Appendix B
Levelton TMEP “Enhanced FEED Study” Geotechnical Foreshore Investigation - Findings Report Westridge Loading Facility, Burnaby, BC, April 7, 2015

LEVELTON CONSULTANTS LTD.
150-12791 Clarke Place
Richmond, BC V6V 2H9
T: 604.278.1411 F: 604.278.1042
info@levelton.com
www.levelton.com

April 07, 2015

Levelton File # R713-1879-00

CH2M Hill
Metrotower II, Suite 2100
4720 Kingsway Avenue
Burnaby, BC V5H 4N2

Attention: Mr. Mark Clarke, P.Eng.

Project: Trans Mountain Expansion Project (TMEP) – "Enhanced FEED Study"
Subject: Geotechnical Foreshore Investigation – Findings Report
Westridge Loading Facility, Burnaby, BC

1.0 INTRODUCTION & PROJECT DESCRIPTION

This letter is the Levelton Consultants Ltd. (Levelton) findings report that contains the results of the recent geotechnical investigation undertaken in the foreshore area at the Kinder Morgan Westridge facility as part of the TMEP Enhanced FEED study.

The TMEP development at Westridge will involve the construction of new infrastructure to expand the shiploading capabilities of the facility. The design for the facility expansion is not finalized, but will include new ship berthing facilities and loading infrastructure on the "marine-side", and new piping, manifolds, processing equipment, and some small new storage tanks on the "land-side" of the project. Levelton has recently completed a preliminary geotechnical subsurface investigation programme for the land-side portion of the project based on a proposed filling-type option for the expansion and improvement of the foreshore, which was the proposed development option being considered at the time of the investigation. A summary of the preliminary geotechnical investigation is presented in this findings report, which includes the detailed soil logs and test results from the investigation. Engineering review and assessment will be presented in a future report under a separate cover.

The geotechnical subsurface investigation programme included two types of geotechnical test holes: sonic drill holes completed to obtain information regarding soil stratigraphy and also to allow for the collection of soil samples, and seismic cone penetration tests (SCPTs) to obtain information (where possible) in potentially liquefiable soil deposits. The majority of the sonic drill holes were completed at various locations along the

foreshore, with a few holes completed on the nearby slopes, while the SCPTs were completed at some of the sonic drill hole locations along the foreshore only. Table 1 below summarizes the type, numbers, and general distribution of the test holes completed during the geotechnical investigation.

Table 1: Summary of Completed Test Holes

Type of Geotechnical Test Hole	Foreshore Locations	Hillside Locations
Sonic Drill Hole	12	2
Seismic Cone Penetration Test	10	---

The ***sonic drill holes*** were completed using a track-mounted sonic drill rig (owned and operated by Mud Bay Drilling Company Ltd.) that advanced the approximately 200 mm diameter holes to depths of between 11.7 and 21.0 m below ground surface, depending on location and conditions encountered. Soil samples were collected from the continuous return of the drill, and as well, some discrete samples obtained from a split-spoon sampler during Standard Penetration Testing (SPT), which involved advancing the sampler into the ground at select depths using a trip-hammer attached to the drill rig. The ***seismic electronic cone penetration tests*** (SCPTs) were completed using equipment supplied and operated by ConeTec (and mounted on the Mud Bay drill rig). Cone penetration tests were completed at locations and depths where the soils were judged to be of appropriate type and density to allow advancement of the cone, in order to assess the liquefaction potential of those soils. Where such soils were found to be overlain by very dense or obstructive materials (e.g. cobbles, dense overlying fills, etc.), drillout with the Mud Bay sonic rig was completed prior to advancement of the electronic cone. At some locations, it was possible to complete sonic drilling at depths corresponding to the SCPT test depths, in order to allow for the collection of soil samples at those locations and provide a continuous soil profile on the sonic log. However, this was not possible in all cases, and where this occurred, sections of the sonic soil logs do not show any soils information and are marked as “no recovery” (although there is information from the electronic cone penetration tests at the corresponding depths).

Following completion of the sonic drilling and cone penetration testing, the holes were sealed in accordance with provincial Groundwater Regulations, and the collected samples were returned to the Levelton soils and materials laboratory for further classification and testing.

The locations of the sonic drill holes and the SCPTs are as shown on Drawing W1.

2.0 RESULTS OF GEOTECHNICAL SUBSURFACE INVESTIGATION (FEBRUARY, 2015)

The information for the sonic drill holes and the SCPTs should be read together (where applicable), as the information obtained from one method complements the other at any given location. In general, the SCPTs were completed where soil nature and density permitted; however, at most locations, drill-out with the sonic drill at various depths was required. Therefore, gaps appear in both the sonic and SCPT logs, where the other method was utilized. Together, the sonic and SCPT logs combined provide a complete profile to the depth investigated at each location.

2.1. SONIC DRILLING

The results of the sonic drill holes completed during this current phase of the project are shown on the attached test hole logs S-01 through S-14. Note that some gaps are shown on the logs (indicated as "no recovery"); in these zones, SCPT testing was completed without sonic drilling at the corresponding depth.

2.2. ELECTRONIC CONE PENETRATION TESTS

The results of the SCPTs are shown on the attached cone plots and pore pressure dissipation test summary. Note that the electronic cone tests capture a wide variety of information, and therefore, several plots are required for each test location/depth, in order to present all of the findings. An overview description of the plots for this investigation is as follows:

- For each test location and depth, ConeTec provided three plots:
  - A "standard" CPT plot that includes: corrected tip resistance (q_t), sleeve friction (f_s), friction ratio (R_f), and pore pressure (u);
  - An "advanced" plot that includes an interpreted value for undrained shear strength (Su), based on published correlations; and
  - A "seismic" plot that includes values for shear wave velocity (V_s) through the soils at various depths.
- Pore pressure dissipation tests were also completed at select locations and depths. The results of the tests are provided on the attached dissipation curves.

3.0 CLOSURE

The results of the geotechnical investigation presented in this report have been prepared by Levelton Consultants Ltd. for the use of CH2M Hill and Kinder Morgan Canada Inc. for the specified project and scope of work. The attached Terms of Reference are an integral part of the report. Any use of the report by third parties, or any reliance on or decisions made based on it, are the responsibilities of such third parties. Levelton Consultants Ltd. does not accept responsibility for damages suffered, if any, by any third party as a result of their use of this report.

Yours truly,

Levelton Consultants Ltd.

[Original signed by:] **[Original signed by:]**

Per: Carl M. Kelman, P.Eng. Reviewed by: Douglas M. Wallis, P.Eng.

CMK/DMW/mg

Attachment(s): Terms of Reference
Drawing W1
Sonic Test Hole Logs
Electronic Cone Penetration Test Results (Plots and Dissipation Curves)

TERMS OF REFERENCE FOR GEOTECHNICAL REPORTS ISSUED BY LEVELTON CONSULTANTS LTD.

LEVELTON

1. STANDARD OF CARE

Levelton Consultants Ltd. ("Levelton") prepared and issued this geotechnical report (the "Report") for its client (the "Client") in accordance with generally-accepted engineering consulting practices for the geotechnical discipline. No other warranty, expressed or implied, is made. Unless specifically stated in the Report, the Report does not address environmental issues.

The terms of reference for geotechnical reports issued by Levelton (the "Terms of Reference") contained in the present document provide additional information and caution related to standard of care and the use of the Report. The Client should read and familiarize itself with these Terms of Reference.

2. COMPLETENESS OF THE REPORT

All documents, records, drawings, correspondence, data, files and deliverables, whether hard copy, electronic or otherwise, generated as part of the services for the Client are inherent components of the Report and, collectively, form the instruments of professional services (the "Instruments of Professional Services"). The Report is of a summary nature and is not intended to stand alone without reference to the instructions given to Levelton by the Client, the communications between Levelton and the Client, and to any other reports, writings, proposals or documents prepared by Levelton for the Client relative to the specific site described in the Report, all of which constitute the Report.

TO PROPERLY UNDERSTAND THE INFORMATION, OBSERVATIONS, FINDINGS, SUGGESTIONS, RECOMMENDATIONS AND OPINIONS CONTAINED IN THE REPORT, REFERENCE MUST BE MADE TO THE WHOLE OF THE REPORT. LEVELTON CANNOT BE RESPONSIBLE FOR USE BY ANY PARTY OF PORTIONS OF THE REPORT WITHOUT REFERENCE TO THE WHOLE REPORT AND ITS VARIOUS COMPONENTS.

3. BASIS OF THE REPORT

Levelton prepared the Report for the Client for the specific site, development, building, design or building assessment objectives and purpose that the Client described to Levelton. The applicability and reliability of any of the information, observations, findings, suggestions, recommendations and opinions contained in the Report are only valid to the extent that there was no material alteration to or variation from any of the said descriptions provided by the Client to Levelton unless the Client specifically requested Levelton to review and revise the Report in light of such alteration or variation.

4. USE OF THE REPORT

The information, observations, findings, suggestions, recommendations and opinions contained in the Report, or any component forming the Report, are for the sole use and benefit of the Client and the team of consultants selected by the Client for the specific project that the Report was provided. NO OTHER PARTY MAY USE OR RELY UPON THE REPORT OR ANY PORTION OR COMPONENT WITHOUT THE WRITTEN CONSENT OF LEVELTON. Levelton will consent to any reasonable request by the Client to approve the use of this Report by other parties designated by the Client as the "Approved Users". As a condition for the consent of Levelton to approve the use of the Report by an Approved User, the Client must provide a copy of these Terms of Reference to that Approved User and the Client must obtain written confirmation from that Approved User that the Approved User will comply with these Terms of Reference, such written confirmation to be provided separately by each Approved User prior to beginning use of the Report. The Client will provide Levelton with a copy of the written confirmation from an Approved User when it becomes available to the Client, and in any case, within two weeks of the Client receiving such written confirmation.

The Report and all its components remain the copyright property of Levelton and Levelton authorises only the Client and the Approved Users to make copies of the Report, but only in such quantities as are reasonably necessary for the use of the Report by the Client and the Approved Users. The Client and the Approved Users may not give, lend, sell or otherwise disseminate or make the Report, or any portion thereof, available to any party without the written permission of Levelton. Any use which a third party makes of the Report, or any portion of the Report, is the sole responsibility of such third parties. Levelton accepts no responsibility for damages suffered by any third party resulting from the use of the Report. The Client and the Approved Users acknowledge and agree to indemnify and hold harmless Levelton, its officers, directors, employees, agents, representatives or sub-consultants, or any or all of them, against any claim of any nature whatsoever brought against Levelton by any third parties, whether in contract or in tort, arising or related to the use of contents of the Report.

5. INTERPRETATION OF THE REPORT

a. **Nature and Exactness of Descriptions**: The classification and identification of soils, rocks and geological units, as well as engineering assessments and estimates have been based on investigations performed in accordance with the standards set out in Paragraph 1 above. The classification and identification of these items are judgmental in nature and even comprehensive sampling and testing programs, implemented with the appropriate equipment by experienced personnel, may fail to locate some conditions. All investigations or assessments utilizing the standards of Paragraph 1 involve an inherent risk that some conditions will not be detected and all documents or records summarizing such investigations will be based on assumptions of what exists between the actual points sampled. Actual conditions may vary significantly between the points investigated and all persons making use of such documents or records should be aware of, and accept, this risk. Some conditions are subject to changes over time and the parties making use of the Report should be aware of this possibility and understand that the Report only presents the conditions at the sampled points at the time of sampling. Where special concerns exist, or when the Client has special considerations or requirements, the Client must disclose them to Levelton so that additional or special investigations may be undertaken, which would not otherwise be within the scope of investigations made by Levelton or the purposes of the Report.

b. **Reliance on information**: The evaluation and conclusions contained in the Report have been prepared on the basis of conditions in evidence at the time of site investigation and field review and on the basis of information provided to Levelton. Levelton has relied in good faith upon representations, information and instructions provided by the Client and others concerning the site. Accordingly, Levelton cannot accept responsibility for any deficiency, misstatement or inaccuracy contained in the report as a result of misstatements, omissions, misrepresentations or fraudulent acts of persons providing information.

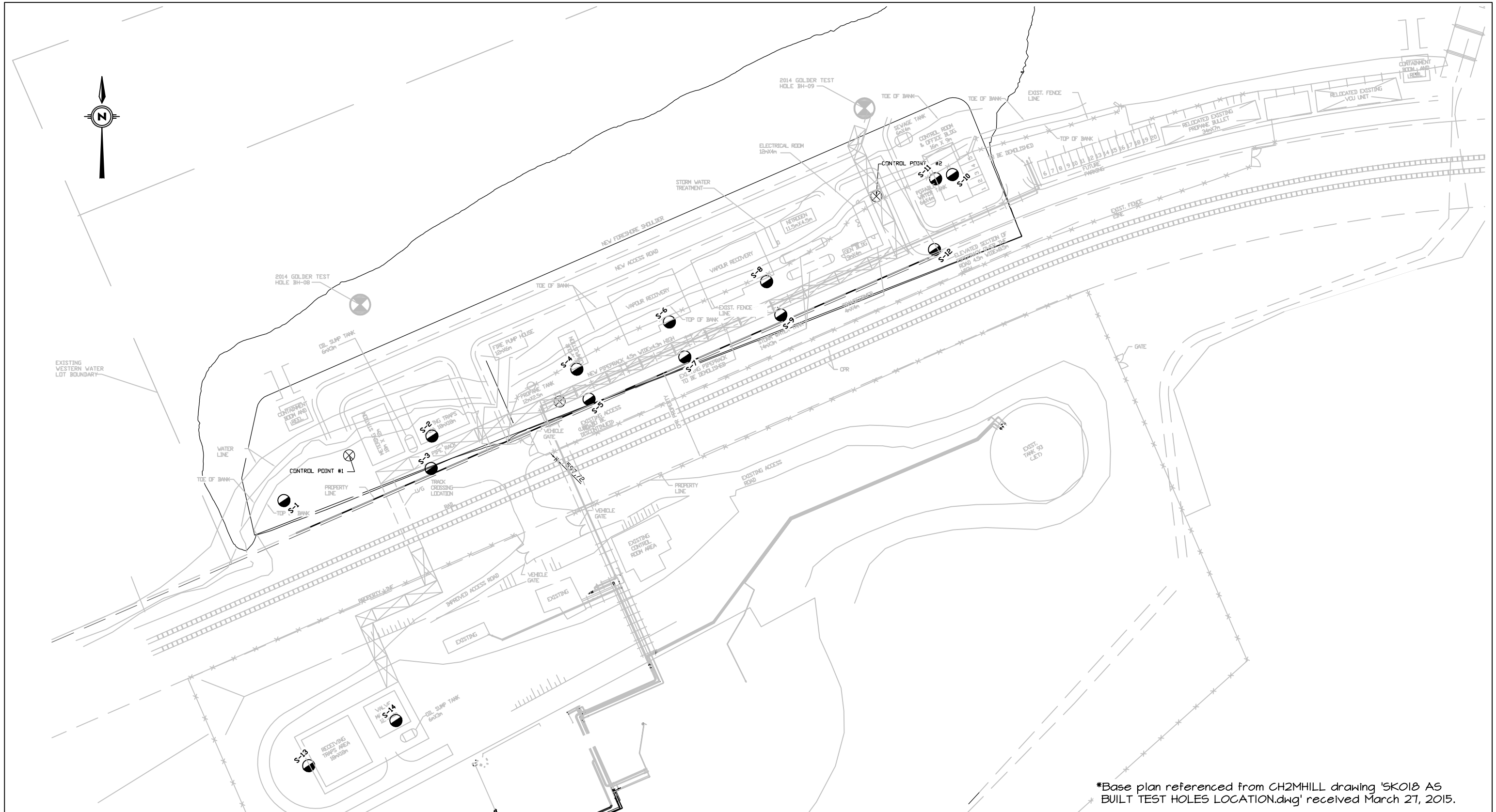
c. **Additional Involvement by Levelton**: To avoid misunderstandings, Levelton should be retained to assist other professionals to explain relevant engineering findings and to review the geotechnical aspects of the plans, drawings and specifications of other professionals relative to the engineering issues pertaining to the geotechnical consulting services provided by Levelton. To ensure compliance and consistency with the applicable building codes, legislation, regulations, guidelines and generally-accepted practices, Levelton should also be retained to provide field review services during the performance of any related work. Where applicable, it is understood that such field review services must meet or exceed the minimum necessary requirements to ascertain that the work being carried out is in general conformity with the recommendations made by Levelton. Any reduction from the level of services recommended by Levelton will result in Levelton providing qualified opinions regarding adequacy of the work.

6. ALTERNATE REPORT FORMAT

When Levelton submits both electronic and hard copy versions of the Instruments of Professional Services, the Client agrees that only the signed and sealed hard copy versions shall be considered final and legally binding upon Levelton. The hard copy versions submitted by Levelton shall be the original documents for record and working purposes, and, in the event of a dispute or discrepancy, the hard copy versions shall govern over the electronic versions; furthermore, the Client agrees and waives all future right of dispute that the original hard copy signed and sealed versions of the Instruments of Professional Services maintained or retained, or both, by Levelton shall be deemed to be the overall originals for the Project.

The Client agrees that the electronic file and hard copy versions of Instruments of Professional Services shall not, under any circumstances, no matter who owns or uses them, be altered by any party except Levelton. The Client warrants that the Instruments of Professional Services will be used only and exactly as submitted by Levelton.

The Client recognizes and agrees that Levelton prepared and submitted electronic files using specific software or hardware systems, or both. Levelton makes no representation about the compatibility of these files with the current or future software and hardware systems of the Client, the Approved Users or any other party. The Client further agrees that Levelton is under no obligation, unless otherwise expressly specified, to provide the Client, the Approved Users and any other party, or any or all of them, with specific software and hardware systems that are compatible with any electronic submitted by Levelton. The Client further agrees that should the Client, an Approved User or a third party require Levelton to provide specific software or hardware systems, or both, compatible with the electronic files prepared and submitted by Levelton, for any reason whatsoever included but not restricted to an order from a court, then the Client will pay Levelton for all reasonable costs related to the provision of the specific software or hardware systems, or both. The Client further agrees to indemnify and hold harmless Levelton, its officers, directors, employees, agents, representative or sub-consultant, or any or all of them, against any claim or any nature whatsoever brought against Levelton, whether in contract or in tort, arising or related to the provision or use or any specific software or hardware provided by Levelton.



*Base plan referenced from CH2MHILL drawing 'SK018 AS BUILT TEST HOLES LOCATION.dwg' received March 27, 2015.

LEGEND

◕ APPROXIMATE LOCATION OF SONIC DRILL HOLE

NOTE:
THIS DRAWING IS THE SOLE PROPERTY OF LEVELTON CONSULTANTS LTD. AND CANNOT BE USED OR DUPLICATED IN ANY WAY WITHOUT EXPRESS WRITTEN PERMISSION

No.	DRAWN	DATE	REVISIONS/ISSUE

LEVELTON

Levelton Consultants Ltd.

150-12791 Clarke Place
Richmond, B.C.

Tel: 604 278-1411
Fax: 604 278-1042

PROJECT: TEST HOLE LOCATION PLAN

TMEP ENHANCED FEED STUDY
WESTRIDGE TERMINAL, BURNABY, BC

CLIENT: KINDER MORGAN CANADA INC.

DESIGNED	
DRAWN	KTD
REVIEWED	CMK
SCALE	1:1250
DATE	APR. 2015
FILE NUMBER	R713-1879-00
DRAWING NUMBER	W1
REV.	-

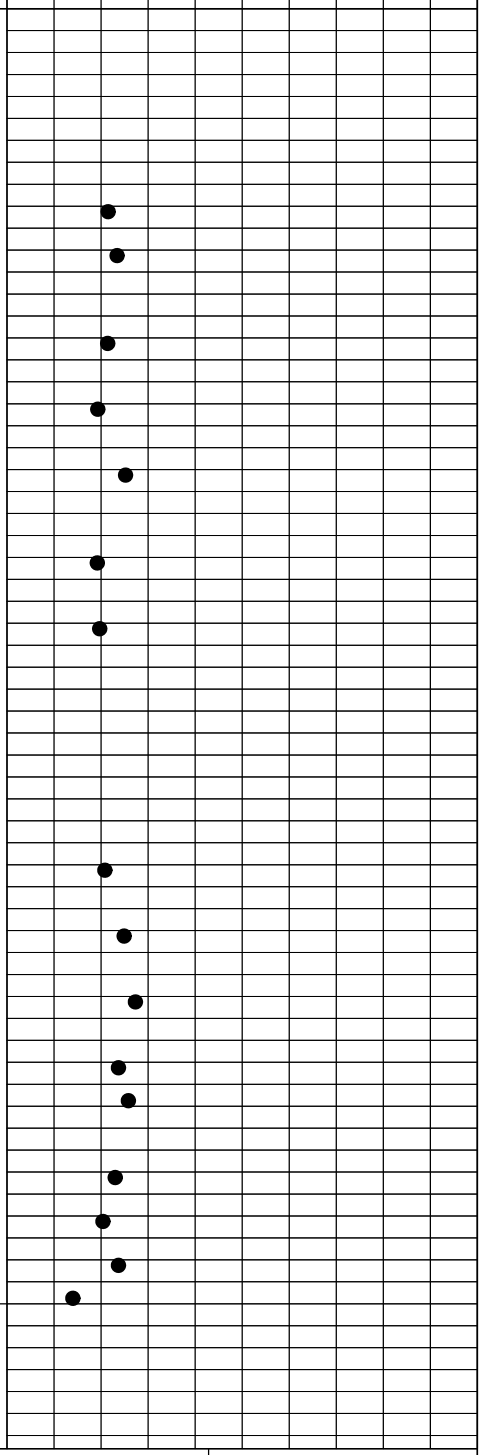
Levelton Consultants Ltd.
#150 - 12791 Clarke Place
Richmond, B.C., V6V 2H9
Tel: 604-278-1411
Fax: 604-278-1042
www.levelton.com

Kinder Morgan Westridge Terminal
Burnaby, BC
TMEP Enhanced FEED Study

S-01

Project No: R713-1879-00

Depth (m)	Depth (ft)	Description	C	N	Type	Water Level
		FILL - br. Sand, Gravel and Boulders (greater than 2 ft. dia.), some cobbles, some metal				
2	5				G	
	10	FILL - gr. sandy Silt, some gravel			G	
					G	
4		FILL - soft gr. Silt, some sand				
	15				G	
		FILL - gr. gravelly silty Sand (Till Fill)			G	
6	20				G	
		FILL - soft gr. sandy Silt, some gravel, some wood at 23 ft. metal wire at 27 ft.				
	25				G	
8					G	
	30				G	
		FILL - gr. silty Sand, metal wire at 30 ft.			G	
10					G	
	35				G	
		Compact to dense gr. SAND, some gravel, some cobbles, some shells				
12	40			12/3.5" (rock)	SPT	
		Very stiff gr. sandy SILT (Glaciated)			G	
		Very stiff gr. SILT, some fine sand (Glaciated)				
14	45				G	
					G	
	50	Hard gr. SILT, some clay (Glaciated)		47	SPT	
16					G	
	55				G	
					G	
18					G	
	60	Bottom of hole at 59.0 feet.				
	65					



C: Condition of Sample
Good
Disturbed
No Recovery

Type: Type of Sampler
SPT : 2 in. standard
ST : Shelby
FP : Fixed Piston
G : Grab
CORE

N: Number of Blows
WH : Weight of Hammer
WR : Weight of Rod
Standard Penetration Test : ASTM D1586
Hammer Type:

- Moisture Content %
- Plastic Limit %
- Liquid Limit %
- Ground Water Level
- Shear strength in kPa (Torvane or Penetrometer)
- Shear strength in kPa (Unconfined)
- Shear strength in kPa (field vane)
- Remolded strength in kPa
- Percent Passing # 200 sieve

Drill Method: Sonic
Date Drilled: 23/02/2015
By: ABC

THIS LOG IS FOR GEOTECHNICAL PURPOSES ONLY
THIS LOG IS THE SOLE PROPERTY OF LEVELTON CONSULTANTS LTD AND CANNOT BE USED OR DUPLICATED IN ANY WAY WITHOUT EXPRESS WRITTEN PERMISSION.

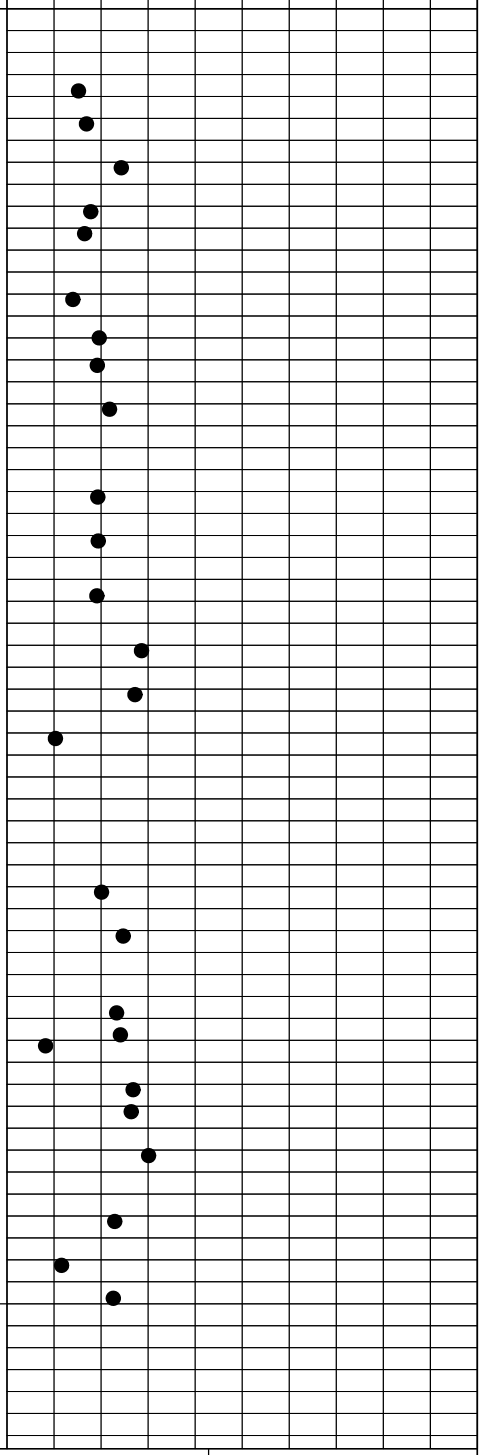
Levelton Consultants Ltd.
#150 - 12791 Clarke Place
Richmond, B.C., V6V 2H9
Tel: 604-278-1411
Fax: 604-278-1042
www.levelton.com

Kinder Morgan Westridge Terminal
Burnaby, BC
TMEP Enhanced FEED Study

S-02

Project No: R713-1879-00

Depth (m)	Depth (ft)	Description	C	N	Type	Water Level
		FILL - br. silty sandy Gravel				
		FILL - gr. sandy Silt, some gravel, some boulders			G	
					G	
	5				G	
2					G	
					G	
	10				G	
4		FILL - hard gr. Silt, some sand			G	
	15	FILL - firm gr. sandy Silt, some gravel, clayey below 16 ft.		7	SPT	
					G	
					G	
6	20					
					G	
	25				G	
8		FILL - gr. silty Sand			G	
		FILL - gr. Silt				
	30	Compact gr. silty SAND, some shells			G	
					G	
10		Gr. layered sandy SILT and SAND mixed with shells			G	
	35	Very stiff to hard gr. SILT, some fine sand (Glaciated)				
12	40				G	
					G	
	45					
14					G	
		Dense gr. sandy SILT, some gravel (Glacial Till)			G	
		Hard gr. SILT, some clay, trace fine sand (Glaciated)		59	SPT	
	50				G	
16					G	
	55				G	
		Dense grey sandy SILT, some gravel, some clay (Glacial Till)			G	
18	60	Hard grey clayey SILT (Glaciated)			G	
		Bottom of hole at 59.0 feet.				
	65					



C: Condition of Sample
- Good
- Disturbed
- No Recovery

Type: Type of Sampler
- SPT : 2 in. standard
- ST : Shelby
- FP : Fixed Piston
- G : Grab
- CORE

N: Number of Blows
- WH : Weight of Hammer
- WR : Weight of Rod
- Standard Penetration Test : ASTM D1586
- Hammer Type:

- ● Moisture Content %
- Plastic Limit %
- Liquid Limit %
- Ground Water Level
- Shear strength in kPa (Torvane or Penetrometer)
- X Shear strength in kPa (Unconfined)
- ⊗ Shear strength in kPa (field vane)
- ⊠ Remolded strength in kPa
- ■ Percent Passing # 200 sieve

Drill Method: Sonic

Date Drilled: 24/02/2015

By: ABC

THIS LOG IS FOR GEOTECHNICAL PURPOSES ONLY
THIS LOG IS THE SOLE PROPERTY OF LEVELTON CONSULTANTS LTD AND CANNOT BE USED OR DUPLICATED IN ANY WAY WITHOUT EXPRESS WRITTEN PERMISSION.

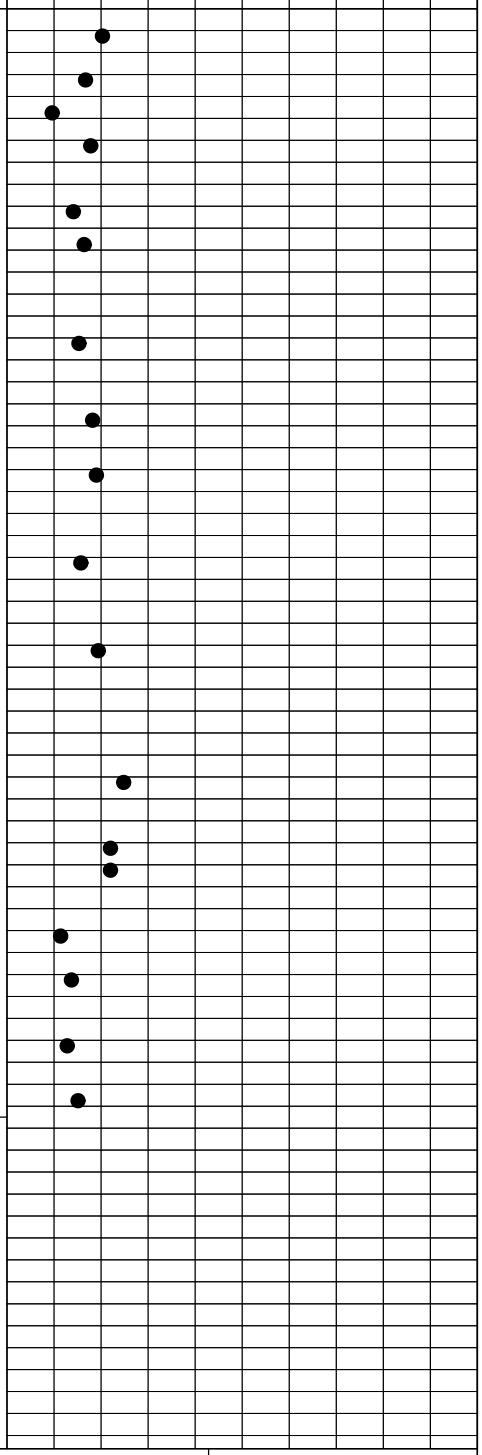
Levelton Consultants Ltd.
#150 - 12791 Clarke Place
Richmond, B.C., V6V 2H9
Tel: 604-278-1411
Fax: 604-278-1042
www.levelton.com

Kinder Morgan Westridge Terminal
Burnaby, BC
TMEP Enhanced FEED Study

S-03

Project No: R713-1879-00

Depth (m)	Depth (ft)	Description	C	N	Type	Water Level
		FILL - br. clayey Silt, some gravel, some sand			G	
		FILL - br. sandy Silt, some clay, some gravel, some wood			G	
	5	FILL - gr. Silt, some clay			G	
2					G	
		FILL - gr. clayey Silt, some fine sand, some gravel				
	10				G	
					G	
4						
	15				G	
6	20				G	
					G	
	25					
8		FILL - gr. silty Sand and Gravel			G	
		FILL - gr. Silt, some clay				
	30	Gr. SAND mixed with shells, some gravel, some silt			G	
					G	
10		Very stiff gr. SILT (Glaciated)				
	35				G	
		Hard gr. SILT (Glaciated)				
					G	
12	40			75	SPT	
		Dense gr. sandy SILT, some gravel (Glacial Till)				
					G	
		Hard gr. SILT (Glaciated)				
	45				G	
14		Very dense gr. fine SAND and SILT (Glaciated)				
					G	
		Hard grey SILT, some fine sand (Glaciated)				
	50			97	SPT	
16		Bottom of hole at 50.5 feet.				
	55					
18						
	60					
	65					



C: Condition of Sample
Good
Disturbed
No Recovery

Type: Type of Sampler
SPT : 2 in. standard
ST : Shelby
FP : Fixed Piston
G : Grab
CORE

N: Number of Blows
WH : Weight of Hammer
WR : Weight of Rod
Standard Penetration Test : ASTM D1586
Hammer Type:

- Moisture Content %
- Plastic Limit %
- Liquid Limit %
- Ground Water Level
- Shear strength in kPa (Torvane or Penetrometer)
- Shear strength in kPa (Unconfined)
- Shear strength in kPa (field vane)
- Remolded strength in kPa
- Percent Passing # 200 sieve

Drill Method: Sonic
Date Drilled: 24/02/2015
By: ABC

THIS LOG IS FOR GEOTECHNICAL PURPOSES ONLY
THIS LOG IS THE SOLE PROPERTY OF LEVELTON CONSULTANTS LTD AND CANNOT BE USED OR DUPLICATED IN ANY WAY WITHOUT EXPRESS WRITTEN PERMISSION.

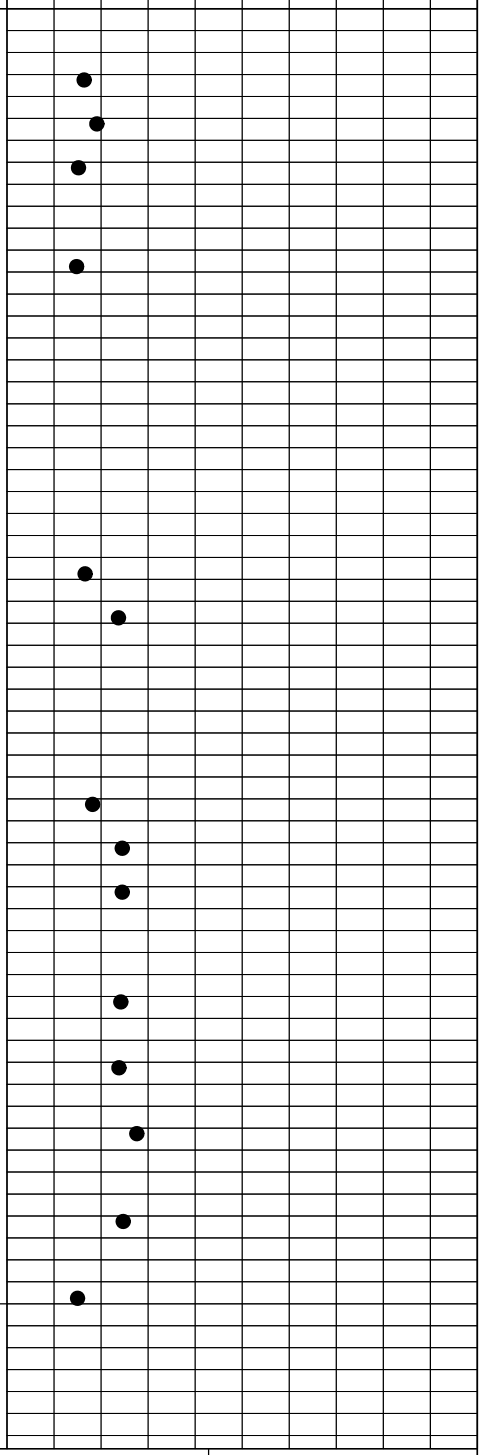
Levelton Consultants Ltd.
#150 - 12791 Clarke Place
Richmond, B.C., V6V 2H9
Tel: 604-278-1411
Fax: 604-278-1042
www.levelton.com

Kinder Morgan Westridge Terminal
Burnaby, BC
TMEP Enhanced FEED Study

S-04

Project No: R713-1879-00

Depth (m)	Depth (ft)	Description	C	N	Type	Water Level
		FILL - gr. sandy gravelly Silt and Boulders, some cobbles			G	
	5				G	
2		FILL - gr. sandy Silt, some gravel			G	
	10				G	
4		No Recovery				
	15					
6	20	FILL - grey silty Sand and Gravel, trace shells			G	
					G	
	25				G	
8		FILL - gr. sandy Silt, trace organics			G	
		Gr. silty SAND, some shells			G	
	30	Gr. coarse SAND mixed with shells, some silt, some cobbles			G	
10					G	
	35	Gr. silty coarse SAND			G	
		Hard grey clayey SILT (Glaciated)			G	
12	40				G	
	45				G	
14					G	
	50				G	
16					G	
	55				G	
		Dense grey coarse SAND, some gravel (Glaciated)			G	
18	60	Dense gr. sandy SILT, some gravel, some cobbles (Glacial Till)			G	
		Bottom of hole at 59.0 feet.				



C: Condition of Sample
- Good
- Disturbed
- No Recovery

Type: Type of Sampler
- SPT : 2 in. standard
- ST : Shelby
- FP : Fixed Piston
- G : Grab
- CORE

N: Number of Blows
- WH : Weight of Hammer
- WR : Weight of Rod
- Standard Penetration Test : ASTM D1586
- Hammer Type:

- ● Moisture Content %
- ► Plastic Limit %
- ◄ Liquid Limit %
- ▼ Ground Water Level
- ∞ Shear strength in kPa (Torvane or Penetrometer)
- X Shear strength in kPa (Unconfined)
- ⊗ Shear strength in kPa (field vane)
- ⊠ Remolded strength in kPa
- ■ Percent Passing # 200 sieve

Drill Method: Sonic

Date Drilled: 18/02/2015

By: ABC

THIS LOG IS FOR GEOTECHNICAL PURPOSES ONLY
THIS LOG IS THE SOLE PROPERTY OF LEVELTON CONSULTANTS LTD AND CANNOT BE USED OR DUPLICATED IN ANY WAY WITHOUT EXPRESS WRITTEN PERMISSION.

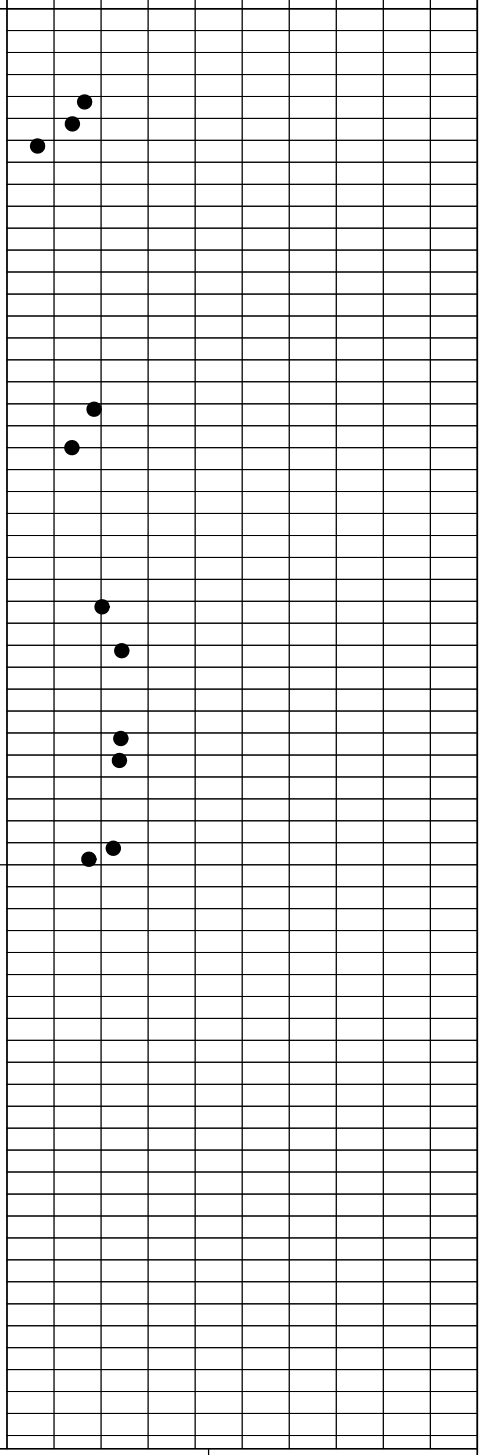
Levelton Consultants Ltd.
#150 - 12791 Clarke Place
Richmond, B.C., V6V 2H9
Tel: 604-278-1411
Fax: 604-278-1042
www.levelton.com

Kinder Morgan Westridge Terminal
Burnaby, BC
TMEP Enhanced FEED Study

S-05

Project No: R713-1879-00

Depth (m)	Depth (ft)	Description	C	N	Type	Water Level
		FILL - br. gravelly Sand, some silt			G	
		FILL - gr. sandy Silt, trace gravel, log at 4'			G	
	5	FILL - dense gr. silty Sand, some gravel			G	
2		FILL - dense gr. Sand and Gravel, some silt, some cobbles, trace shells		48	G SPT	
	10				G	
4						
	15				G	
					G	
6	20	FILL - compact silty Sand, some gravel, some shells (Till Fill)		24	SPT	
	25					
8						
		Gr. silty gravelly SAND, some shells			G	
	30	Very stiff gr. SILT (Glaciated)			G	
10						
	35	Hard gr. clayey SILT (Glaciated)			G G	
					G	
12	40	Hard gr. sandy clayey SILT (Glaciated)			G	
		Bottom of hole at 39.0 feet.				
14	45					
	50					
16						
	55					
18						
	60					
	65					



C: Condition of Sample
Good
Disturbed
No Recovery

Type: Type of Sampler
SPT : 2 in. standard
ST : Shelby
FP : Fixed Piston
G : Grab
CORE

N: Number of Blows
WH : Weight of Hammer
WR : Weight of Rod
Standard Penetration Test : ASTM D1586
Hammer Type:

- ● Moisture Content %
- Plastic Limit %
- Liquid Limit %
- Ground Water Level
- Shear strength in kPa (Torvane or Penetrometer)
- X Shear strength in kPa (Unconfined)
- ⊗ Shear strength in kPa (field vane)
- ⊠ Remolded strength in kPa
- ■ Percent Passing # 200 sieve

Drill Method: Sonic
Date Drilled: 16/02/2015
By: ABC

THIS LOG IS FOR GEOTECHNICAL PURPOSES ONLY
THIS LOG IS THE SOLE PROPERTY OF LEVELTON CONSULTANTS LTD AND CANNOT BE USED OR DUPLICATED IN ANY WAY WITHOUT EXPRESS WRITTEN PERMISSION.

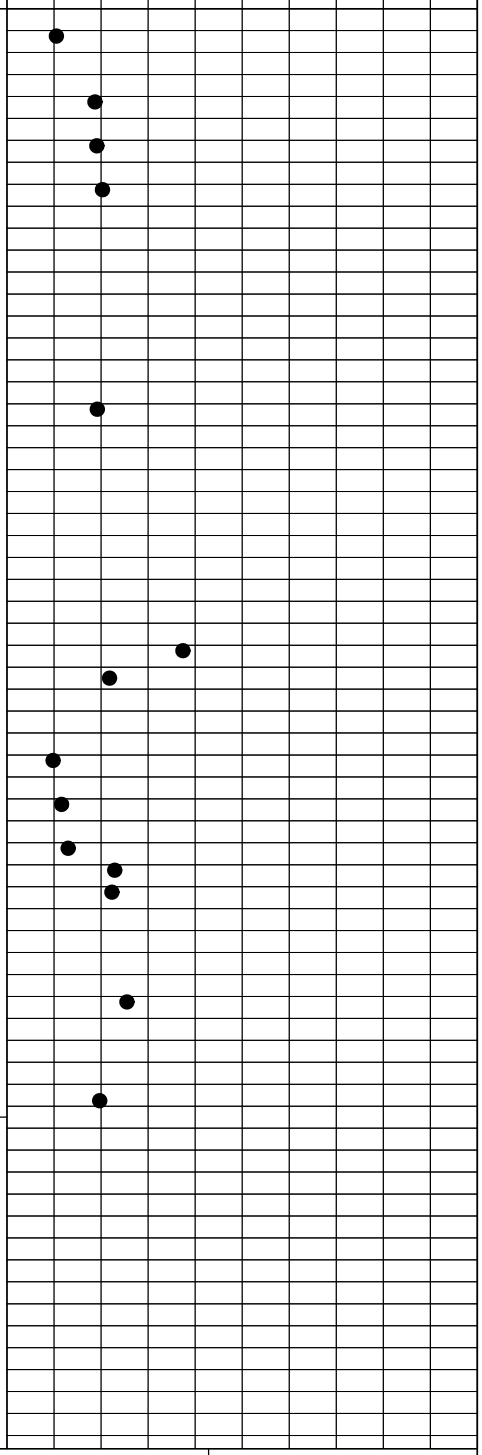
Levelton Consultants Ltd.
#150 - 12791 Clarke Place
Richmond, B.C., V6V 2H9
Tel: 604-278-1411
Fax: 604-278-1042
www.levelton.com

Kinder Morgan Westridge Terminal
Burnaby, BC
TMEP Enhanced FEED Study

S-06

Project No: R713-1879-00

Depth (m)	Depth (ft)	Description	C	N	Type	Water Level
		FILL - gr. sandy Silt, some gravel			G	
		FILL - gr. Silt, some sand to sandy			G	
2	5				G	
		FILL - gr. Silt, some clay, some wood			G	
4	10	No Recovery				
	15					
6	20	FILL - gr. gravelly sandy Silt, some cobbles			G G	
	25					
8	30	Compact gr. silty SAND / sandy SILT, some shells, some wood			G G G	
10		Gr. silty SAND and GRAVEL		18	SPT G	
	35	Dense gr. sandy SILT, some gravel (Glacial Till)			G G G	
12	40	Hard grey SILT, some clay to clayey (Glaciated)			G G	
14	45				G	
	50			27/6" 50/4.5"	SPT	
		Bottom of hole at 50.5 feet.				
16	55					
18	60					
	65					



C: Condition of Sample
Good
Disturbed
No Recovery

Type: Type of Sampler
SPT : 2 in. standard
ST : Shelby
FP : Fixed Piston
G : Grab
CORE

N: Number of Blows
WH : Weight of Hammer
WR : Weight of Rod
Standard Penetration Test : ASTM D1586
Hammer Type:

- Moisture Content %
- Plastic Limit %
- Liquid Limit %
- Ground Water Level
- Shear strength in kPa (Torvane or Penetrometer)
- Shear strength in kPa (Unconfined)
- Shear strength in kPa (field vane)
- Remolded strength in kPa
- Percent Passing # 200 sieve

Drill Method: Sonic
Date Drilled: 23/02/2015
By: ABC

THIS LOG IS FOR GEOTECHNICAL PURPOSES ONLY
THIS LOG IS THE SOLE PROPERTY OF LEVELTON CONSULTANTS LTD AND CANNOT BE USED OR DUPLICATED IN ANY WAY WITHOUT EXPRESS WRITTEN PERMISSION.

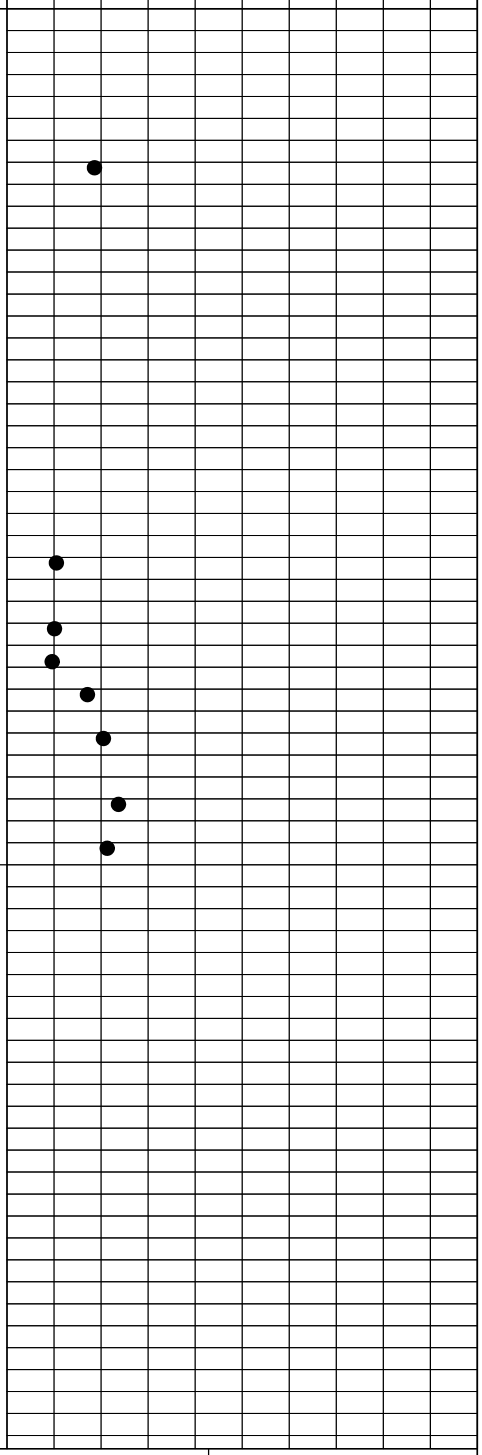
Levelton Consultants Ltd.
#150 - 12791 Clarke Place
Richmond, B.C., V6V 2H9
Tel: 604-278-1411
Fax: 604-278-1042
www.levelton.com

Kinder Morgan Westridge Terminal
Burnaby, BC
TMEP Enhanced FEED Study

S-07

Project No: R713-1879-00

Depth (m)	Depth (ft)	Description	C	N	Type	Water Level
		FILL - loose to compact br. Sand and Gravel				
					G	
	5					
2		FILL - firm to stiff gr. Silt				
					G	
		FILL - br. Sand and Gravel, some cobbles, some silt			G	
	10					
4						
	15					
					G	
6	20			17	SPT	
					G	
		Compact gr. silty SAND and GRAVEL, trace shells				
	25	Dense gr. sandy SILT, some gravel (Glacial Till)			G	
8						
					G	
	30			69	SPT	
		Hard gr. SILT, some clay (Glaciated)			G	
10		Hard gr. clayey SILT (Glaciated)			G	
	35					
					G	
					G	
12	40	Bottom of hole at 39.0 feet.				
	45					
14						
	50					
16						
	55					
18						
	60					
	65					



C: Condition of Sample
Good
Disturbed
No Recovery

Type: Type of Sampler
SPT : 2 in. standard
ST : Shelby
FP : Fixed Piston
G : Grab
CORE

N: Number of Blows
WH : Weight of Hammer
WR : Weight of Rod
Standard Penetration Test : ASTM D1586
Hammer Type:

- Moisture Content %
- Plastic Limit %
- Liquid Limit %
- Ground Water Level
- Shear strength in kPa (Torvane or Penetrometer)
- Shear strength in kPa (Unconfined)
- Shear strength in kPa (field vane)
- Remolded strength in kPa
- Percent Passing # 200 sieve

Drill Method: Sonic
Date Drilled: 19/02/2015
By: ABC

THIS LOG IS FOR GEOTECHNICAL PURPOSES ONLY
THIS LOG IS THE SOLE PROPERTY OF LEVELTON CONSULTANTS LTD AND CANNOT BE USED OR DUPLICATED IN ANY WAY WITHOUT EXPRESS WRITTEN PERMISSION.

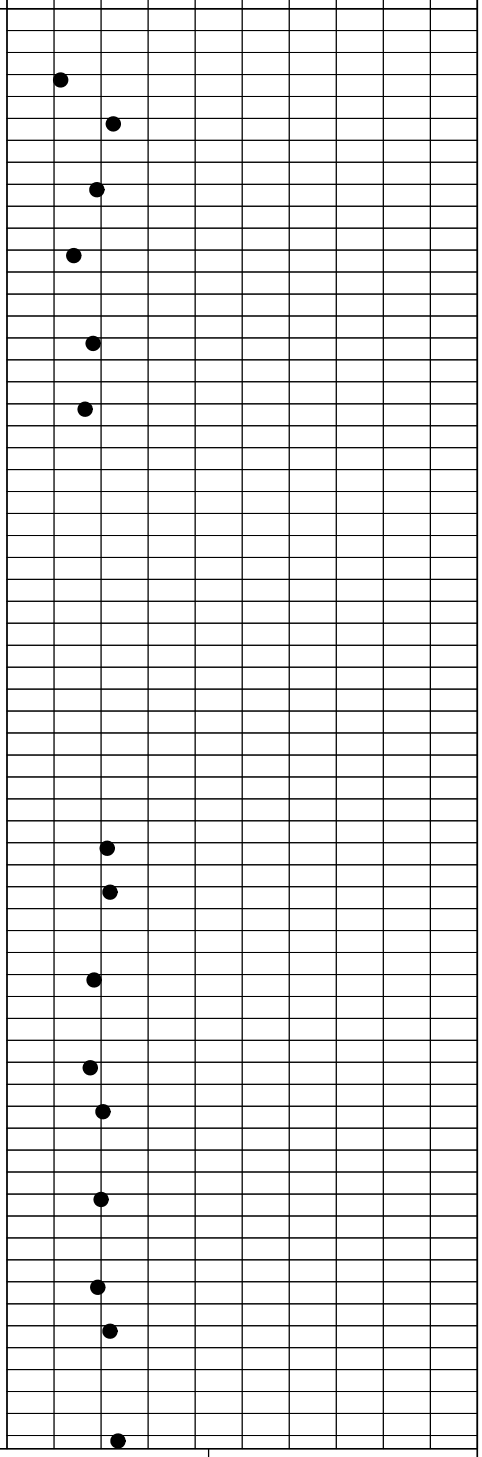
Levelton Consultants Ltd.
#150 - 12791 Clarke Place
Richmond, B.C., V6V 2H9
Tel: 604-278-1411
Fax: 604-278-1042
www.levelton.com

Kinder Morgan Westridge Terminal
Burnaby, BC
TMEP Enhanced FEED Study

S-08

Project No: R713-1879-00

Depth (m)	Depth (ft)	Description	C	N	Type	Water Level
		FILL - br. Sand and Gravel				
		FILL - gr. silty Sand, some gravel			G	
2	5	FILL - gr. layered sandy Silt / Silt, some gravel (Till Fill)			G	
					G	
4	10	FILL - loose gr. sandy Silt, some gravel			G	
	15				G	
					G	
6	20	No Recovery				
8	25					
	30	Loose gr. coarse SAND, some gravel, some silt, trace shells			G	
10					G	
					G	
	35	Compact gr. silty SAND and GRAVEL, trace shells			G	
		Hard gr. SILT, some fine sand (Glaciated)			G	
12	40	Hard gr. SILT, some clay (Glaciated)			G	
14	45				G	
					G	
	50	Hard gr. clayey SILT (Glaciated)			G	
16	55				G	
18					G	
	60				G	
	65				G	



C: Condition of Sample
Good
Disturbed
No Recovery

Type: Type of Sampler
SPT : 2 in. standard
ST : Shelby
FP : Fixed Piston
G : Grab
CORE

N: Number of Blows
WH : Weight of Hammer
WR : Weight of Rod
Standard Penetration Test : ASTM D1586
Hammer Type:

- ● Moisture Content %
- Plastic Limit %
- Liquid Limit %
- Ground Water Level
- Shear strength in kPa (Torvane or Penetrometer)
- X Shear strength in kPa (Unconfined)
- ⊗ Shear strength in kPa (field vane)
- ⊠ Remolded strength in kPa
- ■ Percent Passing # 200 sieve

Drill Method: Sonic
Date Drilled: 17/02/2015
By: ABC

THIS LOG IS FOR GEOTECHNICAL PURPOSES ONLY
THIS LOG IS THE SOLE PROPERTY OF LEVELTON CONSULTANTS LTD AND CANNOT BE USED OR DUPLICATED IN ANY WAY WITHOUT EXPRESS WRITTEN PERMISSION.

Levelton Consultants Ltd.
#150 - 12791 Clarke Place
Richmond, B.C., V6V 2H9
Tel: 604-278-1411
Fax: 604-278-1042
www.levelton.com

Kinder Morgan Westridge Terminal
Burnaby, BC
TMEP Enhanced FEED Study

S-08

Project No: R713-1879-00

Depth (m)	Depth (ft)	Description	C	N	Type	Water Level	10 20 30 40 50 60 70 80 90
		Hard gr. clayey SILT (Glaciated) *(continued)*			G		●
	70	Bottom of hole at 69.0 feet.					
22							
	75						
24							
	80						
26	85						
	90						
28							
	95						
30							
	100						
32	105						
	110						
34							
	115						
36							
	120						
38	125						
	130						

C: Condition of Sample
Good
Disturbed
No Recovery

Type: Type of Sampler
SPT : 2 in. standard
ST : Shelby
FP : Fixed Piston
G : Grab
CORE

N: Number of Blows
WH : Weight of Hammer
WR : Weight of Rod
Standard Penetration Test : ASTM D1586
Hammer Type:

- ● Moisture Content %
- Plastic Limit %
- Liquid Limit %
- Ground Water Level
- Shear strength in kPa (Torvane or Penetrometer)
- X Shear strength in kPa (Unconfined)
- ⊗ Shear strength in kPa (field vane)
- ⊠ Remolded strength in kPa
- ■ Percent Passing # 200 sieve

Drill Method: Sonic
Date Drilled: 17/02/2015
By: ABC

THIS LOG IS FOR GEOTECHNICAL PURPOSES ONLY
THIS LOG IS THE SOLE PROPERTY OF LEVELTON CONSULTANTS LTD AND CANNOT BE USED OR DUPLICATED IN ANY WAY WITHOUT EXPRESS WRITTEN PERMISSION.

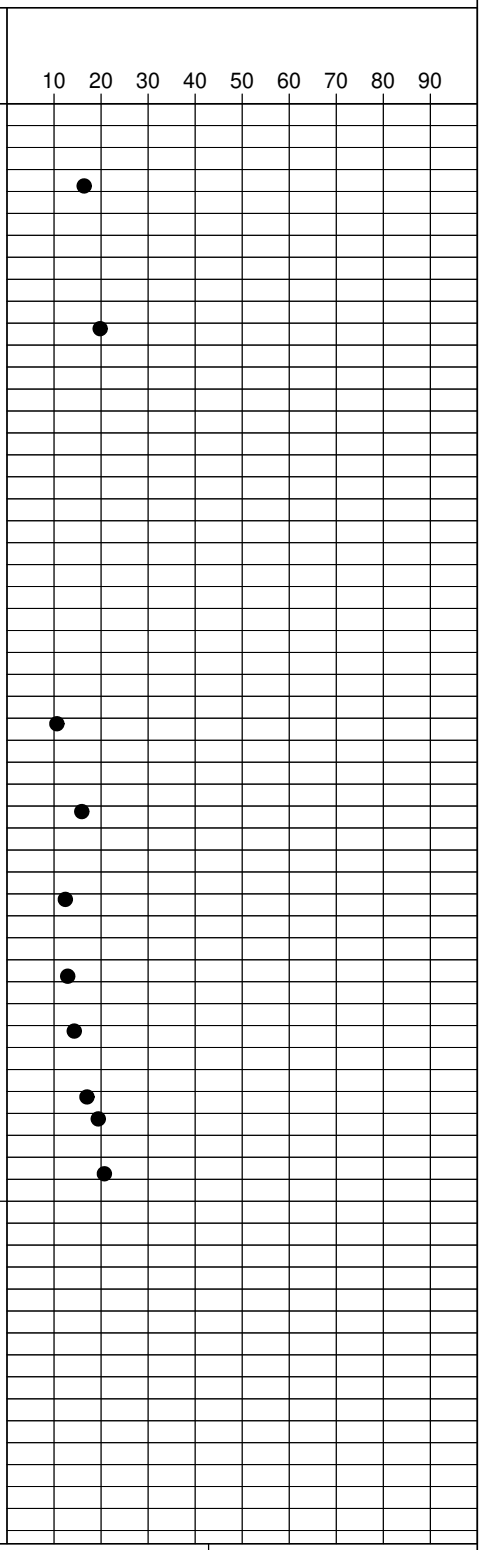
Levelton Consultants Ltd.
#150 - 12791 Clarke Place
Richmond, B.C., V6V 2H9
Tel: 604-278-1411
Fax: 604-278-1042
www.levelton.com

Kinder Morgan Westridge Terminal
Burnaby, BC
TMEP Enhanced FEED Study

S-09

Project No: R713-1879-00

Depth (m)	Depth (ft)	Description	C	N	Type	Water Level
		FILL - br. coarse Sand and Gravel				
		FILL - gr. sandy Silt, some gravel (Till Fill)			G	
					G	
2	5					
	10				G	
		Compact br. coarse SAND and GRAVEL, trace silt, trace shells				
4					G	
	15			21	SPT	
					G	
6	20			14	SPT	
	25				G	
		Hard with depth sandy SILT, some clay				
8					G	
	30					
10					G	
	35					
					SPT	
12	40	Very dense gr. silty SAND (Glaciated)		55	G	
					G	
		Hard gr. clayey SILT, some fine sand (Glaciated)				
14	45				G	
					G	
	50			42	SPT	
		Bottom of hole at 50.0 feet.				
16						
	55					
18						
	60					
	65					



C: Condition of Sample
Good
Disturbed
No Recovery

Type: Type of Sampler
SPT : 2 in. standard
ST : Shelby
FP : Fixed Piston
G : Grab
CORE

N: Number of Blows
WH : Weight of Hammer
WR : Weight of Rod
Standard Penetration Test : ASTM D1586
Hammer Type:

- Moisture Content %
- Plastic Limit %
- Liquid Limit %
- Ground Water Level
- Shear strength in kPa (Torvane or Penetrometer)
- Shear strength in kPa (Unconfined)
- Shear strength in kPa (field vane)
- Remolded strength in kPa
- Percent Passing # 200 sieve

Drill Method: Sonic
Date Drilled: 19/02/2015
By: ABC

THIS LOG IS FOR GEOTECHNICAL PURPOSES ONLY
THIS LOG IS THE SOLE PROPERTY OF LEVELTON CONSULTANTS LTD AND CANNOT BE USED OR DUPLICATED IN ANY WAY WITHOUT EXPRESS WRITTEN PERMISSION.

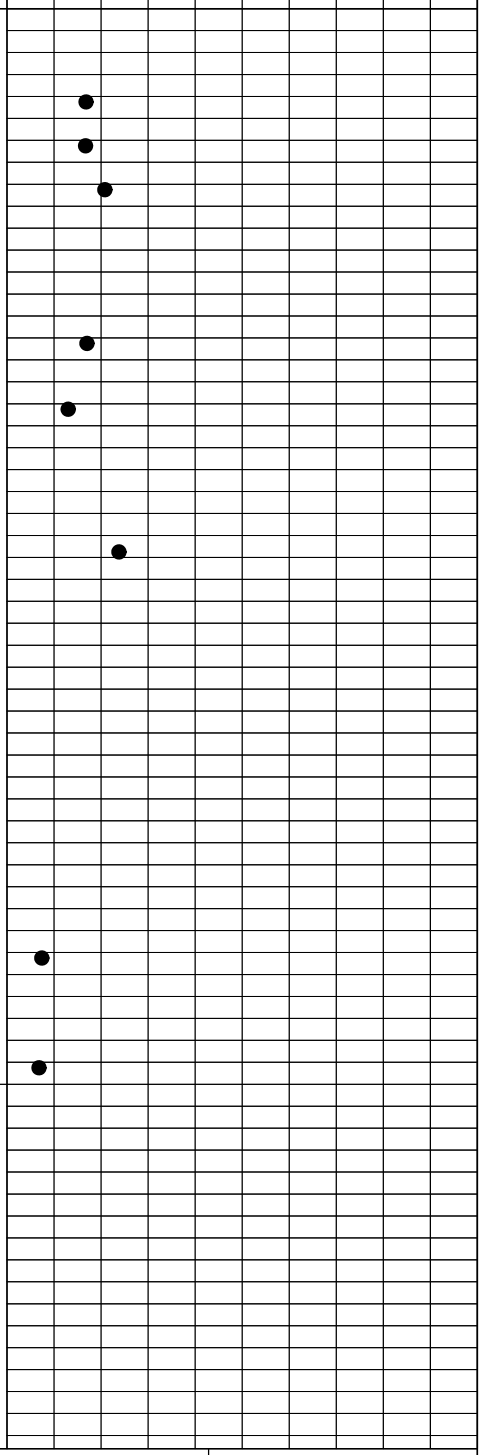
Levelton Consultants Ltd.
#150 - 12791 Clarke Place
Richmond, B.C., V6V 2H9
Tel: 604-278-1411
Fax: 604-278-1042
www.levelton.com

Kinder Morgan Westridge Terminal
Burnaby, BC
TMEP Enhanced FEED Study

S-10

Project No: R713-1879-00

Depth (m)	Depth (ft)	Description	C	N	Type	Water Level
		FILL - br. gravelly coarse Sand			G	
		FILL - br. silty Sand and Gravel			G	
2	5	FILL - gr. clayey Silt, some sand			G	
		FILL - gr. sandy Silt, some clay			G	
4	10	FILL - loose gr. silty Sand and Gravel			G	
	15	FILL - gr. gravelly sandy Silt, some clay			G	
6	20				G	
8	25				G	
	30	No Recovery				
10	35					
12	40	Dense gr. sandy SILT, some gravel (Glaciated), with some glacial Till layers			G	
14	45				G	
	50	Bottom of hole at 49.0 feet.			G	
16	55					
18	60					
	65					



C: Condition of Sample
Good
Disturbed
No Recovery

Type: Type of Sampler
SPT : 2 in. standard
ST : Shelby
FP : Fixed Piston
G : Grab
CORE

N: Number of Blows
WH : Weight of Hammer
WR : Weight of Rod
Standard Penetration Test : ASTM D1586
Hammer Type:

- ● Moisture Content %
- Plastic Limit %
- Liquid Limit %
- Ground Water Level
- Shear strength in kPa (Torvane or Penetrometer)
- X Shear strength in kPa (Unconfined)
- ⊗ Shear strength in kPa (field vane)
- ⊠ Remolded strength in kPa
- ■ Percent Passing # 200 sieve

Drill Method: Sonic
Date Drilled: 17/02/2015
By: ABC

THIS LOG IS FOR GEOTECHNICAL PURPOSES ONLY
THIS LOG IS THE SOLE PROPERTY OF LEVELTON CONSULTANTS LTD AND CANNOT BE USED OR DUPLICATED IN ANY WAY WITHOUT EXPRESS WRITTEN PERMISSION.

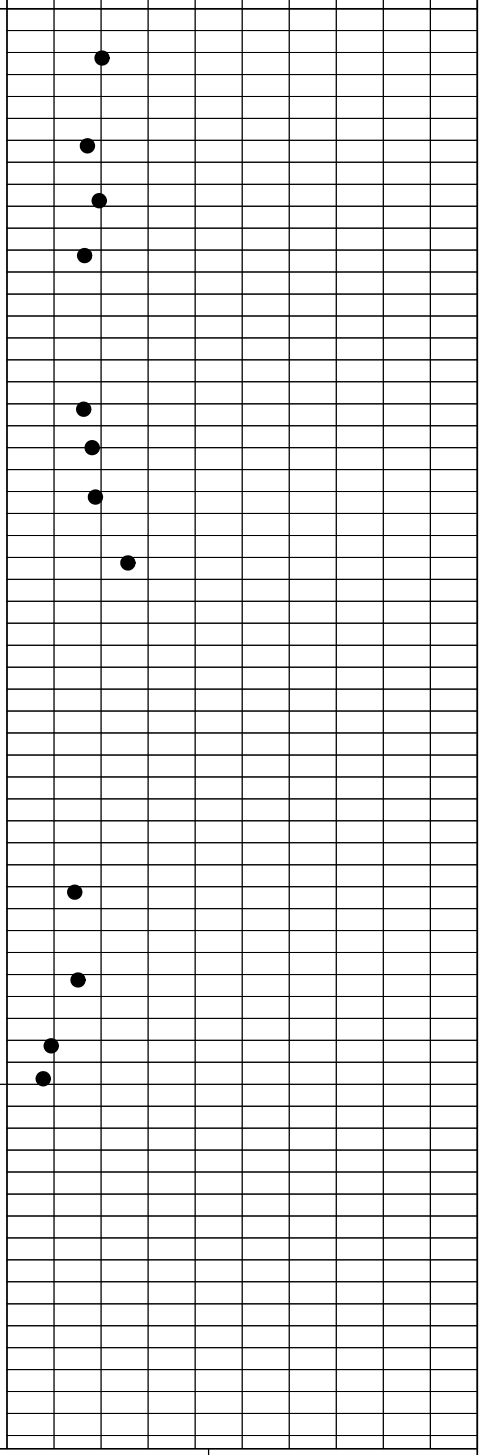
Levelton Consultants Ltd.
#150 - 12791 Clarke Place
Richmond, B.C., V6V 2H9
Tel: 604-278-1411
Fax: 604-278-1042
www.levelton.com

Kinder Morgan Westridge Terminal
Burnaby, BC
TMEP Enhanced FEED Study

S-11

Project No: R713-1879-00

Depth (m)	Depth (ft)	Description	C	N	Type	Water Level
		FILL - br. Sand and Gravel, some silt			G	
	5	FILL - firm gr. br. clayey sandy Silt, some wood			G	
2					G	
	10				G	
4						
	15	FILL - gr. silty Sand and Gravel			G	
		FILL - loose gr. gravelly silty Sand (Till Fill)			G	
6	20	Very loose gr. silty SAND		2	SPT	
					G	
	25				G	
8		Firm gr. SILT, some clay			G	
		Loose gr. silty SAND, trace shells			G	
	30	Loose to compact with depth gr. silty SAND and GRAVEL mixed with shells, some cobbles from 35 ft. to 40ft.		7	SPT	
10					G	
	35					
					G	
12	40	Hard grey SILT, some clay, some gravel (Glaciated)			G	
	45	Dense gr. sandy SILT, some gravel, some cobbles (Glacial Till)			G	
14					G	
	50	Bottom of hole at 49.0 feet.			G	
16						
	55					
18						
	60					
	65					



C: Condition of Sample
Good
Disturbed
No Recovery

Type: Type of Sampler
SPT : 2 in. standard
ST : Shelby
FP : Fixed Piston
G : Grab
CORE

N: Number of Blows
WH : Weight of Hammer
WR : Weight of Rod
Standard Penetration Test : ASTM D1586
Hammer Type:

- Moisture Content %
- Plastic Limit %
- Liquid Limit %
- Ground Water Level
- Shear strength in kPa (Torvane or Penetrometer)
- Shear strength in kPa (Unconfined)
- Shear strength in kPa (field vane)
- Remolded strength in kPa
- Percent Passing # 200 sieve

Drill Method: Sonic
Date Drilled: 18/02/2015
By: ABC

THIS LOG IS FOR GEOTECHNICAL PURPOSES ONLY
THIS LOG IS THE SOLE PROPERTY OF LEVELTON CONSULTANTS LTD AND CANNOT BE USED OR DUPLICATED IN ANY WAY WITHOUT EXPRESS WRITTEN PERMISSION.

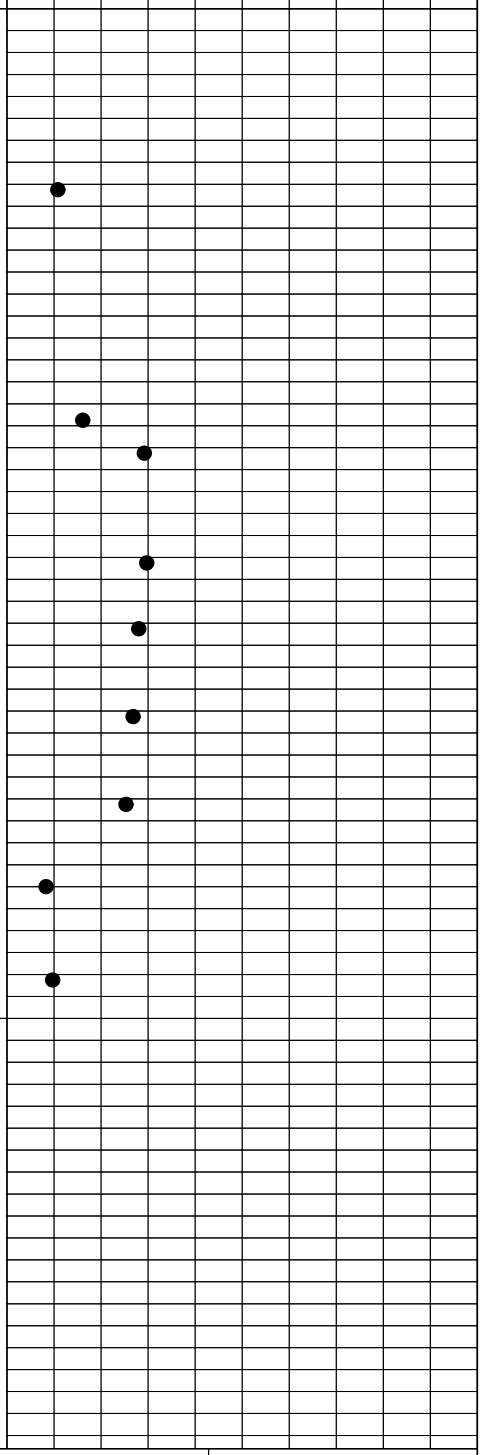
Levelton Consultants Ltd.
#150 - 12791 Clarke Place
Richmond, B.C., V6V 2H9
Tel: 604-278-1411
Fax: 604-278-1042
www.levelton.com

Kinder Morgan Westridge Terminal
Burnaby, BC
TMEP Enhanced FEED Study

S-12

Project No: R713-1879-00

Depth (m)	Depth (ft)	Description	C	N	Type	Water Level
	5	FILL - loose br. sandy Gravel and Cobbles				
2		FILL - loose gr. sandy Silt, some gravel, some cobbles (Till Fill)			G	
	10	FILL - compact br. coarse Sand and Gravel, some cobbles		24	SPT	
4						
	15				G	
					G	
		FILL - gr. sandy Silt, some gravel			G	
6	20	Very stiff grey clayey SILT, some sand			G	
	25				G	
8						
					G	
	30					
10					G	
	35					
					G	
12	40	Dense to very dense gr. sandy SILT, some gravel (Glacial Till)		52/8.5"	G	
	45				G	
14		Bottom of hole at 46.0 feet.				
	50					
16						
	55					
18						
	60					
	65					



C: Condition of Sample
Good
Disturbed
No Recovery

Type: Type of Sampler
SPT : 2 in. standard
ST : Shelby
FP : Fixed Piston
G : Grab
CORE

N: Number of Blows
WH : Weight of Hammer
WR : Weight of Rod
Standard Penetration Test : ASTM D1586
Hammer Type:

- Moisture Content %
- Plastic Limit %
- Liquid Limit %
- Ground Water Level
- Shear strength in kPa (Torvane or Penetrometer)
- Shear strength in kPa (Unconfined)
- Shear strength in kPa (field vane)
- Remolded strength in kPa
- Percent Passing # 200 sieve

Drill Method: Sonic
Date Drilled: 18/02/2015
By: ABC

THIS LOG IS FOR GEOTECHNICAL PURPOSES ONLY
THIS LOG IS THE SOLE PROPERTY OF LEVELTON CONSULTANTS LTD AND CANNOT BE USED OR DUPLICATED IN ANY WAY WITHOUT EXPRESS WRITTEN PERMISSION.

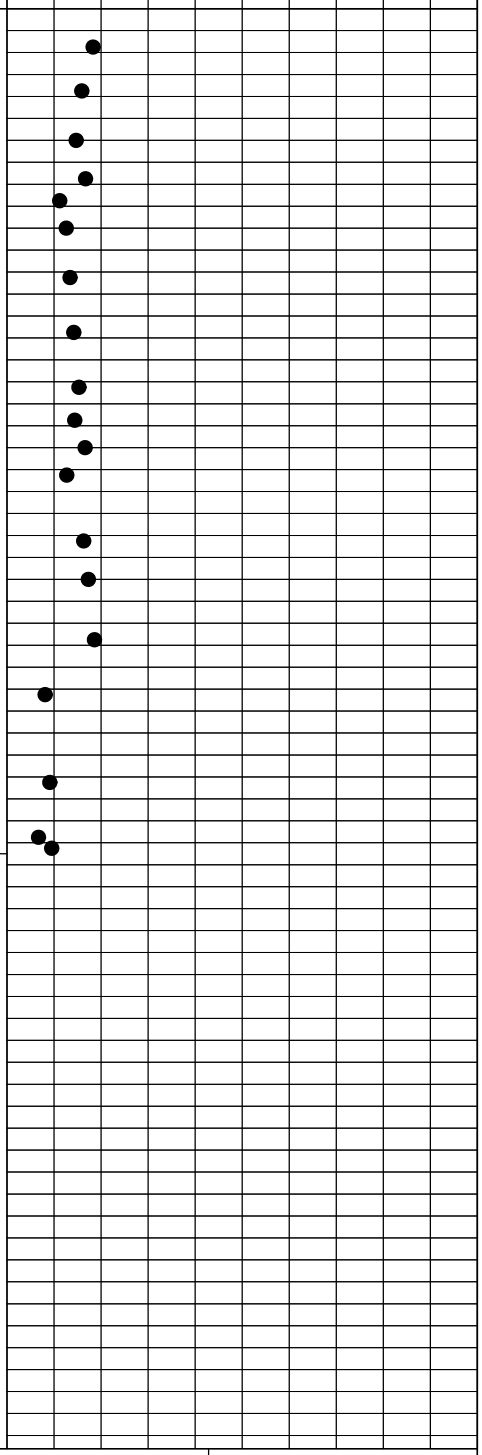
Levelton Consultants Ltd.
#150 - 12791 Clarke Place
Richmond, B.C., V6V 2H9
Tel: 604-278-1411
Fax: 604-278-1042
www.levelton.com

Kinder Morgan Westridge Terminal
Burnaby, BC
TMEP Enhanced FEED Study

S-13

Project No: R713-1879-00

Depth (m)	Depth (ft)	Description	C	N	Type	Water Level
		FILL - firm br. gr. gravelly sandy Silt, some cobbles			G	
					G	
	5					
2		FILL - stiff gr. sandy Silt, some gravel, trace wood at 8.5 ft.		6	SPT	
					G	
					G	
	10			15	SPT	
4					G	
	15			10	SPT	
					G	
					G	
6	20			15	SPT	
		FILL - loose to compact layered br. gr. gravelly silty Sand / sandy Silt, some wood at 25 ft.			G	
	25				G	
8				9	SPT	
					G	
	30	Dense gr. silty SAND and GRAVEL (Glaciated)			G	
		Very dense gr. silty SAND, some gravel (Glacial Till)			G	
10		Note: 38 ft. deep SPT was bouncing on a cobble				
	35				G	
				30/2.5"	G SPT	
12	40	Bottom of hole at 38.5 feet.				
	45					
14						
	50					
16						
	55					
18						
	60					
	65					



C: Condition of Sample
Good
Disturbed
No Recovery

Type: Type of Sampler
SPT : 2 in. standard
ST : Shelby
FP : Fixed Piston
G : Grab
CORE

N: Number of Blows
WH : Weight of Hammer
WR : Weight of Rod
Standard Penetration Test : ASTM D1586
Hammer Type:

- Moisture Content %
- Plastic Limit %
- Liquid Limit %
- Ground Water Level
- Shear strength in kPa (Torvane or Penetrometer)
- Shear strength in kPa (Unconfined)
- Shear strength in kPa (field vane)
- Remolded strength in kPa
- Percent Passing # 200 sieve

Drill Method: Sonic
Date Drilled: 20/02/2015
By: ABC

THIS LOG IS FOR GEOTECHNICAL PURPOSES ONLY
THIS LOG IS THE SOLE PROPERTY OF LEVELTON CONSULTANTS LTD AND CANNOT BE USED OR DUPLICATED IN ANY WAY WITHOUT EXPRESS WRITTEN PERMISSION.

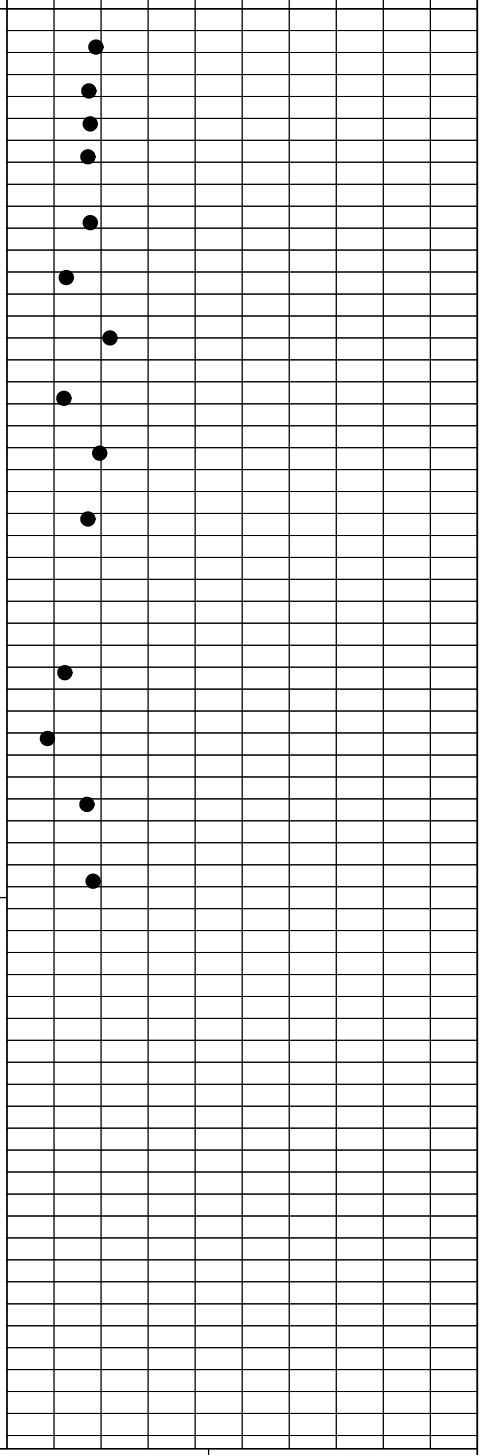
Levelton Consultants Ltd.
#150 - 12791 Clarke Place
Richmond, B.C., V6V 2H9
Tel: 604-278-1411
Fax: 604-278-1042
www.levelton.com

Kinder Morgan Westridge Terminal
Burnaby, BC
TMEP Enhanced FEED Study

S-14

Project No: R713-1879-00

Depth (m)	Depth (ft)	Description	C	N	Type	Water Level
		FILL - loose br. sandy Silt, some gravel, trace clay			G	
					G	
	5	FILL - loose br. gravelly silty Sand, some cobbles		13	SPT	
2					G	
	10	FILL - firm br. gr. sandy Silt, some gravel (Till Fill)		4	SPT	
4					G	
	15			7	SPT	
					G	
6	20				G	
		FILL - loose br. gravelly silty Sand, some wood			G	
	25	No Recovery				
8						
	30	Very dense gravelly silty SAND, some cobbles (Glacial Till)		10/2" (rock)	SPT G	
10					G	
	35	Dense gr. gravelly SAND, some silt (Glaciated)				
		Very dense silty SAND (Glaciated)			G	
12	40			69	SPT	
		Bottom of hole at 40.5 feet.				
14	45					
	50					
16						
	55					
18						
	60					
	65					



C: Condition of Sample
Good
Disturbed
No Recovery

Type: Type of Sampler
SPT : 2 in. standard
ST : Shelby
FP : Fixed Piston
G : Grab
CORE

N: Number of Blows
WH : Weight of Hammer
WR : Weight of Rod
Standard Penetration Test : ASTM D1586
Hammer Type:

- Moisture Content %
- Plastic Limit %
- Liquid Limit %
- Ground Water Level
- Shear strength in kPa (Torvane or Penetrometer)
- Shear strength in kPa (Unconfined)
- Shear strength in kPa (field vane)
- Remolded strength in kPa
- Percent Passing # 200 sieve

Drill Method: Sonic
Date Drilled: 20/02/2015
By: ABC

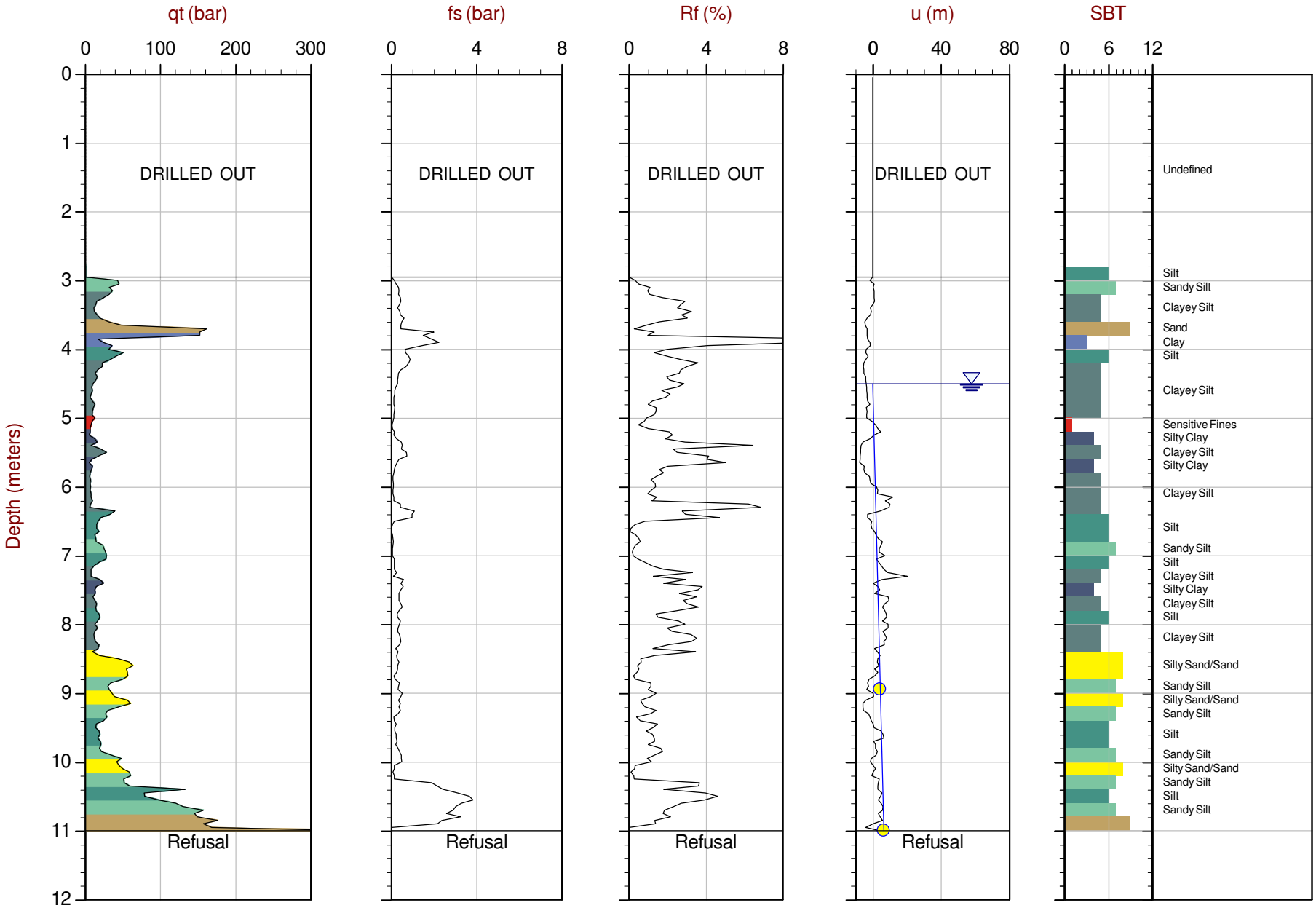
THIS LOG IS FOR GEOTECHNICAL PURPOSES ONLY
THIS LOG IS THE SOLE PROPERTY OF LEVELTON CONSULTANTS LTD AND CANNOT BE USED OR DUPLICATED IN ANY WAY WITHOUT EXPRESS WRITTEN PERMISSION.

CONETEC

Levelton

Job No: 15-02014
Date: 02:23:15 13:57
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S01
Cone: 407:T1500F15U500



Max Depth: 11.000 m / 36.09 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02014_SPS01.COR
Unit Wt: SBT Chart Soil Zones

Overplot Item: Ueq Hydrostatic Line

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM 10N N:5459583m E:503195m
Page No: 1 of 1

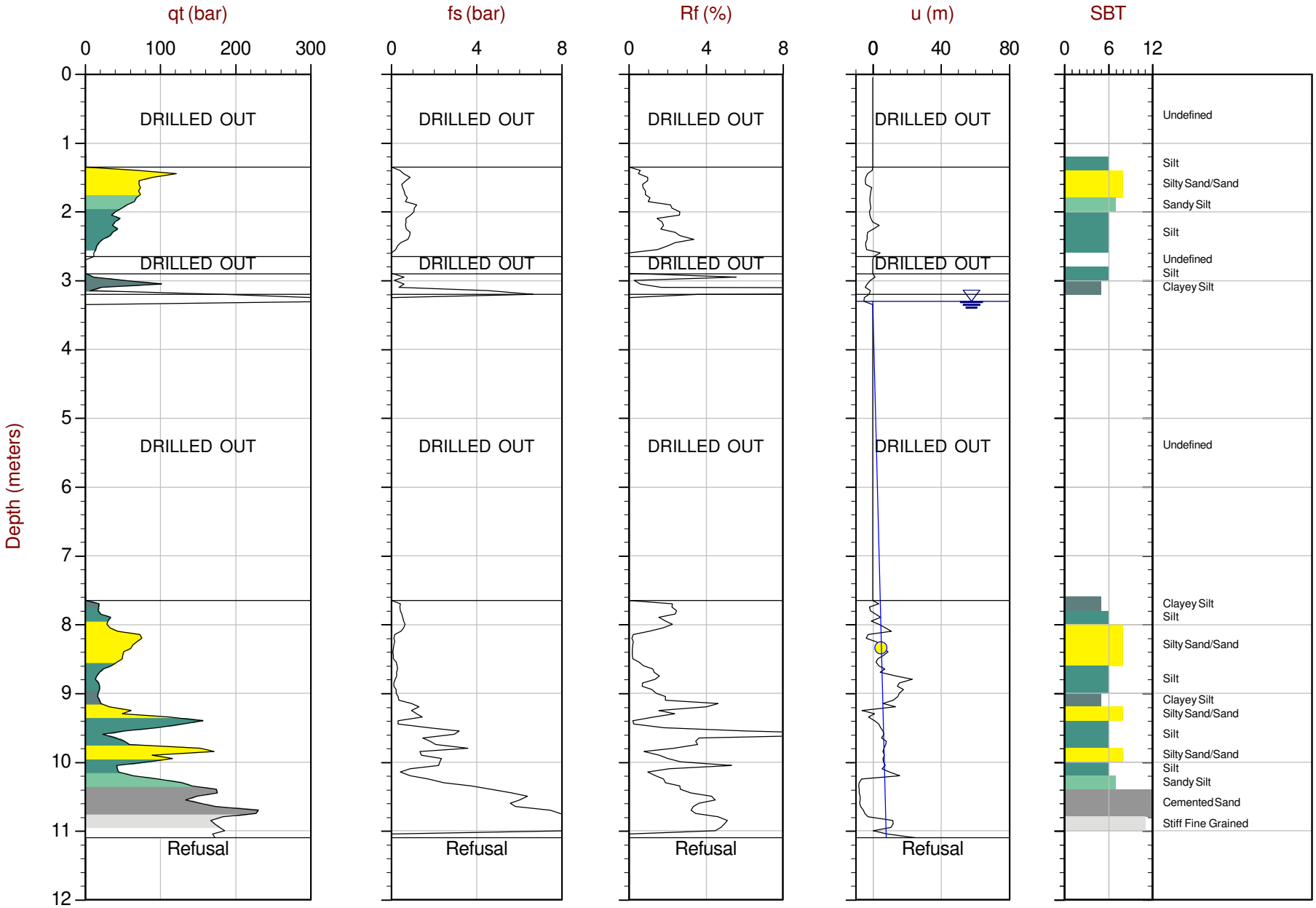
The reported coordinates were acquired from hand-held GPS equipment and are only approximate locations.The coordinates should not be used for design purposes.

CONETEC

Levelton

Job No: 15-02014
Date: 02:24:15 09:15
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S02
Cone: 407:T1500F15U500



Max Depth: 11.100 m / 36.42 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02014_SPS02.COR
Unit Wt: SBT Chart Soil Zones

Overplot Item: Ueq Hydrostatic Line

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM 10N N:5459609m E:503241m
Page No: 1 of 1

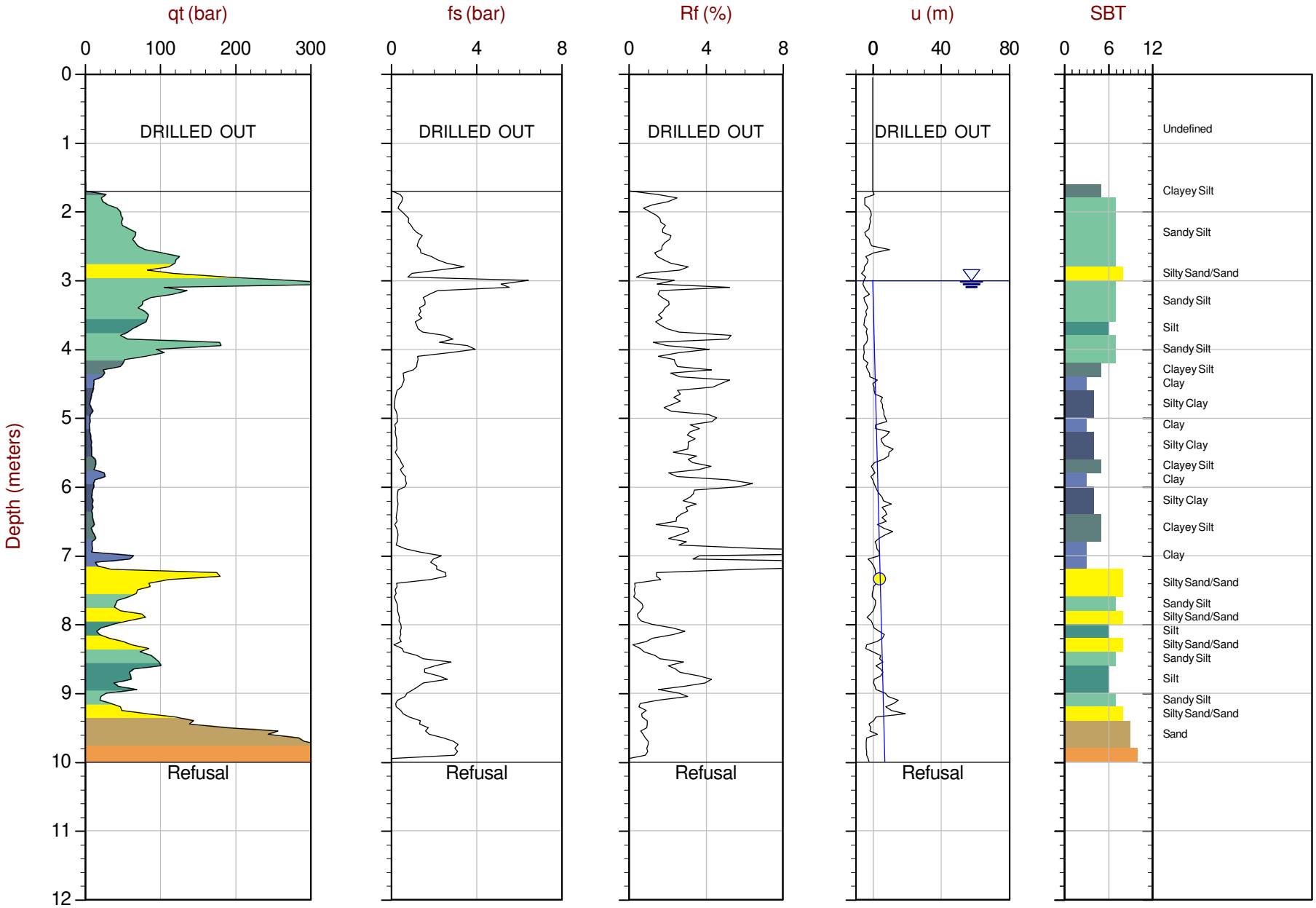
The reported coordinates were acquired from hand-held GPS equipment and are only approximate locations.The coordinates should not be used for design purposes.

CONETEC

Levelton

Job No: 15-02014
Date: 02:24:15 13:19
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S03
Cone: 407:T1500F15U500



Max Depth: 10.000 m / 32.81 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m Overplot Item: Ueq Hydrostatic Line

File: 15-02014_SPS03.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM 10N N:5459595m E:503242m
Page No: 1 of 1

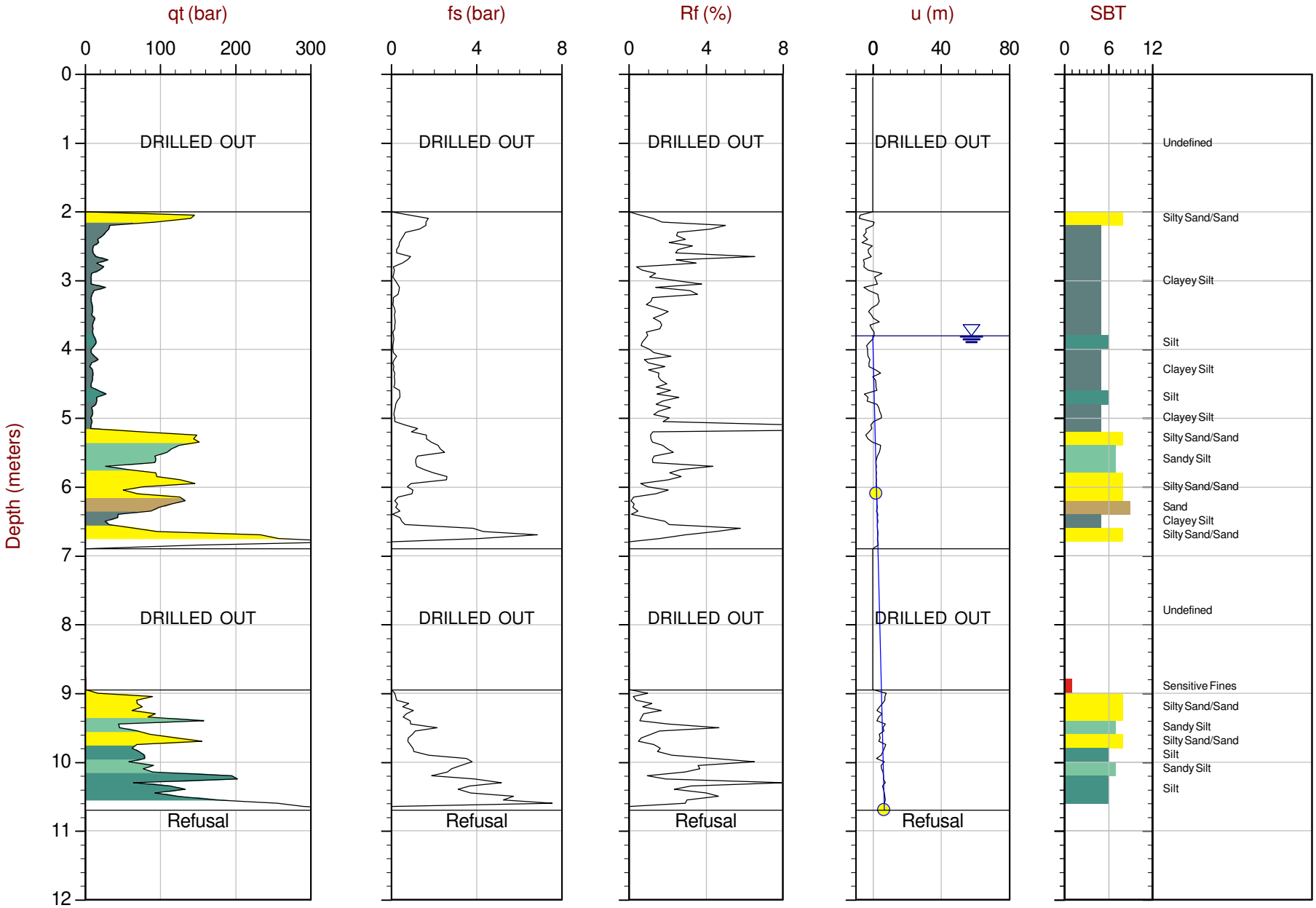
The reported coordinates were acquired from hand-held GPS equipment and are only approximate locations.The coordinates should not be used for design purposes.

CONETEC

Levelton

Job No: 15-02014
Date: 02:18:15 08:56
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S04
Cone: 329:T1500F15U500



Max Depth: 10.700 m / 35.10 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

Overplot Item: Ueq

Hydrostatic Line

File: 15-02014_SPS04.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM 10N N:5459625m E:503293m
Page No: 1 of 1

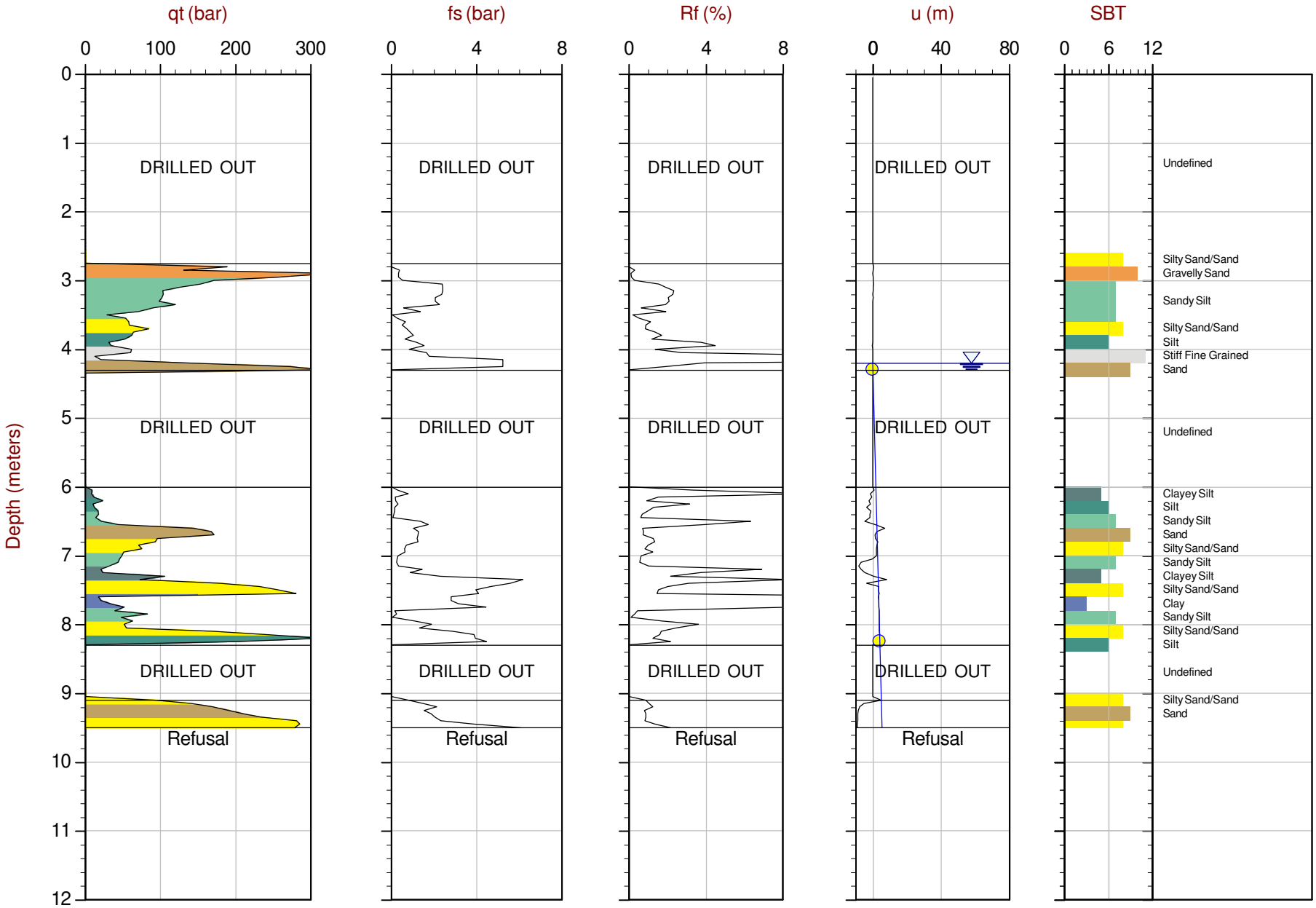
The reported coordinates were acquired from hand-held GPS equipment and are only approximate locations.The coordinates should not be used for design purposes.

CONETEC

Levelton

Job No: 15-02014
Date: 02:16:15 11:40
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S05
Cone: 375:T1500F15U500



Max Depth: 9.500 m / 31.17 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02014_SPS05.COR
Unit Wt: SBT Chart Soil Zones

Overplot Item: Ueq Hydrostatic Line

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM 10N N:5459615m E:503300m
Page No: 1 of 1

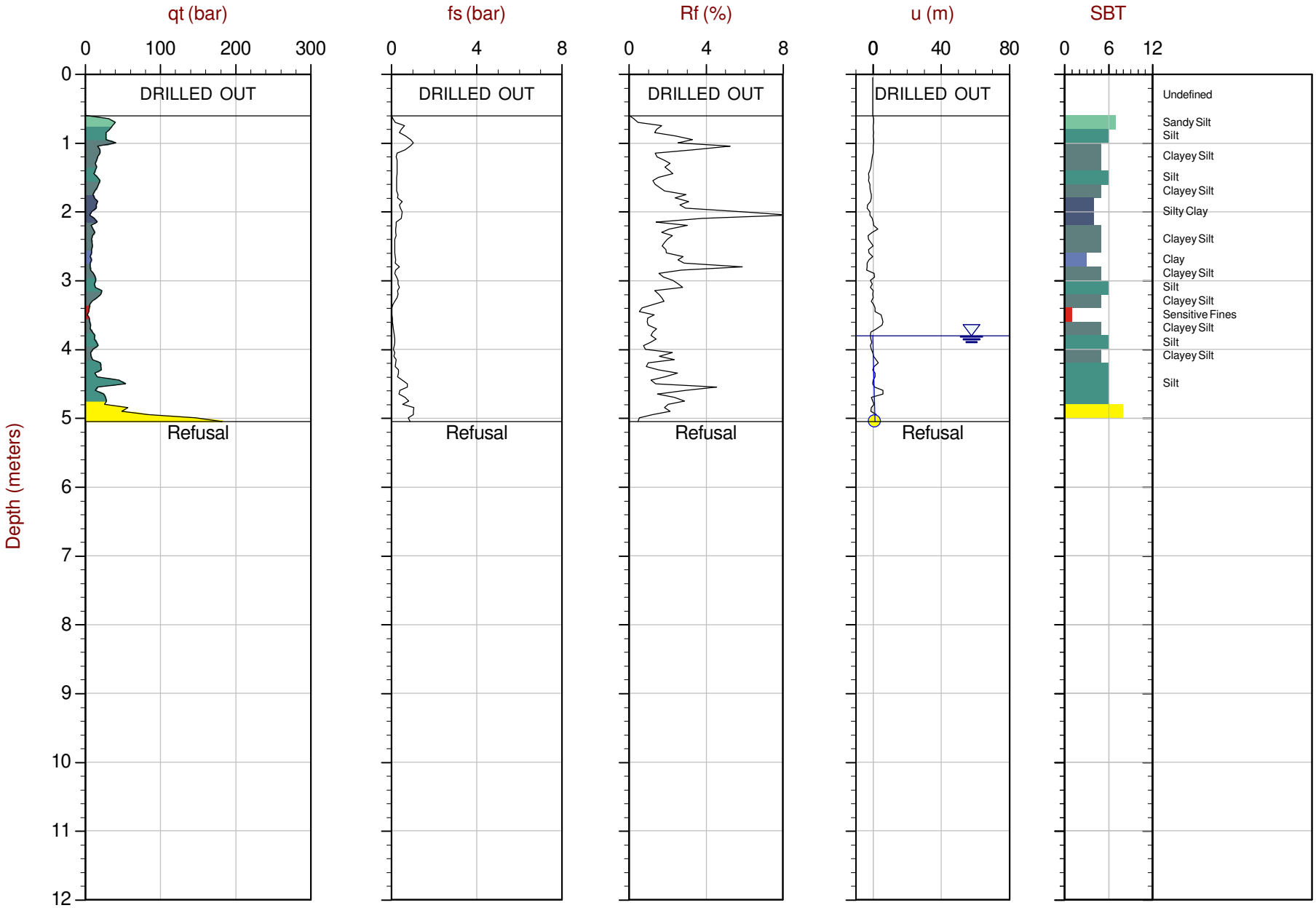
The reported coordinates were acquired from hand-held GPS equipment and are only approximate locations.The coordinates should not be used for design purposes.

CONETEC

Levelton

Job No: 15-02014
Date: 02:23:15 09:50
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S06
Cone: 329:T1500F15U500



Max Depth: 5.050 m / 16.57 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

Overplot Item: Ueq

File: 15-02014_SPS06.COR
Unit Wt: SBT Chart Soil Zones

Hydrostatic Line

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM 10N N:5459648m E:503324m
Page No: 1 of 1

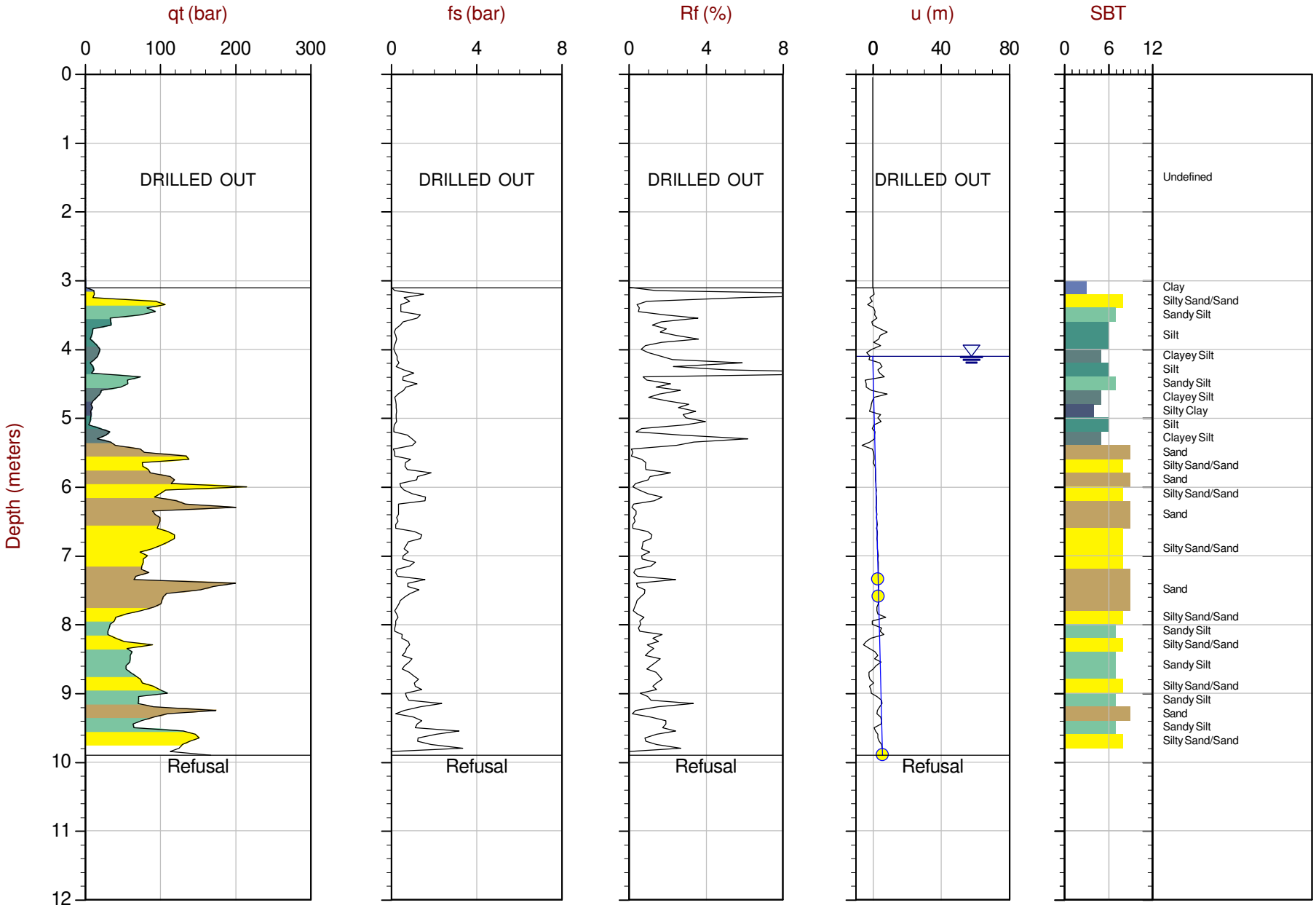
The reported coordinates were acquired from hand-held GPS equipment and are only approximate locations.The coordinates should not be used for design purposes.

CONETEC

Levelton

Job No: 15-02014
Date: 02:17:15 13:54
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S08
Cone: 329:T1500F15U500



Max Depth: 9.900 m / 32.48 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

Overplot Item: Ueq

Hydrostatic Line

File: 15-02014_SPS08.COR
Unit Wt: SBT Chart Soil Zones

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM 10N N:5459661m E:503359m
Page No: 1 of 1

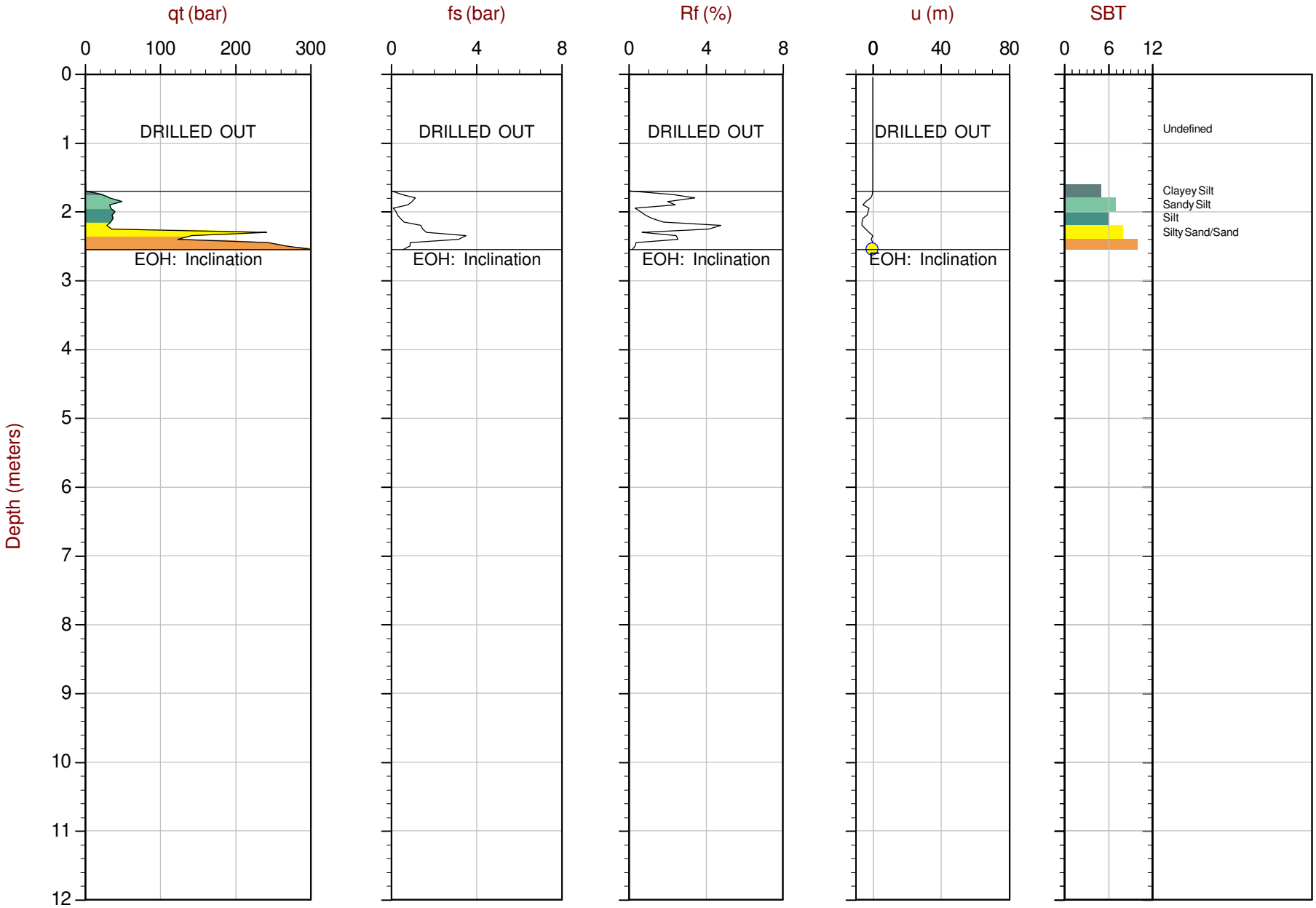
The reported coordinates were acquired from hand-held GPS equipment and are only approximate locations.The coordinates should not be used for design purposes.

CONETEC

Levelton

Job No: 15-02014
Date: 02:19:15 11:48
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S09
Cone: 329:T1500F15U500



Max Depth: 2.550 m / 8.37 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

Overplot Item: Ueq

File: 15-02014_SPS09.COR
Unit Wt: SBT Chart Soil Zones

Hydrostatic Line

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM 10N N:5459647m E:503364m
Page No: 1 of 1

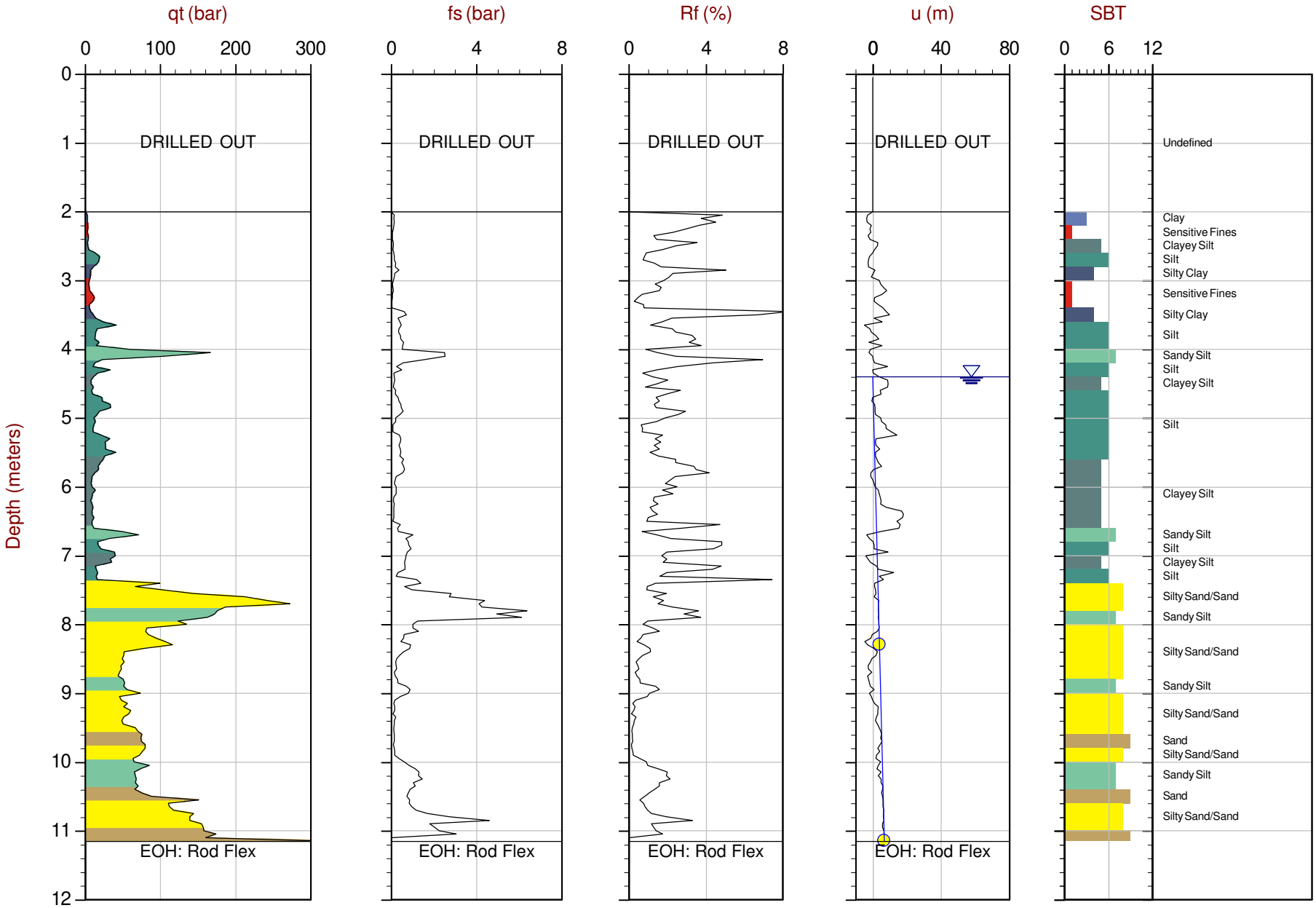
The reported coordinates were acquired from hand-held GPS equipment and are only approximate locations.The coordinates should not be used for design purposes.

CONETEC

Levelton

Job No: 15-02014
Date: 02:17:15 09:24
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S10
Cone: 329:T1500F15U500



Max Depth: 11.150 m / 36.58 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

Overplot Item: Ueq

File: 15-02014_SPS10.COR
Unit Wt: SBT Chart Soil Zones

Hydrostatic Line

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM 10N N:5459696m E:503422m
Page No: 1 of 1

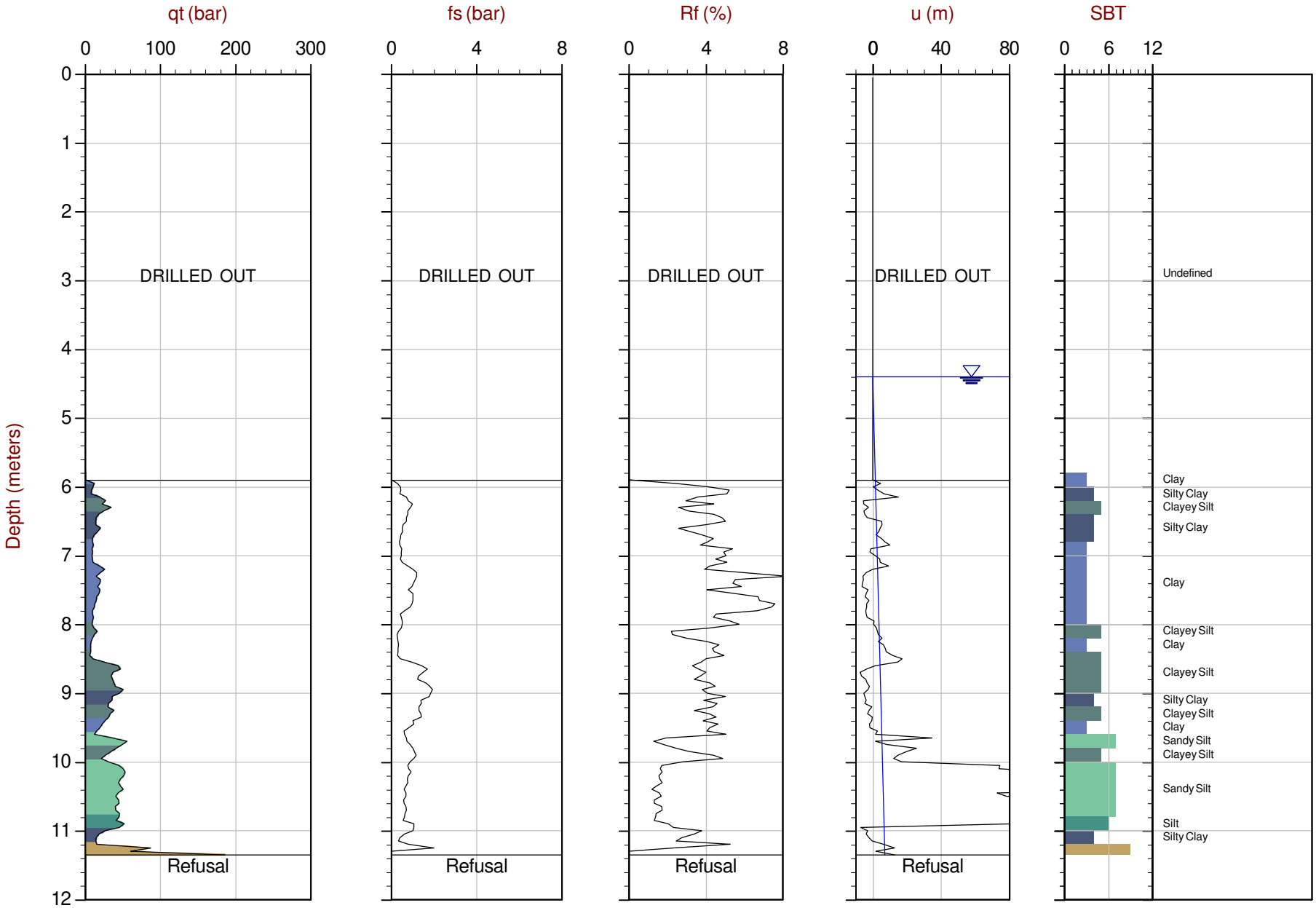
The reported coordinates were acquired from hand-held GPS equipment and are only approximate locations.The coordinates should not be used for design purposes.

CONETEC

Levelton

Job No: 15-02014
Date: 02:19:15 08:51
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S12
Cone: 329:T1500F15U500



Max Depth: 11.350 m / 37.24 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

Overplot Item: Ueq

File: 15-02014_SPS12.COR
Unit Wt: SBT Chart Soil Zones

Hydrostatic Line

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM 10N N:5459669m E:503416m
Page No: 1 of 1

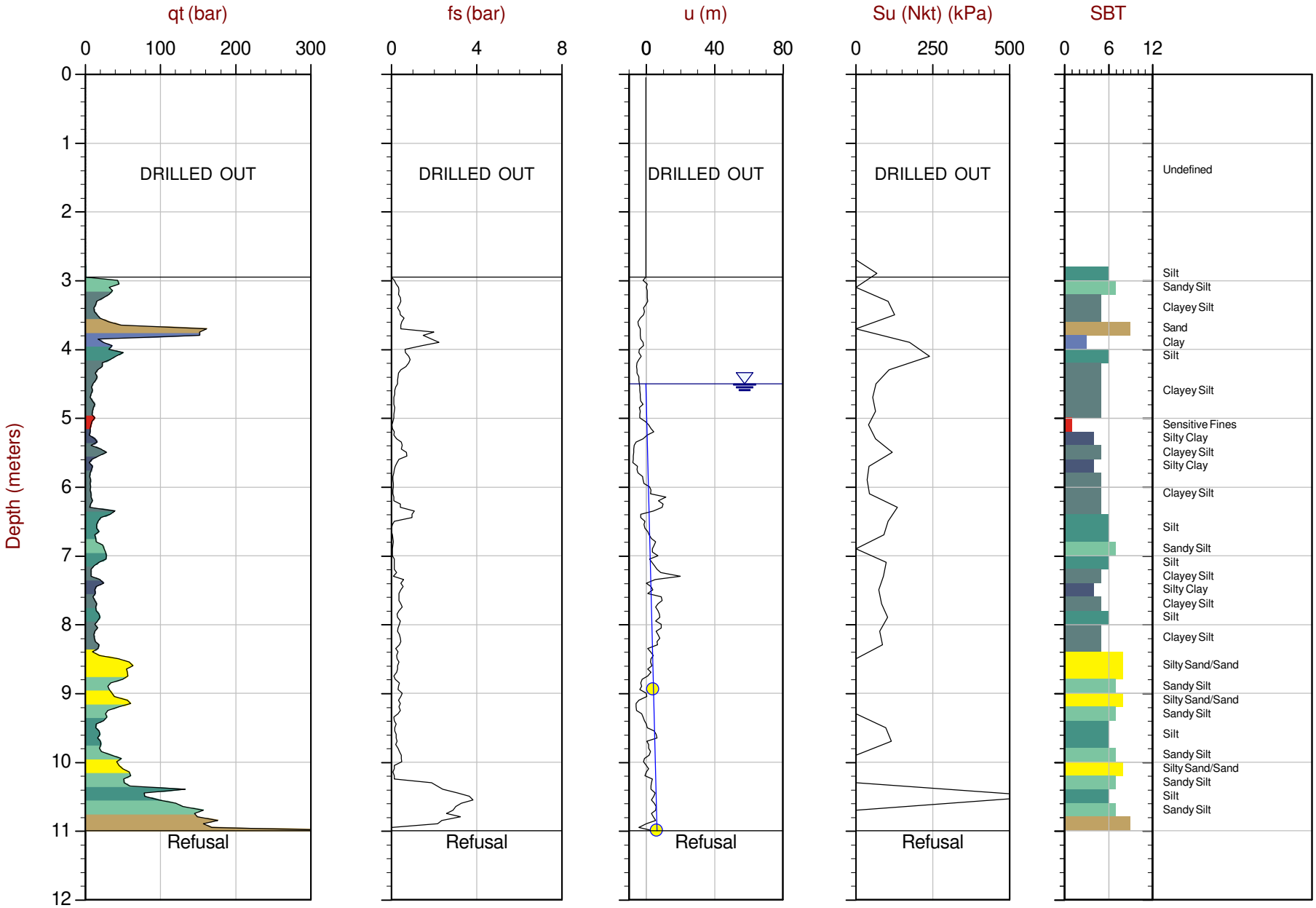
The reported coordinates were acquired from hand-held GPS equipment and are only approximate locations.The coordinates should not be used for design purposes.

CONETEC

Levelton

Job No: 15-02014
Date: 02:23:15 13:57
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S01
Cone: 407:T1500F15U500



Max Depth: 11.000 m / 36.09 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02014_SPS01.COR
Unit Wt: SBT Chart Soil Zones
Su Nkt: 15.0

Ueq
Hydrostatic Line

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM 10N N:5459583m E:503195m
Page No: 1 of 1

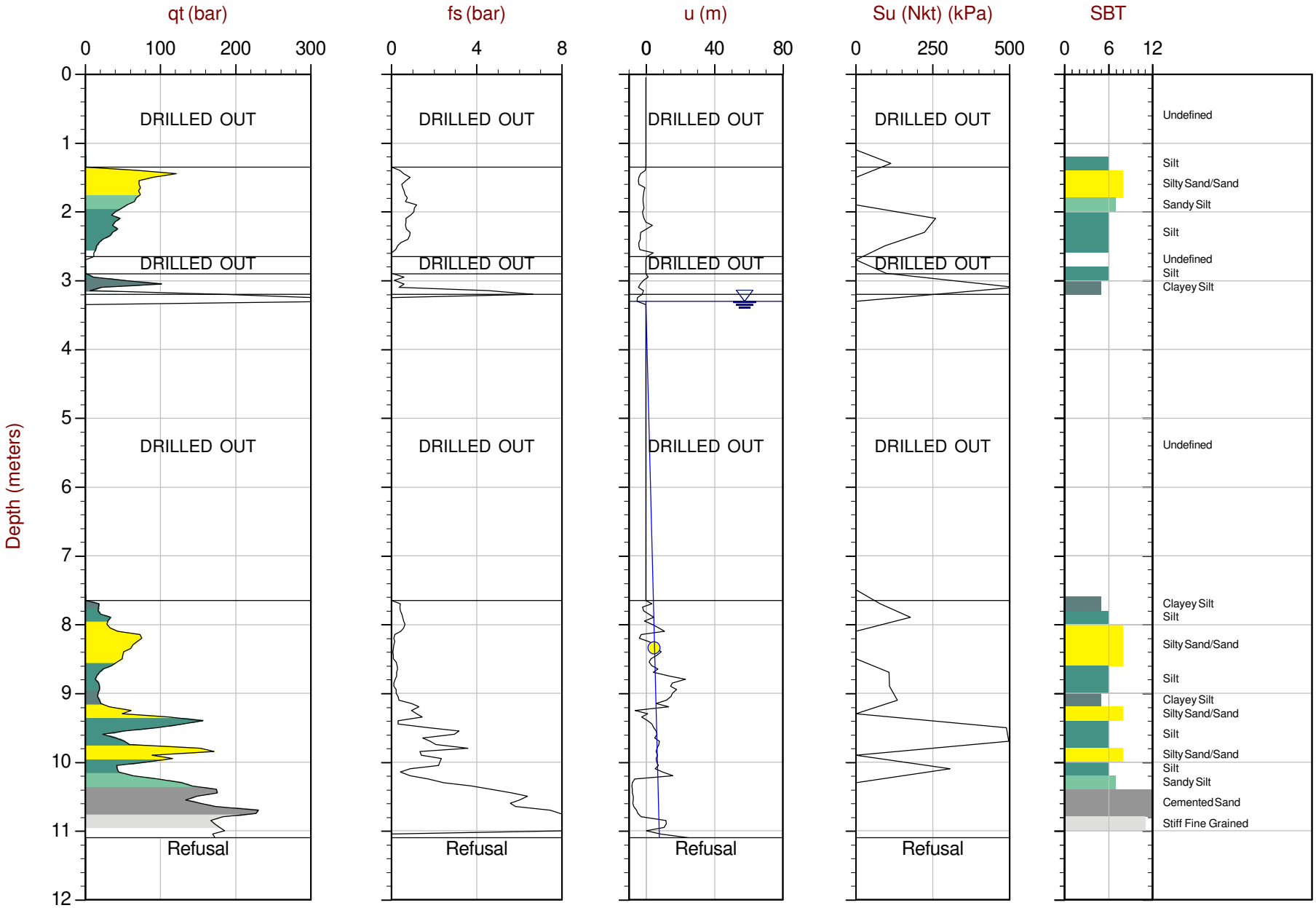
The reported coordinates were acquired from hand-held GPS equipment and are only approximate locations.The coordinates should not be used for design purposes.

CONETEC

Levelton

Job No: 15-02014
Date: 02:24:15 09:15
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S02
Cone: 407:T1500F15U500



Max Depth: 11.100 m / 36.42 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02014_SPS02.COR
Unit Wt: SBT Chart Soil Zones
Su Nkt: 15.0

Ueq
Hydrostatic Line

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM 10N N:5459609m E:503241m
Page No: 1 of 1

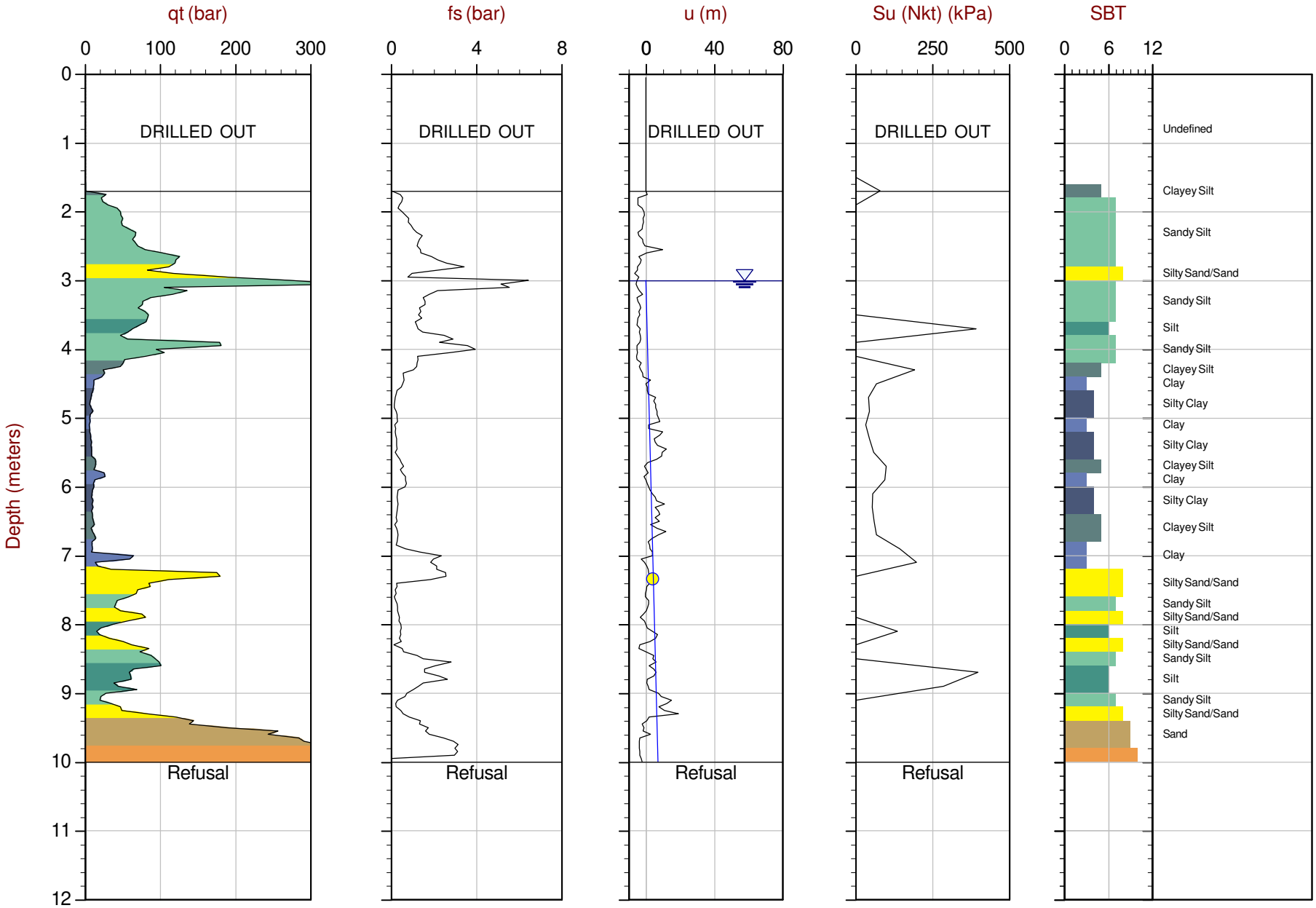
The reported coordinates were acquired from hand-held GPS equipment and are only approximate locations.The coordinates should not be used for design purposes.

CONETEC

Levelton

Job No: 15-02014
Date: 02:24:15 13:19
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S03
Cone: 407:T1500F15U500



Max Depth: 10.000 m / 32.81 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02014_SPS03.COR
Unit Wt: SBT Chart Soil Zones
Su Nkt: 15.0

Ueq
Hydrostatic Line

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM 10N N:5459595m E:503242m
Page No: 1 of 1

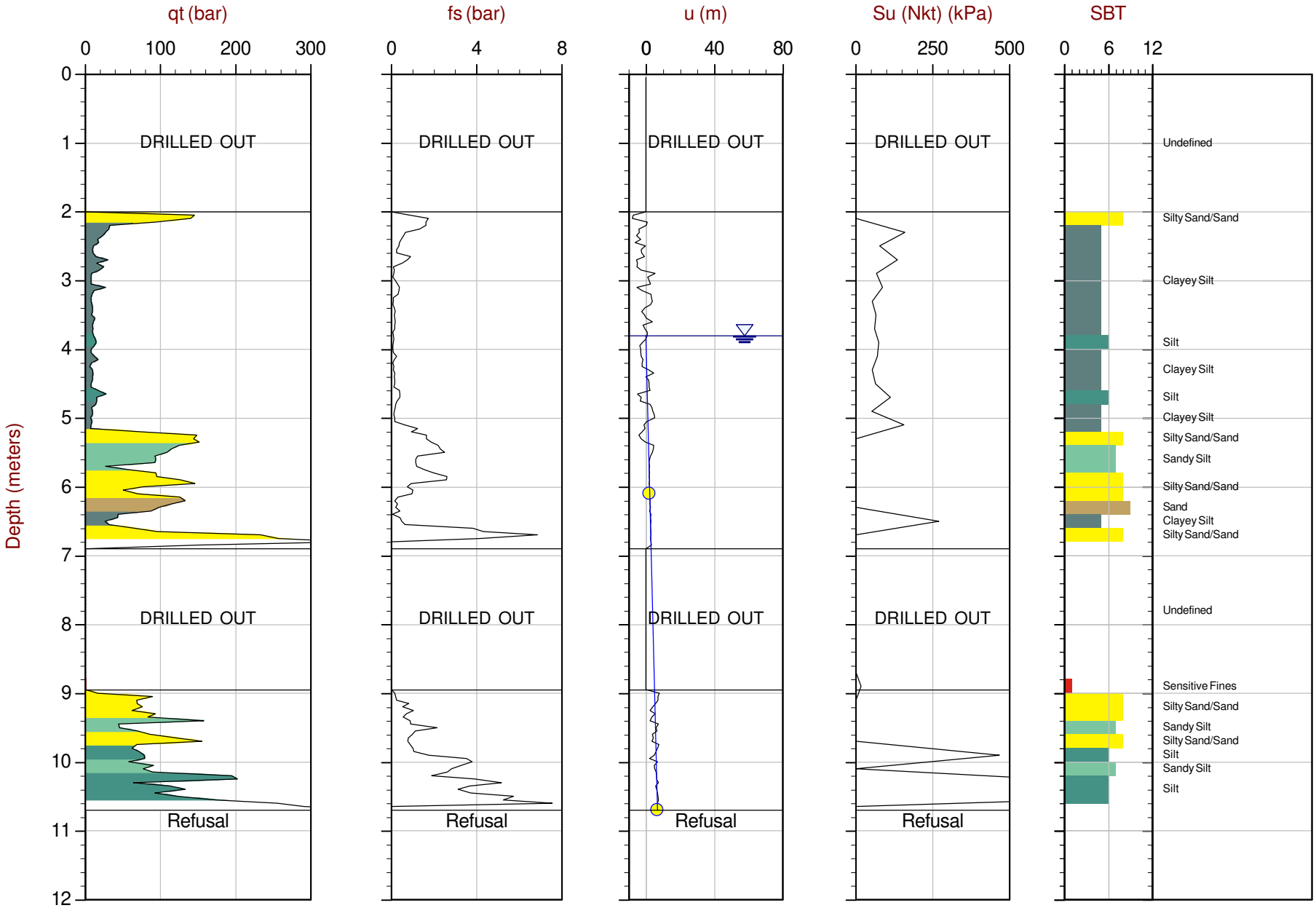
The reported coordinates were acquired from hand-held GPS equipment and are only approximate locations.The coordinates should not be used for design purposes.

CONETEC

Levelton

Job No: 15-02014
Date: 02:18:15 08:56
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S04
Cone: 329:T1500F15U500



Max Depth: 10.700 m / 35.10 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02014_SPS04.COR
Unit Wt: SBT Chart Soil Zones
Su Nkt: 15.0

Ueq
Hydrostatic Line

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM 10N N:5459625m E:503293m
Page No: 1 of 1

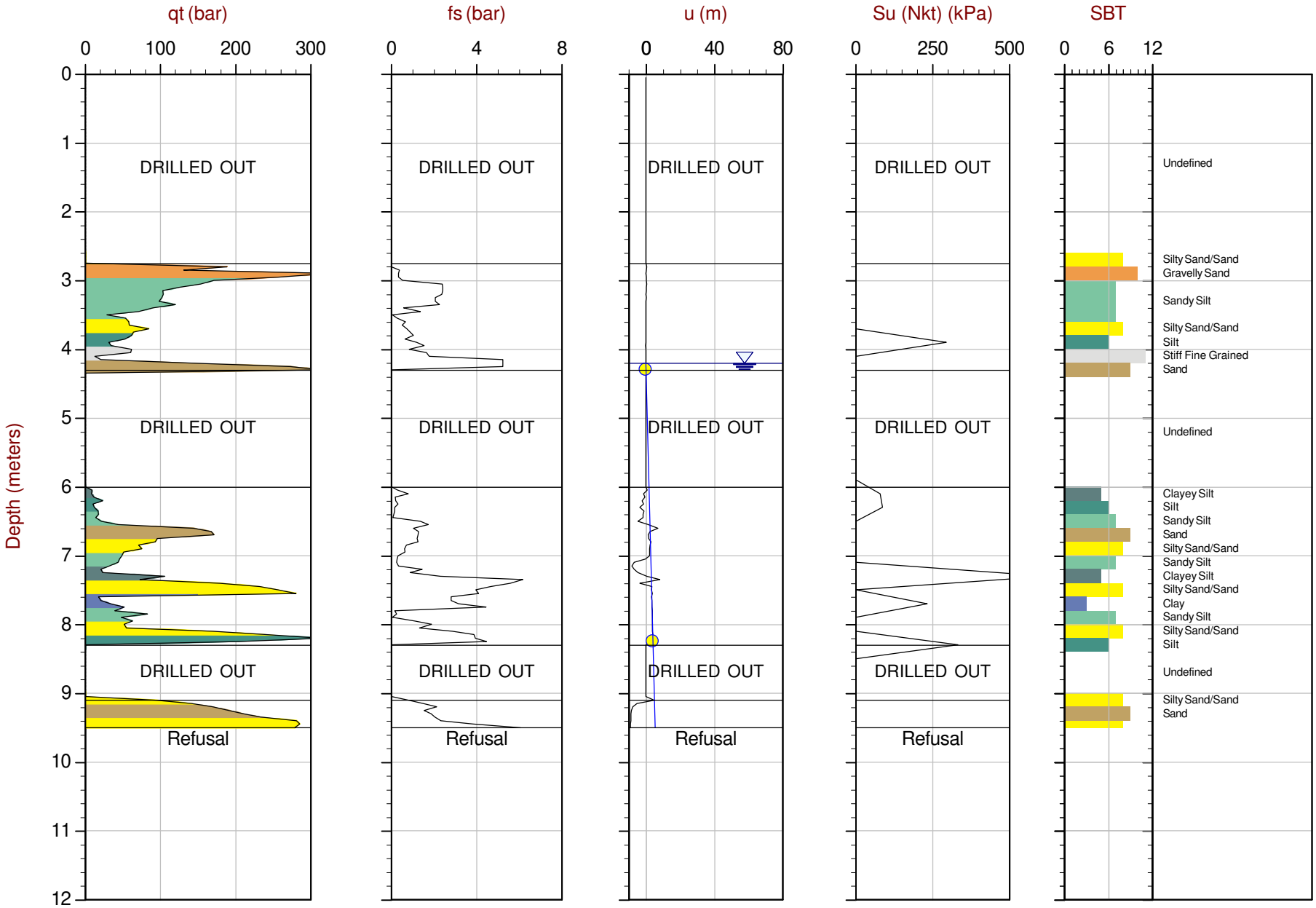
The reported coordinates were acquired from hand-held GPS equipment and are only approximate locations.The coordinates should not be used for design purposes.

CONETEC

Levelton

Job No: 15-02014
Date: 02:16:15 11:40
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S05
Cone: 375:T1500F15U500



Max Depth: 9.500 m / 31.17 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02014_SPS05.COR
Unit Wt: SBT Chart Soil Zones
Su Nkt: 15.0

Ueq
Hydrostatic Line

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM 10N N:5459615m E:503300m
Page No: 1 of 1

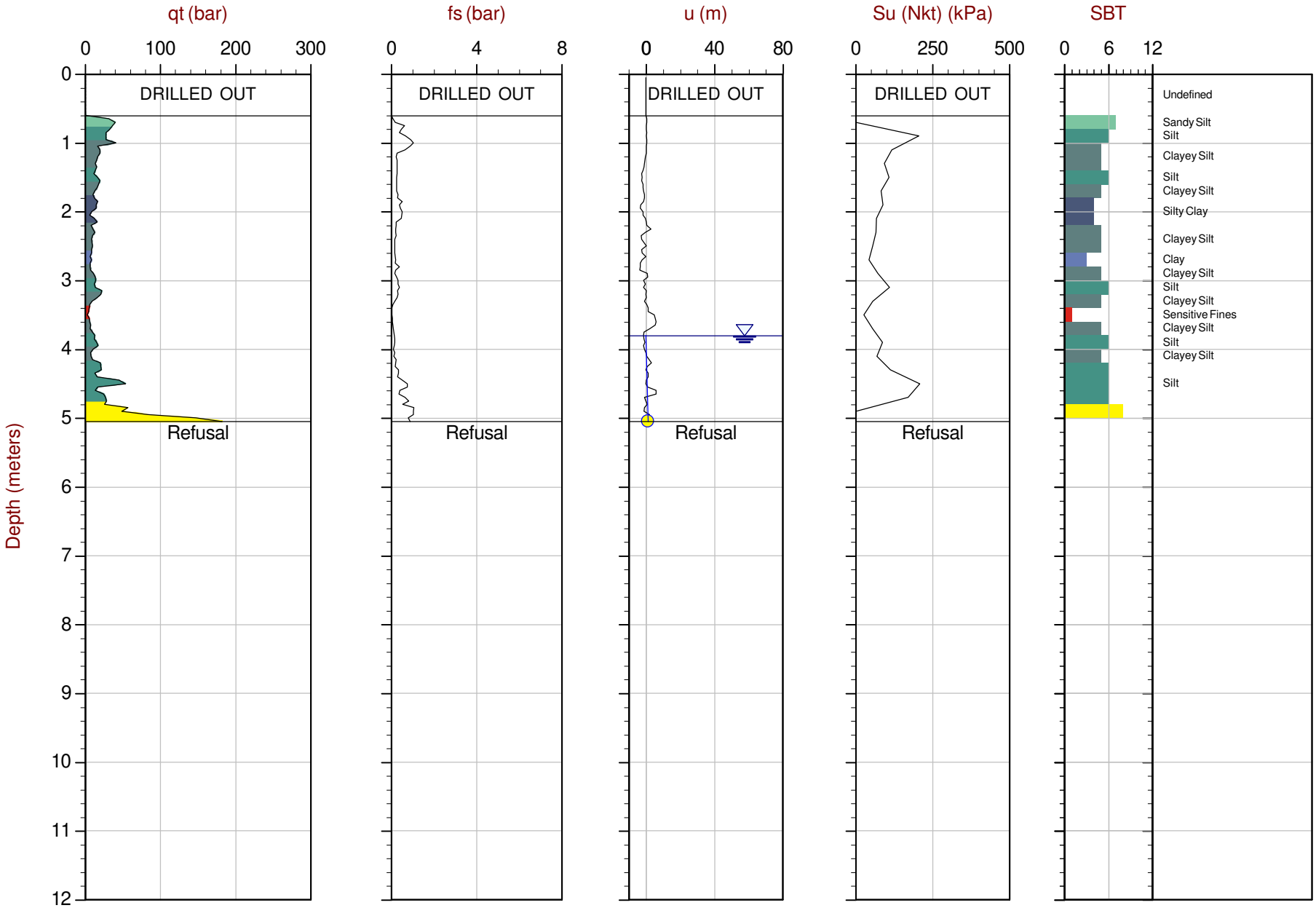
The reported coordinates were acquired from hand-held GPS equipment and are only approximate locations.The coordinates should not be used for design purposes.

CONETEC

Levelton

Job No: 15-02014
Date: 02:23:15 09:50
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S06
Cone: 329:T1500F15U500



Max Depth: 5.050 m / 16.57 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02014_SPS06.COR
Unit Wt: SBT Chart Soil Zones
Su Nkt: 15.0

Ueq
Hydrostatic Line

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM 10N N:5459648m E:503324m
Page No: 1 of 1

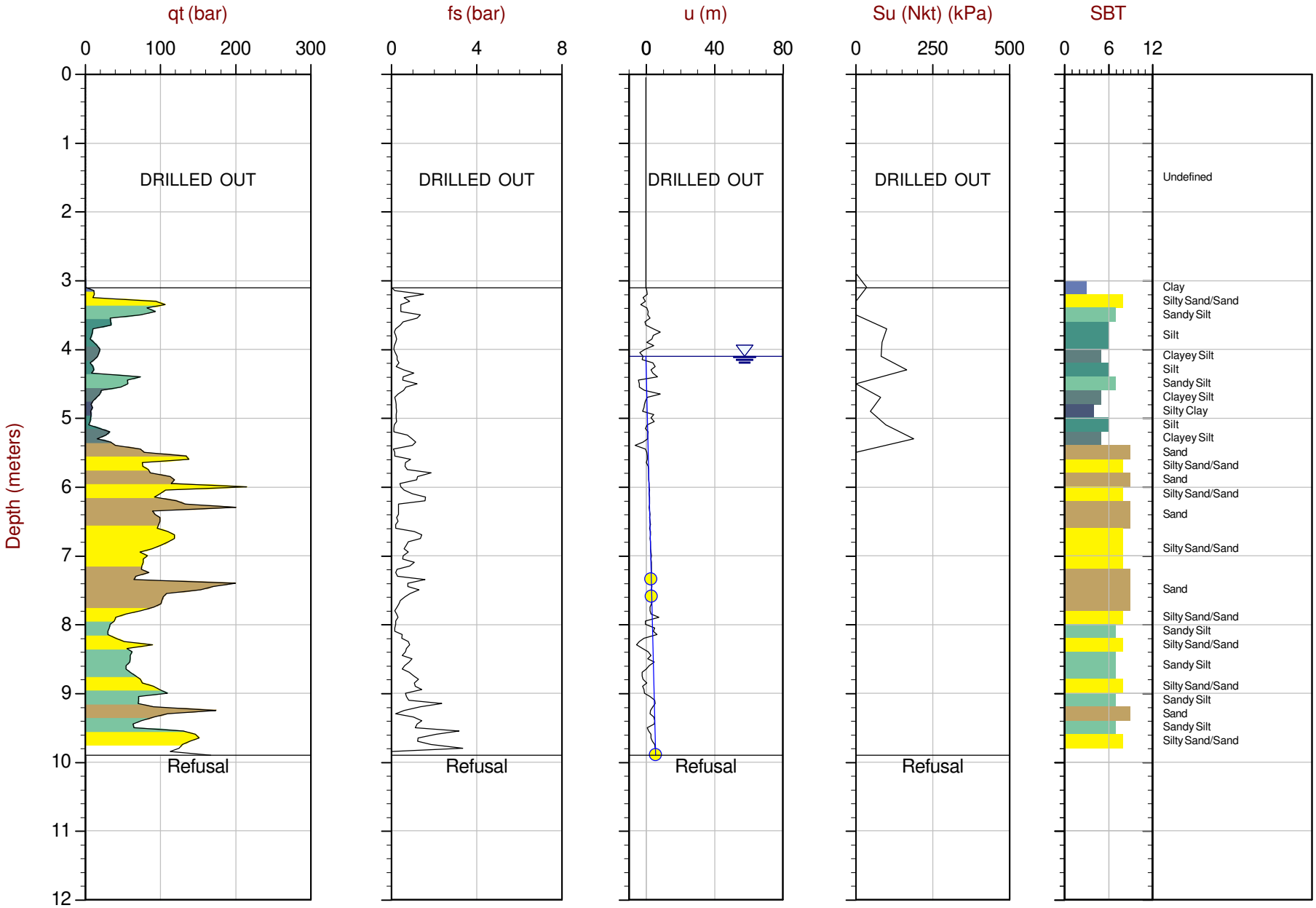
The reported coordinates were acquired from hand-held GPS equipment and are only approximate locations.The coordinates should not be used for design purposes.

CONETEC

Levelton

Job No: 15-02014
Date: 02:17:15 13:54
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S08
Cone: 329:T1500F15U500



Max Depth: 9.900 m / 32.48 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02014_SPS08.COR
Unit Wt: SBT Chart Soil Zones
Su Nkt: 15.0

Ueq
Hydrostatic Line

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM 10N N:5459661m E:503359m
Page No: 1 of 1

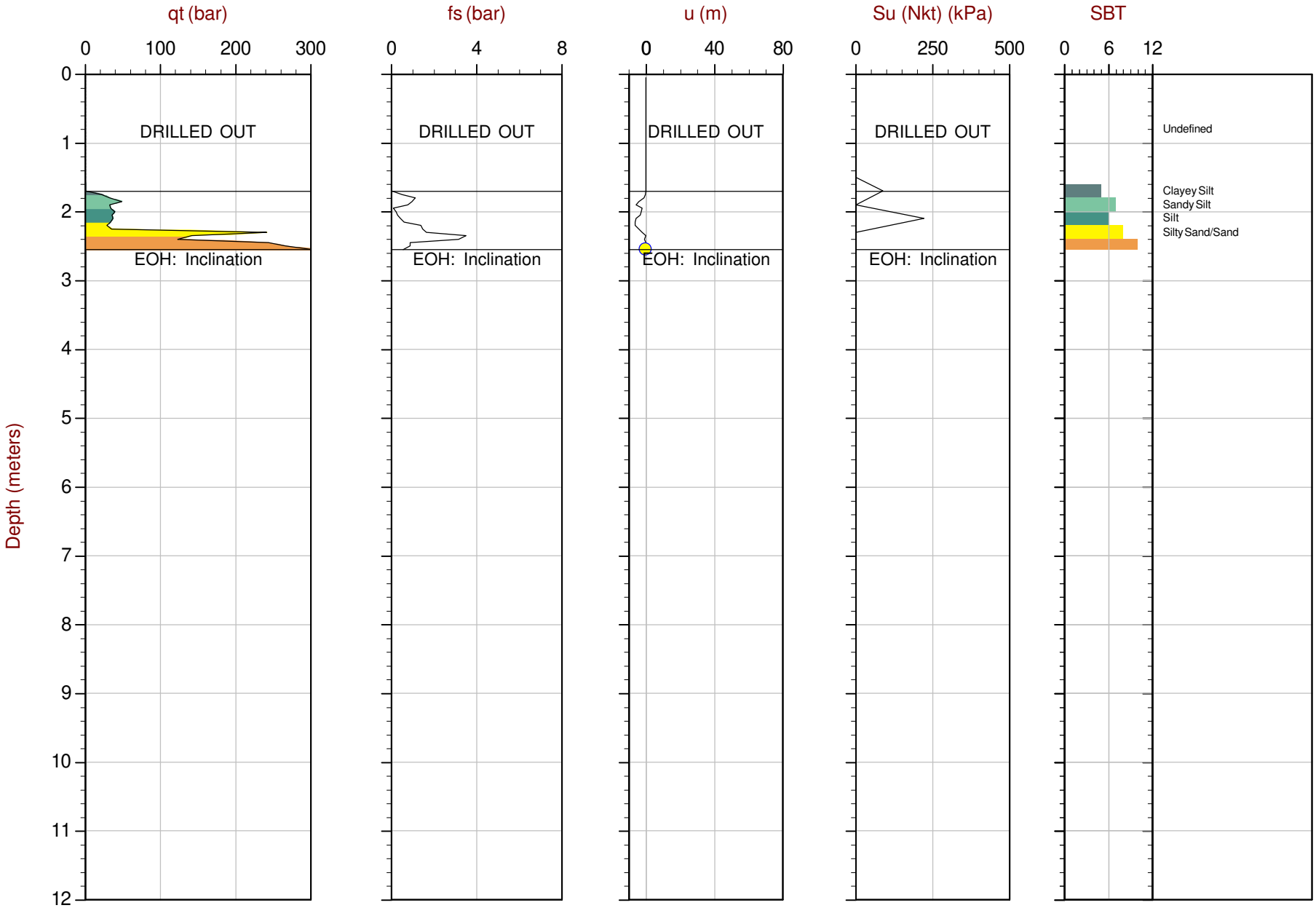
The reported coordinates were acquired from hand-held GPS equipment and are only approximate locations.The coordinates should not be used for design purposes.

CONETEC

Levelton

Job No: 15-02014
Date: 02:19:15 11:48
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S09
Cone: 329:T1500F15U500



Max Depth: 2.550 m / 8.37 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02014_SPS09.COR
Unit Wt: SBT Chart Soil Zones
Su Nkt: 15.0

Ueq
Hydrostatic Line

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM 10N N:5459647m E:503364m
Page No: 1 of 1

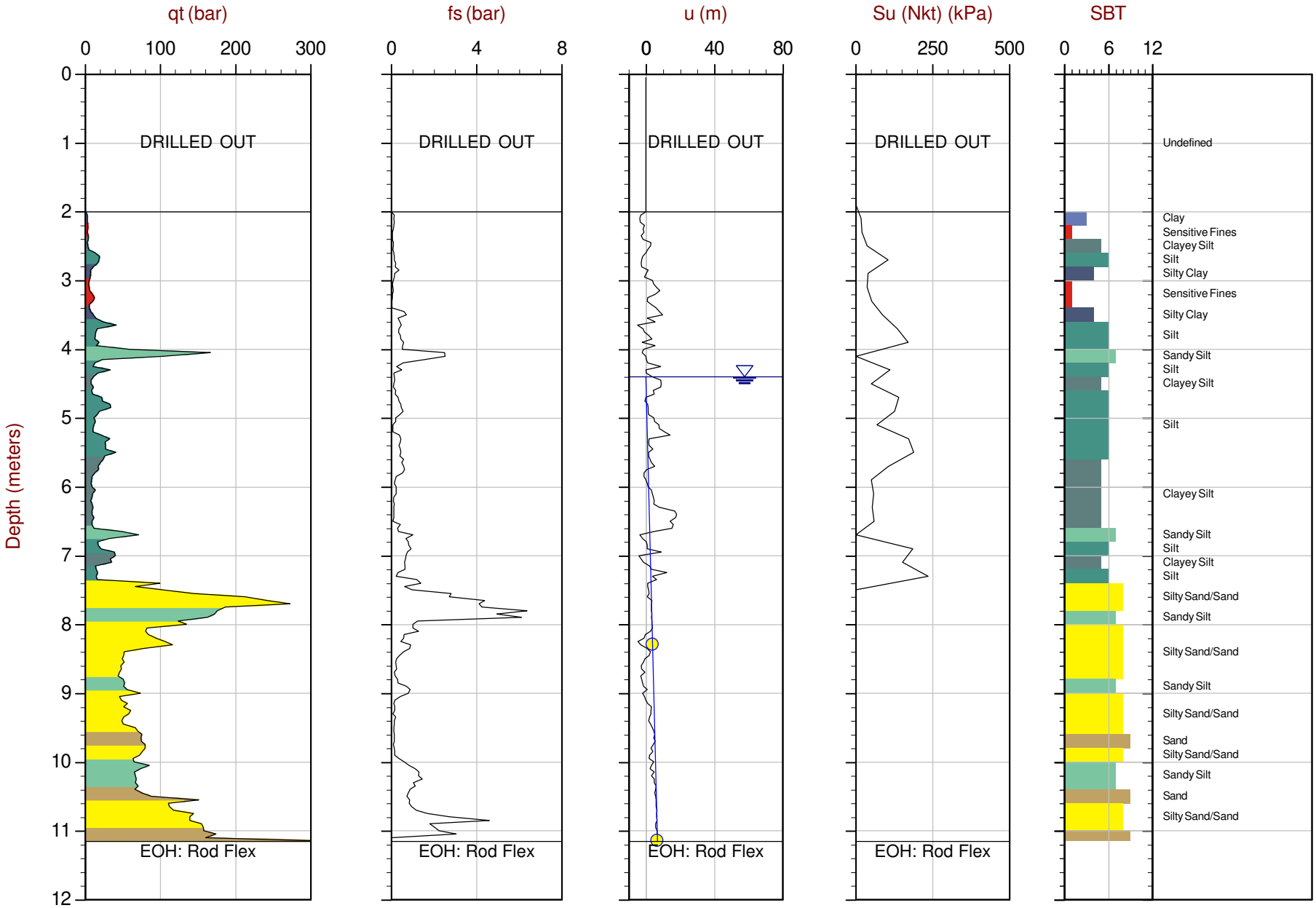
The reported coordinates were acquired from hand-held GPS equipment and are only approximate locations.The coordinates should not be used for design purposes.

CONETEC

Levelton

Job No: 15-02014
Date: 02:17:15 09:24
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S10
Cone: 329:T1500F15U500



Max Depth: 11.150 m / 36.58 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02014_SPS10.COR
Unit Wt: SBT Chart Soil Zones
Su Nkt: 15.0

Ueq
Hydrostatic Line

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM 10N N:5459696m E:503422m
Page No: 1 of 1

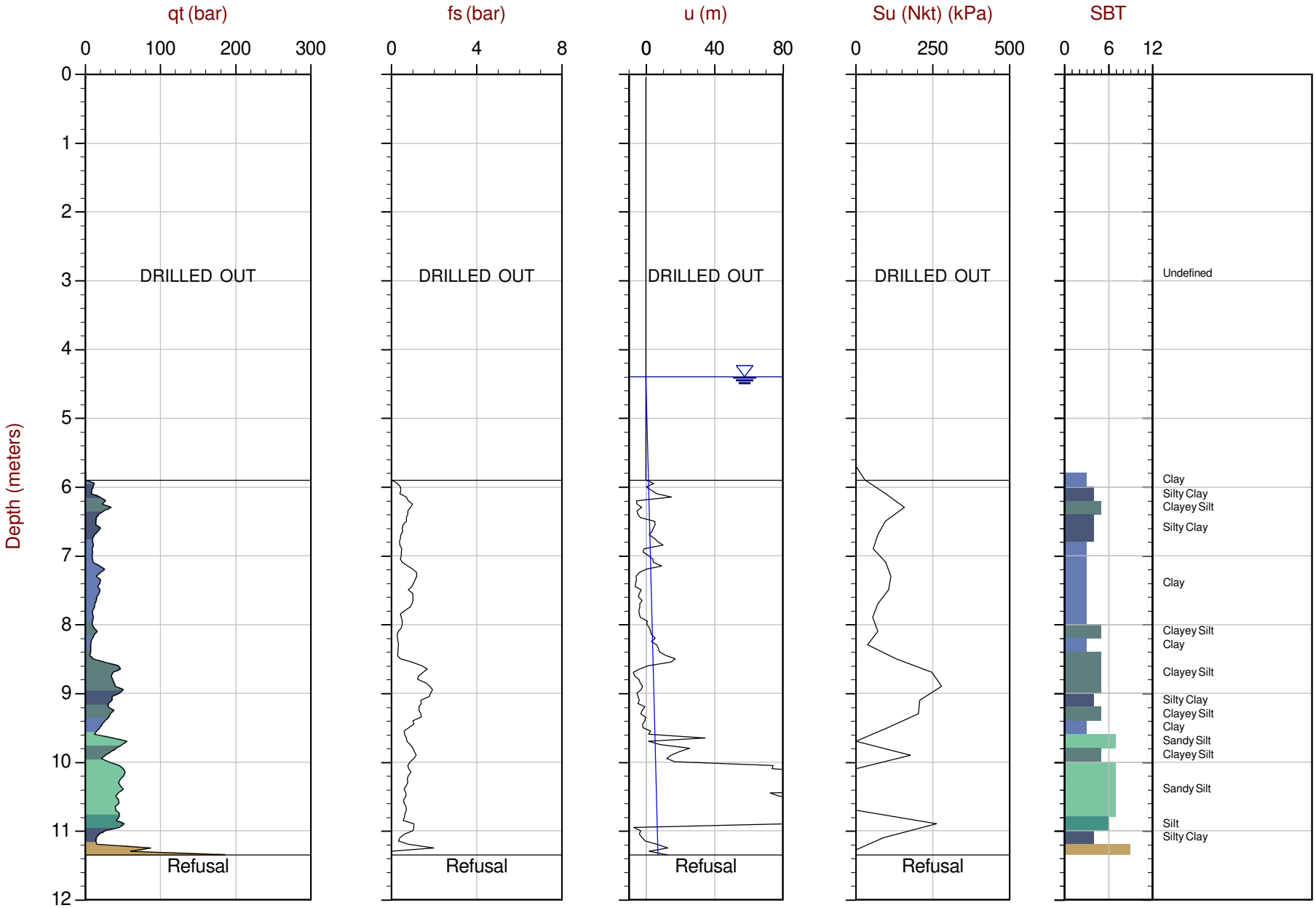
The reported coordinates were acquired from hand-held GPS equipment and are only approximate locations.The coordinates should not be used for design purposes.

CONETEC

Levelton

Job No: 15-02014
Date: 02:19:15 08:51
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S12
Cone: 329:T1500F15U500



Max Depth: 11.350 m / 37.24 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02014_SPS12.COR
Unit Wt: SBT Chart Soil Zones
Su Nkt: 15.0

Ueq
Hydrostatic Line

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM 10N N:5459669m E:503416m
Page No: 1 of 1

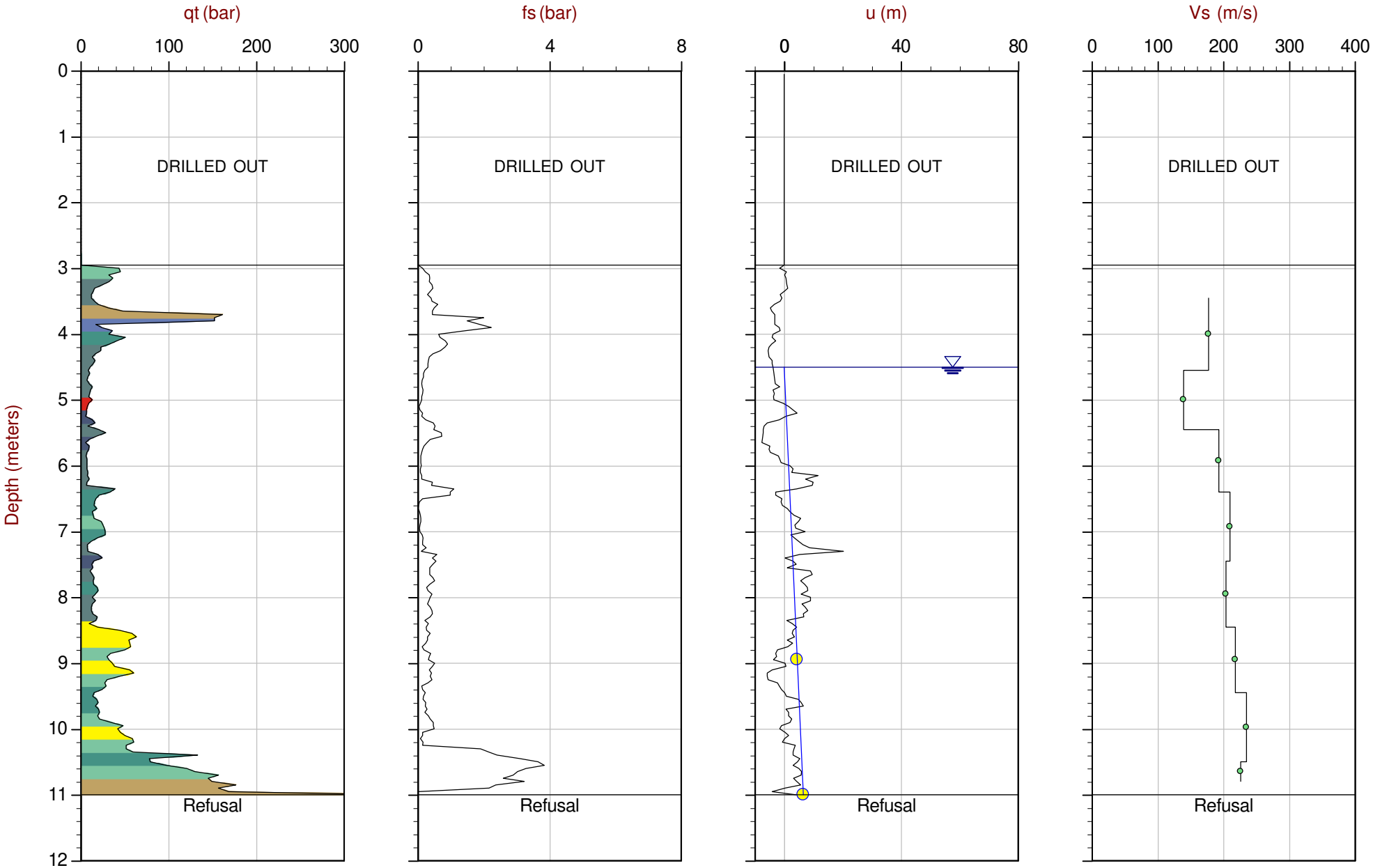
The reported coordinates were acquired from hand-held GPS equipment and are only approximate locations.The coordinates should not be used for design purposes.

CONETEC

Levelton

Job No: 15-02014
Date: 02:23:15 13:57
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S01
Cone: 407:T1500F15U500



Max Depth: 11.000 m / 36.09 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02014_SPS01.COR
Unit Wt: SBT Chart Soil Zones

Overplot Item: Ueq
Hydrostatic Line

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM 10N N:5459583m E:503195m
Page No: 1 of 1

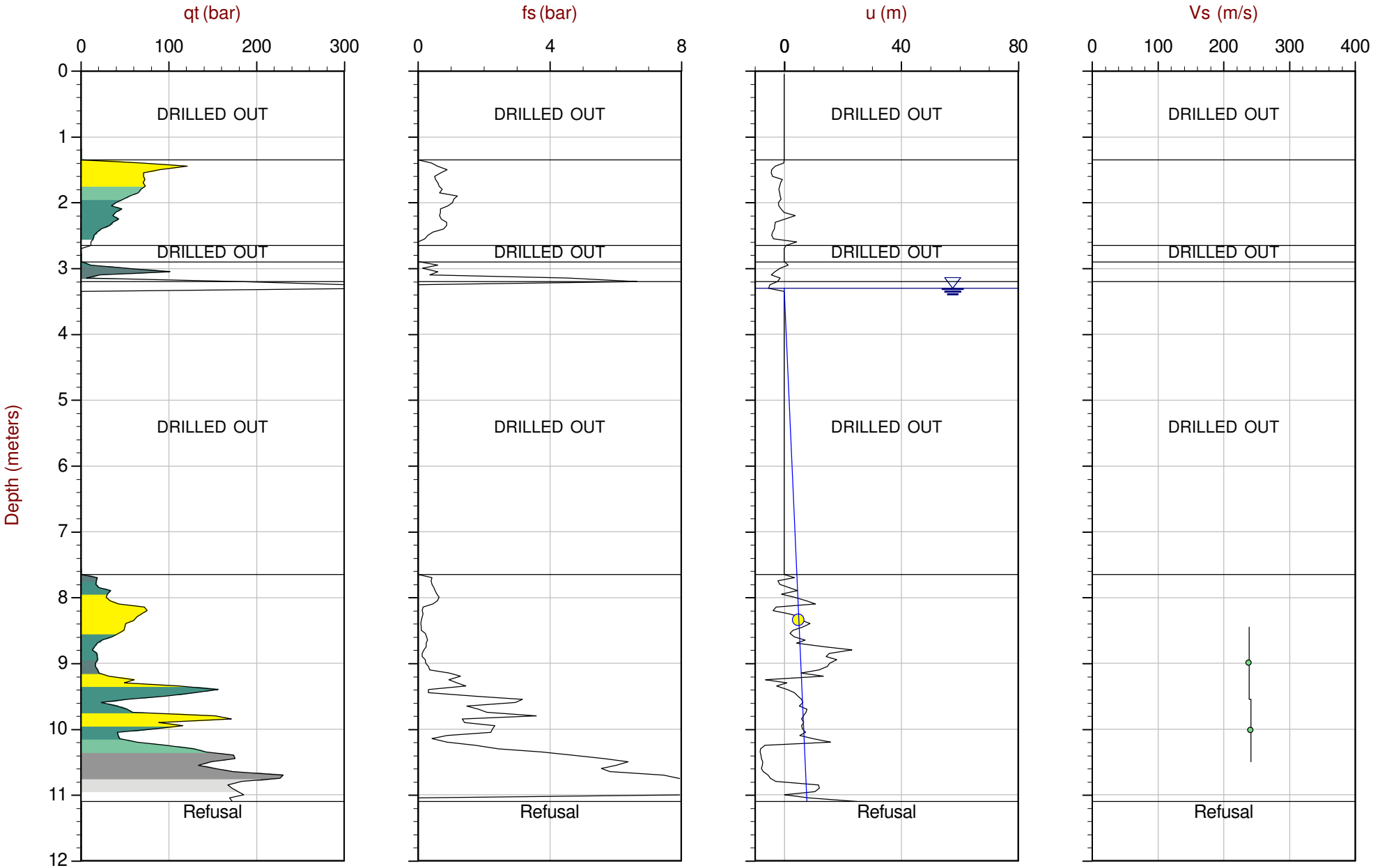
The reported coordinates were acquired from hand-held GPS equipment and are only approximate locations.The coordinates should not be used for design purposes.

CONETEC

Levelton

Job No: 15-02014
Date: 02:24:15 09:15
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S02
Cone: 407:T1500F15U500



Max Depth: 11.100 m / 36.42 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02014_SPS02.COR
Unit Wt: SBT Chart Soil Zones

Overplot Item: Ueq
Hydrostatic Line

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM 10N N:5459609m E:503241m
Page No: 1 of 1

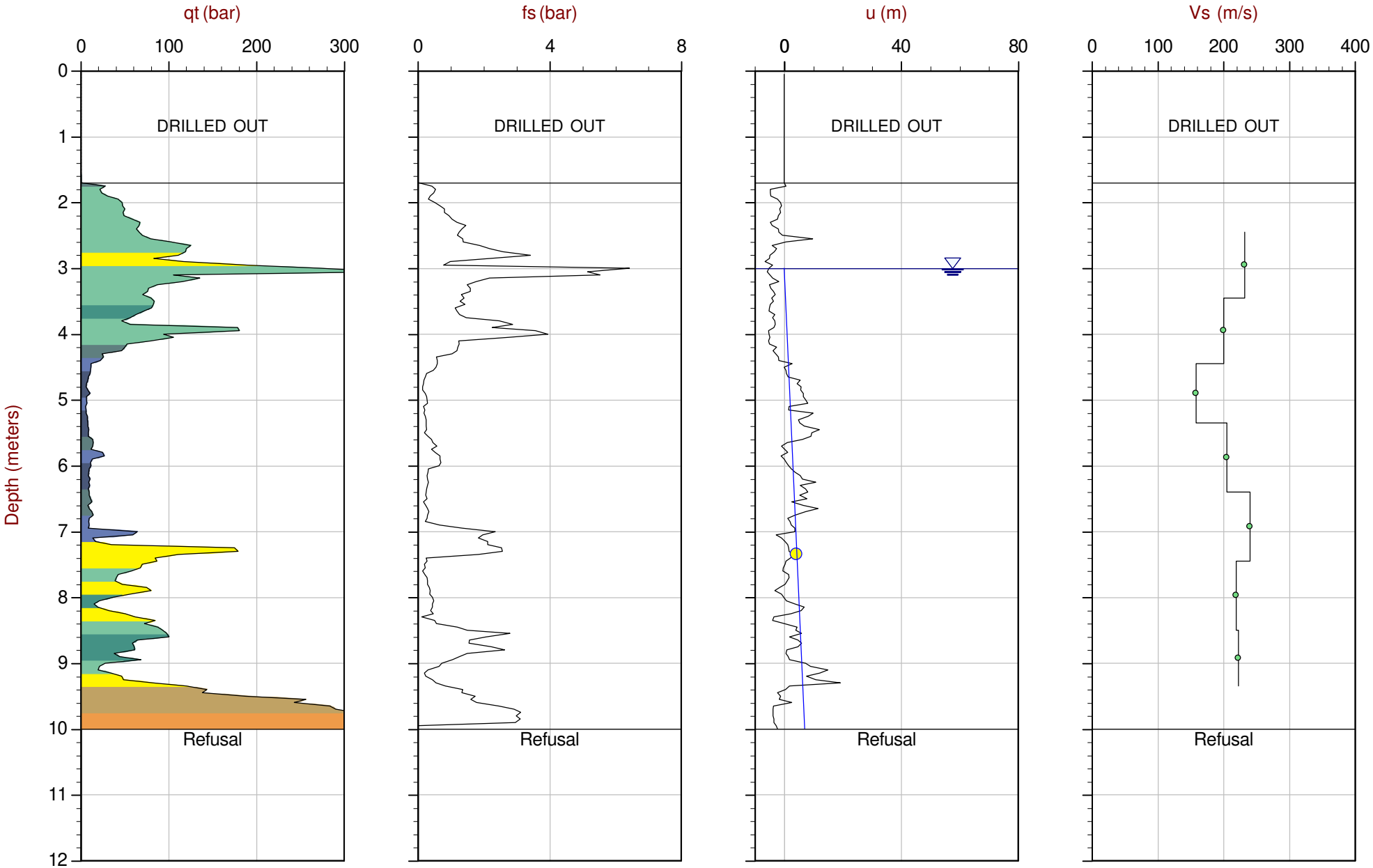
The reported coordinates were acquired from hand-held GPS equipment and are only approximate locations.The coordinates should not be used for design purposes.

CONETEC

Levelton

Job No: 15-02014
Date: 02:24:15 13:19
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S03
Cone: 407:T1500F15U500



Max Depth: 10.000 m / 32.81 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02014_SPS03.COR
Unit Wt: SBT Chart Soil Zones

Overplot Item: Ueq
Hydrostatic Line

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM 10N N:5459595m E:503242m
Page No: 1 of 1

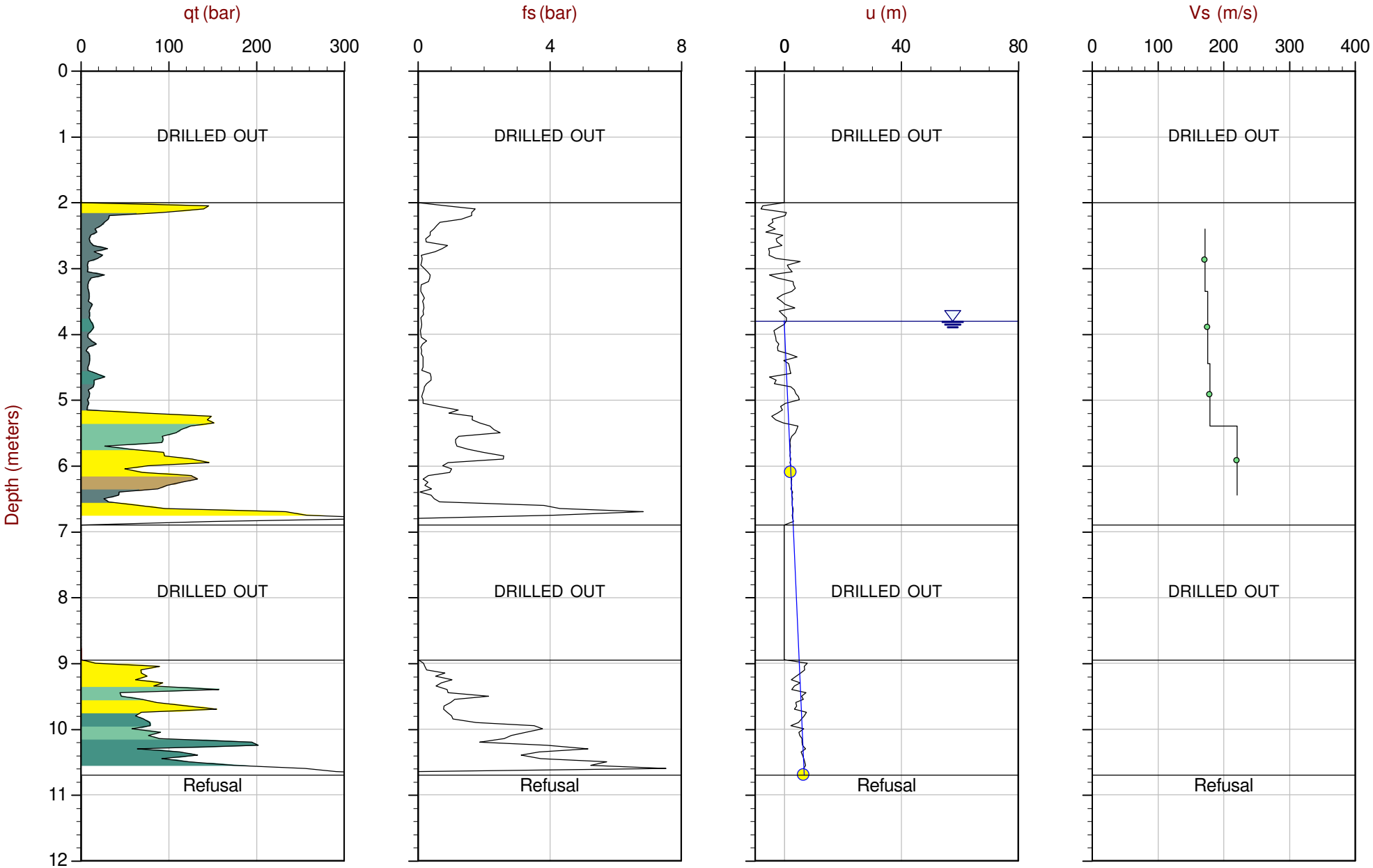
The reported coordinates were acquired from hand-held GPS equipment and are only approximate locations.The coordinates should not be used for design purposes.

CONETEC

Levelton

Job No: 15-02014
Date: 02:18:15 08:56
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S04
Cone: 329:T1500F15U500



Max Depth: 10.700 m / 35.10 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02014_SPS04.COR
Unit Wt: SBT Chart Soil Zones

Overplot Item: Ueq — Hydrostatic Line

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM 10N N:5459625m E:503293m
Page No: 1 of 1

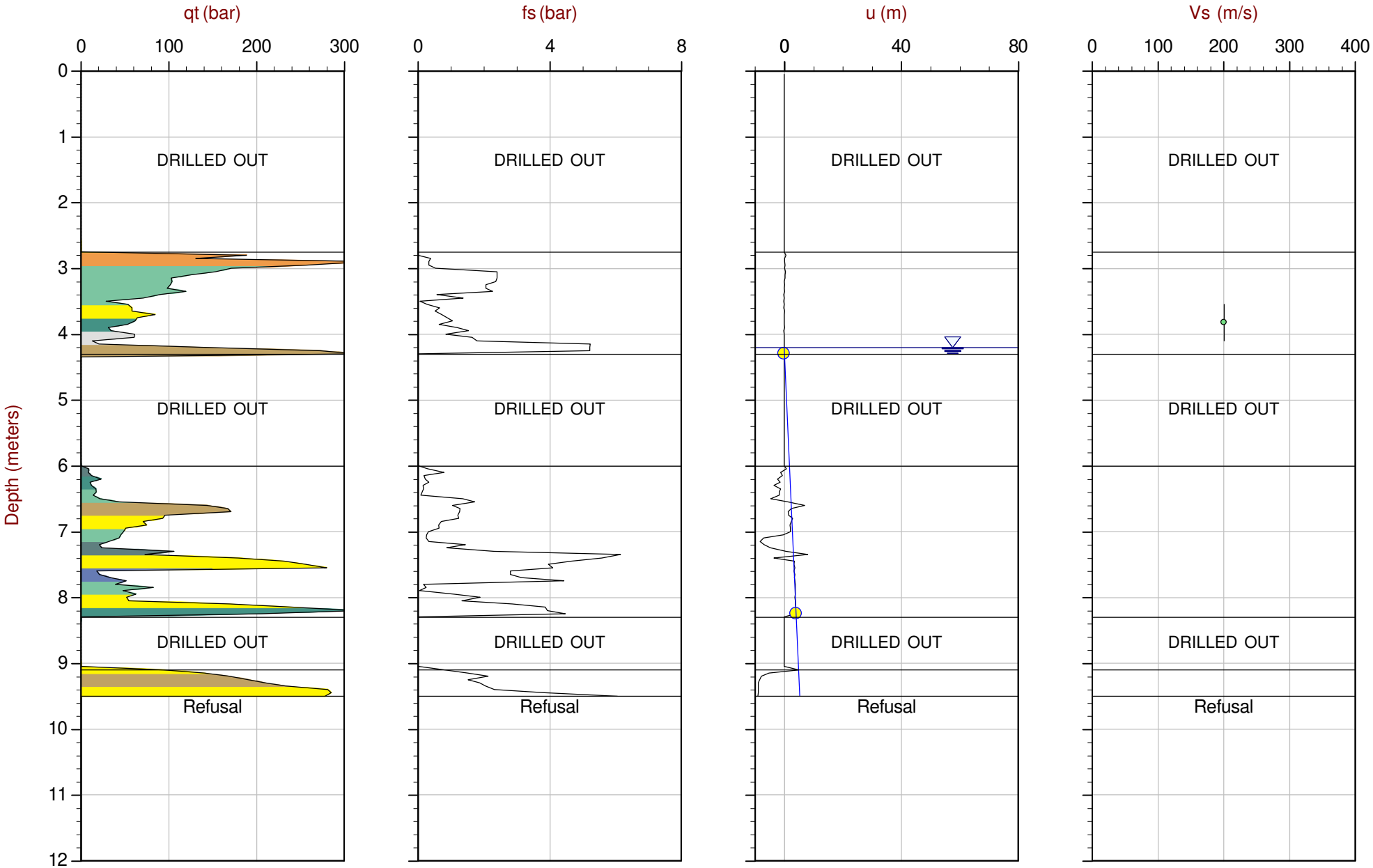
The reported coordinates were acquired from hand-held GPS equipment and are only approximate locations.The coordinates should not be used for design purposes.

CONETEC

Levelton

Job No: 15-02014
Date: 02:16:15 11:40
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S05
Cone: 375:T1500F15U500



Max Depth: 9.500 m / 31.17 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02014_SPS05.COR
Unit Wt: SBT Chart Soil Zones

Overplot Item: Ueq
Hydrostatic Line

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM 10N N:5459615m E:503300m
Page No: 1 of 1

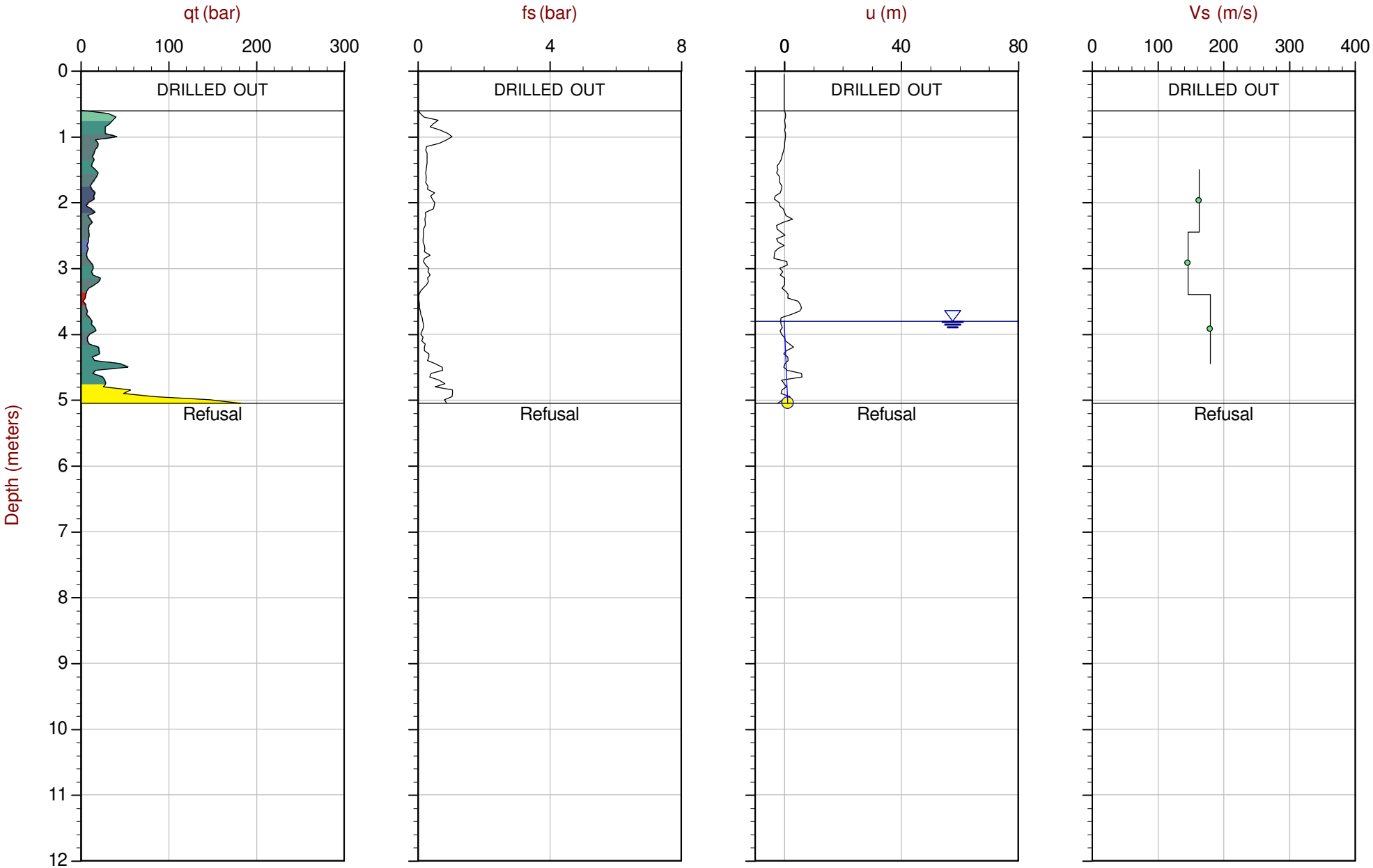
The reported coordinates were acquired from hand-held GPS equipment and are only approximate locations.The coordinates should not be used for design purposes.

CONETEC

Levelton

Job No: 15-02014
Date: 02:23:15 09:50
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S06
Cone: 329:T1500F15U500



Max Depth: 5.050 m / 16.57 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

Overplot Item: Ueq

File: 15-02014_SPS06.COR
Unit Wt: SBT Chart Soil Zones

Hydrostatic Line

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM 10N N:5459648m E:503324m
Page No: 1 of 1

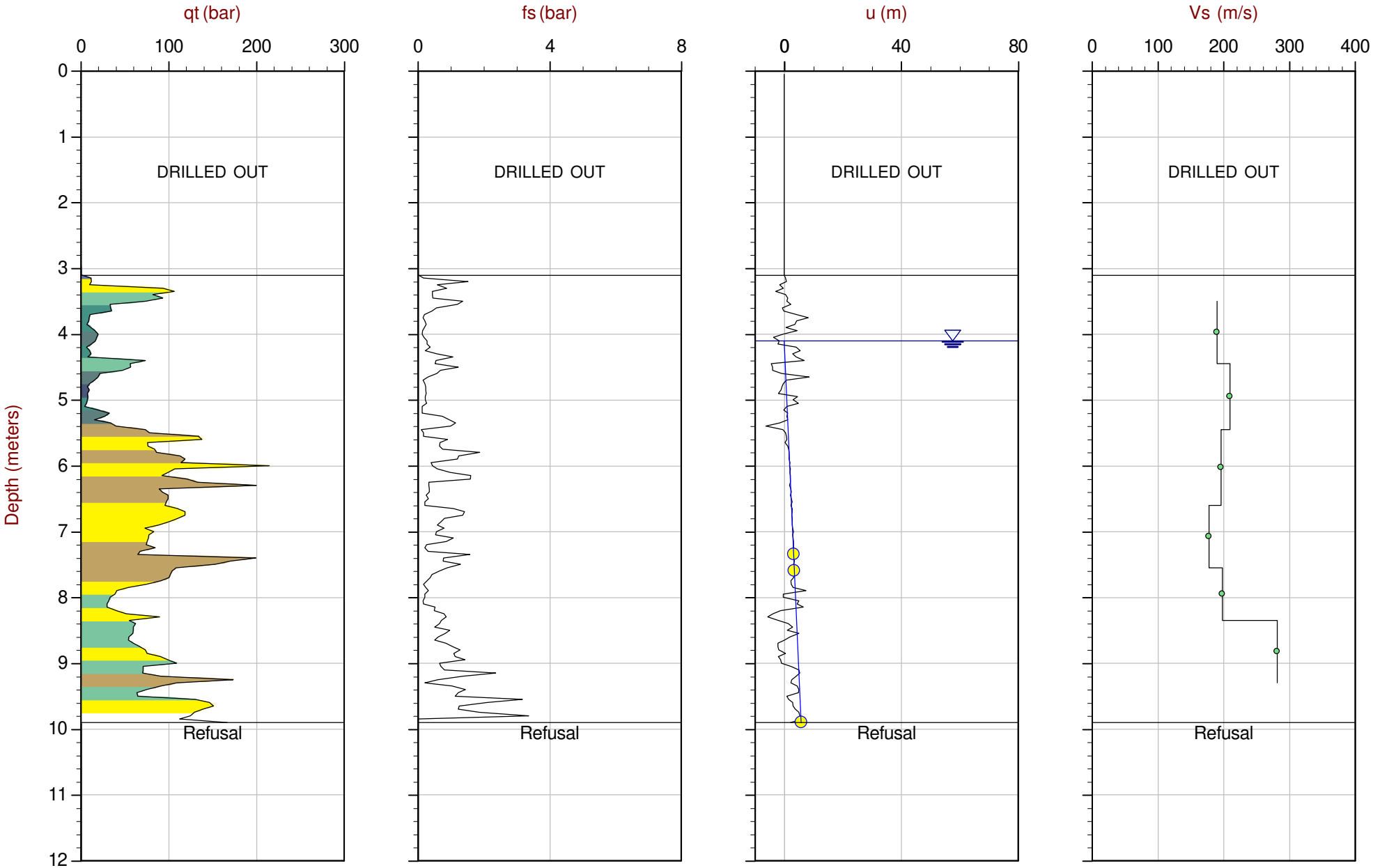
The reported coordinates were acquired from hand-held GPS equipment and are only approximate locations.The coordinates should not be used for design purposes.

CONETEC

Levelton

Job No: 15-02014
Date: 02:17:15 13:54
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S08
Cone: 329:T1500F15U500



Max Depth: 9.900 m / 32.48 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02014_SPS08.COR
Unit Wt: SBT Chart Soil Zones

Overplot Item: Ueq
Hydrostatic Line

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM 10N N:5459661m E:503359m
Page No: 1 of 1

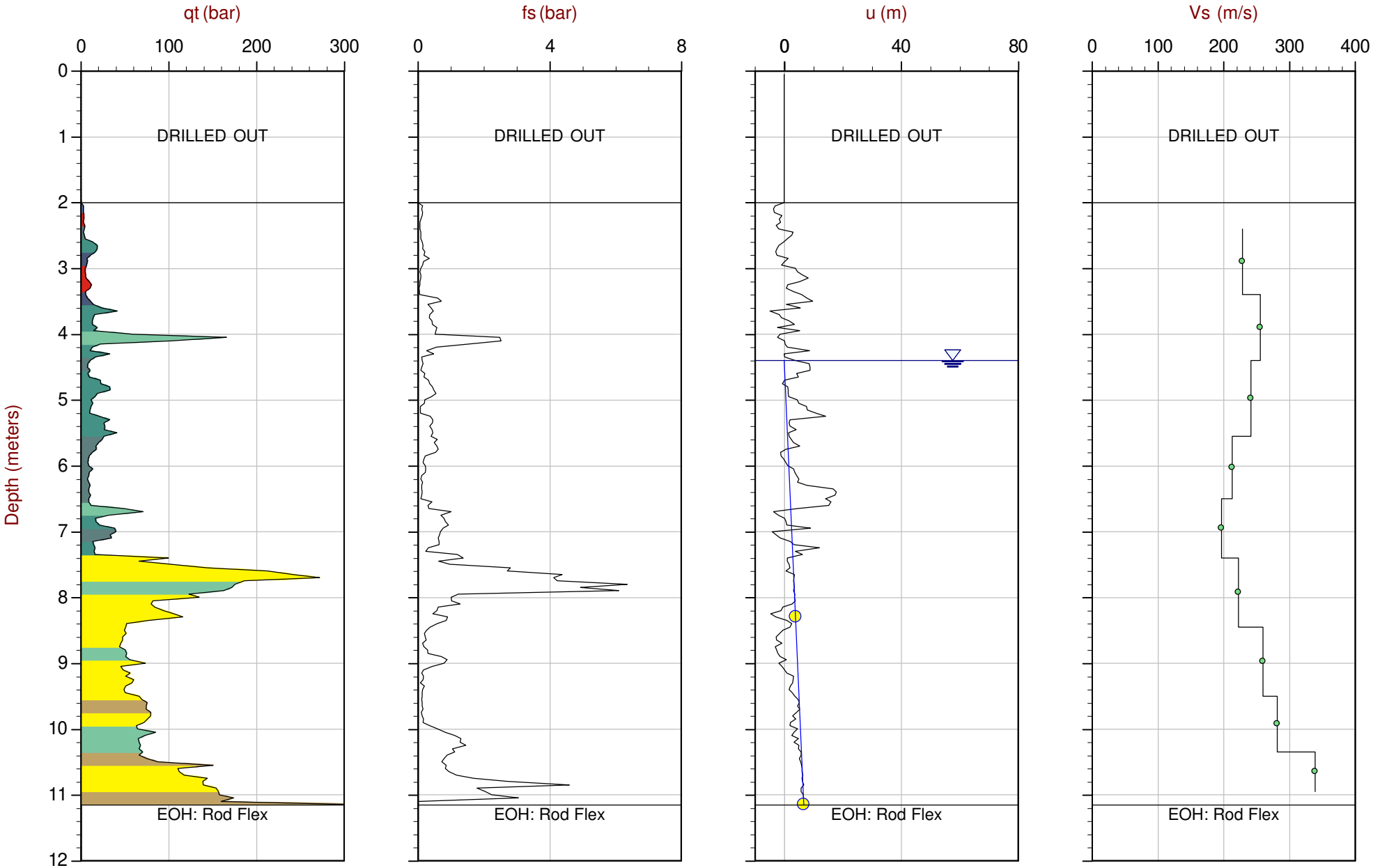
The reported coordinates were acquired from hand-held GPS equipment and are only approximate locations.The coordinates should not be used for design purposes.

CONETEC

Levelton

Job No: 15-02014
Date: 02:17:15 09:24
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S10
Cone: 329:T1500F15U500



Max Depth: 11.150 m / 36.58 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02014_SPS10.COR
Unit Wt: SBT Chart Soil Zones

Overplot Item: Ueq — Hydrostatic Line

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM 10N N:5459696m E:503422m
Page No: 1 of 1

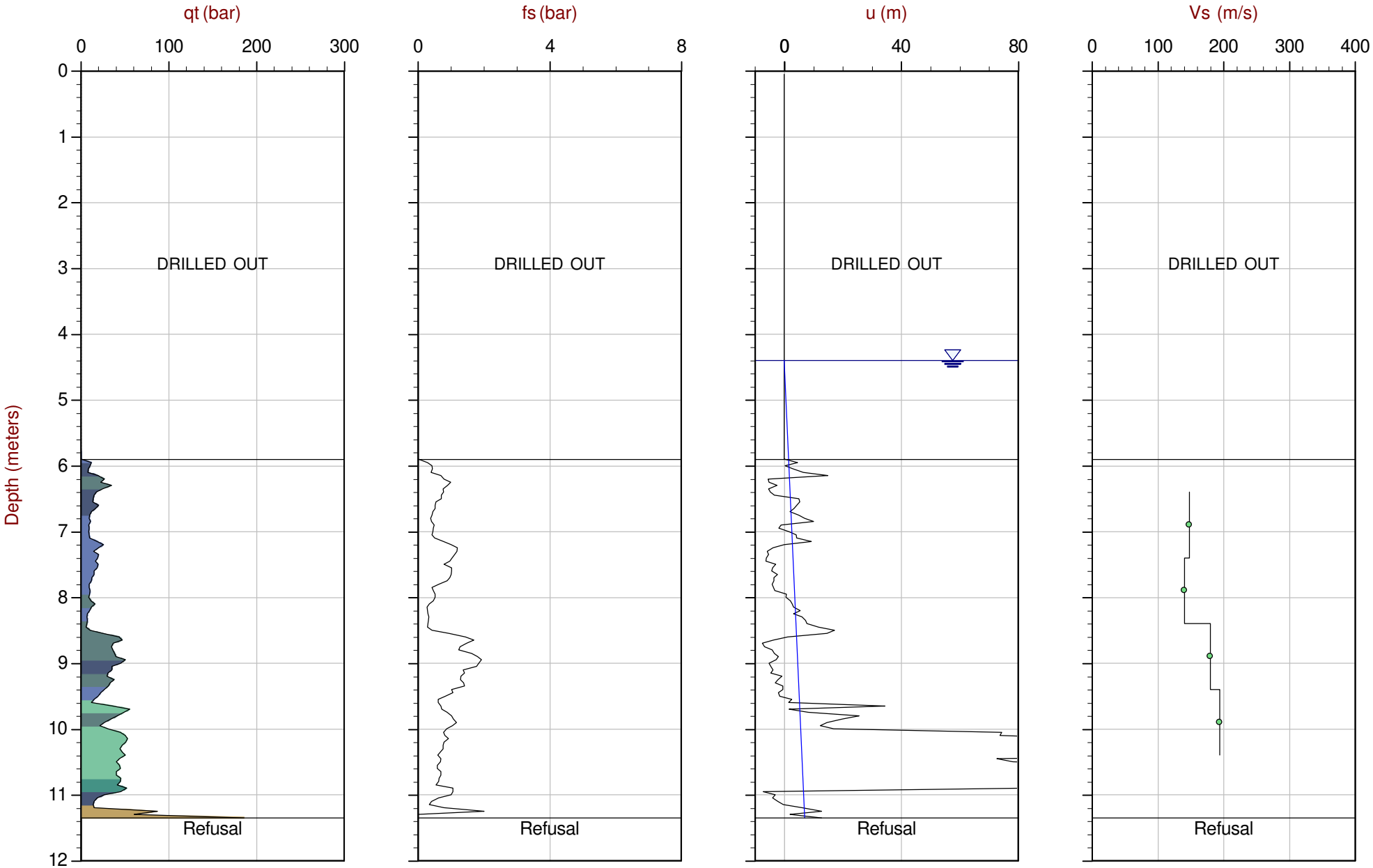
The reported coordinates were acquired from hand-held GPS equipment and are only approximate locations.The coordinates should not be used for design purposes.

CONETEC

Levelton

Job No: 15-02014
Date: 02:19:15 08:51
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S12
Cone: 329:T1500F15U500



Max Depth: 11.350 m / 37.24 ft
Depth Inc: 0.050 m / 0.164 ft
Avg Int: 0.200 m

File: 15-02014_SPS12.COR
Unit Wt: SBT Chart Soil Zones

Overplot Item: Ueq — Hydrostatic Line

SBT: Lunne, Robertson and Powell, 1997
Coords: UTM 10N N:5459669m E:503416m
Page No: 1 of 1

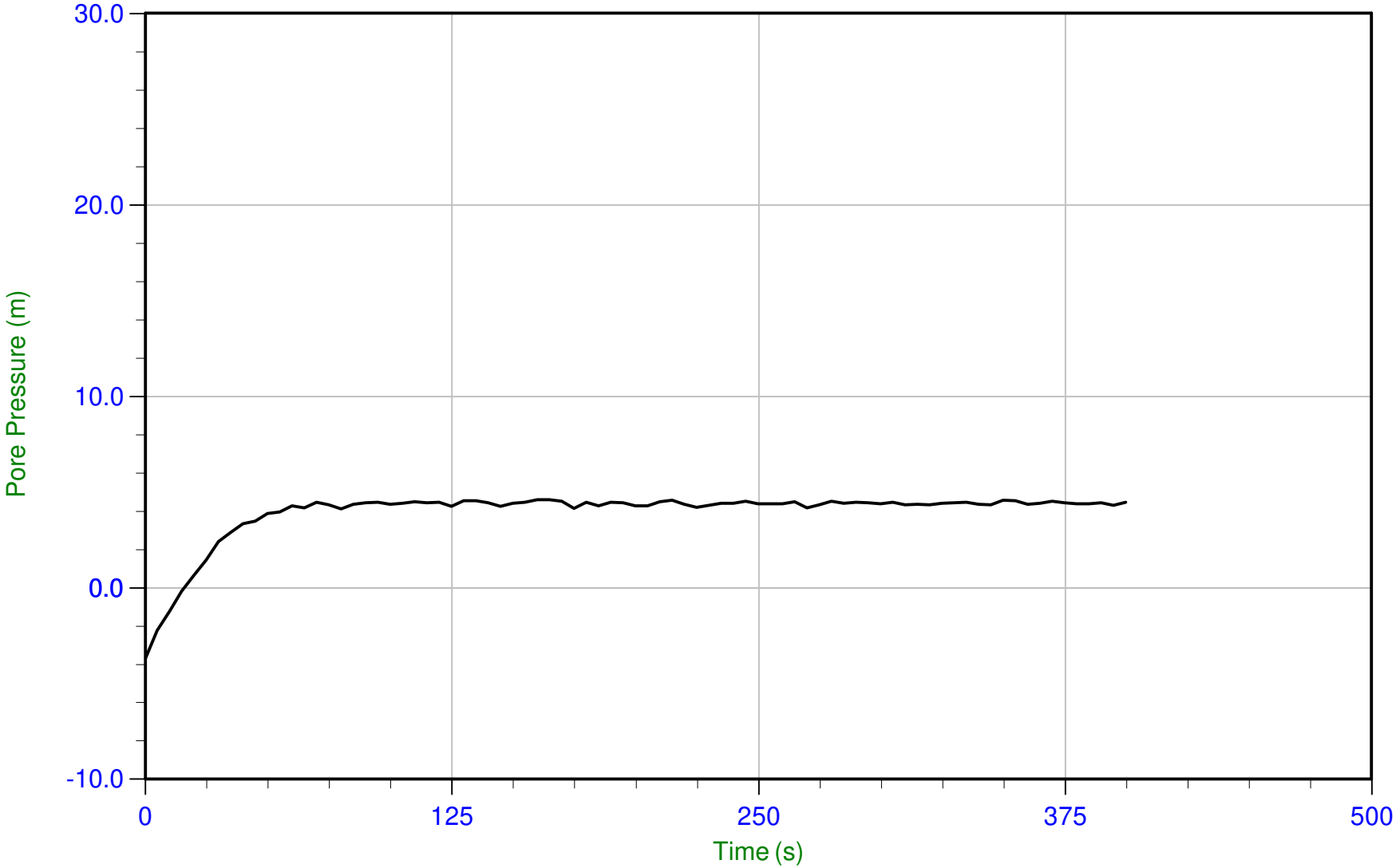
The reported coordinates were acquired from hand-held GPS equipment and are only approximate locations.The coordinates should not be used for design purposes.

CONETEC

Levelton

Job No: 15-02014
Date: 02/23/2015 13:57
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S01
Cone: 407:T1500F15U500
Cone Area: 15 sq cm



Trace Summary:

Filename: 15-02014_SPS01.PPF
Depth: 8.950 m / 29.363 ft
Duration: 400.0 s

U Min: -3.7 m
U Max: 4.6 m

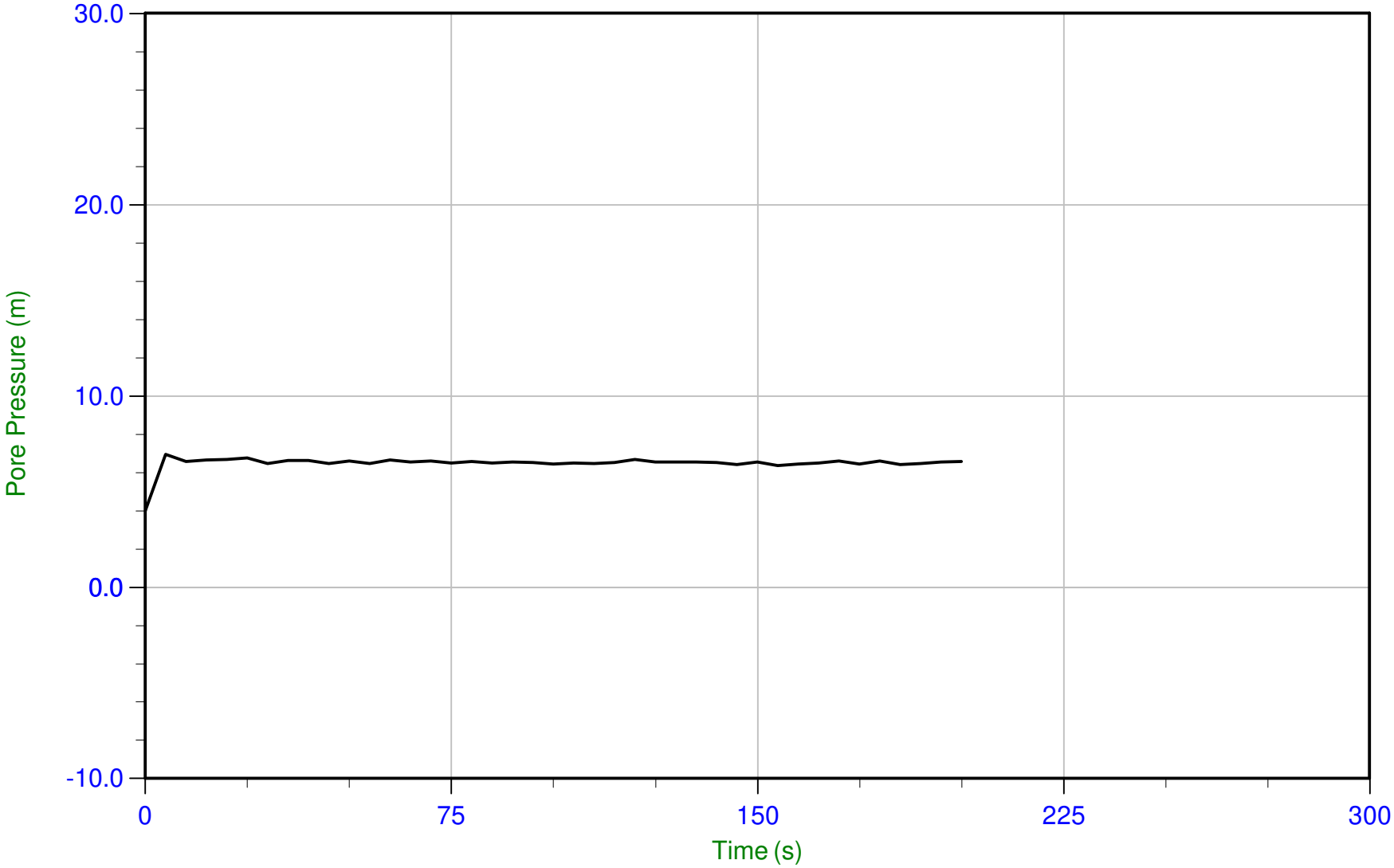
WT: 4.498 m / 14.757 ft
Ueq: 4.5 m

CONETEC

Levelton

Job No: 15-02014
Date: 02/23/2015 13:57
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S01
Cone: 407:T1500F15U500
Cone Area: 15 sq cm



Trace Summary:

Filename: 15-02014_SPS01.PPF
Depth: 11.000 m / 36.089 ft
Duration: 200.0 s

U Min: 4.0 m
U Max: 6.9 m

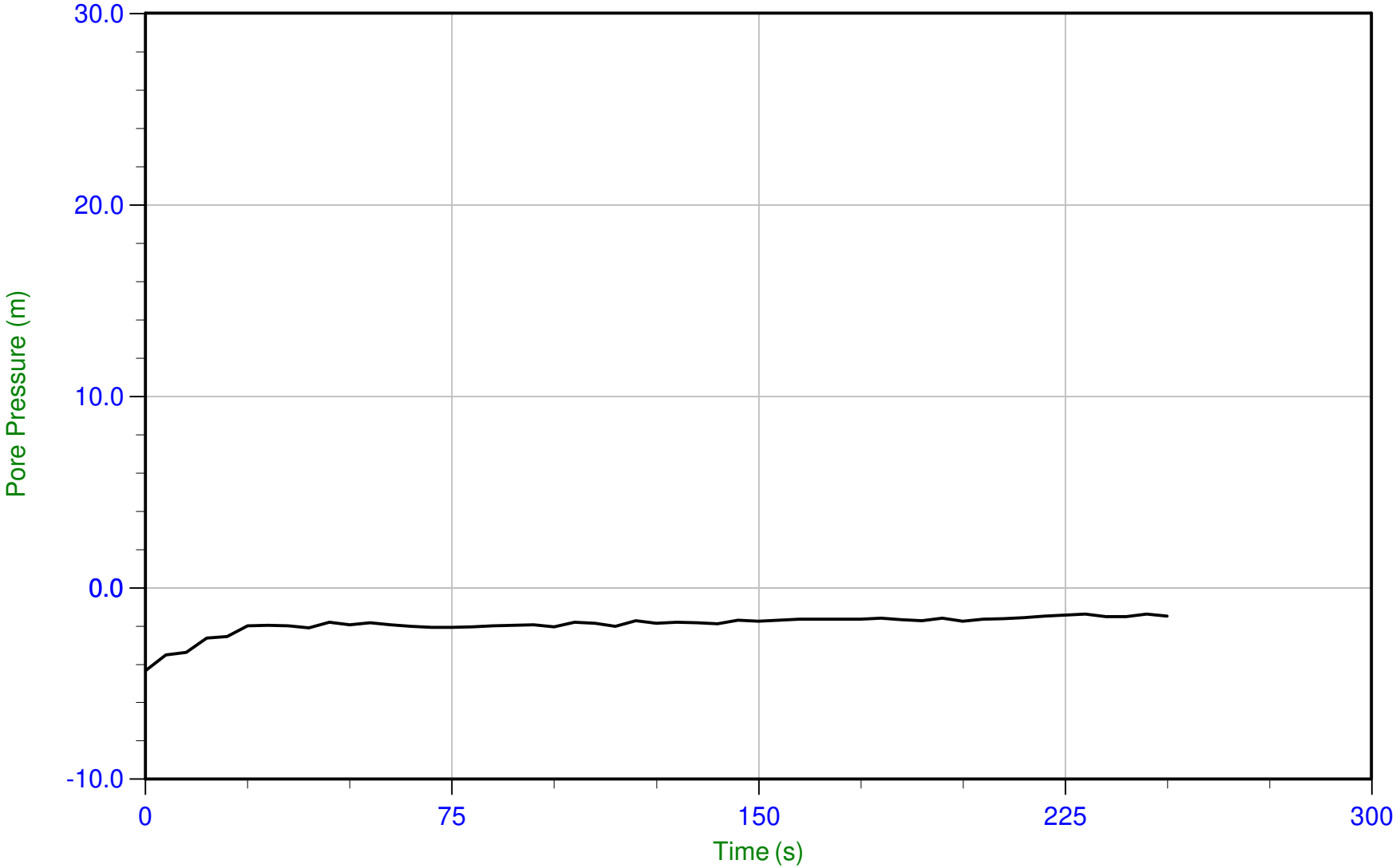
WT: 4.484 m / 14.711 ft
Ueq: 6.5 m

CONETEC

Levelton

Job No: 15-02014
Date: 02/24/2015 09:15
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S02
Cone: 407:T1500F15U500
Cone Area: 15 sq cm



Trace Summary:

Filename: 15-02014_SPS02.PPF
Depth: 3.300 m / 10.827 ft
Duration: 250.0 s

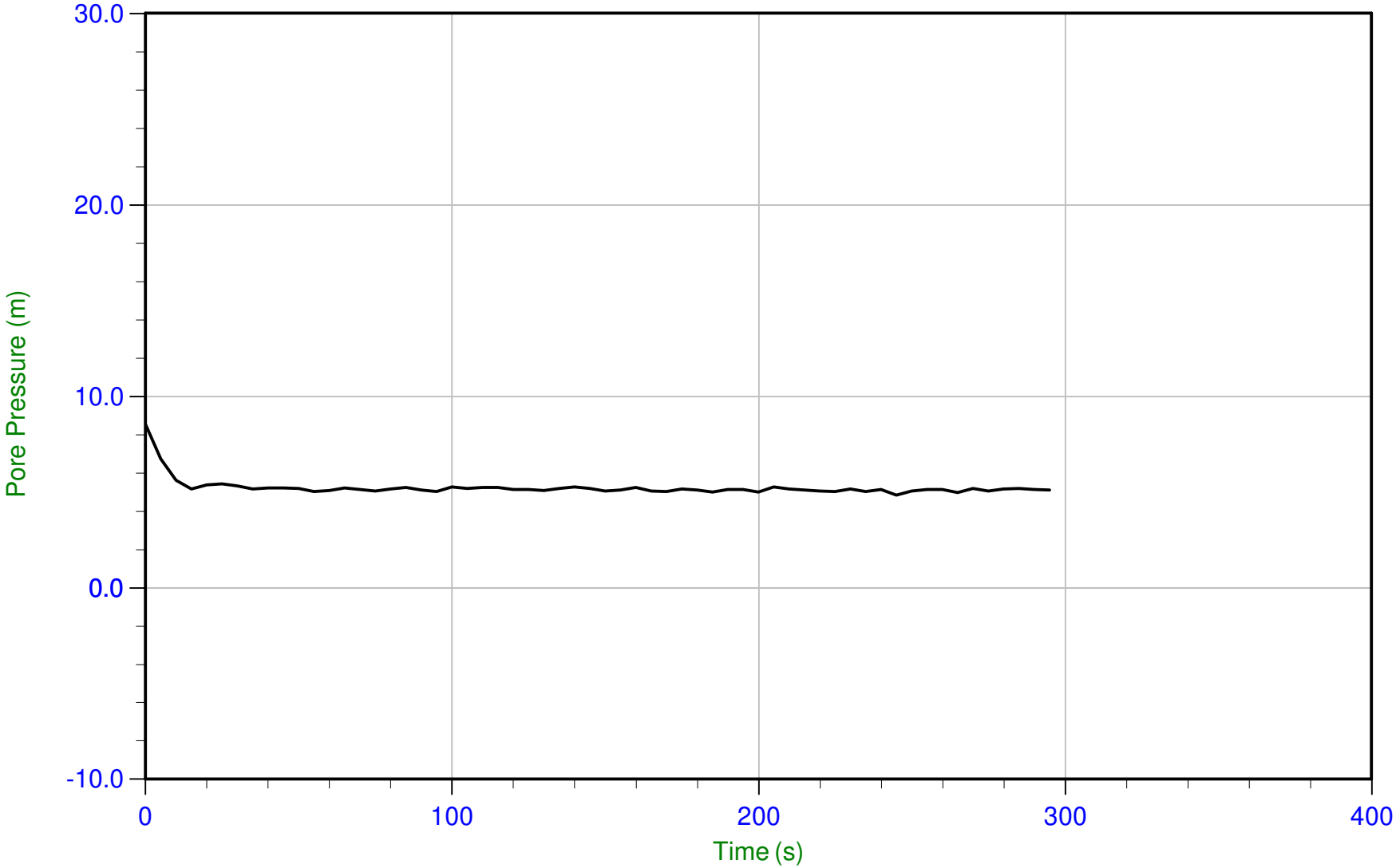
U Min: -4.3 m
U Max: -1.4 m

CONETEC

Levelton

Job No: 15-02014
Date: 02/24/2015 09:15
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S02
Cone: 407:T1500F15U500
Cone Area: 15 sq cm



Trace Summary:

Filename: 15-02014_SPS02.PPF
Depth: 8.350 m / 27.395 ft
Duration: 295.0 s

U Min: 4.8 m
U Max: 8.5 m

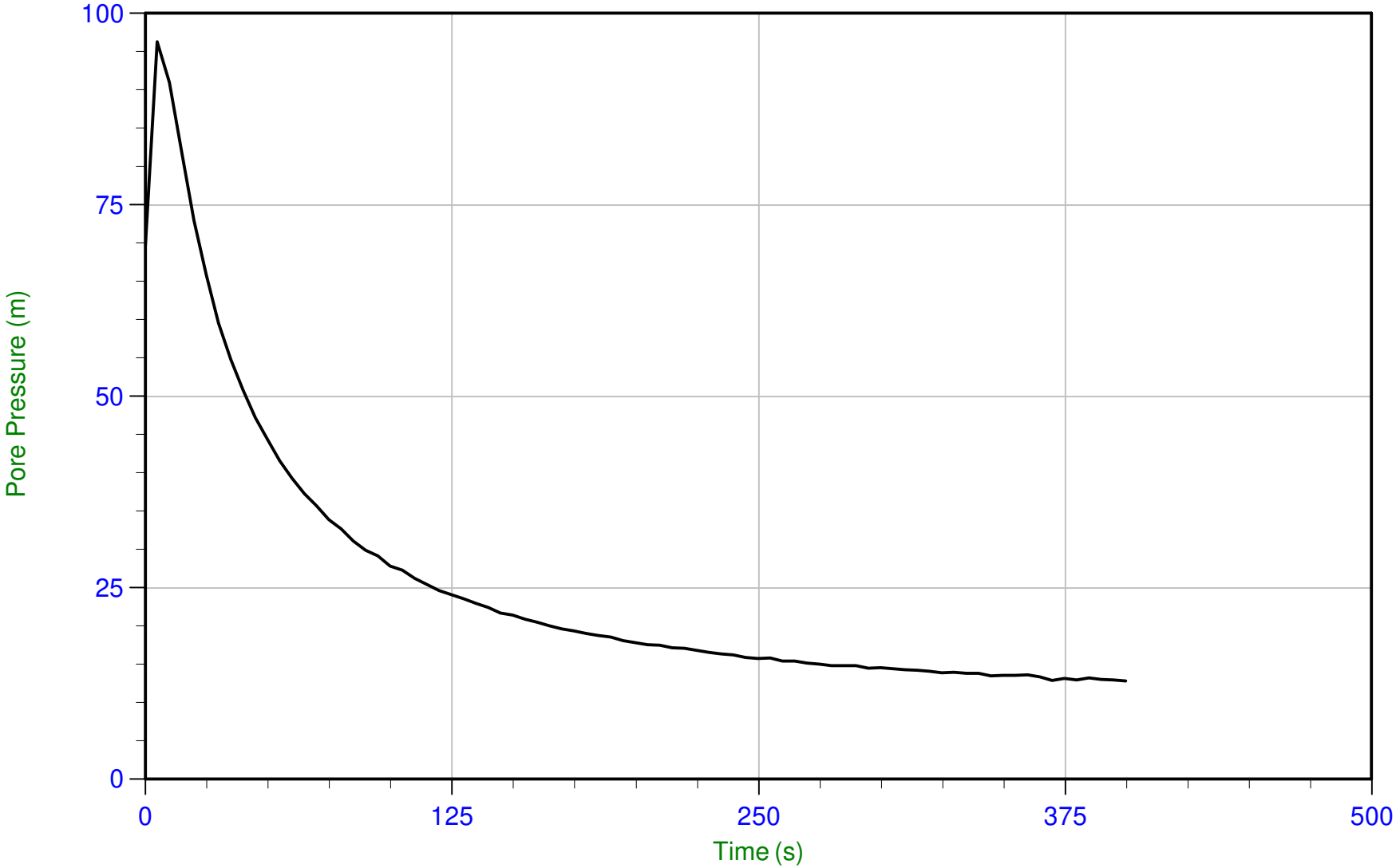
WT: 3.253 m / 10.672 ft
Ueq: 5.1 m

CONETEC

Levelton

Job No: 15-02014
Date: 02/24/2015 09:15
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S02
Cone: 407:T1500F15U500
Cone Area: 15 sq cm



Trace Summary:

Filename: 15-02014_SPS02.PPF
Depth: 11.100 m / 36.417 ft
Duration: 400.0 s

U Min: 12.8 m
U Max: 96.3 m

WT: 3.300 m / 10.827 ft
Ueq: 7.8 m
U(50): 52.05 m

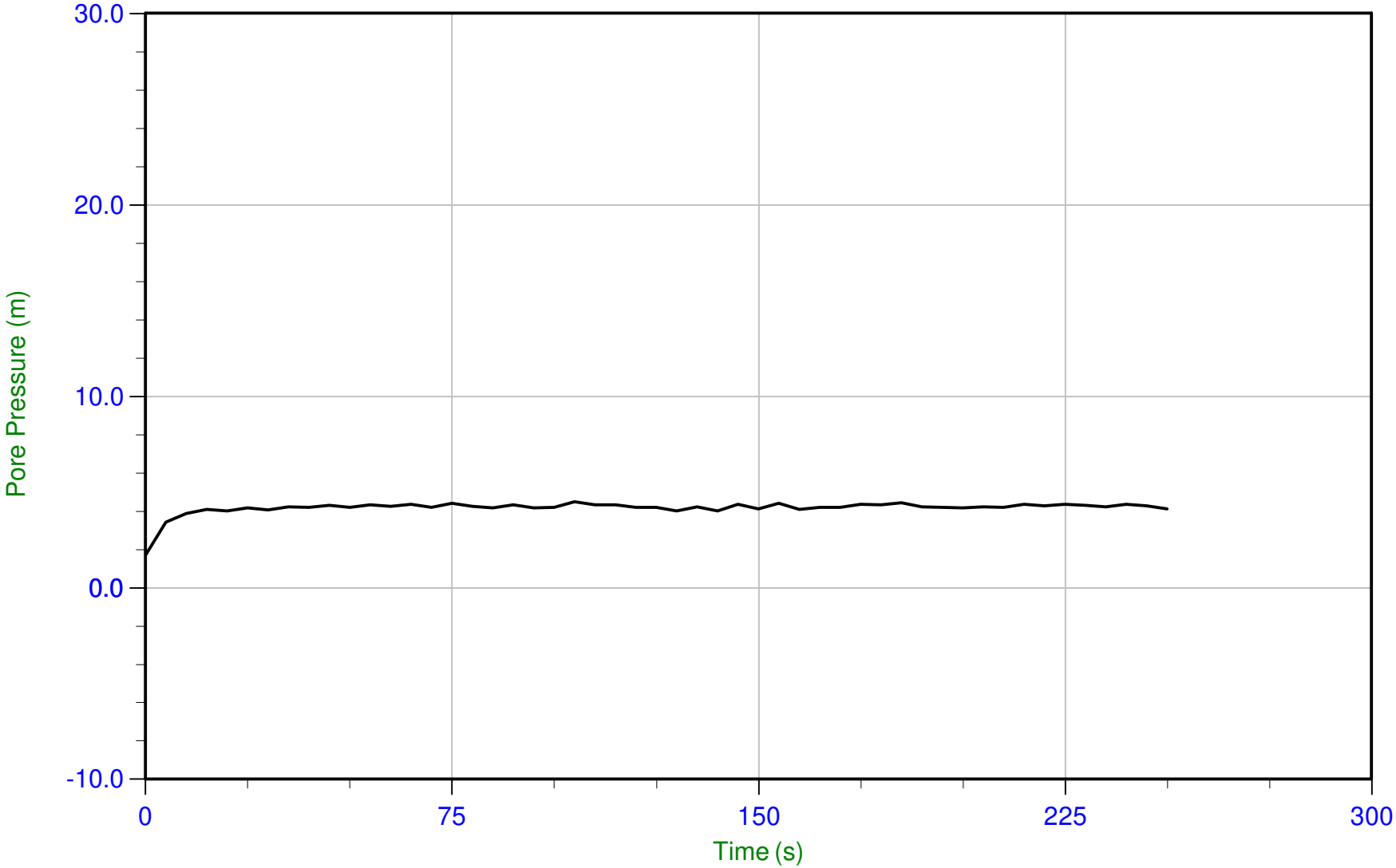
T(50): 33.5 s
Ir: 100
Ch: 21.0 sq cm/min

CONETEC

Levelton

Job No: 15-02014
Date: 02/24/2015 13:19
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S03
Cone: 407:T1500F15U500
Cone Area: 15 sq cm



Trace Summary:

Filename: 15-02014_SPS03.PPF
Depth: 7.350 m / 24.114 ft
Duration: 250.0 s

U Min: 1.7 m
U Max: 4.5 m

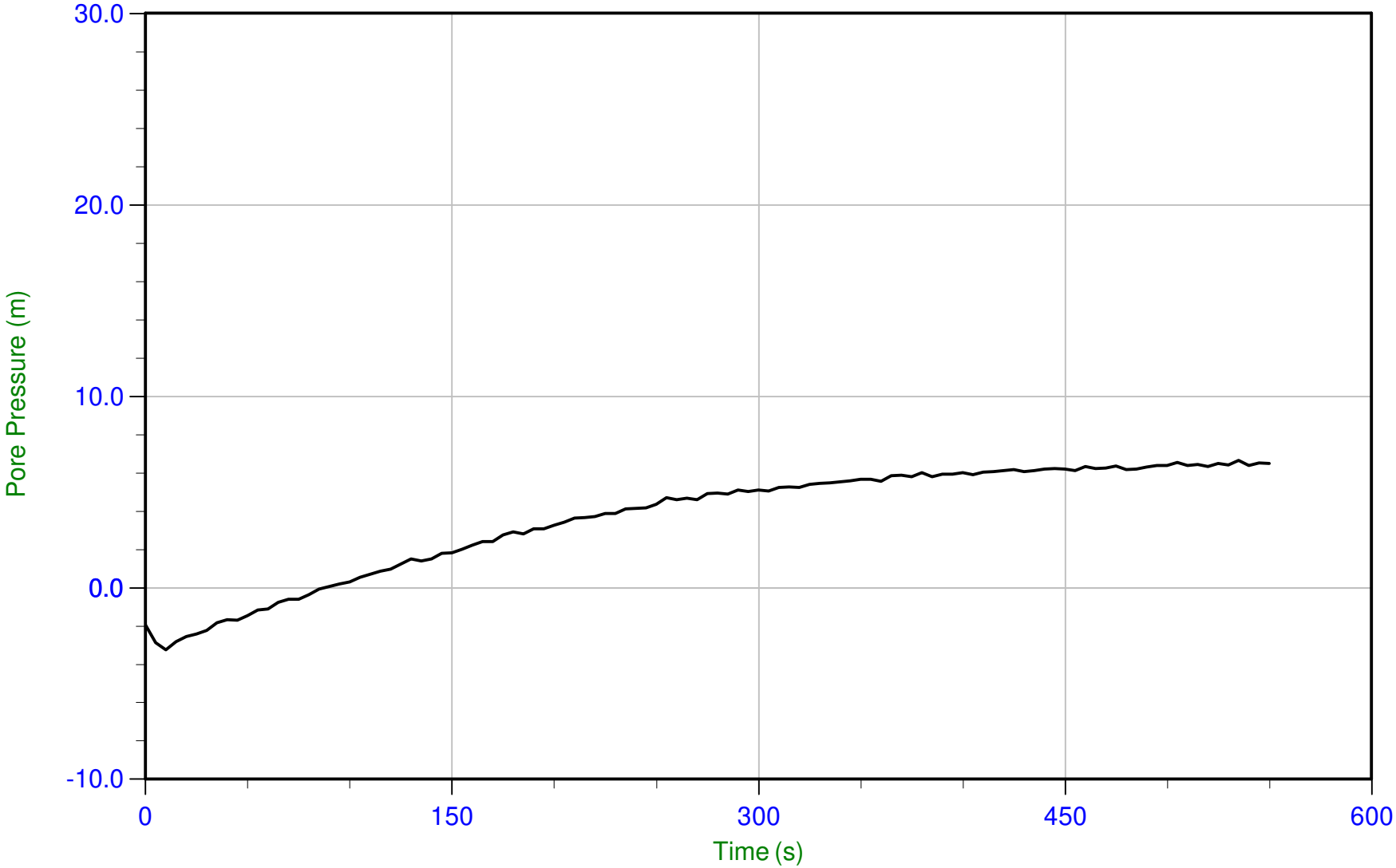
WT: 3.027 m / 9.931 ft
Ueq: 4.3 m

CONETEC

Levelton

Job No: 15-02014
Date: 02/24/2015 13:19
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S03
Cone: 407:T1500F15U500
Cone Area: 15 sq cm



Trace Summary:

Filename: 15-02014_SPS03.PPF
Depth: 10.000 m / 32.808 ft
Duration: 550.0 s

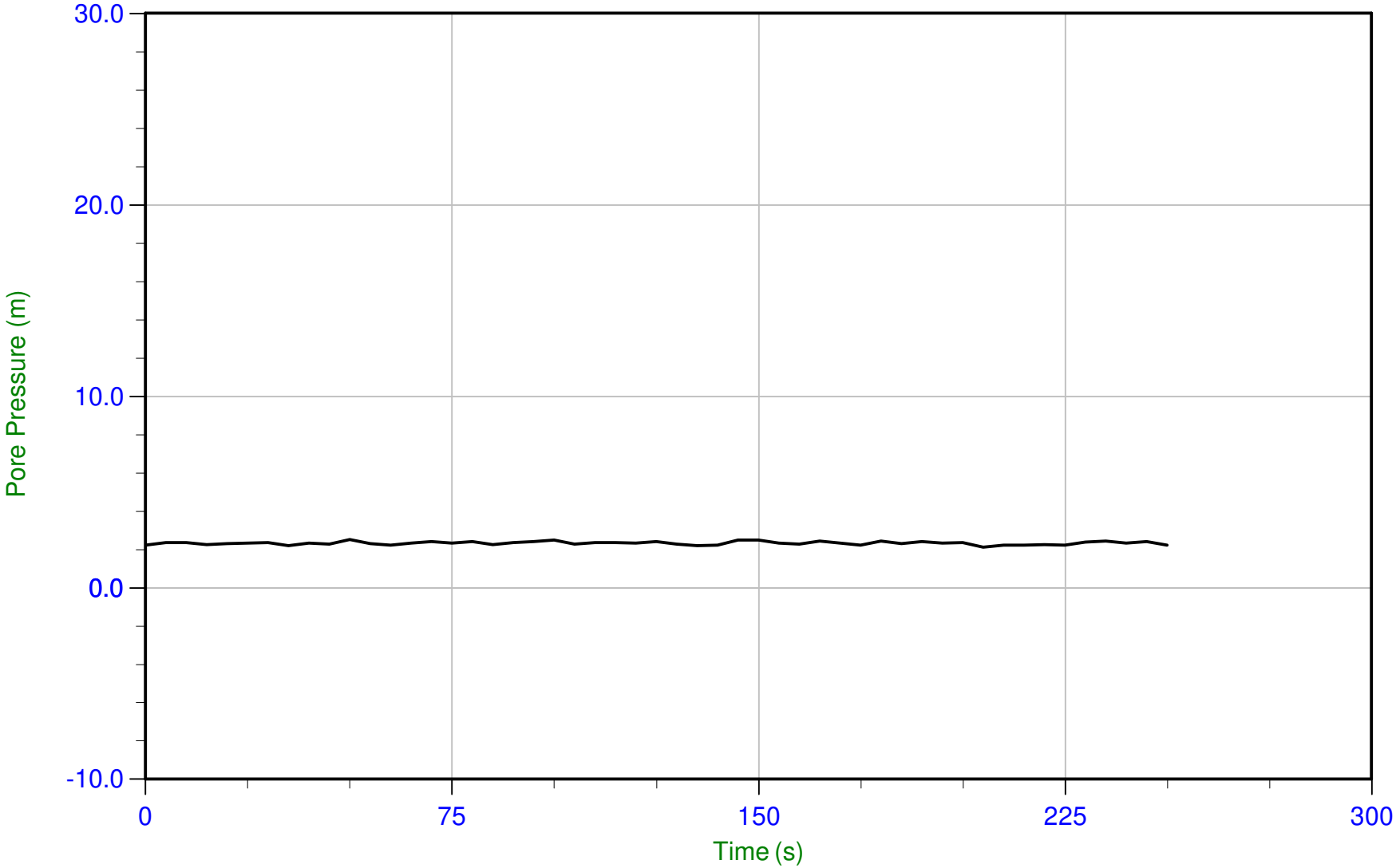
U Min: -3.3 m
U Max: 6.7 m

CONETEC

Levelton

Job No: 15-02014
Date: 02/18/2015 08:56
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S04
Cone: 329:T1500F15U500
Cone Area: 15 sq cm



Trace Summary:

Filename: 15-02014_SPS04.PPF
Depth: 6.100 m / 20.013 ft
Duration: 250.0 s

U Min: 2.1 m
U Max: 2.5 m

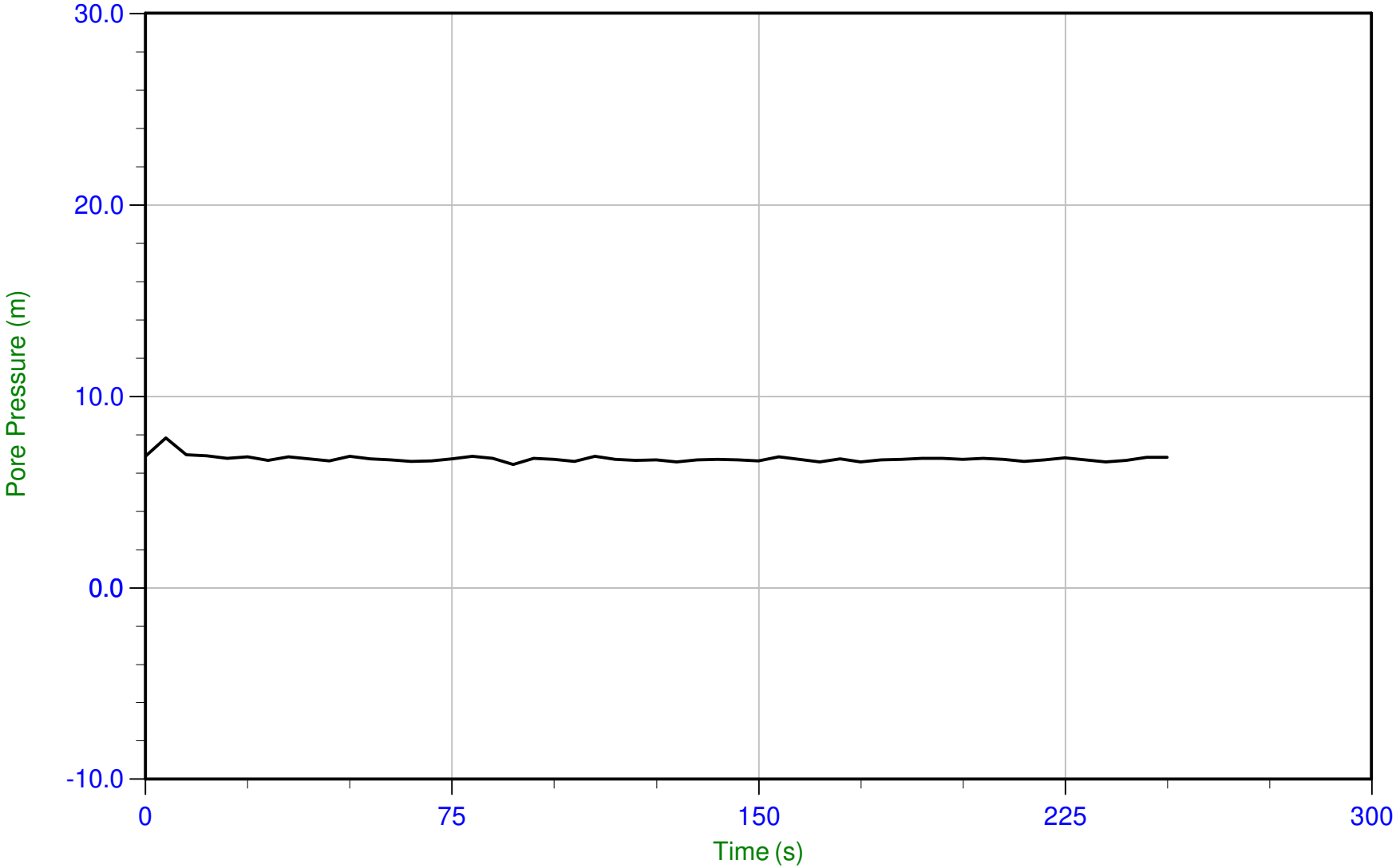
WT: 3.842 m / 12.605 ft
Ueq: 2.3 m

CONETEC

Levelton

Job No: 15-02014
Date: 02/18/2015 08:56
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S04
Cone: 329:T1500F15U500
Cone Area: 15 sq cm



Trace Summary:

Filename: 15-02014_SPS04.PPF
Depth: 10.700 m / 35.105 ft
Duration: 250.0 s

U Min: 6.5 m
U Max: 7.8 m

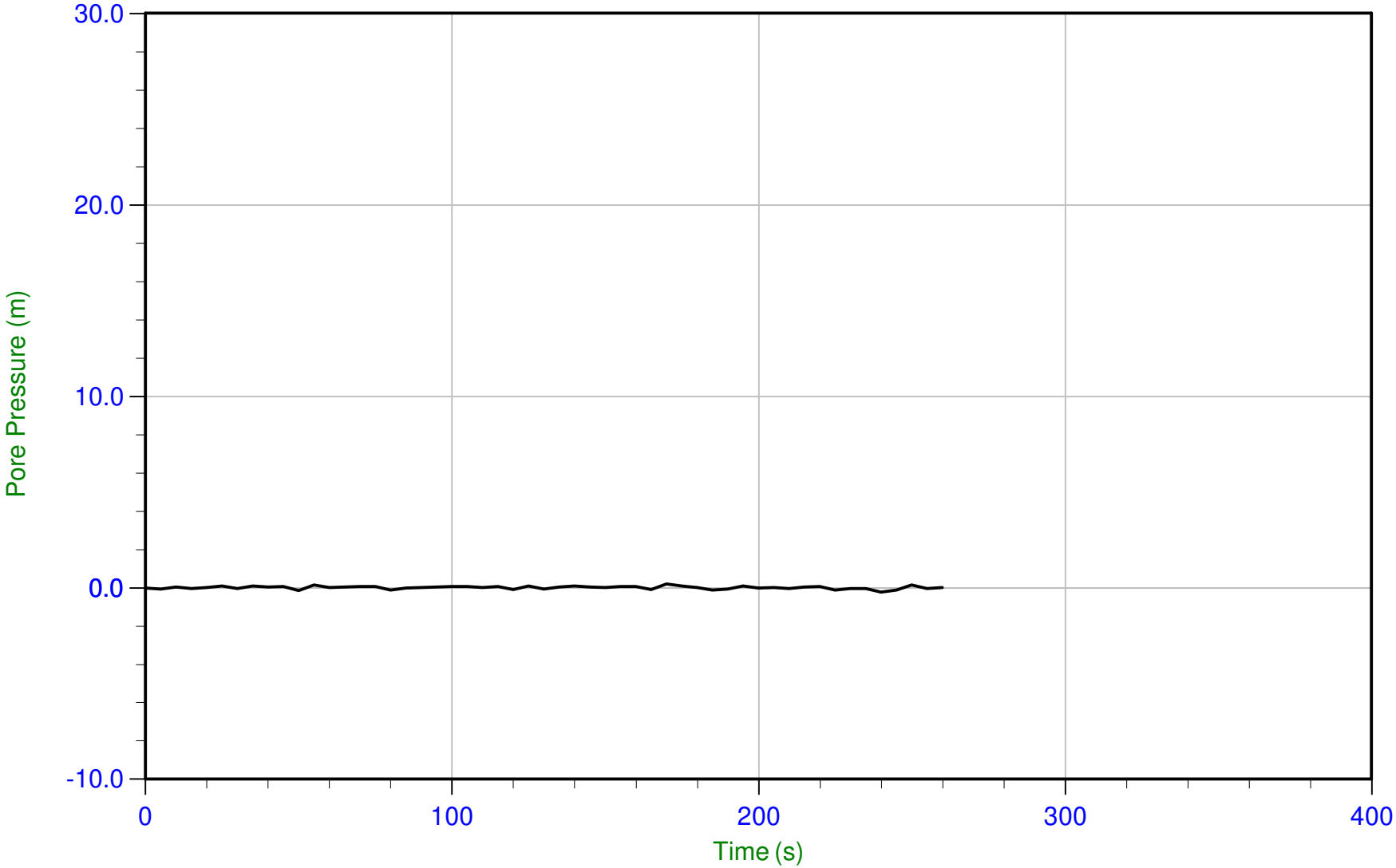
WT: 3.926 m / 12.880 ft
Ueq: 6.8 m

CONETEC

Levelton

Job No: 15-02014
Date: 02/16/2015 11:40
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S05
Cone: 375:T1500F15U500
Cone Area: 15 sq cm



Trace Summary:

Filename: 15-02014_SPS05.PPF
Depth: 4.300 m / 14.107 ft
Duration: 260.0 s

U Min: -0.2 m
U Max: 0.2 m

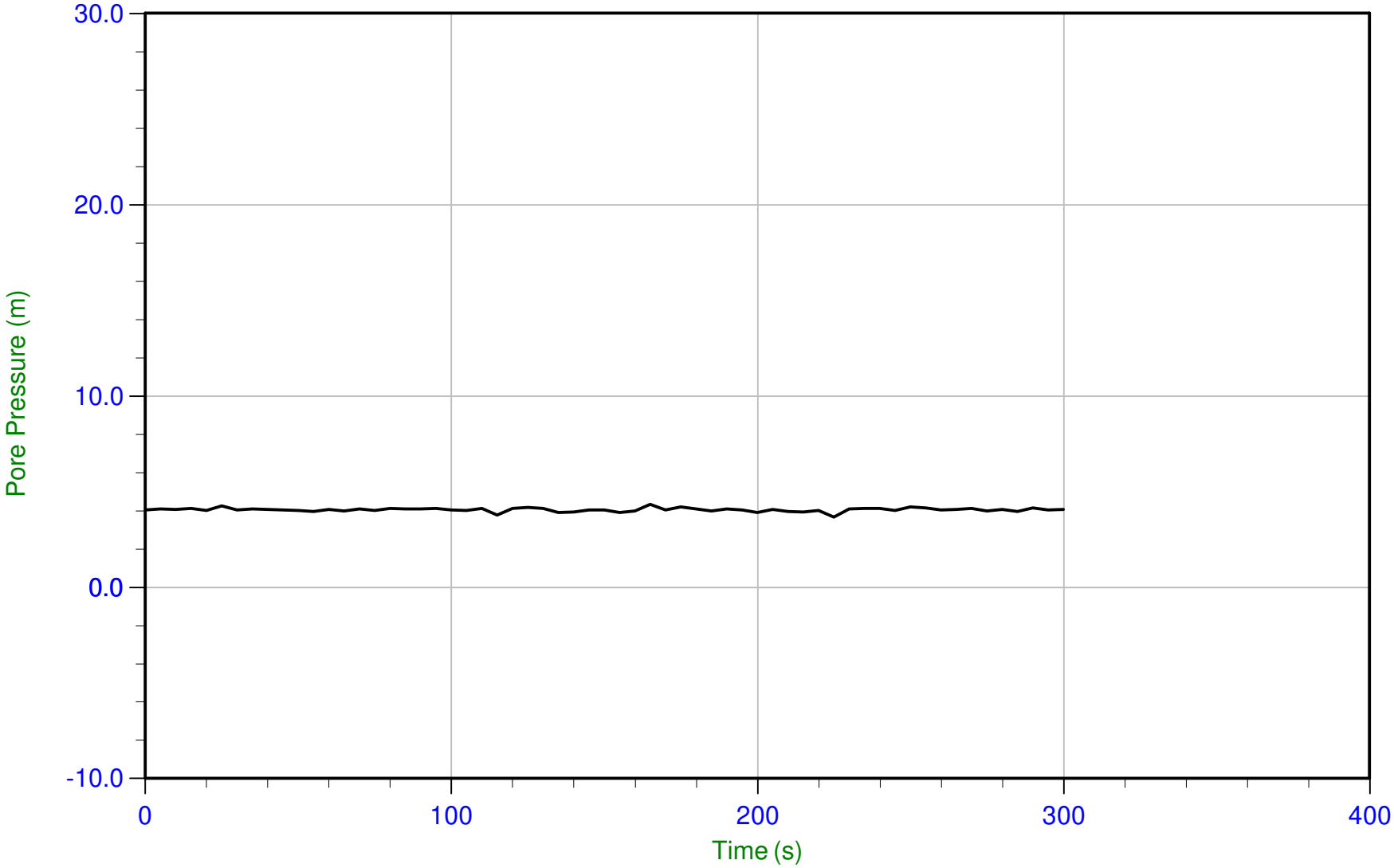
WT: 4.235 m / 13.894 ft
Ueq: 0.1 m

CONETEC

Levelton

Job No: 15-02014
Date: 02/16/2015 11:40
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S05
Cone: 375:T1500F15U500
Cone Area: 15 sq cm



Trace Summary:

Filename: 15-02014_SPS05.PPF
Depth: 8.250 m / 27.067 ft
Duration: 300.0 s

U Min: 3.7 m
U Max: 4.3 m

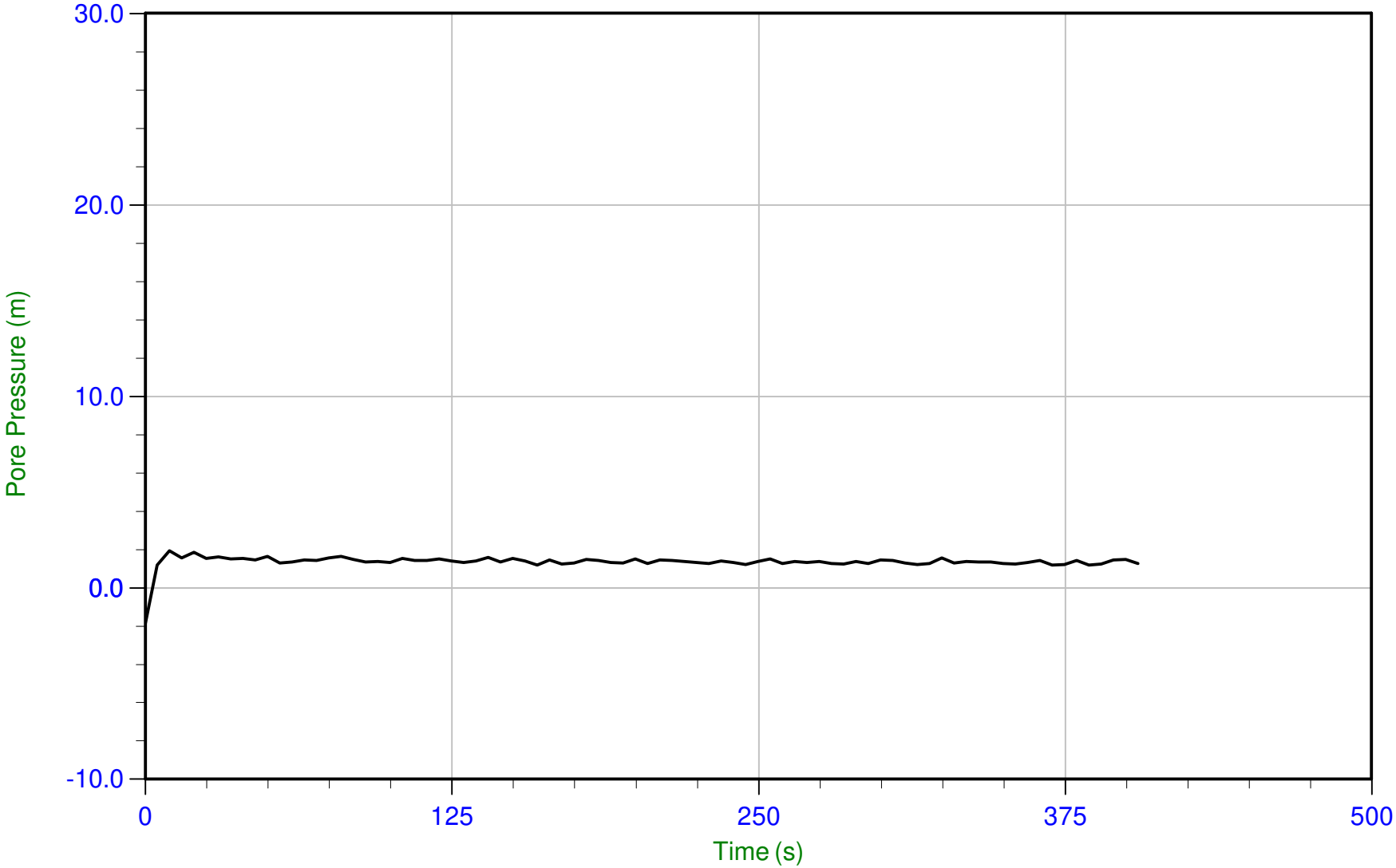
WT: 4.185 m / 13.730 ft
Ueq: 4.1 m

CONETEC

Levelton

Job No: 15-02014
Date: 02/23/2015 09:50
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S06
Cone: 329:T1500F15U500
Cone Area: 15 sq cm



Trace Summary:

Filename: 15-02014_SPS06.PPF
Depth: 5.050 m / 16.568 ft
Duration: 405.0 s

U Min: -1.9 m
U Max: 1.9 m

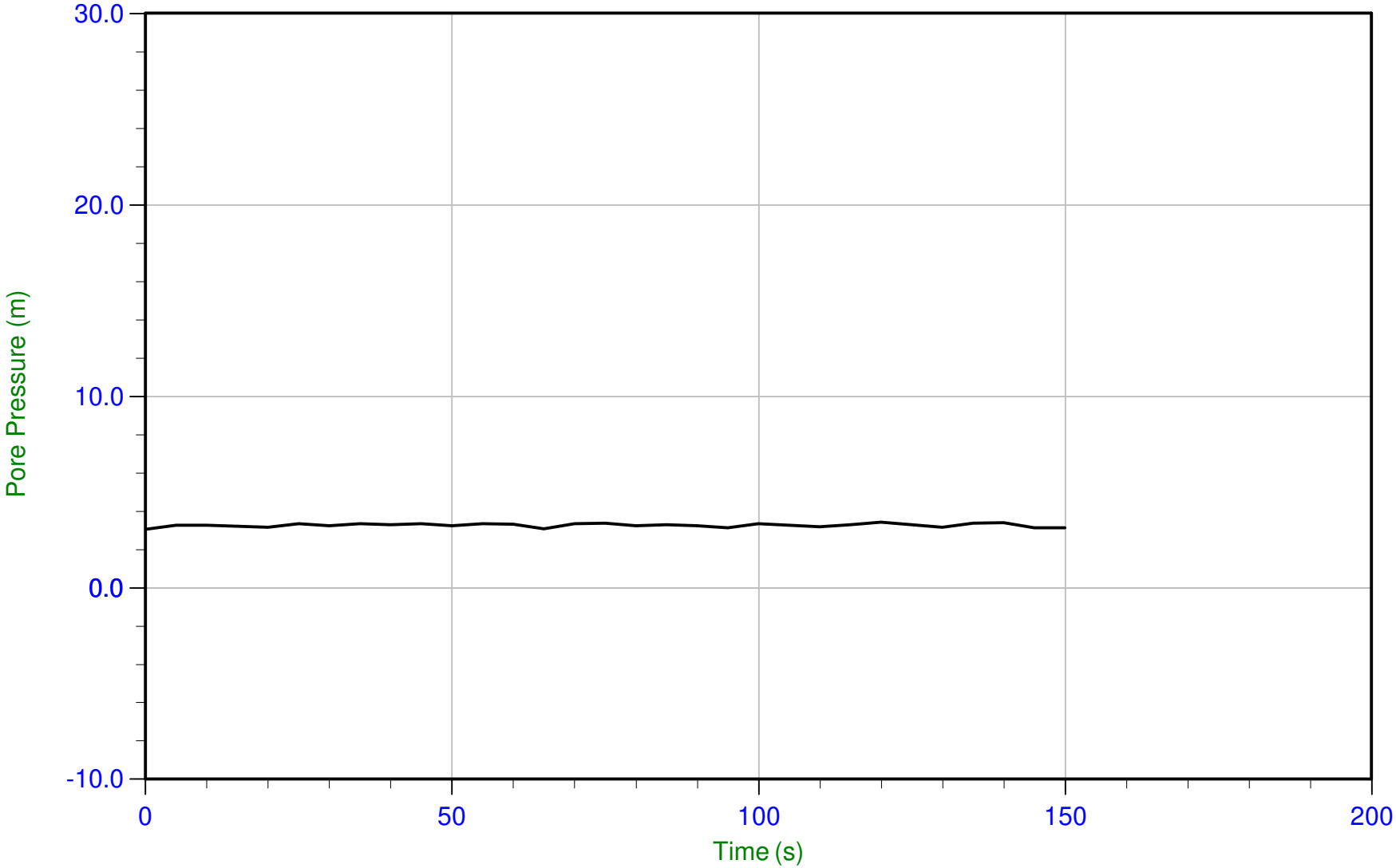
WT: 3.760 m / 12.336 ft
Ueq: 1.3 m

CONETEC

Levelton

Job No: 15-02014
Date: 02/17/2015 13:54
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S08
Cone: 329:T1500F15U500
Cone Area: 15 sq cm



Trace Summary:

Filename: 15-02014_SPS08.PPF
Depth: 7.350 m / 24.114 ft
Duration: 150.0 s

U Min: 3.1 m
U Max: 3.4 m

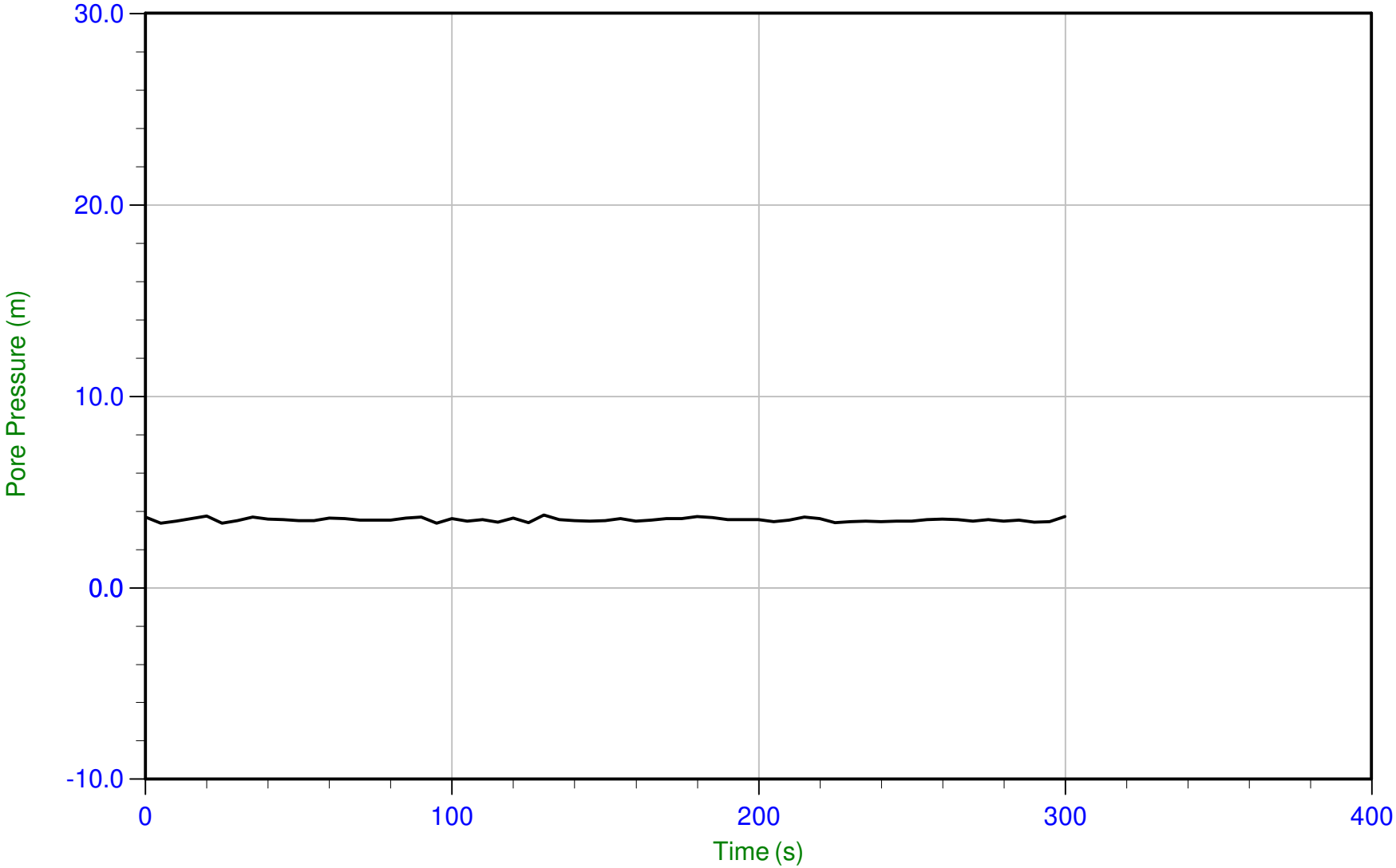
WT: 4.060 m / 13.320 ft
Ueq: 3.3 m

CONETEC

Levelton

Job No: 15-02014
Date: 02/17/2015 13:54
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S08
Cone: 329:T1500F15U500
Cone Area: 15 sq cm



Trace Summary:

Filename: 15-02014_SPS08.PPF
Depth: 7.600 m / 24.934 ft
Duration: 300.0 s

U Min: 3.4 m
U Max: 3.8 m

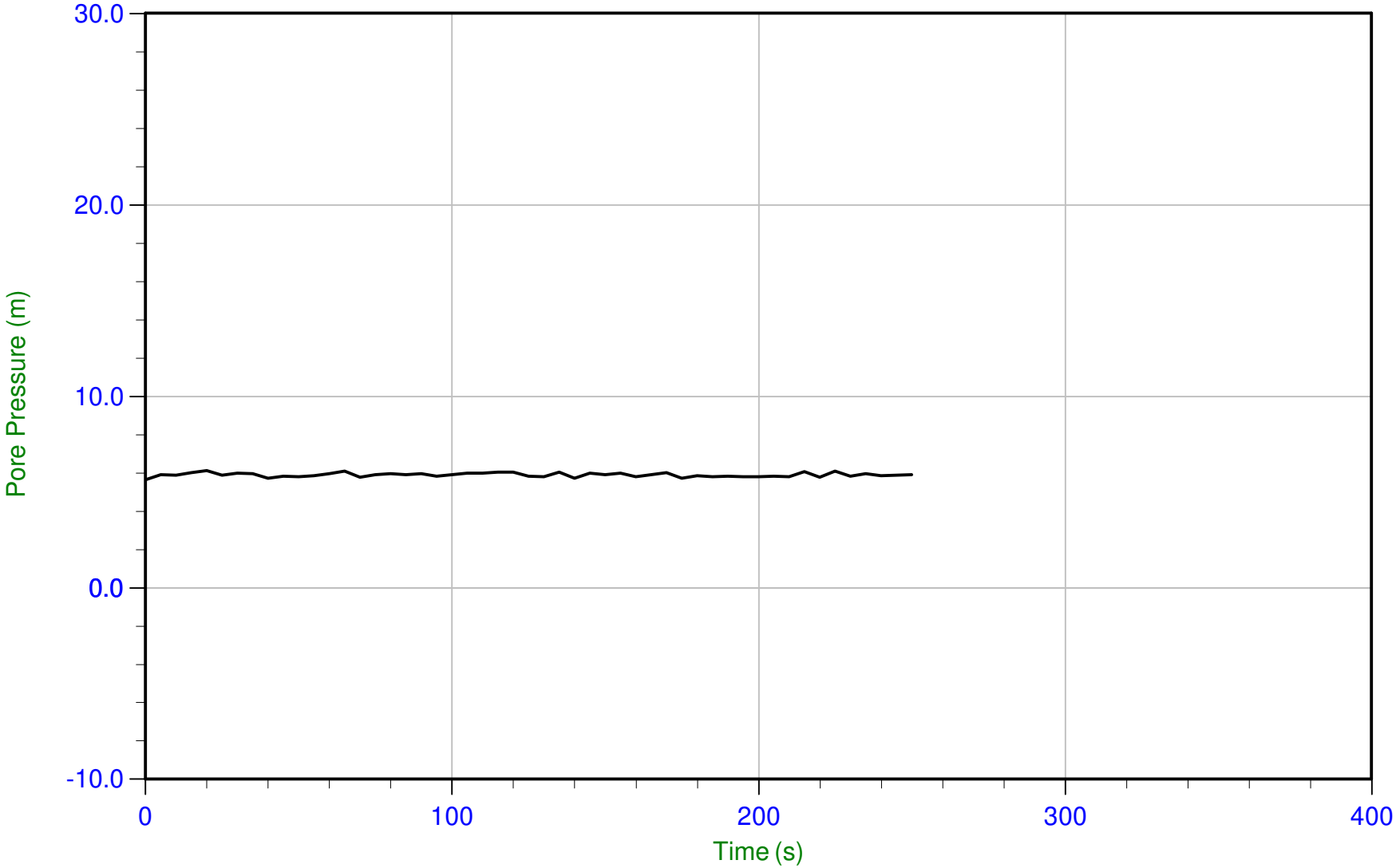
WT: 4.052 m / 13.294 ft
Ueq: 3.5 m

CONETEC

Levelton

Job No: 15-02014
Date: 02/17/2015 13:54
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S08
Cone: 329:T1500F15U500
Cone Area: 15 sq cm



Trace Summary:

Filename: 15-02014_SPS08.PPF
Depth: 9.900 m / 32.480 ft
Duration: 250.0 s

U Min: 5.7 m
U Max: 6.1 m

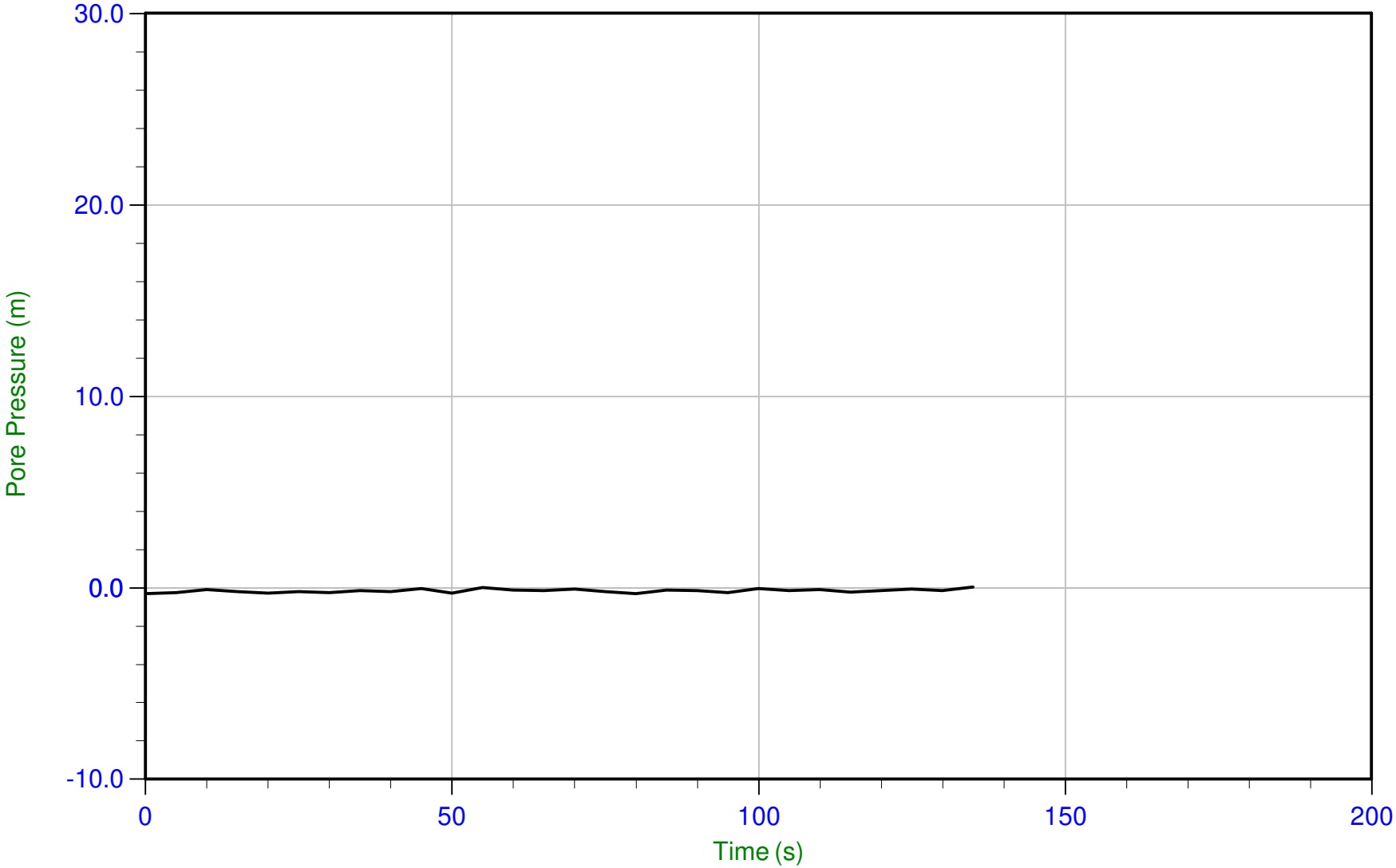
WT: 4.029 m / 13.218 ft
Ueq: 5.9 m

CONETEC

Levelton

Job No: 15-02014
Date: 02/19/2015 11:48
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S09
Cone: 329:T1500F15U500
Cone Area: 15 sq cm



Trace Summary:

Filename: 15-02014_SPS09.PPF
Depth: 2.550 m / 8.366 ft
Duration: 135.0 s

U Min: -0.3 m
U Max: 0.1 m

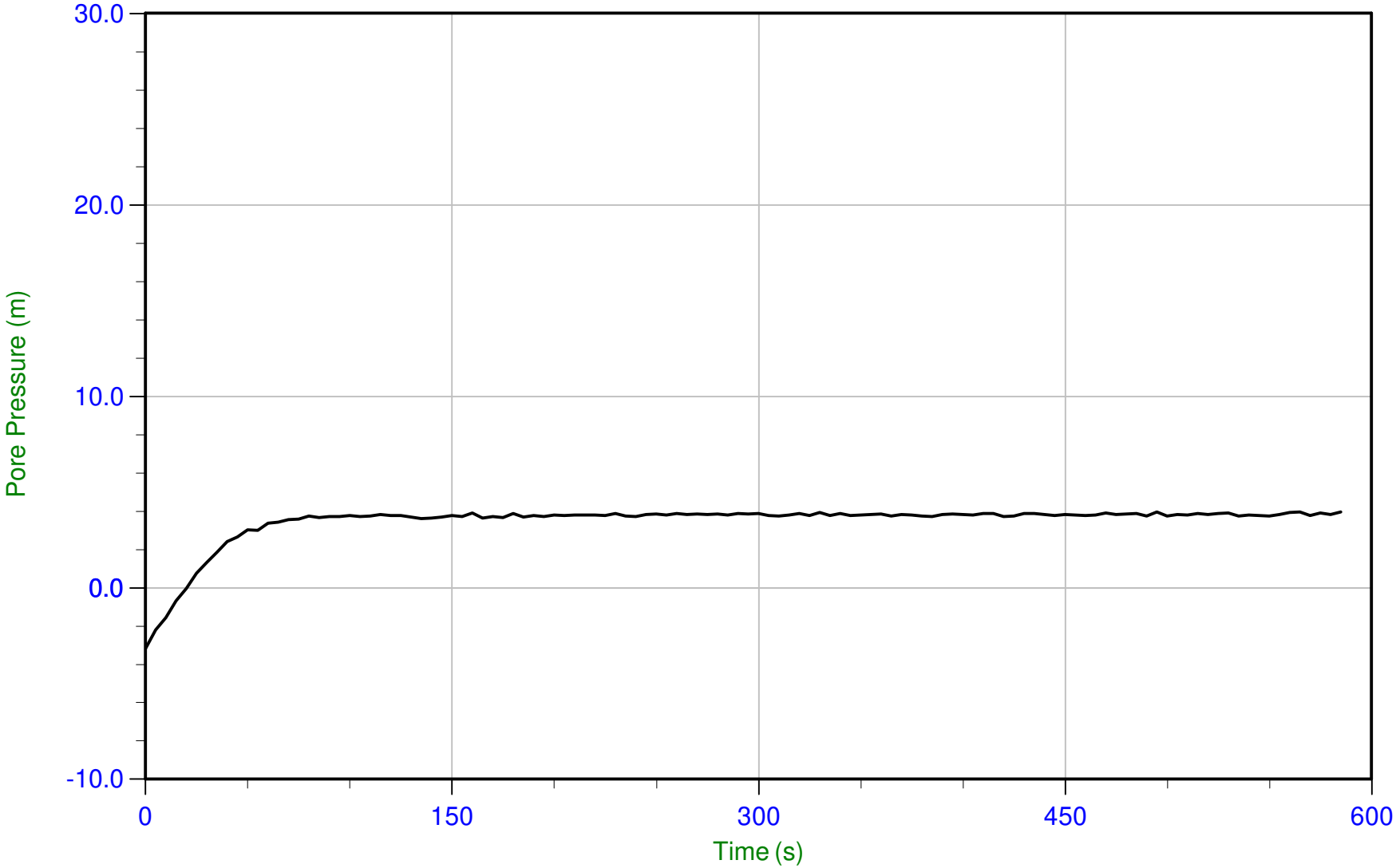
WT: 2.615 m / 8.579 ft
Ueq: -0.1 m

CONETEC

Levelton

Job No: 15-02014
Date: 02/17/2015 09:24
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S10
Cone: 329:T1500F15U500
Cone Area: 15 sq cm



Trace Summary:

Filename: 15-02014_SPS10.PPF
Depth: 8.300 m / 27.231 ft
Duration: 585.0 s

U Min: -3.2 m
U Max: 4.0 m

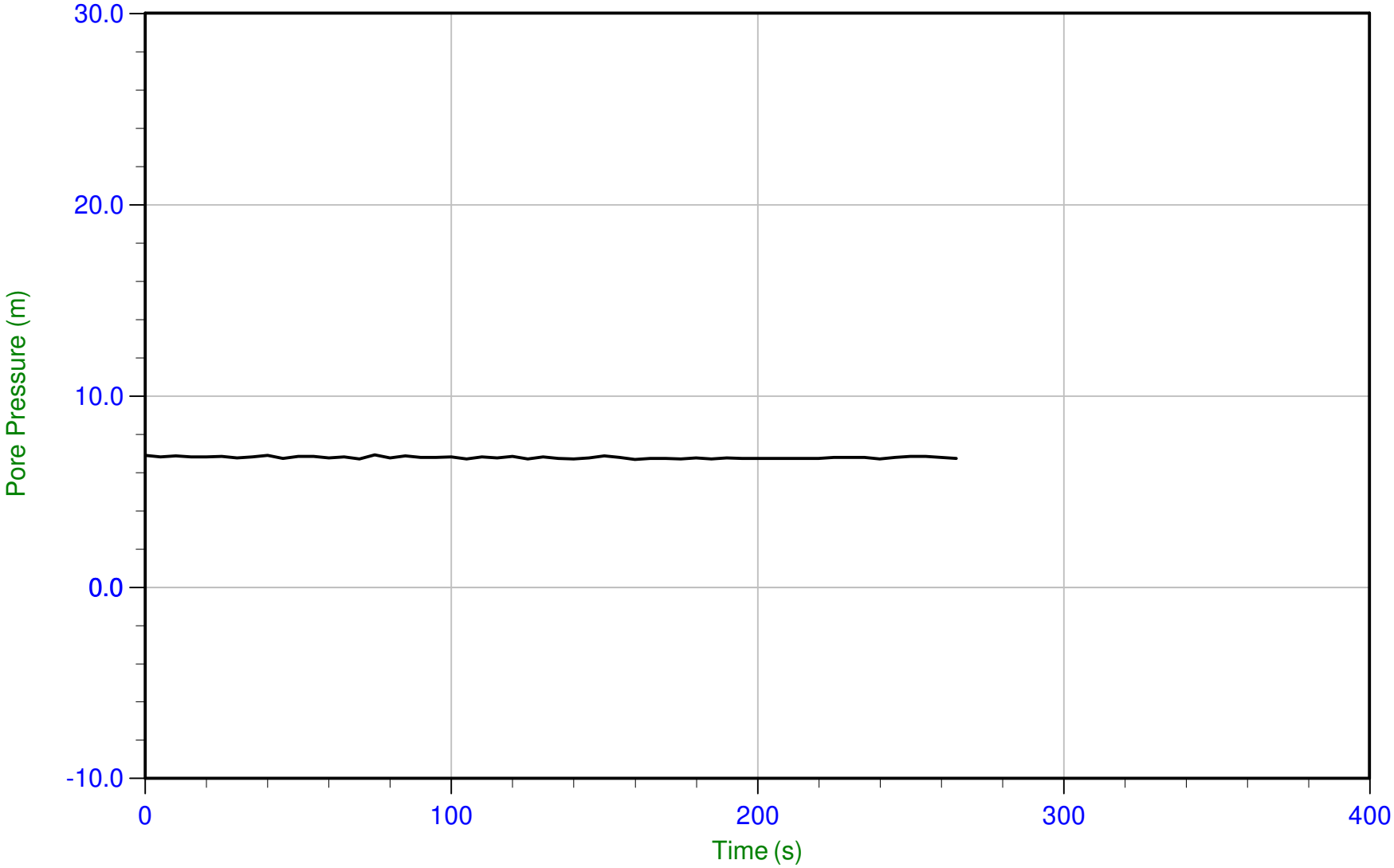
WT: 4.365 m / 14.321 ft
Ueq: 3.9 m

CONETEC

Levelton

Job No: 15-02014
Date: 02/17/2015 09:24
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S10
Cone: 329:T1500F15U500
Cone Area: 15 sq cm



Trace Summary:

Filename: 15-02014_SPS10.PPF
Depth: 11.150 m / 36.581 ft
Duration: 265.0 s

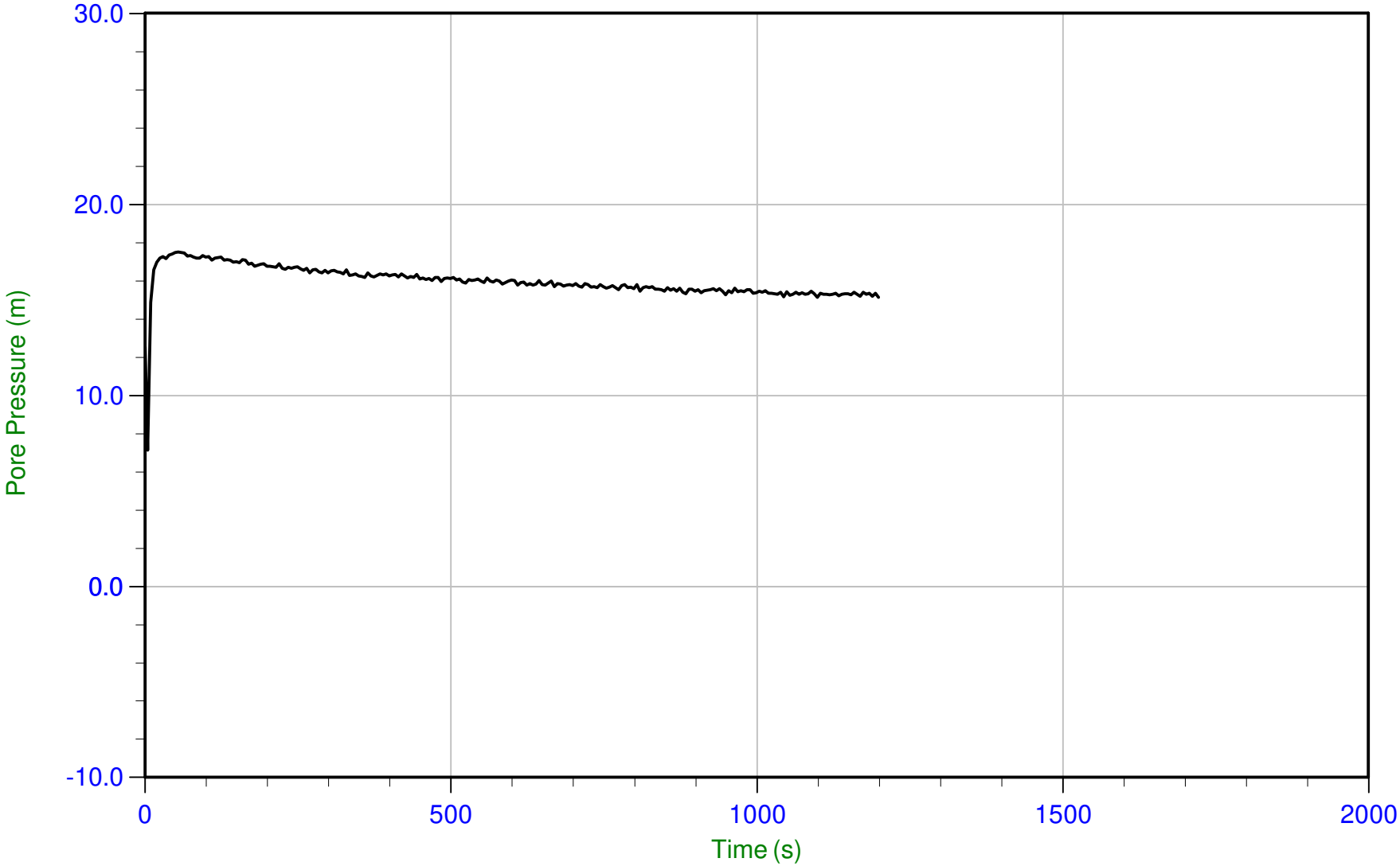
U Min: 6.7 m
U Max: 6.9 m

WT: 4.376 m / 14.357 ft
Ueq: 6.8 m

Levelton

Job No: 15-02014
Date: 02/19/2015 08:51
Site: Kinder Morgan Westridge, Burnaby

Sounding: SCPT15-S12
Cone: 329:T1500F15U500
Cone Area: 15 sq cm



Trace Summary:

Filename: 15-02014_SPS12.PPF
Depth: 11.350 m / 37.237 ft
Duration: 1200.0 s

U Min: 7.1 m
U Max: 17.5 m