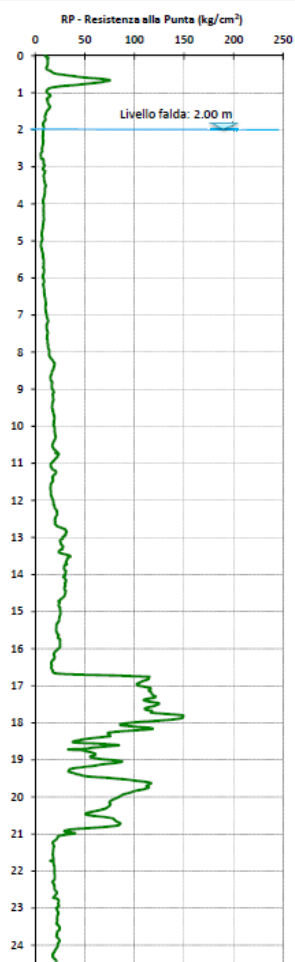
Prova eseguita da:
GEO.FE. S.n.c.
via dell'Artigianato, 2 44030 - Ro Ferrarese (FE)
tel 3383646278 - info@geofe.it - www.geofe.it
Responsabile dati: Dott. Geol. Zanella Fabio
Responsabile cantiere: Sig. Mangherini Alberto

Prof.	RP	RL	PN	Incl.	V.vanz	Prof.	RP	RL	PN	Incl.	V.vanz	Prof.	RP	RL	PN	Incl.	V.vanz	Prof.	RP	RL	PN	Incl.	V.vanz	Prof.	RP	RL	PN	Incl.	V.vanz	Prof.	RP	RL	PN	Incl.	V.vanz
metri	kg/cm²	kg/cm²	kg/cm²	Gradi *	cm/sec	metri	kg/cm²	kg/cm²	kg/cm²	Gradi *	cm/sec	metri	kg/cm²	kg/cm²	kg/cm²	Gradi *	cm/sec	metri	kg/cm²	kg/cm²	kg/cm²	Gradi *	cm/sec	metri	kg/cm²	kg/cm²	kg/cm²	Gradi *	cm/sec	metri	kg/cm²	kg/cm²	kg/cm²	Gradi *	cm/sec
0.020	9.982	0.208	0.071	0.473	2.530	1.660	9.703	0.695	0.194	0.710	2.450	3.300	9.029	0.230	1.143	0.895	2.380	4.940	7.138	0.179	1.143	1.334	2.190	6.580	10.124	0.579	1.102	1.751	2.310	6.580	10.124	0.579	1.102	1.751	2.310
0.040	11.827	0.279	0.061	0.187	2.400	1.680	9.920	0.681	0.194	0.710	2.430	3.320	8.920	0.210	1.122	0.895	2.420	4.960	7.138	0.182	1.153	1.335	2.180	6.600	10.124	0.590	1.082	1.771	2.310	6.620	10.141	0.611	1.082	1.774	2.280
0.060	13.143	0.348	0.051	0.181	2.460	1.700	10.123	0.673	0.194	0.705	2.480	3.340	9.029	0.211	1.133	0.903	2.380	4.980	6.921	0.175	1.173	1.331	2.230	6.620	10.341	0.611	1.082	1.774	2.280	6.640	10.449	0.624	1.082	1.765	2.360
0.080	13.034	0.438	0.031	0.367	2.430	1.720	10.326	0.673	0.224	0.716	2.480	3.360	9.001	0.214	1.204	0.902	2.360	5.000	6.487	0.177	1.184	1.342	2.240	6.640	10.449	0.624	1.082	1.765	2.360	6.660	10.558	0.624	1.071	1.771	2.360
0.100	12.152	0.513	0.051	0.498	2.530	1.740	10.204	0.643	0.235	0.716	2.430	3.380	9.326	0.207	1.235	0.903	2.380	5.020	6.270	0.185	1.153	1.345	2.240	6.660	10.558	0.624	1.071	1.771	2.360	6.680	10.558	0.622	1.061	1.785	2.330
0.120	12.492	0.578	0.031	0.432	2.500	1.760	9.430	0.597	0.235	0.716	2.390	3.400	9.435	0.220	1.235	0.902	2.320	5.040	5.944	0.188	1.143	1.343	2.240	6.680	10.558	0.622	1.061	1.785	2.330	6.700	10.435	0.630	1.041	1.785	2.280
0.140	12.695	0.531	0.020	0.344	2.500	1.780	8.968	0.554	0.235	0.710	2.480	3.420	9.435	0.225	1.265	0.910	2.400	5.060	5.836	0.189	1.143	1.343	2.280	6.700	10.435	0.630	1.041	1.785	2.280	6.720	10.652	0.636	1.041	1.785	2.280
0.160	12.695	0.556	0.010	0.378	2.460	1.800	8.512	0.456	0.367	0.785	2.170	3.440	9.543	0.233	1.296	0.911	2.420	5.080	5.836	0.194	1.133	1.360	2.270	6.720	10.652	0.636	1.041	1.785	2.280	6.740	10.435	0.637	1.031	1.795	2.330
0.180	12.586	0.570	0.010	0.457	2.400	1.820	7.969	0.477	0.367	0.780	2.250	3.460	9.563	0.239	1.357	0.910	2.400	5.100	5.727	0.194	1.102	1.360	2.270	6.740	10.435	0.637	1.031	1.795	2.330	6.760	10.180	0.623	1.031	1.929	2.790
0.200	12.478	0.574	0.031	0.344	2.380	1.840	7.969	0.478	0.418	0.772	2.380	3.480	10.072	0.248	1.408	0.910	2.420	5.120	5.619	0.200	1.102	1.363	2.220	6.760	10.180	0.623	1.031	1.929	2.790	6.780	10.397	0.648	1.031	1.932	2.090
0.220	12.695	0.569	0.020	0.407	2.420	1.860	7.861	0.494	0.520	0.772	2.350	3.500	10.723	0.255	1.439	0.911	2.430	5.140	5.836	0.189	1.092	1.377	2.200	6.780	10.397	0.648	1.031	1.932	2.090	6.800	10.180	0.639	1.020	1.946	2.120
0.240	12.369	0.575	0.010	0.450	2.430	1.880	7.861	0.465	0.571	0.772	2.320	3.520	10.397	0.263	1.439	0.910	2.430	5.160	5.850	0.176	1.102	1.375	2.220	6.800	10.180	0.639	1.020	1.946	2.120	6.820	10.411	0.629	1.010	1.952	2.130
0.260	12.369	0.584	0.010	0.457	2.430	1.900	8.403	0.391	0.612	0.784	2.380	3.540	10.180	0.270	1.459	0.919	2.380	5.180	6.161	0.166	1.092	1.381	2.230	6.820	10.411	0.629	1.010	1.952	2.130	6.840	10.397	0.621	1.020	1.946	2.150
0.280	11.935	0.586	0.000	0.442	2.430	1.920	8.729	0.333	0.622	0.774	2.360	3.560	9.963	0.280	1.459	0.919	2.400	5.200	6.378	0.169	1.092	1.381	2.240	6.840	10.397	0.621	1.020	1.946	2.150	6.860	10.397	0.622	1.010	1.949	2.170
0.300	11.501	0.589	-0.010	0.432	2.460	1.960	8.606	0.278	0.653	0.774	2.310	3.600	9.624	0.279	1.459	0.935	2.380	5.240	6.378	0.197	1.082	1.391	2.250	6.880	10.614	0.623	1.010	1.946	2.180	6.900	10.614	0.623	1.020	1.956	2.120
0.320	10.973	0.602	-0.010	0.468	2.460	1.980	8.606	0.279	0.653	0.781	2.310	3.620	9.624	0.282	1.469	0.935	2.430	5.260	6.178	0.210	1.071	1.394	2.230	6.900	10.614	0.623	1.020	1.956	2.120	6.920	10.614	0.621	1.020	1.959	2.070
0.340	11.515	0.612	-0.041	0.460	2.430	2.000	8.490	0.297	0.673	0.781	2.290	3.640	9.609	0.289	1.469	0.935	2.450	5.280	6.921	0.214	1.071	1.396	2.170	6.920	10.614	0.621	1.020	1.959	2.070	6.940	10.723	0.624	1.041	1.959	2.090
0.360	11.949	0.597	0.000	0.482	2.400	2.020	8.064	0.290	0.673	0.772	2.360	3.660	9.826	0.292	1.459	0.935	2.430	5.300	7.152	0.250	1.082	1.396	2.240	6.940	10.723	0.624	1.041	1.959	2.090	6.960	11.157	0.622	1.041	1.967	2.090
0.380	10.794	0.565	0.000	0.468	2.430	2.040	7.941	0.276	0.684	0.781	2.350	3.680	9.609	0.304	1.489	0.936	2.480	5.320	7.572	0.260	1.082	1.406	2.160	6.960	11.157	0.622	1.041	1.967	2.090	6.980	10.397	0.648	1.031	1.967	2.120
0.400	15.300	0.541	0.000	0.486	2.360	2.060	7.847	0.292	0.694	0.759	2.330	3.700	9.609	0.310	1.469	0.944	2.480	5.340	7.586	0.263	1.071	1.408	2.170	7.000	11.374	0.628	1.041	1.967	2.120	7.020	11.577	0.647	1.031	1.964	2.110
0.420	16.724	0.552	-0.010	0.471	2.420	2.080	7.941	0.284	0.724	0.773	2.420	3.720	9.501	0.319	1.480	0.944	2.430	5.360	7.680	0.267	1.102	1.408	2.110	7.000	11.577	0.647	1.031	1.964	2.110	7.020	11.577	0.666	1.031	1.967	2.100
0.440	17.592	0.571	-0.031	0.464	2.420	2.100	7.833	0.267	0.724	0.773	2.400	3.740	9.604	0.315	1.490	0.944	2.480	5.380	7.695	0.260	1.143	1.425	2.190	7.040	11.685	0.671	1.031	1.985	2.000	7.060	11.685	0.671	1.031	1.985	2.000
0.460	19.215	0.611	-0.030	0.464	2.450	2.120	7.941	0.271	0.724	0.773	2.400	3.760	9.364	0.311	1.499	0.944	2.480	5.400	7.695	0.258	1.143	1.425	2.190	7.040	11.685	0.671	1.031	1.985	2.000	7.060	11.685	0.671	1.031	1.985	2.000
0.480	22.800	0.602	-0.040	0.460	2.480	2.140	7.833	0.267	0.735	0.769	2.390	3.780	9.256	0.311	1.499	0.944	2.480	5.420	7.680	0.264	1.153	1.427	2.250	7.060	11.794	0.665	0.990	1.997	2.130	7.080	11.902	0.686	0.980	1.997	2.160
0.500	28.905	0.715	0.010	0.461	2.420	2.160	7.602	0.249	0.745	0.763	2.360	3.800	9.105	0.303	1.235	1.053	2.080	5.440	7.695	0.259	1.122	1.427	2.190	7.080	11.902	0.686	0.980	1.997	2.160	7.100	12.336	0.712	0.969	2.000	2.070
0.520	34.977	0.728	0.000	0.434	2.400	2.180	7.927	0.215	0.745	0.776	2.330	3.820	8.685	0.310	1.214	1.053	2.270	5.460	8.020	0.267	1.122	1.429	2.270	7.100	12.336	0.712	0.969	2.000	2.070	7.120	12.336	0.712	0.969	2.000	2.070
0.540	39.972	0.560	0.010	0.434	2.330	2.200	7.465	0.196	0.755	0.776	2.400	3.840	8.577	0.312	1.194	1.069	2.280	5.480	8.129	0.280	1.122	1.443	2.250	7.120	12.539	0.743	0.959	2.008	2.090	5.520	8.671	0.311	1.143	1.449	2.250
0.560	44.856	0.676	0.010	0.427	2.380	2.220	7.602	0.198	0.745	0.771	2.400	3.860	8.251	0.334	1.184	1.069	2.290	5.500	8.237	0.290	1.082	1.445	2.230	7.140	12.865	0.774	0.949	2.008	2.090	5.540	8.671	0.311	1.143	1.449	2.250
0.580	52.749	0.593	0.031	0.434	2.310	2.240	7.574	0.210	0.755	0.778	2.400	3.880	8.129	0.346	1.204	1.069	2.320</																		

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GRAFICI PROVA CPTU 1

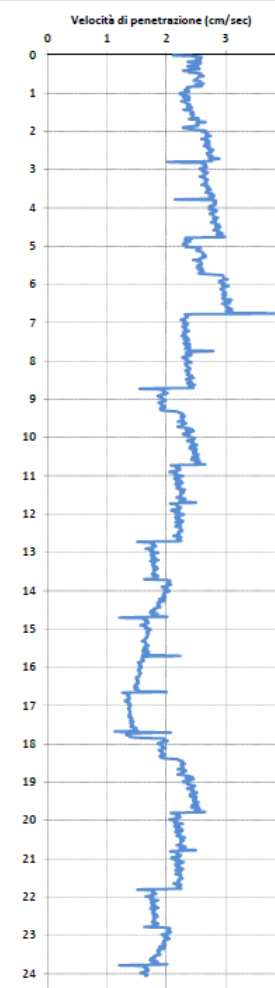
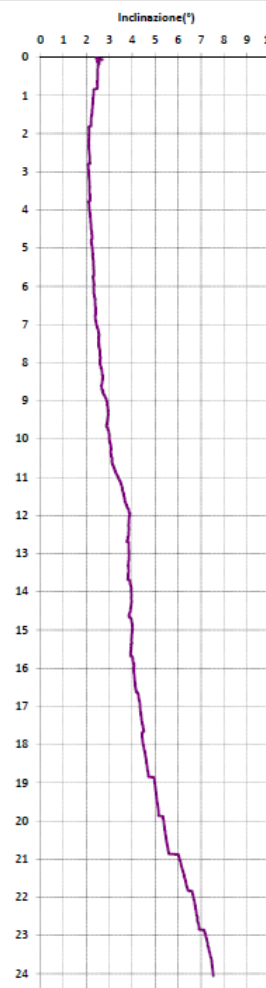
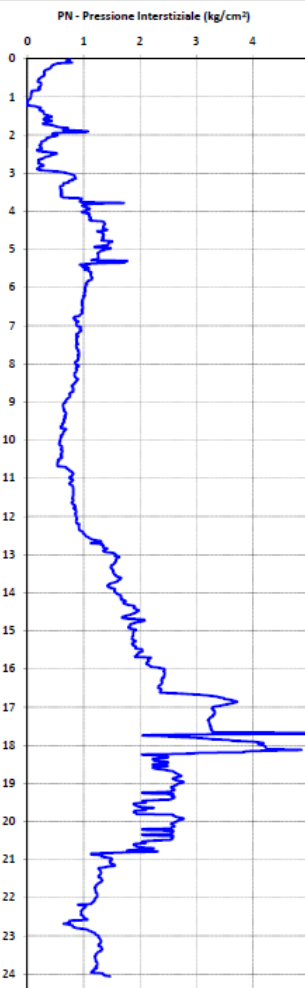
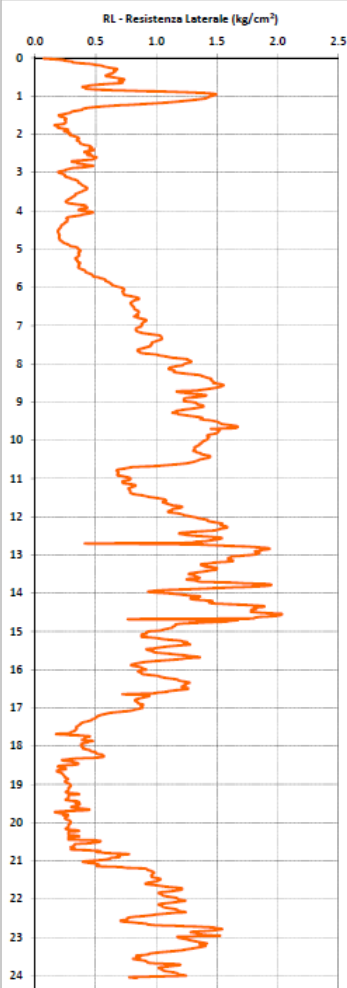
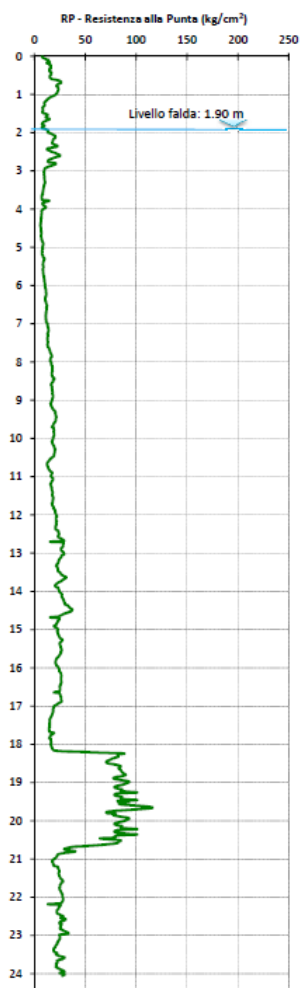


 Geo.Fe. INDAGINI GEOLOGICHE						Committente: Dott. Geol. Piazzì Cantiere: Cento, via Ferrarese (FE) Data: 17/12/2014						ID Prova: CPTU 3 Profondità falda: a mt 1.90 da p.c. Preforo:-						Profondità massima raggiunta: 24.06 mt Punta sismica: Tecnopenta G1-CPILZIN - SISMI RIF. 156-14GF						Prova eseguita da: GEO.FE. S.n.c. via dell'Artigianato ,2 44030 - Ro Ferrarese (FE) tel 3383646278 - info@geofe.it - www.geofe.it Responsabile dati: Dott. Geol. Zanella Fabio Responsabile cantiere: Sig. Mangherini Alberto					
Prof.	RP	RL	PN	Incl.	V.vanz	Prof.	RP	RL	PN	Incl.	V.vanz	Prof.	RP	RL	PN	Incl.	V.vanz	Prof.	RP	RL	PN	Incl.	V.vanz	Prof.	RP	RL	PN	Incl.	V.vanz
metri	kg/cm²	kg/cm²	kg/cm²	Gradi *	cm/sec	metri	kg/cm²	kg/cm²	kg/cm²	Gradi *	cm/sec	metri	kg/cm²	kg/cm²	kg/cm²	Gradi *	cm/sec	metri	kg/cm²	kg/cm²	kg/cm²	Gradi *	cm/sec	metri	kg/cm²	kg/cm²	kg/cm²	Gradi *	cm/sec
0.020	7.423	0.073	0.755	2.484	2.110	1.660	14.379	0.250	0.337	2.208	2.540	3.300	10.604	0.380	0.643	2.136	2.660	4.940	8.528	0.324	1.194	2.242	2.280	6.580	11.822	0.825	0.969	2.402	3.050
0.040	8.480	0.173	0.724	2.429	2.450	1.680	12.304	0.255	0.306	2.204	2.380	3.320	10.278	0.386	0.633	2.125	2.660	4.960	8.311	0.347	1.480	2.256	2.290	6.600	11.930	0.838	0.959	2.399	3.000
0.060	10.158	0.218	0.684	2.700	2.590	1.700	10.459	0.152	0.276	2.201	2.540	3.340	10.061	0.396	0.582	2.130	2.680	4.980	8.203	0.357	1.469	2.259	2.330	6.620	11.930	0.852	0.969	2.407	3.050
0.080	11.410	0.265	0.735	2.563	2.580	1.720	9.265	0.241	0.316	2.204	2.510	3.360	9.736	0.408	0.582	2.130	2.630	5.000	8.094	0.354	1.378	2.252	2.360	6.640	11.930	0.855	0.980	2.399	3.100
0.100	13.905	0.305	0.786	2.519	2.510	1.740	8.289	0.211	0.449	2.207	2.540	3.380	9.505	0.418	0.582	2.147	2.640	5.020	8.094	0.364	1.357	2.266	2.330	6.660	11.699	0.856	0.980	2.399	3.100
0.120	13.037	0.316	0.531	2.466	2.500	1.760	7.855	0.163	0.480	2.200	2.660	3.400	9.396	0.430	0.582	2.124	2.590	5.040	8.094	0.376	1.306	2.259	2.580	6.680	11.699	0.849	0.959	2.404	3.050
0.140	13.254	0.379	0.500	2.561	2.580	1.780	7.746	0.180	0.531	2.215	2.530	3.420	9.288	0.430	0.592	2.142	2.700	5.060	8.094	0.371	1.286	2.263	2.560	6.700	11.591	0.843	0.949	2.404	3.000
0.160	15.208	0.459	0.459	2.524	2.510	1.800	8.072	0.185	0.592	2.204	2.510	3.440	9.071	0.424	0.612	2.142	2.660	5.080	7.769	0.365	1.265	2.277	2.540	6.720	11.591	0.835	0.929	2.404	3.120
0.180	11.952	0.493	0.429	2.557	2.360	1.820	9.955	0.185	0.724	2.106	2.510	3.460	9.057	0.410	0.592	2.142	2.720	5.100	7.552	0.357	1.245	2.263	2.510	6.740	11.374	0.850	0.918	2.404	3.050
0.200	15.099	0.542	0.249	2.499	2.400	1.840	8.544	0.218	0.633	2.110	2.540	3.480	8.948	0.396	0.612	2.136	2.680	5.120	7.769	0.361	1.255	2.269	2.510	6.760	11.199	0.816	0.847	2.390	3.880
0.220	14.693	0.562	0.418	2.512	2.580	1.860	7.676	0.248	0.643	2.115	2.510	3.500	8.731	0.384	0.592	2.136	2.700	5.140	7.660	0.366	1.255	2.283	2.580	6.780	11.321	0.838	0.837	2.375	2.310
0.240	16.104	0.588	0.408	2.514	2.460	1.880	7.567	0.275	0.857	2.099	2.360	3.520	8.731	0.367	0.612	2.142	2.750	5.160	7.660	0.366	1.255	2.276	2.610	6.800	11.416	0.850	0.816	2.390	2.350
0.260	16.104	0.617	0.388	2.501	2.540	1.900	9.412	0.250	1.071	2.115	2.280	3.540	8.392	0.354	0.612	2.136	2.720	5.180	7.660	0.359	1.255	2.283	2.610	6.820	11.213	0.877	0.847	2.388	2.330
0.280	16.429	0.663	0.347	2.496	2.500	1.920	12.125	0.241	1.010	2.108	2.320	3.560	8.283	0.336	0.592	2.148	2.680	5.200	8.094	0.353	1.255	2.272	2.630	6.840	11.430	0.906	0.837	2.388	2.360
0.300	15.575	0.677	0.316	2.493	2.360	1.940	13.427	0.264	0.510	2.112	2.390	3.580	8.175	0.330	0.612	2.142	2.700	5.220	8.203	0.345	1.265	2.280	2.610	6.860	11.321	0.917	0.867	2.388	2.350
0.320	16.249	0.650	0.306	2.488	2.380	1.960	13.427	0.287	0.449	2.112	2.480	3.600	8.066	0.332	0.592	2.159	2.660	5.240	8.528	0.333	1.245	2.287	2.660	6.880	11.321	0.915	0.858	2.440	2.320
0.340	14.721	0.667	0.296	2.488	2.510	1.980	13.118	0.278	0.449	2.109	2.660	3.620	7.283	0.320	0.622	2.154	2.770	5.260	8.854	0.334	1.214	2.290	2.610	6.900	11.755	0.899	0.858	2.415	2.920
0.360	15.264	0.655	0.296	2.488	2.560	2.000	13.644	0.298	0.531	2.109	2.590	3.640	7.510	0.309	0.653	2.154	2.720	5.280	9.613	0.342	1.143	2.283	2.660	6.920	11.864	0.891	0.867	2.407	2.240
0.380	14.735	0.649	0.306	2.491	2.540	2.020	15.814	0.288	0.510	2.121	2.640	3.660	7.293	0.301	0.969	2.160	2.720	5.300	9.925	0.353	1.765	2.290	2.630	6.940	11.633	0.888	0.867	2.421	2.280
0.400	15.089	0.641	0.306	2.486	2.380	2.040	17.225	0.312	0.429	2.098	2.700	3.680	7.184	0.290	0.949	2.154	2.810	5.320	9.505	0.349	1.684	2.301	2.560	6.960	11.741	0.879	0.867	2.421	2.320
0.420	15.514	0.611	0.296	2.494	2.580	2.060	17.513	0.334	0.388	2.100	2.680	3.700	7.293	0.279	0.949	2.160	2.790	5.340	9.505	0.359	1.724	2.308	2.580	6.980	12.515	0.880	0.867	2.421	2.310
0.440	16.622	0.603	0.296	2.486	2.430	2.080	20.141	0.354	0.337	2.111	2.660	3.720	7.510	0.266	0.949	2.166	2.790	5.360	9.071	0.372	1.286	2.301	2.450	7.000	12.935	0.881	0.878	2.442	2.280
0.460	16.419	0.584	0.276	2.483	2.380	2.100	20.358	0.360	0.337	2.111	2.700	3.740	7.481	0.258	0.929	2.166	2.720	5.380	8.962	0.367	1.071	2.301	2.560	7.020	13.152	0.875	0.918	2.442	2.360
0.480	16.528	0.588	0.245	2.492	2.510	2.120	20.683	0.360	0.337	2.108	2.750	3.760	7.698	0.254	0.959	2.154	2.750	5.400	8.731	0.359	0.929	2.297	2.530	7.040	12.935	0.862	0.949	2.458	2.350
0.500	15.782	0.631	0.235	2.484	2.590	2.140	20.631	0.347	0.306	2.108	2.700	3.780	7.481	0.263	1.714	2.079	2.140	5.420	8.745	0.365	1.061	2.312	2.580	7.060	13.044	0.911	0.929	2.480	2.350
0.520	15.145	0.669	0.214	2.487	2.560	2.160	19.475	0.346	0.276	2.112	2.660	3.800	7.907	0.278	1.143	2.097	2.830	5.440	8.731	0.362	1.010	2.297	2.590	7.080	13.261	0.833	0.929	2.480	2.310
0.540	15.173	0.703	0.194	2.490	2.560	2.180	18.499	0.360	0.245	2.105	2.660	3.820	10.520	0.322	1.071	2.103	2.830	5.460	8.297	0.357	0.980	2.305	2.590	7.100	13.478	0.831	0.949	2.480	2.270
0.560	15.187	0.735	0.194	2.485	2.630	2.200	18.282	0.367	0.245	2.101	2.590	3.840	8.703	0.366	0.980	2.109	2.790	5.480	8.731	0.357	1.092	2.305	2.590	7.120	13.667	0.834	0.949	2.515	2.290
0.580	15.947	0.732	0.184	2.485	2.540	2.220	18.145	0.373	0.245	2.101	2.700	3.860	7.835	0.417	0.980	2.109	2.830	5.500	8.840	0.365	1.082	2.312	2.530	7.140	13.667	0.837	0.949	2.515	2.330
0.600	17.480	0.692	0.184	2.493	2.540	2.240	17.928	0.374	0.245	2.105	2.700	3.880	7.378	0.415	1.041	2.111	2.830	5.520	8.731	0.379	1.100	2.323	2.540	7.160	13.775	0.850	0.918	2.515	2.310
0.620	20.749	0.697	0.224	2.472	2.510	2.260	17.494	0.391	0.214	2.094	2.660	3.900	9.029	0.423	1.031	2.111	2.830	5.540	8.731	0.397	1.061	2.308	2.580	7.180	13.992	0.868	0.918	2.531	2.320
0.640	24.141	0.725	0.245	2.478	2.510	2.280	17.711	0.416	0.235	2.098	2.730	3.920	10.114	0.431	1.102	2.129	2.810	5.560	8.406	0.412	1.092	2.323	2.510	7.200	13.775	0.892	0.898	2.529	2.350
0.660	25.892	0.701	0.245	2.484	2.480	2.300	18.131	0.448	0.224	2.103	2.660	3.940	11.090	0.385	1.102	2.132	2.750	5.580	8.406	0.415	1.102	2.323	2.610	7.220	13.558	0.937	0.867	2.537	2.380
0.680	26.215	0.611	0.245	2.473	2.460	2.320	20.518	0.460	0.245	2.115	2.730	3.960	11.199	0.372	1.071	2.119	2.730	5.600	8.406	0.418	1.133	2.334	2.540	7.240	13.449	0.986	0.867	2.535	2.280
0.700	26.123	0.524	0.235	2.486	2.580	2.340	22.363	0.467	0.255	2.089	2.660	3.980	10.439	0.359	1.041	2.125	2.730	5.620	8.673	0.431	1.133	2.327	2.610	7.260	12.907	1.028	0.867	2.543	2.320
0.720	24.509	0.461	0.224	2.479	2.580	2.360	22.566	0.467	0.245	2.102	2.700	4.000	8.703	0.390	0.990	2.138	2.790	5.640	8.731	0.448	1.122	2.319	2.590	7.280	13.218	1.036	0.898	2.558	2.320
0.740	23.112	0.424	0.214	2.481	2.580	2.380	20.816	0.448	0.184	2.102	2.630	4.020	8.052	0.449	0.969	2.146	2.790	5.660	8.731	0.466	1.122	2.330	2.630	7.300	13.218				

 Geo.FE. INDAGINI GEOLOGICHE						Committente: Dott. Geol. Piazzini Cantiere: Cento, via Ferrarese (FE) Data: 17/12/2014						ID Prova: CPTU 3 Profondità falda: a mt 1.90 da p.c. Preforo:-						Profondità massima raggiunta: 24.06 mt Punta sismica: Tecnopenta G1-CPL2IN - SISM1 RIF. 156-146G						Prova eseguita da: GEO.FE. S.n.c. via dell'Artigianato, 2 44030 - Ro Ferrarese (FE) tel 3383646278 - info@geofe.it - www.geofe.it Responsabile dati: Dott. Geol. Zanella Fabio Responsabile cantiere: Sig. Mangherini Alberto					
Prof.	RP	RL	PN	Incl.	Vavanz	Prof.	RP	RL	PN	Incl.	Vavanz	Prof.	RP	RL	PN	Incl.	Vavanz	Prof.	RP	RL	PN	Incl.	Vavanz	Prof.	RP	RL	PN	Incl.	Vavanz
metri	kg/cm²	kg/cm²	kg/cm²	Gradi °	cm/sec	metri	kg/cm²	kg/cm²	kg/cm²	Gradi °	cm/sec	metri	kg/cm²	kg/cm²	kg/cm²	Gradi °	cm/sec	metri	kg/cm²	kg/cm²	kg/cm²	Gradi °	cm/sec	metri	kg/cm²	kg/cm²	kg/cm²	Gradi °	cm/sec
8.220	17.748	1.154	0.857	2.677	2.400	8.860	19.235	1.431	0.612	2.982	2.420	11.500	17.677	0.987	0.806	3.644	2.250	13.140	25.161	1.632	1.571	3.857	1.750	14.780	23.123	1.291	1.929	3.973	1.680
8.240	17.856	1.194	0.837	2.677	2.320	9.880	19.249	1.418	0.592	3.006	2.320	11.520	18.220	1.027	0.796	3.644	2.230	13.160	24.604	1.631	1.571	3.857	1.820	14.800	22.826	1.193	1.888	3.976	1.640
8.260	17.422	1.248	0.837	2.677	2.350	9.900	19.249	1.424	0.612	2.991	2.280	11.540	18.329	1.063	0.806	3.644	2.250	13.180	24.779	1.564	1.571	3.852	1.820	14.820	22.883	1.158	1.837	3.991	1.700
8.280	17.394	1.311	0.837	2.692	2.360	9.920	19.343	1.436	0.592	3.007	2.290	11.560	18.763	1.075	0.816	3.653	2.170	13.200	23.939	1.474	1.551	3.830	1.860	14.840	21.741	1.159	1.827	3.998	1.690
8.300	17.286	1.364	0.837	2.692	2.380	9.940	19.018	1.424	0.592	3.007	2.380	11.580	18.437	1.081	0.816	3.676	2.230	13.220	23.708	1.438	1.551	3.830	1.730	14.860	21.849	1.148	1.837	3.998	1.660
8.320	17.177	1.376	0.847	2.692	2.350	9.960	18.801	1.422	0.592	2.991	2.390	11.600	18.329	1.065	0.806	3.679	2.220	13.240	23.600	1.373	1.541	3.832	1.810	14.880	20.981	1.134	1.806	4.009	1.610
8.340	17.069	1.398	0.847	2.716	2.350	9.980	18.367	1.419	0.582	2.983	2.360	11.620	18.315	1.053	0.796	3.679	2.280	13.260	23.165	1.368	1.520	3.832	1.800	14.900	19.368	1.133	1.796	3.994	1.560
8.360	17.597	1.413	0.857	2.715	2.350	10.000	18.367	1.406	0.582	3.007	2.460	11.640	17.772	1.072	0.786	3.679	2.270	13.280	22.500	1.384	1.490	3.835	1.800	14.920	19.368	1.106	1.796	3.998	1.640
8.380	17.706	1.443	0.878	2.715	2.430	10.020	18.258	1.387	0.571	3.009	2.480	11.660	18.097	1.091	0.796	3.712	2.220	13.300	22.392	1.405	1.490	3.827	1.780	14.940	21.212	1.072	1.837	4.005	1.660
8.400	18.343	1.454	0.898	2.699	2.380	10.040	18.027	1.384	0.582	3.017	2.430	11.680	17.880	1.113	0.806	3.712	2.330	13.320	21.741	1.459	1.490	3.820	1.760	14.960	22.392	1.052	1.908	4.009	1.680
8.420	19.102	1.450	0.878	2.706	2.400	10.060	17.593	1.372	0.571	3.009	2.460	11.700	17.097	1.129	0.837	3.723	2.490	13.340	21.604	1.498	1.480	3.833	1.800	14.980	22.948	1.017	1.929	4.002	1.640
8.440	19.645	1.460	0.878	2.714	2.460	10.080	17.268	1.371	0.561	3.018	2.350	11.720	17.639	1.190	0.847	3.755	2.070	13.360	22.364	1.499	1.490	3.833	1.800	15.000	22.934	0.937	1.888	3.994	1.730
8.460	19.305	1.467	0.867	2.691	2.390	10.100	17.485	1.354	0.561	3.026	2.380	11.740	17.436	1.213	0.837	3.756	2.160	13.380	22.784	1.494	1.500	3.836	1.840	15.020	23.057	0.917	1.888	3.991	1.730
8.480	18.437	1.473	0.847	2.697	2.330	10.120	17.565	1.356	0.571	3.034	2.450	11.760	17.979	1.204	0.847	3.749	2.190	13.400	23.001	1.454	1.520	3.828	1.770	15.040	22.392	0.923	1.878	3.991	1.700
8.500	18.546	1.468	0.837	2.689	2.400	10.140	17.999	1.350	0.582	3.059	2.450	11.780	17.999	1.168	0.816	3.788	2.170	13.420	23.326	1.425	1.541	3.836	1.850	15.060	22.425	0.917	1.878	4.006	1.680
8.520	18.206	1.506	0.837	2.689	2.380	10.160	18.433	1.330	0.612	3.059	2.430	11.800	19.064	1.135	0.857	3.789	2.190	13.440	23.109	1.374	1.531	3.838	1.830	15.080	23.057	0.879	1.878	3.984	1.660
8.540	17.555	1.538	0.816	2.688	2.380	10.180	18.759	1.318	0.612	3.066	2.510	11.820	18.630	1.128	0.847	3.813	2.240	13.460	23.095	1.324	1.520	3.838	1.800	15.100	23.057	0.883	1.878	3.981	1.680
8.560	16.984	1.555	0.796	2.673	2.430	10.200	19.193	1.313	0.612	3.066	2.510	11.840	19.064	1.115	0.857	3.844	2.240	13.480	23.638	1.281	1.531	3.834	1.780	15.120	23.165	0.877	1.878	3.988	1.700
8.580	16.535	1.575	0.765	2.650	2.430	10.220	19.613	1.317	0.641	3.075	2.420	11.860	19.041	1.097	0.867	3.844	2.220	13.500	24.845	1.268	1.541	3.834	1.800	15.140	23.925	0.867	1.878	3.974	1.680
8.600	16.442	1.529	0.796	2.665	2.390	10.240	19.504	1.319	0.592	3.075	2.400	11.880	20.258	1.099	0.857	3.846	2.110	13.520	25.482	1.298	1.541	3.821	1.780	15.160	24.142	0.964	1.867	3.970	1.680
8.620	16.862	1.499	0.806	2.656	2.480	10.260	19.938	1.312	0.612	3.075	2.480	11.900	20.583	1.143	0.867	3.861	2.080	13.540	26.025	1.317	1.571	3.821	1.810	15.180	24.251	1.022	1.857	3.981	1.680
8.640	17.296	1.468	0.816	2.664	2.420	10.280	20.481	1.305	0.622	3.076	2.390	11.920	20.583	1.190	0.847	3.865	2.120	13.560	26.459	1.330	1.571	3.821	1.760	15.200	24.902	1.053	1.857	3.981	1.680
8.660	17.499	1.491	0.806	2.664	2.400	10.300	20.801	1.310	0.612	3.123	2.510	11.940	20.583	1.215	0.857	3.896	2.220	13.580	27.653	1.342	1.602	3.819	1.760	15.220	25.241	1.027	1.867	3.961	1.610
8.680	17.282	1.379	0.816	2.663	2.430	10.320	20.141	1.336	0.612	3.068	2.430	11.960	20.800	1.229	0.857	3.889	2.150	13.600	29.063	1.356	1.615	3.819	1.840	15.240	26.326	1.192	1.858	3.968	1.660
8.700	17.282	1.325	0.806	2.663	2.450	10.340	20.033	1.368	0.612	3.070	2.480	11.980	21.234	1.262	0.857	3.883	2.160	13.620	30.799	1.274	1.663	3.815	1.860	15.260	27.411	1.219	1.918	3.961	1.650
8.720	17.748	1.169	0.816	2.720	1.560	10.360	20.019	1.368	0.592	3.070	2.500	12.000	21.437	1.294	0.867	3.883	2.290	13.640	31.234	1.249	1.653	3.822	1.810	15.280	27.411	1.255	1.918	3.965	1.630
8.740	17.748	1.181	0.786	2.728	1.880	10.380	19.524	1.397	0.592	3.070	2.480	12.020	21.763	1.331	0.867	3.883	2.270	13.660	30.148	1.297	1.633	3.807	1.780	15.300	26.760	1.237	1.888	3.965	1.610
8.760	17.748	1.234	0.765	2.728	1.950	10.400	19.368	1.437	0.612	3.086	2.450	12.040	19.368	1.362	0.816	3.883	2.220	13.680	28.955	1.341	1.602	3.807	1.840	15.320	26.326	1.227	1.867	3.968	1.590
8.780	17.870	1.280	0.786	2.704	1.970	10.420	19.476	1.443	0.592	3.087	2.480	12.060	21.518	1.382	0.878	3.853	2.170	13.700	27.699	1.354	1.602	3.898	1.630	15.340	25.350	1.279	1.857	3.990	1.650
8.800	17.762	1.357	0.745	2.736	1.940	10.440	19.368	1.441	0.612	3.079	2.540	12.080	21.409	1.425	0.878	3.861	2.150	13.720	27.156	1.601	1.571	3.890	2.030	15.360	24.916	1.217	1.878	3.958	1.650
8.820	17.653	1.410	0.755	2.744	1.990	10.460	19.151	1.430	0.612	3.087	2.460	12.100	21.503	1.419	0.867	3.863	2.220	13.740	25.854	1.737	1.520	3.896	2.060	15.380	24.916	1.141	1.878	3.937	1.650
8.840	17.652	1.401	0.786	2.780	2.020	10.480	18.368	1.398	0.592	3.112	2.500	12.120	21.503	1.592	0.867	3.855	2.220	13.760	24.226	1.914	1.469	3.896	2.060	15.400	25.350	1.077	1.918	3.962	1.650
8.860	18.290	1.364	0.755	2.814	1.990	10.500	17.400	1.361	0.561	3.120	2.530	12.140	21.503	1.475	0.867	3.841	2.170	13.780	23.141	1.948	1.459	3.914	2.040	15.420	25.458	1.029	1.918	3.955	1.690
8.880	18.182	1.294	0.735	2.816	1.910	10.520	16.424	1.350	0.541	3.120	2.540	12.160	21.923	1.515	0.867	3.849	2.250	13.800	21.962	1.931	1.429	3.907	2.020	15.440	25.892	0.987	1.918	3.949	1.700
8.900	18.290	1.236	0.724	2.816	1.860	10.540	15.664	1.331	0.561	3.120	2.540	12.180	21.381	1.544	0.878	3.861	2.280	13.820	21.202	1.849	1.429	3.937	2.070	15.460	25.892	0.919	1.918	3.942	1.630
8.920	18.290	1.229	0.704	2.816	1.860	10.560	14.985	1.312	0.541	3.121	2.450	12.200	21.381	1.529	0.878	3.861	2.220	13.840	20.537	1.701	1.429	3.932	2.070	15.480	25.892	0.919	1.918	3.942	1.630
8.940	17.965	1.229	0.694																										

 INDAGINI GEOLOGICHE						Committente: Dott. Geol. Plazzi Cantiere: Cento, via Ferrarese (FE) Data: 17/12/2014						ID Prova: CPTU 3 Profondità falda: a mt 1.90 da p.c. Preforo:-						Profondità massima raggiunta: 24.06 mt Punta sismica: Tecnopenta G1-CPL2IN - SISMI RIF. 156-14GF						Prova eseguita da: GEO.FE. S.n.c. via dell'Artigianato ,2 44030 - Ro Ferrarese (FE) tel 3383646278 - info@geofe.it - www.geofe.it Responsabile dati: Dott. Geol. Zanella Fabio Responsabile cantiere: Sig. Mangherini Alberto					
Prof.	RP	RL	PN	Incl.	Vavanz	Prof.	RP	RL	PN	Incl.	Vavanz	Prof.	RP	RL	PN	Incl.	Vavanz	Prof.	RP	RL	PN	Incl.	Vavanz	Prof.	RP	RL	PN	Incl.	Vavanz
metri	kg/cm²	kg/cm²	kg/cm²	Gradi *	cm/sec	metri	kg/cm²	kg/cm²	kg/cm²	Gradi *	cm/sec	metri	kg/cm²	kg/cm²	kg/cm²	Gradi *	cm/sec	metri	kg/cm²	kg/cm²	kg/cm²	Gradi *	cm/sec	metri	kg/cm²	kg/cm²	kg/cm²	Gradi *	cm/sec
16.420	25.721	1.240	2.357	4.129	1.530	18.060	16.743	0.395	4.235	4.499	1.920	19.700	101.428	0.242	2.102	5.133	2.560	21.340	24.335	0.969	1.306	6.229	2.220	22.980	24.550	1.174	1.235	7.193	1.920
16.440	25.938	1.209	2.337	4.127	1.480	18.080	17.394	0.413	4.245	4.510	1.940	19.720	90.143	0.166	1.929	5.138	2.560	21.360	24.009	0.965	1.306	6.229	2.240	23.000	24.659	1.181	1.265	7.203	1.980
16.460	25.490	1.217	2.327	4.133	1.480	18.100	17.748	0.451	4.255	4.510	1.990	19.740	79.834	0.187	1.888	5.146	2.480	21.380	24.009	0.958	1.296	6.239	2.220	23.020	25.093	1.202	1.265	7.203	2.020
16.480	24.948	1.261	2.327	4.125	1.500	18.120	17.394	0.455	4.867	4.513	1.960	19.760	72.781	0.229	1.898	5.141	2.500	21.400	24.104	0.961	1.286	6.252	2.150	23.040	25.093	1.240	1.265	7.212	1.970
16.500	25.948	1.260	2.327	4.145	1.460	18.140	18.290	0.470	4.306	4.523	1.940	19.780	70.597	0.268	1.929	5.147	2.640	21.420	24.429	0.965	1.265	6.268	2.220	23.060	25.202	1.265	1.286	7.234	1.970
16.520	25.273	1.223	2.367	4.149	1.510	18.160	19.498	0.502	3.878	4.538	1.870	19.800	71.761	0.229	1.949	5.142	2.080	21.440	24.401	0.989	1.265	6.252	2.250	23.080	25.093	1.290	1.286	7.230	2.050
16.540	25.368	1.155	2.378	4.143	1.460	18.180	26.334	0.503	3.847	4.538	1.900	19.820	79.976	0.273	2.592	5.141	2.160	21.460	24.835	1.022	1.265	6.268	2.230	23.100	24.768	1.321	1.296	7.238	2.040
16.560	25.382	1.105	2.367	4.158	1.470	18.200	48.492	0.513	3.061	4.554	1.930	19.840	77.792	0.262	2.582	5.141	2.220	21.480	25.255	1.035	1.296	6.272	2.240	23.120	24.428	1.352	1.306	7.250	1.990
16.580	25.042	1.080	2.357	4.172	1.520	18.220	66.375	0.554	2.857	4.554	1.930	19.860	78.321	0.253	2.612	5.152	2.170	21.500	25.581	1.023	1.316	6.289	2.250	23.140	23.560	1.388	1.306	7.258	1.960
16.600	24.717	1.011	2.357	4.176	1.510	18.240	88.123	0.553	2.051	4.559	1.910	19.880	81.670	0.247	2.663	5.137	2.180	21.520	26.326	1.014	1.316	6.295	2.270	23.160	23.234	1.417	1.306	7.260	1.950
16.620	24.689	0.974	2.357	4.163	1.500	18.260	83.404	0.569	2.255	4.562	1.980	19.900	86.417	0.251	2.714	5.340	2.230	21.540	27.194	0.985	1.327	6.316	2.200	23.180	22.643	1.358	1.296	7.278	1.970
16.640	19.064	0.721	2.673	4.236	2.000	18.280	81.772	0.559	2.357	4.570	1.970	19.920	91.517	0.263	2.776	5.340	2.230	21.560	27.737	0.954	1.316	6.313	2.220	23.200	22.318	1.380	1.286	7.284	1.970
16.660	24.381	0.942	2.908	4.243	1.270	18.300	82.384	0.508	2.490	4.570	1.950	19.940	93.239	0.283	2.755	5.340	2.170	21.580	28.171	0.917	1.316	6.326	2.220	23.220	22.563	1.406	1.265	7.282	1.930
16.680	24.815	0.944	3.102	4.254	1.380	18.320	82.645	0.348	2.490	4.591	1.980	19.960	92.357	0.289	2.704	5.356	2.090	21.600	27.940	0.912	1.286	6.329	2.190	23.240	23.240	1.386	1.265	7.292	1.980
16.700	25.372	0.929	3.224	4.267	1.340	18.340	80.583	0.286	2.378	4.588	1.910	19.980	90.621	0.295	2.663	5.360	2.050	21.620	26.732	0.952	1.255	6.335	2.220	23.260	21.383	1.350	1.265	7.290	1.980
16.720	25.480	0.905	3.357	4.270	1.340	18.360	78.304	0.223	2.224	4.596	1.910	20.000	88.762	0.293	2.653	5.372	2.150	21.640	26.081	1.008	1.245	6.343	2.120	23.280	20.718	1.318	1.296	7.300	1.950
16.740	25.806	0.877	3.398	4.270	1.370	18.380	76.134	0.244	2.245	4.601	2.000	20.020	86.035	0.291	2.612	5.373	2.180	21.660	25.973	1.050	1.235	6.356	2.150	23.300	20.610	1.279	1.316	7.311	1.880
16.760	26.131	0.850	3.490	4.275	1.360	18.400	74.723	0.284	2.255	4.609	2.190	20.040	82.535	0.280	2.592	5.381	2.130	21.680	25.322	1.102	1.214	6.353	2.250	23.320	19.959	1.237	1.316	7.331	1.950
16.780	26.240	0.828	3.490	4.286	1.350	18.420	73.204	0.328	2.357	4.614	2.200	20.060	79.713	0.274	2.551	5.375	2.150	21.700	25.294	1.171	1.214	6.361	2.230	23.340	19.199	1.202	1.327	7.327	1.970
16.800	26.023	0.825	3.571	4.286	1.380	18.440	71.237	0.348	2.490	4.614	2.250	20.080	78.723	0.279	2.561	5.385	2.280	21.720	25.185	1.212	1.214	6.384	2.190	23.360	18.954	1.141	1.316	7.339	1.930
16.820	26.348	0.827	3.633	4.291	1.380	18.460	70.694	0.358	2.490	4.616	2.280	20.100	79.468	0.275	2.582	5.393	2.220	21.740	25.076	1.212	1.194	6.385	2.180	23.380	18.954	1.067	1.316	7.343	1.860
16.840	26.348	0.842	3.694	4.304	1.370	18.480	70.883	0.340	2.378	4.621	2.250	20.120	82.506	0.275	2.612	5.389	2.220	21.760	24.520	1.198	1.204	6.397	2.230	23.400	18.954	1.001	1.286	7.349	1.850
16.860	26.891	0.849	3.724	4.313	1.320	18.500	72.945	0.246	2.224	4.621	2.250	20.140	86.290	0.261	2.602	5.400	2.130	21.780	24.845	1.149	1.204	6.413	2.250	23.420	19.388	0.953	1.255	7.355	1.880
16.880	26.796	0.850	3.684	4.318	1.300	18.520	72.645	0.244	2.245	4.634	2.310	20.160	85.127	0.294	2.561	5.410	2.160	21.800	24.845	1.097	1.204	6.421	2.230	23.440	20.690	0.937	1.245	7.371	1.870
16.900	25.820	0.878	3.622	4.318	1.340	18.540	80.947	0.189	2.490	4.637	2.270	20.180	85.069	0.279	2.541	5.402	2.190	21.820	25.388	1.036	1.214	6.422	1.730	23.460	22.412	0.902	1.235	7.381	1.860
16.920	24.301	0.893	3.561	4.336	1.370	18.560	83.768	0.218	2.378	4.637	2.240	20.200	91.073	0.347	2.041	5.408	2.240	21.840	25.931	1.018	1.214	6.610	1.790	23.480	21.688	0.835	1.214	7.383	1.850
16.940	23.107	0.872	3.490	4.336	1.380	18.580	85.056	0.252	2.224	4.645	2.280	20.220	100.947	0.362	2.092	5.406	2.160	21.860	26.025	1.035	1.214	6.612	1.760	23.500	21.371	0.862	1.214	7.391	1.900
16.960	22.022	0.878	3.439	4.341	1.350	18.600	83.740	0.254	2.245	4.655	2.270	20.240	82.535	0.280	2.592	5.414	2.270	21.880	26.568	1.045	1.235	6.620	1.760	23.520	23.432	0.865	1.214	7.400	1.860
16.980	22.617	0.866	3.337	4.345	1.400	18.620	82.763	0.216	2.316	4.660	2.270	20.260	79.713	0.279	2.551	5.414	2.270	21.900	26.568	1.055	1.235	6.625	1.820	23.540	24.640	0.853	1.194	7.408	1.790
17.000	22.526	0.884	3.296	4.339	1.390	18.640	83.169	0.181	2.429	4.663	2.290	20.280	78.723	0.279	2.561	5.420	2.280	21.920	27.530	1.074	1.235	6.631	1.820	23.560	24.838	0.808	1.204	7.410	1.800
17.020	19.092	0.859	3.276	4.339	1.390	18.660	84.240	0.183	2.500	4.667	2.190	20.300	79.468	0.275	2.582	5.432	2.1												

GRAFICI PROVA CPTU 3



ALLEGATO B: REPORT VERIFICA LIQUEFAZIONE

- **Report CPT**
- **Report CPTU1**
- **Report CPTU2**

LIQUEFACTION ANALYSIS REPORT

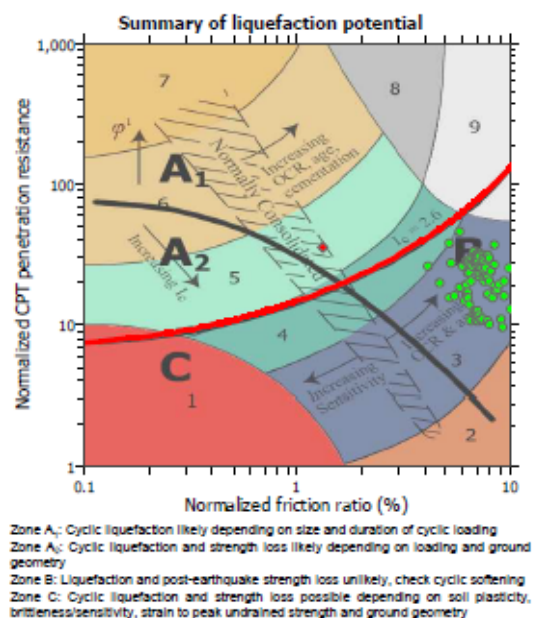
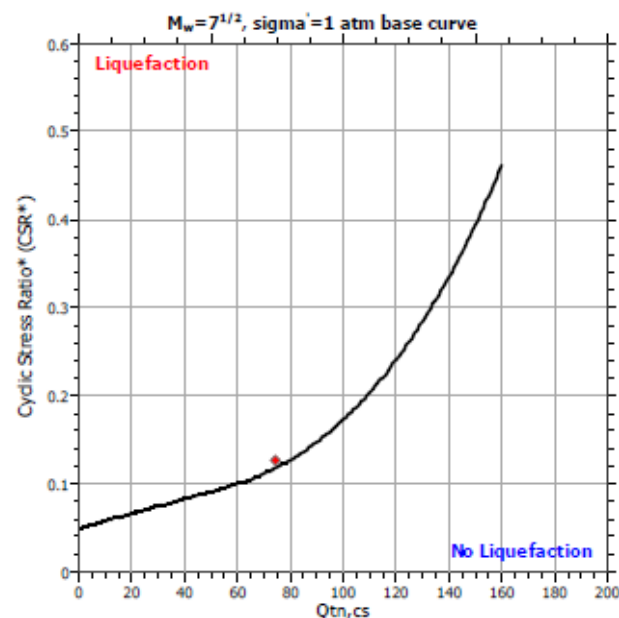
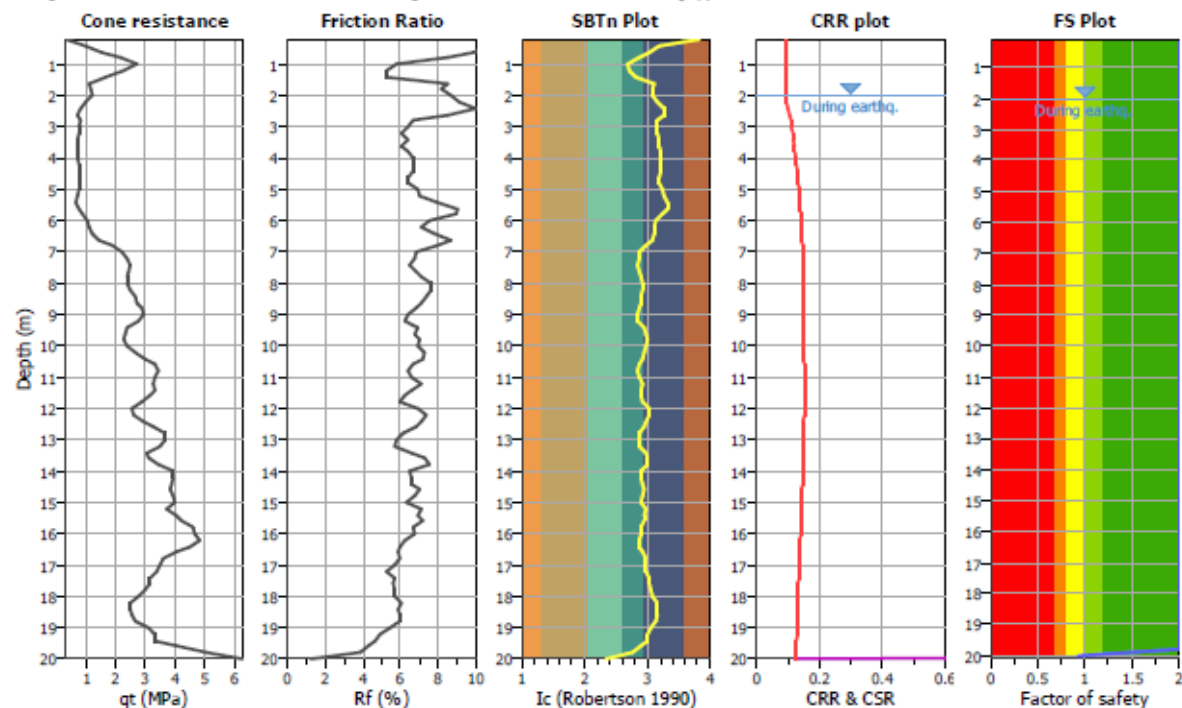
Project title :

Location :

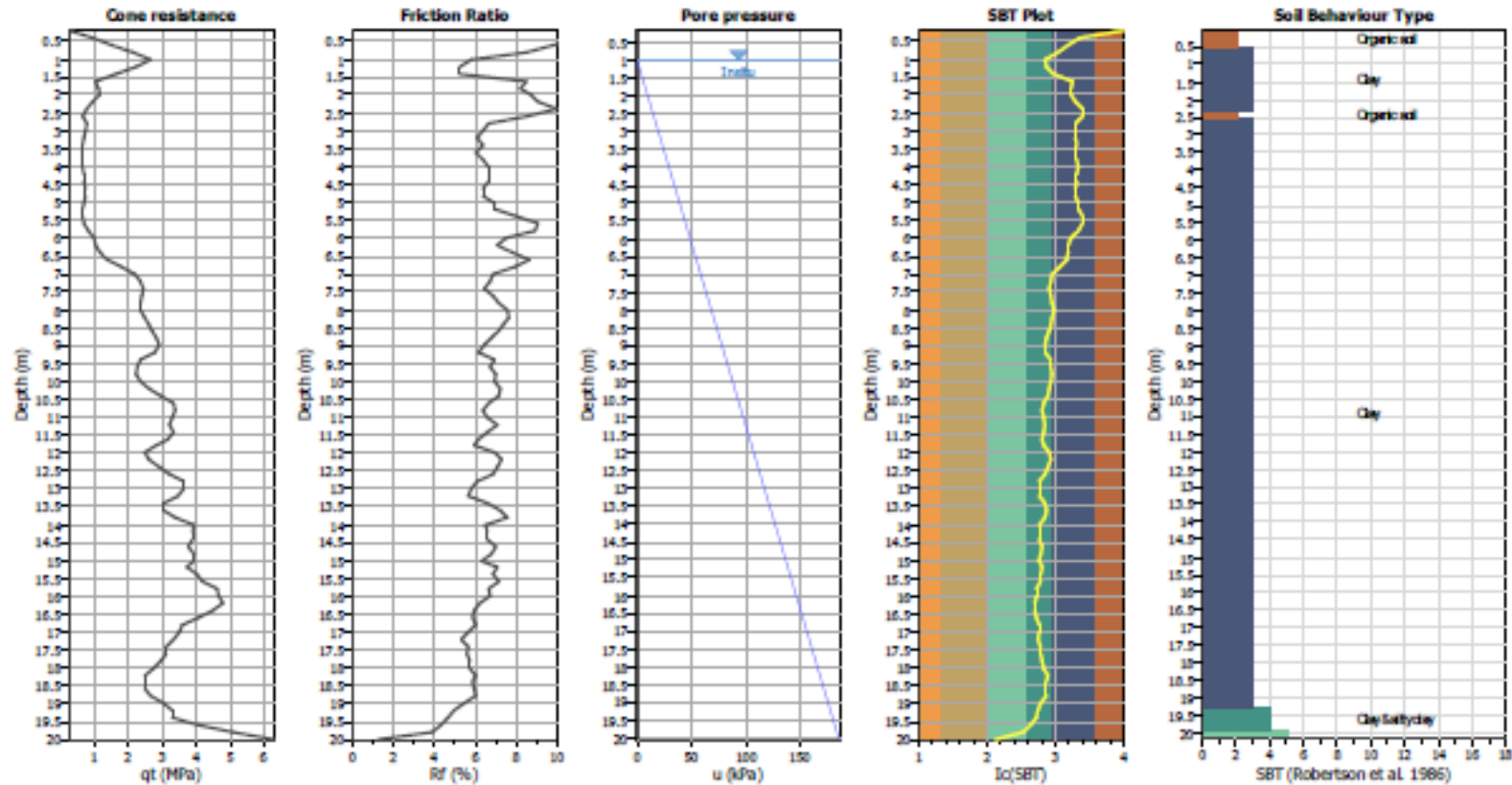
CPT file : cento baltur cpt

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	1.00 m	Use fill:	No	Clay like behavior	
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	2.00 m	Fill height:	N/A	applied:	Sands only
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth applied:	No
Earthquake magnitude M_w :	6.14	Ic cut-off value:	2.60	Trans. detect. applied:	No	Limit depth:	N/A
Peak ground acceleration:	0.24	Unit weight calculation:	Based on SBT	K_0 applied:	Yes	MSF method:	Method based



CPT basic interpretation plots



Input parameters and analysis data

Analysis method: NCESR (1990)
 Pore correction method: NCESR (1990)
 Points to bed: Based on I_c value
 Earthquake magnitude M_w : 6.14
 Peak ground acceleration: 0.24
 Depth to water table (mets): 1.00 m

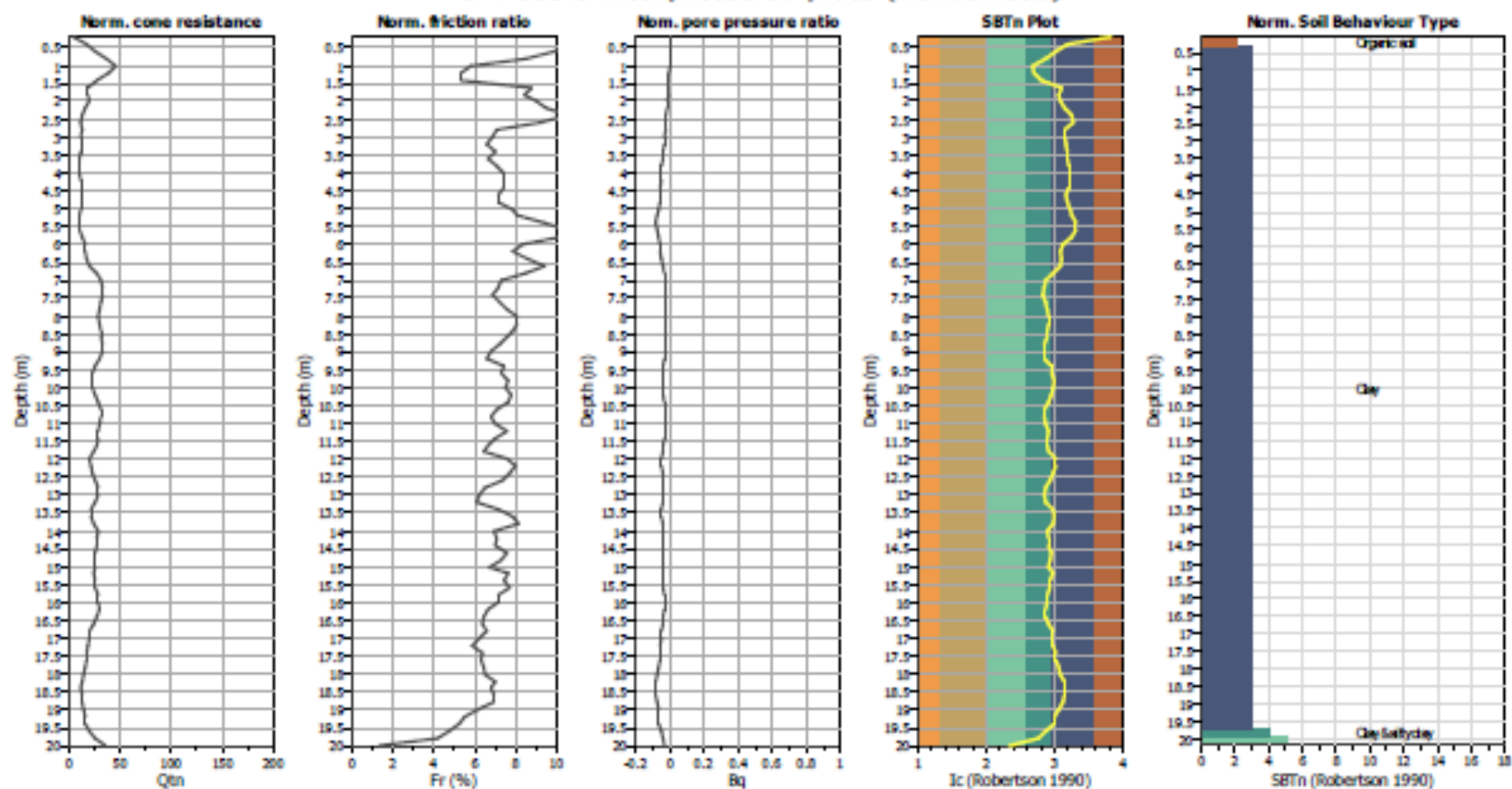
Depth to water table (mets): 2.00 m
 Average results interval: 3
 I_c cut-off value: 2.00
 Unit weight calculation: Based on SBT
 Use fill: No
 Fill height: N/A

Fill weight: N/A
 Transition detect. applied: No
 K_p applied: Yes
 Clay like behavior applied: Sands only
 Limit depth applied: No
 Limit depth: N/A

SBT legend

- | | | |
|---------------------------|-----------------------------|----------------------------|
| 1. Sensitive fine grained | 4. Clayey silt to silt | 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: NCEER (1998)
 Pore correction method: NCEER (1998)
 Points to bed: Based on I_c value
 Earthquake magnitude M_w : 6.14
 Peak ground acceleration: 0.24
 Depth to water table (netu): 1.00 m

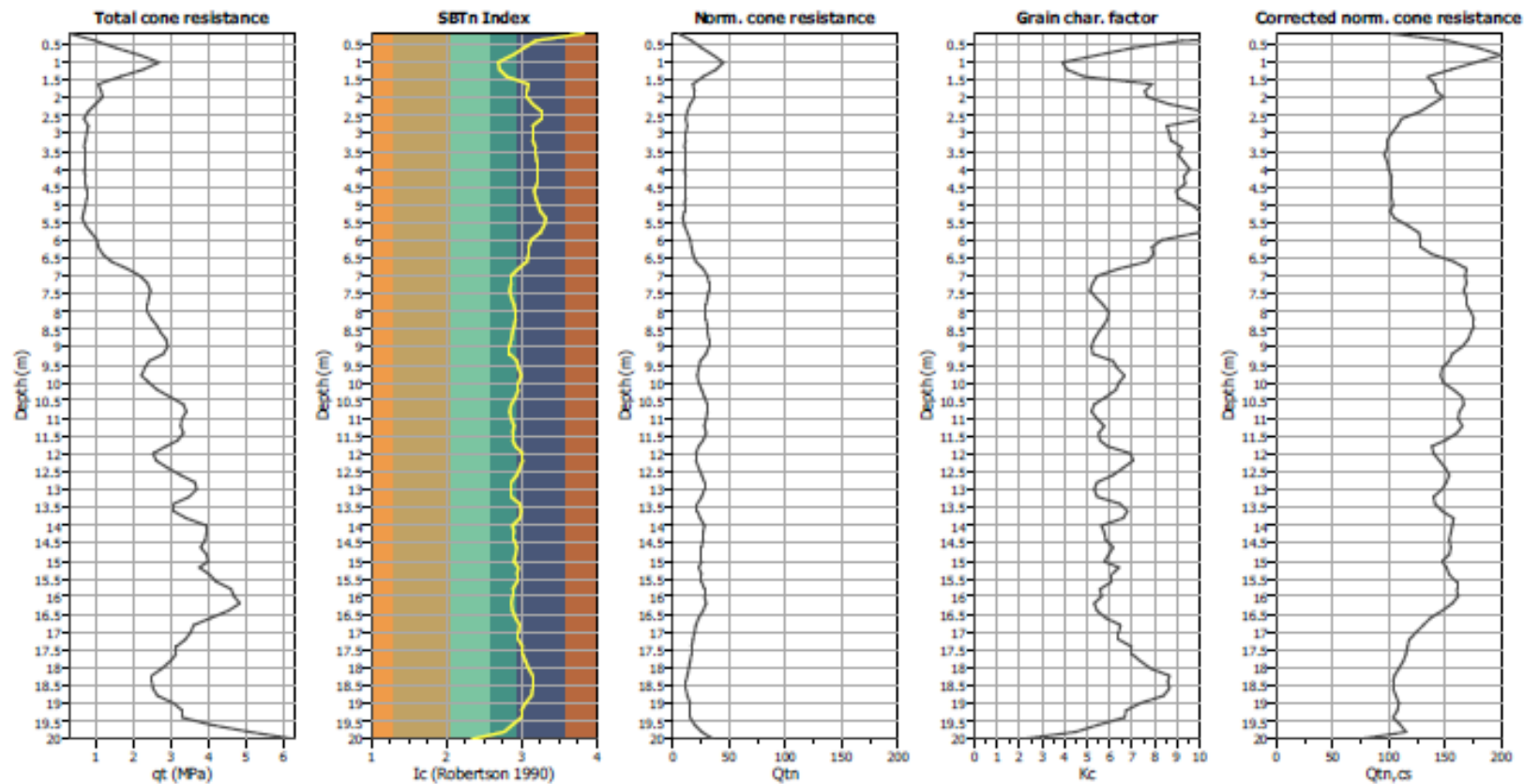
Depth to water table (netu): 2.00 m
 Average results interval: 3
 I_c cut-off value: 2.60
 Unit weight calculation: Based on SBT
 Use fill: No
 Fill height: N/A

Fill weight: N/A
 Transition detect. applied: No
 K_a applied: Yes
 Clay like behavior applied: Sands only
 Limit depth applied: No
 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)



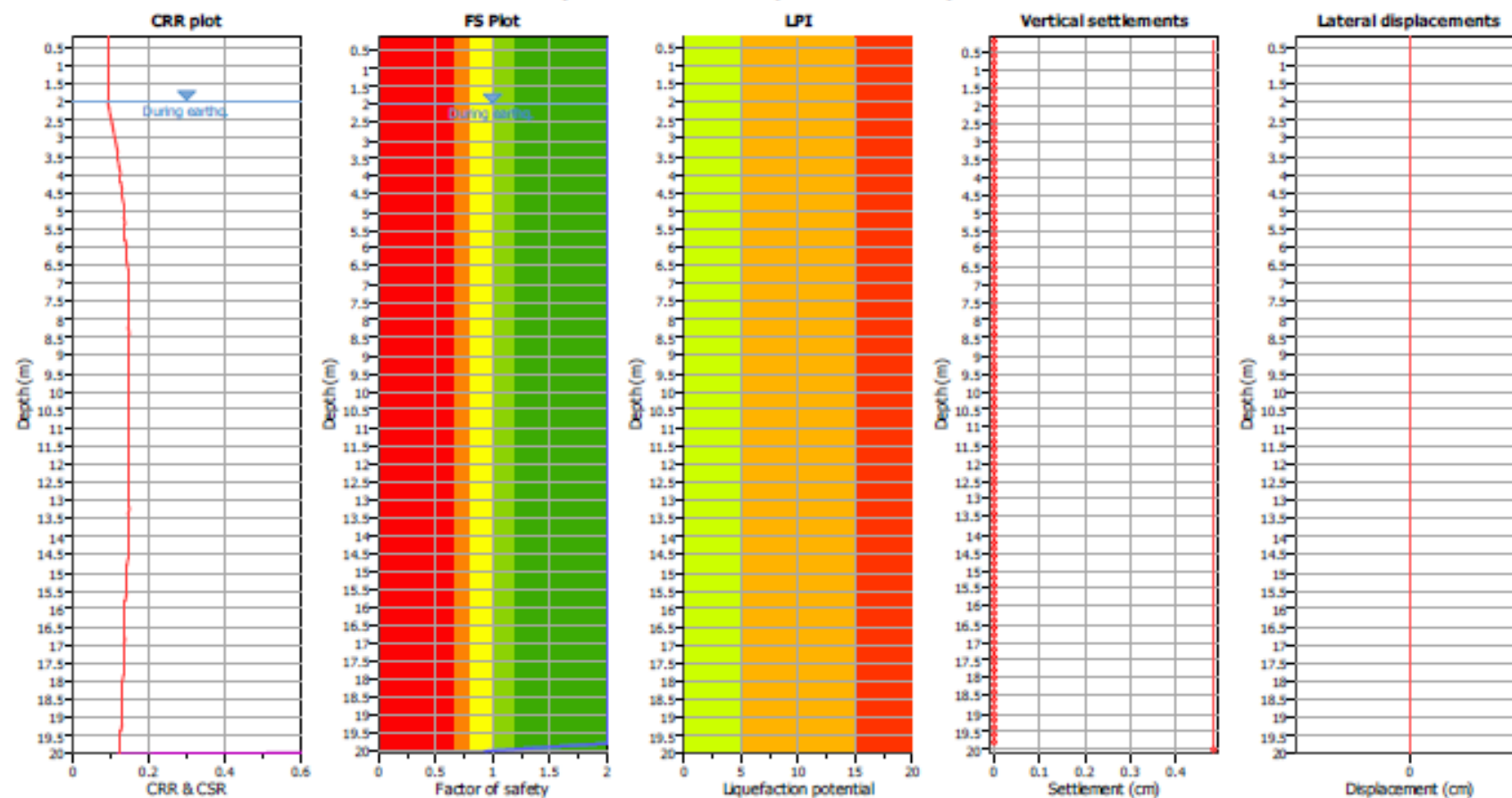
Input parameters and analysis data

Analysis method: NCEER (1998)
 Pines correction method: NCEER (1998)
 Points to test: Based on I_c value
 Earthquake magnitude M_w : 6.14
 Peak ground acceleration: 0.24
 Depth to water table (insitu): 1.00 m

Depth to water table (earthq.): 2.00 m
 Average results interval: 3
 I_c cut-off value: 2.60
 Unit weight calculation: Based on SBT
 Use fill: No
 Fill height: N/A

Fill weight: N/A
 Transition detect. applied: No
 K_p applied: Yes
 Clay like behavior applied: Sands only
 Limit depth applied: No
 Limit depth: N/A

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method: NCEER (1998)
 Pines correction method: NCEER (1998)
 Points to test: Based on I_c value
 Earthquake magnitude M_w : 6.14
 Peak ground acceleration: 0.24
 Depth to water table (insitu): 1.00 m

Depth to water table (earthq.): 2.00 m
 Average results interval: 3
 I_c cut-off value: 2.60
 Unit weight calculation: Based on SBT
 Use fill: No
 Fill height: N/A

Fill weight: N/A
 Transition detect. applied: No
 K_{α} applied: Yes
 Clay like behavior applied: Sands only
 Limit depth applied: No
 Limit depth: N/A

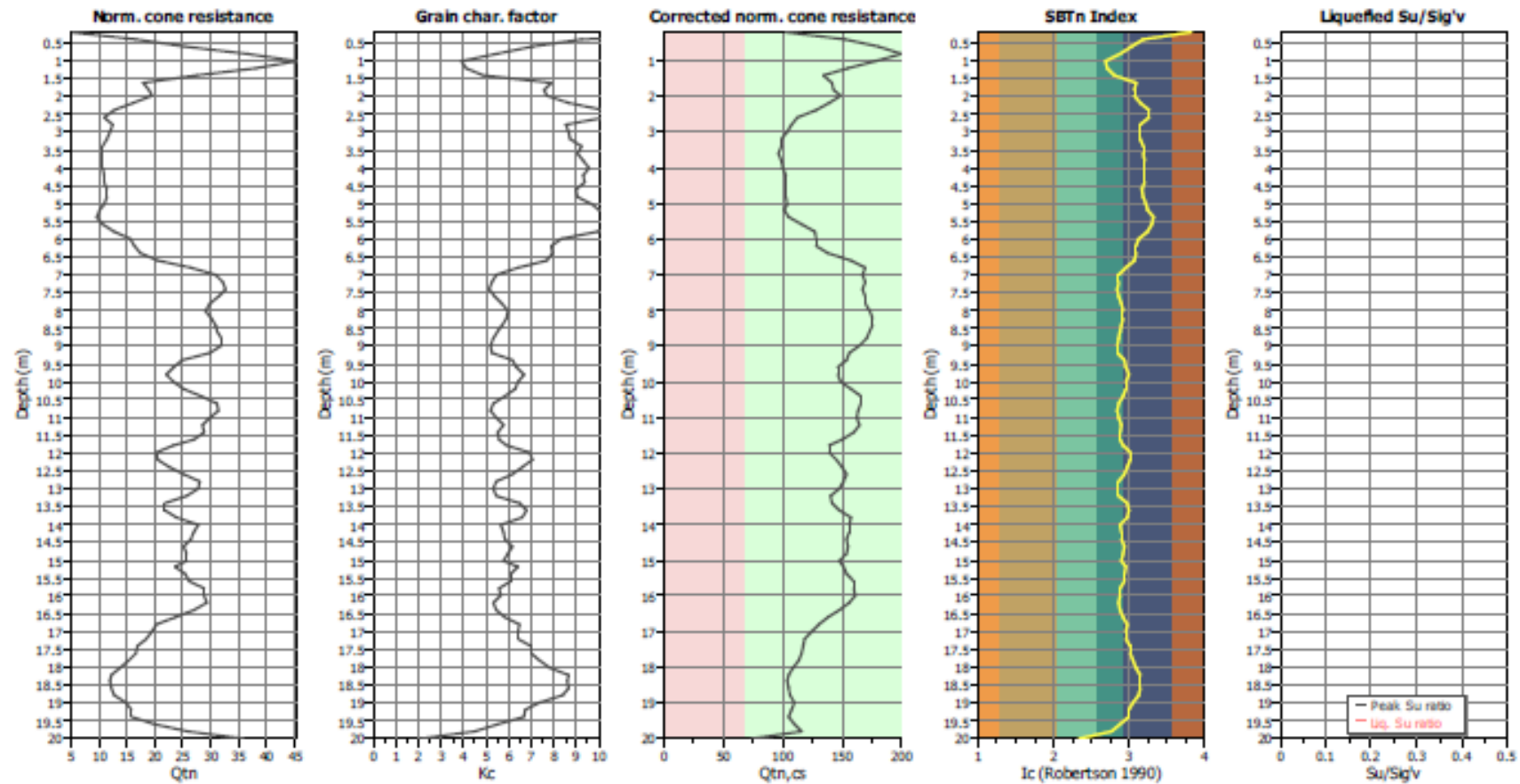
F.S. color scheme

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

Check for strength loss plots (Robertson (2010))



Input parameters and analysis data

Analysis method: NCEER (1998)
 Pines correction method: NCEER (1998)
 Points to test: Based on I_c value
 Earthquake magnitude M_w : 6.14
 Peak ground acceleration: 0.24
 Depth to water table (insitu): 1.00 m

Depth to water table (earthq.): 2.00 m
 Average results interval: 3
 I_c cut-off value: 2.60
 Unit weight calculation: Based on SBT
 Use fill: No
 Fill height: N/A

Fill weight: N/A
 Transition detect. applied: No
 K_u applied: Yes
 Clay like behavior applied: Sands only
 Limit depth applied: No
 Limit depth: N/A

:: Liquefaction Potential Index calculation data ::											
Depth (m)	FS	F _L	w _s	d _s	LP1	Depth (m)	FS	F _L	w _s	d _s	LP1
0.20	2.00	0.00	9.90	0.20	0.00	0.40	2.00	0.00	9.80	0.20	0.00
0.60	2.00	0.00	9.70	0.20	0.00	0.80	2.00	0.00	9.60	0.20	0.00
1.00	2.00	0.00	9.50	0.20	0.00	1.20	2.00	0.00	9.40	0.20	0.00
1.40	2.00	0.00	9.30	0.20	0.00	1.60	2.00	0.00	9.20	0.20	0.00
1.80	2.00	0.00	9.10	0.20	0.00	2.00	2.00	0.00	9.00	0.20	0.00
2.20	2.00	0.00	8.90	0.20	0.00	2.40	2.00	0.00	8.80	0.20	0.00
2.60	2.00	0.00	8.70	0.20	0.00	2.80	2.00	0.00	8.60	0.20	0.00
3.00	2.00	0.00	8.50	0.20	0.00	3.20	2.00	0.00	8.40	0.20	0.00
3.40	2.00	0.00	8.30	0.20	0.00	3.60	2.00	0.00	8.20	0.20	0.00
3.80	2.00	0.00	8.10	0.20	0.00	4.00	2.00	0.00	8.00	0.20	0.00
4.20	2.00	0.00	7.90	0.20	0.00	4.40	2.00	0.00	7.80	0.20	0.00
4.60	2.00	0.00	7.70	0.20	0.00	4.80	2.00	0.00	7.60	0.20	0.00
5.00	2.00	0.00	7.50	0.20	0.00	5.20	2.00	0.00	7.40	0.20	0.00
5.40	2.00	0.00	7.30	0.20	0.00	5.60	2.00	0.00	7.20	0.20	0.00
5.80	2.00	0.00	7.10	0.20	0.00	6.00	2.00	0.00	7.00	0.20	0.00
6.20	2.00	0.00	6.90	0.20	0.00	6.40	2.00	0.00	6.80	0.20	0.00
6.60	2.00	0.00	6.70	0.20	0.00	6.80	2.00	0.00	6.60	0.20	0.00
7.00	2.00	0.00	6.50	0.20	0.00	7.20	2.00	0.00	6.40	0.20	0.00
7.40	2.00	0.00	6.30	0.20	0.00	7.60	2.00	0.00	6.20	0.20	0.00
7.80	2.00	0.00	6.10	0.20	0.00	8.00	2.00	0.00	6.00	0.20	0.00
8.20	2.00	0.00	5.90	0.20	0.00	8.40	2.00	0.00	5.80	0.20	0.00
8.60	2.00	0.00	5.70	0.20	0.00	8.80	2.00	0.00	5.60	0.20	0.00
9.00	2.00	0.00	5.50	0.20	0.00	9.20	2.00	0.00	5.40	0.20	0.00
9.40	2.00	0.00	5.30	0.20	0.00	9.60	2.00	0.00	5.20	0.20	0.00
9.80	2.00	0.00	5.10	0.20	0.00	10.00	2.00	0.00	5.00	0.20	0.00
10.20	2.00	0.00	4.90	0.20	0.00	10.40	2.00	0.00	4.80	0.20	0.00
10.60	2.00	0.00	4.70	0.20	0.00	10.80	2.00	0.00	4.60	0.20	0.00
11.00	2.00	0.00	4.50	0.20	0.00	11.20	2.00	0.00	4.40	0.20	0.00
11.40	2.00	0.00	4.30	0.20	0.00	11.60	2.00	0.00	4.20	0.20	0.00
11.80	2.00	0.00	4.10	0.20	0.00	12.00	2.00	0.00	4.00	0.20	0.00
12.20	2.00	0.00	3.90	0.20	0.00	12.40	2.00	0.00	3.80	0.20	0.00
12.60	2.00	0.00	3.70	0.20	0.00	12.80	2.00	0.00	3.60	0.20	0.00
13.00	2.00	0.00	3.50	0.20	0.00	13.20	2.00	0.00	3.40	0.20	0.00
13.40	2.00	0.00	3.30	0.20	0.00	13.60	2.00	0.00	3.20	0.20	0.00
13.80	2.00	0.00	3.10	0.20	0.00	14.00	2.00	0.00	3.00	0.20	0.00
14.20	2.00	0.00	2.90	0.20	0.00	14.40	2.00	0.00	2.80	0.20	0.00
14.60	2.00	0.00	2.70	0.20	0.00	14.80	2.00	0.00	2.60	0.20	0.00
15.00	2.00	0.00	2.50	0.20	0.00	15.20	2.00	0.00	2.40	0.20	0.00
15.40	2.00	0.00	2.30	0.20	0.00	15.60	2.00	0.00	2.20	0.20	0.00
15.80	2.00	0.00	2.10	0.20	0.00	16.00	2.00	0.00	2.00	0.20	0.00
16.20	2.00	0.00	1.90	0.20	0.00	16.40	2.00	0.00	1.80	0.20	0.00
16.60	2.00	0.00	1.70	0.20	0.00	16.80	2.00	0.00	1.60	0.20	0.00
17.00	2.00	0.00	1.50	0.20	0.00	17.20	2.00	0.00	1.40	0.20	0.00
17.40	2.00	0.00	1.30	0.20	0.00	17.60	2.00	0.00	1.20	0.20	0.00
17.80	2.00	0.00	1.10	0.20	0.00	18.00	2.00	0.00	1.00	0.20	0.00
18.20	2.00	0.00	0.90	0.20	0.00	18.40	2.00	0.00	0.80	0.20	0.00
18.60	2.00	0.00	0.70	0.20	0.00	18.80	2.00	0.00	0.60	0.20	0.00
19.00	2.00	0.00	0.50	0.20	0.00	19.20	2.00	0.00	0.40	0.20	0.00

:: Liquefaction Potential Index calculation data :: (continued)											
Depth (m)	FS	F _L	w _L	d _L	LPI	Depth (m)	FS	F _L	w _L	d _L	LPI
19.40	2.00	0.00	0.30	0.20	0.00	19.60	2.00	0.00	0.20	0.20	0.00
19.80	2.00	0.00	0.10	0.20	0.00	20.00	0.94	0.06	0.00	0.20	0.00
Overall liquefaction potential: 0.00											

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 - FS
 w_L: Function value of the extend of soil liquefaction according to depth
 d_L: Layer thickness (m)
 LPI: Liquefaction potential index value for test point

LIQUEFACTION ANALYSIS REPORT

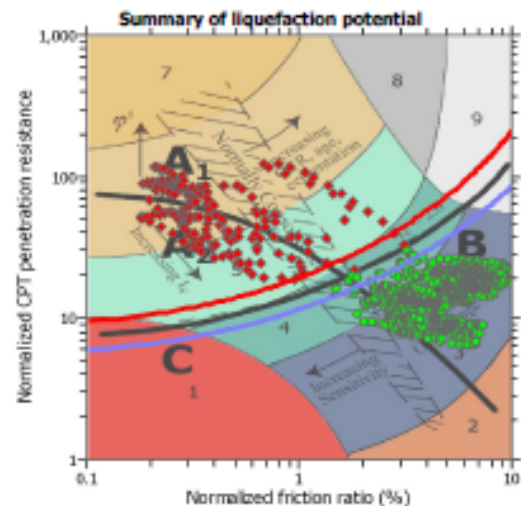
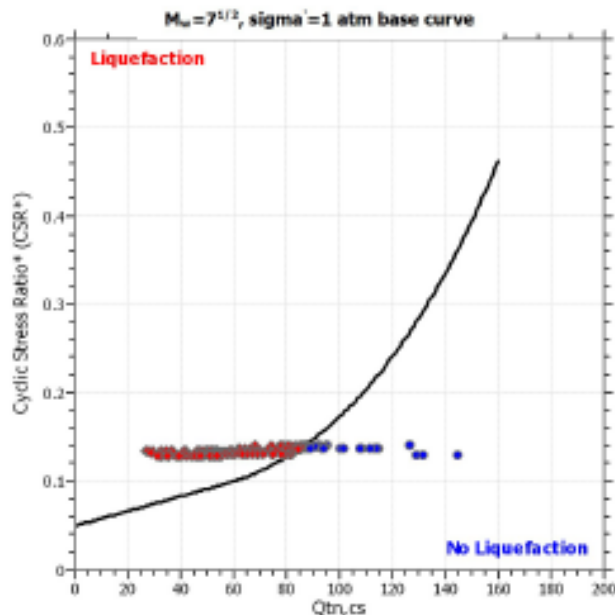
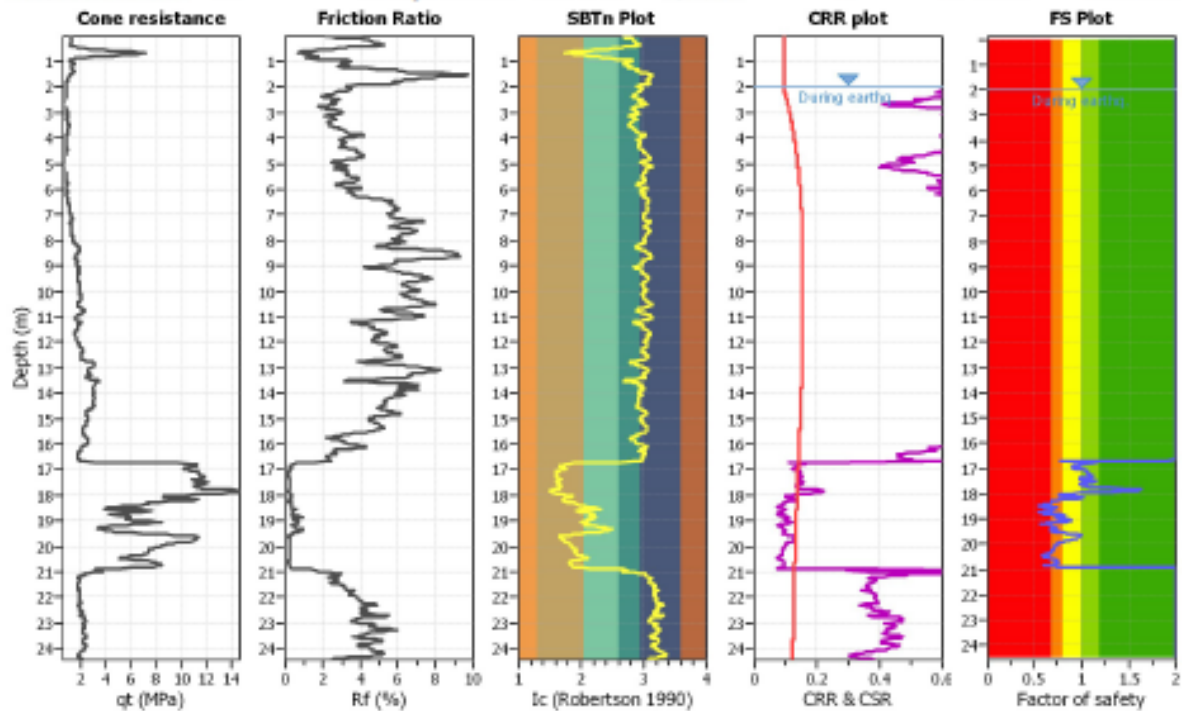
Project title :

Location :

CPT file : CPTU 1

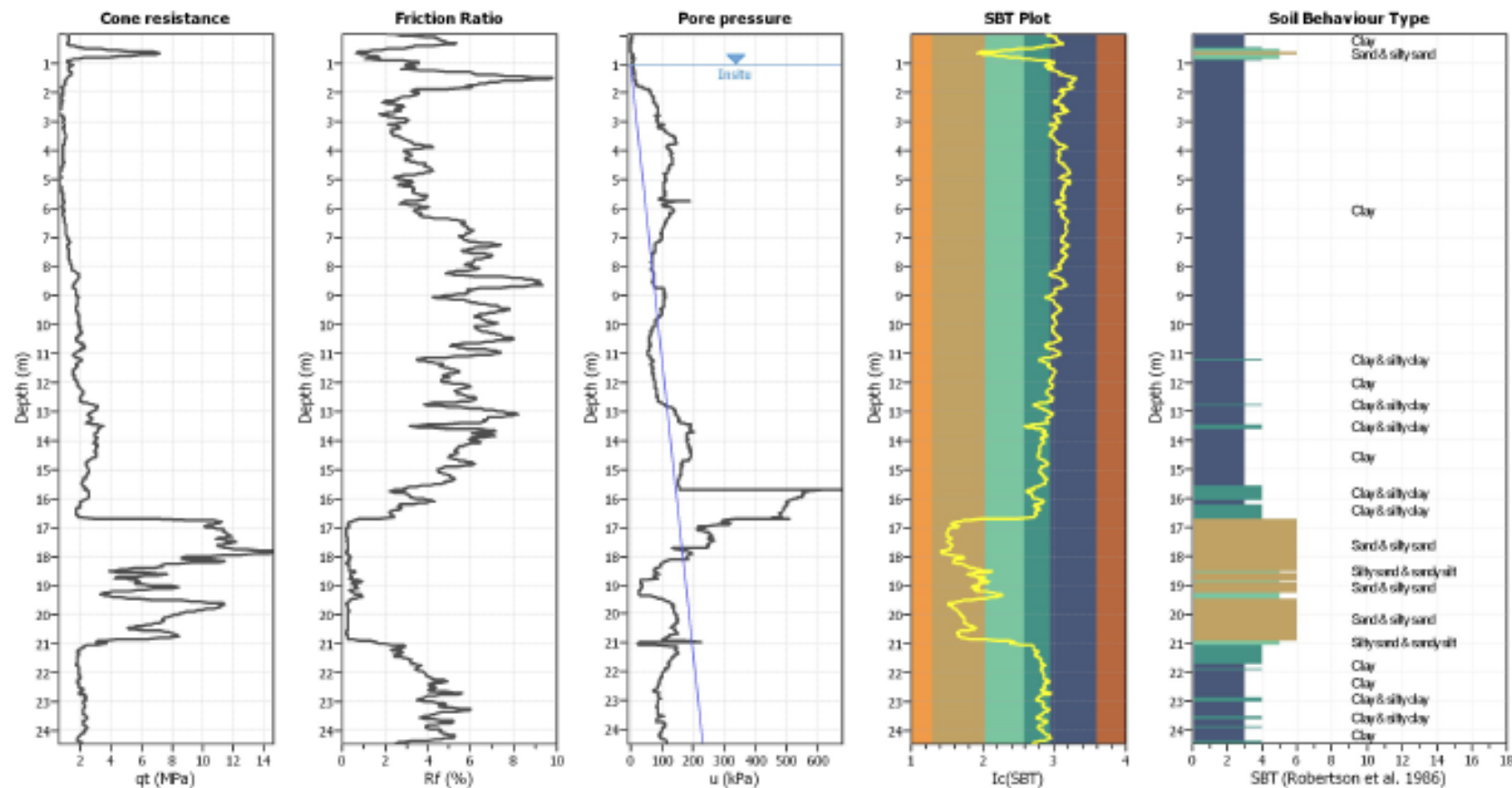
Input parameters and analysis data

Analysis method:	Robertson (2009)	G.W.T. (in-situ):	1.00 m	Use fill:	No	Clay like behavior	
Finer correction method:	Robertson (2009)	G.W.T. (earthq.):	2.00 m	Fill height:	N/A	applied:	All soils
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth applied:	No
Earthquake magnitude M_w :	6.14	Ic cut-off value:	2.60	Trans. detect. applied:	No	Limit depth:	N/A
Peak ground acceleration:	0.24	Unit weight calculation:	Based on SBT	K_s applied:	Yes	MSF method:	Method based



Zone A: Cyclic liquefaction likely depending on size and duration of cyclic loading
 Zone B: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
 Zone C: 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



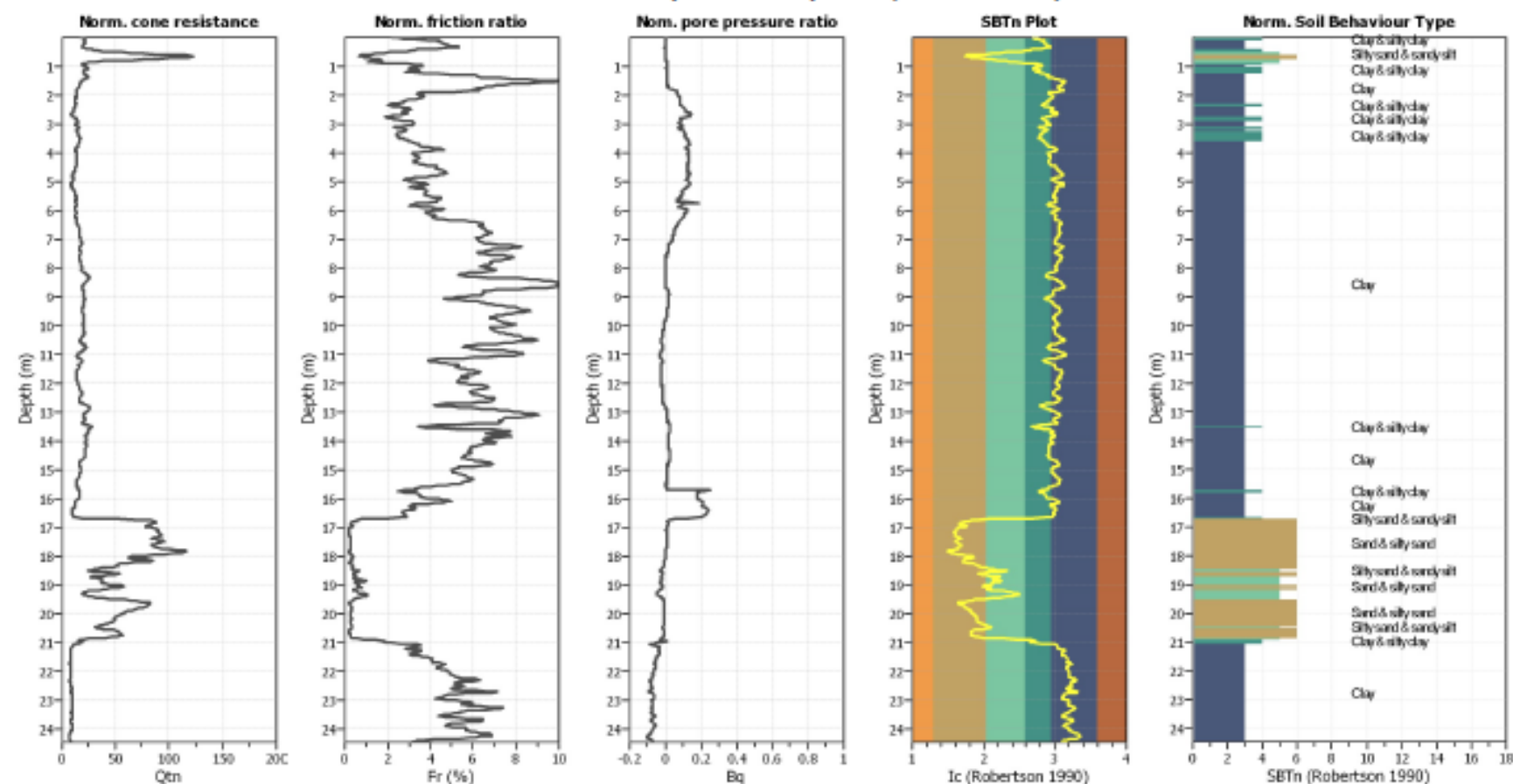
Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (orth.):	2.00 m	Fill weight:	N/A
Friction correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on I_c value	I_c cut-off value:	2.60	K_p applied:	Yes
Earthquake magnitude M_w :	6.14	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.24	Use fill:	No	Limit depth applied:	No
Depth to water table (in situ):	1.00 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)



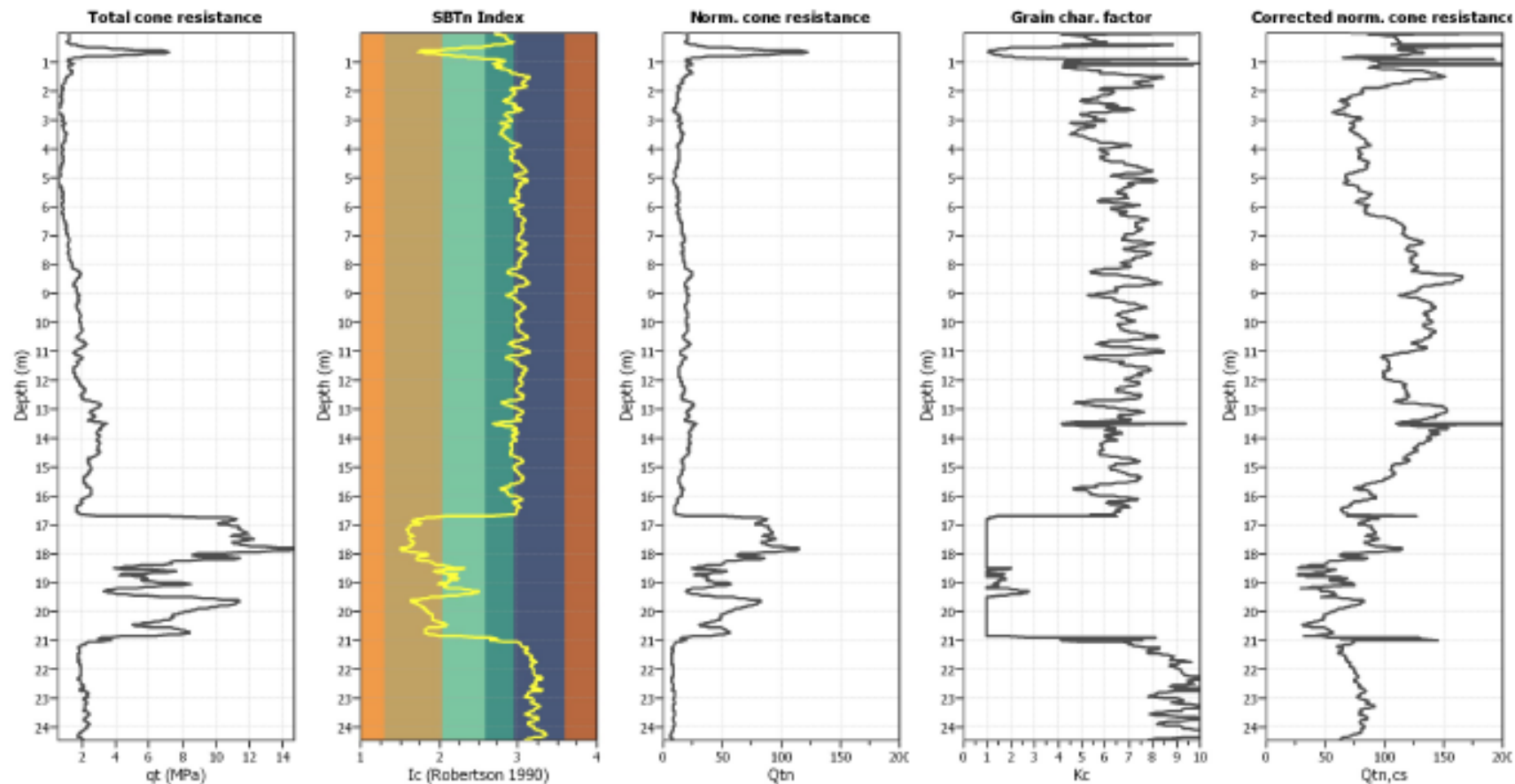
Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (ortho.):	2.00 m	Fill weight:	N/A
Lines correction method:	Robertson (2009)	Average results interval:	3	Transition detect, applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K ₀ applied:	Yes
Earthquake magnitude M _w :	6.14	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.24	Use fill:	No	Limit depth applied:	No
Depth to water table (instu):	1.00 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

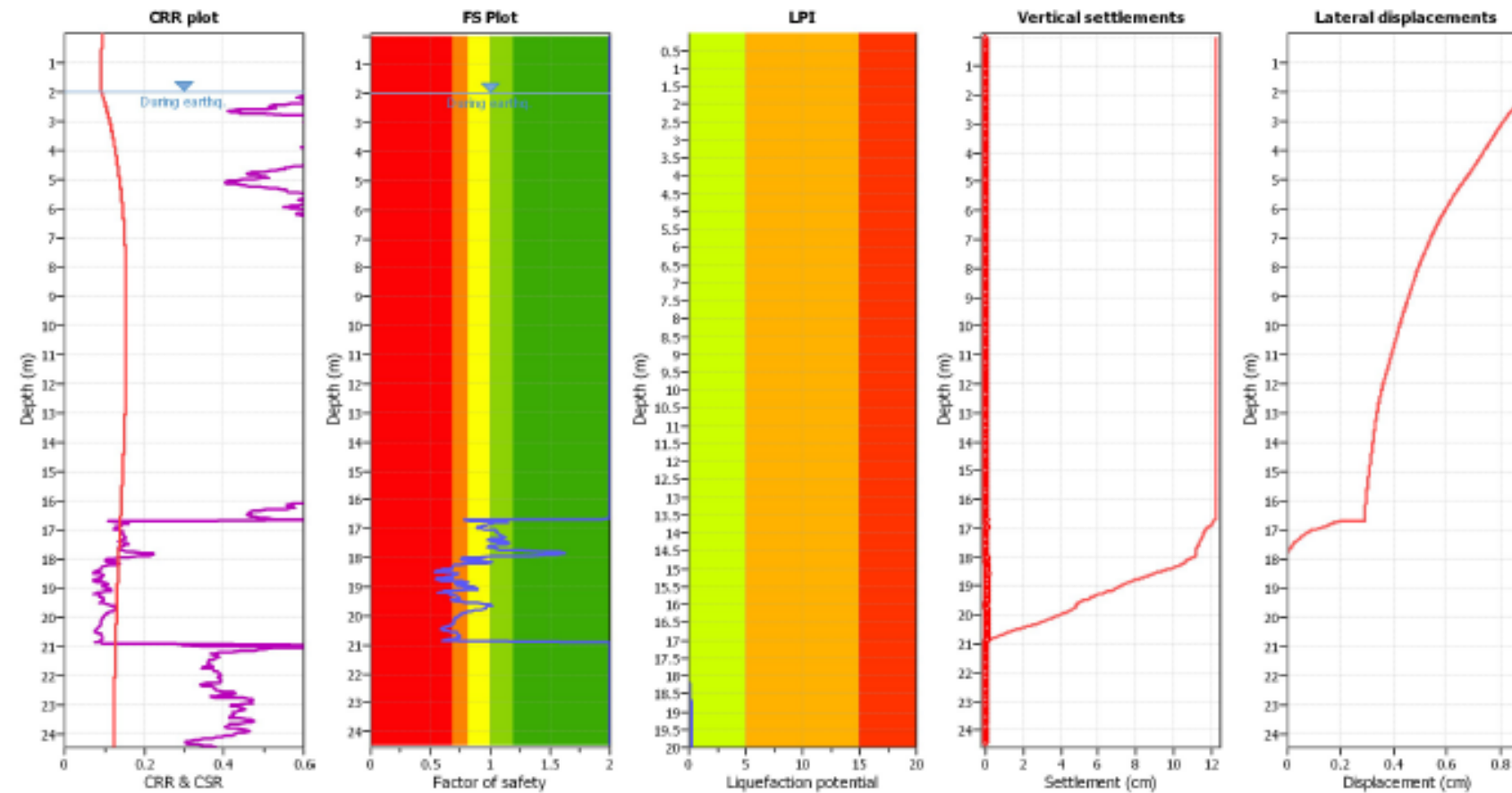
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (ethq.):	2.00 m	Fill weight:	N/A
Finer correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on I_c value	I_c cut-off value:	2.60	K_a applied:	Yes
Earthquake magnitude M_w :	6.14	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.24	Use fill:	No	Limit depth applied:	No
Depth to water table (mbtu):	1.00 m	Fill height:	N/A	Limit depth:	N/A

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method: Robertson (2009)
 Fines correction method: Robertson (2009)
 Points to test: Based on Ic value
 Earthquake magnitude M_w : 6.14
 Peak ground acceleration: 0.24
 Depth to water table (maltu): 1.00 m

Depth to water table (earthq.): 2.00 m
 Average results interval: 3
 Ic cut-off value: 2.60
 Unit weight calculation: Based on SBT
 Use fit: No
 Fill height: N/A

Fill weight: N/A
 Transition detect, applied: No
 K_0 applied: Yes
 Clay like behavior applied: All soils
 Limit depth applied: No
 Limit depth: N/A

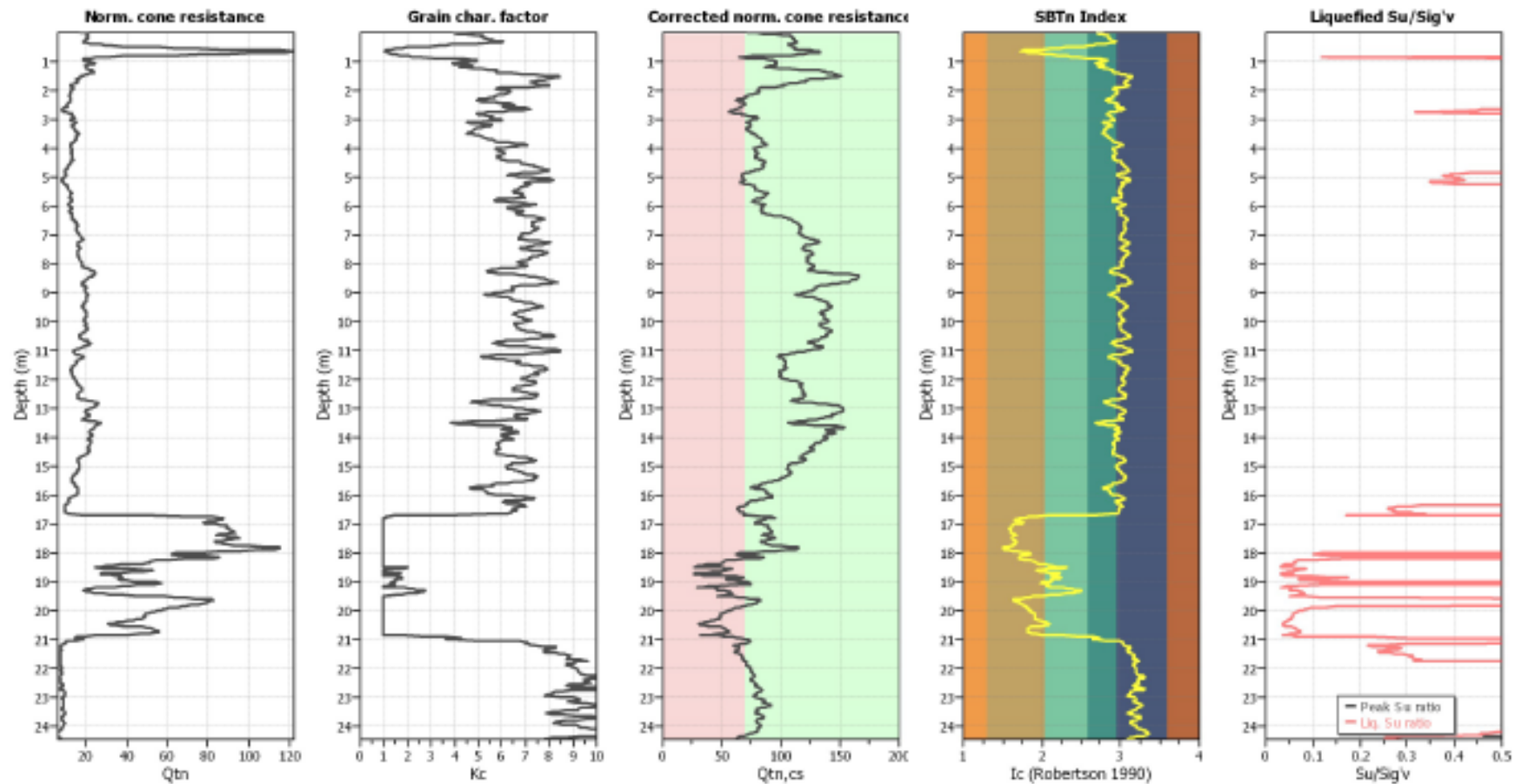
F.S. color scheme

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

Check for strength loss plots (Robertson (2010))



Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (earthq.):	2.00 m	Fill weight:	N/A
Finex correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on I_c value	I_c cut-off value:	2.60	K_p applied:	Yes
Earthquake magnitude M_w :	6.14	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.24	Use fill:	No	Limit depth applied:	No
Depth to water table (natu):	1.00 m	Fill height:	N/A	Limit depth:	N/A

:: Liquefaction Potential Index calculation data ::											
Depth (m)	FS	F _L	w _L	d _L	LPI	Depth (m)	FS	F _L	w _L	d _L	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	0.12	2.00	0.00	9.94	0.02	0.00
0.14	2.00	0.00	9.93	0.02	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	0.20	2.00	0.00	9.90	0.02	0.00
0.22	2.00	0.00	9.89	0.02	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	0.40	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
1.02	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	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	1.92	2.00	0.00	9.04	0.02	0.00

:: Liquefaction Potential Index calculation data :: (continued)											
Depth (m)	FS	F _L	w _L	d _s	LPI	Depth (m)	FS	F _L	w _L	d _s	LPI
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	2.16	2.00	0.00	8.92	0.02	0.00
2.18	2.00	0.00	8.91	0.02	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	2.00	0.00	8.80	0.02	0.00
2.42	2.00	0.00	8.79	0.02	0.00	2.44	2.00	0.00	8.78	0.02	0.00
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	3.24	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
3.42	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	3.76	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	3.84	2.00	0.00	8.08	0.02	0.00

:: Liquefaction Potential Index calculation data :: (continued)											
Depth (m)	FS	F _L	w _L	d _s	LPI	Depth (m)	FS	F _L	w _L	d _s	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
4.54	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	5.64	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 _L	e _s	LPI	Depth (m)	FS	F _L	w _L	e _s	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	6.00	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	7.68	2.00	0.00	6.16	0.02	0.00

:: Liquefaction Potential Index calculation data :: (continued)											
Depth (m)	FS	F _L	w _L	d _L	LPI	Depth (m)	FS	F _L	w _L	d _L	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 _L	d _L	LPI	Depth (m)	FS	F _L	w _L	d _L	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	11.00	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	11.52	2.00	0.00	4.24	0.02	0.00

:: Liquefaction Potential Index calculation data :: (continued)											
Depth (m)	FS	F _L	w _L	d _L	LPI	Depth (m)	FS	F _L	w _L	d _L	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 _L	d _L	LPI	Depth (m)	FS	F _L	w _L	d _L	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
14.38	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	15.36	2.00	0.00	2.32	0.02	0.00

:: Liquefaction Potential Index calculation data :: (continued)											
Depth (m)	FS	F _L	w _L	d _L	LPI	Depth (m)	FS	F _L	w _L	d _L	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	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	1.91	0.00	1.66	0.02	0.00
16.70	0.78	0.22	1.65	0.02	0.01	16.72	0.84	0.16	1.64	0.02	0.01
16.74	0.99	0.01	1.63	0.02	0.00	16.76	1.10	0.00	1.62	0.02	0.00
16.78	1.15	0.00	1.61	0.02	0.00	16.80	1.01	0.00	1.60	0.02	0.00
16.82	1.02	0.00	1.59	0.02	0.00	16.84	1.01	0.00	1.58	0.02	0.00
16.86	0.98	0.02	1.57	0.02	0.00	16.88	0.96	0.04	1.56	0.02	0.00
16.90	0.94	0.06	1.55	0.02	0.00	16.92	0.91	0.09	1.54	0.02	0.00
16.94	0.90	0.10	1.53	0.02	0.00	16.96	0.89	0.11	1.52	0.02	0.00
16.98	0.90	0.10	1.51	0.02	0.00	17.00	0.92	0.08	1.50	0.02	0.00
17.02	0.97	0.03	1.49	0.02	0.00	17.04	1.01	0.00	1.48	0.02	0.00
17.06	1.05	0.00	1.47	0.02	0.00	17.08	1.05	0.00	1.46	0.02	0.00
17.10	1.05	0.00	1.45	0.02	0.00	17.12	1.04	0.00	1.44	0.02	0.00
17.14	1.05	0.00	1.43	0.02	0.00	17.16	1.06	0.00	1.42	0.02	0.00
17.18	1.07	0.00	1.41	0.02	0.00	17.20	1.08	0.00	1.40	0.02	0.00
17.22	1.08	0.00	1.39	0.02	0.00	17.24	1.09	0.00	1.38	0.02	0.00
17.26	1.10	0.00	1.37	0.02	0.00	17.28	1.12	0.00	1.36	0.02	0.00

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

Depth (m)	FS	F _L	w _L	d _L	LPI	Depth (m)	FS	F _L	w _L	d _L	LPI
17.30	1.12	0.00	1.35	0.02	0.00	17.32	1.09	0.00	1.34	0.02	0.00
17.34	1.05	0.00	1.33	0.02	0.00	17.36	1.00	0.00	1.32	0.02	0.00
17.38	0.98	0.02	1.31	0.02	0.00	17.40	0.98	0.02	1.30	0.02	0.00
17.42	1.02	0.00	1.29	0.02	0.00	17.44	1.08	0.00	1.28	0.02	0.00
17.46	1.13	0.00	1.27	0.02	0.00	17.48	1.16	0.00	1.26	0.02	0.00
17.50	1.15	0.00	1.25	0.02	0.00	17.52	1.13	0.00	1.24	0.02	0.00
17.54	1.10	0.00	1.23	0.02	0.00	17.56	1.06	0.00	1.22	0.02	0.00
17.58	1.02	0.00	1.21	0.02	0.00	17.60	0.99	0.01	1.20	0.02	0.00
17.62	0.98	0.02	1.19	0.02	0.00	17.64	0.99	0.01	1.18	0.02	0.00
17.66	1.02	0.00	1.17	0.02	0.00	17.68	1.04	0.00	1.16	0.02	0.00
17.70	1.06	0.00	1.15	0.02	0.00	17.72	1.07	0.00	1.14	0.02	0.00
17.74	1.14	0.00	1.13	0.02	0.00	17.76	1.28	0.00	1.12	0.02	0.00
17.78	1.45	0.00	1.11	0.02	0.00	17.80	1.58	0.00	1.10	0.02	0.00
17.82	1.63	0.00	1.09	0.02	0.00	17.84	1.62	0.00	1.08	0.02	0.00
17.86	1.60	0.00	1.07	0.02	0.00	17.88	1.54	0.00	1.06	0.02	0.00
17.90	1.45	0.00	1.05	0.02	0.00	17.92	1.31	0.00	1.04	0.02	0.00
17.94	1.16	0.00	1.03	0.02	0.00	17.96	1.01	0.00	1.02	0.02	0.00
17.98	0.89	0.11	1.01	0.02	0.00	18.00	0.82	0.18	1.00	0.02	0.00
18.02	0.77	0.23	0.99	0.02	0.00	18.04	0.75	0.25	0.98	0.02	0.00
18.06	0.76	0.24	0.97	0.02	0.00	18.08	0.79	0.21	0.96	0.02	0.00
18.10	0.86	0.14	0.95	0.02	0.00	18.12	0.94	0.06	0.94	0.02	0.00
18.14	1.00	0.00	0.93	0.02	0.00	18.16	1.01	0.00	0.92	0.02	0.00
18.18	0.97	0.03	0.91	0.02	0.00	18.20	0.89	0.11	0.90	0.02	0.00
18.22	0.80	0.20	0.89	0.02	0.00	18.24	0.74	0.26	0.88	0.02	0.00
18.26	0.70	0.30	0.87	0.02	0.01	18.28	0.69	0.31	0.86	0.02	0.01
18.30	0.69	0.31	0.85	0.02	0.01	18.32	0.69	0.31	0.84	0.02	0.01
18.34	0.69	0.31	0.83	0.02	0.01	18.36	0.68	0.32	0.82	0.02	0.01
18.38	0.66	0.34	0.81	0.02	0.01	18.40	0.63	0.37	0.80	0.02	0.01
18.42	0.60	0.40	0.79	0.02	0.01	18.44	0.57	0.43	0.78	0.02	0.01
18.46	0.55	0.45	0.77	0.02	0.01	18.48	0.54	0.46	0.76	0.02	0.01
18.50	0.66	0.34	0.75	0.02	0.01	18.52	0.68	0.32	0.74	0.02	0.00
18.54	0.70	0.30	0.73	0.02	0.00	18.56	0.74	0.26	0.72	0.02	0.00
18.60	0.69	0.31	0.70	0.04	0.01	18.62	0.70	0.30	0.69	0.02	0.00
18.64	0.67	0.33	0.68	0.02	0.00	18.66	0.63	0.37	0.67	0.02	0.00
18.68	0.60	0.40	0.66	0.02	0.01	18.70	0.68	0.32	0.65	0.02	0.00
18.72	0.54	0.46	0.64	0.02	0.01	18.74	0.54	0.46	0.63	0.02	0.01
18.76	0.58	0.42	0.62	0.02	0.01	18.78	0.59	0.41	0.61	0.02	0.01
18.80	0.73	0.27	0.60	0.02	0.00	18.82	0.76	0.24	0.59	0.02	0.00
18.84	0.80	0.20	0.58	0.02	0.00	18.86	0.82	0.18	0.57	0.02	0.00
18.88	0.79	0.21	0.56	0.02	0.00	18.90	0.74	0.26	0.55	0.02	0.00
18.92	0.71	0.29	0.54	0.02	0.00	18.94	0.72	0.28	0.53	0.02	0.00
18.96	0.75	0.25	0.52	0.02	0.00	18.98	0.79	0.21	0.51	0.02	0.00
19.00	0.83	0.17	0.50	0.02	0.00	19.02	0.86	0.14	0.49	0.02	0.00
19.04	0.88	0.12	0.48	0.02	0.00	19.06	0.89	0.11	0.47	0.02	0.00
19.08	0.89	0.11	0.46	0.02	0.00	19.10	0.85	0.15	0.45	0.02	0.00
19.12	0.78	0.22	0.44	0.02	0.00	19.14	0.63	0.37	0.43	0.02	0.00
19.16	0.61	0.39	0.42	0.02	0.00	19.18	0.59	0.41	0.41	0.02	0.00
19.20	0.56	0.44	0.40	0.02	0.00	19.22	0.67	0.33	0.39	0.02	0.00

:: Liquefaction Potential Index calculation data :: (continued)											
Depth (m)	FS	F _L	w _L	d _L	LPI	Depth (m)	FS	F _L	w _L	d _L	LPI
19.24	0.67	0.33	0.38	0.02	0.00	19.26	0.66	0.34	0.37	0.02	0.00
19.28	0.67	0.33	0.36	0.02	0.00	19.30	0.69	0.31	0.35	0.02	0.00
19.32	0.71	0.29	0.34	0.02	0.00	19.34	0.73	0.27	0.33	0.02	0.00
19.36	0.74	0.26	0.32	0.02	0.00	19.38	0.74	0.26	0.31	0.02	0.00
19.40	0.74	0.26	0.30	0.02	0.00	19.42	0.73	0.27	0.29	0.02	0.00
19.44	0.72	0.28	0.28	0.02	0.00	19.46	0.73	0.27	0.27	0.02	0.00
19.48	0.67	0.33	0.26	0.02	0.00	19.50	0.72	0.28	0.25	0.02	0.00
19.52	0.76	0.24	0.24	0.02	0.00	19.54	0.80	0.20	0.23	0.02	0.00
19.56	0.85	0.15	0.22	0.02	0.00	19.58	0.90	0.10	0.21	0.02	0.00
19.60	0.96	0.04	0.20	0.02	0.00	19.62	1.00	0.00	0.19	0.02	0.00
19.64	1.01	0.00	0.18	0.02	0.00	19.66	0.99	0.01	0.17	0.02	0.00
19.68	0.97	0.03	0.16	0.02	0.00	19.70	0.96	0.04	0.15	0.02	0.00
19.72	0.96	0.04	0.14	0.02	0.00	19.74	0.96	0.04	0.13	0.02	0.00
19.76	0.95	0.05	0.12	0.02	0.00	19.80	0.91	0.09	0.10	0.04	0.00
19.82	0.87	0.13	0.09	0.02	0.00	19.84	0.84	0.16	0.08	0.02	0.00
19.86	0.82	0.18	0.07	0.02	0.00	19.88	0.81	0.19	0.06	0.02	0.00
19.90	0.79	0.21	0.05	0.02	0.00	19.92	0.77	0.23	0.04	0.02	0.00
19.94	0.76	0.24	0.03	0.02	0.00	19.96	0.75	0.25	0.02	0.02	0.00
19.98	0.75	0.25	0.01	0.02	0.00	20.00	0.74	0.26	0.00	0.02	0.00
20.02	0.73	0.00	0.00	0.00	0.00	20.04	0.72	0.00	0.00	0.00	0.00
20.06	0.72	0.00	0.00	0.00	0.00	20.08	0.71	0.00	0.00	0.00	0.00
20.10	0.70	0.00	0.00	0.00	0.00	20.12	0.70	0.00	0.00	0.00	0.00
20.14	0.70	0.00	0.00	0.00	0.00	20.16	0.70	0.00	0.00	0.00	0.00
20.18	0.70	0.00	0.00	0.00	0.00	20.20	0.70	0.00	0.00	0.00	0.00
20.22	0.70	0.00	0.00	0.00	0.00	20.24	0.70	0.00	0.00	0.00	0.00
20.26	0.69	0.00	0.00	0.00	0.00	20.28	0.69	0.00	0.00	0.00	0.00
20.30	0.68	0.00	0.00	0.00	0.00	20.32	0.67	0.00	0.00	0.00	0.00
20.34	0.66	0.00	0.00	0.00	0.00	20.36	0.65	0.00	0.00	0.00	0.00
20.38	0.63	0.00	0.00	0.00	0.00	20.40	0.61	0.00	0.00	0.00	0.00
20.42	0.60	0.00	0.00	0.00	0.00	20.44	0.59	0.00	0.00	0.00	0.00
20.46	0.59	0.00	0.00	0.00	0.00	20.48	0.59	0.00	0.00	0.00	0.00
20.50	0.61	0.00	0.00	0.00	0.00	20.52	0.64	0.00	0.00	0.00	0.00
20.54	0.67	0.00	0.00	0.00	0.00	20.56	0.70	0.00	0.00	0.00	0.00
20.58	0.71	0.00	0.00	0.00	0.00	20.60	0.72	0.00	0.00	0.00	0.00
20.62	0.73	0.00	0.00	0.00	0.00	20.64	0.73	0.00	0.00	0.00	0.00
20.66	0.73	0.00	0.00	0.00	0.00	20.68	0.74	0.00	0.00	0.00	0.00
20.70	0.75	0.00	0.00	0.00	0.00	20.72	0.75	0.00	0.00	0.00	0.00
20.74	0.75	0.00	0.00	0.00	0.00	20.76	0.74	0.00	0.00	0.00	0.00
20.78	0.72	0.00	0.00	0.00	0.00	20.80	0.69	0.00	0.00	0.00	0.00
20.82	0.64	0.00	0.00	0.00	0.00	20.84	0.59	0.00	0.00	0.00	0.00
20.86	0.70	0.00	0.00	0.00	0.00	20.88	0.73	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	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

:: Liquefaction Potential Index calculation data :: (continued)											
Depth (m)	FS	F _L	w _L	d _L	LPI	Depth (m)	FS	F _L	w _L	d _L	LPI
21.18	2.00	0.00	0.00	0.00	0.00	21.20	2.00	0.00	0.00	0.00	0.00
21.22	2.00	0.00	0.00	0.00	0.00	21.24	2.00	0.00	0.00	0.00	0.00
21.26	2.00	0.00	0.00	0.00	0.00	21.28	2.00	0.00	0.00	0.00	0.00
21.30	2.00	0.00	0.00	0.00	0.00	21.32	2.00	0.00	0.00	0.00	0.00
21.34	2.00	0.00	0.00	0.00	0.00	21.36	2.00	0.00	0.00	0.00	0.00
21.38	2.00	0.00	0.00	0.00	0.00	21.40	2.00	0.00	0.00	0.00	0.00
21.42	2.00	0.00	0.00	0.00	0.00	21.44	2.00	0.00	0.00	0.00	0.00
21.46	2.00	0.00	0.00	0.00	0.00	21.48	2.00	0.00	0.00	0.00	0.00
21.50	2.00	0.00	0.00	0.00	0.00	21.52	2.00	0.00	0.00	0.00	0.00
21.54	2.00	0.00	0.00	0.00	0.00	21.56	2.00	0.00	0.00	0.00	0.00
21.58	2.00	0.00	0.00	0.00	0.00	21.60	2.00	0.00	0.00	0.00	0.00
21.62	2.00	0.00	0.00	0.00	0.00	21.64	2.00	0.00	0.00	0.00	0.00
21.66	2.00	0.00	0.00	0.00	0.00	21.68	2.00	0.00	0.00	0.00	0.00
21.70	2.00	0.00	0.00	0.00	0.00	21.72	2.00	0.00	0.00	0.00	0.00
21.74	2.00	0.00	0.00	0.00	0.00	21.76	2.00	0.00	0.00	0.00	0.00
21.78	2.00	0.00	0.00	0.00	0.00	21.80	2.00	0.00	0.00	0.00	0.00
21.82	2.00	0.00	0.00	0.00	0.00	21.84	2.00	0.00	0.00	0.00	0.00
21.86	2.00	0.00	0.00	0.00	0.00	21.88	2.00	0.00	0.00	0.00	0.00
21.90	2.00	0.00	0.00	0.00	0.00	21.92	2.00	0.00	0.00	0.00	0.00
21.94	2.00	0.00	0.00	0.00	0.00	21.96	2.00	0.00	0.00	0.00	0.00
21.98	2.00	0.00	0.00	0.00	0.00	22.00	2.00	0.00	0.00	0.00	0.00
22.02	2.00	0.00	0.00	0.00	0.00	22.04	2.00	0.00	0.00	0.00	0.00
22.06	2.00	0.00	0.00	0.00	0.00	22.08	2.00	0.00	0.00	0.00	0.00
22.10	2.00	0.00	0.00	0.00	0.00	22.12	2.00	0.00	0.00	0.00	0.00
22.14	2.00	0.00	0.00	0.00	0.00	22.16	2.00	0.00	0.00	0.00	0.00
22.18	2.00	0.00	0.00	0.00	0.00	22.20	2.00	0.00	0.00	0.00	0.00
22.22	2.00	0.00	0.00	0.00	0.00	22.24	2.00	0.00	0.00	0.00	0.00
22.26	2.00	0.00	0.00	0.00	0.00	22.28	2.00	0.00	0.00	0.00	0.00
22.30	2.00	0.00	0.00	0.00	0.00	22.32	2.00	0.00	0.00	0.00	0.00
22.34	2.00	0.00	0.00	0.00	0.00	22.36	2.00	0.00	0.00	0.00	0.00
22.38	2.00	0.00	0.00	0.00	0.00	22.40	2.00	0.00	0.00	0.00	0.00
22.42	2.00	0.00	0.00	0.00	0.00	22.44	2.00	0.00	0.00	0.00	0.00
22.46	2.00	0.00	0.00	0.00	0.00	22.48	2.00	0.00	0.00	0.00	0.00
22.50	2.00	0.00	0.00	0.00	0.00	22.52	2.00	0.00	0.00	0.00	0.00
22.54	2.00	0.00	0.00	0.00	0.00	22.56	2.00	0.00	0.00	0.00	0.00
22.58	2.00	0.00	0.00	0.00	0.00	22.60	2.00	0.00	0.00	0.00	0.00
22.62	2.00	0.00	0.00	0.00	0.00	22.64	2.00	0.00	0.00	0.00	0.00
22.66	2.00	0.00	0.00	0.00	0.00	22.68	2.00	0.00	0.00	0.00	0.00
22.70	2.00	0.00	0.00	0.00	0.00	22.72	2.00	0.00	0.00	0.00	0.00
22.74	2.00	0.00	0.00	0.00	0.00	22.76	2.00	0.00	0.00	0.00	0.00
22.78	2.00	0.00	0.00	0.00	0.00	22.80	2.00	0.00	0.00	0.00	0.00
22.82	2.00	0.00	0.00	0.00	0.00	22.84	2.00	0.00	0.00	0.00	0.00
22.86	2.00	0.00	0.00	0.00	0.00	22.88	2.00	0.00	0.00	0.00	0.00
22.90	2.00	0.00	0.00	0.00	0.00	22.92	2.00	0.00	0.00	0.00	0.00
22.94	2.00	0.00	0.00	0.00	0.00	22.96	2.00	0.00	0.00	0.00	0.00
22.98	2.00	0.00	0.00	0.00	0.00	23.00	2.00	0.00	0.00	0.00	0.00
23.02	2.00	0.00	0.00	0.00	0.00	23.04	2.00	0.00	0.00	0.00	0.00
23.06	2.00	0.00	0.00	0.00	0.00	23.08	2.00	0.00	0.00	0.00	0.00

:: Liquefaction Potential Index calculation data :: (continued)											
Depth (m)	FS	F _L	w _L	d _L	LPI	Depth (m)	FS	F _L	w _L	d _L	LPI
23.10	2.00	0.00	0.00	0.00	0.00	23.12	2.00	0.00	0.00	0.00	0.00
23.14	2.00	0.00	0.00	0.00	0.00	23.16	2.00	0.00	0.00	0.00	0.00
23.18	2.00	0.00	0.00	0.00	0.00	23.20	2.00	0.00	0.00	0.00	0.00
23.22	2.00	0.00	0.00	0.00	0.00	23.24	2.00	0.00	0.00	0.00	0.00
23.26	2.00	0.00	0.00	0.00	0.00	23.28	2.00	0.00	0.00	0.00	0.00
23.30	2.00	0.00	0.00	0.00	0.00	23.32	2.00	0.00	0.00	0.00	0.00
23.34	2.00	0.00	0.00	0.00	0.00	23.36	2.00	0.00	0.00	0.00	0.00
23.38	2.00	0.00	0.00	0.00	0.00	23.40	2.00	0.00	0.00	0.00	0.00
23.42	2.00	0.00	0.00	0.00	0.00	23.44	2.00	0.00	0.00	0.00	0.00
23.46	2.00	0.00	0.00	0.00	0.00	23.48	2.00	0.00	0.00	0.00	0.00
23.50	2.00	0.00	0.00	0.00	0.00	23.52	2.00	0.00	0.00	0.00	0.00
23.54	2.00	0.00	0.00	0.00	0.00	23.56	2.00	0.00	0.00	0.00	0.00
23.58	2.00	0.00	0.00	0.00	0.00	23.60	2.00	0.00	0.00	0.00	0.00
23.62	2.00	0.00	0.00	0.00	0.00	23.64	2.00	0.00	0.00	0.00	0.00
23.66	2.00	0.00	0.00	0.00	0.00	23.68	2.00	0.00	0.00	0.00	0.00
23.70	2.00	0.00	0.00	0.00	0.00	23.72	2.00	0.00	0.00	0.00	0.00
23.74	2.00	0.00	0.00	0.00	0.00	23.76	2.00	0.00	0.00	0.00	0.00
23.78	2.00	0.00	0.00	0.00	0.00	23.80	2.00	0.00	0.00	0.00	0.00
23.86	2.00	0.00	0.00	0.00	0.00	23.88	2.00	0.00	0.00	0.00	0.00
23.90	2.00	0.00	0.00	0.00	0.00	23.92	2.00	0.00	0.00	0.00	0.00
23.94	2.00	0.00	0.00	0.00	0.00	23.96	2.00	0.00	0.00	0.00	0.00
23.98	2.00	0.00	0.00	0.00	0.00	24.00	2.00	0.00	0.00	0.00	0.00
24.02	2.00	0.00	0.00	0.00	0.00	24.04	2.00	0.00	0.00	0.00	0.00
24.06	2.00	0.00	0.00	0.00	0.00	24.08	2.00	0.00	0.00	0.00	0.00
24.10	2.00	0.00	0.00	0.00	0.00	24.12	2.00	0.00	0.00	0.00	0.00
24.14	2.00	0.00	0.00	0.00	0.00	24.16	2.00	0.00	0.00	0.00	0.00
24.18	2.00	0.00	0.00	0.00	0.00	24.20	2.00	0.00	0.00	0.00	0.00
24.22	2.00	0.00	0.00	0.00	0.00	24.24	2.00	0.00	0.00	0.00	0.00
24.26	2.00	0.00	0.00	0.00	0.00	24.28	2.00	0.00	0.00	0.00	0.00
24.30	2.00	0.00	0.00	0.00	0.00	24.32	2.00	0.00	0.00	0.00	0.00
24.34	2.00	0.00	0.00	0.00	0.00	24.36	2.00	0.00	0.00	0.00	0.00
24.38	2.00	0.00	0.00	0.00	0.00	24.40	2.00	0.00	0.00	0.00	0.00
24.42	2.00	0.00	0.00	0.00	0.00	24.44	2.00	0.00	0.00	0.00	0.00

Overall liquefaction potential: 0.30

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 - FS
 w_L: Function value of the extend of soil liquefaction according to depth
 d_L: Layer thickness (m)
 LPI: Liquefaction potential index value for test point

LIQUEFACTION ANALYSIS REPORT

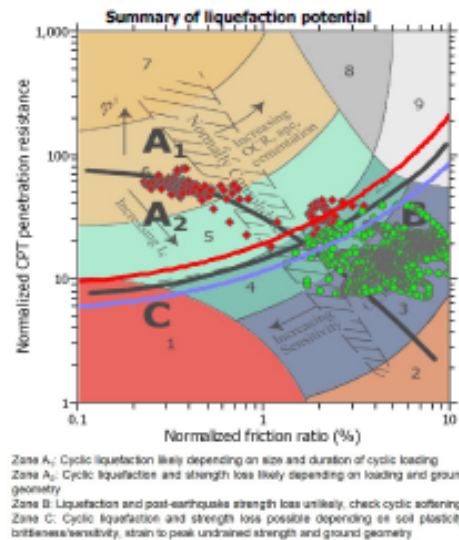
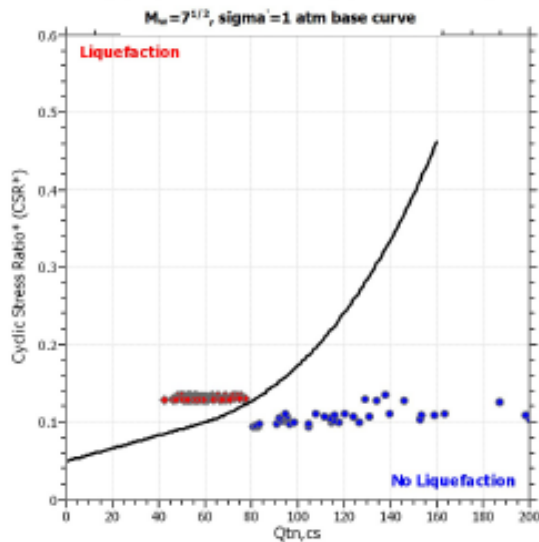
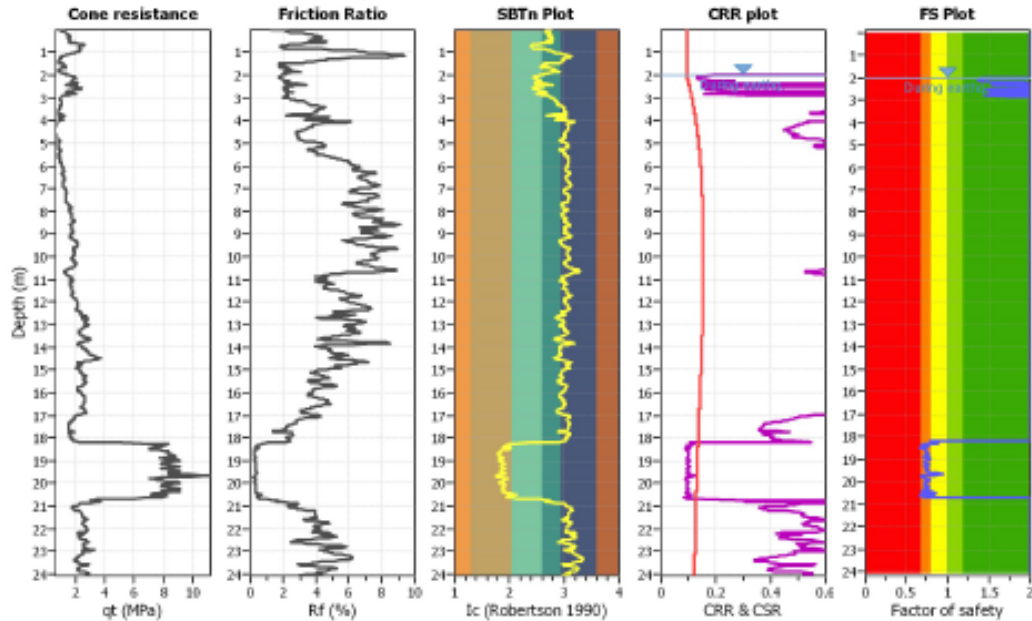
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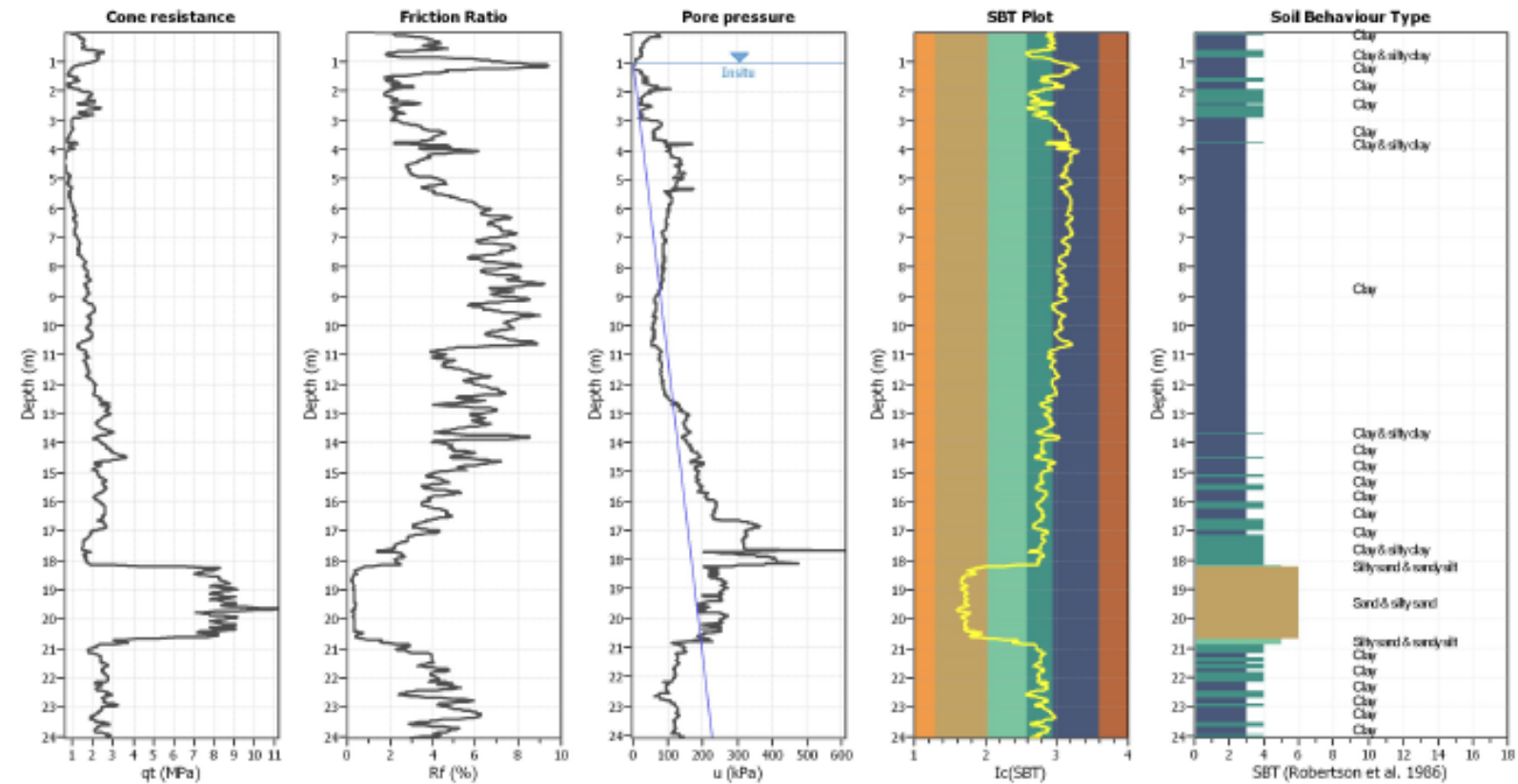
Location :

CPT file : CPTU 3

Input parameters and analysis data

Analysis method:	Robertson (2009)	G.W.T. (in-situ):	1.00 m	Use fill:	No	Clay like behavior	
Fines correction method:	Robertson (2009)	G.W.T. (earth):	2.00 m	Fill height:	N/A	applied:	All soils
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth applied:	No
Earthquake magnitude M_w :	6.14	Ic cut-off value:	2.60	Trans. detect. applied:	No	Limit depth:	N/A
Peak ground acceleration:	0.24	Unit weight calculation:	Based on SBT	K_p applied:	Yes	MSF method:	Method based





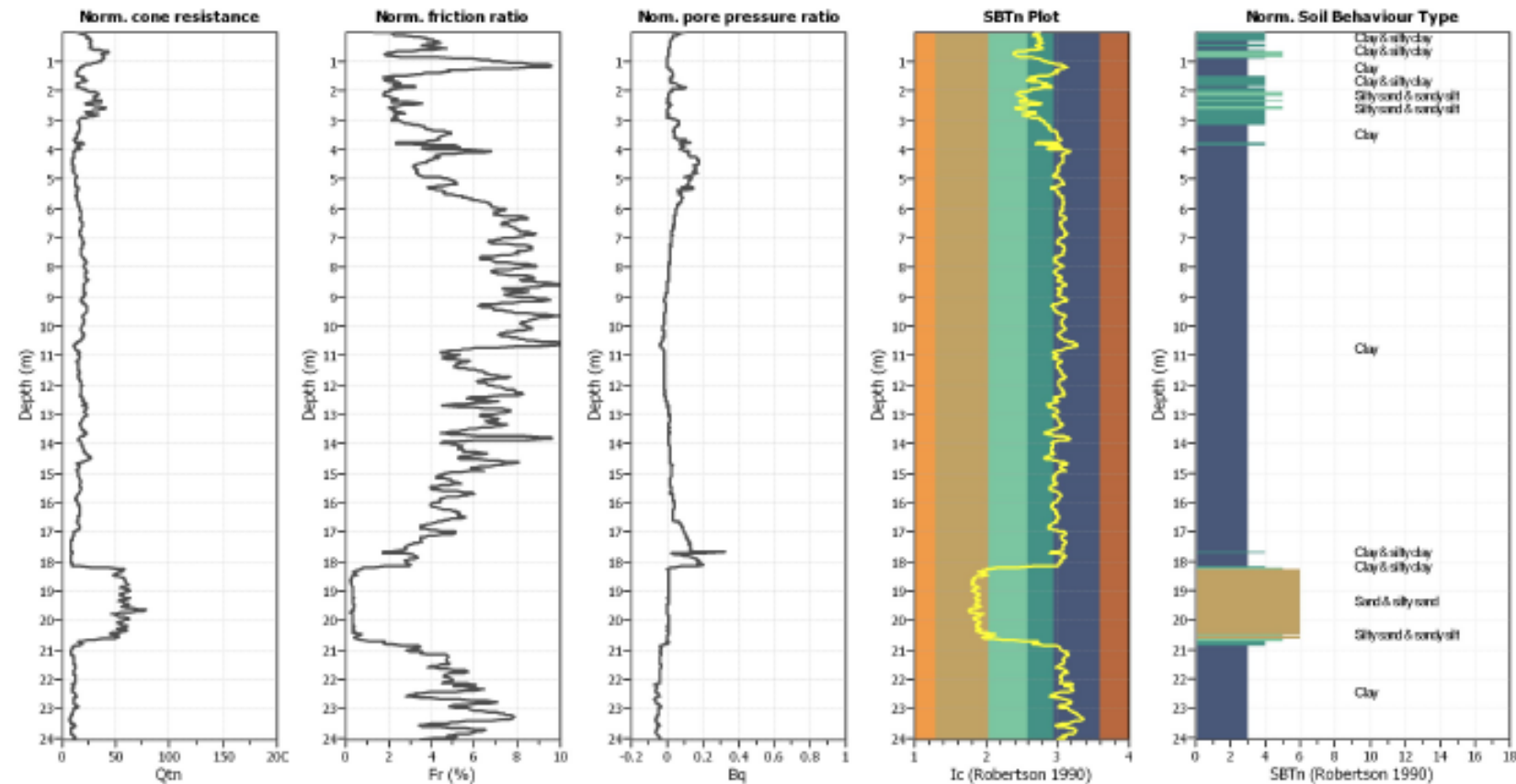
Analysis method:	Robertson (2009)
Fines correction method:	Robertson (2009)
Points to test:	Based on Ic value
Earthquake magnitude M_w :	6.14
Peak ground acceleration:	0.24
Depth to water table (insitu):	1.00 m

Depth to water table (rtthg.):	2.00 m
Average results interval:	3
IC cut-off value:	2.60
Unit weight calculation:	Based on SBT
Use fill:	No
Fill height:	N/A

Fill weight:	N/A
Transition detect, applied:	No
K _u applied:	Yes
Clay like behavior applied:	All soils
Limit depth applied:	No
Limit depth:	N/A

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)



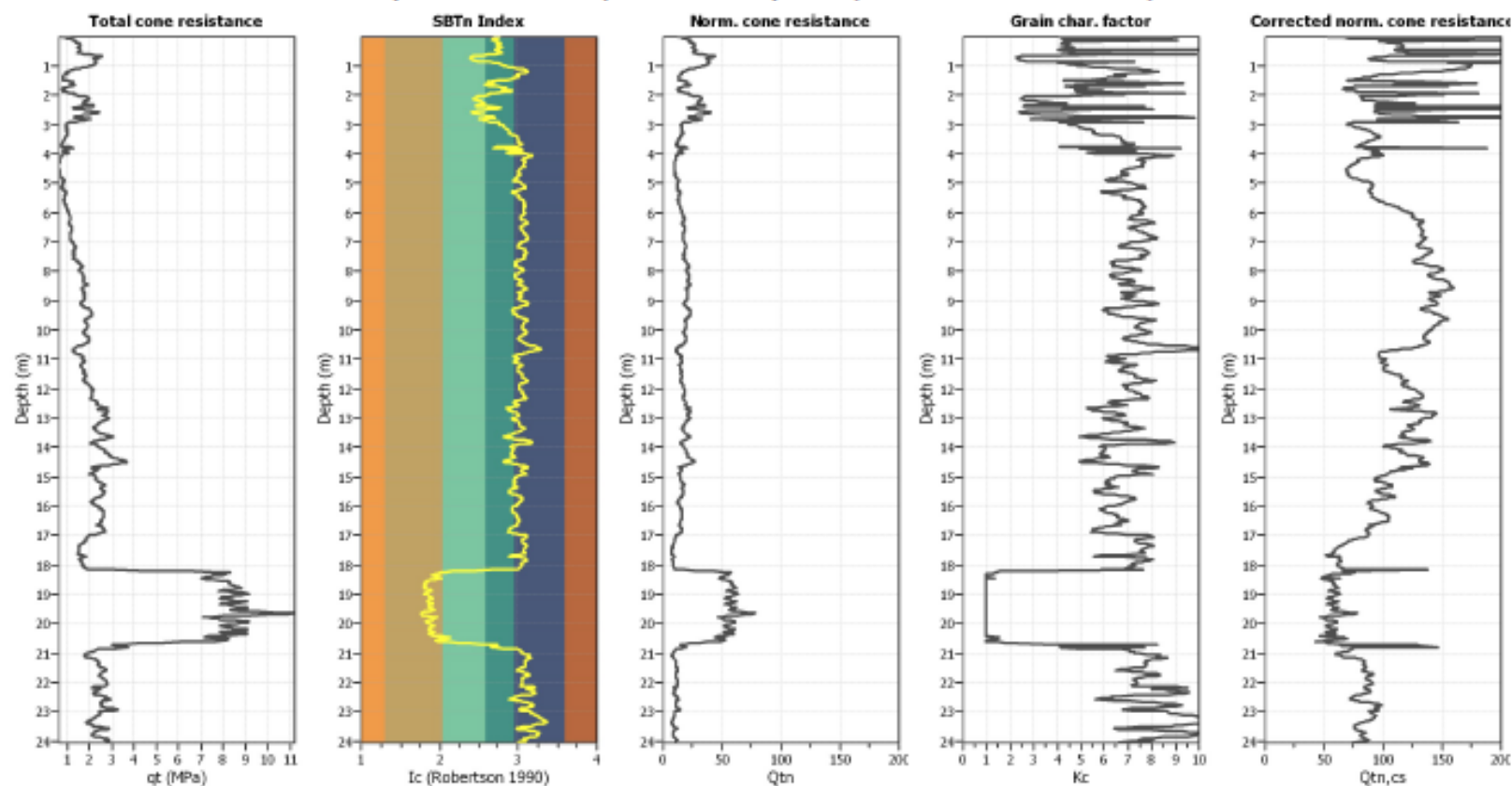
Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (ortho):	2.00 m	Fill weight:	N/A
Pinex correction method:	Robertson (2009)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K _r applied:	Yes
Earthquake magnitude M _w :	6.14	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.24	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	1.00 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

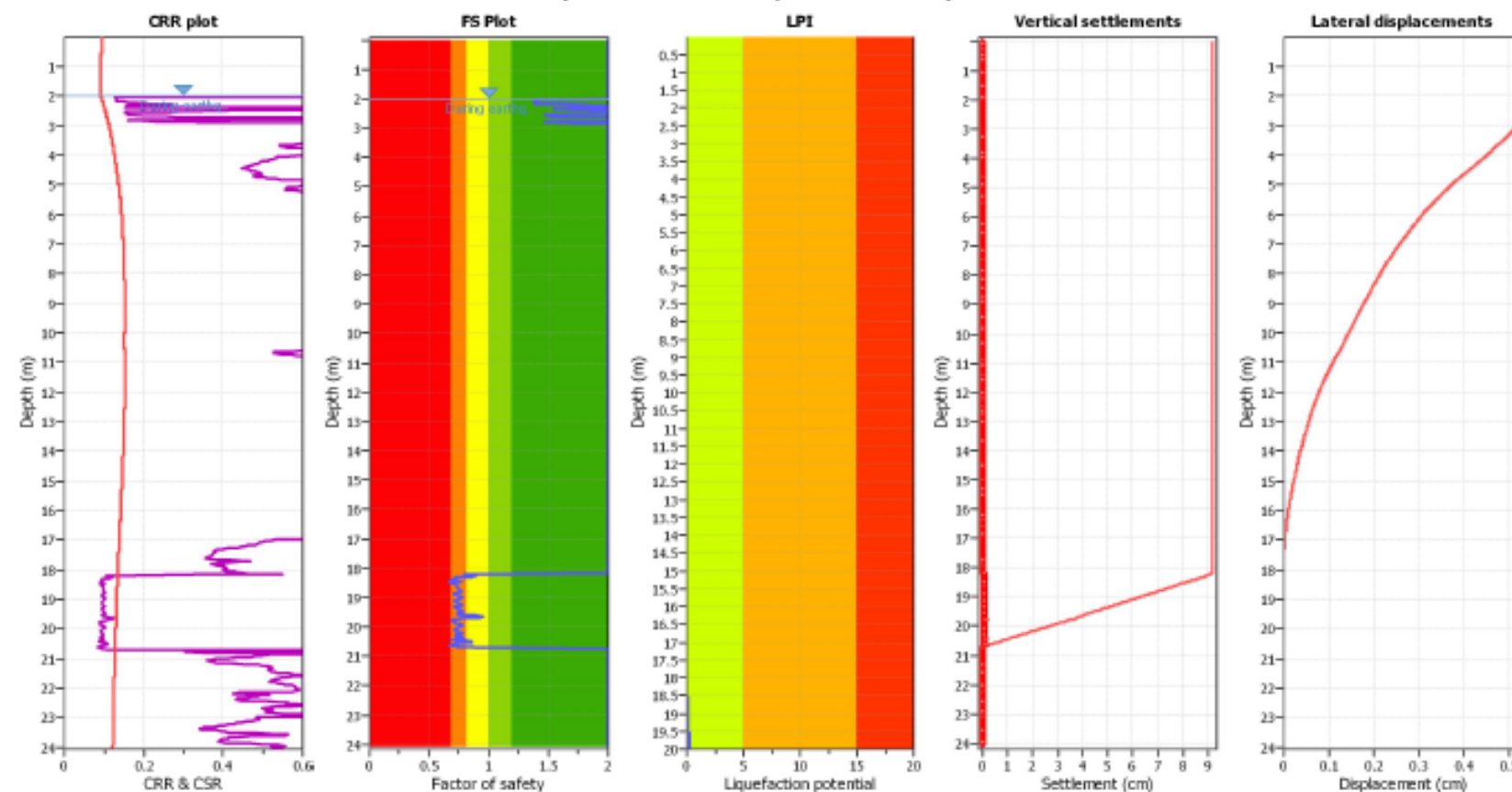
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	2.00 m	Fill weight:	N/A
Finer correction method:	Robertson (2009)	Average results interval:	3	Transition detect, applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K _a applied:	Yes
Earthquake magnitude M _w :	6.14	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.24	Use fill:	No	Limit depth applied:	No
Depth to water table (mslu):	1.00 m	Fill height:	N/A	Limit depth:	N/A

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method: Robertson (2009)
 Fines correction method: Robertson (2009)
 Points to test: Based on Ic value
 Earthquake magnitude M_w : 6.14
 Peak ground acceleration: 0.24
 Depth to water table (instu): 1.00 m

Depth to water table (earthq.): 2.00 m
 Average results interval: 3
 Ic cut-off value: 2.60
 Unit weight calculation: Based on SBT
 Use fill: No
 Fill height: N/A

Fill weight: N/A
 Transition detect, applied: No
 K_0 applied: Yes
 Clay like behavior applied: All soils
 Limit depth applied: No
 Limit depth: N/A

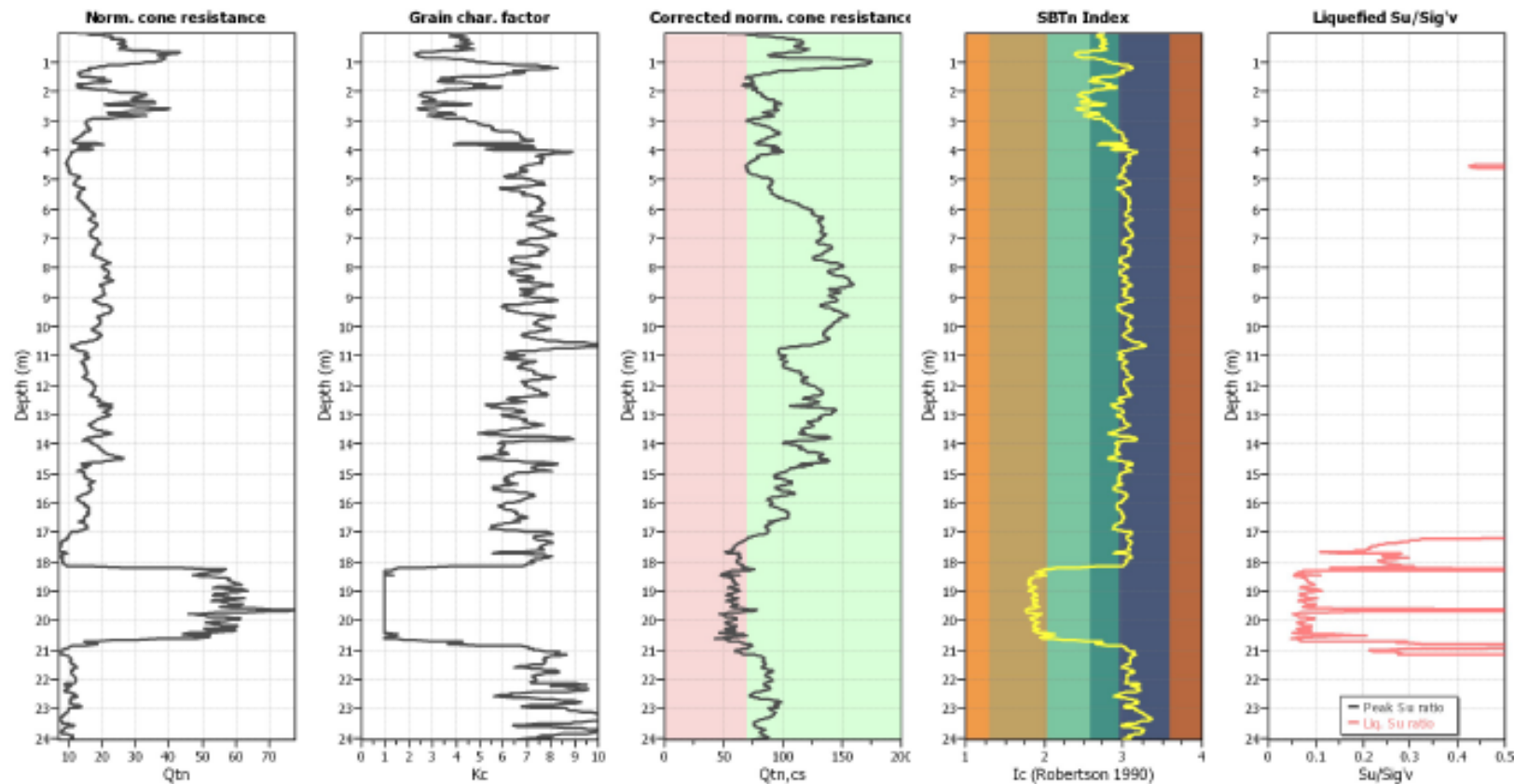
F.S. color scheme

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

LPI color scheme

Very high risk
 High risk
 Low risk

Check for strength loss plots (Robertson (2010))



Input parameters and analysis data

Analysis method:	Robertson (2009)	Depth to water table (erthq.):	2.00 m	Fill weight:	N/A
Fines correction method:	Robertson (2009)	Average results interval:	3	Transition detect, applied:	No
Points to test:	Based on I_c value	I_c cut-off value:	2.60	K_a applied:	Yes
Earthquake magnitude M_w :	6.14	Unit weight calculation:	Based on SBT	Clay like behavior applied:	All soils
Peak ground acceleration:	0.24	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	1.00 m	Fill height:	N/A	Limit depth:	N/A

:: Liquefaction Potential Index calculation data ::											
Depth (m)	FS	F _L	w _L	d _L	LPI	Depth (m)	FS	F _L	w _L	d _L	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	0.12	2.00	0.00	9.94	0.02	0.00
0.14	2.00	0.00	9.93	0.02	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	0.20	2.00	0.00	9.90	0.02	0.00
0.22	2.00	0.00	9.89	0.02	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	0.40	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
1.02	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	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	1.92	2.00	0.00	9.04	0.02	0.00

:: Liquefaction Potential Index calculation data :: (continued)											
Depth (m)	FS	F _L	w _L	d _L	LPI	Depth (m)	FS	F _L	w _L	d _L	LPI
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	1.43	0.00	8.98	0.02	0.00
2.06	1.38	0.00	8.97	0.02	0.00	2.08	1.40	0.00	8.96	0.02	0.00
2.10	1.40	0.00	8.95	0.02	0.00	2.12	1.39	0.00	8.94	0.02	0.00
2.14	1.38	0.00	8.93	0.02	0.00	2.16	1.38	0.00	8.92	0.02	0.00
2.18	1.39	0.00	8.91	0.02	0.00	2.20	1.56	0.00	8.90	0.02	0.00
2.22	1.69	0.00	8.89	0.02	0.00	2.24	1.92	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	1.70	0.00	8.84	0.02	0.00
2.34	1.56	0.00	8.83	0.02	0.00	2.36	1.54	0.00	8.82	0.02	0.00
2.38	2.00	0.00	8.81	0.02	0.00	2.40	2.00	0.00	8.80	0.02	0.00
2.42	2.00	0.00	8.79	0.02	0.00	2.44	2.00	0.00	8.78	0.02	0.00
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	1.48	0.00	8.73	0.02	0.00	2.56	1.47	0.00	8.72	0.02	0.00
2.58	1.51	0.00	8.71	0.02	0.00	2.60	1.53	0.00	8.70	0.02	0.00
2.62	1.53	0.00	8.69	0.02	0.00	2.64	1.52	0.00	8.68	0.02	0.00
2.66	1.98	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	1.46	0.00	8.59	0.02	0.00	2.84	1.80	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	3.24	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
3.42	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	3.76	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	3.84	2.00	0.00	8.08	0.02	0.00

:: Liquefaction Potential Index calculation data :: (continued)											
Depth (m)	FS	F _L	w ₂	d ₅₀	LPI	Depth (m)	FS	F _L	w ₂	d ₅₀	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
4.54	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	5.64	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 ₂	d ₅	LPI	Depth (m)	FS	F _L	w ₂	d ₅	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	6.00	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	7.68	2.00	0.00	6.16	0.02	0.00

:: Liquefaction Potential Index calculation data :: (continued)											
Depth (m)	FS	F _L	w ₂	d ₅	LPI	Depth (m)	FS	F _L	w ₂	d ₅	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 _L	d _L	LPI	Depth (m)	FS	F _L	w _L	d _L	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	11.00	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	11.52	2.00	0.00	4.24	0.02	0.00

:: Liquefaction Potential Index calculation data :: (continued)											
Depth (m)	FS	F _L	w _L	d _L	LPI	Depth (m)	FS	F _L	w _L	d _L	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 _L	d _s	LPI	Depth (m)	FS	F _L	w _L	d _s	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
14.38	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	15.36	2.00	0.00	2.32	0.02	0.00

:: Liquefaction Potential Index calculation data :: (continued)											
Depth (m)	FS	F _L	w ₂	d ₅₀	LPI	Depth (m)	FS	F _L	w ₂	d ₅₀	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	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	17.28	2.00	0.00	1.36	0.02	0.00

:: Liquefaction Potential Index calculation data :: (continued)											
Depth (m)	FS	F _L	w _s	d ₅₀	LPI	Depth (m)	FS	F _L	w _s	d ₅₀	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
17.74	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	18.16	2.00	0.00	0.92	0.02	0.00
18.18	2.00	0.00	0.91	0.02	0.00	18.20	0.79	0.21	0.90	0.02	0.00
18.22	0.82	0.18	0.89	0.02	0.00	18.24	0.87	0.13	0.88	0.02	0.00
18.26	0.89	0.11	0.87	0.02	0.00	18.28	0.88	0.12	0.86	0.02	0.00
18.30	0.85	0.15	0.85	0.02	0.00	18.32	0.72	0.28	0.84	0.02	0.00
18.34	0.71	0.29	0.83	0.02	0.00	18.36	0.70	0.30	0.82	0.02	0.00
18.38	0.70	0.30	0.81	0.02	0.00	18.40	0.69	0.31	0.80	0.02	0.01
18.42	0.68	0.32	0.79	0.02	0.01	18.44	0.77	0.23	0.78	0.02	0.00
18.46	0.77	0.23	0.77	0.02	0.00	18.48	0.67	0.33	0.76	0.02	0.00
18.50	0.68	0.32	0.75	0.02	0.00	18.52	0.70	0.30	0.74	0.02	0.00
18.54	0.72	0.28	0.73	0.02	0.00	18.56	0.73	0.27	0.72	0.02	0.00
18.58	0.74	0.26	0.71	0.02	0.00	18.60	0.73	0.27	0.70	0.02	0.00
18.62	0.73	0.27	0.69	0.02	0.00	18.64	0.74	0.26	0.68	0.02	0.00
18.66	0.74	0.26	0.67	0.02	0.00	18.68	0.74	0.26	0.66	0.02	0.00
18.70	0.75	0.25	0.65	0.02	0.00	18.72	0.75	0.25	0.64	0.02	0.00
18.74	0.75	0.25	0.63	0.02	0.00	18.76	0.76	0.24	0.62	0.02	0.00
18.78	0.77	0.23	0.61	0.02	0.00	18.80	0.77	0.23	0.60	0.02	0.00
18.82	0.76	0.24	0.59	0.02	0.00	18.84	0.74	0.26	0.58	0.02	0.00
18.86	0.72	0.28	0.57	0.02	0.00	18.88	0.71	0.29	0.56	0.02	0.00
18.90	0.71	0.29	0.55	0.02	0.00	18.92	0.73	0.27	0.54	0.02	0.00
18.94	0.75	0.25	0.53	0.02	0.00	18.96	0.77	0.23	0.52	0.02	0.00
18.98	0.79	0.21	0.51	0.02	0.00	19.00	0.78	0.22	0.50	0.02	0.00
19.02	0.77	0.23	0.49	0.02	0.00	19.04	0.76	0.24	0.48	0.02	0.00
19.06	0.74	0.26	0.47	0.02	0.00	19.08	0.73	0.27	0.46	0.02	0.00
19.10	0.72	0.28	0.45	0.02	0.00	19.12	0.71	0.29	0.44	0.02	0.00
19.14	0.72	0.28	0.43	0.02	0.00	19.16	0.73	0.27	0.42	0.02	0.00
19.18	0.74	0.26	0.41	0.02	0.00	19.20	0.74	0.26	0.40	0.02	0.00

:: Liquefaction Potential Index calculation data :: (continued)											
Depth (m)	FS	F _L	w ₂	d ₅	LPI	Depth (m)	FS	F _L	w ₂	d ₅	LPI
19.22	0.75	0.25	0.39	0.02	0.00	19.24	0.78	0.22	0.38	0.02	0.00
19.26	0.77	0.23	0.37	0.02	0.00	19.28	0.75	0.25	0.36	0.02	0.00
19.30	0.72	0.28	0.35	0.02	0.00	19.32	0.71	0.29	0.34	0.02	0.00
19.34	0.72	0.28	0.33	0.02	0.00	19.36	0.73	0.27	0.32	0.02	0.00
19.38	0.74	0.26	0.31	0.02	0.00	19.40	0.74	0.26	0.30	0.02	0.00
19.42	0.75	0.25	0.29	0.02	0.00	19.44	0.78	0.22	0.28	0.02	0.00
19.46	0.77	0.23	0.27	0.02	0.00	19.48	0.78	0.22	0.26	0.02	0.00
19.50	0.75	0.25	0.25	0.02	0.00	19.52	0.75	0.25	0.24	0.02	0.00
19.54	0.73	0.27	0.23	0.02	0.00	19.56	0.74	0.26	0.22	0.02	0.00
19.58	0.76	0.24	0.21	0.02	0.00	19.60	0.82	0.18	0.20	0.02	0.00
19.62	0.88	0.12	0.19	0.02	0.00	19.64	0.94	0.06	0.18	0.02	0.00
19.66	0.95	0.05	0.17	0.02	0.00	19.68	0.91	0.09	0.16	0.02	0.00
19.70	0.84	0.16	0.15	0.02	0.00	19.72	0.78	0.22	0.14	0.02	0.00
19.74	0.72	0.28	0.13	0.02	0.00	19.76	0.69	0.31	0.12	0.02	0.00
19.78	0.68	0.32	0.11	0.02	0.00	19.80	0.69	0.31	0.10	0.02	0.00
19.82	0.70	0.30	0.09	0.02	0.00	19.84	0.71	0.29	0.08	0.02	0.00
19.86	0.71	0.29	0.07	0.02	0.00	19.88	0.73	0.27	0.06	0.02	0.00
19.90	0.75	0.25	0.05	0.02	0.00	19.92	0.77	0.23	0.04	0.02	0.00
19.94	0.78	0.22	0.03	0.02	0.00	19.96	0.78	0.22	0.02	0.02	0.00
19.98	0.77	0.23	0.01	0.02	0.00	20.00	0.76	0.24	0.00	0.02	0.00
20.02	0.74	0.00	0.00	0.00	0.00	20.04	0.73	0.00	0.00	0.00	0.00
20.06	0.72	0.00	0.00	0.00	0.00	20.08	0.71	0.00	0.00	0.00	0.00
20.10	0.72	0.00	0.00	0.00	0.00	20.12	0.73	0.00	0.00	0.00	0.00
20.14	0.74	0.00	0.00	0.00	0.00	20.16	0.74	0.00	0.00	0.00	0.00
20.18	0.75	0.00	0.00	0.00	0.00	20.20	0.78	0.00	0.00	0.00	0.00
20.22	0.77	0.00	0.00	0.00	0.00	20.24	0.75	0.00	0.00	0.00	0.00
20.26	0.72	0.00	0.00	0.00	0.00	20.28	0.71	0.00	0.00	0.00	0.00
20.30	0.72	0.00	0.00	0.00	0.00	20.32	0.74	0.00	0.00	0.00	0.00
20.34	0.78	0.00	0.00	0.00	0.00	20.36	0.77	0.00	0.00	0.00	0.00
20.38	0.75	0.00	0.00	0.00	0.00	20.40	0.72	0.00	0.00	0.00	0.00
20.42	0.71	0.00	0.00	0.00	0.00	20.44	0.69	0.00	0.00	0.00	0.00
20.46	0.81	0.00	0.00	0.00	0.00	20.48	0.83	0.00	0.00	0.00	0.00
20.50	0.86	0.00	0.00	0.00	0.00	20.52	0.86	0.00	0.00	0.00	0.00
20.54	0.84	0.00	0.00	0.00	0.00	20.56	0.72	0.00	0.00	0.00	0.00
20.58	0.72	0.00	0.00	0.00	0.00	20.60	0.70	0.00	0.00	0.00	0.00
20.62	0.67	0.00	0.00	0.00	0.00	20.64	0.74	0.00	0.00	0.00	0.00
20.66	0.73	0.00	0.00	0.00	0.00	20.68	0.73	0.00	0.00	0.00	0.00
20.70	0.88	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	21.12	2.00	0.00	0.00	0.00	0.00

:: Liquefaction Potential Index calculation data :: (continued)											
Depth (m)	FS	F _L	w _L	d _L	LPI	Depth (m)	FS	F _L	w _L	d _L	LPI
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
21.22	2.00	0.00	0.00	0.00	0.00	21.24	2.00	0.00	0.00	0.00	0.00
21.26	2.00	0.00	0.00	0.00	0.00	21.28	2.00	0.00	0.00	0.00	0.00
21.30	2.00	0.00	0.00	0.00	0.00	21.32	2.00	0.00	0.00	0.00	0.00
21.34	2.00	0.00	0.00	0.00	0.00	21.36	2.00	0.00	0.00	0.00	0.00
21.38	2.00	0.00	0.00	0.00	0.00	21.40	2.00	0.00	0.00	0.00	0.00
21.42	2.00	0.00	0.00	0.00	0.00	21.44	2.00	0.00	0.00	0.00	0.00
21.46	2.00	0.00	0.00	0.00	0.00	21.48	2.00	0.00	0.00	0.00	0.00
21.50	2.00	0.00	0.00	0.00	0.00	21.52	2.00	0.00	0.00	0.00	0.00
21.54	2.00	0.00	0.00	0.00	0.00	21.56	2.00	0.00	0.00	0.00	0.00
21.58	2.00	0.00	0.00	0.00	0.00	21.60	2.00	0.00	0.00	0.00	0.00
21.62	2.00	0.00	0.00	0.00	0.00	21.64	2.00	0.00	0.00	0.00	0.00
21.66	2.00	0.00	0.00	0.00	0.00	21.68	2.00	0.00	0.00	0.00	0.00
21.70	2.00	0.00	0.00	0.00	0.00	21.72	2.00	0.00	0.00	0.00	0.00
21.74	2.00	0.00	0.00	0.00	0.00	21.76	2.00	0.00	0.00	0.00	0.00
21.78	2.00	0.00	0.00	0.00	0.00	21.80	2.00	0.00	0.00	0.00	0.00
21.82	2.00	0.00	0.00	0.00	0.00	21.84	2.00	0.00	0.00	0.00	0.00
21.86	2.00	0.00	0.00	0.00	0.00	21.88	2.00	0.00	0.00	0.00	0.00
21.90	2.00	0.00	0.00	0.00	0.00	21.92	2.00	0.00	0.00	0.00	0.00
21.94	2.00	0.00	0.00	0.00	0.00	21.96	2.00	0.00	0.00	0.00	0.00
21.98	2.00	0.00	0.00	0.00	0.00	22.00	2.00	0.00	0.00	0.00	0.00
22.02	2.00	0.00	0.00	0.00	0.00	22.04	2.00	0.00	0.00	0.00	0.00
22.06	2.00	0.00	0.00	0.00	0.00	22.08	2.00	0.00	0.00	0.00	0.00
22.10	2.00	0.00	0.00	0.00	0.00	22.12	2.00	0.00	0.00	0.00	0.00
22.14	2.00	0.00	0.00	0.00	0.00	22.16	2.00	0.00	0.00	0.00	0.00
22.18	2.00	0.00	0.00	0.00	0.00	22.20	2.00	0.00	0.00	0.00	0.00
22.22	2.00	0.00	0.00	0.00	0.00	22.24	2.00	0.00	0.00	0.00	0.00
22.26	2.00	0.00	0.00	0.00	0.00	22.28	2.00	0.00	0.00	0.00	0.00
22.30	2.00	0.00	0.00	0.00	0.00	22.32	2.00	0.00	0.00	0.00	0.00
22.34	2.00	0.00	0.00	0.00	0.00	22.36	2.00	0.00	0.00	0.00	0.00
22.38	2.00	0.00	0.00	0.00	0.00	22.40	2.00	0.00	0.00	0.00	0.00
22.42	2.00	0.00	0.00	0.00	0.00	22.44	2.00	0.00	0.00	0.00	0.00
22.46	2.00	0.00	0.00	0.00	0.00	22.48	2.00	0.00	0.00	0.00	0.00
22.50	2.00	0.00	0.00	0.00	0.00	22.52	2.00	0.00	0.00	0.00	0.00
22.54	2.00	0.00	0.00	0.00	0.00	22.56	2.00	0.00	0.00	0.00	0.00
22.58	2.00	0.00	0.00	0.00	0.00	22.60	2.00	0.00	0.00	0.00	0.00
22.62	2.00	0.00	0.00	0.00	0.00	22.64	2.00	0.00	0.00	0.00	0.00
22.66	2.00	0.00	0.00	0.00	0.00	22.68	2.00	0.00	0.00	0.00	0.00
22.70	2.00	0.00	0.00	0.00	0.00	22.72	2.00	0.00	0.00	0.00	0.00
22.74	2.00	0.00	0.00	0.00	0.00	22.76	2.00	0.00	0.00	0.00	0.00
22.78	2.00	0.00	0.00	0.00	0.00	22.80	2.00	0.00	0.00	0.00	0.00
22.82	2.00	0.00	0.00	0.00	0.00	22.84	2.00	0.00	0.00	0.00	0.00
22.86	2.00	0.00	0.00	0.00	0.00	22.88	2.00	0.00	0.00	0.00	0.00
22.90	2.00	0.00	0.00	0.00	0.00	22.92	2.00	0.00	0.00	0.00	0.00
22.94	2.00	0.00	0.00	0.00	0.00	22.96	2.00	0.00	0.00	0.00	0.00
22.98	2.00	0.00	0.00	0.00	0.00	23.00	2.00	0.00	0.00	0.00	0.00
23.02	2.00	0.00	0.00	0.00	0.00	23.04	2.00	0.00	0.00	0.00	0.00

:: Liquefaction Potential Index calculation data :: (continued)											
Depth (m)	FS	F _L	w _s	d _L	LPI	Depth (m)	FS	F _L	w _s	d _L	LPI
23.06	2.00	0.00	0.00	0.00	0.00	23.08	2.00	0.00	0.00	0.00	0.00
23.10	2.00	0.00	0.00	0.00	0.00	23.12	2.00	0.00	0.00	0.00	0.00
23.14	2.00	0.00	0.00	0.00	0.00	23.16	2.00	0.00	0.00	0.00	0.00
23.18	2.00	0.00	0.00	0.00	0.00	23.20	2.00	0.00	0.00	0.00	0.00
23.22	2.00	0.00	0.00	0.00	0.00	23.24	2.00	0.00	0.00	0.00	0.00
23.26	2.00	0.00	0.00	0.00	0.00	23.28	2.00	0.00	0.00	0.00	0.00
23.30	2.00	0.00	0.00	0.00	0.00	23.32	2.00	0.00	0.00	0.00	0.00
23.34	2.00	0.00	0.00	0.00	0.00	23.36	2.00	0.00	0.00	0.00	0.00
23.38	2.00	0.00	0.00	0.00	0.00	23.40	2.00	0.00	0.00	0.00	0.00
23.42	2.00	0.00	0.00	0.00	0.00	23.44	2.00	0.00	0.00	0.00	0.00
23.46	2.00	0.00	0.00	0.00	0.00	23.48	2.00	0.00	0.00	0.00	0.00
23.50	2.00	0.00	0.00	0.00	0.00	23.52	2.00	0.00	0.00	0.00	0.00
23.54	2.00	0.00	0.00	0.00	0.00	23.56	2.00	0.00	0.00	0.00	0.00
23.58	2.00	0.00	0.00	0.00	0.00	23.60	2.00	0.00	0.00	0.00	0.00
23.62	2.00	0.00	0.00	0.00	0.00	23.64	2.00	0.00	0.00	0.00	0.00
23.66	2.00	0.00	0.00	0.00	0.00	23.68	2.00	0.00	0.00	0.00	0.00
23.70	2.00	0.00	0.00	0.00	0.00	23.72	2.00	0.00	0.00	0.00	0.00
23.74	2.00	0.00	0.00	0.00	0.00	23.76	2.00	0.00	0.00	0.00	0.00
23.78	2.00	0.00	0.00	0.00	0.00	23.80	2.00	0.00	0.00	0.00	0.00
23.82	2.00	0.00	0.00	0.00	0.00	23.84	2.00	0.00	0.00	0.00	0.00
23.86	2.00	0.00	0.00	0.00	0.00	23.88	2.00	0.00	0.00	0.00	0.00
23.90	2.00	0.00	0.00	0.00	0.00	23.92	2.00	0.00	0.00	0.00	0.00
23.94	2.00	0.00	0.00	0.00	0.00	23.96	2.00	0.00	0.00	0.00	0.00
23.98	2.00	0.00	0.00	0.00	0.00	24.00	2.00	0.00	0.00	0.00	0.00
24.02	2.00	0.00	0.00	0.00	0.00	24.04	2.00	0.00	0.00	0.00	0.00
24.06	2.00	0.00	0.00	0.00	0.00						

Overall liquefaction potential: 0.20

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 - FS
 w_s: Function value of the extend of soil liquefaction according to depth
 d_L: Layer thickness (m)
 LPI: Liquefaction potential index value for test point