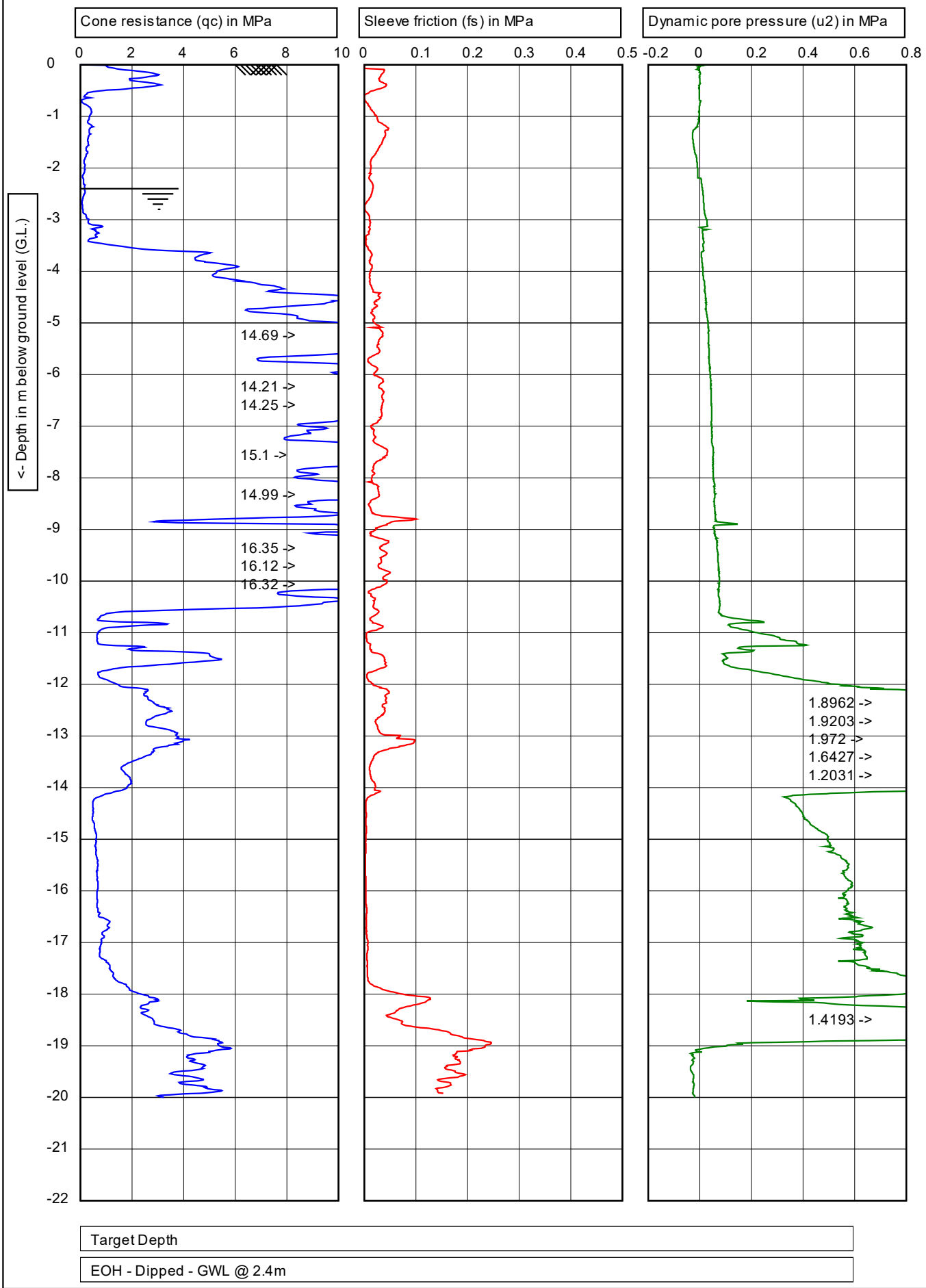
APPENDIX D

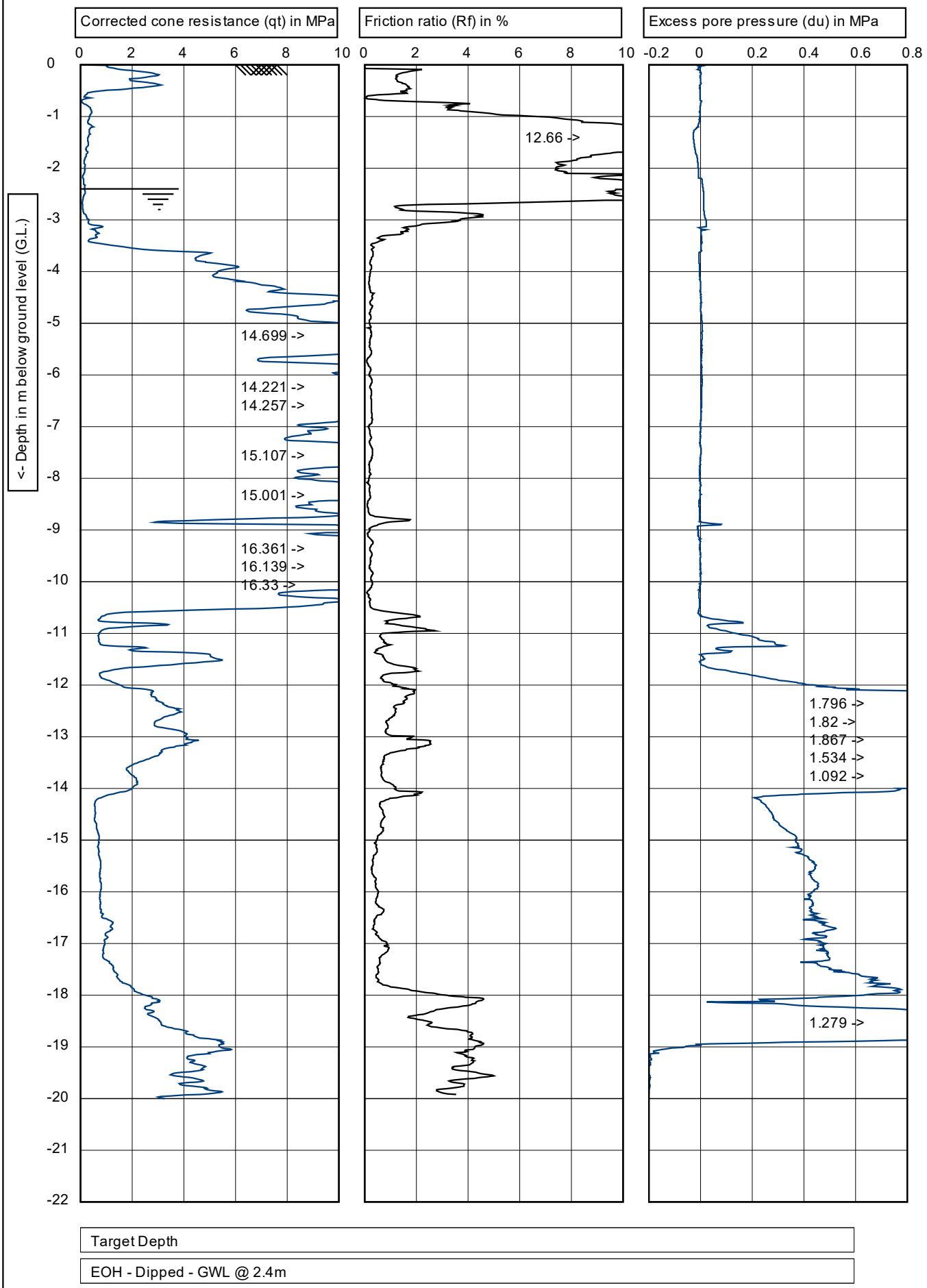
2025 Investigation Logs



Test results indicated as not accredited are outside the scope of the laboratory's accreditation

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-2.40 m**	Date:	**17/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C241654**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1798386, 5813225 NZTM**		CPT no.:	**25-01** 1/6

1.49



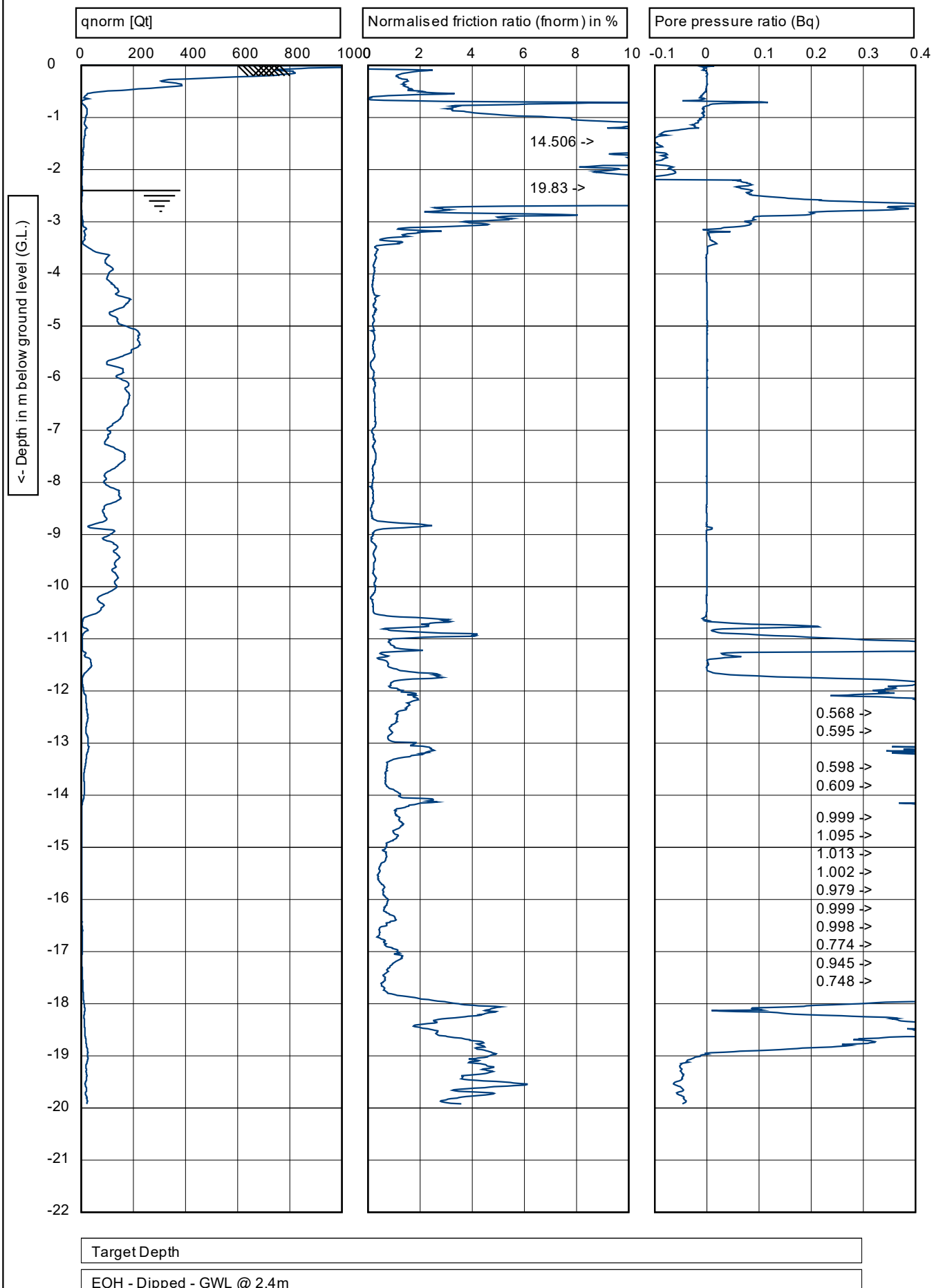
Target Depth

EOH - Dipped - GWL @ 2.4m

Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-2.40 m**	Date:	**17/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C241654**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1798386, 5813225 NZTM**		CPT no.:	**25-01** **2/6**

1.49



Graphs on this page are not IANZ accredited

u2
150 cm²
10 cm²

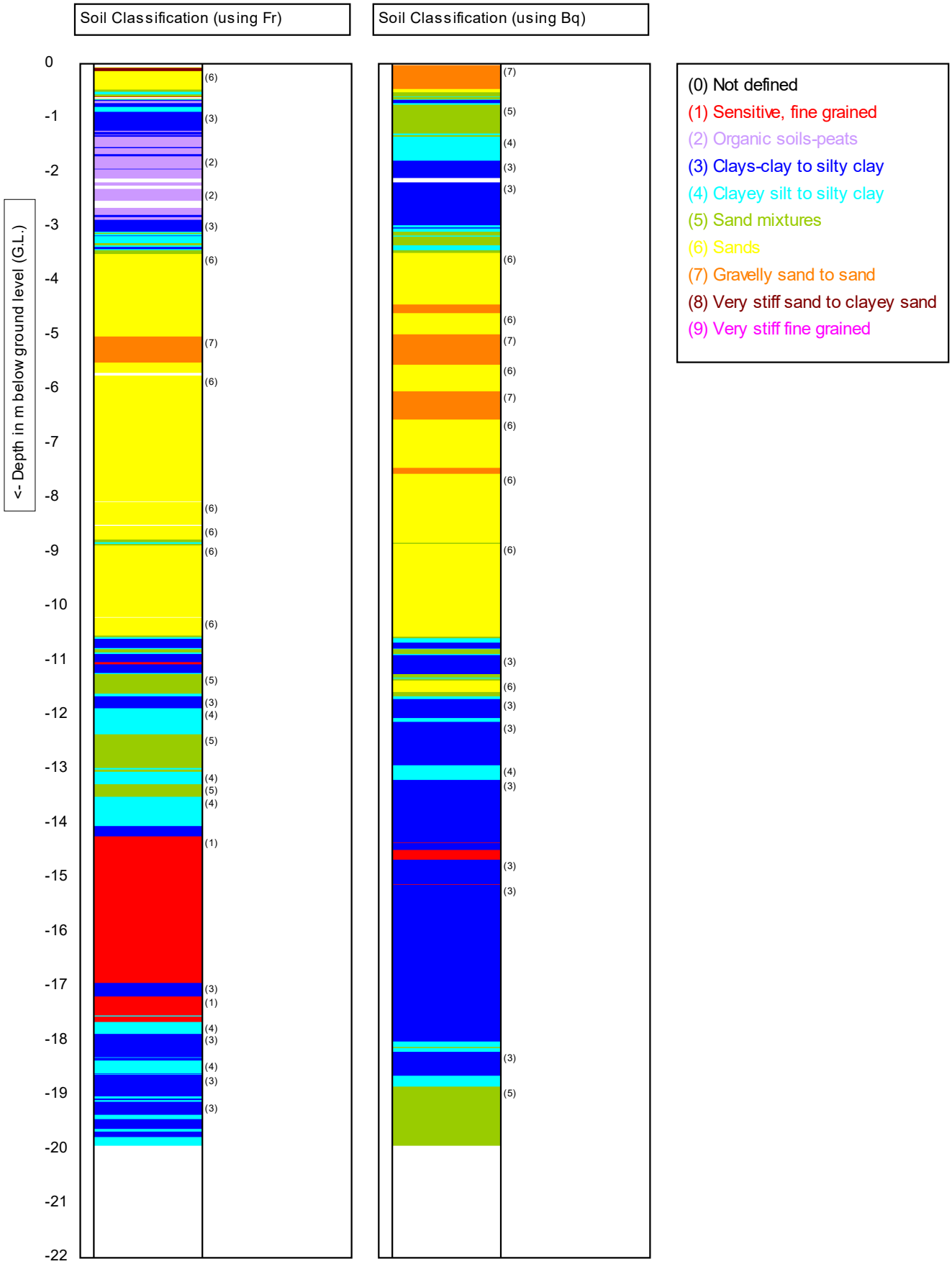
Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL** W.L.: **-2.40 m**

Project: **Wickham St**
Location: **Hamilton**
Position: **1798386, 5813225 NZTM**

Predrill: **0.00 m Predrilled**
Date: **17/11/2025**
Cone no.: **C10CFIIP.C241654**
Project no.: **2-68014.00_HA15919**
CPT no.: **25-01** **3/6**

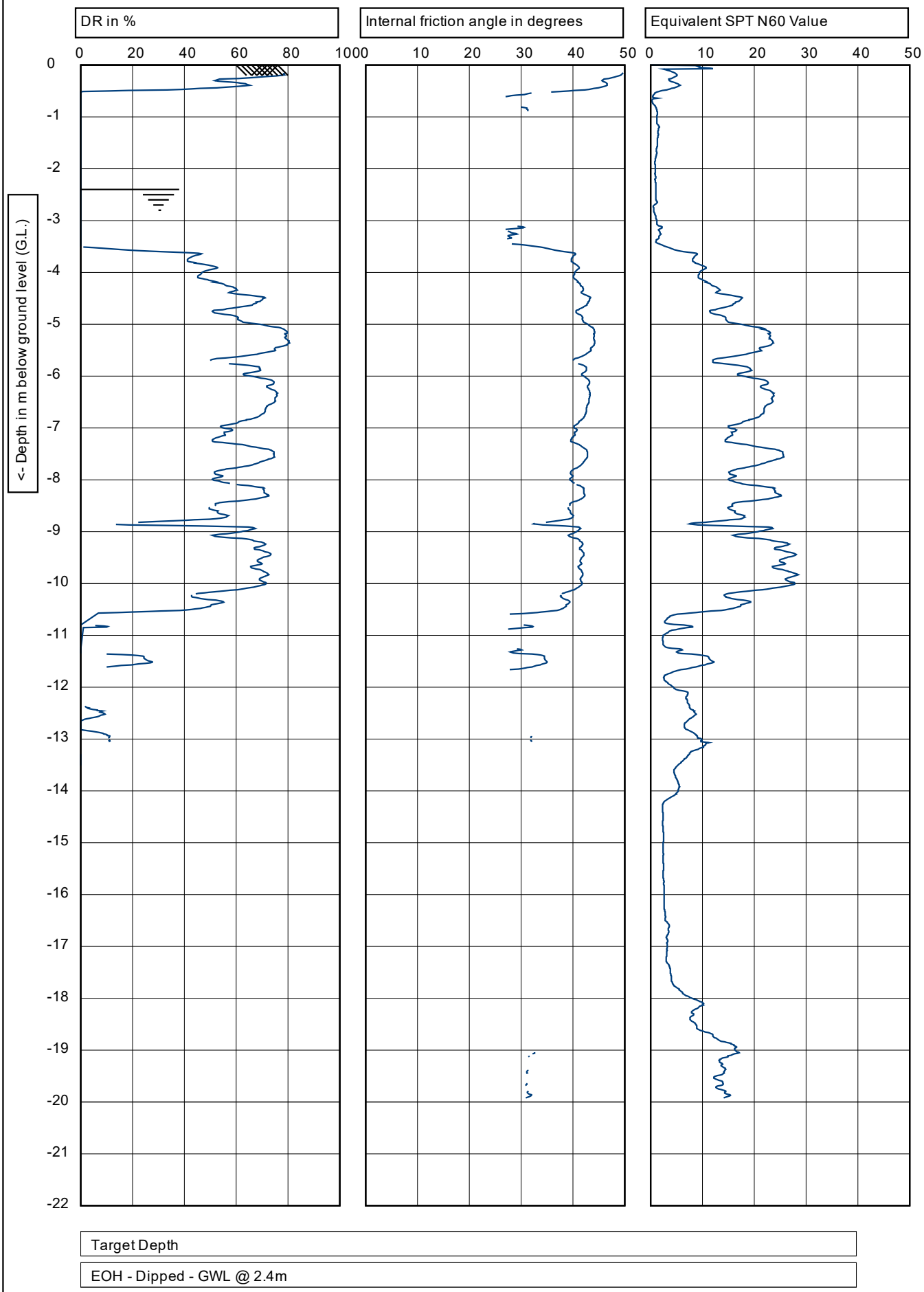
1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-2.40 m**	Date:	**17/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C241654**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1798386, 5813225 NZTM**		CPT no.:	**25-01** 4/6

1.49



Target Depth

EOH - Dipped - GWL @ 2.4m

Graphs on this page are not IANZ accredited

u2
150 cm²
10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL**

W.L.: **-2.40 m**

Project: **Wickham St**

Location: **Hamilton**

Position: **1798386, 5813225 NZTM**

Predrill: **0.00 m Predrilled**

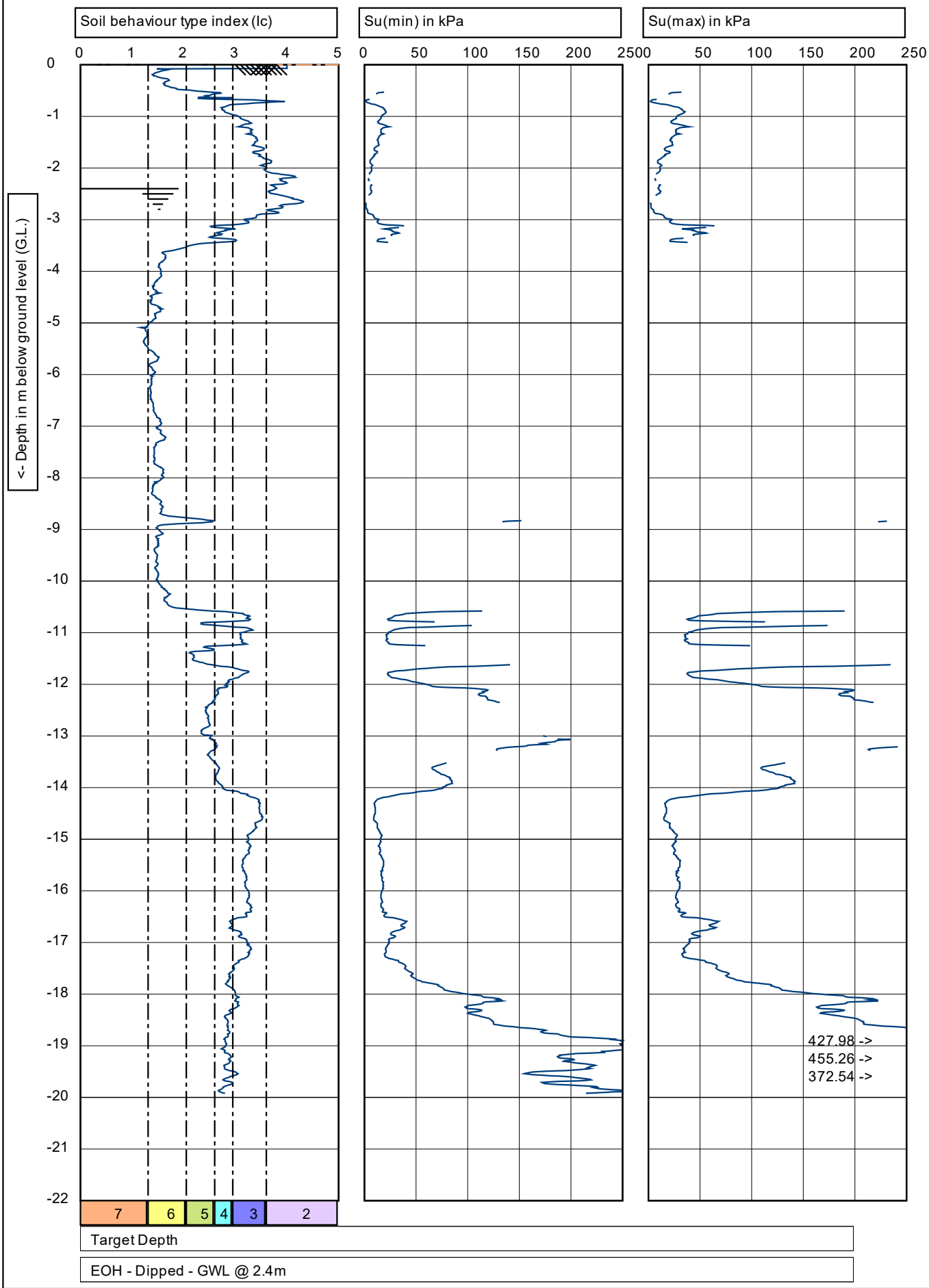
Date: **17/11/2025**

Cone no.: **C10CFIIP.C241654**

Project no.: **2-68014.00_HA15919**

CPT no.: **25-01** **5/6**

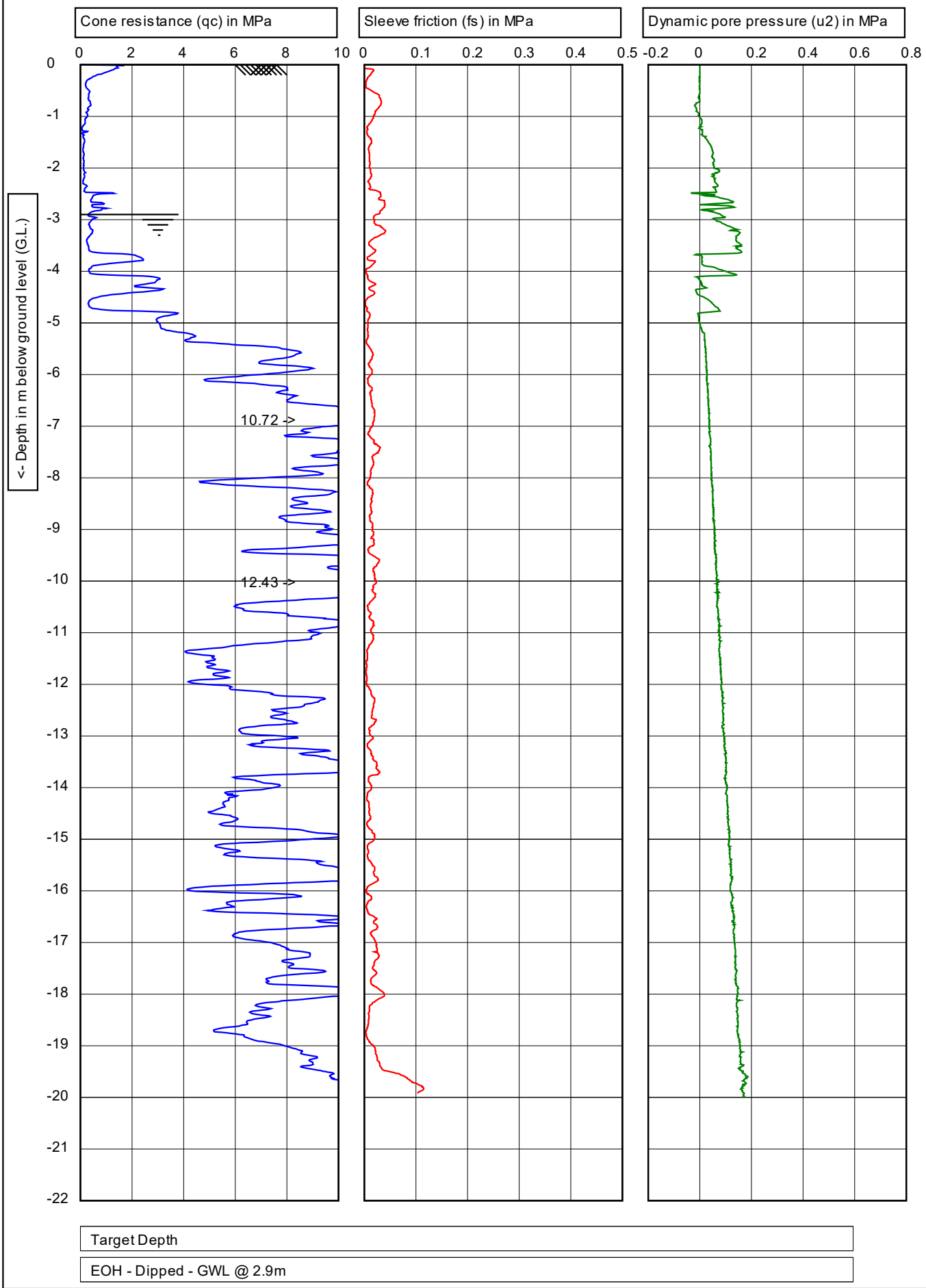
1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-2.40 m**	Date:	**17/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C241654**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1798386, 5813225 NZTM**		CPT no.:	**25-01** 6/6

1.49



Test results indicated as not accredited are outside the scope of the laboratory's accreditation

u2
150 cm²
10 cm²

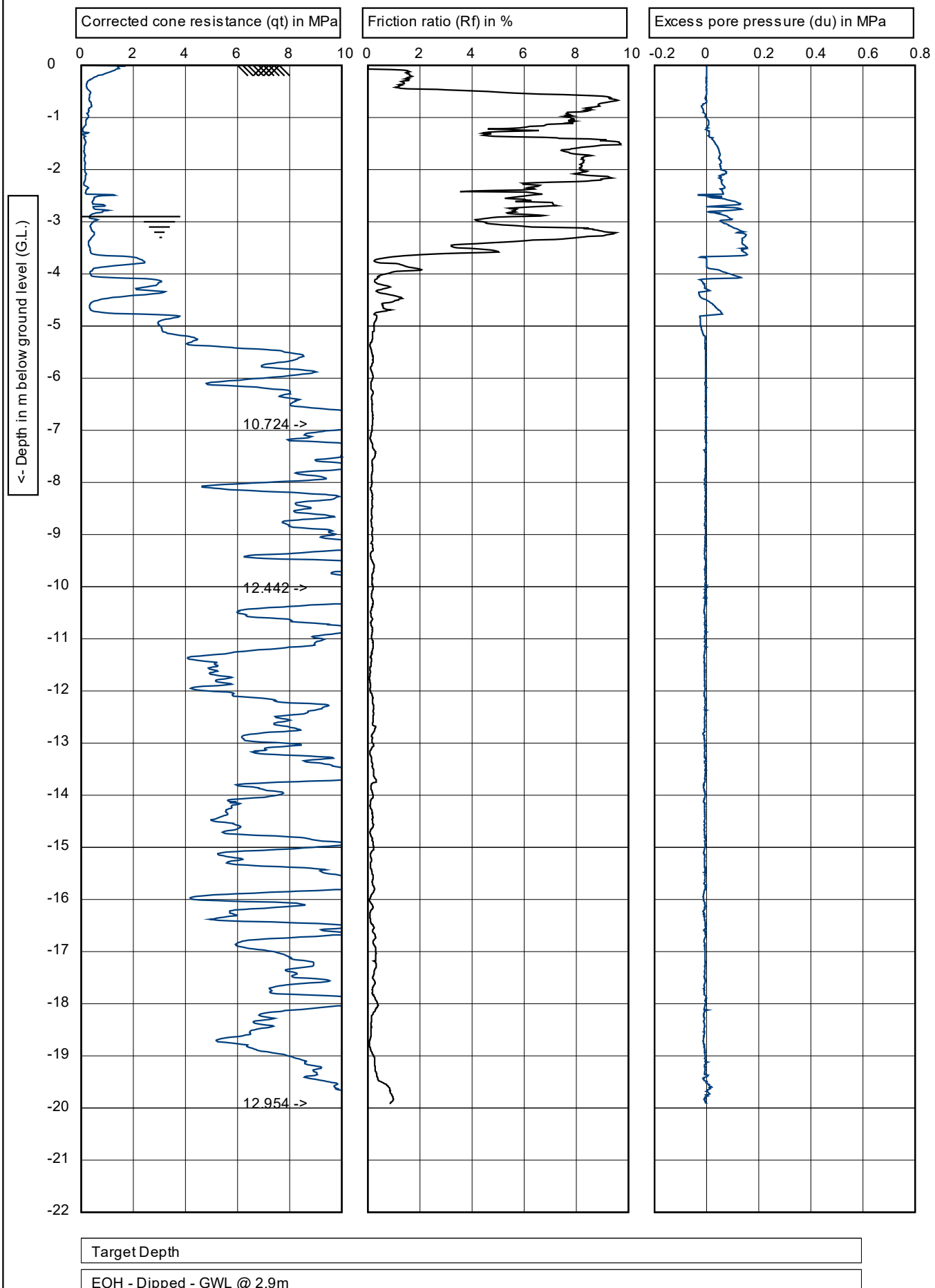
Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL** | W.L.: **-2.90 m**

Project: **Wickham St**
Location: **Hamilton**
Position: **1798256, 5813002 NZTM**

Predrill: **0.00 m Predrilled**
Date: **17/11/2025**
Cone no.: **C10CFIIP.C20361**
Project no.: **2-68014.00_HA15919**
CPT no.: **25-02** **1/6**

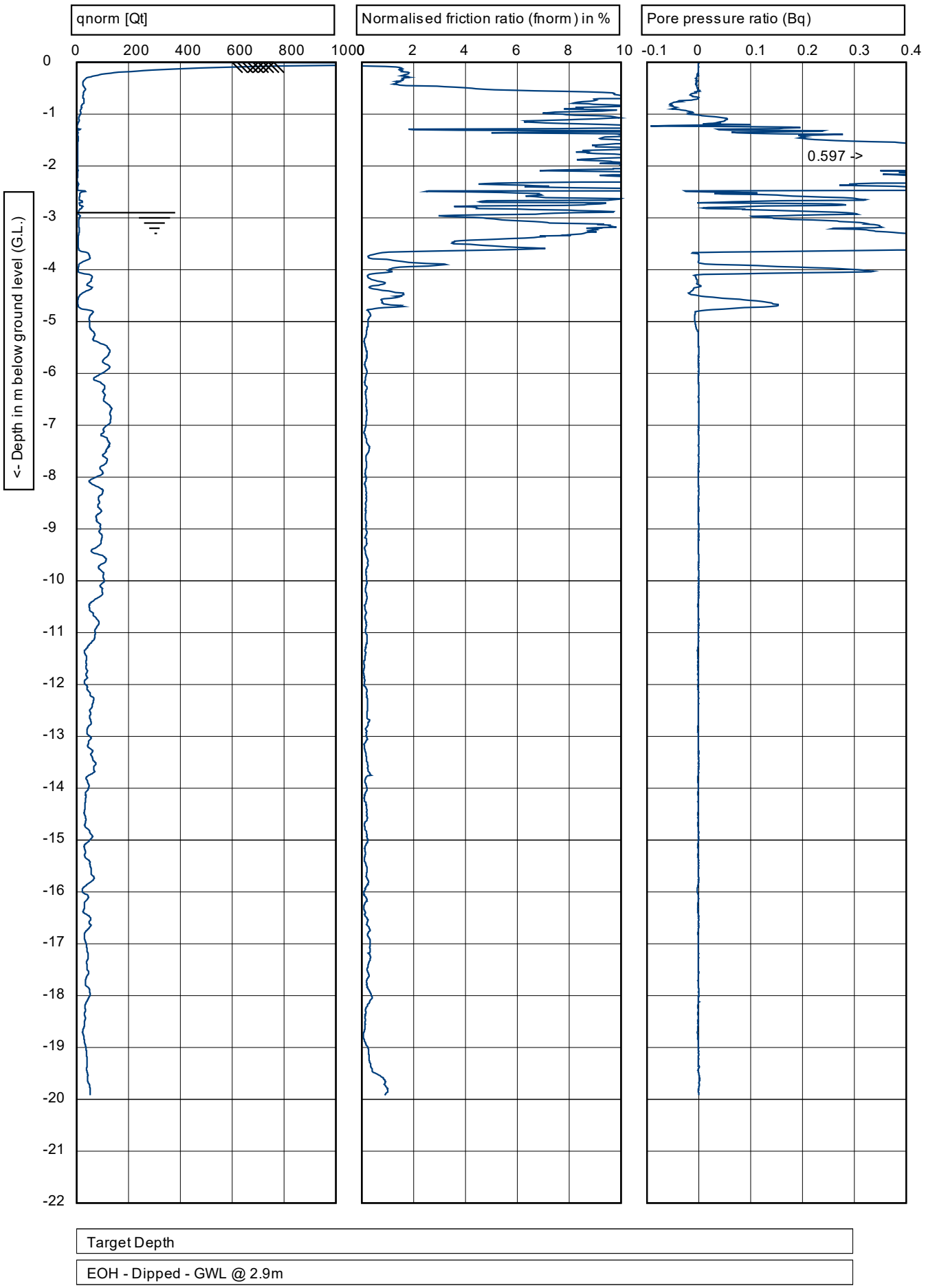
1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-2.90 m**	Date:	**17/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C20361**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1798256, 5813002 NZTM**		CPT no.:	**25-02** **2/6**

1.49



Target Depth

EOH - Dipped - GWL @ 2.9m

Graphs on this page are not IANZ accredited

u2
150 cm²
10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL** W.L.: **-2.90 m**

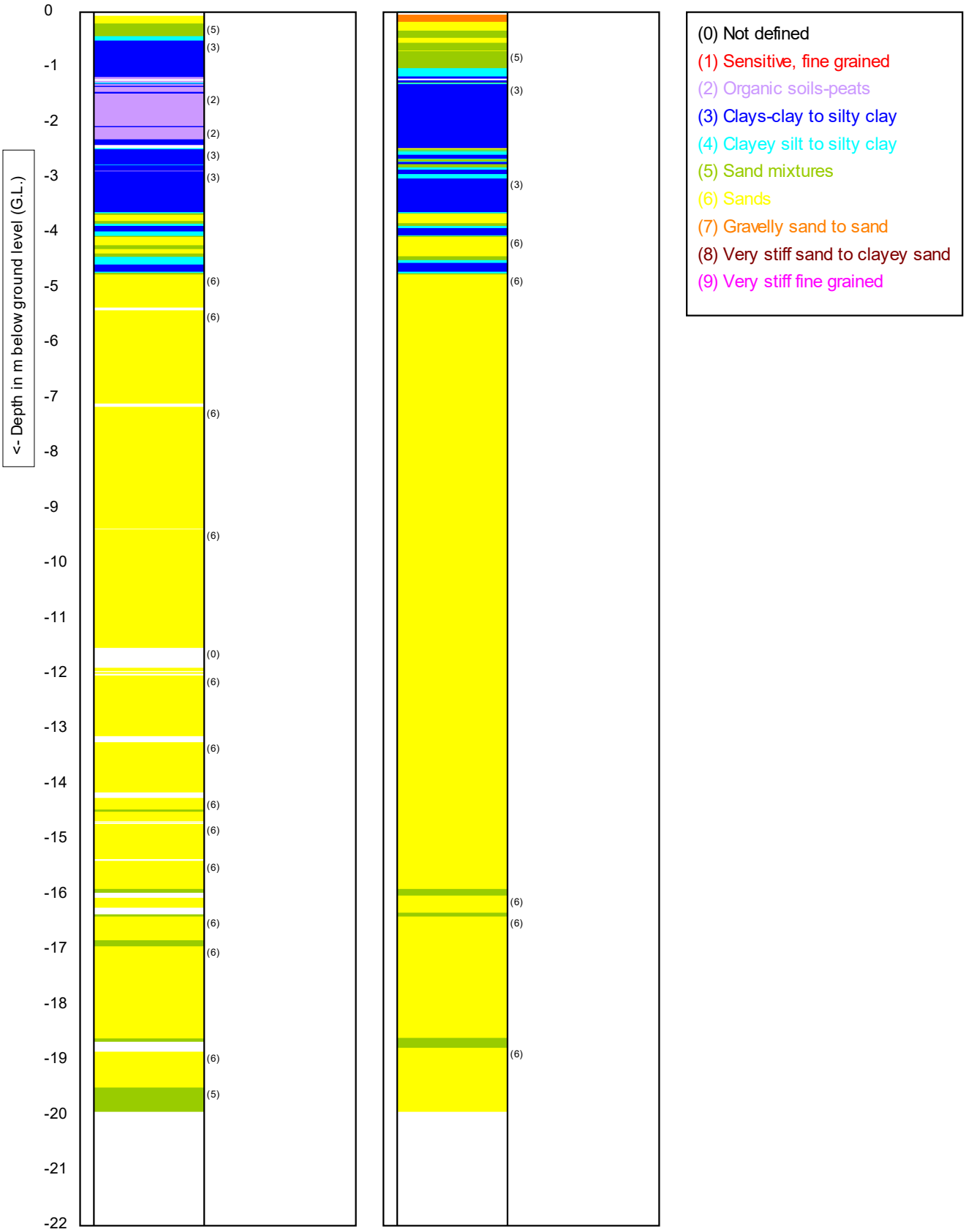
Project: **Wickham St**
Location: **Hamilton**
Position: **1798256, 5813002 NZTM**

Predrill: **0.00 m Predrilled**
Date: **17/11/2025**
Cone no.: **C10CFIIP.C20361**
Project no.: **2-68014.00_HA15919**
CPT no.: **25-02** **3/6**

1.49

Soil Classification (using Fr)

Soil Classification (using Bq)



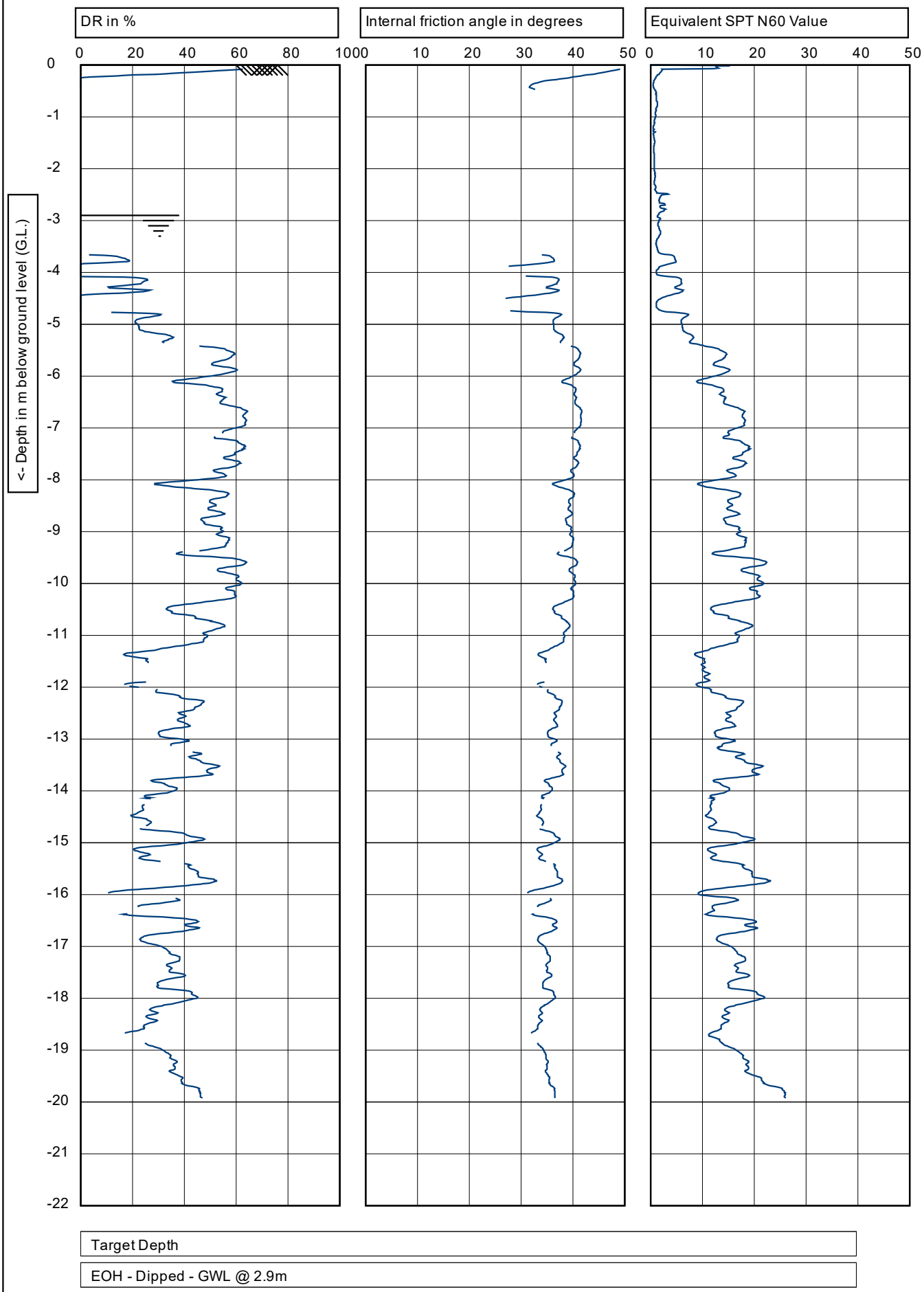
(0) Not defined
(1) Sensitive, fine grained
(2) Organic soils-peats
(3) Clays-clay to silty clay
(4) Clayey silt to silty clay
(5) Sand mixtures
(6) Sands
(7) Gravelly sand to sand
(8) Very stiff sand to clayey sand
(9) Very stiff fine grained

Graphs on this page are not IANZ accredited

r u2
L 150 cm²
10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-2.90 m**	Date:	**17/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C20361**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1798256, 5813002 NZTM**		CPT no.:	**25-02** 4/6

1.49



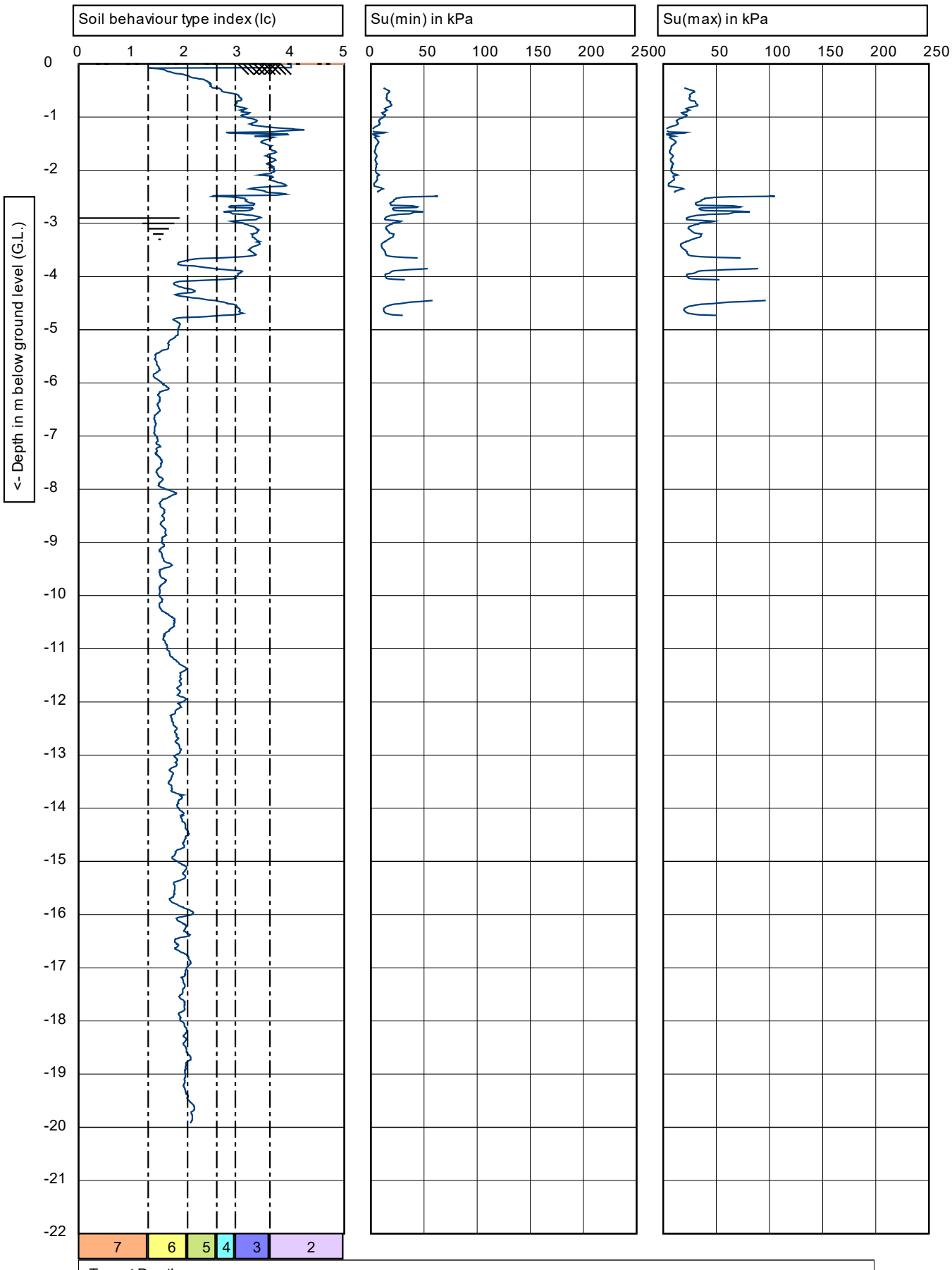
Target Depth

EOH - Dipped - GWL @ 2.9m

Graphs on this page are not IANZ accredited

1.49

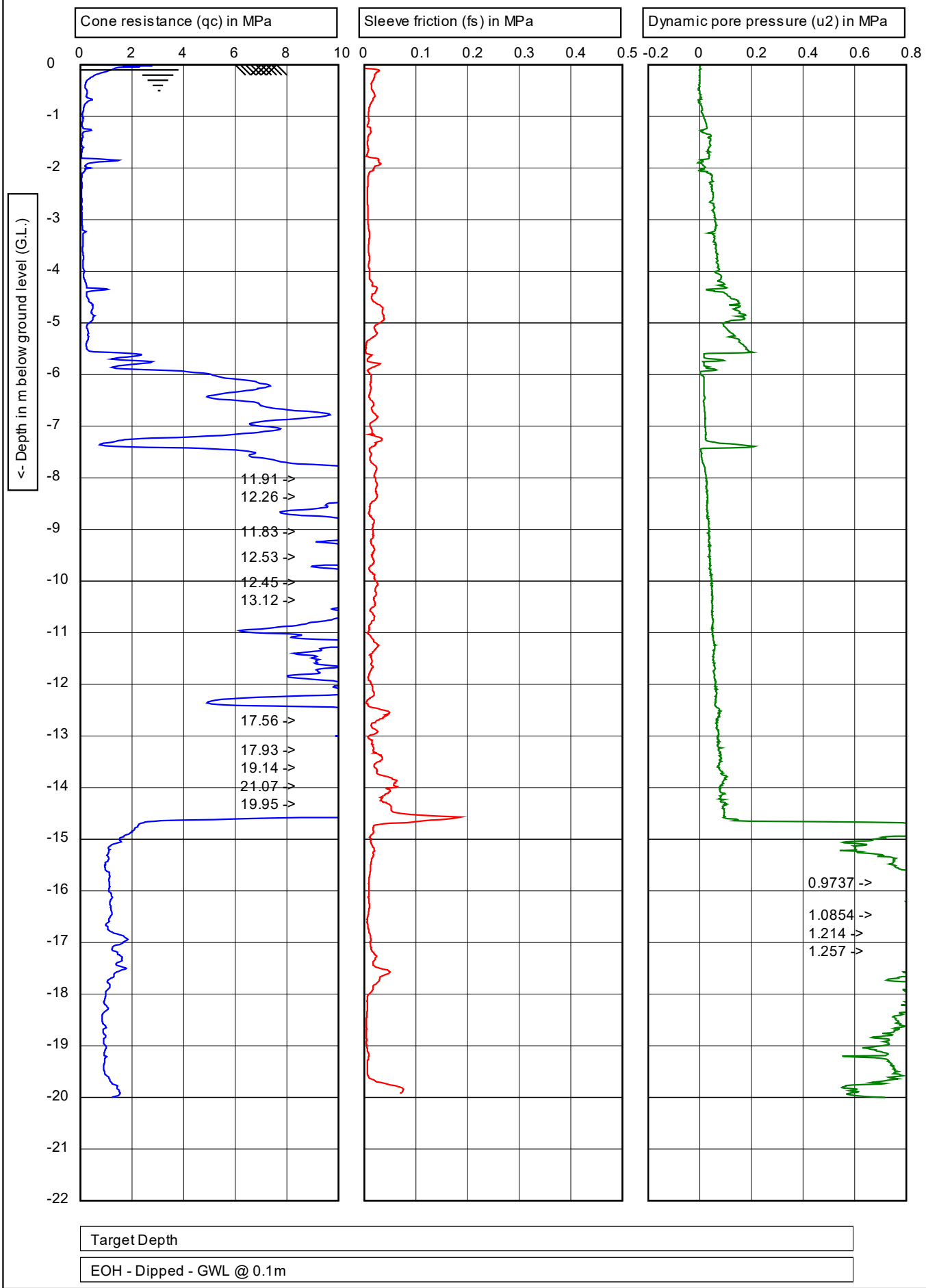
Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-2.90 m**	Date:	**17/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C20361**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1798256, 5813002 NZTM**		CPT no.:	**25-02** 5/6



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-2.90 m**	Date:	**17/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C20361**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1798256, 5813002 NZTM**		CPT no.:	**25-02** 6/6

1.49



Test results indicated as not accredited are outside the scope of the laboratory's accreditation

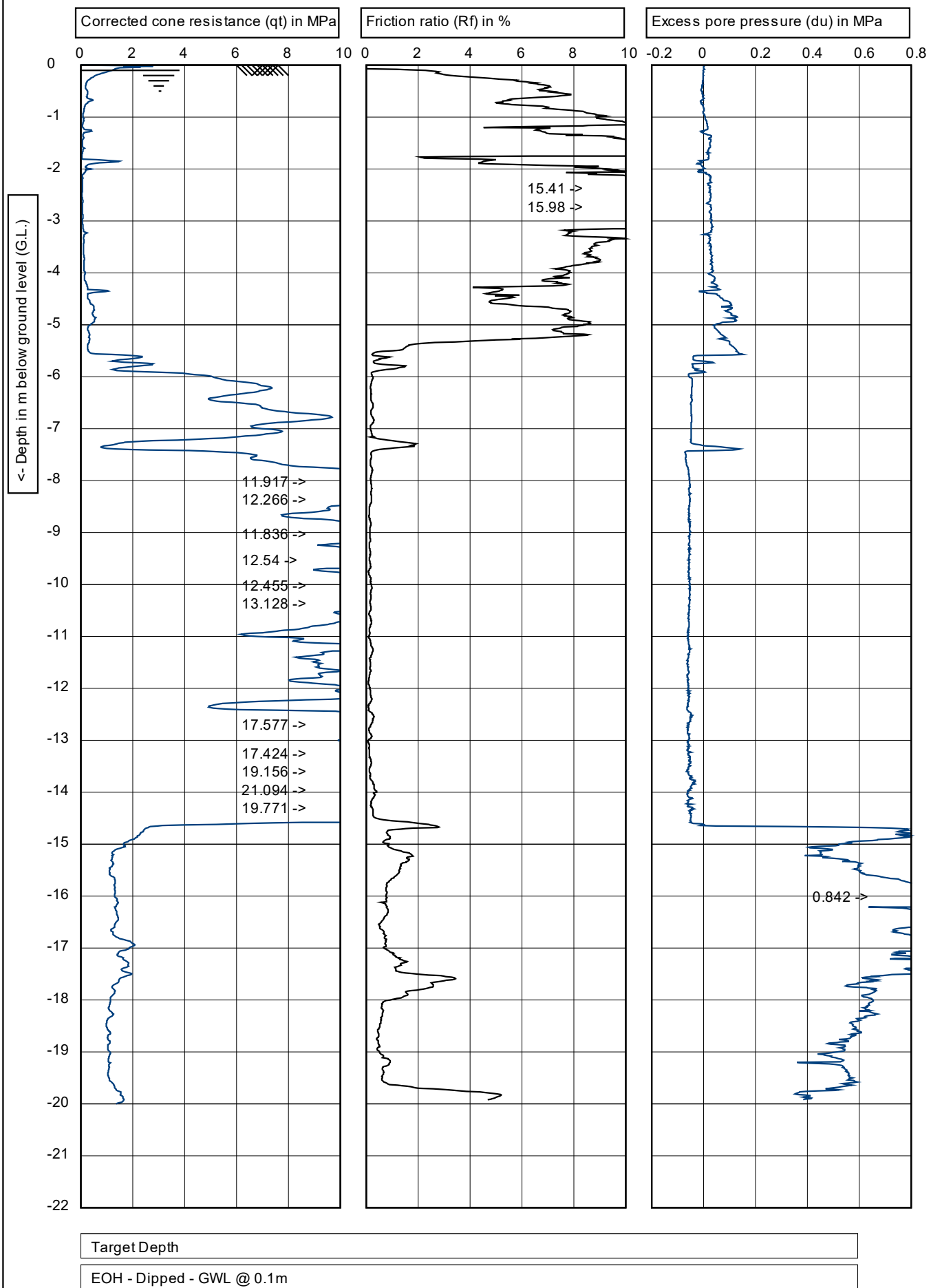
Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL** W.L.: **-0.10 m**

Project: **Wickham St**
Location: **Hamilton**
Position: **1798471, 5812930 NZTM**

Predrill: **0.00 m Predrilled**
Date: **17/11/2025**
Cone no.: **C10CFIIP.C20361**
Project no.: **2-68014.00_HA15919**
CPT no.: **25-03** **1/6**

1.49



Graphs on this page are not IANZ accredited

u2
150 cm²
10 cm²

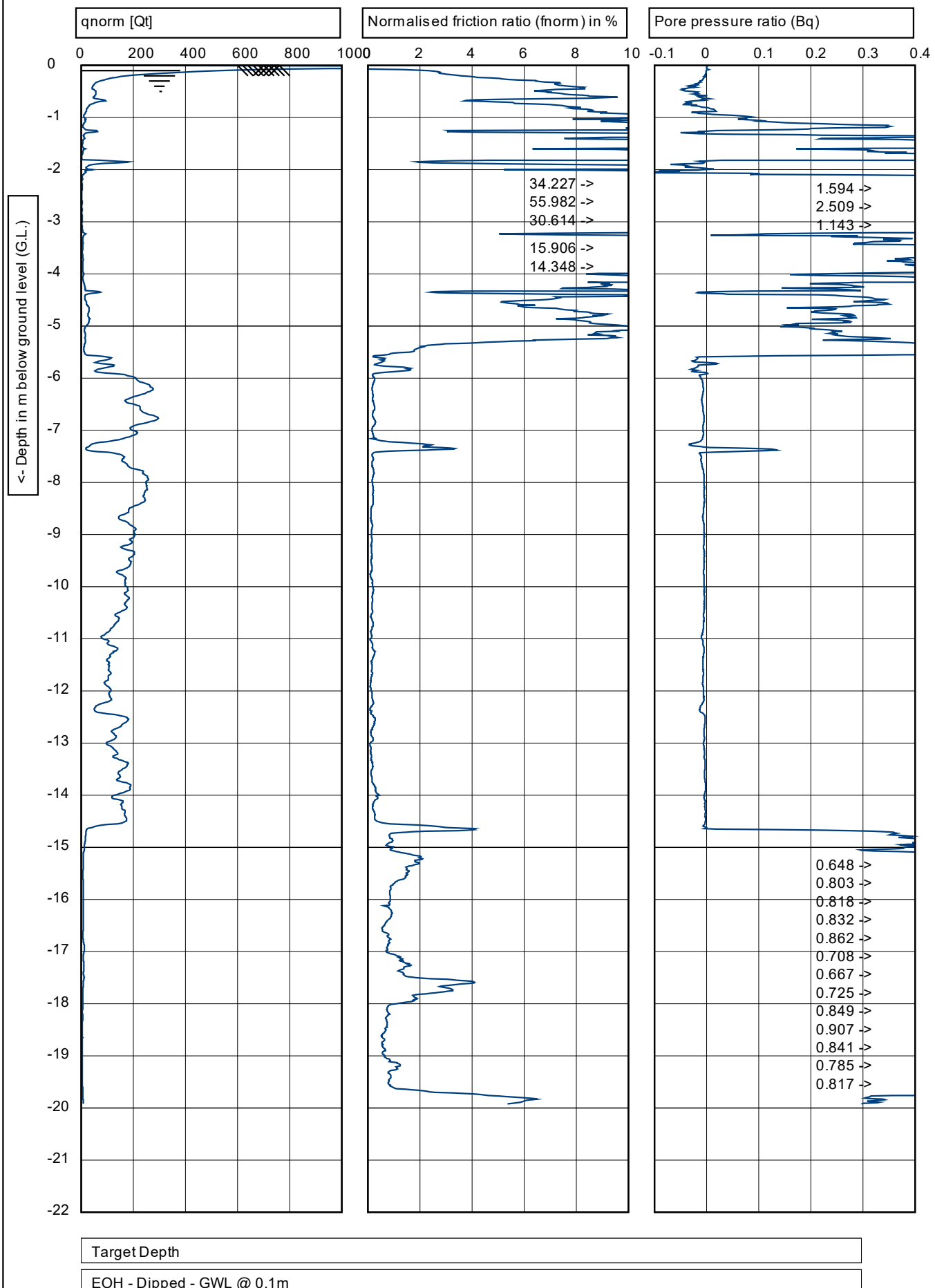
Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL** W.L.: **-0.10 m**

Project: **Wickham St**
Location: **Hamilton**
Position: **1798471, 5812930 NZTM**

Predrill: **0.00 m Predrilled**
Date: **17/11/2025**
Cone no.: **C10CFIIP.C20361**
Project no.: **2-68014.00_HA15919**
CPT no.: **25-03**

1.49



Graphs on this page are not IANZ accredited

u2
150 cm²
10 cm²

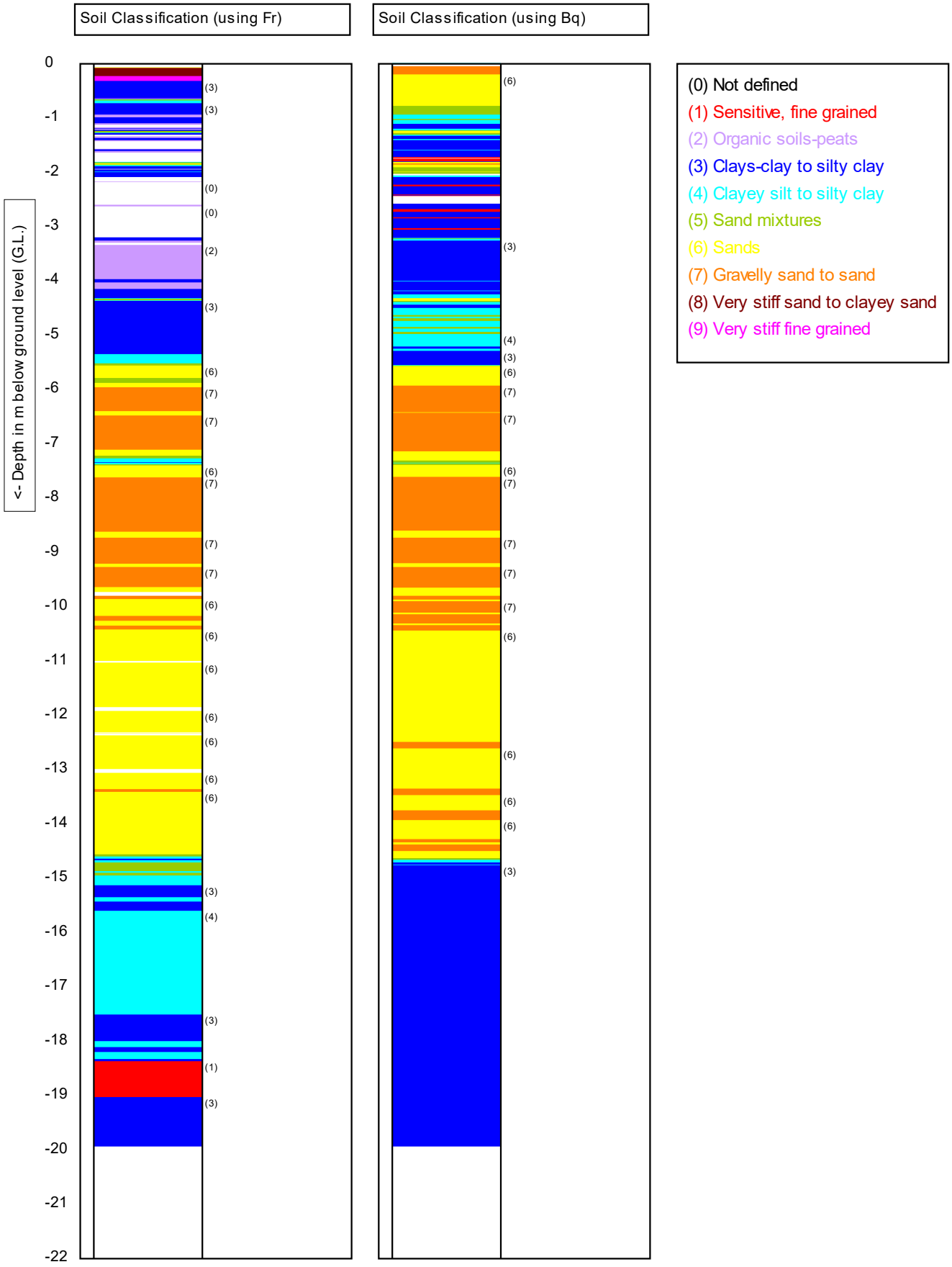
Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL** W.L.: **-0.10 m**

Project: **Wickham St**
Location: **Hamilton**
Position: **1798471, 5812930 NZTM**

Predrill: **0.00 m Predrilled**
Date: **17/11/2025**
Cone no.: **C10CFIIP.C20361**
Project no.: **2-68014.00_HA15919**
CPT no.: **25-03** **3/6**

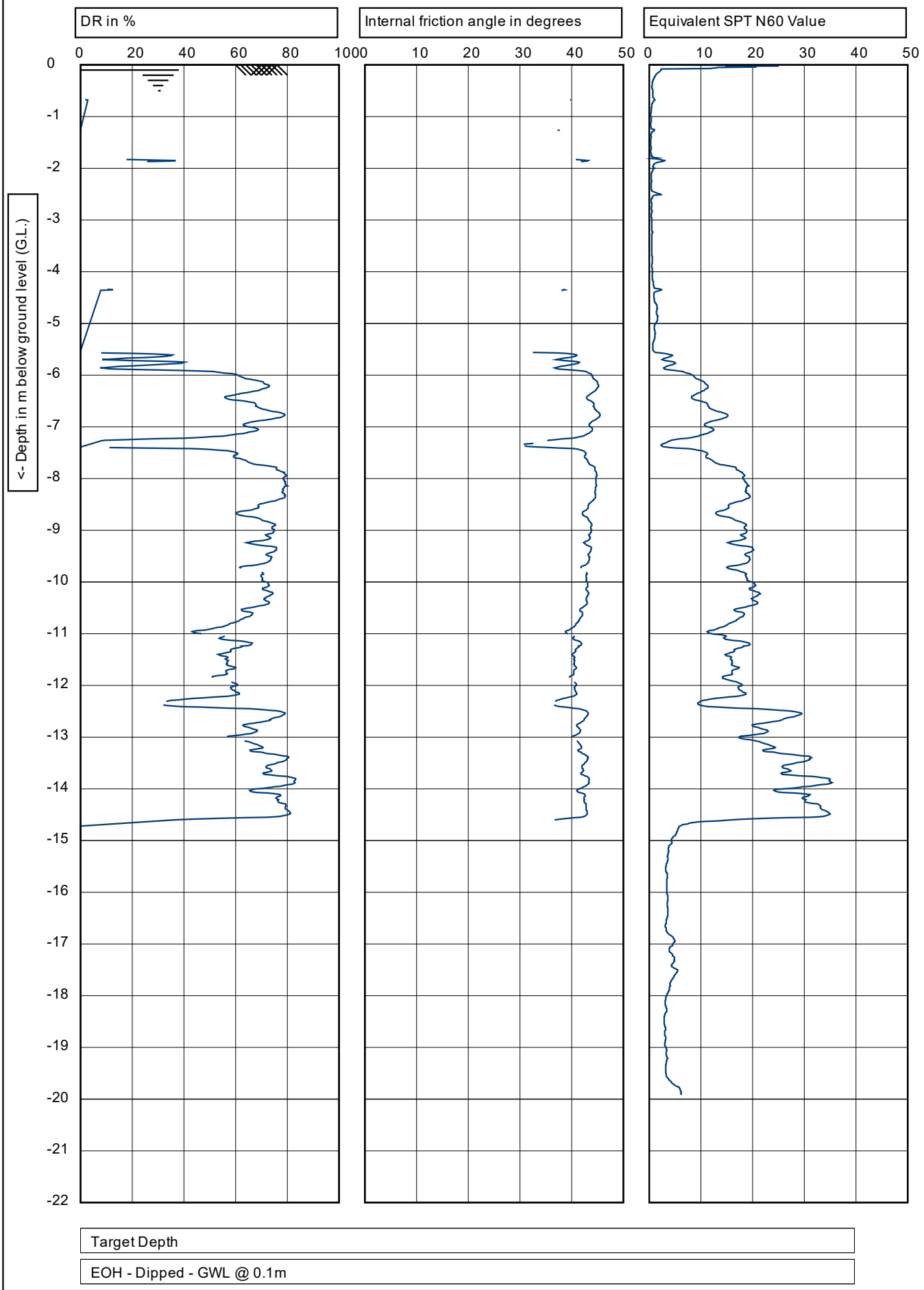
1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-0.10 m**	Date:	**17/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C20361**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1798471, 5812930 NZTM**		CPT no.:	**25-03** 4/6

1.49



Target Depth

EOH - Dipped - GWL @ 0.1m

Graphs on this page are not IANZ accredited

u2
150 cm²
10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL** | W.L.: **-0.10 m**

Project: **Wickham St**

Location: **Hamilton**

Position: **1798471, 5812930 NZTM**

Predrill: **0.00 m Predrilled**

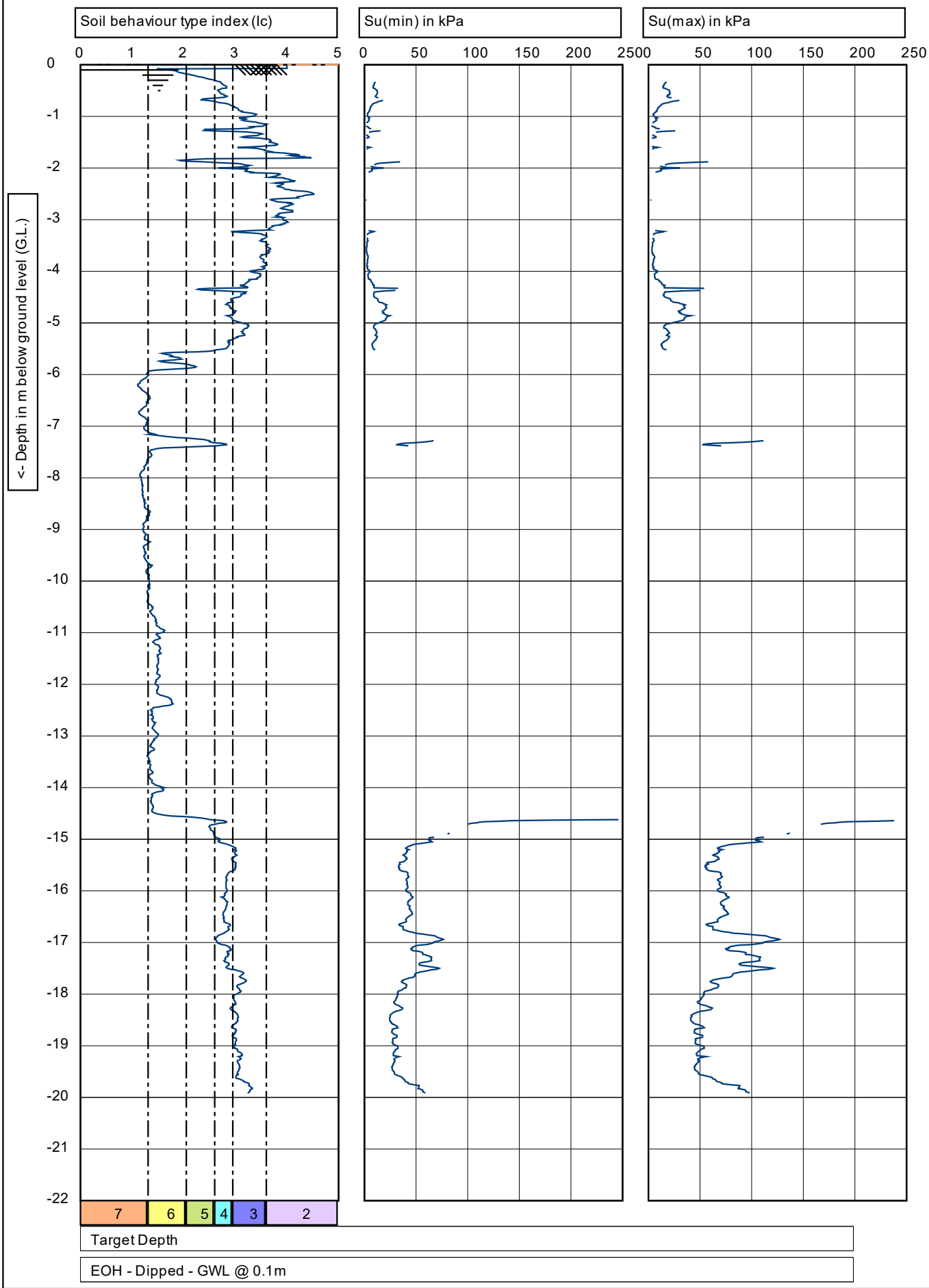
Date: **17/11/2025**

Cone no.: **C10CFIIP.C20361**

Project no.: **2-68014.00_HA15919**

CPT no.: **25-03** **5/6**

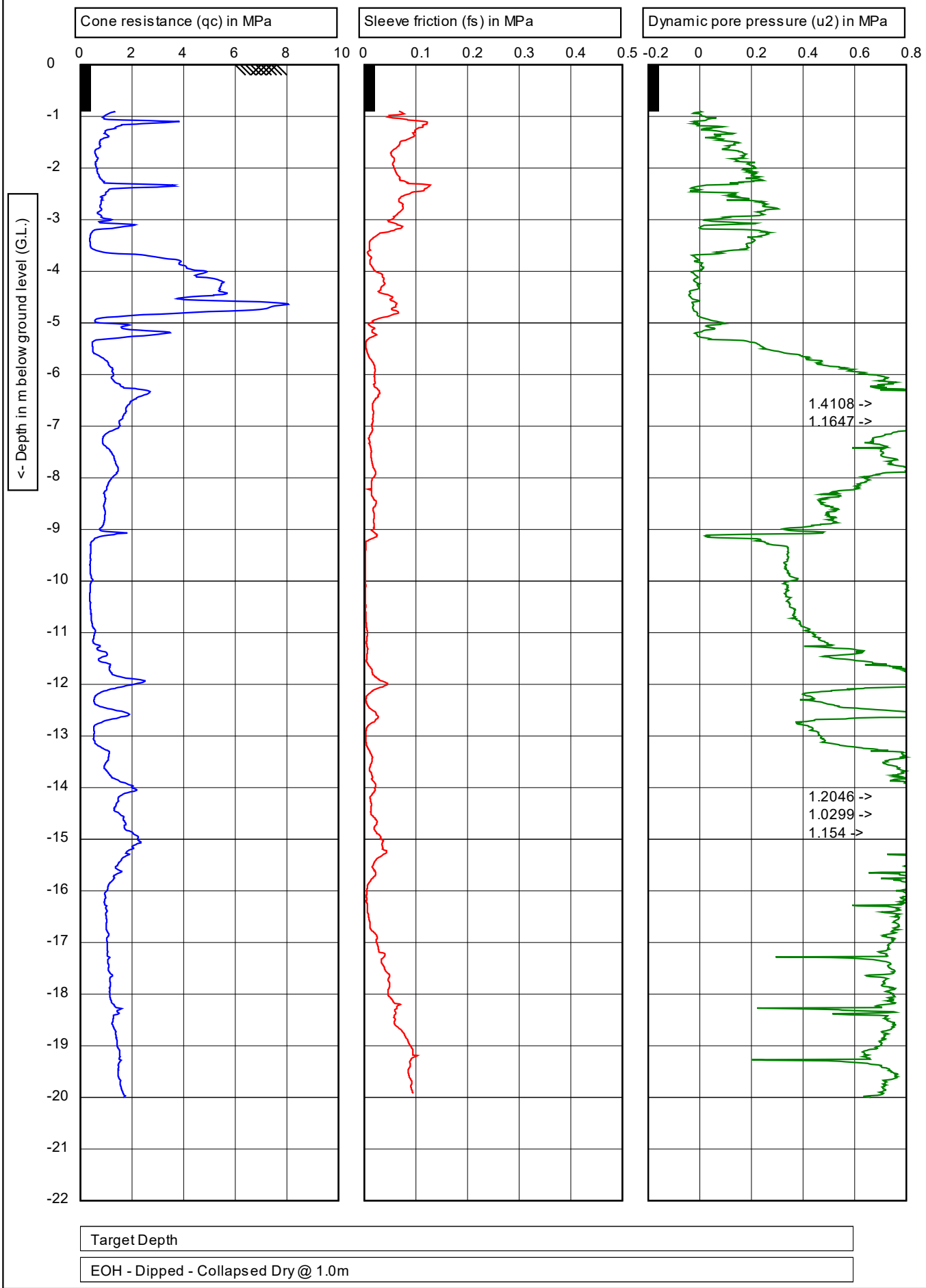
1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-0.10 m**	Date:	**17/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C20361**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1798471, 5812930 NZTM**		CPT no.:	**25-03** 6/6

1.49



Test results indicated as not accredited are outside the scope of the laboratory's accreditation

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL**

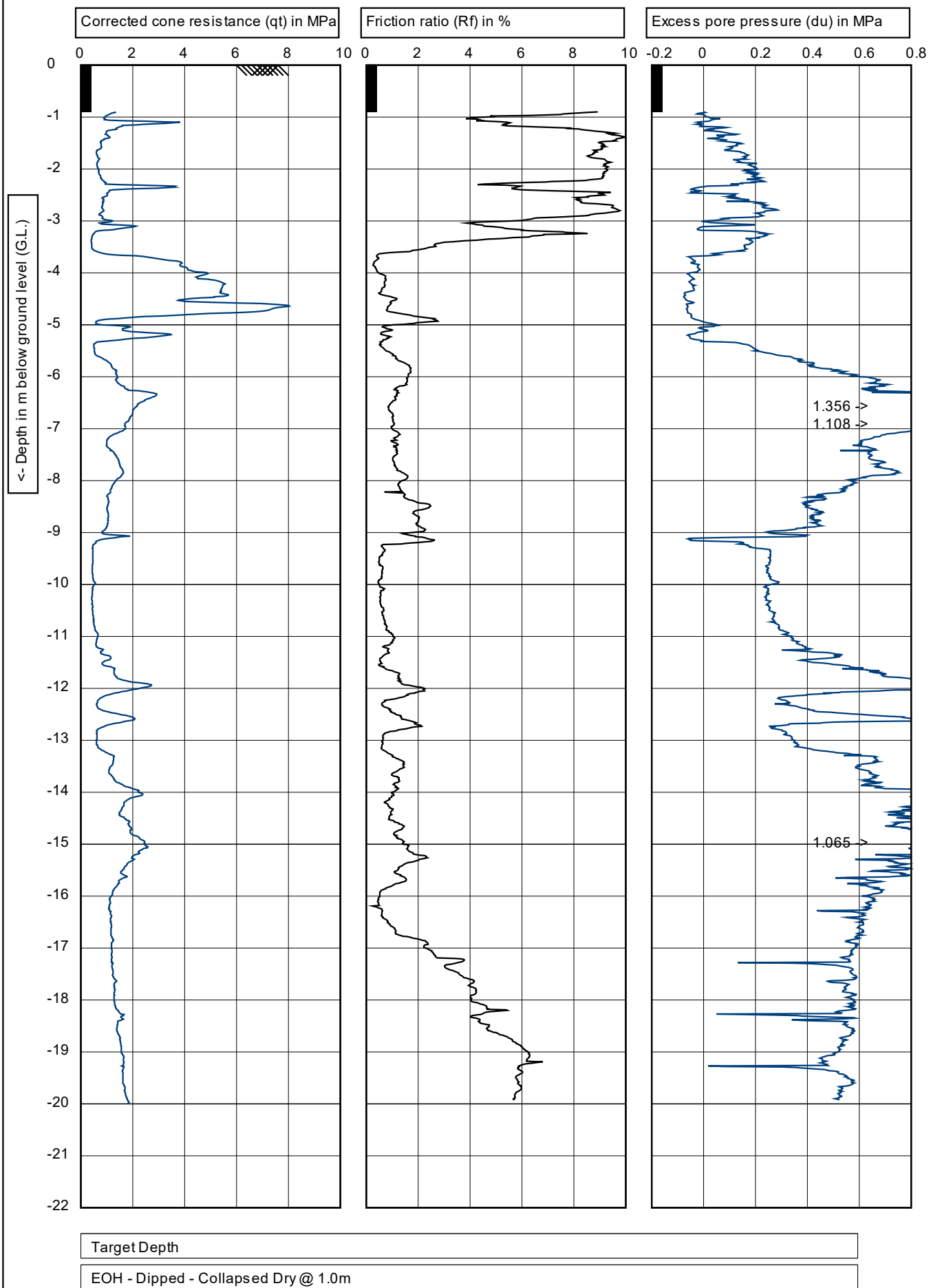
Project: **Wickham St**

Location: **Hamilton**

Position: **1798723, 5813057 NZTM**

Predrill:	**0.90 m Predrilled**
Date:	**17/11/2025**
Cone no.:	**C10CFIIP.C241654**
Project no.:	**2-68014.00_HA15919**
CPT no.:	**25-04**

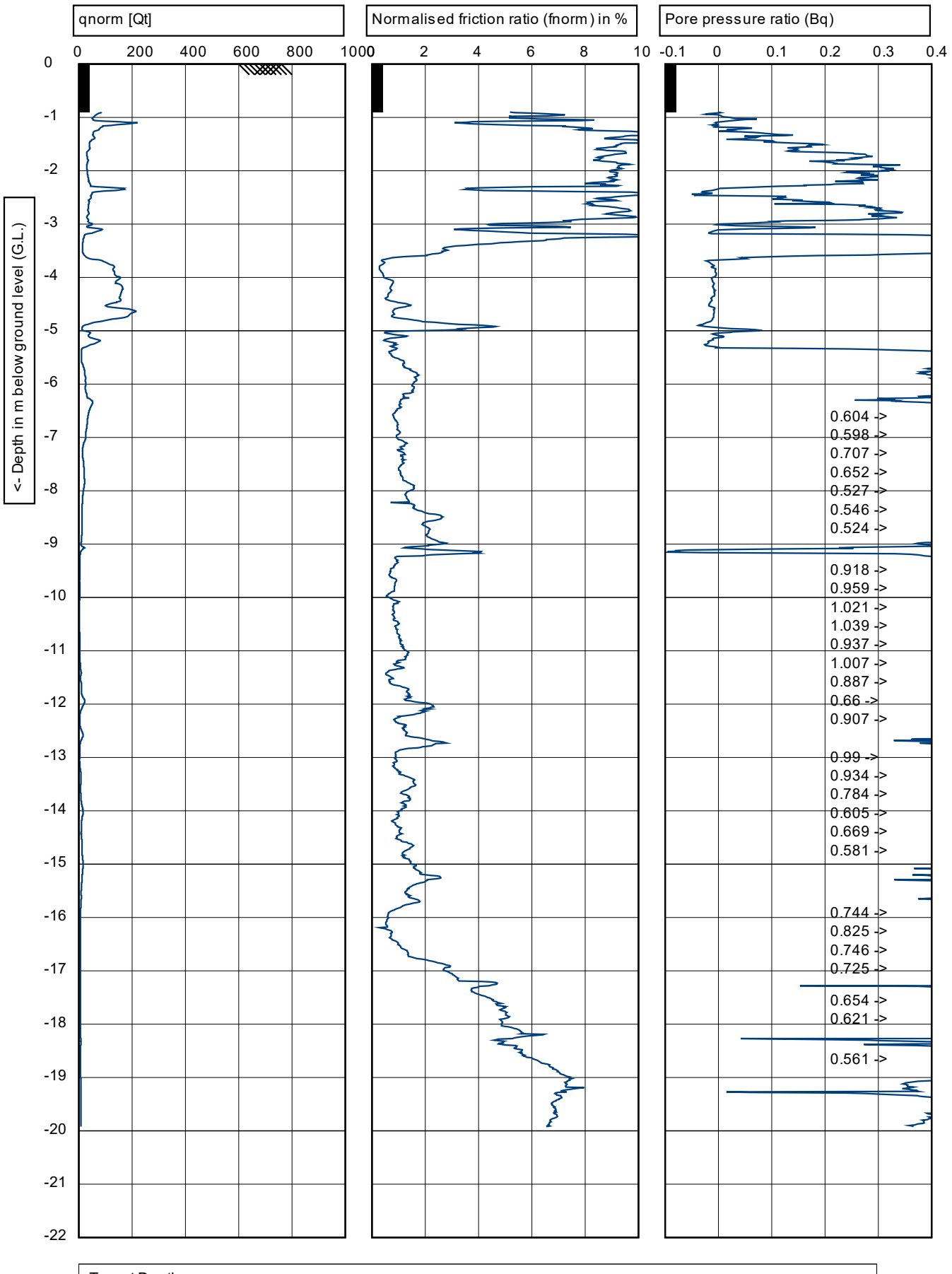
1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.90 m Predrilled**
G.L.: **0.00 m MSL**		Date:	**17/11/2025**
Project:	**Wickham St**	Cone no.:	**C10CFIIP.C241654**
Location:	**Hamilton**	Project no.:	**2-68014.00_HA15919**
Position:	**1798723, 5813057 NZTM**	CPT no.:	**25-04** 2/6

1.49



Target Depth

EOH - Dipped - Collapsed Dry @ 1.0m

Graphs on this page are not IANZ accredited

u2 150 cm² 10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL**

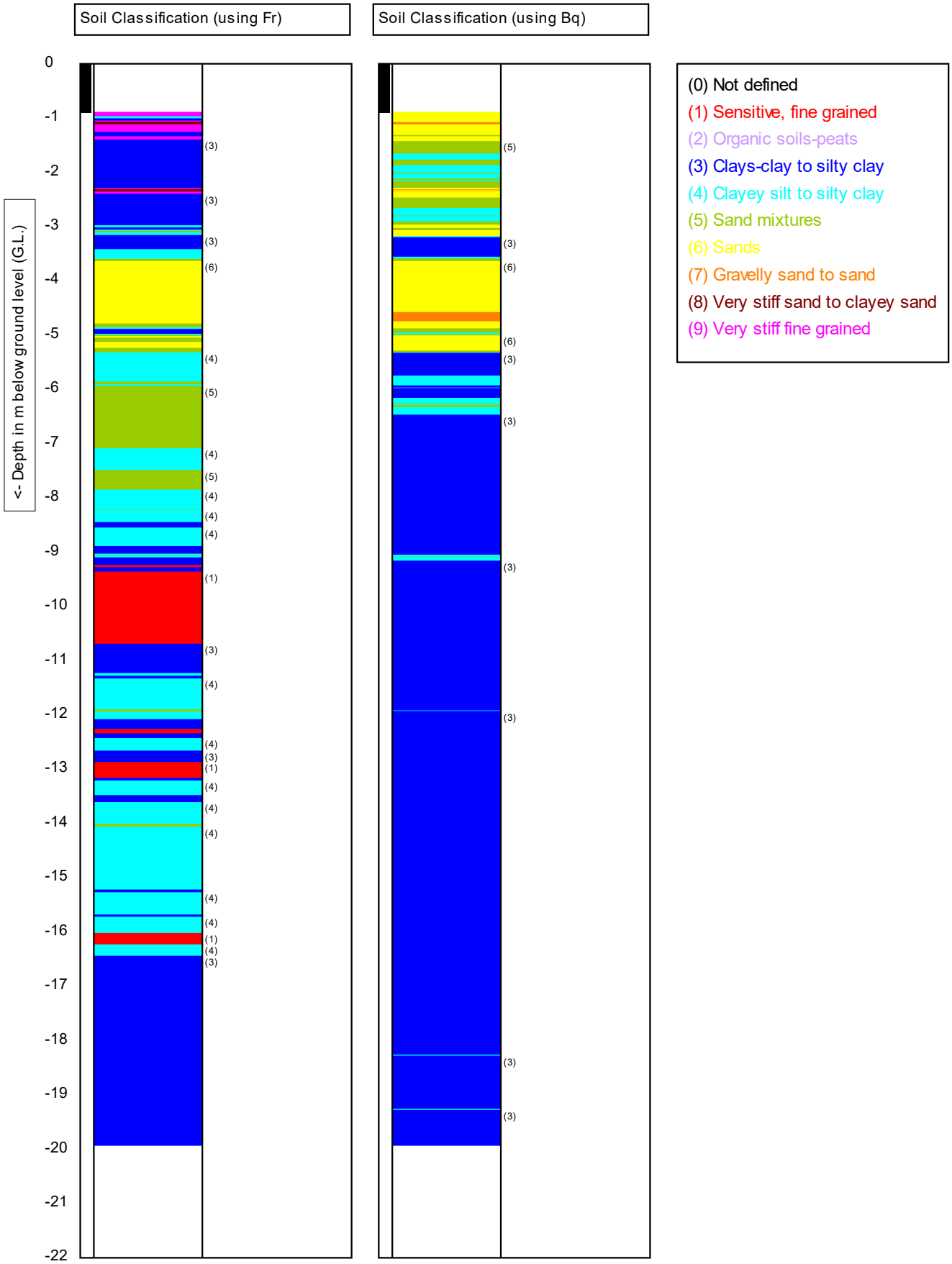
Project: **Wickham St**

Location: **Hamilton**

Position: **1798723, 5813057 NZTM**

Predrill:	**0.90 m Predrilled**
Date:	**17/11/2025**
Cone no.:	**C10CFIIP.C241654**
Project no.:	**2-68014.00_HA15919**
CPT no.:	**25-04**

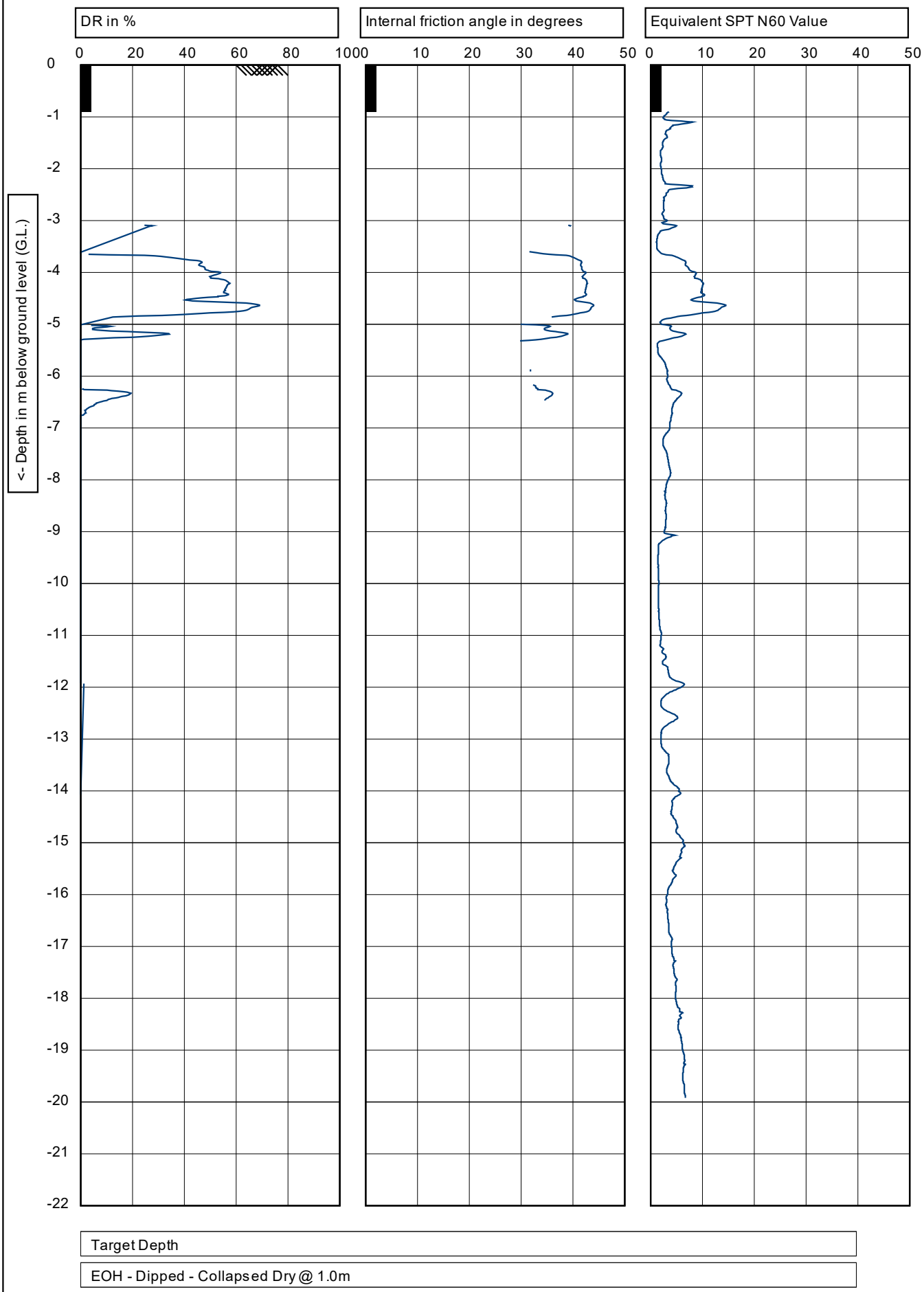
1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.90 m Predrilled**
G.L.: **0.00 m MSL**		Date:	**17/11/2025**
Project:	**Wickham St**	Cone no.:	**C10CFIIP.C241654**
Location:	**Hamilton**	Project no.:	**2-68014.00_HA15919**
Position:	**1798723, 5813057 NZTM**	CPT no.:	**25-04** 4/6

1.49



Target Depth

EOH - Dipped - Collapsed Dry @ 1.0m

Graphs on this page are not IANZ accredited

u2 150 cm² 10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL**

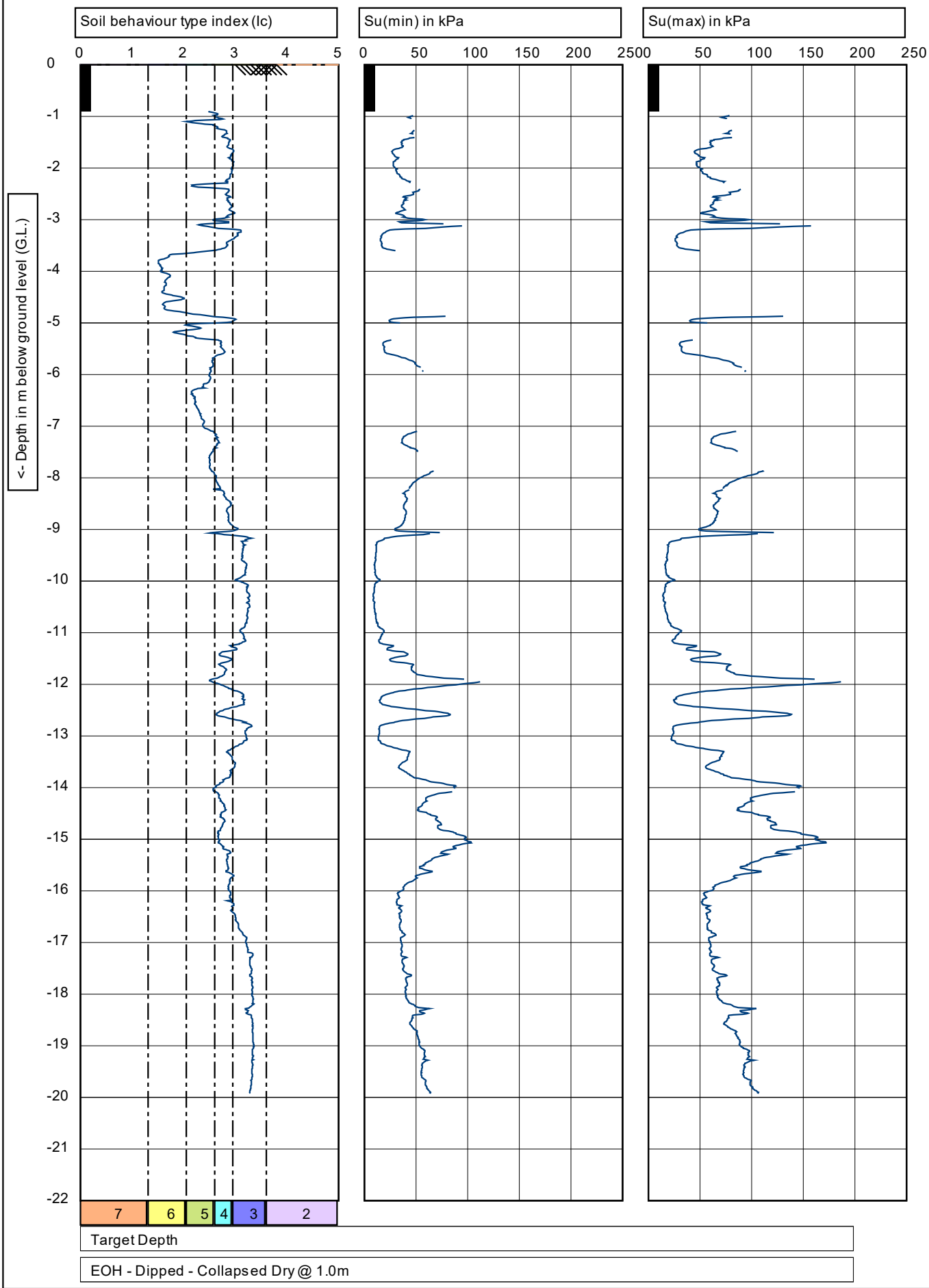
Project: **Wickham St**

Location: **Hamilton**

Position: **1798723, 5813057 NZTM**

Predrill:	**0.90 m Predrilled**
Date:	**17/11/2025**
Cone no.:	**C10CFIIP.C241654**
Project no.:	**2-68014.00_HA15919**
CPT no.:	**25-04**

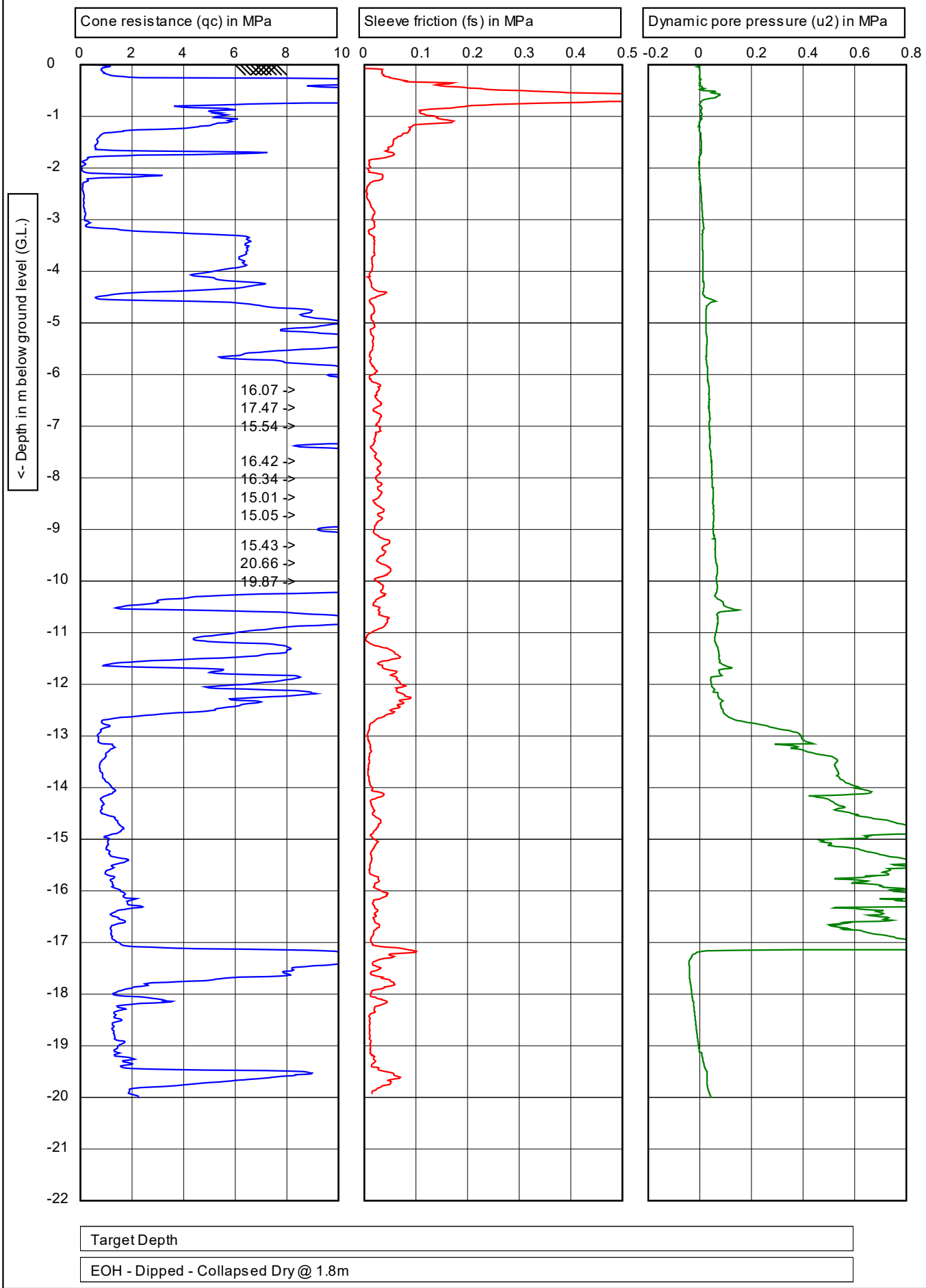
1.49



Graphs on this page are not IANZ accredited

1.49

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.90 m Predrilled**
G.L.: **0.00 m MSL**		Date:	**17/11/2025**
Project:	**Wickham St**	Cone no.:	**C10CFIIP.C241654**
Location:	**Hamilton**	Project no.:	**2-68014.00_HA15919**
Position:	**1798723, 5813057 NZTM**	CPT no.:	**25-04** 6/6



Test results indicated as not accredited are outside the scope of the laboratory's accreditation

u2 150 cm² 10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL**

Project: **Wickham St**

Location: **Hamilton**

Position: **1798798, 5813039 NZTM**

Predrill: **0.00 m Predrilled**

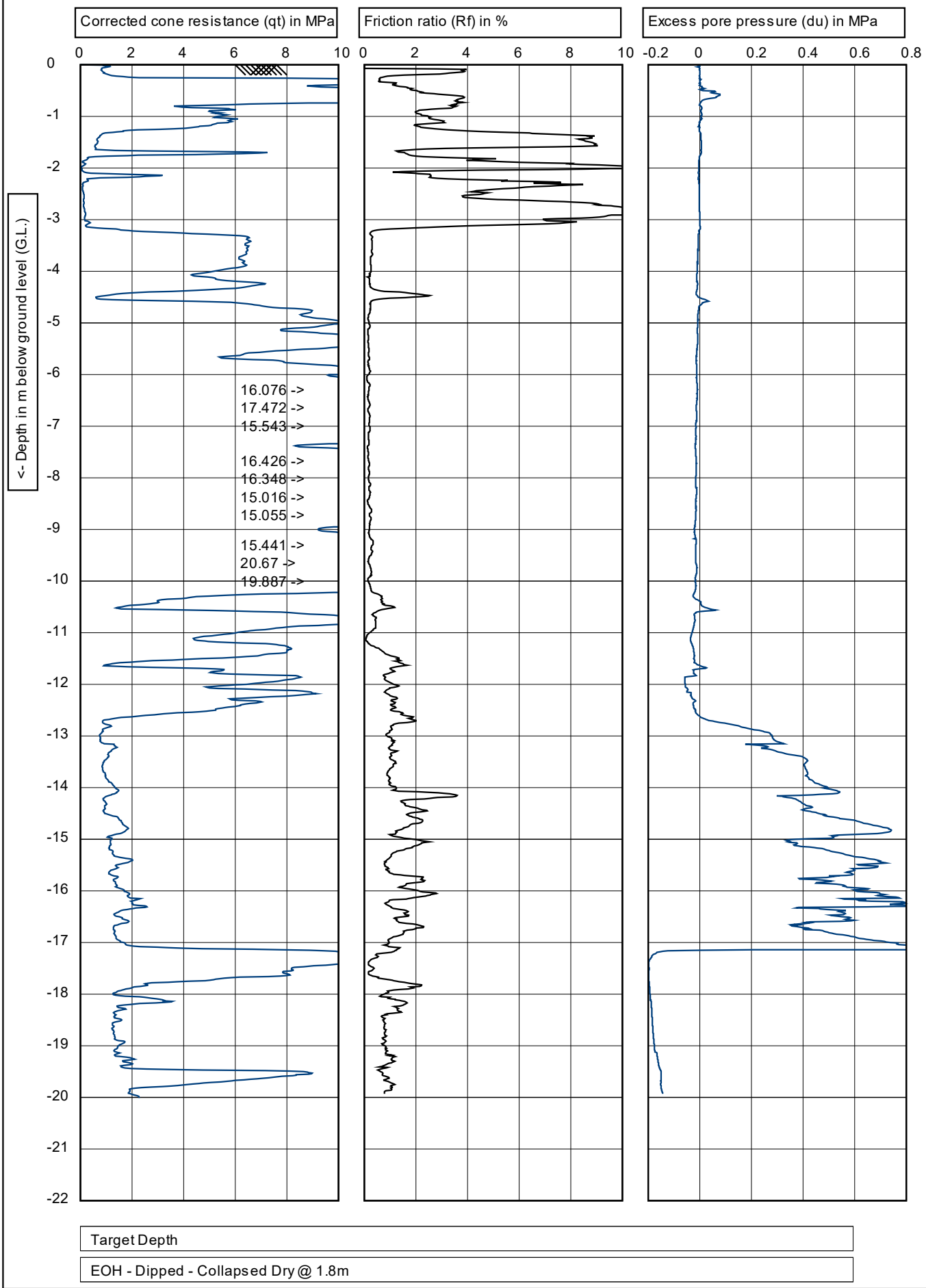
Date: **17/11/2025**

Cone no.: **C10CFIIP.C20361**

Project no.: **2-68014.00_HA15919**

CPT no.: **25-05** **1/6**

1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL**

Project: **Wickham St**

Location: **Hamilton**

Position: **1798798, 5813039 NZTM**

Predrill: **0.00 m Predrilled**

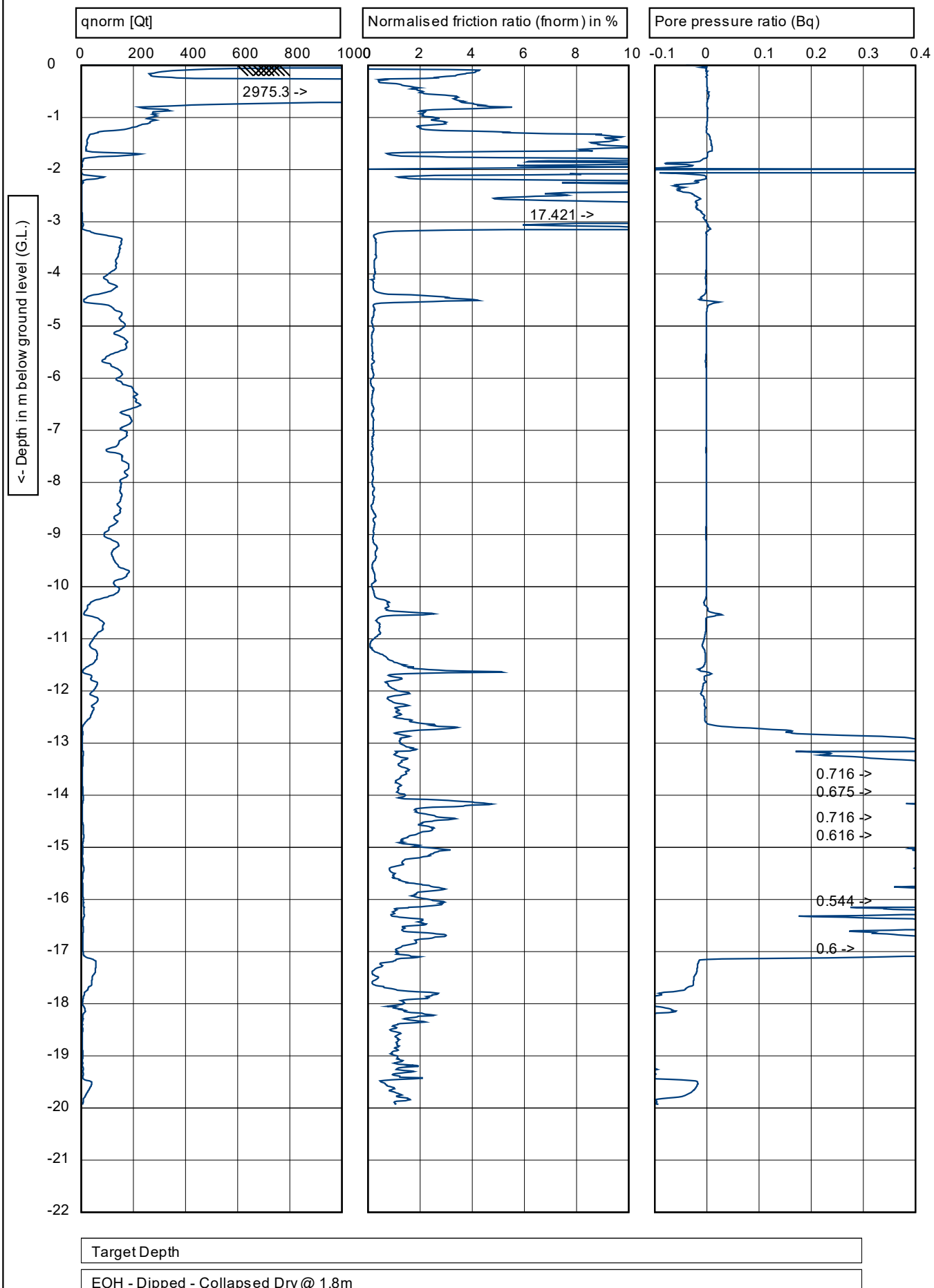
Date: **17/11/2025**

Cone no.: **C10CFIIP.C20361**

Project no.: **2-68014.00_HA15919**

CPT no.: **25-05** **2/6**

1.49



Target Depth

EOH - Dipped - Collapsed Dry @ 1.8m

Graphs on this page are not IANZ accredited

u2
150 cm²
10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL**

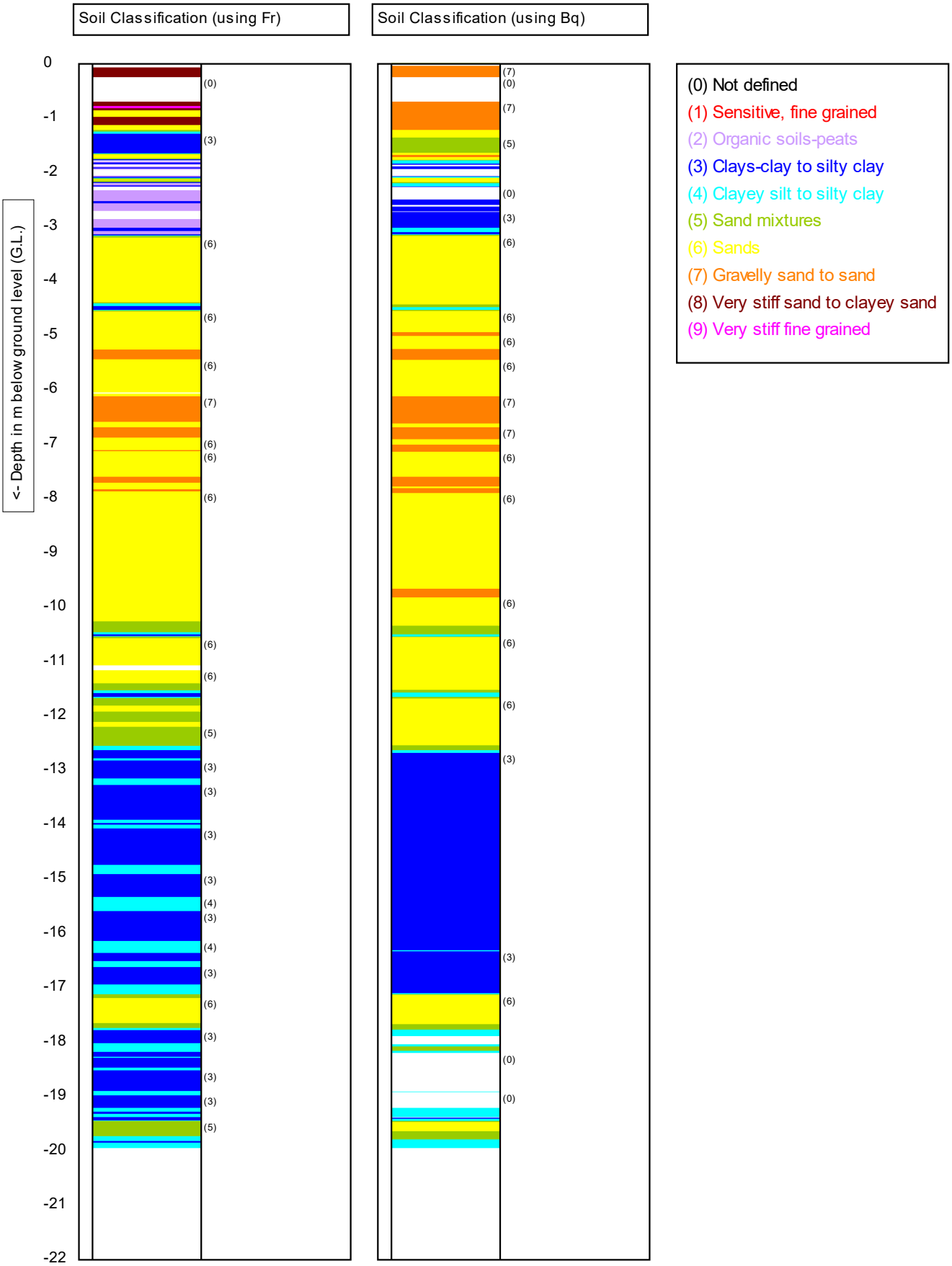
Project: **Wickham St**

Location: **Hamilton**

Position: **1798798, 5813039 NZTM**

Predrill:	**0.00 m Predrilled**
Date:	**17/11/2025**
Cone no.:	**C10CFIIP.C20361**
Project no.:	**2-68014.00_HA15919**
CPT no.:	**25-05**

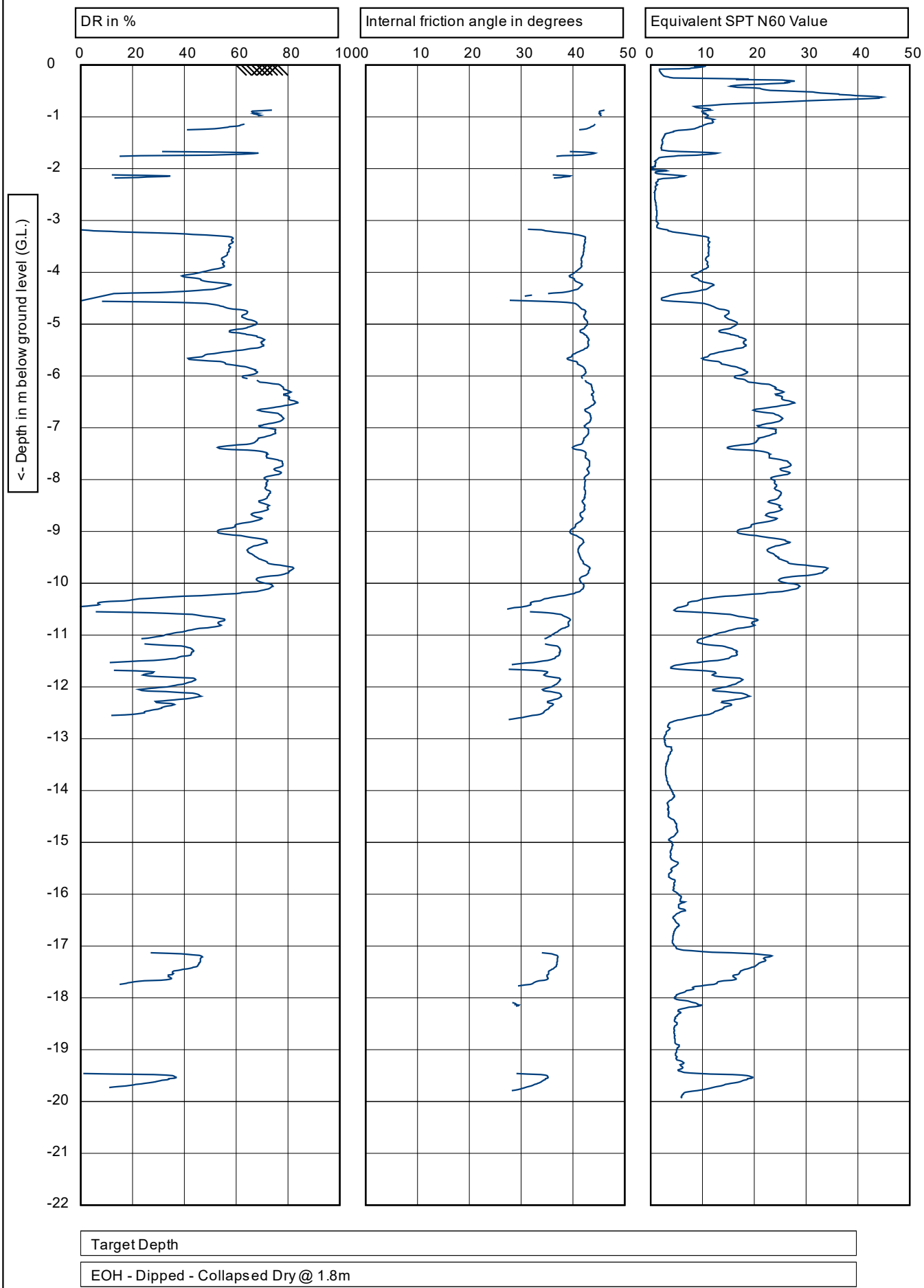
1.49



Graphs on this page are not IANZ accredited

r u2 / L 150 cm² 10 cm²	Method:ASTM D5778-20&ISO 22476:1:2012cor.2013	Predrill:	**0.00 m Predrilled**
	G.L.: **0.00 m MSL**	Date:	**17/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C20361**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1798798, 5813039 NZTM**		CPT no.:	**25-05** 4/6

1.49



Target Depth

EOH - Dipped - Collapsed Dry @ 1.8m

Graphs on this page are not IANZ accredited

u2
150 cm²
10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL**

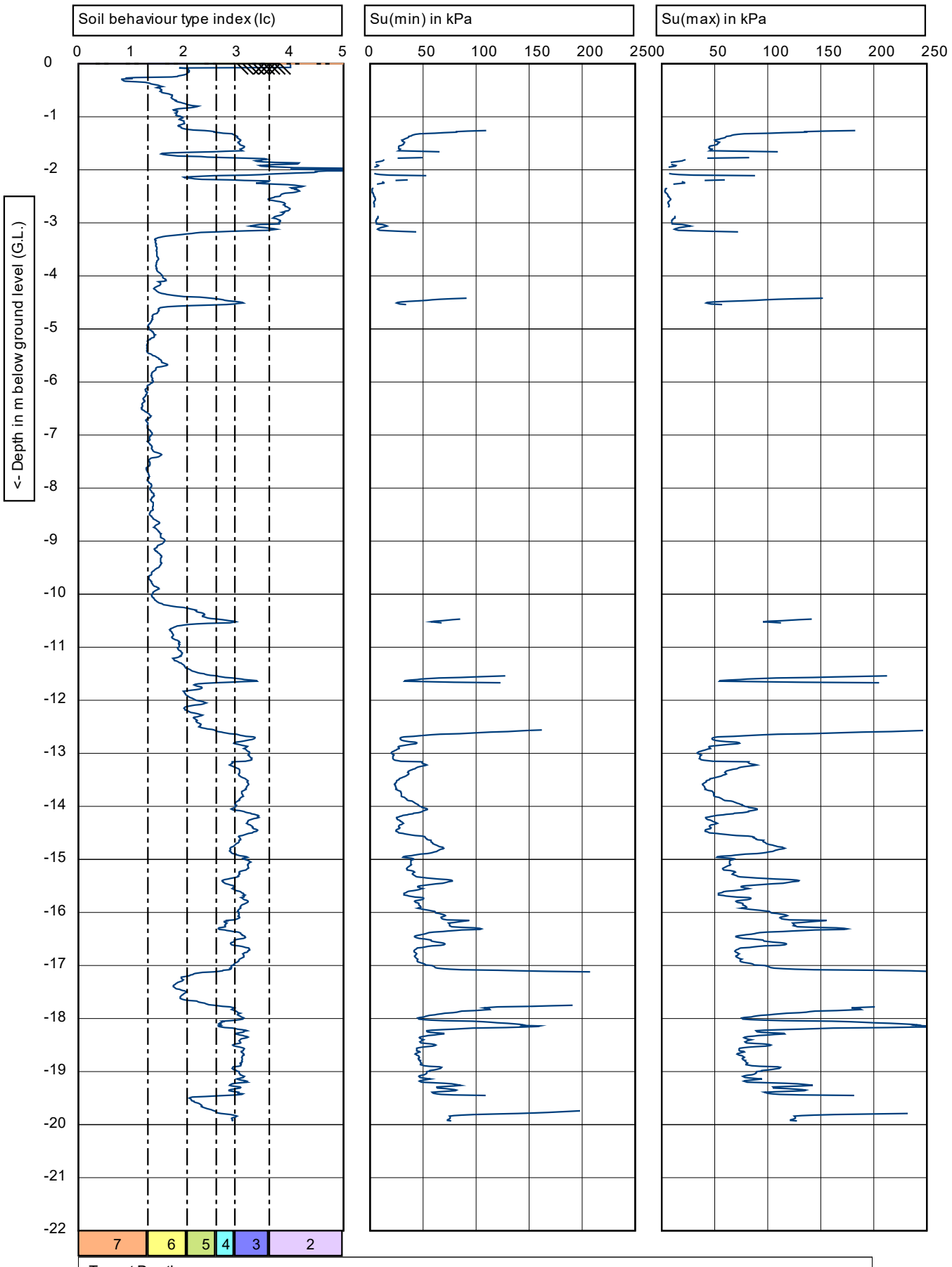
Project: **Wickham St**

Location: **Hamilton**

Position: **1798798, 5813039 NZTM**

Predrill:	**0.00 m Predrilled**
Date:	**17/11/2025**
Cone no.:	**C10CFIIP.C20361**
Project no.:	**2-68014.00_HA15919**
CPT no.:	**25-05**

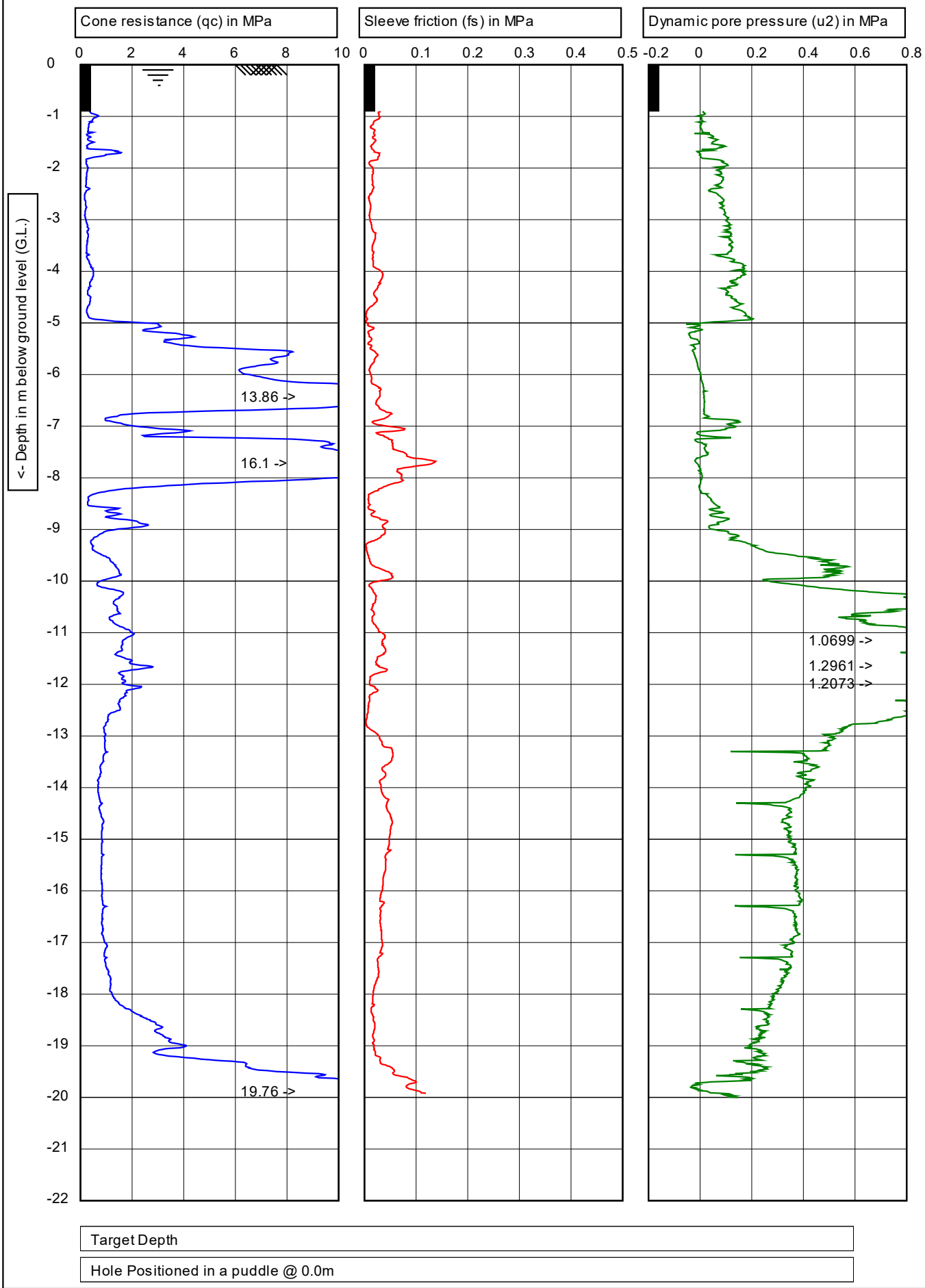
1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**		Date:	**17/11/2025**
Project:	**Wickham St**	Cone no.:	**C10CFIIP.C20361**
Location:	**Hamilton**	Project no.:	**2-68014.00_HA15919**
Position:	**1798798, 5813039 NZTM**	CPT no.:	**25-05** 6/6

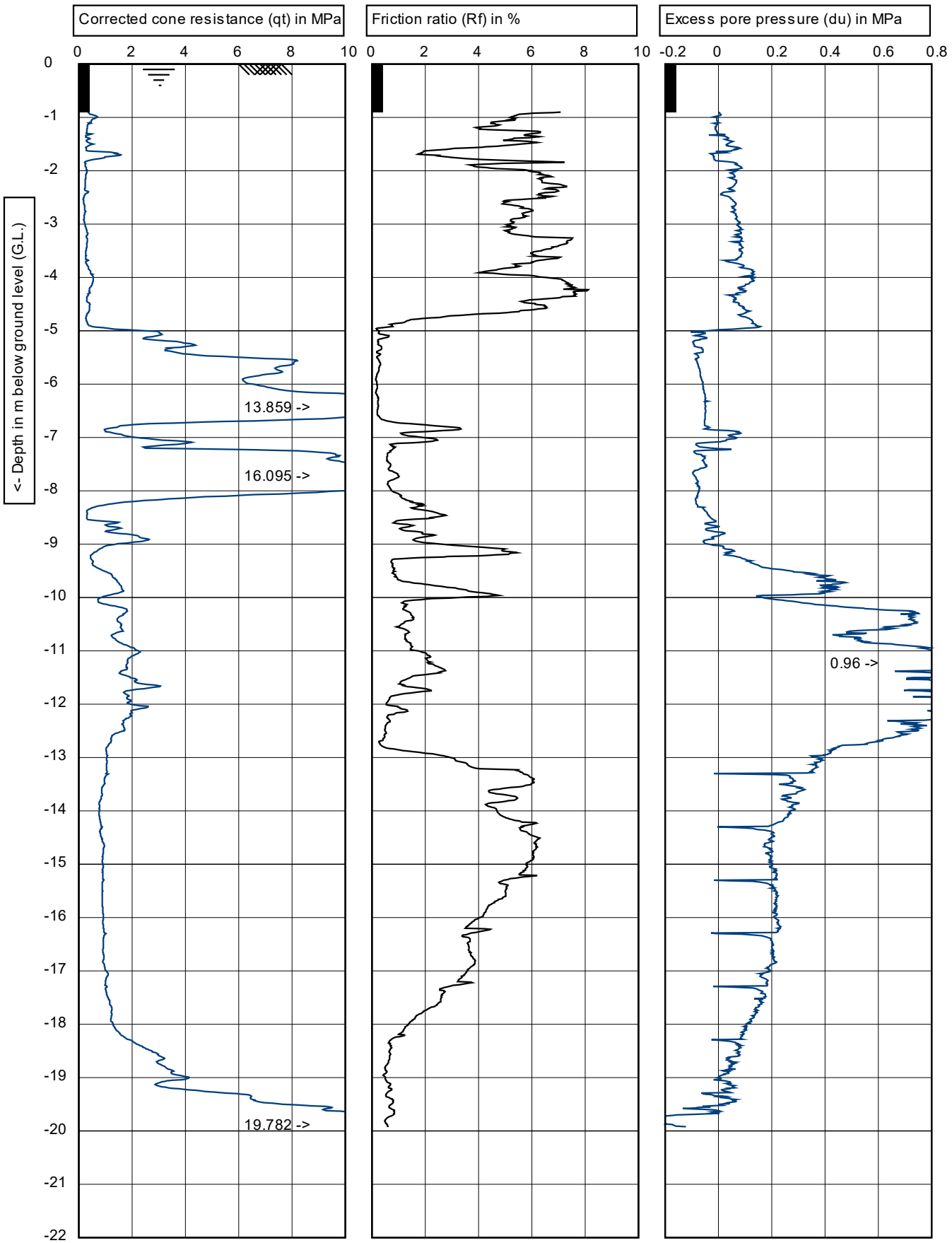
1.49



Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.90 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **0.00 m**	Date:	**17/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C20361**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1798565, 5812967 NZTM**		CPT no.:	**25-06** 1/6

Test results indicated as not accredited are outside the scope of the laboratory's accreditation

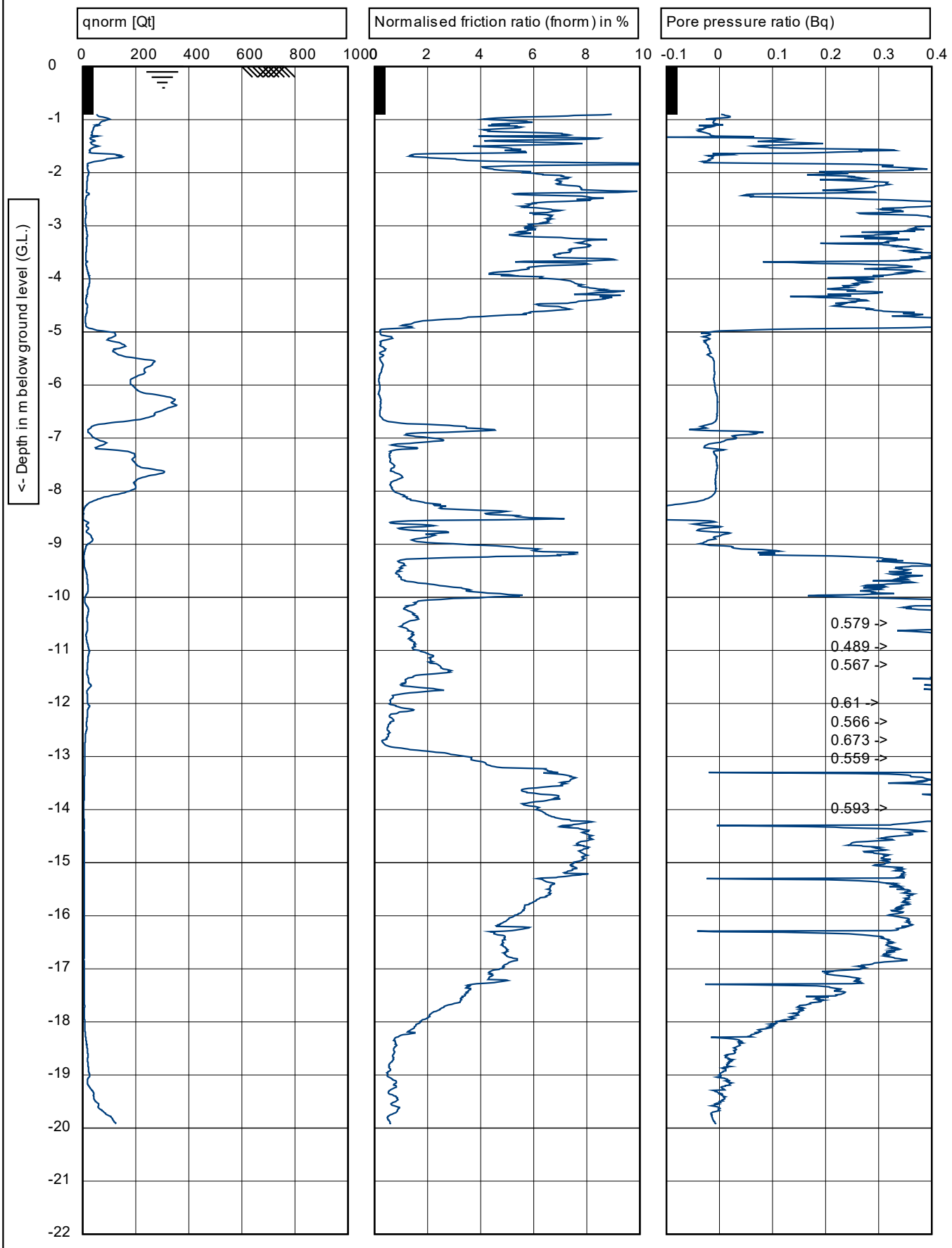
1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.90 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **0.00 m**	Date:	**17/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C20361**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1798565, 5812967 NZTM**		CPT no.:	**25-06** **2/6**

1.49



Graphs on this page are not IANZ accredited

u2
150 cm²
10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL**

W.L.: **0.00 m**

Predrill: **0.90 m Predrilled**

Date: **17/11/2025**

Project: **Wickham St**

Location: **Hamilton**

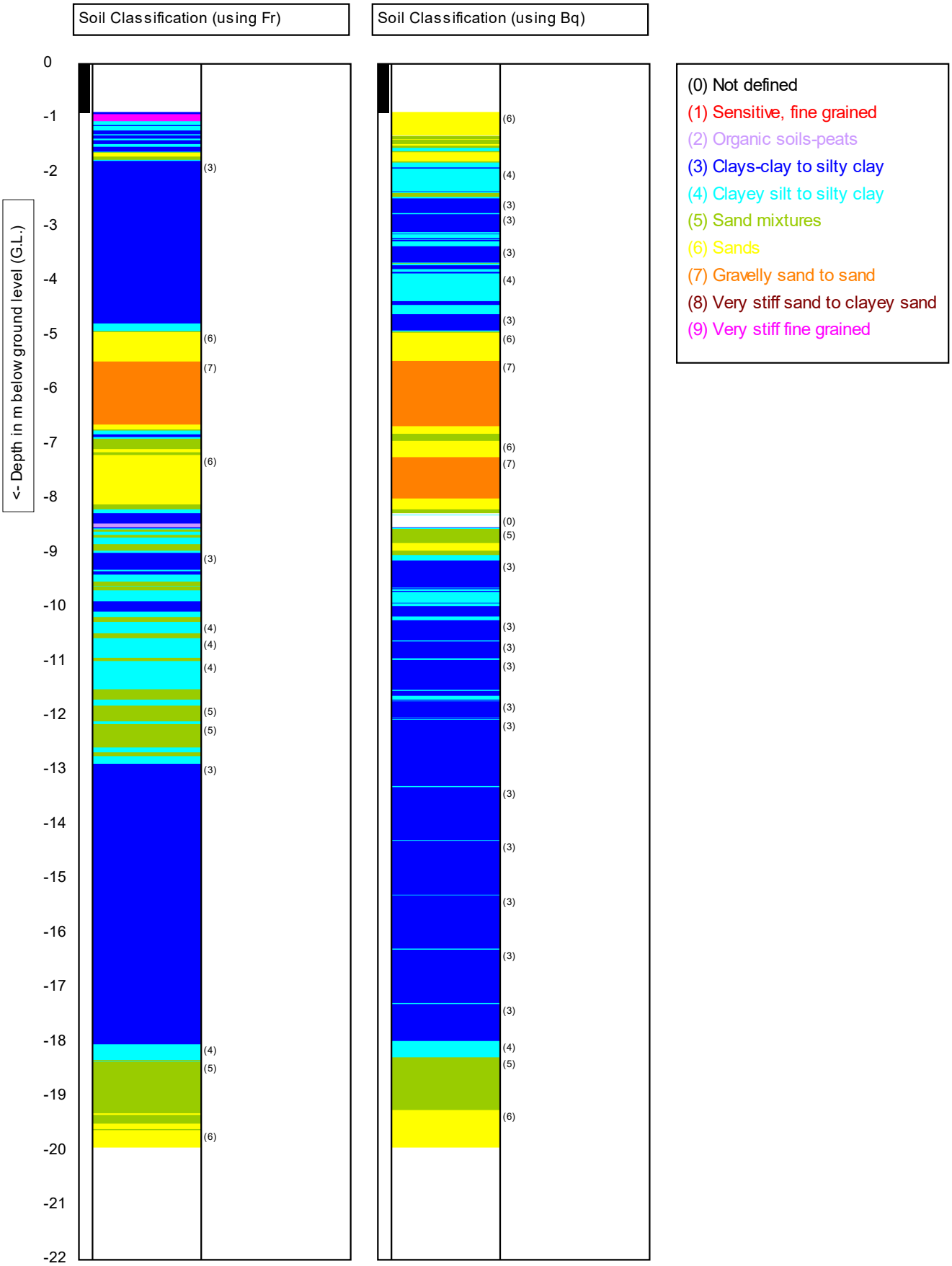
Position: **1798565, 5812967 NZTM**

Cone no.: **C10CFIIP.C20361**

Project no.: **2-68014.00_HA15919**

CPT no.: **25-06** **3/6**

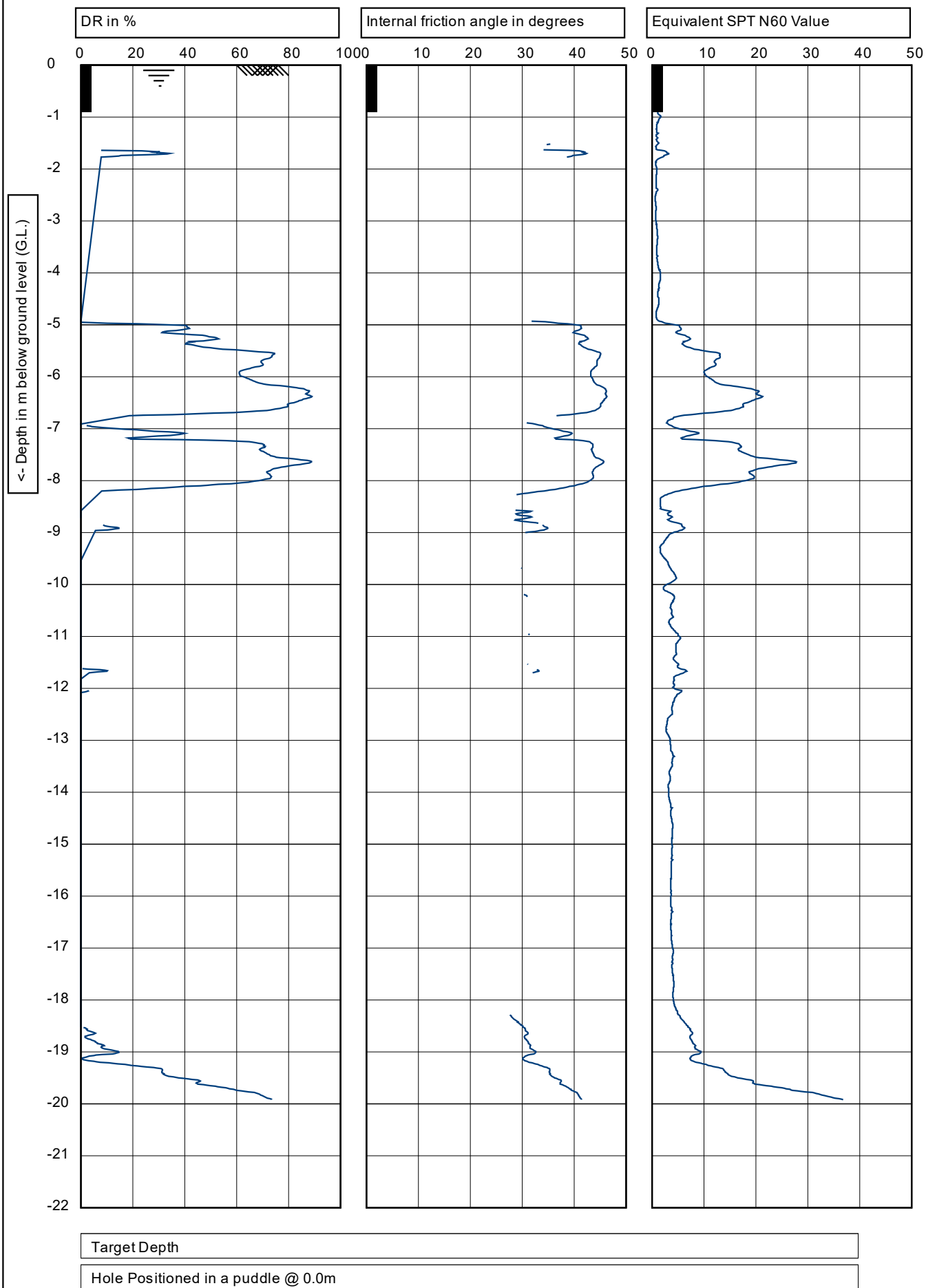
1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.90 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **0.00 m**	Date:	**17/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C20361**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1798565, 5812967 NZTM**		CPT no.:	**25-06** 4/6

1.49



Target Depth

Hole Positioned in a puddle @ 0.0m

Graphs on this page are not IANZ accredited

u2
150 cm²
10 cm²

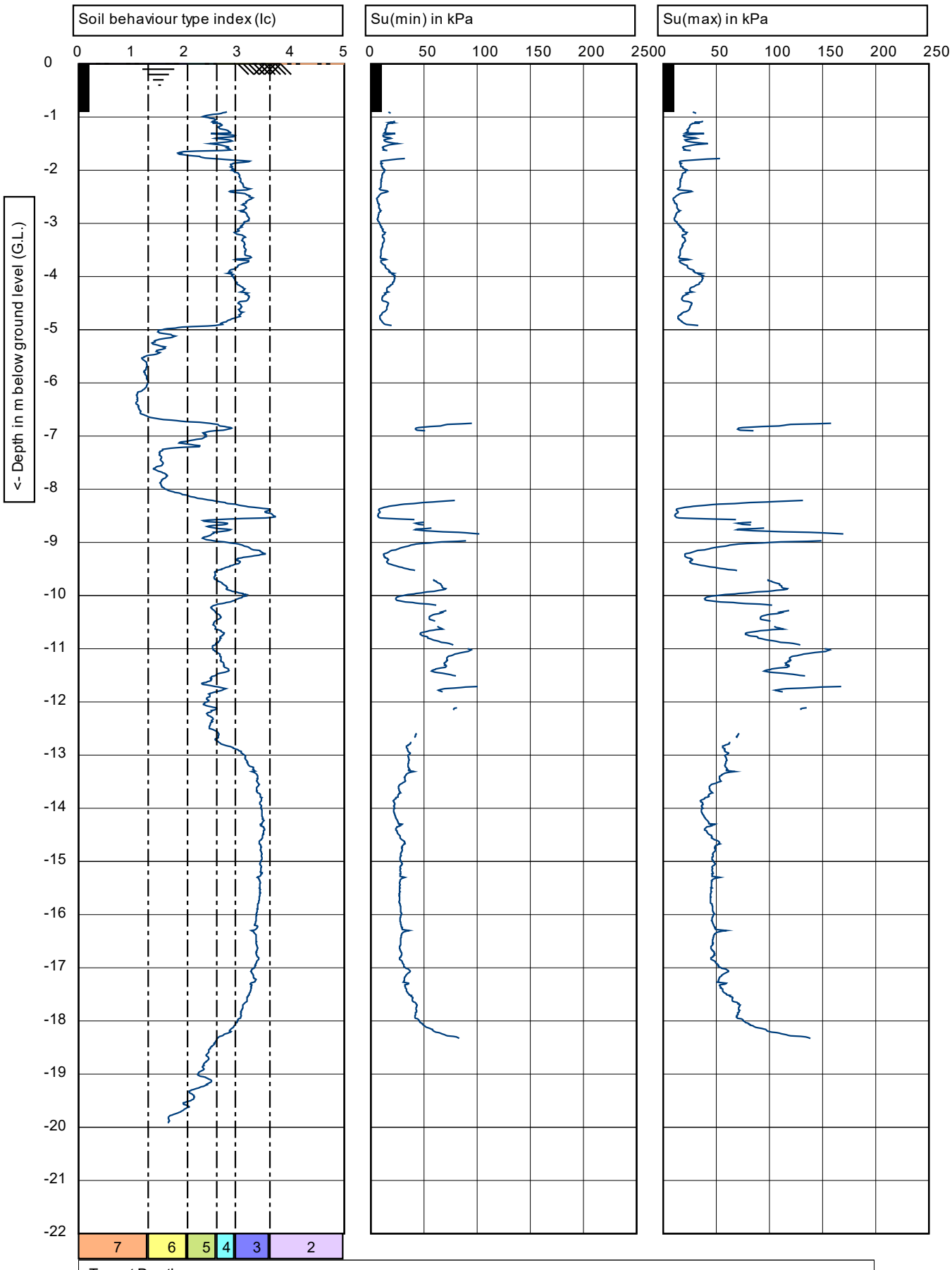
Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL** W.L.: **0.00 m**

Project: **Wickham St**
Location: **Hamilton**
Position: **1798565, 5812967 NZTM**

Predrill: **0.90 m Predrilled**
Date: **17/11/2025**
Cone no.: **C10CFIIP.C20361**
Project no.: **2-68014.00_HA15919**
CPT no.: **25-06** **5/6**

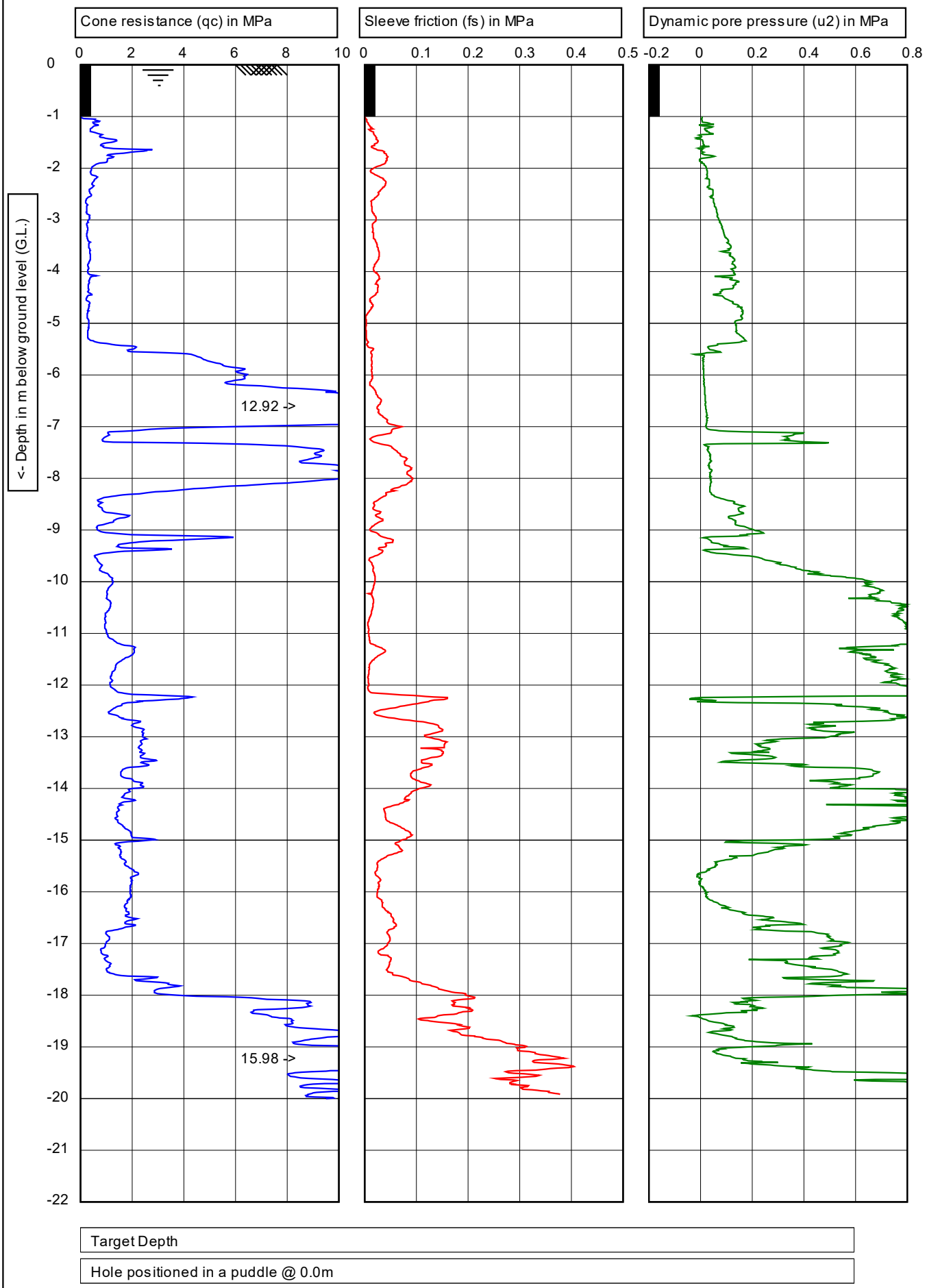
1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.90 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **0.00 m**	Date:	**17/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C20361**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1798565, 5812967 NZTM**		CPT no.:	**25-06** 6/6

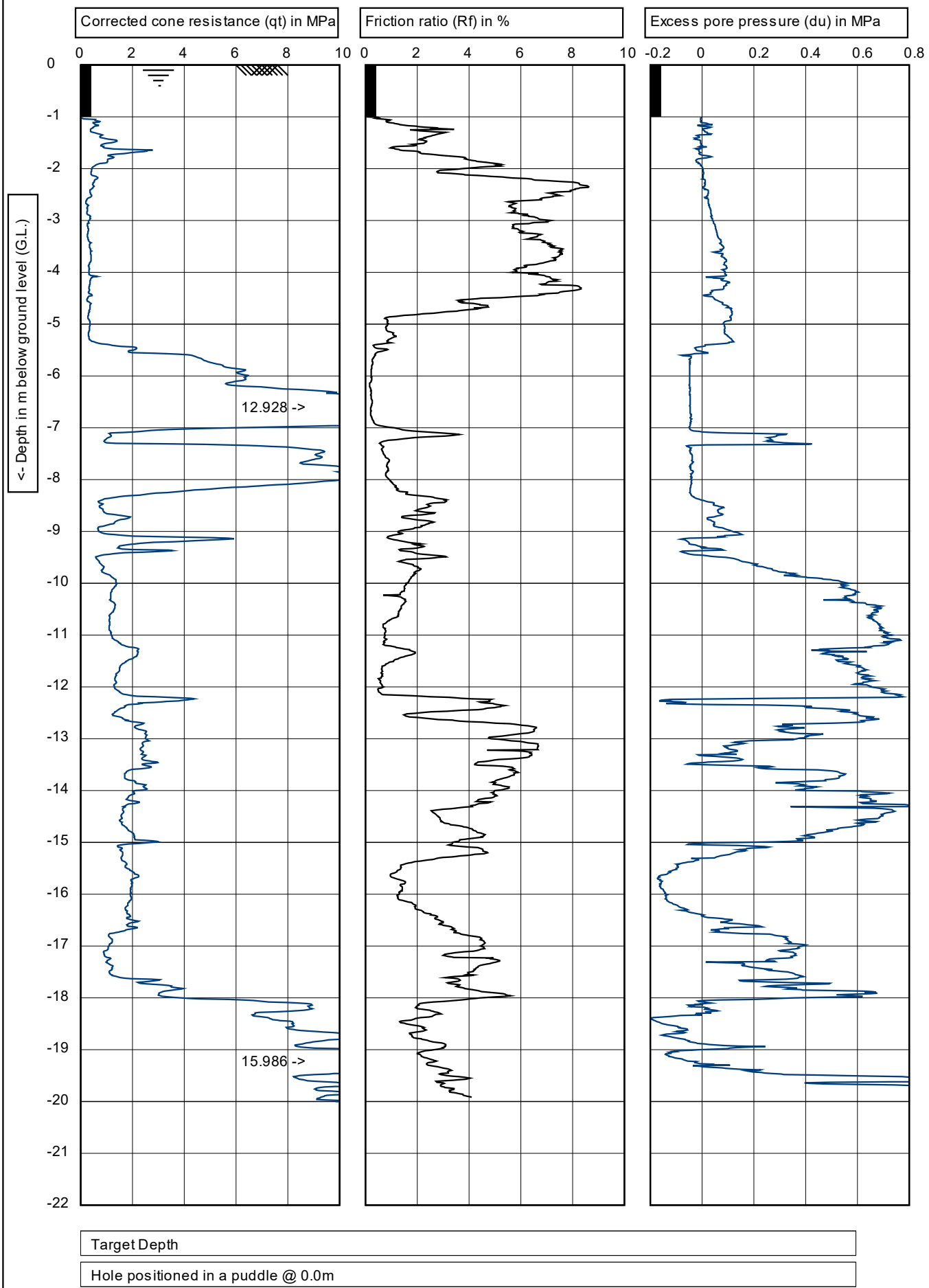
1.49



Test results indicated as not accredited are outside the scope of the laboratory's accreditation

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**1.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **0.00 m**	Date:	**17/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C241654**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1798635, 5812943 NZTM**		CPT no.:	**25-07** **1/6**

1.49



Target Depth

Hole positioned in a puddle @ 0.0m

Graphs on this page are not IANZ accredited

u2
150 cm²
10 cm²

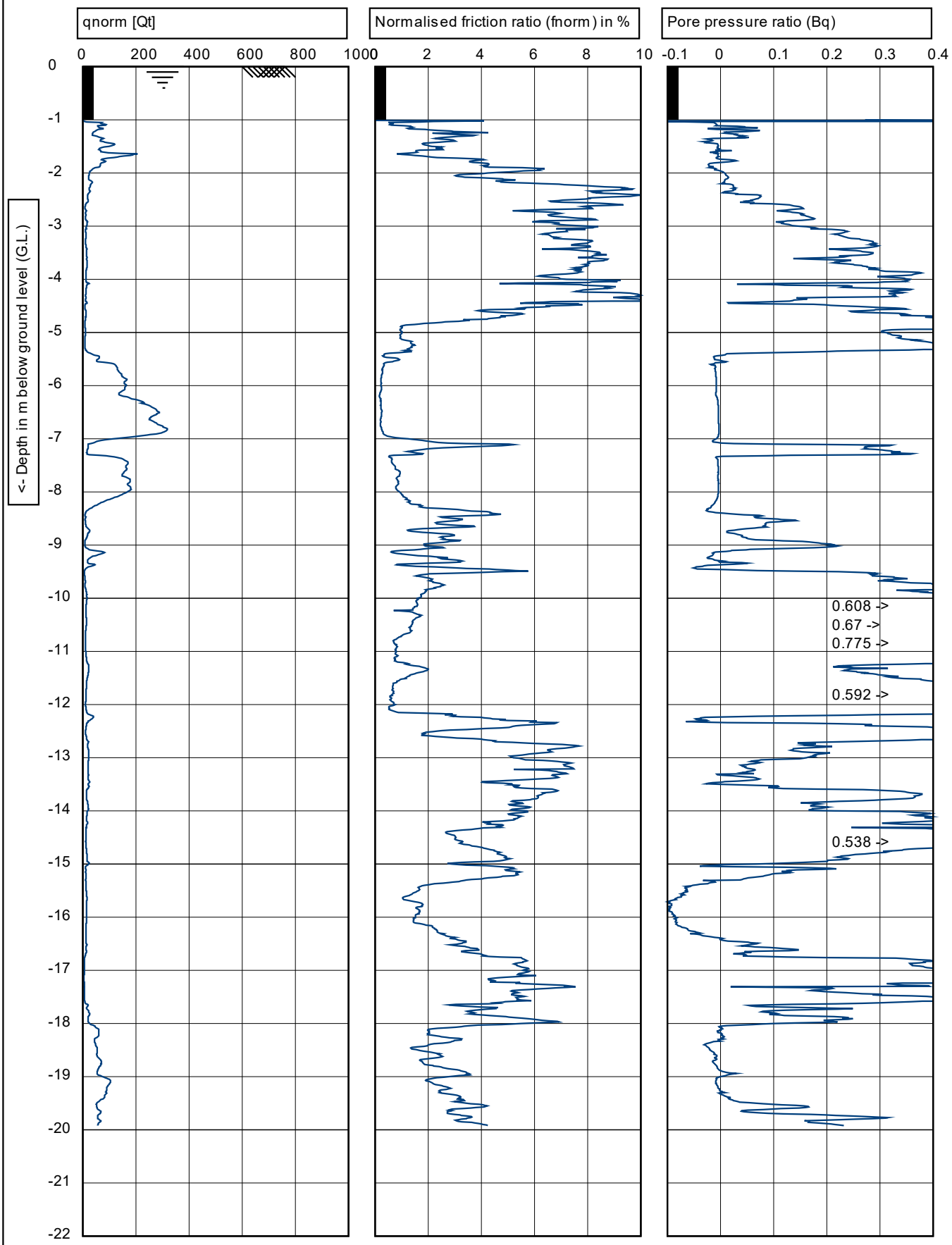
Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL** W.L.: **0.00 m**

Project: **Wickham St**
Location: **Hamilton**
Position: **1798635, 5812943 NZTM**

Predrill: **1.00 m Predrilled**
Date: **17/11/2025**
Cone no.: **C10CFIIP.C241654**
Project no.: **2-68014.00_HA15919**
CPT no.: **25-07** **2/6**

1.49



Graphs on this page are not IANZ accredited

u2
150 cm²
10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL**

W.L.: **0.00 m**

Predrill: **1.00 m Predrilled**

Date: **17/11/2025**

Project: **Wickham St**

Location: **Hamilton**

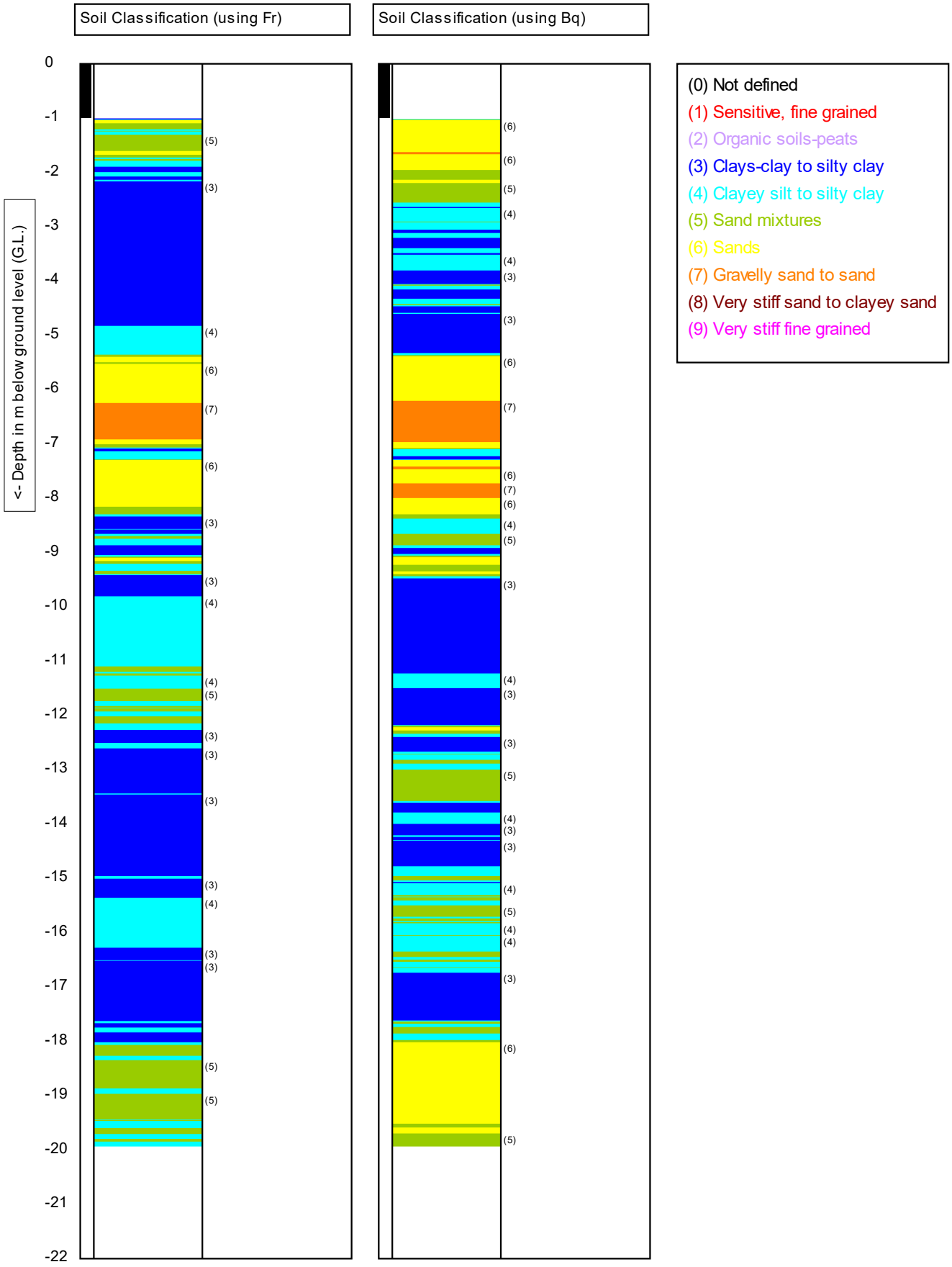
Position: **1798635, 5812943 NZTM**

Cone no.: **C10CFIIP.C241654**

Project no.: **2-68014.00_HA15919**

CPT no.: **25-07** **3/6**

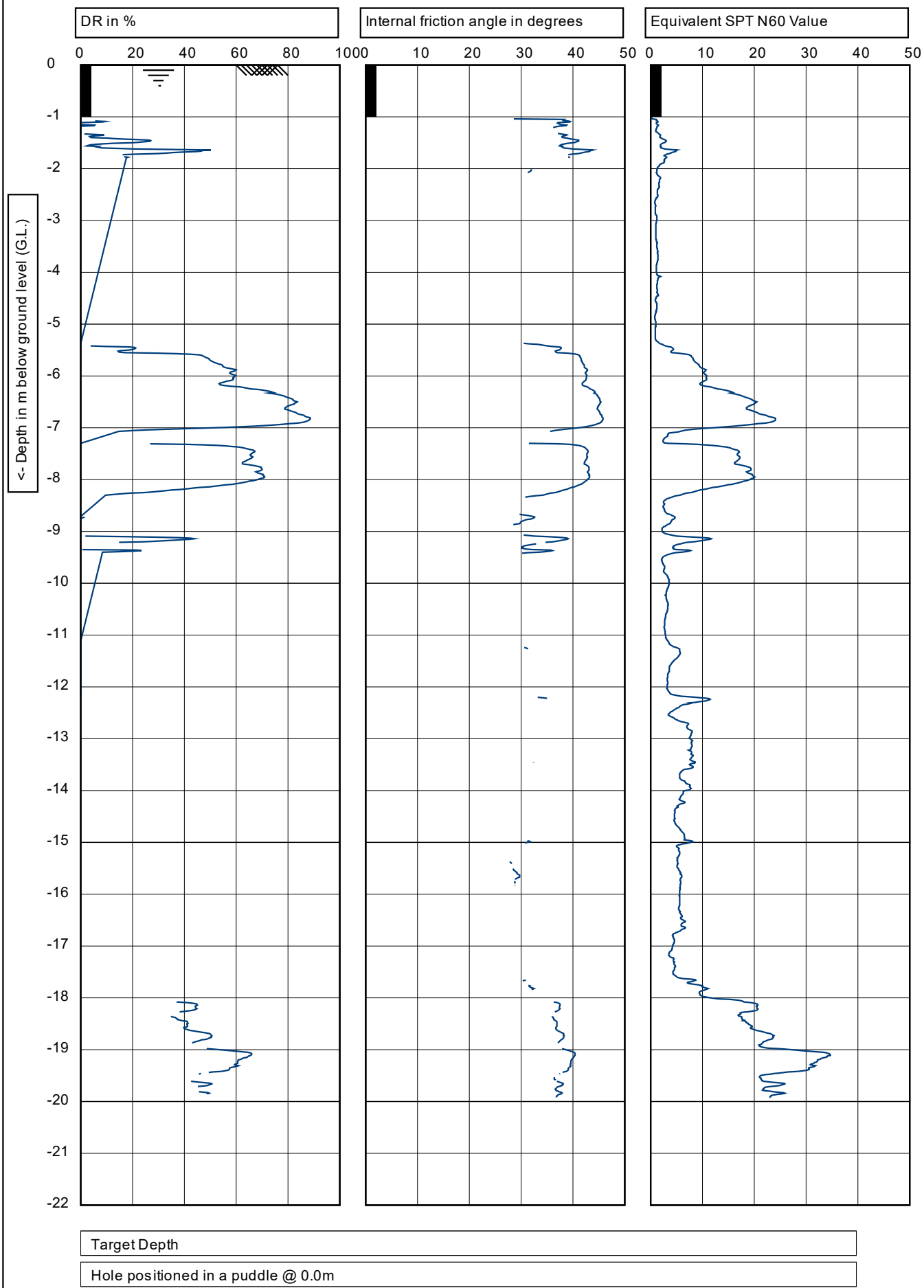
1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**1.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **0.00 m**	Date:	**17/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C241654**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1798635, 5812943 NZTM**		CPT no.:	**25-07** 4/6

1.49



Target Depth

Hole positioned in a puddle @ 0.0m

Graphs on this page are not IANZ accredited

u2
150 cm²
10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL** | W.L.: **0.00 m**

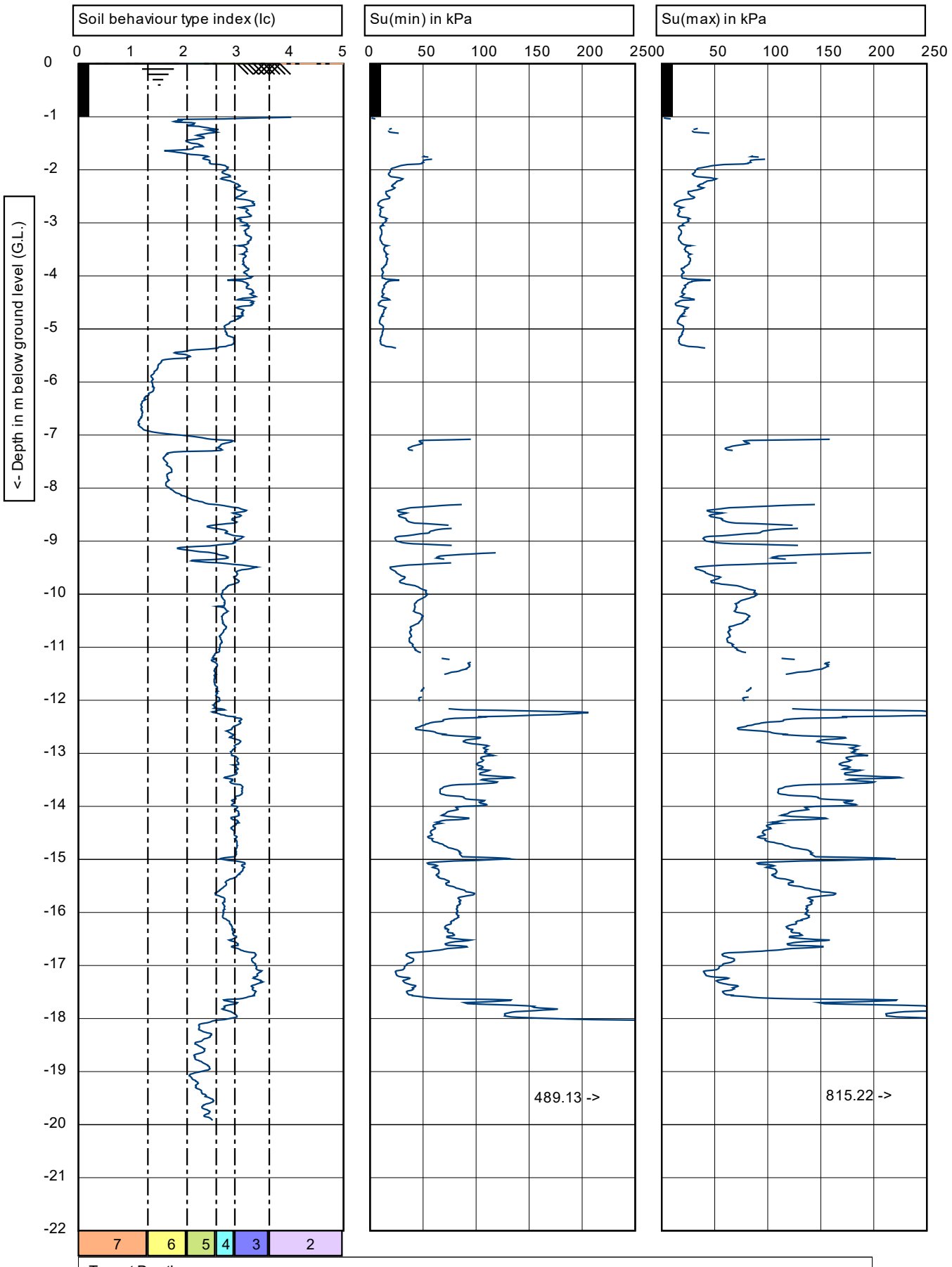
Project: **Wickham St**

Location: **Hamilton**

Position: **1798635, 5812943 NZTM**

Predrill:	**1.00 m Predrilled**
Date:	**17/11/2025**
Cone no.:	**C10CFIIP.C241654**
Project no.:	**2-68014.00_HA15919**
CPT no.:	**25-07** 5/6

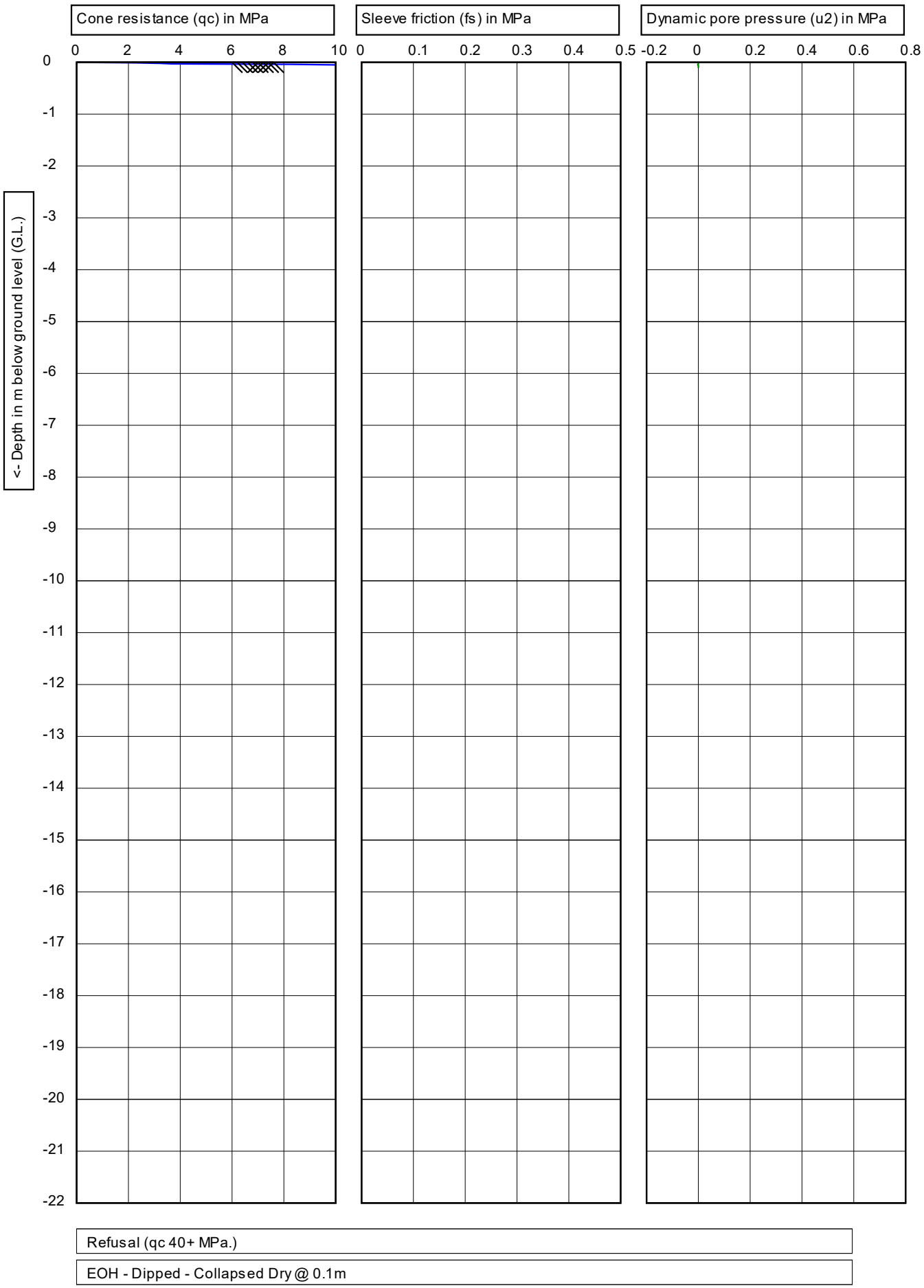
1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**1.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **0.00 m**	Date:	**17/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C241654**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1798635, 5812943 NZTM**		CPT no.:	**25-07** **6/6**

1.49



Refusal (qc 40+ MPa.)

EOH - Dipped - Collapsed Dry @ 0.1m

wsp

ACCREDITED IANZ TESTING LABORATORY

Test results indicated as not accredited are outside the scope of the laboratory's accreditation

u2 150 cm² 10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL**

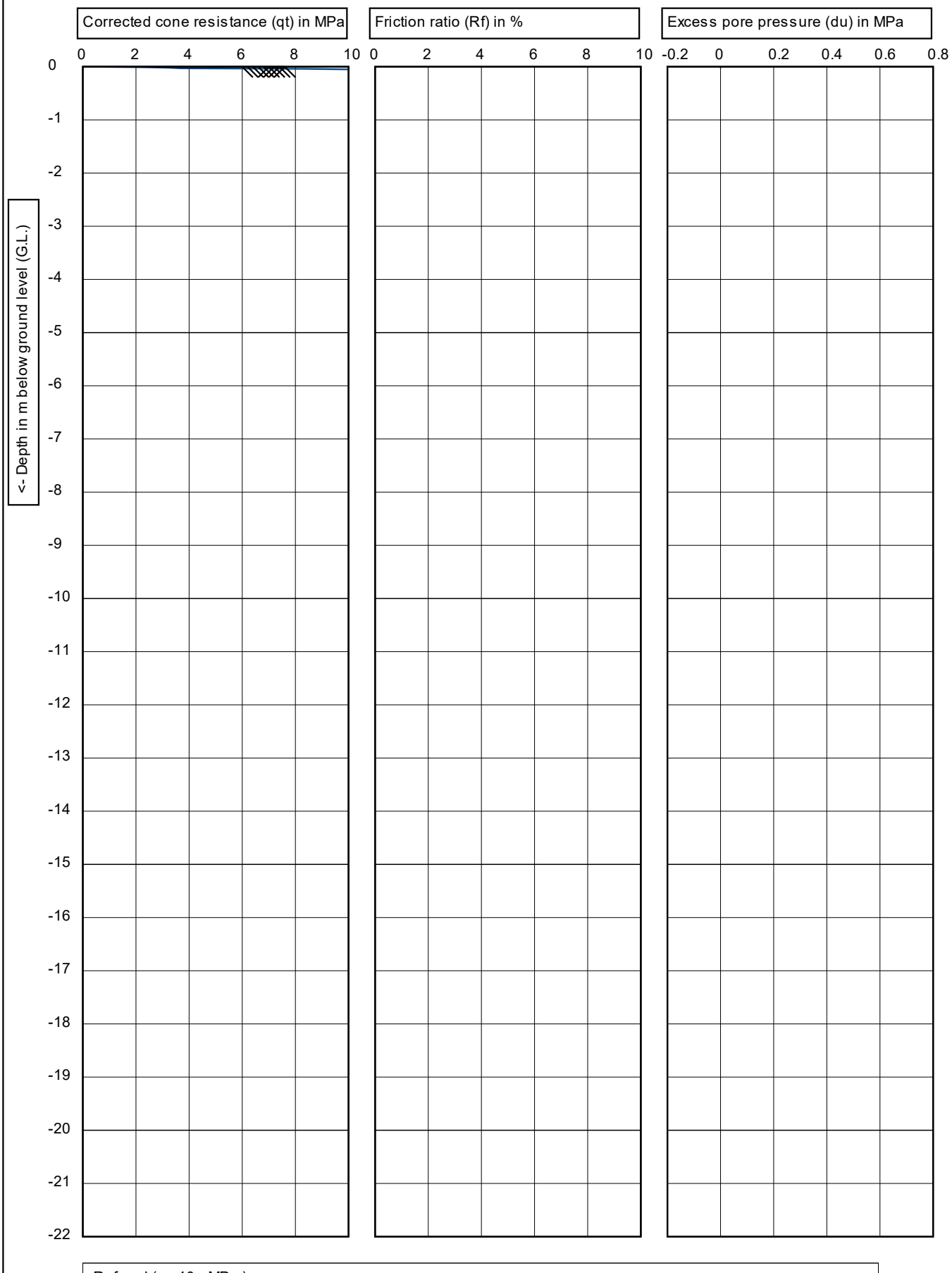
Project: **Wickham St**

Location: **Hamilton**

Position: **1799328, 5812952 NZTM**

Predrill:	**0.00 m Predrilled**
Date:	**24/11/2025**
Cone no.:	**C10CFIIP.C241654**
Project no.:	**2-68014.00_HA15919**
CPT no.:	**25-08**

1.49



Refusal (qc 40+ MPa.)

EOH - Dipped - Collapsed Dry @ 0.1m

Graphs on this page are not IANZ accredited

u2
150 cm²
10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL**

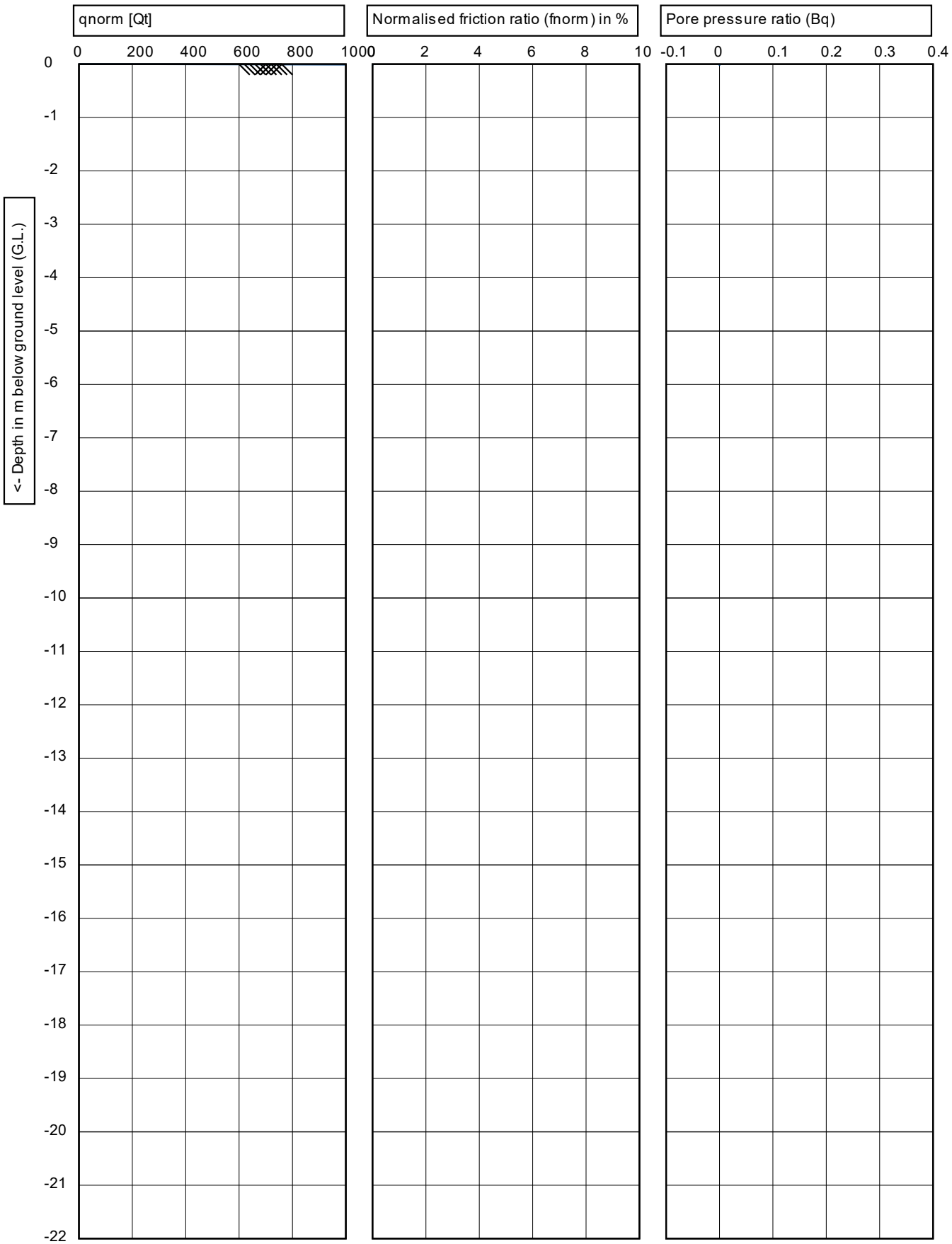
Project: **Wickham St**

Location: **Hamilton**

Position: **1799328, 5812952 NZTM**

Predrill:	**0.00 m Predrilled**
Date:	**24/11/2025**
Cone no.:	**C10CFIIP.C241654**
Project no.:	**2-68014.00_HA15919**
CPT no.:	**25-08**

1.49



Refusal (qc 40+ MPa.)

EOH - Dipped - Collapsed Dry @ 0.1m

Graphs on this page are not IANZ accredited

u2
150 cm²
10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL**

Project: **Wickham St**

Location: **Hamilton**

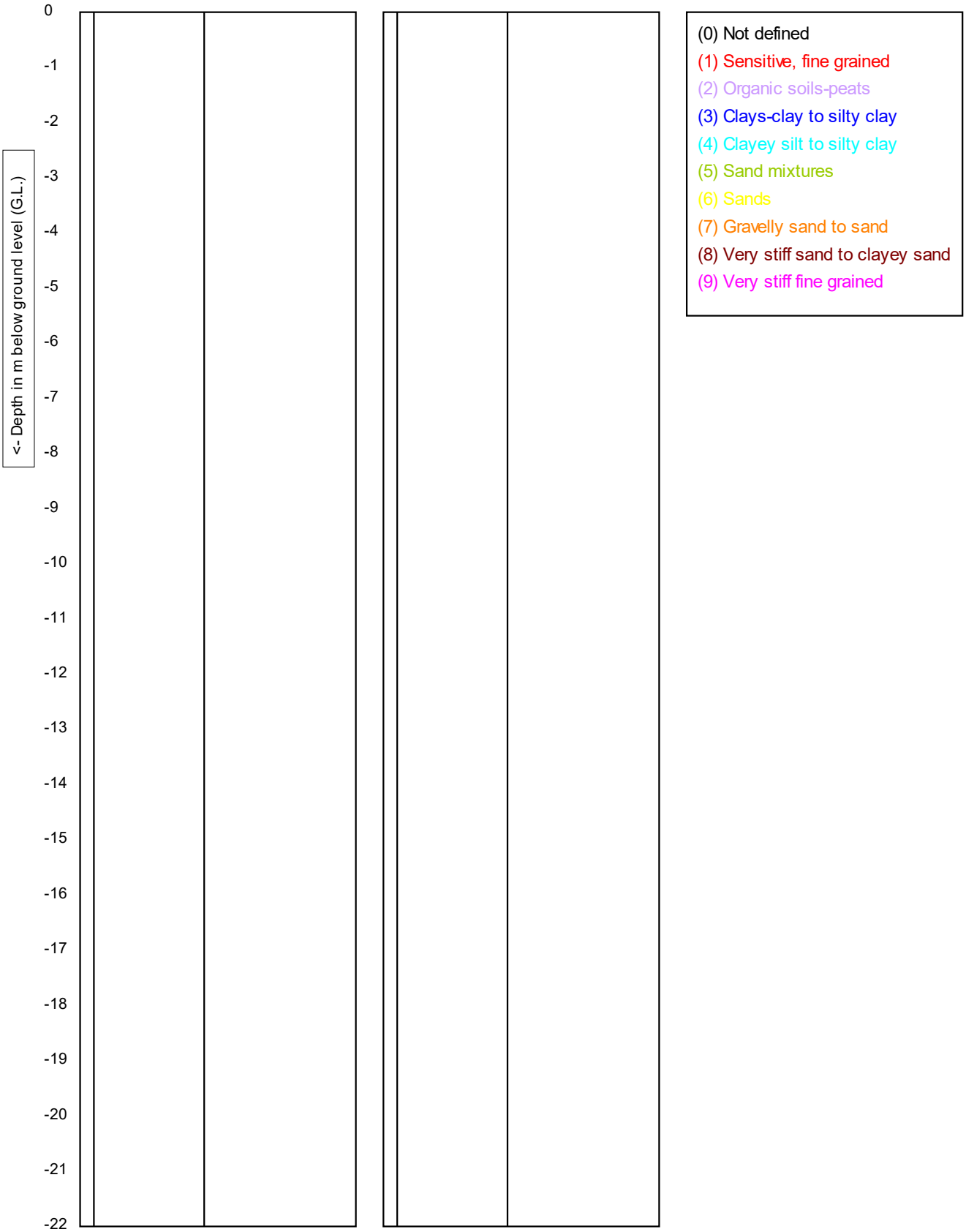
Position: **1799328, 5812952 NZTM**

Predrill:	**0.00 m Predrilled**
Date:	**24/11/2025**
Cone no.:	**C10CFIIP.C241654**
Project no.:	**2-68014.00_HA15919**
CPT no.:	**25-08** 3/6

1.49

Soil Classification (using Fr)

Soil Classification (using Bq)



(0) Not defined
(1) Sensitive, fine grained
(2) Organic soils-peats
(3) Clays-clay to silty clay
(4) Clayey silt to silty clay
(5) Sand mixtures
(6) Sands
(7) Gravelly sand to sand
(8) Very stiff sand to clayey sand
(9) Very stiff fine grained

Graphs on this page are not IANZ accredited

r u2
L 150 cm²
10 cm²

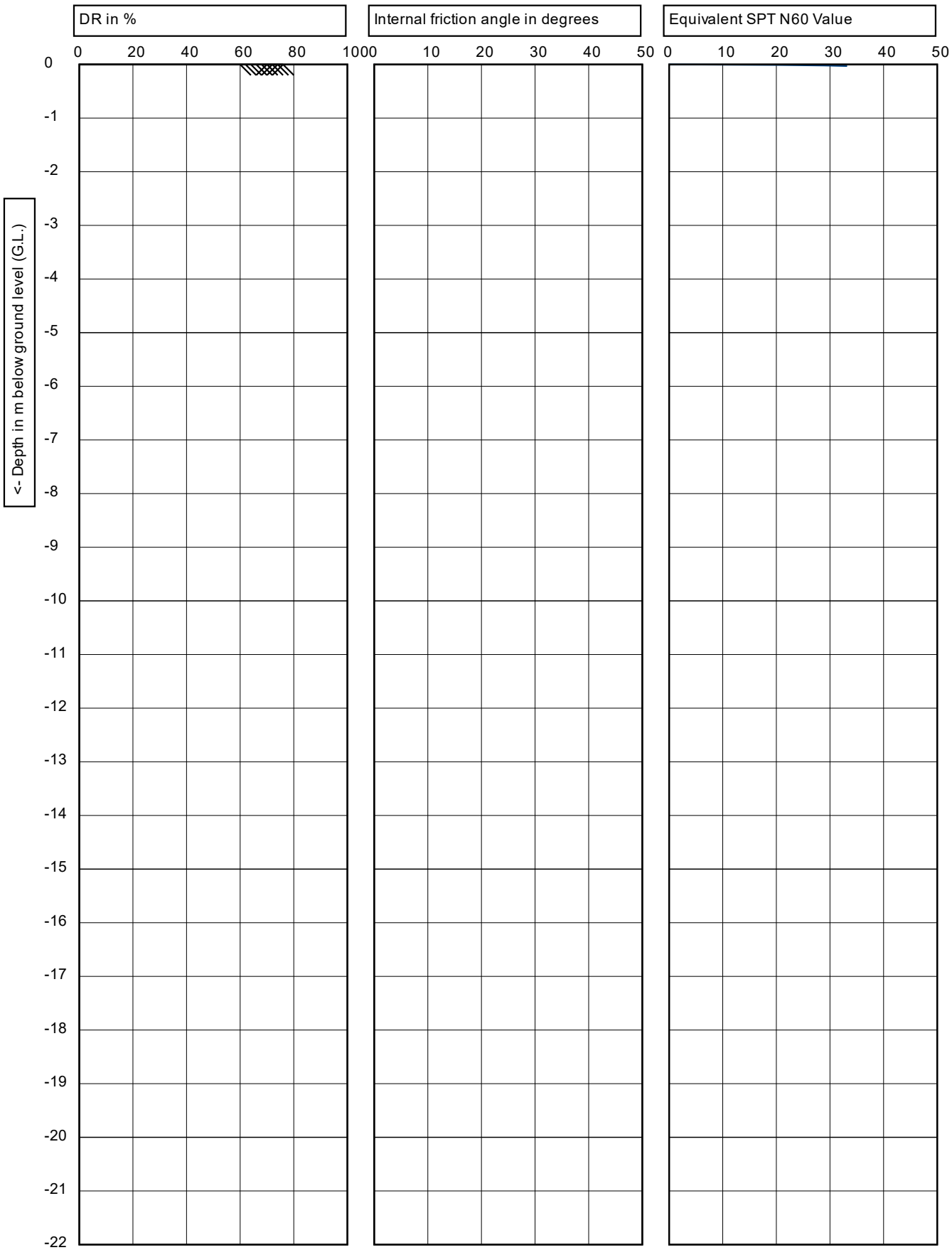
Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL**

Project: **Wickham St**
Location: **Hamilton**
Position: **1799328, 5812952 NZTM**

Predrill:	**0.00 m Predrilled**
Date:	**24/11/2025**
Cone no.:	**C10CFIIP.C241654**
Project no.:	**2-68014.00_HA15919**
CPT no.:	**25-08**

1.49



Refusal (qc 40+ MPa.)

EOH - Dipped - Collapsed Dry @ 0.1m

Graphs on this page are not IANZ accredited

u2
150 cm²
10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL**

Project: **Wickham St**

Location: **Hamilton**

Position: **1799328, 5812952 NZTM**

Predrill: **0.00 m Predrilled**

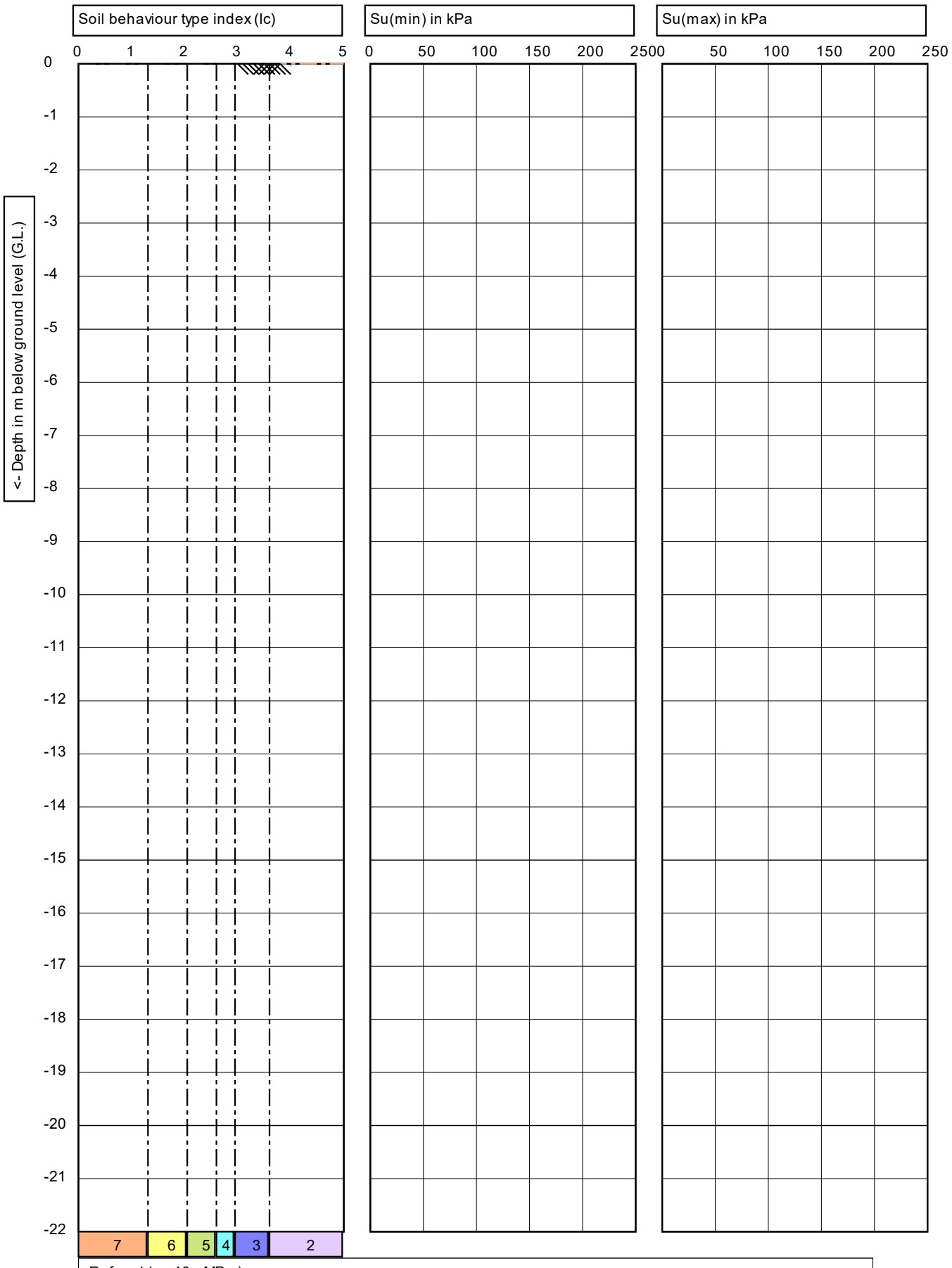
Date: **24/11/2025**

Cone no.: **C10CFIIP.C241654**

Project no.: **2-68014.00_HA15919**

CPT no.: **25-08** **5/6**

1.49



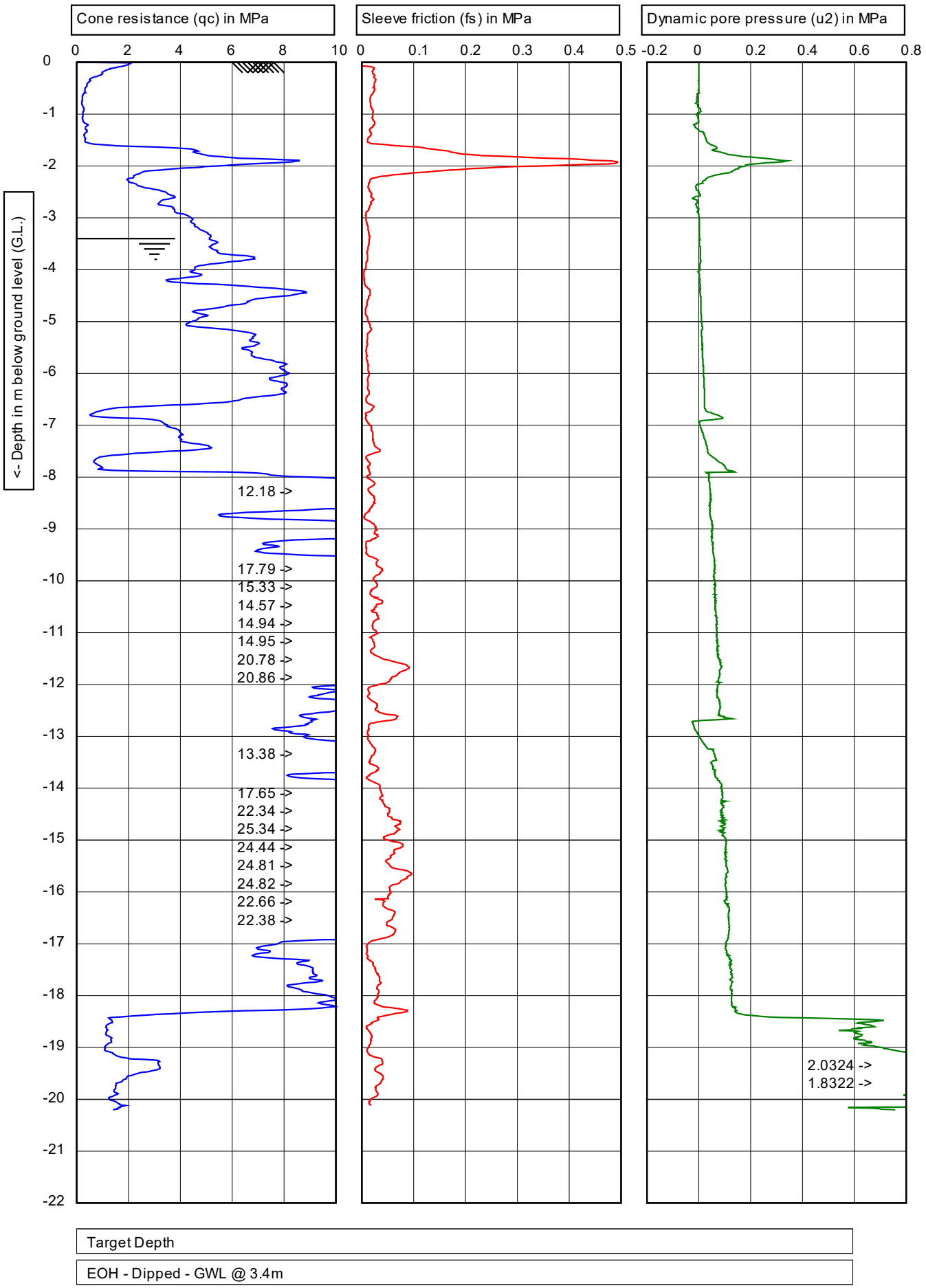
Refusal (qc 40+ MPa.)

EOH - Dipped - Collapsed Dry @ 0.1m

Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**		Date:	**24/11/2025**
Project:	**Wickham St**	Cone no.:	**C10CFIIP.C241654**
Location:	**Hamilton**	Project no.:	**2-68014.00_HA15919**
Position:	**1799328, 5812952 NZTM**	CPT no.:	**25-08** 6/6

1.49



Test results indicated as not accredited are outside the scope of the laboratory's accreditation

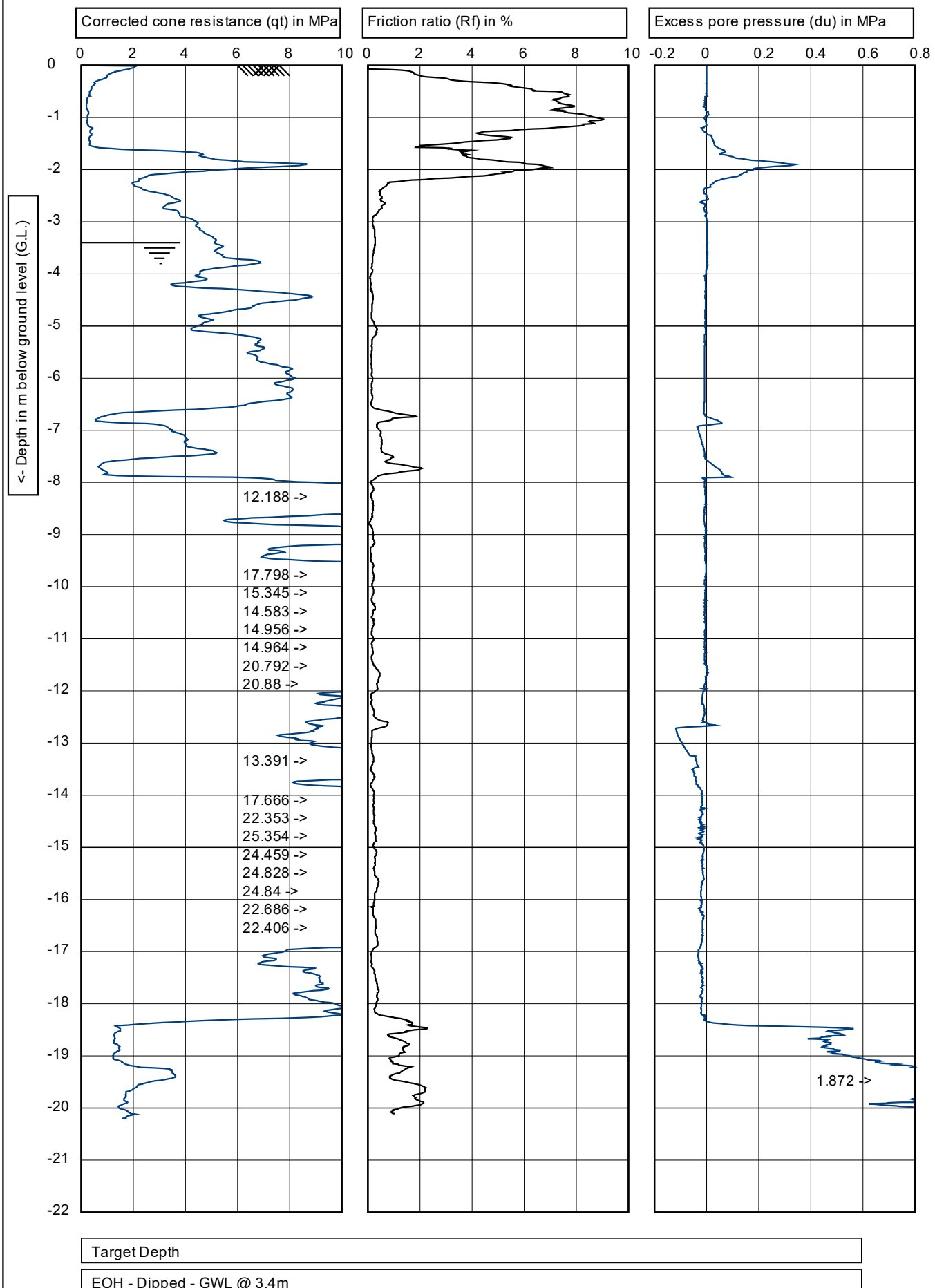
Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL** W.L.: **-3.40 m**

Project: **Wickham St**
Location: **Hamilton**
Position: **1799168, 5812621 NZTM**

Predrill: **0.00 m Predrilled**
Date: **24/11/2025**
Cone no.: **C10CFIIP.C20361**
Project no.: **2-68014.00_HA15919**
CPT no.: **25-09** **1/6**

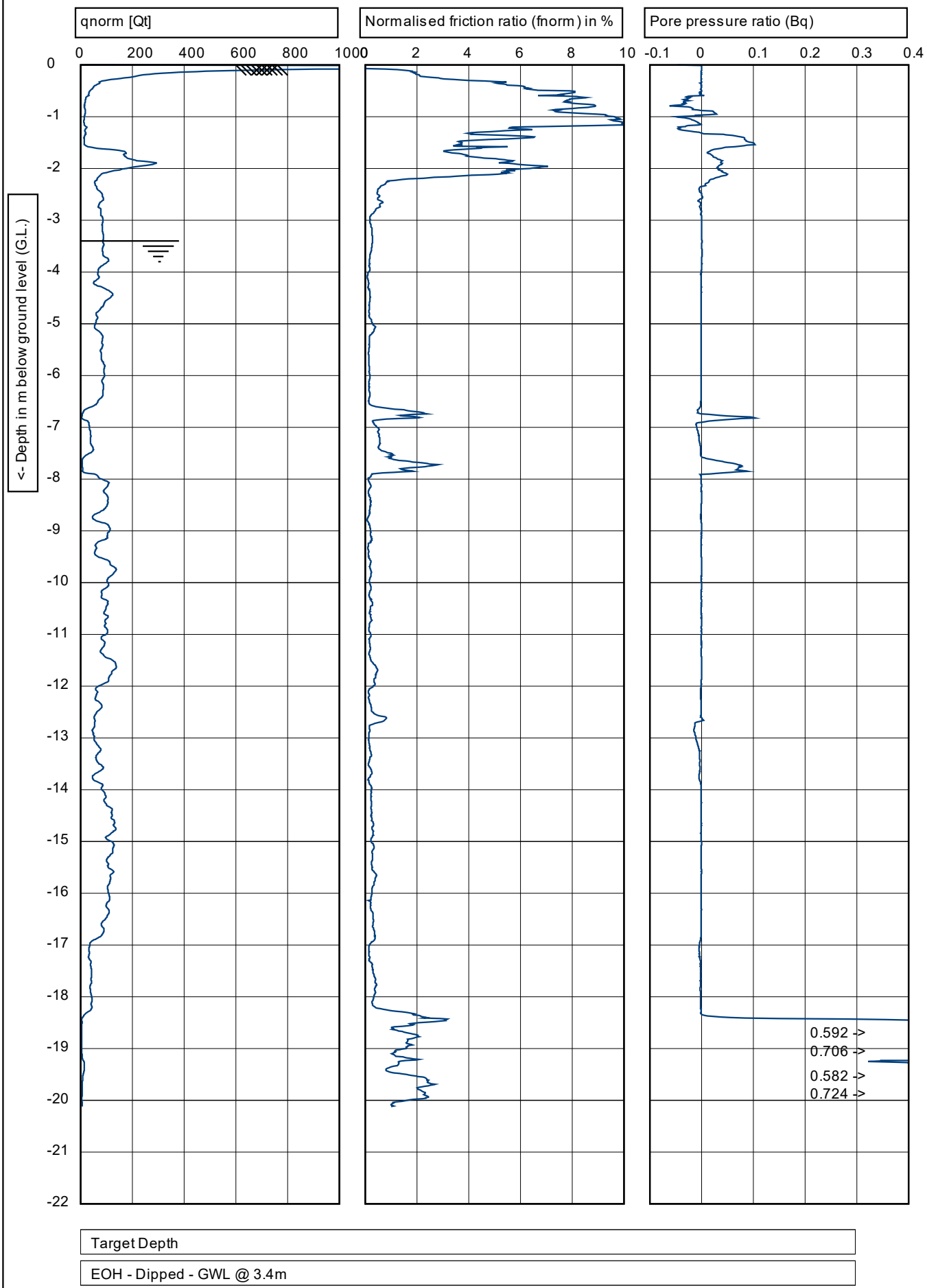
1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-3.40 m**	Date:	**24/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C20361**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1799168, 5812621 NZTM**		CPT no.:	**25-09** **2/6**

1.49



Graphs on this page are not IANZ accredited

u2
150 cm²
10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL** W.L.: **-3.40 m**

Predrill: **0.00 m Predrilled**

Date: **24/11/2025**

Project: **Wickham St**

Location: **Hamilton**

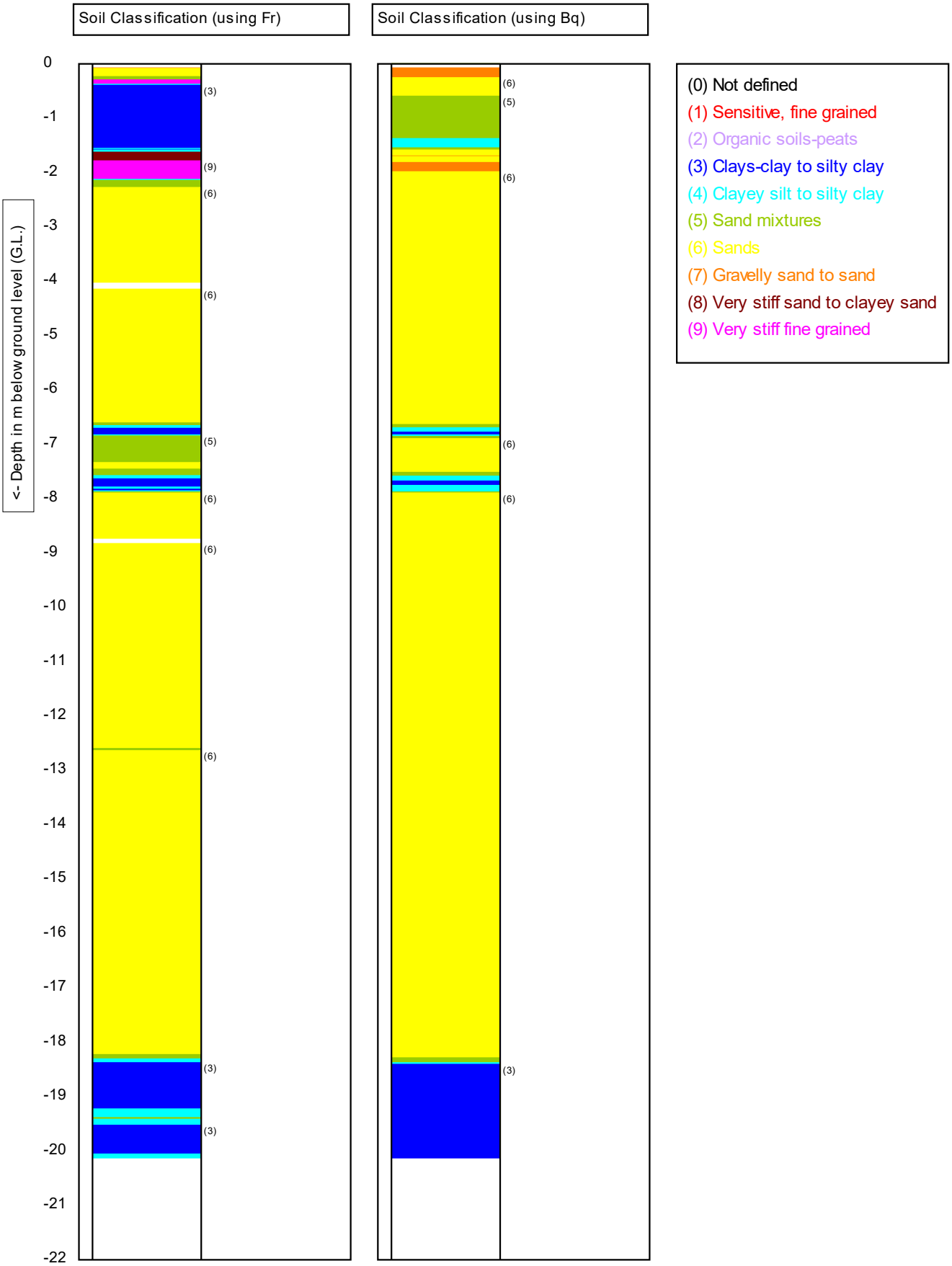
Position: **1799168, 5812621 NZTM**

Cone no.: **C10CFIIP.C20361**

Project no.: **2-68014.00_HA15919**

CPT no.: **25-09** **3/6**

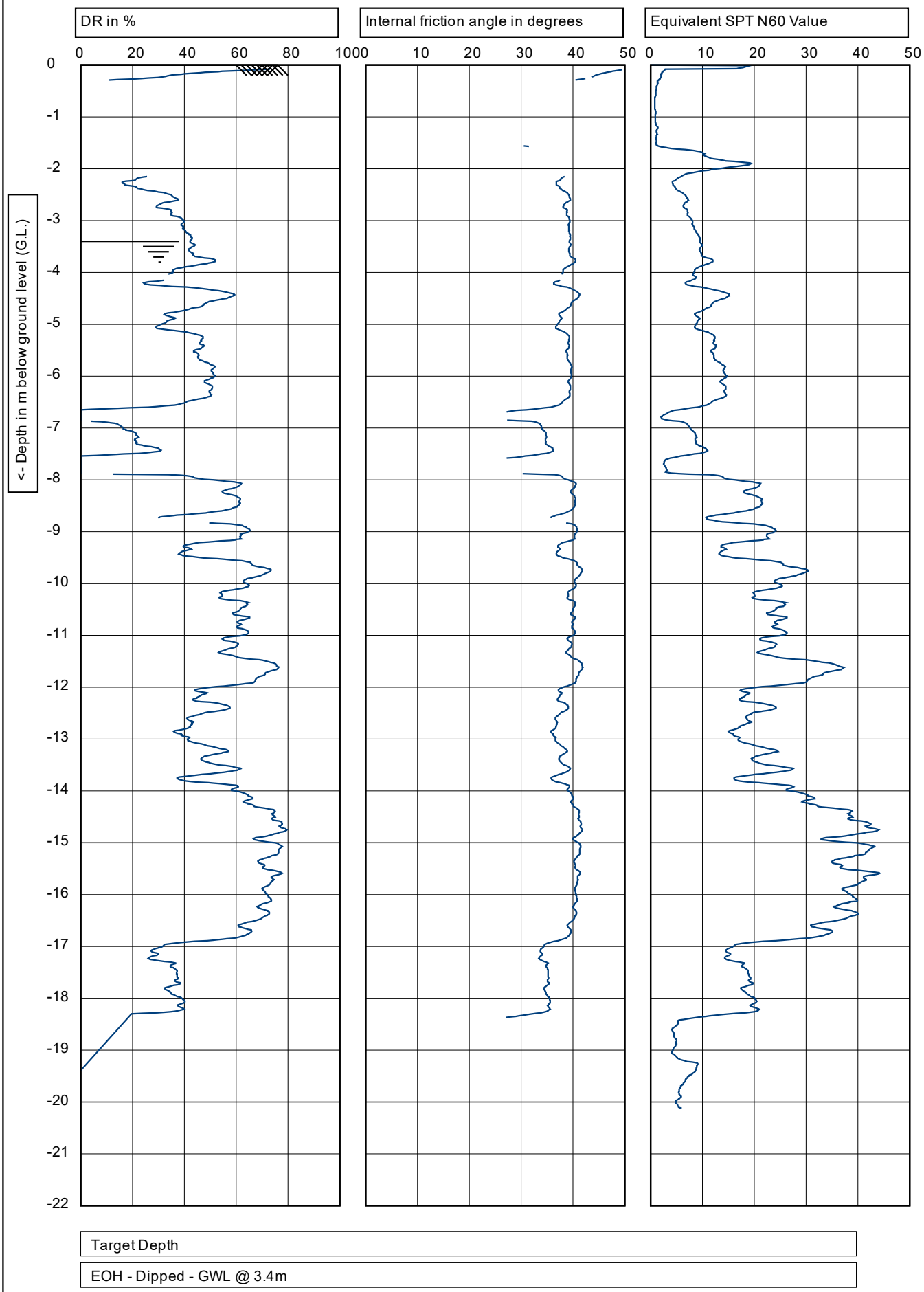
1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-3.40 m**	Date:	**24/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C20361**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1799168, 5812621 NZTM**		CPT no.:	**25-09** 4/6

1.49



Target Depth

EOH - Dipped - GWL @ 3.4m

Graphs on this page are not IANZ accredited

u2 150 cm² 10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL** W.L.: **-3.40 m**

Project: **Wickham St**

Location: **Hamilton**

Position: **1799168, 5812621 NZTM**

Predrill: **0.00 m Predrilled**

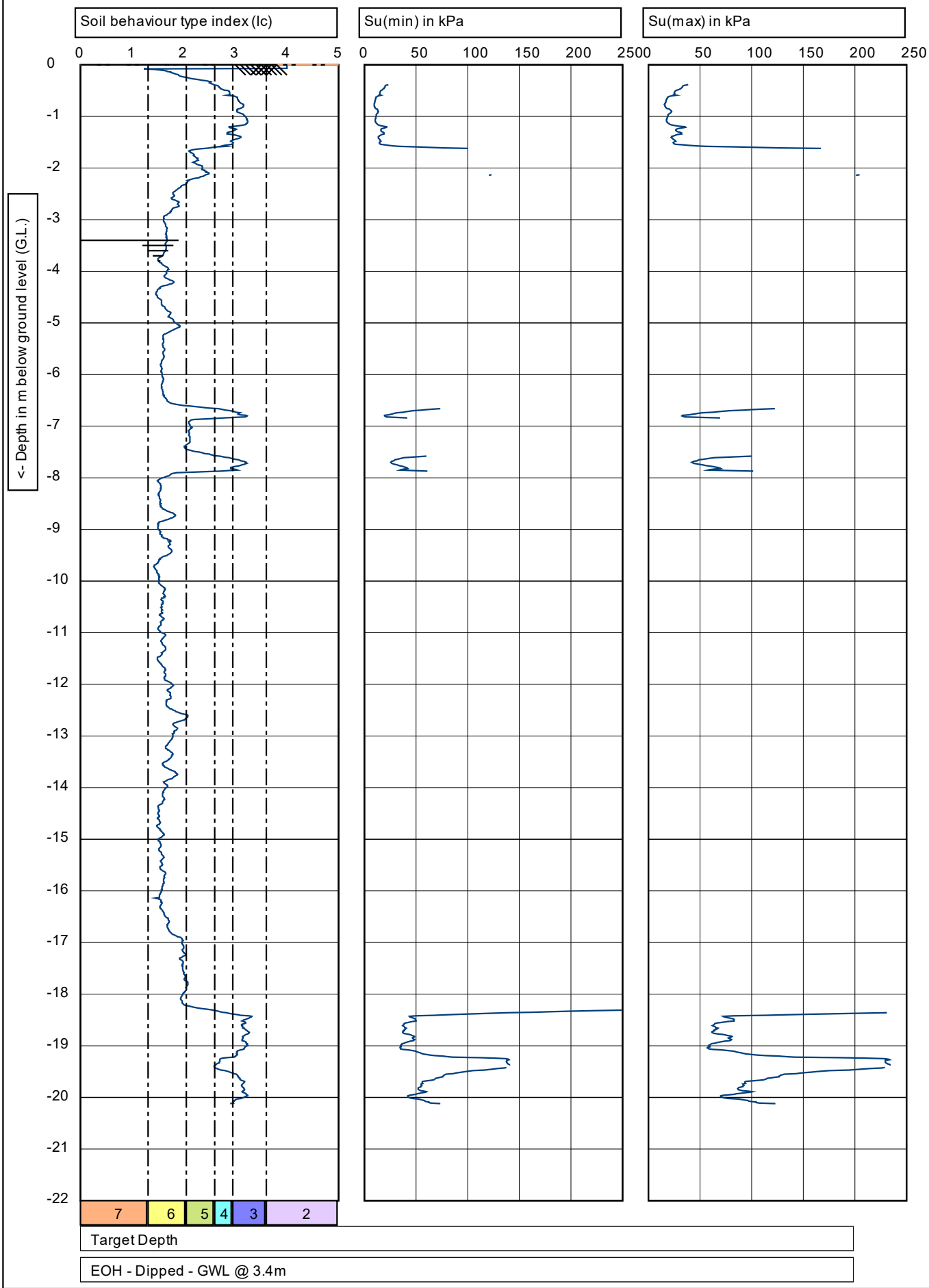
Date: **24/11/2025**

Cone no.: **C10CFIIP.C20361**

Project no.: **2-68014.00_HA15919**

CPT no.: **25-09** **5/6**

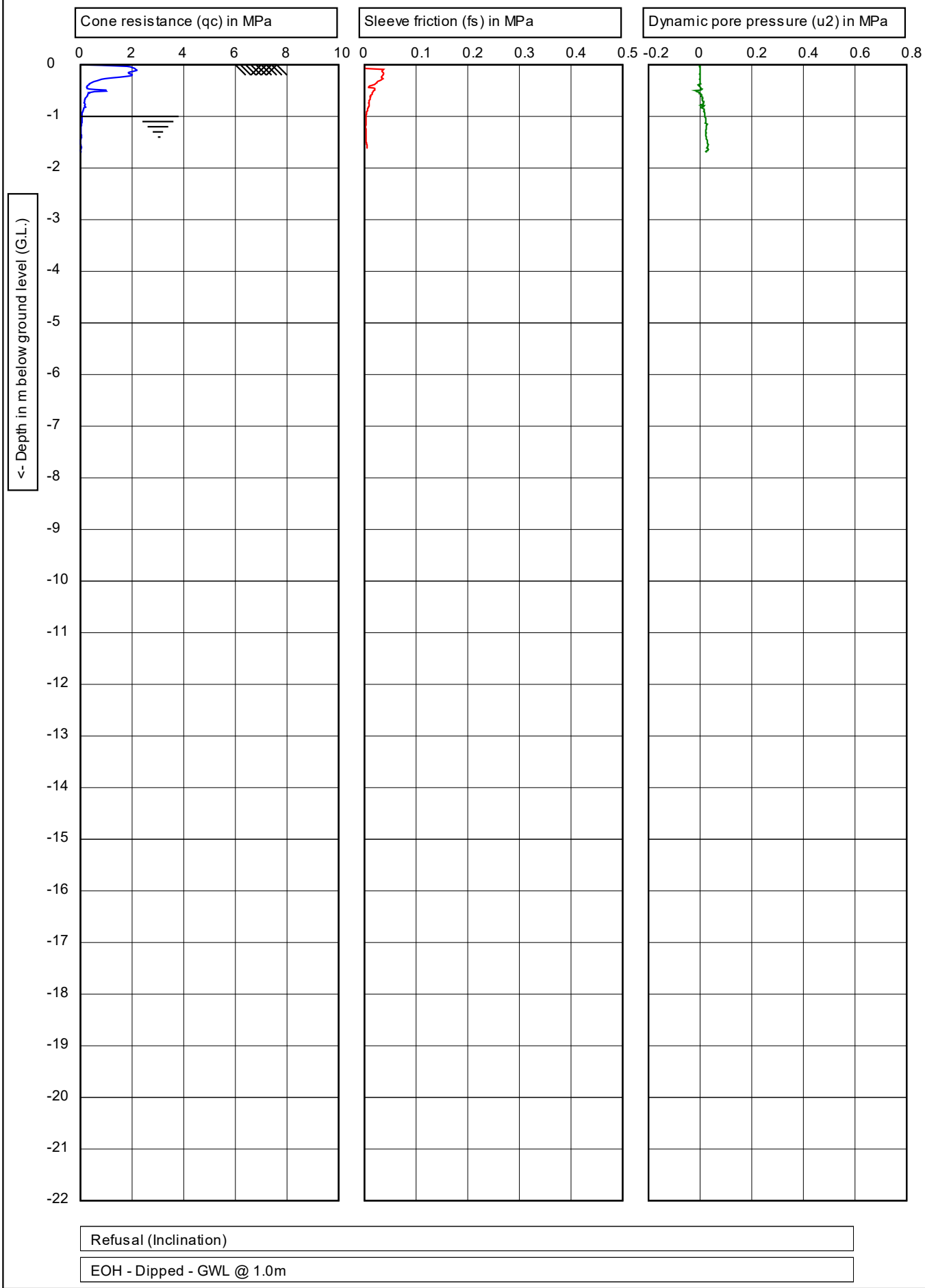
1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-3.40 m**	Date:	**24/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C20361**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1799168, 5812621 NZTM**		CPT no.:	**25-09** 6/6

1.49



Refusal (Inclination)

EOH - Dipped - GWL @ 1.0m

Test results indicated as not accredited are outside the scope of the laboratory's accreditation

u2
150 cm²
10 cm²

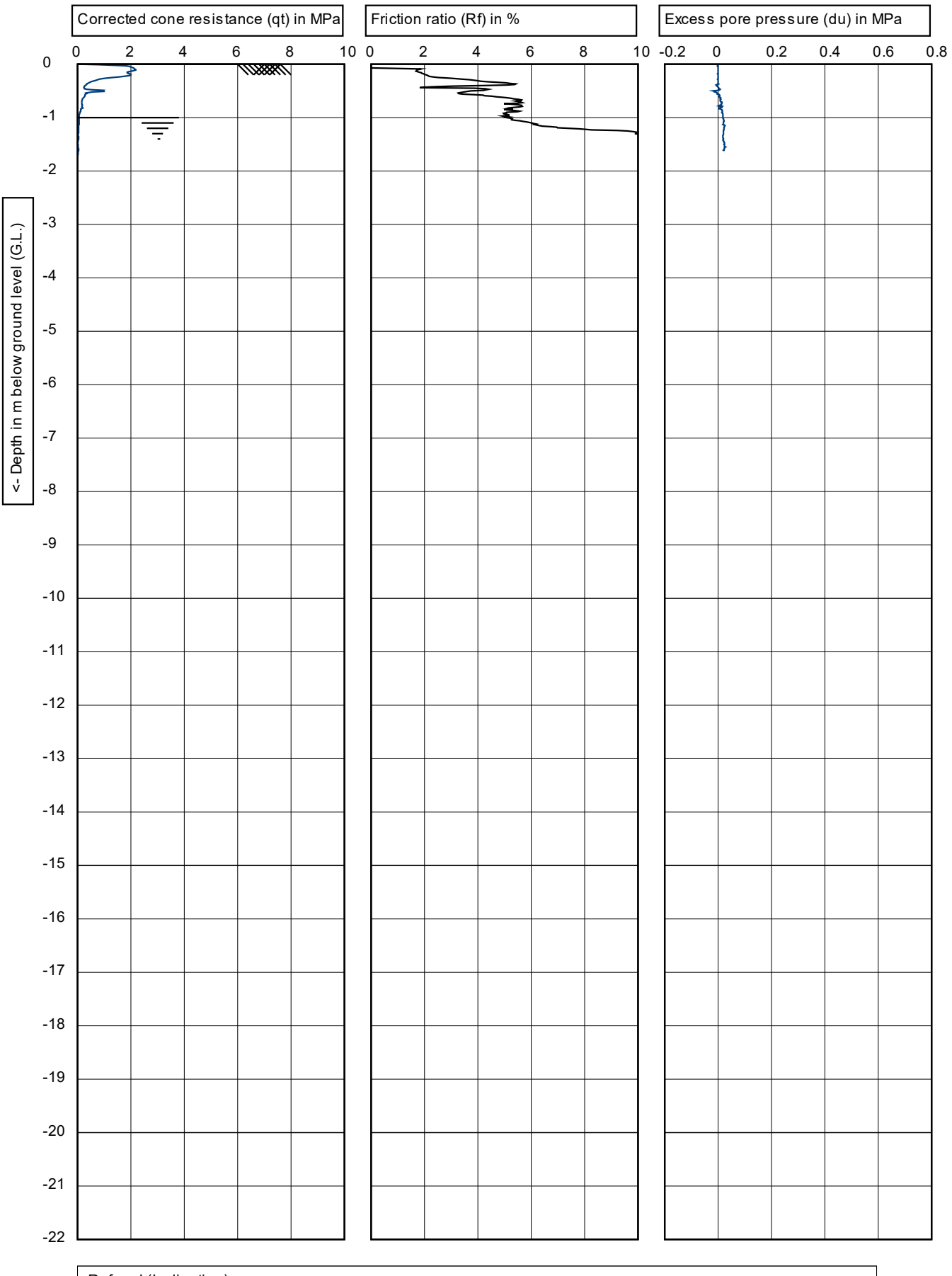
Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL** W.L.: **-1.00 m**

Project: **Wickham St**
Location: **Hamilton**
Position: **1798679, 5812734 NZTM**

Predrill: **0.00 m Predrilled**
Date: **18/11/2025**
Cone no.: **C10CFIIP.C241654**
Project no.: **2-68014.00_HA15919**
CPT no.: **25-10** **1/6**

1.49



Refusal (Inclination)

EOH - Dipped - GWL @ 1.0m

WSP

Graphs on this page are not IANZ accredited

u2
150 cm²
10 cm²

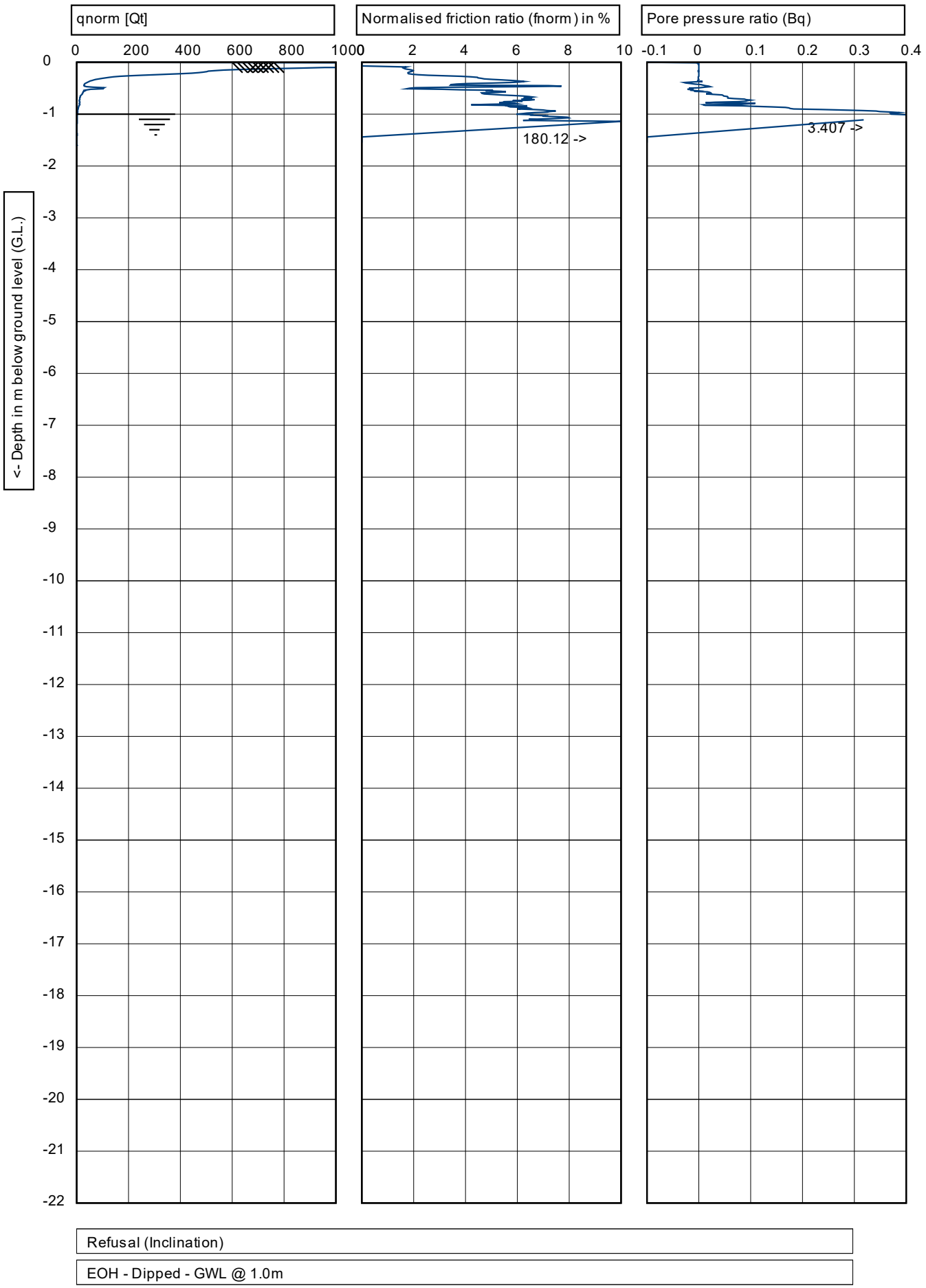
Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL** | W.L.: **-1.00 m**

Project: **Wickham St**
Location: **Hamilton**
Position: **1798679, 5812734 NZTM**

Predrill:	**0.00 m Predrilled**
Date:	**18/11/2025**
Cone no.:	**C10CFIIP.C241654**
Project no.:	**2-68014.00_HA15919**
CPT no.:	**25-10**

1.49



Refusal (Inclination)

EOH - Dipped - GWL @ 1.0m

Graphs on this page are not IANZ accredited

u2 150 cm² 10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL** W.L.: **-1.00 m**

Project: **Wickham St**

Location: **Hamilton**

Position: **1798679, 5812734 NZTM**

Predrill: **0.00 m Predrilled**

Date: **18/11/2025**

Cone no.: **C10CFIIP.C241654**

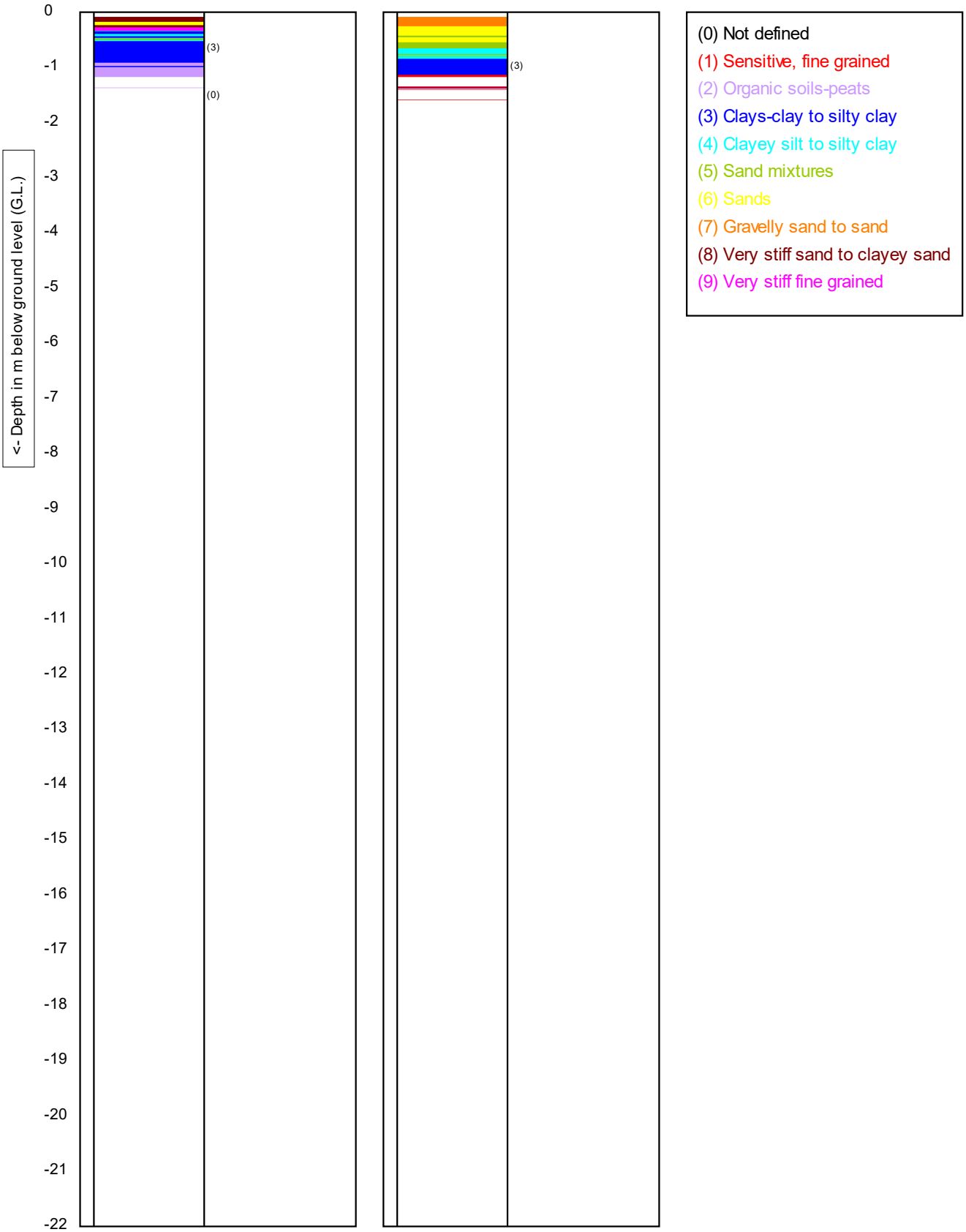
Project no.: **2-68014.00_HA15919**

CPT no.: **25-10** **3/6**

1.49

Soil Classification (using Fr)

Soil Classification (using Bq)

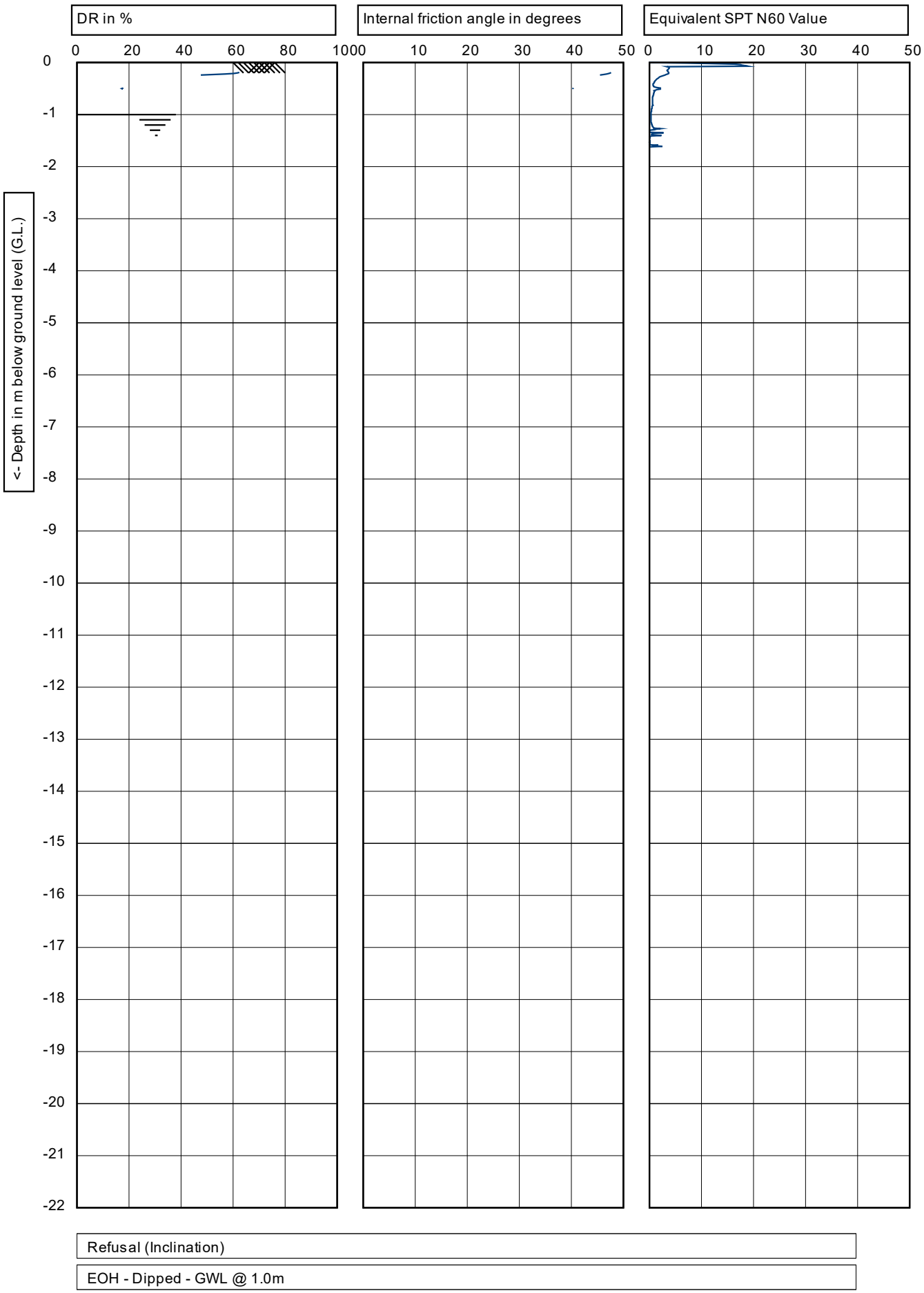


(0) Not defined
(1) Sensitive, fine grained
(2) Organic soils-peats
(3) Clays-clay to silty clay
(4) Clayey silt to silty clay
(5) Sand mixtures
(6) Sands
(7) Gravelly sand to sand
(8) Very stiff sand to clayey sand
(9) Very stiff fine grained

Graphs on this page are not IANZ accredited

1.49

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-1.00 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C241654**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1798679, 5812734 NZTM**		CPT no.:	**25-10** **4/6**



Refusal (Inclination)

EOH - Dipped - GWL @ 1.0m

Graphs on this page are not IANZ accredited

u2
150 cm²
10 cm²

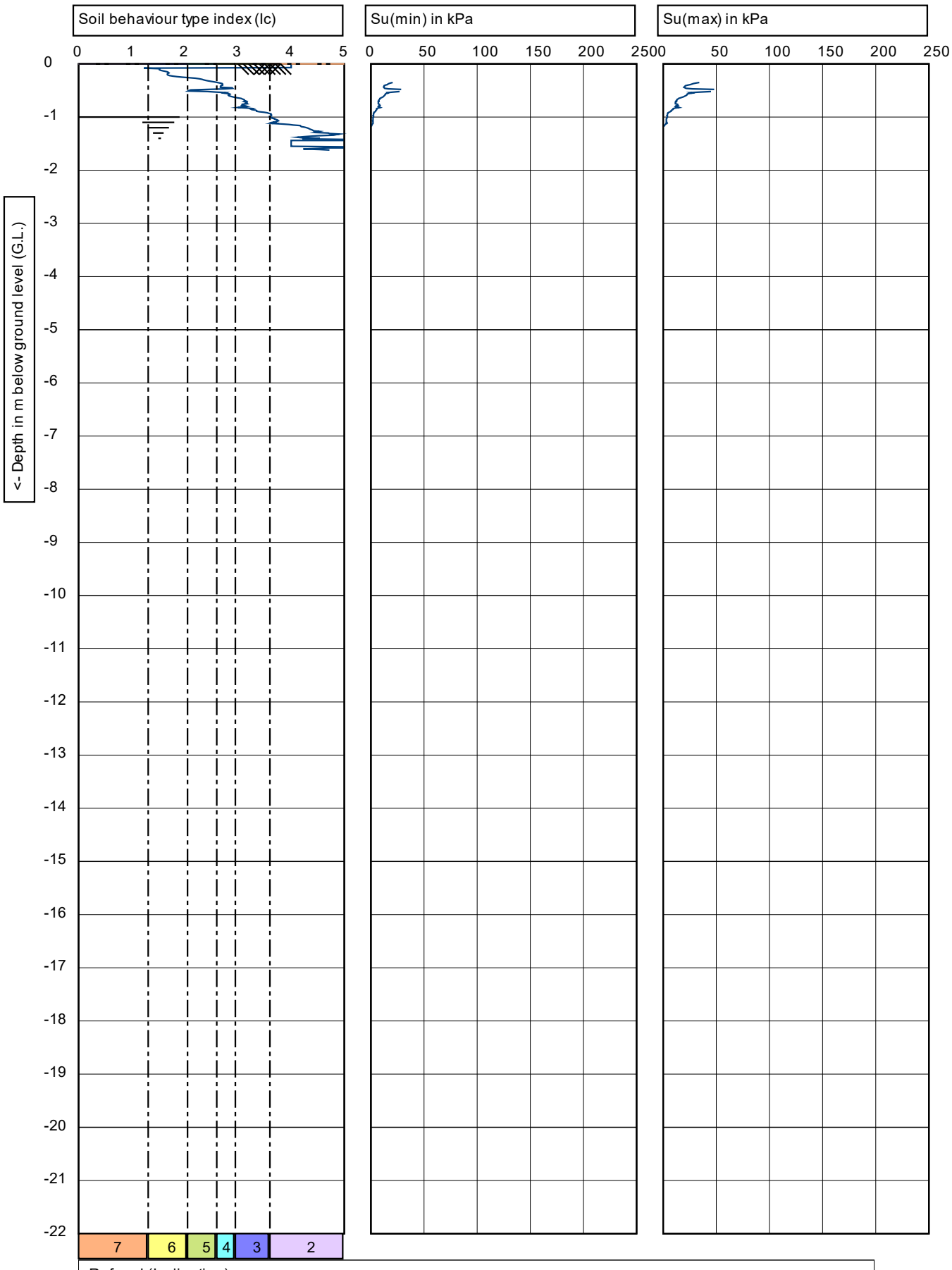
Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL** W.L.: **-1.00 m**

Project: **Wickham St**
Location: **Hamilton**
Position: **1798679, 5812734 NZTM**

Predrill: **0.00 m Predrilled**
Date: **18/11/2025**
Cone no.: **C10CFIIP.C241654**
Project no.: **2-68014.00_HA15919**
CPT no.: **25-10** **5/6**

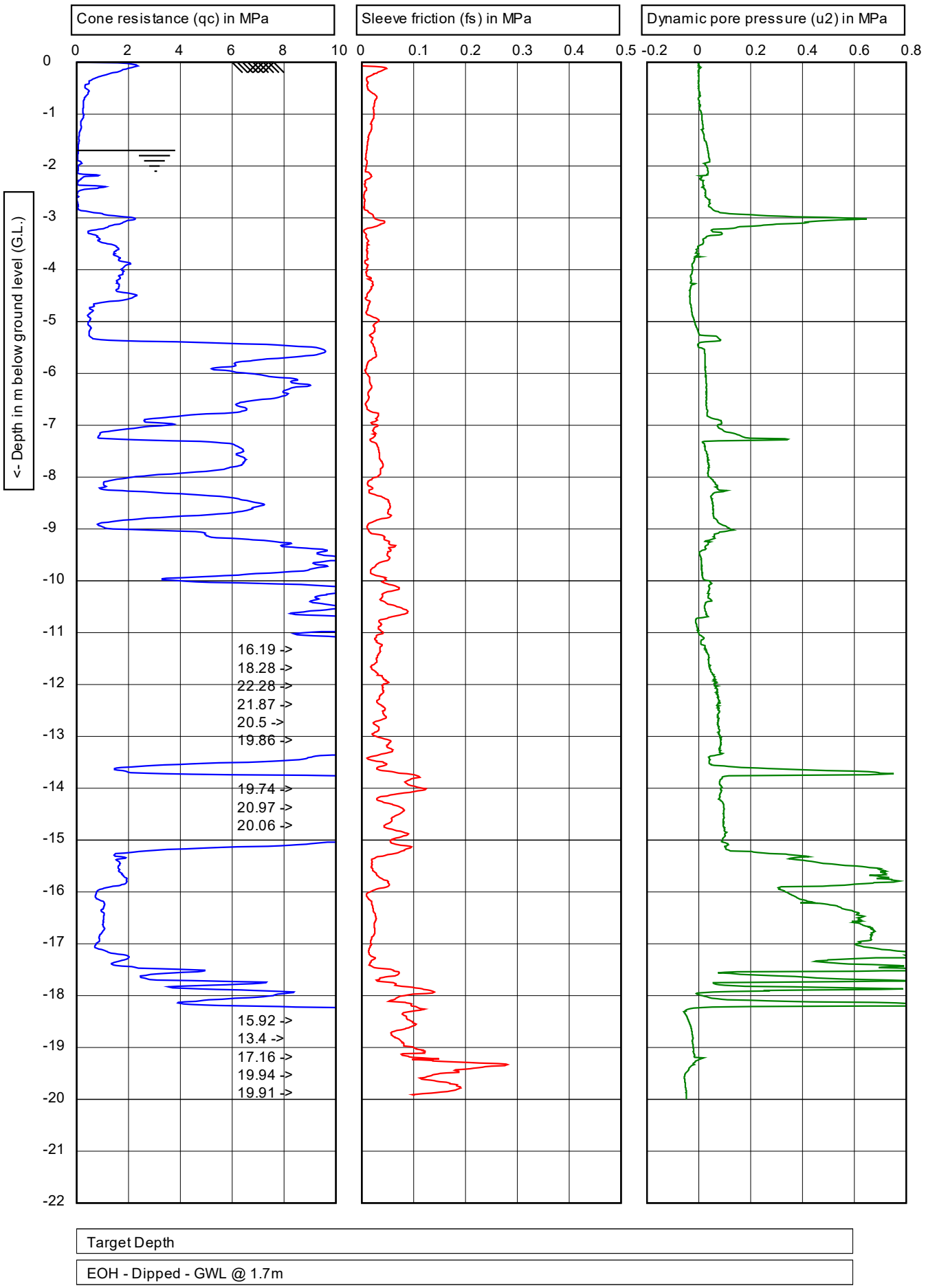
1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-1.00 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C241654**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1798679, 5812734 NZTM**		CPT no.:	**25-10** **6/6**

1.49



Test results indicated as not accredited are outside the scope of the laboratory's accreditation

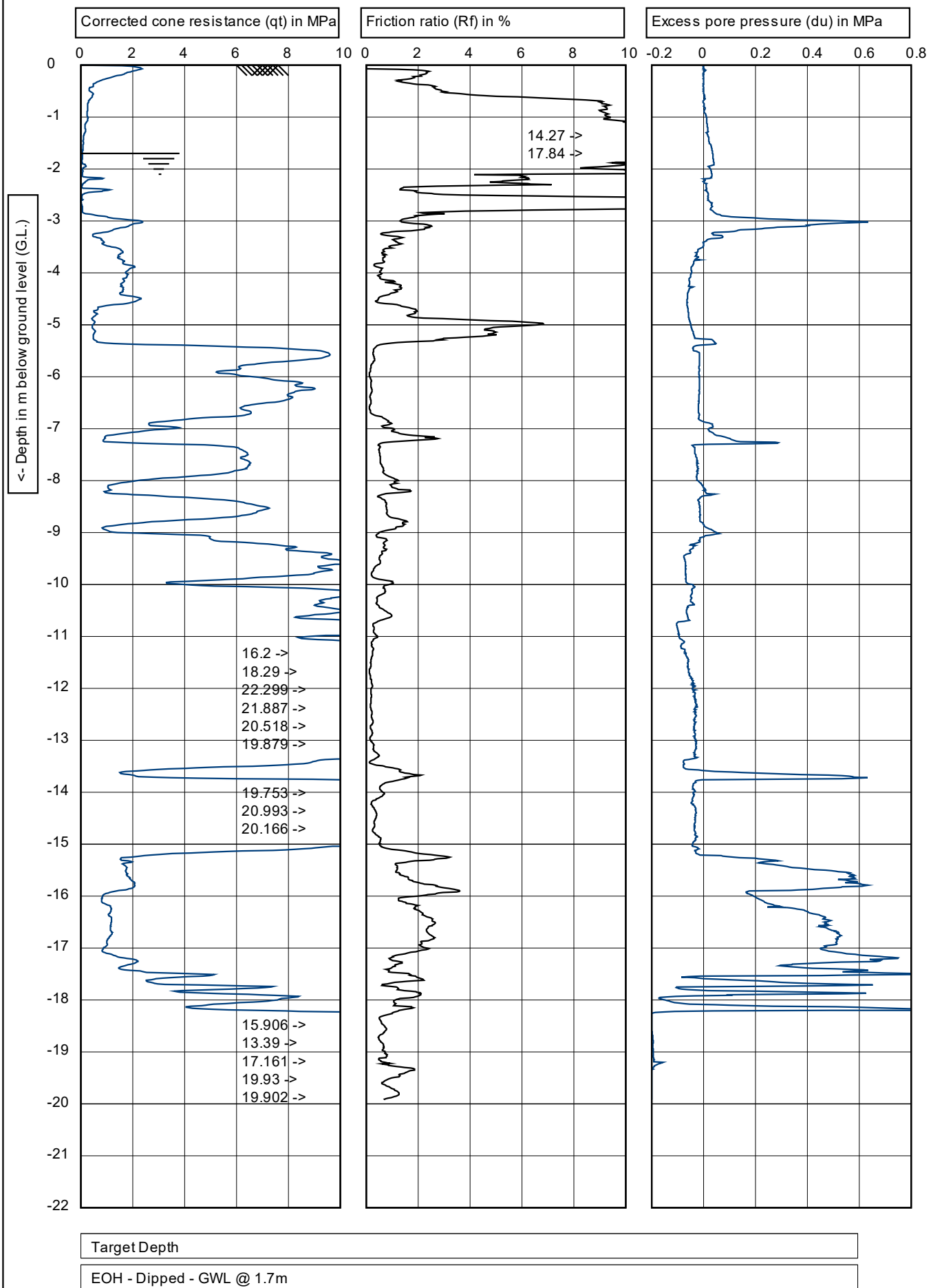
Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL** W.L.: **-1.70 m**

Project: **Wickham St**
Location: **Hamilton**
Position: **1798799, 5812694 NZTM**

Predrill: **0.00 m Predrilled**
Date: **18/11/2025**
Cone no.: **C10CFIIP.C20361**
Project no.: **2-68014.00_HA15919**
CPT no.: **25-11** **1/6**

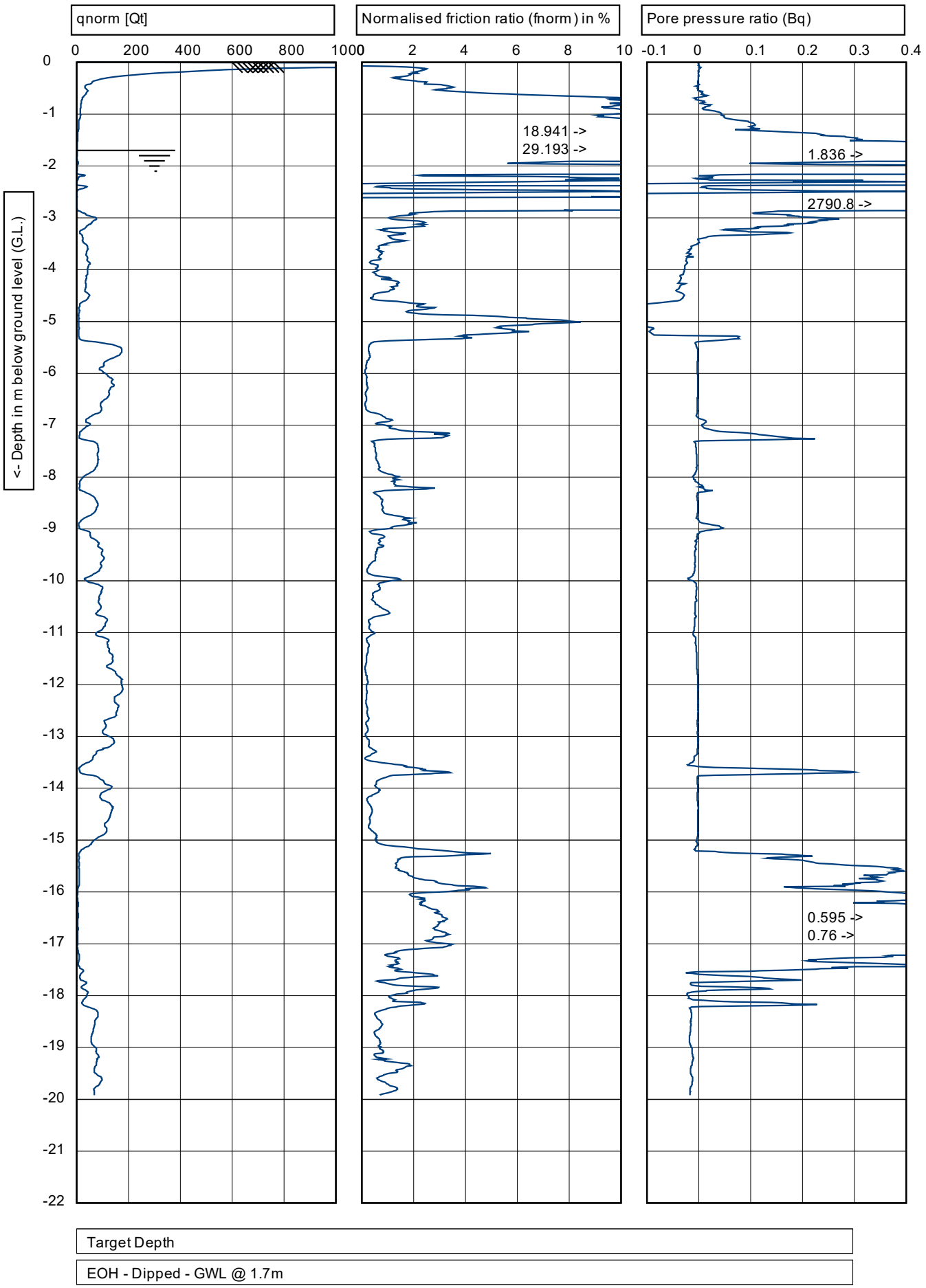
1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-1.70 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C20361**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1798799, 5812694 NZTM**		CPT no.:	**25-11** **2/6**

1.49



Graphs on this page are not IANZ accredited

u2
150 cm²
10 cm²

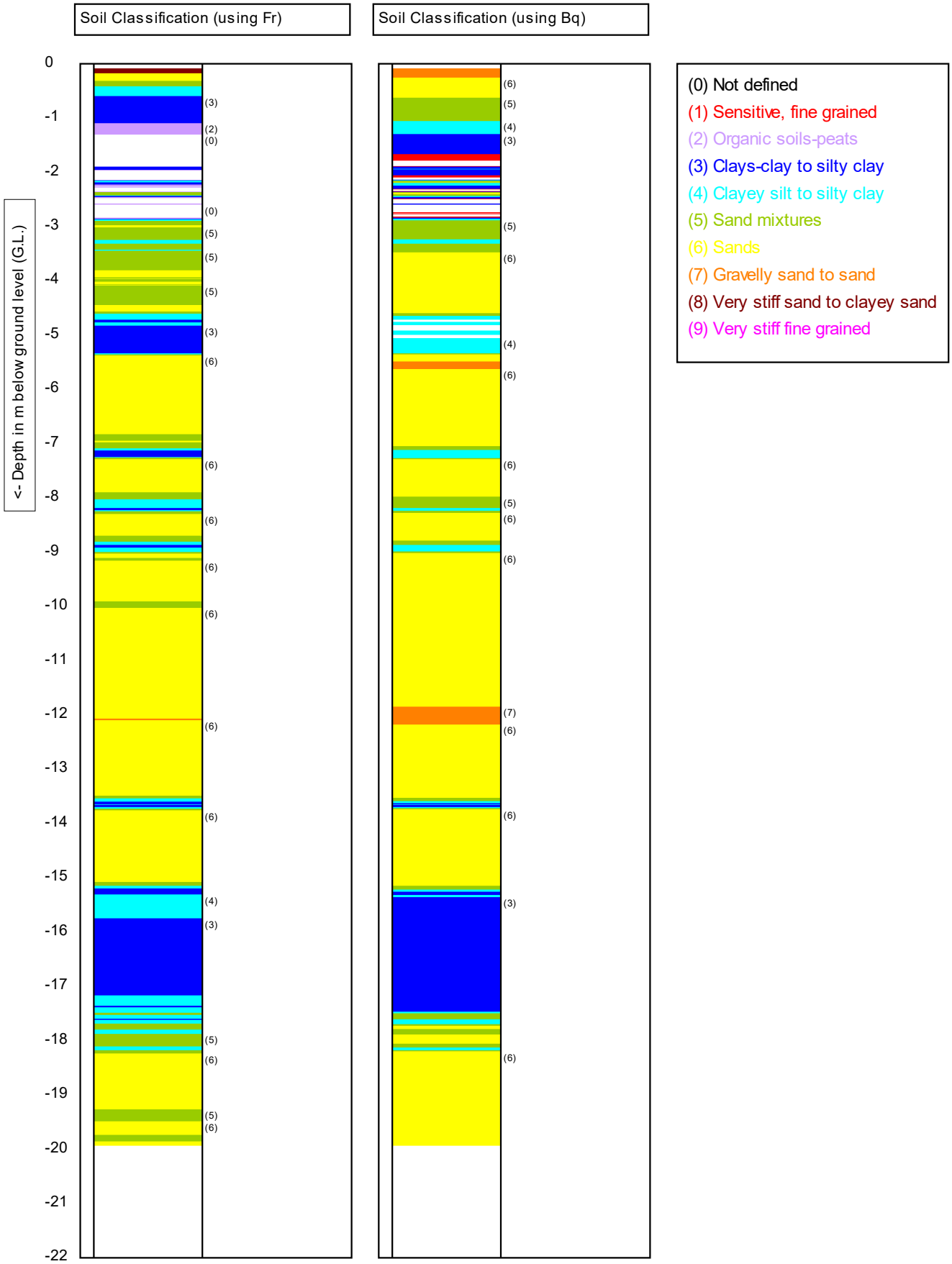
Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL** | W.L.: **-1.70 m**

Project: **Wickham St**
Location: **Hamilton**
Position: **1798799, 5812694 NZTM**

Predrill: **0.00 m Predrilled**
Date: **18/11/2025**
Cone no.: **C10CFIIP.C20361**
Project no.: **2-68014.00_HA15919**
CPT no.: **25-11** **3/6**

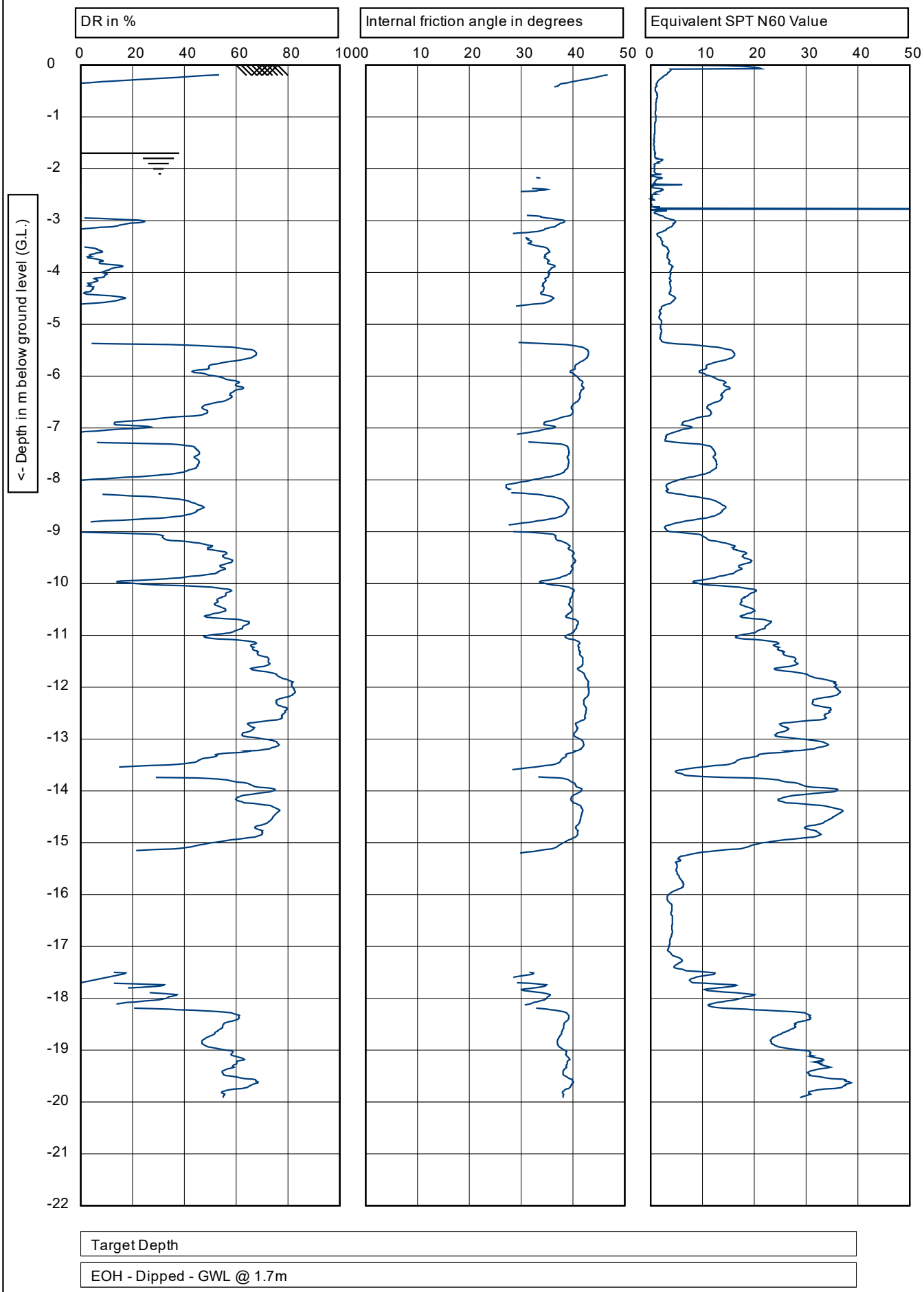
1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-1.70 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C20361**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1798799, 5812694 NZTM**		CPT no.:	**25-11** 4/6

1.49



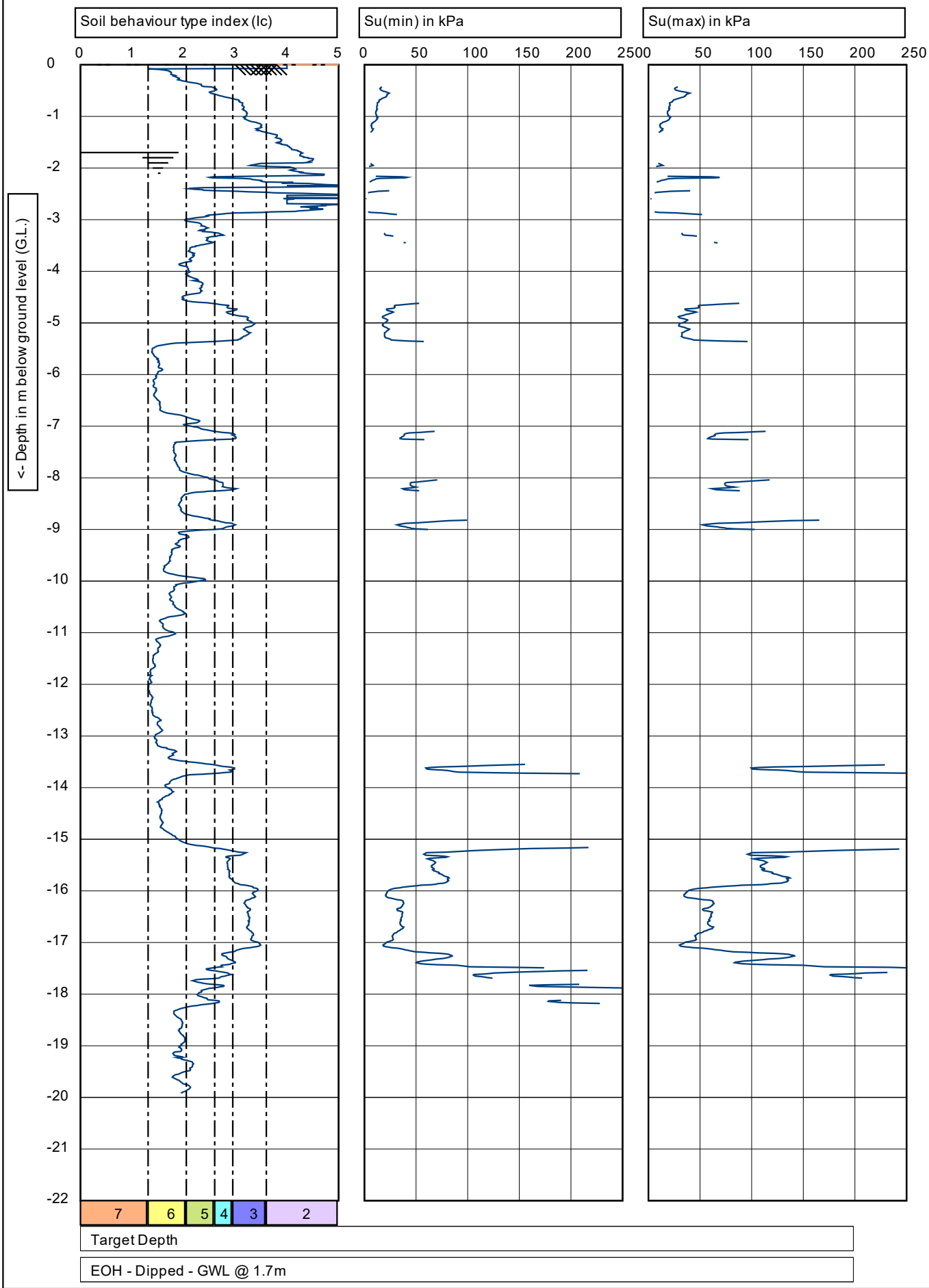
Target Depth

EOH - Dipped - GWL @ 1.7m

Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-1.70 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C20361**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1798799, 5812694 NZTM**		CPT no.:	**25-11** 5/6

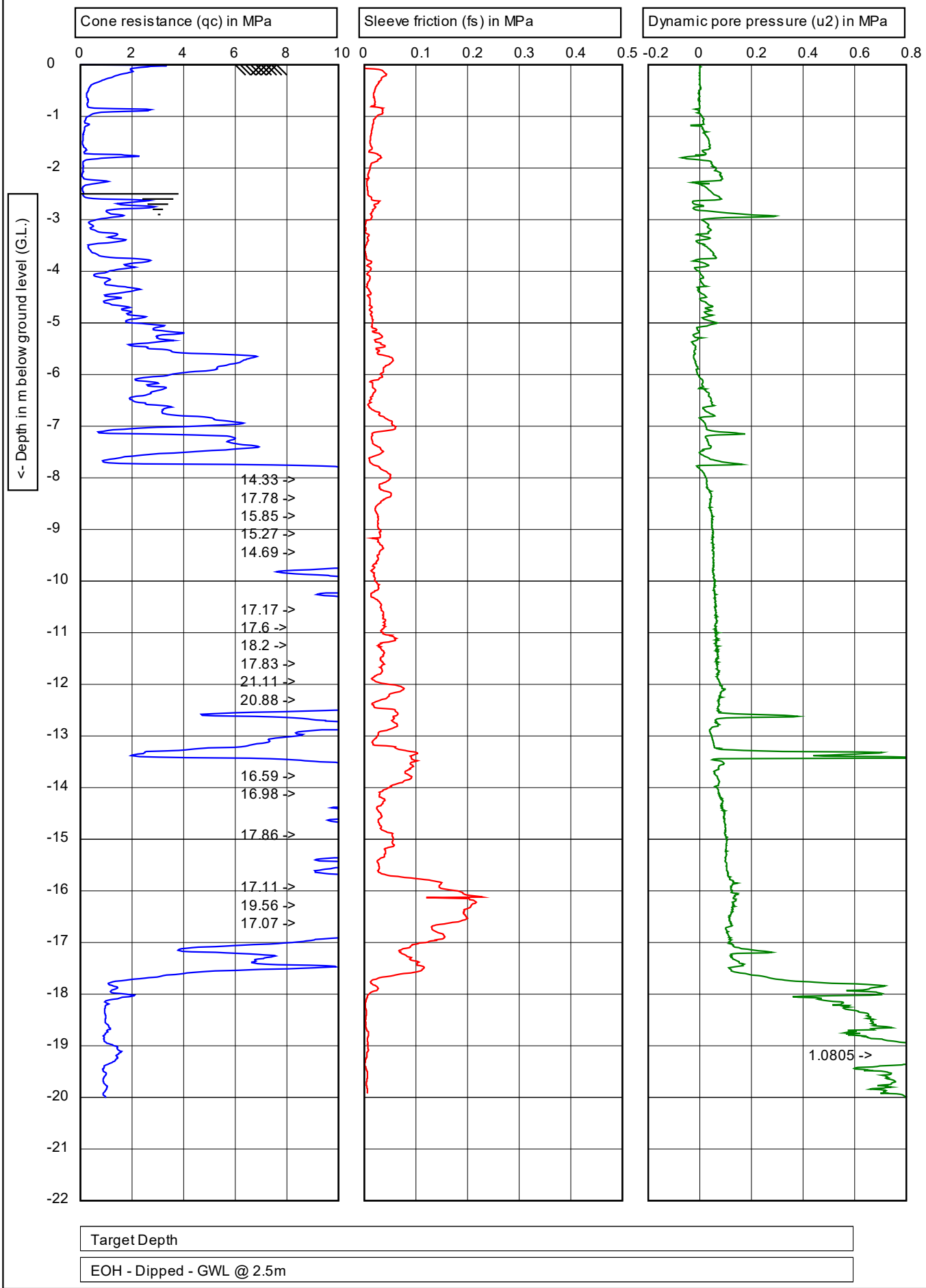
1.49



Graphs on this page are not IANZ accredited

1.49

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-1.70 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C20361**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1798799, 5812694 NZTM**		CPT no.:	**25-11** 6/6



Test results indicated as not accredited are outside the scope of the laboratory's accreditation

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL** W.L.: **-2.50 m**

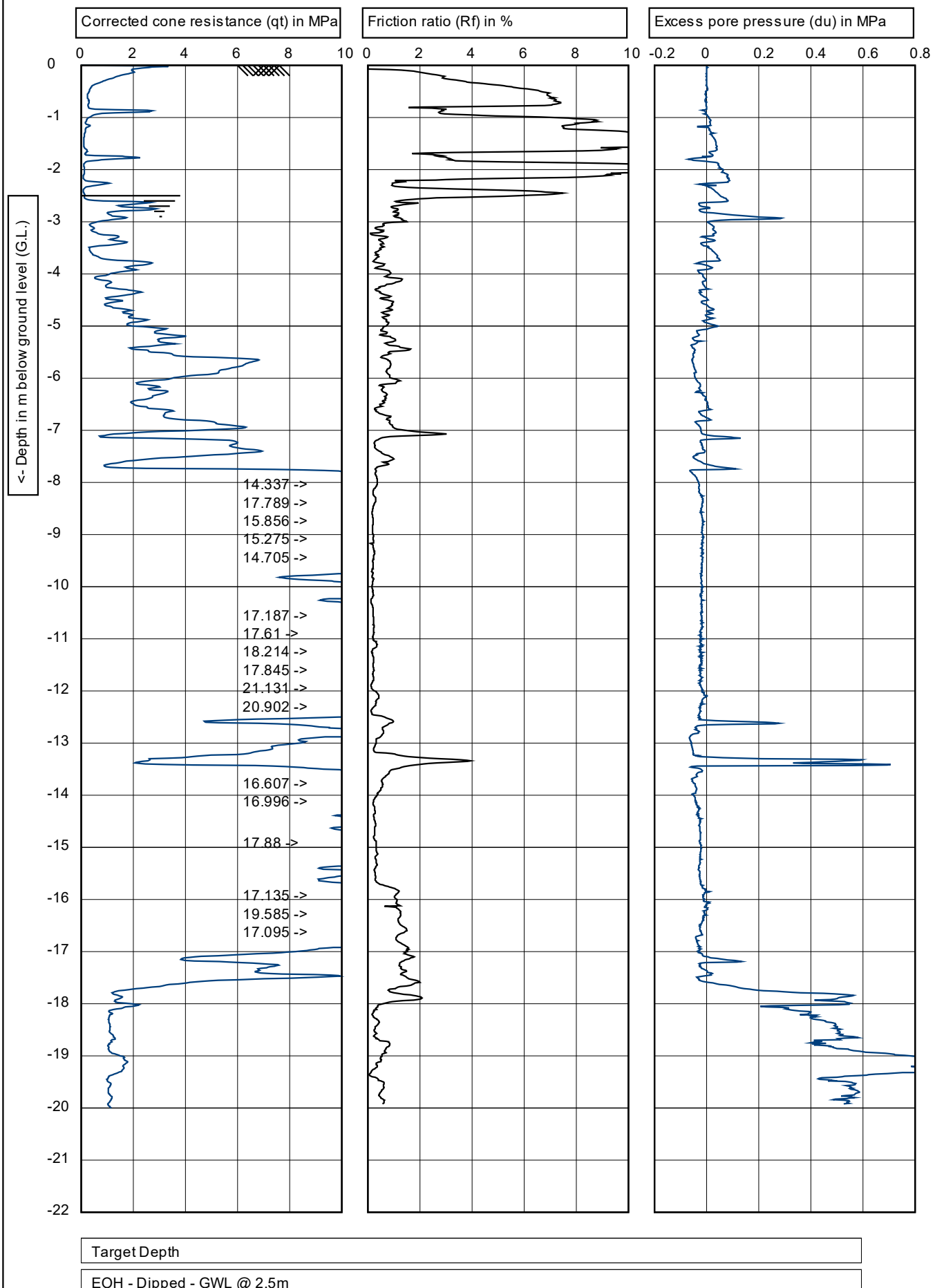
Project: **Wickham St**

Location: **Hamilton**

Position: **1799049, 5812621 NZTM**

Predrill:	**0.00 m Predrilled**
Date:	**18/11/2025**
Cone no.:	**C10CFIIP.C241654**
Project no.:	**2-68014.00_HA15919**
CPT no.:	**25-12**

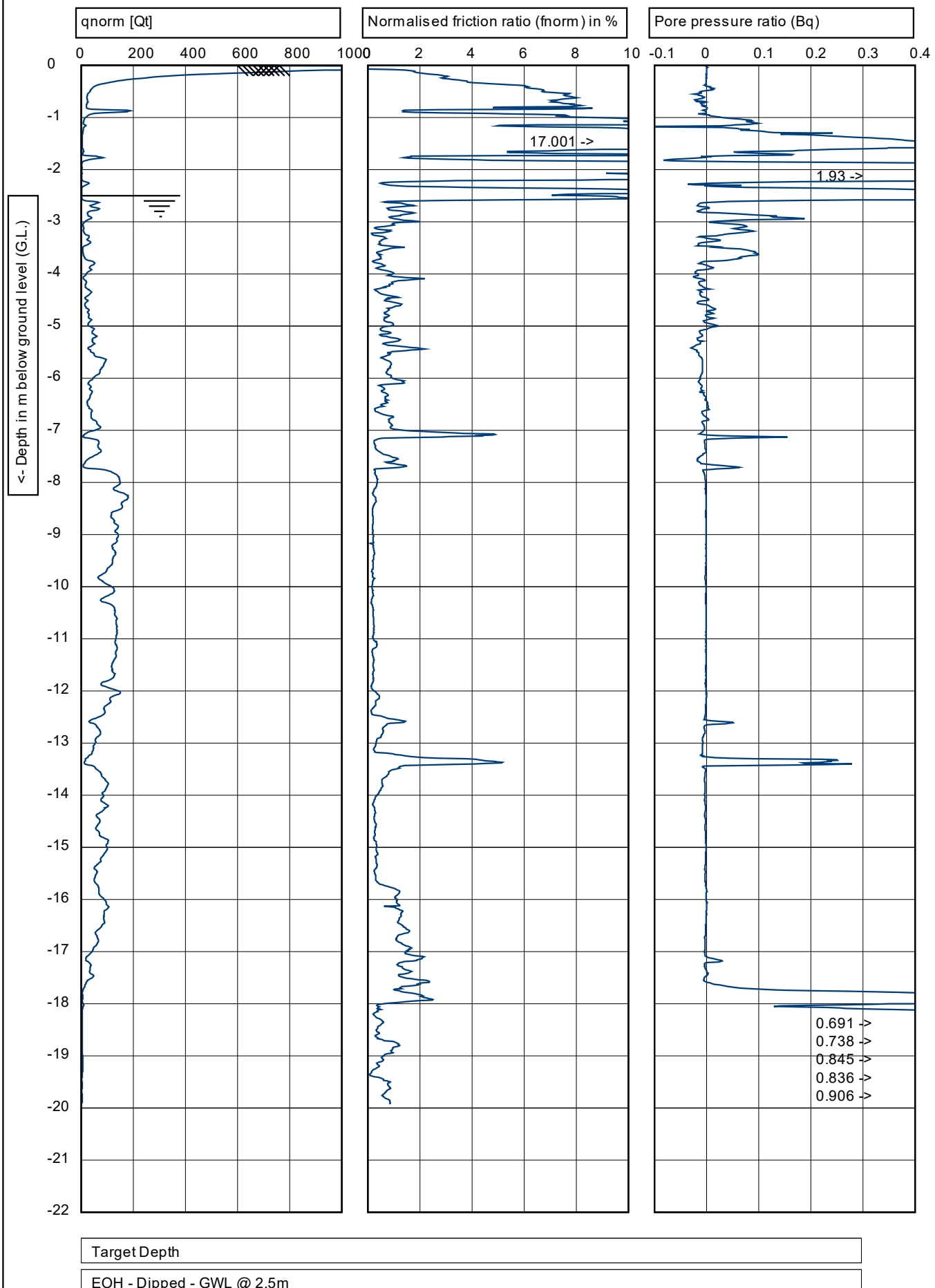
1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-2.50 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C241654**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1799049, 5812621 NZTM**		CPT no.:	**25-12** **2/6**

1.49



Graphs on this page are not IANZ accredited

u2
150 cm²
10 cm²

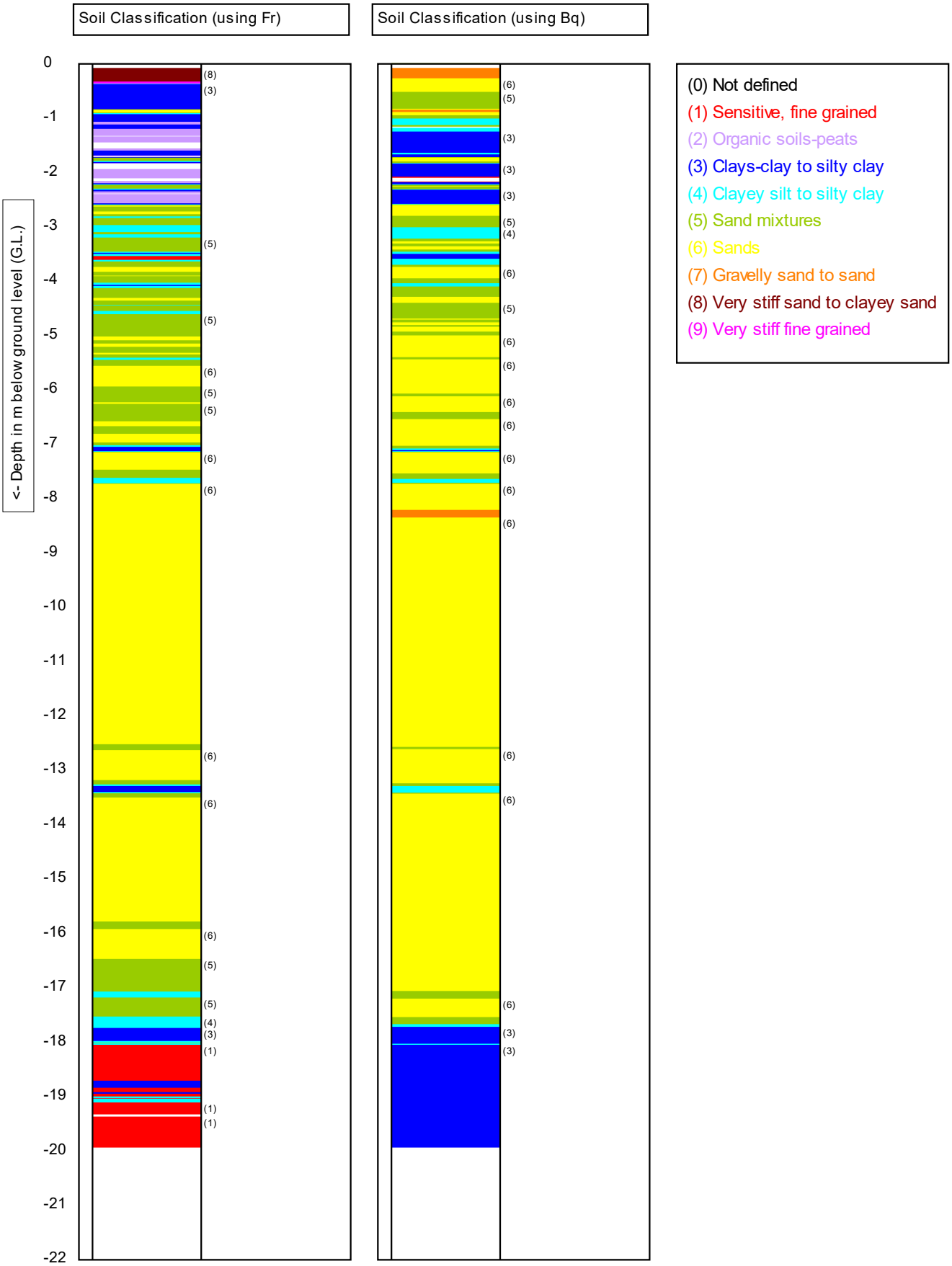
Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL** W.L.: **-2.50 m**

Project: **Wickham St**
Location: **Hamilton**
Position: **1799049, 5812621 NZTM**

Predrill: **0.00 m Predrilled**
Date: **18/11/2025**
Cone no.: **C10CFIIP.C241654**
Project no.: **2-68014.00_HA15919**
CPT no.: **25-12** **3/6**

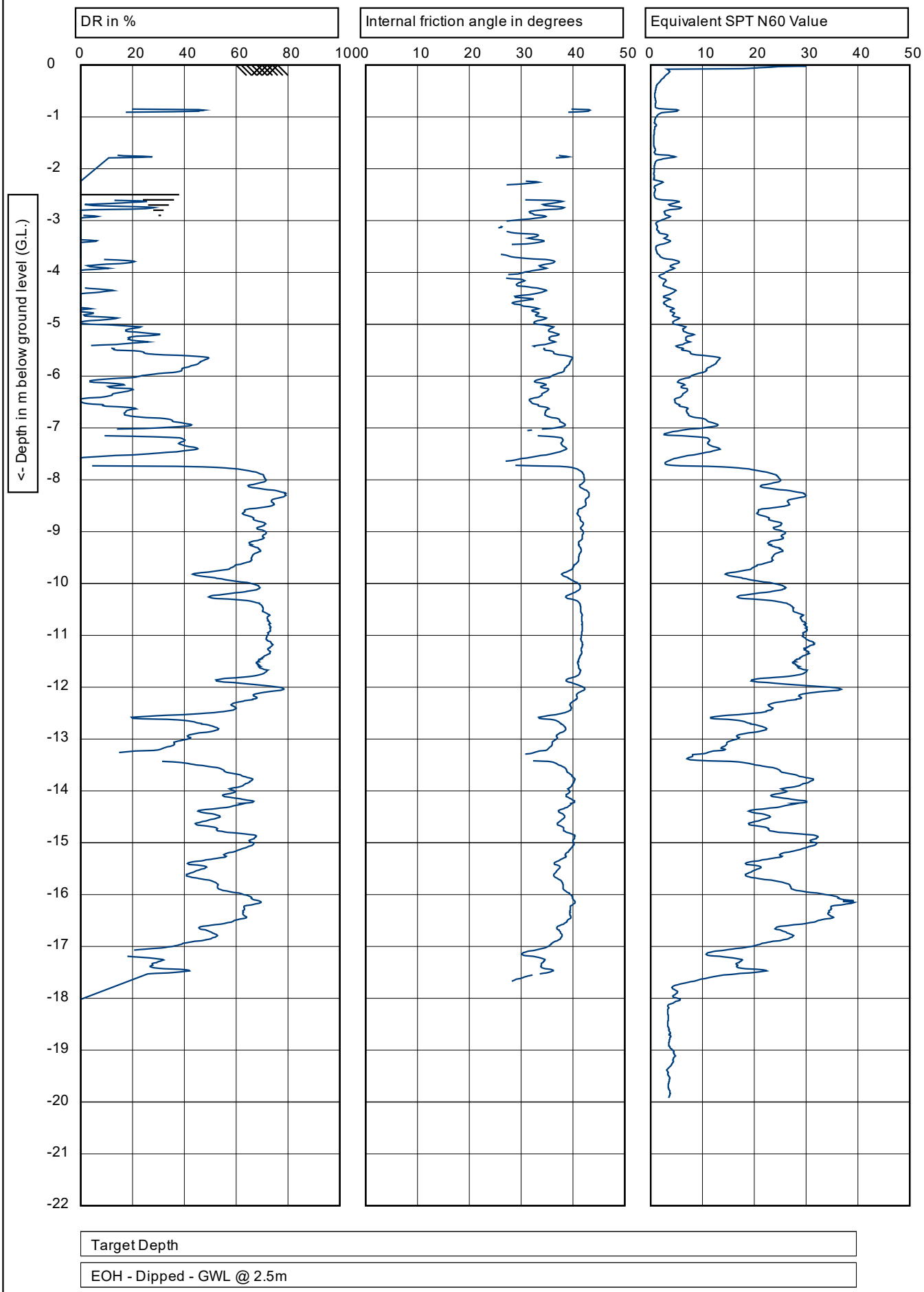
1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-2.50 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C241654**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1799049, 5812621 NZTM**		CPT no.:	**25-12** 4/6

1.49



Target Depth

EOH - Dipped - GWL @ 2.5m

Graphs on this page are not IANZ accredited

u2
150 cm²
10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL** | W.L.: **-2.50 m**

Project: **Wickham St**

Location: **Hamilton**

Position: **1799049, 5812621 NZTM**

Predrill: **0.00 m Predrilled**

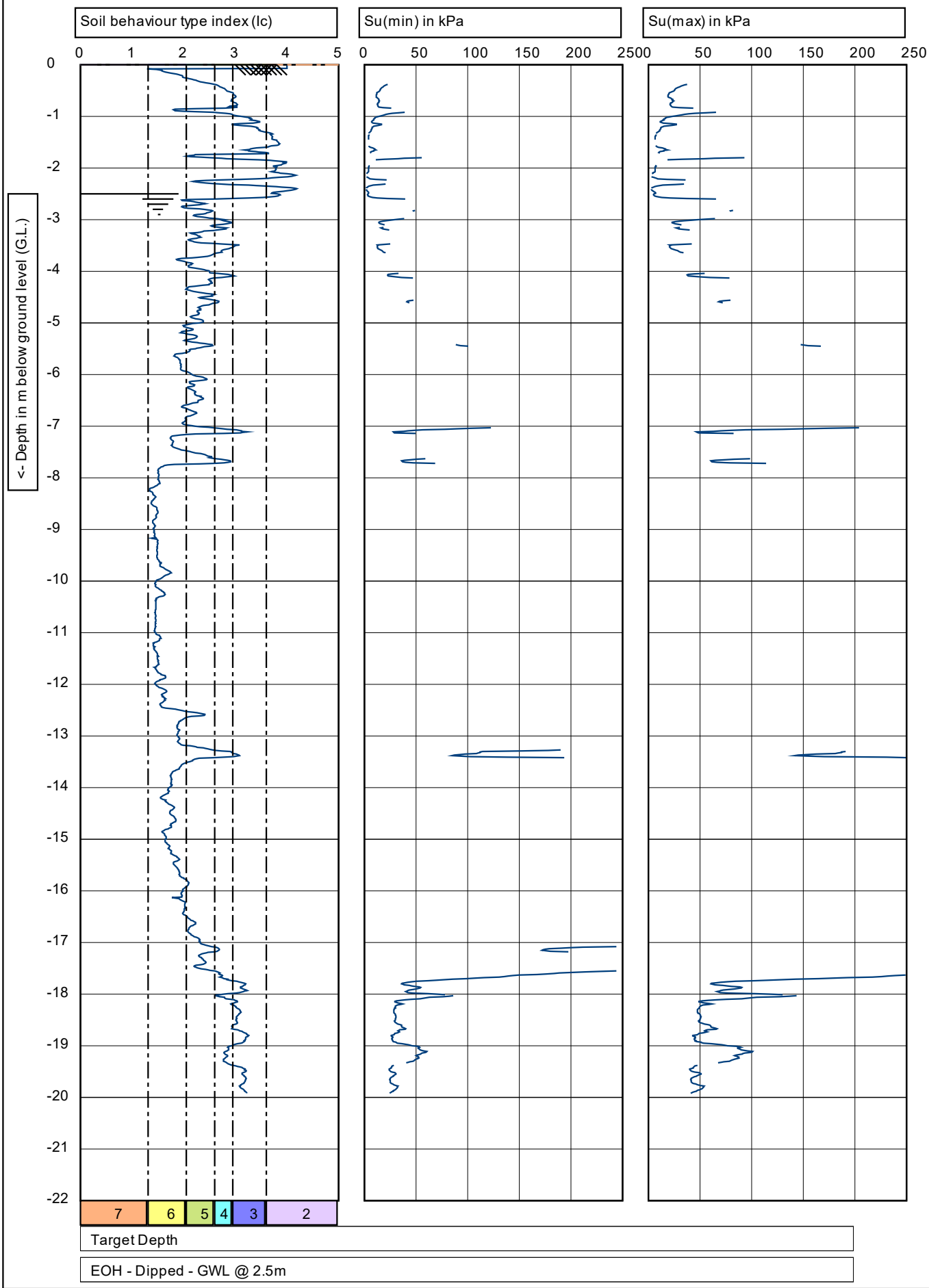
Date: **18/11/2025**

Cone no.: **C10CFIIP.C241654**

Project no.: **2-68014.00_HA15919**

CPT no.: **25-12** **5/6**

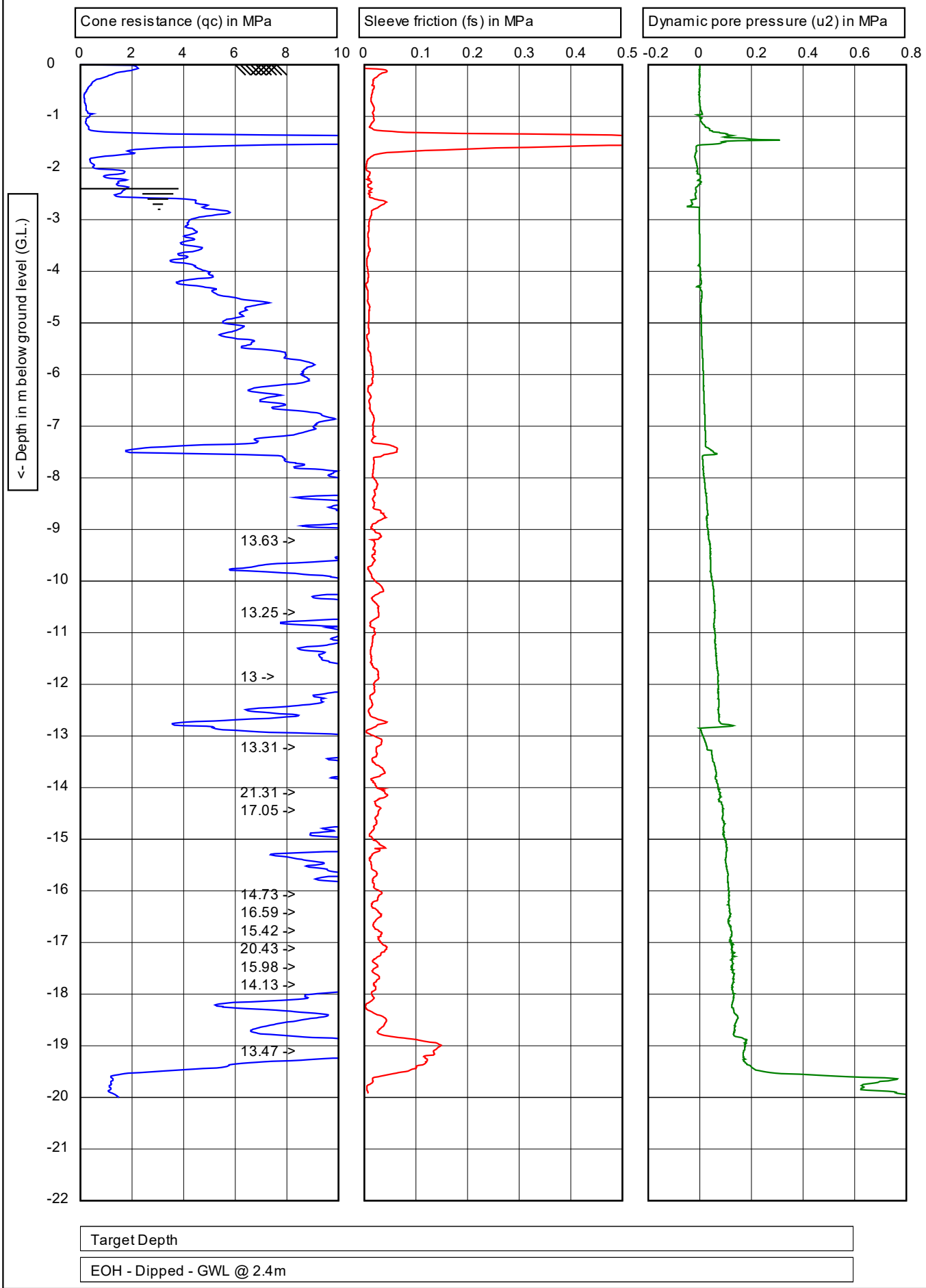
1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-2.50 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C241654**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1799049, 5812621 NZTM**		CPT no.:	**25-12** 6/6

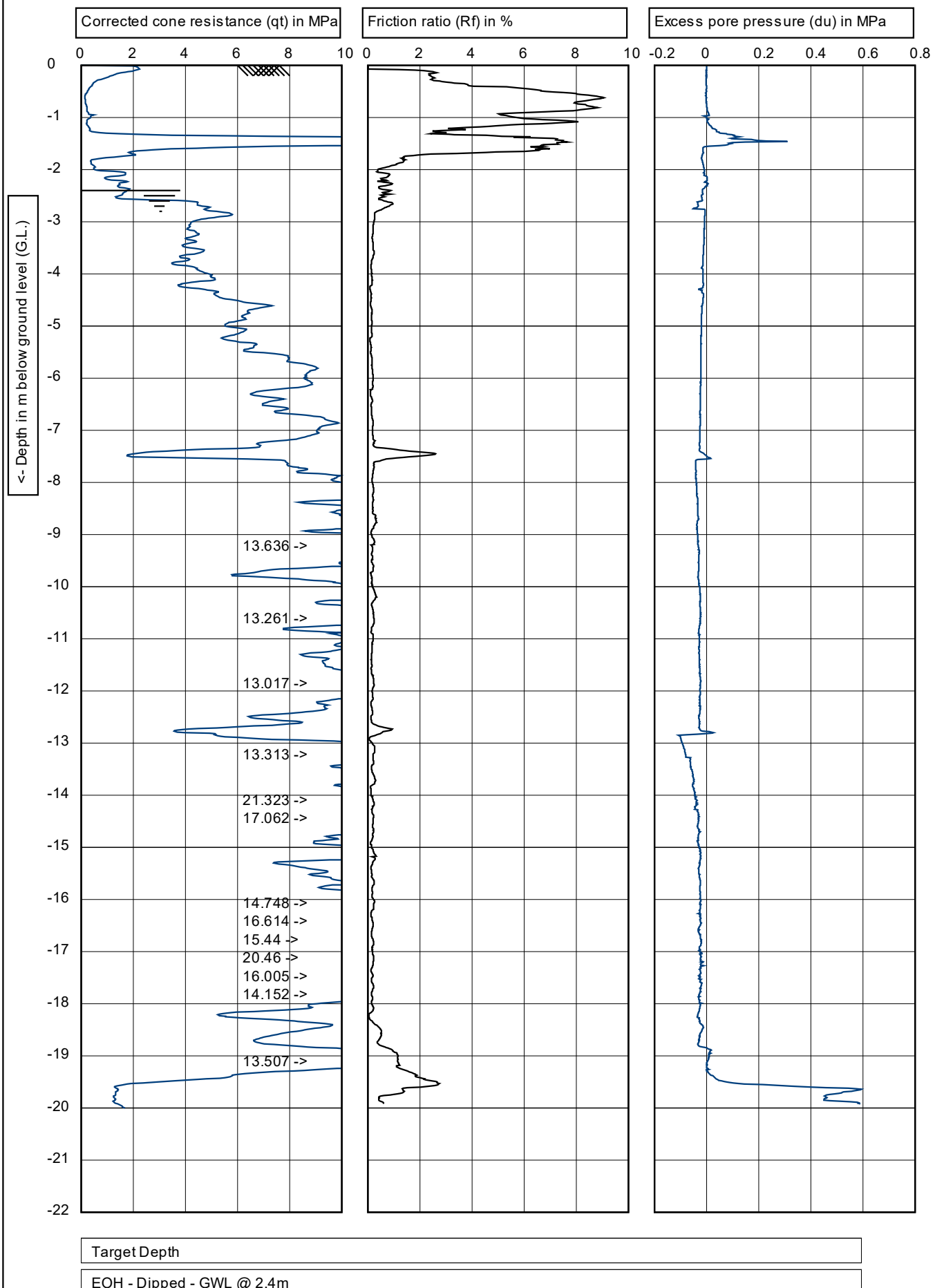
1.49



Test results indicated as not accredited are outside the scope of the laboratory's accreditation

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-2.40 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C241654**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1799268, 5812540 NZTM**		CPT no.:	**25-13** **1/6**

1.49



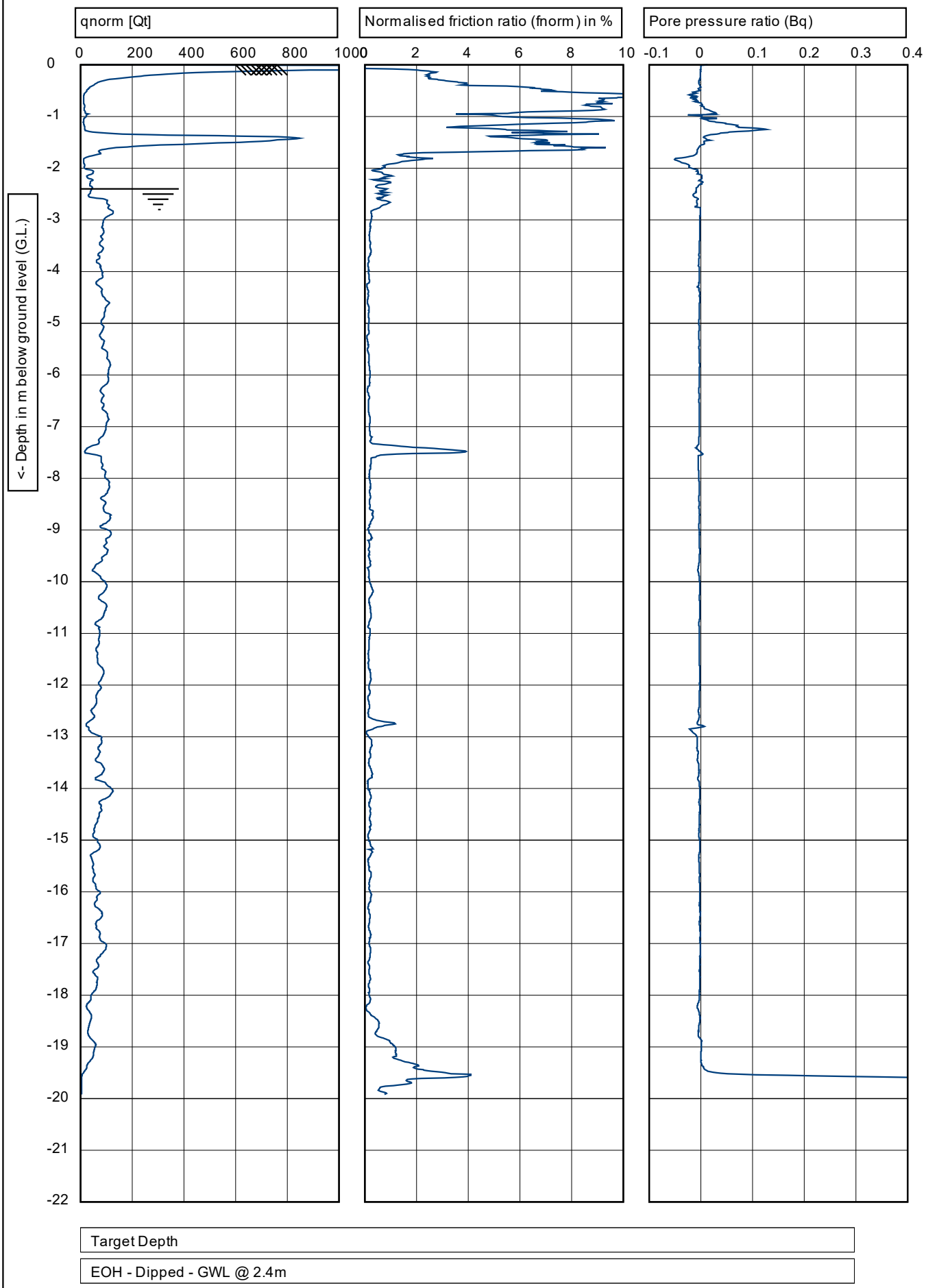
Target Depth

EOH - Dipped - GWL @ 2.4m

Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-2.40 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C241654**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1799268, 5812540 NZTM**		CPT no.:	**25-13** **2/6**

1.49



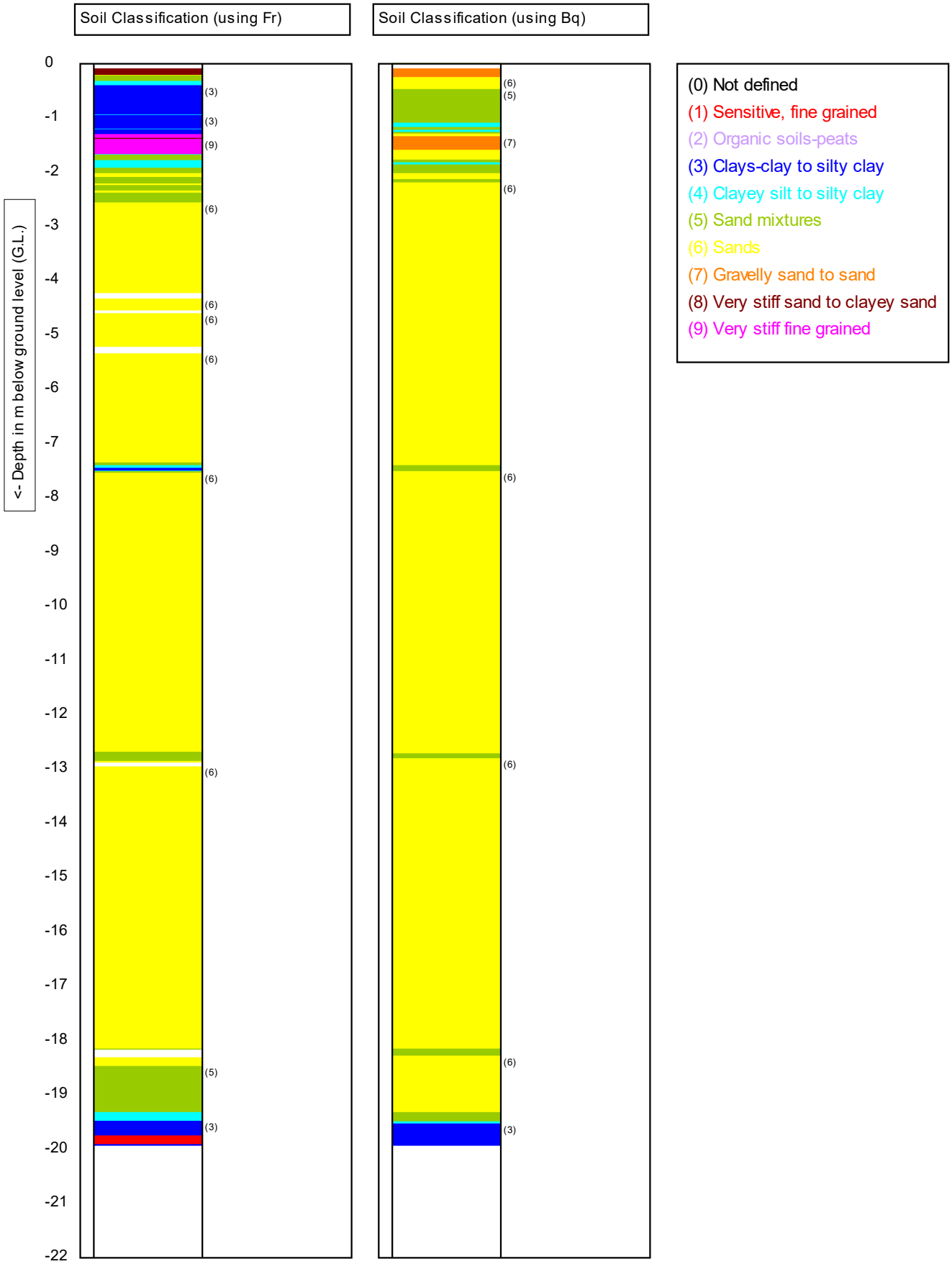
Target Depth

EOH - Dipped - GWL @ 2.4m

Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-2.40 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C241654**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1799268, 5812540 NZTM**		CPT no.:	**25-13** 3/6

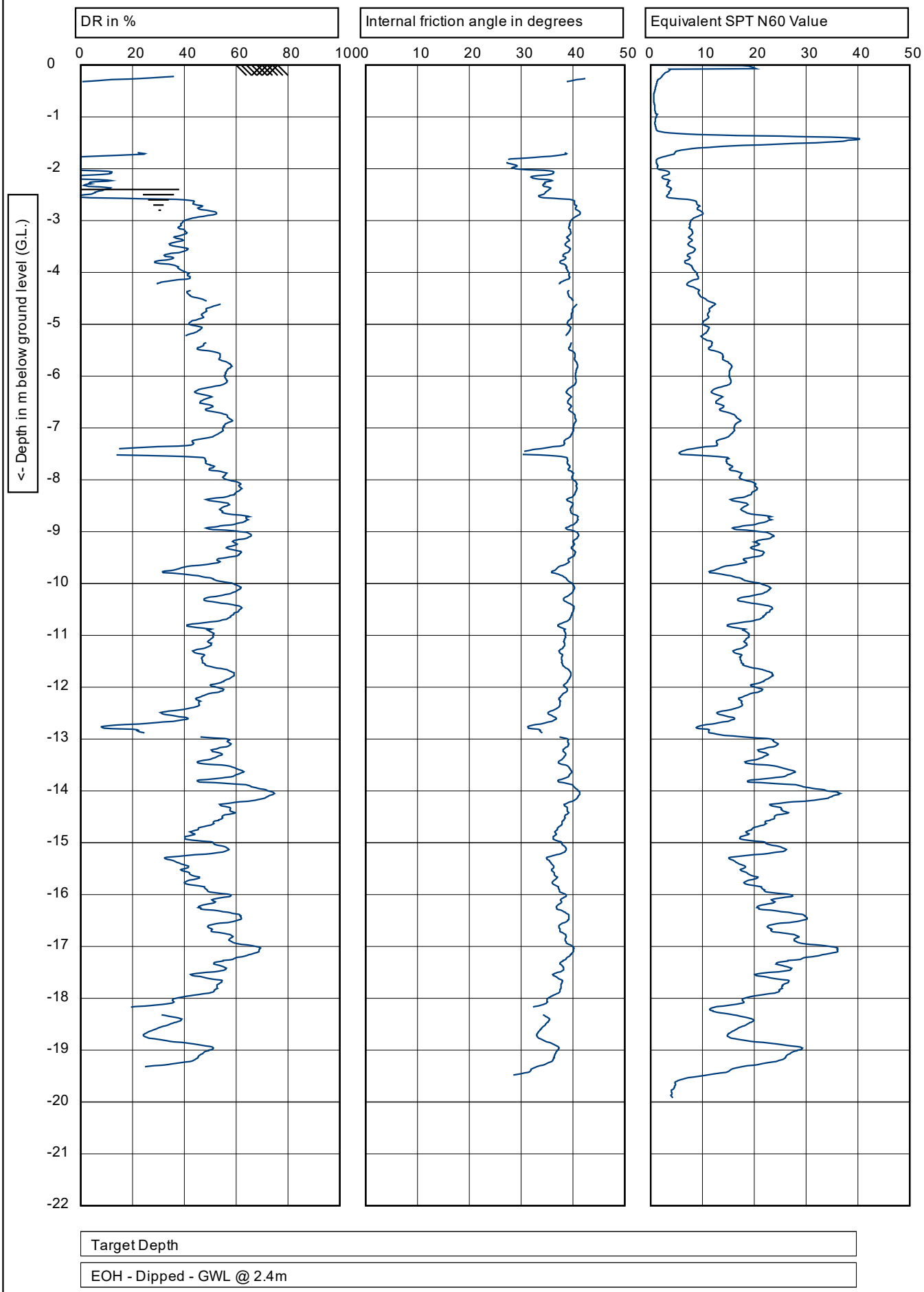
1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-2.40 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C241654**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1799268, 5812540 NZTM**		CPT no.:	**25-13** 4/6

1.49



Target Depth

EOH - Dipped - GWL @ 2.4m

Graphs on this page are not IANZ accredited

u2
150 cm²
10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL**

W.L.: **-2.40 m**

Project: **Wickham St**

Location: **Hamilton**

Position: **1799268, 5812540 NZTM**

Predrill: **0.00 m Predrilled**

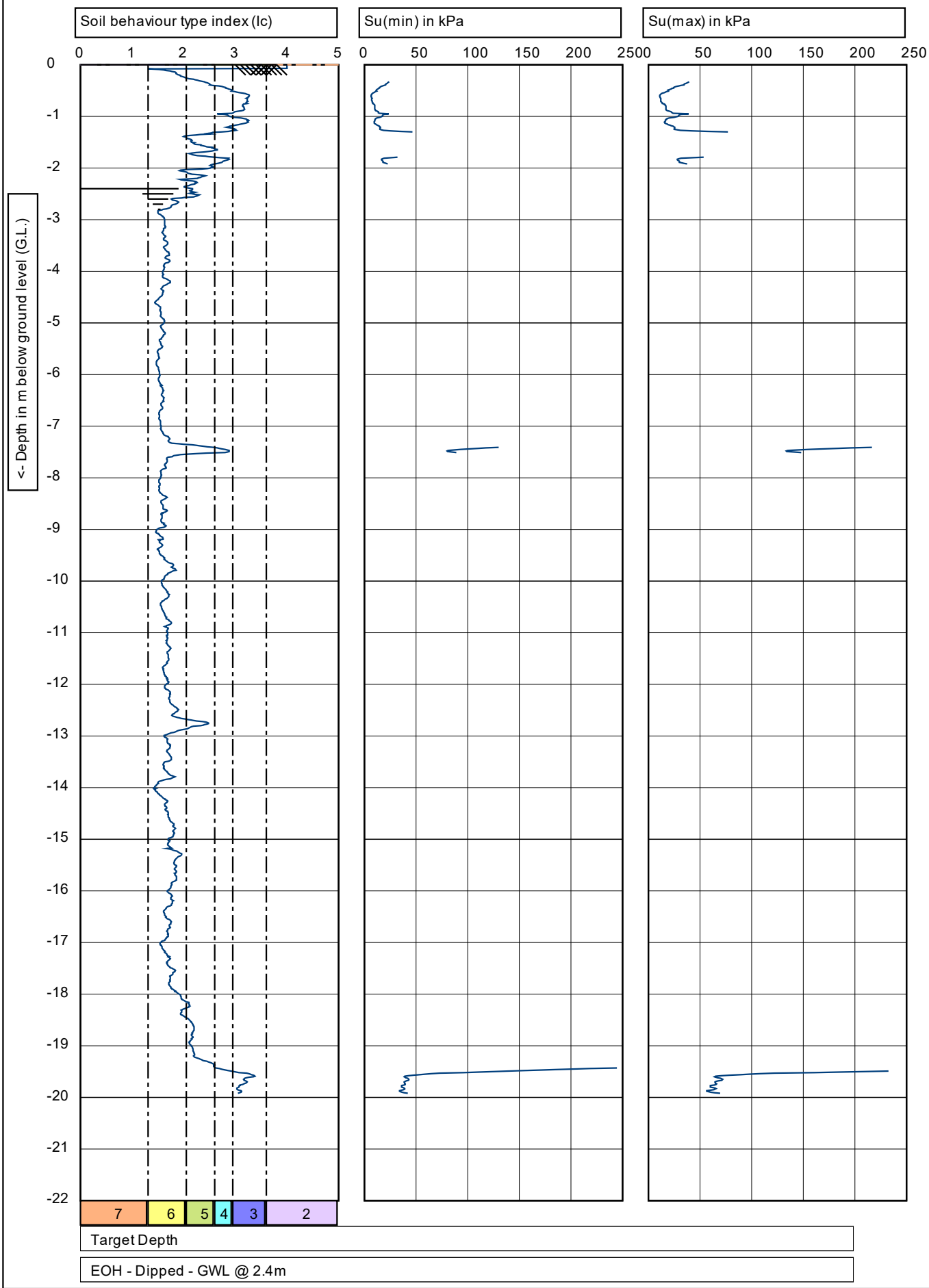
Date: **18/11/2025**

Cone no.: **C10CFIIP.C241654**

Project no.: **2-68014.00_HA15919**

CPT no.: **25-13** **5/6**

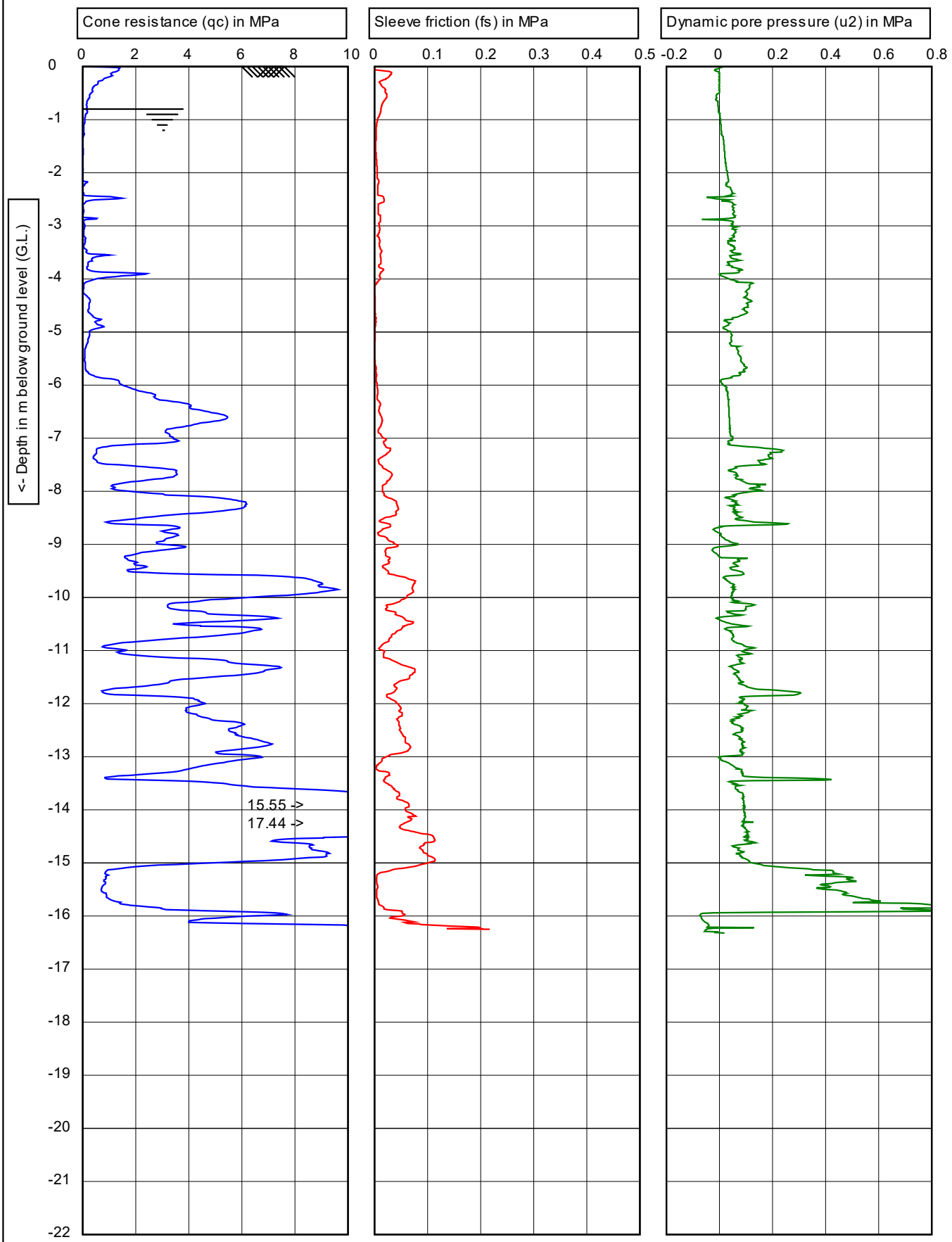
1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-2.40 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C241654**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1799268, 5812540 NZTM**		CPT no.:	**25-13** 6/6

1.49



Test results indicated as not accredited are outside the scope of the laboratory's accreditation

u2
150 cm²
10 cm²

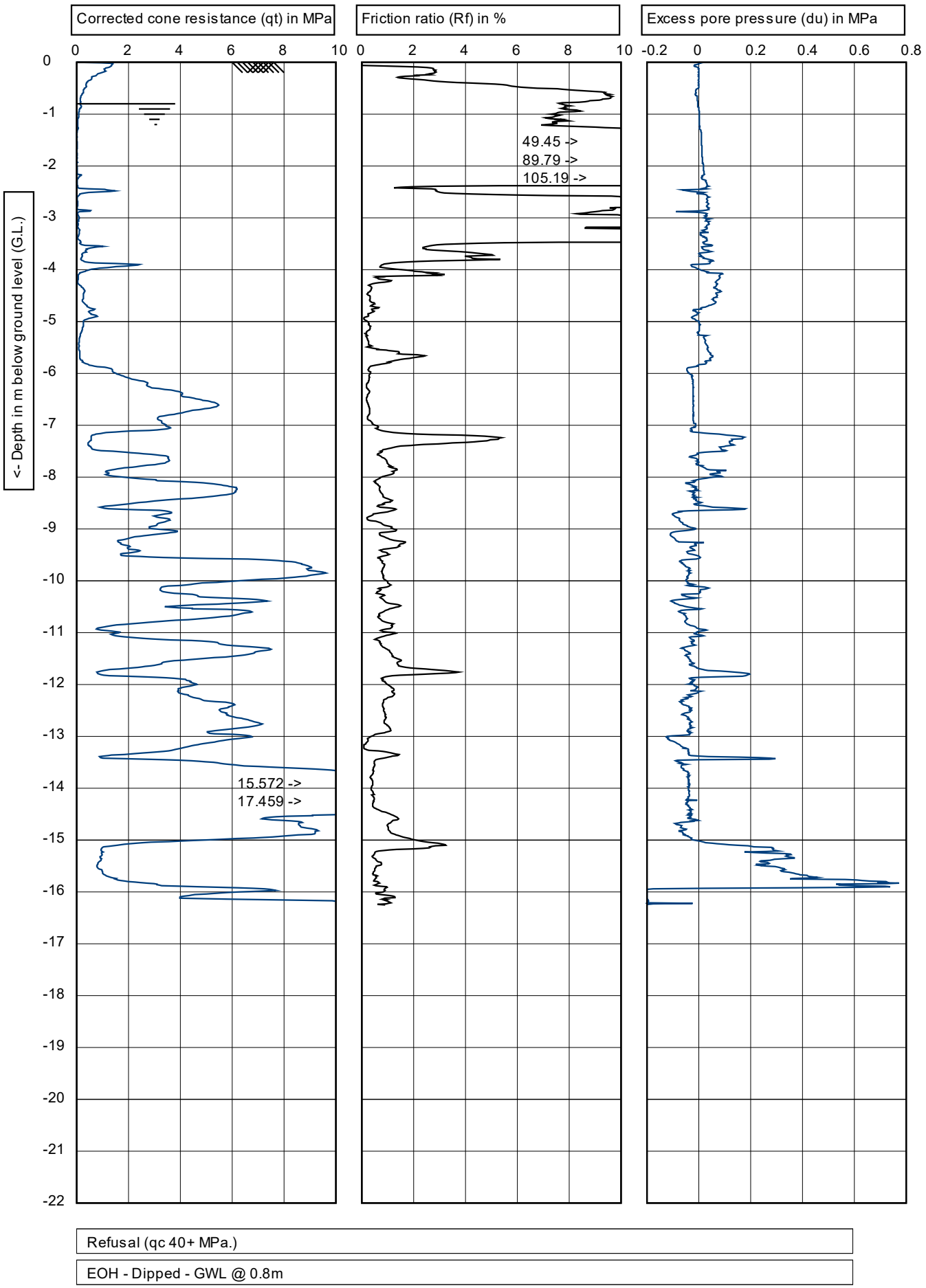
Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL** W.L.: **-0.80 m**

Project: **Wickham St**
Location: **Hamilton**
Position: **1798737, 5812581 NZTM**

Predrill: **0.00 m Predrilled**
Date: **18/11/2025**
Cone no.: **C10CFIIP.C241654**
Project no.: **2-68014.00_HA15919**
CPT no.: **25-14** **1/6**

1.49



Refusal (qc 40+ MPa.)

EOH - Dipped - GWL @ 0.8m

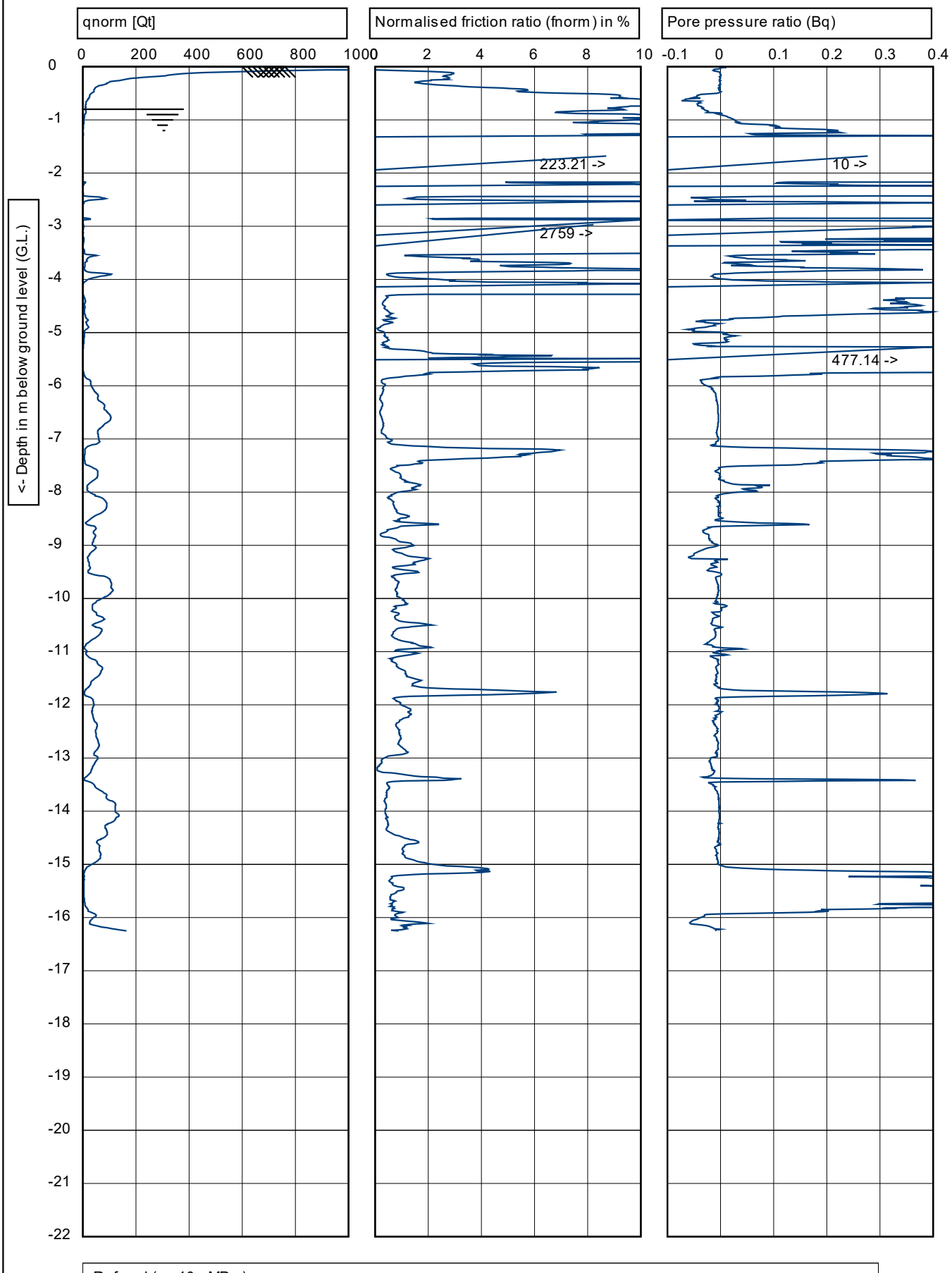
WSP

Graphs on this page are not IANZ accredited

u2 150 cm² 10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-0.80 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C241654**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1798737, 5812581 NZTM**		CPT no.:	**25-14** 2/6

1.49



Refusal (qc 40+ MPa.)

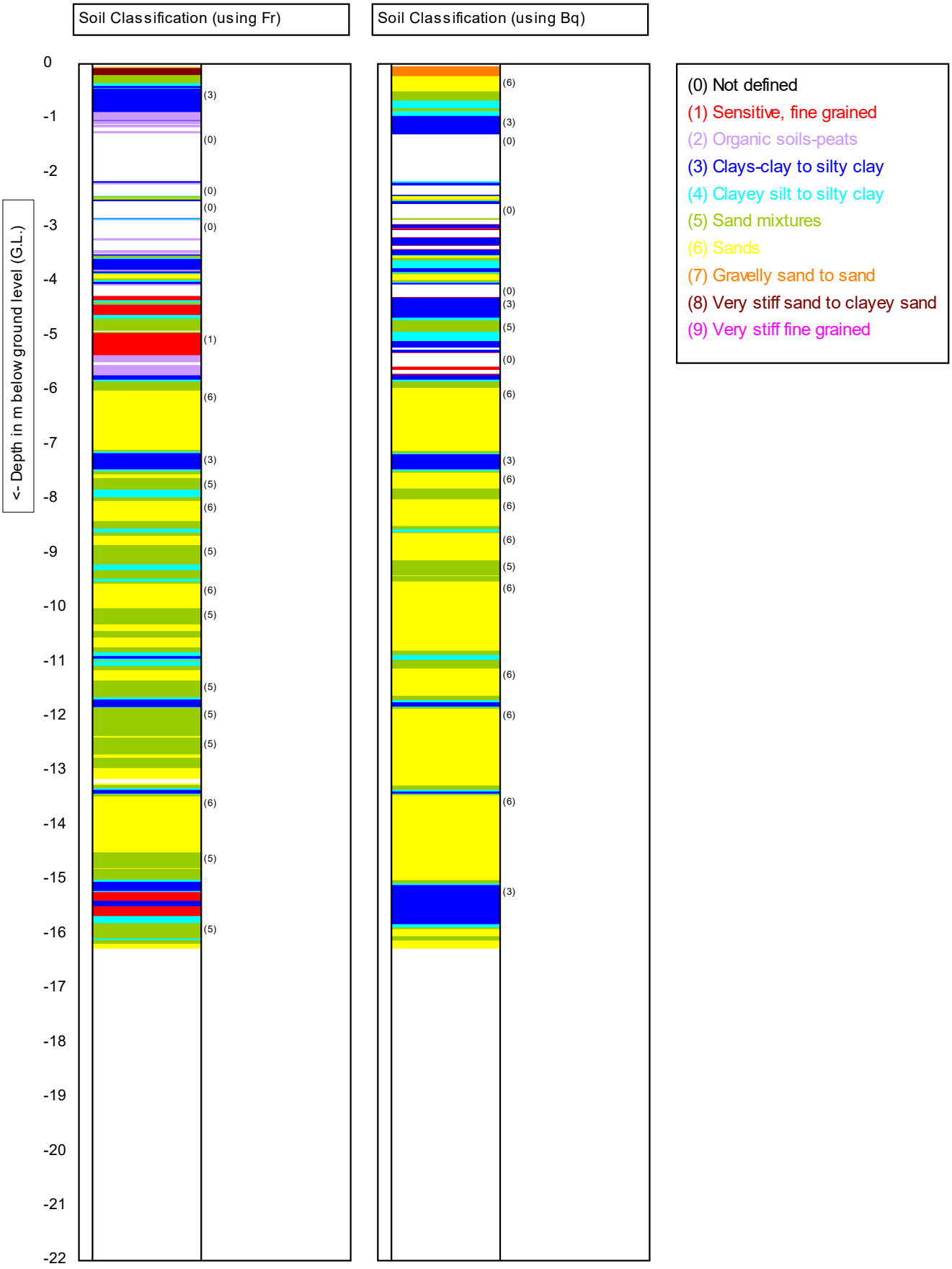
EOH - Dipped - GWL @ 0.8m

Graphs on this page are not IANZ accredited

u2
150 cm²
10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-0.80 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C241654**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1798737, 5812581 NZTM**		CPT no.:	**25-14** 3/6

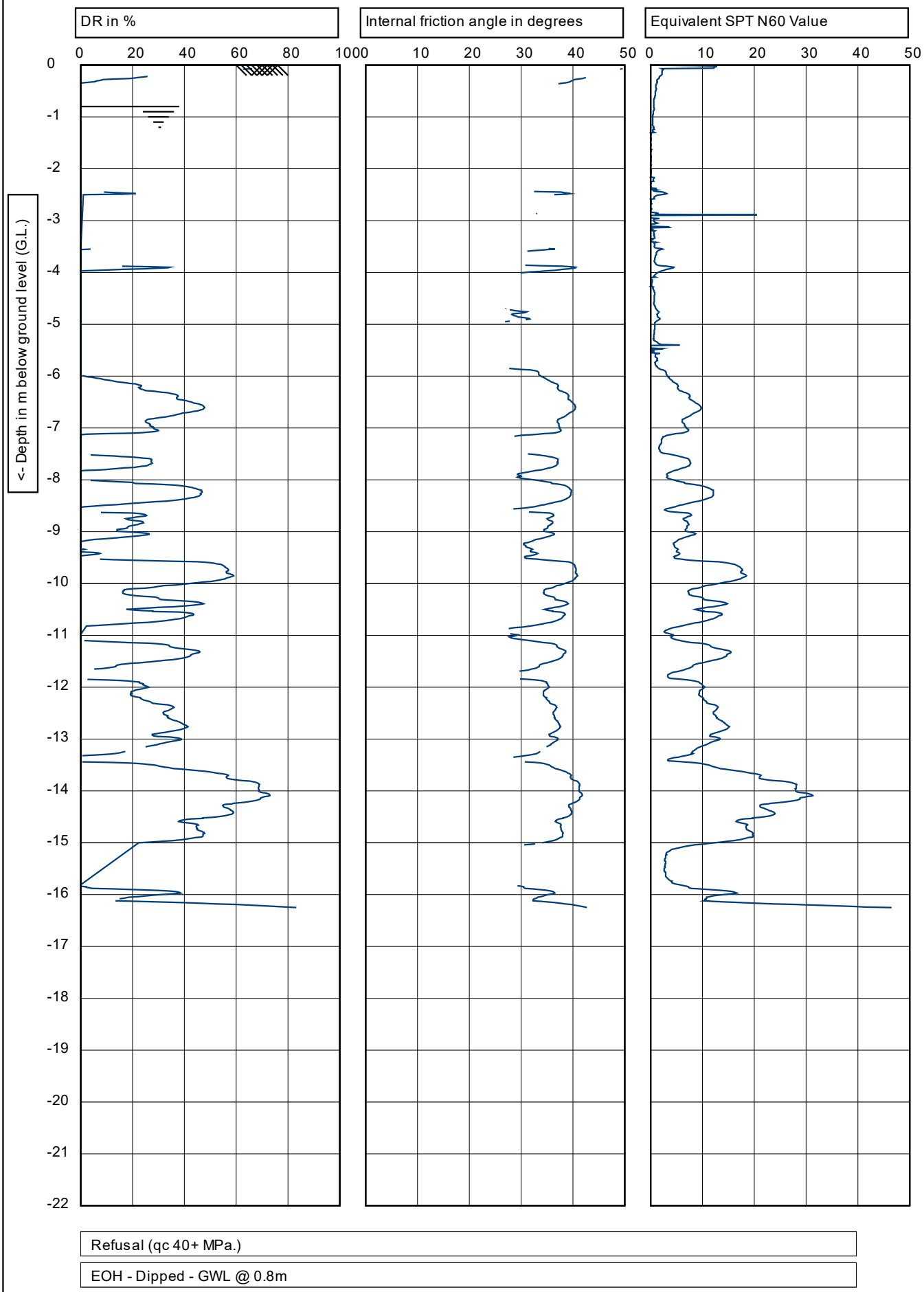
1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-0.80 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C241654**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1798737, 5812581 NZTM**		CPT no.:	**25-14** 4/6

1.49



Refusal (qc 40+ MPa.)

EOH - Dipped - GWL @ 0.8m

Graphs on this page are not IANZ accredited

u2
150 cm²
10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL**

W.L.: **-0.80 m**

Project: **Wickham St**

Location: **Hamilton**

Position: **1798737, 5812581 NZTM**

Predrill: **0.00 m Predrilled**

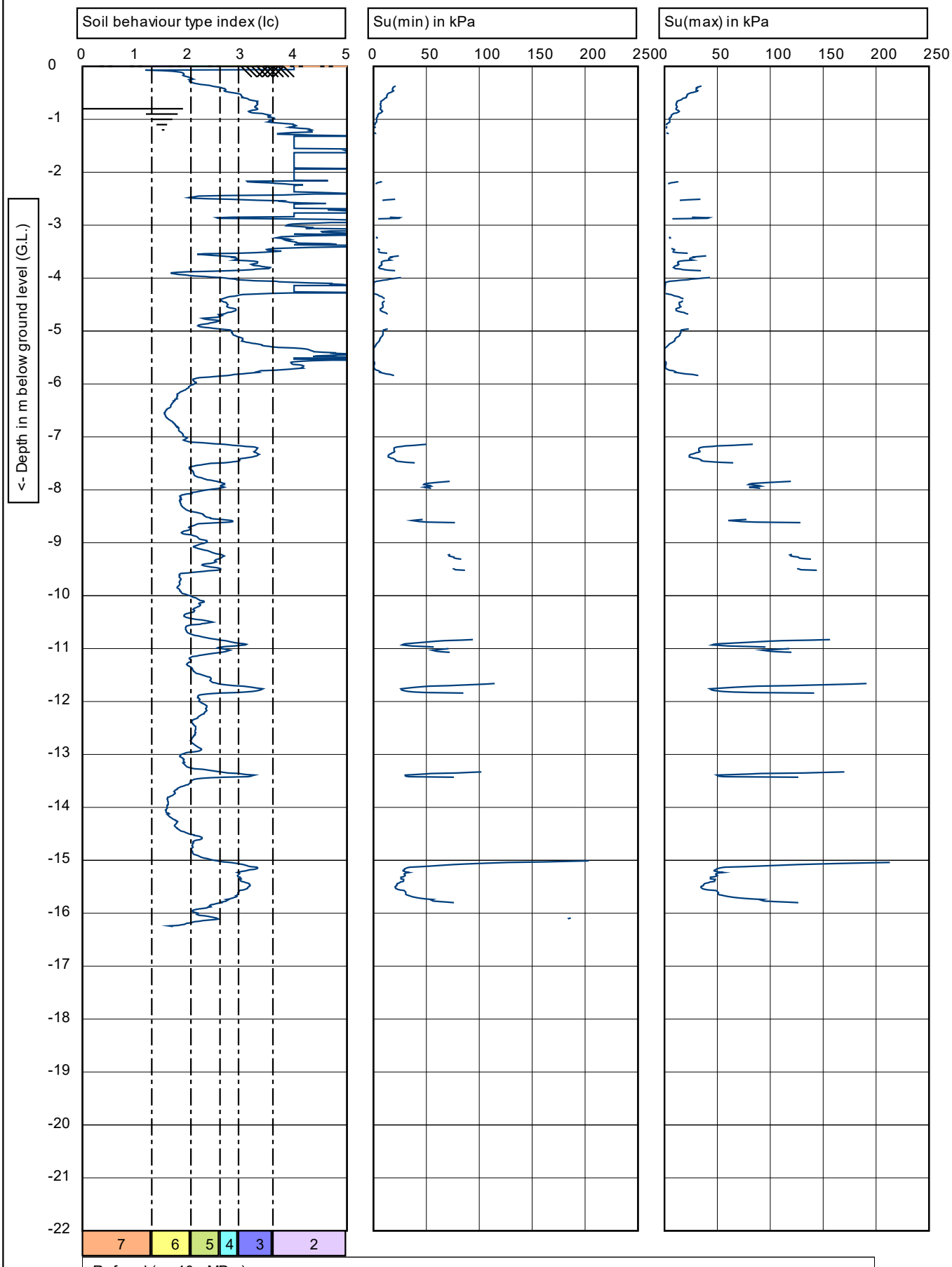
Date: **18/11/2025**

Cone no.: **C10CFIIP.C241654**

Project no.: **2-68014.00_HA15919**

CPT no.: **25-14** **5/6**

1.49



Refusal (qc 40+ MPa.)

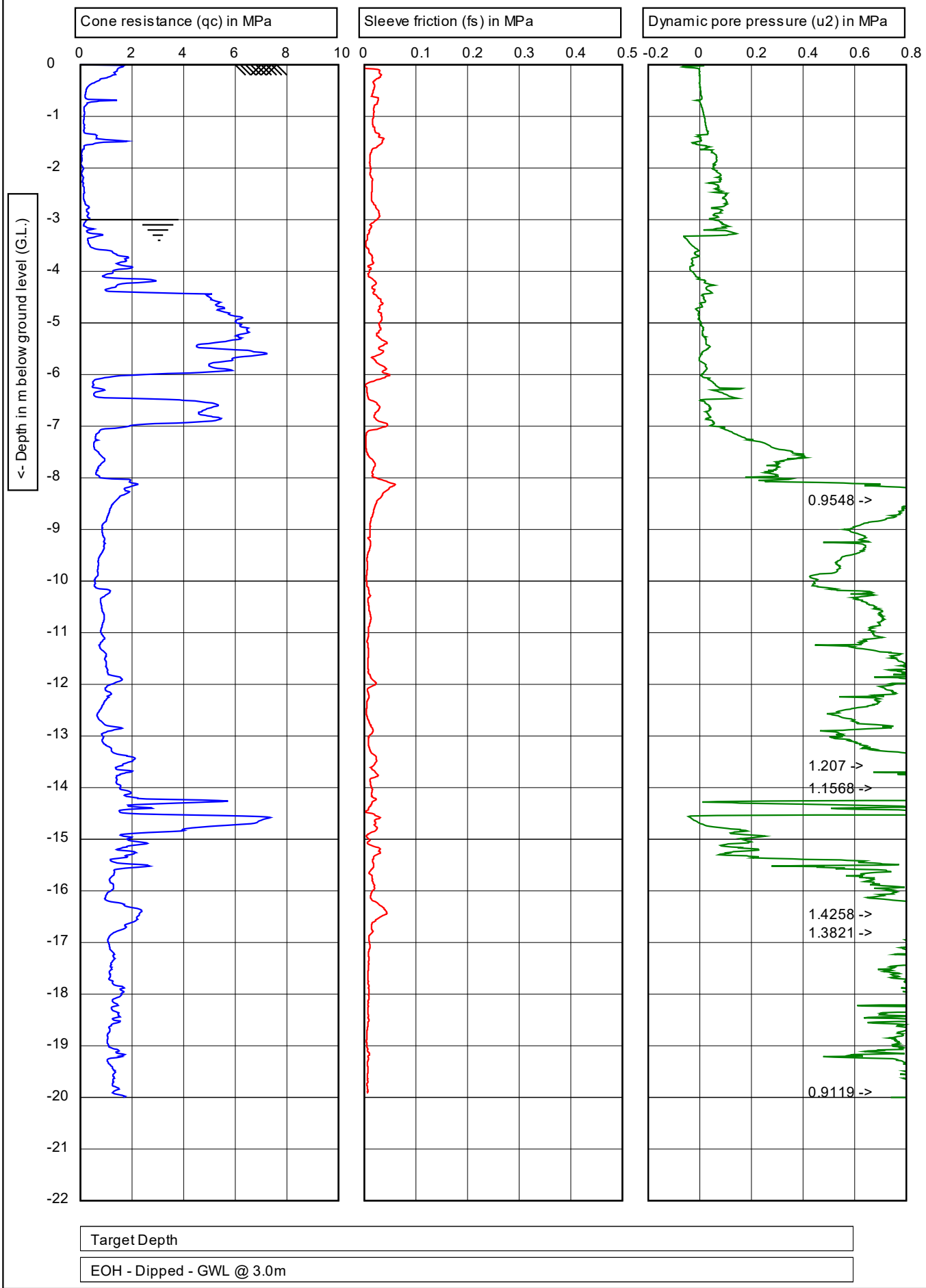
EOH - Dipped - GWL @ 0.8m

Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-0.80 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C241654**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1798737, 5812581 NZTM**		CPT no.:	**25-14** 6/6

u2 150 cm² 10 cm²

1.49



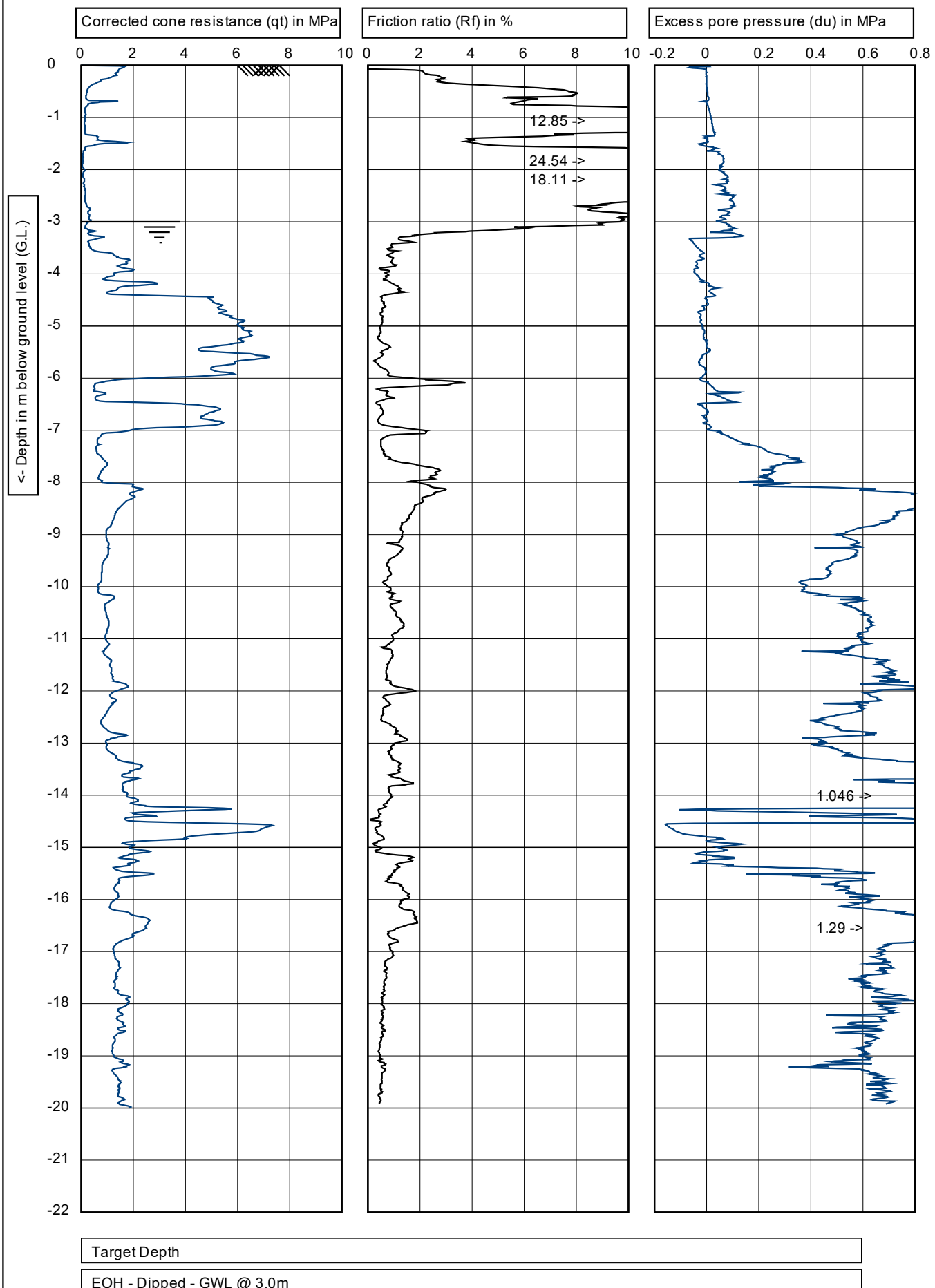
Target Depth

EOH - Dipped - GWL @ 3.0m

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-3.00 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C20361**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1799025, 5812474 NZTM**		CPT no.:	**25-15** 1/6

Test results indicated as not accredited are outside the scope of the laboratory's accreditation

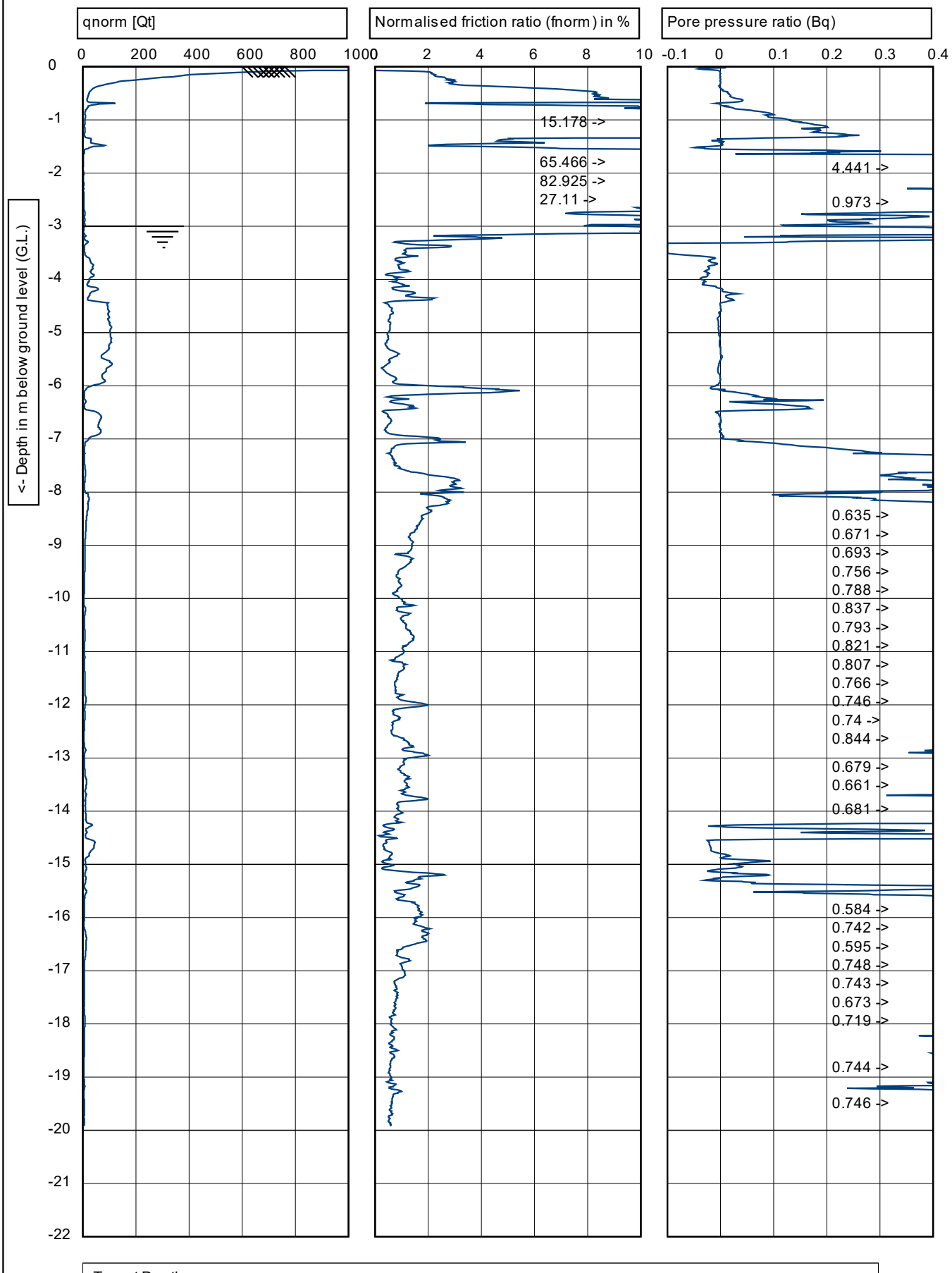
1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-3.00 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C20361**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1799025, 5812474 NZTM**		CPT no.:	**25-15** **2/6**

1.49



Graphs on this page are not IANZ accredited

u2
150 cm²
10 cm²

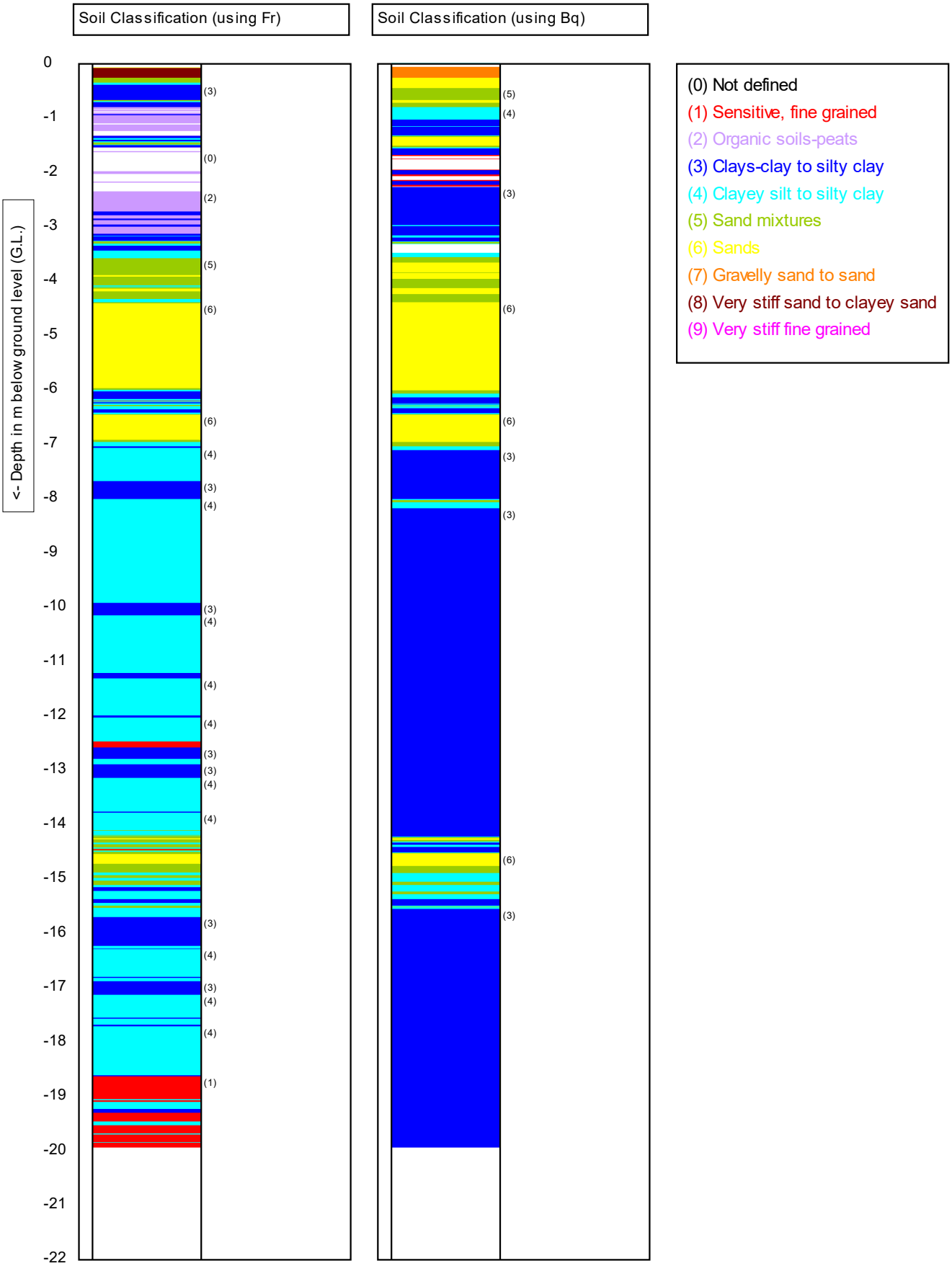
Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL** W.L.: **-3.00 m**

Project: **Wickham St**
Location: **Hamilton**
Position: **1799025, 5812474 NZTM**

Predrill: **0.00 m Predrilled**
Date: **18/11/2025**
Cone no.: **C10CFIIP.C20361**
Project no.: **2-68014.00_HA15919**
CPT no.: **25-15** **3/6**

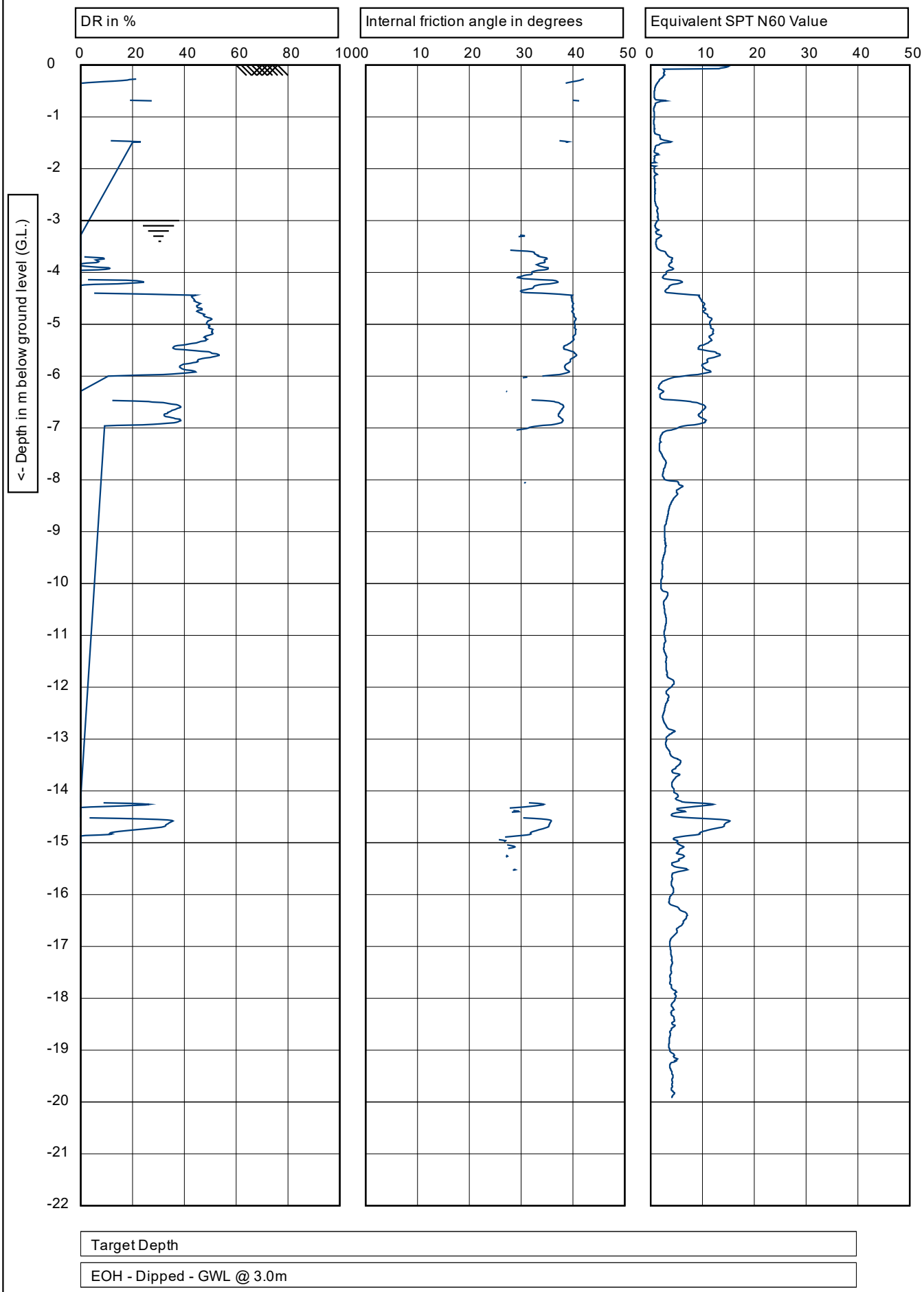
1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-3.00 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C20361**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1799025, 5812474 NZTM**		CPT no.:	**25-15** 4/6

1.49



Target Depth

EOH - Dipped - GWL @ 3.0m

WSP

Graphs on this page are not IANZ accredited

u2
150 cm²
10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL**

W.L.: **-3.00 m**

Predrill: **0.00 m Predrilled**

Date: **18/11/2025**

Project: **Wickham St**

Location: **Hamilton**

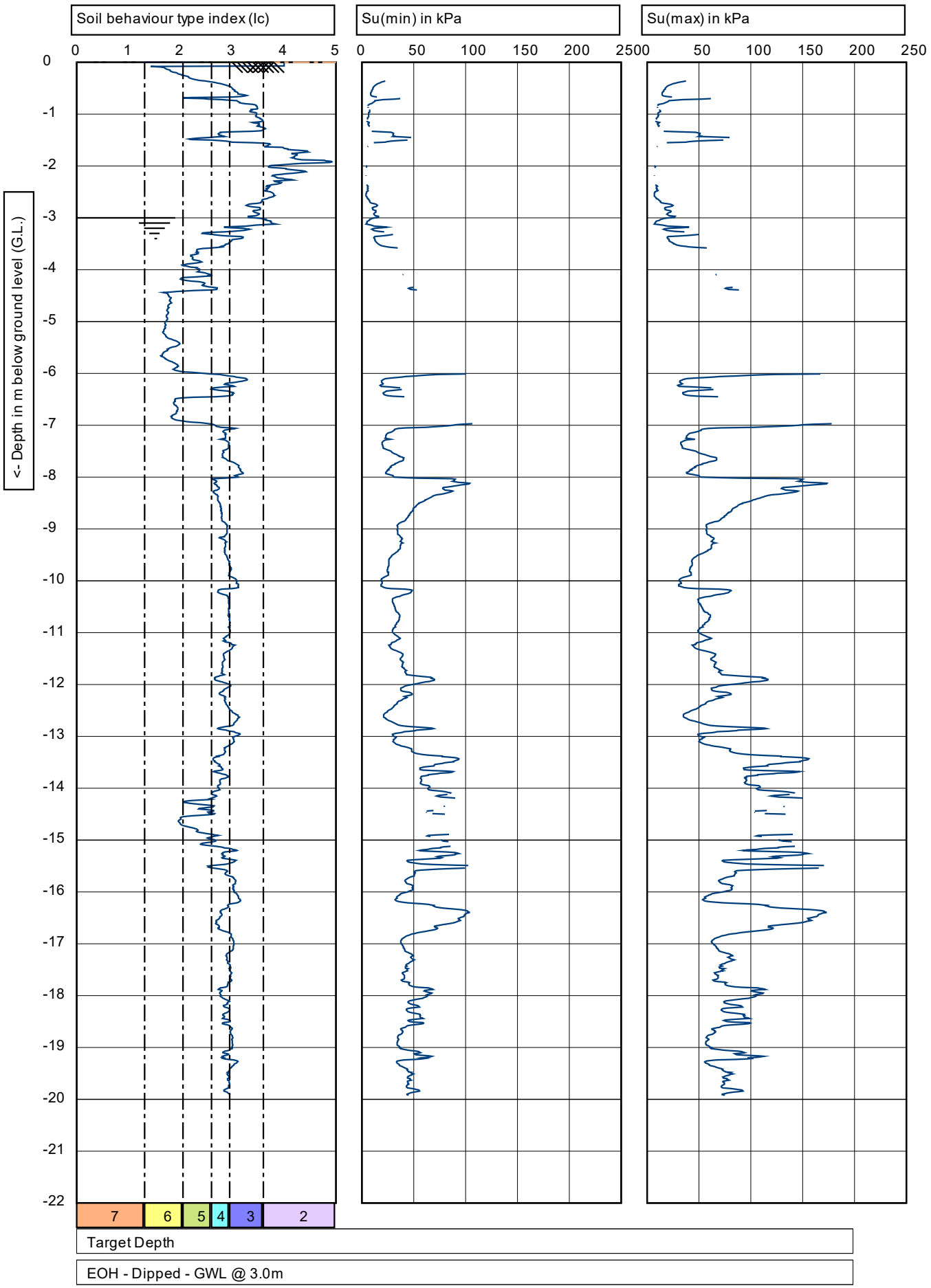
Position: **1799025, 5812474 NZTM**

Cone no.: **C10CFIIP.C20361**

Project no.: **2-68014.00_HA15919**

CPT no.: **25-15** **5/6**

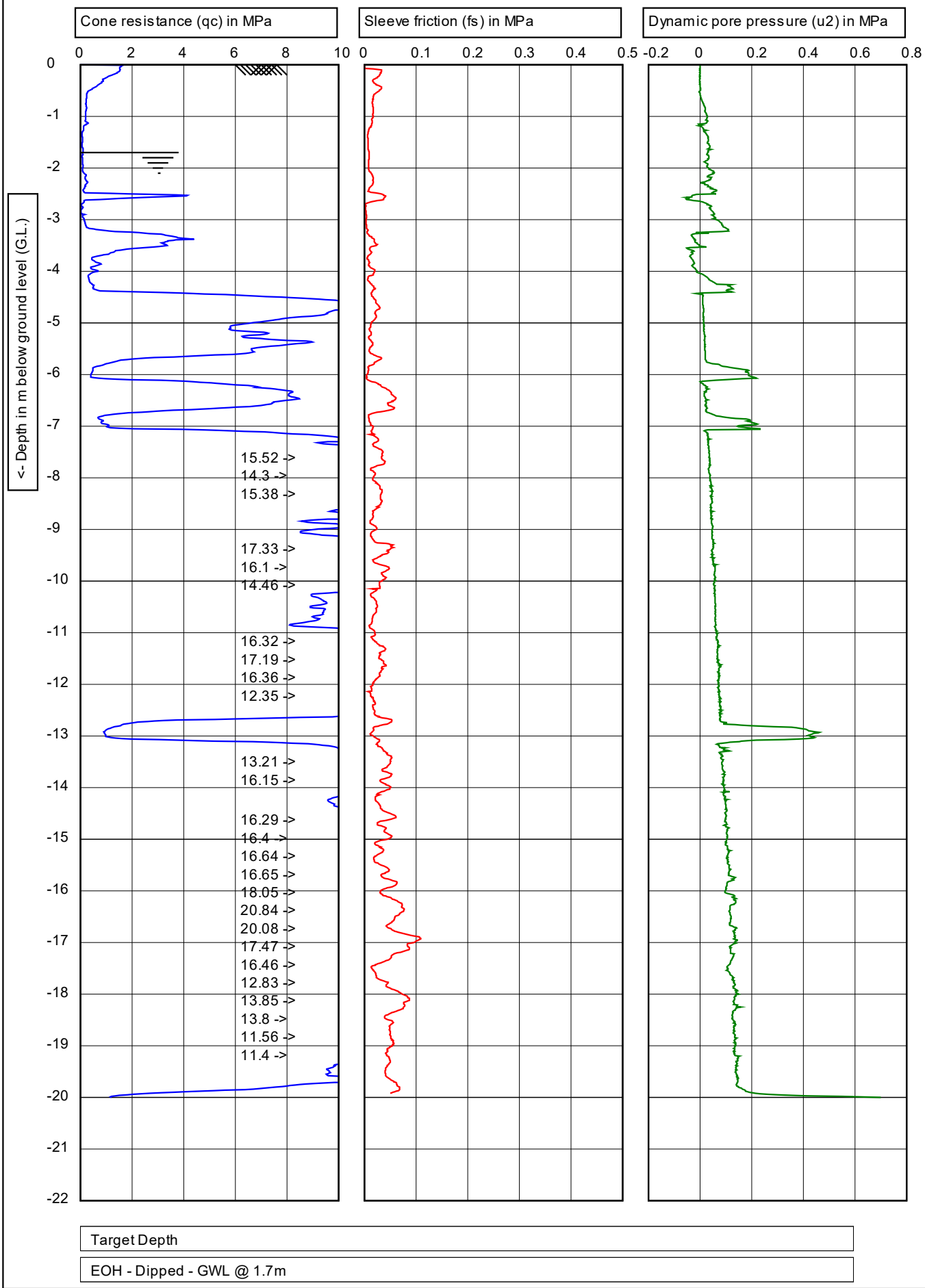
1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-3.00 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C20361**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1799025, 5812474 NZTM**		CPT no.:	**25-15** 6/6

1.49



Test results indicated as not accredited are outside the scope of the laboratory's accreditation

u2 150 cm² 10 cm²

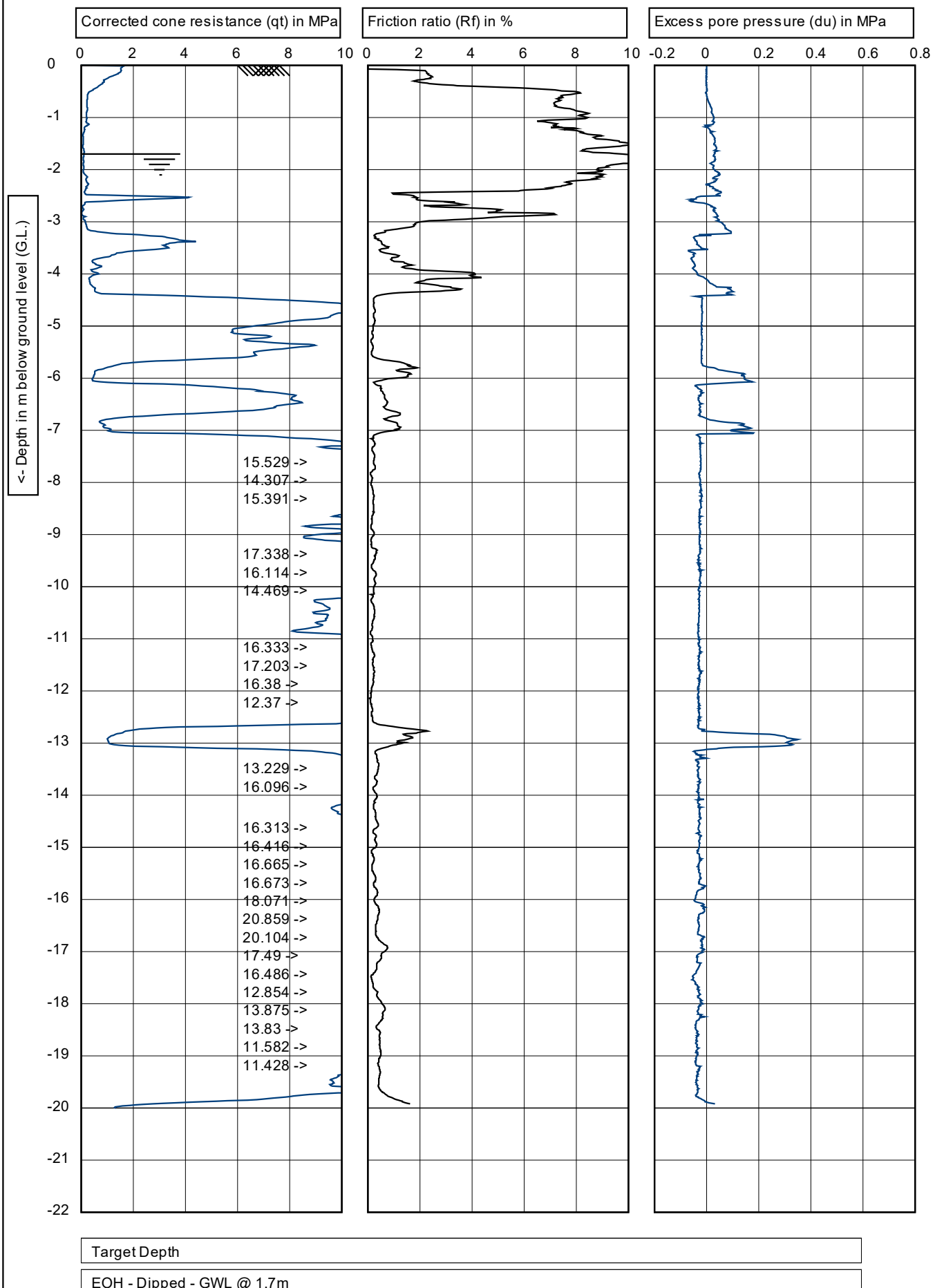
Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL** W.L.: **-1.70 m**

Project: **Wickham St**
Location: **Hamilton**
Position: **1799214, 5812399 NZTM**

Predrill: **0.00 m Predrilled**
Date: **18/11/2025**
Cone no.: **C10CFIIP.C20361**
Project no.: **2-68014.00_HA15919**
CPT no.: **25-16** **1/6**

1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL** W.L.: **-1.70 m**

Project: **Wickham St**

Location: **Hamilton**

Position: **1799214, 5812399 NZTM**

Predrill: **0.00 m Predrilled**

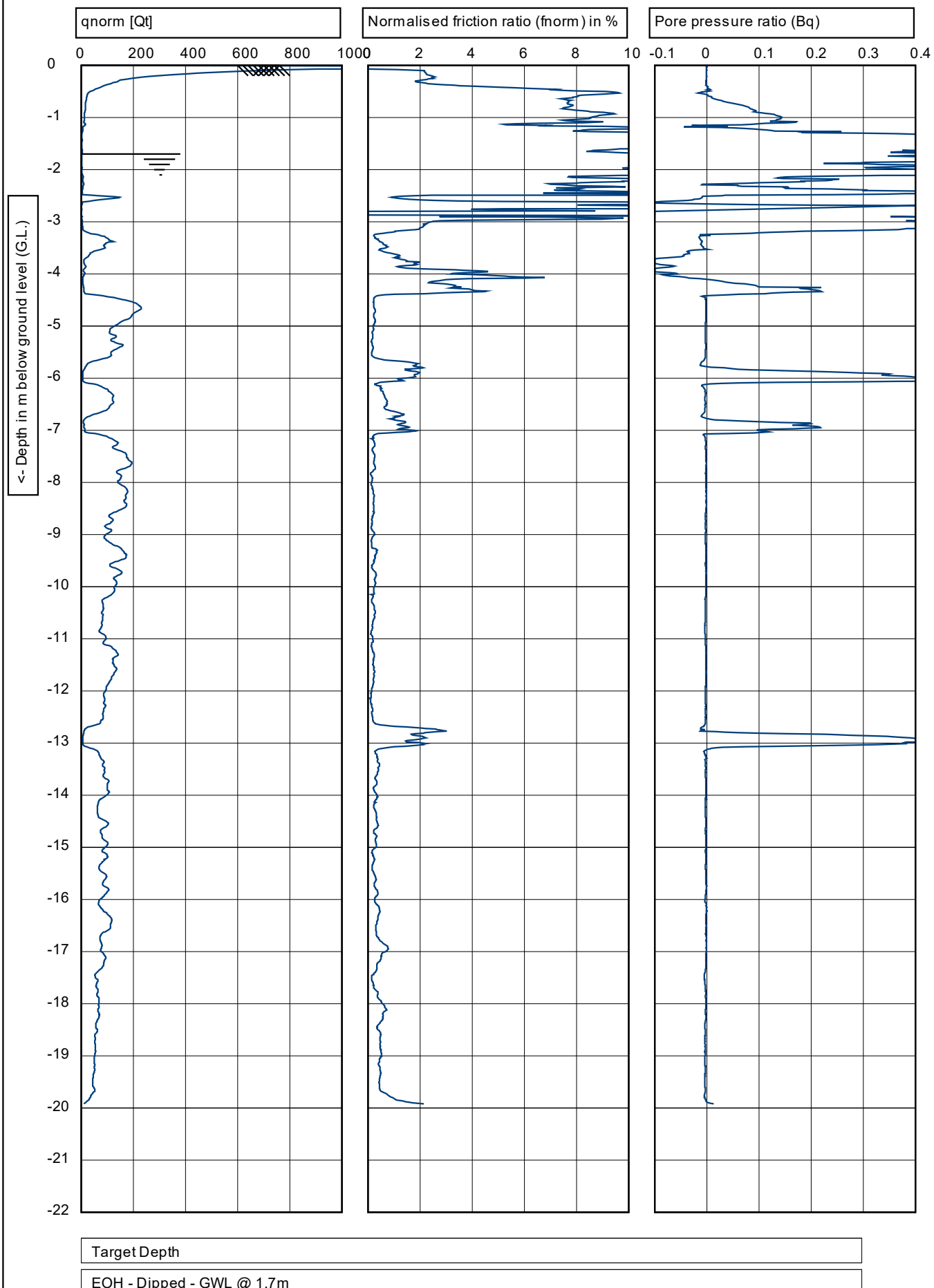
Date: **18/11/2025**

Cone no.: **C10CFIIP.C20361**

Project no.: **2-68014.00_HA15919**

CPT no.: **25-16** **2/6**

1.49



Target Depth

EOH - Dipped - GWL @ 1.7m

Graphs on this page are not IANZ accredited

u2
150 cm²
10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL** W.L.: **-1.70 m**

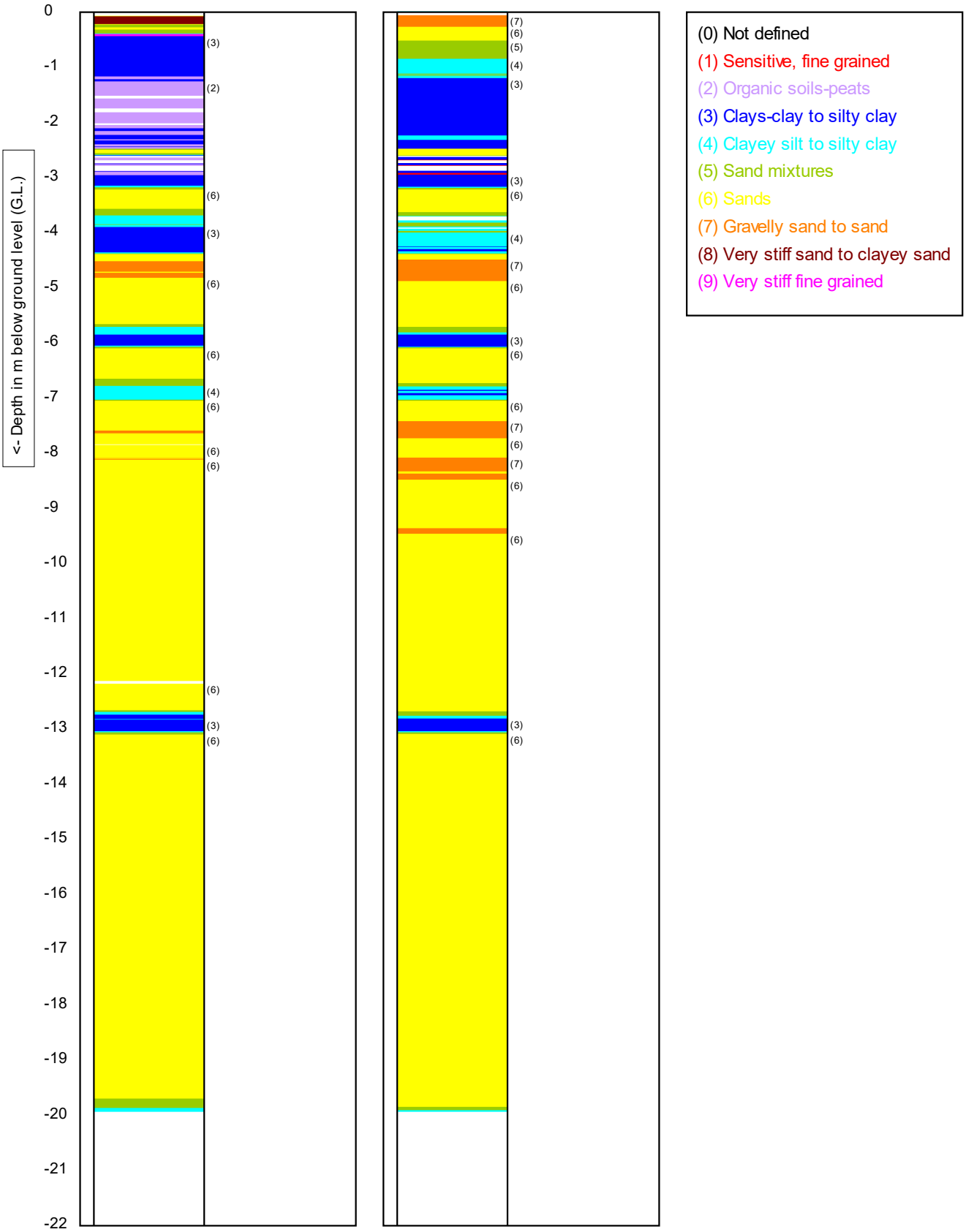
Project: **Wickham St**
Location: **Hamilton**
Position: **1799214, 5812399 NZTM**

Predrill: **0.00 m Predrilled**
Date: **18/11/2025**
Cone no.: **C10CFIIP.C20361**
Project no.: **2-68014.00_HA15919**
CPT no.: **25-16** **3/6**

1.49

Soil Classification (using Fr)

Soil Classification (using Bq)



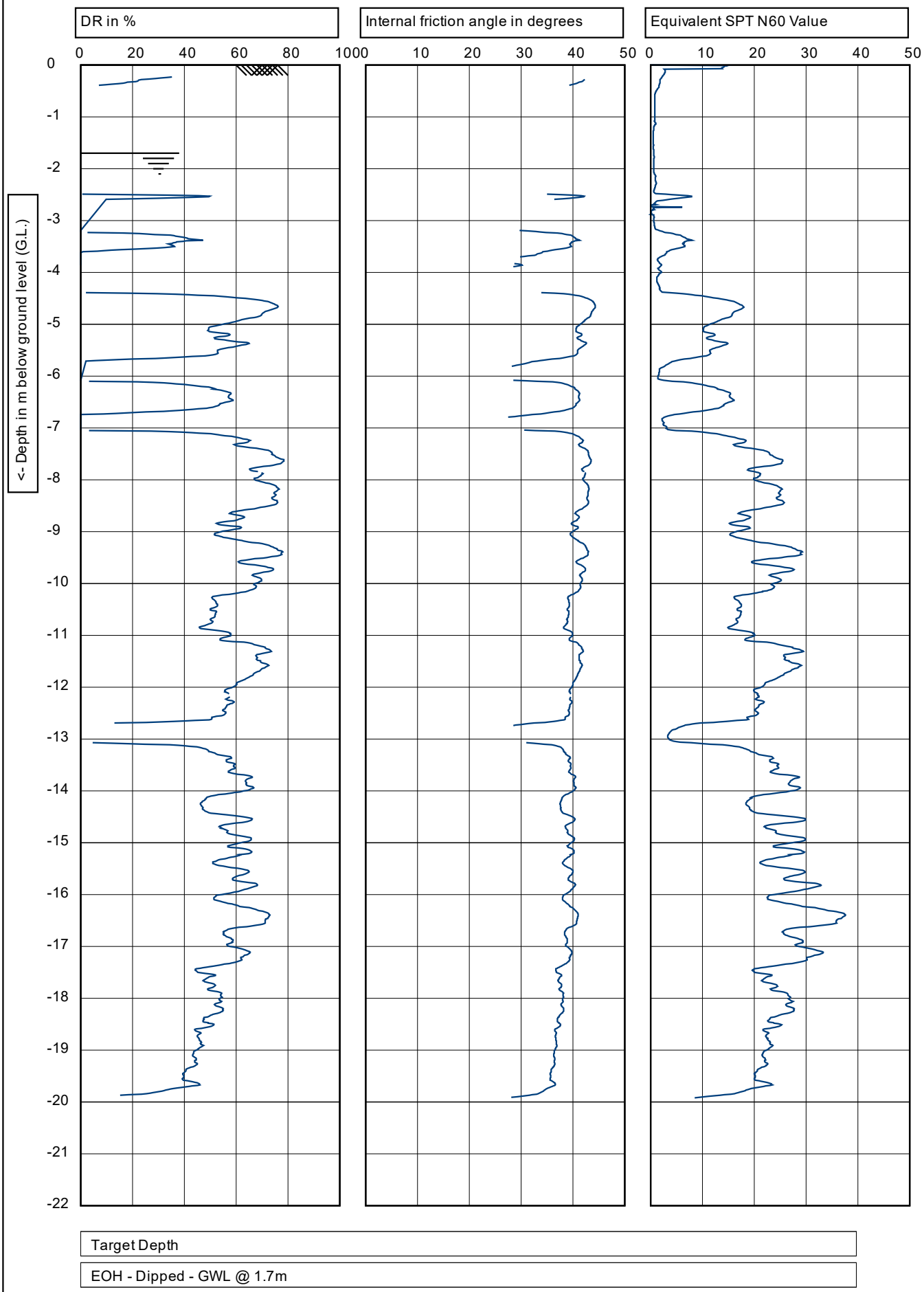
(0) Not defined
(1) Sensitive, fine grained
(2) Organic soils-peats
(3) Clays-clay to silty clay
(4) Clayey silt to silty clay
(5) Sand mixtures
(6) Sands
(7) Gravelly sand to sand
(8) Very stiff sand to clayey sand
(9) Very stiff fine grained

Graphs on this page are not IANZ accredited

r u2
L 150 cm²
10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-1.70 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C20361**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1799214, 5812399 NZTM**		CPT no.:	**25-16** 4/6

1.49



Target Depth

EOH - Dipped - GWL @ 1.7m

Graphs on this page are not IANZ accredited

u2
150 cm²
10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL**

W.L.: **-1.70 m**

Project: **Wickham St**

Location: **Hamilton**

Position: **1799214, 5812399 NZTM**

Predrill: **0.00 m Predrilled**

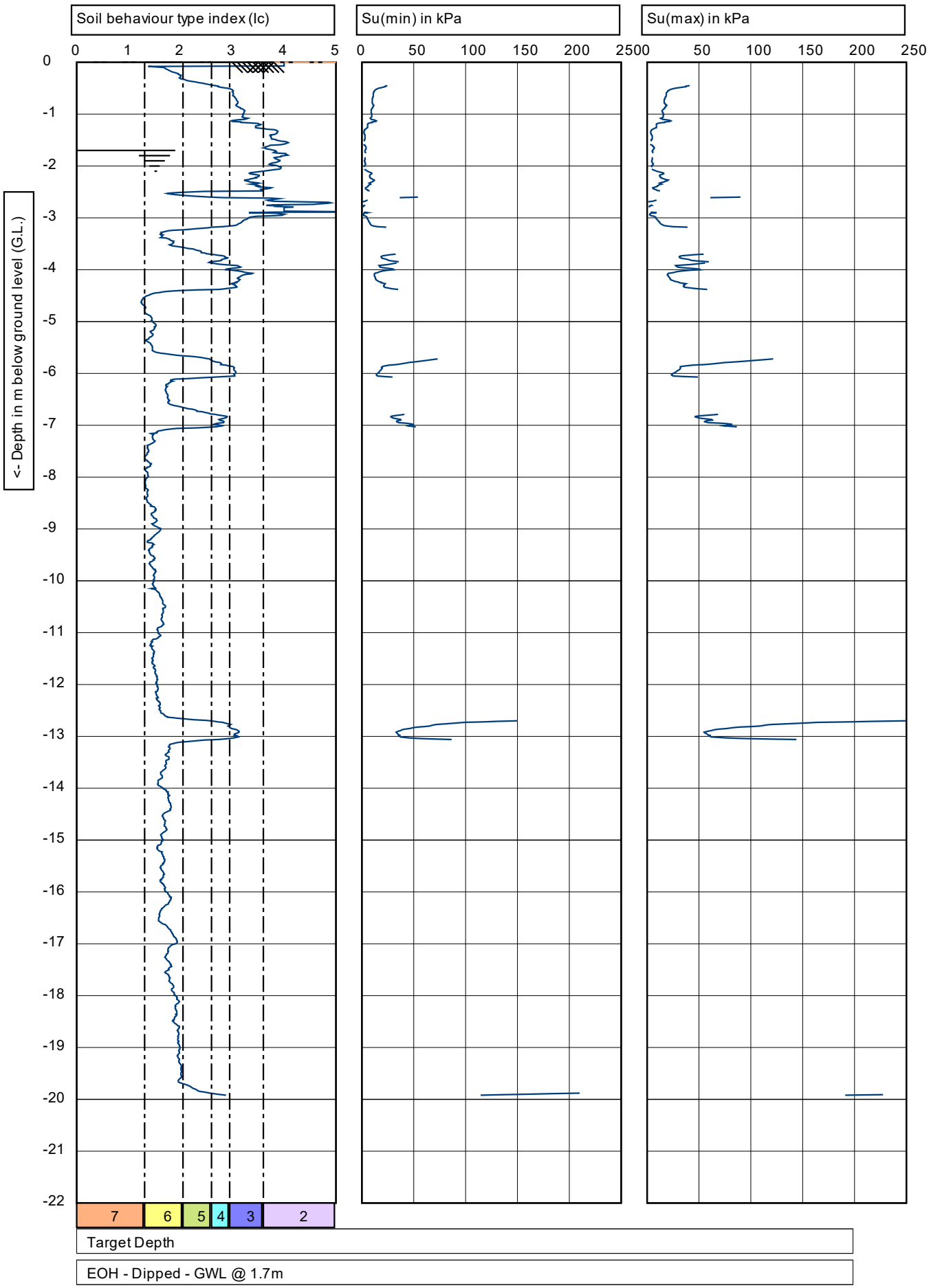
Date: **18/11/2025**

Cone no.: **C10CFIIP.C20361**

Project no.: **2-68014.00_HA15919**

CPT no.: **25-16** **5/6**

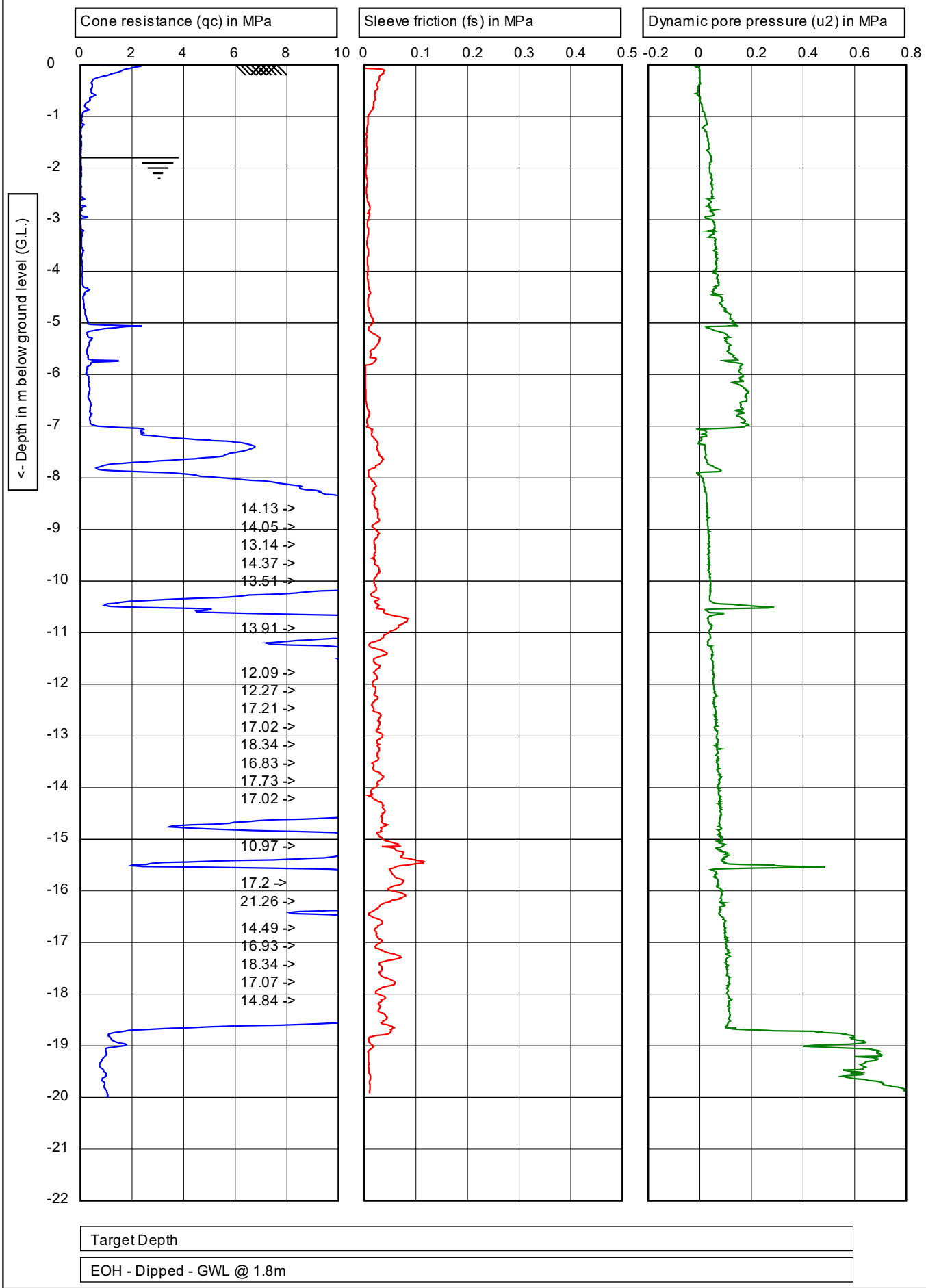
1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-1.70 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C20361**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1799214, 5812399 NZTM**		CPT no.:	**25-16** 6/6

1.49



Test results indicated as not accredited are outside the scope of the laboratory's accreditation

u2 150 cm² 10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL** W.L.: **-1.80 m**

Project: **Wickham St**

Location: **Hamilton**

Position: **1798623, 5812524 NZTM**

Predrill: **0.00 m Predrilled**

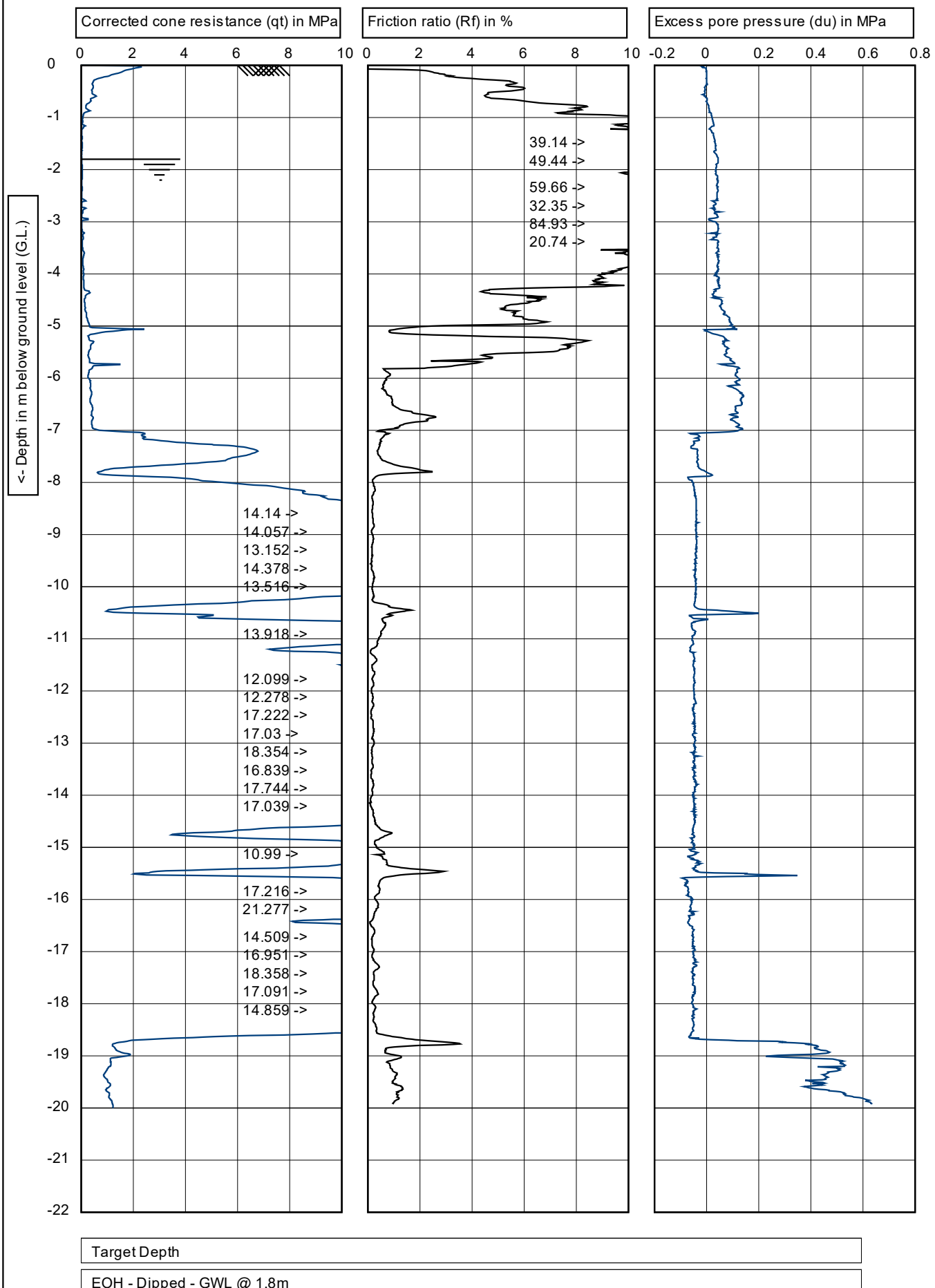
Date: **18/11/2025**

Cone no.: **C10CFIIP.C20361**

Project no.: **2-68014.00_HA15919**

CPT no.: **25-17** **1/6**

1.49



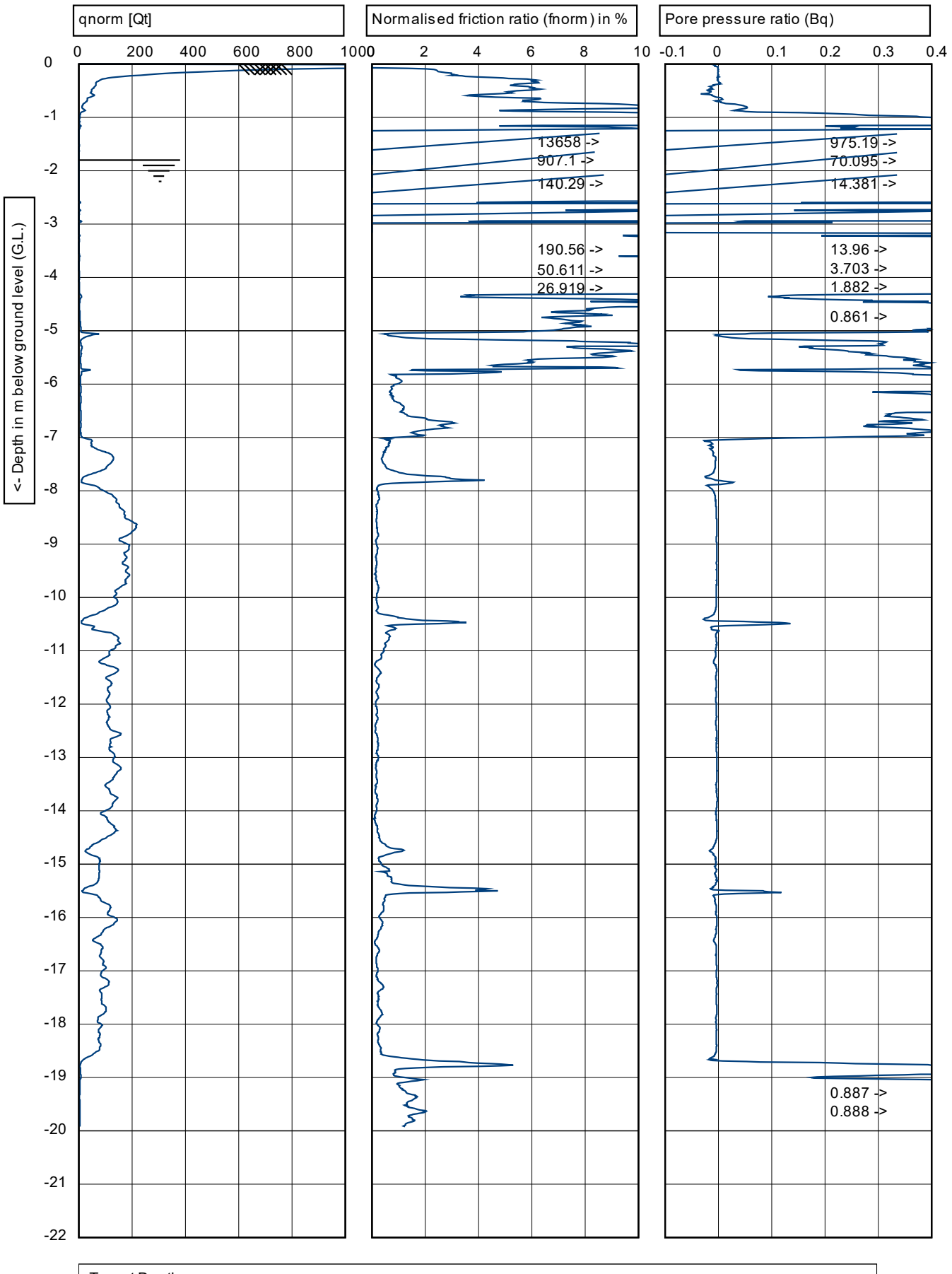
Target Depth

EOH - Dipped - GWL @ 1.8m

Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-1.80 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C20361**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1798623, 5812524 NZTM**		CPT no.:	**25-17** **2/6**

1.49



Graphs on this page are not IANZ accredited

u2
150 cm²
10 cm²

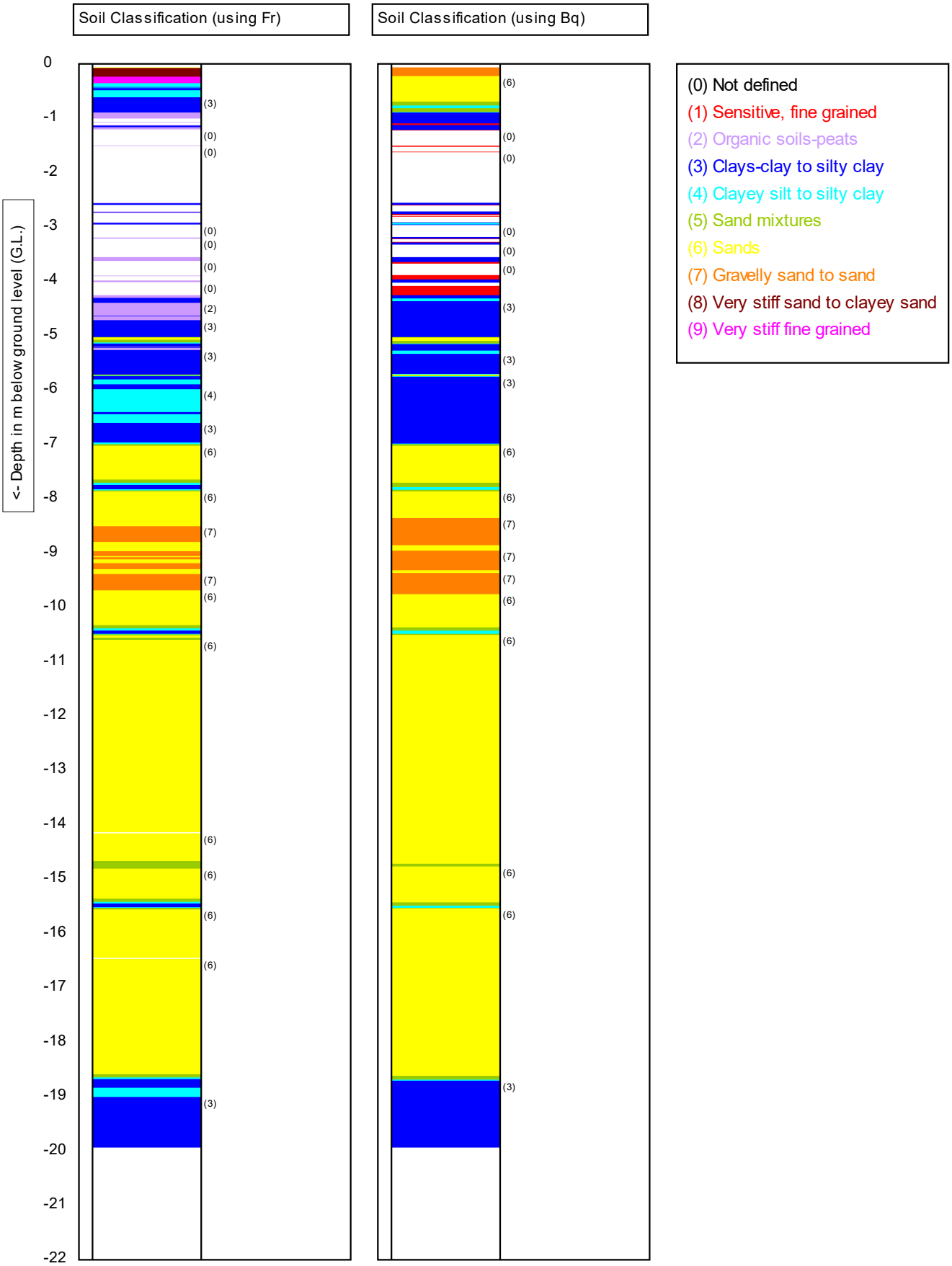
Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL** W.L.: **-1.80 m**

Project: **Wickham St**
Location: **Hamilton**
Position: **1798623, 5812524 NZTM**

Predrill: **0.00 m Predrilled**
Date: **18/11/2025**
Cone no.: **C10CFIIP.C20361**
Project no.: **2-68014.00_HA15919**
CPT no.: **25-17** **3/6**

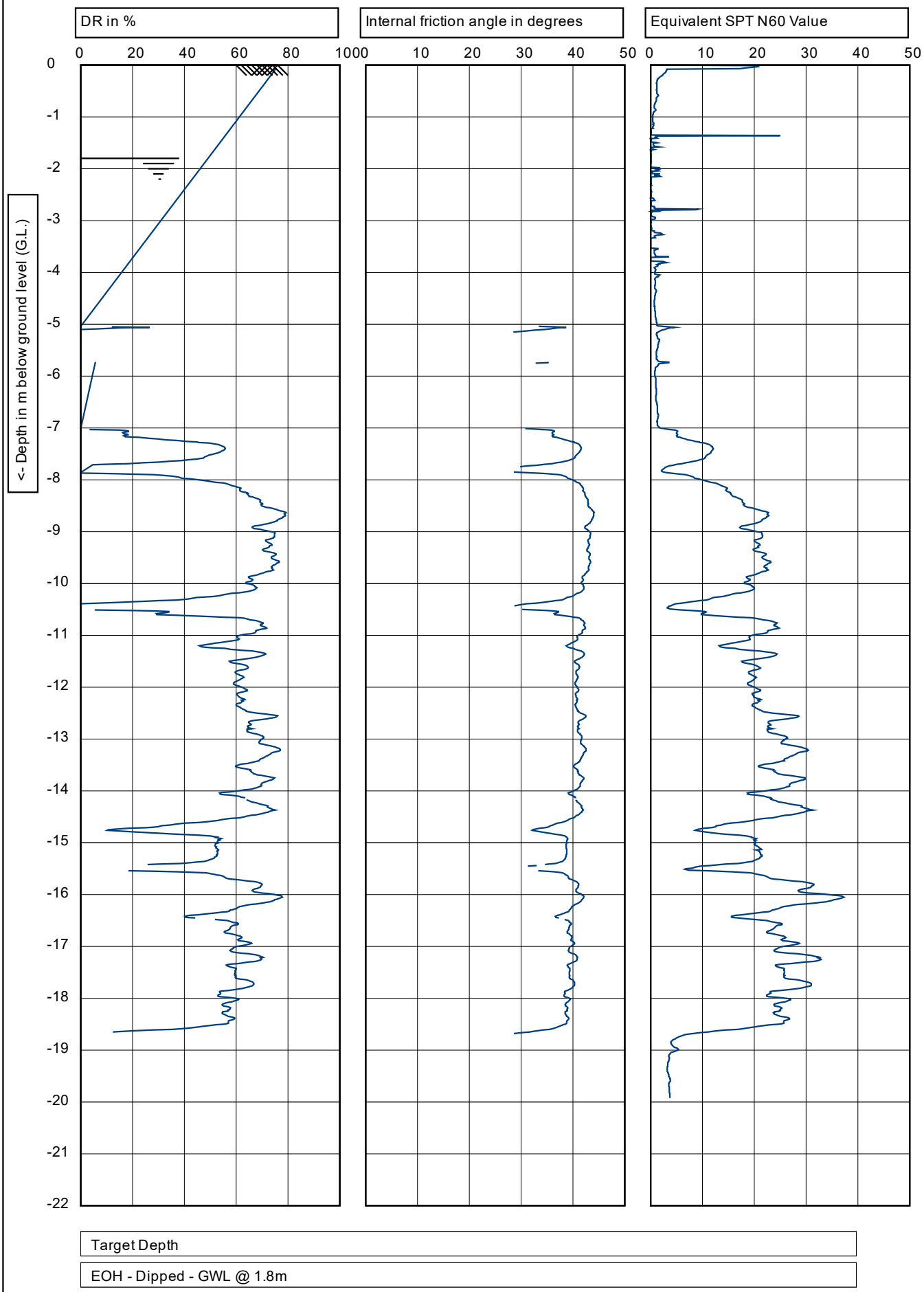
1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-1.80 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C20361**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1798623, 5812524 NZTM**		CPT no.:	**25-17** 4/6

1.49



Target Depth

EOH - Dipped - GWL @ 1.8m

Graphs on this page are not IANZ accredited

u2
150 cm²
10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL**

W.L.: **-1.80 m**

Predrill: **0.00 m Predrilled**

Date: **18/11/2025**

Project: **Wickham St**

Location: **Hamilton**

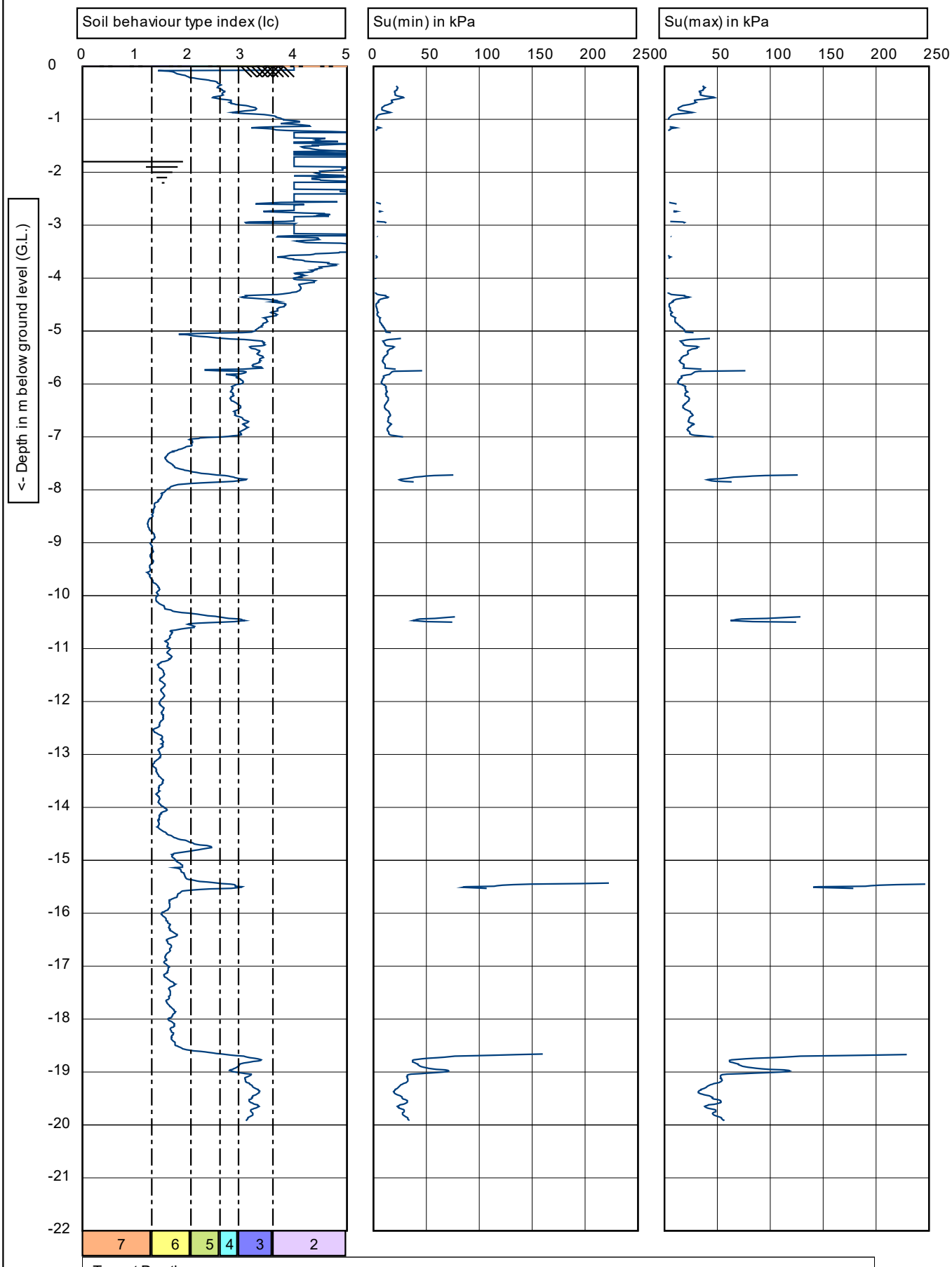
Position: **1798623, 5812524 NZTM**

Cone no.: **C10CFIIP.C20361**

Project no.: **2-68014.00_HA15919**

CPT no.: **25-17** **5/6**

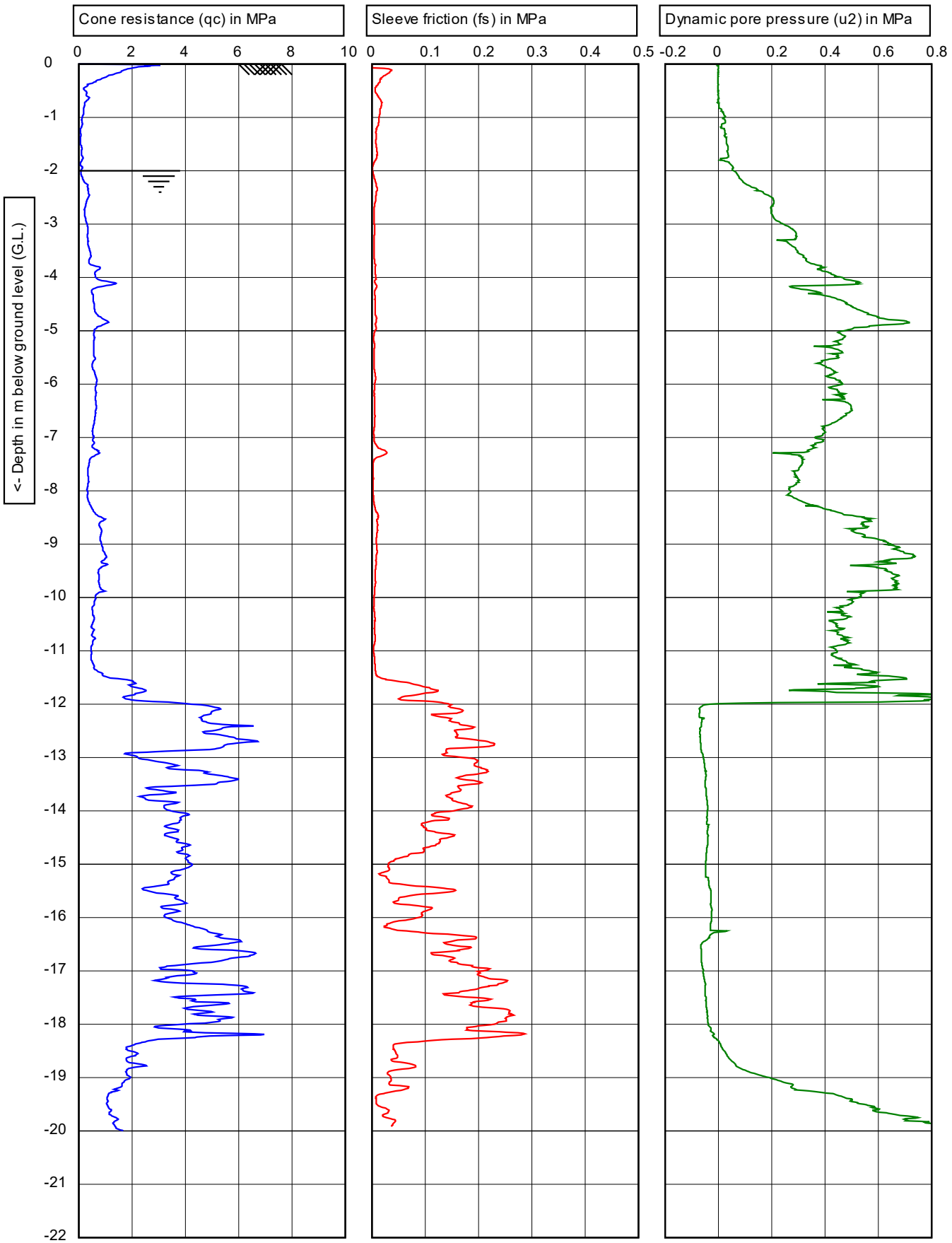
1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-1.80 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C20361**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1798623, 5812524 NZTM**		CPT no.:	**25-17** 6/6

1.49



Target Depth

EOH - Dipped - GWL @ 2.0m

Test results indicated as not accredited are outside the scope of the laboratory's accreditation

u2 150 cm² 10 cm²

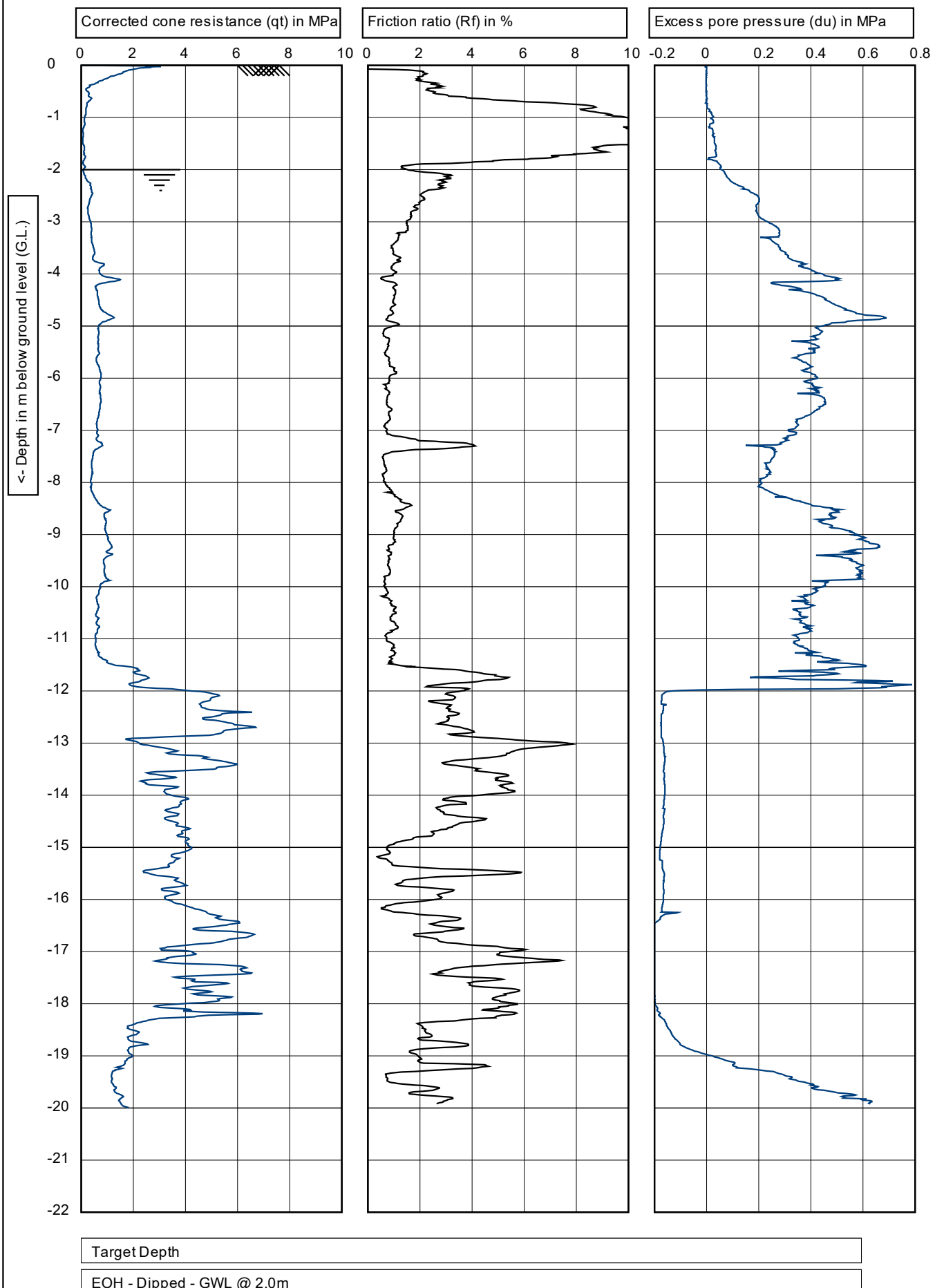
Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL** W.L.: **-2.00 m**

Project: **Wickham St**
Location: **Hamilton**
Position: **1798845, 5812392 NZTM**

Predrill: **0.00 m Predrilled**
Date: **18/11/2025**
Cone no.: **C10CFIIP.C20361**
Project no.: **2-68014.00_HA15919**
CPT no.: **25-18** **1/6**

1.49



Target Depth

EOH - Dipped - GWL @ 2.0m

Graphs on this page are not IANZ accredited

u2
150 cm²
10 cm²

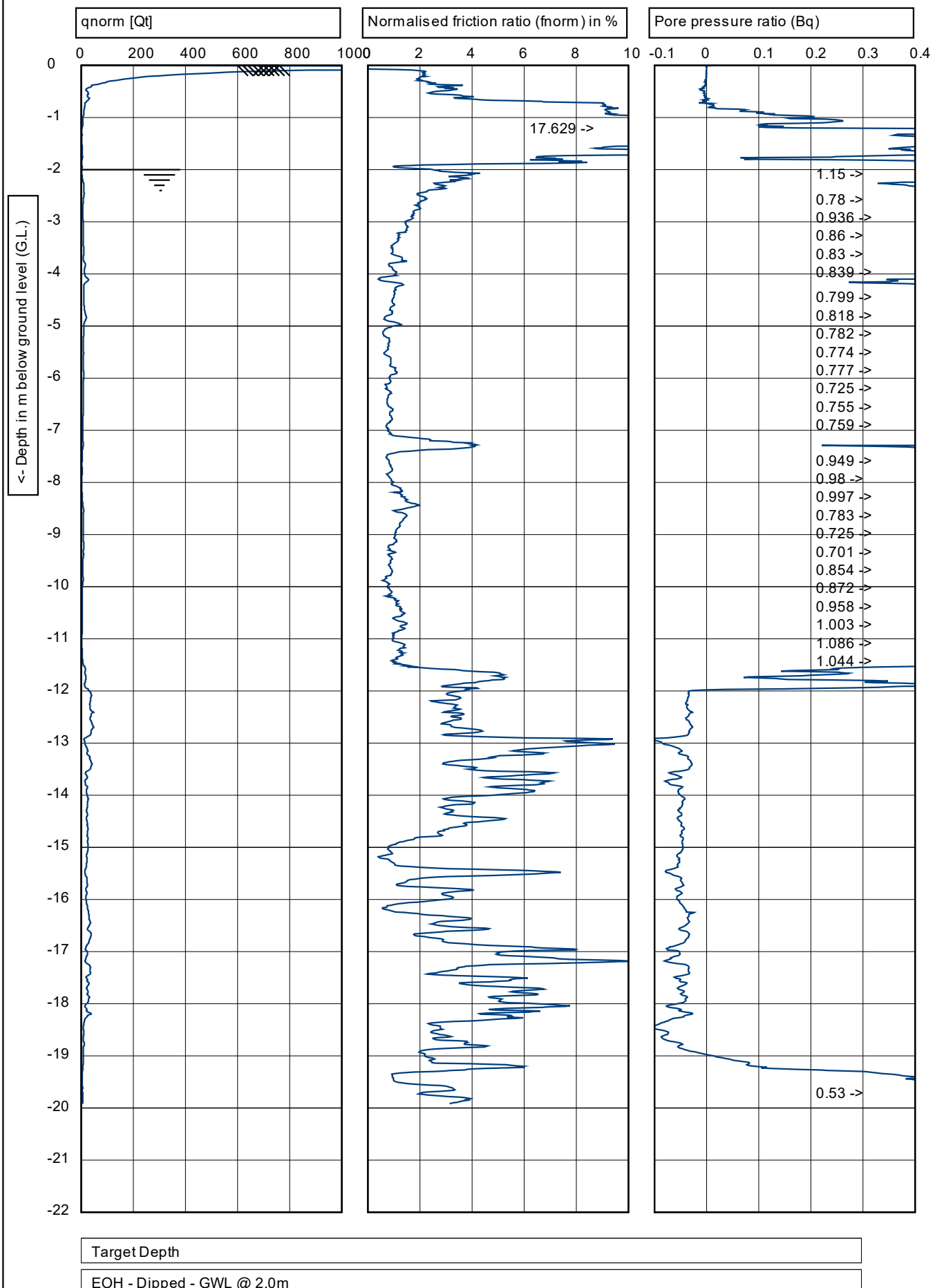
Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL** W.L.: **-2.00 m**

Project: **Wickham St**
Location: **Hamilton**
Position: **1798845, 5812392 NZTM**

Predrill: **0.00 m Predrilled**
Date: **18/11/2025**
Cone no.: **C10CFIIP.C20361**
Project no.: **2-68014.00_HA15919**
CPT no.: **25-18** **2/6**

1.49



Graphs on this page are not IANZ accredited

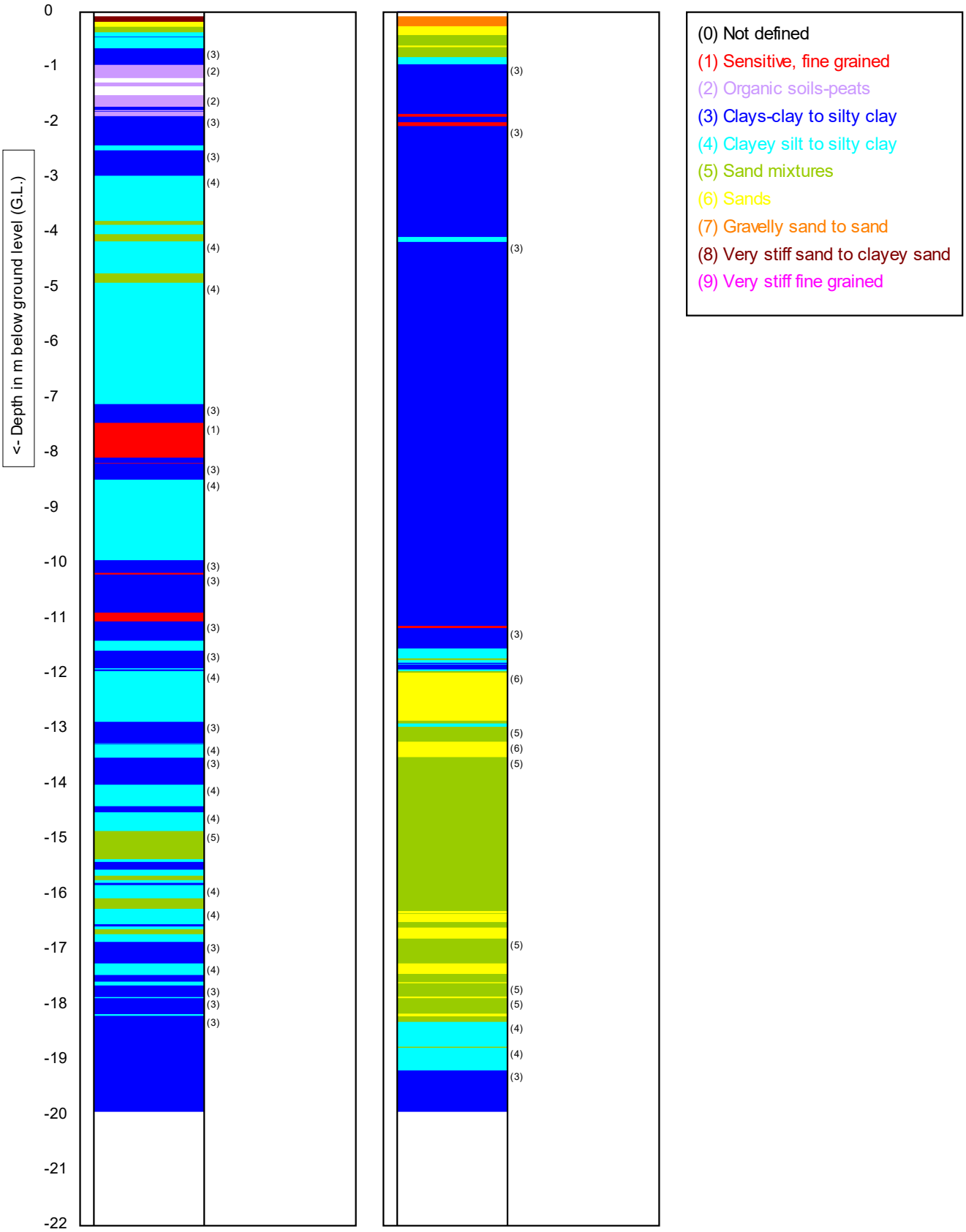
u2
150 cm²
10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-2.00 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C20361**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1798845, 5812392 NZTM**		CPT no.:	**25-18** 3/6

1.49

Soil Classification (using Fr)

Soil Classification (using Bq)



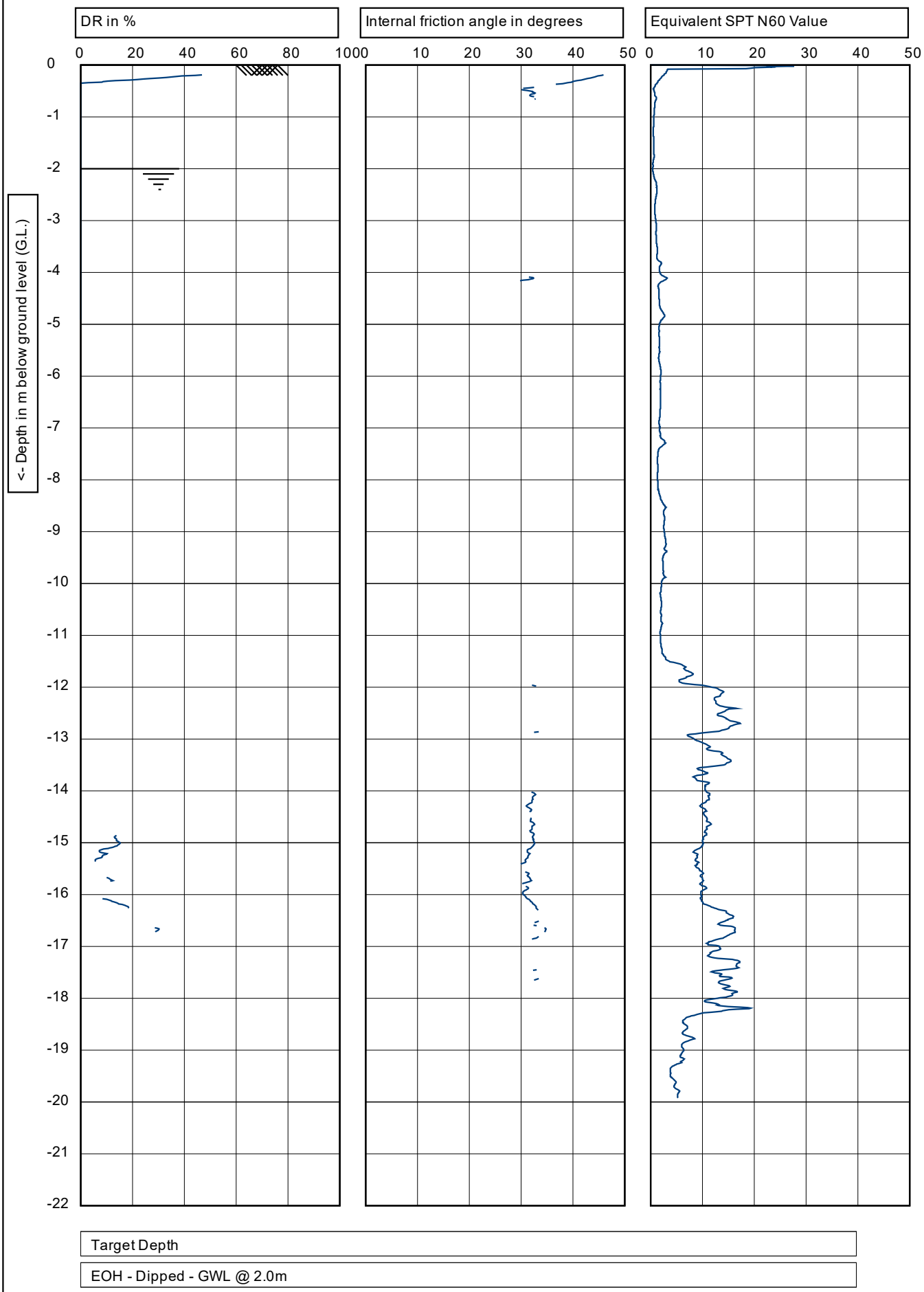
(0) Not defined
(1) Sensitive, fine grained
(2) Organic soils-peats
(3) Clays-clay to silty clay
(4) Clayey silt to silty clay
(5) Sand mixtures
(6) Sands
(7) Gravelly sand to sand
(8) Very stiff sand to clayey sand
(9) Very stiff fine grained

Graphs on this page are not IANZ accredited

r u2
L 150 cm²
10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-2.00 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C20361**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1798845, 5812392 NZTM**		CPT no.:	**25-18** 4/6

1.49



Target Depth

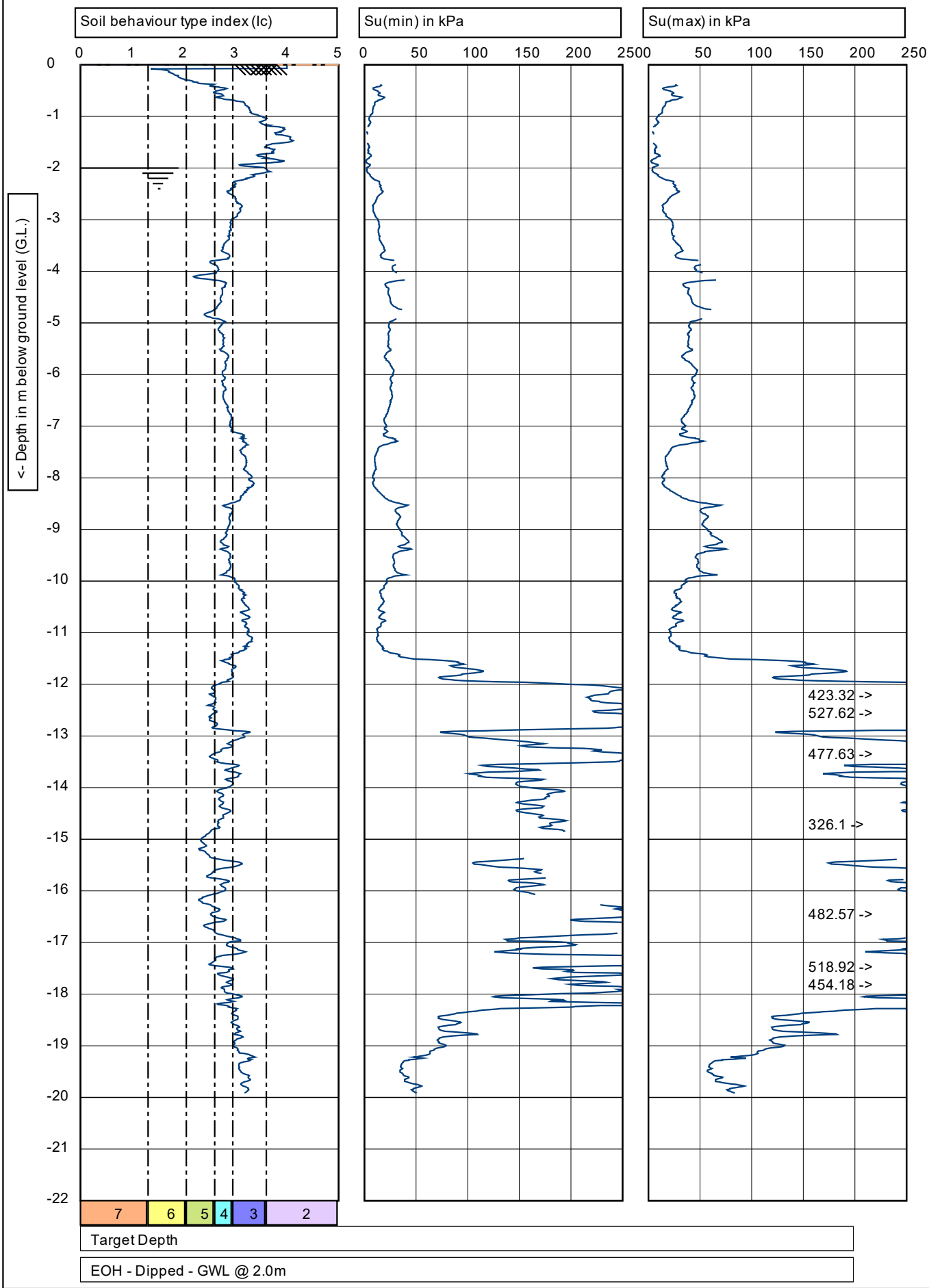
EOH - Dipped - GWL @ 2.0m

Graphs on this page are not IANZ accredited

u2
150 cm²
10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-2.00 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C20361**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1798845, 5812392 NZTM**		CPT no.:	**25-18** 5/6

1.49



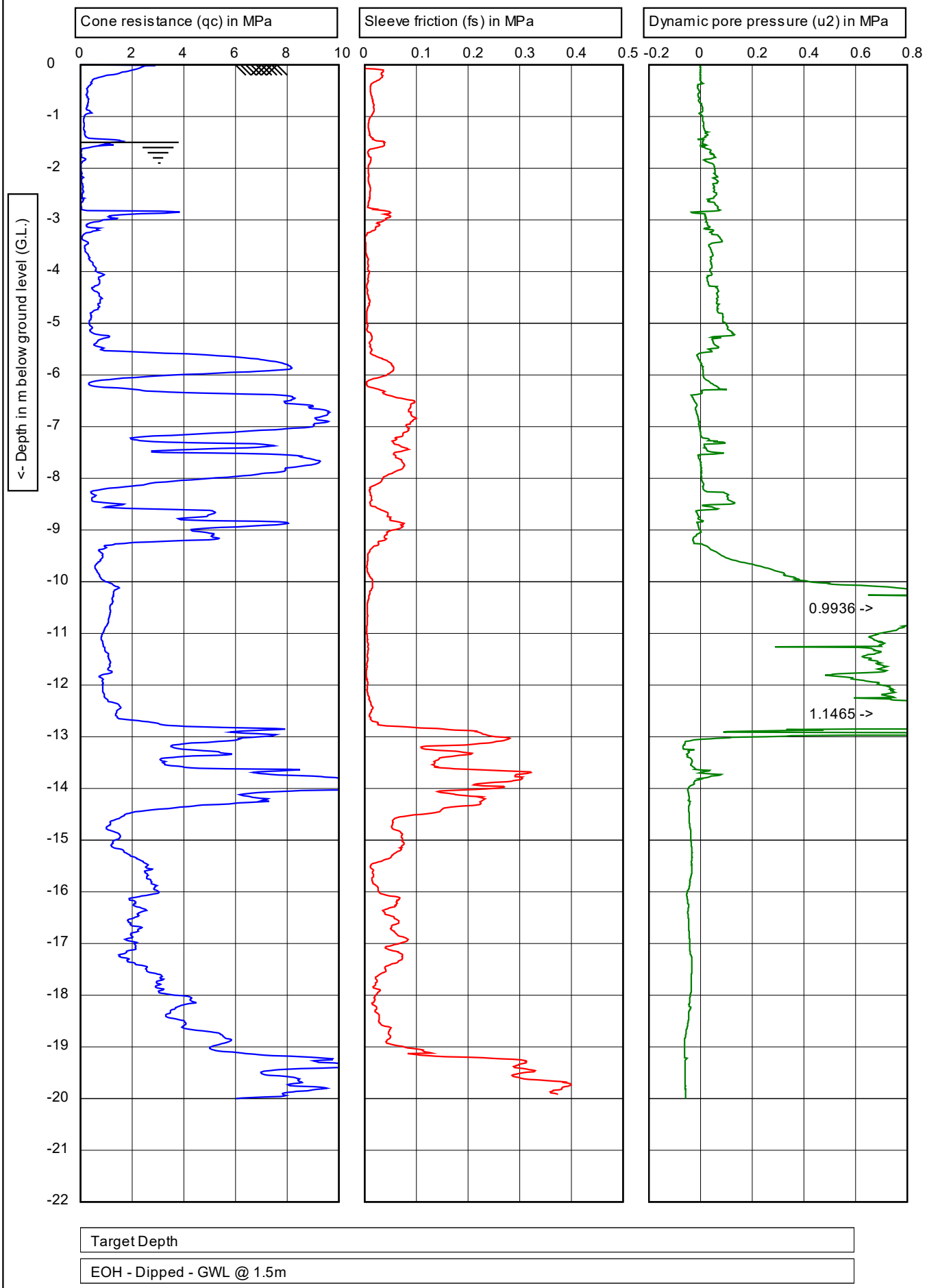
Target Depth

EOH - Dipped - GWL @ 2.0m

Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-2.00 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C20361**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1798845, 5812392 NZTM**		CPT no.:	**25-18** 6/6

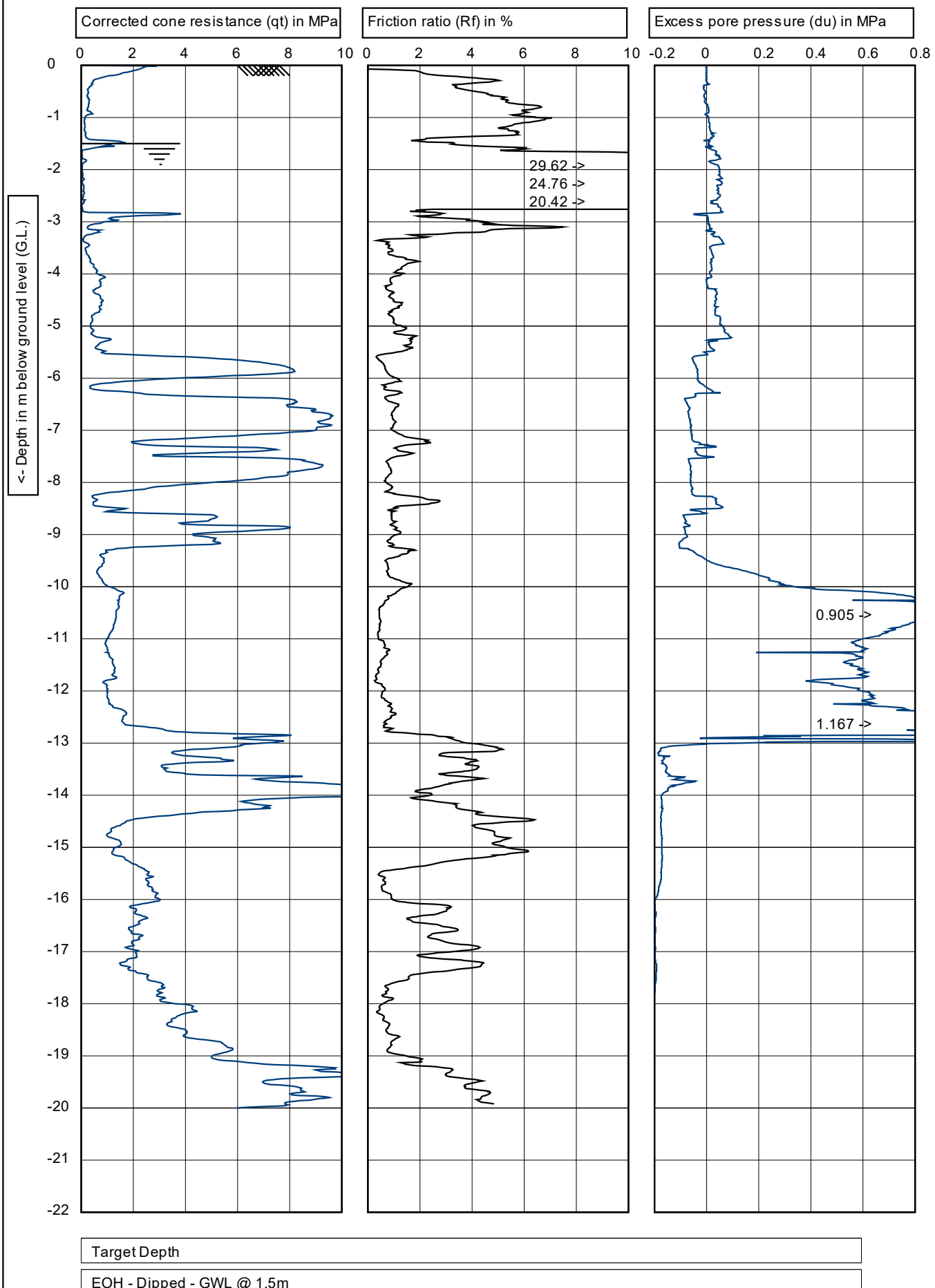
1.49



Test results indicated as not accredited are outside the scope of the laboratory's accreditation

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-1.50 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C241654**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1799036, 5812325 NZTM**		CPT no.:	**25-19** 1/6

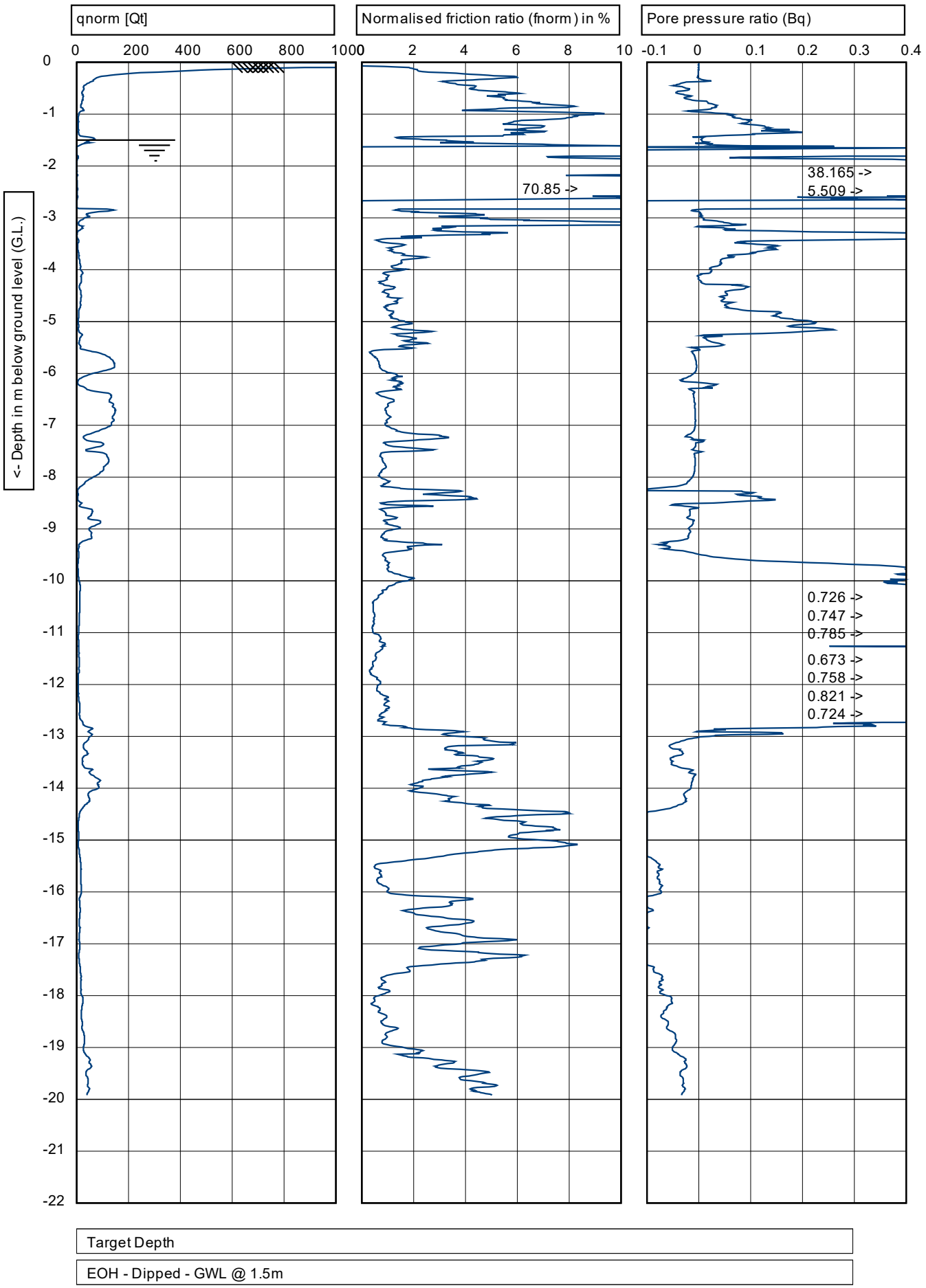
1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-1.50 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C241654**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1799036, 5812325 NZTM**		CPT no.:	**25-19** **2/6**

1.49

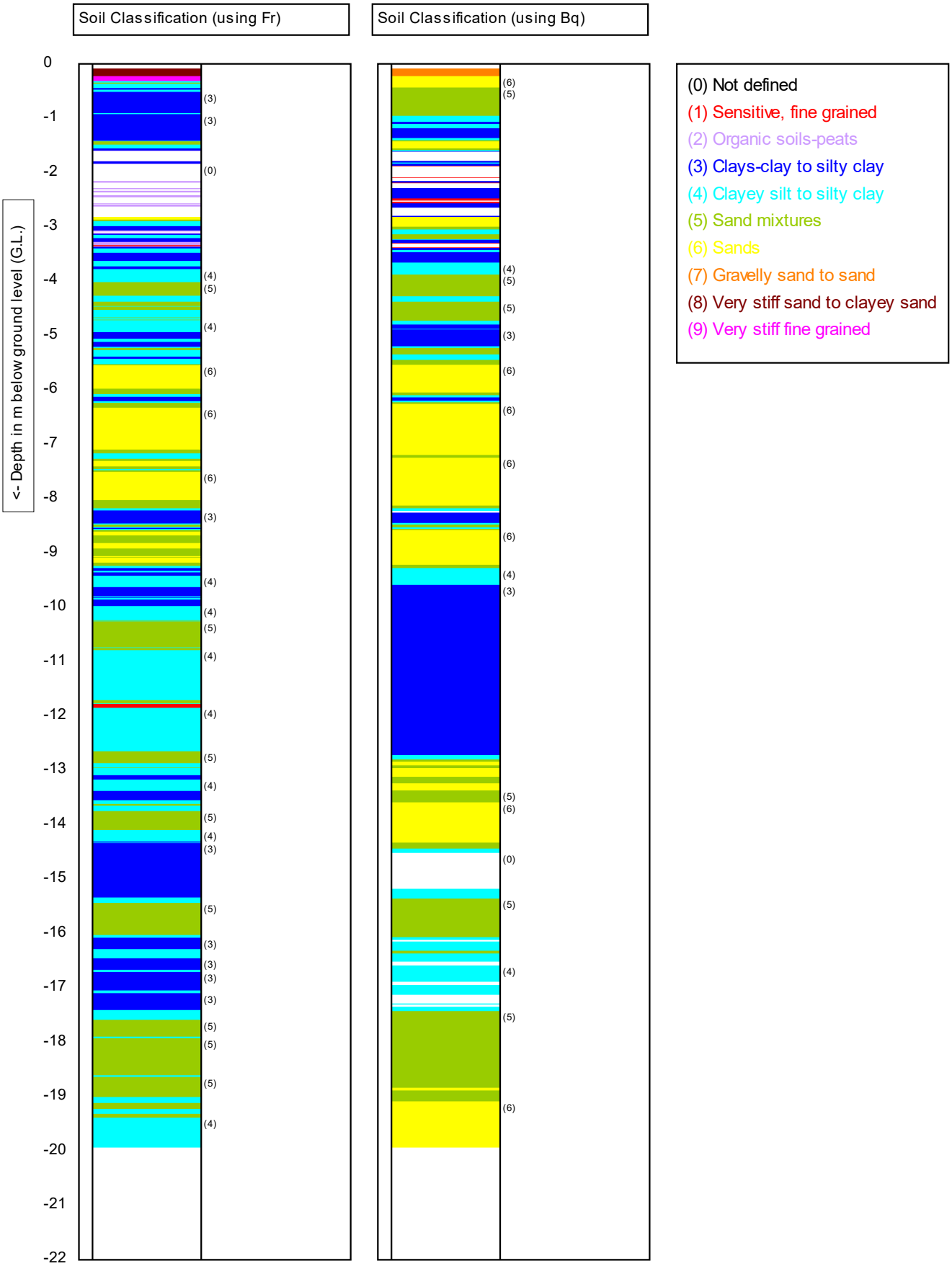


Graphs on this page are not IANZ accredited

u2
150 cm²
10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-1.50 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C241654**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1799036, 5812325 NZTM**		CPT no.:	**25-19** 3/6

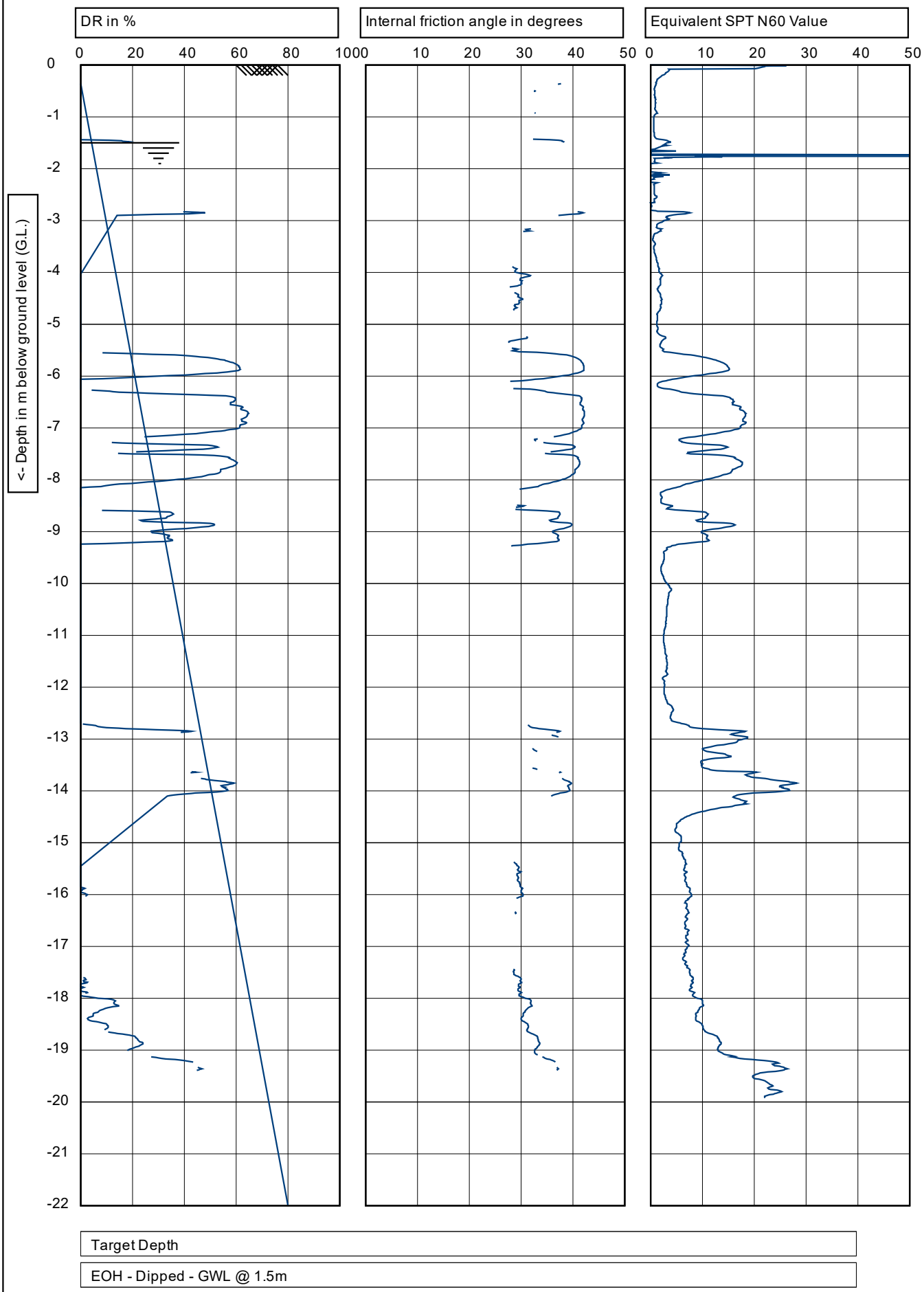
1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-1.50 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C241654**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1799036, 5812325 NZTM**		CPT no.:	**25-19** 4/6

1.49



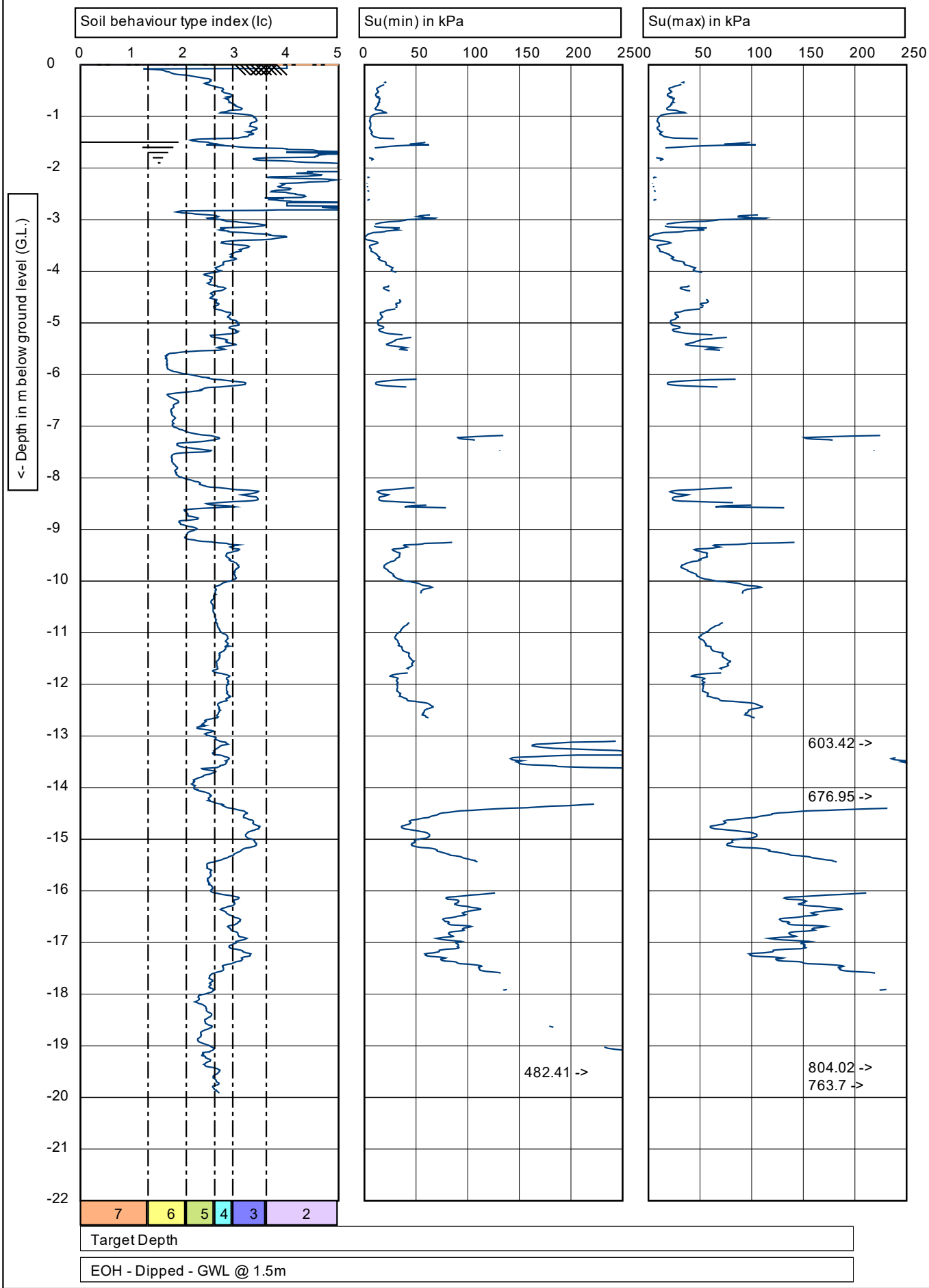
Target Depth

EOH - Dipped - GWL @ 1.5m

Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-1.50 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C241654**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1799036, 5812325 NZTM**		CPT no.:	**25-19** 5/6

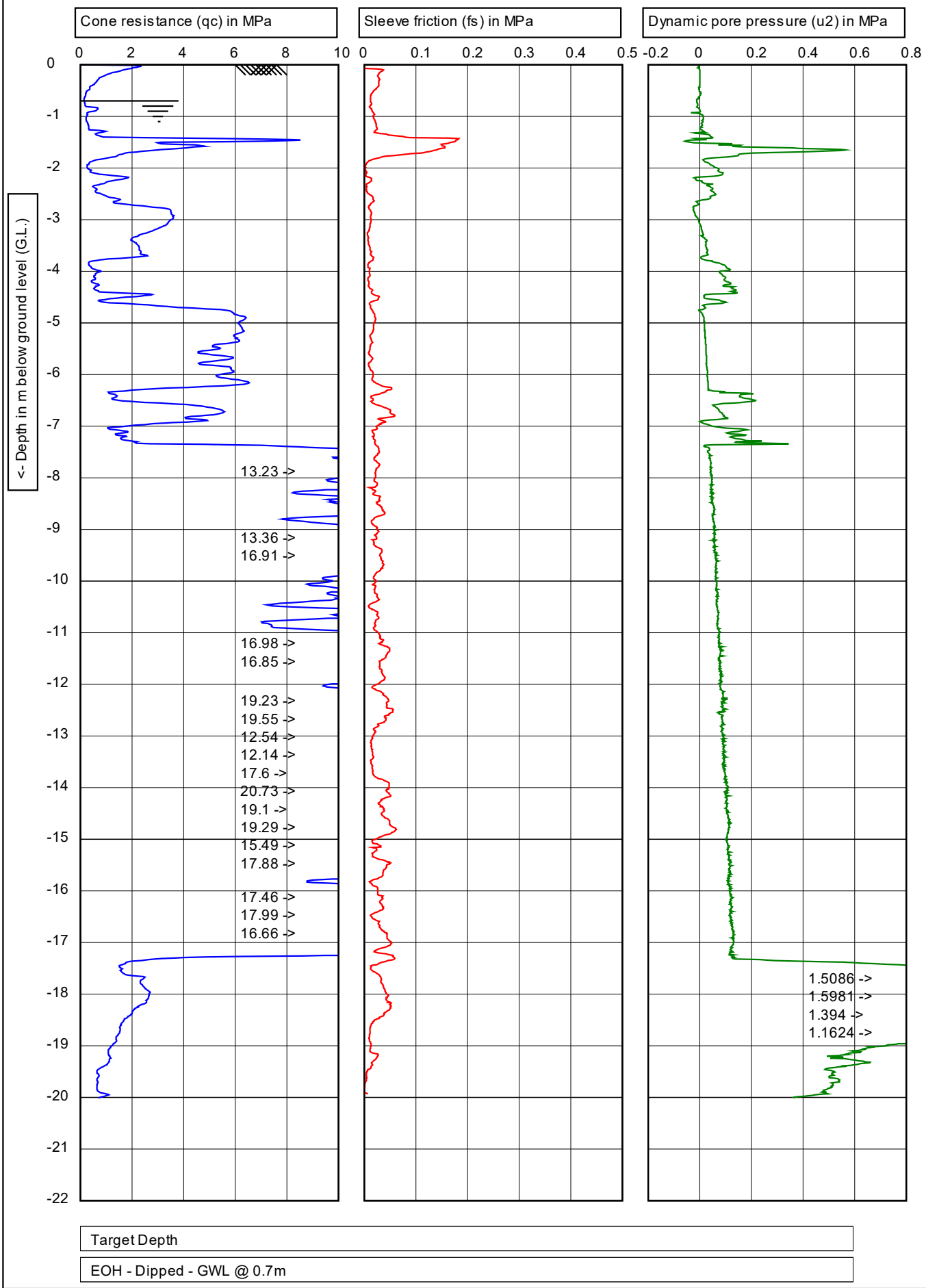
1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-1.50 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C241654**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1799036, 5812325 NZTM**		CPT no.:	**25-19** 6/6

1.49



Test results indicated as not accredited are outside the scope of the laboratory's accreditation

u2
150 cm²
10 cm²

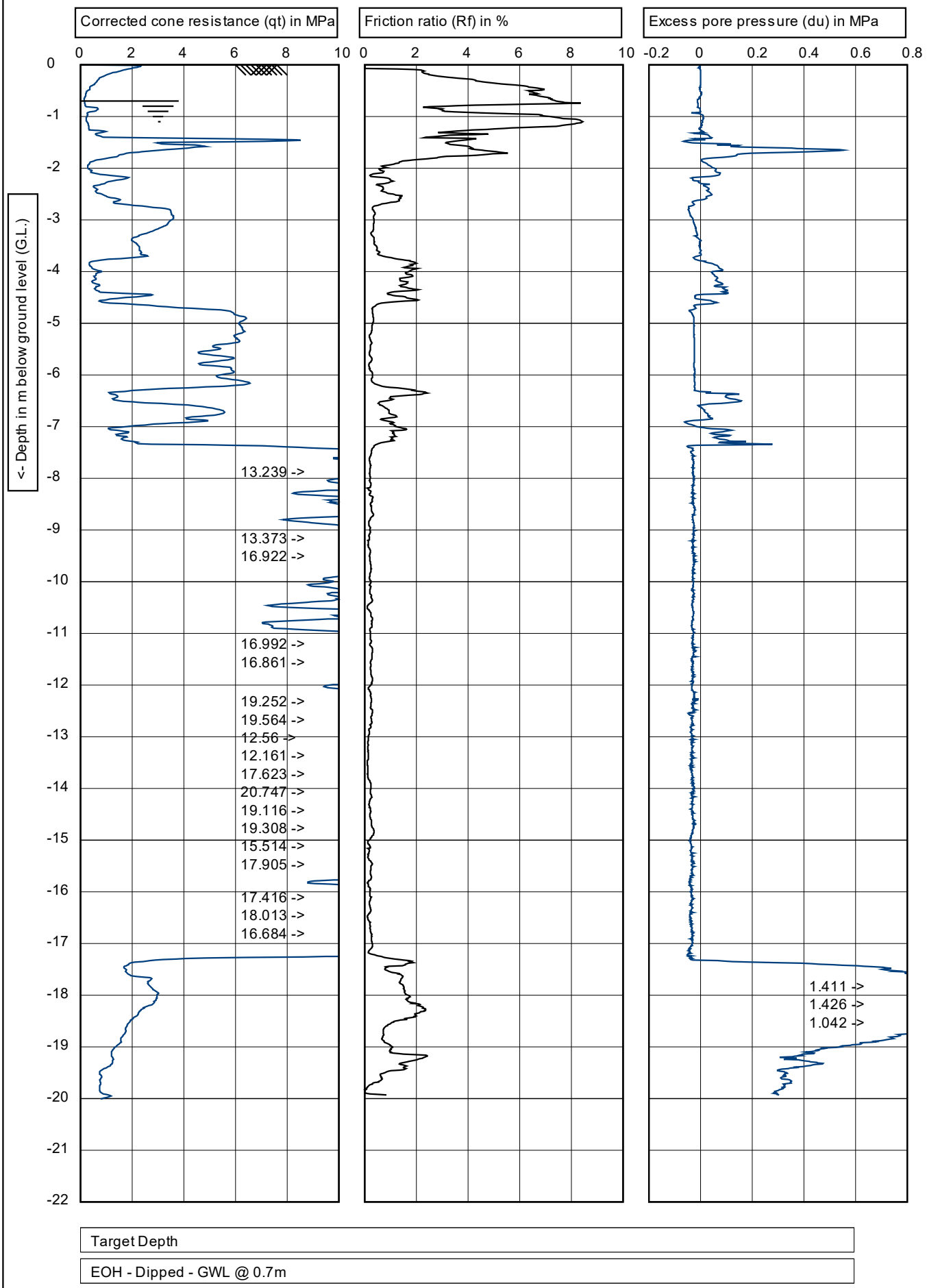
Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL** W.L.: **-0.70 m**

Project: **Wickham St**
Location: **Hamilton**
Position: **1799321, 5812290 NZTM**

Predrill: **0.00 m Predrilled**
Date: **18/11/2025**
Cone no.: **C10CFIIP.C241654**
Project no.: **2-68014.00_HA15919**
CPT no.: **25-20** **1/6**

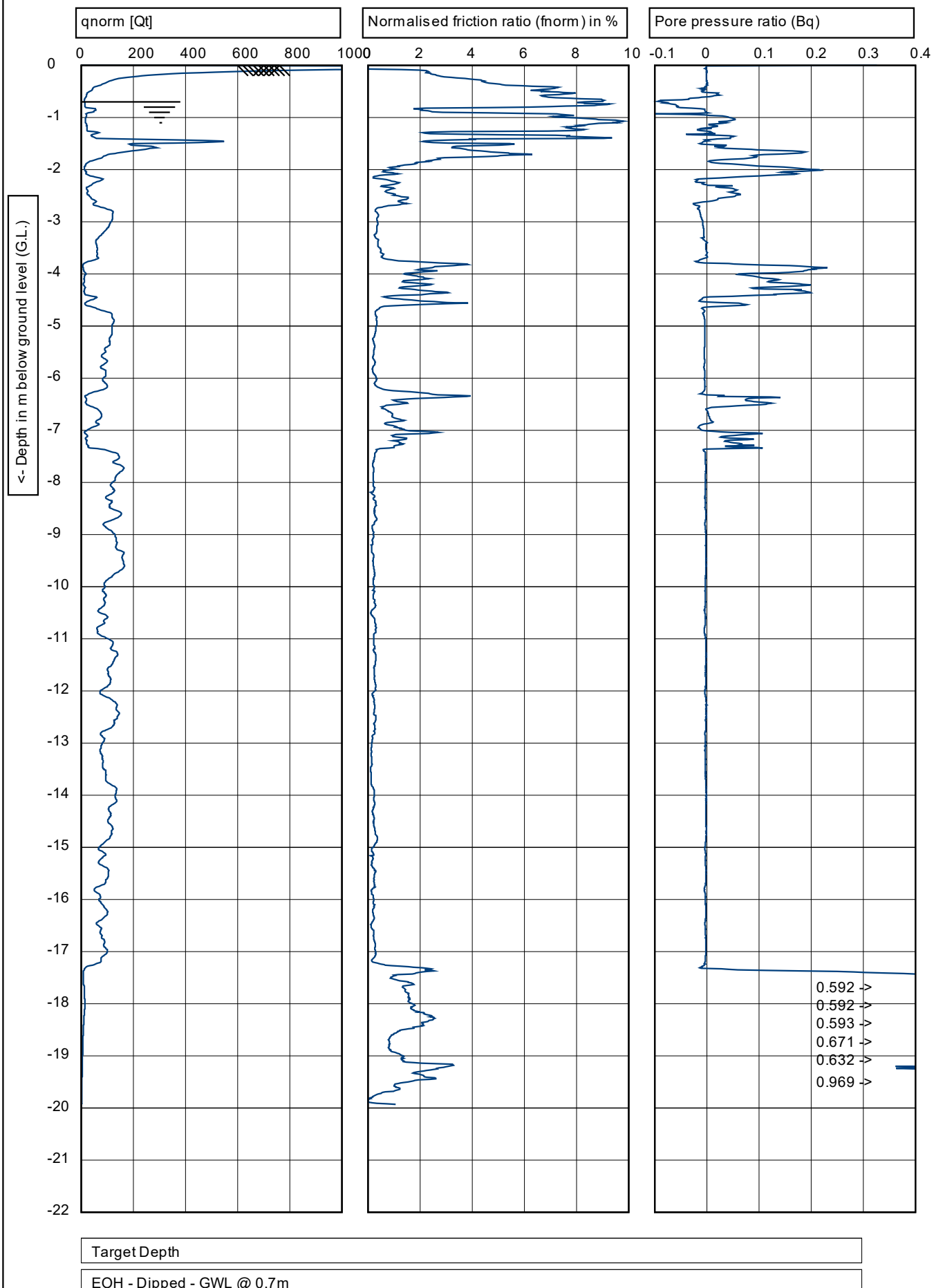
1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-0.70 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C241654**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1799321, 5812290 NZTM**		CPT no.:	**25-20** **2/6**

1.49

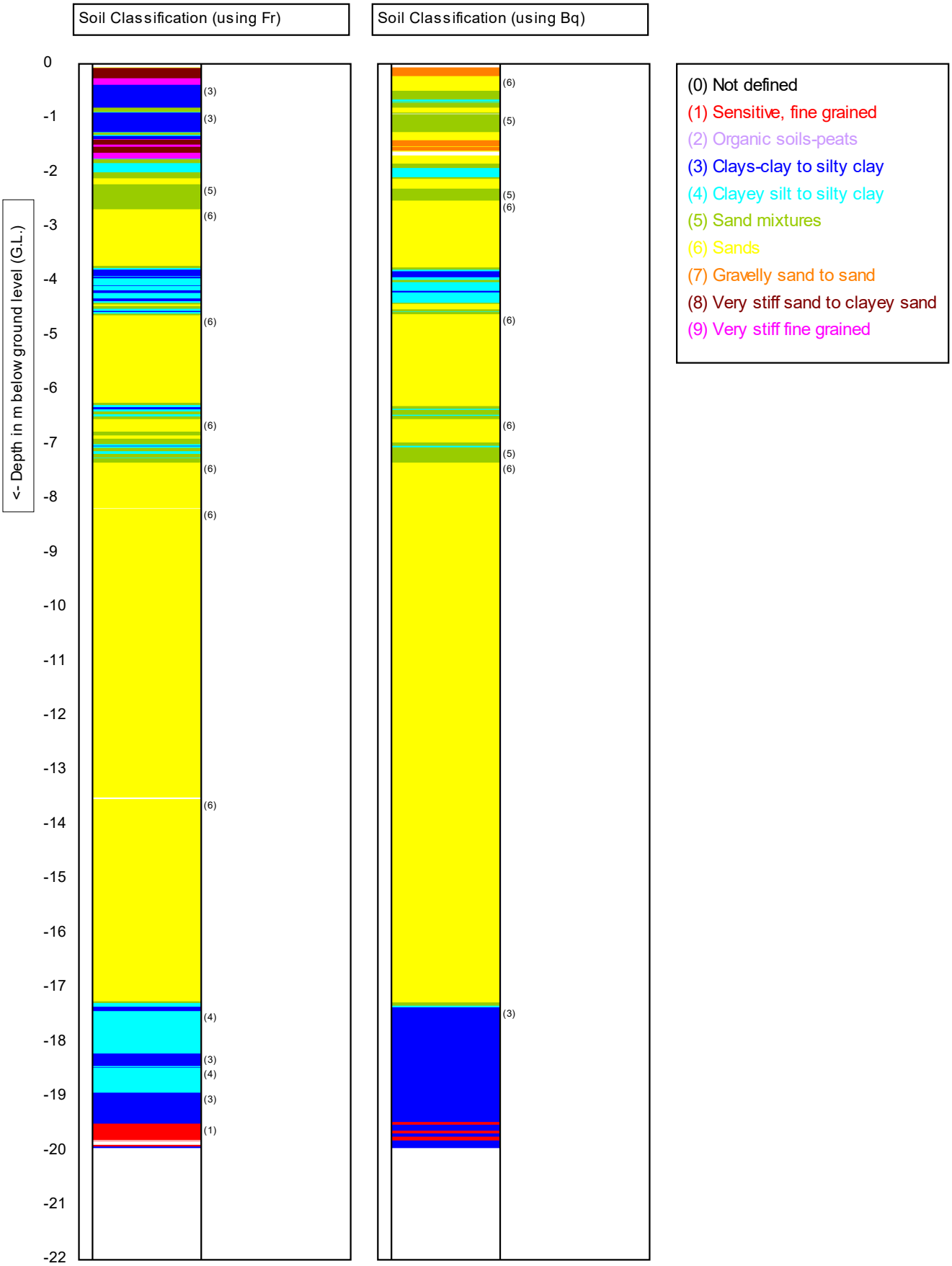


Graphs on this page are not IANZ accredited

u2
150 cm²
10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-0.70 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C241654**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1799321, 5812290 NZTM**		CPT no.:	**25-20** 3/6

1.49

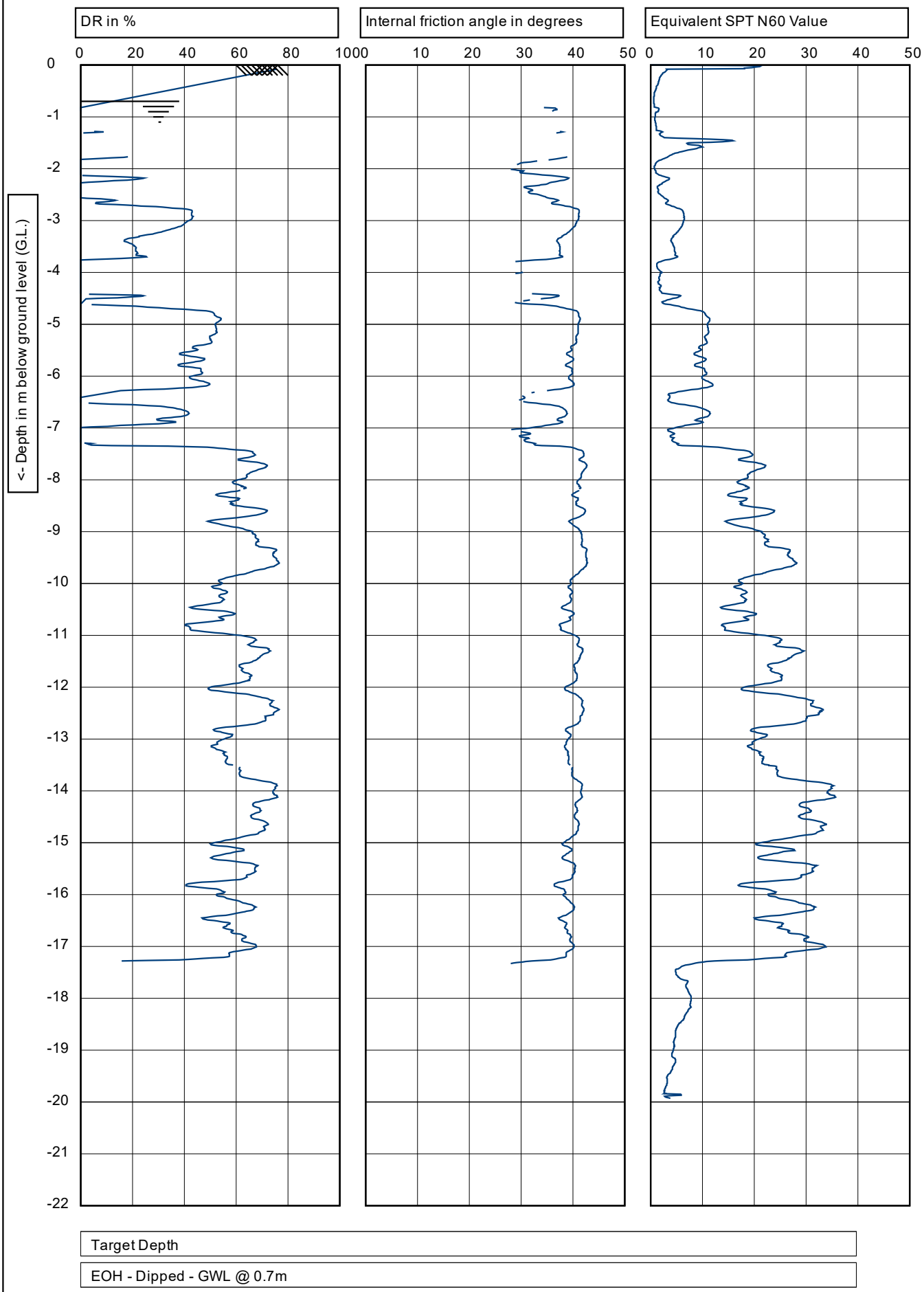


Graphs on this page are not IANZ accredited

r u2
L 150 cm²
10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-0.70 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C241654**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1799321, 5812290 NZTM**		CPT no.:	**25-20** 4/6

1.49



Target Depth

EOH - Dipped - GWL @ 0.7m

Graphs on this page are not IANZ accredited

u2
150 cm²
10 cm²

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013

G.L.: **0.00 m MSL** | W.L.: **-0.70 m**

Project: **Wickham St**

Location: **Hamilton**

Position: **1799321, 5812290 NZTM**

Predrill: **0.00 m Predrilled**

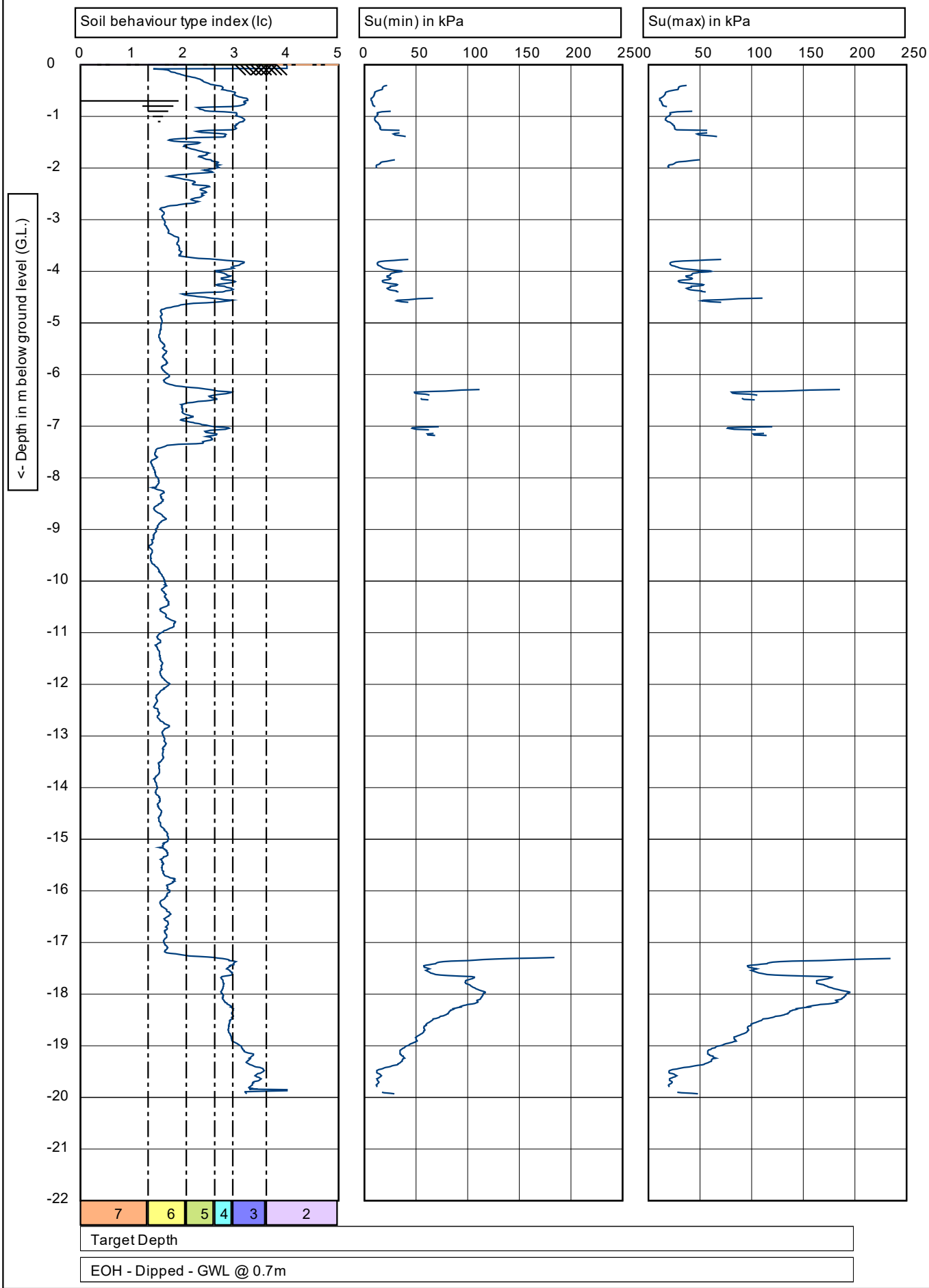
Date: **18/11/2025**

Cone no.: **C10CFIIP.C241654**

Project no.: **2-68014.00_HA15919**

CPT no.: **25-20** **5/6**

1.49



Graphs on this page are not IANZ accredited

Method:ASTM D5778-20&ISO 22476:1:2012cor.2013		Predrill:	**0.00 m Predrilled**
G.L.: **0.00 m MSL**	W.L.: **-0.70 m**	Date:	**18/11/2025**
Project: **Wickham St**		Cone no.:	**C10CFIIP.C241654**
Location: **Hamilton**		Project no.:	**2-68014.00_HA15919**
Position: **1799321, 5812290 NZTM**		CPT no.:	**25-20** **6/6**

1.49

TEST PIT LOG - TP25-01

Client: Colliers Project Leaders
Project: Southern Links - Industrial Block
Site Location: Wickham Street, Hamilton
Project No.: HAM2024-0120
Date: 14/11/2025
Test Pit Location: Refer to Site Plan Logged by: DB Checked by: MM Scale: 1:25 Sheet 1 of 1

CMW Geosciences
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Position: 443096.2mE; 697007.5mN Projection: Mt Eden 2000 Pit Dimensions: 3.0m by 1.0m
Elevation: m Datum: Survey Source: Hand-held GPS

Groundwater	Samples & Insitu Tests: Depth	Samples & Insitu Tests: Type & Results	RL (m)	Depth (m)	Graphic Log	Material Description	Moisture Condition	Consistency/ Relative Density	Dynamic Cone Penetrometer (Blows/100mm)	Structure & Other Observations
14-11-2025 Some seepage.						OL: Organic SILT: brown. Low plasticity. (Topsoil)			1	
						ML: SILT: light brownish grey. Low plasticity. (Uncontrolled Fill)			2	
						... at 0.30m, becoming brown, containing some fine to coarse sand and concrete rubble.		St	2 8 3 4	
	0.5	Peak = 84kPa Residual = 16kPa								
						Pt: PEAT: with trace fine to coarse sand. Black. Fibrous, non plastic. Moderately sensitive to sensitive. (Swamp Deposits)	M		3 3 3 3	
	0.9	Peak = 95kPa Residual = 14kPa		1						
									3 3 3 3 2 2 1 3 2 2	
	1.5	Peak = 44kPa Residual = 14kPa						F to St		
	2.0	Peak = 34kPa Residual = 22kPa		2					3 2 3 2 2	
	2.5	Peak = 54kPa Residual = 20kPa				ML: Clayey SILT: brownish grey. Low plasticity. Moderately sensitive. (Hinuera Formation)	S		2 2 2 2	
	3.0	Peak = 54kPa Residual = 30kPa		3				St	4	
						SW: Fine to coarse SAND: with minor silt. Grey. Well graded. Subrounded. (Hinuera Formation)			3 4 5 4 4 4	
						... at 3.60m, silt becoming absent, containing minor fine to medium gravel, subrounded.		MD to D	6 8 8 8	
				4					8 7	
						Test pit terminated at 4.20 m			9 11 14 15 13 12 13	
				5						

Termination Reason: Target depth reached.
Shear Vane No: 3434 DCP No: 27
Remarks: Groundwater encountered at 1.3m.

This report is based on the attached field description for soil and rock, CMW Geosciences - Field Logging Guide, Revision 5 - August 2024.

PHOTOGRAPH SHEET - TP25-01

Client: Colliers Project Leaders
Project: Southern Links - Industrial Block
Location: Wickham Street, Hamilton
Project ID: HAM2024-0120
Date:14/11/2025

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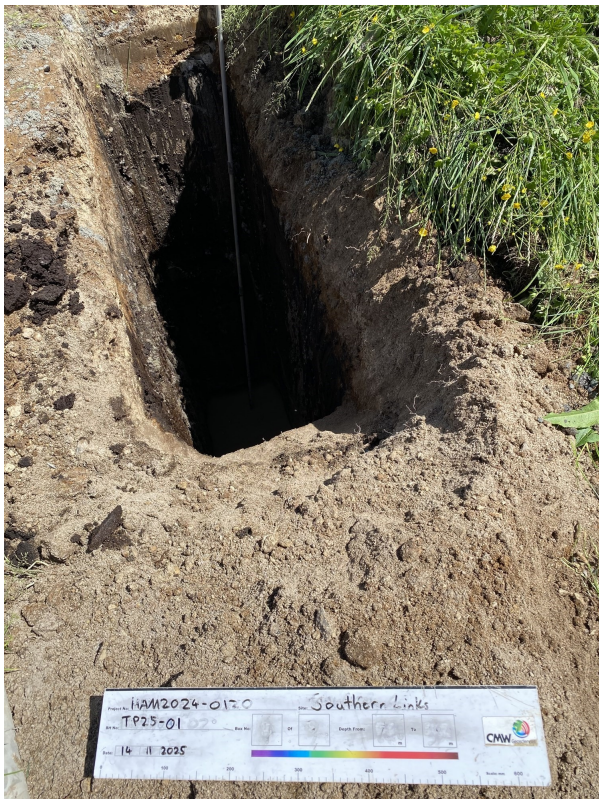

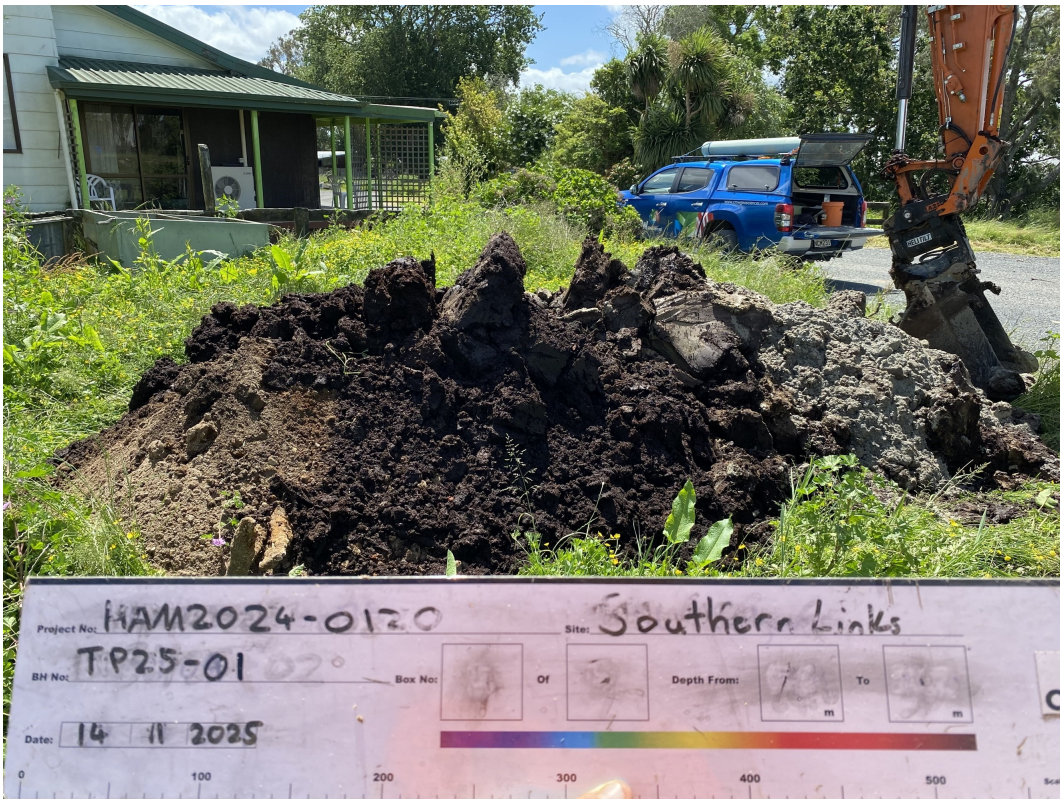

TEST PIT LOG - TP25-02

Client: Colliers Project Leaders
Project: Southern Links - Industrial Block
Site Location: Wickham Street, Hamilton
Project No.: HAM2024-0120
Date: 14/11/2025
Test Pit Location: Refer to Site Plan Logged by: DB Checked by: MM Scale: 1:25 Sheet 1 of 1

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Position: 443047.7mE; 696752.8mN Projection: Mt Eden 2000 Pit Dimensions: 3.0m by 1.0m
Elevation: m Datum: Survey Source: Hand-held GPS

Groundwater	Samples & Insitu Tests: Depth	Samples & Insitu Tests: Type & Results	RL (m)	Depth (m)	Graphic Log	Material Description	Moisture Condition	Consistency/ Relative Density	Dynamic Cone Penetrometer (Blows/100mm)	Structure & Other Observations
14-11-2025 3.0m3 seepage.						OL: Organic SILT: dark brown. Low plasticity. (Topsoil)			1 2 1	
						Pt: PEAT: black. Fibrous, non plastic. Contains tree roots. Moderately sensitive. (Swamp Deposits)			0 0 1 0 1 0 0	
	0.5	Peak = 41kPa Residual = 11kPa					M			
	1.0	Peak = 27kPa Residual = 11kPa		1					2 1 1 1 1 1 0 1 1 1	
	1.5	Peak = 27kPa Residual = 15kPa						F		
	2.0	Peak = 27kPa Residual = 11kPa		2					2 2 1 2 1 2 2 2 3	
	2.5	Peak = 33kPa Residual = 14kPa					W			
						... at 2.90m, becoming brown, containing trace fine to to coarse sand.				
	3.0	Peak = 44kPa Residual = 27kPa		3					3 2 3 3 2 2 4 3	
	3.5	Peak = 65kPa Residual = 16kPa				ML: Clayey SILT: light greyish brown. Low plasticity. Moderately sensitive. (Hinuera Formation)		St		
						SW: Fine to coarse SAND: light yellowish brown. Well graded. Subrounded. (Hinuera Formation)			5 7	
				4			M	MD	6 5 5 5 5 4 3 4 4	
						Test pit terminated at 4.30 m				
				5						

Termination Reason: Target depth reached.
Shear Vane No: 3434 DCP No: 27

Remarks: Groundwater not encountered.

This report is based on the attached field description for soil and rock, CMW Geosciences - Field Logging Guide, Revision 5 - August 2024.

PHOTOGRAPH SHEET - TP25-02

Client: Colliers Project Leaders
Project: Southern Links - Industrial Block
Location: Wickham Street, Hamilton
Project ID: HAM2024-0120
Date:14/11/2025

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TEST PIT LOG - TP25-03

Client: Colliers Project Leaders
Project: Southern Links - Industrial Block
Site Location: Wickham Street, Hamilton
Project No.: HAM2024-0120
Date: 14/11/2025
Test Pit Location: Refer to Site Plan Logged by: DB Checked by: MM Scale: 1:25 Sheet 1 of 1

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Position: 443180.8mE; 696732.4mN Projection: Mt Eden 2000 Pit Dimensions: 3.0m by 1.0m
Elevation: m Datum: Survey Source: Hand-held GPS

Groundwater	Samples & Insitu Tests: Depth	Samples & Insitu Tests: Type & Results	RL (m)	Depth (m)	Graphic Log	Material Description	Moisture Condition	Consistency/ Relative Density	Dynamic Cone Penetrometer (Blows/100mm)	Structure & Other Observations
						OL: Organic SILT: black. Low plasticity. (Topsoil)			5 10 15 20	Discontinuities: Depth; Defect Number; Defect Type; Dip; Defect Shape; Roughness; Aperture; Infill; Seepage; Spacing; Block Size; Block Shape; Remarks
						Pt: PEAT: black. Fibrous, non plastic. Moderately sensitive. (Swamp Deposits)				
14-11-2025 Some seepage	0.5	Peak = 41kPa Residual = 14kPa					M			
	1.0	Peak = 27kPa Residual = 14kPa		1		*... from 1.00m to 1.50m, becoming dark brown,*				
	1.5	Peak = 14kPa Residual = 11kPa								
	2.0	Peak = 22kPa Residual = 11kPa		2				S to F		
	2.5	Peak = 27kPa Residual = 14kPa					W			
	3.0	Peak = 22kPa Residual = 14kPa		3						
	3.5	Peak = 30kPa Residual = 22kPa								
	4.0	Peak = 41kPa Residual = 24kPa		4						
						Test pit terminated at 4.40 m				
				5						

Termination Reason: Target depth reached.
Shear Vane No: 3434 DCP No:

Remarks: Groundwater encountered at 1.0m.

This report is based on the attached field description for soil and rock, CMW Geosciences - Field Logging Guide, Revision 5 - August 2024.

PHOTOGRAPH SHEET - TP25-03

Client: Colliers Project Leaders
Project: Southern Links - Industrial Block
Location: Wickham Street, Hamilton
Project ID: HAM2024-0120
Date:14/11/2025

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TEST PIT LOG - TP25-04

Client: Colliers Project Leaders
Project: Southern Links - Industrial Block
Site Location: Wickham Street, Hamilton
Project No.: HAM2024-0120
Date: 17/11/2025
Test Pit Location: Refer to Site Plan Logged by: DB Checked by: MM Scale: 1:25 Sheet 1 of 1

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Position: 443419.5mE; 696854.4mN Projection: Mt Eden 2000 Pit Dimensions: 3.0m by 1.0m
Elevation: m Datum: Survey Source: Hand-held GPS

Groundwater	Samples & Insitu Tests: Depth	Samples & Insitu Tests: Type & Results	RL (m)	Depth (m)	Graphic Log	Material Description	Moisture Condition	Consistency/ Relative Density	Dynamic Cone Penetrometer (Blows/100mm)	Structure & Other Observations
						OL: Organic SILT: black. Low plasticity. Containing mulch and concrete rubble. (Uncontrolled Fill)		VSt to H	0, 1, 5, 2, 0	
	0.7	Peak = 163kPa Residual = 24kPa				Pt: PEAT: black. Fibrous, non plastic. Moderately sensitive. (Swamp Deposits)				
	1.0	Peak = 109kPa Residual = 27kPa		1		... at 1.00m, containing tree roots, ~10cm diameter.				
	1.5	Peak = 88kPa Residual = 27kPa								
	2.0	Peak = 71kPa Residual = 34kPa		2			M	St to VSt		
	2.5	Peak = 82kPa Residual = 41kPa								
	3.0	Peak = 84kPa Residual = 44kPa		3						
	3.3	Peak = 49kPa Residual = 16kPa				OL: Organic SILT: with some clay. Greyish brown. Low plasticity. Moderately sensitive. Contains some rootlets. (Hinuera Formation)		F		
						SP: Fine SAND: with some silt. Light grey. Poorly graded. Subrounded. (Hinuera Formation)		TP		
17-11-2025				4		... at 3.90m, sand becoming fine to coarse.	W			
							S			
						Test pit terminated at 4.20 m				
				5						

Termination Reason: Target depth reached.
Shear Vane No: 3434 DCP No: 27

Remarks: Groundwater encountered at 4.1m.

This report is based on the attached field description for soil and rock, CMW Geosciences - Field Logging Guide, Revision 5 - August 2024.

PHOTOGRAPH SHEET - TP25-04

Client: Colliers Project Leaders
Project: Southern Links - Industrial Block
Location: Wickham Street, Hamilton
Project ID: HAM2024-0120
Date:17/11/2025

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TEST PIT LOG - TP25-05

Client: Colliers Project Leaders
Project: Southern Links - Industrial Block
Site Location: Wickham Street, Hamilton
Project No.: HAM2024-0120
Date: 17/11/2025
Test Pit Location: Refer to Site Plan Logged by: DB Checked by: MM Scale: 1:25 Sheet 1 of 1

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Position: 443503.4mE; 696824.8mN Projection: Mt Eden 2000 Pit Dimensions: 3.0m by 1.0m
Elevation: m Datum: Survey Source: Hand Held GPS

Groundwater	Samples & Insitu Tests: Depth	Samples & Insitu Tests: Type & Results	RL (m)	Depth (m)	Graphic Log	Material Description	Moisture Condition	Consistency/ Relative Density	Dynamic Cone Penetrometer (Blows/100mm)	Structure & Other Observations
						OL: Organic SILT: black. Low plasticity. Contains mulch. (Uncontrolled Fill)		St	1 0 0	
						... at 0.30m, containing concrete rubble.		H	2 0	
						SW: Gravelly fine to coarse SAND: with minor silt. Greyish brown. Well graded, subangular. Gravel: fine to coarse, subangular. (Uncontrolled Fill)		TP		
	1.0	Peak = 98kPa Residual = 41kPa		1		Pt: PEAT: black. Fibrous, non-plastic. Moderately sensitive. (Swamp Deposits)	M			
						... from 1.40m to 2.50m, containing tree roots and stumps.				
	1.5	Peak = 147kPa Residual = 41kPa						F to St		1.5m: Suspect shear vane snagging on roots.
17-11-2025	2.0	Peak = 27kPa Residual = 27kPa		2						2.0m: Suspect shear vane influenced by stump and root removal disturbing soil.
							S			
	2.5	Peak = 34kPa Residual = 24kPa				OL: Organic SILT: with some clay. Brown. Low plasticity. Contains some rootlets. (Hinuera Formation)				
	3.0	Peak = 61kPa Residual = 41kPa		3			M	F to St		
						SW: Fine to coarse SAND: with trace silt. Brown. Well graded. Subrounded. (Hinuera Formation)				
				4			W	TP		
						Test pit terminated at 4.20 m				
				5						

Termination Reason: Target depth reached.
Shear Vane No: 3434 DCP No: 27
Remarks: Groundwater encountered at 2.0m.

This report is based on the attached field description for soil and rock, CMW Geosciences - Field Logging Guide, Revision 5 - August 2024.

PHOTOGRAPH SHEET - TP25-05

Client: Colliers Project Leaders
Project: Southern Links - Industrial Block
Location: Wickham Street, Hamilton
Project ID: HAM2024-0120
Date:17/11/2025

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TEST PIT LOG - TP25-06

Client: Colliers Project Leaders
Project: Southern Links - Industrial Block
Site Location: Wickham Street, Hamilton
Project No.: HAM2024-0120
Date: 14/11/2025
Test Pit Location: Refer to Site Plan Logged by: DB Checked by: MM Scale: 1:25 Sheet 1 of 1

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Position: 443281.9mE; 696743.1mN Projection: Mt Eden 2000 Pit Dimensions: 3.0m by 1.0m
Elevation: m Datum: Survey Source: Hand-held GPS

Groundwater	Samples & Insitu Tests: Depth	Samples & Insitu Tests: Type & Results	RL (m)	Depth (m)	Graphic Log	Material Description	Moisture Condition	Consistency/ Relative Density	Dynamic Cone Penetrometer (Blows/100mm)	Structure & Other Observations
				0		GW: Fine to medium GRAVEL: with some fine to coarse sand. Dark grey. Angular. (Uncontrolled Fill)			5 10 15 20	Discontinuities: Depth; Defect Number; Defect Type; Dip; Defect Shape; Roughness; Aperture; Infill; Seepage; Spacing; Block Size; Block Shape; Remarks
						GW: Sandy fine to coarse GRAVEL: with trace silt. Dark grey. Well graded, angular. Rock crushing under finger pressure. (Uncontrolled Fill)	M	TP		
						... from 0.20m to 0.25m, 50mm lens of asphalt millings.				
						... at 0.30m, containing some sand, yellowish brown.				
						Pt: PEAT: black. Fibrous, non plastic. Contains some rootlets (Swamp Deposits)		St		
	0.8	Peak = 71kPa Residual = 27kPa				Test pit terminated at 0.80 m				
				1						
				2						
				3						
				4						
				5						

Termination Reason: Target depth reached.
Shear Vane No: 3434 DCP No:

Remarks: Groundwater not encountered.

This report is based on the attached field description for soil and rock, CMW Geosciences - Field Logging Guide, Revision 5 - August 2024.

TEST PIT LOG - TP25-07

Client: Colliers Project Leaders
Project: Southern Links - Industrial Block
Site Location: Wickham Street, Hamilton
Project No.: HAM2024-0120
Date: 14/11/2025
Test Pit Location: Refer to Site Plan Logged by: DB Checked by: MM Scale: 1:25 Sheet 1 of 1

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Position: 443345.1mE; 696727.8mN Projection: Mt Eden 2000 Pit Dimensions: 3.0m by 1.0m
Elevation: m Datum: Survey Source: Hand-held GPS

Groundwater	Samples & Insitu Tests: Depth	Samples & Insitu Tests: Type & Results	RL (m)	Depth (m)	Graphic Log	Material Description (Soil: Soil symbol; soil type; colour; structure; bedding; plasticity; sensitivity; additional comments. (origin/geological unit) Rock: Colour; fabric; rock name; additional comments. (origin/geological unit))	Moisture Condition	Consistency/ Relative Density	Dynamic Cone Penetrometer (Blows/100mm)	Structure & Other Observations (Discontinuities: Depth; Defect Number; Defect Type; Dip; Defect Shape; Roughness; Aperture; Infill; Seepage; Spacing; Block Size; Block Shape; Remarks)
14-11-2025				0		GP: Fine to medium GRAVEL: with some sand. Dark grey. Poorly graded. Gravel; angular. (Uncontrolled Fill)				
						GW: Sandy fine to coarse GRAVEL: grey. Well graded. Angular. Sand; fine to coarse, angular. Maximum aggregate size 65mm. (Uncontrolled Fill)	M			
						Pt: PEAT: with some fine to medium gravel. Greyish black. Low plasticity. Fibrous. (Swamp Deposits)	S			
				1		Test pit terminated at 1.00 m				
				2						
				3						
				4						
				5						

Dynamic Cone Penetrometer (Blows/100mm): 5 10 15 20

Termination Reason: Target depth reached.
Shear Vane No: DCP No:

Remarks: Groundwater encountered at 0.6m.

This report is based on the attached field description for soil and rock, CMW Geosciences - Field Logging Guide, Revision 5 - August 2024.

PHOTOGRAPH SHEET - TP25-07

Client: Colliers Project Leaders
Project: Southern Links - Industrial Block
Location: Wickham Street, Hamilton
Project ID: HAM2024-0120
Date:14/11/2025

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TEST PIT LOG - TP25-08

Client: Colliers Project Leaders
Project: Southern Links - Industrial Block
Site Location: Wickham Street, Hamilton
Project No.: HAM2024-0120
Date: 14/11/2025
Test Pit Location: Refer to Site Plan Logged by: DB Checked by: MM Scale: 1:25 Sheet 1 of 1

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Position: 443995.0mE; 696707.4mN Projection: Mt Eden 2000 Pit Dimensions: 3.0m by 1.0m
Elevation: m Datum: Survey Source: Hand-held GPS

Groundwater	Samples & Insitu Tests: Depth	Samples & Insitu Tests: Type & Results	RL (m)	Depth (m)	Graphic Log	Material Description	Moisture Condition	Consistency/ Relative Density	Dynamic Cone Penetrometer (Blows/100mm)	Structure & Other Observations
				0		ML: Clayey SILT: brown mottled orange brown. Low plasticity. Contains rubbish. (Uncontrolled Fill)			5 10 15 20	Discontinuities: Depth; Defect Number; Defect Type; Dip; Defect Shape; Roughness; Aperture; Infill; Seepage; Spacing; Block Size; Block Shape; Remarks
						GP: Sandy fine to coarse GRAVEL: dark grey. Well graded. Subangular. Sand, subangular. Contains some concrete rubble and rubbish, (Uncontrolled Fill)				
				1			M			
						... at 1.50m, containing wooden planks and posts,				
				2						
						Test pit terminated at 2.50 m				
				3						
				4						
				5						

Termination Reason: Test pit terminated due to potential ACM discovery.
Shear Vane No: DCP No:

Remarks: Groundwater not encountered.

This report is based on the attached field description for soil and rock, CMW Geosciences - Field Logging Guide, Revision 5 - August 2024.

PHOTOGRAPH SHEET - TP25-08

Client: Colliers Project Leaders
Project: Southern Links - Industrial Block
Location: Wickham Street, Hamilton
Project ID: HAM2024-0120
Date:14/11/2025

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TEST PIT LOG - TP25-09

Client: Colliers Project Leaders
Project: Southern Links - Industrial Block
Site Location: Wickham Street, Hamilton
Project No.: HAM2024-0120
Date: 14/11/2025
Test Pit Location: Refer to Site Plan Logged by: DB Checked by: MM Scale: 1:25 Sheet 1 of 1

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Position: 443944.4mE; 696610.8mN Projection: Mt Eden 2000 Pit Dimensions: 3.0m by 1.0m
Elevation: m Datum: Survey Source: Hand-held GPS

Groundwater	Samples & Insitu Tests: Depth	Samples & Insitu Tests: Type & Results	RL (m)	Depth (m)	Graphic Log	Material Description	Moisture Condition	Consistency/ Relative Density	Dynamic Cone Penetrometer (Blows/100mm)	Structure & Other Observations
				0		OL: Organic SILT: brown. Low plasticity. (Topsoil)			5 10 15 20	Discontinuities: Depth; Defect Number; Defect Type; Dip; Defect Shape; Roughness; Aperture; Infill; Seepage; Spacing; Block Size; Block Shape; Remarks
						SW: Fine to coarse SAND: with some silt and fine gravel. Brown. Well graded, subrounded. Gravel; subrounded. (Uncontrolled Fill)				
						GW: Sandy fine to coarse GRAVEL: dark grey. Well graded, subangular. Sand; subangular. (Uncontrolled Fill)				
				1		*... from 1.00m to 3.20m, containing rubbish and concrete rubble.*				
	1.5	Peak = UTP				ML: SILT: bluish grey and black. Low plasticity. Containing some wood posts. (Uncontrolled Fill)	M			
				2						
				3		*... at 3.00m, becoming brown.*				
						Test pit terminated at 3.20 m				
				4						
				5						

Termination Reason: Refusal due to rubbish.
Shear Vane No: 3434 DCP No:

Remarks: Groundwater not encountered.

This report is based on the attached field description for soil and rock, CMW Geosciences - Field Logging Guide, Revision 5 - August 2024.

PHOTOGRAPH SHEET - TP25-09

Client: Colliers Project Leaders
Project: Southern Links - Industrial Block
Location: Wickham Street, Hamilton
Project ID: HAM2024-0120
Date:14/11/2025

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TEST PIT LOG - TP25-10

Client: Colliers Project Leaders
Project: Southern Links - Industrial Block
Site Location: Wickham Street, Hamilton
Project No.: HAM2024-0120
Date: 14/11/2025

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Test Pit Location: Refer to Site Plan | Logged by: DB | Checked by: MM | Scale: 1:25 | Sheet 1 of 1

Position: 444056.4mE; 696529.2mN | Projection: Mt Eden 2000 | Pit Dimensions: 3.0m by 1.0m
Elevation: m | Datum: | Survey Source: Hand-held GPS

Groundwater	Samples & Insitu Tests: Depth	Samples & Insitu Tests: Type & Results	RL (m)	Depth (m)	Graphic Log	Material Description	Moisture Condition	Consistency/ Relative Density	Dynamic Cone Penetrometer (Blows/100mm)	Structure & Other Observations
				1		OL: Organic SILT: brown. Low plasticity. Containing cobbles and concrete rubble. (Uncontrolled Fill)	M			
	1.5	Peak = 41kPa Residual = 14kPa				ML: SILT : with trace fine to coarse sand, Greyish black. Low plasticity. Moderately sensitive. (Uncontrolled Fill)				
						... at 1.80m, becoming fine to medium sandy Silt.				
	2.0	Peak = 45kPa Residual = 27kPa		2			M to W	F to St		
	2.5	Peak = 68kPa Residual = 34kPa				ML: Gravelly sandy SILT: greyish black. Low plasticity. Sand; fine to coarse, subangular. Gravel; fine to coarse, angular. (Uncontrolled Fill)				
	3.0	Peak = UTP		3		ML: Fine to medium sandy SILT: with trace fine to medium gravel. Brown. Low plasticity. (Uncontrolled Fill)	M	H		
						Test pit terminated at 3.10 m				
				4						
				5						

Termination Reason: Refusal due to rubbish.
Shear Vane No: 3434 DCP No:

Remarks: Groundwater not encountered.

This report is based on the attached field description for soil and rock, CMW Geosciences - Field Logging Guide, Revision 5 - August 2024.

PHOTOGRAPH SHEET - TP25-10

Client: Colliers Project Leaders
Project: Southern Links - Industrial Block
Location: Wickham Street, Hamilton
Project ID: HAM2024-0120
Date:14/11/2025

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BOREHOLE LOG - P1

Client: Colliers Project Leaders
Project: Southern Links - Industrial Block
Site Location: Wickham Street, Hamilton
Project No.: HAM2024-0120
Date: 19/12/2025
Borehole Location: Refer to Site Plan Logged by: PM Checked by: MM Scale: 1:40 Sheet 1 of 1
Position: 443410.0mE; 696673.8mN Projection: Mount Eden 2000
Datum: Survey Source: Hand Held GPS

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Depth (m)	Material Description	Moisture Condition	Consistency/ Relative Density	Recovery	RQD	Drilling Method/ Support
0	OL: Organic SILT: dark brown. No plasticity. (Topsoil)					
	SW: Gravelly fine to coarse SAND: with some silt; brown mottled grey. Well graded, angular. (Uncontrolled Fill)		TP	67		
1	Pt: PEAT: dark brown. Low plasticity, fibrous. Wood fragments. (Piako Subgroup)					
	... at 0.90m, Piece of cloth.					
2		M		100		
			F			
3				53		WS
4	*... from 3.90m to 4.20m, Brown fine to medium SAND lens*					
		W				
	SW: Fine to coarse SAND: grey. Well graded, sub rounded. (Piako Subgroup)		LP			
5	Pt: PEAT: dark brown. Low plasticity, fibrous. Poor recovery. (Piako Subgroup)	S	S	53		
6	Borehole terminated at 6.00 m					
7						
8						

Termination Reason: Target Depth Reached
Shear Vane No: DCP No:

Remarks: Piezometer installed with a screen depth between 3.7m and 5.2m.

This report is based on the attached field description for soil and rock, CMW Geosciences - Field Logging Guide, Revision 5 - August 2024.

BOREHOLE LOG - P2

Client: Colliers Project Leaders
Project: Southern Links - Industrial Block
Site Location: Wickham Street, Hamilton
Project No.: HAM2024-0120
Date: 18/12/2025
Borehole Location: Refer to Site Plan Logged by: OP Checked by: MM Scale: 1:40 Sheet 1 of 1
Position: 443295.9mE; 696365.5mN Projection: Mount Eden 2000
Datum: Survey Source: Hand Held GPS

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Well	Groundwater	Samples & Insitu Tests: Depth	Samples & Insitu Tests: Type & Results	RL (m)	Depth (m)	Graphic Log	Material Description	Moisture Condition	Consistency/ Relative Density	Weathering: RS CW HW MW SW UW	Recovery	RQD	Estimated Strength: EW VW W MS S VS ES	Defect Spacing (mm): <20 20-60 60-200 200-600 600-2000 >2000	Drilling Method/ Support	Structure & Other Observations
					0		OL: Organic SILT: black. Low plasticity (Topsoil)									
							Pt: Amorphous PEAT: with trace wood fragments; black. Low plasticity. No recovery. (Peat)									
					1											
					2											
					3			M	S		0				WS	
					4											
					5											
					6		ML: Clayey SILT: light grey; Low plasticity. (Piako Subgroup)									
							... from 6.40m to 6.55m, becomin dark greyish brown.		F		87					
							... from 6.75m to 6.80m, fine to coarse sand.									
					7		SW: Fine to medium SAND: with some silt; brownish grey. Well graded. (Piako Subgroup)		TP							
							... at 7.00m, sand, fine.		F							
							ML: Clayey SILT: brownish grey. Low plasticity. (Piako Subgroup)		TP							
							SW: Fine to coarse SAND: with minor fine subrounded gravel; greyish brown. Well graded. (Piako Subgroup)									
					8		Borehole terminated at 7.50 m									

Termination Reason: Target Depth Reached
Shear Vane No: DCP No:

Remarks: Piezometer installed with a screen depth between 4.5m and 6.0m.

This report is based on the attached field description for soil and rock, CMW Geosciences - Field Logging Guide, Revision 5 - August 2024.

BOREHOLE LOG - P3

Client: Colliers Project Leaders
Project: Southern Links - Industrial Block
Site Location: Wickham Street, Hamilton
Project No.: HAM2024-0120
Date: 19/12/2025
Borehole Location: Refer to Site Plan Logged by: PM Checked by: MM Scale: 1:40 Sheet 1 of 1
Position: 443973.3mE; 696066.3mN Projection: Mount Eden 2000
Datum: Survey Source: Hand Held GPS

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Well	Groundwater	Samples & Insitu Tests: Depth	Samples & Insitu Tests: Type & Results	RL (m)	Depth (m)	Graphic Log	Material Description	Moisture Condition	Consistency/ Relative Density	Weathering: RS CW HW MW SW UW	Recovery	RQD	Estimated Strength: EW VW W MS S VS ES	Defect Spacing (mm): <20 20-60 60-200 200-600 600-2000 >2000	Drilling Method/ Support	Structure & Other Observations
					1		OL: Organic SILT. : Dark brown. No plasticity. (Topsoil)		S		17				WS	
							Pt: PEAT: black. Low plasticity. No recovery. (Peat)									
					2		SM: Silty fine to medium SAND: grey. Well graded, sub rounded. Very poor retrieval. (Piako Subgroup)		LP							
					3			W								
					4		ML: SILT: with some organics; dark greyish brown streaked black. Low plasticity. Organics: amorphous. (Piako Subgroup)		F		100					
							SW: Fine to coarse SAND: greyish brown. Well graded, sub rounded. (Hinuera Formation)									
					5		... at 4.50m, Becoming grey		TP							
							ML: SILT: grey. Low plasticity. Dilatant. (Hinuera Formation)				100					
					6		... from 5.70m to 5.80m, Becoming brown		F							
							Borehole terminated at 6.00 m									
					7											
					8											

Termination Reason: Target Depth Reached
Shear Vane No: DCP No:

Remarks: Piezometer installed with a screen depth between 4.3m and 5.8m.

BOREHOLE LOG - P4

Client: Colliers Project Leaders
Project: Southern Links - Industrial Block
Site Location: Wickham Street, Hamilton
Project No.: HAM2024-0120
Date: 18/12/2025
Borehole Location: Refer to Site Plan Logged by: OP Checked by: MM Scale: 1:40 Sheet 1 of 1
Position: 444078.5mE; 696359.5mN Projection: Mount Eden 2000
Datum: Survey Source: Handheld GPS

CMW Geosciences
Great People | Practical Solutions

Well	Groundwater	Samples & Insitu Tests: Depth	Samples & Insitu Tests: Type & Results	RL (m)	Depth (m)	Graphic Log	Material Description	Moisture Condition	Consistency/ Relative Density	Weathering: RS CW HW MW SW UW	Recovery	RQD	Estimated Strength: EW VW W MS S VS ES	Defect Spacing (mm): <20 20-60 60-200 200-600 600-2000 >2000	Drilling Method/ Support	Structure & Other Observations
					0		OL: Organic SILT: dark greyish brown. No plasticity. (Topsoil)	D									
							Pt: Amorphous PEAT: with trace wood fibres; black. Low plasticity. (Peat)				40					
					1			M to W									
	18-12-2025				2		CL: Silty CLAY: dark yellowish brown. Low plasticity. (Hinuera Formation)				77					
							ML: Sandy SILT: light brownish grey. Low plasticity. Sand, fine. (Hinuera Formation)									
					3		SM: Silty Fine SAND: brownish grey. Uniformly graded. (Hinuera Formation)								SNC	
							ML: Clayey SILT: brownish grey. Low plasticity. (Hinuera Formation)				90					
					4		*... at 3.75m, with some organic silt.*									
							SW: Fine to coarse SAND: with minor fine subrounded gravel; grey. Well graded. (Hinuera Formation)	S								
					5						100					
							ML: Clayey SILT: brownish grey. Low plasticity. (Hinuera Formation)									
					6		*... from 6.11m to 6.15m, with some organic silt.*									
							Borehole terminated at 6.00 m									
					7											
					8											

Termination Reason: Target Depth Reached.
Shear Vane No: DCP No:

Remarks: Piezometer installed with a screen depth between 3.8m 5.3m.

This report is based on the attached field description for soil and rock, CMW Geosciences - Field Logging Guide, Revision 5 - August 2024.

HAND AUGER BOREHOLE LOG - SO26-01

Client: Colliers Project Leaders
Project: Southern Links - Industrial Block
Site Location: Wickham Street, Hamilton
Project No.: HAM2024-0120
Date: 06/03/2026
Borehole Location: Refer to Site Plan Logged by: PT Checked by: MM Scale: 1:25 Sheet 1 of 1

CMW Geosciences
Great People | Practical Solutions

Position: 443393.7mE; 696320.5mN Projection: Mount Eden 2000
Elevation: m Datum: NZVD 2016 Survey Source: Hand-held GPS

Groundwater	Samples & Insitu Tests: Depth	Samples & Insitu Tests: Type & Results	RL (m)	Depth (m)	Graphic Log	Material Description (Soil: Soil symbol; soil type; colour; structure; bedding; plasticity; sensitivity; additional comments. (origin/geological unit) Rock: Colour; fabric; rock name; additional comments. (origin/geological unit))	Moisture Condition	Consistency/ Relative Density	Dynamic Cone Penetrometer (Blows/100mm)
				0		OL: Organic SILT: Dark brown Low plasticity. (Topsoil)	M		
						Pt: PEAT: Black. Low plasticity. Spongy. Contains rootlets (Peat)	W		
				1		Borehole terminated at 1.0 m			
				2					
				3					
				4					
				5					

Dynamic Cone Penetrometer (Blows/100mm): 5, 10, 15

Termination Reason: Target depth reached
Shear Vane No: DCP No:
Remarks: Ground water not encoutered

This report is based on the attached field description for soil and rock, CMW Geosciences - Field Logging Guide, Revision 5 - August 2024.

HAND AUGER BOREHOLE LOG - SO26-02

Client: Colliers Project Leaders
Project: Southern Links - Industrial Block
Site Location: Wickham Street, Hamilton
Project No.: HAM2024-0120
Date: 06/03/2026
Borehole Location: Refer to Site Plan Logged by: PT Checked by: MM Scale: 1:25 Sheet 1 of 1

CMW Geosciences
Great People | Practical Solutions

Position: 443653.2mE; 696471.3mN Projection: Mount Eden 2000
Elevation: m Datum: NZVD 2016 Survey Source: Hand-held GPS

Groundwater	Samples & Insitu Tests: Depth	Samples & Insitu Tests: Type & Results	RL (m)	Depth (m)	Graphic Log	Material Description (Soil: Soil symbol; soil type; colour; structure; bedding; plasticity; sensitivity; additional comments. (origin/geological unit) Rock: Colour; fabric; rock name; additional comments. (origin/geological unit))	Moisture Condition	Consistency/ Relative Density	Dynamic Cone Penetrometer (Blows/100mm)
				0		OL: Organic SILT: Dark brown. Low plasticity. (Topsoil)	D to M		
						Pt: PEAT: Black. Low plasticity. (Peat)	M		
				1		Borehole terminated at 1.0 m			
				2					
				3					
				4					
				5					

Dynamic Cone Penetrometer (Blows/100mm): 5, 10, 15

Termination Reason: Target depth reached.
Shear Vane No: DCP No:
Remarks: Ground water not encountered

This report is based on the attached field description for soil and rock, CMW Geosciences - Field Logging Guide, Revision 5 - August 2024.

HAND AUGER BOREHOLE LOG - SO26-03

Client: Colliers Project Leaders
Project: Southern Links - Industrial Block
Site Location: Wickham Street, Hamilton
Project No.: HAM2024-0120
Date: 06/03/2026
Borehole Location: Refer to Site Plan Logged by: PT Checked by: MM Scale: 1:25 Sheet 1 of 1

CMW Geosciences
Great People | Practical Solutions

Position: 443388.3mE; 696322.9mN Projection: Mount Eden 2000
Elevation: m Datum: NZVD 2016 Survey Source: Hand-held GPS

Groundwater	Samples & Insitu Tests: Depth	Samples & Insitu Tests: Type & Results	RL (m)	Depth (m)	Graphic Log	Material Description Soil: Soil symbol; soil type; colour; structure; bedding; plasticity; sensitivity; additional comments. (origin/geological unit) Rock: Colour; fabric; rock name; additional comments. (origin/geological unit)	Moisture Condition	Consistency/ Relative Density	Dynamic Cone Penetrometer (Blows/100mm) 5 10 15
				0		OL: Organic SILT: Dark brown. Low plasticity. (Topsoil)			
						Pt: PEAT: Black. Low plasticity. (Peat)	M		
				1					
						ML: Sandy SILT: with minor fine sand. Light brown Low plasticity. (Hinuera Formation)	M to W		
				2		Borehole terminated at 2.0 m			
				3					
				4					
				5					

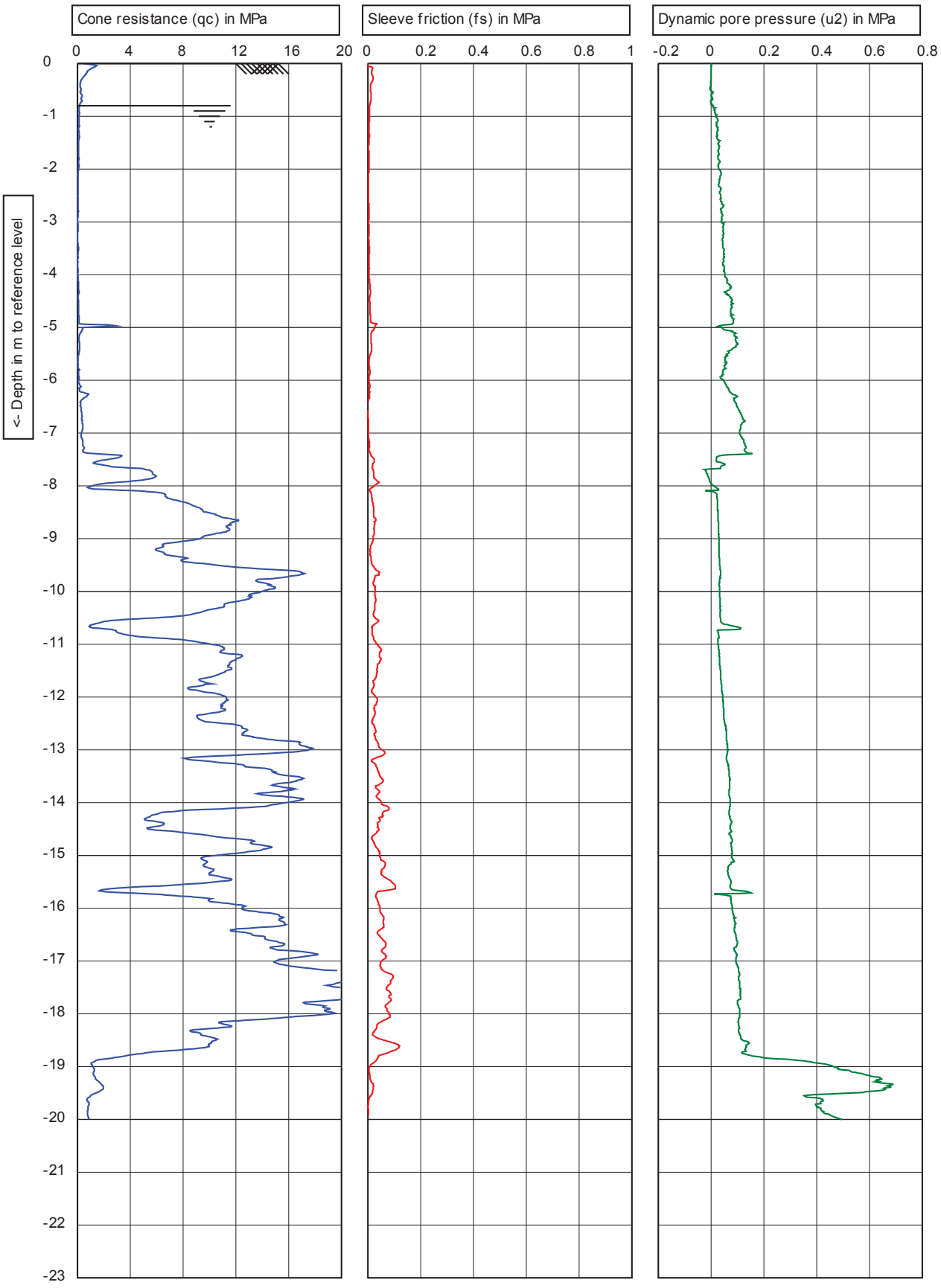
Termination Reason: Target depth reached
Shear Vane No: DCP No:
Remarks: Ground water not encountered

This report is based on the attached field description for soil and rock, CMW Geosciences - Field Logging Guide, Revision 5 - August 2024.

APPENDIX E

Historic Investigation Logs

NZGD ID: 108364



OPUS
HAMILTON LABORATORIES

CPTask V1.20

r u2
150 cm²
10 cm²

Test according to A.S.T.M. Standard D-5778-95

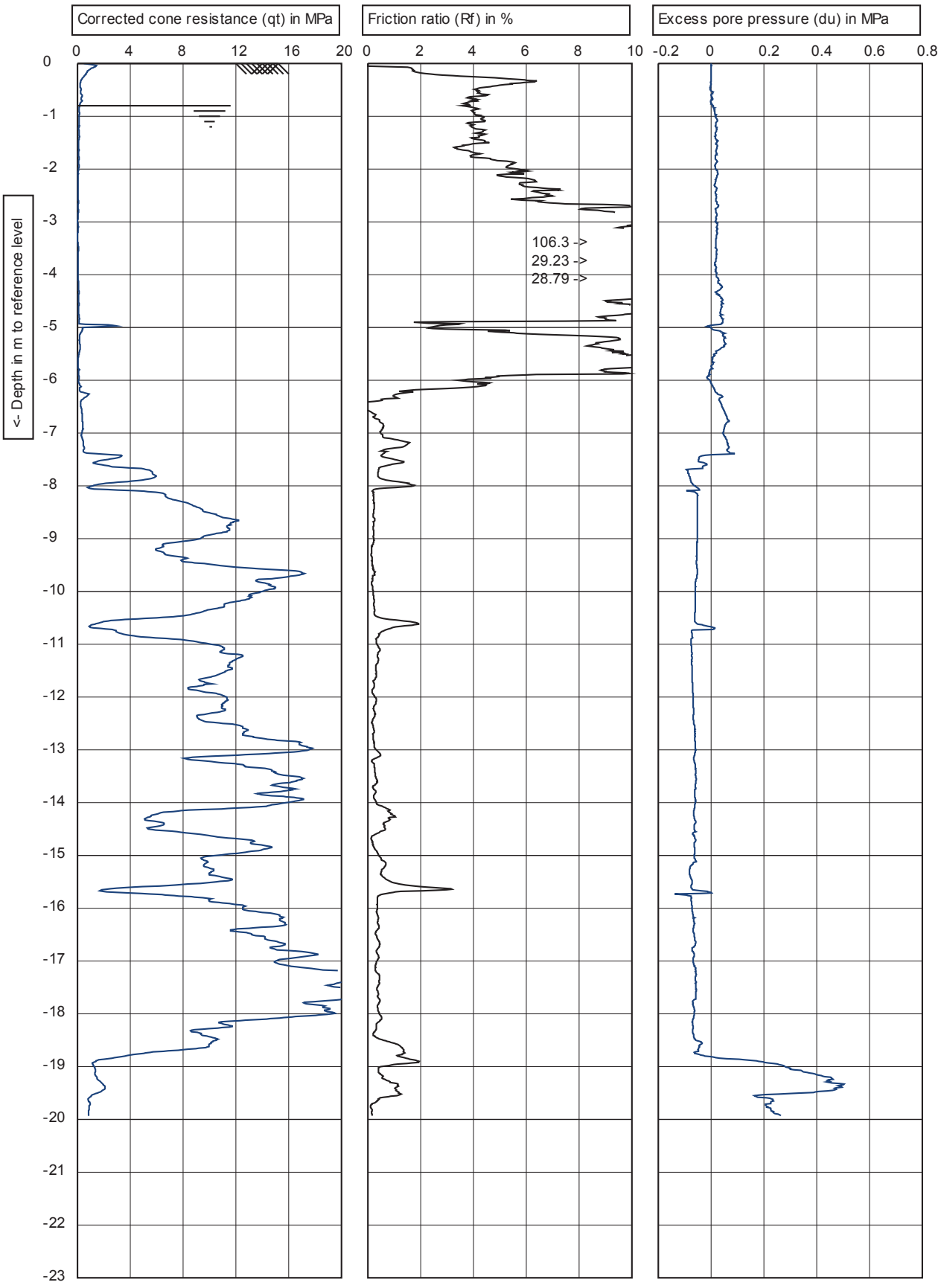
G.L. **0** W.L.: **-0.8**

Project: **Hamilton Southern Links**
Location: **GPS: E2708866 N6374132**
Position:

Predrill :	**0**
Date:	**15/02/2011**
Cone no.:	**C10CFIIP.E09**
Project no.:	**2-31653.00**
CPT no.:	**CPT02** 1/6

NZGD ID: 108364

NZGD ID: 108364



OPUS
HAMILTON LABORATORIES

CPTask V1.20

r u2
150 cm²
10 cm²

Test according to A.S.T.M. Standard D-5778-95

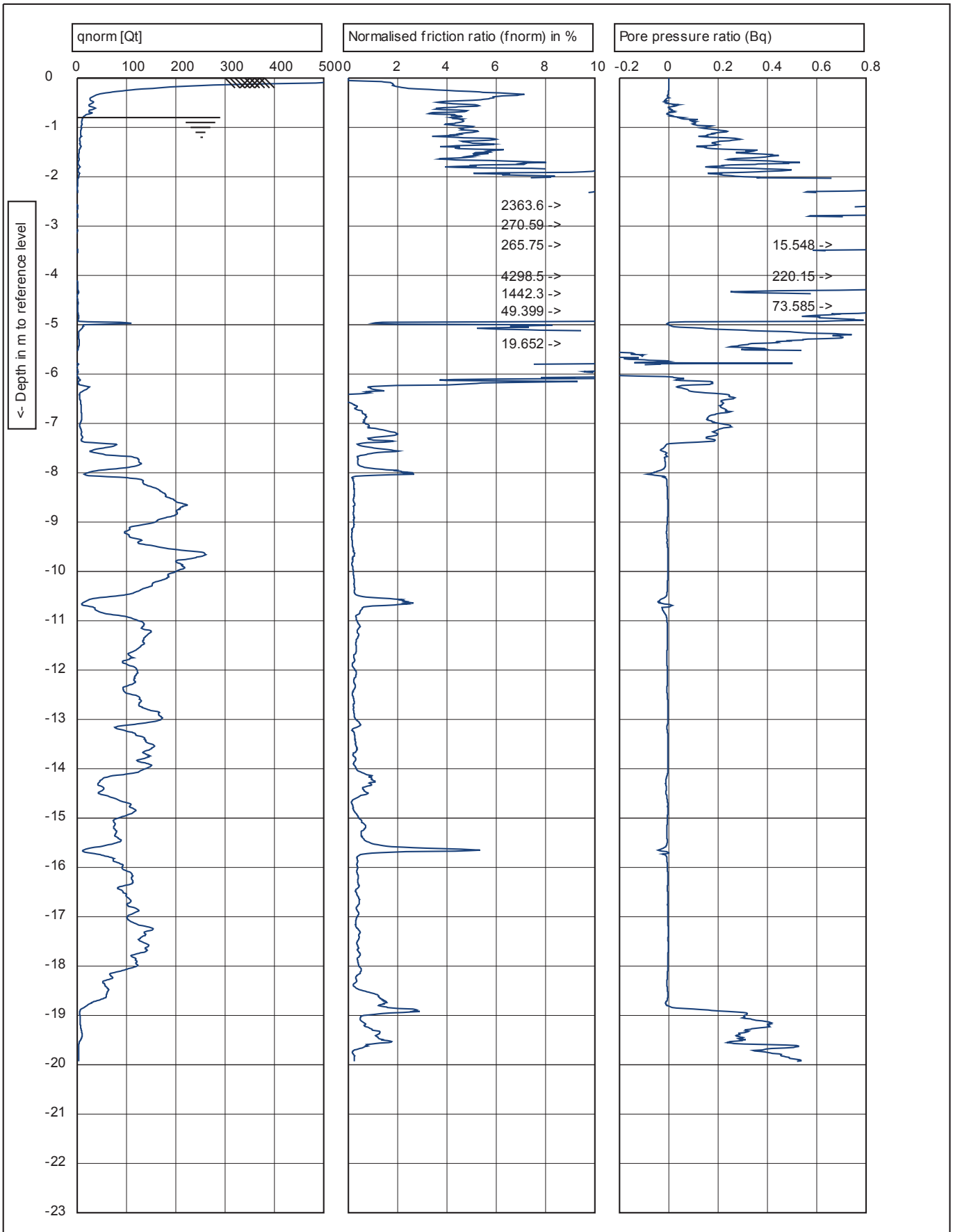
G.L. **0** W.L.: **-0.8**

Project: **Hamilton Southern Links**
Location: **GPS: E2708866 N6374132**
Position:

Predrill :	**0**
Date:	**15/02/2011**
Cone no.:	**C10CFIIP.E09**
Project no.:	**2-31653.00**
CPT no.:	**CPT02** 2/6

NZGD ID: 108364

NZGD ID: 108364



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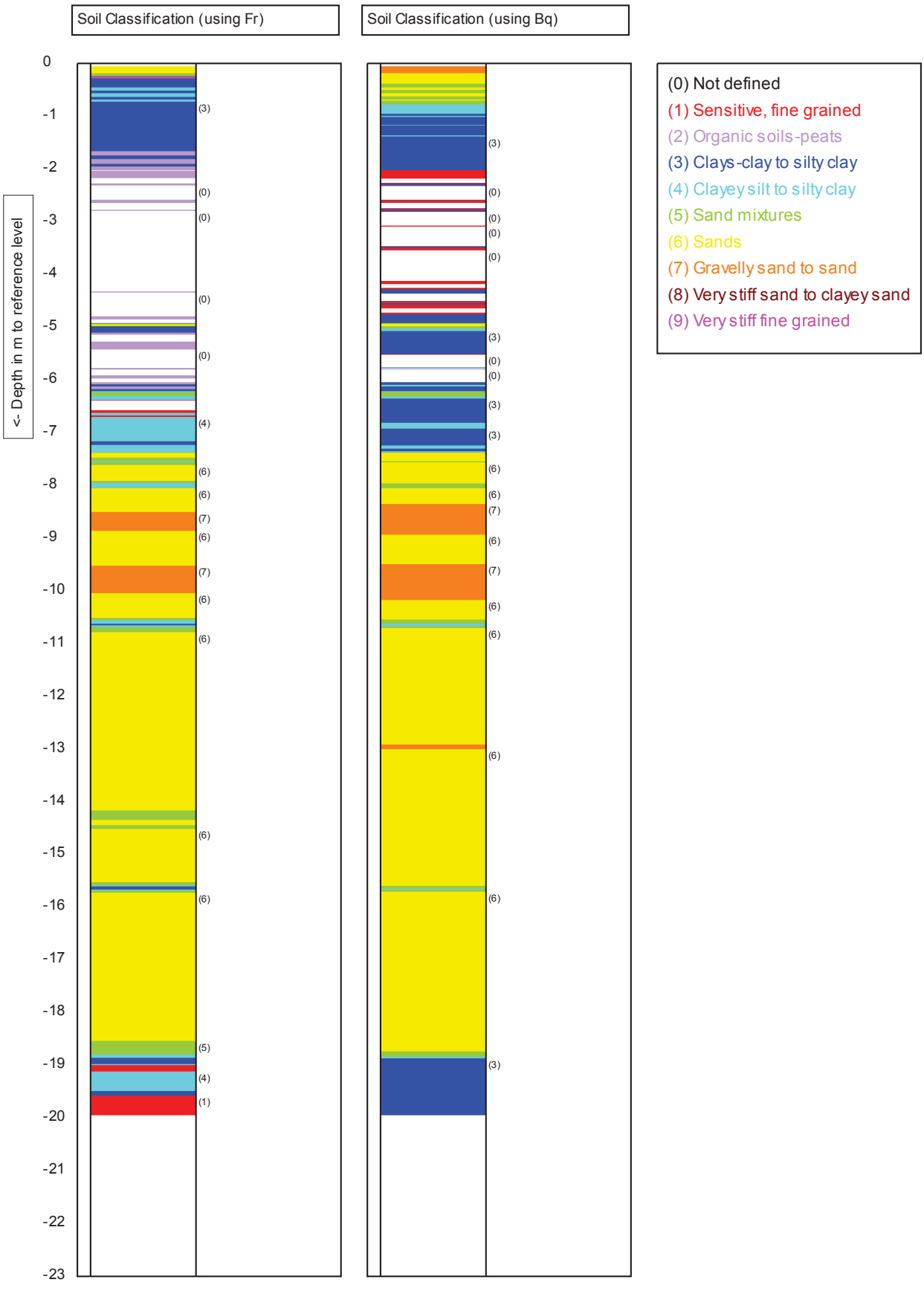
NZGD ID: 108364



CPTask V1.20

OPUS HAMILTON LABORATORIES

r u2
150 cm²
10 cm²

Test according to A.S.T.M. Standard D-5778-95

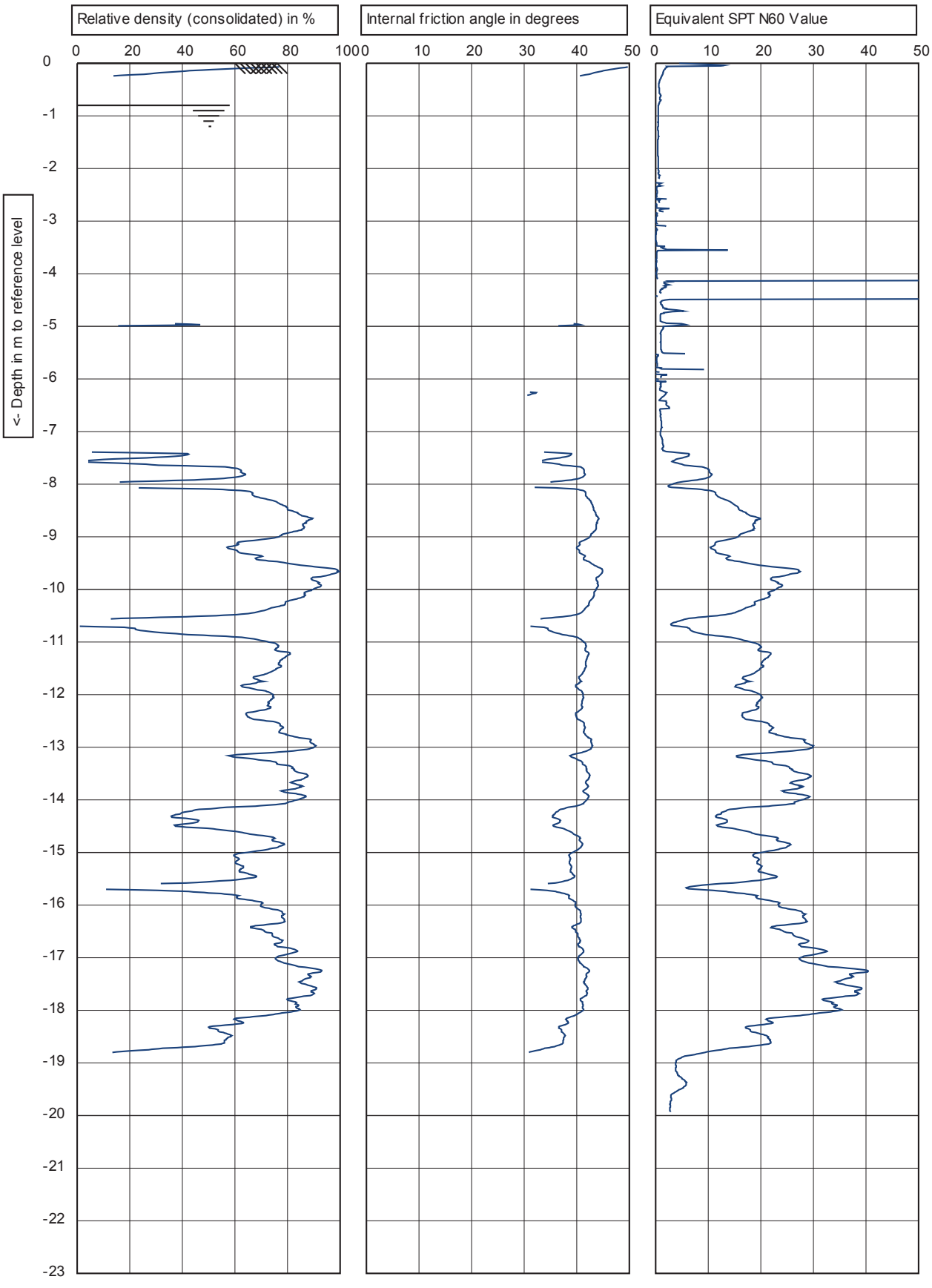
G.L. **0** W.L.: **-0.8**

Project: **Hamilton Southern Links**
Location: **GPS: E2708866 N6374132**
Position:

Predrill :	**0**
Date:	**15/02/2011**
Cone no.:	**C10CFIIP.E09**
Project no.:	**2-31653.00**
CPT no.:	**CPT02** 4/6

NZGD ID: 108364

NZGD ID: 108364



OPUS
HAMILTON LABORATORIES

r u2
150 cm²
10 cm²

Test according to A.S.T.M. Standard D-5778-95

G.L. **0** W.L.: **-0.8**

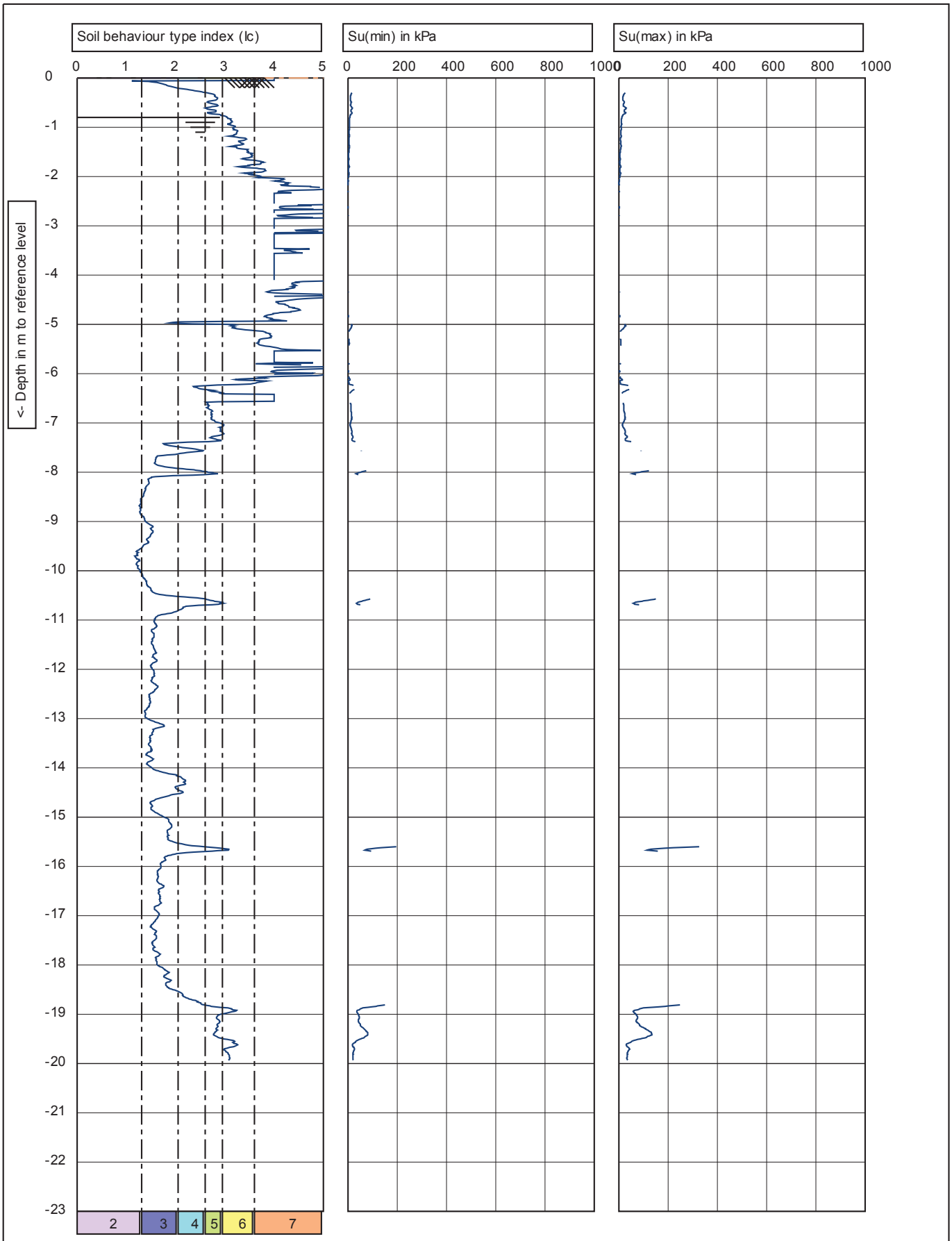
Project: **Hamilton Southern Links**
Location: **GPS: E2708866 N6374132**
Position:

Predrill :	**0**
Date:	**15/02/2011**
Cone no.:	**C10CFIIP.E09**
Project no.:	**2-31653.00**
CPT no.:	**CPT02** 5/6

CPTask V1.20

NZGD ID: 108364

NZGD ID: 108364



OPUS
HAMILTON LABORATORIES

CPTask V1.20

r u2
150 cm²
10 cm²

Test according to A.S.T.M. Standard D-5778-95

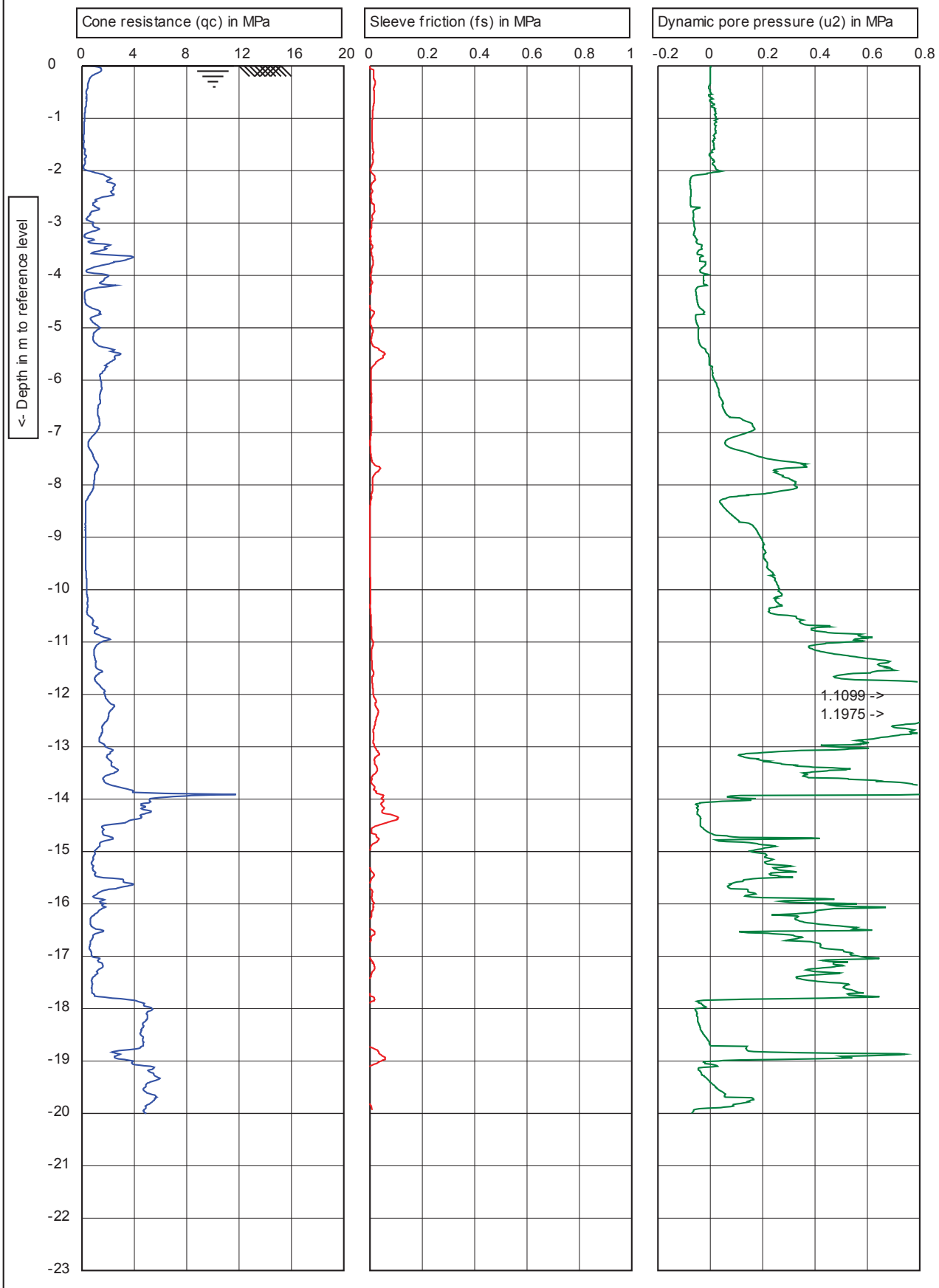
G.L. **0** W.L.: **-0.8**

Project: **Hamilton Southern Links**
Location: **GPS: E2708866 N6374132**
Position:

Predrill :	**0**
Date:	**15/02/2011**
Cone no.:	**C10CFIIP.E09**
Project no.:	**2-31653.00**
CPT no.:	**CPT02** 6/6

NZGD ID: 108364

NZGD ID: 108377



OPUS
HAMILTON LABORATORIES

Test according to A.S.T.M. Standard D-5778-95

G.L. **0** W.L.: **0**

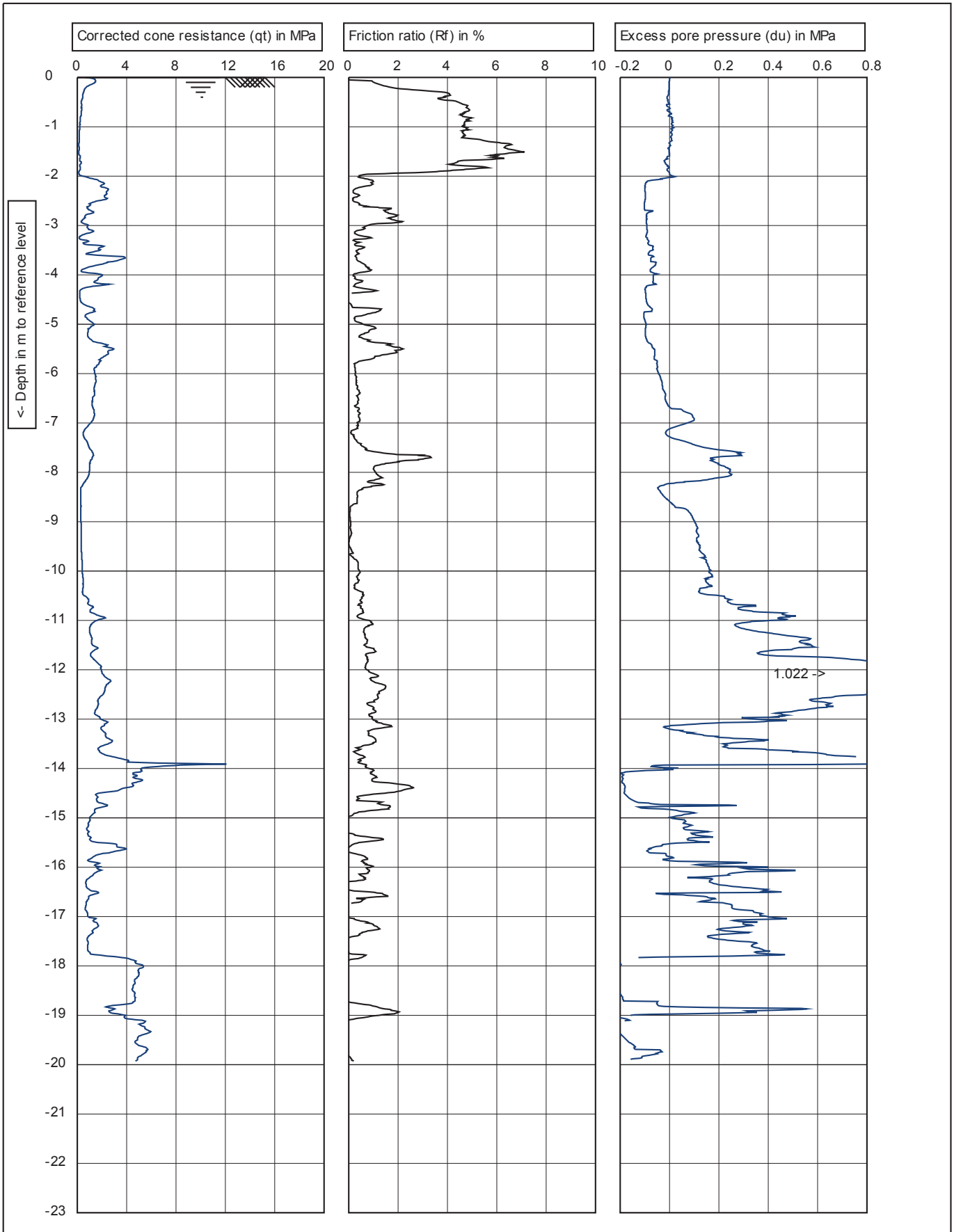
Project: **Hamilton Southern Links**
Location: **GPS: E2708866 N6374132**
Position:

Predrill :	**0**
Date:	**15/02/2011**
Cone no.:	**C10CFIIP.E09**
Project no.:	**2-31653.00**
CPT no.:	**CPT017** 1/6

CPTask V1.20

NZGD ID: 108377

NZGD ID: 108377



OPUS
HAMILTON LABORATORIES

r u2
150 cm²
10 cm²

Test according to A.S.T.M. Standard D-5778-95

G.L. **0** W.L.: **0**

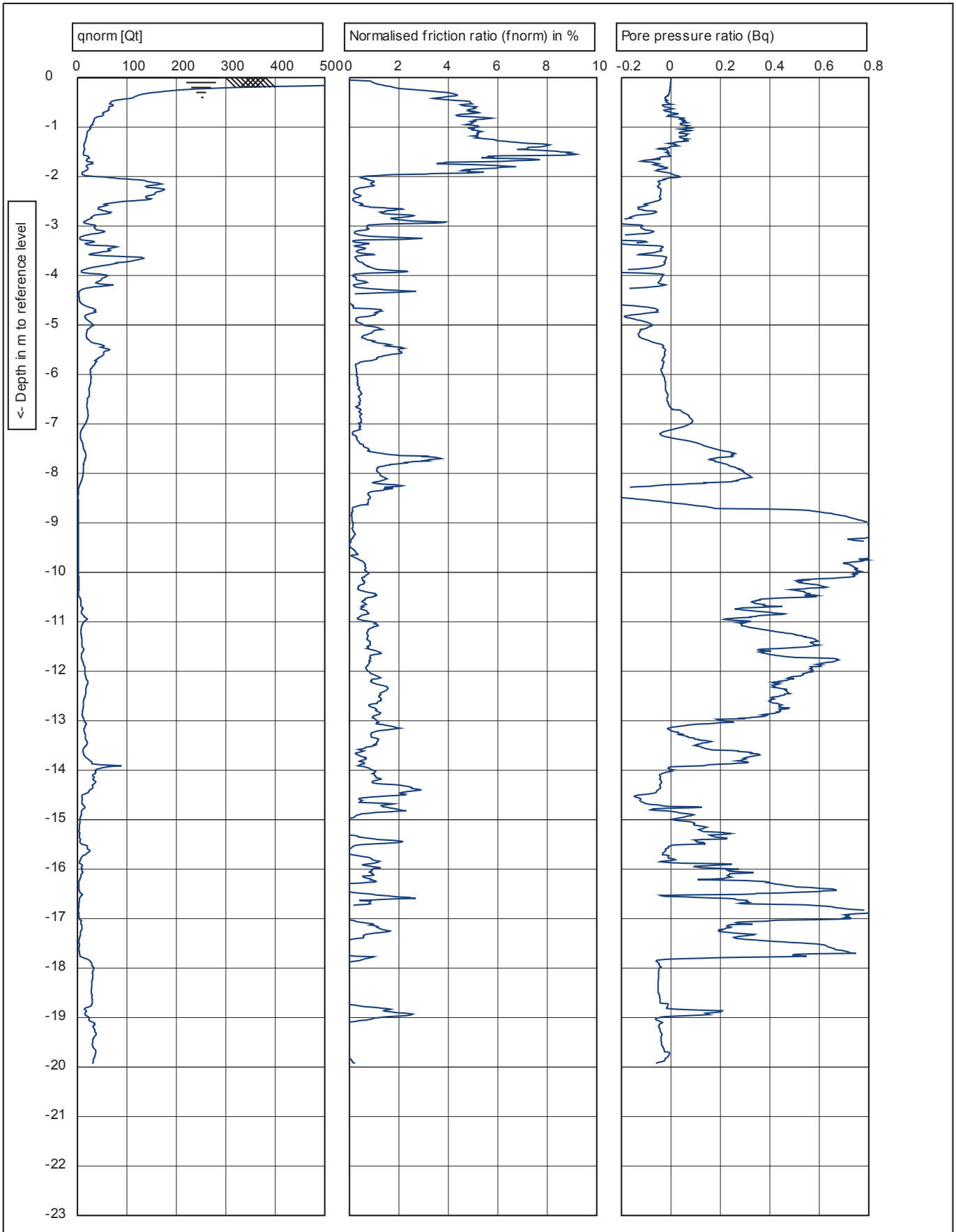
Project: **Hamilton Southern Links**
Location: **GPS: E2708866 N6374132**
Position:

Predrill :	**0**
Date:	**15/02/2011**
Cone no.:	**C10CFIIP.E09**
Project no.:	**2-31653.00**
CPT no.:	**CPT017** 2/6

CPTask V1.20

NZGD ID: 108377

NZGD ID: 108377



OPUS
HAMILTON LABORATORIES

CPTask V1.20

r u2
150 cm²
10 cm²

Test according to A.S.T.M. Standard D-5778-95

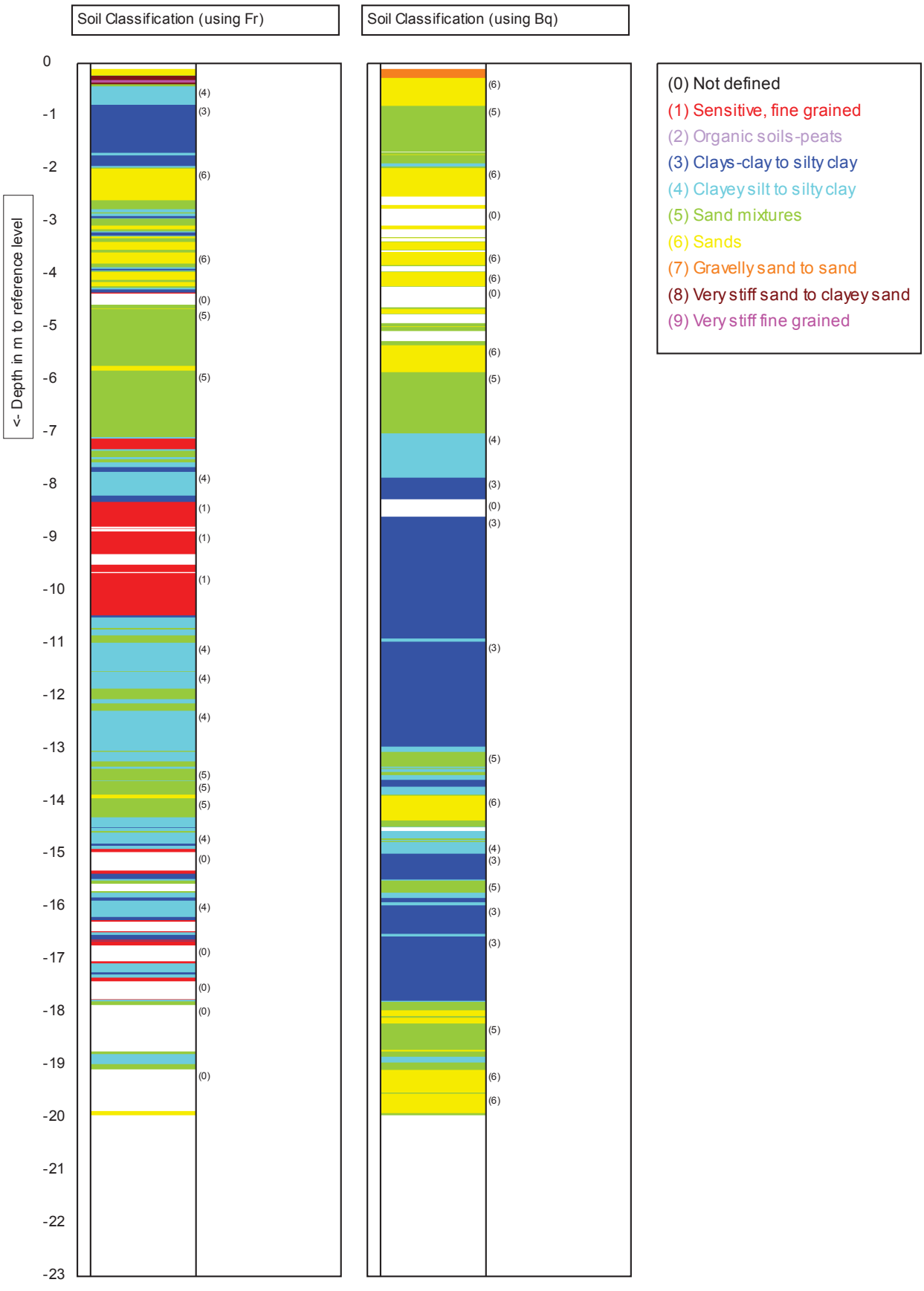
G.L. **0** W.L.: **0**

Project: **Hamilton Southern Links**
Location: **GPS: E2708866 N6374132**
Position:

Predrill :	**0**
Date:	**15/02/2011**
Cone no.:	**C10CFIIP.E09**
Project no.:	**2-31653.00**
CPT no.:	**CPT017** 3/6

NZGD ID: 108377

NZGD ID: 108377



OPUS
HAMILTON LABORATORIES

CPTask V1.20

r u2
150 cm²
10 cm²

Test according to A.S.T.M. Standard D-5778-95

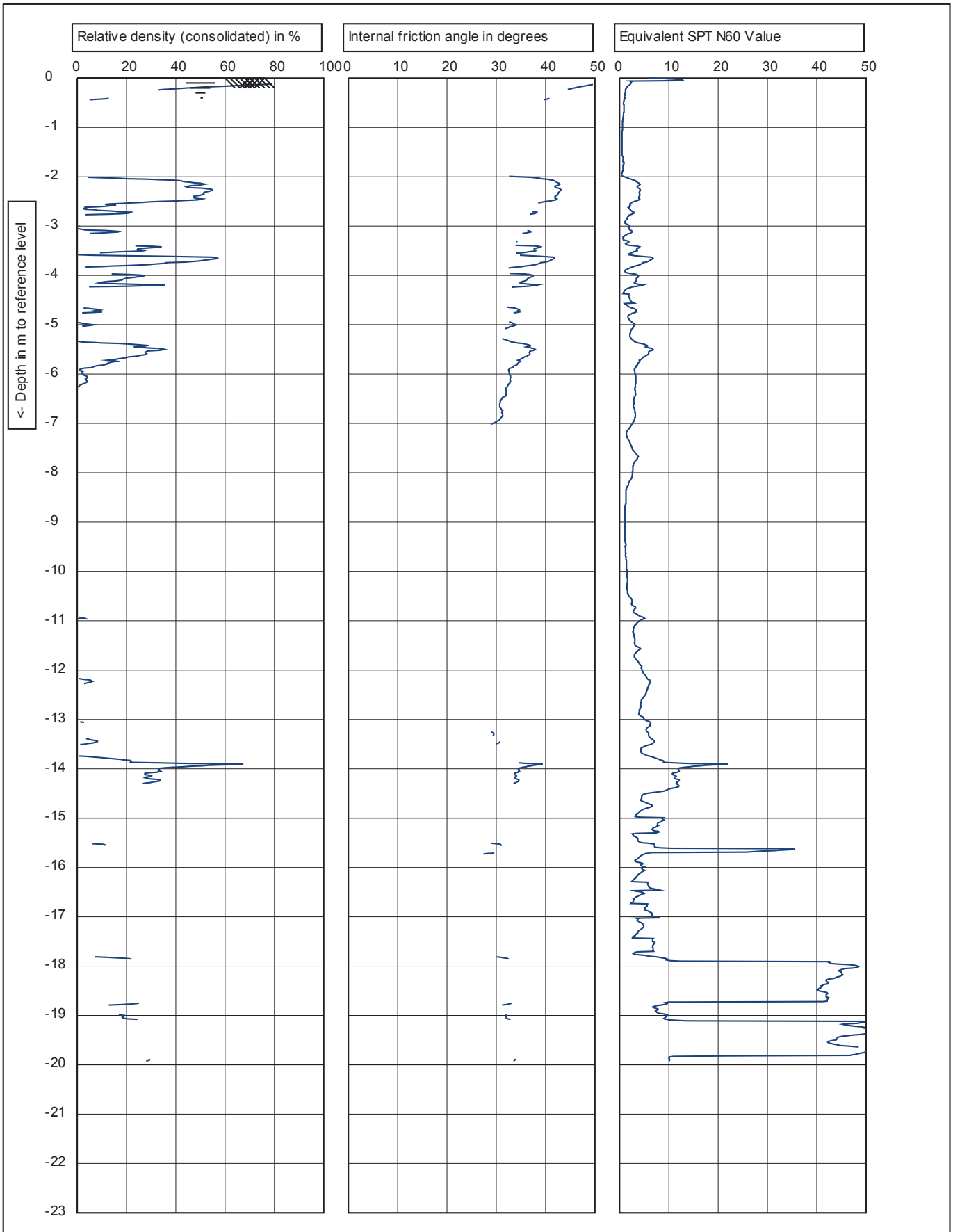
G.L. **0** W.L.: **0**

Project: **Hamilton Southern Links**
Location: **GPS: E2708866 N6374132**
Position:

Predrill :	**0**
Date:	**15/02/2011**
Cone no.:	**C10CFIIP.E09**
Project no.:	**2-31653.00**
CPT no.:	**CPT017** 4/6

NZGD ID: 108377

NZGD ID: 108377



OPUS
HAMILTON LABORATORIES

r u2
L 150 cm²
10 cm²

Test according to A.S.T.M. Standard D-5778-95

G.L. **0** W.L.: **0**

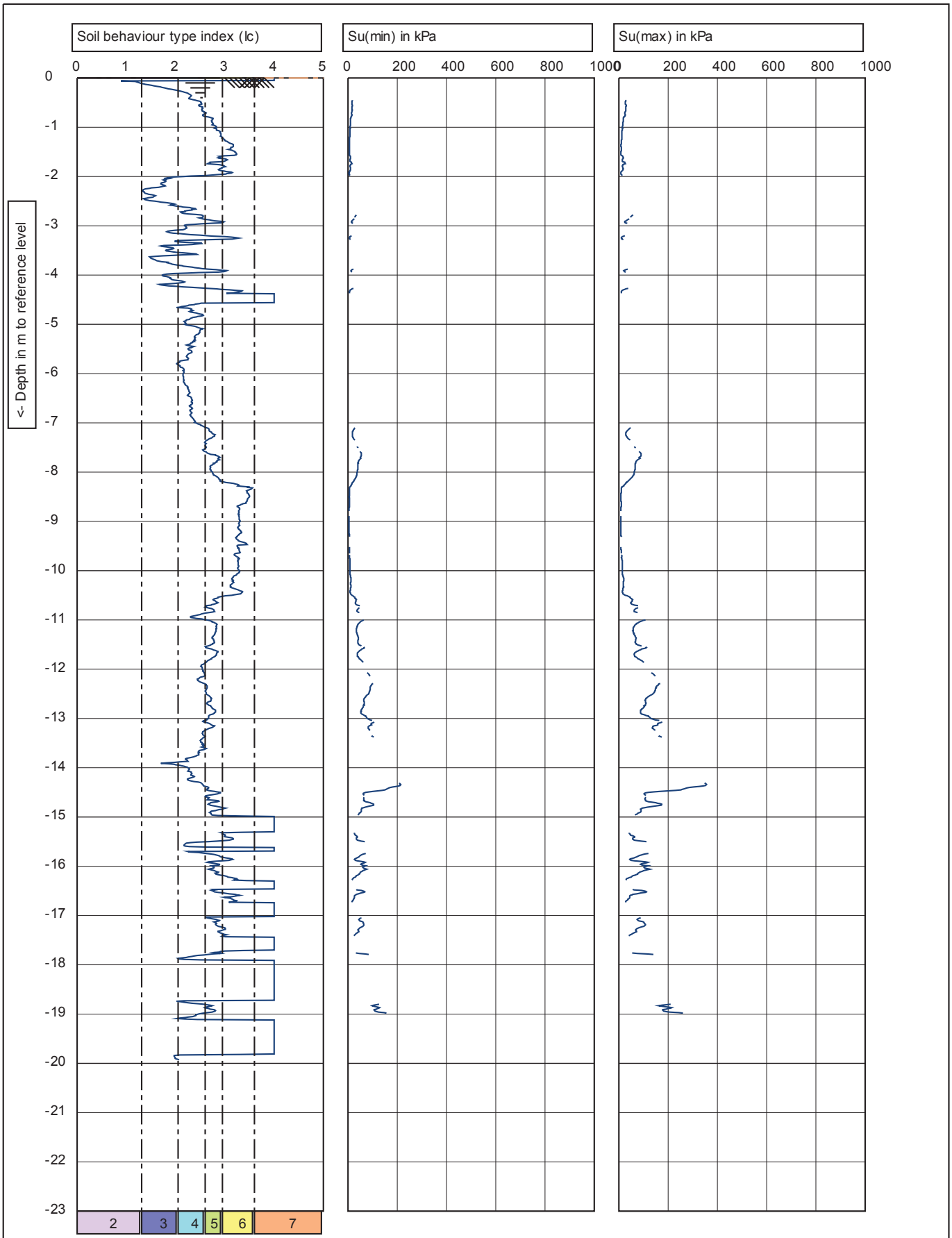
Project: **Hamilton Southern Links**
Location: **GPS: E2708866 N6374132**
Position:

Predrill :	**0**
Date:	**15/02/2011**
Cone no.:	**C10CFIIP.E09**
Project no.:	**2-31653.00**
CPT no.:	**CPT017** 5/6

CPTask V1.20

NZGD ID: 108377

NZGD ID: 108377



OPUS
HAMILTON LABORATORIES

CPTask V1.20

r u2
150 cm²
10 cm²

Test according to A.S.T.M. Standard D-5778-95

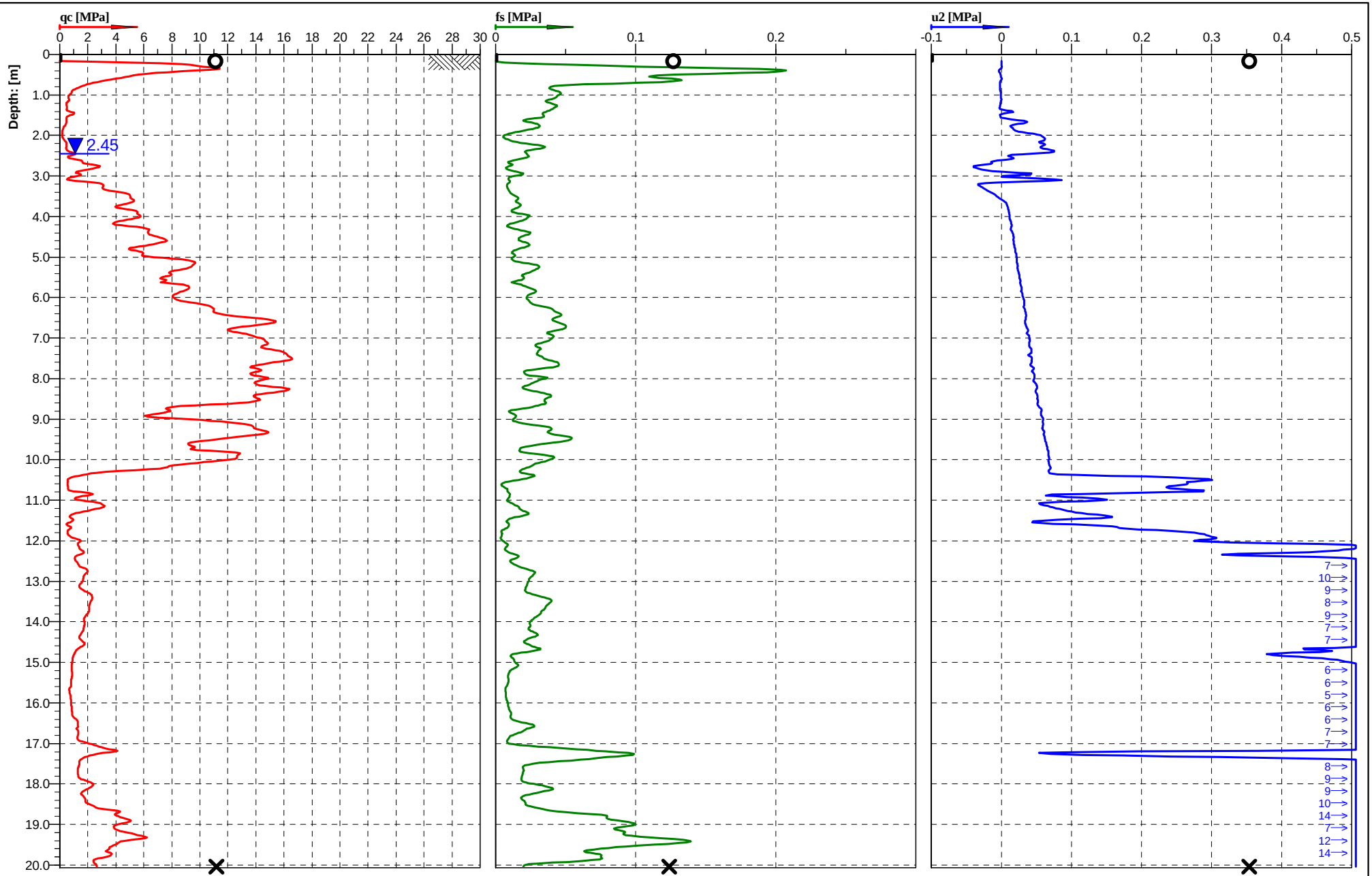
G.L. **0** W.L.: **0**

Project: **Hamilton Southern Links**
Location: **GPS: E2708866 N6374132**
Position:

Predrill :	**0**
Date:	**15/02/2011**
Cone no.:	**C10CFIIP.E09**
Project no.:	**2-31653.00**
CPT no.:	**CPT017** 6/6

NZGD ID: 108377

NZGD ID: 153064



NZGD ID: 153064

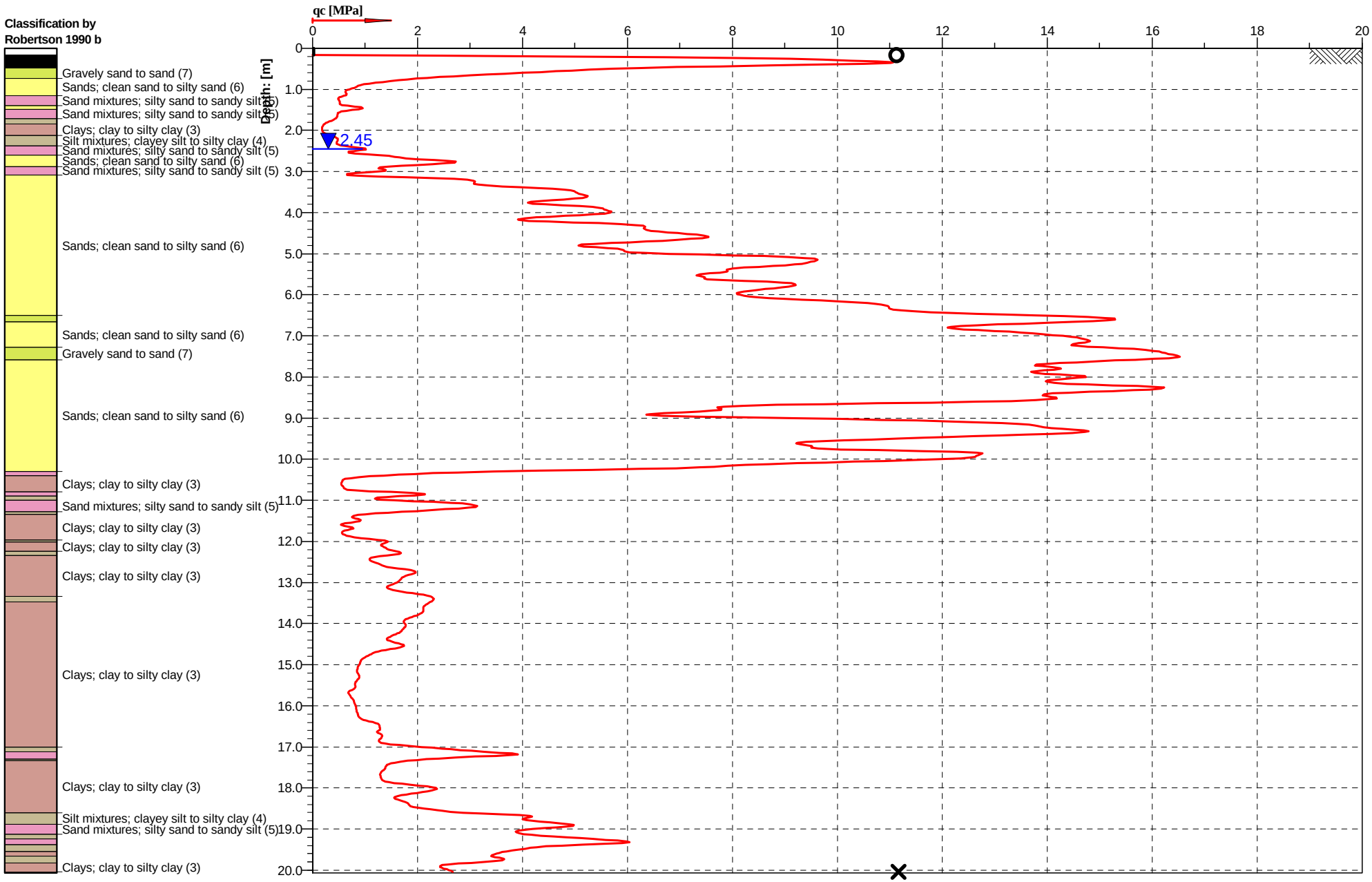
drillcore

u2

Cone No: 4530
Tip area [cm2]: 10
Sleeve area [cm2]: 150

Location: Hamilton	Position: X: 0.00 m, Y: 0.00 m	Ground level: 0.00	Test No.: CPT02
Project ID: E1798418 N5813329	Client: HD Geo Ltd	Date: 19/05/2020	Scale: 1 : 127
Project: HIGGINS RD		Page: 1/2	Fig.:
Target Depth 20m		File: CPT02 (01D).cpt	

NZGD ID: 153064



Location: Hamilton	Position: X: 0.00 m, Y: 0.00 m	Ground level: 0.00	Test No.: CPT02
Project ID: E1798418 N5813329	Client: HD Geo Ltd	Date: 19/05/2020	Scale: 1 : 127
Project: HIGGINS RD		Page: 2/2	Fig.:
Target Depth 20m		File: CPT02 (01D).cpt	

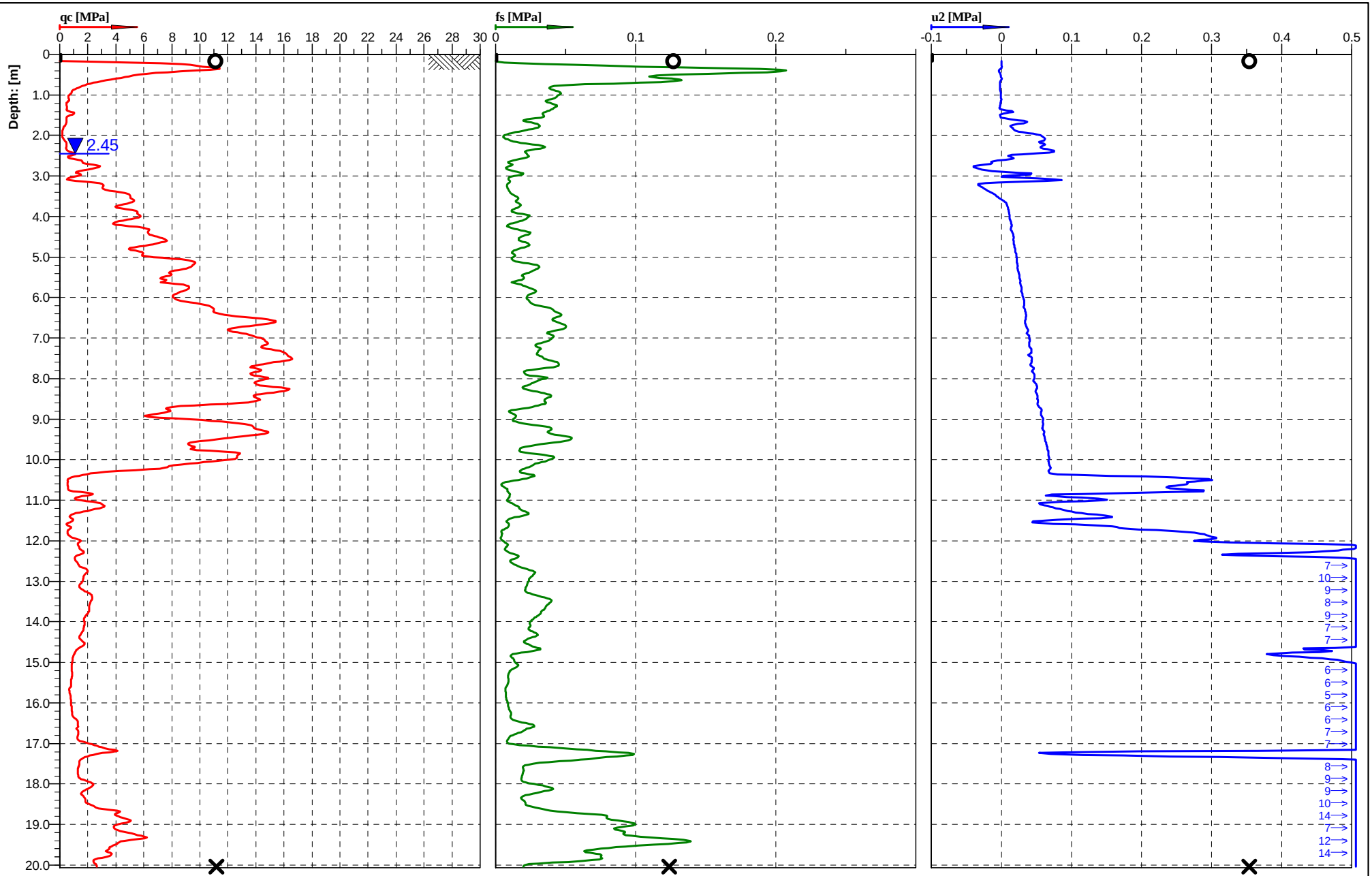
drillcore

u2

Cone No: 4530
Tip area [cm2]: 10
Sleeve area [cm2]: 150

NZGD ID: 153064

NZGD ID: 153064



NZGD ID: 153064

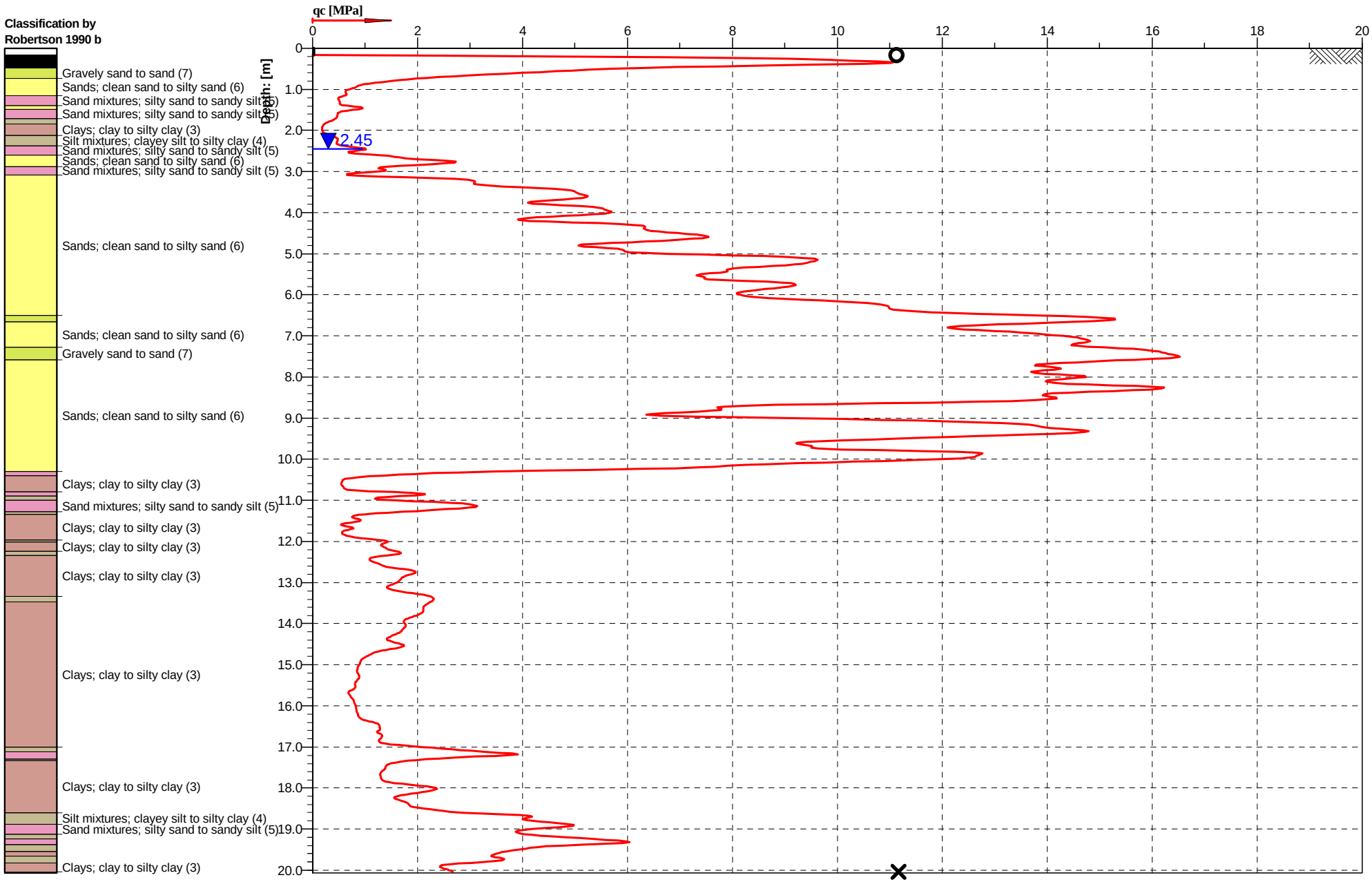
drillcore

u2

Cone No: 4530
Tip area [cm2]: 10
Sleeve area [cm2]: 150

Location: Hamilton	Position: X: 0.00 m, Y: 0.00 m	Ground level: 0.00	Test No.: CPT02
Project ID: E1798418 N5813329	Client: HD Geo Ltd	Date: 19/05/2020	Scale: 1 : 127
Project: HIGGINS RD		Page: 1/2	Fig.:
Target Depth 20m		File: CPT02 (01D).cpt	

NZGD ID: 153064



Location: Hamilton	Position: X: 0.00 m, Y: 0.00 m	Ground level: 0.00	Test No.: CPT02
Project ID: E1798418 N5813329	Client: HD Geo Ltd	Date: 19/05/2020	Scale: 1 : 127
Project: HIGGINS RD		Page: 2/2	Fig.:
Target Depth 20m		File: CPT02 (01D).cpt	

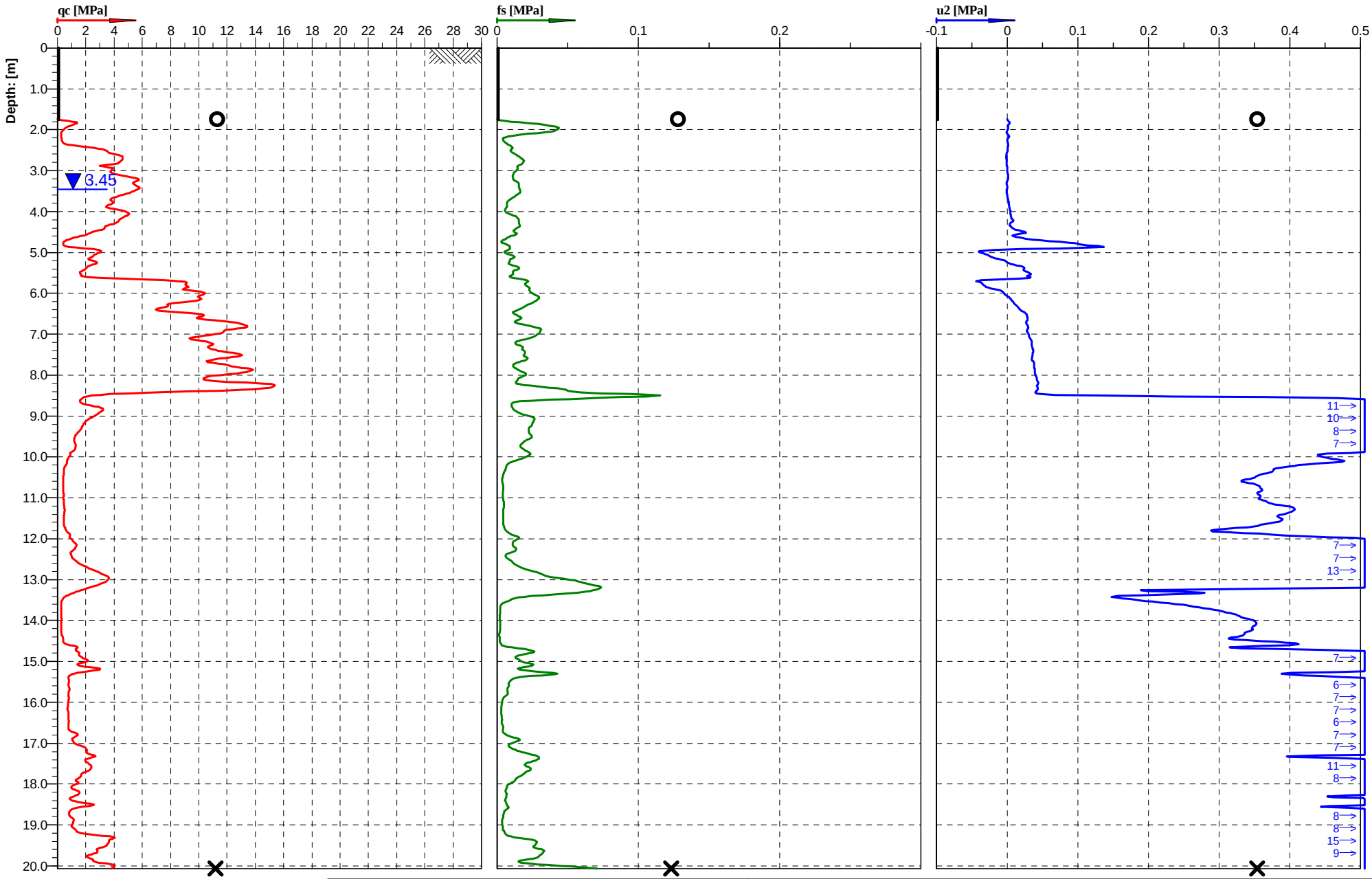
drillcore

u2

Cone No: 4530
Tip area [cm2]: 10
Sleeve area [cm2]: 150

NZGD ID: 153064

NZGD ID: 153065



NZGD ID: 153065

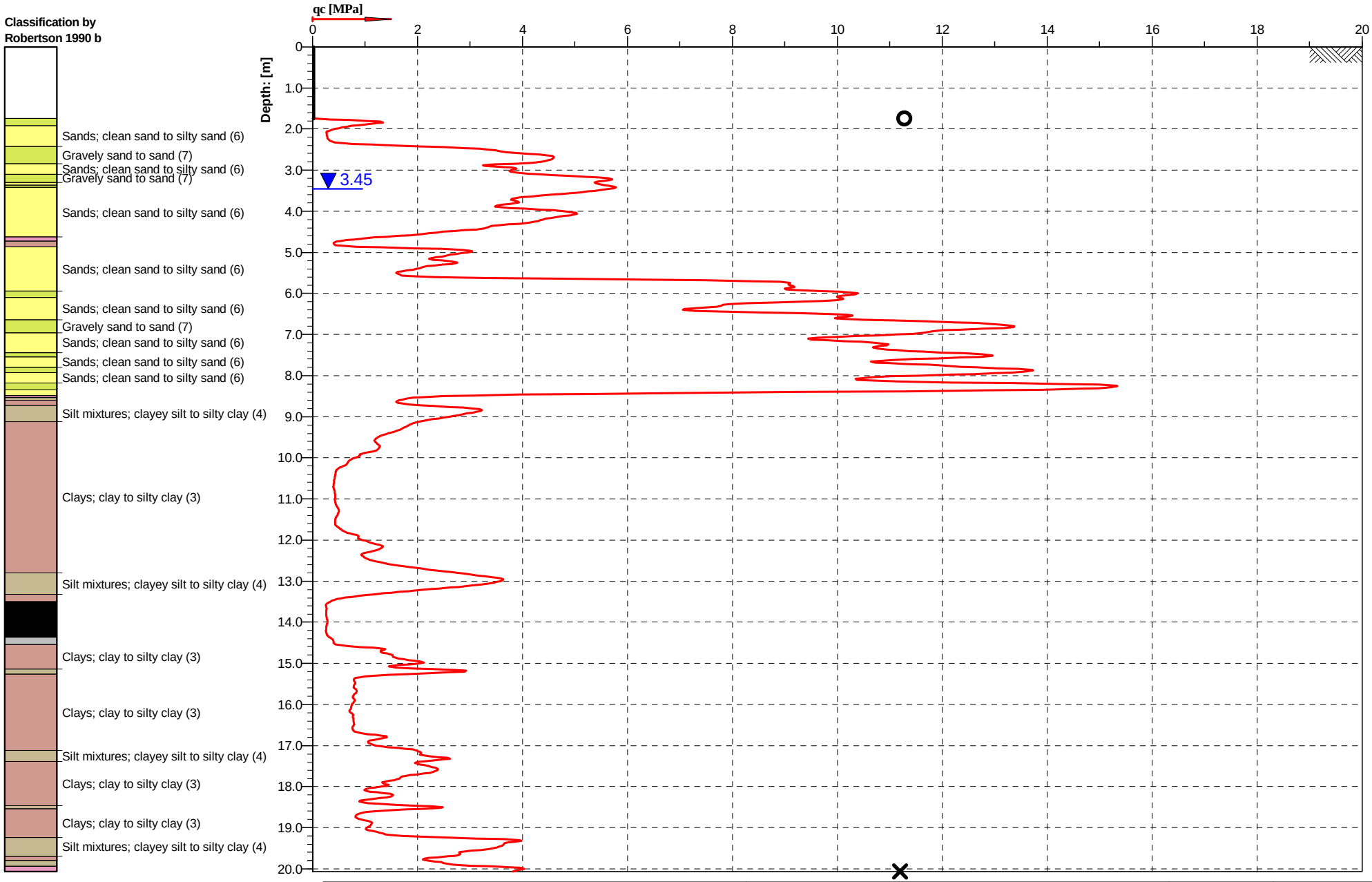
u2

Cone No: 4530
Tip area [cm2]: 10
Sleeve area [cm2]: 150

Location: Hamilton	Position: X: 0.00 m, Y: 0.00 m	Ground level: 0.00	Test No.: CPT03
Project ID: E1798563 N5813302	Client: HD Geo Ltd	Date: 19/05/2020	Scale: 1 : 127
Project: HIGGINS RD		Page: 1/2	Fig.:
Target Depth 20m		File: CPT03 (012).cpt	

NZGD ID: 153065

NZGD ID: 153065



Cone No: 4530
Tip area [cm2]: 10
Sleeve area [cm2]: 150

Location: Hamilton	Position: X: 0.00 m, Y: 0.00 m	Ground level: 0.00	Test No.: CPT03
Project ID: E1798563 N5813302	Client: HD Geo Ltd	Date: 19/05/2020	Scale: 1 : 127
Project: HIGGINS RD		Page: 2/2	Fig.:
Target Depth 20m		File: CPT03 (012).cpt	

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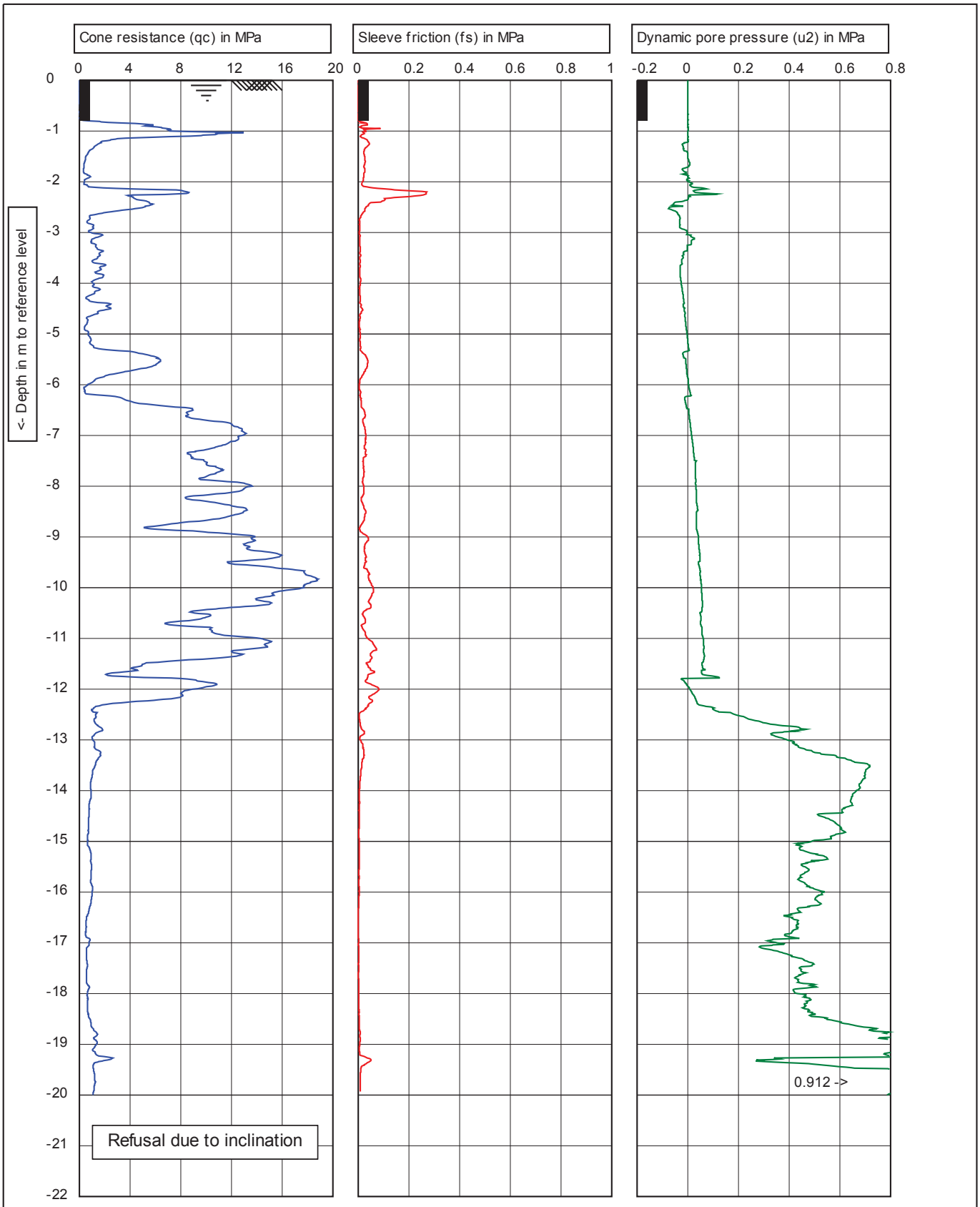
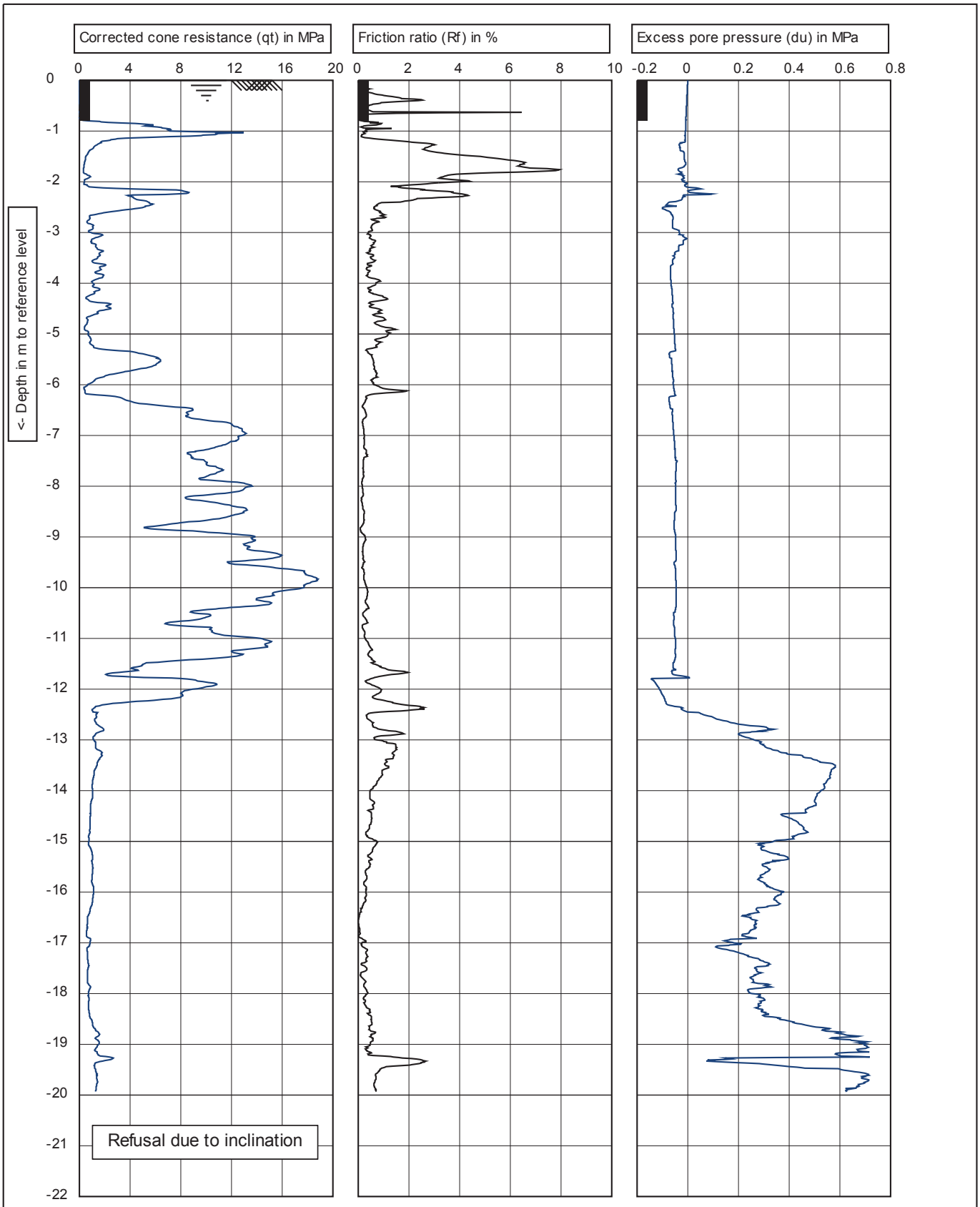


OPUS HAMILTON LABORATORY	Test according to A.S.T.M standard D-5778-95	Predrill :	0.8
	G.L. 0 / W.L.: 0	Date:	18/02/2011
	Project: Southern Links	Cone no.:	C10CFIIP.E09
	Location: GPS: E2709209 N6374723	Project no.:	2-31653.00
	Position:	CPT no.:	CPT01 1/6

CPTask V1.20

NZGD ID: CPT_108363

NZGD ID: CPT_108363



OPUS
HAMILTON LABORATORY

r u2
L 150 cm²
10 cm²

Test according to A.S.T.M standard D-5778-95

G.L. **0** W.L.: **0**

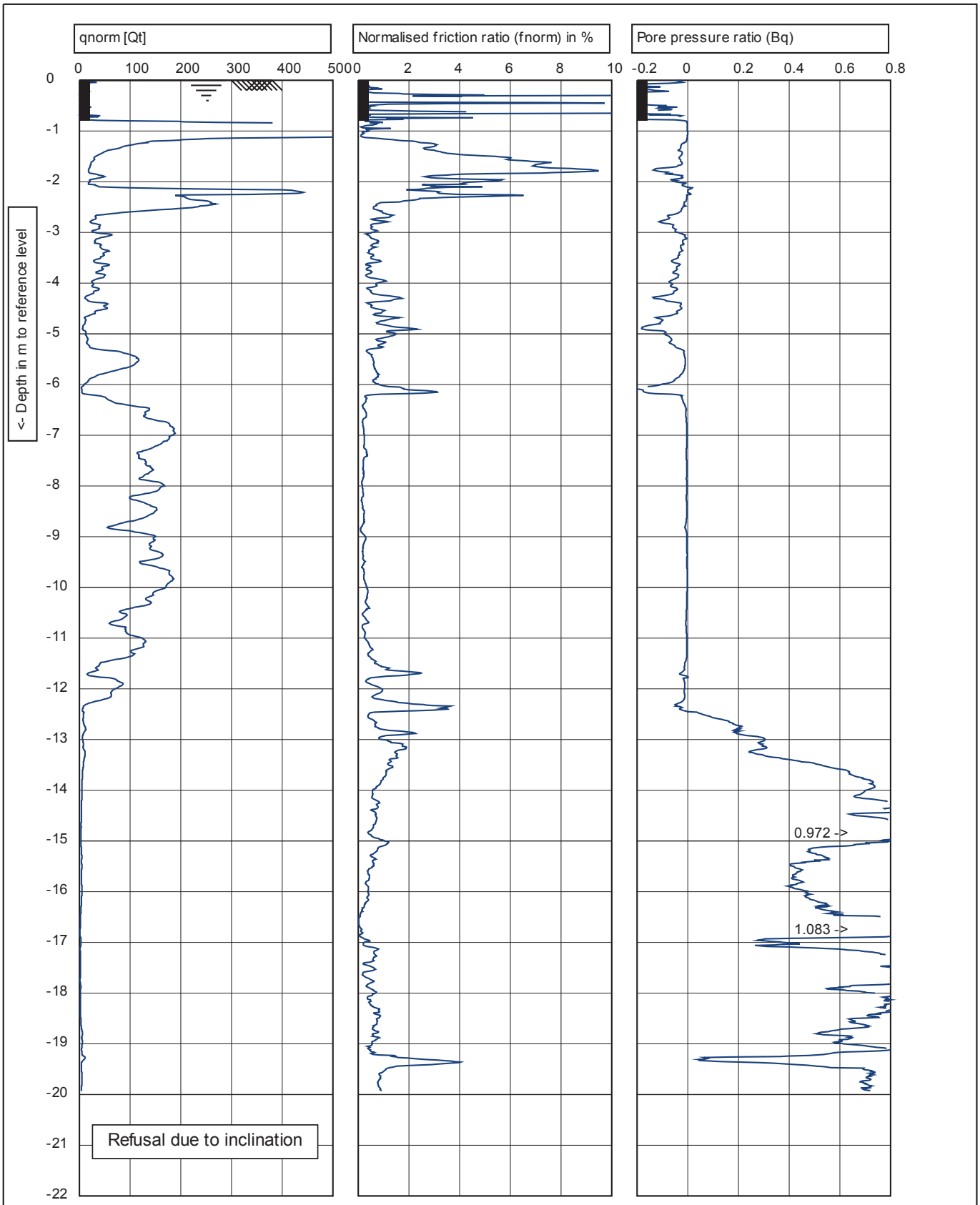
Project: **Southern Links**
Location: **GPS: E2709209 N6374723**
Position:

Predrill :	**0.8**
Date:	**18/02/2011**
Cone no.:	**C10CFIIP.E09**
Project no.:	**2-31653.00**
CPT no.:	**CPT01** 2/6

CPTask V1.20

NZGD ID: CPT_108363

NZGD ID: CPT_108363



OPUS
HAMILTON LABORATORY

CPTask V1.20

r u2
150 cm²
10 cm²

Test according to A.S.T.M standard D-5778-95

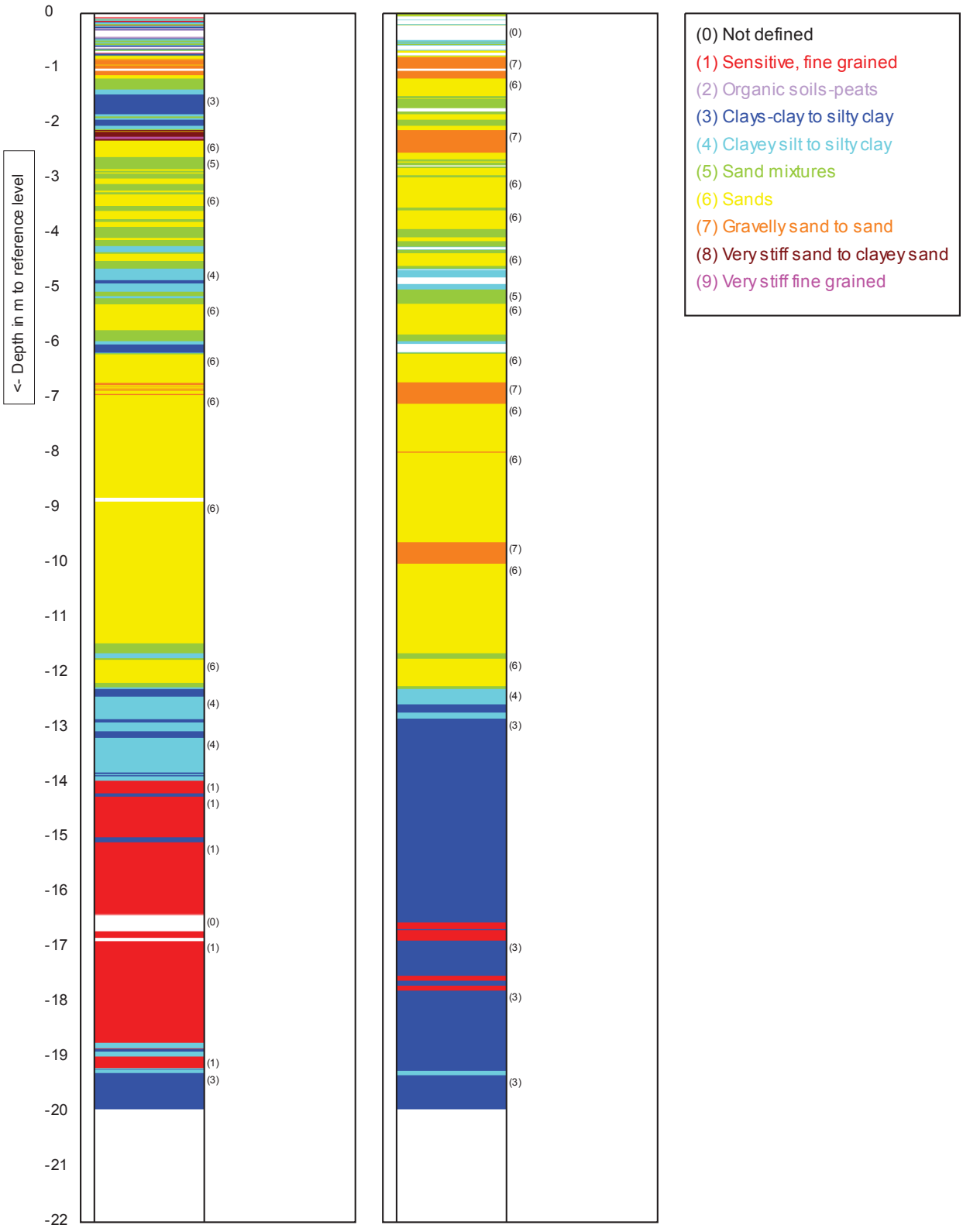
G.L. **0** W.L.: **0**

Project: **Southern Links**
Location: **GPS: E2709209 N6374723**
Position:

Predrill :	**0.8**
Date:	**18/02/2011**
Cone no.:	**C10CFIIP.E09**
Project no.:	**2-31653.00**
CPT no.:	**CPT01** 3/6

NZGD ID: CPT_108363

NZGD ID: CPT_108363



OPUS HAMILTON LABORATORY

CPTask V1.20

r u2
150 cm²
10 cm²

Test according to A.S.T.M standard D-5778-95

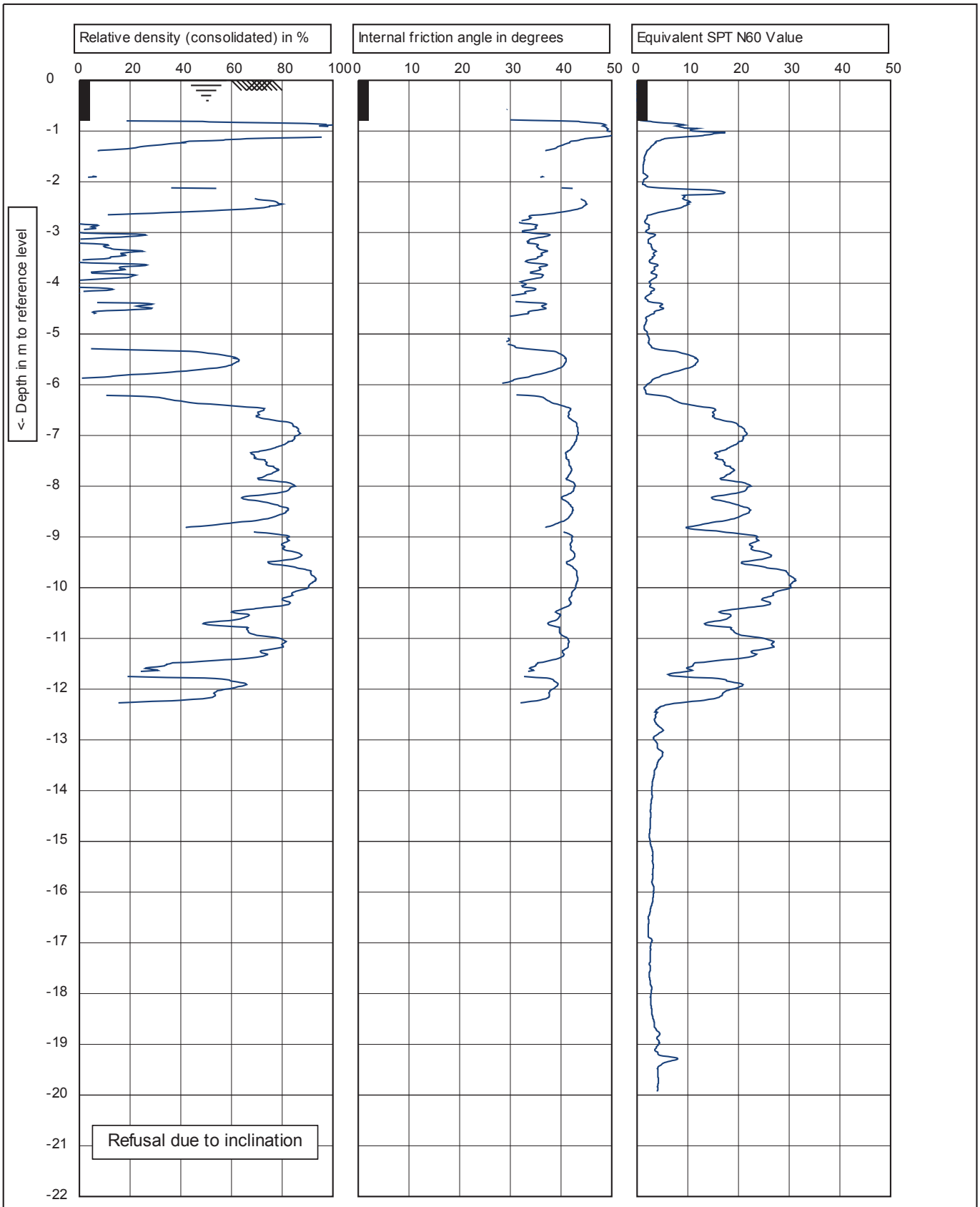
G.L. **0** W.L.: **0**

Project: **Southern Links**
Location: **GPS: E2709209 N6374723**
Position:

Predrill : **0.8**
Date: **18/02/2011**
Cone no.: **C10CFIIP.E09**
Project no.: **2-31653.00**
CPT no.: **CPT01** **4/6**

NZGD ID: CPT_108363

NZGD ID: CPT_108363

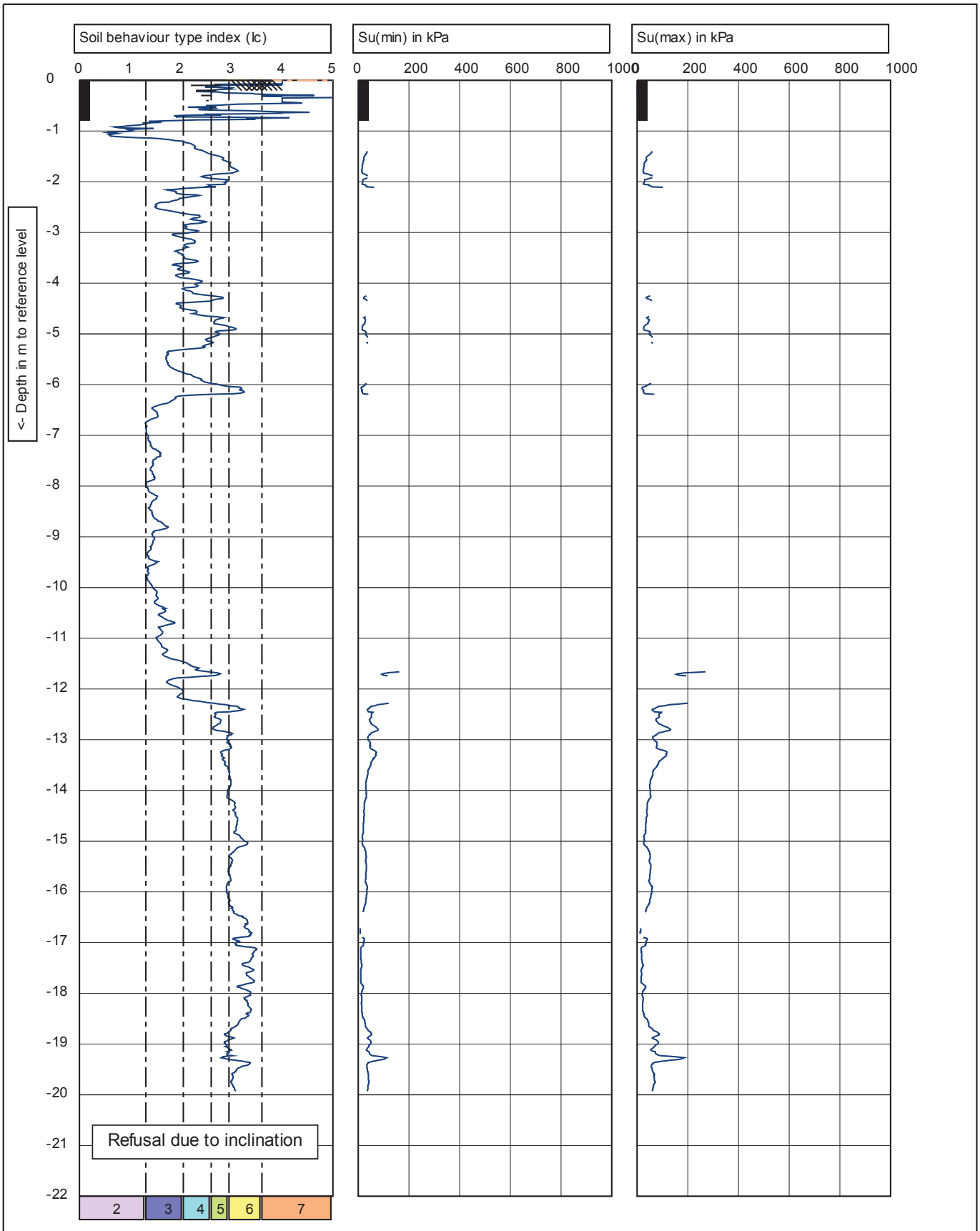


OPUS HAMILTON LABORATORY	Test according to A.S.T.M standard D-5778-95	Predrill :	0.8
	G.L. 0 / W.L.: 0	Date:	18/02/2011
	Project: Southern Links	Cone no.:	C10CFIIP.E09
	Location: GPS: E2709209 N6374723	Project no.:	2-31653.00
	Position:	CPT no.:	CPT01 5/6

CPTask V1.20

NZGD ID: CPT_108363

NZGD ID: CPT_108363



OPUS HAMILTON LABORATORY

CPTask V1.20

Test according to A.S.T.M standard D-5778-95		Predrill :	0.8
G.L. 0	W.L.: 0	Date:	18/02/2011
Project: Southern Links		Cone no.:	C10CFIIP.E09
Location: GPS: E2709209 N6374723		Project no.:	2-31653.00
Position:		CPT no.:	CPT01 6/6

NZGD ID: CPT_108363

NZGD ID: 152947

Test record

Test type: Hand Auger

Date: 19/05/2020
Project: HD1488 - 109-119 Higgins Road
Test number: HA05
Location: South-eastern corner of property

Tested by: MM
Checked by: SH

Test results

Depth	Geology	DCP (blows/ 100 mm)	Shear vane (kPa)	Material description	Detailed description
0.0	Fill			Fill consisting of compacted gravel underlain by a sandpad.	0.0 m: Compacted gravel.
0.1					
0.2					
0.3					0.3 m: Silty gravelly SAND; grey. Moist; well graded; sand, fine to coarse; gravel, fine to medium.
0.4					
0.5					
0.6					
0.7	Holocene swamp deposits		63/9	Soft, dark brown to black, organic mud, muddy peat and woody peat.	0.7 m: PEAT; dark blackish brown. Stiff; moist; sensitive to extra sensitive; amorphous; slight organic odour.
0.8					
0.9			63/6		
1.0					
1.1					
1.2			90/21		
1.3					1.3 m: PEAT; dark blackish brown. Stiff; moist; fibrous; intact minor roots.
1.4					
1.5			UTP		
1.6					
1.7					1.7 m: log.
1.8			UTP		1.8 m: End of log | unable to penetrate.
1.9					
2.0					
2.1					
2.2					
2.3					
2.4					
2.5					
2.6					
2.7					
2.8					
2.9					
3.0					

Groundwater observations:
No groundwater at time of testing.

Shear Vane:
SV 1710

Comments:
Unable to penetrate past 1.8 m due to intact log.

NZGD ID: 152947

NZGD ID: 152948

Test record

Test type: Hand Auger

Date: 19/05/2020
Project: HD1488 - 109-119 Higgins Road
Test number: HA06
Location: North-eastern corner of property, next to disused vehicle wash
Tested by: MM
Checked by: SH

Test results

Depth	Geology	DCP (blows/ 100 mm)	Shear vane (kPa)	Material description	Detailed description
0.0	Fill			Fill consisting of compacted gravel underlain by a sandpad.	0.0 m: Compacted gravel.
0.1					
0.2					0.25 m: SAND, with minor gravel; dark brown. Moist; well graded; sand, fine to coarse; gravel, fine to medium.
0.3					
0.4					
0.5	Holocene swamp deposits			Soft, dark brown to black, organic mud, muddy peat and woody peat.	0.5 m: PEAT; dark blackish brown. Firm; moist; extra sensitive; amorphous; slight organic odour.
0.6			48/6		
0.7					
0.8					
0.9			30/3		0.9 m: trace fine roots.
1.0					
1.1					
1.2			36/6		
1.3					1.3 m: PEAT; dark blackish brown. Firm; moist; fibrous; intact roots; minor organic odour.
1.4					
1.5			30/6		
1.6					1.6 m: CLAY, with some silt; brown. Firm to stiff; moist to wet; moderate plasticity.
1.7					
1.8			66/12		
1.9					
2.0					
2.1			69/21		2.1 m: Clayey SILT; light brown. Stiff; moist to wet; low to moderate dilatency; moderately sensitive.
2.2					
2.3					2.3 m: Silty SAND; light brownish grey. Moist to wet; well graded; sand, fine to medium.
2.4					
2.5					2.5 m: SAND, with trace silt; light brownish grey. Moist to wet; well graded; sand, fine to medium.
2.6					
2.7					
2.8					2.8 m: wet.
2.9					
3.0					3.0 m: End of log | target depth.

Groundwater observations:
No groundwater at time of testing.

Shear Vane:
SV 1710

Comments:

NZGD ID: 152948

NZGD ID: 214941

TITUS CONSULTING ENGINEERS

Log: 1 of 1

HA1

Address: 150b Higgins Road
Date: 20/11/2023
Testers: MalikR, ArunK

Project №: 15132

Water Table:	Depth (mm):	Geology:	Graphic Log:	Material Description:	Blows /100mm:	Shear Strength (kPa): Undrained:	Remoulded:	Sensitivity:
Not Found	100	Holocene swamp deposits		Black, moist, organics	0			
	200				0			
	300				0			
	400				0			
	500				0			
	600				0.3			
	700				0.3			
	800				0.3			
	900				0.3			
	1000	Undefined		Brownish black, moist to wet, organics	0.3			
	1100				0.5			
	1200				0.5			
	1300				0.5			
	1400				1			
	1500				1			
	1600			SILT with some clay with minor sand, brownish orange and black, low plasticity, moist to wet, stiff	1	149	36	4.1
	1700				1			
	1800				5			
	1900			Medium SAND with some clay, brownish orange, well graded, moist to wet, loose	4			
	2000				3	135	36	3.7
	2100			*End of Borehole @2000mm*	2			
	2200				3			
	2300				4			
	2400				6			
	2500				4			
	2600				5			
	2700				5			
	2800				3			
	2900				3			
	3000				4			
	3100				8			
	3200				8			
	3300				8			
	3400				6			
	3500				7			
	3600				6			
	3700				5			
	3800							

NZGD ID: 214941

NZGD ID: HA_108688

AECOM

LOG OF AUGERHOLE

HOLE IDENTIFICATION **AH05**

Client NZTA and HCC
Project Hamilton Southern Links
Project number 60164546

Co-ordinates 1798770mE 5812780mN
Orientation -90° Elevation
Location South Hamilton
Feature Kahikatea Drive

Depth	GEOLOGICAL DESCRIPTION (Weathering, Relative Strength, Colour, Name, Defect Type, Lithological features, Stratigraphic Unit)	Test Records: Shear Vane (kPa) Residual - Peak (0 kPa, 100 kPa, 200 kPa)	Sampling	Dynamic Cone Penetrometer (Blows per 100 mm) (6 12 18 24)	MATERIAL DESCRIPTION (consistency, relative density, water content, plasticity, grading, etc) / Depth Related Remarks	Graphic Log	Instrumentation
	TOPSOIL: Topsoil	51/34		1 1 0 1 0 0	PEAT; dark brown. Stiff; dry to moist; insensitive, normal.		
	PIAKO SUBGROUP: River, lake and swamp deposits consisting of soft, dark brown to black, organic-rich silt and peat.	51/30		0 0 0 1 1	PEAT; dark blackish brown. Firm to hard; moist; fibrous; insensitive, normal. 0.7m:Grades to wet.		
1		UTP		0 0 1 2 1	0.9m:Contains fragments of decomposed wood.		
		34/34		2 1 1 1 1			
		51/41		1 1 1 1 1			
		68/68		1 1 1 1 1			
2		51/34		1 1 1 1 1			
		51/34		1 1 1 1 1			
		47/30		1 1 1 1 1			
		54/41		1 1 1 2 2			
3		51/34		2 2 3 3 3			
	Alluvial pumice, sand, silt and gravel with interbedded peat. (Hinuera Formation)	57/37		4 4 4 3 4	SILT; light brownish grey. Stiff, moist to wet; insensitive, normal. (hard to obtain sample)		
		118/81		4 5 5 6 5	SILT, trace of clay; dark grey. Stiff; moist to wet; insensitive, normal. (hard to obtain sample)		
4				5 5 6 6	AH05 terminated at 4.2m		
5							

For explanation of symbols and observations, see key sheet

GROUNDWATER OBSERVATIONS
Depth (m) Date Post strike observations

Miniature shear vane
Vane number DR2944 Blade 19mm Factor 1.69
Vane shear strength per NZGS guideline

Remarks
Existing farmland.

Started 25/02/2011
Finished 25/02/2011
Date logged 7/03/2011
Logged CDB
Checked DMM

Page 1 of 1

AUGERHOLE LOG (HAMILTON - FOR 30 NO. BLOW COUNTS) SLINKS MASTER 03-04-2012.GPJ BASE.GDT 12/04/12

08/06/2005

NZGD ID: HA_108688

NZGD ID: HA-DCP_135566

INVESTIGATION LOG

Job No.:	HD769
No.:	HA01
Sheet:	1 of 1
Date:	23/10/18

Client: Southpark Agri Developments Ltd	**Coordinates:** -	**Ground Level:** Ground
Project: 16 Wickham Street, Hamilton	**Location:** NW corner of site	

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)	Legend	Scala Penetrometer (Blows / 100mm)	Vane Shear Strength (kPa) Vane:	Water
Holocene Swamp Deposits	PEAT (PT); dark brown; homogeneous. Stiff; dry; Rootlets.	0.0	TS	2 4 6 8 10 12 14 16 18	50 100 150 200 Values	
	PEAT (PT); dark brown. Firm; wet; Fibrous, spongy.	0.4	TS			
	3.0m - 3.0m: Wood present	3.0				
ko Sub gro	SILT (ML); light grey. Firm; saturated; low plasticity; dilatant.	5.0				
	EOH: 5.20m	5.2				

23/10/2018

Photo

Remarks

Hole collapse from 1.8 m.
Poor sample return from saturated peat and silt.

Water

- Standing Water Level
- Out flow
- In flow

Investigation Type

- [x] Hand Auger
- [ ] Investigation Pit
- [ ] Machine Borehole

Contractor:	Rig/Plant Used:	Logged By:	Checked By:	Hole Depth:
		JB	GP	5.20 m

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Printed: 9/11/2018 1:12:12 PM Page: 1 of 1

NZGD ID: HA-DCP_135566

NZGD ID: HA-DCP_135567

INVESTIGATION LOG

Job No.:	HD769
No.:	HA02
Sheet:	1 of 1
Date:	23/10/18

Client: Southpark Agri Developments Ltd

Coordinates: -

Ground Level: Ground

Project: 16 Wickham Street, Hamilton

Location: Western boundary

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)
Holocene Swamp Deposits	PEAT (PT); dark brown; homogeneous. Stiff; dry; Rootlets.	0.2
	PEAT (PT); dark brown. Firm; wet; Fibrous, spongy.	0.4
	0.8m - 0.8m:	0.8
	3.1m - 3.1m: Wood present	3.0
Sub ko gro	SILT (ML); light grey. Firm; saturated; low plasticity; dilatant.	3.6
	EOH: 3.80m	3.8

Legend

Scala Penetrometer (Blows / 100mm): 2 4 6 8 10 12 14 16 18

Vane Shear Strength (kPa) Vane: 50 100 150 200 Values

Water: 23/10/2018

Photo

Remarks

Hole collapse from 0.8 m.
Poor sample return from saturated peat and silt.

Water

- Standing Water Level
- Out flow
- In flow

Investigation Type

- [x] Hand Auger
- [ ] Investigation Pit
- [ ] Machine Borehole

Contractor:	Rig/Plant Used:	Logged By:	Checked By:	Hole Depth:
		JB	GP	3.80 m

Produced with Core-GS

NZGD ID: HA-DCP_135567

NZGD ID: HA-DCP_135568

INVESTIGATION LOG

Job No.:	HD769
No.:	HA03
Sheet:	1 of 1
Date:	23/10/18

Client: Southpark Agri Developments Ltd	**Coordinates:** -	**Ground Level:** Ground
Project: 16 Wickham Street, Hamilton	**Location:** SE corner of site	

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)	Legend	Scala Penetrometer (Blows / 100mm)	Vane Shear Strength (kPa) Vane:	Water
Holocene Swamp Deposits	PEAT (PT); dark brown; homogeneous. Stiff; dry; Rootlets.	0.0	TS	2 4 6 8 10 12 14 16 18	50 100 150 200 Values	
	PEAT (PT); dark brown. Firm; wet; Fibrous, spongy.	0.2	TS			
		0.4	TS			
		0.6				
		0.8				
		1.0				
		1.2				
		1.4				
		1.6				
		1.8				
		2.0				
		2.2				
		2.4				
		2.6				
		2.8				
		3.0				
		3.2				
		3.4				
		3.6				
Piako Subgroup	SILT (ML), with some sand; light grey. Firm; saturated; low plasticity; sand, fine to medium; dilatant.	3.8				
	EOH: 4.20m	4.0				
		4.2				23/10/2018
		4.4				
		4.6				
		4.8				
		5.0				
		5.2				
		5.4				
		5.6				
		5.8				
		6.0				
		6.2				
		6.4				

Photo

Remarks

Hole collapse from 1.4 m.
Poor sample return from saturated peat and silt.

Water

- ▼ Standing Water Level
- ◁ Out flow
- ▷ In flow

Investigation Type

- [x] Hand Auger
- [ ] Investigation Pit
- [ ] Machine Borehole

Contractor:	Rig/Plant Used:	Logged By:	Checked By:	Hole Depth:
		JB	GP	4.20 m

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NZGD ID: HA-DCP_135568

NZGD ID: HA-DCP_135569

INVESTIGATION LOG

Job No.:	HD769
No.:	**HA04**
Sheet:	1 of 1
Date:	23/10/18

Client: Southpark Agri Developments Ltd	**Coordinates:** -	**Ground Level:** Ground
Project: 16 Wickham Street, Hamilton	**Location:** Eastern boundary of site	

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)	Legend	Scala Penetrometer (Blows / 100mm)	Vane Shear Strength (kPa) Vane:	Water
Holocene Swamp Deposits	PEAT (PT); dark brown; homogeneous. Stiff; dry; Rootlets.	0.2	TS	2 4 6 8 10 12 14 16 18	50 100 150 200 Values	
	PEAT (PT); dark brown. Firm; wet; Fibrous, spongy.	0.4	TS			
		0.6				
		0.8				
		1.0				
		1.2				
		1.4				▼ 23/10/2018
		1.6				
		1.8				
		2.0				
		2.2				
		2.4				
		2.6				
		2.8				
		3.0				
		3.2				
		3.4				
		3.6				
		3.8				
		4.0				
		4.2				
		4.4				
		4.6				
		4.8				
		5.0				
		5.2				
		5.4				
Subsoil	SAND (SM), with some silt, with trace gravel; light orange grey. Firm; saturated; moderate dilatency; sand, fine to coarse; gravel, fine, subround; Poor sample return.	5.6				
	EOH: 5.60m	5.8				
		6.0				
		6.2				
		6.4				

Photo

Remarks

Hole collapse from 1.4 m.
Poor sample return from saturated peat and sand.

Water

- ▼ Standing Water Level
- ◁ Out flow
- ▷ In flow

Investigation Type

- ☑ Hand Auger
- ☐ Investigation Pit
- ☐ Machine Borehole

Contractor:	Rig/Plant Used:	Logged By:	Checked By:	Hole Depth:
		JB	GP	5.60 m

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NZGD ID: HA-DCP_135569

NZGD ID: Other_152668

INVESTIGATION LOG

Client: Les Harrison Group of Companies
Project: 160 Higgins St, Hamilton
Location: Stage 5A
Co-ordinates: 1798384mE, 5812980mN
Elevation: Ground

Job No.: HD1389
No.: FA01
Date: 28.09.20
Logged By: BS
Checked By:

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)
Holocene Swamp Deposits	PEAT (SPONGY AND FIBROUS); dark brown. Wet.	0.0
Piako Subgroup	Clayey SILT; grey. Saturated; low plasticity.	5.6
	EOH: 6.00 m	6.0

Legend

Scala Penetrometer (Blows / 100 mm): 2, 4, 6, 8, 10, 12, 14, 16, 18

Vane Shear Strength (kPa) Vane: 50, 100, 150, 200, 250

Water: Groundwater Not Encountered

Photo

Remarks

End of log at 6.0 m - target depth.

Shear Vanes
- Peak
- Remoulded

Water
- Standing Water Level
- Out flow
- In flow

Investigation Type
- [ ] Hand Auger
- [ ] Investigation Pit
- [x] Machine Borehole

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NZGD ID: Other_152668

NZGD ID: Other_152669

INVESTIGATION LOG

Client:	Les Harrison Group of Companies
Project:	160 Higgins St, Hamilton
Location:	Stage 4B
Co-ordinates:	1798916mE, 5813046mN
Elevation:	Ground

Job No.: HD1389
No.: FA02
Date: 28.09.20
Logged By: BS
Checked By:

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)
Holocene Swamp Deposits	PEAT (SPONGY AND FIBROUS); dark brown. Wet.	0.0
	1.1 m: becoming saturated.	1.1
Piako Subgroup	Silty SAND; brown. Saturated; poorly graded; sand, fine to medium.	2.2
	Clayey SILT; brown. Saturated; moderate plasticity.	3.0
	EOH: 3.50 m	3.5

Legend

Scala Penetrometer (Blows / 100 mm): 2, 4, 6, 8, 10, 12, 14, 16, 18

Vane Shear Strength (kPa) — Vane: 50, 100, 150, 200, 250

Water: 1.1 m

Photo

Remarks

End of log at 3.5 m - target depth.

Shear Vanes
- Peak
- Remoulded

Water
- Standing Water Level
- Out flow
- In flow

Investigation Type
- ☐ Hand Auger
- ☐ Investigation Pit
- ☑ Machine Borehole

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NZGD ID: Other_152669

NZGD ID: Other_152670

INVESTIGATION LOG

Job No.: HD1389

Client: Les Harrison Group of Companies

No.: FA03

Project: 160 Higgins St, Hamilton

Location: Stage 4B

Date: 28.09.20

Co-ordinates: 1798865mE, 5812872mN

Logged By: BS

Elevation: Ground

Checked By:

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)	Legend	Scala Penetrometer (Blows / 100 mm)	Vane Shear Strength (kPa)	Water
Holocene Swamp Deposits	PEAT (SPONGY AND FIBROUS); dark brown. Wet. 1.1 m: becoming saturated.	0.2, 0.4, 0.6, 0.8, 1.0, 1.2, 1.4, 1.6, 1.8, 2.0, 2.2, 2.4, 2.6, 2.8, 3.0		2, 4, 6, 8, 10, 12, 14, 16, 18	50, 100, 150, 200, 250	1.1 m
Plako Subgroup	Silty SAND; brown. Saturated; poorly graded; sand, fine to medium. EOH: 3.50 m	3.2, 3.4				

Photo

Remarks

End of log at 3.5 m - target depth.

Shear Vanes
- Peak
- Remoulded

Water
- Standing Water Level
- Out flow
- In flow

Investigation Type
- ☐ Hand Auger
- ☐ Investigation Pit
- ☑ Machine Borehole

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NZGD ID: Other_152670

NZGD ID: Other_152671

INVESTIGATION LOG

Job No.: HD1389

Client: Les Harrison Group of Companies

No.: FA04

Project: 160 Higgins St, Hamilton

Location: Stage 5A

Date: 28.09.20

Co-ordinates: 1798720mE, 5812804mN

Logged By: BS

Elevation: Ground

Checked By:

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)	Legend	Scala Penetrometer (Blows / 100 mm)	Vane Shear Strength (kPa)	Water
Holocene Swamp Deposits	PEAT (FIBROUS); dark brown. Moist.	0.0 – 4.6		2 4 6 8 10 12 14 16 18	50 100 150 200 250 Vane:	Groundwater Not Encountered
Piako Subgroup	Silty SAND; bluish grey. Moist to wet; uniformly graded; sand, fine. EOH: 5.00 m	4.6 – 5.0				

Photo

Remarks

End of log at 5.0 m - target depth.

Shear Vanes
- Peak
- Remoulded

Water
- Standing Water Level
- Out flow
- In flow

Investigation Type
- ☐ Hand Auger
- ☐ Investigation Pit
- ☑ Machine Borehole

Generated with CORE-GS by Geroc - 12/10/2020 16:22:25

NZGD ID: Other_152671

NZGD ID: Other_152672

INVESTIGATION LOG

Job No.: HD1389

Client: Les Harrison Group of Companies

No.: FA05

Project: 160 Higgins St, Hamilton

Location: Stage 2A

Date: 28.09.20

Co-ordinates: 1798986mE, 5812708mN

Logged By: BS

Elevation: Ground

Checked By:

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)	Legend	Scala Penetrometer (Blows / 100 mm)	Vane Shear Strength (kPa)	Water
Holocene Swamp Deposits	PEAT (FIBROUS); dark brown. Wet. 1.1 m: becoming saturated.	0.2, 0.4, 0.6, 0.8, 1.0, 1.2, 1.4, 1.6, 1.8, 2.0, 2.2, 2.4, 2.6, 2.8, 3.0, 3.2		2, 4, 6, 8, 10, 12, 14, 16, 18	50, 100, 150, 200, 250	1.1 m
Piako Subgroup	Clayey SILT; brown. Saturated; moderate plasticity. EOH: 3.50 m	3.4				

Photo

Remarks

End of log at 3.5 m - target depth.

Shear Vanes
- Peak
- Remoulded

Water
- Standing Water Level
- Out flow
- In flow

Investigation Type
- ☐ Hand Auger
- ☐ Investigation Pit
- ☑ Machine Borehole

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NZGD ID: Other_152672

NZGD ID: Other_152673

INVESTIGATION LOG

Job No.: HD1389

Client: Les Harrison Group of Companies

No.: FA06

Project: 160 Higgins St, Hamilton

Location: Stage 1A

Date: 28.09.20

Co-ordinates: 1799154mE, 5812659mN

Logged By: BS

Elevation: Ground

Checked By:

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)	Legend	Scala Penetrometer (Blows / 100 mm)	Vane Shear Strength (kPa)	Water
Holocene Swamp Deposits	PEAT (FIBROUS); dark brown. Wet.	0.0 – 2.0				Groundwater Not Encountered
Piako Subgroup	Clayey SILT; brown. Wet; moderate plasticity.	2.0 – 2.4				
	Silty SAND; brown. Wet to saturated; uniformly graded; sand, fine.	2.4 – 3.4				
	EOH: 3.50 m	3.4				

Scala Penetrometer (Blows / 100 mm): 2 4 6 8 10 12 14 16 18

Vane Shear Strength (kPa) — Vane: 50 100 150 200 250

Photo

Remarks

End of log at 3.5 m - target depth.

Shear Vanes

- Peak
- Remoulded

Water

- Standing Water Level
- Out flow
- In flow

Investigation Type

- ☐ Hand Auger
- ☐ Investigation Pit
- ☑ Machine Borehole

Generated with CORE-GS by Geroc - 12/10/2020 16:22:27

NZGD ID: Other_152673

NZGD ID: Other_152674

INVESTIGATION LOG

Client: Les Harrison Group of Companies
Project: 160 Higgins St, Hamilton
Location: Stage 1A
Co-ordinates: 1799357mE, 5812585mN
Elevation: Ground

Job No.: HD1389
No.: FA07
Date: 28.09.20
Logged By: BS
Checked By:

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)
Holocene Swamp Deposits	PEAT (FIBROUS); dark brown. Wet. 1.5 m: becoming saturated.	0.2, 0.4, 0.6, 0.8, 1.0, 1.2, 1.4, 1.6, 1.8, 2.0, 2.2, 2.4, 2.6, 2.8, 3.0
Plako Subgroup	Silty SAND; brown. Saturated; uniformly graded; sand, fine. EOH: 3.50 m	3.2, 3.4

Legend

Scala Penetrometer (Blows / 100 mm): 2, 4, 6, 8, 10, 12, 14, 16, 18

Vane Shear Strength (kPa) — Vane: 50, 100, 150, 200, 250

Water: 1.5 m

Photo

Remarks

End of log at 3.5 m - target depth.

Shear Vanes
- Peak
- Remoulded

Water
- Standing Water Level
- Out flow
- In flow

Investigation Type
- ☐ Hand Auger
- ☐ Investigation Pit
- ☑ Machine Borehole

Generated with CORE-GS by Geroc - 12/10/2020 16:22:28

NZGD ID: Other_152674

NZGD ID: Other_152675

INVESTIGATION LOG

Job No.: HD1389

Client: Les Harrison Group of Companies

No.: FA08

Project: 160 Higgins St, Hamilton

Location: Stage 3B

Date: 28.09.20

Co-ordinates: 1798767mE, 5812591mN

Logged By: BS

Elevation: Ground

Checked By:

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)	Legend	Scala Penetrometer (Blows / 100 mm)	Vane Shear Strength (kPa)	Water
Holocene Swamp Deposits	PEAT (FIBROUS); dark brown. Wet. 1.0 m: becoming saturated.	0.2, 0.4, 0.6, 0.8, 1.0, 1.2, 1.4, 1.6, 1.8, 2.0, 2.2, 2.4, 2.6, 2.8, 3.0, 3.2, 3.4, 3.6, 3.8, 4.0, 4.2, 4.4		2, 4, 6, 8, 10, 12, 14, 16, 18	Vane: 50, 100, 150, 200, 250	Groundwater Not Encountered
Plako Subgroup	SILT; grey. Saturated. EOH: 5.50 m	4.6, 4.8, 5.0, 5.2, 5.4				

Photo

Remarks

End of log at 5.5 m - target depth, hole collapse at 1.0 m after drilling.

Shear Vanes
- Peak
- Remoulded

Water
- Standing Water Level
- Out flow
- In flow

Investigation Type
- ☐ Hand Auger
- ☐ Investigation Pit
- ☑ Machine Borehole

Generated with CORE-GS by Geroc - 12/10/2020 16:22:29

NZGD ID: Other_152675

NZGD ID: Other_152676

INVESTIGATION LOG

Job No.: HD1389

Client: Les Harrison Group of Companies

No.: FA09

Project: 160 Higgins St, Hamilton

Location: Stage 2B

Date: 28.09.20

Co-ordinates: 1798957mE, 5812504mN

Logged By: BS

Elevation: Ground

Checked By:

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)	Legend	Scala Penetrometer (Blows / 100 mm)	Vane Shear Strength (kPa) Vane:	Water
Holocene Swamp Deposits	PEAT (AMORPHOUS); dark brown. Wet. 0.8 m: becoming saturated.	0.2, 0.4, 0.6, 0.8, 1.0, 1.2, 1.4, 1.6, 1.8, 2.0, 2.2		2, 4, 6, 8, 10, 12, 14, 16, 18	50, 100, 150, 200, 250	0.8 m
Piako Subgroup	SILT, with some clay, with trace sand; grey. Saturated; sand, fine. EOH: 2.70 m	2.4, 2.6				

Photo

Remarks

End of log at 2.7 m - target depth.

Shear Vanes
- Peak
- Remoulded

Water
- Standing Water Level
- Out flow
- In flow

Investigation Type
- ☐ Hand Auger
- ☐ Investigation Pit
- ☑ Machine Borehole

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NZGD ID: Other_152676

NZGD ID: Other_152677

INVESTIGATION LOG

Client:	Les Harrison Group of Companies
Project:	160 Higgins St, Hamilton
Location:	Stage 1B
Co-ordinates:	1799148mE, 5812495mN
Elevation:	Ground

Job No.: HD1389
No.: FA10
Date: 28.09.20
Logged By: BS
Checked By:

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)
Holocene Swamp Deposits	PEAT (SPONGY AND FIBROUS); dark brown. Wet. 1.4 m: becoming saturated.	0.2, 0.4, 0.6, 0.8, 1.0, 1.2, 1.4, 1.6, 1.8, 2.0, 2.2, 2.4, 2.6, 2.8, 3.0, 3.2, 3.4
Plako Subgroup	Silty SAND; brown. Saturated; uniformly graded; sand, fine. EOH: 4.50 m	3.6, 3.8, 4.0, 4.2, 4.4

Legend

Scala Penetrometer (Blows / 100 mm): 2, 4, 6, 8, 10, 12, 14, 16, 18

Vane Shear Strength (kPa) — Vane: 50, 100, 150, 200, 250

Water: 1.4 m

Photo

Remarks

End of log at 4.5 m - target depth.

Shear Vanes
- Peak
- Remoulded

Water
- Standing Water Level
- Out flow
- In flow

Investigation Type
- ☐ Hand Auger
- ☐ Investigation Pit
- ☑ Machine Borehole

Generated with CORE-GS by Geroc - 12/10/2020 16:22:32

NZGD ID: Other_152677

NZGD ID: Other_152679

INVESTIGATION LOG

Client:	Les Harrison Group of Companies
Project:	160 Higgins St, Hamilton
Location:	Stage 3B
Co-ordinates:	1798583mE, 5812444mN
Elevation:	Ground

Job No.: HD1389
No.: FA12
Date: 28.09.20
Logged By: BS
Checked By:

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)
Holocene Swamp Deposits	PEAT (AMORPHOUS); dark brown. Wet. 1.0 m: becoming saturated.	0.2, 0.4, 0.6, 0.8, 1.0, 1.2, 1.4, 1.6, 1.8, 2.0, 2.2, 2.4, 2.6, 2.8, 3.0, 3.2, 3.4, 3.6, 3.8, 4.0, 4.2, 4.4, 4.6, 4.8, 5.0, 5.2, 5.4, 5.6, 5.8, 6.0, 6.2, 6.4
Piako Subgroup	SILT; grey. Saturated. EOH: 7.00 m	6.6, 6.8, 7.0

Legend

Scala Penetrometer (Blows / 100 mm): 2, 4, 6, 8, 10, 12, 14, 16, 18

Vane Shear Strength (kPa) Vane: 50, 100, 150, 200, 250

Water: Groundwater Not Encountered

Photo

Remarks

End of log at 7.0 m - target depth, hole collapse at 1.0 m after drilling.

Shear Vanes
- Peak
- Remoulded

Water
- Standing Water Level
- Out flow
- In flow

Investigation Type
- [ ] Hand Auger
- [ ] Investigation Pit
- [x] Machine Borehole

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NZGD ID: Other_152679

NZGD ID: Other_152680

INVESTIGATION LOG

Client: Les Harrison Group of Companies
Project: 160 Higgins St, Hamilton
Location: Stage 2B
Co-ordinates: 1798991mE, 5812327mN
Elevation: Ground

Job No.: HD1389
No.: FA13
Date: 28.09.20
Logged By: BS
Checked By:

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)
Holocene Swamp Deposits	PEAT (SPONGY AND FIBROUS); dark brown. Wet.	0.0
	1.7 m: becoming saturated.	1.7
Piako Subgroup	SAND; grey. Saturated; uniformly graded; sand, fine.	2.8
	EOH: 3.50 m	3.5

Legend

Scala Penetrometer (Blows / 100 mm): 2, 4, 6, 8, 10, 12, 14, 16, 18

Vane Shear Strength (kPa) — Vane: 50, 100, 150, 200, 250

Water: 1.7 m

Photo

Remarks

End of log at 3.5 m - target depth.

Shear Vanes
- Peak
- Remoulded

Water
- Standing Water Level
- Out flow
- In flow

Investigation Type
- ☐ Hand Auger
- ☐ Investigation Pit
- ☑ Machine Borehole

Generated with CORE-GS by Geroc - 12/10/2020 16:22:35

NZGD ID: Other_152680

NZGD ID: Other_152681

INVESTIGATION LOG

Client:	Les Harrison Group of Companies
Project:	160 Higgins St, Hamilton
Location:	Stage 1B
Co-ordinates:	1799222mE, 5812253mN
Elevation:	Ground

Job No.: HD1389
No.: FA14
Date: 28.09.20
Logged By: BS
Checked By:

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)	Legend
Holocene Swamp Deposits	PEAT (SPONGY AND FIBROUS); dark brown. Wet.	0.0 – 2.4	
Piako Subgroup	Clayey SILT; orangish brown. Wet to saturated.	2.4 – 3.0	
	Silty SAND; brown. Saturated.	3.0 – 3.4	
	EOH: 3.50 m	3.4	

Scala Penetrometer (Blows / 100 mm): 2, 4, 6, 8, 10, 12, 14, 16, 18

Vane Shear Strength (kPa) Vane: 50, 100, 150, 200, 250

Water: Groundwater Not Encountered

Photo

Remarks

End of log at 3.5 m - target depth.

Shear Vanes
- Peak
- Remoulded

Water
- Standing Water Level
- Out flow
- In flow

Investigation Type
- ☐ Hand Auger
- ☐ Investigation Pit
- ☑ Machine Borehole

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NZGD ID: Other_152681

NZGD ID: Other_152683

INVESTIGATION LOG

Job No.:	HD1389
No.:	FA15
Client:	Les Harrison Group of Companies
Project:	160 Higgins St, Hamilton
Location:	Stage 1B
Co-ordinates:	1799391mE, 5812199mN
Elevation:	Ground
Date:	28.09.20
Logged By:	BS
Checked By:	

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)	Legend	Scala Penetrometer (Blows / 100 mm)	Vane Shear Strength (kPa)	Water
Holocene Swamp Deposits	PEAT (SPONGY AND FIBROUS); dark brown. Moist.	0.2, 0.4, 0.6, 0.8, 1.0, 1.2, 1.4, 1.6		2, 4, 6, 8, 10, 12, 14, 16, 18	50, 100, 150, 200, 250	Groundwater Not Encountered
Piako Subgroup	Clayey SILT; orangish brown. Moist.	1.8				
	SAND; brown. Moist; poorly graded; sand, fine to medium.	2.0, 2.2, 2.4, 2.6, 2.8, 3.0, 3.2, 3.4				
	EOH: 3.50 m					

Photo

Remarks

End of log at 3.5 m - target depth.

Shear Vanes
- Peak
- Remoulded

Water
- Standing Water Level
- Out flow
- In flow

Investigation Type
- ☐ Hand Auger
- ☐ Investigation Pit
- ☑ Machine Borehole

Generated with CORE-GS by Geroc - 12/10/2020 16:22:37

NZGD ID: Other_152683

NZGD ID: Other_152707

INVESTIGATION LOG

Client:	Les Harrison Group of Companies
Project:	160 Higgins St, Hamilton
Location:	Stage 5A
Co-ordinates:	1798363mE, 5812922mN
Elevation:	Ground

Job No.: HD1389
No.: P01
Date: 18.11.20
Logged By: BK/AM
Checked By:

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)	Legend	Scala Penetrometer (Blows / 100 mm)	Vane Shear Strength (kPa)	Water
Holocene Swamp Deposits	PEAT (PLASTIC) (PT); black. Wet; rootlets. 0.8 m: becomes saturated. EOH: 1.50 m	0.2, 0.4, 0.6, 0.8, 1.0, 1.2, 1.4, 1.6		2, 4, 6, 8, 10, 12, 14, 16, 18	Vane: 50, 100, 150, 200, 250	0.8 m

Photo

Remarks

End of log at 1.5 m - target depth.

Shear Vanes
- Peak
- Remoulded

Water
- Standing Water Level
- Out flow
- In flow

Investigation Type
- [ ] Hand Auger
- [ ] Investigation Pit
- [x] Machine Borehole

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NZGD ID: Other_152707

NZGD ID: Other_152710

INVESTIGATION LOG

Job No.:	HD1389
No.:	P02
Client:	Les Harrison Group of Companies
Project:	160 Higgins St, Hamilton
Location:	Stage 4B
Co-ordinates:	1798895mE, 5813091mN
Elevation:	Ground
Date:	18.11.20
Logged By:	BK/AM
Checked By:	

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)	Legend	Scala Penetrometer (Blows / 100 mm)	Vane Shear Strength (kPa)	Water
Holocene Swamp Deposits	PEAT (PLASTIC) (PT); dark brownish black. Wet; rootlets.	0.0		2 4 6 8 10 12 14 16 18	Vane: 50 100 150 200 250	Groundwater Not Encountered
	PEAT (PLASTIC) (PT); black. Saturated.	0.2				
		0.4				
		0.6				
		0.8				
		1.0				
	EOH: 1.30 m	1.2				
		1.4				

Photo

Remarks

End of log at 1.3 m - target depth.

Shear Vanes
- Peak
- Remoulded

Water
- Standing Water Level
- Out flow
- In flow

Investigation Type
- [ ] Hand Auger
- [ ] Investigation Pit
- [x] Machine Borehole

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NZGD ID: Other_152710

NZGD ID: Other_152712

INVESTIGATION LOG

Job No.:	HD1389
No.:	P03
Client:	Les Harrison Group of Companies
Project:	160 Higgins St, Hamilton
Location:	Stage 3B
Co-ordinates:	1798565mE, 5812427mN
Elevation:	Ground
Date:	18.11.20
Logged By:	BK/AM
Checked By:	

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)	Legend	Scala Penetrometer (Blows / 100 mm)	Vane Shear Strength (kPa)	Water
Holocene Swamp Deposits	PEAT (PLASTIC) (PT); dark brownish black. Wet; rootlets.	0.0 – 1.8				Groundwater Not Encountered
	PEAT (FIBROUS) (PT); black. Wet.	1.8 – 2.0				
	PEAT (FIBROUS) (PT); black. Wet.	2.0 – 2.7				
	EOH: 2.70 m	2.7				

Scala Penetrometer (Blows / 100 mm): 2, 4, 6, 8, 10, 12, 14, 16, 18

Vane Shear Strength (kPa) — Vane: 50, 100, 150, 200, 250

Depth (m): 0.2, 0.4, 0.6, 0.8, 1.0, 1.2, 1.4, 1.6, 1.8, 2.0, 2.2, 2.4, 2.6, 2.8

Photo

Remarks

End of log at 2.7 m - target depth.

Shear Vanes
- Peak
- Remoulded

Water
- Standing Water Level
- Out flow
- In flow

Investigation Type
- ☐ Hand Auger
- ☐ Investigation Pit
- ☑ Machine Borehole

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NZGD ID: Other_152712

NZGD ID: DCP_135570

INVESTIGATION LOG

Job No.: HD769

Client: Southpark Agri Developments Ltd

No.: DCP01

Project: 16 Wickham Street, Hamilton

Location: NE corner of site

Date: 05.11.18

Co-ordinates: -

Logged By: GP

Elevation: Ground

Checked By: JB

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)	Legend	Scala Penetrometer (Blows / 100 mm)	Vane Shear Strength (kPa) Vane:	Water
		0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8 3.0 3.2 3.4 3.6 3.8 4.0 4.2 4.4 4.6 4.8 5.0 5.2 5.4 5.6 5.8 6.0 6.2 6.4		2 4 6 8 10 12 14 16 18	50 100 150 200 250	Groundwater Not Encountered

Photo

Remarks

Shear Vanes
- Peak
- Remoulded

Water
- Standing Water Level
- Out flow
- In flow

Investigation Type
- Hand Auger
- Investigation Pit
- Machine Borehole

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NZGD ID: DCP_135570

NZGD ID: DCP_135571

INVESTIGATION LOG

Job No.: HD769

Client: Southpark Agri Developments Ltd

No.: DCP02

Project: 16 Wickham Street, Hamilton

Location: South - site centre

Date: 05.11.18

Co-ordinates: -

Logged By: GP

Elevation: Ground

Checked By: JB

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)	Legend	Scala Penetrometer (Blows / 100 mm)	Vane Shear Strength (kPa) Vane:	Water
		0.2 1 1 0.4 1 0.6 1 1 0.8 1 1.0 1 1 1.2 1 1.4 1 1 1.6 1 1 1.8 1 1 2.0 1 1 2.2 1 1 2.4 1 1 2.6 1 1 2.8 1 2 3.0 1 1 3.2 2 2 3.4 1 3 3.6 2 2 3.8 3 2 4.0 3 3 4.2 3 4 4.4 3 3 4.6 3 4.8 5.0 5.2 5.4 5.6 5.8 6.0 6.2 6.4		2 4 6 8 10 12 14 16 18	50 100 150 200 250	Groundwater Not Encountered

Photo

Remarks

Shear Vanes
- Peak
- Remoulded

Water
- Standing Water Level
- Out flow
- In flow

Investigation Type
- ☐ Hand Auger
- ☐ Investigation Pit
- ☑ Machine Borehole

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NZGD ID: DCP_135571

NZGD ID: DCP_135572

INVESTIGATION LOG

Job No.: HD769

Client: Southpark Agri Developments Ltd

Project: 16 Wickham Street, Hamilton

No.: DCP03

Location: South boundary

Co-ordinates: -

Elevation: Ground

Date: 05.11.18

Logged By: GP

Checked By: JB

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)	Legend	Scala Penetrometer (Blows / 100 mm)	Vane Shear Strength (kPa) Vane:	Water
		0.2 – 6.4		2 4 6 8 10 12 14 16 18	50 100 150 200 250	Groundwater Not Encountered

Photo	Remarks

Shear Vanes
- Peak
- Remoulded

Water
- Standing Water Level
- Out flow
- In flow

Investigation Type
- Hand Auger
- Investigation Pit
- Machine Borehole

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NZGD ID: DCP_135572

NZGD ID: DCP_135573

INVESTIGATION LOG

Job No.:	HD769
Client:	Southpark Agri Developments Ltd
No.:	DCP04
Project:	16 Wickham Street, Hamilton
Location:	North - site centre
Date:	05.11.18
Co-ordinates:	-
Logged By:	GP
Elevation:	Ground
Checked By:	JB

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)	Legend	Scala Penetrometer (Blows / 100 mm)	Vane Shear Strength (kPa) Vane:	Water
		0.2 – 6.4		2 4 6 8 10 12 14 16 18	50 100 150 200 250	Groundwater Not Encountered

Photo	Remarks

Shear Vanes
- Peak
- Remoulded

Water
- Standing Water Level
- Out flow
- In flow

Investigation Type
- ☐ Hand Auger
- ☐ Investigation Pit
- ☑ Machine Borehole

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NZGD ID: DCP_135573

NZGD ID: TP_108746

AECOM

LOG OF INSPECTION PIT

INSPECTION PIT IDENTIFICATION **ITP 1**

Client NZTA and HCC
Project Hamilton Southern Links
Project number 60164546

Co-ordinates 1798808.303mE 5812338.175mN
Orientation -90° Elevation
Location South Hamilton
Feature Peat Collins Road

Depth	GEOLOGICAL DESCRIPTION (Weathering, Relative Strength, Colour, Name, Defect Type, Lithological Features (bedding, foliation, mineralogy, cement, etc) Stratigraphic Unit)	Test Records	Sampling	DCP (Blows per 100mm)	MATERIAL DESCRIPTION (consistency, relative density, water content, plasticity, grading, etc) / Depth Related Remarks / DEFECT DESCRIPTION (Joints, Bedding Seams, Shatter, Shear and Crush Zones, Foliation, Schistosity, Attitude, Spacing, continuity, roughness, infilling, etc.)	Graphic Log	Instrumentation
0	Topsoil.			2 1	SILT; dark brown. Loose; moist.		
	Alluvial pumice, sand gravel. Hinuera Formation			2 1 1 1 1 1 2 2 2 3 3 3 3	Fine SAND; light brown. Loose; moist. 0.4m:Grades to light brownish grey. 0.9m:Grades to light grey.		
1				4 4 4 3 3 3 3	Fine to medium SAND; light grey. Medium dense; moist; pumiceous.		
2				2 2 1 1 2 1 1 1 0 0 1 0 1 0 0 1 1 1	Fine SAND; light brownish grey. Loose; moist. 2.7m:50mm lense of fine to coarse pumiceous gravel.		
3				2 1 2 3 5 5	ITP 1 terminated at 4m		
4							
5							

For explanation of symbols and observations, see key sheet

GROUNDWATER OBSERVATIONS
Number Depth (m) Date Post strike observations

Miniature shear vane
Vane number Blade Factor
Vane shear strength per NZGS guideline

Length
Width
Stability Stable

Excavation Method Hand Excavation
Orientation B

Remarks
- Farmland adjacent to Collins Road.

Started 1/09/2011
Finished 1/09/2011
Date logged 7/03/2011
Logged GMP
Checked DMM

Page 1 of 1

12/04/2005

NZGD ID: TP_108746

NZGD ID: TP_184125

TEST PIT LOG - TP08

Client: Classics Development
Project: Rogerson Block Subdivision
Site Location: 185 Tuhikaramea Road, Hamilton
Project No.: HAM2020-0088
Date: 16/10/2020

PRELIMINARY

CMW Geosciences

Test Pit Location: Refer to Site Investigation Plan Logged by: Checked by: Scale: 1:25 Sheet 1 of 1

Position: 342820.3mE; 596903.1mN Projection: Mount Eden Pit Dimensions: 3.0m by 2.0m

Elevation: Datum: Survey Source: Handheld GPS

Groundwater	Samples & Insitu Tests: Depth	Samples & Insitu Tests: Type & Results	RL (m)	Depth (m)	Graphic Log	Material Description (Soil: Soil symbol; soil type; colour; structure; bedding; plasticity; sensitivity; additional comments. (origin/geological unit) Rock: Colour; fabric; rock name; additional comments. (origin/geological unit))	Moisture Condition	Consistency/ Relative Density	Dynamic Cone Penetrometer (Blows/100mm) 5 10 15 20	Structure & Other Observations (Discontinuities: Depth; Defect Number; Defect Type; Dip; Defect Shape; Roughness; Aperture; Infill; Seepage; Spacing; Block Size; Block Shape; Remarks)
						OL: Organic SILT: with minor rootlets; black mottled brown.				
	0.4	Peak = 77kPa Residual = 26kPa				Pt: Silty Amorphous PEAT: with minor rootlets; dark brown. Low plasticity, moderately sensitive.	M to W			
	1.0	Peak = 71kPa Residual = 43kPa		1		ML: SILT: with minor fine to coarse sand; brown mottled orange. Low plasticity, insensitive.	W	St		
	1.8	Peak = 99kPa Residual = 40kPa				ML: SILT: with minor clay; light brownish grey. Low plasticity, moderately sensitive.				
16-10-2020				2		SW: Fine to coarse SAND: grey. Well graded, subangular to subrounded.	W to S	MD		
						ML: SILT: dark brown. Low plasticity.	W	F		2.8m: Hole collapse; no strength data below this depth.
				3		MH: Clayey SILT: light grey. High plasticity.		St		
						Test pit terminated at 3.40 m				
				4						
				5						

Termination Reason: Hole collapse.

Shear Vane No: 2532 DCP No:

Remarks: Where no strength testing carried out consistency/relative density assessed by visual tactile observation and other results.

This report is based on the attached field description for soil and rock, CMW Geosciences - Field Logging Guide, Revision 3 - April 2018.

NZGD ID: TP_184125

NZGD ID: TP_184125

TEST PIT PHOTOGRAPHS: TP08

Client: Classics Developments
Project: Rogerson Block Subdivision
Location: 185 Tuhikaramea Road
Project No: HAM2020-0088
Date: 16/10/2020

Logged by: LYK	Position: 342820.3 E, 596903.1 N	Dimensions: 2mx3m	Plant: 16 t Excavator
Checked by:	Elevation: -	Termination Depth: 3.4m	Contractor: Rogerson Contractors

TP08 – TEST PIT EXCAVATION

This report of test pit must be read in conjunction with accompanying notes and abbreviations.

NZGD ID: TP_184125

NZGD ID: TP_184128

TEST PIT LOG - TP11

Client: Classics Development
Project: Rogerson Block Subdivision
Site Location: 185 Tuhikaramea Road, Hamilton
Project No.: HAM2020-0088
Date: 16/10/2020

PRELIMINARY

CMW Geosciences

Test Pit Location: Refer to Site Investigation Plan | Logged by: LK | Checked by: | Scale: 1:25 | Sheet 1 of 1

Position: 342378.5mE; 596578.8mN | Projection: Mount Eden | Pit Dimensions: 4.0m by 2.0m
Elevation: | Datum: | Survey Source: Handheld GPS

Groundwater	Samples & Insitu Tests: Depth	Samples & Insitu Tests: Type & Results	RL (m)	Depth (m)	Graphic Log	Material Description	Moisture Condition	Consistency/ Relative Density	Dynamic Cone Penetrometer (Blows/100mm)	Structure & Other Observations
16-10-2020 ▼	0.5	Peak = 54kPa Residual = 34kPa		0		Pt: Silty Amorphous PEAT: black. Low plasticity, insensitive.	W	St		
				1		*... at 1.00m, Contains minor roots 50mm diameter.*				
	1.2	Peak = 102kPa Residual = 34kPa				ML: SILT: with minor fine to coarse sand; brown mottled orange. Low plasticity, moderately sensitive.	S	VSt		
						SW: Fine to coarse SAND: grey. Well graded, subangular to subrounded.		MD		1.5m: Hole collapse; no strength data below this depth.
				2		ML: SILT: dark brown. Low plasticity.		F		
						Test pit terminated at 2.80 m				
				3						
				4						
				5						

Dynamic Cone Penetrometer (Blows/100mm): 5 10 15 20

Termination Reason: Hole collapse.
Shear Vane No: 2532 DCP No:

Remarks: Where no strength testing carried out consistency/relative density assessed by visual tactile observation and other results.

This report is based on the attached field description for soil and rock, CMW Geosciences - Field Logging Guide, Revision 3 - April 2018.

NZGD ID: TP_184128

NZGD ID: TP_184128

TEST PIT PHOTOGRAPHS: TP11

Client: Classics Developments
Project: Rogerson Block Subdivision
Location: 185 Tuhikaramea Road
Project No: HAM2020-0088
Date: 16/10/2020

Logged by: LYK	Position: 342378.5 E, 596578.8 N	Dimensions: 2mx4m	Plant: 16 t Excavator
Checked by:	Elevation: -	Termination Depth: 2.8m	Contractor: Rogerson Contractors

TP11 – TEST PIT EXCAVATION

This report of test pit must be read in conjunction with accompanying notes and abbreviations.

NZGD ID: TP_184128

NZGD ID: TP_184129

TEST PIT LOG - TP12

Client: Classics Development
Project: Rogerson Block Subdivision
Site Location: 185 Tuhikaramea Road, Hamilton
Project No.: HAM2020-0088
Date: 16/10/2020

PRELIMINARY

CMW Geosciences

Test Pit Location: Refer to Site Investigation Plan Logged by: LK Checked by: Scale: 1:25 Sheet 1 of 1

Position: 342593.5mE; 596503.1mN Projection: Mount Eden Pit Dimensions: 3.0m by 2.0m

Elevation: Datum: Survey Source: Handheld GPS

Groundwater	Samples & Insitu Tests: Depth	Samples & Insitu Tests: Type & Results	RL (m)	Depth (m)	Graphic Log	Material Description	Moisture Condition	Consistency/ Relative Density	Dynamic Cone Penetrometer (Blows/100mm)	Structure & Other Observations
	0.6	Peak = 91kPa Residual = 37kPa		1		Pt: Silty Amorphous PEAT: with trace wood; black. Low plasticity, moderately sensitive; wood, <50mm diameter.	W	St	5 10 15 20	
	1.2	Peak = 91kPa Residual = 28kPa				ML: SILT: with minor fine to coarse sand; grey mottled green. Low plasticity, moderately sensitive.				
	2.0	Peak = 77kPa Residual = 37kPa		2		SW: Fine to coarse SAND: grey. Well graded, subangular to subrounded.				
16-10-2020				3			W to S	MD		2.5m: Hole collapse; no strength data below this depth.
						ML: SILT: dark brown. Low plasticity.	W	F to St		
						SW: Fine to coarse SAND: grey. Well graded, subangular to subrounded.		MD		
				4		Test pit terminated at 4.00 m				
				5						

Termination Reason: Limit of investigation

Shear Vane No: 2532 DCP No:

Remarks: Where no strength testing carried out consistency/relative density assessed by visual tactile observation and other results.

This report is based on the attached field description for soil and rock, CMW Geosciences - Field Logging Guide, Revision 3 - April 2018.

NZGD ID: TP_184129

NZGD ID: TP_184129

TEST PIT PHOTOGRAPHS: TP12

Client: Classics Developments
Project: Rogerson Block Subdivision
Location: 185 Tuhikaramea Road
Project No: HAM2020-0088
Date: 16/10/2020

Logged by: LYK	Position: 342593.5 E, 596503.1 N	Dimensions: 2mx3m	Plant: 16 t Excavator
Checked by:	Elevation: -	Termination Depth: 4.0m	Contractor: Rogerson Contractors

TP12 – TEST PIT EXCAVATION

This report of test pit must be read in conjunction with accompanying notes and abbreviations.

NZGD ID: TP_184129

NZGD ID: TP_184130

TEST PIT LOG - TP13

Client: Classics Development
Project: Rogerson Block Subdivision
Site Location: 185 Tuhikaramea Road, Hamilton
Project No.: HAM2020-0088
Date: 16/10/2020

PRELIMINARY

CMW Geosciences

Test Pit Location: Refer to Site Investigation Plan | Logged by: LK | Checked by: | Scale: 1:25 | Sheet 1 of 1

Position: 342670.8mE; 596646.7mN | Projection: Mount Eden | Pit Dimensions: 3.0m by 2.0m
Elevation: | Datum: | Survey Source: Handheld GPS

Groundwater	Samples & Insitu Tests: Depth	Samples & Insitu Tests: Type & Results	RL (m)	Depth (m)	Graphic Log	Material Description	Moisture Condition	Consistency/ Relative Density	Dynamic Cone Penetrometer (Blows/100mm)	Structure & Other Observations
						OL: Organic SILT: black.			5 10 15 20	
	0.5	Peak = 102kPa Residual = 65kPa				Pt: Silty Amorphous PEAT: with trace wood; dark brown. Low plasticity, insensitive; wood >50mm diameter.		VSt		0.8m: Water level in nearby drain.
	1.0	Peak = 111kPa Residual = 65kPa		1			W			
	1.6	Peak = 68kPa Residual = 23kPa				ML: SILT: with minor fine to coarse sand; grey mottled green. Low plasticity, moderately sensitive.		St		
▼				2						2.0m: Slow seepage from silt.
						SM: Silty Fine SAND: light grey mottled orange. Poorly graded, subrounded, moderately thickly bedded, Inter-bedded with silt.		L to MD		2.5m: Moderate groundwater seepage from sand.
	2.7	Peak = 96kPa Residual = 40kPa				ML: SILT: grey. Low plasticity, insensitive.	S	St		
				3		SW: Fine to coarse SAND: grey. Well graded, subangular to subrounded.		MD		
	3.5	Peak = 77kPa Residual = 31kPa				ML: SILT: dark brown. Low plasticity.		St		
						ML: SILT: grey. Low plasticity.	W			
				4				VSt		
	4.2	Peak = 108kPa Residual = 45kPa				Test pit terminated at 4.20 m				
				5						

Termination Reason: Limit of investigation
Shear Vane No: 2532 DCP No:

Remarks: Where no strength testing carried out consistency/relative density assessed by visual tactile observation and other results.

This report is based on the attached field description for soil and rock, CMW Geosciences - Field Logging Guide, Revision 3 - April 2018.

NZGD ID: TP_184130

NZGD ID: TP_184130

TEST PIT PHOTOGRAPHS: TP13

Client: Classics Developments
Project: Rogerson Block Subdivision
Location: 185 Tuhikaramea Road
Project No: HAM2020-0088
Date: 16/10/2020

CMW Geosciences

Logged by: LYK	Position: 342670.8 E, 596646.7 N	Dimensions: 2mx3m	Plant: 16 t Excavator
Checked by:	Elevation: -	Termination Depth: 4.2m	Contractor: Rogerson Contractors

TP13 – TEST PIT EXCAVATION

This report of test pit must be read in conjunction with accompanying notes and abbreviations.

NZGD ID: TP_184130

APPENDIX F

Natural Hazard Risk Classification

NATURAL HAZARDS RISK ASSESSMENT

PROPOSED INDUSTRIAL DEVELOPMENT, STAGE 1, SOUTHERN LINKS

1 CONTEXT

This appendix to CMW report reference HAM2024-0120AE Rev 1 sets out the criteria for and presents the results of an assessment of the geotechnical-related natural hazards associated with this proposed development.

Section 106 of the Resource Management Act (RMA) requires an assessment of the risk from natural hazards to be carried out when considering the granting of a subdivision consent. S106 RMA specifically states that the assessment must consider the combined effect of the natural hazard likelihood and material damage to land, other land, or structures (consequence).

Section 2 of the RMA defines natural hazards as any atmospheric or earth or water related occurrence (including earthquake, tsunami, erosion, volcanic and geothermal activity, landslip, subsidence, sedimentation, wind, drought, fire, or flooding) the action of which adversely affects or may adversely affect human life, property, or other aspects of the environment.

The National Policy Statement for Natural Hazards 2025 (NPS-NH) provides direction under the Resource Management Act 1991 for assessing the risk associated with natural hazards for subdivision, use and development.

2 BASIS OF ASSESSMENT

2.1 Risk Classification

The occurrence of natural hazards and their potential impacts on the proposed subdivision development is assessed in terms of risk significance, which is based on likelihood and consequence factors. A risk matrix is used to assess the likelihood and consequence factors, the form of which used by CMW for this project is presented in Table B1 which is derived from Appendix 1 of the NPS-NH.

Table B1: Risk Matrix

ARI (Years) AEP	Almost certain Up to 10 10% or more	Very Likely 10-20 10% to 5%	Likely 20 – 50 5% to 2%	Possible 50 – 100 2% to 1%	Unlikely 100 – 500 1% to 0.2%	Rare 500 – 5000 0.2% to 0.02%	Very rare >5000 <0.02%
Catastrophic	Very High	Very High	Very High	High	Medium	Medium	Medium
Major	Very High	Very High	High	High	Medium	Medium	Medium
Moderate	High	High	High	Medium	Medium	Low	Low
Minor	Medium	Medium	Medium	Medium	Low	Low	Low
Negligible	Low	Low	Low	Low	Low	Low	Low

2.2 Likelihood

With respect to assessing the likelihood or chance of the risk occurring, the qualitative definitions used by CMW for this project are provided in Table B2 for each likelihood classification, which is derived from Appendix 1 of the NPS-NH.

Table B2: Likelihood Classification (extract from NPS-NH)

Likelihood level	Annual exceedance probability (AEP)	Average recurrence interval (ARI) or 'return period'
Almost certain	10% or more	Up to and including 10 years
Very likely	10% to 5%	Over 10 and up to and including 20 years
Likely	5% to 2%	Over 20 and up to and including 50 years
Possible	2% to 1%	Over 50 and up to and including 100 years
Unlikely	1% to 0.2%	Over 100 and up to and including 500 years
Rare	0.2% to 0.02%	Over 500 and up to and including 5,000 years
Very rare	Less than 0.02%	More than 5,000 years

2.3 Consequence

In terms of determining the consequence or severity of the natural hazard occurring, the qualitative definitions used by CMW for this project are provided in Table B3 for each consequence classification, which is derived from Appendix 1 of the NPS-NH.

Table B3: Consequence Table (extract from NPS-NH)

Consequence Level	Damage to Property	Potential for Injury or Fatalities
Catastrophic	Severe damage to land and building(s), potential for collapse or total destruction f structures. Building(s) need to be demolished, rebuilt or relocated.	High threat to life safety, with probable fatalities and/or critical injuries.
Major	Major damage to land and building(s), including structural damage. Loss of use and substantial repair required.	Unsafe for people, with potential for many injuries, or critical injuries and/or fatalities.
Moderate	Some damage to land and non-structural damage to building(s). Limited loss of use, repairs required.	Unsafe for people, with potential for injuries, although expected to be minor.
Minor	Minor damage to land and building(s). No loss of use, minimal repairs required.	Isolated minor injuries possible.
Negligible	No loss of use, no building repairs required.	No injuries.

2.4 Proportionate Management of Natural Hazard Risk

It is recognised that the natural hazard risk assessment provided herein is qualitative and, due to the wide range of possible geohazards that could occur, is somewhat subjective. Decision-makers must consider the scale and detail of information necessary to assess the risk by having regard to the anticipated level of risk.

Other methods are available to quantitatively assess an acceptable level of geotechnical related natural hazard risk, such as defining an acceptable factor of safety with respect to slope stability or acceptable differential ground settlements with respect to recommended building code limits.

When managing natural hazard risk associated with subdivision, use and development, decision-makers must apply mitigation measures, including location and design, for the purposes of ensuring that:

(a) very high natural hazard risk is avoided;

(b) high or medium natural hazard risk is avoided or mitigated proportionate to the

level of risk; and

(c) any creation of, or increase in, significant natural hazard risk on other sites is avoided or mitigated proportionate to the level of natural hazard risk.

3 RISK ASSESSMENT

The natural hazards relevant to this proposed subdivision development and adjacent, potentially affected land have been assessed with respect to the criteria outlined above.

Assessment is based on proposed post development ground conditions with and without any geotechnical controls. The latent risk was first assessed with the site in its proposed developed state to consider the risks to the development and surrounding land, including assessment of land modifications from the pre-existing natural state, without any implemented geotechnical controls. The specific geotechnical mitigation measures and engineering design solutions outlined in the table below and CMW report, where relevant, were then considered to determine the natural hazard residual risk remaining after the proposed controls have been implemented.

Results of this assessment are presented in Table C1 below.

Table C1: Natural Hazard Risk Assessment Results

NPHS Hazard	Description	Proposed Site Latent Risk of Damage to Land / Structures			Comments and Geotechnical Control	Proposed Site Residual Risk of Damage to Land / Structures OR Acceleration/ Worsening of Hazard with Geotechnical Controls Implemented		
		Likelihood	Consequence	Risk Rating		Likelihood	Consequence	Risk Rating
Earthquake	Seismicity	Rare	Major	Medium	Site subsoil class = Class D ULS PGA = 0.25g Importance Level 2	Rare	Major	Medium

Table C1: Natural Hazard Risk Assessment Results								
NPHS Hazard	Description	Proposed Site Latent Risk of Damage to Land / Structures			Comments and Geotechnical Control	Proposed Site Residual Risk of Damage to Land / Structures OR Acceleration/ Worsening of Hazard with Geotechnical Controls Implemented		
		Likelihood	Consequence	Risk Rating		Likelihood	Consequence	Risk Rating
	Fault Rupture	Rare	Moderate	Low	Approximately 50km from the Kerepehi Fault. Recurrence interval of 2,000 to 3,500 years, no control required.	Rare	Moderate	Low
	Liquefaction Subsidence	Rare	Major	Medium	Refer Section 7.5 Liquefaction induced settlement and reduced bearing capacity should be accounted for within the foundation design	Rare	Minor	Low
	Lateral Spread	Rare	Negligible	Low	Refer Section 7.8. No geotechnical controls warranted.	Rare	Negligible	Low
	Cyclic Softening	Rare	Negligible	Low	Walton Subgroup soils are deeper than 10m below surface, so surface expression from cyclic softening expected to be negligible.	Rare	Negligible	Low
Volcanic Activity	Ash & Pyroclastic Falls	Very Rare	Moderate	Low	Low risk due to distance from closest known volcanic area	Very Rare	Moderate	Low
	Lava flows & Lahars	Very Rare	Moderate	Low	Low risk due to distance from closest known volcanic area	Very Rare	Moderate	Low
Geothermal Activity	Formation of geysers, hot springs, fumaroles, mud pools	Very Rare	Moderate	Low	Low risk due to distance from closest known geothermal area	Very Rare	Moderate	Low

Table C1: Natural Hazard Risk Assessment Results								
NPHS Hazard	Description	Proposed Site Latent Risk of Damage to Land / Structures			Comments and Geotechnical Control	Proposed Site Residual Risk of Damage to Land / Structures OR Acceleration/ Worsening of Hazard with Geotechnical Controls Implemented		
		Likelihood	Consequence	Risk Rating		Likelihood	Consequence	Risk Rating
Erosion	Cut and Fill Batters	Almost Certain	Minor	Medium	Slope batters to be designed by geotechnical engineer	Unlikely	Minor	Low
Landslip	Global Slope Instability	Possible	Moderate	Medium	Refer to Section 7.8. No instability anticipated in low areas except around SW ponds/swales	Rare	Moderate	Low
	Soil Creep	Rare	Negligible	Low	No geotechnical control warranted	Rare	Negligible	Low
	Bearing Capacity Failure	Possible	Moderate	Medium	Bearing Capacity to be assessed by Geotechnical Engineer and foundations designed to suit	Rare	Moderate	Low
	Cut & Fill Batter Instability	Possible	Moderate	Medium	Slope batters to be designed by geotechnical engineer	Rare	Moderate	Low
Problematic Soils	Expansive Soils	Very Rare	Moderate	Low	Experience in similar soils indicate that the soils on the site are non-expansive	Very Rare	Moderate	Low
Subsidence	Soft soils leading to foundation subsidence	Major	Almost Certain	Very High	Settlement in low lying areas is predicted to be excessive and soil consolidation through preloading will be required prior to construction, as outlined in Section 7.10	Unlikely	Major	Medium
	Sinkholes	Rare	Moderate	Low	Not encountered during investigation	Very Rare	Moderate	Low

Table C1: Natural Hazard Risk Assessment Results								
NPHS Hazard	Description	Proposed Site Latent Risk of Damage to Land / Structures			Comments and Geotechnical Control	Proposed Site Residual Risk of Damage to Land / Structures OR Acceleration/ Worsening of Hazard with Geotechnical Controls Implemented		
		Likelihood	Consequence	Risk Rating		Likelihood	Consequence	Risk Rating
	Effects of Dewatering	Possible	Major	High	Groundwater was encountered at shallow depths below the site. Will need to be considered for: swale design, temporary works dewatering impact on neighbouring properties, assessment of drawdown effects required, etc.	Rare	Moderate	Low
Sedimentation	Rockfall, Debris Inundation	Very Rare	Negligible	Low	Site is near level	Very Rare	Negligible	Low
Coastal Erosion & Coastal Inundation	Erosion and Inundation	Very Rare	Negligible	Low	Site is >50km away from coast	Very Rare	Negligible	Low
Tsunami	Tsunami	Very Rare	Negligible	Low	Site is >50km away from coast	Very Rare	Negligible	Low
Flooding	Inundation	Almost Certain	Moderate	High	Groundwater was encountered at shallow depths below the site. Will need to be considered for: swale design, temporary works dewatering impact, assessment of drawdown effects required, etc.	Possible	Moderate	Medium

Notes:

- Assessments includes the impact of the proposed works on adjacent properties.
- The following reference(s) contain information on the hazards contained in this assessment and the non-geotechnical hazards that have not been included:

- Waikato
  https://waikatoregion.maps.arcgis.com/apps/MapSeries/index.html?appid=f2b48398f93146e8a5cf0aa3fddce92c

APPENDIX G
Liquefaction Results

Liquefaction Analysis Summary

Project: Southern Links - Stage 1 Industrial
Location: Hamilton
Date: 24/04/2026

CPT No.	SLS Settlement (mm)	Index ULS Settlement (mm)	Total ULS Settlement (mm) IL2 (PGA 0.25)	Total ULS Settlement (mm) with reduced Ic (2.2) IL2 (PGA 0.25)	Total ULS Settlement (mm) IL3 (PGA 0.32)	Total ULS Settlement (mm) with reduced Ic (2.2) IL3 (PGA 0.32)	Depth to Liquefied Layer (m)
CPT25-01	<5	25	25	15	35	20	2.5
CPT25-02	<5	<5	<5	<5	<5	<5	NA
CPT25-03	<5	35	35	<5	35	<5	0.8
CPT25-04	<5	45	45	10	50	10	1.9
CPT25-06	<5	165	165	<5	170	<5	0
CPT25-07	<5	80	80	25	80	25	0.7
CPT25-08A	<5	110	110	60	110	60	1
CPT25-09	<5	15	35	15	50	20	3.4
CPT25-10	<5	40	40	30	50	35	1.6
CPT25-11	<5	10	10	<5	10	<5	1.7
CPT25-12	<5	40	60	30	70	35	2.5
CPT25-13	<5	20	35	10	40	15	2.9
CPT25-14	<5	35	35	10	50	20	1
CPT25-15	<5	15	25	10	35	15	3
CPT25-16	<5	25	25	10	30	10	1.7
CPT25-17	<5	25	60	15	60	20	2.6
CPT25-18	<5	25	25	<5	25	<5	4.3
CPT25-19	<5	100	125	10	15	10	2
CPT25-20	<5	30	30	<5	40	<5	1.3
min		10	10	10	10	10	0
max		165	165	60	170	60	4.3

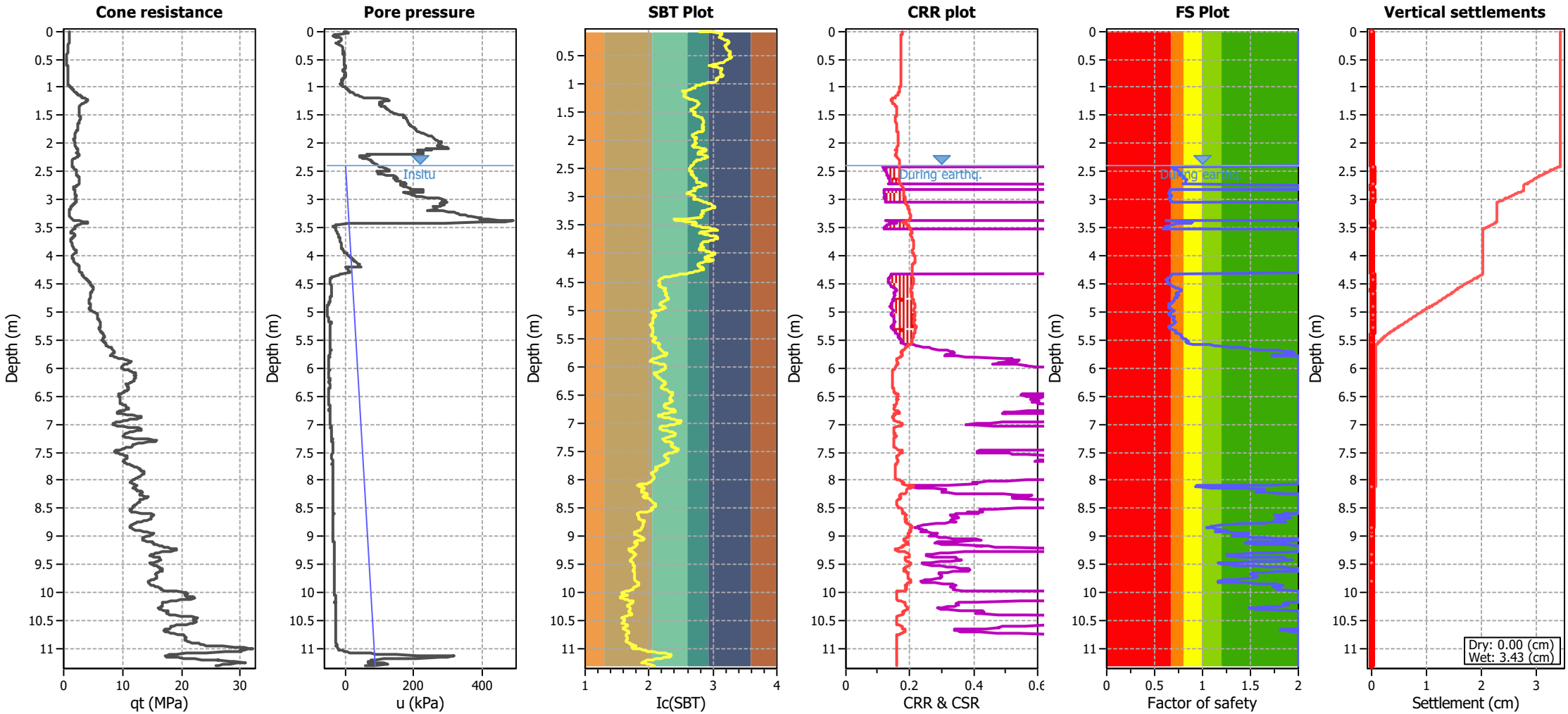
GeoLogismiki
Geotechnical Engineers
Merarhias 56
http://www.geologismiki.gr

Project:

Location:

CPT: CPT-01

Total depth: 11.30 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	2.40 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	2.40 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

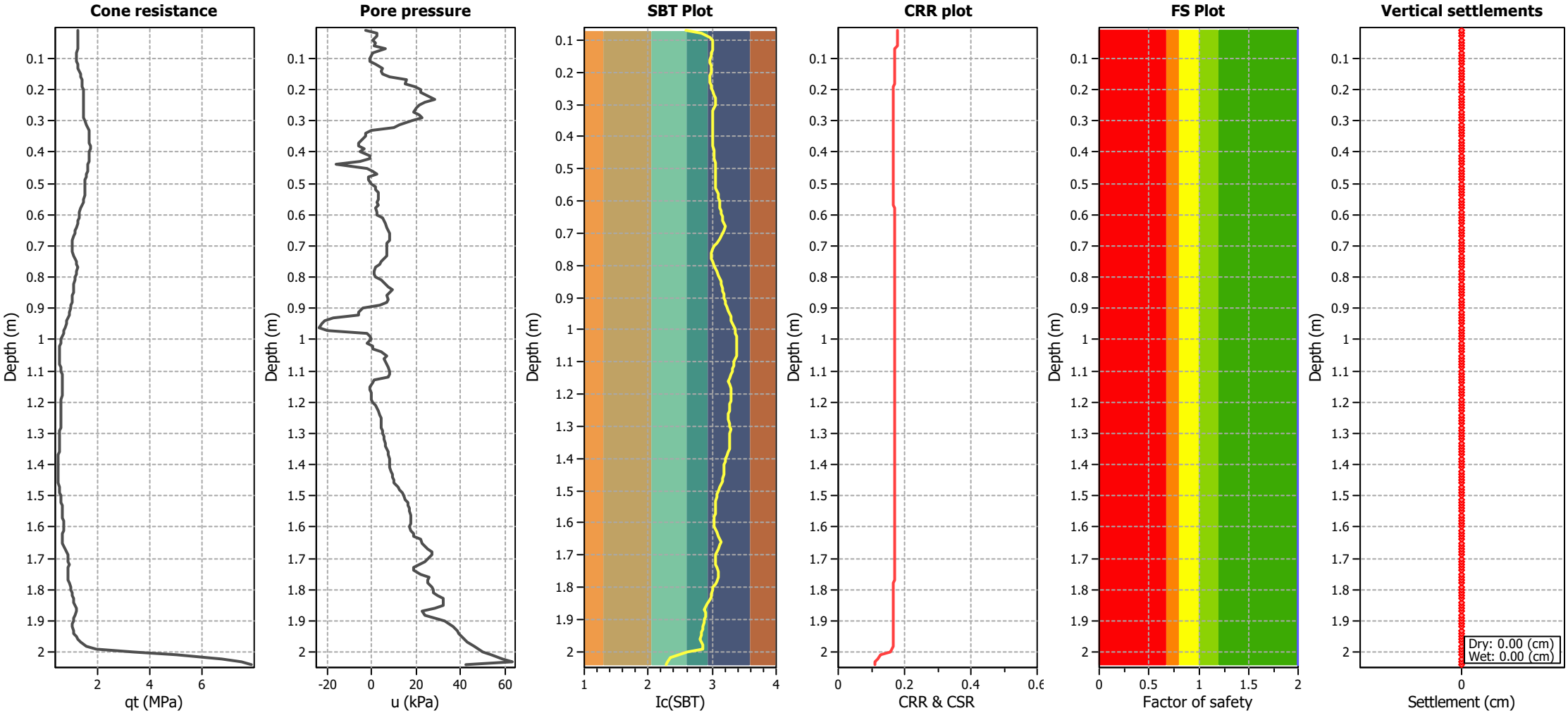
GeoLogismiki
Geotechnical Engineers
Merarhias 56
http://www.geologismiki.gr

Project:

Location:

CPT: CPT-02

Total depth: 2.04 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	2.90 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	2.90 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

GeoLogismiki
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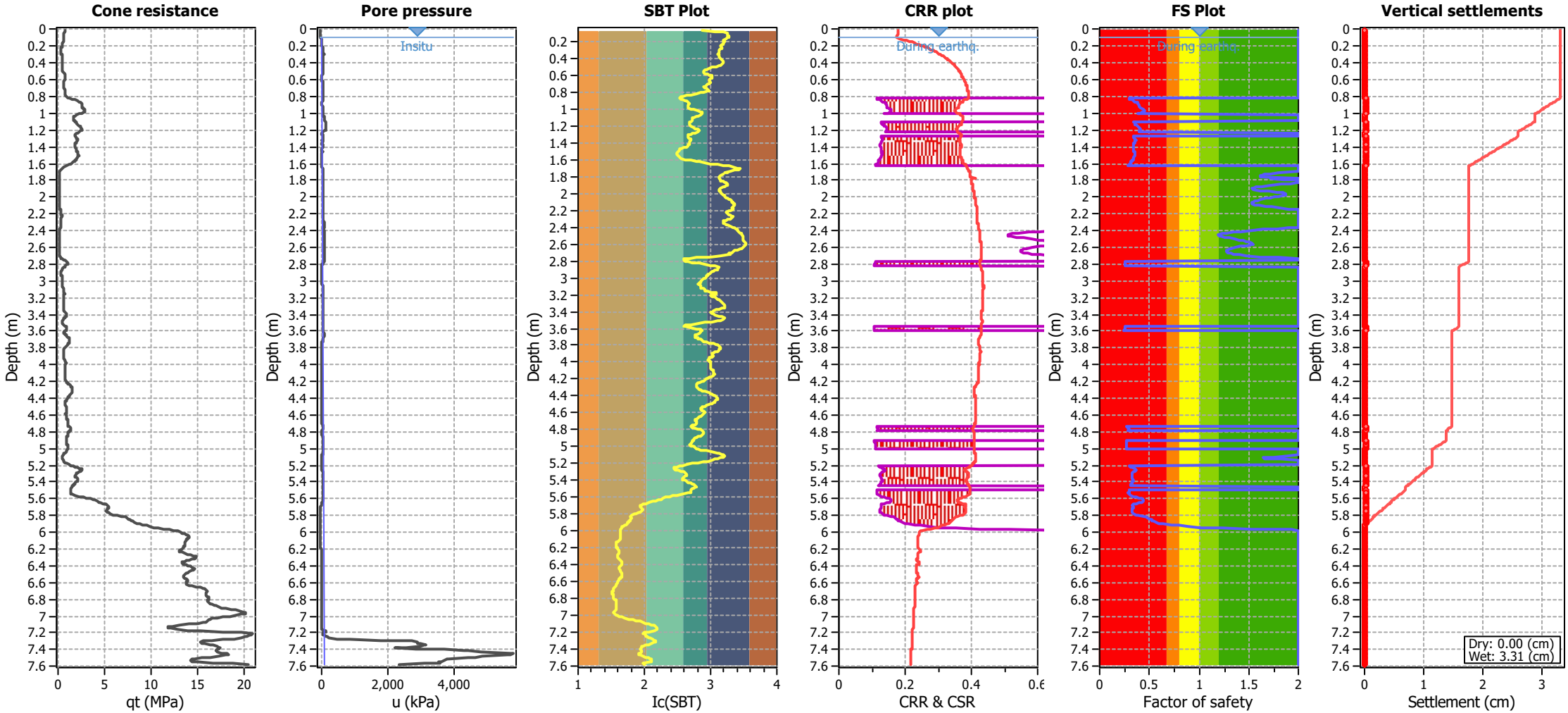
Merarhias 56
http://www.geologismiki.gr

Project:

Location:

CPT: CPT-03

Total depth: 7.58 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	0.10 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	0.10 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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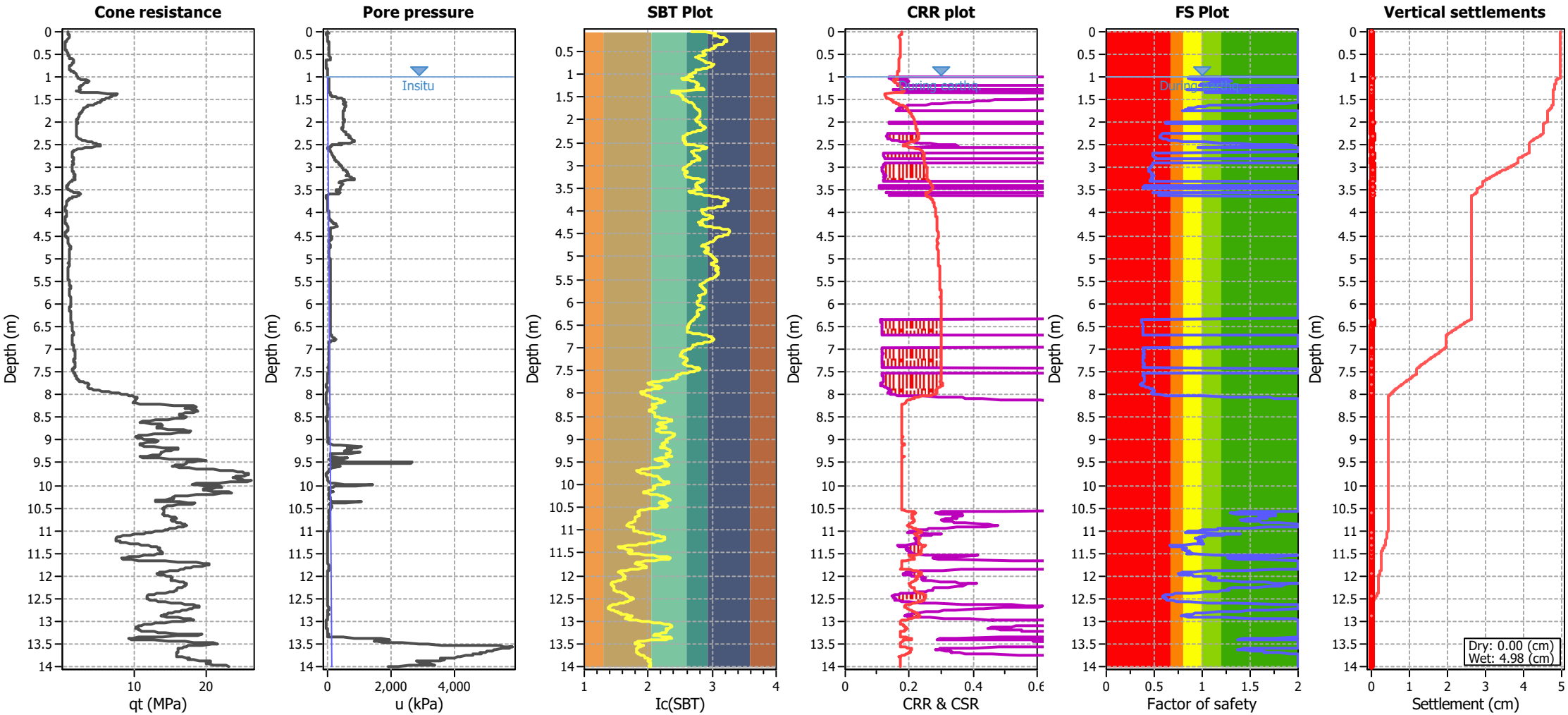
Project:

Location:

CPT: CPT-04

Total depth: 13.99 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	1.00 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	1.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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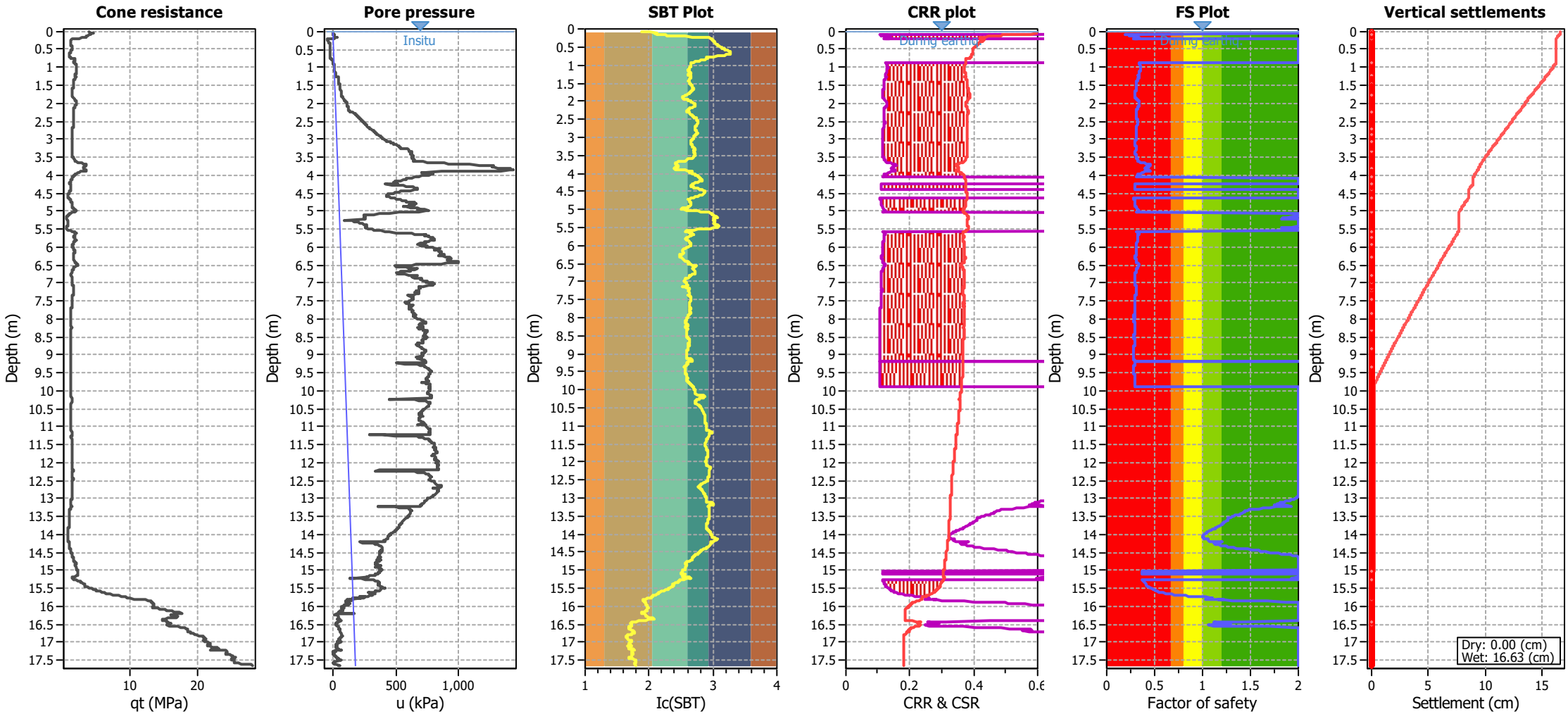
Project:

Location:

CPT: CPT-06

Total depth: 17.65 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	0.00 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	0.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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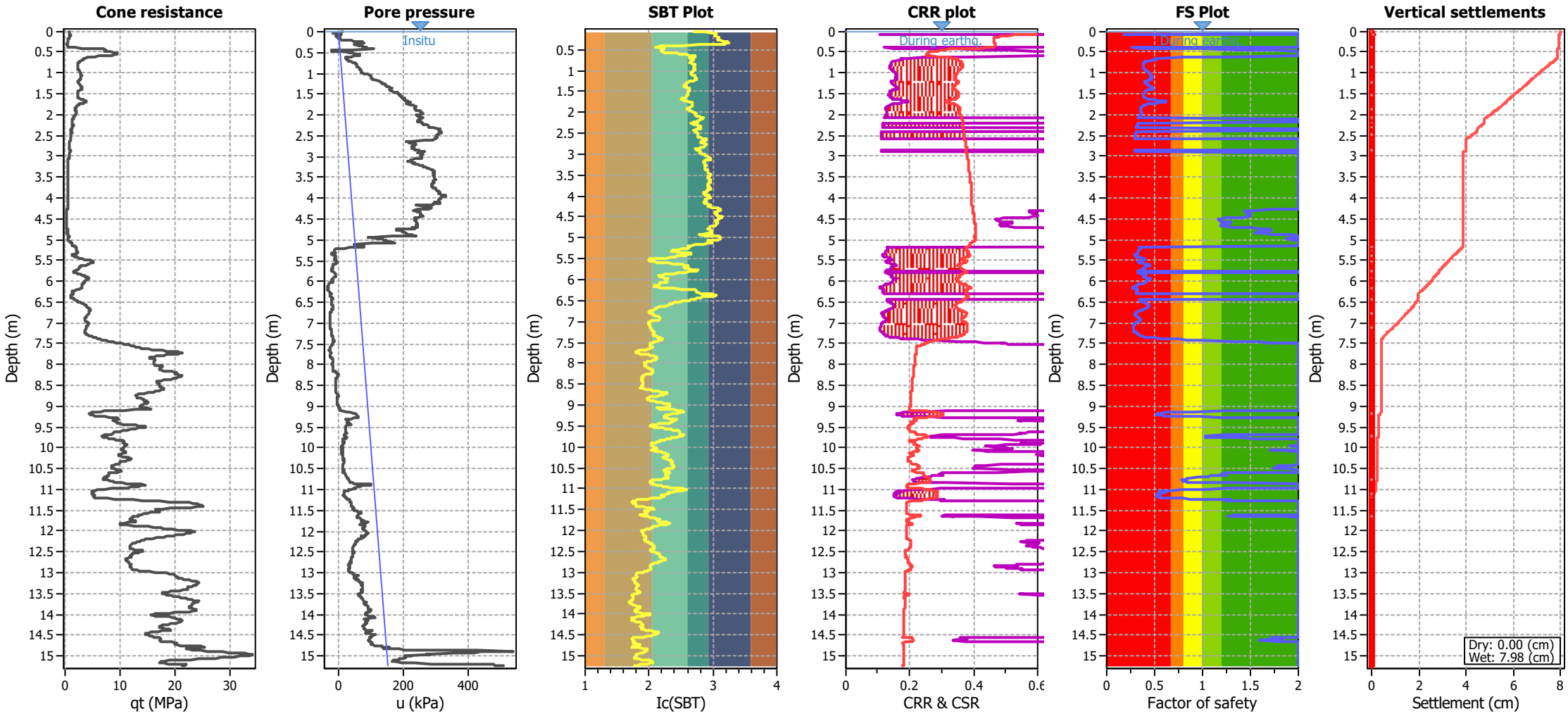
Project:

Location:

CPT: CPT-07

Total depth: 15.23 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	0.00 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	0.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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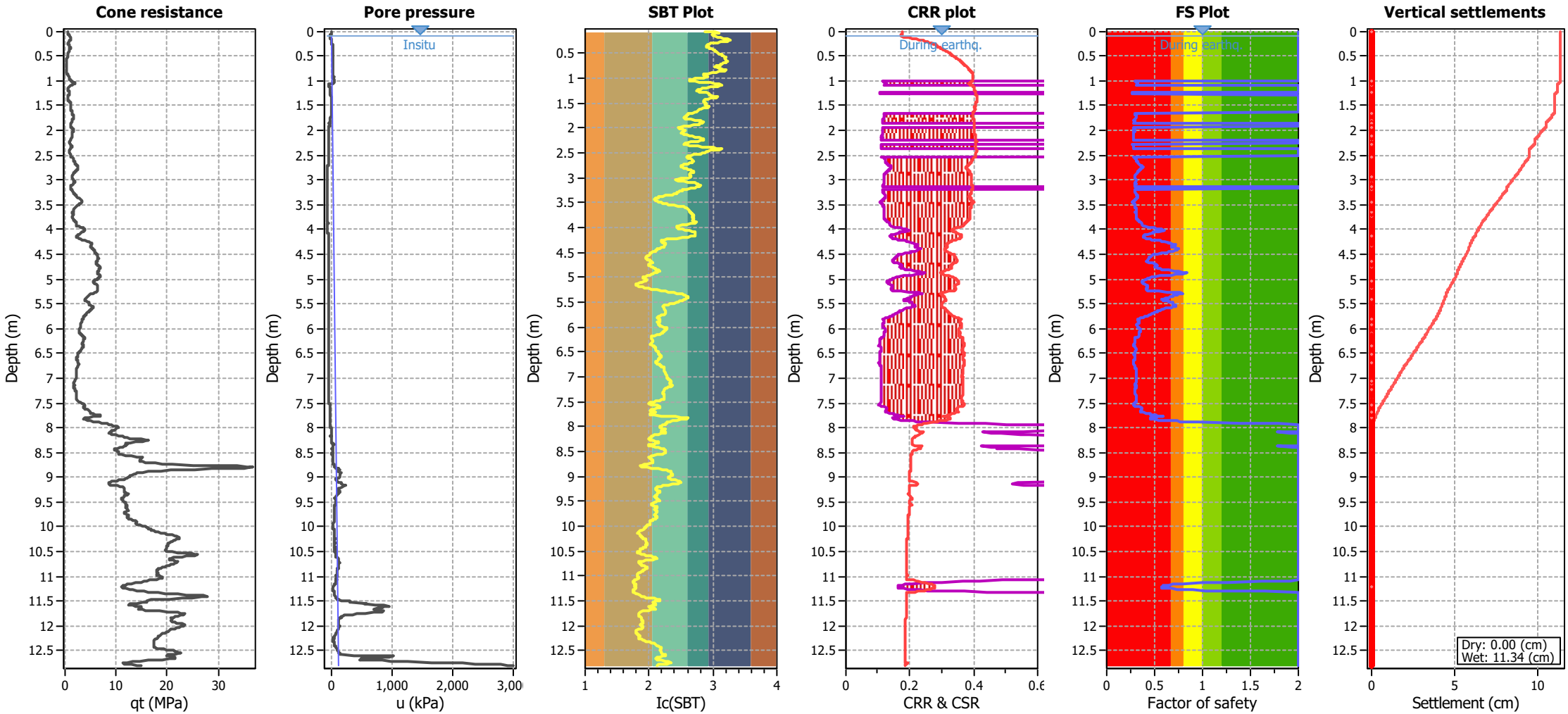
Project:

Location:

CPT: CPT-08

Total depth: 12.80 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	0.10 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	0.10 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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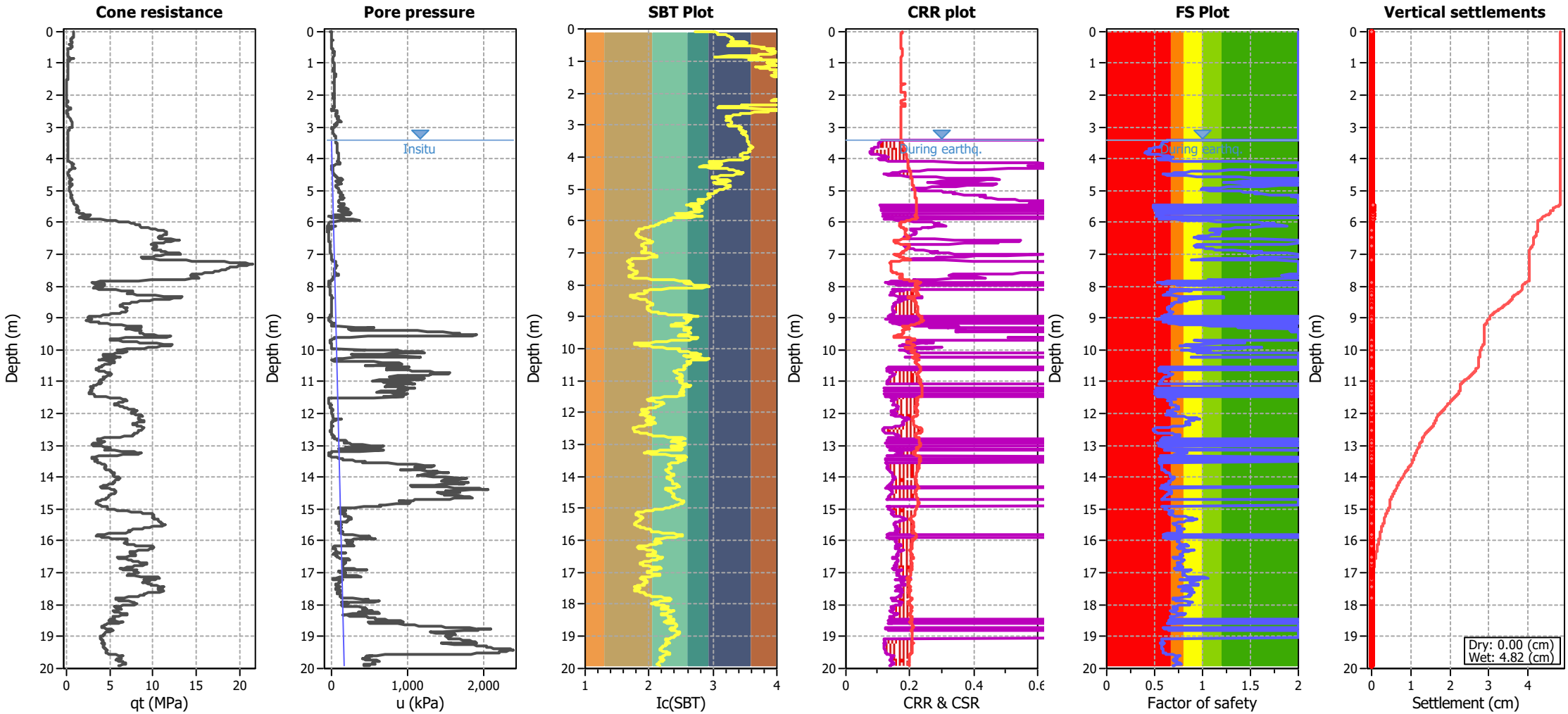
Project:

Location:

CPT: CPT-09

Total depth: 19.92 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	3.40 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	3.40 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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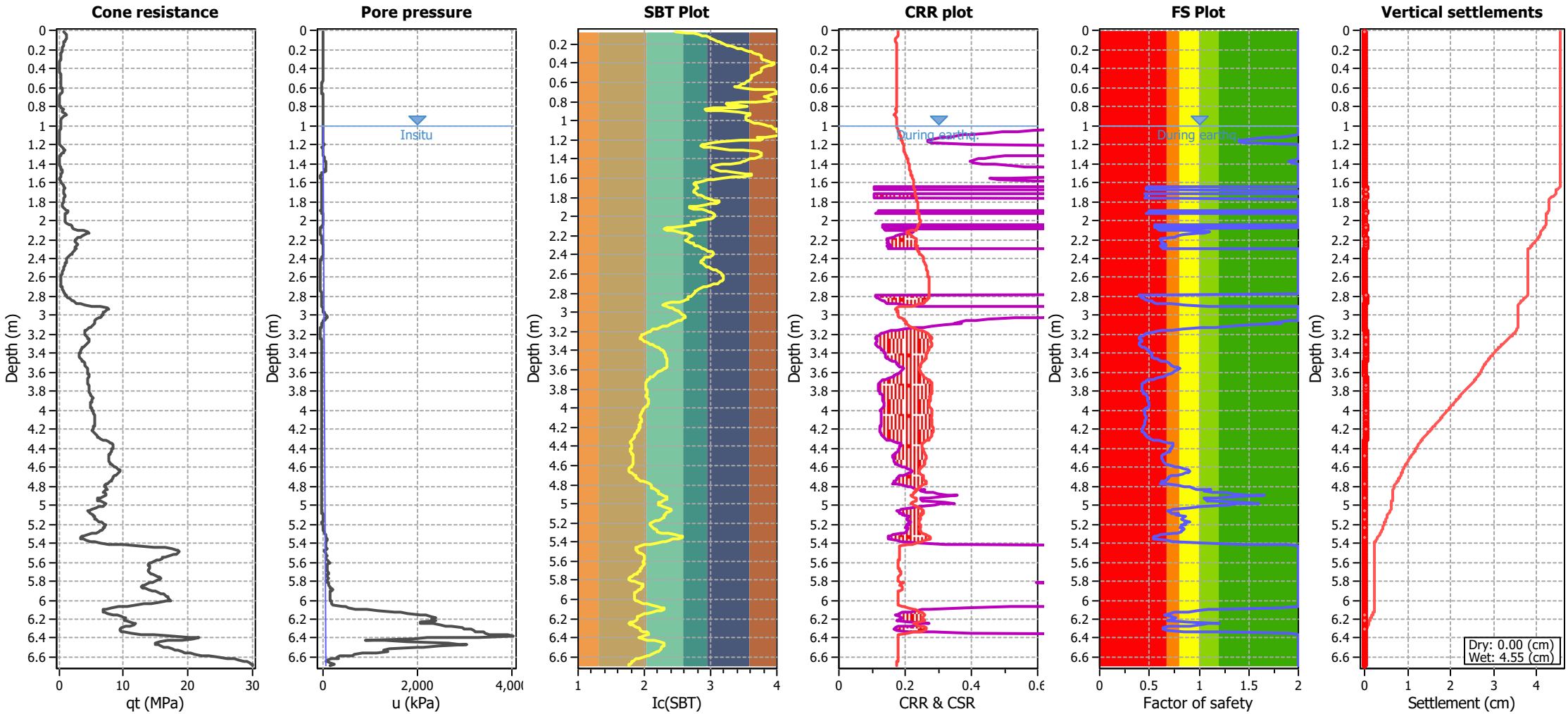
Project:

Location:

CPT: CPT-10

Total depth: 6.69 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	1.00 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	1.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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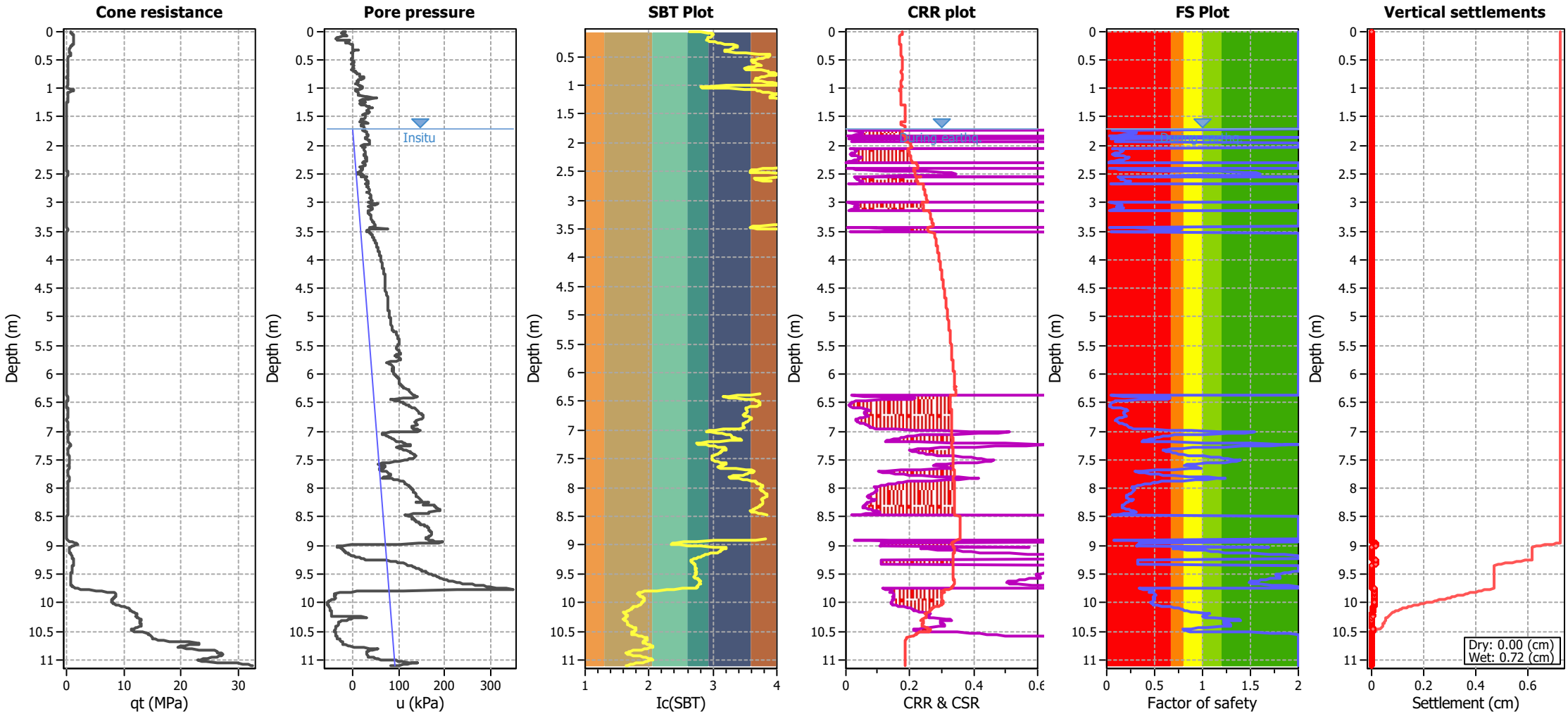
Project:

Location:

CPT: CPT-11

Total depth: 11.10 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	1.70 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	1.70 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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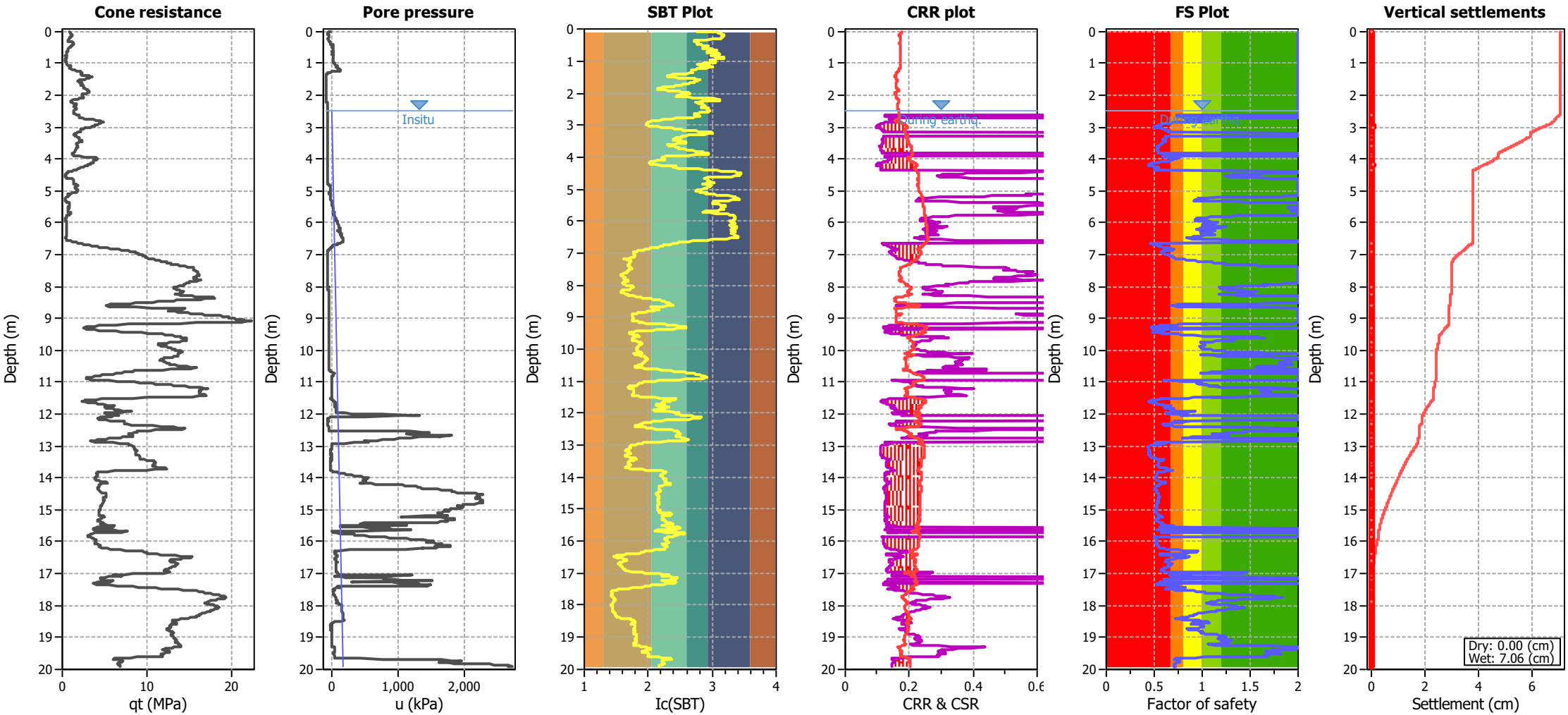
Project:

Location:

CPT: CPT-12

Total depth: 19.92 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	2.50 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	2.50 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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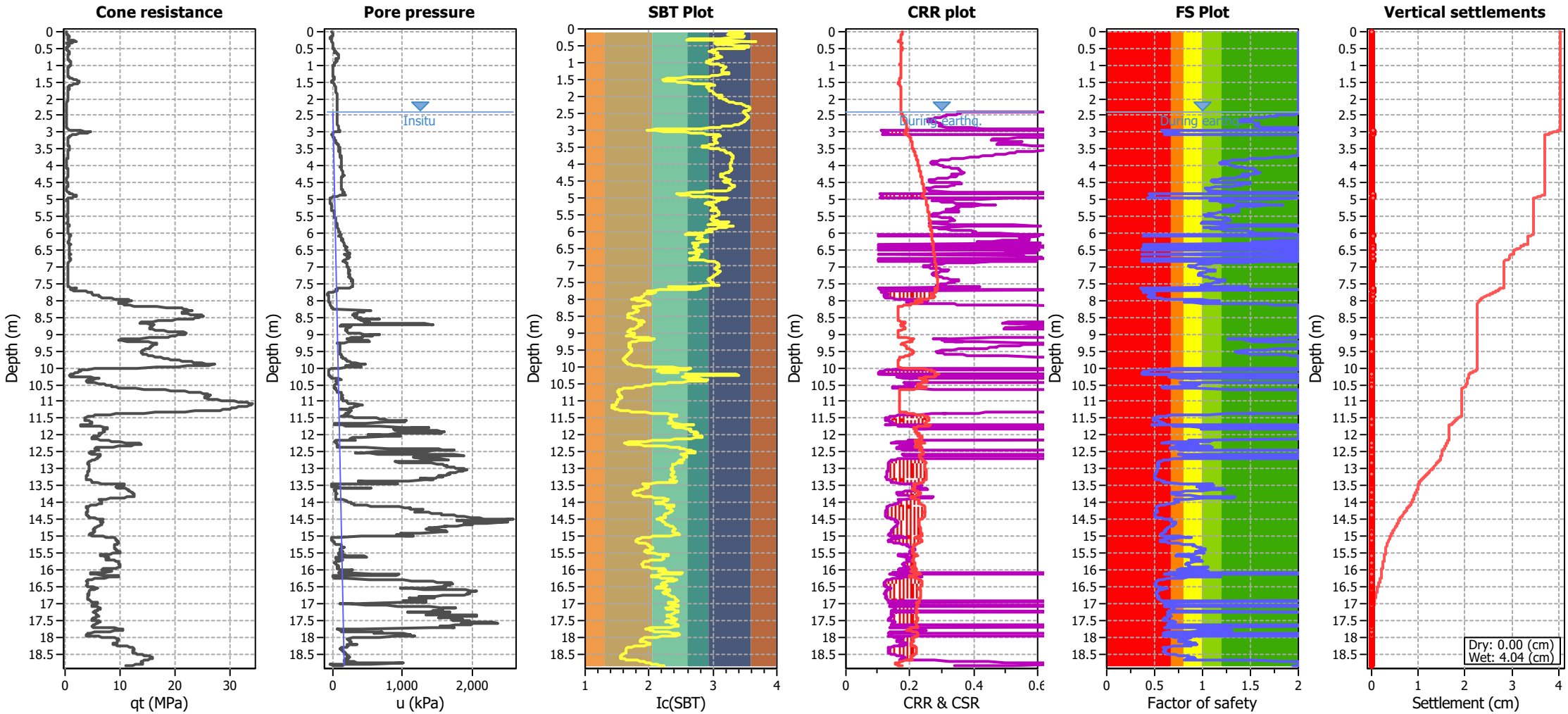
Project:

Location:

CPT: CPT-13

Total depth: 18.85 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	2.40 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	2.40 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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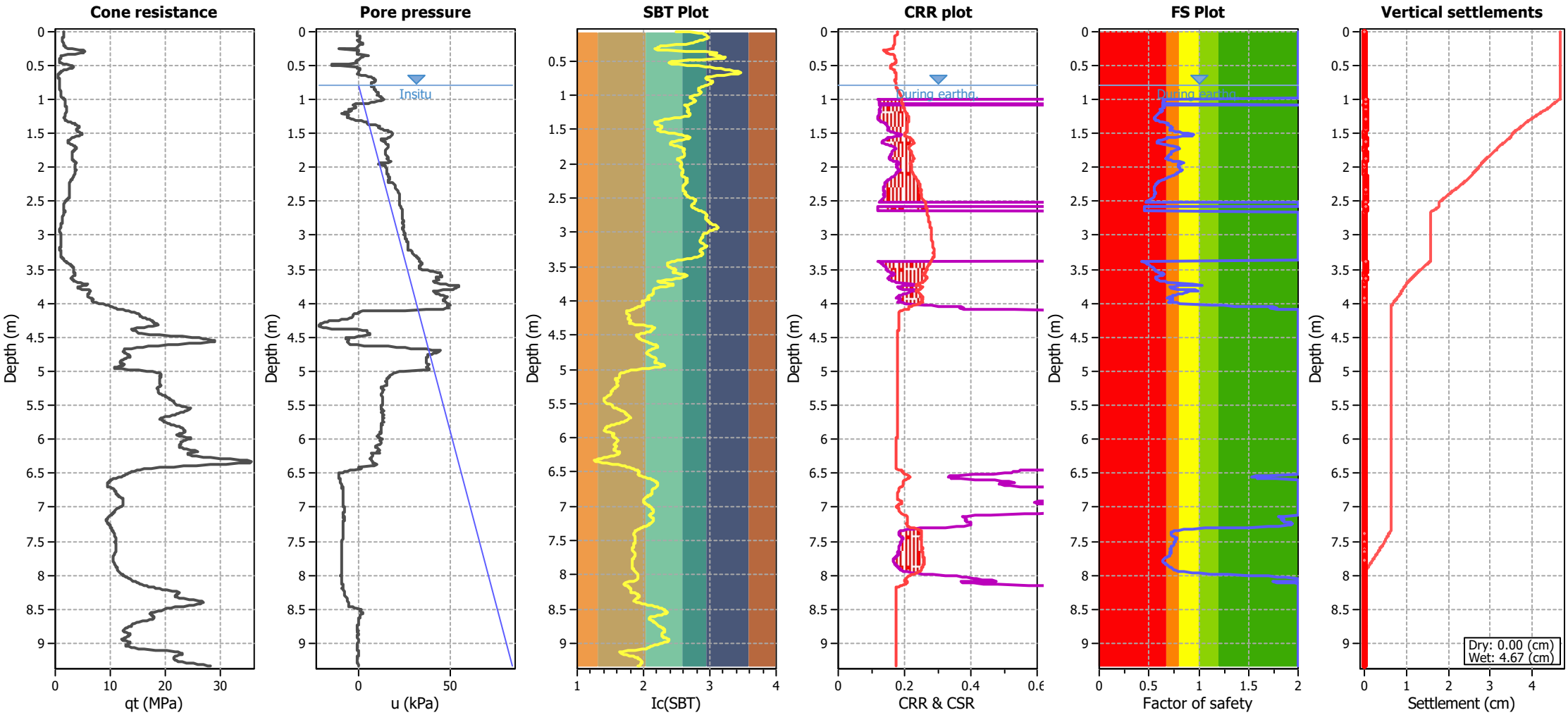
Project:

Location:

CPT: CPT-14

Total depth: 9.33 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	0.80 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	0.80 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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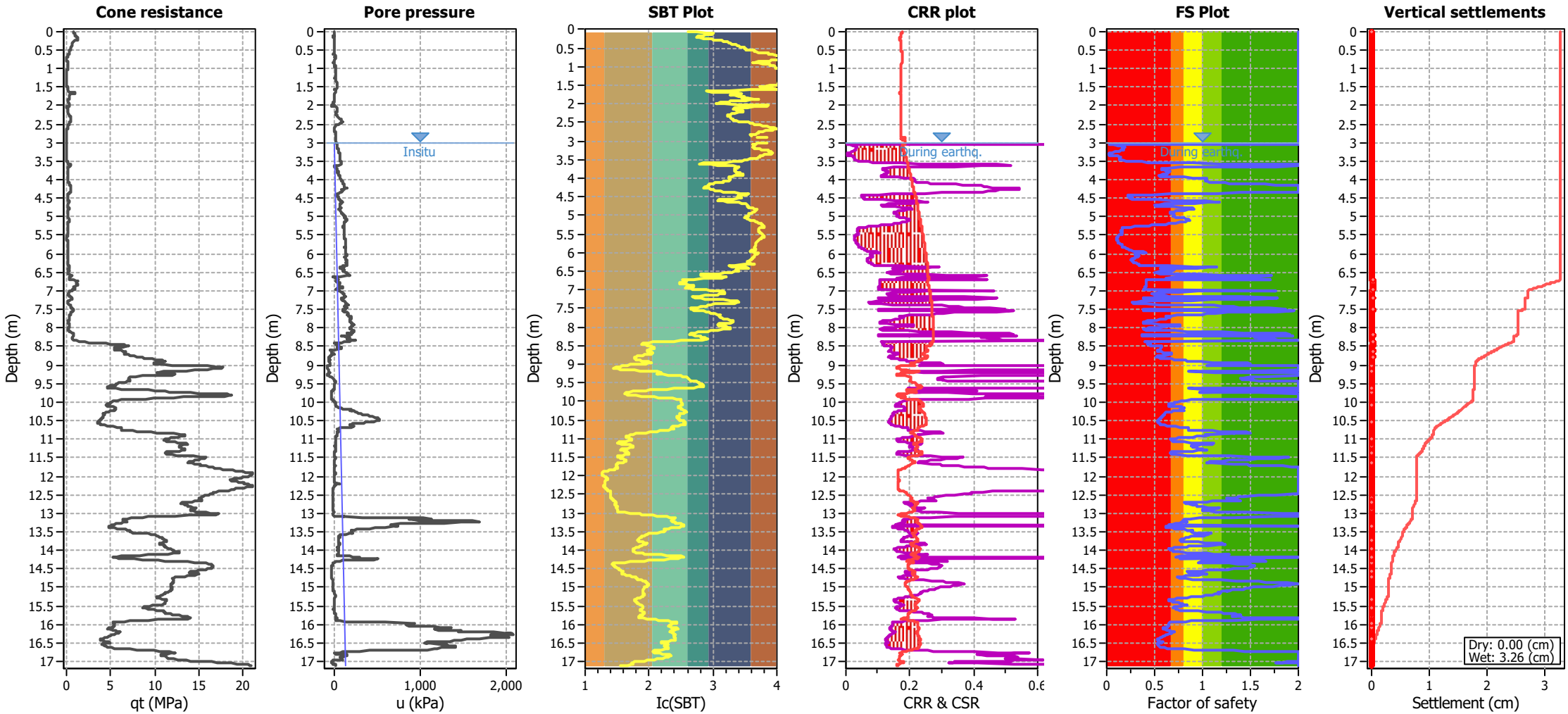
Project:

Location:

CPT: CPT-15

Total depth: 17.11 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	3.00 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	3.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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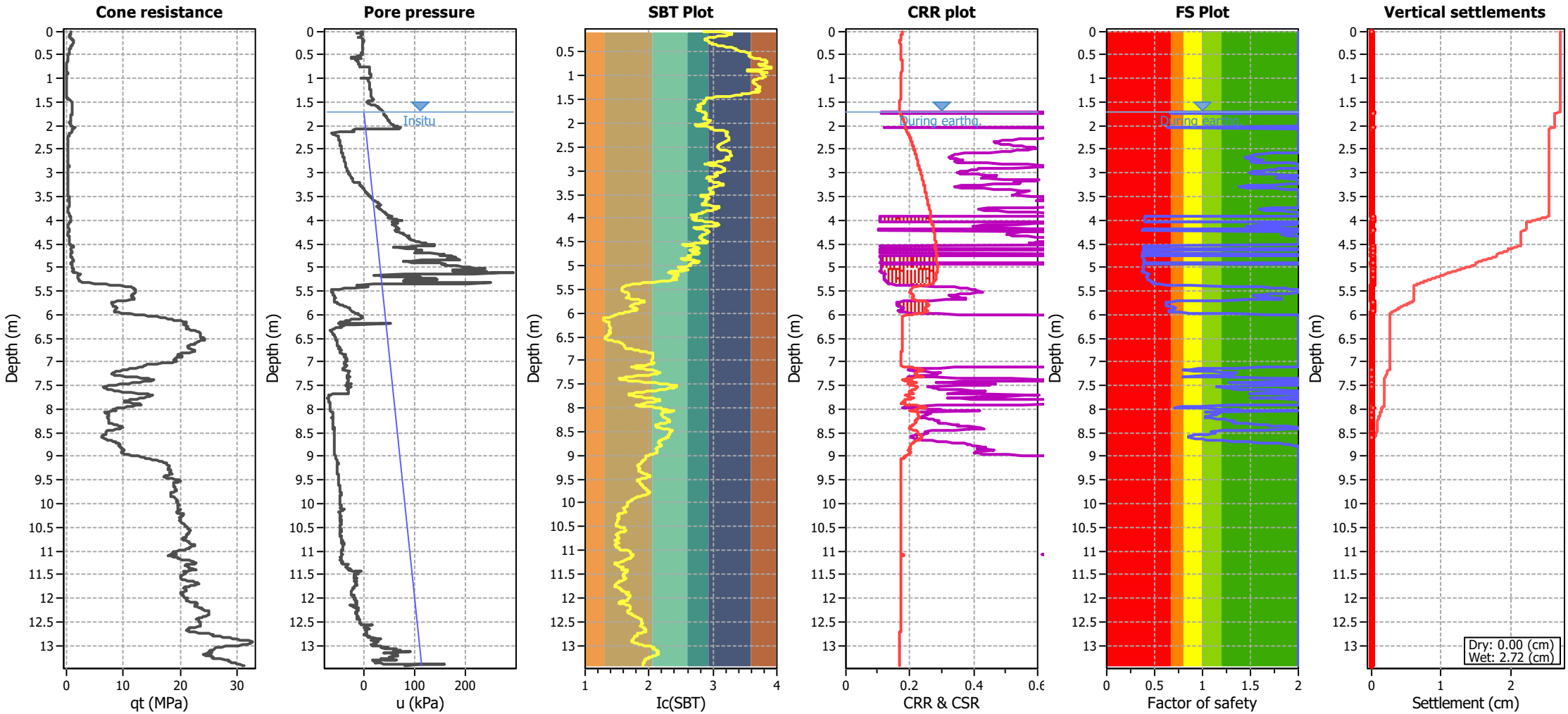
Project:

Location:

CPT: CPT-16

Total depth: 13.43 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	1.70 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	1.70 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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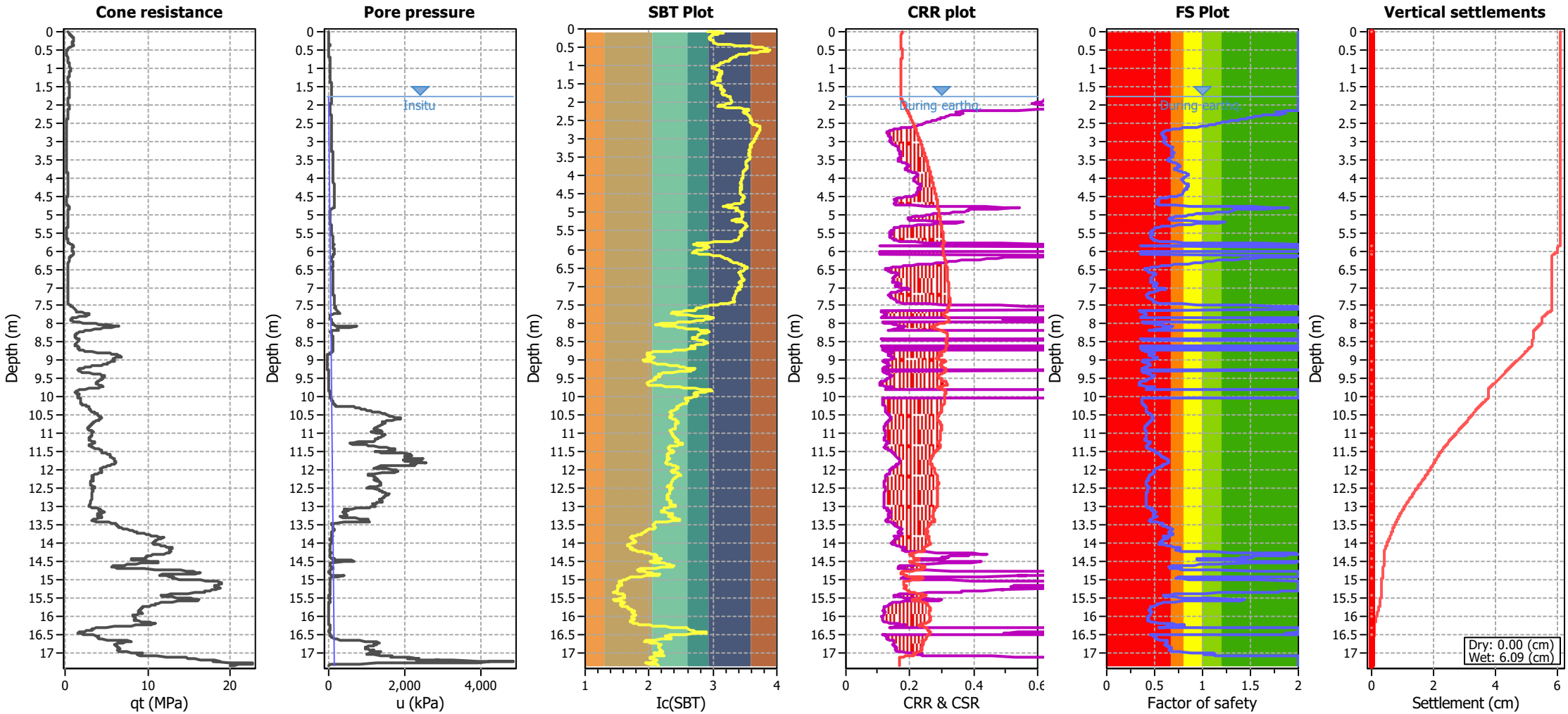
Project:

Location:

CPT: CPT-17

Total depth: 17.34 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	1.80 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	1.80 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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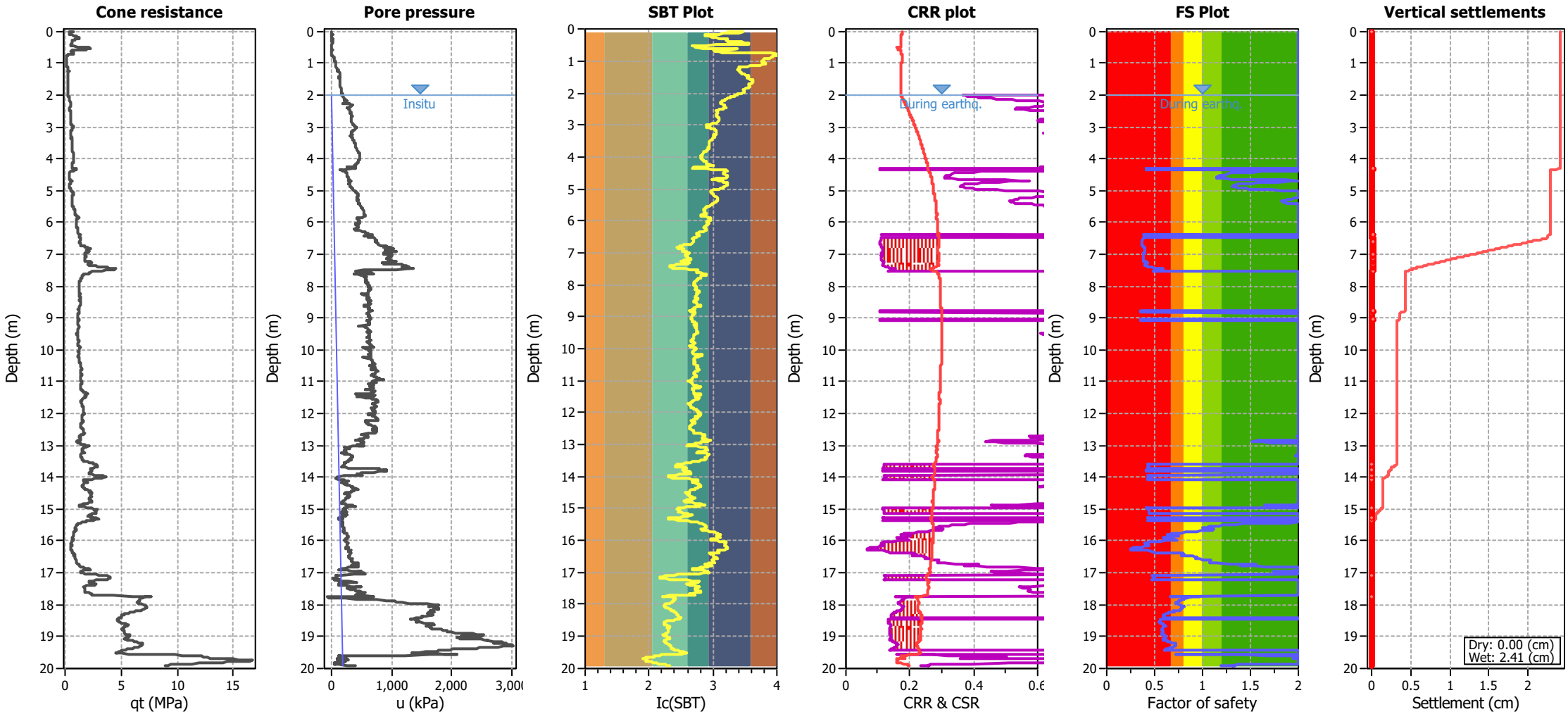
Project:

Location:

CPT: CPT-18

Total depth: 19.92 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	2.00 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	2.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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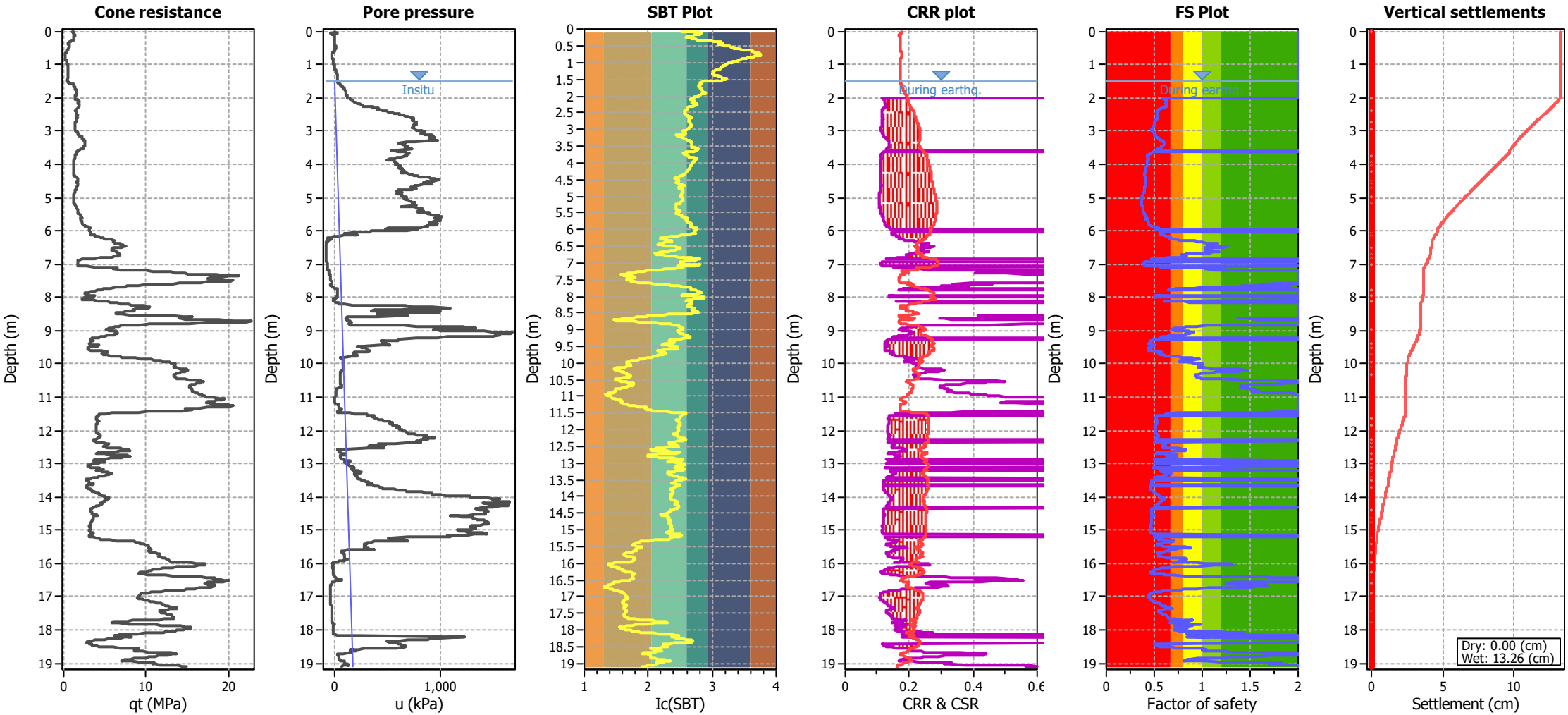
Project:

Location:

CPT: CPT-19

Total depth: 19.10 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	1.50 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	1.50 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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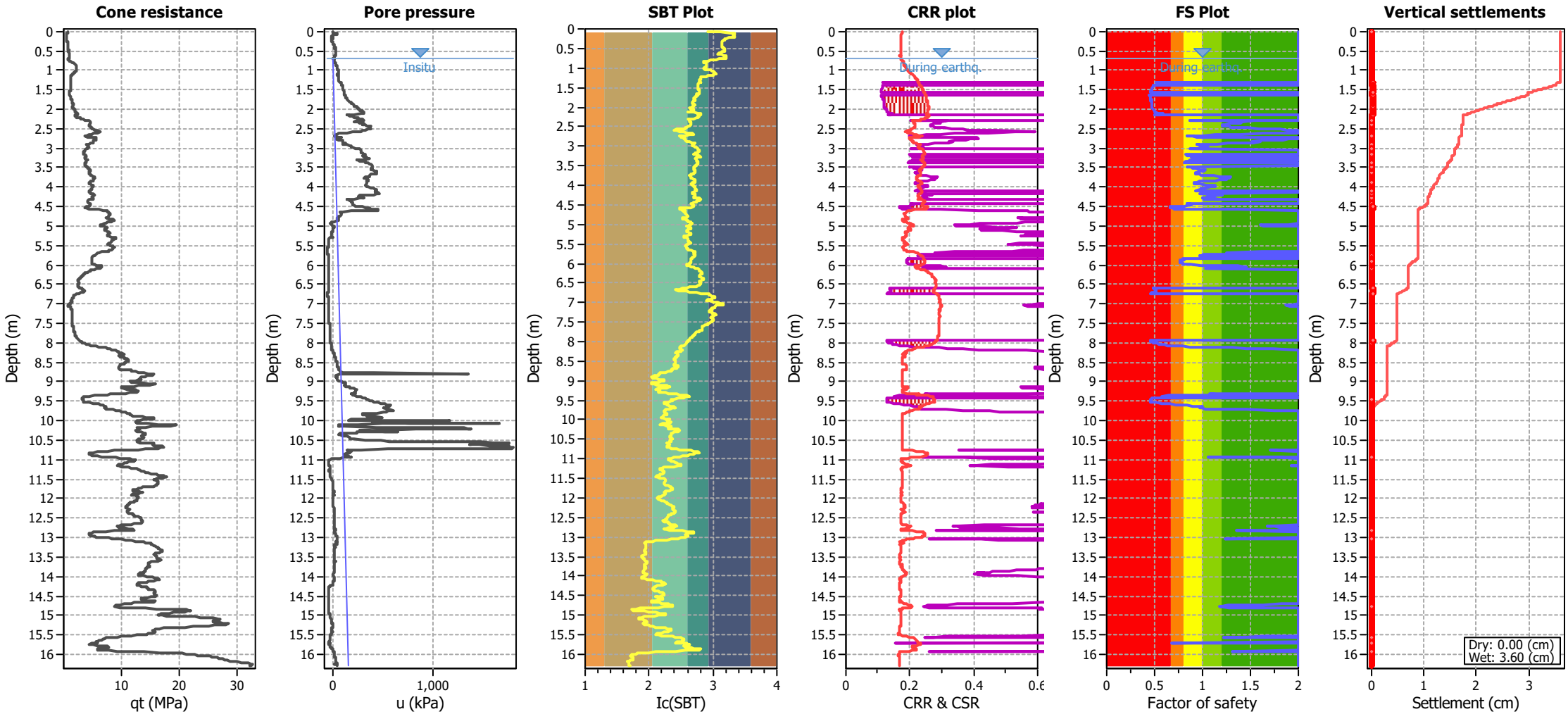
Project:

Location:

CPT: CPT-20

Total depth: 16.29 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	0.70 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	0.70 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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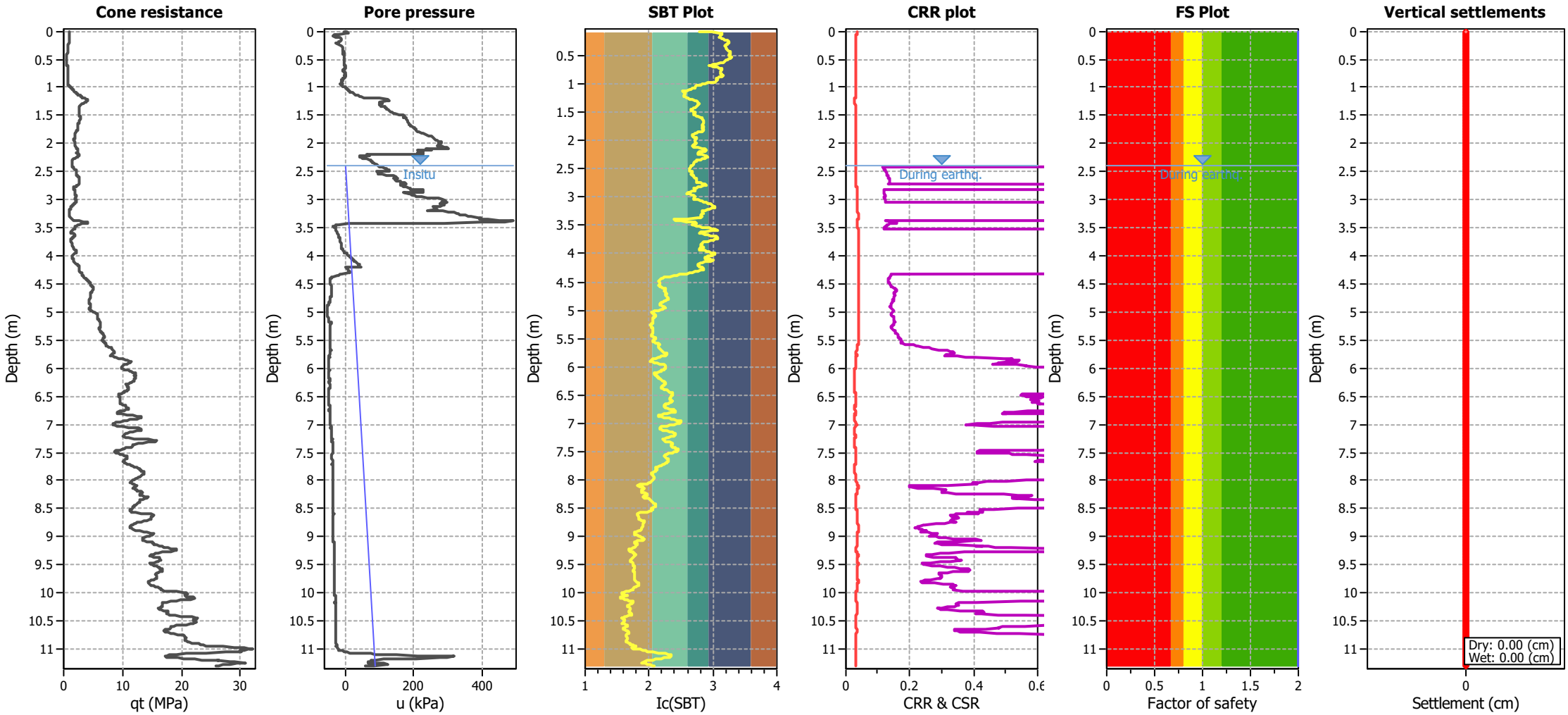
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-01
Total depth: 11.30 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	2.40 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	2.40 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.06	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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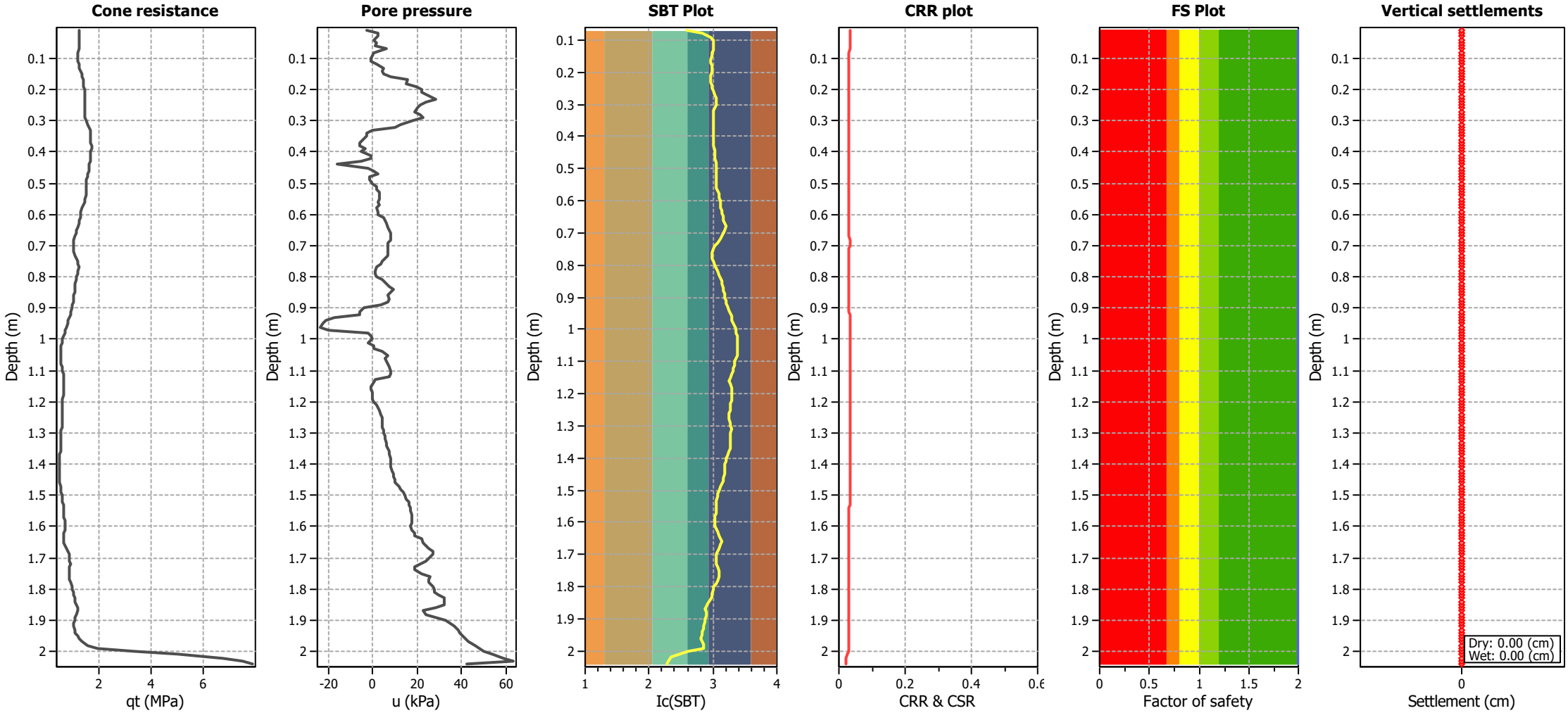
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-02
Total depth: 2.04 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	2.90 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	2.90 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.06	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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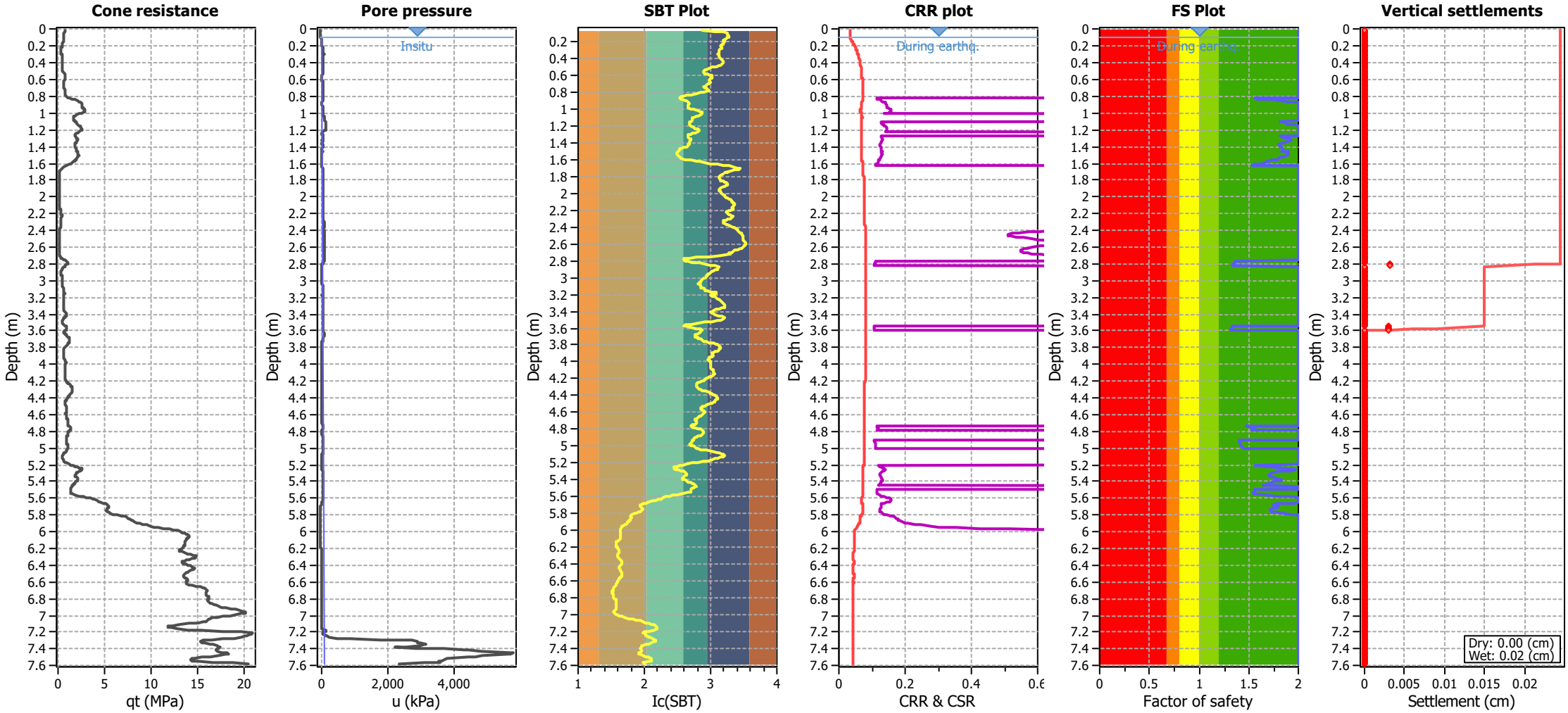
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-03
Total depth: 7.58 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	0.10 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	0.10 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.06	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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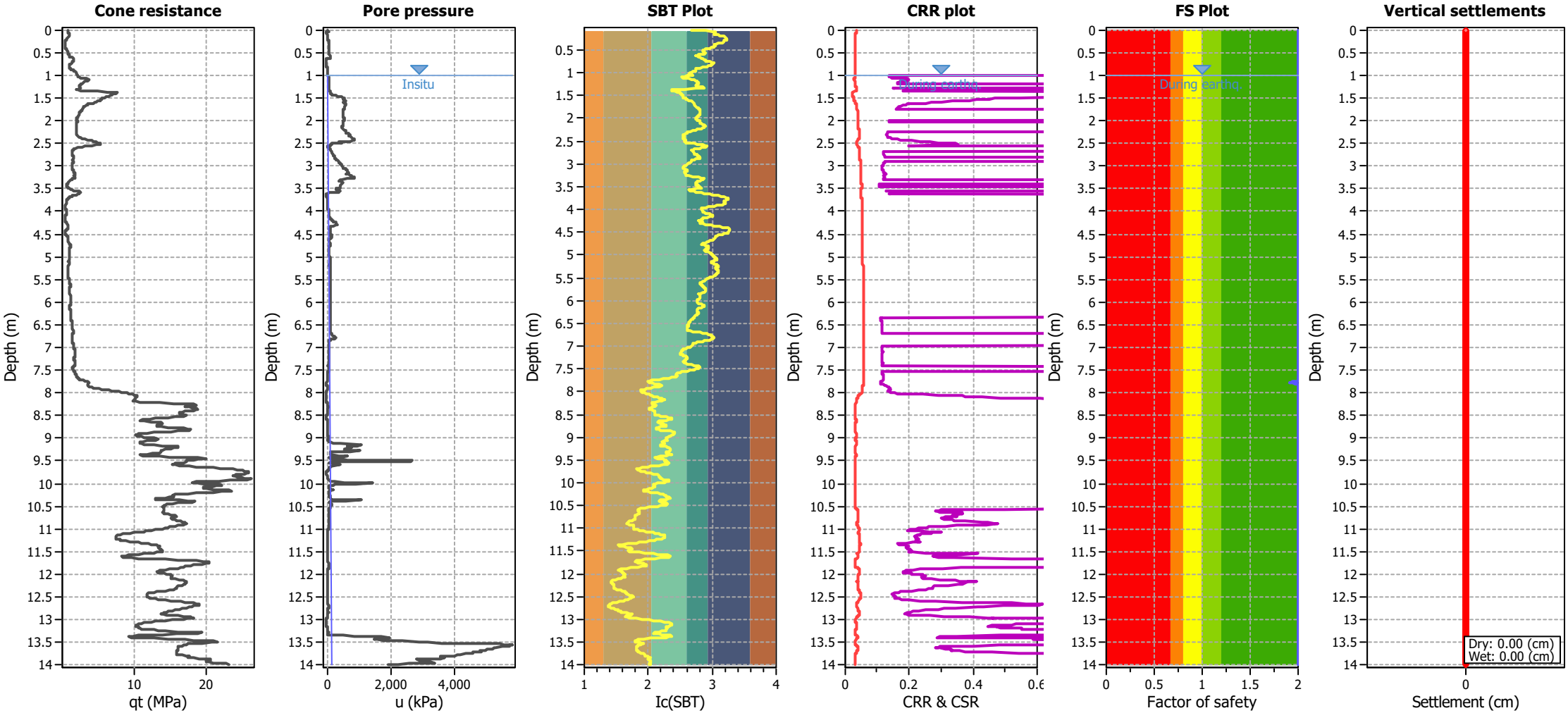
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-04
Total depth: 13.99 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	1.00 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	1.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.06	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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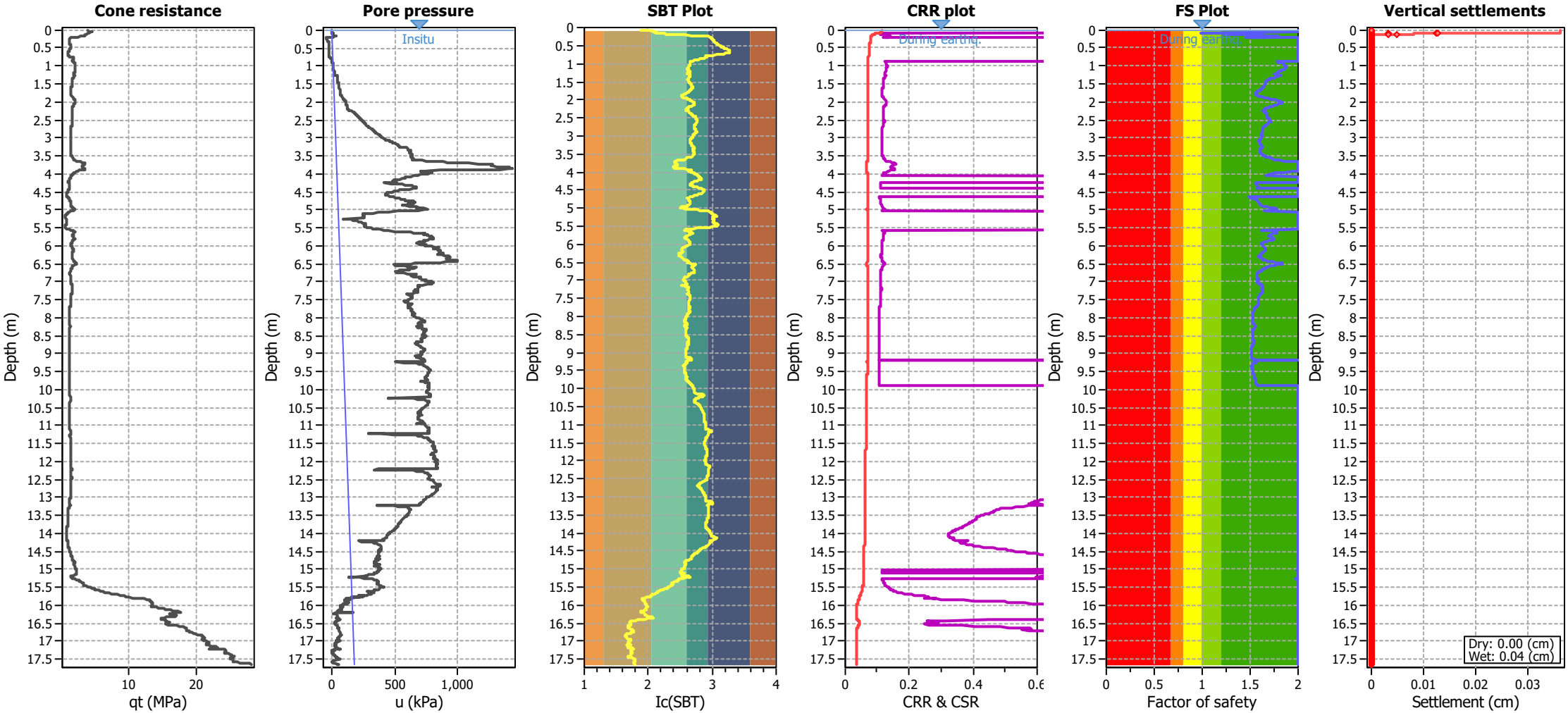
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-06
Total depth: 17.65 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	0.00 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	0.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.06	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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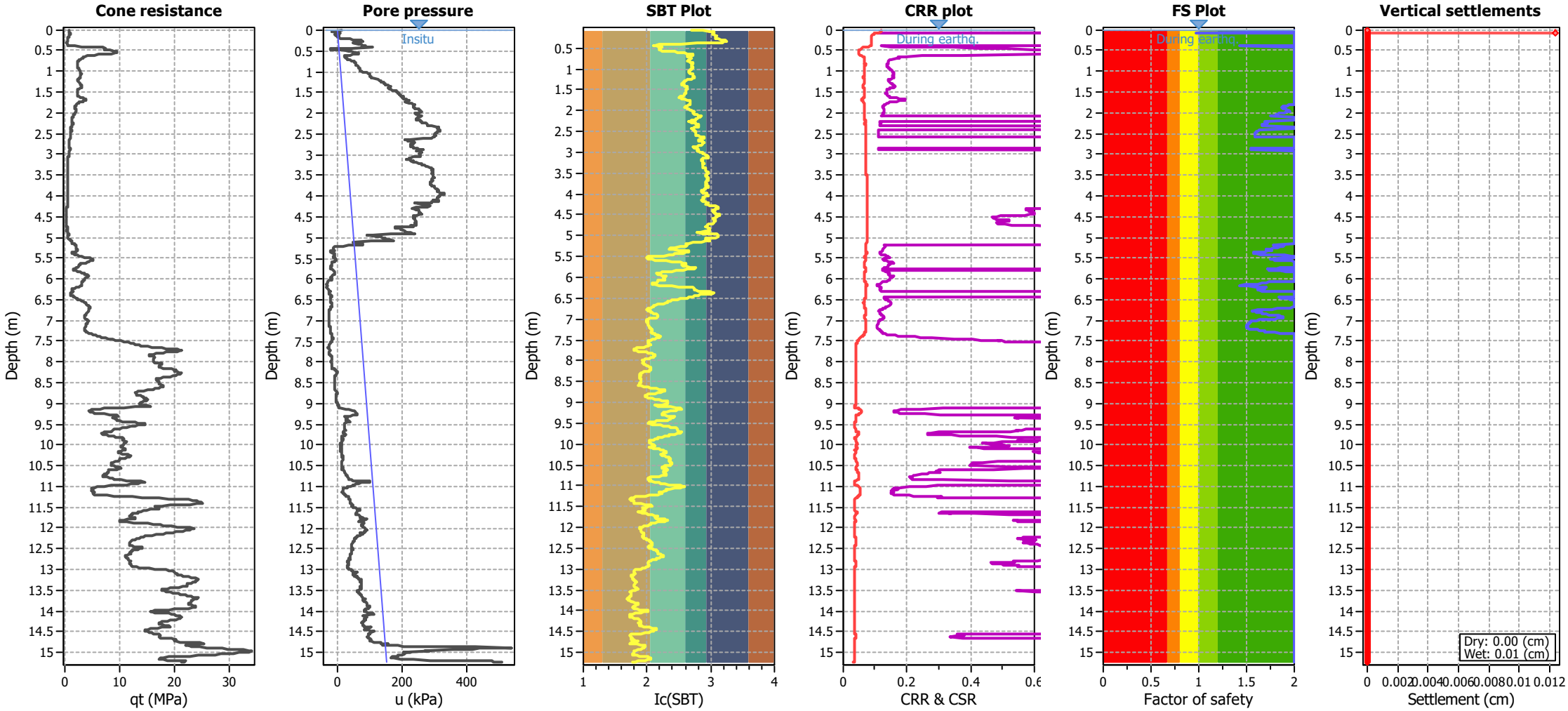
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-07
Total depth: 15.23 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	0.00 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	0.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.06	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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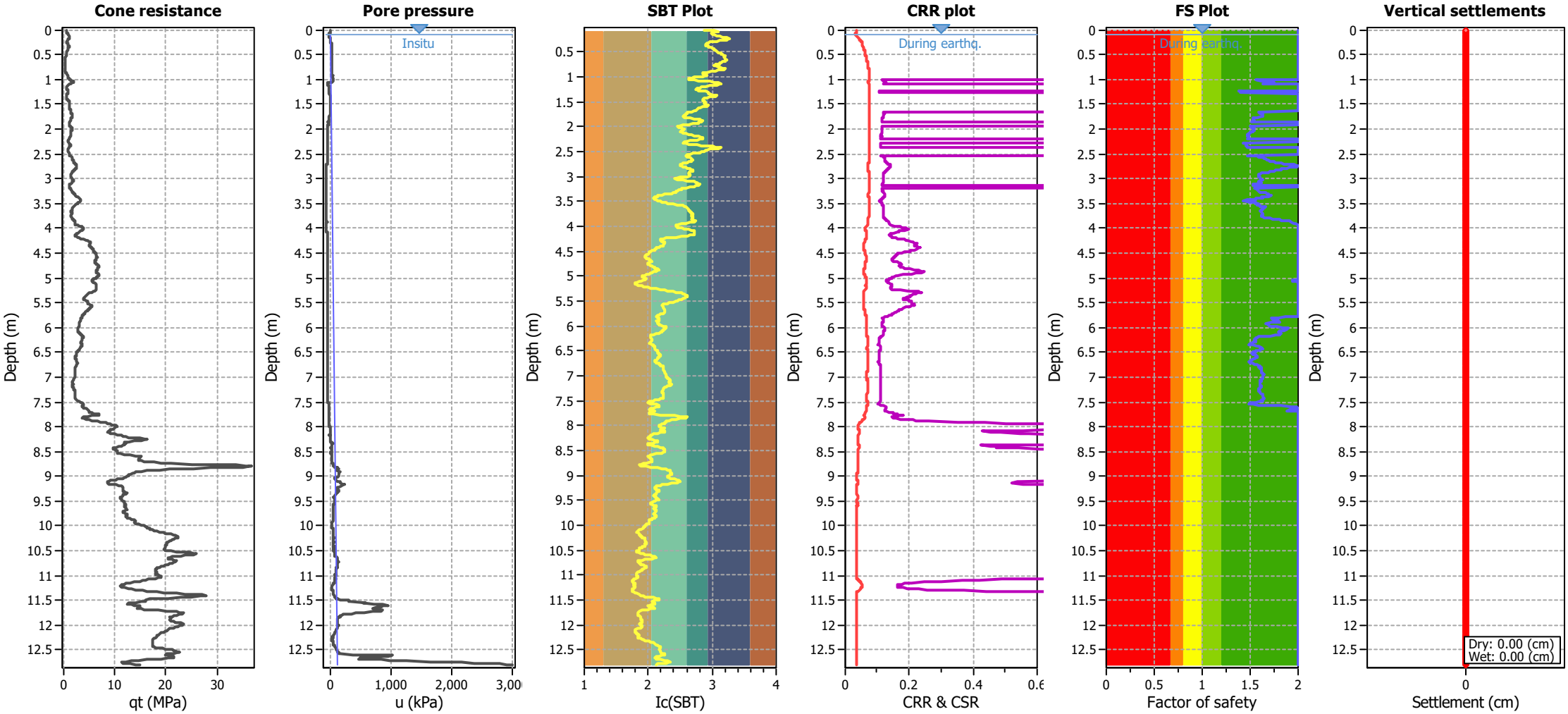
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-08
Total depth: 12.80 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	0.10 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	0.10 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.06	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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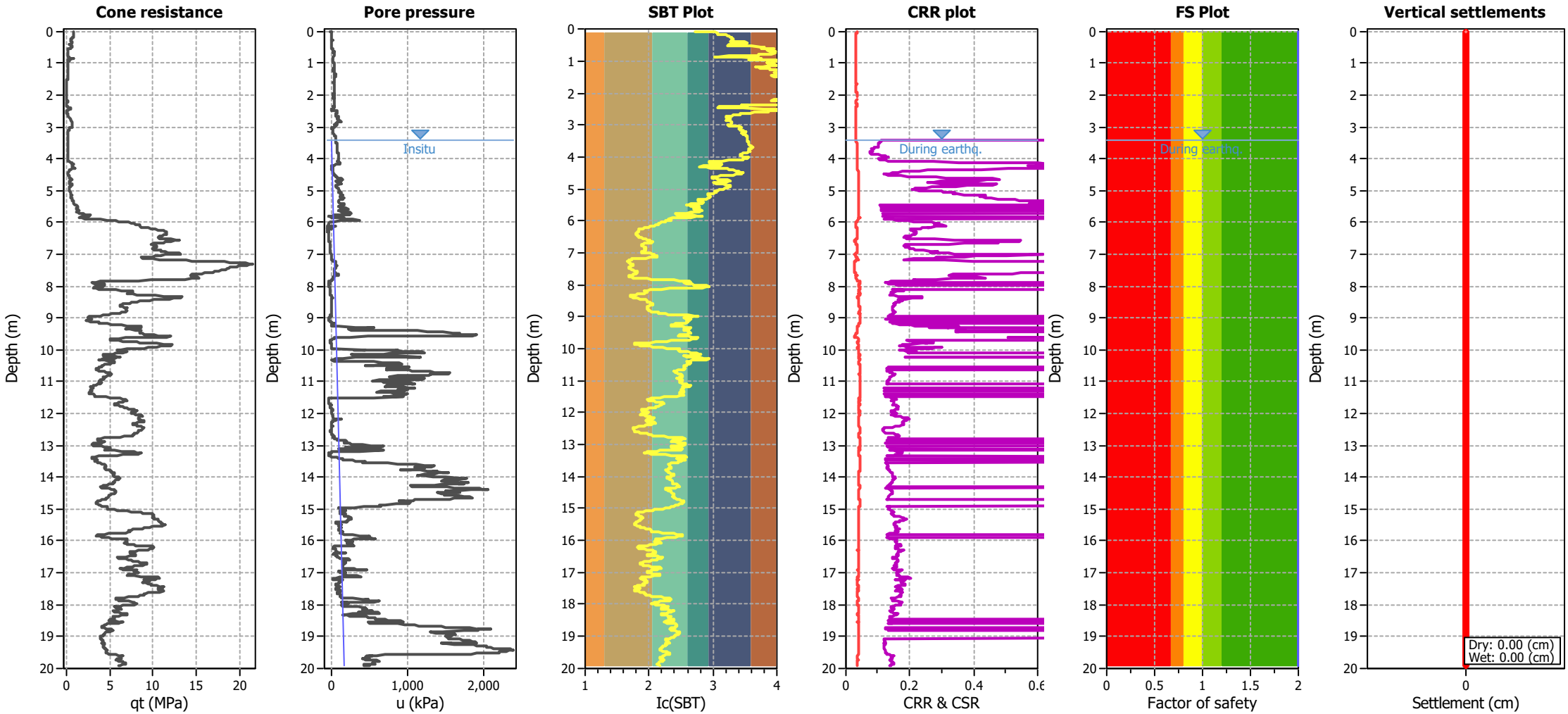
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-09
Total depth: 19.92 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	3.40 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	3.40 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.06	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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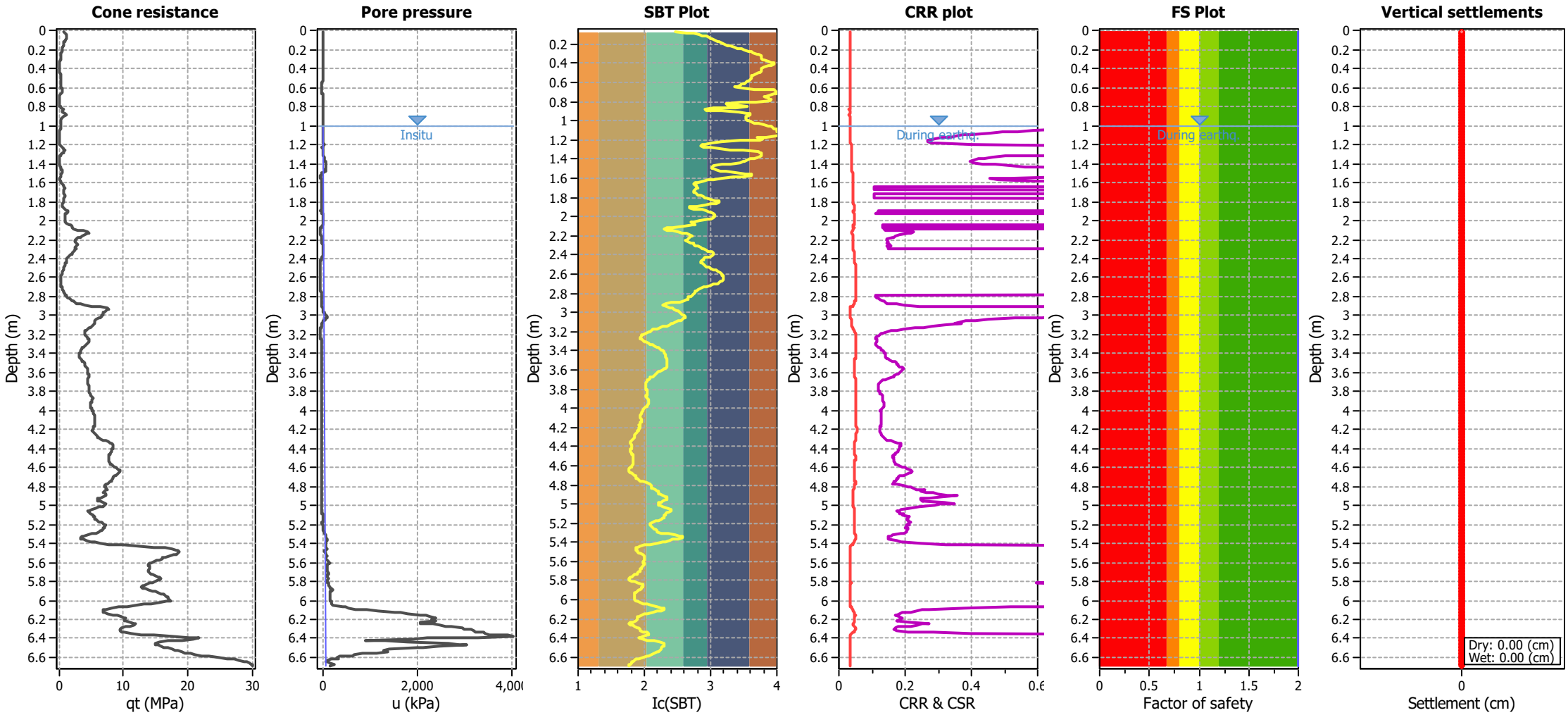
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-10
Total depth: 6.69 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	1.00 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	1.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.06	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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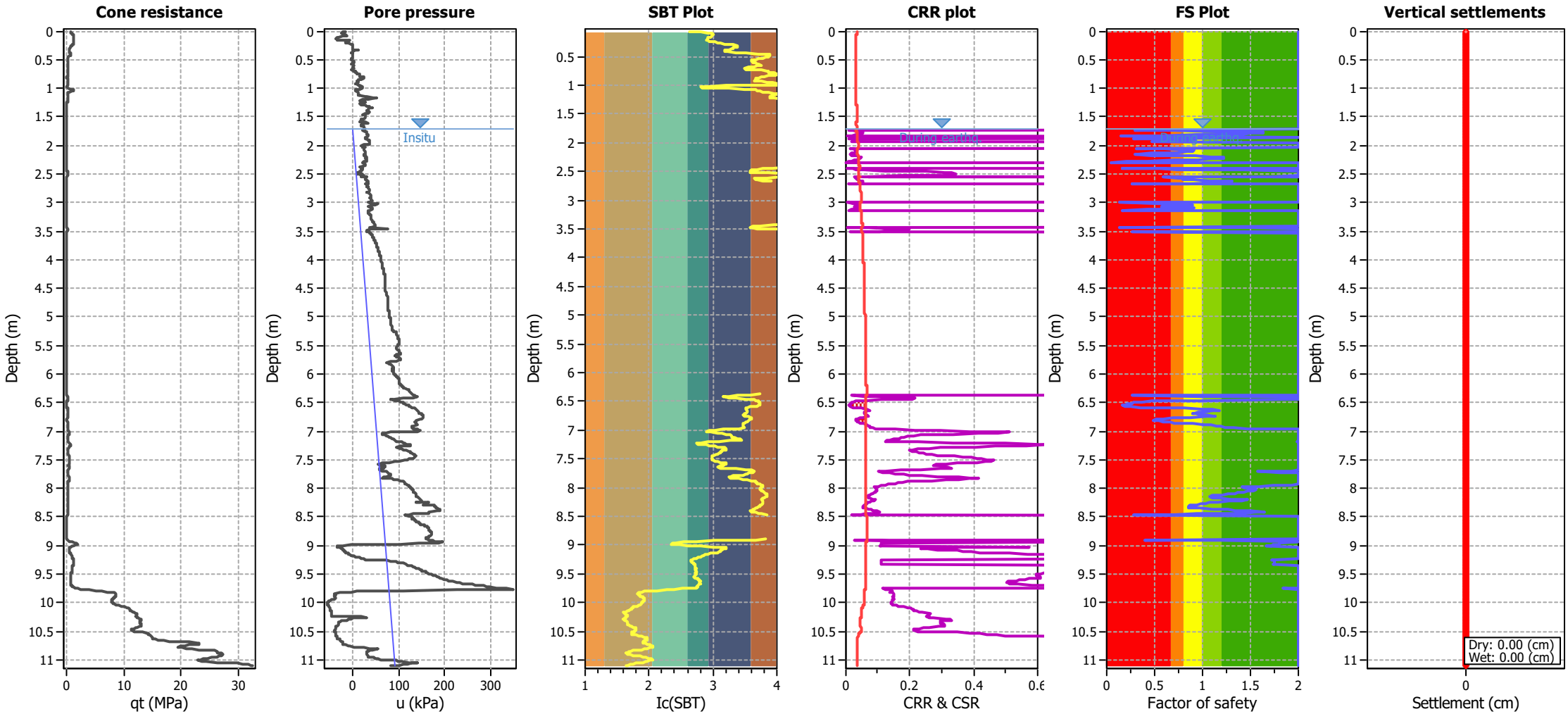
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-11
Total depth: 11.10 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	1.70 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	1.70 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.06	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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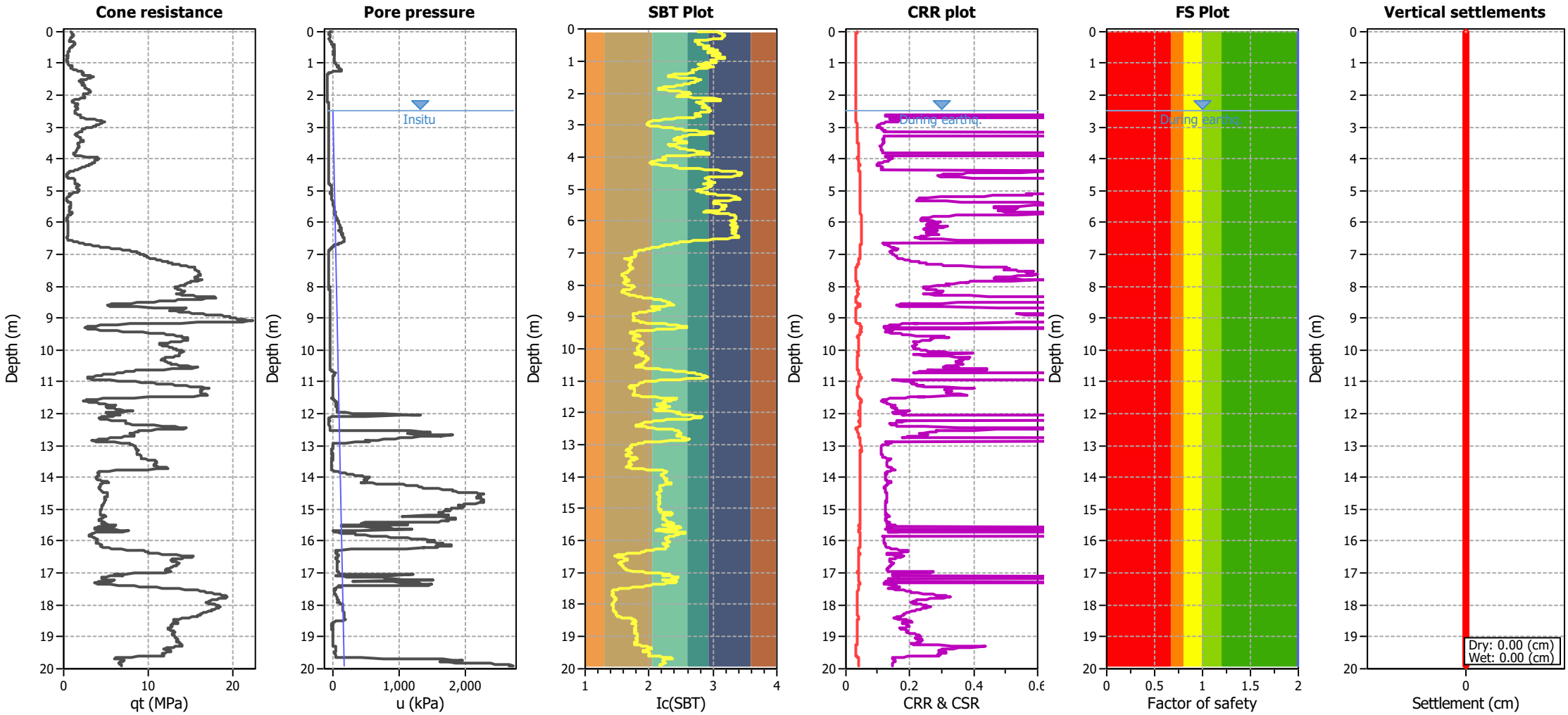
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-12
Total depth: 19.92 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	2.50 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	2.50 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.06	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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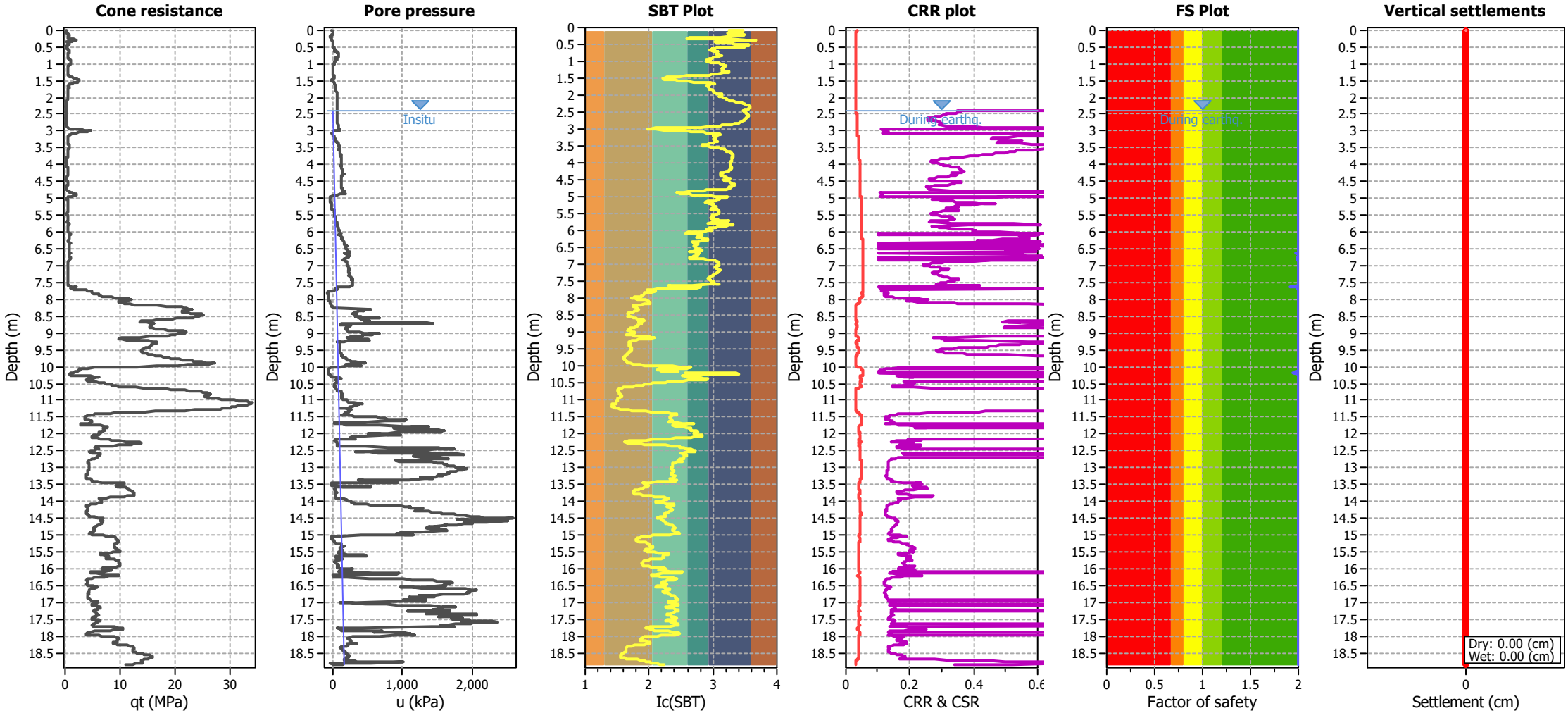
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-13
Total depth: 18.85 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	2.40 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	2.40 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.06	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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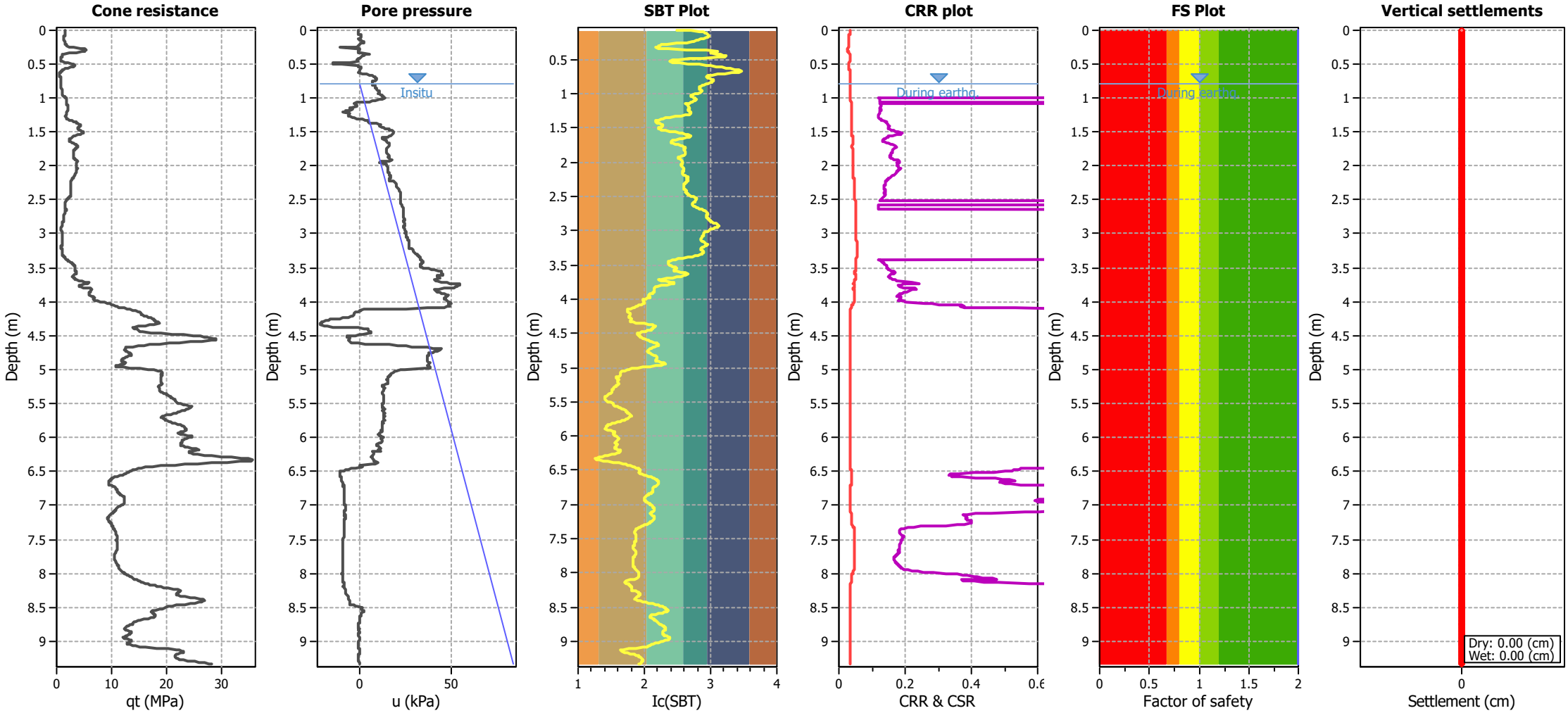
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-14
Total depth: 9.33 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	0.80 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	0.80 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.06	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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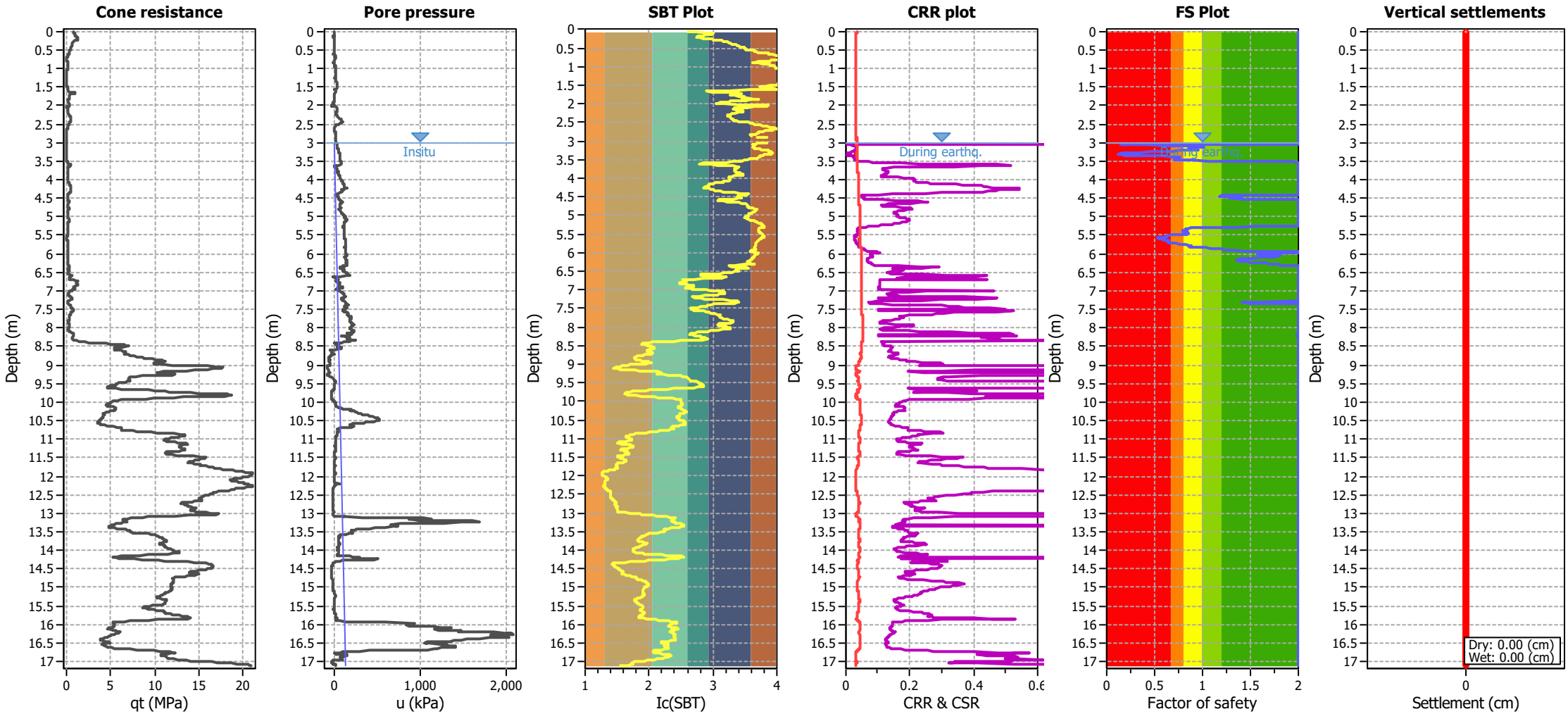
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-15
Total depth: 17.11 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	3.00 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	3.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.06	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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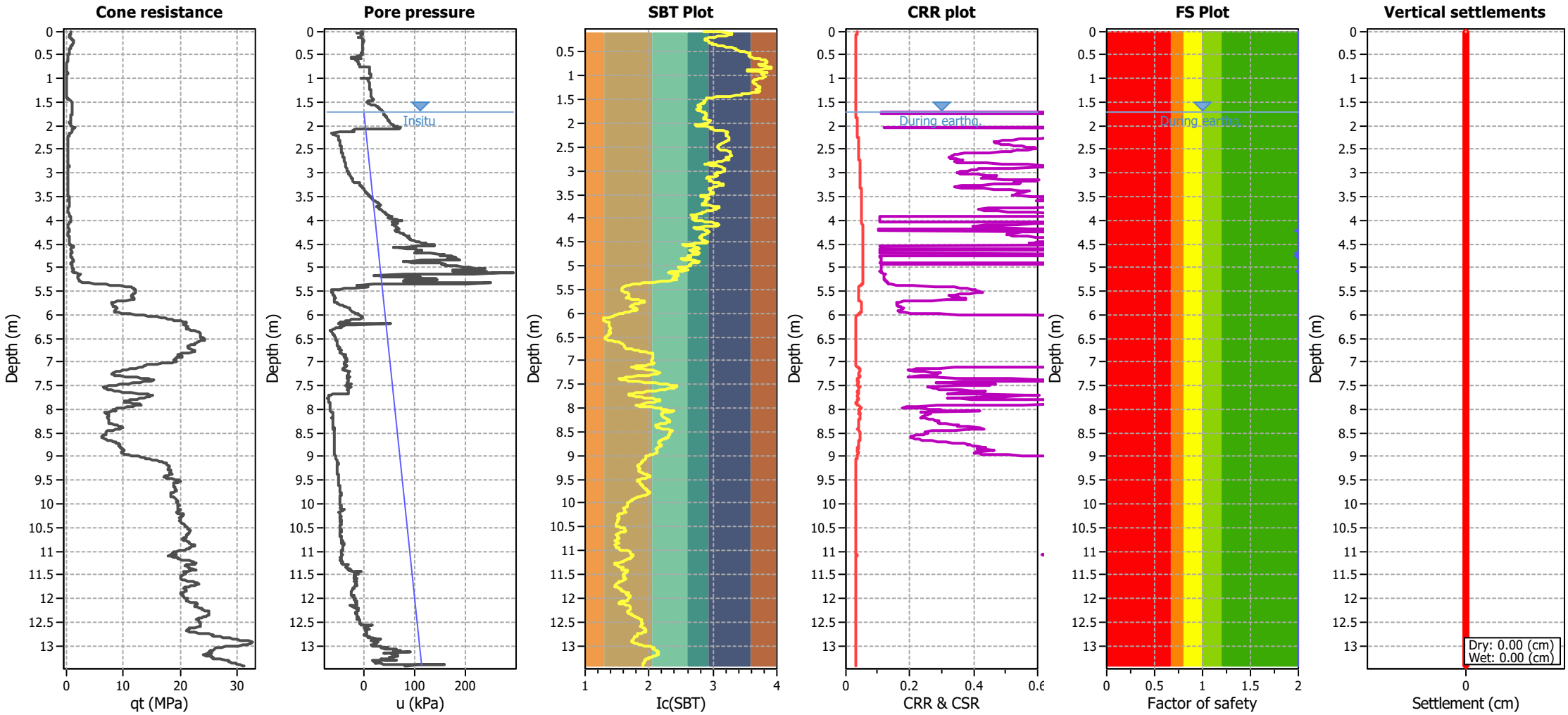
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-16
Total depth: 13.43 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	1.70 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	1.70 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.06	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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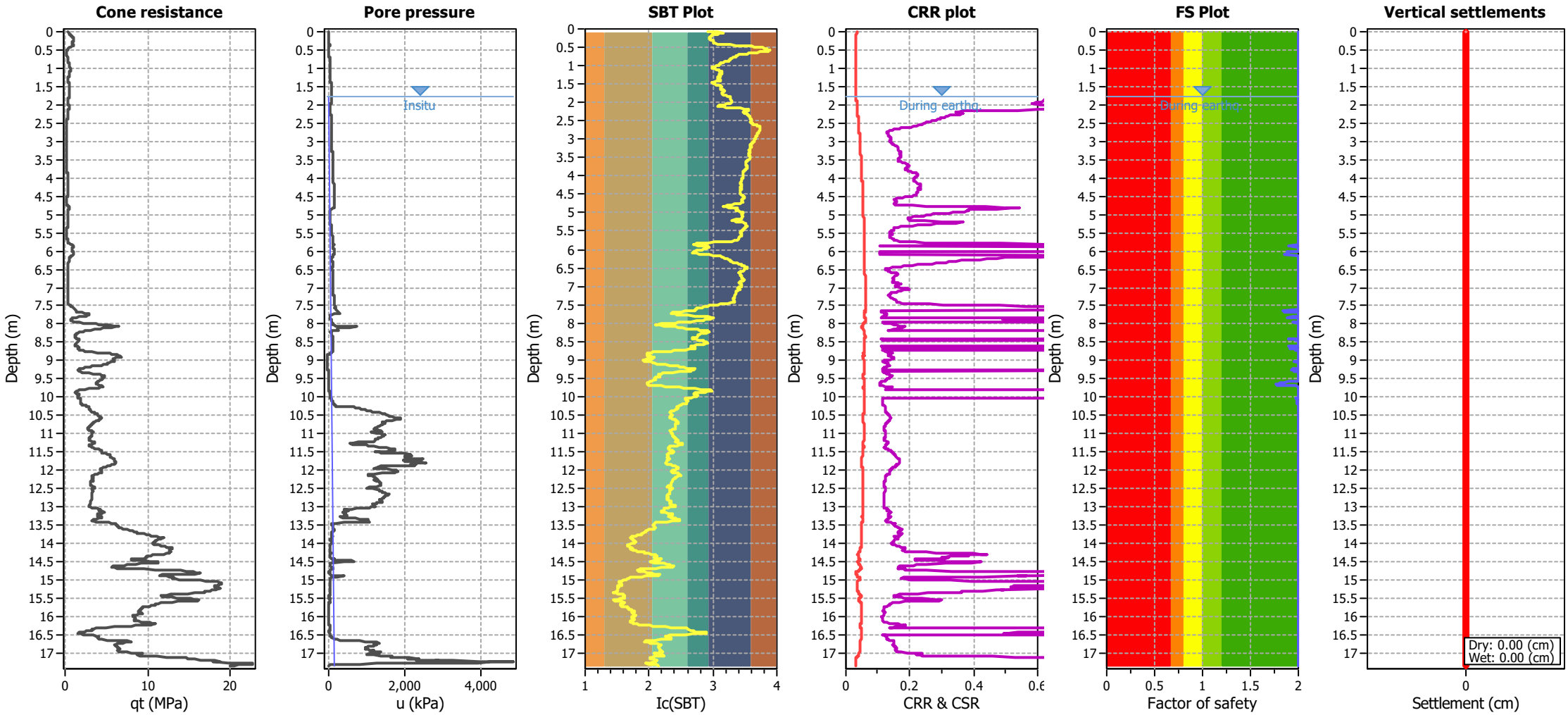
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-17
Total depth: 17.34 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	1.80 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	1.80 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.06	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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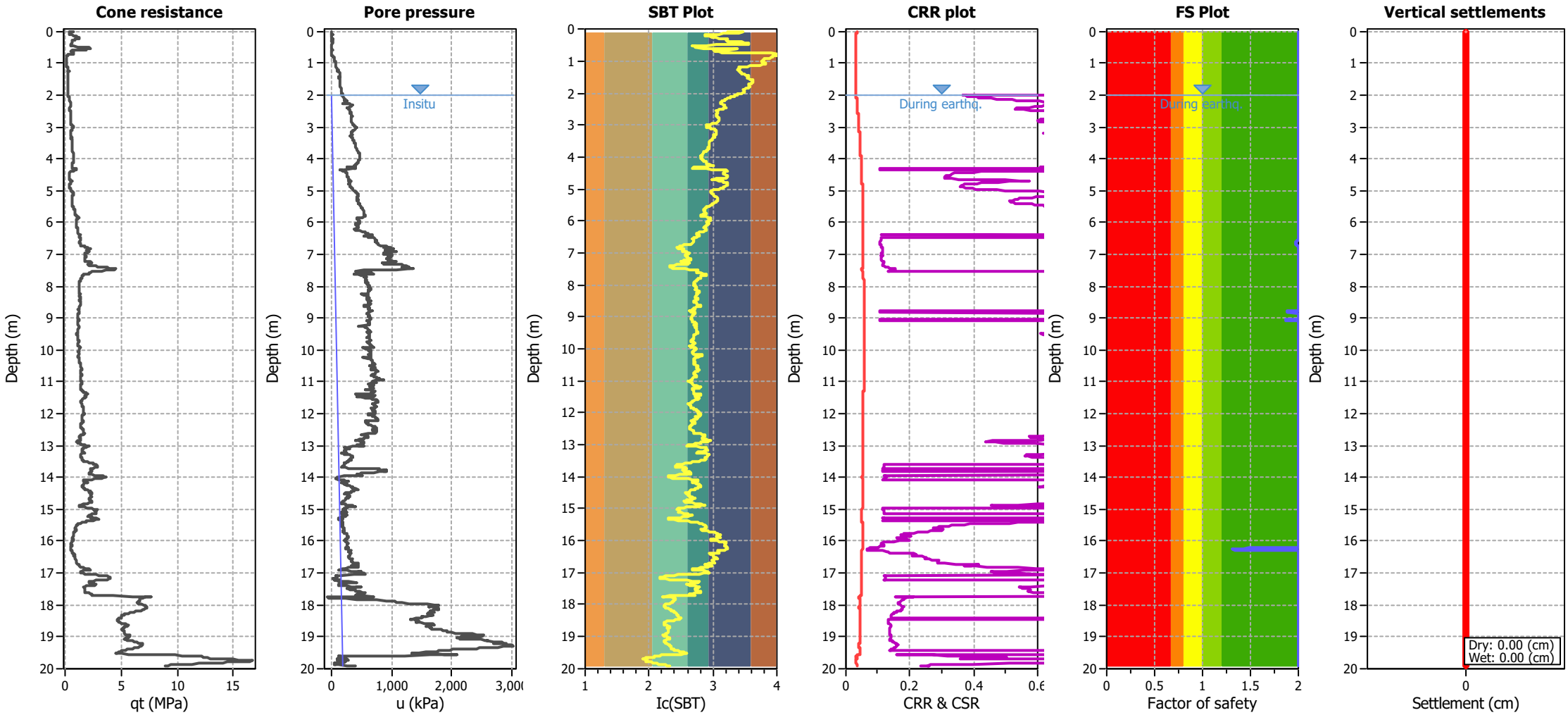
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-18
Total depth: 19.92 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	2.00 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	2.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.06	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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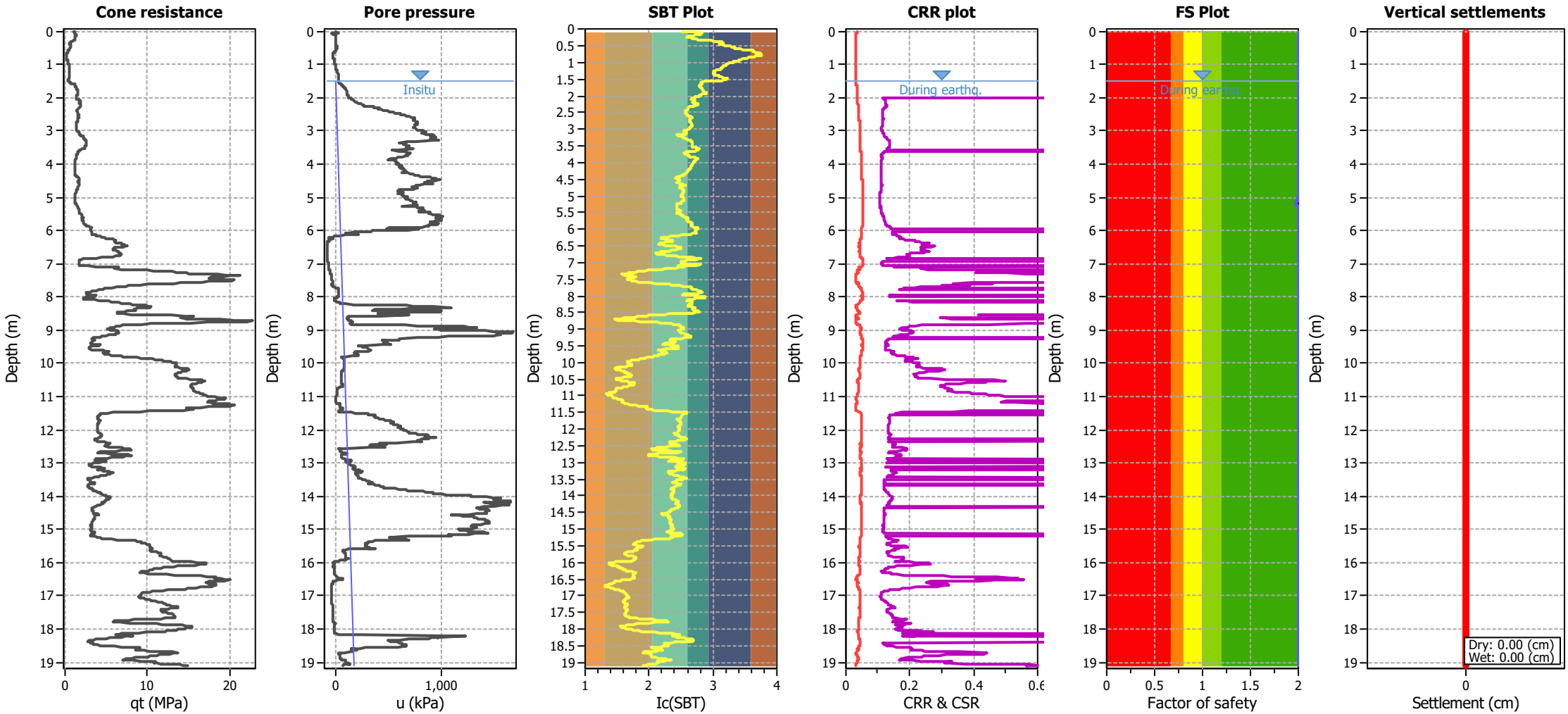
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-19
Total depth: 19.10 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	1.50 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	1.50 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.06	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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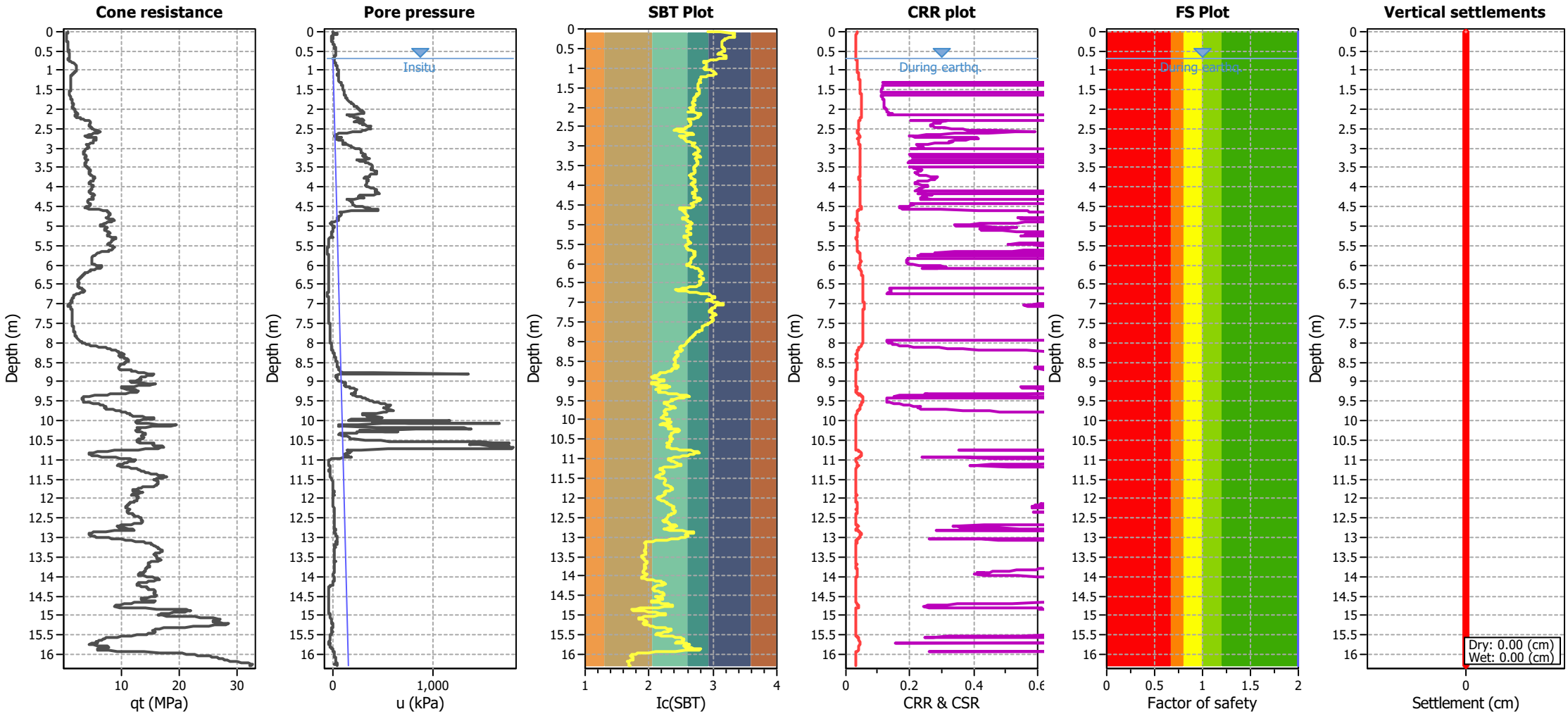
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-20
Total depth: 16.29 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	0.70 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	0.70 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.06	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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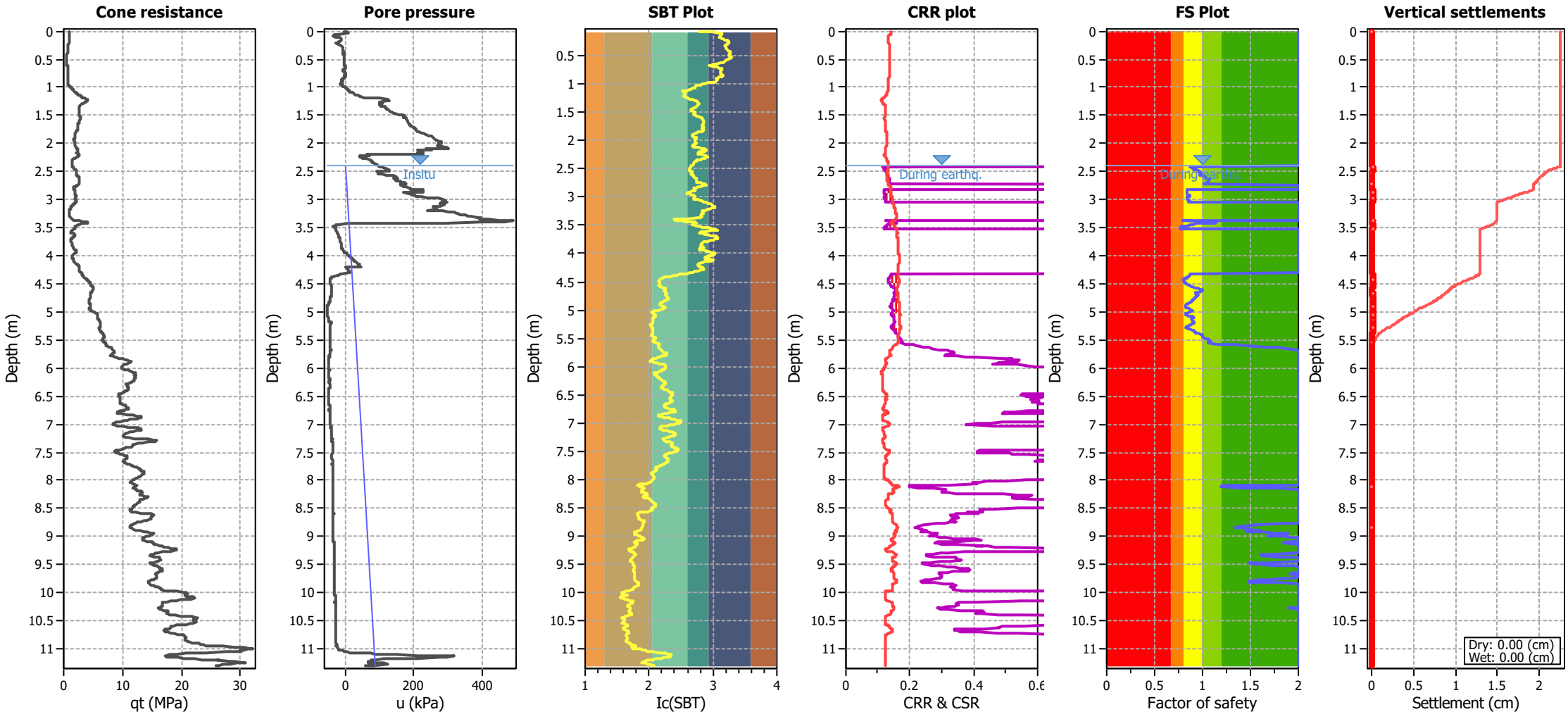
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-01
Total depth: 11.30 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	2.40 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	2.40 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.06	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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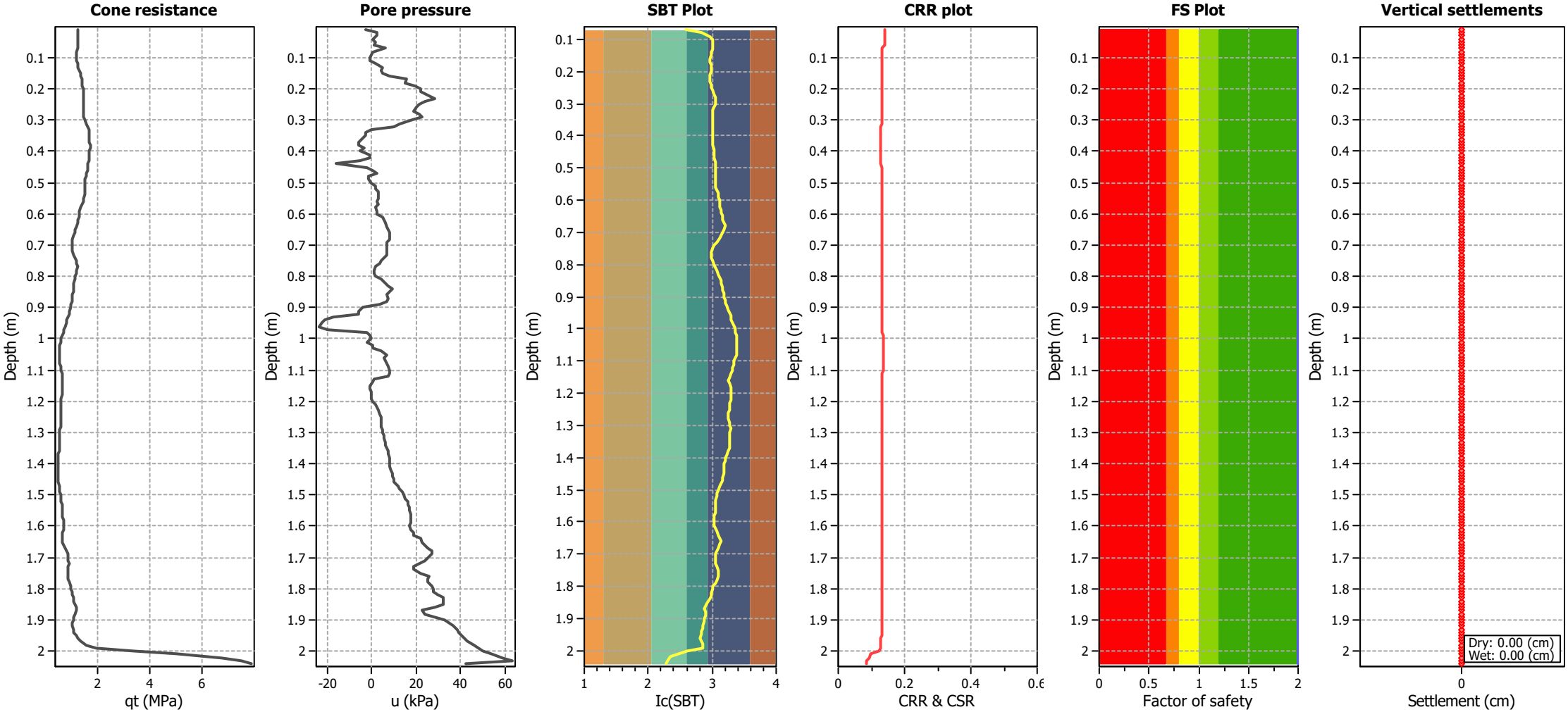
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-02
Total depth: 2.04 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	2.90 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	2.90 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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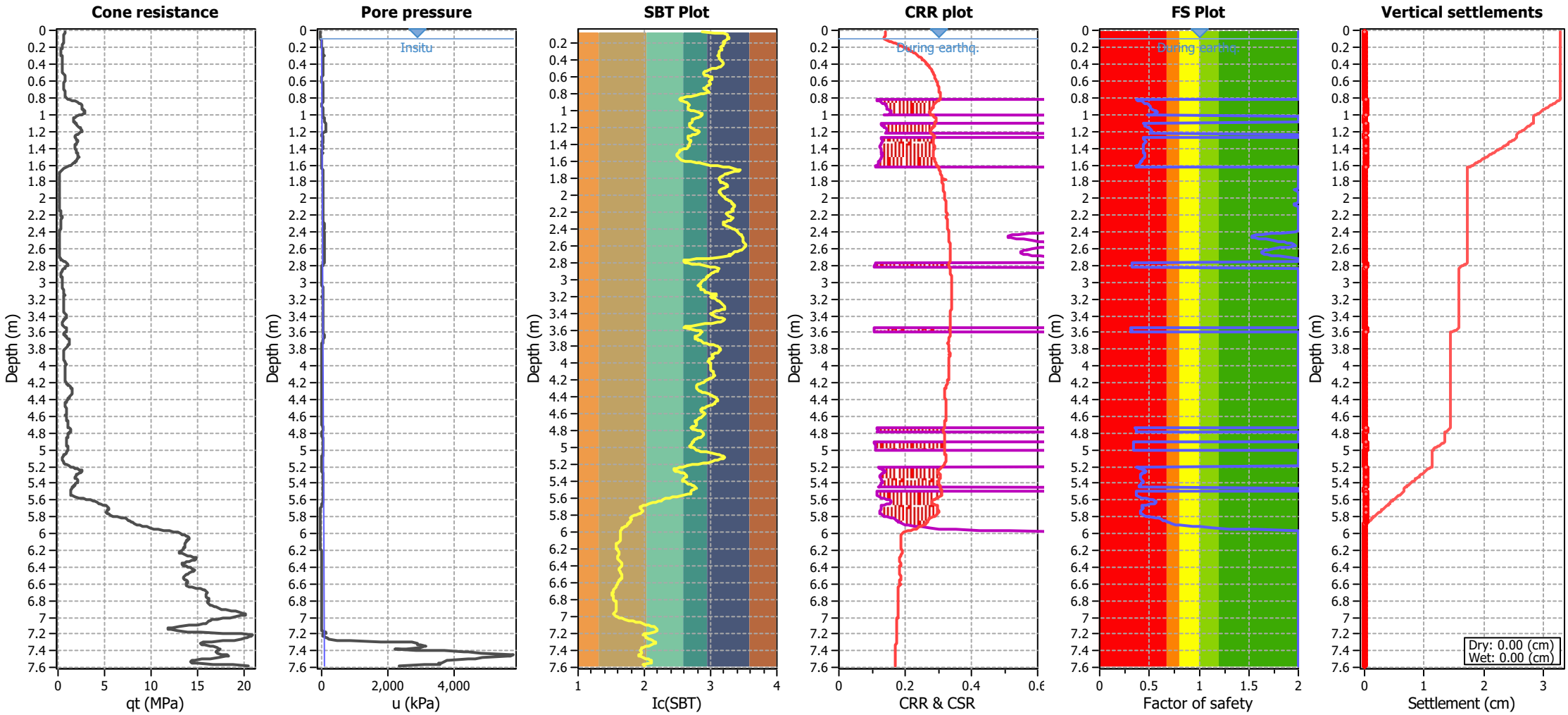
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-03
Total depth: 7.58 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	0.10 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	0.10 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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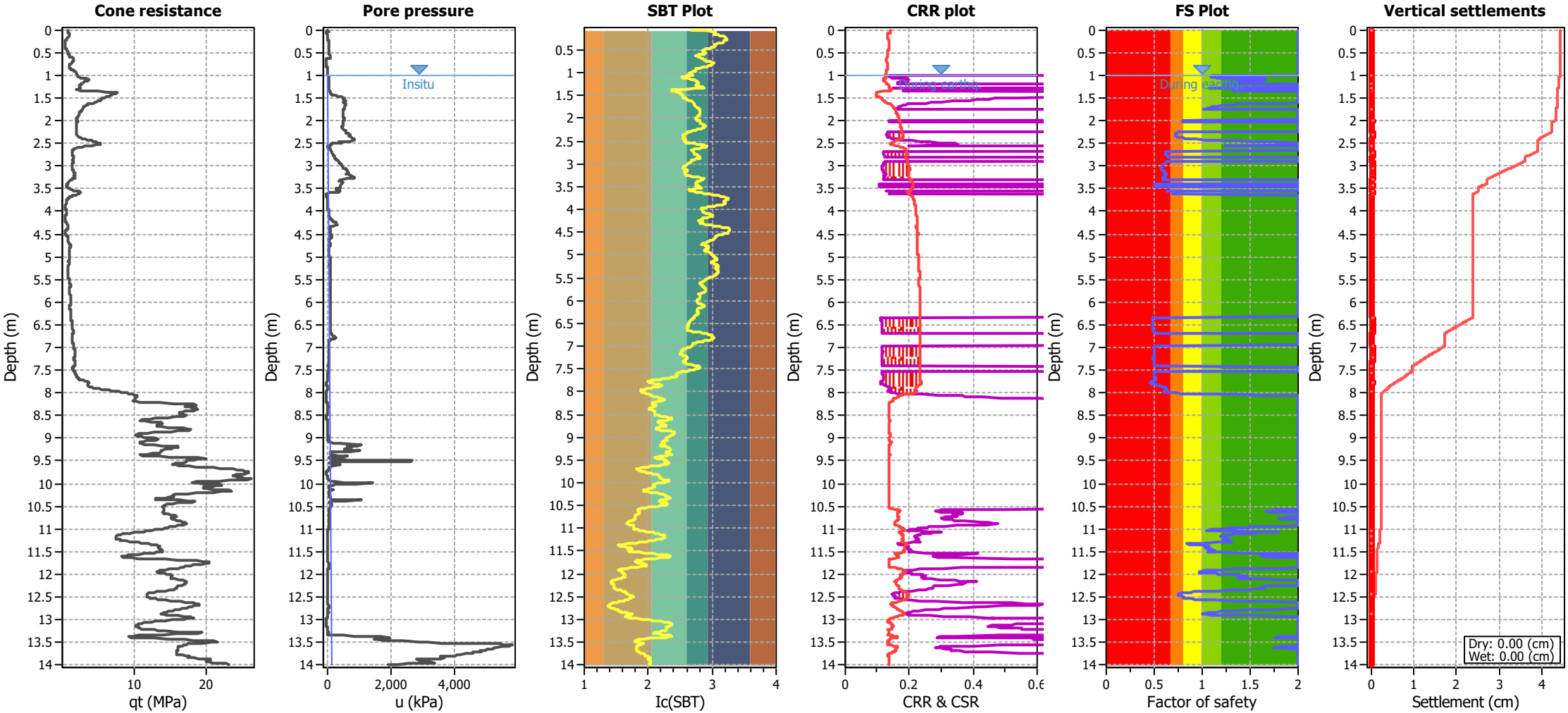
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-04
Total depth: 13.99 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	1.00 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	1.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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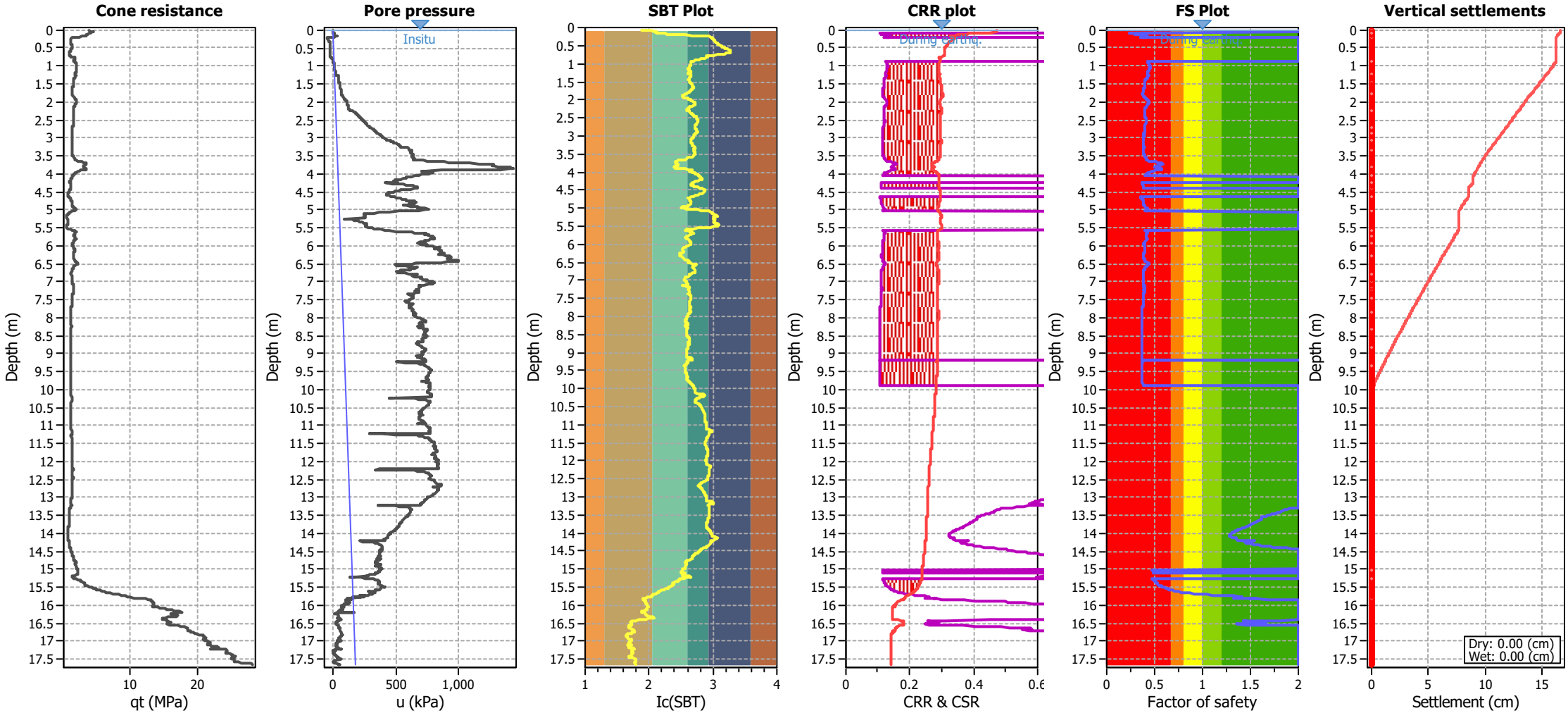
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-06
Total depth: 17.65 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	0.00 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	0.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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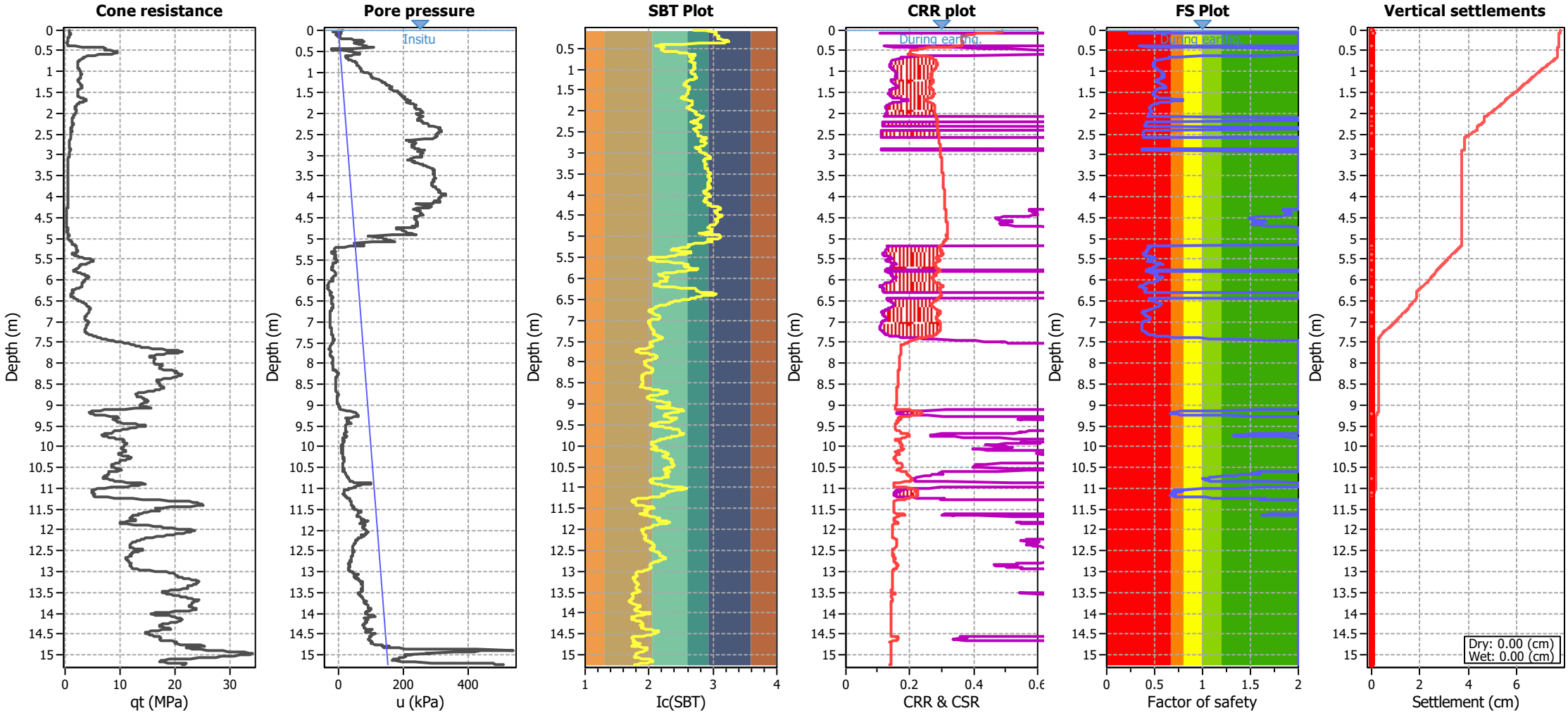
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-07
Total depth: 15.23 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	0.00 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	0.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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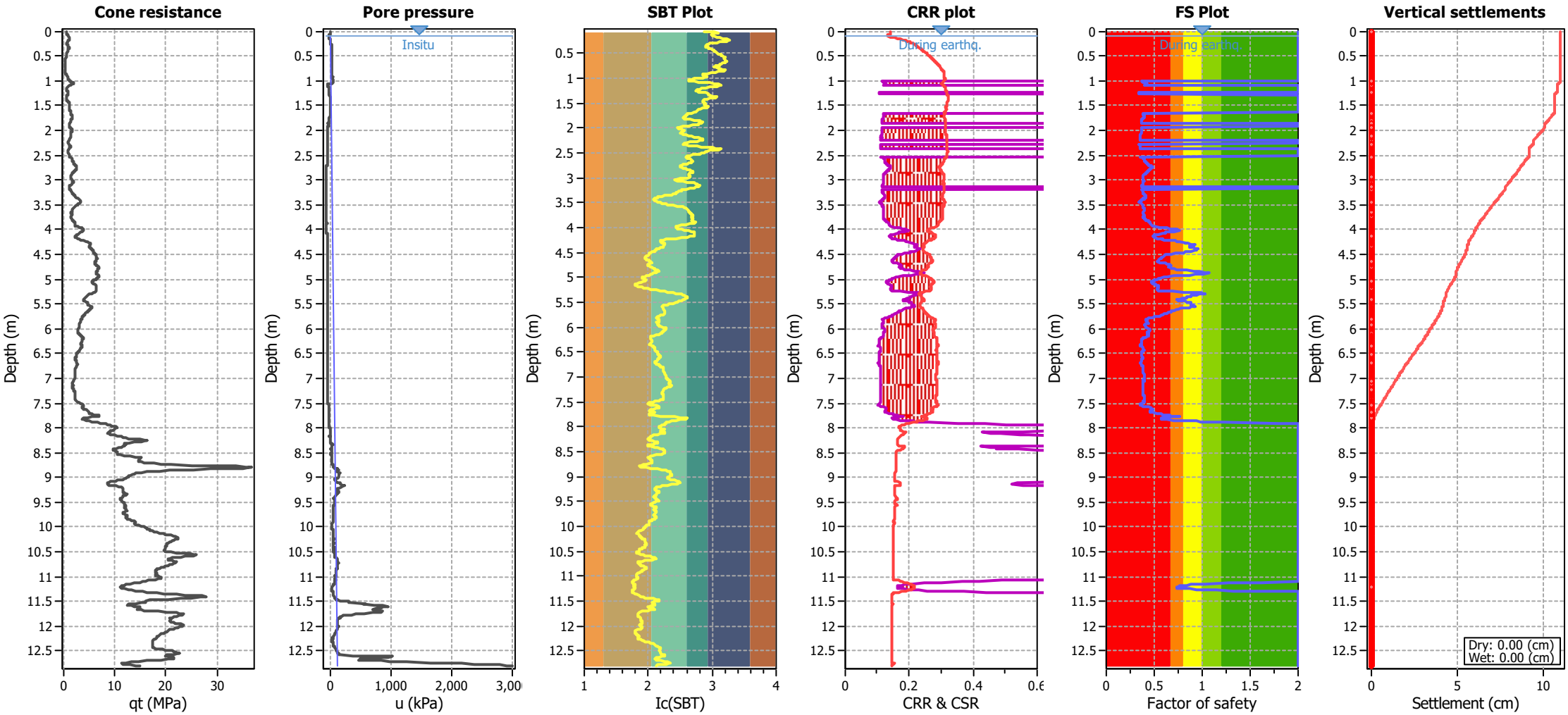
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-08
Total depth: 12.80 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	0.10 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	0.10 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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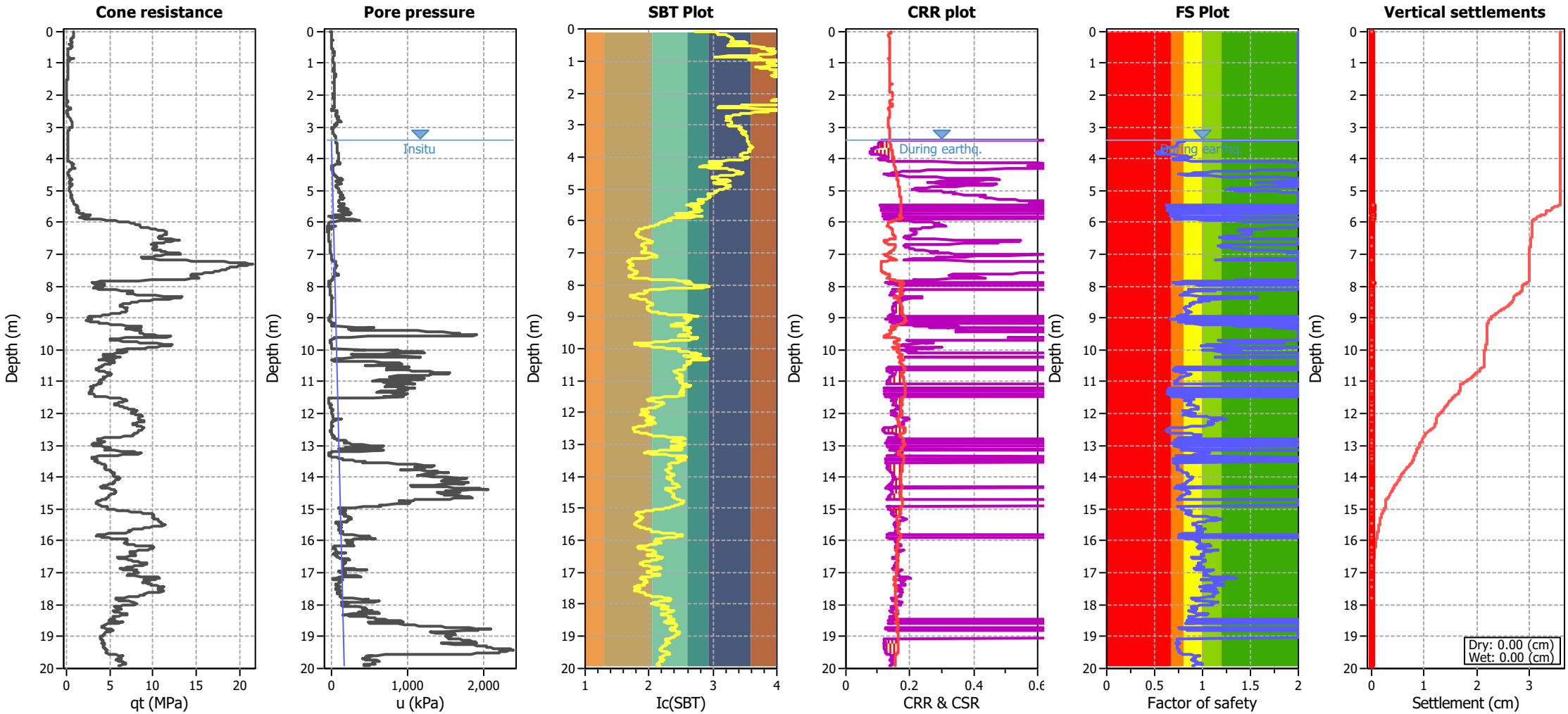
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-09
Total depth: 19.92 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	3.40 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	3.40 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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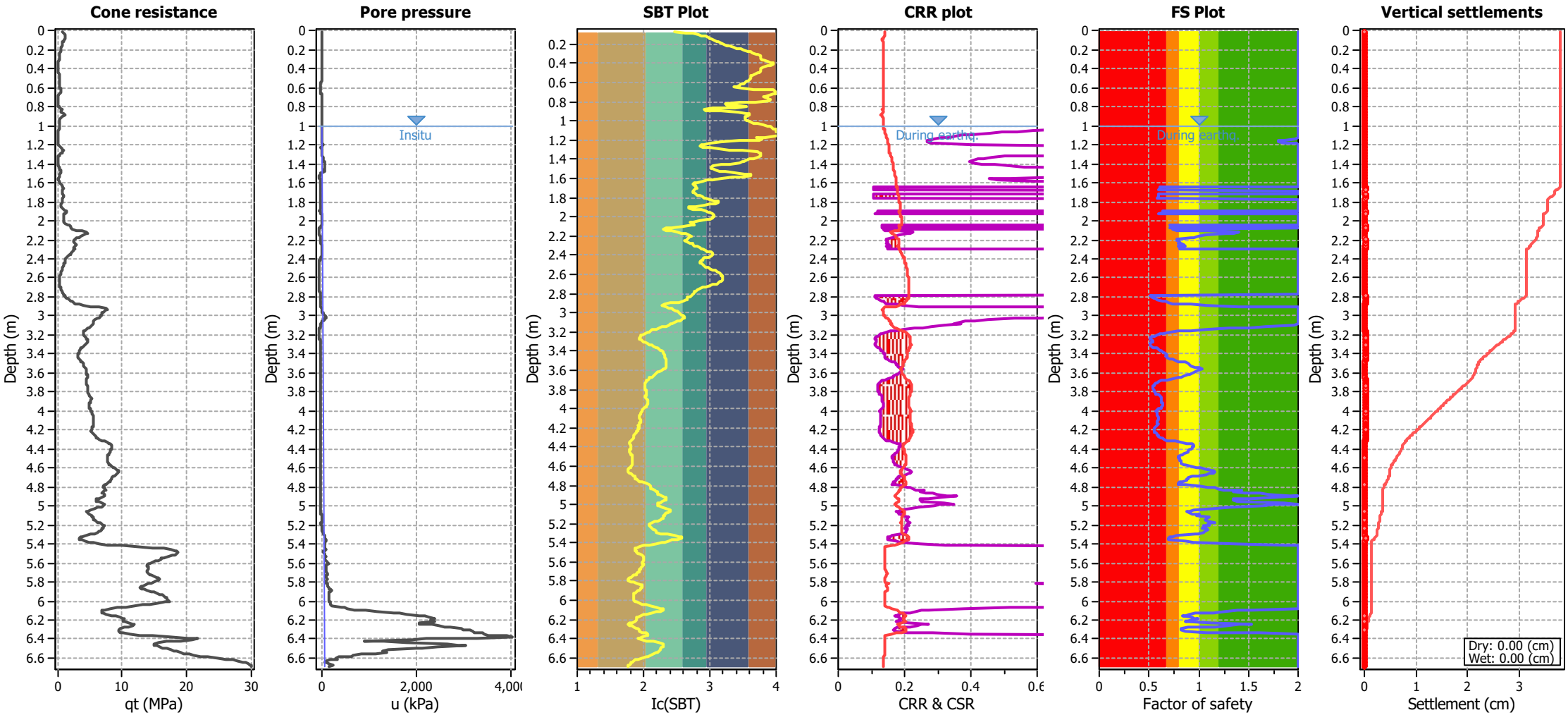
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-10
Total depth: 6.69 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	1.00 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	1.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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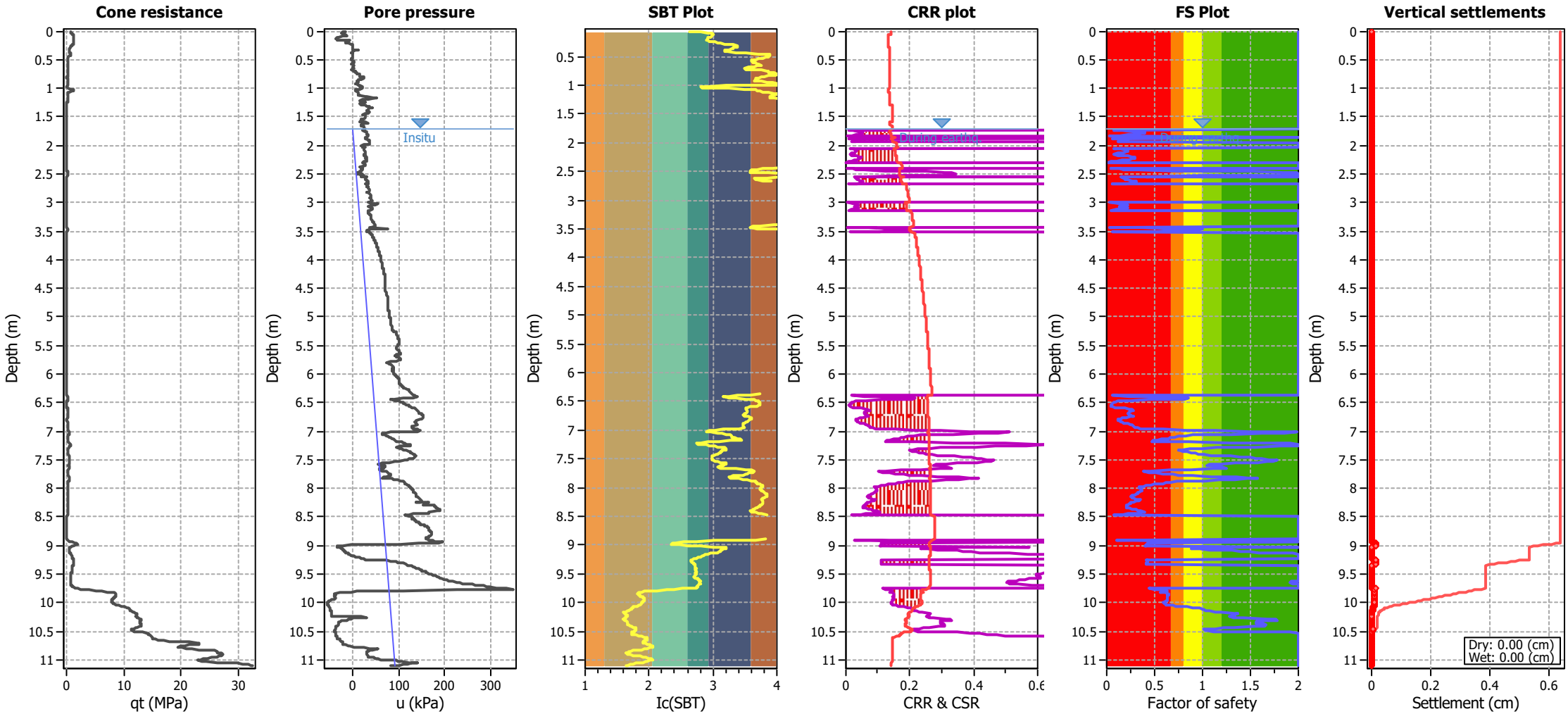
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-11
Total depth: 11.10 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	1.70 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	1.70 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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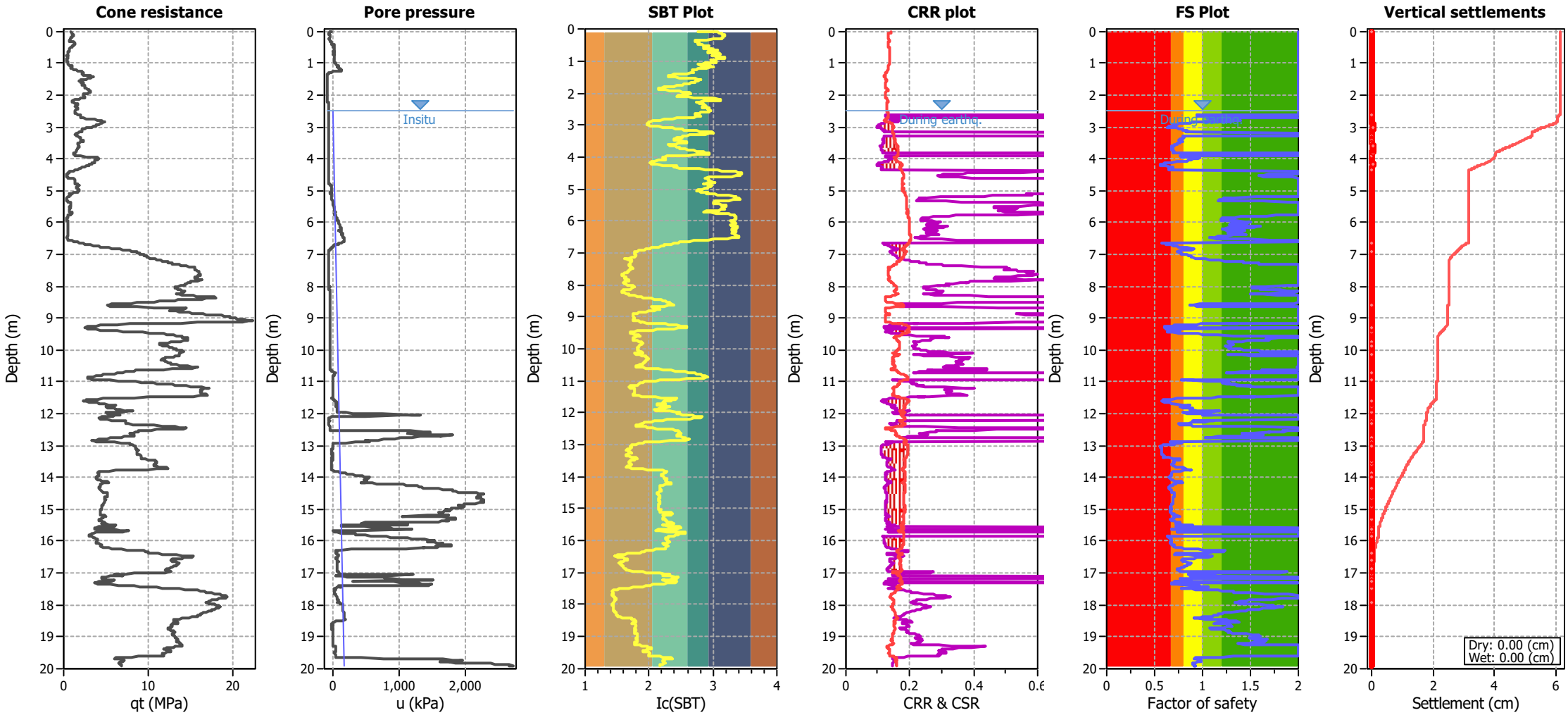
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-12
Total depth: 19.92 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	2.50 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	2.50 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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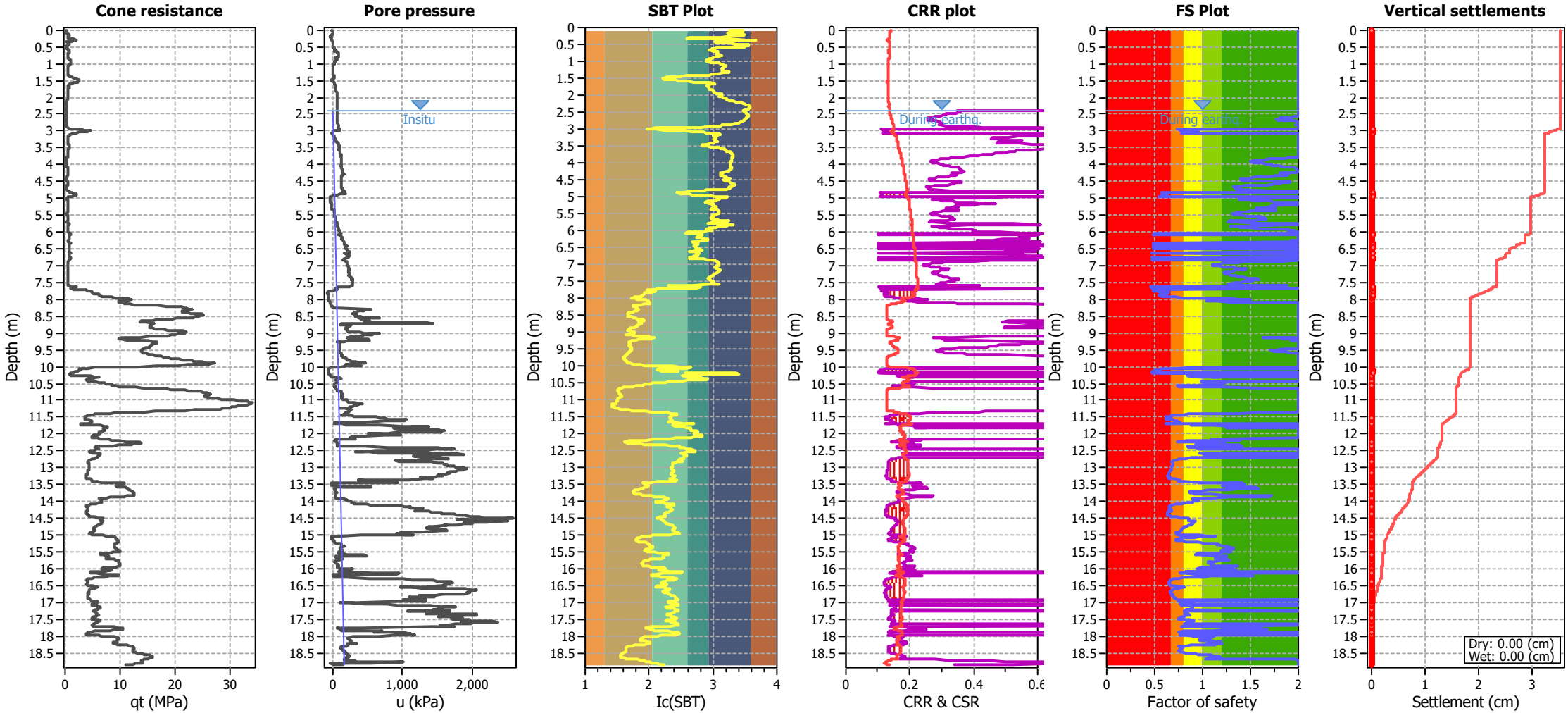
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-13
Total depth: 18.85 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	2.40 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	2.40 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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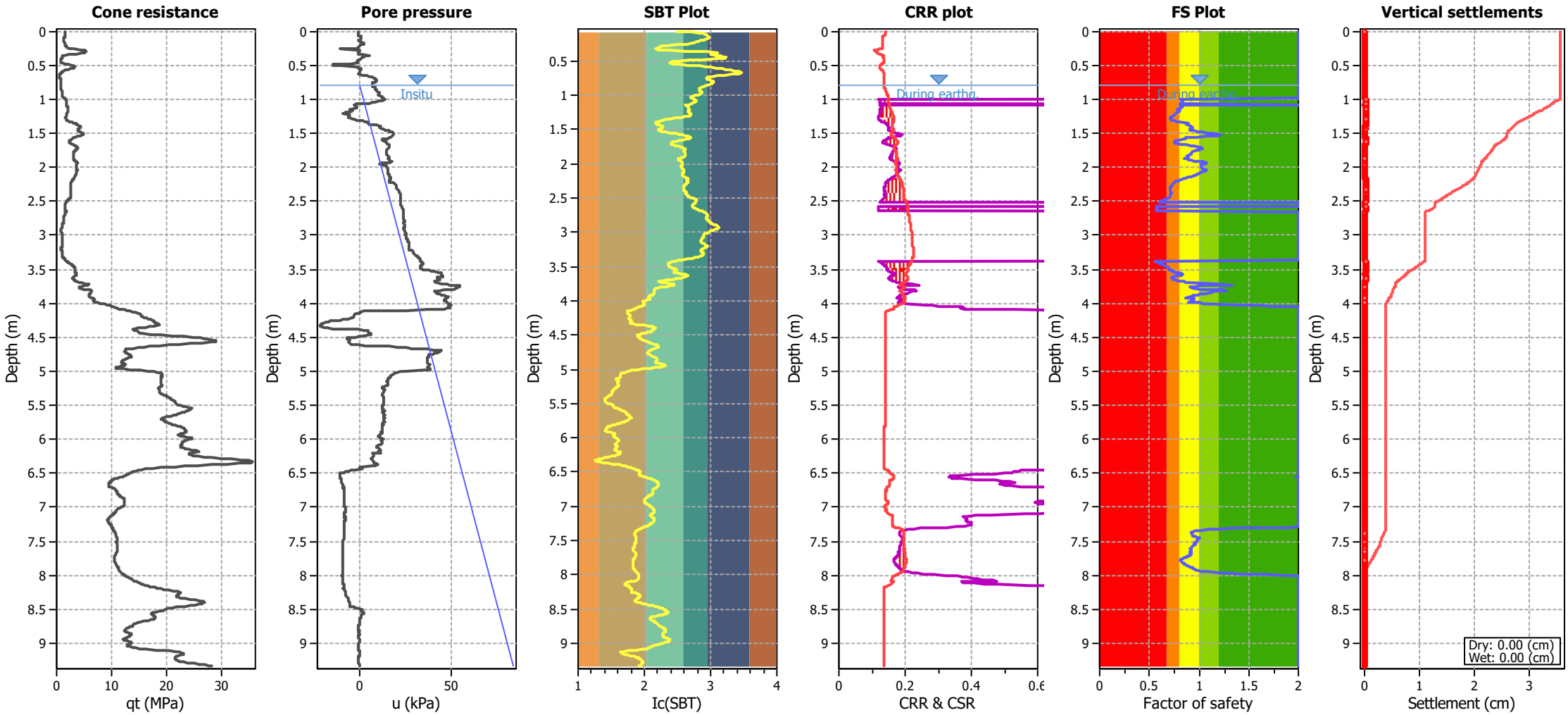
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-14
Total depth: 9.33 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	0.80 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	0.80 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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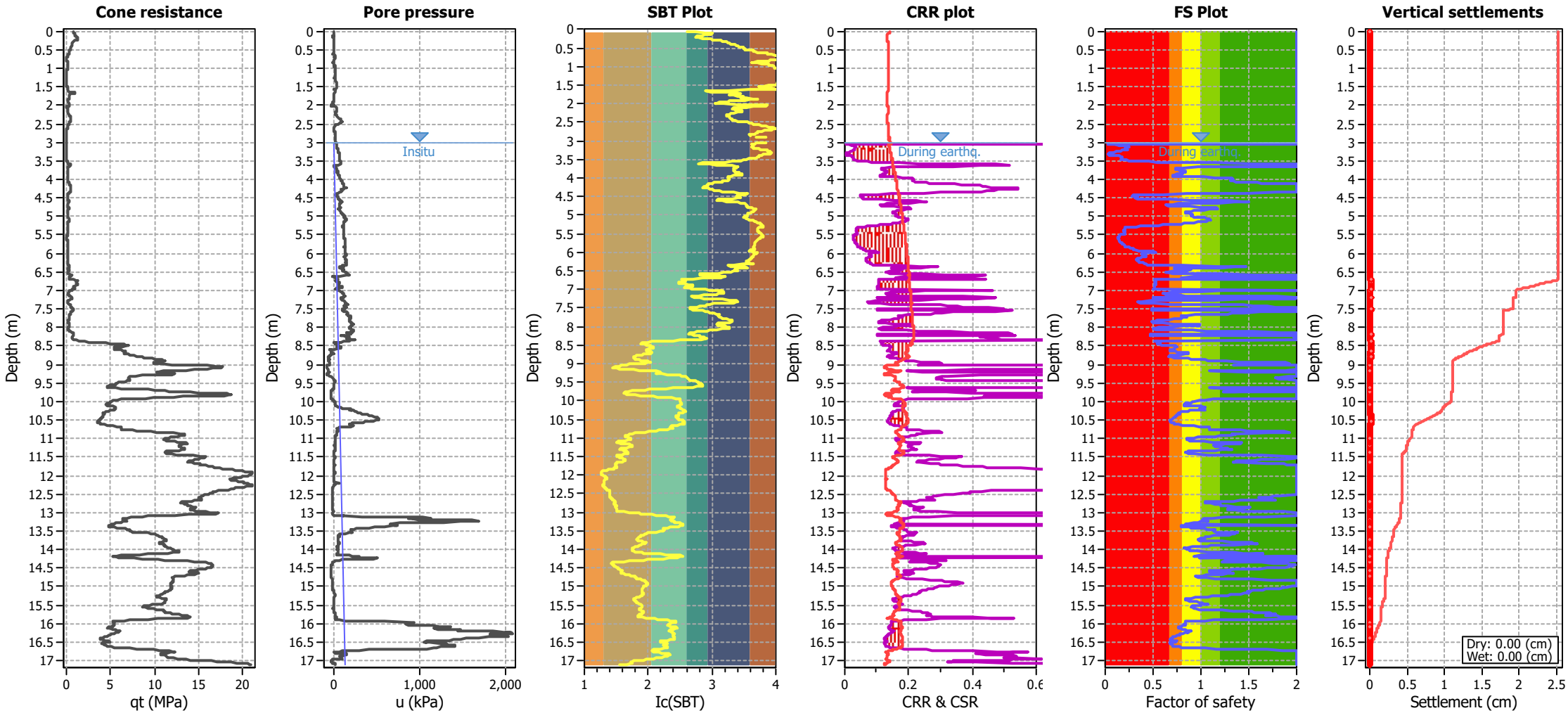
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-15
Total depth: 17.11 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	3.00 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	3.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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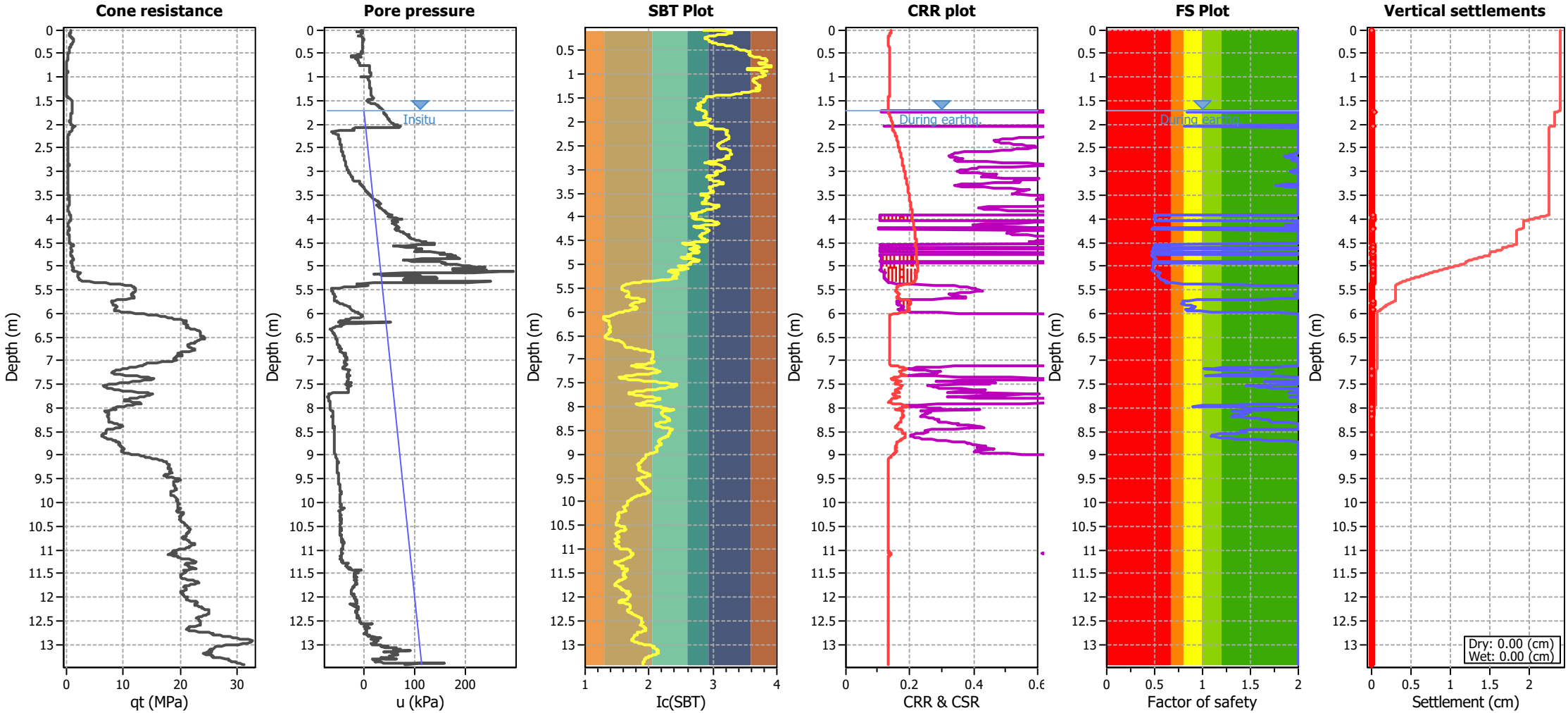
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-16
Total depth: 13.43 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	1.70 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	1.70 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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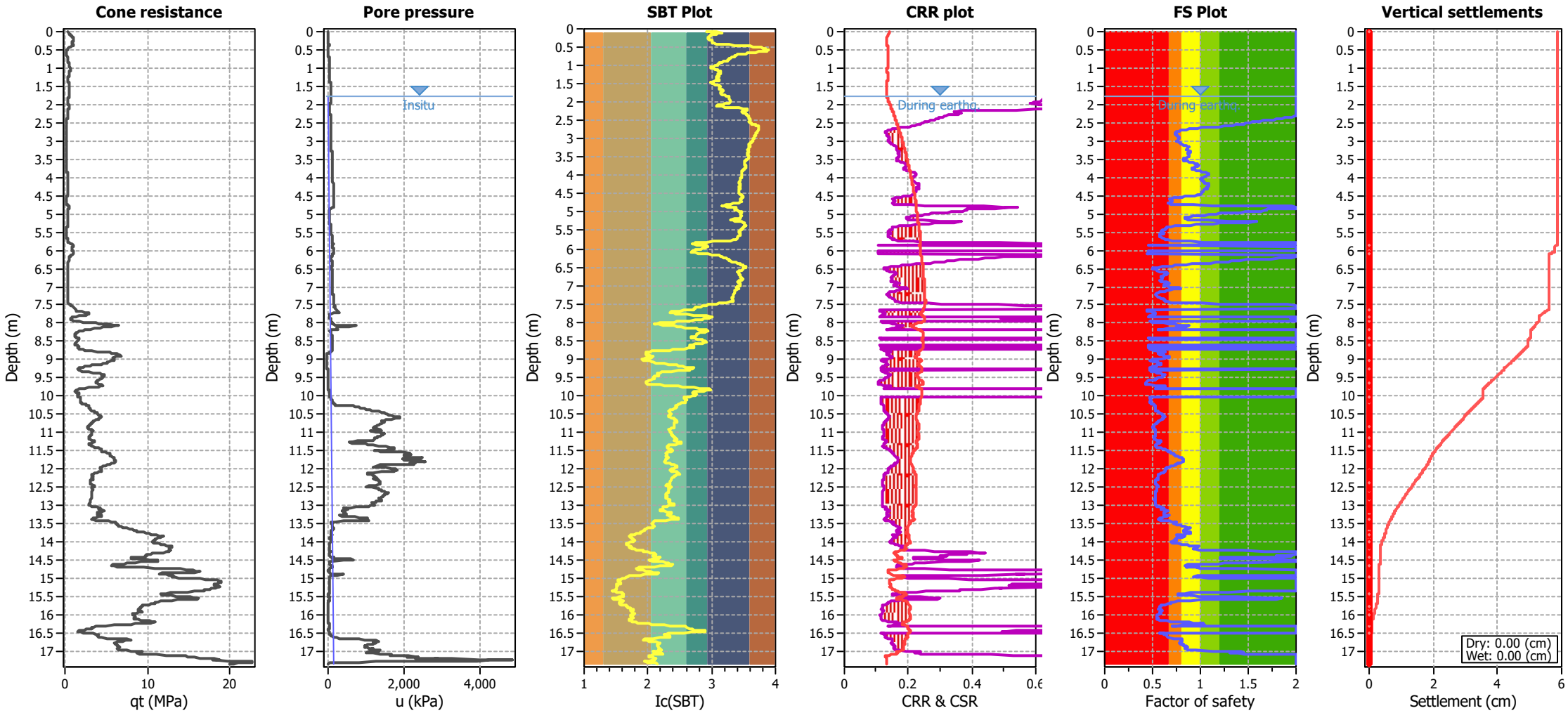
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-17
Total depth: 17.34 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	1.80 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	1.80 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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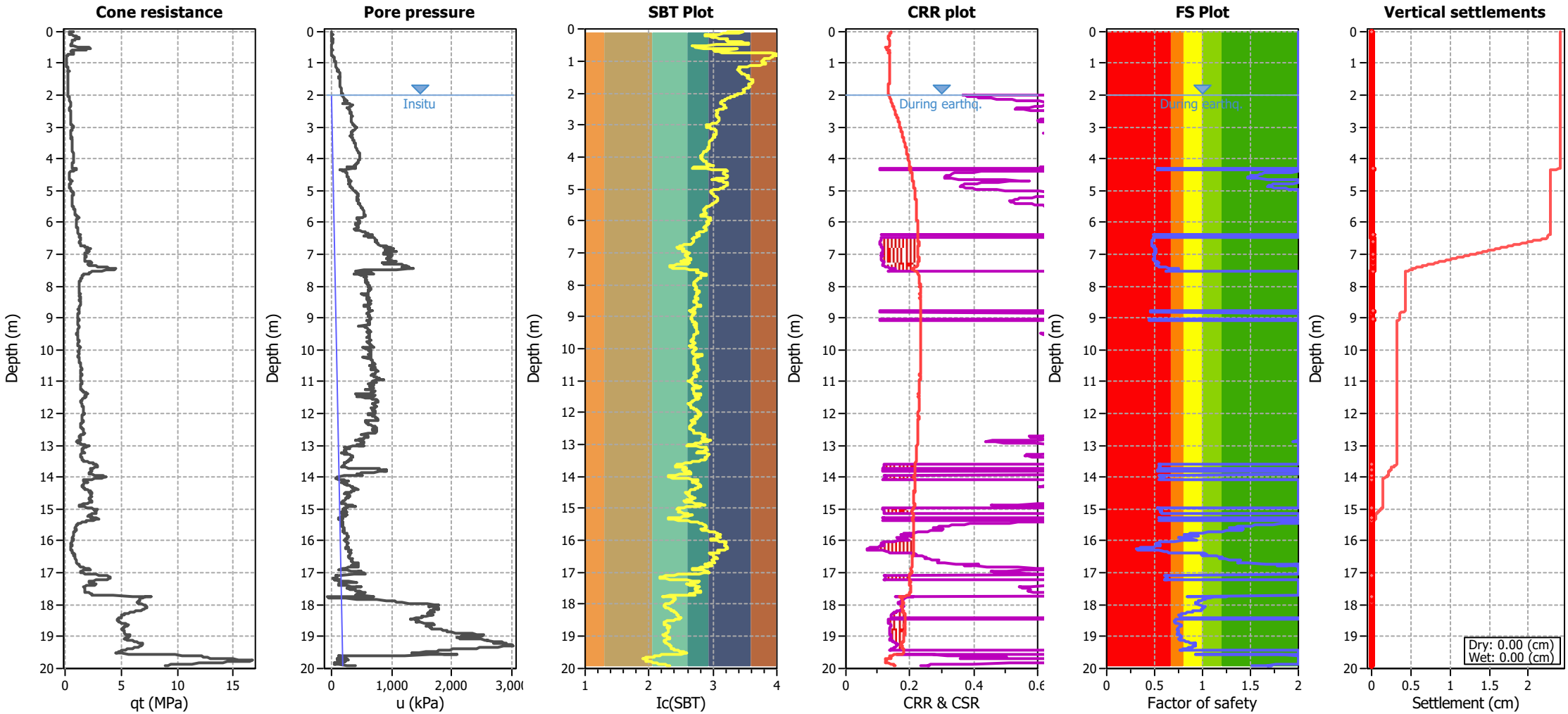
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-18
Total depth: 19.92 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	2.00 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	2.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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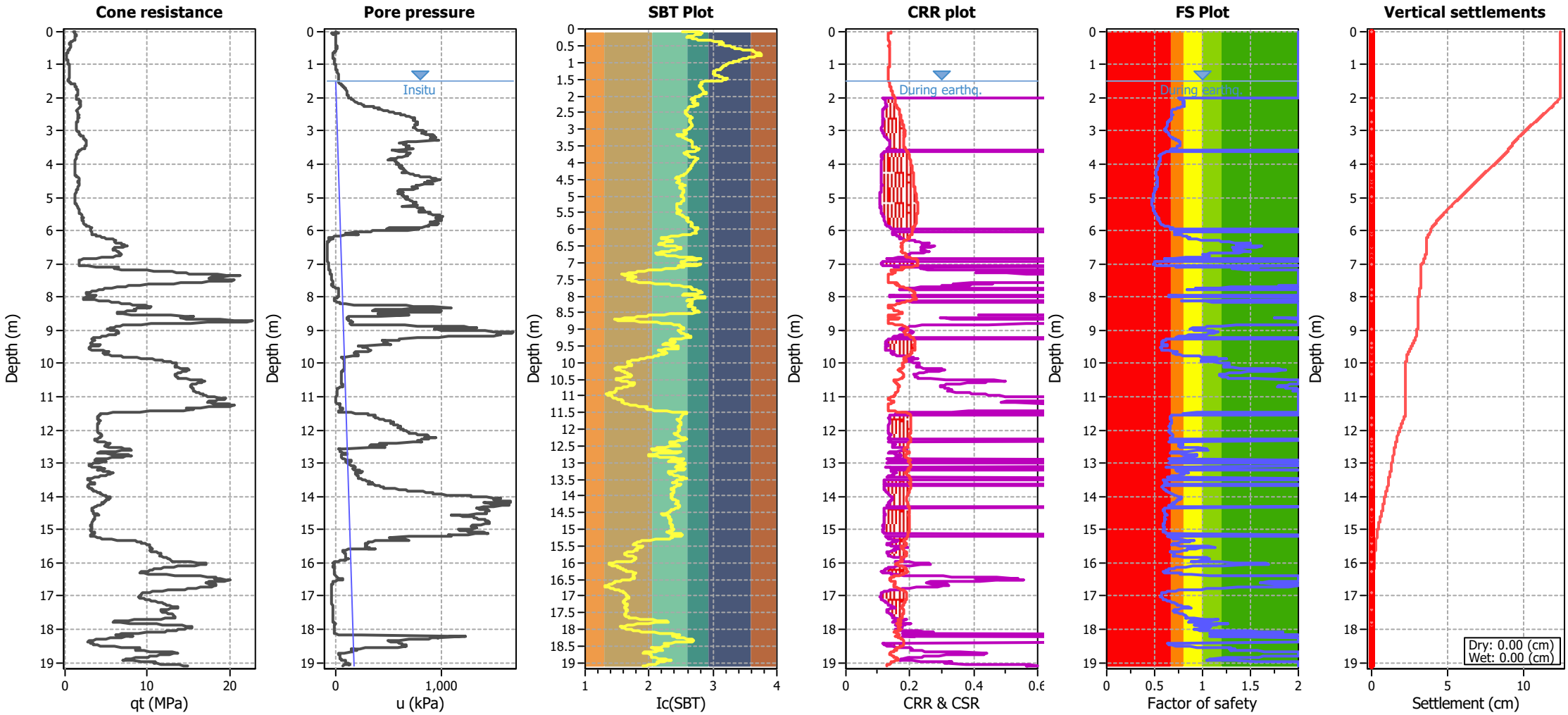
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-19
Total depth: 19.10 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	1.50 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	1.50 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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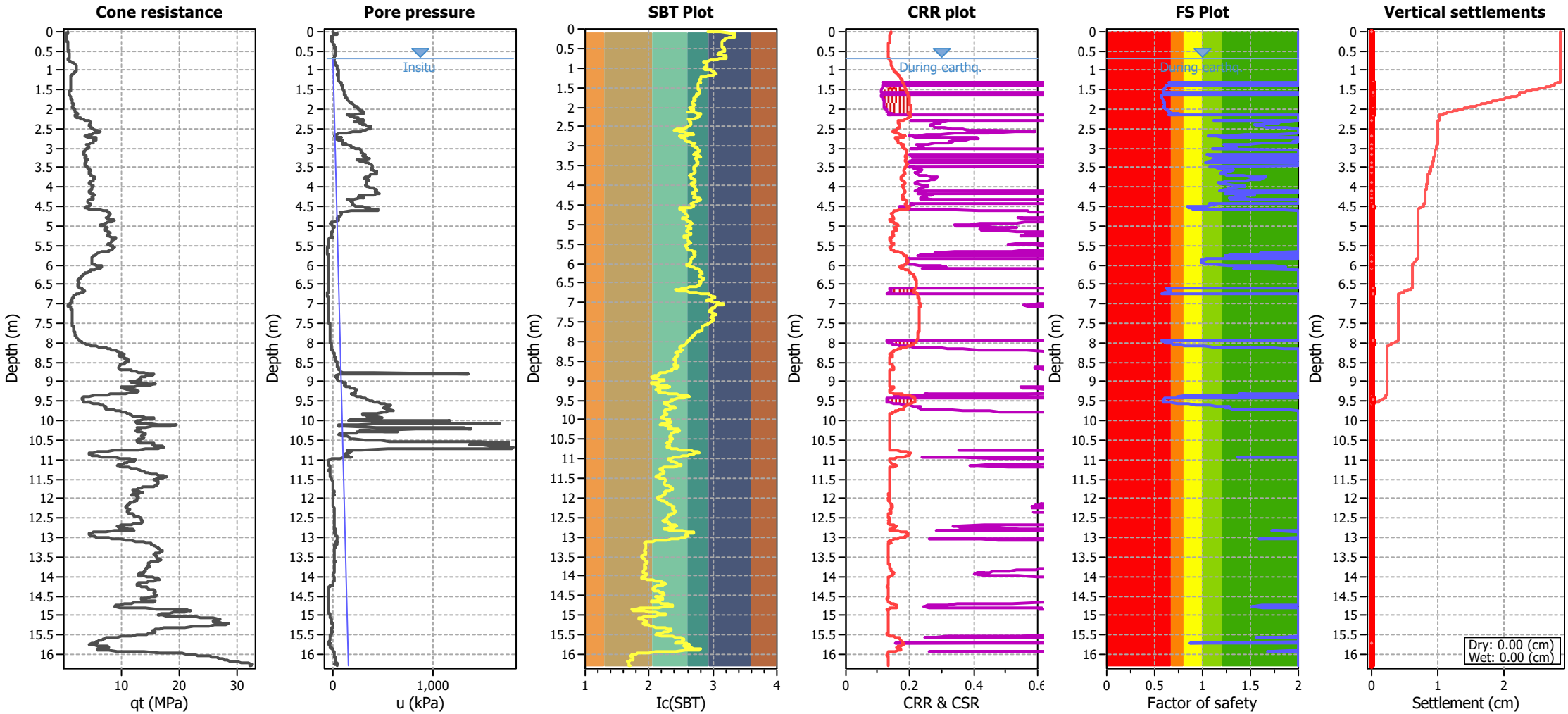
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-20
Total depth: 16.29 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	0.70 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	0.70 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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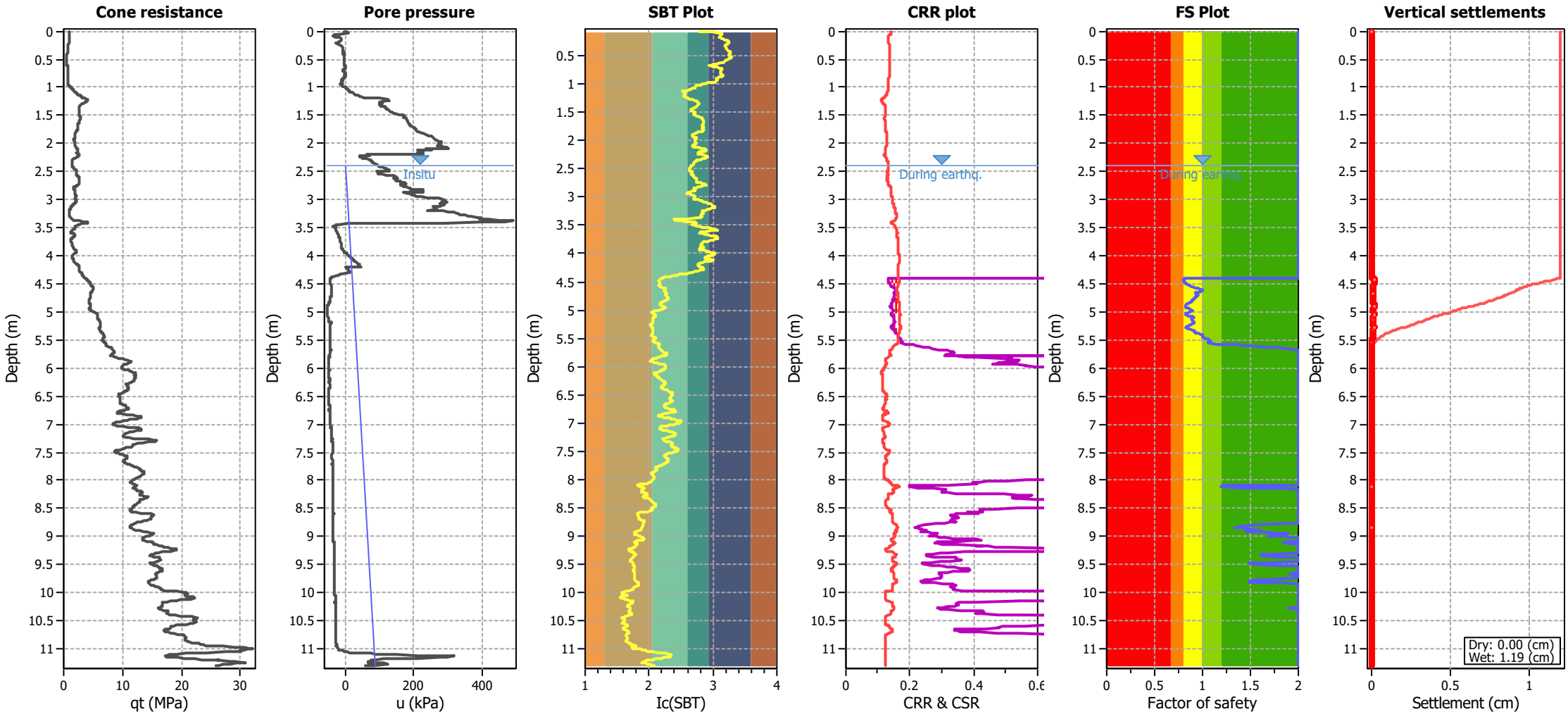
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-01
Total depth: 11.30 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	2.40 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	2.40 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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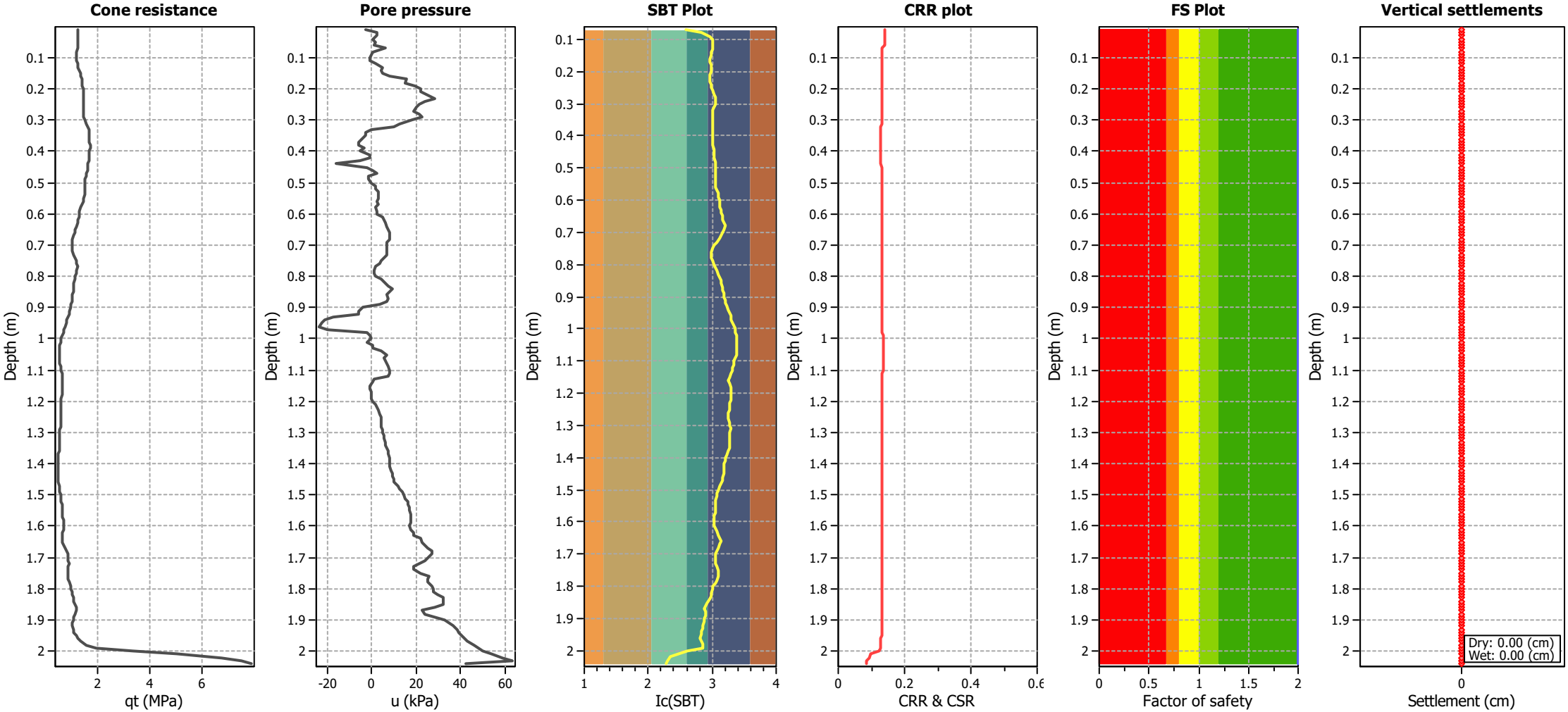
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-02
Total depth: 2.04 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	2.90 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	2.90 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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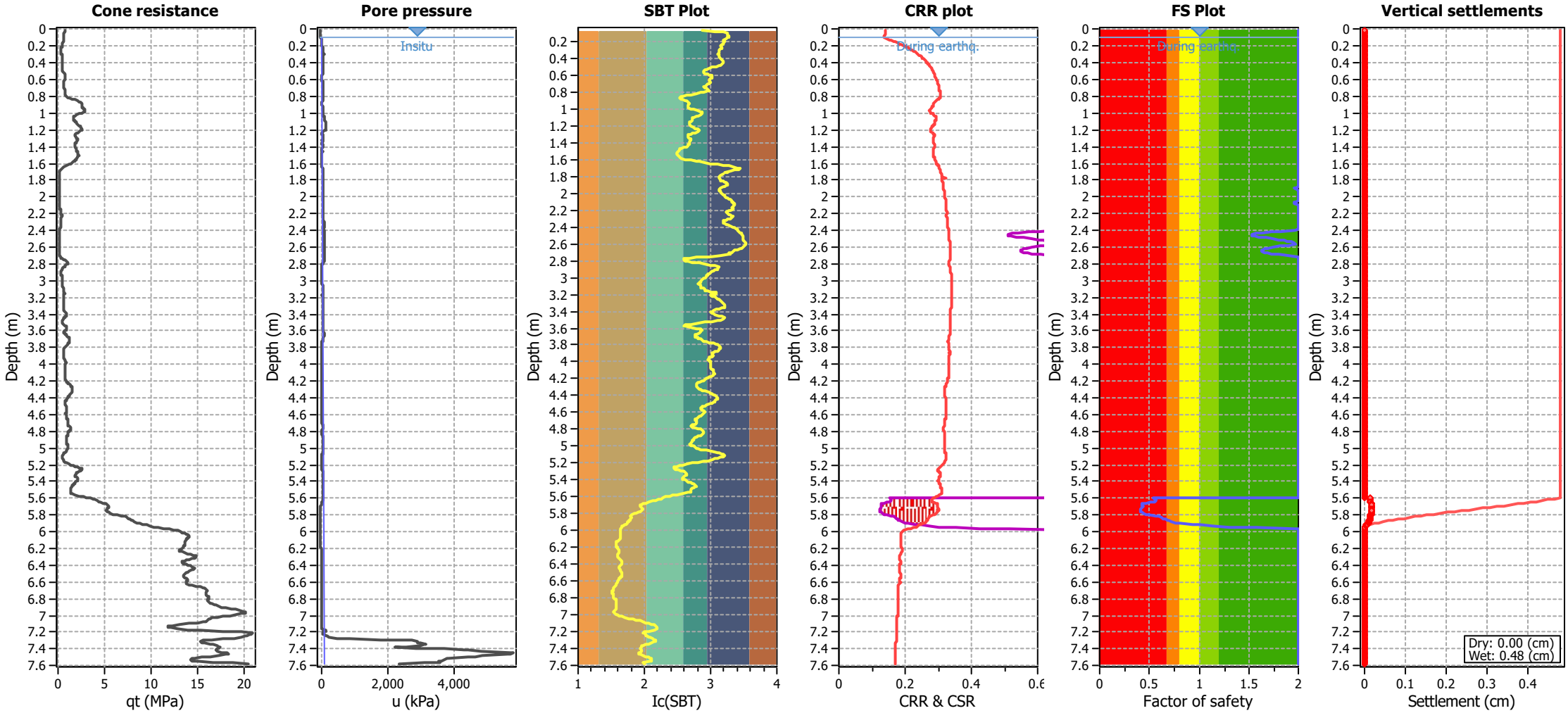
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-03
Total depth: 7.58 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	0.10 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	0.10 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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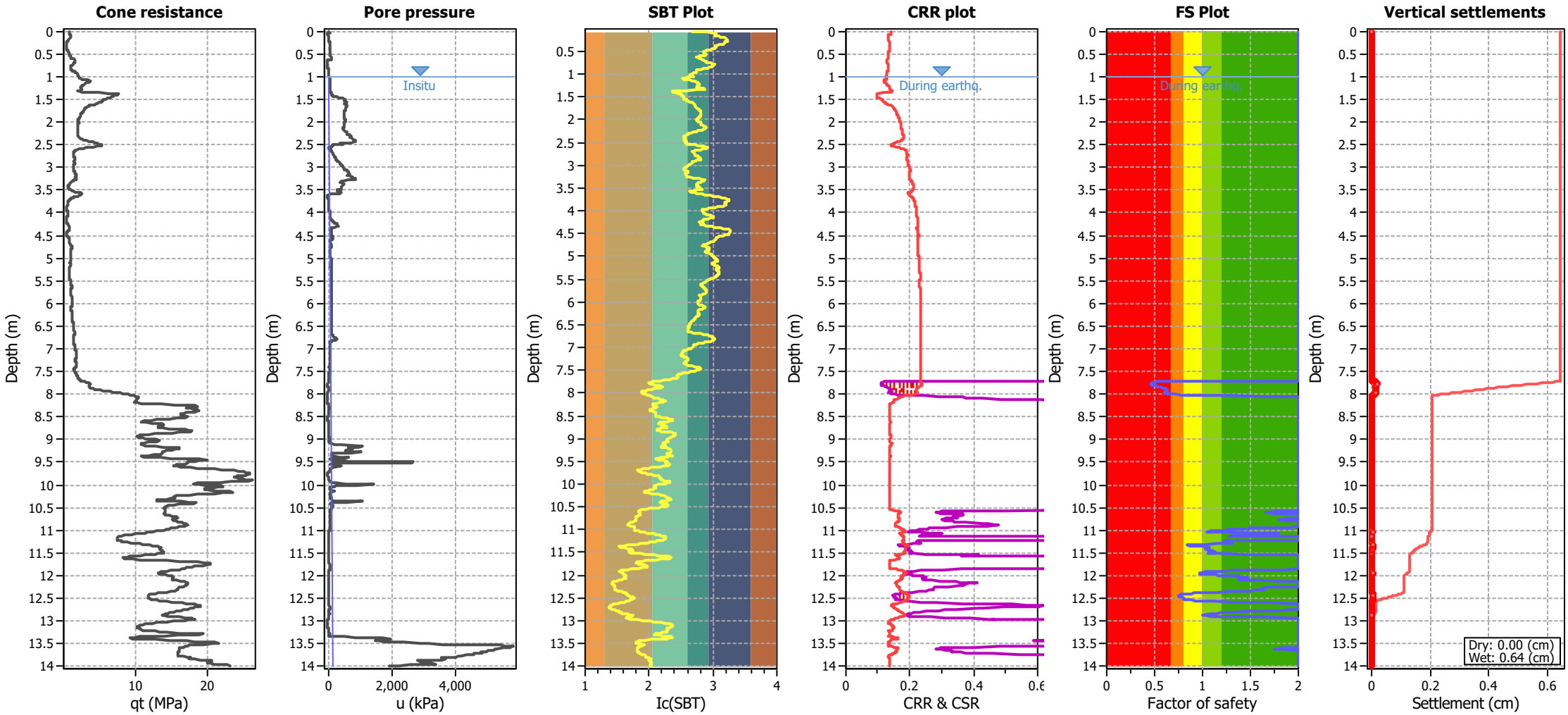
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-04
Total depth: 13.99 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	1.00 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	1.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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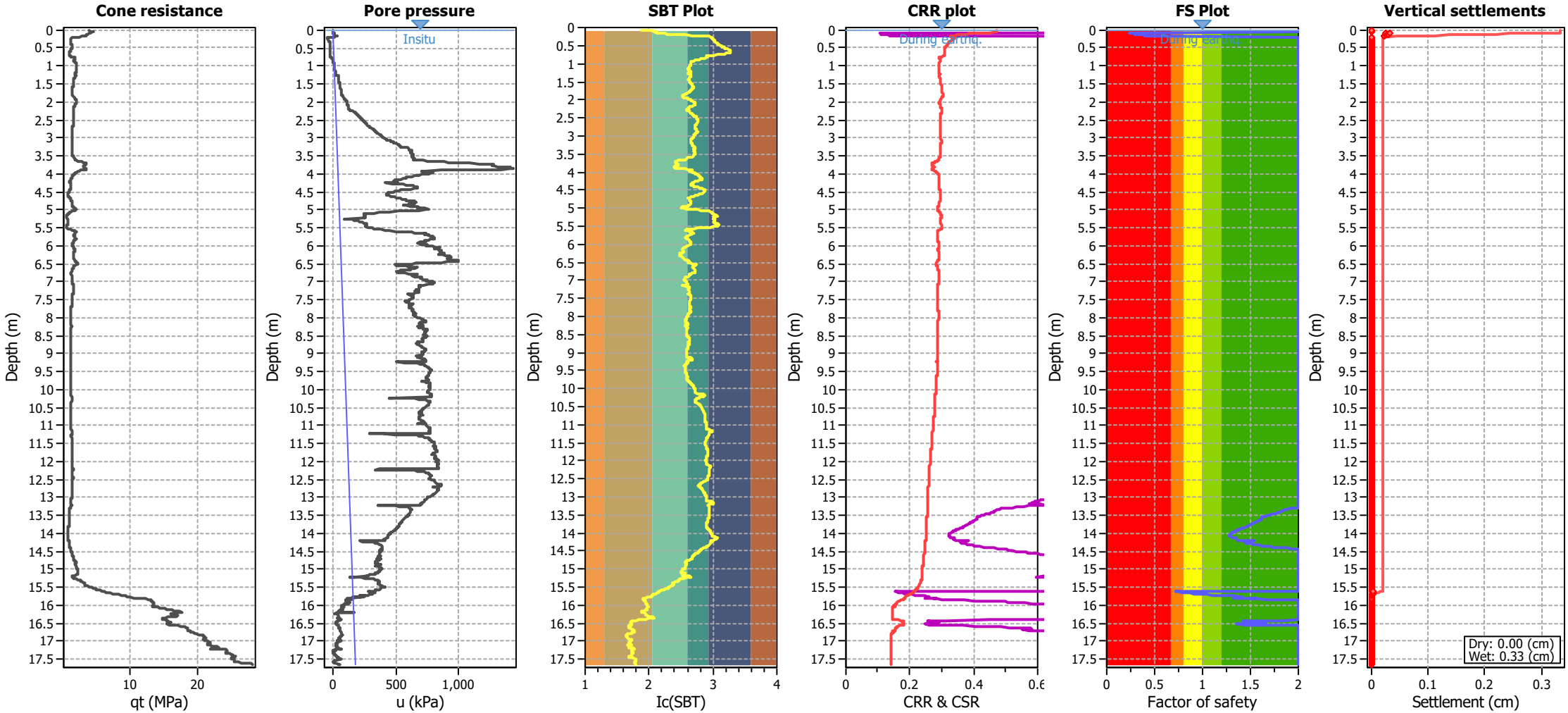
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-06
Total depth: 17.65 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	0.00 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	0.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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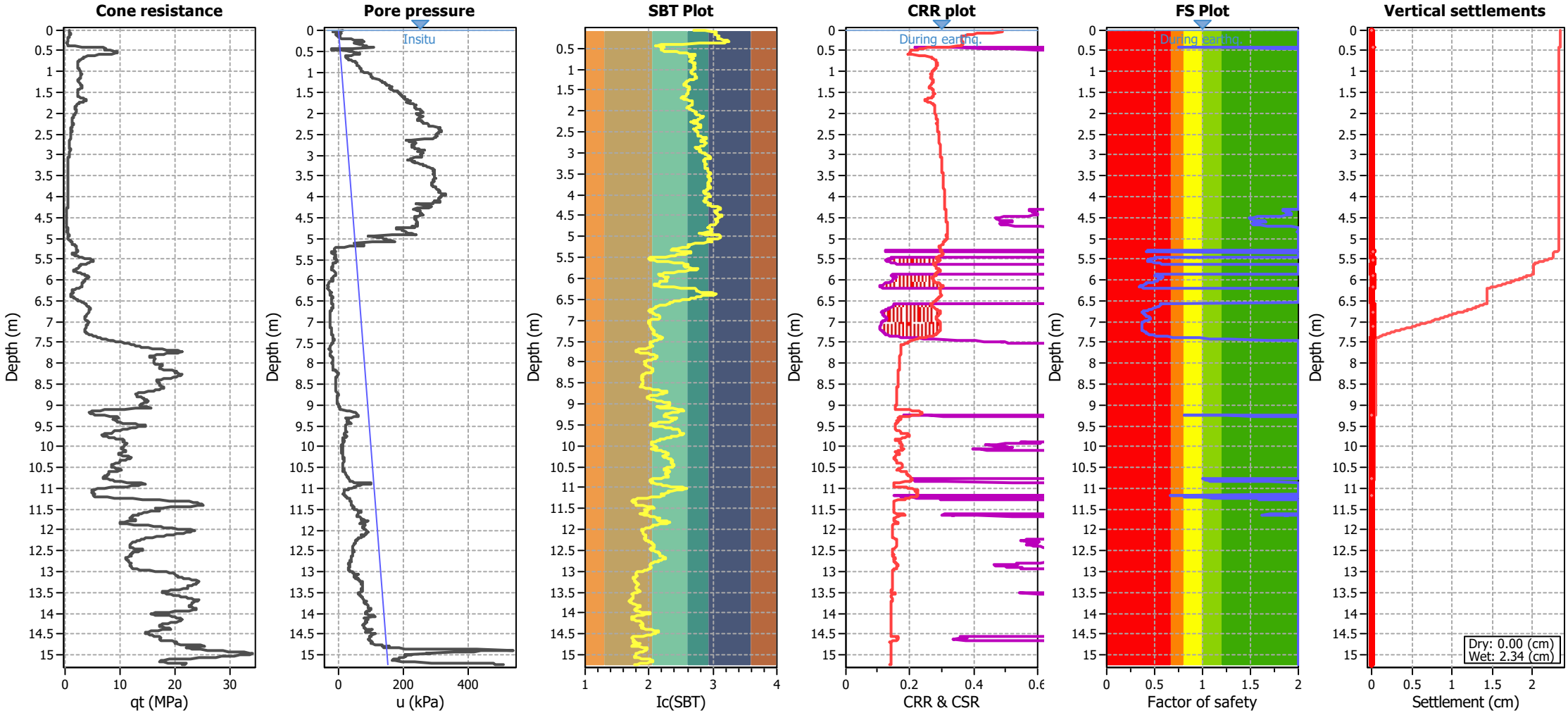
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-07
Total depth: 15.23 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	0.00 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	0.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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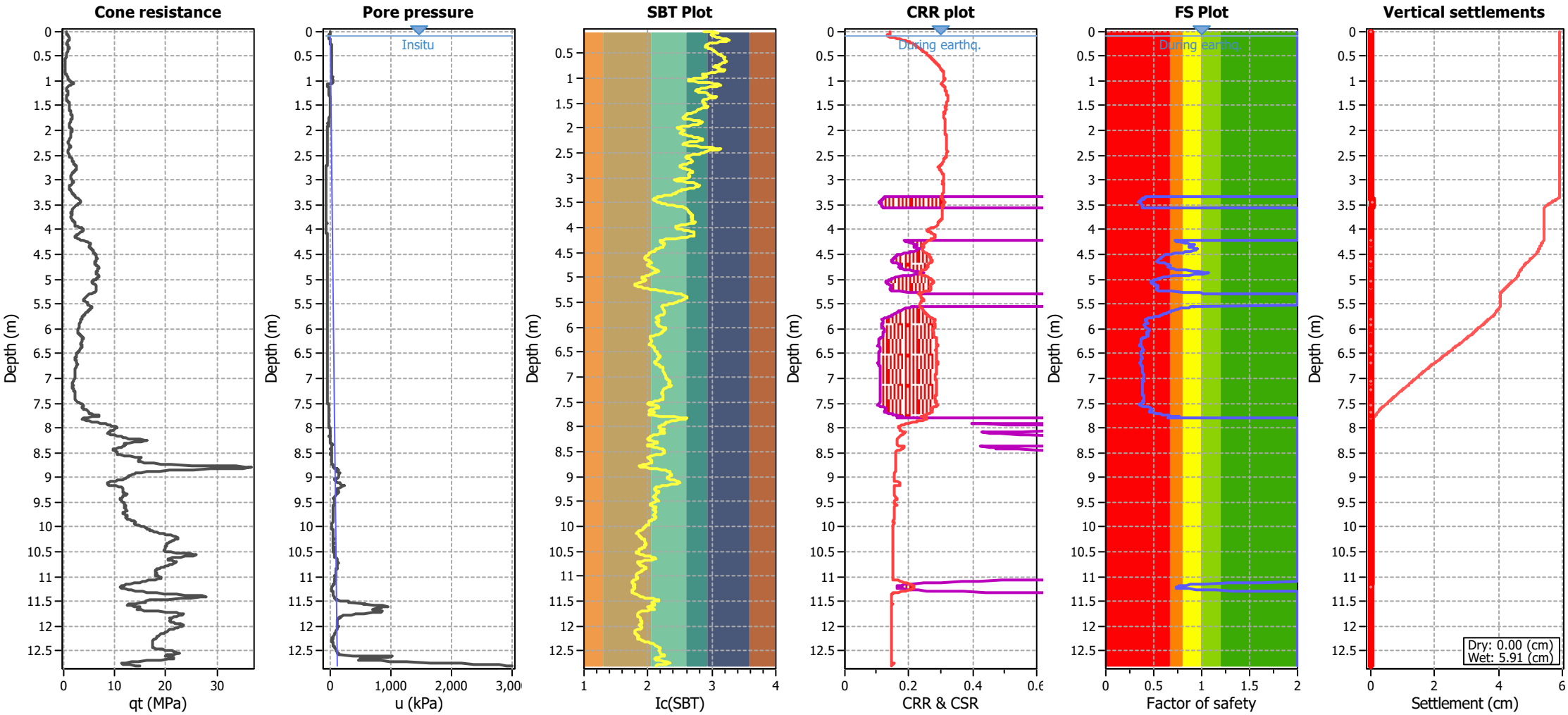
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-08
Total depth: 12.80 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	0.10 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	0.10 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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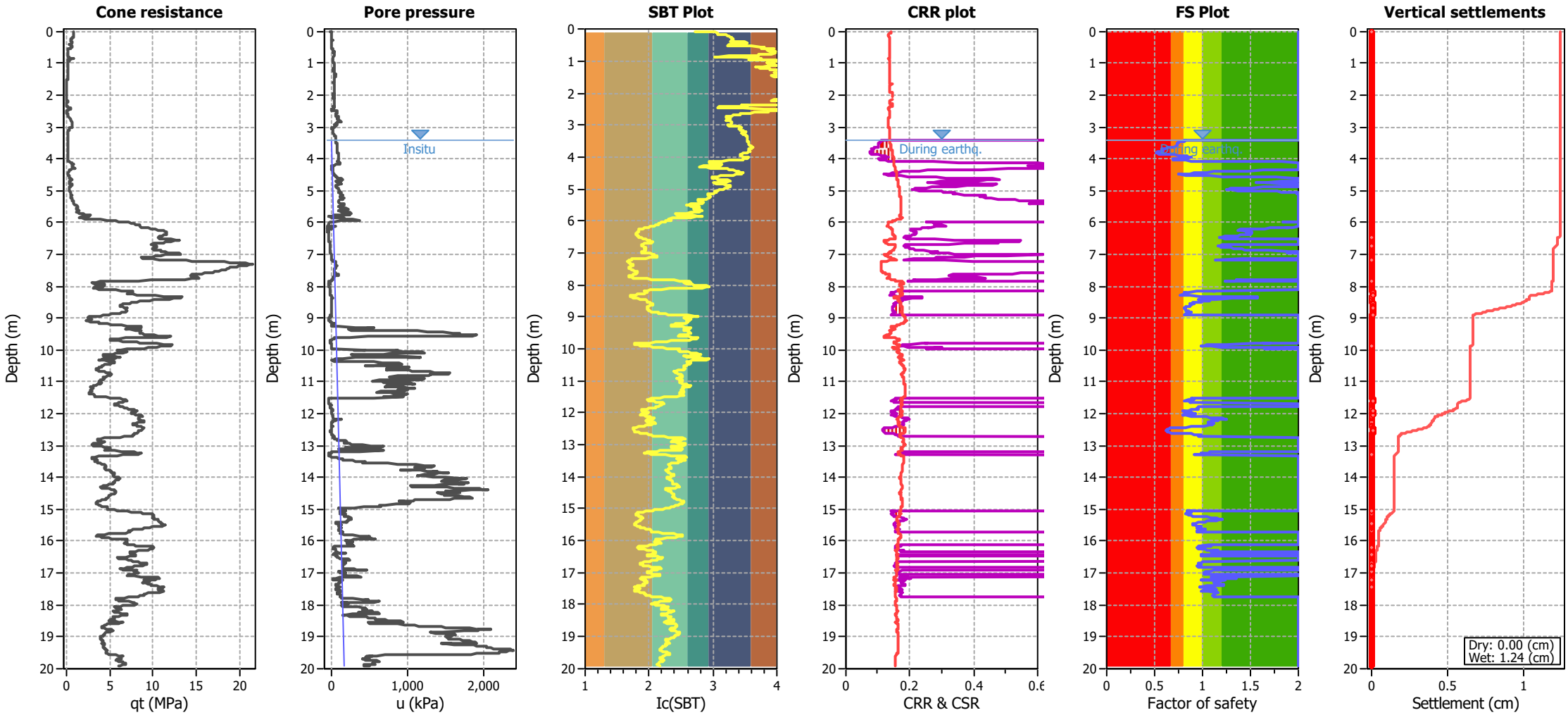
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-09
Total depth: 19.92 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	3.40 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	3.40 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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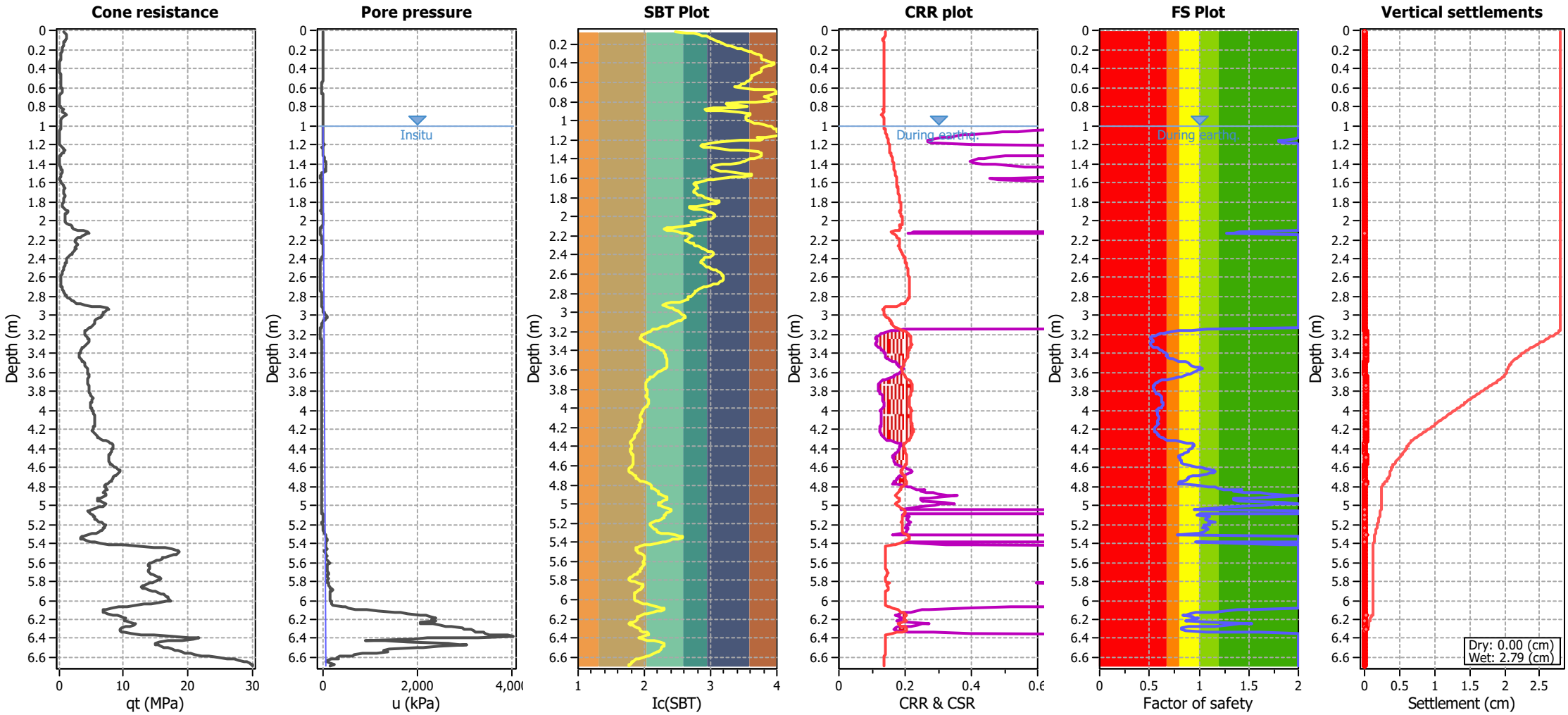
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-10
Total depth: 6.69 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	1.00 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	1.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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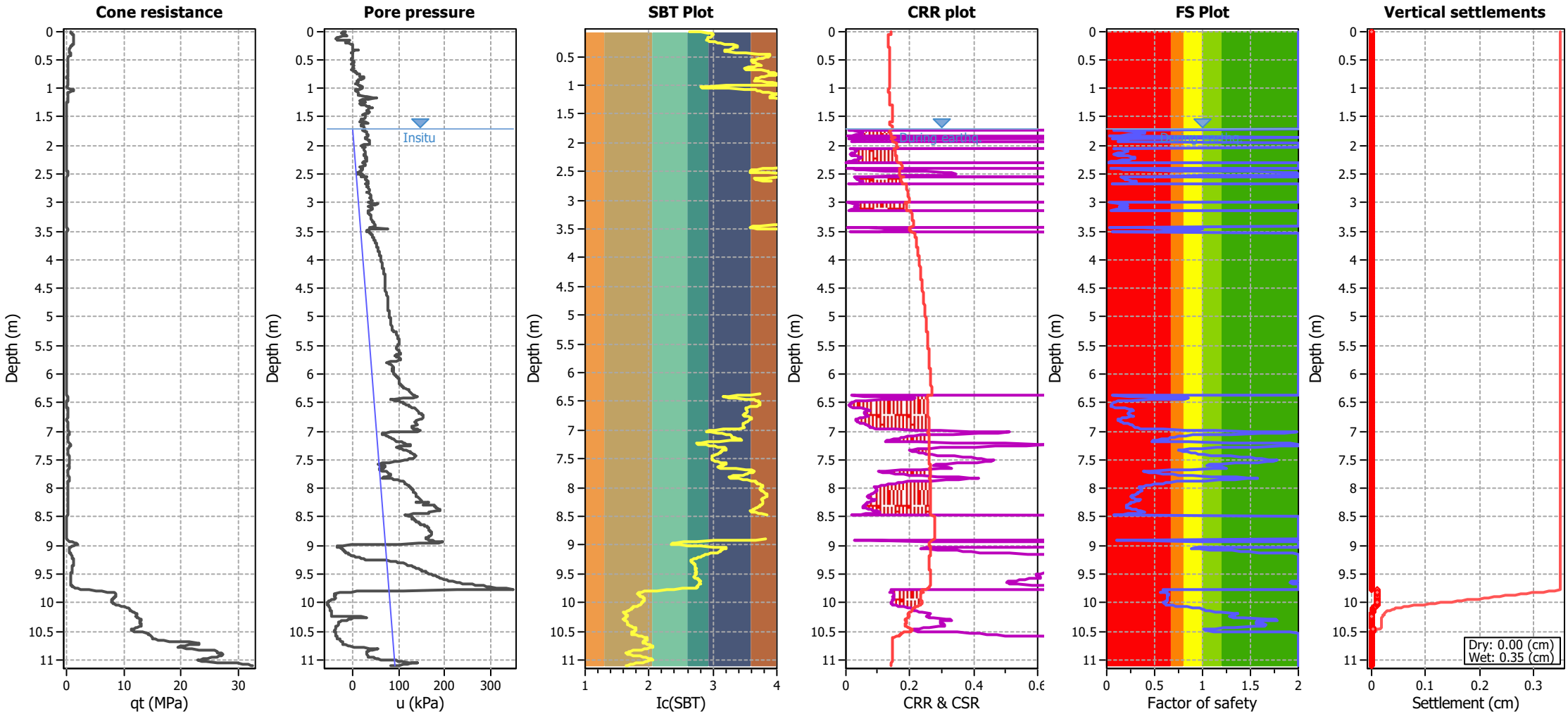
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-11
Total depth: 11.10 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	1.70 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	1.70 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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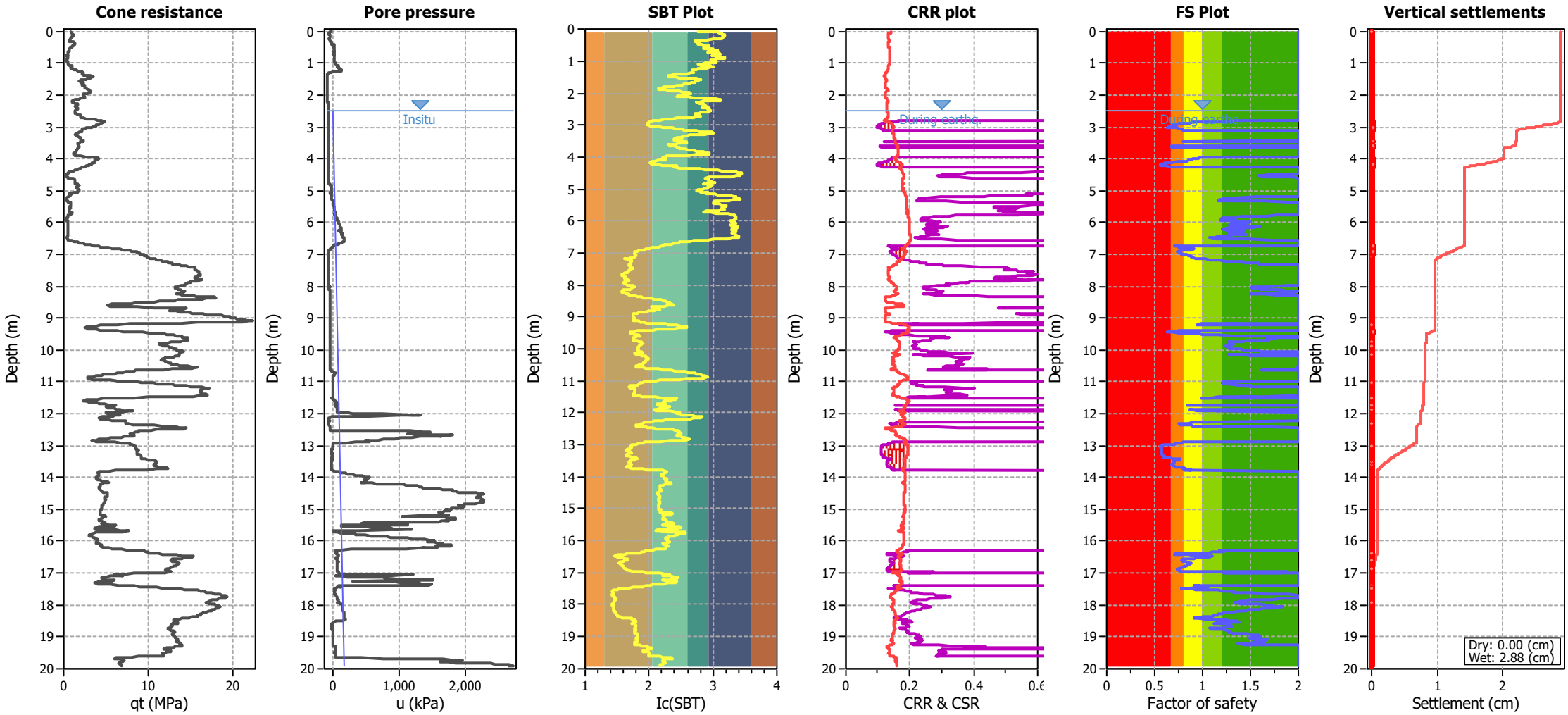
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-12
Total depth: 19.92 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	2.50 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	2.50 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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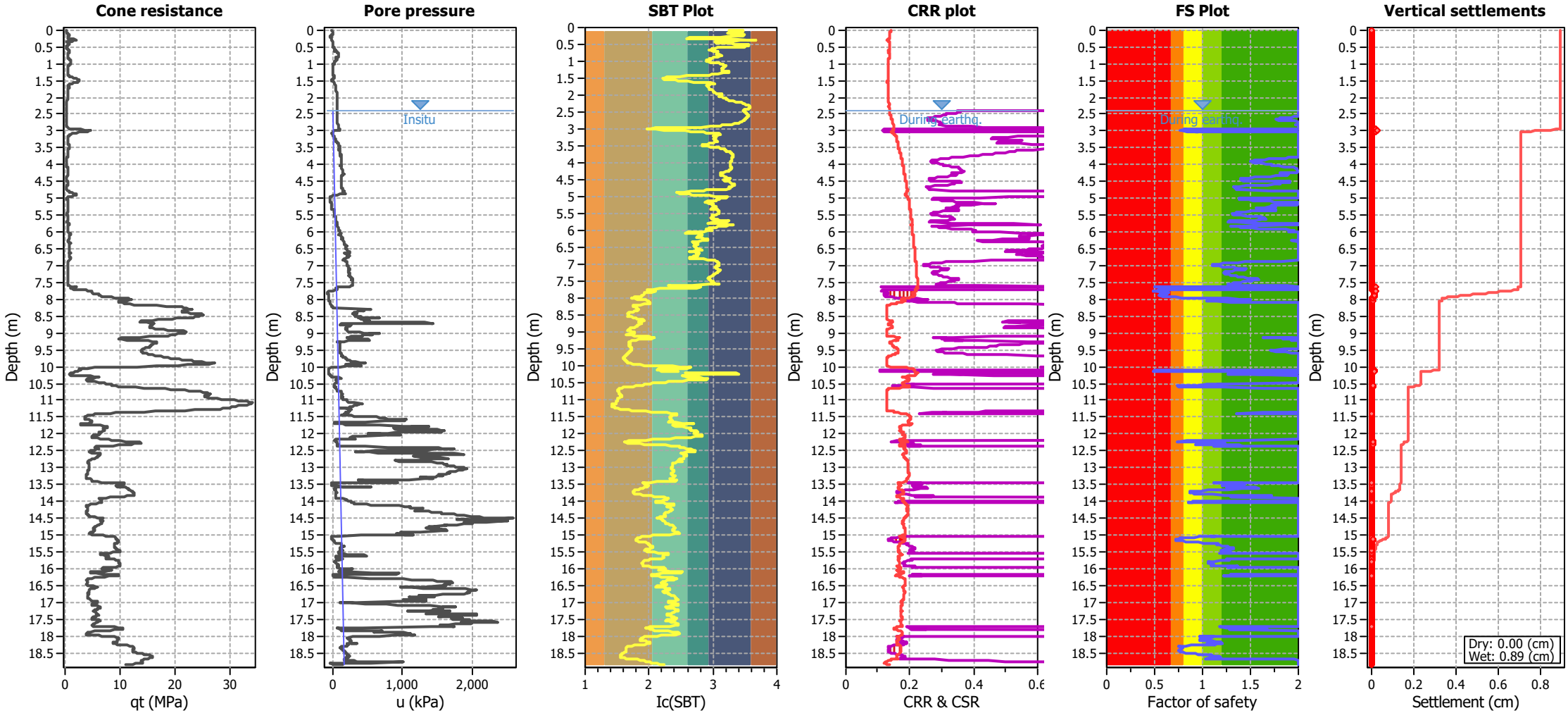
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-13
Total depth: 18.85 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	2.40 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	2.40 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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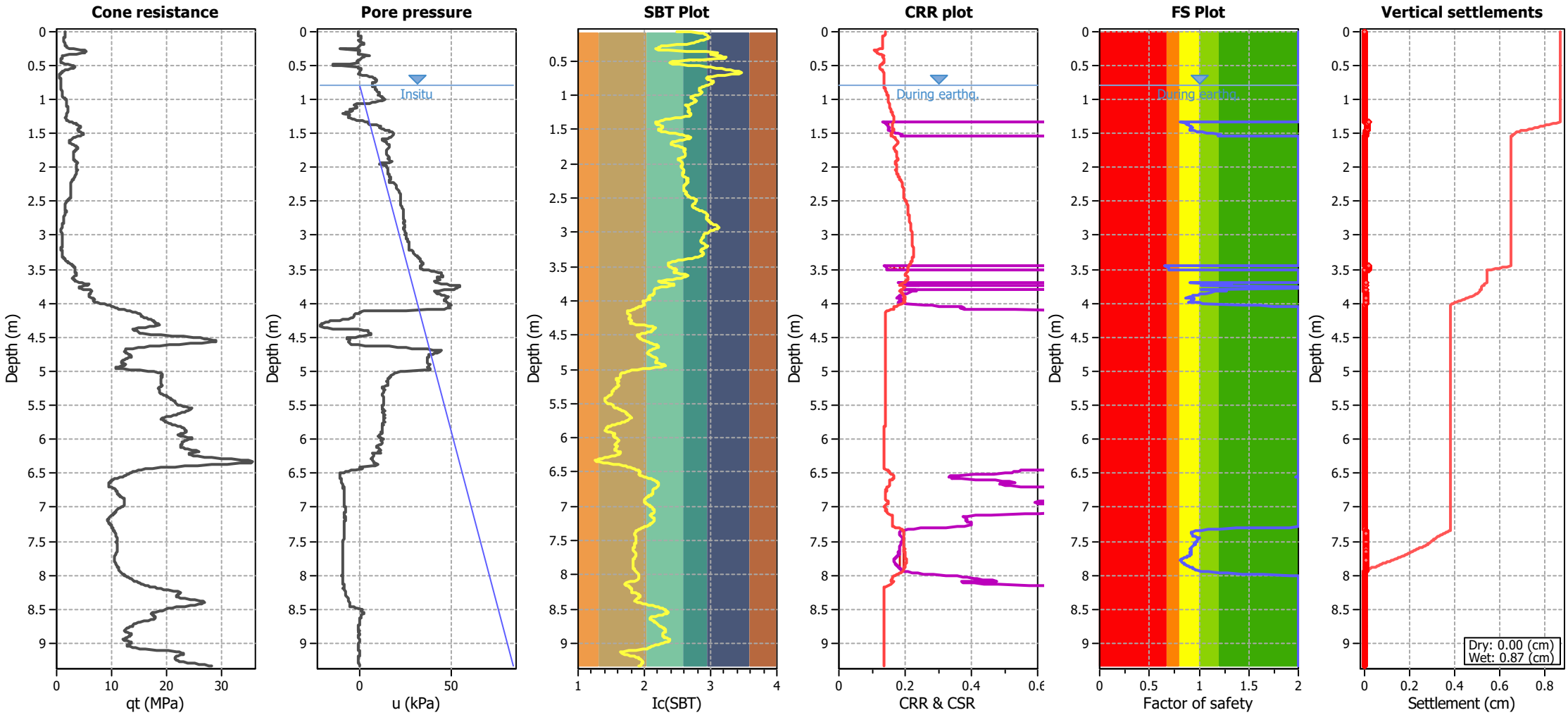
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-14
Total depth: 9.33 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	0.80 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	0.80 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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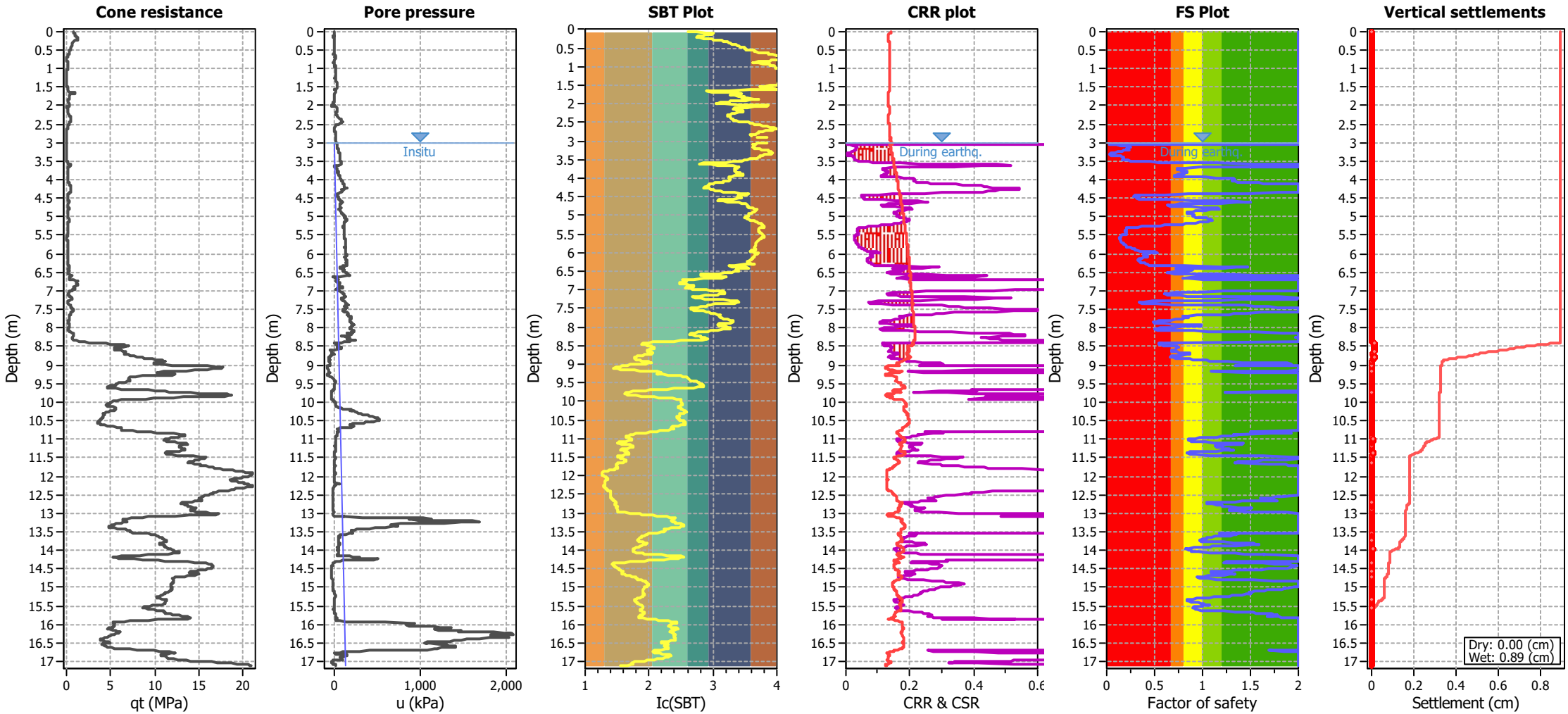
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-15
Total depth: 17.11 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	3.00 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	3.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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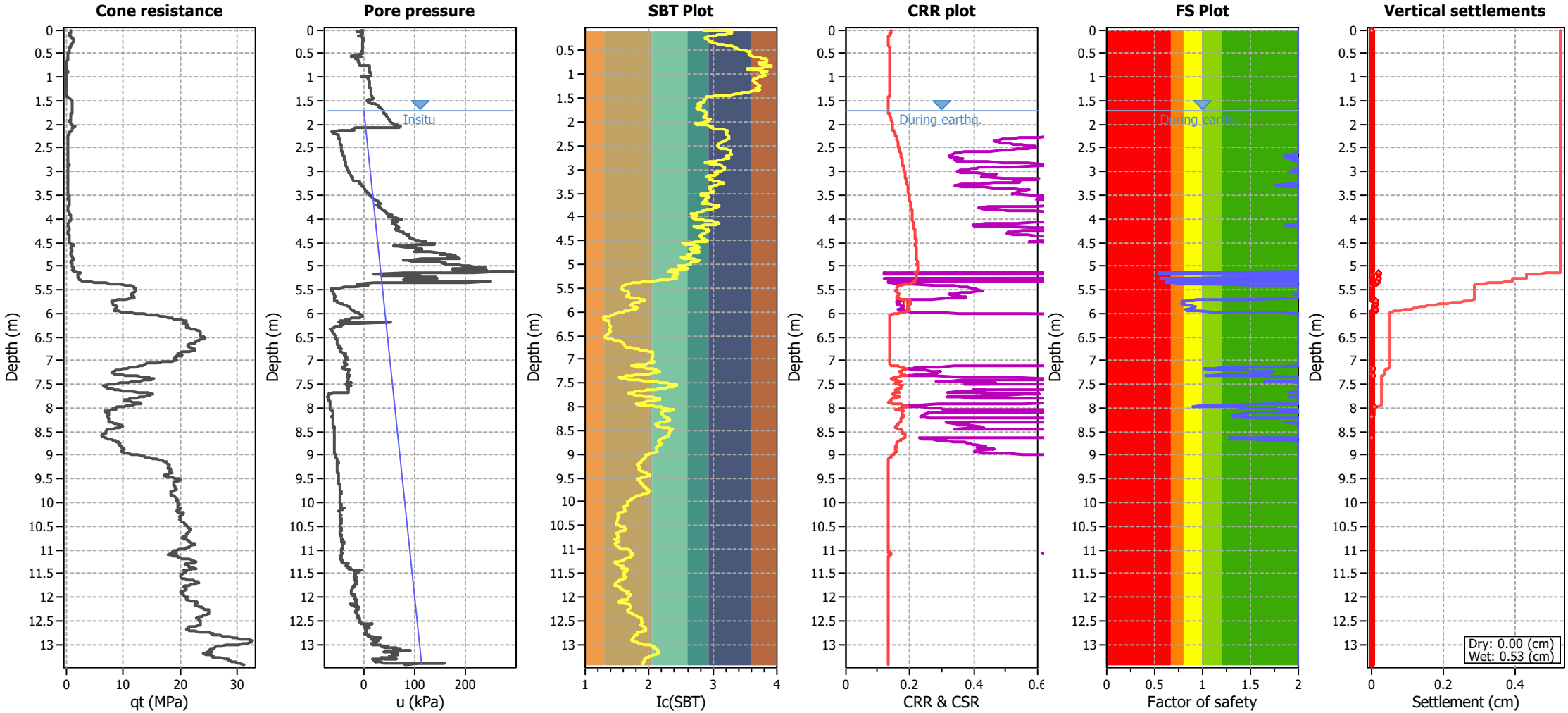
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-16
Total depth: 13.43 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	1.70 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	1.70 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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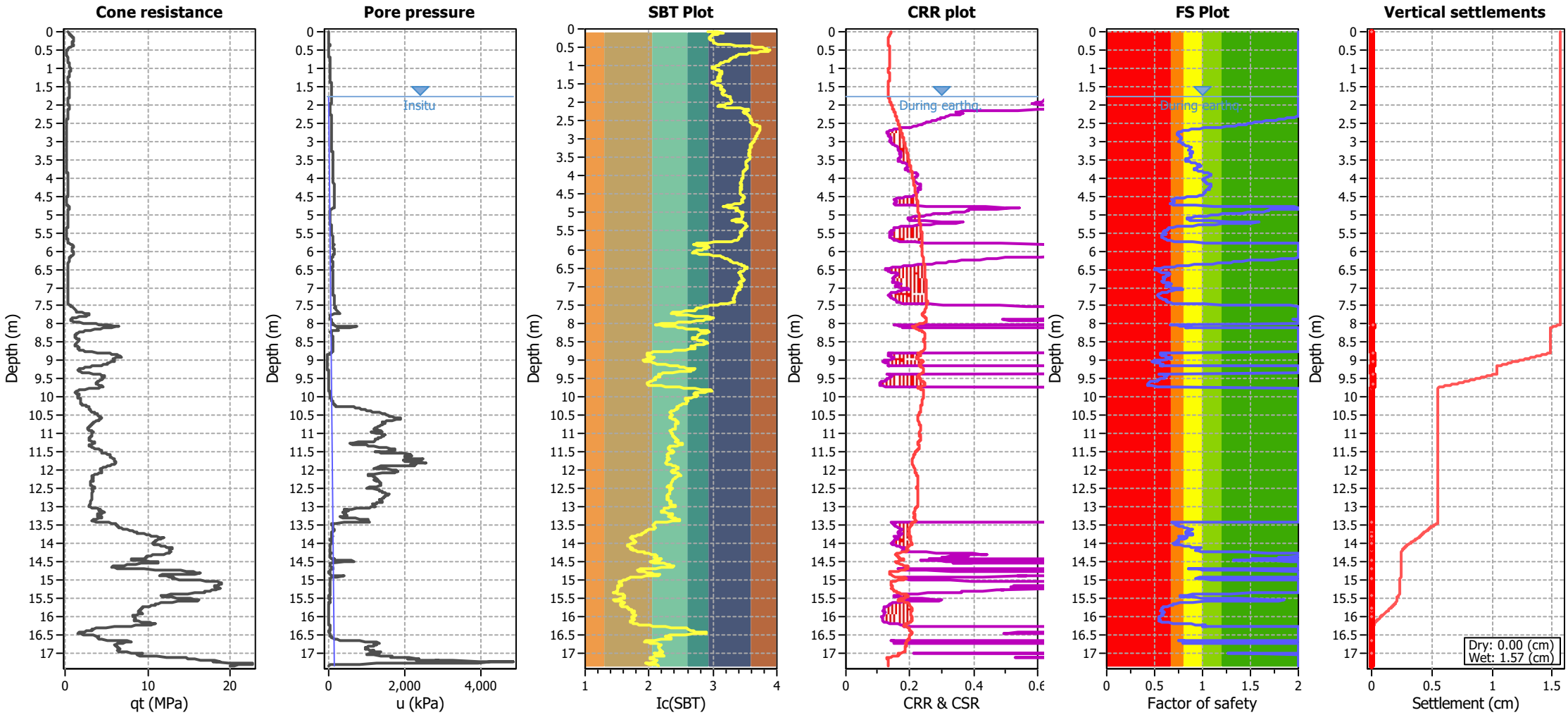
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-17
Total depth: 17.34 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	1.80 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	1.80 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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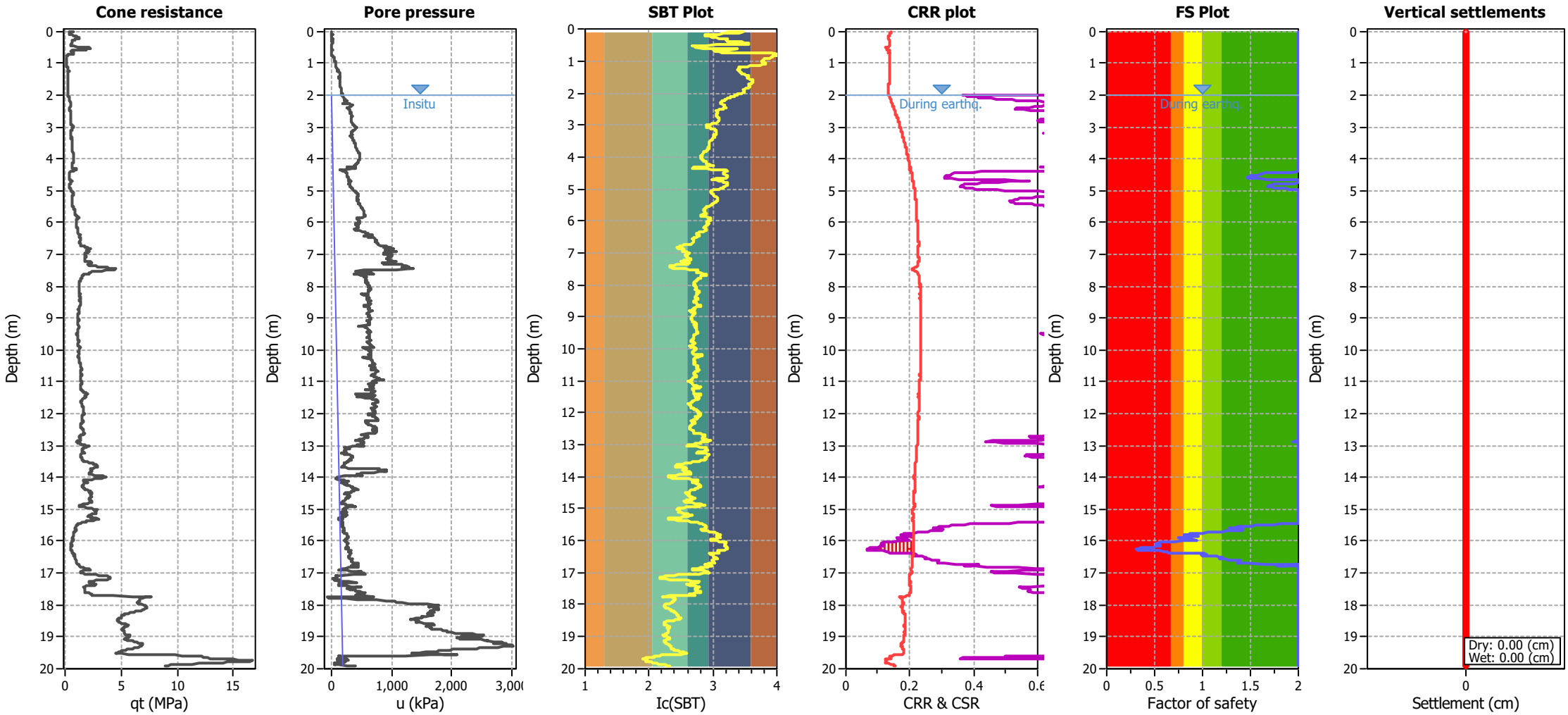
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-18
Total depth: 19.92 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	2.00 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	2.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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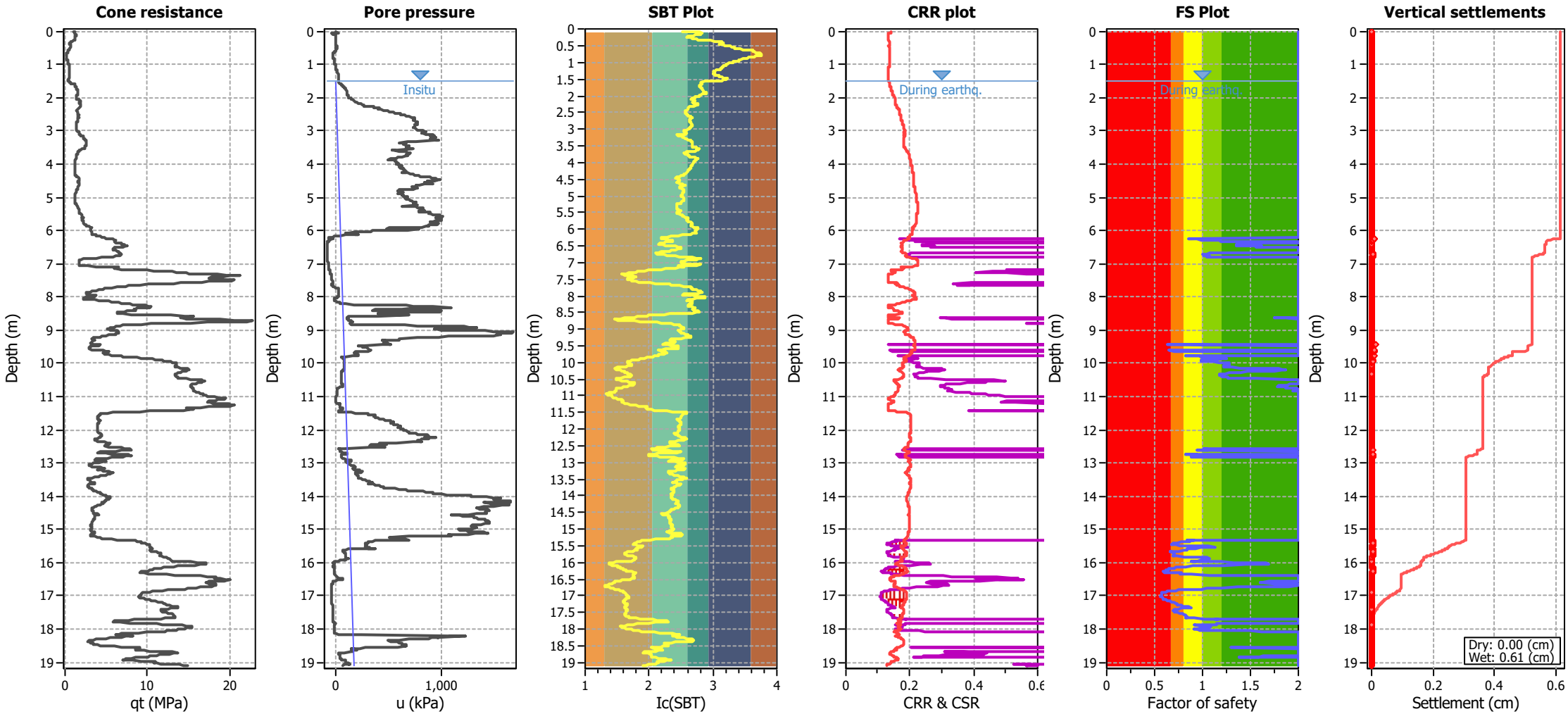
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-19
Total depth: 19.10 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	1.50 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	1.50 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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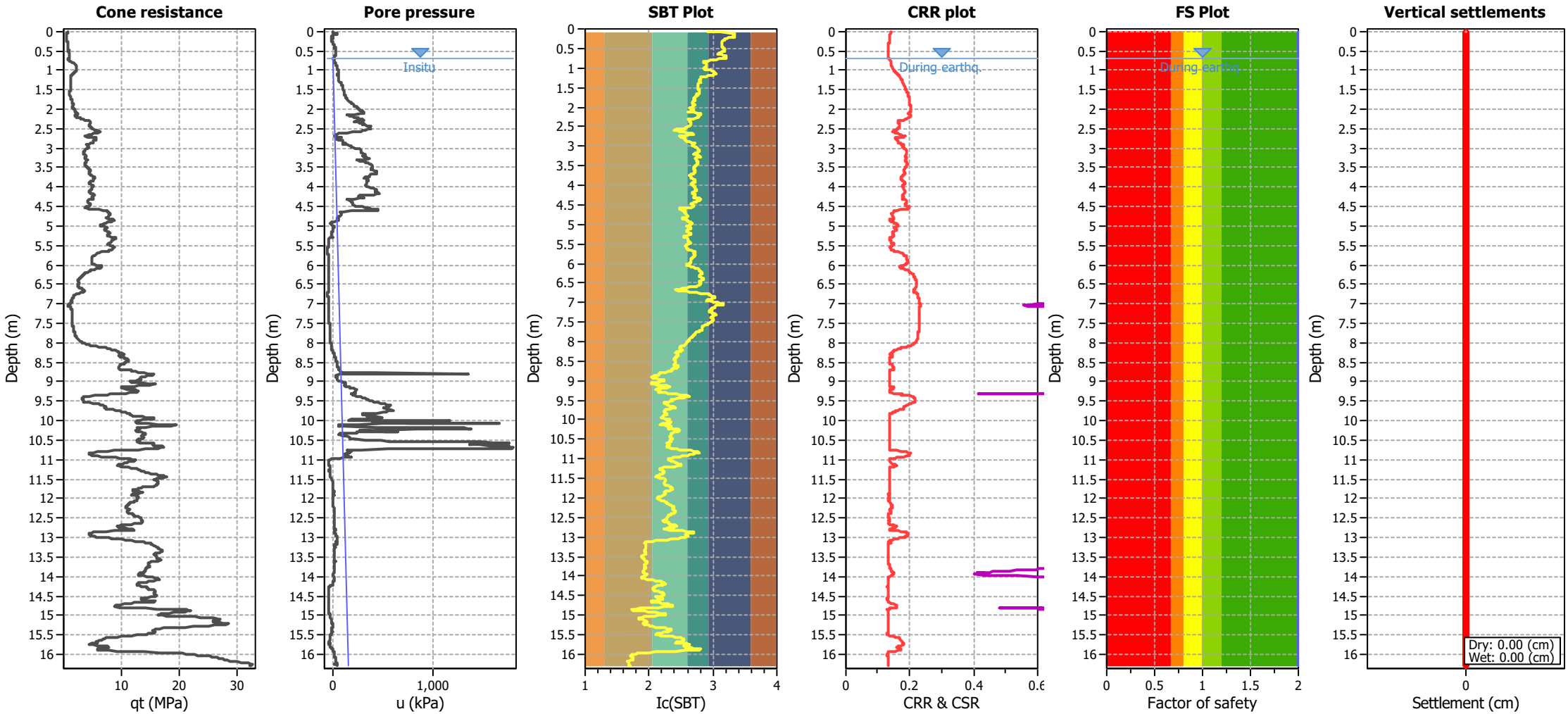
Project: Southern Links - Stage 1 Industrial
Location: Hamilton

CPT: CPT-20
Total depth: 16.29 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	0.70 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	0.70 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.25	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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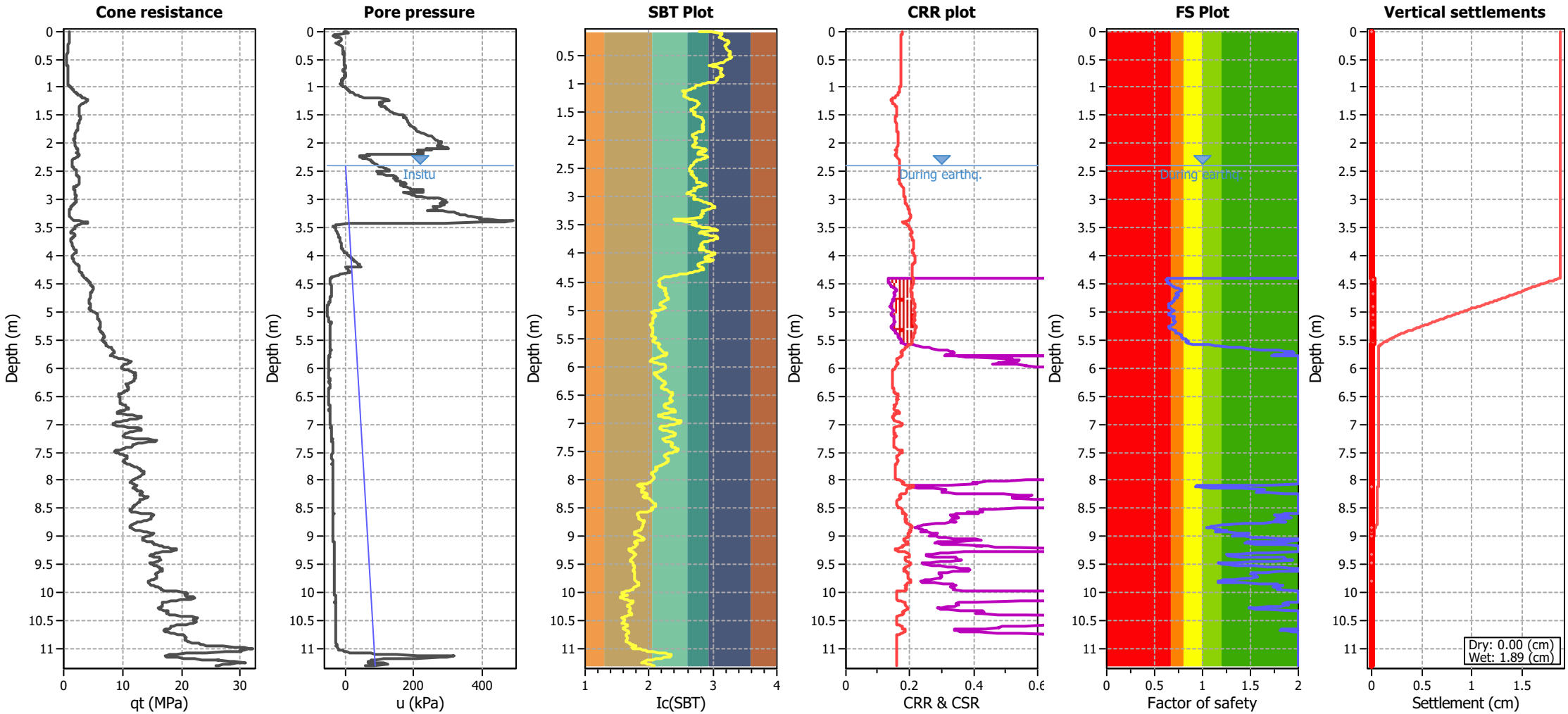
Project:

Location:

CPT: CPT-01

Total depth: 11.30 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	2.40 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	2.40 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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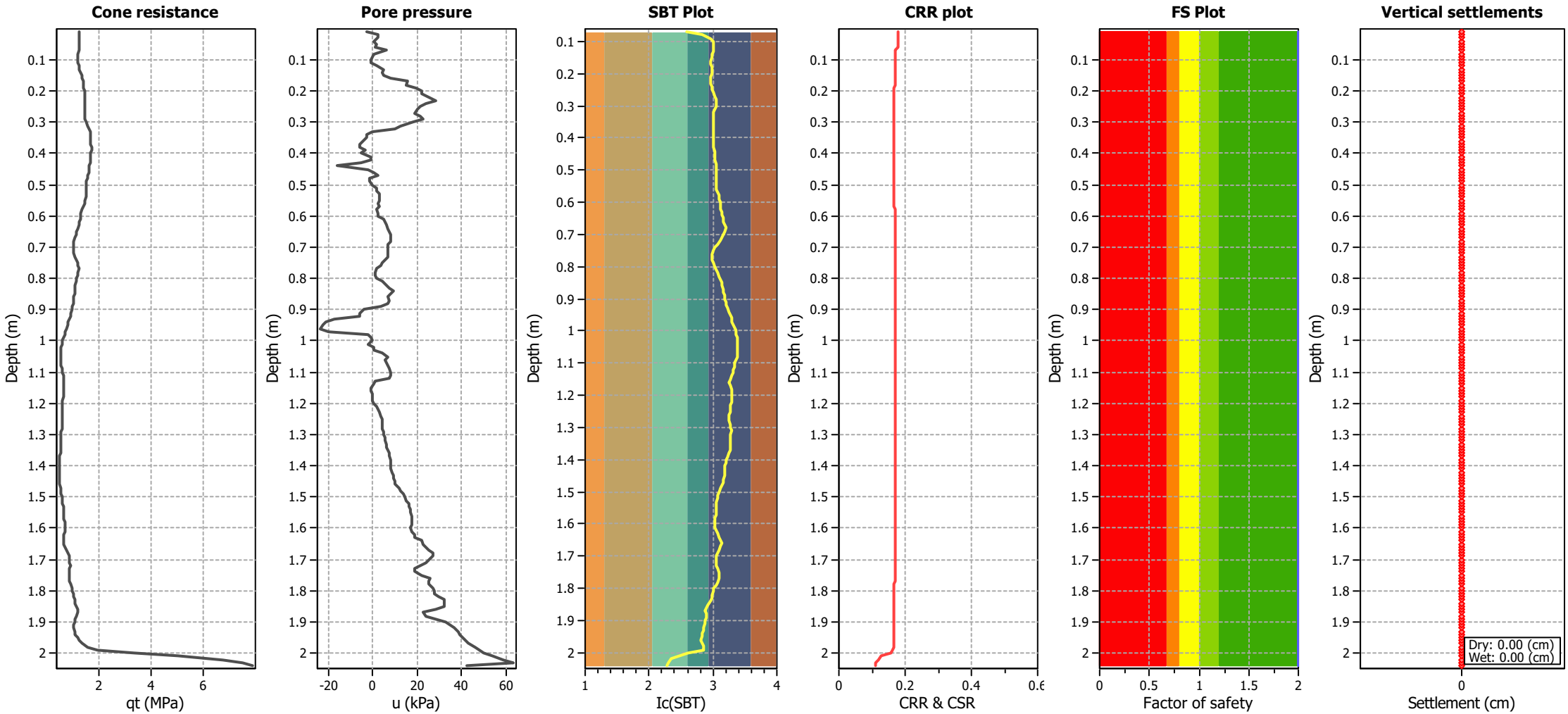
Project:

Location:

CPT: CPT-02

Total depth: 2.04 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	2.90 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	2.90 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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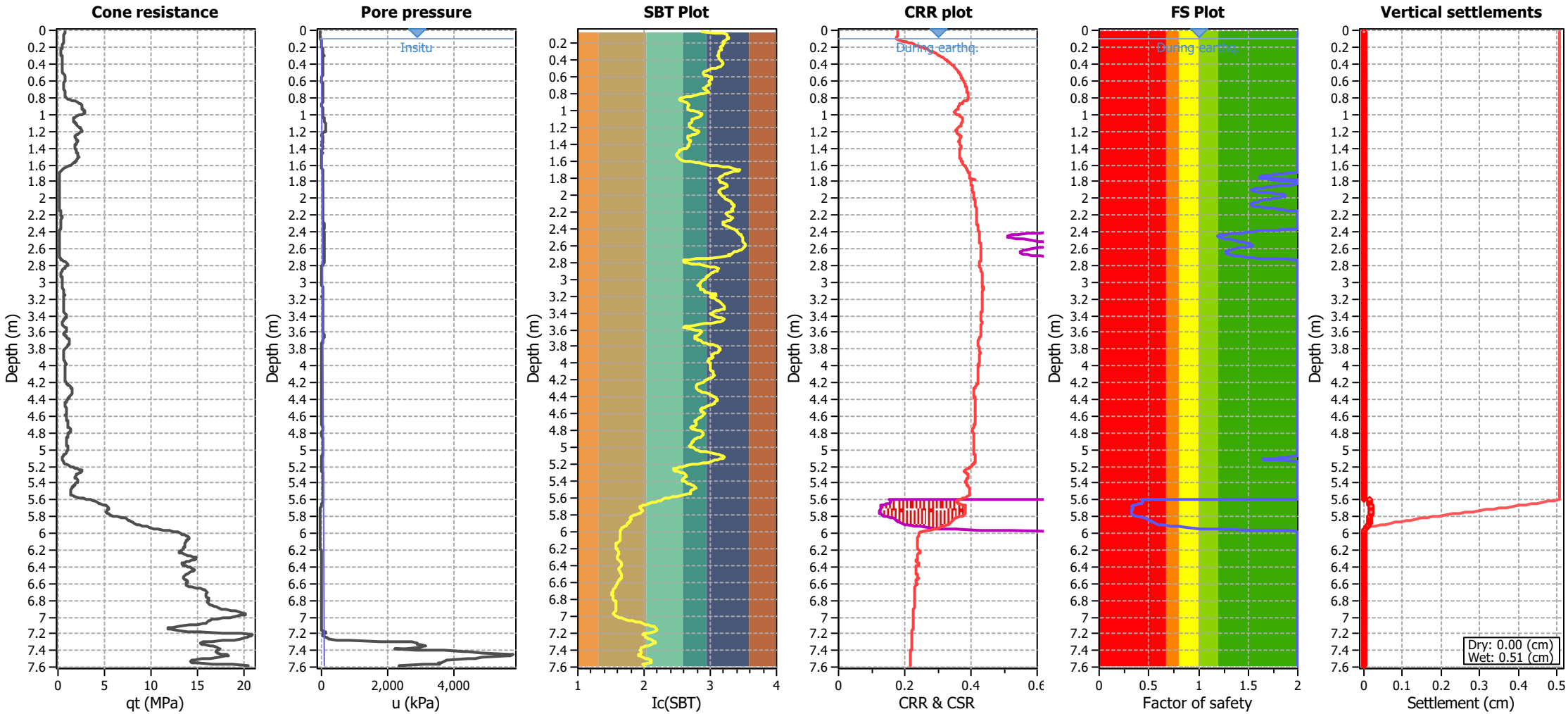
Project:

Location:

CPT: CPT-03

Total depth: 7.58 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	0.10 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	0.10 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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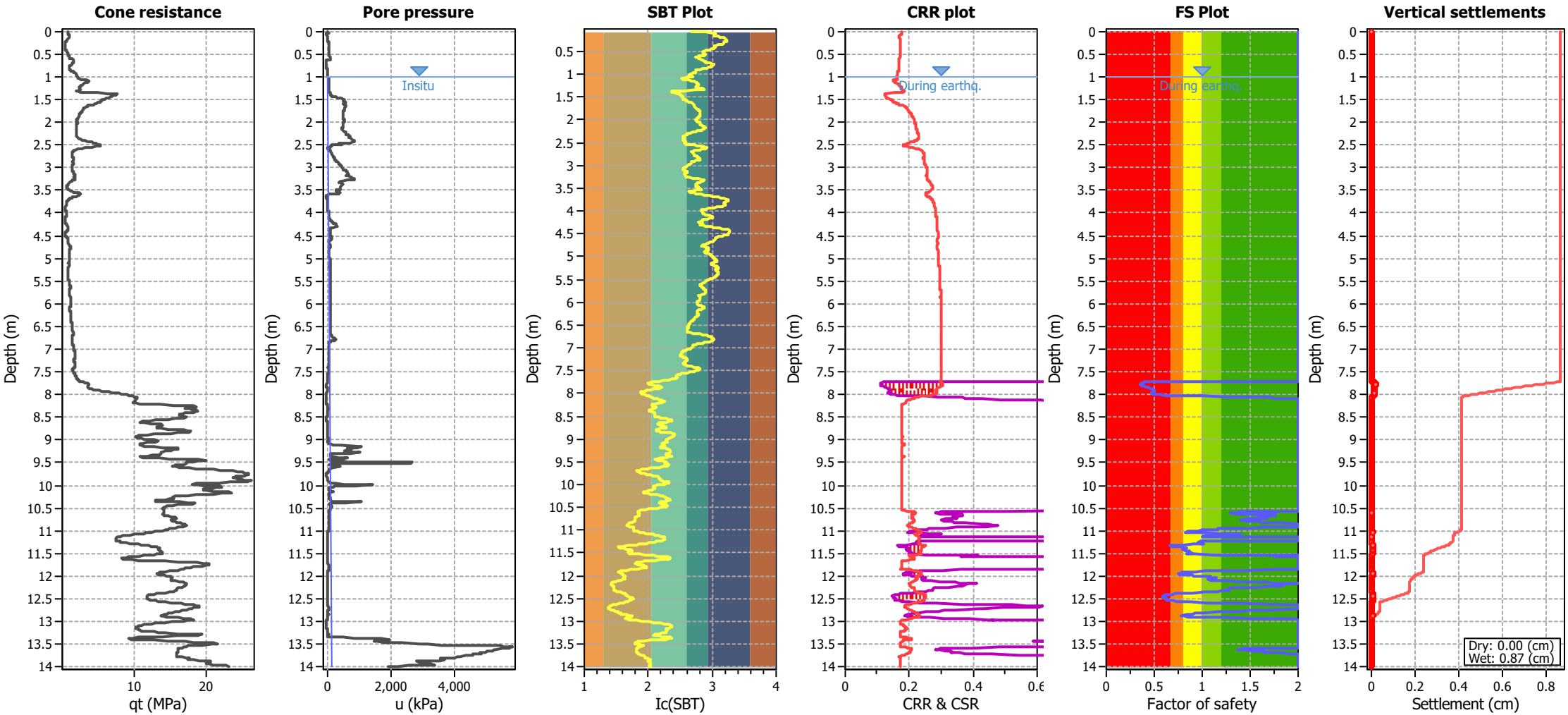
Project:

Location:

CPT: CPT-04

Total depth: 13.99 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	1.00 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	1.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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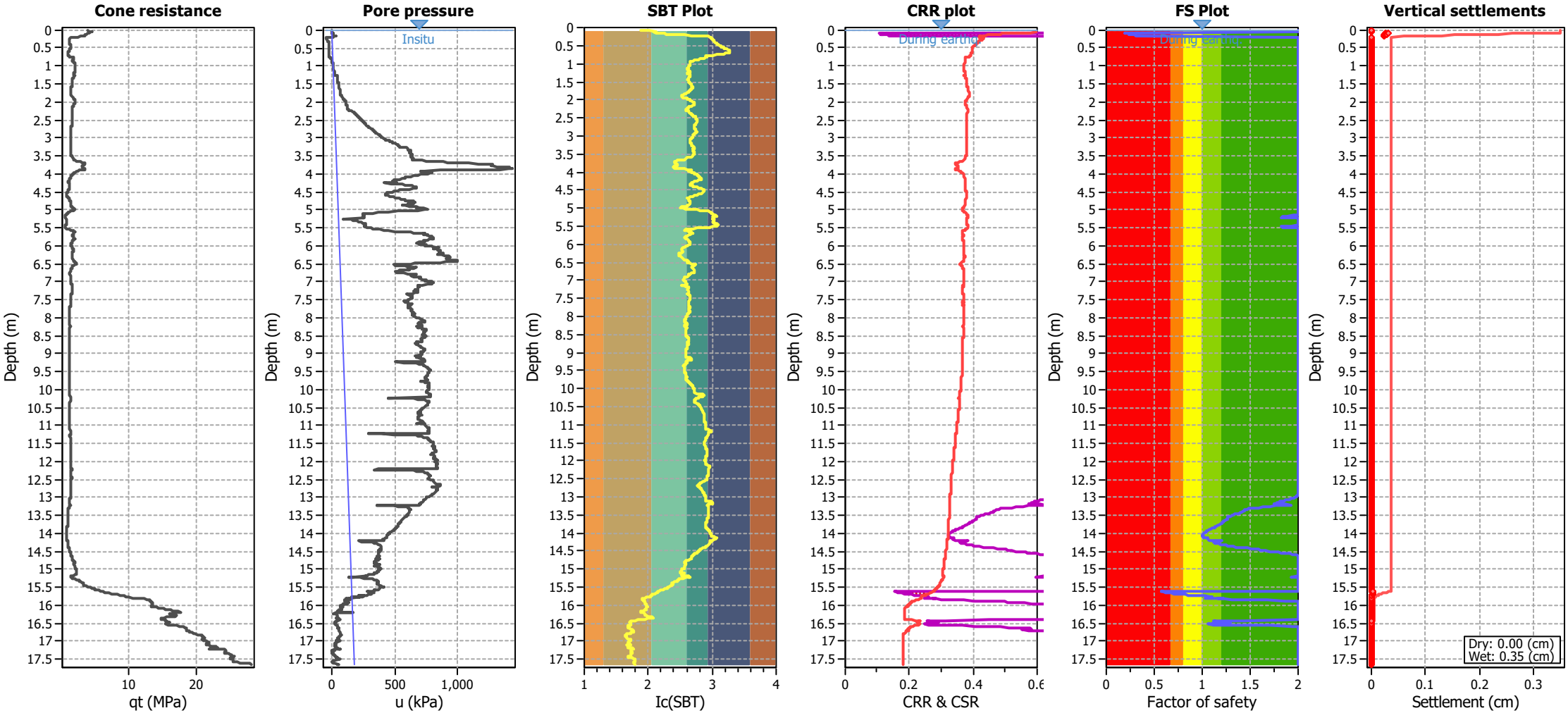
Project:

Location:

CPT: CPT-06

Total depth: 17.65 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	0.00 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	0.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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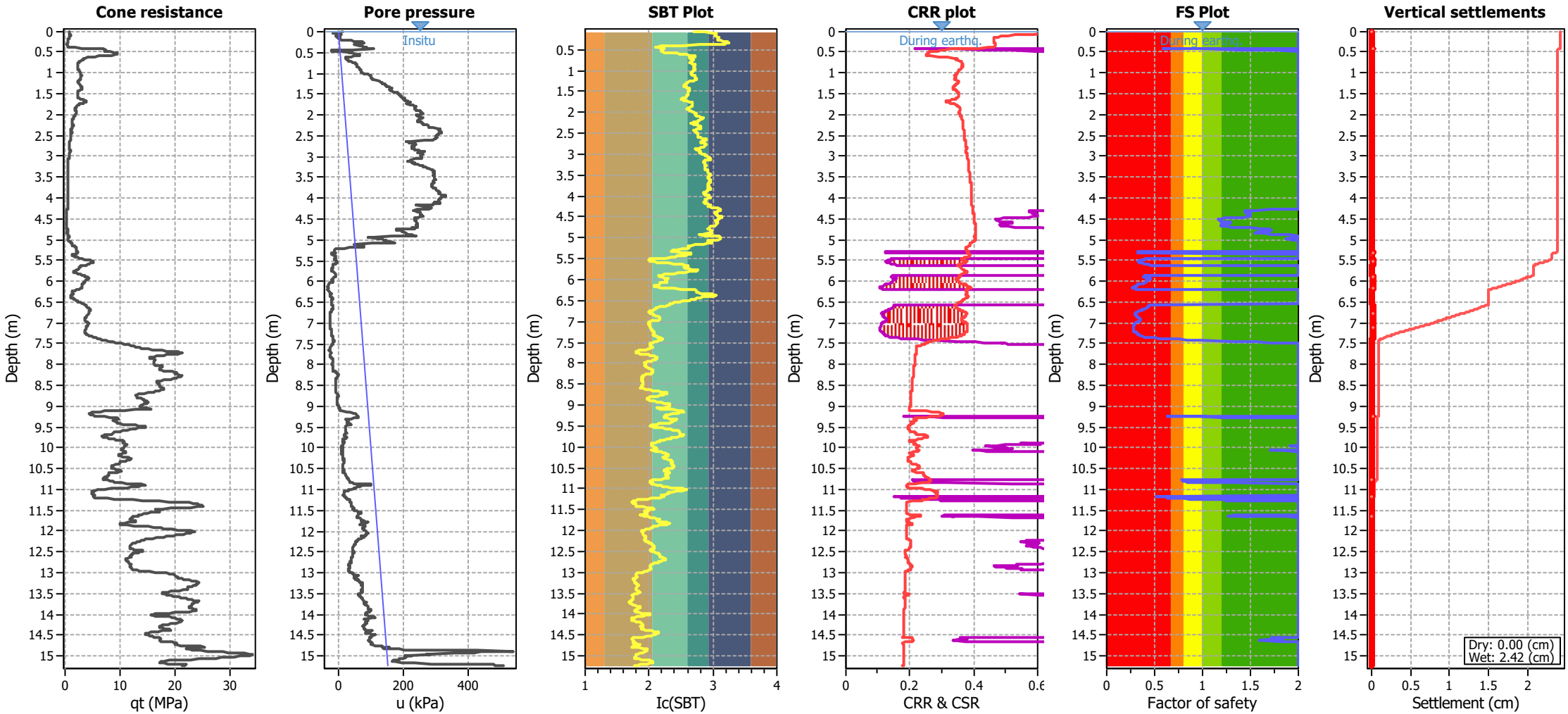
Project:

Location:

CPT: CPT-07

Total depth: 15.23 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	0.00 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	0.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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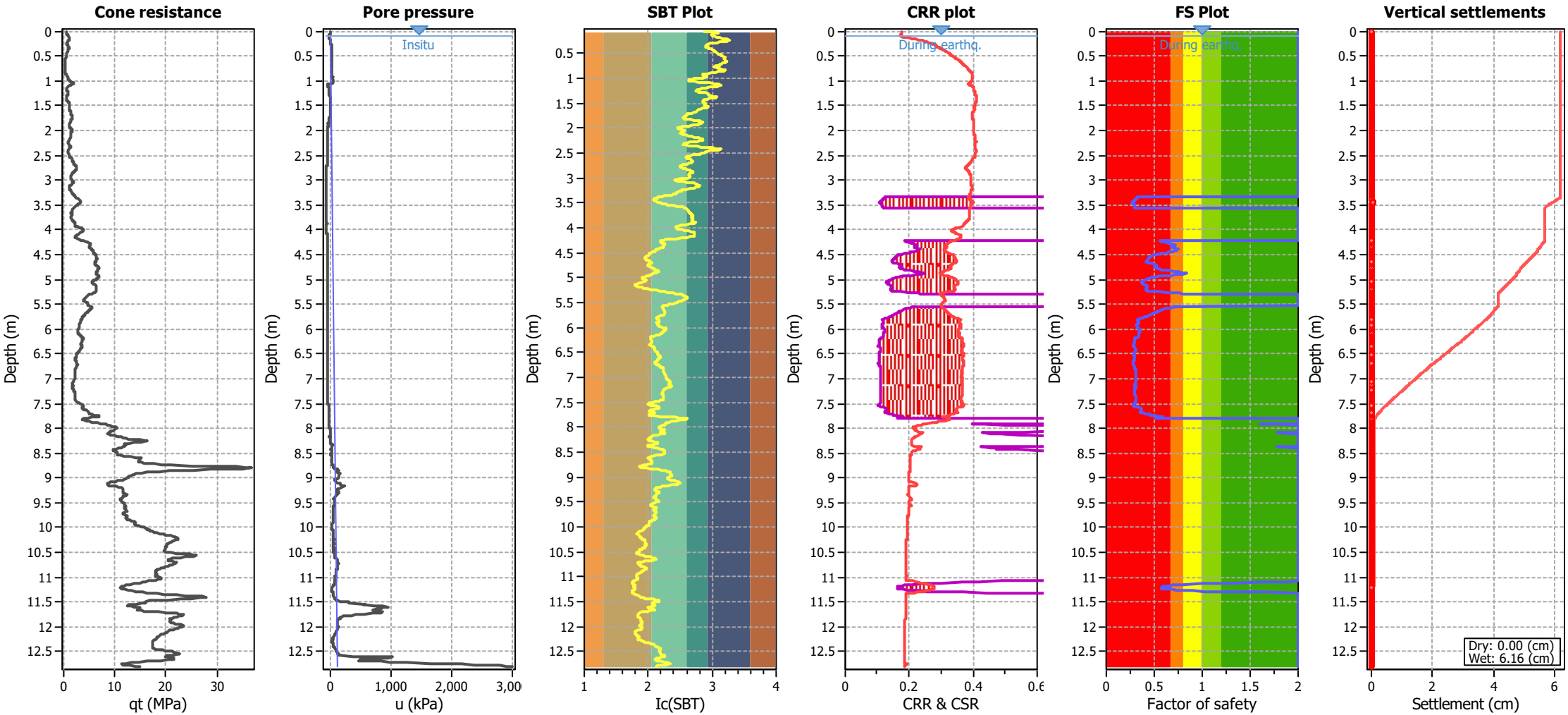
Project:

Location:

CPT: CPT-08

Total depth: 12.80 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	0.10 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	0.10 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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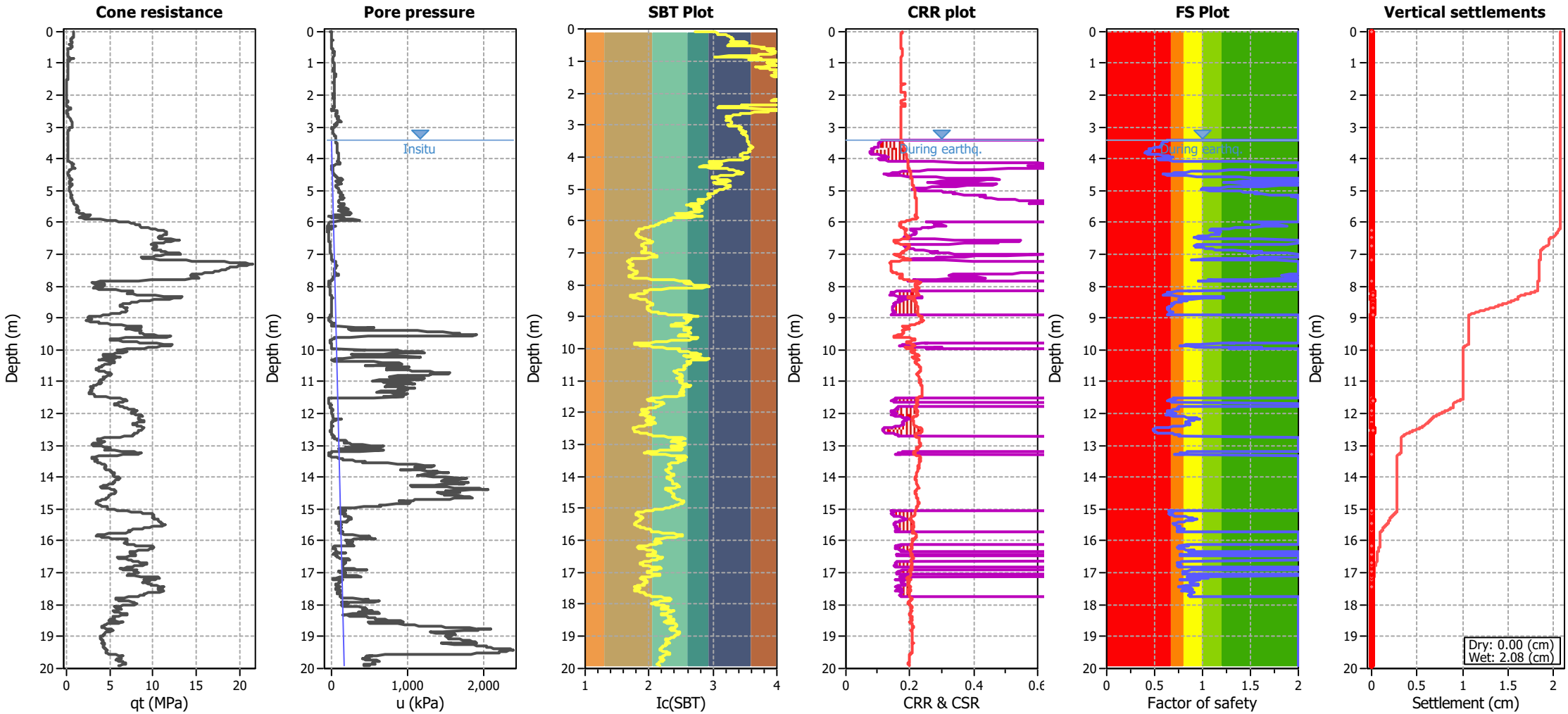
Project:

Location:

CPT: CPT-09

Total depth: 19.92 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	3.40 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	3.40 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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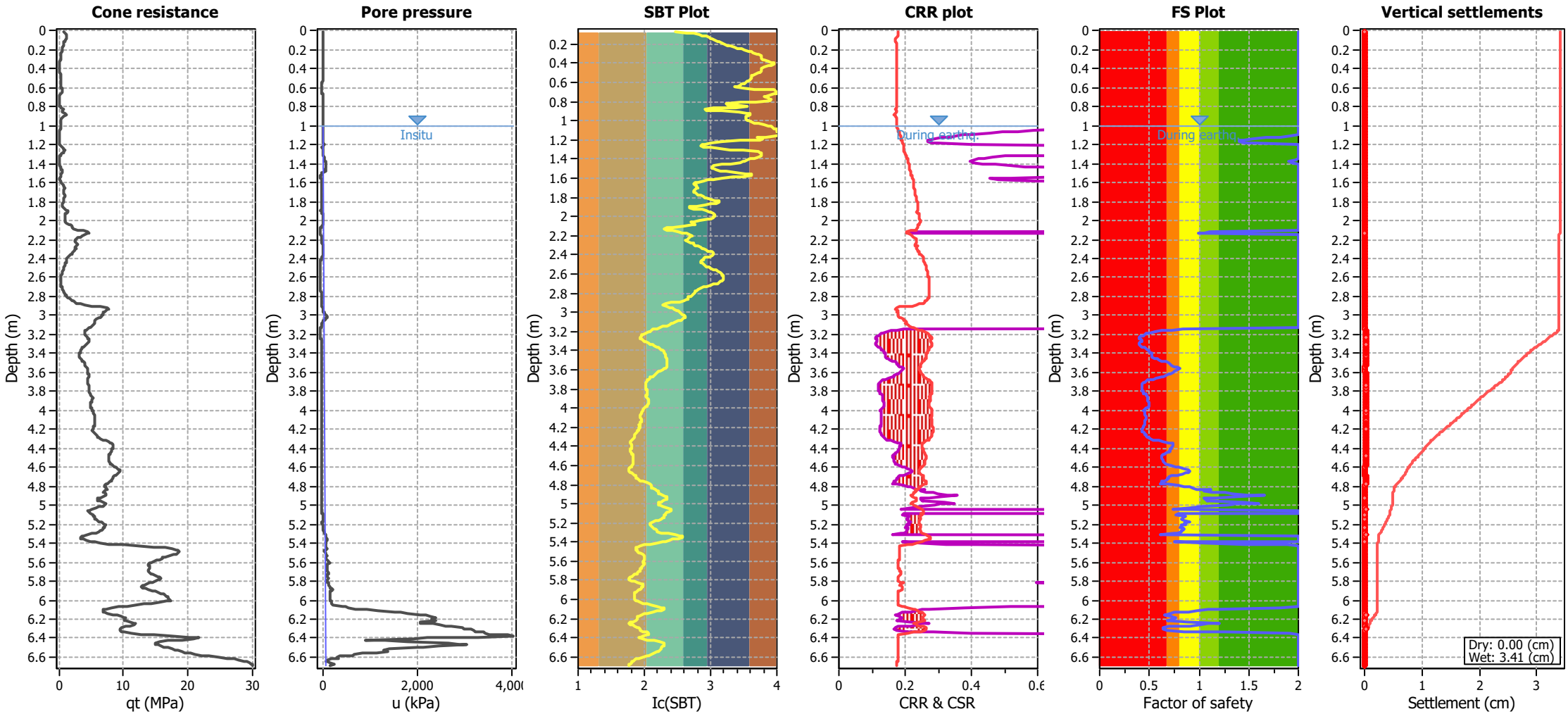
Project:

Location:

CPT: CPT-10

Total depth: 6.69 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	1.00 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	1.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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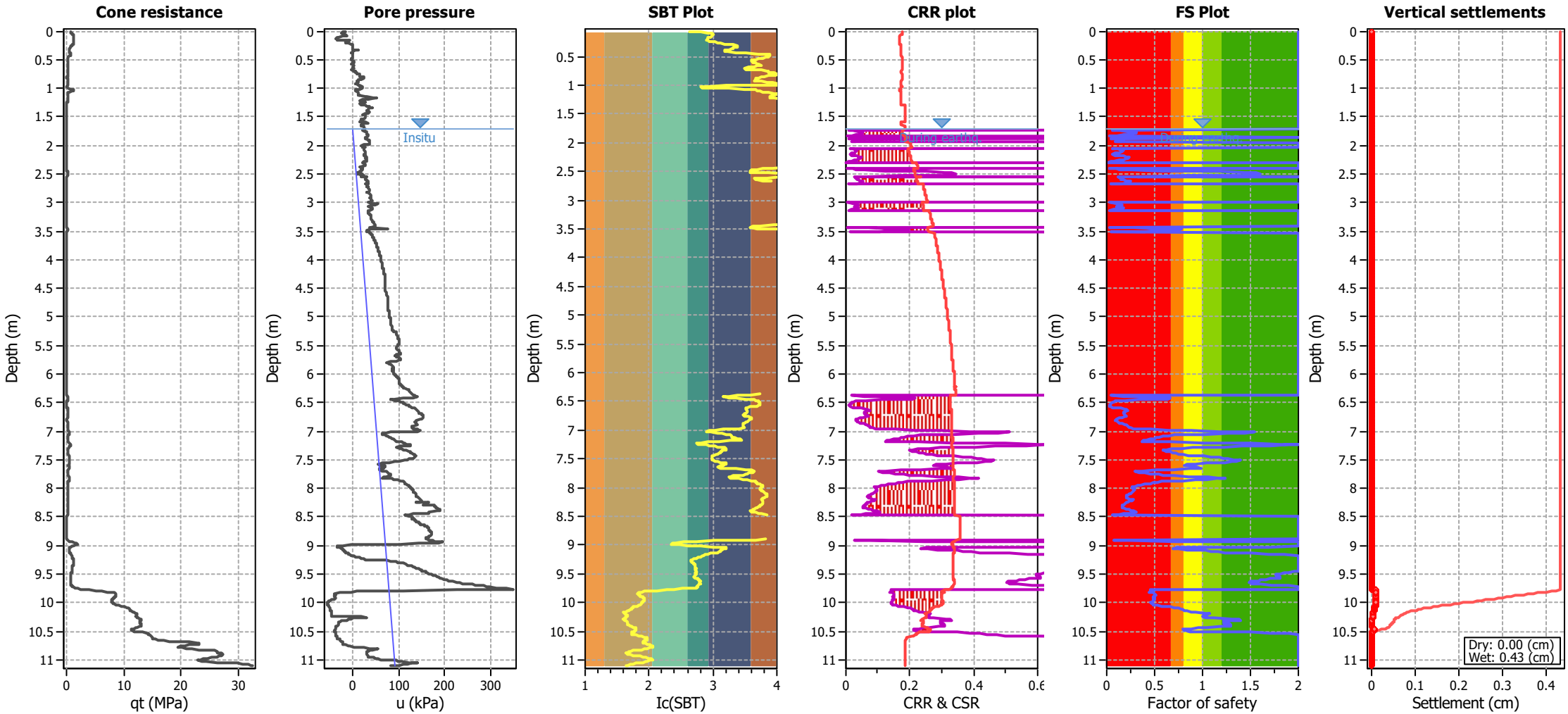
http://www.geologismiki.gr

Project:

Location:

CPT: CPT-11

Total depth: 11.10 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	1.70 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	1.70 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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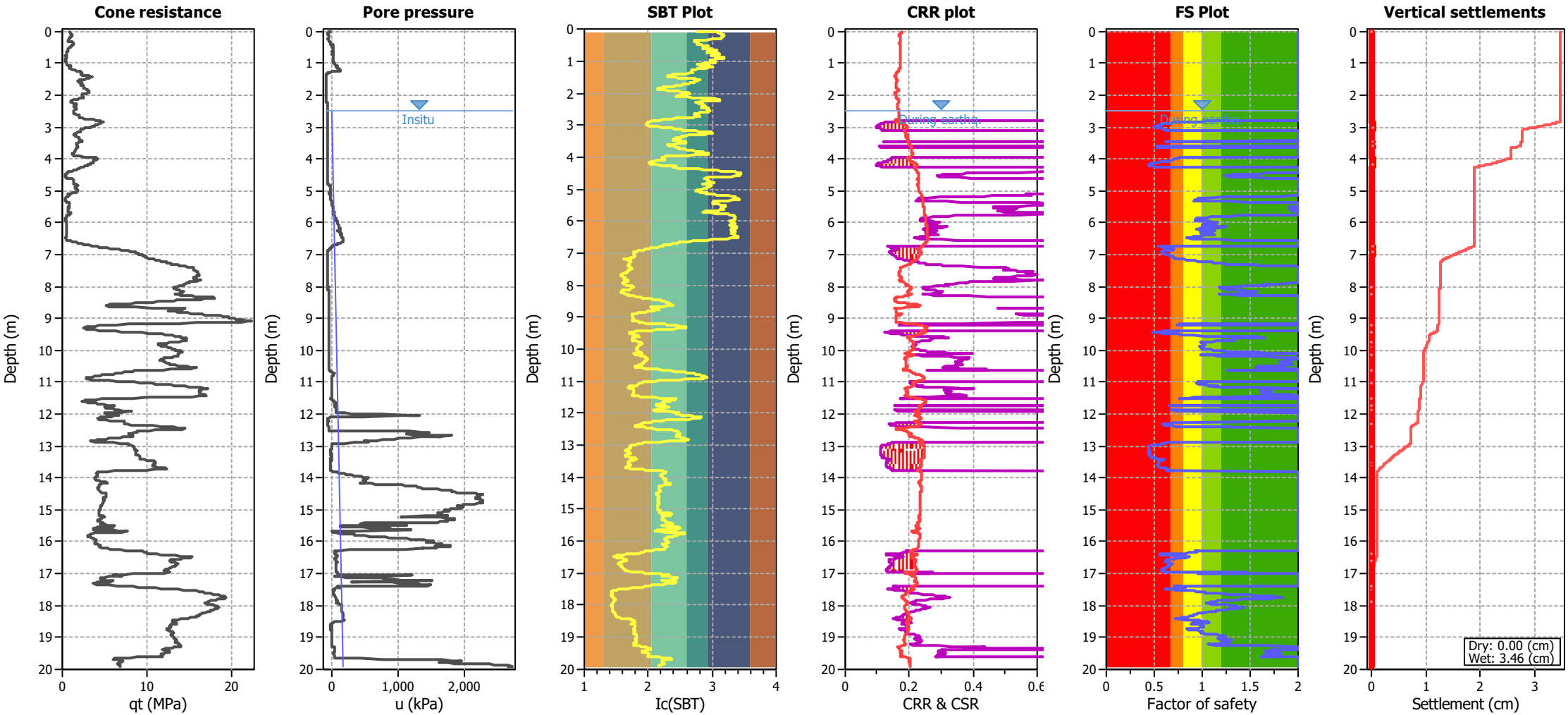
http://www.geologismiki.gr

Project:

Location:

CPT: CPT-12

Total depth: 19.92 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	2.50 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	2.50 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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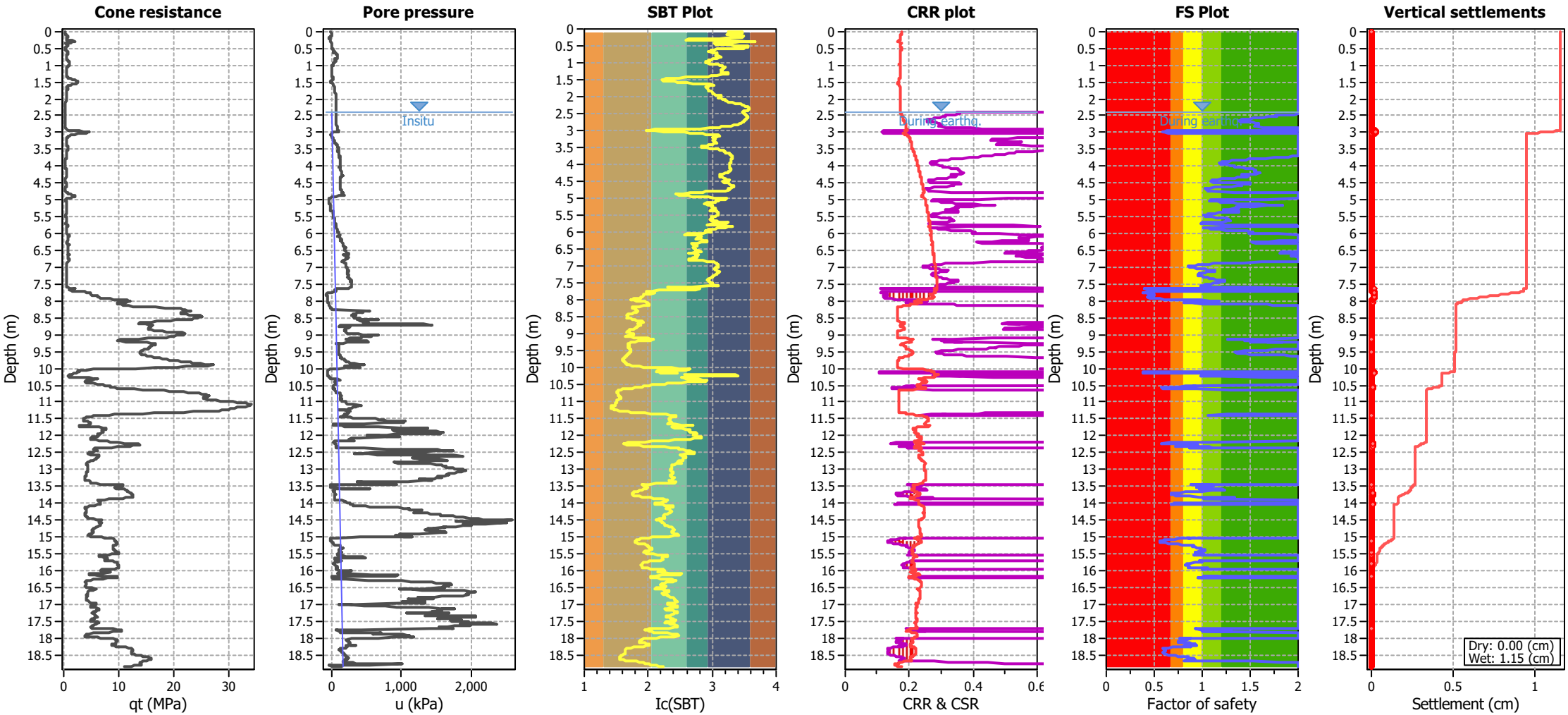
Project:

Location:

CPT: CPT-13

Total depth: 18.85 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	2.40 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	2.40 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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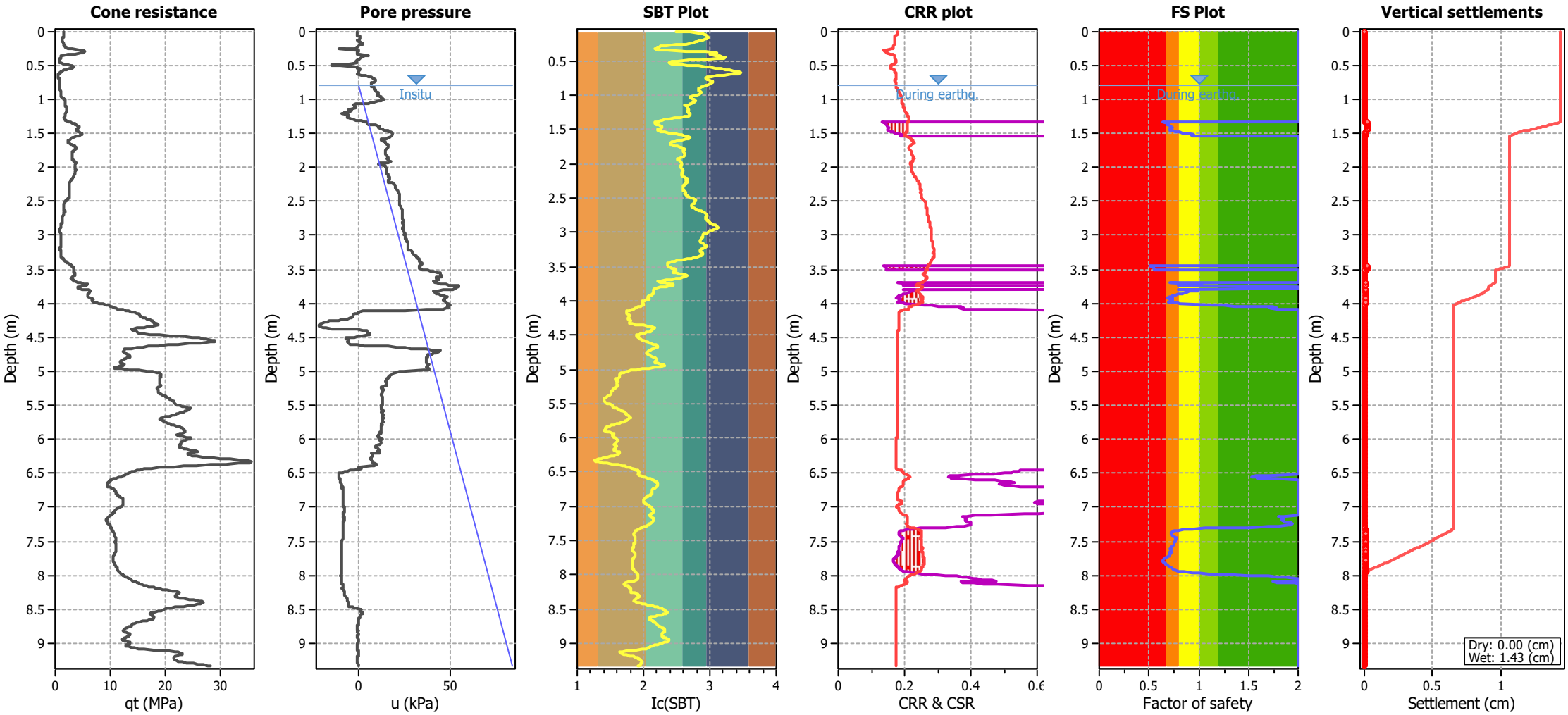
Project:

Location:

CPT: CPT-14

Total depth: 9.33 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	0.80 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	0.80 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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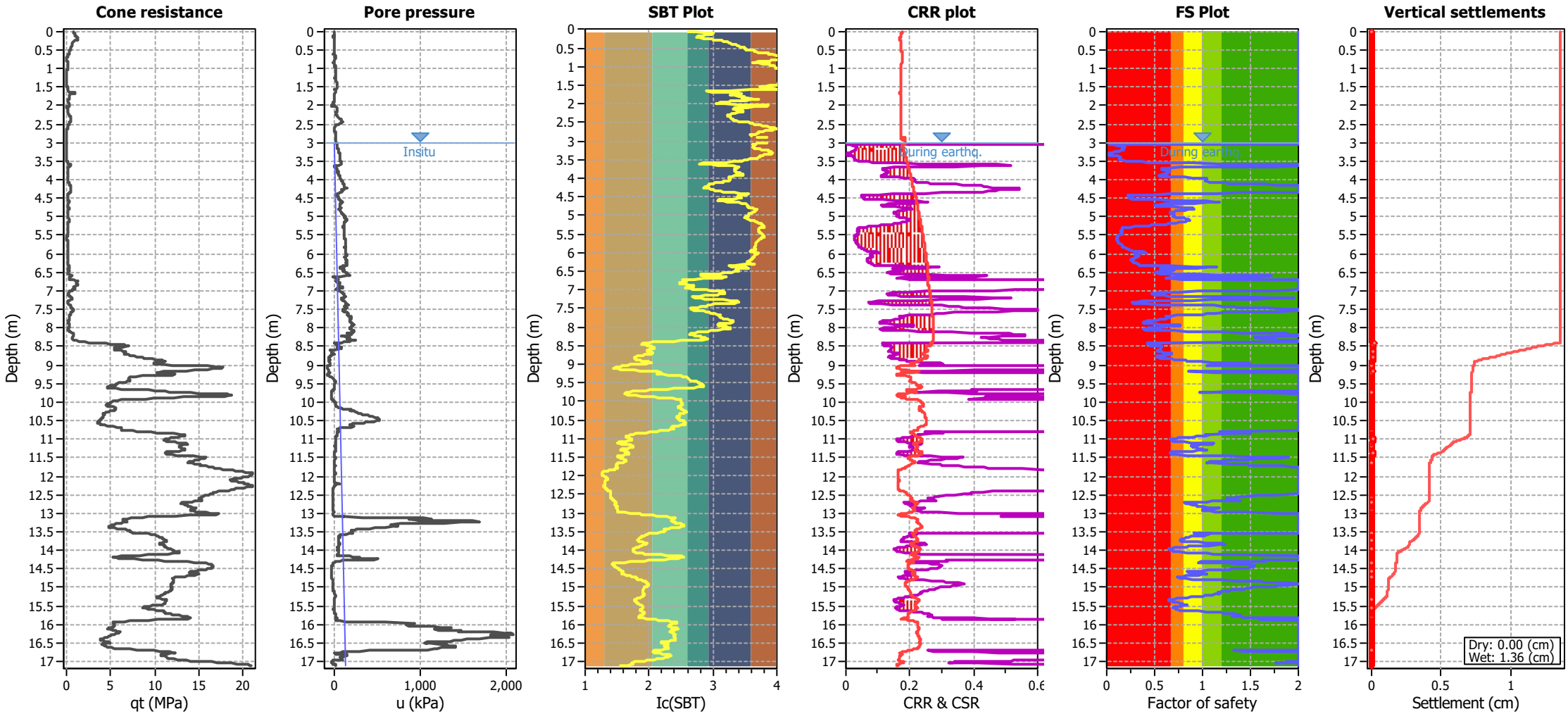
http://www.geologismiki.gr

Project:

Location:

CPT: CPT-15

Total depth: 17.11 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	3.00 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	3.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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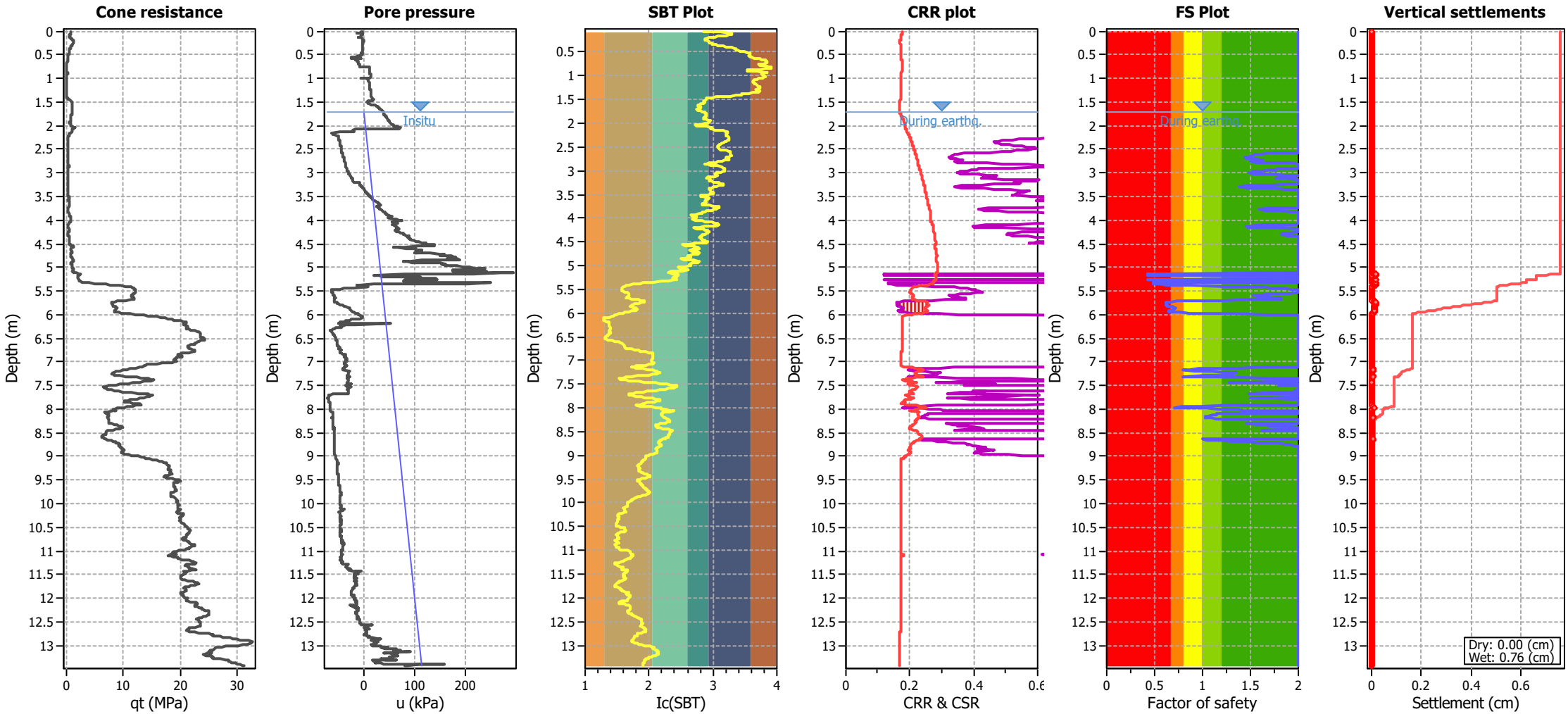
Project:

Location:

CPT: CPT-16

Total depth: 13.43 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	1.70 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	1.70 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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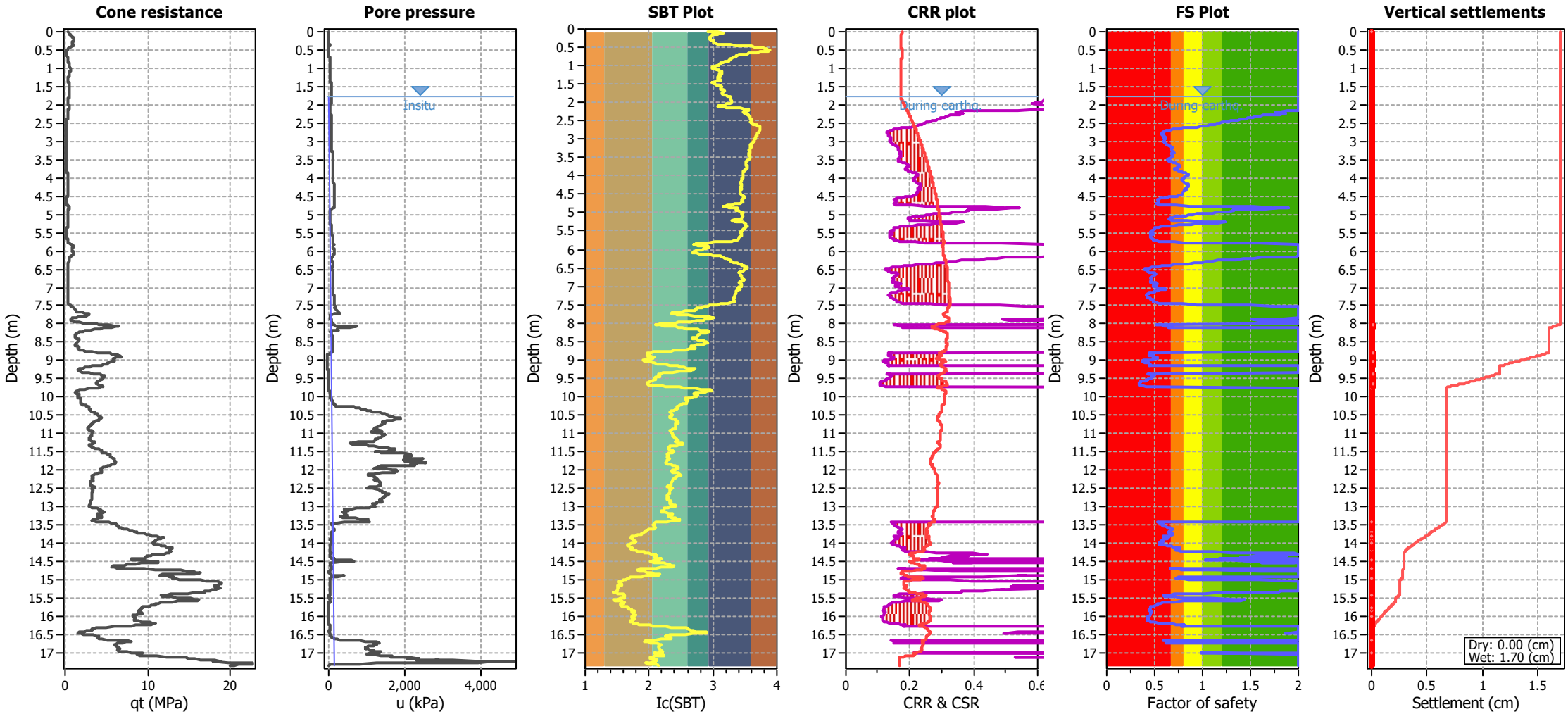
Project:

Location:

CPT: CPT-17

Total depth: 17.34 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	1.80 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	1.80 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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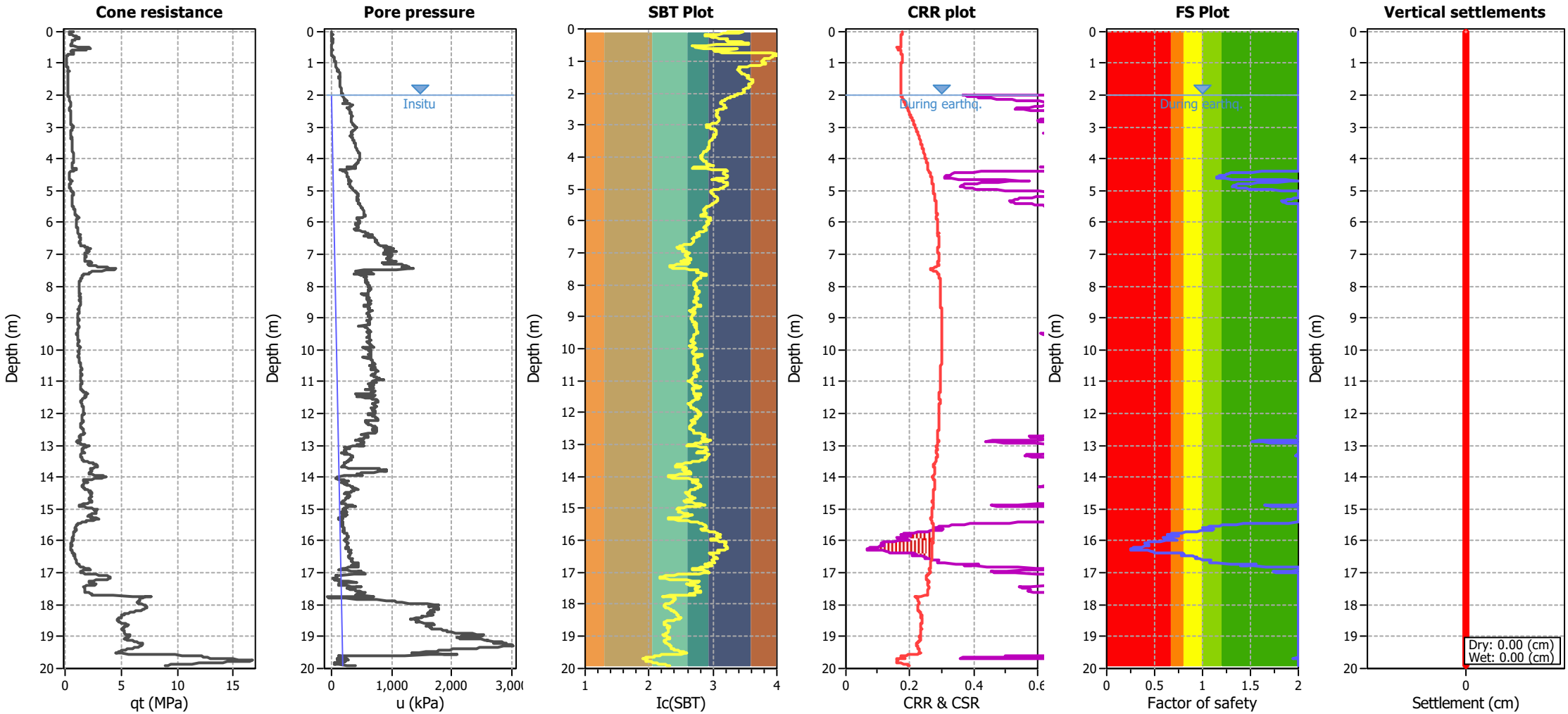
Project:

Location:

CPT: CPT-18

Total depth: 19.92 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	2.00 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	2.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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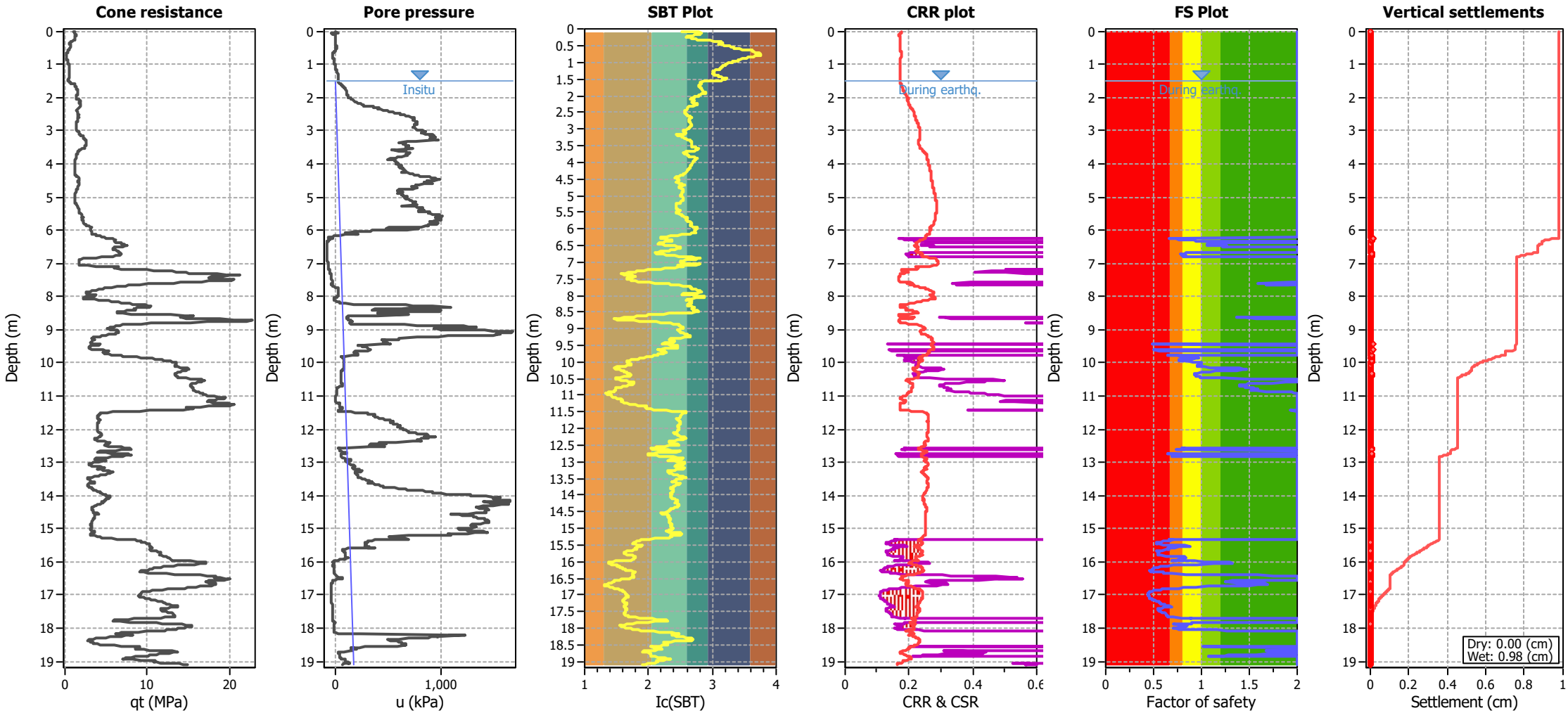
Project:

Location:

CPT: CPT-19

Total depth: 19.10 m



Analysis method:	B&I (2014)	G.W.T. (in-situ):	1.50 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	1.50 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

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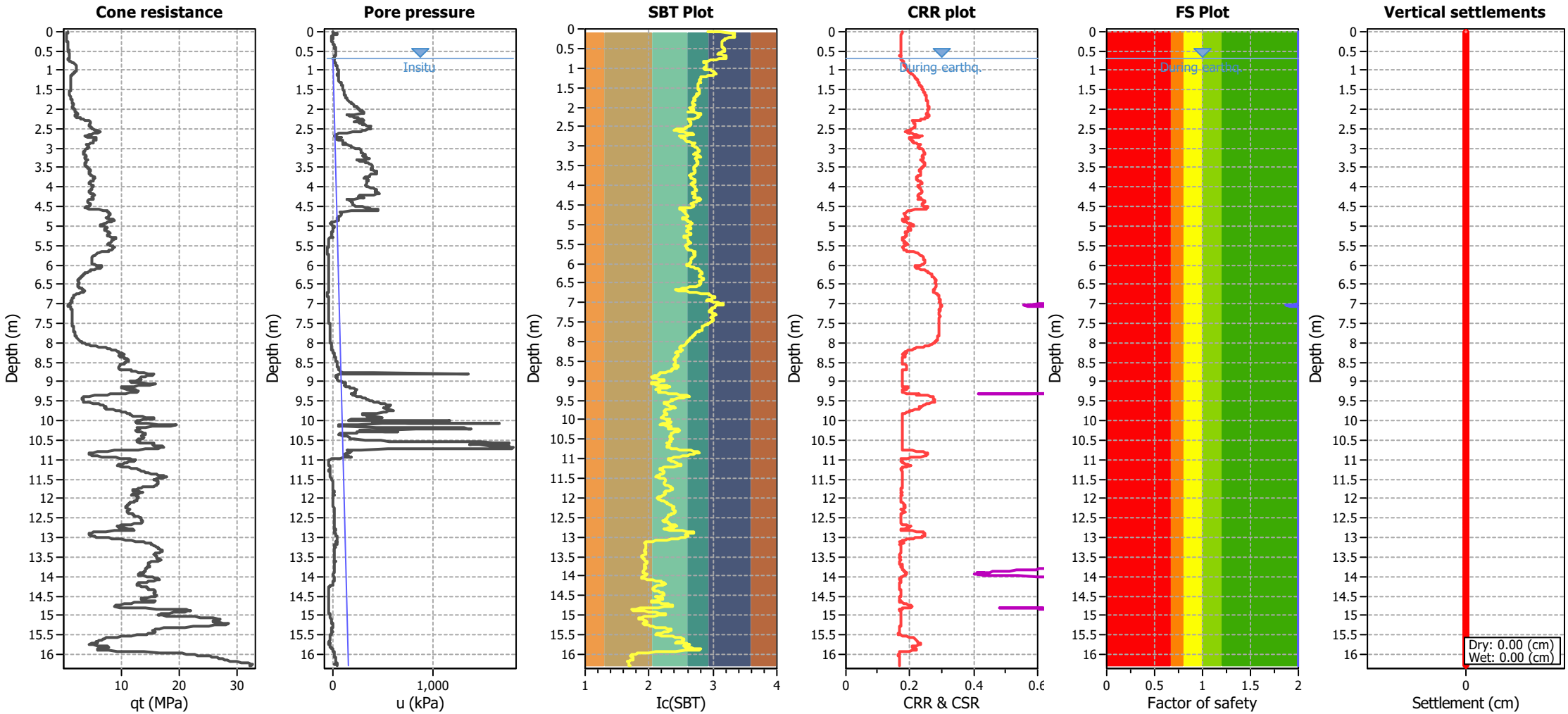
Project:

Location:

CPT: CPT-20

Total depth: 16.29 m

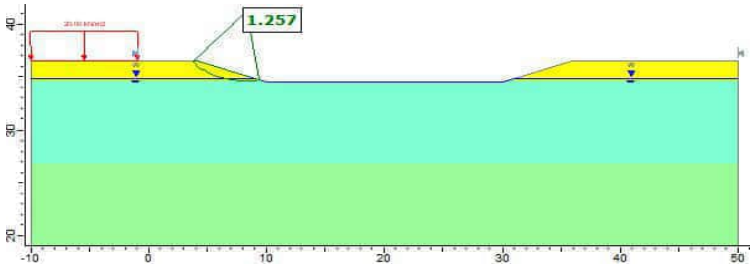


Analysis method:	B&I (2014)	G.W.T. (in-situ):	0.70 m	Use fill:	No	Clay like behavior applied:	.
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	0.70 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	5.90	Ic cut-off value:	2.20	Trans. detect. applied:	No	MSF method:	Method based
Peak ground acceleration:	0.32	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

APPENDIX H

Slope Stability Results

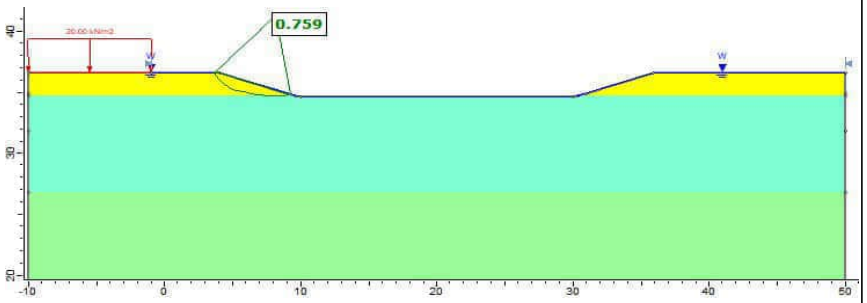
Prevailing Case



Parameters

Material Name	Color	Unit Weight (kN/m3)	Strength Type	Cohesion (kPa)	Phi (°)	Water Surface	Hu Type
F to Vst Peat		16	Mohr-Coulomb	1	15	Water Table	Automatically Calculated
Int. L to MD Sand and St to Vst Silt (Hinuera)		17	Mohr-Coulomb	1	34	Water Table	Automatically Calculated
St to H Silt/ Clay (Ham		17	Mohr-Coulomb	5	30	Water Table	Automatically Calculated

Elevated GW Case



Parameters

Material Name	Color	Unit Weight (kN/m3)	Strength Type	Cohesion (kPa)	Phi (°)	Water Surface	Hu Type
F to Vst Peat		16	Mohr-Coulomb	1	15	Water Table	Automatically Calculated
Int. L to MD Sand and St to Vst Silt (Hinuera)		17	Mohr-Coulomb	1	34	Water Table	Automatically Calculated
St to H Silt/ Clay (Ham		17	Mohr-Coulomb	5	30	Water Table	Automatically Calculated

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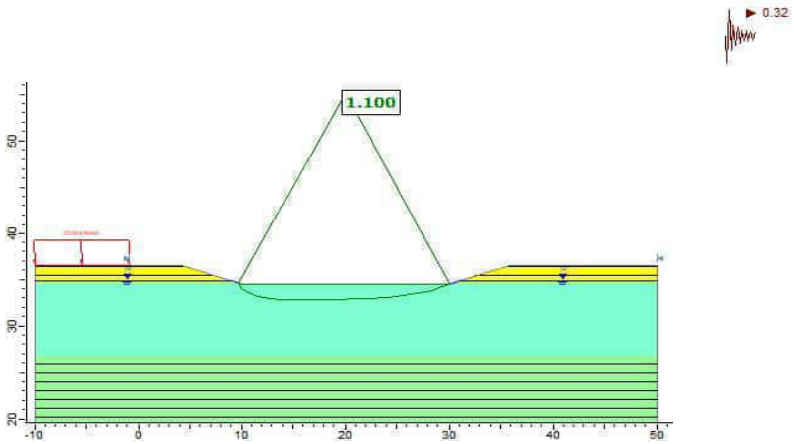
Project Southern Links - Stage 1 Industrial	*Analysis* Cuckoo	*Project No.* HAM2024-0120	
Title Section A	*Date* 11/06/2026	*Drawing* STAB 01	

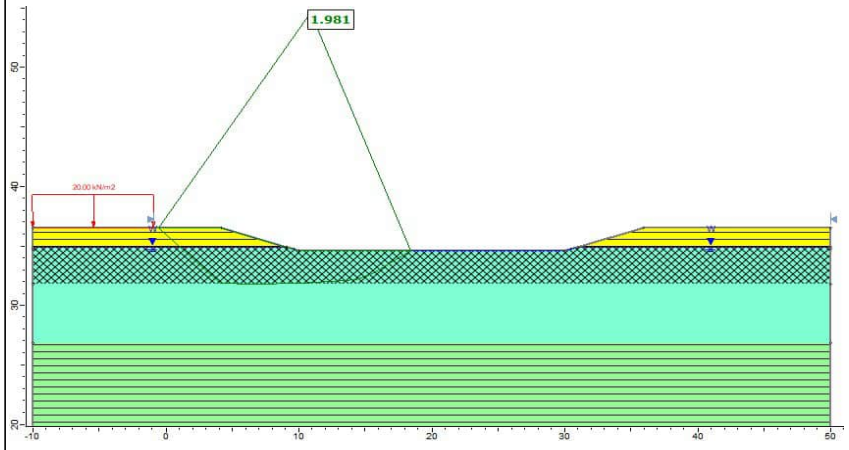
Seismic (1/500yr ULS Event)



Parameters

Material Name	Color	Unit Weight (kN/m3)	Strength Type	Cohesion (kPa)	Phi (°)	Cohesion Type	Water Surface	Hu Type	Hu
F to Vst Peat Undrained		16	Undrained	40	0	Constant	Water Table	Custom	0
Int. L to MD Sand and St to Vst Silt (Hinuera)		17	Mohr-Coulomb	1	34		Water Table	Automatically Calculated	
St to H Silt/Clay (Ham Ash) Undrained		17	Undrained	70	0	Constant	Water Table	Custom	0

Liquefied Soil Case



Parameters

Material Name	Color	Unit Weight (kN/m3)	Strength Type	Cohesion (kPa)	Phi (°)	Cohesion Type	Vertical Stress Ratio	Minimum Shear Strength (kPa)	Water Surface	Hu Type	Hu
F to Vst Peat Undrained		16	Undrained	40	0	Constant			Water Table	Custom	0
F to Vst Peat (Softened)		16	Undrained	34	0	Constant			Water Table	Custom	0
Int. L to MD Sand and St to Vst Silt (Hinuera)		17	Mohr-Coulomb	1	34				Water Table	Automatically Calculated	
Int. L to MD Sand and St to Vst Silt (Hinuera) Softened		17	Vertical Stress Ratio				0.1	5	Water Table	Automatically Calculated	
St to H Silt/Clay (Ham Ash) Undrained		17	Undrained	70	0	Constant			Water Table	Custom	0

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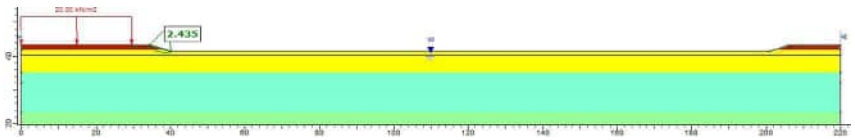
Project Southern Links - Stage 1 Industrial	*Analysis* Cuckoo	*Project No.* HAM2024-0120	
Title Section A	*Date* 16/06/2026	*Drawing* STAB 02	

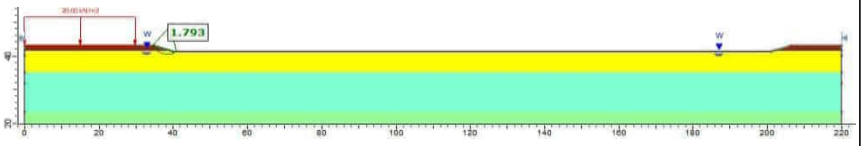
Prevailing Case



Parameters

Material Name	Color	Unit Weight (kN/m3)	Strength Type	Cohesion (kPa)	Phi (°)	Water Surface	Hu Type
F to Vst Peat		16	Mohr-Coulomb	1	26	Water Table	Automatically Calculated
Int. L to MD Sand and St to Vst Silt (Hinuera)		17	Mohr-Coulomb	1	34	Water Table	Automatically Calculated
St to H Silt/Clay (Ham Ash)		17	Mohr-Coulomb	5	30	Water Table	Automatically Calculated
Clay (Compacted Fill)		16	Mohr-Coulomb	4	28	Water Table	Automatically Calculated

Elevated GW Case



Parameters

Material Name	Color	Unit Weight (kN/m3)	Strength Type	Cohesion (kPa)	Phi (°)	Water Surface	Hu Type	Hu
F to Vst Peat		16	Mohr-Coulomb	1	26	Water Table	Automatically Calculated	
Int. L to MD Sand and St to Vst Silt (Hinuera)		17	Mohr-Coulomb	1	34	Water Table	Automatically Calculated	
St to H Silt/Clay (Ham Ash)		17	Mohr-Coulomb	5	30	Water Table	Automatically Calculated	
Clay (Compacted Fill) Ru=0.3		16	Mohr-Coulomb	4	28	Water Table	Custom	0.3

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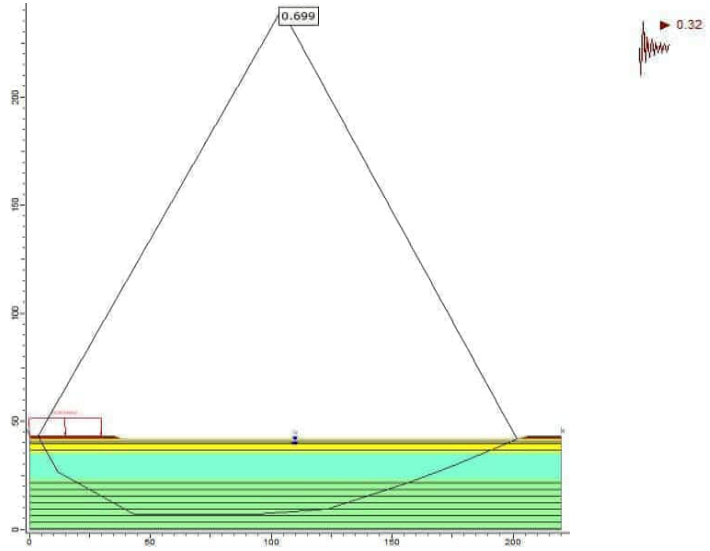
Project Southern Links - Stage 1 Industrial	*Analysis* Cuckoo	*Project No.* HAM2024-0120	
Title Section B	*Date* 11/06/2026	*Drawing* STAB 03	

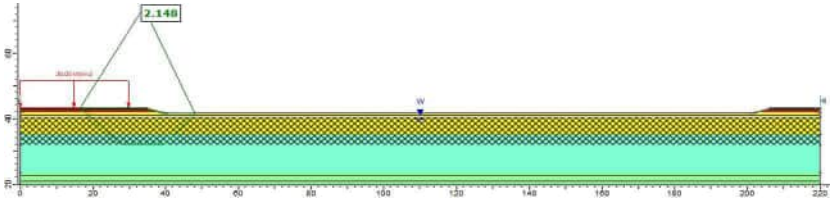
Seismic (1/500yr ULS Event)



Parameters

Material Name	Color	Unit Weight (kN/m3)	Strength Type	Cohesion (kPa)	Phi (°)	Cohesion Type	Water Surface	Hu Type	Hu
F to Vst Peat Undrained		16	Undrained	40	0	Constant	Water Table	Custom	0
Int. L to MD Sand and St to Vst Silt (Hinuera)		17	Mohr-Coulomb	1	34		Water Table	Automatically Calculated	
St to H Silt/Clay (Ham Ash) Undrained		17	Undrained	70	0	Constant	Water Table	Custom	0
Clay (Fill) Undrained		16	Undrained	120	0	Constant	Water Table	Custom	0

Liquefied Soil Case



Parameters

Material Name	Color	Unit Weight (kN/m3)	Strength Type	Cohesion (kPa)	Phi (°)	Cohesion Type	Vertical Stress Ratio	Minimum Shear Strength (kPa)	Water Surface	Hu Type	Hu
F to Vst Peat Undrained		16	Undrained	40	0	Constant			Water Table	Custom	0
F to Vst Peat (Softened)		16	Undrained	34	0	Constant			Water Table	Custom	0
Int. L to MD Sand and St to Vst Silt (Hinuera)		17	Mohr-Coulomb	1	34				Water Table	Automatically Calculated	
Int. L to MD Sand and St to Vst Silt (Hinuera) Softened		17	Vertical Stress Ratio				0.08	5	Water Table	Automatically Calculated	
St to H Silt/Clay (Ham Ash) Undrained		17	Undrained	70	0	Constant			Water Table	Custom	0
Clay (Fill) Undrained		16	Undrained	120	0	Constant			Water Table	Custom	0

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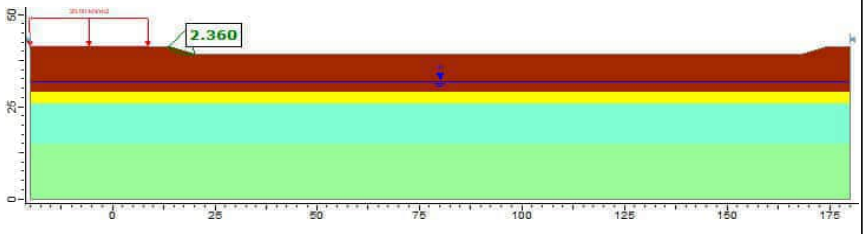
Project Southern Links - Stage 1 Industrial	*Analysis* Cuckoo	*Project No.* HAM2024-0120	
Title Section B	*Date* 16/06/2026	*Drawing* STAB 04	

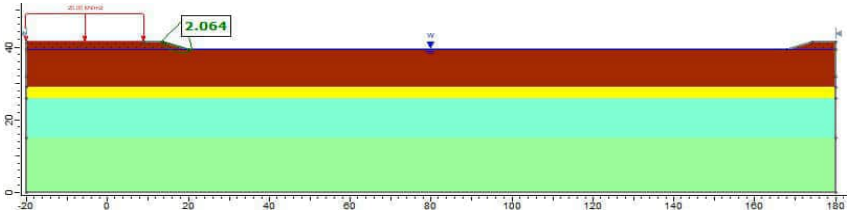
Prevailing Case



Parameters

Material Name	Color	Unit Weight (kN/m3)	Strength Type	Cohesion (kPa)	Phi (°)	Water Surface	Hu Type
F to Vst Peat		16	Mohr-Coulomb	1	26	Water Table	Automatically Calculated
Int. L to MD Sand and St to Vst Silt (Hinuera)		17	Mohr-Coulomb	1	34	Water Table	Automatically Calculated
St to H Silt/Clay (Ham Ash)		17	Mohr-Coulomb	5	30	Water Table	Automatically Calculated
Clay (Fill)		16	Mohr-Coulomb	2	26	Water Table	Automatically Calculated

Elevated GW Case



Parameters

Material Name	Color	Unit Weight (kN/m3)	Strength Type	Cohesion (kPa)	Phi (°)	Water Surface	Hu Type	Hu
F to Vst Peat		16	Mohr-Coulomb	1	26	Water Table	Automatically Calculated	
Int. L to MD Sand and St to Vst Silt (Hinuera)		17	Mohr-Coulomb	1	34	Water Table	Automatically Calculated	
St to H Silt/Clay (Ham Ash)		17	Mohr-Coulomb	5	30	Water Table	Automatically Calculated	
Clay (Fill)		16	Mohr-Coulomb	2	26	Water Table	Automatically Calculated	
Clay (Fill) Ru=0.3		16	Mohr-Coulomb	2	26	Water Table	Custom	0.3

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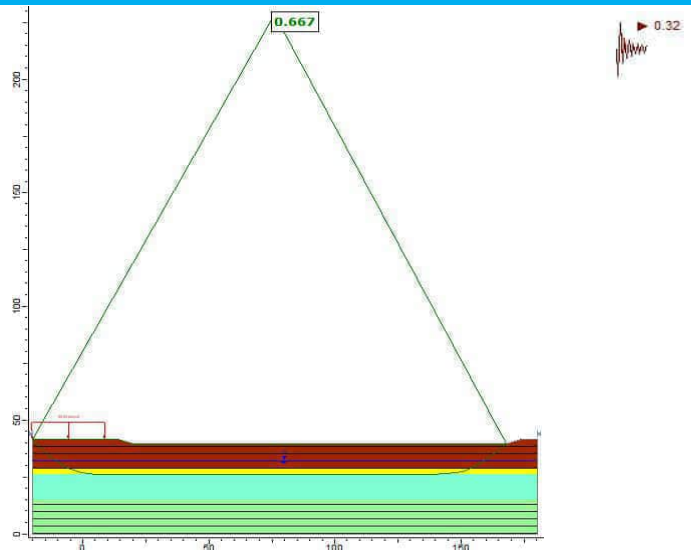
Project Southern Links - Stage 1 Industrial	*Analysis* Cuckoo	*Project No.* HAM2024-0120	
Title Section C	***Date*** 11/06/2026	*Drawing* STAB 05	

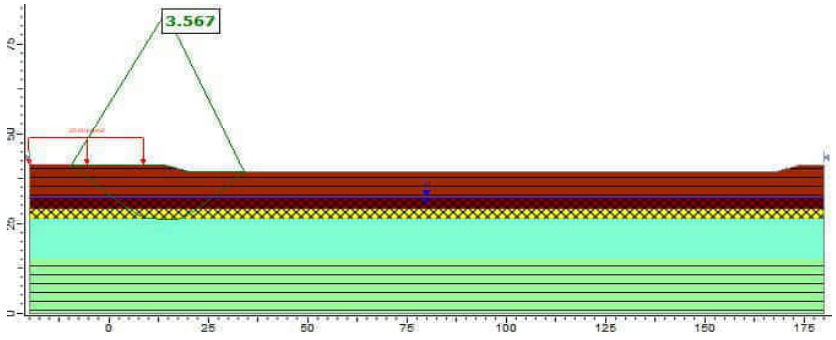
Seismic (1/500yr ULS Event)



Parameters

Material Name	Color	Unit Weight (kN/m3)	Strength Type	Cohesion (kPa)	Phi (°)	Cohesion Type	Water Surface	Hu Type	Hu
F to Vst Peat Undrained		16	Undrained	40	0	Constant	Water Table	Custom	0
Int. L to MD Sand and St to Vst Silt (Hinuera)		17	Mohr-Coulomb	1	34		Water Table	Automatically Calculated	
St to H Silt/Clay (Ham Ash) Undrained		17	Undrained	70	0	Constant	Water Table	Custom	0
Clay (Fill) Undrained		16	Undrained	40	0	Constant	Water Table	Custom	0

Liquefied Soil Case



Material Name	Color	Unit Weight (kN/m3)	Strength Type	Cohesion (kPa)	Phi (°)	Cohesion Type	Water Surface	Hu Type	Hu
F to Vst Peat (Softened)		16	Undrained	34	0	Constant	Water Table	Custom	0
Int. L to MD Sand and St to Vst Silt (Hinuera)		17	Mohr-Coulomb	1	34		Water Table	Automatically Calculated	
St to H Silt/Clay (Ham Ash) Undrained		17	Undrained	70	0	Constant	Water Table	Custom	0
Clay (Fill) Undrained		16	Undrained	40	0	Constant	Water Table	Custom	0
Clay (Fill) Softened		16	Undrained	32	0	Constant	Water Table	Custom	0

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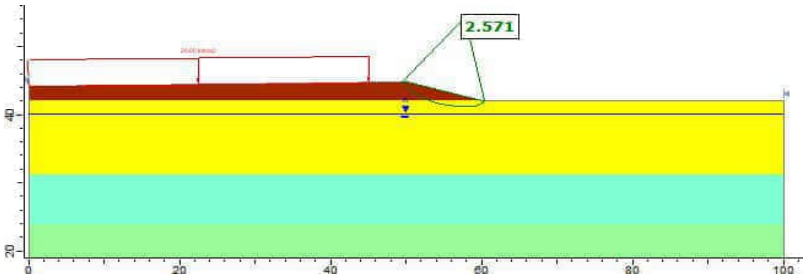
Project Southern Links - Stage 1 Industrial	*Analysis* Cuckoo	*Project No.* HAM2024-0120
Title Section C	*Date* 16/06/2026	*Drawing* STAB 06

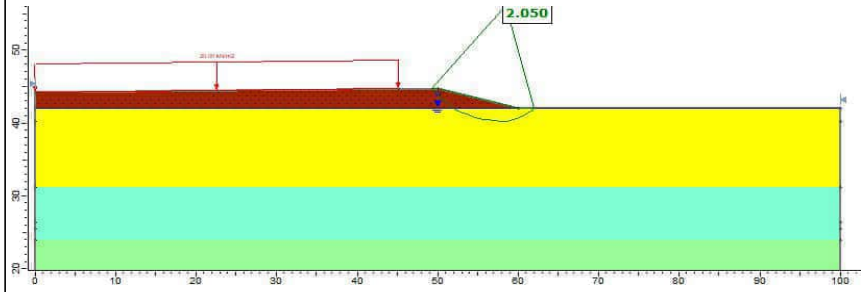
Prevailing Case



Parameters

Material Name	Color	Unit Weight (kN/m3)	Strength Type	Cohesion (kPa)	Phi (°)	Water Surface	Hu Type
F to Vst Peat		16	Mohr-Coulomb	1	26	Water Table	Automatically Calculated
Int. L to MD Sand and St to Vst Silt (Hinuera)		17	Mohr-Coulomb	1	34	Water Table	Automatically Calculated
St to H Silt/Clay (Ham Ash)		17	Mohr-Coulomb	5	30	Water Table	Automatically Calculated
Clay (Compacted Fill)		16	Mohr-Coulomb	4	28	Water Table	Automatically Calculated

Elevated GW Case



Parameters

Material Name	Color	Unit Weight (kN/m3)	Strength Type	Cohesion (kPa)	Phi (°)	Water Surface	Hu Type	Hu
F to Vst Peat		16	Mohr-Coulomb	1	26	Water Table	Automatically Calculated	
Int. L to MD Sand and St to Vst Silt (Hinuera)		17	Mohr-Coulomb	1	34	Water Table	Automatically Calculated	
St to H Silt/Clay (Ham Ash)		17	Mohr-Coulomb	5	30	Water Table	Automatically Calculated	
Clay (Compacted Fill) Ru=0.3		16	Mohr-Coulomb	4	28	Water Table	Custom	0.3

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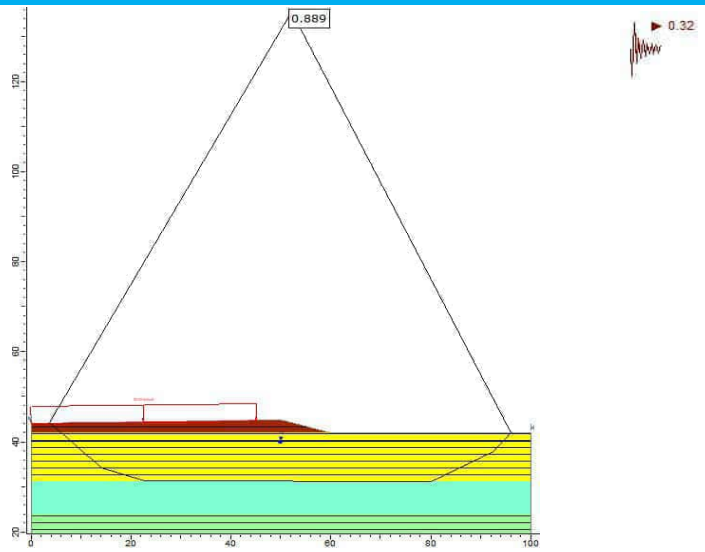
Project Southern Links - Stage 1 Industrial	*Analysis* Cuckoo	*Project No.* HAM2024-0120	
Title Section D	***Date*** 11/06/2026	*Drawing* STAB 07	

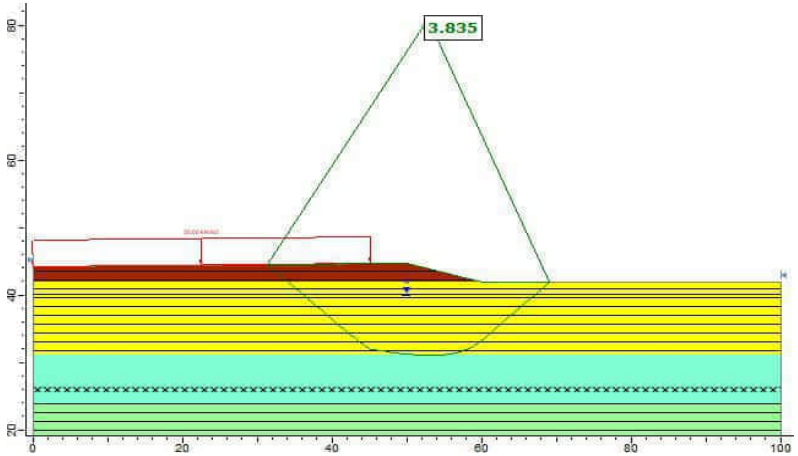
Seismic (1/500yr ULS Event)



Parameters

Material Name	Color	Unit Weight (kN/m3)	Strength Type	Cohesion (kPa)	Phi (°)	Cohesion Type	Water Surface	Hu Type	Hu
F to Vst Peat Undrained		16	Undrained	40	0	Constant	Water Table	Custom	0
Int. L to MD Sand and St to Vst Silt (Hinuera)		17	Mohr-Coulomb	1	34		Water Table	Automatically Calculated	
St to H Silt/Clay (Ham Ash) Undrained		17	Undrained	70	0	Constant	Water Table	Custom	0
Clay (Compacted Fill) Undrained		16	Undrained	120	0	Constant	Water Table	Custom	0

Liquefied Soil Case



Material Name	Color	Unit Weight (kN/m3)	Strength Type	Cohesion (kPa)	Phi (°)	Cohesion Type	Vertical Stress Ratio	Minimum Shear Strength (kPa)	Water Surface	Hu Type	Hu
F to Vst Peat Undrained		16	Undrained	40	0	Constant			Water Table	Custom	0
Int. L to MD Sand and St to Vst Silt (Hinuera)		17	Mohr-Coulomb	1	34				Water Table	Automatically Calculated	
Int. L to MD Sand and St to Vst Silt (Hinuera) Softened		17	Vertical Stress Ratio				0.08	5	Water Table	Automatically Calculated	
St to H Silt/Clay (Ham Ash) Undrained		17	Undrained	70	0	Constant			Water Table	Custom	0
Clay (Compacted Fill) Undrained		16	Undrained	120	0	Constant			Water Table	Custom	0

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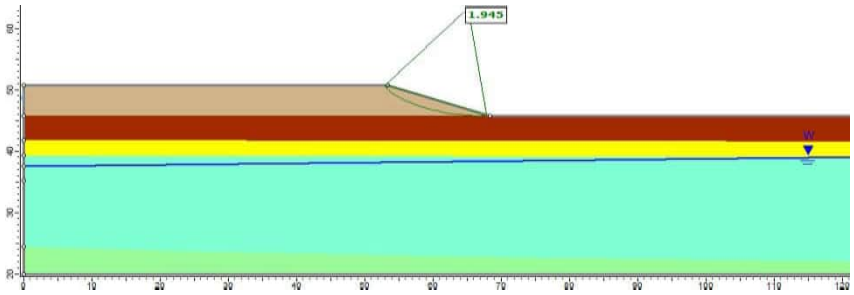
Project Southern Links - Stage 1 Industrial	*Analysis* Cuckoo	*Project No.* HAM2024-0120
Title Section C	*Date* 16/06/2026	*Drawing* STAB 08

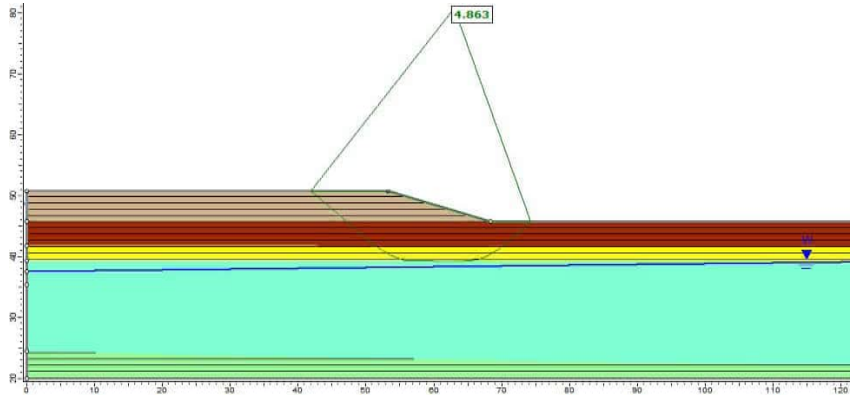
Preload Proposed 1:3 Slope (Drained Conditions)



Parameters

Material Name	Color	Unit Weight (kN/m3)	Strength Type	Cohesion (kPa)	Phi (°)	Water Surface	Hu Type
F to Vst Peat		16	Mohr-Coulomb	1	26	Water Table	Automatically Calculated
Int. L to MD Sand and St to Vst Silt (Hinuera)		17	Mohr-Coulomb	1	34	Water Table	Automatically Calculated
St to H Silt/Clay (Ham Ash)		17	Mohr-Coulomb	5	30	Water Table	Automatically Calculated
Clay (Compacted Fill)		16	Mohr-Coulomb	4	28	Water Table	Automatically Calculated
Clay (Preload Fill)		16	Mohr-Coulomb	2	26	Water Table	Automatically Calculated

Preload Proposed 1:3 Slope (Undrained Conditions)



Parameters

Material Name	Color	Unit Weight (kN/m3)	Strength Type	Cohesion (kPa)	Phi (°)	Cohesion Type	Water Surface	Hu Type	Hu
F to Vst Peat		16	Mohr-Coulomb	1	26		Water Table	Automatically Calculated	
F to Vst Peat Undrained		16	Undrained	40	0	Constant	Water Table	Custom	0
Int. L to MD Sand and St to Vst Silt (Hinuera)		17	Mohr-Coulomb	1	34		Water Table	Automatically Calculated	
St to H Silt/Clay (Ham Ash) Undrained		17	Undrained	70	0	Constant	Water Table	Custom	0
Clay (Compacted Fill) Undrained		16	Undrained	120	0	Constant	Water Table	Custom	0
Clay (Preload Fill) Undrained		16	Undrained	40	0	Constant	Water Table	Custom	0

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Project Southern Links - Stage 1 Industrial	*Analysis* Cuckoo	*Project No.* HAM2024-0120	
Title Typical Preload Section	*Date* 17/06/2026	*Drawing* STAB 09	

CMW Geosciences Great People | Practical Solutions	CLIENT: **COLLIERS PROJECT LEADERS**	DESIGNER:	MM
	PROJECT: **SOUTHERN LINKS - STAGE 1 INDUSTRIAL**	CHECKED:	DM
		REVISION:	0
	TITLE: **COSEISMIC DISPLACEMENTS - FLEXIBLE SLIDING MASS SECTION A**	DATE:	12/06/2026
		PROJECT:	HAM2024-0120

WHEN TO USE THIS SHEET:
Use this sheet when calculating the coseismic displacements of a block assuming a flexible sliding mass mechanism.

1. CALCULATE THE PERIOD OF THE SLIDING MASS (T_s)

1D or 2D?	1D		*Generally 1D, but see guidance tab for details*
H	4.7	m	*Maximum height of the sliding mass, measured from within the sliding mass*
V_s	140	m/s	*Average shear wave velocity of the sliding mass*
T_s	0.1343	s	

2. SEISMIC PARAMETERS

Case	Ordinary Ground Motions		*Only applicable to Bray and Macedo (2019). Almost always ordinary ground motions, see guidance tab re pulses*
Yield Coefficient (a_c)	0.137	g	
Magnitude (M_w)	5.9		
PGA	0.32	g	
PGA	0.32	g	
$S_a(1.3T_s)$	0.43	g	*Required for Bray (2019) and Macedo (2023)*
$S_a(1.5T_s)$	0.43	g	*Required for Bray (2007)*
PGV	23.33	cm/s	*Required for Rathje & Antonakos (2011) and Bray (2019) pulses.*
T_m	0.53		*Only required for Rathje & Antonakos (2011)*
CALS?	☐		*Multiplies $S_a(1.3T_s)$, $S_a(1.5T_s)$ and PGA by 1.5, in accordance with BM v3.4*

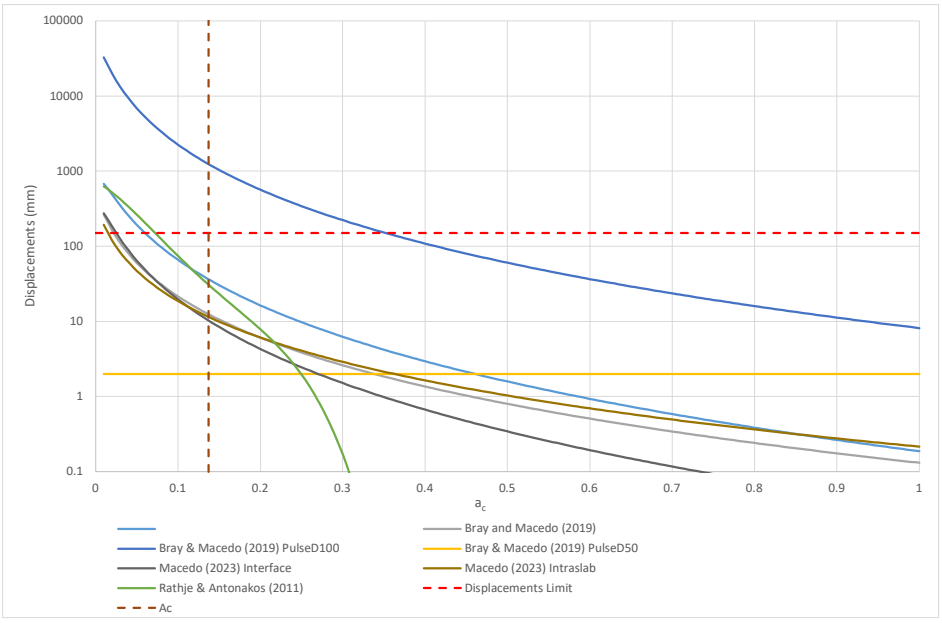
Seismic Demand Parameters:
Hamilton
Class D
1/500

3. RESULTS

Probability of Exceedence:		**Rathje & Antonakos (2011)**	**Bray and Macedo (2019)**	**Macedo et al. (2023)**	
Probability of Negligible Displacement			16%	11%	
50%		31 mm	10 mm	9 mm	
16%		52 mm	23 mm	20 mm	
5%		72 mm	38 mm	34 mm	
2.5%		85 mm	48 mm	43 mm	
0.5%		117 mm	76 mm	69 mm	
Applicable Seismic Source		***Shallow Crustal***	***Shallow Crustal***	***Subduction Interface***	

4. CHART OPTIONS

Displacements Limit	150



CMW Geosciences Great People | Practical Solutions	CLIENT: **COLLIERS PROJECT LEADERS**	DESIGNER:	MM
	PROJECT: **SOUTHERN LINKS - STAGE 1 INDUSTRIAL**	CHECKED:	DM
		REVISION:	0
	TITLE: **COSEISMIC DISPLACEMENTS - FLEXIBLE SLIDING MASS SECTION B**	DATE:	11/06/2026
		PROJECT:	HAM2024-0120

WHEN TO USE THIS SHEET:
Use this sheet when calculating the coseismic displacements of a block assuming a flexible sliding mass mechanism.

1. CALCULATE THE PERIOD OF THE SLIDING MASS (T_s)

1D or 2D?	1D		*Generally 1D, but see guidance tab for details*
H	11.2	m	*Maximum height of the sliding mass, measured from within the sliding mass*
V_s	140	m/s	*Average shear wave velocity of the sliding mass*
T_s	0.3200	s	

2. SEISMIC PARAMETERS

Case	Ordinary Ground Motions		*Only applicable to Bray and Macedo (2019). Almost always ordinary ground motions, see guidance tab re pulses*
Yield Coefficient (a_c)	0.064	g	
Magnitude (M_w)	5.9		
PGA	0.32	g	
PGA	0.32	g	
$S_a(1.3T_s)$	0.42	g	*Required for Bray (2019) and Macedo (2023)*
$S_a(1.5T_s)$	0.42	g	*Required for Bray (2007)*
PGV	23.33	cm/s	*Required for Rathje & Antonakos (2011) and Bray (2019) pulses.*
T_m	0.53		*Only required for Rathje & Antonakos (2011)*
CALS?	☐		*Multiplies $S_a(1.3T_s)$, $S_a(1.5T_s)$ and PGA by 1.5, in accordance with BM v3.4*

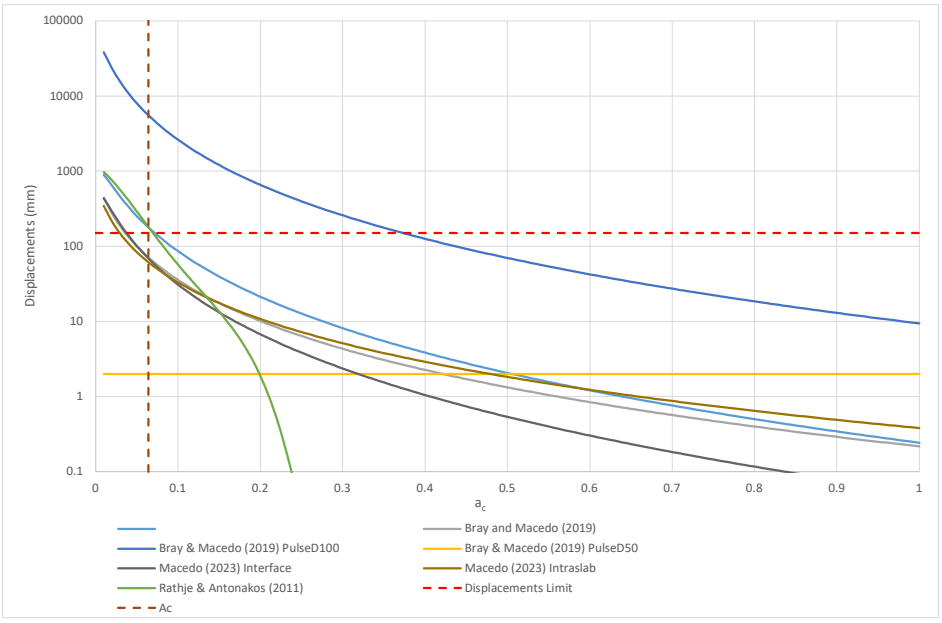
Seismic Demand Parameters:
Hamilton
Class D
1/500

3. RESULTS

Probability of Exceedence:		**Rathje & Antonakos (2011)**	**Bray and Macedo (2019)**	**Macedo et al. (2023)**	
Probability of Negligible Displacement			0%	0%	
50%		181 mm	71 mm	69 mm	
16%		289 mm	146 mm	145 mm	
5%		393 mm	232 mm	236 mm	
2.5%		457 mm	292 mm	299 mm	
0.5%		611 mm	454 mm	475 mm	
Applicable Seismic Source		***Shallow Crustal***	***Shallow Crustal***	***Subduction Interface***	

4. CHART OPTIONS

Displacements Limit	150



CMW Geosciences Great People | Practical Solutions	CLIENT: **COLLIERS PROJECT LEADERS**	DESIGNER:	MM
	PROJECT: **SOUTHERN LINKS - STAGE 1 INDUSTRIAL**	CHECKED:	DM
		REVISION:	0
	TITLE: **COSEISMIC DISPLACEMENTS - FLEXIBLE SLIDING MASS SECTION C**	DATE:	11/06/2026
		PROJECT:	HAM2024-0120

WHEN TO USE THIS SHEET:
Use this sheet when calculating the coseismic displacements of a block assuming a flexible sliding mass mechanism.

1. CALCULATE THE PERIOD OF THE SLIDING MASS (T_s)

1D or 2D?	1D		*Generally 1D, but see guidance tab for details*
H	15.3	m	*Maximum height of the sliding mass, measured from within the sliding mass*
V_s	140	m/s	*Average shear wave velocity of the sliding mass*
T_s	0.4371	s	

2. SEISMIC PARAMETERS

Case	Ordinary Ground Motions		*Only applicable to Bray and Macedo (2019). Almost always ordinary ground motions, see guidance tab re pulses*
Yield Coefficient (a_c)	0.178	g	
Magnitude (M_w)	5.9		
PGA	0.32	g	
PGA	0.32	g	
$S_a(1.3T_s)$	0.40	g	*Required for Bray (2019) and Macedo (2023)*
$S_a(1.5T_s)$	0.36	g	*Required for Bray (2007)*
PGV	23.33	cm/s	*Required for Rathje & Antonakos (2011) and Bray (2019) pulses.*
T_m	0.53		*Only required for Rathje & Antonakos (2011)*
CALS?	☐		*Multiplies $S_a(1.3T_s)$, $S_a(1.5T_s)$ and PGA by 1.5, in accordance with BM v3.4*

Seismic Demand Parameters:

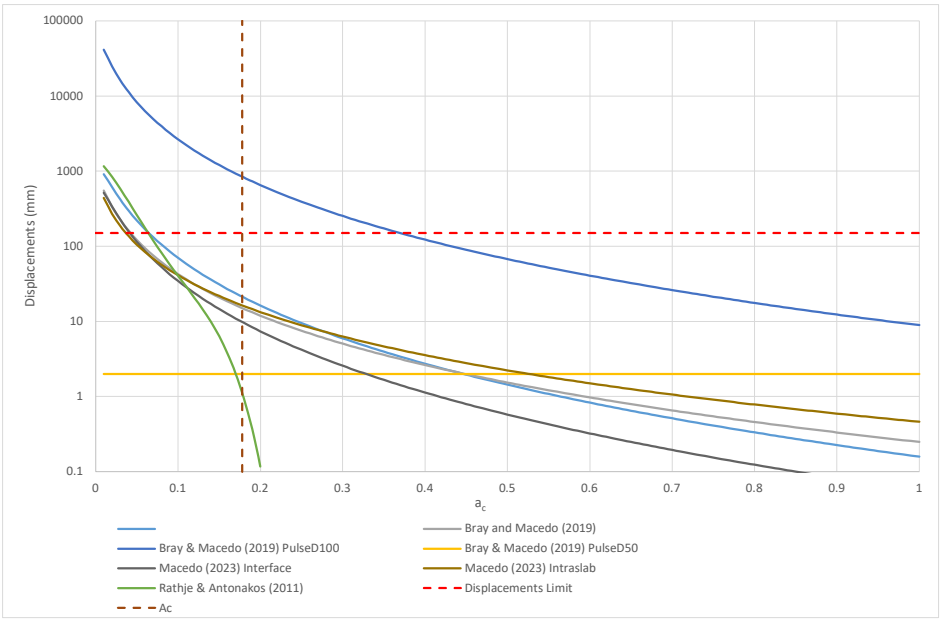
Hamilton
Class D
1/500

3. RESULTS

Probability of Exceedence:		**Rathje & Antonakos (2011)**	**Bray and Macedo (2019)**	**Macedo et al. (2023)**	
Probability of Negligible Displacement			15%	16%	
50%		1 mm	13 mm	8 mm	
16%		2 mm	28 mm	19 mm	
5%		3 mm	46 mm	32 mm	
2.5%		4 mm	58 mm	41 mm	
0.5%		6 mm	92 mm	67 mm	
Applicable Seismic Source		***Shallow Crustal***	***Shallow Crustal***	***Subduction Interface***	

4. CHART OPTIONS

Displacements Limit	150



CMW Geosciences Great People | Practical Solutions	CLIENT: **COLLIERS PROJECT LEADERS**	DESIGNER:	MM
	PROJECT: **SOUTHERN LINKS - STAGE 1 INDUSTRIAL**	CHECKED:	DM
		REVISION:	0
	TITLE: **COSEISMIC DISPLACEMENTS - FLEXIBLE SLIDING MASS SECTION D**	DATE:	12/06/2026
		PROJECT:	HAM2024-0120

WHEN TO USE THIS SHEET:
Use this sheet when calculating the coseismic displacements of a block assuming a flexible sliding mass mechanism.

1. CALCULATE THE PERIOD OF THE SLIDING MASS (T_s)

1D or 2D?	1D		*Generally 1D, but see guidance tab for details*
H	13.6	m	*Maximum height of the sliding mass, measured from within the sliding mass*
V_s	140	m/s	*Average shear wave velocity of the sliding mass*
T_s	0.3886	s	

2. SEISMIC PARAMETERS

Case	Ordinary Ground Motions		*Only applicable to Bray and Macedo (2019). Almost always ordinary ground motions, see guidance tab re pulses*
Yield Coefficient (a_c)	0.269	g	
Magnitude (M_w)	5.9		
PGA	0.32	g	
PGA	0.32	g	
$S_a(1.3T_s)$	0.42	g	*Required for Bray (2019) and Macedo (2023)*
$S_a(1.5T_s)$	0.40	g	*Required for Bray (2007)*
PGV	23.33	cm/s	*Required for Rathje & Antonakos (2011) and Bray (2019) pulses.*
T_m	0.53		*Only required for Rathje & Antonakos (2011)*
CALS?	☐		*Multiplies $S_a(1.3T_s)$, $S_a(1.5T_s)$ and PGA by 1.5, in accordance with BM v3.4*

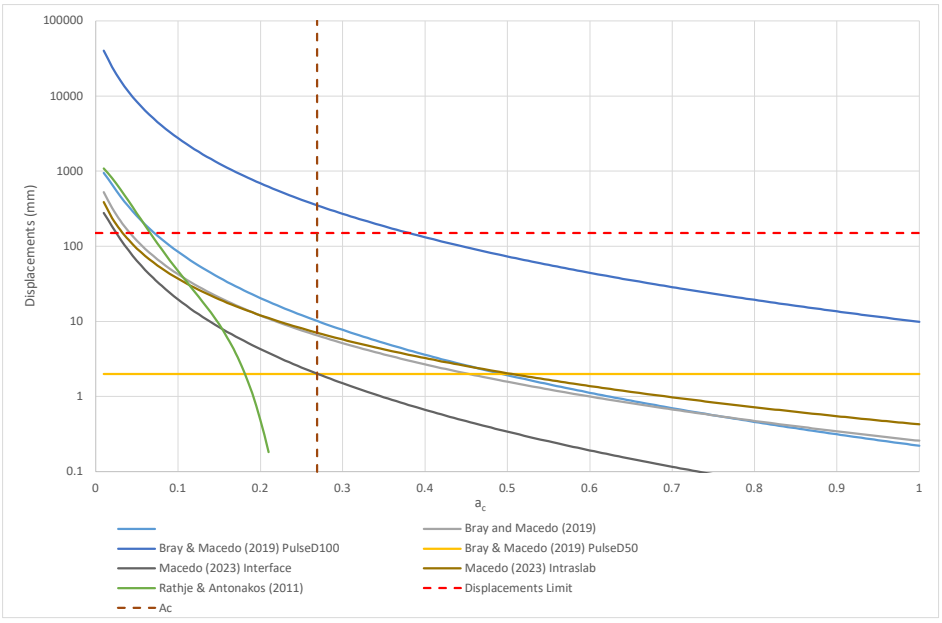
Seismic Demand Parameters:
Hamilton
Class D
1/500

3. RESULTS

Probability of Exceedence:		**Rathje & Antonakos (2011)**	**Bray and Macedo (2019)**	**Macedo et al. (2023)**	
Probability of Negligible Displacement			56%	59%	
50%		0 mm	<5 mm	<5 mm	
16%		0 mm	8 mm	5 mm	
5%		0 mm	16 mm	9 mm	
2.5%		0 mm	20 mm	12 mm	
0.5%		0 mm	34 mm	20 mm	
Applicable Seismic Source		***Shallow Crustal***	***Shallow Crustal***	***Subduction Interface***	

4. CHART OPTIONS

Displacements Limit	150



APPENDIX I

Settlement/Preliminary Preload Design Results

CMW Geosciences – Great People | Practical Solutions	COLLIERS PROJECT LEADERS	MM
	SOUTHERN LINKS STAGE 1 INDUSTRIAL BLOCK	DMM
	HAMILTON	3
	Primary and Secondary Consolidation of Soft Soil Layers - No Preload - Roads	6/14/2026
		HAM2024-0120

1. Consolidation Settlement (Terzaghi)

Exist Fill Density:	16	kN/m3
Soft Soil Density (Saturated):	16	kN/m3
Surcharge Density:	17	kN/m3

Scenario	Original Ground RL	Water Table RL	Surcharge Top RL	Exist Fill Thickness	Soft Soil Thickness	Base Fill RL	Base Soft Soil RL	Mid-Point Soft Soil RL	Surcharge Height	Initial Eff Stress	Applied Surcharge	Comp Index CC	Recomp. Index CR	Initial Void Ratio e0	Exist Over Consol.	De	Consol Settlement	t90 Consol	Cv	Time to t90 Consol	
	(mAHD)	(mAHD)	(mAHD)	(m)	(m)	(mAHD)	(mAHD)	(mAHD)	(m)	(kPa)	(kPa)				(kPa)		(m)	(m)	(m2/yr)	(year)	(months)
SS0.5 / Fill0.5	0	0	0.5	0	0.5	0	-0.5	-0.25	0.5	2	8.5	1	0.03	1.9	0	-0.8124	**0.140**	**0.13**	25	**0.0**	**0.0**
SS0.5 / Fill1	0	0	1	0	0.5	0	-0.5	-0.25	1	2	17	1	0.03	1.9	0	-1.0787	**0.186**	**0.17**	25	**0.0**	**0.0**
SS0.5 / Fill1.5	0	0	1.5	0	0.5	0	-0.5	-0.25	1.5	2	25.5	1	0.03	1.9	0	-1.2425	**0.214**	**0.19**	25	**0.0**	**0.0**
SS0.5 / Fill2	0	0	2	0	0.5	0	-0.5	-0.25	2	2	34	1	0.03	1.9	0	-1.3612	**0.235**	**0.21**	25	**0.0**	**0.0**
SS0.5 / Fill2.5	0	0	2.5	0	0.5	0	-0.5	-0.25	2.5	2	42.5	1	0.03	1.9	0	-1.4543	**0.251**	**0.23**	25	**0.0**	**0.0**
SS0.5 / Fill3	0	0	3	0	0.5	0	-0.5	-0.25	3	2	51	1	0.03	1.9	0	-1.5309	**0.264**	**0.24**	25	**0.0**	**0.0**
SS0.5 / Fill3.5	0	0	3.5	0	0.5	0	-0.5	-0.25	3.5	2	59.5	1	0.03	1.9	0	-1.5960	**0.275**	**0.25**	25	**0.0**	**0.0**
SS0.5 / Fill4	0	0	4	0	0.5	0	-0.5	-0.25	4	2	68	1	0.03	1.9	0	-1.6527	**0.285**	**0.26**	25	**0.0**	**0.0**
SS1 / Fill0.5	0	0	0.5	0	1	0	-1	-0.5	0.5	3	8.5	1	0.03	1.9	0	-0.5736	**0.198**	**0.18**	25	**0.0**	**0.1**
SS1 / Fill1	0	0	1	0	1	0	-1	-0.5	1	3	17	1	0.03	1.9	0	-0.8124	**0.280**	**0.25**	25	**0.0**	**0.1**
SS1 / Fill1.5	0	0	1.5	0	1	0	-1	-0.5	1.5	3	25.5	1	0.03	1.9	0	-0.9656	**0.333**	**0.30**	25	**0.0**	**0.1**
SS1 / Fill2	0	0	2	0	1	0	-1	-0.5	2	3	34	1	0.03	1.9	0	-1.0787	**0.372**	**0.33**	25	**0.0**	**0.1**
SS1 / Fill2.5	0	0	2.5	0	1	0	-1	-0.5	2.5	3	42.5	1	0.03	1.9	0	-1.1683	**0.403**	**0.36**	25	**0.0**	**0.1**
SS1 / Fill3	0	0	3	0	1	0	-1	-0.5	3	3	51	1	0.03	1.9	0	-1.2425	**0.428**	**0.39**	25	**0.0**	**0.1**
SS1 / Fill3.5	0	0	3.5	0	1	0	-1	-0.5	3.5	3	59.5	1	0.03	1.9	0	-1.3059	**0.450**	**0.41**	25	**0.0**	**0.1**
SS1 / Fill4	0	0	4	0	1	0	-1	-0.5	4	3	68	1	0.03	1.9	0	-1.3612	**0.469**	**0.42**	25	**0.0**	**0.1**
SS1.5 / Fill0.5	0	0	0.5	0	1.5	0	-1.5	-0.75	0.5	5	8.5	1	0.03	1.9	0	-0.4519	**0.234**	**0.21**	25	**0.0**	**0.2**
SS1.5 / Fill1	0	0	1	0	1.5	0	-1.5	-0.75	1	5	17	1	0.03	1.9	0	-0.6686	**0.346**	**0.31**	25	**0.0**	**0.2**
SS1.5 / Fill1.5	0	0	1.5	0	1.5	0	-1.5	-0.75	1.5	5	25.5	1	0.03	1.9	0	-0.8124	**0.420**	**0.38**	25	**0.0**	**0.2**
SS1.5 / Fill2	0	0	2	0	1.5	0	-1.5	-0.75	2	5	34	1	0.03	1.9	0	-0.9203	**0.476**	**0.43**	25	**0.0**	**0.2**
SS1.5 / Fill2.5	0	0	2.5	0	1.5	0	-1.5	-0.75	2.5	5	42.5	1	0.03	1.9	0	-1.0067	**0.521**	**0.47**	25	**0.0**	**0.2**
SS1.5 / Fill3	0	0	3	0	1.5	0	-1.5	-0.75	3	5	51	1	0.03	1.9	0	-1.0787	**0.558**	**0.50**	25	**0.0**	**0.2**
SS1.5 / Fill3.5	0	0	3.5	0	1.5	0	-1.5	-0.75	3.5	5	59.5	1	0.03	1.9	0	-1.1404	**0.590**	**0.53**	25	**0.0**	**0.2**
SS1.5 / Fill4	0	0	4	0	1.5	0	-1.5	-0.75	4	5	68	1	0.03	1.9	0	-1.1944	**0.618**	**0.56**	25	**0.0**	**0.2**
SS2 / Fill0.5	0	0	0.5	0	2	0	-2	-1	0.5	6	8.5	1	0.03	1.9	0	-0.3753	**0.259**	**0.23**	25	**0.0**	**0.4**
SS2 / Fill1	0	0	1	0	2	0	-2	-1	1	6	17	1	0.03	1.9	0	-0.5736	**0.396**	**0.36**	25	**0.0**	**0.4**
SS2 / Fill1.5	0	0	1.5	0	2	0	-2	-1	1.5	6	25.5	1	0.03	1.9	0	-0.7092	**0.489**	**0.44**	25	**0.0**	**0.4**
SS2 / Fill2	0	0	2	0	2	0	-2	-1	2	6	34	1	0.03	1.9	0	-0.8124	**0.560**	**0.50**	25	**0.0**	**0.4**
SS2 / Fill2.5	0	0	2.5	0	2	0	-2	-1	2.5	6	42.5	1	0.03	1.9	0	-0.8957	**0.618**	**0.56**	25	**0.0**	**0.4**
SS2 / Fill3	0	0	3	0	2	0	-2	-1	3	6	51	1	0.03	1.9	0	-0.9656	**0.666**	**0.60**	25	**0.0**	**0.4**
SS2 / Fill3.5	0	0	3.5	0	2	0	-2	-1	3.5	6	59.5	1	0.03	1.9	0	-1.0258	**0.707**	**0.64**	25	**0.0**	**0.4**
SS2 / Fill4	0	0	4	0	2	0	-2	-1	4	6	68	1	0.03	1.9	0	-1.0787	**0.744**	**0.67**	25	**0.0**	**0.4**
SS2.5 / Fill0.5	0	0	0.5	0	2.5	0	-2.5	-1.25	0.5	8	8.5	1	0.03	1.9	0	-0.3219	**0.278**	**0.25**	25	**0.1**	**0.6**
SS2.5 / Fill1	0	0	1	0	2.5	0	-2.5	-1.25	1	8	17	1	0.03	1.9	0	-0.5048	**0.435**	**0.39**	25	**0.1**	**0.6**
SS2.5 / Fill1.5	0	0	1.5	0	2.5	0	-2.5	-1.25	1.5	8	25.5	1	0.03	1.9	0	-0.6330	**0.546**	**0.49**	25	**0.1**	**0.6**
SS2.5 / Fill2	0	0	2	0	2.5	0	-2.5	-1.25	2	8	34	1	0.03	1.9	0	-0.7319	**0.631**	**0.57**	25	**0.1**	**0.6**
SS2.5 / Fill2.5	0	0	2.5	0	2.5	0	-2.5	-1.25	2.5	8	42.5	1	0.03	1.9	0	-0.8124	**0.700**	**0.63**	25	**0.1**	**0.6**
SS2.5 / Fill3	0	0	3	0	2.5	0	-2.5	-1.25	3	8	51	1	0.03	1.9	0	-0.8803	**0.759**	**0.68**	25	**0.1**	**0.6**
SS2.5 / Fill3.5	0	0	3.5	0	2.5	0	-2.5	-1.25	3.5	8	59.5	1	0.03	1.9	0	-0.9390	**0.809**	**0.73**	25	**0.1**	**0.6**
SS2.5 / Fill4	0	0	4	0	2.5	0	-2.5	-1.25	4	8	68	1	0.03	1.9	0	-0.9907	**0.854**	**0.77**	25	**0.1**	**0.6**
SS3 / Fill0.5	0	0	0.5	0	3	0	-3	-1.5	0.5	9	8.5	1	0.03	1.9	0	-0.2823	**0.292**	**0.26**	25	**0.1**	**0.9**
SS3 / Fill1	0	0	1	0	3	0	-3	-1.5	1	9	17	1	0.03	1.9	0	-0.4519	**0.468**	**0.42**	25	**0.1**	**0.9**
SS3 / Fill1.5	0	0	1.5	0	3	0	-3	-1.5	1.5	9	25.5	1	0.03	1.9	0	-0.5736	**0.593**	**0.53**	25	**0.1**	**0.9**
SS3 / Fill2	0	0	2	0	3	0	-3	-1.5	2	9	34	1	0.03	1.9	0	-0.6686	**0.692**	**0.62**	25	**0.1**	**0.9**
SS3 / Fill2.5	0	0	2.5	0	3	0	-3	-1.5	2.5	9	42.5	1	0.03	1.9	0	-0.7464	**0.772**	**0.69**	25	**0.1**	**0.9**
SS3 / Fill3	0	0	3	0	3	0	-3	-1.5	3	9	51	1	0.03	1.9	0	-0.8124	**0.840**	**0.76**	25	**0.1**	**0.9**
SS3 / Fill3.5	0	0	3.5	0	3	0	-3	-1.5	3.5	9	59.5	1	0.03	1.9	0	-0.8697	**0.900**	**0.81**	25	**0.1**	**0.9**
SS3 / Fill4	0	0	4	0	3	0	-3	-1.5	4	9	68	1	0.03	1.9	0	-0.9203	**0.952**	**0.86**	25	**0.1**	**0.9**
SS3.5 / Fill0.5	0	0	0.5	0	3.5	0	-3.5	-1.75	0.5	11	8.5	1	0.03	1.9	0	-0.2516	**0.304**	**0.27**	25	**0.1**	**1.2**
SS3.5 / Fill1	0	0	1	0	3.5	0	-3.5	-1.75	1	11	17	1	0.03	1.9	0	-0.4098	**0.495**	**0.45**	25	**0.1**	**1.2**
SS3.5 / Fill1.5	0	0	1.5	0	3.5	0	-3.5	-1.75	1.5	11	25.5	1	0.03	1.9	0	-0.5256	**0.634**	**0.57**	25	**0.1**	**1.2**
SS3.5 / Fill2	0	0	2	0	3.5	0	-3.5	-1.75	2	11	34	1	0.03	1.9	0	-0.6169	**0.744**	**0.67**	25	**0.1**	**1.2**
SS3.5 / Fill2.5	0	0	2.5	0	3.5	0	-3.5	-1.75	2.5	11	42.5	1	0.03	1.9	0	-0.6923	**0.835**	**0.75**	25	**0.1**	**1.2**
SS3.5 / Fill3	0	0	3	0	3.5	0	-3.5	-1.75	3	11	51	1	0.03	1.9	0	-0.7565	**0.913**	**0.82**	25	**0.1**	**1.2**
SS3.5 / Fill3.5	0	0	3.5	0	3.5	0	-3.5	-1.75	3.5	11	59.5	1	0.03	1.9	0	-0.8124	**0.981**	**0.88**	25	**0.1**	**1.2**
SS3.5 / Fill4	0	0	4	0	3.5	0	-3.5	-1.75	4	11	68	1	0.03	1.9	0	-0.8620	**1.040**	**0.94**	25	**0.1**	**1.2**
SS4 / Fill0.5	0	0	0.5	0	4	0	-4	-2	0.5	12	8.5	1	0.03	1.9	0	-0.2270	**0.313**	**0.28**	25	**0.1**	**1.6**
SS4 / Fill1	0	0	1	0	4	0	-4	-2	1	12	17	1	0.03	1.9	0	-0.3753	**0.518**	**0.47**	25	**0.1**	**1.6**
SS4 / Fill1.5	0	0	1.5	0	4	0	-4	-2	1.5	12	25.5	1	0.03	1.9	0	-0.4857	**0.670**	**0.60**	25	**0.1**	**1.6**
SS4 / Fill2	0	0	2	0	4	0	-4	-2	2	12	34	1	0.03	1.9	0	-0.5736	**0.791**	**0.71**	25	**0.1**	**1.6**
SS4 / Fill2.5	0	0	2.5	0	4	0	-4	-2	2.5	12	42.5	1	0.03	1.9	0	-0.6467	**0.892**	**0.80**	25	**0.1**	**1.6**
SS4 / Fill3	0	0	3	0	4	0	-4	-2	3	12	51	1	0.03	1.9	0	-0.7092	**0.978**	**0.88**	25	**0.1**	**1.6**
SS4 / Fill3.5	0	0	3.5	0	4	0	-4	-2	3.5	12	59.5	1	0.03	1.9	0	-0.7639	**1.054**	**0.95**	25	**0.1**	**1.6**
SS4 / Fill4	0	0	4	0	4	0	-4	-2	4	12	68	1	0.03	1.9	0	-0.8124	**1.121**	**1.01**	25	**0.1**	**1.6**
SS4.5 / Fill0.5	0	0	0.5	0	4.5	0	-4.5	-2.25	0.5	14	8.5	1	0.03	1.9	0	-0.2069	**0.321**	**0.29**	25	**0.2**	**2.1**
SS4.5 / Fill1	0	0	1	0	4.5	0	-4.5	-2.25	1	14	17	1	0.03	1.9	0	-0.3465	**0.538**	**0.48**	25	**0.2**	**2.1**
SS4.5 / Fill1.5	0	0	1.5	0	4.5	0	-4.5	-2.25	1.5	14	25.5	1	0.03	1.9	0	-0.4519	**0.701**	**0.63**	25	**0.2**	**2.1**
SS4.5 / Fill2	0	0	2	0	4.5	0	-4.5	-2.25	2	14	34	1	0.03	1.9	0	-0.5367	**0.833**	**0.75**	25	**0.2**	**2.1**
SS4.5 / Fill2.5	0	0	2.5	0	4.5	0	-4.5	-2.25	2.5	14	42.5	1	0.03	1.9	0	-0.6076	**0.943**	**0.85**	25	**0.2**	**2.1**
SS4.5 / Fill3	0	0	3	0	4.5	0	-4.5	-2.25	3	14	51	1	0.03	1.9	0	-0.6686	**1.037**	**0.93**	25	**0.2**	**2.1**
SS4.5 / Fill3.5	0	0	3.5	0	4.5	0	-4.5	-2.25	3.5	14	59.5	1	0.03	1.9	0	-0.7220	**1.120**	**1.01**	25	**0.2**	**2.1**
SS4.5 / Fill4	0	0	4	0	4.5	0	-4.5	-2.25	4	14	68	1	0.03	1.9	0	-0.7696	**1.194**	**1.07**	25	**0.2**	**2.1**
SS5 / Fill0.5	0	0	0.5	0	5	0	-5	-2.5	0.5	15	8.5	1	0.03	1.9	0	-0.1901	**0.328**	**0.30**	25	**0.2**	**2.5**
SS5 / Fill1	0	0	1	0	5	0	-5	-2.5	1	15	17	1	0.03	1.9	0	-0.3219	**0.555**	**0.50**	25	**0.2**	**2.5**
SS5 / Fill1.5	0	0	1.5	0	5	0	-5	-2.5	1.5	15	25.5	1	0.03	1.9	0	-0.4229	**0.729**	**0.66**	25	**0.2**	**2.5**
SS5 / Fill2	0	0	2	0	5	0	-5	-2.5	2	15	34	1	0.03	1.9	0	-0.5048	**0.870**	**0.78**	25	**0.2**	**2.5**
SS5 / Fill2.5	0	0	2.5	0	5	0	-5	-2.5	2.5	15	42.5	1	0.03	1.9	0	-0.5736	**0.989**	**0.89**	25	**0.2**	**2.5**
SS5 / Fill3	0	0	3	0	5	0	-5	-2.5	3	15	51	1	0.03	1.9	0	-0.6330	**1.091**	**0.98**	25	**0.2**	**2.5**
SS5 / Fill3.5	0	0	3.5	0	5	0	-5	-2.5	3.5	15	59.5	1	0.03	1.9	0	-0.6853	**1.182**	**1.06**	25	**0.2**	**2.5**
SS5 / Fill4	0	0	4	0	5	0	-5	-2.5	4	15	68	1	0.03	1.9	0	-0.7319	**1.262**	**1.14**	25	**0.2**	**2.5**
SS5.5 / Fill0.5	0	0	0.5	0	5.5	0	-5.5	-2.75	0.5	17	8.5	1	0.03	1.9	0	-0.1759	**0.334**	**0.30**	25	**0.3**	**3.1**
SS5.5 / Fill1	0	0	1	0	5.5	0	-5.5	-2.75	1	17	17	1	0.03	1.9	0	-0.3007	**0.570**	**0.51**	25	**0.3**	**3.1**
SS5.5 / Fill1.5	0	0	1.5	0	5.5	0	-5.5	-2.75	1.5	17	25.5	1	0.03	1.9	0	-0.3976	**0.754**	**0.68**	25	**0.3**	**3.1**
SS5.5 / Fill2	0	0	2	0	5.5	0	-5.5	-2.75	2	17	34	1	0.03	1.9	0	-0.4767	**0.904**	**0.81**	25	**0.3**	**3.1**
SS5.5 / Fill2.5	0	0	2.5	0	5.5	0	-5.5	-2.75	2.5	17	42.5	1	0.03	1.9	0	-0.5437	**1.031**	**0.93**	25	**0.3**	**3.1**
SS5.5 / Fill3	0	0	3	0	5.5	0	-5.5	-2.75	3	17	51	1	0.03	1.9	0	-0.6016	**1.141**	**1.03**	25	**0.3**	**3.1**
SS5.5 / Fill3.5	0	0	3.5	0	5.5	0	-5.5	-2.75	3.5	17	59.5	1	0.03	1.9	0	-0.6528	**1.238**	**1.11**	25	**0.3**	**3.1**
SS5.5 / Fill4	0	0	4	0	5.5	0	-5.5	-2.75	4	17	68	1	0.03	1.9	0	-0.6985	**1.325**	**1.19**	25	**0.3**	**3.1**
SS6 / Fill0.5	0	0	0.5	0	6	0	-6	-3	0.5	19	8.5	1	0.03	1.9	0	-0.1637	**0.339**	**0.30**	25	**0.3**	**3.7**
SS6 / Fill1	0	0	1	0	6	0	-6	-3	1	19	17	1	0.03	1.9	0	-0.2823	**0.584**	**0.53**	25	**0.3**	**3.7**
SS6 / Fill1.5	0	0	1.5	0	6	0	-6	-3	1.5	19	25.5	1	0.03	1.9	0	-0.3753	**0.777**	**0.70**	25	**0.3**	**3.7**
SS6 / Fill2	0	0	2	0	6	0	-6	-3	2	19	34	1	0.03	1.9	0	-0.4519	**0.935**	**0.84**	25	**0.3**	**3.7**
SS6 / Fill2.5	0	0	2.5	0	6	0	-6	-3	2.5	19	42.5	1	0.03	1.9	0	-0.5170	**1.070**	**0.96**	25	**0.3**	**3.7**
SS6 / Fill3	0	0	3	0	6	0	-6	-3	3	19	51	1	0.03	1.9	0	-0.5736	**1.187**	**1.07**	25	**0.3**	**3.7**
SS6 / Fill3.5	0	0	3.5	0	6	0	-6	-3	3.5	19	59.5	1	0.03	1.9	0	-0.6237	**1.290**	**1.16**	25	**0.3**	**3.7**
SS6 / Fill4	0	0	4	0	6	0	-6	-3	4	19	68	1	0.03	1.9	0	-0.6686	**1.383**	**1.24**	25	**0.3**	**3.7**
SS6.5 / Fill0.5	0	0	0.5	0	6.5	0	-6.5	-3.25	0.5	20	8.5	1	0.03	1.9	0	-0.1531	**0.343**	**0.31**	25	**0.4**	**4.3**
SS6.5 / Fill1	0	0	1	0	6.5	0	-6.5	-3.25	1	20	17	1	0.03	1.9	0	-0.2660	**0.596**	**0.54**	25	**0.4**	**4.3**
SS6.5 / Fill1.5	0	0	1.5	0	6.5	0	-6.5	-3.25	1.5	20	25.5	1	0.03	1.9	0	-0.3556	**0.797**	**0.72**	25	**0.4**	**4.3**
SS6.5 / Fill2	0	0	2	0	6.5	0	-6.5	-3.25	2	20	34	1	0.03	1.9	0	-0.4298	**0.963**	**0.87**	25	**0.4**	**4.3**
SS6.5 / Fill2.5	0	0	2.5	0	6.5	0	-6.5	-3.25	2.5	20	42.5	1	0.03	1.9	0	-0.4931	**1.105**	**0.99**	25	**0.4**	**4.3**
SS6.5 / Fill3	0	0	3	0	6.5	0	-6.5	-3.25	3	20	51	1	0.03	1.9	0	-0.5484	**1.229**	**1.11**	25	**0.4**	**4.3**
SS6.5 / Fill3.5	0	0	3.5	0	6.5	0	-6.5	-3.25	3.5	20	59.5	1	0.03	1.9	0	-0.5974	**1.339**	**1.21**	25	**0.4**	**4.3**
SS6.5 / Fill4	0	0	4	0	6.5	0	-6.5	-3.25	4	20	68	1	0.03	1.9	0	-0.6415	**1.438**	**1.29**	25	**0.4**	**4.3**
SS7 / Fill0.5	0	0	0.5	0	7	0	-7	-3.5	0.5	22	8.5	1	0.03	1.9	0	-0.1437	**0.347**	**0.31**	25	**0.4**	**5.0**
SS7 / Fill1	0	0	1	0	7	0	-7	-3.5	1	22	17	1	0.03	1.9	0	-0.2516	**0.607**	**0.55**	25	**0.4**	**5.0**
SS7 / Fill1.5	0	0	1.5	0	7	0	-7	-3.5	1.5	22	25.5	1	0.03	1.9	0	-0.3379	**0.816**	**0.73**	25	**0.4**	**5.0**
SS7 / Fill2	0	0	2	0	7	0	-7	-3.5	2	22	34	1	0.03	1.9	0	-0.4098	**0.989**	**0.89**	25	**0.4**	**5.0**
SS7 / Fill2.5	0	0	2.5	0	7	0	-7	-3.5	2.5	22	42.5	1	0.03	1.9	0	-0.4715	**1.138**	**1.02**	25	**0.4**	**5.0**
SS7 / Fill3	0	0	3	0	7	0	-7	-3.5	3	22	51	1	0.03	1.9	0	-0.5256	**1.269**	**1.14**	25	**0.4**	**5.0**
SS7 / Fill3.5	0	0	3.5	0	7	0	-7	-3.5	3.5	22	59.5	1	0.03	1.9	0	-0.5736	**1.385**	**1.25**	25	**0.4**	**5.0**
SS7 / Fill4	0	0	4	0	7	0	-7	-3.5	4	22	68	1	0.03	1.9	0	-0.6169	**1.489**	**1.34**	25	**0.4**	**5.0**
SS7.5 / Fill0.5	0	0	0.5	0	7.5	0	-7.5	-3.75	0.5	23	8.5	1	0.03	1.9	0	-0.1355	**0.350**	**0.32**	25	**0.5**	**5.7**
SS7.5 / Fill1	0	0	1	0	7.5	0	-7.5	-3.75	1	23	17	1	0.03	1.9	0	-0.2386	**0.617**	**0.56**	25	**0.5**	**5.7**
SS7.5 / Fill1.5	0	0	1.5	0	7.5	0	-7.5	-3.75	1.5	23	25.5	1	0.03	1.9	0	-0.3219	**0.833**	**0.75**	25	**0.5**	**5.7**
SS7.5 / Fill2	0	0	2	0	7.5	0	-7.5	-3.75	2	23	34	1	0.03	1.9	0	-0.3918	**1.013**	**0.91**	25	**0.5**	**5.7**
SS7.5 / Fill2.5	0	0	2.5	0	7.5	0	-7.5	-3.75	2.5	23	42.5	1	0.03	1.9	0	-0.4519	**1.169**	**1.05**	25	**0.5**	**5.7**
SS7.5 / Fill3	0	0	3	0	7.5	0	-7.5	-3.75	3	23	51	1	0.03	1.9	0	-0.5048	**1.305**	**1.17**	25	**0.5**	**5.7**
SS7.5 / Fill3.5	0	0	3.5	0	7.5	0	-7.5	-3.75	3.5	23	59.5	1	0.03	1.9	0	-0.5518	**1.427**	**1.28**	25	**0.5**	**5.7**
SS7.5 / Fill4	0	0	4	0	7.5	0	-7.5	-3.75	4	23	68	1	0.03	1.9	0	-0.5943	**1.537**	**1.38**	25	**0.5**	**5.7**
SS8 / Fill0.5	0	0	0.5	0	8	0	-8	-4	0.5	25	8.5	1	0.03	1.9	0	-0.1282	**0.354**	**0.32**	25	**0.5**	**6.5**
SS8 / Fill1	0	0	1	0	8	0	-8	-4	1	25	17	1	0.03	1.9	0	-0.2270	**0.626**	**0.56**	25	**0.5**	**6.5**
SS8 / Fill1.5	0	0	1.5	0	8	0	-8	-4	1.5	25	25.5	1	0.03	1.9	0	-0.3075	**0.848**	**0.76**	25	**0.5**	**6.5**
SS8 / Fill2	0	0	2	0	8	0	-8	-4	2	25	34	1	0.03	1.9	0	-0.3753	**1.035**	**0.93**	25	**0.5**	**6.5**
SS8 / Fill2.5	0	0	2.5	0	8	0	-8	-4	2.5	25	42.5	1	0.03	1.9	0	-0.4340	**1.197**	**1.08**	25	**0.5**	**6.5**
SS8 / Fill3	0	0	3	0	8	0	-8	-4	3	25	51	1	0.03	1.9	0	-0.4857	**1.340**	**1.21**	25	**0.5**	**6.5**
SS8 / Fill3.5	0	0	3.5	0	8	0	-8	-4	3.5	25	59.5	1	0.03	1.9	0	-0.5319	**1.467**	**1.32**	25	**0.5**	**6.5**
SS8 / Fill4	0	0	4	0	8	0	-8	-4	4	25	68	1	0.03	1.9	0	-0.5736	**1.582**	**1.42**	25	**0.5**	**6.5**
SS8.5 / Fill0.5	0	0	0.5	0	8.5	0	-8.5	-4.25	0.5	26	8.5	1	0.03	1.9	0	-0.1216	**0.356**	**0.32**	25	**0.6**	**7.4**
SS8.5 / Fill1	0	0	1	0	8.5	0	-8.5	-4.25	1	26	17	1	0.03	1.9	0	-0.2165	**0.635**	**0.57**	25	**0.6**	**7.4**
SS8.5 / Fill1.5	0	0	1.5	0	8.5	0	-8.5	-4.25	1.5	26	25.5	1	0.03	1.9	0	-0.2943	**0.863**	**0.78**	25	**0.6**	**7.4**
SS8.5 / Fill2	0	0	2	0	8.5	0	-8.5	-4.25	2	26	34	1	0.03	1.9	0	-0.3603	**1.056**	**0.95**	25	**0.6**	**7.4**
SS8.5 / Fill2.5	0	0	2.5	0	8.5	0	-8.5	-4.25	2.5	26	42.5	1	0.03	1.9	0	-0.4176	**1.224**	**1.10**	25	**0.6**	**7.4**
SS8.5 / Fill3	0	0	3	0	8.5	0	-8.5	-4.25	3	26	51	1	0.03	1.9	0	-0.4681	**1.372**	**1.23**	25	**0.6**	**7.4**
SS8.5 / Fill3.5	0	0	3.5	0	8.5	0	-8.5	-4.25	3.5	26	59.5	1	0.03	1.9	0	-0.5134	**1.505**	**1.35**	25	**0.6**	**7.4**
SS8.5 / Fill4	0	0	4	0	8.5	0	-8.5	-4.25	4	26	68	1	0.03	1.9	0	-0.5545	**1.625**	**1.46**	25	**0.6**	**7.4**

SS9 / Fill0.5	0	0	0.5	0	9	0	-9	-4.5	0.5	28	8.5	1	0.03	1.9	0	-0.1157	**0.359**	**0.32**	25	**0.7**	**8.2**
SS9 / Fill1	0	0	1	0	9	0	-9	-4.5	1	28	17	1	0.03	1.9	0	-0.2069	**0.642**	**0.58**	25	**0.7**	**8.2**
SS9 / Fill1.5	0	0	1.5	0	9	0	-9	-4.5	1.5	28	25.5	1	0.03	1.9	0	-0.2823	**0.876**	**0.79**	25	**0.7**	**8.2**
SS9 / Fill2	0	0	2	0	9	0	-9	-4.5	2	28	34	1	0.03	1.9	0	-0.3465	**1.075**	**0.97**	25	**0.7**	**8.2**
SS9 / Fill2.5	0	0	2.5	0	9	0	-9	-4.5	2.5	28	42.5	1	0.03	1.9	0	-0.4024	**1.249**	**1.12**	25	**0.7**	**8.2**
SS9 / Fill3	0	0	3	0	9	0	-9	-4.5	3	28	51	1	0.03	1.9	0	-0.4519	**1.403**	**1.26**	25	**0.7**	**8.2**
SS9 / Fill3.5	0	0	3.5	0	9	0	-9	-4.5	3.5	28	59.5	1	0.03	1.9	0	-0.4964	**1.541**	**1.39**	25	**0.7**	**8.2**
SS9 / Fill4	0	0	4	0	9	0	-9	-4.5	4	28	68	1	0.03	1.9	0	-0.5367	**1.666**	**1.50**	25	**0.7**	**8.2**
SS9.5 / Fill0.5	0	0	0.5	0	9.5	0	-9.5	-4.75	0.5	29	8.5	1	0.03	1.9	0	-0.1103	**0.361**	**0.33**	25	**0.8**	**9.2**
SS9.5 / Fill1	0	0	1	0	9.5	0	-9.5	-4.75	1	29	17	1	0.03	1.9	0	-0.1982	**0.649**	**0.58**	25	**0.8**	**9.2**
SS9.5 / Fill1.5	0	0	1.5	0	9.5	0	-9.5	-4.75	1.5	29	25.5	1	0.03	1.9	0	-0.2712	**0.888**	**0.80**	25	**0.8**	**9.2**
SS9.5 / Fill2	0	0	2	0	9.5	0	-9.5	-4.75	2	29	34	1	0.03	1.9	0	-0.3337	**1.093**	**0.98**	25	**0.8**	**9.2**
SS9.5 / Fill2.5	0	0	2.5	0	9.5	0	-9.5	-4.75	2.5	29	42.5	1	0.03	1.9	0	-0.3884	**1.272**	**1.14**	25	**0.8**	**9.2**
SS9.5 / Fill3	0	0	3	0	9.5	0	-9.5	-4.75	3	29	51	1	0.03	1.9	0	-0.4369	**1.431**	**1.29**	25	**0.8**	**9.2**
SS9.5 / Fill3.5	0	0	3.5	0	9.5	0	-9.5	-4.75	3.5	29	59.5	1	0.03	1.9	0	-0.4805	**1.574**	**1.42**	25	**0.8**	**9.2**
SS9.5 / Fill4	0	0	4	0	9.5	0	-9.5	-4.75	4	29	68	1	0.03	1.9	0	-0.5202	**1.704**	**1.53**	25	**0.8**	**9.2**
SS10 / Fill0.5	0	0	0.5	0	10	0	-10	-5	0.5	31	8.5	1	0.03	1.9	0	-0.1054	**0.363**	**0.33**	25	**0.8**	**10.2**
SS10 / Fill1	0	0	1	0	10	0	-10	-5	1	31	17	1	0.03	1.9	0	-0.1901	**0.656**	**0.59**	25	**0.8**	**10.2**
SS10 / Fill1.5	0	0	1.5	0	10	0	-10	-5	1.5	31	25.5	1	0.03	1.9	0	-0.2610	**0.900**	**0.81**	25	**0.8**	**10.2**
SS10 / Fill2	0	0	2	0	10	0	-10	-5	2	31	34	1	0.03	1.9	0	-0.3219	**1.110**	**1.00**	25	**0.8**	**10.2**
SS10 / Fill2.5	0	0	2.5	0	10	0	-10	-5	2.5	31	42.5	1	0.03	1.9	0	-0.3753	**1.294**	**1.16**	25	**0.8**	**10.2**
SS10 / Fill3	0	0	3	0	10	0	-10	-5	3	31	51	1	0.03	1.9	0	-0.4229	**1.458**	**1.31**	25	**0.8**	**10.2**
SS10 / Fill3.5	0	0	3.5	0	10	0	-10	-5	3.5	31	59.5	1	0.03	1.9	0	-0.4657	**1.606**	**1.45**	25	**0.8**	**10.2**
SS10 / Fill4	0	0	4	0	10	0	-10	-5	4	31	68	1	0.03	1.9	0	-0.5048	**1.741**	**1.57**	25	**0.8**	**10.2**
SS10.5 / Fill0.5	0	0	0.5	0	10.5	0	-10.5	-5.25	0.5	32	8.5	1	0.03	1.9	0	-0.1009	**0.365**	**0.33**	25	**0.9**	**11.2**
SS10.5 / Fill1	0	0	1	0	10.5	0	-10.5	-5.25	1	32	17	1	0.03	1.9	0	-0.1827	**0.662**	**0.60**	25	**0.9**	**11.2**
SS10.5 / Fill1.5	0	0	1.5	0	10.5	0	-10.5	-5.25	1.5	32	25.5	1	0.03	1.9	0	-0.2516	**0.911**	**0.82**	25	**0.9**	**11.2**
SS10.5 / Fill2	0	0	2	0	10.5	0	-10.5	-5.25	2	32	34	1	0.03	1.9	0	-0.3110	**1.126**	**1.01**	25	**0.9**	**11.2**
SS10.5 / Fill2.5	0	0	2.5	0	10.5	0	-10.5	-5.25	2.5	32	42.5	1	0.03	1.9	0	-0.3632	**1.315**	**1.18**	25	**0.9**	**11.2**
SS10.5 / Fill3	0	0	3	0	10.5	0	-10.5	-5.25	3	32	51	1	0.03	1.9	0	-0.4098	**1.484**	**1.34**	25	**0.9**	**11.2**
SS10.5 / Fill3.5	0	0	3.5	0	10.5	0	-10.5	-5.25	3.5	32	59.5	1	0.03	1.9	0	-0.4519	**1.636**	**1.47**	25	**0.9**	**11.2**
SS10.5 / Fill4	0	0	4	0	10.5	0	-10.5	-5.25	4	32	68	1	0.03	1.9	0	-0.4903	**1.775**	**1.60**	25	**0.9**	**11.2**
SS11 / Fill0.5	0	0	0.5	0	11	0	-11	-5.5	0.5	34	8.5	1	0.03	1.9	0	-0.0968	**0.367**	**0.33**	25	**1.0**	**12.3**
SS11 / Fill1	0	0	1	0	11	0	-11	-5.5	1	34	17	1	0.03	1.9	0	-0.1759	**0.667**	**0.60**	25	**1.0**	**12.3**
SS11 / Fill1.5	0	0	1.5	0	11	0	-11	-5.5	1.5	34	25.5	1	0.03	1.9	0	-0.2428	**0.921**	**0.83**	25	**1.0**	**12.3**
SS11 / Fill2	0	0	2	0	11	0	-11	-5.5	2	34	34	1	0.03	1.9	0	-0.3007	**1.141**	**1.03**	25	**1.0**	**12.3**
SS11 / Fill2.5	0	0	2.5	0	11	0	-11	-5.5	2.5	34	42.5	1	0.03	1.9	0	-0.3519	**1.335**	**1.20**	25	**1.0**	**12.3**
SS11 / Fill3	0	0	3	0	11	0	-11	-5.5	3	34	51	1	0.03	1.9	0	-0.3976	**1.508**	**1.36**	25	**1.0**	**12.3**
SS11 / Fill3.5	0	0	3.5	0	11	0	-11	-5.5	3.5	34	59.5	1	0.03	1.9	0	-0.4390	**1.665**	**1.50**	25	**1.0**	**12.3**
SS11 / Fill4	0	0	4	0	11	0	-11	-5.5	4	34	68	1	0.03	1.9	0	-0.4767	**1.808**	**1.63**	25	**1.0**	**12.3**
SS11.5 / Fill0.5	0	0	0.5	0	11.5	0	-11.5	-5.75	0.5	36	8.5	1	0.03	1.9	0	-0.0930	**0.369**	**0.33**	25	**1.1**	**13.5**
SS11.5 / Fill1	0	0	1	0	11.5	0	-11.5	-5.75	1	36	17	1	0.03	1.9	0	-0.1696	**0.672**	**0.61**	25	**1.1**	**13.5**
SS11.5 / Fill1.5	0	0	1.5	0	11.5	0	-11.5	-5.75	1.5	36	25.5	1	0.03	1.9	0	-0.2346	**0.930**	**0.84**	25	**1.1**	**13.5**
SS11.5 / Fill2	0	0	2	0	11.5	0	-11.5	-5.75	2	36	34	1	0.03	1.9	0	-0.2912	**1.155**	**1.04**	25	**1.1**	**13.5**
SS11.5 / Fill2.5	0	0	2.5	0	11.5	0	-11.5	-5.75	2.5	36	42.5	1	0.03	1.9	0	-0.3413	**1.353**	**1.22**	25	**1.1**	**13.5**
SS11.5 / Fill3	0	0	3	0	11.5	0	-11.5	-5.75	3	36	51	1	0.03	1.9	0	-0.3861	**1.531**	**1.38**	25	**1.1**	**13.5**
SS11.5 / Fill3.5	0	0	3.5	0	11.5	0	-11.5	-5.75	3.5	36	59.5	1	0.03	1.9	0	-0.4268	**1.692**	**1.52**	25	**1.1**	**13.5**
SS11.5 / Fill4	0	0	4	0	11.5	0	-11.5	-5.75	4	36	68	1	0.03	1.9	0	-0.4640	**1.840**	**1.66**	25	**1.1**	**13.5**
SS12 / Fill0.5	0	0	0.5	0	12	0	-12	-6	0.5	37	8.5	1	0.03	1.9	0	-0.0895	**0.370**	**0.33**	25	**1.2**	**14.7**
SS12 / Fill1	0	0	1	0	12	0	-12	-6	1	37	17	1	0.03	1.9	0	-0.1637	**0.677**	**0.61**	25	**1.2**	**14.7**
SS12 / Fill1.5	0	0	1.5	0	12	0	-12	-6	1.5	37	25.5	1	0.03	1.9	0	-0.2270	**0.939**	**0.85**	25	**1.2**	**14.7**
SS12 / Fill2	0	0	2	0	12	0	-12	-6	2	37	34	1	0.03	1.9	0	-0.2823	**1.168**	**1.05**	25	**1.2**	**14.7**
SS12 / Fill2.5	0	0	2.5	0	12	0	-12	-6	2.5	37	42.5	1	0.03	1.9	0	-0.3313	**1.371**	**1.23**	25	**1.2**	**14.7**
SS12 / Fill3	0	0	3	0	12	0	-12	-6	3	37	51	1	0.03	1.9	0	-0.3753	**1.553**	**1.40**	25	**1.2**	**14.7**
SS12 / Fill3.5	0	0	3.5	0	12	0	-12	-6	3.5	37	59.5	1	0.03	1.9	0	-0.4153	**1.719**	**1.55**	25	**1.2**	**14.7**
SS12 / Fill4	0	0	4	0	12	0	-12	-6	4	37	68	1	0.03	1.9	0	-0.4519	**1.870**	**1.68**	25	**1.2**	**14.7**

2. Mesri Creep Settlement - (Mesri et al (1994) and Mesri & Ajlouni (2007))

Assumed Ca/Cc = 0.06
Time = 100 years

Scenario	H	Ca	ep	Creep (mm)
SS0.5 / Fill0.5	0.360	0.06	1.0876	48
SS0.5 / Fill1	0.314	0.06	0.8213	48
SS0.5 / Fill1.5	0.286	0.06	0.6575	48
SS0.5 / Fill2	0.265	0.06	0.5388	48
SS0.5 / Fill2.5	0.249	0.06	0.4457	48
SS0.5 / Fill3	0.236	0.06	0.3691	48
SS0.5 / Fill3.5	0.225	0.06	0.3040	48
SS0.5 / Fill4	0.215	0.06	0.2473	48
SS1 / Fill0.5	0.802	0.06	1.3264	84
SS1 / Fill1	0.720	0.06	1.0876	84
SS1 / Fill1.5	0.667	0.06	0.9344	84
SS1 / Fill2	0.628	0.06	0.8213	84
SS1 / Fill2.5	0.597	0.06	0.7317	84
SS1 / Fill3	0.572	0.06	0.6575	84
SS1 / Fill3.5	0.550	0.06	0.5941	84
SS1 / Fill4	0.531	0.06	0.5388	84
SS1.5 / Fill0.5	1.266	0.06	1.4481	115
SS1.5 / Fill1	1.154	0.06	1.2314	115
SS1.5 / Fill1.5	1.080	0.06	1.0876	115
SS1.5 / Fill2	1.024	0.06	0.9797	115
SS1.5 / Fill2.5	0.979	0.06	0.8933	115
SS1.5 / Fill3	0.942	0.06	0.8213	115
SS1.5 / Fill3.5	0.910	0.06	0.7596	115
SS1.5 / Fill4	0.882	0.06	0.7056	115
SS2 / Fill0.5	1.741	0.06	1.5247	144
SS2 / Fill1	1.604	0.06	1.3264	144
SS2 / Fill1.5	1.511	0.06	1.1908	144
SS2 / Fill2	1.440	0.06	1.0876	144
SS2 / Fill2.5	1.382	0.06	1.0043	144
SS2 / Fill3	1.334	0.06	0.9344	144
SS2 / Fill3.5	1.293	0.06	0.8742	144
SS2 / Fill4	1.256	0.06	0.8213	144
SS2.5 / Fill0.5	2.222	0.06	1.5781	169
SS2.5 / Fill1	2.065	0.06	1.3952	169
SS2.5 / Fill1.5	1.954	0.06	1.2670	169
SS2.5 / Fill2	1.869	0.06	1.1681	169
SS2.5 / Fill2.5	1.800	0.06	1.0876	169
SS2.5 / Fill3	1.741	0.06	1.0197	169
SS2.5 / Fill3.5	1.691	0.06	0.9610	169
SS2.5 / Fill4	1.646	0.06	0.9093	169
SS3 / Fill0.5	2.708	0.06	1.6177	193
SS3 / Fill1	2.532	0.06	1.4481	193
SS3 / Fill1.5	2.407	0.06	1.3264	193
SS3 / Fill2	2.308	0.06	1.2314	193
SS3 / Fill2.5	2.228	0.06	1.1536	193
SS3 / Fill3	2.160	0.06	1.0876	193
SS3 / Fill3.5	2.100	0.06	1.0303	193
SS3 / Fill4	2.048	0.06	0.9797	193
SS3.5 / Fill0.5	3.196	0.06	1.6484	216
SS3.5 / Fill1	3.005	0.06	1.4902	216
SS3.5 / Fill1.5	2.866	0.06	1.3744	216
SS3.5 / Fill2	2.756	0.06	1.2831	216
SS3.5 / Fill2.5	2.665	0.06	1.2077	216
SS3.5 / Fill3	2.587	0.06	1.1435	216
SS3.5 / Fill3.5	2.519	0.06	1.0876	216
SS3.5 / Fill4	2.460	0.06	1.0380	216
SS4 / Fill0.5	3.687	0.06	1.6730	237
SS4 / Fill1	3.482	0.06	1.5247	237
SS4 / Fill1.5	3.330	0.06	1.4143	237
SS4 / Fill2	3.209	0.06	1.3264	237
SS4 / Fill2.5	3.108	0.06	1.2533	237
SS4 / Fill3	3.022	0.06	1.1908	237
SS4 / Fill3.5	2.946	0.06	1.1361	237
SS4 / Fill4	2.879	0.06	1.0876	237
SS4.5 / Fill0.5	4.179	0.06	1.6931	257
SS4.5 / Fill1	3.962	0.06	1.5535	257
SS4.5 / Fill1.5	3.799	0.06	1.4481	257
SS4.5 / Fill2	3.667	0.06	1.3633	257
SS4.5 / Fill2.5	3.557	0.06	1.2924	257
SS4.5 / Fill3	3.463	0.06	1.2314	257
SS4.5 / Fill3.5	3.380	0.06	1.1780	257
SS4.5 / Fill4	3.306	0.06	1.1304	257
SS5 / Fill0.5	4.672	0.06	1.7099	277
SS5 / Fill1	4.445	0.06	1.5781	277
SS5 / Fill1.5	4.271	0.06	1.4771	277
SS5 / Fill2	4.130	0.06	1.3952	277
SS5 / Fill2.5	4.011	0.06	1.3264	277
SS5 / Fill3	3.909	0.06	1.2670	277
SS5 / Fill3.5	3.818	0.06	1.2147	277
SS5 / Fill4	3.738	0.06	1.1681	277
SS5.5 / Fill0.5	5.166	0.06	1.7241	295
SS5.5 / Fill1	4.930	0.06	1.5993	295
SS5.5 / Fill1.5	4.746	0.06	1.5024	295
SS5.5 / Fill2	4.596	0.06	1.4233	295
SS5.5 / Fill2.5	4.469	0.06	1.3563	295
SS5.5 / Fill3	4.359	0.06	1.2984	295
SS5.5 / Fill3.5	4.262	0.06	1.2472	295
SS5.5 / Fill4	4.175	0.06	1.2015	295
SS6 / Fill0.5	5.661	0.06	1.7363	312
SS6 / Fill1	5.416	0.06	1.6177	312
SS6 / Fill1.5	5.223	0.06	1.5247	312
SS6 / Fill2	5.065	0.06	1.4481	312
SS6 / Fill2.5	4.930	0.06	1.3830	312
SS6 / Fill3	4.813	0.06	1.3264	312
SS6 / Fill3.5	4.710	0.06	1.2763	312
SS6 / Fill4	4.617	0.06	1.2314	312
SS6.5 / Fill0.5	6.157	0.06	1.7469	329
SS6.5 / Fill1	5.904	0.06	1.6340	329
SS6.5 / Fill1.5	5.703	0.06	1.5444	329
SS6.5 / Fill2	5.537	0.06	1.4702	329
SS6.5 / Fill2.5	5.395	0.06	1.4069	329
SS6.5 / Fill3	5.271	0.06	1.3516	329
SS6.5 / Fill3.5	5.161	0.06	1.3026	329
SS6.5 / Fill4	5.062	0.06	1.2585	329
SS7 / Fill0.5	6.653	0.06	1.7563	345
SS7 / Fill1	6.393	0.06	1.6484	345
SS7 / Fill1.5	6.184	0.06	1.5621	345
SS7 / Fill2	6.011	0.06	1.4902	345
SS7 / Fill2.5	5.862	0.06	1.4285	345
SS7 / Fill3	5.731	0.06	1.3744	345
SS7 / Fill3.5	5.615	0.06	1.3264	345
SS7 / Fill4	5.511	0.06	1.2831	345
SS7.5 / Fill0.5	7.150	0.06	1.7645	360
SS7.5 / Fill1	6.883	0.06	1.6614	360
SS7.5 / Fill1.5	6.667	0.06	1.5781	360
SS7.5 / Fill2	6.487	0.06	1.5082	360
SS7.5 / Fill2.5	6.331	0.06	1.4481	360
SS7.5 / Fill3	6.195	0.06	1.3952	360
SS7.5 / Fill3.5	6.073	0.06	1.3482	360
SS7.5 / Fill4	5.963	0.06	1.3057	360
SS8 / Fill0.5	7.646	0.06	1.7718	375
SS8 / Fill1	7.374	0.06	1.6730	375
SS8 / Fill1.5	7.152	0.06	1.5925	375
SS8 / Fill2	6.965	0.06	1.5247	375
SS8 / Fill2.5	6.803	0.06	1.4660	375
SS8 / Fill3	6.660	0.06	1.4143	375
SS8 / Fill3.5	6.533	0.06	1.3681	375
SS8 / Fill4	6.418	0.06	1.3264	375
SS8.5 / Fill0.5	8.144	0.06	1.7784	389
SS8.5 / Fill1	7.865	0.06	1.6835	389
SS8.5 / Fill1.5	7.637	0.06	1.6057	389
SS8.5 / Fill2	7.444	0.06	1.5397	389
SS8.5 / Fill2.5	7.276	0.06	1.4824	389
SS8.5 / Fill3	7.128	0.06	1.4319	389
SS8.5 / Fill3.5	6.995	0.06	1.3866	389
SS8.5 / Fill4	6.875	0.06	1.3455	389
SS9 / Fill0.5	8.641	0.06	1.7843	403
SS9 / Fill1	8.358	0.06	1.6931	403
SS9 / Fill1.5	8.124	0.06	1.6177	403
SS9 / Fill2	7.925	0.06	1.5535	403
SS9 / Fill2.5	7.751	0.06	1.4976	403
SS9 / Fill3	7.597	0.06	1.4481	403
SS9 / Fill3.5	7.459	0.06	1.4036	403
SS9 / Fill4	7.334	0.06	1.3633	403

SS9.5 / Fill0.5	9.139	0.06	1.7897	416
SS9.5 / Fill1	8.851	0.06	1.7018	416
SS9.5 / Fill1.5	8.612	0.06	1.6288	416
SS9.5 / Fill2	8.407	0.06	1.5663	416
SS9.5 / Fill2.5	8.228	0.06	1.5116	416
SS9.5 / Fill3	8.069	0.06	1.4631	416
SS9.5 / Fill3.5	7.926	0.06	1.4195	416
SS9.5 / Fill4	7.796	0.06	1.3798	416
SS10 / Fill0.5	9.637	0.06	1.7946	429
SS10 / Fill1	9.344	0.06	1.7099	429
SS10 / Fill1.5	9.100	0.06	1.6390	429
SS10 / Fill2	8.890	0.06	1.5781	429
SS10 / Fill2.5	8.706	0.06	1.5247	429
SS10 / Fill3	8.542	0.06	1.4771	429
SS10 / Fill3.5	8.394	0.06	1.4343	429
SS10 / Fill4	8.259	0.06	1.3952	429
SS10.5 / Fill0.5	10.135	0.06	1.7991	441
SS10.5 / Fill1	9.838	0.06	1.7173	441
SS10.5 / Fill1.5	9.589	0.06	1.6484	441
SS10.5 / Fill2	9.374	0.06	1.5890	441
SS10.5 / Fill2.5	9.185	0.06	1.5368	441
SS10.5 / Fill3	9.016	0.06	1.4902	441
SS10.5 / Fill3.5	8.864	0.06	1.4481	441
SS10.5 / Fill4	8.725	0.06	1.4097	441
SS11 / Fill0.5	10.633	0.06	1.8032	453
SS11 / Fill1	10.333	0.06	1.7241	453
SS11 / Fill1.5	10.079	0.06	1.6572	453
SS11 / Fill2	9.859	0.06	1.5993	453
SS11 / Fill2.5	9.665	0.06	1.5481	453
SS11 / Fill3	9.492	0.06	1.5024	453
SS11 / Fill3.5	9.335	0.06	1.4610	453
SS11 / Fill4	9.192	0.06	1.4233	453
SS11.5 / Fill0.5	11.131	0.06	1.8070	464
SS11.5 / Fill1	10.828	0.06	1.7304	464
SS11.5 / Fill1.5	10.570	0.06	1.6654	464
SS11.5 / Fill2	10.345	0.06	1.6088	464
SS11.5 / Fill2.5	10.147	0.06	1.5587	464
SS11.5 / Fill3	9.969	0.06	1.5139	464
SS11.5 / Fill3.5	9.808	0.06	1.4732	464
SS11.5 / Fill4	9.660	0.06	1.4360	464
SS12 / Fill0.5	11.630	0.06	1.8105	475
SS12 / Fill1	11.323	0.06	1.7363	475
SS12 / Fill1.5	11.061	0.06	1.6730	475
SS12 / Fill2	10.832	0.06	1.6177	475
SS12 / Fill2.5	10.629	0.06	1.5687	475
SS12 / Fill3	10.447	0.06	1.5247	475
SS12 / Fill3.5	10.281	0.06	1.4847	475
SS12 / Fill4	10.130	0.06	1.4481	475

CMW Geosciences Great People | Practical Solutions		
	COLLIERS PROJECT LEADERS	MM
	SOUTHERN LINKS STAGE 1 INDUSTRIAL BLOCK	DMM
	HAMILTON	3
	Primary and Secondary Consolidation of Soft Soil Layers - Surcharge Road	6/14/2026
		HAM2024-0120

1. Consolidation Settlement (Terzaghi)

Exist Fill Density:	16	kN/m3
Soft Soil Density (Saturated):	16	kN/m3
Surcharge Density:	17	kN/m3

Scenario	Original Ground RL	Water Table RL	Surcharge Top RL	Exist Fill Thickness	Soft Soil Thickness	Base Fill RL	Base Soft Soil RL	Mid-Point Soft Soil RL	Surcharge Height	Initial Eff Stress	Applied Surcharge	Comp Index CC	Recomp. Index CR	Initial Void Ratio e0	Exist Over Consol.	De	Consol Settlement	t90 Consol	Preload Thickness	Cv	Time to t90 Consol	
	(mAHD)	(mAHD)	(mAHD)	(m)	(m)	(mAHD)	(mAHD)	(mAHD)	(m)	(kPa)	(kPa)				(kPa)		(m)	(m)	(m)	(m2/yr)	(year)	(months)
SS0.5 / Fill0.5	0	0	0.7787	0	0.5	0.00	-0.50	-0.25	0.78	1.55	13.24	1	0.03	1.9	0	-0.9802	0.169	0.15	0.3	25	0.0	0.0
SS0.5 / Fill1	0	0	1.4283	0	0.5	0.00	-0.50	-0.25	1.43	1.55	24.28	1	0.03	1.9	0	-1.2225	0.211	0.19	0.4	25	0.0	0.0
SS0.5 / Fill1.5	0	0	2.0634	0	0.5	0.00	-0.50	-0.25	2.06	1.55	35.08	1	0.03	1.9	0	-1.3742	0.237	0.21	0.6	25	0.0	0.0
SS0.5 / Fill2	0	0	2.6919	0	0.5	0.00	-0.50	-0.25	2.69	1.55	45.76	1	0.03	1.9	0	-1.4853	0.256	0.23	0.7	25	0.0	0.0
SS0.5 / Fill2.5	0	0	3.3166	0	0.5	0.00	-0.50	-0.25	3.32	1.55	56.38	1	0.03	1.9	0	-1.5733	0.271	0.24	0.8	25	0.0	0.0
SS0.5 / Fill3	0	0	3.939	0	0.5	0.00	-0.50	-0.25	3.94	1.55	66.96	1	0.03	1.9	0	-1.6461	0.284	0.26	0.9	25	0.0	0.0
SS0.5 / Fill3.5	0	0	4.5596	0	0.5	0.00	-0.50	-0.25	4.56	1.55	77.51	1	0.03	1.9	0	-1.7083	0.295	0.27	1.1	25	0.0	0.0
SS0.5 / Fill4	0	0	5.1789	0	0.5	0.00	-0.50	-0.25	5.18	1.55	88.04	1	0.03	1.9	0	-1.7626	0.304	0.27	1.2	25	0.0	0.0
SS1 / Fill0.5	0	0	0.9165	0	1	0.00	-1.00	-0.50	0.92	3.10	15.58	1	0.03	1.9	0	-0.7806	0.269	0.24	0.4	25	0.0	0.1
SS1 / Fill1	0	0	1.6201	0	1	0.00	-1.00	-0.50	1.62	3.10	27.54	1	0.03	1.9	0	-0.9956	0.343	0.31	0.6	25	0.0	0.1
SS1 / Fill1.5	0	0	2.2989	0	1	0.00	-1.00	-0.50	2.30	3.10	39.08	1	0.03	1.9	0	-1.1344	0.391	0.35	0.8	25	0.0	0.1
SS1 / Fill2	0	0	2.9661	0	1	0.00	-1.00	-0.50	2.97	3.10	50.42	1	0.03	1.9	0	-1.2378	0.427	0.38	1.0	25	0.0	0.1
SS1 / Fill2.5	0	0	3.6265	0	1	0.00	-1.00	-0.50	3.63	3.10	61.65	1	0.03	1.9	0	-1.3205	0.455	0.41	1.1	25	0.0	0.1
SS1 / Fill3	0	0	4.2825	0	1	0.00	-1.00	-0.50	4.28	3.10	72.80	1	0.03	1.9	0	-1.3896	0.479	0.43	1.3	25	0.0	0.1
SS1 / Fill3.5	0	0	4.9353	0	1	0.00	-1.00	-0.50	4.94	3.10	83.90	1	0.03	1.9	0	-1.4488	0.500	0.45	1.4	25	0.0	0.1
SS1 / Fill4	0	0	5.5857	0	1	0.00	-1.00	-0.50	5.59	3.10	94.96	1	0.03	1.9	0	-1.5008	0.518	0.47	1.6	25	0.0	0.1
SS1.5 / Fill0.5	0	0	1.0415	0	1.5	0.00	-1.50	-0.75	1.04	4.64	17.71	1	0.03	1.9	0	-0.6825	0.353	0.32	0.5	25	0.0	0.2
SS1.5 / Fill1	0	0	1.79	0	1.5	0.00	-1.50	-0.75	1.79	4.64	30.43	1	0.03	1.9	0	-0.8782	0.454	0.41	0.8	25	0.0	0.2
SS1.5 / Fill1.5	0	0	2.5057	0	1.5	0.00	-1.50	-0.75	2.51	4.64	42.60	1	0.03	1.9	0	-1.0076	0.521	0.47	1.0	25	0.0	0.2
SS1.5 / Fill2	0	0	3.2057	0	1.5	0.00	-1.50	-0.75	3.21	4.64	54.50	1	0.03	1.9	0	-1.1051	0.572	0.51	1.2	25	0.0	0.2
SS1.5 / Fill2.5	0	0	3.8964	0	1.5	0.00	-1.50	-0.75	3.90	4.64	66.24	1	0.03	1.9	0	-1.1838	0.612	0.55	1.4	25	0.0	0.2
SS1.5 / Fill3	0	0	4.5808	0	1.5	0.00	-1.50	-0.75	4.58	4.64	77.87	1	0.03	1.9	0	-1.2498	0.646	0.58	1.6	25	0.0	0.2
SS1.5 / Fill3.5	0	0	5.2607	0	1.5	0.00	-1.50	-0.75	5.26	4.64	89.43	1	0.03	1.9	0	-1.3067	0.676	0.61	1.8	25	0.0	0.2
SS1.5 / Fill4	0	0	5.9372	0	1.5	0.00	-1.50	-0.75	5.94	4.64	100.93	1	0.03	1.9	0	-1.3568	0.702	0.63	1.9	25	0.0	0.2
SS2 / Fill0.5	0	0	1.1632	0	2	0.00	-2.00	-1.00	1.16	6.19	19.77	1	0.03	1.9	0	-0.6227	0.429	0.39	0.7	25	0.0	0.4
SS2 / Fill1	0	0	1.9511	0	2	0.00	-2.00	-1.00	1.95	6.19	33.17	1	0.03	1.9	0	-0.8034	0.554	0.50	1.0	25	0.0	0.4
SS2 / Fill1.5	0	0	2.6998	0	2	0.00	-2.00	-1.00	2.70	6.19	45.90	1	0.03	1.9	0	-0.9250	0.638	0.57	1.2	25	0.0	0.4
SS2 / Fill2	0	0	3.4293	0	2	0.00	-2.00	-1.00	3.43	6.19	58.30	1	0.03	1.9	0	-1.0178	0.702	0.63	1.4	25	0.0	0.4
SS2 / Fill2.5	0	0	4.1472	0	2	0.00	-2.00	-1.00	4.15	6.19	70.50	1	0.03	1.9	0	-1.0931	0.754	0.68	1.6	25	0.0	0.4
SS2 / Fill3	0	0	4.8572	0	2	0.00	-2.00	-1.00	4.86	6.19	82.57	1	0.03	1.9	0	-1.1565	0.798	0.72	1.9	25	0.0	0.4
SS2 / Fill3.5	0	0	5.5616	0	2	0.00	-2.00	-1.00	5.56	6.19	94.55	1	0.03	1.9	0	-1.2115	0.836	0.75	2.1	25	0.0	0.4
SS2 / Fill4	0	0	6.2617	0	2	0.00	-2.00	-1.00	6.26	6.19	106.45	1	0.03	1.9	0	-1.2600	0.869	0.78	2.3	25	0.0	0.4
SS2.5 / Fill0.5	0	0	1.2855	0	2.5	0.00	-2.50	-1.25	1.29	7.74	21.85	1	0.03	1.9	0	-0.5826	0.502	0.45	0.8	25	0.1	0.6
SS2.5 / Fill1	0	0	2.1088	0	2.5	0.00	-2.50	-1.25	2.11	7.74	35.85	1	0.03	1.9	0	-0.7508	0.647	0.58	1.1	25	0.1	0.6
SS2.5 / Fill1.5	0	0	2.8878	0	2.5	0.00	-2.50	-1.25	2.89	7.74	49.09	1	0.03	1.9	0	-0.8660	0.747	0.67	1.4	25	0.1	0.6
SS2.5 / Fill2	0	0	3.6445	0	2.5	0.00	-2.50	-1.25	3.64	7.74	61.96	1	0.03	1.9	0	-0.9546	0.823	0.74	1.6	25	0.1	0.6
SS2.5 / Fill2.5	0	0	4.3876	0	2.5	0.00	-2.50	-1.25	4.39	7.74	74.59	1	0.03	1.9	0	-1.0269	0.885	0.80	1.9	25	0.1	0.6
SS2.5 / Fill3	0	0	5.1215	0	2.5	0.00	-2.50	-1.25	5.12	7.74	87.07	1	0.03	1.9	0	-1.0882	0.938	0.84	2.1	25	0.1	0.6
SS2.5 / Fill3.5	0	0	5.8487	0	2.5	0.00	-2.50	-1.25	5.85	7.74	99.43	1	0.03	1.9	0	-1.1415	0.984	0.89	2.3	25	0.1	0.6
SS2.5 / Fill4	0	0	6.5707	0	2.5	0.00	-2.50	-1.25	6.57	7.74	111.70	1	0.03	1.9	0	-1.1885	1.025	0.92	2.6	25	0.1	0.6
SS3 / Fill0.5	0	0	1.4102	0	3	0.00	-3.00	-1.50	1.41	9.29	23.97	1	0.03	1.9	0	-0.5541	0.573	0.52	0.9	25	0.1	0.9
SS3 / Fill1	0	0	2.2659	0	3	0.00	-3.00	-1.50	2.27	9.29	38.52	1	0.03	1.9	0	-0.7117	0.736	0.66	1.3	25	0.1	0.9
SS3 / Fill1.5	0	0	3.073	0	3	0.00	-3.00	-1.50	3.07	9.29	52.24	1	0.03	1.9	0	-0.8213	0.850	0.76	1.6	25	0.1	0.9
SS3 / Fill2	0	0	3.8553	0	3	0.00	-3.00	-1.50	3.86	9.29	65.54	1	0.03	1.9	0	-0.9063	0.938	0.84	1.9	25	0.1	0.9
SS3 / Fill2.5	0	0	4.6223	0	3	0.00	-3.00	-1.50	4.62	9.29	78.58	1	0.03	1.9	0	-0.9760	1.010	0.91	2.1	25	0.1	0.9
SS3 / Fill3	0	0	5.3786	0	3	0.00	-3.00	-1.50	5.38	9.29	91.44	1	0.03	1.9	0	-1.0353	1.071	0.96	2.4	25	0.1	0.9
SS3 / Fill3.5	0	0	6.1273	0	3	0.00	-3.00	-1.50	6.13	9.29	104.16	1	0.03	1.9	0	-1.0870	1.125	1.01	2.6	25	0.1	0.9
SS3 / Fill4	0	0	6.8701	0	3	0.00	-3.00	-1.50	6.87	9.29	116.79	1	0.03	1.9	0	-1.1329	1.172	1.05	2.9	25	0.1	0.9
SS3.5 / Fill0.5	0	0	1.5386	0	3.5	0.00	-3.50	-1.75	1.54	10.83	26.16	1	0.03	1.9	0	-0.5333	0.644	0.58	1.0	25	0.1	1.2
SS3.5 / Fill1	0	0	2.4241	0	3.5	0.00	-3.50	-1.75	2.42	10.83	41.21	1	0.03	1.9	0	-0.6816	0.823	0.74	1.4	25	0.1	1.2
SS3.5 / Fill1.5	0	0	3.2578	0	3.5	0.00	-3.50	-1.75	3.26	10.83	55.38	1	0.03	1.9	0	-0.7862	0.949	0.85	1.8	25	0.1	1.2
SS3.5 / Fill2	0	0	4.0644	0	3.5	0.00	-3.50	-1.75	4.06	10.83	69.09	1	0.03	1.9	0	-0.8680	1.048	0.94	2.1	25	0.1	1.2
SS3.5 / Fill2.5	0	0	4.8539	0	3.5	0.00	-3.50	-1.75	4.85	10.83	82.52	1	0.03	1.9	0	-0.9354	1.129	1.02	2.4	25	0.1	1.2
SS3.5 / Fill3	0	0	5.6318	0	3.5	0.00	-3.50	-1.75	5.63	10.83	95.74	1	0.03	1.9	0	-0.9929	1.198	1.08	2.6	25	0.1	1.2
SS3.5 / Fill3.5	0	0	6.401	0	3.5	0.00	-3.50	-1.75	6.40	10.83	108.82	1	0.03	1.9	0	-1.0432	1.259	1.13	2.9	25	0.1	1.2
SS3.5 / Fill4	0	0	7.1636	0	3.5	0.00	-3.50	-1.75	7.16	10.83	121.78	1	0.03	1.9	0	-1.0879	1.313	1.18	3.2	25	0.1	1.2
SS4 / Fill0.5	0	0	1.6715	0	4	0.00	-4.00	-2.00	1.67	12.38	28.42	1	0.03	1.9	0	-0.5179	0.714	0.64	1.2	25	0.1	1.6
SS4 / Fill1	0	0	2.5848	0	4	0.00	-4.00	-2.00	2.58	12.38	43.94	1	0.03	1.9	0	-0.6580	0.908	0.82	1.6	25	0.1	1.6
SS4 / Fill1.5	0	0	3.4435	0	4	0.00	-4.00	-2.00	3.44	12.38	58.54	1	0.03	1.9	0	-0.7580	1.046	0.94	1.9	25	0.1	1.6
SS4 / Fill2	0	0	4.2732	0	4	0.00	-4.00	-2.00	4.27	12.38	72.64	1	0.03	1.9	0	-0.8368	1.154	1.04	2.3	25	0.1	1.6
SS4 / Fill2.5	0	0	5.0845	0	4	0.00	-4.00	-2.00	5.08	12.38	86.44	1	0.03	1.9	0	-0.9021	1.244	1.12	2.6	25	0.1	1.6
SS4 / Fill3	0	0	5.883	0	4	0.00	-4.00	-2.00	5.88	12.38	100.01	1	0.03	1.9	0	-0.9580	1.321	1.19	2.9	25	0.1	1.6
SS4 / Fill3.5	0	0	6.672	0	4	0.00	-4.00	-2.00	6.67	12.38	113.42	1	0.03	1.9	0	-1.0070	1.389	1.25	3.2	25	0.1	1.6
SS4 / Fill4	0	0	7.4537	0	4	0.00	-4.00	-2.00	7.45	12.38	126.71	1	0.03	1.9	0	-1.0506	1.449	1.30	3.5	25	0.1	1.6
SS4.5 / Fill0.5	0	0	1.8093	0	4.5	0.00	-4.50	-2.25	1.81	13.93	30.76	1	0.03	1.9	0	-0.5063	0.786	0.71	1.3	25	0.2	2.1
SS4.5 / Fill1	0	0	2.7486	0	4.5	0.00	-4.50	-2.25	2.75	13.93	46.73	1	0.03	1.9	0	-0.6390	0.992	0.89	1.7	25	0.2	2.1
SS4.5 / Fill1.5	0	0	3.6313	0	4.5	0.00	-4.50	-2.25	3.63	13.93	61.73	1	0.03	1.9	0	-0.7350	1.141	1.03	2.1	25	0.2	2.1
SS4.5 / Fill2	0	0	4.4831	0	4.5	0.00	-4.50	-2.25	4.48	13.93	76.21	1	0.03	1.9	0	-0.8110	1.259	1.13	2.5	25	0.2	2.1
SS4.5 / Fill2.5	0	0	5.3154	0	4.5	0.00	-4.50	-2.25	5.32	13.93	90.36	1	0.03	1.9	0	-0.8744	1.357	1.22	2.8	25	0.2	2.1
SS4.5 / Fill3	0	0	6.1338	0	4.5	0.00	-4.50	-2.25	6.13	13.93	104.27	1	0.03	1.9	0	-0.9288	1.441	1.30	3.1	25	0.2	2.1
SS4.5 / Fill3.5	0	0	6.942	0	4.5	0.00	-4.50	-2.25	6.94	13.93	118.01	1	0.03	1.9	0	-0.9765	1.515	1.36	3.4	25	0.2	2.1
SS4.5 / Fill4	0	0	7.7422	0	4.5	0.00	-4.50	-2.25	7.74	13.93	131.62	1	0.03	1.9	0	-1.0191	1.581	1.42	3.7	25	0.2	2.1
SS5 / Fill0.5	0	0	1.9524	0	5	0.00	-5.00	-2.50	1.95	15.48	33.19	1	0.03	1.9	0	-0.4976	0.858	0.77	1.5	25	0.2	2.5
SS5 / Fill1	0	0	2.9162	0	5	0.00	-5.00	-2.50	2.92	15.48	49.58	1	0.03	1.9	0	-0.6236	1.075	0.97	1.9	25	0.2	2.5
SS5 / Fill1.5	0	0	3.8218	0	5	0.00	-5.00	-2.50	3.82	15.48	64.97	1	0.03	1.9	0	-0.7159	1.234	1.11	2.3	25	0.2	2.5
SS5 / Fill2	0	0	4.6951	0	5	0.00	-5.00	-2.50	4.70	15.48	79.82	1	0.03	1.9	0	-0.7894	1.361	1.22	2.7	25	0.2	2.5
SS5 / Fill2.5	0	0	5.5476	0	5	0.00	-5.00	-2.50	5.55	15.48	94.31	1	0.03	1.9	0	-0.8509	1.467	1.32	3.0	25	0.2	2.5
SS5 / Fill3	0	0	6.3853	0	5	0.00	-5.00	-2.50	6.39	15.48	108.55	1	0.03	1.9	0	-0.9039	1.558	1.40	3.4	25	0.2	2.5
SS5 / Fill3.5	0	0	7.2122	0	5	0.00	-5.00	-2.50	7.21	15.48	122.61	1	0.03	1.9	0	-0.9505	1.639	1.47	3.7	25	0.2	2.5
SS5 / Fill4	0	0	8.0305	0	5	0.00	-5.00	-2.50	8.03	15.48	136.52	1	0.03	1.9	0	-0.9922	1.711	1.54	4.0	25	0.2	2.5
SS5.5 / Fill0.5	0	0	2.0925	0	5.5	0.00	-5.50	-2.75	2.09	17.02	35.57	1	0.03	1.9	0	-0.4899	0.929	0.84	1.6	25	0.3	3.1
SS5.5 / Fill1	0	0	3.0777	0	5.5	0.00	-5.50	-2.75	3.08	17.02	52.32	1	0.03	1.9	0	-0.6100	1.157	1.04	2.1	25	0.3	3.1
SS5.5 / Fill1.5	0	0	4.0034	0	5.5	0.00	-5.50	-2.75	4.00	17.02	68.06	1	0.03	1.9	0	-0.6988	1.325	1.19	2.5	25	0.3	3.1
SS5.5 / Fill2	0	0	4.8955	0	5.5	0.00	-5.50	-2.75	4.90	17.02	83.22	1	0.03	1.9	0	-0.7700	1.460	1.31	2.9	25	0.3	3.1
SS5.5 / Fill2.5	0	0	5.7658	0	5.5	0.00	-5.50	-2.75	5.77	17.02	98.02	1	0.03	1.9	0	-0.8298	1.574	1.42	3.3	25	0.3	3.1
SS5.5 / Fill3	0	0	6.6205	0	5.5	0.00	-5.50	-2.75	6.62	17.02	112.55	1	0.03	1.9	0	-0.8815	1.672	1.50	3.6	25	0.3	3.1
SS5.5 / Fill3.5	0	0	7.4637	0	5.5	0.00	-5.50	-2.75	7.46	17.02	126.88	1	0.03	1.9	0	-0.9271	1.758	1.58	4.0	25	0.3	3.1
SS5.5 / Fill4	0	0	8.2978	0	5.5	0.00	-5.50	-2.75	8.30	17.02	141.06	1	0.03	1.9	0	-0.9679	1.836	1.65	4.3	25	0.3	3.1
SS6 / Fill0.5	0	0	2.2324	0	6	0.00	-6.00	-3.00	2.23	18.57	37.95	1	0.03	1.9	0	-0.4834	1.000	0.90	1.7	25	0.3	3.7
SS6 / Fill1	0	0	3.2369	0	6	0.00	-6.00	-3.00	3.24	18.57	55.03	1	0.03	1.9	0	-0.5980	1.237	1.11	2.2	25	0.3	3.7
SS6 / Fill1.5	0	0	4.1808	0	6	0.00	-6.00	-3.00	4.18	18.57	71.07	1	0.03	1.9	0	-0.6837	1.415	1.27	2.7	25	0.3	3.7
SS6 / Fill2	0	0	5.0902	0	6	0.00	-6.00	-3.00	5.09	18.57	86.53	1	0.03	1.9	0	-0.7528	1.558	1.40	3.1	25	0.3	3.7
SS6 / Fill2.5	0	0	5.9767	0	6	0.00	-6.00	-3.00	5.98	18.57	101.60	1	0.03	1.9	0	-0.8110	1.678	1.51	3.5	25	0.3	3.7
SS6 / Fill3	0	0	6.8471	0	6	0.00	-6.00	-3.00	6.85	18.57	116.40	1	0.03	1.9	0	-0.8614	1.782	1.60	3.8	25	0.3	3.7
SS6 / Fill3.5	0	0	7.7052	0	6	0.00	-6.00	-3.00	7.71	18.57	130.99	1	0.03	1.9	0	-0.9060	1.874	1.69	4.2	25	0.3	3.7
SS6 / Fill4	0	0	8.5537	0	6	0.00	-6.00	-3.00	8.55	18.57	145.41	1	0.03	1.9	0	-0.9460	1.957	1.76	4.6	25	0.3	3.7
SS6.5 / Fill0.5	0	0	2.3755	0	6.5	0.00	-6.50	-3.25	2.38	20.12	40.38	1	0.03	1.9	0	-0.4782	1.072	0.96	1.9	25	0.4	4.3
SS6.5 / Fill1	0	0	3.3981	0	6.5	0.00	-6.50	-3.25	3.40	20.12	57.77	1	0.03	1.9	0	-0.5879	1.318	1.19	2.4	25	0.4	4.3
SS6.5 / Fill1.5	0	0	4.3595	0	6.5	0.00	-6.50	-3.25	4.36	20.12	74.11	1	0.03	1.9	0	-0.6706	1.503	1.35	2.9	25	0.4	4.3
SS6.5 / Fill2	0	0	5.2853	0	6.5	0.00	-6.50	-3.25	5.29	20.12	89.85	1	0.03	1.9	0	-0.7377	1.653	1.49	3.3	25	0.4	4.3
SS6.5 / Fill2.5	0	0	6.1876	0	6.5	0.00	-6.50	-3.25	6.19	20.12	105.19	1	0.03	1.9	0	-0.7944	1.781	1.60	3.7	25	0.4	4.3
SS6.5 / Fill3	0	0	7.0729	0	6.5	0.00	-6.50	-3.25	7.07	20.12	120.24	1	0.03	1.9	0	-0.8437	1.891	1.70	4.1	25	0.4	4.3
SS6.5 / Fill3.5	0	0	7.9454	0	6.5	0.00	-6.50	-3.25	7.95	20.12	135.07	1	0.03	1.9	0	-0.8873	1.989	1.79	4.4	25	0.4	4.3
SS6.5 / Fill4	0	0	8.8079	0	6.5	0.00	-6.50	-3.25	8.81	20.12	149.73	1	0.03	1.9	0	-0.9265	2.077	1.87	4.8	25	0.4	4.3
SS7 / Fill0.5	0	0	2.5178	0	7	0.00	-7.00	-3.50	2.52	21.67	42.80	1	0.03	1.9	0	-0.4736	1.143	1.03	2.0	25	0.4	5.0
SS7 / Fill1	0	0	3.5568	0	7	0.00	-7.00	-3.50	3.56	21.67	60.47	1	0.03	1.9	0	-0.5787	1.397	1.26	2.6	25	0.4	5.0
SS7 / Fill1.5	0	0	4.5341	0	7	0.00	-7.00	-3.50	4.53	21.67	77.08	1	0.03	1.9	0	-0.6588	1.590	1.43	3.0	25	0.4	5.0
SS7 / Fill2	0	0	5.475	0	7	0.00	-7.00	-3.50	5.48	21.67	93.08	1	0.03	1.9	0	-0.7240	1.747	1.57	3.5	25	0.4	5.0
SS7 / Fill2.5	0	0	6.3916	0	7	0.00	-7.00	-3.50	6.39	21.67	108.66	1	0.03	1.9	0	-0.7793	1.881	1.69	3.9	25	0.4	5.0
SS7 / Fill3	0	0	7.2906	0	7	0.00	-7.00	-3.50	7.29	21.67	123.94	1	0.03	1.9	0	-0.8274	1.997	1.80	4.3	25	0.4	5.0
SS7 / Fill3.5	0	0	8.1764	0	7	0.00	-7.00	-3.50	8.18	21.67	139.00	1	0.03	1.9	0	-0.8702	2.100	1.89	4.7	25	0.4	5.0
SS7 / Fill4	0	0	9.0516	0	7	0.00	-7.00	-3.50	9.05	21.67	153.88	1	0.03	1.9	0	-0.9086	2.193	1.97	5.1	25	0.4	5.0
SS7.5 / Fill0.5	0	0	2.658	0	7.5	0.00	-7.50	-3.75	2.66	23.21	45.19	1	0.03	1.9	0	-0.4693	1.214	1.09	2.2	25	0.5	5.7
SS7.5 / Fill1	0	0	3.7117	0	7.5	0.00	-7.50	-3.75	3.71	23.21	63.10	1	0.03	1.9	0	-0.5703	1.475	1.33	2.7	25	0.5	5.7
SS7.5 / Fill1.5	0	0	4.7033	0	7.5	0.00	-7.50	-3.75	4.70	23.21	79.96	1	0.03	1.9	0	-0.6478	1.675	1.51	3.2	25	0.5	5.7
SS7.5 / Fill2	0	0	5.6578	0	7.5	0.00	-7.50	-3.75	5.66	23.21	96.18	1	0.03	1.9	0	-0.7113	1.839	1.66	3.7	25	0.5	5.7
SS7.5 / Fill2.5	0	0	6.5874	0	7.5	0.00	-7.50	-3.75	6.59	23.21	111.99	1	0.03	1.9	0	-0.7652	1.979	1.78	4.1	25	0.5	5.7
SS7.5 / Fill3	0	0	7.4989	0	7.5	0.00	-7.50	-3.75	7.50	23.21	127.48	1	0.03	1.9	0	-0.8124	2.101	1.89	4.5	25	0.5	5.7
SS7.5 / Fill3.5	0	0	8.3966	0	7.5	0.00	-7.50	-3.75	8.40	23.21	142.74	1	0.03	1.9	0	-0.8543	2.209	1.99	4.9	25	0.5	5.7
SS7.5 / Fill4	0	0	9.2833	0	7.5	0.00	-7.50	-3.75	9.28	23.21	157.82	1	0.03	1.9	0	-0.8920	2.307	2.08	5.3	25	0.5	5.7
SS8 / Fill0.5	0	0	2.8006	0	8	0.00	-8.00	-4.00	2.80	24.76	47.61	1	0.03	1.9	0	-0.4658	1.285	1.16	2.3	25	0.5	6.5
SS8 / Fill1	0	0	3.8682	0	8	0.00	-8.00	-4.00	3.87	24.76	65.76	1	0.03	1.9	0	-0.5630	1.553	1.40	2.9	25	0.5	6.5
SS8 / Fill1.5	0	0	4.8735	0	8	0.00	-8.00	-4.00	4.87	24.76	82.85	1	0.03	1.9	0	-0.6381	1.760	1.58	3.4	25	0.5	6.5
SS8 / Fill2	0	0	5.8412	0	8	0.00	-8.00	-4.00	5.84	24.76	99.30	1	0.03	1.9	0	-0.6999	1.931	1.74	3.8	25	0.5	6.5
SS8 / Fill2.5	0	0	6.7833	0	8	0.00	-8.00	-4.00	6.78	24.76	115.32	1	0.03	1.9	0	-0.7526	2.076	1.87	4.3	25	0.5	6.5
SS8 / Fill3	0	0	7.7068	0	8	0.00	-8.00	-4.00	7.71	24.76	131.02	1	0.03	1.9	0	-0.7987	2.203	1.98	4.7	25	0.5	6.5
SS8 / Fill3.5	0	0	8.616	0	8	0.00	-8.00	-4.00	8.62	24.76	146.47	1	0.03	1.9	0	-0.8398	2.317	2.09	5.1	25	0.5	6.5
SS8 / Fill4	0	0	9.514	0	8	0.00	-8.00	-4.00	9.51	24.76	161.74	1	0.03	1.9	0	-0.8769	2.419	2.18	5.5	25	0.5	6.5
SS8.5 / Fill0.5	0	0	2.9457	0	8.5	0.00	-8.50	-4.25	2.95	26.31	50.08	1	0.03	1.9	0	-0.4629	1.357	1.22	2.4	25	0.6	7.4
SS8.5 / Fill1	0	0	4.0265	0	8.5	0.00	-8.50	-4.25	4.03	26.31	68.45	1	0.03	1.9	0	-0.5565	1.631	1.47	3.0	25	0.6	7.4
SS8.5 / Fill1.5	0	0	5.0449	0	8.5	0.00	-8.50	-4.25	5.04	26.31	85.76	1	0.03	1.9	0	-0.6294	1.845	1.66	3.5	25	0.6	7.4
SS8.5 / Fill2	0	0	6.0252	0	8.5	0.00	-8.50	-4.25	6.03	26.31	102.43	1	0.03	1.9	0	-0.6896	2.021	1.82	4.0	25	0.6	7.4
SS8.5 / Fill2.5	0	0	6.9794	0	8.5	0.00	-8.50	-4.25	6.98	26.31	118.65	1	0.03	1.9	0	-0.7412	2.172	1.96	4.5	25	0.6	7.4
SS8.5 / Fill3	0	0	7.9146	0	8.5	0.00	-8.50	-4.25	7.91	26.31	134.55	1	0.03	1.9	0	-0.7864	2.305	2.07	4.9	25	0.6	7.4
SS8.5 / Fill3.5	0	0	8.835	0	8.5	0.00	-8.50	-4.25	8.84	26.31	150.20	1	0.03	1.9	0	-0.8267	2.423	2.18	5.3	25	0.6	7.4
SS8.5 / Fill4	0	0	9.7439	0	8.5	0.00	-8.50	-4.25	9.74	26.31	165.65	1	0.03	1.9	0	-0.8631	2.530	2.28	5.7	25	0.6	7.4

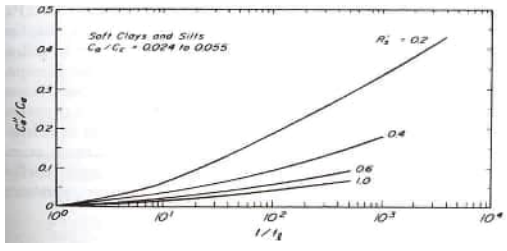
SS9 / Fill0.5	0	0	3.0932	0	9	0.00	-9.00	-4.50	3.09	27.86	52.58	1	0.03	1.9	0	-0.4606	**1.429**	**1.29**	**2.6**	25	**0.7**	**8.2**
SS9 / Fill1	0	0	4.1865	0	9	0.00	-9.00	-4.50	4.19	27.86	71.17	1	0.03	1.9	0	-0.5508	**1.710**	**1.54**	**3.2**	25	**0.7**	**8.2**
SS9 / Fill1.5	0	0	5.2175	0	9	0.00	-9.00	-4.50	5.22	27.86	88.70	1	0.03	1.9	0	-0.6216	**1.929**	**1.74**	**3.7**	25	**0.7**	**8.2**
SS9 / Fill2	0	0	6.21	0	9	0.00	-9.00	-4.50	6.21	27.86	105.57	1	0.03	1.9	0	-0.6803	**2.111**	**1.90**	**4.2**	25	**0.7**	**8.2**
SS9 / Fill2.5	0	0	7.176	0	9	0.00	-9.00	-4.50	7.18	27.86	121.99	1	0.03	1.9	0	-0.7307	**2.268**	**2.04**	**4.7**	25	**0.7**	**8.2**
SS9 / Fill3	0	0	8.1225	0	9	0.00	-9.00	-4.50	8.12	27.86	138.08	1	0.03	1.9	0	-0.7750	**2.405**	**2.16**	**5.1**	25	**0.7**	**8.2**
SS9 / Fill3.5	0	0	9.0539	0	9	0.00	-9.00	-4.50	9.05	27.86	153.92	1	0.03	1.9	0	-0.8146	**2.528**	**2.28**	**5.6**	25	**0.7**	**8.2**
SS9 / Fill4	0	0	9.9733	0	9	0.00	-9.00	-4.50	9.97	27.86	169.55	1	0.03	1.9	0	-0.8504	**2.639**	**2.38**	**6.0**	25	**0.7**	**8.2**
SS9.5 / Fill0.5	0	0	3.2432	0	9.5	0.00	-9.50	-4.75	3.24	29.40	55.13	1	0.03	1.9	0	-0.4587	**1.503**	**1.35**	**2.7**	25	**0.8**	**9.2**
SS9.5 / Fill1	0	0	4.3484	0	9.5	0.00	-9.50	-4.75	4.35	29.40	73.92	1	0.03	1.9	0	-0.5458	**1.788**	**1.61**	**3.3**	25	**0.8**	**9.2**
SS9.5 / Fill1.5	0	0	5.3915	0	9.5	0.00	-9.50	-4.75	5.39	29.40	91.66	1	0.03	1.9	0	-0.6146	**2.013**	**1.81**	**3.9**	25	**0.8**	**9.2**
SS9.5 / Fill2	0	0	6.3958	0	9.5	0.00	-9.50	-4.75	6.40	29.40	108.73	1	0.03	1.9	0	-0.6719	**2.201**	**1.98**	**4.4**	25	**0.8**	**9.2**
SS9.5 / Fill2.5	0	0	7.3732	0	9.5	0.00	-9.50	-4.75	7.37	29.40	125.34	1	0.03	1.9	0	-0.7212	**2.363**	**2.13**	**4.9**	25	**0.8**	**9.2**
SS9.5 / Fill3	0	0	8.3306	0	9.5	0.00	-9.50	-4.75	8.33	29.40	141.62	1	0.03	1.9	0	-0.7647	**2.505**	**2.25**	**5.3**	25	**0.8**	**9.2**
SS9.5 / Fill3.5	0	0	9.2727	0	9.5	0.00	-9.50	-4.75	9.27	29.40	157.64	1	0.03	1.9	0	-0.8035	**2.632**	**2.37**	**5.8**	25	**0.8**	**9.2**
SS9.5 / Fill4	0	0	10.2024	0	9.5	0.00	-9.50	-4.75	10.20	29.40	173.44	1	0.03	1.9	0	-0.8388	**2.748**	**2.47**	**6.2**	25	**0.8**	**9.2**
SS10 / Fill0.5	0	0	3.3956	0	10	0.00	-10.00	-5.00	3.40	30.95	57.73	1	0.03	1.9	0	-0.4571	**1.576**	**1.42**	**2.9**	25	**0.8**	**10.2**
SS10 / Fill1	0	0	4.5122	0	10	0.00	-10.00	-5.00	4.51	30.95	76.71	1	0.03	1.9	0	-0.5414	**1.867**	**1.68**	**3.5**	25	**0.8**	**10.2**
SS10 / Fill1.5	0	0	5.567	0	10	0.00	-10.00	-5.00	5.57	30.95	94.64	1	0.03	1.9	0	-0.6083	**2.098**	**1.89**	**4.1**	25	**0.8**	**10.2**
SS10 / Fill2	0	0	6.5827	0	10	0.00	-10.00	-5.00	6.58	30.95	111.91	1	0.03	1.9	0	-0.6642	**2.290**	**2.06**	**4.6**	25	**0.8**	**10.2**
SS10 / Fill2.5	0	0	7.5711	0	10	0.00	-10.00	-5.00	7.57	30.95	128.71	1	0.03	1.9	0	-0.7125	**2.457**	**2.21**	**5.1**	25	**0.8**	**10.2**
SS10 / Fill3	0	0	8.5392	0	10	0.00	-10.00	-5.00	8.54	30.95	145.17	1	0.03	1.9	0	-0.7551	**2.604**	**2.34**	**5.5**	25	**0.8**	**10.2**
SS10 / Fill3.5	0	0	9.4916	0	10	0.00	-10.00	-5.00	9.49	30.95	161.36	1	0.03	1.9	0	-0.7933	**2.736**	**2.46**	**6.0**	25	**0.8**	**10.2**
SS10 / Fill4	0	0	10.4314	0	10	0.00	-10.00	-5.00	10.43	30.95	177.33	1	0.03	1.9	0	-0.8280	**2.855**	**2.57**	**6.4**	25	**0.8**	**10.2**
SS10.5 / Fill0.5	0	0	3.5504	0	10.5	0.00	-10.50	-5.25	3.55	32.50	60.36	1	0.03	1.9	0	-0.4560	**1.651**	**1.49**	**3.1**	25	**0.9**	**11.2**
SS10.5 / Fill1	0	0	4.6779	0	10.5	0.00	-10.50	-5.25	4.68	32.50	79.52	1	0.03	1.9	0	-0.5375	**1.946**	**1.75**	**3.7**	25	**0.9**	**11.2**
SS10.5 / Fill1.5	0	0	5.744	0	10.5	0.00	-10.50	-5.25	5.74	32.50	97.65	1	0.03	1.9	0	-0.6026	**2.182**	**1.96**	**4.2**	25	**0.9**	**11.2**
SS10.5 / Fill2	0	0	6.7707	0	10.5	0.00	-10.50	-5.25	6.77	32.50	115.10	1	0.03	1.9	0	-0.6572	**2.380**	**2.14**	**4.8**	25	**0.9**	**11.2**
SS10.5 / Fill2.5	0	0	7.7699	0	10.5	0.00	-10.50	-5.25	7.77	32.50	132.09	1	0.03	1.9	0	-0.7045	**2.551**	**2.30**	**5.3**	25	**0.9**	**11.2**
SS10.5 / Fill3	0	0	8.7484	0	10.5	0.00	-10.50	-5.25	8.75	32.50	148.72	1	0.03	1.9	0	-0.7464	**2.702**	**2.43**	**5.7**	25	**0.9**	**11.2**
SS10.5 / Fill3.5	0	0	9.7109	0	10.5	0.00	-10.50	-5.25	9.71	32.50	165.09	1	0.03	1.9	0	-0.7839	**2.838**	**2.55**	**6.2**	25	**0.9**	**11.2**
SS10.5 / Fill4	0	0	10.6606	0	10.5	0.00	-10.50	-5.25	10.66	32.50	181.23	1	0.03	1.9	0	-0.8180	**2.962**	**2.67**	**6.7**	25	**0.9**	**11.2**
SS11 / Fill0.5	0	0	3.7076	0	11	0.00	-11.00	-5.50	3.71	34.05	63.03	1	0.03	1.9	0	-0.4551	**1.726**	**1.55**	**3.2**	25	**1.0**	**12.3**
SS11 / Fill1	0	0	4.8456	0	11	0.00	-11.00	-5.50	4.85	34.05	82.38	1	0.03	1.9	0	-0.5340	**2.025**	**1.82**	**3.8**	25	**1.0**	**12.3**
SS11 / Fill1.5	0	0	5.9225	0	11	0.00	-11.00	-5.50	5.92	34.05	100.68	1	0.03	1.9	0	-0.5974	**2.266**	**2.04**	**4.4**	25	**1.0**	**12.3**
SS11 / Fill2	0	0	6.96	0	11	0.00	-11.00	-5.50	6.96	34.05	118.32	1	0.03	1.9	0	-0.6508	**2.469**	**2.22**	**5.0**	25	**1.0**	**12.3**
SS11 / Fill2.5	0	0	7.9696	0	11	0.00	-11.00	-5.50	7.97	34.05	135.48	1	0.03	1.9	0	-0.6972	**2.645**	**2.38**	**5.5**	25	**1.0**	**12.3**
SS11 / Fill3	0	0	8.9583	0	11	0.00	-11.00	-5.50	8.96	34.05	152.29	1	0.03	1.9	0	-0.7382	**2.800**	**2.52**	**6.0**	25	**1.0**	**12.3**
SS11 / Fill3.5	0	0	9.9307	0	11	0.00	-11.00	-5.50	9.93	34.05	168.82	1	0.03	1.9	0	-0.7752	**2.940**	**2.65**	**6.4**	25	**1.0**	**12.3**
SS11 / Fill4	0	0	10.8899	0	11	0.00	-11.00	-5.50	10.89	34.05	185.13	1	0.03	1.9	0	-0.8087	**3.068**	**2.76**	**6.9**	25	**1.0**	**12.3**
SS11.5 / Fill0.5	0	0	3.8672	0	11.5	0.00	-11.50	-5.75	3.87	35.59	65.74	1	0.03	1.9	0	-0.4544	**1.802**	**1.62**	**3.4**	25	**1.1**	**13.5**
SS11.5 / Fill1	0	0	5.0153	0	11.5	0.00	-11.50	-5.75	5.02	35.59	85.26	1	0.03	1.9	0	-0.5309	**2.105**	**1.89**	**4.0**	25	**1.1**	**13.5**
SS11.5 / Fill1.5	0	0	6.1027	0	11.5	0.00	-11.50	-5.75	6.10	35.59	103.75	1	0.03	1.9	0	-0.5927	**2.350**	**2.12**	**4.6**	25	**1.1**	**13.5**
SS11.5 / Fill2	0	0	7.1506	0	11.5	0.00	-11.50	-5.75	7.15	35.59	121.56	1	0.03	1.9	0	-0.6450	**2.558**	**2.30**	**5.2**	25	**1.1**	**13.5**
SS11.5 / Fill2.5	0	0	8.1704	0	11.5	0.00	-11.50	-5.75	8.17	35.59	138.90	1	0.03	1.9	0	-0.6904	**2.738**	**2.46**	**5.7**	25	**1.1**	**13.5**
SS11.5 / Fill3	0	0	9.169	0	11.5	0.00	-11.50	-5.75	9.17	35.59	155.87	1	0.03	1.9	0	-0.7307	**2.898**	**2.61**	**6.2**	25	**1.1**	**13.5**
SS11.5 / Fill3.5	0	0	10.1511	0	11.5	0.00	-11.50	-5.75	10.15	35.59	172.57	1	0.03	1.9	0	-0.7670	**3.042**	**2.74**	**6.7**	25	**1.1**	**13.5**
SS11.5 / Fill4	0	0	11.1197	0	11.5	0.00	-11.50	-5.75	11.12	35.59	189.03	1	0.03	1.9	0	-0.8001	**3.173**	**2.86**	**7.1**	25	**1.1**	**13.5**
SS12 / Fill0.5	0	0	4.0292	0	12	0.00	-12.00	-6.00	4.03	37.14	68.50	1	0.03	1.9	0	-0.4540	**1.879**	**1.69**	**3.5**	25	**1.2**	**14.7**
SS12 / Fill1	0	0	5.187	0	12	0.00	-12.00	-6.00	5.19	37.14	88.18	1	0.03	1.9	0	-0.5282	**2.186**	**1.97**	**4.2**	25	**1.2**	**14.7**
SS12 / Fill1.5	0	0	6.2846	0	12	0.00	-12.00	-6.00	6.28	37.14	106.84	1	0.03	1.9	0	-0.5885	**2.435**	**2.19**	**4.8**	25	**1.2**	**14.7**
SS12 / Fill2	0	0	7.3426	0	12	0.00	-12.00	-6.00	7.34	37.14	124.82	1	0.03	1.9	0	-0.6396	**2.647**	**2.38**	**5.3**	25	**1.2**	**14.7**
SS12 / Fill2.5	0	0	8.3723	0	12	0.00	-12.00	-6.00	8.37	37.14	142.33	1	0.03	1.9	0	-0.6841	**2.831**	**2.55**	**5.9**	25	**1.2**	**14.7**
SS12 / Fill3	0	0	9.3806	0	12	0.00	-12.00	-6.00	9.38	37.14	159.47	1	0.03	1.9	0	-0.7238	**2.995**	**2.70**	**6.4**	25	**1.2**	**14.7**
SS12 / Fill3.5	0	0	10.3721	0	12	0.00	-12.00	-6.00	10.37	37.14	176.33	1	0.03	1.9	0	-0.7595	**3.143**	**2.83**	**6.9**	25	**1.2**	**14.7**
SS12 / Fill4	0	0	11.3499	0	12	0.00	-12.00	-6.00	11.35	37.14	192.95	1	0.03	1.9	0	-0.7921	**3.277**	**2.95**	**7.3**	25	**1.2**	**14.7**

2. Mesri Creep Settlement - (Mesri et al (1994) and Mesri & Ajlouni (2007))

Assumed Ca/Cc =	0.06	
Design Period, t =	100	yr
Future Load, Ds =	0	kPa

															Mesri et al (1994), Mesri & Ajlouni (2007)					
	Final Ground RL (m)	**Surc. Consol Achieved (%)**	**Original OCR**	**Original svi' (kPa)**	**Preloaded svp' (kPa)**	**New Surch Base RL (m AHD)**	**New Fill Base RL (m AHD)**	**Final centre Soft Soil RL (m AHD)**	**Final Grd sv' (kPa)**	**Total Final svf' (kPa)**	**Final OCR**	**Rs'**	**Cc/(1+e0)**	**Ca/(1+e0)**	**tpr (Yr)**	**tl (Yr)**	**t/tl**	**Ca''/Ca**	**Ca''/(1+e0)**	**Creep Settlement (mm)**
SS0.5 / Fill0.5	0.5	90%	1	2	12	-0.2	-0.2	-0.3	11	11	1.10	0.10	0.34	0.021	0.05	0.10	1018	0.80	0.017	25
SS0.5 / Fill1	1.0	90%	1	2	21	-0.2	-0.2	-0.4	19	19	1.10	0.10	0.34	0.021	0.05	0.10	1019	0.80	0.017	25
SS0.5 / Fill1.5	1.5	90%	1	2	31	-0.2	-0.2	-0.4	28	28	1.10	0.10	0.34	0.021	0.05	0.10	1018	0.80	0.017	25
SS0.5 / Fill2	2.0	90%	1	2	40	-0.3	-0.3	-0.4	37	37	1.10	0.10	0.34	0.021	0.05	0.10	1019	0.80	0.017	25
SS0.5 / Fill2.5	2.5	90%	1	2	50	-0.3	-0.3	-0.4	45	45	1.10	0.10	0.34	0.021	0.05	0.10	1019	0.80	0.017	25
SS0.5 / Fill3	3.0	90%	1	2	59	-0.3	-0.3	-0.4	54	54	1.10	0.10	0.34	0.021	0.05	0.10	1019	0.80	0.017	25
SS0.5 / Fill3.5	3.5	90%	1	2	68	-0.3	-0.3	-0.4	62	62	1.10	0.10	0.34	0.021	0.05	0.10	1019	0.80	0.017	25
SS0.5 / Fill4	4.0	90%	1	2	78	-0.3	-0.3	-0.4	71	71	1.10	0.10	0.34	0.021	0.05	0.10	1019	0.80	0.017	25
SS1 / Fill0.5	0.5	90%	1	3	14	-0.3	-0.3	-0.6	13	13	1.14	0.14	0.34	0.021	0.05	0.18	565	0.44	0.009	25
SS1 / Fill1	1.0	90%	1	3	25	-0.3	-0.3	-0.7	22	22	1.14	0.14	0.34	0.021	0.05	0.18	565	0.44	0.009	25
SS1 / Fill1.5	1.5	90%	1	3	34	-0.4	-0.4	-0.7	30	30	1.14	0.14	0.34	0.021	0.05	0.18	564	0.44	0.009	25
SS1 / Fill2	2.0	90%	1	3	44	-0.4	-0.4	-0.7	39	39	1.14	0.14	0.34	0.021	0.05	0.18	564	0.44	0.009	25
SS1 / Fill2.5	2.5	90%	1	3	54	-0.5	-0.5	-0.7	47	47	1.14	0.14	0.34	0.021	0.05	0.18	564	0.44	0.009	25
SS1 / Fill3	3.0	90%	1	3	64	-0.5	-0.5	-0.7	56	56	1.14	0.14	0.34	0.021	0.05	0.18	564	0.44	0.009	25
SS1 / Fill3.5	3.5	90%	1	3	74	-0.5	-0.5	-0.7	65	65	1.14	0.14	0.34	0.021	0.05	0.18	564	0.44	0.009	25
SS1 / Fill4	4.0	90%	1	3	83	-0.5	-0.5	-0.8	73	73	1.14	0.14	0.34	0.021	0.05	0.18	564	0.44	0.009	25
SS1.5 / Fill0.5	0.5	90%	1	5	17	-0.4	-0.4	-0.9	15	15	1.17	0.17	0.34	0.021	0.05	0.25	394	0.31	0.006	25
SS1.5 / Fill1	1.0	90%	1	5	28	-0.5	-0.5	-1.0	24	24	1.17	0.17	0.34	0.021	0.05	0.25	394	0.31	0.006	25
SS1.5 / Fill1.5	1.5	90%	1	5	38	-0.5	-0.5	-1.0	32	32	1.17	0.17	0.34	0.021	0.05	0.25	394	0.31	0.006	25
SS1.5 / Fill2	2.0	90%	1	5	48	-0.6	-0.6	-1.0	41	41	1.17	0.17	0.34	0.021	0.05	0.25	394	0.31	0.006	25
SS1.5 / Fill2.5	2.5	90%	1	5	58	-0.6	-0.6	-1.1	50	50	1.17	0.17	0.34	0.021	0.05	0.25	394	0.31	0.006	25
SS1.5 / Fill3	3.0	90%	1	5	68	-0.6	-0.6	-1.1	58	58	1.17	0.17	0.34	0.021	0.05	0.25	394	0.31	0.006	25
SS1.5 / Fill3.5	3.5	90%	1	5	79	-0.7	-0.7	-1.1	67	67	1.17	0.17	0.34	0.021	0.05	0.25	394	0.31	0.006	25
SS1.5 / Fill4	4.0	90%	1	5	89	-0.7	-0.7	-1.1	76	76	1.17	0.17	0.34	0.021	0.05	0.25	394	0.31	0.006	25
SS2 / Fill0.5	0.5	90%	1	6	20	-0.4	-0.4	-1.2	16	16	1.20	0.20	0.34	0.021	0.05	0.33	303	0.24	0.005	25
SS2 / Fill1	1.0	90%	1	6	31	-0.6	-0.6	-1.3	25	25	1.20	0.20	0.34	0.021	0.05	0.33	303	0.24	0.005	25
SS2 / Fill1.5	1.5	90%	1	6	41	-0.6	-0.6	-1.3	34	34	1.20	0.20	0.34	0.021	0.05	0.33	303	0.24	0.005	25
SS2 / Fill2	2.0	90%	1	6	52	-0.7	-0.7	-1.4	43	43	1.20	0.20	0.34	0.021	0.05	0.33	303	0.24	0.005	25
SS2 / Fill2.5	2.5	90%	1	6	62	-0.8	-0.8	-1.4	52	52	1.20	0.20	0.34	0.021	0.05	0.33	303	0.24	0.005	25
SS2 / Fill3	3.0	90%	1	6	73	-0.8	-0.8	-1.4	60	60	1.20	0.20	0.34	0.021	0.05	0.33	303	0.24	0.005	25
SS2 / Fill3.5	3.5	90%	1	6	83	-0.8	-0.8	-1.4	69	69	1.20	0.20	0.34	0.021	0.05	0.33	303	0.24	0.005	25
SS2 / Fill4	4.0	90%	1	6	93	-0.9	-0.9	-1.4	78	78	1.20	0.20	0.34	0.021	0.05	0.33	303	0.24	0.005	25
SS2.5 / Fill0.5	0.5	90%	1	8	22	-0.5	-0.5	-1.5	18	18	1.23	0.23	0.34	0.021	0.05	0.41	246	0.20	0.004	25
SS2.5 / Fill1	1.0	90%	1	8	34	-0.6	-0.6	-1.6	27	27	1.23	0.23	0.34	0.021	0.05	0.41	246	0.20	0.004	25
SS2.5 / Fill1.5	1.5	90%	1	8	45	-0.7	-0.7	-1.6	36	36	1.23	0.23	0.34	0.021	0.05	0.41	246	0.20	0.004	25
SS2.5 / Fill2	2.0	90%	1	8	55	-0.8	-0.8	-1.7	45	45	1.23	0.23	0.34	0.021	0.05	0.41	246	0.20	0.004	25
SS2.5 / Fill2.5	2.5	90%	1	8	66	-0.9	-0.9	-1.7	54	54	1.23	0.23	0.34	0.021	0.05	0.41	246	0.20	0.004	25
SS2.5 / Fill3	3.0	90%	1	8	77	-0.9	-0.9	-1.7	63	63	1.23	0.23	0.34	0.021	0.05	0.41	246	0.20	0.004	25
SS2.5 / Fill3.5	3.5	90%	1	8	88	-1.0	-1.0	-1.7	71	71	1.23	0.23	0.34	0.021	0.05	0.41	246	0.20	0.004	25
SS2.5 / Fill4	4.0	90%	1	8	98	-1.0	-1.0	-1.8	80	80	1.23	0.23	0.34	0.021	0.05	0.41	246	0.20	0.004	25
SS3 / Fill0.5	0.5	90%	1	9	25	-0.6	-0.6	-1.8	20	20	1.25	0.25	0.34	0.021	0.05	0.49	206	0.17	0.004	25
SS3 / Fill1	1.0	90%	1	9	37	-0.7	-0.7	-1.9	29	29	1.25	0.25	0.34	0.021	0.05	0.49	206	0.17	0.004	25
SS3 / Fill1.5	1.5	90%	1	9	48	-0.8	-0.8	-1.9	38	38	1.25	0.25	0.34	0.021	0.05	0.49	206	0.17	0.004	25
SS3 / Fill2	2.0	90%	1	9	59	-0.9	-0.9	-2.0	47	47	1.25	0.25	0.34	0.021	0.05	0.49	206	0.17	0.004	25
SS3 / Fill2.5	2.5	90%	1	9	70	-1.0	-1.0	-2.0	56	56	1.25	0.25	0.34	0.021	0.05	0.49	206	0.17	0.004	25
SS3 / Fill3	3.0	90%	1	9	81	-1.1	-1.1	-2.0	65	65	1.25	0.25	0.34	0.021	0.05	0.49	206	0.17	0.004	25
SS3 / Fill3.5	3.5	90%	1	9	92	-1.1	-1.1	-2.1	73	73	1.25	0.25	0.34	0.021	0.05	0.49	206	0.17	0.004	25
SS3 / Fill4	4.0	90%	1	9	103	-1.2	-1.2	-2.1	82	82	1.25	0.25	0.34	0.021	0.05	0.49	206	0.17	0.004	25
SS3.5 / Fill0.5	0.5	90%	1	11	28	-0.6	-0.6	-2.1	22	22	1.28	0.28	0.34	0.021	0.05	0.56	177	0.15	0.003	25
SS3.5 / Fill1	1.0	90%	1	11	40	-0.8	-0.8	-2.2	31	31	1.28	0.28	0.34	0.021	0.05	0.56	177	0.15	0.003	25
SS3.5 / Fill1.5	1.5	90%	1	11	51	-0.9	-0.9	-2.2	40	40	1.28	0.28	0.34	0.021	0.05	0.56	177	0.15	0.003	25
SS3.5 / Fill2	2.0	90%	1	11	63	-1.0	-1.0	-2.3	49	49	1.28	0.28	0.34	0.021	0.05	0.56	177	0.15	0.003	25
SS3.5 / Fill2.5	2.5	90%	1	11	74	-1.1	-1.1	-2.3	58	58	1.28	0.28	0.34	0.021	0.05	0.56	177	0.15	0.003	25
SS3.5 / Fill3	3.0	90%	1	11	85	-1.2	-1.2	-2.3	67	67	1.28	0.28	0.34	0.021	0.05	0.56	177	0.15	0.003	25
SS3.5 / Fill3.5	3.5	90%	1	11	96	-1.3	-1.3	-2.4	75	75	1.28	0.28	0.34	0.021	0.05	0.56	177	0.15	0.003	25
SS3.5 / Fill4	4.0	90%	1	11	108	-1.3	-1.3	-2.4	84	84	1.28	0.28	0.34	0.021	0.05	0.56	177	0.15	0.003	25
SS4 / Fill0.5	0.5	90%	1	12	31	-0.7	-0.7	-2.4	24	24	1.30	0.30	0.34	0.021	0.05	0.65	155	0.14	0.003	25
SS4 / Fill1	1.0	90%	1	12	43	-0.9	-0.9	-2.5	33	33	1.30	0.30	0.34	0.021	0.05	0.65	155	0.14	0.003	25
SS4 / Fill1.5	1.5	90%	1	12	55	-1.0	-1.0	-2.5	42	42	1.30	0.30	0.34	0.021	0.05	0.65	155	0.14	0.003	25
SS4 / Fill2	2.0	90%	1	12	66	-1.2	-1.2	-2.6	51	51	1.30	0.30	0.34	0.021	0.05	0.65	155	0.14	0.003	25
SS4 / Fill2.5	2.5	90%	1	12	78	-1.2	-1.2	-2.6	60	60	1.30	0.30	0.34	0.021	0.05	0.65	155	0.14	0.003	25
SS4 / Fill3	3.0	90%	1	12	89	-1.3	-1.3	-2.7	69	69	1.30	0.30	0.34	0.021	0.05	0.65	155	0.14	0.003	25
SS4 / Fill3.5	3.5	90%	1	12	101	-1.4	-1.4	-2.7	78	78	1.30	0.30	0.34	0.021	0.05	0.65	155	0.14	0.003	25
SS4 / Fill4	4.0	90%	1	12	112	-1.4	-1.4	-2.7	86	86	1.30	0.30	0.34	0.021	0.05	0.65	155	0.14	0.003	25
SS4.5 / Fill0.5	0.5	90%	1	14	34	-0.8	-0.8	-2.6	26	26	1.32	0.32	0.34	0.021	0.05	0.73	137	0.13	0.003	25
SS4.5 / Fill1	1.0	90%	1	14	46	-1.0	-1.0	-2.7	35	35	1.32	0.32	0.34	0.021	0.05	0.73	137	0.13	0.003	25
SS4.5 / Fill1.5	1.5	90%	1	14	58	-1.1	-1.1	-2.8	44	44	1.32	0.32	0.34	0.021	0.05	0.73	137	0.13	0.003	25
SS4.5 / Fill2	2.0	90%	1	14	70	-1.3	-1.3	-2.9	53	53	1.32	0.32	0.34	0.021	0.05	0.73	137	0.13	0.003	25
SS4.5 / Fill2.5	2.5	90%	1	14	82	-1.4	-1.4	-2.9	62	62	1.32	0.32	0.34	0.021	0.05	0.73	137	0.13	0.003	25
SS4.5 / Fill3	3.0	90%	1	14	94	-1.4	-1.4	-3.0	71	71	1.32	0.32	0.34	0.021	0.05	0.73	137	0.13	0.003	25
SS4.5 / Fill3.5	3.5	90%	1	14	105	-1.5	-1.5	-3.0	80	80	1.32	0.32	0.34	0.021	0.05	0.73	137	0.13	0.003	25
SS4.5 / Fill4	4.0	90%	1	14	117	-1.6	-1.6	-3.0	88	88	1.32	0.32	0.34	0.021	0.05	0.73	137	0.13	0.003	25
SS5 / Fill0.5	0.5	90%	1	15	37	-0.9	-0.9	-2.9	27	27	1.34	0.34	0.34	0.021	0.05	0.81	123	0.12	0.002	25
SS5 / Fill1	1.0	90%	1	15	50	-1.1	-1.1	-3.0	37	37	1.34	0.34	0.34	0.021	0.05	0.81	123	0.12	0.002	25
SS5 / Fill1.5	1.5	90%	1	15	62	-1.2	-1.2	-3.1	46	46	1.34	0.34	0.34	0.021	0.05	0.81	123	0.12	0.002	25
SS5 / Fill2	2.0	90%	1	15	74	-1.4	-1.4	-3.2	55	55	1.34	0.34	0.34	0.021	0.05	0.81	123	0.12	0.002	25
SS5 / Fill2.5	2.5	90%	1	15	86	-1.5	-1.5	-3.2	64	64	1.34	0.34	0.34	0.021	0.05	0.81	123	0.12	0.002	25
SS5 / Fill3	3.0	90%	1	15	98	-1.6	-1.6	-3.3	73	73	1.34	0.34	0.34	0.021	0.05	0.81	123	0.12	0.002	25
SS5 / Fill3.5	3.5	90%	1	15	110	-1.6	-1.6	-3.3	82	82	1.34	0.34	0.34	0.021	0.05	0.81	123	0.12	0.002	25
SS5 / Fill4	4.0	90%	1	15	122	-1.7	-1.7	-3.4	90	90	1.34	0.34	0.34	0.021	0.05	0.81	123	0.12	0.002	25
SS5.5 / Fill0.5	0.5	90%	1	17	40	-0.9	-0.9	-3.2	29	29	1.36	0.36	0.34	0.021	0.05	0.89	113	0.11	0.002	25
SS5.5 / Fill1	1.0	90%	1	17	53	-1.2	-1.2	-3.3	39	39	1.36	0.36	0.34	0.021	0.05	0.89	113	0.11	0.002	25
SS5.5 / Fill1.5	1.5	90%	1	17	65	-1.3	-1.3	-3.4	48	48	1.36	0.36	0.34	0.021	0.05	0.89	113	0.11	0.002	25

SS5.5 / Fill2	2.0	90%	1	17	78	-1.5	-1.5	-3.5	57	57	1.36	0.36	0.34	0.021	0.05	0.89	113	0.11	0.002	25
SS5.5 / Fill2.5	2.5	90%	1	17	90	-1.6	-1.6	-3.5	66	66	1.36	0.36	0.34	0.021	0.05	0.89	113	0.11	0.002	25
SS5.5 / Fill3	3.0	90%	1	17	102	-1.7	-1.7	-3.6	75	75	1.36	0.36	0.34	0.021	0.05	0.89	113	0.11	0.002	25
SS5.5 / Fill3.5	3.5	90%	1	17	114	-1.8	-1.8	-3.6	84	84	1.36	0.36	0.34	0.021	0.05	0.89	113	0.11	0.002	25
SS5.5 / Fill4	4.0	90%	1	17	126	-1.8	-1.8	-3.7	93	93	1.36	0.36	0.34	0.021	0.05	0.89	113	0.11	0.002	25
SS6 / Fill0.5	0.5	90%	1	19	43	-1.0	-1.0	-3.5	31	31	1.38	0.38	0.34	0.021	0.05	0.95	105	0.10	0.002	25
SS6 / Fill1	1.0	90%	1	19	56	-1.2	-1.2	-3.6	41	41	1.38	0.38	0.34	0.021	0.05	0.95	105	0.10	0.002	25
SS6 / Fill1.5	1.5	90%	1	19	69	-1.4	-1.4	-3.7	50	50	1.38	0.38	0.34	0.021	0.05	0.95	105	0.10	0.002	25
SS6 / Fill2	2.0	90%	1	19	81	-1.6	-1.6	-3.8	59	59	1.38	0.38	0.34	0.021	0.05	0.95	105	0.10	0.002	25
SS6 / Fill2.5	2.5	90%	1	19	94	-1.7	-1.7	-3.8	68	68	1.38	0.38	0.34	0.021	0.05	0.95	105	0.10	0.002	25
SS6 / Fill3	3.0	90%	1	19	106	-1.8	-1.8	-3.9	77	77	1.38	0.38	0.34	0.021	0.05	0.95	105	0.10	0.002	25
SS6 / Fill3.5	3.5	90%	1	19	118	-1.9	-1.9	-3.9	86	86	1.38	0.38	0.34	0.021	0.05	0.95	105	0.10	0.002	25
SS6 / Fill4	4.0	90%	1	19	130	-2.0	-2.0	-4.0	95	95	1.38	0.38	0.34	0.021	0.05	0.95	105	0.10	0.002	25
SS6.5 / Fill0.5	0.5	90%	1	20	46	-1.1	-1.1	-3.8	33	33	1.39	0.39	0.34	0.021	0.05	1.02	98	0.09	0.002	25
SS6.5 / Fill1	1.0	90%	1	20	59	-1.3	-1.3	-3.9	43	43	1.39	0.39	0.34	0.021	0.05	1.02	98	0.09	0.002	25
SS6.5 / Fill1.5	1.5	90%	1	20	72	-1.5	-1.5	-4.0	52	52	1.39	0.39	0.34	0.021	0.05	1.02	98	0.09	0.002	25
SS6.5 / Fill2	2.0	90%	1	20	85	-1.7	-1.7	-4.1	61	61	1.39	0.39	0.34	0.021	0.05	1.02	98	0.09	0.002	25
SS6.5 / Fill2.5	2.5	90%	1	20	97	-1.8	-1.8	-4.1	70	70	1.39	0.39	0.34	0.021	0.05	1.02	98	0.09	0.002	25
SS6.5 / Fill3	3.0	90%	1	20	110	-1.9	-1.9	-4.2	79	79	1.39	0.39	0.34	0.021	0.05	1.02	98	0.09	0.002	25
SS6.5 / Fill3.5	3.5	90%	1	20	122	-2.0	-2.0	-4.2	88	88	1.39	0.39	0.34	0.021	0.05	1.02	98	0.09	0.002	25
SS6.5 / Fill4	4.0	90%	1	20	135	-2.1	-2.1	-4.3	97	97	1.39	0.39	0.34	0.021	0.05	1.02	98	0.09	0.002	25
SS7 / Fill0.5	0.5	90%	1	22	49	-1.1	-1.1	-4.1	35	35	1.41	0.41	0.34	0.021	0.05	1.08	93	0.09	0.002	25
SS7 / Fill1	1.0	90%	1	22	62	-1.4	-1.4	-4.2	44	44	1.41	0.41	0.34	0.021	0.05	1.08	93	0.09	0.002	25
SS7 / Fill1.5	1.5	90%	1	22	75	-1.6	-1.6	-4.3	54	54	1.41	0.41	0.34	0.021	0.05	1.08	93	0.09	0.002	25
SS7 / Fill2	2.0	90%	1	22	88	-1.7	-1.7	-4.4	63	63	1.41	0.41	0.34	0.021	0.05	1.08	93	0.09	0.002	25
SS7 / Fill2.5	2.5	90%	1	22	101	-1.9	-1.9	-4.4	72	72	1.41	0.41	0.34	0.021	0.05	1.08	93	0.09	0.002	25
SS7 / Fill3	3.0	90%	1	22	114	-2.0	-2.0	-4.5	81	81	1.41	0.41	0.34	0.021	0.05	1.08	93	0.09	0.002	25
SS7 / Fill3.5	3.5	90%	1	22	126	-2.1	-2.1	-4.6	90	90	1.41	0.41	0.34	0.021	0.05	1.08	93	0.09	0.002	25
SS7 / Fill4	4.0	90%	1	22	139	-2.2	-2.2	-4.6	99	99	1.41	0.41	0.34	0.021	0.05	1.08	93	0.09	0.002	25
SS7.5 / Fill0.5	0.5	90%	1	23	52	-1.2	-1.2	-4.4	37	37	1.42	0.42	0.34	0.021	0.05	1.13	89	0.08	0.002	25
SS7.5 / Fill1	1.0	90%	1	23	66	-1.5	-1.5	-4.5	46	46	1.42	0.42	0.34	0.021	0.05	1.13	89	0.08	0.002	25
SS7.5 / Fill1.5	1.5	90%	1	23	79	-1.7	-1.7	-4.6	56	56	1.42	0.42	0.34	0.021	0.05	1.13	89	0.08	0.002	25
SS7.5 / Fill2	2.0	90%	1	23	92	-1.8	-1.8	-4.7	65	65	1.42	0.42	0.34	0.021	0.05	1.13	89	0.08	0.002	25
SS7.5 / Fill2.5	2.5	90%	1	23	105	-2.0	-2.0	-4.7	74	74	1.42	0.42	0.34	0.021	0.05	1.13	89	0.08	0.002	25
SS7.5 / Fill3	3.0	90%	1	23	117	-2.1	-2.1	-4.8	83	83	1.42	0.42	0.34	0.021	0.05	1.13	89	0.08	0.002	25
SS7.5 / Fill3.5	3.5	90%	1	23	130	-2.2	-2.2	-4.9	92	92	1.42	0.42	0.34	0.021	0.05	1.13	89	0.08	0.002	25
SS7.5 / Fill4	4.0	90%	1	23	143	-2.3	-2.3	-4.9	101	101	1.42	0.42	0.34	0.021	0.05	1.13	89	0.08	0.002	25
SS8 / Fill0.5	0.5	90%	1	25	55	-1.3	-1.3	-4.6	39	39	1.43	0.43	0.34	0.021	0.05	1.18	85	0.08	0.002	25
SS8 / Fill1	1.0	90%	1	25	69	-1.6	-1.6	-4.8	48	48	1.43	0.43	0.34	0.021	0.05	1.18	85	0.08	0.002	25
SS8 / Fill1.5	1.5	90%	1	25	82	-1.8	-1.8	-4.9	57	57	1.43	0.43	0.34	0.021	0.05	1.18	85	0.08	0.002	25
SS8 / Fill2	2.0	90%	1	25	95	-1.9	-1.9	-5.0	67	67	1.43	0.43	0.34	0.021	0.05	1.18	85	0.08	0.002	25
SS8 / Fill2.5	2.5	90%	1	25	108	-2.1	-2.1	-5.0	76	76	1.43	0.43	0.34	0.021	0.05	1.18	85	0.08	0.002	25
SS8 / Fill3	3.0	90%	1	25	121	-2.2	-2.2	-5.1	85	85	1.43	0.43	0.34	0.021	0.05	1.18	85	0.08	0.002	25
SS8 / Fill3.5	3.5	90%	1	25	134	-2.3	-2.3	-5.2	94	94	1.43	0.43	0.34	0.021	0.05	1.18	85	0.08	0.002	25
SS8 / Fill4	4.0	90%	1	25	147	-2.4	-2.4	-5.2	103	103	1.43	0.43	0.34	0.021	0.05	1.18	85	0.08	0.002	25
SS8.5 / Fill0.5	0.5	90%	1	26	58	-1.4	-1.4	-4.9	40	40	1.44	0.44	0.34	0.021	0.05	1.23	81	0.07	0.002	25
SS8.5 / Fill1	1.0	90%	1	26	72	-1.6	-1.6	-5.1	50	50	1.44	0.44	0.34	0.021	0.05	1.23	81	0.07	0.002	25
SS8.5 / Fill1.5	1.5	90%	1	26	85	-1.8	-1.8	-5.2	59	59	1.44	0.44	0.34	0.021	0.05	1.23	81	0.07	0.002	25
SS8.5 / Fill2	2.0	90%	1	26	99	-2.0	-2.0	-5.3	69	69	1.44	0.44	0.34	0.021	0.05	1.23	81	0.07	0.002	25
SS8.5 / Fill2.5	2.5	90%	1	26	112	-2.2	-2.2	-5.3	78	78	1.44	0.44	0.34	0.021	0.05	1.23	81	0.07	0.002	25
SS8.5 / Fill3	3.0	90%	1	26	125	-2.3	-2.3	-5.4	87	87	1.44	0.44	0.34	0.021	0.05	1.23	81	0.07	0.002	25
SS8.5 / Fill3.5	3.5	90%	1	26	138	-2.4	-2.4	-5.5	96	96	1.44	0.44	0.34	0.021	0.05	1.23	81	0.07	0.002	25
SS8.5 / Fill4	4.0	90%	1	26	151	-2.5	-2.5	-5.5	105	105	1.44	0.44	0.34	0.021	0.05	1.23	81	0.07	0.002	25
SS9 / Fill0.5	0.5	90%	1	28	61	-1.4	-1.4	-5.2	42	42	1.45	0.45	0.34	0.021	0.05	1.28	78	0.07	0.001	25
SS9 / Fill1	1.0	90%	1	28	75	-1.7	-1.7	-5.4	52	52	1.45	0.45	0.34	0.021	0.05	1.28	78	0.07	0.001	25
SS9 / Fill1.5	1.5	90%	1	28	89	-1.9	-1.9	-5.5	61	61	1.45	0.45	0.34	0.021	0.05	1.28	78	0.07	0.001	25
SS9 / Fill2	2.0	90%	1	28	102	-2.1	-2.1	-5.6	71	71	1.45	0.45	0.34	0.021	0.05	1.28	78	0.07	0.001	25
SS9 / Fill2.5	2.5	90%	1	28	115	-2.3	-2.3	-5.6	80	80	1.45	0.45	0.34	0.021	0.05	1.28	78	0.07	0.001	25
SS9 / Fill3	3.0	90%	1	28	129	-2.4	-2.4	-5.7	89	89	1.45	0.45	0.34	0.021	0.05	1.28	78	0.07	0.001	25
SS9 / Fill3.5	3.5	90%	1	28	142	-2.5	-2.5	-5.8	98	98	1.45	0.45	0.34	0.021	0.05	1.28	78	0.07	0.001	25
SS9 / Fill4	4.0	90%	1	28	155	-2.6	-2.6	-5.8	107	107	1.45	0.45	0.34	0.021	0.05	1.28	78	0.07	0.001	25
SS9.5 / Fill0.5	0.5	90%	1	29	64	-1.5	-1.5	-5.5	44	44	1.46	0.46	0.34	0.021	0.05	1.33	75	0.07	0.001	25
SS9.5 / Fill1	1.0	90%	1	29	78	-1.8	-1.8	-5.6	54	54	1.46	0.46	0.34	0.021	0.05	1.33	75	0.07	0.001	25
SS9.5 / Fill1.5	1.5	90%	1	29	92	-2.0	-2.0	-5.8	63	63	1.46	0.46	0.34	0.021	0.05	1.33	75	0.07	0.001	25
SS9.5 / Fill2	2.0	90%	1	29	106	-2.2	-2.2	-5.9	72	72	1.46	0.46	0.34	0.021	0.05	1.33	75	0.07	0.001	25
SS9.5 / Fill2.5	2.5	90%	1	29	119	-2.4	-2.4	-5.9	82	82	1.46	0.46	0.34	0.021	0.05	1.33	75	0.07	0.001	25
SS9.5 / Fill3	3.0	90%	1	29	132	-2.5	-2.5	-6.0	91	91	1.46	0.46	0.34	0.021	0.05	1.33	75	0.07	0.001	25
SS9.5 / Fill3.5	3.5	90%	1	29	145	-2.6	-2.6	-6.1	100	100	1.46	0.46	0.34	0.021	0.05	1.33	75	0.07	0.001	25
SS9.5 / Fill4	4.0	90%	1	29	159	-2.7	-2.7	-6.1	109	109	1.46	0.46	0.34	0.021	0.05	1.33	75	0.07	0.001	25
SS10 / Fill0.5	0.5	90%	1	31	67	-1.6	-1.6	-5.8	46	46	1.47	0.47	0.34	0.021	0.05	1.38	72	0.06	0.001	25
SS10 / Fill1	1.0	90%	1	31	82	-1.9	-1.9	-5.9	56	56	1.47	0.47	0.34	0.021	0.05	1.38	72	0.06	0.001	25
SS10 / Fill1.5	1.5	90%	1	31	96	-2.1	-2.1	-6.0	65	65	1.47	0.47	0.34	0.021	0.05	1.38	72	0.06	0.001	25
SS10 / Fill2	2.0	90%	1	31	109	-2.3	-2.3	-6.1	74	74	1.47	0.47	0.34	0.021	0.05	1.38	72	0.06	0.001	25
SS10 / Fill2.5	2.5	90%	1	31	123	-2.5	-2.5	-6.2	84	84	1.47	0.47	0.34	0.021	0.05	1.38	72	0.06	0.001	25
SS10 / Fill3	3.0	90%	1	31	136	-2.6	-2.6	-6.3	93	93	1.47	0.47	0.34	0.021	0.05	1.38	72	0.06	0.001	25
SS10 / Fill3.5	3.5	90%	1	31	149	-2.7	-2.7	-6.4	102	102	1.47	0.47	0.34	0.021	0.05	1.38	72	0.06	0.001	25
SS10 / Fill4	4.0	90%	1	31	163	-2.9	-2.9	-6.4	111	111	1.47	0.47	0.34	0.021	0.05	1.38	72	0.06	0.001	25
SS10.5 / Fill0.5	0.5	90%	1	32	71	-1.7	-1.7	-6.1	48	48	1.48	0.48	0.34	0.021	0.05	1.43	70	0.06	0.001	25
SS10.5 / Fill1	1.0	90%	1	32	85	-1.9	-1.9	-6.2	57	57	1.48	0.48	0.34	0.021	0.05	1.43	70	0.06	0.001	25
SS10.5 / Fill1.5	1.5	90%	1	32	99	-2.2	-2.2	-6.3	67	67	1.48	0.48	0.34	0.021	0.05	1.43	70	0.06	0.001	25
SS10.5 / Fill2	2.0	90%	1	32	113	-2.4	-2.4	-6.4	76	76	1.48	0.48	0.34	0.021	0.05	1.43	70	0.06	0.001	25
SS10.5 / Fill2.5	2.5	90%	1	32	126	-2.6	-2.6	-6.5	85	85	1.48	0.48	0.34	0.021	0.05	1.43	70	0.06	0.001	25
SS10.5 / Fill3	3.0	90%	1	32	140	-2.7	-2.7	-6.6	95	95	1.48	0.48	0.34	0.021	0.05	1.43	70	0.06	0.001	25
SS10.5 / Fill3.5	3.5	90%	1	32	153	-2.8	-2.8	-6.7	104	104	1.48	0.48	0.34	0.021	0.05	1.43	70	0.06	0.001	25
SS10.5 / Fill4	4.0	90%	1	32	167	-3.0	-3.0	-6.7	113	113	1.48	0.48	0.34	0.021	0.05	1.43	70	0.06	0.001	25
SS11 / Fill0.5	0.5	90%	1	34	74	-1.7	-1.7	-6.4	50	50	1.49	0.49	0.34	0.021	0.05	1.48	68	0.06	0.001	25
SS11 / Fill1	1.0	90%	1	34	88	-2.0	-2.0	-6.5	59	59	1.49	0.49	0.34	0.021	0.05	1.48	68	0.06	0.001	25
SS11 / Fill1.5	1.5	90%	1	34	102	-2.3	-2.3	-6.6	69	69	1.49	0.49	0.34	0.021	0.05	1.48	68	0.06	0.001	25
SS11 / Fill2	2.0	90%	1	34	116	-2.5	-2.5	-6.7	78	78	1.49	0.49	0.34	0.021	0.05	1.48	68	0.06	0.001	25
SS11 / Fill2.5	2.5	90%	1	34	130	-2.6	-2.6	-6.8	87	87	1.49	0.49	0.34	0.021	0.05	1.48	68	0.06	0.001	25
SS11 / Fill3	3.0	90%	1	34	144	-2.8	-2.8	-6.9	97	97	1.49	0.49	0.34	0.021	0.05	1.48	68	0.06	0.001	25
SS11 / Fill3.5	3.5	90%	1	34	157	-2.9	-2.9	-7.0	106	106	1.49	0.49	0.34	0.021	0.05	1.48	68	0.06	0.001	25
SS11 / Fill4	4.0	90%	1	34	171	-3.1	-3.1	-7.0	115	115	1.49	0.49	0.34	0.021	0.05	1.48	68	0.06	0.001	25
SS11.5 / Fill0.5	0.5	90%	1	36	77	-1.8	-1.8	-6.7	51	51	1.50	0.50	0.34	0.021	0.05	1.53	66	0.06	0.001	25
SS11.5 / Fill1	1.0	90%	1	36	92	-2.1	-2.1	-6.8	61	61	1.50	0.50	0.34	0.021	0.05	1.53	66	0.06	0.001	25
SS11.5 / Fill1.5	1.5	90%	1	36	106	-2.4	-2.4	-6.9	71	71	1.50	0.50	0.34	0.021	0.05	1.53	66	0.06	0.001	25
SS11.5 / Fill2	2.0	90%	1	36	120	-2.6	-2.6	-7.0	80	80	1.50	0.50	0.34	0.021	0.05	1.53	66	0.06	0.001	25
SS11.5 / Fill2.5	2.5	90%	1	36	134	-2.7	-2.7	-7.1	89	89	1.50	0.50	0.34	0.021	0.05	1.53	66	0.06	0.001	25
SS11.5 / Fill3	3.0	90%	1	36	147	-2.9	-2.9	-7.2	98	98	1.50	0.50	0.34	0.021	0.05	1.53	66	0.06	0.001	25
SS11.5 / Fill3.5	3.5	90%	1	36	161	-3.0	-3.0	-7.3	108	108	1.50	0.50	0.34	0.021	0.05	1.53	66	0.06	0.001	25
SS11.5 / Fill4	4.0	90%	1	36	175	-3.2	-3.2	-7.3	117	117	1.50	0.50	0.34	0.021	0.05	1.53	66	0.06	0.001	25
SS12 / Fill0.5	0.5	90%	1	37	80	-1.9	-1.9	-6.9	53	53	1.51	0.51	0.34	0.021	0.05	1.57	64	0.06	0.001	25
SS12 / Fill1	1.0	90%	1	37	95	-2.2	-2.2	-7.1	63	63	1.51	0.51	0.34	0.021	0.05	1.57	64	0.06	0.001	25
SS12 / Fill1.5	1.5	90%	1	37	109	-2.4	-2.4	-7.2	73	73	1.51	0.51	0.34	0.021	0.05	1.57	64	0.06	0.001	25
SS12 / Fill2	2.0	90%	1	37	124	-2.6	-2.6	-7.3	82	82	1.51	0.51	0.34	0.021	0.05	1.57	64	0.06	0.001	25
SS12 / Fill2.5	2.5	90%	1	37	137	-2.8	-2.8	-7.4	91	91	1.51	0.51	0.34	0.021	0.05	1.57	64	0.06	0.001	25
SS12 / Fill3	3.0	90%	1	37	151	-3.0	-3.0	-7.5	100	100	1.51	0.51	0.34	0.021	0.05	1.57	64	0.06	0.001	25
SS12 / Fill3.5	3.5	90%	1	37	165	-3.1	-3.1	-7.6	110	110	1.51	0.51	0.34	0.021	0.05	1.57	64	0.06	0.001	25
SS12 / Fill4	4.0	90%	1	37	179	-3.3	-3.3	-7.6	119	119	1.51	0.51	0.34	0.021	0.05	1.57	64	0.06	0.001	25



CMW Geosciences	COLLIERS PROJECT LEADERS	MM
	SOUTHERN LINKS STAGE 1 INDUSTRIAL BLOCK	DMM
	HAMILTON	3
	Primary and Secondary Consolidation of Soft Soil Layers - 20kPa Preload	6/16/2026
		HAM2024-0120

1. Consolidation Settlement (Terzaghi)

Exist Fill Density:	16	kN/m3
Soft Soil Density (Saturated):	16	kN/m3
Surcharge Density:	17	kN/m3
Pre-Load	20	kPa

Scenario	Original Ground RL	Water Table RL	Surcharge Top RL	Exist Fill Thickness	Soft Soil Thickness	Base Fill RL	Base Soft Soil RL	Mid-Point Soft Soil RL	Surcharge Height	Initial Eff Stress	Applied Surcharge	Comp Index CC	Recomp. Index CR	Initial Void Ratio e0	Exist Over Consol.	De	Consol Settlement	t90 Consol	Cv	Time to t90 Consol	
	(mAHD)	(mAHD)	(mAHD)	(m)	(m)	(mAHD)	(mAHD)	(mAHD)	(m)	(kPa)	(kPa)				(kPa)		(m)	(m)	(m2/yr)	(year)	(months)
SS0.5 / Fill0.5	0	0	0.5	0	0.5	0	-0.5	-0.25	0.5	2	28.5	1	0.03	1.9	0	-1.2882	0.222	0.20	25	0.0	0.0
SS0.5 / Fill1	0	0	1	0	0.5	0	-0.5	-0.25	1	2	37	1	0.03	1.9	0	-1.3964	0.241	0.22	25	0.0	0.0
SS0.5 / Fill1.5	0	0	1.5	0	0.5	0	-0.5	-0.25	1.5	2	45.5	1	0.03	1.9	0	-1.4829	0.256	0.23	25	0.0	0.0
SS0.5 / Fill2	0	0	2	0	0.5	0	-0.5	-0.25	2	2	54	1	0.03	1.9	0	-1.5550	0.268	0.24	25	0.0	0.0
SS0.5 / Fill2.5	0	0	2.5	0	0.5	0	-0.5	-0.25	2.5	2	62.5	1	0.03	1.9	0	-1.6169	0.279	0.25	25	0.0	0.0
SS0.5 / Fill3	0	0	3	0	0.5	0	-0.5	-0.25	3	2	71	1	0.03	1.9	0	-1.6710	0.288	0.26	25	0.0	0.0
SS0.5 / Fill3.5	0	0	3.5	0	0.5	0	-0.5	-0.25	3.5	2	79.5	1	0.03	1.9	0	-1.7191	0.296	0.27	25	0.0	0.0
SS0.5 / Fill4	0	0	4	0	0.5	0	-0.5	-0.25	4	2	88	1	0.03	1.9	0	-1.7624	0.304	0.27	25	0.0	0.0
SS1 / Fill0.5	0	0	0.5	0	1	0	-1	-0.5	0.5	3	28.5	1	0.03	1.9	0	-1.0090	0.348	0.31	25	0.0	0.1
SS1 / Fill1	0	0	1	0	1	0	-1	-0.5	1	3	37	1	0.03	1.9	0	-1.1124	0.384	0.35	25	0.0	0.1
SS1 / Fill1.5	0	0	1.5	0	1	0	-1	-0.5	1.5	3	45.5	1	0.03	1.9	0	-1.1959	0.412	0.37	25	0.0	0.1
SS1 / Fill2	0	0	2	0	1	0	-1	-0.5	2	3	54	1	0.03	1.9	0	-1.2659	0.437	0.39	25	0.0	0.1
SS1 / Fill2.5	0	0	2.5	0	1	0	-1	-0.5	2.5	3	62.5	1	0.03	1.9	0	-1.3262	0.457	0.41	25	0.0	0.1
SS1 / Fill3	0	0	3	0	1	0	-1	-0.5	3	3	71	1	0.03	1.9	0	-1.3791	0.476	0.43	25	0.0	0.1
SS1 / Fill3.5	0	0	3.5	0	1	0	-1	-0.5	3.5	3	79.5	1	0.03	1.9	0	-1.4263	0.492	0.44	25	0.0	0.1
SS1 / Fill4	0	0	4	0	1	0	-1	-0.5	4	3	88	1	0.03	1.9	0	-1.4688	0.506	0.46	25	0.0	0.1
SS1.5 / Fill0.5	0	0	0.5	0	1.5	0	-1.5	-0.75	0.5	5	28.5	1	0.03	1.9	0	-0.8536	0.442	0.40	25	0.0	0.2
SS1.5 / Fill1	0	0	1	0	1.5	0	-1.5	-0.75	1	5	37	1	0.03	1.9	0	-0.9528	0.493	0.44	25	0.0	0.2
SS1.5 / Fill1.5	0	0	1.5	0	1.5	0	-1.5	-0.75	1.5	5	45.5	1	0.03	1.9	0	-1.0335	0.535	0.48	25	0.0	0.2
SS1.5 / Fill2	0	0	2	0	1.5	0	-1.5	-0.75	2	5	54	1	0.03	1.9	0	-1.1015	0.570	0.51	25	0.0	0.2
SS1.5 / Fill2.5	0	0	2.5	0	1.5	0	-1.5	-0.75	2.5	5	62.5	1	0.03	1.9	0	-1.1602	0.600	0.54	25	0.0	0.2
SS1.5 / Fill3	0	0	3	0	1.5	0	-1.5	-0.75	3	5	71	1	0.03	1.9	0	-1.2120	0.627	0.56	25	0.0	0.2
SS1.5 / Fill3.5	0	0	3.5	0	1.5	0	-1.5	-0.75	3.5	5	79.5	1	0.03	1.9	0	-1.2583	0.651	0.59	25	0.0	0.2
SS1.5 / Fill4	0	0	4	0	1.5	0	-1.5	-0.75	4	5	88	1	0.03	1.9	0	-1.3001	0.672	0.61	25	0.0	0.2
SS2 / Fill0.5	0	0	0.5	0	2	0	-2	-1	0.5	6	28.5	1	0.03	1.9	0	-0.7485	0.516	0.46	25	0.0	0.4
SS2 / Fill1	0	0	1	0	2	0	-2	-1	1	6	37	1	0.03	1.9	0	-0.8437	0.582	0.52	25	0.0	0.4
SS2 / Fill1.5	0	0	1.5	0	2	0	-2	-1	1.5	6	45.5	1	0.03	1.9	0	-0.9217	0.636	0.57	25	0.0	0.4
SS2 / Fill2	0	0	2	0	2	0	-2	-1	2	6	54	1	0.03	1.9	0	-0.9878	0.681	0.61	25	0.0	0.4
SS2 / Fill2.5	0	0	2.5	0	2	0	-2	-1	2.5	6	62.5	1	0.03	1.9	0	-1.0452	0.721	0.65	25	0.0	0.4
SS2 / Fill3	0	0	3	0	2	0	-2	-1	3	6	71	1	0.03	1.9	0	-1.0959	0.756	0.68	25	0.0	0.4
SS2 / Fill3.5	0	0	3.5	0	2	0	-2	-1	3.5	6	79.5	1	0.03	1.9	0	-1.1412	0.787	0.71	25	0.0	0.4
SS2 / Fill4	0	0	4	0	2	0	-2	-1	4	6	88	1	0.03	1.9	0	-1.1823	0.815	0.73	25	0.0	0.4
SS2.5 / Fill0.5	0	0	0.5	0	2.5	0	-2.5	-1.25	0.5	8	28.5	1	0.03	1.9	0	-0.6706	0.578	0.52	25	0.1	0.6
SS2.5 / Fill1	0	0	1	0	2.5	0	-2.5	-1.25	1	8	37	1	0.03	1.9	0	-0.7621	0.657	0.59	25	0.1	0.6
SS2.5 / Fill1.5	0	0	1.5	0	2.5	0	-2.5	-1.25	1.5	8	45.5	1	0.03	1.9	0	-0.8376	0.722	0.65	25	0.1	0.6
SS2.5 / Fill2	0	0	2	0	2.5	0	-2.5	-1.25	2	8	54	1	0.03	1.9	0	-0.9019	0.778	0.70	25	0.1	0.6
SS2.5 / Fill2.5	0	0	2.5	0	2.5	0	-2.5	-1.25	2.5	8	62.5	1	0.03	1.9	0	-0.9580	0.826	0.74	25	0.1	0.6
SS2.5 / Fill3	0	0	3	0	2.5	0	-2.5	-1.25	3	8	71	1	0.03	1.9	0	-1.0076	0.869	0.78	25	0.1	0.6
SS2.5 / Fill3.5	0	0	3.5	0	2.5	0	-2.5	-1.25	3.5	8	79.5	1	0.03	1.9	0	-1.0521	0.907	0.82	25	0.1	0.6
SS2.5 / Fill4	0	0	4	0	2.5	0	-2.5	-1.25	4	8	88	1	0.03	1.9	0	-1.0925	0.942	0.85	25	0.1	0.6
SS3 / Fill0.5	0	0	0.5	0	3	0	-3	-1.5	0.5	9	28.5	1	0.03	1.9	0	-0.6095	0.631	0.57	25	0.1	0.9
SS3 / Fill1	0	0	1	0	3	0	-3	-1.5	1	9	37	1	0.03	1.9	0	-0.6977	0.722	0.65	25	0.1	0.9
SS3 / Fill1.5	0	0	1.5	0	3	0	-3	-1.5	1.5	9	45.5	1	0.03	1.9	0	-0.7709	0.797	0.72	25	0.1	0.9
SS3 / Fill2	0	0	2	0	3	0	-3	-1.5	2	9	54	1	0.03	1.9	0	-0.8335	0.862	0.78	25	0.1	0.9
SS3 / Fill2.5	0	0	2.5	0	3	0	-3	-1.5	2.5	9	62.5	1	0.03	1.9	0	-0.8883	0.919	0.83	25	0.1	0.9
SS3 / Fill3	0	0	3	0	3	0	-3	-1.5	3	9	71	1	0.03	1.9	0	-0.9369	0.969	0.87	25	0.1	0.9
SS3 / Fill3.5	0	0	3.5	0	3	0	-3	-1.5	3.5	9	79.5	1	0.03	1.9	0	-0.9806	1.014	0.91	25	0.1	0.9
SS3 / Fill4	0	0	4	0	3	0	-3	-1.5	4	9	88	1	0.03	1.9	0	-1.0203	1.055	0.95	25	0.1	0.9
SS3.5 / Fill0.5	0	0	0.5	0	3.5	0	-3.5	-1.75	0.5	11	28.5	1	0.03	1.9	0	-0.5600	0.676	0.61	25	0.1	1.2
SS3.5 / Fill1	0	0	1	0	3.5	0	-3.5	-1.75	1	11	37	1	0.03	1.9	0	-0.6450	0.778	0.70	25	0.1	1.2
SS3.5 / Fill1.5	0	0	1.5	0	3.5	0	-3.5	-1.75	1.5	11	45.5	1	0.03	1.9	0	-0.7160	0.864	0.78	25	0.1	1.2
SS3.5 / Fill2	0	0	2	0	3.5	0	-3.5	-1.75	2	11	54	1	0.03	1.9	0	-0.7771	0.938	0.84	25	0.1	1.2
SS3.5 / Fill2.5	0	0	2.5	0	3.5	0	-3.5	-1.75	2.5	11	62.5	1	0.03	1.9	0	-0.8306	1.002	0.90	25	0.1	1.2
SS3.5 / Fill3	0	0	3	0	3.5	0	-3.5	-1.75	3	11	71	1	0.03	1.9	0	-0.8782	1.060	0.95	25	0.1	1.2
SS3.5 / Fill3.5	0	0	3.5	0	3.5	0	-3.5	-1.75	3.5	11	79.5	1	0.03	1.9	0	-0.9211	1.112	1.00	25	0.1	1.2
SS3.5 / Fill4	0	0	4	0	3.5	0	-3.5	-1.75	4	11	88	1	0.03	1.9	0	-0.9602	1.159	1.04	25	0.1	1.2
SS4 / Fill0.5	0	0	0.5	0	4	0	-4	-2	0.5	12	28.5	1	0.03	1.9	0	-0.5188	0.716	0.64	25	0.1	1.6
SS4 / Fill1	0	0	1	0	4	0	-4	-2	1	12	37	1	0.03	1.9	0	-0.6008	0.829	0.75	25	0.1	1.6
SS4 / Fill1.5	0	0	1.5	0	4	0	-4	-2	1.5	12	45.5	1	0.03	1.9	0	-0.6698	0.924	0.83	25	0.1	1.6
SS4 / Fill2	0	0	2	0	4	0	-4	-2	2	12	54	1	0.03	1.9	0	-0.7293	1.006	0.91	25	0.1	1.6
SS4 / Fill2.5	0	0	2.5	0	4	0	-4	-2	2.5	12	62.5	1	0.03	1.9	0	-0.7816	1.078	0.97	25	0.1	1.6
SS4 / Fill3	0	0	3	0	4	0	-4	-2	3	12	71	1	0.03	1.9	0	-0.8283	1.143	1.03	25	0.1	1.6
SS4 / Fill3.5	0	0	3.5	0	4	0	-4	-2	3.5	12	79.5	1	0.03	1.9	0	-0.8705	1.201	1.08	25	0.1	1.6
SS4 / Fill4	0	0	4	0	4	0	-4	-2	4	12	88	1	0.03	1.9	0	-0.9089	1.254	1.13	25	0.1	1.6
SS4.5 / Fill0.5	0	0	0.5	0	4.5	0	-4.5	-2.25	0.5	14	28.5	1	0.03	1.9	0	-0.4838	0.751	0.68	25	0.2	2.1
SS4.5 / Fill1	0	0	1	0	4.5	0	-4.5	-2.25	1	14	37	1	0.03	1.9	0	-0.5631	0.874	0.79	25	0.2	2.1
SS4.5 / Fill1.5	0	0	1.5	0	4.5	0	-4.5	-2.25	1.5	14	45.5	1	0.03	1.9	0	-0.6301	0.978	0.88	25	0.2	2.1
SS4.5 / Fill2	0	0	2	0	4.5	0	-4.5	-2.25	2	14	54	1	0.03	1.9	0	-0.6882	1.068	0.96	25	0.2	2.1
SS4.5 / Fill2.5	0	0	2.5	0	4.5	0	-4.5	-2.25	2.5	14	62.5	1	0.03	1.9	0	-0.7394	1.147	1.03	25	0.2	2.1
SS4.5 / Fill3	0	0	3	0	4.5	0	-4.5	-2.25	3	14	71	1	0.03	1.9	0	-0.7852	1.218	1.10	25	0.2	2.1
SS4.5 / Fill3.5	0	0	3.5	0	4.5	0	-4.5	-2.25	3.5	14	79.5	1	0.03	1.9	0	-0.8266	1.283	1.15	25	0.2	2.1
SS4.5 / Fill4	0	0	4	0	4.5	0	-4.5	-2.25	4	14	88	1	0.03	1.9	0	-0.8644	1.341	1.21	25	0.2	2.1
SS5 / Fill0.5	0	0	0.5	0	5	0	-5	-2.5	0.5	15	28.5	1	0.03	1.9	0	-0.4536	0.782	0.70	25	0.2	2.5
SS5 / Fill1	0	0	1	0	5	0	-5	-2.5	1	15	37	1	0.03	1.9	0	-0.5303	0.914	0.82	25	0.2	2.5
SS5 / Fill1.5	0	0	1.5	0	5	0	-5	-2.5	1.5	15	45.5	1	0.03	1.9	0	-0.5955	1.027	0.92	25	0.2	2.5
SS5 / Fill2	0	0	2	0	5	0	-5	-2.5	2	15	54	1	0.03	1.9	0	-0.6522	1.124	1.01	25	0.2	2.5
SS5 / Fill2.5	0	0	2.5	0	5	0	-5	-2.5	2.5	15	62.5	1	0.03	1.9	0	-0.7023	1.211	1.09	25	0.2	2.5
SS5 / Fill3	0	0	3	0	5	0	-5	-2.5	3	15	71	1	0.03	1.9	0	-0.7473	1.288	1.16	25	0.2	2.5
SS5 / Fill3.5	0	0	3.5	0	5	0	-5	-2.5	3.5	15	79.5	1	0.03	1.9	0	-0.7880	1.359	1.22	25	0.2	2.5
SS5 / Fill4	0	0	4	0	5	0	-5	-2.5	4	15	88	1	0.03	1.9	0	-0.8252	1.423	1.28	25	0.2	2.5
SS5.5 / Fill0.5	0	0	0.5	0	5.5	0	-5.5	-2.75	0.5	17	28.5	1	0.03	1.9	0	-0.4272	0.810	0.73	25	0.3	3.1
SS5.5 / Fill1	0	0	1	0	5.5	0	-5.5	-2.75	1	17	37	1	0.03	1.9	0	-0.5016	0.951	0.86	25	0.3	3.1
SS5.5 / Fill1.5	0	0	1.5	0	5.5	0	-5.5	-2.75	1.5	17	45.5	1	0.03	1.9	0	-0.5650	1.072	0.96	25	0.3	3.1
SS5.5 / Fill2	0	0	2	0	5.5	0	-5.5	-2.75	2	17	54	1	0.03	1.9	0	-0.6204	1.177	1.06	25	0.3	3.1
SS5.5 / Fill2.5	0	0	2.5	0	5.5	0	-5.5	-2.75	2.5	17	62.5	1	0.03	1.9	0	-0.6695	1.270	1.14	25	0.3	3.1
SS5.5 / Fill3	0	0	3	0	5.5	0	-5.5	-2.75	3	17	71	1	0.03	1.9	0	-0.7136	1.353	1.22	25	0.3	3.1
SS5.5 / Fill3.5	0	0	3.5	0	5.5	0	-5.5	-2.75	3.5	17	79.5	1	0.03	1.9	0	-0.7536	1.429	1.29	25	0.3	3.1
SS5.5 / Fill4	0	0	4	0	5.5	0	-5.5	-2.75	4	17	88	1	0.03	1.9	0	-0.7903	1.499	1.35	25	0.3	3.1
SS6 / Fill0.5	0	0	0.5	0	6	0	-6	-3	0.5	19	28.5	1	0.03	1.9	0	-0.4039	0.836	0.75	25	0.3	3.7
SS6 / Fill1	0	0	1	0	6	0	-6	-3	1	19	37	1	0.03	1.9	0	-0.4760	0.985	0.89	25	0.3	3.7
SS6 / Fill1.5	0	0	1.5	0	6	0	-6	-3	1.5	19	45.5	1	0.03	1.9	0	-0.5378	1.113	1.00	25	0.3	3.7
SS6 / Fill2	0	0	2	0	6	0	-6	-3	2	19	54	1	0.03	1.9	0	-0.5919	1.225	1.10	25	0.3	3.7
SS6 / Fill2.5	0	0	2.5	0	6	0	-6	-3	2.5	19	62.5	1	0.03	1.9	0	-0.6400	1.324	1.19	25	0.3	3.7
SS6 / Fill3	0	0	3	0	6	0	-6	-3	3	19	71	1	0.03	1.9	0	-0.6834	1.414	1.27	25	0.3	3.7
SS6 / Fill3.5	0	0	3.5	0	6	0	-6	-3	3.5	19	79.5	1	0.03	1.9	0	-0.7227	1.495	1.35	25	0.3	3.7
SS6 / Fill4	0	0	4	0	6	0	-6	-3	4	19	88	1	0.03	1.9	0	-0.7588	1.570	1.41	25	0.3	3.7
SS6.5 / Fill0.5	0	0	0.5	0	6.5	0	-6.5	-3.25	0.5	20	28.5	1	0.03	1.9	0	-0.3832	0.859	0.77	25	0.4	4.3
SS6.5 / Fill1	0	0	1	0	6.5	0	-6.5	-3.25	1	20	37	1	0.03	1.9	0	-0.4532	1.016	0.91	25	0.4	4.3
SS6.5 / Fill1.5	0	0	1.5	0	6.5	0	-6.5	-3.25	1.5	20	45.5	1	0.03	1.9	0	-0.5134	1.151	1.04	25	0.4	4.3
SS6.5 / Fill2	0	0	2	0	6.5	0	-6.5	-3.25	2	20	54	1	0.03	1.9	0	-0.5663	1.269	1.14	25	0.4	4.3
SS6.5 / Fill2.5	0	0	2.5	0	6.5	0	-6.5	-3.25	2.5	20	62.5	1	0.03	1.9	0	-0.6135	1.375	1.24	25	0.4	4.3
SS6.5 / Fill3	0	0	3	0	6.5	0	-6.5	-3.25	3	20	71	1	0.03	1.9	0	-0.6560	1.470	1.32	25	0.4	4.3
SS6.5 / Fill3.5	0	0	3.5	0	6.5	0	-6.5	-3.25	3.5	20	79.5	1	0.03	1.9	0	-0.6948	1.557	1.40	25	0.4	4.3
SS6.5 / Fill4	0	0	4	0	6.5	0	-6.5	-3.25	4	20	88	1	0.03	1.9	0	-0.7303	1.637	1.47	25	0.4	4.3
SS7 / Fill0.5	0	0	0.5	0	7	0	-7	-3.5	0.5	22	28.5	1	0.03	1.9	0	-0.3646	0.880	0.79	25	0.4	5.0
SS7 / Fill1	0	0	1	0	7	0	-7	-3.5	1	22	37	1	0.03	1.9	0	-0.4326	1.044	0.94	25	0.4	5.0
SS7 / Fill1.5	0	0	1.5	0	7	0	-7	-3.5	1.5	22	45.5	1	0.03	1.9	0	-0.4914	1.186	1.07	25	0.4	5.0
SS7 / Fill2	0	0	2	0	7	0	-7	-3.5	2	22	54	1	0.03	1.9	0	-0.5431	1.311	1.18	25	0.4	5.0
SS7 / Fill2.5	0	0	2.5	0	7	0	-7	-3.5	2.5	22	62.5	1	0.03	1.9	0	-0.5894	1.423	1.28	25	0.4	5.0
SS7 / Fill3	0	0	3	0	7	0	-7	-3.5	3	22	71	1	0.03	1.9	0	-0.6312	1.523	1.37	25	0.4	5.0
SS7 / Fill3.5	0	0	3.5	0	7	0	-7	-3.5	3.5	22	79.5	1	0.03	1.9	0	-0.6693	1.615	1.45	25	0.4	5.0
SS7 / Fill4	0	0	4	0	7	0	-7	-3.5	4	22	88	1	0.03	1.9	0	-0.7043	1.700	1.53	25	0.4	5.0
SS7.5 / Fill0.5	0	0	0.5	0	7.5	0	-7.5	-3.75	0.5	23	28.5	1	0.03	1.9	0	-0.3479	0.900	0.81	25	0.5	5.7
SS7.5 / Fill1	0	0	1	0	7.5	0	-7.5	-3.75	1	23	37	1	0.03	1.9	0	-0.4140	1.071	0.96	25	0.5	5.7
SS7.5 / Fill1.5	0	0	1.5	0	7.5	0	-7.5	-3.75	1.5	23	45.5	1	0.03	1.9	0	-0.4713	1.219	1.10	25	0.5	5.7
SS7.5 / Fill2	0	0	2	0	7.5	0	-7.5	-3.75	2	23	54	1	0.03	1.9	0	-0.5220	1.350	1.21	25	0.5	5.7
SS7.5 / Fill2.5	0	0	2.5	0	7.5	0	-7.5	-3.75	2.5	23	62.5	1	0.03	1.9	0	-0.5673	1.467	1.32	25	0.5	5.7
SS7.5 / Fill3	0	0	3	0	7.5	0	-7.5	-3.75	3	23	71	1	0.03	1.9	0	-0.6084	1.573	1.42	25	0.5	5.7
SS7.5 / Fill3.5	0	0	3.5	0	7.5	0	-7.5	-3.75	3.5	23	79.5	1	0.03	1.9	0	-0.6459	1.670	1.50	25	0.5	5.7
SS7.5 / Fill4	0	0	4	0	7.5	0	-7.5	-3.75	4	23	88	1	0.03	1.9	0	-0.6804	1.760	1.58	25	0.5	5.7
SS8 / Fill0.5	0	0	0.5	0	8	0	-8	-4	0.5	25	28.5	1	0.03	1.9	0	-0.3327	0.918	0.83	25	0.5	6.5
SS8 / Fill1	0	0	1	0	8	0	-8	-4	1	25	37	1	0.03	1.9	0	-0.3970	1.095	0.99	25	0.5	6.5
SS8 / Fill1.5	0	0	1.5	0	8	0	-8	-4	1.5	25	45.5	1	0.03	1.9	0	-0.4530	1.250	1.12	25	0.5	6.5
SS8 / Fill2	0	0	2	0	8	0	-8	-4	2	25	54	1	0.03	1.9	0	-0.5026	1.386	1.25	25	0.5	6.5
SS8 / Fill2.5	0	0	2.5	0	8	0	-8	-4	2.5	25	62.5	1	0.03	1.9	0	-0.5471	1.509	1.36	25	0.5	6.5
SS8 / Fill3	0	0	3	0	8	0	-8	-4	3	25	71	1	0.03	1.9	0	-0.5874	1.621	1.46	25	0.5	6.5
SS8 / Fill3.5	0	0	3.5	0	8	0	-8	-4	3.5	25	79.5	1	0.03	1.9	0	-0.6244	1.722	1.55	25	0.5	6.5
SS8 / Fill4	0	0	4	0	8	0	-8	-4	4	25	88	1	0.03	1.9	0	-0.6584	1.816	1.63	25	0.5	6.5
SS8.5 / Fill0.5	0	0	0.5	0	8.5	0	-8.5	-4.25	0.5	26	28.5	1	0.03	1.9	0	-0.3188	0.934	0.84	25	0.6	7.4
SS8.5 / Fill1	0	0	1	0	8.5	0	-8.5	-4.25	1	26	37	1	0.03	1.9	0	-0.3814	1.118	1.01	25	0.6	7.4
SS8.5 / Fill1.5	0	0	1.5	0	8.5	0	-8.5	-4.25	1.5	26	45.5	1	0.03	1.9	0	-0.4361	1.278	1.15	25	0.6	7.4
SS8.5 / Fill2	0	0	2	0	8.5	0	-8.5	-4.25	2	26	54	1	0.03	1.9	0	-0.4847	1.421	1.28	25	0.6	7.4
SS8.5 / Fill2.5	0	0	2.5	0	8.5	0	-8.5	-4.25	2.5	26	62.5	1	0.03	1.9	0	-0.5284	1.549	1.39	25	0.6	7.4
SS8.5 / Fill3	0	0	3	0	8.5	0	-8.5	-4.25	3	26	71	1	0.03	1.9	0	-0.5681	1.665	1.50	25	0.6	7.4
SS8.5 / Fill3.5	0	0	3.5	0	8.5	0	-8.5	-4.25	3.5	26	79.5	1	0.03	1.9	0	-0.6044	1.772	1.59	25	0.6	7.4

SS8.5 / Fill4	0	0	4	0	8.5	0	-8.5	-4.25	4	26	88	1	0.03	1.9	0	-0.6380	**1.870**	**1.68**	25	**0.6**	**7.4**
SS9 / Fill0.5	0	0	0.5	0	9	0	-9	-4.5	0.5	28	28.5	1	0.03	1.9	0	-0.3060	**0.950**	**0.85**	25	**0.7**	**8.2**
SS9 / Fill1	0	0	1	0	9	0	-9	-4.5	1	28	37	1	0.03	1.9	0	-0.3670	**1.139**	**1.03**	25	**0.7**	**8.2**
SS9 / Fill1.5	0	0	1.5	0	9	0	-9	-4.5	1.5	28	45.5	1	0.03	1.9	0	-0.4205	**1.305**	**1.17**	25	**0.7**	**8.2**
SS9 / Fill2	0	0	2	0	9	0	-9	-4.5	2	28	54	1	0.03	1.9	0	-0.4681	**1.453**	**1.31**	25	**0.7**	**8.2**
SS9 / Fill2.5	0	0	2.5	0	9	0	-9	-4.5	2.5	28	62.5	1	0.03	1.9	0	-0.5110	**1.586**	**1.43**	25	**0.7**	**8.2**
SS9 / Fill3	0	0	3	0	9	0	-9	-4.5	3	28	71	1	0.03	1.9	0	-0.5501	**1.707**	**1.54**	25	**0.7**	**8.2**
SS9 / Fill3.5	0	0	3.5	0	9	0	-9	-4.5	3.5	28	79.5	1	0.03	1.9	0	-0.5859	**1.818**	**1.64**	25	**0.7**	**8.2**
SS9 / Fill4	0	0	4	0	9	0	-9	-4.5	4	28	88	1	0.03	1.9	0	-0.6190	**1.921**	**1.73**	25	**0.7**	**8.2**
SS9.5 / Fill0.5	0	0	0.5	0	9.5	0	-9.5	-4.75	0.5	29	28.5	1	0.03	1.9	0	-0.2943	**0.964**	**0.87**	25	**0.8**	**9.2**
SS9.5 / Fill1	0	0	1	0	9.5	0	-9.5	-4.75	1	29	37	1	0.03	1.9	0	-0.3538	**1.159**	**1.04**	25	**0.8**	**9.2**
SS9.5 / Fill1.5	0	0	1.5	0	9.5	0	-9.5	-4.75	1.5	29	45.5	1	0.03	1.9	0	-0.4061	**1.330**	**1.20**	25	**0.8**	**9.2**
SS9.5 / Fill2	0	0	2	0	9.5	0	-9.5	-4.75	2	29	54	1	0.03	1.9	0	-0.4528	**1.483**	**1.33**	25	**0.8**	**9.2**
SS9.5 / Fill2.5	0	0	2.5	0	9.5	0	-9.5	-4.75	2.5	29	62.5	1	0.03	1.9	0	-0.4949	**1.621**	**1.46**	25	**0.8**	**9.2**
SS9.5 / Fill3	0	0	3	0	9.5	0	-9.5	-4.75	3	29	71	1	0.03	1.9	0	-0.5334	**1.747**	**1.57**	25	**0.8**	**9.2**
SS9.5 / Fill3.5	0	0	3.5	0	9.5	0	-9.5	-4.75	3.5	29	79.5	1	0.03	1.9	0	-0.5687	**1.863**	**1.68**	25	**0.8**	**9.2**
SS9.5 / Fill4	0	0	4	0	9.5	0	-9.5	-4.75	4	29	88	1	0.03	1.9	0	-0.6013	**1.970**	**1.77**	25	**0.8**	**9.2**
SS10 / Fill0.5	0	0	0.5	0	10	0	-10	-5	0.5	31	28.5	1	0.03	1.9	0	-0.2835	**0.978**	**0.88**	25	**0.8**	**10.2**
SS10 / Fill1	0	0	1	0	10	0	-10	-5	1	31	37	1	0.03	1.9	0	-0.3415	**1.178**	**1.06**	25	**0.8**	**10.2**
SS10 / Fill1.5	0	0	1.5	0	10	0	-10	-5	1.5	31	45.5	1	0.03	1.9	0	-0.3927	**1.354**	**1.22**	25	**0.8**	**10.2**
SS10 / Fill2	0	0	2	0	10	0	-10	-5	2	31	54	1	0.03	1.9	0	-0.4385	**1.512**	**1.36**	25	**0.8**	**10.2**
SS10 / Fill2.5	0	0	2.5	0	10	0	-10	-5	2.5	31	62.5	1	0.03	1.9	0	-0.4799	**1.655**	**1.49**	25	**0.8**	**10.2**
SS10 / Fill3	0	0	3	0	10	0	-10	-5	3	31	71	1	0.03	1.9	0	-0.5177	**1.785**	**1.61**	25	**0.8**	**10.2**
SS10 / Fill3.5	0	0	3.5	0	10	0	-10	-5	3.5	31	79.5	1	0.03	1.9	0	-0.5525	**1.905**	**1.71**	25	**0.8**	**10.2**
SS10 / Fill4	0	0	4	0	10	0	-10	-5	4	31	88	1	0.03	1.9	0	-0.5847	**2.016**	**1.81**	25	**0.8**	**10.2**
SS10.5 / Fill0.5	0	0	0.5	0	10.5	0	-10.5	-5.25	0.5	32	28.5	1	0.03	1.9	0	-0.2735	**0.990**	**0.89**	25	**0.9**	**11.2**
SS10.5 / Fill1	0	0	1	0	10.5	0	-10.5	-5.25	1	32	37	1	0.03	1.9	0	-0.3301	**1.195**	**1.08**	25	**0.9**	**11.2**
SS10.5 / Fill1.5	0	0	1.5	0	10.5	0	-10.5	-5.25	1.5	32	45.5	1	0.03	1.9	0	-0.3802	**1.377**	**1.24**	25	**0.9**	**11.2**
SS10.5 / Fill2	0	0	2	0	10.5	0	-10.5	-5.25	2	32	54	1	0.03	1.9	0	-0.4252	**1.539**	**1.39**	25	**0.9**	**11.2**
SS10.5 / Fill2.5	0	0	2.5	0	10.5	0	-10.5	-5.25	2.5	32	62.5	1	0.03	1.9	0	-0.4659	**1.687**	**1.52**	25	**0.9**	**11.2**
SS10.5 / Fill3	0	0	3	0	10.5	0	-10.5	-5.25	3	32	71	1	0.03	1.9	0	-0.5031	**1.821**	**1.64**	25	**0.9**	**11.2**
SS10.5 / Fill3.5	0	0	3.5	0	10.5	0	-10.5	-5.25	3.5	32	79.5	1	0.03	1.9	0	-0.5374	**1.946**	**1.75**	25	**0.9**	**11.2**
SS10.5 / Fill4	0	0	4	0	10.5	0	-10.5	-5.25	4	32	88	1	0.03	1.9	0	-0.5691	**2.061**	**1.85**	25	**0.9**	**11.2**
SS11 / Fill0.5	0	0	0.5	0	11	0	-11	-5.5	0.5	34	28.5	1	0.03	1.9	0	-0.2641	**1.002**	**0.90**	25	**1.0**	**12.3**
SS11 / Fill1	0	0	1	0	11	0	-11	-5.5	1	34	37	1	0.03	1.9	0	-0.3195	**1.212**	**1.09**	25	**1.0**	**12.3**
SS11 / Fill1.5	0	0	1.5	0	11	0	-11	-5.5	1.5	34	45.5	1	0.03	1.9	0	-0.3686	**1.398**	**1.26**	25	**1.0**	**12.3**
SS11 / Fill2	0	0	2	0	11	0	-11	-5.5	2	34	54	1	0.03	1.9	0	-0.4127	**1.565**	**1.41**	25	**1.0**	**12.3**
SS11 / Fill2.5	0	0	2.5	0	11	0	-11	-5.5	2.5	34	62.5	1	0.03	1.9	0	-0.4527	**1.717**	**1.55**	25	**1.0**	**12.3**
SS11 / Fill3	0	0	3	0	11	0	-11	-5.5	3	34	71	1	0.03	1.9	0	-0.4893	**1.856**	**1.67**	25	**1.0**	**12.3**
SS11 / Fill3.5	0	0	3.5	0	11	0	-11	-5.5	3.5	34	79.5	1	0.03	1.9	0	-0.5231	**1.984**	**1.79**	25	**1.0**	**12.3**
SS11 / Fill4	0	0	4	0	11	0	-11	-5.5	4	34	88	1	0.03	1.9	0	-0.5545	**2.103**	**1.89**	25	**1.0**	**12.3**
SS11.5 / Fill0.5	0	0	0.5	0	11.5	0	-11.5	-5.75	0.5	36	28.5	1	0.03	1.9	0	-0.2554	**1.013**	**0.91**	25	**1.1**	**13.5**
SS11.5 / Fill1	0	0	1	0	11.5	0	-11.5	-5.75	1	36	37	1	0.03	1.9	0	-0.3095	**1.227**	**1.10**	25	**1.1**	**13.5**
SS11.5 / Fill1.5	0	0	1.5	0	11.5	0	-11.5	-5.75	1.5	36	45.5	1	0.03	1.9	0	-0.3576	**1.418**	**1.28**	25	**1.1**	**13.5**
SS11.5 / Fill2	0	0	2	0	11.5	0	-11.5	-5.75	2	36	54	1	0.03	1.9	0	-0.4009	**1.590**	**1.43**	25	**1.1**	**13.5**
SS11.5 / Fill2.5	0	0	2.5	0	11.5	0	-11.5	-5.75	2.5	36	62.5	1	0.03	1.9	0	-0.4403	**1.746**	**1.57**	25	**1.1**	**13.5**
SS11.5 / Fill3	0	0	3	0	11.5	0	-11.5	-5.75	3	36	71	1	0.03	1.9	0	-0.4764	**1.889**	**1.70**	25	**1.1**	**13.5**
SS11.5 / Fill3.5	0	0	3.5	0	11.5	0	-11.5	-5.75	3.5	36	79.5	1	0.03	1.9	0	-0.5097	**2.021**	**1.82**	25	**1.1**	**13.5**
SS11.5 / Fill4	0	0	4	0	11.5	0	-11.5	-5.75	4	36	88	1	0.03	1.9	0	-0.5406	**2.144**	**1.93**	25	**1.1**	**13.5**
SS12 / Fill0.5	0	0	0.5	0	12	0	-12	-6	0.5	37	28.5	1	0.03	1.9	0	-0.2473	**1.023**	**0.92**	25	**1.2**	**14.7**
SS12 / Fill1	0	0	1	0	12	0	-12	-6	1	37	37	1	0.03	1.9	0	-0.3002	**1.242**	**1.12**	25	**1.2**	**14.7**
SS12 / Fill1.5	0	0	1.5	0	12	0	-12	-6	1.5	37	45.5	1	0.03	1.9	0	-0.3473	**1.437**	**1.29**	25	**1.2**	**14.7**
SS12 / Fill2	0	0	2	0	12	0	-12	-6	2	37	54	1	0.03	1.9	0	-0.3899	**1.613**	**1.45**	25	**1.2**	**14.7**
SS12 / Fill2.5	0	0	2.5	0	12	0	-12	-6	2.5	37	62.5	1	0.03	1.9	0	-0.4286	**1.773**	**1.60**	25	**1.2**	**14.7**
SS12 / Fill3	0	0	3	0	12	0	-12	-6	3	37	71	1	0.03	1.9	0	-0.4641	**1.921**	**1.73**	25	**1.2**	**14.7**
SS12 / Fill3.5	0	0	3.5	0	12	0	-12	-6	3.5	37	79.5	1	0.03	1.9	0	-0.4970	**2.057**	**1.85**	25	**1.2**	**14.7**
SS12 / Fill4	0	0	4	0	12	0	-12	-6	4	37	88	1	0.03	1.9	0	-0.5276	**2.183**	**1.96**	25	**1.2**	**14.7**

2. Mesri Creep Settlement - (Mesri et al (1994) and Mesri & Ajlouni (2007))

Assumed Ca/Cc = 0.06
Time = 100 years

Scenario	H	Ca	ep	Creep (mm)
SS0.5 / Fill0.5	0.278	0.06	0.6118	48
SS0.5 / Fill1	0.259	0.06	0.5036	48
SS0.5 / Fill1.5	0.244	0.06	0.4171	48
SS0.5 / Fill2	0.232	0.06	0.3450	48
SS0.5 / Fill2.5	0.221	0.06	0.2831	48
SS0.5 / Fill3	0.212	0.06	0.2290	48
SS0.5 / Fill3.5	0.204	0.06	0.1809	48
SS0.5 / Fill4	0.196	0.06	0.1376	48
SS1 / Fill0.5	0.652	0.06	0.8910	84
SS1 / Fill1	0.616	0.06	0.7876	84
SS1 / Fill1.5	0.588	0.06	0.7041	84
SS1 / Fill2	0.563	0.06	0.6341	84
SS1 / Fill2.5	0.543	0.06	0.5738	84
SS1 / Fill3	0.524	0.06	0.5209	84
SS1 / Fill3.5	0.508	0.06	0.4737	84
SS1 / Fill4	0.494	0.06	0.4312	84
SS1.5 / Fill0.5	1.058	0.06	1.0464	115
SS1.5 / Fill1	1.007	0.06	0.9472	115
SS1.5 / Fill1.5	0.965	0.06	0.8665	115
SS1.5 / Fill2	0.930	0.06	0.7985	115
SS1.5 / Fill2.5	0.900	0.06	0.7398	115
SS1.5 / Fill3	0.873	0.06	0.6880	115
SS1.5 / Fill3.5	0.849	0.06	0.6417	115
SS1.5 / Fill4	0.828	0.06	0.5999	115
SS2 / Fill0.5	1.484	0.06	1.1515	144
SS2 / Fill1	1.418	0.06	1.0563	144
SS2 / Fill1.5	1.364	0.06	0.9783	144
SS2 / Fill2	1.319	0.06	0.9122	144
SS2 / Fill2.5	1.279	0.06	0.8548	144
SS2 / Fill3	1.244	0.06	0.8041	144
SS2 / Fill3.5	1.213	0.06	0.7588	144
SS2 / Fill4	1.185	0.06	0.7177	144
SS2.5 / Fill0.5	1.922	0.06	1.2294	169
SS2.5 / Fill1	1.843	0.06	1.1379	169
SS2.5 / Fill1.5	1.778	0.06	1.0624	169
SS2.5 / Fill2	1.722	0.06	0.9981	169
SS2.5 / Fill2.5	1.674	0.06	0.9420	169
SS2.5 / Fill3	1.631	0.06	0.8924	169
SS2.5 / Fill3.5	1.593	0.06	0.8479	169
SS2.5 / Fill4	1.558	0.06	0.8075	169
SS3 / Fill0.5	2.369	0.06	1.2905	193
SS3 / Fill1	2.278	0.06	1.2023	193
SS3 / Fill1.5	2.203	0.06	1.1291	193
SS3 / Fill2	2.138	0.06	1.0665	193
SS3 / Fill2.5	2.081	0.06	1.0117	193
SS3 / Fill3	2.031	0.06	0.9631	193
SS3 / Fill3.5	1.986	0.06	0.9194	193
SS3 / Fill4	1.945	0.06	0.8797	193
SS3.5 / Fill0.5	2.824	0.06	1.3400	216
SS3.5 / Fill1	2.722	0.06	1.2550	216
SS3.5 / Fill1.5	2.636	0.06	1.1840	216
SS3.5 / Fill2	2.562	0.06	1.1229	216
SS3.5 / Fill2.5	2.498	0.06	1.0694	216
SS3.5 / Fill3	2.440	0.06	1.0218	216
SS3.5 / Fill3.5	2.388	0.06	0.9789	216
SS3.5 / Fill4	2.341	0.06	0.9398	216
SS4 / Fill0.5	3.284	0.06	1.3812	237
SS4 / Fill1	3.171	0.06	1.2992	237
SS4 / Fill1.5	3.076	0.06	1.2302	237
SS4 / Fill2	2.994	0.06	1.1707	237
SS4 / Fill2.5	2.922	0.06	1.1184	237
SS4 / Fill3	2.857	0.06	1.0717	237
SS4 / Fill3.5	2.799	0.06	1.0295	237
SS4 / Fill4	2.746	0.06	0.9911	237
SS4.5 / Fill0.5	3.749	0.06	1.4162	257
SS4.5 / Fill1	3.626	0.06	1.3369	257
SS4.5 / Fill1.5	3.522	0.06	1.2699	257
SS4.5 / Fill2	3.432	0.06	1.2118	257
SS4.5 / Fill2.5	3.353	0.06	1.1606	257
SS4.5 / Fill3	3.282	0.06	1.1148	257
SS4.5 / Fill3.5	3.217	0.06	1.0734	257
SS4.5 / Fill4	3.159	0.06	1.0356	257
SS5 / Fill0.5	4.218	0.06	1.4464	277
SS5 / Fill1	4.086	0.06	1.3697	277
SS5 / Fill1.5	3.973	0.06	1.3045	277
SS5 / Fill2	3.876	0.06	1.2478	277
SS5 / Fill2.5	3.789	0.06	1.1977	277
SS5 / Fill3	3.712	0.06	1.1527	277
SS5 / Fill3.5	3.641	0.06	1.1120	277
SS5 / Fill4	3.577	0.06	1.0748	277
SS5.5 / Fill0.5	4.690	0.06	1.4728	295
SS5.5 / Fill1	4.549	0.06	1.3984	295
SS5.5 / Fill1.5	4.428	0.06	1.3350	295
SS5.5 / Fill2	4.323	0.06	1.2796	295
SS5.5 / Fill2.5	4.230	0.06	1.2305	295

SS5.5 / Fill3	4.147	0.06	1.1864	295
SS5.5 / Fill3.5	4.071	0.06	1.1464	295
SS5.5 / Fill4	4.001	0.06	1.1097	295
SS6 / Fill0.5	5.164	0.06	1.4961	312
SS6 / Fill1	5.015	0.06	1.4240	312
SS6 / Fill1.5	4.887	0.06	1.3622	312
SS6 / Fill2	4.775	0.06	1.3081	312
SS6 / Fill2.5	4.676	0.06	1.2600	312
SS6 / Fill3	4.586	0.06	1.2166	312
SS6 / Fill3.5	4.505	0.06	1.1773	312
SS6 / Fill4	4.430	0.06	1.1412	312
SS6.5 / Fill0.5	5.641	0.06	1.5168	329
SS6.5 / Fill1	5.484	0.06	1.4468	329
SS6.5 / Fill1.5	5.349	0.06	1.3866	329
SS6.5 / Fill2	5.231	0.06	1.3337	329
SS6.5 / Fill2.5	5.125	0.06	1.2865	329
SS6.5 / Fill3	5.030	0.06	1.2440	329
SS6.5 / Fill3.5	4.943	0.06	1.2052	329
SS6.5 / Fill4	4.863	0.06	1.1697	329
SS7 / Fill0.5	6.120	0.06	1.5354	345
SS7 / Fill1	5.956	0.06	1.4674	345
SS7 / Fill1.5	5.814	0.06	1.4086	345
SS7 / Fill2	5.689	0.06	1.3569	345
SS7 / Fill2.5	5.577	0.06	1.3106	345
SS7 / Fill3	5.477	0.06	1.2688	345
SS7 / Fill3.5	5.385	0.06	1.2307	345
SS7 / Fill4	5.300	0.06	1.1957	345
SS7.5 / Fill0.5	6.600	0.06	1.5521	360
SS7.5 / Fill1	6.429	0.06	1.4860	360
SS7.5 / Fill1.5	6.281	0.06	1.4287	360
SS7.5 / Fill2	6.150	0.06	1.3780	360
SS7.5 / Fill2.5	6.033	0.06	1.3327	360
SS7.5 / Fill3	5.927	0.06	1.2916	360
SS7.5 / Fill3.5	5.830	0.06	1.2541	360
SS7.5 / Fill4	5.740	0.06	1.2196	360
SS8 / Fill0.5	7.082	0.06	1.5673	375
SS8 / Fill1	6.905	0.06	1.5030	375
SS8 / Fill1.5	6.750	0.06	1.4470	375
SS8 / Fill2	6.614	0.06	1.3974	375
SS8 / Fill2.5	6.491	0.06	1.3529	375
SS8 / Fill3	6.379	0.06	1.3126	375
SS8 / Fill3.5	6.278	0.06	1.2756	375
SS8 / Fill4	6.184	0.06	1.2416	375
SS8.5 / Fill0.5	7.566	0.06	1.5812	389
SS8.5 / Fill1	7.382	0.06	1.5186	389
SS8.5 / Fill1.5	7.222	0.06	1.4639	389
SS8.5 / Fill2	7.079	0.06	1.4153	389
SS8.5 / Fill2.5	6.951	0.06	1.3716	389
SS8.5 / Fill3	6.835	0.06	1.3319	389
SS8.5 / Fill3.5	6.728	0.06	1.2956	389
SS8.5 / Fill4	6.630	0.06	1.2620	389
SS9 / Fill0.5	8.050	0.06	1.5940	403
SS9 / Fill1	7.861	0.06	1.5330	403
SS9 / Fill1.5	7.695	0.06	1.4795	403
SS9 / Fill2	7.547	0.06	1.4319	403
SS9 / Fill2.5	7.414	0.06	1.3890	403
SS9 / Fill3	7.293	0.06	1.3499	403
SS9 / Fill3.5	7.182	0.06	1.3141	403
SS9 / Fill4	7.079	0.06	1.2810	403
SS9.5 / Fill0.5	8.536	0.06	1.6057	416
SS9.5 / Fill1	8.341	0.06	1.5462	416
SS9.5 / Fill1.5	8.170	0.06	1.4939	416
SS9.5 / Fill2	8.017	0.06	1.4472	416
SS9.5 / Fill2.5	7.879	0.06	1.4051	416
SS9.5 / Fill3	7.753	0.06	1.3666	416
SS9.5 / Fill3.5	7.637	0.06	1.3313	416
SS9.5 / Fill4	7.530	0.06	1.2987	416
SS10 / Fill0.5	9.022	0.06	1.6165	429
SS10 / Fill1	8.822	0.06	1.5585	429
SS10 / Fill1.5	8.646	0.06	1.5073	429
SS10 / Fill2	8.488	0.06	1.4615	429
SS10 / Fill2.5	8.345	0.06	1.4201	429
SS10 / Fill3	8.215	0.06	1.3823	429
SS10 / Fill3.5	8.095	0.06	1.3475	429
SS10 / Fill4	7.984	0.06	1.3153	429
SS10.5 / Fill0.5	9.510	0.06	1.6265	441
SS10.5 / Fill1	9.305	0.06	1.5699	441
SS10.5 / Fill1.5	9.123	0.06	1.5198	441
SS10.5 / Fill2	8.961	0.06	1.4748	441
SS10.5 / Fill2.5	8.813	0.06	1.4341	441
SS10.5 / Fill3	8.679	0.06	1.3969	441
SS10.5 / Fill3.5	8.554	0.06	1.3626	441
SS10.5 / Fill4	8.439	0.06	1.3309	441
SS11 / Fill0.5	9.998	0.06	1.6359	453
SS11 / Fill1	9.788	0.06	1.5805	453
SS11 / Fill1.5	9.602	0.06	1.5314	453
SS11 / Fill2	9.435	0.06	1.4873	453
SS11 / Fill2.5	9.283	0.06	1.4473	453
SS11 / Fill3	9.144	0.06	1.4107	453
SS11 / Fill3.5	9.016	0.06	1.3769	453
SS11 / Fill4	8.897	0.06	1.3455	453
SS11.5 / Fill0.5	10.487	0.06	1.6446	464
SS11.5 / Fill1	10.273	0.06	1.5905	464
SS11.5 / Fill1.5	10.082	0.06	1.5424	464
SS11.5 / Fill2	9.910	0.06	1.4991	464
SS11.5 / Fill2.5	9.754	0.06	1.4597	464
SS11.5 / Fill3	9.611	0.06	1.4236	464
SS11.5 / Fill3.5	9.479	0.06	1.3903	464
SS11.5 / Fill4	9.356	0.06	1.3594	464
SS12 / Fill0.5	10.977	0.06	1.6527	475
SS12 / Fill1	10.758	0.06	1.5998	475
SS12 / Fill1.5	10.563	0.06	1.5527	475
SS12 / Fill2	10.387	0.06	1.5101	475
SS12 / Fill2.5	10.227	0.06	1.4714	475
SS12 / Fill3	10.079	0.06	1.4359	475
SS12 / Fill3.5	9.943	0.06	1.4030	475
SS12 / Fill4	9.817	0.06	1.3724	475

CMW Geosciences – Great People | Practical Solutions	COLLIERS PROJECT LEADERS	MM
	SOUTHERN LINKS STAGE 1 INDUSTRIAL BLOCK	DMM
	HAMILTON	2
	Primary and Secondary Consolidation of Soft Soil Layers - No Preload & Building Load	6/14/2026
		HAM2024-0120

1. Consolidation Settlement (Terzaghi)

Exist Fill Density:	16	kN/m3
Soft Soil Density (Saturated):	16	kN/m3
Surcharge Density:	17	kN/m3
Building Load	20	kPa

Scenario	Original Ground RL	Water Table RL	Surcharge Top RL	Exist Fill Thickness	Soft Soil Thickness	Base Fill RL	Base Soft Soil RL	Mid-Point Soft Soil RL	Surcharge Height	Initial Eff Stress	Applied Surcharge	Comp Index CC	Recomp. Index CR	Initial Void Ratio e0	Exist Over Consol.	De	Consol Settlement	t90 Consol	Cv	Time to t90 Consol	
	(mAHD)	(mAHD)	(mAHD)	(m)	(m)	(mAHD)	(mAHD)	(mAHD)	(m)	(kPa)	(kPa)				(kPa)		(m)	(m)	(m2/yr)	(year)	(months)
SS0.5 / Fill0.5	0	0	0.5	0	0.5	0	-0.5	-0.25	0.5	2	28.5	1	0.03	1.9	0	-1.2882	0.222	0.20	25	0.0	0.0
SS0.5 / Fill1	0	0	1	0	0.5	0	-0.5	-0.25	1	2	37	1	0.03	1.9	0	-1.3964	0.241	0.22	25	0.0	0.0
SS0.5 / Fill1.5	0	0	1.5	0	0.5	0	-0.5	-0.25	1.5	2	45.5	1	0.03	1.9	0	-1.4829	0.256	0.23	25	0.0	0.0
SS0.5 / Fill2	0	0	2	0	0.5	0	-0.5	-0.25	2	2	54	1	0.03	1.9	0	-1.5550	0.268	0.24	25	0.0	0.0
SS0.5 / Fill2.5	0	0	2.5	0	0.5	0	-0.5	-0.25	2.5	2	62.5	1	0.03	1.9	0	-1.6169	0.279	0.25	25	0.0	0.0
SS0.5 / Fill3	0	0	3	0	0.5	0	-0.5	-0.25	3	2	71	1	0.03	1.9	0	-1.6710	0.288	0.26	25	0.0	0.0
SS0.5 / Fill3.5	0	0	3.5	0	0.5	0	-0.5	-0.25	3.5	2	79.5	1	0.03	1.9	0	-1.7191	0.296	0.27	25	0.0	0.0
SS0.5 / Fill4	0	0	4	0	0.5	0	-0.5	-0.25	4	2	88	1	0.03	1.9	0	-1.7624	0.304	0.27	25	0.0	0.0
SS1 / Fill0.5	0	0	0.5	0	1	0	-1	-0.5	0.5	3	28.5	1	0.03	1.9	0	-1.0090	0.348	0.31	25	0.0	0.1
SS1 / Fill1	0	0	1	0	1	0	-1	-0.5	1	3	37	1	0.03	1.9	0	-1.1124	0.384	0.35	25	0.0	0.1
SS1 / Fill1.5	0	0	1.5	0	1	0	-1	-0.5	1.5	3	45.5	1	0.03	1.9	0	-1.1959	0.412	0.37	25	0.0	0.1
SS1 / Fill2	0	0	2	0	1	0	-1	-0.5	2	3	54	1	0.03	1.9	0	-1.2659	0.437	0.39	25	0.0	0.1
SS1 / Fill2.5	0	0	2.5	0	1	0	-1	-0.5	2.5	3	62.5	1	0.03	1.9	0	-1.3262	0.457	0.41	25	0.0	0.1
SS1 / Fill3	0	0	3	0	1	0	-1	-0.5	3	3	71	1	0.03	1.9	0	-1.3791	0.476	0.43	25	0.0	0.1
SS1 / Fill3.5	0	0	3.5	0	1	0	-1	-0.5	3.5	3	79.5	1	0.03	1.9	0	-1.4263	0.492	0.44	25	0.0	0.1
SS1 / Fill4	0	0	4	0	1	0	-1	-0.5	4	3	88	1	0.03	1.9	0	-1.4688	0.506	0.46	25	0.0	0.1
SS1.5 / Fill0.5	0	0	0.5	0	1.5	0	-1.5	-0.75	0.5	5	28.5	1	0.03	1.9	0	-0.8536	0.442	0.40	25	0.0	0.2
SS1.5 / Fill1	0	0	1	0	1.5	0	-1.5	-0.75	1	5	37	1	0.03	1.9	0	-0.9528	0.493	0.44	25	0.0	0.2
SS1.5 / Fill1.5	0	0	1.5	0	1.5	0	-1.5	-0.75	1.5	5	45.5	1	0.03	1.9	0	-1.0335	0.535	0.48	25	0.0	0.2
SS1.5 / Fill2	0	0	2	0	1.5	0	-1.5	-0.75	2	5	54	1	0.03	1.9	0	-1.1015	0.570	0.51	25	0.0	0.2
SS1.5 / Fill2.5	0	0	2.5	0	1.5	0	-1.5	-0.75	2.5	5	62.5	1	0.03	1.9	0	-1.1602	0.600	0.54	25	0.0	0.2
SS1.5 / Fill3	0	0	3	0	1.5	0	-1.5	-0.75	3	5	71	1	0.03	1.9	0	-1.2120	0.627	0.56	25	0.0	0.2
SS1.5 / Fill3.5	0	0	3.5	0	1.5	0	-1.5	-0.75	3.5	5	79.5	1	0.03	1.9	0	-1.2583	0.651	0.59	25	0.0	0.2
SS1.5 / Fill4	0	0	4	0	1.5	0	-1.5	-0.75	4	5	88	1	0.03	1.9	0	-1.3001	0.672	0.61	25	0.0	0.2
SS2 / Fill0.5	0	0	0.5	0	2	0	-2	-1	0.5	6	28.5	1	0.03	1.9	0	-0.7485	0.516	0.46	25	0.0	0.4
SS2 / Fill1	0	0	1	0	2	0	-2	-1	1	6	37	1	0.03	1.9	0	-0.8437	0.582	0.52	25	0.0	0.4
SS2 / Fill1.5	0	0	1.5	0	2	0	-2	-1	1.5	6	45.5	1	0.03	1.9	0	-0.9217	0.636	0.57	25	0.0	0.4
SS2 / Fill2	0	0	2	0	2	0	-2	-1	2	6	54	1	0.03	1.9	0	-0.9878	0.681	0.61	25	0.0	0.4
SS2 / Fill2.5	0	0	2.5	0	2	0	-2	-1	2.5	6	62.5	1	0.03	1.9	0	-1.0452	0.721	0.65	25	0.0	0.4
SS2 / Fill3	0	0	3	0	2	0	-2	-1	3	6	71	1	0.03	1.9	0	-1.0959	0.756	0.68	25	0.0	0.4
SS2 / Fill3.5	0	0	3.5	0	2	0	-2	-1	3.5	6	79.5	1	0.03	1.9	0	-1.1412	0.787	0.71	25	0.0	0.4
SS2 / Fill4	0	0	4	0	2	0	-2	-1	4	6	88	1	0.03	1.9	0	-1.1823	0.815	0.73	25	0.0	0.4
SS2.5 / Fill0.5	0	0	0.5	0	2.5	0	-2.5	-1.25	0.5	8	28.5	1	0.03	1.9	0	-0.6706	0.578	0.52	25	0.1	0.6
SS2.5 / Fill1	0	0	1	0	2.5	0	-2.5	-1.25	1	8	37	1	0.03	1.9	0	-0.7621	0.657	0.59	25	0.1	0.6
SS2.5 / Fill1.5	0	0	1.5	0	2.5	0	-2.5	-1.25	1.5	8	45.5	1	0.03	1.9	0	-0.8376	0.722	0.65	25	0.1	0.6
SS2.5 / Fill2	0	0	2	0	2.5	0	-2.5	-1.25	2	8	54	1	0.03	1.9	0	-0.9019	0.778	0.70	25	0.1	0.6
SS2.5 / Fill2.5	0	0	2.5	0	2.5	0	-2.5	-1.25	2.5	8	62.5	1	0.03	1.9	0	-0.9580	0.826	0.74	25	0.1	0.6
SS2.5 / Fill3	0	0	3	0	2.5	0	-2.5	-1.25	3	8	71	1	0.03	1.9	0	-1.0076	0.869	0.78	25	0.1	0.6
SS2.5 / Fill3.5	0	0	3.5	0	2.5	0	-2.5	-1.25	3.5	8	79.5	1	0.03	1.9	0	-1.0521	0.907	0.82	25	0.1	0.6
SS2.5 / Fill4	0	0	4	0	2.5	0	-2.5	-1.25	4	8	88	1	0.03	1.9	0	-1.0925	0.942	0.85	25	0.1	0.6
SS3 / Fill0.5	0	0	0.5	0	3	0	-3	-1.5	0.5	9	28.5	1	0.03	1.9	0	-0.6095	0.631	0.57	25	0.1	0.9
SS3 / Fill1	0	0	1	0	3	0	-3	-1.5	1	9	37	1	0.03	1.9	0	-0.6977	0.722	0.65	25	0.1	0.9
SS3 / Fill1.5	0	0	1.5	0	3	0	-3	-1.5	1.5	9	45.5	1	0.03	1.9	0	-0.7709	0.797	0.72	25	0.1	0.9
SS3 / Fill2	0	0	2	0	3	0	-3	-1.5	2	9	54	1	0.03	1.9	0	-0.8335	0.862	0.78	25	0.1	0.9
SS3 / Fill2.5	0	0	2.5	0	3	0	-3	-1.5	2.5	9	62.5	1	0.03	1.9	0	-0.8883	0.919	0.83	25	0.1	0.9
SS3 / Fill3	0	0	3	0	3	0	-3	-1.5	3	9	71	1	0.03	1.9	0	-0.9369	0.969	0.87	25	0.1	0.9
SS3 / Fill3.5	0	0	3.5	0	3	0	-3	-1.5	3.5	9	79.5	1	0.03	1.9	0	-0.9806	1.014	0.91	25	0.1	0.9
SS3 / Fill4	0	0	4	0	3	0	-3	-1.5	4	9	88	1	0.03	1.9	0	-1.0203	1.055	0.95	25	0.1	0.9
SS3.5 / Fill0.5	0	0	0.5	0	3.5	0	-3.5	-1.75	0.5	11	28.5	1	0.03	1.9	0	-0.5600	0.676	0.61	25	0.1	1.2
SS3.5 / Fill1	0	0	1	0	3.5	0	-3.5	-1.75	1	11	37	1	0.03	1.9	0	-0.6450	0.778	0.70	25	0.1	1.2
SS3.5 / Fill1.5	0	0	1.5	0	3.5	0	-3.5	-1.75	1.5	11	45.5	1	0.03	1.9	0	-0.7160	0.864	0.78	25	0.1	1.2
SS3.5 / Fill2	0	0	2	0	3.5	0	-3.5	-1.75	2	11	54	1	0.03	1.9	0	-0.7771	0.938	0.84	25	0.1	1.2
SS3.5 / Fill2.5	0	0	2.5	0	3.5	0	-3.5	-1.75	2.5	11	62.5	1	0.03	1.9	0	-0.8306	1.002	0.90	25	0.1	1.2
SS3.5 / Fill3	0	0	3	0	3.5	0	-3.5	-1.75	3	11	71	1	0.03	1.9	0	-0.8782	1.060	0.95	25	0.1	1.2
SS3.5 / Fill3.5	0	0	3.5	0	3.5	0	-3.5	-1.75	3.5	11	79.5	1	0.03	1.9	0	-0.9211	1.112	1.00	25	0.1	1.2
SS3.5 / Fill4	0	0	4	0	3.5	0	-3.5	-1.75	4	11	88	1	0.03	1.9	0	-0.9602	1.159	1.04	25	0.1	1.2
SS4 / Fill0.5	0	0	0.5	0	4	0	-4	-2	0.5	12	28.5	1	0.03	1.9	0	-0.5188	0.716	0.64	25	0.1	1.6
SS4 / Fill1	0	0	1	0	4	0	-4	-2	1	12	37	1	0.03	1.9	0	-0.6008	0.829	0.75	25	0.1	1.6
SS4 / Fill1.5	0	0	1.5	0	4	0	-4	-2	1.5	12	45.5	1	0.03	1.9	0	-0.6698	0.924	0.83	25	0.1	1.6
SS4 / Fill2	0	0	2	0	4	0	-4	-2	2	12	54	1	0.03	1.9	0	-0.7293	1.006	0.91	25	0.1	1.6
SS4 / Fill2.5	0	0	2.5	0	4	0	-4	-2	2.5	12	62.5	1	0.03	1.9	0	-0.7816	1.078	0.97	25	0.1	1.6
SS4 / Fill3	0	0	3	0	4	0	-4	-2	3	12	71	1	0.03	1.9	0	-0.8283	1.143	1.03	25	0.1	1.6
SS4 / Fill3.5	0	0	3.5	0	4	0	-4	-2	3.5	12	79.5	1	0.03	1.9	0	-0.8705	1.201	1.08	25	0.1	1.6
SS4 / Fill4	0	0	4	0	4	0	-4	-2	4	12	88	1	0.03	1.9	0	-0.9089	1.254	1.13	25	0.1	1.6
SS4.5 / Fill0.5	0	0	0.5	0	4.5	0	-4.5	-2.25	0.5	14	28.5	1	0.03	1.9	0	-0.4838	0.751	0.68	25	0.2	2.1
SS4.5 / Fill1	0	0	1	0	4.5	0	-4.5	-2.25	1	14	37	1	0.03	1.9	0	-0.5631	0.874	0.79	25	0.2	2.1
SS4.5 / Fill1.5	0	0	1.5	0	4.5	0	-4.5	-2.25	1.5	14	45.5	1	0.03	1.9	0	-0.6301	0.978	0.88	25	0.2	2.1
SS4.5 / Fill2	0	0	2	0	4.5	0	-4.5	-2.25	2	14	54	1	0.03	1.9	0	-0.6882	1.068	0.96	25	0.2	2.1
SS4.5 / Fill2.5	0	0	2.5	0	4.5	0	-4.5	-2.25	2.5	14	62.5	1	0.03	1.9	0	-0.7394	1.147	1.03	25	0.2	2.1
SS4.5 / Fill3	0	0	3	0	4.5	0	-4.5	-2.25	3	14	71	1	0.03	1.9	0	-0.7852	1.218	1.10	25	0.2	2.1
SS4.5 / Fill3.5	0	0	3.5	0	4.5	0	-4.5	-2.25	3.5	14	79.5	1	0.03	1.9	0	-0.8266	1.283	1.15	25	0.2	2.1
SS4.5 / Fill4	0	0	4	0	4.5	0	-4.5	-2.25	4	14	88	1	0.03	1.9	0	-0.8644	1.341	1.21	25	0.2	2.1
SS5 / Fill0.5	0	0	0.5	0	5	0	-5	-2.5	0.5	15	28.5	1	0.03	1.9	0	-0.4536	0.782	0.70	25	0.2	2.5
SS5 / Fill1	0	0	1	0	5	0	-5	-2.5	1	15	37	1	0.03	1.9	0	-0.5303	0.914	0.82	25	0.2	2.5
SS5 / Fill1.5	0	0	1.5	0	5	0	-5	-2.5	1.5	15	45.5	1	0.03	1.9	0	-0.5955	1.027	0.92	25	0.2	2.5
SS5 / Fill2	0	0	2	0	5	0	-5	-2.5	2	15	54	1	0.03	1.9	0	-0.6522	1.124	1.01	25	0.2	2.5
SS5 / Fill2.5	0	0	2.5	0	5	0	-5	-2.5	2.5	15	62.5	1	0.03	1.9	0	-0.7023	1.211	1.09	25	0.2	2.5
SS5 / Fill3	0	0	3	0	5	0	-5	-2.5	3	15	71	1	0.03	1.9	0	-0.7473	1.288	1.16	25	0.2	2.5
SS5 / Fill3.5	0	0	3.5	0	5	0	-5	-2.5	3.5	15	79.5	1	0.03	1.9	0	-0.7880	1.359	1.22	25	0.2	2.5
SS5 / Fill4	0	0	4	0	5	0	-5	-2.5	4	15	88	1	0.03	1.9	0	-0.8252	1.423	1.28	25	0.2	2.5
SS5.5 / Fill0.5	0	0	0.5	0	5.5	0	-5.5	-2.75	0.5	17	28.5	1	0.03	1.9	0	-0.4272	0.810	0.73	25	0.3	3.1
SS5.5 / Fill1	0	0	1	0	5.5	0	-5.5	-2.75	1	17	37	1	0.03	1.9	0	-0.5016	0.951	0.86	25	0.3	3.1
SS5.5 / Fill1.5	0	0	1.5	0	5.5	0	-5.5	-2.75	1.5	17	45.5	1	0.03	1.9	0	-0.5650	1.072	0.96	25	0.3	3.1
SS5.5 / Fill2	0	0	2	0	5.5	0	-5.5	-2.75	2	17	54	1	0.03	1.9	0	-0.6204	1.177	1.06	25	0.3	3.1
SS5.5 / Fill2.5	0	0	2.5	0	5.5	0	-5.5	-2.75	2.5	17	62.5	1	0.03	1.9	0	-0.6695	1.270	1.14	25	0.3	3.1
SS5.5 / Fill3	0	0	3	0	5.5	0	-5.5	-2.75	3	17	71	1	0.03	1.9	0	-0.7136	1.353	1.22	25	0.3	3.1
SS5.5 / Fill3.5	0	0	3.5	0	5.5	0	-5.5	-2.75	3.5	17	79.5	1	0.03	1.9	0	-0.7536	1.429	1.29	25	0.3	3.1
SS5.5 / Fill4	0	0	4	0	5.5	0	-5.5	-2.75	4	17	88	1	0.03	1.9	0	-0.7903	1.499	1.35	25	0.3	3.1
SS6 / Fill0.5	0	0	0.5	0	6	0	-6	-3	0.5	19	28.5	1	0.03	1.9	0	-0.4039	0.836	0.75	25	0.3	3.7
SS6 / Fill1	0	0	1	0	6	0	-6	-3	1	19	37	1	0.03	1.9	0	-0.4760	0.985	0.89	25	0.3	3.7
SS6 / Fill1.5	0	0	1.5	0	6	0	-6	-3	1.5	19	45.5	1	0.03	1.9	0	-0.5378	1.113	1.00	25	0.3	3.7
SS6 / Fill2	0	0	2	0	6	0	-6	-3	2	19	54	1	0.03	1.9	0	-0.5919	1.225	1.10	25	0.3	3.7
SS6 / Fill2.5	0	0	2.5	0	6	0	-6	-3	2.5	19	62.5	1	0.03	1.9	0	-0.6400	1.324	1.19	25	0.3	3.7
SS6 / Fill3	0	0	3	0	6	0	-6	-3	3	19	71	1	0.03	1.9	0	-0.6834	1.414	1.27	25	0.3	3.7
SS6 / Fill3.5	0	0	3.5	0	6	0	-6	-3	3.5	19	79.5	1	0.03	1.9	0	-0.7227	1.495	1.35	25	0.3	3.7
SS6 / Fill4	0	0	4	0	6	0	-6	-3	4	19	88	1	0.03	1.9	0	-0.7588	1.570	1.41	25	0.3	3.7
SS6.5 / Fill0.5	0	0	0.5	0	6.5	0	-6.5	-3.25	0.5	20	28.5	1	0.03	1.9	0	-0.3832	0.859	0.77	25	0.4	4.3
SS6.5 / Fill1	0	0	1	0	6.5	0	-6.5	-3.25	1	20	37	1	0.03	1.9	0	-0.4532	1.016	0.91	25	0.4	4.3
SS6.5 / Fill1.5	0	0	1.5	0	6.5	0	-6.5	-3.25	1.5	20	45.5	1	0.03	1.9	0	-0.5134	1.151	1.04	25	0.4	4.3
SS6.5 / Fill2	0	0	2	0	6.5	0	-6.5	-3.25	2	20	54	1	0.03	1.9	0	-0.5663	1.269	1.14	25	0.4	4.3
SS6.5 / Fill2.5	0	0	2.5	0	6.5	0	-6.5	-3.25	2.5	20	62.5	1	0.03	1.9	0	-0.6135	1.375	1.24	25	0.4	4.3
SS6.5 / Fill3	0	0	3	0	6.5	0	-6.5	-3.25	3	20	71	1	0.03	1.9	0	-0.6560	1.470	1.32	25	0.4	4.3
SS6.5 / Fill3.5	0	0	3.5	0	6.5	0	-6.5	-3.25	3.5	20	79.5	1	0.03	1.9	0	-0.6948	1.557	1.40	25	0.4	4.3
SS6.5 / Fill4	0	0	4	0	6.5	0	-6.5	-3.25	4	20	88	1	0.03	1.9	0	-0.7303	1.637	1.47	25	0.4	4.3
SS7 / Fill0.5	0	0	0.5	0	7	0	-7	-3.5	0.5	22	28.5	1	0.03	1.9	0	-0.3646	0.880	0.79	25	0.4	5.0
SS7 / Fill1	0	0	1	0	7	0	-7	-3.5	1	22	37	1	0.03	1.9	0	-0.4326	1.044	0.94	25	0.4	5.0
SS7 / Fill1.5	0	0	1.5	0	7	0	-7	-3.5	1.5	22	45.5	1	0.03	1.9	0	-0.4914	1.186	1.07	25	0.4	5.0
SS7 / Fill2	0	0	2	0	7	0	-7	-3.5	2	22	54	1	0.03	1.9	0	-0.5431	1.311	1.18	25	0.4	5.0
SS7 / Fill2.5	0	0	2.5	0	7	0	-7	-3.5	2.5	22	62.5	1	0.03	1.9	0	-0.5894	1.423	1.28	25	0.4	5.0
SS7 / Fill3	0	0	3	0	7	0	-7	-3.5	3	22	71	1	0.03	1.9	0	-0.6312	1.523	1.37	25	0.4	5.0
SS7 / Fill3.5	0	0	3.5	0	7	0	-7	-3.5	3.5	22	79.5	1	0.03	1.9	0	-0.6693	1.615	1.45	25	0.4	5.0
SS7 / Fill4	0	0	4	0	7	0	-7	-3.5	4	22	88	1	0.03	1.9	0	-0.7043	1.700	1.53	25	0.4	5.0
SS7.5 / Fill0.5	0	0	0.5	0	7.5	0	-7.5	-3.75	0.5	23	28.5	1	0.03	1.9	0	-0.3479	0.900	0.81	25	0.5	5.7
SS7.5 / Fill1	0	0	1	0	7.5	0	-7.5	-3.75	1	23	37	1	0.03	1.9	0	-0.4140	1.071	0.96	25	0.5	5.7
SS7.5 / Fill1.5	0	0	1.5	0	7.5	0	-7.5	-3.75	1.5	23	45.5	1	0.03	1.9	0	-0.4713	1.219	1.10	25	0.5	5.7
SS7.5 / Fill2	0	0	2	0	7.5	0	-7.5	-3.75	2	23	54	1	0.03	1.9	0	-0.5220	1.350	1.21	25	0.5	5.7
SS7.5 / Fill2.5	0	0	2.5	0	7.5	0	-7.5	-3.75	2.5	23	62.5	1	0.03	1.9	0	-0.5673	1.467	1.32	25	0.5	5.7
SS7.5 / Fill3	0	0	3	0	7.5	0	-7.5	-3.75	3	23	71	1	0.03	1.9	0	-0.6084	1.573	1.42	25	0.5	5.7
SS7.5 / Fill3.5	0	0	3.5	0	7.5	0	-7.5	-3.75	3.5	23	79.5	1	0.03	1.9	0	-0.6459	1.670	1.50	25	0.5	5.7
SS7.5 / Fill4	0	0	4	0	7.5	0	-7.5	-3.75	4	23	88	1	0.03	1.9	0	-0.6804	1.760	1.58	25	0.5	5.7
SS8 / Fill0.5	0	0	0.5	0	8	0	-8	-4	0.5	25	28.5	1	0.03	1.9	0	-0.3327	0.918	0.83	25	0.5	6.5
SS8 / Fill1	0	0	1	0	8	0	-8	-4	1	25	37	1	0.03	1.9	0	-0.3970	1.095	0.99	25	0.5	6.5
SS8 / Fill1.5	0	0	1.5	0	8	0	-8	-4	1.5	25	45.5	1	0.03	1.9	0	-0.4530	1.250	1.12	25	0.5	6.5
SS8 / Fill2	0	0	2	0	8	0	-8	-4	2	25	54	1	0.03	1.9	0	-0.5026	1.386	1.25	25	0.5	6.5
SS8 / Fill2.5	0	0	2.5	0	8	0	-8	-4	2.5	25	62.5	1	0.03	1.9	0	-0.5471	1.509	1.36	25	0.5	6.5
SS8 / Fill3	0	0	3	0	8	0	-8	-4	3	25	71	1	0.03	1.9	0	-0.5874	1.621	1.46	25	0.5	6.5
SS8 / Fill3.5	0	0	3.5	0	8	0	-8	-4	3.5	25	79.5	1	0.03	1.9	0	-0.6244	1.722	1.55	25	0.5	6.5
SS8 / Fill4	0	0	4	0	8	0	-8	-4	4	25	88	1	0.03	1.9	0	-0.6584	1.816	1.63	25	0.5	6.5
SS8.5 / Fill0.5	0	0	0.5	0	8.5	0	-8.5	-4.25	0.5	26	28.5	1	0.03	1.9	0	-0.3188	0.934	0.84	25	0.6	7.4
SS8.5 / Fill1	0	0	1	0	8.5	0	-8.5	-4.25	1	26	37	1	0.03	1.9	0	-0.3814	1.118	1.01	25	0.6	7.4
SS8.5 / Fill1.5	0	0	1.5	0	8.5	0	-8.5	-4.25	1.5	26	45.5	1	0.03	1.9	0	-0.4361	1.278	1.15	25	0.6	7.4
SS8.5 / Fill2	0	0	2	0	8.5	0	-8.5	-4.25	2	26	54	1	0.03	1.9	0	-0.4847	1.421	1.28	25	0.6	7.4
SS8.5 / Fill2.5	0	0	2.5	0	8.5	0	-8.5	-4.25	2.5	26	62.5	1	0.03	1.9	0	-0.5284	1.549	1.39	25	0.6	7.4
SS8.5 / Fill3	0	0	3	0	8.5	0	-8.5	-4.25	3	26	71	1	0.03	1.9	0	-0.5681	1.665	1.50	25	0.6	7.4
SS8.5 / Fill3.5	0	0	3.5	0	8.5	0	-8.5	-4.25	3.5	26	79.5	1	0.03	1.9	0	-0.6044	1.772	1.59	25	0.6	7.4
SS8.5 / Fill4	0	0	4	0	8.5	0	-8.5	-4.25	4	26	88	1	0.03	1.9	0	-0.6380	1.870	1.68	25	0.6	7.4

SS9 / Fill0.5	0	0	0.5	0	9	0	-9	-4.5	0.5	28	28.5	1	0.03	1.9	0	-0.3060	**0.950**	**0.85**	25	**0.7**	**8.2**
SS9 / Fill1	0	0	1	0	9	0	-9	-4.5	1	28	37	1	0.03	1.9	0	-0.3670	**1.139**	**1.03**	25	**0.7**	**8.2**
SS9 / Fill1.5	0	0	1.5	0	9	0	-9	-4.5	1.5	28	45.5	1	0.03	1.9	0	-0.4205	**1.305**	**1.17**	25	**0.7**	**8.2**
SS9 / Fill2	0	0	2	0	9	0	-9	-4.5	2	28	54	1	0.03	1.9	0	-0.4681	**1.453**	**1.31**	25	**0.7**	**8.2**
SS9 / Fill2.5	0	0	2.5	0	9	0	-9	-4.5	2.5	28	62.5	1	0.03	1.9	0	-0.5110	**1.586**	**1.43**	25	**0.7**	**8.2**
SS9 / Fill3	0	0	3	0	9	0	-9	-4.5	3	28	71	1	0.03	1.9	0	-0.5501	**1.707**	**1.54**	25	**0.7**	**8.2**
SS9 / Fill3.5	0	0	3.5	0	9	0	-9	-4.5	3.5	28	79.5	1	0.03	1.9	0	-0.5859	**1.818**	**1.64**	25	**0.7**	**8.2**
SS9 / Fill4	0	0	4	0	9	0	-9	-4.5	4	28	88	1	0.03	1.9	0	-0.6190	**1.921**	**1.73**	25	**0.7**	**8.2**
SS9.5 / Fill0.5	0	0	0.5	0	9.5	0	-9.5	-4.75	0.5	29	28.5	1	0.03	1.9	0	-0.2943	**0.964**	**0.87**	25	**0.8**	**9.2**
SS9.5 / Fill1	0	0	1	0	9.5	0	-9.5	-4.75	1	29	37	1	0.03	1.9	0	-0.3538	**1.159**	**1.04**	25	**0.8**	**9.2**
SS9.5 / Fill1.5	0	0	1.5	0	9.5	0	-9.5	-4.75	1.5	29	45.5	1	0.03	1.9	0	-0.4061	**1.330**	**1.20**	25	**0.8**	**9.2**
SS9.5 / Fill2	0	0	2	0	9.5	0	-9.5	-4.75	2	29	54	1	0.03	1.9	0	-0.4528	**1.483**	**1.33**	25	**0.8**	**9.2**
SS9.5 / Fill2.5	0	0	2.5	0	9.5	0	-9.5	-4.75	2.5	29	62.5	1	0.03	1.9	0	-0.4949	**1.621**	**1.46**	25	**0.8**	**9.2**
SS9.5 / Fill3	0	0	3	0	9.5	0	-9.5	-4.75	3	29	71	1	0.03	1.9	0	-0.5334	**1.747**	**1.57**	25	**0.8**	**9.2**
SS9.5 / Fill3.5	0	0	3.5	0	9.5	0	-9.5	-4.75	3.5	29	79.5	1	0.03	1.9	0	-0.5687	**1.863**	**1.68**	25	**0.8**	**9.2**
SS9.5 / Fill4	0	0	4	0	9.5	0	-9.5	-4.75	4	29	88	1	0.03	1.9	0	-0.6013	**1.970**	**1.77**	25	**0.8**	**9.2**
SS10 / Fill0.5	0	0	0.5	0	10	0	-10	-5	0.5	31	28.5	1	0.03	1.9	0	-0.2835	**0.978**	**0.88**	25	**0.8**	**10.2**
SS10 / Fill1	0	0	1	0	10	0	-10	-5	1	31	37	1	0.03	1.9	0	-0.3415	**1.178**	**1.06**	25	**0.8**	**10.2**
SS10 / Fill1.5	0	0	1.5	0	10	0	-10	-5	1.5	31	45.5	1	0.03	1.9	0	-0.3927	**1.354**	**1.22**	25	**0.8**	**10.2**
SS10 / Fill2	0	0	2	0	10	0	-10	-5	2	31	54	1	0.03	1.9	0	-0.4385	**1.512**	**1.36**	25	**0.8**	**10.2**
SS10 / Fill2.5	0	0	2.5	0	10	0	-10	-5	2.5	31	62.5	1	0.03	1.9	0	-0.4799	**1.655**	**1.49**	25	**0.8**	**10.2**
SS10 / Fill3	0	0	3	0	10	0	-10	-5	3	31	71	1	0.03	1.9	0	-0.5177	**1.785**	**1.61**	25	**0.8**	**10.2**
SS10 / Fill3.5	0	0	3.5	0	10	0	-10	-5	3.5	31	79.5	1	0.03	1.9	0	-0.5525	**1.905**	**1.71**	25	**0.8**	**10.2**
SS10 / Fill4	0	0	4	0	10	0	-10	-5	4	31	88	1	0.03	1.9	0	-0.5847	**2.016**	**1.81**	25	**0.8**	**10.2**
SS10.5 / Fill0.5	0	0	0.5	0	10.5	0	-10.5	-5.25	0.5	32	28.5	1	0.03	1.9	0	-0.2735	**0.990**	**0.89**	25	**0.9**	**11.2**
SS10.5 / Fill1	0	0	1	0	10.5	0	-10.5	-5.25	1	32	37	1	0.03	1.9	0	-0.3301	**1.195**	**1.08**	25	**0.9**	**11.2**
SS10.5 / Fill1.5	0	0	1.5	0	10.5	0	-10.5	-5.25	1.5	32	45.5	1	0.03	1.9	0	-0.3802	**1.377**	**1.24**	25	**0.9**	**11.2**
SS10.5 / Fill2	0	0	2	0	10.5	0	-10.5	-5.25	2	32	54	1	0.03	1.9	0	-0.4252	**1.539**	**1.39**	25	**0.9**	**11.2**
SS10.5 / Fill2.5	0	0	2.5	0	10.5	0	-10.5	-5.25	2.5	32	62.5	1	0.03	1.9	0	-0.4659	**1.687**	**1.52**	25	**0.9**	**11.2**
SS10.5 / Fill3	0	0	3	0	10.5	0	-10.5	-5.25	3	32	71	1	0.03	1.9	0	-0.5031	**1.821**	**1.64**	25	**0.9**	**11.2**
SS10.5 / Fill3.5	0	0	3.5	0	10.5	0	-10.5	-5.25	3.5	32	79.5	1	0.03	1.9	0	-0.5374	**1.946**	**1.75**	25	**0.9**	**11.2**
SS10.5 / Fill4	0	0	4	0	10.5	0	-10.5	-5.25	4	32	88	1	0.03	1.9	0	-0.5691	**2.061**	**1.85**	25	**0.9**	**11.2**
SS11 / Fill0.5	0	0	0.5	0	11	0	-11	-5.5	0.5	34	28.5	1	0.03	1.9	0	-0.2641	**1.002**	**0.90**	25	**1.0**	**12.3**
SS11 / Fill1	0	0	1	0	11	0	-11	-5.5	1	34	37	1	0.03	1.9	0	-0.3195	**1.212**	**1.09**	25	**1.0**	**12.3**
SS11 / Fill1.5	0	0	1.5	0	11	0	-11	-5.5	1.5	34	45.5	1	0.03	1.9	0	-0.3686	**1.398**	**1.26**	25	**1.0**	**12.3**
SS11 / Fill2	0	0	2	0	11	0	-11	-5.5	2	34	54	1	0.03	1.9	0	-0.4127	**1.565**	**1.41**	25	**1.0**	**12.3**
SS11 / Fill2.5	0	0	2.5	0	11	0	-11	-5.5	2.5	34	62.5	1	0.03	1.9	0	-0.4527	**1.717**	**1.55**	25	**1.0**	**12.3**
SS11 / Fill3	0	0	3	0	11	0	-11	-5.5	3	34	71	1	0.03	1.9	0	-0.4893	**1.856**	**1.67**	25	**1.0**	**12.3**
SS11 / Fill3.5	0	0	3.5	0	11	0	-11	-5.5	3.5	34	79.5	1	0.03	1.9	0	-0.5231	**1.984**	**1.79**	25	**1.0**	**12.3**
SS11 / Fill4	0	0	4	0	11	0	-11	-5.5	4	34	88	1	0.03	1.9	0	-0.5545	**2.103**	**1.89**	25	**1.0**	**12.3**
SS11.5 / Fill0.5	0	0	0.5	0	11.5	0	-11.5	-5.75	0.5	36	28.5	1	0.03	1.9	0	-0.2554	**1.013**	**0.91**	25	**1.1**	**13.5**
SS11.5 / Fill1	0	0	1	0	11.5	0	-11.5	-5.75	1	36	37	1	0.03	1.9	0	-0.3095	**1.227**	**1.10**	25	**1.1**	**13.5**
SS11.5 / Fill1.5	0	0	1.5	0	11.5	0	-11.5	-5.75	1.5	36	45.5	1	0.03	1.9	0	-0.3576	**1.418**	**1.28**	25	**1.1**	**13.5**
SS11.5 / Fill2	0	0	2	0	11.5	0	-11.5	-5.75	2	36	54	1	0.03	1.9	0	-0.4009	**1.590**	**1.43**	25	**1.1**	**13.5**
SS11.5 / Fill2.5	0	0	2.5	0	11.5	0	-11.5	-5.75	2.5	36	62.5	1	0.03	1.9	0	-0.4403	**1.746**	**1.57**	25	**1.1**	**13.5**
SS11.5 / Fill3	0	0	3	0	11.5	0	-11.5	-5.75	3	36	71	1	0.03	1.9	0	-0.4764	**1.889**	**1.70**	25	**1.1**	**13.5**
SS11.5 / Fill3.5	0	0	3.5	0	11.5	0	-11.5	-5.75	3.5	36	79.5	1	0.03	1.9	0	-0.5097	**2.021**	**1.82**	25	**1.1**	**13.5**
SS11.5 / Fill4	0	0	4	0	11.5	0	-11.5	-5.75	4	36	88	1	0.03	1.9	0	-0.5406	**2.144**	**1.93**	25	**1.1**	**13.5**
SS12 / Fill0.5	0	0	0.5	0	12	0	-12	-6	0.5	37	28.5	1	0.03	1.9	0	-0.2473	**1.023**	**0.92**	25	**1.2**	**14.7**
SS12 / Fill1	0	0	1	0	12	0	-12	-6	1	37	37	1	0.03	1.9	0	-0.3002	**1.242**	**1.12**	25	**1.2**	**14.7**
SS12 / Fill1.5	0	0	1.5	0	12	0	-12	-6	1.5	37	45.5	1	0.03	1.9	0	-0.3473	**1.437**	**1.29**	25	**1.2**	**14.7**
SS12 / Fill2	0	0	2	0	12	0	-12	-6	2	37	54	1	0.03	1.9	0	-0.3899	**1.613**	**1.45**	25	**1.2**	**14.7**
SS12 / Fill2.5	0	0	2.5	0	12	0	-12	-6	2.5	37	62.5	1	0.03	1.9	0	-0.4286	**1.773**	**1.60**	25	**1.2**	**14.7**
SS12 / Fill3	0	0	3	0	12	0	-12	-6	3	37	71	1	0.03	1.9	0	-0.4641	**1.921**	**1.73**	25	**1.2**	**14.7**
SS12 / Fill3.5	0	0	3.5	0	12	0	-12	-6	3.5	37	79.5	1	0.03	1.9	0	-0.4970	**2.057**	**1.85**	25	**1.2**	**14.7**
SS12 / Fill4	0	0	4	0	12	0	-12	-6	4	37	88	1	0.03	1.9	0	-0.5276	**2.183**	**1.96**	25	**1.2**	**14.7**

2. Mesri Creep Settlement - (Mesri et al (1994) and Mesri & Ajlouni (2007))

Assumed Ca/Cc = 0.06
Time = 50 years

Scenario	H	Ca	ep	Creep (mm)
SS0.5 / Fill0.5	0.278	0.06	0.6118	45
SS0.5 / Fill1	0.259	0.06	0.5036	45
SS0.5 / Fill1.5	0.244	0.06	0.4171	45
SS0.5 / Fill2	0.232	0.06	0.3450	45
SS0.5 / Fill2.5	0.221	0.06	0.2831	45
SS0.5 / Fill3	0.212	0.06	0.2290	45
SS0.5 / Fill3.5	0.204	0.06	0.1809	45
SS0.5 / Fill4	0.196	0.06	0.1376	45
SS1 / Fill0.5	0.652	0.06	0.8910	78
SS1 / Fill1	0.616	0.06	0.7876	78
SS1 / Fill1.5	0.588	0.06	0.7041	78
SS1 / Fill2	0.563	0.06	0.6341	78
SS1 / Fill2.5	0.543	0.06	0.5738	78
SS1 / Fill3	0.524	0.06	0.5209	78
SS1 / Fill3.5	0.508	0.06	0.4737	78
SS1 / Fill4	0.494	0.06	0.4312	78
SS1.5 / Fill0.5	1.058	0.06	1.0464	106
SS1.5 / Fill1	1.007	0.06	0.9472	106
SS1.5 / Fill1.5	0.965	0.06	0.8665	106
SS1.5 / Fill2	0.930	0.06	0.7985	106
SS1.5 / Fill2.5	0.900	0.06	0.7398	106
SS1.5 / Fill3	0.873	0.06	0.6880	106
SS1.5 / Fill3.5	0.849	0.06	0.6417	106
SS1.5 / Fill4	0.828	0.06	0.5999	106
SS2 / Fill0.5	1.484	0.06	1.1515	131
SS2 / Fill1	1.418	0.06	1.0563	131
SS2 / Fill1.5	1.364	0.06	0.9783	131
SS2 / Fill2	1.319	0.06	0.9122	131
SS2 / Fill2.5	1.279	0.06	0.8548	131
SS2 / Fill3	1.244	0.06	0.8041	131
SS2 / Fill3.5	1.213	0.06	0.7588	131
SS2 / Fill4	1.185	0.06	0.7177	131
SS2.5 / Fill0.5	1.922	0.06	1.2294	154
SS2.5 / Fill1	1.843	0.06	1.1379	154
SS2.5 / Fill1.5	1.778	0.06	1.0624	154
SS2.5 / Fill2	1.722	0.06	0.9981	154
SS2.5 / Fill2.5	1.674	0.06	0.9420	154
SS2.5 / Fill3	1.631	0.06	0.8924	154
SS2.5 / Fill3.5	1.593	0.06	0.8479	154
SS2.5 / Fill4	1.558	0.06	0.8075	154
SS3 / Fill0.5	2.369	0.06	1.2905	175
SS3 / Fill1	2.278	0.06	1.2023	175
SS3 / Fill1.5	2.203	0.06	1.1291	175
SS3 / Fill2	2.138	0.06	1.0665	175
SS3 / Fill2.5	2.081	0.06	1.0117	175
SS3 / Fill3	2.031	0.06	0.9631	175
SS3 / Fill3.5	1.986	0.06	0.9194	175
SS3 / Fill4	1.945	0.06	0.8797	175
SS3.5 / Fill0.5	2.824	0.06	1.3400	194
SS3.5 / Fill1	2.722	0.06	1.2550	194
SS3.5 / Fill1.5	2.636	0.06	1.1840	194
SS3.5 / Fill2	2.562	0.06	1.1229	194
SS3.5 / Fill2.5	2.498	0.06	1.0694	194
SS3.5 / Fill3	2.440	0.06	1.0218	194
SS3.5 / Fill3.5	2.388	0.06	0.9789	194
SS3.5 / Fill4	2.341	0.06	0.9398	194
SS4 / Fill0.5	3.284	0.06	1.3812	212
SS4 / Fill1	3.171	0.06	1.2992	212
SS4 / Fill1.5	3.076	0.06	1.2302	212
SS4 / Fill2	2.994	0.06	1.1707	212
SS4 / Fill2.5	2.922	0.06	1.1184	212
SS4 / Fill3	2.857	0.06	1.0717	212
SS4 / Fill3.5	2.799	0.06	1.0295	212
SS4 / Fill4	2.746	0.06	0.9911	212
SS4.5 / Fill0.5	3.749	0.06	1.4162	229
SS4.5 / Fill1	3.626	0.06	1.3369	229
SS4.5 / Fill1.5	3.522	0.06	1.2699	229
SS4.5 / Fill2	3.432	0.06	1.2118	229
SS4.5 / Fill2.5	3.353	0.06	1.1606	229
SS4.5 / Fill3	3.282	0.06	1.1148	229
SS4.5 / Fill3.5	3.217	0.06	1.0734	229
SS4.5 / Fill4	3.159	0.06	1.0356	229
SS5 / Fill0.5	4.218	0.06	1.4464	245
SS5 / Fill1	4.086	0.06	1.3697	245
SS5 / Fill1.5	3.973	0.06	1.3045	245
SS5 / Fill2	3.876	0.06	1.2478	245
SS5 / Fill2.5	3.789	0.06	1.1977	245
SS5 / Fill3	3.712	0.06	1.1527	245
SS5 / Fill3.5	3.641	0.06	1.1120	245
SS5 / Fill4	3.577	0.06	1.0748	245
SS5.5 / Fill0.5	4.690	0.06	1.4728	261
SS5.5 / Fill1	4.549	0.06	1.3984	261
SS5.5 / Fill1.5	4.428	0.06	1.3350	261
SS5.5 / Fill2	4.323	0.06	1.2796	261
SS5.5 / Fill2.5	4.230	0.06	1.2305	261
SS5.5 / Fill3	4.147	0.06	1.1864	261

SS5.5 / Fill3.5	4.071	0.06	1.1464	261
SS5.5 / Fill4	4.001	0.06	1.1097	261
SS6 / Fill0.5	5.164	0.06	1.4961	275
SS6 / Fill1	5.015	0.06	1.4240	275
SS6 / Fill1.5	4.887	0.06	1.3622	275
SS6 / Fill2	4.775	0.06	1.3081	275
SS6 / Fill2.5	4.676	0.06	1.2600	275
SS6 / Fill3	4.586	0.06	1.2166	275
SS6 / Fill3.5	4.505	0.06	1.1773	275
SS6 / Fill4	4.430	0.06	1.1412	275
SS6.5 / Fill0.5	5.641	0.06	1.5168	288
SS6.5 / Fill1	5.484	0.06	1.4468	288
SS6.5 / Fill1.5	5.349	0.06	1.3866	288
SS6.5 / Fill2	5.231	0.06	1.3337	288
SS6.5 / Fill2.5	5.125	0.06	1.2865	288
SS6.5 / Fill3	5.030	0.06	1.2440	288
SS6.5 / Fill3.5	4.943	0.06	1.2052	288
SS6.5 / Fill4	4.863	0.06	1.1697	288
SS7 / Fill0.5	6.120	0.06	1.5354	301
SS7 / Fill1	5.956	0.06	1.4674	301
SS7 / Fill1.5	5.814	0.06	1.4086	301
SS7 / Fill2	5.689	0.06	1.3569	301
SS7 / Fill2.5	5.577	0.06	1.3106	301
SS7 / Fill3	5.477	0.06	1.2688	301
SS7 / Fill3.5	5.385	0.06	1.2307	301
SS7 / Fill4	5.300	0.06	1.1957	301
SS7.5 / Fill0.5	6.600	0.06	1.5521	314
SS7.5 / Fill1	6.429	0.06	1.4860	314
SS7.5 / Fill1.5	6.281	0.06	1.4287	314
SS7.5 / Fill2	6.150	0.06	1.3780	314
SS7.5 / Fill2.5	6.033	0.06	1.3327	314
SS7.5 / Fill3	5.927	0.06	1.2916	314
SS7.5 / Fill3.5	5.830	0.06	1.2541	314
SS7.5 / Fill4	5.740	0.06	1.2196	314
SS8 / Fill0.5	7.082	0.06	1.5673	325
SS8 / Fill1	6.905	0.06	1.5030	325
SS8 / Fill1.5	6.750	0.06	1.4470	325
SS8 / Fill2	6.614	0.06	1.3974	325
SS8 / Fill2.5	6.491	0.06	1.3529	325
SS8 / Fill3	6.379	0.06	1.3126	325
SS8 / Fill3.5	6.278	0.06	1.2756	325
SS8 / Fill4	6.184	0.06	1.2416	325
SS8.5 / Fill0.5	7.566	0.06	1.5812	336
SS8.5 / Fill1	7.382	0.06	1.5186	336
SS8.5 / Fill1.5	7.222	0.06	1.4639	336
SS8.5 / Fill2	7.079	0.06	1.4153	336
SS8.5 / Fill2.5	6.951	0.06	1.3716	336
SS8.5 / Fill3	6.835	0.06	1.3319	336
SS8.5 / Fill3.5	6.728	0.06	1.2956	336
SS8.5 / Fill4	6.630	0.06	1.2620	336
SS9 / Fill0.5	8.050	0.06	1.5940	347
SS9 / Fill1	7.861	0.06	1.5330	347
SS9 / Fill1.5	7.695	0.06	1.4795	347
SS9 / Fill2	7.547	0.06	1.4319	347
SS9 / Fill2.5	7.414	0.06	1.3890	347
SS9 / Fill3	7.293	0.06	1.3499	347
SS9 / Fill3.5	7.182	0.06	1.3141	347
SS9 / Fill4	7.079	0.06	1.2810	347
SS9.5 / Fill0.5	8.536	0.06	1.6057	357
SS9.5 / Fill1	8.341	0.06	1.5462	357
SS9.5 / Fill1.5	8.170	0.06	1.4939	357
SS9.5 / Fill2	8.017	0.06	1.4472	357
SS9.5 / Fill2.5	7.879	0.06	1.4051	357
SS9.5 / Fill3	7.753	0.06	1.3666	357
SS9.5 / Fill3.5	7.637	0.06	1.3313	357
SS9.5 / Fill4	7.530	0.06	1.2987	357
SS10 / Fill0.5	9.022	0.06	1.6165	366
SS10 / Fill1	8.822	0.06	1.5585	366
SS10 / Fill1.5	8.646	0.06	1.5073	366
SS10 / Fill2	8.488	0.06	1.4615	366
SS10 / Fill2.5	8.345	0.06	1.4201	366
SS10 / Fill3	8.215	0.06	1.3823	366
SS10 / Fill3.5	8.095	0.06	1.3475	366
SS10 / Fill4	7.984	0.06	1.3153	366
SS10.5 / Fill0.5	9.510	0.06	1.6265	375
SS10.5 / Fill1	9.305	0.06	1.5699	375
SS10.5 / Fill1.5	9.123	0.06	1.5198	375
SS10.5 / Fill2	8.961	0.06	1.4748	375
SS10.5 / Fill2.5	8.813	0.06	1.4341	375
SS10.5 / Fill3	8.679	0.06	1.3969	375
SS10.5 / Fill3.5	8.554	0.06	1.3626	375
SS10.5 / Fill4	8.439	0.06	1.3309	375
SS11 / Fill0.5	9.998	0.06	1.6359	384
SS11 / Fill1	9.788	0.06	1.5805	384
SS11 / Fill1.5	9.602	0.06	1.5314	384
SS11 / Fill2	9.435	0.06	1.4873	384
SS11 / Fill2.5	9.283	0.06	1.4473	384
SS11 / Fill3	9.144	0.06	1.4107	384
SS11 / Fill3.5	9.016	0.06	1.3769	384
SS11 / Fill4	8.897	0.06	1.3455	384
SS11.5 / Fill0.5	10.487	0.06	1.6446	392
SS11.5 / Fill1	10.273	0.06	1.5905	392
SS11.5 / Fill1.5	10.082	0.06	1.5424	392
SS11.5 / Fill2	9.910	0.06	1.4991	392
SS11.5 / Fill2.5	9.754	0.06	1.4597	392
SS11.5 / Fill3	9.611	0.06	1.4236	392
SS11.5 / Fill3.5	9.479	0.06	1.3903	392
SS11.5 / Fill4	9.356	0.06	1.3594	392
SS12 / Fill0.5	10.977	0.06	1.6527	400
SS12 / Fill1	10.758	0.06	1.5998	400
SS12 / Fill1.5	10.563	0.06	1.5527	400
SS12 / Fill2	10.387	0.06	1.5101	400
SS12 / Fill2.5	10.227	0.06	1.4714	400
SS12 / Fill3	10.079	0.06	1.4359	400
SS12 / Fill3.5	9.943	0.06	1.4030	400
SS12 / Fill4	9.817	0.06	1.3724	400

	COLLIERS PROJECT LEADERS	MM
	SOUTHERN LINKS STAGE 1 INDUSTRIAL BLOCK	DMM
	HAMILTON	3
	Primary and Secondary Consolidation of Soft Soil Layers - Surcharge Buildings	6/16/2026
		HAM2024-0120

1. Consolidation Settlement (Terzaghi)

Exist Fill Density:	16	kN/m3
Soft Soil Density (Saturated):	16	kN/m3
Surcharge Density:	17	kN/m3

Scenario	Original Ground RL	Water Table RL	Surcharge Top RL	Exist Fill Thickness	Soft Soil Thickness	Base Fill RL	Base Soft Soil RL	Mid-Point Soft Soil RL	Surcharge Height	Initial Eff Stress	Applied Surcharge	Comp Index CC	Recomp. Index CR	Initial Void Ratio e0	Exist Over Consol.	De	Consol Settlement	t90 Consol	Preload Thickness	Cv	Time to t90 Consol	
	(mAHD)	(mAHD)	(mAHD)	(m)	(m)	(mAHD)	(mAHD)	(mAHD)	(m)	(kPa)	(kPa)				(kPa)		(m)	(m)	(m)	(m2/yr)	(year)	(months)
SS0.5 / Fill0.5	0	0	2.263	0	0.5	0.00	-0.50	-0.25	2.26	1.55	38.47	1	0.03	1.9	0	-1.4126	0.244	0.22	1.8	25	0.0	0.0
SS0.5 / Fill1	0	0	2.8839	0	0.5	0.00	-0.50	-0.25	2.88	1.55	49.03	1	0.03	1.9	0	-1.5143	0.261	0.23	1.9	25	0.0	0.0
SS0.5 / Fill1.5	0	0	3.5017	0	0.5	0.00	-0.50	-0.25	3.50	1.55	59.53	1	0.03	1.9	0	-1.5962	0.275	0.25	2.0	25	0.0	0.0
SS0.5 / Fill2	0	0	4.1172	0	0.5	0.00	-0.50	-0.25	4.12	1.55	69.99	1	0.03	1.9	0	-1.6649	0.287	0.26	2.1	25	0.0	0.0
SS0.5 / Fill2.5	0	0	4.7313	0	0.5	0.00	-0.50	-0.25	4.73	1.55	80.43	1	0.03	1.9	0	-1.7241	0.297	0.27	2.2	25	0.0	0.0
SS0.5 / Fill3	0	0	5.3442	0	0.5	0.00	-0.50	-0.25	5.34	1.55	90.85	1	0.03	1.9	0	-1.7760	0.306	0.28	2.3	25	0.0	0.0
SS0.5 / Fill3.5	0	0	5.9562	0	0.5	0.00	-0.50	-0.25	5.96	1.55	101.26	1	0.03	1.9	0	-1.8224	0.314	0.28	2.5	25	0.0	0.0
SS0.5 / Fill4	0	0	6.5675	0	0.5	0.00	-0.50	-0.25	6.57	1.55	111.65	1	0.03	1.9	0	-1.8642	0.321	0.29	2.6	25	0.0	0.0
SS1 / Fill0.5	0	0	2.4948	0	1	0.00	-1.00	-0.50	2.49	3.10	42.41	1	0.03	1.9	0	-1.1674	0.403	0.36	2.0	25	0.0	0.1
SS1 / Fill1	0	0	3.1492	0	1	0.00	-1.00	-0.50	3.15	3.10	53.54	1	0.03	1.9	0	-1.2624	0.435	0.39	2.1	25	0.0	0.1
SS1 / Fill1.5	0	0	3.7979	0	1	0.00	-1.00	-0.50	3.80	3.10	64.56	1	0.03	1.9	0	-1.3397	0.462	0.42	2.3	25	0.0	0.1
SS1 / Fill2	0	0	4.4427	0	1	0.00	-1.00	-0.50	4.44	3.10	75.53	1	0.03	1.9	0	-1.4049	0.484	0.44	2.4	25	0.0	0.1
SS1 / Fill2.5	0	0	5.0846	0	1	0.00	-1.00	-0.50	5.08	3.10	86.44	1	0.03	1.9	0	-1.4613	0.504	0.45	2.6	25	0.0	0.1
SS1 / Fill3	0	0	5.7244	0	1	0.00	-1.00	-0.50	5.72	3.10	97.31	1	0.03	1.9	0	-1.5111	0.521	0.47	2.7	25	0.0	0.1
SS1 / Fill3.5	0	0	6.3625	0	1	0.00	-1.00	-0.50	6.36	3.10	108.16	1	0.03	1.9	0	-1.5557	0.536	0.48	2.9	25	0.0	0.1
SS1 / Fill4	0	0	6.9992	0	1	0.00	-1.00	-0.50	7.00	3.10	118.99	1	0.03	1.9	0	-1.5960	0.550	0.50	3.0	25	0.0	0.1
SS1.5 / Fill0.5	0	0	2.6944	0	1.5	0.00	-1.50	-0.75	2.69	4.64	45.80	1	0.03	1.9	0	-1.0361	0.536	0.48	2.2	25	0.0	0.2
SS1.5 / Fill1	0	0	3.377	0	1.5	0.00	-1.50	-0.75	3.38	4.64	57.41	1	0.03	1.9	0	-1.1260	0.582	0.52	2.4	25	0.0	0.2
SS1.5 / Fill1.5	0	0	4.0516	0	1.5	0.00	-1.50	-0.75	4.05	4.64	68.88	1	0.03	1.9	0	-1.1997	0.621	0.56	2.6	25	0.0	0.2
SS1.5 / Fill2	0	0	4.7207	0	1.5	0.00	-1.50	-0.75	4.72	4.64	80.25	1	0.03	1.9	0	-1.2621	0.653	0.59	2.7	25	0.0	0.2
SS1.5 / Fill2.5	0	0	5.3858	0	1.5	0.00	-1.50	-0.75	5.39	4.64	91.56	1	0.03	1.9	0	-1.3164	0.681	0.61	2.9	25	0.0	0.2
SS1.5 / Fill3	0	0	6.0479	0	1.5	0.00	-1.50	-0.75	6.05	4.64	102.81	1	0.03	1.9	0	-1.3645	0.706	0.64	3.0	25	0.0	0.2
SS1.5 / Fill3.5	0	0	6.7075	0	1.5	0.00	-1.50	-0.75	6.71	4.64	114.03	1	0.03	1.9	0	-1.4076	0.728	0.66	3.2	25	0.0	0.2
SS1.5 / Fill4	0	0	7.3651	0	1.5	0.00	-1.50	-0.75	7.37	4.64	125.21	1	0.03	1.9	0	-1.4467	0.748	0.67	3.4	25	0.0	0.2
SS2 / Fill0.5	0	0	2.8784	0	2	0.00	-2.00	-1.00	2.88	6.19	48.93	1	0.03	1.9	0	-0.9496	0.655	0.59	2.4	25	0.0	0.4
SS2 / Fill1	0	0	3.586	0	2	0.00	-2.00	-1.00	3.59	6.19	60.96	1	0.03	1.9	0	-1.0354	0.714	0.64	2.6	25	0.0	0.4
SS2 / Fill1.5	0	0	4.2837	0	2	0.00	-2.00	-1.00	4.28	6.19	72.82	1	0.03	1.9	0	-1.1060	0.763	0.69	2.8	25	0.0	0.4
SS2 / Fill2	0	0	4.9746	0	2	0.00	-2.00	-1.00	4.97	6.19	84.57	1	0.03	1.9	0	-1.1662	0.804	0.72	3.0	25	0.0	0.4
SS2 / Fill2.5	0	0	5.6603	0	2	0.00	-2.00	-1.00	5.66	6.19	96.23	1	0.03	1.9	0	-1.2187	0.840	0.76	3.2	25	0.0	0.4
SS2 / Fill3	0	0	6.3422	0	2	0.00	-2.00	-1.00	6.34	6.19	107.82	1	0.03	1.9	0	-1.2652	0.873	0.79	3.3	25	0.0	0.4
SS2 / Fill3.5	0	0	7.0209	0	2	0.00	-2.00	-1.00	7.02	6.19	119.36	1	0.03	1.9	0	-1.3071	0.901	0.81	3.5	25	0.0	0.4
SS2 / Fill4	0	0	7.6972	0	2	0.00	-2.00	-1.00	7.70	6.19	130.85	1	0.03	1.9	0	-1.3452	0.928	0.83	3.7	25	0.0	0.4
SS2.5 / Fill0.5	0	0	3.0534	0	2.5	0.00	-2.50	-1.25	3.05	7.74	51.91	1	0.03	1.9	0	-0.8870	0.765	0.69	2.6	25	0.1	0.6
SS2.5 / Fill1	0	0	3.784	0	2.5	0.00	-2.50	-1.25	3.78	7.74	64.33	1	0.03	1.9	0	-0.9691	0.835	0.75	2.8	25	0.1	0.6
SS2.5 / Fill1.5	0	0	4.5029	0	2.5	0.00	-2.50	-1.25	4.50	7.74	76.55	1	0.03	1.9	0	-1.0372	0.894	0.80	3.0	25	0.1	0.6
SS2.5 / Fill2	0	0	5.2137	0	2.5	0.00	-2.50	-1.25	5.21	7.74	88.63	1	0.03	1.9	0	-1.0953	0.944	0.85	3.2	25	0.1	0.6
SS2.5 / Fill2.5	0	0	5.9184	0	2.5	0.00	-2.50	-1.25	5.92	7.74	100.61	1	0.03	1.9	0	-1.1462	0.988	0.89	3.4	25	0.1	0.6
SS2.5 / Fill3	0	0	6.6185	0	2.5	0.00	-2.50	-1.25	6.62	7.74	112.51	1	0.03	1.9	0	-1.1915	1.027	0.92	3.6	25	0.1	0.6
SS2.5 / Fill3.5	0	0	7.3148	0	2.5	0.00	-2.50	-1.25	7.31	7.74	124.35	1	0.03	1.9	0	-1.2323	1.062	0.96	3.8	25	0.1	0.6
SS2.5 / Fill4	0	0	8.0081	0	2.5	0.00	-2.50	-1.25	8.01	7.74	136.14	1	0.03	1.9	0	-1.2694	1.094	0.98	4.0	25	0.1	0.6
SS3 / Fill0.5	0	0	3.223	0	3	0.00	-3.00	-1.50	3.22	9.29	54.79	1	0.03	1.9	0	-0.8389	0.868	0.78	2.7	25	0.1	0.9
SS3 / Fill1	0	0	3.975	0	3	0.00	-3.00	-1.50	3.98	9.29	67.58	1	0.03	1.9	0	-0.9179	0.950	0.85	3.0	25	0.1	0.9
SS3 / Fill1.5	0	0	4.7137	0	3	0.00	-3.00	-1.50	4.71	9.29	80.13	1	0.03	1.9	0	-0.9836	1.018	0.92	3.2	25	0.1	0.9
SS3 / Fill2	0	0	5.4431	0	3	0.00	-3.00	-1.50	5.44	9.29	92.53	1	0.03	1.9	0	-1.0400	1.076	0.97	3.4	25	0.1	0.9
SS3 / Fill2.5	0	0	6.1656	0	3	0.00	-3.00	-1.50	6.17	9.29	104.82	1	0.03	1.9	0	-1.0895	1.127	1.01	3.7	25	0.1	0.9
SS3 / Fill3	0	0	6.8827	0	3	0.00	-3.00	-1.50	6.88	9.29	117.01	1	0.03	1.9	0	-1.1336	1.173	1.06	3.9	25	0.1	0.9
SS3 / Fill3.5	0	0	7.5955	0	3	0.00	-3.00	-1.50	7.60	9.29	129.12	1	0.03	1.9	0	-1.1734	1.214	1.09	4.1	25	0.1	0.9
SS3 / Fill4	0	0	8.3048	0	3	0.00	-3.00	-1.50	8.30	9.29	141.18	1	0.03	1.9	0	-1.2097	1.251	1.13	4.3	25	0.1	0.9
SS3.5 / Fill0.5	0	0	3.3894	0	3.5	0.00	-3.50	-1.75	3.39	10.83	57.62	1	0.03	1.9	0	-0.8007	0.966	0.87	2.9	25	0.1	1.2
SS3.5 / Fill1	0	0	4.1615	0	3.5	0.00	-3.50	-1.75	4.16	10.83	70.75	1	0.03	1.9	0	-0.8768	1.058	0.95	3.2	25	0.1	1.2
SS3.5 / Fill1.5	0	0	4.9188	0	3.5	0.00	-3.50	-1.75	4.92	10.83	83.62	1	0.03	1.9	0	-0.9405	1.135	1.02	3.4	25	0.1	1.2
SS3.5 / Fill2	0	0	5.6659	0	3.5	0.00	-3.50	-1.75	5.67	10.83	96.32	1	0.03	1.9	0	-0.9953	1.201	1.08	3.7	25	0.1	1.2
SS3.5 / Fill2.5	0	0	6.4051	0	3.5	0.00	-3.50	-1.75	6.41	10.83	108.89	1	0.03	1.9	0	-1.0434	1.259	1.13	3.9	25	0.1	1.2
SS3.5 / Fill3	0	0	7.1384	0	3.5	0.00	-3.50	-1.75	7.14	10.83	121.35	1	0.03	1.9	0	-1.0865	1.311	1.18	4.1	25	0.1	1.2
SS3.5 / Fill3.5	0	0	7.8668	0	3.5	0.00	-3.50	-1.75	7.87	10.83	133.74	1	0.03	1.9	0	-1.1253	1.358	1.22	4.4	25	0.1	1.2
SS3.5 / Fill4	0	0	8.5912	0	3.5	0.00	-3.50	-1.75	8.59	10.83	146.05	1	0.03	1.9	0	-1.1608	1.401	1.26	4.6	25	0.1	1.2
SS4 / Fill0.5	0	0	3.5539	0	4	0.00	-4.00	-2.00	3.55	12.38	60.42	1	0.03	1.9	0	-0.7694	1.061	0.96	3.1	25	0.1	1.6
SS4 / Fill1	0	0	4.345	0	4	0.00	-4.00	-2.00	4.35	12.38	73.87	1	0.03	1.9	0	-0.8430	1.163	1.05	3.3	25	0.1	1.6
SS4 / Fill1.5	0	0	5.1202	0	4	0.00	-4.00	-2.00	5.12	12.38	87.04	1	0.03	1.9	0	-0.9048	1.248	1.12	3.6	25	0.1	1.6
SS4 / Fill2	0	0	5.884	0	4	0.00	-4.00	-2.00	5.88	12.38	100.03	1	0.03	1.9	0	-0.9581	1.321	1.19	3.9	25	0.1	1.6
SS4 / Fill2.5	0	0	6.6393	0	4	0.00	-4.00	-2.00	6.64	12.38	112.87	1	0.03	1.9	0	-1.0051	1.386	1.25	4.1	25	0.1	1.6
SS4 / Fill3	0	0	7.3879	0	4	0.00	-4.00	-2.00	7.39	12.38	125.59	1	0.03	1.9	0	-1.0471	1.444	1.30	4.4	25	0.1	1.6
SS4 / Fill3.5	0	0	8.1312	0	4	0.00	-4.00	-2.00	8.13	12.38	138.23	1	0.03	1.9	0	-1.0851	1.497	1.35	4.6	25	0.1	1.6
SS4 / Fill4	0	0	8.8701	0	4	0.00	-4.00	-2.00	8.87	12.38	150.79	1	0.03	1.9	0	-1.1199	1.545	1.39	4.9	25	0.1	1.6
SS4.5 / Fill0.5	0	0	3.7177	0	4.5	0.00	-4.50	-2.25	3.72	13.93	63.20	1	0.03	1.9	0	-0.7433	1.153	1.04	3.2	25	0.2	2.1
SS4.5 / Fill1	0	0	4.5269	0	4.5	0.00	-4.50	-2.25	4.53	13.93	76.96	1	0.03	1.9	0	-0.8146	1.264	1.14	3.5	25	0.2	2.1
SS4.5 / Fill1.5	0	0	5.319	0	4.5	0.00	-4.50	-2.25	5.32	13.93	90.42	1	0.03	1.9	0	-0.8746	1.357	1.22	3.8	25	0.2	2.1
SS4.5 / Fill2	0	0	6.0989	0	4.5	0.00	-4.50	-2.25	6.10	13.93	103.68	1	0.03	1.9	0	-0.9266	1.438	1.29	4.1	25	0.2	2.1
SS4.5 / Fill2.5	0	0	6.8695	0	4.5	0.00	-4.50	-2.25	6.87	13.93	116.78	1	0.03	1.9	0	-0.9724	1.509	1.36	4.4	25	0.2	2.1
SS4.5 / Fill3	0	0	7.6329	0	4.5	0.00	-4.50	-2.25	7.63	13.93	129.76	1	0.03	1.9	0	-1.0135	1.573	1.42	4.6	25	0.2	2.1
SS4.5 / Fill3.5	0	0	8.3905	0	4.5	0.00	-4.50	-2.25	8.39	13.93	142.64	1	0.03	1.9	0	-1.0508	1.631	1.47	4.9	25	0.2	2.1
SS4.5 / Fill4	0	0	9.1433	0	4.5	0.00	-4.50	-2.25	9.14	13.93	155.44	1	0.03	1.9	0	-1.0849	1.684	1.52	5.1	25	0.2	2.1
SS5 / Fill0.5	0	0	3.8813	0	5	0.00	-5.00	-2.50	3.88	15.48	65.98	1	0.03	1.9	0	-0.7213	1.244	1.12	3.4	25	0.2	2.5
SS5 / Fill1	0	0	4.7079	0	5	0.00	-5.00	-2.50	4.71	15.48	80.03	1	0.03	1.9	0	-0.7904	1.363	1.23	3.7	25	0.2	2.5
SS5 / Fill1.5	0	0	5.5163	0	5	0.00	-5.00	-2.50	5.52	15.48	93.78	1	0.03	1.9	0	-0.8488	1.463	1.32	4.0	25	0.2	2.5
SS5 / Fill2	0	0	6.3116	0	5	0.00	-5.00	-2.50	6.31	15.48	107.30	1	0.03	1.9	0	-0.8995	1.551	1.40	4.3	25	0.2	2.5
SS5 / Fill2.5	0	0	7.097	0	5	0.00	-5.00	-2.50	7.10	15.48	120.65	1	0.03	1.9	0	-0.9443	1.628	1.47	4.6	25	0.2	2.5
SS5 / Fill3	0	0	7.8747	0	5	0.00	-5.00	-2.50	7.87	15.48	133.87	1	0.03	1.9	0	-0.9846	1.698	1.53	4.9	25	0.2	2.5
SS5 / Fill3.5	0	0	8.6461	0	5	0.00	-5.00	-2.50	8.65	15.48	146.98	1	0.03	1.9	0	-1.0211	1.761	1.58	5.1	25	0.2	2.5
SS5 / Fill4	0	0	9.4123	0	5	0.00	-5.00	-2.50	9.41	15.48	160.01	1	0.03	1.9	0	-1.0546	1.818	1.64	5.4	25	0.2	2.5
SS5.5 / Fill0.5	0	0	4.0454	0	5.5	0.00	-5.50	-2.75	4.05	17.02	68.77	1	0.03	1.9	0	-0.7024	1.332	1.20	3.5	25	0.3	3.1
SS5.5 / Fill1	0	0	4.8886	0	5.5	0.00	-5.50	-2.75	4.89	17.02	83.11	1	0.03	1.9	0	-0.7695	1.459	1.31	3.9	25	0.3	3.1
SS5.5 / Fill1.5	0	0	5.7127	0	5.5	0.00	-5.50	-2.75	5.71	17.02	97.12	1	0.03	1.9	0	-0.8264	1.567	1.41	4.2	25	0.3	3.1
SS5.5 / Fill2	0	0	6.5229	0	5.5	0.00	-5.50	-2.75	6.52	17.02	110.89	1	0.03	1.9	0	-0.8759	1.661	1.50	4.5	25	0.3	3.1
SS5.5 / Fill2.5	0	0	7.3227	0	5.5	0.00	-5.50	-2.75	7.32	17.02	124.49	1	0.03	1.9	0	-0.9198	1.744	1.57	4.8	25	0.3	3.1
SS5.5 / Fill3	0	0	8.1141	0	5.5	0.00	-5.50	-2.75	8.11	17.02	137.94	1	0.03	1.9	0	-0.9592	1.819	1.64	5.1	25	0.3	3.1
SS5.5 / Fill3.5	0	0	8.8989	0	5.5	0.00	-5.50	-2.75	8.90	17.02	151.28	1	0.03	1.9	0	-0.9951	1.887	1.70	5.4	25	0.3	3.1
SS5.5 / Fill4	0	0	9.6781	0	5.5	0.00	-5.50	-2.75	9.68	17.02	164.53	1	0.03	1.9	0	-1.0280	1.950	1.75	5.7	25	0.3	3.1
SS6 / Fill0.5	0	0	4.2105	0	6	0.00	-6.00	-3.00	4.21	18.57	71.58	1	0.03	1.9	0	-0.6861	1.420	1.28	3.7	25	0.3	3.7
SS6 / Fill1	0	0	5.0697	0	6	0.00	-6.00	-3.00	5.07	18.57	86.18	1	0.03	1.9	0	-0.7514	1.555	1.40	4.1	25	0.3	3.7
SS6 / Fill1.5	0	0	5.9089	0	6	0.00	-6.00	-3.00	5.91	18.57	100.45	1	0.03	1.9	0	-0.8068	1.669	1.50	4.4	25	0.3	3.7
SS6 / Fill2	0	0	6.7335	0	6	0.00	-6.00	-3.00	6.73	18.57	114.47	1	0.03	1.9	0	-0.8552	1.769	1.59	4.7	25	0.3	3.7
SS6 / Fill2.5	0	0	7.5471	0	6	0.00	-6.00	-3.00	7.55	18.57	128.30	1	0.03	1.9	0	-0.8981	1.858	1.67	5.0	25	0.3	3.7
SS6 / Fill3	0	0	8.3519	0	6	0.00	-6.00	-3.00	8.35	18.57	141.98	1	0.03	1.9	0	-0.9368	1.938	1.74	5.4	25	0.3	3.7
SS6 / Fill3.5	0	0	9.1497	0	6	0.00	-6.00	-3.00	9.15	18.57	155.54	1	0.03	1.9	0	-0.9720	2.011	1.81	5.6	25	0.3	3.7
SS6 / Fill4	0	0	9.9415	0	6	0.00	-6.00	-3.00	9.94	18.57	169.01	1	0.03	1.9	0	-1.0044	2.078	1.87	5.9	25	0.3	3.7
SS6.5 / Fill0.5	0	0	4.3767	0	6.5	0.00	-6.50	-3.25	4.38	20.12	74.40	1	0.03	1.9	0	-0.6720	1.506	1.36	3.9	25	0.4	4.3
SS6.5 / Fill1	0	0	5.2514	0	6.5	0.00	-6.50	-3.25	5.25	20.12	89.27	1	0.03	1.9	0	-0.7354	1.648	1.48	4.3	25	0.4	4.3
SS6.5 / Fill1.5	0	0	6.1052	0	6.5	0.00	-6.50	-3.25	6.11	20.12	103.79	1	0.03	1.9	0	-0.7895	1.770	1.59	4.6	25	0.4	4.3
SS6.5 / Fill2	0	0	6.9439	0	6.5	0.00	-6.50	-3.25	6.94	20.12	118.05	1	0.03	1.9	0	-0.8368	1.876	1.69	4.9	25	0.4	4.3
SS6.5 / Fill2.5	0	0	7.7709	0	6.5	0.00	-6.50	-3.25	7.77	20.12	132.11	1	0.03	1.9	0	-0.8789	1.970	1.77	5.3	25	0.4	4.3
SS6.5 / Fill3	0	0	8.5888	0	6.5	0.00	-6.50	-3.25	8.59	20.12	146.01	1	0.03	1.9	0	-0.9169	2.055	1.85	5.6	25	0.4	4.3
SS6.5 / Fill3.5	0	0	9.3991	0	6.5	0.00	-6.50	-3.25	9.40	20.12	159.78	1	0.03	1.9	0	-0.9515	2.133	1.92	5.9	25	0.4	4.3
SS6.5 / Fill4	0	0	10.2032	0	6.5	0.00	-6.50	-3.25	10.20	20.12	173.45	1	0.03	1.9	0	-0.9833	2.204	1.98	6.2	25	0.4	4.3
SS7 / Fill0.5	0	0	4.5445	0	7	0.00	-7.00	-3.50	4.54	21.67	77.26	1	0.03	1.9	0	-0.6595	1.592	1.43	4.0	25	0.4	5.0
SS7 / Fill1	0	0	5.4341	0	7	0.00	-7.00	-3.50	5.43	21.67	92.38	1	0.03	1.9	0	-0.7213	1.741	1.57	4.4	25	0.4	5.0
SS7 / Fill1.5	0	0	6.3021	0	7	0.00	-7.00	-3.50	6.30	21.67	107.14	1	0.03	1.9	0	-0.7742	1.869	1.68	4.8	25	0.4	5.0
SS7 / Fill2	0	0	7.1544	0	7	0.00	-7.00	-3.50	7.15	21.67	121.62	1	0.03	1.9	0	-0.8205	1.980	1.78	5.2	25	0.4	5.0
SS7 / Fill2.5	0	0	7.9946	0	7	0.00	-7.00	-3.50	7.99	21.67	135.91	1	0.03	1.9	0	-0.8617	2.080	1.87	5.5	25	0.4	5.0
SS7 / Fill3	0	0	8.8251	0	7	0.00	-7.00	-3.50	8.83	21.67	150.03	1	0.03	1.9	0	-0.8990	2.170	1.95	5.8	25	0.4	5.0
SS7 / Fill3.5	0	0	9.6478	0	7	0.00	-7.00	-3.50	9.65	21.67	164.01	1	0.03	1.9	0	-0.9330	2.252	2.03	6.1	25	0.4	5.0
SS7 / Fill4	0	0	10.4639	0	7	0.00	-7.00	-3.50	10.46	21.67	177.89	1	0.03	1.9	0	-0.9643	2.328	2.09	6.5	25	0.4	5.0
SS7.5 / Fill0.5	0	0	4.7141	0	7.5	0.00	-7.50	-3.75	4.71	23.21	80.14	1	0.03	1.9	0	-0.6486	1.677	1.51	4.2	25	0.5	5.7
SS7.5 / Fill1	0	0	5.6181	0	7.5	0.00	-7.50	-3.75	5.62	23.21	95.51	1	0.03	1.9	0	-0.7088	1.833	1.65	4.6	25	0.5	5.7
SS7.5 / Fill1.5	0	0	6.4999	0	7.5	0.00	-7.50	-3.75	6.50	23.21	110.50	1	0.03	1.9	0	-0.7604	1.967	1.77	5.0	25	0.5	5.7
SS7.5 / Fill2	0	0	7.3655	0	7.5	0.00	-7.50	-3.75	7.37	23.21	125.21	1	0.03	1.9	0	-0.8058	2.084	1.88	5.4	25	0.5	5.7
SS7.5 / Fill2.5	0	0	8.2184	0	7.5	0.00	-7.50	-3.75	8.22	23.21	139.71	1	0.03	1.9	0	-0.8463	2.189	1.97	5.7	25	0.5	5.7
SS7.5 / Fill3	0	0	9.0613	0	7.5	0.00	-7.50	-3.75	9.06	23.21	154.04	1	0.03	1.9	0	-0.8829	2.283	2.05	6.1	25	0.5	5.7
SS7.5 / Fill3.5	0	0	9.896	0	7.5	0.00	-7.50	-3.75	9.90	23.21	168.23	1	0.03	1.9	0	-0.9163	2.370	2.13	6.4	25	0.5	5.7
SS7.5 / Fill4	0	0	10.7239	0	7.5	0.00	-7.50	-3.75	10.72	23.21	182.31	1	0.03	1.9	0	-0.9471	2.449	2.20	6.7	25	0.5	5.7
SS8 / Fill0.5	0	0	4.8757	0	8	0.00	-8.00	-4.00	4.88	24.76	82.89	1	0.03	1.9	0	-0.6383	1.761	1.58	4.4	25	0.5	6.5
SS8 / Fill1	0	0	5.7926	0	8	0.00	-8.00	-4.00	5.79	24.76	98.47	1	0.03	1.9	0	-0.6970	1.923	1.73	4.8	25	0.5	6.5
SS8 / Fill1.5	0	0	6.6867	0	8	0.00	-8.00	-4.00	6.69	24.76	113.67	1	0.03	1.9	0	-0.7475	2.062	1.86	5.2	25	0.5	6.5
SS8 / Fill2	0	0	7.564	0	8	0.00	-8.00	-4.00	7.56	24.76	128.59	1	0.03	1.9	0	-0.7919	2.185	1.97	5.6	25	0.5	6.5
SS8 / Fill2.5	0	0	8.4282	0	8	0.00	-8.00	-4.00	8.43	24.76	143.28	1	0.03	1.9	0	-0.8317	2.294	2.06	5.9	25	0.5	6.5
SS8 / Fill3	0	0	9.2821	0	8	0.00	-8.00	-4.00	9.28	24.76	157.80	1	0.03	1.9	0	-0.8676	2.394	2.15	6.3	25	0.5	6.5
SS8 / Fill3.5	0	0	10.1274	0	8	0.00	-8.00	-4.00	10.13	24.76	172.17	1	0.03	1.9	0	-0.9006	2.484	2.24	6.6	25	0.5	6.5
SS8 / Fill4	0	0	10.9657	0	8	0.00	-8.00	-4.00	10.97	24.76	186.42	1	0.03	1.9	0	-0.9309	2.568	2.31	7.0	25	0.5	6.5
SS8.5 / Fill0.5	0	0	5.0346	0	8.5	0.00	-8.50	-4.25	5.03	26.31	85.59	1	0.03	1.9	0	-0.6287	1.843	1.66	4.5	25	0.6	7.4
SS8.5 / Fill1	0	0	5.9635	0	8.5	0.00	-8.50	-4.25	5.96	26.31	101.38	1	0.03	1.9	0	-0.6861	2.011	1.81	5.0	25	0.6	7.4
SS8.5 / Fill1.5	0	0	6.8691	0	8.5	0.00	-8.50	-4.25	6.87	26.31	116.77	1	0.03	1.9	0	-0.7355	2.156	1.94	5.4	25	0.6	7.4
SS8.5 / Fill2	0	0	7.7574	0	8.5	0.00	-8.50	-4.25	7.76	26.31	131.88	1	0.03	1.9	0	-0.7791	2.284	2.06	5.8	25	0.6	7.4
SS8.5 / Fill2.5	0	0	8.6322	0	8.5	0.00	-8.50	-4.25	8.63	26.31	146.75	1	0.03	1.9	0	-0.8181	2.398	2.16	6.1	25	0.6	7.4
SS8.5 / Fill3	0	0	9.4963	0	8.5	0.00	-8.50	-4.25	9.50	26.31	161.44	1	0.03	1.9	0	-0.8535	2.502	2.25	6.5	25	0.6	7.4
SS8.5 / Fill3.5	0	0	10.3515	0	8.5	0.00	-8.50	-4.25	10.35	26.31	175.98	1	0.03	1.9	0	-0.8859	2.597	2.34	6.9	25	0.6	7.4
SS8.5 / Fill4	0	0	11.1994	0	8.5	0.00	-8.50	-4.25	11.20	26.31	190.39	1	0.03	1.9	0	-0.9158	2.684	2.42	7.2	25	0.6	7.4

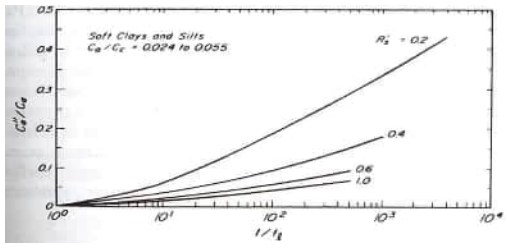
SS9 / Fill0.5	0	0	5.1943	0	9	0.00	-9.00	-4.50	5.19	27.86	88.30	1	0.03	1.9	0	-0.6201	**1.925**	**1.73**	**4.7**	25	**0.7**	**8.2**
SS9 / Fill1	0	0	6.1348	0	9	0.00	-9.00	-4.50	6.13	27.86	104.29	1	0.03	1.9	0	-0.6762	**2.098**	**1.89**	**5.1**	25	**0.7**	**8.2**
SS9 / Fill1.5	0	0	7.0514	0	9	0.00	-9.00	-4.50	7.05	27.86	119.87	1	0.03	1.9	0	-0.7246	**2.249**	**2.02**	**5.6**	25	**0.7**	**8.2**
SS9 / Fill2	0	0	7.9504	0	9	0.00	-9.00	-4.50	7.95	27.86	135.16	1	0.03	1.9	0	-0.7673	**2.381**	**2.14**	**6.0**	25	**0.7**	**8.2**
SS9 / Fill2.5	0	0	8.8355	0	9	0.00	-9.00	-4.50	8.84	27.86	150.20	1	0.03	1.9	0	-0.8057	**2.500**	**2.25**	**6.3**	25	**0.7**	**8.2**
SS9 / Fill3	0	0	9.7095	0	9	0.00	-9.00	-4.50	9.71	27.86	165.06	1	0.03	1.9	0	-0.8405	**2.608**	**2.35**	**6.7**	25	**0.7**	**8.2**
SS9 / Fill3.5	0	0	10.5744	0	9	0.00	-9.00	-4.50	10.57	27.86	179.76	1	0.03	1.9	0	-0.8724	**2.707**	**2.44**	**7.1**	25	**0.7**	**8.2**
SS9 / Fill4	0	0	11.4317	0	9	0.00	-9.00	-4.50	11.43	27.86	194.34	1	0.03	1.9	0	-0.9018	**2.799**	**2.52**	**7.4**	25	**0.7**	**8.2**
SS9.5 / Fill0.5	0	0	5.3549	0	9.5	0.00	-9.50	-4.75	5.35	29.40	91.03	1	0.03	1.9	0	-0.6124	**2.006**	**1.81**	**4.9**	25	**0.8**	**9.2**
SS9.5 / Fill1	0	0	6.3065	0	9.5	0.00	-9.50	-4.75	6.31	29.40	107.21	1	0.03	1.9	0	-0.6671	**2.185**	**1.97**	**5.3**	25	**0.8**	**9.2**
SS9.5 / Fill1.5	0	0	7.2339	0	9.5	0.00	-9.50	-4.75	7.23	29.40	122.98	1	0.03	1.9	0	-0.7145	**2.341**	**2.11**	**5.7**	25	**0.8**	**9.2**
SS9.5 / Fill2	0	0	8.1432	0	9.5	0.00	-9.50	-4.75	8.14	29.40	138.43	1	0.03	1.9	0	-0.7565	**2.478**	**2.23**	**6.1**	25	**0.8**	**9.2**
SS9.5 / Fill2.5	0	0	9.0383	0	9.5	0.00	-9.50	-4.75	9.04	29.40	153.65	1	0.03	1.9	0	-0.7942	**2.602**	**2.34**	**6.5**	25	**0.8**	**9.2**
SS9.5 / Fill3	0	0	9.922	0	9.5	0.00	-9.50	-4.75	9.92	29.40	168.67	1	0.03	1.9	0	-0.8284	**2.714**	**2.44**	**6.9**	25	**0.8**	**9.2**
SS9.5 / Fill3.5	0	0	10.7963	0	9.5	0.00	-9.50	-4.75	10.80	29.40	183.54	1	0.03	1.9	0	-0.8599	**2.817**	**2.54**	**7.3**	25	**0.8**	**9.2**
SS9.5 / Fill4	0	0	11.6627	0	9.5	0.00	-9.50	-4.75	11.66	29.40	198.27	1	0.03	1.9	0	-0.8889	**2.912**	**2.62**	**7.7**	25	**0.8**	**9.2**
SS10 / Fill0.5	0	0	5.5164	0	10	0.00	-10.00	-5.00	5.52	30.95	93.78	1	0.03	1.9	0	-0.6053	**2.087**	**1.88**	**5.0**	25	**0.8**	**10.2**
SS10 / Fill1	0	0	6.4788	0	10	0.00	-10.00	-5.00	6.48	30.95	110.14	1	0.03	1.9	0	-0.6588	**2.272**	**2.04**	**5.5**	25	**0.8**	**10.2**
SS10 / Fill1.5	0	0	7.4166	0	10	0.00	-10.00	-5.00	7.42	30.95	126.08	1	0.03	1.9	0	-0.7053	**2.432**	**2.19**	**5.9**	25	**0.8**	**10.2**
SS10 / Fill2	0	0	8.3359	0	10	0.00	-10.00	-5.00	8.34	30.95	141.71	1	0.03	1.9	0	-0.7465	**2.574**	**2.32**	**6.3**	25	**0.8**	**10.2**
SS10 / Fill2.5	0	0	9.2407	0	10	0.00	-10.00	-5.00	9.24	30.95	157.09	1	0.03	1.9	0	-0.7836	**2.702**	**2.43**	**6.7**	25	**0.8**	**10.2**
SS10 / Fill3	0	0	10.1339	0	10	0.00	-10.00	-5.00	10.13	30.95	172.28	1	0.03	1.9	0	-0.8173	**2.818**	**2.54**	**7.1**	25	**0.8**	**10.2**
SS10 / Fill3.5	0	0	11.0174	0	10	0.00	-10.00	-5.00	11.02	30.95	187.30	1	0.03	1.9	0	-0.8483	**2.925**	**2.63**	**7.5**	25	**0.8**	**10.2**
SS10 / Fill4	0	0	11.8927	0	10	0.00	-10.00	-5.00	11.89	30.95	202.18	1	0.03	1.9	0	-0.8769	**3.024**	**2.72**	**7.9**	25	**0.8**	**10.2**
SS10.5 / Fill0.5	0	0	5.6745	0	10.5	0.00	-10.50	-5.25	5.67	32.50	96.47	1	0.03	1.9	0	-0.5986	**2.167**	**1.95**	**5.2**	25	**0.9**	**11.2**
SS10.5 / Fill1	0	0	6.647	0	10.5	0.00	-10.50	-5.25	6.65	32.50	113.00	1	0.03	1.9	0	-0.6510	**2.357**	**2.12**	**5.6**	25	**0.9**	**11.2**
SS10.5 / Fill1.5	0	0	7.5945	0	10.5	0.00	-10.50	-5.25	7.59	32.50	129.11	1	0.03	1.9	0	-0.6966	**2.522**	**2.27**	**6.1**	25	**0.9**	**11.2**
SS10.5 / Fill2	0	0	8.5231	0	10.5	0.00	-10.50	-5.25	8.52	32.50	144.89	1	0.03	1.9	0	-0.7371	**2.669**	**2.40**	**6.5**	25	**0.9**	**11.2**
SS10.5 / Fill2.5	0	0	9.437	0	10.5	0.00	-10.50	-5.25	9.44	32.50	160.43	1	0.03	1.9	0	-0.7735	**2.801**	**2.52**	**6.9**	25	**0.9**	**11.2**
SS10.5 / Fill3	0	0	10.3389	0	10.5	0.00	-10.50	-5.25	10.34	32.50	175.76	1	0.03	1.9	0	-0.8068	**2.921**	**2.63**	**7.3**	25	**0.9**	**11.2**
SS10.5 / Fill3.5	0	0	11.2309	0	10.5	0.00	-10.50	-5.25	11.23	32.50	190.93	1	0.03	1.9	0	-0.8373	**3.032**	**2.73**	**7.7**	25	**0.9**	**11.2**
SS10.5 / Fill4	0	0	12.1146	0	10.5	0.00	-10.50	-5.25	12.11	32.50	205.95	1	0.03	1.9	0	-0.8655	**3.134**	**2.82**	**8.1**	25	**0.9**	**11.2**
SS11 / Fill0.5	0	0	5.8285	0	11	0.00	-11.00	-5.50	5.83	34.05	99.08	1	0.03	1.9	0	-0.5922	**2.246**	**2.02**	**5.3**	25	**1.0**	**12.3**
SS11 / Fill1	0	0	6.8102	0	11	0.00	-11.00	-5.50	6.81	34.05	115.77	1	0.03	1.9	0	-0.6435	**2.441**	**2.20**	**5.8**	25	**1.0**	**12.3**
SS11 / Fill1.5	0	0	7.7666	0	11	0.00	-11.00	-5.50	7.77	34.05	132.03	1	0.03	1.9	0	-0.6883	**2.611**	**2.35**	**6.3**	25	**1.0**	**12.3**
SS11 / Fill2	0	0	8.7039	0	11	0.00	-11.00	-5.50	8.70	34.05	147.97	1	0.03	1.9	0	-0.7280	**2.762**	**2.49**	**6.7**	25	**1.0**	**12.3**
SS11 / Fill2.5	0	0	9.626	0	11	0.00	-11.00	-5.50	9.63	34.05	163.64	1	0.03	1.9	0	-0.7639	**2.898**	**2.61**	**7.1**	25	**1.0**	**12.3**
SS11 / Fill3	0	0	10.536	0	11	0.00	-11.00	-5.50	10.54	34.05	179.11	1	0.03	1.9	0	-0.7966	**3.022**	**2.72**	**7.5**	25	**1.0**	**12.3**
SS11 / Fill3.5	0	0	11.4358	0	11	0.00	-11.00	-5.50	11.44	34.05	194.41	1	0.03	1.9	0	-0.8267	**3.136**	**2.82**	**7.9**	25	**1.0**	**12.3**
SS11 / Fill4	0	0	12.3271	0	11	0.00	-11.00	-5.50	12.33	34.05	209.56	1	0.03	1.9	0	-0.8546	**3.242**	**2.92**	**8.3**	25	**1.0**	**12.3**
SS11.5 / Fill0.5	0	0	5.9831	0	11.5	0.00	-11.50	-5.75	5.98	35.59	101.71	1	0.03	1.9	0	-0.5863	**2.325**	**2.09**	**5.5**	25	**1.1**	**13.5**
SS11.5 / Fill1	0	0	6.9738	0	11.5	0.00	-11.50	-5.75	6.97	35.59	118.55	1	0.03	1.9	0	-0.6366	**2.524**	**2.27**	**6.0**	25	**1.1**	**13.5**
SS11.5 / Fill1.5	0	0	7.9389	0	11.5	0.00	-11.50	-5.75	7.94	35.59	134.96	1	0.03	1.9	0	-0.6805	**2.699**	**2.43**	**6.4**	25	**1.1**	**13.5**
SS11.5 / Fill2	0	0	8.8845	0	11.5	0.00	-11.50	-5.75	8.88	35.59	151.04	1	0.03	1.9	0	-0.7196	**2.854**	**2.57**	**6.9**	25	**1.1**	**13.5**
SS11.5 / Fill2.5	0	0	9.8148	0	11.5	0.00	-11.50	-5.75	9.81	35.59	166.85	1	0.03	1.9	0	-0.7549	**2.994**	**2.69**	**7.3**	25	**1.1**	**13.5**
SS11.5 / Fill3	0	0	10.7326	0	11.5	0.00	-11.50	-5.75	10.73	35.59	182.45	1	0.03	1.9	0	-0.7872	**3.122**	**2.81**	**7.7**	25	**1.1**	**13.5**
SS11.5 / Fill3.5	0	0	11.6401	0	11.5	0.00	-11.50	-5.75	11.64	35.59	197.88	1	0.03	1.9	0	-0.8169	**3.239**	**2.92**	**8.1**	25	**1.1**	**13.5**
SS11.5 / Fill4	0	0	12.5388	0	11.5	0.00	-11.50	-5.75	12.54	35.59	213.16	1	0.03	1.9	0	-0.8444	**3.349**	**3.01**	**8.5**	25	**1.1**	**13.5**
SS12 / Fill0.5	0	0	6.1385	0	12	0.00	-12.00	-6.00	6.14	37.14	104.35	1	0.03	1.9	0	-0.5809	**2.404**	**2.16**	**5.6**	25	**1.2**	**14.7**
SS12 / Fill1	0	0	7.1379	0	12	0.00	-12.00	-6.00	7.14	37.14	121.34	1	0.03	1.9	0	-0.6301	**2.607**	**2.35**	**6.1**	25	**1.2**	**14.7**
SS12 / Fill1.5	0	0	8.1114	0	12	0.00	-12.00	-6.00	8.11	37.14	137.89	1	0.03	1.9	0	-0.6733	**2.786**	**2.51**	**6.6**	25	**1.2**	**14.7**
SS12 / Fill2	0	0	9.0652	0	12	0.00	-12.00	-6.00	9.07	37.14	154.11	1	0.03	1.9	0	-0.7118	**2.945**	**2.65**	**7.1**	25	**1.2**	**14.7**
SS12 / Fill2.5	0	0	10.0034	0	12	0.00	-12.00	-6.00	10.00	37.14	170.06	1	0.03	1.9	0	-0.7465	**3.089**	**2.78**	**7.5**	25	**1.2**	**14.7**
SS12 / Fill3	0	0	10.9289	0	12	0.00	-12.00	-6.00	10.93	37.14	185.79	1	0.03	1.9	0	-0.7783	**3.221**	**2.90**	**7.9**	25	**1.2**	**14.7**
SS12 / Fill3.5	0	0	11.8438	0	12	0.00	-12.00	-6.00	11.84	37.14	201.34	1	0.03	1.9	0	-0.8076	**3.342**	**3.01**	**8.3**	25	**1.2**	**14.7**
SS12 / Fill4	0	0	12.7498	0	12	0.00	-12.00	-6.00	12.75	37.14	216.75	1	0.03	1.9	0	-0.8348	**3.454**	**3.11**	**8.7**	25	**1.2**	**14.7**

2. Mesri Creep Settlement - (Mesri et al (1994) and Mesri & Ajlouni (2007))

Assumed Ca/Cc = 0.06
Design Period, t = 50 yr
Future Load, Ds = 20 kPa

															Mesri et al (1994), Mesri & Ajlouni (2007)					
	Final Ground RL (m)	**Surc. Consol Achieved (%)**	**Original OCR**	**Original svi' (kPa)**	**Preloaded svp' (kPa)**	**New Surch Base RL (m AHD)**	**New Fill Base RL (m AHD)**	**Final centre Soft Soil RL (m AHD)**	**Final Grd sv' (kPa)**	**Total Final svf' (kPa)**	**Final OCR**	**Rs'**	**Cc/(1+e0)**	**Ca/(1+e0)**	**tpr (Yr)**	**tl (Yr)**	**t/tl**	**Ca''/Ca**	**Ca''/(1+e0)**	**Creep Settlement (mm)**
SS0.5 / Fill0.5	0.5	90%	1	2	34	-0.2	-0.2	-0.4	11	31	1.09	0.09	0.34	0.021	0.05	0.08	621	0.87	0.018	25
SS0.5 / Fill1	1.0	90%	1	2	43	-0.3	-0.3	-0.4	20	40	1.09	0.09	0.34	0.021	0.05	0.08	621	0.87	0.018	25
SS0.5 / Fill1.5	1.5	90%	1	2	52	-0.3	-0.3	-0.4	28	48	1.09	0.09	0.34	0.021	0.05	0.08	620	0.87	0.018	25
SS0.5 / Fill2	2.0	90%	1	2	62	-0.3	-0.3	-0.4	37	57	1.09	0.09	0.34	0.021	0.05	0.08	621	0.87	0.018	25
SS0.5 / Fill2.5	2.5	90%	1	2	71	-0.3	-0.3	-0.4	45	65	1.09	0.09	0.34	0.021	0.05	0.08	621	0.87	0.018	25
SS0.5 / Fill3	3.0	90%	1	2	80	-0.3	-0.3	-0.4	54	74	1.09	0.09	0.34	0.021	0.05	0.08	621	0.87	0.018	25
SS0.5 / Fill3.5	3.5	90%	1	2	90	-0.3	-0.3	-0.4	62	82	1.09	0.09	0.34	0.021	0.05	0.08	621	0.87	0.018	25
SS0.5 / Fill4	4.0	90%	1	2	99	-0.3	-0.3	-0.4	71	91	1.09	0.09	0.34	0.021	0.05	0.08	621	0.87	0.018	25
SS1 / Fill0.5	0.5	90%	1	3	37	-0.4	-0.4	-0.7	13	33	1.12	0.12	0.34	0.021	0.05	0.14	355	0.47	0.010	25
SS1 / Fill1	1.0	90%	1	3	47	-0.4	-0.4	-0.7	22	42	1.12	0.12	0.34	0.021	0.05	0.14	355	0.47	0.010	25
SS1 / Fill1.5	1.5	90%	1	3	57	-0.5	-0.5	-0.7	30	50	1.12	0.12	0.34	0.021	0.05	0.14	355	0.47	0.010	25
SS1 / Fill2	2.0	90%	1	3	66	-0.5	-0.5	-0.7	39	59	1.12	0.12	0.34	0.021	0.05	0.14	355	0.47	0.010	25
SS1 / Fill2.5	2.5	90%	1	3	76	-0.5	-0.5	-0.8	48	68	1.12	0.12	0.34	0.021	0.05	0.14	355	0.47	0.010	25
SS1 / Fill3	3.0	90%	1	3	86	-0.5	-0.5	-0.8	56	76	1.12	0.12	0.34	0.021	0.05	0.14	355	0.47	0.010	25
SS1 / Fill3.5	3.5	90%	1	3	95	-0.5	-0.5	-0.8	65	85	1.12	0.12	0.34	0.021	0.05	0.14	355	0.47	0.010	25
SS1 / Fill4	4.0	90%	1	3	105	-0.6	-0.6	-0.8	73	93	1.12	0.12	0.34	0.021	0.05	0.14	355	0.47	0.010	25
SS1.5 / Fill0.5	0.5	90%	1	5	41	-0.5	-0.5	-1.0	15	35	1.15	0.15	0.34	0.021	0.05	0.20	254	0.34	0.007	25
SS1.5 / Fill1	1.0	90%	1	5	51	-0.6	-0.6	-1.0	24	44	1.15	0.15	0.34	0.021	0.05	0.20	254	0.34	0.007	25
SS1.5 / Fill1.5	1.5	90%	1	5	61	-0.6	-0.6	-1.1	33	53	1.15	0.15	0.34	0.021	0.05	0.20	254	0.34	0.007	25
SS1.5 / Fill2	2.0	90%	1	5	70	-0.7	-0.7	-1.1	41	61	1.15	0.15	0.34	0.021	0.05	0.20	254	0.34	0.007	25
SS1.5 / Fill2.5	2.5	90%	1	5	80	-0.7	-0.7	-1.1	50	70	1.15	0.15	0.34	0.021	0.05	0.20	254	0.34	0.007	25
SS1.5 / Fill3	3.0	90%	1	5	90	-0.7	-0.7	-1.1	59	79	1.15	0.15	0.34	0.021	0.05	0.20	254	0.33	0.007	25
SS1.5 / Fill3.5	3.5	90%	1	5	100	-0.7	-0.7	-1.1	67	87	1.15	0.15	0.34	0.021	0.05	0.20	254	0.33	0.007	25
SS1.5 / Fill4	4.0	90%	1	5	110	-0.7	-0.7	-1.1	76	96	1.15	0.15	0.34	0.021	0.05	0.20	254	0.34	0.007	25
SS2 / Fill0.5	0.5	90%	1	6	44	-0.7	-0.7	-1.3	17	37	1.17	0.17	0.34	0.021	0.05	0.25	199	0.26	0.005	25
SS2 / Fill1	1.0	90%	1	6	54	-0.7	-0.7	-1.4	26	46	1.17	0.17	0.34	0.021	0.05	0.25	199	0.26	0.005	25
SS2 / Fill1.5	1.5	90%	1	6	64	-0.8	-0.8	-1.4	35	55	1.17	0.17	0.34	0.021	0.05	0.25	199	0.26	0.005	25
SS2 / Fill2	2.0	90%	1	6	74	-0.8	-0.8	-1.4	43	63	1.17	0.17	0.34	0.021	0.05	0.25	199	0.26	0.005	25
SS2 / Fill2.5	2.5	90%	1	6	85	-0.8	-0.8	-1.4	52	72	1.17	0.17	0.34	0.021	0.05	0.25	199	0.26	0.005	25
SS2 / Fill3	3.0	90%	1	6	95	-0.9	-0.9	-1.4	61	81	1.17	0.17	0.34	0.021	0.05	0.25	199	0.26	0.005	25
SS2 / Fill3.5	3.5	90%	1	6	105	-0.9	-0.9	-1.5	69	89	1.17	0.17	0.34	0.021	0.05	0.25	199	0.26	0.005	25
SS2 / Fill4	4.0	90%	1	6	115	-0.9	-0.9	-1.5	78	98	1.17	0.17	0.34	0.021	0.05	0.25	199	0.26	0.005	25
SS2.5 / Fill0.5	0.5	90%	1	8	47	-0.8	-0.8	-1.6	19	39	1.19	0.19	0.34	0.021	0.05	0.30	164	0.22	0.005	25
SS2.5 / Fill1	1.0	90%	1	8	57	-0.8	-0.8	-1.7	28	48	1.19	0.19	0.34	0.021	0.05	0.30	164	0.22	0.005	25
SS2.5 / Fill1.5	1.5	90%	1	8	68	-0.9	-0.9	-1.7	37	57	1.19	0.19	0.34	0.021	0.05	0.30	164	0.22	0.005	25
SS2.5 / Fill2	2.0	90%	1	8	78	-0.9	-0.9	-1.7	46	66	1.19	0.19	0.34	0.021	0.05	0.30	164	0.22	0.005	25
SS2.5 / Fill2.5	2.5	90%	1	8	89	-1.0	-1.0	-1.7	54	74	1.19	0.19	0.34	0.021	0.05	0.30	164	0.22	0.005	25
SS2.5 / Fill3	3.0	90%	1	8	99	-1.0	-1.0	-1.8	63	83	1.19	0.19	0.34	0.021	0.05	0.30	164	0.22	0.005	25
SS2.5 / Fill3.5	3.5	90%	1	8	109	-1.1	-1.1	-1.8	72	92	1.19	0.19	0.34	0.021	0.05	0.30	164	0.22	0.005	25
SS2.5 / Fill4	4.0	90%	1	8	120	-1.1	-1.1	-1.8	80	100	1.19	0.19	0.34	0.021	0.05	0.30	164	0.22	0.005	25
SS3 / Fill0.5	0.5	90%	1	9	50	-0.9	-0.9	-1.9	21	41	1.21	0.21	0.34	0.021	0.05	0.36	140	0.19	0.004	25
SS3 / Fill1	1.0	90%	1	9	61	-0.9	-0.9	-2.0	30	50	1.21	0.21	0.34	0.021	0.05	0.36	140	0.19	0.004	25
SS3 / Fill1.5	1.5	90%	1	9	71	-1.0	-1.0	-2.0	39	59	1.21	0.21	0.34	0.021	0.05	0.36	140	0.19	0.004	25
SS3 / Fill2	2.0	90%	1	9	82	-1.1	-1.1	-2.0	48	68	1.21	0.21	0.34	0.021	0.05	0.36	140	0.19	0.004	25
SS3 / Fill2.5	2.5	90%	1	9	93	-1.1	-1.1	-2.1	56	76	1.21	0.21	0.34	0.021	0.05	0.36	140	0.19	0.004	25
SS3 / Fill3	3.0	90%	1	9	103	-1.2	-1.2	-2.1	65	85	1.21	0.21	0.34	0.021	0.05	0.36	140	0.19	0.004	25
SS3 / Fill3.5	3.5	90%	1	9	114	-1.2	-1.2	-2.1	74	94	1.21	0.21	0.34	0.021	0.05	0.36	140	0.19	0.004	25
SS3 / Fill4	4.0	90%	1	9	124	-1.3	-1.3	-2.1	82	102	1.21	0.21	0.34	0.021	0.05	0.36	140	0.19	0.004	25
SS3.5 / Fill0.5	0.5	90%	1	11	53	-1.0	-1.0	-2.2	23	43	1.23	0.23	0.34	0.021	0.05	0.41	122	0.17	0.003	25
SS3.5 / Fill1	1.0	90%	1	11	64	-1.1	-1.1	-2.3	32	52	1.23	0.23	0.34	0.021	0.05	0.41	122	0.17	0.003	25
SS3.5 / Fill1.5	1.5	90%	1	11	75	-1.1	-1.1	-2.3	41	61	1.23	0.23	0.34	0.021	0.05	0.41	122	0.17	0.003	25
SS3.5 / Fill2	2.0	90%	1	11	86	-1.2	-1.2	-2.4	50	70	1.23	0.23	0.34	0.021	0.05	0.41	122	0.17	0.003	25
SS3.5 / Fill2.5	2.5	90%	1	11	96	-1.3	-1.3	-2.4	58	78	1.23	0.23	0.34	0.021	0.05	0.41	122	0.17	0.003	25
SS3.5 / Fill3	3.0	90%	1	11	107	-1.3	-1.3	-2.4	67	87	1.23	0.23	0.34	0.021	0.05	0.41	122	0.17	0.003	25
SS3.5 / Fill3.5	3.5	90%	1	11	118	-1.4	-1.4	-2.4	76	96	1.23	0.23	0.34	0.021	0.05	0.41	122	0.17	0.003	25
SS3.5 / Fill4	4.0	90%	1	11	129	-1.4	-1.4	-2.5	85	105	1.23	0.23	0.34	0.021	0.05	0.41	122	0.17	0.003	25
SS4 / Fill0.5	0.5	90%	1	12	56	-1.1	-1.1	-2.5	25	45	1.25	0.25	0.34	0.021	0.05	0.46	109	0.15	0.003	25
SS4 / Fill1	1.0	90%	1	12	67	-1.2	-1.2	-2.6	34	54	1.25	0.25	0.34	0.021	0.05	0.46	109	0.15	0.003	25
SS4 / Fill1.5	1.5	90%	1	12	78	-1.2	-1.2	-2.6	43	63	1.25	0.25	0.34	0.021	0.05	0.46	109	0.15	0.003	25
SS4 / Fill2	2.0	90%	1	12	89	-1.3	-1.3	-2.7	52	72	1.25	0.25	0.34	0.021	0.05	0.46	109	0.15	0.003	25
SS4 / Fill2.5	2.5	90%	1	12	100	-1.4	-1.4	-2.7	61	81	1.25	0.25	0.34	0.021	0.05	0.46	109	0.15	0.003	25
SS4 / Fill3	3.0	90%	1	12	111	-1.4	-1.4	-2.7	69	89	1.25	0.25	0.34	0.021	0.05	0.46	109	0.15	0.003	25
SS4 / Fill3.5	3.5	90%	1	12	122	-1.5	-1.5	-2.7	78	98	1.25	0.25	0.34	0.021	0.05	0.46	109	0.15	0.003	25
SS4 / Fill4	4.0	90%	1	12	133	-1.5	-1.5	-2.8	87	107	1.25	0.25	0.34	0.021	0.05	0.46	109	0.15	0.003	25
SS4.5 / Fill0.5	0.5	90%	1	14	59	-1.2	-1.2	-2.8	27	47	1.26	0.26	0.34	0.021	0.05	0.51	98	0.13	0.003	25
SS4.5 / Fill1	1.0	90%	1	14	71	-1.3	-1.3	-2.9	36	56	1.26	0.26	0.34	0.021	0.05	0.51	98	0.13	0.003	25
SS4.5 / Fill1.5	1.5	90%	1	14	82	-1.4	-1.4	-2.9	45	65	1.26	0.26	0.34	0.021	0.05	0.51	98	0.13	0.003	25
SS4.5 / Fill2	2.0	90%	1	14	93	-1.4	-1.4	-3.0	54	74	1.26	0.26	0.34	0.021	0.05	0.51	98	0.13	0.003	25
SS4.5 / Fill2.5	2.5	90%	1	14	104	-1.5	-1.5	-3.0	63	83	1.26	0.26	0.34	0.021	0.05	0.51	98	0.13	0.003	25
SS4.5 / Fill3	3.0	90%	1	14	115	-1.6	-1.6	-3.0	71	91	1.26	0.26	0.34	0.021	0.05	0.51	98	0.13	0.003	25
SS4.5 / Fill3.5	3.5	90%	1	14	126	-1.6	-1.6	-3.1	80	100	1.26	0.26	0.34	0.021	0.05	0.51	98	0.13	0.003	25
SS4.5 / Fill4	4.0	90%	1	14	137	-1.7	-1.7	-3.1	89	109	1.26	0.26	0.34	0.021	0.05	0.51	98	0.13	0.003	25
SS5 / Fill0.5	0.5	90%	1	15	63	-1.2	-1.2	-3.1	29	49	1.28	0.28	0.34	0.021	0.05	0.56	89	0.12	0.003	25
SS5 / Fill1	1.0	90%	1	15	74	-1.4	-1.4	-3.2	38	58	1.28	0.28	0.34	0.021	0.05	0.56	89	0.12	0.003	25
SS5 / Fill1.5	1.5	90%	1	15	86	-1.5	-1.5	-3.2	47	67	1.28	0.28	0.34	0.021	0.05	0.56	89	0.12	0.003	25
SS5 / Fill2	2.0	90%	1	15	97	-1.6	-1.6	-3.3	56	76	1.28	0.28	0.34	0.021	0.05	0.56	89	0.12	0.003	25
SS5 / Fill2.5	2.5	90%	1	15	108	-1.6	-1.6	-3.3	65	85	1.28	0.28	0.34	0.021	0.05	0.56	89	0.12	0.003	25
SS5 / Fill3	3.0	90%	1	15	119	-1.7	-1.7	-3.3	73	93	1.28	0.28	0.34	0.021	0.05	0.56	89	0.12	0.003	25
SS5 / Fill3.5	3.5	90%	1	15	130	-1.8	-1.8	-3.4	82	102	1.28	0.28	0.34	0.021	0.05	0.56	89	0.12	0.003	25
SS5 / Fill4	4.0	90%	1	15	142	-1.8	-1.8	-3.4	91	111	1.28	0.28	0.34	0.021	0.05	0.56	89	0.12	0.003	25
SS5.5 / Fill0.5	0.5	90%	1	17	66	-1.3	-1.3	-3.4	31	51	1.29	0.29	0.34	0.021	0.05	0.62	81	0.12	0.002	25
SS5.5 / Fill1	1.0	90%	1	17	78	-1.5	-1.5	-3.5	40	60	1.29	0.29	0.34	0.021	0.05	0.62	81	0.12	0.002	25
SS5.5 / Fill1.5	1.5	90%	1	17	89	-1.6	-1.6	-3.5	49	69	1.29	0.29	0.34	0.021	0.05	0.62	81	0.12	0.002	25

SS5.5 / Fill2	2.0	90%	1	17	101	-1.7	-1.7	-3.6	58	78	1.29	0.29	0.34	0.021	0.05	0.62	81	0.12	0.002	25
SS5.5 / Fill2.5	2.5	90%	1	17	112	-1.7	-1.7	-3.6	67	87	1.29	0.29	0.34	0.021	0.05	0.62	81	0.12	0.002	25
SS5.5 / Fill3	3.0	90%	1	17	123	-1.8	-1.8	-3.7	75	95	1.29	0.29	0.34	0.021	0.05	0.62	81	0.12	0.002	25
SS5.5 / Fill3.5	3.5	90%	1	17	135	-1.9	-1.9	-3.7	84	104	1.29	0.29	0.34	0.021	0.05	0.62	81	0.12	0.002	25
SS5.5 / Fill4	4.0	90%	1	17	146	-1.9	-1.9	-3.7	93	113	1.29	0.29	0.34	0.021	0.05	0.62	81	0.12	0.002	25
SS6 / Fill0.5	0.5	90%	1	19	69	-1.4	-1.4	-3.7	33	53	1.31	0.31	0.34	0.021	0.05	0.67	75	0.11	0.002	25
SS6 / Fill1	1.0	90%	1	19	81	-1.6	-1.6	-3.8	42	62	1.31	0.31	0.34	0.021	0.05	0.67	75	0.11	0.002	25
SS6 / Fill1.5	1.5	90%	1	19	93	-1.7	-1.7	-3.8	51	71	1.31	0.31	0.34	0.021	0.05	0.67	75	0.11	0.002	25
SS6 / Fill2	2.0	90%	1	19	104	-1.8	-1.8	-3.9	60	80	1.31	0.31	0.34	0.021	0.05	0.67	75	0.11	0.002	25
SS6 / Fill2.5	2.5	90%	1	19	116	-1.9	-1.9	-3.9	69	89	1.31	0.31	0.34	0.021	0.05	0.67	75	0.11	0.002	25
SS6 / Fill3	3.0	90%	1	19	127	-1.9	-1.9	-4.0	78	98	1.31	0.31	0.34	0.021	0.05	0.67	75	0.11	0.002	25
SS6 / Fill3.5	3.5	90%	1	19	139	-2.0	-2.0	-4.0	86	106	1.31	0.31	0.34	0.021	0.05	0.67	75	0.11	0.002	25
SS6 / Fill4	4.0	90%	1	19	150	-2.1	-2.1	-4.0	95	115	1.31	0.31	0.34	0.021	0.05	0.67	75	0.11	0.002	25
SS6.5 / Fill0.5	0.5	90%	1	20	72	-1.5	-1.5	-4.0	35	55	1.32	0.32	0.34	0.021	0.05	0.72	69	0.10	0.002	25
SS6.5 / Fill1	1.0	90%	1	20	84	-1.6	-1.6	-4.1	44	64	1.32	0.32	0.34	0.021	0.05	0.72	69	0.10	0.002	25
SS6.5 / Fill1.5	1.5	90%	1	20	96	-1.8	-1.8	-4.1	53	73	1.32	0.32	0.34	0.021	0.05	0.72	69	0.10	0.002	25
SS6.5 / Fill2	2.0	90%	1	20	108	-1.9	-1.9	-4.2	62	82	1.32	0.32	0.34	0.021	0.05	0.72	69	0.10	0.002	25
SS6.5 / Fill2.5	2.5	90%	1	20	120	-2.0	-2.0	-4.2	71	91	1.32	0.32	0.34	0.021	0.05	0.72	69	0.10	0.002	25
SS6.5 / Fill3	3.0	90%	1	20	131	-2.1	-2.1	-4.3	80	100	1.32	0.32	0.34	0.021	0.05	0.72	69	0.10	0.002	25
SS6.5 / Fill3.5	3.5	90%	1	20	143	-2.1	-2.1	-4.3	88	108	1.32	0.32	0.34	0.021	0.05	0.72	69	0.10	0.002	25
SS6.5 / Fill4	4.0	90%	1	20	155	-2.2	-2.2	-4.4	97	117	1.32	0.32	0.34	0.021	0.05	0.72	69	0.10	0.002	25
SS7 / Fill0.5	0.5	90%	1	22	76	-1.6	-1.6	-4.3	37	57	1.33	0.33	0.34	0.021	0.05	0.77	65	0.10	0.002	25
SS7 / Fill1	1.0	90%	1	22	88	-1.7	-1.7	-4.4	46	66	1.33	0.33	0.34	0.021	0.05	0.77	65	0.10	0.002	25
SS7 / Fill1.5	1.5	90%	1	22	100	-1.9	-1.9	-4.4	55	75	1.33	0.33	0.34	0.021	0.05	0.77	65	0.10	0.002	25
SS7 / Fill2	2.0	90%	1	22	112	-2.0	-2.0	-4.5	64	84	1.33	0.33	0.34	0.021	0.05	0.77	65	0.10	0.002	25
SS7 / Fill2.5	2.5	90%	1	22	124	-2.1	-2.1	-4.5	73	93	1.33	0.33	0.34	0.021	0.05	0.77	65	0.10	0.002	25
SS7 / Fill3	3.0	90%	1	22	135	-2.2	-2.2	-4.6	82	102	1.33	0.33	0.34	0.021	0.05	0.77	65	0.10	0.002	25
SS7 / Fill3.5	3.5	90%	1	22	147	-2.3	-2.3	-4.6	90	110	1.33	0.33	0.34	0.021	0.05	0.77	65	0.10	0.002	25
SS7 / Fill4	4.0	90%	1	22	159	-2.3	-2.3	-4.7	99	119	1.33	0.33	0.34	0.021	0.05	0.77	65	0.10	0.002	25
SS7.5 / Fill0.5	0.5	90%	1	23	79	-1.7	-1.7	-4.6	39	59	1.35	0.35	0.34	0.021	0.05	0.83	61	0.09	0.002	25
SS7.5 / Fill1	1.0	90%	1	23	91	-1.8	-1.8	-4.7	48	68	1.35	0.35	0.34	0.021	0.05	0.83	61	0.09	0.002	25
SS7.5 / Fill1.5	1.5	90%	1	23	103	-2.0	-2.0	-4.7	57	77	1.35	0.35	0.34	0.021	0.05	0.83	61	0.09	0.002	25
SS7.5 / Fill2	2.0	90%	1	23	115	-2.1	-2.1	-4.8	66	86	1.35	0.35	0.34	0.021	0.05	0.83	61	0.09	0.002	25
SS7.5 / Fill2.5	2.5	90%	1	23	127	-2.2	-2.2	-4.8	75	95	1.35	0.35	0.34	0.021	0.05	0.83	61	0.09	0.002	25
SS7.5 / Fill3	3.0	90%	1	23	139	-2.3	-2.3	-4.9	84	104	1.35	0.35	0.34	0.021	0.05	0.83	61	0.09	0.002	25
SS7.5 / Fill3.5	3.5	90%	1	23	151	-2.4	-2.4	-4.9	92	112	1.35	0.35	0.34	0.021	0.05	0.83	61	0.09	0.002	25
SS7.5 / Fill4	4.0	90%	1	23	163	-2.4	-2.4	-5.0	101	121	1.35	0.35	0.34	0.021	0.05	0.83	61	0.09	0.002	25
SS8 / Fill0.5	0.5	90%	1	25	82	-1.8	-1.8	-4.9	40	60	1.36	0.36	0.34	0.021	0.05	0.87	57	0.09	0.002	25
SS8 / Fill1	1.0	90%	1	25	95	-1.9	-1.9	-5.0	50	70	1.36	0.36	0.34	0.021	0.05	0.87	57	0.09	0.002	25
SS8 / Fill1.5	1.5	90%	1	25	107	-2.1	-2.1	-5.0	59	79	1.36	0.36	0.34	0.021	0.05	0.87	57	0.09	0.002	25
SS8 / Fill2	2.0	90%	1	25	119	-2.2	-2.2	-5.1	68	88	1.36	0.36	0.34	0.021	0.05	0.87	57	0.09	0.002	25
SS8 / Fill2.5	2.5	90%	1	25	131	-2.3	-2.3	-5.1	77	97	1.36	0.36	0.34	0.021	0.05	0.87	57	0.09	0.002	25
SS8 / Fill3	3.0	90%	1	25	143	-2.4	-2.4	-5.2	86	106	1.36	0.36	0.34	0.021	0.05	0.87	57	0.09	0.002	25
SS8 / Fill3.5	3.5	90%	1	25	155	-2.5	-2.5	-5.2	94	114	1.36	0.36	0.34	0.021	0.05	0.87	57	0.09	0.002	25
SS8 / Fill4	4.0	90%	1	25	167	-2.6	-2.6	-5.3	103	123	1.36	0.36	0.34	0.021	0.05	0.87	57	0.09	0.002	25
SS8.5 / Fill0.5	0.5	90%	1	26	85	-1.8	-1.8	-5.2	42	62	1.37	0.37	0.34	0.021	0.05	0.91	55	0.08	0.002	25
SS8.5 / Fill1	1.0	90%	1	26	98	-2.0	-2.0	-5.3	52	72	1.37	0.37	0.34	0.021	0.05	0.91	55	0.08	0.002	25
SS8.5 / Fill1.5	1.5	90%	1	26	110	-2.2	-2.2	-5.3	61	81	1.37	0.37	0.34	0.021	0.05	0.91	55	0.08	0.002	25
SS8.5 / Fill2	2.0	90%	1	26	123	-2.3	-2.3	-5.4	70	90	1.37	0.37	0.34	0.021	0.05	0.91	55	0.08	0.002	25
SS8.5 / Fill2.5	2.5	90%	1	26	135	-2.4	-2.4	-5.4	79	99	1.37	0.37	0.34	0.021	0.05	0.91	55	0.08	0.002	25
SS8.5 / Fill3	3.0	90%	1	26	147	-2.5	-2.5	-5.5	88	108	1.37	0.37	0.34	0.021	0.05	0.91	55	0.08	0.002	25
SS8.5 / Fill3.5	3.5	90%	1	26	159	-2.6	-2.6	-5.5	96	116	1.37	0.37	0.34	0.021	0.05	0.91	55	0.08	0.002	25
SS8.5 / Fill4	4.0	90%	1	26	171	-2.7	-2.7	-5.6	105	125	1.37	0.37	0.34	0.021	0.05	0.91	55	0.08	0.002	25
SS9 / Fill0.5	0.5	90%	1	28	88	-1.9	-1.9	-5.5	44	64	1.38	0.38	0.34	0.021	0.05	0.95	53	0.08	0.002	25
SS9 / Fill1	1.0	90%	1	28	101	-2.1	-2.1	-5.5	53	73	1.38	0.38	0.34	0.021	0.05	0.95	53	0.08	0.002	25
SS9 / Fill1.5	1.5	90%	1	28	114	-2.2	-2.2	-5.6	63	83	1.38	0.38	0.34	0.021	0.05	0.95	53	0.08	0.002	25
SS9 / Fill2	2.0	90%	1	28	126	-2.4	-2.4	-5.7	72	92	1.38	0.38	0.34	0.021	0.05	0.95	53	0.08	0.002	25
SS9 / Fill2.5	2.5	90%	1	28	139	-2.5	-2.5	-5.8	81	101	1.38	0.38	0.34	0.021	0.05	0.95	53	0.08	0.002	25
SS9 / Fill3	3.0	90%	1	28	151	-2.6	-2.6	-5.8	90	110	1.38	0.38	0.34	0.021	0.05	0.95	53	0.08	0.002	25
SS9 / Fill3.5	3.5	90%	1	28	163	-2.7	-2.7	-5.9	98	118	1.38	0.38	0.34	0.021	0.05	0.95	53	0.08	0.002	25
SS9 / Fill4	4.0	90%	1	28	175	-2.8	-2.8	-5.9	107	127	1.38	0.38	0.34	0.021	0.05	0.95	53	0.08	0.002	25
SS9.5 / Fill0.5	0.5	90%	1	29	92	-2.0	-2.0	-5.8	46	66	1.39	0.39	0.34	0.021	0.05	0.99	50	0.07	0.002	25
SS9.5 / Fill1	1.0	90%	1	29	104	-2.2	-2.2	-5.8	55	75	1.39	0.39	0.34	0.021	0.05	0.99	50	0.07	0.002	25
SS9.5 / Fill1.5	1.5	90%	1	29	117	-2.3	-2.3	-5.9	64	84	1.39	0.39	0.34	0.021	0.05	0.99	50	0.07	0.002	25
SS9.5 / Fill2	2.0	90%	1	29	130	-2.5	-2.5	-6.0	74	94	1.39	0.39	0.34	0.021	0.05	0.99	50	0.07	0.002	25
SS9.5 / Fill2.5	2.5	90%	1	29	142	-2.6	-2.6	-6.1	83	103	1.39	0.39	0.34	0.021	0.05	0.99	50	0.07	0.002	25
SS9.5 / Fill3	3.0	90%	1	29	155	-2.7	-2.7	-6.1	92	112	1.39	0.39	0.34	0.021	0.05	0.99	50	0.07	0.002	25
SS9.5 / Fill3.5	3.5	90%	1	29	167	-2.8	-2.8	-6.2	100	120	1.39	0.39	0.34	0.021	0.05	0.99	50	0.07	0.002	25
SS9.5 / Fill4	4.0	90%	1	29	179	-2.9	-2.9	-6.2	109	129	1.39	0.39	0.34	0.021	0.05	0.99	50	0.07	0.002	25
SS10 / Fill0.5	0.5	90%	1	31	95	-2.1	-2.1	-6.0	48	68	1.40	0.40	0.34	0.021	0.05	1.03	48	0.07	0.001	25
SS10 / Fill1	1.0	90%	1	31	108	-2.3	-2.3	-6.1	57	77	1.40	0.40	0.34	0.021	0.05	1.03	48	0.07	0.001	25
SS10 / Fill1.5	1.5	90%	1	31	121	-2.4	-2.4	-6.2	66	86	1.40	0.40	0.34	0.021	0.05	1.03	48	0.07	0.001	25
SS10 / Fill2	2.0	90%	1	31	133	-2.6	-2.6	-6.3	75	95	1.40	0.40	0.34	0.021	0.05	1.03	48	0.07	0.001	25
SS10 / Fill2.5	2.5	90%	1	31	146	-2.7	-2.7	-6.4	85	105	1.40	0.40	0.34	0.021	0.05	1.03	48	0.07	0.001	25
SS10 / Fill3	3.0	90%	1	31	158	-2.8	-2.8	-6.4	93	113	1.40	0.40	0.34	0.021	0.05	1.03	48	0.07	0.001	25
SS10 / Fill3.5	3.5	90%	1	31	171	-2.9	-2.9	-6.5	102	122	1.40	0.40	0.34	0.021	0.05	1.03	48	0.07	0.001	25
SS10 / Fill4	4.0	90%	1	31	183	-3.0	-3.0	-6.5	111	131	1.40	0.40	0.34	0.021	0.05	1.03	48	0.07	0.001	25
SS10.5 / Fill0.5	0.5	90%	1	32	98	-2.2	-2.2	-6.3	50	70	1.40	0.40	0.34	0.021	0.05	1.07	47	0.07	0.001	25
SS10.5 / Fill1	1.0	90%	1	32	111	-2.4	-2.4	-6.4	59	79	1.40	0.40	0.34	0.021	0.05	1.07	47	0.07	0.001	25
SS10.5 / Fill1.5	1.5	90%	1	32	124	-2.5	-2.5	-6.5	68	88	1.40	0.40	0.34	0.021	0.05	1.07	47	0.07	0.001	25
SS10.5 / Fill2	2.0	90%	1	32	137	-2.7	-2.7	-6.6	77	97	1.40	0.40	0.34	0.021	0.05	1.07	47	0.07	0.001	25
SS10.5 / Fill2.5	2.5	90%	1	32	149	-2.8	-2.8	-6.7	86	106	1.40	0.40	0.34	0.021	0.05	1.07	47	0.07	0.001	25
SS10.5 / Fill3	3.0	90%	1	32	162	-2.9	-2.9	-6.7	95	115	1.40	0.40	0.34	0.021	0.05	1.07	47	0.07	0.001	25
SS10.5 / Fill3.5	3.5	90%	1	32	175	-3.0	-3.0	-6.8	104	124	1.40	0.40	0.34	0.021	0.05	1.07	47	0.07	0.001	25
SS10.5 / Fill4	4.0	90%	1	32	187	-3.1	-3.1	-6.8	113	133	1.40	0.40	0.34	0.021	0.05	1.07	47	0.07	0.001	25
SS11 / Fill0.5	0.5	90%	1	34	101	-2.2	-2.2	-6.6	52	72	1.41	0.41	0.34	0.021	0.05	1.10	45	0.07	0.001	25
SS11 / Fill1	1.0	90%	1	34	114	-2.4	-2.4	-6.7	61	81	1.41	0.41	0.34	0.021	0.05	1.10	45	0.07	0.001	25
SS11 / Fill1.5	1.5	90%	1	34	127	-2.6	-2.6	-6.8	70	90	1.41	0.41	0.34	0.021	0.05	1.10	45	0.07	0.001	25
SS11 / Fill2	2.0	90%	1	34	140	-2.8	-2.8	-6.9	79	99	1.41	0.41	0.34	0.021	0.05	1.10	45	0.07	0.001	25
SS11 / Fill2.5	2.5	90%	1	34	153	-2.9	-2.9	-6.9	88	108	1.41	0.41	0.34	0.021	0.05	1.10	45	0.07	0.001	25
SS11 / Fill3	3.0	90%	1	34	166	-3.0	-3.0	-7.0	97	117	1.41	0.41	0.34	0.021	0.05	1.10	45	0.07	0.001	25
SS11 / Fill3.5	3.5	90%	1	34	178	-3.1	-3.1	-7.1	106	126	1.41	0.41	0.34	0.021	0.05	1.10	45	0.07	0.001	25
SS11 / Fill4	4.0	90%	1	34	191	-3.2	-3.2	-7.1	115	135	1.41	0.41	0.34	0.021	0.05	1.10	45	0.07	0.001	25
SS11.5 / Fill0.5	0.5	90%	1	36	104	-2.3	-2.3	-6.9	54	74	1.42	0.42	0.34	0.021	0.05	1.13	44	0.06	0.001	25
SS11.5 / Fill1	1.0	90%	1	36	118	-2.5	-2.5	-7.0	63	83	1.42	0.42	0.34	0.021	0.05	1.13	44	0.06	0.001	25
SS11.5 / Fill1.5	1.5	90%	1	36	131	-2.7	-2.7	-7.1	72	92	1.42	0.42	0.34	0.021	0.05	1.13	44	0.06	0.001	25
SS11.5 / Fill2	2.0	90%	1	36	144	-2.9	-2.9	-7.2	81	101	1.42	0.42	0.34	0.021	0.05	1.13	44	0.06	0.001	25
SS11.5 / Fill2.5	2.5	90%	1	36	156	-3.0	-3.0	-7.2	90	110	1.42	0.42	0.34	0.021	0.05	1.13	44	0.06	0.001	25
SS11.5 / Fill3	3.0	90%	1	36	169	-3.1	-3.1	-7.3	99	119	1.42	0.42	0.34	0.021	0.05	1.13	44	0.06	0.001	25
SS11.5 / Fill3.5	3.5	90%	1	36	182	-3.2	-3.2	-7.4	108	128	1.42	0.42	0.34	0.021	0.05	1.13	44	0.06	0.001	25
SS11.5 / Fill4	4.0	90%	1	36	195	-3.3	-3.3	-7.4	117	137	1.42	0.42	0.34	0.021	0.05	1.13	44	0.06	0.001	25
SS12 / Fill0.5	0.5	90%	1	37	107	-2.4	-2.4	-7.2	55	75	1.42	0.42	0.34	0.021	0.05	1.16	43	0.06	0.001	25
SS12 / Fill1	1.0	90%	1	37	121	-2.6	-2.6	-7.3	65	85	1.42	0.42	0.34	0.021	0.05	1.16	43	0.06	0.001	25
SS12 / Fill1.5	1.5	90%	1	37	134	-2.8	-2.8	-7.4	74	94	1.42	0.42	0.34	0.021	0.05	1.16	43	0.06	0.001	25
SS12 / Fill2	2.0	90%	1	37	147	-2.9	-2.9	-7.5	83	103	1.42	0.42	0.34	0.021	0.05	1.16	43	0.06	0.001	25
SS12 / Fill2.5	2.5	90%	1	37	160	-3.1	-3.1	-7.5	92	112	1.42	0.42	0.34	0.021	0.05	1.16	43	0.06	0.001	25
SS12 / Fill3	3.0	90%	1	37	173	-3.2	-3.2	-7.6	101	121	1.42	0.42	0.34	0.021	0.05	1.16	43	0.06	0.001	25
SS12 / Fill3.5	3.5	90%	1	37	186	-3.3	-3.3	-7.7	110	130	1.42	0.42	0.34	0.021	0.05	1.16	43	0.06	0.001	25
SS12 / Fill4	4.0	90%	1	37	198	-3.5	-3.5	-7.7	119	139	1.42	0.42	0.34	0.021	0.05	1.16	43	0.06	0.001	25



APPENDIX J
Soakage Results

CMW Geosciences	CLIENT: **Colliers Project Leaders**	DESIGNER:	PT
	PROJECT: **Southern Links Industrial Block**	CHECKED:	MM
		REVISION:	0
	TITLE: **SO1 Falling Head Permeability Test**	DATE:	6/03/2026
		PROJECT:	HAM2024-0120

Specifications - Open-Ended Tube

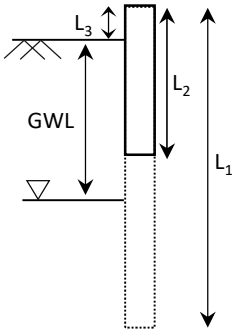
Length L_1:	1	m
Diameter:	90	mm
Non-Perm L_2:	0	m
Above Gnd L_3:	0	m

Ground Conditions

GWL: m BGL (Blank = Bottom of hole)

Permeability Anisotropy m: 1 $m = \sqrt{k_h / k_v}$

Bottom of Test Hole: 1.00 m BGL



Hydraulic Conductivity (k)

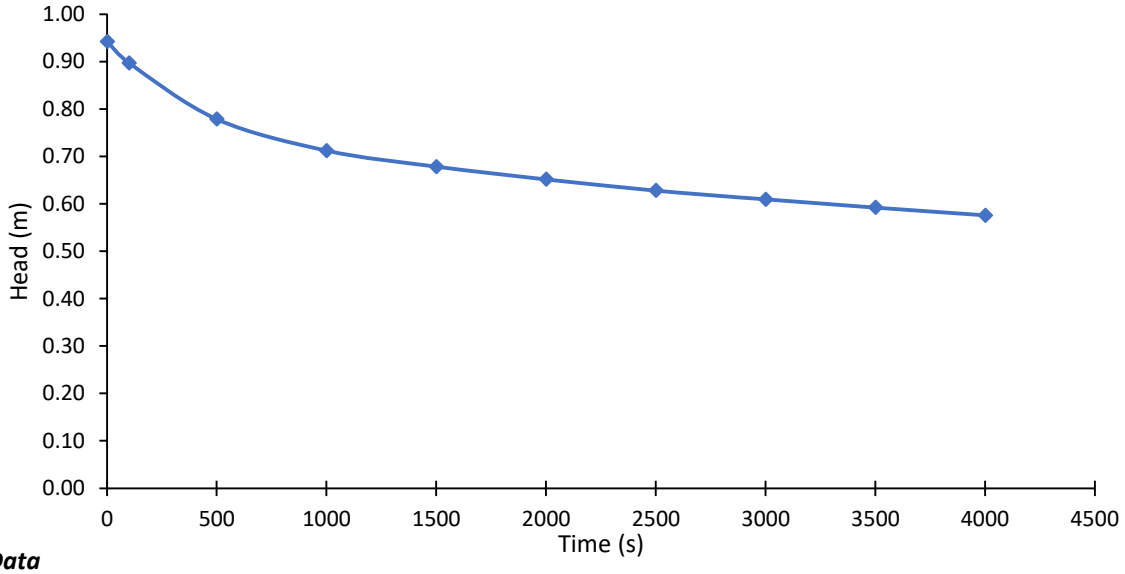
Note: CMW considers the CIRIA 113 value the most appropriate method for most purposes, but also provides the analysis method as outlined by Hvorslev if desired.

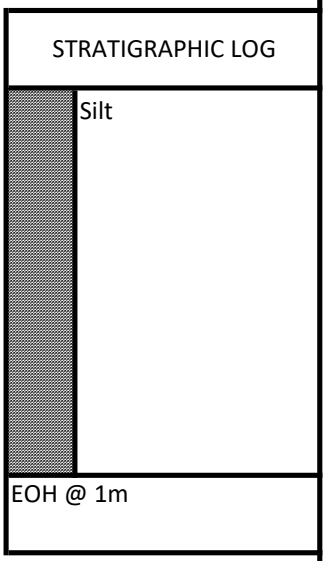
CIRIA 113: Somerville (1986), *Control of groundwater for temporary works,* CIRIA Report 113, Appendix 4

$$k = \left(log\frac{h_1}{h_2} - log\frac{2h_1 + d}{2h_2 + d} \right) . \frac{(h_1 + h_2)}{2(t_2 - t_1)} =$$ 2.98E-06 ms^{-1} = 0.26 m/day

Hvorslev: Hvorslev (1951) *Time Lag and Soil Permeability in Ground-Water Observations* , Fig 18, p49

$$k = \frac{d^2 \, ln\left(\frac{mL}{d} + \sqrt{\left(\frac{mL}{d}\right)^2 + 1} \right)}{8L(t_2 - t_1)} ln\frac{H_1}{H_2} =$$ 5.95E-07 ms^{-1} = 0.05 m/day





Data

Time (s)	Tape Avg (m)	Head (m)	Perm. Length (m)		Hvorslev 'k' Case G (ms^{-1})	CIRIA 113 'k' (ms^{-1})
0	0.058	0.942				
100	0.103	0.897	0.920		1.63E-06	9.16E-06
500	0.221	0.779	0.838		1.25E-06	6.59E-06
1000	0.288	0.712	0.745		6.82E-07	3.29E-06
1500	0.322	0.678	0.695		3.88E-07	1.79E-06
2000	0.348	0.652	0.665		3.30E-07	1.47E-06
2500	0.372	0.628	0.640		3.10E-07	1.35E-06
3000	0.391	0.609	0.619		2.60E-07	1.10E-06
3500	0.408	0.592	0.601		2.48E-07	1.03E-06
4000	0.424	0.576	0.584		2.55E-07	1.04E-06

CMW Geosciences	CLIENT: **Colliers Project Leaders**	DESIGNER:	PT
	PROJECT: **Southern Links Industrial Block**	CHECKED:	MM
		REVISION:	0
	TITLE: **SO2 Falling Head Permeability Test**	DATE:	6/03/2026
		PROJECT:	HAM2024-0120

Specifications - Open-Ended Tube

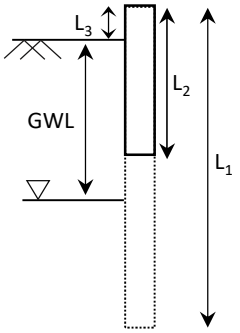
Length L_1:	1	m
Diameter:	90	mm
Non-Perm L_2:	0	m
Above Gnd L_3:	0	m

Ground Conditions

GWL: m BGL (Blank = Bottom of hole)

Permeability Anisotropy m: 1 $m = \sqrt{k_h / k_v}$

Bottom of Test Hole: 1.00 m BGL



Hydraulic Conductivity (k)

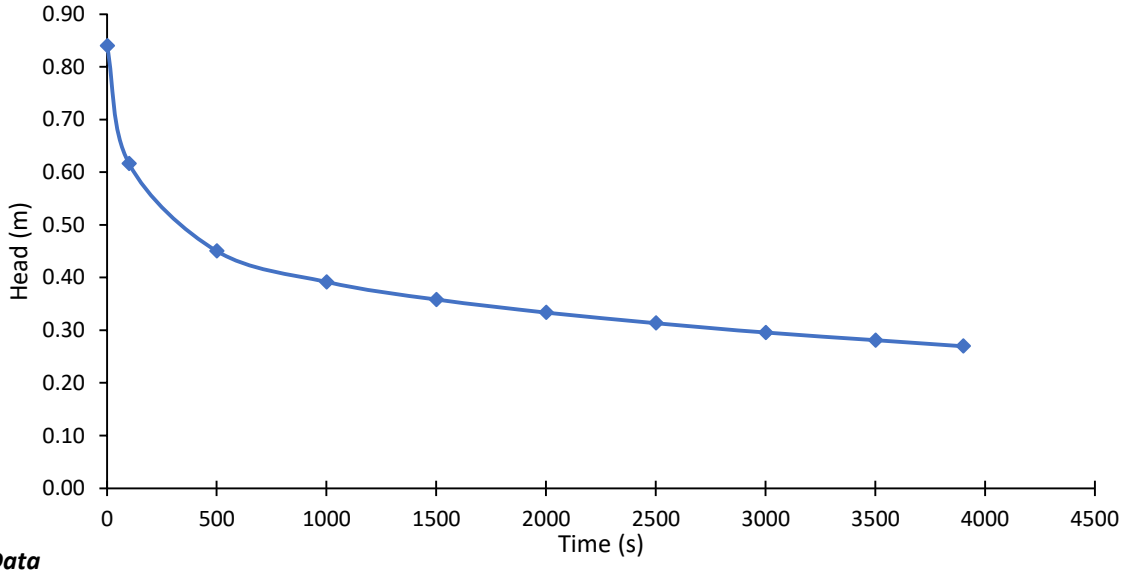
Note: CMW considers the CIRIA 113 value the most appropriate method for most purposes, but also provides the analysis method as outlined by Hvorslev if desired.

CIRIA 113: Somerville (1986), *Control of groundwater for temporary works,* CIRIA Report 113, Appendix 4

$$k = \left(log\frac{h_1}{h_2} - log\frac{2h_1 + d}{2h_2 + d} \right) . \frac{(h_1 + h_2)}{2(t_2 - t_1)} =$$ 1.00E-05 ms^{-1} = 0.87 m/day

Hvorslev: Hvorslev (1951) *Time Lag and Soil Permeability in Ground-Water Observations* , Fig 18, p49

$$k = \frac{d^2 \, ln\left(\frac{mL}{d} + \sqrt{\left(\frac{mL}{d}\right)^2 + 1} \right)}{8L(t_2 - t_1)} ln\frac{H_1}{H_2} =$$ 2.44E-06 ms^{-1} = 0.21 m/day



STRATIGRAPHIC LOG

Silt

EOH @ 1m

Data

Time (s)	Tape Avg (m)	Head (m)	Perm. Length (m)		Hvorslev 'k' Case G (ms^{-1})	CIRIA 113 'k' (ms^{-1})
0	0.160	0.840				
100	0.384	0.616	0.728		1.20E-05	5.78E-05
500	0.550	0.451	0.533		3.69E-06	1.43E-05
1000	0.608	0.392	0.421		1.51E-06	4.96E-06
1500	0.642	0.358	0.375		1.03E-06	3.11E-06
2000	0.666	0.334	0.346		8.49E-07	2.44E-06
2500	0.686	0.314	0.324		7.70E-07	2.12E-06
3000	0.704	0.296	0.305		7.68E-07	2.04E-06
3500	0.719	0.281	0.288		6.60E-07	1.69E-06
3900	0.730	0.270	0.276		6.86E-07	1.71E-06

CMW Geosciences	CLIENT: **Colliers Project Leaders**	DESIGNER:	PT
	PROJECT: **Southern Links Industrial Block**	CHECKED:	MM
		REVISION:	0
	TITLE: **SO3 Falling Head Permeability Test**	DATE:	6/03/2026
		PROJECT:	HAM2024-0120

Specifications - Open-Ended Tube

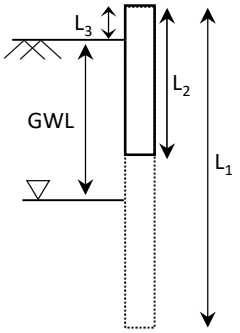
Length L_1:	2	m
Diameter:	90	mm
Non-Perm L_2:	0	m
Above Gnd L_3:	0	m

Ground Conditions

GWL: m BGL (Blank = Bottom of hole)

Permeability Anisotropy m: 1 $m = \sqrt{k_h / k_v}$

Bottom of Test Hole: 2.00 m BGL



Hydraulic Conductivity (k)

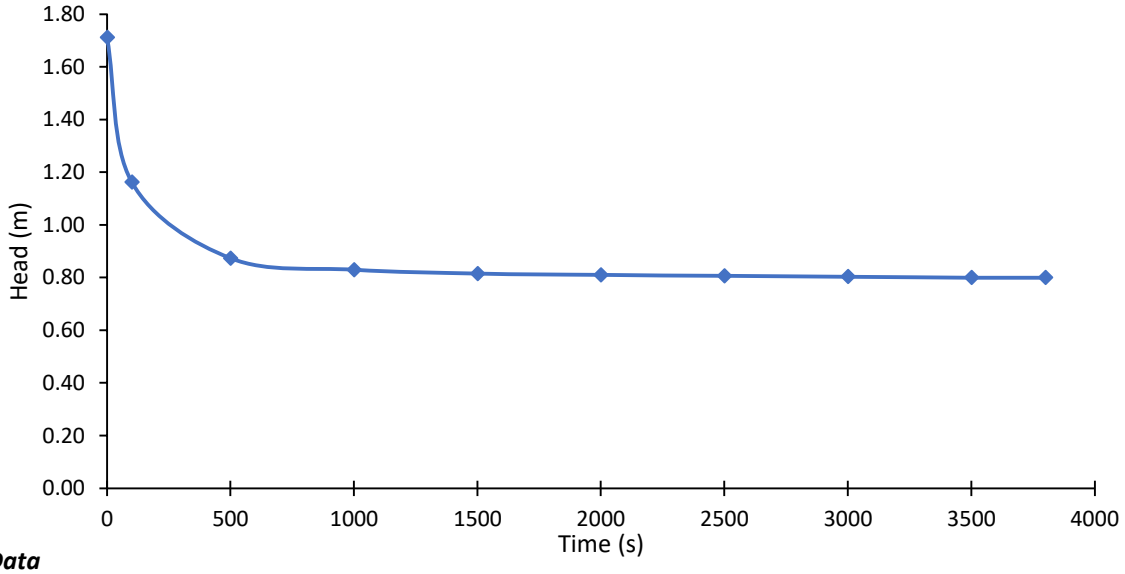
Note: CMW considers the CIRIA 113 value the most appropriate method for most purposes, but also provides the analysis method as outlined by Hvorslev if desired.

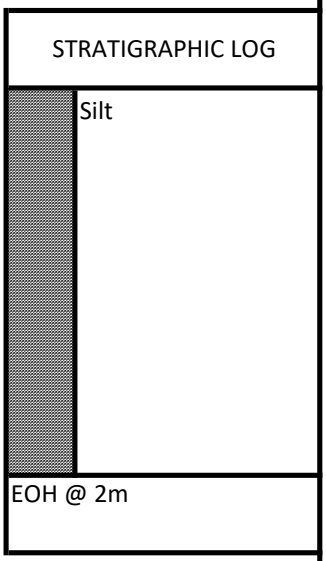
CIRIA 113: Somerville (1986), *Control of groundwater for temporary works,* CIRIA Report 113, Appendix 4

$$k = \left(log\frac{h_1}{h_2} - log\frac{2h_1 + d}{2h_2 + d} \right) . \frac{(h_1 + h_2)}{2(t_2 - t_1)} =$$ 1.02E-05 ms^{-1} = 0.88 m/day

Hvorslev: Hvorslev (1951) *Time Lag and Soil Permeability in Ground-Water Observations* , Fig 18, p49

$$k = \frac{d^2 \, ln\left(\frac{mL}{d} + \sqrt{\left(\frac{mL}{d}\right)^2 + 1} \right)}{8L(t_2 - t_1)} ln\frac{H_1}{H_2} =$$ 1.36E-06 ms^{-1} = 0.12 m/day





Data

Time (s)	Tape Avg (m)	Head (m)	Perm. Length (m)		Hvorslev 'k' Case G (ms^{-1})	CIRIA 113 'k' (ms^{-1})
0	0.289	1.711				
100	0.837	1.163	1.437		9.44E-06	7.50E-05
500	1.127	0.873	1.018		2.22E-06	1.36E-05
1000	1.171	0.830	0.851		3.61E-07	1.92E-06
1500	1.185	0.815	0.822		1.23E-07	6.35E-07
2000	1.190	0.810	0.813		4.80E-08	2.46E-07
2500	1.194	0.807	0.808		3.14E-08	1.60E-07
3000	1.197	0.804	0.805		2.71E-08	1.38E-07
3500	1.200	0.800	0.802		3.18E-08	1.62E-07
3800	1.200	0.800	0.800		3.04E-09	1.54E-08

CMW Geosciences
Great People | Practical Solutions

USING YOUR CMW GEOTECHNICAL REPORT

Geotechnical reporting relies on interpretation of facts and collected information using experience, professional judgement, and opinion. As such it generally has a level of uncertainty attached to it, which is often far less exact than other engineering design disciplines. The notes below provide general advice on what can be reasonably expected from your report and the inherent limitations of a geotechnical report.

Preparation of your report

Your geotechnical report has been written for your use on your project. The contents of your report may not meet the needs of others who may have different objectives or requirements. The report has been prepared using generally accepted Geotechnical Engineering and Engineering Geology practices and procedures. The opinions and conclusions reached in your report are made in accordance with these accepted principles. Specific items of geotechnical or geological importance are highlighted in the report.

In producing your report, we have relied on the information which is referenced or summarised in the report. If further information becomes available or the nature of your project changes, then the findings in this report may no longer be appropriate. In such cases the report must be reviewed, and any necessary changes must be made by us.

Your geotechnical report is based on your project's requirements

Your geotechnical report has been developed based on your specific project requirements and only applies to the site in this report. Project requirements could include the type of works being undertaken; project locality, size and configuration; the location of any structures on or around the site; the presence of underground utilities; proposed design methodology; the duration or design life of the works; and construction method and/or sequencing.

The information or advice in your geotechnical report should not be applied to any other project given the intrinsic differences between different projects and site locations. Similarly geotechnical information, data and conclusions from other sites and projects may not be relevant or appropriate for your project.

Interpretation of geotechnical data

Site investigations identify subsurface conditions at discrete locations. Additional geotechnical information (e.g. literature and external data source review, laboratory testing etc) are interpreted by Geologists or Engineers to provide an opinion about a site specific ground models, their likely impact on the proposed development and recommended actions. Actual conditions may differ from those inferred to exist due to the variability of geological environments. The actual interface between materials may be far more gradual or abrupt than assumed based on the facts obtained. Nothing can be done to change the actual site conditions which exist, but steps can be taken to reduce the impact of unexpected conditions. Interpretation of factual data can be influenced by design and/or construction methods. Where these methods change review of the interpretation in the report may be required.

Subsurface conditions can change

Subsurface conditions are created by natural processes and then can be altered anthropically or over time. For example, groundwater levels can vary with time or activities adjacent to your site, fill may be placed on a site, or the consistency of near surface conditions might be susceptible to seasonal changes. The report is based on conditions which existed at the time of investigation. It is important to confirm whether conditions may have changed, particularly when large periods of time have elapsed since the investigations were performed.

Interpretation and use by other design professionals

Costly problems can occur when other design professionals develop their plans based on misinterpretations of a geotechnical report. To help avoid misinterpretations, it is important to retain the assistance of CMW to work with other project design professionals who are affected by the contents of your report. CMW staff can explain the report implications to design professionals and then review design plans and specifications to see that they have correctly incorporated the findings of this report.

Your report's recommendations require confirmation during construction

Your report is based on site conditions as revealed through selective point sampling. Engineering judgement is then applied to assess how indicative of actual conditions throughout an area the point sampling might be. Any assumptions made cannot be substantiated until construction is complete. For this reason, you should retain geotechnical services throughout the construction stage, to identify variances from previous assumption, conduct additional tests if required and recommend solutions to problems encountered on site.

A Geotechnical Engineer, who is fully familiar with the site and the background information, can assess whether the report's recommendations remain valid and whether changes should be considered as the project develops. An unfamiliar party using this report increases the risk that the report will be misinterpreted.

Environmental Matters Are Not Covered

Unless specifically discussed in your report environmental matters are not covered by a CMW Geotechnical Report. Environmental matters might include the level of contaminants present of the site covered by this report, potential uses or treatment of contaminated materials or the disposal of contaminated materials. These matters can be complex and are often governed by specific legislation.

The personnel, equipment, and techniques used to perform an environmental study can differ significantly from those used in this report. For that reason, our report does not provide environmental recommendations. Unanticipated subsurface environmental problems can have large consequences for your site. If you have not obtained your own environmental information about the project site, ask your CMW contact about how to find environmental risk-management guidance.

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