

Appendix F – Soil Boring Report

TABLE 1
Field Activity Summary

Mendota Pool Group
Mendota, California

Location ID	Sample Date	Results Summary							GPS Coordinates		
		Termination Depth of CPT Tip (ft)	Depth of Soil Samples (ft)	Tip Depth of PPDT (ft)			Water Table (PPDT) Depth to water (ft)				
B-1	05/29/13	35								36.754621°	-120.355737°
B-2	05/29/13	35			31	35.3		31.25	31.91	36.755704°	-120.352857°
B-3	05/29/13	36								36.752766°	-120.354493°
B-4	05/29/13	35								36.751717°	-120.355691°
B-5	05/29/13	33			32.8			32.05		36.749990°	-120.354006°
B-6	05/31/13	130	7 19 32		43.5			30.13		Same as B-3	Same as B-3
RRN-1	05/28/13	30			18.2	25.1 30.18		20.39	24.76 23.72	36.769167°	-120.359949°
RRN-2	05/29/13	37			37.2			21.89		36.768170°	-120.360606°
RRN-3	05/28/13	30			24	30.2		24.79	22.38	36.767466°	-120.357442°
RRN-4	05/30/13	35			35			27.13		36.766600°	-120.358499°
RRN-5	05/30/13	35	4 8 20		30			24.98		36.765551°	-120.354974°
RRN-6	05/30/13	35			35.3			25.96		36.764767°	-120.355868°
RRN-7	05/30/13	35								36.763369°	-120.354136°
RRN-8	05/28/13	32			31.8			26.87		36.764059°	-120.352592°
RRN-9	05/30/13	35								36.766543°	-120.360856°
RRN-10	05/28/13	32			30	32.3		29.52	31.3	36.761413°	-120.353384°
RRN-11	05/30/13	35			35.3			24.36		36.764692°	-120.358564°
RRN-12	05/28/13	30			30			28.34		36.758914°	-120.352122°
RRN-13	05/30/13	32								36.762544°	-120.355854°
RRN-14	05/28/13	32			32.2			30.55		36.757344°	-120.351971°
RRN-15	05/30/13	35			35.3			24.11		36.759677°	-120.354967°
RRN-16	05/31/13	130	10 20 30		43.3			25.02		Same as RRN-2	Same as RRN-2
RRS-1	05/29/13	37			37.2			29.01		36.755693°	-120.357764°
RRS-2	05/29/13	36								36.752682°	-120.357678°
RRS-3	05/29/13	38			38.2			31.68		36.750092°	-120.357632°
RRS-4	05/30/13	47			47.1			29.3		36.751579°	-120.360184°

TABLE 1
Field Activity Summary

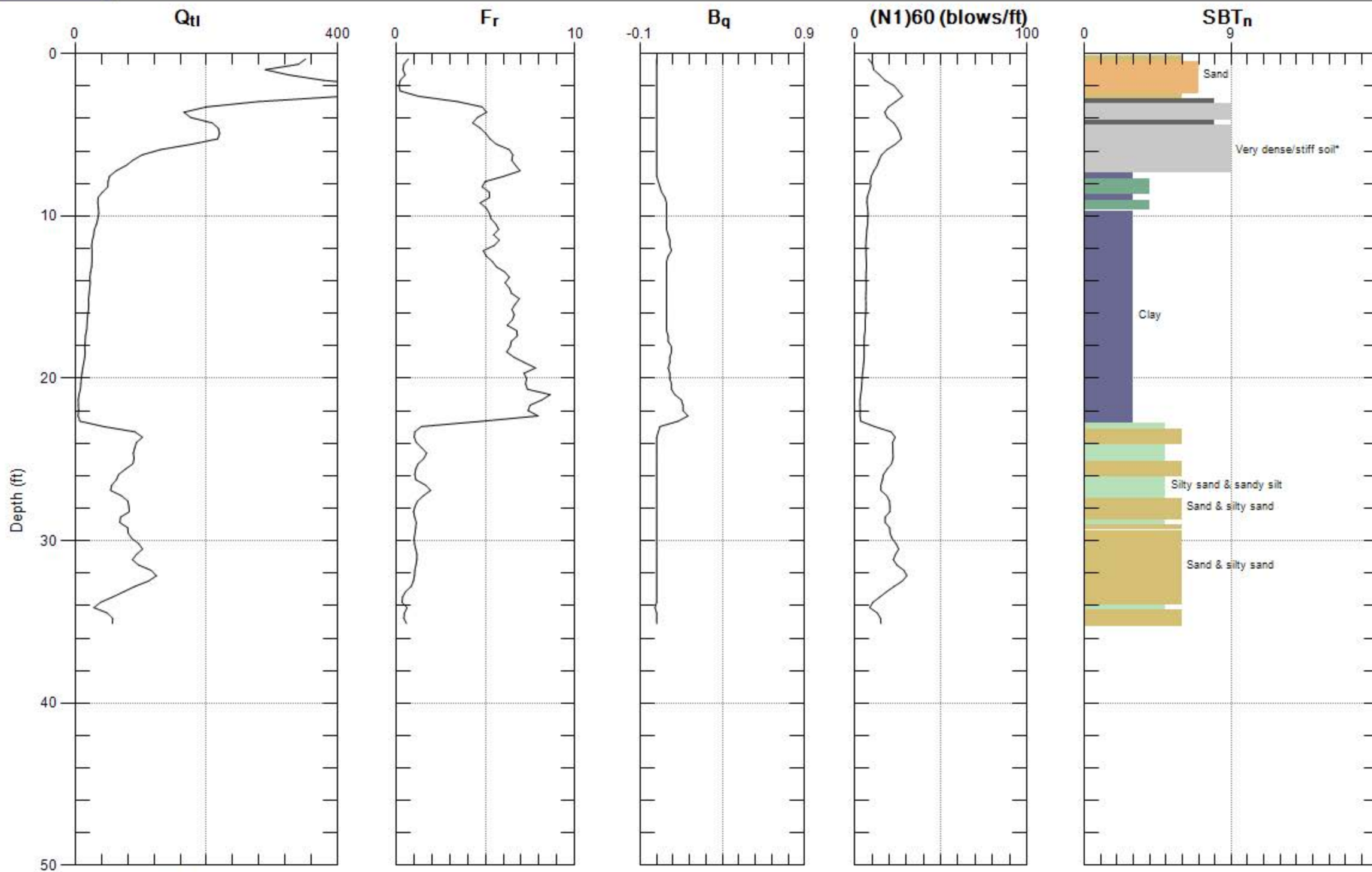
RRS-5	05/30/13	35				36.754166°	-120.360238°
-------	----------	----	--	--	--	------------	--------------

1. Results reported in micrograms per liter (µg/L). < = less than the method detection limit (MDL), J = trace or estimated concentration with a value greater than the MDL but less than the practical quantitation limit, and U = result qualified as not detected because the reported concentration is less than times the concentration of the same constituent in an associated blank sample and/or considered laboratory artifact. Results greater than the MDL are shown in bold.

TABLE 2**Soil Sample Descriptions**

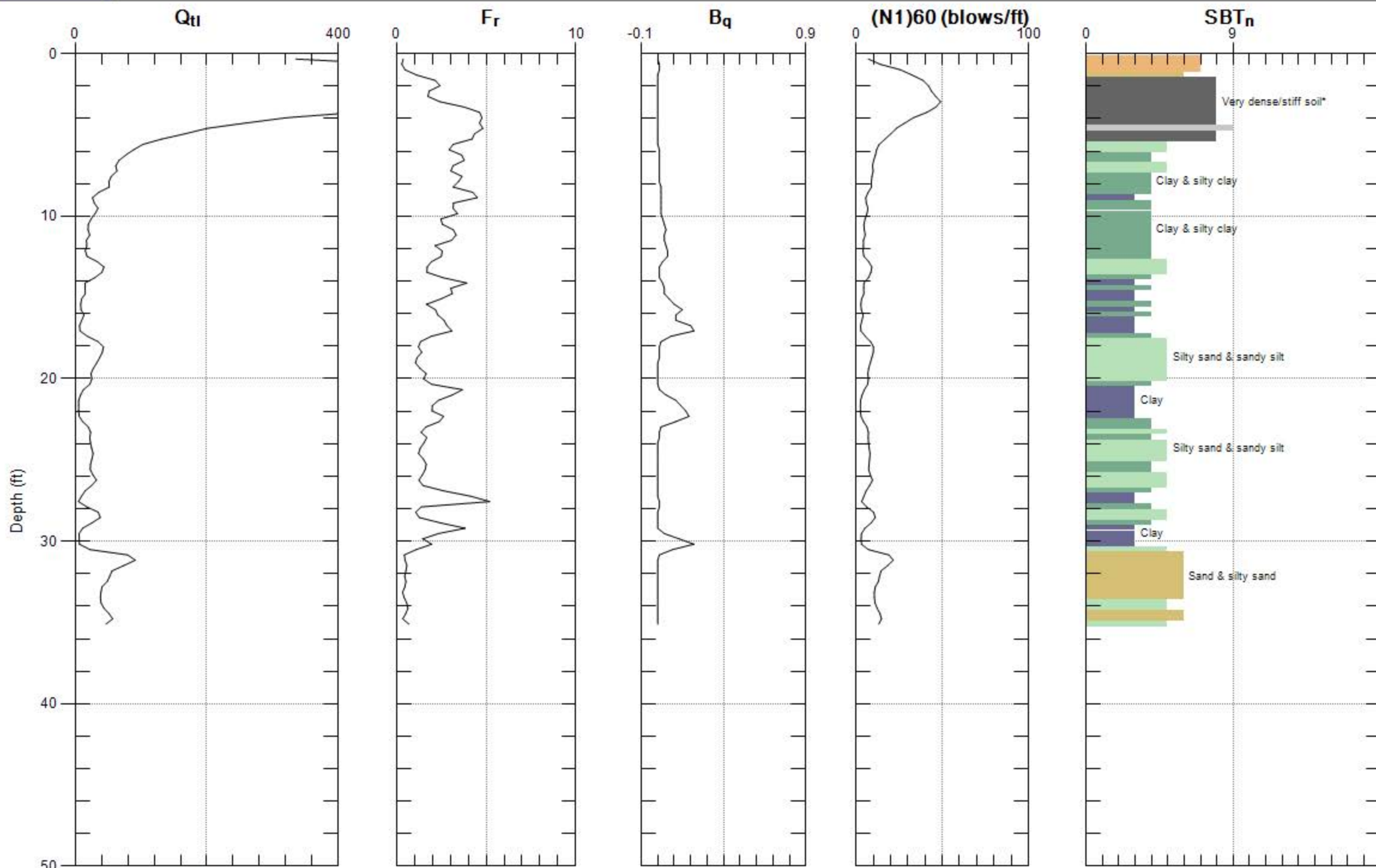
Mendota Pool Group
Mendota, California

Location ID	Lab Sample ID	Soil Sample Results			
		Sample Depth (ft)	Description	Group Symbol	Color
RRN-16	CPT-1	10	Poorly Graded Sand	SP	Yellowish Brown (10YR, 5/6)
RRN-16	CPT-2	20	Poorly Graded Sand	SP	Light Yellowish Brown (10YR, 6/4)
RRN-16	CPT-3	30	Poorly Graded Sand with Silt	SP-SM	Dark Gray (2.5Y, 4/1)
RRN-5	CPT-4	4	Sandy Silt	ML	Olive Brown (2.5Y, 4/3)
RRN-5	CPT-5	8	Silt with Sand	ML	Olive Brown (2.5Y, 4/4)
RRN-5	CPT-6	20	Silt	ML	Dark Gray (5Y, 4/1)
B-6	CPT-7	7	Well Graded Sand with Silt	SW-SM	Olive Gray (5Y, 5/2)
B-6	CPT-8	19	Poorly Graded Sand	SP	Pale Olive (5Y, 6/4)
B-6	CPT-9	32	Poorly Graded Sand	SP	Pale Olive (5Y, 6/4)



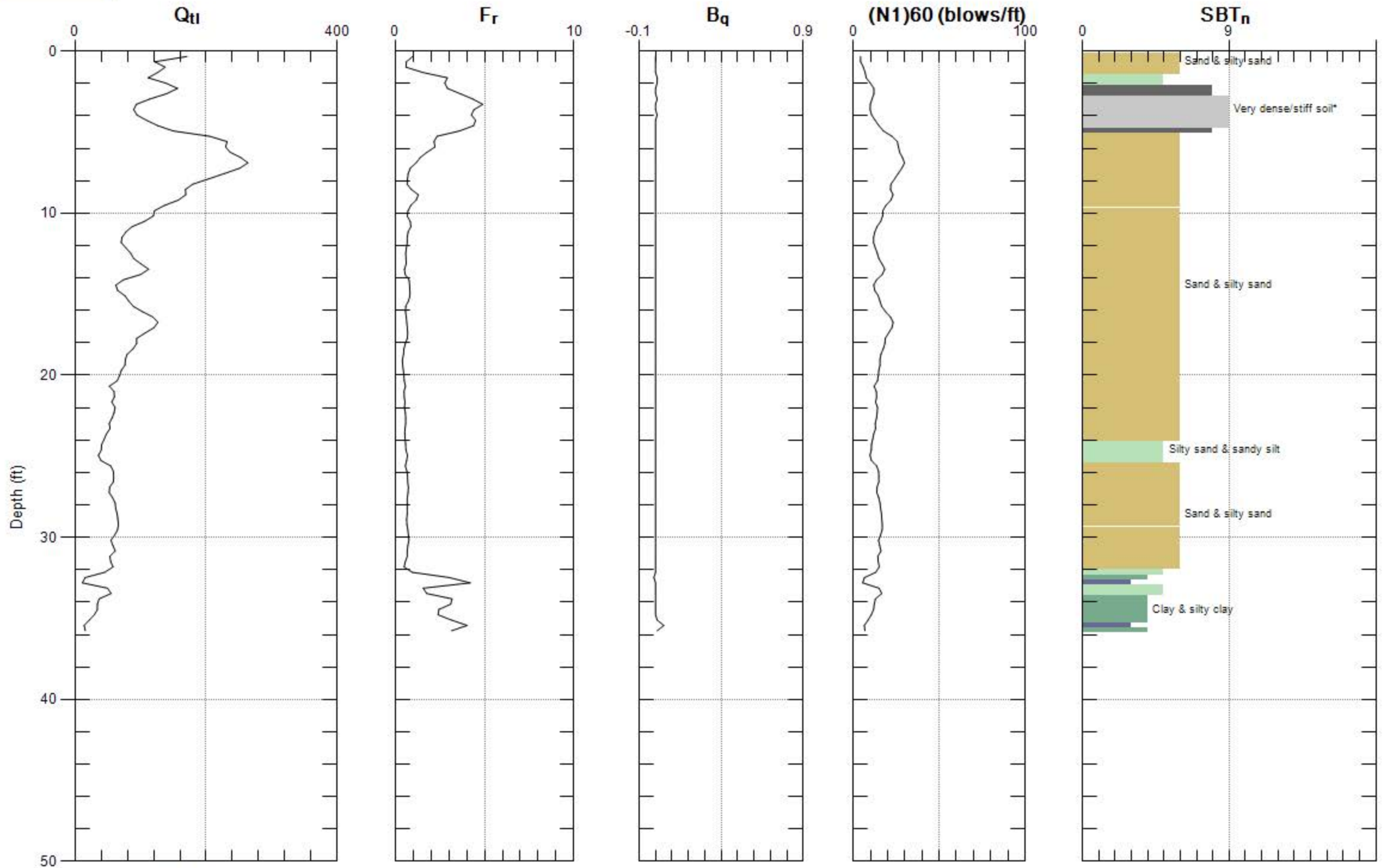
Max. Depth: 35.433 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



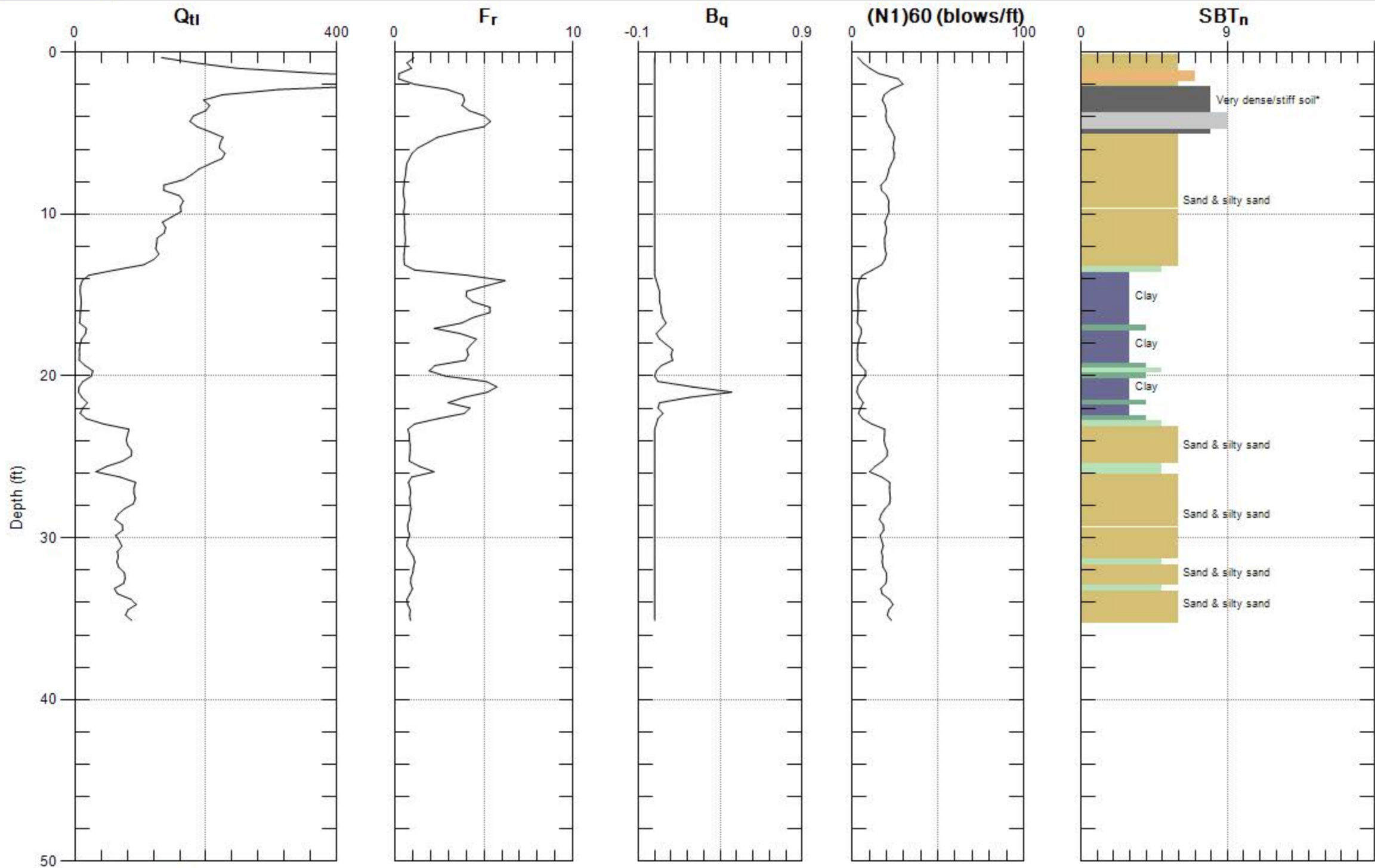
Max. Depth: 35.269 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



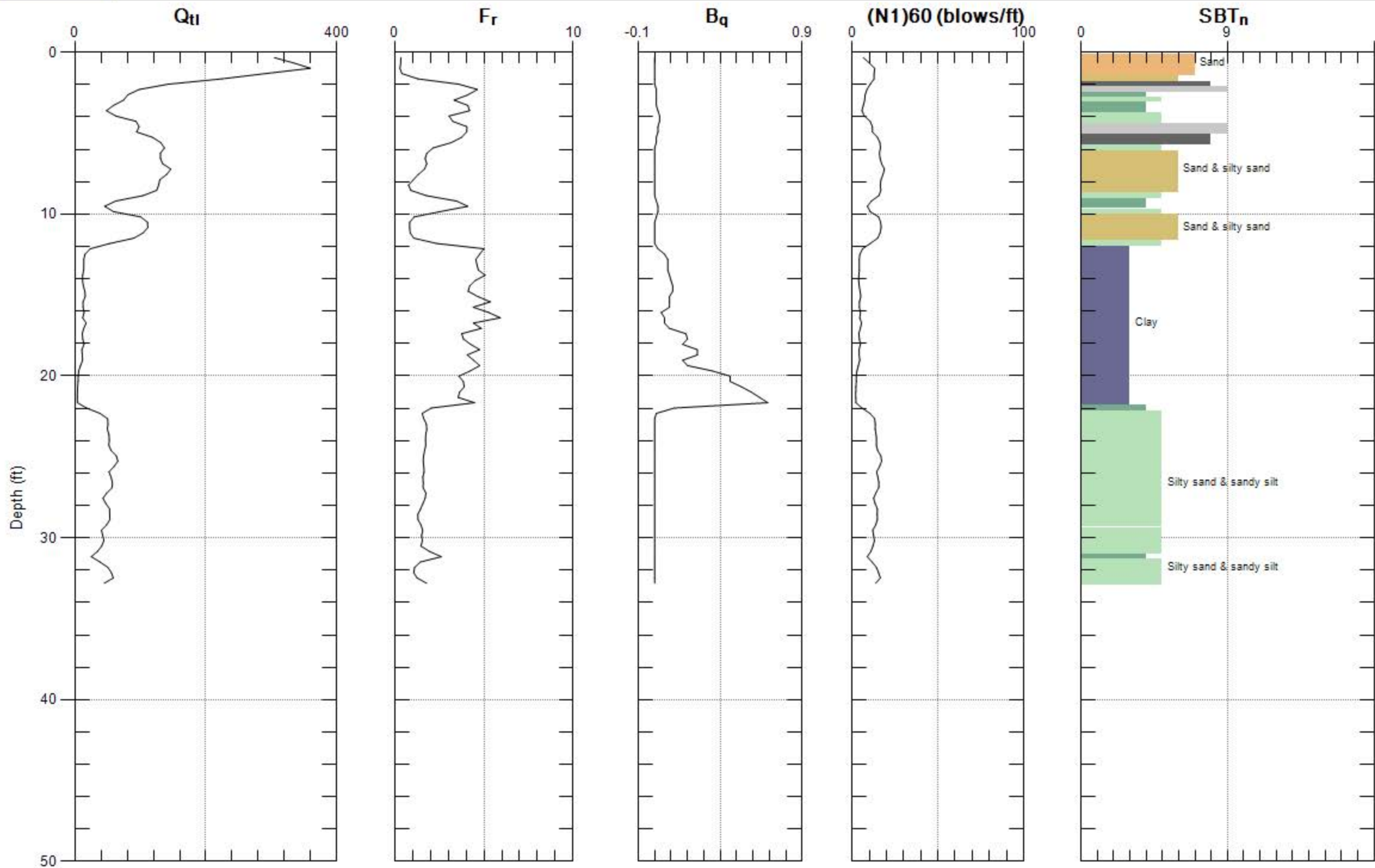
Max. Depth: 36.089 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



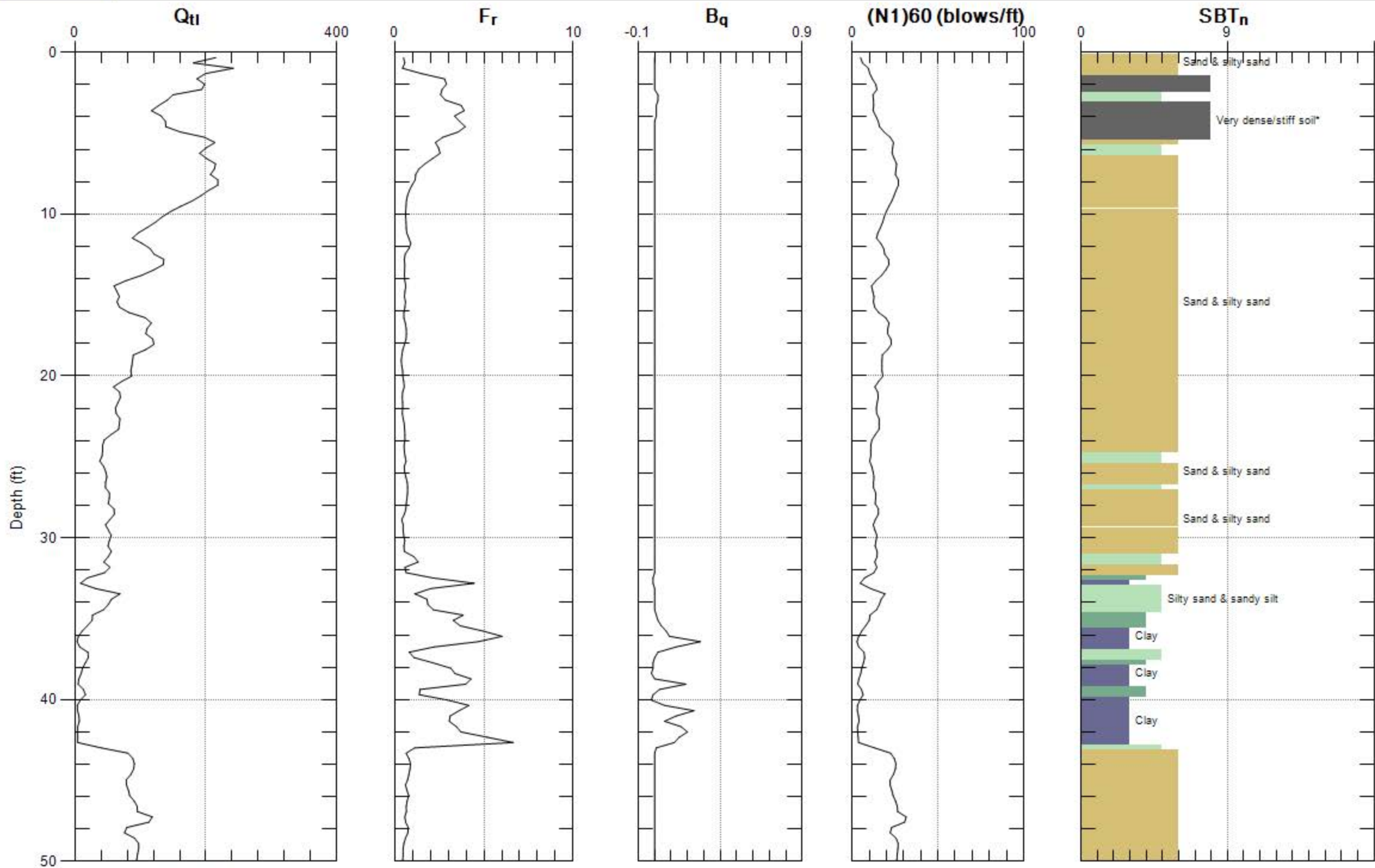
Max. Depth: 35.433 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



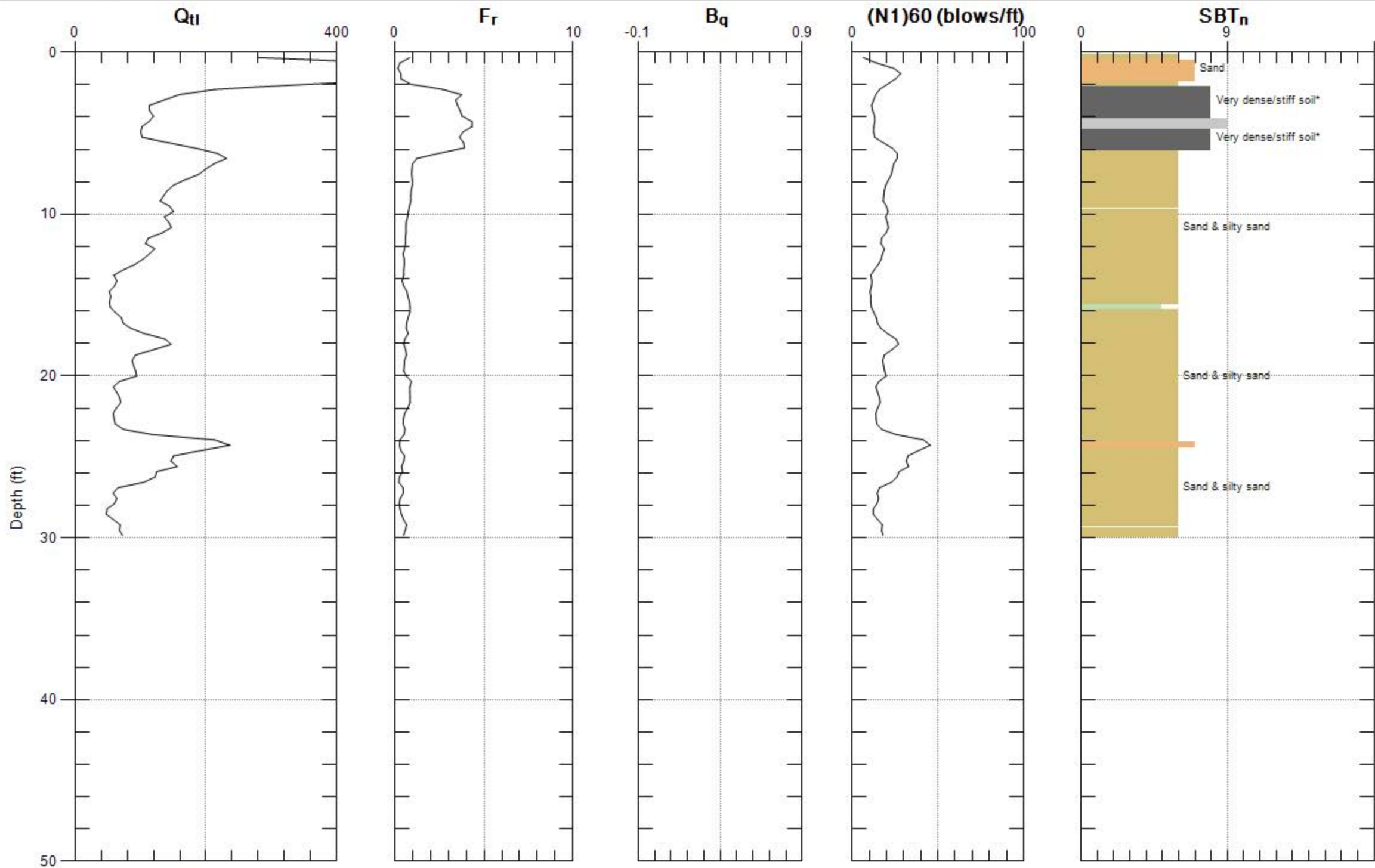
Max. Depth: 33.136 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



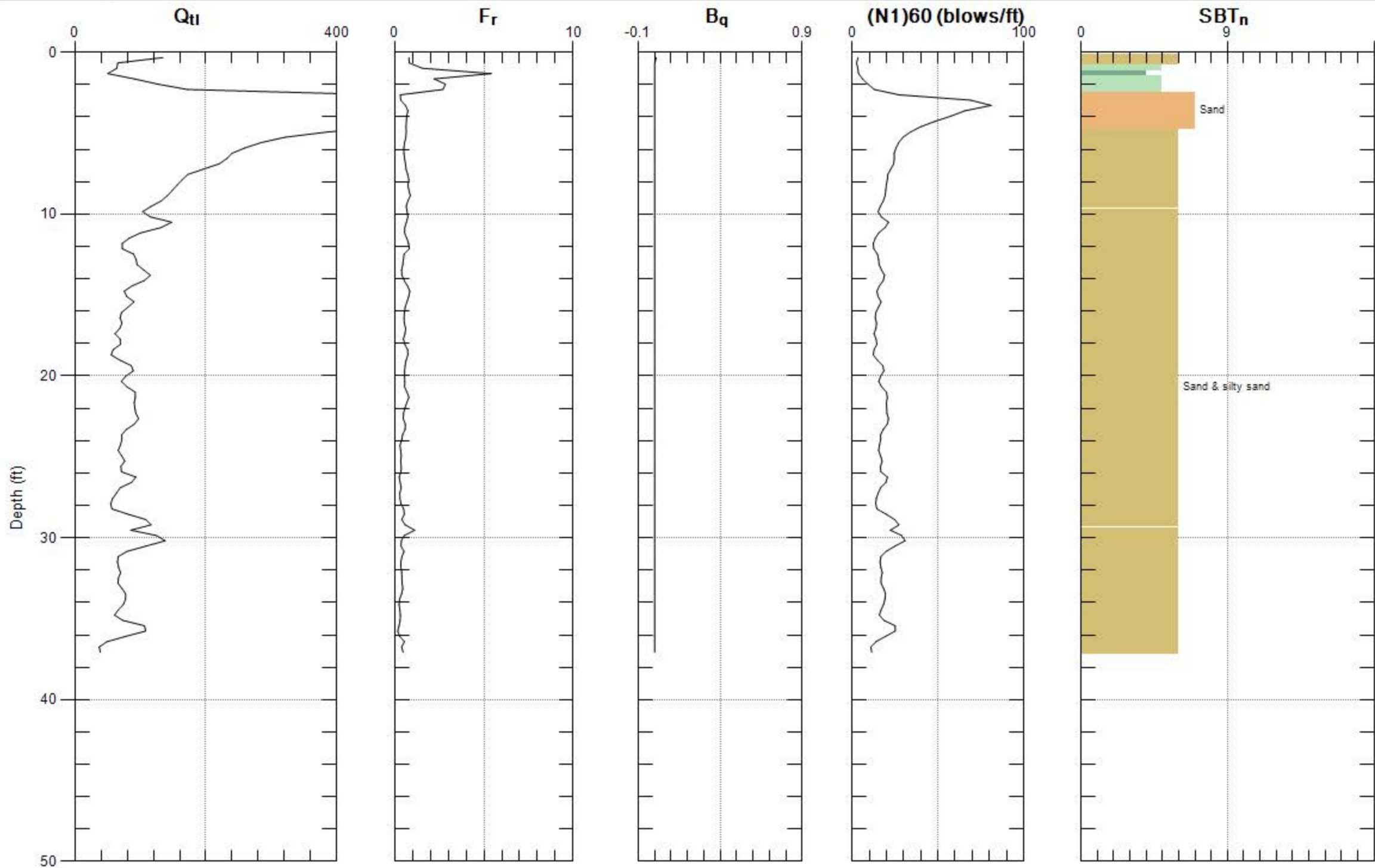
Max. Depth: 130.413 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



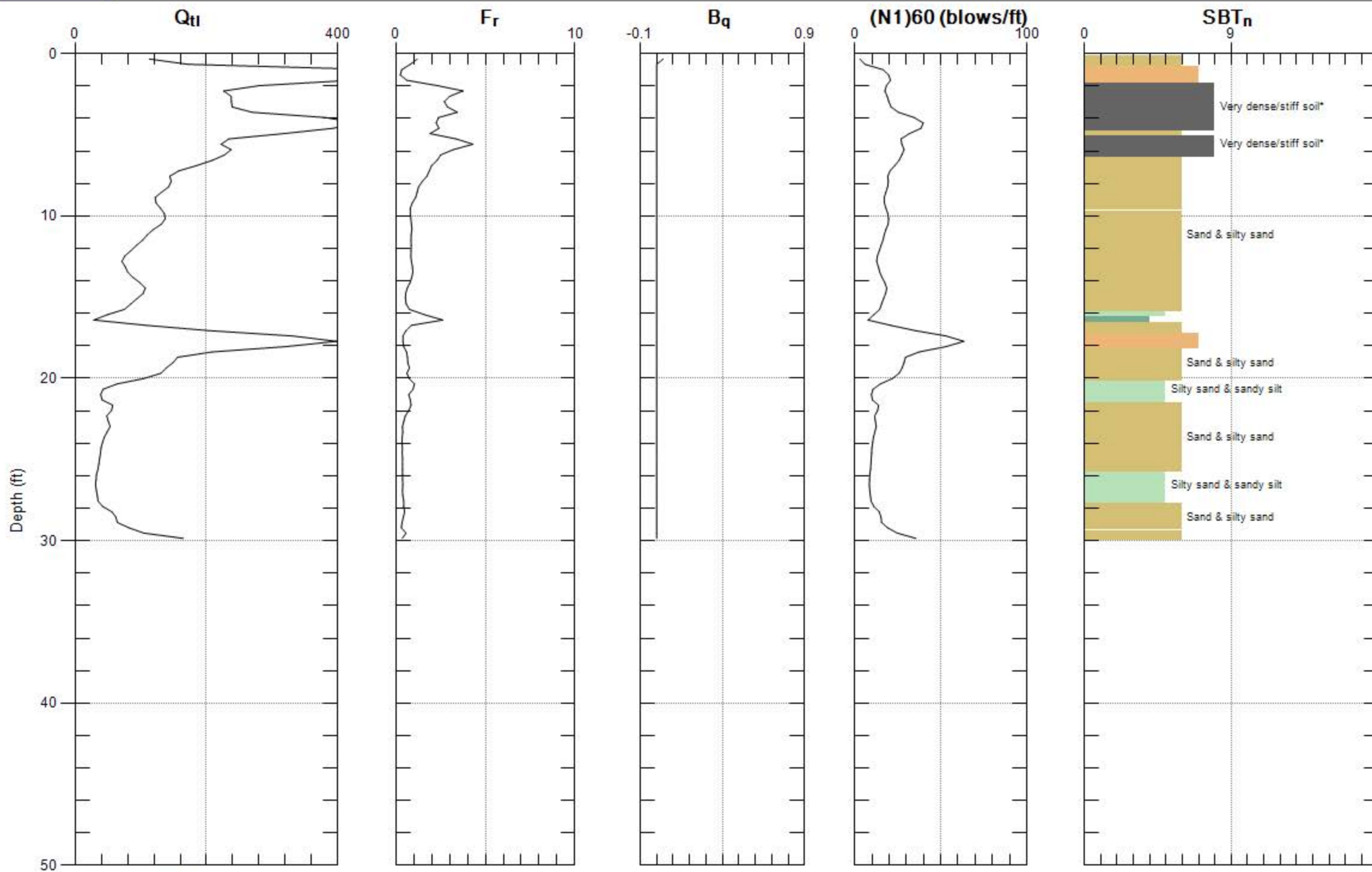
Max. Depth: 30.184 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



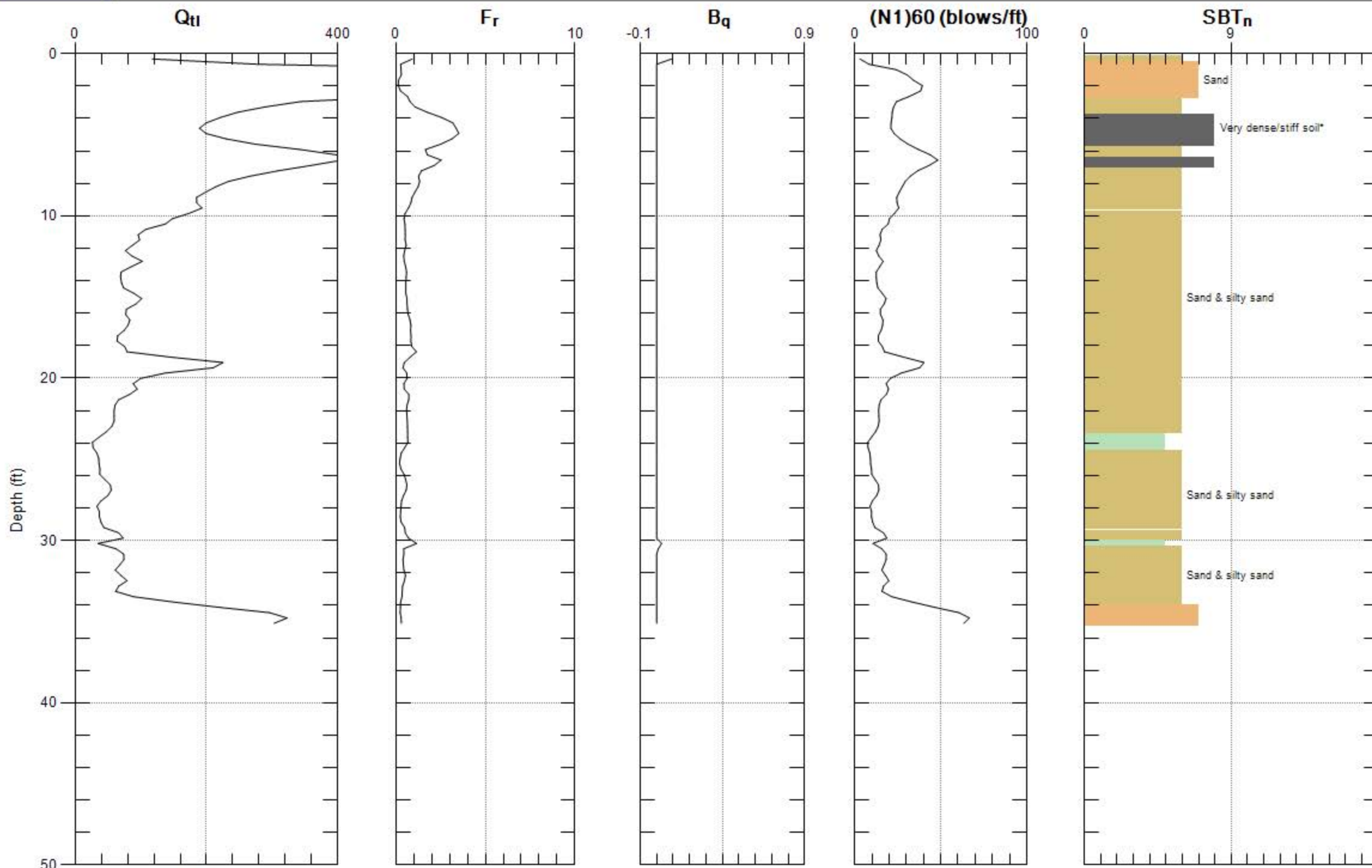
Max. Depth: 37.238 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



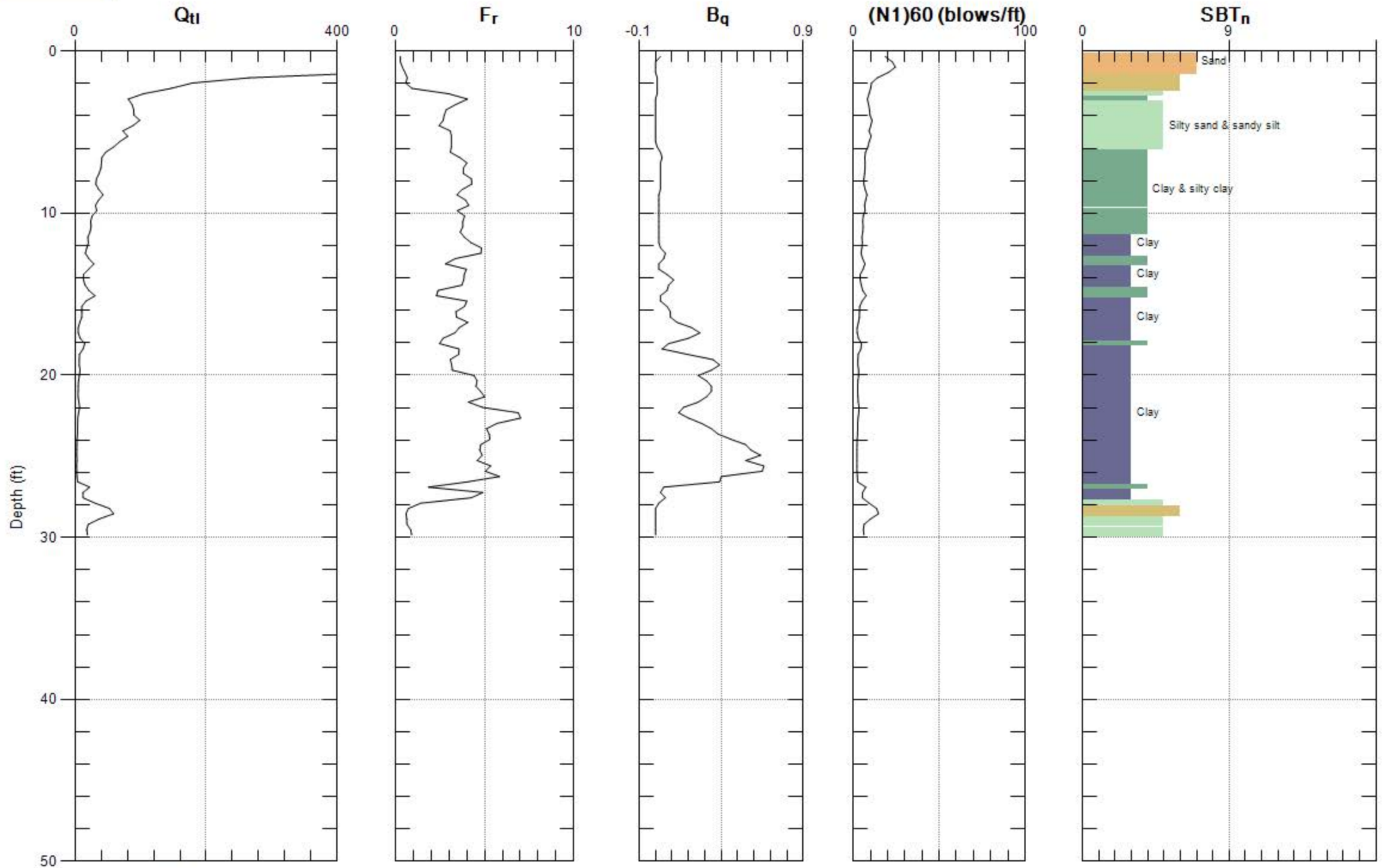
Max. Depth: 30.184 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



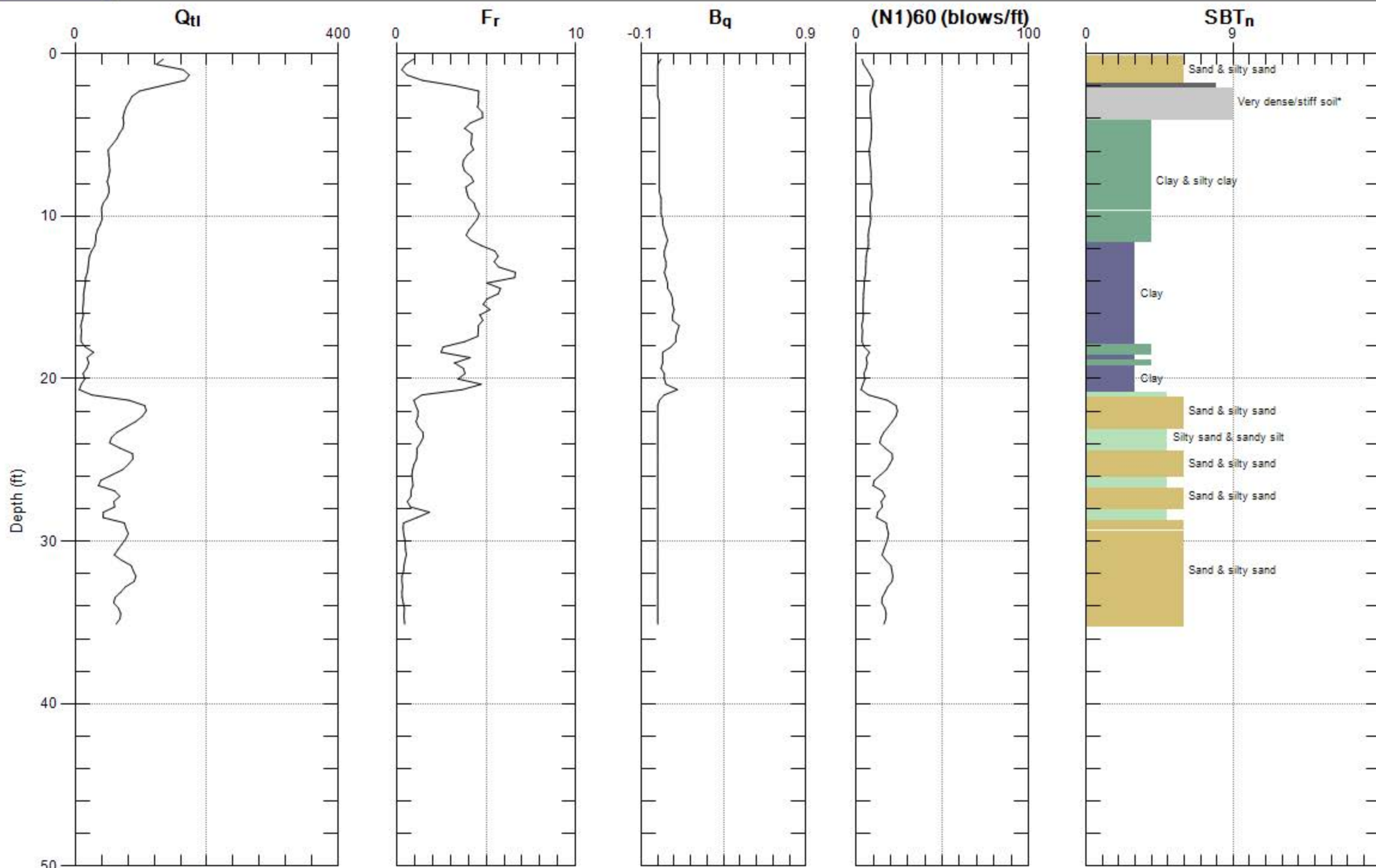
Max. Depth: 35.269 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



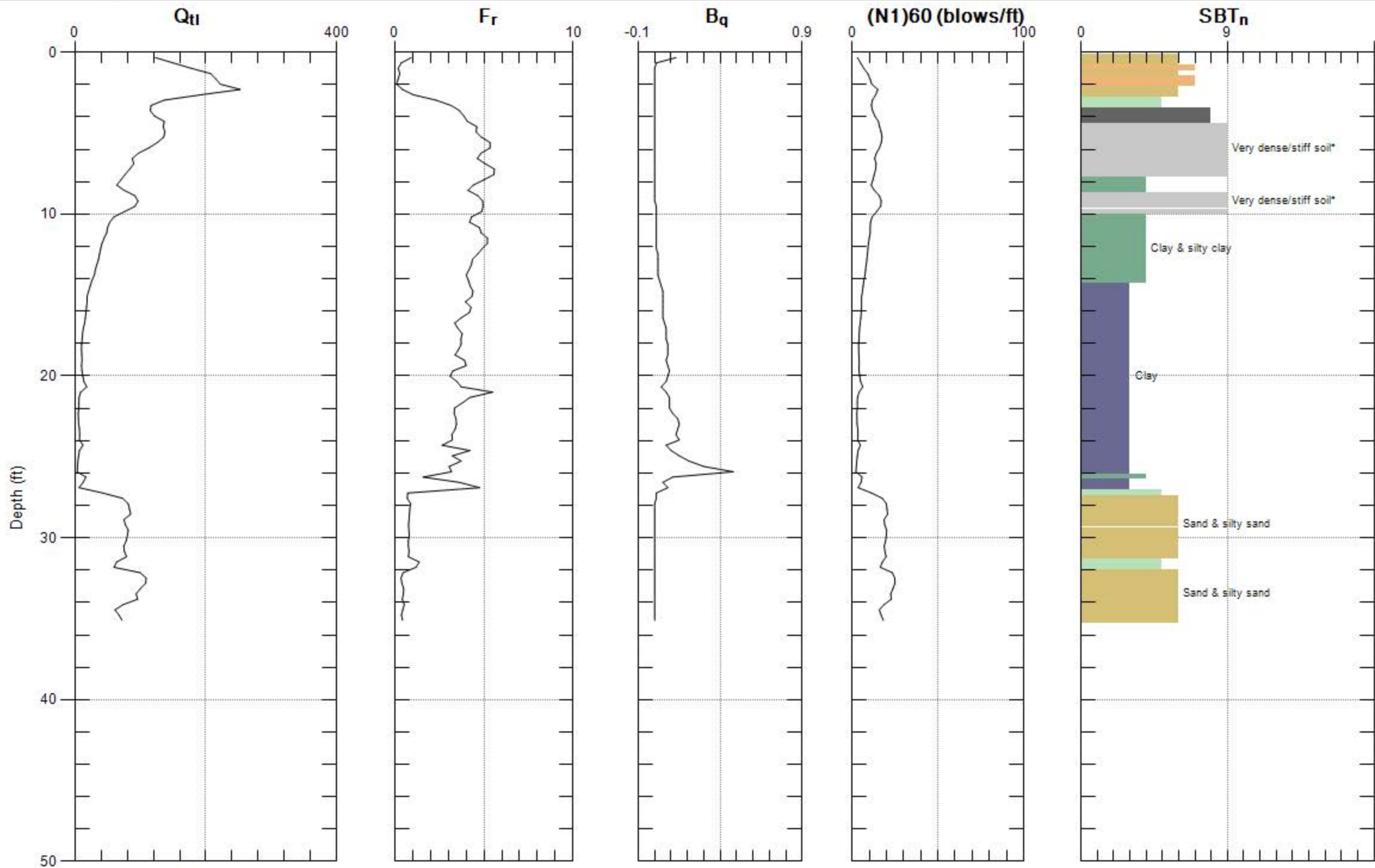
Max. Depth: 30.184 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



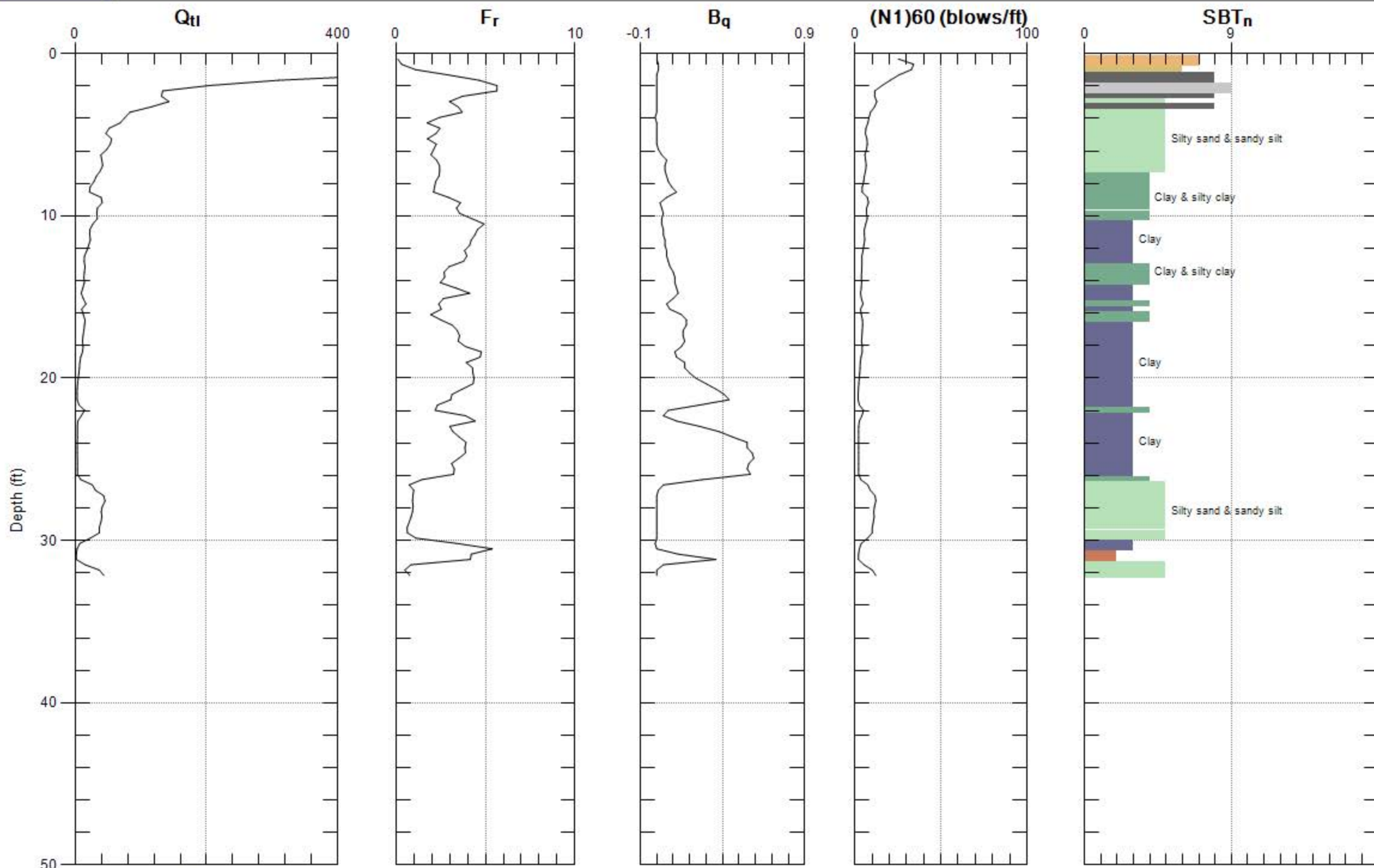
Max. Depth: 35.269 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



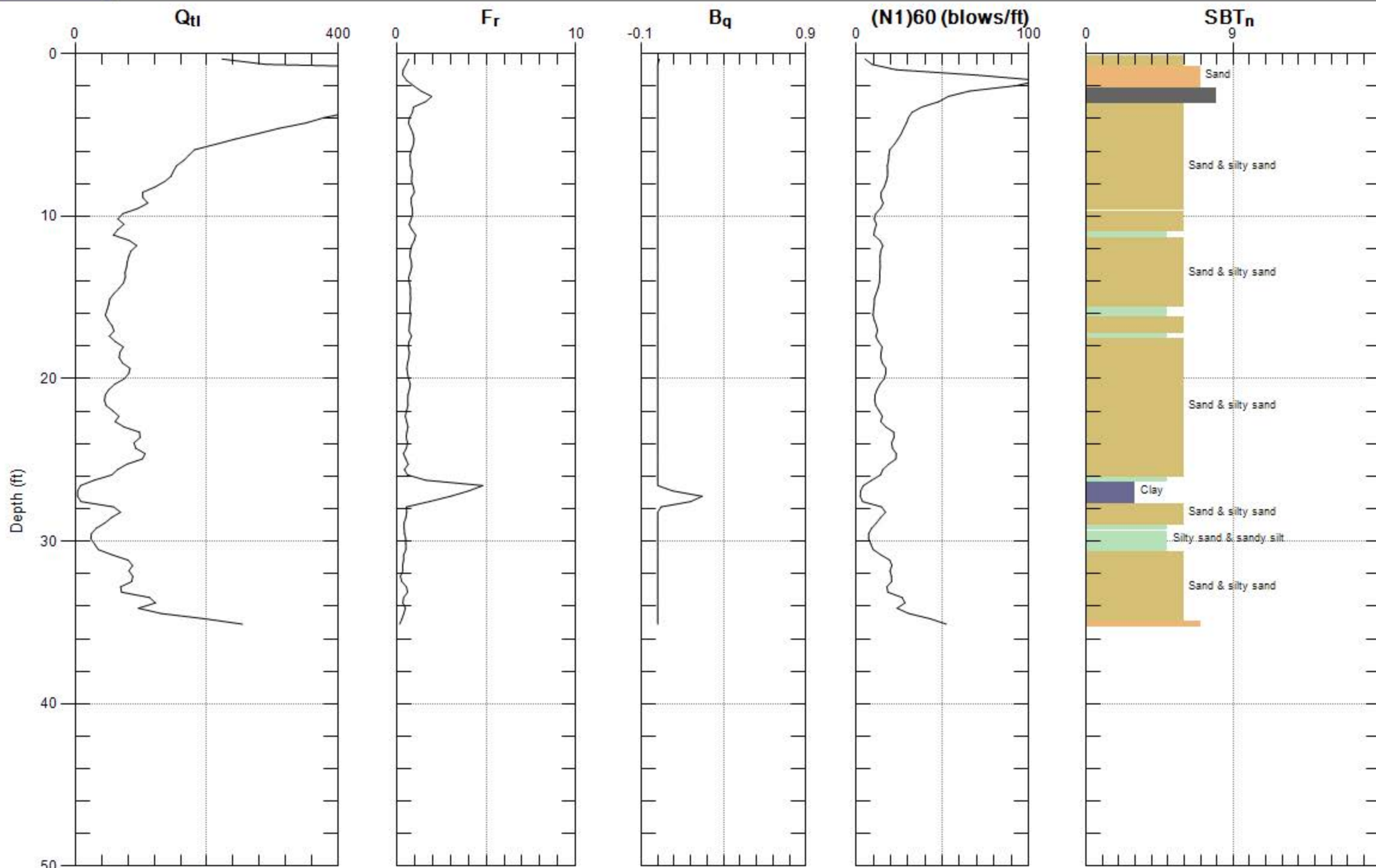
Max. Depth: 35.433 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



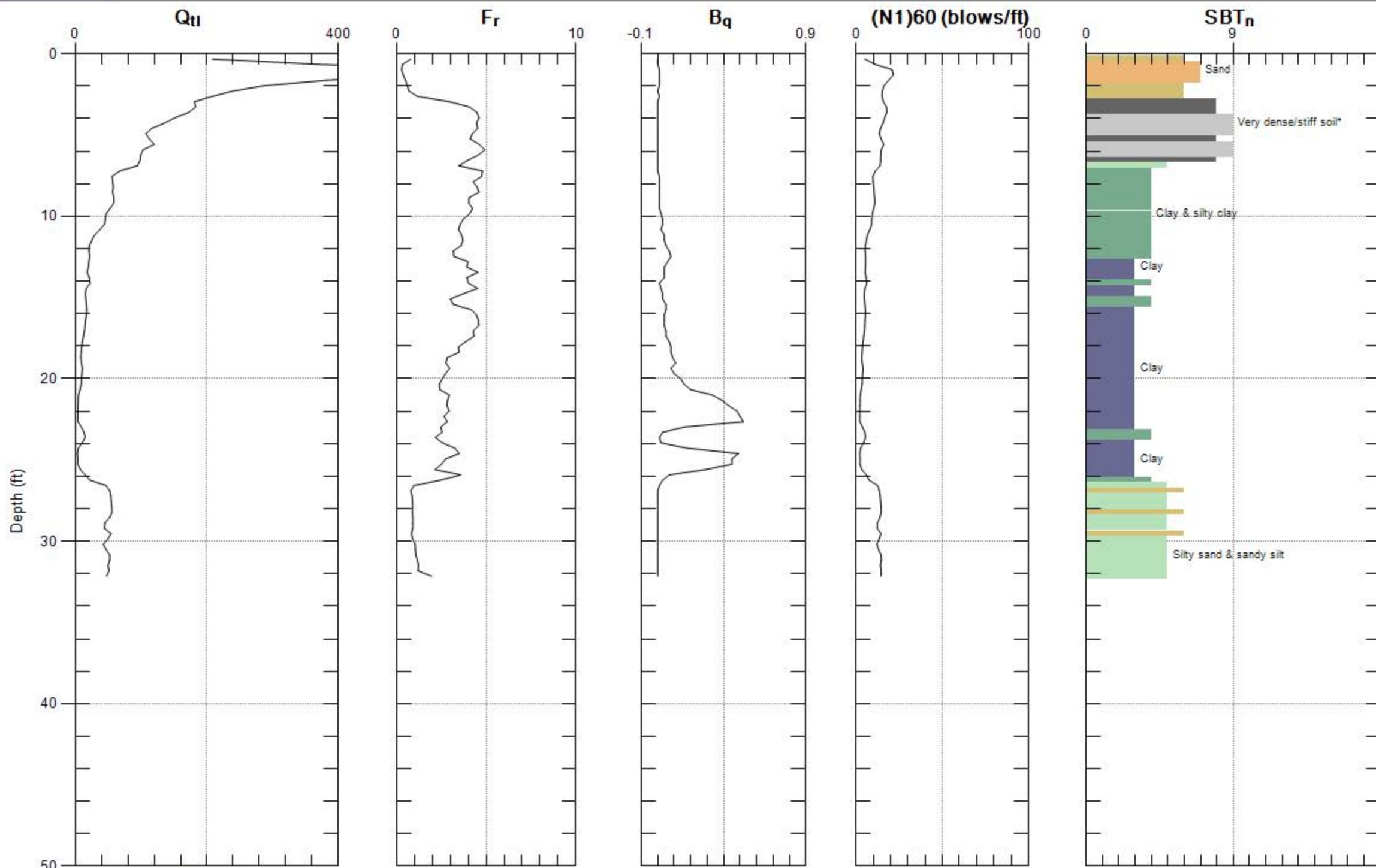
Max. Depth: 32.316 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



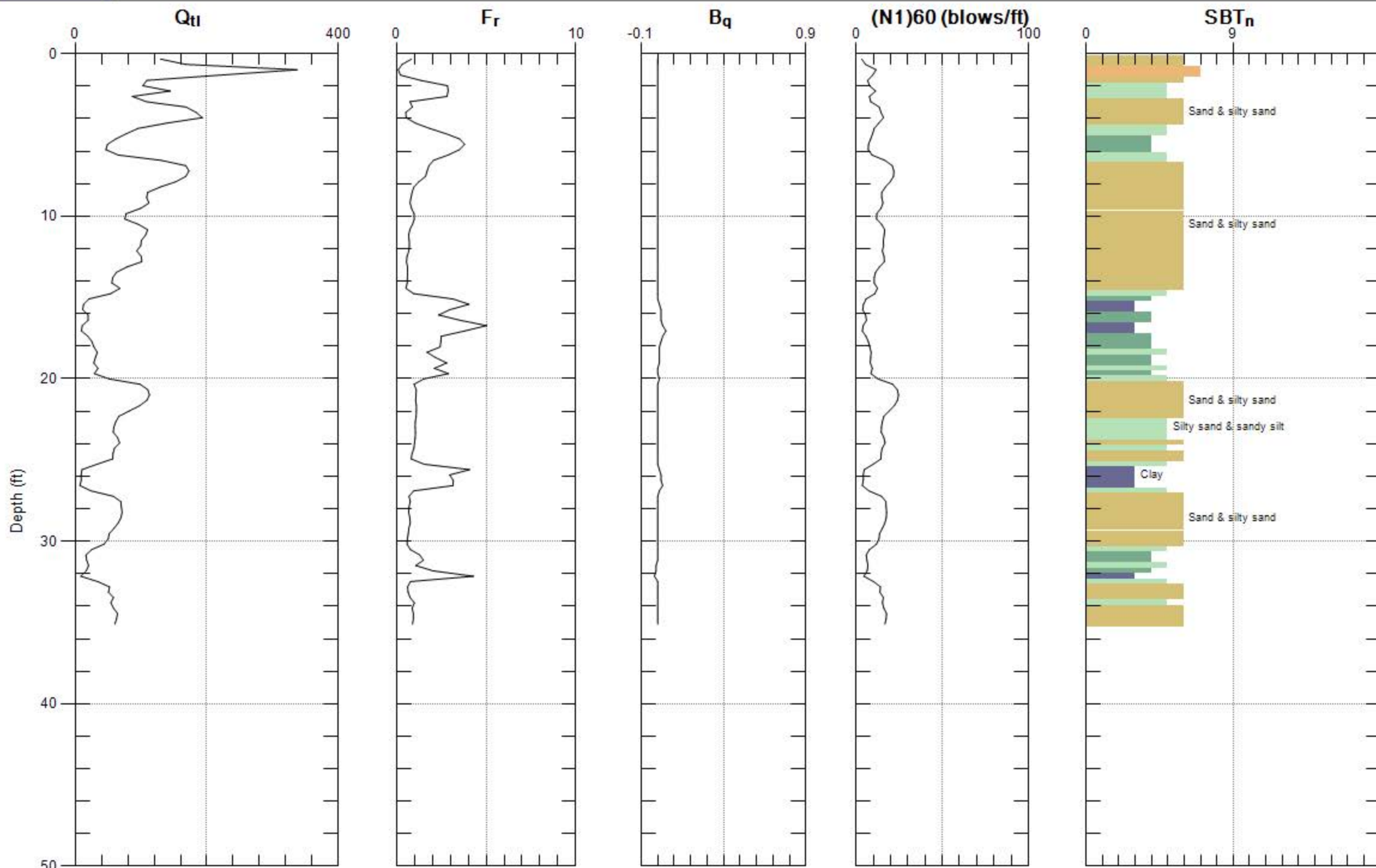
Max. Depth: 35.269 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



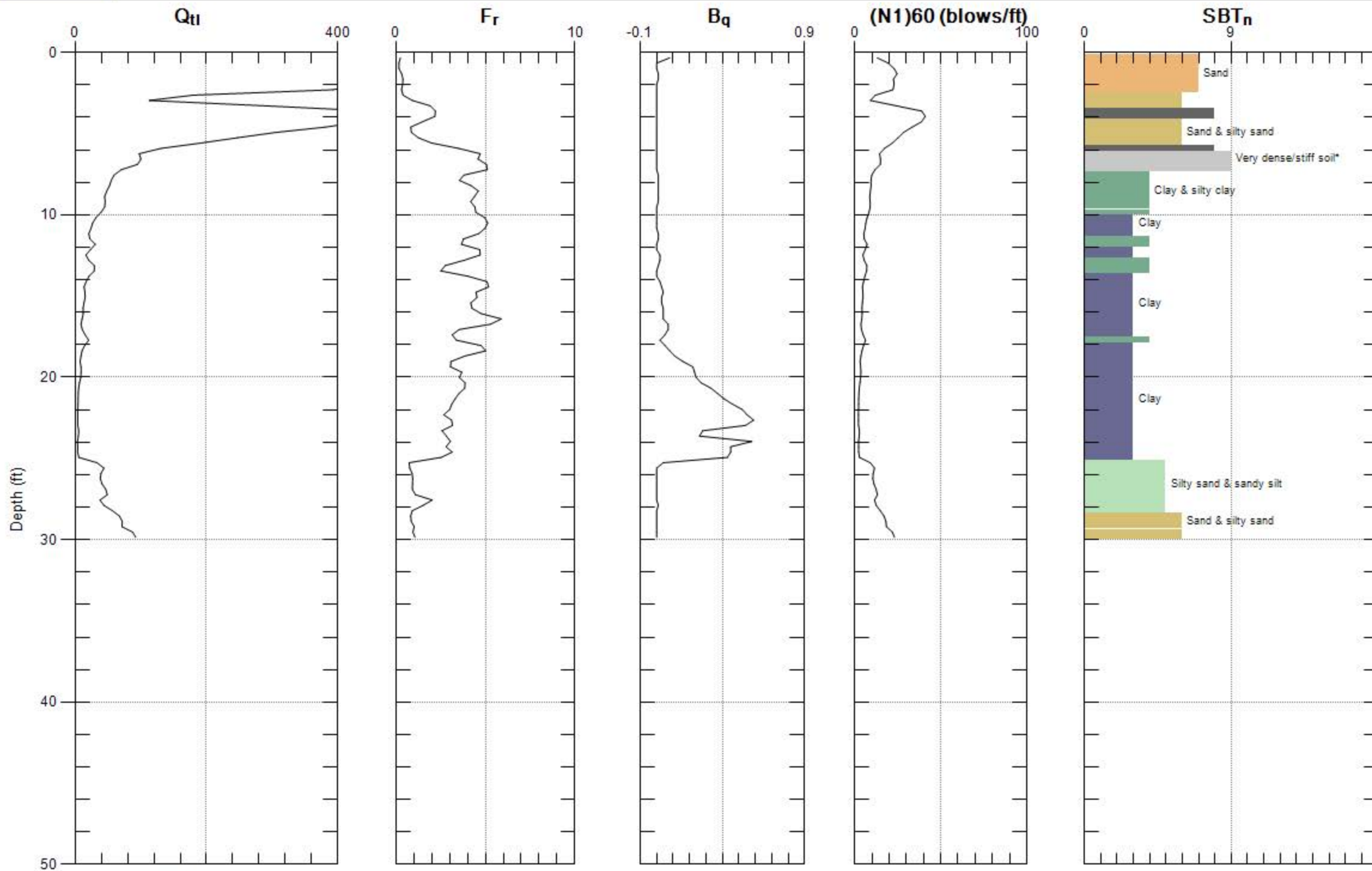
Max. Depth: 32.316 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



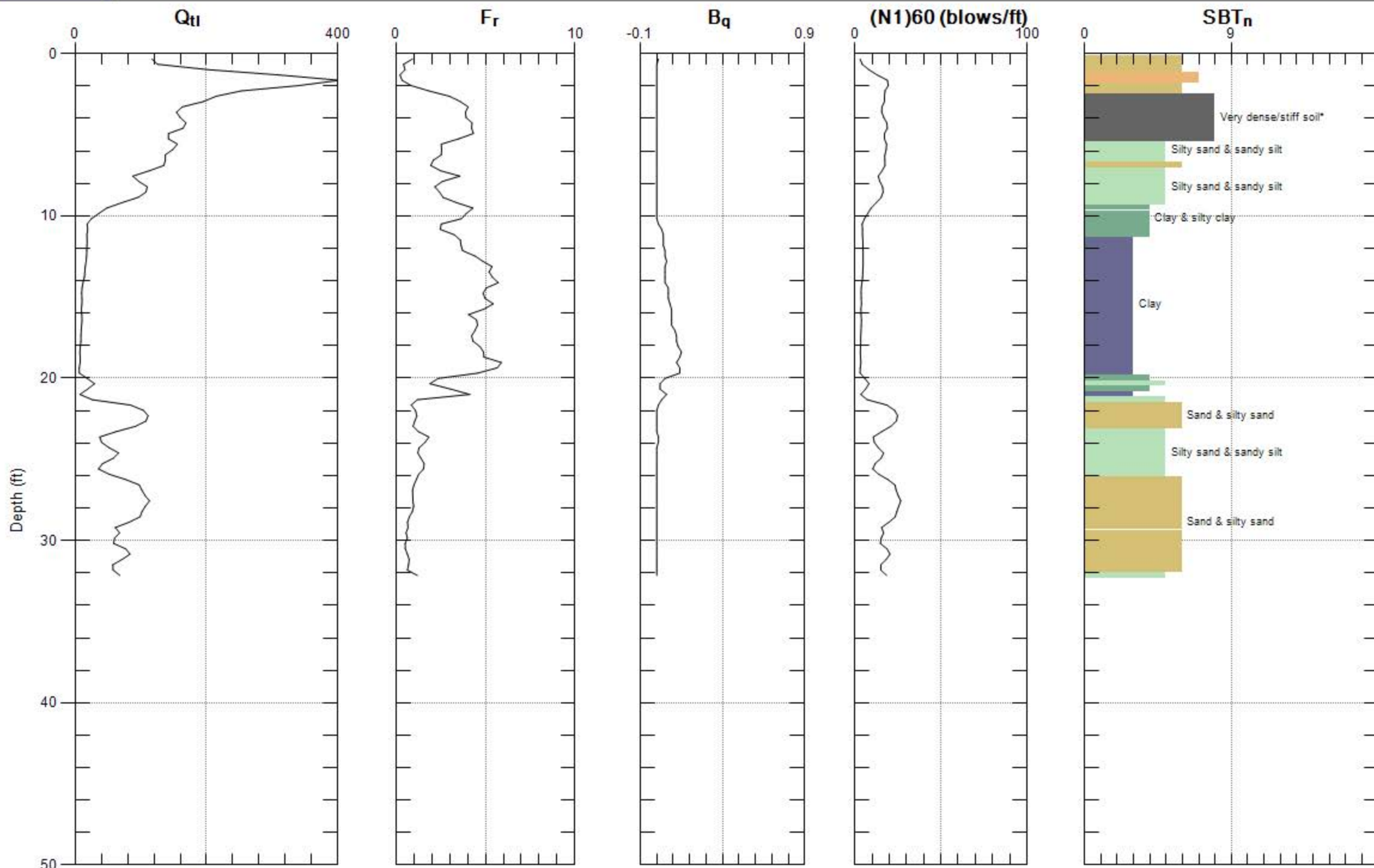
Max. Depth: 35.269 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



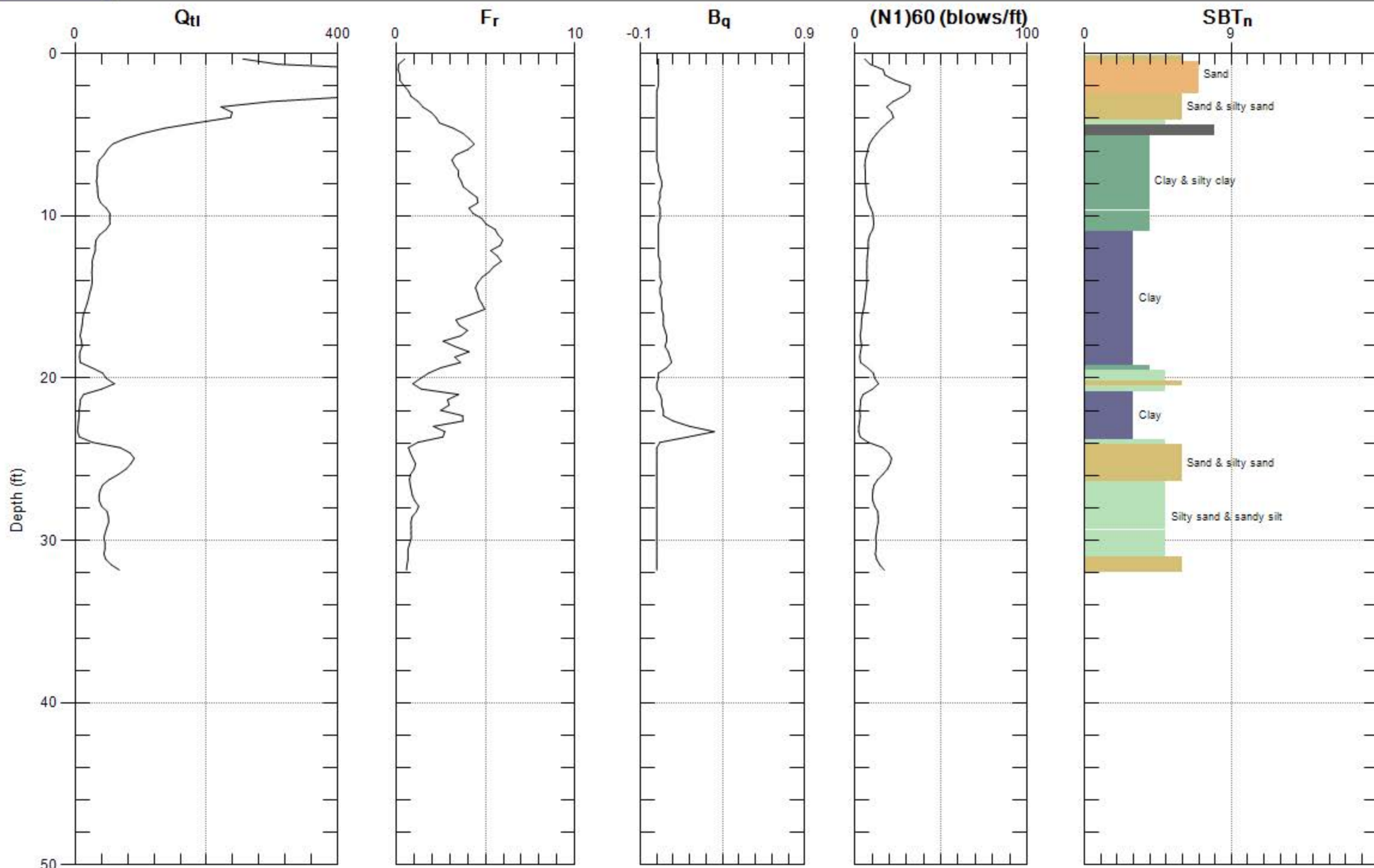
Max. Depth: 30.020 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



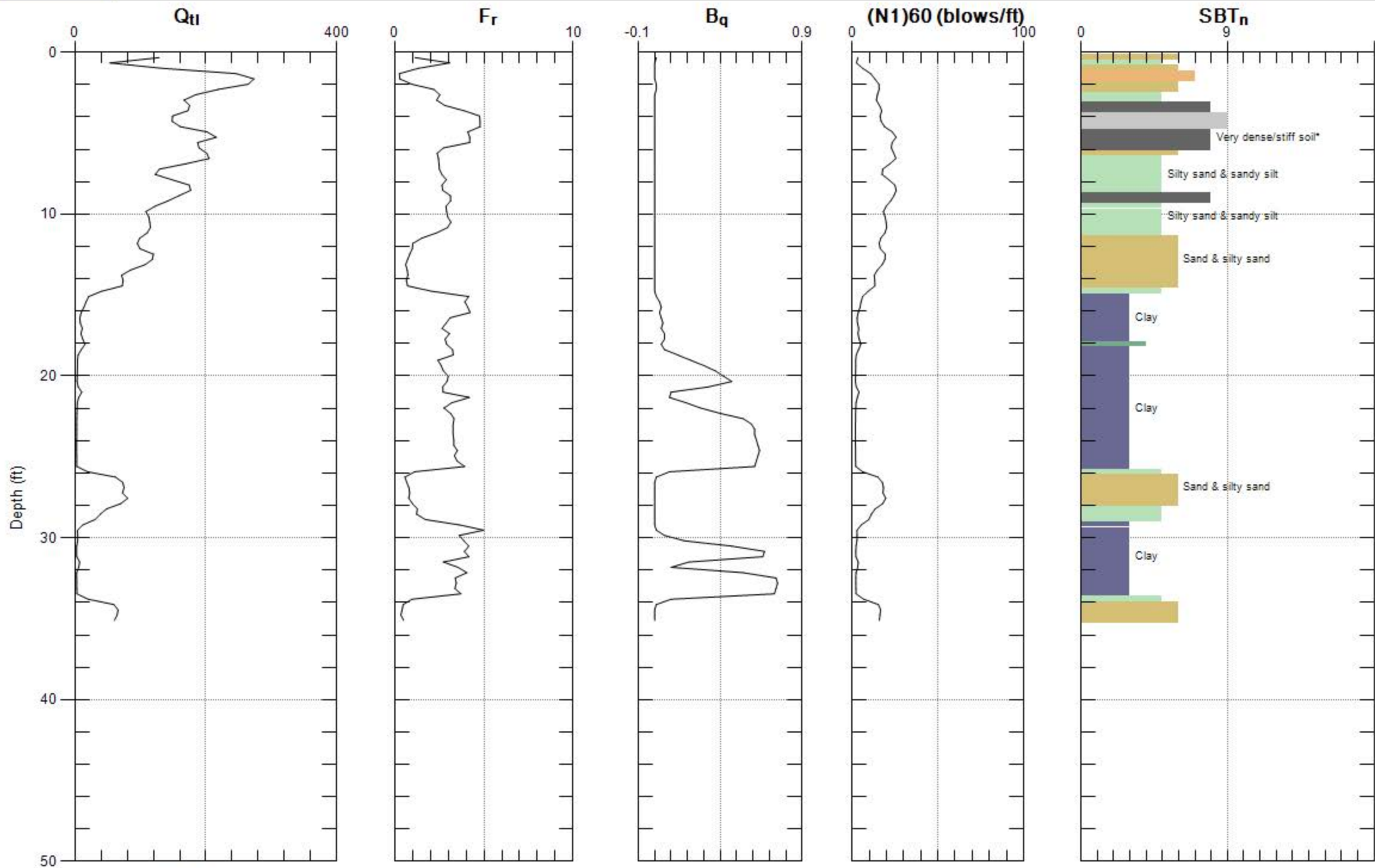
Max. Depth: 32.316 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



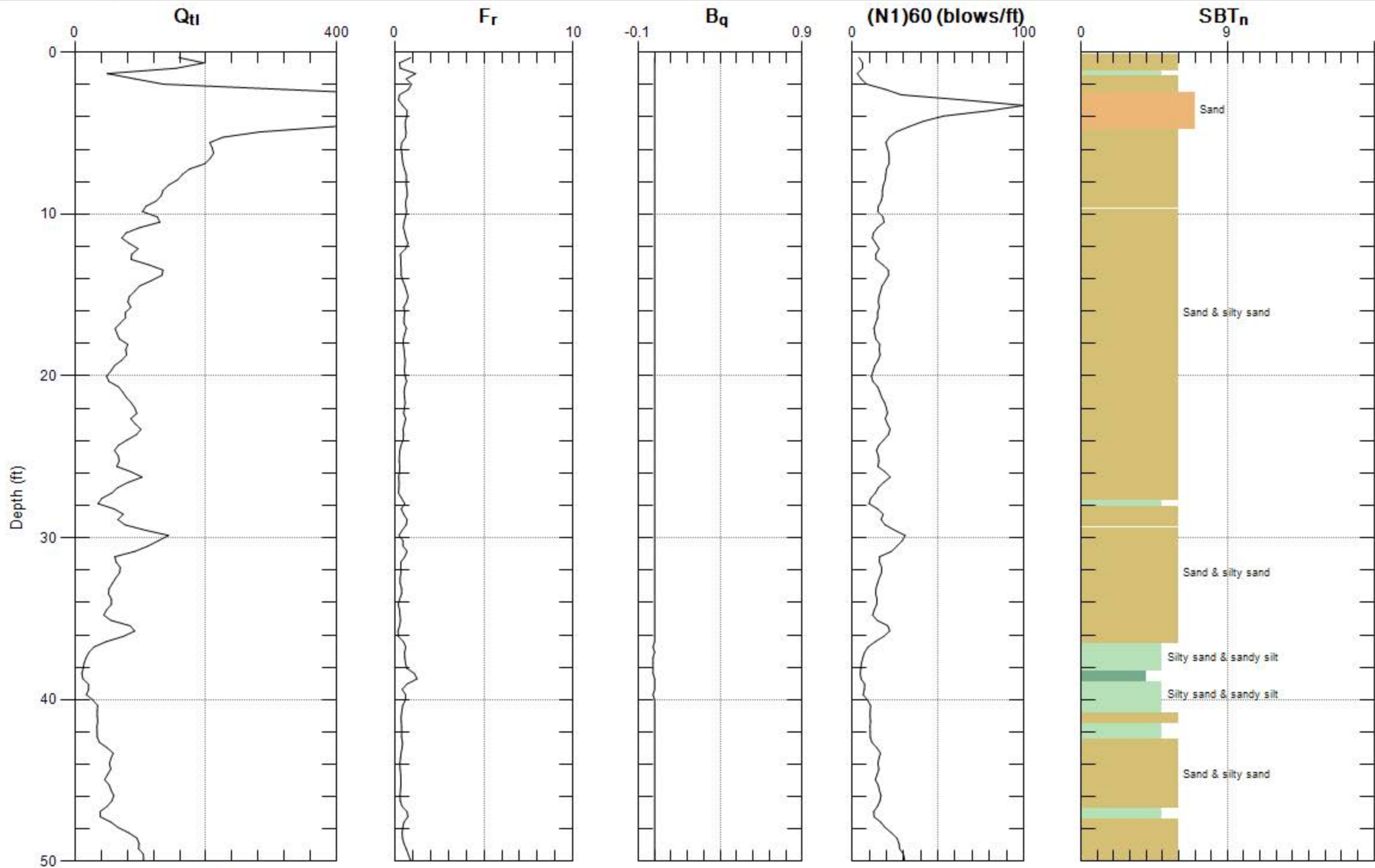
Max. Depth: 32.152 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



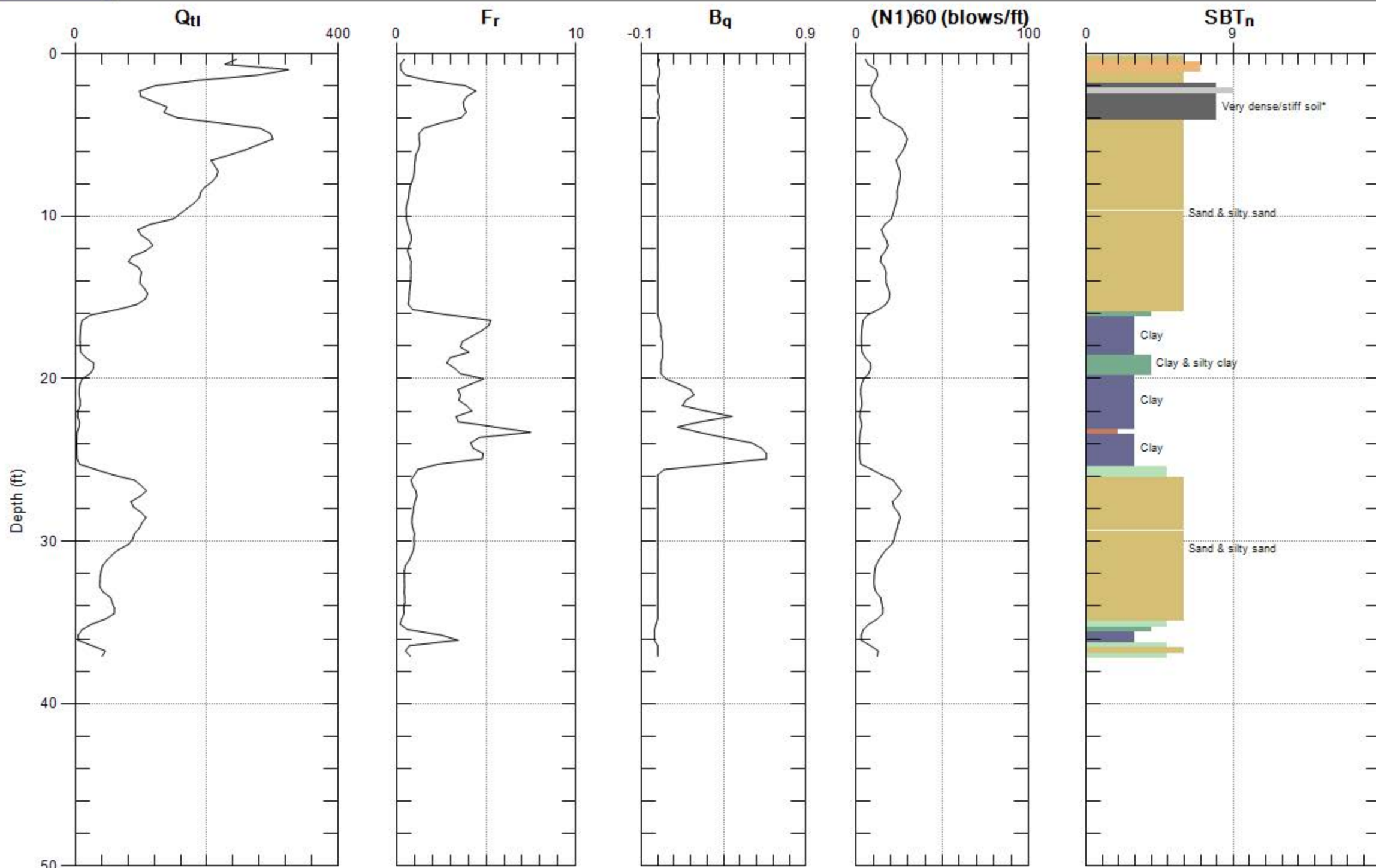
Max. Depth: 35.269 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



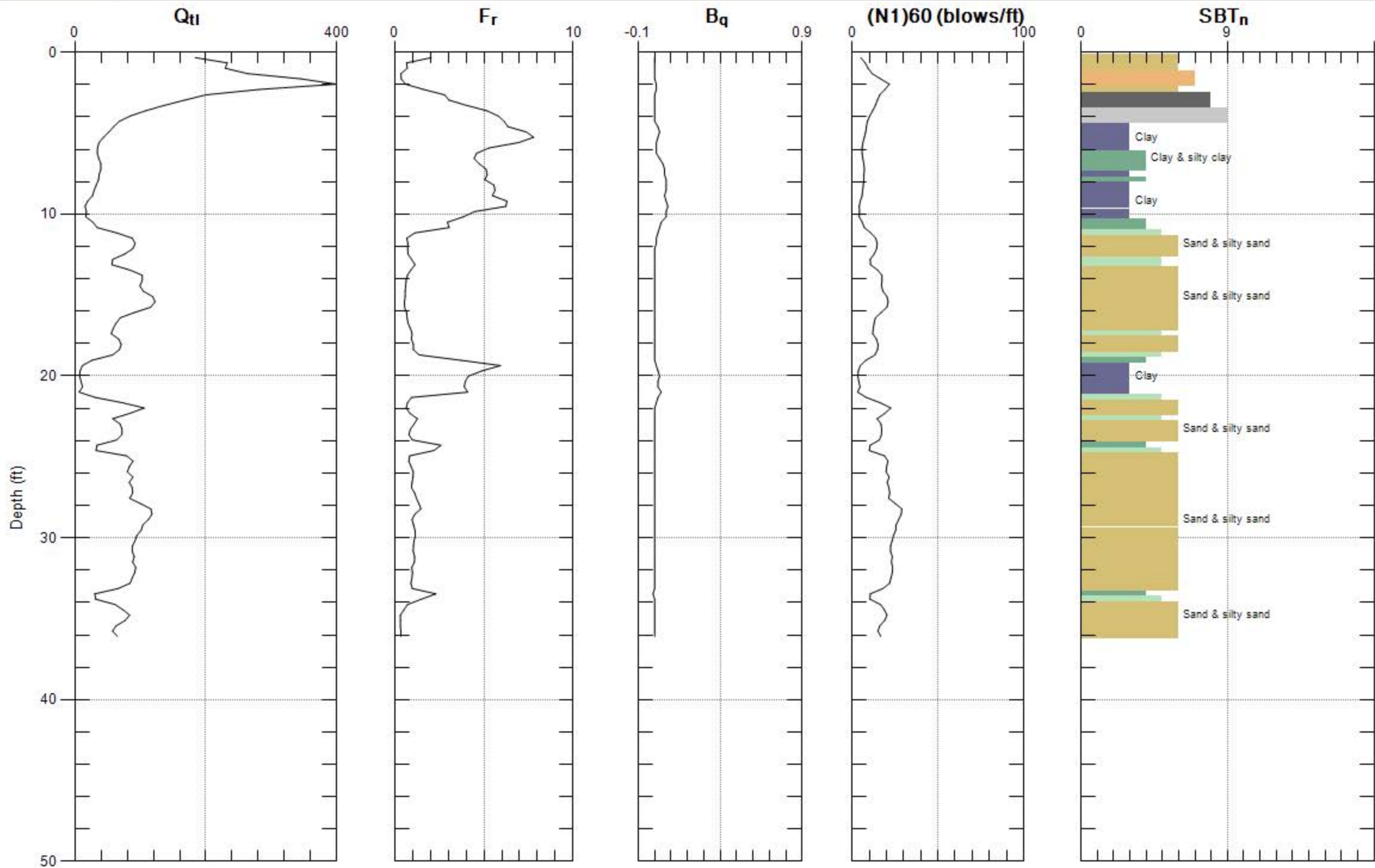
Max. Depth: 130.413 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



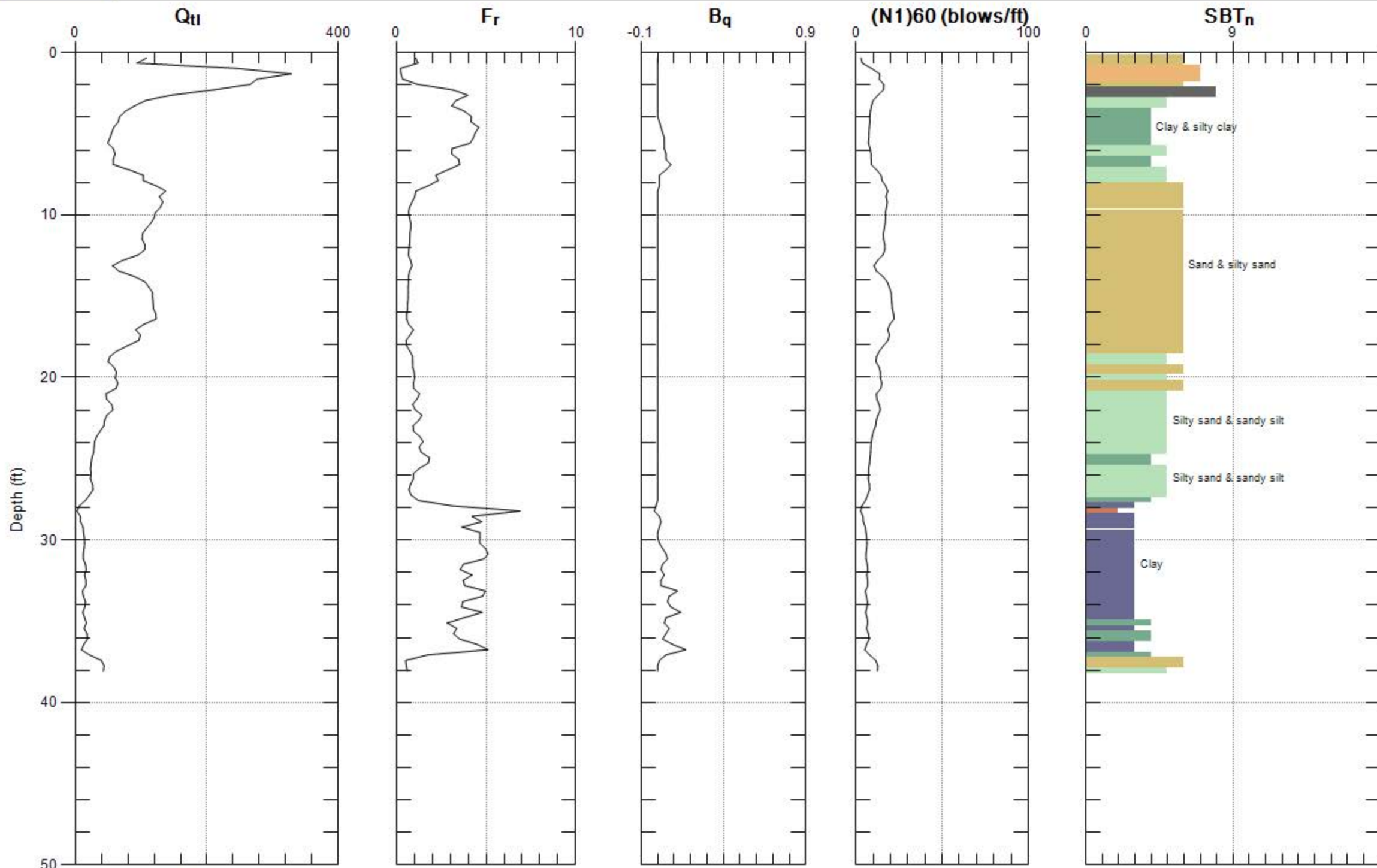
Max. Depth: 37.238 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



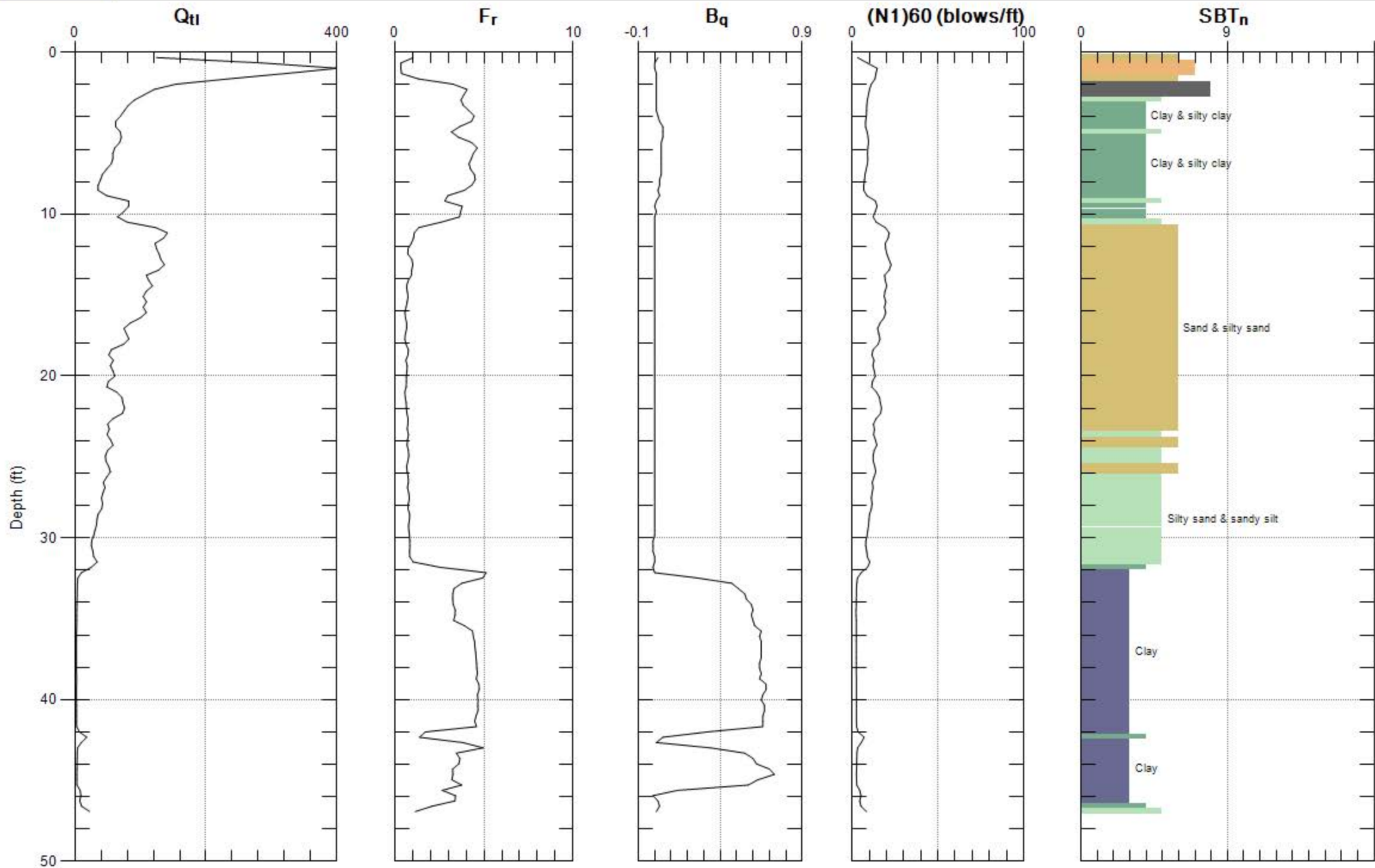
Max. Depth: 36.417 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



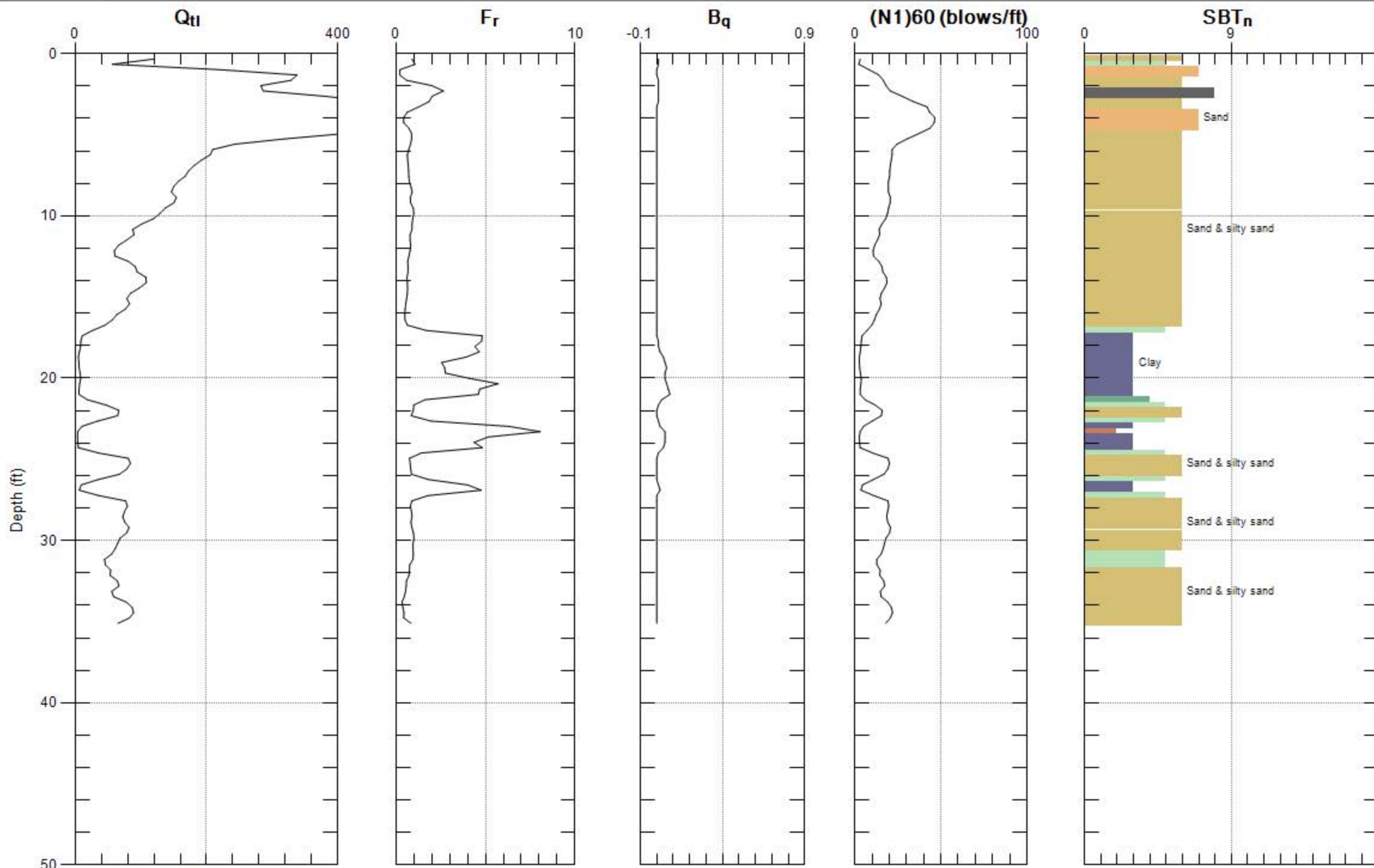
Max. Depth: 38.222 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



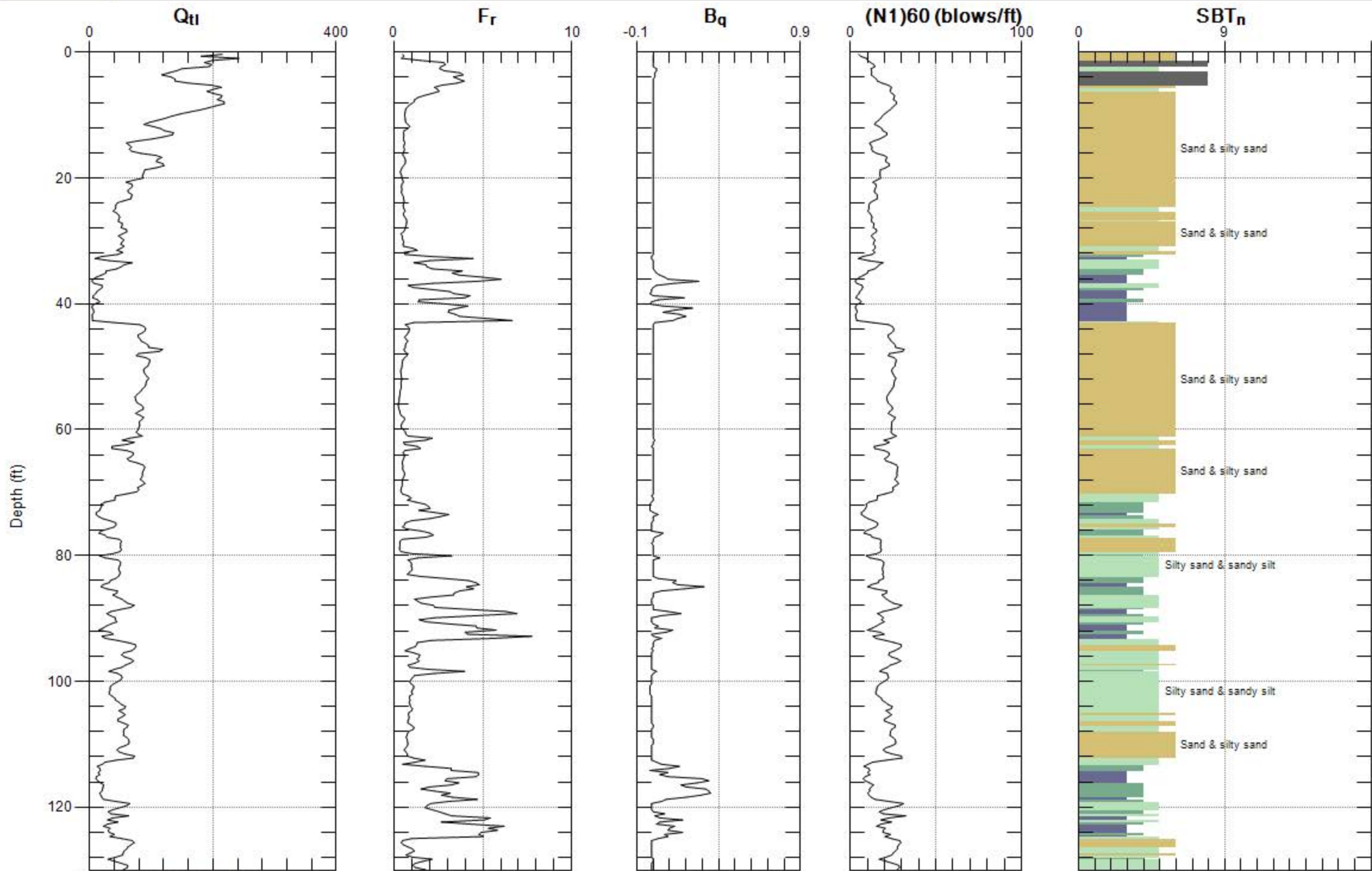
Max. Depth: 47.244 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



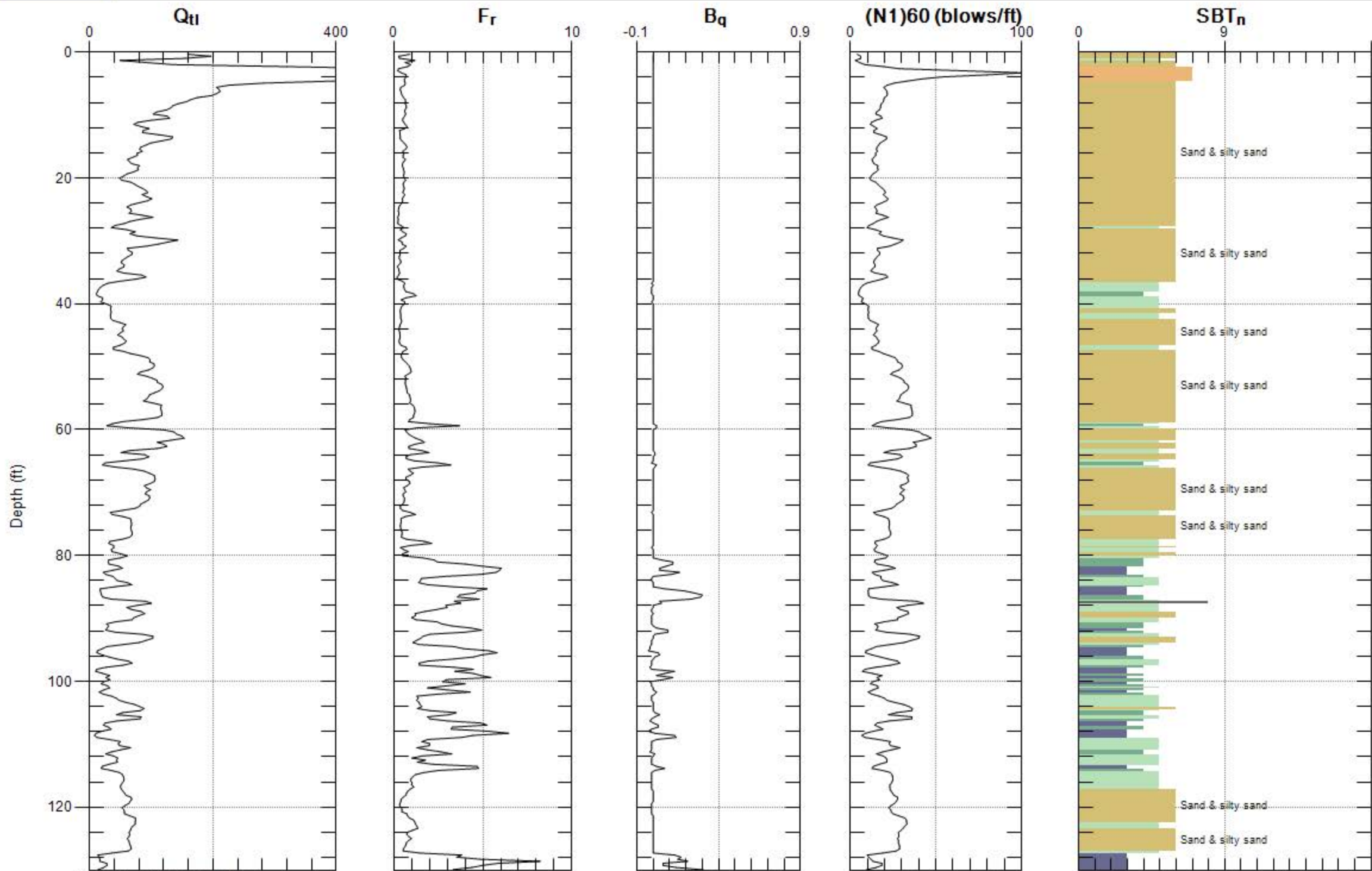
Max. Depth: 35.433 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



Max. Depth: 130.413 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



Max. Depth: 130.413 (ft)
Avg. Interval: 0.328 (ft)

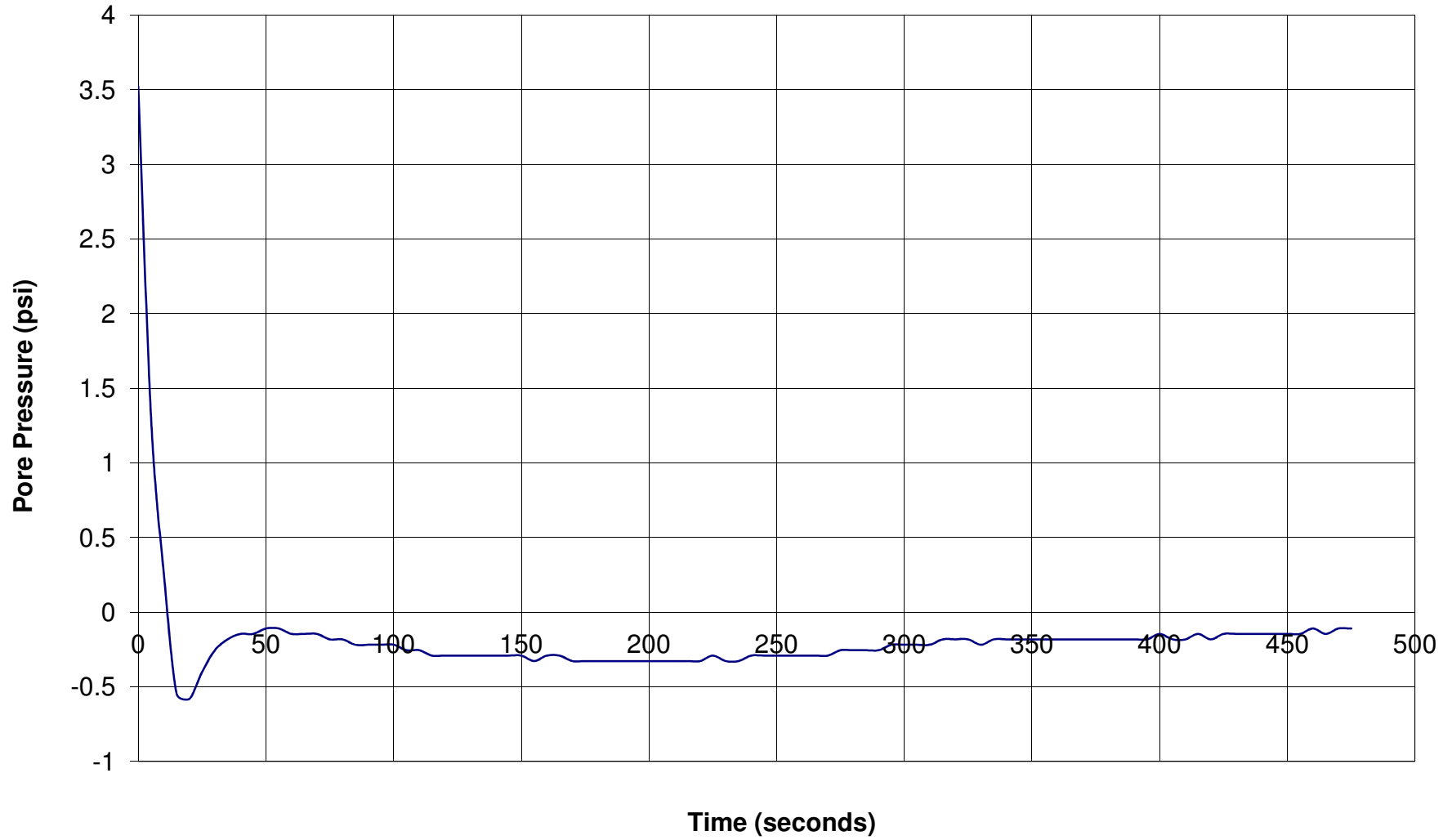
SBT: Soil Behavior Type (Robertson 1990)



GREGG DRILLING & TESTING

Pore Pressure Dissipation Test

Sounding: B-2
Depth: 31.0038435
Site: RIVER RANCH
Engineer: E.ESCOBAR

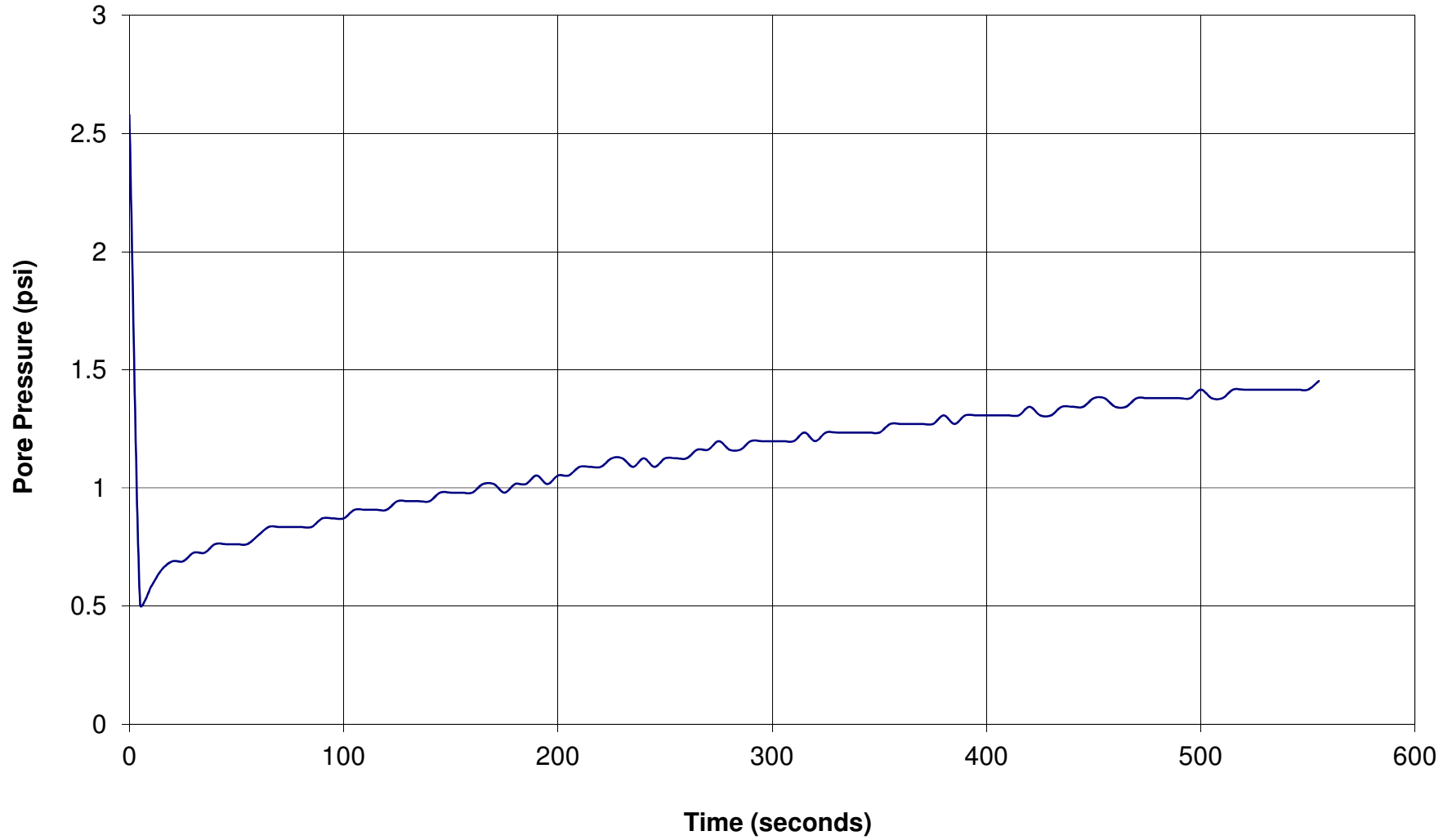




GREGG DRILLING & TESTING

Pore Pressure Dissipation Test

Sounding: B-2
Depth: 35.2689225
Site: RIVER RANCH
Engineer: E.ESCOBAR

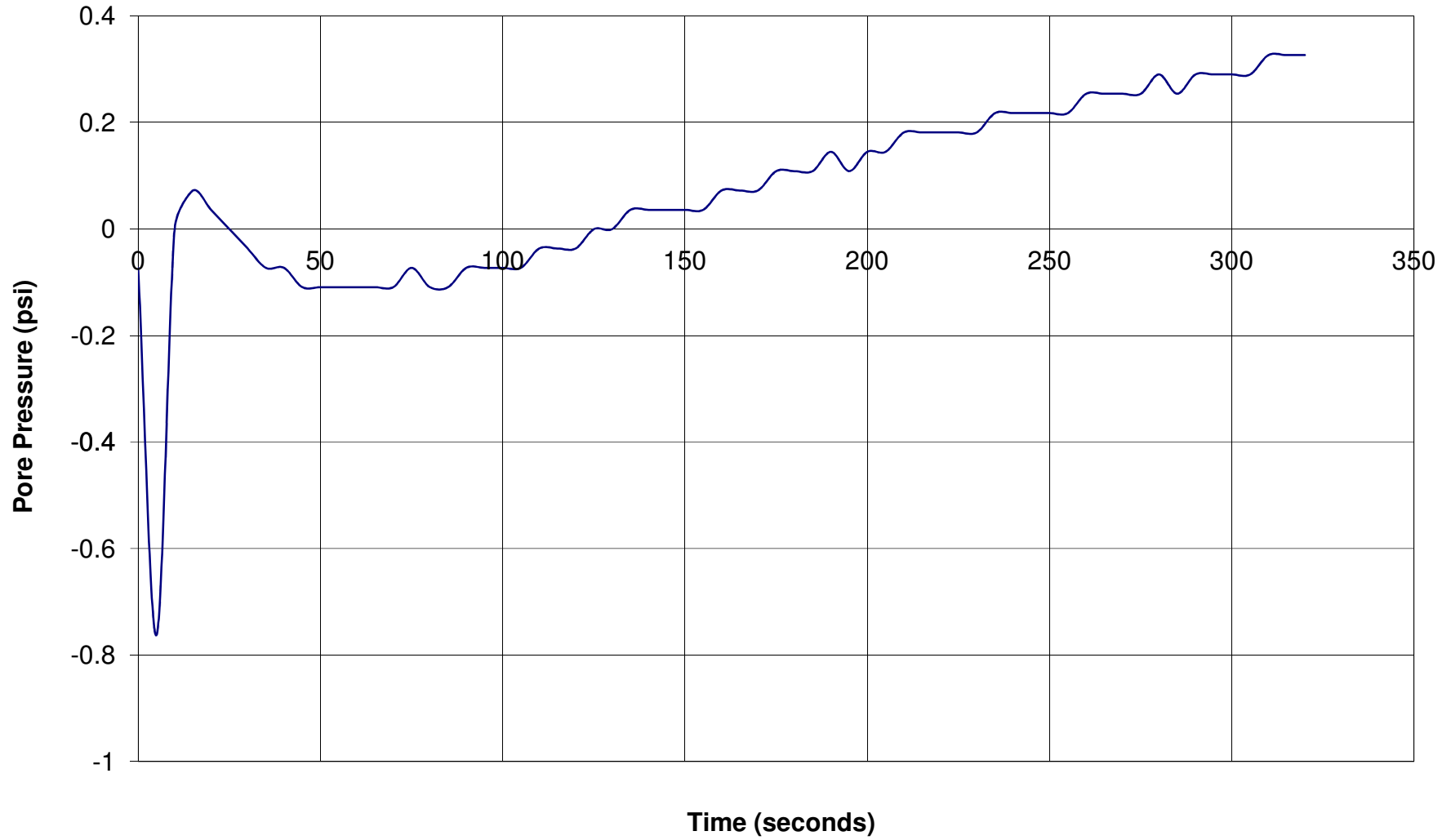




GREGG DRILLING & TESTING

Pore Pressure Dissipation Test

Sounding: B-5
Depth: 32.8083
Site: RIVER RANCH
Engineer: E.ESCOBAR

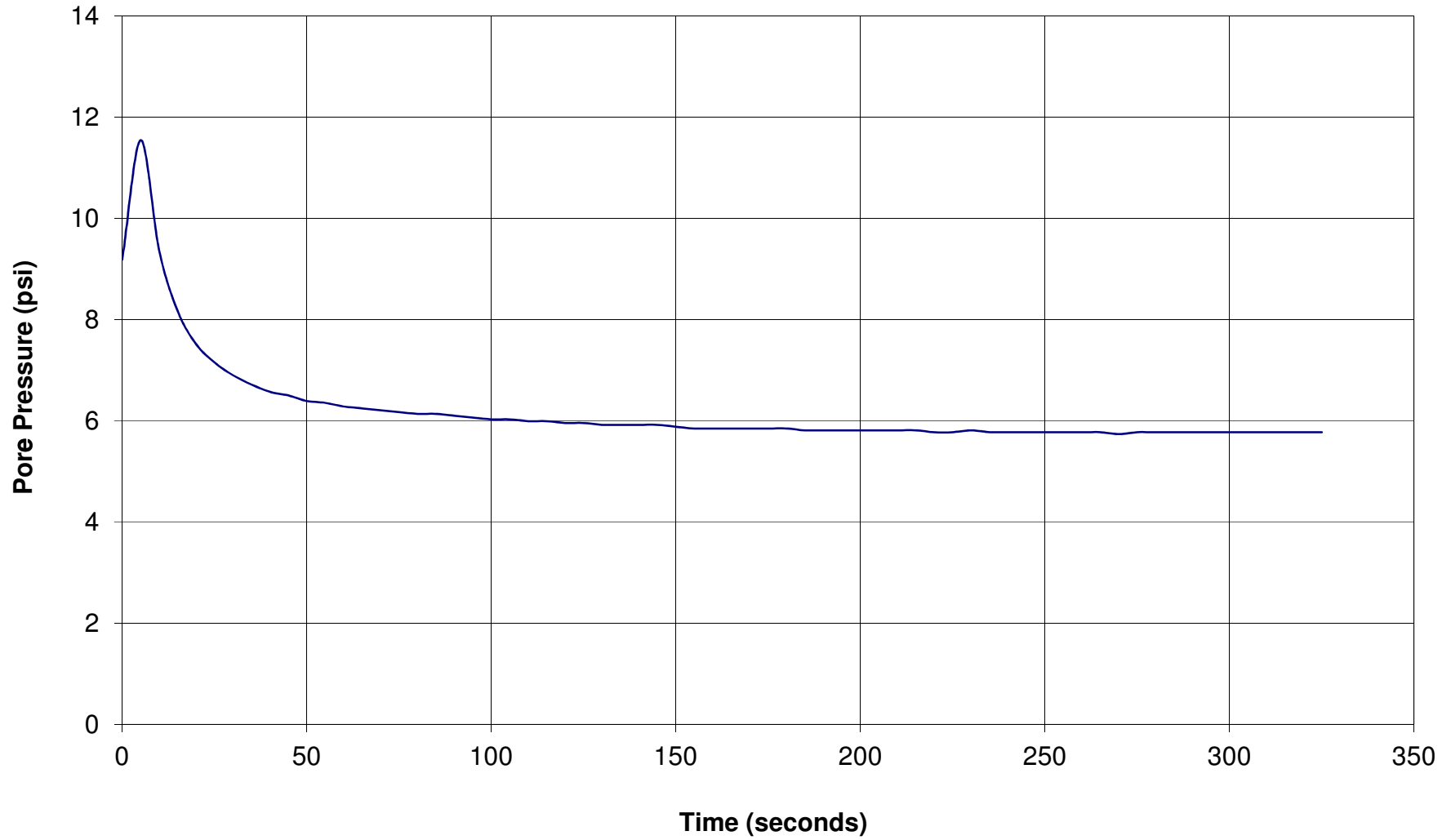




GREGG DRILLING & TESTING

Pore Pressure Dissipation Test

Sounding: B-6
Depth: 43.4709975
Site: RIVER RANCH
Engineer: E.ESCOBAR

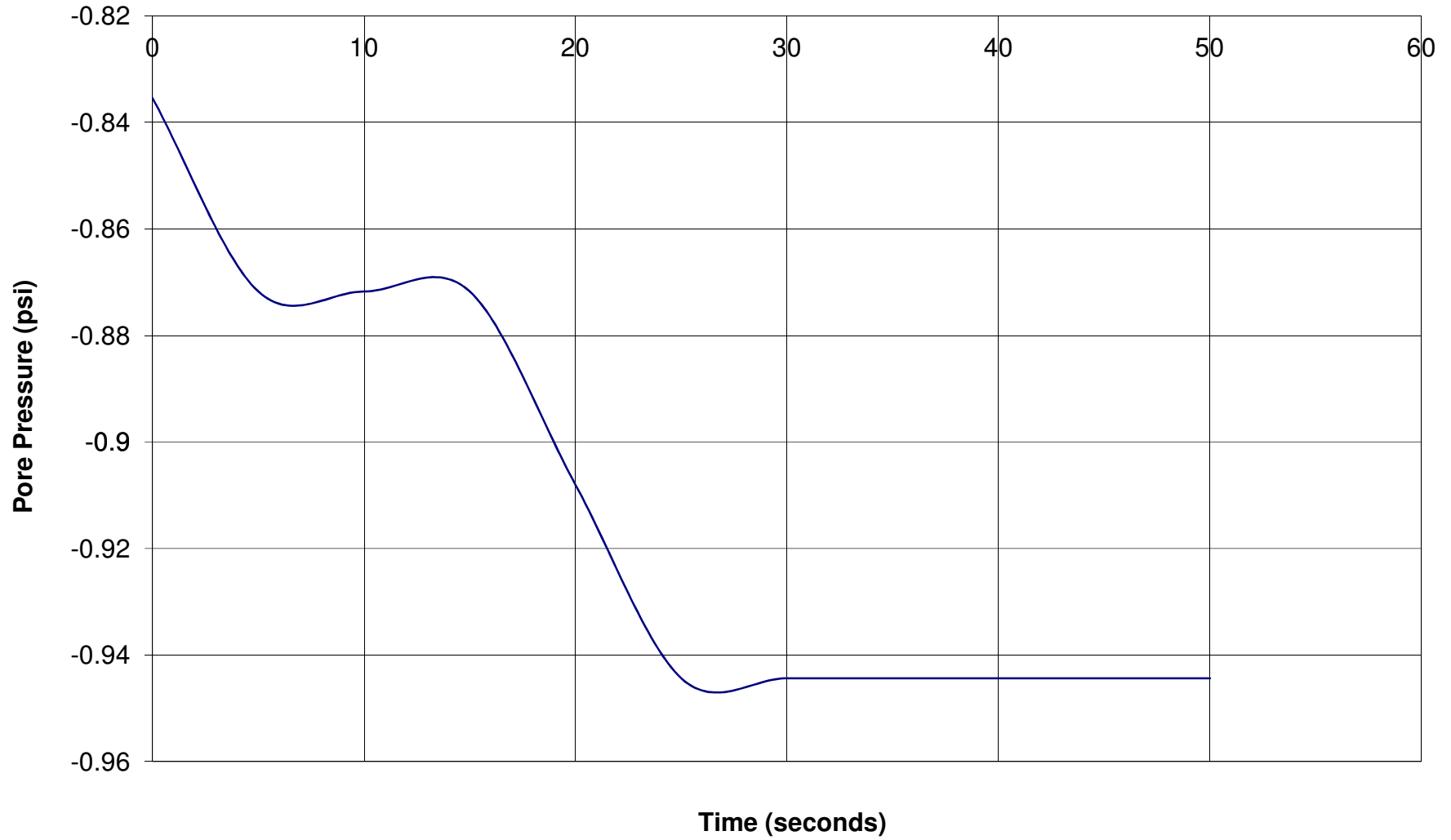




GREGG DRILLING & TESTING

Pore Pressure Dissipation Test

Sounding: RRN-1
Depth: 18.2086065
Site: RIVER RANCH
Engineer: E.ESCOBAR

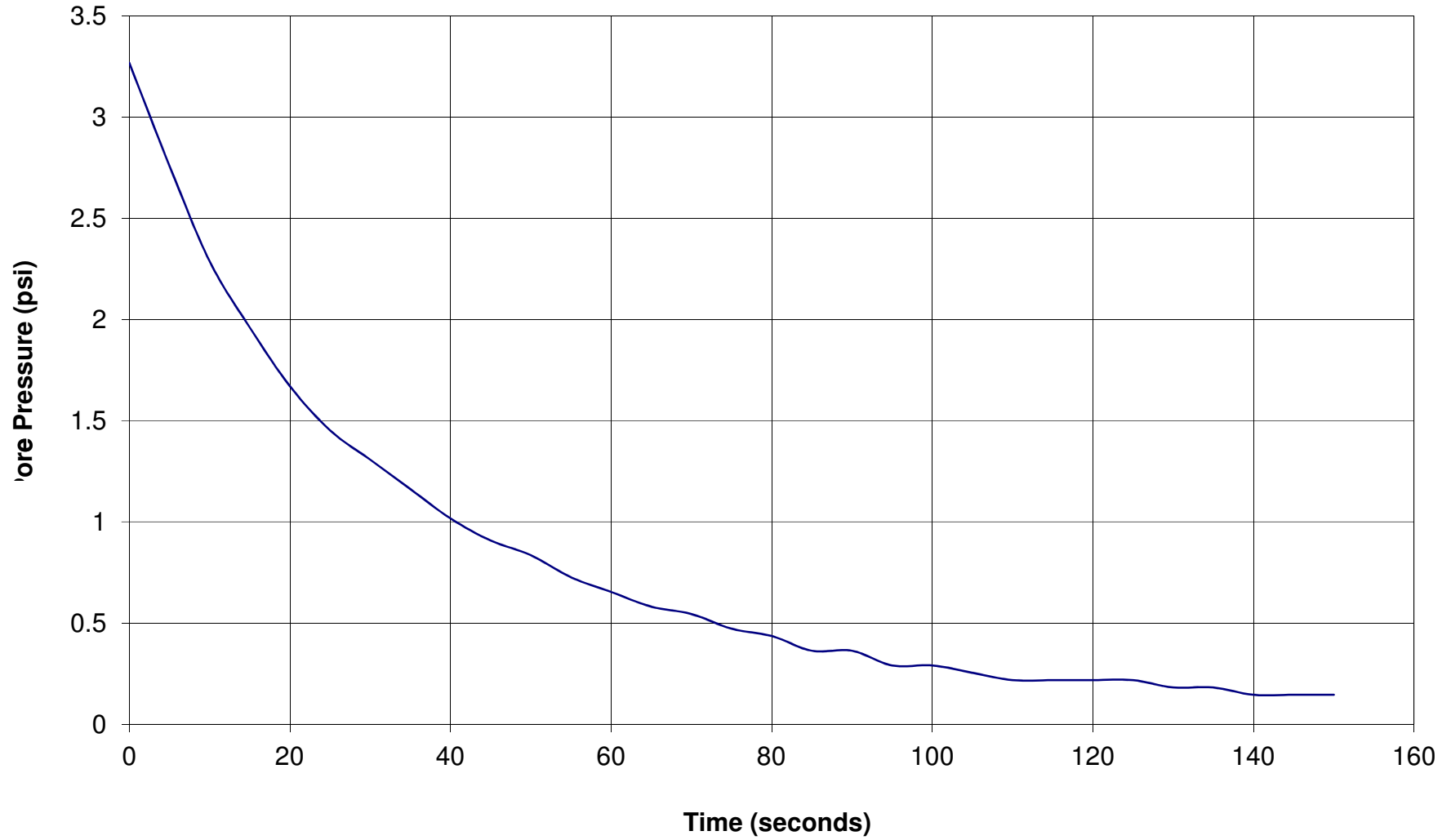




GREGG DRILLING & TESTING

Pore Pressure Dissipation Test

Sounding: RRN-1
Depth: 25.0983495
Site: RIVER RANCH
Engineer: E.ESCOBAR

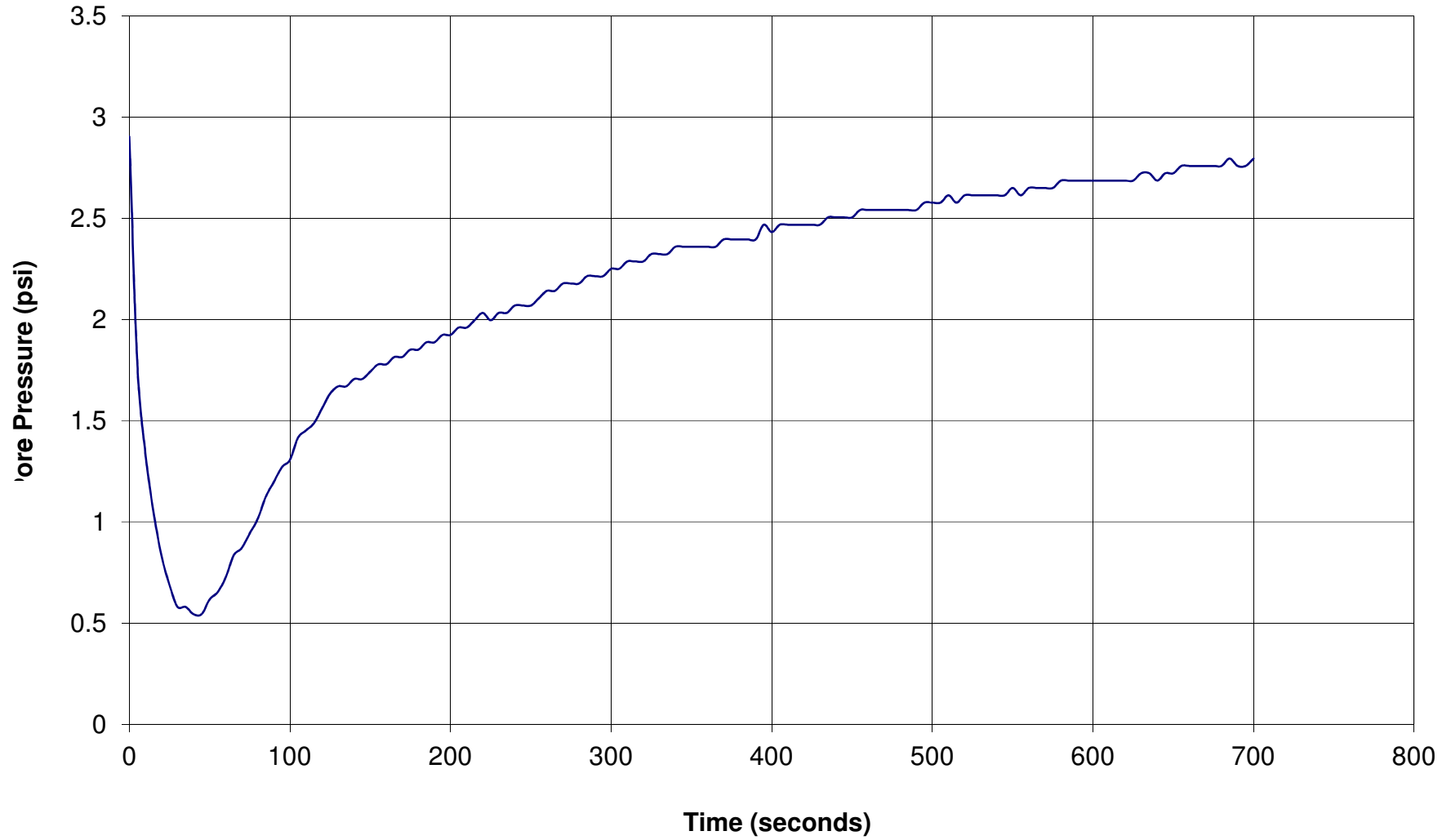




GREGG DRILLING & TESTING

Pore Pressure Dissipation Test

Sounding: RRN-1
Depth: 30.183636
Site: RIVER RANCH
Engineer: E.ESCOBAR

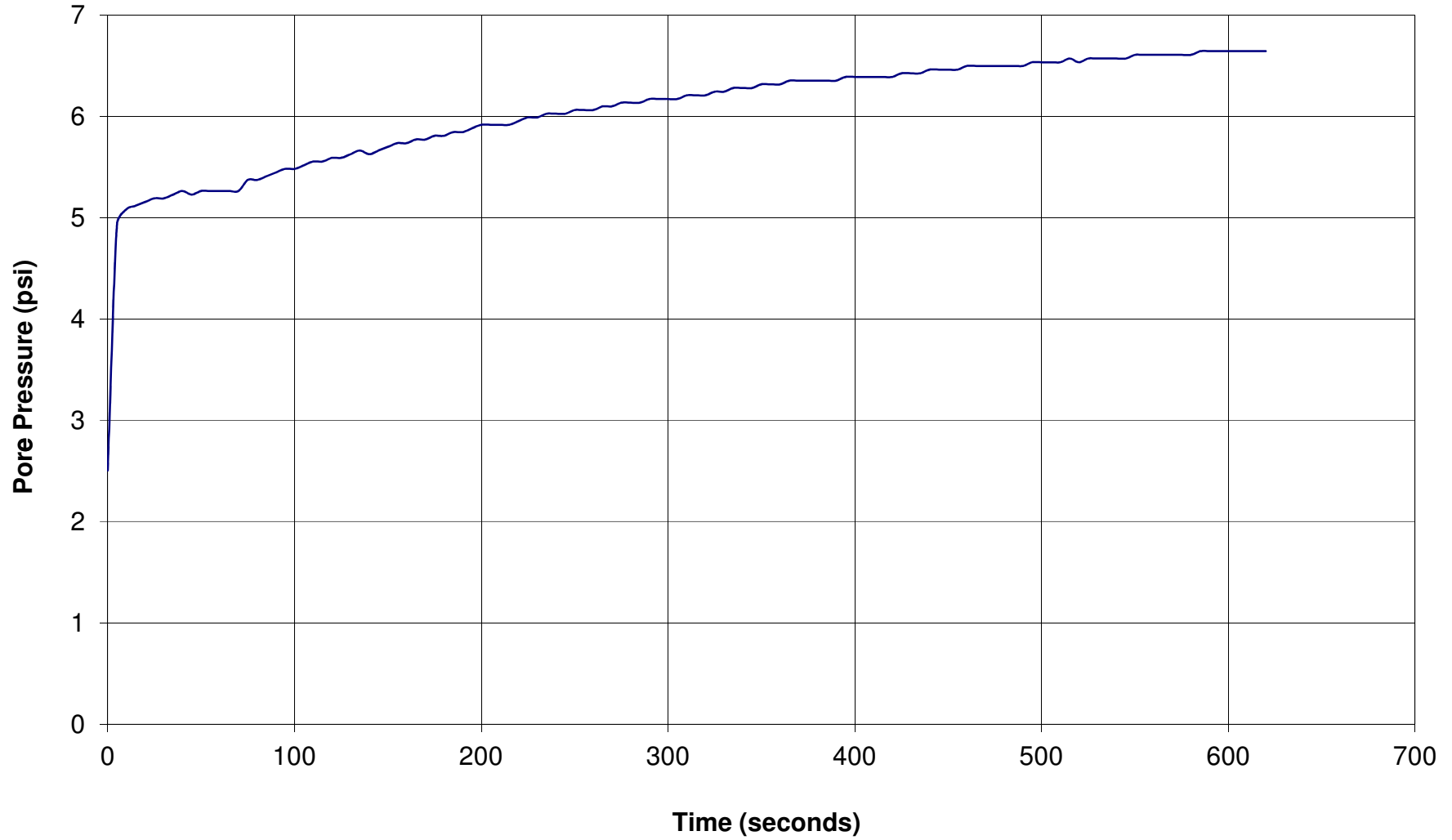




GREGG DRILLING & TESTING

Pore Pressure Dissipation Test

Sounding: RRN-2
Depth: 37.2374205
Site: RIVER RANCH
Engineer: E.ESCOBAR

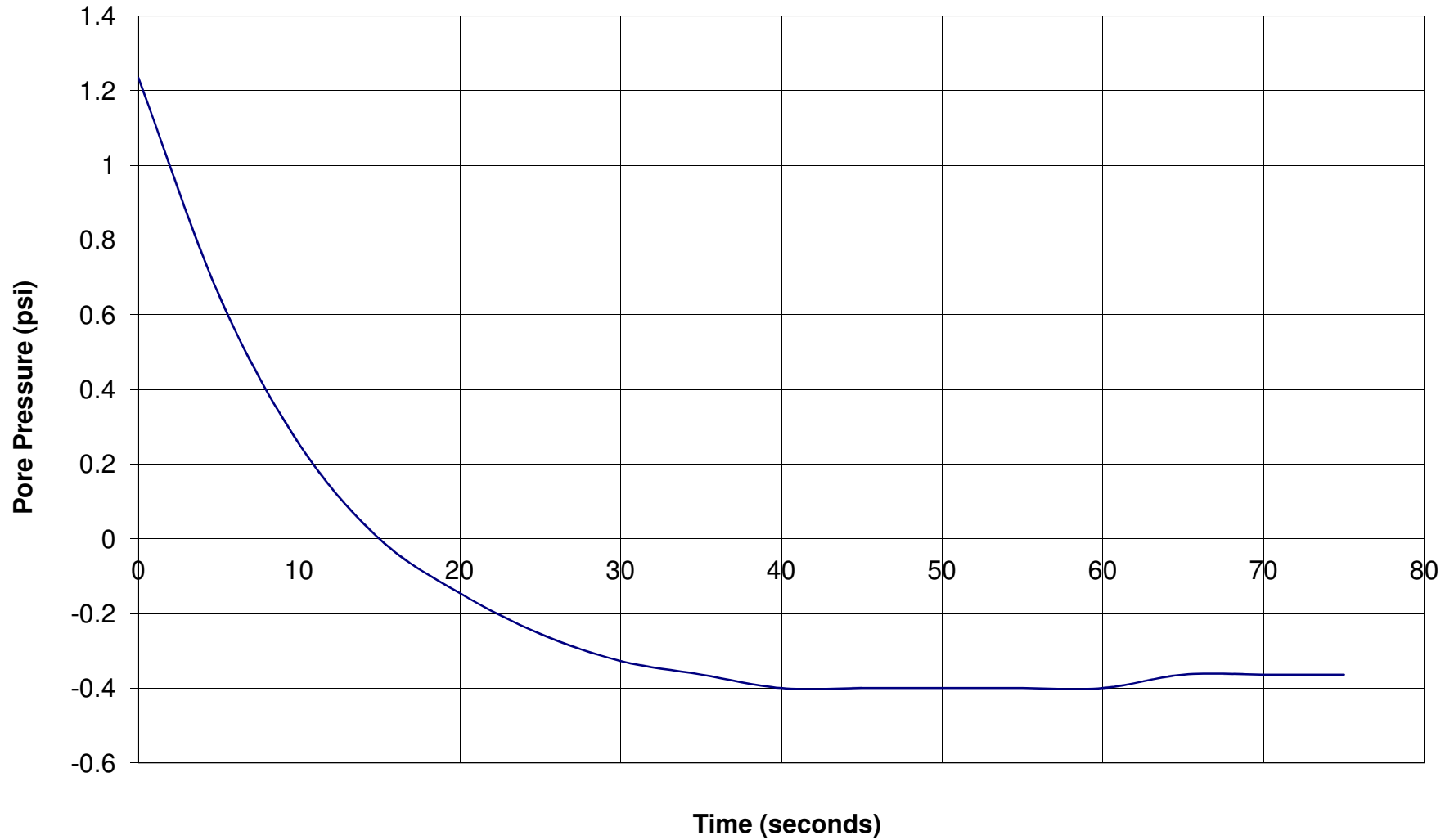




GREGG DRILLING & TESTING

Pore Pressure Dissipation Test

Sounding: RRN-3
Depth: 23.950059
Site: RIVER RANCH
Engineer: E.ESCOBAR

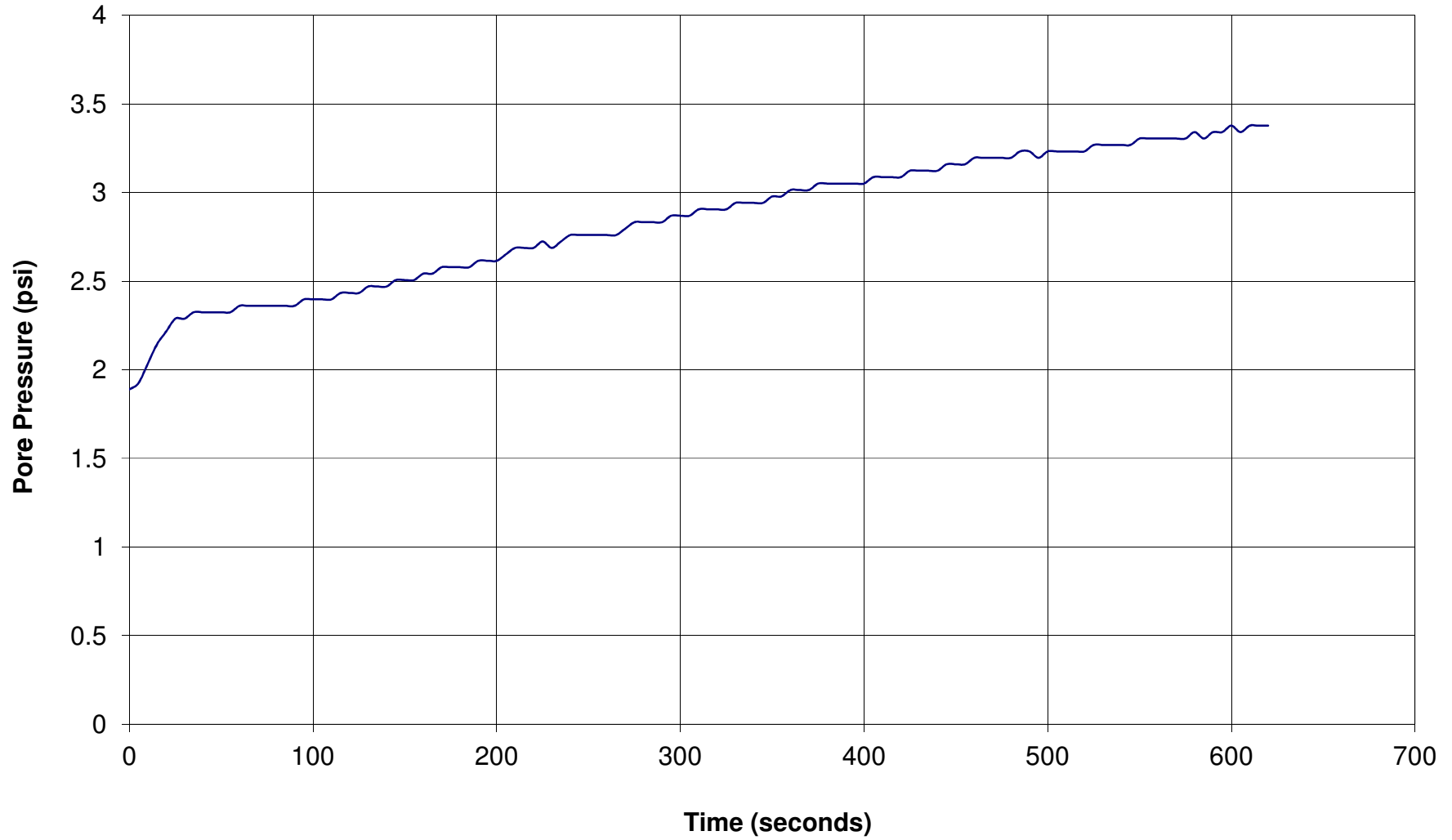




GREGG DRILLING & TESTING

Pore Pressure Dissipation Test

Sounding: RRN-3
Depth: 30.183636
Site: RIVER RANCH
Engineer: E.ESCOBAR

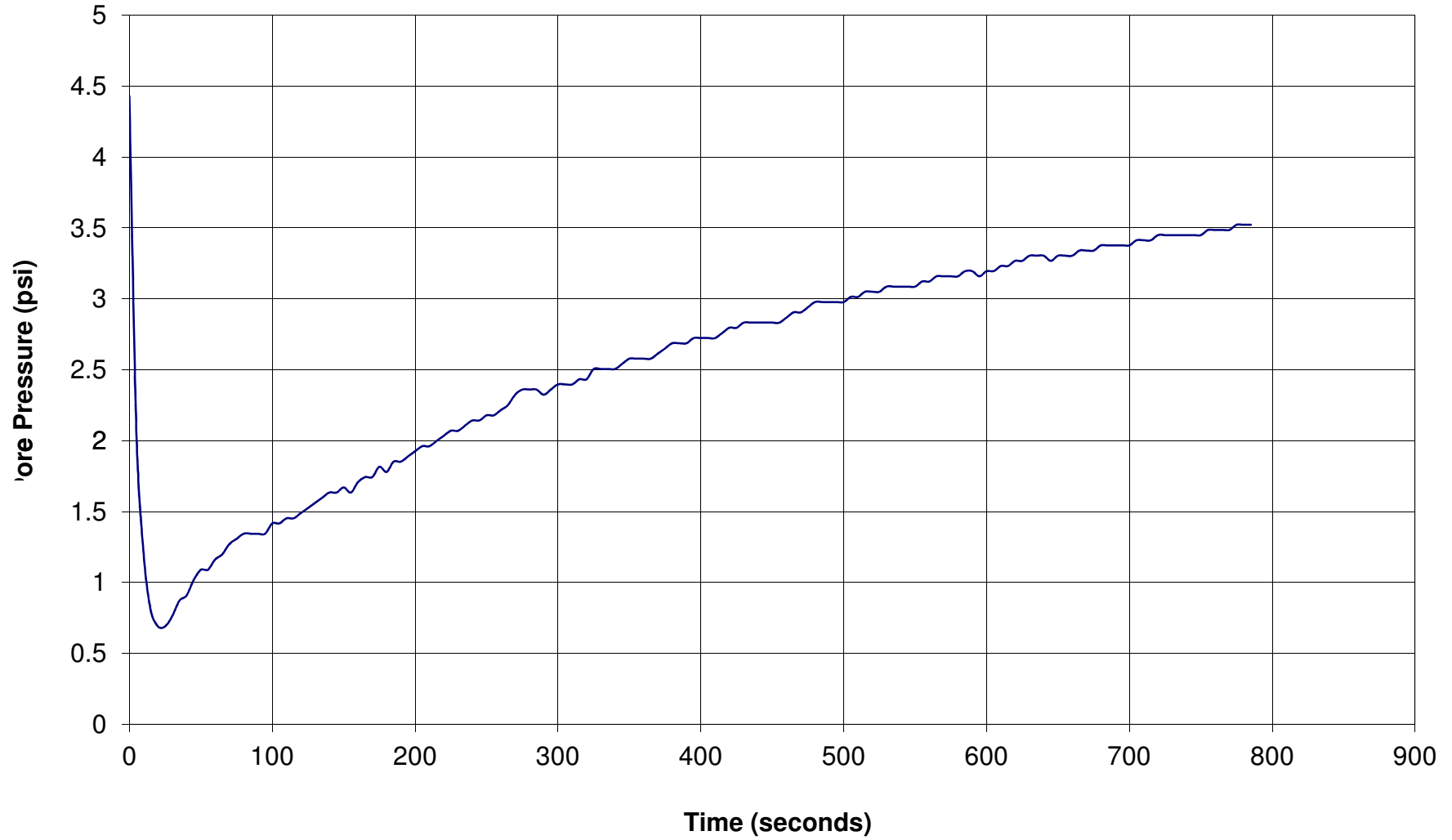




GREGG DRILLING & TESTING

Pore Pressure Dissipation Test

Sounding: RRN-4
Depth: 35.2689225
Site: RIVER RANCH
Engineer: E.ESCOBAR

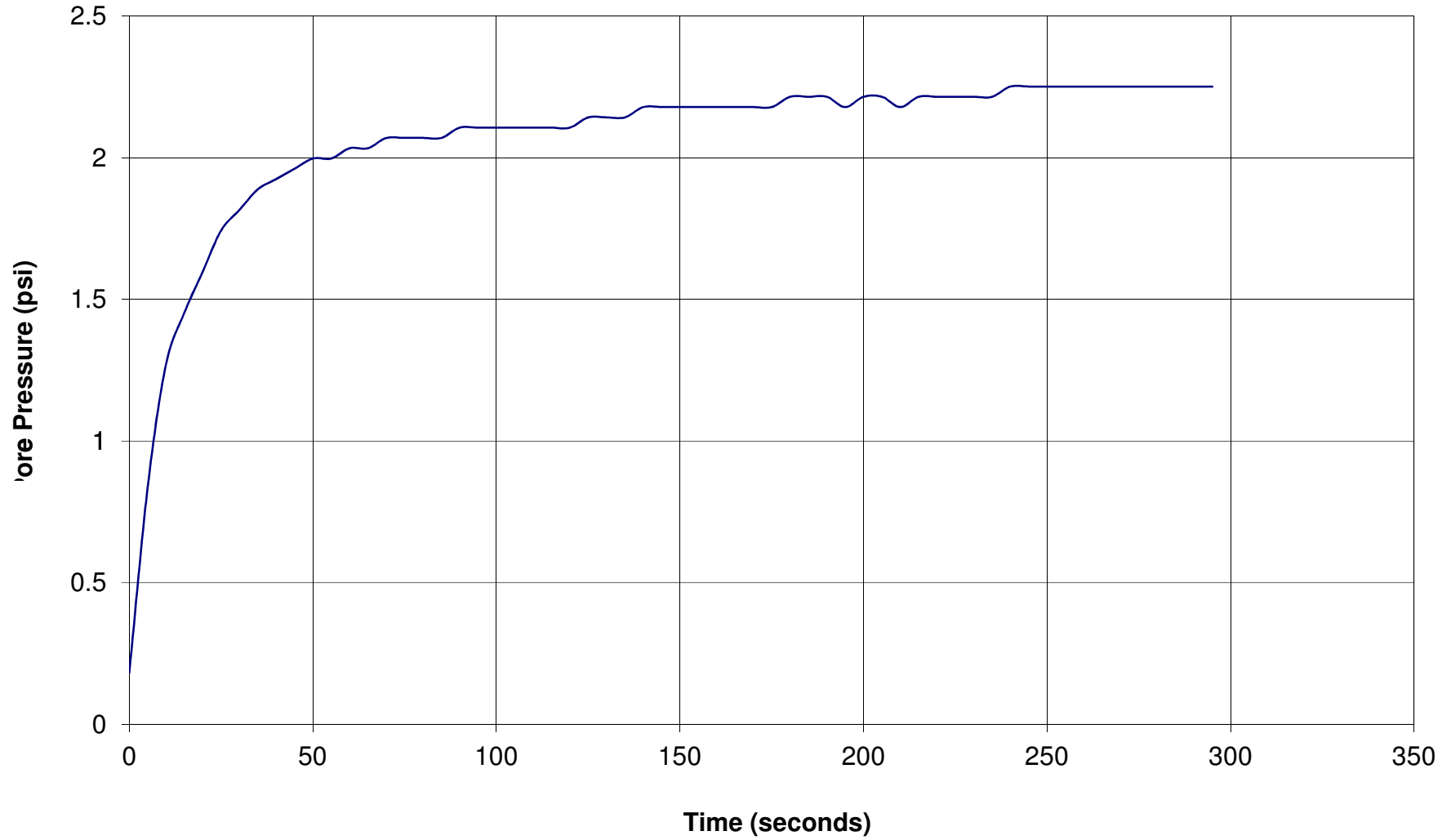




GREGG DRILLING & TESTING

Pore Pressure Dissipation Test

Sounding: RRN-5
Depth: 30.183636
Site: RIVER RANCH
Engineer: E.ESCOBAR

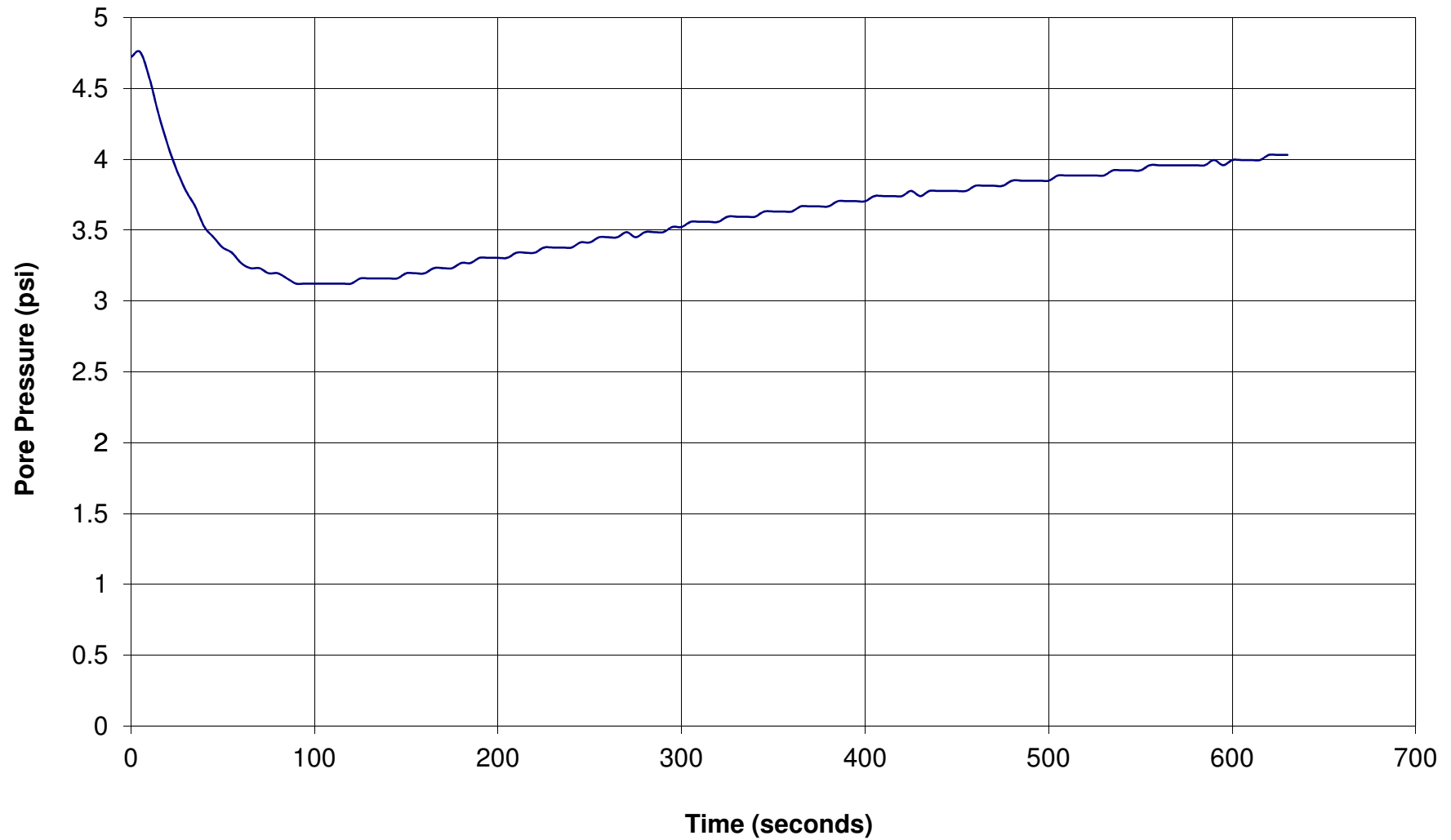




GREGG DRILLING & TESTING

Pore Pressure Dissipation Test

Sounding: RRN-6
Depth: 35.2689225
Site: RIVER RANCH
Engineer: E.ESCOBAR

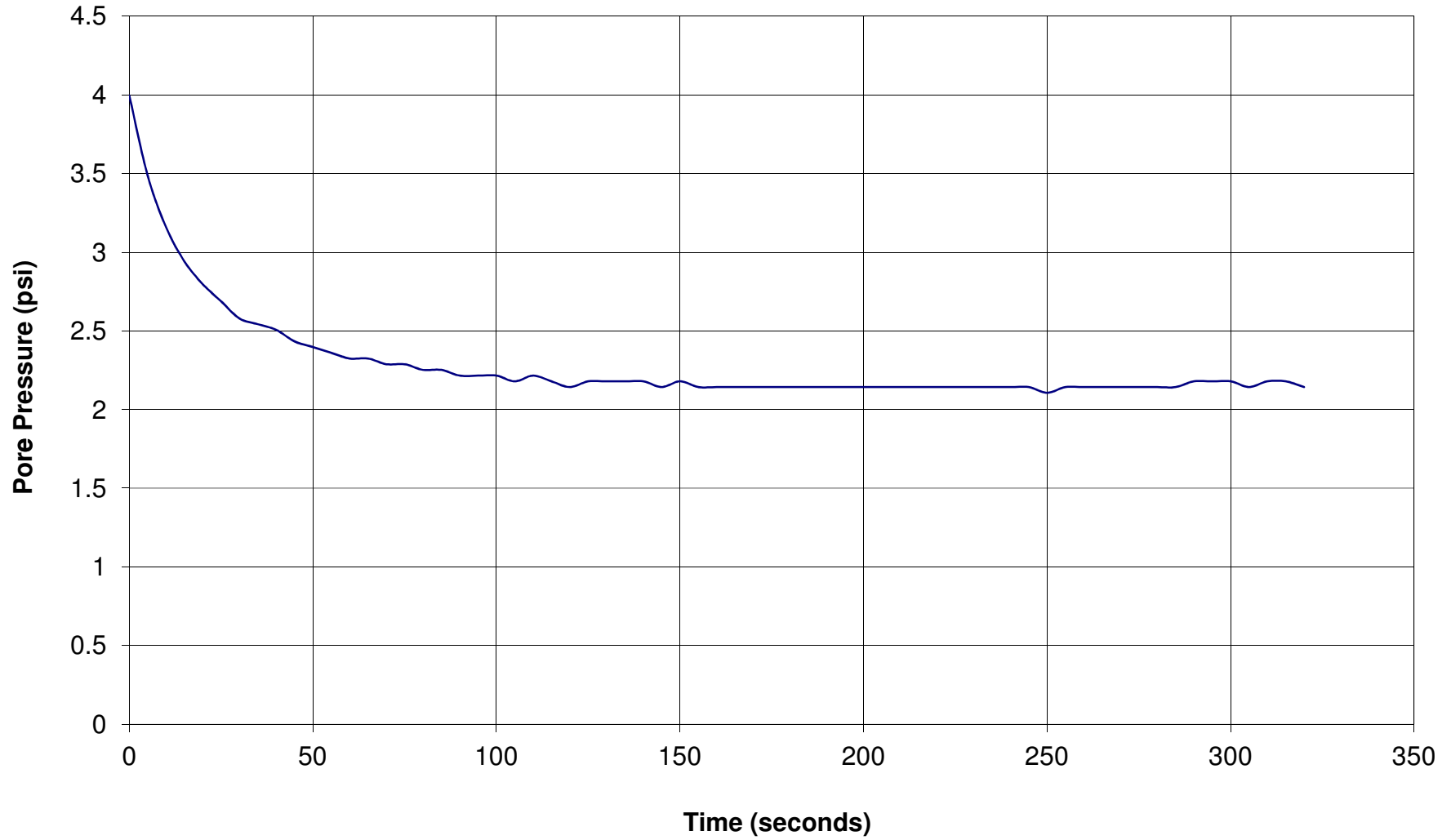




GREGG DRILLING & TESTING

Pore Pressure Dissipation Test

Sounding: RRN-8
Depth: 31.824051
Site: RIVER RANCH
Engineer: E.ESCOBAR

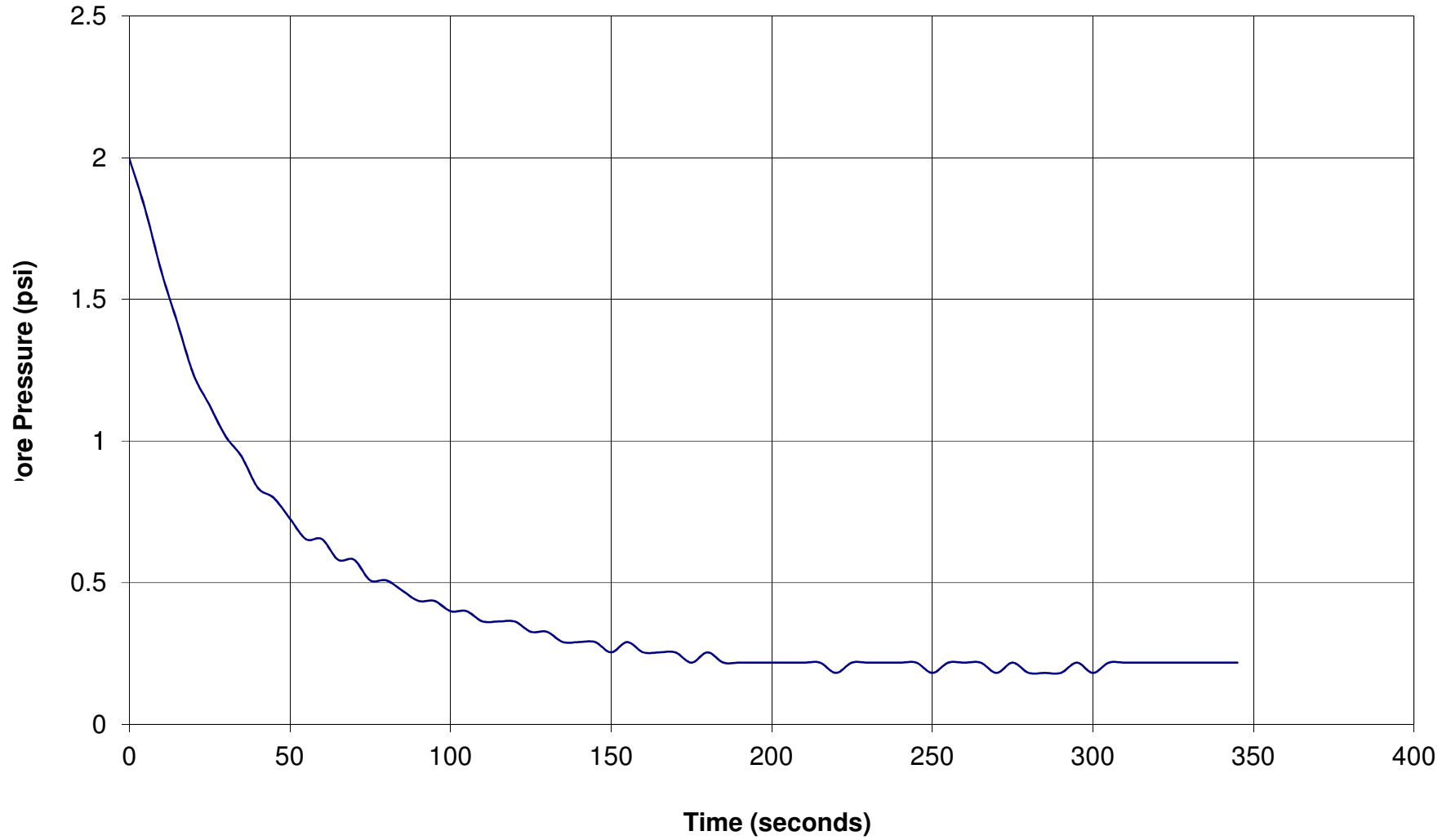




GREGG DRILLING & TESTING

Pore Pressure Dissipation Test

Sounding: RRN-10
Depth: 30.0195945
Site: RIVER RANCH
Engineer: E.ESCOBAR

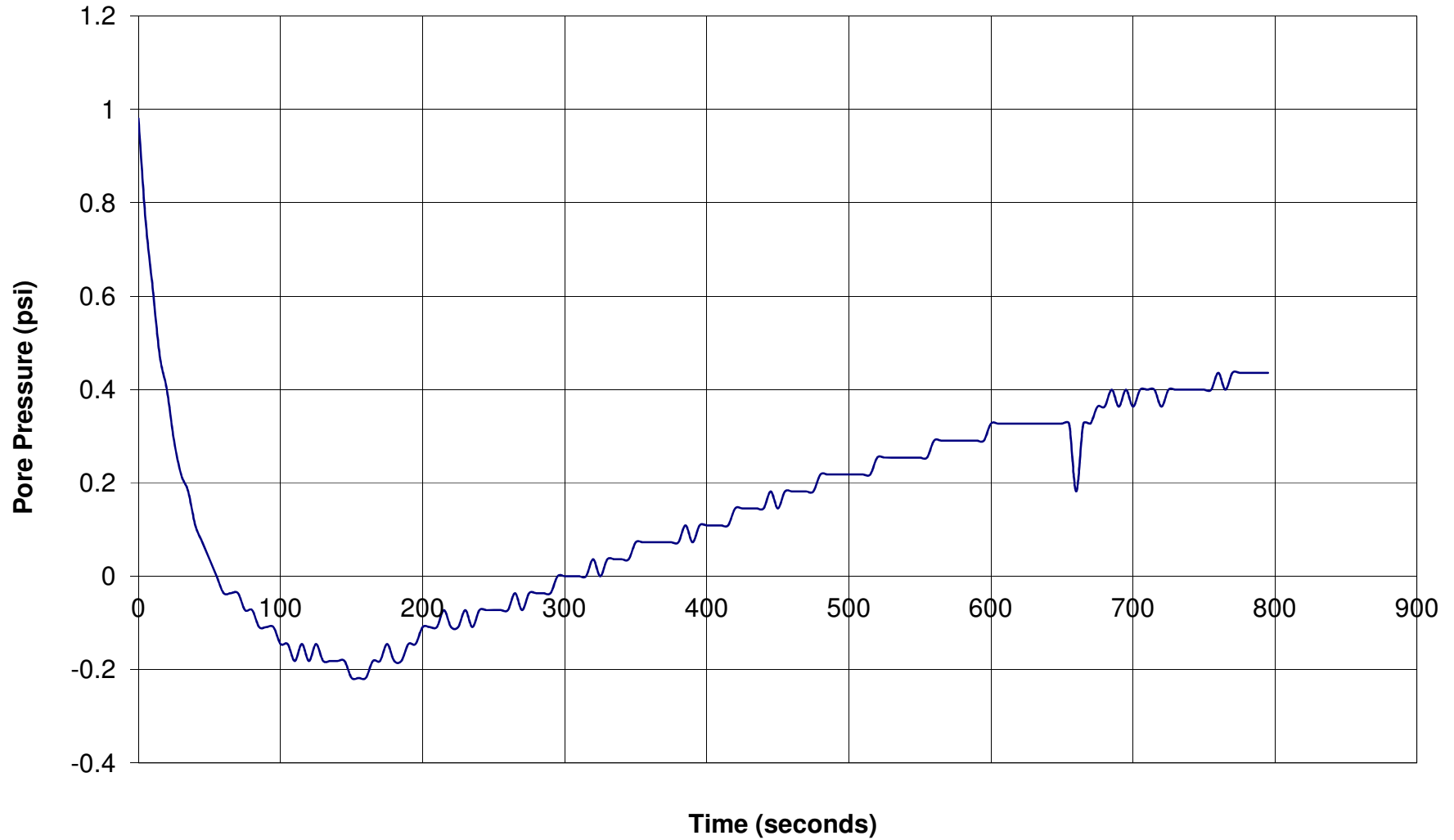




GREGG DRILLING & TESTING

Pore Pressure Dissipation Test

Sounding: RRN-10
Depth: 32.3161755
Site: RIVER RANCH
Engineer: E.ESCOBAR

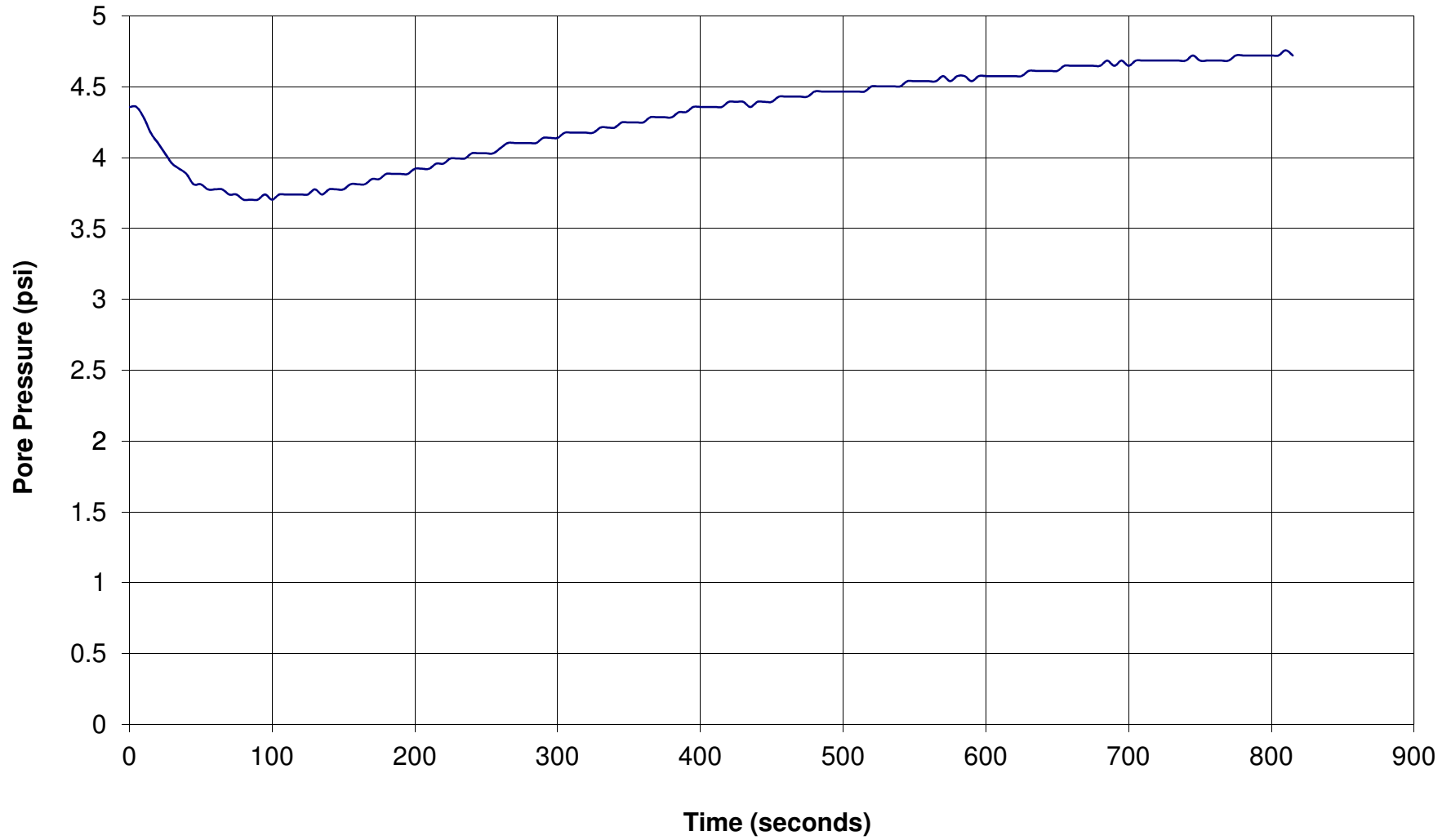




GREGG DRILLING & TESTING

Pore Pressure Dissipation Test

Sounding: RRN-11
Depth: 35.2689225
Site: RIVER RANCH
Engineer: E.ESCOBAR

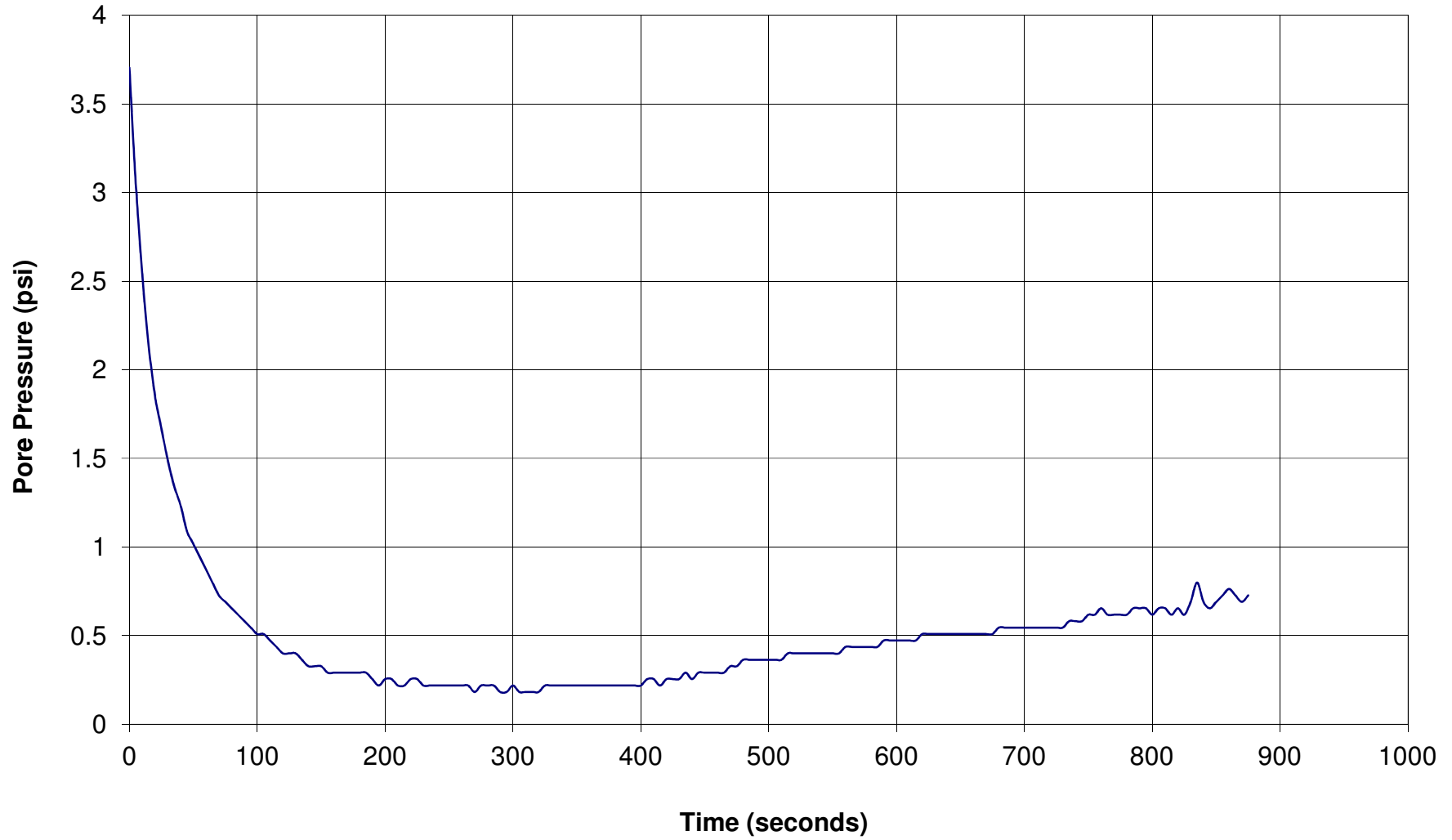




GREGG DRILLING & TESTING

Pore Pressure Dissipation Test

Sounding: RRN-12
Depth: 30.0195945
Site: RIVER RANCH
Engineer: E.ESCOBAR

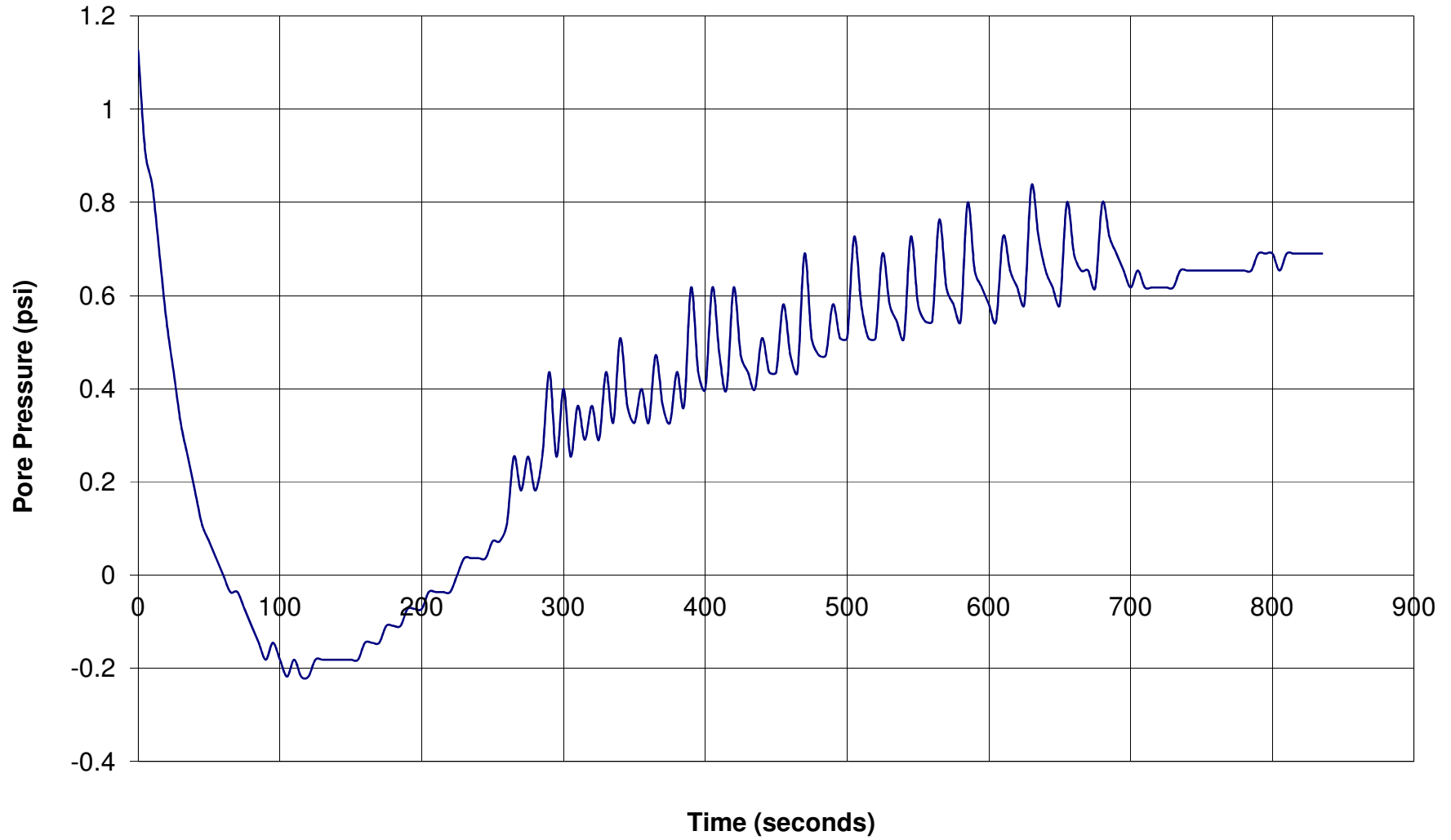




GREGG DRILLING & TESTING

Pore Pressure Dissipation Test

Sounding: RRN-14
Depth: 32.152134
Site: RIVER RANCH
Engineer: E.ESCOBAR

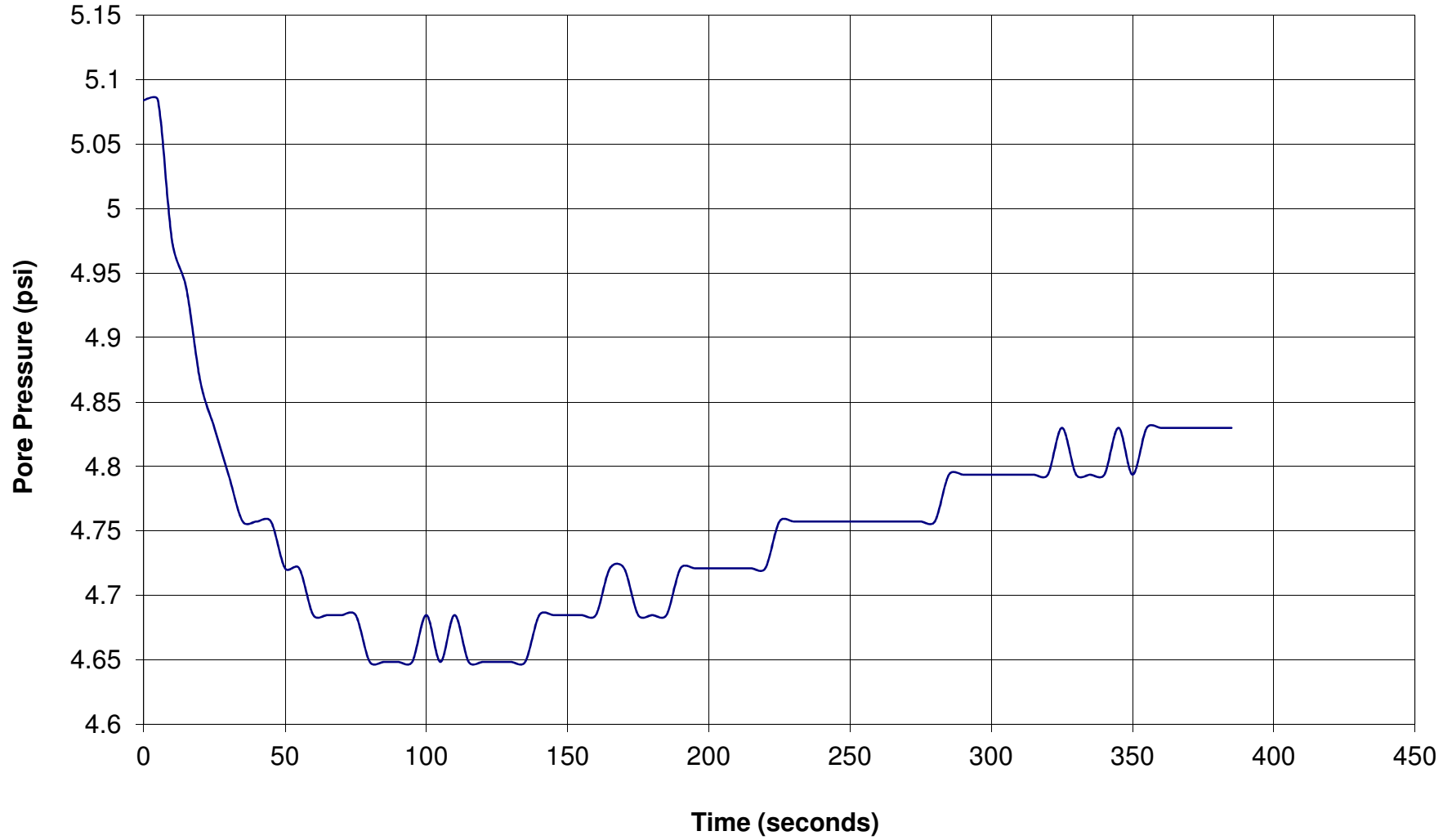




GREGG DRILLING & TESTING

Pore Pressure Dissipation Test

Sounding: RRN-15
Depth: 35.2689225
Site: RIVER RANCH
Engineer: E.ESCOBAR

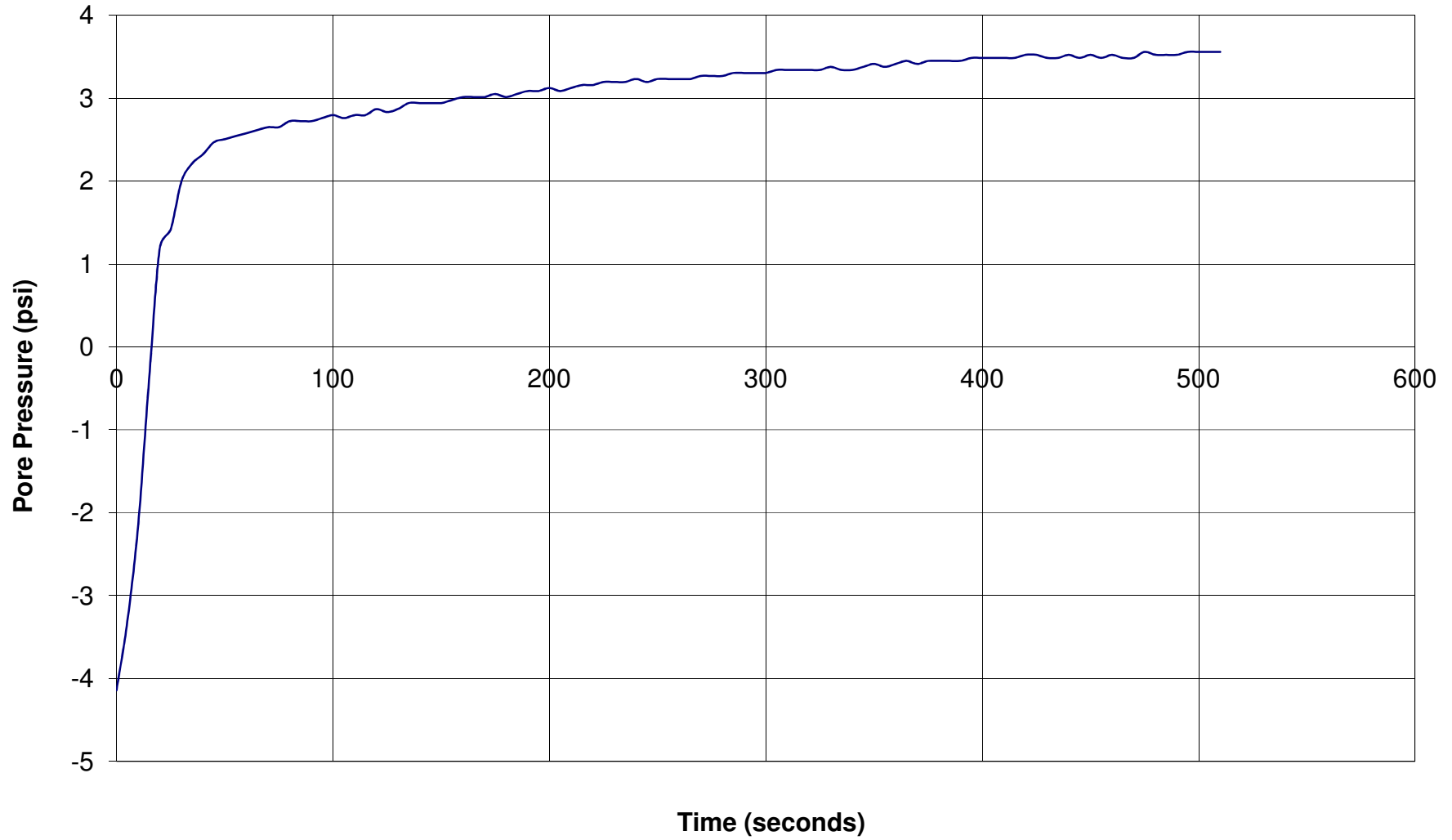




GREGG DRILLING & TESTING

Pore Pressure Dissipation Test

Sounding: RRS-1
Depth: 37.2374205
Site: RIVER RANCH
Engineer: E.ESCOBAR

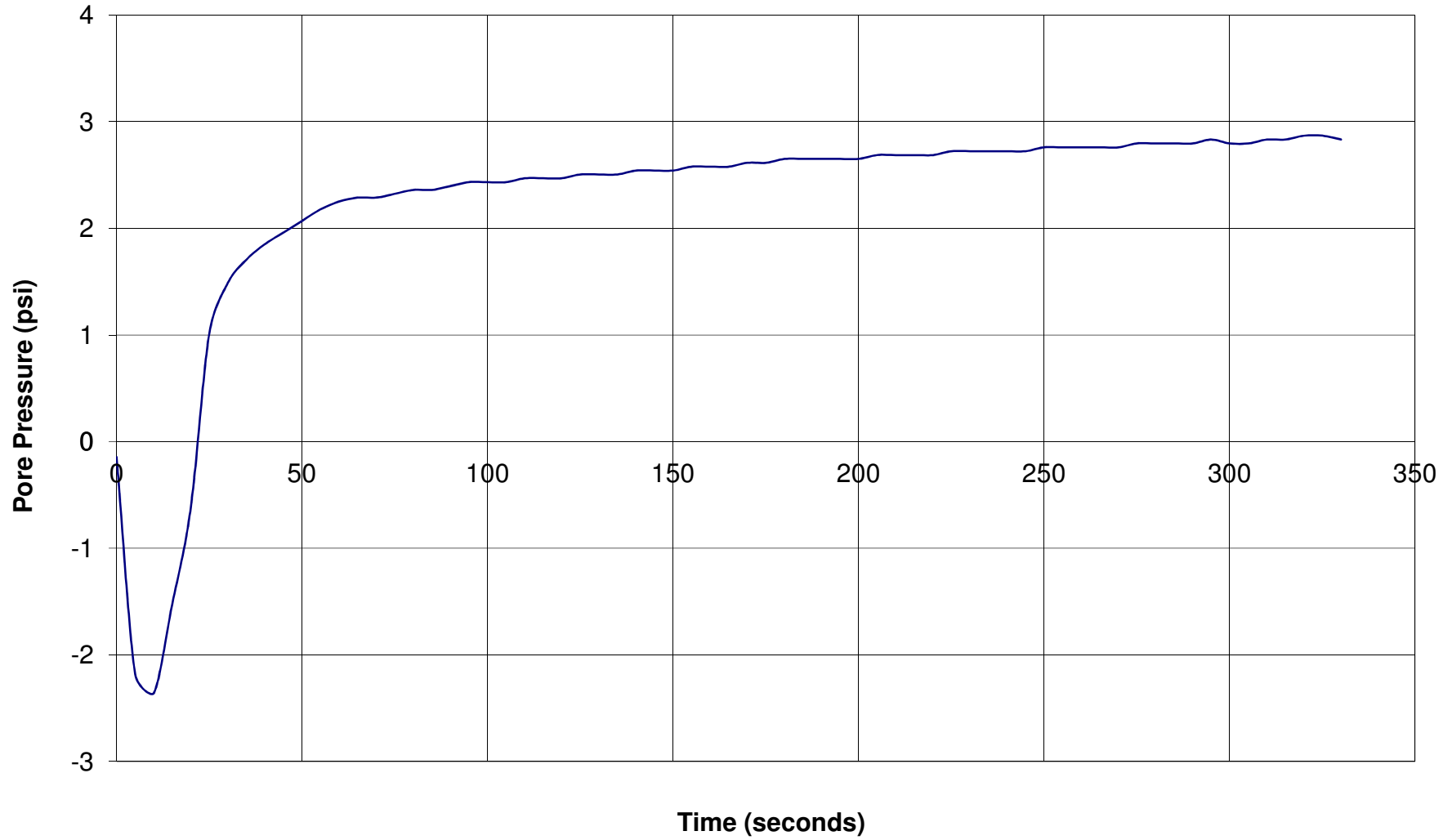




GREGG DRILLING & TESTING

Pore Pressure Dissipation Test

Sounding: RRS-3
Depth: 38.2216695
Site: RIVER RANCH
Engineer: E.ESCOBAR

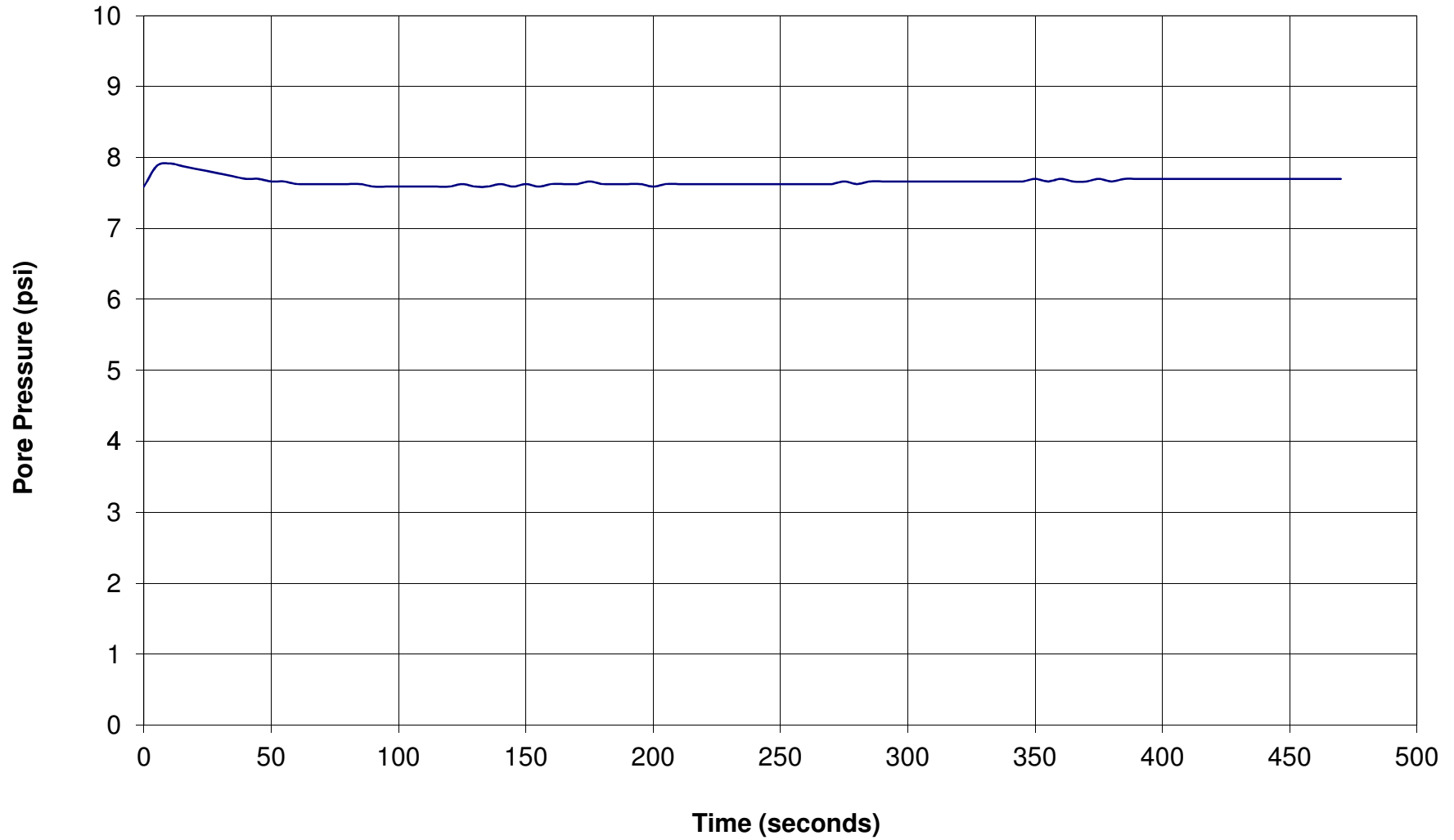




GREGG DRILLING & TESTING

Pore Pressure Dissipation Test

Sounding: RRS-4
Depth: 47.0799105
Site: RIVER RANCH
Engineer: E.ESCOBAR

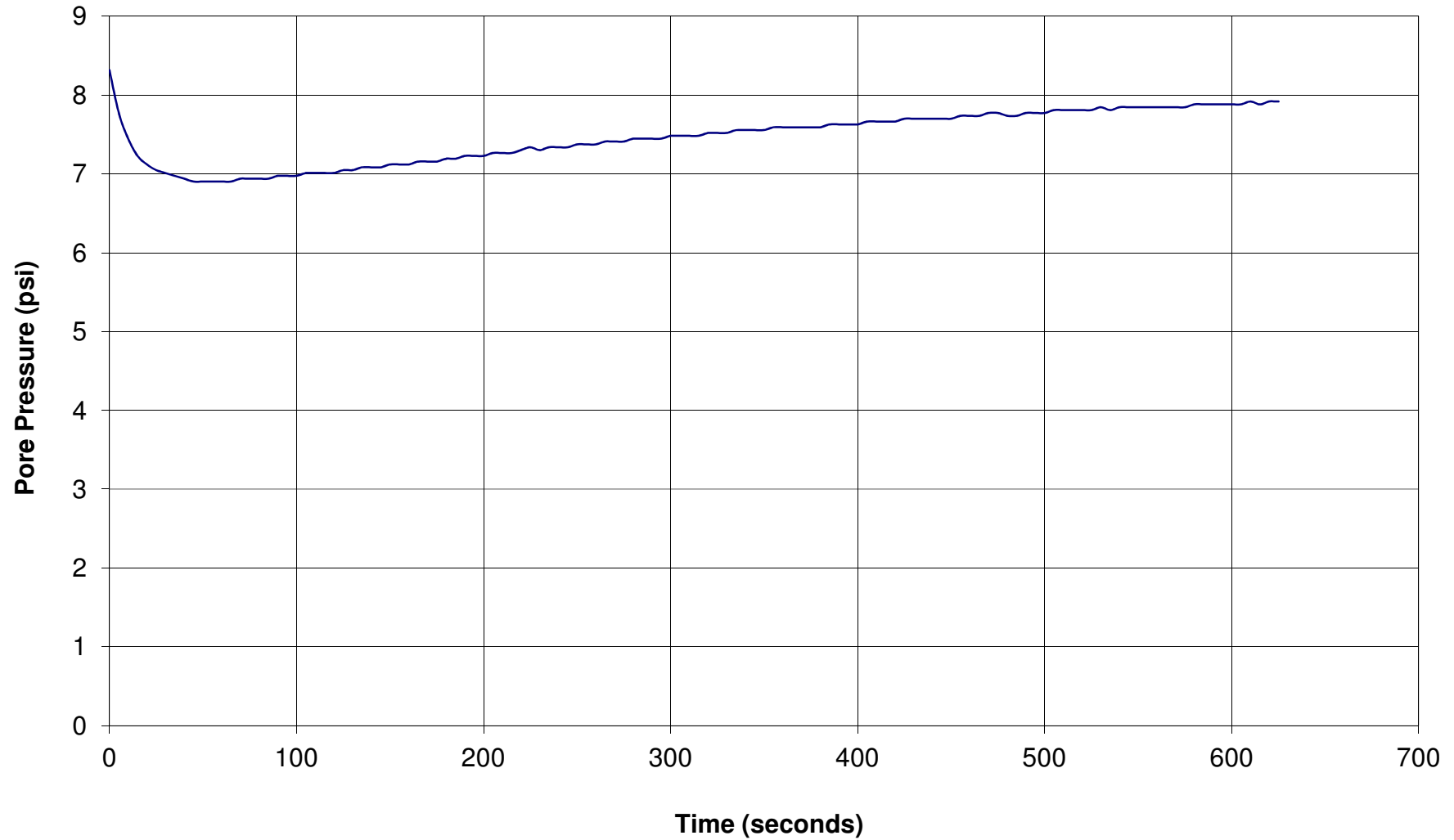


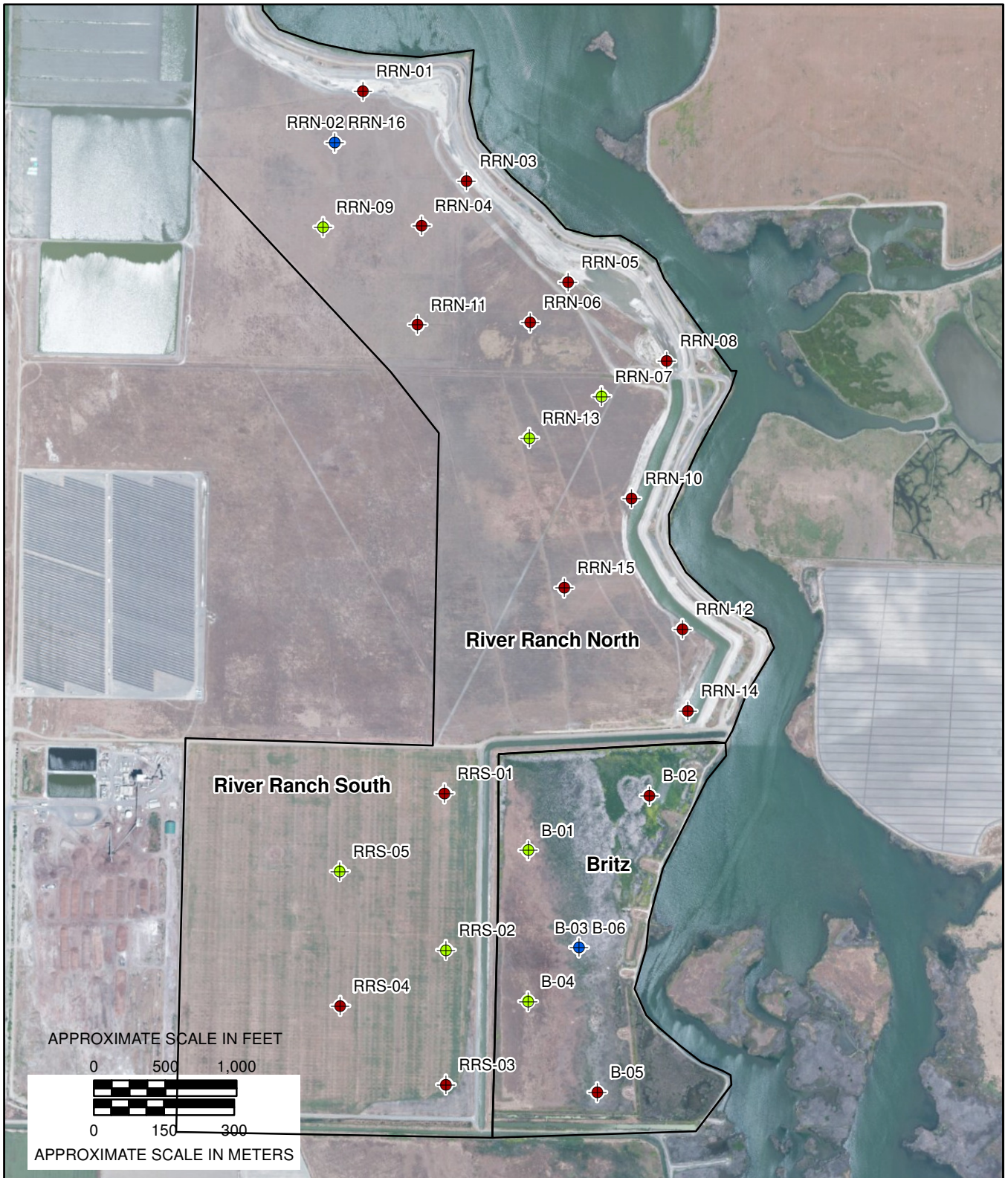


GREGG DRILLING & TESTING

Pore Pressure Dissipation Test

Sounding: RRS-16
Depth: 43.306956
Site: RIVER RANCH
Engineer: E.ESCOBAR





N:\8000s\008456\gis\Maps\2013\Fig1_CPT_Locations.mxd

Explanation:

- Shallow CPT, PPDT
- Deep CPT, PPDT
- Shallow CPT, No PPDT

Note:

CPT = cone penetration test.
 PPDT = pore pressure dissipation test.

Basemap modified from ESRI online shared content,
 Bing Maps aerial imagery web mapping services.

**CPT Boring Locations
 Mendota Pool Group
 Mendota, California**

By: EAE Date: 06/19/2013 Project No. 008456

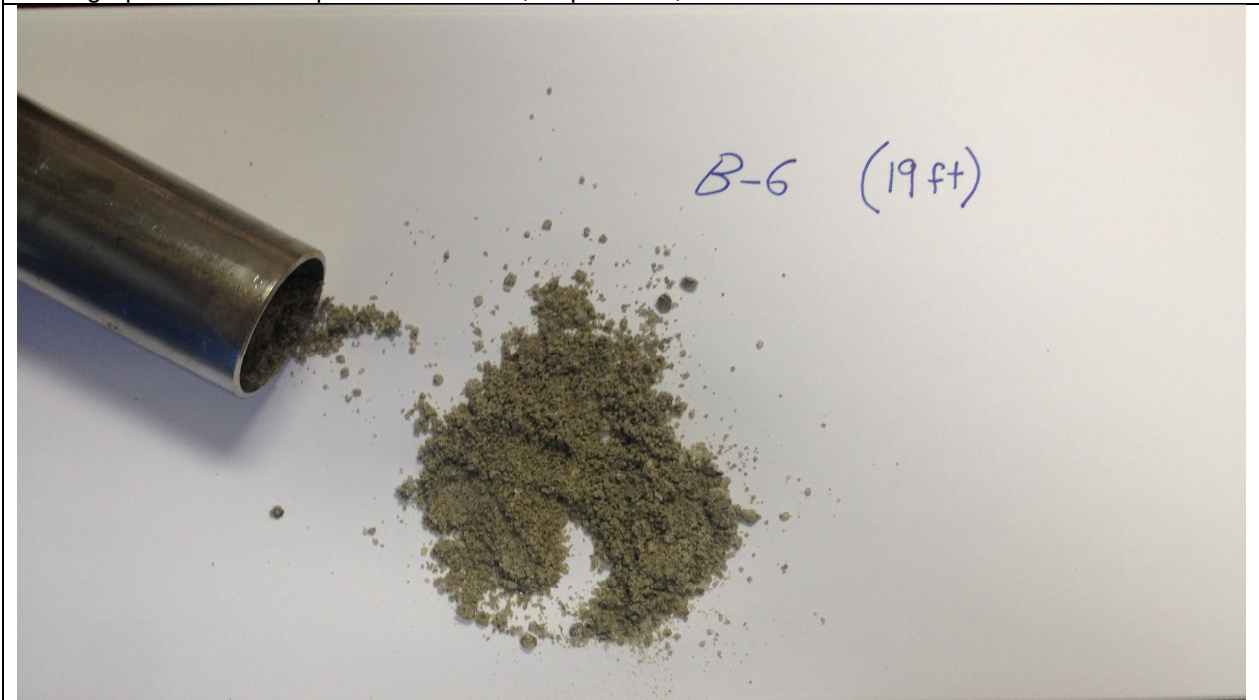


PHOTOS

Mendota Pool Group
Mendota, California



Photograph 1 Soil Sample B-6 from CPT, Depth of 7ft, Well Graded Sand with Silt



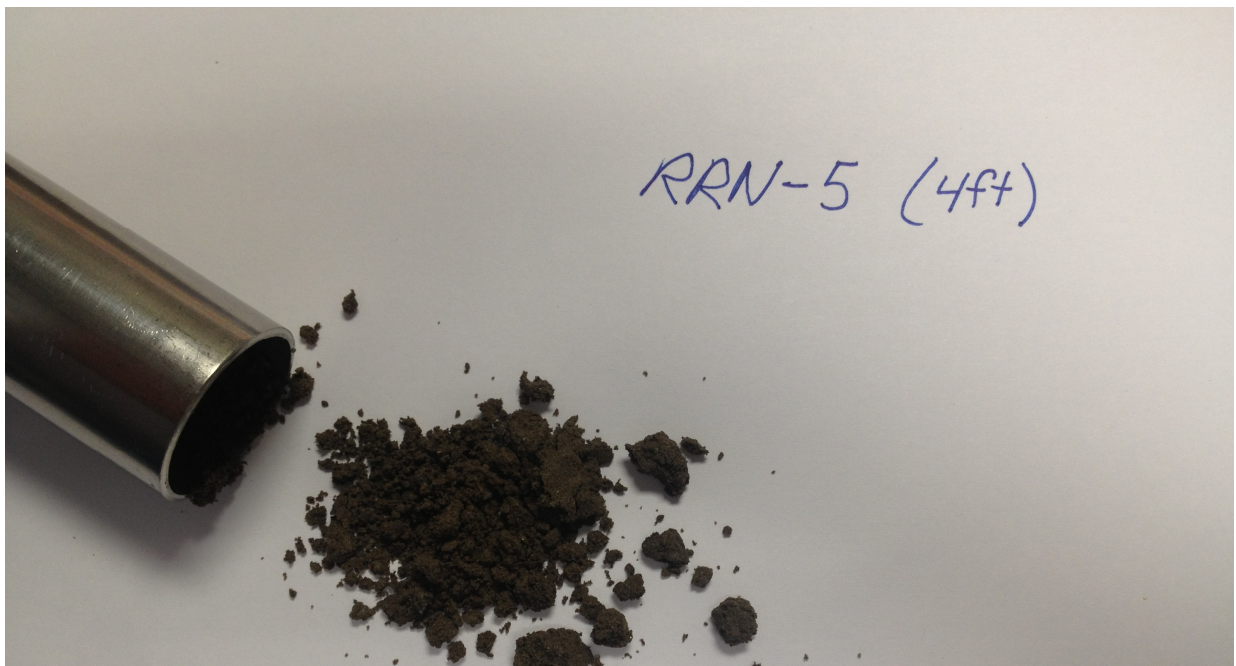
Photograph 2 Soil Sample B-6 from CPT, Depth of 19ft, Poorly Graded Sand

PHOTOS

Mendota Pool Group
Mendota, California



Photograph 3 Soil Sample B-6 from CPT, Depth of 32ft, Poorly Graded Sand



Photograph 4 Soil Sample RRN-5 from CPT, Depth of 4ft, Sandy Silt

PHOTOS

Mendota Pool Group
Mendota, California



Photograph 5 Soil Sample RRN-5 from CPT, Depth of 8ft, Silt with Sand



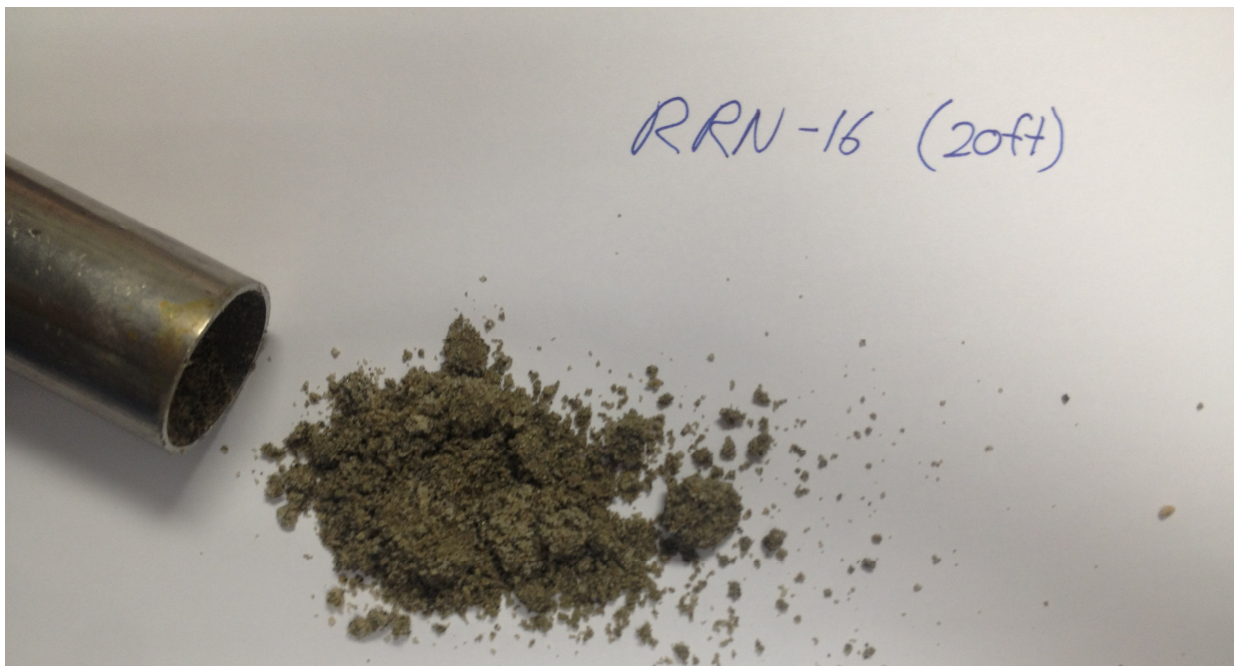
Photograph 6 Soil Sample RRN-5 from CPT, Depth of 20ft, Silt

PHOTOS

Mendota Pool Group
Mendota, California



Photograph 7 Soil Sample RRN-16 from CPT, Depth of 10ft, Poorly Graded Sand



Photograph 8 Soil Sample RRN-16 from CPT, Depth of 20ft, Poorly Graded Sand



PARTICLE SIZE ANALYSIS
ASTM-D422

<i>Project Name:</i>	Mendota Pool Group						
<i>Project No.:</i>	0084560000	<i>Phase No.:</i>	00001	<i>Date:</i>	6/10-6/17/2013	<i>By:</i>	VC, LT
<i>Boring No.:</i>	RRN-16	<i>Sample No.:</i>	CPT-1	<i>Depth:</i>	10 Feet		
<i>Soil Description:</i>	Yellowish Brown (10YR, 5/6) Poorly Graded Sand				<i>Group Symbol:</i>	SP	

SIEVE ANALYSIS

Sieve Size	Note	Weight Retained		Percent Retained		Percent Passing
		Individual	Cumulative	Individual	Cumulative	Cumulative
3 in.						
2 in.						
1.5 in.						
1 in.						
3/4 in.						
3/8 in.			0.00		0.0	100.0
No. 4			1.77		3.1	96.9
No. 10			4.62		8.0	92.0
No. 20			19.40		33.6	66.4
No. 40			35.91		62.2	37.8
No. 60			44.22		76.6	23.4
No. 140			54.00		93.6	6.4
No. 200			55.40		96.0	4.0

Tare No.:	15
Dry wt. and tare, gr.:	154.81
Tare weight, gr.:	97.11
Total dry weight, gr.:	57.70
Tare No., Hydromtr.:	3
Tare No., Hygroscop.:	MC-52
Soaking Container:	H-1
Jar No.:	1

Notes: _____

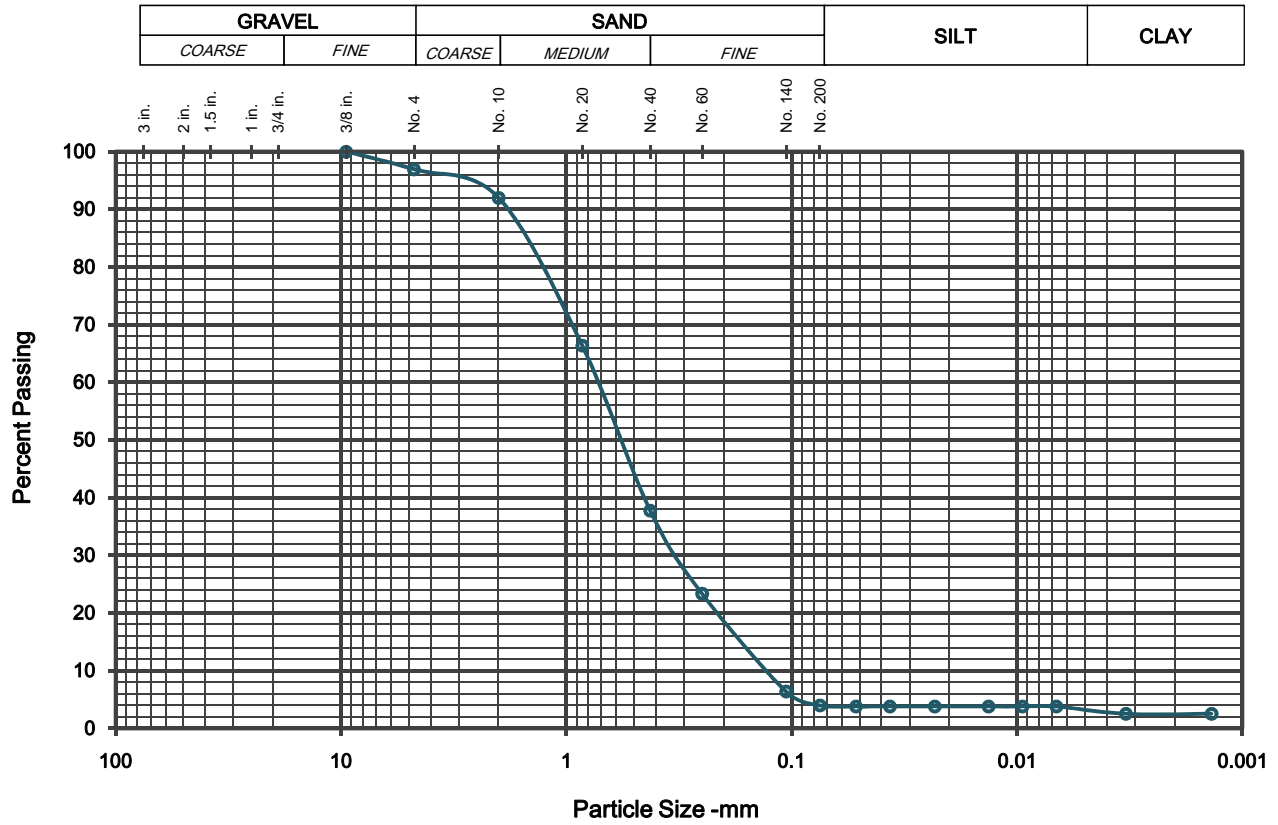
HYDROMETER ANALYSIS (152H)

Composite Correction (C _c) =	6 @ 18°C	<i>Hygroscopic Moisture:</i>			
Composite Correction (C _c) =	5 @ 20°C	Air-dry Mass, gr.:	10.18	Air-dry Mass in Test (W ₁), gr.:	72.62
Composite Correction (C _c) =	3.5 @ 23°C	Oven-dry Mass, gr.:	10.16	Oven-dry Mass in Test (W ₂), gr.:	72.48
Composite Correction (C _c) =	@ °C	Correction Factor (F _c):	0.998	(W ₁ xF _c)	

Specific Gravity: 2.65 Total Mass Represented by the Mass Used in the Hydrometer Test (W), gr.: 78.79
Correction Factor a: 1.00 (W₂/Percent <#10)

Date	Time	Elapsed Time, min. (T)	Temp. (°C)	Actual Reading (R ₁)	Composite Correction (C _c)	Hydrometer Reading (R)	Percent Passing (P) ¹	Value of K	Effective Depth (L)	Diameter of Particle, mm (D) ²
6/11/13	11:38:30	0	---	---	---	---	---	---	---	---
6/11/13	11:39:30	1	22	7	4	3	3.8	0.01332	15.2	0.05193
6/11/13	11:40:30	2	22	7	4	3	3.8	0.01332	15.2	0.03672
6/11/13	11:43:30	5	22	7	4	3	3.8	0.01332	15.2	0.02322
6/11/13	11:53:30	15	22	7	4	3	3.8	0.01332	15.2	0.01341
6/11/13	12:08:30	30	22	7	4	3	3.8	0.01332	15.2	0.00948
6/11/13	12:38:30	60	22	7	4	3	3.8	0.01332	15.2	0.00670
6/11/13	15:48:30	250	22	6	4	2	2.5	0.01332	15.3	0.00330
6/12/13	11:38:30	1440	22	6	4	2	2.5	0.01332	15.3	0.00137

¹ P = (Ra/W)*100
² D = K*SQRT(L/T)



Sieve No.	Opening (mm)	Percent Finer	Sieve No.	Opening (mm)	Percent Finer	Particle Size (mm)	Percent Finer
3 in.	75.0	---	No. 4	4.75	96.9	0.05193	3.8
2 in.	50.0	---	No. 10	2.00	92.0	0.03672	3.8
1.5 in.	38.1	---	No. 20	0.85	66.4	0.02322	3.8
1 in.	25.0	---	No. 40	0.425	37.8	0.01341	3.8
3/4 in.	19.0	---	No. 60	0.250	23.4	0.00948	3.8
3/8 in.	9.5	100.0	No. 140	0.106	6.4	0.00670	3.8
			No. 200	0.075	4.0	0.00330	2.5
						0.00137	2.5
% GRAVEL			% SAND			% FINES	
Coarse	Fine		Coarse	Medium	Fine	Silt and Clay	
0.0	3.1		4.9	54.2	33.8	4.0	
Coefficients:		$C_u =$	5.54	$C_c =$	1.09		

Boring No.
RRN-16

Sample No.:
CPT-1

Sample Depth:
10 Feet

Soil Description:
Yellowish Brown (10YR, 5/6)
Poorly Graded Sand

Group Symbol:
SP



GRAIN SIZE DISTRIBUTION CURVE
MENDOTA POOL GROUP
Mendota, California

Project No.
0084560000
Phase 00001



PARTICLE SIZE ANALYSIS
ASTM-D422

<i>Project Name:</i>	Mendota Pool Group						
<i>Project No.:</i>	0084560000	<i>Phase No.:</i>	00001	<i>Date:</i>	6/10-6/17/2013	<i>By:</i>	VC, LT
<i>Boring No.:</i>	RRN-16	<i>Sample No.:</i>	CPT-2	<i>Depth:</i>	20 Feet		
<i>Soil Description:</i>	Light Yellowish Brown (10YR, 6/4) Poorly Graded Sand				<i>Group Symbol:</i>	SP	

SIEVE ANALYSIS

Sieve Size	Note	Weight Retained		Percent Retained		Percent Passing
		Individual	Cumulative	Individual	Cumulative	Cumulative
3 in.						
2 in.						
1.5 in.						
1 in.						
3/4 in.						
3/8 in.						
No. 4			0.00		0.0	100.0
No. 10			1.49		2.1	97.9
No. 20			21.03		29.6	70.4
No. 40			57.16		80.4	19.6
No. 60			65.66		92.3	7.7
No. 140			69.36		97.5	2.5
No. 200			69.82		98.2	1.8

Tare No.:	10
Dry wt. and tare, gr.:	168.76
Tare weight, gr.:	97.63
Total dry weight, gr.:	71.13
Tare No., Hydromtr.:	6
Tare No., Hygroscop.:	MC-18
Soaking Container:	H-2
Jar No.:	2

Notes: _____

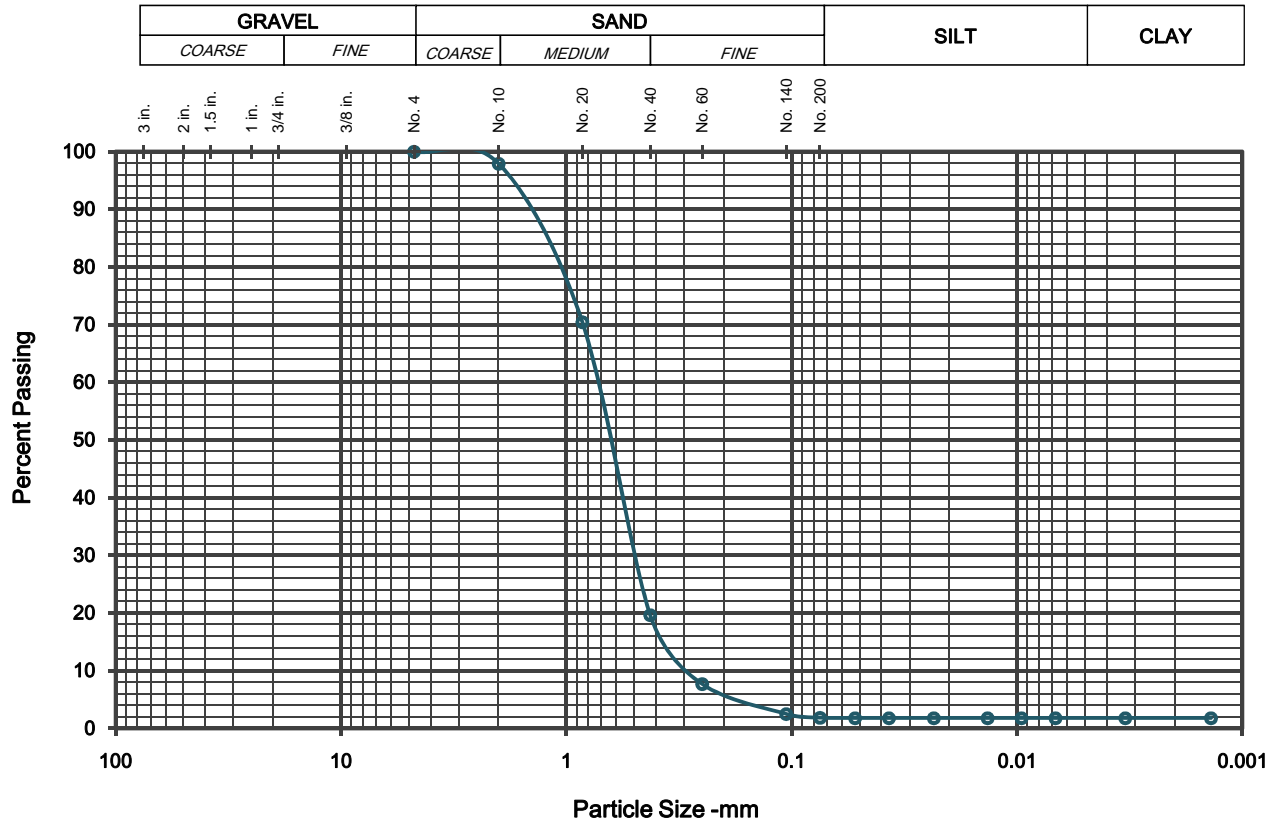
HYDROMETER ANALYSIS (152H)

Composite Correction (C _C) =	6 @ 18°C	<i>Hygroscopic Moisture:</i>			
Composite Correction (C _C) =	5 @ 20°C	Air-dry Mass, gr.:	12.07	Air-dry Mass in Test (W ₁), gr.:	55.17
Composite Correction (C _C) =	3.5 @ 23°C	Oven-dry Mass, gr.:	12.06	Oven-dry Mass in Test (W ₂), gr.:	55.12
Composite Correction (C _C) =	@ °C	Correction Factor (F _C):	0.999	(W ₁ xF _C)	

Specific Gravity:	2.65	Total Mass Represented by the Mass Used in the Hydrometer Test (W), gr.:	56.30
Correction Factor <i>a</i> :	1.00		(W ₂ /Percent <#10)

Date	Time	Elapsed Time, min. (T)	Temp. (°C)	Actual Reading (R ₁)	Composite Correction (C _C)	Hydrometer Reading (R)	Percent Passing (P) ¹	Value of K	Effective Depth (L)	Diameter of Particle, mm (D) ²
6/11/13	11:41:05	0	---	---	---	---	---	---	---	---
6/11/13	11:42:05	1	22	5	4	1	1.8	0.01332	15.5	0.05244
6/11/13	11:43:05	2	22	5	4	1	1.8	0.01332	15.5	0.03708
6/11/13	11:46:05	5	22	5	4	1	1.8	0.01332	15.5	0.02345
6/11/13	11:56:05	15	22	5	4	1	1.8	0.01332	15.5	0.01354
6/11/13	12:11:05	30	22	5	4	1	1.8	0.01332	15.5	0.00957
6/11/13	12:41:05	60	22	5	4	1	1.8	0.01332	15.5	0.00677
6/11/13	15:51:05	250	22	5	4	1	1.8	0.01332	15.5	0.00332
6/12/13	11:41:05	1440	22	5	4	1	1.8	0.01332	15.5	0.00138

¹ P = (Ra/W)*100
² D = K*SQRT(L/T)



Sieve No.	Opening (mm)	Percent Finer	Sieve No.	Opening (mm)	Percent Finer	Particle Size (mm)	Percent Finer
3 in.	75.0	---	No. 4	4.75	100.0	0.05244	1.8
2 in.	50.0	---	No. 10	2.00	97.9	0.03708	1.8
1.5 in.	38.1	---	No. 20	0.85	70.4	0.02345	1.8
1 in.	25.0	---	No. 40	0.425	19.6	0.01354	1.8
3/4 in.	19.0	---	No. 60	0.250	7.7	0.00957	1.8
3/8 in.	9.5	---	No. 140	0.106	2.5	0.00677	1.8
			No. 200	0.075	1.8	0.00332	1.8
						0.00138	1.8
% GRAVEL			% SAND			% FINES	
Coarse	Fine		Coarse	Medium	Fine	Silt and Clay	
0.0	0.0		2.1	78.3	17.8	1.8	
Coefficients:		$C_u =$	2.40	$C_c =$	1.16		

Boring No.
RRN-16

Sample No.:
CPT-2

Sample Depth:
20 Feet

Soil Description:
Light Yellowish Brown (10YR, 6/4) Poorly Graded Sand

Group Symbol:
SP



GRAIN SIZE DISTRIBUTION CURVE
MENDOTA POOL GROUP
Mendota, California

Project No.
0084560000
Phase 00001



PARTICLE SIZE ANALYSIS
ASTM-D422

<i>Project Name:</i>	Mendota Pool Group						
<i>Project No.:</i>	0084560000	<i>Phase No.:</i>	00001	<i>Date:</i>	6/10-6/17/2013	<i>By:</i>	VC, LT
<i>Boring No.:</i>	RRN-16	<i>Sample No.:</i>	CPT-3	<i>Depth:</i>	30 Feet		
<i>Soil Description:</i>	Dark Gray (2.5Y, 4/1) Poorly Graded Sand with Silt				<i>Group Symbol:</i>	SP-SM	

SIEVE ANALYSIS

Sieve Size	Note	Weight Retained		Percent Retained		Percent Passing
		Individual	Cumulative	Individual	Cumulative	Cumulative
3 in.						
2 in.						
1.5 in.						
1 in.						
3/4 in.						
3/8 in.			0.00		0.0	100.0
No. 4			0.50		1.0	99.0
No. 10			1.69		3.3	96.7
No. 20			4.32		8.5	91.5
No. 40			21.57		42.3	57.7
No. 60			35.22		69.1	30.9
No. 140			43.77		85.9	14.1
No. 200			44.95		88.2	11.8

Tare No.:	8
Dry wt. and tare, gr.:	148.21
Tare weight, gr.:	97.26
Total dry weight, gr.:	50.95
Tare No., Hydromtr.:	20
Tare No., Hygroscop.:	MC-11
Soaking Container:	H-10
Jar No.:	3

Notes: _____

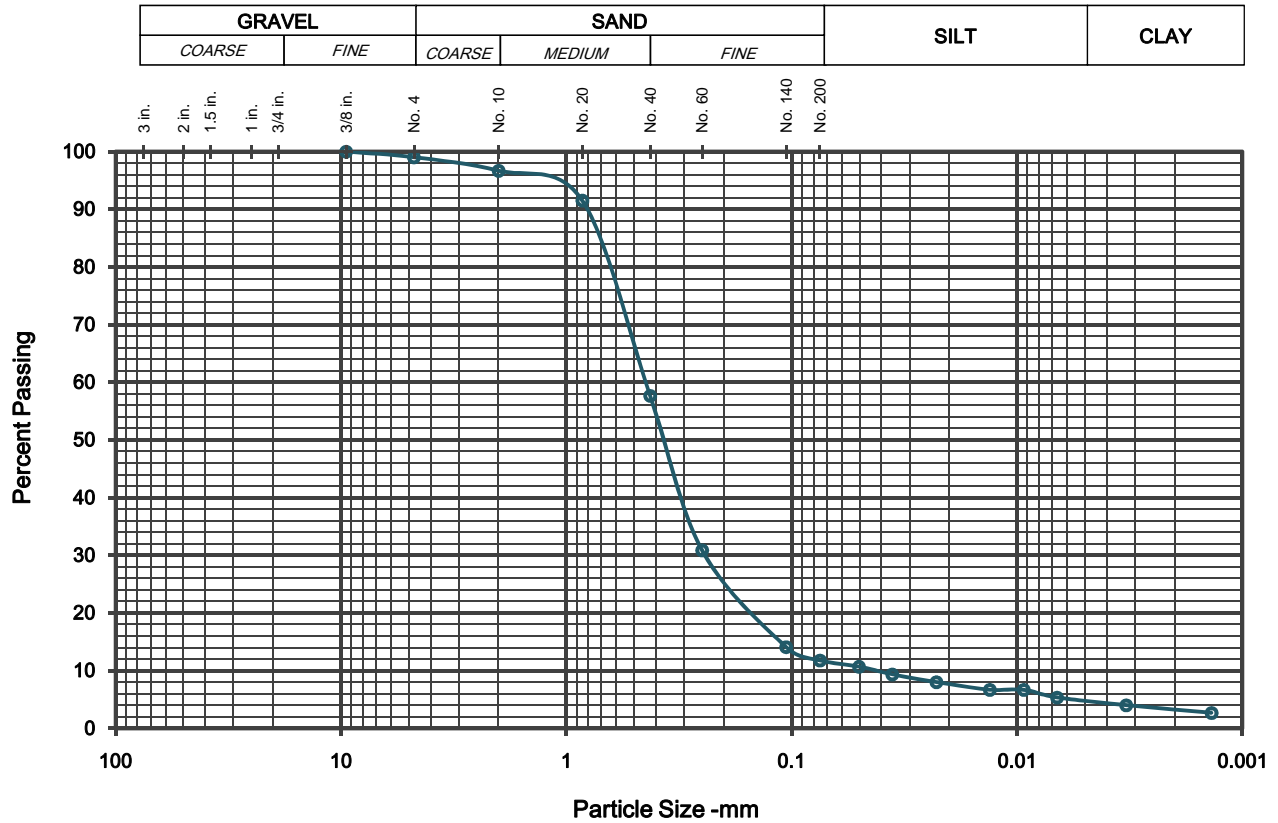
HYDROMETER ANALYSIS (152H)

Composite Correction (C _C) =	6 @ 18°C	<i>Hygroscopic Moisture:</i>			
Composite Correction (C _C) =	5 @ 20°C	Air-dry Mass, gr.:	10.85	Air-dry Mass in Test (W ₁), gr.:	72.57
Composite Correction (C _C) =	3.5 @ 23°C	Oven-dry Mass, gr.:	10.82	Oven-dry Mass in Test (W ₂), gr.:	72.37
Composite Correction (C _C) =	@ °C	Correction Factor (F _C):	0.997	(W ₁ × F _C)	

Specific Gravity: 2.65 Total Mass Represented by the Mass Used in the Hydrometer Test (W), gr.: 74.85
Correction Factor a: 1.00 (W₂/Percent <#10)

Date	Time	Elapsed Time, min. (T)	Temp. (°C)	Actual Reading (R ₁)	Composite Correction (C _C)	Hydrometer Reading (R)	Percent Passing (P) ¹	Value of K	Effective Depth (L)	Diameter of Particle, mm (D) ²
6/11/13	11:43:57	0	---	---	---	---	---	---	---	---
6/11/13	11:44:57	1	22	12	4	8	10.7	0.01332	14.3	0.05037
6/11/13	11:45:57	2	22	11	4	7	9.4	0.01332	14.5	0.03587
6/11/13	11:48:57	5	22	10	4	6	8.0	0.01332	14.7	0.02284
6/11/13	11:58:57	15	22	9	4	5	6.7	0.01332	14.8	0.01323
6/11/13	12:13:57	30	22	9	4	5	6.7	0.01332	14.8	0.00936
6/11/13	12:43:57	60	22	8	4	4	5.3	0.01332	15.0	0.00666
6/11/13	15:53:57	250	22	7	4	3	4.0	0.01332	15.2	0.00328
6/12/13	11:43:57	1440	22	6	4	2	2.7	0.01332	15.3	0.00137

¹ P = (Ra/W)*100
² D = K*SQRT(L/T)



Sieve No.	Opening (mm)	Percent Finer	Sieve No.	Opening (mm)	Percent Finer	Particle Size (mm)	Percent Finer
3 in.	75.0	---	No. 4	4.75	99.0	0.05037	10.7
2 in.	50.0	---	No. 10	2.00	96.7	0.03587	9.4
1.5 in.	38.1	---	No. 20	0.85	91.5	0.02284	8.0
1 in.	25.0	---	No. 40	0.425	57.7	0.01323	6.7
3/4 in.	19.0	---	No. 60	0.250	30.9	0.00936	6.7
3/8 in.	9.5	100.0	No. 140	0.106	14.1	0.00666	5.3
			No. 200	0.075	11.8	0.00328	4.0
						0.00137	2.7
% GRAVEL			% SAND			% FINES	
Coarse	Fine		Coarse	Medium	Fine	Silt	Clay
0.0	1.0		2.3	39.0	45.9	7.3	4.5
Coefficients:		$C_u =$	10.73	$C_c =$	3.19		

Boring No.
RRN-16

Sample No.:
CPT-3

Sample Depth:
30 Feet

Soil Description:
Dark Gray (2.5Y, 4/1) Poorly Graded Sand with Silt

Group Symbol:
SP-SM



GRAIN SIZE DISTRIBUTION CURVE
MENDOTA POOL GROUP
Mendota, California

Project No.
0084560000
Phase 00001



PARTICLE SIZE ANALYSIS
ASTM-D422

<i>Project Name:</i>	Mendota Pool Group						
<i>Project No.:</i>	0084560000	<i>Phase No.:</i>	00001	<i>Date:</i>	6/10-6/17/2013	<i>By:</i>	VC, LT
<i>Boring No.:</i>	RRN-5	<i>Sample No.:</i>	CPT-4	<i>Depth:</i>	4 Feet		
<i>Soil Description:</i>	Olive Brown (2.5Y, 4/3) Sandy Silt				<i>Group Symbol:</i>	ML	

SIEVE ANALYSIS

Sieve Size	Note	Weight Retained		Percent Retained		Percent Passing
		Individual	Cumulative	Individual	Cumulative	Cumulative
3 in.						
2 in.						
1.5 in.						
1 in.						
3/4 in.						
3/8 in.						
No. 4			0.00		0.0	100.0
No. 10			0.20		0.4	99.6
No. 20			0.44		0.8	99.2
No. 40			0.55		1.0	99.0
No. 60			0.83		1.5	98.5
No. 140			8.28		15.1	84.9
No. 200			17.17		31.2	68.8

Tare No.:	11
Dry wt. and tare, gr.:	151.82
Tare weight, gr.:	96.84
Total dry weight, gr.:	54.98
Tare No., Hydromtr.:	12
Tare No., Hygroscop.:	MC-59
Soaking Container:	H-3
Jar No.:	4

Notes: _____

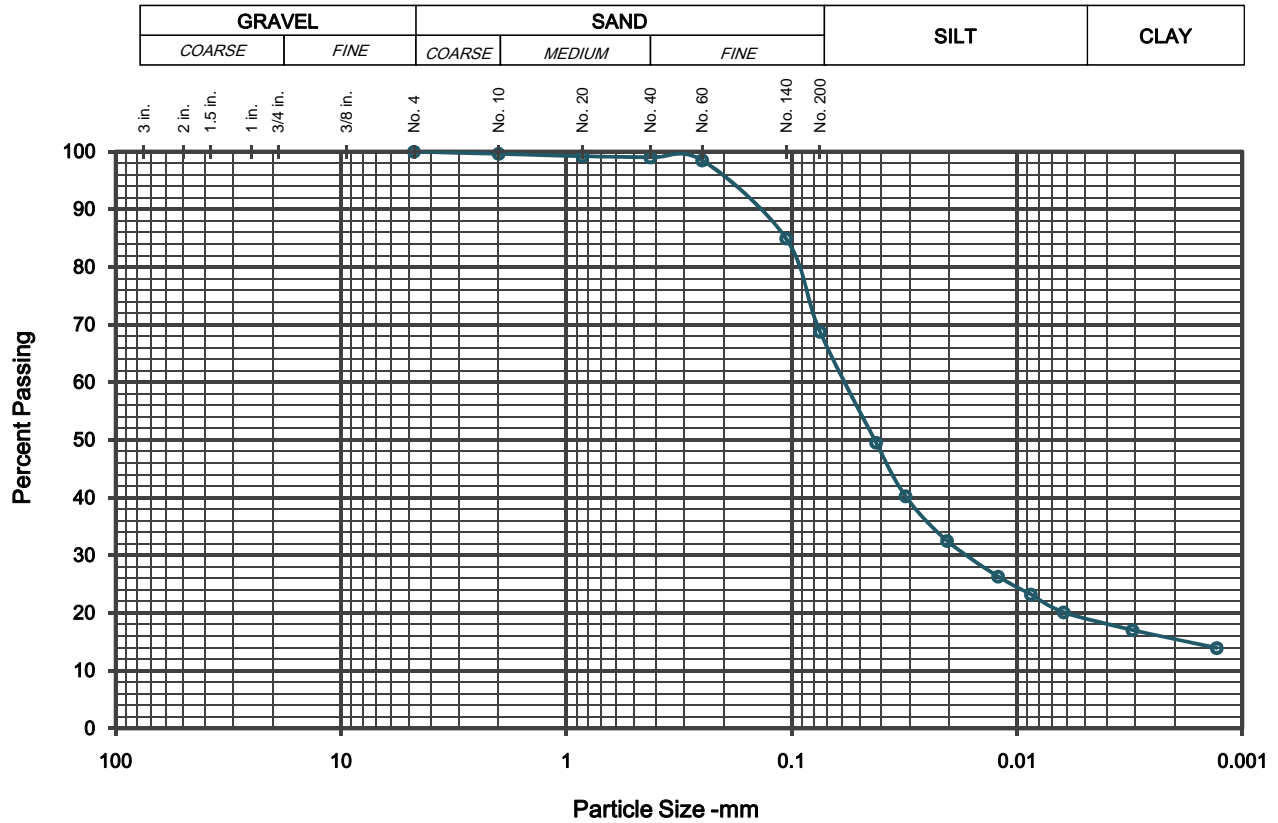
HYDROMETER ANALYSIS (152H)

Composite Correction (C _C) =	6 @ 18°C	<i>Hygroscopic Moisture:</i>			
Composite Correction (C _C) =	5 @ 20°C	Air-dry Mass, gr.:	16.50	Air-dry Mass in Test (W ₁), gr.:	64.61
Composite Correction (C _C) =	3.5 @ 23°C	Oven-dry Mass, gr.:	16.27	Oven-dry Mass in Test (W ₂), gr.:	63.71
Composite Correction (C _C) =	@ °C	Correction Factor (F _C):	0.986	(W ₁ xF _C)	

Specific Gravity:	2.70	Total Mass Represented by the Mass Used in the Hydrometer Test (W), gr.:	63.94
Correction Factor a:	0.99		(W ₂ /Percent <#10)

Date	Time	Elapsed Time, min. (T)	Temp. (°C)	Actual Reading (R ₁)	Composite Correction (C _C)	Hydrometer Reading (R)	Percent Passing (P) ¹	Value of K	Effective Depth (L)	Diameter of Particle, mm (D) ²
6/11/13	11:47:00	0	---	---	---	---	---	---	---	---
6/11/13	11:48:00	1	22	36	4	32	49.5	0.01312	10.4	0.04231
6/11/13	11:49:00	2	22	30	4	26	40.3	0.01312	11.4	0.03132
6/11/13	11:52:00	5	22	25	4	21	32.5	0.01312	12.2	0.02049
6/11/13	12:02:00	15	22	21	4	17	26.3	0.01312	12.9	0.01217
6/11/13	12:17:00	30	22	19	4	15	23.2	0.01312	13.2	0.00870
6/11/13	12:47:00	60	22	17	4	13	20.1	0.01312	13.5	0.00622
6/11/13	15:57:00	250	22	15	4	11	17.0	0.01312	13.8	0.00308
6/12/13	11:47:00	1440	22	13	4	9	13.9	0.01312	14.2	0.00130

¹ P = (Ra/W)*100
² D = K*SQRT(L/T)



Sieve No.	Opening (mm)	Percent Finer	Sieve No.	Opening (mm)	Percent Finer	Particle Size (mm)	Percent Finer
3 in.	75.0	---	No. 4	4.75	100.0	0.04231	49.5
2 in.	50.0	---	No. 10	2.00	99.6	0.03132	40.3
1.5 in.	38.1	---	No. 20	0.85	99.2	0.02049	32.5
1 in.	25.0	---	No. 40	0.425	99.0	0.01217	26.3
3/4 in.	19.0	---	No. 60	0.250	98.5	0.00870	23.2
3/8 in.	9.5	---	No. 140	0.106	84.9	0.00622	20.1
			No. 200	0.075	68.8	0.00308	17.0
						0.00130	13.9
% GRAVEL			% SAND			% FINES	
Coarse	Fine		Coarse	Medium	Fine	Silt	Clay
0.0	0.0		0.4	0.6	30.2	49.8	19.0
Coefficients:		$C_u =$			$C_c =$		

Boring No.
RRN-5

Sample No.:
CPT-4

Sample Depth:
4 Feet

Soil Description:
Olive Brown (2.5Y, 4/3) Sandy Silt

Group Symbol:
ML



GRAIN SIZE DISTRIBUTION CURVE
MENDOTA POOL GROUP
Mendota, California

Project No.
0084560000
Phase 00001



PARTICLE SIZE ANALYSIS
ASTM-D422

<i>Project Name:</i>	Mendota Pool Group						
<i>Project No.:</i>	0084560000	<i>Phase No.:</i>	00001	<i>Date:</i>	6/10-6/17/2013	<i>By:</i>	VC, LT
<i>Boring No.:</i>	RRN-5	<i>Sample No.:</i>	CPT-5	<i>Depth:</i>	8 Feet		
<i>Soil Description:</i>	Olive Brown (2.5Y, 4/4) Silt with Sand				<i>Group Symbol:</i>	ML	

SIEVE ANALYSIS

Sieve Size	Note	Weight Retained		Percent Retained		Percent Passing
		Individual	Cumulative	Individual	Cumulative	Cumulative
3 in.						
2 in.						
1.5 in.						
1 in.						
3/4 in.						
3/8 in.						
No. 4			0.00		0.0	100.0
No. 10			0.12		0.2	99.8
No. 20			0.40		0.6	99.4
No. 40			0.64		0.9	99.1
No. 60			0.86		1.2	98.8
No. 140			5.41		7.8	92.2
No. 200			12.26		17.6	82.4

Tare No.:	5
Dry wt. and tare, gr.:	166.98
Tare weight, gr.:	97.24
Total dry weight, gr.:	69.74
Tare No., Hydromtr.:	2
Tare No., Hygroscop.:	MC-53
Soaking Container:	H-4
Jar No.:	5

Notes: _____

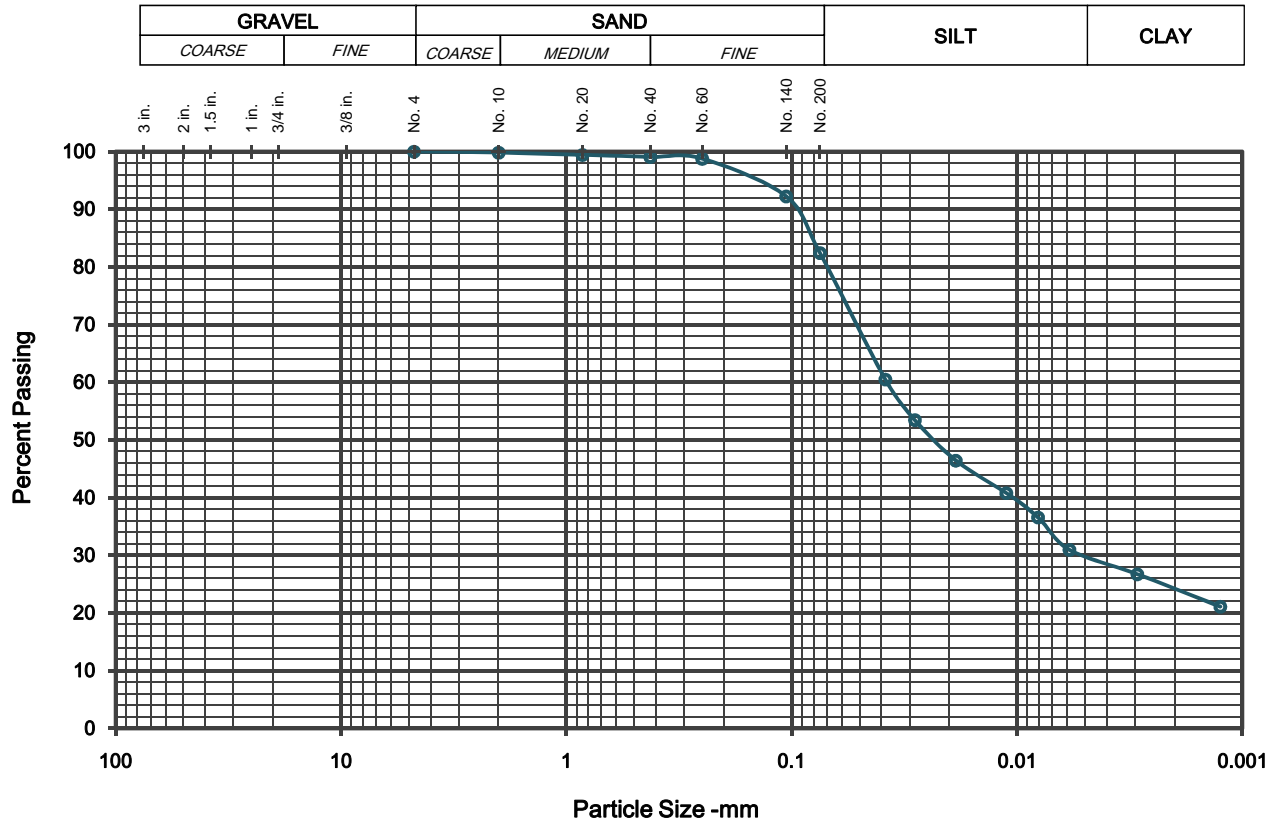
HYDROMETER ANALYSIS (152H)

Composite Correction (C _C) =	6 @ 18°C	<i>Hygroscopic Moisture:</i>			
Composite Correction (C _C) =	5 @ 20°C	Air-dry Mass, gr.:	12.41	Air-dry Mass in Test (W ₁), gr.:	71.75
Composite Correction (C _C) =	3.5 @ 23°C	Oven-dry Mass, gr.:	12.15	Oven-dry Mass in Test (W ₂), gr.:	70.25
Composite Correction (C _C) =	@ °C	Correction Factor (F _C):	0.979	(W ₁ xF _C)	

Specific Gravity:	2.70	Total Mass Represented by the Mass Used in the Hydrometer Test (W), gr.:	70.37
Correction Factor a:	0.99		(W ₂ /Percent <#10)

Date	Time	Elapsed Time, min. (T)	Temp. (°C)	Actual Reading (R ₁)	Composite Correction (C _C)	Hydrometer Reading (R)	Percent Passing (P) ¹	Value of K	Effective Depth (L)	Diameter of Particle, mm (D) ²
6/11/13	11:50:09	0	---	---	---	---	---	---	---	---
6/11/13	11:51:09	1	22	47	4	43	60.5	0.01312	8.6	0.03848
6/11/13	11:52:09	2	22	42	4	38	53.5	0.01312	9.4	0.02844
6/11/13	11:55:09	5	22	37	4	33	46.4	0.01312	10.2	0.01874
6/11/13	12:05:09	15	22	33	4	29	40.8	0.01312	10.9	0.01118
6/11/13	12:20:09	30	22	30	4	26	36.6	0.01312	11.4	0.00809
6/11/13	12:50:09	60	22	26	4	22	31.0	0.01312	12.0	0.00587
6/11/13	16:00:09	250	22	23	4	19	26.7	0.01312	12.5	0.00293
6/12/13	11:50:09	1440	22	19	4	15	21.1	0.01312	13.2	0.00126

¹ P = (Ra/W)*100
² D = K*SQRT(L/T)



Sieve No.	Opening (mm)	Percent Finer	Sieve No.	Opening (mm)	Percent Finer	Particle Size (mm)	Percent Finer
3 in.	75.0	---	No. 4	4.75	100.0	0.03848	60.5
2 in.	50.0	---	No. 10	2.00	99.8	0.02844	53.5
1.5 in.	38.1	---	No. 20	0.85	99.4	0.01874	46.4
1 in.	25.0	---	No. 40	0.425	99.1	0.01118	40.8
3/4 in.	19.0	---	No. 60	0.250	98.8	0.00809	36.6
3/8 in.	9.5	---	No. 140	0.106	92.2	0.00587	31.0
			No. 200	0.075	82.4	0.00293	26.7
						0.00126	21.1
% GRAVEL			% SAND			% FINES	
Coarse	Fine		Coarse	Medium	Fine	Silt	Clay
0.0	0.0		0.2	0.7	16.7	52.4	30.0
Coefficients:		$C_u =$			$C_c =$		

Boring No.
RRN-5

Sample No.:
CPT-5

Sample Depth:
8 Feet

Soil Description:
Olive Brown (2.5Y, 4/4) Silt with Sand

Group Symbol:
ML



GRAIN SIZE DISTRIBUTION CURVE
MENDOTA POOL GROUP
Mendota, California

Project No.
0084560000
Phase 00001



PARTICLE SIZE ANALYSIS
ASTM-D422

<i>Project Name:</i>	Mendota Pool Group						
<i>Project No.:</i>	0084560000	<i>Phase No.:</i>	00001	<i>Date:</i>	6/10-6/17/2013	<i>By:</i>	VC, LT
<i>Boring No.:</i>	RRN-5	<i>Sample No.:</i>	CPT-6	<i>Depth:</i>	20 Feet		
<i>Soil Description:</i>	Dark Gray (5Y, 4/1) Silt				<i>Group Symbol:</i>	ML	

SIEVE ANALYSIS

Sieve Size	Note	Weight Retained		Percent Retained		Percent Passing
		Individual	Cumulative	Individual	Cumulative	Cumulative
3 in.						
2 in.						
1.5 in.						
1 in.						
3/4 in.						
3/8 in.						
No. 4						
No. 10			0.00		0.0	100.0
No. 20			0.08		0.1	99.9
No. 40			0.16		0.2	99.8
No. 60			0.21		0.3	99.7
No. 140			0.27		0.4	99.6
No. 200			0.30		0.4	99.6

Tare No.:	19
Dry wt. and tare, gr.:	165.70
Tare weight, gr.:	90.60
Total dry weight, gr.:	75.10
Tare No., Hydromtr.:	13
Tare No., Hygroscop.:	MC-10
Soaking Container:	H-6
Jar No.:	6

Notes: _____

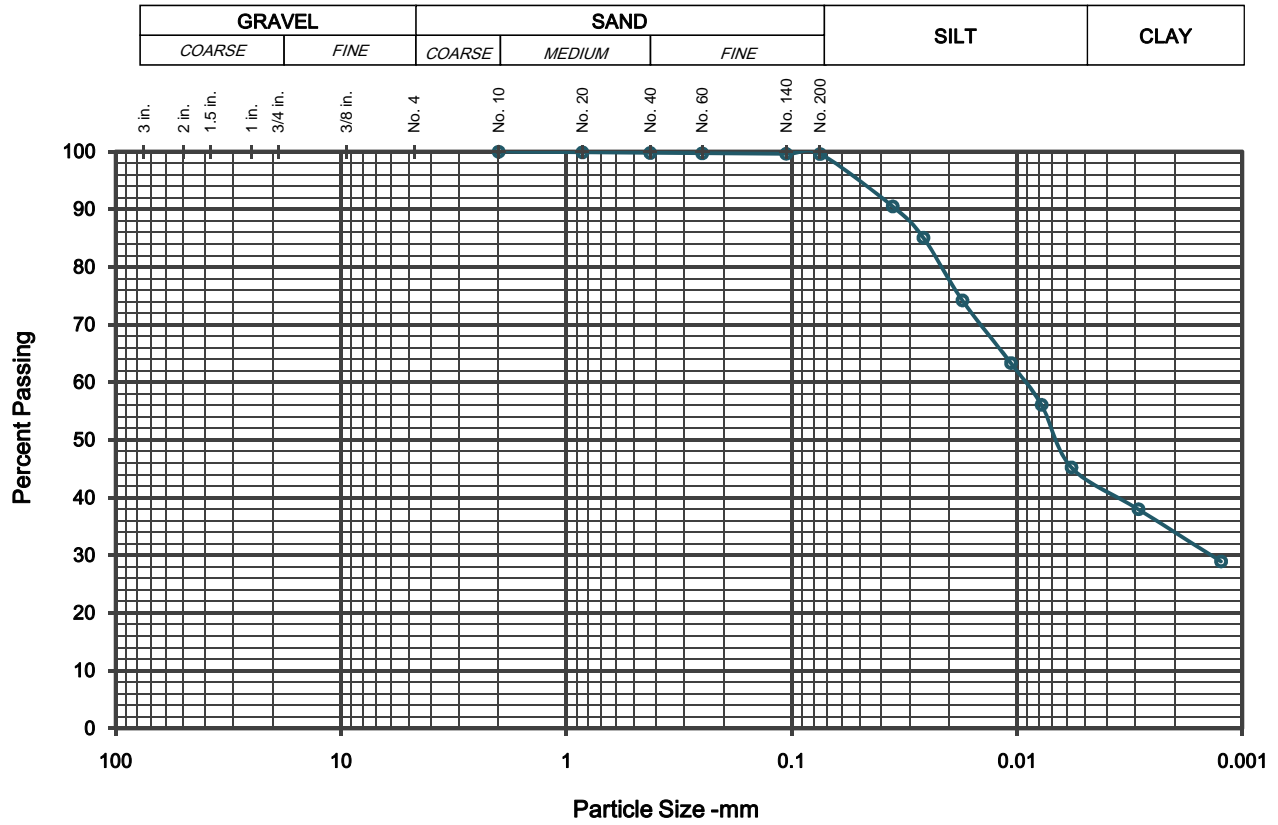
HYDROMETER ANALYSIS (152H)

Composite Correction (C _C) =	6 @ 18°C	<i>Hygroscopic Moisture:</i>			
Composite Correction (C _C) =	5 @ 20°C	Air-dry Mass, gr.:	17.30	Air-dry Mass in Test (W ₁), gr.:	56.08
Composite Correction (C _C) =	3.5 @ 23°C	Oven-dry Mass, gr.:	16.87	Oven-dry Mass in Test (W ₂), gr.:	54.69
Composite Correction (C _C) =	@ °C	Correction Factor (F _C):	0.975	(W ₁ × F _C)	

Specific Gravity: 2.70 Total Mass Represented by the Mass Used in the Hydrometer Test (W), gr.: 54.69
Correction Factor *a*: 0.99 (W₂/Percent <#10)

Date	Time	Elapsed Time, min. (T)	Temp. (°C)	Actual Reading (R ₁)	Composite Correction (C _C)	Hydrometer Reading (R)	Percent Passing (P) ¹	Value of K	Effective Depth (L)	Diameter of Particle, mm (D) ²
6/11/13	11:53:52	0	---	---	---	---	---	---	---	---
6/11/13	11:54:52	1	22	54	4	50	90.5	0.01312	7.4	0.03569
6/11/13	11:55:52	2	22	51	4	47	85.1	0.01312	7.9	0.02608
6/11/13	11:58:52	5	22	45	4	41	74.2	0.01312	8.9	0.01750
6/11/13	12:08:52	15	22	39	4	35	63.4	0.01312	9.9	0.01066
6/11/13	12:23:52	30	22	35	4	31	56.1	0.01312	10.6	0.00780
6/11/13	12:53:52	60	22	29	4	25	45.3	0.01312	11.5	0.00574
6/11/13	16:03:52	250	22	25	4	21	38.0	0.01312	12.2	0.00290
6/12/13	11:53:52	1440	22	20	4	16	29.0	0.01312	13.0	0.00125

¹ P = (Ra/W)*100
² D = K*SQRT(L/T)



Sieve No.	Opening (mm)	Percent Finer	Sieve No.	Opening (mm)	Percent Finer	Particle Size (mm)	Percent Finer
3 in.	75.0	---	No. 4	4.75	---	0.03569	90.5
2 in.	50.0	---	No. 10	2.00	100.0	0.02608	85.1
1.5 in.	38.1	---	No. 20	0.85	99.9	0.01750	74.2
1 in.	25.0	---	No. 40	0.425	99.8	0.01066	63.4
3/4 in.	19.0	---	No. 60	0.250	99.7	0.00780	56.1
3/8 in.	9.5	---	No. 140	0.106	99.6	0.00574	45.3
			No. 200	0.075	99.6	0.00290	38.0
						0.00125	29.0
% GRAVEL			% SAND			% FINES	
Coarse	Fine		Coarse	Medium	Fine	Silt	Clay
0.0	0.0		0.0	0.2	0.2	56.6	43.0
Coefficients:		$C_u =$			$C_c =$		

Boring No.
RRN-5

Sample No.:
CPT-6

Sample Depth:
20 Feet

Soil Description:
Dark Gray (5Y, 4/1) Silt

Group Symbol:
ML



GRAIN SIZE DISTRIBUTION CURVE
MENDOTA POOL GROUP
Mendota, California

Project No.
0084560000
Phase 00001



PARTICLE SIZE ANALYSIS
ASTM-D422

<i>Project Name:</i>	Mendota Pool Group						
<i>Project No.:</i>	0084560000	<i>Phase No.:</i>	00001	<i>Date:</i>	6/10-6/17/2013	<i>By:</i>	VC, LT
<i>Boring No.:</i>	B-6	<i>Sample No.:</i>	CPT-7	<i>Depth:</i>	7 Feet		
<i>Soil Description:</i>	Olive Gray (5Y, 5/2) Well Graded Sand with Silt				<i>Group Symbol:</i>	SW-SM	

SIEVE ANALYSIS

Sieve Size	Note	Weight Retained		Percent Retained		Percent Passing
		Individual	Cumulative	Individual	Cumulative	Cumulative
3 in.						
2 in.						
1.5 in.						
1 in.						
3/4 in.						
3/8 in.			0.00		0.0	100.0
No. 4			0.29		0.5	99.5
No. 10			1.30		2.5	97.5
No. 20			17.59		33.2	66.8
No. 40			34.35		64.9	35.1
No. 60			41.26		77.9	22.1
No. 140			46.33		87.5	12.5
No. 200			47.35		89.4	10.6

Tare No.:	18
Dry wt. and tare, gr.:	143.51
Tare weight, gr.:	90.56
Total dry weight, gr.:	52.95
Tare No., Hydromtr.:	9
Tare No., Hygroscop.:	MC-56
Soaking Container:	H-5
Jar No.:	7

Notes: _____

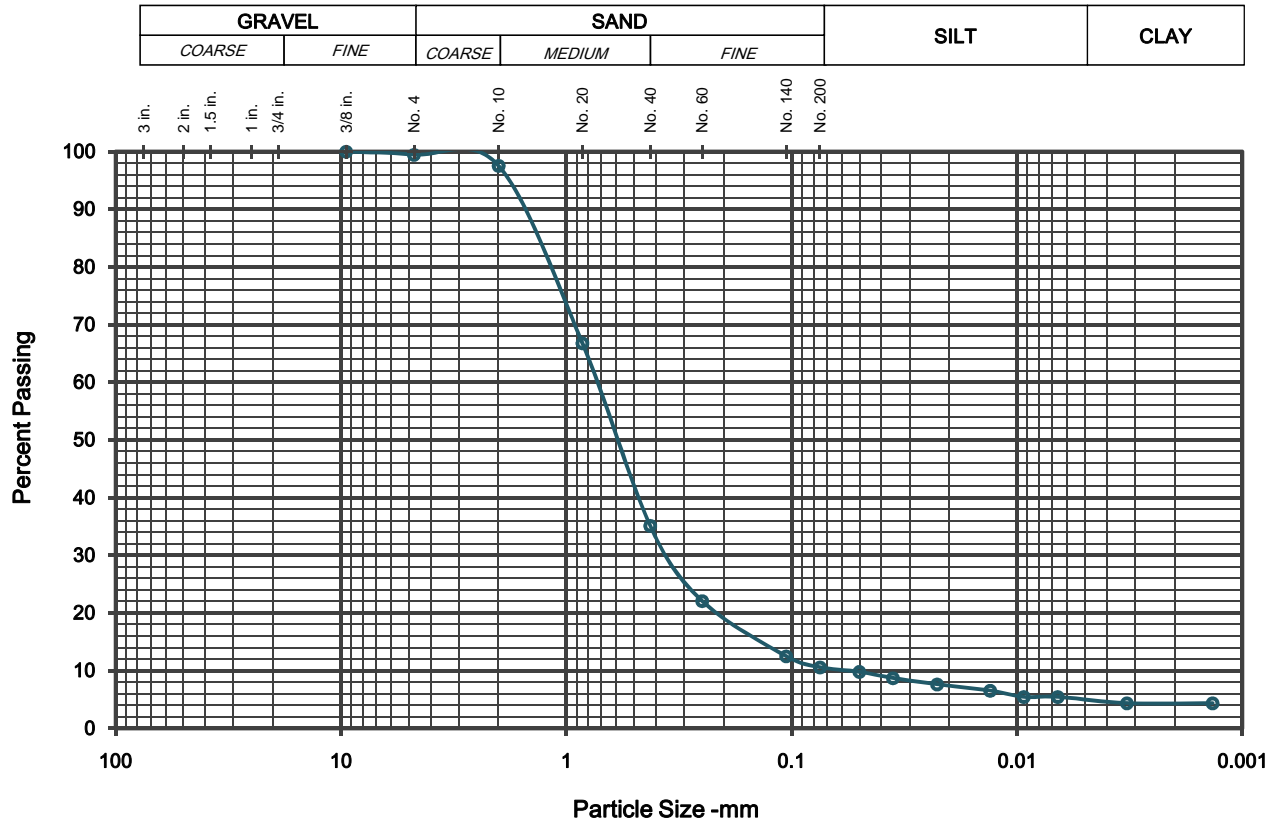
HYDROMETER ANALYSIS (152H)

Composite Correction (C _C) =	6 @ 18°C	<i>Hygroscopic Moisture:</i>			
Composite Correction (C _C) =	5 @ 20°C	Air-dry Mass, gr.:	10.42	Air-dry Mass in Test (W ₁), gr.:	89.66
Composite Correction (C _C) =	3.5 @ 23°C	Oven-dry Mass, gr.:	10.41	Oven-dry Mass in Test (W ₂), gr.:	89.57
Composite Correction (C _C) =	@ °C	Correction Factor (F _C):	0.999	(W ₁ xF _C)	

Specific Gravity:	2.65	Total Mass Represented by the Mass Used in the Hydrometer Test (W), gr.:	91.83
Correction Factor a:	1.00		(W ₂ /Percent <#10)

Date	Time	Elapsed Time, min. (T)	Temp. (°C)	Actual Reading (R ₁)	Composite Correction (C _C)	Hydrometer Reading (R)	Percent Passing (P) ¹	Value of K	Effective Depth (L)	Diameter of Particle, mm (D) ²
6/11/13	11:56:36	0	---	---	---	---	---	---	---	---
6/11/13	11:57:36	1	22	13	4	9	9.8	0.01332	14.2	0.05019
6/11/13	11:58:36	2	22	12	4	8	8.7	0.01332	14.3	0.03562
6/11/13	12:01:36	5	22	11	4	7	7.6	0.01332	14.5	0.02268
6/11/13	12:11:36	15	22	10	4	6	6.5	0.01332	14.7	0.01319
6/11/13	12:26:36	30	22	9	4	5	5.4	0.01332	14.8	0.00936
6/11/13	12:56:36	60	22	9	4	5	5.4	0.01332	14.8	0.00662
6/11/13	16:06:36	250	22	8	4	4	4.4	0.01332	15.0	0.00326
6/12/13	11:56:36	1440	22	8	4	4	4.4	0.01332	15.0	0.00136

¹ P = (Ra/W)*100
² D = K*SQRT(L/T)



Sieve No.	Opening (mm)	Percent Finer	Sieve No.	Opening (mm)	Percent Finer	Particle Size (mm)	Percent Finer
3 in.	75.0	---	No. 4	4.75	99.5	0.05019	9.8
2 in.	50.0	---	No. 10	2.00	97.5	0.03562	8.7
1.5 in.	38.1	---	No. 20	0.85	66.8	0.02268	7.6
1 in.	25.0	---	No. 40	0.425	35.1	0.01319	6.5
3/4 in.	19.0	---	No. 60	0.250	22.1	0.00936	5.4
3/8 in.	9.5	100.0	No. 140	0.106	12.5	0.00662	5.4
			No. 200	0.075	10.6	0.00326	4.4
						0.00136	4.4
% GRAVEL			% SAND			% FINES	
Coarse	Fine		Coarse	Medium	Fine	Silt	Clay
0.0	0.5		1.9	62.4	24.6	5.6	5.0
Coefficients:		$C_u =$	10.90	$C_c =$	2.65		

Boring No.
B-6

Sample No.:
CPT-7

Sample Depth:
7 Feet

Soil Description:
Olive Gray (5Y, 5/2) Well
Graded Sand with Silt

Group Symbol:
SW-SM



GRAIN SIZE DISTRIBUTION CURVE
MENDOTA POOL GROUP
Mendota, California

Project No.
0084560000
Phase 00001



PARTICLE SIZE ANALYSIS
ASTM-D422

<i>Project Name:</i>	Mendota Pool Group						
<i>Project No.:</i>	0084560000	<i>Phase No.:</i>	00001	<i>Date:</i>	6/10-6/17/2013	<i>By:</i>	VC, LT
<i>Boring No.:</i>	B-6	<i>Sample No.:</i>	CPT-8	<i>Depth:</i>	19 Feet		
<i>Soil Description:</i>	Pale Olive (5Y, 6/4) Poorly Graded Sand					<i>Group Symbol:</i>	SP

SIEVE ANALYSIS

Sieve Size	Note	Weight Retained		Percent Retained		Percent Passing
		Individual	Cumulative	Individual	Cumulative	Cumulative
3 in.						
2 in.						
1.5 in.						
1 in.						
3/4 in.						
3/8 in.						
No. 4			0.00		0.0	100.0
No. 10			3.48		5.6	94.4
No. 20			27.83		44.9	55.1
No. 40			50.79		81.9	18.1
No. 60			56.18		90.6	9.4
No. 140			59.51		95.9	4.1
No. 200			60.10		96.9	3.1

Tare No.:	16
Dry wt. and tare, gr.:	161.61
Tare weight, gr.:	99.57
Total dry weight, gr.:	62.04
Tare No., Hydromtr.:	14
Tare No., Hygroscop.:	MC-20
Soaking Container:	H-9
Jar No.:	8

Notes: _____

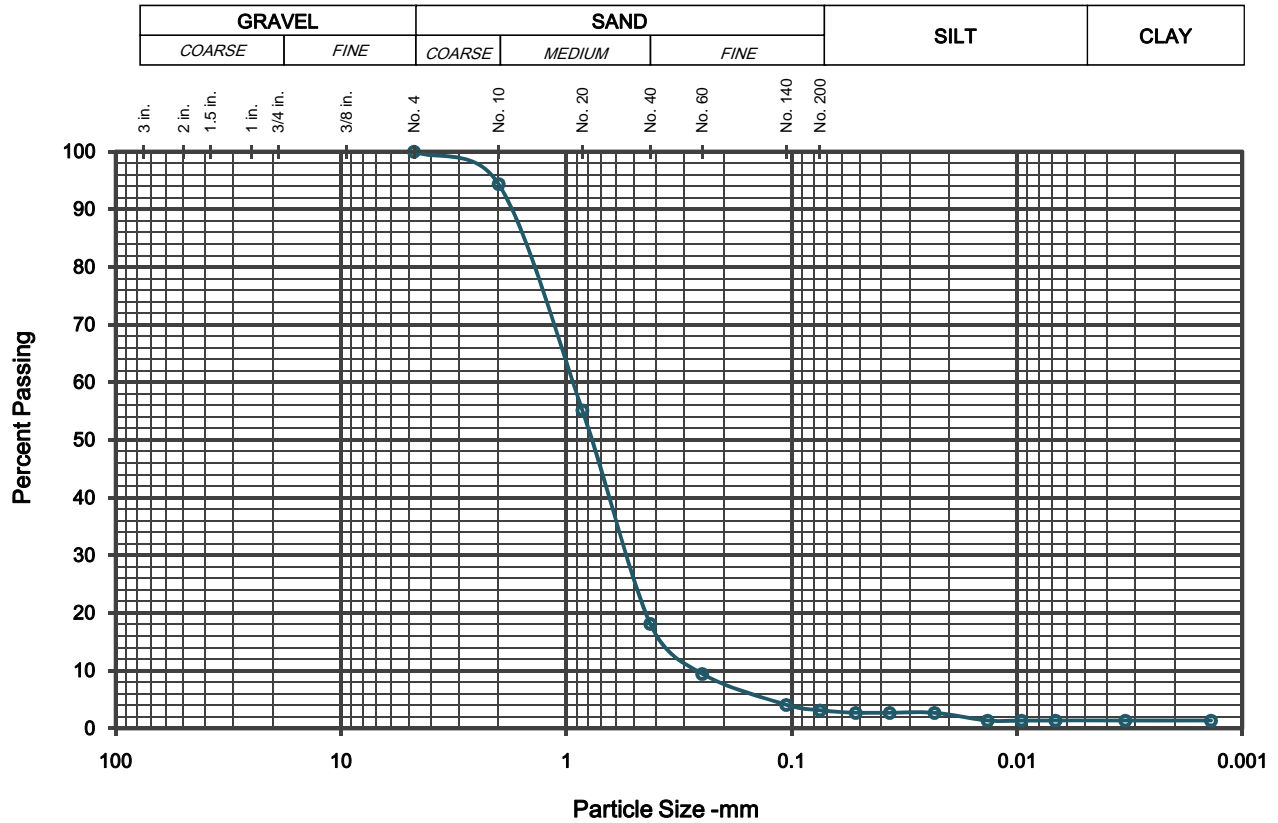
HYDROMETER ANALYSIS (152H)

Composite Correction (C _C) =	6 @ 18°C	<i>Hygroscopic Moisture:</i>			
Composite Correction (C _C) =	5 @ 20°C	Air-dry Mass, gr.:	28.03	Air-dry Mass in Test (W ₁), gr.:	70.29
Composite Correction (C _C) =	3.5 @ 23°C	Oven-dry Mass, gr.:	28.00	Oven-dry Mass in Test (W ₂), gr.:	70.21
Composite Correction (C _C) =	@ °C	Correction Factor (F _C):	0.999	(W ₁ xF _C)	

Specific Gravity:	2.65	Total Mass Represented by the Mass Used in the Hydrometer Test (W), gr.:	74.39
Correction Factor a:	1.00		(W ₂ /Percent <#10)

Date	Time	Elapsed Time, min. (T)	Temp. (°C)	Actual Reading (R ₁)	Composite Correction (C _C)	Hydrometer Reading (R)	Percent Passing (P) ¹	Value of K	Effective Depth (L)	Diameter of Particle, mm (D) ²
6/11/13	11:59:30	0	---	---	---	---	---	---	---	---
6/11/13	12:00:30	1	22	6	4	2	2.7	0.01332	15.3	0.05210
6/11/13	12:01:30	2	22	6	4	2	2.7	0.01332	15.3	0.03684
6/11/13	12:04:30	5	22	6	4	2	2.7	0.01332	15.3	0.02330
6/11/13	12:14:30	15	22	5	4	1	1.3	0.01332	15.5	0.01354
6/11/13	12:29:30	30	22	5	4	1	1.3	0.01332	15.5	0.00957
6/11/13	12:59:30	60	22	5	4	1	1.3	0.01332	15.5	0.00677
6/11/13	16:09:30	250	22	5	4	1	1.3	0.01332	15.5	0.00332
6/12/13	11:59:30	1440	22	5	4	1	1.3	0.01332	15.5	0.00138

¹ P = (Ra/W)*100
² D = K*SQRT(L/T)



Sieve No.	Opening (mm)	Percent Finer	Sieve No.	Opening (mm)	Percent Finer	Particle Size (mm)	Percent Finer
3 in.	75.0	---	No. 4	4.75	100.0	0.05210	2.7
2 in.	50.0	---	No. 10	2.00	94.4	0.03684	2.7
1.5 in.	38.1	---	No. 20	0.85	55.1	0.02330	2.7
1 in.	25.0	---	No. 40	0.425	18.1	0.01354	1.3
3/4 in.	19.0	---	No. 60	0.250	9.4	0.00957	1.3
3/8 in.	9.5	---	No. 140	0.106	4.1	0.00677	1.3
			No. 200	0.075	3.1	0.00332	1.3
						0.00138	1.3
% GRAVEL			% SAND			% FINES	
Coarse	Fine		Coarse	Medium	Fine	Silt and Clay	
0.0	0.0		5.6	76.3	15.0	3.1	
Coefficients:		$C_u =$	3.32	$C_c =$	1.12		

Boring No.
B-6

Sample No.:
CPT-8

Sample Depth:
19 Feet

Soil Description:
Pale Olive (5Y, 6/4) Poorly Graded Sand

Group Symbol:
SP



GRAIN SIZE DISTRIBUTION CURVE
MENDOTA POOL GROUP
Mendota, California

Project No.
0084560000
Phase 00001



PARTICLE SIZE ANALYSIS
ASTM-D422

<i>Project Name:</i>	Mendota Pool Group						
<i>Project No.:</i>	0084560000	<i>Phase No.:</i>	00001	<i>Date:</i>	6/10-6/17/2013	<i>By:</i>	VC, LT
<i>Boring No.:</i>	B-6	<i>Sample No.:</i>	CPT-9	<i>Depth:</i>	32 Feet		
<i>Soil Description:</i>	Pale Olive (5Y, 6/4) Poorly Graded Sand					<i>Group Symbol:</i>	SP

SIEVE ANALYSIS

Sieve Size	Note	Weight Retained		Percent Retained		Percent Passing
		Individual	Cumulative	Individual	Cumulative	Cumulative
3 in.						
2 in.						
1.5 in.						
1 in.						
3/4 in.						
3/8 in.			0.00		0.0	100.0
No. 4			0.21		0.3	99.7
No. 10			9.87		15.1	84.9
No. 20			37.71		57.7	42.3
No. 40			55.03		84.2	15.8
No. 60			59.11		90.4	9.6
No. 140			62.14		95.0	5.0
No. 200			62.73		95.9	4.1

Tare No.:	17
Dry wt. and tare, gr.:	164.94
Tare weight, gr.:	99.56
Total dry weight, gr.:	65.38
Tare No., Hydromtr.:	7
Tare No., Hygroscop.:	MC-63
Soaking Container:	H-7
Jar No.:	9

Notes: _____

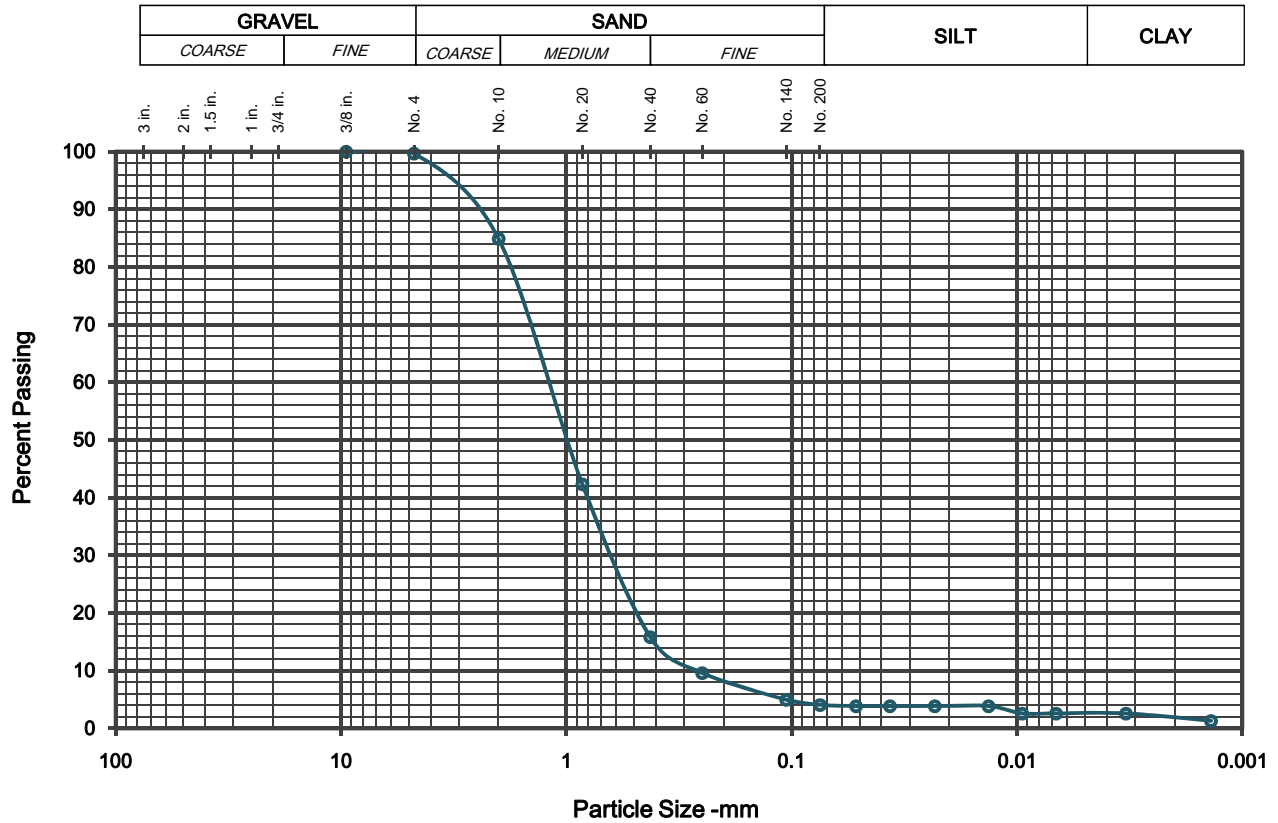
HYDROMETER ANALYSIS (152H)

Composite Correction (C _C) =	6 @ 18°C	<i>Hygroscopic Moisture:</i>			
Composite Correction (C _C) =	5 @ 20°C	Air-dry Mass, gr.:	22.54	Air-dry Mass in Test (W ₁), gr.:	66.37
Composite Correction (C _C) =	3.5 @ 23°C	Oven-dry Mass, gr.:	22.45	Oven-dry Mass in Test (W ₂), gr.:	66.10
Composite Correction (C _C) =	@ °C	Correction Factor (F _C):	0.996	(W ₁ xF _C)	

Specific Gravity: 2.65 Total Mass Represented by the Mass Used in the Hydrometer Test (W), gr.: 77.86
Correction Factor a: 1.00 (W₂/Percent <#10)

Date	Time	Elapsed Time, min. (T)	Temp. (°C)	Actual Reading (R ₁)	Composite Correction (C _C)	Hydrometer Reading (R)	Percent Passing (P) ¹	Value of K	Effective Depth (L)	Diameter of Particle, mm (D) ²
6/11/13	12:02:27	0	---	---	---	---	---	---	---	---
6/11/13	12:03:27	1	22	7	4	3	3.9	0.01332	15.2	0.05193
6/11/13	12:04:27	2	22	7	4	3	3.9	0.01332	15.2	0.03672
6/11/13	12:07:27	5	22	7	4	3	3.9	0.01332	15.2	0.02322
6/11/13	12:17:27	15	22	7	4	3	3.9	0.01332	15.2	0.01341
6/11/13	12:32:27	30	22	6	4	2	2.6	0.01332	15.3	0.00951
6/11/13	13:02:27	60	22	6	4	2	2.6	0.01332	15.3	0.00673
6/11/13	16:12:27	250	22	6	4	2	2.6	0.01332	15.3	0.00330
6/12/13	12:02:27	1440	22	5	4	1	1.3	0.01332	15.5	0.00138

¹ P = (Ra/W)*100
² D = K*SQRT(L/T)



Sieve No.	Opening (mm)	Percent Finer	Sieve No.	Opening (mm)	Percent Finer	Particle Size (mm)	Percent Finer
3 in.	75.0	---	No. 4	4.75	99.7	0.05193	3.9
2 in.	50.0	---	No. 10	2.00	84.9	0.03672	3.9
1.5 in.	38.1	---	No. 20	0.85	42.3	0.02322	3.9
1 in.	25.0	---	No. 40	0.425	15.8	0.01341	3.9
3/4 in.	19.0	---	No. 60	0.250	9.6	0.00951	2.6
3/8 in.	9.5	100.0	No. 140	0.106	5.0	0.00673	2.6
			No. 200	0.075	4.1	0.00330	2.6
						0.00138	1.3
% GRAVEL			% SAND			% FINES	
Coarse	Fine		Coarse	Medium	Fine	Silt and Clay	
0.0	0.3		14.8	69.1	11.8	4.1	
Coefficients:		$C_u =$	4.62	$C_c =$	1.23		

Boring No.
B-6

Sample No.:
CPT-9

Sample Depth:
32 Feet

Soil Description:
Pale Olive (5Y, 6/4) Poorly Graded Sand

Group Symbol:
SP



GRAIN SIZE DISTRIBUTION CURVE
MENDOTA POOL GROUP
Mendota, California

Project No.
0084560000
Phase 00001