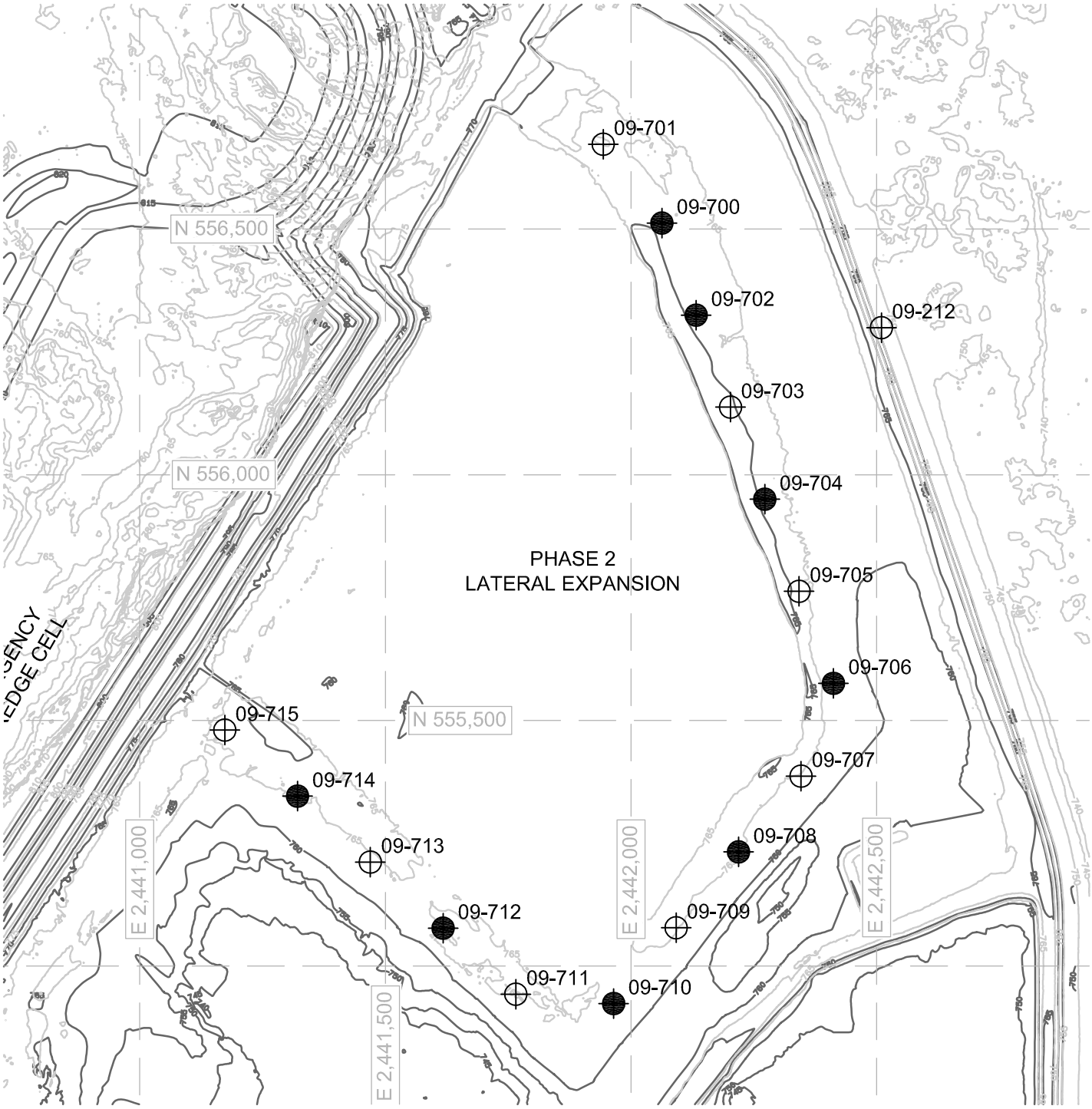

LEGEND

09-700 700 SERIES SOIL BORINGS (AECOM 2009)

09-700 CPTu SOUNDINGS LOCATIONS (AECOM 2009)

PRE-FAILURE CONTOURS

POST FAILURE CONTOURS

NOTES:
1. BASE MAP BASED ON LIDAR DATA COLLECTED ON DECEMBER 24, 2008
2. HORIZONTAL DATUM: NAD 27 (TENNESSEE LAMBERT)
3. VERTICAL DATUM: NGVD 29

N

0 300

1" = 300'

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700 SERIES EXPLORATION LOCATION

ROOT CAUSE ANALYSIS
TVA KINGSTON DREDGE CELL FAILURE
ON DECEMBER 22, 2008
KINGSTON FOSSIL PLANT
HARRIMAN, TENNESSEE

Drawn :	DJD	06/12/2009
Checked:	LWB	6/12/2009
Approved:	WHW	6/12/2009
PROJECT NUMBER	60095742	
FIGURE NUMBER	2C-7	

X:\PROJECTS\60095742\KEY\g60095742-KEY 700 SERIES.dwg; 6/12/2009 5:01:42 PM; DEARMAN, DANIEL; STS.stb

700-Series

AECOM

Boring No.	Ground Surface Elevation (GSE)	Easting	Northing
09-700C1	764.42	2,442,062.87	556,512.35
09-700C2	764.40	2,442,061.20	556,510.23
09-700C3	764.36	2,442,063.41	556,511.38
09-701C1	763.56	2,441,943.99	556,672.79
09-702C1	764.50	2,442,133.00	556,324.04
09-703C1	765.25	2,442,202.73	556,133.61
09-703C2	764.83	2,442,229.41	556,125.74
09-704C1	764.65	2,442,273.72	555,949.37
09-705C1	764.22	2,442,342.79	555,760.83
09-706C1	763.29	2,442,412.76	555,573.95
09-706C2	763.36	2,442,413.42	555,571.97
09-707C1	763.56	2,442,347.16	555,381.20
09-708C1	763.62	2,442,220.28	555,232.14
09-709C1	763.86	2,442,091.20	555,076.96
09-710C1	762.74	2,441,964.15	554,922.76
09-711C1	763.63	2,441,764.66	554,942.33
09-712C1	763.81	2,441,614.47	555,083.02
09-713C1	763.55	2,441,472.75	555,214.63
09-714C1	764.24	2,441,319.47	555,360.52
09-715C1	764.37	2,441,179.71	555,481.53

Summary of CPT Field Notes
09-700 Series CPTu Soundings

This Summary of the CPT field notes is intended to provide a summary of the circumstances and reasons surrounding the advancement of multiple CPTu tests (e.g. C1, C2, C3,…etc.) at some of the test locations and provide additional notes from field personnel.

09-700C1. When conducting the CPT test, the pore pressure did not vary much below 30 ft. Switch to the 10 ton cone and repeat the test.

09-700C2. Start second location with 10 ton cone. Complete test and see that there was indeed very little variation below 30 ft.

09-700-C3 Start third location without dissipations. End at 62.93 ft. >300TSF on tip and rods flexing considerably above ground.

09-701-C1 Dissipations at 10, 15, 18, 25, 30 ft. Finish at 57.09 ft. Rig lifting off ground. Tip pressure >400TSF.

09-702-C1 Switch back to smaller friction reducer. Sleeve friction dips just below zero. Do a dissipation test at 22 ft. End at 58.14 – jacks lifting off ground.

09-703-C1 Dissipation at 9 ft. Inverter quit and delayed readings. Dissipations at 31, 45 ft. Stop at 57.68 ft 5-ton cone maxed out >500TSF on tip.

09-703-C2 Start second location. High-speed test to advance through the very soft materials 7.5 to 20.9 ft. Only 12 cm/s on the first rod, then increased to 18 -36 cm/s on the next 3 rods.

09-704-C1 Dissipations at 30, 33 ft. End at 52.5 ft on 300TSF material when cone deflected 5 degrees in a very short span.

09-705-C1 Some materials so soft 10-15 ft, that the tip pressure is dipping below 0 TSF. Dissipations at 5 ft, 33 ft, 36 ft. Finish at 55.7 ft – tip pressure >500TSF

09-706-C1 Dissipation at 15, 18. Finish hole at 18.57 ft. Disassemble, clean and change O-rings on sleeve.

09-706-C2 Start second location. Dissipations at 33, 46 ft. Finish at 56.11 ft. 500TSF on tip.

09-707-C1 Dissipation at 22, 34, 52ft End at 55.5 ft. Harder material and inclination of cone changed abruptly.

09-708-C1 Dissipation at 6 ft, 11, 31, 38, 46 ft Stop at 57.62ft Rods bending significantly at surface.

09-709-C1 Dissipation tests at 22, 31, 49, 57. Finish at 58.40 , >350TSF on tip and rods bending at surface.

09-710-C1 Dissipations at 30, 37, 46 ft. End at 57.68 >300TSF on tip and rods bending considerably.

09-711-C1 Dissipation tests at 16, 32, 41 ft. End at 58.01 ft 325TSF on tip and rods flexing at surface.

09-712-C1 Dissipation at 18, 21, 34, 47 ft. End at 57.94 ft.

09-713-C1 Dissipation test at 20, 32, 40, 44. End at 58.34 ft.

09-714-C1 Dissipation test at 15, 28, 34, 44 ft. End at 59.19 ft.

09-715-C1 Dissipation at 12, 31, 44, 50 ft. End at 56.50 ft.

AECOM

TVA Kingston Coal Ash Pond RCA (Kingston,Tennessee) Cone Penetration Test

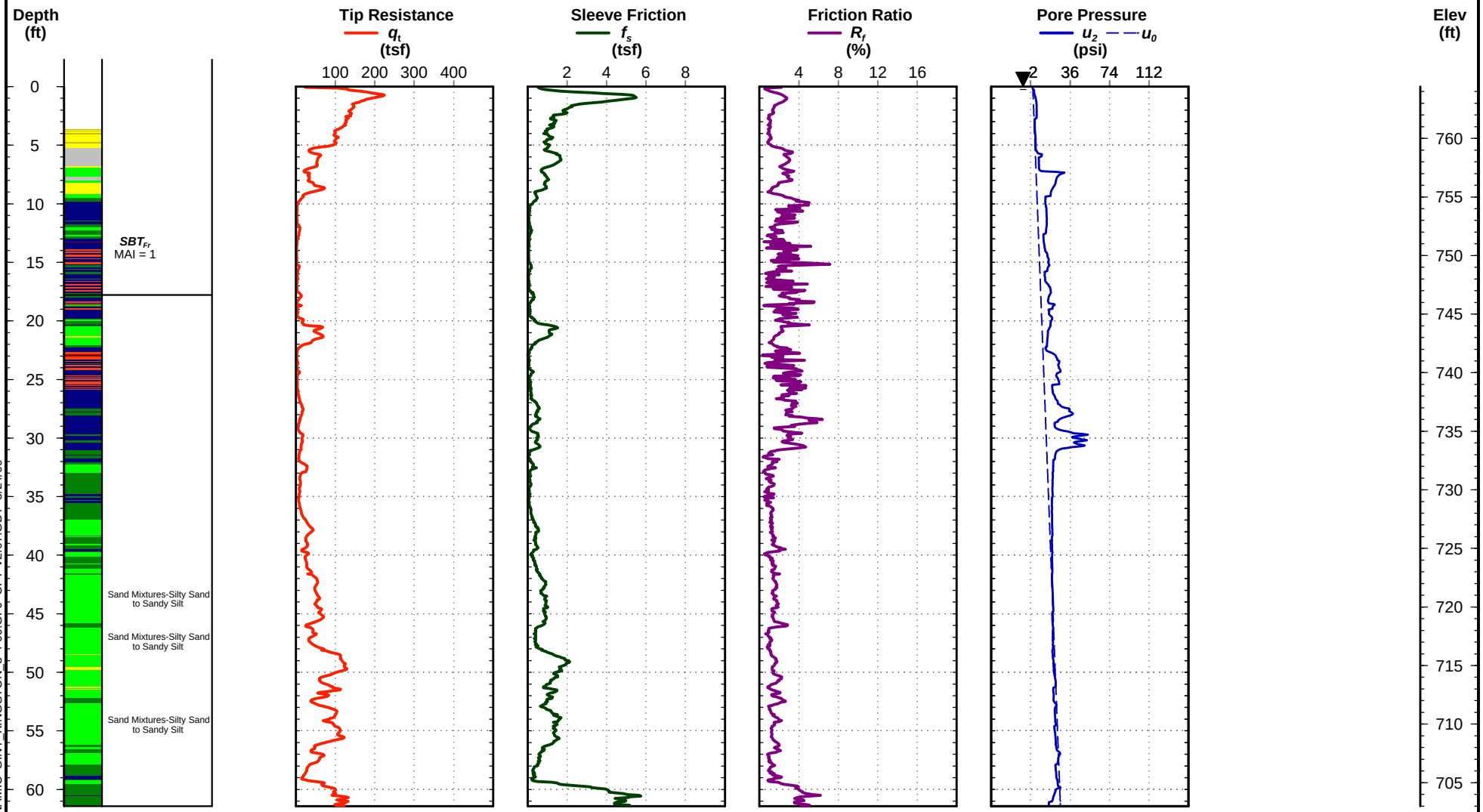
09-700-C1

Project No: 60095742

Date: Jan. 18, 2009
Estimated Water Depth: 0 ft
Rig/Operator: CME-850 CAP

Northing: 556512.35
Easting: 2442062.87
Elevation: 764.42 NGVD

Total Depth: 61.4 ft
Termination Criteria: Refusal
Cone Size: 5T Tension Cone



09-700-C1

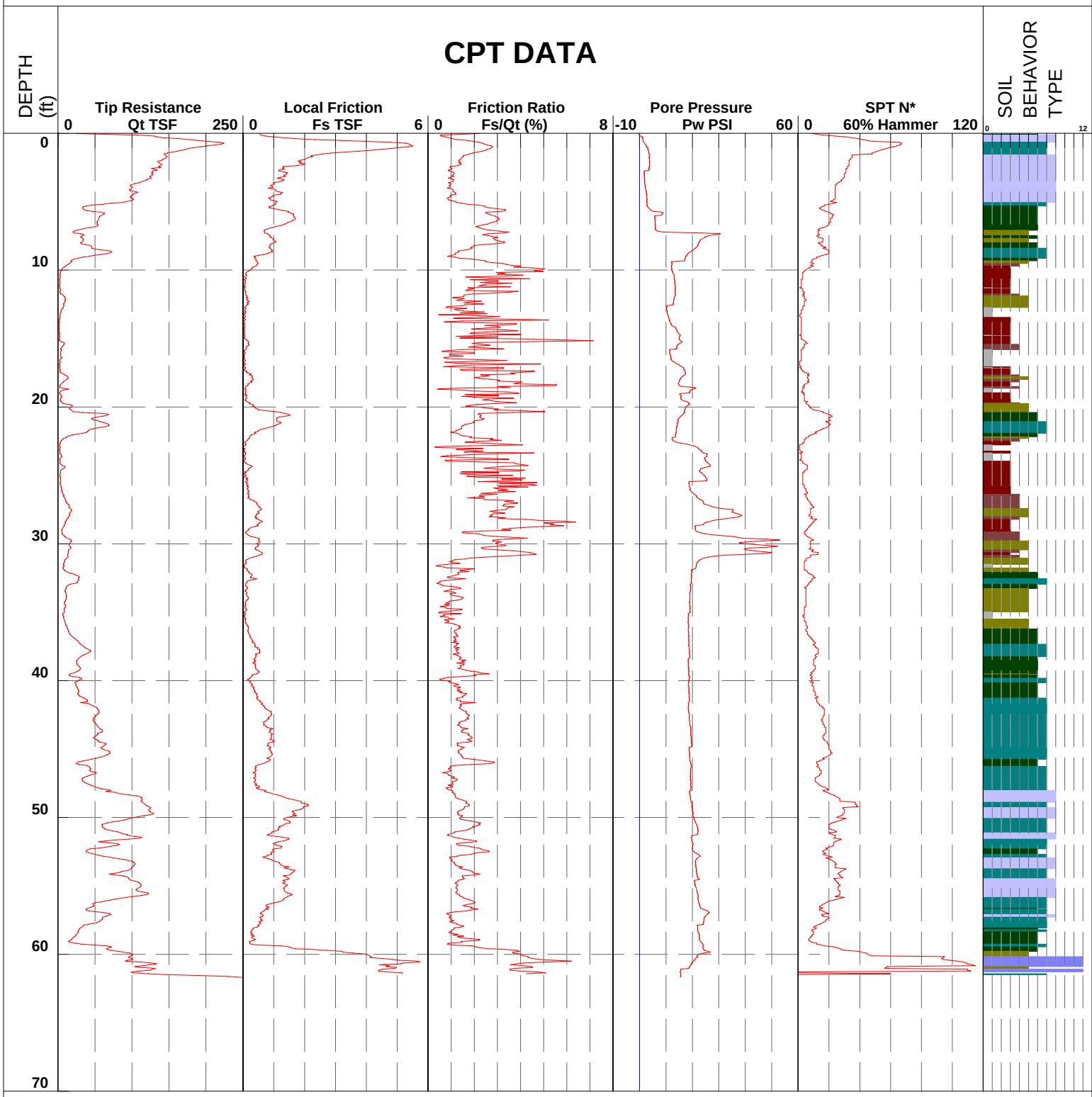
Electronic Filename: 09-700-C1.cpt

CPT REPORT - DYNAMIC GINT_KINGSTON_3-4-09.GPJ CPT V2.07.GDT 3/24/09

AECOM

09-700-C1	60095742	1/18/2009 1:49:36 PM
DTA1081	TVA-Kingston	CAP CME-750

CPT DATA



1 - sensitive fine grained	4 - silty clay to clay	7 - silty sand to sandy silt	10 - gravelly sand to sand
2 - organic material	5 - clayey silt to silty clay	8 - sand to silty sand	11 - very stiff fine grained (*)
3 - clay	6 - sandy silt to clayey silt	9 - sand	12 - sand to clayey sand (*)

Data File:09-700-C1 1/18/2009 1:49:36 PM
Operator:CAP CME-750 Location:TVA-Kingston
Cone ID:DTA1081 Job Number:60095742
Customer:TVA Units:

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
0.07	23.83	0.5319	2.231	-0.227	9	6	sandy silt to clayey silt
0.13	107.46	0.5805	0.540	-0.118	16	8	sand to silty sand
0.20	130.51	0.7241	0.555	0.333	24	8	sand to silty sand
0.26	132.72	0.9797	0.738	1.216	30	8	sand to silty sand
0.33	143.97	1.3274	0.922	1.139	36	8	sand to silty sand
0.39	164.08	1.7024	1.038	1.185	39	8	sand to silty sand
0.46	178.45	2.3332	1.307	1.360	42	8	sand to silty sand
0.52	187.90	3.1769	1.691	1.297	45	8	sand to silty sand
0.59	203.53	3.9515	1.941	1.397	48	8	sand to silty sand
0.66	217.72	4.7836	2.197	1.683	66	7	silty sand to sandy silt
0.72	224.35	5.2699	2.349	1.913	67	7	silty sand to sandy silt
0.79	221.45	5.3977	2.437	2.081	67	7	silty sand to sandy silt
0.85	212.49	5.4187	2.550	2.511	66	7	silty sand to sandy silt
0.92	201.48	5.5054	2.732	2.445	64	7	silty sand to sandy silt
0.98	192.57	5.3722	2.790	2.704	62	7	silty sand to sandy silt
1.05	183.41	5.0370	2.746	3.080	59	7	silty sand to sandy silt
1.12	175.85	4.7389	2.695	3.117	57	7	silty sand to sandy silt
1.18	173.42	4.4302	2.555	3.282	55	7	silty sand to sandy silt
1.25	164.96	4.0856	2.477	3.205	53	7	silty sand to sandy silt
1.31	161.64	3.7482	2.319	3.516	51	7	silty sand to sandy silt
1.38	153.58	3.2772	2.134	3.537	50	7	silty sand to sandy silt
1.44	147.95	2.8561	1.931	3.531	48	7	silty sand to sandy silt
1.51	143.10	2.5804	1.803	3.640	48	7	silty sand to sandy silt
1.57	145.25	2.3961	1.650	3.705	35	8	sand to silty sand
1.64	146.46	2.2060	1.506	3.783	35	8	sand to silty sand
1.71	147.70	2.2586	1.529	3.625	35	8	sand to silty sand
1.77	146.00	2.1167	1.450	3.665	35	8	sand to silty sand
1.84	144.45	2.0627	1.428	3.696	34	8	sand to silty sand
1.90	141.43	2.0002	1.414	3.771	34	8	sand to silty sand
1.97	140.49	1.8804	1.338	3.805	33	8	sand to silty sand
2.03	135.46	1.7791	1.313	3.799	33	8	sand to silty sand
2.10	134.51	1.8950	1.409	3.889	33	8	sand to silty sand
2.17	136.79	1.8212	1.331	3.721	33	8	sand to silty sand
2.23	138.76	2.0062	1.446	3.765	33	8	sand to silty sand
2.30	140.83	1.9435	1.380	3.765	33	8	sand to silty sand
2.36	138.32	1.7522	1.267	3.914	33	8	sand to silty sand
2.43	135.92	1.2978	0.955	3.712	32	8	sand to silty sand
2.49	139.12	1.3214	0.950	3.631	32	8	sand to silty sand
2.56	126.10	1.2810	1.016	3.659	32	8	sand to silty sand
2.62	130.01	1.3447	1.034	3.575	31	8	sand to silty sand
2.69	133.75	1.1652	0.871	3.662	31	8	sand to silty sand
2.76	127.80	1.1569	0.905	1.770	31	8	sand to silty sand
2.82	126.88	1.3462	1.061	1.789	31	8	sand to silty sand
2.89	128.72	1.4487	1.125	1.708	31	8	sand to silty sand
2.95	126.46	1.4088	1.114	1.795	30	8	sand to silty sand
3.02	128.33	1.3995	1.091	1.752	30	8	sand to silty sand
3.08	127.05	1.3191	1.038	1.826	30	8	sand to silty sand
3.15	124.07	1.3769	1.110	1.770	30	8	sand to silty sand
3.22	125.07	1.2132	0.970	1.873	30	8	sand to silty sand
3.28	126.05	1.1069	0.878	1.820	29	8	sand to silty sand
3.35	120.93	1.2743	1.054	2.032	29	8	sand to silty sand
3.41	119.69	1.3347	1.115	1.907	28	8	sand to silty sand
3.48	116.58	1.2741	1.093	1.932	28	8	sand to silty sand
3.54	112.21	1.1852	1.056	2.125	27	8	sand to silty sand

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
3.61	110.03	0.9738	0.885	1.966	26	8	sand to silty sand
3.67	104.14	1.0207	0.980	1.920	25	8	sand to silty sand
3.74	100.01	0.9931	0.993	2.013	25	8	sand to silty sand
3.81	97.86	0.8891	0.908	2.150	24	8	sand to silty sand
3.87	98.58	0.9546	0.968	2.203	24	8	sand to silty sand
3.94	100.73	0.9705	0.964	2.249	24	8	sand to silty sand
4.00	99.09	0.8174	0.825	2.150	24	8	sand to silty sand
4.07	99.39	0.9986	1.005	2.277	24	8	sand to silty sand
4.13	96.38	1.0477	1.087	2.480	24	8	sand to silty sand
4.20	98.20	1.0575	1.077	2.548	24	8	sand to silty sand
4.27	105.37	1.1485	1.090	2.548	24	8	sand to silty sand
4.33	107.91	1.2797	1.186	2.598	24	8	sand to silty sand
4.40	102.99	1.2258	1.190	2.511	24	8	sand to silty sand
4.46	101.73	1.2202	1.199	2.794	24	8	sand to silty sand
4.53	100.54	0.9752	0.970	2.828	24	8	sand to silty sand
4.59	98.76	0.9711	0.983	2.669	24	8	sand to silty sand
4.66	97.59	0.9212	0.944	2.663	24	8	sand to silty sand
4.72	99.01	0.8252	0.833	2.738	24	8	sand to silty sand
4.79	102.36	0.8842	0.864	2.834	24	8	sand to silty sand
4.86	101.38	0.8892	0.877	2.856	23	8	sand to silty sand
4.92	99.19	0.9974	1.006	2.750	22	8	sand to silty sand
4.99	92.88	1.1150	1.200	2.841	21	8	sand to silty sand
5.05	88.04	1.0691	1.214	2.834	25	7	silty sand to sandy silt
5.12	70.85	1.0329	1.458	2.794	23	7	silty sand to sandy silt
5.18	60.68	1.0463	1.724	2.831	20	7	silty sand to sandy silt
5.25	46.00	0.9872	2.146	2.878	17	7	silty sand to sandy silt
5.31	38.58	0.9421	2.442	2.831	17	6	sandy silt to clayey silt
5.38	33.88	0.8386	2.475	3.074	15	6	sandy silt to clayey silt
5.45	32.97	0.8705	2.640	3.460	14	6	sandy silt to clayey silt
5.51	34.06	1.0193	2.992	3.786	14	6	sandy silt to clayey silt
5.58	34.93	1.1677	3.343	4.110	15	6	sandy silt to clayey silt
5.64	38.63	1.2949	3.352	4.384	17	6	sandy silt to clayey silt
5.71	47.02	1.4862	3.161	5.532	18	6	sandy silt to clayey silt
5.77	58.27	1.4552	2.497	8.886	20	6	sandy silt to clayey silt
5.84	62.99	1.5690	2.491	8.858	21	6	sandy silt to clayey silt
5.91	62.14	1.6462	2.649	8.574	22	6	sandy silt to clayey silt
5.97	60.01	1.6275	2.712	8.357	23	6	sandy silt to clayey silt
6.04	57.08	1.6435	2.879	5.784	22	6	sandy silt to clayey silt
6.10	56.37	1.6507	2.928	5.703	22	6	sandy silt to clayey silt
6.17	55.46	1.6834	3.035	5.899	22	6	sandy silt to clayey silt
6.23	55.32	1.6961	3.066	5.737	21	6	sandy silt to clayey silt
6.30	54.59	1.6866	3.089	5.933	21	6	sandy silt to clayey silt
6.36	54.18	1.6138	2.979	5.949	21	6	sandy silt to clayey silt
6.43	52.94	1.5622	2.951	5.862	21	6	sandy silt to clayey silt
6.50	52.82	1.4708	2.785	5.908	21	6	sandy silt to clayey silt
6.56	53.38	1.4369	2.692	5.868	20	6	sandy silt to clayey silt
6.63	52.57	1.3618	2.591	6.020	20	6	sandy silt to clayey silt
6.69	54.56	1.3017	2.386	5.936	20	6	sandy silt to clayey silt
6.76	54.16	1.1916	2.200	6.054	19	6	sandy silt to clayey silt
6.82	50.71	1.0470	2.065	6.039	18	6	sandy silt to clayey silt
6.89	43.04	0.9458	2.198	5.902	16	6	sandy silt to clayey silt
6.96	35.77	0.8309	2.323	6.082	14	6	sandy silt to clayey silt
7.02	31.15	0.7563	2.428	6.023	13	6	sandy silt to clayey silt
7.09	25.98	0.7014	2.700	6.297	14	5	clayey silt to silty clay
7.15	21.79	0.6789	3.115	6.922	13	5	clayey silt to silty clay
7.22	20.24	0.7082	3.498	8.942	13	5	clayey silt to silty clay
7.28	21.63	0.7057	3.263	23.549	13	5	clayey silt to silty clay
7.35	30.84	0.7996	2.592	30.617	13	5	clayey silt to silty clay
7.41	35.32	0.8324	2.357	28.651	14	5	clayey silt to silty clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
7.48	33.89	0.8881	2.621	26.321	12	6	sandy silt to clayey silt
7.55	30.88	0.8623	2.793	25.188	13	6	sandy silt to clayey silt
7.61	30.81	0.9194	2.984	24.675	13	6	sandy silt to clayey silt
7.68	33.80	0.9502	2.811	24.022	16	5	clayey silt to silty clay
7.74	34.40	0.9894	2.876	23.390	16	5	clayey silt to silty clay
7.81	33.80	0.9881	2.923	22.939	16	5	clayey silt to silty clay
7.87	33.65	1.0309	3.063	22.870	16	5	clayey silt to silty clay
7.94	32.42	1.0769	3.322	22.702	16	5	clayey silt to silty clay
8.01	30.54	1.0008	3.277	22.391	13	6	sandy silt to clayey silt
8.07	31.85	0.9314	2.924	22.155	14	6	sandy silt to clayey silt
8.14	36.95	0.8871	2.401	22.121	15	6	sandy silt to clayey silt
8.20	43.72	0.8618	1.971	22.105	15	6	sandy silt to clayey silt
8.27	45.11	0.8927	1.979	21.906	16	6	sandy silt to clayey silt
8.33	45.60	0.8445	1.852	21.514	18	6	sandy silt to clayey silt
8.40	45.88	0.8716	1.900	21.088	16	7	silty sand to sandy silt
8.46	49.66	0.9025	1.817	20.696	18	7	silty sand to sandy silt
8.53	59.56	0.9515	1.597	20.310	19	7	silty sand to sandy silt
8.60	70.42	0.9233	1.311	19.713	20	7	silty sand to sandy silt
8.66	72.79	0.9664	1.328	19.296	20	7	silty sand to sandy silt
8.73	70.76	0.8552	1.209	18.692	20	7	silty sand to sandy silt
8.79	66.65	0.7921	1.188	18.347	20	7	silty sand to sandy silt
8.86	57.82	0.6799	1.176	18.107	18	7	silty sand to sandy silt
8.92	49.72	0.5129	1.032	17.818	16	7	silty sand to sandy silt
8.99	42.01	0.3561	0.848	17.510	14	7	silty sand to sandy silt
9.06	33.67	0.3972	1.180	17.457	12	7	silty sand to sandy silt
9.12	27.59	0.3734	1.353	17.242	12	6	sandy silt to clayey silt
9.19	22.59	0.4152	1.837	17.177	10	6	sandy silt to clayey silt
9.25	19.56	0.4200	2.148	17.171	9	6	sandy silt to clayey silt
9.32	17.44	0.4301	2.465	17.127	9	5	clayey silt to silty clay
9.38	18.93	0.4743	2.506	12.124	9	5	clayey silt to silty clay
9.45	16.98	0.4686	2.761	12.236	8	5	clayey silt to silty clay
9.51	15.39	0.4983	3.237	12.218	10	4	silty clay to clay
9.58	13.41	0.4527	3.376	12.299	9	4	silty clay to clay
9.65	12.01	0.4334	3.609	12.155	8	4	silty clay to clay
9.71	10.52	0.4238	4.030	12.103	10	3	clay
9.78	8.69	0.3233	3.720	12.053	8	3	clay
9.84	6.52	0.2955	4.532	12.143	7	3	clay
9.91	5.54	0.2798	5.053	12.208	6	3	clay
9.97	5.02	0.2448	4.878	12.196	5	3	clay
10.04	4.58	0.2102	4.593	12.252	4	3	clay
10.10	3.21	0.1599	4.984	12.560	4	3	clay
10.17	3.49	0.1029	2.945	12.544	3	3	clay
10.24	3.02	0.1010	3.339	12.684	3	3	clay
10.30	2.90	0.0870	3.005	12.939	3	3	clay
10.37	3.00	0.1234	4.116	13.055	3	3	clay
10.43	3.03	0.1036	3.419	13.182	3	3	clay
10.50	2.94	0.0483	1.643	13.095	3	3	clay
10.56	3.01	0.0797	2.644	13.185	3	3	clay
10.63	2.50	0.1104	4.409	13.101	3	3	clay
10.70	2.08	0.0379	1.824	13.188	2	3	clay
10.76	2.33	0.0704	3.019	13.391	2	3	clay
10.83	2.79	0.0847	3.035	13.372	2	3	clay
10.89	2.59	0.0584	2.258	13.307	2	3	clay
10.96	2.18	0.0789	3.621	13.257	2	3	clay
11.02	2.23	0.0558	2.502	13.431	2	3	clay
11.09	2.49	0.0588	2.368	13.356	2	3	clay
11.15	1.82	0.0398	2.180	13.568	2	3	clay
11.22	2.31	0.0822	3.565	13.472	2	3	clay
11.29	2.12	0.0367	1.729	13.534	1	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
11.35	2.87	0.0572	1.990	13.521	3	3	clay
11.42	3.18	0.0566	1.779	13.587	3	3	clay
11.48	4.02	0.0651	1.621	13.503	3	3	clay
11.55	2.46	0.0956	3.888	13.338	3	3	clay
11.61	2.25	0.0794	3.527	13.496	4	3	clay
11.68	3.16	0.0873	2.757	13.459	4	3	clay
11.75	4.40	0.0856	1.943	13.605	3	4	silty clay to clay
11.81	6.69	0.1036	1.548	13.546	4	4	silty clay to clay
11.88	7.65	0.1184	1.549	13.391	3	5	clayey silt to silty clay
11.94	9.19	0.1413	1.537	13.266	4	5	clayey silt to silty clay
12.01	9.20	0.0978	1.063	13.170	4	5	clayey silt to silty clay
12.07	10.32	0.1619	1.569	13.086	4	5	clayey silt to silty clay
12.14	9.88	0.1373	1.390	13.111	5	5	clayey silt to silty clay
12.20	10.10	0.1258	1.245	12.899	5	5	clayey silt to silty clay
12.27	9.05	0.2087	2.306	12.871	4	5	clayey silt to silty clay
12.34	9.34	0.1651	1.767	12.896	4	5	clayey silt to silty clay
12.40	8.51	0.1325	1.557	12.743	4	5	clayey silt to silty clay
12.47	7.55	0.1816	2.405	12.883	4	5	clayey silt to silty clay
12.53	7.74	0.1257	1.623	12.675	4	5	clayey silt to silty clay
12.60	8.18	0.1221	1.492	10.279	4	5	clayey silt to silty clay
12.66	7.47	0.0615	0.824	10.351	3	5	clayey silt to silty clay
12.73	7.15	0.0555	0.776	10.335	3	1	sensitive fine grained
12.80	6.03	0.1009	1.672	10.211	3	1	sensitive fine grained
12.86	5.05	0.0573	1.136	10.205	3	1	sensitive fine grained
12.93	4.16	0.0538	1.293	10.214	2	1	sensitive fine grained
12.99	3.97	0.0614	1.547	10.435	2	1	sensitive fine grained
13.06	4.21	0.1025	2.433	10.379	2	1	sensitive fine grained
13.12	3.34	0.0464	1.391	10.441	2	1	sensitive fine grained
13.19	3.04	0.0777	2.559	10.497	2	1	sensitive fine grained
13.25	2.57	0.0119	0.461	10.737	1	1	sensitive fine grained
13.32	2.93	0.0571	1.947	10.768	1	1	sensitive fine grained
13.39	2.53	0.0784	3.099	10.927	1	1	sensitive fine grained
13.45	2.88	0.0658	2.283	11.042	2	3	clay
13.52	2.36	0.0261	1.107	11.129	2	3	clay
13.58	2.25	0.0788	3.508	11.272	2	3	clay
13.65	1.66	0.0866	5.208	11.359	2	3	clay
13.71	1.60	0.0237	1.479	11.375	2	3	clay
13.78	2.08	0.0146	0.700	11.449	2	3	clay
13.85	2.09	0.0477	2.284	11.779	2	3	clay
13.91	1.37	0.0527	3.834	11.947	2	3	clay
13.98	1.67	0.0631	3.775	11.928	2	3	clay
14.04	2.08	0.0514	2.469	12.221	2	3	clay
14.11	1.70	0.0515	3.021	12.672	2	3	clay
14.17	1.62	0.0506	3.125	13.574	2	3	clay
14.24	1.83	0.0449	2.455	13.773	2	3	clay
14.30	2.05	0.0386	1.885	13.860	2	3	clay
14.37	1.66	0.0556	3.341	14.053	2	3	clay
14.44	1.50	0.0581	3.887	14.184	2	3	clay
14.50	1.86	0.0532	2.862	14.305	2	3	clay
14.57	1.84	0.0347	1.892	14.554	2	3	clay
14.63	2.33	0.0422	1.814	14.878	2	3	clay
14.70	1.72	0.0693	4.021	15.220	2	3	clay
14.76	1.98	0.0536	2.704	15.444	1	1	sensitive fine grained
14.83	2.45	0.0295	1.204	15.301	2	3	clay
14.90	2.26	0.0682	3.017	15.083	2	3	clay
14.96	2.04	0.0280	1.377	14.990	2	3	clay
15.03	1.77	0.0702	3.978	14.984	2	3	clay
15.09	2.13	0.1197	5.613	15.021	3	3	clay
15.16	1.91	0.1364	7.140	15.603	4	3	clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
15.22	3.98	0.1821	4.572	15.995	5	3	clay
15.29	7.87	0.1768	2.246	15.951	5	3	clay
15.35	8.54	0.1620	1.898	15.201	6	3	clay
15.42	8.23	0.1931	2.346	14.750	4	4	silty clay to clay
15.49	7.48	0.2011	2.686	14.352	4	4	silty clay to clay
15.55	6.65	0.1400	2.107	14.137	4	4	silty clay to clay
15.62	5.77	0.1010	1.750	14.100	4	4	silty clay to clay
15.68	4.51	0.1079	2.394	14.056	3	4	silty clay to clay
15.75	3.57	0.1172	3.281	14.081	3	4	silty clay to clay
15.81	5.16	0.0759	1.472	11.334	2	1	sensitive fine grained
15.88	4.58	0.0398	0.868	11.381	2	1	sensitive fine grained
15.94	3.83	0.0229	0.600	11.543	2	1	sensitive fine grained
16.01	3.34	0.0666	1.995	11.555	2	1	sensitive fine grained
16.08	3.44	0.0692	2.012	11.421	2	1	sensitive fine grained
16.14	3.81	0.0353	0.926	11.502	2	1	sensitive fine grained
16.21	3.86	0.0362	0.937	11.664	2	1	sensitive fine grained
16.27	3.45	0.0525	1.521	11.854	2	1	sensitive fine grained
16.34	3.66	0.0334	0.913	11.863	2	1	sensitive fine grained
16.40	5.58	0.0383	0.687	11.838	2	1	sensitive fine grained
16.47	3.86	0.0329	0.851	11.944	2	1	sensitive fine grained
16.54	2.48	0.0546	2.199	11.991	2	1	sensitive fine grained
16.60	2.26	0.0773	3.412	12.121	2	1	sensitive fine grained
16.67	2.97	0.0619	2.087	12.625	1	1	sensitive fine grained
16.73	3.09	0.0223	0.722	13.381	1	1	sensitive fine grained
16.80	2.78	0.0341	1.226	13.689	1	1	sensitive fine grained
16.86	2.00	0.0976	4.875	14.346	1	1	sensitive fine grained
16.93	1.82	0.0340	1.870	15.186	1	1	sensitive fine grained
16.99	2.37	0.0264	1.114	15.419	1	1	sensitive fine grained
17.06	2.31	0.0152	0.658	16.054	2	3	clay
17.13	2.31	0.0756	3.274	16.735	1	1	sensitive fine grained
17.19	2.22	0.0720	3.244	16.688	2	3	clay
17.26	2.39	0.0331	1.388	16.710	2	3	clay
17.32	3.19	0.0465	1.456	17.242	3	3	clay
17.39	2.80	0.1293	4.619	17.242	3	3	clay
17.45	2.50	0.1054	4.216	17.245	4	3	clay
17.52	4.50	0.1609	3.575	17.389	6	3	clay
17.59	7.17	0.2696	3.757	17.426	7	3	clay
17.65	9.04	0.2057	2.276	17.183	6	4	silty clay to clay
17.72	11.47	0.3029	2.642	16.502	7	4	silty clay to clay
17.78	13.08	0.3173	2.426	16.312	6	5	clayey silt to silty clay
17.85	13.92	0.2794	2.007	15.824	6	5	clayey silt to silty clay
17.91	13.37	0.2970	2.221	15.506	6	5	clayey silt to silty clay
17.98	12.56	0.3417	2.722	15.428	7	4	silty clay to clay
18.04	10.15	0.3162	3.114	15.111	7	4	silty clay to clay
18.11	8.16	0.2473	3.029	15.074	6	4	silty clay to clay
18.18	7.22	0.2925	4.049	14.965	7	3	clay
18.24	5.93	0.2297	3.874	14.769	6	3	clay
18.31	4.41	0.1634	3.705	14.691	5	3	clay
18.37	3.02	0.1680	5.555	14.850	4	3	clay
18.44	2.65	0.1461	5.504	15.142	4	3	clay
18.50	2.66	0.0801	3.011	15.752	3	4	silty clay to clay
18.57	2.16	0.0764	3.544	20.633	4	4	silty clay to clay
18.64	8.00	0.0772	0.965	21.274	3	1	sensitive fine grained
18.70	14.37	0.0599	0.417	19.937	3	1	sensitive fine grained
18.77	7.20	0.1140	1.583	19.426	3	1	sensitive fine grained
18.83	4.14	0.0753	1.819	19.112	3	1	sensitive fine grained
18.90	2.92	0.0989	3.383	18.904	2	1	sensitive fine grained
18.96	1.93	0.0739	3.837	19.090	4	3	clay
19.03	2.63	0.1036	3.940	15.304	3	3	clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
19.09	3.02	0.0484	1.602	15.204	4	3	clay
19.16	4.39	0.1341	3.057	15.724	4	3	clay
19.23	5.64	0.0828	1.469	15.740	4	3	clay
19.29	5.08	0.1051	2.068	15.556	4	3	clay
19.36	3.42	0.1269	3.711	15.677	4	3	clay
19.42	3.72	0.0970	2.607	15.696	4	3	clay
19.49	2.81	0.0665	2.363	16.088	4	3	clay
19.55	3.38	0.0936	2.772	16.953	4	3	clay
19.62	4.34	0.1325	3.052	18.008	6	3	clay
19.69	5.96	0.2281	3.826	18.670	5	4	silty clay to clay
19.75	6.73	0.1965	2.919	18.645	5	5	clayey silt to silty clay
19.82	14.62	0.3082	2.108	18.972	6	5	clayey silt to silty clay
19.88	18.98	0.3454	1.820	18.288	7	5	clayey silt to silty clay
19.95	19.26	0.3129	1.624	17.830	7	5	clayey silt to silty clay
20.01	18.05	0.4147	2.298	17.385	8	5	clayey silt to silty clay
20.08	16.08	0.3945	2.453	17.445	8	5	clayey silt to silty clay
20.14	15.48	0.4702	3.037	17.230	9	5	clayey silt to silty clay
20.21	17.65	0.5054	2.863	17.021	10	5	clayey silt to silty clay
20.28	18.77	0.7548	4.021	17.171	13	5	clayey silt to silty clay
20.34	20.79	1.0517	5.059	16.940	16	5	clayey silt to silty clay
20.41	33.28	1.2210	3.668	17.118	16	6	sandy silt to clayey silt
20.47	62.10	1.3653	2.198	16.772	18	6	sandy silt to clayey silt
20.54	68.32	1.4812	2.168	16.430	20	6	sandy silt to clayey silt
20.60	66.50	1.5268	2.296	16.107	21	6	sandy silt to clayey silt
20.67	60.60	1.3791	2.276	15.512	22	6	sandy silt to clayey silt
20.73	52.48	1.1693	2.228	15.413	21	6	sandy silt to clayey silt
20.80	47.42	1.0875	2.293	14.965	20	6	sandy silt to clayey silt
20.87	45.39	1.1001	2.424	14.651	20	6	sandy silt to clayey silt
20.93	47.29	1.0990	2.324	14.504	20	6	sandy silt to clayey silt
21.00	53.68	1.0948	2.039	14.570	21	6	sandy silt to clayey silt
21.06	56.83	1.1153	1.963	14.651	18	7	silty sand to sandy silt
21.13	61.55	1.2349	2.006	14.340	19	7	silty sand to sandy silt
21.19	65.31	1.2113	1.855	14.371	20	7	silty sand to sandy silt
21.26	68.42	1.1265	1.646	14.352	21	7	silty sand to sandy silt
21.33	69.12	1.0704	1.549	14.361	20	7	silty sand to sandy silt
21.39	68.36	1.0064	1.472	14.122	20	7	silty sand to sandy silt
21.46	61.66	0.8931	1.448	14.103	19	7	silty sand to sandy silt
21.52	54.13	0.7871	1.454	13.994	18	7	silty sand to sandy silt
21.59	47.97	0.6875	1.433	13.857	16	7	silty sand to sandy silt
21.65	43.20	0.5712	1.322	13.910	15	7	silty sand to sandy silt
21.72	41.22	0.5031	1.221	13.892	14	7	silty sand to sandy silt
21.78	40.17	0.4858	1.209	13.873	12	7	silty sand to sandy silt
21.85	38.60	0.3755	0.973	13.820	11	7	silty sand to sandy silt
21.92	33.79	0.4152	1.229	13.808	12	6	sandy silt to clayey silt
21.98	26.13	0.3554	1.360	13.649	10	6	sandy silt to clayey silt
22.05	19.15	0.2657	1.388	13.540	8	6	sandy silt to clayey silt
22.11	14.54	0.2257	1.553	13.658	7	6	sandy silt to clayey silt
22.18	11.98	0.2250	1.878	13.730	7	5	clayey silt to silty clay
22.24	10.69	0.1931	1.806	12.323	5	5	clayey silt to silty clay
22.31	7.56	0.2116	2.799	12.358	5	4	silty clay to clay
22.38	5.87	0.1575	2.683	12.429	4	4	silty clay to clay
22.44	4.79	0.1525	3.184	12.694	4	4	silty clay to clay
22.51	3.97	0.0862	2.169	13.120	4	3	clay
22.57	3.40	0.0545	1.600	13.982	4	3	clay
22.64	2.96	0.0710	2.398	15.550	3	3	clay
22.70	2.82	0.0912	3.239	17.529	3	3	clay
22.77	2.32	0.0949	4.085	19.041	1	1	sensitive fine grained
22.83	2.15	0.0394	1.832	20.518	1	1	sensitive fine grained
22.90	2.75	0.0084	0.305	21.334	1	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
22.97	3.13	0.0097	0.309	22.018	1	1	sensitive fine grained
23.03	2.76	0.0657	2.382	22.264	1	1	sensitive fine grained
23.10	2.19	0.0269	1.225	22.622	1	1	sensitive fine grained
23.16	2.21	0.0392	1.778	23.197	1	1	sensitive fine grained
23.23	2.70	0.0643	2.381	23.468	2	3	clay
23.29	2.70	0.0422	1.565	23.592	3	3	clay
23.36	2.17	0.0994	4.583	24.071	1	1	sensitive fine grained
23.43	3.02	0.0809	2.678	25.689	2	1	sensitive fine grained
23.49	4.50	0.0801	1.779	25.481	2	1	sensitive fine grained
23.56	4.52	0.0372	0.825	25.468	2	1	sensitive fine grained
23.62	5.52	0.0303	0.549	25.409	2	1	sensitive fine grained
23.69	4.45	0.0668	1.502	24.700	2	1	sensitive fine grained
23.75	2.77	0.0721	2.606	24.532	2	1	sensitive fine grained
23.82	2.19	0.0765	3.493	24.681	2	1	sensitive fine grained
23.88	2.74	0.0202	0.736	25.014	1	1	sensitive fine grained
23.95	2.92	0.0231	0.791	25.036	3	3	clay
24.02	2.62	0.0579	2.214	25.219	3	3	clay
24.08	2.50	0.0933	3.739	25.795	3	3	clay
24.15	2.94	0.1112	3.783	26.280	4	3	clay
24.21	4.22	0.1726	4.095	26.473	5	3	clay
24.28	5.90	0.2553	4.328	26.878	6	3	clay
24.34	9.32	0.3037	3.258	26.638	6	3	clay
24.41	9.59	0.2632	2.744	24.868	6	3	clay
24.48	8.05	0.1944	2.416	23.577	6	3	clay
24.54	5.78	0.1681	2.908	23.129	6	3	clay
24.61	4.20	0.1759	4.192	22.914	5	3	clay
24.67	3.68	0.1455	3.954	22.656	4	3	clay
24.74	3.69	0.0528	1.433	22.867	4	3	clay
24.80	3.39	0.1039	3.063	23.281	3	3	clay
24.87	2.75	0.0381	1.385	23.882	3	3	clay
24.93	2.83	0.0507	1.790	24.152	3	3	clay
25.00	2.95	0.1083	3.667	24.336	3	3	clay
25.07	2.96	0.0496	1.674	24.859	3	3	clay
25.13	3.04	0.0672	2.209	24.899	3	3	clay
25.20	3.79	0.1598	4.214	25.291	3	3	clay
25.26	3.16	0.1007	3.185	25.447	3	3	clay
25.33	3.72	0.1507	4.055	25.335	3	3	clay
25.39	3.67	0.1280	3.492	25.571	3	3	clay
25.46	3.53	0.0766	2.168	18.754	3	3	clay
25.52	2.99	0.1407	4.713	18.580	3	3	clay
25.59	3.69	0.1134	3.078	18.729	3	3	clay
25.66	2.72	0.1225	4.501	18.863	3	3	clay
25.72	3.63	0.1706	4.700	18.757	4	3	clay
25.79	4.11	0.1248	3.034	18.860	4	3	clay
25.85	4.21	0.1816	4.318	18.929	4	3	clay
25.92	5.27	0.1493	2.831	19.059	4	3	clay
25.98	4.54	0.1375	3.028	19.252	5	3	clay
26.05	4.88	0.1676	3.431	19.097	5	3	clay
26.12	5.40	0.1634	3.025	19.218	5	3	clay
26.18	4.95	0.1869	3.774	19.569	5	3	clay
26.25	6.20	0.1804	2.910	19.853	6	3	clay
26.31	6.09	0.1393	2.287	20.444	6	3	clay
26.38	6.97	0.2093	3.004	20.649	4	4	silty clay to clay
26.44	8.05	0.1821	2.262	21.110	5	4	silty clay to clay
26.51	7.58	0.1678	2.213	21.645	5	4	silty clay to clay
26.57	8.22	0.2009	2.445	21.558	5	4	silty clay to clay
26.64	9.05	0.1536	1.697	21.909	6	4	silty clay to clay
26.71	9.38	0.2250	2.399	22.513	6	4	silty clay to clay
26.77	10.16	0.2515	2.476	23.051	6	4	silty clay to clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
26.84	9.94	0.3664	3.686	23.934	7	4	silty clay to clay
26.90	10.71	0.3557	3.322	23.900	7	4	silty clay to clay
26.97	11.74	0.4338	3.696	24.155	8	4	silty clay to clay
27.03	11.78	0.4563	3.872	24.084	8	4	silty clay to clay
27.10	13.90	0.4576	3.292	24.544	8	4	silty clay to clay
27.17	14.53	0.4768	3.281	25.966	9	4	silty clay to clay
27.23	15.44	0.4971	3.221	26.850	9	4	silty clay to clay
27.30	14.72	0.5470	3.716	27.525	10	4	silty clay to clay
27.36	15.31	0.5288	3.453	29.084	10	4	silty clay to clay
27.43	17.17	0.5875	3.422	31.252	8	5	clayey silt to silty clay
27.49	17.90	0.5994	3.349	35.203	8	5	clayey silt to silty clay
27.56	18.54	0.5444	2.937	35.555	8	5	clayey silt to silty clay
27.62	17.97	0.4789	2.665	35.163	8	5	clayey silt to silty clay
27.69	16.94	0.4940	2.916	34.957	8	5	clayey silt to silty clay
27.76	15.69	0.5223	3.328	36.323	8	5	clayey silt to silty clay
27.82	15.47	0.4350	2.811	37.291	8	5	clayey silt to silty clay
27.89	16.26	0.4387	2.698	38.486	7	5	clayey silt to silty clay
27.95	15.63	0.4322	2.765	38.573	7	5	clayey silt to silty clay
28.02	14.53	0.3849	2.650	37.530	9	4	silty clay to clay
28.08	13.69	0.4577	3.344	35.539	9	4	silty clay to clay
28.15	13.23	0.4004	3.027	33.075	8	4	silty clay to clay
28.22	11.77	0.4978	4.230	30.652	12	3	clay
28.28	11.46	0.5462	4.766	28.153	11	3	clay
28.35	10.62	0.6235	5.870	27.058	10	3	clay
28.41	9.43	0.6016	6.379	25.593	10	3	clay
28.48	10.37	0.5208	5.022	24.734	9	3	clay
28.54	9.53	0.5185	5.438	24.205	9	3	clay
28.61	8.43	0.4458	5.289	24.174	8	3	clay
28.67	8.46	0.4963	5.864	21.178	8	3	clay
28.74	8.13	0.4011	4.931	20.991	7	3	clay
28.81	6.36	0.2653	4.171	21.178	7	3	clay
28.87	6.34	0.2254	3.556	21.004	6	3	clay
28.94	5.46	0.1752	3.207	21.200	6	3	clay
29.00	5.03	0.1803	3.586	21.190	5	3	clay
29.07	5.45	0.1268	2.325	21.408	5	3	clay
29.13	5.62	0.0833	1.482	22.111	4	4	silty clay to clay
29.20	5.86	0.0885	1.509	23.303	4	4	silty clay to clay
29.27	5.80	0.1223	2.106	24.603	4	4	silty clay to clay
29.33	6.25	0.1458	2.332	27.357	5	4	silty clay to clay
29.40	7.99	0.1935	2.420	30.624	5	4	silty clay to clay
29.46	8.90	0.2659	2.986	35.399	6	4	silty clay to clay
29.53	10.86	0.3943	3.629	37.095	7	4	silty clay to clay
29.59	11.93	0.5126	4.297	38.797	8	4	silty clay to clay
29.66	15.92	0.5295	3.326	48.137	9	4	silty clay to clay
29.72	17.70	0.5002	2.825	53.083	10	4	silty clay to clay
29.79	18.48	0.5156	2.791	47.060	8	5	clayey silt to silty clay
29.86	17.55	0.5581	3.181	40.760	8	5	clayey silt to silty clay
29.92	16.84	0.5022	2.981	37.720	8	5	clayey silt to silty clay
29.99	15.37	0.4471	2.909	39.024	8	5	clayey silt to silty clay
30.05	15.16	0.4827	3.184	43.737	8	5	clayey silt to silty clay
30.12	15.06	0.5090	3.380	48.249	8	5	clayey silt to silty clay
30.18	16.14	0.4802	2.975	52.225	8	5	clayey silt to silty clay
30.25	17.42	0.4141	2.378	48.230	8	5	clayey silt to silty clay
30.31	17.44	0.4008	2.299	41.435	8	5	clayey silt to silty clay
30.38	15.94	0.3878	2.433	39.571	7	5	clayey silt to silty clay
30.45	14.48	0.4362	3.011	40.551	10	4	silty clay to clay
30.51	13.96	0.5159	3.697	43.454	9	4	silty clay to clay
30.58	13.75	0.5623	4.089	47.035	9	4	silty clay to clay
30.64	13.76	0.6091	4.427	50.022	13	3	clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
30.71	13.75	0.6255	4.550	46.746	13	3	clay
30.77	13.17	0.6173	4.687	38.607	13	3	clay
30.84	13.21	0.5305	4.016	32.017	8	4	silty clay to clay
30.91	13.72	0.4391	3.199	28.209	8	4	silty clay to clay
30.97	13.46	0.3296	2.449	25.975	8	4	silty clay to clay
31.04	12.14	0.2171	1.788	24.466	6	5	clayey silt to silty clay
31.10	10.66	0.1723	1.616	23.598	5	5	clayey silt to silty clay
31.17	9.42	0.1083	1.150	22.842	5	5	clayey silt to silty clay
31.23	8.97	0.0938	1.046	22.429	5	5	clayey silt to silty clay
31.30	9.27	0.0862	0.930	22.102	4	5	clayey silt to silty clay
31.36	8.46	0.0909	1.074	21.775	4	5	clayey silt to silty clay
31.43	7.71	0.1057	1.372	21.648	4	5	clayey silt to silty clay
31.50	7.70	0.0650	0.843	21.551	4	1	sensitive fine grained
31.56	7.78	0.0343	0.441	21.461	4	1	sensitive fine grained
31.63	8.17	0.0287	0.351	21.461	4	1	sensitive fine grained
31.69	7.20	0.0496	0.689	21.393	4	1	sensitive fine grained
31.76	6.79	0.0559	0.823	21.181	4	5	clayey silt to silty clay
31.82	7.13	0.1433	2.010	21.162	4	5	clayey silt to silty clay
31.89	8.06	0.1277	1.584	19.678	4	5	clayey silt to silty clay
31.96	9.39	0.1290	1.374	19.688	5	5	clayey silt to silty clay
32.02	11.05	0.1955	1.770	19.716	6	5	clayey silt to silty clay
32.09	13.49	0.1745	1.293	19.849	6	6	sandy silt to clayey silt
32.15	17.25	0.2227	1.291	19.638	7	6	sandy silt to clayey silt
32.22	21.63	0.2877	1.330	19.569	8	6	sandy silt to clayey silt
32.28	24.29	0.2948	1.214	19.762	9	6	sandy silt to clayey silt
32.35	27.53	0.2895	1.052	19.688	10	6	sandy silt to clayey silt
32.41	29.02	0.2483	0.855	19.647	10	6	sandy silt to clayey silt
32.48	28.24	0.2422	0.858	19.728	11	6	sandy silt to clayey silt
32.55	27.63	0.4498	1.628	19.566	9	7	silty sand to sandy silt
32.61	28.18	0.3329	1.181	19.582	9	7	silty sand to sandy silt
32.68	27.61	0.2042	0.740	19.554	9	7	silty sand to sandy silt
32.74	26.70	0.1338	0.501	19.638	8	7	silty sand to sandy silt
32.81	25.93	0.1353	0.522	19.722	8	7	silty sand to sandy silt
32.87	25.86	0.0971	0.375	19.638	7	7	silty sand to sandy silt
32.94	16.61	0.0847	0.510	19.199	7	6	sandy silt to clayey silt
33.01	14.41	0.0896	0.622	19.246	6	6	sandy silt to clayey silt
33.07	12.62	0.0799	0.633	19.184	6	6	sandy silt to clayey silt
33.14	11.49	0.1293	1.125	19.336	5	6	sandy silt to clayey silt
33.20	10.88	0.1509	1.386	19.401	4	6	sandy silt to clayey silt
33.27	10.82	0.1529	1.414	19.330	5	5	clayey silt to silty clay
33.33	10.44	0.1047	1.002	19.330	5	5	clayey silt to silty clay
33.40	9.74	0.0829	0.851	19.252	5	5	clayey silt to silty clay
33.46	9.69	0.0660	0.681	19.215	5	5	clayey silt to silty clay
33.53	9.81	0.1089	1.111	19.115	5	5	clayey silt to silty clay
33.60	10.82	0.1299	1.201	18.960	5	5	clayey silt to silty clay
33.66	11.27	0.1076	0.955	19.037	5	5	clayey silt to silty clay
33.73	11.50	0.1165	1.012	19.097	5	5	clayey silt to silty clay
33.79	11.50	0.1284	1.117	19.081	5	5	clayey silt to silty clay
33.86	11.56	0.1577	1.364	19.072	5	5	clayey silt to silty clay
33.92	11.40	0.1737	1.525	19.081	5	5	clayey silt to silty clay
33.99	11.48	0.1692	1.474	19.056	5	5	clayey silt to silty clay
34.06	11.28	0.1631	1.446	19.069	5	5	clayey silt to silty clay
34.12	10.42	0.1281	1.229	19.078	5	5	clayey silt to silty clay
34.19	9.79	0.0902	0.921	18.978	5	5	clayey silt to silty clay
34.25	8.78	0.0813	0.926	18.894	5	5	clayey silt to silty clay
34.32	8.71	0.0664	0.762	18.938	5	5	clayey silt to silty clay
34.38	8.90	0.0829	0.931	18.963	5	5	clayey silt to silty clay
34.45	9.60	0.0680	0.708	18.975	5	5	clayey silt to silty clay
34.51	10.55	0.0956	0.906	19.041	5	5	clayey silt to silty clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
34.58	10.08	0.0521	0.517	19.140	5	5	clayey silt to silty clay
34.65	9.84	0.0742	0.755	19.109	4	5	clayey silt to silty clay
34.71	8.83	0.0704	0.798	19.156	4	5	clayey silt to silty clay
34.78	8.42	0.1244	1.478	19.115	4	5	clayey silt to silty clay
34.84	8.00	0.1119	1.399	19.143	4	5	clayey silt to silty clay
34.91	8.57	0.0829	0.968	19.081	4	5	clayey silt to silty clay
34.97	8.42	0.0433	0.514	19.156	4	1	sensitive fine grained
35.04	8.47	0.0385	0.454	19.115	4	1	sensitive fine grained
35.10	6.21	0.0892	1.436	18.403	4	1	sensitive fine grained
35.17	6.73	0.0452	0.672	18.471	4	1	sensitive fine grained
35.24	6.66	0.0483	0.725	18.624	3	1	sensitive fine grained
35.30	7.74	0.0412	0.533	18.459	3	1	sensitive fine grained
35.37	7.66	0.0667	0.870	18.384	4	1	sensitive fine grained
35.43	7.57	0.0673	0.888	18.397	4	1	sensitive fine grained
35.50	8.26	0.0951	1.150	18.555	4	5	clayey silt to silty clay
35.56	8.98	0.0644	0.718	18.509	4	5	clayey silt to silty clay
35.63	9.49	0.0835	0.880	18.378	4	5	clayey silt to silty clay
35.70	9.24	0.0832	0.900	18.397	5	5	clayey silt to silty clay
35.76	9.52	0.0696	0.731	18.443	5	5	clayey silt to silty clay
35.83	10.08	0.1094	1.085	18.387	5	5	clayey silt to silty clay
35.89	10.65	0.1237	1.162	18.521	5	5	clayey silt to silty clay
35.96	10.76	0.1416	1.316	18.574	5	5	clayey silt to silty clay
36.02	11.92	0.1657	1.390	18.558	6	5	clayey silt to silty clay
36.09	12.24	0.1627	1.329	18.596	6	5	clayey silt to silty clay
36.15	12.77	0.1800	1.409	18.493	6	5	clayey silt to silty clay
36.22	12.95	0.1696	1.310	18.437	5	6	sandy silt to clayey silt
36.29	13.77	0.1695	1.231	18.443	5	6	sandy silt to clayey silt
36.35	14.16	0.1605	1.133	18.459	5	6	sandy silt to clayey silt
36.42	14.39	0.1651	1.147	18.558	6	6	sandy silt to clayey silt
36.48	15.09	0.1734	1.149	18.527	6	6	sandy silt to clayey silt
36.55	15.71	0.1934	1.231	18.614	6	6	sandy silt to clayey silt
36.61	16.52	0.1977	1.197	18.617	6	6	sandy silt to clayey silt
36.68	17.65	0.2207	1.250	18.605	7	6	sandy silt to clayey silt
36.75	18.61	0.2428	1.305	18.652	7	6	sandy silt to clayey silt
36.81	19.94	0.2183	1.095	18.636	8	6	sandy silt to clayey silt
36.88	21.78	0.2573	1.181	18.583	8	6	sandy silt to clayey silt
36.94	23.20	0.2666	1.149	18.583	9	6	sandy silt to clayey silt
37.01	24.52	0.2956	1.206	18.680	9	6	sandy silt to clayey silt
37.07	26.33	0.2957	1.123	18.602	10	6	sandy silt to clayey silt
37.14	27.33	0.3358	1.229	18.705	10	6	sandy silt to clayey silt
37.20	28.51	0.2951	1.035	18.642	11	6	sandy silt to clayey silt
37.27	29.15	0.3875	1.329	18.739	11	6	sandy silt to clayey silt
37.34	30.90	0.3795	1.228	18.652	10	7	silty sand to sandy silt
37.40	32.20	0.4036	1.253	18.574	10	7	silty sand to sandy silt
37.47	33.47	0.3891	1.163	18.633	11	7	silty sand to sandy silt
37.53	35.56	0.3961	1.114	18.804	11	7	silty sand to sandy silt
37.60	36.71	0.4965	1.353	18.739	12	7	silty sand to sandy silt
37.66	39.41	0.4626	1.174	18.736	13	7	silty sand to sandy silt
37.73	41.76	0.5458	1.307	18.807	13	7	silty sand to sandy silt
37.80	43.73	0.5343	1.222	18.944	13	7	silty sand to sandy silt
37.86	44.54	0.5515	1.238	18.947	13	7	silty sand to sandy silt
37.93	42.03	0.5299	1.261	18.838	13	7	silty sand to sandy silt
37.99	40.62	0.5491	1.352	18.891	13	7	silty sand to sandy silt
38.06	37.30	0.4050	1.086	18.929	12	7	silty sand to sandy silt
38.12	34.83	0.4367	1.254	18.916	11	7	silty sand to sandy silt
38.19	31.95	0.4115	1.288	19.097	11	7	silty sand to sandy silt
38.25	31.03	0.4257	1.372	18.938	12	6	sandy silt to clayey silt
38.32	28.49	0.4092	1.436	19.047	11	6	sandy silt to clayey silt
38.39	27.68	0.3751	1.355	18.593	11	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
38.45	26.47	0.3622	1.369	18.415	10	6	sandy silt to clayey silt
38.52	25.53	0.4158	1.628	18.462	10	6	sandy silt to clayey silt
38.58	24.61	0.3581	1.455	18.431	10	6	sandy silt to clayey silt
38.65	25.33	0.3980	1.572	18.372	10	6	sandy silt to clayey silt
38.71	25.62	0.3160	1.234	18.515	10	6	sandy silt to clayey silt
38.78	25.25	0.3938	1.560	18.580	10	6	sandy silt to clayey silt
38.85	26.14	0.4017	1.537	18.459	10	6	sandy silt to clayey silt
38.91	28.20	0.3892	1.380	18.477	11	6	sandy silt to clayey silt
38.98	28.69	0.4103	1.430	18.481	11	6	sandy silt to clayey silt
39.04	29.67	0.4170	1.406	18.701	11	6	sandy silt to clayey silt
39.11	30.77	0.4001	1.301	18.468	11	6	sandy silt to clayey silt
39.17	29.57	0.4396	1.486	18.705	11	6	sandy silt to clayey silt
39.24	29.16	0.4841	1.660	18.571	10	6	sandy silt to clayey silt
39.30	26.55	0.4921	1.854	18.717	10	6	sandy silt to clayey silt
39.37	24.43	0.5316	2.176	18.512	9	6	sandy silt to clayey silt
39.44	21.29	0.4772	2.241	18.701	8	6	sandy silt to clayey silt
39.50	17.24	0.4558	2.644	18.602	9	5	clayey silt to silty clay
39.57	14.86	0.2950	1.985	18.661	8	6	sandy silt to clayey silt
39.63	14.84	0.3073	2.071	18.608	8	6	sandy silt to clayey silt
39.70	19.59	0.2883	1.471	18.910	9	6	sandy silt to clayey silt
39.76	29.00	0.2495	0.860	19.013	9	6	sandy silt to clayey silt
39.83	31.83	0.2195	0.690	18.863	8	7	silty sand to sandy silt
39.90	31.68	0.1589	0.501	18.726	9	7	silty sand to sandy silt
39.96	28.97	0.1592	0.550	18.680	9	7	silty sand to sandy silt
40.03	26.56	0.2556	0.962	18.571	9	7	silty sand to sandy silt
40.09	24.11	0.2161	0.896	18.661	8	7	silty sand to sandy silt
40.16	22.58	0.2223	0.984	18.636	10	6	sandy silt to clayey silt
40.22	23.97	0.2901	1.210	18.549	9	6	sandy silt to clayey silt
40.29	24.15	0.3167	1.312	18.518	9	6	sandy silt to clayey silt
40.35	24.26	0.2700	1.113	18.453	9	6	sandy silt to clayey silt
40.42	25.26	0.2866	1.135	18.555	10	6	sandy silt to clayey silt
40.49	26.07	0.3644	1.397	18.723	10	6	sandy silt to clayey silt
40.55	26.33	0.3353	1.274	18.742	10	6	sandy silt to clayey silt
40.62	27.10	0.3468	1.280	18.605	10	6	sandy silt to clayey silt
40.68	27.85	0.3851	1.383	18.658	10	6	sandy silt to clayey silt
40.75	27.97	0.3548	1.268	18.764	10	6	sandy silt to clayey silt
40.81	27.73	0.4083	1.472	18.670	11	6	sandy silt to clayey silt
40.88	27.79	0.3754	1.351	18.608	11	6	sandy silt to clayey silt
40.94	26.80	0.4444	1.658	18.863	11	6	sandy silt to clayey silt
41.01	27.11	0.4418	1.630	18.677	11	6	sandy silt to clayey silt
41.08	28.91	0.4516	1.562	18.792	11	6	sandy silt to clayey silt
41.14	29.76	0.4461	1.499	18.807	12	6	sandy silt to clayey silt
41.21	32.53	0.4886	1.502	18.857	13	6	sandy silt to clayey silt
41.27	35.11	0.4382	1.248	18.779	11	7	silty sand to sandy silt
41.34	37.70	0.4762	1.263	18.885	12	7	silty sand to sandy silt
41.40	39.38	0.4793	1.217	18.891	12	7	silty sand to sandy silt
41.47	39.65	0.5555	1.401	18.891	12	7	silty sand to sandy silt
41.54	39.64	0.5565	1.404	18.810	12	7	silty sand to sandy silt
41.60	30.08	0.6171	2.051	18.512	13	7	silty sand to sandy silt
41.67	40.91	0.6268	1.532	18.459	13	7	silty sand to sandy silt
41.73	43.09	0.5940	1.379	18.577	14	7	silty sand to sandy silt
41.80	45.63	0.6642	1.456	18.540	14	7	silty sand to sandy silt
41.86	47.97	0.6698	1.396	18.515	15	7	silty sand to sandy silt
41.93	50.98	0.7151	1.403	18.456	16	7	silty sand to sandy silt
41.99	52.81	0.7068	1.339	18.378	16	7	silty sand to sandy silt
42.06	53.63	0.7604	1.418	18.561	17	7	silty sand to sandy silt
42.13	54.04	0.7896	1.461	18.502	17	7	silty sand to sandy silt
42.19	54.83	0.8348	1.523	18.565	17	7	silty sand to sandy silt
42.26	55.45	0.9211	1.661	18.565	17	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
42.32	55.52	0.9149	1.648	18.586	17	7	silty sand to sandy silt
42.39	54.64	0.9022	1.651	18.736	17	7	silty sand to sandy silt
42.45	53.55	0.9232	1.724	18.813	17	7	silty sand to sandy silt
42.52	51.92	0.9237	1.779	18.904	17	7	silty sand to sandy silt
42.59	50.78	0.8845	1.742	18.785	16	7	silty sand to sandy silt
42.65	49.48	0.8552	1.728	18.751	16	7	silty sand to sandy silt
42.72	48.24	0.8150	1.689	18.838	16	7	silty sand to sandy silt
42.78	48.21	0.8511	1.765	18.826	16	7	silty sand to sandy silt
42.85	47.82	0.7761	1.623	18.820	15	7	silty sand to sandy silt
42.91	47.70	0.7763	1.627	18.873	15	7	silty sand to sandy silt
42.98	48.32	0.6980	1.445	18.997	16	7	silty sand to sandy silt
43.04	49.28	0.6518	1.323	19.097	16	7	silty sand to sandy silt
43.11	49.96	0.6870	1.375	19.065	16	7	silty sand to sandy silt
43.18	51.43	0.6865	1.335	19.081	16	7	silty sand to sandy silt
43.24	52.33	0.6666	1.274	18.988	17	7	silty sand to sandy silt
43.31	53.52	0.7387	1.380	19.218	17	7	silty sand to sandy silt
43.37	54.20	0.7600	1.402	19.373	17	7	silty sand to sandy silt
43.44	55.31	0.8107	1.466	19.392	18	7	silty sand to sandy silt
43.50	56.71	0.9794	1.727	19.383	18	7	silty sand to sandy silt
43.57	58.63	0.8732	1.489	19.442	18	7	silty sand to sandy silt
43.64	59.92	0.9013	1.504	19.398	18	7	silty sand to sandy silt
43.70	60.32	0.8694	1.441	19.417	18	7	silty sand to sandy silt
43.77	59.07	0.8540	1.446	19.327	18	7	silty sand to sandy silt
43.83	53.66	0.9085	1.693	19.383	18	7	silty sand to sandy silt
43.90	54.51	0.9633	1.767	19.576	17	7	silty sand to sandy silt
43.96	52.97	0.9165	1.730	19.377	17	7	silty sand to sandy silt
44.03	51.21	0.9216	1.800	19.423	16	7	silty sand to sandy silt
44.09	49.59	0.9208	1.857	19.597	16	7	silty sand to sandy silt
44.16	48.12	0.9231	1.918	19.666	16	7	silty sand to sandy silt
44.23	48.99	0.9060	1.849	19.473	16	7	silty sand to sandy silt
44.29	51.98	0.8769	1.687	19.635	17	7	silty sand to sandy silt
44.36	53.94	0.9716	1.801	19.554	17	7	silty sand to sandy silt
44.42	53.94	1.0206	1.892	19.706	18	7	silty sand to sandy silt
44.49	56.50	0.9934	1.758	19.607	19	7	silty sand to sandy silt
44.55	63.10	0.8071	1.279	19.713	19	7	silty sand to sandy silt
44.62	65.43	0.8206	1.254	19.737	19	7	silty sand to sandy silt
44.69	63.21	0.8130	1.286	19.806	20	7	silty sand to sandy silt
44.75	61.91	0.7845	1.267	19.744	20	7	silty sand to sandy silt
44.82	61.18	0.8841	1.445	19.747	20	7	silty sand to sandy silt
44.88	57.68	0.9053	1.569	18.817	20	7	silty sand to sandy silt
44.95	59.12	0.8394	1.420	18.757	20	7	silty sand to sandy silt
45.01	61.13	0.8814	1.442	18.708	20	7	silty sand to sandy silt
45.08	64.66	0.8726	1.350	18.851	21	7	silty sand to sandy silt
45.14	68.41	0.8877	1.297	18.720	21	7	silty sand to sandy silt
45.21	70.28	0.9323	1.327	18.835	21	7	silty sand to sandy silt
45.28	70.26	0.9130	1.300	19.093	22	7	silty sand to sandy silt
45.34	69.27	0.9509	1.373	18.901	21	7	silty sand to sandy silt
45.41	66.82	0.9515	1.424	18.907	21	7	silty sand to sandy silt
45.47	64.09	0.9198	1.435	18.929	20	7	silty sand to sandy silt
45.54	60.43	0.8857	1.465	18.919	19	7	silty sand to sandy silt
45.60	56.66	0.8567	1.512	19.031	18	7	silty sand to sandy silt
45.67	51.58	0.7760	1.504	19.031	16	7	silty sand to sandy silt
45.73	45.75	0.8665	1.894	19.034	17	6	sandy silt to clayey silt
45.80	40.24	0.8909	2.214	19.056	15	6	sandy silt to clayey silt
45.87	34.15	0.8539	2.501	19.103	14	6	sandy silt to clayey silt
45.93	27.91	0.7887	2.826	19.311	12	6	sandy silt to clayey silt
46.00	25.51	0.7290	2.857	19.386	12	6	sandy silt to clayey silt
46.06	24.38	0.6513	2.671	19.324	12	6	sandy silt to clayey silt
46.13	28.26	0.5214	1.845	19.504	13	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
46.19	38.91	0.4576	1.176	19.517	13	6	sandy silt to clayey silt
46.26	41.30	0.3940	0.954	19.688	12	7	silty sand to sandy silt
46.33	42.74	0.4222	0.988	19.594	13	7	silty sand to sandy silt
46.39	43.63	0.4092	0.938	19.436	14	7	silty sand to sandy silt
46.46	44.51	0.3903	0.877	19.283	14	7	silty sand to sandy silt
46.52	43.16	0.4236	0.982	19.383	14	7	silty sand to sandy silt
46.59	42.35	0.4124	0.974	19.392	15	7	silty sand to sandy silt
46.65	46.32	0.3961	0.855	19.345	15	7	silty sand to sandy silt
46.72	51.96	0.3275	0.630	19.190	15	7	silty sand to sandy silt
46.78	50.77	0.4144	0.816	19.423	15	7	silty sand to sandy silt
46.85	47.36	0.4115	0.869	19.330	14	7	silty sand to sandy silt
46.92	43.09	0.3887	0.902	19.233	14	7	silty sand to sandy silt
46.98	39.59	0.4075	1.029	19.109	13	7	silty sand to sandy silt
47.05	35.83	0.4112	1.147	19.380	12	7	silty sand to sandy silt
47.11	33.16	0.3409	1.028	19.265	11	7	silty sand to sandy silt
47.18	32.64	0.3987	1.221	19.246	11	7	silty sand to sandy silt
47.24	32.57	0.4124	1.266	19.209	11	7	silty sand to sandy silt
47.31	33.01	0.3990	1.209	19.457	11	7	silty sand to sandy silt
47.38	34.50	0.3644	1.056	19.302	11	7	silty sand to sandy silt
47.44	36.74	0.3849	1.048	19.473	12	7	silty sand to sandy silt
47.51	38.30	0.4074	1.064	19.482	13	7	silty sand to sandy silt
47.57	41.34	0.4483	1.084	19.386	13	7	silty sand to sandy silt
47.64	44.25	0.3878	0.876	19.330	14	7	silty sand to sandy silt
47.70	47.53	0.5114	1.076	19.439	15	7	silty sand to sandy silt
47.77	51.12	0.5335	1.044	19.448	17	7	silty sand to sandy silt
47.83	54.70	0.4231	0.774	19.510	18	7	silty sand to sandy silt
47.90	59.07	0.4911	0.831	19.414	19	7	silty sand to sandy silt
47.97	67.48	0.5810	0.861	19.495	20	7	silty sand to sandy silt
48.03	71.88	0.7448	1.036	19.454	16	8	sand to silty sand
48.10	65.12	0.6991	1.074	18.879	17	8	sand to silty sand
48.16	77.55	0.8061	1.039	18.876	19	8	sand to silty sand
48.23	80.80	0.9349	1.157	19.072	20	8	sand to silty sand
48.29	88.32	0.9866	1.117	18.947	21	8	sand to silty sand
48.36	96.83	1.1293	1.166	18.988	23	8	sand to silty sand
48.43	106.42	1.2545	1.179	19.230	24	8	sand to silty sand
48.49	111.80	1.3065	1.169	19.299	25	8	sand to silty sand
48.56	113.53	1.3729	1.209	19.177	26	8	sand to silty sand
48.62	113.07	1.4735	1.303	19.370	27	8	sand to silty sand
48.69	113.70	1.6268	1.431	19.283	27	8	sand to silty sand
48.75	113.19	1.7383	1.536	19.311	27	8	sand to silty sand
48.82	112.33	1.8777	1.672	19.709	27	8	sand to silty sand
48.88	114.21	1.8980	1.662	19.653	37	7	silty sand to sandy silt
48.95	115.36	1.8954	1.643	19.818	37	7	silty sand to sandy silt
49.02	117.41	2.0695	1.763	19.921	37	7	silty sand to sandy silt
49.08	118.38	2.1214	1.792	19.971	38	7	silty sand to sandy silt
49.15	120.01	2.1140	1.761	19.924	38	7	silty sand to sandy silt
49.21	122.78	1.9550	1.592	19.697	39	7	silty sand to sandy silt
49.28	125.46	1.9706	1.571	20.045	29	8	sand to silty sand
49.34	124.49	1.9395	1.558	19.952	29	8	sand to silty sand
49.41	123.40	1.8601	1.507	20.117	30	8	sand to silty sand
49.48	121.94	1.7245	1.414	20.067	30	8	sand to silty sand
49.54	124.32	1.5996	1.287	19.949	30	8	sand to silty sand
49.61	124.75	1.6178	1.297	20.241	30	8	sand to silty sand
49.67	129.05	1.6486	1.277	20.385	30	8	sand to silty sand
49.74	129.25	1.7005	1.316	20.269	29	8	sand to silty sand
49.80	124.19	1.6123	1.298	20.129	29	8	sand to silty sand
49.87	116.47	1.7376	1.492	20.201	28	8	sand to silty sand
49.93	108.99	1.5800	1.450	20.294	26	8	sand to silty sand
50.00	103.12	1.4298	1.387	20.531	25	8	sand to silty sand

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
50.07	97.15	1.3254	1.364	20.584	31	7	silty sand to sandy silt
50.13	93.26	1.3195	1.415	20.708	29	7	silty sand to sandy silt
50.20	88.39	1.4394	1.628	20.889	28	7	silty sand to sandy silt
50.26	81.37	1.5090	1.855	21.032	26	7	silty sand to sandy silt
50.33	73.47	1.5207	2.070	21.190	24	7	silty sand to sandy silt
50.39	67.31	1.5303	2.273	21.271	22	7	silty sand to sandy silt
50.46	62.50	1.3652	2.184	21.418	21	7	silty sand to sandy silt
50.52	59.56	1.3416	2.253	21.698	20	7	silty sand to sandy silt
50.59	59.77	1.2696	2.124	21.769	20	7	silty sand to sandy silt
50.66	60.57	1.1666	1.926	21.785	20	7	silty sand to sandy silt
50.72	59.93	1.2051	2.011	22.074	20	7	silty sand to sandy silt
50.79	62.47	1.1440	1.831	21.918	20	7	silty sand to sandy silt
50.85	63.99	1.1383	1.779	22.121	21	7	silty sand to sandy silt
50.92	68.72	1.1550	1.681	22.108	23	7	silty sand to sandy silt
50.98	73.96	1.0544	1.426	22.195	24	7	silty sand to sandy silt
51.05	80.65	0.9402	1.166	21.999	25	7	silty sand to sandy silt
51.12	84.61	0.9442	1.116	22.030	20	8	sand to silty sand
51.18	86.78	0.8947	1.031	22.049	21	8	sand to silty sand
51.25	94.07	0.8026	0.853	21.887	22	8	sand to silty sand
51.31	93.90	0.8061	0.858	19.744	24	8	sand to silty sand
51.38	103.71	1.0906	1.052	19.853	24	8	sand to silty sand
51.44	113.24	1.2727	1.124	19.716	24	8	sand to silty sand
51.51	111.69	1.4725	1.318	19.632	23	8	sand to silty sand
51.57	96.01	1.4923	1.554	19.797	28	7	silty sand to sandy silt
51.64	78.41	1.4115	1.800	19.769	27	7	silty sand to sandy silt
51.71	63.53	1.3286	2.091	19.821	25	7	silty sand to sandy silt
51.77	54.99	1.1434	2.079	19.989	24	7	silty sand to sandy silt
51.84	65.86	1.0598	1.609	20.039	23	7	silty sand to sandy silt
51.90	79.92	0.9821	1.229	20.245	23	7	silty sand to sandy silt
51.97	83.30	1.0425	1.252	20.291	23	7	silty sand to sandy silt
52.03	80.11	1.0974	1.370	20.077	23	7	silty sand to sandy silt
52.10	71.21	1.2699	1.783	20.170	22	7	silty sand to sandy silt
52.17	64.57	1.2275	1.901	20.089	20	7	silty sand to sandy silt
52.23	55.83	1.2311	2.205	20.024	18	7	silty sand to sandy silt
52.30	43.65	0.9968	2.284	20.021	19	6	sandy silt to clayey silt
52.36	39.79	0.9552	2.400	20.064	18	6	sandy silt to clayey silt
52.43	37.76	0.9845	2.607	20.139	16	6	sandy silt to clayey silt
52.49	38.06	1.0062	2.644	20.500	16	6	sandy silt to clayey silt
52.56	41.07	0.8967	2.184	20.901	17	6	sandy silt to clayey silt
52.62	45.31	0.9167	2.023	21.561	18	6	sandy silt to clayey silt
52.69	49.78	0.9309	1.870	22.220	16	7	silty sand to sandy silt
52.76	54.98	0.7835	1.425	22.793	18	7	silty sand to sandy silt
52.82	60.36	0.7704	1.276	22.958	20	7	silty sand to sandy silt
52.89	68.90	0.6438	0.934	22.460	22	7	silty sand to sandy silt
52.95	75.35	0.7068	0.938	21.984	18	8	sand to silty sand
53.02	83.12	0.8336	1.003	21.607	20	8	sand to silty sand
53.08	90.28	0.9386	1.040	21.480	21	8	sand to silty sand
53.15	95.68	0.9531	0.996	21.240	22	8	sand to silty sand
53.22	100.89	1.0672	1.058	21.085	23	8	sand to silty sand
53.28	102.19	1.1789	1.154	21.318	24	8	sand to silty sand
53.35	104.02	1.1766	1.131	21.206	24	8	sand to silty sand
53.41	103.97	1.2177	1.171	21.141	25	8	sand to silty sand
53.48	103.33	1.2368	1.197	21.327	24	8	sand to silty sand
53.54	102.12	1.3059	1.279	21.225	24	8	sand to silty sand
53.61	100.22	1.5081	1.505	21.309	24	8	sand to silty sand
53.67	99.61	1.3218	1.327	21.449	24	8	sand to silty sand
53.74	99.10	1.4358	1.449	21.371	31	7	silty sand to sandy silt
53.81	96.66	1.5592	1.613	21.570	30	7	silty sand to sandy silt
53.87	94.35	1.6946	1.796	21.477	29	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
53.94	86.13	1.6397	1.904	21.554	28	7	silty sand to sandy silt
54.00	84.44	1.6315	1.932	21.676	27	7	silty sand to sandy silt
54.07	77.35	1.5579	2.014	21.567	26	7	silty sand to sandy silt
54.13	69.20	1.5579	2.251	21.766	26	7	silty sand to sandy silt
54.20	76.30	1.5248	1.998	21.654	27	7	silty sand to sandy silt
54.27	88.33	1.3059	1.478	21.984	27	7	silty sand to sandy silt
54.33	93.26	1.4011	1.502	21.862	28	7	silty sand to sandy silt
54.40	95.40	1.4410	1.510	22.058	29	7	silty sand to sandy silt
54.46	95.31	1.5008	1.575	22.460	23	8	sand to silty sand
54.53	97.71	1.4444	1.478	22.609	24	8	sand to silty sand
54.59	99.07	1.2879	1.300	20.802	24	8	sand to silty sand
54.66	104.04	1.3577	1.305	20.714	25	8	sand to silty sand
54.72	108.55	1.3557	1.249	20.926	25	8	sand to silty sand
54.79	110.12	1.2906	1.172	21.013	26	8	sand to silty sand
54.86	111.41	1.3622	1.223	20.805	26	8	sand to silty sand
54.92	112.52	1.4419	1.282	21.085	27	8	sand to silty sand
54.99	112.06	1.4224	1.269	21.091	27	8	sand to silty sand
55.05	111.40	1.3716	1.231	21.175	26	8	sand to silty sand
55.12	109.77	1.3254	1.207	21.495	26	8	sand to silty sand
55.18	107.78	1.3064	1.212	21.542	26	8	sand to silty sand
55.25	106.11	1.3450	1.268	21.654	26	8	sand to silty sand
55.31	105.29	1.3471	1.279	21.716	26	8	sand to silty sand
55.38	108.38	1.3488	1.245	21.694	27	8	sand to silty sand
55.45	114.40	1.3965	1.221	21.803	27	8	sand to silty sand
55.51	120.99	1.4510	1.199	21.909	27	8	sand to silty sand
55.58	122.40	1.5625	1.277	21.950	27	8	sand to silty sand
55.64	118.31	1.5984	1.351	21.999	27	8	sand to silty sand
55.71	111.80	1.5141	1.354	22.180	26	8	sand to silty sand
55.77	101.43	1.4449	1.425	22.177	24	8	sand to silty sand
55.84	92.03	1.4091	1.531	22.158	30	7	silty sand to sandy silt
55.91	84.06	1.3155	1.565	22.015	27	7	silty sand to sandy silt
55.97	76.67	1.3257	1.729	22.146	25	7	silty sand to sandy silt
56.04	70.10	1.2850	1.833	22.276	23	7	silty sand to sandy silt
56.10	63.46	1.2345	1.945	22.223	20	7	silty sand to sandy silt
56.17	57.98	1.1450	1.975	22.233	19	7	silty sand to sandy silt
56.23	50.19	1.0208	2.034	22.463	18	7	silty sand to sandy silt
56.30	46.99	0.9014	1.918	22.566	17	7	silty sand to sandy silt
56.36	47.79	0.7875	1.648	22.653	16	7	silty sand to sandy silt
56.43	48.55	0.7400	1.524	22.768	15	7	silty sand to sandy silt
56.50	48.15	0.7845	1.629	22.905	14	7	silty sand to sandy silt
56.56	44.43	0.8518	1.917	22.995	14	7	silty sand to sandy silt
56.63	40.13	0.7407	1.846	23.135	16	6	sandy silt to clayey silt
56.69	38.17	0.8212	2.152	23.835	14	7	silty sand to sandy silt
56.76	38.17	0.6970	1.826	24.899	14	7	silty sand to sandy silt
56.82	41.03	0.6871	1.675	25.811	16	7	silty sand to sandy silt
56.89	52.47	0.6241	1.189	26.069	17	7	silty sand to sandy silt
56.96	62.63	0.5821	0.930	26.433	18	7	silty sand to sandy silt
57.02	69.65	0.5642	0.810	25.910	20	7	silty sand to sandy silt
57.09	71.57	0.6354	0.888	25.714	15	8	sand to silty sand
57.15	67.98	0.6522	0.959	25.163	16	8	sand to silty sand
57.22	64.72	0.6415	0.991	24.924	16	8	sand to silty sand
57.28	60.25	0.5404	0.897	24.588	20	7	silty sand to sandy silt
57.35	59.89	0.5690	0.950	24.438	20	7	silty sand to sandy silt
57.41	60.47	0.6096	1.008	24.479	19	7	silty sand to sandy silt
57.48	58.85	0.5737	0.975	24.463	18	7	silty sand to sandy silt
57.55	56.23	0.6280	1.117	24.373	18	7	silty sand to sandy silt
57.61	55.93	0.5266	0.942	24.277	17	7	silty sand to sandy silt
57.68	52.72	0.5488	1.041	24.115	16	7	silty sand to sandy silt
57.74	47.22	0.5798	1.228	24.037	15	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
57.81	41.27	0.5192	1.258	24.221	14	7	silty sand to sandy silt
57.87	34.60	0.4817	1.392	21.791	12	7	silty sand to sandy silt
57.94	33.87	0.5235	1.546	21.990	11	7	silty sand to sandy silt
58.01	32.48	0.4577	1.409	21.962	10	7	silty sand to sandy silt
58.07	30.04	0.3396	1.130	21.978	12	6	sandy silt to clayey silt
58.14	28.98	0.3249	1.121	22.058	11	6	sandy silt to clayey silt
58.20	28.80	0.3069	1.066	22.065	9	7	silty sand to sandy silt
58.27	27.74	0.2716	0.979	21.962	9	7	silty sand to sandy silt
58.33	26.90	0.2759	1.026	22.102	10	6	sandy silt to clayey silt
58.40	27.66	0.2485	0.898	22.276	10	6	sandy silt to clayey silt
58.46	26.61	0.2723	1.023	22.438	10	6	sandy silt to clayey silt
58.53	25.23	0.3272	1.297	22.559	10	6	sandy silt to clayey silt
58.60	24.08	0.2574	1.069	22.659	9	6	sandy silt to clayey silt
58.66	23.41	0.3601	1.538	22.628	9	6	sandy silt to clayey silt
58.73	22.17	0.2836	1.279	22.522	8	6	sandy silt to clayey silt
58.79	19.98	0.2852	1.427	22.771	8	6	sandy silt to clayey silt
58.86	19.22	0.3595	1.871	22.634	7	6	sandy silt to clayey silt
58.92	17.95	0.4021	2.239	22.796	7	6	sandy silt to clayey silt
58.99	15.49	0.3381	2.183	22.793	7	6	sandy silt to clayey silt
59.06	14.30	0.2052	1.435	23.104	8	6	sandy silt to clayey silt
59.12	15.75	0.2305	1.464	23.356	9	6	sandy silt to clayey silt
59.19	24.05	0.2132	0.886	23.770	12	6	sandy silt to clayey silt
59.25	31.61	0.2640	0.835	23.801	12	7	silty sand to sandy silt
59.32	49.19	0.4969	1.010	24.084	15	7	silty sand to sandy silt
59.38	65.53	1.2431	1.897	24.270	17	7	silty sand to sandy silt
59.45	72.43	1.5021	2.074	23.894	23	6	sandy silt to clayey silt
59.51	69.89	1.5525	2.221	23.906	25	6	sandy silt to clayey silt
59.58	65.46	1.6846	2.573	24.152	27	6	sandy silt to clayey silt
59.65	66.67	2.2380	3.357	24.308	28	6	sandy silt to clayey silt
59.71	71.05	2.7197	3.828	24.513	30	6	sandy silt to clayey silt
59.78	80.72	3.1919	3.954	25.957	39	5	clayey silt to silty clay
59.84	88.49	3.2440	3.666	26.784	41	5	clayey silt to silty clay
59.91	97.25	3.5772	3.679	24.445	44	5	clayey silt to silty clay
59.97	99.51	3.9708	3.990	22.758	45	5	clayey silt to silty clay
60.04	101.25	4.0525	4.003	22.068	46	5	clayey silt to silty clay
60.10	99.07	4.1032	4.142	21.645	47	5	clayey silt to silty clay
60.17	96.10	4.1573	4.326	21.968	95	11	very stiff fine grained (*)
60.24	95.40	4.1237	4.323	21.663	94	11	very stiff fine grained (*)
60.30	99.81	4.4918	4.500	21.128	93	11	very stiff fine grained (*)
60.37	101.23	4.8547	4.796	21.022	94	11	very stiff fine grained (*)
60.43	93.72	5.0489	5.387	20.830	98	11	very stiff fine grained (*)
60.50	91.22	5.6535	6.197	20.391	103	11	very stiff fine grained (*)
60.56	111.70	5.7437	5.142	20.005	107	11	very stiff fine grained (*)
60.63	125.17	5.1942	4.150	19.753	109	11	very stiff fine grained (*)
60.70	133.38	5.1052	3.827	19.563	110	11	very stiff fine grained (*)
60.76	124.42	4.4278	3.559	19.448	113	11	very stiff fine grained (*)
60.83	115.11	4.7436	4.121	19.277	115	11	very stiff fine grained (*)
60.89	104.18	4.6425	4.456	19.050	58	5	clayey silt to silty clay
60.96	109.91	4.9778	4.529	18.876	57	5	clayey silt to silty clay
61.02	132.24	4.9345	3.732	18.658	56	5	clayey silt to silty clay
61.09	127.47	4.5179	3.544	15.581	110	11	very stiff fine grained (*)
61.15	124.46	4.4006	3.536	15.590	110	11	very stiff fine grained (*)
61.22	110.50	4.3974	3.979	15.534	112	11	very stiff fine grained (*)
61.29	98.79	4.6455	4.703	15.304	0	0	<out of range>
61.35	101.60	5.1623	5.081	15.522	0	0	<out of range>
61.42	121.96	5.1728	4.241	15.587	60	7	silty sand to sandy silt
61.48	146.88	-32768	-32768	15.553	0	0	<out of range>
61.55	192.06	-32768	-32768	15.581	0	0	<out of range>
61.61	229.87	-32768	-32768	15.456	0	0	<out of range>

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
61.68	248.87	-32768	-32768	15.743	0	0	<out of range>

*Soil behavior type and SPT based on data from UBC-1983

AECOM

TVA Kingston Coal Ash Pond RCA (Kingston,Tennessee) Cone Penetration Test

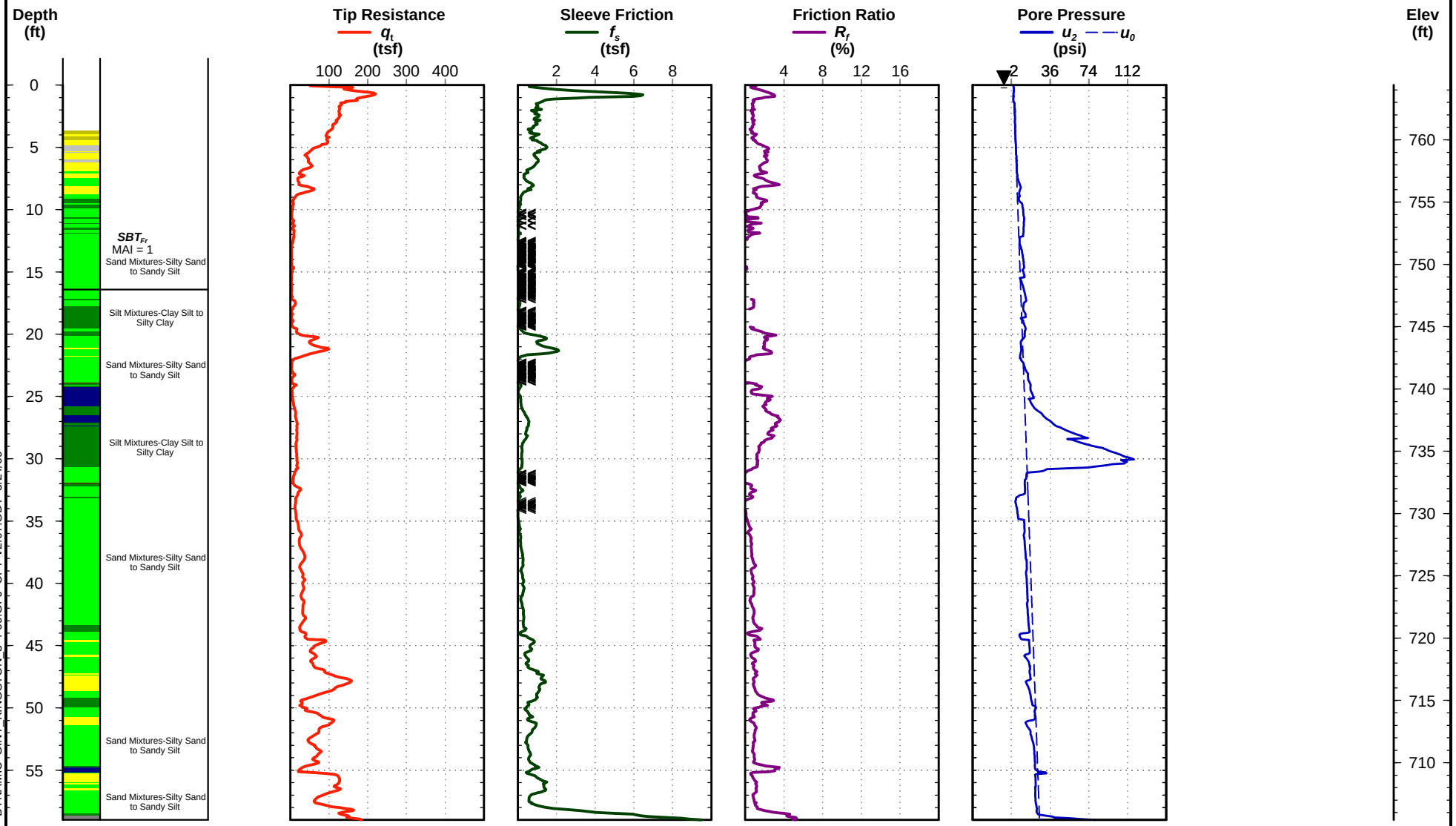
09-700-C2

Project No: 60095742

Date: Jan. 18, 2009
Estimated Water Depth: 0 ft
Rig/Operator: CME-850 CAP

Northing: 556510.23
Easting: 2442061.2
Elevation: 764.4 NGVD

Total Depth: 59.0 ft
Termination Criteria: Refusal
Cone Size: 10T Tension Cone



CPT REPORT - DYNAMIC GINT_KINGSTON_3-4-09.GPJ CPT V2.07.GDT 3/24/09

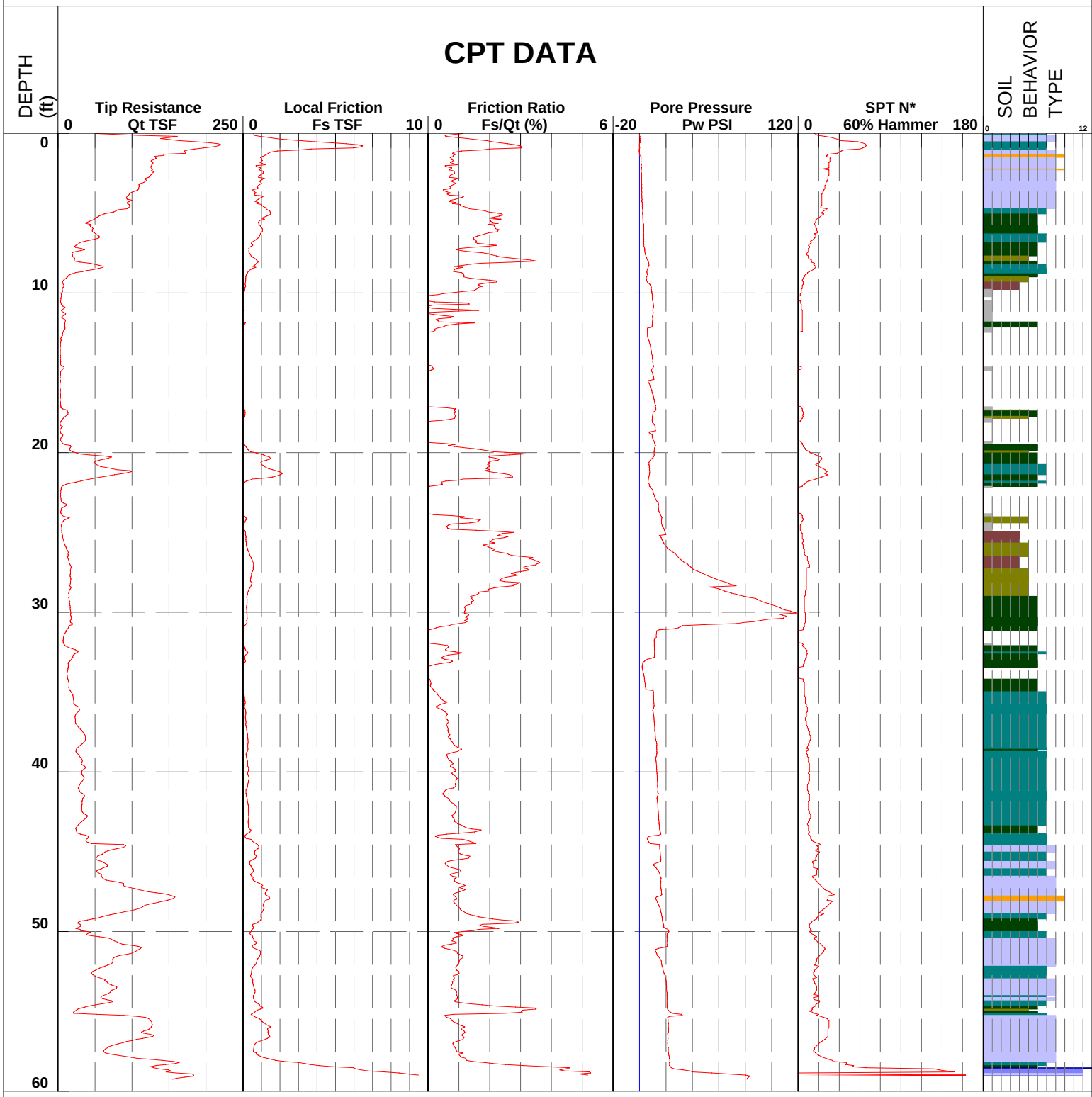
09-700-C2

Electronic Filename: 09-700-C2.cpt

AECOM

09-700C2	60095742	1/18/2009 3:21:01 PM
DSG0870	TVA-Kingston	CAP CME-750

CPT DATA



1 - sensitive fine grained	4 - silty clay to clay	7 - silty sand to sandy silt	10 - gravelly sand to sand
2 - organic material	5 - clayey silt to silty clay	8 - sand to silty sand	11 - very stiff fine grained (*)
3 - clay	6 - sandy silt to clayey silt	9 - sand	12 - sand to clayey sand (*)

Data File:09-700-C2 1/18/2009 3:21:01 PM
Operator:CAP CME-750 Location:TVA-Kingston
Cone ID:DSG0870 Job Number:60095742
Customer:TVA Units:

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
0.07	51.12	0.5804	1.135	-0.012	16	7	silty sand to sandy silt
0.13	107.11	0.5897	0.551	0.041	19	8	sand to silty sand
0.20	161.13	0.9225	0.573	0.400	26	8	sand to silty sand
0.26	151.49	1.3519	0.892	0.153	32	8	sand to silty sand
0.33	138.82	1.7617	1.269	0.419	36	8	sand to silty sand
0.39	151.27	2.3678	1.565	0.371	40	8	sand to silty sand
0.46	165.08	3.1481	1.907	0.337	42	8	sand to silty sand
0.52	186.12	3.8540	2.071	0.456	58	7	silty sand to sandy silt
0.59	204.88	4.7709	2.329	0.351	62	7	silty sand to sandy silt
0.66	216.53	5.5841	2.579	-0.075	65	7	silty sand to sandy silt
0.72	220.17	6.1991	2.816	0.000	66	7	silty sand to sandy silt
0.79	216.20	6.4620	2.989	-0.080	66	7	silty sand to sandy silt
0.85	208.48	6.3495	3.046	-0.158	65	7	silty sand to sandy silt
0.92	196.57	5.9639	3.034	0.221	63	7	silty sand to sandy silt
0.98	184.86	3.6808	1.991	-0.177	60	7	silty sand to sandy silt
1.05	175.68	3.0680	1.746	-0.085	44	8	sand to silty sand
1.12	170.27	1.8522	1.088	-0.264	42	8	sand to silty sand
1.18	171.98	1.4864	0.864	-0.041	40	8	sand to silty sand
1.25	172.73	1.3666	0.791	-0.133	38	8	sand to silty sand
1.31	142.61	1.2929	0.907	0.296	29	9	sand
1.38	143.58	1.1835	0.824	0.019	28	9	sand
1.44	130.24	1.0775	0.827	1.253	27	9	sand
1.51	132.03	0.9435	0.715	1.234	32	8	sand to silty sand
1.57	132.48	1.0007	0.755	1.161	31	8	sand to silty sand
1.64	129.87	0.9911	0.763	1.187	31	8	sand to silty sand
1.71	125.90	1.0450	0.830	1.255	31	8	sand to silty sand
1.77	125.71	0.9843	0.783	1.132	31	8	sand to silty sand
1.84	128.32	0.9261	0.722	1.146	30	8	sand to silty sand
1.90	128.22	1.0609	0.827	1.246	30	8	sand to silty sand
1.97	126.97	1.2327	0.971	1.522	30	8	sand to silty sand
2.03	126.47	0.6985	0.552	1.270	30	8	sand to silty sand
2.10	125.04	0.7786	0.623	1.420	30	8	sand to silty sand
2.17	125.92	0.9713	0.771	1.524	30	8	sand to silty sand
2.23	126.90	0.9115	0.718	1.241	24	9	sand
2.30	127.68	0.8805	0.690	1.379	30	8	sand to silty sand
2.36	125.71	1.0491	0.835	1.284	30	8	sand to silty sand
2.43	130.13	1.1029	0.848	1.234	30	8	sand to silty sand
2.49	127.16	1.0896	0.857	1.551	30	8	sand to silty sand
2.56	126.93	1.0307	0.812	1.570	30	8	sand to silty sand
2.62	125.29	0.9220	0.736	1.536	30	8	sand to silty sand
2.69	123.55	0.8476	0.686	1.374	29	8	sand to silty sand
2.76	122.65	0.8406	0.685	1.626	29	8	sand to silty sand
2.82	118.37	1.1550	0.976	1.573	29	8	sand to silty sand
2.89	118.18	1.0513	0.890	1.466	29	8	sand to silty sand
2.95	119.97	0.9380	0.782	1.503	28	8	sand to silty sand
3.02	117.74	0.9119	0.775	1.527	28	8	sand to silty sand
3.08	115.77	0.9717	0.839	1.437	27	8	sand to silty sand
3.15	110.95	1.0075	0.908	1.621	27	8	sand to silty sand
3.22	109.47	0.8999	0.822	1.769	27	8	sand to silty sand
3.28	109.57	0.8370	0.764	1.653	26	8	sand to silty sand
3.35	109.71	0.7780	0.709	1.745	26	8	sand to silty sand
3.41	109.09	0.8119	0.744	1.779	26	8	sand to silty sand
3.48	108.90	0.7248	0.666	1.716	26	8	sand to silty sand
3.54	108.11	0.5328	0.493	1.733	25	8	sand to silty sand

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
3.61	104.77	0.5512	0.526	1.604	25	8	sand to silty sand
3.67	101.28	0.6258	0.618	1.827	24	8	sand to silty sand
3.74	97.87	0.7236	0.739	1.844	24	8	sand to silty sand
3.81	96.60	0.6001	0.621	1.692	23	8	sand to silty sand
3.87	95.39	0.6530	0.685	1.740	23	8	sand to silty sand
3.94	94.55	1.1022	1.166	1.861	23	8	sand to silty sand
4.00	92.72	1.0332	1.114	1.832	23	8	sand to silty sand
4.07	92.33	0.9176	0.994	1.750	23	8	sand to silty sand
4.13	93.53	0.8385	0.896	1.946	23	8	sand to silty sand
4.20	100.85	0.7357	0.729	1.808	23	8	sand to silty sand
4.27	96.00	0.6570	0.684	1.784	23	8	sand to silty sand
4.33	93.82	0.8270	0.881	1.987	23	8	sand to silty sand
4.40	93.80	0.7390	0.788	1.994	23	8	sand to silty sand
4.46	96.33	1.0010	1.039	2.045	23	8	sand to silty sand
4.53	96.82	1.0185	1.052	2.356	23	8	sand to silty sand
4.59	97.20	1.1163	1.148	2.106	22	8	sand to silty sand
4.66	95.36	1.2135	1.272	2.247	22	8	sand to silty sand
4.72	93.27	1.2485	1.339	2.300	28	7	silty sand to sandy silt
4.79	80.95	1.3071	1.615	2.416	27	7	silty sand to sandy silt
4.86	78.61	1.4472	1.841	2.535	25	7	silty sand to sandy silt
4.92	75.46	1.4630	1.939	2.477	24	7	silty sand to sandy silt
4.99	68.73	1.5138	2.203	2.288	22	7	silty sand to sandy silt
5.05	62.48	1.4907	2.386	2.276	25	6	sandy silt to clayey silt
5.12	58.42	1.4209	2.432	2.472	23	6	sandy silt to clayey silt
5.18	55.38	1.2787	2.309	2.477	22	6	sandy silt to clayey silt
5.25	53.00	1.1381	2.147	2.448	21	6	sandy silt to clayey silt
5.31	51.16	1.0134	1.981	2.513	19	6	sandy silt to clayey silt
5.38	49.04	1.1595	2.364	2.620	18	6	sandy silt to clayey silt
5.45	46.57	0.9411	2.021	2.511	17	6	sandy silt to clayey silt
5.51	42.40	0.8643	2.039	2.637	17	6	sandy silt to clayey silt
5.58	39.56	0.8266	2.090	2.654	17	6	sandy silt to clayey silt
5.64	37.59	0.8542	2.273	2.857	16	6	sandy silt to clayey silt
5.71	43.86	0.8589	1.958	3.066	16	6	sandy silt to clayey silt
5.77	43.19	0.9312	2.156	3.119	17	6	sandy silt to clayey silt
5.84	44.12	0.9474	2.148	3.027	17	6	sandy silt to clayey silt
5.91	46.42	1.0102	2.176	3.092	17	6	sandy silt to clayey silt
5.97	47.55	1.0426	2.192	3.058	18	6	sandy silt to clayey silt
6.04	46.19	1.0625	2.300	3.180	18	6	sandy silt to clayey silt
6.10	46.53	1.0532	2.263	3.189	18	6	sandy silt to clayey silt
6.17	46.30	1.0411	2.249	3.066	19	6	sandy silt to clayey silt
6.23	49.20	0.9757	1.983	3.133	19	6	sandy silt to clayey silt
6.30	50.80	0.9438	1.858	3.257	16	7	silty sand to sandy silt
6.36	52.58	0.9149	1.740	3.257	17	7	silty sand to sandy silt
6.43	55.43	0.8880	1.602	3.206	17	7	silty sand to sandy silt
6.50	56.65	0.8488	1.498	3.167	17	7	silty sand to sandy silt
6.56	54.91	0.8092	1.474	3.167	16	7	silty sand to sandy silt
6.63	50.13	0.7469	1.490	3.267	15	7	silty sand to sandy silt
6.69	43.51	0.6595	1.516	3.189	14	7	silty sand to sandy silt
6.76	37.06	0.5837	1.575	3.286	12	7	silty sand to sandy silt
6.82	30.59	0.4666	1.525	3.216	13	6	sandy silt to clayey silt
6.89	28.44	0.4554	1.601	3.213	12	6	sandy silt to clayey silt
6.96	26.71	0.5167	1.934	3.339	11	6	sandy silt to clayey silt
7.02	24.17	0.5343	2.211	3.327	10	6	sandy silt to clayey silt
7.09	22.82	0.4395	1.926	3.349	11	6	sandy silt to clayey silt
7.15	23.72	0.3306	1.393	3.647	11	6	sandy silt to clayey silt
7.22	31.60	0.3153	0.998	3.928	10	6	sandy silt to clayey silt
7.28	36.03	0.3348	0.929	3.931	10	6	sandy silt to clayey silt
7.35	30.18	0.3233	1.071	4.016	10	6	sandy silt to clayey silt
7.41	23.36	0.3151	1.349	3.909	10	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
7.48	19.12	0.3338	1.746	4.127	9	6	sandy silt to clayey silt
7.55	19.10	0.3732	1.954	4.379	8	6	sandy silt to clayey silt
7.61	19.79	0.4072	2.057	4.561	8	6	sandy silt to clayey silt
7.68	19.59	0.4339	2.215	4.801	10	5	clayey silt to silty clay
7.74	20.46	0.4781	2.337	5.036	10	5	clayey silt to silty clay
7.81	22.19	0.5873	2.646	5.252	10	5	clayey silt to silty clay
7.87	22.85	0.6806	2.978	5.741	11	5	clayey silt to silty clay
7.94	22.01	0.7330	3.330	6.141	13	5	clayey silt to silty clay
8.01	22.47	0.7921	3.525	6.364	12	6	sandy silt to clayey silt
8.07	29.94	0.8157	2.725	6.749	13	6	sandy silt to clayey silt
8.14	43.20	0.7337	1.698	7.038	16	6	sandy silt to clayey silt
8.20	49.64	0.6757	1.361	7.147	15	7	silty sand to sandy silt
8.27	55.37	0.6309	1.139	7.137	16	7	silty sand to sandy silt
8.33	61.38	0.5248	0.855	6.846	17	7	silty sand to sandy silt
8.40	60.78	0.6918	1.138	6.551	17	7	silty sand to sandy silt
8.46	55.72	0.5226	0.938	6.374	16	7	silty sand to sandy silt
8.53	48.50	0.4171	0.860	5.870	15	7	silty sand to sandy silt
8.60	39.39	0.3294	0.836	5.722	13	7	silty sand to sandy silt
8.66	33.05	0.2733	0.827	5.610	11	7	silty sand to sandy silt
8.73	23.56	0.2553	1.084	5.659	9	7	silty sand to sandy silt
8.79	18.99	0.2195	1.156	5.741	9	6	sandy silt to clayey silt
8.86	16.11	0.1846	1.146	6.151	7	6	sandy silt to clayey silt
8.92	13.85	0.1627	1.175	6.320	6	6	sandy silt to clayey silt
8.99	13.13	0.1523	1.160	5.201	6	5	clayey silt to silty clay
9.06	11.43	0.1478	1.293	5.046	5	5	clayey silt to silty clay
9.12	9.71	0.1511	1.555	5.247	5	5	clayey silt to silty clay
9.19	7.91	0.1504	1.900	5.305	4	5	clayey silt to silty clay
9.25	6.76	0.1504	2.224	5.426	4	5	clayey silt to silty clay
9.32	6.14	0.1364	2.223	5.840	5	4	silty clay to clay
9.38	6.14	0.1160	1.888	6.783	5	4	silty clay to clay
9.45	7.20	0.1189	1.652	7.799	5	4	silty clay to clay
9.51	8.20	0.1347	1.643	8.298	4	4	silty clay to clay
9.58	8.33	0.1468	1.763	8.727	4	4	silty clay to clay
9.65	7.00	0.1146	1.637	8.838	4	4	silty clay to clay
9.71	5.95	0.0958	1.612	8.780	4	4	silty clay to clay
9.78	5.75	0.0896	1.559	8.855	3	1	sensitive fine grained
9.84	5.91	0.0889	1.503	9.161	3	1	sensitive fine grained
9.91	6.28	0.0708	1.128	9.403	3	1	sensitive fine grained
9.97	5.21	0.0442	0.848	9.335	3	1	sensitive fine grained
10.04	4.35	0.0213	0.489	9.449	2	1	sensitive fine grained
10.10	4.56	0.0159	0.348	9.621	2	1	sensitive fine grained
10.17	4.64	0.0000	0.001	9.691	2	1	sensitive fine grained
10.24	4.57	-0.0183	-0.400	9.665	0	0	<out of range>
10.30	3.78	-0.0242	-0.639	9.793	0	0	<out of range>
10.37	4.02	-0.0187	-0.464	9.754	0	0	<out of range>
10.43	3.81	-0.0218	-0.571	9.842	0	0	<out of range>
10.50	3.71	-0.0213	-0.572	9.987	2	1	sensitive fine grained
10.56	3.63	0.0077	0.211	10.157	2	1	sensitive fine grained
10.63	4.38	0.0559	1.277	10.370	2	1	sensitive fine grained
10.70	4.33	0.0581	1.340	10.416	3	1	sensitive fine grained
10.76	4.82	0.0081	0.168	10.467	3	1	sensitive fine grained
10.83	6.69	-0.0229	-0.342	10.578	3	1	sensitive fine grained
10.89	9.42	-0.0247	-0.262	10.535	3	1	sensitive fine grained
10.96	8.52	0.0105	0.124	10.353	3	1	sensitive fine grained
11.02	6.64	0.0529	0.796	10.263	3	1	sensitive fine grained
11.09	4.63	0.0764	1.651	10.040	4	1	sensitive fine grained
11.15	5.36	0.0386	0.720	10.237	4	1	sensitive fine grained
11.22	8.13	-0.0064	-0.079	10.341	4	1	sensitive fine grained
11.29	10.44	-0.0123	-0.117	10.270	4	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
11.35	9.98	0.0180	0.180	10.074	4	1	sensitive fine grained
11.42	7.60	0.0375	0.494	10.018	4	1	sensitive fine grained
11.48	5.42	0.0451	0.832	9.866	4	1	sensitive fine grained
11.55	4.95	0.0364	0.736	9.936	4	1	sensitive fine grained
11.61	7.39	0.0254	0.344	10.055	4	1	sensitive fine grained
11.68	9.65	0.0242	0.251	9.946	4	1	sensitive fine grained
11.75	10.04	0.0327	0.326	9.958	4	1	sensitive fine grained
11.81	9.59	0.0348	0.363	9.812	4	6	sandy silt to clayey silt
11.88	9.13	0.1371	1.502	9.703	4	6	sandy silt to clayey silt
11.94	9.14	0.0859	0.941	9.636	4	6	sandy silt to clayey silt
12.01	9.26	0.0618	0.667	9.543	4	6	sandy silt to clayey silt
12.07	9.33	0.0495	0.530	9.548	4	6	sandy silt to clayey silt
12.14	8.85	0.0408	0.461	9.478	4	1	sensitive fine grained
12.20	9.89	0.0283	0.286	6.109	4	1	sensitive fine grained
12.27	8.95	0.0192	0.214	6.073	4	1	sensitive fine grained
12.34	7.80	0.0185	0.237	5.959	4	1	sensitive fine grained
12.40	7.27	0.0138	0.189	6.042	4	1	sensitive fine grained
12.47	6.60	-0.0101	-0.153	5.983	0	0	<out of range>
12.53	6.37	-0.0303	-0.476	6.017	0	0	<out of range>
12.60	6.12	-0.0324	-0.529	6.088	0	0	<out of range>
12.66	5.98	-0.0351	-0.587	6.134	0	0	<out of range>
12.73	5.04	-0.0340	-0.675	6.168	0	0	<out of range>
12.80	4.28	-0.0339	-0.793	6.296	0	0	<out of range>
12.86	3.89	-0.0405	-1.042	6.521	0	0	<out of range>
12.93	4.05	-0.0447	-1.105	6.904	0	0	<out of range>
12.99	4.07	-0.0471	-1.157	7.241	0	0	<out of range>
13.06	3.71	-0.0477	-1.286	7.425	0	0	<out of range>
13.12	3.69	-0.0491	-1.329	7.491	0	0	<out of range>
13.19	3.37	-0.0513	-1.524	7.721	0	0	<out of range>
13.25	3.29	-0.0524	-1.593	8.041	0	0	<out of range>
13.32	3.35	-0.0539	-1.607	8.283	0	0	<out of range>
13.39	3.03	-0.0527	-1.742	8.431	0	0	<out of range>
13.45	2.94	-0.0533	-1.812	8.504	0	0	<out of range>
13.52	3.05	-0.0522	-1.708	8.664	0	0	<out of range>
13.58	3.03	-0.0554	-1.826	8.821	0	0	<out of range>
13.65	3.18	-0.0540	-1.697	9.020	0	0	<out of range>
13.71	3.10	-0.0529	-1.703	9.037	0	0	<out of range>
13.78	2.90	-0.0543	-1.873	9.148	0	0	<out of range>
13.85	3.00	-0.0520	-1.730	9.400	0	0	<out of range>
13.91	3.14	-0.0473	-1.503	9.577	0	0	<out of range>
13.98	3.02	-0.0423	-1.398	9.648	0	0	<out of range>
14.04	3.34	-0.0489	-1.465	9.817	0	0	<out of range>
14.11	2.99	-0.0480	-1.605	9.846	0	0	<out of range>
14.17	3.43	-0.0500	-1.459	10.021	0	0	<out of range>
14.24	3.63	-0.0524	-1.442	10.207	0	0	<out of range>
14.30	3.80	-0.0402	-1.057	10.033	0	0	<out of range>
14.37	3.42	-0.0245	-0.716	10.118	0	0	<out of range>
14.44	3.51	-0.0184	-0.525	10.132	0	0	<out of range>
14.50	3.39	-0.0006	-0.019	10.273	0	0	<out of range>
14.57	5.33	0.0067	0.127	10.576	0	0	<out of range>
14.63	7.96	0.0106	0.133	10.547	3	1	sensitive fine grained
14.70	8.40	0.0137	0.163	10.244	3	1	sensitive fine grained
14.76	6.66	0.0120	0.180	9.444	3	1	sensitive fine grained
14.83	5.32	0.0052	0.098	8.979	0	0	<out of range>
14.90	4.27	-0.0116	-0.272	8.950	0	0	<out of range>
14.96	3.58	-0.0274	-0.766	9.594	0	0	<out of range>
15.03	3.51	-0.0435	-1.237	9.924	0	0	<out of range>
15.09	3.30	-0.0526	-1.593	10.033	0	0	<out of range>
15.16	3.35	-0.0300	-0.893	10.317	0	0	<out of range>

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
15.22	2.95	-0.0448	-1.516	10.571	0	0	<out of range>
15.29	3.07	-0.0485	-1.579	10.607	0	0	<out of range>
15.35	2.69	-0.0480	-1.785	10.813	0	0	<out of range>
15.42	2.87	-0.0496	-1.728	10.932	0	0	<out of range>
15.49	3.72	-0.0520	-1.398	6.378	0	0	<out of range>
15.55	3.19	-0.0561	-1.757	6.497	0	0	<out of range>
15.62	3.09	-0.0566	-1.833	6.938	0	0	<out of range>
15.68	2.68	-0.0597	-2.231	7.387	0	0	<out of range>
15.75	2.84	-0.0577	-2.033	7.740	0	0	<out of range>
15.81	2.70	-0.0572	-2.119	8.036	0	0	<out of range>
15.88	2.57	-0.0437	-1.700	8.143	0	0	<out of range>
15.94	2.88	-0.0483	-1.673	8.397	0	0	<out of range>
16.01	2.93	-0.0552	-1.883	8.799	0	0	<out of range>
16.08	3.43	-0.0535	-1.563	9.134	0	0	<out of range>
16.14	3.60	-0.0494	-1.372	9.374	0	0	<out of range>
16.21	2.96	-0.0507	-1.717	9.500	0	0	<out of range>
16.27	3.15	-0.0530	-1.684	9.694	0	0	<out of range>
16.34	3.29	-0.0532	-1.613	10.031	0	0	<out of range>
16.40	3.62	-0.0565	-1.560	10.278	0	0	<out of range>
16.47	3.25	-0.0579	-1.785	10.489	0	0	<out of range>
16.54	3.15	-0.0556	-1.765	10.552	0	0	<out of range>
16.60	3.10	-0.0574	-1.854	10.821	0	0	<out of range>
16.67	2.79	-0.0580	-2.081	11.027	0	0	<out of range>
16.73	2.81	-0.0555	-1.978	11.131	0	0	<out of range>
16.80	3.09	-0.0570	-1.843	11.356	0	0	<out of range>
16.86	3.53	-0.0581	-1.645	11.589	0	0	<out of range>
16.93	3.42	-0.0618	-1.805	11.686	0	0	<out of range>
16.99	3.37	-0.0479	-1.420	11.882	0	0	<out of range>
17.06	3.83	-0.0266	-0.694	12.134	0	0	<out of range>
17.13	3.95	-0.0007	-0.019	12.037	2	1	sensitive fine grained
17.19	3.96	0.0245	0.620	12.241	3	1	sensitive fine grained
17.26	6.45	0.0576	0.893	12.469	4	1	sensitive fine grained
17.32	10.94	0.0914	0.836	12.495	4	5	clayey silt to silty clay
17.39	12.68	0.1087	0.857	11.906	4	6	sandy silt to clayey silt
17.45	13.19	0.1199	0.910	10.702	5	6	sandy silt to clayey silt
17.52	13.71	0.1184	0.864	10.193	5	6	sandy silt to clayey silt
17.59	13.40	0.1121	0.836	10.079	5	6	sandy silt to clayey silt
17.65	12.06	0.1073	0.890	9.946	4	6	sandy silt to clayey silt
17.72	10.25	0.0902	0.881	9.858	5	5	clayey silt to silty clay
17.78	8.38	0.0731	0.872	9.771	4	5	clayey silt to silty clay
17.85	7.14	0.0610	0.855	9.638	4	1	sensitive fine grained
17.91	5.84	0.0422	0.723	9.573	3	1	sensitive fine grained
17.98	4.92	0.0219	0.444	9.524	2	1	sensitive fine grained
18.04	3.97	-0.0029	-0.074	9.669	2	1	sensitive fine grained
18.11	3.30	-0.0089	-0.270	9.827	0	0	<out of range>
18.18	2.79	-0.0287	-1.031	10.443	0	0	<out of range>
18.24	2.96	-0.0455	-1.538	11.058	0	0	<out of range>
18.31	3.54	-0.0546	-1.545	11.526	0	0	<out of range>
18.37	6.10	-0.0075	-0.123	11.860	0	0	<out of range>
18.44	4.90	-0.0453	-0.926	11.877	0	0	<out of range>
18.50	3.79	-0.0475	-1.253	11.778	0	0	<out of range>
18.57	2.81	-0.0347	-1.238	11.892	0	0	<out of range>
18.64	2.71	-0.0329	-1.214	12.158	0	0	<out of range>
18.70	3.92	-0.0363	-0.925	7.275	0	0	<out of range>
18.77	3.55	-0.0359	-1.011	7.365	0	0	<out of range>
18.83	4.73	-0.0342	-0.723	8.637	0	0	<out of range>
18.90	6.82	-0.0375	-0.551	9.655	0	0	<out of range>
18.96	6.00	-0.0350	-0.583	9.570	0	0	<out of range>
19.03	4.65	-0.0326	-0.701	9.633	0	0	<out of range>

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
19.09	3.98	-0.0354	-0.889	9.968	0	0	<out of range>
19.16	3.76	-0.0360	-0.958	10.207	0	0	<out of range>
19.23	3.46	-0.0226	-0.652	10.443	0	0	<out of range>
19.29	4.28	-0.0041	-0.095	10.922	2	1	sensitive fine grained
19.36	5.36	-0.0026	-0.048	11.240	3	1	sensitive fine grained
19.42	6.63	0.0337	0.508	11.611	4	1	sensitive fine grained
19.49	8.47	0.0740	0.874	11.734	4	6	sandy silt to clayey silt
19.55	16.86	0.1112	0.660	12.078	5	6	sandy silt to clayey silt
19.62	17.56	0.1506	0.858	11.814	5	6	sandy silt to clayey silt
19.69	16.74	0.1892	1.131	11.574	6	6	sandy silt to clayey silt
19.75	16.08	0.2375	1.477	11.281	7	6	sandy silt to clayey silt
19.82	15.76	0.2710	1.720	11.220	7	6	sandy silt to clayey silt
19.88	16.68	0.3224	1.933	11.182	9	5	clayey silt to silty clay
19.95	19.78	0.4210	2.129	11.039	11	5	clayey silt to silty clay
20.01	24.85	0.7039	2.833	11.087	12	6	sandy silt to clayey silt
20.08	28.80	0.9125	3.168	11.041	15	6	sandy silt to clayey silt
20.14	42.24	1.1150	2.640	11.174	17	6	sandy silt to clayey silt
20.21	63.12	1.2617	1.999	10.922	20	6	sandy silt to clayey silt
20.28	72.22	1.4254	1.974	10.428	22	6	sandy silt to clayey silt
20.34	68.16	1.4831	2.176	9.689	23	6	sandy silt to clayey silt
20.41	62.64	1.4462	2.309	8.933	23	6	sandy silt to clayey silt
20.47	56.21	1.2766	2.271	8.201	22	6	sandy silt to clayey silt
20.54	51.60	1.0579	2.050	7.571	21	6	sandy silt to clayey silt
20.60	49.18	0.9671	1.967	7.246	21	6	sandy silt to clayey silt
20.67	49.44	0.9961	2.015	7.207	20	6	sandy silt to clayey silt
20.73	51.70	0.9988	1.932	7.246	17	7	silty sand to sandy silt
20.80	54.45	1.0872	1.997	7.278	18	7	silty sand to sandy silt
20.87	57.64	1.1523	1.999	7.442	20	7	silty sand to sandy silt
20.93	64.73	1.2432	1.921	7.365	22	7	silty sand to sandy silt
21.00	72.84	1.3678	1.878	7.554	24	7	silty sand to sandy silt
21.06	79.05	1.5807	2.000	7.474	26	7	silty sand to sandy silt
21.13	96.30	1.7767	1.845	7.694	27	7	silty sand to sandy silt
21.19	99.09	1.9674	1.986	7.706	28	7	silty sand to sandy silt
21.26	93.99	2.0762	2.209	7.745	27	7	silty sand to sandy silt
21.33	85.85	2.1156	2.464	7.612	26	7	silty sand to sandy silt
21.39	76.36	2.0235	2.650	7.454	29	6	sandy silt to clayey silt
21.46	67.78	1.8392	2.714	7.219	26	6	sandy silt to clayey silt
21.52	58.36	1.5997	2.741	7.062	23	6	sandy silt to clayey silt
21.59	50.51	1.2275	2.430	6.897	20	6	sandy silt to clayey silt
21.65	43.54	0.4918	1.129	6.691	17	6	sandy silt to clayey silt
21.72	36.56	0.3715	1.016	6.626	14	6	sandy silt to clayey silt
21.78	30.78	0.1760	0.572	6.519	10	7	silty sand to sandy silt
21.85	24.08	0.1038	0.431	6.500	8	7	silty sand to sandy silt
21.92	16.53	0.0727	0.440	6.359	7	6	sandy silt to clayey silt
21.98	10.84	0.0508	0.469	7.515	6	6	sandy silt to clayey silt
22.05	8.52	0.0269	0.316	7.406	4	6	sandy silt to clayey silt
22.11	5.42	0.0026	0.049	7.709	4	1	sensitive fine grained
22.18	4.66	-0.0189	-0.406	8.351	0	0	<out of range>
22.24	4.19	-0.0346	-0.824	8.998	0	0	<out of range>
22.31	4.29	-0.0465	-1.085	9.815	0	0	<out of range>
22.38	3.82	-0.0541	-1.416	10.074	0	0	<out of range>
22.44	3.79	-0.0561	-1.478	10.191	0	0	<out of range>
22.51	3.88	-0.0570	-1.470	10.421	0	0	<out of range>
22.57	3.48	-0.0580	-1.665	10.510	0	0	<out of range>
22.64	3.57	-0.0589	-1.647	11.005	0	0	<out of range>
22.70	3.77	-0.0595	-1.580	11.298	0	0	<out of range>
22.77	3.61	-0.0578	-1.602	11.359	0	0	<out of range>
22.83	3.85	-0.0519	-1.348	11.712	0	0	<out of range>
22.90	4.03	-0.0338	-0.838	12.158	0	0	<out of range>

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
22.97	4.10	-0.0201	-0.491	12.582	0	0	<out of range>
23.03	4.45	-0.0045	-0.101	13.096	0	0	<out of range>
23.10	5.29	-0.0094	-0.178	13.629	0	0	<out of range>
23.16	7.52	-0.0234	-0.311	14.245	0	0	<out of range>
23.23	11.58	-0.0386	-0.333	14.373	0	0	<out of range>
23.29	11.44	-0.0448	-0.391	14.320	0	0	<out of range>
23.36	9.40	-0.0484	-0.515	14.259	0	0	<out of range>
23.43	6.97	-0.0472	-0.677	14.245	0	0	<out of range>
23.49	4.78	-0.0540	-1.130	14.322	0	0	<out of range>
23.56	4.75	-0.0528	-1.112	14.526	0	0	<out of range>
23.62	4.20	-0.0537	-1.277	14.473	0	0	<out of range>
23.69	3.64	-0.0463	-1.273	14.751	0	0	<out of range>
23.75	3.81	-0.0321	-0.843	14.986	0	0	<out of range>
23.82	4.04	-0.0186	-0.460	15.697	2	1	sensitive fine grained
23.88	4.97	0.0090	0.181	15.806	3	1	sensitive fine grained
23.95	6.11	0.0483	0.790	16.215	4	1	sensitive fine grained
24.02	9.50	0.1119	1.177	16.644	4	5	clayey silt to silty clay
24.08	15.44	0.1620	1.050	16.928	4	5	clayey silt to silty clay
24.15	12.59	0.1812	1.439	16.712	5	5	clayey silt to silty clay
24.21	9.22	0.1564	1.697	16.719	5	5	clayey silt to silty clay
24.28	7.42	0.1214	1.634	16.642	4	5	clayey silt to silty clay
24.34	6.33	0.1005	1.587	16.676	3	5	clayey silt to silty clay
24.41	5.49	0.0743	1.355	16.676	3	1	sensitive fine grained
24.48	5.21	0.0395	0.757	16.748	3	1	sensitive fine grained
24.54	4.54	0.0295	0.650	17.027	2	1	sensitive fine grained
24.61	4.75	0.0292	0.614	17.332	2	1	sensitive fine grained
24.67	4.99	0.0308	0.618	17.817	2	1	sensitive fine grained
24.74	5.24	0.0333	0.635	18.277	2	1	sensitive fine grained
24.80	5.22	0.0402	0.771	18.605	2	1	sensitive fine grained
24.87	5.12	0.0800	1.562	18.794	2	1	sensitive fine grained
24.93	5.17	0.1188	2.297	19.118	3	4	silty clay to clay
25.00	4.93	0.1372	2.784	19.446	3	4	silty clay to clay
25.07	5.64	0.1366	2.421	19.630	4	4	silty clay to clay
25.13	5.62	0.1310	2.333	20.022	4	4	silty clay to clay
25.20	6.44	0.1458	2.262	14.974	4	4	silty clay to clay
25.26	6.26	0.1623	2.591	15.835	4	4	silty clay to clay
25.33	6.39	0.1581	2.472	16.419	4	4	silty clay to clay
25.39	6.92	0.1520	2.198	16.637	4	4	silty clay to clay
25.46	7.27	0.1517	2.087	16.983	5	4	silty clay to clay
25.52	7.80	0.1609	2.061	17.298	5	4	silty clay to clay
25.59	8.13	0.1634	2.011	17.737	5	4	silty clay to clay
25.66	8.41	0.1817	2.161	18.333	4	5	clayey silt to silty clay
25.72	8.73	0.1725	1.976	18.832	4	5	clayey silt to silty clay
25.79	9.54	0.1717	1.799	19.293	5	5	clayey silt to silty clay
25.85	9.86	0.1874	1.900	19.833	5	5	clayey silt to silty clay
25.92	10.82	0.2115	1.955	20.422	5	5	clayey silt to silty clay
25.98	11.25	0.2324	2.066	21.130	5	5	clayey silt to silty clay
26.05	11.71	0.2538	2.168	22.356	6	5	clayey silt to silty clay
26.12	12.48	0.2633	2.110	23.270	6	5	clayey silt to silty clay
26.18	13.42	0.2928	2.182	24.382	6	5	clayey silt to silty clay
26.25	14.00	0.3290	2.350	25.671	6	5	clayey silt to silty clay
26.31	13.58	0.3485	2.566	26.885	6	5	clayey silt to silty clay
26.38	13.73	0.3596	2.618	27.625	6	5	clayey silt to silty clay
26.44	13.74	0.3749	2.729	28.325	7	5	clayey silt to silty clay
26.51	13.42	0.4097	3.053	28.868	9	4	silty clay to clay
26.57	13.07	0.4437	3.396	29.515	9	4	silty clay to clay
26.64	13.75	0.4518	3.286	30.511	9	4	silty clay to clay
26.71	14.27	0.4888	3.426	31.332	9	4	silty clay to clay
26.77	14.74	0.5140	3.488	32.292	9	4	silty clay to clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
26.84	14.95	0.5360	3.585	33.262	10	4	silty clay to clay
26.90	15.15	0.5496	3.627	34.716	10	4	silty clay to clay
26.97	16.00	0.5659	3.537	36.160	10	4	silty clay to clay
27.03	16.54	0.5776	3.492	36.880	11	4	silty clay to clay
27.10	17.44	0.5677	3.256	37.900	11	4	silty clay to clay
27.17	17.73	0.5509	3.108	38.785	11	4	silty clay to clay
27.23	17.60	0.5460	3.102	39.516	8	5	clayey silt to silty clay
27.30	17.11	0.5533	3.234	40.396	8	5	clayey silt to silty clay
27.36	16.76	0.5504	3.284	41.894	8	5	clayey silt to silty clay
27.43	16.83	0.5225	3.104	43.736	8	5	clayey silt to silty clay
27.49	17.03	0.4828	2.834	46.009	8	5	clayey silt to silty clay
27.56	16.99	0.4574	2.692	47.683	8	5	clayey silt to silty clay
27.62	16.54	0.4670	2.824	49.312	8	5	clayey silt to silty clay
27.69	16.31	0.4714	2.890	50.996	8	5	clayey silt to silty clay
27.76	16.57	0.4414	2.664	52.884	8	5	clayey silt to silty clay
27.82	17.01	0.4235	2.490	54.920	8	5	clayey silt to silty clay
27.89	17.48	0.4186	2.395	56.888	8	5	clayey silt to silty clay
27.95	17.29	0.4042	2.337	58.783	8	5	clayey silt to silty clay
28.02	17.13	0.3982	2.324	61.279	8	5	clayey silt to silty clay
28.08	17.02	0.4219	2.479	63.680	8	5	clayey silt to silty clay
28.15	16.96	0.5049	2.978	66.344	8	5	clayey silt to silty clay
28.22	16.68	0.4823	2.892	67.691	8	5	clayey silt to silty clay
28.28	16.29	0.4490	2.755	70.340	8	5	clayey silt to silty clay
28.35	15.77	0.4360	2.764	73.110	8	5	clayey silt to silty clay
28.41	17.49	0.4099	2.344	52.770	8	5	clayey silt to silty clay
28.48	17.52	0.3745	2.137	57.491	8	5	clayey silt to silty clay
28.54	16.47	0.3253	1.975	60.363	8	5	clayey silt to silty clay
28.61	15.76	0.3067	1.946	62.612	8	5	clayey silt to silty clay
28.67	15.18	0.2968	1.955	64.218	7	5	clayey silt to silty clay
28.74	14.96	0.2457	1.642	67.187	7	5	clayey silt to silty clay
28.81	14.45	0.2387	1.652	69.753	7	5	clayey silt to silty clay
28.87	14.99	0.2387	1.593	73.333	7	5	clayey silt to silty clay
28.94	14.99	0.2301	1.535	75.785	7	5	clayey silt to silty clay
29.00	15.20	0.2096	1.379	79.096	6	6	sandy silt to clayey silt
29.07	14.43	0.2055	1.424	83.373	6	6	sandy silt to clayey silt
29.13	15.12	0.2137	1.413	87.978	6	6	sandy silt to clayey silt
29.20	15.05	0.2186	1.452	88.991	6	6	sandy silt to clayey silt
29.27	15.31	0.2270	1.482	91.196	6	6	sandy silt to clayey silt
29.33	15.87	0.2242	1.413	92.846	6	6	sandy silt to clayey silt
29.40	15.72	0.2214	1.408	94.834	6	6	sandy silt to clayey silt
29.46	15.75	0.2228	1.415	97.509	6	6	sandy silt to clayey silt
29.53	16.11	0.2165	1.344	99.833	6	6	sandy silt to clayey silt
29.59	16.37	0.2016	1.231	102.242	6	6	sandy silt to clayey silt
29.66	16.73	0.1990	1.190	104.484	6	6	sandy silt to clayey silt
29.72	16.43	0.1949	1.186	106.544	6	6	sandy silt to clayey silt
29.79	16.30	0.2012	1.234	107.813	6	6	sandy silt to clayey silt
29.86	16.75	0.2034	1.214	110.116	6	6	sandy silt to clayey silt
29.92	17.01	0.2020	1.187	114.209	6	6	sandy silt to clayey silt
29.99	17.12	0.2050	1.198	116.174	6	6	sandy silt to clayey silt
30.05	17.51	0.2053	1.173	118.341	7	6	sandy silt to clayey silt
30.12	16.82	0.2214	1.317	105.710	7	6	sandy silt to clayey silt
30.18	17.08	0.2243	1.313	108.274	7	6	sandy silt to clayey silt
30.25	17.66	0.2208	1.250	111.538	7	6	sandy silt to clayey silt
30.31	18.31	0.2228	1.217	109.156	7	6	sandy silt to clayey silt
30.38	18.00	0.2309	1.283	108.933	7	6	sandy silt to clayey silt
30.45	17.87	0.2297	1.286	97.019	7	6	sandy silt to clayey silt
30.51	16.70	0.1986	1.189	91.991	7	6	sandy silt to clayey silt
30.58	16.58	0.2101	1.267	86.427	7	6	sandy silt to clayey silt
30.64	17.15	0.2077	1.211	78.248	7	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
30.71	19.62	0.1985	1.012	73.578	6	6	sandy silt to clayey silt
30.77	19.22	0.1428	0.743	49.503	6	6	sandy silt to clayey silt
30.84	14.88	0.1043	0.701	32.835	6	6	sandy silt to clayey silt
30.91	14.65	0.0613	0.418	30.879	6	6	sandy silt to clayey silt
30.97	14.01	0.0373	0.266	29.595	5	6	sandy silt to clayey silt
31.04	13.12	0.0230	0.175	25.797	5	6	sandy silt to clayey silt
31.10	11.98	0.0047	0.039	14.923	5	6	sandy silt to clayey silt
31.17	10.71	-0.0106	-0.099	12.997	0	0	<out of range>
31.23	10.82	-0.0267	-0.247	12.917	0	0	<out of range>
31.30	9.63	-0.0359	-0.373	12.876	0	0	<out of range>
31.36	8.53	-0.0427	-0.501	12.684	0	0	<out of range>
31.43	8.24	-0.0475	-0.576	12.694	0	0	<out of range>
31.50	7.99	-0.0488	-0.611	12.684	0	0	<out of range>
31.56	7.45	-0.0492	-0.660	12.687	0	0	<out of range>
31.63	7.35	-0.0487	-0.662	12.607	0	0	<out of range>
31.69	7.13	-0.0456	-0.639	11.245	0	0	<out of range>
31.76	6.92	-0.0387	-0.559	11.191	0	0	<out of range>
31.82	6.97	-0.0288	-0.413	11.150	0	0	<out of range>
31.89	7.08	-0.0144	-0.203	11.235	0	0	<out of range>
31.96	7.65	0.0069	0.090	11.170	4	1	sensitive fine grained
32.02	8.50	0.0334	0.393	11.233	5	1	sensitive fine grained
32.09	9.56	0.0600	0.628	11.133	4	6	sandy silt to clayey silt
32.15	11.90	0.0795	0.668	11.242	5	6	sandy silt to clayey silt
32.22	15.05	0.0966	0.642	11.267	6	6	sandy silt to clayey silt
32.28	19.36	0.1137	0.587	11.288	7	6	sandy silt to clayey silt
32.35	23.44	0.1312	0.560	11.368	8	6	sandy silt to clayey silt
32.41	26.59	0.1662	0.625	11.351	9	6	sandy silt to clayey silt
32.48	27.12	0.2367	0.873	11.383	8	7	silty sand to sandy silt
32.55	25.07	0.2759	1.100	11.351	8	7	silty sand to sandy silt
32.61	22.89	0.2213	0.967	11.434	9	6	sandy silt to clayey silt
32.68	20.70	0.1362	0.658	11.320	8	6	sandy silt to clayey silt
32.74	19.94	0.1095	0.549	11.196	8	6	sandy silt to clayey silt
32.81	20.20	0.0929	0.460	11.257	8	6	sandy silt to clayey silt
32.87	19.18	0.0846	0.441	9.352	7	6	sandy silt to clayey silt
32.94	18.20	0.0965	0.530	6.097	7	6	sandy silt to clayey silt
33.01	17.34	0.1272	0.734	4.801	7	6	sandy silt to clayey silt
33.07	16.15	0.1280	0.793	3.793	6	6	sandy silt to clayey silt
33.14	14.34	0.1016	0.709	2.608	6	6	sandy silt to clayey silt
33.20	13.66	0.0602	0.440	2.496	6	6	sandy silt to clayey silt
33.27	14.10	0.0343	0.244	2.453	5	6	sandy silt to clayey silt
33.33	13.88	0.0163	0.118	2.060	5	6	sandy silt to clayey silt
33.40	13.97	-0.0017	-0.012	2.016	5	6	sandy silt to clayey silt
33.46	13.73	-0.0093	-0.068	1.939	0	0	<out of range>
33.53	13.35	-0.0164	-0.123	2.186	0	0	<out of range>
33.60	13.36	-0.0148	-0.111	2.261	0	0	<out of range>
33.66	13.03	-0.0187	-0.144	2.598	0	0	<out of range>
33.73	12.59	-0.0150	-0.119	2.688	0	0	<out of range>
33.79	12.10	-0.0146	-0.121	2.809	0	0	<out of range>
33.86	12.11	-0.0176	-0.146	3.085	0	0	<out of range>
33.92	12.42	-0.0164	-0.132	3.240	0	0	<out of range>
33.99	12.55	-0.0092	-0.073	3.412	0	0	<out of range>
34.06	12.61	-0.0042	-0.033	3.594	0	0	<out of range>
34.12	12.84	0.0030	0.023	3.679	0	0	<out of range>
34.19	13.52	0.0059	0.044	3.621	5	6	sandy silt to clayey silt
34.25	13.76	0.0095	0.069	3.953	5	6	sandy silt to clayey silt
34.32	14.09	0.0103	0.073	3.834	5	6	sandy silt to clayey silt
34.38	14.48	0.0133	0.092	4.071	6	6	sandy silt to clayey silt
34.45	15.00	0.0137	0.092	4.258	6	6	sandy silt to clayey silt
34.51	15.12	0.0135	0.089	4.340	6	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
34.58	14.88	0.0109	0.073	4.430	6	6	sandy silt to clayey silt
34.65	14.84	0.0112	0.075	4.403	6	6	sandy silt to clayey silt
34.71	14.54	0.0169	0.116	4.660	6	6	sandy silt to clayey silt
34.78	15.06	0.0197	0.131	4.721	6	6	sandy silt to clayey silt
34.84	15.42	0.0289	0.188	4.903	6	6	sandy silt to clayey silt
34.91	16.45	0.0298	0.181	10.365	6	6	sandy silt to clayey silt
34.97	17.18	0.0402	0.234	10.472	6	7	silty sand to sandy silt
35.04	18.36	0.0533	0.290	10.559	6	7	silty sand to sandy silt
35.10	19.13	0.0563	0.295	10.554	6	7	silty sand to sandy silt
35.17	19.99	0.0622	0.311	10.668	6	7	silty sand to sandy silt
35.24	20.21	0.0692	0.342	10.629	6	7	silty sand to sandy silt
35.30	20.51	0.0798	0.389	10.714	7	7	silty sand to sandy silt
35.37	20.68	0.0832	0.402	10.651	7	7	silty sand to sandy silt
35.43	21.06	0.0879	0.418	10.702	7	7	silty sand to sandy silt
35.50	21.15	0.0990	0.468	10.770	7	7	silty sand to sandy silt
35.56	21.49	0.1128	0.525	10.709	7	7	silty sand to sandy silt
35.63	21.42	0.1337	0.624	10.930	7	7	silty sand to sandy silt
35.70	21.31	0.1162	0.545	10.864	7	7	silty sand to sandy silt
35.76	22.10	0.0945	0.428	10.932	8	7	silty sand to sandy silt
35.83	23.74	0.0832	0.350	11.027	8	7	silty sand to sandy silt
35.89	26.43	0.0722	0.273	10.951	8	7	silty sand to sandy silt
35.96	28.53	0.0784	0.275	10.772	9	7	silty sand to sandy silt
36.02	28.47	0.0994	0.349	10.527	9	7	silty sand to sandy silt
36.09	29.10	0.1295	0.445	10.174	9	7	silty sand to sandy silt
36.15	28.76	0.1426	0.496	10.040	9	7	silty sand to sandy silt
36.22	27.46	0.1486	0.541	10.273	9	7	silty sand to sandy silt
36.29	26.13	0.1515	0.580	10.375	8	7	silty sand to sandy silt
36.35	24.91	0.1538	0.618	10.464	8	7	silty sand to sandy silt
36.42	23.91	0.1492	0.624	10.600	8	7	silty sand to sandy silt
36.48	23.21	0.1376	0.593	10.741	8	7	silty sand to sandy silt
36.55	23.07	0.1333	0.578	10.901	8	7	silty sand to sandy silt
36.61	23.09	0.1336	0.579	10.913	7	7	silty sand to sandy silt
36.68	23.37	0.1381	0.591	10.961	7	7	silty sand to sandy silt
36.75	23.58	0.1486	0.630	11.085	7	7	silty sand to sandy silt
36.81	23.52	0.1566	0.666	11.012	8	7	silty sand to sandy silt
36.88	23.52	0.1579	0.671	11.150	8	7	silty sand to sandy silt
36.94	23.94	0.1517	0.634	11.204	8	7	silty sand to sandy silt
37.01	24.77	0.1467	0.592	11.291	8	7	silty sand to sandy silt
37.07	25.65	0.1542	0.601	11.351	8	7	silty sand to sandy silt
37.14	26.69	0.1670	0.626	11.436	9	7	silty sand to sandy silt
37.20	27.86	0.1761	0.632	11.506	9	7	silty sand to sandy silt
37.27	29.30	0.1887	0.644	11.511	9	7	silty sand to sandy silt
37.34	30.57	0.1982	0.648	11.596	10	7	silty sand to sandy silt
37.40	32.12	0.2064	0.643	11.591	10	7	silty sand to sandy silt
37.47	33.08	0.2153	0.651	11.649	11	7	silty sand to sandy silt
37.53	34.26	0.2260	0.660	11.838	11	7	silty sand to sandy silt
37.60	35.00	0.2366	0.676	11.812	11	7	silty sand to sandy silt
37.66	36.10	0.2559	0.709	11.846	11	7	silty sand to sandy silt
37.73	36.80	0.2556	0.695	11.928	12	7	silty sand to sandy silt
37.80	37.31	0.2427	0.651	12.018	12	7	silty sand to sandy silt
37.86	37.30	0.2531	0.679	12.018	12	7	silty sand to sandy silt
37.93	37.38	0.2656	0.711	12.086	12	7	silty sand to sandy silt
37.99	36.90	0.2721	0.737	12.202	12	7	silty sand to sandy silt
38.06	37.01	0.2729	0.737	12.287	11	7	silty sand to sandy silt
38.12	34.87	0.2751	0.789	12.963	11	7	silty sand to sandy silt
38.19	34.04	0.2769	0.813	12.885	11	7	silty sand to sandy silt
38.25	32.53	0.2671	0.821	13.094	10	7	silty sand to sandy silt
38.32	30.44	0.2619	0.860	13.057	10	7	silty sand to sandy silt
38.39	28.89	0.2595	0.898	12.960	9	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
38.45	27.33	0.2594	0.949	13.021	9	7	silty sand to sandy silt
38.52	25.69	0.2705	1.053	13.002	8	7	silty sand to sandy silt
38.58	24.82	0.2699	1.087	13.103	10	6	sandy silt to clayey silt
38.65	24.49	0.2478	1.012	13.045	10	6	sandy silt to clayey silt
38.71	24.29	0.2366	0.974	13.099	8	7	silty sand to sandy silt
38.78	24.57	0.1997	0.813	13.215	8	7	silty sand to sandy silt
38.85	26.04	0.1778	0.683	13.091	8	7	silty sand to sandy silt
38.91	27.79	0.1619	0.583	13.014	9	7	silty sand to sandy silt
38.98	28.58	0.1741	0.609	12.844	9	7	silty sand to sandy silt
39.04	29.35	0.1840	0.627	12.660	9	7	silty sand to sandy silt
39.11	30.36	0.1905	0.628	12.345	10	7	silty sand to sandy silt
39.17	31.72	0.2085	0.657	12.321	10	7	silty sand to sandy silt
39.24	32.70	0.2203	0.673	12.381	10	7	silty sand to sandy silt
39.30	33.06	0.2339	0.708	12.524	10	7	silty sand to sandy silt
39.37	32.65	0.2521	0.772	12.561	10	7	silty sand to sandy silt
39.44	31.86	0.2523	0.792	12.706	11	7	silty sand to sandy silt
39.50	31.40	0.2548	0.812	12.779	11	7	silty sand to sandy silt
39.57	33.25	0.2496	0.750	12.837	11	7	silty sand to sandy silt
39.63	35.83	0.2593	0.724	12.980	11	7	silty sand to sandy silt
39.70	37.35	0.2874	0.770	13.002	11	7	silty sand to sandy silt
39.76	36.80	0.3039	0.826	12.980	11	7	silty sand to sandy silt
39.83	35.05	0.3066	0.875	13.038	11	7	silty sand to sandy silt
39.90	33.15	0.3016	0.910	13.009	11	7	silty sand to sandy silt
39.96	31.86	0.2799	0.879	13.045	11	7	silty sand to sandy silt
40.03	31.84	0.2492	0.783	13.186	10	7	silty sand to sandy silt
40.09	32.27	0.2501	0.775	13.164	10	7	silty sand to sandy silt
40.16	32.51	0.2621	0.806	13.300	11	7	silty sand to sandy silt
40.22	33.43	0.2843	0.851	13.370	11	7	silty sand to sandy silt
40.29	34.60	0.3117	0.901	13.365	11	7	silty sand to sandy silt
40.35	35.32	0.3283	0.929	13.542	11	7	silty sand to sandy silt
40.42	35.13	0.3313	0.943	13.406	11	7	silty sand to sandy silt
40.49	34.17	0.3105	0.908	13.491	11	7	silty sand to sandy silt
40.55	33.18	0.2993	0.902	13.525	11	7	silty sand to sandy silt
40.62	32.16	0.2910	0.905	13.569	10	7	silty sand to sandy silt
40.68	30.94	0.2808	0.908	13.591	10	7	silty sand to sandy silt
40.75	29.97	0.2629	0.877	13.559	10	7	silty sand to sandy silt
40.81	29.12	0.2601	0.893	13.666	9	7	silty sand to sandy silt
40.88	28.56	0.2552	0.893	13.617	9	7	silty sand to sandy silt
40.94	27.90	0.2458	0.881	13.734	9	7	silty sand to sandy silt
41.01	27.27	0.2224	0.816	13.787	9	7	silty sand to sandy silt
41.08	27.56	0.1762	0.639	13.852	9	7	silty sand to sandy silt
41.14	28.88	0.1657	0.574	13.850	9	7	silty sand to sandy silt
41.21	29.16	0.1561	0.535	13.826	10	7	silty sand to sandy silt
41.27	30.35	0.1607	0.530	13.685	10	7	silty sand to sandy silt
41.34	32.63	0.1580	0.484	14.206	10	7	silty sand to sandy silt
41.40	34.75	0.1674	0.482	14.066	11	7	silty sand to sandy silt
41.47	35.64	0.1898	0.533	13.874	11	7	silty sand to sandy silt
41.54	35.45	0.1942	0.548	13.494	11	7	silty sand to sandy silt
41.60	34.47	0.2087	0.606	13.276	11	7	silty sand to sandy silt
41.67	33.62	0.2236	0.665	13.244	11	7	silty sand to sandy silt
41.73	33.25	0.2280	0.686	13.363	11	7	silty sand to sandy silt
41.80	32.78	0.2305	0.703	13.511	11	7	silty sand to sandy silt
41.86	32.72	0.2394	0.732	13.566	10	7	silty sand to sandy silt
41.93	32.63	0.2501	0.767	13.697	10	7	silty sand to sandy silt
41.99	32.54	0.2734	0.840	13.792	10	7	silty sand to sandy silt
42.06	32.53	0.2747	0.845	13.857	10	7	silty sand to sandy silt
42.13	32.06	0.2900	0.905	13.886	10	7	silty sand to sandy silt
42.19	31.99	0.2943	0.920	13.906	10	7	silty sand to sandy silt
42.26	32.27	0.2934	0.909	13.864	10	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
42.32	32.13	0.2921	0.909	14.058	10	7	silty sand to sandy silt
42.39	31.88	0.2891	0.907	14.080	10	7	silty sand to sandy silt
42.45	32.24	0.2881	0.894	14.184	11	7	silty sand to sandy silt
42.52	32.97	0.2934	0.890	14.226	11	7	silty sand to sandy silt
42.59	34.57	0.2988	0.864	14.296	11	7	silty sand to sandy silt
42.65	36.82	0.3087	0.838	14.366	12	7	silty sand to sandy silt
42.72	39.37	0.3065	0.778	14.427	12	7	silty sand to sandy silt
42.78	39.65	0.3107	0.784	14.601	12	7	silty sand to sandy silt
42.85	38.56	0.3109	0.806	14.473	12	7	silty sand to sandy silt
42.91	37.13	0.3069	0.827	14.550	12	7	silty sand to sandy silt
42.98	35.56	0.3013	0.848	14.618	11	7	silty sand to sandy silt
43.04	33.79	0.2879	0.852	14.679	11	7	silty sand to sandy silt
43.11	32.17	0.2778	0.863	14.717	10	7	silty sand to sandy silt
43.18	30.62	0.2806	0.916	14.807	10	7	silty sand to sandy silt
43.24	29.23	0.2791	0.955	14.751	9	7	silty sand to sandy silt
43.31	27.85	0.2890	1.037	14.877	9	7	silty sand to sandy silt
43.37	26.65	0.2998	1.125	14.999	10	6	sandy silt to clayey silt
43.44	25.38	0.2984	1.176	15.088	10	6	sandy silt to clayey silt
43.50	24.29	0.3034	1.249	15.146	10	6	sandy silt to clayey silt
43.57	24.02	0.3406	1.418	15.156	10	6	sandy silt to clayey silt
43.64	24.98	0.4308	1.724	15.311	10	6	sandy silt to clayey silt
43.70	24.83	0.4049	1.630	15.418	10	6	sandy silt to clayey silt
43.77	25.38	0.3828	1.508	15.704	11	6	sandy silt to clayey silt
43.83	26.21	0.2914	1.112	16.038	10	7	silty sand to sandy silt
43.90	30.44	0.1868	0.614	16.159	10	7	silty sand to sandy silt
43.96	37.31	0.1212	0.325	14.608	11	7	silty sand to sandy silt
44.03	40.79	0.0940	0.230	7.508	12	7	silty sand to sandy silt
44.09	40.82	0.1235	0.302	6.395	12	7	silty sand to sandy silt
44.16	39.93	0.1685	0.422	5.814	12	7	silty sand to sandy silt
44.23	38.14	0.4328	1.135	5.959	13	7	silty sand to sandy silt
44.29	37.73	0.4767	1.264	6.374	13	7	silty sand to sandy silt
44.36	38.16	0.5233	1.371	6.710	15	7	silty sand to sandy silt
44.42	41.14	0.6043	1.469	7.302	17	7	silty sand to sandy silt
44.49	45.56	0.7078	1.553	8.000	20	7	silty sand to sandy silt
44.55	88.36	0.7857	0.889	15.270	22	7	silty sand to sandy silt
44.62	91.75	0.8368	0.912	15.323	18	8	sand to silty sand
44.69	90.58	0.8566	0.946	15.268	19	8	sand to silty sand
44.75	86.14	0.8493	0.986	15.331	20	8	sand to silty sand
44.82	78.82	0.8057	1.022	15.398	19	8	sand to silty sand
44.88	72.19	0.7156	0.991	15.500	18	8	sand to silty sand
44.95	67.23	0.6529	0.971	15.573	17	8	sand to silty sand
45.01	63.46	0.6295	0.992	15.595	21	7	silty sand to sandy silt
45.08	61.66	0.6138	0.995	15.721	20	7	silty sand to sandy silt
45.14	60.08	0.6318	1.052	15.823	19	7	silty sand to sandy silt
45.21	56.75	0.6714	1.183	15.747	18	7	silty sand to sandy silt
45.28	53.55	0.7260	1.356	15.861	18	7	silty sand to sandy silt
45.34	52.88	0.7086	1.340	16.016	17	7	silty sand to sandy silt
45.41	51.51	0.6749	1.310	16.099	17	7	silty sand to sandy silt
45.47	51.28	0.5653	1.102	16.169	17	7	silty sand to sandy silt
45.54	53.92	0.4508	0.836	16.162	18	7	silty sand to sandy silt
45.60	58.59	0.3741	0.638	16.036	14	8	sand to silty sand
45.67	61.78	0.3568	0.578	14.165	14	8	sand to silty sand
45.73	64.02	0.3559	0.556	11.678	15	8	sand to silty sand
45.80	66.47	0.3846	0.579	10.600	15	8	sand to silty sand
45.87	67.31	0.4227	0.628	10.871	15	8	sand to silty sand
45.93	66.12	0.4362	0.660	11.695	15	8	sand to silty sand
46.00	61.84	0.4679	0.757	12.495	15	8	sand to silty sand
46.06	58.72	0.5331	0.908	13.026	19	7	silty sand to sandy silt
46.13	54.78	0.5663	1.034	13.663	18	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
46.19	52.79	0.5564	1.054	14.216	18	7	silty sand to sandy silt
46.26	52.08	0.5519	1.060	14.574	18	7	silty sand to sandy silt
46.33	54.46	0.4930	0.905	15.025	18	7	silty sand to sandy silt
46.39	57.34	0.4379	0.764	15.316	18	7	silty sand to sandy silt
46.46	58.62	0.4199	0.716	15.532	18	7	silty sand to sandy silt
46.52	58.75	0.4642	0.790	15.677	14	8	sand to silty sand
46.59	59.50	0.5538	0.931	15.667	14	8	sand to silty sand
46.65	60.68	0.5366	0.884	16.474	15	8	sand to silty sand
46.72	62.26	0.5171	0.831	15.873	16	8	sand to silty sand
46.78	65.32	0.5583	0.855	16.012	17	8	sand to silty sand
46.85	73.69	0.6378	0.866	16.213	18	8	sand to silty sand
46.92	83.19	0.7657	0.920	16.259	19	8	sand to silty sand
46.98	88.51	0.8850	1.000	15.912	20	8	sand to silty sand
47.05	88.91	1.0054	1.131	15.946	21	8	sand to silty sand
47.11	88.08	1.0664	1.211	15.946	22	8	sand to silty sand
47.18	91.15	0.9900	1.086	15.907	23	8	sand to silty sand
47.24	97.31	0.9881	1.015	16.181	24	8	sand to silty sand
47.31	103.88	1.1558	1.113	16.295	25	8	sand to silty sand
47.38	109.91	1.3292	1.209	16.457	26	8	sand to silty sand
47.44	115.22	1.2947	1.124	16.477	28	8	sand to silty sand
47.51	122.07	1.2570	1.030	16.569	30	8	sand to silty sand
47.57	132.45	1.2133	0.916	16.615	32	8	sand to silty sand
47.64	143.55	1.1903	0.829	16.896	33	8	sand to silty sand
47.70	149.83	1.2239	0.817	16.889	35	8	sand to silty sand
47.77	154.58	1.3291	0.860	15.508	29	9	sand
47.83	158.07	1.4204	0.899	12.929	29	9	sand
47.90	156.64	1.4438	0.922	12.192	29	9	sand
47.97	153.36	1.4281	0.931	12.316	29	9	sand
48.03	148.49	1.2468	0.840	12.885	28	9	sand
48.10	142.51	1.1651	0.818	13.324	34	8	sand to silty sand
48.16	136.21	1.1485	0.843	13.515	32	8	sand to silty sand
48.23	129.43	1.1244	0.869	13.923	31	8	sand to silty sand
48.29	121.96	1.1057	0.907	14.335	30	8	sand to silty sand
48.36	117.49	1.0878	0.926	14.676	29	8	sand to silty sand
48.43	115.01	1.1129	0.968	14.960	28	8	sand to silty sand
48.49	113.53	1.1433	1.007	15.406	27	8	sand to silty sand
48.56	110.11	1.1364	1.032	15.711	26	8	sand to silty sand
48.62	104.80	1.1051	1.054	15.810	24	8	sand to silty sand
48.69	98.63	1.0752	1.090	16.048	23	8	sand to silty sand
48.75	90.21	1.0509	1.165	16.113	22	8	sand to silty sand
48.82	84.21	1.0173	1.208	16.370	20	8	sand to silty sand
48.88	77.04	0.9779	1.269	16.494	25	7	silty sand to sandy silt
48.95	70.41	0.9667	1.373	16.739	23	7	silty sand to sandy silt
49.02	64.23	0.9868	1.536	16.806	21	7	silty sand to sandy silt
49.08	58.61	0.9672	1.650	16.998	19	7	silty sand to sandy silt
49.15	53.78	1.0185	1.894	17.054	17	7	silty sand to sandy silt
49.21	46.89	0.9820	2.095	17.226	18	6	sandy silt to clayey silt
49.28	39.79	0.9519	2.392	17.320	16	6	sandy silt to clayey silt
49.34	31.31	0.8953	2.860	17.434	14	6	sandy silt to clayey silt
49.41	27.63	0.8089	2.928	17.589	13	6	sandy silt to clayey silt
49.48	26.47	0.7337	2.772	17.735	12	6	sandy silt to clayey silt
49.54	29.87	0.5255	1.759	18.227	11	6	sandy silt to clayey silt
49.61	31.05	0.5211	1.678	18.362	11	6	sandy silt to clayey silt
49.67	30.13	0.5381	1.786	18.357	11	6	sandy silt to clayey silt
49.74	28.20	0.5810	2.060	18.450	11	6	sandy silt to clayey silt
49.80	23.99	0.5521	2.301	19.373	12	6	sandy silt to clayey silt
49.87	29.91	0.4946	1.654	21.578	12	6	sandy silt to clayey silt
49.93	30.49	0.4492	1.473	21.925	13	6	sandy silt to clayey silt
50.00	39.75	0.4467	1.124	22.274	11	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
50.07	43.80	0.3774	0.862	21.685	12	7	silty sand to sandy silt
50.13	39.97	0.3776	0.945	21.084	13	7	silty sand to sandy silt
50.20	37.89	0.4159	1.098	20.858	15	7	silty sand to sandy silt
50.26	45.11	0.4998	1.108	20.837	16	7	silty sand to sandy silt
50.33	55.94	0.5247	0.938	20.791	18	7	silty sand to sandy silt
50.39	67.20	0.5310	0.790	20.955	15	8	sand to silty sand
50.46	71.68	0.5825	0.813	21.171	16	8	sand to silty sand
50.52	73.66	0.5948	0.808	21.086	17	8	sand to silty sand
50.59	76.45	0.5924	0.775	20.938	18	8	sand to silty sand
50.66	80.24	0.7168	0.893	21.072	19	8	sand to silty sand
50.72	82.63	0.7746	0.937	21.251	21	8	sand to silty sand
50.79	86.88	0.6577	0.757	21.123	22	8	sand to silty sand
50.85	97.69	0.5354	0.548	21.256	23	8	sand to silty sand
50.92	108.34	0.4996	0.461	20.984	24	8	sand to silty sand
50.98	112.92	0.5167	0.458	18.830	25	8	sand to silty sand
51.05	111.59	0.6069	0.544	14.453	26	8	sand to silty sand
51.12	109.37	0.7476	0.684	12.544	26	8	sand to silty sand
51.18	107.21	0.8923	0.832	11.865	25	8	sand to silty sand
51.25	104.53	0.9598	0.918	12.163	25	8	sand to silty sand
51.31	101.41	0.9541	0.941	12.641	24	8	sand to silty sand
51.38	98.62	0.9493	0.963	12.994	23	8	sand to silty sand
51.44	90.96	0.9324	1.025	13.249	22	8	sand to silty sand
51.51	82.91	0.9095	1.097	13.678	21	8	sand to silty sand
51.57	78.29	0.8923	1.140	14.407	20	8	sand to silty sand
51.64	75.49	0.8534	1.130	15.013	19	8	sand to silty sand
51.71	74.05	0.7880	1.064	15.537	18	8	sand to silty sand
51.77	73.94	0.7525	1.018	16.186	18	8	sand to silty sand
51.84	74.28	0.7526	1.013	16.433	18	8	sand to silty sand
51.90	74.05	0.7461	1.008	16.697	17	8	sand to silty sand
51.97	73.25	0.7316	0.999	16.676	17	8	sand to silty sand
52.03	71.40	0.6884	0.964	16.809	17	8	sand to silty sand
52.10	67.04	0.6459	0.963	16.865	16	8	sand to silty sand
52.17	63.39	0.5796	0.914	17.022	20	7	silty sand to sandy silt
52.23	59.95	0.5390	0.899	17.427	19	7	silty sand to sandy silt
52.30	56.06	0.5067	0.904	17.669	18	7	silty sand to sandy silt
52.36	53.40	0.4840	0.906	17.793	17	7	silty sand to sandy silt
52.43	50.38	0.4731	0.939	17.819	16	7	silty sand to sandy silt
52.49	47.22	0.4708	0.997	18.067	16	7	silty sand to sandy silt
52.56	45.74	0.4590	1.003	18.420	15	7	silty sand to sandy silt
52.62	45.48	0.4576	1.006	18.624	15	7	silty sand to sandy silt
52.69	46.81	0.4530	0.968	19.024	15	7	silty sand to sandy silt
52.76	48.59	0.4024	0.828	19.404	16	7	silty sand to sandy silt
52.82	51.03	0.4188	0.821	19.407	17	7	silty sand to sandy silt
52.89	55.10	0.4657	0.845	19.504	18	7	silty sand to sandy silt
52.95	59.70	0.5087	0.852	19.690	14	8	sand to silty sand
53.02	64.05	0.5284	0.825	19.875	15	8	sand to silty sand
53.08	62.90	0.5337	0.849	20.010	15	8	sand to silty sand
53.15	66.18	0.5196	0.785	20.204	16	8	sand to silty sand
53.22	67.15	0.5352	0.797	20.216	16	8	sand to silty sand
53.28	68.94	0.5416	0.786	20.182	17	8	sand to silty sand
53.35	72.22	0.5529	0.766	20.328	17	8	sand to silty sand
53.41	76.82	0.5711	0.743	20.415	18	8	sand to silty sand
53.48	79.68	0.5931	0.744	20.466	18	8	sand to silty sand
53.54	79.07	0.6020	0.761	20.381	18	8	sand to silty sand
53.61	76.57	0.6434	0.840	20.488	18	8	sand to silty sand
53.67	72.93	0.6549	0.898	20.463	18	8	sand to silty sand
53.74	71.45	0.6609	0.925	20.556	17	8	sand to silty sand
53.81	70.51	0.6543	0.928	20.771	17	8	sand to silty sand
53.87	68.31	0.6209	0.909	20.975	16	8	sand to silty sand

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
53.94	65.15	0.5992	0.920	20.929	15	8	sand to silty sand
54.00	61.15	0.5716	0.935	20.822	20	7	silty sand to sandy silt
54.07	58.45	0.5596	0.957	20.970	20	7	silty sand to sandy silt
54.13	57.92	0.5559	0.960	21.062	15	8	sand to silty sand
54.20	59.97	0.5736	0.957	21.047	15	8	sand to silty sand
54.27	65.83	0.6000	0.912	21.047	16	8	sand to silty sand
54.33	72.37	0.6144	0.849	21.193	21	7	silty sand to sandy silt
54.40	73.90	0.6490	0.878	21.147	21	7	silty sand to sandy silt
54.46	68.04	0.7309	1.074	21.086	20	7	silty sand to sandy silt
54.53	59.57	0.8159	1.370	21.140	18	7	silty sand to sandy silt
54.59	50.90	0.8913	1.751	21.030	17	7	silty sand to sandy silt
54.66	42.34	0.9031	2.133	20.982	17	6	sandy silt to clayey silt
54.72	36.46	1.0364	2.842	20.914	15	6	sandy silt to clayey silt
54.79	31.14	1.0973	3.524	21.123	13	6	sandy silt to clayey silt
54.86	26.91	0.9375	3.484	21.266	14	5	clayey silt to silty clay
54.92	24.92	0.7666	3.076	21.741	13	5	clayey silt to silty clay
54.99	22.69	0.6849	3.019	22.521	11	6	sandy silt to clayey silt
55.05	20.81	0.6356	3.055	23.415	14	6	sandy silt to clayey silt
55.12	21.11	0.5275	2.498	24.898	15	7	silty sand to sandy silt
55.18	52.30	0.4318	0.826	31.771	20	7	silty sand to sandy silt
55.25	88.35	0.4855	0.550	32.355	18	8	sand to silty sand
55.31	107.16	0.6126	0.572	22.819	22	8	sand to silty sand
55.38	118.04	0.7165	0.607	21.205	25	8	sand to silty sand
55.45	122.37	0.8906	0.728	21.433	28	8	sand to silty sand
55.51	124.25	0.9361	0.753	21.561	29	8	sand to silty sand
55.58	125.08	0.9748	0.779	21.573	30	8	sand to silty sand
55.64	126.34	1.0388	0.822	21.607	30	8	sand to silty sand
55.71	127.34	1.1335	0.890	21.738	30	8	sand to silty sand
55.77	126.73	1.2055	0.951	21.874	30	8	sand to silty sand
55.84	127.49	1.2730	0.998	21.758	30	8	sand to silty sand
55.91	127.01	1.4004	1.103	21.784	30	8	sand to silty sand
55.97	125.85	1.4972	1.190	21.755	30	8	sand to silty sand
56.04	125.21	1.3761	1.099	21.891	30	8	sand to silty sand
56.10	123.47	1.3210	1.070	21.961	29	8	sand to silty sand
56.17	120.30	1.3566	1.128	21.905	29	8	sand to silty sand
56.23	115.53	1.3523	1.171	21.915	29	8	sand to silty sand
56.30	112.60	1.3456	1.195	21.864	29	8	sand to silty sand
56.36	115.75	1.3589	1.174	21.200	29	8	sand to silty sand
56.43	124.32	1.3798	1.110	21.365	29	8	sand to silty sand
56.50	129.71	1.4263	1.100	21.489	29	8	sand to silty sand
56.56	128.14	1.4563	1.136	21.520	29	8	sand to silty sand
56.63	121.89	1.4293	1.173	21.515	28	8	sand to silty sand
56.69	114.52	1.3105	1.144	21.600	27	8	sand to silty sand
56.76	106.17	1.2044	1.134	21.518	26	8	sand to silty sand
56.82	99.93	1.0179	1.019	21.406	24	8	sand to silty sand
56.89	92.75	0.8517	0.918	21.421	23	8	sand to silty sand
56.96	88.09	0.7141	0.811	21.411	21	8	sand to silty sand
57.02	82.02	0.6622	0.807	21.319	20	8	sand to silty sand
57.09	77.10	0.6262	0.812	21.469	19	8	sand to silty sand
57.15	72.42	0.6040	0.834	21.481	18	8	sand to silty sand
57.22	68.57	0.5857	0.854	21.547	17	8	sand to silty sand
57.28	66.68	0.5857	0.878	21.736	16	8	sand to silty sand
57.35	64.17	0.5788	0.902	21.646	16	8	sand to silty sand
57.41	62.70	0.5801	0.925	21.765	15	8	sand to silty sand
57.48	61.64	0.5631	0.914	21.648	15	8	sand to silty sand
57.55	61.90	0.5900	0.953	21.782	16	8	sand to silty sand
57.61	64.47	0.7286	1.130	21.881	17	8	sand to silty sand
57.68	70.97	0.7007	0.987	22.019	18	8	sand to silty sand
57.74	80.87	0.8230	1.018	22.208	20	8	sand to silty sand

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
57.81	89.89	0.9455	1.052	22.502	22	8	sand to silty sand
57.87	99.06	1.0889	1.099	22.693	24	8	sand to silty sand
57.94	106.74	1.3079	1.225	22.637	27	8	sand to silty sand
58.01	125.91	1.5470	1.229	22.819	30	8	sand to silty sand
58.07	140.93	1.7666	1.254	22.943	33	8	sand to silty sand
58.14	155.37	2.2152	1.426	23.059	34	8	sand to silty sand
58.20	163.93	3.0069	1.834	22.717	47	7	silty sand to sandy silt
58.27	158.66	3.3347	2.102	22.703	47	7	silty sand to sandy silt
58.33	145.42	3.6500	2.510	22.727	46	7	silty sand to sandy silt
58.40	132.55	4.1012	3.094	22.744	54	6	sandy silt to clayey silt
58.46	125.18	4.8417	3.868	23.427	53	6	sandy silt to clayey silt
58.53	129.36	5.9600	4.607	24.053	66	12	sand to clayey sand (*)
58.60	136.86	6.1042	4.460	26.333	133	11	very stiff fine grained (*)
58.66	149.38	6.3799	4.271	32.854	137	11	very stiff fine grained (*)
58.73	151.93	6.7339	4.432	38.019	144	11	very stiff fine grained (*)
58.79	146.01	7.6566	5.244	40.246	152	11	very stiff fine grained (*)
58.86	159.67	8.4266	5.277	54.830	0	0	<out of range>
58.92	181.09	8.8811	4.904	66.693	0	0	<out of range>
58.99	183.21	9.4865	5.178	80.438	163	11	very stiff fine grained (*)
59.06	183.40	-32768	-32768	83.744	0	0	<out of range>
59.12	171.66	-32768	-32768	82.443	0	0	<out of range>
59.19	159.93	-32768	-32768	81.589	0	0	<out of range>
59.25	155.03	-32768	-32768	81.650	0	0	<out of range>

*Soil behavior type and SPT based on data from UBC-1983

AECOM

TVA Kingston Coal Ash Pond RCA (Kingston,Tennessee) Cone Penetration Test

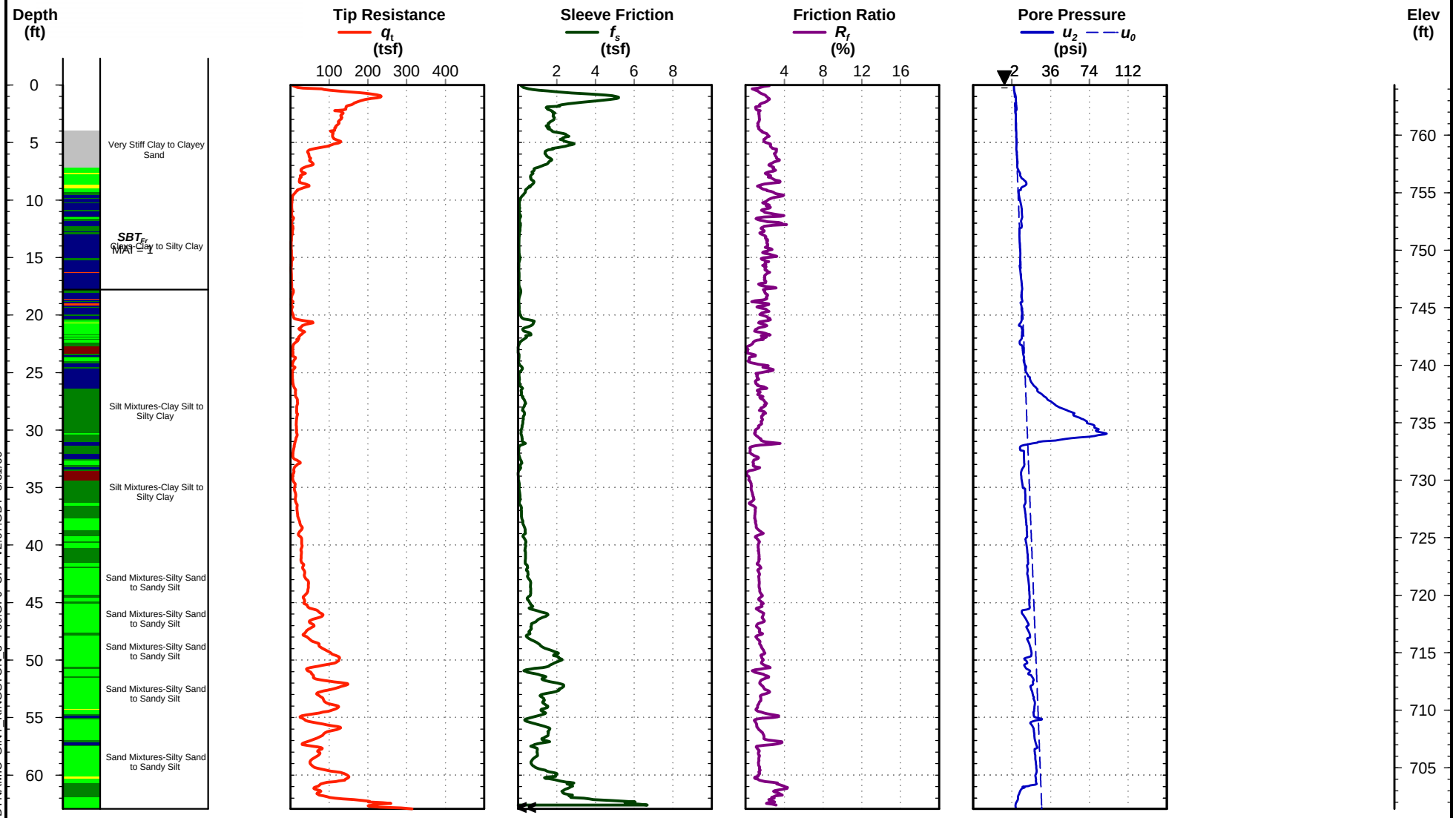
09-700-C3

Project No: 60095742

Date: Mar. 7, 2009
Estimated Water Depth: 0 ft
Rig/Operator: Mobile 57/CAP

Northing: 556511.38
Easting: 2442063.41
Elevation: 764.36 NGVD

Total Depth: 62.9 ft
Termination Criteria: Refusal
Cone Size: 10T Tension Cone



CPT REPORT - DYNAMIC GINT_KINGSTON_3-4-09.GPJ CPT V2.07.GDT 3/31/09

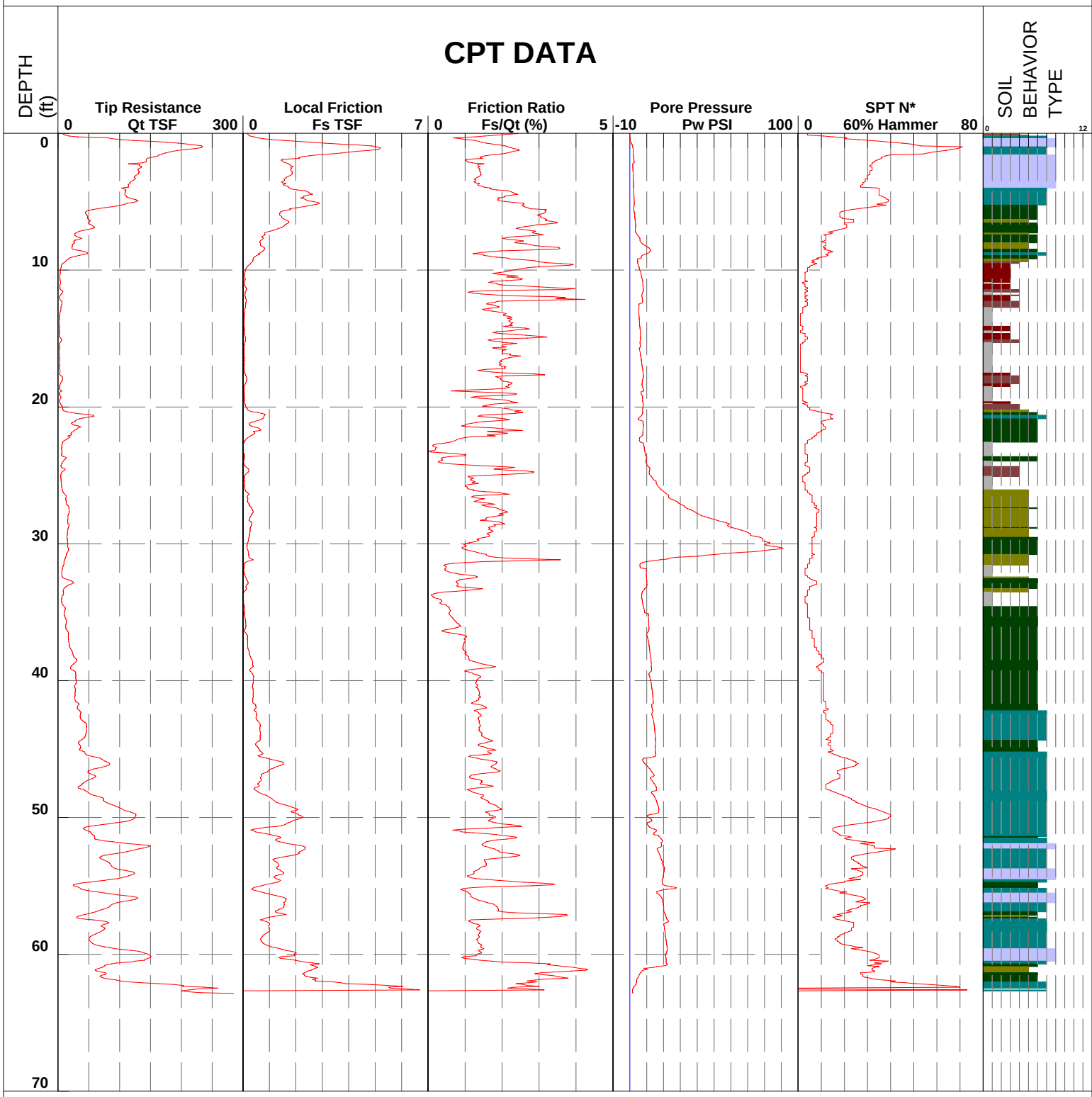
09-700-C3

Electronic Filename: 09-700-C3.cpt

AECOM

09-700-C3	60095742	3/7/2009 7:18:37 AM
DSG0870	TVA-Kingston	CME-850/CAP

CPT DATA



1 - sensitive fine grained	4 - silty clay to clay	7 - silty sand to sandy silt	10 - gravelly sand to sand
2 - organic material	5 - clayey silt to silty clay	8 - sand to silty sand	11 - very stiff fine grained (*)
3 - clay	6 - sandy silt to clayey silt	9 - sand	12 - sand to clayey sand (*)

Data File:09-700-C3 3/7/2009 7:18:37 AM
Operator:CME-850/CAP Location:TVA-Kingston
Cone ID:DSG0870 Job Number:60095742
Customer:TVA Units:

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
0.07	6.65	0.1621	2.438	-0.034	4	4	silty clay to clay
0.13	11.50	0.2147	1.868	-0.034	4	5	clayey silt to silty clay
0.20	17.84	0.2723	1.527	-0.022	11	7	silty sand to sandy silt
0.26	32.03	0.4098	1.279	-0.029	15	7	silty sand to sandy silt
0.33	80.20	0.5457	0.680	0.063	21	7	silty sand to sandy silt
0.39	87.27	0.7628	0.874	0.114	20	8	sand to silty sand
0.46	102.67	1.0803	1.052	0.150	26	8	sand to silty sand
0.52	122.88	1.5564	1.267	0.228	31	8	sand to silty sand
0.59	152.30	2.0811	1.366	0.354	36	8	sand to silty sand
0.66	177.31	2.5667	1.448	0.691	40	8	sand to silty sand
0.72	195.52	3.0903	1.581	0.935	45	8	sand to silty sand
0.79	209.96	3.6758	1.751	1.219	49	8	sand to silty sand
0.85	222.70	4.3641	1.960	1.364	51	8	sand to silty sand
0.92	232.82	4.8648	2.090	1.522	53	8	sand to silty sand
0.98	234.28	5.0466	2.154	1.667	71	7	silty sand to sandy silt
1.05	232.06	5.1929	2.238	1.805	70	7	silty sand to sandy silt
1.12	222.95	5.1849	2.326	1.893	69	7	silty sand to sandy silt
1.18	207.70	5.0868	2.449	1.948	66	7	silty sand to sandy silt
1.25	193.74	4.7655	2.460	1.948	64	7	silty sand to sandy silt
1.31	187.30	4.3290	2.311	1.934	61	7	silty sand to sandy silt
1.38	179.61	4.0166	2.236	1.910	58	7	silty sand to sandy silt
1.44	173.96	3.7098	2.133	1.917	56	7	silty sand to sandy silt
1.51	169.26	3.3353	1.971	2.050	54	7	silty sand to sandy silt
1.57	164.41	2.8352	1.724	2.036	40	8	sand to silty sand
1.64	162.53	2.5145	1.547	1.994	38	8	sand to silty sand
1.71	157.40	2.2500	1.429	2.208	37	8	sand to silty sand
1.77	149.87	2.1064	1.405	2.317	36	8	sand to silty sand
1.84	144.55	2.1441	1.483	2.392	36	8	sand to silty sand
1.90	143.30	1.4860	1.037	2.423	35	8	sand to silty sand
1.97	143.46	1.4469	1.009	2.472	34	8	sand to silty sand
2.03	142.89	1.5113	1.058	2.460	33	8	sand to silty sand
2.10	142.62	1.5296	1.072	2.520	33	8	sand to silty sand
2.17	136.33	1.6292	1.195	2.499	32	8	sand to silty sand
2.23	114.13	1.7228	1.509	1.677	32	8	sand to silty sand
2.30	132.89	1.7766	1.337	1.692	32	8	sand to silty sand
2.36	131.99	1.7872	1.354	1.696	31	8	sand to silty sand
2.43	135.85	1.8993	1.398	1.738	31	8	sand to silty sand
2.49	134.69	1.8140	1.347	1.762	32	8	sand to silty sand
2.56	132.29	1.8239	1.379	1.793	32	8	sand to silty sand
2.62	129.79	1.8263	1.407	1.793	32	8	sand to silty sand
2.69	130.28	1.8084	1.388	1.757	32	8	sand to silty sand
2.76	130.92	1.8270	1.396	1.864	31	8	sand to silty sand
2.82	132.85	1.8758	1.412	1.881	31	8	sand to silty sand
2.89	130.54	1.8550	1.421	1.929	31	8	sand to silty sand
2.95	131.02	1.8680	1.426	1.922	31	8	sand to silty sand
3.02	128.39	1.8416	1.434	1.970	31	8	sand to silty sand
3.08	126.05	1.7883	1.419	1.936	30	8	sand to silty sand
3.15	124.19	1.7117	1.378	1.905	30	8	sand to silty sand
3.22	123.46	1.6383	1.327	1.948	30	8	sand to silty sand
3.28	125.56	1.6176	1.288	1.997	30	8	sand to silty sand
3.35	124.88	1.5541	1.244	2.024	29	8	sand to silty sand
3.41	123.11	1.5770	1.281	2.074	29	8	sand to silty sand
3.48	120.50	1.5569	1.292	2.050	29	8	sand to silty sand
3.54	117.62	1.4550	1.237	2.072	29	8	sand to silty sand

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
3.61	116.63	1.4851	1.273	2.111	28	8	sand to silty sand
3.67	117.24	1.6245	1.386	2.074	28	8	sand to silty sand
3.74	114.03	1.5303	1.342	2.120	28	8	sand to silty sand
3.81	114.78	1.5478	1.349	2.065	27	8	sand to silty sand
3.87	113.91	1.6761	1.471	2.108	27	8	sand to silty sand
3.94	114.37	1.7353	1.517	2.133	27	8	sand to silty sand
4.00	103.01	1.7534	1.702	2.251	35	7	silty sand to sandy silt
4.07	108.77	1.8283	1.681	2.222	35	7	silty sand to sandy silt
4.13	110.35	2.0358	1.845	2.300	35	7	silty sand to sandy silt
4.20	108.28	2.3358	2.157	2.302	35	7	silty sand to sandy silt
4.27	109.90	2.4516	2.231	2.305	35	7	silty sand to sandy silt
4.33	108.68	2.4938	2.295	2.348	35	7	silty sand to sandy silt
4.40	108.57	2.5470	2.346	2.343	35	7	silty sand to sandy silt
4.46	108.50	2.6332	2.427	2.370	35	7	silty sand to sandy silt
4.53	108.91	2.4272	2.229	2.406	35	7	silty sand to sandy silt
4.59	111.23	2.3060	2.073	2.426	36	7	silty sand to sandy silt
4.66	111.53	2.2979	2.060	2.460	37	7	silty sand to sandy silt
4.72	115.66	2.1748	1.880	2.465	38	7	silty sand to sandy silt
4.79	120.59	2.3150	1.920	2.484	38	7	silty sand to sandy silt
4.86	126.46	2.3764	1.879	2.520	39	7	silty sand to sandy silt
4.92	130.00	2.4581	1.891	2.586	39	7	silty sand to sandy silt
4.99	127.33	2.6432	2.076	2.608	39	7	silty sand to sandy silt
5.05	122.48	2.8337	2.314	2.552	38	7	silty sand to sandy silt
5.12	112.44	2.8941	2.574	2.549	36	7	silty sand to sandy silt
5.18	107.81	2.7998	2.597	2.554	34	7	silty sand to sandy silt
5.25	102.67	2.6073	2.539	2.508	38	6	sandy silt to clayey silt
5.31	95.43	2.4474	2.565	2.423	35	6	sandy silt to clayey silt
5.38	85.53	2.2358	2.614	2.346	32	6	sandy silt to clayey silt
5.45	74.79	2.0213	2.703	2.273	29	6	sandy silt to clayey silt
5.51	64.36	1.7689	2.749	2.247	26	6	sandy silt to clayey silt
5.58	56.30	1.8008	3.199	2.266	23	6	sandy silt to clayey silt
5.64	49.40	1.5592	3.156	2.351	21	6	sandy silt to clayey silt
5.71	45.67	1.4543	3.184	2.496	19	6	sandy silt to clayey silt
5.77	44.22	1.4037	3.175	2.651	18	6	sandy silt to clayey silt
5.84	44.51	1.3961	3.136	2.964	18	6	sandy silt to clayey silt
5.91	45.51	1.3866	3.047	2.884	18	6	sandy silt to clayey silt
5.97	47.07	1.3882	2.949	2.862	18	6	sandy silt to clayey silt
6.04	47.48	1.4365	3.025	2.877	18	6	sandy silt to clayey silt
6.10	48.08	1.4643	3.045	2.944	18	6	sandy silt to clayey silt
6.17	48.18	1.4794	3.070	2.971	19	6	sandy silt to clayey silt
6.23	48.34	1.5218	3.148	3.020	19	6	sandy silt to clayey silt
6.30	49.44	1.5843	3.204	3.070	24	5	clayey silt to silty clay
6.36	52.10	1.6494	3.166	3.133	24	5	clayey silt to silty clay
6.43	51.73	1.7191	3.323	3.155	24	5	clayey silt to silty clay
6.50	49.84	1.7385	3.488	3.189	24	5	clayey silt to silty clay
6.56	49.18	1.7135	3.484	3.279	20	6	sandy silt to clayey silt
6.63	50.97	1.6365	3.211	3.398	20	6	sandy silt to clayey silt
6.69	53.91	1.5864	2.943	3.458	21	6	sandy silt to clayey silt
6.76	56.24	1.5633	2.780	3.456	21	6	sandy silt to clayey silt
6.82	58.15	1.5232	2.620	3.395	21	6	sandy silt to clayey silt
6.89	59.23	1.4575	2.461	3.335	21	6	sandy silt to clayey silt
6.96	56.45	1.3439	2.381	3.286	20	6	sandy silt to clayey silt
7.02	49.78	1.2530	2.517	3.243	18	6	sandy silt to clayey silt
7.09	42.18	1.1525	2.732	3.238	17	6	sandy silt to clayey silt
7.15	35.71	1.0380	2.907	3.218	15	6	sandy silt to clayey silt
7.22	31.64	0.8963	2.833	3.393	13	6	sandy silt to clayey silt
7.28	29.01	0.8222	2.834	3.778	15	5	clayey silt to silty clay
7.35	27.59	0.8215	2.978	4.115	14	5	clayey silt to silty clay
7.41	27.03	0.8416	3.114	4.447	11	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
7.48	27.66	0.7883	2.850	4.760	12	6	sandy silt to clayey silt
7.55	30.01	0.7124	2.374	5.290	12	6	sandy silt to clayey silt
7.61	34.01	0.7355	2.163	5.664	12	6	sandy silt to clayey silt
7.68	38.48	0.7763	2.018	5.983	12	6	sandy silt to clayey silt
7.74	34.45	0.7353	2.134	6.022	12	6	sandy silt to clayey silt
7.81	28.66	0.6875	2.399	5.986	12	6	sandy silt to clayey silt
7.87	25.27	0.6520	2.580	6.063	11	6	sandy silt to clayey silt
7.94	26.93	0.6374	2.367	6.592	10	6	sandy silt to clayey silt
8.01	27.50	0.6453	2.347	7.009	12	5	clayey silt to silty clay
8.07	25.17	0.6650	2.642	7.302	12	5	clayey silt to silty clay
8.14	23.72	0.6561	2.766	7.976	12	5	clayey silt to silty clay
8.20	23.11	0.6645	2.875	9.049	12	5	clayey silt to silty clay
8.27	23.25	0.7215	3.103	9.953	11	5	clayey silt to silty clay
8.33	22.84	0.8048	3.524	10.794	11	5	clayey silt to silty clay
8.40	22.73	0.8096	3.562	11.545	12	5	clayey silt to silty clay
8.46	23.37	0.8245	3.527	11.947	11	6	sandy silt to clayey silt
8.53	28.86	0.8018	2.779	12.212	12	6	sandy silt to clayey silt
8.60	38.50	0.7525	1.955	12.301	14	6	sandy silt to clayey silt
8.66	43.65	0.7196	1.649	11.855	15	6	sandy silt to clayey silt
8.73	48.16	0.6731	1.397	11.211	13	7	silty sand to sandy silt
8.79	47.89	0.5815	1.214	10.101	13	7	silty sand to sandy silt
8.86	41.98	0.6242	1.487	8.424	12	7	silty sand to sandy silt
8.92	34.84	0.5229	1.501	7.377	13	6	sandy silt to clayey silt
8.99	28.29	0.4758	1.682	6.815	12	6	sandy silt to clayey silt
9.06	22.91	0.4226	1.845	6.647	10	6	sandy silt to clayey silt
9.12	17.76	0.3857	2.172	6.718	8	6	sandy silt to clayey silt
9.19	17.67	0.3866	2.187	4.515	9	5	clayey silt to silty clay
9.25	14.66	0.3837	2.618	4.522	7	5	clayey silt to silty clay
9.32	13.10	0.3779	2.885	4.571	6	5	clayey silt to silty clay
9.38	11.85	0.3532	2.981	4.626	7	4	silty clay to clay
9.45	9.94	0.3141	3.160	4.665	6	4	silty clay to clay
9.51	8.00	0.2866	3.583	4.731	8	3	clay
9.58	6.61	0.2596	3.925	4.825	7	3	clay
9.65	5.53	0.2120	3.832	4.941	6	3	clay
9.71	5.10	0.1707	3.345	5.140	5	3	clay
9.78	5.32	0.1532	2.881	5.470	5	3	clay
9.84	4.97	0.1316	2.651	5.581	4	3	clay
9.91	4.30	0.1068	2.485	5.659	4	3	clay
9.97	3.87	0.0905	2.339	5.797	4	3	clay
10.04	3.70	0.0823	2.226	5.983	4	3	clay
10.10	3.80	0.0811	2.132	6.168	4	3	clay
10.17	3.81	0.0745	1.953	6.519	3	3	clay
10.24	3.63	0.0633	1.746	6.575	3	3	clay
10.30	3.25	0.0620	1.907	6.667	3	3	clay
10.37	3.16	0.0685	2.163	6.769	3	3	clay
10.43	3.08	0.0751	2.435	6.897	3	3	clay
10.50	2.98	0.0632	2.124	7.033	3	3	clay
10.56	2.92	0.0713	2.444	7.154	3	3	clay
10.63	3.25	0.0831	2.557	7.377	3	3	clay
10.70	3.48	0.0871	2.504	7.503	3	3	clay
10.76	3.61	0.0763	2.114	7.578	3	3	clay
10.83	3.62	0.0626	1.726	7.612	4	3	clay
10.89	4.03	0.0662	1.643	7.668	2	1	sensitive fine grained
10.96	4.11	0.0755	1.839	7.668	2	1	sensitive fine grained
11.02	3.67	0.0693	1.889	7.612	3	3	clay
11.09	3.02	0.0609	2.014	7.624	3	3	clay
11.15	2.74	0.0709	2.592	7.723	3	3	clay
11.22	3.18	0.0945	2.973	7.823	3	3	clay
11.29	3.49	0.1198	3.433	7.908	4	3	clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
11.35	3.30	0.1308	3.966	7.900	4	3	clay
11.42	3.80	0.1384	3.640	7.963	3	4	silty clay to clay
11.48	6.54	0.1223	1.869	8.058	4	4	silty clay to clay
11.55	8.19	0.0976	1.191	7.956	4	4	silty clay to clay
11.61	7.46	0.0808	1.082	7.694	3	1	sensitive fine grained
11.68	6.65	0.0815	1.225	7.471	3	1	sensitive fine grained
11.75	5.71	0.0823	1.440	7.287	3	1	sensitive fine grained
11.81	4.26	0.0789	1.852	7.103	3	4	silty clay to clay
11.88	3.24	0.0727	2.243	7.038	4	3	clay
11.94	2.69	0.0913	3.396	7.110	3	3	clay
12.01	2.72	0.1012	3.714	7.287	3	3	clay
12.07	2.90	0.1002	3.456	7.423	3	3	clay
12.14	3.04	0.1286	4.236	7.488	4	3	clay
12.20	4.50	0.1263	2.804	7.578	4	3	clay
12.27	6.34	0.1198	1.888	7.580	3	4	silty clay to clay
12.34	6.29	0.1142	1.816	7.437	4	4	silty clay to clay
12.40	6.52	0.1076	1.650	7.341	4	4	silty clay to clay
12.47	6.63	0.1049	1.583	5.433	4	4	silty clay to clay
12.53	6.04	0.1051	1.740	5.424	4	4	silty clay to clay
12.60	5.52	0.1001	1.814	5.399	4	4	silty clay to clay
12.66	5.06	0.0971	1.917	5.387	3	4	silty clay to clay
12.73	4.79	0.0908	1.897	5.378	2	1	sensitive fine grained
12.80	4.79	0.0786	1.642	5.361	2	1	sensitive fine grained
12.86	4.81	0.0706	1.467	5.348	2	1	sensitive fine grained
12.93	4.73	0.0721	1.524	5.361	2	1	sensitive fine grained
12.99	4.31	0.0745	1.730	5.346	2	1	sensitive fine grained
13.06	3.58	0.0680	1.903	5.351	2	1	sensitive fine grained
13.12	3.06	0.0621	2.031	5.348	2	1	sensitive fine grained
13.19	2.78	0.0587	2.111	5.368	1	1	sensitive fine grained
13.25	2.77	0.0564	2.036	5.404	1	1	sensitive fine grained
13.32	2.65	0.0542	2.045	5.436	1	1	sensitive fine grained
13.39	2.50	0.0552	2.204	5.436	1	1	sensitive fine grained
13.45	2.36	0.0535	2.270	5.470	1	1	sensitive fine grained
13.52	2.27	0.0489	2.149	5.523	1	1	sensitive fine grained
13.58	2.14	0.0485	2.266	5.550	1	1	sensitive fine grained
13.65	2.16	0.0480	2.224	5.610	1	1	sensitive fine grained
13.71	2.14	0.0466	2.180	5.644	1	1	sensitive fine grained
13.78	2.13	0.0473	2.220	5.683	1	1	sensitive fine grained
13.85	2.09	0.0479	2.295	5.717	1	1	sensitive fine grained
13.91	2.10	0.0474	2.256	5.756	1	1	sensitive fine grained
13.98	2.13	0.0471	2.214	5.807	1	1	sensitive fine grained
14.04	2.10	0.0477	2.275	5.838	1	1	sensitive fine grained
14.11	2.25	0.0457	2.034	5.867	2	3	clay
14.17	2.21	0.0506	2.284	5.947	2	3	clay
14.24	2.20	0.0579	2.630	5.986	2	3	clay
14.30	2.18	0.0596	2.738	6.066	2	3	clay
14.37	2.35	0.0561	2.384	6.112	2	3	clay
14.44	2.52	0.0559	2.221	6.172	1	1	sensitive fine grained
14.50	2.74	0.0507	1.851	6.221	1	1	sensitive fine grained
14.57	2.80	0.0491	1.754	6.199	1	1	sensitive fine grained
14.63	2.68	0.0519	1.941	6.185	3	3	clay
14.70	2.59	0.0616	2.379	6.189	3	3	clay
14.76	2.61	0.0690	2.643	6.192	3	3	clay
14.83	2.51	0.0752	2.997	6.214	3	3	clay
14.90	2.73	0.0879	3.216	6.250	4	3	clay
14.96	3.84	0.1035	2.693	6.289	4	3	clay
15.03	5.51	0.1012	1.837	6.272	4	3	clay
15.09	6.01	0.0977	1.625	6.172	3	4	silty clay to clay
15.16	5.54	0.0927	1.673	6.100	3	4	silty clay to clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
15.22	4.44	0.0860	1.935	6.042	3	4	silty clay to clay
15.29	3.49	0.0711	2.037	6.015	2	1	sensitive fine grained
15.35	2.81	0.0673	2.397	6.034	2	1	sensitive fine grained
15.42	2.45	0.0519	2.114	6.066	1	1	sensitive fine grained
15.49	2.37	0.0473	1.996	6.158	1	1	sensitive fine grained
15.55	2.34	0.0467	1.997	6.204	1	1	sensitive fine grained
15.62	2.19	0.0461	2.108	6.303	1	1	sensitive fine grained
15.68	2.76	0.0482	1.747	5.656	1	1	sensitive fine grained
15.75	2.38	0.0453	1.903	5.671	1	1	sensitive fine grained
15.81	2.19	0.0465	2.119	5.712	1	1	sensitive fine grained
15.88	2.11	0.0422	2.004	5.833	1	1	sensitive fine grained
15.94	2.13	0.0429	2.016	5.969	1	1	sensitive fine grained
16.01	2.09	0.0420	2.008	6.092	1	1	sensitive fine grained
16.08	2.09	0.0419	2.007	6.158	1	1	sensitive fine grained
16.14	2.05	0.0456	2.229	6.214	1	1	sensitive fine grained
16.21	2.00	0.0443	2.210	6.289	1	1	sensitive fine grained
16.27	2.02	0.0506	2.502	6.391	1	1	sensitive fine grained
16.34	2.14	0.0500	2.334	6.492	1	1	sensitive fine grained
16.40	2.49	0.0543	2.181	6.614	1	1	sensitive fine grained
16.47	2.79	0.0582	2.085	6.749	1	1	sensitive fine grained
16.54	2.87	0.0579	2.014	6.817	1	1	sensitive fine grained
16.60	2.85	0.0557	1.958	6.858	1	1	sensitive fine grained
16.67	2.77	0.0553	1.997	6.851	1	1	sensitive fine grained
16.73	2.79	0.0537	1.925	6.929	1	1	sensitive fine grained
16.80	2.81	0.0547	1.946	7.040	1	1	sensitive fine grained
16.86	2.73	0.0542	1.988	7.089	1	1	sensitive fine grained
16.93	2.62	0.0505	1.925	7.161	1	1	sensitive fine grained
16.99	2.53	0.0499	1.972	7.227	1	1	sensitive fine grained
17.06	2.37	0.0499	2.107	7.328	1	1	sensitive fine grained
17.13	2.29	0.0472	2.063	7.408	1	1	sensitive fine grained
17.19	2.26	0.0472	2.083	7.515	1	1	sensitive fine grained
17.26	3.00	0.0464	1.549	7.668	1	1	sensitive fine grained
17.32	3.26	0.0437	1.340	7.743	1	1	sensitive fine grained
17.39	3.02	0.0451	1.491	7.760	1	1	sensitive fine grained
17.45	3.17	0.0555	1.749	7.816	1	1	sensitive fine grained
17.52	3.08	0.0653	2.124	7.828	3	3	clay
17.59	2.80	0.0812	2.894	7.835	4	3	clay
17.65	2.96	0.0933	3.156	7.937	4	3	clay
17.72	5.20	0.1102	2.121	8.094	3	4	silty clay to clay
17.78	7.12	0.1298	1.823	8.068	4	4	silty clay to clay
17.85	7.39	0.1391	1.883	7.903	4	4	silty clay to clay
17.91	7.36	0.1452	1.972	7.716	4	4	silty clay to clay
17.98	7.39	0.1446	1.957	7.617	4	4	silty clay to clay
18.04	7.23	0.1435	1.985	7.551	4	4	silty clay to clay
18.11	6.40	0.1301	2.034	7.471	4	4	silty clay to clay
18.18	5.43	0.1183	2.177	7.370	3	4	silty clay to clay
18.24	4.50	0.1021	2.266	7.278	3	4	silty clay to clay
18.31	3.96	0.0897	2.268	7.202	4	3	clay
18.37	3.43	0.0746	2.177	7.193	3	3	clay
18.44	2.82	0.0613	2.177	7.251	3	3	clay
18.50	2.43	0.0512	2.104	7.396	1	1	sensitive fine grained
18.57	2.24	0.0492	2.199	7.610	1	1	sensitive fine grained
18.64	2.19	0.0453	2.070	7.784	2	1	sensitive fine grained
18.70	2.35	0.0410	1.741	7.997	2	1	sensitive fine grained
18.77	4.18	0.0406	0.970	8.140	2	1	sensitive fine grained
18.83	6.65	0.0418	0.629	8.179	2	1	sensitive fine grained
18.90	3.23	0.0437	1.355	6.614	2	1	sensitive fine grained
18.96	2.62	0.0507	1.940	6.604	2	1	sensitive fine grained
19.03	2.29	0.0545	2.380	6.691	2	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
19.09	2.25	0.0537	2.390	6.880	2	1	sensitive fine grained
19.16	2.70	0.0543	2.011	7.212	2	1	sensitive fine grained
19.23	4.52	0.0593	1.313	7.527	2	1	sensitive fine grained
19.29	5.40	0.0624	1.156	7.556	2	1	sensitive fine grained
19.36	4.45	0.0617	1.385	7.486	2	1	sensitive fine grained
19.42	3.35	0.0582	1.737	7.442	2	1	sensitive fine grained
19.49	2.91	0.0602	2.066	7.450	2	1	sensitive fine grained
19.55	2.72	0.0598	2.196	7.525	2	1	sensitive fine grained
19.62	2.76	0.0626	2.266	7.636	3	3	clay
19.69	3.17	0.0767	2.416	7.762	4	3	clay
19.75	3.87	0.0761	1.966	7.864	2	1	sensitive fine grained
19.82	4.78	0.0806	1.684	7.934	3	4	silty clay to clay
19.88	5.47	0.0859	1.571	7.925	4	4	silty clay to clay
19.95	6.88	0.1014	1.473	7.869	4	4	silty clay to clay
20.01	7.22	0.1265	1.752	7.760	4	4	silty clay to clay
20.08	7.20	0.1434	1.992	7.648	5	4	silty clay to clay
20.14	7.63	0.1668	2.186	7.566	5	4	silty clay to clay
20.21	8.10	0.1823	2.250	7.554	5	5	clayey silt to silty clay
20.28	9.34	0.2328	2.493	7.568	7	5	clayey silt to silty clay
20.34	13.53	0.3173	2.346	7.595	9	5	clayey silt to silty clay
20.41	21.50	0.5500	2.558	7.612	10	6	sandy silt to clayey silt
20.47	30.97	0.7293	2.355	7.556	13	6	sandy silt to clayey silt
20.54	44.49	0.8357	1.878	7.331	15	6	sandy silt to clayey silt
20.60	57.14	0.8239	1.442	6.950	14	7	silty sand to sandy silt
20.67	58.58	0.7897	1.348	6.577	14	7	silty sand to sandy silt
20.73	49.73	0.7927	1.594	6.163	14	7	silty sand to sandy silt
20.80	40.78	0.7643	1.874	5.412	14	7	silty sand to sandy silt
20.87	35.09	0.7290	2.078	4.992	15	6	sandy silt to clayey silt
20.93	30.18	0.6643	2.201	4.876	13	6	sandy silt to clayey silt
21.00	28.16	0.5467	1.941	7.067	11	6	sandy silt to clayey silt
21.06	27.62	0.4242	1.536	7.833	10	6	sandy silt to clayey silt
21.13	23.66	0.3081	1.302	7.789	10	6	sandy silt to clayey silt
21.19	21.36	0.2516	1.178	7.755	10	6	sandy silt to clayey silt
21.26	23.36	0.2377	1.017	8.075	11	6	sandy silt to clayey silt
21.33	26.38	0.2658	1.007	8.220	11	6	sandy silt to clayey silt
21.39	33.11	0.3013	0.910	8.082	11	6	sandy silt to clayey silt
21.46	37.12	0.4374	1.178	7.854	12	6	sandy silt to clayey silt
21.52	32.56	0.5651	1.735	7.857	12	6	sandy silt to clayey silt
21.59	31.07	0.6299	2.027	7.857	12	6	sandy silt to clayey silt
21.65	29.85	0.6608	2.214	7.840	11	6	sandy silt to clayey silt
21.72	26.13	0.6660	2.548	7.825	10	6	sandy silt to clayey silt
21.78	24.47	0.3935	1.608	7.772	10	6	sandy silt to clayey silt
21.85	22.55	0.4326	1.919	7.738	9	6	sandy silt to clayey silt
21.92	20.95	0.4503	2.149	7.702	8	6	sandy silt to clayey silt
21.98	21.19	0.4101	1.935	7.660	8	6	sandy silt to clayey silt
22.05	21.89	0.3499	1.598	7.607	8	6	sandy silt to clayey silt
22.11	15.94	0.2895	1.816	7.055	7	6	sandy silt to clayey silt
22.18	19.62	0.2307	1.176	6.616	7	6	sandy silt to clayey silt
22.24	18.23	0.1782	0.977	5.712	6	6	sandy silt to clayey silt
22.31	15.77	0.1384	0.877	5.644	6	6	sandy silt to clayey silt
22.38	13.48	0.1035	0.768	5.630	5	6	sandy silt to clayey silt
22.44	10.84	0.0818	0.755	5.615	4	6	sandy silt to clayey silt
22.51	8.95	0.0606	0.676	5.719	4	6	sandy silt to clayey silt
22.57	7.76	0.0460	0.593	6.383	4	1	sensitive fine grained
22.64	7.15	0.0323	0.452	7.900	4	1	sensitive fine grained
22.70	6.96	0.0171	0.246	8.259	3	1	sensitive fine grained
22.77	6.38	0.0091	0.143	8.320	3	1	sensitive fine grained
22.83	6.18	0.0077	0.125	8.371	3	1	sensitive fine grained
22.90	6.52	0.0104	0.160	8.458	3	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
22.97	6.01	0.0139	0.230	8.506	3	1	sensitive fine grained
23.03	5.57	0.0111	0.199	8.557	3	1	sensitive fine grained
23.10	5.54	0.0111	0.201	8.659	3	1	sensitive fine grained
23.16	6.24	0.0111	0.179	8.768	3	1	sensitive fine grained
23.23	6.72	0.0014	0.020	8.850	3	1	sensitive fine grained
23.29	6.33	0.0051	0.081	8.923	3	1	sensitive fine grained
23.36	6.09	0.0288	0.472	8.991	3	1	sensitive fine grained
23.43	6.12	0.0482	0.787	9.085	3	1	sensitive fine grained
23.49	5.60	0.0574	1.025	9.245	4	1	sensitive fine grained
23.56	5.78	0.0576	0.995	9.437	4	1	sensitive fine grained
23.62	9.03	0.0535	0.593	9.875	4	6	sandy silt to clayey silt
23.69	13.29	0.0519	0.390	9.987	4	6	sandy silt to clayey silt
23.75	13.23	0.0466	0.352	9.883	4	6	sandy silt to clayey silt
23.82	11.56	0.0436	0.377	9.735	4	6	sandy silt to clayey silt
23.88	9.83	0.0390	0.397	9.653	4	6	sandy silt to clayey silt
23.95	8.70	0.0254	0.292	9.609	4	1	sensitive fine grained
24.02	7.45	0.0202	0.272	9.633	4	1	sensitive fine grained
24.08	6.52	0.0230	0.352	9.723	3	1	sensitive fine grained
24.15	6.04	0.0331	0.549	9.960	3	1	sensitive fine grained
24.21	5.41	0.0498	0.921	10.142	3	1	sensitive fine grained
24.28	4.75	0.0639	1.347	10.372	3	1	sensitive fine grained
24.34	4.98	0.0953	1.916	10.879	4	4	silty clay to clay
24.41	5.64	0.1326	2.349	11.511	5	4	silty clay to clay
24.48	7.92	0.1710	2.159	11.868	5	4	silty clay to clay
24.54	11.46	0.2040	1.780	11.826	5	4	silty clay to clay
24.61	10.91	0.2296	2.104	11.659	5	4	silty clay to clay
24.67	8.82	0.2313	2.623	11.557	5	4	silty clay to clay
24.74	7.07	0.2024	2.861	11.509	5	4	silty clay to clay
24.80	6.02	0.1708	2.835	11.480	4	4	silty clay to clay
24.87	5.37	0.1379	2.569	11.480	4	4	silty clay to clay
24.93	4.78	0.0974	2.040	11.584	3	4	silty clay to clay
25.00	4.56	0.0706	1.551	12.008	3	4	silty clay to clay
25.07	4.63	0.0500	1.080	12.716	2	1	sensitive fine grained
25.13	4.74	0.0528	1.113	13.145	2	1	sensitive fine grained
25.20	4.78	0.0588	1.231	13.452	2	1	sensitive fine grained
25.26	4.91	0.0573	1.169	13.717	2	1	sensitive fine grained
25.33	4.98	0.0570	1.146	13.969	2	1	sensitive fine grained
25.39	5.02	0.0607	1.210	15.558	2	1	sensitive fine grained
25.46	5.14	0.0649	1.264	15.537	2	1	sensitive fine grained
25.52	5.29	0.0628	1.186	15.621	3	1	sensitive fine grained
25.59	5.49	0.0747	1.360	15.796	3	1	sensitive fine grained
25.66	5.54	0.0637	1.150	15.987	3	1	sensitive fine grained
25.72	5.76	0.0581	1.008	16.285	3	1	sensitive fine grained
25.79	5.99	0.0598	0.998	16.666	3	1	sensitive fine grained
25.85	6.13	0.0651	1.063	17.061	3	1	sensitive fine grained
25.92	6.39	0.0674	1.055	17.611	3	1	sensitive fine grained
25.98	6.74	0.0728	1.081	18.195	3	1	sensitive fine grained
26.05	6.92	0.0856	1.237	18.658	3	5	clayey silt to silty clay
26.12	7.28	0.0889	1.221	19.429	4	5	clayey silt to silty clay
26.18	7.79	0.1178	1.512	20.064	4	5	clayey silt to silty clay
26.25	8.95	0.1716	1.917	20.854	4	5	clayey silt to silty clay
26.31	9.85	0.1989	2.019	21.554	5	5	clayey silt to silty clay
26.38	10.95	0.2407	2.197	22.123	5	5	clayey silt to silty clay
26.44	12.55	0.1965	1.566	22.984	6	5	clayey silt to silty clay
26.51	13.40	0.1645	1.228	23.090	6	5	clayey silt to silty clay
26.57	13.25	0.1559	1.177	22.826	6	5	clayey silt to silty clay
26.64	12.86	0.1658	1.289	23.170	6	5	clayey silt to silty clay
26.71	12.57	0.1910	1.519	23.987	6	5	clayey silt to silty clay
26.77	12.80	0.1788	1.397	25.487	6	5	clayey silt to silty clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
26.84	12.80	0.1720	1.344	26.740	6	5	clayey silt to silty clay
26.90	13.17	0.1639	1.244	27.770	6	5	clayey silt to silty clay
26.97	13.26	0.1864	1.405	28.524	6	5	clayey silt to silty clay
27.03	13.16	0.2162	1.643	29.016	7	5	clayey silt to silty clay
27.10	13.71	0.2471	1.802	30.029	7	5	clayey silt to silty clay
27.17	15.13	0.2197	1.452	31.187	7	5	clayey silt to silty clay
27.23	16.70	0.2569	1.538	32.164	8	5	clayey silt to silty clay
27.30	17.38	0.2867	1.650	32.581	8	5	clayey silt to silty clay
27.36	17.73	0.3240	1.828	33.162	7	6	sandy silt to clayey silt
27.43	17.60	0.3328	1.891	34.202	8	5	clayey silt to silty clay
27.49	17.93	0.3469	1.934	35.937	9	5	clayey silt to silty clay
27.56	18.13	0.3678	2.028	37.100	9	5	clayey silt to silty clay
27.62	18.27	0.3852	2.109	37.890	9	5	clayey silt to silty clay
27.69	18.22	0.3929	2.157	38.777	9	5	clayey silt to silty clay
27.76	17.95	0.3620	2.017	39.773	8	5	clayey silt to silty clay
27.82	17.34	0.3332	1.921	40.607	8	5	clayey silt to silty clay
27.89	16.55	0.3379	2.042	41.605	8	5	clayey silt to silty clay
27.95	16.18	0.3083	1.905	42.759	8	5	clayey silt to silty clay
28.02	16.14	0.2859	1.771	44.504	8	5	clayey silt to silty clay
28.08	16.09	0.2555	1.588	46.321	8	5	clayey silt to silty clay
28.15	16.22	0.2529	1.559	48.209	8	5	clayey silt to silty clay
28.22	16.08	0.2534	1.575	49.990	8	5	clayey silt to silty clay
28.28	15.82	0.2236	1.413	51.849	8	5	clayey silt to silty clay
28.35	15.68	0.2743	1.749	53.609	8	5	clayey silt to silty clay
28.41	15.84	0.3070	1.938	55.923	8	5	clayey silt to silty clay
28.48	16.04	0.3202	1.996	57.442	8	5	clayey silt to silty clay
28.54	16.27	0.3387	2.081	59.270	8	5	clayey silt to silty clay
28.61	18.57	0.3300	1.777	58.225	8	5	clayey silt to silty clay
28.67	17.90	0.3253	1.818	58.104	8	5	clayey silt to silty clay
28.74	17.13	0.2949	1.721	58.635	8	5	clayey silt to silty clay
28.81	16.78	0.2747	1.637	60.552	7	6	sandy silt to clayey silt
28.87	16.40	0.2749	1.677	62.389	8	5	clayey silt to silty clay
28.94	16.30	0.2666	1.635	64.487	8	5	clayey silt to silty clay
29.00	15.90	0.2704	1.701	66.203	8	5	clayey silt to silty clay
29.07	15.57	0.2745	1.763	68.135	8	5	clayey silt to silty clay
29.13	15.53	0.2672	1.721	69.472	7	5	clayey silt to silty clay
29.20	15.37	0.2529	1.645	70.456	7	5	clayey silt to silty clay
29.27	15.38	0.2448	1.591	71.632	7	5	clayey silt to silty clay
29.33	15.16	0.2484	1.638	71.430	7	5	clayey silt to silty clay
29.40	14.82	0.2456	1.657	71.746	7	5	clayey silt to silty clay
29.46	14.66	0.2414	1.646	74.988	7	5	clayey silt to silty clay
29.53	14.78	0.2256	1.527	77.419	6	6	sandy silt to clayey silt
29.59	14.96	0.2104	1.407	78.684	6	6	sandy silt to clayey silt
29.66	15.22	0.2010	1.321	79.181	6	6	sandy silt to clayey silt
29.72	15.25	0.2098	1.375	79.009	6	6	sandy silt to clayey silt
29.79	15.41	0.2042	1.325	78.996	6	6	sandy silt to clayey silt
29.86	15.55	0.1941	1.249	80.933	6	6	sandy silt to clayey silt
29.92	15.73	0.1761	1.119	83.104	6	6	sandy silt to clayey silt
29.99	16.06	0.1632	1.016	82.918	6	6	sandy silt to clayey silt
30.05	15.86	0.1532	0.966	80.225	6	6	sandy silt to clayey silt
30.12	15.56	0.1593	1.024	81.148	6	6	sandy silt to clayey silt
30.18	15.47	0.1598	1.033	85.106	6	6	sandy silt to clayey silt
30.25	15.81	0.1463	0.925	88.642	6	6	sandy silt to clayey silt
30.31	16.82	0.1533	0.911	91.070	6	6	sandy silt to clayey silt
30.38	17.43	0.1665	0.955	89.136	6	6	sandy silt to clayey silt
30.45	17.33	0.1824	1.052	82.808	6	6	sandy silt to clayey silt
30.51	16.69	0.1915	1.147	78.970	6	6	sandy silt to clayey silt
30.58	15.86	0.2001	1.262	73.459	6	6	sandy silt to clayey silt
30.64	15.09	0.2024	1.341	63.886	6	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
30.71	14.00	0.2019	1.442	56.347	6	6	sandy silt to clayey silt
30.77	13.93	0.2201	1.580	50.756	7	5	clayey silt to silty clay
30.84	13.62	0.2140	1.572	44.712	6	5	clayey silt to silty clay
30.91	13.24	0.2177	1.644	40.646	6	5	clayey silt to silty clay
30.97	12.62	0.2273	1.801	28.662	6	5	clayey silt to silty clay
31.04	11.97	0.2509	2.096	23.716	6	5	clayey silt to silty clay
31.10	11.48	0.3259	2.840	22.761	5	5	clayey silt to silty clay
31.17	10.80	0.3863	3.578	18.137	5	5	clayey silt to silty clay
31.23	10.25	0.2658	2.592	13.770	5	5	clayey silt to silty clay
31.30	9.74	0.1486	1.526	9.788	5	5	clayey silt to silty clay
31.36	9.58	0.0952	0.994	7.440	5	5	clayey silt to silty clay
31.43	9.75	0.0653	0.670	6.277	5	5	clayey silt to silty clay
31.50	9.61	0.0466	0.485	6.025	4	5	clayey silt to silty clay
31.56	8.94	0.0376	0.420	5.920	4	1	sensitive fine grained
31.63	8.39	0.0393	0.468	5.964	4	1	sensitive fine grained
31.69	7.89	0.0384	0.487	6.059	4	1	sensitive fine grained
31.76	7.57	0.0373	0.493	6.175	4	1	sensitive fine grained
31.82	7.25	0.0327	0.450	9.779	3	1	sensitive fine grained
31.89	6.75	0.0311	0.461	9.769	3	1	sensitive fine grained
31.96	6.61	0.0306	0.464	9.774	3	1	sensitive fine grained
32.02	6.54	0.0353	0.540	9.766	3	1	sensitive fine grained
32.09	6.35	0.0383	0.603	9.771	3	1	sensitive fine grained
32.15	6.26	0.0475	0.757	9.783	3	1	sensitive fine grained
32.22	6.22	0.0524	0.843	9.791	3	1	sensitive fine grained
32.28	6.29	0.0690	1.098	9.810	3	1	sensitive fine grained
32.35	6.55	0.0837	1.279	9.817	4	1	sensitive fine grained
32.41	7.20	0.0962	1.337	9.863	4	5	clayey silt to silty clay
32.48	8.48	0.1078	1.270	9.888	5	5	clayey silt to silty clay
32.55	11.06	0.1202	1.087	9.924	5	6	sandy silt to clayey silt
32.61	16.29	0.1400	0.860	9.985	6	6	sandy silt to clayey silt
32.68	19.72	0.1636	0.830	10.040	7	6	sandy silt to clayey silt
32.74	23.05	0.1773	0.769	10.091	8	6	sandy silt to clayey silt
32.81	25.45	0.1930	0.758	10.113	8	6	sandy silt to clayey silt
32.87	24.94	0.1970	0.790	10.130	8	6	sandy silt to clayey silt
32.94	20.79	0.1695	0.815	10.135	8	6	sandy silt to clayey silt
33.01	17.53	0.1420	0.810	10.137	7	6	sandy silt to clayey silt
33.07	15.27	0.1174	0.769	10.057	6	6	sandy silt to clayey silt
33.14	12.77	0.1056	0.827	9.999	5	6	sandy silt to clayey silt
33.20	11.08	0.1193	1.077	9.497	5	6	sandy silt to clayey silt
33.27	9.86	0.1454	1.475	8.833	5	5	clayey silt to silty clay
33.33	9.22	0.1236	1.341	8.635	5	5	clayey silt to silty clay
33.40	8.64	0.0903	1.045	7.925	4	5	clayey silt to silty clay
33.46	8.34	0.0641	0.768	7.590	4	5	clayey silt to silty clay
33.53	8.69	0.0354	0.408	7.437	4	1	sensitive fine grained
33.60	9.12	0.0217	0.238	7.234	4	1	sensitive fine grained
33.66	9.01	0.0139	0.154	7.045	4	1	sensitive fine grained
33.73	8.41	0.0069	0.082	6.955	4	1	sensitive fine grained
33.79	7.12	0.0074	0.105	6.943	4	1	sensitive fine grained
33.86	6.58	0.0087	0.132	6.999	3	1	sensitive fine grained
33.92	6.26	0.0092	0.147	7.055	3	1	sensitive fine grained
33.99	6.05	0.0147	0.242	7.122	3	1	sensitive fine grained
34.06	5.88	0.0193	0.328	7.207	3	1	sensitive fine grained
34.12	5.80	0.0209	0.360	7.292	3	1	sensitive fine grained
34.19	5.83	0.0218	0.374	7.350	3	1	sensitive fine grained
34.25	6.00	0.0213	0.356	7.445	3	1	sensitive fine grained
34.32	6.27	0.0195	0.311	7.554	3	1	sensitive fine grained
34.38	6.79	0.0239	0.351	7.665	4	1	sensitive fine grained
34.45	7.63	0.0362	0.474	7.770	4	1	sensitive fine grained
34.51	8.68	0.0433	0.499	7.874	4	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
34.58	10.14	0.0543	0.535	8.034	4	6	sandy silt to clayey silt
34.65	11.55	0.0662	0.574	8.174	4	6	sandy silt to clayey silt
34.71	12.13	0.0696	0.574	8.295	4	6	sandy silt to clayey silt
34.78	11.87	0.0681	0.574	8.429	4	6	sandy silt to clayey silt
34.84	11.51	0.0696	0.605	8.518	4	6	sandy silt to clayey silt
34.91	10.85	0.0661	0.609	8.649	4	6	sandy silt to clayey silt
34.97	10.41	0.0605	0.581	8.734	4	6	sandy silt to clayey silt
35.04	10.17	0.0590	0.580	8.846	4	6	sandy silt to clayey silt
35.10	9.92	0.0560	0.564	10.930	4	6	sandy silt to clayey silt
35.17	10.18	0.0589	0.578	10.937	4	6	sandy silt to clayey silt
35.24	10.57	0.0637	0.602	10.978	4	6	sandy silt to clayey silt
35.30	11.02	0.0696	0.631	10.990	4	6	sandy silt to clayey silt
35.37	11.47	0.0738	0.643	11.012	4	6	sandy silt to clayey silt
35.43	12.09	0.0812	0.672	11.046	5	6	sandy silt to clayey silt
35.50	12.79	0.0883	0.691	11.056	5	6	sandy silt to clayey silt
35.56	13.46	0.0944	0.702	11.104	5	6	sandy silt to clayey silt
35.63	13.69	0.1014	0.741	11.109	5	6	sandy silt to clayey silt
35.70	13.65	0.1035	0.758	11.136	5	6	sandy silt to clayey silt
35.76	13.38	0.1021	0.763	11.177	5	6	sandy silt to clayey silt
35.83	13.16	0.1086	0.825	11.191	5	6	sandy silt to clayey silt
35.89	12.81	0.1066	0.832	11.194	5	6	sandy silt to clayey silt
35.96	12.50	0.1075	0.860	11.228	5	6	sandy silt to clayey silt
36.02	12.39	0.1093	0.883	11.267	5	6	sandy silt to clayey silt
36.09	12.47	0.1002	0.803	11.269	5	6	sandy silt to clayey silt
36.15	12.73	0.0926	0.728	11.310	5	6	sandy silt to clayey silt
36.22	13.13	0.0825	0.628	11.344	5	6	sandy silt to clayey silt
36.29	13.95	0.0661	0.474	11.361	5	6	sandy silt to clayey silt
36.35	15.05	0.0561	0.373	11.233	6	6	sandy silt to clayey silt
36.42	16.05	0.0664	0.414	10.864	6	6	sandy silt to clayey silt
36.48	17.05	0.0931	0.546	10.443	6	6	sandy silt to clayey silt
36.55	17.29	0.1216	0.703	10.018	6	6	sandy silt to clayey silt
36.61	17.18	0.1482	0.863	9.941	6	6	sandy silt to clayey silt
36.68	16.85	0.1627	0.966	10.086	6	6	sandy silt to clayey silt
36.75	16.67	0.1729	1.037	10.251	6	6	sandy silt to clayey silt
36.81	16.57	0.1712	1.033	10.440	6	6	sandy silt to clayey silt
36.88	16.81	0.1682	1.001	10.607	6	6	sandy silt to clayey silt
36.94	17.07	0.1648	0.966	10.702	7	6	sandy silt to clayey silt
37.01	17.27	0.1710	0.990	10.816	7	6	sandy silt to clayey silt
37.07	17.25	0.1725	1.000	10.930	7	6	sandy silt to clayey silt
37.14	17.36	0.1742	1.003	11.031	7	6	sandy silt to clayey silt
37.20	17.73	0.1731	0.976	11.145	7	6	sandy silt to clayey silt
37.27	18.12	0.1764	0.973	11.228	7	6	sandy silt to clayey silt
37.34	18.35	0.1767	0.963	11.327	7	6	sandy silt to clayey silt
37.40	18.47	0.1762	0.954	11.405	7	6	sandy silt to clayey silt
37.47	18.64	0.1773	0.951	11.463	7	6	sandy silt to clayey silt
37.53	19.01	0.1780	0.937	11.523	7	6	sandy silt to clayey silt
37.60	19.58	0.1849	0.945	11.582	8	6	sandy silt to clayey silt
37.66	20.41	0.1904	0.933	11.657	8	6	sandy silt to clayey silt
37.73	21.24	0.2038	0.960	11.708	8	6	sandy silt to clayey silt
37.80	22.24	0.2158	0.970	11.768	8	6	sandy silt to clayey silt
37.86	23.03	0.2324	1.009	11.843	9	6	sandy silt to clayey silt
37.93	23.50	0.2437	1.037	11.904	9	6	sandy silt to clayey silt
37.99	23.77	0.2359	0.992	11.957	9	6	sandy silt to clayey silt
38.06	24.30	0.2479	1.020	12.015	9	6	sandy silt to clayey silt
38.12	24.54	0.2542	1.036	12.059	10	6	sandy silt to clayey silt
38.19	24.96	0.2662	1.066	12.107	10	6	sandy silt to clayey silt
38.25	25.67	0.2807	1.094	12.151	10	6	sandy silt to clayey silt
38.32	27.07	0.2977	1.100	12.532	10	6	sandy silt to clayey silt
38.39	28.77	0.3174	1.103	12.549	11	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
38.45	30.12	0.3328	1.105	12.563	11	6	sandy silt to clayey silt
38.52	30.54	0.3438	1.126	12.592	11	6	sandy silt to clayey silt
38.58	29.78	0.3618	1.215	12.592	11	6	sandy silt to clayey silt
38.65	28.66	0.3725	1.300	12.612	11	6	sandy silt to clayey silt
38.71	26.97	0.3715	1.377	12.658	10	6	sandy silt to clayey silt
38.78	24.98	0.3652	1.462	12.684	10	6	sandy silt to clayey silt
38.85	23.46	0.3697	1.576	12.711	9	6	sandy silt to clayey silt
38.91	22.10	0.3772	1.706	12.716	9	6	sandy silt to clayey silt
38.98	21.06	0.3833	1.820	12.747	8	6	sandy silt to clayey silt
39.04	20.37	0.3487	1.712	12.798	8	6	sandy silt to clayey silt
39.11	20.28	0.2909	1.434	12.847	9	6	sandy silt to clayey silt
39.17	21.44	0.2618	1.221	12.910	9	6	sandy silt to clayey silt
39.24	24.68	0.2526	1.023	12.975	9	6	sandy silt to clayey silt
39.30	27.39	0.2715	0.991	12.754	10	6	sandy silt to clayey silt
39.37	28.55	0.3154	1.105	11.935	10	6	sandy silt to clayey silt
39.44	28.64	0.3399	1.187	11.635	11	6	sandy silt to clayey silt
39.50	28.88	0.3535	1.224	11.274	11	6	sandy silt to clayey silt
39.57	28.81	0.3785	1.314	11.317	11	6	sandy silt to clayey silt
39.63	28.95	0.3979	1.375	11.531	11	6	sandy silt to clayey silt
39.70	28.94	0.4133	1.428	11.712	11	6	sandy silt to clayey silt
39.76	28.74	0.4050	1.409	11.870	11	6	sandy silt to clayey silt
39.83	28.68	0.3888	1.356	12.015	11	6	sandy silt to clayey silt
39.90	28.91	0.3871	1.339	12.151	11	6	sandy silt to clayey silt
39.96	29.54	0.3899	1.320	12.306	11	6	sandy silt to clayey silt
40.03	29.98	0.3912	1.305	12.439	11	6	sandy silt to clayey silt
40.09	29.95	0.3924	1.310	12.541	11	6	sandy silt to clayey silt
40.16	29.66	0.3809	1.284	12.653	11	6	sandy silt to clayey silt
40.22	29.12	0.3770	1.295	12.745	11	6	sandy silt to clayey silt
40.29	28.22	0.3724	1.319	12.815	11	6	sandy silt to clayey silt
40.35	27.29	0.3655	1.339	12.873	11	6	sandy silt to clayey silt
40.42	26.86	0.3575	1.331	12.929	11	6	sandy silt to clayey silt
40.49	27.34	0.3525	1.289	13.011	11	6	sandy silt to clayey silt
40.55	28.08	0.3759	1.339	13.094	11	6	sandy silt to clayey silt
40.62	28.35	0.3859	1.361	13.130	11	6	sandy silt to clayey silt
40.68	28.12	0.3823	1.360	13.215	11	6	sandy silt to clayey silt
40.75	28.13	0.3865	1.374	13.370	11	6	sandy silt to clayey silt
40.81	27.85	0.3860	1.386	13.431	11	6	sandy silt to clayey silt
40.88	27.71	0.3858	1.392	13.445	11	6	sandy silt to clayey silt
40.94	27.61	0.3830	1.387	13.472	11	6	sandy silt to clayey silt
41.01	27.77	0.3883	1.398	13.537	11	6	sandy silt to clayey silt
41.08	27.85	0.3814	1.369	13.561	11	6	sandy silt to clayey silt
41.14	27.61	0.3848	1.394	13.595	11	6	sandy silt to clayey silt
41.21	27.36	0.3903	1.427	13.658	11	6	sandy silt to clayey silt
41.27	27.10	0.3688	1.361	13.712	11	6	sandy silt to clayey silt
41.34	27.18	0.3747	1.379	13.724	11	6	sandy silt to clayey silt
41.40	27.60	0.3752	1.359	13.787	11	6	sandy silt to clayey silt
41.47	28.44	0.3731	1.312	13.843	11	6	sandy silt to clayey silt
41.54	29.11	0.3679	1.264	13.947	12	6	sandy silt to clayey silt
41.60	31.46	0.3726	1.184	13.966	12	6	sandy silt to clayey silt
41.67	34.06	0.4026	1.182	13.833	12	6	sandy silt to clayey silt
41.73	34.33	0.4634	1.350	13.067	12	6	sandy silt to clayey silt
41.80	33.13	0.4852	1.464	12.905	12	6	sandy silt to clayey silt
41.86	31.71	0.4813	1.518	12.968	12	6	sandy silt to clayey silt
41.93	31.41	0.4919	1.566	13.038	12	6	sandy silt to clayey silt
41.99	31.31	0.4938	1.577	13.176	12	6	sandy silt to clayey silt
42.06	31.82	0.4595	1.444	13.346	13	6	sandy silt to clayey silt
42.13	33.01	0.4354	1.319	13.452	13	6	sandy silt to clayey silt
42.19	35.03	0.4371	1.248	13.610	11	7	silty sand to sandy silt
42.26	36.46	0.4852	1.331	13.578	11	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
42.32	37.02	0.5016	1.355	13.276	11	7	silty sand to sandy silt
42.39	36.83	0.5061	1.374	13.089	12	7	silty sand to sandy silt
42.45	36.64	0.5126	1.399	13.050	12	7	silty sand to sandy silt
42.52	36.18	0.5176	1.431	13.094	12	7	silty sand to sandy silt
42.59	35.83	0.5136	1.433	13.290	12	7	silty sand to sandy silt
42.65	35.93	0.4965	1.382	13.431	12	7	silty sand to sandy silt
42.72	36.14	0.4883	1.351	13.598	12	7	silty sand to sandy silt
42.78	36.66	0.5007	1.366	13.714	12	7	silty sand to sandy silt
42.85	37.82	0.5144	1.360	13.838	12	7	silty sand to sandy silt
42.91	39.40	0.5433	1.379	13.986	13	7	silty sand to sandy silt
42.98	41.37	0.5763	1.393	14.126	13	7	silty sand to sandy silt
43.04	43.68	0.6024	1.379	14.226	14	7	silty sand to sandy silt
43.11	45.20	0.6269	1.387	14.262	14	7	silty sand to sandy silt
43.18	46.28	0.6462	1.396	14.368	14	7	silty sand to sandy silt
43.24	46.51	0.6538	1.406	14.434	15	7	silty sand to sandy silt
43.31	46.31	0.6552	1.415	14.524	15	7	silty sand to sandy silt
43.37	46.48	0.6489	1.396	14.587	15	7	silty sand to sandy silt
43.44	46.33	0.6377	1.376	14.671	15	7	silty sand to sandy silt
43.50	46.23	0.6416	1.388	14.722	15	7	silty sand to sandy silt
43.57	46.20	0.6378	1.381	14.766	15	7	silty sand to sandy silt
43.64	46.29	0.6368	1.376	14.802	15	7	silty sand to sandy silt
43.70	46.22	0.6457	1.397	14.839	15	7	silty sand to sandy silt
43.77	45.89	0.6559	1.429	14.899	15	7	silty sand to sandy silt
43.83	45.39	0.6592	1.452	14.938	15	7	silty sand to sandy silt
43.90	45.11	0.6578	1.458	14.953	14	7	silty sand to sandy silt
43.96	45.03	0.6545	1.454	14.996	14	7	silty sand to sandy silt
44.03	44.58	0.6478	1.453	15.066	14	7	silty sand to sandy silt
44.09	43.83	0.6492	1.481	15.125	14	7	silty sand to sandy silt
44.16	42.82	0.6538	1.527	15.120	13	7	silty sand to sandy silt
44.23	41.39	0.6554	1.584	15.132	13	7	silty sand to sandy silt
44.29	39.26	0.6454	1.644	15.207	12	7	silty sand to sandy silt
44.36	37.20	0.6420	1.726	15.258	14	6	sandy silt to clayey silt
44.42	35.13	0.6114	1.740	15.316	14	6	sandy silt to clayey silt
44.49	33.27	0.5330	1.602	15.357	14	6	sandy silt to clayey silt
44.55	32.87	0.5070	1.542	15.389	13	6	sandy silt to clayey silt
44.62	33.84	0.4739	1.400	15.406	13	6	sandy silt to clayey silt
44.69	35.25	0.4770	1.353	15.338	13	6	sandy silt to clayey silt
44.75	36.44	0.4971	1.364	14.909	14	6	sandy silt to clayey silt
44.82	36.55	0.5386	1.473	15.142	14	6	sandy silt to clayey silt
44.88	36.75	0.5718	1.556	15.057	14	6	sandy silt to clayey silt
44.95	36.13	0.5777	1.599	15.003	14	6	sandy silt to clayey silt
45.01	34.71	0.6098	1.757	15.028	14	6	sandy silt to clayey silt
45.08	35.01	0.6430	1.836	15.047	15	6	sandy silt to clayey silt
45.14	39.58	0.6406	1.619	15.105	15	6	sandy silt to clayey silt
45.21	43.19	0.6964	1.613	15.144	13	7	silty sand to sandy silt
45.28	43.65	0.7337	1.681	15.144	14	7	silty sand to sandy silt
45.34	44.34	0.7588	1.711	15.263	15	7	silty sand to sandy silt
45.41	45.68	0.6881	1.506	15.512	16	7	silty sand to sandy silt
45.47	49.32	0.5666	1.149	15.326	17	7	silty sand to sandy silt
45.54	56.17	0.6196	1.103	14.950	18	7	silty sand to sandy silt
45.60	62.72	0.7578	1.208	12.483	19	7	silty sand to sandy silt
45.67	68.01	0.9045	1.330	8.421	21	7	silty sand to sandy silt
45.73	71.23	1.0205	1.433	7.687	22	7	silty sand to sandy silt
45.80	73.15	1.1706	1.600	7.573	23	7	silty sand to sandy silt
45.87	75.75	1.3302	1.756	7.750	24	7	silty sand to sandy silt
45.93	78.93	1.4738	1.867	8.007	25	7	silty sand to sandy silt
46.00	82.51	1.5225	1.845	8.409	25	7	silty sand to sandy silt
46.06	83.88	1.5455	1.842	8.877	26	7	silty sand to sandy silt
46.13	83.61	1.5033	1.798	9.488	25	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
46.19	81.15	1.4242	1.755	9.997	25	7	silty sand to sandy silt
46.26	76.51	1.3037	1.704	10.556	24	7	silty sand to sandy silt
46.33	71.00	1.2125	1.708	10.966	22	7	silty sand to sandy silt
46.39	64.55	1.1493	1.780	11.407	21	7	silty sand to sandy silt
46.46	58.00	1.0645	1.835	11.911	19	7	silty sand to sandy silt
46.52	53.10	0.9946	1.873	12.255	18	7	silty sand to sandy silt
46.59	49.33	0.9620	1.950	12.570	17	7	silty sand to sandy silt
46.65	48.45	0.9245	1.908	12.948	17	7	silty sand to sandy silt
46.72	49.44	0.8554	1.730	13.426	17	7	silty sand to sandy silt
46.78	51.25	0.7615	1.486	13.765	17	7	silty sand to sandy silt
46.85	55.38	0.6970	1.258	14.104	18	7	silty sand to sandy silt
46.92	59.49	0.6915	1.162	14.482	18	7	silty sand to sandy silt
46.98	61.07	0.6901	1.130	14.196	18	7	silty sand to sandy silt
47.05	60.49	0.6784	1.121	12.786	18	7	silty sand to sandy silt
47.11	57.74	0.6545	1.133	12.112	18	7	silty sand to sandy silt
47.18	54.18	0.6813	1.258	12.304	17	7	silty sand to sandy silt
47.24	50.42	0.6931	1.375	12.798	16	7	silty sand to sandy silt
47.31	46.76	0.6827	1.460	13.271	15	7	silty sand to sandy silt
47.38	44.28	0.6353	1.435	13.637	14	7	silty sand to sandy silt
47.44	41.89	0.6123	1.462	14.046	14	7	silty sand to sandy silt
47.51	40.43	0.5686	1.406	14.327	13	7	silty sand to sandy silt
47.57	39.27	0.5576	1.420	14.742	12	7	silty sand to sandy silt
47.64	37.66	0.6057	1.608	14.989	12	7	silty sand to sandy silt
47.70	34.93	0.6151	1.761	15.270	12	7	silty sand to sandy silt
47.77	32.59	0.5423	1.664	15.650	12	7	silty sand to sandy silt
47.83	32.75	0.4414	1.348	15.760	12	7	silty sand to sandy silt
47.90	36.22	0.4161	1.149	15.752	12	7	silty sand to sandy silt
47.97	42.41	0.4471	1.054	15.752	13	7	silty sand to sandy silt
48.03	43.96	0.4942	1.124	15.830	14	7	silty sand to sandy silt
48.10	46.97	0.5502	1.171	13.268	15	7	silty sand to sandy silt
48.16	48.71	0.5954	1.222	12.815	16	7	silty sand to sandy silt
48.23	50.68	0.6650	1.312	13.021	17	7	silty sand to sandy silt
48.29	52.95	0.7370	1.392	13.525	18	7	silty sand to sandy silt
48.36	56.60	0.8457	1.494	13.981	19	7	silty sand to sandy silt
48.43	62.07	0.9257	1.491	14.422	20	7	silty sand to sandy silt
48.49	67.45	0.9832	1.458	14.681	21	7	silty sand to sandy silt
48.56	72.46	1.0351	1.428	14.950	22	7	silty sand to sandy silt
48.62	74.23	1.0936	1.473	15.219	23	7	silty sand to sandy silt
48.69	73.90	1.1339	1.534	15.466	23	7	silty sand to sandy silt
48.75	73.67	1.1725	1.592	15.663	24	7	silty sand to sandy silt
48.82	75.08	1.2268	1.634	15.835	25	7	silty sand to sandy silt
48.88	77.85	1.2656	1.626	16.009	25	7	silty sand to sandy silt
48.95	80.76	1.3491	1.671	16.186	26	7	silty sand to sandy silt
49.02	84.16	1.4552	1.729	16.353	27	7	silty sand to sandy silt
49.08	88.32	1.5925	1.803	16.542	28	7	silty sand to sandy silt
49.15	92.22	1.7095	1.854	16.707	29	7	silty sand to sandy silt
49.21	95.56	1.7960	1.879	16.928	30	7	silty sand to sandy silt
49.28	99.27	1.8913	1.905	17.075	31	7	silty sand to sandy silt
49.34	102.37	2.0088	1.962	17.199	33	7	silty sand to sandy silt
49.41	104.88	2.0843	1.987	17.279	34	7	silty sand to sandy silt
49.48	107.60	2.0122	1.870	17.177	35	7	silty sand to sandy silt
49.54	112.21	1.8406	1.640	17.054	36	7	silty sand to sandy silt
49.61	117.84	1.8297	1.553	17.066	37	7	silty sand to sandy silt
49.67	122.28	1.9965	1.633	16.656	38	7	silty sand to sandy silt
49.74	125.74	2.0860	1.659	14.698	39	7	silty sand to sandy silt
49.80	126.73	2.0947	1.653	11.463	40	7	silty sand to sandy silt
49.87	126.17	2.1825	1.730	10.118	40	7	silty sand to sandy silt
49.93	124.88	2.2662	1.815	10.401	40	7	silty sand to sandy silt
50.00	124.53	2.2615	1.816	11.279	39	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
50.07	124.21	2.1570	1.737	12.049	39	7	silty sand to sandy silt
50.13	121.57	2.0679	1.701	12.636	38	7	silty sand to sandy silt
50.20	118.06	1.9400	1.643	13.077	36	7	silty sand to sandy silt
50.26	113.18	1.8606	1.644	13.014	34	7	silty sand to sandy silt
50.33	103.59	1.7969	1.735	11.540	32	7	silty sand to sandy silt
50.39	93.07	1.7096	1.837	10.254	29	7	silty sand to sandy silt
50.46	82.72	1.6332	1.974	10.106	26	7	silty sand to sandy silt
50.52	71.16	1.5828	2.224	10.489	23	7	silty sand to sandy silt
50.59	60.21	1.4689	2.439	10.939	20	7	silty sand to sandy silt
50.66	50.10	1.2661	2.527	11.383	18	7	silty sand to sandy silt
50.72	43.63	0.8542	1.958	11.824	16	7	silty sand to sandy silt
50.79	41.21	0.6545	1.588	12.764	15	7	silty sand to sandy silt
50.85	42.30	0.4129	0.976	14.485	15	7	silty sand to sandy silt
50.92	44.31	0.2961	0.668	15.900	15	7	silty sand to sandy silt
50.98	48.26	0.4165	0.863	15.873	15	7	silty sand to sandy silt
51.05	52.40	0.4754	0.907	15.171	16	7	silty sand to sandy silt
51.12	54.00	0.6585	1.219	14.521	17	7	silty sand to sandy silt
51.18	54.34	0.8466	1.558	13.889	17	7	silty sand to sandy silt
51.25	55.76	1.0295	1.846	14.150	18	7	silty sand to sandy silt
51.31	58.81	1.1651	1.981	16.906	18	7	silty sand to sandy silt
51.38	59.36	1.3362	2.251	17.301	22	6	sandy silt to clayey silt
51.44	59.69	1.4333	2.401	17.766	23	6	sandy silt to clayey silt
51.51	59.02	1.3961	2.365	18.275	20	7	silty sand to sandy silt
51.57	60.34	1.2728	2.109	18.668	21	7	silty sand to sandy silt
51.64	66.42	1.2275	1.848	19.087	23	7	silty sand to sandy silt
51.71	75.94	1.2785	1.684	19.400	26	7	silty sand to sandy silt
51.77	88.02	1.3872	1.576	19.261	29	7	silty sand to sandy silt
51.84	101.26	1.5550	1.536	18.593	33	7	silty sand to sandy silt
51.90	112.63	1.6769	1.489	18.617	27	8	sand to silty sand
51.97	130.24	1.8995	1.458	18.711	30	8	sand to silty sand
52.03	146.97	2.1520	1.464	18.757	32	8	sand to silty sand
52.10	148.70	2.2905	1.540	18.745	33	8	sand to silty sand
52.17	144.44	2.3634	1.636	18.190	33	8	sand to silty sand
52.23	138.56	2.3447	1.692	16.489	33	8	sand to silty sand
52.30	131.16	2.3554	1.796	16.167	42	7	silty sand to sandy silt
52.36	124.63	2.2911	1.838	16.397	40	7	silty sand to sandy silt
52.43	118.09	2.2445	1.901	16.661	38	7	silty sand to sandy silt
52.49	111.74	2.1430	1.918	16.877	35	7	silty sand to sandy silt
52.56	104.43	2.1023	2.013	17.071	33	7	silty sand to sandy silt
52.62	95.93	2.1265	2.217	17.332	30	7	silty sand to sandy silt
52.69	85.14	2.0425	2.399	17.601	28	7	silty sand to sandy silt
52.76	76.75	1.9078	2.486	17.870	26	7	silty sand to sandy silt
52.82	70.76	1.7021	2.406	18.062	24	7	silty sand to sandy silt
52.89	68.15	1.5089	2.214	18.251	23	7	silty sand to sandy silt
52.95	67.54	1.3274	1.965	18.343	23	7	silty sand to sandy silt
53.02	69.90	1.1897	1.702	18.554	23	7	silty sand to sandy silt
53.08	73.96	1.1283	1.526	18.689	24	7	silty sand to sandy silt
53.15	76.58	1.1665	1.523	19.007	24	7	silty sand to sandy silt
53.22	79.73	1.2343	1.548	19.647	25	7	silty sand to sandy silt
53.28	82.77	1.2795	1.546	19.487	26	7	silty sand to sandy silt
53.35	83.98	1.3240	1.577	19.140	26	7	silty sand to sandy silt
53.41	84.69	1.3296	1.570	19.264	27	7	silty sand to sandy silt
53.48	86.18	1.3645	1.583	19.812	27	7	silty sand to sandy silt
53.54	86.67	1.3462	1.553	20.168	28	7	silty sand to sandy silt
53.61	88.49	1.2853	1.452	20.408	29	7	silty sand to sandy silt
53.67	90.35	1.2723	1.408	20.580	30	7	silty sand to sandy silt
53.74	93.79	1.2971	1.383	20.606	23	8	sand to silty sand
53.81	100.37	1.3624	1.357	20.560	25	8	sand to silty sand
53.87	109.38	1.4164	1.295	20.396	26	8	sand to silty sand

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
53.94	117.48	1.4618	1.244	20.313	27	8	sand to silty sand
54.00	123.08	1.5307	1.244	20.187	28	8	sand to silty sand
54.07	124.26	1.5406	1.240	20.042	28	8	sand to silty sand
54.13	122.90	1.5077	1.227	20.015	28	8	sand to silty sand
54.20	118.93	1.3608	1.144	19.921	28	8	sand to silty sand
54.27	114.79	1.2214	1.064	19.836	27	8	sand to silty sand
54.33	109.12	1.1771	1.079	19.795	26	8	sand to silty sand
54.40	103.57	1.1967	1.155	19.765	24	8	sand to silty sand
54.46	97.28	1.2558	1.291	19.705	22	8	sand to silty sand
54.53	84.02	1.3503	1.607	19.135	27	7	silty sand to sandy silt
54.59	74.78	1.4232	1.903	19.065	23	7	silty sand to sandy silt
54.66	62.91	1.3860	2.203	19.213	20	7	silty sand to sandy silt
54.72	50.34	1.2995	2.581	19.276	20	6	sandy silt to clayey silt
54.79	37.91	1.1470	3.025	19.366	17	6	sandy silt to clayey silt
54.86	28.73	0.9843	3.425	19.482	14	6	sandy silt to clayey silt
54.92	24.61	0.8248	3.351	19.872	13	6	sandy silt to clayey silt
54.99	25.33	0.7183	2.836	21.316	12	6	sandy silt to clayey silt
55.05	30.58	0.5337	1.745	24.755	12	6	sandy silt to clayey silt
55.12	34.09	0.4182	1.227	27.472	13	6	sandy silt to clayey silt
55.18	36.64	0.3535	0.965	27.353	12	7	silty sand to sandy silt
55.25	38.80	0.3443	0.887	21.852	14	7	silty sand to sandy silt
55.31	45.74	0.4295	0.939	18.517	16	7	silty sand to sandy silt
55.38	54.73	0.5629	1.029	16.753	18	7	silty sand to sandy silt
55.45	64.71	0.6910	1.068	15.966	21	7	silty sand to sandy silt
55.51	75.07	0.8212	1.094	15.973	18	8	sand to silty sand
55.58	85.35	0.9648	1.130	16.668	21	8	sand to silty sand
55.64	96.07	1.1075	1.153	17.410	23	8	sand to silty sand
55.71	108.01	1.2515	1.159	17.885	25	8	sand to silty sand
55.77	121.62	1.3981	1.150	18.340	27	8	sand to silty sand
55.84	128.62	1.5400	1.197	18.745	28	8	sand to silty sand
55.91	129.55	1.6155	1.247	19.034	29	8	sand to silty sand
55.97	125.96	1.6441	1.305	19.252	29	8	sand to silty sand
56.04	119.39	1.6210	1.358	19.383	28	8	sand to silty sand
56.10	109.92	1.6027	1.458	19.533	26	8	sand to silty sand
56.17	101.95	1.5794	1.549	19.567	25	8	sand to silty sand
56.23	95.69	1.5380	1.607	19.625	31	7	silty sand to sandy silt
56.30	90.31	1.5704	1.739	19.695	30	7	silty sand to sandy silt
56.36	87.11	1.5627	1.794	19.819	29	7	silty sand to sandy silt
56.43	85.29	1.5435	1.810	19.952	27	7	silty sand to sandy silt
56.50	84.10	1.5535	1.847	20.066	27	7	silty sand to sandy silt
56.56	82.14	1.5461	1.882	20.124	26	7	silty sand to sandy silt
56.63	78.55	1.4837	1.889	20.124	25	7	silty sand to sandy silt
56.69	73.99	1.4012	1.894	20.107	23	7	silty sand to sandy silt
56.76	69.20	1.3227	1.911	20.165	22	7	silty sand to sandy silt
56.82	65.67	1.2320	1.876	20.190	21	7	silty sand to sandy silt
56.89	61.13	1.2257	2.005	20.233	23	6	sandy silt to clayey silt
56.96	55.56	1.2859	2.314	20.461	21	6	sandy silt to clayey silt
57.02	50.00	1.4725	2.945	20.815	19	6	sandy silt to clayey silt
57.09	43.66	1.6360	3.747	21.186	17	6	sandy silt to clayey silt
57.15	37.25	1.4039	3.768	21.299	19	5	clayey silt to silty clay
57.22	32.82	1.1790	3.593	21.399	18	5	clayey silt to silty clay
57.28	30.37	1.0013	3.297	21.610	15	6	sandy silt to clayey silt
57.35	30.44	0.8543	2.806	21.745	16	6	sandy silt to clayey silt
57.41	40.91	0.7874	1.925	21.869	16	7	silty sand to sandy silt
57.48	57.15	0.6599	1.155	22.419	18	7	silty sand to sandy silt
57.55	70.64	0.7699	1.090	22.928	20	7	silty sand to sandy silt
57.61	79.07	0.8951	1.132	23.088	22	7	silty sand to sandy silt
57.68	82.30	0.9798	1.191	21.818	24	7	silty sand to sandy silt
57.74	81.19	1.0012	1.233	20.148	24	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
57.81	74.80	0.9997	1.337	20.238	24	7	silty sand to sandy silt
57.87	70.89	0.9913	1.398	20.180	24	7	silty sand to sandy silt
57.94	70.20	0.9821	1.399	20.320	24	7	silty sand to sandy silt
58.01	73.12	0.9754	1.334	20.492	24	7	silty sand to sandy silt
58.07	76.13	0.9997	1.313	20.563	23	7	silty sand to sandy silt
58.14	75.88	0.9948	1.311	20.556	23	7	silty sand to sandy silt
58.20	74.51	1.0023	1.345	20.614	23	7	silty sand to sandy silt
58.27	72.34	1.0133	1.401	20.844	23	7	silty sand to sandy silt
58.33	69.46	0.9934	1.430	20.917	22	7	silty sand to sandy silt
58.40	66.76	0.9302	1.393	20.970	21	7	silty sand to sandy silt
58.46	63.01	0.8741	1.387	20.977	20	7	silty sand to sandy silt
58.53	59.87	0.8202	1.370	20.977	19	7	silty sand to sandy silt
58.60	56.77	0.7704	1.357	20.955	18	7	silty sand to sandy silt
58.66	53.97	0.7409	1.373	21.047	18	7	silty sand to sandy silt
58.73	51.95	0.7204	1.387	21.215	17	7	silty sand to sandy silt
58.79	50.77	0.6934	1.366	21.314	17	7	silty sand to sandy silt
58.86	50.13	0.6686	1.334	21.411	16	7	silty sand to sandy silt
58.92	50.59	0.6638	1.312	21.476	16	7	silty sand to sandy silt
58.99	51.16	0.6819	1.333	21.542	17	7	silty sand to sandy silt
59.06	52.49	0.7037	1.341	21.598	17	7	silty sand to sandy silt
59.12	54.07	0.7307	1.351	21.707	18	7	silty sand to sandy silt
59.19	55.82	0.7626	1.366	21.784	18	7	silty sand to sandy silt
59.25	58.24	0.8222	1.412	21.857	19	7	silty sand to sandy silt
59.32	61.51	0.8897	1.447	21.927	21	7	silty sand to sandy silt
59.38	67.50	0.9698	1.437	21.997	23	7	silty sand to sandy silt
59.45	75.31	1.0667	1.416	22.043	25	7	silty sand to sandy silt
59.51	84.17	1.2170	1.446	22.077	28	7	silty sand to sandy silt
59.58	92.51	1.3968	1.510	22.155	23	8	sand to silty sand
59.65	103.58	1.4853	1.434	22.240	25	8	sand to silty sand
59.71	119.09	1.6159	1.357	22.249	28	8	sand to silty sand
59.78	131.13	1.8183	1.387	21.964	30	8	sand to silty sand
59.84	136.31	1.9752	1.449	21.956	32	8	sand to silty sand
59.91	140.31	2.0160	1.437	21.702	33	8	sand to silty sand
59.97	144.98	1.9364	1.336	21.137	34	8	sand to silty sand
60.04	148.21	1.9521	1.317	20.970	35	8	sand to silty sand
60.10	150.06	1.9501	1.299	21.135	35	8	sand to silty sand
60.17	150.96	1.4750	0.977	21.299	35	8	sand to silty sand
60.24	149.29	1.3611	0.912	21.421	35	8	sand to silty sand
60.30	145.79	1.4284	0.980	21.496	34	8	sand to silty sand
60.37	141.41	1.7906	1.266	21.547	33	8	sand to silty sand
60.43	140.69	1.9732	1.403	21.600	31	8	sand to silty sand
60.50	125.18	2.1409	1.710	21.527	39	7	silty sand to sandy silt
60.56	117.13	2.3336	1.992	21.595	36	7	silty sand to sandy silt
60.63	95.17	2.6515	2.786	21.571	33	7	silty sand to sandy silt
60.70	87.22	2.8824	3.305	21.973	36	6	sandy silt to clayey silt
60.76	78.39	2.5317	3.230	22.392	33	6	sandy silt to clayey silt
60.83	75.85	2.6511	3.495	20.989	30	6	sandy silt to clayey silt
60.89	74.14	2.7489	3.708	15.987	35	5	clayey silt to silty clay
60.96	71.61	2.8286	3.950	14.136	33	5	clayey silt to silty clay
61.02	66.55	2.7232	4.092	8.366	32	5	clayey silt to silty clay
61.09	61.50	2.6560	4.319	10.566	32	5	clayey silt to silty clay
61.15	60.35	2.5750	4.267	7.912	32	5	clayey silt to silty clay
61.22	63.01	2.4459	3.882	7.149	33	5	clayey silt to silty clay
61.29	69.35	2.3952	3.454	6.740	33	5	clayey silt to silty clay
61.35	76.93	2.3351	3.035	6.296	27	6	sandy silt to clayey silt
61.42	78.26	2.2591	2.887	6.017	27	6	sandy silt to clayey silt
61.48	75.02	2.3147	3.085	5.639	28	6	sandy silt to clayey silt
61.55	69.54	2.3273	3.347	5.399	28	6	sandy silt to clayey silt
61.61	68.07	2.3989	3.524	5.164	28	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
61.68	70.98	2.5758	3.629	4.910	29	6	sandy silt to clayey silt
61.75	74.36	2.8117	3.781	4.466	31	6	sandy silt to clayey silt
61.81	84.61	2.6276	3.106	4.154	33	6	sandy silt to clayey silt
61.88	95.18	2.7532	2.893	4.003	37	6	sandy silt to clayey silt
61.94	101.45	2.7206	2.682	3.960	42	6	sandy silt to clayey silt
62.01	115.26	3.3964	2.947	3.897	40	7	silty sand to sandy silt
62.07	134.87	3.6809	2.729	3.853	46	7	silty sand to sandy silt
62.14	163.72	3.8925	2.378	3.693	51	7	silty sand to sandy silt
62.20	187.92	4.8561	2.584	3.516	57	7	silty sand to sandy silt
62.27	203.74	5.4771	2.688	3.124	63	7	silty sand to sandy silt
62.34	201.83	6.0491	2.997	2.506	68	7	silty sand to sandy silt
62.40	237.80	5.5170	2.320	2.135	70	7	silty sand to sandy silt
62.47	259.20	5.5667	2.148	1.905	0	0	<out of range>
62.53	226.74	6.2209	2.744	1.706	0	0	<out of range>
62.60	212.83	6.6767	3.137	1.546	73	7	silty sand to sandy silt
62.66	200.34	-32767.9600	-16356.390	1.483	0	0	<out of range>
62.73	211.10	-32767.9600	-15522.140	1.527	0	0	<out of range>
62.80	230.75	-32767.9600	-14200.660	1.655	0	0	<out of range>
62.86	284.79	-32767.9600	-11506.000	1.851	0	0	<out of range>

*Soil behavior type and SPT based on data from UBC-1983

AECOM

TVA Kingston Coal Ash Pond RCA (Kingston,Tennessee) Cone Penetration Test

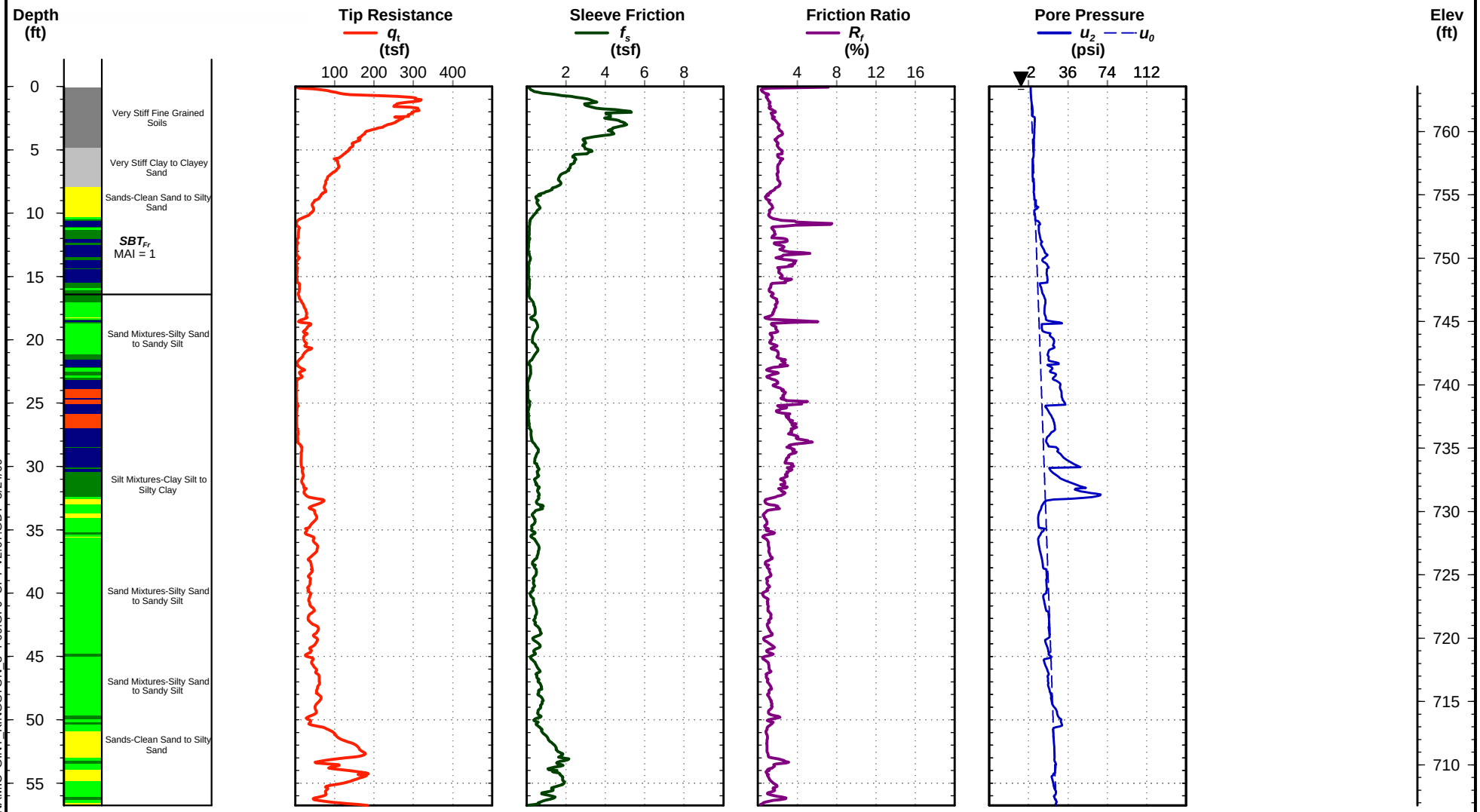
09-701-C1

Project No: 60095742

Date: Feb. 12, 2009
Estimated Water Depth: 0 ft
Rig/Operator: D-120/CAP

Northing: 556672.79
Easting: 2441943.99
Elevation: 763.56 NGVD

Total Depth: 56.8 ft
Termination Criteria: Refusal
Cone Size: 5T Tension Cone



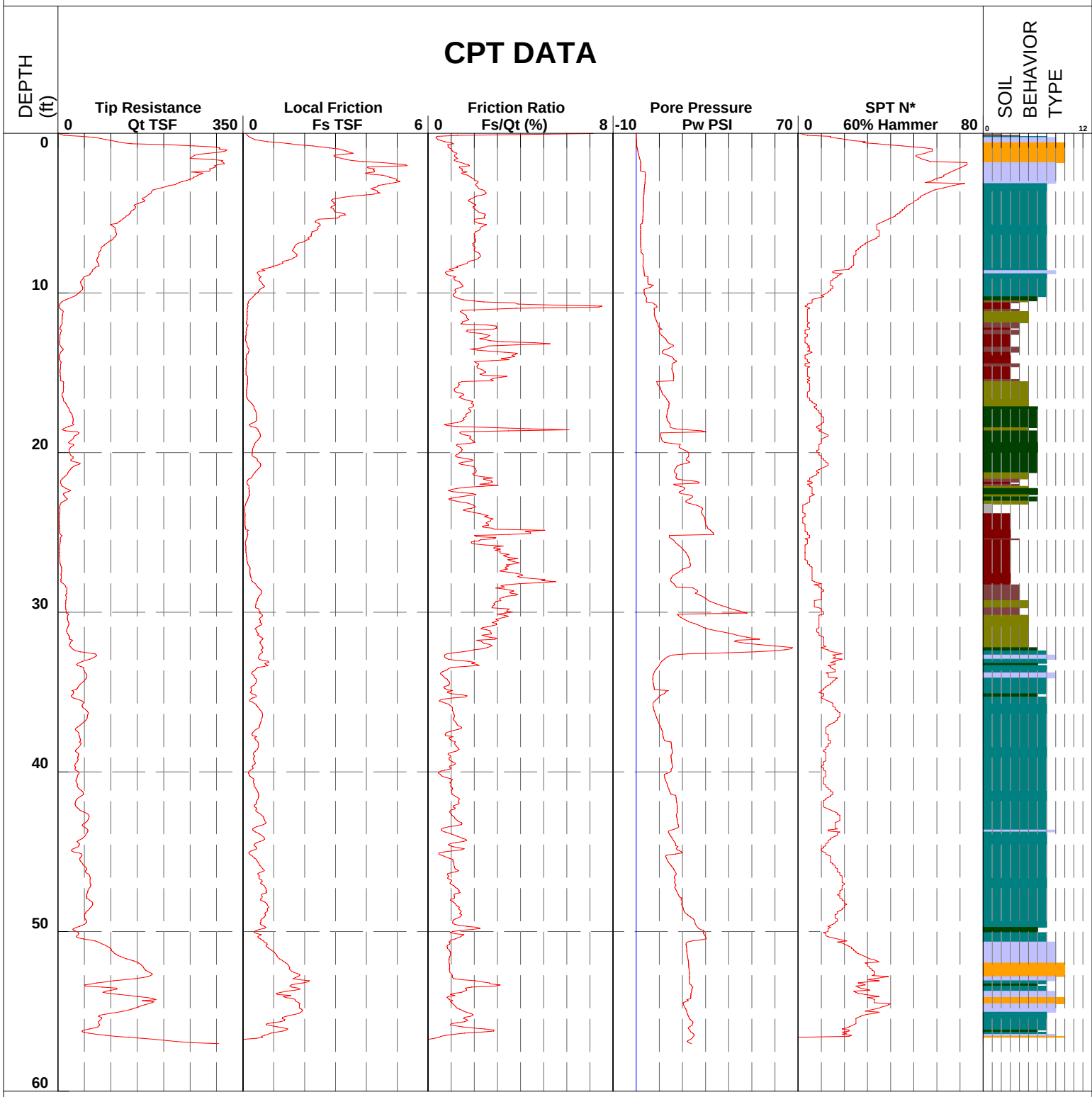
CPT REPORT - DYNAMIC GINT_KINGSTON_3-4-09.GPJ CPT V2.07.GDT 3/24/09

09-701-C1

Electronic Filename: 09-701-C1.cpt

AECOM

09-701-C1	60095742	2/12/2009 3:45:46 PM
DTA1081	TVA-Kingston	D-120/CAP



1 - sensitive fine grained	4 - silty clay to clay	7 - silty sand to sandy silt	10 - gravelly sand to sand
2 - organic material	5 - clayey silt to silty clay	8 - sand to silty sand	11 - very stiff fine grained (*)
3 - clay	6 - sandy silt to clayey silt	9 - sand	12 - sand to clayey sand (*)

Data File:09-701-C1 2/12/2009 3:45:46 PM
Operator:D-120/CAP Location:TVA-Kingston
Cone ID:DTA1081 Job Number:60095742
Customer:TVA Units:

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
0.07	1.28	0.0912	7.148	-0.028	1	2	organic material
0.13	11.21	0.1432	1.277	-0.012	4	4	silty clay to clay
0.20	45.78	0.1813	0.396	0.000	14	7	silty sand to sandy silt
0.26	68.36	0.2290	0.335	0.016	14	8	sand to silty sand
0.33	81.45	0.3122	0.383	0.041	18	8	sand to silty sand
0.39	90.92	0.3852	0.424	0.075	21	8	sand to silty sand
0.46	102.56	0.5899	0.575	0.081	24	8	sand to silty sand
0.52	111.71	0.7974	0.714	0.115	29	8	sand to silty sand
0.59	122.25	1.2320	1.008	0.159	28	9	sand
0.66	138.57	1.5185	1.096	0.187	34	9	sand
0.72	211.37	1.7905	0.847	0.200	39	9	sand
0.79	257.26	2.2581	0.878	0.243	45	9	sand
0.85	294.52	2.5218	0.856	0.272	50	9	sand
0.92	306.13	2.8057	0.917	0.359	55	9	sand
0.98	304.78	3.1101	1.020	0.518	58	9	sand
1.05	319.69	3.2258	1.009	0.624	58	9	sand
1.12	316.49	3.3470	1.058	0.705	58	9	sand
1.18	305.88	3.4454	1.126	0.796	56	9	sand
1.25	285.38	3.5711	1.251	0.889	55	9	sand
1.31	266.26	3.2535	1.222	0.986	53	9	sand
1.38	258.38	2.9490	1.141	1.092	51	9	sand
1.44	255.98	2.9604	1.156	1.211	51	9	sand
1.51	252.02	3.0325	1.203	1.401	52	9	sand
1.57	249.92	3.1994	1.280	1.492	53	9	sand
1.64	291.55	3.3405	1.146	1.601	54	9	sand
1.71	311.44	3.5337	1.135	1.754	56	9	sand
1.77	309.45	3.8813	1.254	1.944	57	9	sand
1.84	313.38	4.5287	1.445	1.910	73	8	sand to silty sand
1.90	314.55	4.8987	1.557	1.972	73	8	sand to silty sand
1.97	302.08	5.2729	1.746	1.963	73	8	sand to silty sand
2.03	296.26	5.3175	1.795	1.938	72	8	sand to silty sand
2.10	298.53	4.0285	1.349	1.885	71	8	sand to silty sand
2.17	293.90	4.0497	1.378	1.913	70	8	sand to silty sand
2.23	286.63	4.2620	1.487	1.925	69	8	sand to silty sand
2.30	288.02	4.2232	1.466	1.744	68	8	sand to silty sand
2.36	287.64	4.2672	1.484	1.913	67	8	sand to silty sand
2.43	252.60	4.2470	1.681	3.757	66	8	sand to silty sand
2.49	274.21	3.9663	1.446	3.901	65	8	sand to silty sand
2.56	270.75	4.1240	1.523	3.979	64	8	sand to silty sand
2.62	264.29	4.5089	1.706	4.013	63	8	sand to silty sand
2.69	262.47	4.6842	1.785	3.995	63	8	sand to silty sand
2.76	256.37	4.7578	1.856	3.923	62	8	sand to silty sand
2.82	255.40	4.8941	1.916	3.870	60	8	sand to silty sand
2.89	248.82	5.0010	2.010	3.835	59	8	sand to silty sand
2.95	243.69	4.9700	2.039	3.842	58	8	sand to silty sand
3.02	235.00	5.0887	2.165	3.863	57	8	sand to silty sand
3.08	229.68	4.9446	2.153	3.773	55	8	sand to silty sand
3.15	225.13	4.7503	2.110	3.804	72	7	silty sand to sandy silt
3.22	222.27	4.5567	2.050	3.667	69	7	silty sand to sandy silt
3.28	210.26	4.3746	2.081	3.623	67	7	silty sand to sandy silt
3.35	203.94	4.3644	2.140	3.586	65	7	silty sand to sandy silt
3.41	195.54	4.2349	2.166	3.489	63	7	silty sand to sandy silt
3.48	187.46	4.1431	2.210	3.480	61	7	silty sand to sandy silt
3.54	180.03	4.2769	2.376	3.448	59	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
3.61	178.18	4.3640	2.449	3.380	58	7	silty sand to sandy silt
3.67	176.42	4.3509	2.466	3.420	57	7	silty sand to sandy silt
3.74	176.51	4.4399	2.515	3.392	56	7	silty sand to sandy silt
3.81	172.60	4.2507	2.463	3.386	55	7	silty sand to sandy silt
3.87	170.05	3.9398	2.317	3.327	54	7	silty sand to sandy silt
3.94	168.18	3.5468	2.109	3.211	53	7	silty sand to sandy silt
4.00	164.79	3.2838	1.993	3.186	53	7	silty sand to sandy silt
4.07	159.82	3.1025	1.941	3.192	52	7	silty sand to sandy silt
4.13	160.32	2.9123	1.817	3.111	52	7	silty sand to sandy silt
4.20	164.61	2.8624	1.739	3.118	51	7	silty sand to sandy silt
4.27	162.83	2.8959	1.778	3.130	50	7	silty sand to sandy silt
4.33	156.69	2.9653	1.892	3.114	50	7	silty sand to sandy silt
4.40	152.22	2.9402	1.932	3.130	49	7	silty sand to sandy silt
4.46	145.75	3.0047	2.062	3.174	48	7	silty sand to sandy silt
4.53	143.89	2.9621	2.059	3.152	47	7	silty sand to sandy silt
4.59	146.88	2.8757	1.958	3.065	47	7	silty sand to sandy silt
4.66	146.44	2.8465	1.944	3.049	46	7	silty sand to sandy silt
4.72	145.79	2.9355	2.014	3.027	46	7	silty sand to sandy silt
4.79	143.08	2.9422	2.056	3.058	45	7	silty sand to sandy silt
4.86	139.31	2.9625	2.127	3.055	45	7	silty sand to sandy silt
4.92	137.43	2.9797	2.168	3.021	44	7	silty sand to sandy silt
4.99	138.21	3.1668	2.291	2.990	44	7	silty sand to sandy silt
5.05	135.16	3.3021	2.443	2.987	43	7	silty sand to sandy silt
5.12	133.05	3.3273	2.501	2.955	42	7	silty sand to sandy silt
5.18	128.81	3.1384	2.436	2.924	42	7	silty sand to sandy silt
5.25	128.40	3.1157	2.427	2.855	41	7	silty sand to sandy silt
5.31	124.75	3.0674	2.459	2.843	40	7	silty sand to sandy silt
5.38	122.15	2.4580	2.012	2.806	39	7	silty sand to sandy silt
5.45	119.90	2.4003	2.002	2.777	38	7	silty sand to sandy silt
5.51	117.16	2.3432	2.000	2.768	37	7	silty sand to sandy silt
5.58	113.19	2.3489	2.075	2.659	36	7	silty sand to sandy silt
5.64	111.75	2.4606	2.202	2.603	35	7	silty sand to sandy silt
5.71	98.85	2.4983	2.527	1.826	34	7	silty sand to sandy silt
5.77	101.85	2.5010	2.455	1.826	34	7	silty sand to sandy silt
5.84	104.62	2.4432	2.335	1.854	34	7	silty sand to sandy silt
5.91	107.67	2.4192	2.247	1.785	34	7	silty sand to sandy silt
5.97	108.13	2.4345	2.251	1.910	34	7	silty sand to sandy silt
6.04	107.96	2.4182	2.240	1.929	34	7	silty sand to sandy silt
6.10	108.59	2.3559	2.170	1.913	35	7	silty sand to sandy silt
6.17	109.15	2.2328	2.046	1.847	35	7	silty sand to sandy silt
6.23	109.96	2.2387	2.036	1.935	35	7	silty sand to sandy silt
6.30	111.12	2.2173	1.995	1.888	35	7	silty sand to sandy silt
6.36	110.80	2.2109	1.995	1.876	35	7	silty sand to sandy silt
6.43	109.10	2.2151	2.030	1.922	35	7	silty sand to sandy silt
6.50	107.58	2.1472	1.996	1.885	34	7	silty sand to sandy silt
6.56	104.66	2.1079	2.014	1.916	34	7	silty sand to sandy silt
6.63	104.36	2.1501	2.060	1.935	33	7	silty sand to sandy silt
6.69	102.07	2.0650	2.023	1.897	32	7	silty sand to sandy silt
6.76	97.21	2.0074	2.065	1.938	31	7	silty sand to sandy silt
6.82	94.69	1.9264	2.034	1.960	30	7	silty sand to sandy silt
6.89	92.22	1.7801	1.930	1.919	29	7	silty sand to sandy silt
6.96	88.86	1.7400	1.958	1.947	29	7	silty sand to sandy silt
7.02	87.32	1.6906	1.936	1.935	28	7	silty sand to sandy silt
7.09	84.27	1.6818	1.996	1.979	27	7	silty sand to sandy silt
7.15	82.01	1.6637	2.029	1.975	27	7	silty sand to sandy silt
7.22	81.48	1.6461	2.020	2.060	26	7	silty sand to sandy silt
7.28	81.35	1.6178	1.989	2.085	26	7	silty sand to sandy silt
7.35	80.41	1.6057	1.997	2.150	25	7	silty sand to sandy silt
7.41	78.65	1.6371	2.081	2.116	25	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
7.48	77.21	1.6827	2.179	2.185	25	7	silty sand to sandy silt
7.55	77.36	1.7211	2.225	2.759	25	7	silty sand to sandy silt
7.61	77.93	1.7506	2.246	3.011	25	7	silty sand to sandy silt
7.68	77.04	1.7448	2.265	3.036	24	7	silty sand to sandy silt
7.74	76.36	1.7196	2.252	3.030	24	7	silty sand to sandy silt
7.81	74.87	1.6352	2.184	3.015	24	7	silty sand to sandy silt
7.87	73.99	1.5969	2.158	3.046	24	7	silty sand to sandy silt
7.94	73.68	1.4737	2.000	3.027	24	7	silty sand to sandy silt
8.01	73.76	1.3321	1.806	2.983	24	7	silty sand to sandy silt
8.07	74.46	1.2771	1.715	3.002	24	7	silty sand to sandy silt
8.14	76.26	1.2990	1.703	2.968	24	7	silty sand to sandy silt
8.20	76.36	1.1909	1.560	2.993	24	7	silty sand to sandy silt
8.27	77.66	1.1028	1.420	2.937	24	7	silty sand to sandy silt
8.33	77.54	0.9656	1.245	2.890	23	7	silty sand to sandy silt
8.40	70.25	0.9000	1.281	3.068	23	7	silty sand to sandy silt
8.46	69.79	0.7459	1.069	3.180	22	7	silty sand to sandy silt
8.53	65.90	0.6057	0.919	3.314	22	7	silty sand to sandy silt
8.60	64.91	0.7117	1.096	3.377	16	8	sand to silty sand
8.66	64.68	0.5089	0.787	3.383	15	8	sand to silty sand
8.73	62.30	0.4656	0.747	3.430	15	8	sand to silty sand
8.79	60.75	0.4828	0.795	3.464	19	7	silty sand to sandy silt
8.86	60.36	0.4981	0.825	3.517	18	7	silty sand to sandy silt
8.92	55.04	0.5394	0.980	3.533	17	7	silty sand to sandy silt
8.99	49.27	0.5943	1.206	5.171	17	7	silty sand to sandy silt
9.06	48.35	0.5335	1.103	5.006	16	7	silty sand to sandy silt
9.12	47.09	0.5279	1.121	4.974	15	7	silty sand to sandy silt
9.19	45.33	0.5249	1.158	5.040	15	7	silty sand to sandy silt
9.25	43.87	0.5446	1.241	5.003	14	7	silty sand to sandy silt
9.32	42.75	0.5855	1.369	5.040	14	7	silty sand to sandy silt
9.38	43.01	0.6051	1.407	5.077	14	7	silty sand to sandy silt
9.45	43.75	0.6365	1.455	5.218	14	7	silty sand to sandy silt
9.51	44.65	0.6651	1.490	7.402	14	7	silty sand to sandy silt
9.58	45.95	0.6973	1.517	6.516	15	7	silty sand to sandy silt
9.65	46.93	0.6702	1.428	6.291	15	7	silty sand to sandy silt
9.71	46.87	0.5998	1.280	4.506	15	7	silty sand to sandy silt
9.78	46.91	0.5509	1.174	3.427	14	7	silty sand to sandy silt
9.84	44.88	0.5211	1.161	3.411	14	7	silty sand to sandy silt
9.91	42.35	0.5113	1.207	3.433	13	7	silty sand to sandy silt
9.97	40.47	0.4816	1.190	3.452	13	7	silty sand to sandy silt
10.04	37.65	0.4249	1.129	3.530	12	7	silty sand to sandy silt
10.10	36.14	0.3922	1.085	3.570	11	7	silty sand to sandy silt
10.17	33.56	0.3653	1.089	3.941	10	7	silty sand to sandy silt
10.24	28.87	0.3292	1.140	4.185	11	6	sandy silt to clayey silt
10.30	24.02	0.3011	1.253	4.456	9	6	sandy silt to clayey silt
10.37	18.91	0.2579	1.364	4.444	7	6	sandy silt to clayey silt
10.43	14.08	0.2180	1.549	4.391	6	6	sandy silt to clayey silt
10.50	9.97	0.1960	1.965	4.357	6	5	clayey silt to silty clay
10.56	6.90	0.1652	2.396	4.385	6	4	silty clay to clay
10.63	5.06	0.1901	3.761	7.318	6	3	clay
10.70	3.75	0.1457	3.886	7.814	4	3	clay
10.76	2.80	0.1530	5.468	8.601	4	3	clay
10.83	2.19	0.1646	7.523	8.807	3	3	clay
10.89	2.06	0.1518	7.378	9.088	4	3	clay
10.96	3.88	0.1475	3.798	7.749	5	3	clay
11.02	5.01	0.1341	2.678	7.752	4	4	silty clay to clay
11.09	8.54	0.1280	1.499	7.849	4	4	silty clay to clay
11.15	10.23	0.1423	1.390	7.880	4	5	clayey silt to silty clay
11.22	9.65	0.1389	1.439	7.833	4	5	clayey silt to silty clay
11.29	8.89	0.1352	1.521	7.799	4	5	clayey silt to silty clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
11.35	8.54	0.1367	1.601	7.849	4	5	clayey silt to silty clay
11.42	8.41	0.1387	1.649	7.980	4	5	clayey silt to silty clay
11.48	8.08	0.1353	1.675	8.064	4	5	clayey silt to silty clay
11.55	7.90	0.1318	1.667	8.257	4	5	clayey silt to silty clay
11.61	8.09	0.1386	1.713	8.410	4	5	clayey silt to silty clay
11.68	7.87	0.1393	1.769	8.563	4	5	clayey silt to silty clay
11.75	7.64	0.1241	1.624	8.704	4	5	clayey silt to silty clay
11.81	7.62	0.1126	1.478	8.888	4	5	clayey silt to silty clay
11.88	8.07	0.1196	1.483	9.156	5	4	silty clay to clay
11.94	7.61	0.1081	1.421	9.353	4	4	silty clay to clay
12.01	6.42	0.1654	2.577	9.428	4	4	silty clay to clay
12.07	5.28	0.1554	2.945	9.543	4	4	silty clay to clay
12.14	4.48	0.1319	2.947	9.755	4	4	silty clay to clay
12.20	4.01	0.1196	2.984	10.389	5	3	clay
12.27	4.20	0.1182	2.817	11.200	5	3	clay
12.34	6.61	0.1120	1.694	9.933	3	4	silty clay to clay
12.40	6.24	0.1032	1.653	9.958	3	4	silty clay to clay
12.47	5.26	0.0961	1.826	10.092	3	4	silty clay to clay
12.53	4.56	0.1040	2.279	10.305	3	4	silty clay to clay
12.60	4.07	0.1022	2.510	10.645	4	3	clay
12.66	3.68	0.0982	2.669	11.072	4	3	clay
12.73	3.48	0.0901	2.589	11.587	4	3	clay
12.80	3.71	0.0936	2.523	12.009	3	3	clay
12.86	3.77	0.0842	2.234	12.636	3	3	clay
12.93	3.38	0.0839	2.482	12.979	3	3	clay
12.99	3.36	0.0902	2.683	13.179	3	3	clay
13.06	3.11	0.0999	3.214	13.513	3	3	clay
13.12	2.46	0.1143	4.637	13.781	3	3	clay
13.19	2.53	0.1336	5.278	14.543	4	3	clay
13.25	3.48	0.1320	3.795	15.934	4	3	clay
13.32	5.22	0.1343	2.573	16.197	5	3	clay
13.39	6.01	0.1494	2.486	15.104	4	4	silty clay to clay
13.45	7.63	0.1724	2.258	14.315	5	4	silty clay to clay
13.52	10.50	0.1926	1.835	13.544	5	4	silty clay to clay
13.58	9.38	0.1989	2.121	11.912	5	4	silty clay to clay
13.65	7.21	0.1905	2.643	11.381	4	4	silty clay to clay
13.71	5.45	0.1809	3.319	11.278	6	3	clay
13.78	4.25	0.1647	3.873	11.409	5	3	clay
13.85	3.63	0.1371	3.781	12.374	4	3	clay
13.91	3.05	0.1106	3.621	13.794	3	3	clay
13.98	2.83	0.1062	3.751	14.820	3	3	clay
14.04	3.10	0.1096	3.537	15.850	3	3	clay
14.11	3.13	0.0990	3.165	16.109	3	3	clay
14.17	2.82	0.0987	3.505	16.287	4	3	clay
14.24	3.87	0.1075	2.774	17.195	4	3	clay
14.30	5.52	0.1102	1.995	17.460	4	3	clay
14.37	5.86	0.1213	2.070	16.343	5	3	clay
14.44	5.25	0.1139	2.170	15.572	3	4	silty clay to clay
14.50	5.04	0.1103	2.190	15.494	3	4	silty clay to clay
14.57	4.84	0.1024	2.116	15.497	3	4	silty clay to clay
14.63	4.85	0.1026	2.117	15.504	5	3	clay
14.70	4.70	0.0999	2.125	15.448	4	3	clay
14.76	4.38	0.0988	2.255	15.407	4	3	clay
14.83	4.10	0.0973	2.373	15.510	4	3	clay
14.90	3.97	0.0962	2.424	15.694	4	3	clay
14.96	4.06	0.1011	2.492	15.866	4	3	clay
15.03	4.25	0.1020	2.399	16.022	4	3	clay
15.09	4.29	0.0963	2.245	16.075	4	3	clay
15.16	4.32	0.1038	2.400	16.122	4	3	clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
15.22	4.55	0.1553	3.412	16.200	4	3	clay
15.29	4.81	0.1516	3.154	16.203	5	3	clay
15.35	5.20	0.1463	2.816	16.165	5	3	clay
15.42	5.26	0.1432	2.722	16.134	4	4	silty clay to clay
15.49	5.07	0.1428	2.817	16.072	5	4	silty clay to clay
15.55	10.07	0.1476	1.467	8.857	4	5	clayey silt to silty clay
15.62	10.94	0.1464	1.338	8.969	4	5	clayey silt to silty clay
15.68	10.55	0.1394	1.321	9.084	5	5	clayey silt to silty clay
15.75	10.36	0.1402	1.354	9.322	5	5	clayey silt to silty clay
15.81	10.41	0.1357	1.303	9.687	5	5	clayey silt to silty clay
15.88	10.71	0.1385	1.293	10.211	5	5	clayey silt to silty clay
15.94	10.80	0.1294	1.198	10.364	5	5	clayey silt to silty clay
16.01	10.40	0.1182	1.136	10.489	5	5	clayey silt to silty clay
16.08	10.01	0.1139	1.137	10.626	5	5	clayey silt to silty clay
16.14	10.10	0.1150	1.139	10.866	5	5	clayey silt to silty clay
16.21	9.82	0.1185	1.207	11.060	4	5	clayey silt to silty clay
16.27	8.48	0.1191	1.405	11.228	4	5	clayey silt to silty clay
16.34	7.60	0.1178	1.550	11.459	4	5	clayey silt to silty clay
16.40	7.43	0.1148	1.546	11.874	4	5	clayey silt to silty clay
16.47	8.25	0.1162	1.409	12.342	4	5	clayey silt to silty clay
16.54	9.14	0.1229	1.345	12.736	4	5	clayey silt to silty clay
16.60	9.86	0.1426	1.447	12.992	5	5	clayey silt to silty clay
16.67	10.11	0.1574	1.557	13.216	5	5	clayey silt to silty clay
16.73	10.36	0.1797	1.735	13.550	5	5	clayey silt to silty clay
16.80	11.47	0.2217	1.932	13.937	6	5	clayey silt to silty clay
16.86	13.38	0.2554	1.909	14.171	6	5	clayey silt to silty clay
16.93	15.09	0.2832	1.877	14.221	7	5	clayey silt to silty clay
16.99	16.11	0.3175	1.970	14.156	8	5	clayey silt to silty clay
17.06	16.93	0.3320	1.961	14.127	8	5	clayey silt to silty clay
17.13	18.42	0.3591	1.950	14.131	7	6	sandy silt to clayey silt
17.19	20.11	0.3583	1.782	14.078	7	6	sandy silt to clayey silt
17.26	20.79	0.3655	1.758	13.778	8	6	sandy silt to clayey silt
17.32	21.50	0.3879	1.804	13.653	8	6	sandy silt to clayey silt
17.39	22.03	0.4054	1.840	13.544	9	6	sandy silt to clayey silt
17.45	22.90	0.4222	1.844	13.432	9	6	sandy silt to clayey silt
17.52	24.52	0.4269	1.741	13.403	9	6	sandy silt to clayey silt
17.59	26.05	0.4300	1.651	13.307	10	6	sandy silt to clayey silt
17.65	26.92	0.4379	1.626	13.219	10	6	sandy silt to clayey silt
17.72	27.09	0.4470	1.650	13.191	10	6	sandy silt to clayey silt
17.78	27.94	0.4454	1.594	13.207	11	6	sandy silt to clayey silt
17.85	28.63	0.4365	1.525	13.257	11	6	sandy silt to clayey silt
17.91	28.79	0.4507	1.566	13.369	11	6	sandy silt to clayey silt
17.98	28.79	0.4368	1.517	13.510	11	6	sandy silt to clayey silt
18.04	28.61	0.4126	1.442	13.784	11	6	sandy silt to clayey silt
18.11	28.00	0.3559	1.271	14.174	11	6	sandy silt to clayey silt
18.18	27.89	0.2818	1.010	14.499	10	6	sandy silt to clayey silt
18.24	29.94	0.2126	0.710	14.724	10	6	sandy silt to clayey silt
18.31	26.69	0.2160	0.809	14.627	9	6	sandy silt to clayey silt
18.37	20.09	0.2550	1.269	14.621	8	6	sandy silt to clayey silt
18.44	14.43	0.4151	2.877	15.092	8	5	clayey silt to silty clay
18.50	10.49	0.4598	4.383	16.880	9	5	clayey silt to silty clay
18.57	8.05	0.4903	6.092	22.048	10	5	clayey silt to silty clay
18.64	14.11	0.4897	3.470	28.208	9	6	sandy silt to clayey silt
18.70	37.15	0.5268	1.418	30.252	10	6	sandy silt to clayey silt
18.77	39.69	0.5454	1.374	10.738	11	6	sandy silt to clayey silt
18.83	38.55	0.5556	1.441	10.629	12	6	sandy silt to clayey silt
18.90	35.17	0.5611	1.596	10.601	13	6	sandy silt to clayey silt
18.96	31.15	0.5716	1.835	10.607	13	6	sandy silt to clayey silt
19.03	30.03	0.5530	1.842	10.695	12	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
19.09	29.48	0.5297	1.797	10.816	11	6	sandy silt to clayey silt
19.16	27.82	0.5119	1.840	10.957	10	6	sandy silt to clayey silt
19.23	24.96	0.4772	1.912	11.157	10	6	sandy silt to clayey silt
19.29	22.41	0.4407	1.966	11.462	10	6	sandy silt to clayey silt
19.36	20.09	0.4075	2.028	12.239	10	6	sandy silt to clayey silt
19.42	21.46	0.3830	1.785	15.179	10	6	sandy silt to clayey silt
19.49	29.51	0.3702	1.255	19.096	9	6	sandy silt to clayey silt
19.55	29.50	0.3630	1.231	18.796	9	6	sandy silt to clayey silt
19.62	26.12	0.3426	1.312	18.475	9	6	sandy silt to clayey silt
19.69	23.38	0.3293	1.409	18.668	9	6	sandy silt to clayey silt
19.75	21.90	0.3147	1.437	19.364	9	6	sandy silt to clayey silt
19.82	21.04	0.3105	1.476	20.394	9	6	sandy silt to clayey silt
19.88	20.90	0.3048	1.458	21.308	8	6	sandy silt to clayey silt
19.95	21.21	0.3031	1.429	22.223	8	6	sandy silt to clayey silt
20.01	22.15	0.2990	1.350	22.653	9	6	sandy silt to clayey silt
20.08	22.71	0.3019	1.329	22.672	9	6	sandy silt to clayey silt
20.14	23.79	0.2901	1.219	22.678	9	6	sandy silt to clayey silt
20.21	25.91	0.3048	1.177	22.681	10	6	sandy silt to clayey silt
20.28	28.92	0.3630	1.255	22.454	10	6	sandy silt to clayey silt
20.34	28.50	0.4264	1.496	21.985	10	6	sandy silt to clayey silt
20.41	26.36	0.4633	1.757	21.611	11	6	sandy silt to clayey silt
20.47	23.76	0.4619	1.944	21.633	11	6	sandy silt to clayey silt
20.54	25.37	0.4750	1.873	22.519	12	6	sandy silt to clayey silt
20.60	34.97	0.5223	1.494	23.128	12	6	sandy silt to clayey silt
20.67	42.10	0.5594	1.329	21.833	13	6	sandy silt to clayey silt
20.73	39.95	0.5723	1.432	19.564	13	6	sandy silt to clayey silt
20.80	33.48	0.5763	1.721	18.097	13	6	sandy silt to clayey silt
20.87	29.23	0.5708	1.953	17.567	12	6	sandy silt to clayey silt
20.93	27.02	0.5424	2.008	17.276	11	6	sandy silt to clayey silt
21.00	24.88	0.5084	2.043	17.030	10	6	sandy silt to clayey silt
21.06	23.03	0.4756	2.065	16.718	9	6	sandy silt to clayey silt
21.13	21.48	0.4478	2.085	16.474	8	6	sandy silt to clayey silt
21.19	19.87	0.4119	2.073	16.412	8	6	sandy silt to clayey silt
21.26	18.83	0.3886	2.064	16.768	9	5	clayey silt to silty clay
21.33	18.41	0.3555	1.931	17.389	8	5	clayey silt to silty clay
21.39	16.97	0.3309	1.950	17.473	8	5	clayey silt to silty clay
21.46	14.71	0.3083	2.096	17.295	7	5	clayey silt to silty clay
21.52	11.90	0.2880	2.419	17.180	6	5	clayey silt to silty clay
21.59	9.74	0.2725	2.798	17.180	5	5	clayey silt to silty clay
21.65	7.79	0.1861	2.389	17.648	5	4	silty clay to clay
21.72	6.15	0.1560	2.538	20.431	5	4	silty clay to clay
21.78	5.17	0.1414	2.735	25.009	4	4	silty clay to clay
21.85	4.78	0.1332	2.789	27.113	6	3	clay
21.92	4.98	0.1300	2.609	27.075	6	3	clay
21.98	6.35	0.1422	2.238	16.128	4	4	silty clay to clay
22.05	5.92	0.1793	3.028	16.942	5	4	silty clay to clay
22.11	8.47	0.2001	2.363	19.118	5	5	clayey silt to silty clay
22.18	12.04	0.1954	1.623	20.594	6	5	clayey silt to silty clay
22.24	15.08	0.1887	1.251	20.915	6	6	sandy silt to clayey silt
22.31	19.76	0.2010	1.017	20.653	6	6	sandy silt to clayey silt
22.38	24.02	0.2119	0.883	20.007	6	6	sandy silt to clayey silt
22.44	19.67	0.2067	1.051	18.843	6	6	sandy silt to clayey silt
22.51	13.48	0.1985	1.473	18.553	6	6	sandy silt to clayey silt
22.57	10.67	0.2078	1.947	19.501	6	6	sandy silt to clayey silt
22.64	10.31	0.2133	2.069	22.379	7	5	clayey silt to silty clay
22.70	12.22	0.2095	1.714	24.129	6	5	clayey silt to silty clay
22.77	13.74	0.1908	1.389	24.351	5	6	sandy silt to clayey silt
22.83	15.39	0.1721	1.118	23.927	5	6	sandy silt to clayey silt
22.90	17.90	0.1618	0.904	23.240	5	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
22.97	16.47	0.1543	0.937	22.188	5	6	sandy silt to clayey silt
23.03	11.83	0.1419	1.199	21.530	5	5	clayey silt to silty clay
23.10	8.33	0.1169	1.405	21.467	5	5	clayey silt to silty clay
23.16	5.79	0.0990	1.709	22.413	4	5	clayey silt to silty clay
23.23	4.60	0.0853	1.853	24.335	3	1	sensitive fine grained
23.29	3.91	0.0769	1.967	26.099	2	1	sensitive fine grained
23.36	3.23	0.0654	2.022	27.216	2	1	sensitive fine grained
23.43	2.94	0.0598	2.035	28.033	2	1	sensitive fine grained
23.49	3.06	0.0574	1.878	28.573	2	1	sensitive fine grained
23.56	3.56	0.0556	1.561	28.770	2	1	sensitive fine grained
23.62	3.69	0.0566	1.533	28.411	2	1	sensitive fine grained
23.69	3.46	0.0616	1.782	28.086	2	1	sensitive fine grained
23.75	3.21	0.0638	1.989	28.118	2	1	sensitive fine grained
23.82	2.98	0.0675	2.264	28.430	3	3	clay
23.88	2.88	0.0684	2.378	28.648	3	3	clay
23.95	2.73	0.0708	2.597	28.988	3	3	clay
24.02	2.63	0.0643	2.442	29.322	3	3	clay
24.08	2.55	0.0662	2.599	29.584	2	3	clay
24.15	2.44	0.0687	2.813	29.703	2	3	clay
24.21	2.43	0.0660	2.717	29.797	2	3	clay
24.28	2.41	0.0650	2.703	29.781	2	3	clay
24.34	2.56	0.0664	2.591	29.903	2	3	clay
24.41	2.67	0.0671	2.510	30.018	2	3	clay
24.48	2.53	0.0658	2.597	29.915	3	3	clay
24.54	2.61	0.0683	2.617	30.106	3	3	clay
24.61	3.06	0.0717	2.345	30.614	3	3	clay
24.67	3.12	0.0744	2.386	30.764	3	3	clay
24.74	2.85	0.0795	2.789	30.830	3	3	clay
24.80	3.13	0.0894	2.861	31.423	3	3	clay
24.87	3.39	0.1713	5.049	32.200	3	3	clay
24.93	3.25	0.1369	4.216	32.393	3	3	clay
25.00	3.22	0.1427	4.434	33.151	4	3	clay
25.07	3.37	0.1495	4.440	33.320	4	3	clay
25.13	4.59	0.1599	3.485	33.582	4	3	clay
25.20	7.35	0.1473	2.004	14.390	5	3	clay
25.26	6.56	0.1377	2.098	14.321	5	3	clay
25.33	4.52	0.1327	2.938	14.486	5	3	clay
25.39	4.15	0.1185	2.853	15.316	3	4	silty clay to clay
25.46	4.47	0.1010	2.260	15.947	4	3	clay
25.52	4.47	0.0987	2.207	16.468	4	3	clay
25.59	4.27	0.0803	1.883	16.786	4	3	clay
25.66	4.07	0.0762	1.873	17.136	4	3	clay
25.72	3.88	0.0772	1.988	17.607	4	3	clay
25.79	3.47	0.0860	2.476	18.172	3	3	clay
25.85	3.15	0.1025	3.250	18.731	3	3	clay
25.92	3.18	0.0917	2.887	19.261	3	3	clay
25.98	3.23	0.0916	2.832	19.760	3	3	clay
26.05	3.12	0.0974	3.127	20.200	3	3	clay
26.12	3.08	0.0896	2.907	20.519	3	3	clay
26.18	3.02	0.0941	3.120	21.065	3	3	clay
26.25	3.03	0.0939	3.102	21.442	3	3	clay
26.31	3.20	0.1008	3.148	21.783	3	3	clay
26.38	3.15	0.1105	3.510	21.923	3	3	clay
26.44	3.24	0.1061	3.271	22.213	3	3	clay
26.51	3.41	0.1142	3.346	22.494	3	3	clay
26.57	3.51	0.1230	3.501	22.722	3	3	clay
26.64	3.46	0.1343	3.881	22.850	3	3	clay
26.71	3.55	0.1224	3.452	23.062	3	3	clay
26.77	3.59	0.1276	3.553	23.178	4	3	clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
26.84	3.70	0.1384	3.744	23.218	4	3	clay
26.90	3.74	0.1477	3.944	23.190	4	3	clay
26.97	4.15	0.1554	3.745	23.380	4	3	clay
27.03	4.94	0.1671	3.382	23.533	5	3	clay
27.10	5.57	0.1946	3.492	23.490	5	3	clay
27.17	6.57	0.2219	3.377	22.915	6	3	clay
27.23	7.02	0.2339	3.333	21.714	6	3	clay
27.30	6.72	0.2310	3.437	20.138	6	3	clay
27.36	6.98	0.2235	3.200	19.473	6	3	clay
27.43	7.24	0.2245	3.099	18.927	6	3	clay
27.49	6.42	0.2236	3.483	18.325	6	3	clay
27.56	6.01	0.2302	3.829	17.623	6	3	clay
27.62	5.79	0.2339	4.040	16.743	6	3	clay
27.69	5.68	0.2323	4.092	15.928	6	3	clay
27.76	6.47	0.2507	3.876	15.522	6	3	clay
27.82	6.38	0.2546	3.992	15.335	6	3	clay
27.89	5.99	0.2688	4.489	15.051	6	3	clay
27.95	5.27	0.2667	5.056	14.930	6	3	clay
28.02	5.76	0.2833	4.919	14.954	6	3	clay
28.08	5.56	0.3073	5.528	15.157	7	3	clay
28.15	7.41	0.3577	4.827	15.694	8	3	clay
28.22	10.17	0.4016	3.950	16.250	10	3	clay
28.28	12.77	0.4307	3.372	16.587	7	4	silty clay to clay
28.35	14.18	0.4482	3.160	17.024	9	4	silty clay to clay
28.41	14.51	0.4777	3.291	17.336	9	4	silty clay to clay
28.48	17.33	0.5080	2.931	24.560	10	4	silty clay to clay
28.54	16.97	0.5578	3.287	25.359	10	4	silty clay to clay
28.61	16.45	0.5816	3.536	26.211	11	4	silty clay to clay
28.67	16.47	0.6104	3.707	26.585	11	4	silty clay to clay
28.74	16.85	0.5943	3.527	26.404	10	4	silty clay to clay
28.81	16.65	0.5965	3.583	25.518	10	4	silty clay to clay
28.87	15.13	0.5876	3.883	26.638	10	4	silty clay to clay
28.94	14.48	0.5490	3.792	27.512	10	4	silty clay to clay
29.00	15.32	0.5209	3.401	28.564	10	4	silty clay to clay
29.07	15.49	0.5029	3.248	29.244	10	4	silty clay to clay
29.13	15.52	0.4812	3.100	30.012	10	4	silty clay to clay
29.20	15.30	0.4744	3.102	30.636	10	4	silty clay to clay
29.27	14.76	0.4651	3.152	31.163	7	5	clayey silt to silty clay
29.33	14.84	0.4358	2.937	32.162	7	5	clayey silt to silty clay
29.40	14.75	0.4273	2.898	33.379	7	5	clayey silt to silty clay
29.46	14.71	0.4190	2.848	34.490	7	5	clayey silt to silty clay
29.53	14.59	0.4206	2.883	35.826	7	5	clayey silt to silty clay
29.59	14.44	0.4068	2.818	36.990	7	5	clayey silt to silty clay
29.66	14.65	0.4062	2.772	38.588	7	5	clayey silt to silty clay
29.72	14.74	0.4066	2.759	39.845	9	4	silty clay to clay
29.79	14.90	0.5236	3.514	41.222	10	4	silty clay to clay
29.86	15.23	0.5239	3.440	42.897	10	4	silty clay to clay
29.92	15.39	0.5240	3.405	44.726	10	4	silty clay to clay
29.99	15.64	0.5704	3.646	46.109	11	4	silty clay to clay
30.05	16.14	0.5419	3.358	47.894	11	4	silty clay to clay
30.12	20.34	0.6084	2.991	17.854	11	4	silty clay to clay
30.18	18.97	0.6241	3.289	18.144	9	5	clayey silt to silty clay
30.25	18.09	0.6284	3.475	18.637	9	5	clayey silt to silty clay
30.31	17.64	0.5855	3.320	19.139	9	5	clayey silt to silty clay
30.38	17.64	0.5491	3.113	19.913	9	5	clayey silt to silty clay
30.45	18.03	0.5291	2.935	20.678	9	5	clayey silt to silty clay
30.51	18.45	0.5592	3.032	21.664	9	5	clayey silt to silty clay
30.58	19.33	0.5633	2.914	22.675	9	5	clayey silt to silty clay
30.64	20.12	0.5588	2.778	23.780	9	5	clayey silt to silty clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
30.71	20.75	0.6130	2.955	25.275	9	5	clayey silt to silty clay
30.77	20.48	0.6112	2.984	26.411	9	5	clayey silt to silty clay
30.84	19.47	0.5465	2.807	27.344	9	5	clayey silt to silty clay
30.91	19.11	0.4927	2.579	28.289	9	5	clayey silt to silty clay
30.97	18.19	0.4267	2.345	29.400	9	5	clayey silt to silty clay
31.04	17.18	0.3931	2.289	30.664	8	5	clayey silt to silty clay
31.10	16.82	0.4269	2.538	32.768	8	5	clayey silt to silty clay
31.17	16.13	0.4352	2.698	34.855	8	5	clayey silt to silty clay
31.23	16.69	0.4465	2.675	37.264	8	5	clayey silt to silty clay
31.30	17.52	0.4789	2.733	39.664	9	5	clayey silt to silty clay
31.36	18.79	0.5140	2.735	41.718	9	5	clayey silt to silty clay
31.43	20.16	0.4692	2.327	43.431	9	5	clayey silt to silty clay
31.50	21.61	0.5355	2.478	45.463	10	5	clayey silt to silty clay
31.56	21.82	0.5824	2.669	47.837	11	5	clayey silt to silty clay
31.63	21.58	0.6451	2.989	50.303	11	5	clayey silt to silty clay
31.69	22.00	0.6366	2.893	53.333	11	5	clayey silt to silty clay
31.76	28.02	0.5862	2.092	43.303	11	5	clayey silt to silty clay
31.82	25.00	0.5792	2.317	42.504	11	5	clayey silt to silty clay
31.89	23.51	0.5516	2.347	44.910	11	5	clayey silt to silty clay
31.96	23.01	0.5572	2.422	47.925	11	5	clayey silt to silty clay
32.02	21.92	0.5843	2.666	52.559	11	5	clayey silt to silty clay
32.09	22.02	0.6096	2.768	57.680	11	5	clayey silt to silty clay
32.15	23.29	0.6247	2.683	63.385	12	5	clayey silt to silty clay
32.22	25.32	0.6461	2.552	67.570	10	6	sandy silt to clayey silt
32.28	26.94	0.6394	2.373	67.108	11	6	sandy silt to clayey silt
32.35	29.60	0.5881	1.987	64.343	13	6	sandy silt to clayey silt
32.41	33.93	0.6029	1.777	59.484	13	7	silty sand to sandy silt
32.48	42.78	0.6351	1.484	51.379	15	7	silty sand to sandy silt
32.55	56.53	0.6211	1.099	38.862	17	7	silty sand to sandy silt
32.61	70.13	0.5660	0.807	22.176	19	7	silty sand to sandy silt
32.68	73.02	0.5280	0.723	15.775	15	8	sand to silty sand
32.74	72.44	0.5132	0.708	14.302	16	8	sand to silty sand
32.81	69.05	0.4981	0.721	13.329	16	8	sand to silty sand
32.87	64.97	0.5029	0.774	12.686	15	8	sand to silty sand
32.94	60.15	0.5286	0.879	12.161	19	7	silty sand to sandy silt
33.01	53.97	0.6178	1.145	11.653	17	7	silty sand to sandy silt
33.07	47.28	0.8132	1.720	11.060	16	7	silty sand to sandy silt
33.14	41.84	0.8452	2.020	10.645	14	7	silty sand to sandy silt
33.20	37.51	0.7100	1.893	10.317	16	6	sandy silt to clayey silt
33.27	35.14	0.7403	2.107	10.136	16	6	sandy silt to clayey silt
33.33	36.88	0.8130	2.205	9.986	13	7	silty sand to sandy silt
33.40	43.32	0.6881	1.588	9.671	14	7	silty sand to sandy silt
33.46	48.38	0.4835	0.999	9.253	14	7	silty sand to sandy silt
33.53	48.88	0.4344	0.889	8.853	15	7	silty sand to sandy silt
33.60	48.89	0.4037	0.826	8.470	16	7	silty sand to sandy silt
33.66	49.79	0.3643	0.732	8.161	16	7	silty sand to sandy silt
33.73	50.52	0.3135	0.621	7.942	16	7	silty sand to sandy silt
33.79	51.89	0.2860	0.551	7.739	12	8	sand to silty sand
33.86	53.07	0.2843	0.536	7.558	13	8	sand to silty sand
33.92	54.10	0.3267	0.604	7.409	13	8	sand to silty sand
33.99	54.73	0.3537	0.646	7.237	13	8	sand to silty sand
34.06	54.49	0.3690	0.677	7.178	13	8	sand to silty sand
34.12	53.75	0.3921	0.730	7.143	17	7	silty sand to sandy silt
34.19	52.61	0.4336	0.824	7.165	16	7	silty sand to sandy silt
34.25	50.67	0.4270	0.843	7.193	16	7	silty sand to sandy silt
34.32	48.82	0.4336	0.888	7.234	15	7	silty sand to sandy silt
34.38	46.40	0.4319	0.931	7.278	15	7	silty sand to sandy silt
34.45	43.93	0.4096	0.933	7.377	14	7	silty sand to sandy silt
34.51	41.88	0.3831	0.915	7.449	14	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
34.58	40.29	0.3573	0.887	7.555	13	7	silty sand to sandy silt
34.65	38.77	0.2801	0.723	7.680	12	7	silty sand to sandy silt
34.71	37.78	0.2543	0.673	7.752	12	7	silty sand to sandy silt
34.78	36.47	0.2648	0.726	7.821	11	7	silty sand to sandy silt
34.84	34.28	0.2738	0.799	7.805	11	7	silty sand to sandy silt
34.91	26.09	0.2769	1.061	13.837	10	7	silty sand to sandy silt
34.97	29.74	0.2535	0.852	12.776	10	7	silty sand to sandy silt
35.04	29.46	0.2498	0.848	12.573	9	7	silty sand to sandy silt
35.10	28.88	0.2944	1.019	12.087	11	6	sandy silt to clayey silt
35.17	27.21	0.3981	1.463	11.044	11	6	sandy silt to clayey silt
35.24	25.34	0.4276	1.687	10.177	11	6	sandy silt to clayey silt
35.30	25.92	0.4261	1.644	9.812	10	7	silty sand to sandy silt
35.37	28.77	0.3123	1.085	9.496	10	7	silty sand to sandy silt
35.43	35.24	0.2429	0.689	9.034	11	7	silty sand to sandy silt
35.50	41.21	0.2171	0.527	8.482	12	7	silty sand to sandy silt
35.56	45.93	0.2242	0.488	7.989	13	7	silty sand to sandy silt
35.63	47.89	0.2963	0.619	7.571	14	7	silty sand to sandy silt
35.70	47.93	0.3605	0.752	7.259	15	7	silty sand to sandy silt
35.76	46.58	0.4169	0.895	7.221	15	7	silty sand to sandy silt
35.83	45.70	0.4351	0.952	7.262	15	7	silty sand to sandy silt
35.89	45.99	0.4623	1.005	7.343	15	7	silty sand to sandy silt
35.96	47.10	0.4910	1.043	7.409	16	7	silty sand to sandy silt
36.02	49.20	0.5213	1.059	7.508	16	7	silty sand to sandy silt
36.09	51.61	0.5441	1.054	7.621	16	7	silty sand to sandy silt
36.15	54.30	0.5655	1.041	7.752	17	7	silty sand to sandy silt
36.22	56.10	0.6108	1.089	7.945	17	7	silty sand to sandy silt
36.29	57.10	0.6189	1.084	8.073	18	7	silty sand to sandy silt
36.35	57.15	0.6278	1.099	8.267	18	7	silty sand to sandy silt
36.42	56.45	0.6374	1.129	8.401	18	7	silty sand to sandy silt
36.48	55.78	0.6353	1.139	8.520	18	7	silty sand to sandy silt
36.55	55.27	0.6287	1.138	8.688	18	7	silty sand to sandy silt
36.61	55.18	0.6184	1.121	8.875	17	7	silty sand to sandy silt
36.68	54.60	0.5957	1.091	9.075	17	7	silty sand to sandy silt
36.75	53.35	0.5937	1.113	9.231	17	7	silty sand to sandy silt
36.81	51.25	0.5906	1.152	9.372	16	7	silty sand to sandy silt
36.88	48.72	0.5789	1.188	9.562	16	7	silty sand to sandy silt
36.94	46.68	0.5686	1.218	9.774	15	7	silty sand to sandy silt
37.01	44.38	0.5557	1.252	10.024	14	7	silty sand to sandy silt
37.07	41.84	0.5298	1.266	10.255	13	7	silty sand to sandy silt
37.14	39.45	0.5350	1.356	10.439	13	7	silty sand to sandy silt
37.20	36.65	0.5305	1.447	10.623	12	7	silty sand to sandy silt
37.27	34.18	0.4959	1.451	10.791	12	7	silty sand to sandy silt
37.34	32.74	0.4241	1.295	10.972	12	7	silty sand to sandy silt
37.40	34.01	0.3805	1.119	11.197	12	7	silty sand to sandy silt
37.47	37.25	0.3521	0.945	11.381	12	7	silty sand to sandy silt
37.53	38.96	0.3139	0.806	11.456	12	7	silty sand to sandy silt
37.60	39.11	0.2982	0.762	11.428	12	7	silty sand to sandy silt
37.66	39.69	0.2943	0.741	11.487	13	7	silty sand to sandy silt
37.73	40.29	0.3050	0.757	11.606	13	7	silty sand to sandy silt
37.80	40.83	0.4431	1.085	11.647	13	7	silty sand to sandy silt
37.86	41.42	0.3778	0.912	11.765	13	7	silty sand to sandy silt
37.93	42.05	0.3898	0.927	11.931	13	7	silty sand to sandy silt
37.99	42.57	0.4120	0.968	12.093	13	7	silty sand to sandy silt
38.06	43.24	0.4513	1.044	12.286	14	7	silty sand to sandy silt
38.12	40.61	0.4819	1.187	15.032	14	7	silty sand to sandy silt
38.19	43.79	0.5008	1.144	15.120	14	7	silty sand to sandy silt
38.25	43.35	0.4990	1.151	15.201	13	7	silty sand to sandy silt
38.32	42.33	0.5016	1.185	15.260	13	7	silty sand to sandy silt
38.39	40.81	0.4984	1.221	15.295	13	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
38.45	38.98	0.4927	1.264	15.323	12	7	silty sand to sandy silt
38.52	37.10	0.4854	1.308	15.370	12	7	silty sand to sandy silt
38.58	35.18	0.4721	1.342	15.444	12	7	silty sand to sandy silt
38.65	33.34	0.4264	1.279	15.544	11	7	silty sand to sandy silt
38.71	33.17	0.3979	1.199	15.604	11	7	silty sand to sandy silt
38.78	35.52	0.3551	1.000	15.660	12	7	silty sand to sandy silt
38.85	38.82	0.3366	0.867	15.632	12	7	silty sand to sandy silt
38.91	38.89	0.3375	0.868	15.179	12	7	silty sand to sandy silt
38.98	38.38	0.3751	0.977	15.017	12	7	silty sand to sandy silt
39.04	37.89	0.3740	0.987	15.042	12	7	silty sand to sandy silt
39.11	37.39	0.3484	0.932	15.095	12	7	silty sand to sandy silt
39.17	37.73	0.3417	0.906	15.154	12	7	silty sand to sandy silt
39.24	38.11	0.3491	0.916	15.270	12	7	silty sand to sandy silt
39.30	37.44	0.3625	0.968	15.338	12	7	silty sand to sandy silt
39.37	36.25	0.3823	1.055	15.341	11	7	silty sand to sandy silt
39.44	35.07	0.4054	1.156	15.376	11	7	silty sand to sandy silt
39.50	32.93	0.3884	1.179	15.463	11	7	silty sand to sandy silt
39.57	31.59	0.3480	1.102	15.591	11	7	silty sand to sandy silt
39.63	31.91	0.2997	0.939	15.685	10	7	silty sand to sandy silt
39.70	33.60	0.3093	0.920	15.775	10	7	silty sand to sandy silt
39.76	32.82	0.3305	1.007	15.488	11	7	silty sand to sandy silt
39.83	31.68	0.2943	0.929	15.082	11	7	silty sand to sandy silt
39.90	33.59	0.2414	0.719	15.111	11	7	silty sand to sandy silt
39.96	37.27	0.2003	0.537	15.117	12	7	silty sand to sandy silt
40.03	39.52	0.1778	0.450	14.443	12	7	silty sand to sandy silt
40.09	39.61	0.1816	0.459	13.219	12	7	silty sand to sandy silt
40.16	38.20	0.2009	0.526	12.258	12	7	silty sand to sandy silt
40.22	37.12	0.2092	0.564	12.099	12	7	silty sand to sandy silt
40.29	36.73	0.2327	0.634	12.130	12	7	silty sand to sandy silt
40.35	36.29	0.2863	0.789	12.286	11	7	silty sand to sandy silt
40.42	35.25	0.3365	0.955	12.436	11	7	silty sand to sandy silt
40.49	34.28	0.3605	1.052	12.595	11	7	silty sand to sandy silt
40.55	33.90	0.3447	1.017	12.733	11	7	silty sand to sandy silt
40.62	34.37	0.3380	0.984	12.945	11	7	silty sand to sandy silt
40.68	35.72	0.3359	0.940	13.154	11	7	silty sand to sandy silt
40.75	36.53	0.3656	1.001	13.332	11	7	silty sand to sandy silt
40.81	36.59	0.3678	1.005	13.453	12	7	silty sand to sandy silt
40.88	36.47	0.3562	0.977	13.569	12	7	silty sand to sandy silt
40.94	37.20	0.3818	1.026	13.734	12	7	silty sand to sandy silt
41.01	38.79	0.4076	1.051	13.937	13	7	silty sand to sandy silt
41.08	40.45	0.4311	1.066	14.124	13	7	silty sand to sandy silt
41.14	43.47	0.4426	1.018	14.259	14	7	silty sand to sandy silt
41.21	45.93	0.4750	1.034	14.393	14	7	silty sand to sandy silt
41.27	47.30	0.4800	1.015	14.617	15	7	silty sand to sandy silt
41.34	48.34	0.4998	1.034	14.827	15	7	silty sand to sandy silt
41.40	48.70	0.5036	1.034	15.048	15	7	silty sand to sandy silt
41.47	45.66	0.5111	1.119	17.123	14	7	silty sand to sandy silt
41.54	43.04	0.5098	1.184	17.158	14	7	silty sand to sandy silt
41.60	39.93	0.5037	1.262	17.214	13	7	silty sand to sandy silt
41.67	37.03	0.4974	1.343	17.267	12	7	silty sand to sandy silt
41.73	35.23	0.4748	1.348	17.311	12	7	silty sand to sandy silt
41.80	33.99	0.4503	1.325	17.351	11	7	silty sand to sandy silt
41.86	33.38	0.4334	1.298	17.439	11	7	silty sand to sandy silt
41.93	32.81	0.4401	1.341	17.513	11	7	silty sand to sandy silt
41.99	32.37	0.4328	1.337	17.588	11	7	silty sand to sandy silt
42.06	32.44	0.3925	1.210	17.641	11	7	silty sand to sandy silt
42.13	33.20	0.3646	1.098	17.732	11	7	silty sand to sandy silt
42.19	35.04	0.3797	1.084	17.810	11	7	silty sand to sandy silt
42.26	37.36	0.4378	1.172	17.854	12	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
42.32	39.29	0.4544	1.156	17.738	13	7	silty sand to sandy silt
42.39	41.34	0.4158	1.006	17.691	14	7	silty sand to sandy silt
42.45	44.40	0.4201	0.946	17.772	15	7	silty sand to sandy silt
42.52	49.07	0.4594	0.936	17.847	16	7	silty sand to sandy silt
42.59	53.85	0.5185	0.963	17.701	17	7	silty sand to sandy silt
42.65	56.86	0.5780	1.017	17.389	17	7	silty sand to sandy silt
42.72	58.60	0.6057	1.034	17.314	18	7	silty sand to sandy silt
42.78	59.10	0.6482	1.097	17.370	18	7	silty sand to sandy silt
42.85	58.64	0.6758	1.152	17.554	18	7	silty sand to sandy silt
42.91	58.16	0.6718	1.155	17.676	18	7	silty sand to sandy silt
42.98	57.17	0.6920	1.211	17.772	18	7	silty sand to sandy silt
43.04	55.91	0.7064	1.264	17.844	18	7	silty sand to sandy silt
43.11	54.48	0.7214	1.324	17.888	17	7	silty sand to sandy silt
43.18	52.21	0.7538	1.444	17.950	16	7	silty sand to sandy silt
43.24	48.99	0.7199	1.470	18.056	16	7	silty sand to sandy silt
43.31	46.31	0.6683	1.443	18.134	16	7	silty sand to sandy silt
43.37	45.91	0.5539	1.206	18.266	16	7	silty sand to sandy silt
43.44	48.72	0.4368	0.897	18.387	16	7	silty sand to sandy silt
43.50	52.48	0.3591	0.684	17.866	16	7	silty sand to sandy silt
43.57	54.83	0.3174	0.579	16.793	17	7	silty sand to sandy silt
43.64	56.65	0.3219	0.568	15.401	13	8	sand to silty sand
43.70	56.58	0.3499	0.618	13.990	13	8	sand to silty sand
43.77	55.99	0.4110	0.734	13.906	18	7	silty sand to sandy silt
43.83	54.66	0.4842	0.886	14.118	17	7	silty sand to sandy silt
43.90	53.35	0.5459	1.023	14.387	17	7	silty sand to sandy silt
43.96	52.03	0.5973	1.148	14.720	17	7	silty sand to sandy silt
44.03	50.66	0.6378	1.259	14.964	16	7	silty sand to sandy silt
44.09	48.91	0.6771	1.384	15.267	15	7	silty sand to sandy silt
44.16	46.45	0.6938	1.494	15.532	14	7	silty sand to sandy silt
44.23	42.92	0.6973	1.625	15.831	14	7	silty sand to sandy silt
44.29	38.96	0.6513	1.672	16.119	13	7	silty sand to sandy silt
44.36	36.25	0.5536	1.527	16.440	13	7	silty sand to sandy silt
44.42	37.68	0.4527	1.201	16.746	13	7	silty sand to sandy silt
44.49	40.44	0.3913	0.967	17.036	12	7	silty sand to sandy silt
44.55	40.94	0.3608	0.881	17.048	12	7	silty sand to sandy silt
44.62	39.37	0.3649	0.927	17.014	12	7	silty sand to sandy silt
44.69	38.67	0.4128	1.068	18.116	11	7	silty sand to sandy silt
44.75	33.81	0.4472	1.322	17.557	11	7	silty sand to sandy silt
44.82	28.84	0.4516	1.566	17.339	10	7	silty sand to sandy silt
44.88	25.84	0.3650	1.413	17.807	10	7	silty sand to sandy silt
44.95	25.76	0.2701	1.048	18.921	10	7	silty sand to sandy silt
45.01	30.04	0.2046	0.681	19.692	11	7	silty sand to sandy silt
45.08	40.01	0.1858	0.464	19.710	12	7	silty sand to sandy silt
45.14	44.89	0.2116	0.471	17.123	12	7	silty sand to sandy silt
45.21	45.52	0.2523	0.554	13.222	13	7	silty sand to sandy silt
45.28	44.74	0.3087	0.690	12.642	14	7	silty sand to sandy silt
45.34	42.87	0.3369	0.786	12.832	14	7	silty sand to sandy silt
45.41	41.59	0.3789	0.911	13.088	14	7	silty sand to sandy silt
45.47	41.08	0.4308	1.049	13.269	14	7	silty sand to sandy silt
45.54	41.62	0.4511	1.084	13.494	14	7	silty sand to sandy silt
45.60	43.14	0.4638	1.075	13.737	14	7	silty sand to sandy silt
45.67	44.80	0.4976	1.111	14.009	14	7	silty sand to sandy silt
45.73	46.24	0.5132	1.110	14.390	15	7	silty sand to sandy silt
45.80	47.28	0.5270	1.115	14.767	15	7	silty sand to sandy silt
45.87	48.91	0.5498	1.124	15.114	16	7	silty sand to sandy silt
45.93	50.96	0.5806	1.139	15.398	16	7	silty sand to sandy silt
46.00	53.37	0.6102	1.143	15.757	16	7	silty sand to sandy silt
46.06	54.61	0.6387	1.170	16.053	17	7	silty sand to sandy silt
46.13	54.02	0.6793	1.257	16.359	17	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
46.19	52.14	0.6929	1.329	16.612	17	7	silty sand to sandy silt
46.26	51.47	0.6151	1.195	16.886	17	7	silty sand to sandy silt
46.33	53.27	0.5247	0.985	17.136	18	7	silty sand to sandy silt
46.39	57.01	0.4741	0.832	17.354	18	7	silty sand to sandy silt
46.46	59.65	0.5047	0.846	17.176	18	7	silty sand to sandy silt
46.52	60.20	0.5360	0.890	16.562	19	7	silty sand to sandy silt
46.59	60.62	0.5215	0.860	16.415	19	7	silty sand to sandy silt
46.65	61.09	0.5154	0.844	16.512	19	7	silty sand to sandy silt
46.72	60.56	0.5449	0.900	16.761	19	7	silty sand to sandy silt
46.78	60.56	0.6168	1.019	16.867	19	7	silty sand to sandy silt
46.85	60.76	0.6241	1.027	16.693	19	7	silty sand to sandy silt
46.92	60.70	0.5826	0.960	16.555	19	7	silty sand to sandy silt
46.98	60.80	0.5764	0.948	16.727	20	7	silty sand to sandy silt
47.05	62.14	0.6195	0.997	16.989	20	7	silty sand to sandy silt
47.11	62.02	0.6834	1.102	17.161	19	7	silty sand to sandy silt
47.18	61.39	0.7038	1.146	16.843	19	7	silty sand to sandy silt
47.24	60.23	0.7195	1.195	16.665	19	7	silty sand to sandy silt
47.31	58.61	0.7454	1.272	16.855	19	7	silty sand to sandy silt
47.38	57.26	0.7498	1.309	17.167	19	7	silty sand to sandy silt
47.44	56.74	0.7685	1.354	17.373	18	7	silty sand to sandy silt
47.51	56.25	0.7415	1.318	17.629	18	7	silty sand to sandy silt
47.57	55.79	0.7780	1.394	17.835	18	7	silty sand to sandy silt
47.64	54.83	0.6406	1.168	18.063	18	7	silty sand to sandy silt
47.70	53.89	0.6049	1.122	18.287	17	7	silty sand to sandy silt
47.77	53.83	0.6110	1.135	18.453	18	7	silty sand to sandy silt
47.83	55.08	0.6250	1.135	18.674	18	7	silty sand to sandy silt
47.90	53.26	0.6095	1.144	19.817	18	7	silty sand to sandy silt
47.97	57.82	0.5711	0.988	19.352	19	7	silty sand to sandy silt
48.03	59.63	0.5759	0.966	19.548	19	7	silty sand to sandy silt
48.10	62.53	0.6523	1.043	19.745	20	7	silty sand to sandy silt
48.16	64.92	0.7122	1.097	19.817	20	7	silty sand to sandy silt
48.23	65.86	0.7669	1.164	19.698	20	7	silty sand to sandy silt
48.29	65.73	0.7835	1.192	19.620	21	7	silty sand to sandy silt
48.36	64.94	0.7955	1.225	19.842	20	7	silty sand to sandy silt
48.43	63.81	0.8211	1.287	20.026	20	7	silty sand to sandy silt
48.49	61.90	0.8455	1.366	20.213	20	7	silty sand to sandy silt
48.56	60.05	0.7922	1.319	20.300	19	7	silty sand to sandy silt
48.62	58.45	0.7904	1.352	20.419	19	7	silty sand to sandy silt
48.69	56.14	0.7987	1.423	20.612	18	7	silty sand to sandy silt
48.75	53.95	0.7720	1.431	20.787	17	7	silty sand to sandy silt
48.82	52.49	0.7264	1.384	21.109	17	7	silty sand to sandy silt
48.88	51.35	0.7057	1.374	21.614	17	7	silty sand to sandy silt
48.95	50.40	0.7341	1.457	22.160	16	7	silty sand to sandy silt
49.02	50.28	0.7160	1.424	22.756	16	7	silty sand to sandy silt
49.08	50.49	0.7003	1.387	23.458	16	7	silty sand to sandy silt
49.15	50.72	0.6509	1.283	24.061	16	7	silty sand to sandy silt
49.21	51.31	0.6087	1.186	24.641	17	7	silty sand to sandy silt
49.28	52.85	0.5787	1.095	25.075	17	7	silty sand to sandy silt
49.34	54.12	0.5806	1.073	25.331	17	7	silty sand to sandy silt
49.41	54.25	0.5791	1.067	25.387	16	7	silty sand to sandy silt
49.48	52.78	0.5588	1.059	25.393	16	7	silty sand to sandy silt
49.54	49.89	0.5764	1.155	25.640	15	7	silty sand to sandy silt
49.61	45.82	0.6050	1.320	25.918	14	7	silty sand to sandy silt
49.67	40.91	0.6938	1.696	26.230	13	7	silty sand to sandy silt
49.74	35.32	0.7449	2.109	26.560	14	6	sandy silt to clayey silt
49.80	30.77	0.6916	2.248	27.007	13	6	sandy silt to clayey silt
49.87	27.69	0.5329	1.924	27.715	13	6	sandy silt to clayey silt
49.93	30.83	0.4245	1.377	29.010	13	6	sandy silt to clayey silt
50.00	35.40	0.3795	1.072	29.578	13	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
50.07	38.62	0.3679	0.953	29.020	11	7	silty sand to sandy silt
50.13	39.57	0.4695	1.187	29.163	12	7	silty sand to sandy silt
50.20	38.28	0.5951	1.555	29.407	12	7	silty sand to sandy silt
50.26	35.69	0.5222	1.463	29.818	12	7	silty sand to sandy silt
50.33	34.34	0.4846	1.411	29.909	13	7	silty sand to sandy silt
50.39	39.35	0.4979	1.265	30.255	15	7	silty sand to sandy silt
50.46	47.96	0.5662	1.181	30.159	17	7	silty sand to sandy silt
50.52	60.01	0.6040	1.007	27.753	19	7	silty sand to sandy silt
50.59	70.31	0.6730	0.957	24.114	21	7	silty sand to sandy silt
50.66	75.62	0.6883	0.910	22.216	17	8	sand to silty sand
50.72	79.78	0.7593	0.952	21.595	19	8	sand to silty sand
50.79	84.46	0.7893	0.935	21.536	20	8	sand to silty sand
50.85	89.25	0.7581	0.849	21.580	21	8	sand to silty sand
50.92	93.11	0.7593	0.816	21.673	22	8	sand to silty sand
50.98	96.56	0.8030	0.832	21.714	23	8	sand to silty sand
51.05	99.03	0.8314	0.840	21.817	23	8	sand to silty sand
51.12	101.39	0.8909	0.879	21.895	24	8	sand to silty sand
51.18	100.26	0.9281	0.926	21.801	24	8	sand to silty sand
51.25	103.53	0.9867	0.953	21.867	25	8	sand to silty sand
51.31	105.23	1.0268	0.976	21.895	25	8	sand to silty sand
51.38	107.63	1.0444	0.970	21.970	26	8	sand to silty sand
51.44	110.42	1.0832	0.981	22.082	27	8	sand to silty sand
51.51	113.89	1.0983	0.964	22.120	28	8	sand to silty sand
51.57	118.88	1.1097	0.933	22.232	29	8	sand to silty sand
51.64	124.01	1.1459	0.924	22.251	30	8	sand to silty sand
51.71	130.10	1.1783	0.906	22.372	31	8	sand to silty sand
51.77	136.99	1.2551	0.916	22.460	33	8	sand to silty sand
51.84	143.14	1.2914	0.902	22.491	34	8	sand to silty sand
51.90	148.67	1.3445	0.904	22.588	35	8	sand to silty sand
51.97	152.26	1.3872	0.911	22.616	29	9	sand
52.03	155.63	1.4414	0.926	22.641	30	9	sand
52.10	157.80	1.4673	0.930	22.660	30	9	sand
52.17	160.25	1.4864	0.928	22.747	30	9	sand
52.23	161.61	1.5163	0.938	22.725	31	9	sand
52.30	162.69	1.5028	0.924	22.787	31	9	sand
52.36	163.88	1.5047	0.918	22.819	32	9	sand
52.43	166.21	1.5518	0.934	22.894	32	9	sand
52.49	169.70	1.5781	0.930	22.922	33	9	sand
52.56	173.50	1.6541	0.953	22.984	33	9	sand
52.62	177.38	1.7595	0.992	23.037	33	9	sand
52.69	178.41	1.8430	1.033	23.053	33	9	sand
52.76	175.57	1.8349	1.045	23.037	32	9	sand
52.82	170.29	1.7729	1.041	23.053	39	8	sand to silty sand
52.89	160.86	1.6998	1.057	23.065	36	8	sand to silty sand
52.95	145.33	1.6260	1.119	23.043	33	8	sand to silty sand
53.02	125.62	1.8399	1.465	22.953	30	8	sand to silty sand
53.08	105.34	2.1516	2.043	22.947	35	7	silty sand to sandy silt
53.15	90.29	2.1076	2.334	22.937	30	7	silty sand to sandy silt
53.22	73.80	1.9537	2.647	23.071	26	7	silty sand to sandy silt
53.28	63.42	1.7183	2.709	23.103	28	6	sandy silt to clayey silt
53.35	50.09	1.5613	3.117	23.746	29	6	sandy silt to clayey silt
53.41	52.59	1.5188	2.888	23.927	25	7	silty sand to sandy silt
53.48	83.83	1.5775	1.882	24.510	26	7	silty sand to sandy silt
53.54	110.62	1.7867	1.615	24.410	27	7	silty sand to sandy silt
53.61	111.73	1.8504	1.656	23.983	29	7	silty sand to sandy silt
53.67	100.81	1.6897	1.676	24.014	31	7	silty sand to sandy silt
53.74	91.25	1.4228	1.559	24.033	24	8	sand to silty sand
53.81	84.94	1.2324	1.451	23.873	25	8	sand to silty sand
53.87	94.89	1.0780	1.136	23.596	26	8	sand to silty sand

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
53.94	116.30	1.1194	0.963	23.636	29	8	sand to silty sand
54.00	133.83	1.5547	1.162	23.627	32	8	sand to silty sand
54.07	151.34	1.3087	0.865	23.561	35	8	sand to silty sand
54.13	168.33	1.3744	0.816	23.593	30	9	sand
54.20	180.06	1.6206	0.900	23.505	32	9	sand
54.27	185.60	1.6975	0.915	21.911	33	9	sand
54.33	159.53	1.6974	1.064	22.488	33	9	sand
54.40	181.51	1.7500	0.964	21.196	33	9	sand
54.46	177.92	1.8066	1.015	20.347	33	9	sand
54.53	170.95	1.8443	1.079	20.241	40	8	sand to silty sand
54.59	164.03	1.8313	1.116	20.438	39	8	sand to silty sand
54.66	157.33	1.8311	1.164	20.740	38	8	sand to silty sand
54.72	151.73	1.8271	1.204	20.946	36	8	sand to silty sand
54.79	145.66	1.8296	1.256	21.168	35	8	sand to silty sand
54.86	139.61	1.8892	1.353	21.449	33	8	sand to silty sand
54.92	132.72	1.9285	1.453	21.645	31	8	sand to silty sand
54.99	124.02	1.9128	1.542	21.801	29	8	sand to silty sand
55.05	113.89	1.8789	1.650	21.914	35	7	silty sand to sandy silt
55.12	99.79	1.8154	1.819	22.039	33	7	silty sand to sandy silt
55.18	87.86	1.6892	1.922	22.135	30	7	silty sand to sandy silt
55.25	78.30	1.5267	1.950	22.366	28	7	silty sand to sandy silt
55.31	76.95	1.3978	1.817	22.591	27	7	silty sand to sandy silt
55.38	81.88	1.2843	1.569	22.822	26	7	silty sand to sandy silt
55.45	82.68	1.2715	1.538	22.962	25	7	silty sand to sandy silt
55.51	81.04	1.3578	1.675	23.374	25	7	silty sand to sandy silt
55.58	78.73	1.3419	1.704	24.017	25	7	silty sand to sandy silt
55.64	76.93	1.2153	1.580	24.470	25	7	silty sand to sandy silt
55.71	76.50	0.9735	1.273	24.529	25	7	silty sand to sandy silt
55.77	77.54	0.7767	1.002	24.441	25	7	silty sand to sandy silt
55.84	78.46	0.7601	0.969	24.220	24	7	silty sand to sandy silt
55.91	77.91	0.9185	1.179	23.873	23	7	silty sand to sandy silt
55.97	75.48	1.1232	1.488	22.978	22	7	silty sand to sandy silt
56.04	69.07	1.3243	1.917	22.469	21	7	silty sand to sandy silt
56.10	59.63	1.4524	2.436	22.747	19	7	silty sand to sandy silt
56.17	49.33	1.4068	2.852	23.109	22	6	sandy silt to clayey silt
56.23	45.49	1.2883	2.832	23.368	22	6	sandy silt to clayey silt
56.30	47.44	1.0935	2.305	23.658	19	7	silty sand to sandy silt
56.36	57.78	0.9094	1.574	24.448	21	7	silty sand to sandy silt
56.43	72.53	0.8145	1.123	24.916	19	8	sand to silty sand
56.50	90.05	0.7040	0.782	25.081	23	8	sand to silty sand
56.56	108.22	0.5989	0.553	24.719	22	9	sand
56.63	133.51	0.6398	0.479	24.410	0	0	<out of range>
56.69	160.60	0.4220	0.263	24.042	0	0	<out of range>
56.76	183.07	-0.0003	0.000	23.505	0	0	<out of range>
56.82	205.71	-32768	-32768	22.382	0	0	<out of range>
56.89	224.47	-32768	-32768	22.067	0	0	<out of range>
56.96	253.46	-32768	-32768	22.738	0	0	<out of range>
57.02	303.93	-32768	-32768	23.883	0	0	<out of range>

*Soil behavior type and SPT based on data from UBC-1983

AECOM

TVA Kingston Coal Ash Pond RCA (Kingston,Tennessee) Cone Penetration Test

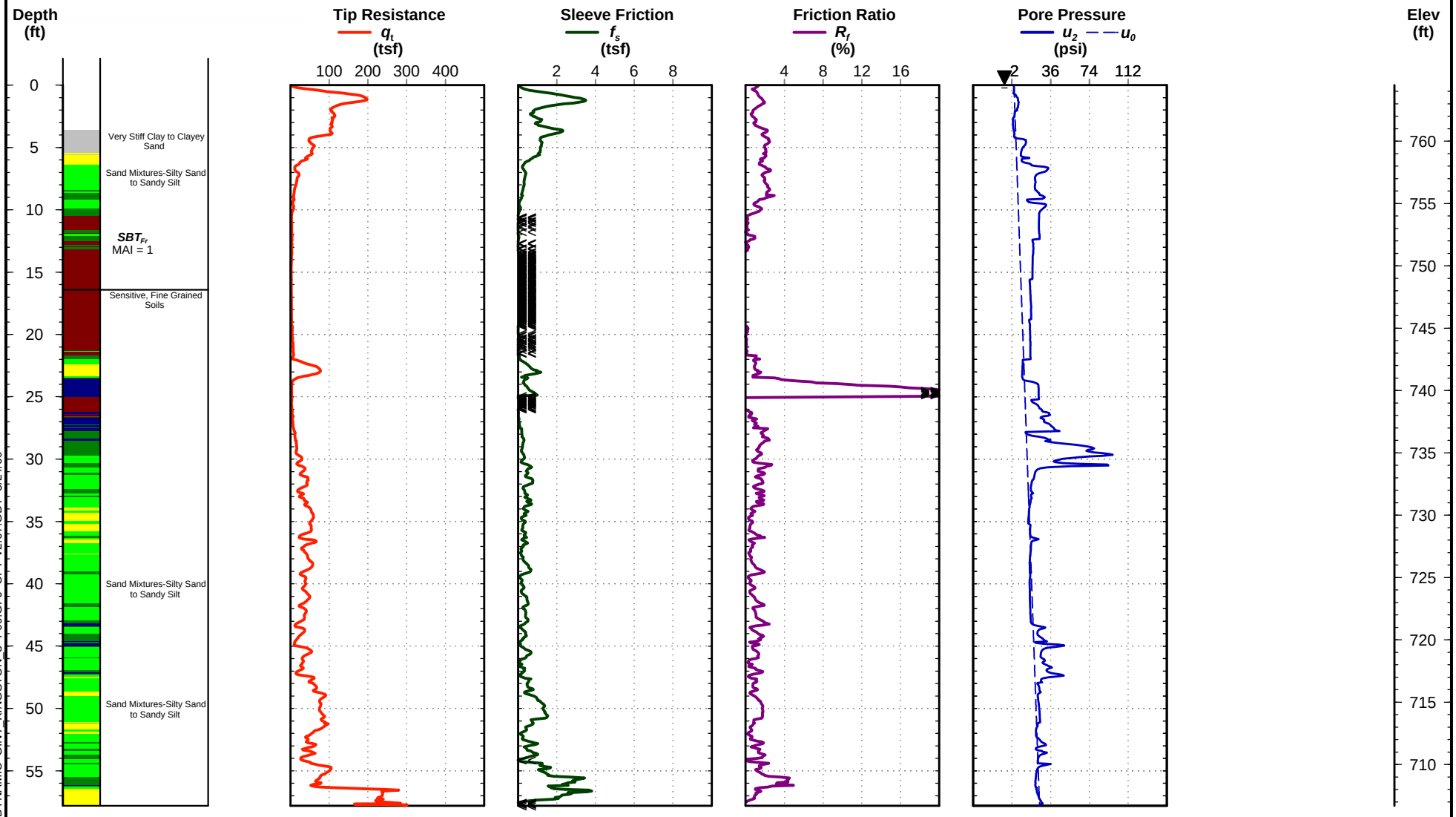
09-702-C1

Project No: 60095742

Date: Feb. 13, 2009
Estimated Water Depth: 0 ft
Rig/Operator: D-120/CAP

Northing: 556324.04
Easting: 2442133
Elevation: 764.5 NGVD

Total Depth: 57.8 ft
Termination Criteria: Refusal
Cone Size: 5T Tension Cone



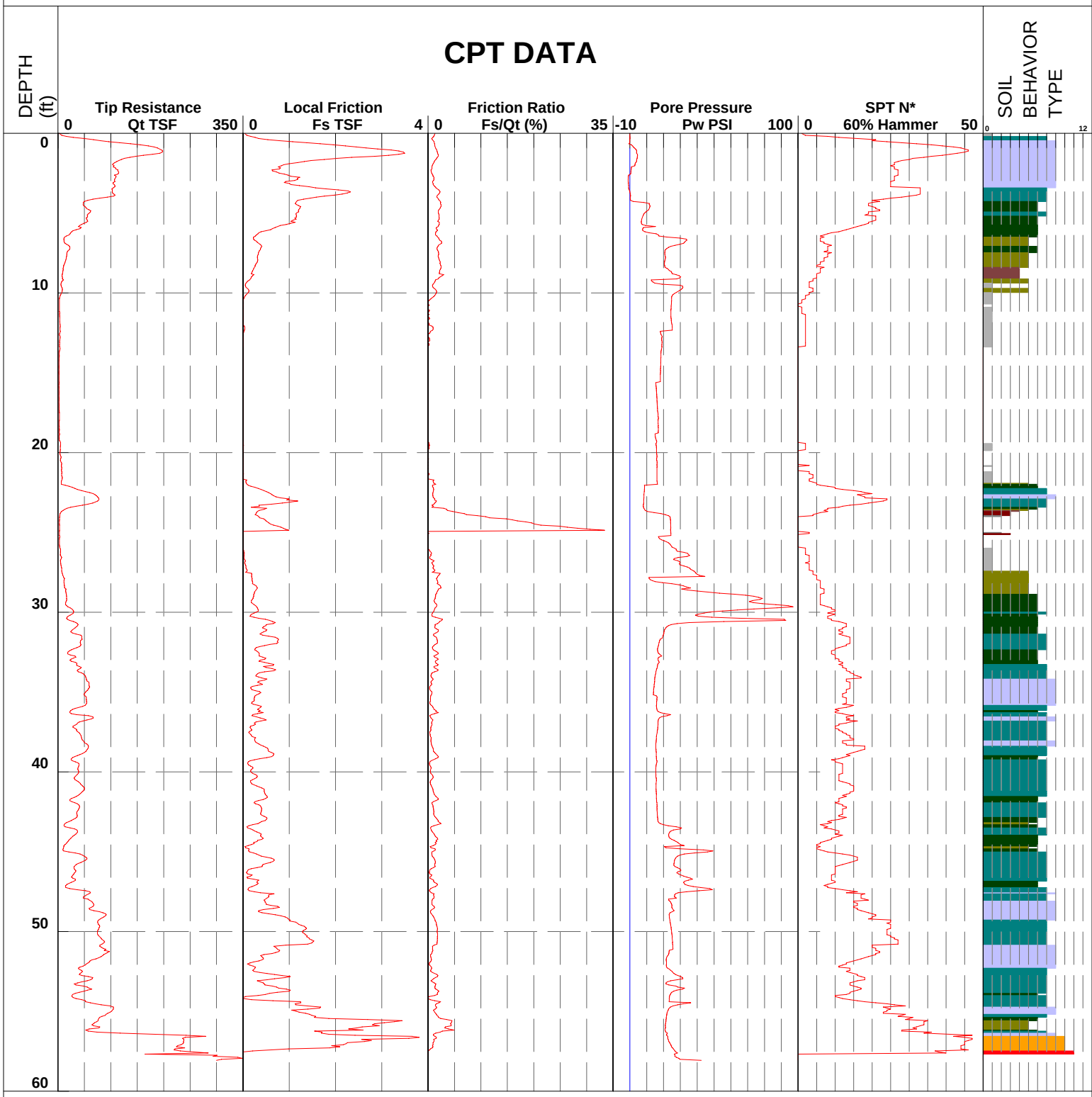
09-702-C1

Electronic Filename: 09-702-C1.cpt

CPT REPORT - DYNAMIC GINT_KINGSTON_3-4-09.GPJ CPT V2.07.GDT 3/24/09

AECOM

09-702-C1	60095742	2/13/2009 7:35:54 AM
DTA1081	TVA-Kingston	D-120/CAP



1 - sensitive fine grained	4 - silty clay to clay	7 - silty sand to sandy silt	10 - gravelly sand to sand
2 - organic material	5 - clayey silt to silty clay	8 - sand to silty sand	11 - very stiff fine grained (*)
3 - clay	6 - sandy silt to clayey silt	9 - sand	12 - sand to clayey sand (*)

Data File:09-702-C1 2/13/2009 7:35:54 AM
Operator:D-120/CAP Location:TVA-Kingston
Cone ID:DTA1081 Job Number:60095742
Customer:TVA Units:

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
0.07	2.77	0.0363	1.312	-0.025	1	1	sensitive fine grained
0.13	7.28	0.0856	1.176	-0.019	2	1	sensitive fine grained
0.20	15.58	0.1679	1.077	-0.028	8	7	silty sand to sandy silt
0.26	28.72	0.2630	0.916	0.031	11	7	silty sand to sandy silt
0.33	50.09	0.3401	0.679	0.025	16	7	silty sand to sandy silt
0.39	67.33	0.5373	0.798	-0.034	21	7	silty sand to sandy silt
0.46	80.29	0.7867	0.980	-0.069	20	8	sand to silty sand
0.52	95.93	1.0732	1.119	-0.109	24	8	sand to silty sand
0.59	117.01	1.3833	1.182	-0.159	28	8	sand to silty sand
0.66	137.35	1.6696	1.216	-0.605	32	8	sand to silty sand
0.72	155.45	1.9526	1.256	0.811	36	8	sand to silty sand
0.79	170.94	2.2131	1.295	1.629	39	8	sand to silty sand
0.85	181.69	2.4435	1.345	2.082	42	8	sand to silty sand
0.92	188.07	2.6605	1.415	2.596	44	8	sand to silty sand
0.98	191.96	2.9114	1.517	3.336	45	8	sand to silty sand
1.05	195.70	3.2021	1.636	3.807	46	8	sand to silty sand
1.12	198.31	3.3684	1.699	4.016	46	8	sand to silty sand
1.18	197.22	3.4699	1.759	3.963	45	8	sand to silty sand
1.25	192.96	3.4927	1.810	3.970	43	8	sand to silty sand
1.31	178.93	3.3689	1.883	4.469	41	8	sand to silty sand
1.38	161.33	3.1498	1.952	4.550	39	8	sand to silty sand
1.44	147.17	2.8435	1.932	4.403	36	8	sand to silty sand
1.51	136.11	2.3482	1.725	4.369	34	8	sand to silty sand
1.57	125.41	2.0296	1.618	4.285	31	8	sand to silty sand
1.64	119.98	1.7573	1.465	4.113	30	8	sand to silty sand
1.71	115.15	1.4738	1.280	3.970	28	8	sand to silty sand
1.77	111.44	1.3235	1.188	3.991	27	8	sand to silty sand
1.84	107.56	1.1838	1.101	3.455	26	8	sand to silty sand
1.90	104.32	1.0008	0.959	3.058	26	8	sand to silty sand
1.97	103.29	0.8804	0.852	3.011	26	8	sand to silty sand
2.03	106.22	0.8315	0.783	2.949	25	8	sand to silty sand
2.10	104.75	0.7652	0.731	0.911	26	8	sand to silty sand
2.17	108.60	0.8099	0.746	0.861	26	8	sand to silty sand
2.23	109.63	0.7854	0.716	0.774	26	8	sand to silty sand
2.30	113.15	0.6282	0.555	0.724	27	8	sand to silty sand
2.36	113.36	0.6431	0.567	0.640	27	8	sand to silty sand
2.43	114.86	0.7257	0.632	0.580	27	8	sand to silty sand
2.49	114.63	0.7829	0.683	0.518	27	8	sand to silty sand
2.56	113.11	0.8946	0.791	0.415	27	8	sand to silty sand
2.62	106.60	0.9757	0.915	-0.740	27	8	sand to silty sand
2.69	110.11	1.0364	0.941	-0.914	26	8	sand to silty sand
2.76	109.49	1.2265	1.120	-0.986	26	8	sand to silty sand
2.82	108.15	1.1711	1.083	-0.961	26	8	sand to silty sand
2.89	107.19	1.1843	1.105	-1.002	26	8	sand to silty sand
2.95	106.67	1.1159	1.046	-1.030	26	8	sand to silty sand
3.02	107.82	0.9274	0.860	-0.989	25	8	sand to silty sand
3.08	104.63	0.8913	0.852	-0.917	25	8	sand to silty sand
3.15	104.10	1.0060	0.966	-0.905	25	8	sand to silty sand
3.22	106.49	1.0359	0.973	-0.821	25	8	sand to silty sand
3.28	107.65	1.2185	1.132	-0.768	25	8	sand to silty sand
3.35	107.68	1.4284	1.326	-0.752	25	8	sand to silty sand
3.41	104.80	1.5704	1.498	-0.727	33	7	silty sand to sandy silt
3.48	102.05	1.7959	1.760	-0.652	33	7	silty sand to sandy silt
3.54	102.54	2.0569	2.006	-0.374	33	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
3.61	103.13	2.2750	2.206	-0.062	33	7	silty sand to sandy silt
3.67	102.53	2.3210	2.264	0.019	33	7	silty sand to sandy silt
3.74	103.24	2.2537	2.183	0.097	33	7	silty sand to sandy silt
3.81	105.87	2.1439	2.025	0.247	33	7	silty sand to sandy silt
3.87	108.10	1.9800	1.832	0.403	32	7	silty sand to sandy silt
3.94	105.33	1.7593	1.670	0.390	30	7	silty sand to sandy silt
4.00	93.49	1.5864	1.697	0.290	28	7	silty sand to sandy silt
4.07	78.76	1.4511	1.843	0.231	25	7	silty sand to sandy silt
4.13	66.14	1.3086	1.979	0.203	23	7	silty sand to sandy silt
4.20	56.50	1.1850	2.097	0.415	20	7	silty sand to sandy silt
4.27	49.79	1.1607	2.331	1.972	22	6	sandy silt to clayey silt
4.33	47.67	1.1408	2.393	8.385	20	6	sandy silt to clayey silt
4.40	48.08	1.1291	2.348	11.556	19	6	sandy silt to clayey silt
4.46	47.60	1.1547	2.426	11.512	19	6	sandy silt to clayey silt
4.53	48.45	1.1993	2.475	11.877	19	6	sandy silt to clayey silt
4.59	50.99	1.2462	2.444	11.906	20	6	sandy silt to clayey silt
4.66	53.29	1.2329	2.314	11.743	21	6	sandy silt to clayey silt
4.72	54.60	1.2225	2.239	11.441	21	6	sandy silt to clayey silt
4.79	58.37	1.2047	2.064	11.185	22	6	sandy silt to clayey silt
4.86	61.94	1.1994	1.936	10.392	22	6	sandy silt to clayey silt
4.92	61.38	1.1997	1.955	9.537	19	7	silty sand to sandy silt
4.99	59.70	1.1593	1.942	8.797	19	7	silty sand to sandy silt
5.05	56.96	1.1407	2.002	8.370	19	7	silty sand to sandy silt
5.12	55.24	1.1572	2.095	7.986	18	7	silty sand to sandy silt
5.18	56.15	1.1516	2.051	7.739	21	6	sandy silt to clayey silt
5.25	55.19	1.1540	2.091	7.490	21	6	sandy silt to clayey silt
5.31	53.67	1.1217	2.090	7.231	21	6	sandy silt to clayey silt
5.38	54.16	1.1489	2.121	7.056	21	6	sandy silt to clayey silt
5.45	55.46	1.0834	1.954	6.887	21	6	sandy silt to clayey silt
5.51	56.28	1.0372	1.843	6.800	20	6	sandy silt to clayey silt
5.58	53.56	1.1260	2.102	6.763	19	6	sandy silt to clayey silt
5.64	48.75	1.0264	2.105	6.822	19	6	sandy silt to clayey silt
5.71	44.49	0.9374	2.107	7.243	18	6	sandy silt to clayey silt
5.77	41.11	0.8062	1.961	9.334	17	6	sandy silt to clayey silt
5.84	38.87	0.7491	1.927	15.213	16	6	sandy silt to clayey silt
5.91	44.06	0.6939	1.575	8.089	15	6	sandy silt to clayey silt
5.97	41.61	0.6342	1.524	7.689	14	6	sandy silt to clayey silt
6.04	34.70	0.5987	1.726	7.537	13	6	sandy silt to clayey silt
6.10	28.42	0.4987	1.755	7.764	12	6	sandy silt to clayey silt
6.17	25.99	0.3910	1.504	8.903	11	6	sandy silt to clayey silt
6.23	23.87	0.3431	1.437	11.253	9	6	sandy silt to clayey silt
6.30	22.87	0.3242	1.417	15.619	8	6	sandy silt to clayey silt
6.36	20.85	0.2925	1.403	16.877	7	6	sandy silt to clayey silt
6.43	15.94	0.2684	1.684	17.267	6	6	sandy silt to clayey silt
6.50	12.77	0.2306	1.805	21.995	7	5	clayey silt to silty clay
6.56	11.25	0.2268	2.016	29.706	6	5	clayey silt to silty clay
6.63	11.04	0.2282	2.068	33.451	6	5	clayey silt to silty clay
6.69	11.44	0.2499	2.184	33.832	6	5	clayey silt to silty clay
6.76	11.45	0.2873	2.509	33.055	6	5	clayey silt to silty clay
6.82	12.00	0.3093	2.579	32.443	7	5	clayey silt to silty clay
6.89	13.35	0.3398	2.545	31.922	7	5	clayey silt to silty clay
6.96	16.32	0.3671	2.250	29.578	8	5	clayey silt to silty clay
7.02	20.07	0.3915	1.951	26.810	9	5	clayey silt to silty clay
7.09	21.82	0.4112	1.885	24.270	8	6	sandy silt to clayey silt
7.15	22.48	0.3901	1.735	22.981	8	6	sandy silt to clayey silt
7.22	22.48	0.3791	1.687	21.957	8	6	sandy silt to clayey silt
7.28	21.66	0.3747	1.730	21.140	8	6	sandy silt to clayey silt
7.35	19.31	0.3561	1.844	20.825	8	6	sandy silt to clayey silt
7.41	17.78	0.3481	1.958	20.818	7	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
7.48	17.03	0.3344	1.964	20.734	9	5	clayey silt to silty clay
7.55	16.66	0.3346	2.008	20.725	8	5	clayey silt to silty clay
7.61	16.55	0.3271	1.977	20.790	8	5	clayey silt to silty clay
7.68	16.53	0.3155	1.909	20.931	8	5	clayey silt to silty clay
7.74	16.10	0.3117	1.937	21.121	8	5	clayey silt to silty clay
7.81	15.62	0.3132	2.004	21.143	7	5	clayey silt to silty clay
7.87	15.39	0.3167	2.058	21.021	7	5	clayey silt to silty clay
7.94	14.84	0.3196	2.154	20.787	7	5	clayey silt to silty clay
8.01	14.08	0.3142	2.231	20.672	7	5	clayey silt to silty clay
8.07	13.41	0.3105	2.315	20.606	6	5	clayey silt to silty clay
8.14	12.95	0.2908	2.246	20.519	6	5	clayey silt to silty clay
8.20	12.03	0.2779	2.310	20.450	6	5	clayey silt to silty clay
8.27	10.93	0.2626	2.401	20.631	5	5	clayey silt to silty clay
8.33	10.65	0.2626	2.466	20.712	5	5	clayey silt to silty clay
8.40	10.10	0.2501	2.476	20.874	7	4	silty clay to clay
8.46	9.62	0.2326	2.417	22.001	6	4	silty clay to clay
8.53	9.81	0.2260	2.305	22.944	6	4	silty clay to clay
8.60	9.73	0.2122	2.181	23.343	6	4	silty clay to clay
8.66	9.21	0.2013	2.185	24.607	6	4	silty clay to clay
8.73	8.98	0.1927	2.146	24.875	6	4	silty clay to clay
8.79	8.44	0.1797	2.128	25.228	5	4	silty clay to clay
8.86	7.97	0.2356	2.955	27.509	5	4	silty clay to clay
8.92	7.74	0.2055	2.653	29.316	5	4	silty clay to clay
8.99	8.03	0.1846	2.297	30.221	5	4	silty clay to clay
9.06	8.65	0.1766	2.042	29.622	5	4	silty clay to clay
9.12	8.36	0.1617	1.934	27.856	4	5	clayey silt to silty clay
9.19	10.11	0.1432	1.416	12.757	4	5	clayey silt to silty clay
9.25	8.10	0.1088	1.343	12.873	4	5	clayey silt to silty clay
9.32	6.80	0.0861	1.265	13.622	3	5	clayey silt to silty clay
9.38	6.03	0.0682	1.131	14.742	3	1	sensitive fine grained
9.45	5.61	0.0527	0.940	19.089	3	1	sensitive fine grained
9.51	5.74	0.0480	0.836	29.881	3	1	sensitive fine grained
9.58	6.31	0.0543	0.861	31.363	3	1	sensitive fine grained
9.65	7.30	0.0678	0.929	31.504	3	1	sensitive fine grained
9.71	8.10	0.0914	1.129	31.179	4	5	clayey silt to silty clay
9.78	8.34	0.1155	1.385	30.549	4	5	clayey silt to silty clay
9.84	8.30	0.1277	1.539	29.597	4	5	clayey silt to silty clay
9.91	7.82	0.1290	1.649	28.511	4	5	clayey silt to silty clay
9.97	7.22	0.1134	1.571	27.528	3	1	sensitive fine grained
10.04	6.30	0.0944	1.499	26.432	3	1	sensitive fine grained
10.10	5.29	0.0740	1.399	25.674	3	1	sensitive fine grained
10.17	4.36	0.0534	1.225	25.178	2	1	sensitive fine grained
10.24	3.58	0.0368	1.030	24.878	2	1	sensitive fine grained
10.30	3.11	0.0236	0.759	24.785	2	1	sensitive fine grained
10.37	2.90	0.0156	0.538	24.775	2	1	sensitive fine grained
10.43	2.78	0.0086	0.311	24.769	1	1	sensitive fine grained
10.50	2.78	0.0033	0.117	24.750	1	1	sensitive fine grained
10.56	2.72	-0.0030	-0.110	24.725	1	1	sensitive fine grained
10.63	2.76	-0.0021	-0.076	24.713	1	1	sensitive fine grained
10.70	2.70	-0.0042	-0.154	24.666	0	0	<out of range>
10.76	2.75	0.0064	0.232	24.616	0	0	<out of range>
10.83	2.78	0.0024	0.087	24.557	0	0	<out of range>
10.89	2.81	-0.0047	-0.166	24.504	1	1	sensitive fine grained
10.96	2.82	-0.0049	-0.172	24.479	1	1	sensitive fine grained
11.02	2.81	-0.0005	-0.018	24.448	1	1	sensitive fine grained
11.09	2.81	0.0074	0.264	24.376	1	1	sensitive fine grained
11.15	2.90	0.0044	0.152	24.363	1	1	sensitive fine grained
11.22	3.16	0.0021	0.067	24.357	1	1	sensitive fine grained
11.29	3.19	-0.0014	-0.044	24.354	1	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
11.35	3.12	0.0049	0.156	24.357	2	1	sensitive fine grained
11.42	3.27	-0.0005	-0.016	24.354	2	1	sensitive fine grained
11.48	3.30	0.0019	0.056	24.373	2	1	sensitive fine grained
11.55	3.36	0.0071	0.211	24.420	2	1	sensitive fine grained
11.61	3.31	0.0105	0.317	24.519	2	1	sensitive fine grained
11.68	3.33	0.0013	0.040	24.576	2	1	sensitive fine grained
11.75	3.42	-0.0020	-0.058	24.613	2	1	sensitive fine grained
11.81	3.43	0.0001	0.004	24.676	2	1	sensitive fine grained
11.88	3.52	0.0036	0.104	24.750	2	1	sensitive fine grained
11.94	3.76	0.0086	0.228	24.922	2	1	sensitive fine grained
12.01	4.16	0.0081	0.194	25.091	2	1	sensitive fine grained
12.07	4.25	0.0294	0.691	25.112	2	1	sensitive fine grained
12.14	4.16	0.0396	0.950	25.159	2	1	sensitive fine grained
12.20	4.00	0.0378	0.945	25.165	2	1	sensitive fine grained
12.27	3.85	0.0379	0.984	25.172	2	1	sensitive fine grained
12.34	3.86	0.0330	0.855	25.212	2	1	sensitive fine grained
12.40	4.54	0.0212	0.467	18.128	2	1	sensitive fine grained
12.47	3.76	0.0143	0.381	18.191	2	1	sensitive fine grained
12.53	3.17	0.0078	0.246	18.322	2	1	sensitive fine grained
12.60	2.86	0.0001	0.004	18.506	2	1	sensitive fine grained
12.66	3.26	-0.0024	-0.073	18.874	2	1	sensitive fine grained
12.73	4.15	-0.0015	-0.035	19.171	2	1	sensitive fine grained
12.80	4.07	0.0068	0.168	18.965	2	1	sensitive fine grained
12.86	3.87	0.0102	0.264	18.915	2	1	sensitive fine grained
12.93	3.40	0.0089	0.261	18.943	2	1	sensitive fine grained
12.99	3.16	0.0109	0.344	18.999	2	1	sensitive fine grained
13.06	3.05	-0.0051	-0.165	19.099	2	1	sensitive fine grained
13.12	3.22	-0.0028	-0.088	19.093	2	1	sensitive fine grained
13.19	3.27	0.0062	0.190	19.046	2	1	sensitive fine grained
13.25	3.10	0.0066	0.212	18.974	2	1	sensitive fine grained
13.32	3.02	0.0015	0.049	18.952	2	1	sensitive fine grained
13.39	3.30	-0.0029	-0.089	19.018	0	0	<out of range>
13.45	3.88	-0.0029	-0.076	18.946	0	0	<out of range>
13.52	3.79	-0.0013	-0.034	18.827	0	0	<out of range>
13.58	3.23	-0.0100	-0.310	18.640	0	0	<out of range>
13.65	2.80	-0.0137	-0.488	18.553	0	0	<out of range>
13.71	2.53	-0.0037	-0.147	18.503	0	0	<out of range>
13.78	2.38	-0.0059	-0.250	18.475	0	0	<out of range>
13.85	2.37	-0.0178	-0.750	18.465	0	0	<out of range>
13.91	2.42	-0.0162	-0.672	18.478	0	0	<out of range>
13.98	2.48	-0.0040	-0.163	18.456	0	0	<out of range>
14.04	2.36	-0.0039	-0.165	18.394	0	0	<out of range>
14.11	2.35	-0.0068	-0.288	18.362	0	0	<out of range>
14.17	2.28	-0.0186	-0.817	18.372	0	0	<out of range>
14.24	2.16	-0.0155	-0.719	18.384	0	0	<out of range>
14.30	2.08	-0.0089	-0.427	18.359	0	0	<out of range>
14.37	2.10	-0.0006	-0.030	18.319	0	0	<out of range>
14.44	2.18	-0.0072	-0.329	18.278	0	0	<out of range>
14.50	2.17	-0.0166	-0.762	18.303	0	0	<out of range>
14.57	2.10	-0.0146	-0.693	18.300	0	0	<out of range>
14.63	2.04	-0.0107	-0.525	18.266	0	0	<out of range>
14.70	2.06	-0.0042	-0.202	18.225	0	0	<out of range>
14.76	2.12	-0.0024	-0.112	18.200	0	0	<out of range>
14.83	2.16	-0.0152	-0.704	18.216	0	0	<out of range>
14.90	2.12	-0.0127	-0.597	18.219	0	0	<out of range>
14.96	2.04	-0.0142	-0.696	18.203	0	0	<out of range>
15.03	2.05	-0.0064	-0.313	18.166	0	0	<out of range>
15.09	2.08	-0.0063	-0.305	18.141	0	0	<out of range>
15.16	2.18	-0.0104	-0.478	18.159	0	0	<out of range>

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
15.22	2.22	-0.0090	-0.406	18.122	0	0	<out of range>
15.29	2.13	-0.0111	-0.522	18.134	0	0	<out of range>
15.35	2.09	-0.0059	-0.285	18.103	0	0	<out of range>
15.42	2.11	-0.0102	-0.485	18.066	0	0	<out of range>
15.49	2.23	-0.0130	-0.586	18.056	0	0	<out of range>
15.55	2.07	-0.0110	-0.530	18.078	0	0	<out of range>
15.62	2.50	-0.0068	-0.274	15.398	0	0	<out of range>
15.68	2.15	-0.0022	-0.104	15.395	0	0	<out of range>
15.75	1.99	-0.0079	-0.398	15.482	0	0	<out of range>
15.81	1.99	-0.0068	-0.343	15.541	0	0	<out of range>
15.88	1.98	-0.0166	-0.839	15.610	0	0	<out of range>
15.94	2.06	-0.0180	-0.872	15.644	0	0	<out of range>
16.01	2.10	-0.0151	-0.718	15.688	0	0	<out of range>
16.08	2.16	-0.0045	-0.210	15.728	0	0	<out of range>
16.14	2.17	-0.0039	-0.179	15.785	0	0	<out of range>
16.21	2.28	-0.0086	-0.379	15.856	0	0	<out of range>
16.27	2.27	-0.0093	-0.408	15.909	0	0	<out of range>
16.34	2.17	-0.0162	-0.749	15.934	0	0	<out of range>
16.40	2.17	-0.0172	-0.794	15.941	0	0	<out of range>
16.47	2.18	-0.0161	-0.739	15.978	0	0	<out of range>
16.54	2.18	-0.0158	-0.725	16.012	0	0	<out of range>
16.60	2.26	-0.0133	-0.589	16.031	0	0	<out of range>
16.67	2.28	-0.0070	-0.305	16.075	0	0	<out of range>
16.73	2.20	-0.0148	-0.674	16.128	0	0	<out of range>
16.80	2.21	-0.0120	-0.541	16.156	0	0	<out of range>
16.86	2.21	-0.0072	-0.326	16.190	0	0	<out of range>
16.93	2.22	-0.0109	-0.490	16.228	0	0	<out of range>
16.99	2.27	-0.0078	-0.344	16.225	0	0	<out of range>
17.06	2.30	-0.0113	-0.489	16.268	0	0	<out of range>
17.13	2.19	-0.0141	-0.642	16.318	0	0	<out of range>
17.19	2.30	-0.0095	-0.411	16.321	0	0	<out of range>
17.26	2.37	-0.0176	-0.745	16.387	0	0	<out of range>
17.32	2.33	-0.0150	-0.642	16.437	0	0	<out of range>
17.39	2.48	-0.0077	-0.309	16.446	0	0	<out of range>
17.45	2.47	-0.0141	-0.569	16.549	0	0	<out of range>
17.52	2.61	-0.0068	-0.262	16.671	0	0	<out of range>
17.59	2.74	-0.0084	-0.305	16.780	0	0	<out of range>
17.65	2.65	-0.0082	-0.312	16.805	0	0	<out of range>
17.72	2.71	-0.0072	-0.267	16.749	0	0	<out of range>
17.78	2.80	-0.0129	-0.462	16.892	0	0	<out of range>
17.85	2.77	-0.0052	-0.189	16.952	0	0	<out of range>
17.91	2.82	-0.0086	-0.304	16.827	0	0	<out of range>
17.98	2.67	-0.0114	-0.426	16.724	0	0	<out of range>
18.04	2.41	-0.0106	-0.441	16.752	0	0	<out of range>
18.11	2.34	-0.0134	-0.571	16.808	0	0	<out of range>
18.18	2.31	-0.0098	-0.423	16.811	0	0	<out of range>
18.24	2.38	-0.0168	-0.708	16.839	0	0	<out of range>
18.31	2.36	-0.0092	-0.390	16.883	0	0	<out of range>
18.37	2.53	-0.0075	-0.298	16.864	0	0	<out of range>
18.44	2.49	-0.0142	-0.570	16.908	0	0	<out of range>
18.50	2.57	-0.0069	-0.269	16.889	0	0	<out of range>
18.57	2.61	-0.0139	-0.534	16.880	0	0	<out of range>
18.64	2.42	-0.0121	-0.503	16.889	0	0	<out of range>
18.70	2.40	-0.0033	-0.139	16.867	0	0	<out of range>
18.77	2.27	-0.0111	-0.486	16.914	0	0	<out of range>
18.83	3.17	-0.0137	-0.433	14.917	0	0	<out of range>
18.90	2.75	-0.0086	-0.311	14.976	0	0	<out of range>
18.96	2.38	-0.0207	-0.869	15.082	0	0	<out of range>
19.03	2.33	-0.0186	-0.800	15.148	0	0	<out of range>

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
19.09	2.45	-0.0036	-0.146	15.273	0	0	<out of range>
19.16	2.39	-0.0098	-0.412	15.504	0	0	<out of range>
19.23	2.66	-0.0176	-0.662	15.663	0	0	<out of range>
19.29	3.57	-0.0132	-0.370	15.938	0	0	<out of range>
19.36	4.75	0.0059	0.125	15.859	0	0	<out of range>
19.42	4.81	0.0072	0.150	15.541	2	1	sensitive fine grained
19.49	4.80	0.0111	0.230	15.532	2	1	sensitive fine grained
19.55	4.67	0.0125	0.268	15.600	2	1	sensitive fine grained
19.62	4.54	0.0063	0.139	15.707	2	1	sensitive fine grained
19.69	4.52	0.0069	0.153	15.722	2	1	sensitive fine grained
19.75	4.39	0.0093	0.211	15.810	2	1	sensitive fine grained
19.82	4.43	0.0000	0.000	15.819	2	1	sensitive fine grained
19.88	4.36	-0.0059	-0.135	15.806	0	0	<out of range>
19.95	4.13	0.0037	0.090	15.822	0	0	<out of range>
20.01	3.79	-0.0069	-0.182	15.875	0	0	<out of range>
20.08	3.81	-0.0148	-0.387	15.928	0	0	<out of range>
20.14	4.36	0.0001	0.001	15.997	0	0	<out of range>
20.21	5.10	-0.0086	-0.168	16.115	0	0	<out of range>
20.28	5.84	-0.0074	-0.126	16.037	0	0	<out of range>
20.34	5.57	-0.0018	-0.032	15.931	0	0	<out of range>
20.41	4.89	0.0054	0.111	15.913	0	0	<out of range>
20.47	4.45	-0.0050	-0.112	15.925	0	0	<out of range>
20.54	4.80	-0.0101	-0.211	16.031	0	0	<out of range>
20.60	6.05	0.0039	0.065	16.181	0	0	<out of range>
20.67	7.16	-0.0039	-0.054	16.190	0	0	<out of range>
20.73	6.75	-0.0070	-0.103	16.075	0	0	<out of range>
20.80	6.58	0.0063	0.095	16.069	3	1	sensitive fine grained
20.87	6.67	-0.0028	-0.042	16.193	0	0	<out of range>
20.93	7.12	-0.0022	-0.031	16.122	0	0	<out of range>
21.00	7.17	0.0063	0.088	16.056	0	0	<out of range>
21.06	6.77	-0.0126	-0.186	16.069	0	0	<out of range>
21.13	6.58	0.0019	0.028	16.053	0	0	<out of range>
21.19	7.32	-0.0108	-0.148	16.112	3	1	sensitive fine grained
21.26	7.38	0.0045	0.061	16.115	3	1	sensitive fine grained
21.33	7.01	0.0121	0.172	16.047	3	1	sensitive fine grained
21.39	6.94	0.0099	0.143	16.069	4	1	sensitive fine grained
21.46	7.17	-0.0030	-0.042	16.103	4	1	sensitive fine grained
21.52	7.98	-0.0073	-0.091	16.128	4	1	sensitive fine grained
21.59	7.98	0.0060	0.075	16.119	4	1	sensitive fine grained
21.65	7.79	0.0045	0.057	16.065	3	1	sensitive fine grained
21.72	7.24	0.0812	1.121	16.090	3	1	sensitive fine grained
21.78	6.63	0.0621	0.937	16.128	3	1	sensitive fine grained
21.85	6.24	0.0627	1.005	16.203	4	1	sensitive fine grained
21.92	6.35	0.0691	1.089	16.271	5	5	clayey silt to silty clay
21.98	6.19	0.0896	1.448	16.384	5	6	sandy silt to clayey silt
22.05	13.74	0.1143	0.831	8.613	6	6	sandy silt to clayey silt
22.11	21.01	0.1715	0.816	8.763	8	6	sandy silt to clayey silt
22.18	27.04	0.2569	0.950	8.685	10	6	sandy silt to clayey silt
22.24	32.12	0.3289	1.024	8.626	10	7	silty sand to sandy silt
22.31	36.68	0.3913	1.067	8.585	12	7	silty sand to sandy silt
22.38	44.47	0.4509	1.014	8.576	15	7	silty sand to sandy silt
22.44	51.93	0.5073	0.977	8.523	17	7	silty sand to sandy silt
22.51	60.21	0.5540	0.920	8.467	18	7	silty sand to sandy silt
22.57	66.68	0.5963	0.894	8.426	20	7	silty sand to sandy silt
22.64	70.02	0.6298	0.899	8.388	16	8	sand to silty sand
22.70	72.69	0.6625	0.911	8.360	17	8	sand to silty sand
22.77	74.98	0.7124	0.950	8.342	18	8	sand to silty sand
22.83	76.54	0.8062	1.053	8.314	18	8	sand to silty sand
22.90	77.49	0.9966	1.286	8.254	24	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
22.97	77.44	0.9458	1.221	8.204	24	7	silty sand to sandy silt
23.03	75.13	1.1837	1.576	8.207	23	7	silty sand to sandy silt
23.10	70.60	1.0270	1.455	8.195	21	7	silty sand to sandy silt
23.16	65.86	0.8468	1.286	8.176	19	7	silty sand to sandy silt
23.23	56.41	0.6116	1.084	8.108	17	7	silty sand to sandy silt
23.29	46.56	0.3481	0.747	8.036	14	7	silty sand to sandy silt
23.36	34.55	0.3529	1.022	7.983	12	7	silty sand to sandy silt
23.43	24.02	0.1793	0.747	8.058	11	6	sandy silt to clayey silt
23.49	17.13	0.5103	2.979	8.298	8	6	sandy silt to clayey silt
23.56	13.00	0.4582	3.526	8.635	8	5	clayey silt to silty clay
23.62	9.66	0.3520	3.644	9.144	7	4	silty clay to clay
23.69	6.73	0.3123	4.640	10.404	8	3	clay
23.75	5.19	0.2928	5.642	14.393	6	3	clay
23.82	4.16	0.2850	6.852	18.515	5	3	clay
23.88	3.63	0.2631	7.256	20.990	4	3	clay
23.95	3.37	0.3146	9.338	22.800	4	2	organic material
24.02	3.15	0.3432	10.883	23.780	0	0	<out of range>
24.08	3.10	0.3601	11.628	23.948	0	0	<out of range>
24.15	3.03	0.4498	14.826	24.036	0	0	<out of range>
24.21	2.98	0.4748	15.953	24.095	0	0	<out of range>
24.28	2.95	0.4976	16.891	24.133	0	0	<out of range>
24.34	2.87	0.5318	18.504	24.173	0	0	<out of range>
24.41	2.86	0.5604	19.611	24.220	0	0	<out of range>
24.48	2.95	0.5942	20.160	24.242	0	0	<out of range>
24.54	3.10	0.6621	21.347	24.248	0	0	<out of range>
24.61	3.03	0.7558	24.907	24.245	0	0	<out of range>
24.67	3.12	0.8200	26.314	24.295	0	0	<out of range>
24.74	3.08	0.8715	28.272	24.282	0	0	<out of range>
24.80	3.00	0.9192	30.664	24.223	0	0	<out of range>
24.87	2.97	0.9918	33.399	24.220	0	0	<out of range>
24.93	2.90	-0.0008	-0.026	24.304	0	0	<out of range>
25.00	2.87	-0.0062	-0.216	24.304	3	2	organic material
25.07	2.91	0.0040	0.136	24.360	3	3	clay
25.13	2.92	-0.0010	-0.035	24.370	0	0	<out of range>
25.20	2.89	-0.0012	-0.042	24.373	0	0	<out of range>
25.26	3.66	-0.0006	-0.016	16.977	0	0	<out of range>
25.33	3.06	-0.0108	-0.354	17.170	0	0	<out of range>
25.39	2.80	-0.0217	-0.775	17.782	0	0	<out of range>
25.46	2.82	-0.0157	-0.555	18.765	0	0	<out of range>
25.52	2.87	-0.0127	-0.443	20.403	0	0	<out of range>
25.59	2.72	-0.0102	-0.374	21.795	0	0	<out of range>
25.66	2.68	-0.0123	-0.458	22.965	0	0	<out of range>
25.72	2.90	-0.0127	-0.436	23.711	0	0	<out of range>
25.79	2.94	-0.0072	-0.246	24.173	0	0	<out of range>
25.85	3.13	-0.0120	-0.382	24.713	0	0	<out of range>
25.92	3.17	-0.0017	-0.054	25.003	0	0	<out of range>
25.98	3.78	-0.0063	-0.166	26.370	2	1	sensitive fine grained
26.05	4.59	0.0033	0.072	27.559	2	1	sensitive fine grained
26.12	4.92	0.0139	0.282	27.556	2	1	sensitive fine grained
26.18	4.66	0.0159	0.340	28.264	2	1	sensitive fine grained
26.25	4.69	0.0279	0.594	32.200	2	1	sensitive fine grained
26.31	4.59	0.0304	0.663	34.406	2	1	sensitive fine grained
26.38	4.53	0.0226	0.500	34.702	2	1	sensitive fine grained
26.44	4.55	0.0258	0.567	35.458	3	1	sensitive fine grained
26.51	6.17	0.0220	0.356	34.022	3	1	sensitive fine grained
26.57	7.20	0.0222	0.308	28.676	3	1	sensitive fine grained
26.64	6.34	0.0217	0.342	26.248	3	1	sensitive fine grained
26.71	5.20	0.0357	0.687	26.042	3	1	sensitive fine grained
26.77	4.46	0.0510	1.143	28.536	3	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
26.84	4.76	0.0442	0.927	29.631	3	1	sensitive fine grained
26.90	5.16	0.0348	0.674	29.809	2	1	sensitive fine grained
26.97	5.35	0.0445	0.832	29.319	3	1	sensitive fine grained
27.03	5.54	0.0508	0.917	29.847	3	1	sensitive fine grained
27.10	5.81	0.0644	1.109	32.075	3	1	sensitive fine grained
27.17	6.39	0.0632	0.990	34.131	3	1	sensitive fine grained
27.23	6.92	0.0636	0.918	35.433	3	1	sensitive fine grained
27.30	7.02	0.0756	1.077	36.007	3	1	sensitive fine grained
27.36	7.06	0.0917	1.300	37.012	3	1	sensitive fine grained
27.43	7.10	0.0848	1.194	38.057	4	5	clayey silt to silty clay
27.49	7.53	0.0591	0.785	38.872	4	5	clayey silt to silty clay
27.56	8.09	0.1855	2.293	39.265	4	5	clayey silt to silty clay
27.62	8.80	0.1908	2.169	40.154	4	5	clayey silt to silty clay
27.69	9.33	0.1867	2.001	41.334	5	5	clayey silt to silty clay
27.76	10.20	0.1857	1.821	44.601	5	5	clayey silt to silty clay
27.82	10.78	0.1895	1.758	11.419	5	5	clayey silt to silty clay
27.89	12.47	0.1974	1.582	11.472	5	5	clayey silt to silty clay
27.95	11.81	0.1964	1.663	12.065	5	5	clayey silt to silty clay
28.02	11.39	0.1986	1.745	13.329	6	5	clayey silt to silty clay
28.08	11.24	0.2044	1.818	15.073	6	5	clayey silt to silty clay
28.15	11.34	0.2105	1.856	19.480	6	5	clayey silt to silty clay
28.22	11.75	0.2037	1.734	24.844	6	5	clayey silt to silty clay
28.28	11.91	0.2493	2.094	29.244	6	5	clayey silt to silty clay
28.35	12.19	0.2851	2.338	31.781	6	5	clayey silt to silty clay
28.41	12.46	0.2988	2.398	33.501	6	5	clayey silt to silty clay
28.48	12.66	0.3130	2.472	35.951	6	5	clayey silt to silty clay
28.54	15.17	0.2980	1.965	30.758	7	5	clayey silt to silty clay
28.61	14.76	0.2828	1.916	34.241	7	5	clayey silt to silty clay
28.67	14.65	0.2661	1.817	40.139	7	5	clayey silt to silty clay
28.74	14.93	0.2479	1.660	46.315	7	5	clayey silt to silty clay
28.81	15.27	0.2482	1.626	53.218	7	5	clayey silt to silty clay
28.87	15.82	0.2320	1.466	62.233	6	6	sandy silt to clayey silt
28.94	16.05	0.2307	1.438	68.909	6	6	sandy silt to clayey silt
29.00	16.18	0.2327	1.438	73.714	6	6	sandy silt to clayey silt
29.07	16.33	0.2178	1.334	76.567	6	6	sandy silt to clayey silt
29.13	16.28	0.2190	1.345	78.711	6	6	sandy silt to clayey silt
29.20	16.49	0.2024	1.227	77.310	6	6	sandy silt to clayey silt
29.27	16.35	0.1820	1.113	72.831	6	6	sandy silt to clayey silt
29.33	15.15	0.1814	1.197	70.990	6	6	sandy silt to clayey silt
29.40	14.42	0.1813	1.257	73.349	6	6	sandy silt to clayey silt
29.46	14.24	0.2114	1.485	78.670	6	6	sandy silt to clayey silt
29.53	14.68	0.2405	1.639	86.753	6	6	sandy silt to clayey silt
29.59	16.33	0.2719	1.665	94.140	7	6	sandy silt to clayey silt
29.66	18.95	0.2953	1.559	96.939	8	6	sandy silt to clayey silt
29.72	22.92	0.3091	1.348	87.514	9	6	sandy silt to clayey silt
29.79	26.21	0.3213	1.226	73.721	9	6	sandy silt to clayey silt
29.86	28.08	0.3300	1.175	63.978	10	6	sandy silt to clayey silt
29.92	29.74	0.3311	1.113	55.143	10	6	sandy silt to clayey silt
29.99	29.64	0.2933	0.990	47.366	9	7	silty sand to sandy silt
30.05	28.95	0.2407	0.831	44.177	8	7	silty sand to sandy silt
30.12	26.21	0.1894	0.723	40.629	10	6	sandy silt to clayey silt
30.18	22.95	0.1650	0.719	38.900	9	6	sandy silt to clayey silt
30.25	19.37	0.1527	0.788	40.691	8	6	sandy silt to clayey silt
30.31	17.26	0.2356	1.365	48.714	8	6	sandy silt to clayey silt
30.38	16.23	0.3363	2.073	65.129	8	6	sandy silt to clayey silt
30.45	17.88	0.4842	2.708	91.715	9	6	sandy silt to clayey silt
30.51	22.18	0.5754	2.594	92.651	9	6	sandy silt to clayey silt
30.58	29.24	0.6388	2.185	55.789	11	6	sandy silt to clayey silt
30.64	34.02	0.6995	2.056	35.202	12	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
30.71	36.70	0.6494	1.770	28.040	13	6	sandy silt to clayey silt
30.77	38.25	0.5053	1.321	24.491	13	6	sandy silt to clayey silt
30.84	37.10	0.4954	1.336	22.978	13	6	sandy silt to clayey silt
30.91	34.84	0.4468	1.282	21.982	13	6	sandy silt to clayey silt
30.97	32.57	0.4183	1.285	21.411	12	6	sandy silt to clayey silt
31.04	29.96	0.4704	1.570	20.993	12	6	sandy silt to clayey silt
31.10	27.32	0.5185	1.898	20.619	11	6	sandy silt to clayey silt
31.17	25.22	0.4959	1.967	20.391	11	6	sandy silt to clayey silt
31.23	24.35	0.4469	1.835	20.278	12	6	sandy silt to clayey silt
31.30	27.45	0.3980	1.450	20.219	12	6	sandy silt to clayey silt
31.36	33.72	0.3683	1.092	20.091	11	7	silty sand to sandy silt
31.43	43.09	0.4249	0.986	19.832	12	7	silty sand to sandy silt
31.50	45.29	0.5546	1.224	19.601	13	7	silty sand to sandy silt
31.56	45.10	0.6936	1.538	19.380	14	7	silty sand to sandy silt
31.63	44.79	0.7393	1.651	19.217	14	7	silty sand to sandy silt
31.69	45.89	0.7679	1.673	18.025	14	7	silty sand to sandy silt
31.76	43.29	0.7587	1.753	17.822	14	7	silty sand to sandy silt
31.82	42.32	0.7409	1.751	17.560	14	7	silty sand to sandy silt
31.89	41.96	0.7592	1.809	17.373	14	7	silty sand to sandy silt
31.96	42.56	0.7336	1.724	17.242	14	7	silty sand to sandy silt
32.02	43.70	0.5795	1.326	17.098	13	7	silty sand to sandy silt
32.09	42.85	0.4665	1.089	16.930	13	7	silty sand to sandy silt
32.15	40.20	0.3616	0.900	16.743	12	7	silty sand to sandy silt
32.22	35.85	0.2865	0.799	16.596	11	7	silty sand to sandy silt
32.28	30.04	0.2630	0.876	16.449	10	7	silty sand to sandy silt
32.35	25.64	0.2532	0.987	16.440	10	6	sandy silt to clayey silt
32.41	21.88	0.2908	1.329	16.481	9	6	sandy silt to clayey silt
32.48	19.33	0.3185	1.648	16.596	9	6	sandy silt to clayey silt
32.55	18.21	0.3474	1.908	16.836	9	6	sandy silt to clayey silt
32.61	18.40	0.3516	1.911	17.357	9	6	sandy silt to clayey silt
32.68	23.38	0.3514	1.503	18.259	10	6	sandy silt to clayey silt
32.74	32.14	0.3508	1.092	18.899	10	6	sandy silt to clayey silt
32.81	33.81	0.4273	1.264	17.286	10	6	sandy silt to clayey silt
32.87	28.91	0.4942	1.710	16.805	10	6	sandy silt to clayey silt
32.94	24.60	0.4736	1.925	16.724	11	6	sandy silt to clayey silt
33.01	22.53	0.3727	1.655	16.786	11	6	sandy silt to clayey silt
33.07	25.00	0.3445	1.378	17.151	11	6	sandy silt to clayey silt
33.14	33.15	0.4651	1.403	17.495	12	6	sandy silt to clayey silt
33.20	35.96	0.5586	1.554	16.852	12	6	sandy silt to clayey silt
33.27	35.45	0.6667	1.881	16.540	11	7	silty sand to sandy silt
33.33	35.49	0.6536	1.842	16.402	12	7	silty sand to sandy silt
33.40	40.19	0.4444	1.106	16.343	12	7	silty sand to sandy silt
33.46	44.14	0.5002	1.133	16.200	12	7	silty sand to sandy silt
33.53	42.00	0.6326	1.506	15.991	13	7	silty sand to sandy silt
33.60	37.65	0.7065	1.876	15.750	13	7	silty sand to sandy silt
33.66	36.55	0.6700	1.833	15.591	13	7	silty sand to sandy silt
33.73	38.55	0.4724	1.225	15.476	14	7	silty sand to sandy silt
33.79	44.42	0.3511	0.790	15.379	14	7	silty sand to sandy silt
33.86	47.89	0.3149	0.658	15.301	15	7	silty sand to sandy silt
33.92	49.93	0.2895	0.580	15.117	15	7	silty sand to sandy silt
33.99	51.72	0.2780	0.538	14.976	16	7	silty sand to sandy silt
34.06	52.52	0.3396	0.647	14.892	17	7	silty sand to sandy silt
34.12	53.22	0.4114	0.773	14.795	17	7	silty sand to sandy silt
34.19	53.83	0.5171	0.961	14.736	13	8	sand to silty sand
34.25	53.90	0.4692	0.871	14.699	13	8	sand to silty sand
34.32	55.50	0.3461	0.624	14.683	13	8	sand to silty sand
34.38	58.58	0.3158	0.539	14.674	14	8	sand to silty sand
34.45	58.79	0.3736	0.635	14.599	14	8	sand to silty sand
34.51	58.88	0.4239	0.720	14.418	14	8	sand to silty sand

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
34.58	58.78	0.3097	0.527	14.371	14	8	sand to silty sand
34.65	59.38	0.2047	0.345	14.355	14	8	sand to silty sand
34.71	59.57	0.1683	0.283	14.299	14	8	sand to silty sand
34.78	57.86	0.1707	0.295	14.209	14	8	sand to silty sand
34.84	56.80	0.1917	0.337	14.103	13	8	sand to silty sand
34.91	55.38	0.2602	0.470	14.034	13	8	sand to silty sand
34.97	52.82	0.3570	0.676	14.028	13	8	sand to silty sand
35.04	51.40	0.3857	0.750	13.978	13	8	sand to silty sand
35.10	49.75	0.3464	0.696	13.950	12	8	sand to silty sand
35.17	49.13	0.2988	0.608	13.940	12	8	sand to silty sand
35.24	51.15	0.2629	0.514	15.638	12	8	sand to silty sand
35.30	53.61	0.2501	0.466	16.200	12	8	sand to silty sand
35.37	53.61	0.2493	0.465	16.103	13	8	sand to silty sand
35.43	53.70	0.2347	0.437	15.978	13	8	sand to silty sand
35.50	53.72	0.2488	0.463	16.047	13	8	sand to silty sand
35.56	53.91	0.2363	0.438	15.950	13	8	sand to silty sand
35.63	54.09	0.1978	0.366	15.897	13	8	sand to silty sand
35.70	54.12	0.1838	0.340	15.903	13	8	sand to silty sand
35.76	53.30	0.2208	0.414	15.894	12	8	sand to silty sand
35.83	51.38	0.3259	0.634	15.760	15	7	silty sand to sandy silt
35.89	46.78	0.3980	0.851	15.797	14	7	silty sand to sandy silt
35.96	39.71	0.3789	0.954	15.869	13	7	silty sand to sandy silt
36.02	32.53	0.3426	1.053	15.925	11	7	silty sand to sandy silt
36.09	27.28	0.3156	1.157	16.040	10	7	silty sand to sandy silt
36.15	24.30	0.3695	1.521	16.240	11	6	sandy silt to clayey silt
36.22	22.62	0.3329	1.471	16.871	10	6	sandy silt to clayey silt
36.29	22.32	0.4399	1.970	18.188	10	7	silty sand to sandy silt
36.35	24.98	0.3156	1.263	20.681	12	7	silty sand to sandy silt
36.42	35.04	0.2108	0.602	24.257	13	7	silty sand to sandy silt
36.48	57.80	0.1931	0.334	22.244	15	7	silty sand to sandy silt
36.55	65.86	0.2870	0.436	18.687	13	8	sand to silty sand
36.61	66.92	0.3704	0.553	17.563	13	8	sand to silty sand
36.68	63.17	0.4536	0.718	17.080	14	8	sand to silty sand
36.75	54.84	0.4998	0.911	16.902	13	8	sand to silty sand
36.81	47.15	0.3809	0.808	16.808	16	7	silty sand to sandy silt
36.88	40.27	0.2789	0.692	16.749	14	7	silty sand to sandy silt
36.94	37.00	0.2456	0.664	16.686	13	7	silty sand to sandy silt
37.01	35.66	0.2690	0.754	16.702	11	7	silty sand to sandy silt
37.07	32.23	0.2358	0.732	16.649	11	7	silty sand to sandy silt
37.14	28.44	0.1669	0.587	16.608	10	7	silty sand to sandy silt
37.20	28.32	0.1523	0.538	16.580	10	7	silty sand to sandy silt
37.27	31.63	0.1603	0.507	16.552	10	7	silty sand to sandy silt
37.34	35.19	0.1868	0.531	16.499	11	7	silty sand to sandy silt
37.40	35.19	0.1864	0.530	16.318	11	7	silty sand to sandy silt
37.47	36.61	0.1371	0.375	16.250	12	7	silty sand to sandy silt
37.53	39.61	0.1254	0.317	16.209	12	7	silty sand to sandy silt
37.60	41.45	0.1479	0.357	16.090	13	7	silty sand to sandy silt
37.66	42.54	0.1688	0.397	15.947	13	7	silty sand to sandy silt
37.73	43.48	0.1812	0.417	15.816	14	7	silty sand to sandy silt
37.80	43.99	0.2046	0.465	15.785	14	7	silty sand to sandy silt
37.86	44.69	0.2756	0.617	15.757	14	7	silty sand to sandy silt
37.93	45.06	0.2503	0.555	15.703	15	7	silty sand to sandy silt
37.99	45.99	0.2536	0.551	15.666	15	7	silty sand to sandy silt
38.06	47.69	0.2578	0.541	15.610	12	8	sand to silty sand
38.12	49.71	0.2728	0.549	15.585	12	8	sand to silty sand
38.19	50.60	0.3052	0.603	15.491	12	8	sand to silty sand
38.25	54.77	0.3438	0.628	15.448	13	8	sand to silty sand
38.32	56.90	0.3882	0.682	15.426	13	8	sand to silty sand
38.39	57.66	0.4408	0.764	15.426	18	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
38.45	57.47	0.4876	0.848	15.429	18	7	silty sand to sandy silt
38.52	56.93	0.5319	0.934	15.457	18	7	silty sand to sandy silt
38.58	55.64	0.5451	0.980	15.526	18	7	silty sand to sandy silt
38.65	54.41	0.5417	0.996	15.557	17	7	silty sand to sandy silt
38.71	52.69	0.5570	1.057	15.597	16	7	silty sand to sandy silt
38.78	50.31	0.6115	1.216	15.635	15	7	silty sand to sandy silt
38.85	46.53	0.6644	1.428	15.638	14	7	silty sand to sandy silt
38.91	41.59	0.6659	1.601	15.641	13	7	silty sand to sandy silt
38.98	36.87	0.6530	1.771	15.644	14	6	sandy silt to clayey silt
39.04	31.59	0.6197	1.962	15.688	13	6	sandy silt to clayey silt
39.11	27.63	0.5158	1.866	15.719	12	6	sandy silt to clayey silt
39.17	24.97	0.3576	1.432	15.769	11	6	sandy silt to clayey silt
39.24	24.87	0.2490	1.001	15.831	9	7	silty sand to sandy silt
39.30	27.51	0.1554	0.565	16.040	10	7	silty sand to sandy silt
39.37	32.81	0.1173	0.358	16.097	10	7	silty sand to sandy silt
39.44	37.65	0.0992	0.264	15.925	11	7	silty sand to sandy silt
39.50	39.67	0.1063	0.268	15.766	12	7	silty sand to sandy silt
39.57	39.94	0.1222	0.306	15.585	12	7	silty sand to sandy silt
39.63	39.37	0.1660	0.422	15.547	12	7	silty sand to sandy silt
39.70	38.50	0.2113	0.549	15.497	12	7	silty sand to sandy silt
39.76	37.72	0.2158	0.572	15.448	12	7	silty sand to sandy silt
39.83	37.62	0.1898	0.504	15.410	12	7	silty sand to sandy silt
39.90	38.12	0.1692	0.444	15.429	12	7	silty sand to sandy silt
39.96	39.17	0.1659	0.424	15.451	12	7	silty sand to sandy silt
40.03	39.40	0.1822	0.462	15.410	12	7	silty sand to sandy silt
40.09	38.36	0.2080	0.542	15.407	12	7	silty sand to sandy silt
40.16	36.72	0.2583	0.703	15.473	11	7	silty sand to sandy silt
40.22	34.67	0.3018	0.870	15.513	11	7	silty sand to sandy silt
40.29	32.67	0.3096	0.948	15.438	11	7	silty sand to sandy silt
40.35	30.98	0.2967	0.958	15.597	11	7	silty sand to sandy silt
40.42	30.92	0.2552	0.825	15.660	11	7	silty sand to sandy silt
40.49	32.33	0.2056	0.636	15.703	11	7	silty sand to sandy silt
40.55	35.49	0.1650	0.465	15.713	11	7	silty sand to sandy silt
40.62	38.57	0.1619	0.420	15.688	12	7	silty sand to sandy silt
40.68	41.17	0.1726	0.419	15.600	13	7	silty sand to sandy silt
40.75	42.49	0.1905	0.448	15.557	14	7	silty sand to sandy silt
40.81	44.10	0.2390	0.542	15.544	14	7	silty sand to sandy silt
40.88	46.42	0.2984	0.643	15.538	15	7	silty sand to sandy silt
40.94	48.71	0.3507	0.720	15.538	15	7	silty sand to sandy silt
41.01	50.07	0.4054	0.810	15.535	15	7	silty sand to sandy silt
41.08	50.00	0.4553	0.911	15.572	15	7	silty sand to sandy silt
41.14	48.96	0.4622	0.944	15.619	15	7	silty sand to sandy silt
41.21	47.23	0.4570	0.968	15.616	15	7	silty sand to sandy silt
41.27	45.06	0.4643	1.030	15.638	14	7	silty sand to sandy silt
41.34	42.98	0.4736	1.102	15.685	14	7	silty sand to sandy silt
41.40	40.78	0.4806	1.179	15.735	13	7	silty sand to sandy silt
41.47	38.24	0.5032	1.316	15.788	12	7	silty sand to sandy silt
41.54	35.12	0.5218	1.486	15.760	13	6	sandy silt to clayey silt
41.60	30.91	0.5257	1.701	15.772	12	6	sandy silt to clayey silt
41.67	25.76	0.4927	1.912	15.772	11	6	sandy silt to clayey silt
41.73	22.58	0.4339	1.921	15.822	11	6	sandy silt to clayey silt
41.80	22.38	0.3352	1.498	15.869	11	6	sandy silt to clayey silt
41.86	26.22	0.2571	0.981	15.897	11	6	sandy silt to clayey silt
41.93	32.06	0.2379	0.742	16.031	10	7	silty sand to sandy silt
41.99	36.57	0.2745	0.751	16.115	11	7	silty sand to sandy silt
42.06	39.02	0.3419	0.876	16.134	12	7	silty sand to sandy silt
42.13	40.63	0.3756	0.924	16.165	12	7	silty sand to sandy silt
42.19	40.92	0.3892	0.951	16.112	13	7	silty sand to sandy silt
42.26	40.33	0.3993	0.990	16.115	13	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
42.32	39.29	0.4046	1.030	16.153	12	7	silty sand to sandy silt
42.39	38.36	0.4012	1.046	16.128	12	7	silty sand to sandy silt
42.45	36.79	0.3995	1.086	16.178	12	7	silty sand to sandy silt
42.52	35.74	0.3903	1.092	16.212	12	7	silty sand to sandy silt
42.59	35.47	0.3823	1.078	16.287	12	7	silty sand to sandy silt
42.65	36.17	0.3848	1.064	16.303	12	7	silty sand to sandy silt
42.72	36.54	0.4110	1.125	16.324	11	7	silty sand to sandy silt
42.78	36.50	0.4587	1.257	16.371	11	7	silty sand to sandy silt
42.85	35.39	0.5045	1.425	16.424	13	6	sandy silt to clayey silt
42.91	32.66	0.5213	1.596	16.537	12	6	sandy silt to clayey silt
42.98	28.94	0.5048	1.744	16.571	11	6	sandy silt to clayey silt
43.04	25.26	0.4793	1.898	16.643	9	6	sandy silt to clayey silt
43.11	21.14	0.4001	1.893	16.777	8	6	sandy silt to clayey silt
43.18	16.32	0.3654	2.239	17.170	9	5	clayey silt to silty clay
43.24	13.30	0.3250	2.443	18.103	8	5	clayey silt to silty clay
43.31	11.81	0.2150	1.820	19.823	6	6	sandy silt to clayey silt
43.37	11.39	0.1247	1.096	22.812	7	6	sandy silt to clayey silt
43.44	13.37	0.0831	0.621	27.534	8	6	sandy silt to clayey silt
43.50	23.26	0.1028	0.442	30.695	7	7	silty sand to sandy silt
43.57	31.59	0.1672	0.529	29.962	9	7	silty sand to sandy silt
43.64	35.60	0.2155	0.605	25.961	10	7	silty sand to sandy silt
43.70	36.93	0.2514	0.681	24.473	11	7	silty sand to sandy silt
43.77	36.80	0.3018	0.820	23.714	11	7	silty sand to sandy silt
43.83	35.70	0.3585	1.004	23.334	11	7	silty sand to sandy silt
43.90	33.65	0.3949	1.174	23.078	10	7	silty sand to sandy silt
43.96	31.11	0.3811	1.225	23.043	12	6	sandy silt to clayey silt
44.03	28.26	0.3845	1.361	23.128	11	6	sandy silt to clayey silt
44.09	26.27	0.4099	1.560	23.306	10	6	sandy silt to clayey silt
44.16	24.12	0.4361	1.808	23.908	9	6	sandy silt to clayey silt
44.23	22.06	0.4075	1.848	24.953	9	6	sandy silt to clayey silt
44.29	20.44	0.3157	1.545	26.298	8	6	sandy silt to clayey silt
44.36	18.72	0.3032	1.620	27.447	7	6	sandy silt to clayey silt
44.42	17.13	0.2301	1.343	28.498	6	6	sandy silt to clayey silt
44.49	15.69	0.2424	1.545	29.229	6	6	sandy silt to clayey silt
44.55	13.40	0.1798	1.342	30.096	5	6	sandy silt to clayey silt
44.62	11.07	0.1094	0.988	32.299	5	6	sandy silt to clayey silt
44.69	11.09	0.0451	0.406	20.425	6	5	clayey silt to silty clay
44.75	10.49	0.0580	0.553	21.508	5	5	clayey silt to silty clay
44.82	9.86	0.1291	1.309	29.534	5	6	sandy silt to clayey silt
44.88	9.21	0.1295	1.405	43.696	6	6	sandy silt to clayey silt
44.95	10.70	0.1181	1.104	49.273	7	6	sandy silt to clayey silt
45.01	20.59	0.1470	0.714	46.221	8	7	silty sand to sandy silt
45.08	32.53	0.2291	0.704	38.453	10	7	silty sand to sandy silt
45.14	41.92	0.2923	0.697	32.377	12	7	silty sand to sandy silt
45.21	46.32	0.3447	0.744	29.725	14	7	silty sand to sandy silt
45.28	49.69	0.3938	0.793	28.342	15	7	silty sand to sandy silt
45.34	52.47	0.5021	0.957	27.637	16	7	silty sand to sandy silt
45.41	54.87	0.6117	1.115	27.122	16	7	silty sand to sandy silt
45.47	54.72	0.6670	1.219	26.804	16	7	silty sand to sandy silt
45.54	51.78	0.6770	1.307	26.576	16	7	silty sand to sandy silt
45.60	47.62	0.6519	1.369	26.411	15	7	silty sand to sandy silt
45.67	43.26	0.5915	1.367	26.345	14	7	silty sand to sandy silt
45.73	38.09	0.5011	1.315	26.242	13	7	silty sand to sandy silt
45.80	34.57	0.4313	1.248	26.099	12	7	silty sand to sandy silt
45.87	32.55	0.4163	1.279	26.170	11	7	silty sand to sandy silt
45.93	30.80	0.4141	1.345	26.823	10	7	silty sand to sandy silt
46.00	30.21	0.3072	1.017	28.183	10	7	silty sand to sandy silt
46.06	30.49	0.1772	0.581	29.469	10	7	silty sand to sandy silt
46.13	32.24	0.1121	0.348	30.249	10	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
46.19	33.97	0.1004	0.296	30.215	10	7	silty sand to sandy silt
46.26	33.37	0.0837	0.251	28.598	10	7	silty sand to sandy silt
46.33	31.33	0.0754	0.241	27.915	10	7	silty sand to sandy silt
46.39	30.09	0.1025	0.341	28.985	10	7	silty sand to sandy silt
46.46	28.66	0.2004	0.699	30.255	9	7	silty sand to sandy silt
46.52	26.73	0.1655	0.619	31.881	9	7	silty sand to sandy silt
46.59	25.57	0.0871	0.341	33.772	9	7	silty sand to sandy silt
46.65	28.06	0.0968	0.345	35.957	9	7	silty sand to sandy silt
46.72	32.69	0.2285	0.699	37.162	9	7	silty sand to sandy silt
46.78	33.07	0.3415	1.033	34.752	9	7	silty sand to sandy silt
46.85	30.17	0.3120	1.034	32.552	10	6	sandy silt to clayey silt
46.92	25.27	0.3025	1.197	31.937	10	6	sandy silt to clayey silt
46.98	21.04	0.3307	1.572	32.218	9	6	sandy silt to clayey silt
47.05	17.11	0.3033	1.773	32.736	8	6	sandy silt to clayey silt
47.11	14.83	0.2524	1.702	34.553	7	6	sandy silt to clayey silt
47.18	14.10	0.1961	1.390	37.567	8	6	sandy silt to clayey silt
47.24	15.03	0.1323	0.880	42.173	8	7	silty sand to sandy silt
47.31	22.03	0.1121	0.509	47.547	10	7	silty sand to sandy silt
47.38	36.08	0.1084	0.300	48.964	12	7	silty sand to sandy silt
47.44	52.44	0.1339	0.255	41.044	14	7	silty sand to sandy silt
47.51	60.25	0.2480	0.412	33.688	16	7	silty sand to sandy silt
47.57	61.46	0.3777	0.615	28.695	13	8	sand to silty sand
47.64	58.44	0.6718	1.150	27.116	18	7	silty sand to sandy silt
47.70	54.56	0.5580	1.023	26.635	17	7	silty sand to sandy silt
47.77	51.10	0.5551	1.086	26.507	17	7	silty sand to sandy silt
47.83	48.01	0.5574	1.161	26.638	17	7	silty sand to sandy silt
47.90	47.70	0.5192	1.088	27.668	17	7	silty sand to sandy silt
47.97	56.92	0.4854	0.853	22.965	18	7	silty sand to sandy silt
48.03	59.27	0.4529	0.764	23.096	19	7	silty sand to sandy silt
48.10	62.72	0.4763	0.759	23.708	15	8	sand to silty sand
48.16	64.85	0.4771	0.736	24.267	15	8	sand to silty sand
48.23	66.52	0.4996	0.751	24.554	16	8	sand to silty sand
48.29	67.74	0.5023	0.742	24.791	16	8	sand to silty sand
48.36	67.77	0.5959	0.879	24.988	16	8	sand to silty sand
48.43	66.29	0.7524	1.135	24.931	15	8	sand to silty sand
48.49	62.77	0.7861	1.252	24.938	15	8	sand to silty sand
48.56	58.94	0.6566	1.114	25.234	16	8	sand to silty sand
48.62	59.89	0.4415	0.737	25.718	16	8	sand to silty sand
48.69	67.95	0.3394	0.500	26.280	17	8	sand to silty sand
48.75	78.54	0.3380	0.430	25.165	18	8	sand to silty sand
48.82	84.91	0.4124	0.486	23.902	19	8	sand to silty sand
48.88	89.84	0.5540	0.617	23.455	20	8	sand to silty sand
48.95	91.38	0.7010	0.767	23.324	21	8	sand to silty sand
49.02	89.85	0.8196	0.912	23.396	21	8	sand to silty sand
49.08	86.87	0.9085	1.046	23.430	20	8	sand to silty sand
49.15	83.32	0.9575	1.149	23.521	20	8	sand to silty sand
49.21	79.85	0.9780	1.225	23.649	19	8	sand to silty sand
49.28	77.30	1.0167	1.315	23.736	25	7	silty sand to sandy silt
49.34	75.44	1.0104	1.339	23.836	25	7	silty sand to sandy silt
49.41	74.92	1.1388	1.520	23.930	25	7	silty sand to sandy silt
49.48	75.59	1.1740	1.553	24.051	24	7	silty sand to sandy silt
49.54	76.40	1.2056	1.578	24.161	25	7	silty sand to sandy silt
49.61	78.31	1.2575	1.606	24.276	25	7	silty sand to sandy silt
49.67	79.11	1.3260	1.676	24.370	25	7	silty sand to sandy silt
49.74	78.11	1.3511	1.730	24.457	25	7	silty sand to sandy silt
49.80	77.37	1.3729	1.774	24.516	25	7	silty sand to sandy silt
49.87	76.47	1.3546	1.771	24.594	24	7	silty sand to sandy silt
49.93	75.33	1.3067	1.735	24.697	24	7	silty sand to sandy silt
50.00	74.88	1.2812	1.711	24.763	24	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
50.07	74.64	1.2931	1.732	24.844	24	7	silty sand to sandy silt
50.13	74.53	1.3323	1.787	24.910	24	7	silty sand to sandy silt
50.20	75.45	1.3479	1.786	24.975	24	7	silty sand to sandy silt
50.26	77.12	1.3913	1.804	25.081	25	7	silty sand to sandy silt
50.33	79.01	1.3787	1.745	25.137	25	7	silty sand to sandy silt
50.39	80.96	1.4257	1.761	25.112	26	7	silty sand to sandy silt
50.46	82.43	1.4374	1.744	25.156	26	7	silty sand to sandy silt
50.52	84.67	1.4873	1.757	25.275	27	7	silty sand to sandy silt
50.59	87.00	1.5311	1.760	25.300	27	7	silty sand to sandy silt
50.66	88.37	1.5103	1.709	25.368	27	7	silty sand to sandy silt
50.72	86.46	1.4851	1.718	25.322	27	7	silty sand to sandy silt
50.79	83.09	1.4013	1.686	25.371	27	7	silty sand to sandy silt
50.85	79.44	0.9265	1.166	25.462	20	8	sand to silty sand
50.92	79.21	0.6660	0.841	25.478	20	8	sand to silty sand
50.98	82.22	0.7038	0.856	25.543	20	8	sand to silty sand
51.05	85.19	0.7316	0.859	25.581	21	8	sand to silty sand
51.12	91.01	0.7467	0.820	25.627	21	8	sand to silty sand
51.18	87.56	0.7941	0.907	23.330	21	8	sand to silty sand
51.25	97.63	0.7789	0.798	23.324	22	8	sand to silty sand
51.31	93.46	0.7074	0.757	23.237	22	8	sand to silty sand
51.38	90.45	0.6303	0.697	23.168	21	8	sand to silty sand
51.44	86.55	0.4530	0.523	22.975	21	8	sand to silty sand
51.51	84.60	0.3833	0.453	22.507	20	8	sand to silty sand
51.57	81.65	0.4070	0.498	22.082	19	8	sand to silty sand
51.64	77.23	0.4318	0.559	21.717	18	8	sand to silty sand
51.71	71.78	0.4427	0.617	21.611	17	8	sand to silty sand
51.77	64.25	0.4112	0.640	21.542	16	8	sand to silty sand
51.84	60.59	0.3455	0.570	21.602	15	8	sand to silty sand
51.90	59.38	0.2286	0.385	21.701	14	8	sand to silty sand
51.97	56.76	0.1527	0.269	21.717	13	8	sand to silty sand
52.03	53.63	0.0967	0.180	21.705	13	8	sand to silty sand
52.10	51.38	0.1507	0.293	21.623	12	8	sand to silty sand
52.17	47.43	0.2198	0.463	21.667	11	8	sand to silty sand
52.23	41.59	0.2698	0.649	21.776	11	8	sand to silty sand
52.30	38.45	0.2580	0.671	22.397	14	7	silty sand to sandy silt
52.36	39.91	0.2399	0.601	23.458	14	7	silty sand to sandy silt
52.43	44.07	0.2130	0.483	24.170	14	7	silty sand to sandy silt
52.49	46.21	0.2350	0.509	25.047	13	7	silty sand to sandy silt
52.56	44.59	0.3656	0.820	25.537	14	7	silty sand to sandy silt
52.62	41.78	0.5204	1.246	26.217	15	7	silty sand to sandy silt
52.69	40.42	0.6837	1.691	27.119	16	7	silty sand to sandy silt
52.76	45.18	0.8417	1.863	28.573	16	7	silty sand to sandy silt
52.82	57.64	1.0180	1.766	30.165	17	7	silty sand to sandy silt
52.89	65.77	0.9126	1.388	31.288	18	7	silty sand to sandy silt
52.95	64.72	0.6837	1.056	31.476	18	7	silty sand to sandy silt
53.02	61.60	0.5222	0.848	28.108	18	7	silty sand to sandy silt
53.08	55.41	0.3081	0.556	24.301	16	7	silty sand to sandy silt
53.15	44.94	0.3761	0.837	22.138	15	7	silty sand to sandy silt
53.22	37.42	0.4392	1.174	21.514	14	7	silty sand to sandy silt
53.28	30.96	0.4605	1.487	21.430	14	7	silty sand to sandy silt
53.35	33.71	0.4755	1.410	23.115	14	7	silty sand to sandy silt
53.41	48.40	0.6371	1.316	27.350	15	7	silty sand to sandy silt
53.48	55.52	0.7284	1.312	28.533	16	7	silty sand to sandy silt
53.54	58.83	0.7705	1.310	32.427	17	7	silty sand to sandy silt
53.61	63.97	0.9384	1.467	31.276	17	7	silty sand to sandy silt
53.67	55.98	1.0242	1.829	27.771	16	7	silty sand to sandy silt
53.74	49.27	1.0002	2.030	26.039	15	7	silty sand to sandy silt
53.81	40.29	0.7407	1.839	24.875	14	7	silty sand to sandy silt
53.87	32.80	0.5745	1.752	24.338	14	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
53.94	27.82	0.4850	1.743	24.030	13	6	sandy silt to clayey silt
54.00	26.24	0.3259	1.242	23.702	10	7	silty sand to sandy silt
54.07	26.63	0.0597	0.224	23.483	10	7	silty sand to sandy silt
54.13	28.83	-0.0101	-0.035	23.483	11	7	silty sand to sandy silt
54.20	34.19	0.0165	0.048	23.359	12	7	silty sand to sandy silt
54.27	45.12	0.1837	0.407	23.433	14	7	silty sand to sandy silt
54.33	51.76	0.6479	1.252	23.380	16	7	silty sand to sandy silt
54.40	52.18	1.2437	2.383	23.274	18	7	silty sand to sandy silt
54.46	61.20	1.2499	2.042	36.132	21	7	silty sand to sandy silt
54.53	70.65	1.1253	1.593	31.713	24	7	silty sand to sandy silt
54.59	81.91	1.1435	1.396	28.486	26	7	silty sand to sandy silt
54.66	98.80	1.3859	1.403	25.618	29	7	silty sand to sandy silt
54.72	104.86	1.6789	1.601	24.092	23	8	sand to silty sand
54.79	104.85	1.6542	1.578	23.421	24	8	sand to silty sand
54.86	104.86	1.4045	1.339	22.953	25	8	sand to silty sand
54.92	102.92	1.0510	1.021	22.753	24	8	sand to silty sand
54.99	101.75	1.1475	1.128	22.441	24	8	sand to silty sand
55.05	98.59	1.2130	1.230	22.207	23	8	sand to silty sand
55.12	94.29	1.3533	1.435	22.014	23	8	sand to silty sand
55.18	90.99	1.4420	1.585	21.929	29	7	silty sand to sandy silt
55.25	89.38	1.4840	1.660	21.904	28	7	silty sand to sandy silt
55.31	83.12	1.5729	1.892	21.723	27	7	silty sand to sandy silt
55.38	78.59	1.5419	1.962	21.623	31	6	sandy silt to clayey silt
55.45	77.45	1.8567	2.397	21.592	30	6	sandy silt to clayey silt
55.51	75.90	2.6928	3.548	21.474	29	6	sandy silt to clayey silt
55.58	76.08	3.4394	4.521	21.452	35	5	clayey silt to silty clay
55.64	73.27	3.2718	4.466	21.374	34	5	clayey silt to silty clay
55.71	69.38	3.0539	4.402	21.268	34	5	clayey silt to silty clay
55.77	67.16	2.8451	4.237	21.227	34	5	clayey silt to silty clay
55.84	64.29	2.8002	4.356	21.046	34	5	clayey silt to silty clay
55.91	67.37	2.9450	4.371	21.037	33	5	clayey silt to silty clay
55.97	79.23	2.5743	3.249	21.090	32	5	clayey silt to silty clay
56.04	77.61	2.4584	3.168	21.096	31	5	clayey silt to silty clay
56.10	59.13	2.2847	3.864	20.928	32	5	clayey silt to silty clay
56.17	52.49	2.5928	4.939	20.862	28	6	sandy silt to clayey silt
56.23	57.14	1.5451	2.704	21.096	28	7	silty sand to sandy silt
56.30	73.99	1.7113	2.313	21.305	36	7	silty sand to sandy silt
56.36	117.36	1.6951	1.444	22.298	34	8	sand to silty sand
56.43	183.15	1.8539	1.012	21.867	41	8	sand to silty sand
56.50	242.45	2.4223	0.999	21.779	47	8	sand to silty sand
56.56	279.31	3.6543	1.308	22.569	42	9	sand
56.63	241.07	3.8084	1.580	22.528	45	9	sand
56.69	235.69	3.5865	1.522	22.450	47	9	sand
56.76	238.18	2.5634	1.076	22.709	47	9	sand
56.82	238.11	2.7740	1.165	22.962	46	9	sand
56.89	237.45	2.6248	1.105	23.190	45	9	sand
56.96	237.57	2.2593	0.951	23.655	45	9	sand
57.02	236.22	2.2286	0.943	23.914	45	9	sand
57.09	232.72	2.1728	0.934	24.382	45	9	sand
57.15	226.12	1.9175	0.848	24.451	44	9	sand
57.22	224.21	2.0921	0.933	24.732	44	9	sand
57.28	239.77	1.8790	0.784	25.297	44	9	sand
57.35	221.31	0.9840	0.445	25.821	44	9	sand
57.41	219.42	0.5983	0.273	26.348	46	9	sand
57.48	231.69	0.2098	0.091	26.713	37	10	gravelly sand to sand
57.55	256.84	-0.0208	-0.008	27.319	38	10	gravelly sand to sand
57.61	284.28	-0.0490	-0.017	28.274	40	10	gravelly sand to sand
57.68	164.70	-0.0909	-0.055	26.345	0	0	<out of range>
57.74	300.89	-0.0716	-0.024	26.876	0	0	<out of range>

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
57.81	293.70	-0.1261	-0.043	26.688	0	0	<out of range>
57.87	340.32	-32768	-32768	27.646	0	0	<out of range>
57.94	348.65	-32768	-32768	29.107	0	0	<out of range>
58.01	309.35	-32768	-32768	29.691	0	0	<out of range>
58.07	299.86	-32768	-32768	42.432	0	0	<out of range>

*Soil behavior type and SPT based on data from UBC-1983

AECOM

TVA Kingston Coal Ash Pond RCA (Kingston,Tennessee) Cone Penetration Test

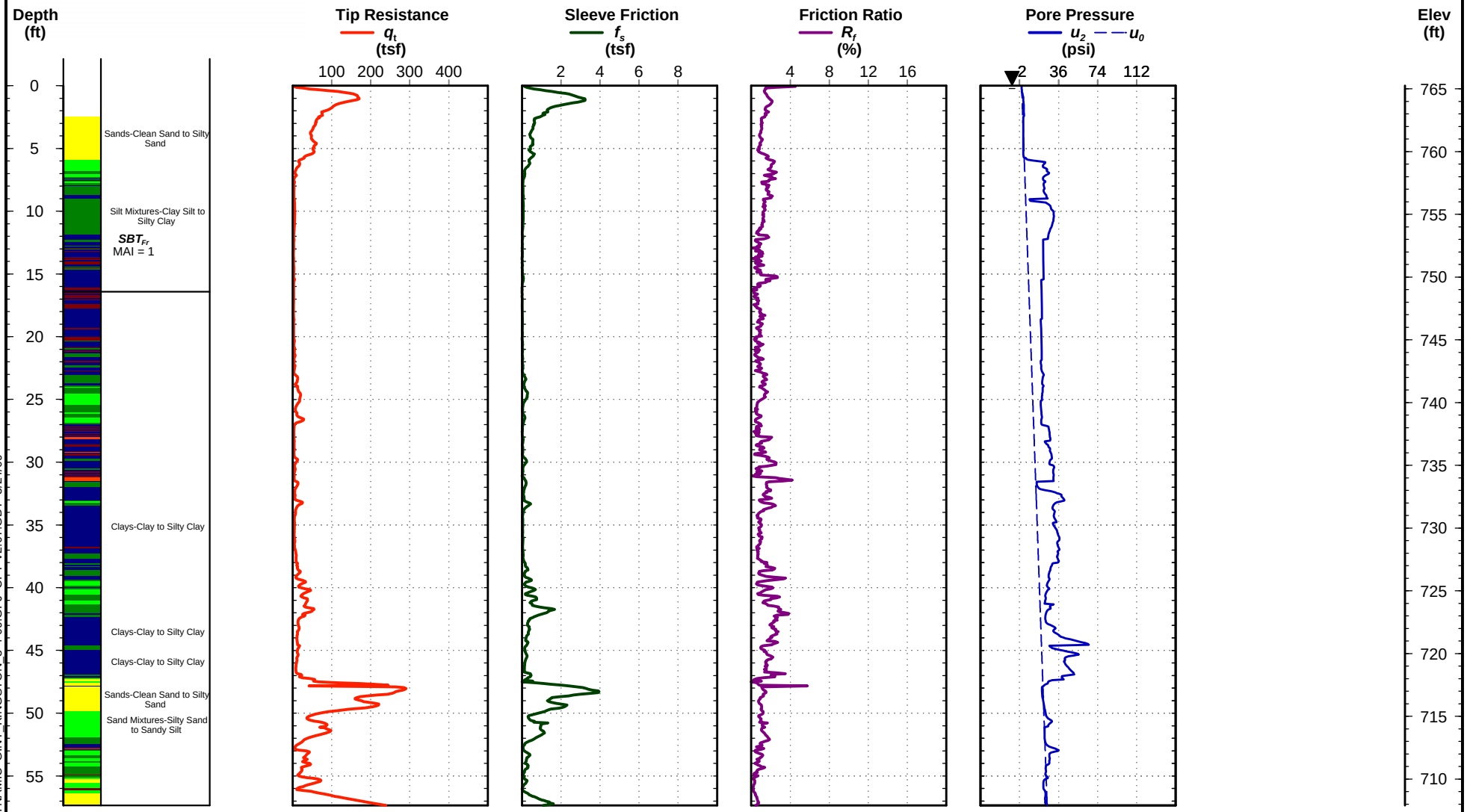
09-703-C1

Project No: 60095742

Date: Feb. 13, 2009
Estimated Water Depth: 0 ft
Rig/Operator: D-120/CAP

Northing: 556133.61
Easting: 2442202.73
Elevation: 765.25 NGVD

Total Depth: 57.4 ft
Termination Criteria: Refusal
Cone Size: 5T Tension Cone



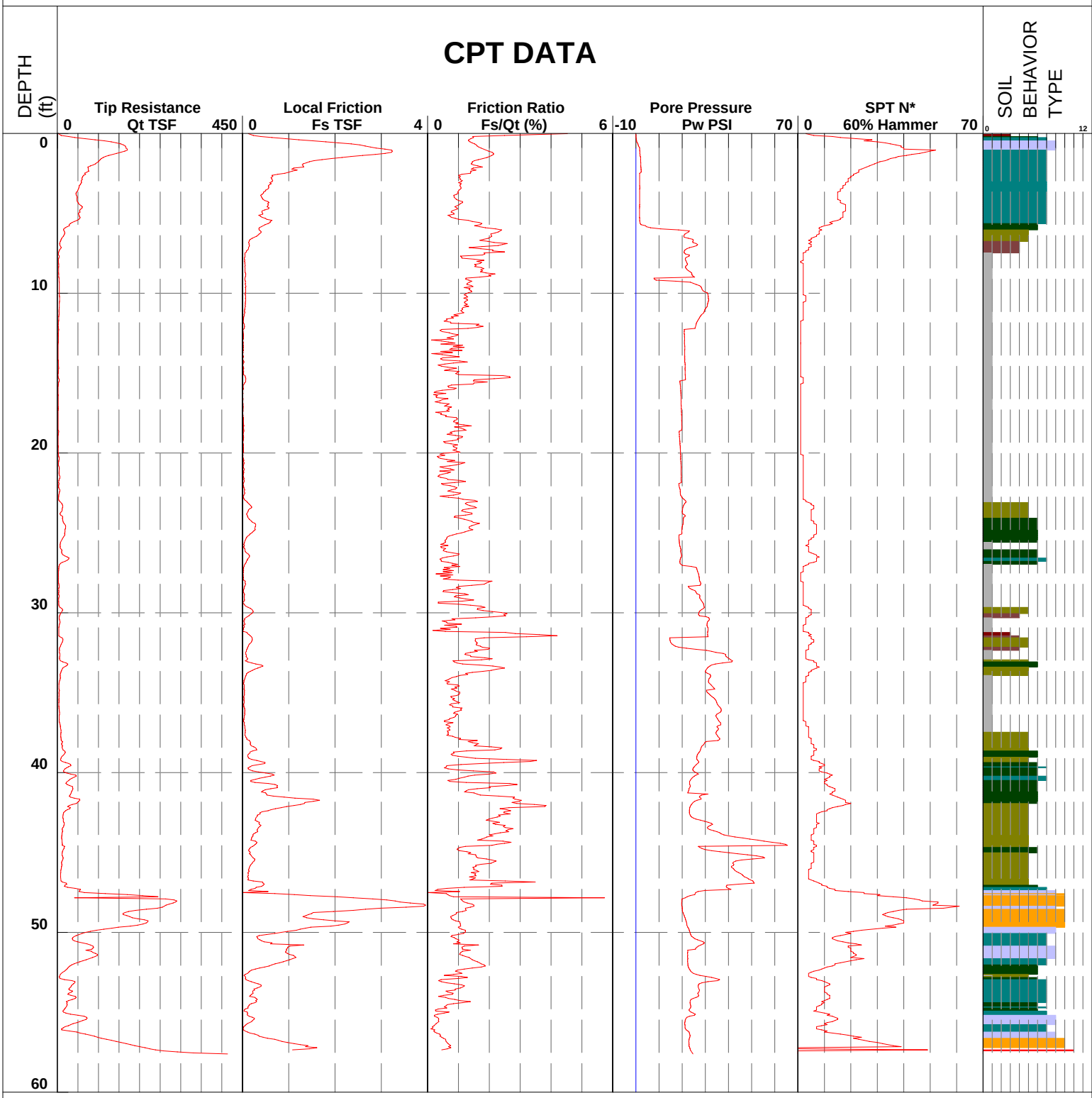
09-703-C1

Electronic Filename: 09-703-C1.cpt

CPT REPORT - DYNAMIC GINT_KINGSTON_3-4-09.GPJ CPT V2.07.GDT 3/24/09

AECOM

09-703-C1	60095742	2/13/2009 9:37:01 AM
DTA1081	TVA-Kingston	D-120/CAP



1 - sensitive fine grained	4 - silty clay to clay	7 - silty sand to sandy silt	10 - gravelly sand to sand
2 - organic material	5 - clayey silt to silty clay	8 - sand to silty sand	11 - very stiff fine grained (*)
3 - clay	6 - sandy silt to clayey silt	9 - sand	12 - sand to clayey sand (*)

Data File:09-703-C1 2/13/2009 9:37:01 AM
Operator:D-120/CAP Location:TVA-Kingston
Cone ID:DTA1081 Job Number:60095742
Customer:TVA Units:

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
0.07	2.82	0.1277	4.533	-0.037	3	3	clay
0.13	9.42	0.2342	2.487	0.028	6	3	clay
0.20	26.93	0.3929	1.459	0.059	13	6	sandy silt to clayey silt
0.26	42.76	0.6363	1.488	0.028	16	7	silty sand to sandy silt
0.33	66.82	0.9351	1.399	0.147	22	7	silty sand to sandy silt
0.39	91.83	1.2207	1.329	0.250	28	7	silty sand to sandy silt
0.46	114.55	1.5209	1.328	0.287	25	8	sand to silty sand
0.52	131.18	1.8052	1.376	0.315	30	8	sand to silty sand
0.59	143.70	2.0707	1.441	0.655	33	8	sand to silty sand
0.66	154.31	2.3474	1.521	0.893	35	8	sand to silty sand
0.72	160.93	2.5357	1.576	1.005	37	8	sand to silty sand
0.79	165.30	2.6522	1.604	1.142	39	8	sand to silty sand
0.85	166.81	2.7658	1.658	1.451	39	8	sand to silty sand
0.92	166.77	2.8873	1.731	1.592	40	8	sand to silty sand
0.98	170.03	3.0775	1.810	1.620	40	8	sand to silty sand
1.05	170.19	3.2216	1.893	1.648	52	7	silty sand to sandy silt
1.12	164.10	3.2392	1.974	1.685	50	7	silty sand to sandy silt
1.18	154.45	3.2216	2.086	1.704	48	7	silty sand to sandy silt
1.25	144.26	3.0810	2.136	1.682	46	7	silty sand to sandy silt
1.31	134.41	2.8690	2.134	1.782	43	7	silty sand to sandy silt
1.38	124.85	2.5967	2.080	1.757	41	7	silty sand to sandy silt
1.44	116.94	2.3485	2.008	1.944	38	7	silty sand to sandy silt
1.51	111.72	2.1492	1.924	1.988	37	7	silty sand to sandy silt
1.57	107.33	1.9284	1.797	1.991	35	7	silty sand to sandy silt
1.64	104.41	1.7174	1.645	1.988	34	7	silty sand to sandy silt
1.71	101.71	1.5430	1.517	2.066	33	7	silty sand to sandy silt
1.77	100.01	1.4507	1.451	2.060	31	7	silty sand to sandy silt
1.84	96.11	1.3863	1.442	2.075	30	7	silty sand to sandy silt
1.90	92.93	1.3102	1.410	2.103	29	7	silty sand to sandy silt
1.97	87.56	1.2930	1.477	2.128	28	7	silty sand to sandy silt
2.03	80.60	1.3105	1.626	2.141	27	7	silty sand to sandy silt
2.10	74.49	1.3242	1.778	2.172	26	7	silty sand to sandy silt
2.17	75.01	1.1088	1.478	2.200	25	7	silty sand to sandy silt
2.23	75.34	1.0699	1.420	2.216	24	7	silty sand to sandy silt
2.30	75.48	1.1819	1.566	2.266	23	7	silty sand to sandy silt
2.36	76.71	1.0730	1.399	2.269	23	7	silty sand to sandy silt
2.43	71.94	1.0080	1.401	2.291	23	7	silty sand to sandy silt
2.49	66.12	0.9159	1.385	1.617	22	7	silty sand to sandy silt
2.56	68.88	0.7635	1.108	1.585	21	7	silty sand to sandy silt
2.62	63.80	0.6416	1.006	1.620	21	7	silty sand to sandy silt
2.69	62.16	0.6578	1.058	1.638	20	7	silty sand to sandy silt
2.76	60.69	0.6191	1.020	1.617	20	7	silty sand to sandy silt
2.82	59.84	0.6310	1.054	1.645	19	7	silty sand to sandy silt
2.89	60.72	0.6388	1.052	1.623	19	7	silty sand to sandy silt
2.95	58.26	0.6556	1.125	1.638	19	7	silty sand to sandy silt
3.02	58.79	0.6383	1.086	1.635	19	7	silty sand to sandy silt
3.08	58.68	0.5878	1.002	1.613	18	7	silty sand to sandy silt
3.15	57.09	0.6202	1.086	1.617	18	7	silty sand to sandy silt
3.22	55.58	0.5853	1.053	1.635	18	7	silty sand to sandy silt
3.28	53.43	0.5594	1.047	1.657	17	7	silty sand to sandy silt
3.35	53.12	0.5698	1.073	1.663	17	7	silty sand to sandy silt
3.41	52.26	0.5676	1.086	1.673	17	7	silty sand to sandy silt
3.48	51.31	0.5494	1.071	1.645	16	7	silty sand to sandy silt
3.54	50.05	0.5074	1.014	1.632	16	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
3.61	49.34	0.4915	0.996	1.657	16	7	silty sand to sandy silt
3.67	46.98	0.4596	0.978	1.645	15	7	silty sand to sandy silt
3.74	45.48	0.4530	0.996	1.623	15	7	silty sand to sandy silt
3.81	45.43	0.4270	0.940	1.604	15	7	silty sand to sandy silt
3.87	46.13	0.3920	0.850	1.601	15	7	silty sand to sandy silt
3.94	47.79	0.4082	0.854	1.657	15	7	silty sand to sandy silt
4.00	48.58	0.4168	0.858	1.648	15	7	silty sand to sandy silt
4.07	47.94	0.4305	0.898	1.632	15	7	silty sand to sandy silt
4.13	47.63	0.4458	0.936	1.632	15	7	silty sand to sandy silt
4.20	48.14	0.4829	1.003	1.626	16	7	silty sand to sandy silt
4.27	48.81	0.5553	1.138	1.610	16	7	silty sand to sandy silt
4.33	50.72	0.5715	1.127	1.598	16	7	silty sand to sandy silt
4.40	51.93	0.5477	1.055	1.617	17	7	silty sand to sandy silt
4.46	54.68	0.5604	1.025	1.585	18	7	silty sand to sandy silt
4.53	57.89	0.5510	0.952	1.570	18	7	silty sand to sandy silt
4.59	60.89	0.5334	0.876	1.601	18	7	silty sand to sandy silt
4.66	60.46	0.5734	0.948	1.570	18	7	silty sand to sandy silt
4.72	57.71	0.5608	0.972	1.548	18	7	silty sand to sandy silt
4.79	55.07	0.4842	0.879	1.542	18	7	silty sand to sandy silt
4.86	53.99	0.4257	0.788	1.548	18	7	silty sand to sandy silt
4.92	55.40	0.4204	0.759	1.560	17	7	silty sand to sandy silt
4.99	51.44	0.4354	0.846	1.576	17	7	silty sand to sandy silt
5.05	51.44	0.4418	0.859	1.563	17	7	silty sand to sandy silt
5.12	53.27	0.3531	0.663	1.557	17	7	silty sand to sandy silt
5.18	53.63	0.3914	0.730	1.554	17	7	silty sand to sandy silt
5.25	55.31	0.4222	0.763	1.551	17	7	silty sand to sandy silt
5.31	54.94	0.4935	0.898	1.592	16	7	silty sand to sandy silt
5.38	52.23	0.5259	1.007	1.626	16	7	silty sand to sandy silt
5.45	48.33	0.6398	1.324	1.645	15	7	silty sand to sandy silt
5.51	41.41	0.6001	1.449	1.698	13	7	silty sand to sandy silt
5.58	35.87	0.5976	1.666	1.754	12	7	silty sand to sandy silt
5.64	31.62	0.5559	1.758	1.866	13	6	sandy silt to clayey silt
5.71	28.72	0.4904	1.708	2.209	12	6	sandy silt to clayey silt
5.77	29.45	0.4488	1.524	4.116	10	6	sandy silt to clayey silt
5.84	24.00	0.4059	1.691	4.556	9	6	sandy silt to clayey silt
5.91	19.39	0.3633	1.874	6.351	8	6	sandy silt to clayey silt
5.97	16.15	0.3553	2.200	10.651	8	6	sandy silt to clayey silt
6.04	15.09	0.3617	2.397	18.431	9	5	clayey silt to silty clay
6.10	16.56	0.3894	2.351	23.078	8	5	clayey silt to silty clay
6.17	17.64	0.4045	2.293	22.759	8	5	clayey silt to silty clay
6.23	18.06	0.3944	2.184	21.989	8	5	clayey silt to silty clay
6.30	17.69	0.3619	2.046	21.205	8	5	clayey silt to silty clay
6.36	16.40	0.3374	2.058	20.840	7	5	clayey silt to silty clay
6.43	14.69	0.3055	2.080	20.665	7	5	clayey silt to silty clay
6.50	12.58	0.2554	2.030	20.934	6	5	clayey silt to silty clay
6.56	10.71	0.2109	1.970	22.650	5	5	clayey silt to silty clay
6.63	9.46	0.1722	1.821	24.535	5	5	clayey silt to silty clay
6.69	8.78	0.1489	1.696	24.800	4	5	clayey silt to silty clay
6.76	7.38	0.1442	1.955	24.541	5	4	silty clay to clay
6.82	6.15	0.1323	2.153	24.597	5	4	silty clay to clay
6.89	5.64	0.1453	2.578	25.958	4	4	silty clay to clay
6.96	5.89	0.1427	2.424	26.685	5	4	silty clay to clay
7.02	6.67	0.1523	2.283	26.323	5	4	silty clay to clay
7.09	8.19	0.1443	1.761	24.984	5	4	silty clay to clay
7.15	9.67	0.1301	1.346	23.203	4	4	silty clay to clay
7.22	7.77	0.1336	1.719	22.026	4	4	silty clay to clay
7.28	5.53	0.1170	2.115	21.249	4	4	silty clay to clay
7.35	4.26	0.0898	2.107	20.924	3	4	silty clay to clay
7.41	3.44	0.0860	2.497	20.818	3	4	silty clay to clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
7.48	3.08	0.0563	1.826	20.878	2	1	sensitive fine grained
7.55	2.71	0.0503	1.856	21.383	2	1	sensitive fine grained
7.61	3.08	0.0548	1.781	23.065	2	1	sensitive fine grained
7.68	5.12	0.0545	1.063	22.993	2	1	sensitive fine grained
7.74	4.56	0.0502	1.102	21.957	2	1	sensitive fine grained
7.81	3.52	0.0392	1.113	21.408	2	1	sensitive fine grained
7.87	2.95	0.0444	1.502	21.330	2	1	sensitive fine grained
7.94	2.70	0.0493	1.825	21.514	2	1	sensitive fine grained
8.01	2.77	0.0442	1.593	21.686	1	1	sensitive fine grained
8.07	2.91	0.0510	1.751	21.876	1	1	sensitive fine grained
8.14	3.11	0.0527	1.697	22.154	2	1	sensitive fine grained
8.20	3.57	0.0546	1.527	22.285	2	1	sensitive fine grained
8.27	3.70	0.0584	1.578	21.751	2	1	sensitive fine grained
8.33	3.43	0.0526	1.531	21.442	2	1	sensitive fine grained
8.40	3.19	0.0557	1.745	21.393	2	1	sensitive fine grained
8.46	3.14	0.0572	1.822	21.755	2	1	sensitive fine grained
8.53	3.20	0.0551	1.724	22.138	2	1	sensitive fine grained
8.60	3.17	0.0563	1.778	22.678	2	1	sensitive fine grained
8.66	3.32	0.0568	1.714	23.399	2	1	sensitive fine grained
8.73	3.22	0.0609	1.890	24.014	2	1	sensitive fine grained
8.79	3.35	0.0732	2.185	24.211	2	1	sensitive fine grained
8.86	3.39	0.0670	1.975	24.207	2	1	sensitive fine grained
8.92	3.48	0.0714	2.048	24.591	2	1	sensitive fine grained
8.99	3.55	0.0598	1.687	25.409	2	1	sensitive fine grained
9.06	4.45	0.0552	1.241	7.786	2	1	sensitive fine grained
9.12	4.31	0.0531	1.232	7.986	2	1	sensitive fine grained
9.19	4.33	0.0578	1.334	8.701	2	1	sensitive fine grained
9.25	4.46	0.0639	1.431	17.223	2	1	sensitive fine grained
9.32	4.84	0.0657	1.358	23.561	2	1	sensitive fine grained
9.38	4.96	0.0637	1.286	24.803	2	1	sensitive fine grained
9.45	4.87	0.0619	1.270	26.077	2	1	sensitive fine grained
9.51	4.91	0.0692	1.410	27.319	2	1	sensitive fine grained
9.58	5.12	0.0753	1.472	28.005	2	1	sensitive fine grained
9.65	5.15	0.0608	1.181	28.261	2	1	sensitive fine grained
9.71	5.14	0.0708	1.376	28.464	2	1	sensitive fine grained
9.78	5.10	0.0683	1.340	28.639	2	1	sensitive fine grained
9.84	5.04	0.0709	1.408	28.988	2	1	sensitive fine grained
9.91	4.85	0.0695	1.434	29.628	2	1	sensitive fine grained
9.97	4.77	0.0630	1.320	30.780	2	1	sensitive fine grained
10.04	4.89	0.0607	1.241	31.076	2	1	sensitive fine grained
10.10	5.10	0.0606	1.187	31.139	2	1	sensitive fine grained
10.17	5.37	0.0673	1.253	31.207	3	1	sensitive fine grained
10.24	5.54	0.0721	1.302	31.260	3	1	sensitive fine grained
10.30	5.56	0.0653	1.174	31.298	3	1	sensitive fine grained
10.37	5.48	0.0694	1.268	31.351	3	1	sensitive fine grained
10.43	5.47	0.0709	1.296	31.391	3	1	sensitive fine grained
10.50	5.41	0.0670	1.239	31.316	3	1	sensitive fine grained
10.56	5.32	0.0632	1.190	31.173	2	1	sensitive fine grained
10.63	5.08	0.0617	1.215	31.045	2	1	sensitive fine grained
10.70	4.93	0.0634	1.286	30.933	2	1	sensitive fine grained
10.76	4.74	0.0563	1.188	30.867	2	1	sensitive fine grained
10.83	4.73	0.0630	1.331	30.780	2	1	sensitive fine grained
10.89	4.74	0.0546	1.152	30.461	2	1	sensitive fine grained
10.96	4.55	0.0508	1.116	30.046	2	1	sensitive fine grained
11.02	4.34	0.0492	1.134	29.765	2	1	sensitive fine grained
11.09	4.21	0.0452	1.075	29.625	2	1	sensitive fine grained
11.15	4.23	0.0474	1.119	29.478	2	1	sensitive fine grained
11.22	4.31	0.0506	1.173	29.304	2	1	sensitive fine grained
11.29	4.36	0.0437	1.004	28.832	2	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
11.35	4.08	0.0348	0.852	28.342	2	1	sensitive fine grained
11.42	3.91	0.0388	0.994	27.962	2	1	sensitive fine grained
11.48	3.69	0.0283	0.767	27.706	2	1	sensitive fine grained
11.55	3.55	0.0295	0.833	27.406	2	1	sensitive fine grained
11.61	3.45	0.0212	0.614	27.166	2	1	sensitive fine grained
11.68	3.40	0.0215	0.631	26.882	2	1	sensitive fine grained
11.75	3.11	0.0166	0.533	26.579	1	1	sensitive fine grained
11.81	2.90	0.0217	0.750	26.301	1	1	sensitive fine grained
11.88	2.68	0.0200	0.747	26.120	1	1	sensitive fine grained
11.94	2.52	0.0419	1.662	26.036	1	1	sensitive fine grained
12.01	2.54	0.0400	1.575	25.918	1	1	sensitive fine grained
12.07	2.57	0.0462	1.796	25.755	1	1	sensitive fine grained
12.14	2.68	0.0436	1.627	25.665	1	1	sensitive fine grained
12.20	2.91	0.0380	1.308	25.543	1	1	sensitive fine grained
12.27	3.50	0.0160	0.459	20.884	1	1	sensitive fine grained
12.34	3.26	0.0132	0.404	20.909	1	1	sensitive fine grained
12.40	3.01	0.0141	0.469	20.878	1	1	sensitive fine grained
12.47	2.66	0.0186	0.699	20.878	1	1	sensitive fine grained
12.53	2.40	0.0192	0.798	20.884	1	1	sensitive fine grained
12.60	2.47	0.0247	0.997	20.949	1	1	sensitive fine grained
12.66	2.61	0.0239	0.916	21.015	1	1	sensitive fine grained
12.73	2.82	0.0221	0.782	21.002	1	1	sensitive fine grained
12.80	2.80	0.0177	0.632	21.031	1	1	sensitive fine grained
12.86	2.87	0.0240	0.835	21.024	1	1	sensitive fine grained
12.93	2.87	0.0036	0.125	21.031	1	1	sensitive fine grained
12.99	2.79	0.0125	0.449	20.993	1	1	sensitive fine grained
13.06	2.55	0.0171	0.670	20.990	1	1	sensitive fine grained
13.12	2.46	0.0219	0.889	21.006	1	1	sensitive fine grained
13.19	2.38	0.0102	0.430	21.006	1	1	sensitive fine grained
13.25	2.18	0.0247	1.131	21.093	1	1	sensitive fine grained
13.32	2.08	0.0173	0.831	21.112	1	1	sensitive fine grained
13.39	2.12	0.0251	1.182	21.109	1	1	sensitive fine grained
13.45	2.09	0.0163	0.782	21.127	1	1	sensitive fine grained
13.52	2.20	0.0157	0.713	21.137	1	1	sensitive fine grained
13.58	2.24	0.0251	1.120	21.065	1	1	sensitive fine grained
13.65	2.12	0.0089	0.419	21.090	1	1	sensitive fine grained
13.71	2.31	0.0185	0.803	21.090	1	1	sensitive fine grained
13.78	2.30	0.0031	0.136	21.080	1	1	sensitive fine grained
13.85	2.38	0.0111	0.468	21.062	1	1	sensitive fine grained
13.91	2.34	0.0173	0.739	21.087	1	1	sensitive fine grained
13.98	2.36	0.0242	1.025	21.105	1	1	sensitive fine grained
14.04	2.34	0.0115	0.491	21.068	1	1	sensitive fine grained
14.11	2.21	0.0093	0.419	21.102	1	1	sensitive fine grained
14.17	2.39	0.0117	0.490	21.109	1	1	sensitive fine grained
14.24	2.52	0.0264	1.048	21.090	1	1	sensitive fine grained
14.30	2.67	0.0343	1.287	21.105	1	1	sensitive fine grained
14.37	2.87	0.0240	0.835	21.187	1	1	sensitive fine grained
14.44	2.98	0.0166	0.558	21.227	1	1	sensitive fine grained
14.50	2.89	0.0098	0.340	21.283	1	1	sensitive fine grained
14.57	3.01	0.0134	0.446	21.286	1	1	sensitive fine grained
14.63	3.17	0.0207	0.652	21.271	1	1	sensitive fine grained
14.70	3.36	0.0316	0.939	21.224	1	1	sensitive fine grained
14.76	2.96	0.0210	0.708	21.246	1	1	sensitive fine grained
14.83	2.84	0.0155	0.546	21.268	1	1	sensitive fine grained
14.90	2.58	0.0263	1.018	21.286	1	1	sensitive fine grained
14.96	2.45	0.0237	0.965	21.293	1	1	sensitive fine grained
15.03	2.29	0.0208	0.908	21.277	1	1	sensitive fine grained
15.09	2.33	0.0234	1.006	21.286	1	1	sensitive fine grained
15.16	2.31	0.0564	2.445	21.336	1	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
15.22	2.31	0.0616	2.662	21.371	1	1	sensitive fine grained
15.29	2.53	0.0676	2.679	21.358	2	1	sensitive fine grained
15.35	3.44	0.0742	2.159	21.389	2	1	sensitive fine grained
15.42	4.79	0.0718	1.500	21.402	2	1	sensitive fine grained
15.49	4.66	0.0692	1.485	19.024	2	1	sensitive fine grained
15.55	3.59	0.0693	1.929	19.027	2	1	sensitive fine grained
15.62	3.04	0.0457	1.502	19.061	2	1	sensitive fine grained
15.68	2.74	0.0405	1.481	19.121	1	1	sensitive fine grained
15.75	2.48	0.0192	0.775	19.177	1	1	sensitive fine grained
15.81	2.28	0.0150	0.657	19.236	1	1	sensitive fine grained
15.88	2.30	0.0155	0.673	19.255	1	1	sensitive fine grained
15.94	2.29	0.0214	0.935	19.267	1	1	sensitive fine grained
16.01	2.29	0.0195	0.851	19.308	1	1	sensitive fine grained
16.08	2.24	0.0107	0.476	19.367	1	1	sensitive fine grained
16.14	2.37	0.0067	0.283	19.380	1	1	sensitive fine grained
16.21	2.29	0.0047	0.207	19.392	1	1	sensitive fine grained
16.27	2.29	0.0136	0.592	19.414	1	1	sensitive fine grained
16.34	2.38	0.0046	0.193	19.426	1	1	sensitive fine grained
16.40	2.56	0.0081	0.317	19.445	1	1	sensitive fine grained
16.47	2.56	0.0069	0.270	19.473	1	1	sensitive fine grained
16.54	2.51	0.0074	0.293	19.483	1	1	sensitive fine grained
16.60	2.46	0.0163	0.662	19.492	1	1	sensitive fine grained
16.67	2.48	0.0118	0.475	19.517	1	1	sensitive fine grained
16.73	2.45	0.0097	0.394	19.536	1	1	sensitive fine grained
16.80	2.45	0.0060	0.245	19.548	1	1	sensitive fine grained
16.86	2.52	0.0102	0.403	19.545	1	1	sensitive fine grained
16.93	2.47	0.0173	0.702	19.542	1	1	sensitive fine grained
16.99	2.47	0.0153	0.622	19.573	1	1	sensitive fine grained
17.06	2.45	0.0134	0.545	19.592	1	1	sensitive fine grained
17.13	2.42	0.0188	0.775	19.620	1	1	sensitive fine grained
17.19	2.39	0.0157	0.658	19.626	1	1	sensitive fine grained
17.26	2.42	0.0169	0.700	19.629	1	1	sensitive fine grained
17.32	2.36	0.0146	0.620	19.632	1	1	sensitive fine grained
17.39	2.36	0.0163	0.691	19.667	1	1	sensitive fine grained
17.45	2.25	0.0059	0.261	19.670	1	1	sensitive fine grained
17.52	2.25	0.0100	0.447	19.689	1	1	sensitive fine grained
17.59	2.24	0.0095	0.426	19.698	1	1	sensitive fine grained
17.65	2.25	0.0135	0.600	19.726	1	1	sensitive fine grained
17.72	2.25	0.0132	0.585	19.714	1	1	sensitive fine grained
17.78	2.39	0.0221	0.924	19.748	1	1	sensitive fine grained
17.85	2.29	0.0220	0.962	19.764	1	1	sensitive fine grained
17.91	2.24	0.0213	0.951	19.785	1	1	sensitive fine grained
17.98	2.28	0.0196	0.859	19.779	1	1	sensitive fine grained
18.04	2.24	0.0187	0.837	19.804	1	1	sensitive fine grained
18.11	2.22	0.0221	0.992	19.792	1	1	sensitive fine grained
18.18	2.21	0.0201	0.912	19.792	1	1	sensitive fine grained
18.24	2.20	0.0258	1.172	19.820	1	1	sensitive fine grained
18.31	2.26	0.0320	1.419	19.832	1	1	sensitive fine grained
18.37	2.28	0.0198	0.871	19.832	1	1	sensitive fine grained
18.44	2.30	0.0249	1.082	19.832	1	1	sensitive fine grained
18.50	2.30	0.0270	1.174	19.788	1	1	sensitive fine grained
18.57	2.40	0.0299	1.246	19.785	1	1	sensitive fine grained
18.64	3.68	0.0320	0.869	18.693	1	1	sensitive fine grained
18.70	3.16	0.0231	0.731	18.671	1	1	sensitive fine grained
18.77	2.68	0.0213	0.794	18.699	1	1	sensitive fine grained
18.83	2.44	0.0153	0.628	18.737	1	1	sensitive fine grained
18.90	2.38	0.0212	0.893	18.762	1	1	sensitive fine grained
18.96	2.26	0.0254	1.128	18.790	1	1	sensitive fine grained
19.03	2.34	0.0262	1.119	18.834	1	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
19.09	2.39	0.0230	0.965	18.877	1	1	sensitive fine grained
19.16	2.41	0.0240	0.999	18.924	1	1	sensitive fine grained
19.23	2.35	0.0189	0.802	18.958	1	1	sensitive fine grained
19.29	2.33	0.0121	0.518	18.986	1	1	sensitive fine grained
19.36	2.31	0.0132	0.569	19.011	1	1	sensitive fine grained
19.42	2.30	0.0174	0.756	19.068	1	1	sensitive fine grained
19.49	2.28	0.0221	0.968	19.055	1	1	sensitive fine grained
19.55	2.30	0.0189	0.824	19.149	1	1	sensitive fine grained
19.62	2.46	0.0208	0.848	19.133	1	1	sensitive fine grained
19.69	2.53	0.0240	0.949	19.161	1	1	sensitive fine grained
19.75	2.51	0.0234	0.932	19.155	1	1	sensitive fine grained
19.82	2.52	0.0207	0.822	19.189	1	1	sensitive fine grained
19.88	2.46	0.0230	0.935	19.224	1	1	sensitive fine grained
19.95	2.57	0.0270	1.051	19.252	1	1	sensitive fine grained
20.01	2.50	0.0128	0.511	19.283	1	1	sensitive fine grained
20.08	2.72	0.0107	0.395	19.317	1	1	sensitive fine grained
20.14	2.98	0.0165	0.553	19.367	2	1	sensitive fine grained
20.21	3.44	0.0105	0.305	19.355	2	1	sensitive fine grained
20.28	4.14	0.0144	0.349	19.330	2	1	sensitive fine grained
20.34	4.53	0.0188	0.415	19.373	2	1	sensitive fine grained
20.41	4.28	0.0264	0.617	19.327	2	1	sensitive fine grained
20.47	3.74	0.0329	0.878	19.367	2	1	sensitive fine grained
20.54	3.35	0.0214	0.638	19.383	2	1	sensitive fine grained
20.60	2.95	0.0357	1.210	19.426	2	1	sensitive fine grained
20.67	3.04	0.0332	1.092	19.423	2	1	sensitive fine grained
20.73	2.80	0.0261	0.933	19.498	2	1	sensitive fine grained
20.80	3.15	0.0226	0.718	19.514	2	1	sensitive fine grained
20.87	4.37	0.0175	0.399	19.589	2	1	sensitive fine grained
20.93	4.88	0.0253	0.519	19.586	2	1	sensitive fine grained
21.00	4.88	0.0365	0.748	19.586	2	1	sensitive fine grained
21.06	4.70	0.0405	0.861	19.470	2	1	sensitive fine grained
21.13	4.35	0.0171	0.392	19.542	2	1	sensitive fine grained
21.19	4.30	0.0322	0.749	19.542	2	1	sensitive fine grained
21.26	4.07	0.0267	0.655	19.558	2	1	sensitive fine grained
21.33	4.38	0.0214	0.488	19.545	2	1	sensitive fine grained
21.39	5.06	0.0193	0.381	19.589	2	1	sensitive fine grained
21.46	6.27	0.0207	0.330	19.601	2	1	sensitive fine grained
21.52	6.20	0.0267	0.430	19.595	2	1	sensitive fine grained
21.59	5.74	0.0350	0.610	19.536	2	1	sensitive fine grained
21.65	4.53	0.0297	0.656	19.567	2	1	sensitive fine grained
21.72	3.93	0.0418	1.065	19.586	2	1	sensitive fine grained
21.78	3.38	0.0416	1.232	19.629	2	1	sensitive fine grained
21.85	3.19	0.0280	0.879	19.667	2	1	sensitive fine grained
21.92	4.12	0.0185	0.449	18.543	2	1	sensitive fine grained
21.98	3.42	0.0173	0.505	18.624	2	1	sensitive fine grained
22.05	3.25	0.0237	0.728	18.646	2	1	sensitive fine grained
22.11	3.21	0.0277	0.865	18.706	2	1	sensitive fine grained
22.18	3.41	0.0324	0.951	18.846	2	1	sensitive fine grained
22.24	4.61	0.0418	0.907	19.027	2	1	sensitive fine grained
22.31	6.33	0.0487	0.769	19.142	2	1	sensitive fine grained
22.38	5.93	0.0388	0.654	19.108	2	1	sensitive fine grained
22.44	5.26	0.0436	0.829	19.155	2	1	sensitive fine grained
22.51	4.83	0.0518	1.071	19.174	2	1	sensitive fine grained
22.57	4.21	0.0423	1.003	19.205	2	1	sensitive fine grained
22.64	3.76	0.0317	0.842	19.330	2	1	sensitive fine grained
22.70	3.52	0.0141	0.400	19.611	2	1	sensitive fine grained
22.77	3.25	0.0219	0.676	19.845	2	1	sensitive fine grained
22.83	3.09	0.0315	1.019	20.260	2	1	sensitive fine grained
22.90	3.33	0.0382	1.148	20.784	2	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
22.97	3.94	0.0602	1.527	21.280	3	1	sensitive fine grained
23.03	5.97	0.0963	1.613	21.667	3	1	sensitive fine grained
23.10	8.58	0.1090	1.271	21.514	4	5	clayey silt to silty clay
23.16	11.02	0.1345	1.220	21.059	5	5	clayey silt to silty clay
23.23	12.28	0.1572	1.280	20.775	5	5	clayey silt to silty clay
23.29	13.04	0.1794	1.375	20.547	6	5	clayey silt to silty clay
23.36	13.09	0.1991	1.521	20.378	6	5	clayey silt to silty clay
23.43	12.57	0.1991	1.584	20.241	6	5	clayey silt to silty clay
23.49	11.94	0.1589	1.331	20.182	6	5	clayey silt to silty clay
23.56	11.76	0.1337	1.137	20.135	5	5	clayey silt to silty clay
23.62	11.41	0.1258	1.103	20.038	5	5	clayey silt to silty clay
23.69	9.52	0.1162	1.221	20.029	5	5	clayey silt to silty clay
23.75	7.20	0.1035	1.437	20.051	5	5	clayey silt to silty clay
23.82	6.26	0.0902	1.441	20.322	5	5	clayey silt to silty clay
23.88	8.28	0.1020	1.233	21.118	5	5	clayey silt to silty clay
23.95	12.29	0.1098	0.893	21.399	5	5	clayey silt to silty clay
24.02	13.07	0.1122	0.859	20.681	5	5	clayey silt to silty clay
24.08	12.43	0.1332	1.072	20.556	5	6	sandy silt to clayey silt
24.15	12.81	0.1519	1.186	20.519	5	6	sandy silt to clayey silt
24.21	13.36	0.1766	1.322	20.481	5	6	sandy silt to clayey silt
24.28	13.97	0.1999	1.431	20.428	6	6	sandy silt to clayey silt
24.34	14.80	0.2185	1.477	20.434	6	6	sandy silt to clayey silt
24.41	16.30	0.2735	1.678	20.400	6	6	sandy silt to clayey silt
24.48	18.48	0.2869	1.553	20.282	7	6	sandy silt to clayey silt
24.54	19.91	0.2850	1.431	20.138	7	6	sandy silt to clayey silt
24.61	20.50	0.2778	1.355	20.001	7	6	sandy silt to clayey silt
24.67	20.32	0.2729	1.343	19.954	7	6	sandy silt to clayey silt
24.74	19.49	0.2667	1.368	19.876	7	6	sandy silt to clayey silt
24.80	18.93	0.2775	1.466	19.845	7	6	sandy silt to clayey silt
24.87	18.77	0.2476	1.319	19.851	7	6	sandy silt to clayey silt
24.93	18.51	0.2247	1.214	19.851	7	6	sandy silt to clayey silt
25.00	18.04	0.1976	1.095	19.885	7	6	sandy silt to clayey silt
25.07	17.95	0.1676	0.934	19.863	7	6	sandy silt to clayey silt
25.13	18.15	0.1484	0.818	18.640	6	6	sandy silt to clayey silt
25.20	16.74	0.1174	0.702	18.615	6	6	sandy silt to clayey silt
25.26	14.86	0.0937	0.630	18.606	6	6	sandy silt to clayey silt
25.33	13.27	0.0823	0.620	18.612	5	6	sandy silt to clayey silt
25.39	11.75	0.0714	0.608	18.628	5	6	sandy silt to clayey silt
25.46	10.36	0.0588	0.567	18.690	4	6	sandy silt to clayey silt
25.52	9.06	0.0520	0.574	18.718	4	6	sandy silt to clayey silt
25.59	7.91	0.0456	0.577	18.756	4	1	sensitive fine grained
25.66	7.25	0.0378	0.522	18.805	4	1	sensitive fine grained
25.72	6.87	0.0286	0.417	18.871	4	1	sensitive fine grained
25.79	6.90	0.0456	0.661	18.961	3	1	sensitive fine grained
25.85	7.10	0.0300	0.423	19.093	4	1	sensitive fine grained
25.92	6.94	0.0307	0.442	19.192	4	1	sensitive fine grained
25.98	8.03	0.0473	0.589	19.327	4	1	sensitive fine grained
26.05	10.82	0.0565	0.522	19.423	4	6	sandy silt to clayey silt
26.12	11.09	0.0561	0.506	19.348	4	6	sandy silt to clayey silt
26.18	10.59	0.0643	0.607	19.364	4	6	sandy silt to clayey silt
26.25	10.81	0.0880	0.814	19.455	5	6	sandy silt to clayey silt
26.31	12.03	0.1229	1.022	19.620	6	6	sandy silt to clayey silt
26.38	14.33	0.1430	0.998	19.685	7	6	sandy silt to clayey silt
26.44	18.50	0.1556	0.841	19.735	7	6	sandy silt to clayey silt
26.51	24.36	0.1519	0.624	19.601	8	6	sandy silt to clayey silt
26.57	28.22	0.1328	0.471	19.336	7	7	silty sand to sandy silt
26.64	27.54	0.1089	0.396	19.164	7	7	silty sand to sandy silt
26.71	24.50	0.1084	0.443	19.061	7	7	silty sand to sandy silt
26.77	19.19	0.0846	0.441	18.993	7	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
26.84	12.50	0.0831	0.664	18.980	6	6	sandy silt to clayey silt
26.90	7.99	0.0643	0.805	19.089	4	6	sandy silt to clayey silt
26.97	5.84	0.0570	0.976	19.436	4	1	sensitive fine grained
27.03	4.73	0.0370	0.783	20.041	3	1	sensitive fine grained
27.10	3.98	0.0416	1.045	24.048	2	1	sensitive fine grained
27.17	3.81	0.0206	0.540	26.055	2	1	sensitive fine grained
27.23	3.62	0.0260	0.720	26.320	2	1	sensitive fine grained
27.30	3.45	0.0173	0.502	26.373	2	1	sensitive fine grained
27.36	3.23	0.0272	0.841	26.551	2	1	sensitive fine grained
27.43	3.02	0.0152	0.502	26.667	2	1	sensitive fine grained
27.49	2.97	0.0235	0.793	26.888	1	1	sensitive fine grained
27.56	2.90	0.0079	0.271	27.025	1	1	sensitive fine grained
27.62	2.86	0.0233	0.817	27.166	1	1	sensitive fine grained
27.69	2.97	0.0122	0.411	27.210	1	1	sensitive fine grained
27.76	2.96	0.0221	0.746	27.313	1	1	sensitive fine grained
27.82	2.97	0.0204	0.687	27.350	1	1	sensitive fine grained
27.89	3.01	0.0152	0.506	27.419	1	1	sensitive fine grained
27.95	2.83	0.0280	0.991	27.450	1	1	sensitive fine grained
28.02	2.95	0.0616	2.087	27.556	1	1	sensitive fine grained
28.08	2.88	0.0568	1.970	27.856	2	1	sensitive fine grained
28.15	3.18	0.0602	1.893	28.037	2	1	sensitive fine grained
28.22	3.86	0.0708	1.836	27.962	2	1	sensitive fine grained
28.28	4.04	0.0577	1.428	27.696	2	1	sensitive fine grained
28.35	4.68	0.0479	1.023	22.647	2	1	sensitive fine grained
28.41	4.04	0.0374	0.925	22.850	2	1	sensitive fine grained
28.48	3.52	0.0373	1.060	23.455	2	1	sensitive fine grained
28.54	3.46	0.0282	0.814	24.282	2	1	sensitive fine grained
28.61	3.76	0.0196	0.521	25.465	2	1	sensitive fine grained
28.67	3.84	0.0192	0.501	25.886	2	1	sensitive fine grained
28.74	3.56	0.0283	0.795	26.021	2	1	sensitive fine grained
28.81	3.31	0.0400	1.208	26.329	2	1	sensitive fine grained
28.87	3.57	0.0471	1.319	27.437	2	1	sensitive fine grained
28.94	4.51	0.0414	0.918	27.634	2	1	sensitive fine grained
29.00	4.33	0.0371	0.858	27.600	2	1	sensitive fine grained
29.07	3.69	0.0384	1.042	27.512	2	1	sensitive fine grained
29.13	3.20	0.0396	1.240	27.806	2	1	sensitive fine grained
29.20	3.15	0.0469	1.492	28.136	2	1	sensitive fine grained
29.27	3.30	0.0371	1.124	28.442	2	1	sensitive fine grained
29.33	3.40	0.0118	0.346	28.770	2	1	sensitive fine grained
29.40	3.70	0.0127	0.344	29.085	2	1	sensitive fine grained
29.46	3.66	0.0363	0.991	29.204	2	1	sensitive fine grained
29.53	3.82	0.0533	1.394	29.338	2	1	sensitive fine grained
29.59	4.27	0.0738	1.728	29.422	3	1	sensitive fine grained
29.66	6.65	0.1238	1.861	29.547	4	5	clayey silt to silty clay
29.72	10.58	0.1712	1.618	29.260	4	5	clayey silt to silty clay
29.79	12.80	0.2060	1.610	28.420	5	5	clayey silt to silty clay
29.86	12.53	0.2244	1.791	27.759	5	5	clayey silt to silty clay
29.92	11.14	0.2333	2.094	27.409	5	5	clayey silt to silty clay
29.99	9.34	0.2242	2.399	27.197	5	5	clayey silt to silty clay
30.05	7.81	0.2011	2.574	27.066	5	4	silty clay to clay
30.12	6.60	0.1630	2.470	27.047	5	4	silty clay to clay
30.18	5.60	0.1416	2.527	27.456	4	4	silty clay to clay
30.25	4.89	0.1043	2.132	30.430	4	4	silty clay to clay
30.31	4.60	0.0716	1.557	31.479	3	1	sensitive fine grained
30.38	4.99	0.0391	0.785	31.703	3	1	sensitive fine grained
30.45	5.59	0.0495	0.887	31.691	3	1	sensitive fine grained
30.51	6.05	0.0287	0.475	31.285	3	1	sensitive fine grained
30.58	6.99	0.0428	0.612	30.886	3	1	sensitive fine grained
30.64	5.86	0.0377	0.644	30.752	3	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
30.71	5.47	0.0601	1.098	30.695	3	1	sensitive fine grained
30.77	4.59	0.0253	0.551	30.661	2	1	sensitive fine grained
30.84	4.30	0.0396	0.921	30.786	2	1	sensitive fine grained
30.91	3.86	0.0366	0.950	31.061	2	1	sensitive fine grained
30.97	3.99	0.0165	0.413	31.163	2	1	sensitive fine grained
31.04	3.92	0.0286	0.732	31.160	2	1	sensitive fine grained
31.10	4.00	0.0068	0.169	31.182	2	1	sensitive fine grained
31.17	3.80	0.0218	0.574	31.048	2	1	sensitive fine grained
31.23	3.90	0.0984	2.522	30.945	4	3	clay
31.30	3.90	0.1109	2.841	30.979	4	3	clay
31.36	3.89	0.1408	3.617	30.942	5	3	clay
31.43	4.01	0.1685	4.200	31.054	4	4	silty clay to clay
31.50	6.08	0.1948	3.205	31.213	5	4	silty clay to clay
31.56	11.29	0.2073	1.835	14.614	5	5	clayey silt to silty clay
31.63	13.67	0.2112	1.545	14.692	5	5	clayey silt to silty clay
31.69	13.79	0.2137	1.550	14.720	6	5	clayey silt to silty clay
31.76	13.33	0.2051	1.538	14.777	6	5	clayey silt to silty clay
31.82	12.42	0.1952	1.572	14.933	6	5	clayey silt to silty clay
31.89	11.06	0.1783	1.613	15.198	5	5	clayey silt to silty clay
31.96	9.76	0.1536	1.574	15.604	5	5	clayey silt to silty clay
32.02	8.54	0.1355	1.586	16.221	4	5	clayey silt to silty clay
32.09	7.47	0.1279	1.711	16.967	4	5	clayey silt to silty clay
32.15	6.41	0.1135	1.772	18.453	4	4	silty clay to clay
32.22	5.39	0.1082	2.008	21.829	4	4	silty clay to clay
32.28	4.88	0.0960	1.967	26.058	4	4	silty clay to clay
32.35	5.61	0.0854	1.523	30.605	3	1	sensitive fine grained
32.41	5.25	0.0846	1.610	32.780	3	1	sensitive fine grained
32.48	4.95	0.0685	1.385	34.574	3	1	sensitive fine grained
32.55	5.88	0.0722	1.228	37.726	3	1	sensitive fine grained
32.61	6.17	0.0747	1.210	38.781	3	1	sensitive fine grained
32.68	6.15	0.0853	1.388	38.734	3	1	sensitive fine grained
32.74	5.72	0.0800	1.399	38.996	3	1	sensitive fine grained
32.81	5.52	0.1023	1.853	39.689	3	1	sensitive fine grained
32.87	5.48	0.1146	2.091	40.413	3	1	sensitive fine grained
32.94	5.90	0.1032	1.748	40.941	4	5	clayey silt to silty clay
33.01	7.56	0.0623	0.824	41.712	6	5	clayey silt to silty clay
33.07	13.19	0.1139	0.864	41.406	6	6	sandy silt to clayey silt
33.14	21.27	0.2024	0.951	37.439	7	6	sandy silt to clayey silt
33.20	25.46	0.2899	1.139	34.331	7	6	sandy silt to clayey silt
33.27	24.51	0.4112	1.678	32.627	7	6	sandy silt to clayey silt
33.33	21.05	0.4455	2.116	31.928	7	6	sandy silt to clayey silt
33.40	16.52	0.3883	2.350	31.316	8	5	clayey silt to silty clay
33.46	13.34	0.3323	2.492	30.851	7	5	clayey silt to silty clay
33.53	11.74	0.2624	2.234	30.542	6	5	clayey silt to silty clay
33.60	10.46	0.2162	2.067	30.143	5	5	clayey silt to silty clay
33.66	9.52	0.1701	1.787	29.993	5	5	clayey silt to silty clay
33.73	8.75	0.1267	1.449	30.196	4	5	clayey silt to silty clay
33.79	7.56	0.0930	1.230	31.054	4	5	clayey silt to silty clay
33.86	6.90	0.0897	1.300	31.984	4	5	clayey silt to silty clay
33.92	7.22	0.0753	1.043	32.274	4	1	sensitive fine grained
33.99	7.23	0.0673	0.932	32.231	3	1	sensitive fine grained
34.06	7.36	0.0581	0.789	31.987	3	1	sensitive fine grained
34.12	7.10	0.0514	0.724	31.619	3	1	sensitive fine grained
34.19	6.61	0.0440	0.665	31.460	3	1	sensitive fine grained
34.25	5.76	0.0327	0.569	31.369	3	1	sensitive fine grained
34.32	4.94	0.0350	0.709	31.316	3	1	sensitive fine grained
34.38	4.41	0.0276	0.624	31.519	2	1	sensitive fine grained
34.45	4.23	0.0273	0.645	32.059	2	1	sensitive fine grained
34.51	4.22	0.0412	0.977	32.455	2	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
34.58	4.06	0.0414	1.021	32.899	2	1	sensitive fine grained
34.65	4.11	0.0363	0.883	33.286	2	1	sensitive fine grained
34.71	4.11	0.0389	0.948	33.713	2	1	sensitive fine grained
34.78	4.16	0.0317	0.762	34.072	2	1	sensitive fine grained
34.84	5.32	0.0467	0.877	30.521	2	1	sensitive fine grained
34.91	4.73	0.0437	0.925	30.486	2	1	sensitive fine grained
34.97	4.25	0.0442	1.042	30.758	2	1	sensitive fine grained
35.04	4.18	0.0436	1.042	31.288	2	1	sensitive fine grained
35.10	4.40	0.0446	1.013	31.841	2	1	sensitive fine grained
35.17	4.47	0.0426	0.952	32.243	2	1	sensitive fine grained
35.24	4.16	0.0314	0.755	32.792	2	1	sensitive fine grained
35.30	4.15	0.0318	0.766	33.404	2	1	sensitive fine grained
35.37	4.11	0.0357	0.869	33.950	2	1	sensitive fine grained
35.43	4.01	0.0325	0.809	34.294	2	1	sensitive fine grained
35.50	4.03	0.0355	0.882	34.593	2	1	sensitive fine grained
35.56	4.12	0.0391	0.951	34.802	2	1	sensitive fine grained
35.63	3.96	0.0410	1.035	34.924	2	1	sensitive fine grained
35.70	3.87	0.0297	0.768	35.086	2	1	sensitive fine grained
35.76	3.93	0.0279	0.709	35.376	2	1	sensitive fine grained
35.83	3.89	0.0318	0.818	35.738	2	1	sensitive fine grained
35.89	4.10	0.0331	0.808	36.188	2	1	sensitive fine grained
35.96	4.14	0.0464	1.119	36.559	2	1	sensitive fine grained
36.02	4.47	0.0477	1.068	36.781	2	1	sensitive fine grained
36.09	4.74	0.0521	1.099	36.859	2	1	sensitive fine grained
36.15	5.05	0.0498	0.986	36.793	2	1	sensitive fine grained
36.22	5.46	0.0480	0.880	36.475	2	1	sensitive fine grained
36.29	5.62	0.0472	0.840	35.717	2	1	sensitive fine grained
36.35	5.47	0.0533	0.973	34.980	2	1	sensitive fine grained
36.42	4.97	0.0452	0.909	34.612	2	1	sensitive fine grained
36.48	4.61	0.0417	0.906	34.581	2	1	sensitive fine grained
36.55	4.59	0.0390	0.850	34.837	2	1	sensitive fine grained
36.61	4.70	0.0336	0.716	35.264	2	1	sensitive fine grained
36.68	4.72	0.0329	0.696	35.414	2	1	sensitive fine grained
36.75	4.64	0.0254	0.548	35.726	2	1	sensitive fine grained
36.81	4.80	0.0262	0.546	36.072	3	1	sensitive fine grained
36.88	5.52	0.0453	0.822	36.506	3	1	sensitive fine grained
36.94	6.19	0.0410	0.663	36.693	3	1	sensitive fine grained
37.01	6.96	0.0413	0.593	36.625	3	1	sensitive fine grained
37.07	7.31	0.0512	0.701	35.364	3	1	sensitive fine grained
37.14	7.34	0.0537	0.732	34.996	4	1	sensitive fine grained
37.20	7.86	0.0504	0.642	35.445	4	1	sensitive fine grained
37.27	8.18	0.0567	0.693	35.732	4	1	sensitive fine grained
37.34	8.95	0.0651	0.728	35.370	4	1	sensitive fine grained
37.40	9.09	0.0582	0.641	34.908	4	1	sensitive fine grained
37.47	9.13	0.0610	0.668	34.624	4	5	clayey silt to silty clay
37.53	8.65	0.0566	0.655	34.549	4	5	clayey silt to silty clay
37.60	8.42	0.0566	0.673	34.777	4	5	clayey silt to silty clay
37.66	8.42	0.0521	0.619	35.111	4	5	clayey silt to silty clay
37.73	8.58	0.0697	0.812	35.348	4	5	clayey silt to silty clay
37.80	8.76	0.0781	0.891	35.723	4	5	clayey silt to silty clay
37.86	8.91	0.0953	1.069	36.213	5	5	clayey silt to silty clay
37.93	9.36	0.0953	1.017	36.200	5	5	clayey silt to silty clay
37.99	9.44	0.1520	1.609	35.489	5	5	clayey silt to silty clay
38.06	12.60	0.1654	1.312	30.415	5	5	clayey silt to silty clay
38.12	12.08	0.1750	1.448	29.753	5	5	clayey silt to silty clay
38.19	10.27	0.1694	1.650	29.510	5	5	clayey silt to silty clay
38.25	10.84	0.1711	1.578	29.238	6	5	clayey silt to silty clay
38.32	12.68	0.1918	1.512	28.614	6	5	clayey silt to silty clay
38.39	11.84	0.2440	2.061	28.327	6	5	clayey silt to silty clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
38.45	11.86	0.2857	2.409	28.143	6	5	clayey silt to silty clay
38.52	12.81	0.3025	2.362	28.024	7	5	clayey silt to silty clay
38.58	14.11	0.3075	2.179	27.862	7	5	clayey silt to silty clay
38.65	17.35	0.2197	1.266	27.746	6	6	sandy silt to clayey silt
38.71	19.64	0.1632	0.831	27.353	6	6	sandy silt to clayey silt
38.78	18.90	0.1627	0.861	27.029	6	6	sandy silt to clayey silt
38.85	16.79	0.1277	0.761	26.688	6	6	sandy silt to clayey silt
38.91	14.65	0.1173	0.801	26.457	6	6	sandy silt to clayey silt
38.98	11.80	0.1159	0.982	26.329	5	6	sandy silt to clayey silt
39.04	9.75	0.1244	1.276	26.289	5	5	clayey silt to silty clay
39.11	9.13	0.1410	1.545	26.270	5	5	clayey silt to silty clay
39.17	7.78	0.1991	2.558	26.392	5	5	clayey silt to silty clay
39.24	8.75	0.3093	3.533	26.729	6	5	clayey silt to silty clay
39.30	11.91	0.3960	3.324	27.153	8	5	clayey silt to silty clay
39.37	19.77	0.4883	2.470	27.091	8	6	sandy silt to clayey silt
39.44	27.82	0.4851	1.744	26.595	9	6	sandy silt to clayey silt
39.50	32.69	0.3539	1.083	26.092	10	6	sandy silt to clayey silt
39.57	33.13	0.2059	0.621	25.652	10	6	sandy silt to clayey silt
39.63	27.09	0.1647	0.608	25.184	8	7	silty sand to sandy silt
39.70	22.57	0.1224	0.543	24.841	9	6	sandy silt to clayey silt
39.76	18.66	0.1239	0.664	24.591	8	6	sandy silt to clayey silt
39.83	16.78	0.1615	0.963	24.566	8	6	sandy silt to clayey silt
39.90	14.86	0.2195	1.477	24.825	8	6	sandy silt to clayey silt
39.96	16.16	0.3451	2.136	25.353	9	6	sandy silt to clayey silt
40.03	22.77	0.5044	2.215	26.289	11	6	sandy silt to clayey silt
40.09	32.37	0.6422	1.984	26.982	12	6	sandy silt to clayey silt
40.16	44.92	0.6863	1.528	25.958	13	6	sandy silt to clayey silt
40.22	46.10	0.6030	1.308	25.243	12	7	silty sand to sandy silt
40.29	41.16	0.4936	1.199	24.657	12	7	silty sand to sandy silt
40.35	35.63	0.3649	1.024	24.198	11	7	silty sand to sandy silt
40.42	30.82	0.2830	0.918	23.771	10	7	silty sand to sandy silt
40.49	27.76	0.1817	0.654	23.468	11	6	sandy silt to clayey silt
40.55	24.92	0.1802	0.723	23.206	10	6	sandy silt to clayey silt
40.62	21.90	0.2738	1.250	23.146	10	6	sandy silt to clayey silt
40.68	21.02	0.5598	2.663	23.165	10	6	sandy silt to clayey silt
40.75	24.32	0.7050	2.898	23.299	11	6	sandy silt to clayey silt
40.81	29.54	0.7585	2.568	23.499	11	6	sandy silt to clayey silt
40.88	37.35	0.7471	2.000	23.437	12	6	sandy silt to clayey silt
40.94	37.28	0.7576	2.032	23.209	13	6	sandy silt to clayey silt
41.01	38.13	0.6119	1.605	22.950	14	6	sandy silt to clayey silt
41.08	37.20	0.4920	1.323	22.897	14	6	sandy silt to clayey silt
41.14	35.64	0.4451	1.249	22.747	14	6	sandy silt to clayey silt
41.21	34.42	0.4112	1.195	22.560	13	6	sandy silt to clayey silt
41.27	33.44	0.5027	1.503	22.397	13	6	sandy silt to clayey silt
41.34	32.46	0.5199	1.602	31.095	12	6	sandy silt to clayey silt
41.40	31.16	0.5317	1.706	28.299	13	6	sandy silt to clayey silt
41.47	28.87	0.6655	2.305	27.653	14	6	sandy silt to clayey silt
41.54	32.02	0.9016	2.815	27.400	15	6	sandy silt to clayey silt
41.60	40.98	1.1356	2.771	28.108	16	6	sandy silt to clayey silt
41.67	53.98	1.5288	2.832	28.186	17	6	sandy silt to clayey silt
41.73	54.89	1.6668	3.036	26.398	18	6	sandy silt to clayey silt
41.80	51.64	1.5334	2.969	25.359	18	6	sandy silt to clayey silt
41.86	49.48	1.3521	2.733	24.729	18	6	sandy silt to clayey silt
41.93	46.29	1.3371	2.889	24.326	20	5	clayey silt to silty clay
41.99	36.32	1.2554	3.457	23.964	18	5	clayey silt to silty clay
42.06	29.05	1.1155	3.840	23.724	17	5	clayey silt to silty clay
42.13	25.19	0.9559	3.795	23.402	15	5	clayey silt to silty clay
42.19	31.71	0.8353	2.634	23.274	13	5	clayey silt to silty clay
42.26	30.41	0.7129	2.344	23.184	12	5	clayey silt to silty clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
42.32	24.15	0.6195	2.566	23.118	11	5	clayey silt to silty clay
42.39	20.55	0.5527	2.690	23.084	11	5	clayey silt to silty clay
42.45	17.07	0.4238	2.482	23.112	9	5	clayey silt to silty clay
42.52	15.41	0.3807	2.471	23.090	8	5	clayey silt to silty clay
42.59	14.39	0.3841	2.669	23.206	7	5	clayey silt to silty clay
42.65	14.09	0.3238	2.298	23.418	7	5	clayey silt to silty clay
42.72	13.72	0.3234	2.356	23.605	7	5	clayey silt to silty clay
42.78	13.53	0.3045	2.251	24.079	7	5	clayey silt to silty clay
42.85	13.73	0.2889	2.104	24.922	7	5	clayey silt to silty clay
42.91	14.37	0.2844	1.979	25.989	7	5	clayey silt to silty clay
42.98	14.48	0.2753	1.901	27.915	7	5	clayey silt to silty clay
43.04	14.81	0.3147	2.125	29.694	7	5	clayey silt to silty clay
43.11	15.83	0.3683	2.327	31.226	7	5	clayey silt to silty clay
43.18	16.80	0.3553	2.115	32.555	8	5	clayey silt to silty clay
43.24	16.75	0.3684	2.199	33.114	7	5	clayey silt to silty clay
43.31	15.90	0.3995	2.512	32.168	7	5	clayey silt to silty clay
43.37	15.29	0.3753	2.454	31.304	7	5	clayey silt to silty clay
43.44	13.76	0.3453	2.509	30.826	7	5	clayey silt to silty clay
43.50	12.02	0.3326	2.768	31.117	6	5	clayey silt to silty clay
43.57	12.24	0.3195	2.610	31.962	6	5	clayey silt to silty clay
43.64	12.67	0.3220	2.541	33.582	6	5	clayey silt to silty clay
43.70	12.60	0.3312	2.629	35.027	6	5	clayey silt to silty clay
43.77	11.93	0.2814	2.358	36.225	6	5	clayey silt to silty clay
43.83	11.20	0.2445	2.182	36.809	6	5	clayey silt to silty clay
43.90	11.23	0.2245	1.999	38.035	5	5	clayey silt to silty clay
43.96	10.88	0.2303	2.116	40.245	5	5	clayey silt to silty clay
44.03	10.71	0.2059	1.922	42.704	5	5	clayey silt to silty clay
44.09	10.67	0.1976	1.851	46.183	5	5	clayey silt to silty clay
44.16	11.03	0.1931	1.751	49.214	5	5	clayey silt to silty clay
44.23	11.36	0.1832	1.612	52.765	5	5	clayey silt to silty clay
44.29	11.47	0.2797	2.440	55.355	6	5	clayey silt to silty clay
44.36	11.59	0.3136	2.706	58.838	6	5	clayey silt to silty clay
44.42	12.17	0.3038	2.495	62.458	6	5	clayey silt to silty clay
44.49	12.41	0.2767	2.229	64.686	6	5	clayey silt to silty clay
44.55	12.10	0.2524	2.086	65.367	7	5	clayey silt to silty clay
44.62	17.98	0.2205	1.226	26.960	7	5	clayey silt to silty clay
44.69	16.56	0.1740	1.050	27.528	6	6	sandy silt to clayey silt
44.75	16.21	0.1574	0.971	28.542	6	6	sandy silt to clayey silt
44.82	14.73	0.1412	0.958	29.837	6	6	sandy silt to clayey silt
44.88	13.00	0.1342	1.032	32.671	5	6	sandy silt to clayey silt
44.95	12.43	0.1582	1.273	36.278	5	6	sandy silt to clayey silt
45.01	12.13	0.1696	1.398	40.229	6	5	clayey silt to silty clay
45.08	11.53	0.1511	1.310	43.915	6	5	clayey silt to silty clay
45.14	11.52	0.1799	1.561	48.134	6	5	clayey silt to silty clay
45.21	12.43	0.1948	1.568	52.197	6	5	clayey silt to silty clay
45.28	13.52	0.2139	1.582	54.881	6	5	clayey silt to silty clay
45.34	14.27	0.2331	1.634	55.683	6	5	clayey silt to silty clay
45.41	13.87	0.2644	1.907	50.540	6	5	clayey silt to silty clay
45.47	12.80	0.2662	2.080	45.622	6	5	clayey silt to silty clay
45.54	11.43	0.2535	2.217	43.153	6	5	clayey silt to silty clay
45.60	10.49	0.2236	2.132	42.102	6	5	clayey silt to silty clay
45.67	10.38	0.2134	2.055	41.868	5	5	clayey silt to silty clay
45.73	10.99	0.1903	1.731	42.301	5	5	clayey silt to silty clay
45.80	11.04	0.1717	1.555	42.176	5	5	clayey silt to silty clay
45.87	10.45	0.1639	1.568	41.215	5	5	clayey silt to silty clay
45.93	10.21	0.1499	1.468	41.343	5	5	clayey silt to silty clay
46.00	9.67	0.1456	1.506	42.058	5	5	clayey silt to silty clay
46.06	9.03	0.1348	1.493	42.404	4	5	clayey silt to silty clay
46.13	8.57	0.1369	1.597	42.782	4	5	clayey silt to silty clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
46.19	8.60	0.1427	1.659	43.462	4	5	clayey silt to silty clay
46.26	8.45	0.1196	1.416	44.295	4	5	clayey silt to silty clay
46.33	8.16	0.1272	1.559	45.263	4	5	clayey silt to silty clay
46.39	8.11	0.1239	1.528	45.931	4	5	clayey silt to silty clay
46.46	8.07	0.1268	1.572	46.315	4	5	clayey silt to silty clay
46.52	8.09	0.1094	1.353	46.973	4	5	clayey silt to silty clay
46.59	8.38	0.1297	1.548	48.050	4	5	clayey silt to silty clay
46.65	8.54	0.1255	1.470	48.658	4	5	clayey silt to silty clay
46.72	8.72	0.1190	1.365	49.545	5	5	clayey silt to silty clay
46.78	9.23	0.2325	2.518	50.524	6	5	clayey silt to silty clay
46.85	12.34	0.4302	3.488	50.799	7	5	clayey silt to silty clay
46.92	21.47	0.4471	2.083	51.133	8	5	clayey silt to silty clay
46.98	23.27	0.4729	2.032	44.355	9	5	clayey silt to silty clay
47.05	18.64	0.4491	2.410	39.284	9	6	sandy silt to clayey silt
47.11	17.28	0.4164	2.410	39.009	11	6	sandy silt to clayey silt
47.18	24.94	0.2956	1.185	39.193	11	7	silty sand to sandy silt
47.24	43.73	0.2752	0.629	39.967	12	7	silty sand to sandy silt
47.31	56.39	0.1860	0.330	41.028	14	7	silty sand to sandy silt
47.38	54.17	0.1322	0.244	29.722	14	8	sand to silty sand
47.44	53.32	0.5527	1.037	26.791	19	8	sand to silty sand
47.51	65.54	0.0001	0.000	25.799	25	8	sand to silty sand
47.57	116.31	0.6997	0.602	25.665	25	9	sand
47.64	170.33	1.1237	0.660	25.443	31	8	sand to silty sand
47.70	207.39	1.4632	0.706	23.465	30	9	sand
47.77	244.85	2.0463	0.836	22.101	36	9	sand
47.83	41.74	2.3948	5.737	21.361	41	9	sand
47.90	263.29	2.8157	1.069	19.913	44	9	sand
47.97	284.17	3.1169	1.097	19.857	46	9	sand
48.03	290.26	3.2990	1.137	19.882	47	9	sand
48.10	287.84	3.3987	1.181	19.817	53	9	sand
48.16	281.43	3.6228	1.287	19.788	53	9	sand
48.23	271.82	3.9169	1.441	19.776	52	9	sand
48.29	263.97	3.9547	1.498	19.770	51	9	sand
48.36	260.20	3.9154	1.505	19.885	61	8	sand to silty sand
48.43	255.23	3.5368	1.386	19.994	58	8	sand to silty sand
48.49	243.23	2.9708	1.221	20.007	55	8	sand to silty sand
48.56	216.53	2.6576	1.227	20.047	41	9	sand
48.62	190.36	2.3923	1.257	20.069	38	9	sand
48.69	173.32	1.9660	1.134	20.157	36	9	sand
48.75	164.50	1.5264	0.928	20.338	34	9	sand
48.82	159.77	1.4986	0.938	20.475	33	9	sand
48.88	160.09	1.4251	0.890	20.672	32	9	sand
48.95	168.83	1.3727	0.813	20.890	33	9	sand
49.02	176.17	1.3059	0.741	21.015	34	9	sand
49.08	182.35	1.3877	0.761	21.249	36	9	sand
49.15	196.06	1.5212	0.776	21.355	38	9	sand
49.21	211.96	1.7555	0.828	21.483	39	9	sand
49.28	220.73	1.9978	0.905	21.639	40	9	sand
49.34	220.20	2.3043	1.046	21.773	40	9	sand
49.41	216.08	2.2648	1.048	21.882	40	9	sand
49.48	208.38	2.2128	1.062	22.007	38	9	sand
49.54	195.57	2.0814	1.064	22.010	36	9	sand
49.61	177.92	1.9109	1.074	22.182	33	9	sand
49.67	148.71	1.4770	0.993	22.376	37	8	sand to silty sand
49.74	132.76	1.3646	1.028	22.716	32	8	sand to silty sand
49.80	113.04	1.2458	1.102	22.906	28	8	sand to silty sand
49.87	95.33	1.1664	1.224	23.050	24	8	sand to silty sand
49.93	80.30	0.9811	1.222	23.218	21	8	sand to silty sand
50.00	68.82	0.8368	1.216	23.387	18	8	sand to silty sand

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
50.07	60.45	0.6986	1.156	23.433	20	7	silty sand to sandy silt
50.13	52.83	0.5158	0.976	23.636	18	7	silty sand to sandy silt
50.20	46.44	0.3640	0.784	23.817	16	7	silty sand to sandy silt
50.26	40.84	0.3087	0.756	24.229	14	7	silty sand to sandy silt
50.33	37.66	0.3249	0.863	24.816	13	7	silty sand to sandy silt
50.39	36.28	0.3316	0.914	25.446	13	7	silty sand to sandy silt
50.46	37.35	0.3760	1.007	26.576	14	7	silty sand to sandy silt
50.52	41.21	0.4139	1.004	27.859	15	7	silty sand to sandy silt
50.59	49.26	0.4692	0.952	29.073	17	7	silty sand to sandy silt
50.66	60.72	0.6396	1.053	29.569	19	7	silty sand to sandy silt
50.72	72.12	0.6074	0.842	29.179	22	7	silty sand to sandy silt
50.79	80.40	1.3275	1.651	28.012	24	7	silty sand to sandy silt
50.85	86.16	1.0274	1.192	27.032	19	8	sand to silty sand
50.92	88.33	0.9791	1.109	26.361	19	8	sand to silty sand
50.98	86.54	0.9739	1.125	25.877	20	8	sand to silty sand
51.05	84.12	0.9492	1.128	25.740	20	8	sand to silty sand
51.12	69.30	0.9581	1.383	22.397	20	8	sand to silty sand
51.18	82.80	0.9368	1.131	22.366	20	8	sand to silty sand
51.25	85.99	0.9306	1.082	22.394	21	8	sand to silty sand
51.31	92.40	0.9699	1.050	22.313	21	8	sand to silty sand
51.38	98.01	1.0158	1.036	22.357	22	8	sand to silty sand
51.44	97.16	1.1024	1.135	22.372	22	8	sand to silty sand
51.51	92.43	1.1295	1.222	22.319	21	8	sand to silty sand
51.57	85.76	1.1531	1.345	22.344	20	8	sand to silty sand
51.64	78.04	1.0872	1.393	22.422	25	7	silty sand to sandy silt
51.71	70.36	1.0185	1.448	22.357	22	7	silty sand to sandy silt
51.77	62.33	0.9491	1.523	22.347	20	7	silty sand to sandy silt
51.84	54.70	0.8808	1.610	22.351	18	7	silty sand to sandy silt
51.90	47.44	0.7975	1.681	22.369	16	7	silty sand to sandy silt
51.97	40.68	0.7061	1.736	22.410	14	7	silty sand to sandy silt
52.03	34.83	0.6374	1.830	22.450	14	6	sandy silt to clayey silt
52.10	30.82	0.5773	1.873	22.522	13	6	sandy silt to clayey silt
52.17	27.54	0.4797	1.742	22.650	11	6	sandy silt to clayey silt
52.23	25.57	0.3708	1.450	22.825	10	6	sandy silt to clayey silt
52.30	23.41	0.2789	1.192	23.084	9	6	sandy silt to clayey silt
52.36	20.68	0.2006	0.970	23.359	8	6	sandy silt to clayey silt
52.43	17.51	0.1575	0.900	23.655	6	6	sandy silt to clayey silt
52.49	13.30	0.1360	1.022	24.154	5	6	sandy silt to clayey silt
52.56	9.91	0.1108	1.118	24.778	4	6	sandy silt to clayey silt
52.62	7.37	0.0623	0.845	26.039	4	5	clayey silt to silty clay
52.69	6.35	0.0341	0.537	27.662	4	1	sensitive fine grained
52.76	5.40	0.0594	1.100	30.346	4	5	clayey silt to silty clay
52.82	5.35	0.0691	1.290	32.711	5	6	sandy silt to clayey silt
52.89	6.59	0.0646	0.980	34.540	7	6	sandy silt to clayey silt
52.95	17.25	0.0758	0.440	36.160	7	7	silty sand to sandy silt
53.02	35.91	0.1264	0.352	35.364	9	7	silty sand to sandy silt
53.08	42.96	0.1901	0.442	31.095	10	7	silty sand to sandy silt
53.15	42.65	0.2613	0.613	28.570	11	7	silty sand to sandy silt
53.22	39.13	0.3380	0.864	27.316	12	7	silty sand to sandy silt
53.28	36.14	0.3990	1.104	27.013	12	7	silty sand to sandy silt
53.35	34.34	0.4100	1.194	26.935	11	7	silty sand to sandy silt
53.41	32.93	0.3753	1.140	26.935	10	7	silty sand to sandy silt
53.48	30.13	0.3191	1.059	27.050	10	7	silty sand to sandy silt
53.54	27.80	0.2485	0.894	27.222	10	7	silty sand to sandy silt
53.61	29.56	0.2634	0.891	27.469	10	7	silty sand to sandy silt
53.67	37.25	0.2210	0.593	27.306	10	7	silty sand to sandy silt
53.74	34.38	0.2246	0.653	27.185	10	7	silty sand to sandy silt
53.81	27.86	0.2302	0.826	26.726	11	7	silty sand to sandy silt
53.87	25.21	0.2024	0.803	26.935	11	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
53.94	33.34	0.1723	0.517	27.060	12	7	silty sand to sandy silt
54.00	43.46	0.1544	0.355	26.944	12	7	silty sand to sandy silt
54.07	45.93	0.2692	0.586	26.033	12	7	silty sand to sandy silt
54.13	43.76	0.2941	0.672	24.697	12	7	silty sand to sandy silt
54.20	36.38	0.3224	0.886	23.824	11	7	silty sand to sandy silt
54.27	27.68	0.2899	1.048	23.468	10	7	silty sand to sandy silt
54.33	22.09	0.3063	1.386	23.452	9	7	silty sand to sandy silt
54.40	24.06	0.2733	1.136	23.352	10	6	sandy silt to clayey silt
54.46	22.88	0.1917	0.838	23.437	9	6	sandy silt to clayey silt
54.53	24.02	0.1515	0.630	23.580	9	6	sandy silt to clayey silt
54.59	23.30	0.1403	0.602	23.661	8	6	sandy silt to clayey silt
54.66	21.83	0.1176	0.539	23.752	7	7	silty sand to sandy silt
54.72	19.63	0.1219	0.621	23.583	7	6	sandy silt to clayey silt
54.79	17.66	0.0606	0.343	23.174	7	6	sandy silt to clayey silt
54.86	15.96	0.0402	0.252	22.975	7	6	sandy silt to clayey silt
54.92	13.29	0.0345	0.260	23.218	6	7	silty sand to sandy silt
54.99	15.02	0.1040	0.692	23.783	8	7	silty sand to sandy silt
55.05	20.98	0.1130	0.539	24.769	10	7	silty sand to sandy silt
55.12	32.07	0.1055	0.329	25.671	12	7	silty sand to sandy silt
55.18	50.35	0.1105	0.219	25.328	11	8	sand to silty sand
55.25	65.25	0.1448	0.222	23.128	13	8	sand to silty sand
55.31	70.93	0.2157	0.304	22.073	14	8	sand to silty sand
55.38	72.66	0.2587	0.356	21.633	15	8	sand to silty sand
55.45	69.92	0.2501	0.358	21.421	15	8	sand to silty sand
55.51	62.39	0.2182	0.350	21.274	14	8	sand to silty sand
55.58	55.00	0.1996	0.363	21.205	13	8	sand to silty sand
55.64	48.05	0.1525	0.317	21.121	11	8	sand to silty sand
55.71	38.44	0.1056	0.275	21.096	10	8	sand to silty sand
55.77	32.65	0.0788	0.241	21.149	11	7	silty sand to sandy silt
55.84	27.44	0.0570	0.208	21.190	9	7	silty sand to sandy silt
55.91	18.80	0.0295	0.157	21.233	7	7	silty sand to sandy silt
55.97	14.28	0.0251	0.176	21.230	7	7	silty sand to sandy silt
56.04	10.66	0.0110	0.103	21.389	7	7	silty sand to sandy silt
56.10	10.72	0.0246	0.229	21.779	9	7	silty sand to sandy silt
56.17	29.30	0.0573	0.196	22.475	11	7	silty sand to sandy silt
56.23	47.65	0.1102	0.231	22.978	10	8	sand to silty sand
56.30	55.37	0.1637	0.296	23.090	13	8	sand to silty sand
56.36	68.04	0.2648	0.389	23.237	16	8	sand to silty sand
56.43	80.50	0.3364	0.418	23.374	19	8	sand to silty sand
56.50	90.36	0.3638	0.403	23.377	21	8	sand to silty sand
56.56	97.82	0.4497	0.460	23.284	24	8	sand to silty sand
56.63	107.18	0.5442	0.508	23.071	21	9	sand
56.69	119.79	0.6968	0.582	23.000	23	9	sand
56.76	131.71	0.7763	0.589	22.922	25	9	sand
56.82	143.37	0.8552	0.596	22.853	27	9	sand
56.89	154.82	0.9723	0.628	22.909	30	9	sand
56.96	167.78	1.1147	0.664	22.944	32	9	sand
57.02	177.96	1.2497	0.702	22.981	34	9	sand
57.09	188.40	1.4152	0.751	22.912	36	9	sand
57.15	200.20	1.3646	0.682	23.034	39	9	sand
57.22	213.44	1.6074	0.753	23.265	0	0	<out of range>
57.28	224.85	1.4446	0.642	23.352	0	0	<out of range>
57.35	238.56	1.0824	0.454	23.536	49	10	gravelly sand to sand
57.41	257.88	-32768	-32768	23.777	0	0	<out of range>
57.48	291.73	-32768	-32768	24.051	0	0	<out of range>
57.55	330.74	-32768	-32768	24.363	0	0	<out of range>
57.61	413.92	-32768	-32768	24.610	0	0	<out of range>

*Soil behavior type and SPT based on data from UBC-1983

AECOM

TVA Kingston Coal Ash Pond RCA (Kingston,Tennessee) Cone Penetration Test

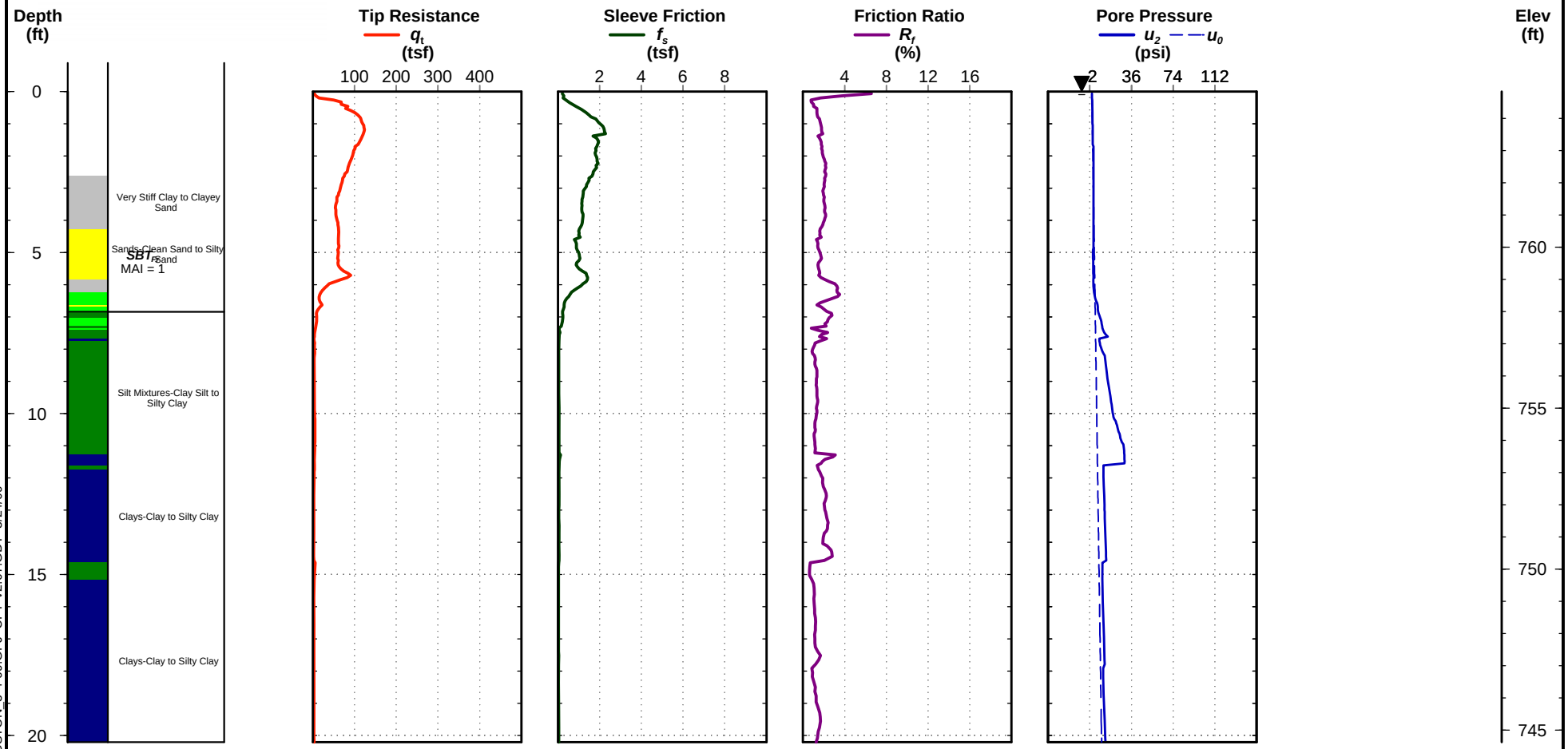
09-703-C2

Project No: 60095742

Date: Feb. 20, 2009
Estimated Water Depth: 0 ft
Rig/Operator: Mobile 57/CAP

Northing: 556125.74
Easting: 2442229.41
Elevation: 764.83 NGVD

Total Depth: 20.2 ft
Termination Criteria: Refusal
Cone Size: 10T Tension Cone



CPT REPORT - DYNAMIC GINT_KINGSTON_3-4-09.GPJ CPT V2.07.GDT 3/24/09

09-703-C2

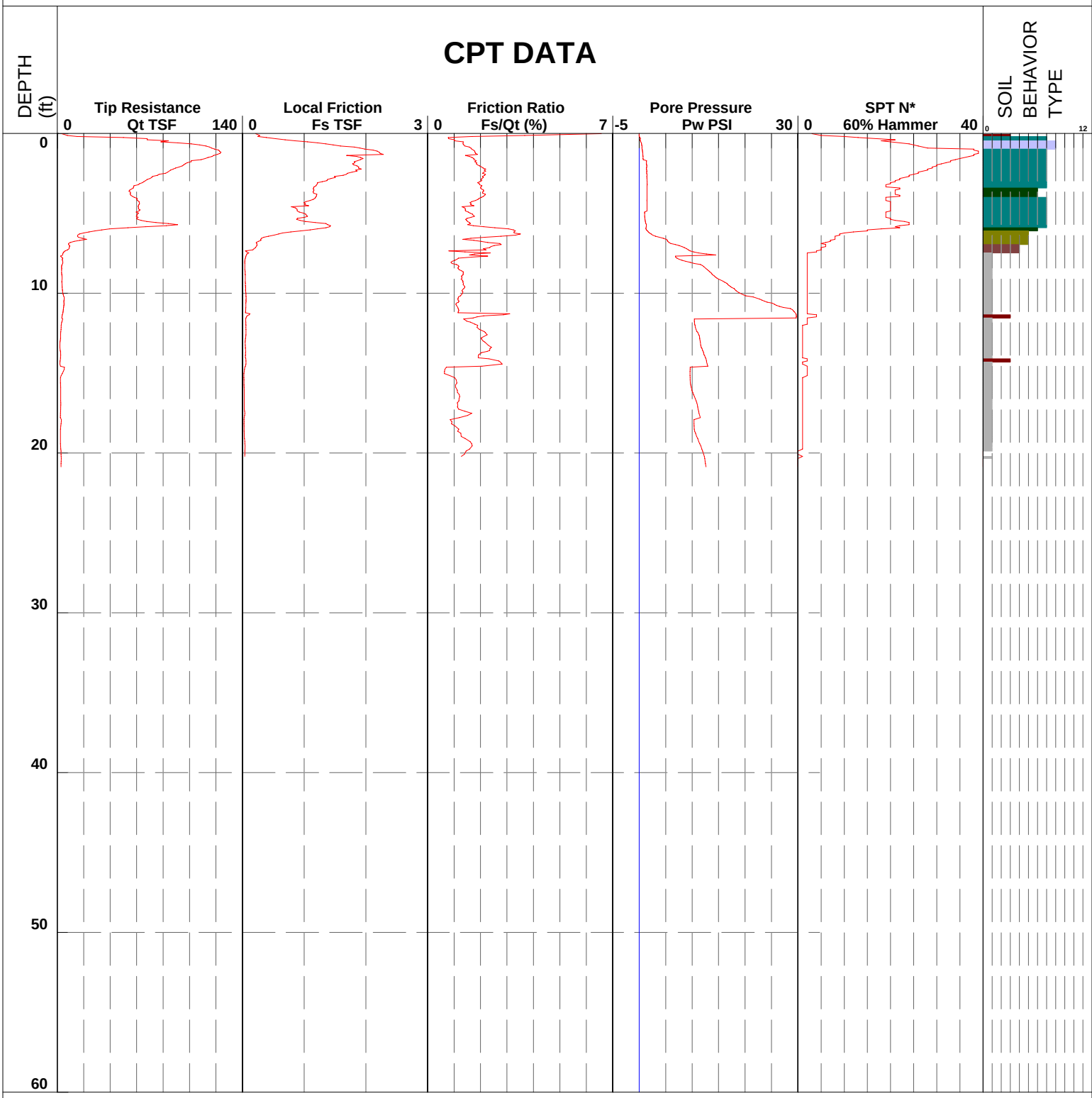
Electronic Filename: 09-703-C2.cpt

AECOM

09-703-C2 | 60095742 | 2/20/2009 1:34:39 PM

DSG0870 | TVA-Kingston | Mobile 57/CAP

NOTE: high speed test



1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Data File:09-703-C2 2/20/2009 1:34:39 PM
Operator:Mobile 57/CAP Location:TVA-Kingston
Cone ID:DSG0870 Job Number:60095742
Customer:TVA Units:

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
0.07	3.26	0.2140	6.572	-0.002	3	3	clay
0.13	7.64	0.2806	3.671	-0.007	5	3	clay
0.20	14.95	0.2510	1.679	0.029	10	7	silty sand to sandy silt
0.26	49.97	0.3886	0.778	0.153	13	7	silty sand to sandy silt
0.33	68.04	0.5357	0.787	0.257	17	7	silty sand to sandy silt
0.39	68.04	0.6902	1.014	0.165	21	7	silty sand to sandy silt
0.46	84.11	0.8546	1.016	0.221	18	8	sand to silty sand
0.52	78.28	1.0554	1.348	0.315	20	8	sand to silty sand
0.59	91.10	1.2203	1.339	0.402	22	8	sand to silty sand
0.66	101.35	1.3540	1.336	0.446	24	8	sand to silty sand
0.72	107.62	1.4699	1.366	0.465	25	8	sand to silty sand
0.79	112.45	1.5884	1.412	0.523	26	8	sand to silty sand
0.85	115.14	1.8138	1.575	0.531	27	8	sand to silty sand
0.92	116.70	1.9052	1.633	0.526	28	8	sand to silty sand
0.98	118.99	1.9846	1.668	0.557	38	7	silty sand to sandy silt
1.05	122.00	2.1174	1.736	0.594	38	7	silty sand to sandy silt
1.12	122.73	2.1839	1.779	0.608	39	7	silty sand to sandy silt
1.18	123.85	2.2173	1.790	0.645	39	7	silty sand to sandy silt
1.25	123.01	2.2315	1.814	0.683	39	7	silty sand to sandy silt
1.31	121.00	2.2829	1.887	0.688	38	7	silty sand to sandy silt
1.38	118.20	1.6879	1.428	0.703	38	7	silty sand to sandy silt
1.44	117.03	1.8508	1.581	0.712	37	7	silty sand to sandy silt
1.51	113.89	1.9145	1.681	0.722	36	7	silty sand to sandy silt
1.57	111.93	1.9537	1.745	0.732	35	7	silty sand to sandy silt
1.64	108.78	1.9098	1.756	0.756	34	7	silty sand to sandy silt
1.71	101.39	1.8663	1.841	1.403	33	7	silty sand to sandy silt
1.77	101.21	1.8110	1.789	1.384	33	7	silty sand to sandy silt
1.84	98.25	1.8246	1.857	1.364	32	7	silty sand to sandy silt
1.90	96.68	1.7849	1.846	1.386	31	7	silty sand to sandy silt
1.97	95.60	1.8050	1.888	1.415	30	7	silty sand to sandy silt
2.03	94.53	1.8542	1.962	1.425	30	7	silty sand to sandy silt
2.10	92.05	1.8832	2.046	1.423	29	7	silty sand to sandy silt
2.17	89.50	1.8793	2.100	1.393	29	7	silty sand to sandy silt
2.23	87.69	1.9258	2.196	1.384	28	7	silty sand to sandy silt
2.30	85.72	1.8365	2.143	1.406	28	7	silty sand to sandy silt
2.36	84.59	1.8559	2.194	1.425	27	7	silty sand to sandy silt
2.43	83.52	1.7754	2.126	1.406	26	7	silty sand to sandy silt
2.49	81.98	1.7019	2.076	1.413	26	7	silty sand to sandy silt
2.56	76.96	1.6825	2.186	1.454	25	7	silty sand to sandy silt
2.62	75.69	1.6329	2.157	1.473	24	7	silty sand to sandy silt
2.69	72.00	1.4900	2.070	1.425	24	7	silty sand to sandy silt
2.76	71.34	1.5054	2.110	1.444	23	7	silty sand to sandy silt
2.82	70.08	1.4364	2.050	1.449	22	7	silty sand to sandy silt
2.89	67.90	1.3770	2.028	1.478	22	7	silty sand to sandy silt
2.95	66.79	1.3683	2.049	1.471	21	7	silty sand to sandy silt
3.02	65.40	1.2935	1.978	1.503	21	7	silty sand to sandy silt
3.08	64.34	1.2168	1.891	1.495	20	7	silty sand to sandy silt
3.15	62.20	1.2165	1.956	1.507	20	7	silty sand to sandy silt
3.22	61.12	1.2013	1.965	1.522	19	7	silty sand to sandy silt
3.28	58.02	1.1927	2.056	1.466	19	7	silty sand to sandy silt
3.35	57.63	1.1601	2.013	1.469	19	7	silty sand to sandy silt
3.41	57.49	1.1512	2.002	1.473	22	6	sandy silt to clayey silt
3.48	56.14	1.1467	2.043	1.473	22	6	sandy silt to clayey silt
3.54	54.87	1.1601	2.114	1.473	21	6	sandy silt to clayey silt
3.61	54.18	1.1479	2.119	1.473	21	6	sandy silt to clayey silt
3.67	55.24	1.1459	2.075	1.493	21	6	sandy silt to clayey silt
3.74	55.32	1.1532	2.084	1.481	21	6	sandy silt to clayey silt
3.81	55.18	1.2052	2.184	1.488	21	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
3.87	55.62	1.2005	2.158	1.486	22	6	sandy silt to clayey silt
3.94	56.81	1.1983	2.109	1.478	22	6	sandy silt to clayey silt
4.00	58.10	1.1839	2.037	1.488	19	7	silty sand to sandy silt
4.07	60.42	1.1753	1.945	1.478	19	7	silty sand to sandy silt
4.13	60.14	1.1467	1.907	1.466	19	7	silty sand to sandy silt
4.20	60.62	1.0968	1.809	1.456	19	7	silty sand to sandy silt
4.27	61.83	1.0293	1.665	1.461	20	7	silty sand to sandy silt
4.33	62.06	0.9941	1.602	1.490	20	7	silty sand to sandy silt
4.40	62.21	1.0205	1.640	1.478	20	7	silty sand to sandy silt
4.46	61.74	1.0029	1.624	1.476	20	7	silty sand to sandy silt
4.53	61.26	1.0720	1.750	1.483	20	7	silty sand to sandy silt
4.59	61.13	0.7930	1.297	1.469	20	7	silty sand to sandy silt
4.66	61.43	0.8556	1.393	1.478	20	7	silty sand to sandy silt
4.72	61.32	0.8819	1.438	1.471	20	7	silty sand to sandy silt
4.79	62.54	0.8866	1.418	1.464	20	7	silty sand to sandy silt
4.86	61.73	0.8878	1.438	1.464	20	7	silty sand to sandy silt
4.92	59.64	0.9199	1.542	1.008	19	7	silty sand to sandy silt
4.99	61.52	0.9871	1.605	1.015	19	7	silty sand to sandy silt
5.05	60.55	1.0251	1.693	1.020	19	7	silty sand to sandy silt
5.12	60.20	1.0373	1.723	1.025	19	7	silty sand to sandy silt
5.18	59.72	1.0557	1.768	1.015	19	7	silty sand to sandy silt
5.25	61.12	1.0073	1.648	1.064	19	7	silty sand to sandy silt
5.31	59.91	0.8951	1.494	1.076	20	7	silty sand to sandy silt
5.38	60.82	0.8769	1.442	1.091	20	7	silty sand to sandy silt
5.45	63.27	0.9314	1.472	1.124	21	7	silty sand to sandy silt
5.51	67.68	1.0222	1.510	1.151	23	7	silty sand to sandy silt
5.58	74.57	1.1775	1.579	1.202	24	7	silty sand to sandy silt
5.64	83.85	1.3544	1.615	1.272	24	7	silty sand to sandy silt
5.71	91.04	1.3801	1.516	1.372	24	7	silty sand to sandy silt
5.77	82.45	1.4267	1.730	1.335	22	7	silty sand to sandy silt
5.84	66.76	1.4136	2.118	1.321	21	7	silty sand to sandy silt
5.91	53.30	1.3550	2.542	1.282	22	6	sandy silt to clayey silt
5.97	39.56	1.2111	3.062	1.260	18	6	sandy silt to clayey silt
6.04	33.75	1.0957	3.247	1.357	15	6	sandy silt to clayey silt
6.10	28.41	0.9423	3.316	1.551	15	5	clayey silt to silty clay
6.17	24.01	0.7839	3.265	1.721	12	5	clayey silt to silty clay
6.23	19.88	0.6507	3.273	1.948	10	5	clayey silt to silty clay
6.30	16.72	0.5868	3.508	2.261	9	5	clayey silt to silty clay
6.36	15.42	0.5137	3.332	2.532	9	5	clayey silt to silty clay
6.43	15.21	0.4222	2.776	3.080	8	5	clayey silt to silty clay
6.50	15.96	0.3451	2.163	3.802	8	5	clayey silt to silty clay
6.56	18.91	0.3087	1.633	4.546	8	5	clayey silt to silty clay
6.63	22.13	0.2951	1.334	5.116	8	5	clayey silt to silty clay
6.69	17.17	0.2997	1.746	5.305	7	5	clayey silt to silty clay
6.76	12.81	0.2588	2.020	5.402	7	5	clayey silt to silty clay
6.82	9.79	0.2227	2.275	5.630	6	5	clayey silt to silty clay
6.89	8.48	0.2314	2.730	5.996	5	5	clayey silt to silty clay
6.96	8.50	0.2365	2.783	6.851	6	4	silty clay to clay
7.02	9.33	0.2348	2.516	7.534	6	4	silty clay to clay
7.09	9.32	0.2227	2.390	8.077	6	4	silty clay to clay
7.15	8.98	0.2107	2.348	8.518	5	4	silty clay to clay
7.22	8.93	0.1880	2.106	8.962	5	4	silty clay to clay
7.28	7.69	0.1699	2.208	9.289	5	4	silty clay to clay
7.35	6.02	0.0482	0.799	9.597	4	4	silty clay to clay
7.41	4.96	0.0702	1.416	10.295	4	4	silty clay to clay
7.48	4.41	0.1042	2.366	11.184	2	1	sensitive fine grained
7.55	4.06	0.0722	1.776	12.684	2	1	sensitive fine grained
7.61	4.06	0.0641	1.580	14.480	2	1	sensitive fine grained
7.68	2.53	0.0574	2.274	6.858	2	1	sensitive fine grained
7.74	3.13	0.0519	1.658	6.858	2	1	sensitive fine grained
7.81	4.15	0.0482	1.160	7.137	2	1	sensitive fine grained
7.87	3.78	0.0422	1.114	7.500	2	1	sensitive fine grained
7.94	3.84	0.0395	1.030	8.089	2	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
8.01	4.06	0.0376	0.926	8.812	2	1	sensitive fine grained
8.07	4.23	0.0374	0.883	9.606	2	1	sensitive fine grained
8.14	4.17	0.0384	0.921	10.411	2	1	sensitive fine grained
8.20	3.56	0.0386	1.085	11.582	2	1	sensitive fine grained
8.27	3.34	0.0389	1.162	11.943	2	1	sensitive fine grained
8.33	3.26	0.0386	1.184	12.200	2	1	sensitive fine grained
8.40	3.29	0.0378	1.148	12.406	2	1	sensitive fine grained
8.46	3.33	0.0384	1.152	12.614	2	1	sensitive fine grained
8.53	3.31	0.0395	1.194	12.878	2	1	sensitive fine grained
8.60	3.32	0.0424	1.278	13.116	2	1	sensitive fine grained
8.66	3.31	0.0446	1.345	13.334	2	1	sensitive fine grained
8.73	3.31	0.0447	1.349	13.574	2	1	sensitive fine grained
8.79	3.36	0.0451	1.342	13.736	2	1	sensitive fine grained
8.86	3.42	0.0458	1.338	13.898	2	1	sensitive fine grained
8.92	3.53	0.0454	1.285	14.196	2	1	sensitive fine grained
8.99	3.57	0.0460	1.291	14.400	2	1	sensitive fine grained
9.06	3.57	0.0464	1.299	14.686	2	1	sensitive fine grained
9.12	3.57	0.0452	1.266	15.025	2	1	sensitive fine grained
9.19	3.50	0.0459	1.312	15.442	2	1	sensitive fine grained
9.25	3.44	0.0460	1.337	15.832	2	1	sensitive fine grained
9.32	3.40	0.0454	1.333	16.133	2	1	sensitive fine grained
9.38	3.48	0.0472	1.355	16.559	2	1	sensitive fine grained
9.45	3.55	0.0476	1.342	16.736	2	1	sensitive fine grained
9.51	3.60	0.0495	1.373	16.983	2	1	sensitive fine grained
9.58	3.61	0.0506	1.400	17.238	2	1	sensitive fine grained
9.65	3.65	0.0512	1.402	17.514	2	1	sensitive fine grained
9.71	3.76	0.0514	1.367	17.941	2	1	sensitive fine grained
9.78	3.84	0.0508	1.324	18.103	2	1	sensitive fine grained
9.84	3.91	0.0506	1.294	18.324	2	1	sensitive fine grained
9.91	4.01	0.0535	1.332	18.576	2	1	sensitive fine grained
9.97	4.15	0.0550	1.327	18.876	2	1	sensitive fine grained
10.04	4.30	0.0559	1.300	19.264	2	1	sensitive fine grained
10.10	4.51	0.0574	1.273	19.676	2	1	sensitive fine grained
10.17	4.73	0.0585	1.236	20.153	2	1	sensitive fine grained
10.24	5.12	0.0597	1.167	21.552	2	1	sensitive fine grained
10.30	5.22	0.0600	1.151	22.194	2	1	sensitive fine grained
10.37	5.20	0.0594	1.143	22.773	2	1	sensitive fine grained
10.43	5.10	0.0589	1.155	23.199	2	1	sensitive fine grained
10.50	4.98	0.0591	1.186	23.670	2	1	sensitive fine grained
10.56	4.95	0.0576	1.164	24.169	2	1	sensitive fine grained
10.63	5.09	0.0549	1.080	25.196	2	1	sensitive fine grained
10.70	5.11	0.0547	1.070	25.577	2	1	sensitive fine grained
10.76	5.02	0.0545	1.087	25.940	2	1	sensitive fine grained
10.83	4.87	0.0544	1.117	26.498	2	1	sensitive fine grained
10.89	4.77	0.0545	1.141	27.218	2	1	sensitive fine grained
10.96	4.65	0.0536	1.152	28.558	2	1	sensitive fine grained
11.02	4.56	0.0533	1.171	28.907	2	1	sensitive fine grained
11.09	4.45	0.0524	1.178	29.110	2	1	sensitive fine grained
11.15	4.35	0.0505	1.159	29.285	2	1	sensitive fine grained
11.22	4.27	0.0489	1.147	29.445	2	1	sensitive fine grained
11.29	4.01	0.1243	3.102	29.619	2	1	sensitive fine grained
11.35	3.82	0.1093	2.866	29.658	4	3	clay
11.42	3.64	0.0771	2.120	29.689	4	3	clay
11.48	3.52	0.0659	1.875	29.694	4	3	clay
11.55	3.40	0.0585	1.719	29.687	2	1	sensitive fine grained
11.61	3.97	0.0541	1.361	10.411	2	1	sensitive fine grained
11.75	3.67	0.0542	1.480	10.418	2	1	sensitive fine grained
11.81	3.36	0.0544	1.620	10.433	2	1	sensitive fine grained
11.94	3.08	0.0550	1.786	10.472	2	1	sensitive fine grained
12.01	2.96	0.0561	1.896	10.542	1	1	sensitive fine grained
12.14	2.94	0.0550	1.867	10.610	1	1	sensitive fine grained
12.27	2.87	0.0563	1.958	10.738	1	1	sensitive fine grained
12.40	2.67	0.0571	2.142	10.915	1	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
12.47	2.60	0.0568	2.188	11.090	1	1	sensitive fine grained
12.60	2.53	0.0570	2.254	11.257	1	1	sensitive fine grained
12.66	2.52	0.0548	2.176	11.363	1	1	sensitive fine grained
12.80	2.54	0.0516	2.034	11.417	1	1	sensitive fine grained
12.86	2.38	0.0485	2.039	11.463	1	1	sensitive fine grained
12.99	2.20	0.0460	2.093	11.504	1	1	sensitive fine grained
13.06	2.04	0.0441	2.161	11.557	1	1	sensitive fine grained
13.25	1.97	0.0452	2.291	11.608	1	1	sensitive fine grained
13.39	1.99	0.0480	2.414	11.715	1	1	sensitive fine grained
13.45	2.09	0.0494	2.360	11.855	1	1	sensitive fine grained
13.58	2.22	0.0522	2.346	11.969	1	1	sensitive fine grained
13.65	2.37	0.0534	2.249	12.078	1	1	sensitive fine grained
13.71	2.51	0.0512	2.042	12.146	1	1	sensitive fine grained
13.85	2.59	0.0500	1.935	12.236	1	1	sensitive fine grained
13.91	2.55	0.0488	1.915	12.367	1	1	sensitive fine grained
14.04	2.46	0.0470	1.912	12.507	1	1	sensitive fine grained
14.11	2.34	0.0544	2.321	12.626	2	3	clay
14.24	2.17	0.0583	2.691	12.699	2	3	clay
14.30	2.07	0.0570	2.749	12.742	1	1	sensitive fine grained
14.44	2.03	0.0572	2.816	12.832	1	1	sensitive fine grained
14.57	2.33	0.0478	2.056	12.975	2	1	sensitive fine grained
14.63	5.42	0.0384	0.709	9.614	2	1	sensitive fine grained
14.76	5.21	0.0340	0.652	9.606	2	1	sensitive fine grained
14.90	4.52	0.0287	0.635	9.599	2	1	sensitive fine grained
15.03	3.77	0.0239	0.632	9.594	2	1	sensitive fine grained
15.16	2.91	0.0244	0.838	9.599	2	1	sensitive fine grained
15.29	2.41	0.0247	1.027	9.614	1	1	sensitive fine grained
15.42	2.39	0.0258	1.080	9.633	1	1	sensitive fine grained
15.62	2.41	0.0266	1.103	9.667	1	1	sensitive fine grained
15.75	2.47	0.0260	1.053	9.728	1	1	sensitive fine grained
15.88	2.55	0.0269	1.058	9.827	1	1	sensitive fine grained
16.08	2.56	0.0288	1.124	9.955	1	1	sensitive fine grained
16.21	2.59	0.0291	1.125	10.113	1	1	sensitive fine grained
16.34	2.57	0.0309	1.199	10.278	1	1	sensitive fine grained
16.47	2.55	0.0309	1.210	10.443	1	1	sensitive fine grained
16.60	2.60	0.0309	1.186	10.602	1	1	sensitive fine grained
16.73	2.61	0.0309	1.183	10.753	1	1	sensitive fine grained
16.86	2.63	0.0294	1.121	10.886	1	1	sensitive fine grained
16.99	2.65	0.0302	1.139	10.983	1	1	sensitive fine grained
17.13	2.59	0.0292	1.126	11.068	1	1	sensitive fine grained
17.26	2.55	0.0300	1.176	11.138	1	1	sensitive fine grained
17.39	2.50	0.0352	1.408	11.218	1	1	sensitive fine grained
17.52	2.42	0.0403	1.667	11.303	1	1	sensitive fine grained
17.65	2.34	0.0353	1.509	11.414	1	1	sensitive fine grained
17.78	2.29	0.0276	1.206	11.536	1	1	sensitive fine grained
17.91	3.10	0.0263	0.849	10.343	1	1	sensitive fine grained
18.04	2.97	0.0272	0.916	10.346	1	1	sensitive fine grained
18.18	2.87	0.0260	0.904	10.353	1	1	sensitive fine grained
18.31	2.62	0.0270	1.032	10.360	1	1	sensitive fine grained
18.50	2.38	0.0281	1.180	10.406	1	1	sensitive fine grained
18.64	2.44	0.0278	1.138	10.496	1	1	sensitive fine grained
18.77	2.41	0.0302	1.255	10.646	1	1	sensitive fine grained
18.96	2.40	0.0304	1.269	10.850	1	1	sensitive fine grained
19.09	2.39	0.0340	1.420	11.058	1	1	sensitive fine grained
19.29	2.36	0.0379	1.610	11.267	1	1	sensitive fine grained
19.42	2.43	0.0404	1.665	11.458	1	1	sensitive fine grained
19.55	2.51	0.0423	1.685	11.640	1	1	sensitive fine grained
19.75	2.63	0.0417	1.586	11.836	1	1	sensitive fine grained
19.88	2.75	0.0400	1.453	11.996	0	0	<out of range>
20.08	2.85	0.0396	1.388	12.166	0	0	<out of range>
20.21	2.93	0.0373	1.272	12.292	1	1	sensitive fine grained
20.34	3.00	-32768	-32768	12.376	0	0	<out of range>
20.54	2.95	-32768	-32768	12.459	0	0	<out of range>

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
20.67	2.87	-32768	-32768	12.534	0	0	<out of range>
20.87	2.80	-32768	-32768	12.638	0	0	<out of range>

*Soil behavior type and SPT based on data from UBC-1983

AECOM

TVA Kingston Coal Ash Pond RCA (Kingston,Tennessee) Cone Penetration Test

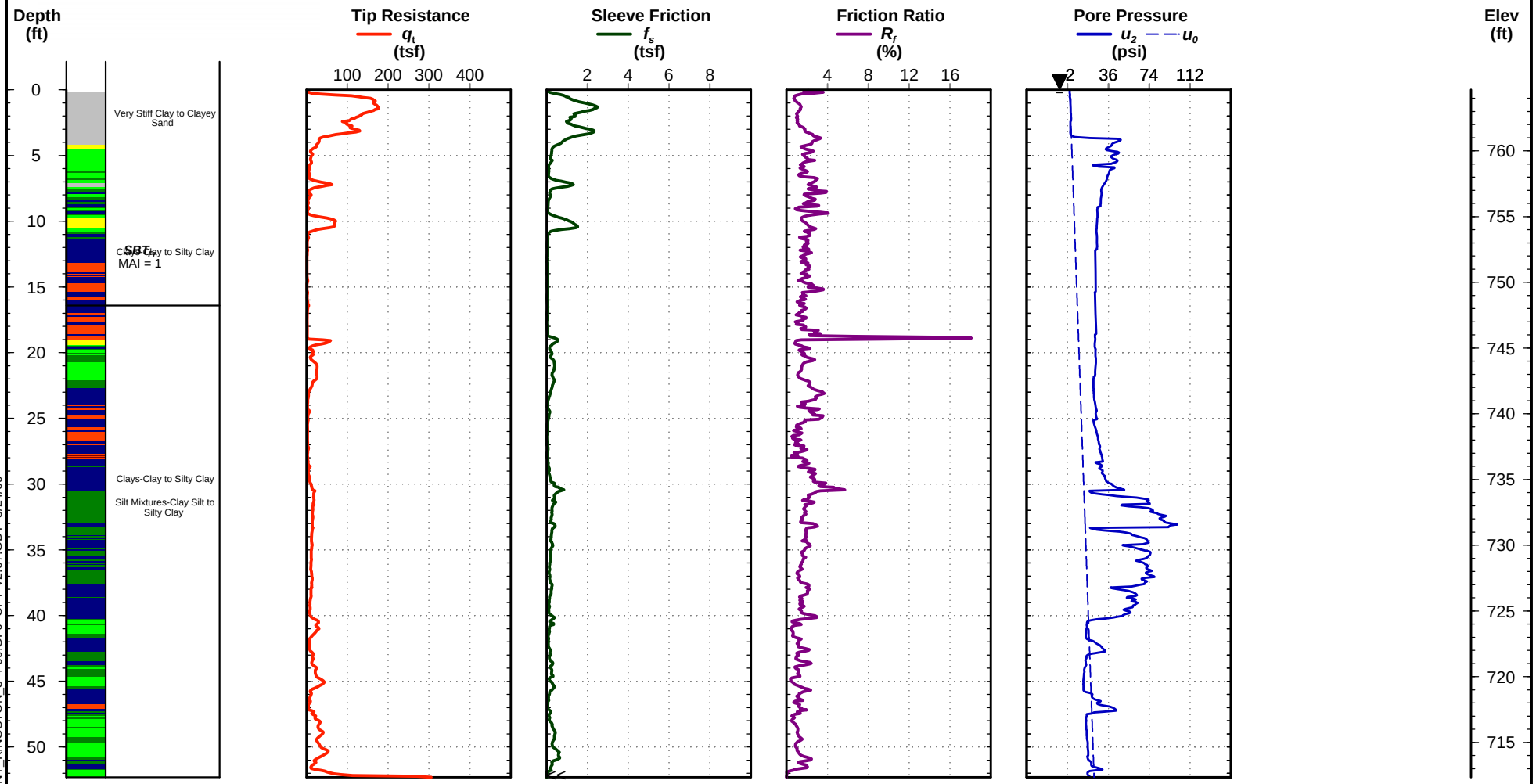
09-704-C1

Project No: 60095742

Date: Feb. 13, 2009
Estimated Water Depth: 0 ft
Rig/Operator: D-120/CAP

Northing: 555949.37
Easting: 2442273.72
Elevation: 764.65 NGVD

Total Depth: 52.3 ft
Termination Criteria: Refusal
Cone Size: 5T Tension Cone



CPT REPORT - DYNAMIC GINT_KINGSTON_3-4-09.GPJ CPT V2.07.GDT 3/24/09

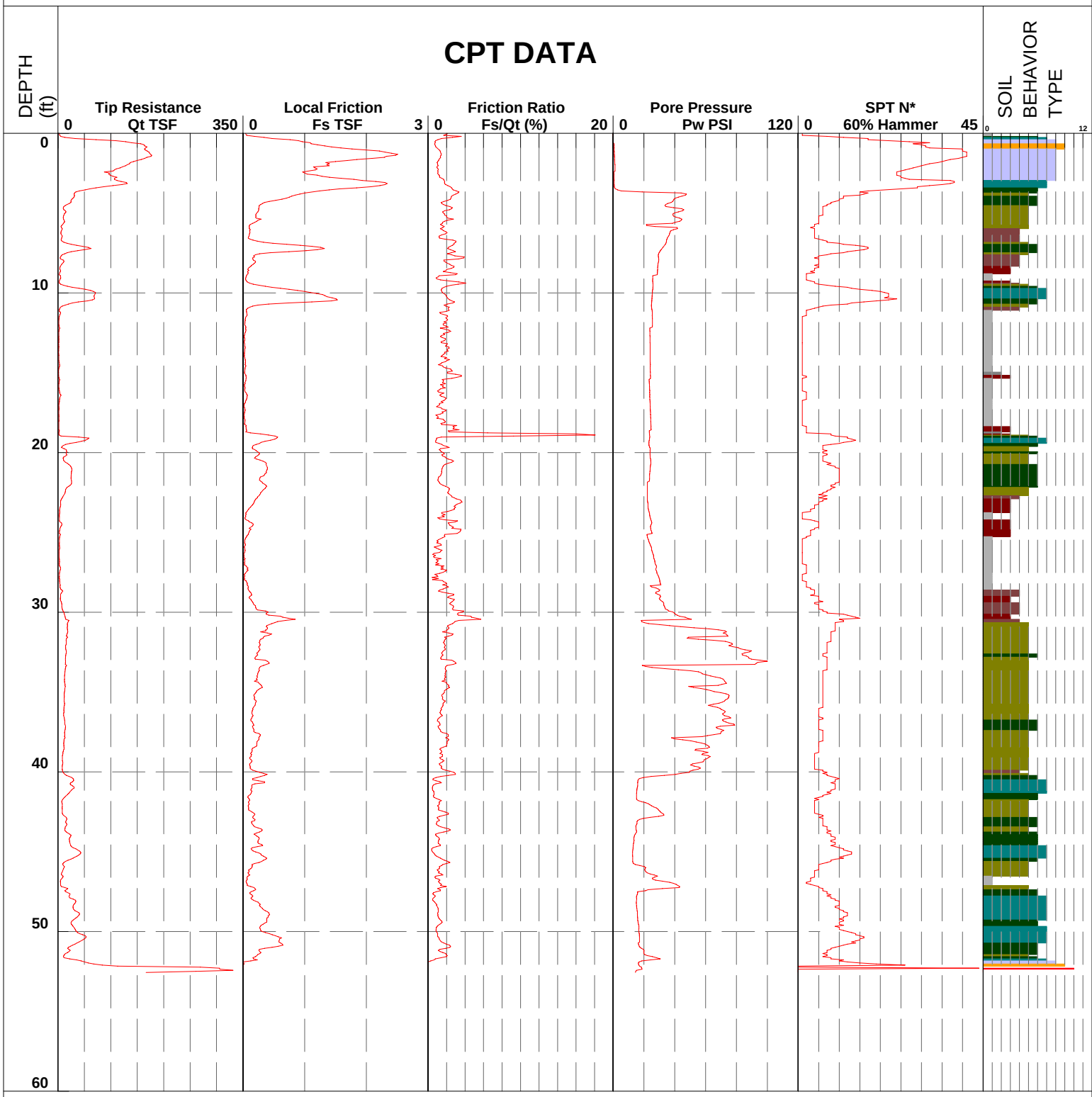
09-704-C1

Electronic Filename: 09-704-C1.cpt

AECOM

09-704-C1	60095742	2/13/2009 11:48:13 AM
DTA1081	TVA-Kingston	D-120/CAP

CPT DATA



1 - sensitive fine grained	4 - silty clay to clay	7 - silty sand to sandy silt	10 - gravelly sand to sand
2 - organic material	5 - clayey silt to silty clay	8 - sand to silty sand	11 - very stiff fine grained (*)
3 - clay	6 - sandy silt to clayey silt	9 - sand	12 - sand to clayey sand (*)

Data File:09-704-C1 2/13/2009 11:48:13 AM
Operator:D-120/CAP Location:TVA-Kingston
Cone ID:DTA1081 Job Number:60095742
Customer:TVA Units:

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
0.07	1.93	0.0412	2.131	0.006	1	1	sensitive fine grained
0.13	3.62	0.0611	1.686	0.019	1	1	sensitive fine grained
0.20	5.22	0.1874	3.590	0.059	7	6	sandy silt to clayey silt
0.26	12.99	0.3417	2.632	0.103	11	7	silty sand to sandy silt
0.33	32.41	0.4732	1.460	0.125	17	7	silty sand to sandy silt
0.39	72.01	0.7628	1.059	0.134	17	8	sand to silty sand
0.46	109.59	0.8992	0.820	0.137	22	8	sand to silty sand
0.52	128.14	0.9613	0.750	0.100	27	8	sand to silty sand
0.59	139.02	1.0900	0.784	0.234	32	8	sand to silty sand
0.66	156.50	1.1063	0.707	0.531	28	9	sand
0.72	162.78	1.2073	0.742	0.749	30	9	sand
0.79	164.15	1.3244	0.807	0.693	31	9	sand
0.85	168.34	1.4354	0.853	0.693	31	9	sand
0.92	165.73	1.5871	0.958	0.730	32	9	sand
0.98	163.64	1.7680	1.080	0.749	40	8	sand to silty sand
1.05	165.08	1.9934	1.208	0.749	40	8	sand to silty sand
1.12	168.83	2.2110	1.310	0.746	40	8	sand to silty sand
1.18	171.92	2.3025	1.339	0.799	41	8	sand to silty sand
1.25	173.51	2.4091	1.388	0.818	41	8	sand to silty sand
1.31	175.01	2.5066	1.432	0.815	41	8	sand to silty sand
1.38	177.31	2.4723	1.394	0.868	41	8	sand to silty sand
1.44	175.87	2.3251	1.322	0.942	41	8	sand to silty sand
1.51	168.18	2.2889	1.361	1.002	40	8	sand to silty sand
1.57	164.04	2.0946	1.277	0.999	39	8	sand to silty sand
1.64	157.57	1.8466	1.172	0.989	37	8	sand to silty sand
1.71	149.42	1.6874	1.129	1.024	36	8	sand to silty sand
1.77	143.15	1.4993	1.047	1.024	35	8	sand to silty sand
1.84	136.59	1.3440	0.984	1.098	34	8	sand to silty sand
1.90	135.53	1.3992	1.032	1.123	32	8	sand to silty sand
1.97	130.95	1.3578	1.037	1.226	31	8	sand to silty sand
2.03	127.84	1.3962	1.092	1.245	30	8	sand to silty sand
2.10	121.81	1.1412	0.937	1.283	29	8	sand to silty sand
2.17	117.65	1.1666	0.992	1.298	28	8	sand to silty sand
2.23	110.05	1.2034	1.094	1.270	27	8	sand to silty sand
2.30	106.75	1.1734	1.099	1.289	26	8	sand to silty sand
2.36	104.32	1.0709	1.027	1.276	25	8	sand to silty sand
2.43	87.84	0.9677	1.102	0.634	24	8	sand to silty sand
2.49	97.58	1.0049	1.030	0.637	24	8	sand to silty sand
2.56	96.12	1.0423	1.084	0.649	24	8	sand to silty sand
2.62	98.88	1.2038	1.217	0.652	24	8	sand to silty sand
2.69	104.01	1.2806	1.231	0.668	25	8	sand to silty sand
2.76	111.51	1.4034	1.259	0.665	25	8	sand to silty sand
2.82	106.67	1.5925	1.493	0.646	26	8	sand to silty sand
2.89	106.90	1.7974	1.681	0.696	27	8	sand to silty sand
2.95	111.60	1.9319	1.731	0.712	37	7	silty sand to sandy silt
3.02	119.39	2.1521	1.803	0.733	38	7	silty sand to sandy silt
3.08	129.51	2.3015	1.777	0.743	38	7	silty sand to sandy silt
3.15	130.92	2.3347	1.783	0.761	37	7	silty sand to sandy silt
3.22	120.57	2.3041	1.911	0.749	35	7	silty sand to sandy silt
3.28	104.16	2.2212	2.132	0.780	32	7	silty sand to sandy silt
3.35	86.84	2.0745	2.389	0.790	29	7	silty sand to sandy silt
3.41	71.94	1.8426	2.561	0.999	29	6	sandy silt to clayey silt
3.48	60.11	1.5654	2.604	1.601	25	6	sandy silt to clayey silt
3.54	51.38	1.3950	2.715	2.924	21	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
3.61	40.58	1.2433	3.064	5.230	17	6	sandy silt to clayey silt
3.67	33.72	1.1257	3.338	18.837	15	6	sandy silt to clayey silt
3.74	31.31	1.0071	3.217	44.077	17	5	clayey silt to silty clay
3.81	30.74	0.9204	2.994	47.591	16	5	clayey silt to silty clay
3.87	31.07	0.8478	2.729	47.042	15	5	clayey silt to silty clay
3.94	31.05	0.7902	2.544	44.623	11	6	sandy silt to clayey silt
4.00	30.20	0.7522	2.491	42.354	11	6	sandy silt to clayey silt
4.07	28.46	0.7050	2.478	40.385	11	6	sandy silt to clayey silt
4.13	26.21	0.6320	2.411	39.455	10	6	sandy silt to clayey silt
4.20	24.74	0.5313	2.147	39.062	10	6	sandy silt to clayey silt
4.27	24.58	0.4238	1.724	38.666	9	6	sandy silt to clayey silt
4.33	24.46	0.3476	1.421	37.595	8	6	sandy silt to clayey silt
4.40	21.37	0.3169	1.483	35.389	8	6	sandy silt to clayey silt
4.46	17.23	0.2873	1.668	34.100	7	6	sandy silt to clayey silt
4.53	13.69	0.2627	1.918	33.610	7	5	clayey silt to silty clay
4.59	11.11	0.2612	2.351	34.362	6	5	clayey silt to silty clay
4.66	9.97	0.2610	2.619	39.337	6	5	clayey silt to silty clay
4.72	10.05	0.2542	2.529	44.448	6	5	clayey silt to silty clay
4.79	11.08	0.2556	2.306	45.862	6	5	clayey silt to silty clay
4.86	13.91	0.2492	1.791	45.110	6	5	clayey silt to silty clay
4.92	15.23	0.2397	1.574	42.333	6	5	clayey silt to silty clay
4.99	13.80	0.2248	1.629	39.852	6	5	clayey silt to silty clay
5.05	11.96	0.2128	1.779	38.887	6	5	clayey silt to silty clay
5.12	11.27	0.2031	1.802	38.766	6	5	clayey silt to silty clay
5.18	10.55	0.2134	2.024	39.280	5	5	clayey silt to silty clay
5.25	10.02	0.2016	2.012	40.741	5	5	clayey silt to silty clay
5.31	10.10	0.2153	2.133	43.141	5	5	clayey silt to silty clay
5.38	10.61	0.2919	2.750	44.530	5	5	clayey silt to silty clay
5.45	11.56	0.2445	2.116	44.358	5	5	clayey silt to silty clay
5.51	12.48	0.2218	1.778	43.144	5	5	clayey silt to silty clay
5.58	12.09	0.1915	1.584	40.263	5	5	clayey silt to silty clay
5.64	10.33	0.1589	1.538	38.560	5	5	clayey silt to silty clay
5.71	8.85	0.1177	1.329	21.614	4	5	clayey silt to silty clay
5.77	6.84	0.1047	1.531	21.826	4	5	clayey silt to silty clay
5.84	5.79	0.1011	1.745	27.178	4	5	clayey silt to silty clay
5.91	6.55	0.1045	1.595	41.518	3	5	clayey silt to silty clay
5.97	7.96	0.1047	1.315	41.774	4	4	silty clay to clay
6.04	7.65	0.1180	1.543	39.174	4	4	silty clay to clay
6.10	6.45	0.1079	1.672	37.480	4	4	silty clay to clay
6.17	5.81	0.1120	1.928	37.059	4	4	silty clay to clay
6.23	5.46	0.1121	2.053	36.834	4	4	silty clay to clay
6.30	5.53	0.1059	1.913	36.650	4	4	silty clay to clay
6.36	6.85	0.1010	1.475	36.469	4	4	silty clay to clay
6.43	8.01	0.0977	1.219	36.047	4	4	silty clay to clay
6.50	7.54	0.0891	1.182	35.542	4	4	silty clay to clay
6.56	6.90	0.0855	1.239	35.202	4	4	silty clay to clay
6.63	6.30	0.1130	1.795	34.918	5	4	silty clay to clay
6.69	6.04	0.1623	2.688	34.743	6	4	silty clay to clay
6.76	7.66	0.2317	3.026	34.612	7	4	silty clay to clay
6.82	11.17	0.3336	2.987	34.459	7	5	clayey silt to silty clay
6.89	17.28	0.4858	2.811	34.272	10	5	clayey silt to silty clay
6.96	25.40	0.7111	2.799	33.879	11	6	sandy silt to clayey silt
7.02	35.45	0.9293	2.621	33.385	14	6	sandy silt to clayey silt
7.09	46.57	1.1201	2.405	32.892	16	6	sandy silt to clayey silt
7.15	57.06	1.2608	2.210	32.359	17	6	sandy silt to clayey silt
7.22	62.49	1.3195	2.111	31.785	17	6	sandy silt to clayey silt
7.28	49.97	1.2043	2.410	31.170	16	6	sandy silt to clayey silt
7.35	37.59	1.0241	2.724	30.655	14	6	sandy silt to clayey silt
7.41	25.28	0.7477	2.958	30.230	12	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
7.48	17.52	0.4404	2.513	29.834	11	5	clayey silt to silty clay
7.55	13.02	0.2722	2.090	29.538	8	5	clayey silt to silty clay
7.61	7.99	0.2024	2.532	29.347	7	4	silty clay to clay
7.68	5.97	0.1730	2.900	29.347	5	4	silty clay to clay
7.74	4.79	0.1872	3.909	29.394	5	4	silty clay to clay
7.81	4.10	0.1584	3.859	29.494	4	4	silty clay to clay
7.87	4.78	0.1573	3.292	29.625	5	4	silty clay to clay
7.94	9.76	0.1680	1.721	29.634	5	4	silty clay to clay
8.01	11.62	0.1990	1.713	29.531	5	4	silty clay to clay
8.07	10.71	0.2034	1.899	29.391	5	4	silty clay to clay
8.14	8.82	0.1843	2.090	29.244	5	4	silty clay to clay
8.20	7.06	0.1657	2.346	29.123	5	4	silty clay to clay
8.27	5.65	0.1410	2.497	29.051	4	4	silty clay to clay
8.33	4.50	0.1268	2.819	28.988	5	3	clay
8.40	3.77	0.1043	2.767	28.938	5	3	clay
8.46	3.44	0.0865	2.518	28.942	4	3	clay
8.53	3.97	0.0797	2.007	28.917	4	3	clay
8.60	4.90	0.0955	1.951	28.873	4	3	clay
8.66	4.44	0.0728	1.641	28.807	3	3	clay
8.73	3.39	0.0820	2.421	28.745	4	3	clay
8.79	2.61	0.0819	3.143	28.714	2	1	sensitive fine grained
8.86	2.16	0.0646	2.988	28.686	2	1	sensitive fine grained
8.92	4.78	0.0572	1.195	25.749	2	1	sensitive fine grained
8.99	4.63	0.0503	1.085	25.752	2	1	sensitive fine grained
9.06	5.28	0.0456	0.865	25.746	2	1	sensitive fine grained
9.12	4.36	0.0408	0.935	25.718	2	1	sensitive fine grained
9.19	3.34	0.0455	1.362	25.680	2	1	sensitive fine grained
9.25	2.44	0.0552	2.267	25.687	3	3	clay
9.32	2.11	0.0701	3.320	25.740	4	3	clay
9.38	2.61	0.1066	4.079	25.799	4	4	silty clay to clay
9.45	5.10	0.1653	3.243	25.852	5	5	clayey silt to silty clay
9.51	10.55	0.2618	2.482	25.871	7	5	clayey silt to silty clay
9.58	17.93	0.3615	2.016	25.852	9	6	sandy silt to clayey silt
9.65	27.02	0.4658	1.724	25.808	12	6	sandy silt to clayey silt
9.71	40.08	0.6102	1.523	25.765	13	7	silty sand to sandy silt
9.78	52.11	0.7485	1.436	25.702	15	7	silty sand to sandy silt
9.84	61.71	0.8837	1.432	25.618	18	7	silty sand to sandy silt
9.91	67.33	1.0033	1.490	25.534	20	7	silty sand to sandy silt
9.97	70.91	1.0914	1.539	25.462	21	7	silty sand to sandy silt
10.04	70.54	1.1939	1.692	25.406	22	7	silty sand to sandy silt
10.10	69.59	1.2914	1.856	25.350	22	7	silty sand to sandy silt
10.17	68.40	1.3264	1.939	25.315	22	7	silty sand to sandy silt
10.24	68.13	1.3637	2.002	25.275	22	7	silty sand to sandy silt
10.30	69.06	1.4470	2.095	25.243	21	7	silty sand to sandy silt
10.37	69.13	1.5103	2.185	25.222	24	6	sandy silt to clayey silt
10.43	65.27	1.5305	2.345	25.190	22	6	sandy silt to clayey silt
10.50	55.82	1.4366	2.573	25.144	19	6	sandy silt to clayey silt
10.56	38.86	1.1161	2.872	25.053	16	6	sandy silt to clayey silt
10.63	27.60	0.7427	2.691	25.016	13	6	sandy silt to clayey silt
10.70	19.98	0.4161	2.083	24.950	12	5	clayey silt to silty clay
10.76	13.97	0.2432	1.741	24.894	8	5	clayey silt to silty clay
10.83	8.28	0.1589	1.920	24.853	6	5	clayey silt to silty clay
10.89	5.00	0.1141	2.283	24.947	5	4	silty clay to clay
10.96	3.56	0.0777	2.180	25.047	4	4	silty clay to clay
11.02	2.67	0.0582	2.177	25.147	3	4	silty clay to clay
11.09	2.39	0.0547	2.289	25.272	2	1	sensitive fine grained
11.15	2.98	0.0583	1.958	25.390	2	1	sensitive fine grained
11.22	4.73	0.0602	1.273	25.412	2	1	sensitive fine grained
11.29	4.75	0.0635	1.336	25.421	2	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
11.35	4.01	0.0679	1.692	25.393	2	1	sensitive fine grained
11.42	3.16	0.0654	2.070	25.390	2	1	sensitive fine grained
11.48	2.50	0.0527	2.110	25.412	1	1	sensitive fine grained
11.55	2.17	0.0417	1.922	25.434	1	1	sensitive fine grained
11.61	1.90	0.0379	1.994	25.459	1	1	sensitive fine grained
11.68	1.66	0.0352	2.117	25.493	1	1	sensitive fine grained
11.75	1.78	0.0360	2.028	25.484	1	1	sensitive fine grained
11.81	1.75	0.0302	1.731	25.493	1	1	sensitive fine grained
11.88	1.69	0.0334	1.973	25.518	1	1	sensitive fine grained
11.94	1.67	0.0270	1.623	25.512	1	1	sensitive fine grained
12.01	1.79	0.0292	1.633	25.490	1	1	sensitive fine grained
12.07	2.13	0.0413	1.941	25.456	1	1	sensitive fine grained
12.14	2.27	0.0493	2.171	25.443	1	1	sensitive fine grained
12.20	3.38	0.0444	1.314	23.827	1	1	sensitive fine grained
12.27	2.50	0.0448	1.789	23.827	1	1	sensitive fine grained
12.34	2.14	0.0480	2.240	23.852	1	1	sensitive fine grained
12.40	1.79	0.0439	2.448	23.867	1	1	sensitive fine grained
12.47	1.73	0.0368	2.125	23.886	1	1	sensitive fine grained
12.53	1.74	0.0289	1.657	23.914	1	1	sensitive fine grained
12.60	1.69	0.0302	1.791	23.905	1	1	sensitive fine grained
12.66	1.60	0.0235	1.472	23.920	1	1	sensitive fine grained
12.73	1.55	0.0208	1.342	23.936	1	1	sensitive fine grained
12.80	1.50	0.0230	1.530	23.948	1	1	sensitive fine grained
12.86	1.63	0.0305	1.871	23.933	1	1	sensitive fine grained
12.93	1.61	0.0302	1.875	23.939	1	1	sensitive fine grained
12.99	1.51	0.0261	1.735	23.945	1	1	sensitive fine grained
13.06	1.53	0.0215	1.409	23.967	1	1	sensitive fine grained
13.12	1.43	0.0207	1.444	23.973	1	1	sensitive fine grained
13.19	1.34	0.0282	2.105	23.995	1	1	sensitive fine grained
13.25	1.36	0.0273	2.000	24.011	1	1	sensitive fine grained
13.32	1.48	0.0281	1.893	24.026	1	1	sensitive fine grained
13.39	1.57	0.0349	2.228	24.017	1	1	sensitive fine grained
13.45	1.51	0.0345	2.290	24.020	1	1	sensitive fine grained
13.52	1.44	0.0302	2.095	24.026	1	1	sensitive fine grained
13.58	1.35	0.0276	2.052	24.042	1	1	sensitive fine grained
13.65	1.34	0.0295	2.199	24.039	1	1	sensitive fine grained
13.71	1.33	0.0240	1.802	24.008	1	1	sensitive fine grained
13.78	1.32	0.0242	1.835	24.014	1	1	sensitive fine grained
13.85	1.40	0.0236	1.680	24.039	1	1	sensitive fine grained
13.91	1.56	0.0240	1.543	24.011	1	1	sensitive fine grained
13.98	1.54	0.0215	1.403	24.017	1	1	sensitive fine grained
14.04	1.54	0.0307	1.998	24.042	1	1	sensitive fine grained
14.11	1.61	0.0287	1.784	24.039	1	1	sensitive fine grained
14.17	1.63	0.0375	2.304	24.058	1	1	sensitive fine grained
14.24	1.80	0.0365	2.028	24.073	1	1	sensitive fine grained
14.30	2.23	0.0417	1.869	24.092	1	1	sensitive fine grained
14.37	2.46	0.0368	1.495	24.111	1	1	sensitive fine grained
14.44	2.78	0.0381	1.372	24.142	1	1	sensitive fine grained
14.50	3.00	0.0336	1.122	24.170	1	1	sensitive fine grained
14.57	3.13	0.0492	1.572	24.133	1	1	sensitive fine grained
14.63	2.46	0.0400	1.626	24.108	1	1	sensitive fine grained
14.70	1.76	0.0336	1.903	24.083	1	1	sensitive fine grained
14.76	1.37	0.0334	2.437	24.114	1	1	sensitive fine grained
14.83	1.24	0.0312	2.526	24.151	1	1	sensitive fine grained
14.90	1.11	0.0292	2.627	24.151	1	1	sensitive fine grained
14.96	1.24	0.0259	2.096	24.170	1	2	organic material
15.03	1.22	0.0256	2.093	24.198	1	2	organic material
15.09	1.26	0.0375	2.970	24.204	1	2	organic material
15.16	1.32	0.0474	3.589	24.211	1	3	clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
15.22	1.35	0.0484	3.596	24.242	2	3	clay
15.29	1.72	0.0531	3.091	24.270	2	3	clay
15.35	1.98	0.0511	2.584	24.270	1	1	sensitive fine grained
15.42	3.22	0.0495	1.535	23.380	1	1	sensitive fine grained
15.49	2.74	0.0458	1.672	23.418	1	1	sensitive fine grained
15.55	2.41	0.0394	1.635	23.458	1	1	sensitive fine grained
15.62	2.09	0.0327	1.567	23.477	1	1	sensitive fine grained
15.68	1.83	0.0345	1.885	23.527	1	1	sensitive fine grained
15.75	1.71	0.0231	1.350	23.561	1	1	sensitive fine grained
15.81	1.58	0.0260	1.650	23.590	1	1	sensitive fine grained
15.88	1.66	0.0258	1.551	23.649	1	1	sensitive fine grained
15.94	1.86	0.0347	1.865	23.686	1	1	sensitive fine grained
16.01	2.01	0.0270	1.342	23.705	1	1	sensitive fine grained
16.08	2.32	0.0283	1.220	23.761	1	1	sensitive fine grained
16.14	2.92	0.0295	1.012	23.827	1	1	sensitive fine grained
16.21	3.15	0.0361	1.144	23.792	2	1	sensitive fine grained
16.27	3.22	0.0554	1.721	23.764	2	1	sensitive fine grained
16.34	4.30	0.0601	1.396	23.802	2	1	sensitive fine grained
16.40	5.68	0.0723	1.272	23.811	2	1	sensitive fine grained
16.47	4.73	0.0676	1.430	23.789	2	1	sensitive fine grained
16.54	3.66	0.0654	1.785	23.802	2	1	sensitive fine grained
16.60	3.20	0.0619	1.931	23.824	2	1	sensitive fine grained
16.67	3.03	0.0571	1.885	23.858	2	1	sensitive fine grained
16.73	2.87	0.0494	1.722	23.898	1	1	sensitive fine grained
16.80	2.66	0.0379	1.425	23.942	1	1	sensitive fine grained
16.86	2.44	0.0394	1.619	23.961	1	1	sensitive fine grained
16.93	2.00	0.0246	1.231	24.020	1	1	sensitive fine grained
16.99	1.76	0.0222	1.260	24.036	1	1	sensitive fine grained
17.06	1.72	0.0189	1.096	24.073	1	1	sensitive fine grained
17.13	1.83	0.0168	0.920	24.117	1	1	sensitive fine grained
17.19	1.94	0.0276	1.420	24.133	1	1	sensitive fine grained
17.26	2.02	0.0303	1.499	24.161	1	1	sensitive fine grained
17.32	1.81	0.0345	1.904	24.173	1	1	sensitive fine grained
17.39	1.72	0.0329	1.911	24.195	1	1	sensitive fine grained
17.45	1.71	0.0261	1.526	24.232	1	1	sensitive fine grained
17.52	1.57	0.0256	1.629	24.267	1	1	sensitive fine grained
17.59	1.62	0.0215	1.332	24.276	1	1	sensitive fine grained
17.65	1.84	0.0157	0.849	24.292	1	1	sensitive fine grained
17.72	1.93	0.0198	1.029	24.310	1	1	sensitive fine grained
17.78	1.98	0.0223	1.129	24.332	1	1	sensitive fine grained
17.85	1.98	0.0185	0.939	24.382	1	1	sensitive fine grained
17.91	1.91	0.0315	1.651	24.423	1	1	sensitive fine grained
17.98	1.93	0.0332	1.721	24.441	1	1	sensitive fine grained
18.04	1.74	0.0327	1.873	24.463	1	1	sensitive fine grained
18.11	1.69	0.0309	1.826	24.510	1	1	sensitive fine grained
18.18	1.84	0.0254	1.380	24.519	1	1	sensitive fine grained
18.24	1.73	0.0256	1.480	24.548	1	1	sensitive fine grained
18.31	1.79	0.0555	3.100	24.563	1	1	sensitive fine grained
18.37	1.72	0.0465	2.701	24.601	2	3	clay
18.44	1.85	0.0525	2.834	24.588	2	3	clay
18.50	1.86	0.0503	2.700	24.626	2	3	clay
18.57	1.69	0.0565	3.354	24.676	2	3	clay
18.64	2.72	0.0598	2.197	23.446	2	3	clay
18.70	2.04	0.0465	2.281	23.499	2	2	organic material
18.77	1.85	0.1194	6.440	23.527	2	2	organic material
18.83	1.77	0.2845	16.070	23.590	8	3	clay
18.90	2.29	0.4141	18.067	23.643	8	5	clayey silt to silty clay
18.96	5.64	0.5204	9.230	23.789	9	6	sandy silt to clayey silt
19.03	39.29	0.5622	1.431	23.839	12	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
19.09	58.80	0.5476	0.931	23.708	12	7	silty sand to sandy silt
19.16	56.18	0.5163	0.919	23.561	13	7	silty sand to sandy silt
19.23	51.92	0.4479	0.863	23.462	14	7	silty sand to sandy silt
19.29	44.72	0.3587	0.802	23.309	13	7	silty sand to sandy silt
19.36	34.72	0.2919	0.841	23.287	11	7	silty sand to sandy silt
19.42	22.62	0.2680	1.185	23.237	10	6	sandy silt to clayey silt
19.49	14.50	0.2158	1.488	23.271	8	6	sandy silt to clayey silt
19.55	10.30	0.1687	1.637	23.362	6	6	sandy silt to clayey silt
19.62	7.70	0.1565	2.033	23.499	6	5	clayey silt to silty clay
19.69	6.61	0.1512	2.287	23.830	6	5	clayey silt to silty clay
19.75	11.33	0.1538	1.357	24.164	6	5	clayey silt to silty clay
19.82	15.65	0.1910	1.221	24.045	6	5	clayey silt to silty clay
19.88	16.16	0.2144	1.327	23.976	7	5	clayey silt to silty clay
19.95	16.56	0.2370	1.431	23.992	6	6	sandy silt to clayey silt
20.01	15.49	0.2589	1.672	23.970	6	6	sandy silt to clayey silt
20.08	15.40	0.2706	1.757	23.973	7	5	clayey silt to silty clay
20.14	16.94	0.2520	1.488	23.973	7	5	clayey silt to silty clay
20.21	14.37	0.2278	1.586	23.989	6	5	clayey silt to silty clay
20.28	10.97	0.2028	1.848	24.001	6	5	clayey silt to silty clay
20.34	9.59	0.1871	1.952	24.142	6	5	clayey silt to silty clay
20.41	10.14	0.2190	2.160	24.298	6	5	clayey silt to silty clay
20.47	10.73	0.2768	2.580	24.401	6	5	clayey silt to silty clay
20.54	11.65	0.3213	2.758	24.463	6	5	clayey silt to silty clay
20.60	14.12	0.3609	2.556	24.526	7	5	clayey silt to silty clay
20.67	17.48	0.3785	2.166	24.476	8	5	clayey silt to silty clay
20.73	20.32	0.3739	1.840	24.385	7	6	sandy silt to clayey silt
20.80	22.68	0.3819	1.684	24.276	8	6	sandy silt to clayey silt
20.87	24.17	0.3892	1.611	24.170	9	6	sandy silt to clayey silt
20.93	25.20	0.3949	1.567	24.104	9	6	sandy silt to clayey silt
21.00	25.96	0.3951	1.522	24.030	10	6	sandy silt to clayey silt
21.06	26.28	0.3916	1.490	24.008	10	6	sandy silt to clayey silt
21.13	26.07	0.3850	1.477	23.939	10	6	sandy silt to clayey silt
21.19	25.63	0.3740	1.459	23.902	10	6	sandy silt to clayey silt
21.26	25.58	0.3811	1.490	23.833	10	6	sandy silt to clayey silt
21.33	25.27	0.3579	1.416	23.783	10	6	sandy silt to clayey silt
21.39	24.95	0.3497	1.402	23.721	10	6	sandy silt to clayey silt
21.46	24.76	0.3323	1.342	23.711	10	6	sandy silt to clayey silt
21.52	24.80	0.2834	1.143	23.664	10	6	sandy silt to clayey silt
21.59	24.58	0.2749	1.118	23.639	10	6	sandy silt to clayey silt
21.65	24.89	0.2704	1.086	23.639	10	6	sandy silt to clayey silt
21.72	25.27	0.2668	1.056	23.593	10	6	sandy silt to clayey silt
21.78	25.77	0.2853	1.107	23.524	10	6	sandy silt to clayey silt
21.85	25.70	0.3100	1.207	22.273	10	6	sandy silt to clayey silt
21.92	25.71	0.3194	1.242	22.260	9	6	sandy silt to clayey silt
21.98	25.00	0.3509	1.404	22.207	9	6	sandy silt to clayey silt
22.05	23.10	0.3697	1.600	22.210	8	6	sandy silt to clayey silt
22.11	20.45	0.3853	1.884	22.223	8	6	sandy silt to clayey silt
22.18	17.34	0.3708	2.138	22.213	9	5	clayey silt to silty clay
22.24	15.63	0.3587	2.295	22.223	8	5	clayey silt to silty clay
22.31	14.71	0.3373	2.293	22.191	8	5	clayey silt to silty clay
22.38	14.20	0.3187	2.245	22.188	7	5	clayey silt to silty clay
22.44	13.94	0.3049	2.187	22.160	7	5	clayey silt to silty clay
22.51	13.58	0.2869	2.112	22.210	6	5	clayey silt to silty clay
22.57	12.78	0.2831	2.215	22.220	6	5	clayey silt to silty clay
22.64	11.56	0.2728	2.360	22.232	5	5	clayey silt to silty clay
22.70	10.38	0.2607	2.510	22.229	7	4	silty clay to clay
22.77	9.18	0.2371	2.583	22.244	6	4	silty clay to clay
22.83	8.17	0.2318	2.839	22.226	5	4	silty clay to clay
22.90	6.88	0.2098	3.050	22.210	7	3	clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
22.97	5.69	0.1991	3.497	22.266	6	3	clay
23.03	5.19	0.1860	3.585	22.354	6	3	clay
23.10	4.94	0.1818	3.678	22.435	5	3	clay
23.16	5.04	0.1747	3.464	22.532	5	3	clay
23.23	5.18	0.1619	3.129	22.635	5	3	clay
23.29	5.11	0.1518	2.969	22.635	4	3	clay
23.36	4.68	0.1318	2.818	22.675	4	3	clay
23.43	4.15	0.1235	2.975	22.703	4	3	clay
23.49	3.54	0.1003	2.830	22.750	4	3	clay
23.56	3.21	0.0912	2.837	22.897	3	3	clay
23.62	3.01	0.0753	2.496	23.062	3	3	clay
23.69	3.19	0.0677	2.122	23.265	3	3	clay
23.75	3.27	0.0483	1.476	23.446	1	1	sensitive fine grained
23.82	3.09	0.0462	1.495	23.627	1	1	sensitive fine grained
23.88	2.75	0.0505	1.837	23.696	1	1	sensitive fine grained
23.95	2.56	0.0388	1.516	23.811	1	1	sensitive fine grained
24.02	2.61	0.0456	1.747	23.877	1	1	sensitive fine grained
24.08	2.88	0.0302	1.050	24.164	1	1	sensitive fine grained
24.15	2.88	0.0355	1.233	24.310	1	1	sensitive fine grained
24.21	2.83	0.0519	1.836	24.495	3	3	clay
24.28	2.85	0.0907	3.186	24.738	4	3	clay
24.34	3.58	0.1059	2.955	25.003	5	3	clay
24.41	6.56	0.1429	2.179	25.125	5	3	clay
24.48	7.45	0.1692	2.270	24.872	5	3	clay
24.54	6.93	0.1628	2.350	24.482	5	3	clay
24.61	5.80	0.1486	2.560	24.235	5	3	clay
24.67	4.58	0.1256	2.741	24.251	5	3	clay
24.74	3.91	0.1006	2.571	24.351	4	3	clay
24.80	3.62	0.1289	3.558	24.441	4	3	clay
24.87	3.19	0.1125	3.527	24.597	3	3	clay
24.93	2.91	0.1010	3.473	24.919	3	3	clay
25.00	2.92	0.0972	3.329	25.147	3	3	clay
25.07	2.82	0.0887	3.146	25.328	3	3	clay
25.13	4.67	0.0841	1.802	22.020	3	3	clay
25.20	3.88	0.0683	1.759	22.063	3	3	clay
25.26	3.26	0.0597	1.828	22.266	2	1	sensitive fine grained
25.33	2.99	0.0472	1.583	22.388	2	1	sensitive fine grained
25.39	2.78	0.0373	1.343	22.656	1	1	sensitive fine grained
25.46	2.85	0.0318	1.116	22.884	1	1	sensitive fine grained
25.52	2.82	0.0273	0.968	23.071	1	1	sensitive fine grained
25.59	2.69	0.0290	1.078	23.302	1	1	sensitive fine grained
25.66	2.69	0.0255	0.950	23.546	1	1	sensitive fine grained
25.72	2.59	0.0349	1.349	23.892	1	1	sensitive fine grained
25.79	2.64	0.0379	1.438	24.173	1	1	sensitive fine grained
25.85	2.69	0.0292	1.085	24.438	1	1	sensitive fine grained
25.92	2.96	0.0200	0.677	24.760	1	1	sensitive fine grained
25.98	3.17	0.0291	0.917	24.906	1	1	sensitive fine grained
26.05	2.68	0.0312	1.165	24.969	1	1	sensitive fine grained
26.12	2.34	0.0352	1.507	25.059	1	1	sensitive fine grained
26.18	2.35	0.0319	1.355	25.275	1	1	sensitive fine grained
26.25	2.34	0.0296	1.266	25.540	1	1	sensitive fine grained
26.31	2.39	0.0154	0.644	25.752	1	1	sensitive fine grained
26.38	2.31	0.0116	0.501	26.021	1	1	sensitive fine grained
26.44	2.29	0.0184	0.803	26.198	1	1	sensitive fine grained
26.51	2.31	0.0136	0.589	26.280	1	1	sensitive fine grained
26.57	2.36	0.0157	0.668	26.345	1	1	sensitive fine grained
26.64	2.48	0.0347	1.399	26.526	1	1	sensitive fine grained
26.71	2.59	0.0227	0.875	26.782	1	1	sensitive fine grained
26.77	2.81	0.0307	1.091	27.075	1	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
26.84	3.09	0.0309	1.003	27.088	1	1	sensitive fine grained
26.90	2.73	0.0230	0.842	27.181	1	1	sensitive fine grained
26.97	2.58	0.0304	1.179	27.272	1	1	sensitive fine grained
27.03	2.78	0.0226	0.812	27.721	2	1	sensitive fine grained
27.10	3.09	0.0526	1.703	28.111	2	1	sensitive fine grained
27.17	4.31	0.0609	1.413	28.171	2	1	sensitive fine grained
27.23	4.89	0.0815	1.666	27.940	2	1	sensitive fine grained
27.30	4.88	0.0674	1.381	27.703	2	1	sensitive fine grained
27.36	4.12	0.0823	2.001	27.821	2	1	sensitive fine grained
27.43	3.57	0.0670	1.878	28.236	2	1	sensitive fine grained
27.49	3.19	0.0526	1.647	28.364	2	1	sensitive fine grained
27.56	2.94	0.0370	1.261	28.467	2	1	sensitive fine grained
27.62	2.93	0.0212	0.723	28.860	1	1	sensitive fine grained
27.69	2.70	0.0262	0.971	29.172	1	1	sensitive fine grained
27.76	2.70	0.0287	1.063	29.460	1	1	sensitive fine grained
27.82	2.50	0.0111	0.443	29.706	1	1	sensitive fine grained
27.89	2.72	0.0302	1.109	29.903	1	1	sensitive fine grained
27.95	3.22	0.0155	0.482	30.165	1	1	sensitive fine grained
28.02	3.04	0.0477	1.569	30.243	1	1	sensitive fine grained
28.08	3.21	0.0536	1.669	30.262	2	1	sensitive fine grained
28.15	3.44	0.0667	1.938	30.542	2	1	sensitive fine grained
28.22	3.48	0.0698	2.002	30.627	2	1	sensitive fine grained
28.28	4.37	0.0696	1.590	30.986	2	1	sensitive fine grained
28.35	4.04	0.0801	1.985	23.989	2	1	sensitive fine grained
28.41	4.02	0.0886	2.204	25.190	2	1	sensitive fine grained
28.48	4.26	0.0804	1.889	27.852	3	1	sensitive fine grained
28.54	5.11	0.0829	1.623	29.347	3	1	sensitive fine grained
28.61	7.01	0.0893	1.275	30.274	4	4	silty clay to clay
28.67	9.08	0.1019	1.123	29.759	4	4	silty clay to clay
28.74	7.75	0.1164	1.503	27.930	4	4	silty clay to clay
28.81	6.20	0.1338	2.158	27.537	4	4	silty clay to clay
28.87	4.93	0.1377	2.793	28.951	4	4	silty clay to clay
28.94	5.06	0.1391	2.747	30.443	3	4	silty clay to clay
29.00	5.06	0.1142	2.256	30.814	5	3	clay
29.07	4.70	0.0996	2.118	30.496	5	3	clay
29.13	4.39	0.1067	2.432	29.896	5	3	clay
29.20	4.54	0.1290	2.842	30.290	5	3	clay
29.27	4.96	0.1361	2.743	31.051	5	3	clay
29.33	5.83	0.1518	2.602	31.950	6	3	clay
29.40	6.61	0.1627	2.462	32.764	4	4	silty clay to clay
29.46	7.21	0.1681	2.332	32.846	4	4	silty clay to clay
29.53	7.26	0.1796	2.475	32.836	5	4	silty clay to clay
29.59	7.39	0.2011	2.721	33.027	5	4	silty clay to clay
29.66	7.42	0.2043	2.755	33.460	5	4	silty clay to clay
29.72	7.68	0.2082	2.711	33.660	5	4	silty clay to clay
29.79	8.25	0.2163	2.623	34.010	5	4	silty clay to clay
29.86	8.77	0.2394	2.729	35.314	6	4	silty clay to clay
29.92	9.59	0.3681	3.837	36.088	6	4	silty clay to clay
29.99	10.99	0.4106	3.736	38.856	7	4	silty clay to clay
30.05	11.62	0.3776	3.250	39.664	7	4	silty clay to clay
30.12	11.96	0.3772	3.153	40.338	11	3	clay
30.18	12.71	0.4195	3.301	41.574	12	3	clay
30.25	13.15	0.6078	4.623	43.091	13	3	clay
30.31	13.77	0.6452	4.684	46.745	14	3	clay
30.38	14.07	0.7360	5.230	48.334	15	3	clay
30.45	14.85	0.8479	5.710	50.758	10	4	silty clay to clay
30.51	20.74	0.6907	3.331	18.300	11	4	silty clay to clay
30.58	19.48	0.5642	2.896	18.525	11	4	silty clay to clay
30.64	18.45	0.5189	2.813	20.091	9	5	clayey silt to silty clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
30.71	17.64	0.4679	2.653	22.915	9	5	clayey silt to silty clay
30.77	17.83	0.4266	2.393	30.149	9	5	clayey silt to silty clay
30.84	18.07	0.3849	2.130	36.703	9	5	clayey silt to silty clay
30.91	17.77	0.3784	2.129	43.731	9	5	clayey silt to silty clay
30.97	17.45	0.3965	2.272	52.512	9	5	clayey silt to silty clay
31.04	17.89	0.3960	2.214	62.165	9	5	clayey silt to silty clay
31.10	18.06	0.3687	2.042	68.300	9	5	clayey silt to silty clay
31.17	18.20	0.3697	2.031	72.613	9	5	clayey silt to silty clay
31.23	18.56	0.2876	1.550	73.527	8	5	clayey silt to silty clay
31.30	17.76	0.3981	2.242	71.458	8	5	clayey silt to silty clay
31.36	17.11	0.4637	2.710	73.259	8	5	clayey silt to silty clay
31.43	16.37	0.4229	2.583	73.958	8	5	clayey silt to silty clay
31.50	15.95	0.3507	2.200	74.573	8	5	clayey silt to silty clay
31.56	18.42	0.3302	1.792	48.930	8	5	clayey silt to silty clay
31.63	16.41	0.3258	1.986	48.022	8	5	clayey silt to silty clay
31.69	15.55	0.2890	1.858	55.199	8	5	clayey silt to silty clay
31.76	15.35	0.2729	1.779	65.014	8	5	clayey silt to silty clay
31.82	15.57	0.2736	1.757	72.806	8	5	clayey silt to silty clay
31.89	15.79	0.2618	1.658	75.275	7	5	clayey silt to silty clay
31.96	15.57	0.2720	1.747	77.138	7	5	clayey silt to silty clay
32.02	15.44	0.2768	1.793	77.456	7	5	clayey silt to silty clay
32.09	14.61	0.2762	1.890	75.084	7	5	clayey silt to silty clay
32.15	14.36	0.2564	1.786	77.391	7	5	clayey silt to silty clay
32.22	14.73	0.2584	1.755	81.104	7	5	clayey silt to silty clay
32.28	14.44	0.2729	1.890	82.462	7	5	clayey silt to silty clay
32.35	14.99	0.2758	1.841	85.495	7	5	clayey silt to silty clay
32.41	15.60	0.2555	1.639	89.746	7	5	clayey silt to silty clay
32.48	15.86	0.2508	1.581	88.560	7	5	clayey silt to silty clay
32.55	15.57	0.2286	1.468	85.311	7	5	clayey silt to silty clay
32.61	15.25	0.2289	1.501	83.545	6	6	sandy silt to clayey silt
32.68	14.85	0.2396	1.613	83.969	6	6	sandy silt to clayey silt
32.74	14.63	0.2196	1.501	86.363	6	6	sandy silt to clayey silt
32.81	14.22	0.2013	1.415	87.851	7	5	clayey silt to silty clay
32.87	14.14	0.1921	1.359	88.101	7	5	clayey silt to silty clay
32.94	14.06	0.1999	1.421	89.711	7	5	clayey silt to silty clay
33.01	14.09	0.3634	2.578	95.400	7	5	clayey silt to silty clay
33.07	14.23	0.3935	2.765	100.019	7	5	clayey silt to silty clay
33.14	14.13	0.4190	2.965	93.803	7	5	clayey silt to silty clay
33.20	14.04	0.4238	3.019	92.748	7	5	clayey silt to silty clay
33.27	13.99	0.3796	2.714	91.930	7	5	clayey silt to silty clay
33.33	16.21	0.3327	2.053	18.843	7	5	clayey silt to silty clay
33.40	14.86	0.2851	1.919	21.202	7	5	clayey silt to silty clay
33.46	14.39	0.2704	1.879	25.212	7	5	clayey silt to silty clay
33.53	13.99	0.2586	1.849	33.619	7	5	clayey silt to silty clay
33.60	13.79	0.2616	1.897	42.245	7	5	clayey silt to silty clay
33.66	13.41	0.2644	1.972	50.284	6	5	clayey silt to silty clay
33.73	13.26	0.2508	1.892	55.362	6	5	clayey silt to silty clay
33.79	13.05	0.2447	1.874	57.181	6	5	clayey silt to silty clay
33.86	12.90	0.2377	1.842	57.892	6	5	clayey silt to silty clay
33.92	12.65	0.2396	1.894	60.445	6	5	clayey silt to silty clay
33.99	12.45	0.2252	1.808	63.248	6	5	clayey silt to silty clay
34.06	12.26	0.2351	1.918	66.297	6	5	clayey silt to silty clay
34.12	12.37	0.2261	1.828	69.670	6	5	clayey silt to silty clay
34.19	12.44	0.2182	1.753	71.255	6	5	clayey silt to silty clay
34.25	12.13	0.2309	1.904	71.929	6	5	clayey silt to silty clay
34.32	12.26	0.1850	1.510	72.313	6	5	clayey silt to silty clay
34.38	12.55	0.2475	1.972	72.969	6	5	clayey silt to silty clay
34.45	12.93	0.2580	1.996	73.530	6	5	clayey silt to silty clay
34.51	13.35	0.2805	2.101	70.513	6	5	clayey silt to silty clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
34.58	13.25	0.2979	2.249	68.147	6	5	clayey silt to silty clay
34.65	14.00	0.3041	2.173	49.051	6	5	clayey silt to silty clay
34.71	13.48	0.3132	2.324	52.157	6	5	clayey silt to silty clay
34.78	13.11	0.2782	2.122	56.928	6	5	clayey silt to silty clay
34.84	12.89	0.2531	1.963	60.667	6	5	clayey silt to silty clay
34.91	12.79	0.2274	1.778	63.491	6	5	clayey silt to silty clay
34.97	12.40	0.2195	1.769	65.526	6	5	clayey silt to silty clay
35.04	11.93	0.2079	1.743	69.860	6	5	clayey silt to silty clay
35.10	11.92	0.1953	1.638	73.131	6	5	clayey silt to silty clay
35.17	11.82	0.1765	1.493	74.894	6	5	clayey silt to silty clay
35.24	11.92	0.1770	1.485	75.312	6	5	clayey silt to silty clay
35.30	11.93	0.1889	1.583	74.882	6	5	clayey silt to silty clay
35.37	11.76	0.1852	1.574	74.838	6	5	clayey silt to silty clay
35.43	11.81	0.1818	1.539	74.073	6	5	clayey silt to silty clay
35.50	11.79	0.1953	1.656	72.750	6	5	clayey silt to silty clay
35.56	11.63	0.2171	1.868	72.301	6	5	clayey silt to silty clay
35.63	11.90	0.2094	1.759	70.956	6	5	clayey silt to silty clay
35.70	12.35	0.2008	1.626	68.737	6	5	clayey silt to silty clay
35.76	12.44	0.2008	1.614	65.030	6	5	clayey silt to silty clay
35.83	12.07	0.1950	1.616	61.812	6	5	clayey silt to silty clay
35.89	11.57	0.1829	1.581	64.549	6	5	clayey silt to silty clay
35.96	11.42	0.1698	1.487	67.601	6	5	clayey silt to silty clay
36.02	11.27	0.1579	1.401	69.392	5	5	clayey silt to silty clay
36.09	11.09	0.1619	1.460	70.123	5	5	clayey silt to silty clay
36.15	11.05	0.1510	1.367	71.917	5	5	clayey silt to silty clay
36.22	11.21	0.1494	1.332	72.728	5	5	clayey silt to silty clay
36.29	11.12	0.1435	1.291	72.366	5	5	clayey silt to silty clay
36.35	10.81	0.1450	1.342	71.143	5	5	clayey silt to silty clay
36.42	10.64	0.1543	1.450	71.271	5	5	clayey silt to silty clay
36.48	10.68	0.1644	1.540	72.285	5	5	clayey silt to silty clay
36.55	11.23	0.1490	1.327	75.144	5	5	clayey silt to silty clay
36.61	12.03	0.1439	1.196	76.298	6	5	clayey silt to silty clay
36.68	12.23	0.1309	1.070	72.154	6	5	clayey silt to silty clay
36.75	12.53	0.1277	1.020	70.890	5	6	sandy silt to clayey silt
36.81	12.93	0.1300	1.006	71.571	5	6	sandy silt to clayey silt
36.88	12.96	0.1535	1.185	73.168	5	6	sandy silt to clayey silt
36.94	12.90	0.1595	1.236	74.988	5	6	sandy silt to clayey silt
37.01	13.13	0.1699	1.294	78.342	5	6	sandy silt to clayey silt
37.07	13.80	0.1769	1.282	78.910	5	6	sandy silt to clayey silt
37.14	14.31	0.1535	1.073	69.505	5	6	sandy silt to clayey silt
37.20	14.17	0.1580	1.115	66.827	5	6	sandy silt to clayey silt
37.27	13.97	0.1632	1.169	67.383	5	6	sandy silt to clayey silt
37.34	13.73	0.1774	1.292	69.867	5	6	sandy silt to clayey silt
37.40	13.12	0.1763	1.343	71.883	6	5	clayey silt to silty clay
37.47	12.79	0.1753	1.370	70.151	6	5	clayey silt to silty clay
37.53	12.60	0.1970	1.564	69.926	6	5	clayey silt to silty clay
37.60	12.77	0.2587	2.026	69.633	6	5	clayey silt to silty clay
37.66	12.80	0.2795	2.184	65.454	6	5	clayey silt to silty clay
37.73	12.72	0.2797	2.198	61.325	6	5	clayey silt to silty clay
37.80	12.26	0.2669	2.178	57.708	6	5	clayey silt to silty clay
37.86	13.36	0.2554	1.911	37.864	6	5	clayey silt to silty clay
37.93	12.05	0.2602	2.160	39.639	6	5	clayey silt to silty clay
37.99	11.42	0.2555	2.237	45.254	6	5	clayey silt to silty clay
38.06	11.19	0.2378	2.125	50.565	6	5	clayey silt to silty clay
38.12	11.11	0.2261	2.035	53.842	5	5	clayey silt to silty clay
38.19	10.98	0.2270	2.068	57.203	5	5	clayey silt to silty clay
38.25	10.94	0.2220	2.030	59.712	5	5	clayey silt to silty clay
38.32	11.09	0.2259	2.037	60.944	5	5	clayey silt to silty clay
38.39	11.15	0.2197	1.970	61.990	5	5	clayey silt to silty clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
38.45	11.42	0.1880	1.646	62.539	5	5	clayey silt to silty clay
38.52	11.60	0.1598	1.378	61.119	5	5	clayey silt to silty clay
38.58	11.44	0.1439	1.258	53.636	5	5	clayey silt to silty clay
38.65	10.57	0.1479	1.400	53.149	5	5	clayey silt to silty clay
38.71	9.84	0.1472	1.496	58.688	5	5	clayey silt to silty clay
38.78	9.56	0.1381	1.445	61.544	5	5	clayey silt to silty clay
38.85	9.55	0.1226	1.284	58.314	4	5	clayey silt to silty clay
38.91	8.91	0.1396	1.566	57.518	4	5	clayey silt to silty clay
38.98	8.44	0.1307	1.548	61.625	4	5	clayey silt to silty clay
39.04	8.46	0.1300	1.537	63.007	4	5	clayey silt to silty clay
39.11	8.49	0.1087	1.281	61.793	4	5	clayey silt to silty clay
39.17	8.40	0.1125	1.340	60.732	4	5	clayey silt to silty clay
39.24	8.32	0.1312	1.577	58.960	4	5	clayey silt to silty clay
39.30	8.43	0.1465	1.738	58.978	4	5	clayey silt to silty clay
39.37	8.97	0.1398	1.558	58.345	4	5	clayey silt to silty clay
39.44	9.22	0.1261	1.368	55.374	4	5	clayey silt to silty clay
39.50	9.02	0.1090	1.209	51.692	4	5	clayey silt to silty clay
39.57	8.44	0.1078	1.277	50.131	4	5	clayey silt to silty clay
39.63	8.07	0.1171	1.451	52.581	4	5	clayey silt to silty clay
39.70	8.15	0.1185	1.455	55.699	4	5	clayey silt to silty clay
39.76	8.22	0.1169	1.423	56.622	4	5	clayey silt to silty clay
39.83	8.23	0.1306	1.586	55.215	4	5	clayey silt to silty clay
39.90	8.42	0.1595	1.896	51.820	6	4	silty clay to clay
39.96	8.79	0.2089	2.376	49.819	6	4	silty clay to clay
40.03	9.71	0.2719	2.801	49.485	7	4	silty clay to clay
40.09	11.30	0.3331	2.947	43.977	6	5	clayey silt to silty clay
40.16	13.24	0.3917	2.959	40.423	7	5	clayey silt to silty clay
40.22	16.00	0.3491	2.181	33.251	7	6	sandy silt to clayey silt
40.29	21.04	0.2896	1.376	24.828	8	6	sandy silt to clayey silt
40.35	26.16	0.2279	0.871	19.661	9	6	sandy silt to clayey silt
40.42	28.64	0.1591	0.555	17.039	10	6	sandy silt to clayey silt
40.49	29.66	0.1557	0.525	16.231	9	7	silty sand to sandy silt
40.55	29.41	0.2472	0.840	16.115	9	7	silty sand to sandy silt
40.62	27.36	0.3523	1.288	16.022	9	7	silty sand to sandy silt
40.68	24.38	0.3503	1.437	15.944	8	7	silty sand to sandy silt
40.75	22.87	0.1950	0.853	15.950	9	7	silty sand to sandy silt
40.81	24.15	0.1475	0.611	15.978	9	7	silty sand to sandy silt
40.88	27.84	0.1423	0.511	15.991	9	7	silty sand to sandy silt
40.94	30.44	0.1467	0.482	15.788	9	7	silty sand to sandy silt
41.01	30.66	0.1420	0.463	15.569	9	7	silty sand to sandy silt
41.08	27.66	0.1322	0.478	15.488	9	7	silty sand to sandy silt
41.14	25.55	0.1265	0.495	15.457	8	7	silty sand to sandy silt
41.21	23.72	0.1464	0.617	15.388	8	7	silty sand to sandy silt
41.27	22.07	0.1370	0.621	15.313	7	7	silty sand to sandy silt
41.34	20.41	0.1315	0.644	15.263	8	6	sandy silt to clayey silt
41.40	18.44	0.1208	0.655	15.242	7	6	sandy silt to clayey silt
41.47	16.35	0.0980	0.599	15.226	6	6	sandy silt to clayey silt
41.54	14.20	0.0806	0.568	15.201	6	6	sandy silt to clayey silt
41.60	12.09	0.0791	0.654	15.204	5	6	sandy silt to clayey silt
41.67	10.50	0.0930	0.885	15.226	4	6	sandy silt to clayey silt
41.73	8.82	0.1053	1.194	15.401	5	5	clayey silt to silty clay
41.80	7.53	0.1083	1.438	16.265	4	5	clayey silt to silty clay
41.86	7.19	0.0882	1.227	18.500	4	5	clayey silt to silty clay
41.93	7.52	0.0903	1.201	21.105	4	5	clayey silt to silty clay
41.99	8.04	0.0990	1.231	22.972	4	5	clayey silt to silty clay
42.06	7.98	0.0948	1.189	23.814	4	5	clayey silt to silty clay
42.13	7.99	0.0822	1.028	25.003	4	5	clayey silt to silty clay
42.19	7.98	0.0902	1.131	26.367	4	5	clayey silt to silty clay
42.26	7.93	0.0920	1.161	28.124	4	5	clayey silt to silty clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
42.32	7.98	0.0898	1.126	28.973	4	5	clayey silt to silty clay
42.39	8.07	0.0918	1.138	29.450	4	5	clayey silt to silty clay
42.45	8.09	0.1225	1.514	30.205	4	5	clayey silt to silty clay
42.52	7.96	0.1472	1.849	30.723	4	5	clayey silt to silty clay
42.59	8.06	0.1779	2.206	31.813	4	5	clayey silt to silty clay
42.65	8.87	0.1930	2.175	32.880	5	5	clayey silt to silty clay
42.72	10.63	0.1827	1.719	32.980	6	5	clayey silt to silty clay
42.78	12.97	0.1637	1.263	29.631	6	5	clayey silt to silty clay
42.85	15.70	0.1557	0.992	24.095	5	6	sandy silt to clayey silt
42.91	16.49	0.1664	1.009	19.604	6	6	sandy silt to clayey silt
42.98	16.63	0.1960	1.179	17.217	6	6	sandy silt to clayey silt
43.04	15.72	0.1921	1.222	15.909	6	6	sandy silt to clayey silt
43.11	14.66	0.1406	0.959	15.501	6	6	sandy silt to clayey silt
43.18	14.87	0.1391	0.936	15.507	6	6	sandy silt to clayey silt
43.24	16.23	0.1442	0.888	15.494	6	6	sandy silt to clayey silt
43.31	16.97	0.1579	0.931	15.201	6	6	sandy silt to clayey silt
43.37	15.51	0.1732	1.117	14.761	6	6	sandy silt to clayey silt
43.44	14.02	0.1907	1.360	14.745	7	5	clayey silt to silty clay
43.50	13.63	0.2450	1.797	14.823	7	5	clayey silt to silty clay
43.57	13.14	0.2972	2.262	14.827	7	5	clayey silt to silty clay
43.64	12.88	0.3121	2.424	14.992	7	5	clayey silt to silty clay
43.70	13.81	0.3022	2.189	15.282	8	5	clayey silt to silty clay
43.77	15.82	0.2697	1.704	15.267	7	6	sandy silt to clayey silt
43.83	18.57	0.2187	1.178	14.808	7	6	sandy silt to clayey silt
43.90	22.04	0.1805	0.819	14.333	8	6	sandy silt to clayey silt
43.96	24.66	0.2031	0.824	13.943	8	6	sandy silt to clayey silt
44.03	24.34	0.2264	0.930	13.706	8	6	sandy silt to clayey silt
44.09	22.84	0.2548	1.115	13.588	9	6	sandy silt to clayey silt
44.16	21.55	0.2631	1.221	13.519	9	6	sandy silt to clayey silt
44.23	21.32	0.2609	1.223	13.485	9	6	sandy silt to clayey silt
44.29	21.73	0.2456	1.130	13.644	8	6	sandy silt to clayey silt
44.36	21.83	0.2442	1.119	13.466	8	6	sandy silt to clayey silt
44.42	22.31	0.2412	1.081	13.335	9	6	sandy silt to clayey silt
44.49	22.87	0.2558	1.119	13.247	9	6	sandy silt to clayey silt
44.55	23.51	0.3055	1.300	13.166	9	6	sandy silt to clayey silt
44.62	24.18	0.3200	1.323	13.098	8	7	silty sand to sandy silt
44.69	25.57	0.2346	0.918	12.988	9	7	silty sand to sandy silt
44.75	28.87	0.1508	0.522	12.929	10	7	silty sand to sandy silt
44.82	33.67	0.1300	0.386	12.895	11	7	silty sand to sandy silt
44.88	37.18	0.1439	0.387	12.820	11	7	silty sand to sandy silt
44.95	40.43	0.1633	0.404	12.726	12	7	silty sand to sandy silt
45.01	42.69	0.2072	0.485	12.692	13	7	silty sand to sandy silt
45.08	43.32	0.2583	0.596	12.695	13	7	silty sand to sandy silt
45.14	41.81	0.2892	0.692	12.701	13	7	silty sand to sandy silt
45.21	39.11	0.2989	0.764	12.689	12	7	silty sand to sandy silt
45.28	35.96	0.3311	0.921	12.711	11	7	silty sand to sandy silt
45.34	32.08	0.3598	1.122	12.711	10	7	silty sand to sandy silt
45.41	28.38	0.3839	1.353	12.736	11	6	sandy silt to clayey silt
45.47	24.13	0.3719	1.541	12.751	9	6	sandy silt to clayey silt
45.54	19.06	0.3346	1.755	12.748	8	6	sandy silt to clayey silt
45.60	14.33	0.3050	2.129	12.733	8	5	clayey silt to silty clay
45.67	11.08	0.2618	2.362	12.857	7	5	clayey silt to silty clay
45.73	9.48	0.1885	1.987	13.232	6	5	clayey silt to silty clay
45.80	9.23	0.1471	1.593	14.514	5	5	clayey silt to silty clay
45.87	10.36	0.1513	1.461	17.454	5	5	clayey silt to silty clay
45.93	12.09	0.1484	1.228	20.238	5	5	clayey silt to silty clay
46.00	11.57	0.1437	1.242	21.212	5	5	clayey silt to silty clay
46.06	10.40	0.1260	1.212	20.722	5	5	clayey silt to silty clay
46.13	9.62	0.0956	0.994	20.516	5	5	clayey silt to silty clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
46.19	8.90	0.0945	1.062	20.831	4	5	clayey silt to silty clay
46.26	8.12	0.0999	1.229	21.286	4	5	clayey silt to silty clay
46.33	7.31	0.0807	1.104	22.101	4	5	clayey silt to silty clay
46.39	6.30	0.0908	1.440	24.008	4	5	clayey silt to silty clay
46.46	7.11	0.1136	1.599	26.645	4	5	clayey silt to silty clay
46.52	9.63	0.0813	0.844	28.864	4	1	sensitive fine grained
46.59	9.52	0.0677	0.712	26.907	4	1	sensitive fine grained
46.65	7.89	0.0642	0.814	25.400	3	1	sensitive fine grained
46.72	6.19	0.0699	1.129	25.749	3	1	sensitive fine grained
46.78	4.77	0.0613	1.285	27.550	3	1	sensitive fine grained
46.85	4.50	0.0509	1.131	32.193	3	1	sensitive fine grained
46.92	4.73	0.0554	1.171	36.771	2	1	sensitive fine grained
46.98	4.75	0.0618	1.301	39.215	2	1	sensitive fine grained
47.05	4.88	0.0708	1.450	40.881	3	1	sensitive fine grained
47.11	5.26	0.0709	1.349	42.083	4	5	clayey silt to silty clay
47.18	6.35	0.1256	1.977	43.169	5	5	clayey silt to silty clay
47.24	13.08	0.1786	1.366	43.013	5	5	clayey silt to silty clay
47.31	18.66	0.1949	1.045	32.053	6	5	clayey silt to silty clay
47.38	15.85	0.2073	1.308	22.653	6	6	sandy silt to clayey silt
47.44	13.07	0.1736	1.328	21.034	6	6	sandy silt to clayey silt
47.51	14.95	0.1316	0.881	15.847	7	6	sandy silt to clayey silt
47.57	18.99	0.1107	0.583	15.900	7	6	sandy silt to clayey silt
47.64	22.71	0.1169	0.515	15.831	7	6	sandy silt to clayey silt
47.70	22.45	0.1405	0.626	15.604	8	6	sandy silt to clayey silt
47.77	20.89	0.1612	0.772	15.301	7	7	silty sand to sandy silt
47.83	20.83	0.1481	0.711	15.160	8	7	silty sand to sandy silt
47.90	22.98	0.1280	0.557	15.198	8	7	silty sand to sandy silt
47.97	28.74	0.1424	0.495	15.320	9	7	silty sand to sandy silt
48.03	32.83	0.1683	0.513	15.257	9	7	silty sand to sandy silt
48.10	33.80	0.2028	0.600	15.139	10	7	silty sand to sandy silt
48.16	33.41	0.2455	0.735	15.057	10	7	silty sand to sandy silt
48.23	32.26	0.2602	0.806	15.064	10	7	silty sand to sandy silt
48.29	30.24	0.2806	0.928	15.101	10	7	silty sand to sandy silt
48.36	28.89	0.2662	0.921	15.189	10	7	silty sand to sandy silt
48.43	28.55	0.2790	0.977	15.276	9	7	silty sand to sandy silt
48.49	28.36	0.2969	1.047	15.323	9	7	silty sand to sandy silt
48.56	28.74	0.3141	1.093	15.419	10	7	silty sand to sandy silt
48.62	30.02	0.3293	1.097	15.476	10	7	silty sand to sandy silt
48.69	32.26	0.3594	1.114	15.644	11	7	silty sand to sandy silt
48.75	36.00	0.3958	1.099	15.744	11	7	silty sand to sandy silt
48.82	39.49	0.4182	1.059	15.791	12	7	silty sand to sandy silt
48.88	40.94	0.4233	1.034	15.772	12	7	silty sand to sandy silt
48.95	40.38	0.4312	1.068	15.794	12	7	silty sand to sandy silt
49.02	38.65	0.4080	1.055	15.819	12	7	silty sand to sandy silt
49.08	36.59	0.4125	1.128	15.856	11	7	silty sand to sandy silt
49.15	34.01	0.3894	1.145	15.897	11	7	silty sand to sandy silt
49.21	31.44	0.3886	1.236	15.953	10	7	silty sand to sandy silt
49.28	28.87	0.3834	1.328	15.962	11	6	sandy silt to clayey silt
49.34	26.55	0.3872	1.458	16.097	11	6	sandy silt to clayey silt
49.41	25.09	0.3835	1.529	16.150	10	6	sandy silt to clayey silt
49.48	24.72	0.3524	1.426	16.275	10	6	sandy silt to clayey silt
49.54	25.54	0.3245	1.271	16.490	10	6	sandy silt to clayey silt
49.61	27.25	0.2946	1.081	16.662	11	6	sandy silt to clayey silt
49.67	28.54	0.2818	0.987	16.764	9	7	silty sand to sandy silt
49.74	30.05	0.2714	0.903	16.793	10	7	silty sand to sandy silt
49.80	31.48	0.2753	0.874	16.796	10	7	silty sand to sandy silt
49.87	32.57	0.2829	0.869	16.740	10	7	silty sand to sandy silt
49.93	33.67	0.2886	0.857	16.702	11	7	silty sand to sandy silt
50.00	34.96	0.3122	0.893	16.708	12	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
50.07	37.07	0.3642	0.983	16.821	13	7	silty sand to sandy silt
50.13	41.14	0.4307	1.047	16.942	14	7	silty sand to sandy silt
50.20	46.57	0.4750	1.020	17.052	14	7	silty sand to sandy silt
50.26	51.65	0.5263	1.019	17.108	15	7	silty sand to sandy silt
50.33	53.49	0.5700	1.066	17.133	16	7	silty sand to sandy silt
50.39	52.29	0.6236	1.193	17.142	16	7	silty sand to sandy silt
50.46	49.67	0.5923	1.192	17.158	15	7	silty sand to sandy silt
50.52	46.67	0.5924	1.269	17.170	15	7	silty sand to sandy silt
50.59	43.20	0.5825	1.348	17.167	14	7	silty sand to sandy silt
50.66	39.89	0.5848	1.466	17.183	13	7	silty sand to sandy silt
50.72	35.81	0.6099	1.703	16.349	14	6	sandy silt to clayey silt
50.79	32.22	0.6392	1.984	16.449	12	6	sandy silt to clayey silt
50.85	27.78	0.6471	2.329	16.705	11	6	sandy silt to clayey silt
50.92	23.58	0.5731	2.430	16.986	10	6	sandy silt to clayey silt
50.98	20.05	0.4734	2.361	17.445	9	6	sandy silt to clayey silt
51.05	18.24	0.3518	1.929	18.384	8	6	sandy silt to clayey silt
51.12	20.59	0.2658	1.291	19.685	8	6	sandy silt to clayey silt
51.18	23.13	0.2572	1.112	20.069	7	6	sandy silt to clayey silt
51.25	21.08	0.2710	1.285	20.032	7	6	sandy silt to clayey silt
51.31	18.26	0.2910	1.593	19.998	7	6	sandy silt to clayey silt
51.38	14.37	0.2739	1.906	19.935	6	6	sandy silt to clayey silt
51.44	12.19	0.2389	1.960	20.503	7	5	clayey silt to silty clay
51.51	11.03	0.2272	2.061	22.092	7	5	clayey silt to silty clay
51.57	10.31	0.2040	1.979	25.546	6	6	sandy silt to clayey silt
51.64	11.56	0.1629	1.409	28.174	8	6	sandy silt to clayey silt
51.71	22.09	0.1716	0.777	30.592	8	7	silty sand to sandy silt
51.77	35.14	0.2315	0.659	24.413	11	7	silty sand to sandy silt
51.84	44.03	0.1270	0.288	18.712	10	8	sand to silty sand
51.90	50.42	0.0050	0.010	16.899	12	8	sand to silty sand
51.97	57.19	0.0115	0.020	16.437	15	8	sand to silty sand
52.03	67.59	0.0191	0.028	16.468	19	9	sand
52.10	83.62	-0.0036	-0.004	16.668	26	9	sand
52.17	113.02	-0.0004	0.000	17.192	0	0	<out of range>
52.23	269.46	0.0036	0.001	18.334	0	0	<out of range>
52.30	305.49	0.0079	0.003	18.634	44	10	gravelly sand to sand
52.36	306.44	-32768	-32768	18.740	0	0	<out of range>
52.43	331.22	-32768	-32768	15.260	0	0	<out of range>
52.49	261.01	-32768	-32768	14.674	0	0	<out of range>
52.56	166.51	-32768	-32768	14.443	0	0	<out of range>

*Soil behavior type and SPT based on data from UBC-1983

AECOM

TVA Kingston Coal Ash Pond RCA (Kingston,Tennessee)
Project No: 60095742

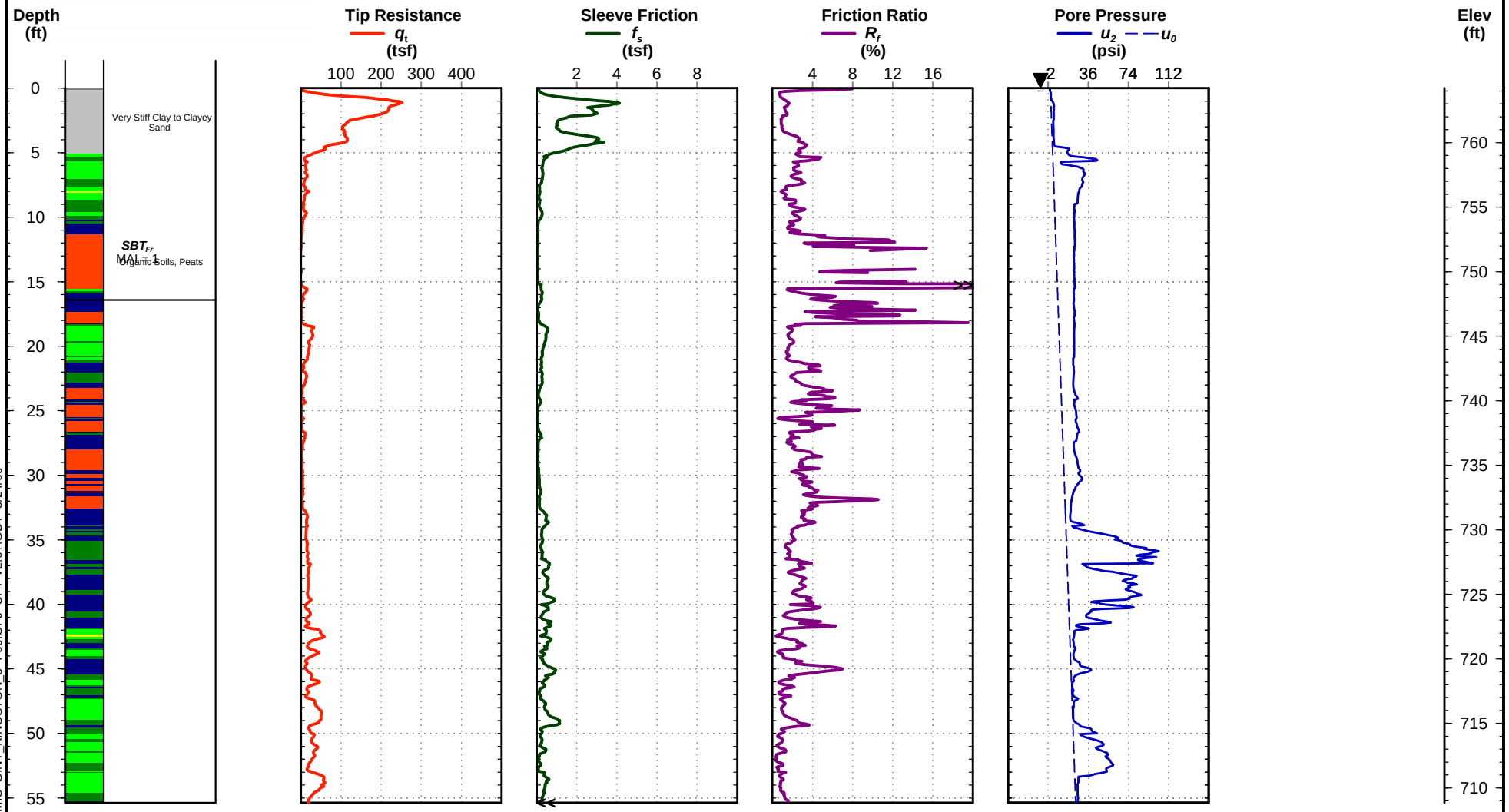
Cone Penetration Test

09-705-C1

Date: Feb. 13, 2009
Estimated Water Depth: 0 ft
Rig/Operator: D-120/CAP

Northing: 555760.83
Easting: 2442342.79
Elevation: 764.22 NGVD

Total Depth: 55.4 ft
Termination Criteria: Refusal
Cone Size: 5T Tension Cone



CPT REPORT - DYNAMIC GINT_KINGSTON_3-4-09.GPJ CPT V2.07.GDT 3/24/09

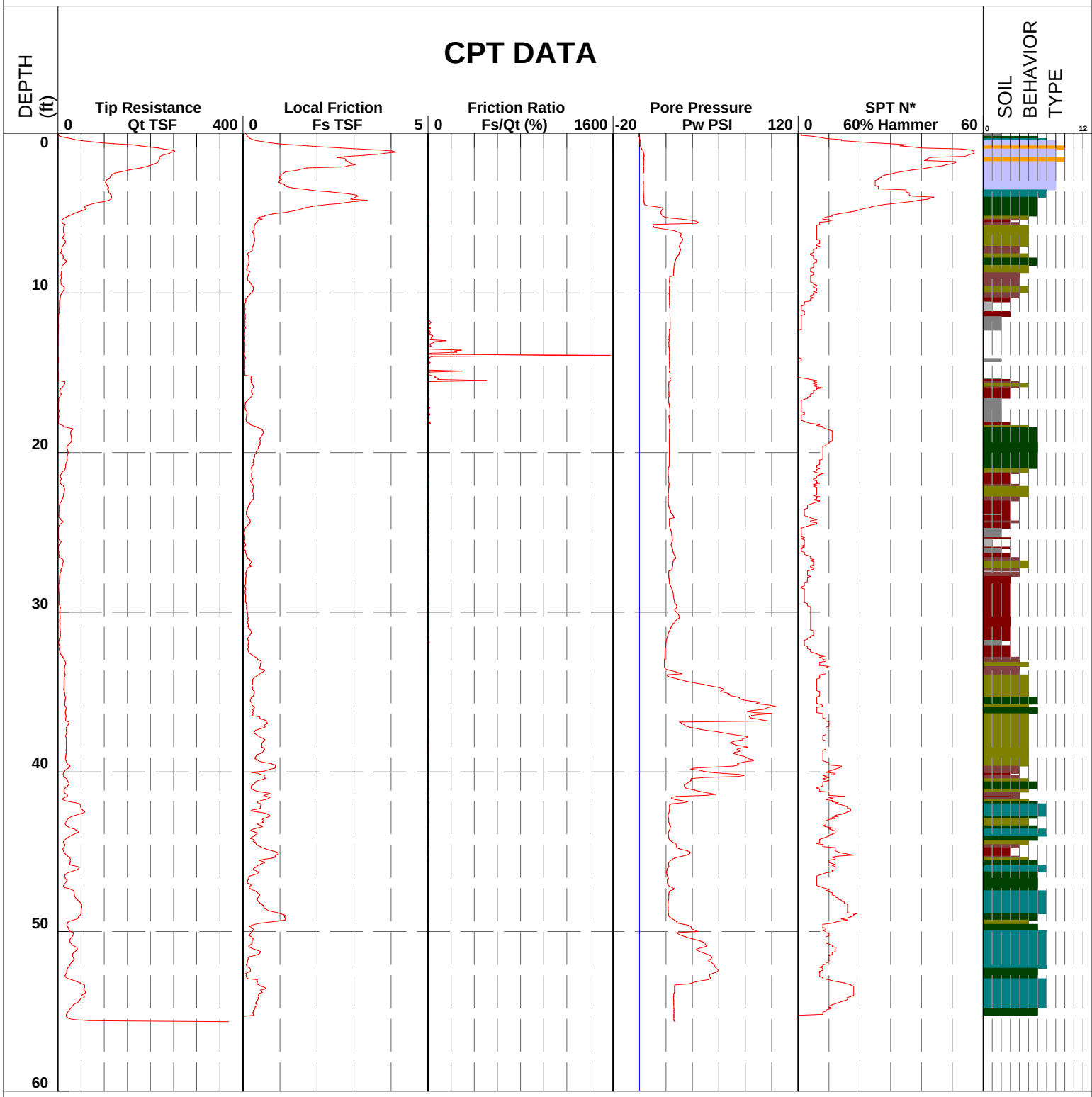
09-705-C1

Electronic Filename: 09-705-C1.cpt

AECOM

09-705-C1	60095742	2/13/2009 1:37:42 PM
DTA1081	TVA-Kingston	D-120/CAP

CPT DATA



1 - sensitive fine grained	4 - silty clay to clay	7 - silty sand to sandy silt	10 - gravelly sand to sand
2 - organic material	5 - clayey silt to silty clay	8 - sand to silty sand	11 - very stiff fine grained (*)
3 - clay	6 - sandy silt to clayey silt	9 - sand	12 - sand to clayey sand (*)

Data File:09-705-C1 2/13/2009 1:37:42 PM
Operator:D-120/CAP Location:TVA-Kingston
Cone ID:DTA1081 Job Number:60095742
Customer:TVA Units:

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
0.07	0.90	0.0717	7.993	-0.481	1	2	organic material
0.13	1.83	0.1132	6.184	-0.409	1	2	organic material
0.20	4.26	0.1182	2.774	-0.350	5	6	sandy silt to clayey silt
0.26	13.63	0.1579	1.158	-0.059	7	6	sandy silt to clayey silt
0.33	27.34	0.1960	0.717	0.109	9	7	silty sand to sandy silt
0.39	36.38	0.2640	0.726	0.390	14	7	silty sand to sandy silt
0.46	52.26	0.3624	0.693	0.434	14	8	sand to silty sand
0.52	72.42	0.5453	0.753	0.362	19	8	sand to silty sand
0.59	92.29	0.7216	0.782	0.459	24	8	sand to silty sand
0.66	120.27	0.9331	0.776	0.434	30	8	sand to silty sand
0.72	160.62	1.3175	0.820	0.468	35	8	sand to silty sand
0.79	177.84	1.7539	0.986	0.671	33	9	sand
0.85	195.64	2.1687	1.108	0.980	37	9	sand
0.92	216.26	2.6381	1.220	1.183	40	9	sand
0.98	228.17	3.1343	1.374	1.598	53	8	sand to silty sand
1.05	244.98	3.6735	1.499	2.175	56	8	sand to silty sand
1.12	252.24	4.0284	1.597	2.768	57	8	sand to silty sand
1.18	247.33	4.1399	1.674	2.893	57	8	sand to silty sand
1.25	241.30	3.8375	1.590	3.189	57	8	sand to silty sand
1.31	234.31	3.6312	1.550	3.274	56	8	sand to silty sand
1.38	225.25	3.2646	1.449	3.436	55	8	sand to silty sand
1.44	221.19	2.8544	1.290	3.483	54	8	sand to silty sand
1.51	218.64	2.5398	1.162	3.143	43	9	sand
1.57	219.88	2.7495	1.250	3.002	42	9	sand
1.64	218.82	2.7797	1.270	3.501	42	9	sand
1.71	217.55	2.7718	1.274	3.199	41	9	sand
1.77	216.43	2.8373	1.311	3.118	51	8	sand to silty sand
1.84	215.08	2.8660	1.333	3.018	51	8	sand to silty sand
1.90	209.91	2.9444	1.403	3.155	50	8	sand to silty sand
1.97	204.05	3.0293	1.485	3.171	48	8	sand to silty sand
2.03	196.61	2.8440	1.447	2.949	47	8	sand to silty sand
2.10	188.65	2.7360	1.450	3.199	44	8	sand to silty sand
2.17	180.14	1.7359	0.964	3.205	42	8	sand to silty sand
2.23	165.94	1.5902	0.958	3.002	40	8	sand to silty sand
2.30	153.62	1.5052	0.980	3.227	37	8	sand to silty sand
2.36	145.20	1.3342	0.919	3.236	35	8	sand to silty sand
2.43	134.80	1.1446	0.849	3.264	33	8	sand to silty sand
2.49	122.25	1.1009	0.901	2.796	31	8	sand to silty sand
2.56	119.47	1.0389	0.870	2.743	30	8	sand to silty sand
2.62	115.95	1.0261	0.885	2.746	28	8	sand to silty sand
2.69	114.17	1.0182	0.892	2.759	27	8	sand to silty sand
2.76	112.93	0.9828	0.870	2.762	27	8	sand to silty sand
2.82	110.51	0.9982	0.903	2.752	26	8	sand to silty sand
2.89	106.62	1.0434	0.979	2.762	26	8	sand to silty sand
2.95	104.85	0.9911	0.945	2.796	25	8	sand to silty sand
3.02	103.28	0.9773	0.946	2.768	25	8	sand to silty sand
3.08	102.80	0.9741	0.948	2.987	25	8	sand to silty sand
3.15	104.61	1.0489	1.003	3.033	25	8	sand to silty sand
3.22	104.44	1.1195	1.072	3.036	25	8	sand to silty sand
3.28	107.88	1.1299	1.047	3.030	25	8	sand to silty sand
3.35	107.68	1.1813	1.097	3.046	26	8	sand to silty sand
3.41	109.59	1.3254	1.209	3.033	26	8	sand to silty sand
3.48	106.45	1.5480	1.454	3.040	26	8	sand to silty sand
3.54	108.25	1.7876	1.651	3.024	35	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
3.61	110.28	2.0133	1.826	3.043	35	7	silty sand to sandy silt
3.67	109.50	2.3564	2.152	3.021	35	7	silty sand to sandy silt
3.74	110.78	2.6418	2.385	3.052	36	7	silty sand to sandy silt
3.81	113.14	2.8990	2.562	3.068	36	7	silty sand to sandy silt
3.87	115.23	3.0633	2.658	3.102	36	7	silty sand to sandy silt
3.94	115.86	3.1060	2.681	3.211	37	7	silty sand to sandy silt
4.00	116.22	3.0365	2.613	3.255	44	6	sandy silt to clayey silt
4.07	115.75	2.9734	2.569	3.295	43	6	sandy silt to clayey silt
4.13	114.40	2.9136	2.547	3.370	42	6	sandy silt to clayey silt
4.20	109.30	3.3576	3.072	3.395	39	6	sandy silt to clayey silt
4.27	100.89	3.0286	3.002	3.442	37	6	sandy silt to clayey silt
4.33	87.43	2.7865	3.187	3.483	34	6	sandy silt to clayey silt
4.40	76.99	2.6243	3.409	3.586	31	6	sandy silt to clayey silt
4.46	68.96	2.2734	3.297	3.832	28	6	sandy silt to clayey silt
4.53	61.38	2.0404	3.324	5.315	26	6	sandy silt to clayey silt
4.59	57.63	1.8528	3.215	11.456	24	6	sandy silt to clayey silt
4.66	58.57	1.6861	2.879	17.080	23	6	sandy silt to clayey silt
4.72	60.59	1.6015	2.643	17.847	21	6	sandy silt to clayey silt
4.79	58.25	1.5136	2.598	17.205	20	6	sandy silt to clayey silt
4.86	51.63	1.3802	2.673	16.571	19	6	sandy silt to clayey silt
4.92	43.81	1.2242	2.795	16.184	17	6	sandy silt to clayey silt
4.99	37.37	1.0370	2.775	16.075	15	6	sandy silt to clayey silt
5.05	32.99	0.8009	2.428	16.406	13	6	sandy silt to clayey silt
5.12	28.26	0.6583	2.329	16.964	11	6	sandy silt to clayey silt
5.18	22.51	0.5887	2.616	17.729	11	5	clayey silt to silty clay
5.25	17.59	0.4503	2.560	19.196	9	5	clayey silt to silty clay
5.31	13.38	0.3644	2.723	23.880	8	5	clayey silt to silty clay
5.38	10.68	0.5169	4.837	32.047	8	4	silty clay to clay
5.45	9.04	0.4191	4.637	38.400	11	3	clay
5.51	8.33	0.3858	4.632	43.135	10	3	clay
5.58	9.18	0.3631	3.953	44.548	7	4	silty clay to clay
5.64	10.00	0.3395	3.394	43.334	7	4	silty clay to clay
5.71	15.78	0.3261	2.067	10.071	7	4	silty clay to clay
5.77	14.33	0.3066	2.139	10.199	6	5	clayey silt to silty clay
5.84	12.64	0.3070	2.430	10.495	6	5	clayey silt to silty clay
5.91	11.84	0.3058	2.583	11.135	6	5	clayey silt to silty clay
5.97	11.54	0.2997	2.596	16.680	6	5	clayey silt to silty clay
6.04	11.50	0.2976	2.587	21.533	6	5	clayey silt to silty clay
6.10	12.05	0.2871	2.383	26.239	6	5	clayey silt to silty clay
6.17	12.24	0.2558	2.090	28.189	6	5	clayey silt to silty clay
6.23	12.50	0.2664	2.131	30.524	6	5	clayey silt to silty clay
6.30	13.63	0.2915	2.138	31.441	6	5	clayey silt to silty clay
6.36	13.79	0.2929	2.124	31.357	6	5	clayey silt to silty clay
6.43	12.16	0.2933	2.411	31.126	6	5	clayey silt to silty clay
6.50	10.75	0.3000	2.792	31.238	6	5	clayey silt to silty clay
6.56	10.71	0.3075	2.872	32.171	6	5	clayey silt to silty clay
6.63	12.85	0.3217	2.503	32.727	6	5	clayey silt to silty clay
6.69	14.74	0.3163	2.146	32.605	7	5	clayey silt to silty clay
6.76	15.95	0.3115	1.953	32.109	7	5	clayey silt to silty clay
6.82	16.09	0.2974	1.848	31.566	7	5	clayey silt to silty clay
6.89	15.28	0.2934	1.920	31.051	7	5	clayey silt to silty clay
6.96	13.56	0.2885	2.128	30.608	6	5	clayey silt to silty clay
7.02	11.65	0.2818	2.419	30.377	6	5	clayey silt to silty clay
7.09	9.46	0.2692	2.847	30.177	7	4	silty clay to clay
7.15	8.68	0.2537	2.924	30.224	6	4	silty clay to clay
7.22	8.55	0.2451	2.867	30.808	6	4	silty clay to clay
7.28	8.00	0.2477	3.096	31.089	5	4	silty clay to clay
7.35	7.75	0.2491	3.215	30.855	5	4	silty clay to clay
7.41	6.89	0.2069	3.004	30.308	5	4	silty clay to clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
7.48	6.09	0.1531	2.516	30.046	5	4	silty clay to clay
7.55	6.66	0.1197	1.797	29.962	4	5	clayey silt to silty clay
7.61	9.40	0.1280	1.362	29.753	4	5	clayey silt to silty clay
7.68	11.25	0.1471	1.308	29.066	5	5	clayey silt to silty clay
7.74	11.80	0.1577	1.336	28.146	5	5	clayey silt to silty clay
7.81	11.09	0.1533	1.383	27.718	5	6	sandy silt to clayey silt
7.87	11.36	0.1574	1.386	27.572	5	6	sandy silt to clayey silt
7.94	15.71	0.1573	1.001	27.412	6	6	sandy silt to clayey silt
8.01	20.13	0.1714	0.852	27.166	6	6	sandy silt to clayey silt
8.07	17.41	0.1635	0.939	26.813	6	6	sandy silt to clayey silt
8.14	14.10	0.1552	1.101	26.545	5	6	sandy silt to clayey silt
8.20	11.92	0.1579	1.325	26.373	5	6	sandy silt to clayey silt
8.27	10.43	0.1453	1.394	26.298	5	5	clayey silt to silty clay
8.33	9.43	0.1194	1.266	26.111	5	5	clayey silt to silty clay
8.40	8.53	0.1109	1.301	26.086	5	5	clayey silt to silty clay
8.46	8.45	0.1112	1.316	26.033	4	5	clayey silt to silty clay
8.53	8.87	0.1001	1.129	25.980	4	5	clayey silt to silty clay
8.60	8.59	0.1068	1.244	25.896	4	5	clayey silt to silty clay
8.66	7.95	0.1822	2.291	25.861	4	5	clayey silt to silty clay
8.73	7.20	0.1674	2.323	25.827	5	4	silty clay to clay
8.79	6.77	0.1560	2.305	25.790	5	4	silty clay to clay
8.86	6.59	0.1467	2.227	25.771	5	4	silty clay to clay
8.92	6.16	0.1389	2.255	25.712	4	4	silty clay to clay
8.99	7.99	0.1305	1.634	22.872	4	4	silty clay to clay
9.06	6.95	0.1231	1.771	22.869	4	4	silty clay to clay
9.12	6.48	0.1135	1.751	22.791	4	4	silty clay to clay
9.19	6.19	0.1246	2.014	22.772	4	4	silty clay to clay
9.25	6.24	0.1535	2.460	22.488	4	4	silty clay to clay
9.32	6.30	0.1809	2.870	22.669	4	4	silty clay to clay
9.38	6.43	0.2087	3.249	22.890	5	4	silty clay to clay
9.45	6.90	0.2169	3.144	22.865	5	4	silty clay to clay
9.51	8.78	0.2446	2.786	22.978	6	4	silty clay to clay
9.58	11.84	0.2672	2.256	22.968	5	5	clayey silt to silty clay
9.65	13.71	0.2757	2.012	22.485	5	5	clayey silt to silty clay
9.71	13.74	0.2754	2.004	22.775	6	5	clayey silt to silty clay
9.78	13.20	0.2774	2.101	22.544	6	5	clayey silt to silty clay
9.84	12.23	0.2703	2.210	22.566	6	5	clayey silt to silty clay
9.91	10.74	0.2627	2.446	22.781	5	5	clayey silt to silty clay
9.97	9.32	0.2428	2.605	22.703	6	4	silty clay to clay
10.04	7.68	0.2072	2.698	22.376	5	4	silty clay to clay
10.10	6.57	0.1847	2.811	22.472	5	4	silty clay to clay
10.17	5.71	0.1589	2.781	22.625	4	4	silty clay to clay
10.24	5.04	0.1330	2.641	22.572	4	4	silty clay to clay
10.30	4.85	0.1033	2.129	22.660	5	3	clay
10.37	4.73	0.0808	1.708	22.731	4	3	clay
10.43	4.26	0.0746	1.751	22.725	4	3	clay
10.50	3.77	0.0767	2.037	22.778	4	3	clay
10.56	3.30	0.0708	2.148	22.738	2	1	sensitive fine grained
10.63	2.99	0.0628	2.102	22.859	2	1	sensitive fine grained
10.70	3.12	0.0500	1.600	22.681	2	1	sensitive fine grained
10.76	3.46	0.0566	1.638	22.800	2	1	sensitive fine grained
10.83	3.37	0.0507	1.502	22.791	1	1	sensitive fine grained
10.89	3.25	0.0497	1.528	22.816	1	1	sensitive fine grained
10.96	2.85	0.0570	2.004	22.972	1	1	sensitive fine grained
11.02	2.24	0.0583	2.599	22.987	1	1	sensitive fine grained
11.09	1.90	0.0526	2.763	22.962	1	1	sensitive fine grained
11.15	2.60	0.0453	1.739	23.050	2	3	clay
11.22	2.76	0.0520	1.886	23.012	2	3	clay
11.29	2.08	0.0545	2.614	23.003	2	3	clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
11.35	1.46	0.0575	3.945	22.940	2	3	clay
11.42	1.16	0.0606	5.239	22.987	1	3	clay
11.48	1.21	0.0533	4.421	23.087	1	2	organic material
11.55	1.19	0.0560	4.709	23.090	1	2	organic material
11.61	0.96	0.0610	6.331	23.153	1	2	organic material
11.68	0.70	0.0499	7.095	23.146	1	2	organic material
11.75	0.39	0.0450	11.544	23.193	1	2	organic material
11.81	0.26	0.0581	22.257	23.174	1	2	organic material
11.88	0.22	0.0536	24.738	23.231	1	2	organic material
11.94	0.45	0.0547	12.187	23.218	1	2	organic material
12.01	1.53	0.0481	3.148	23.231	1	2	organic material
12.07	1.44	0.0498	3.458	23.218	1	2	organic material
12.14	0.74	0.0604	8.118	23.246	1	2	organic material
12.20	0.31	0.0635	20.702	23.246	1	2	organic material
12.27	1.16	0.0471	4.060	22.750	1	2	organic material
12.34	0.51	0.0476	9.308	22.709	0	0	<out of range>
12.40	0.34	0.0517	15.364	22.772	0	0	<out of range>
12.47	0.25	0.0504	19.996	22.775	0	0	<out of range>
12.53	0.27	0.0410	15.253	22.747	0	0	<out of range>
12.60	0.34	0.0332	9.756	22.653	0	0	<out of range>
12.66	0.13	0.0483	38.547	22.519	0	0	<out of range>
12.73	0.14	0.0540	39.652	22.301	0	0	<out of range>
12.80	0.20	0.0500	25.322	22.273	0	0	<out of range>
12.86	0.15	0.0474	31.601	22.472	0	0	<out of range>
12.93	0.24	0.0458	19.140	22.254	0	0	<out of range>
12.99	0.02	0.0382	154.934	22.525	0	0	<out of range>
13.06	0.08	0.0438	56.881	22.269	0	0	<out of range>
13.12	0.11	0.0534	48.967	22.160	0	0	<out of range>
13.19	0.28	0.0501	18.154	22.266	0	0	<out of range>
13.25	0.32	0.0555	17.145	22.288	0	0	<out of range>
13.32	0.17	0.0454	26.382	22.260	0	0	<out of range>
13.39	-0.04	0.0459	-109.138	22.363	0	0	<out of range>
13.45	-0.10	0.0416	-42.731	22.419	0	0	<out of range>
13.52	-0.09	0.0452	-49.658	22.463	0	0	<out of range>
13.58	0.02	0.0458	287.997	22.500	0	0	<out of range>
13.65	0.02	0.0494	218.870	22.572	0	0	<out of range>
13.71	0.02	0.0425	248.848	22.582	0	0	<out of range>
13.78	-0.01	0.0329	-322.893	22.631	0	0	<out of range>
13.85	-0.07	0.0377	-55.245	22.681	0	0	<out of range>
13.91	0.00	0.0413	1575.703	22.744	0	0	<out of range>
13.98	0.14	0.0528	38.058	22.475	0	0	<out of range>
14.04	0.43	0.0613	14.245	22.475	0	0	<out of range>
14.11	0.74	0.0594	8.054	22.438	1	2	organic material
14.17	1.00	0.0540	5.429	22.447	1	2	organic material
14.24	0.93	0.0436	4.698	22.853	1	2	organic material
14.30	0.52	0.0493	9.511	22.578	0	0	<out of range>
14.37	0.24	0.0448	18.431	22.507	0	0	<out of range>
14.44	-0.12	0.0436	-37.223	22.594	0	0	<out of range>
14.50	-0.27	0.0509	-18.679	22.697	0	0	<out of range>
14.57	-0.19	0.0495	-26.557	22.650	0	0	<out of range>
14.63	-0.35	0.0561	-16.147	22.560	0	0	<out of range>
14.70	-0.36	0.0421	-11.616	22.847	0	0	<out of range>
14.76	-0.32	0.0446	-13.945	22.731	0	0	<out of range>
14.83	-0.21	0.0446	-20.954	23.134	0	0	<out of range>
14.90	0.01	0.0430	294.710	22.603	0	0	<out of range>
14.96	0.34	0.0448	13.277	22.475	0	0	<out of range>
15.03	0.81	0.0545	6.698	23.234	0	0	<out of range>
15.09	0.78	0.0495	6.331	23.053	0	0	<out of range>
15.16	0.45	0.0573	12.808	22.934	0	0	<out of range>

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
15.22	0.38	0.2387	63.234	23.112	0	0	<out of range>
15.29	0.38	0.2247	58.527	22.968	0	0	<out of range>
15.35	0.23	0.2139	91.086	23.505	2	2	organic material
15.42	0.26	0.2153	81.343	23.056	4	3	clay
15.49	0.04	0.2247	507.351	23.499	6	3	clay
15.55	14.81	0.2286	1.543	22.298	5	4	silty clay to clay
15.62	15.15	0.2214	1.461	22.238	6	4	silty clay to clay
15.68	14.52	0.2408	1.659	22.263	5	5	clayey silt to silty clay
15.75	13.57	0.2635	1.942	22.232	6	5	clayey silt to silty clay
15.81	12.01	0.2868	2.388	21.976	5	5	clayey silt to silty clay
15.88	9.90	0.2863	2.893	22.154	6	4	silty clay to clay
15.94	7.76	0.2757	3.554	22.244	8	3	clay
16.01	5.87	0.2458	4.190	22.210	6	3	clay
16.08	4.33	0.2324	5.368	22.213	6	3	clay
16.14	3.70	0.2334	6.305	22.226	5	3	clay
16.21	3.81	0.2293	6.020	22.210	5	3	clay
16.27	5.56	0.2463	4.427	22.388	5	3	clay
16.34	6.79	0.2585	3.806	22.269	4	3	clay
16.40	5.71	0.2451	4.296	22.273	4	3	clay
16.47	4.26	0.2405	5.642	22.388	4	3	clay
16.54	2.94	0.2043	6.953	22.070	3	3	clay
16.60	1.73	0.1729	9.986	22.035	3	2	organic material
16.67	1.42	0.1489	10.508	21.989	2	2	organic material
16.73	1.65	0.1174	7.133	21.989	1	2	organic material
16.80	1.49	0.0992	6.676	22.070	1	2	organic material
16.86	0.95	0.0581	6.116	22.170	1	2	organic material
16.93	0.65	0.0642	9.936	22.313	1	2	organic material
16.99	1.03	0.0595	5.765	22.438	1	2	organic material
17.06	0.80	0.0537	6.734	22.525	1	2	organic material
17.13	0.59	0.0581	9.791	22.560	1	2	organic material
17.19	0.39	0.0558	14.279	22.872	1	2	organic material
17.26	0.55	0.0604	10.934	22.975	1	2	organic material
17.32	2.00	0.0652	3.261	23.047	1	2	organic material
17.39	2.53	0.1021	4.038	22.975	1	2	organic material
17.45	1.82	0.1049	5.777	22.878	1	2	organic material
17.52	1.26	0.1064	8.461	22.965	2	2	organic material
17.59	0.81	0.1029	12.699	23.043	2	2	organic material
17.65	0.81	0.0989	12.247	22.837	1	2	organic material
17.72	2.34	0.0995	4.251	22.244	1	2	organic material
17.78	1.55	0.0926	5.970	22.322	1	2	organic material
17.85	1.34	0.0897	6.686	22.388	1	2	organic material
17.91	1.17	0.0812	6.948	22.441	1	2	organic material
17.98	1.12	0.0942	8.414	22.563	1	2	organic material
18.04	0.98	0.0838	8.520	22.631	2	2	organic material
18.11	0.69	0.1068	15.539	22.638	3	3	clay
18.18	0.92	0.1788	19.520	22.791	4	3	clay
18.24	5.82	0.1902	3.270	22.978	7	3	clay
18.31	10.90	0.2471	2.267	22.937	6	5	clayey silt to silty clay
18.37	11.86	0.3345	2.820	22.872	8	5	clayey silt to silty clay
18.44	20.80	0.4067	1.955	22.959	8	6	sandy silt to clayey silt
18.50	32.01	0.4724	1.476	22.850	9	6	sandy silt to clayey silt
18.57	31.75	0.5210	1.641	22.741	10	6	sandy silt to clayey silt
18.64	28.11	0.5394	1.919	22.684	11	6	sandy silt to clayey silt
18.70	27.54	0.5550	2.016	22.666	11	6	sandy silt to clayey silt
18.77	27.54	0.5529	2.008	22.669	11	6	sandy silt to clayey silt
18.83	27.38	0.5302	1.936	22.635	11	6	sandy silt to clayey silt
18.90	28.00	0.5286	1.888	22.544	11	6	sandy silt to clayey silt
18.96	28.53	0.4911	1.721	22.541	11	6	sandy silt to clayey silt
19.03	29.22	0.4846	1.658	22.522	11	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
19.09	29.51	0.4598	1.558	22.522	11	6	sandy silt to clayey silt
19.16	29.64	0.4543	1.533	22.522	11	6	sandy silt to clayey silt
19.23	29.54	0.4658	1.577	22.447	11	6	sandy silt to clayey silt
19.29	29.08	0.4707	1.619	22.500	11	6	sandy silt to clayey silt
19.36	27.81	0.4600	1.654	22.482	10	6	sandy silt to clayey silt
19.42	25.81	0.4630	1.794	22.469	10	6	sandy silt to clayey silt
19.49	23.25	0.4613	1.984	22.532	9	6	sandy silt to clayey silt
19.55	21.24	0.4438	2.090	22.513	9	6	sandy silt to clayey silt
19.62	19.80	0.4195	2.118	22.510	8	6	sandy silt to clayey silt
19.69	19.42	0.4122	2.122	22.497	8	6	sandy silt to clayey silt
19.75	19.56	0.4100	2.097	22.557	8	6	sandy silt to clayey silt
19.82	20.16	0.3801	1.885	22.541	8	6	sandy silt to clayey silt
19.88	21.30	0.3696	1.735	22.532	8	6	sandy silt to clayey silt
19.95	21.88	0.3589	1.640	22.572	8	6	sandy silt to clayey silt
20.01	21.78	0.3600	1.653	22.563	8	6	sandy silt to clayey silt
20.08	21.22	0.3406	1.606	22.541	8	6	sandy silt to clayey silt
20.14	20.56	0.3079	1.498	22.497	8	6	sandy silt to clayey silt
20.21	20.10	0.3151	1.568	22.528	8	6	sandy silt to clayey silt
20.28	19.66	0.3160	1.608	22.557	8	6	sandy silt to clayey silt
20.34	19.61	0.2949	1.504	22.497	8	6	sandy silt to clayey silt
20.41	19.72	0.2734	1.386	22.491	8	6	sandy silt to clayey silt
20.47	19.99	0.2768	1.384	22.491	7	6	sandy silt to clayey silt
20.54	19.51	0.2986	1.531	22.507	7	6	sandy silt to clayey silt
20.60	18.62	0.2696	1.448	22.491	7	6	sandy silt to clayey silt
20.67	17.89	0.2868	1.603	22.457	7	6	sandy silt to clayey silt
20.73	17.00	0.2944	1.731	22.488	7	6	sandy silt to clayey silt
20.80	16.44	0.2582	1.570	22.488	6	6	sandy silt to clayey silt
20.87	16.31	0.2484	1.523	22.441	6	6	sandy silt to clayey silt
20.93	16.16	0.2251	1.393	21.692	6	6	sandy silt to clayey silt
21.00	15.82	0.2291	1.449	21.717	7	5	clayey silt to silty clay
21.06	15.09	0.2363	1.566	21.667	6	5	clayey silt to silty clay
21.13	12.89	0.2394	1.858	21.680	6	5	clayey silt to silty clay
21.19	10.11	0.2451	2.425	21.664	5	5	clayey silt to silty clay
21.26	8.46	0.2442	2.886	21.667	6	4	silty clay to clay
21.33	7.32	0.2289	3.128	21.645	8	3	clay
21.39	6.16	0.2347	3.809	21.673	7	3	clay
21.46	4.97	0.2295	4.614	21.764	6	3	clay
21.52	4.95	0.2353	4.757	21.911	6	3	clay
21.59	6.63	0.2484	3.747	22.079	6	3	clay
21.65	7.20	0.2581	3.587	22.085	5	3	clay
21.72	6.09	0.2236	3.670	22.063	5	3	clay
21.78	5.23	0.2017	3.858	22.107	6	3	clay
21.85	4.70	0.2168	4.612	22.123	6	3	clay
21.92	4.86	0.2352	4.837	22.322	7	3	clay
21.98	7.03	0.2525	3.592	22.416	5	4	silty clay to clay
22.05	10.85	0.2600	2.396	22.316	6	4	silty clay to clay
22.11	12.46	0.2822	2.265	22.238	5	5	clayey silt to silty clay
22.18	13.19	0.2843	2.155	22.145	6	5	clayey silt to silty clay
22.24	14.04	0.2763	1.967	22.060	6	5	clayey silt to silty clay
22.31	14.36	0.2607	1.815	22.010	6	5	clayey silt to silty clay
22.38	14.26	0.2626	1.841	21.948	6	5	clayey silt to silty clay
22.44	13.51	0.2614	1.935	21.967	6	5	clayey silt to silty clay
22.51	12.91	0.2722	2.108	21.833	6	5	clayey silt to silty clay
22.57	12.44	0.2853	2.293	21.811	6	5	clayey silt to silty clay
22.64	12.07	0.2766	2.292	21.795	6	5	clayey silt to silty clay
22.70	11.64	0.2701	2.320	21.798	5	5	clayey silt to silty clay
22.77	11.15	0.2835	2.542	21.695	7	4	silty clay to clay
22.83	10.41	0.2859	2.746	21.705	6	4	silty clay to clay
22.90	9.60	0.2774	2.890	21.698	6	4	silty clay to clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
22.97	8.70	0.2553	2.934	21.708	5	4	silty clay to clay
23.03	7.54	0.2361	3.130	21.767	7	3	clay
23.10	5.99	0.2181	3.642	21.808	6	3	clay
23.16	4.76	0.1933	4.064	21.789	5	3	clay
23.23	3.93	0.1820	4.632	21.854	4	3	clay
23.29	3.22	0.1651	5.128	22.095	3	3	clay
23.36	2.83	0.1424	5.035	22.238	3	3	clay
23.43	2.31	0.1385	6.004	22.326	3	3	clay
23.49	2.19	0.1299	5.922	22.572	3	3	clay
23.56	2.98	0.1155	3.881	23.053	2	3	clay
23.62	2.97	0.1094	3.685	23.362	2	3	clay
23.69	2.55	0.0907	3.557	23.590	2	3	clay
23.75	2.09	0.0886	4.239	23.727	2	3	clay
23.82	1.75	0.0907	5.182	24.083	2	3	clay
23.88	1.75	0.0913	5.223	25.131	2	2	organic material
23.95	1.69	0.1053	6.228	25.446	2	3	clay
24.02	2.05	0.1276	6.230	25.902	3	3	clay
24.08	2.61	0.1443	5.520	26.177	4	3	clay
24.15	6.10	0.1736	2.845	22.472	5	3	clay
24.21	5.45	0.1858	3.409	22.594	6	3	clay
24.28	9.12	0.1937	2.124	22.731	4	4	silty clay to clay
24.34	11.22	0.2038	1.816	22.725	4	4	silty clay to clay
24.41	8.44	0.1890	2.240	22.700	6	3	clay
24.48	5.15	0.1602	3.108	22.656	6	3	clay
24.54	3.18	0.1337	4.204	22.703	4	3	clay
24.61	1.92	0.1133	5.906	22.775	3	3	clay
24.67	1.34	0.0731	5.471	22.959	2	3	clay
24.74	1.23	0.0608	4.932	23.196	1	2	organic material
24.80	1.14	0.0497	4.363	23.462	1	2	organic material
24.87	0.87	0.0531	6.096	23.708	1	2	organic material
24.93	0.52	0.0453	8.716	23.870	1	2	organic material
25.00	0.25	0.0247	9.709	24.120	1	2	organic material
25.07	0.49	0.0295	5.976	24.338	1	2	organic material
25.13	1.04	0.0343	3.307	24.470	1	2	organic material
25.20	1.22	0.0455	3.733	24.476	1	2	organic material
25.26	1.26	0.0465	3.708	24.566	1	2	organic material
25.33	1.35	0.0535	3.952	24.610	2	3	clay
25.39	1.50	0.0545	3.642	24.732	1	1	sensitive fine grained
25.46	2.55	0.0542	2.123	24.894	2	1	sensitive fine grained
25.52	4.57	0.0347	0.759	24.941	2	1	sensitive fine grained
25.59	7.06	0.0381	0.540	24.651	2	1	sensitive fine grained
25.66	5.59	0.0522	0.934	24.151	2	1	sensitive fine grained
25.72	4.02	0.0628	1.562	23.986	2	1	sensitive fine grained
25.79	2.35	0.0653	2.777	23.955	2	1	sensitive fine grained
25.85	1.49	0.0596	4.007	24.126	1	1	sensitive fine grained
25.92	0.89	0.0354	3.996	24.426	2	3	clay
25.98	0.84	0.0308	3.670	24.872	1	2	organic material
26.05	1.05	0.0285	2.705	25.028	1	2	organic material
26.12	0.93	0.0579	6.210	25.116	1	2	organic material
26.18	1.58	0.0681	4.319	25.287	1	2	organic material
26.25	1.80	0.0694	3.864	25.609	2	2	organic material
26.31	1.49	0.0710	4.764	25.665	2	3	clay
26.38	1.88	0.0916	4.877	26.230	2	3	clay
26.44	2.25	0.0959	4.254	26.667	3	3	clay
26.51	2.36	0.0983	4.159	26.704	4	3	clay
26.57	3.29	0.1182	3.597	27.384	4	4	silty clay to clay
26.64	7.55	0.1325	1.755	27.238	4	4	silty clay to clay
26.71	10.67	0.1782	1.671	26.089	5	4	silty clay to clay
26.77	11.59	0.2064	1.782	25.552	4	5	clayey silt to silty clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
26.84	11.36	0.2312	2.036	25.424	5	5	clayey silt to silty clay
26.90	10.59	0.2213	2.090	25.325	5	5	clayey silt to silty clay
26.97	10.07	0.1983	1.969	25.237	5	5	clayey silt to silty clay
27.03	9.70	0.1771	1.825	25.137	5	5	clayey silt to silty clay
27.10	9.66	0.2566	2.656	25.013	4	5	clayey silt to silty clay
27.17	8.90	0.1694	1.903	24.853	4	5	clayey silt to silty clay
27.23	7.98	0.1207	1.513	24.669	5	4	silty clay to clay
27.30	6.68	0.1097	1.643	24.519	5	4	silty clay to clay
27.36	5.39	0.1031	1.912	24.479	4	4	silty clay to clay
27.43	6.94	0.0990	1.426	22.173	3	1	sensitive fine grained
27.49	5.46	0.0802	1.468	22.098	3	4	silty clay to clay
27.56	4.53	0.0752	1.661	22.098	3	4	silty clay to clay
27.62	4.04	0.0828	2.049	22.042	3	4	silty clay to clay
27.69	3.82	0.0834	2.180	22.076	3	4	silty clay to clay
27.76	3.62	0.0833	2.303	22.188	4	3	clay
27.82	3.66	0.0777	2.122	22.238	3	3	clay
27.89	3.54	0.0701	1.977	22.316	3	3	clay
27.95	3.50	0.0744	2.129	22.416	3	3	clay
28.02	3.19	0.0721	2.262	22.475	3	3	clay
28.08	2.62	0.0747	2.849	22.525	3	3	clay
28.15	2.17	0.0734	3.385	22.641	2	3	clay
28.22	1.88	0.0726	3.870	22.800	2	3	clay
28.28	1.48	0.0581	3.919	23.081	2	3	clay
28.35	1.41	0.0557	3.942	23.446	2	3	clay
28.41	1.39	0.0556	4.011	23.771	1	3	clay
28.48	1.44	0.0620	4.301	24.098	1	3	clay
28.54	1.55	0.0763	4.910	24.470	2	3	clay
28.61	1.69	0.0588	3.487	24.785	2	3	clay
28.67	1.72	0.0577	3.351	25.025	2	3	clay
28.74	1.81	0.0602	3.327	25.256	2	3	clay
28.81	1.99	0.0563	2.834	25.437	2	3	clay
28.87	2.22	0.0656	2.953	25.531	2	3	clay
28.94	2.53	0.0725	2.865	25.652	2	3	clay
29.00	2.72	0.0749	2.758	25.718	2	3	clay
29.07	2.52	0.0751	2.980	25.774	2	3	clay
29.13	2.45	0.0665	2.719	25.927	2	3	clay
29.20	2.27	0.0687	3.022	26.133	2	3	clay
29.27	2.39	0.0700	2.933	26.320	2	3	clay
29.33	2.33	0.0607	2.606	26.379	2	3	clay
29.40	2.26	0.0744	3.297	26.548	2	3	clay
29.46	2.12	0.0988	4.667	27.000	3	3	clay
29.53	2.63	0.1015	3.864	27.709	3	3	clay
29.59	3.99	0.0946	2.368	28.199	3	3	clay
29.66	4.53	0.1036	2.289	28.233	4	3	clay
29.72	5.01	0.0945	1.887	28.168	4	3	clay
29.79	4.27	0.1004	2.352	27.025	4	3	clay
29.86	3.97	0.1028	2.591	26.607	4	3	clay
29.92	3.90	0.1099	2.816	27.038	4	3	clay
29.99	3.80	0.1189	3.131	27.709	4	3	clay
30.05	3.78	0.1179	3.119	28.374	4	3	clay
30.12	3.82	0.1316	3.446	29.229	4	3	clay
30.18	4.23	0.1323	3.127	29.753	4	3	clay
30.25	4.65	0.1235	2.655	29.943	4	3	clay
30.31	4.71	0.1369	2.908	30.106	4	3	clay
30.38	4.68	0.1362	2.910	29.756	4	3	clay
30.45	4.02	0.1251	3.110	28.573	4	3	clay
30.51	3.60	0.1424	3.955	27.503	4	3	clay
30.58	3.64	0.1358	3.732	26.969	4	3	clay
30.64	3.83	0.1160	3.028	26.754	4	3	clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
30.71	4.61	0.1368	2.969	25.403	4	3	clay
30.77	4.57	0.1416	3.102	25.187	4	3	clay
30.84	4.06	0.1506	3.707	24.535	4	3	clay
30.91	3.74	0.1365	3.650	24.036	4	3	clay
30.97	3.78	0.1484	3.930	23.814	4	3	clay
31.04	4.49	0.1814	4.037	23.483	4	3	clay
31.10	4.70	0.1938	4.126	23.028	4	3	clay
31.17	4.69	0.2130	4.536	22.672	5	3	clay
31.23	5.22	0.2224	4.260	22.276	5	3	clay
31.30	4.94	0.2191	4.431	21.773	5	3	clay
31.36	5.09	0.2066	4.058	21.561	5	3	clay
31.43	5.37	0.1892	3.521	21.414	5	3	clay
31.50	5.32	0.1638	3.076	21.293	4	3	clay
31.56	4.76	0.1581	3.319	21.059	4	3	clay
31.63	3.46	0.1322	3.822	20.871	3	3	clay
31.69	2.68	0.1298	4.846	20.528	3	3	clay
31.76	2.09	0.1377	6.575	20.428	2	2	organic material
31.82	1.61	0.1591	9.887	20.194	2	2	organic material
31.89	1.47	0.1554	10.550	20.060	2	2	organic material
31.96	1.45	0.1396	9.647	19.969	2	2	organic material
32.02	1.93	0.1391	7.195	19.941	2	2	organic material
32.09	2.97	0.1336	4.500	19.848	2	3	clay
32.15	3.79	0.1424	3.754	19.776	3	3	clay
32.22	3.67	0.1523	4.153	19.579	3	3	clay
32.28	2.99	0.1272	4.254	19.355	3	3	clay
32.35	3.03	0.1371	4.530	19.373	4	3	clay
32.41	3.44	0.1404	4.087	19.405	4	3	clay
32.48	4.29	0.1559	3.636	19.373	4	3	clay
32.55	4.40	0.1561	3.551	19.289	5	3	clay
32.61	5.18	0.2066	3.990	19.236	6	3	clay
32.68	7.31	0.2522	3.450	19.217	7	3	clay
32.74	9.65	0.2809	2.911	19.224	9	3	clay
32.81	10.89	0.3409	3.131	19.261	7	4	silty clay to clay
32.87	11.92	0.3862	3.241	19.139	8	4	silty clay to clay
32.94	13.09	0.3947	3.015	19.027	8	4	silty clay to clay
33.01	14.11	0.4280	3.032	18.915	9	4	silty clay to clay
33.07	15.36	0.4911	3.198	18.918	9	4	silty clay to clay
33.14	16.31	0.4951	3.036	18.912	7	5	clayey silt to silty clay
33.20	16.60	0.4801	2.892	18.712	7	5	clayey silt to silty clay
33.27	16.29	0.4697	2.883	18.743	7	5	clayey silt to silty clay
33.33	15.31	0.4734	3.092	18.862	7	5	clayey silt to silty clay
33.40	14.26	0.4687	3.286	18.912	10	4	silty clay to clay
33.46	14.26	0.4447	3.119	19.018	9	4	silty clay to clay
33.53	13.98	0.4449	3.181	19.426	9	4	silty clay to clay
33.60	13.65	0.5750	4.211	20.706	9	4	silty clay to clay
33.66	13.81	0.5879	4.258	24.164	9	4	silty clay to clay
33.73	14.34	0.5448	3.799	27.456	9	4	silty clay to clay
33.79	14.28	0.4956	3.471	29.928	9	4	silty clay to clay
33.86	14.11	0.4507	3.195	32.022	9	4	silty clay to clay
33.92	16.65	0.4157	2.497	20.790	7	5	clayey silt to silty clay
33.99	14.38	0.3720	2.587	21.187	7	5	clayey silt to silty clay
34.06	13.74	0.3255	2.369	22.653	7	5	clayey silt to silty clay
34.12	13.57	0.2937	2.165	25.808	7	5	clayey silt to silty clay
34.19	13.60	0.2674	1.967	28.901	6	5	clayey silt to silty clay
34.25	13.43	0.2591	1.930	32.019	6	5	clayey silt to silty clay
34.32	13.04	0.2618	2.007	35.114	6	5	clayey silt to silty clay
34.38	12.99	0.2586	1.991	39.050	6	5	clayey silt to silty clay
34.45	13.28	0.2573	1.937	43.662	6	5	clayey silt to silty clay
34.51	13.23	0.2542	1.922	48.159	6	5	clayey silt to silty clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
34.58	12.92	0.2390	1.850	51.676	6	5	clayey silt to silty clay
34.65	13.07	0.2510	1.921	55.695	6	5	clayey silt to silty clay
34.71	12.99	0.2547	1.960	59.759	6	5	clayey silt to silty clay
34.78	12.59	0.2617	2.079	62.586	6	5	clayey silt to silty clay
34.84	12.56	0.2571	2.047	63.965	6	5	clayey silt to silty clay
34.91	13.16	0.2860	2.173	62.093	6	5	clayey silt to silty clay
34.97	13.59	0.3075	2.262	61.353	7	5	clayey silt to silty clay
35.04	14.13	0.3073	2.175	65.201	7	5	clayey silt to silty clay
35.10	14.89	0.2919	1.960	67.832	7	5	clayey silt to silty clay
35.17	14.94	0.2924	1.958	67.776	7	5	clayey silt to silty clay
35.24	15.07	0.2824	1.874	69.345	7	5	clayey silt to silty clay
35.30	16.50	0.2539	1.539	73.967	6	6	sandy silt to clayey silt
35.37	16.72	0.2199	1.315	75.578	6	6	sandy silt to clayey silt
35.43	15.92	0.2099	1.319	75.593	6	6	sandy silt to clayey silt
35.50	15.63	0.1997	1.278	78.861	6	6	sandy silt to clayey silt
35.56	15.44	0.1970	1.276	83.860	6	6	sandy silt to clayey silt
35.63	15.11	0.2283	1.511	91.141	6	6	sandy silt to clayey silt
35.70	14.80	0.2422	1.636	88.410	6	6	sandy silt to clayey silt
35.76	14.66	0.2304	1.572	92.130	7	5	clayey silt to silty clay
35.83	14.89	0.2497	1.677	99.414	8	5	clayey silt to silty clay
35.89	15.85	0.2862	1.806	102.762	8	5	clayey silt to silty clay
35.96	17.38	0.3089	1.777	97.145	6	6	sandy silt to clayey silt
36.02	17.74	0.2923	1.648	95.859	6	6	sandy silt to clayey silt
36.09	17.35	0.2636	1.519	93.157	6	6	sandy silt to clayey silt
36.15	16.56	0.2765	1.669	84.846	6	6	sandy silt to clayey silt
36.22	16.53	0.2729	1.650	81.588	6	6	sandy silt to clayey silt
36.29	15.91	0.2618	1.645	86.772	6	6	sandy silt to clayey silt
36.35	16.04	0.2735	1.705	100.353	8	5	clayey silt to silty clay
36.42	16.65	0.2661	1.599	89.792	8	5	clayey silt to silty clay
36.48	17.62	0.2375	1.348	84.781	8	5	clayey silt to silty clay
36.55	17.35	0.4450	2.565	82.955	8	5	clayey silt to silty clay
36.61	16.90	0.4522	2.676	83.963	8	5	clayey silt to silty clay
36.68	16.41	0.4857	2.959	88.847	9	5	clayey silt to silty clay
36.75	16.55	0.5761	3.482	92.589	9	5	clayey silt to silty clay
36.81	16.57	0.6459	3.899	97.326	9	5	clayey silt to silty clay
36.88	24.16	0.6225	2.577	30.212	10	5	clayey silt to silty clay
36.94	23.47	0.6580	2.804	31.504	10	5	clayey silt to silty clay
37.01	22.26	0.6096	2.738	33.111	10	5	clayey silt to silty clay
37.07	21.38	0.5775	2.701	34.191	10	5	clayey silt to silty clay
37.14	19.76	0.6077	3.076	35.311	10	5	clayey silt to silty clay
37.20	18.50	0.5893	3.186	38.001	9	5	clayey silt to silty clay
37.27	18.21	0.5125	2.814	41.964	9	5	clayey silt to silty clay
37.34	18.51	0.4139	2.236	46.146	9	5	clayey silt to silty clay
37.40	17.93	0.3371	1.880	50.581	9	5	clayey silt to silty clay
37.47	18.80	0.3172	1.687	57.780	9	5	clayey silt to silty clay
37.53	18.73	0.2940	1.570	61.915	9	5	clayey silt to silty clay
37.60	18.52	0.3212	1.734	66.456	9	5	clayey silt to silty clay
37.66	17.68	0.3546	2.005	70.843	9	5	clayey silt to silty clay
37.73	16.36	0.3926	2.399	76.651	8	5	clayey silt to silty clay
37.80	16.82	0.4311	2.563	81.691	8	5	clayey silt to silty clay
37.86	17.60	0.5010	2.847	81.098	8	5	clayey silt to silty clay
37.93	17.92	0.5619	3.136	78.065	8	5	clayey silt to silty clay
37.99	17.75	0.5943	3.349	78.108	8	5	clayey silt to silty clay
38.06	18.06	0.5532	3.063	73.068	9	5	clayey silt to silty clay
38.12	18.03	0.5392	2.991	69.966	9	5	clayey silt to silty clay
38.19	17.59	0.5211	2.962	68.409	9	5	clayey silt to silty clay
38.25	17.76	0.5107	2.876	71.243	9	5	clayey silt to silty clay
38.32	18.00	0.5091	2.828	72.919	9	5	clayey silt to silty clay
38.39	18.11	0.4936	2.726	78.620	9	5	clayey silt to silty clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
38.45	17.96	0.5151	2.868	81.913	9	5	clayey silt to silty clay
38.52	18.10	0.5712	3.156	76.411	9	5	clayey silt to silty clay
38.58	17.68	0.5828	3.297	73.786	9	5	clayey silt to silty clay
38.65	17.21	0.5613	3.262	74.894	8	5	clayey silt to silty clay
38.71	17.75	0.5451	3.070	75.746	8	5	clayey silt to silty clay
38.78	17.75	0.5249	2.958	72.026	8	5	clayey silt to silty clay
38.85	17.32	0.4665	2.693	71.255	8	5	clayey silt to silty clay
38.91	17.55	0.4013	2.286	73.764	8	5	clayey silt to silty clay
38.98	17.02	0.3580	2.104	76.130	8	5	clayey silt to silty clay
39.04	16.95	0.3502	2.065	79.922	8	5	clayey silt to silty clay
39.11	16.55	0.3268	1.975	80.983	8	5	clayey silt to silty clay
39.17	15.89	0.3255	2.049	82.459	8	5	clayey silt to silty clay
39.24	16.51	0.3891	2.357	85.754	8	5	clayey silt to silty clay
39.30	17.41	0.4234	2.432	86.147	8	5	clayey silt to silty clay
39.37	17.82	0.4846	2.720	79.613	9	5	clayey silt to silty clay
39.44	18.60	0.6333	3.406	75.977	10	5	clayey silt to silty clay
39.50	19.92	0.7753	3.891	74.151	10	5	clayey silt to silty clay
39.57	23.57	0.8751	3.712	75.284	10	5	clayey silt to silty clay
39.63	25.85	0.8753	3.386	71.112	14	4	silty clay to clay
39.70	24.67	0.8849	3.587	55.443	14	4	silty clay to clay
39.76	22.05	0.8656	3.925	41.206	13	4	silty clay to clay
39.83	19.04	0.7315	3.842	38.653	12	4	silty clay to clay
39.90	15.83	0.6459	4.079	45.550	11	4	silty clay to clay
39.96	14.30	0.5670	3.966	48.175	10	4	silty clay to clay
40.03	12.69	0.2249	1.772	53.040	9	4	silty clay to clay
40.09	11.51	0.4163	3.618	63.329	12	3	clay
40.16	11.28	0.4649	4.121	74.878	12	3	clay
40.22	12.08	0.5790	4.795	79.045	8	4	silty clay to clay
40.29	12.43	0.5657	4.551	74.676	9	4	silty clay to clay
40.35	14.28	0.5847	4.093	47.869	10	4	silty clay to clay
40.42	18.85	0.5962	3.162	39.418	8	5	clayey silt to silty clay
40.49	19.05	0.5109	2.682	38.531	9	5	clayey silt to silty clay
40.55	20.71	0.3946	1.906	39.031	10	5	clayey silt to silty clay
40.62	21.93	0.3408	1.554	37.589	8	6	sandy silt to clayey silt
40.68	23.46	0.3280	1.398	36.762	8	6	sandy silt to clayey silt
40.75	23.94	0.3021	1.262	35.464	8	6	sandy silt to clayey silt
40.81	22.70	0.2729	1.202	34.022	8	6	sandy silt to clayey silt
40.88	20.74	0.2246	1.083	33.825	8	6	sandy silt to clayey silt
40.94	18.14	0.2314	1.276	33.963	7	6	sandy silt to clayey silt
41.01	15.82	0.2167	1.370	34.915	6	6	sandy silt to clayey silt
41.08	13.81	0.2350	1.702	37.577	7	5	clayey silt to silty clay
41.14	13.20	0.2938	2.225	41.899	7	5	clayey silt to silty clay
41.21	12.84	0.3722	2.899	44.751	7	5	clayey silt to silty clay
41.27	13.02	0.5199	3.992	48.524	10	4	silty clay to clay
41.34	15.05	0.7273	4.833	53.445	10	4	silty clay to clay
41.40	19.11	0.6734	3.523	57.312	10	4	silty clay to clay
41.47	20.97	0.5619	2.680	50.721	10	4	silty clay to clay
41.54	19.75	0.6300	3.189	28.093	15	3	clay
41.60	14.28	0.7283	5.100	24.448	10	4	silty clay to clay
41.67	10.97	0.6938	6.325	24.345	11	4	silty clay to clay
41.73	11.00	0.6060	5.511	26.947	9	5	clayey silt to silty clay
41.80	14.51	0.4849	3.342	32.075	11	5	clayey silt to silty clay
41.86	25.78	0.3892	1.510	36.475	11	6	sandy silt to clayey silt
41.93	37.86	0.3935	1.039	33.080	13	6	sandy silt to clayey silt
41.99	45.75	0.4823	1.054	24.597	12	7	silty sand to sandy silt
42.06	48.71	0.4840	0.994	22.853	14	7	silty sand to sandy silt
42.13	48.63	0.4778	0.983	22.535	15	7	silty sand to sandy silt
42.19	48.63	0.4697	0.966	22.772	16	7	silty sand to sandy silt
42.26	49.95	0.4703	0.942	22.734	16	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
42.32	51.00	0.4118	0.807	22.610	17	7	silty sand to sandy silt
42.39	53.21	0.2501	0.470	22.535	17	7	silty sand to sandy silt
42.45	57.31	0.2056	0.359	22.425	17	7	silty sand to sandy silt
42.52	58.22	0.4078	0.700	22.419	16	7	silty sand to sandy silt
42.59	53.50	0.6039	1.129	22.026	15	7	silty sand to sandy silt
42.65	45.41	0.6703	1.476	21.779	14	7	silty sand to sandy silt
42.72	37.14	0.7221	1.944	21.480	12	7	silty sand to sandy silt
42.78	30.35	0.7165	2.360	21.555	13	6	sandy silt to clayey silt
42.85	25.92	0.6578	2.538	21.879	11	6	sandy silt to clayey silt
42.91	22.86	0.5529	2.419	21.829	12	5	clayey silt to silty clay
42.98	20.79	0.5199	2.501	22.067	10	5	clayey silt to silty clay
43.04	18.96	0.5684	2.998	22.070	9	5	clayey silt to silty clay
43.11	17.60	0.5305	3.014	22.107	9	5	clayey silt to silty clay
43.18	16.54	0.5446	3.294	22.216	9	5	clayey silt to silty clay
43.24	15.79	0.3846	2.436	22.522	9	5	clayey silt to silty clay
43.31	16.21	0.4093	2.525	22.759	9	5	clayey silt to silty clay
43.37	18.80	0.5131	2.730	23.424	8	6	sandy silt to clayey silt
43.44	22.06	0.5248	2.379	23.614	9	6	sandy silt to clayey silt
43.50	25.07	0.4019	1.603	23.081	11	6	sandy silt to clayey silt
43.57	34.68	0.2930	0.845	23.171	10	7	silty sand to sandy silt
43.64	39.09	0.2138	0.547	22.678	11	7	silty sand to sandy silt
43.70	43.52	0.2190	0.503	22.316	12	7	silty sand to sandy silt
43.77	44.15	0.3227	0.731	22.067	12	7	silty sand to sandy silt
43.83	40.04	0.3960	0.989	21.895	12	7	silty sand to sandy silt
43.90	34.99	0.3720	1.063	21.864	11	7	silty sand to sandy silt
43.96	30.15	0.3117	1.034	21.914	10	7	silty sand to sandy silt
44.03	25.91	0.2905	1.121	22.020	10	6	sandy silt to clayey silt
44.09	22.18	0.2430	1.095	22.079	9	6	sandy silt to clayey silt
44.16	18.57	0.2034	1.096	22.223	8	6	sandy silt to clayey silt
44.23	16.20	0.2814	1.737	22.550	7	6	sandy silt to clayey silt
44.29	13.98	0.3130	2.239	23.240	7	5	clayey silt to silty clay
44.36	12.04	0.2719	2.257	24.226	7	5	clayey silt to silty clay
44.42	11.41	0.3375	2.958	25.378	7	5	clayey silt to silty clay
44.49	13.14	0.3506	2.668	27.132	6	5	clayey silt to silty clay
44.55	15.30	0.3539	2.313	28.012	8	4	silty clay to clay
44.62	14.66	0.4121	2.812	27.756	8	4	silty clay to clay
44.69	13.48	0.4629	3.433	28.099	8	4	silty clay to clay
44.75	12.06	0.5166	4.283	28.252	12	3	clay
44.82	10.75	0.5989	5.574	29.890	12	3	clay
44.88	11.20	0.6957	6.211	33.329	12	3	clay
44.95	11.83	0.7949	6.719	36.394	12	3	clay
45.01	12.81	0.8975	7.007	38.276	13	3	clay
45.08	14.10	0.9527	6.756	38.560	14	3	clay
45.14	15.85	0.9506	5.996	37.689	16	3	clay
45.21	18.34	0.8838	4.819	35.607	18	3	clay
45.28	21.15	0.8645	4.087	32.624	13	4	silty clay to clay
45.34	23.48	0.8798	3.746	29.104	11	5	clayey silt to silty clay
45.41	26.17	0.7866	3.006	26.504	12	5	clayey silt to silty clay
45.47	27.00	0.5855	2.168	24.741	12	5	clayey silt to silty clay
45.54	26.84	0.4369	1.628	23.633	10	6	sandy silt to clayey silt
45.60	26.62	0.5298	1.990	22.937	10	6	sandy silt to clayey silt
45.67	26.46	0.5899	2.229	22.235	10	6	sandy silt to clayey silt
45.73	25.04	0.5148	2.056	21.882	11	6	sandy silt to clayey silt
45.80	25.19	0.4696	1.865	21.845	12	6	sandy silt to clayey silt
45.87	32.42	0.3879	1.197	22.079	11	7	silty sand to sandy silt
45.93	42.31	0.3788	0.895	22.304	12	7	silty sand to sandy silt
46.00	46.12	0.3235	0.701	21.695	12	7	silty sand to sandy silt
46.06	44.56	0.2784	0.625	21.018	12	7	silty sand to sandy silt
46.13	40.70	0.2974	0.731	20.737	12	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
46.19	34.12	0.3474	1.018	20.640	11	7	silty sand to sandy silt
46.26	27.69	0.4085	1.475	20.525	11	6	sandy silt to clayey silt
46.33	21.35	0.4145	1.942	20.581	9	6	sandy silt to clayey silt
46.39	17.38	0.3771	2.169	20.640	8	6	sandy silt to clayey silt
46.46	15.61	0.2814	1.803	20.740	7	6	sandy silt to clayey silt
46.52	14.90	0.1797	1.207	21.140	6	6	sandy silt to clayey silt
46.59	14.72	0.1563	1.062	21.539	6	6	sandy silt to clayey silt
46.65	16.01	0.1540	0.961	21.795	6	6	sandy silt to clayey silt
46.72	16.44	0.1655	1.007	21.951	6	6	sandy silt to clayey silt
46.78	20.00	0.1296	0.648	20.990	6	6	sandy silt to clayey silt
46.85	18.27	0.1261	0.691	20.974	6	6	sandy silt to clayey silt
46.92	16.88	0.1045	0.619	21.099	6	6	sandy silt to clayey silt
46.98	15.48	0.1366	0.883	21.196	6	6	sandy silt to clayey silt
47.05	13.80	0.2007	1.455	21.371	6	6	sandy silt to clayey silt
47.11	12.04	0.2229	1.851	22.063	6	6	sandy silt to clayey silt
47.18	12.19	0.1718	1.410	23.084	7	6	sandy silt to clayey silt
47.24	14.69	0.1658	1.129	24.744	8	6	sandy silt to clayey silt
47.31	23.38	0.1910	0.817	26.239	9	6	sandy silt to clayey silt
47.38	29.77	0.2387	0.802	25.506	10	6	sandy silt to clayey silt
47.44	33.60	0.3164	0.941	23.318	9	7	silty sand to sandy silt
47.51	34.57	0.3630	1.050	22.603	10	7	silty sand to sandy silt
47.57	34.79	0.3906	1.123	22.285	11	7	silty sand to sandy silt
47.64	34.91	0.4286	1.228	22.213	11	7	silty sand to sandy silt
47.70	35.43	0.4548	1.284	22.148	11	7	silty sand to sandy silt
47.77	35.82	0.4440	1.240	22.098	12	7	silty sand to sandy silt
47.83	36.85	0.4256	1.155	22.076	12	7	silty sand to sandy silt
47.90	38.70	0.3898	1.007	22.120	13	7	silty sand to sandy silt
47.97	40.99	0.3813	0.930	22.098	13	7	silty sand to sandy silt
48.03	42.99	0.3917	0.911	21.764	14	7	silty sand to sandy silt
48.10	44.98	0.4036	0.897	21.652	14	7	silty sand to sandy silt
48.16	47.54	0.4352	0.915	21.661	15	7	silty sand to sandy silt
48.23	49.60	0.4621	0.932	21.598	15	7	silty sand to sandy silt
48.29	50.83	0.5153	1.014	21.524	16	7	silty sand to sandy silt
48.36	50.96	0.5381	1.056	21.555	16	7	silty sand to sandy silt
48.43	51.21	0.5592	1.092	21.570	16	7	silty sand to sandy silt
48.49	51.18	0.5640	1.102	21.642	16	7	silty sand to sandy silt
48.56	51.17	0.5804	1.134	21.620	16	7	silty sand to sandy silt
48.62	50.24	0.6375	1.269	21.627	16	7	silty sand to sandy silt
48.69	49.99	0.6939	1.388	21.723	16	7	silty sand to sandy silt
48.75	49.74	0.8002	1.609	21.767	16	7	silty sand to sandy silt
48.82	50.12	0.9359	1.868	21.755	16	7	silty sand to sandy silt
48.88	50.12	1.0172	2.030	21.839	19	6	sandy silt to clayey silt
48.95	48.97	1.1004	2.247	21.951	18	6	sandy silt to clayey silt
49.02	46.40	1.1607	2.502	22.213	18	6	sandy silt to clayey silt
49.08	43.82	1.1181	2.551	22.738	17	6	sandy silt to clayey silt
49.15	44.17	1.1435	2.589	23.920	16	6	sandy silt to clayey silt
49.21	41.10	1.1529	2.805	24.906	14	6	sandy silt to clayey silt
49.28	33.79	1.1324	3.351	26.532	16	5	clayey silt to silty clay
49.34	26.30	0.9693	3.685	27.668	14	5	clayey silt to silty clay
49.41	21.62	0.7021	3.248	28.239	12	5	clayey silt to silty clay
49.48	21.09	0.4804	2.277	29.066	11	5	clayey silt to silty clay
49.54	19.32	0.3153	1.632	33.289	8	6	sandy silt to clayey silt
49.61	19.27	0.2345	1.217	37.467	8	6	sandy silt to clayey silt
49.67	20.22	0.1772	0.876	38.840	8	6	sandy silt to clayey silt
49.74	21.87	0.2337	1.068	39.090	8	6	sandy silt to clayey silt
49.80	22.68	0.2585	1.140	39.256	9	6	sandy silt to clayey silt
49.87	23.46	0.2856	1.217	40.301	9	6	sandy silt to clayey silt
49.93	24.46	0.2609	1.067	42.361	8	7	silty sand to sandy silt
50.00	25.95	0.2444	0.942	44.308	9	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
50.07	33.27	0.2267	0.681	28.186	9	7	silty sand to sandy silt
50.13	33.09	0.1990	0.602	28.979	10	7	silty sand to sandy silt
50.20	32.61	0.1699	0.521	30.352	10	7	silty sand to sandy silt
50.26	31.98	0.1735	0.542	32.359	10	7	silty sand to sandy silt
50.33	29.97	0.2314	0.772	34.796	9	7	silty sand to sandy silt
50.39	28.39	0.2554	0.900	37.196	9	7	silty sand to sandy silt
50.46	26.57	0.2736	1.030	40.189	9	7	silty sand to sandy silt
50.52	25.68	0.2688	1.047	43.078	9	7	silty sand to sandy silt
50.59	25.57	0.2453	0.959	45.924	9	7	silty sand to sandy silt
50.66	26.16	0.2500	0.955	47.853	9	7	silty sand to sandy silt
50.72	27.74	0.2529	0.911	49.410	9	7	silty sand to sandy silt
50.79	29.39	0.2303	0.784	49.828	10	7	silty sand to sandy silt
50.85	31.87	0.1839	0.577	50.474	11	7	silty sand to sandy silt
50.92	36.05	0.1565	0.434	50.400	11	7	silty sand to sandy silt
50.98	39.74	0.1827	0.460	48.018	12	7	silty sand to sandy silt
51.05	41.64	0.2405	0.578	44.920	12	7	silty sand to sandy silt
51.12	41.60	0.3156	0.759	42.994	12	7	silty sand to sandy silt
51.18	39.96	0.3991	0.999	43.734	12	7	silty sand to sandy silt
51.25	37.21	0.4720	1.268	45.422	12	7	silty sand to sandy silt
51.31	34.26	0.4614	1.347	47.485	11	7	silty sand to sandy silt
51.38	32.22	0.4403	1.367	49.679	11	7	silty sand to sandy silt
51.44	31.23	0.4089	1.309	51.713	11	7	silty sand to sandy silt
51.51	31.31	0.3098	0.989	53.445	10	7	silty sand to sandy silt
51.57	32.12	0.1923	0.598	54.313	10	7	silty sand to sandy silt
51.64	33.38	0.1440	0.431	54.691	10	7	silty sand to sandy silt
51.71	34.33	0.1391	0.405	54.141	10	7	silty sand to sandy silt
51.77	34.24	0.1360	0.397	52.328	10	7	silty sand to sandy silt
51.84	32.48	0.1167	0.359	52.288	10	7	silty sand to sandy silt
51.90	30.24	0.1210	0.400	53.586	10	7	silty sand to sandy silt
51.97	28.35	0.1151	0.406	54.890	9	7	silty sand to sandy silt
52.03	26.89	0.0985	0.366	55.889	9	7	silty sand to sandy silt
52.10	25.86	0.0914	0.354	56.513	8	7	silty sand to sandy silt
52.17	24.55	0.1039	0.423	56.959	8	7	silty sand to sandy silt
52.23	22.77	0.1354	0.594	57.390	7	7	silty sand to sandy silt
52.30	20.88	0.1833	0.878	57.930	8	6	sandy silt to clayey silt
52.36	19.49	0.2050	1.052	58.916	8	6	sandy silt to clayey silt
52.43	19.01	0.1999	1.051	59.578	8	6	sandy silt to clayey silt
52.49	19.12	0.2032	1.063	59.103	7	6	sandy silt to clayey silt
52.56	18.91	0.1279	0.677	57.421	7	6	sandy silt to clayey silt
52.62	17.64	0.0765	0.434	55.099	7	6	sandy silt to clayey silt
52.69	16.26	0.0937	0.576	53.149	7	6	sandy silt to clayey silt
52.76	15.43	0.0831	0.539	52.868	7	6	sandy silt to clayey silt
52.82	15.53	0.0925	0.596	52.828	7	6	sandy silt to clayey silt
52.89	17.52	0.1010	0.576	53.567	8	6	sandy silt to clayey silt
52.95	22.76	0.1285	0.565	53.664	8	7	silty sand to sandy silt
53.02	29.17	0.3943	1.352	51.536	10	7	silty sand to sandy silt
53.08	35.87	0.3694	1.030	46.926	11	7	silty sand to sandy silt
53.15	41.60	0.3951	0.950	42.604	13	7	silty sand to sandy silt
53.22	47.88	0.3790	0.792	39.758	15	7	silty sand to sandy silt
53.28	52.27	0.3617	0.692	37.349	16	7	silty sand to sandy silt
53.35	57.12	0.4328	0.758	26.688	17	7	silty sand to sandy silt
53.41	57.81	0.4804	0.831	26.589	18	7	silty sand to sandy silt
53.48	57.70	0.5604	0.971	26.445	18	7	silty sand to sandy silt
53.54	56.66	0.6195	1.094	26.470	18	7	silty sand to sandy silt
53.61	55.59	0.5891	1.060	26.489	18	7	silty sand to sandy silt
53.67	56.42	0.4663	0.827	26.510	18	7	silty sand to sandy silt
53.74	58.71	0.4922	0.838	26.604	18	7	silty sand to sandy silt
53.81	60.34	0.5199	0.862	26.479	18	7	silty sand to sandy silt
53.87	58.70	0.4566	0.778	26.064	18	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
53.94	53.80	0.4239	0.788	25.911	18	7	silty sand to sandy silt
54.00	50.98	0.4220	0.828	25.877	18	7	silty sand to sandy silt
54.07	56.74	0.4321	0.762	25.880	17	7	silty sand to sandy silt
54.13	56.33	0.4074	0.723	25.790	16	7	silty sand to sandy silt
54.20	49.93	0.4175	0.836	25.762	16	7	silty sand to sandy silt
54.27	47.24	0.3974	0.841	25.846	16	7	silty sand to sandy silt
54.33	46.78	0.3967	0.848	25.936	15	7	silty sand to sandy silt
54.40	44.64	0.3588	0.804	25.896	14	7	silty sand to sandy silt
54.46	40.89	0.3481	0.851	25.893	13	7	silty sand to sandy silt
54.53	36.53	0.3470	0.950	25.889	12	7	silty sand to sandy silt
54.59	32.91	0.3802	1.156	25.939	11	7	silty sand to sandy silt
54.66	31.22	0.3699	1.185	25.939	10	7	silty sand to sandy silt
54.72	29.76	0.3263	1.096	25.955	10	7	silty sand to sandy silt
54.79	28.35	0.3331	1.175	25.955	11	6	sandy silt to clayey silt
54.86	25.94	0.3171	1.222	26.024	10	6	sandy silt to clayey silt
54.92	23.84	0.2849	1.195	25.992	9	6	sandy silt to clayey silt
54.99	22.44	0.2849	1.269	25.977	9	6	sandy silt to clayey silt
55.05	20.97	0.2733	1.303	26.021	8	6	sandy silt to clayey silt
55.12	19.98	0.2651	1.327	26.011	8	6	sandy silt to clayey silt
55.18	18.48	0.2866	1.551	25.946	8	6	sandy silt to clayey silt
55.25	18.28	0.2901	1.588	25.980	0	0	<out of range>
55.31	18.47	-0.0205	-0.111	25.996	0	0	<out of range>
55.38	20.24	-0.0326	-0.161	25.930	0	0	<out of range>
55.45	23.74	-32768	-32768	25.986	0	0	<out of range>
55.51	34.35	-32768	-32768	25.961	0	0	<out of range>
55.58	67.26	-32768	-32768	26.005	0	0	<out of range>
55.64	369.14	-32768	-32768	26.698	0	0	<out of range>

*Soil behavior type and SPT based on data from UBC-1983

AECOM

TVA Kingston Coal Ash Pond RCA (Kingston,Tennessee)
Project No: 60095742

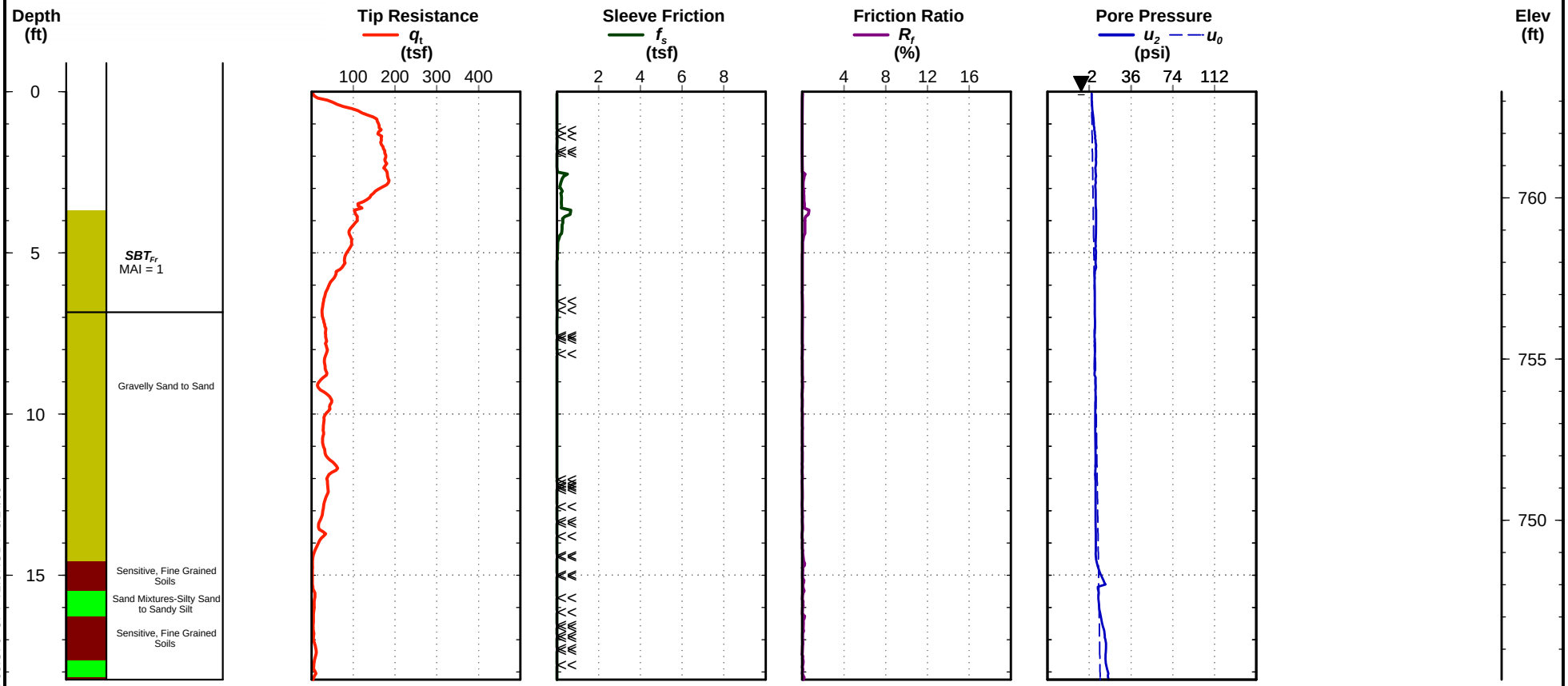
Cone Penetration Test

09-706-C1

Date: Feb. 13, 2009
Estimated Water Depth: 0 ft
Rig/Operator: D-120/CAP

Northing: 555573.95
Easting: 2442412.76
Elevation: 763.29 NGVD

Total Depth: 18.2 ft
Termination Criteria: Refusal
Cone Size: 5T Tension Cone



CPT REPORT - DYNAMIC GINT_KINGSTON_3-4-09.GPJ CPT V2.07.GDT 3/24/09

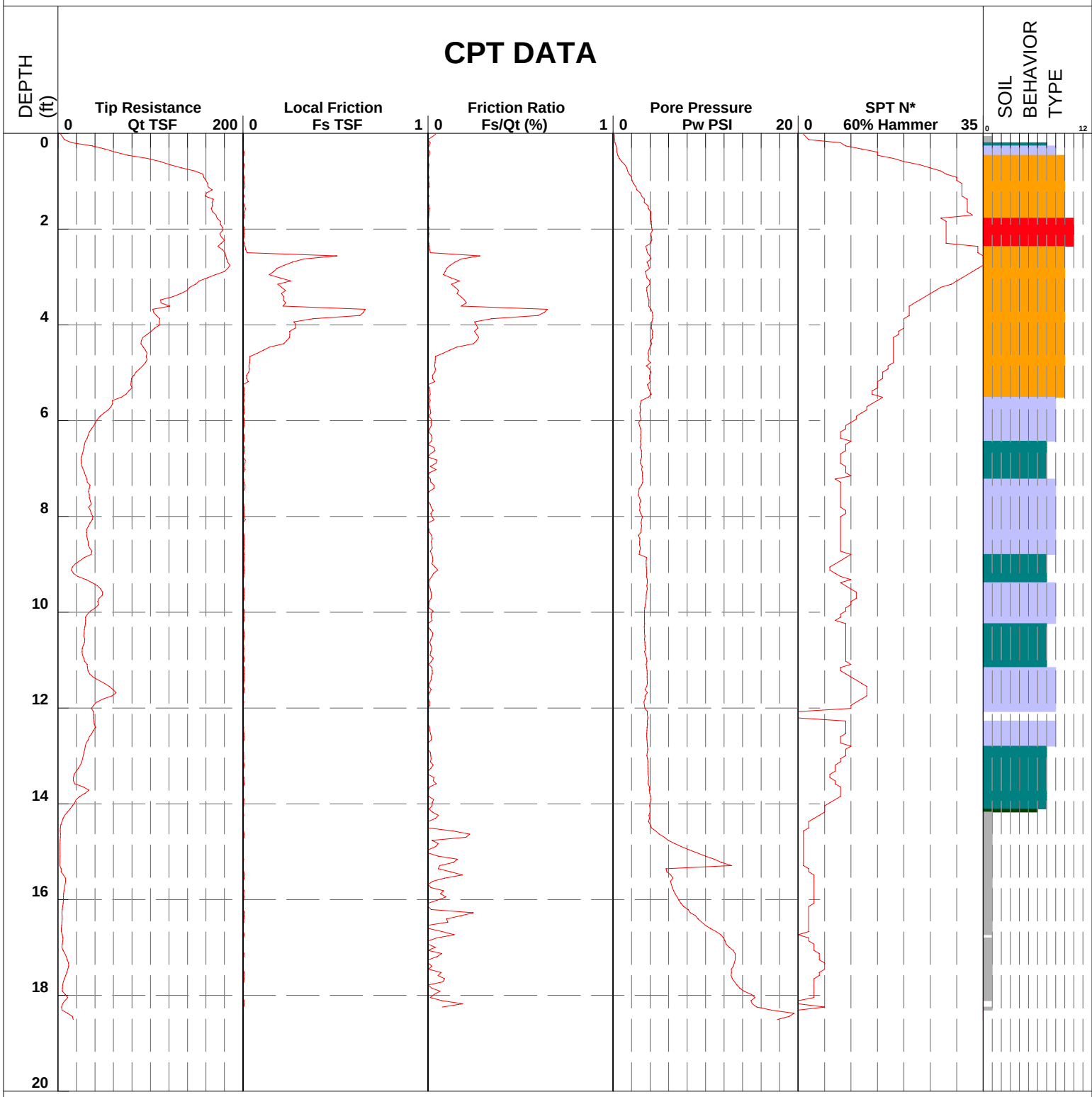
09-706-C1

Electronic Filename: 09-706-C1.cpt

AECOM

09-706-C1	60095742	2/13/2009 3:14:59 PM
DTA1081	TVA-Kingston	D-120/CAP

CPT DATA



1 - sensitive fine grained	4 - silty clay to clay	7 - silty sand to sandy silt	10 - gravelly sand to sand
2 - organic material	5 - clayey silt to silty clay	8 - sand to silty sand	11 - very stiff fine grained (*)
3 - clay	6 - sandy silt to clayey silt	9 - sand	12 - sand to clayey sand (*)

Data File:09-706-C1 2/13/2009 3:14:59 PM
Operator:D-120/CAP Location:TVA-Kingston
Cone ID:DTA1081 Job Number:60095742
Customer:TVA Units:

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
0.07	2.92	0.0012	0.042	0.144	1	1	sensitive fine grained
0.13	7.08	-0.0001	-0.002	0.178	2	1	sensitive fine grained
0.20	14.97	0.0017	0.012	0.203	8	7	silty sand to sandy silt
0.26	37.23	0.0022	0.006	0.340	9	8	sand to silty sand
0.33	50.56	-0.0001	0.000	0.409	12	8	sand to silty sand
0.39	62.01	0.0060	0.010	0.415	15	8	sand to silty sand
0.46	75.97	0.0048	0.006	0.509	15	9	sand
0.52	96.42	0.0008	0.001	0.674	18	9	sand
0.59	110.73	0.0005	0.000	0.914	20	9	sand
0.66	121.04	0.0066	0.005	1.270	23	9	sand
0.72	133.74	0.0043	0.003	1.479	25	9	sand
0.79	147.96	0.0027	0.002	1.570	27	9	sand
0.85	156.59	0.0024	0.002	1.741	28	9	sand
0.92	157.65	0.0072	0.005	2.013	30	9	sand
0.98	159.95	0.0035	0.002	2.038	30	9	sand
1.05	161.94	0.0099	0.006	2.206	31	9	sand
1.12	162.13	0.0105	0.007	2.456	31	9	sand
1.18	166.68	-0.0036	-0.002	2.568	31	9	sand
1.25	160.61	0.0006	0.000	2.952	31	9	sand
1.31	158.95	0.0066	0.004	3.096	31	9	sand
1.38	168.01	-0.0036	-0.002	3.395	32	9	sand
1.44	166.56	0.0020	0.001	3.367	32	9	sand
1.51	167.11	0.0086	0.005	3.757	32	9	sand
1.57	165.64	0.0131	0.008	3.832	32	9	sand
1.64	167.29	0.0092	0.006	4.091	32	9	sand
1.71	170.89	0.0080	0.005	4.079	33	9	sand
1.77	172.00	0.0052	0.003	4.060	27	10	gravelly sand to sand
1.84	175.61	-0.0033	-0.002	4.122	28	10	gravelly sand to sand
1.90	175.67	-0.0010	-0.001	4.154	28	10	gravelly sand to sand
1.97	177.90	0.0072	0.004	4.176	28	10	gravelly sand to sand
2.03	177.73	0.0049	0.003	4.238	28	10	gravelly sand to sand
2.10	175.08	0.0081	0.005	4.054	28	10	gravelly sand to sand
2.17	176.61	0.0056	0.003	4.166	28	10	gravelly sand to sand
2.23	180.11	0.0024	0.001	4.188	28	10	gravelly sand to sand
2.30	176.51	0.0068	0.004	4.041	28	10	gravelly sand to sand
2.36	172.85	0.0113	0.007	3.533	34	9	sand
2.43	177.72	0.0148	0.008	3.636	34	9	sand
2.49	180.70	0.0222	0.012	3.701	34	9	sand
2.56	181.43	0.5084	0.280	3.979	35	9	sand
2.62	182.31	0.3293	0.181	4.091	35	9	sand
2.69	183.50	0.2667	0.145	3.670	35	9	sand
2.76	185.92	0.2226	0.120	3.832	35	9	sand
2.82	183.64	0.1840	0.100	3.926	34	9	sand
2.89	179.87	0.1663	0.092	3.492	33	9	sand
2.95	170.23	0.1421	0.083	3.570	32	9	sand
3.02	161.33	0.2001	0.124	3.670	31	9	sand
3.08	152.71	0.2587	0.169	3.966	30	9	sand
3.15	148.59	0.1873	0.126	3.976	29	9	sand
3.22	142.39	0.2084	0.146	3.654	27	9	sand
3.28	139.66	0.2297	0.164	3.645	26	9	sand
3.35	132.65	0.2079	0.157	3.692	25	9	sand
3.41	124.19	0.2205	0.178	3.732	24	9	sand
3.48	110.95	0.2175	0.196	3.885	23	9	sand
3.54	111.41	0.2304	0.207	3.873	22	9	sand

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
3.61	121.06	0.2161	0.179	3.860	21	9	sand
3.67	102.43	0.6610	0.645	4.098	21	9	sand
3.74	103.57	0.6505	0.628	4.250	21	9	sand
3.81	106.42	0.6316	0.593	4.288	21	9	sand
3.87	109.97	0.3786	0.344	4.291	20	9	sand
3.94	109.44	0.2751	0.251	4.185	20	9	sand
4.00	109.67	0.2869	0.262	4.169	20	9	sand
4.07	104.56	0.2816	0.269	4.126	20	9	sand
4.13	100.71	0.2527	0.251	4.291	19	9	sand
4.20	96.35	0.2534	0.263	4.232	19	9	sand
4.27	91.78	0.2514	0.274	4.285	18	9	sand
4.33	90.11	0.2360	0.262	4.069	18	9	sand
4.40	89.73	0.2201	0.245	4.182	18	9	sand
4.46	92.17	0.1440	0.156	3.991	18	9	sand
4.53	94.50	0.1108	0.117	3.867	18	9	sand
4.59	96.34	0.0777	0.081	3.770	18	9	sand
4.66	95.44	0.0379	0.040	3.870	18	9	sand
4.72	96.36	0.0380	0.039	3.757	18	9	sand
4.79	94.49	0.0357	0.038	4.057	18	9	sand
4.86	91.60	0.0324	0.035	3.595	17	9	sand
4.92	87.91	0.0348	0.040	3.945	17	9	sand
4.99	84.48	0.0314	0.037	4.085	16	9	sand
5.05	82.16	0.0197	0.024	3.963	16	9	sand
5.12	79.54	0.0193	0.024	3.932	16	9	sand
5.18	79.19	0.0279	0.035	4.032	15	9	sand
5.25	78.69	-0.0002	0.000	3.714	15	9	sand
5.31	80.15	0.0058	0.007	3.835	15	9	sand
5.38	76.65	0.0074	0.010	3.973	14	9	sand
5.45	73.64	0.0087	0.012	4.126	14	9	sand
5.51	68.48	0.0036	0.005	3.804	16	8	sand to silty sand
5.58	58.87	0.0070	0.012	3.040	15	8	sand to silty sand
5.64	59.17	0.0031	0.005	2.962	14	8	sand to silty sand
5.71	57.34	0.0050	0.009	2.909	13	8	sand to silty sand
5.77	54.27	0.0061	0.011	2.965	13	8	sand to silty sand
5.84	49.86	0.0075	0.015	2.899	12	8	sand to silty sand
5.91	45.43	0.0015	0.003	2.930	11	8	sand to silty sand
5.97	42.72	0.0079	0.018	3.011	11	8	sand to silty sand
6.04	40.58	0.0065	0.016	2.768	10	8	sand to silty sand
6.10	38.78	0.0068	0.017	2.855	9	8	sand to silty sand
6.17	36.28	0.0031	0.009	2.977	9	8	sand to silty sand
6.23	33.93	0.0012	0.003	3.005	8	8	sand to silty sand
6.30	32.67	0.0055	0.017	2.983	8	8	sand to silty sand
6.36	31.54	0.0070	0.022	2.999	8	8	sand to silty sand
6.43	29.52	0.0051	0.017	2.946	10	7	silty sand to sandy silt
6.50	28.68	-0.0011	-0.004	3.005	9	7	silty sand to sandy silt
6.56	27.91	0.0090	0.032	2.921	9	7	silty sand to sandy silt
6.63	27.29	0.0103	0.038	3.074	9	7	silty sand to sandy silt
6.69	26.38	0.0034	0.013	3.071	8	7	silty sand to sandy silt
6.76	25.44	-0.0027	-0.011	3.105	8	7	silty sand to sandy silt
6.82	25.07	0.0122	0.049	2.962	8	7	silty sand to sandy silt
6.89	25.18	0.0107	0.043	2.955	8	7	silty sand to sandy silt
6.96	25.94	0.0032	0.012	3.146	9	7	silty sand to sandy silt
7.02	27.23	0.0118	0.043	3.093	9	7	silty sand to sandy silt
7.09	28.70	0.0022	0.008	3.183	9	7	silty sand to sandy silt
7.15	29.78	-0.0004	-0.001	3.174	10	7	silty sand to sandy silt
7.22	31.37	0.0039	0.012	3.211	7	8	sand to silty sand
7.28	31.71	0.0046	0.015	3.202	8	8	sand to silty sand
7.35	34.73	0.0111	0.032	3.058	8	8	sand to silty sand
7.41	33.82	0.0107	0.032	2.815	8	8	sand to silty sand

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
7.48	33.14	0.0017	0.005	2.774	8	8	sand to silty sand
7.55	33.95	-0.0007	-0.002	2.734	8	8	sand to silty sand
7.61	33.88	-0.0011	-0.003	2.855	8	8	sand to silty sand
7.68	34.99	-0.0014	-0.004	2.996	8	8	sand to silty sand
7.74	35.98	0.0043	0.012	2.862	8	8	sand to silty sand
7.81	33.06	0.0056	0.017	2.924	8	8	sand to silty sand
7.87	35.08	0.0095	0.027	2.871	9	8	sand to silty sand
7.94	36.01	0.0052	0.015	2.990	9	8	sand to silty sand
8.01	37.89	0.0077	0.020	3.177	8	8	sand to silty sand
8.07	36.93	0.0122	0.033	3.086	8	8	sand to silty sand
8.14	34.77	-0.0017	-0.005	3.033	8	8	sand to silty sand
8.20	33.03	0.0001	0.000	3.102	8	8	sand to silty sand
8.27	31.14	0.0013	0.004	3.030	8	8	sand to silty sand
8.33	30.80	0.0024	0.008	2.999	8	8	sand to silty sand
8.40	31.06	0.0063	0.020	2.737	8	8	sand to silty sand
8.46	31.79	0.0072	0.023	2.902	8	8	sand to silty sand
8.53	32.67	0.0058	0.018	2.871	8	8	sand to silty sand
8.60	32.80	0.0069	0.021	2.865	8	8	sand to silty sand
8.66	34.37	0.0077	0.022	2.946	8	8	sand to silty sand
8.73	36.72	0.0042	0.011	2.874	8	8	sand to silty sand
8.79	35.96	0.0074	0.021	2.818	10	7	silty sand to sandy silt
8.86	28.63	0.0072	0.025	3.626	9	7	silty sand to sandy silt
8.92	23.69	0.0060	0.025	3.586	8	7	silty sand to sandy silt
8.99	18.71	0.0038	0.021	3.586	7	7	silty sand to sandy silt
9.06	15.49	0.0059	0.038	3.589	6	7	silty sand to sandy silt
9.12	14.48	0.0076	0.053	3.629	6	7	silty sand to sandy silt
9.19	16.77	0.0051	0.030	3.642	7	7	silty sand to sandy silt
9.25	21.36	0.0045	0.021	3.601	8	7	silty sand to sandy silt
9.32	30.40	0.0023	0.008	3.701	10	7	silty sand to sandy silt
9.38	36.89	0.0013	0.004	3.692	8	8	sand to silty sand
9.45	42.78	0.0021	0.005	3.651	9	8	sand to silty sand
9.51	46.20	0.0056	0.012	3.707	10	8	sand to silty sand
9.58	48.33	0.0076	0.016	3.623	11	8	sand to silty sand
9.65	47.95	0.0083	0.017	3.573	11	8	sand to silty sand
9.71	44.35	0.0073	0.016	3.570	11	8	sand to silty sand
9.78	42.97	0.0027	0.006	3.545	10	8	sand to silty sand
9.84	43.93	0.0019	0.004	3.483	10	8	sand to silty sand
9.91	40.44	0.0015	0.004	3.433	9	8	sand to silty sand
9.97	35.11	0.0097	0.027	3.405	9	8	sand to silty sand
10.04	31.91	0.0050	0.016	3.408	8	8	sand to silty sand
10.10	29.81	0.0051	0.017	3.389	8	8	sand to silty sand
10.17	29.96	0.0065	0.022	3.405	7	8	sand to silty sand
10.24	29.62	0.0000	0.000	3.420	9	7	silty sand to sandy silt
10.30	29.20	-0.0004	-0.001	3.367	9	7	silty sand to sandy silt
10.37	28.40	0.0035	0.012	3.398	9	7	silty sand to sandy silt
10.43	28.26	0.0072	0.026	3.398	9	7	silty sand to sandy silt
10.50	27.91	0.0065	0.023	3.436	9	7	silty sand to sandy silt
10.56	29.02	0.0044	0.015	3.405	9	7	silty sand to sandy silt
10.63	28.74	0.0027	0.010	3.436	9	7	silty sand to sandy silt
10.70	27.19	0.0042	0.015	3.436	9	7	silty sand to sandy silt
10.76	26.28	0.0052	0.020	3.520	9	7	silty sand to sandy silt
10.83	26.20	0.0038	0.014	3.414	9	7	silty sand to sandy silt
10.89	26.41	0.0028	0.011	3.523	9	7	silty sand to sandy silt
10.96	27.87	0.0079	0.028	3.614	9	7	silty sand to sandy silt
11.02	28.65	0.0055	0.019	3.664	9	7	silty sand to sandy silt
11.09	31.56	0.0009	0.003	3.579	10	7	silty sand to sandy silt
11.15	31.85	0.0069	0.022	3.623	8	8	sand to silty sand
11.22	32.53	0.0074	0.023	3.676	8	8	sand to silty sand
11.29	34.23	0.0079	0.023	3.686	9	8	sand to silty sand

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
11.35	37.90	0.0063	0.017	3.673	10	8	sand to silty sand
11.42	43.65	0.0071	0.016	3.686	11	8	sand to silty sand
11.48	50.26	0.0034	0.007	3.717	12	8	sand to silty sand
11.55	55.51	0.0024	0.004	3.639	13	8	sand to silty sand
11.61	59.51	0.0096	0.016	3.458	13	8	sand to silty sand
11.68	62.80	0.0044	0.007	3.714	13	8	sand to silty sand
11.75	58.59	0.0011	0.002	3.458	13	8	sand to silty sand
11.81	48.76	0.0013	0.003	3.458	12	8	sand to silty sand
11.88	41.97	0.0035	0.008	3.342	11	8	sand to silty sand
11.94	38.61	0.0033	0.008	3.389	10	8	sand to silty sand
12.01	36.21	-0.0024	-0.007	3.436	10	8	sand to silty sand
12.07	38.38	0.0012	0.003	3.717	0	0	<out of range>
12.14	38.18	-0.0017	-0.004	3.698	0	0	<out of range>
12.20	38.09	-0.0026	-0.007	3.754	0	0	<out of range>
12.27	38.78	-0.0019	-0.005	3.686	9	8	sand to silty sand
12.34	39.19	-0.0013	-0.003	3.723	9	8	sand to silty sand
12.40	40.84	0.0037	0.009	3.679	9	8	sand to silty sand
12.47	38.31	0.0031	0.008	3.661	9	8	sand to silty sand
12.53	36.57	0.0049	0.013	3.648	9	8	sand to silty sand
12.60	34.03	0.0058	0.017	3.623	8	8	sand to silty sand
12.66	32.58	0.0057	0.017	3.661	8	8	sand to silty sand
12.73	30.58	-0.0001	0.000	3.689	8	8	sand to silty sand
12.80	29.50	0.0001	0.000	3.720	10	7	silty sand to sandy silt
12.86	29.05	-0.0018	-0.006	3.748	9	7	silty sand to sandy silt
12.93	28.09	0.0034	0.012	3.704	9	7	silty sand to sandy silt
12.99	27.30	0.0040	0.015	3.654	9	7	silty sand to sandy silt
13.06	26.52	0.0043	0.016	3.723	8	7	silty sand to sandy silt
13.12	25.73	0.0033	0.013	3.770	8	7	silty sand to sandy silt
13.19	24.32	0.0068	0.028	3.748	7	7	silty sand to sandy silt
13.25	22.21	0.0035	0.016	3.767	7	7	silty sand to sandy silt
13.32	19.73	-0.0045	-0.023	3.764	7	7	silty sand to sandy silt
13.39	17.47	-0.0017	-0.010	3.773	6	7	silty sand to sandy silt
13.45	16.62	0.0052	0.032	3.857	6	7	silty sand to sandy silt
13.52	16.67	0.0047	0.028	3.801	7	7	silty sand to sandy silt
13.58	18.24	0.0081	0.044	3.801	7	7	silty sand to sandy silt
13.65	27.56	0.0021	0.008	3.932	8	7	silty sand to sandy silt
13.71	33.52	0.0007	0.002	3.913	8	7	silty sand to sandy silt
13.78	29.37	-0.0035	-0.012	3.976	8	7	silty sand to sandy silt
13.85	23.73	0.0009	0.004	4.051	8	7	silty sand to sandy silt
13.91	19.57	0.0058	0.029	4.066	7	7	silty sand to sandy silt
13.98	18.09	0.0041	0.023	3.988	6	7	silty sand to sandy silt
14.04	15.70	0.0035	0.022	3.957	5	7	silty sand to sandy silt
14.11	13.10	0.0007	0.005	3.988	5	6	sandy silt to clayey silt
14.17	10.10	0.0023	0.023	3.988	5	1	sensitive fine grained
14.24	7.37	0.0042	0.056	3.876	4	1	sensitive fine grained
14.30	5.56	0.0022	0.040	3.935	3	1	sensitive fine grained
14.37	4.37	-0.0024	-0.056	3.823	2	1	sensitive fine grained
14.44	3.21	-0.0023	-0.072	4.032	2	1	sensitive fine grained
14.50	2.53	-0.0004	-0.018	4.157	2	1	sensitive fine grained
14.57	2.41	0.0033	0.135	4.609	1	1	sensitive fine grained
14.63	2.61	0.0059	0.225	4.987	1	1	sensitive fine grained
14.70	2.55	0.0052	0.206	5.530	1	1	sensitive fine grained
14.76	2.38	0.0005	0.021	5.970	1	1	sensitive fine grained
14.83	2.20	0.0012	0.055	6.663	1	1	sensitive fine grained
14.90	2.04	0.0008	0.041	7.380	1	1	sensitive fine grained
14.96	1.99	-0.0015	-0.074	8.245	1	1	sensitive fine grained
15.03	2.09	-0.0008	-0.037	9.106	1	1	sensitive fine grained
15.09	2.10	0.0012	0.055	9.980	1	1	sensitive fine grained
15.16	2.08	0.0033	0.160	10.935	1	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
15.22	2.02	0.0027	0.136	11.740	1	1	sensitive fine grained
15.29	1.90	0.0012	0.064	12.792	1	1	sensitive fine grained
15.35	3.37	0.0019	0.055	5.714	2	1	sensitive fine grained
15.42	3.47	0.0042	0.122	5.808	2	1	sensitive fine grained
15.49	5.77	0.0107	0.186	6.223	3	1	sensitive fine grained
15.55	8.06	0.0072	0.090	6.485	3	1	sensitive fine grained
15.62	8.30	0.0022	0.027	6.195	3	1	sensitive fine grained
15.68	7.81	-0.0012	-0.015	6.304	3	1	sensitive fine grained
15.75	7.11	0.0011	0.015	6.388	3	1	sensitive fine grained
15.81	6.40	0.0054	0.084	6.544	3	1	sensitive fine grained
15.88	6.17	0.0042	0.067	6.700	3	1	sensitive fine grained
15.94	5.96	0.0058	0.098	6.919	3	1	sensitive fine grained
16.01	5.96	0.0029	0.049	7.103	3	1	sensitive fine grained
16.08	5.66	0.0000	0.000	7.337	3	1	sensitive fine grained
16.14	5.10	-0.0022	-0.043	7.605	2	1	sensitive fine grained
16.21	4.55	0.0008	0.017	8.108	2	1	sensitive fine grained
16.27	4.26	0.0104	0.245	8.345	2	1	sensitive fine grained
16.34	4.50	0.0079	0.176	8.922	2	1	sensitive fine grained
16.40	4.51	0.0045	0.099	9.191	2	1	sensitive fine grained
16.47	4.28	0.0046	0.107	9.584	2	1	sensitive fine grained
16.54	3.94	-0.0033	-0.083	9.971	2	1	sensitive fine grained
16.60	3.56	-0.0045	-0.128	10.501	2	1	sensitive fine grained
16.67	3.66	0.0027	0.075	11.132	2	1	sensitive fine grained
16.73	4.63	0.0066	0.142	11.640	0	0	<out of range>
16.80	5.41	0.0026	0.047	11.931	2	1	sensitive fine grained
16.86	5.28	-0.0036	-0.068	12.096	2	1	sensitive fine grained
16.93	4.62	-0.0024	-0.051	12.214	3	1	sensitive fine grained
16.99	4.29	0.0017	0.039	12.558	3	1	sensitive fine grained
17.06	5.54	-0.0004	-0.008	12.979	3	1	sensitive fine grained
17.13	7.50	0.0056	0.074	13.198	4	1	sensitive fine grained
17.19	8.95	0.0044	0.049	13.191	4	1	sensitive fine grained
17.26	10.03	-0.0021	-0.021	13.191	4	1	sensitive fine grained
17.32	11.38	-0.0046	-0.040	13.095	5	1	sensitive fine grained
17.39	11.66	0.0024	0.021	12.995	5	1	sensitive fine grained
17.45	10.63	0.0003	0.002	12.779	5	1	sensitive fine grained
17.52	9.51	0.0066	0.070	12.795	4	1	sensitive fine grained
17.59	8.24	0.0044	0.054	12.754	4	1	sensitive fine grained
17.65	6.95	0.0062	0.089	12.873	3	1	sensitive fine grained
17.72	5.77	0.0046	0.080	13.126	3	1	sensitive fine grained
17.78	5.15	-0.0020	-0.038	13.369	3	1	sensitive fine grained
17.85	4.76	0.0010	0.020	13.687	3	1	sensitive fine grained
17.91	4.82	0.0031	0.065	14.149	3	1	sensitive fine grained
17.98	7.88	0.0026	0.032	14.948	3	1	sensitive fine grained
18.04	10.58	0.0012	0.011	15.341	3	1	sensitive fine grained
18.11	7.41	0.0056	0.076	14.892	0	0	<out of range>
18.18	5.05	0.0095	0.187	15.029	0	0	<out of range>
18.24	3.92	0.0030	0.077	15.535	5	1	sensitive fine grained
18.31	4.36	-32768	-32768	17.130	0	0	<out of range>
18.37	10.41	-32768	-32768	19.576	0	0	<out of range>
18.44	15.54	-32768	-32768	19.036	0	0	<out of range>
18.50	16.50	-32768	-32768	17.757	0	0	<out of range>

*Soil behavior type and SPT based on data from UBC-1983

AECOM

TVA Kingston Coal Ash Pond RCA (Kingston,Tennessee) Cone Penetration Test

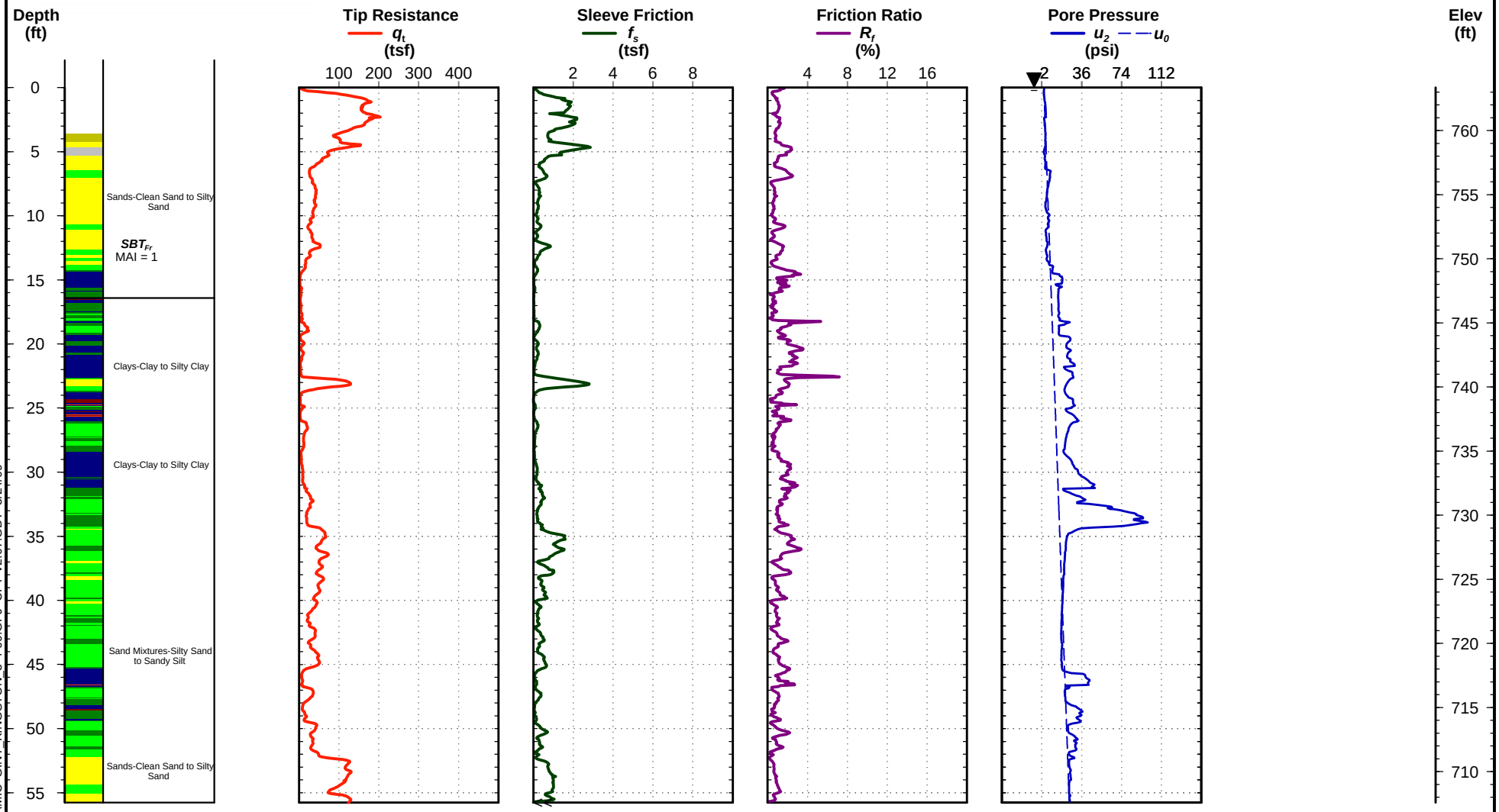
09-706-C2

Project No: 60095742

Date: Feb. 13, 2009
Estimated Water Depth: 0 ft
Rig/Operator: D-120/CAP

Northing: 555571.97
Easting: 2442413.42
Elevation: 763.36 NGVD

Total Depth: 55.8 ft
Termination Criteria: Refusal
Cone Size: 5T Tension Cone



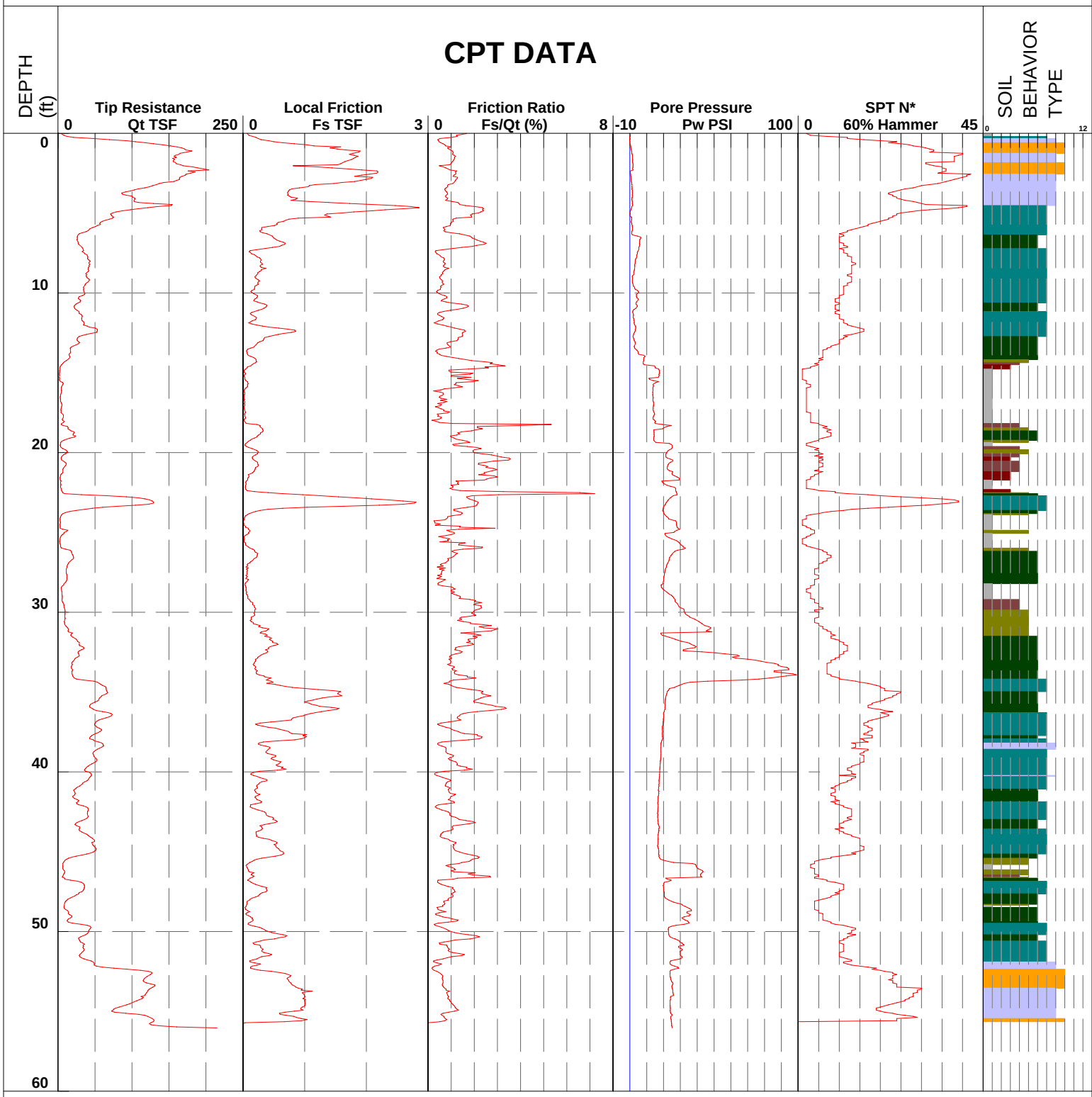
CPT REPORT - DYNAMIC GINT_KINGSTON_3-4-09.GPJ CPT V2.07.GDT 3/24/09

09-706-C2

Electronic Filename: 09-706-C2.cpt

AECOM

09-706-C2	60095742	2/13/2009 3:48:40 PM
DTA1081	TVA-Kingston	D-120/CAP



1 - sensitive fine grained	4 - silty clay to clay	7 - silty sand to sandy silt	10 - gravelly sand to sand
2 - organic material	5 - clayey silt to silty clay	8 - sand to silty sand	11 - very stiff fine grained (*)
3 - clay	6 - sandy silt to clayey silt	9 - sand	12 - sand to clayey sand (*)

Data File:09-706-C2 2/13/2009 3:48:40 PM
Operator:D-120/CAP Location:TVA-Kingston
Cone ID:DTA1081 Job Number:60095742
Customer:TVA Units:English

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
0.07	4.0	0.067	1.670	0.13	2	1	sensitive fine grained
0.13	8.0	0.098	1.228	0.23	3	1	sensitive fine grained
0.20	12.1	0.154	1.276	0.12	7	7	silty sand to sandy silt
0.26	21.1	0.210	0.996	-0.04	12	7	silty sand to sandy silt
0.33	48.3	0.246	0.508	0.07	12	8	sand to silty sand
0.39	69.6	0.292	0.420	0.08	16	8	sand to silty sand
0.46	92.4	0.417	0.452	-0.15	20	8	sand to silty sand
0.52	104.8	0.498	0.475	0.01	24	8	sand to silty sand
0.59	118.2	0.645	0.545	-0.03	22	9	sand
0.66	129.0	0.832	0.645	-0.03	25	9	sand
0.72	141.2	1.031	0.730	0.31	27	9	sand
0.79	151.9	1.152	0.758	0.43	28	9	sand
0.85	161.1	1.583	0.983	0.48	30	9	sand
0.92	167.4	1.412	0.843	0.65	31	9	sand
0.98	171.0	1.528	0.894	0.80	32	9	sand
1.05	172.9	1.664	0.963	0.76	33	9	sand
1.12	181.0	1.899	1.049	1.01	33	9	sand
1.18	173.9	1.874	1.078	1.11	32	9	sand
1.25	165.1	1.784	1.080	1.16	40	8	sand to silty sand
1.31	163.3	1.724	1.055	1.36	40	8	sand to silty sand
1.38	158.8	1.799	1.133	1.49	39	8	sand to silty sand
1.44	156.7	1.867	1.191	1.51	38	8	sand to silty sand
1.51	160.0	1.820	1.137	1.49	38	8	sand to silty sand
1.57	155.0	1.795	1.158	1.53	38	8	sand to silty sand
1.64	157.5	1.760	1.117	1.65	38	8	sand to silty sand
1.71	155.9	1.704	1.093	1.60	38	8	sand to silty sand
1.77	155.7	1.654	1.063	1.61	38	8	sand to silty sand
1.84	158.8	1.616	1.018	1.65	31	9	sand
1.90	159.9	1.585	0.992	1.77	31	9	sand
1.97	165.8	1.536	0.927	1.83	32	9	sand
2.03	168.8	0.812	0.481	1.81	33	9	sand
2.10	182.2	1.200	0.659	1.82	35	9	sand
2.17	188.7	1.444	0.765	1.72	35	9	sand
2.23	196.9	1.707	0.867	1.49	36	9	sand
2.30	203.8	1.927	0.946	2.05	36	9	sand
2.36	175.7	2.172	1.236	0.29	36	9	sand
2.43	185.3	2.191	1.182	0.30	35	9	sand
2.49	179.2	2.168	1.209	0.28	34	9	sand
2.56	173.3	2.053	1.185	0.44	42	8	sand to silty sand
2.62	172.2	1.924	1.118	0.47	41	8	sand to silty sand
2.69	167.8	1.811	1.079	0.61	41	8	sand to silty sand
2.76	164.7	2.102	1.276	0.64	40	8	sand to silty sand
2.82	164.1	2.084	1.270	0.75	39	8	sand to silty sand
2.89	164.4	1.989	1.210	0.74	38	8	sand to silty sand
2.95	160.2	1.902	1.188	0.78	37	8	sand to silty sand
3.02	156.6	1.808	1.155	0.83	36	8	sand to silty sand
3.08	143.1	1.598	1.117	1.07	35	8	sand to silty sand
3.15	136.9	1.472	1.075	1.05	34	8	sand to silty sand
3.22	133.1	1.173	0.881	1.24	32	8	sand to silty sand
3.28	128.1	1.076	0.840	1.30	30	8	sand to silty sand
3.35	123.7	1.055	0.853	1.22	29	8	sand to silty sand
3.41	117.3	0.918	0.782	1.34	28	8	sand to silty sand
3.48	108.3	0.791	0.730	1.25	26	8	sand to silty sand
3.54	103.3	0.753	0.729	1.35	25	8	sand to silty sand

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
3.61	97.9	0.738	0.754	1.61	24	8	sand to silty sand
3.67	91.3	0.732	0.802	1.39	23	8	sand to silty sand
3.74	86.2	0.720	0.835	1.56	22	8	sand to silty sand
3.81	86.7	0.734	0.846	1.45	22	8	sand to silty sand
3.87	91.6	0.723	0.789	1.40	23	8	sand to silty sand
3.94	99.8	0.751	0.752	1.61	23	8	sand to silty sand
4.00	100.8	0.780	0.773	1.35	24	8	sand to silty sand
4.07	103.9	0.885	0.852	1.35	24	8	sand to silty sand
4.13	103.9	0.860	0.827	1.19	25	8	sand to silty sand
4.20	102.8	0.779	0.758	1.36	26	8	sand to silty sand
4.27	102.8	1.068	1.038	1.40	28	8	sand to silty sand
4.33	108.4	1.391	1.283	1.52	29	8	sand to silty sand
4.40	128.8	1.727	1.340	1.41	30	8	sand to silty sand
4.46	154.3	2.101	1.361	1.55	31	8	sand to silty sand
4.53	153.0	2.470	1.614	1.67	41	7	silty sand to sandy silt
4.59	133.9	2.729	2.038	1.13	41	7	silty sand to sandy silt
4.66	121.4	2.856	2.352	1.11	39	7	silty sand to sandy silt
4.72	108.6	2.598	2.393	0.79	36	7	silty sand to sandy silt
4.79	98.1	2.309	2.355	0.68	32	7	silty sand to sandy silt
4.86	87.3	2.101	2.406	0.29	29	7	silty sand to sandy silt
4.92	78.8	1.800	2.284	0.20	27	7	silty sand to sandy silt
4.99	73.9	1.616	2.187	-0.16	25	7	silty sand to sandy silt
5.05	71.1	1.363	1.917	0.20	24	7	silty sand to sandy silt
5.12	72.0	1.321	1.834	-0.07	24	7	silty sand to sandy silt
5.18	73.0	1.371	1.877	0.23	23	7	silty sand to sandy silt
5.25	75.2	1.421	1.890	0.88	23	7	silty sand to sandy silt
5.31	73.8	0.898	1.218	1.00	22	7	silty sand to sandy silt
5.38	69.7	0.747	1.071	1.05	22	7	silty sand to sandy silt
5.45	64.6	0.695	1.075	1.01	21	7	silty sand to sandy silt
5.51	59.9	0.657	1.097	0.81	20	7	silty sand to sandy silt
5.58	57.5	0.576	1.001	0.73	19	7	silty sand to sandy silt
5.64	56.4	0.550	0.975	1.18	18	7	silty sand to sandy silt
5.71	57.5	0.555	0.965	1.13	17	7	silty sand to sandy silt
5.77	53.1	0.510	0.960	1.44	17	7	silty sand to sandy silt
5.84	50.8	0.402	0.791	1.42	16	7	silty sand to sandy silt
5.91	47.0	0.306	0.651	1.55	15	7	silty sand to sandy silt
5.97	43.4	0.301	0.694	1.43	14	7	silty sand to sandy silt
6.04	42.2	0.309	0.734	1.49	13	7	silty sand to sandy silt
6.10	40.5	0.274	0.676	1.40	12	7	silty sand to sandy silt
6.17	37.6	0.279	0.741	1.17	12	7	silty sand to sandy silt
6.23	32.6	0.321	0.983	1.12	11	7	silty sand to sandy silt
6.30	28.8	0.390	1.357	1.07	10	7	silty sand to sandy silt
6.36	27.4	0.430	1.572	1.61	11	6	sandy silt to clayey silt
6.43	26.3	0.474	1.803	4.36	11	6	sandy silt to clayey silt
6.50	26.0	0.485	1.867	6.31	10	6	sandy silt to clayey silt
6.56	26.2	0.503	1.918	6.51	10	6	sandy silt to clayey silt
6.63	26.1	0.529	2.029	5.94	10	6	sandy silt to clayey silt
6.69	25.9	0.550	2.121	5.89	10	6	sandy silt to clayey silt
6.76	26.5	0.596	2.254	5.80	10	6	sandy silt to clayey silt
6.82	27.2	0.654	2.406	5.86	10	6	sandy silt to clayey silt
6.89	27.3	0.687	2.513	5.67	11	6	sandy silt to clayey silt
6.96	27.9	0.677	2.426	5.90	11	6	sandy silt to clayey silt
7.02	29.5	0.623	2.109	5.74	11	6	sandy silt to clayey silt
7.09	31.1	0.597	1.918	5.69	12	6	sandy silt to clayey silt
7.15	32.7	0.477	1.461	5.31	12	6	sandy silt to clayey silt
7.22	33.6	0.358	1.066	5.40	10	7	silty sand to sandy silt
7.28	34.0	0.224	0.658	5.29	11	7	silty sand to sandy silt
7.35	34.5	0.117	0.338	4.91	11	7	silty sand to sandy silt
7.41	32.6	0.100	0.307	4.60	11	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
7.48	35.2	0.120	0.341	4.35	11	7	silty sand to sandy silt
7.55	36.2	0.137	0.379	4.47	12	7	silty sand to sandy silt
7.61	39.3	0.185	0.470	4.11	12	7	silty sand to sandy silt
7.68	39.7	0.210	0.528	4.09	12	7	silty sand to sandy silt
7.74	40.5	0.230	0.569	4.03	13	7	silty sand to sandy silt
7.81	40.1	0.271	0.676	3.80	13	7	silty sand to sandy silt
7.87	40.3	0.285	0.708	3.50	13	7	silty sand to sandy silt
7.94	41.9	0.295	0.704	3.18	13	7	silty sand to sandy silt
8.01	43.8	0.284	0.648	3.27	13	7	silty sand to sandy silt
8.07	42.3	0.282	0.667	3.07	13	7	silty sand to sandy silt
8.14	41.7	0.307	0.736	3.12	14	7	silty sand to sandy silt
8.20	43.1	0.318	0.737	2.89	14	7	silty sand to sandy silt
8.27	41.8	0.282	0.674	2.86	13	7	silty sand to sandy silt
8.33	42.4	0.279	0.659	2.94	13	7	silty sand to sandy silt
8.40	41.2	0.297	0.721	2.88	13	7	silty sand to sandy silt
8.46	41.1	0.373	0.908	2.81	13	7	silty sand to sandy silt
8.53	40.6	0.300	0.740	2.71	13	7	silty sand to sandy silt
8.60	41.8	0.295	0.708	2.56	13	7	silty sand to sandy silt
8.66	40.7	0.269	0.659	2.39	13	7	silty sand to sandy silt
8.73	39.0	0.240	0.617	2.28	13	7	silty sand to sandy silt
8.79	37.6	0.242	0.643	2.26	13	7	silty sand to sandy silt
8.86	39.0	0.224	0.573	2.22	12	7	silty sand to sandy silt
8.92	37.8	0.211	0.558	1.59	12	7	silty sand to sandy silt
8.99	38.6	0.191	0.494	1.42	13	7	silty sand to sandy silt
9.06	39.6	0.200	0.506	1.63	13	7	silty sand to sandy silt
9.12	41.5	0.222	0.535	1.49	13	7	silty sand to sandy silt
9.19	42.7	0.247	0.580	1.44	13	7	silty sand to sandy silt
9.25	41.9	0.267	0.638	1.45	13	7	silty sand to sandy silt
9.32	40.6	0.246	0.605	1.44	13	7	silty sand to sandy silt
9.38	38.3	0.238	0.622	1.60	12	7	silty sand to sandy silt
9.45	36.7	0.249	0.676	1.83	12	7	silty sand to sandy silt
9.51	36.3	0.217	0.596	2.00	12	7	silty sand to sandy silt
9.58	35.4	0.192	0.543	2.15	11	7	silty sand to sandy silt
9.65	34.4	0.192	0.558	2.86	11	7	silty sand to sandy silt
9.71	34.7	0.186	0.536	2.74	11	7	silty sand to sandy silt
9.78	34.7	0.185	0.533	3.35	11	7	silty sand to sandy silt
9.84	34.7	0.145	0.418	4.53	11	7	silty sand to sandy silt
9.91	35.0	0.128	0.365	5.05	11	7	silty sand to sandy silt
9.97	35.8	0.144	0.401	5.25	11	7	silty sand to sandy silt
10.04	36.3	0.172	0.473	4.54	11	7	silty sand to sandy silt
10.10	35.7	0.200	0.560	3.83	11	7	silty sand to sandy silt
10.17	32.9	0.236	0.718	3.87	10	7	silty sand to sandy silt
10.24	28.9	0.235	0.813	3.85	10	7	silty sand to sandy silt
10.30	27.5	0.222	0.807	4.21	10	7	silty sand to sandy silt
10.37	27.9	0.198	0.711	5.02	9	7	silty sand to sandy silt
10.43	29.9	0.181	0.605	4.99	9	7	silty sand to sandy silt
10.50	30.8	0.175	0.569	4.43	9	7	silty sand to sandy silt
10.56	29.9	0.229	0.767	3.87	9	7	silty sand to sandy silt
10.63	27.1	0.275	1.018	3.69	10	6	sandy silt to clayey silt
10.70	24.3	0.352	1.446	3.63	10	6	sandy silt to clayey silt
10.76	23.0	0.386	1.680	4.17	9	6	sandy silt to clayey silt
10.83	21.9	0.383	1.747	4.49	9	6	sandy silt to clayey silt
10.89	22.0	0.369	1.679	4.06	9	6	sandy silt to clayey silt
10.96	22.5	0.339	1.507	3.58	9	6	sandy silt to clayey silt
11.02	23.9	0.305	1.275	2.59	9	6	sandy silt to clayey silt
11.09	25.9	0.247	0.955	1.85	10	6	sandy silt to clayey silt
11.15	28.3	0.191	0.675	1.73	9	7	silty sand to sandy silt
11.22	28.6	0.141	0.492	1.70	9	7	silty sand to sandy silt
11.29	28.8	0.118	0.410	1.93	9	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
11.35	31.2	0.130	0.416	2.09	10	7	silty sand to sandy silt
11.42	32.6	0.163	0.498	2.15	10	7	silty sand to sandy silt
11.48	32.8	0.193	0.588	1.94	10	7	silty sand to sandy silt
11.55	32.1	0.220	0.684	2.00	10	7	silty sand to sandy silt
11.61	32.0	0.214	0.668	2.23	10	7	silty sand to sandy silt
11.68	32.2	0.201	0.624	2.40	11	7	silty sand to sandy silt
11.75	32.8	0.149	0.456	2.50	11	7	silty sand to sandy silt
11.81	34.7	0.124	0.358	2.57	11	7	silty sand to sandy silt
11.88	35.2	0.092	0.263	2.52	11	7	silty sand to sandy silt
11.94	35.4	0.142	0.400	2.62	12	7	silty sand to sandy silt
12.01	34.5	0.223	0.647	2.86	12	7	silty sand to sandy silt
12.07	39.4	0.314	0.796	3.40	13	7	silty sand to sandy silt
12.14	42.1	0.420	0.997	3.40	14	7	silty sand to sandy silt
12.20	50.4	0.581	1.152	3.46	15	7	silty sand to sandy silt
12.27	52.9	0.726	1.374	3.32	16	7	silty sand to sandy silt
12.34	53.4	0.837	1.567	3.32	16	7	silty sand to sandy silt
12.40	52.9	0.858	1.622	3.06	16	7	silty sand to sandy silt
12.47	52.3	0.783	1.498	2.72	15	7	silty sand to sandy silt
12.53	44.4	0.658	1.480	2.36	14	7	silty sand to sandy silt
12.60	38.3	0.570	1.486	2.18	13	7	silty sand to sandy silt
12.66	32.6	0.489	1.498	1.94	11	7	silty sand to sandy silt
12.73	28.7	0.422	1.472	1.87	12	6	sandy silt to clayey silt
12.80	26.8	0.350	1.305	2.04	11	6	sandy silt to clayey silt
12.86	26.0	0.338	1.300	2.22	11	6	sandy silt to clayey silt
12.93	25.9	0.333	1.285	2.45	10	6	sandy silt to clayey silt
12.99	26.1	0.324	1.242	2.66	10	6	sandy silt to clayey silt
13.06	28.1	0.272	0.968	3.08	10	6	sandy silt to clayey silt
13.12	29.1	0.241	0.828	3.08	10	6	sandy silt to clayey silt
13.19	27.6	0.227	0.822	3.22	10	6	sandy silt to clayey silt
13.25	24.3	0.210	0.863	2.99	9	6	sandy silt to clayey silt
13.32	20.7	0.191	0.923	2.61	8	6	sandy silt to clayey silt
13.39	18.1	0.177	0.976	2.61	8	6	sandy silt to clayey silt
13.45	16.5	0.127	0.772	2.85	7	6	sandy silt to clayey silt
13.52	16.8	0.079	0.472	3.25	7	6	sandy silt to clayey silt
13.58	16.9	0.066	0.390	4.17	6	6	sandy silt to clayey silt
13.65	16.9	0.055	0.326	4.60	6	6	sandy silt to clayey silt
13.71	17.3	0.070	0.402	4.93	6	6	sandy silt to clayey silt
13.78	16.2	0.064	0.398	4.90	6	6	sandy silt to clayey silt
13.85	14.9	0.074	0.498	5.35	6	6	sandy silt to clayey silt
13.91	15.2	0.086	0.562	8.37	6	6	sandy silt to clayey silt
13.98	16.0	0.127	0.796	8.96	6	6	sandy silt to clayey silt
14.04	16.1	0.172	1.066	8.39	6	6	sandy silt to clayey silt
14.11	14.8	0.196	1.329	8.31	5	6	sandy silt to clayey silt
14.17	13.1	0.215	1.638	8.15	6	5	clayey silt to silty clay
14.24	11.2	0.212	1.888	8.19	5	5	clayey silt to silty clay
14.30	9.1	0.221	2.425	7.93	5	5	clayey silt to silty clay
14.37	7.3	0.204	2.777	7.94	5	4	silty clay to clay
14.44	6.3	0.168	2.680	7.93	4	4	silty clay to clay
14.50	4.9	0.147	3.023	8.55	5	3	clay
14.57	3.8	0.126	3.328	14.67	4	3	clay
14.63	2.9	0.073	2.461	15.01	3	3	clay
14.70	2.5	0.066	2.609	15.13	3	3	clay
14.76	2.5	0.044	1.749	17.16	1	1	sensitive fine grained
14.83	2.5	0.022	0.909	17.32	1	1	sensitive fine grained
14.90	2.2	0.020	0.899	17.61	1	1	sensitive fine grained
14.96	2.3	0.022	0.984	17.56	1	1	sensitive fine grained
15.03	2.0	0.039	1.936	17.67	1	1	sensitive fine grained
15.09	2.1	0.037	1.818	17.25	1	1	sensitive fine grained
15.16	2.1	0.022	1.025	17.40	1	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
15.22	1.9	0.019	0.990	17.22	1	1	sensitive fine grained
15.29	1.8	0.033	1.854	16.92	1	1	sensitive fine grained
15.35	2.3	0.029	1.269	11.26	1	1	sensitive fine grained
15.42	2.0	0.034	1.664	11.79	1	1	sensitive fine grained
15.49	2.1	0.046	2.167	13.94	2	1	sensitive fine grained
15.55	3.7	0.072	1.946	17.21	2	1	sensitive fine grained
15.62	6.5	0.078	1.214	15.24	2	1	sensitive fine grained
15.68	7.0	0.084	1.203	14.18	2	1	sensitive fine grained
15.75	6.4	0.072	1.132	13.77	3	1	sensitive fine grained
15.81	5.6	0.073	1.315	14.08	3	1	sensitive fine grained
15.88	4.9	0.072	1.484	13.86	3	1	sensitive fine grained
15.94	4.6	0.051	1.117	13.63	2	1	sensitive fine grained
16.01	4.5	0.031	0.697	13.67	2	1	sensitive fine grained
16.08	4.6	0.025	0.546	13.71	2	1	sensitive fine grained
16.14	4.9	0.012	0.240	13.68	2	1	sensitive fine grained
16.21	4.7	0.025	0.524	13.54	2	1	sensitive fine grained
16.27	4.3	0.029	0.658	13.65	2	1	sensitive fine grained
16.34	3.9	0.026	0.668	13.61	2	1	sensitive fine grained
16.40	3.5	0.021	0.618	13.57	2	1	sensitive fine grained
16.47	3.3	0.017	0.511	13.66	2	1	sensitive fine grained
16.54	3.1	0.015	0.485	13.85	2	1	sensitive fine grained
16.60	3.2	0.018	0.554	13.86	2	1	sensitive fine grained
16.67	3.3	0.027	0.809	13.65	2	1	sensitive fine grained
16.73	3.3	0.018	0.541	13.77	2	1	sensitive fine grained
16.80	3.6	0.030	0.818	13.87	2	1	sensitive fine grained
16.86	4.2	0.028	0.675	14.04	2	1	sensitive fine grained
16.93	4.9	0.020	0.404	14.02	2	1	sensitive fine grained
16.99	5.3	0.031	0.579	14.07	2	1	sensitive fine grained
17.06	5.3	0.028	0.537	13.97	2	1	sensitive fine grained
17.13	4.9	0.016	0.320	13.95	2	1	sensitive fine grained
17.19	4.6	0.021	0.461	13.82	2	1	sensitive fine grained
17.26	4.1	0.023	0.565	13.88	2	1	sensitive fine grained
17.32	4.0	0.027	0.692	13.76	2	1	sensitive fine grained
17.39	4.3	0.029	0.670	13.97	2	1	sensitive fine grained
17.45	4.1	0.038	0.930	14.06	2	1	sensitive fine grained
17.52	4.4	0.037	0.843	14.52	3	1	sensitive fine grained
17.59	6.3	0.025	0.397	14.78	3	1	sensitive fine grained
17.65	7.3	0.033	0.446	14.38	3	1	sensitive fine grained
17.72	7.4	0.031	0.422	14.07	3	1	sensitive fine grained
17.78	7.3	0.042	0.572	13.86	3	1	sensitive fine grained
17.85	6.7	0.037	0.556	13.76	3	1	sensitive fine grained
17.91	5.7	0.027	0.466	13.88	3	1	sensitive fine grained
17.98	6.1	0.010	0.170	14.68	3	1	sensitive fine grained
18.04	8.5	0.030	0.351	15.26	3	1	sensitive fine grained
18.11	7.6	0.037	0.488	14.85	3	1	sensitive fine grained
18.18	5.1	0.053	1.045	14.91	5	4	silty clay to clay
18.24	4.2	0.224	5.327	19.32	5	4	silty clay to clay
18.31	7.0	0.277	3.954	24.63	6	4	silty clay to clay
18.37	12.9	0.275	2.138	21.92	7	4	silty clay to clay
18.44	13.7	0.293	2.133	20.22	6	5	clayey silt to silty clay
18.50	13.6	0.318	2.342	19.53	7	5	clayey silt to silty clay
18.57	15.6	0.322	2.062	14.28	8	5	clayey silt to silty clay
18.64	17.5	0.328	1.878	14.31	7	6	sandy silt to clayey silt
18.70	21.7	0.314	1.447	14.32	7	6	sandy silt to clayey silt
18.77	22.1	0.283	1.282	14.37	8	6	sandy silt to clayey silt
18.83	20.5	0.281	1.370	14.31	8	6	sandy silt to clayey silt
18.90	20.5	0.253	1.236	14.43	8	6	sandy silt to clayey silt
18.96	24.0	0.231	0.964	14.42	8	6	sandy silt to clayey silt
19.03	22.2	0.221	0.997	14.31	7	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
19.09	16.3	0.184	1.132	14.14	6	6	sandy silt to clayey silt
19.16	11.9	0.143	1.206	14.16	5	6	sandy silt to clayey silt
19.23	7.9	0.117	1.480	14.25	5	5	clayey silt to silty clay
19.29	5.2	0.089	1.692	14.57	4	5	clayey silt to silty clay
19.36	3.8	0.069	1.805	15.47	3	1	sensitive fine grained
19.42	3.5	0.047	1.353	23.27	2	1	sensitive fine grained
19.49	3.2	0.034	1.067	24.51	2	1	sensitive fine grained
19.55	3.0	0.034	1.125	25.14	2	1	sensitive fine grained
19.62	3.4	0.057	1.695	25.28	3	4	silty clay to clay
19.69	4.4	0.093	2.128	25.25	4	4	silty clay to clay
19.75	6.5	0.148	2.292	24.89	5	4	silty clay to clay
19.82	9.5	0.192	2.010	23.67	4	5	clayey silt to silty clay
19.88	11.7	0.227	1.939	22.74	5	5	clayey silt to silty clay
19.95	12.7	0.248	1.951	22.13	5	5	clayey silt to silty clay
20.01	12.0	0.242	2.013	21.72	5	5	clayey silt to silty clay
20.08	9.9	0.232	2.349	21.45	6	4	silty clay to clay
20.14	7.4	0.202	2.739	21.32	5	4	silty clay to clay
20.21	5.7	0.169	2.982	21.38	4	4	silty clay to clay
20.28	4.8	0.152	3.167	21.41	6	3	clay
20.34	4.3	0.152	3.511	22.25	5	3	clay
20.41	4.5	0.158	3.557	23.99	6	3	clay
20.47	5.1	0.179	3.477	25.55	6	3	clay
20.54	7.3	0.205	2.825	25.57	5	4	silty clay to clay
20.60	9.5	0.237	2.492	24.11	5	4	silty clay to clay
20.67	10.9	0.237	2.182	23.28	6	4	silty clay to clay
20.73	11.2	0.244	2.176	22.84	6	4	silty clay to clay
20.80	10.3	0.249	2.411	22.52	6	4	silty clay to clay
20.87	9.3	0.239	2.577	22.33	6	4	silty clay to clay
20.93	8.2	0.205	2.501	22.16	5	4	silty clay to clay
21.00	7.1	0.200	2.819	22.14	5	4	silty clay to clay
21.06	6.5	0.194	2.989	22.47	5	4	silty clay to clay
21.13	6.6	0.184	2.791	23.42	4	4	silty clay to clay
21.19	6.7	0.174	2.619	25.38	6	3	clay
21.26	6.5	0.157	2.424	25.34	5	3	clay
21.33	5.0	0.124	2.450	24.96	5	3	clay
21.39	3.9	0.085	2.189	25.34	4	3	clay
21.46	3.5	0.100	2.858	26.51	4	3	clay
21.52	3.1	0.093	3.000	28.08	3	3	clay
21.59	2.9	0.079	2.690	29.17	3	3	clay
21.65	3.0	0.077	2.535	29.43	3	3	clay
21.72	3.1	0.075	2.436	29.36	2	1	sensitive fine grained
21.78	4.3	0.052	1.206	19.00	2	1	sensitive fine grained
21.85	3.5	0.046	1.311	19.32	2	1	sensitive fine grained
21.92	3.6	0.046	1.273	19.92	2	1	sensitive fine grained
21.98	4.0	0.053	1.331	20.78	2	1	sensitive fine grained
22.05	3.9	0.039	0.995	22.07	2	1	sensitive fine grained
22.11	3.6	0.038	1.073	24.01	2	1	sensitive fine grained
22.18	3.5	0.037	1.073	26.47	2	1	sensitive fine grained
22.24	4.3	0.040	0.942	27.26	2	1	sensitive fine grained
22.31	4.7	0.050	1.060	27.15	4	3	clay
22.38	4.9	0.068	1.386	27.19	5	3	clay
22.44	5.8	0.187	3.246	27.46	9	3	clay
22.51	6.2	0.407	6.572	27.67	9	5	clayey silt to silty clay
22.57	9.0	0.647	7.202	27.95	12	6	sandy silt to clayey silt
22.64	31.8	0.970	3.054	28.15	17	6	sandy silt to clayey silt
22.70	65.7	1.252	1.907	25.76	20	7	silty sand to sandy silt
22.77	92.6	1.548	1.672	24.85	25	7	silty sand to sandy silt
22.83	108.9	1.841	1.691	24.00	30	7	silty sand to sandy silt
22.90	117.5	2.086	1.775	23.40	35	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
22.97	123.8	2.359	1.906	22.79	38	7	silty sand to sandy silt
23.03	127.3	2.596	2.039	22.37	39	7	silty sand to sandy silt
23.10	129.4	2.804	2.167	21.92	39	7	silty sand to sandy silt
23.16	128.9	2.784	2.160	21.49	37	7	silty sand to sandy silt
23.23	122.5	2.601	2.122	21.14	34	7	silty sand to sandy silt
23.29	104.8	2.210	2.108	20.80	31	7	silty sand to sandy silt
23.36	81.1	1.634	2.015	20.21	26	7	silty sand to sandy silt
23.43	60.5	1.037	1.714	19.91	22	7	silty sand to sandy silt
23.49	46.5	0.647	1.391	19.86	17	7	silty sand to sandy silt
23.56	36.3	0.403	1.111	19.66	13	7	silty sand to sandy silt
23.62	24.8	0.279	1.123	19.45	11	6	sandy silt to clayey silt
23.69	15.8	0.203	1.286	19.89	8	6	sandy silt to clayey silt
23.75	10.0	0.146	1.462	19.99	6	6	sandy silt to clayey silt
23.82	6.9	0.101	1.476	20.26	5	5	clayey silt to silty clay
23.88	5.1	0.071	1.401	20.73	3	1	sensitive fine grained
23.95	4.3	0.045	1.059	21.30	2	1	sensitive fine grained
24.02	3.7	0.032	0.847	21.90	2	1	sensitive fine grained
24.08	3.0	0.026	0.844	22.73	2	1	sensitive fine grained
24.15	2.9	0.023	0.788	23.01	2	1	sensitive fine grained
24.21	2.9	0.021	0.724	24.77	1	1	sensitive fine grained
24.28	3.0	0.007	0.253	27.20	1	1	sensitive fine grained
24.34	3.1	0.009	0.289	27.61	1	1	sensitive fine grained
24.41	3.2	0.009	0.293	27.67	1	1	sensitive fine grained
24.48	2.9	0.016	0.530	27.72	1	1	sensitive fine grained
24.54	2.8	0.009	0.310	27.74	1	1	sensitive fine grained
24.61	3.0	0.042	1.402	27.94	2	1	sensitive fine grained
24.67	2.9	0.039	1.363	28.00	2	1	sensitive fine grained
24.74	3.1	0.089	2.896	28.68	3	1	sensitive fine grained
24.80	6.4	0.086	1.339	29.61	3	1	sensitive fine grained
24.87	13.4	0.108	0.808	27.85	4	5	clayey silt to silty clay
24.93	11.7	0.108	0.928	26.65	4	5	clayey silt to silty clay
25.00	8.1	0.090	1.114	26.10	4	5	clayey silt to silty clay
25.07	8.2	0.094	1.152	20.84	4	1	sensitive fine grained
25.13	6.1	0.062	1.011	20.84	3	1	sensitive fine grained
25.20	4.7	0.037	0.790	21.30	3	1	sensitive fine grained
25.26	3.9	0.018	0.463	22.00	2	1	sensitive fine grained
25.33	3.2	0.021	0.661	23.22	2	1	sensitive fine grained
25.39	2.7	0.025	0.923	24.73	1	1	sensitive fine grained
25.46	2.5	0.021	0.841	26.46	1	1	sensitive fine grained
25.52	2.3	0.020	0.877	27.88	1	1	sensitive fine grained
25.59	2.3	0.012	0.515	28.68	1	1	sensitive fine grained
25.66	2.4	0.039	1.602	29.43	1	1	sensitive fine grained
25.72	2.9	0.039	1.337	29.82	1	1	sensitive fine grained
25.79	3.3	0.044	1.324	30.45	2	1	sensitive fine grained
25.85	3.5	0.065	1.840	31.57	2	1	sensitive fine grained
25.92	3.8	0.090	2.352	31.55	3	1	sensitive fine grained
25.98	4.9	0.113	2.324	33.07	4	5	clayey silt to silty clay
26.05	10.5	0.159	1.503	31.60	5	5	clayey silt to silty clay
26.12	16.4	0.188	1.147	28.23	6	5	clayey silt to silty clay
26.18	18.3	0.189	1.033	26.75	6	6	sandy silt to clayey silt
26.25	18.4	0.206	1.122	25.99	7	6	sandy silt to clayey silt
26.31	18.8	0.240	1.280	25.37	7	6	sandy silt to clayey silt
26.38	19.5	0.232	1.192	24.98	7	6	sandy silt to clayey silt
26.44	20.1	0.231	1.149	24.45	8	6	sandy silt to clayey silt
26.51	20.8	0.227	1.096	24.04	8	6	sandy silt to clayey silt
26.57	21.2	0.217	1.024	23.62	8	6	sandy silt to clayey silt
26.64	20.9	0.179	0.855	23.53	7	6	sandy silt to clayey silt
26.71	19.0	0.168	0.886	23.30	7	6	sandy silt to clayey silt
26.77	17.3	0.149	0.861	23.26	7	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
26.84	15.7	0.126	0.800	22.88	6	6	sandy silt to clayey silt
26.90	14.4	0.108	0.751	22.59	6	6	sandy silt to clayey silt
26.97	13.9	0.080	0.579	22.31	5	6	sandy silt to clayey silt
27.03	13.1	0.068	0.521	21.94	5	6	sandy silt to clayey silt
27.10	12.3	0.080	0.649	21.68	5	6	sandy silt to clayey silt
27.17	12.3	0.049	0.396	21.65	5	6	sandy silt to clayey silt
27.23	11.7	0.087	0.745	21.36	5	6	sandy silt to clayey silt
27.30	11.2	0.056	0.494	21.09	4	6	sandy silt to clayey silt
27.36	11.2	0.077	0.688	20.98	4	6	sandy silt to clayey silt
27.43	11.1	0.065	0.590	20.79	4	6	sandy silt to clayey silt
27.49	11.2	0.067	0.595	20.72	4	6	sandy silt to clayey silt
27.56	11.4	0.065	0.565	20.63	4	6	sandy silt to clayey silt
27.62	11.8	0.069	0.583	20.48	4	6	sandy silt to clayey silt
27.69	11.9	0.050	0.418	20.37	5	6	sandy silt to clayey silt
27.76	12.2	0.071	0.580	20.23	5	6	sandy silt to clayey silt
27.82	12.0	0.059	0.494	20.23	5	6	sandy silt to clayey silt
27.89	12.1	0.046	0.378	20.05	5	6	sandy silt to clayey silt
27.95	11.9	0.089	0.745	20.04	4	6	sandy silt to clayey silt
28.02	11.6	0.075	0.652	20.03	4	6	sandy silt to clayey silt
28.08	10.9	0.064	0.585	19.86	4	6	sandy silt to clayey silt
28.15	9.8	0.044	0.449	19.83	4	6	sandy silt to clayey silt
28.22	8.2	0.035	0.427	19.83	4	1	sensitive fine grained
28.28	7.8	0.034	0.431	18.56	4	1	sensitive fine grained
28.35	6.1	0.038	0.621	18.63	3	1	sensitive fine grained
28.41	4.7	0.049	1.025	18.65	3	1	sensitive fine grained
28.48	4.5	0.049	1.081	19.02	3	1	sensitive fine grained
28.54	4.5	0.053	1.167	19.60	2	1	sensitive fine grained
28.61	4.8	0.048	1.005	20.25	2	1	sensitive fine grained
28.67	5.1	0.050	0.988	21.06	2	1	sensitive fine grained
28.74	5.4	0.061	1.139	21.87	2	1	sensitive fine grained
28.81	5.4	0.054	1.008	22.74	3	1	sensitive fine grained
28.87	5.4	0.060	1.118	23.46	3	1	sensitive fine grained
28.94	5.6	0.070	1.251	24.63	3	1	sensitive fine grained
29.00	5.7	0.079	1.382	25.34	3	1	sensitive fine grained
29.07	5.7	0.080	1.402	25.86	3	1	sensitive fine grained
29.13	5.7	0.076	1.344	26.26	3	1	sensitive fine grained
29.20	5.6	0.101	1.807	26.82	4	4	silty clay to clay
29.27	5.4	0.112	2.069	26.94	4	4	silty clay to clay
29.33	6.1	0.121	2.002	26.93	4	4	silty clay to clay
29.40	6.8	0.157	2.320	27.57	4	4	silty clay to clay
29.46	7.6	0.156	2.050	28.22	5	4	silty clay to clay
29.53	7.9	0.155	1.977	28.54	5	4	silty clay to clay
29.59	8.0	0.184	2.293	28.86	5	4	silty clay to clay
29.66	8.0	0.184	2.291	29.23	5	4	silty clay to clay
29.72	8.5	0.196	2.323	30.22	6	4	silty clay to clay
29.79	9.1	0.202	2.212	31.95	6	4	silty clay to clay
29.86	9.4	0.194	2.061	32.36	4	5	clayey silt to silty clay
29.92	9.6	0.190	1.978	32.09	4	5	clayey silt to silty clay
29.99	9.7	0.193	1.980	32.61	5	5	clayey silt to silty clay
30.05	9.5	0.178	1.880	32.79	5	5	clayey silt to silty clay
30.12	9.6	0.188	1.968	33.04	5	5	clayey silt to silty clay
30.18	9.3	0.192	2.068	34.09	5	5	clayey silt to silty clay
30.25	9.3	0.168	1.798	35.16	5	5	clayey silt to silty clay
30.31	9.3	0.133	1.440	35.73	5	5	clayey silt to silty clay
30.38	9.9	0.134	1.359	37.19	4	5	clayey silt to silty clay
30.45	9.5	0.138	1.457	38.63	4	5	clayey silt to silty clay
30.51	9.1	0.116	1.271	39.82	4	5	clayey silt to silty clay
30.58	8.6	0.131	1.520	41.01	4	5	clayey silt to silty clay
30.64	9.1	0.166	1.829	41.85	4	5	clayey silt to silty clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
30.71	9.0	0.165	1.836	42.86	5	5	clayey silt to silty clay
30.77	9.3	0.223	2.389	43.55	5	5	clayey silt to silty clay
30.84	10.2	0.278	2.740	44.55	5	5	clayey silt to silty clay
30.91	11.5	0.255	2.211	46.86	6	5	clayey silt to silty clay
30.97	13.1	0.313	2.395	48.09	6	5	clayey silt to silty clay
31.04	14.0	0.421	3.012	47.61	6	5	clayey silt to silty clay
31.10	14.0	0.401	2.859	46.38	7	5	clayey silt to silty clay
31.17	13.7	0.376	2.739	45.43	7	5	clayey silt to silty clay
31.23	14.0	0.298	2.136	48.75	8	5	clayey silt to silty clay
31.30	19.6	0.278	1.414	18.37	8	5	clayey silt to silty clay
31.36	18.0	0.361	2.001	18.44	8	5	clayey silt to silty clay
31.43	17.3	0.394	2.283	19.18	9	5	clayey silt to silty clay
31.50	18.1	0.351	1.935	21.10	8	6	sandy silt to clayey silt
31.56	20.2	0.428	2.121	23.30	8	6	sandy silt to clayey silt
31.63	22.7	0.463	2.042	25.16	8	6	sandy silt to clayey silt
31.69	24.6	0.428	1.739	26.81	9	6	sandy silt to clayey silt
31.76	25.9	0.450	1.740	28.69	10	6	sandy silt to clayey silt
31.82	26.5	0.484	1.825	30.75	10	6	sandy silt to clayey silt
31.89	28.7	0.476	1.660	33.89	11	6	sandy silt to clayey silt
31.96	28.8	0.550	1.908	35.68	11	6	sandy silt to clayey silt
32.02	28.9	0.568	1.967	36.51	11	6	sandy silt to clayey silt
32.09	29.0	0.499	1.720	38.22	12	6	sandy silt to clayey silt
32.15	32.9	0.442	1.343	39.49	12	6	sandy silt to clayey silt
32.22	34.8	0.414	1.188	38.71	12	6	sandy silt to clayey silt
32.28	34.8	0.415	1.192	34.19	12	6	sandy silt to clayey silt
32.35	31.6	0.366	1.158	31.71	12	6	sandy silt to clayey silt
32.41	29.0	0.398	1.372	31.64	12	6	sandy silt to clayey silt
32.48	27.2	0.402	1.477	42.84	11	6	sandy silt to clayey silt
32.55	27.0	0.379	1.404	50.91	11	6	sandy silt to clayey silt
32.61	27.8	0.332	1.192	56.49	11	6	sandy silt to clayey silt
32.68	28.5	0.293	1.026	63.77	10	6	sandy silt to clayey silt
32.74	28.7	0.272	0.948	65.01	10	6	sandy silt to clayey silt
32.81	26.1	0.242	0.927	60.80	10	6	sandy silt to clayey silt
32.87	23.5	0.240	1.022	63.03	9	6	sandy silt to clayey silt
32.94	22.7	0.205	0.905	70.07	9	6	sandy silt to clayey silt
33.01	21.7	0.208	0.961	74.84	8	6	sandy silt to clayey silt
33.07	20.4	0.201	0.986	77.91	8	6	sandy silt to clayey silt
33.14	19.2	0.188	0.981	81.18	8	6	sandy silt to clayey silt
33.20	18.5	0.180	0.975	85.94	7	6	sandy silt to clayey silt
33.27	19.6	0.164	0.838	88.11	7	6	sandy silt to clayey silt
33.33	18.7	0.178	0.953	88.04	7	6	sandy silt to clayey silt
33.40	18.1	0.203	1.120	89.95	7	6	sandy silt to clayey silt
33.46	18.1	0.206	1.135	93.40	7	6	sandy silt to clayey silt
33.53	18.5	0.190	1.032	94.40	7	6	sandy silt to clayey silt
33.60	19.7	0.207	1.049	94.43	7	6	sandy silt to clayey silt
33.66	19.3	0.236	1.227	85.83	7	6	sandy silt to clayey silt
33.73	19.0	0.216	1.135	85.63	7	6	sandy silt to clayey silt
33.79	19.0	0.216	1.135	90.64	7	6	sandy silt to clayey silt
33.86	19.0	0.219	1.152	96.92	7	6	sandy silt to clayey silt
33.92	19.7	0.258	1.314	99.03	8	6	sandy silt to clayey silt
33.99	20.0	0.338	1.691	92.90	8	6	sandy silt to clayey silt
34.06	21.0	0.358	1.705	88.07	9	6	sandy silt to clayey silt
34.12	21.8	0.453	2.076	83.14	10	6	sandy silt to clayey silt
34.19	25.0	0.410	1.645	76.69	10	7	silty sand to sandy silt
34.25	34.5	0.379	1.098	66.52	12	7	silty sand to sandy silt
34.32	48.9	0.451	0.922	46.24	14	7	silty sand to sandy silt
34.38	53.4	0.489	0.915	35.85	15	7	silty sand to sandy silt
34.45	55.8	0.385	0.689	32.41	17	7	silty sand to sandy silt
34.51	57.7	0.519	0.900	30.86	18	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
34.58	60.0	0.602	1.003	29.30	19	7	silty sand to sandy silt
34.65	63.2	0.687	1.087	27.72	20	7	silty sand to sandy silt
34.71	65.2	0.800	1.227	26.50	20	7	silty sand to sandy silt
34.78	65.1	1.001	1.538	23.66	21	7	silty sand to sandy silt
34.84	65.3	1.218	1.865	23.16	21	7	silty sand to sandy silt
34.91	65.5	1.464	2.233	22.79	21	7	silty sand to sandy silt
34.97	66.4	1.580	2.379	22.19	25	6	sandy silt to clayey silt
35.04	67.3	1.544	2.294	22.13	25	6	sandy silt to clayey silt
35.10	65.4	1.536	2.348	21.90	24	6	sandy silt to clayey silt
35.17	62.2	1.569	2.521	21.72	24	6	sandy silt to clayey silt
35.24	59.0	1.602	2.716	21.47	23	6	sandy silt to clayey silt
35.30	58.0	1.399	2.413	21.35	23	6	sandy silt to clayey silt
35.37	56.4	1.285	2.278	21.22	22	6	sandy silt to clayey silt
35.43	55.2	1.200	2.172	21.11	21	6	sandy silt to clayey silt
35.50	55.3	1.138	2.057	21.05	21	6	sandy silt to clayey silt
35.56	53.2	1.048	1.971	20.97	20	6	sandy silt to clayey silt
35.63	50.0	0.995	1.991	20.90	19	6	sandy silt to clayey silt
35.70	46.9	1.079	2.301	20.84	18	6	sandy silt to clayey silt
35.76	44.4	1.104	2.489	20.84	18	6	sandy silt to clayey silt
35.83	43.0	1.194	2.777	20.97	17	6	sandy silt to clayey silt
35.89	42.6	1.244	2.923	20.87	17	6	sandy silt to clayey silt
35.96	43.3	1.436	3.321	20.82	17	6	sandy silt to clayey silt
36.02	46.0	1.554	3.376	20.90	18	6	sandy silt to clayey silt
36.09	48.0	1.519	3.168	20.76	20	6	sandy silt to clayey silt
36.15	51.7	1.380	2.671	20.42	21	6	sandy silt to clayey silt
36.22	60.0	1.274	2.123	20.36	23	6	sandy silt to clayey silt
36.29	67.7	1.177	1.737	20.04	20	7	silty sand to sandy silt
36.35	71.8	1.092	1.521	19.92	21	7	silty sand to sandy silt
36.42	73.5	1.025	1.395	20.18	22	7	silty sand to sandy silt
36.48	72.2	0.982	1.360	20.12	22	7	silty sand to sandy silt
36.55	69.4	0.885	1.276	20.07	21	7	silty sand to sandy silt
36.61	64.5	0.812	1.260	20.01	20	7	silty sand to sandy silt
36.68	59.6	0.791	1.327	19.85	19	7	silty sand to sandy silt
36.75	55.4	0.786	1.417	19.95	18	7	silty sand to sandy silt
36.81	52.9	0.622	1.175	19.88	17	7	silty sand to sandy silt
36.88	51.2	0.454	0.887	19.84	17	7	silty sand to sandy silt
36.94	50.1	0.278	0.555	19.68	16	7	silty sand to sandy silt
37.01	49.5	0.203	0.410	19.62	16	7	silty sand to sandy silt
37.07	49.6	0.240	0.484	19.59	16	7	silty sand to sandy silt
37.14	51.5	0.327	0.635	19.35	17	7	silty sand to sandy silt
37.20	52.9	0.404	0.765	19.28	17	7	silty sand to sandy silt
37.27	55.8	0.538	0.964	19.39	18	7	silty sand to sandy silt
37.34	58.8	0.599	1.019	19.22	18	7	silty sand to sandy silt
37.40	58.9	0.669	1.135	19.33	18	7	silty sand to sandy silt
37.47	56.7	0.742	1.308	19.40	17	7	silty sand to sandy silt
37.53	54.4	0.758	1.394	19.24	17	7	silty sand to sandy silt
37.60	50.8	0.795	1.566	19.20	16	7	silty sand to sandy silt
37.66	48.1	1.027	2.134	19.26	16	7	silty sand to sandy silt
37.73	45.5	0.972	2.137	19.36	18	6	sandy silt to clayey silt
37.80	44.2	1.030	2.330	19.34	18	6	sandy silt to clayey silt
37.86	42.9	0.997	2.327	19.44	18	6	sandy silt to clayey silt
37.93	42.8	0.943	2.201	19.52	15	7	silty sand to sandy silt
37.99	47.7	0.841	1.761	19.06	16	7	silty sand to sandy silt
38.06	49.2	0.567	1.154	18.90	16	7	silty sand to sandy silt
38.12	54.8	0.331	0.605	18.71	17	7	silty sand to sandy silt
38.19	59.1	0.257	0.435	18.54	13	8	sand to silty sand
38.25	60.7	0.247	0.407	18.53	14	8	sand to silty sand
38.32	61.4	0.289	0.471	18.41	14	8	sand to silty sand
38.39	61.4	0.373	0.607	18.40	14	8	sand to silty sand

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
38.45	59.0	0.435	0.738	18.41	14	8	sand to silty sand
38.52	56.0	0.438	0.781	18.35	13	8	sand to silty sand
38.58	53.4	0.412	0.772	18.38	17	7	silty sand to sandy silt
38.65	51.1	0.399	0.781	18.38	17	7	silty sand to sandy silt
38.71	49.1	0.377	0.769	18.35	16	7	silty sand to sandy silt
38.78	47.5	0.370	0.778	18.41	16	7	silty sand to sandy silt
38.85	47.2	0.401	0.850	18.42	15	7	silty sand to sandy silt
38.91	47.8	0.472	0.986	18.39	15	7	silty sand to sandy silt
38.98	48.2	0.532	1.102	18.35	16	7	silty sand to sandy silt
39.04	48.9	0.529	1.080	18.35	16	7	silty sand to sandy silt
39.11	50.2	0.473	0.942	18.28	16	7	silty sand to sandy silt
39.17	51.7	0.455	0.881	18.26	16	7	silty sand to sandy silt
39.24	52.6	0.493	0.937	18.23	16	7	silty sand to sandy silt
39.30	52.4	0.545	1.040	18.16	16	7	silty sand to sandy silt
39.37	51.0	0.614	1.203	18.08	16	7	silty sand to sandy silt
39.44	48.6	0.598	1.232	18.03	15	7	silty sand to sandy silt
39.50	45.8	0.580	1.265	18.01	15	7	silty sand to sandy silt
39.57	43.1	0.535	1.242	17.97	14	7	silty sand to sandy silt
39.63	40.7	0.565	1.388	17.90	13	7	silty sand to sandy silt
39.70	38.8	0.650	1.674	17.87	13	7	silty sand to sandy silt
39.76	37.6	0.622	1.653	17.83	12	7	silty sand to sandy silt
39.83	36.5	0.699	1.916	17.82	12	7	silty sand to sandy silt
39.90	35.6	0.559	1.569	17.79	12	7	silty sand to sandy silt
39.96	37.4	0.273	0.730	17.74	13	7	silty sand to sandy silt
40.03	42.7	0.172	0.404	17.72	13	7	silty sand to sandy silt
40.09	44.4	0.130	0.292	17.68	13	7	silty sand to sandy silt
40.16	45.2	0.127	0.281	17.62	14	7	silty sand to sandy silt
40.22	45.3	0.169	0.374	17.60	10	8	sand to silty sand
40.29	44.1	0.228	0.516	17.60	14	7	silty sand to sandy silt
40.35	42.5	0.273	0.642	17.51	14	7	silty sand to sandy silt
40.42	41.6	0.327	0.786	17.47	13	7	silty sand to sandy silt
40.49	40.9	0.390	0.952	17.33	13	7	silty sand to sandy silt
40.55	39.3	0.389	0.989	17.30	12	7	silty sand to sandy silt
40.62	36.3	0.307	0.844	17.33	12	7	silty sand to sandy silt
40.68	33.8	0.268	0.793	17.35	11	7	silty sand to sandy silt
40.75	33.1	0.259	0.783	17.34	10	7	silty sand to sandy silt
40.81	31.4	0.234	0.744	17.19	10	7	silty sand to sandy silt
40.88	29.5	0.219	0.744	17.34	9	7	silty sand to sandy silt
40.94	26.7	0.230	0.860	17.00	9	7	silty sand to sandy silt
41.01	24.7	0.236	0.954	17.08	8	7	silty sand to sandy silt
41.08	23.1	0.205	0.887	17.18	9	6	sandy silt to clayey silt
41.14	21.0	0.186	0.883	16.85	9	6	sandy silt to clayey silt
41.21	22.0	0.198	0.901	17.30	9	6	sandy silt to clayey silt
41.27	22.6	0.206	0.910	17.00	9	6	sandy silt to clayey silt
41.34	23.4	0.225	0.962	17.25	8	6	sandy silt to clayey silt
41.40	23.0	0.273	1.187	17.05	8	6	sandy silt to clayey silt
41.47	21.6	0.243	1.121	17.04	8	6	sandy silt to clayey silt
41.54	20.0	0.199	0.992	16.84	9	6	sandy silt to clayey silt
41.60	20.3	0.195	0.961	16.72	9	6	sandy silt to clayey silt
41.67	22.2	0.215	0.968	16.72	9	6	sandy silt to clayey silt
41.73	26.1	0.227	0.870	16.68	9	6	sandy silt to clayey silt
41.80	28.2	0.273	0.970	16.73	10	6	sandy silt to clayey silt
41.86	27.0	0.304	1.126	16.71	8	7	silty sand to sandy silt
41.93	25.1	0.289	1.153	16.52	9	7	silty sand to sandy silt
41.99	25.6	0.203	0.792	16.54	9	7	silty sand to sandy silt
42.06	28.0	0.125	0.447	16.76	10	7	silty sand to sandy silt
42.13	34.1	0.121	0.355	16.80	11	7	silty sand to sandy silt
42.19	38.2	0.117	0.305	16.77	11	7	silty sand to sandy silt
42.26	40.5	0.150	0.370	16.67	12	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
42.32	40.7	0.198	0.486	16.58	13	7	silty sand to sandy silt
42.39	41.0	0.243	0.593	16.60	13	7	silty sand to sandy silt
42.45	40.4	0.309	0.766	16.55	13	7	silty sand to sandy silt
42.52	40.1	0.352	0.878	16.54	13	7	silty sand to sandy silt
42.59	39.7	0.374	0.942	16.40	13	7	silty sand to sandy silt
42.65	39.8	0.374	0.940	16.56	13	7	silty sand to sandy silt
42.72	40.4	0.385	0.952	16.57	13	7	silty sand to sandy silt
42.78	40.8	0.416	1.021	16.50	13	7	silty sand to sandy silt
42.85	40.2	0.482	1.198	16.51	12	7	silty sand to sandy silt
42.91	38.8	0.497	1.281	16.57	12	7	silty sand to sandy silt
42.98	36.1	0.484	1.340	16.64	13	6	sandy silt to clayey silt
43.04	32.5	0.533	1.639	16.54	12	6	sandy silt to clayey silt
43.11	28.6	0.556	1.941	16.73	11	6	sandy silt to clayey silt
43.18	25.5	0.521	2.044	16.78	11	6	sandy silt to clayey silt
43.24	23.8	0.427	1.799	16.77	10	6	sandy silt to clayey silt
43.31	23.0	0.345	1.497	16.96	10	6	sandy silt to clayey silt
43.37	25.2	0.274	1.087	17.25	10	6	sandy silt to clayey silt
43.44	29.0	0.302	1.041	17.50	10	6	sandy silt to clayey silt
43.50	29.6	0.311	1.048	17.37	11	6	sandy silt to clayey silt
43.57	28.8	0.315	1.091	17.25	9	7	silty sand to sandy silt
43.64	28.6	0.294	1.031	17.23	10	7	silty sand to sandy silt
43.70	29.5	0.254	0.859	17.29	10	7	silty sand to sandy silt
43.77	32.2	0.209	0.649	16.97	11	7	silty sand to sandy silt
43.83	35.0	0.215	0.614	17.01	11	7	silty sand to sandy silt
43.90	38.6	0.211	0.546	16.87	12	7	silty sand to sandy silt
43.96	40.4	0.223	0.551	16.74	13	7	silty sand to sandy silt
44.03	42.0	0.218	0.518	16.77	13	7	silty sand to sandy silt
44.09	44.2	0.249	0.564	16.73	14	7	silty sand to sandy silt
44.16	46.5	0.331	0.712	16.74	15	7	silty sand to sandy silt
44.23	48.0	0.430	0.895	16.82	15	7	silty sand to sandy silt
44.29	49.5	0.461	0.931	16.60	15	7	silty sand to sandy silt
44.36	49.4	0.522	1.056	16.71	15	7	silty sand to sandy silt
44.42	45.8	0.554	1.211	16.69	15	7	silty sand to sandy silt
44.49	46.2	0.547	1.185	16.68	15	7	silty sand to sandy silt
44.55	46.7	0.504	1.080	16.63	15	7	silty sand to sandy silt
44.62	48.1	0.536	1.116	16.43	15	7	silty sand to sandy silt
44.69	49.3	0.531	1.077	16.55	16	7	silty sand to sandy silt
44.75	50.5	0.554	1.096	16.71	16	7	silty sand to sandy silt
44.82	51.8	0.577	1.114	16.97	16	7	silty sand to sandy silt
44.88	51.4	0.591	1.150	17.13	16	7	silty sand to sandy silt
44.95	50.0	0.606	1.213	17.24	15	7	silty sand to sandy silt
45.01	47.9	0.649	1.355	17.20	14	7	silty sand to sandy silt
45.08	44.4	0.661	1.489	17.24	13	7	silty sand to sandy silt
45.14	39.0	0.654	1.680	16.98	14	6	sandy silt to clayey silt
45.21	32.0	0.613	1.914	17.32	12	6	sandy silt to clayey silt
45.28	24.7	0.527	2.130	17.23	10	6	sandy silt to clayey silt
45.34	18.7	0.415	2.220	17.39	8	6	sandy silt to clayey silt
45.41	14.2	0.306	2.161	17.79	8	5	clayey silt to silty clay
45.47	11.7	0.223	1.914	18.23	6	5	clayey silt to silty clay
45.54	9.7	0.181	1.858	19.94	5	5	clayey silt to silty clay
45.60	8.5	0.150	1.776	22.69	4	5	clayey silt to silty clay
45.67	7.5	0.109	1.458	25.97	4	5	clayey silt to silty clay
45.73	6.6	0.088	1.336	37.25	4	5	clayey silt to silty clay
45.80	6.5	0.062	0.960	39.09	3	1	sensitive fine grained
45.87	6.5	0.050	0.768	39.30	3	1	sensitive fine grained
45.93	6.7	0.059	0.886	39.48	3	1	sensitive fine grained
46.00	6.6	0.070	1.055	39.85	3	1	sensitive fine grained
46.06	6.6	0.076	1.139	40.60	4	1	sensitive fine grained
46.13	7.5	0.088	1.180	41.94	4	5	clayey silt to silty clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
46.19	8.6	0.084	0.987	43.23	4	5	clayey silt to silty clay
46.26	9.3	0.104	1.116	43.49	4	5	clayey silt to silty clay
46.33	8.8	0.179	2.039	42.87	4	5	clayey silt to silty clay
46.39	8.0	0.138	1.740	42.14	4	5	clayey silt to silty clay
46.46	7.2	0.138	1.929	41.87	5	4	silty clay to clay
46.52	6.6	0.175	2.663	42.18	5	4	silty clay to clay
46.59	5.8	0.158	2.702	42.69	4	5	clayey silt to silty clay
46.65	9.0	0.115	1.275	21.29	4	6	sandy silt to clayey silt
46.72	9.2	0.100	1.088	22.21	6	6	sandy silt to clayey silt
46.78	17.1	0.073	0.428	24.46	7	6	sandy silt to clayey silt
46.85	26.7	0.109	0.409	23.44	7	7	silty sand to sandy silt
46.92	31.6	0.131	0.415	20.38	9	7	silty sand to sandy silt
46.98	34.0	0.166	0.488	20.09	10	7	silty sand to sandy silt
47.05	35.2	0.202	0.574	20.12	11	7	silty sand to sandy silt
47.11	35.8	0.260	0.725	19.79	11	7	silty sand to sandy silt
47.18	35.8	0.310	0.866	19.90	11	7	silty sand to sandy silt
47.24	35.7	0.386	1.081	19.97	11	7	silty sand to sandy silt
47.31	35.3	0.374	1.057	20.00	11	7	silty sand to sandy silt
47.38	34.6	0.388	1.120	20.10	11	7	silty sand to sandy silt
47.44	33.8	0.390	1.154	20.06	10	7	silty sand to sandy silt
47.51	32.1	0.374	1.165	20.30	10	7	silty sand to sandy silt
47.57	28.4	0.311	1.097	20.46	9	7	silty sand to sandy silt
47.64	28.0	0.280	1.000	20.43	10	6	sandy silt to clayey silt
47.70	25.1	0.265	1.056	20.46	9	6	sandy silt to clayey silt
47.77	22.6	0.246	1.088	20.43	8	6	sandy silt to clayey silt
47.83	19.6	0.207	1.059	20.58	8	6	sandy silt to clayey silt
47.90	16.4	0.147	0.899	21.17	7	6	sandy silt to clayey silt
47.97	13.6	0.117	0.863	22.14	6	6	sandy silt to clayey silt
48.03	11.9	0.103	0.866	23.23	5	6	sandy silt to clayey silt
48.10	10.6	0.072	0.678	24.52	4	6	sandy silt to clayey silt
48.16	9.6	0.065	0.676	26.05	4	6	sandy silt to clayey silt
48.23	9.1	0.067	0.732	28.42	4	6	sandy silt to clayey silt
48.29	8.7	0.062	0.714	30.81	4	5	clayey silt to silty clay
48.36	8.4	0.053	0.634	31.40	4	1	sensitive fine grained
48.43	8.1	0.052	0.639	32.78	4	1	sensitive fine grained
48.49	8.1	0.031	0.381	34.03	4	6	sandy silt to clayey silt
48.56	8.6	0.036	0.423	35.32	4	6	sandy silt to clayey silt
48.62	10.5	0.045	0.431	36.38	4	6	sandy silt to clayey silt
48.69	13.0	0.075	0.576	36.68	5	6	sandy silt to clayey silt
48.75	14.1	0.108	0.771	34.02	5	6	sandy silt to clayey silt
48.82	14.1	0.069	0.486	33.78	5	6	sandy silt to clayey silt
48.88	13.9	0.046	0.330	34.89	6	6	sandy silt to clayey silt
48.95	15.8	0.053	0.337	35.96	6	6	sandy silt to clayey silt
49.02	18.5	0.096	0.516	35.06	6	6	sandy silt to clayey silt
49.08	18.9	0.121	0.638	32.10	6	6	sandy silt to clayey silt
49.15	16.8	0.154	0.914	30.86	6	6	sandy silt to clayey silt
49.21	14.0	0.147	1.053	31.63	6	6	sandy silt to clayey silt
49.28	12.8	0.167	1.298	32.78	6	6	sandy silt to clayey silt
49.34	12.4	0.155	1.256	34.22	7	6	sandy silt to clayey silt
49.41	13.9	0.120	0.868	34.98	8	6	sandy silt to clayey silt
49.48	19.6	0.085	0.432	35.20	8	7	silty sand to sandy silt
49.54	31.0	0.083	0.268	32.24	9	7	silty sand to sandy silt
49.61	39.5	0.120	0.304	27.39	11	7	silty sand to sandy silt
49.67	43.6	0.195	0.448	24.45	12	7	silty sand to sandy silt
49.74	44.6	0.267	0.598	23.11	13	7	silty sand to sandy silt
49.80	43.9	0.306	0.697	22.83	14	7	silty sand to sandy silt
49.87	42.6	0.343	0.806	22.85	14	7	silty sand to sandy silt
49.93	41.7	0.366	0.879	22.93	13	7	silty sand to sandy silt
50.00	41.4	0.415	1.002	22.94	13	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
50.07	40.7	0.467	1.147	22.97	13	7	silty sand to sandy silt
50.13	39.6	0.556	1.405	23.06	12	7	silty sand to sandy silt
50.20	37.4	0.652	1.742	23.13	14	6	sandy silt to clayey silt
50.26	34.0	0.714	2.098	23.36	13	6	sandy silt to clayey silt
50.33	30.8	0.684	2.221	23.86	12	6	sandy silt to clayey silt
50.39	28.1	0.572	2.034	25.10	12	6	sandy silt to clayey silt
50.46	28.1	0.513	1.826	26.76	11	6	sandy silt to clayey silt
50.52	28.9	0.342	1.181	28.27	11	6	sandy silt to clayey silt
50.59	29.3	0.289	0.986	29.43	10	7	silty sand to sandy silt
50.66	30.6	0.213	0.695	29.66	10	7	silty sand to sandy silt
50.72	33.2	0.162	0.486	30.82	10	7	silty sand to sandy silt
50.79	35.9	0.180	0.503	31.58	11	7	silty sand to sandy silt
50.85	33.8	0.272	0.804	32.23	11	7	silty sand to sandy silt
50.92	34.5	0.286	0.828	28.87	11	7	silty sand to sandy silt
50.98	33.7	0.283	0.839	28.91	11	7	silty sand to sandy silt
51.05	34.5	0.306	0.885	30.26	11	7	silty sand to sandy silt
51.12	35.3	0.327	0.926	31.19	11	7	silty sand to sandy silt
51.18	35.2	0.304	0.865	30.83	11	7	silty sand to sandy silt
51.25	33.8	0.306	0.906	29.76	11	7	silty sand to sandy silt
51.31	32.3	0.343	1.062	29.89	10	7	silty sand to sandy silt
51.38	31.0	0.418	1.348	29.95	10	7	silty sand to sandy silt
51.44	29.6	0.465	1.574	29.87	10	7	silty sand to sandy silt
51.51	28.9	0.424	1.465	30.16	10	7	silty sand to sandy silt
51.57	29.4	0.305	1.038	30.95	10	7	silty sand to sandy silt
51.64	31.6	0.260	0.823	30.98	11	7	silty sand to sandy silt
51.71	35.1	0.228	0.650	29.88	12	7	silty sand to sandy silt
51.77	39.4	0.157	0.399	26.70	13	7	silty sand to sandy silt
51.84	44.5	0.108	0.242	24.26	13	7	silty sand to sandy silt
51.90	47.3	0.117	0.247	23.74	11	8	sand to silty sand
51.97	48.7	0.195	0.400	23.86	11	8	sand to silty sand
52.03	49.1	0.286	0.581	23.89	12	8	sand to silty sand
52.10	49.0	0.228	0.466	24.74	13	8	sand to silty sand
52.17	52.0	0.147	0.283	26.60	15	8	sand to silty sand
52.23	60.3	0.125	0.207	28.32	17	8	sand to silty sand
52.30	75.4	0.124	0.165	29.10	19	8	sand to silty sand
52.36	93.2	0.184	0.197	26.31	18	9	sand
52.43	111.6	0.283	0.254	24.20	20	9	sand
52.49	122.3	0.463	0.379	23.78	21	9	sand
52.56	126.8	0.589	0.464	23.91	23	9	sand
52.62	126.8	0.684	0.540	23.89	23	9	sand
52.69	124.8	0.731	0.586	23.83	24	9	sand
52.76	122.5	0.777	0.634	23.92	23	9	sand
52.82	120.3	0.765	0.636	24.00	23	9	sand
52.89	118.3	0.729	0.616	24.10	23	9	sand
52.95	116.6	0.714	0.612	24.22	23	9	sand
53.02	115.6	0.734	0.634	24.36	22	9	sand
53.08	115.1	0.741	0.644	24.65	23	9	sand
53.15	116.3	0.752	0.647	24.94	23	9	sand
53.22	119.6	0.773	0.646	25.53	23	9	sand
53.28	125.6	0.782	0.623	25.68	24	9	sand
53.35	130.9	0.803	0.613	25.25	24	9	sand
53.41	130.6	0.836	0.640	25.00	24	9	sand
53.48	128.2	0.860	0.671	24.93	24	9	sand
53.54	125.6	0.898	0.715	25.17	30	8	sand to silty sand
53.61	123.4	0.960	0.778	25.34	30	8	sand to silty sand
53.67	121.8	0.944	0.775	25.48	29	8	sand to silty sand
53.74	121.3	1.124	0.927	25.50	29	8	sand to silty sand
53.81	120.1	0.969	0.806	25.58	29	8	sand to silty sand
53.87	119.1	0.969	0.813	25.71	28	8	sand to silty sand

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
53.94	118.0	0.993	0.841	25.76	28	8	sand to silty sand
54.00	117.5	0.994	0.846	25.95	28	8	sand to silty sand
54.07	112.4	1.005	0.894	24.19	28	8	sand to silty sand
54.13	115.7	0.998	0.862	24.10	27	8	sand to silty sand
54.20	113.5	0.971	0.855	24.11	27	8	sand to silty sand
54.27	109.9	1.012	0.921	24.08	26	8	sand to silty sand
54.33	106.6	0.999	0.937	23.93	26	8	sand to silty sand
54.40	103.2	1.007	0.976	23.89	25	8	sand to silty sand
54.46	100.0	1.007	1.007	23.94	24	8	sand to silty sand
54.53	96.9	1.010	1.042	23.93	23	8	sand to silty sand
54.59	92.9	1.007	1.084	23.93	22	8	sand to silty sand
54.66	87.9	1.001	1.139	23.98	21	8	sand to silty sand
54.72	82.8	0.963	1.163	23.95	20	8	sand to silty sand
54.79	78.1	0.936	1.199	24.04	19	8	sand to silty sand
54.86	75.5	0.937	1.241	24.05	19	8	sand to silty sand
54.92	74.3	0.978	1.315	23.98	19	8	sand to silty sand
54.99	72.5	0.836	1.153	23.96	20	8	sand to silty sand
55.05	76.3	0.682	0.894	24.06	21	8	sand to silty sand
55.12	91.7	0.592	0.645	24.17	23	8	sand to silty sand
55.18	108.9	0.602	0.553	24.95	24	8	sand to silty sand
55.25	117.2	0.702	0.599	25.17	26	8	sand to silty sand
55.31	121.2	0.824	0.680	24.32	28	8	sand to silty sand
55.38	124.2	0.864	0.696	24.28	29	8	sand to silty sand
55.45	127.1	0.942	0.741	24.28	24	9	sand
55.51	129.2	1.041	0.806	24.49	24	9	sand
55.58	130.0	0.948	0.730	24.60	24	9	sand
55.64	128.6	0.670	0.521	24.58	0	0	<out of range>
55.71	125.5	0.033	0.026	24.75	0	0	<out of range>
55.77	123.6	-0.014	-0.012	24.78	0	0	<out of range>
55.84	125.7	-32768	-32768	24.80	0	0	<out of range>
55.91	136.3	-32768	-32768	24.86	0	0	<out of range>
55.97	160.4	-32768	-32768	25.03	0	0	<out of range>
56.04	215.1	-32768	-32768	25.15	0	0	<out of range>

*Soil behavior type and SPT based on data from UBC-1983

AECOM

TVA Kingston Coal Ash Pond RCA (Kingston,Tennessee) Cone Penetration Test

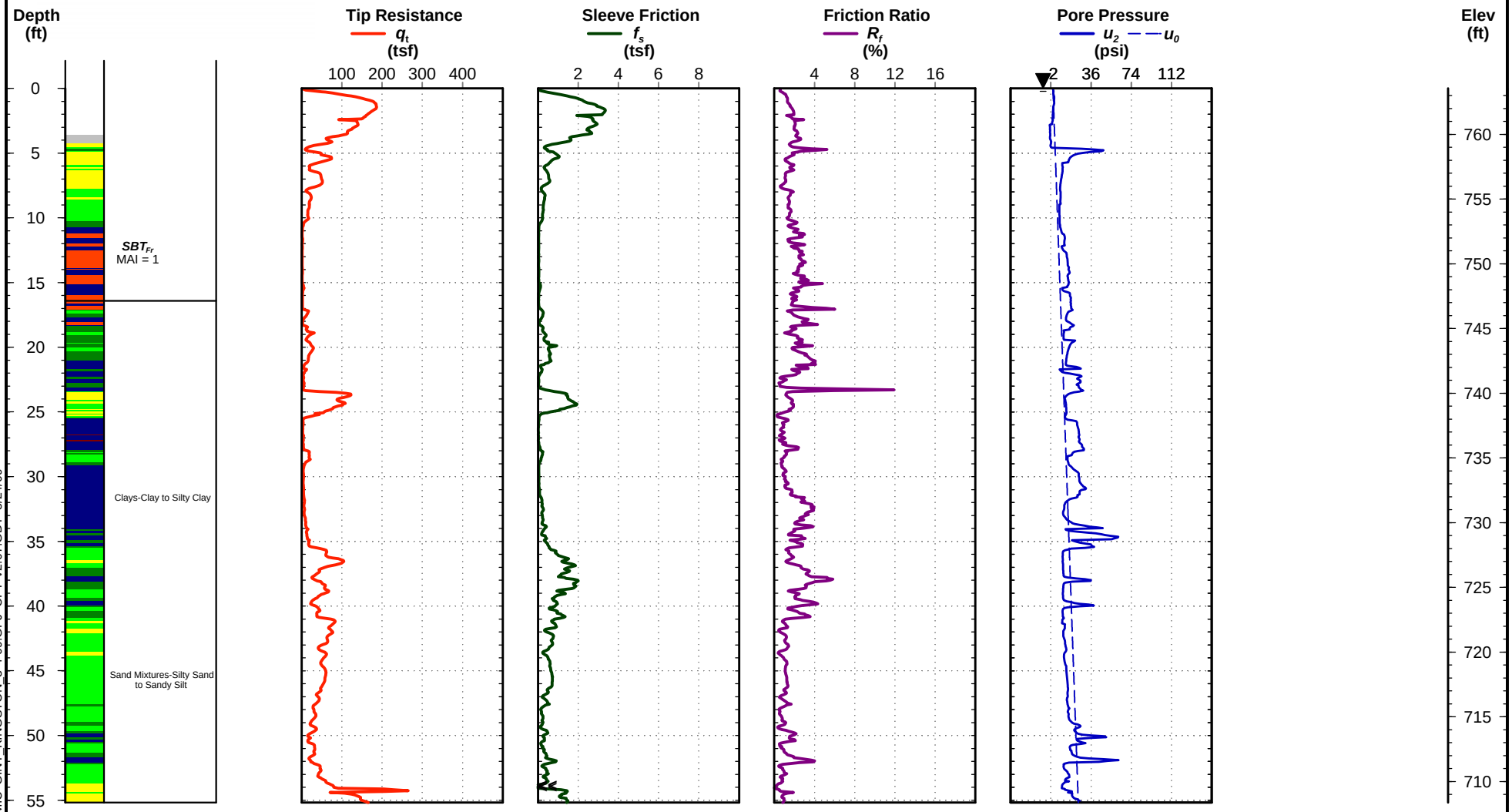
09-707-C1

Project No: 60095742

Date: Feb. 14, 2009
Estimated Water Depth: 0 ft
Rig/Operator: D-120/CAP

Northing: 555381.2
Easting: 2442347.16
Elevation: 763.56 NGVD

Total Depth: 55.2 ft
Termination Criteria: Refusal
Cone Size: 5T Tension Cone



CPT REPORT - DYNAMIC GINT_KINGSTON_3-4-09.GPJ CPT V2.07.GDT 3/24/09

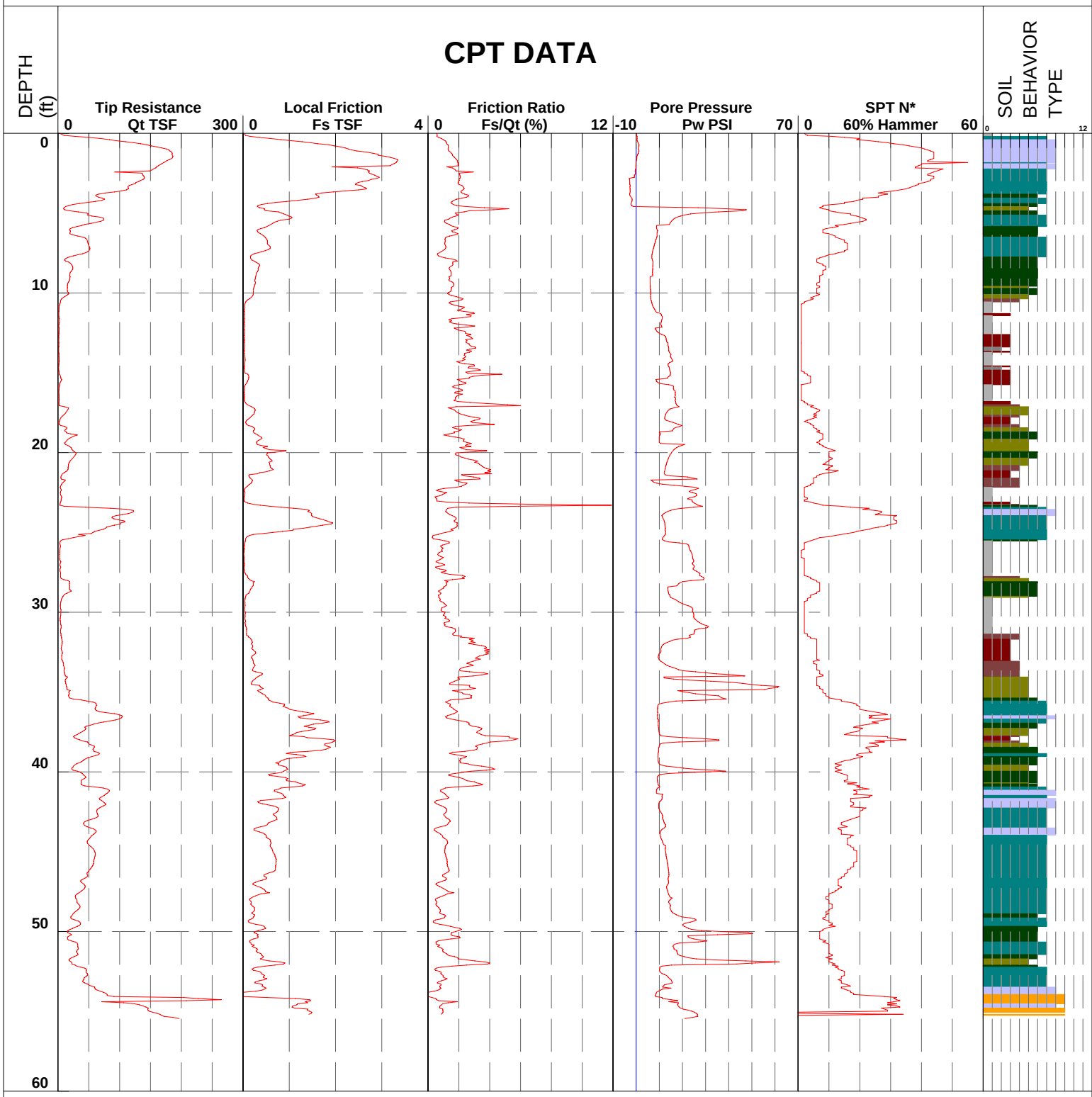
09-707-C1

Electronic Filename: 09-707-C1.cpt

AECOM

09-707-C1	60095742	2/14/2009 7:14:47 AM
DTA1081	TVA-Kingston	D-120/CAP

CPT DATA



1 - sensitive fine grained	4 - silty clay to clay	7 - silty sand to sandy silt	10 - gravelly sand to sand
2 - organic material	5 - clayey silt to silty clay	8 - sand to silty sand	11 - very stiff fine grained (*)
3 - clay	6 - sandy silt to clayey silt	9 - sand	12 - sand to clayey sand (*)

Data File:09-707-C1 2/14/2009 7:14:47 AM
Operator:D-120/CAP Location:TVA-Kingston
Cone ID:DTA1081 Job Number:60095742
Customer:TVA Units:

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
0.07	3.53	0.0202	0.573	0.103	2	1	sensitive fine grained
0.13	9.65	0.0576	0.597	0.203	3	1	sensitive fine grained
0.20	27.67	0.1561	0.564	0.399	11	7	silty sand to sandy silt
0.26	49.81	0.3461	0.695	0.387	15	7	silty sand to sandy silt
0.33	69.44	0.5981	0.861	0.368	20	7	silty sand to sandy silt
0.39	83.31	0.8187	0.983	0.337	19	8	sand to silty sand
0.46	94.28	1.0418	1.105	0.406	23	8	sand to silty sand
0.52	109.38	1.2776	1.168	0.612	26	8	sand to silty sand
0.59	123.09	1.4639	1.189	0.839	29	8	sand to silty sand
0.66	134.00	1.6158	1.206	1.120	31	8	sand to silty sand
0.72	144.01	1.8585	1.291	1.217	34	8	sand to silty sand
0.79	151.29	1.9765	1.306	1.217	36	8	sand to silty sand
0.85	160.32	2.1072	1.314	1.136	38	8	sand to silty sand
0.92	168.01	2.2095	1.315	1.070	40	8	sand to silty sand
0.98	176.19	2.2743	1.291	1.036	41	8	sand to silty sand
1.05	179.61	2.3514	1.309	1.108	42	8	sand to silty sand
1.12	181.70	2.4664	1.357	1.220	43	8	sand to silty sand
1.18	184.41	2.6769	1.452	1.148	44	8	sand to silty sand
1.25	185.21	2.8089	1.517	1.011	44	8	sand to silty sand
1.31	184.94	2.9203	1.579	0.649	44	8	sand to silty sand
1.38	185.71	2.9246	1.575	0.443	44	8	sand to silty sand
1.44	186.41	3.0768	1.651	0.272	44	8	sand to silty sand
1.51	186.07	3.1832	1.711	0.250	44	8	sand to silty sand
1.57	184.73	3.2680	1.769	0.231	44	8	sand to silty sand
1.64	180.84	3.3406	1.847	0.200	43	8	sand to silty sand
1.71	176.95	3.3492	1.893	0.044	42	8	sand to silty sand
1.77	174.14	3.3223	1.908	-0.028	42	8	sand to silty sand
1.84	171.46	3.3120	1.932	-0.103	55	7	silty sand to sandy silt
1.90	168.44	3.2662	1.939	-0.109	40	8	sand to silty sand
1.97	165.43	3.2100	1.940	-0.069	40	8	sand to silty sand
2.03	162.87	3.1864	1.956	-0.159	39	8	sand to silty sand
2.10	159.89	1.9276	1.206	-0.153	38	8	sand to silty sand
2.17	158.63	2.4750	1.560	-0.066	38	8	sand to silty sand
2.23	154.69	2.6109	1.688	-0.253	47	7	silty sand to sandy silt
2.30	152.48	2.6875	1.762	-0.371	46	7	silty sand to sandy silt
2.36	148.72	2.7338	1.838	-0.481	45	7	silty sand to sandy silt
2.43	92.10	2.7075	2.940	-0.265	44	7	silty sand to sandy silt
2.49	135.99	2.7348	2.011	-0.303	43	7	silty sand to sandy silt
2.56	137.27	2.7786	2.024	-0.393	42	7	silty sand to sandy silt
2.62	137.90	2.8486	2.066	-0.755	42	7	silty sand to sandy silt
2.69	139.33	2.8924	2.076	-0.836	44	7	silty sand to sandy silt
2.76	140.08	2.9465	2.103	-0.755	44	7	silty sand to sandy silt
2.82	140.17	2.8988	2.068	-2.968	44	7	silty sand to sandy silt
2.89	138.23	2.7718	2.005	-2.918	43	7	silty sand to sandy silt
2.95	133.83	2.7189	2.032	-2.846	43	7	silty sand to sandy silt
3.02	130.94	2.5781	1.969	-2.846	42	7	silty sand to sandy silt
3.08	126.27	2.4880	1.970	-2.821	41	7	silty sand to sandy silt
3.15	125.48	2.4410	1.945	-2.821	39	7	silty sand to sandy silt
3.22	119.77	2.4258	2.025	-2.724	39	7	silty sand to sandy silt
3.28	115.42	2.5484	2.208	-2.625	38	7	silty sand to sandy silt
3.35	113.26	2.5836	2.281	-2.709	37	7	silty sand to sandy silt
3.41	114.16	2.6504	2.322	-2.690	36	7	silty sand to sandy silt
3.48	114.19	2.6754	2.343	-2.631	35	7	silty sand to sandy silt
3.54	111.03	2.5047	2.256	-2.631	33	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
3.61	102.43	2.2090	2.157	-2.600	31	7	silty sand to sandy silt
3.67	91.73	1.9490	2.125	-2.621	28	7	silty sand to sandy silt
3.74	77.03	1.7006	2.208	-2.712	26	7	silty sand to sandy silt
3.81	66.52	1.5722	2.364	-2.802	29	6	sandy silt to clayey silt
3.87	61.08	1.5937	2.609	-2.806	27	6	sandy silt to clayey silt
3.94	61.92	1.6288	2.630	-2.568	26	6	sandy silt to clayey silt
4.00	65.84	1.6451	2.499	-2.191	26	6	sandy silt to clayey silt
4.07	71.55	1.5719	2.197	-1.872	21	7	silty sand to sandy silt
4.13	75.74	1.4036	1.853	-1.738	21	7	silty sand to sandy silt
4.20	71.38	1.1905	1.668	-1.754	19	7	silty sand to sandy silt
4.27	60.23	0.9429	1.566	-1.863	18	7	silty sand to sandy silt
4.33	47.33	0.7003	1.480	-2.082	15	7	silty sand to sandy silt
4.40	34.57	0.5352	1.548	-2.225	15	6	sandy silt to clayey silt
4.46	24.41	0.3978	1.629	-2.231	11	6	sandy silt to clayey silt
4.53	17.46	0.3242	1.857	-1.957	8	6	sandy silt to clayey silt
4.59	12.62	0.3092	2.450	-1.192	8	5	clayey silt to silty clay
4.66	9.91	0.3621	3.654	26.766	7	5	clayey silt to silty clay
4.72	8.88	0.4649	5.235	38.719	8	5	clayey silt to silty clay
4.79	10.90	0.4607	4.226	47.641	10	5	clayey silt to silty clay
4.86	19.04	0.5086	2.672	45.687	10	6	sandy silt to clayey silt
4.92	32.77	0.7691	2.347	35.695	12	6	sandy silt to clayey silt
4.99	46.51	0.8273	1.779	28.171	14	6	sandy silt to clayey silt
5.05	48.89	0.8833	1.807	23.493	17	6	sandy silt to clayey silt
5.12	48.01	0.9501	1.979	20.809	17	7	silty sand to sandy silt
5.18	55.20	0.9950	1.802	19.161	19	7	silty sand to sandy silt
5.25	68.07	1.0603	1.558	17.704	20	7	silty sand to sandy silt
5.31	73.43	1.0475	1.427	16.836	21	7	silty sand to sandy silt
5.38	74.28	0.9992	1.345	16.175	22	7	silty sand to sandy silt
5.45	74.24	0.8150	1.098	15.663	22	7	silty sand to sandy silt
5.51	69.32	0.7383	1.065	15.217	21	7	silty sand to sandy silt
5.58	61.56	0.6753	1.097	14.845	19	7	silty sand to sandy silt
5.64	53.83	0.6430	1.194	14.568	17	7	silty sand to sandy silt
5.71	43.53	0.6037	1.387	14.330	15	7	silty sand to sandy silt
5.77	38.10	0.5600	1.470	8.841	12	7	silty sand to sandy silt
5.84	31.30	0.5161	1.649	8.782	13	6	sandy silt to clayey silt
5.91	24.05	0.4679	1.945	8.763	11	6	sandy silt to clayey silt
5.97	19.77	0.3801	1.923	8.819	9	6	sandy silt to clayey silt
6.04	18.65	0.3198	1.714	9.075	8	6	sandy silt to clayey silt
6.10	19.80	0.3027	1.528	9.281	8	6	sandy silt to clayey silt
6.17	20.30	0.3181	1.567	9.153	8	6	sandy silt to clayey silt
6.23	19.12	0.3412	1.785	9.041	8	6	sandy silt to clayey silt
6.30	19.40	0.3794	1.955	9.028	10	6	sandy silt to clayey silt
6.36	24.09	0.4207	1.746	9.031	11	6	sandy silt to clayey silt
6.43	32.14	0.4518	1.406	9.019	12	6	sandy silt to clayey silt
6.50	40.26	0.4756	1.181	8.907	12	7	silty sand to sandy silt
6.56	44.18	0.4929	1.116	8.772	13	7	silty sand to sandy silt
6.63	46.75	0.5132	1.098	8.607	14	7	silty sand to sandy silt
6.69	47.22	0.5226	1.107	8.410	15	7	silty sand to sandy silt
6.76	47.77	0.5314	1.112	8.276	15	7	silty sand to sandy silt
6.82	48.34	0.5277	1.092	8.164	15	7	silty sand to sandy silt
6.89	48.74	0.5277	1.083	8.048	16	7	silty sand to sandy silt
6.96	49.35	0.5339	1.082	7.917	16	7	silty sand to sandy silt
7.02	49.99	0.5608	1.122	7.789	16	7	silty sand to sandy silt
7.09	50.75	0.5840	1.151	7.677	16	7	silty sand to sandy silt
7.15	51.55	0.5943	1.153	7.552	16	7	silty sand to sandy silt
7.22	51.79	0.5863	1.132	7.418	16	7	silty sand to sandy silt
7.28	51.54	0.5427	1.053	7.315	16	7	silty sand to sandy silt
7.35	50.37	0.4812	0.955	7.206	15	7	silty sand to sandy silt
7.41	48.17	0.4093	0.850	7.065	15	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
7.48	44.98	0.3307	0.735	6.969	13	7	silty sand to sandy silt
7.55	39.97	0.2438	0.610	6.875	12	7	silty sand to sandy silt
7.61	32.31	0.1970	0.610	6.806	10	7	silty sand to sandy silt
7.68	24.86	0.1669	0.671	6.772	9	7	silty sand to sandy silt
7.74	18.74	0.1609	0.858	6.753	8	6	sandy silt to clayey silt
7.81	14.51	0.1611	1.111	6.766	7	6	sandy silt to clayey silt
7.87	11.43	0.1751	1.532	6.856	6	6	sandy silt to clayey silt
7.94	10.77	0.1931	1.793	7.012	6	6	sandy silt to clayey silt
8.01	12.92	0.2447	1.893	7.209	6	6	sandy silt to clayey silt
8.07	17.31	0.2769	1.600	7.293	6	6	sandy silt to clayey silt
8.14	20.04	0.3199	1.596	7.262	7	6	sandy silt to clayey silt
8.20	21.80	0.3532	1.620	7.187	8	6	sandy silt to clayey silt
8.27	22.82	0.3627	1.589	7.193	8	6	sandy silt to clayey silt
8.33	23.55	0.3508	1.490	7.168	9	6	sandy silt to clayey silt
8.40	24.09	0.3370	1.399	7.143	9	6	sandy silt to clayey silt
8.46	23.98	0.3265	1.361	7.140	9	6	sandy silt to clayey silt
8.53	23.58	0.3310	1.404	7.115	9	6	sandy silt to clayey silt
8.60	22.69	0.3271	1.441	7.103	8	6	sandy silt to clayey silt
8.66	21.19	0.3144	1.484	7.090	8	6	sandy silt to clayey silt
8.73	19.85	0.2986	1.504	7.072	8	6	sandy silt to clayey silt
8.79	19.25	0.2886	1.499	7.097	8	6	sandy silt to clayey silt
8.86	19.11	0.2832	1.482	7.121	8	6	sandy silt to clayey silt
8.92	18.76	0.2799	1.492	7.143	7	6	sandy silt to clayey silt
8.99	19.80	0.2708	1.368	6.051	7	6	sandy silt to clayey silt
9.06	19.31	0.2664	1.379	6.042	7	6	sandy silt to clayey silt
9.12	19.03	0.2667	1.401	6.035	7	6	sandy silt to clayey silt
9.19	19.01	0.2579	1.357	6.048	7	6	sandy silt to clayey silt
9.25	18.41	0.2551	1.386	6.051	7	6	sandy silt to clayey silt
9.32	17.07	0.2653	1.554	6.039	7	6	sandy silt to clayey silt
9.38	16.27	0.2703	1.661	6.048	6	6	sandy silt to clayey silt
9.45	15.67	0.2601	1.660	6.067	6	6	sandy silt to clayey silt
9.51	15.16	0.2533	1.671	6.092	6	6	sandy silt to clayey silt
9.58	15.22	0.2469	1.622	6.110	7	5	clayey silt to silty clay
9.65	15.50	0.2347	1.514	6.095	7	5	clayey silt to silty clay
9.71	15.15	0.2313	1.526	6.104	6	6	sandy silt to clayey silt
9.78	15.10	0.2258	1.496	6.154	6	6	sandy silt to clayey silt
9.84	15.18	0.2271	1.496	6.204	6	6	sandy silt to clayey silt
9.91	15.40	0.2259	1.467	6.216	6	6	sandy silt to clayey silt
9.97	16.91	0.2226	1.316	6.260	6	6	sandy silt to clayey silt
10.04	17.60	0.2217	1.260	6.254	6	6	sandy silt to clayey silt
10.10	16.14	0.2197	1.361	6.232	7	5	clayey silt to silty clay
10.17	13.80	0.2141	1.551	6.207	6	5	clayey silt to silty clay
10.24	10.51	0.1935	1.842	6.216	5	5	clayey silt to silty clay
10.30	7.98	0.1667	2.090	6.245	4	5	clayey silt to silty clay
10.37	6.06	0.1382	2.281	6.285	5	4	silty clay to clay
10.43	4.73	0.1020	2.157	6.369	4	4	silty clay to clay
10.50	4.27	0.0794	1.859	6.541	3	4	silty clay to clay
10.56	4.18	0.0599	1.433	6.685	2	1	sensitive fine grained
10.63	3.61	0.0490	1.358	6.772	2	1	sensitive fine grained
10.70	2.83	0.0423	1.495	6.869	1	1	sensitive fine grained
10.76	2.25	0.0383	1.703	7.009	1	1	sensitive fine grained
10.83	1.90	0.0374	1.964	7.193	1	1	sensitive fine grained
10.89	1.76	0.0419	2.373	7.418	1	1	sensitive fine grained
10.96	1.75	0.0394	2.249	7.677	1	1	sensitive fine grained
11.02	1.76	0.0376	2.135	7.958	1	1	sensitive fine grained
11.09	1.63	0.0311	1.903	8.173	1	1	sensitive fine grained
11.15	1.41	0.0328	2.332	8.435	1	1	sensitive fine grained
11.22	1.34	0.0393	2.927	8.953	1	1	sensitive fine grained
11.29	1.37	0.0412	3.011	10.557	1	3	clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
11.35	1.35	0.0337	2.494	10.807	1	3	clay
11.42	1.38	0.0385	2.796	11.010	1	1	sensitive fine grained
11.48	1.42	0.0393	2.776	11.241	1	1	sensitive fine grained
11.55	1.74	0.0386	2.217	11.275	1	1	sensitive fine grained
11.61	2.28	0.0354	1.550	11.235	1	1	sensitive fine grained
11.68	2.52	0.0341	1.351	11.072	1	1	sensitive fine grained
11.75	2.49	0.0380	1.523	10.941	1	1	sensitive fine grained
11.81	2.51	0.0349	1.394	10.820	1	1	sensitive fine grained
11.88	2.24	0.0339	1.511	10.676	1	1	sensitive fine grained
11.94	1.81	0.0335	1.848	10.607	1	1	sensitive fine grained
12.01	1.46	0.0364	2.493	10.738	1	1	sensitive fine grained
12.07	1.40	0.0425	3.025	10.941	1	1	sensitive fine grained
12.14	1.51	0.0382	2.532	11.175	1	1	sensitive fine grained
12.20	2.11	0.0357	1.695	8.207	1	1	sensitive fine grained
12.27	1.93	0.0354	1.836	8.354	1	1	sensitive fine grained
12.34	1.79	0.0351	1.964	8.638	1	1	sensitive fine grained
12.40	1.70	0.0405	2.384	8.997	1	1	sensitive fine grained
12.47	1.63	0.0396	2.434	9.462	1	1	sensitive fine grained
12.53	1.48	0.0361	2.431	10.055	1	1	sensitive fine grained
12.60	1.36	0.0378	2.789	11.032	1	3	clay
12.66	1.30	0.0326	2.511	12.202	1	3	clay
12.73	1.29	0.0348	2.697	12.704	1	3	clay
12.80	1.34	0.0376	2.803	12.842	1	3	clay
12.86	1.38	0.0400	2.902	12.945	1	3	clay
12.93	1.35	0.0329	2.431	12.970	1	3	clay
12.99	1.38	0.0348	2.527	13.119	1	3	clay
13.06	1.32	0.0325	2.453	13.201	1	3	clay
13.12	1.43	0.0355	2.481	13.560	1	3	clay
13.19	1.46	0.0391	2.669	13.765	1	3	clay
13.25	1.44	0.0384	2.668	13.697	1	3	clay
13.32	1.31	0.0366	2.790	13.790	1	3	clay
13.39	1.25	0.0380	3.047	14.025	1	2	organic material
13.45	1.23	0.0381	3.098	14.043	1	2	organic material
13.52	1.25	0.0341	2.716	14.034	1	2	organic material
13.58	1.26	0.0315	2.506	14.034	1	2	organic material
13.65	1.24	0.0352	2.826	14.074	1	3	clay
13.71	1.27	0.0341	2.684	14.280	1	1	sensitive fine grained
13.78	1.42	0.0339	2.381	14.617	1	1	sensitive fine grained
13.85	1.62	0.0385	2.377	15.051	1	1	sensitive fine grained
13.91	1.72	0.0402	2.344	14.936	1	1	sensitive fine grained
13.98	1.72	0.0420	2.440	14.745	1	1	sensitive fine grained
14.04	1.84	0.0438	2.376	15.011	1	1	sensitive fine grained
14.11	2.03	0.0456	2.250	15.260	1	1	sensitive fine grained
14.17	1.99	0.0477	2.403	15.541	1	1	sensitive fine grained
14.24	2.12	0.0474	2.234	15.822	1	1	sensitive fine grained
14.30	2.17	0.0406	1.868	15.435	1	1	sensitive fine grained
14.37	1.91	0.0388	2.036	14.371	1	1	sensitive fine grained
14.44	1.58	0.0375	2.371	13.878	1	1	sensitive fine grained
14.50	1.31	0.0390	2.978	13.747	1	1	sensitive fine grained
14.57	1.19	0.0360	3.015	13.890	1	3	clay
14.63	1.19	0.0315	2.656	14.165	1	2	organic material
14.70	1.16	0.0301	2.607	14.296	1	2	organic material
14.76	1.16	0.0374	3.211	14.396	1	2	organic material
14.83	1.19	0.0406	3.400	14.486	1	3	clay
14.90	1.32	0.0387	2.921	14.586	1	3	clay
14.96	1.61	0.0394	2.450	14.792	2	3	clay
15.03	1.85	0.0476	2.568	14.845	2	3	clay
15.09	2.24	0.1072	4.794	14.742	3	3	clay
15.16	3.37	0.1159	3.440	14.739	3	3	clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
15.22	4.33	0.1263	2.917	14.165	4	3	clay
15.29	4.63	0.1239	2.679	13.619	4	3	clay
15.35	4.58	0.1221	2.664	13.425	4	3	clay
15.42	6.14	0.1159	1.887	8.563	4	3	clay
15.49	5.09	0.1044	2.051	8.663	4	3	clay
15.55	4.47	0.0961	2.148	8.903	4	3	clay
15.62	3.45	0.0843	2.445	9.437	4	3	clay
15.68	2.83	0.0694	2.451	10.629	3	3	clay
15.75	2.61	0.0534	2.048	14.043	1	1	sensitive fine grained
15.81	2.46	0.0418	1.701	15.925	1	1	sensitive fine grained
15.88	2.19	0.0349	1.594	16.134	1	1	sensitive fine grained
15.94	2.05	0.0358	1.745	16.075	1	1	sensitive fine grained
16.01	1.87	0.0382	2.049	16.009	1	1	sensitive fine grained
16.08	1.73	0.0387	2.240	16.284	1	1	sensitive fine grained
16.14	1.73	0.0383	2.207	16.839	1	1	sensitive fine grained
16.21	1.75	0.0309	1.762	16.927	1	1	sensitive fine grained
16.27	1.68	0.0289	1.715	16.864	1	1	sensitive fine grained
16.34	1.66	0.0370	2.230	16.861	1	1	sensitive fine grained
16.40	1.80	0.0352	1.956	16.967	1	1	sensitive fine grained
16.47	1.88	0.0349	1.858	16.749	1	1	sensitive fine grained
16.54	1.71	0.0305	1.785	16.530	1	1	sensitive fine grained
16.60	1.80	0.0319	1.770	17.070	1	1	sensitive fine grained
16.67	2.08	0.0370	1.777	17.070	1	1	sensitive fine grained
16.73	2.02	0.0340	1.681	16.849	1	1	sensitive fine grained
16.80	1.91	0.0367	1.923	17.030	2	3	clay
16.86	1.78	0.0489	2.746	17.123	2	3	clay
16.93	1.79	0.0681	3.803	17.183	3	3	clay
16.99	1.77	0.0914	5.153	17.342	3	4	silty clay to clay
17.06	2.28	0.1368	6.007	17.904	5	4	silty clay to clay
17.13	10.06	0.1832	1.820	18.553	4	5	clayey silt to silty clay
17.19	17.30	0.2241	1.295	16.474	5	5	clayey silt to silty clay
17.26	16.72	0.2553	1.526	14.736	6	5	clayey silt to silty clay
17.32	15.64	0.2661	1.701	14.109	7	5	clayey silt to silty clay
17.39	14.68	0.2595	1.767	13.675	7	5	clayey silt to silty clay
17.45	13.71	0.2529	1.845	13.319	6	5	clayey silt to silty clay
17.52	12.56	0.2434	1.938	13.035	6	5	clayey silt to silty clay
17.59	11.05	0.2352	2.128	12.807	5	5	clayey silt to silty clay
17.65	9.06	0.2130	2.353	12.620	6	4	silty clay to clay
17.72	7.03	0.1842	2.621	12.458	5	4	silty clay to clay
17.78	5.37	0.1603	2.988	12.327	6	3	clay
17.85	4.08	0.1380	3.382	12.277	5	3	clay
17.91	3.24	0.1075	3.320	12.405	4	3	clay
17.98	2.73	0.0822	3.007	12.932	3	3	clay
18.04	2.29	0.0635	2.766	14.505	2	3	clay
18.11	2.06	0.0595	2.889	15.966	3	3	clay
18.18	1.89	0.0678	3.594	17.114	4	3	clay
18.24	1.86	0.0800	4.302	18.384	4	4	silty clay to clay
18.31	4.72	0.1206	2.558	19.767	5	4	silty clay to clay
18.37	11.35	0.2001	1.763	18.790	5	4	silty clay to clay
18.44	14.62	0.2332	1.595	16.818	5	5	clayey silt to silty clay
18.50	13.91	0.2582	1.857	16.175	6	5	clayey silt to silty clay
18.57	11.75	0.2557	2.176	15.844	6	5	clayey silt to silty clay
18.64	10.98	0.2211	2.013	15.788	7	5	clayey silt to silty clay
18.70	13.41	0.2243	1.672	10.036	6	6	sandy silt to clayey silt
18.77	13.85	0.2383	1.720	10.180	7	6	sandy silt to clayey silt
18.83	20.74	0.2803	1.351	10.489	8	6	sandy silt to clayey silt
18.90	31.41	0.3190	1.016	10.277	8	6	sandy silt to clayey silt
18.96	25.96	0.3543	1.365	10.018	8	6	sandy silt to clayey silt
19.03	22.45	0.3928	1.749	9.918	8	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
19.09	19.25	0.4117	2.138	9.933	8	6	sandy silt to clayey silt
19.16	16.54	0.3886	2.350	9.964	8	5	clayey silt to silty clay
19.23	14.73	0.3403	2.309	9.964	7	5	clayey silt to silty clay
19.29	13.28	0.3036	2.286	9.955	7	5	clayey silt to silty clay
19.36	11.65	0.2931	2.515	9.977	6	5	clayey silt to silty clay
19.42	10.64	0.2986	2.807	10.532	7	5	clayey silt to silty clay
19.49	12.21	0.3096	2.536	20.909	7	5	clayey silt to silty clay
19.55	15.99	0.3849	2.407	19.757	8	5	clayey silt to silty clay
19.62	18.99	0.5280	2.781	18.397	8	5	clayey silt to silty clay
19.69	21.07	0.4357	2.068	17.520	9	5	clayey silt to silty clay
19.75	22.11	0.5043	2.280	16.830	10	5	clayey silt to silty clay
19.82	22.99	0.5660	2.462	16.337	11	5	clayey silt to silty clay
19.88	24.56	0.9350	3.807	15.922	12	5	clayey silt to silty clay
19.95	26.60	0.8172	3.072	15.541	10	6	sandy silt to clayey silt
20.01	28.93	0.5270	1.821	15.201	10	6	sandy silt to clayey silt
20.08	29.62	0.5206	1.758	14.898	10	6	sandy silt to clayey silt
20.14	28.20	0.5106	1.811	14.639	10	6	sandy silt to clayey silt
20.21	26.94	0.5468	2.030	14.380	10	6	sandy silt to clayey silt
20.28	25.59	0.5478	2.141	14.165	10	6	sandy silt to clayey silt
20.34	24.05	0.5723	2.380	13.987	11	5	clayey silt to silty clay
20.41	22.53	0.5855	2.599	13.812	11	5	clayey silt to silty clay
20.47	21.14	0.6228	2.946	13.625	10	5	clayey silt to silty clay
20.54	19.66	0.6309	3.209	13.435	10	5	clayey silt to silty clay
20.60	18.54	0.5605	3.024	13.297	9	5	clayey silt to silty clay
20.67	17.58	0.5755	3.275	13.157	9	5	clayey silt to silty clay
20.73	17.20	0.5743	3.339	12.995	8	5	clayey silt to silty clay
20.80	17.01	0.5859	3.445	12.867	11	4	silty clay to clay
20.87	16.75	0.5897	3.520	12.757	11	4	silty clay to clay
20.93	16.37	0.5943	3.631	12.670	10	4	silty clay to clay
21.00	16.54	0.6245	3.776	12.552	10	4	silty clay to clay
21.06	16.13	0.6576	4.077	12.474	9	4	silty clay to clay
21.13	14.81	0.5732	3.870	12.358	13	3	clay
21.19	12.81	0.5193	4.053	12.258	12	3	clay
21.26	9.92	0.3647	3.677	12.196	10	3	clay
21.33	7.70	0.3174	4.122	12.190	8	3	clay
21.39	6.26	0.1362	2.174	12.474	7	3	clay
21.46	5.41	0.1274	2.354	14.689	6	3	clay
21.52	4.77	0.1405	2.949	22.166	6	3	clay
21.59	4.67	0.1552	3.319	24.395	5	4	silty clay to clay
21.65	5.40	0.1820	3.369	26.392	5	4	silty clay to clay
21.72	12.11	0.2089	1.724	6.360	5	4	silty clay to clay
21.78	10.91	0.2018	1.850	6.925	5	4	silty clay to clay
21.85	8.85	0.1887	2.132	7.577	5	4	silty clay to clay
21.92	7.05	0.1782	2.526	8.963	5	4	silty clay to clay
21.98	5.82	0.1432	2.460	11.319	4	4	silty clay to clay
22.05	5.07	0.1156	2.278	16.324	4	4	silty clay to clay
22.11	4.29	0.0931	2.169	20.940	3	4	silty clay to clay
22.18	3.69	0.0680	1.843	25.343	2	1	sensitive fine grained
22.24	4.08	0.0425	1.042	26.944	2	1	sensitive fine grained
22.31	5.08	0.0344	0.677	25.587	2	1	sensitive fine grained
22.38	5.05	0.0279	0.554	23.533	2	1	sensitive fine grained
22.44	4.29	0.0352	0.822	22.881	2	1	sensitive fine grained
22.51	3.77	0.0456	1.211	24.448	2	1	sensitive fine grained
22.57	4.00	0.0416	1.039	25.880	2	1	sensitive fine grained
22.64	4.26	0.0393	0.924	26.155	2	1	sensitive fine grained
22.70	5.00	0.0382	0.763	26.092	2	1	sensitive fine grained
22.77	5.97	0.0272	0.456	25.062	2	1	sensitive fine grained
22.83	5.96	0.0296	0.497	23.025	3	1	sensitive fine grained
22.90	5.19	0.0290	0.558	22.248	3	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
22.97	5.21	0.0293	0.562	24.142	2	1	sensitive fine grained
23.03	4.98	0.0285	0.572	24.164	2	1	sensitive fine grained
23.10	4.30	0.0519	1.208	24.488	4	3	clay
23.16	3.71	0.0986	2.657	25.087	5	3	clay
23.23	3.28	0.2116	6.441	26.055	7	4	silty clay to clay
23.29	3.13	0.3728	11.897	26.657	8	6	sandy silt to clayey silt
23.36	9.89	0.5814	5.880	28.714	14	6	sandy silt to clayey silt
23.43	45.12	0.8272	1.833	24.919	17	7	silty sand to sandy silt
23.49	85.56	1.0970	1.282	19.695	23	7	silty sand to sandy silt
23.56	110.69	1.3364	1.207	16.468	21	8	sand to silty sand
23.62	122.20	1.4345	1.174	14.777	25	8	sand to silty sand
23.69	122.88	1.4014	1.140	13.606	27	8	sand to silty sand
23.75	119.53	1.4621	1.223	12.667	27	8	sand to silty sand
23.82	113.87	1.4855	1.305	12.009	26	8	sand to silty sand
23.88	104.47	1.4800	1.417	11.434	25	8	sand to silty sand
23.95	94.44	1.4863	1.574	11.060	32	7	silty sand to sandy silt
24.02	88.39	1.5088	1.707	11.219	31	7	silty sand to sandy silt
24.08	87.50	1.5880	1.815	11.531	31	7	silty sand to sandy silt
24.15	90.79	1.6628	1.832	11.737	31	7	silty sand to sandy silt
24.21	97.89	1.7412	1.779	11.946	31	7	silty sand to sandy silt
24.28	107.01	1.8103	1.692	12.083	32	7	silty sand to sandy silt
24.34	108.88	1.8660	1.714	12.211	32	7	silty sand to sandy silt
24.41	101.90	1.9409	1.905	12.321	32	7	silty sand to sandy silt
24.48	102.00	1.9002	1.863	12.364	31	7	silty sand to sandy silt
24.54	91.48	1.7260	1.887	12.408	29	7	silty sand to sandy silt
24.61	84.32	1.5906	1.886	12.452	28	7	silty sand to sandy silt
24.67	78.82	1.4410	1.828	12.533	26	7	silty sand to sandy silt
24.74	77.23	1.3078	1.693	12.567	24	7	silty sand to sandy silt
24.80	73.69	1.0867	1.475	12.542	23	7	silty sand to sandy silt
24.87	66.64	1.0796	1.620	12.542	21	7	silty sand to sandy silt
24.93	59.83	0.8561	1.431	12.620	19	7	silty sand to sandy silt
25.00	56.57	0.6456	1.141	12.717	18	7	silty sand to sandy silt
25.07	54.33	0.4562	0.840	12.736	16	7	silty sand to sandy silt
25.13	33.39	0.2185	0.655	12.580	14	7	silty sand to sandy silt
25.20	44.00	0.1428	0.324	12.243	12	7	silty sand to sandy silt
25.26	33.41	0.0946	0.283	11.828	10	7	silty sand to sandy silt
25.33	24.87	0.0685	0.275	11.515	7	7	silty sand to sandy silt
25.39	16.76	0.0568	0.339	11.235	6	7	silty sand to sandy silt
25.46	7.20	0.0547	0.760	11.425	5	6	sandy silt to clayey silt
25.52	4.44	0.0486	1.093	12.302	4	1	sensitive fine grained
25.59	3.50	0.0478	1.365	13.815	3	1	sensitive fine grained
25.66	2.95	0.0407	1.378	18.484	2	1	sensitive fine grained
25.72	2.98	0.0363	1.218	21.776	2	1	sensitive fine grained
25.79	3.73	0.0354	0.947	22.578	2	1	sensitive fine grained
25.85	4.04	0.0322	0.797	22.769	2	1	sensitive fine grained
25.92	3.78	0.0327	0.865	22.803	2	1	sensitive fine grained
25.98	3.38	0.0327	0.966	22.887	2	1	sensitive fine grained
26.05	3.10	0.0280	0.904	23.118	2	1	sensitive fine grained
26.12	2.89	0.0251	0.868	23.337	1	1	sensitive fine grained
26.18	2.80	0.0261	0.935	23.590	1	1	sensitive fine grained
26.25	2.81	0.0207	0.736	23.786	1	1	sensitive fine grained
26.31	2.89	0.0192	0.667	24.014	1	1	sensitive fine grained
26.38	2.78	0.0169	0.610	24.198	1	1	sensitive fine grained
26.44	2.81	0.0192	0.684	24.279	1	1	sensitive fine grained
26.51	2.76	0.0227	0.824	24.335	1	1	sensitive fine grained
26.57	2.78	0.0277	0.998	24.416	1	1	sensitive fine grained
26.64	2.77	0.0240	0.867	24.507	2	1	sensitive fine grained
26.71	2.87	0.0223	0.778	24.647	2	1	sensitive fine grained
26.77	3.70	0.0218	0.589	24.888	2	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
26.84	4.77	0.0245	0.514	24.782	2	1	sensitive fine grained
26.90	4.35	0.0293	0.673	24.301	2	1	sensitive fine grained
26.97	3.44	0.0320	0.930	24.248	2	1	sensitive fine grained
27.03	3.06	0.0331	1.083	24.610	2	1	sensitive fine grained
27.10	3.57	0.0304	0.853	25.178	2	1	sensitive fine grained
27.17	4.53	0.0219	0.483	25.181	2	1	sensitive fine grained
27.23	4.02	0.0221	0.549	24.679	2	1	sensitive fine grained
27.30	3.32	0.0255	0.769	24.544	2	1	sensitive fine grained
27.36	3.25	0.0375	1.153	25.137	2	1	sensitive fine grained
27.43	3.34	0.0384	1.152	25.930	2	1	sensitive fine grained
27.49	4.28	0.0356	0.832	26.810	2	1	sensitive fine grained
27.56	4.45	0.0487	1.093	27.593	2	1	sensitive fine grained
27.62	4.07	0.0573	1.410	27.506	2	1	sensitive fine grained
27.69	4.13	0.0919	2.223	27.459	2	1	sensitive fine grained
27.76	4.21	0.1016	2.411	28.155	3	4	silty clay to clay
27.82	4.43	0.0990	2.233	28.995	4	4	silty clay to clay
27.89	5.18	0.1212	2.341	29.360	4	5	clayey silt to silty clay
27.95	9.33	0.1483	1.590	29.054	5	5	clayey silt to silty clay
28.02	16.26	0.1744	1.072	23.708	6	5	clayey silt to silty clay
28.08	19.17	0.2470	1.289	20.194	6	6	sandy silt to clayey silt
28.15	19.08	0.2212	1.159	18.921	7	6	sandy silt to clayey silt
28.22	18.50	0.2245	1.214	18.397	7	6	sandy silt to clayey silt
28.28	18.57	0.2240	1.206	17.978	7	6	sandy silt to clayey silt
28.35	19.02	0.2182	1.147	17.607	7	6	sandy silt to clayey silt
28.41	19.18	0.1910	0.996	13.625	7	6	sandy silt to clayey silt
28.48	18.54	0.1916	1.033	13.644	7	6	sandy silt to clayey silt
28.54	18.58	0.1664	0.895	13.687	7	6	sandy silt to clayey silt
28.61	19.77	0.1575	0.796	13.725	7	6	sandy silt to clayey silt
28.67	21.72	0.1469	0.676	13.762	7	6	sandy silt to clayey silt
28.74	18.19	0.1363	0.749	13.915	6	6	sandy silt to clayey silt
28.81	14.83	0.1240	0.837	13.968	6	6	sandy silt to clayey silt
28.87	10.83	0.0869	0.803	14.181	5	6	sandy silt to clayey silt
28.94	9.48	0.0636	0.671	14.561	4	6	sandy silt to clayey silt
29.00	8.29	0.0588	0.709	14.602	4	5	clayey silt to silty clay
29.07	7.17	0.0492	0.686	14.936	4	1	sensitive fine grained
29.13	6.23	0.0473	0.760	15.775	3	1	sensitive fine grained
29.20	5.59	0.0442	0.791	16.855	3	1	sensitive fine grained
29.27	5.13	0.0393	0.765	17.635	3	1	sensitive fine grained
29.33	4.72	0.0400	0.847	18.278	2	1	sensitive fine grained
29.40	4.39	0.0440	1.001	19.043	2	1	sensitive fine grained
29.46	4.11	0.0433	1.053	20.016	2	1	sensitive fine grained
29.53	3.92	0.0442	1.126	21.087	2	1	sensitive fine grained
29.59	3.88	0.0464	1.196	22.394	2	1	sensitive fine grained
29.66	4.02	0.0428	1.066	23.608	2	1	sensitive fine grained
29.72	4.22	0.0374	0.886	24.139	2	1	sensitive fine grained
29.79	4.60	0.0411	0.894	24.498	2	1	sensitive fine grained
29.86	4.84	0.0407	0.841	24.457	2	1	sensitive fine grained
29.92	4.73	0.0414	0.876	24.295	2	1	sensitive fine grained
29.99	4.55	0.0503	1.103	24.420	2	1	sensitive fine grained
30.05	4.54	0.0493	1.086	24.694	2	1	sensitive fine grained
30.12	4.54	0.0473	1.043	24.825	2	1	sensitive fine grained
30.18	4.54	0.0448	0.986	24.891	2	1	sensitive fine grained
30.25	4.27	0.0476	1.115	24.819	2	1	sensitive fine grained
30.31	3.85	0.0446	1.157	24.850	2	1	sensitive fine grained
30.38	3.67	0.0403	1.100	25.084	2	1	sensitive fine grained
30.45	3.50	0.0454	1.296	25.468	2	1	sensitive fine grained
30.51	3.69	0.0513	1.389	26.074	2	1	sensitive fine grained
30.58	3.98	0.0547	1.374	26.685	2	1	sensitive fine grained
30.64	4.28	0.0453	1.058	27.341	2	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
30.71	4.50	0.0466	1.037	28.102	2	1	sensitive fine grained
30.77	4.65	0.0513	1.105	28.985	2	1	sensitive fine grained
30.84	5.08	0.0547	1.078	30.486	2	1	sensitive fine grained
30.91	5.27	0.0623	1.183	31.273	2	1	sensitive fine grained
30.97	5.01	0.0783	1.562	30.649	2	1	sensitive fine grained
31.04	4.56	0.0803	1.761	27.113	2	1	sensitive fine grained
31.10	4.32	0.0756	1.750	25.456	2	1	sensitive fine grained
31.17	4.28	0.0763	1.785	25.103	2	1	sensitive fine grained
31.23	4.35	0.0770	1.769	25.240	2	1	sensitive fine grained
31.30	4.58	0.0758	1.657	25.072	2	1	sensitive fine grained
31.36	4.95	0.0779	1.575	25.034	3	4	silty clay to clay
31.43	4.79	0.0792	1.653	23.015	3	4	silty clay to clay
31.50	5.14	0.1114	2.167	23.243	3	4	silty clay to clay
31.56	5.77	0.1217	2.109	23.393	4	4	silty clay to clay
31.63	5.54	0.1660	2.998	22.151	4	4	silty clay to clay
31.69	6.39	0.1717	2.689	17.648	6	3	clay
31.76	6.51	0.1891	2.904	15.591	6	3	clay
31.82	7.19	0.1996	2.775	14.496	6	3	clay
31.89	6.79	0.2064	3.041	13.344	6	3	clay
31.96	6.94	0.1826	2.631	12.330	6	3	clay
32.02	6.57	0.1948	2.965	11.709	6	3	clay
32.09	5.98	0.2078	3.477	11.316	6	3	clay
32.15	5.68	0.2116	3.726	10.969	6	3	clay
32.22	5.35	0.2031	3.795	10.813	6	3	clay
32.28	5.23	0.1905	3.641	10.607	6	3	clay
32.35	5.52	0.2189	3.962	10.632	6	3	clay
32.41	6.66	0.2437	3.657	10.720	6	3	clay
32.48	6.77	0.2672	3.944	10.720	6	3	clay
32.55	7.44	0.2783	3.740	10.401	6	3	clay
32.61	6.78	0.2649	3.909	9.899	6	3	clay
32.68	6.37	0.2294	3.600	9.721	6	3	clay
32.74	6.00	0.2000	3.331	9.587	6	3	clay
32.81	5.91	0.1884	3.185	9.484	6	3	clay
32.87	6.11	0.1878	3.071	9.624	6	3	clay
32.94	6.20	0.2105	3.394	9.840	6	3	clay
33.01	6.94	0.2139	3.081	10.102	7	3	clay
33.07	7.57	0.2217	2.928	10.639	5	4	silty clay to clay
33.14	8.49	0.2260	2.661	11.450	5	4	silty clay to clay
33.20	9.07	0.2281	2.515	12.021	5	4	silty clay to clay
33.27	9.06	0.2524	2.786	12.570	6	4	silty clay to clay
33.33	9.03	0.2642	2.927	13.369	6	4	silty clay to clay
33.40	9.48	0.2460	2.593	14.405	6	4	silty clay to clay
33.46	10.11	0.2290	2.265	15.800	6	4	silty clay to clay
33.53	10.39	0.2173	2.091	17.292	6	4	silty clay to clay
33.60	10.08	0.2048	2.032	18.334	6	4	silty clay to clay
33.66	9.87	0.2052	2.080	20.459	7	4	silty clay to clay
33.73	10.12	0.2716	2.683	25.593	7	4	silty clay to clay
33.79	10.60	0.3833	3.616	30.006	7	4	silty clay to clay
33.86	10.96	0.4248	3.874	34.784	7	4	silty clay to clay
33.92	11.53	0.4020	3.485	41.858	8	4	silty clay to clay
33.99	11.98	0.3508	2.928	46.973	8	4	silty clay to clay
34.06	15.81	0.3075	1.945	11.890	6	5	clayey silt to silty clay
34.12	14.46	0.2792	1.931	12.255	6	5	clayey silt to silty clay
34.19	12.78	0.2623	2.051	16.103	6	5	clayey silt to silty clay
34.25	11.77	0.2271	1.929	22.438	6	5	clayey silt to silty clay
34.32	11.82	0.2031	1.718	32.203	6	5	clayey silt to silty clay
34.38	12.25	0.1930	1.576	40.610	6	5	clayey silt to silty clay
34.45	12.78	0.1804	1.411	46.046	6	5	clayey silt to silty clay
34.51	13.15	0.1836	1.396	49.158	6	5	clayey silt to silty clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
34.58	13.26	0.3588	2.705	53.985	6	5	clayey silt to silty clay
34.65	13.88	0.3719	2.680	61.675	7	5	clayey silt to silty clay
34.71	14.24	0.3873	2.720	61.147	7	5	clayey silt to silty clay
34.78	14.20	0.4369	3.077	57.505	7	5	clayey silt to silty clay
34.84	14.61	0.3746	2.564	55.443	8	5	clayey silt to silty clay
34.91	19.94	0.3127	1.568	17.982	8	5	clayey silt to silty clay
34.97	18.02	0.3424	1.900	19.910	8	5	clayey silt to silty clay
35.04	17.63	0.3868	2.193	22.915	8	5	clayey silt to silty clay
35.10	18.48	0.4177	2.261	25.599	9	5	clayey silt to silty clay
35.17	17.54	0.4726	2.694	29.784	9	5	clayey silt to silty clay
35.24	17.16	0.4870	2.838	35.735	9	5	clayey silt to silty clay
35.30	18.13	0.5003	2.760	36.328	10	5	clayey silt to silty clay
35.37	19.06	0.5373	2.820	37.090	10	6	sandy silt to clayey silt
35.43	24.61	0.5508	2.238	38.965	12	6	sandy silt to clayey silt
35.50	38.24	0.5529	1.446	30.583	14	6	sandy silt to clayey silt
35.56	46.91	0.6079	1.296	17.229	14	7	silty sand to sandy silt
35.63	56.61	0.6449	1.139	14.046	16	7	silty sand to sandy silt
35.70	61.47	0.7957	1.295	11.144	18	7	silty sand to sandy silt
35.76	62.03	0.9024	1.455	9.696	19	7	silty sand to sandy silt
35.83	62.46	0.8919	1.428	9.393	19	7	silty sand to sandy silt
35.89	61.70	0.8645	1.401	9.309	20	7	silty sand to sandy silt
35.96	61.02	0.9299	1.524	9.259	20	7	silty sand to sandy silt
36.02	60.11	0.9789	1.628	9.259	20	7	silty sand to sandy silt
36.09	60.37	1.0140	1.680	9.234	20	7	silty sand to sandy silt
36.15	62.43	1.1374	1.822	9.191	22	7	silty sand to sandy silt
36.22	66.74	1.2799	1.918	9.197	24	7	silty sand to sandy silt
36.29	77.25	1.3979	1.809	9.259	26	7	silty sand to sandy silt
36.35	91.17	1.5304	1.679	9.256	28	7	silty sand to sandy silt
36.42	98.38	1.4488	1.473	9.262	29	7	silty sand to sandy silt
36.48	103.38	1.3072	1.264	9.209	23	8	sand to silty sand
36.55	104.61	1.1859	1.134	9.184	24	8	sand to silty sand
36.61	102.49	1.2368	1.207	9.228	23	8	sand to silty sand
36.68	99.36	1.4674	1.477	9.275	30	7	silty sand to sandy silt
36.75	93.12	1.6763	1.800	9.587	28	7	silty sand to sandy silt
36.81	83.91	1.8186	2.167	9.549	26	7	silty sand to sandy silt
36.88	74.14	1.8670	2.518	9.537	24	7	silty sand to sandy silt
36.94	64.84	1.7313	2.670	9.531	26	6	sandy silt to clayey silt
37.01	57.86	1.5209	2.629	9.537	23	6	sandy silt to clayey silt
37.07	52.55	1.4310	2.723	9.540	21	6	sandy silt to clayey silt
37.14	45.87	1.3205	2.879	9.553	19	6	sandy silt to clayey silt
37.20	43.29	1.4258	3.294	9.612	18	6	sandy silt to clayey silt
37.27	45.15	1.5772	3.493	9.696	21	5	clayey silt to silty clay
37.34	44.61	1.5426	3.458	9.768	20	5	clayey silt to silty clay
37.40	42.61	1.4205	3.334	9.818	20	5	clayey silt to silty clay
37.47	39.63	1.2626	3.186	9.861	19	5	clayey silt to silty clay
37.53	36.60	1.1549	3.155	9.921	17	5	clayey silt to silty clay
37.60	33.74	1.1299	3.349	9.949	16	5	clayey silt to silty clay
37.66	31.14	1.0739	3.449	10.124	15	5	clayey silt to silty clay
37.73	27.10	1.0070	3.716	10.760	19	4	silty clay to clay
37.80	25.03	1.3176	5.265	13.650	29	3	clay
37.86	26.67	1.4013	5.254	21.792	29	3	clay
37.93	30.15	1.7575	5.828	30.336	32	3	clay
37.99	35.20	1.9599	5.567	35.763	35	3	clay
38.06	38.76	1.9977	5.154	35.729	25	4	silty clay to clay
38.12	47.97	1.9441	4.053	18.453	28	4	silty clay to clay
38.19	49.46	1.8783	3.797	11.612	23	5	clayey silt to silty clay
38.25	50.31	1.7709	3.520	10.479	25	5	clayey silt to silty clay
38.32	54.90	1.7645	3.214	10.074	26	5	clayey silt to silty clay
38.39	59.00	1.8164	3.079	9.949	26	5	clayey silt to silty clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
38.45	59.12	1.8946	3.204	9.840	22	6	sandy silt to clayey silt
38.52	57.84	1.8421	3.185	9.730	22	6	sandy silt to clayey silt
38.58	56.70	1.7938	3.164	9.684	23	6	sandy silt to clayey silt
38.65	57.38	1.6899	2.945	9.649	23	6	sandy silt to clayey silt
38.71	58.63	1.3994	2.387	9.640	23	6	sandy silt to clayey silt
38.78	64.80	1.0203	1.575	9.565	24	6	sandy silt to clayey silt
38.85	67.36	0.9381	1.393	9.474	20	7	silty sand to sandy silt
38.91	66.26	1.1508	1.737	9.443	19	7	silty sand to sandy silt
38.98	60.81	1.3150	2.162	9.384	19	7	silty sand to sandy silt
39.04	54.79	1.3639	2.489	9.368	21	6	sandy silt to clayey silt
39.11	48.77	1.1635	2.386	9.409	20	6	sandy silt to clayey silt
39.17	45.24	0.9471	2.093	9.434	18	6	sandy silt to clayey silt
39.24	41.82	0.8861	2.119	9.450	17	6	sandy silt to clayey silt
39.30	40.48	0.8205	2.027	9.490	15	6	sandy silt to clayey silt
39.37	37.86	0.7964	2.104	9.565	14	6	sandy silt to clayey silt
39.44	34.09	0.7067	2.073	9.671	13	6	sandy silt to clayey silt
39.50	30.02	0.7759	2.584	9.915	12	6	sandy silt to clayey silt
39.57	27.20	0.7666	2.819	10.614	14	5	clayey silt to silty clay
39.63	25.17	0.8711	3.461	12.957	13	5	clayey silt to silty clay
39.70	24.14	0.9402	3.895	17.139	12	5	clayey silt to silty clay
39.76	22.67	0.9444	4.167	20.506	12	5	clayey silt to silty clay
39.83	22.40	0.9723	4.340	25.393	13	5	clayey silt to silty clay
39.90	24.59	0.9268	3.769	33.900	14	5	clayey silt to silty clay
39.96	31.82	0.8775	2.757	38.700	12	6	sandy silt to clayey silt
40.03	36.54	0.8337	2.281	25.400	13	6	sandy silt to clayey silt
40.09	39.23	0.6952	1.772	14.296	14	6	sandy silt to clayey silt
40.16	40.97	0.5564	1.358	10.701	15	6	sandy silt to clayey silt
40.22	42.30	0.5708	1.349	9.646	16	6	sandy silt to clayey silt
40.29	44.58	0.7475	1.677	9.287	16	6	sandy silt to clayey silt
40.35	45.20	0.9145	2.023	9.144	16	6	sandy silt to clayey silt
40.42	42.76	0.9726	2.274	9.128	16	6	sandy silt to clayey silt
40.49	38.97	0.9306	2.388	9.144	16	6	sandy silt to clayey silt
40.55	37.51	0.9467	2.524	9.175	15	6	sandy silt to clayey silt
40.62	37.56	1.1283	3.004	9.228	15	6	sandy silt to clayey silt
40.68	37.85	1.1843	3.129	9.365	19	5	clayey silt to silty clay
40.75	37.34	1.2679	3.395	9.403	16	6	sandy silt to clayey silt
40.81	37.94	1.3497	3.558	9.421	18	6	sandy silt to clayey silt
40.88	43.87	1.2845	2.928	9.933	20	6	sandy silt to clayey silt
40.94	60.20	1.0678	1.774	10.211	19	7	silty sand to sandy silt
41.01	73.16	0.8181	1.118	9.328	21	7	silty sand to sandy silt
41.08	79.91	0.7789	0.975	8.960	23	7	silty sand to sandy silt
41.14	83.03	0.6791	0.818	8.785	18	8	sand to silty sand
41.21	83.43	0.6780	0.813	8.738	19	8	sand to silty sand
41.27	81.72	0.7432	0.909	8.704	19	8	sand to silty sand
41.34	79.53	0.8313	1.045	8.719	19	8	sand to silty sand
41.40	76.88	0.8631	1.123	11.481	18	8	sand to silty sand
41.47	74.90	0.8746	1.168	11.238	24	7	silty sand to sandy silt
41.54	72.01	0.8970	1.246	11.119	23	7	silty sand to sandy silt
41.60	69.05	0.9287	1.345	11.147	23	7	silty sand to sandy silt
41.67	66.92	0.8560	1.279	11.203	17	8	sand to silty sand
41.73	67.81	0.6054	0.893	11.079	17	8	sand to silty sand
41.80	70.92	0.3806	0.537	10.704	17	8	sand to silty sand
41.86	73.08	0.3190	0.437	10.220	17	8	sand to silty sand
41.93	75.09	0.3380	0.450	9.893	18	8	sand to silty sand
41.99	77.32	0.4263	0.551	9.755	18	8	sand to silty sand
42.06	77.18	0.5338	0.692	9.693	18	8	sand to silty sand
42.13	73.84	0.6461	0.875	9.684	17	8	sand to silty sand
42.19	70.47	0.7213	1.023	9.696	17	8	sand to silty sand
42.26	67.14	0.7597	1.132	9.758	22	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
42.32	64.72	0.7732	1.195	9.886	21	7	silty sand to sandy silt
42.39	63.26	0.7631	1.206	10.077	21	7	silty sand to sandy silt
42.45	62.69	0.7543	1.203	10.333	20	7	silty sand to sandy silt
42.52	63.01	0.7347	1.166	10.626	20	7	silty sand to sandy silt
42.59	63.66	0.6946	1.091	10.923	20	7	silty sand to sandy silt
42.65	64.41	0.6519	1.012	11.150	20	7	silty sand to sandy silt
42.72	64.89	0.6730	1.037	11.347	20	7	silty sand to sandy silt
42.78	64.76	0.7057	1.090	11.490	20	7	silty sand to sandy silt
42.85	62.90	0.7255	1.154	11.428	19	7	silty sand to sandy silt
42.91	59.12	0.7320	1.238	11.425	18	7	silty sand to sandy silt
42.98	53.80	0.7344	1.365	11.603	17	7	silty sand to sandy silt
43.04	47.67	0.6767	1.420	11.793	16	7	silty sand to sandy silt
43.11	43.64	0.6261	1.435	11.915	15	7	silty sand to sandy silt
43.18	41.77	0.5581	1.336	12.065	14	7	silty sand to sandy silt
43.24	41.42	0.5390	1.301	12.308	14	7	silty sand to sandy silt
43.31	42.09	0.5278	1.254	12.633	14	7	silty sand to sandy silt
43.37	43.97	0.4872	1.108	12.736	15	7	silty sand to sandy silt
43.44	47.31	0.3795	0.802	12.623	16	7	silty sand to sandy silt
43.50	53.06	0.2840	0.535	12.161	13	8	sand to silty sand
43.57	57.77	0.2430	0.421	11.459	13	8	sand to silty sand
43.64	60.44	0.2354	0.390	10.885	14	8	sand to silty sand
43.70	61.98	0.2883	0.465	10.545	14	8	sand to silty sand
43.77	61.68	0.3605	0.584	10.423	14	8	sand to silty sand
43.83	60.11	0.4286	0.713	10.370	14	8	sand to silty sand
43.90	58.09	0.4711	0.811	10.339	14	8	sand to silty sand
43.96	55.61	0.4985	0.896	10.370	18	7	silty sand to sandy silt
44.03	53.85	0.5077	0.943	10.458	17	7	silty sand to sandy silt
44.09	52.64	0.5057	0.961	10.570	17	7	silty sand to sandy silt
44.16	51.16	0.5378	1.051	10.748	16	7	silty sand to sandy silt
44.23	49.78	0.5815	1.168	10.963	16	7	silty sand to sandy silt
44.29	48.45	0.5970	1.232	11.150	16	7	silty sand to sandy silt
44.36	47.54	0.5938	1.249	11.303	16	7	silty sand to sandy silt
44.42	47.41	0.6030	1.272	11.481	16	7	silty sand to sandy silt
44.49	48.13	0.6048	1.257	11.656	16	7	silty sand to sandy silt
44.55	49.69	0.5924	1.192	11.837	16	7	silty sand to sandy silt
44.62	51.10	0.5851	1.145	12.673	17	7	silty sand to sandy silt
44.69	53.47	0.5929	1.109	12.658	17	7	silty sand to sandy silt
44.75	55.31	0.6144	1.111	12.626	18	7	silty sand to sandy silt
44.82	57.07	0.6290	1.102	12.555	18	7	silty sand to sandy silt
44.88	58.28	0.6327	1.086	12.561	18	7	silty sand to sandy silt
44.95	59.15	0.6431	1.087	12.633	19	7	silty sand to sandy silt
45.01	59.95	0.6482	1.081	12.736	19	7	silty sand to sandy silt
45.08	60.41	0.6617	1.095	12.798	19	7	silty sand to sandy silt
45.14	60.65	0.6769	1.116	12.873	19	7	silty sand to sandy silt
45.21	60.27	0.6922	1.149	12.917	19	7	silty sand to sandy silt
45.28	60.01	0.6881	1.147	12.970	19	7	silty sand to sandy silt
45.34	59.65	0.7037	1.180	13.063	19	7	silty sand to sandy silt
45.41	59.29	0.7072	1.193	13.151	19	7	silty sand to sandy silt
45.47	58.63	0.7221	1.232	13.226	19	7	silty sand to sandy silt
45.54	58.06	0.7130	1.228	13.310	19	7	silty sand to sandy silt
45.60	57.82	0.7177	1.241	13.419	19	7	silty sand to sandy silt
45.67	57.78	0.7136	1.235	13.488	18	7	silty sand to sandy silt
45.73	57.69	0.7117	1.234	13.541	18	7	silty sand to sandy silt
45.80	57.03	0.7177	1.258	13.606	18	7	silty sand to sandy silt
45.87	56.42	0.7048	1.249	13.663	18	7	silty sand to sandy silt
45.93	55.36	0.7064	1.276	13.747	18	7	silty sand to sandy silt
46.00	54.12	0.7034	1.300	13.806	17	7	silty sand to sandy silt
46.06	52.99	0.7015	1.324	13.859	17	7	silty sand to sandy silt
46.13	51.37	0.7005	1.364	13.950	16	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
46.19	50.15	0.6889	1.374	14.000	16	7	silty sand to sandy silt
46.26	48.84	0.6442	1.319	14.043	16	7	silty sand to sandy silt
46.33	47.30	0.5685	1.202	14.103	16	7	silty sand to sandy silt
46.39	46.93	0.5013	1.068	14.140	15	7	silty sand to sandy silt
46.46	48.12	0.4539	0.943	14.174	15	7	silty sand to sandy silt
46.52	48.43	0.4558	0.941	14.131	15	7	silty sand to sandy silt
46.59	46.61	0.4938	1.060	13.928	14	7	silty sand to sandy silt
46.65	43.86	0.5147	1.174	13.797	14	7	silty sand to sandy silt
46.72	40.41	0.4933	1.221	13.765	13	7	silty sand to sandy silt
46.78	37.38	0.4165	1.114	13.840	13	7	silty sand to sandy silt
46.85	36.44	0.3297	0.905	13.950	13	7	silty sand to sandy silt
46.92	38.07	0.2676	0.703	14.037	13	7	silty sand to sandy silt
46.98	40.24	0.2194	0.545	13.950	13	7	silty sand to sandy silt
47.05	42.40	0.2144	0.506	13.697	13	7	silty sand to sandy silt
47.11	43.84	0.2705	0.617	13.332	13	7	silty sand to sandy silt
47.18	44.08	0.3295	0.748	13.169	14	7	silty sand to sandy silt
47.24	43.75	0.3887	0.888	13.148	14	7	silty sand to sandy silt
47.31	42.83	0.4277	0.998	13.238	13	7	silty sand to sandy silt
47.38	40.90	0.4623	1.130	13.403	13	7	silty sand to sandy silt
47.44	38.76	0.4803	1.239	13.563	12	7	silty sand to sandy silt
47.51	36.73	0.4873	1.326	13.656	12	7	silty sand to sandy silt
47.57	34.00	0.5729	1.685	13.765	11	7	silty sand to sandy silt
47.64	31.46	0.3945	1.254	13.912	10	7	silty sand to sandy silt
47.70	29.20	0.3303	1.131	14.118	10	7	silty sand to sandy silt
47.77	28.23	0.2662	0.943	14.387	10	7	silty sand to sandy silt
47.83	28.03	0.2193	0.782	14.630	9	7	silty sand to sandy silt
47.90	28.56	0.1698	0.595	15.600	9	7	silty sand to sandy silt
47.97	30.22	0.1417	0.469	14.986	9	7	silty sand to sandy silt
48.03	30.53	0.1459	0.478	14.502	10	7	silty sand to sandy silt
48.10	30.80	0.1694	0.550	14.118	10	7	silty sand to sandy silt
48.16	30.90	0.1768	0.572	14.031	10	7	silty sand to sandy silt
48.23	31.96	0.1715	0.536	14.299	10	7	silty sand to sandy silt
48.29	33.55	0.1697	0.506	14.649	11	7	silty sand to sandy silt
48.36	35.08	0.1892	0.540	14.795	11	7	silty sand to sandy silt
48.43	35.92	0.2139	0.595	14.770	11	7	silty sand to sandy silt
48.49	35.74	0.2453	0.686	14.642	11	7	silty sand to sandy silt
48.56	34.39	0.2460	0.715	14.717	11	7	silty sand to sandy silt
48.62	32.53	0.2545	0.782	14.905	10	7	silty sand to sandy silt
48.69	30.56	0.2460	0.805	15.070	10	7	silty sand to sandy silt
48.75	28.16	0.2217	0.787	15.351	9	7	silty sand to sandy silt
48.82	26.27	0.1949	0.742	15.841	9	7	silty sand to sandy silt
48.88	24.69	0.2001	0.810	16.549	10	6	sandy silt to clayey silt
48.95	23.48	0.2482	1.057	17.364	9	6	sandy silt to clayey silt
49.02	22.41	0.2563	1.143	18.278	9	6	sandy silt to clayey silt
49.08	20.78	0.2260	1.088	19.826	9	6	sandy silt to clayey silt
49.15	20.75	0.2167	1.045	23.315	8	7	silty sand to sandy silt
49.21	22.62	0.1839	0.813	25.400	8	7	silty sand to sandy silt
49.28	27.73	0.1312	0.473	25.989	9	7	silty sand to sandy silt
49.34	32.43	0.1104	0.340	25.215	10	7	silty sand to sandy silt
49.41	35.37	0.1246	0.352	23.377	10	7	silty sand to sandy silt
49.48	36.71	0.1727	0.470	21.212	11	7	silty sand to sandy silt
49.54	36.60	0.2746	0.750	20.244	11	7	silty sand to sandy silt
49.61	34.60	0.4048	1.170	20.047	10	7	silty sand to sandy silt
49.67	31.58	0.4562	1.445	20.722	12	6	sandy silt to clayey silt
49.74	27.45	0.4736	1.725	21.761	10	6	sandy silt to clayey silt
49.80	23.88	0.4923	2.062	22.603	9	6	sandy silt to clayey silt
49.87	19.88	0.4315	2.171	23.864	8	6	sandy silt to clayey silt
49.93	16.41	0.3287	2.003	28.055	8	6	sandy silt to clayey silt
50.00	14.90	0.2680	1.799	36.609	7	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
50.07	15.72	0.2399	1.526	48.412	7	6	sandy silt to clayey silt
50.13	19.40	0.2917	1.504	50.303	7	6	sandy silt to clayey silt
50.20	22.12	0.3281	1.483	35.189	7	6	sandy silt to clayey silt
50.26	19.05	0.3076	1.615	22.341	7	6	sandy silt to clayey silt
50.33	16.14	0.3268	2.025	22.460	7	6	sandy silt to clayey silt
50.39	15.43	0.3233	2.095	23.090	7	6	sandy silt to clayey silt
50.46	15.56	0.2306	1.482	24.894	7	6	sandy silt to clayey silt
50.52	16.81	0.1674	0.995	27.581	8	6	sandy silt to clayey silt
50.59	21.92	0.1440	0.657	30.639	9	6	sandy silt to clayey silt
50.66	27.91	0.1426	0.511	26.791	8	7	silty sand to sandy silt
50.72	31.15	0.1689	0.542	18.805	9	7	silty sand to sandy silt
50.79	32.10	0.1749	0.545	16.740	10	7	silty sand to sandy silt
50.85	32.11	0.2449	0.763	16.084	10	7	silty sand to sandy silt
50.92	32.22	0.1983	0.615	15.938	10	7	silty sand to sandy silt
50.98	32.37	0.2369	0.732	16.128	10	7	silty sand to sandy silt
51.05	32.89	0.2928	0.890	16.315	10	7	silty sand to sandy silt
51.12	32.54	0.3179	0.977	16.384	10	7	silty sand to sandy silt
51.18	30.79	0.2906	0.944	17.507	10	7	silty sand to sandy silt
51.25	30.19	0.2902	0.961	17.526	10	7	silty sand to sandy silt
51.31	30.52	0.3188	1.045	17.707	10	7	silty sand to sandy silt
51.38	32.19	0.3830	1.190	17.875	10	7	silty sand to sandy silt
51.44	32.56	0.4038	1.240	18.066	11	6	sandy silt to clayey silt
51.51	30.35	0.4120	1.358	19.074	11	6	sandy silt to clayey silt
51.57	26.07	0.4460	1.711	20.722	10	6	sandy silt to clayey silt
51.64	22.27	0.4275	1.920	22.503	9	6	sandy silt to clayey silt
51.71	19.21	0.3750	1.952	25.836	11	5	clayey silt to silty clay
51.77	17.61	0.4424	2.513	33.838	10	5	clayey silt to silty clay
51.84	18.77	0.5697	3.034	47.419	10	5	clayey silt to silty clay
51.90	21.65	0.7985	3.688	61.893	10	5	clayey silt to silty clay
51.97	22.69	0.9072	3.998	51.698	11	5	clayey silt to silty clay
52.03	22.52	0.8771	3.894	43.546	12	5	clayey silt to silty clay
52.10	27.79	0.6902	2.484	15.198	11	6	sandy silt to clayey silt
52.17	30.51	0.4809	1.576	11.100	13	6	sandy silt to clayey silt
52.23	36.98	0.3093	0.836	10.127	12	7	silty sand to sandy silt
52.30	43.85	0.2272	0.518	10.227	13	7	silty sand to sandy silt
52.36	46.10	0.1940	0.421	10.064	13	7	silty sand to sandy silt
52.43	46.10	0.2235	0.485	10.071	14	7	silty sand to sandy silt
52.49	45.84	0.3438	0.750	10.233	15	7	silty sand to sandy silt
52.56	45.48	0.3908	0.859	10.579	15	7	silty sand to sandy silt
52.62	47.33	0.3892	0.822	11.213	15	7	silty sand to sandy silt
52.69	48.53	0.4325	0.891	12.208	15	7	silty sand to sandy silt
52.76	47.46	0.4669	0.984	13.104	15	7	silty sand to sandy silt
52.82	45.51	0.4414	0.970	13.684	14	7	silty sand to sandy silt
52.89	42.96	0.4365	1.016	13.925	14	7	silty sand to sandy silt
52.95	41.85	0.5166	1.234	14.443	14	7	silty sand to sandy silt
53.02	41.75	0.4583	1.098	15.048	13	7	silty sand to sandy silt
53.08	40.48	0.3519	0.869	15.260	14	7	silty sand to sandy silt
53.15	40.15	0.2651	0.660	15.466	14	7	silty sand to sandy silt
53.22	43.32	0.2577	0.595	15.641	14	7	silty sand to sandy silt
53.28	47.49	0.3870	0.815	13.840	15	7	silty sand to sandy silt
53.35	50.11	0.4257	0.850	12.108	16	7	silty sand to sandy silt
53.41	54.30	0.4131	0.761	11.640	17	7	silty sand to sandy silt
53.48	59.72	0.4583	0.767	11.444	14	8	sand to silty sand
53.54	59.90	0.5028	0.839	15.048	14	8	sand to silty sand
53.61	60.34	0.4642	0.769	11.375	15	8	sand to silty sand
53.67	63.74	0.4070	0.639	10.429	16	8	sand to silty sand
53.74	68.85	0.2805	0.407	9.618	17	8	sand to silty sand
53.81	73.76	-0.0058	-0.008	8.769	17	8	sand to silty sand
53.87	77.80	-0.0088	-0.011	8.635	18	8	sand to silty sand

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
53.94	79.78	-0.0027	-0.003	8.526	18	9	sand
54.00	79.82	0.0111	0.014	8.307	23	9	sand
54.07	90.57	0.0111	0.012	8.457	28	9	sand
54.13	204.44	0.5213	0.255	11.135	32	9	sand
54.20	227.36	1.1420	0.502	11.375	31	9	sand
54.27	264.85	1.4414	0.544	15.145	32	9	sand
54.33	208.18	1.4604	0.702	18.019	33	9	sand
54.40	70.75	1.3479	1.905	14.115	31	9	sand
54.46	106.61	1.3958	1.309	18.222	29	9	sand
54.53	123.97	1.1813	0.953	18.103	32	8	sand to silty sand
54.59	131.94	1.1648	0.883	17.851	29	8	sand to silty sand
54.66	137.72	1.0761	0.781	18.178	32	8	sand to silty sand
54.72	142.59	1.0597	0.743	18.540	33	8	sand to silty sand
54.79	146.47	1.1135	0.760	19.139	27	9	sand
54.86	145.80	1.3984	0.959	20.241	28	9	sand
54.92	145.71	1.3905	0.954	22.407	29	9	sand
54.99	147.76	1.4332	0.970	23.967	29	9	sand
55.05	153.35	1.4889	0.971	25.162	0	0	<out of range>
55.12	160.57	1.4785	0.921	25.924	0	0	<out of range>
55.18	165.45	1.4245	0.861	26.523	34	9	sand
55.25	167.73	-32768	-32768	26.379	0	0	<out of range>
55.31	171.79	-32768	-32768	26.623	0	0	<out of range>
55.38	186.11	-32768	-32768	24.388	0	0	<out of range>
55.45	196.57	-32768	-32768	21.040	0	0	<out of range>

*Soil behavior type and SPT based on data from UBC-1983

AECOM

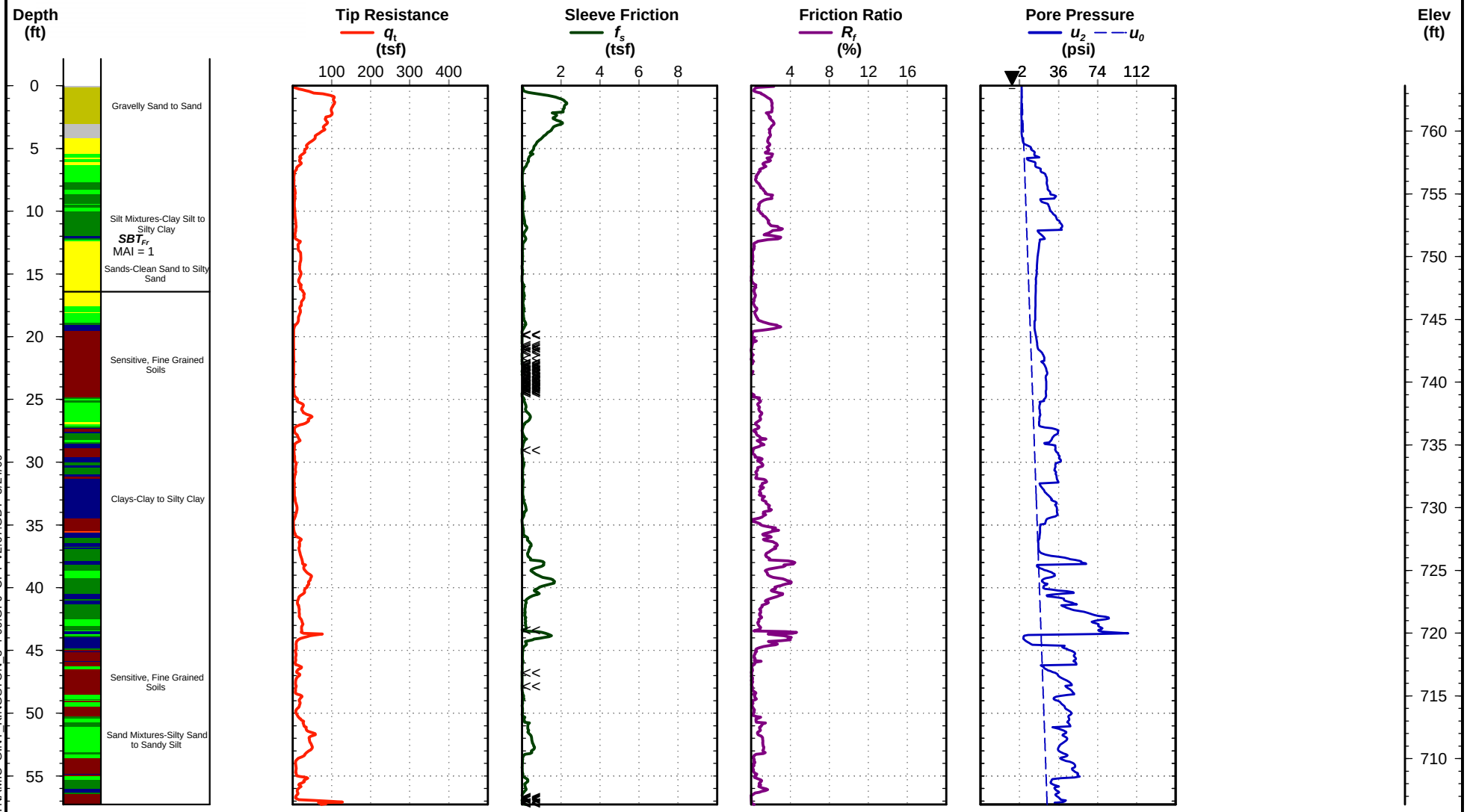
TVA Kingston Coal Ash Pond RCA (Kingston,Tennessee) *Cone Penetration Test* **09-708-C1**

Project No: 60095742

Date: Feb. 14, 2009
Estimated Water Depth: 0 ft
Rig/Operator: D-120/CAP

Northing: 555232.14
Easting: 2442220.28
Elevation: 763.62 NGVD

Total Depth: 57.3 ft
Termination Criteria: Refusal
Cone Size: 5T Tension Cone



CPT REPORT - DYNAMIC GINT_KINGSTON_3-4-09.GPJ CPT V2.07.GDT 3/24/09

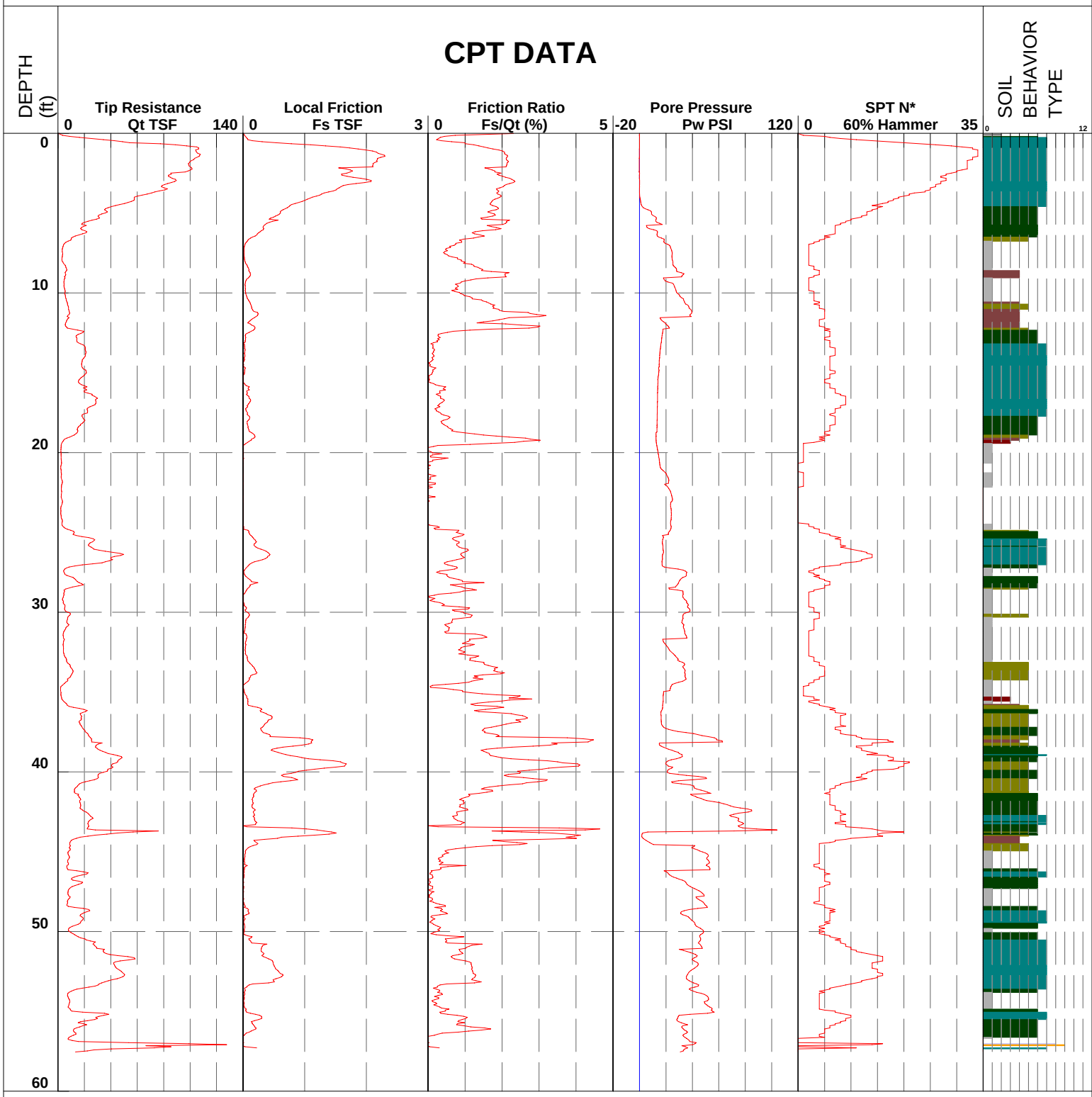
09-708-C1

Electronic Filename: 09-708-C1.cpt

AECOM

09-708-C1	60095742	2/14/2009 8:43:04 AM
DTA1081	TVA-Kingston	D-120/CAP

CPT DATA



1 - sensitive fine grained	4 - silty clay to clay	7 - silty sand to sandy silt	10 - gravelly sand to sand
2 - organic material	5 - clayey silt to silty clay	8 - sand to silty sand	11 - very stiff fine grained (*)
3 - clay	6 - sandy silt to clayey silt	9 - sand	12 - sand to clayey sand (*)

Data File:09-708-C1 2/14/2009 8:43:04 AM
Operator:D-120/CAP Location:TVA-Kingston
Cone ID:DTA1081 Job Number:60095742
Customer:TVA Units:

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
0.07	0.51	0.0117	2.310	-0.025	0	2	organic material
0.13	3.54	0.0259	0.732	-0.028	1	1	sensitive fine grained
0.20	8.80	0.0386	0.439	-0.019	5	6	sandy silt to clayey silt
0.26	16.23	0.0534	0.329	-0.025	6	7	silty sand to sandy silt
0.33	25.31	0.0710	0.280	-0.022	8	7	silty sand to sandy silt
0.39	34.39	0.0792	0.230	-0.016	11	7	silty sand to sandy silt
0.46	42.64	0.1498	0.351	-0.012	14	7	silty sand to sandy silt
0.52	48.90	0.3110	0.636	-0.016	17	7	silty sand to sandy silt
0.59	54.27	0.5353	0.986	0.003	20	7	silty sand to sandy silt
0.66	77.48	0.7833	1.011	-0.006	23	7	silty sand to sandy silt
0.72	88.88	1.0973	1.235	0.022	26	7	silty sand to sandy silt
0.79	97.43	1.3396	1.375	0.006	29	7	silty sand to sandy silt
0.85	105.01	1.5769	1.502	-0.009	31	7	silty sand to sandy silt
0.92	106.55	1.7290	1.623	-0.012	33	7	silty sand to sandy silt
0.98	106.38	1.8660	1.754	-0.075	33	7	silty sand to sandy silt
1.05	104.19	1.9904	1.910	-0.044	34	7	silty sand to sandy silt
1.12	104.46	2.1007	2.011	-0.097	34	7	silty sand to sandy silt
1.18	104.80	2.1650	2.066	-0.137	34	7	silty sand to sandy silt
1.25	105.74	2.1883	2.069	-0.140	34	7	silty sand to sandy silt
1.31	107.77	2.2427	2.081	-0.122	34	7	silty sand to sandy silt
1.38	107.25	2.2955	2.140	-0.119	34	7	silty sand to sandy silt
1.44	106.81	2.2996	2.153	-0.106	34	7	silty sand to sandy silt
1.51	105.07	2.2326	2.125	-0.162	33	7	silty sand to sandy silt
1.57	103.36	2.1822	2.111	-0.187	33	7	silty sand to sandy silt
1.64	102.83	2.1772	2.117	-0.190	33	7	silty sand to sandy silt
1.71	101.19	2.1675	2.142	-0.181	32	7	silty sand to sandy silt
1.77	99.94	2.1741	2.175	-0.178	32	7	silty sand to sandy silt
1.84	99.51	2.1347	2.145	-0.187	32	7	silty sand to sandy silt
1.90	98.67	2.1050	2.133	-0.181	32	7	silty sand to sandy silt
1.97	99.01	2.1098	2.131	-0.187	32	7	silty sand to sandy silt
2.03	99.13	2.1010	2.119	-0.193	32	7	silty sand to sandy silt
2.10	100.14	2.1071	2.104	-0.203	32	7	silty sand to sandy silt
2.17	101.10	1.5512	1.534	-0.203	32	7	silty sand to sandy silt
2.23	101.51	1.6702	1.645	-0.215	32	7	silty sand to sandy silt
2.30	100.42	1.7396	1.732	-0.215	31	7	silty sand to sandy silt
2.36	98.44	1.7758	1.804	-0.237	30	7	silty sand to sandy silt
2.43	96.24	1.7397	1.808	-0.243	30	7	silty sand to sandy silt
2.49	85.38	1.6863	1.975	0.056	29	7	silty sand to sandy silt
2.56	85.83	1.5973	1.861	-0.006	28	7	silty sand to sandy silt
2.62	83.70	1.6034	1.916	-0.041	28	7	silty sand to sandy silt
2.69	83.58	1.6880	2.020	-0.044	27	7	silty sand to sandy silt
2.76	85.07	1.7821	2.095	-0.050	27	7	silty sand to sandy silt
2.82	86.39	1.9100	2.211	-0.037	28	7	silty sand to sandy silt
2.89	88.80	2.0059	2.259	0.019	28	7	silty sand to sandy silt
2.95	89.62	2.0775	2.318	0.072	28	7	silty sand to sandy silt
3.02	88.33	2.0750	2.349	0.091	27	7	silty sand to sandy silt
3.08	85.81	1.9788	2.306	0.078	27	7	silty sand to sandy silt
3.15	83.09	1.8335	2.207	0.075	27	7	silty sand to sandy silt
3.22	80.67	1.7010	2.109	0.059	26	7	silty sand to sandy silt
3.28	78.77	1.6236	2.061	0.041	26	7	silty sand to sandy silt
3.35	78.31	1.5883	2.028	0.047	26	7	silty sand to sandy silt
3.41	80.34	1.5582	1.939	0.028	25	7	silty sand to sandy silt
3.48	82.81	1.5259	1.843	0.031	25	7	silty sand to sandy silt
3.54	80.88	1.5096	1.867	0.025	25	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
3.61	76.70	1.4676	1.914	0.019	24	7	silty sand to sandy silt
3.67	73.27	1.3901	1.897	0.025	24	7	silty sand to sandy silt
3.74	70.89	1.3161	1.857	0.034	22	7	silty sand to sandy silt
3.81	67.49	1.2737	1.887	0.059	21	7	silty sand to sandy silt
3.87	63.68	1.2470	1.958	0.087	21	7	silty sand to sandy silt
3.94	60.14	1.1895	1.978	0.128	20	7	silty sand to sandy silt
4.00	57.85	1.1262	1.947	0.231	19	7	silty sand to sandy silt
4.07	57.60	1.0870	1.887	0.396	19	7	silty sand to sandy silt
4.13	57.91	1.0440	1.803	0.602	18	7	silty sand to sandy silt
4.20	57.52	1.0050	1.747	0.761	18	7	silty sand to sandy silt
4.27	55.51	0.9564	1.723	0.858	17	7	silty sand to sandy silt
4.33	52.90	0.9027	1.707	0.930	17	7	silty sand to sandy silt
4.40	50.48	0.8464	1.677	1.061	16	7	silty sand to sandy silt
4.46	46.82	0.7889	1.685	1.279	15	7	silty sand to sandy silt
4.53	43.62	0.7610	1.745	1.657	14	7	silty sand to sandy silt
4.59	40.61	0.7461	1.838	2.188	16	6	sandy silt to clayey silt
4.66	38.02	0.7184	1.890	2.884	15	6	sandy silt to clayey silt
4.72	36.00	0.6858	1.905	4.300	15	6	sandy silt to clayey silt
4.79	35.28	0.6487	1.839	6.376	14	6	sandy silt to clayey silt
4.86	36.38	0.6199	1.704	8.214	14	6	sandy silt to clayey silt
4.92	37.37	0.6039	1.616	9.006	13	6	sandy silt to clayey silt
4.99	35.95	0.6078	1.691	9.066	13	6	sandy silt to clayey silt
5.05	33.21	0.5943	1.789	9.122	13	6	sandy silt to clayey silt
5.12	31.04	0.5653	1.821	9.677	13	6	sandy silt to clayey silt
5.18	30.29	0.5289	1.746	11.041	12	6	sandy silt to clayey silt
5.25	30.96	0.4968	1.605	12.442	12	6	sandy silt to clayey silt
5.31	31.39	0.4483	1.428	12.811	11	6	sandy silt to clayey silt
5.38	29.21	0.4253	1.456	12.573	10	6	sandy silt to clayey silt
5.45	25.83	0.5683	2.200	12.349	10	6	sandy silt to clayey silt
5.51	22.63	0.4798	2.120	12.405	9	6	sandy silt to clayey silt
5.58	20.15	0.4289	2.128	13.073	9	6	sandy silt to clayey silt
5.64	18.41	0.3853	2.093	15.207	8	6	sandy silt to clayey silt
5.71	17.92	0.3620	2.020	17.220	8	6	sandy silt to clayey silt
5.77	21.46	0.3428	1.597	5.199	7	6	sandy silt to clayey silt
5.84	19.21	0.3275	1.705	5.336	7	6	sandy silt to clayey silt
5.91	17.72	0.3263	1.842	5.755	7	6	sandy silt to clayey silt
5.97	17.13	0.3376	1.971	7.399	7	6	sandy silt to clayey silt
6.04	18.04	0.3296	1.827	10.688	7	6	sandy silt to clayey silt
6.10	20.27	0.2993	1.476	13.017	7	6	sandy silt to clayey silt
6.17	21.88	0.2782	1.272	13.594	7	6	sandy silt to clayey silt
6.23	21.34	0.2541	1.191	13.500	7	6	sandy silt to clayey silt
6.30	18.70	0.2345	1.254	13.316	7	6	sandy silt to clayey silt
6.36	15.96	0.2248	1.408	13.257	6	6	sandy silt to clayey silt
6.43	12.99	0.1974	1.520	13.522	5	6	sandy silt to clayey silt
6.50	11.28	0.1526	1.353	14.465	6	5	clayey silt to silty clay
6.56	10.06	0.1235	1.228	16.662	5	5	clayey silt to silty clay
6.63	10.05	0.0972	0.967	18.565	5	5	clayey silt to silty clay
6.69	9.63	0.0816	0.848	18.671	4	5	clayey silt to silty clay
6.76	7.69	0.0699	0.910	18.425	4	1	sensitive fine grained
6.82	6.00	0.0545	0.910	18.543	3	1	sensitive fine grained
6.89	5.09	0.0382	0.751	19.392	3	1	sensitive fine grained
6.96	4.45	0.0332	0.747	21.374	2	1	sensitive fine grained
7.02	4.12	0.0290	0.704	22.725	2	1	sensitive fine grained
7.09	3.89	0.0226	0.582	23.203	2	1	sensitive fine grained
7.15	3.63	0.0221	0.607	23.346	2	1	sensitive fine grained
7.22	3.38	0.0164	0.486	23.661	2	1	sensitive fine grained
7.28	3.27	0.0155	0.475	24.173	2	1	sensitive fine grained
7.35	3.23	0.0169	0.524	24.367	2	1	sensitive fine grained
7.41	3.32	0.0148	0.447	24.513	2	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
7.48	3.44	0.0144	0.419	24.754	2	1	sensitive fine grained
7.55	3.57	0.0163	0.456	24.722	2	1	sensitive fine grained
7.61	3.45	0.0180	0.520	24.613	2	1	sensitive fine grained
7.68	3.35	0.0186	0.555	24.529	2	1	sensitive fine grained
7.74	3.19	0.0208	0.651	24.519	2	1	sensitive fine grained
7.81	3.04	0.0242	0.797	24.563	2	1	sensitive fine grained
7.87	3.00	0.0237	0.790	24.657	2	1	sensitive fine grained
7.94	3.00	0.0270	0.903	24.894	2	1	sensitive fine grained
8.01	3.12	0.0281	0.900	25.215	2	1	sensitive fine grained
8.07	3.78	0.0378	1.001	25.287	2	1	sensitive fine grained
8.14	4.18	0.0400	0.957	25.284	2	1	sensitive fine grained
8.20	4.82	0.0566	1.174	25.328	2	1	sensitive fine grained
8.27	5.47	0.0675	1.232	25.449	2	1	sensitive fine grained
8.33	5.81	0.0722	1.242	26.042	3	1	sensitive fine grained
8.40	6.01	0.0810	1.349	27.000	3	1	sensitive fine grained
8.46	6.37	0.0891	1.399	27.634	3	1	sensitive fine grained
8.53	6.64	0.0979	1.475	28.012	3	1	sensitive fine grained
8.60	6.61	0.0954	1.443	28.033	4	4	silty clay to clay
8.66	5.90	0.1006	1.705	28.242	4	4	silty clay to clay
8.73	5.34	0.1167	2.186	31.469	4	4	silty clay to clay
8.79	5.67	0.1182	2.084	33.591	4	4	silty clay to clay
8.86	5.96	0.1242	2.082	33.008	4	4	silty clay to clay
8.92	5.61	0.1169	2.085	32.031	3	4	silty clay to clay
8.99	4.87	0.1030	2.115	31.859	3	4	silty clay to clay
9.06	5.46	0.0883	1.616	18.063	2	1	sensitive fine grained
9.12	4.85	0.0628	1.295	18.406	2	1	sensitive fine grained
9.19	4.73	0.0547	1.157	18.958	2	1	sensitive fine grained
9.25	4.64	0.0462	0.997	19.520	2	1	sensitive fine grained
9.32	4.45	0.0401	0.900	21.346	2	1	sensitive fine grained
9.38	4.50	0.0390	0.867	24.757	2	1	sensitive fine grained
9.45	4.64	0.0343	0.739	25.743	2	1	sensitive fine grained
9.51	4.52	0.0359	0.794	26.014	2	1	sensitive fine grained
9.58	4.50	0.0369	0.821	26.370	2	1	sensitive fine grained
9.65	4.67	0.0362	0.776	26.698	2	1	sensitive fine grained
9.71	4.98	0.0367	0.738	27.041	2	1	sensitive fine grained
9.78	5.11	0.0410	0.803	27.284	2	1	sensitive fine grained
9.84	5.38	0.0347	0.644	27.581	2	1	sensitive fine grained
9.91	5.51	0.0398	0.721	27.818	3	1	sensitive fine grained
9.97	5.23	0.0442	0.846	28.071	3	1	sensitive fine grained
10.04	5.10	0.0448	0.878	28.832	3	1	sensitive fine grained
10.10	5.34	0.0509	0.953	29.890	3	1	sensitive fine grained
10.17	5.61	0.0549	0.978	30.349	3	1	sensitive fine grained
10.24	5.62	0.0633	1.126	30.742	3	1	sensitive fine grained
10.30	5.83	0.0695	1.193	31.956	3	1	sensitive fine grained
10.37	6.13	0.0730	1.190	33.179	3	1	sensitive fine grained
10.43	6.27	0.0905	1.443	33.379	3	1	sensitive fine grained
10.50	6.45	0.0951	1.476	33.682	3	1	sensitive fine grained
10.56	6.90	0.1089	1.580	34.028	4	4	silty clay to clay
10.63	7.11	0.1166	1.639	34.325	4	4	silty clay to clay
10.70	7.20	0.1221	1.697	34.980	3	5	clayey silt to silty clay
10.76	7.32	0.1318	1.800	36.531	4	5	clayey silt to silty clay
10.83	7.75	0.1351	1.744	37.127	4	5	clayey silt to silty clay
10.89	7.97	0.1417	1.779	37.355	4	5	clayey silt to silty clay
10.96	7.95	0.1397	1.758	37.651	4	5	clayey silt to silty clay
11.02	8.00	0.1531	1.914	38.622	5	4	silty clay to clay
11.09	8.31	0.1602	1.927	39.231	5	4	silty clay to clay
11.15	8.54	0.1754	2.054	39.558	5	4	silty clay to clay
11.22	8.75	0.2365	2.703	39.636	5	4	silty clay to clay
11.29	8.89	0.2454	2.761	39.218	5	4	silty clay to clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
11.35	8.33	0.2442	2.931	38.285	5	4	silty clay to clay
11.42	7.38	0.2352	3.187	38.107	5	4	silty clay to clay
11.48	7.03	0.2119	3.014	39.075	5	4	silty clay to clay
11.55	8.36	0.1833	2.192	15.488	5	4	silty clay to clay
11.61	7.58	0.1569	2.070	15.803	5	4	silty clay to clay
11.68	6.91	0.1325	1.918	16.362	4	4	silty clay to clay
11.75	6.53	0.1144	1.751	17.155	4	4	silty clay to clay
11.81	6.34	0.0951	1.499	18.375	4	4	silty clay to clay
11.88	5.84	0.0773	1.323	19.305	4	4	silty clay to clay
11.94	5.59	0.1174	2.102	19.879	4	4	silty clay to clay
12.01	5.48	0.1379	2.516	20.737	4	4	silty clay to clay
12.07	5.81	0.1756	3.022	21.633	4	4	silty clay to clay
12.14	6.49	0.1928	2.969	22.232	5	4	silty clay to clay
12.20	7.18	0.1960	2.731	22.650	5	5	clayey silt to silty clay
12.27	11.05	0.1875	1.697	17.651	6	5	clayey silt to silty clay
12.34	15.03	0.1698	1.130	17.741	5	6	sandy silt to clayey silt
12.40	19.54	0.1327	0.679	17.635	6	6	sandy silt to clayey silt
12.47	18.98	0.0988	0.520	17.467	6	6	sandy silt to clayey silt
12.53	17.21	0.0623	0.362	17.345	6	6	sandy silt to clayey silt
12.60	15.16	0.0409	0.270	17.226	6	6	sandy silt to clayey silt
12.66	13.91	0.0371	0.267	17.089	6	6	sandy silt to clayey silt
12.73	13.65	0.0380	0.278	16.952	6	6	sandy silt to clayey silt
12.80	14.09	0.0462	0.328	16.886	5	6	sandy silt to clayey silt
12.86	14.34	0.0376	0.262	16.805	5	6	sandy silt to clayey silt
12.93	14.26	0.0433	0.304	16.730	5	6	sandy silt to clayey silt
12.99	14.20	0.0346	0.244	16.662	6	6	sandy silt to clayey silt
13.06	14.46	0.0369	0.255	16.527	6	6	sandy silt to clayey silt
13.12	15.34	0.0231	0.151	16.418	6	6	sandy silt to clayey silt
13.19	16.97	0.0129	0.076	16.215	6	7	silty sand to sandy silt
13.25	18.99	0.0264	0.139	16.072	6	7	silty sand to sandy silt
13.32	20.25	0.0253	0.125	16.016	6	7	silty sand to sandy silt
13.39	20.51	0.0295	0.144	15.944	6	7	silty sand to sandy silt
13.45	20.70	0.0242	0.117	15.853	7	7	silty sand to sandy silt
13.52	20.50	0.0344	0.168	15.757	7	7	silty sand to sandy silt
13.58	20.67	0.0359	0.173	15.622	7	7	silty sand to sandy silt
13.65	21.05	0.0308	0.146	15.535	7	7	silty sand to sandy silt
13.71	21.14	0.0313	0.148	15.473	7	7	silty sand to sandy silt
13.78	20.99	0.0237	0.113	15.438	7	7	silty sand to sandy silt
13.85	20.82	0.0270	0.130	15.345	7	7	silty sand to sandy silt
13.91	20.74	0.0324	0.156	15.254	7	7	silty sand to sandy silt
13.98	20.53	0.0325	0.158	15.201	6	7	silty sand to sandy silt
14.04	19.78	0.0211	0.107	15.214	6	7	silty sand to sandy silt
14.11	19.40	0.0230	0.119	15.176	6	7	silty sand to sandy silt
14.17	18.46	0.0256	0.139	15.039	6	7	silty sand to sandy silt
14.24	18.35	0.0196	0.107	14.979	6	7	silty sand to sandy silt
14.30	18.31	0.0134	0.073	14.926	6	7	silty sand to sandy silt
14.37	18.07	0.0058	0.032	14.905	6	7	silty sand to sandy silt
14.44	17.88	0.0059	0.033	14.845	6	7	silty sand to sandy silt
14.50	17.94	0.0120	0.067	14.836	6	7	silty sand to sandy silt
14.57	18.00	0.0071	0.039	14.845	6	7	silty sand to sandy silt
14.63	18.06	0.0173	0.096	14.808	6	7	silty sand to sandy silt
14.70	18.64	0.0394	0.211	14.465	6	7	silty sand to sandy silt
14.76	19.23	0.0329	0.171	14.521	6	7	silty sand to sandy silt
14.83	21.04	0.0260	0.124	14.833	6	7	silty sand to sandy silt
14.90	21.20	0.0300	0.142	14.686	7	7	silty sand to sandy silt
14.96	21.43	0.0249	0.116	14.642	7	7	silty sand to sandy silt
15.03	21.48	0.0238	0.111	14.533	7	7	silty sand to sandy silt
15.09	20.40	0.0199	0.097	14.362	6	7	silty sand to sandy silt
15.16	19.90	0.0076	0.038	14.343	6	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
15.22	18.96	0.0038	0.020	14.168	6	7	silty sand to sandy silt
15.29	17.78	0.0038	0.021	14.037	6	7	silty sand to sandy silt
15.35	17.05	0.0034	0.020	14.000	6	7	silty sand to sandy silt
15.42	16.17	0.0060	0.037	13.806	5	7	silty sand to sandy silt
15.49	15.63	0.0044	0.028	13.965	5	7	silty sand to sandy silt
15.55	15.38	0.0004	0.002	13.956	5	7	silty sand to sandy silt
15.62	15.66	0.0095	0.060	13.953	5	7	silty sand to sandy silt
15.68	16.52	0.0259	0.157	13.868	6	7	silty sand to sandy silt
15.75	17.73	0.0343	0.193	13.881	6	7	silty sand to sandy silt
15.81	19.87	0.0588	0.296	13.865	6	7	silty sand to sandy silt
15.88	21.94	0.1049	0.478	13.759	6	7	silty sand to sandy silt
15.94	19.31	0.0839	0.435	13.815	6	7	silty sand to sandy silt
16.01	20.79	0.0841	0.405	13.800	7	7	silty sand to sandy silt
16.08	21.69	0.1024	0.472	13.756	7	7	silty sand to sandy silt
16.14	19.63	0.0620	0.316	13.734	7	7	silty sand to sandy silt
16.21	19.96	0.0629	0.315	13.712	7	7	silty sand to sandy silt
16.27	22.53	0.0738	0.328	13.684	7	7	silty sand to sandy silt
16.34	25.81	0.0573	0.222	13.678	8	7	silty sand to sandy silt
16.40	25.78	0.0701	0.272	13.666	8	7	silty sand to sandy silt
16.47	27.50	0.0933	0.339	13.656	9	7	silty sand to sandy silt
16.54	28.81	0.0977	0.339	13.634	9	7	silty sand to sandy silt
16.60	29.86	0.1009	0.338	13.628	9	7	silty sand to sandy silt
16.67	28.58	0.1194	0.418	13.588	9	7	silty sand to sandy silt
16.73	28.45	0.1257	0.442	13.578	9	7	silty sand to sandy silt
16.80	28.74	0.1171	0.407	13.569	9	7	silty sand to sandy silt
16.86	28.76	0.1093	0.380	13.544	9	7	silty sand to sandy silt
16.93	28.63	0.0919	0.321	13.538	9	7	silty sand to sandy silt
16.99	27.99	0.0829	0.296	13.516	9	7	silty sand to sandy silt
17.06	26.31	0.0676	0.257	13.497	8	7	silty sand to sandy silt
17.13	24.33	0.0781	0.321	13.482	8	7	silty sand to sandy silt
17.19	22.75	0.0563	0.247	13.475	8	7	silty sand to sandy silt
17.26	22.02	0.0412	0.187	13.463	7	7	silty sand to sandy silt
17.32	22.12	0.0502	0.227	13.450	7	7	silty sand to sandy silt
17.39	22.42	0.0501	0.223	13.447	7	7	silty sand to sandy silt
17.45	22.35	0.0632	0.283	13.435	7	7	silty sand to sandy silt
17.52	22.41	0.0751	0.335	13.425	7	7	silty sand to sandy silt
17.59	19.25	0.0691	0.359	13.407	6	7	silty sand to sandy silt
17.65	18.32	0.0781	0.426	13.407	6	7	silty sand to sandy silt
17.72	18.18	0.1004	0.553	13.391	7	6	sandy silt to clayey silt
17.78	18.57	0.1102	0.594	13.388	7	6	sandy silt to clayey silt
17.85	18.99	0.1073	0.565	13.363	7	6	sandy silt to clayey silt
17.91	19.54	0.1022	0.523	13.344	7	6	sandy silt to clayey silt
17.98	20.42	0.0845	0.414	13.338	7	6	sandy silt to clayey silt
18.04	19.70	0.0684	0.347	13.316	7	6	sandy silt to clayey silt
18.11	18.94	0.0696	0.368	13.319	7	6	sandy silt to clayey silt
18.18	18.26	0.0691	0.378	13.301	7	6	sandy silt to clayey silt
18.24	17.01	0.0722	0.425	13.294	7	6	sandy silt to clayey silt
18.31	16.77	0.0779	0.465	13.266	6	6	sandy silt to clayey silt
18.37	15.60	0.0823	0.527	13.272	6	6	sandy silt to clayey silt
18.44	15.06	0.0816	0.542	13.244	6	6	sandy silt to clayey silt
18.50	14.62	0.0893	0.610	13.241	6	6	sandy silt to clayey silt
18.57	14.62	0.0975	0.667	13.238	6	6	sandy silt to clayey silt
18.64	15.11	0.0964	0.638	13.219	6	6	sandy silt to clayey silt
18.70	14.83	0.1150	0.775	13.232	5	6	sandy silt to clayey silt
18.77	14.34	0.1435	1.001	12.548	5	6	sandy silt to clayey silt
18.83	13.40	0.1678	1.252	12.542	5	6	sandy silt to clayey silt
18.90	12.39	0.1852	1.495	12.548	6	5	clayey silt to silty clay
18.96	10.48	0.1929	1.841	12.558	5	5	clayey silt to silty clay
19.03	8.92	0.1951	2.188	12.539	4	5	clayey silt to silty clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
19.09	6.62	0.1745	2.636	12.527	5	4	silty clay to clay
19.16	5.05	0.1396	2.762	12.530	4	4	silty clay to clay
19.23	4.28	0.1297	3.031	12.576	5	3	clay
19.29	3.85	0.0995	2.586	12.605	4	3	clay
19.36	3.17	0.0743	2.345	12.689	3	3	clay
19.42	2.79	0.0476	1.703	12.773	1	1	sensitive fine grained
19.49	2.50	0.0283	1.135	12.920	1	1	sensitive fine grained
19.55	2.42	0.0063	0.259	13.088	1	1	sensitive fine grained
19.62	2.39	0.0035	0.147	13.247	1	1	sensitive fine grained
19.69	2.30	0.0000	0.000	13.407	1	1	sensitive fine grained
19.75	2.28	-0.0004	-0.017	13.525	1	1	sensitive fine grained
19.82	2.24	-0.0012	-0.051	13.653	1	1	sensitive fine grained
19.88	2.21	-0.0006	-0.029	13.815	1	1	sensitive fine grained
19.95	2.18	0.0016	0.073	13.931	1	1	sensitive fine grained
20.01	2.31	0.0028	0.122	14.056	1	1	sensitive fine grained
20.08	2.36	0.0087	0.368	14.181	1	1	sensitive fine grained
20.14	2.27	0.0028	0.124	14.358	1	1	sensitive fine grained
20.21	2.39	0.0014	0.059	14.471	1	1	sensitive fine grained
20.28	2.36	0.0017	0.070	14.586	1	1	sensitive fine grained
20.34	2.39	0.0129	0.538	14.727	1	1	sensitive fine grained
20.41	2.44	0.0089	0.364	14.842	1	1	sensitive fine grained
20.47	2.53	0.0031	0.121	14.954	1	1	sensitive fine grained
20.54	2.64	0.0034	0.128	15.073	1	1	sensitive fine grained
20.60	2.66	-0.0047	-0.178	15.157	1	1	sensitive fine grained
20.67	2.73	-0.0004	-0.014	15.229	0	0	<out of range>
20.73	2.56	-0.0013	-0.052	15.335	0	0	<out of range>
20.80	2.29	0.0015	0.064	15.441	0	0	<out of range>
20.87	2.12	-0.0097	-0.458	15.607	0	0	<out of range>
20.93	2.16	-0.0028	-0.130	15.831	0	0	<out of range>
21.00	2.18	0.0005	0.024	16.128	0	0	<out of range>
21.06	2.25	0.0001	0.003	16.914	0	0	<out of range>
21.13	2.35	-0.0027	-0.117	17.875	0	0	<out of range>
21.19	2.39	-0.0003	-0.011	18.815	0	0	<out of range>
21.26	2.44	-0.0011	-0.044	19.670	1	1	sensitive fine grained
21.33	2.64	-0.0003	-0.010	20.166	1	1	sensitive fine grained
21.39	2.65	0.0015	0.056	20.453	1	1	sensitive fine grained
21.46	2.49	0.0052	0.211	20.878	1	1	sensitive fine grained
21.52	2.45	0.0016	0.065	21.405	1	1	sensitive fine grained
21.59	2.50	0.0012	0.046	21.764	1	1	sensitive fine grained
21.65	2.69	0.0020	0.074	22.020	1	1	sensitive fine grained
21.72	2.99	-0.0027	-0.092	22.210	1	1	sensitive fine grained
21.78	3.33	0.0001	0.002	22.088	1	1	sensitive fine grained
21.85	3.37	0.0003	0.009	21.942	1	1	sensitive fine grained
21.92	3.31	0.0067	0.203	22.007	1	1	sensitive fine grained
21.98	2.93	0.0055	0.188	19.055	1	1	sensitive fine grained
22.05	2.75	-0.0036	-0.133	19.838	1	1	sensitive fine grained
22.11	2.66	-0.0024	-0.091	20.862	1	1	sensitive fine grained
22.18	2.65	0.0031	0.116	21.542	0	0	<out of range>
22.24	2.56	-0.0036	-0.140	22.092	0	0	<out of range>
22.31	2.60	-0.0027	-0.103	22.519	0	0	<out of range>
22.38	2.66	-0.0049	-0.185	23.131	0	0	<out of range>
22.44	2.79	-0.0035	-0.124	23.511	0	0	<out of range>
22.51	2.71	-0.0019	-0.071	23.643	0	0	<out of range>
22.57	2.62	-0.0025	-0.095	23.845	0	0	<out of range>
22.64	2.56	-0.0047	-0.182	24.145	0	0	<out of range>
22.70	2.54	-0.0007	-0.028	24.273	0	0	<out of range>
22.77	2.46	0.0047	0.193	24.532	0	0	<out of range>
22.83	2.59	-0.0010	-0.037	24.810	0	0	<out of range>
22.90	2.76	-0.0023	-0.083	24.950	0	0	<out of range>

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
22.97	3.05	-0.0059	-0.195	24.984	0	0	<out of range>
23.03	3.41	0.0012	0.034	24.644	0	0	<out of range>
23.10	3.38	-0.0061	-0.181	23.839	0	0	<out of range>
23.16	3.24	-0.0047	-0.146	23.605	0	0	<out of range>
23.23	3.06	-0.0036	-0.117	23.490	0	0	<out of range>
23.29	2.71	-0.0048	-0.177	23.455	0	0	<out of range>
23.36	2.33	-0.0108	-0.464	23.493	0	0	<out of range>
23.43	2.20	-0.0084	-0.384	23.664	0	0	<out of range>
23.49	2.16	-0.0062	-0.287	23.839	0	0	<out of range>
23.56	2.16	-0.0118	-0.547	23.967	0	0	<out of range>
23.62	2.19	-0.0076	-0.348	24.033	0	0	<out of range>
23.69	2.20	-0.0072	-0.326	24.033	0	0	<out of range>
23.75	2.15	-0.0084	-0.389	24.051	0	0	<out of range>
23.82	2.14	-0.0087	-0.407	24.083	0	0	<out of range>
23.88	2.24	-0.0072	-0.323	24.092	0	0	<out of range>
23.95	2.38	-0.0049	-0.206	24.058	0	0	<out of range>
24.02	2.37	-0.0072	-0.304	24.058	0	0	<out of range>
24.08	2.53	-0.0082	-0.324	23.992	0	0	<out of range>
24.15	2.78	-0.0059	-0.214	23.970	0	0	<out of range>
24.21	3.24	-0.0068	-0.211	23.898	0	0	<out of range>
24.28	3.35	-0.0080	-0.239	23.668	0	0	<out of range>
24.34	3.25	-0.0063	-0.193	23.452	0	0	<out of range>
24.41	3.06	-0.0031	-0.102	23.418	0	0	<out of range>
24.48	3.03	-0.0013	-0.042	23.508	2	1	sensitive fine grained
24.54	3.15	0.0013	0.043	23.674	2	1	sensitive fine grained
24.61	3.60	0.0088	0.245	23.855	2	1	sensitive fine grained
24.67	4.41	0.0136	0.307	23.883	3	1	sensitive fine grained
24.74	5.54	0.0088	0.158	23.827	3	1	sensitive fine grained
24.80	7.12	0.0139	0.195	23.590	4	1	sensitive fine grained
24.87	9.72	0.0811	0.835	23.265	4	5	clayey silt to silty clay
24.93	11.95	0.0971	0.812	22.697	4	6	sandy silt to clayey silt
25.00	12.38	0.0943	0.762	21.970	4	6	sandy silt to clayey silt
25.07	11.91	0.1022	0.858	21.751	5	6	sandy silt to clayey silt
25.13	11.39	0.1109	0.974	21.848	6	6	sandy silt to clayey silt
25.20	13.83	0.1289	0.932	17.382	6	6	sandy silt to clayey silt
25.26	18.20	0.1488	0.818	18.003	7	6	sandy silt to clayey silt
25.33	23.48	0.1625	0.692	18.100	8	6	sandy silt to clayey silt
25.39	26.67	0.1742	0.653	17.710	7	7	silty sand to sandy silt
25.46	27.90	0.1947	0.698	17.460	8	7	silty sand to sandy silt
25.52	27.03	0.2049	0.758	17.361	8	7	silty sand to sandy silt
25.59	26.16	0.2190	0.837	17.317	8	7	silty sand to sandy silt
25.66	24.34	0.2048	0.841	17.295	8	7	silty sand to sandy silt
25.72	23.62	0.1841	0.779	17.345	8	7	silty sand to sandy silt
25.79	23.00	0.1774	0.771	17.576	8	7	silty sand to sandy silt
25.85	23.54	0.1893	0.804	17.748	9	6	sandy silt to clayey silt
25.92	24.98	0.2091	0.837	17.744	8	7	silty sand to sandy silt
25.98	26.23	0.2391	0.912	17.716	9	7	silty sand to sandy silt
26.05	27.33	0.2914	1.066	17.797	10	7	silty sand to sandy silt
26.12	31.22	0.3402	1.090	17.978	11	7	silty sand to sandy silt
26.18	35.78	0.3750	1.048	18.088	12	7	silty sand to sandy silt
26.25	41.67	0.4027	0.966	18.138	13	7	silty sand to sandy silt
26.31	46.94	0.4191	0.893	17.891	13	7	silty sand to sandy silt
26.38	49.71	0.4383	0.882	17.554	14	7	silty sand to sandy silt
26.44	47.39	0.4284	0.904	17.392	14	7	silty sand to sandy silt
26.51	42.76	0.4003	0.936	17.339	14	7	silty sand to sandy silt
26.57	40.01	0.3929	0.982	17.332	14	7	silty sand to sandy silt
26.64	39.99	0.3624	0.906	17.351	13	7	silty sand to sandy silt
26.71	41.30	0.3207	0.777	17.279	12	7	silty sand to sandy silt
26.77	38.84	0.2530	0.651	17.086	12	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
26.84	35.77	0.1848	0.517	16.983	11	7	silty sand to sandy silt
26.90	33.41	0.1469	0.440	17.017	9	7	silty sand to sandy silt
26.97	26.24	0.1173	0.447	17.011	8	7	silty sand to sandy silt
27.03	18.43	0.0986	0.535	17.033	8	6	sandy silt to clayey silt
27.10	12.70	0.0832	0.656	17.276	6	6	sandy silt to clayey silt
27.17	8.49	0.0660	0.778	18.668	4	6	sandy silt to clayey silt
27.23	6.38	0.0507	0.794	22.934	4	1	sensitive fine grained
27.30	5.13	0.0370	0.720	29.272	3	1	sensitive fine grained
27.36	4.55	0.0245	0.539	32.920	3	1	sensitive fine grained
27.43	4.28	0.0136	0.318	34.668	2	1	sensitive fine grained
27.49	4.59	0.0105	0.229	35.798	2	1	sensitive fine grained
27.56	5.06	0.0164	0.324	35.511	3	1	sensitive fine grained
27.62	5.20	0.0267	0.514	35.342	3	1	sensitive fine grained
27.69	6.69	0.0340	0.508	35.479	4	1	sensitive fine grained
27.76	8.95	0.0476	0.532	34.865	3	6	sandy silt to clayey silt
27.82	11.46	0.0657	0.573	32.814	4	6	sandy silt to clayey silt
27.89	12.35	0.0854	0.691	31.635	4	6	sandy silt to clayey silt
27.95	13.29	0.1111	0.836	30.914	5	6	sandy silt to clayey silt
28.02	14.02	0.1300	0.928	30.340	5	6	sandy silt to clayey silt
28.08	14.67	0.1356	0.924	29.903	6	6	sandy silt to clayey silt
28.15	16.04	0.2423	1.511	29.559	6	6	sandy silt to clayey silt
28.22	17.83	0.1801	1.010	29.222	6	6	sandy silt to clayey silt
28.28	19.23	0.1157	0.602	28.567	6	6	sandy silt to clayey silt
28.35	15.76	0.1165	0.739	27.768	5	6	sandy silt to clayey silt
28.41	11.18	0.1027	0.919	27.334	5	6	sandy silt to clayey silt
28.48	8.54	0.0838	0.981	22.179	5	5	clayey silt to silty clay
28.54	5.83	0.0694	1.191	22.513	4	1	sensitive fine grained
28.61	4.55	0.0595	1.307	28.823	3	1	sensitive fine grained
28.67	5.03	0.0478	0.950	32.811	3	1	sensitive fine grained
28.74	4.77	0.0410	0.858	32.917	2	1	sensitive fine grained
28.81	4.40	0.0272	0.618	32.936	2	1	sensitive fine grained
28.87	4.49	0.0125	0.277	33.092	2	1	sensitive fine grained
28.94	4.46	0.0076	0.171	32.724	2	1	sensitive fine grained
29.00	4.14	-0.0012	-0.028	32.711	2	1	sensitive fine grained
29.07	3.94	0.0016	0.041	32.977	2	1	sensitive fine grained
29.13	3.48	0.0065	0.187	33.541	2	1	sensitive fine grained
29.20	3.37	0.0039	0.116	34.066	2	1	sensitive fine grained
29.27	3.76	0.0018	0.048	35.227	2	1	sensitive fine grained
29.33	4.04	0.0068	0.169	35.673	2	1	sensitive fine grained
29.40	3.93	0.0125	0.317	35.651	2	1	sensitive fine grained
29.46	4.12	0.0160	0.390	36.256	2	1	sensitive fine grained
29.53	5.14	0.0226	0.439	36.924	2	1	sensitive fine grained
29.59	5.30	0.0199	0.375	36.697	2	1	sensitive fine grained
29.66	5.30	0.0446	0.842	36.256	2	1	sensitive fine grained
29.72	5.08	0.0572	1.124	36.834	3	1	sensitive fine grained
29.79	5.00	0.0543	1.086	37.867	3	1	sensitive fine grained
29.86	5.19	0.0340	0.656	38.194	3	1	sensitive fine grained
29.92	5.63	0.0401	0.712	38.276	3	1	sensitive fine grained
29.99	6.98	0.0660	0.946	37.180	3	1	sensitive fine grained
30.05	9.14	0.0886	0.969	34.534	4	1	sensitive fine grained
30.12	9.52	0.1045	1.098	33.142	4	5	clayey silt to silty clay
30.18	8.88	0.1056	1.189	32.855	4	5	clayey silt to silty clay
30.25	8.04	0.0946	1.176	32.799	4	5	clayey silt to silty clay
30.31	7.42	0.0851	1.147	32.777	4	1	sensitive fine grained
30.38	7.28	0.0657	0.903	33.039	4	1	sensitive fine grained
30.45	7.20	0.0477	0.662	32.568	3	1	sensitive fine grained
30.51	6.88	0.0453	0.658	32.290	3	1	sensitive fine grained
30.58	6.69	0.0428	0.640	32.171	3	1	sensitive fine grained
30.64	6.75	0.0439	0.650	31.975	3	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
30.71	7.31	0.0406	0.556	32.580	3	1	sensitive fine grained
30.77	8.28	0.0371	0.449	33.526	3	1	sensitive fine grained
30.84	7.76	0.0374	0.482	33.454	3	1	sensitive fine grained
30.91	6.73	0.0360	0.535	33.086	3	1	sensitive fine grained
30.97	6.03	0.0349	0.579	33.264	3	1	sensitive fine grained
31.04	5.72	0.0318	0.555	33.651	3	1	sensitive fine grained
31.10	5.30	0.0297	0.561	33.910	3	1	sensitive fine grained
31.17	4.78	0.0264	0.552	34.072	2	1	sensitive fine grained
31.23	4.35	0.0195	0.448	34.144	2	1	sensitive fine grained
31.30	4.16	0.0203	0.489	34.241	2	1	sensitive fine grained
31.36	3.92	0.0499	1.275	34.481	2	1	sensitive fine grained
31.43	3.88	0.0568	1.464	35.018	2	1	sensitive fine grained
31.50	3.99	0.0611	1.532	35.470	2	1	sensitive fine grained
31.56	4.08	0.0648	1.588	35.676	2	1	sensitive fine grained
31.63	4.10	0.0593	1.447	35.870	2	1	sensitive fine grained
31.69	4.88	0.0545	1.117	17.560	2	1	sensitive fine grained
31.76	4.54	0.0517	1.139	17.713	2	1	sensitive fine grained
31.82	4.29	0.0466	1.087	18.016	2	1	sensitive fine grained
31.89	4.15	0.0416	1.004	18.400	2	1	sensitive fine grained
31.96	4.01	0.0373	0.931	19.080	2	1	sensitive fine grained
32.02	3.88	0.0488	1.258	19.714	2	1	sensitive fine grained
32.09	3.94	0.0450	1.142	20.328	2	1	sensitive fine grained
32.15	4.07	0.0398	0.978	21.015	2	1	sensitive fine grained
32.22	4.14	0.0368	0.889	21.592	2	1	sensitive fine grained
32.28	4.24	0.0376	0.888	22.110	2	1	sensitive fine grained
32.35	4.12	0.0339	0.824	22.416	2	1	sensitive fine grained
32.41	4.14	0.0371	0.897	23.022	2	1	sensitive fine grained
32.48	4.17	0.0415	0.995	23.883	2	1	sensitive fine grained
32.55	4.28	0.0410	0.959	24.725	2	1	sensitive fine grained
32.61	4.47	0.0371	0.829	25.696	2	1	sensitive fine grained
32.68	4.65	0.0499	1.071	26.520	2	1	sensitive fine grained
32.74	4.94	0.0677	1.370	27.185	2	1	sensitive fine grained
32.81	5.51	0.0707	1.284	27.890	3	1	sensitive fine grained
32.87	6.07	0.0685	1.130	28.695	3	1	sensitive fine grained
32.94	6.42	0.0737	1.147	29.329	3	1	sensitive fine grained
33.01	6.54	0.0731	1.119	28.845	3	1	sensitive fine grained
33.07	6.47	0.0824	1.273	30.152	3	1	sensitive fine grained
33.14	6.92	0.1044	1.509	32.580	4	5	clayey silt to silty clay
33.20	7.62	0.1150	1.510	33.863	4	5	clayey silt to silty clay
33.27	8.75	0.1334	1.524	34.244	4	5	clayey silt to silty clay
33.33	9.23	0.1502	1.628	33.726	4	5	clayey silt to silty clay
33.40	9.32	0.1613	1.731	32.649	5	5	clayey silt to silty clay
33.46	9.66	0.1813	1.876	33.045	5	5	clayey silt to silty clay
33.53	10.42	0.1866	1.790	33.651	5	5	clayey silt to silty clay
33.60	10.98	0.1992	1.814	34.325	5	5	clayey silt to silty clay
33.66	11.42	0.2022	1.771	34.503	5	5	clayey silt to silty clay
33.73	11.40	0.2124	1.864	34.322	5	5	clayey silt to silty clay
33.79	11.03	0.2281	2.067	34.116	5	5	clayey silt to silty clay
33.86	10.66	0.2094	1.965	34.515	5	5	clayey silt to silty clay
33.92	10.19	0.1506	1.479	34.543	5	5	clayey silt to silty clay
33.99	9.72	0.1210	1.245	34.459	5	5	clayey silt to silty clay
34.06	9.22	0.1245	1.350	34.537	4	5	clayey silt to silty clay
34.12	8.32	0.1018	1.224	34.933	4	5	clayey silt to silty clay
34.19	7.17	0.1062	1.481	35.214	4	5	clayey silt to silty clay
34.25	7.47	0.0990	1.324	34.290	3	1	sensitive fine grained
34.32	7.03	0.0827	1.176	32.743	3	1	sensitive fine grained
34.38	5.80	0.0640	1.104	29.715	3	1	sensitive fine grained
34.45	4.92	0.0403	0.819	26.891	2	1	sensitive fine grained
34.51	4.13	0.0196	0.474	24.872	2	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
34.58	3.31	0.0038	0.116	24.254	2	1	sensitive fine grained
34.65	2.25	0.0013	0.060	23.827	1	1	sensitive fine grained
34.71	2.06	0.0015	0.071	23.524	1	1	sensitive fine grained
34.78	1.94	0.0091	0.468	23.290	1	1	sensitive fine grained
34.84	1.96	0.0134	0.682	23.125	1	1	sensitive fine grained
34.91	1.95	0.0182	0.933	22.922	1	1	sensitive fine grained
34.97	2.12	0.0198	0.933	18.266	1	1	sensitive fine grained
35.04	2.31	0.0264	1.141	18.172	1	1	sensitive fine grained
35.10	2.21	0.0322	1.457	18.063	1	1	sensitive fine grained
35.17	2.24	0.0416	1.856	18.016	1	1	sensitive fine grained
35.24	2.27	0.0566	2.490	17.982	1	1	sensitive fine grained
35.30	2.60	0.0628	2.412	17.975	3	3	clay
35.37	2.79	0.0611	2.191	17.966	3	3	clay
35.43	2.89	0.0809	2.798	17.944	3	3	clay
35.50	3.49	0.0770	2.204	17.922	4	3	clay
35.56	4.09	0.0818	2.000	17.860	2	1	sensitive fine grained
35.63	4.90	0.0799	1.631	17.816	2	1	sensitive fine grained
35.70	6.04	0.0801	1.327	17.760	3	1	sensitive fine grained
35.76	6.64	0.0769	1.157	17.616	4	4	silty clay to clay
35.83	7.05	0.0898	1.273	17.548	4	5	clayey silt to silty clay
35.89	8.41	0.1570	1.867	17.520	5	5	clayey silt to silty clay
35.96	11.69	0.2390	2.044	17.457	6	5	clayey silt to silty clay
36.02	16.20	0.2904	1.792	17.357	7	5	clayey silt to silty clay
36.09	19.65	0.3048	1.551	17.220	6	6	sandy silt to clayey silt
36.15	22.13	0.2771	1.252	16.740	7	6	sandy silt to clayey silt
36.22	20.87	0.2873	1.376	16.337	7	6	sandy silt to clayey silt
36.29	18.51	0.3360	1.815	16.150	7	6	sandy silt to clayey silt
36.35	16.78	0.3766	2.244	16.153	9	5	clayey silt to silty clay
36.42	16.94	0.4003	2.362	16.225	9	5	clayey silt to silty clay
36.48	17.66	0.4513	2.556	16.359	8	5	clayey silt to silty clay
36.55	17.93	0.4727	2.637	16.399	8	5	clayey silt to silty clay
36.61	17.48	0.4697	2.687	16.381	8	5	clayey silt to silty clay
36.68	17.80	0.4656	2.616	16.381	8	5	clayey silt to silty clay
36.75	17.39	0.4132	2.376	16.359	8	5	clayey silt to silty clay
36.81	16.30	0.4023	2.468	16.415	8	5	clayey silt to silty clay
36.88	15.90	0.3984	2.506	16.456	8	5	clayey silt to silty clay
36.94	16.65	0.3737	2.245	16.537	8	5	clayey silt to silty clay
37.01	16.67	0.3513	2.107	16.618	8	5	clayey silt to silty clay
37.07	17.32	0.3433	1.982	17.095	8	5	clayey silt to silty clay
37.14	17.87	0.3302	1.848	17.623	9	5	clayey silt to silty clay
37.20	18.22	0.3125	1.715	18.256	7	6	sandy silt to clayey silt
37.27	18.68	0.2862	1.532	19.592	7	6	sandy silt to clayey silt
37.34	19.45	0.2914	1.498	22.014	7	6	sandy silt to clayey silt
37.40	20.45	0.2989	1.462	25.009	8	6	sandy silt to clayey silt
37.47	20.49	0.3148	1.537	29.101	8	6	sandy silt to clayey silt
37.53	21.47	0.3281	1.528	35.195	8	6	sandy silt to clayey silt
37.60	22.42	0.3809	1.699	40.900	8	6	sandy silt to clayey silt
37.66	22.98	0.4281	1.863	44.021	9	6	sandy silt to clayey silt
37.73	23.18	0.4445	1.918	47.294	11	5	clayey silt to silty clay
37.80	23.79	0.4373	1.838	52.063	11	5	clayey silt to silty clay
37.86	24.51	0.9231	3.766	56.635	12	5	clayey silt to silty clay
37.93	25.53	1.0721	4.199	58.136	12	5	clayey silt to silty clay
37.99	25.34	1.1332	4.472	58.301	17	4	silty clay to clay
38.06	25.42	1.1144	4.384	62.402	17	4	silty clay to clay
38.12	25.56	1.1053	4.325	62.801	18	4	silty clay to clay
38.19	33.37	1.1146	3.341	15.067	14	5	clayey silt to silty clay
38.25	30.54	1.0648	3.486	14.886	14	5	clayey silt to silty clay
38.32	29.03	0.9553	3.290	15.251	14	5	clayey silt to silty clay
38.39	28.52	0.8091	2.837	16.378	11	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
38.45	28.35	0.6426	2.267	18.091	11	6	sandy silt to clayey silt
38.52	29.55	0.5507	1.864	20.175	12	6	sandy silt to clayey silt
38.58	30.25	0.4748	1.570	21.861	12	6	sandy silt to clayey silt
38.65	31.84	0.4559	1.432	24.588	12	6	sandy silt to clayey silt
38.71	33.92	0.5119	1.509	26.632	13	6	sandy silt to clayey silt
38.78	36.03	0.5683	1.577	29.369	14	6	sandy silt to clayey silt
38.85	37.87	0.6280	1.659	30.015	15	6	sandy silt to clayey silt
38.91	41.83	0.6933	1.657	32.059	13	7	silty sand to sandy silt
38.98	45.08	0.7638	1.695	32.225	17	6	sandy silt to clayey silt
39.04	47.96	0.8802	1.835	32.362	17	6	sandy silt to clayey silt
39.11	48.45	0.9535	1.968	30.792	18	6	sandy silt to clayey silt
39.17	47.33	1.0594	2.238	28.040	18	6	sandy silt to clayey silt
39.24	46.16	1.2532	2.715	24.030	18	6	sandy silt to clayey silt
39.30	45.33	1.4637	3.229	21.817	17	6	sandy silt to clayey silt
39.37	45.19	1.5823	3.502	20.575	21	5	clayey silt to silty clay
39.44	44.21	1.6092	3.640	19.891	21	5	clayey silt to silty clay
39.50	41.44	1.6738	4.039	19.810	20	5	clayey silt to silty clay
39.57	40.44	1.6605	4.106	20.881	20	5	clayey silt to silty clay
39.63	40.46	1.6442	4.064	21.801	20	5	clayey silt to silty clay
39.70	41.67	1.5022	3.605	25.059	19	5	clayey silt to silty clay
39.76	40.46	1.3183	3.258	24.376	19	5	clayey silt to silty clay
39.83	37.79	1.1659	3.086	22.379	18	5	clayey silt to silty clay
39.90	37.65	1.0294	2.734	21.308	14	6	sandy silt to clayey silt
39.96	37.27	0.9008	2.417	21.112	14	6	sandy silt to clayey silt
40.03	34.18	0.8534	2.497	20.974	13	6	sandy silt to clayey silt
40.09	31.54	0.7812	2.477	22.884	13	6	sandy silt to clayey silt
40.16	30.52	0.6617	2.168	29.269	12	6	sandy silt to clayey silt
40.22	30.30	0.6239	2.060	35.464	12	6	sandy silt to clayey silt
40.29	30.32	0.6550	2.161	44.314	12	6	sandy silt to clayey silt
40.35	30.62	0.7902	2.581	50.281	11	6	sandy silt to clayey silt
40.42	29.74	0.8422	2.832	50.674	13	5	clayey silt to silty clay
40.49	27.56	0.8872	3.220	40.370	12	5	clayey silt to silty clay
40.55	24.20	0.7715	3.188	29.572	11	5	clayey silt to silty clay
40.62	20.69	0.6128	2.961	24.395	10	5	clayey silt to silty clay
40.68	18.02	0.4791	2.659	24.975	9	5	clayey silt to silty clay
40.75	16.29	0.4156	2.551	31.479	8	5	clayey silt to silty clay
40.81	15.55	0.3415	2.197	38.229	8	5	clayey silt to silty clay
40.88	14.79	0.2798	1.892	41.122	7	5	clayey silt to silty clay
40.94	14.14	0.2358	1.668	41.200	7	5	clayey silt to silty clay
41.01	13.10	0.1981	1.512	41.434	7	5	clayey silt to silty clay
41.08	12.48	0.1799	1.441	43.297	6	5	clayey silt to silty clay
41.14	12.47	0.2156	1.729	46.480	6	5	clayey silt to silty clay
41.21	12.53	0.2196	1.753	49.376	6	5	clayey silt to silty clay
41.27	12.40	0.1972	1.590	51.314	6	5	clayey silt to silty clay
41.34	13.11	0.1800	1.373	53.873	5	6	sandy silt to clayey silt
41.40	15.59	0.1708	1.096	38.688	6	6	sandy silt to clayey silt
41.47	15.12	0.1712	1.132	39.839	6	6	sandy silt to clayey silt
41.54	15.87	0.1744	1.099	42.289	6	6	sandy silt to clayey silt
41.60	16.19	0.1625	1.004	43.559	6	6	sandy silt to clayey silt
41.67	16.86	0.1542	0.915	46.564	6	6	sandy silt to clayey silt
41.73	17.23	0.1469	0.853	48.349	6	6	sandy silt to clayey silt
41.80	16.44	0.1577	0.959	50.724	6	6	sandy silt to clayey silt
41.86	16.37	0.1552	0.948	56.473	6	6	sandy silt to clayey silt
41.93	16.73	0.1637	0.979	60.757	6	6	sandy silt to clayey silt
41.99	16.97	0.1640	0.967	63.613	6	6	sandy silt to clayey silt
42.06	17.13	0.1476	0.862	66.549	6	6	sandy silt to clayey silt
42.13	17.20	0.1499	0.871	68.643	7	6	sandy silt to clayey silt
42.19	17.04	0.1441	0.846	71.246	7	6	sandy silt to clayey silt
42.26	16.64	0.1570	0.944	76.108	7	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
42.32	17.33	0.1823	1.052	81.850	7	6	sandy silt to clayey silt
42.39	18.50	0.1990	1.076	84.849	7	6	sandy silt to clayey silt
42.45	19.49	0.1767	0.907	84.887	8	6	sandy silt to clayey silt
42.52	21.26	0.1658	0.780	82.187	8	6	sandy silt to clayey silt
42.59	22.60	0.1747	0.773	74.888	8	6	sandy silt to clayey silt
42.65	23.29	0.1843	0.791	71.268	9	6	sandy silt to clayey silt
42.72	24.08	0.1889	0.785	68.178	8	7	silty sand to sandy silt
42.78	24.69	0.1641	0.665	69.420	8	7	silty sand to sandy silt
42.85	25.94	0.1818	0.701	73.022	8	7	silty sand to sandy silt
42.91	26.50	0.1850	0.698	75.031	8	7	silty sand to sandy silt
42.98	24.98	0.1866	0.747	74.932	8	7	silty sand to sandy silt
43.04	23.91	0.1896	0.793	74.423	8	7	silty sand to sandy silt
43.11	23.07	0.2065	0.895	75.372	9	6	sandy silt to clayey silt
43.18	22.85	0.2247	0.983	77.590	7	7	silty sand to sandy silt
43.24	22.53	0.2050	0.910	78.761	7	7	silty sand to sandy silt
43.31	22.94	0.2030	0.885	77.447	9	6	sandy silt to clayey silt
43.37	23.24	-0.0028	-0.012	74.713	9	6	sandy silt to clayey silt
43.44	23.17	0.0625	0.270	75.228	9	6	sandy silt to clayey silt
43.50	22.32	0.7911	3.544	78.143	12	6	sandy silt to clayey silt
43.57	22.09	1.0264	4.646	88.525	14	6	sandy silt to clayey silt
43.64	28.28	1.2020	4.250	103.967	15	6	sandy silt to clayey silt
43.70	75.98	1.3116	1.726	71.524	16	6	sandy silt to clayey silt
43.77	56.83	1.4364	2.528	6.263	20	5	clayey silt to silty clay
43.83	45.03	1.5133	3.361	2.512	16	6	sandy silt to clayey silt
43.90	37.06	1.3935	3.761	1.882	15	6	sandy silt to clayey silt
43.96	28.13	1.1599	4.123	1.791	15	5	clayey silt to silty clay
44.03	22.64	0.8946	3.952	1.707	16	4	silty clay to clay
44.09	16.65	0.6212	3.732	1.966	13	4	silty clay to clay
44.16	13.96	0.5603	4.013	2.709	10	4	silty clay to clay
44.23	11.48	0.3486	3.037	3.829	9	4	silty clay to clay
44.29	10.16	0.1775	1.746	4.953	7	4	silty clay to clay
44.36	9.41	0.1924	2.043	6.270	7	4	silty clay to clay
44.42	9.07	0.2181	2.406	7.702	6	4	silty clay to clay
44.49	8.96	0.2397	2.676	8.981	4	5	clayey silt to silty clay
44.55	8.92	0.2214	2.483	10.486	4	5	clayey silt to silty clay
44.62	9.36	0.1619	1.731	41.924	4	5	clayey silt to silty clay
44.69	9.08	0.1178	1.297	41.144	4	5	clayey silt to silty clay
44.75	8.52	0.0851	0.999	39.486	4	5	clayey silt to silty clay
44.82	9.26	0.0694	0.749	41.412	4	5	clayey silt to silty clay
44.88	9.25	0.0501	0.541	43.955	4	5	clayey silt to silty clay
44.95	8.32	0.0383	0.461	45.425	4	1	sensitive fine grained
45.01	7.64	0.0375	0.490	47.653	4	1	sensitive fine grained
45.08	7.59	0.0422	0.556	49.819	4	1	sensitive fine grained
45.14	7.65	0.0339	0.444	51.205	4	1	sensitive fine grained
45.21	7.97	0.0305	0.382	52.016	4	1	sensitive fine grained
45.28	8.52	0.0343	0.403	52.050	4	1	sensitive fine grained
45.34	8.74	0.0313	0.358	51.370	4	1	sensitive fine grained
45.41	8.52	0.0242	0.284	50.718	4	1	sensitive fine grained
45.47	7.91	0.0225	0.285	51.086	4	1	sensitive fine grained
45.54	7.45	0.0248	0.333	51.982	4	1	sensitive fine grained
45.60	7.30	0.0215	0.295	52.584	4	1	sensitive fine grained
45.67	7.55	0.0306	0.405	52.899	4	1	sensitive fine grained
45.73	7.96	0.0281	0.354	52.465	4	1	sensitive fine grained
45.80	7.87	0.0241	0.306	50.808	3	1	sensitive fine grained
45.87	6.82	0.0701	1.028	50.615	3	1	sensitive fine grained
45.93	6.72	0.0360	0.536	52.328	3	1	sensitive fine grained
46.00	6.77	0.0224	0.331	52.959	4	1	sensitive fine grained
46.06	7.05	0.0249	0.353	53.339	4	6	sandy silt to clayey silt
46.13	7.67	0.0228	0.298	53.264	5	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
46.19	14.22	0.0127	0.089	18.621	5	6	sandy silt to clayey silt
46.26	19.08	0.0205	0.107	20.244	5	7	silty sand to sandy silt
46.33	22.81	0.0132	0.058	21.358	5	7	silty sand to sandy silt
46.39	21.91	0.0113	0.052	21.992	6	7	silty sand to sandy silt
46.46	18.35	0.0204	0.111	22.803	5	7	silty sand to sandy silt
46.52	14.50	0.0175	0.120	24.151	5	7	silty sand to sandy silt
46.59	12.25	0.0164	0.134	25.724	5	6	sandy silt to clayey silt
46.65	10.53	0.0118	0.112	28.096	5	6	sandy silt to clayey silt
46.72	10.03	0.0024	0.024	29.987	5	6	sandy silt to clayey silt
46.78	11.27	-0.0021	-0.019	32.509	5	6	sandy silt to clayey silt
46.85	15.89	0.0083	0.052	34.244	5	6	sandy silt to clayey silt
46.92	18.74	0.0114	0.061	35.083	6	6	sandy silt to clayey silt
46.98	17.78	0.0082	0.046	35.361	6	6	sandy silt to clayey silt
47.05	15.49	0.0026	0.017	36.038	6	6	sandy silt to clayey silt
47.11	13.04	0.0066	0.051	37.040	5	6	sandy silt to clayey silt
47.18	10.80	0.0137	0.127	38.413	5	6	sandy silt to clayey silt
47.24	9.54	0.0117	0.123	39.877	4	6	sandy silt to clayey silt
47.31	8.73	0.0109	0.125	41.574	4	1	sensitive fine grained
47.38	7.95	0.0020	0.025	43.347	4	1	sensitive fine grained
47.44	7.70	0.0031	0.040	44.995	4	1	sensitive fine grained
47.51	7.64	0.0123	0.162	46.277	4	1	sensitive fine grained
47.57	7.58	0.0063	0.083	47.173	4	1	sensitive fine grained
47.64	7.60	0.0059	0.078	48.003	4	1	sensitive fine grained
47.70	7.73	0.0020	0.026	48.755	4	1	sensitive fine grained
47.77	8.19	0.0036	0.044	48.992	4	1	sensitive fine grained
47.83	9.28	-0.0026	-0.028	42.685	4	1	sensitive fine grained
47.90	8.77	0.0095	0.108	43.244	4	1	sensitive fine grained
47.97	8.00	0.0101	0.126	44.342	4	1	sensitive fine grained
48.03	7.43	0.0082	0.111	45.628	4	1	sensitive fine grained
48.10	7.10	0.0029	0.041	47.082	4	1	sensitive fine grained
48.16	7.23	0.0104	0.144	48.106	3	1	sensitive fine grained
48.23	7.28	0.0155	0.213	48.899	3	1	sensitive fine grained
48.29	6.85	0.0218	0.318	49.317	4	1	sensitive fine grained
48.36	6.69	0.0308	0.461	50.094	5	1	sensitive fine grained
48.43	7.77	0.0364	0.469	51.058	5	6	sandy silt to clayey silt
48.49	12.54	0.0223	0.178	51.220	5	6	sandy silt to clayey silt
48.56	19.18	0.0682	0.356	44.171	6	6	sandy silt to clayey silt
48.62	23.40	0.0904	0.386	37.533	7	6	sandy silt to clayey silt
48.69	24.06	0.0804	0.334	33.850	6	7	silty sand to sandy silt
48.75	21.85	0.0841	0.385	31.594	7	7	silty sand to sandy silt
48.82	19.82	0.0959	0.484	31.145	6	7	silty sand to sandy silt
48.88	18.22	0.0965	0.530	31.304	6	7	silty sand to sandy silt
48.95	16.92	0.0550	0.325	32.674	6	7	silty sand to sandy silt
49.02	16.75	0.0176	0.105	35.211	6	7	silty sand to sandy silt
49.08	18.09	0.0139	0.077	36.946	6	7	silty sand to sandy silt
49.15	19.01	0.0240	0.126	37.839	6	7	silty sand to sandy silt
49.21	19.09	0.0358	0.188	38.478	6	7	silty sand to sandy silt
49.28	18.56	0.0212	0.114	39.199	6	7	silty sand to sandy silt
49.34	17.57	0.0162	0.092	40.329	6	7	silty sand to sandy silt
49.41	17.13	0.0075	0.044	41.253	5	7	silty sand to sandy silt
49.48	16.78	0.0184	0.110	41.886	6	6	sandy silt to clayey silt
49.54	15.21	0.0225	0.148	42.033	5	6	sandy silt to clayey silt
49.61	13.00	0.0263	0.202	42.404	5	6	sandy silt to clayey silt
49.67	10.81	0.0288	0.267	43.275	4	6	sandy silt to clayey silt
49.74	9.23	0.0315	0.341	44.664	4	6	sandy silt to clayey silt
49.80	8.25	0.0261	0.316	46.112	5	1	sensitive fine grained
49.87	7.86	0.0209	0.266	47.260	4	1	sensitive fine grained
49.93	8.02	0.0247	0.308	48.159	4	1	sensitive fine grained
50.00	8.64	0.0201	0.232	48.555	5	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
50.07	9.89	0.0141	0.143	48.352	4	6	sandy silt to clayey silt
50.13	11.31	0.0087	0.077	47.391	4	6	sandy silt to clayey silt
50.20	12.65	0.0276	0.218	46.130	5	6	sandy silt to clayey silt
50.26	13.85	0.0730	0.527	45.469	6	6	sandy silt to clayey silt
50.33	15.23	0.1475	0.968	45.597	6	6	sandy silt to clayey silt
50.39	17.25	0.1275	0.739	46.065	7	6	sandy silt to clayey silt
50.46	20.44	0.0952	0.466	46.286	8	6	sandy silt to clayey silt
50.52	21.42	0.1040	0.485	46.262	7	7	silty sand to sandy silt
50.59	24.44	0.1244	0.509	45.846	8	7	silty sand to sandy silt
50.66	28.37	0.1322	0.466	45.001	8	7	silty sand to sandy silt
50.72	27.09	0.1419	0.524	44.405	8	7	silty sand to sandy silt
50.79	26.56	0.3880	1.461	45.575	9	7	silty sand to sandy silt
50.85	27.55	0.3268	1.186	46.215	9	7	silty sand to sandy silt
50.92	28.24	0.3131	1.109	46.801	9	7	silty sand to sandy silt
50.98	29.14	0.3031	1.040	47.245	10	7	silty sand to sandy silt
51.05	29.42	0.2983	1.014	47.513	10	7	silty sand to sandy silt
51.12	35.21	0.2960	0.841	30.106	10	7	silty sand to sandy silt
51.18	34.31	0.2928	0.853	33.080	11	7	silty sand to sandy silt
51.25	34.29	0.2985	0.870	35.923	11	7	silty sand to sandy silt
51.31	34.89	0.3208	0.919	38.382	12	7	silty sand to sandy silt
51.38	36.48	0.3424	0.938	40.588	13	7	silty sand to sandy silt
51.44	39.43	0.3277	0.831	42.320	14	7	silty sand to sandy silt
51.51	45.15	0.3025	0.670	43.643	15	7	silty sand to sandy silt
51.57	52.87	0.3311	0.626	43.337	16	7	silty sand to sandy silt
51.64	57.81	0.3765	0.651	41.612	16	7	silty sand to sandy silt
51.71	58.34	0.4153	0.712	40.054	16	7	silty sand to sandy silt
51.77	53.67	0.4552	0.848	39.926	16	7	silty sand to sandy silt
51.84	47.13	0.4786	1.015	41.215	16	7	silty sand to sandy silt
51.90	43.29	0.4849	1.120	42.835	15	7	silty sand to sandy silt
51.97	42.08	0.4906	1.166	44.030	14	7	silty sand to sandy silt
52.03	42.24	0.4903	1.161	44.467	14	7	silty sand to sandy silt
52.10	42.82	0.5016	1.172	44.255	14	7	silty sand to sandy silt
52.17	43.16	0.5087	1.179	43.606	14	7	silty sand to sandy silt
52.23	43.59	0.5181	1.188	42.626	14	7	silty sand to sandy silt
52.30	44.24	0.5275	1.193	41.609	14	7	silty sand to sandy silt
52.36	45.44	0.5326	1.172	40.413	15	7	silty sand to sandy silt
52.43	46.85	0.5621	1.200	39.053	15	7	silty sand to sandy silt
52.49	47.89	0.5766	1.204	38.054	15	7	silty sand to sandy silt
52.56	48.68	0.5918	1.216	37.183	15	7	silty sand to sandy silt
52.62	49.52	0.6044	1.221	36.750	16	7	silty sand to sandy silt
52.69	50.37	0.6450	1.281	36.331	16	7	silty sand to sandy silt
52.76	50.30	0.6482	1.289	35.792	16	7	silty sand to sandy silt
52.82	49.27	0.6261	1.271	35.458	15	7	silty sand to sandy silt
52.89	47.38	0.5957	1.257	35.358	15	7	silty sand to sandy silt
52.95	44.77	0.5357	1.196	35.586	14	7	silty sand to sandy silt
53.02	41.15	0.4868	1.183	36.403	13	7	silty sand to sandy silt
53.08	38.17	0.4963	1.300	37.598	12	7	silty sand to sandy silt
53.15	35.38	0.5088	1.438	39.174	12	7	silty sand to sandy silt
53.22	33.13	0.4158	1.255	40.885	11	7	silty sand to sandy silt
53.28	31.19	0.1582	0.507	43.244	10	7	silty sand to sandy silt
53.35	30.48	0.0992	0.325	44.782	9	7	silty sand to sandy silt
53.41	28.07	0.0727	0.259	44.358	8	7	silty sand to sandy silt
53.48	23.50	0.0591	0.251	41.977	7	7	silty sand to sandy silt
53.54	18.75	0.0263	0.140	38.497	6	7	silty sand to sandy silt
53.61	14.22	0.0324	0.228	37.564	6	6	sandy silt to clayey silt
53.67	11.88	0.0366	0.308	38.950	5	6	sandy silt to clayey silt
53.74	10.12	0.0320	0.316	40.816	4	6	sandy silt to clayey silt
53.81	8.35	0.0215	0.258	43.141	5	1	sensitive fine grained
53.87	7.49	0.0276	0.368	46.736	4	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
53.94	7.28	0.0283	0.388	49.154	4	1	sensitive fine grained
54.00	7.19	0.0192	0.268	50.543	4	1	sensitive fine grained
54.07	7.50	0.0130	0.173	51.517	4	1	sensitive fine grained
54.13	7.82	0.0222	0.285	52.019	4	1	sensitive fine grained
54.20	8.12	0.0231	0.285	52.275	4	1	sensitive fine grained
54.27	8.66	0.0155	0.179	52.235	4	1	sensitive fine grained
54.33	8.78	0.0095	0.108	51.395	4	1	sensitive fine grained
54.40	9.04	0.0116	0.128	49.023	4	1	sensitive fine grained
54.46	8.76	0.0181	0.207	49.192	4	1	sensitive fine grained
54.53	8.47	0.0205	0.242	49.704	4	1	sensitive fine grained
54.59	8.26	0.0129	0.156	50.730	4	1	sensitive fine grained
54.66	7.98	0.0189	0.236	51.670	4	1	sensitive fine grained
54.72	7.68	0.0244	0.318	53.190	4	1	sensitive fine grained
54.79	8.44	0.0306	0.363	54.678	4	1	sensitive fine grained
54.86	9.23	0.0523	0.567	54.959	4	6	sandy silt to clayey silt
54.92	9.55	0.0444	0.466	54.222	5	6	sandy silt to clayey silt
54.99	10.56	0.0490	0.464	55.096	7	6	sandy silt to clayey silt
55.05	18.77	0.0600	0.320	56.516	7	7	silty sand to sandy silt
55.12	35.27	0.1204	0.341	51.526	8	7	silty sand to sandy silt
55.18	38.45	0.2041	0.531	38.269	9	7	silty sand to sandy silt
55.25	34.60	0.2713	0.784	29.978	10	7	silty sand to sandy silt
55.31	31.00	0.2999	0.968	29.282	10	7	silty sand to sandy silt
55.38	28.57	0.3031	1.061	29.069	10	7	silty sand to sandy silt
55.45	29.85	0.3016	1.010	28.729	9	7	silty sand to sandy silt
55.51	27.77	0.2561	0.922	28.224	9	6	sandy silt to clayey silt
55.58	22.48	0.1862	0.829	28.377	9	6	sandy silt to clayey silt
55.64	17.03	0.1369	0.804	29.669	8	6	sandy silt to clayey silt
55.71	15.20	0.1497	0.985	31.491	8	6	sandy silt to clayey silt
55.77	19.28	0.1520	0.788	33.810	7	6	sandy silt to clayey silt
55.84	21.77	0.1682	0.773	36.313	7	6	sandy silt to clayey silt
55.91	18.69	0.1820	0.974	32.661	6	6	sandy silt to clayey silt
55.97	16.60	0.1915	1.154	31.853	6	6	sandy silt to clayey silt
56.04	13.89	0.2119	1.526	32.309	6	6	sandy silt to clayey silt
56.10	12.26	0.2075	1.693	33.089	5	6	sandy silt to clayey silt
56.17	11.55	0.1667	1.443	34.056	5	6	sandy silt to clayey silt
56.23	11.89	0.1307	1.099	35.536	5	6	sandy silt to clayey silt
56.30	12.46	0.1017	0.816	36.450	5	6	sandy silt to clayey silt
56.36	13.51	0.0516	0.382	35.532	5	6	sandy silt to clayey silt
56.43	13.49	0.0340	0.252	33.607	4	6	sandy silt to clayey silt
56.50	11.55	0.0199	0.172	32.814	4	6	sandy silt to clayey silt
56.56	9.78	0.0004	0.004	33.276	4	6	sandy silt to clayey silt
56.63	8.37	-0.0014	-0.017	34.365	5	1	sensitive fine grained
56.69	7.72	-0.0069	-0.089	35.592	0	0	<out of range>
56.76	7.72	-0.0057	-0.074	36.618	0	0	<out of range>
56.82	10.76	-0.0044	-0.041	37.595	0	0	<out of range>
56.89	15.42	-0.0036	-0.024	37.982	0	0	<out of range>
56.96	53.57	0.0114	0.021	42.972	0	0	<out of range>
57.02	99.21	-0.0025	-0.003	42.020	16	8	sand to silty sand
57.09	127.66	-0.0015	-0.001	40.073	14	9	sand
57.15	66.59	-0.0042	-0.006	32.090	0	0	<out of range>
57.22	85.49	0.0327	0.038	34.637	0	0	<out of range>
57.28	72.95	0.2233	0.306	36.531	11	7	silty sand to sandy silt
57.35	40.55	-32768	-32768	34.384	0	0	<out of range>
57.41	27.12	-32768	-32768	33.457	0	0	<out of range>
57.48	22.27	-32768	-32768	33.070	0	0	<out of range>
57.55	13.21	-32768	-32768	30.808	0	0	<out of range>

*Soil behavior type and SPT based on data from UBC-1983

AECOM

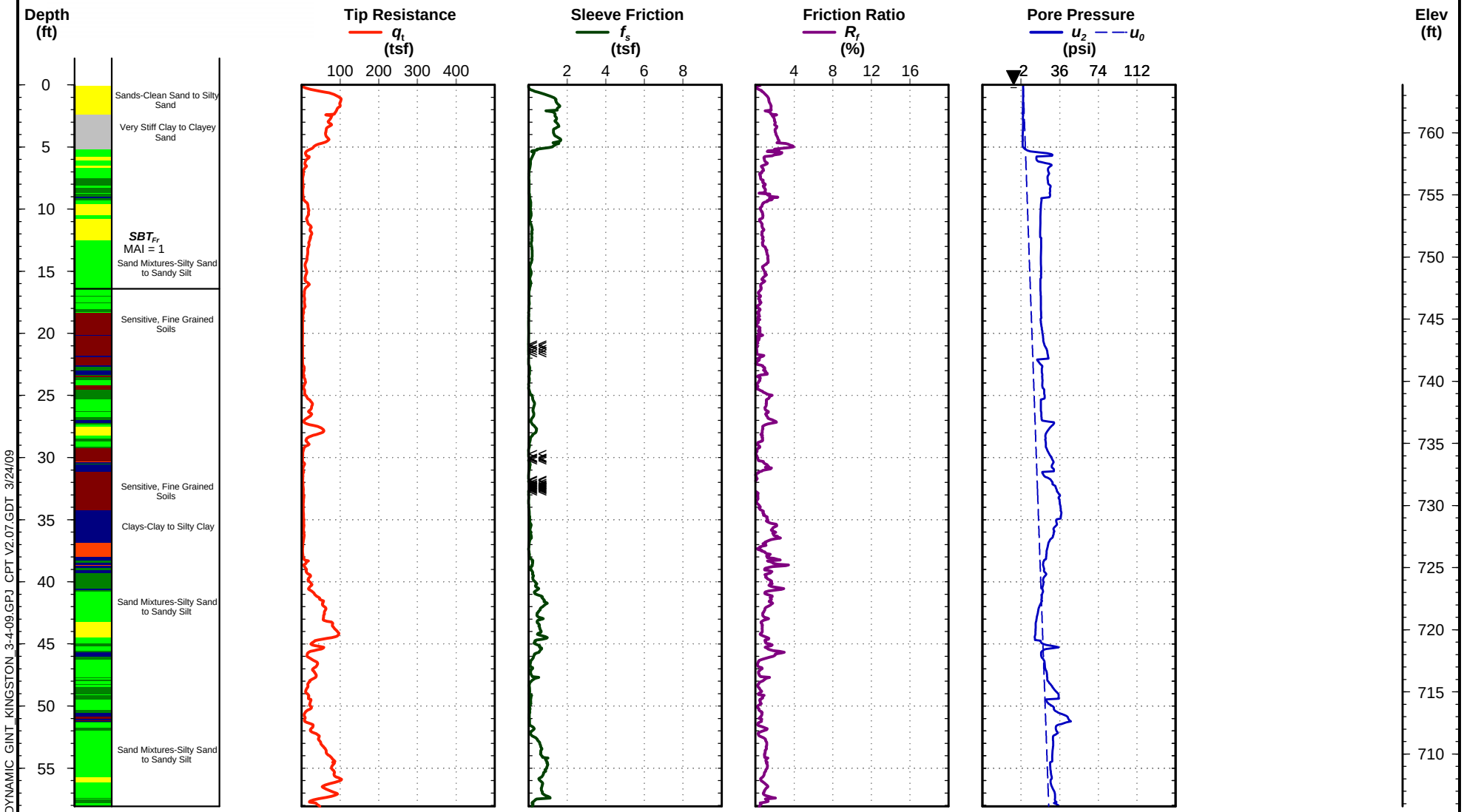
TVA Kingston Coal Ash Pond RCA (Kingston,Tennessee) *Cone Penetration Test* **09-709-C1**

Project No: 60095742

Date: Feb. 14, 2009
Estimated Water Depth: 0 ft
Rig/Operator: D-120/CAP

Northing: 555076.96
Easting: 2442091.2
Elevation: 763.86 NGVD

Total Depth: 58.1 ft
Termination Criteria: Refusal
Cone Size: 5T Tension Cone



09-709-C1

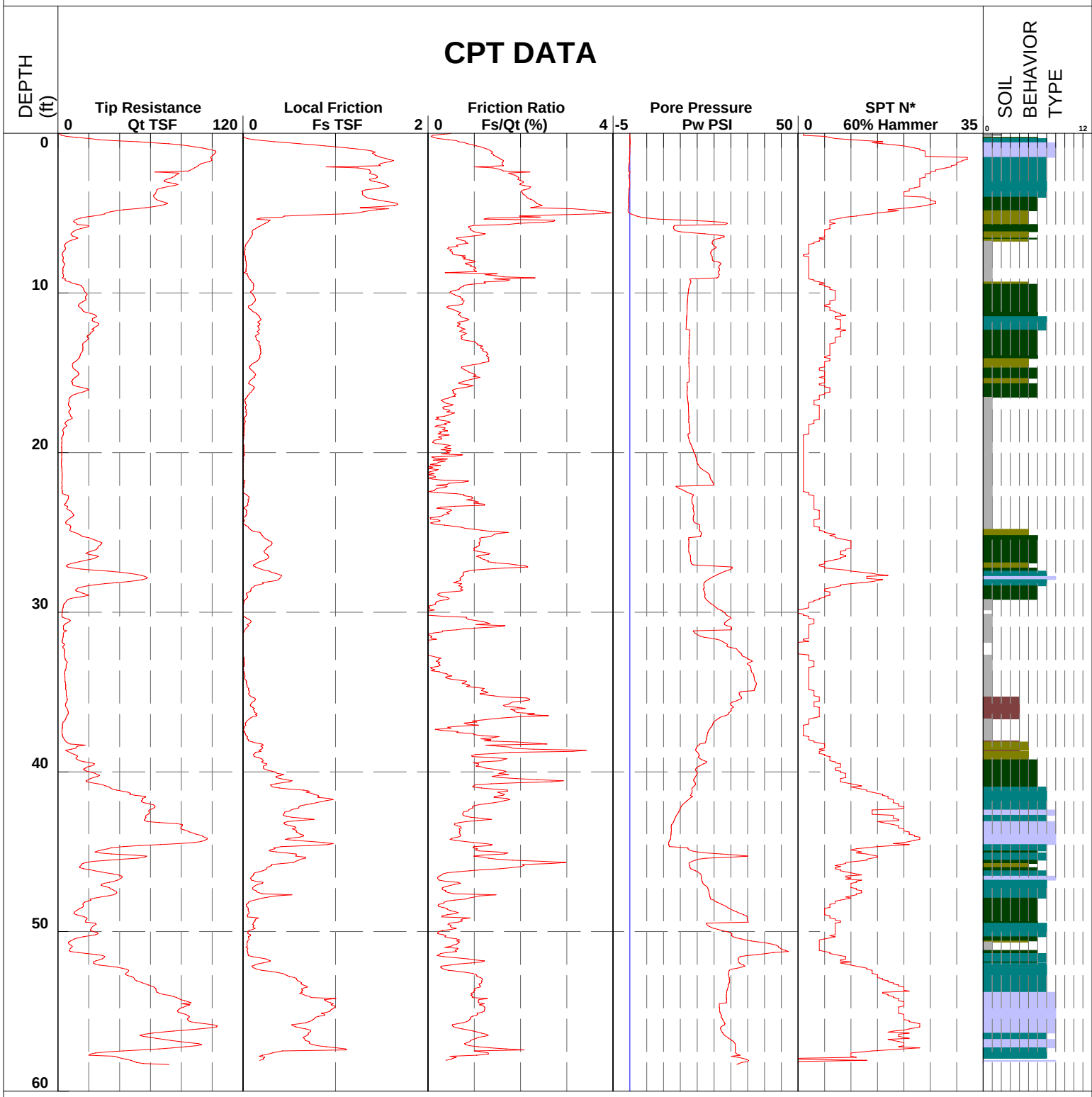
Electronic Filename: 09-709-C1.cpt

CPT REPORT - DYNAMIC GINT_KINGSTON_3-4-09.GPJ CPT V2.07.GDT 3/24/09

AECOM

09-709-C1	60095742	2/14/2009 10:56:12 AM
DTA1081	TVA-Kingston	D-120/CAP

CPT DATA



- 1 - sensitive fine grained
- 2 - organic material
- 3 - clay
- 4 - silty clay to clay
- 5 - clayey silt to silty clay
- 6 - sandy silt to clayey silt
- 7 - silty sand to sandy silt
- 8 - sand to silty sand
- 9 - sand
- 10 - gravelly sand to sand
- 11 - very stiff fine grained (*)
- 12 - sand to clayey sand (*)

Data File:09-709-C1 2/14/2009 10:56:12 AM
Operator:D-120/CAP Location:TVA-Kingston
Cone ID:DTA1081 Job Number:60095742
Customer:TVA Units:

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
0.07	0.62	0.0031	0.491	0.003	1	2	organic material
0.13	2.33	0.0021	0.090	0.006	1	1	sensitive fine grained
0.20	5.59	0.0042	0.074	0.006	5	1	sensitive fine grained
0.26	11.83	0.0136	0.115	0.009	6	6	sandy silt to clayey silt
0.33	20.28	0.0439	0.217	0.012	7	7	silty sand to sandy silt
0.39	26.44	0.1161	0.439	0.016	10	7	silty sand to sandy silt
0.46	36.69	0.2261	0.616	0.044	13	7	silty sand to sandy silt
0.52	51.64	0.3388	0.656	0.041	16	7	silty sand to sandy silt
0.59	61.02	0.4847	0.794	0.069	14	8	sand to silty sand
0.66	71.76	0.6106	0.851	0.053	16	8	sand to silty sand
0.72	79.02	0.7553	0.956	0.022	18	8	sand to silty sand
0.79	84.81	0.8853	1.044	0.000	20	8	sand to silty sand
0.85	88.80	1.0136	1.141	-0.003	21	8	sand to silty sand
0.92	93.49	1.1290	1.208	-0.012	22	8	sand to silty sand
0.98	96.67	1.2313	1.274	0.009	23	8	sand to silty sand
1.05	100.06	1.3288	1.328	0.009	23	8	sand to silty sand
1.12	102.21	1.3917	1.362	0.006	24	8	sand to silty sand
1.18	102.55	1.4291	1.394	0.022	24	8	sand to silty sand
1.25	101.81	1.3974	1.373	0.000	24	8	sand to silty sand
1.31	101.37	1.4250	1.406	-0.047	24	8	sand to silty sand
1.38	100.53	1.4274	1.420	-0.078	24	8	sand to silty sand
1.44	99.57	1.4632	1.470	-0.122	24	8	sand to silty sand
1.51	99.04	1.4921	1.507	-0.150	32	7	silty sand to sandy silt
1.57	99.33	1.5382	1.549	-0.156	32	7	silty sand to sandy silt
1.64	99.78	1.5807	1.584	-0.125	32	7	silty sand to sandy silt
1.71	99.83	1.6277	1.630	-0.097	31	7	silty sand to sandy silt
1.77	98.18	1.5938	1.623	-0.100	31	7	silty sand to sandy silt
1.84	95.40	1.5315	1.605	-0.140	30	7	silty sand to sandy silt
1.90	92.86	1.4865	1.601	-0.190	30	7	silty sand to sandy silt
1.97	91.82	1.4701	1.601	-0.259	30	7	silty sand to sandy silt
2.03	90.97	1.4855	1.633	-0.315	29	7	silty sand to sandy silt
2.10	89.92	0.8976	0.998	-0.318	29	7	silty sand to sandy silt
2.17	88.49	1.2403	1.402	-0.331	28	7	silty sand to sandy silt
2.23	87.27	1.3171	1.509	-0.353	27	7	silty sand to sandy silt
2.30	86.13	1.3663	1.586	-0.387	26	7	silty sand to sandy silt
2.36	84.74	1.3757	1.623	-0.428	26	7	silty sand to sandy silt
2.43	62.74	1.3816	2.202	0.047	25	7	silty sand to sandy silt
2.49	78.56	1.3694	1.743	-0.075	25	7	silty sand to sandy silt
2.56	77.61	1.3933	1.795	-0.165	24	7	silty sand to sandy silt
2.62	76.45	1.4350	1.877	-0.228	24	7	silty sand to sandy silt
2.69	75.66	1.4509	1.918	-0.222	24	7	silty sand to sandy silt
2.76	74.31	1.4508	1.952	-0.190	24	7	silty sand to sandy silt
2.82	72.73	1.4316	1.968	-0.169	23	7	silty sand to sandy silt
2.89	70.37	1.3664	1.942	-0.112	23	7	silty sand to sandy silt
2.95	68.99	1.3756	1.994	-0.075	23	7	silty sand to sandy silt
3.02	69.08	1.4233	2.060	-0.069	23	7	silty sand to sandy silt
3.08	71.64	1.4752	2.059	-0.066	23	7	silty sand to sandy silt
3.15	75.94	1.5160	1.996	-0.062	23	7	silty sand to sandy silt
3.22	77.76	1.5412	1.982	-0.056	23	7	silty sand to sandy silt
3.28	75.28	1.5644	2.078	-0.047	23	7	silty sand to sandy silt
3.35	71.06	1.5777	2.220	-0.100	23	7	silty sand to sandy silt
3.41	67.70	1.4898	2.200	-0.178	22	7	silty sand to sandy silt
3.48	65.09	1.4127	2.170	-0.240	21	7	silty sand to sandy silt
3.54	64.10	1.3260	2.069	-0.284	21	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
3.61	63.81	1.2885	2.019	-0.293	21	7	silty sand to sandy silt
3.67	63.65	1.2875	2.023	-0.284	20	7	silty sand to sandy silt
3.74	63.36	1.2941	2.042	-0.312	20	7	silty sand to sandy silt
3.81	62.99	1.2916	2.050	-0.325	20	7	silty sand to sandy silt
3.87	62.14	1.2968	2.087	-0.334	20	7	silty sand to sandy silt
3.94	62.04	1.3139	2.118	-0.346	20	7	silty sand to sandy silt
4.00	62.32	1.3290	2.133	-0.384	24	6	sandy silt to clayey silt
4.07	62.80	1.3559	2.159	-0.406	24	6	sandy silt to clayey silt
4.13	63.69	1.4077	2.210	-0.431	25	6	sandy silt to clayey silt
4.20	64.98	1.4797	2.277	-0.437	25	6	sandy silt to clayey silt
4.27	67.32	1.5488	2.301	-0.399	26	6	sandy silt to clayey silt
4.33	69.52	1.6213	2.332	-0.359	26	6	sandy silt to clayey silt
4.40	71.10	1.6674	2.345	-0.353	26	6	sandy silt to clayey silt
4.46	69.35	1.6743	2.414	-0.343	25	6	sandy silt to clayey silt
4.53	66.31	1.6348	2.466	-0.350	24	6	sandy silt to clayey silt
4.59	62.56	1.4830	2.370	-0.384	23	6	sandy silt to clayey silt
4.66	57.09	1.2664	2.218	-0.424	21	6	sandy silt to clayey silt
4.72	50.49	1.5737	3.117	-0.477	19	6	sandy silt to clayey silt
4.79	42.60	1.4436	3.389	-0.524	17	6	sandy silt to clayey silt
4.86	37.82	1.3624	3.602	-0.574	19	5	clayey silt to silty clay
4.92	33.77	1.2954	3.836	-0.515	17	5	clayey silt to silty clay
4.99	31.22	1.2375	3.963	-0.281	15	5	clayey silt to silty clay
5.05	30.22	1.0819	3.580	0.371	14	5	clayey silt to silty clay
5.12	27.14	0.7098	2.615	1.245	12	5	clayey silt to silty clay
5.18	22.61	0.4467	1.975	2.010	11	5	clayey silt to silty clay
5.25	17.73	0.4307	2.429	3.224	9	5	clayey silt to silty clay
5.31	14.63	0.1907	1.304	5.243	8	5	clayey silt to silty clay
5.38	12.32	0.1492	1.211	8.488	7	5	clayey silt to silty clay
5.45	10.70	0.2931	2.740	16.649	6	5	clayey silt to silty clay
5.51	10.13	0.2757	2.722	23.455	6	5	clayey silt to silty clay
5.58	10.67	0.2662	2.494	27.753	6	5	clayey silt to silty clay
5.64	12.25	0.2384	1.946	28.976	7	5	clayey silt to silty clay
5.71	12.42	0.2152	1.733	28.511	6	6	sandy silt to clayey silt
5.77	20.00	0.1956	0.978	13.185	6	6	sandy silt to clayey silt
5.84	19.97	0.1763	0.883	13.057	6	6	sandy silt to clayey silt
5.91	17.60	0.1552	0.881	12.998	6	6	sandy silt to clayey silt
5.97	14.64	0.1359	0.928	13.013	6	6	sandy silt to clayey silt
6.04	12.35	0.1125	0.911	13.204	5	6	sandy silt to clayey silt
6.10	10.83	0.1031	0.952	13.650	5	6	sandy silt to clayey silt
6.17	9.84	0.0979	0.995	14.948	5	5	clayey silt to silty clay
6.23	9.02	0.0986	1.094	18.381	5	5	clayey silt to silty clay
6.30	8.43	0.1043	1.238	22.151	5	5	clayey silt to silty clay
6.36	8.51	0.1002	1.177	25.808	5	5	clayey silt to silty clay
6.43	9.59	0.0925	0.964	28.008	5	5	clayey silt to silty clay
6.50	11.66	0.0903	0.775	28.027	5	5	clayey silt to silty clay
6.56	12.85	0.0786	0.612	26.869	4	6	sandy silt to clayey silt
6.63	11.19	0.0727	0.649	25.609	5	5	clayey silt to silty clay
6.69	9.00	0.0650	0.722	24.891	4	5	clayey silt to silty clay
6.76	7.21	0.0583	0.809	24.557	4	1	sensitive fine grained
6.82	6.01	0.0482	0.802	24.438	3	1	sensitive fine grained
6.89	5.10	0.0439	0.862	24.463	3	1	sensitive fine grained
6.96	4.62	0.0321	0.694	24.632	2	1	sensitive fine grained
7.02	4.30	0.0265	0.616	24.863	2	1	sensitive fine grained
7.09	4.30	0.0277	0.644	25.306	2	1	sensitive fine grained
7.15	4.74	0.0208	0.440	25.684	2	1	sensitive fine grained
7.22	4.94	0.0210	0.425	25.197	2	1	sensitive fine grained
7.28	4.70	0.0240	0.510	24.697	2	1	sensitive fine grained
7.35	4.05	0.0192	0.475	24.295	2	1	sensitive fine grained
7.41	3.42	0.0177	0.518	24.098	2	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
7.48	3.05	0.0160	0.524	24.011	2	1	sensitive fine grained
7.55	2.83	0.0148	0.523	23.998	2	1	sensitive fine grained
7.61	2.78	0.0159	0.570	24.129	1	1	sensitive fine grained
7.68	3.00	0.0240	0.802	24.298	1	1	sensitive fine grained
7.74	3.34	0.0246	0.736	24.482	2	1	sensitive fine grained
7.81	3.41	0.0276	0.810	24.479	2	1	sensitive fine grained
7.87	3.33	0.0253	0.759	24.482	2	1	sensitive fine grained
7.94	3.23	0.0290	0.898	24.576	2	1	sensitive fine grained
8.01	3.16	0.0320	1.013	24.857	2	1	sensitive fine grained
8.07	3.46	0.0347	1.003	26.361	2	1	sensitive fine grained
8.14	4.20	0.0339	0.809	27.078	2	1	sensitive fine grained
8.20	4.28	0.0355	0.829	26.904	2	1	sensitive fine grained
8.27	4.12	0.0384	0.933	26.667	2	1	sensitive fine grained
8.33	3.74	0.0343	0.917	26.461	2	1	sensitive fine grained
8.40	3.36	0.0342	1.017	26.370	2	1	sensitive fine grained
8.46	3.22	0.0334	1.036	26.557	2	1	sensitive fine grained
8.53	3.21	0.0316	0.986	26.629	2	1	sensitive fine grained
8.60	3.31	0.0331	1.002	26.570	2	1	sensitive fine grained
8.66	3.24	0.0339	1.049	26.298	2	1	sensitive fine grained
8.73	3.12	0.0116	0.371	26.192	2	1	sensitive fine grained
8.79	3.20	0.0478	1.494	26.457	2	1	sensitive fine grained
8.86	3.57	0.0442	1.236	26.551	2	1	sensitive fine grained
8.92	3.67	0.0536	1.462	26.448	2	1	sensitive fine grained
8.99	3.56	0.0583	1.637	26.420	2	1	sensitive fine grained
9.06	2.75	0.0636	2.313	25.886	2	1	sensitive fine grained
9.12	4.75	0.0678	1.427	17.857	2	1	sensitive fine grained
9.19	4.63	0.0816	1.764	17.904	3	1	sensitive fine grained
9.25	5.30	0.0897	1.693	18.069	3	1	sensitive fine grained
9.32	7.80	0.0946	1.212	18.128	4	5	clayey silt to silty clay
9.38	9.04	0.1128	1.248	18.000	5	5	clayey silt to silty clay
9.45	12.05	0.1144	0.949	17.894	4	6	sandy silt to clayey silt
9.51	14.80	0.1148	0.776	17.769	5	6	sandy silt to clayey silt
9.58	15.32	0.1178	0.769	17.657	5	6	sandy silt to clayey silt
9.65	15.99	0.1120	0.700	17.563	6	6	sandy silt to clayey silt
9.71	16.52	0.1127	0.682	17.510	6	6	sandy silt to clayey silt
9.78	16.65	0.1117	0.671	17.451	6	6	sandy silt to clayey silt
9.84	16.96	0.0987	0.582	17.420	7	6	sandy silt to clayey silt
9.91	17.27	0.0839	0.486	17.367	7	6	sandy silt to clayey silt
9.97	17.97	0.0847	0.471	17.339	7	6	sandy silt to clayey silt
10.04	18.60	0.0959	0.516	17.301	7	6	sandy silt to clayey silt
10.10	18.90	0.1078	0.570	17.261	7	6	sandy silt to clayey silt
10.17	18.57	0.1113	0.599	17.245	7	6	sandy silt to clayey silt
10.24	17.77	0.1230	0.692	17.208	7	6	sandy silt to clayey silt
10.30	17.88	0.1259	0.704	17.173	7	6	sandy silt to clayey silt
10.37	18.02	0.1351	0.750	17.145	7	6	sandy silt to clayey silt
10.43	18.28	0.1333	0.729	17.108	7	6	sandy silt to clayey silt
10.50	17.10	0.1339	0.783	17.089	6	6	sandy silt to clayey silt
10.56	15.86	0.1217	0.768	17.064	6	6	sandy silt to clayey silt
10.63	14.80	0.1121	0.758	17.042	6	6	sandy silt to clayey silt
10.70	13.85	0.1027	0.741	17.042	6	6	sandy silt to clayey silt
10.76	13.22	0.0863	0.653	17.020	5	6	sandy silt to clayey silt
10.83	13.28	0.0588	0.442	17.014	5	6	sandy silt to clayey silt
10.89	14.01	0.0559	0.399	17.030	6	6	sandy silt to clayey silt
10.96	14.98	0.0651	0.435	17.011	6	6	sandy silt to clayey silt
11.02	15.68	0.0843	0.538	16.999	6	6	sandy silt to clayey silt
11.09	16.02	0.0927	0.579	16.980	6	6	sandy silt to clayey silt
11.15	16.53	0.1054	0.637	16.977	7	6	sandy silt to clayey silt
11.22	18.38	0.1291	0.702	16.970	7	6	sandy silt to clayey silt
11.29	21.42	0.1466	0.684	16.967	8	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
11.35	23.56	0.1536	0.652	16.942	8	6	sandy silt to clayey silt
11.42	24.59	0.1696	0.690	16.902	9	6	sandy silt to clayey silt
11.48	24.99	0.1764	0.706	16.883	7	7	silty sand to sandy silt
11.55	23.57	0.1788	0.758	16.858	7	7	silty sand to sandy silt
11.61	22.44	0.1888	0.841	16.843	7	7	silty sand to sandy silt
11.68	22.29	0.1972	0.885	16.843	8	7	silty sand to sandy silt
11.75	22.21	0.1807	0.814	16.821	8	7	silty sand to sandy silt
11.81	23.74	0.1608	0.677	16.802	8	7	silty sand to sandy silt
11.88	25.71	0.1639	0.638	16.793	8	7	silty sand to sandy silt
11.94	26.57	0.1839	0.692	16.771	8	7	silty sand to sandy silt
12.01	26.42	0.1773	0.671	16.736	8	7	silty sand to sandy silt
12.07	25.19	0.1589	0.631	16.724	8	7	silty sand to sandy silt
12.14	24.08	0.1687	0.701	16.718	8	7	silty sand to sandy silt
12.20	23.29	0.1700	0.730	16.705	8	7	silty sand to sandy silt
12.27	22.00	0.1773	0.806	16.686	7	7	silty sand to sandy silt
12.34	23.39	0.1723	0.737	17.841	9	6	sandy silt to clayey silt
12.40	22.48	0.1543	0.687	17.813	8	6	sandy silt to clayey silt
12.47	21.30	0.1633	0.767	17.807	8	6	sandy silt to clayey silt
12.53	21.16	0.1753	0.828	17.779	8	6	sandy silt to clayey silt
12.60	20.55	0.1623	0.789	17.766	8	6	sandy silt to clayey silt
12.66	19.28	0.1398	0.725	17.732	8	6	sandy silt to clayey silt
12.73	18.79	0.1339	0.713	17.716	8	6	sandy silt to clayey silt
12.80	19.38	0.1428	0.737	17.685	7	6	sandy silt to clayey silt
12.86	19.76	0.1423	0.720	17.660	7	6	sandy silt to clayey silt
12.93	19.24	0.1421	0.739	17.654	7	6	sandy silt to clayey silt
12.99	18.47	0.1598	0.865	17.648	7	6	sandy silt to clayey silt
13.06	17.64	0.1788	1.013	17.645	7	6	sandy silt to clayey silt
13.12	16.78	0.1727	1.029	17.613	7	6	sandy silt to clayey silt
13.19	15.98	0.1712	1.071	17.623	6	6	sandy silt to clayey silt
13.25	16.10	0.1719	1.068	17.598	6	6	sandy silt to clayey silt
13.32	16.06	0.1898	1.182	17.591	6	6	sandy silt to clayey silt
13.39	16.26	0.1839	1.131	17.579	6	6	sandy silt to clayey silt
13.45	16.16	0.1850	1.145	17.582	6	6	sandy silt to clayey silt
13.52	16.10	0.1924	1.195	17.582	6	6	sandy silt to clayey silt
13.58	16.19	0.1904	1.176	17.573	6	6	sandy silt to clayey silt
13.65	15.93	0.1899	1.192	17.551	6	6	sandy silt to clayey silt
13.71	15.43	0.1944	1.260	17.548	6	6	sandy silt to clayey silt
13.78	14.87	0.1913	1.286	17.560	6	6	sandy silt to clayey silt
13.85	14.49	0.1878	1.296	17.554	6	6	sandy silt to clayey silt
13.91	14.40	0.1820	1.263	17.542	6	6	sandy silt to clayey silt
13.98	14.24	0.1814	1.275	17.545	5	6	sandy silt to clayey silt
14.04	13.98	0.1836	1.313	17.535	5	6	sandy silt to clayey silt
14.11	13.50	0.1751	1.296	17.520	6	5	clayey silt to silty clay
14.17	12.84	0.1685	1.313	17.529	6	5	clayey silt to silty clay
14.24	12.00	0.1577	1.314	17.517	6	5	clayey silt to silty clay
14.30	11.23	0.1472	1.311	17.526	5	5	clayey silt to silty clay
14.37	10.18	0.1194	1.172	17.523	5	5	clayey silt to silty clay
14.44	9.38	0.1060	1.130	17.535	5	5	clayey silt to silty clay
14.50	9.36	0.0907	0.968	17.545	5	5	clayey silt to silty clay
14.57	9.41	0.0789	0.839	17.548	5	5	clayey silt to silty clay
14.63	9.59	0.0703	0.734	17.551	5	5	clayey silt to silty clay
14.70	9.78	0.0700	0.716	17.588	4	6	sandy silt to clayey silt
14.76	10.37	0.0795	0.767	17.595	4	6	sandy silt to clayey silt
14.83	11.39	0.0912	0.801	17.604	4	6	sandy silt to clayey silt
14.90	12.32	0.1052	0.854	17.598	5	6	sandy silt to clayey silt
14.96	12.96	0.1144	0.883	17.595	5	6	sandy silt to clayey silt
15.03	13.42	0.1276	0.951	17.585	5	6	sandy silt to clayey silt
15.09	13.49	0.1353	1.003	17.595	5	6	sandy silt to clayey silt
15.16	13.06	0.1355	1.037	17.588	5	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
15.22	12.19	0.1195	0.980	17.588	5	6	sandy silt to clayey silt
15.29	11.16	0.1257	1.127	17.588	4	6	sandy silt to clayey silt
15.35	10.31	0.1072	1.040	17.576	5	5	clayey silt to silty clay
15.42	9.69	0.0894	0.922	17.585	5	5	clayey silt to silty clay
15.49	9.30	0.0761	0.819	17.601	5	5	clayey silt to silty clay
15.55	8.75	0.0671	0.767	17.620	5	5	clayey silt to silty clay
15.62	9.64	0.0644	0.669	16.958	5	5	clayey silt to silty clay
15.68	9.23	0.0613	0.664	16.977	4	6	sandy silt to clayey silt
15.75	9.52	0.0825	0.867	16.992	4	6	sandy silt to clayey silt
15.81	10.56	0.1031	0.977	17.024	5	6	sandy silt to clayey silt
15.88	13.63	0.1178	0.864	17.061	5	6	sandy silt to clayey silt
15.94	16.76	0.1231	0.735	17.095	6	6	sandy silt to clayey silt
16.01	19.08	0.1148	0.602	17.061	6	6	sandy silt to clayey silt
16.08	20.09	0.1071	0.533	17.039	6	6	sandy silt to clayey silt
16.14	18.07	0.0959	0.531	17.030	6	6	sandy silt to clayey silt
16.21	16.12	0.0907	0.562	17.020	6	6	sandy silt to clayey silt
16.27	13.30	0.0715	0.538	16.995	5	6	sandy silt to clayey silt
16.34	11.15	0.0671	0.602	17.008	5	6	sandy silt to clayey silt
16.40	9.55	0.0539	0.565	17.030	4	6	sandy silt to clayey silt
16.47	8.49	0.0495	0.583	17.055	4	6	sandy silt to clayey silt
16.54	7.85	0.0367	0.468	17.080	4	1	sensitive fine grained
16.60	7.38	0.0318	0.430	17.114	4	1	sensitive fine grained
16.67	7.09	0.0237	0.334	17.145	4	1	sensitive fine grained
16.73	7.20	0.0205	0.284	17.195	3	1	sensitive fine grained
16.80	7.25	0.0235	0.324	17.233	3	1	sensitive fine grained
16.86	6.98	0.0244	0.350	17.279	3	1	sensitive fine grained
16.93	6.84	0.0285	0.416	17.317	3	1	sensitive fine grained
16.99	6.78	0.0366	0.540	17.367	3	1	sensitive fine grained
17.06	6.97	0.0354	0.507	17.386	4	1	sensitive fine grained
17.13	7.54	0.0264	0.350	17.407	4	1	sensitive fine grained
17.19	8.04	0.0256	0.318	17.417	4	1	sensitive fine grained
17.26	8.21	0.0271	0.330	17.417	4	1	sensitive fine grained
17.32	7.88	0.0355	0.450	17.420	4	1	sensitive fine grained
17.39	7.34	0.0347	0.472	17.414	4	1	sensitive fine grained
17.45	6.95	0.0282	0.405	17.442	4	1	sensitive fine grained
17.52	7.22	0.0412	0.571	17.467	4	1	sensitive fine grained
17.59	7.68	0.0381	0.496	17.485	4	1	sensitive fine grained
17.65	8.18	0.0364	0.446	17.492	4	1	sensitive fine grained
17.72	8.31	0.0292	0.352	17.520	4	1	sensitive fine grained
17.78	9.00	0.0163	0.181	17.535	4	1	sensitive fine grained
17.85	9.23	0.0208	0.226	17.507	4	1	sensitive fine grained
17.91	8.17	0.0134	0.163	17.489	4	1	sensitive fine grained
17.98	6.56	0.0196	0.299	17.464	3	1	sensitive fine grained
18.04	5.47	0.0247	0.451	17.479	3	1	sensitive fine grained
18.11	4.81	0.0228	0.473	17.526	3	1	sensitive fine grained
18.18	4.51	0.0162	0.358	17.576	3	1	sensitive fine grained
18.24	5.10	0.0199	0.390	17.648	2	1	sensitive fine grained
18.31	5.73	0.0111	0.194	17.682	2	1	sensitive fine grained
18.37	5.26	0.0079	0.151	17.670	2	1	sensitive fine grained
18.44	4.31	0.0157	0.364	17.682	2	1	sensitive fine grained
18.50	3.57	0.0129	0.361	17.698	2	1	sensitive fine grained
18.57	3.19	0.0100	0.315	17.748	2	1	sensitive fine grained
18.64	3.17	0.0134	0.421	17.807	2	1	sensitive fine grained
18.70	3.50	0.0084	0.241	17.844	2	1	sensitive fine grained
18.77	3.68	0.0104	0.283	17.869	2	1	sensitive fine grained
18.83	3.39	0.0073	0.215	17.286	2	1	sensitive fine grained
18.90	3.40	0.0155	0.455	17.273	1	1	sensitive fine grained
18.96	2.89	0.0081	0.279	17.298	1	1	sensitive fine grained
19.03	2.59	0.0058	0.224	17.361	1	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
19.09	2.42	0.0070	0.288	17.460	1	1	sensitive fine grained
19.16	2.46	0.0072	0.291	17.560	1	1	sensitive fine grained
19.23	2.57	0.0034	0.132	17.641	1	1	sensitive fine grained
19.29	2.55	0.0029	0.115	17.754	1	1	sensitive fine grained
19.36	2.50	0.0025	0.100	17.857	1	1	sensitive fine grained
19.42	2.42	0.0040	0.164	17.960	1	1	sensitive fine grained
19.49	2.37	0.0082	0.348	18.128	1	1	sensitive fine grained
19.55	2.37	0.0114	0.484	18.281	1	1	sensitive fine grained
19.62	2.42	0.0097	0.401	18.375	1	1	sensitive fine grained
19.69	2.32	0.0084	0.363	18.512	1	1	sensitive fine grained
19.75	2.44	0.0120	0.493	18.643	1	1	sensitive fine grained
19.82	2.50	0.0070	0.279	18.780	1	1	sensitive fine grained
19.88	2.49	0.0121	0.489	18.834	1	1	sensitive fine grained
19.95	2.37	0.0093	0.391	18.949	1	1	sensitive fine grained
20.01	2.32	0.0105	0.452	19.127	1	1	sensitive fine grained
20.08	2.55	0.0074	0.289	19.270	1	1	sensitive fine grained
20.14	2.43	0.0180	0.742	19.414	1	1	sensitive fine grained
20.21	2.43	0.0141	0.578	19.486	1	1	sensitive fine grained
20.28	2.47	0.0020	0.080	19.607	1	1	sensitive fine grained
20.34	2.37	0.0033	0.138	19.670	1	1	sensitive fine grained
20.41	2.38	0.0098	0.413	19.745	1	1	sensitive fine grained
20.47	2.49	0.0027	0.111	19.804	1	1	sensitive fine grained
20.54	2.32	0.0086	0.372	19.845	1	1	sensitive fine grained
20.60	2.23	0.0052	0.233	19.904	1	1	sensitive fine grained
20.67	2.24	0.0042	0.188	20.032	1	1	sensitive fine grained
20.73	2.15	0.0012	0.054	20.232	1	1	sensitive fine grained
20.80	2.27	0.0061	0.270	20.428	1	1	sensitive fine grained
20.87	2.34	-0.0008	-0.035	20.644	1	1	sensitive fine grained
20.93	2.50	0.0026	0.102	20.846	1	1	sensitive fine grained
21.00	2.52	-0.0026	-0.104	21.090	1	1	sensitive fine grained
21.06	2.56	0.0056	0.220	21.611	1	1	sensitive fine grained
21.13	2.51	0.0040	0.158	22.082	1	1	sensitive fine grained
21.19	2.56	0.0012	0.048	22.575	1	1	sensitive fine grained
21.26	2.64	-0.0015	-0.056	23.015	1	1	sensitive fine grained
21.33	2.75	0.0037	0.135	23.371	1	1	sensitive fine grained
21.39	2.66	-0.0015	-0.055	23.621	1	1	sensitive fine grained
21.46	2.74	0.0033	0.121	23.783	1	1	sensitive fine grained
21.52	2.69	0.0043	0.161	23.805	1	1	sensitive fine grained
21.59	2.67	-0.0039	-0.146	23.883	1	1	sensitive fine grained
21.65	2.69	0.0024	0.090	23.989	1	1	sensitive fine grained
21.72	2.63	0.0075	0.287	24.164	1	1	sensitive fine grained
21.78	2.61	0.0229	0.877	24.448	1	1	sensitive fine grained
21.85	2.53	0.0195	0.771	24.566	1	1	sensitive fine grained
21.92	2.58	0.0118	0.456	24.778	1	1	sensitive fine grained
21.98	2.59	0.0108	0.417	24.941	1	1	sensitive fine grained
22.05	2.55	0.0046	0.181	24.963	1	1	sensitive fine grained
22.11	2.74	0.0113	0.410	13.703	1	1	sensitive fine grained
22.18	2.53	0.0095	0.377	13.987	1	1	sensitive fine grained
22.24	2.50	0.0047	0.190	14.646	1	1	sensitive fine grained
22.31	2.66	0.0042	0.156	15.469	1	1	sensitive fine grained
22.38	2.86	0.0039	0.136	16.069	1	1	sensitive fine grained
22.44	2.89	0.0002	0.007	16.643	1	1	sensitive fine grained
22.51	2.73	0.0056	0.206	17.139	2	1	sensitive fine grained
22.57	2.97	0.0180	0.606	18.072	2	1	sensitive fine grained
22.64	4.74	0.0368	0.776	18.827	2	1	sensitive fine grained
22.70	6.60	0.0512	0.775	18.809	3	1	sensitive fine grained
22.77	6.85	0.0643	0.939	18.571	3	1	sensitive fine grained
22.83	6.81	0.0657	0.965	18.484	3	1	sensitive fine grained
22.90	6.60	0.0626	0.948	18.440	3	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
22.97	6.33	0.0527	0.834	18.390	3	1	sensitive fine grained
23.03	5.91	0.0600	1.016	18.443	3	1	sensitive fine grained
23.10	5.43	0.0595	1.097	18.462	3	1	sensitive fine grained
23.16	5.19	0.0513	0.989	18.493	3	1	sensitive fine grained
23.23	4.20	0.0513	1.222	18.637	3	1	sensitive fine grained
23.29	4.46	0.0544	1.220	18.830	3	1	sensitive fine grained
23.36	6.09	0.0354	0.582	18.912	3	1	sensitive fine grained
23.43	6.26	0.0167	0.266	18.777	3	1	sensitive fine grained
23.49	5.77	0.0109	0.189	18.746	3	1	sensitive fine grained
23.56	6.18	0.0295	0.477	18.830	3	1	sensitive fine grained
23.62	7.45	0.0377	0.506	18.880	4	1	sensitive fine grained
23.69	8.68	0.0397	0.457	18.946	4	1	sensitive fine grained
23.75	9.07	0.0365	0.403	19.033	4	1	sensitive fine grained
23.82	9.53	0.0433	0.455	19.124	4	1	sensitive fine grained
23.88	10.20	0.0350	0.344	19.055	4	1	sensitive fine grained
23.95	10.26	0.0327	0.319	18.937	4	1	sensitive fine grained
24.02	9.43	0.0229	0.243	18.843	4	1	sensitive fine grained
24.08	8.29	0.0039	0.047	18.802	4	1	sensitive fine grained
24.15	7.25	0.0037	0.051	18.787	4	1	sensitive fine grained
24.21	6.42	0.0137	0.214	18.821	3	1	sensitive fine grained
24.28	5.72	0.0149	0.260	18.890	3	1	sensitive fine grained
24.34	5.17	0.0075	0.146	19.043	3	1	sensitive fine grained
24.41	4.94	0.0027	0.056	19.373	3	1	sensitive fine grained
24.48	5.54	0.0072	0.130	20.294	3	1	sensitive fine grained
24.54	7.70	0.0276	0.358	20.753	3	1	sensitive fine grained
24.61	8.30	0.0446	0.537	20.762	3	1	sensitive fine grained
24.67	8.27	0.0595	0.720	20.703	4	1	sensitive fine grained
24.74	8.08	0.0646	0.800	20.678	4	1	sensitive fine grained
24.80	7.84	0.0781	0.997	20.665	4	5	clayey silt to silty clay
24.87	7.68	0.0893	1.163	20.706	4	5	clayey silt to silty clay
24.93	8.58	0.1167	1.360	20.871	5	5	clayey silt to silty clay
25.00	10.64	0.1843	1.732	21.230	5	5	clayey silt to silty clay
25.07	12.67	0.1909	1.507	21.268	6	5	clayey silt to silty clay
25.13	13.74	0.1965	1.430	21.187	7	5	clayey silt to silty clay
25.20	14.88	0.2079	1.396	21.096	6	6	sandy silt to clayey silt
25.26	16.15	0.2178	1.348	20.974	7	6	sandy silt to clayey silt
25.33	19.86	0.2290	1.153	17.520	7	6	sandy silt to clayey silt
25.39	21.94	0.2432	1.108	17.498	8	6	sandy silt to clayey silt
25.46	23.55	0.2660	1.130	17.498	9	6	sandy silt to clayey silt
25.52	25.31	0.2840	1.122	17.523	10	6	sandy silt to clayey silt
25.59	27.14	0.3060	1.127	17.538	10	6	sandy silt to clayey silt
25.66	28.50	0.3130	1.098	17.538	10	6	sandy silt to clayey silt
25.72	28.32	0.3137	1.108	17.523	10	6	sandy silt to clayey silt
25.79	27.43	0.3050	1.112	17.495	10	6	sandy silt to clayey silt
25.85	26.55	0.2885	1.087	17.507	10	6	sandy silt to clayey silt
25.92	25.85	0.2706	1.047	17.492	10	6	sandy silt to clayey silt
25.98	25.83	0.2541	0.984	17.501	10	6	sandy silt to clayey silt
26.05	25.08	0.2513	1.002	17.479	9	6	sandy silt to clayey silt
26.12	23.81	0.2359	0.991	17.476	9	6	sandy silt to clayey silt
26.18	21.31	0.2260	1.061	17.501	8	6	sandy silt to clayey silt
26.25	19.24	0.2326	1.209	17.542	8	6	sandy silt to clayey silt
26.31	18.06	0.2410	1.335	17.629	8	6	sandy silt to clayey silt
26.38	20.06	0.2626	1.309	17.829	8	6	sandy silt to clayey silt
26.44	24.40	0.2688	1.102	17.975	9	6	sandy silt to clayey silt
26.51	26.32	0.2769	1.052	17.991	9	6	sandy silt to clayey silt
26.57	24.70	0.2798	1.133	18.010	8	6	sandy silt to clayey silt
26.64	23.27	0.2669	1.147	18.025	8	6	sandy silt to clayey silt
26.71	20.04	0.2439	1.217	18.035	7	6	sandy silt to clayey silt
26.77	16.49	0.2149	1.303	18.078	6	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
26.84	13.78	0.1779	1.291	18.150	5	6	sandy silt to clayey silt
26.90	10.61	0.1550	1.461	18.200	5	5	clayey silt to silty clay
26.97	8.05	0.1407	1.747	18.319	5	5	clayey silt to silty clay
27.03	6.01	0.1141	1.899	18.790	4	5	clayey silt to silty clay
27.10	5.37	0.1136	2.116	24.763	4	5	clayey silt to silty clay
27.17	6.35	0.1369	2.157	30.312	5	5	clayey silt to silty clay
27.23	9.85	0.1626	1.650	30.517	5	6	sandy silt to clayey silt
27.30	14.92	0.1940	1.300	30.009	7	6	sandy silt to clayey silt
27.36	22.82	0.2258	0.990	29.357	9	6	sandy silt to clayey silt
27.43	32.36	0.2816	0.870	28.442	10	7	silty sand to sandy silt
27.49	40.67	0.3071	0.755	27.600	12	7	silty sand to sandy silt
27.56	46.51	0.3535	0.760	26.816	14	7	silty sand to sandy silt
27.62	50.83	0.3876	0.763	26.161	15	7	silty sand to sandy silt
27.69	54.27	0.4161	0.767	25.534	17	7	silty sand to sandy silt
27.76	56.38	0.4135	0.733	24.891	13	8	sand to silty sand
27.82	57.94	0.4097	0.707	24.304	13	8	sand to silty sand
27.89	57.46	0.3954	0.688	23.774	13	8	sand to silty sand
27.95	54.97	0.3862	0.702	23.284	16	7	silty sand to sandy silt
28.02	50.87	0.3529	0.694	22.784	15	7	silty sand to sandy silt
28.08	45.50	0.2834	0.623	22.397	14	7	silty sand to sandy silt
28.15	38.29	0.2124	0.555	22.113	12	7	silty sand to sandy silt
28.22	30.26	0.2191	0.724	21.973	10	7	silty sand to sandy silt
28.28	23.86	0.1652	0.692	21.939	8	7	silty sand to sandy silt
28.35	19.23	0.1274	0.662	21.967	8	6	sandy silt to clayey silt
28.41	15.53	0.1148	0.739	22.026	7	6	sandy silt to clayey silt
28.48	13.01	0.0947	0.728	22.160	6	6	sandy silt to clayey silt
28.54	12.17	0.0856	0.703	21.770	5	6	sandy silt to clayey silt
28.61	11.31	0.0855	0.756	21.895	5	6	sandy silt to clayey silt
28.67	11.76	0.0834	0.709	22.070	5	6	sandy silt to clayey silt
28.74	14.31	0.0629	0.440	22.204	6	6	sandy silt to clayey silt
28.81	16.11	0.0394	0.245	22.279	6	6	sandy silt to clayey silt
28.87	18.14	0.0368	0.203	22.304	6	6	sandy silt to clayey silt
28.94	19.83	0.0436	0.220	22.307	6	6	sandy silt to clayey silt
29.00	16.95	0.0477	0.281	22.263	5	6	sandy silt to clayey silt
29.07	11.96	0.0495	0.414	22.294	5	6	sandy silt to clayey silt
29.13	8.44	0.0385	0.456	22.416	4	6	sandy silt to clayey silt
29.20	6.64	0.0281	0.424	22.675	4	1	sensitive fine grained
29.27	5.76	0.0155	0.270	23.047	3	1	sensitive fine grained
29.33	5.42	0.0103	0.190	23.349	3	1	sensitive fine grained
29.40	4.75	0.0080	0.168	23.664	2	1	sensitive fine grained
29.46	4.17	0.0066	0.159	24.083	2	1	sensitive fine grained
29.53	3.74	0.0056	0.151	24.538	2	1	sensitive fine grained
29.59	3.44	0.0013	0.039	25.013	2	1	sensitive fine grained
29.66	3.43	-0.0013	-0.037	25.403	2	1	sensitive fine grained
29.72	3.30	0.0011	0.033	25.724	2	1	sensitive fine grained
29.79	3.05	0.0010	0.034	26.127	1	1	sensitive fine grained
29.86	2.94	0.0040	0.137	26.835	0	0	<out of range>
29.92	2.85	-0.0001	-0.004	27.525	0	0	<out of range>
29.99	2.76	-0.0061	-0.220	27.959	0	0	<out of range>
30.05	2.62	-0.0075	-0.288	28.242	0	0	<out of range>
30.12	2.56	-0.0035	-0.135	28.473	1	1	sensitive fine grained
30.18	2.55	-0.0045	-0.178	28.782	1	1	sensitive fine grained
30.25	2.54	0.0078	0.307	29.232	2	1	sensitive fine grained
30.31	2.91	0.0242	0.832	29.890	2	1	sensitive fine grained
30.38	4.62	0.0384	0.832	30.118	2	1	sensitive fine grained
30.45	7.06	0.0611	0.866	29.575	3	1	sensitive fine grained
30.51	8.02	0.0812	1.013	29.010	3	1	sensitive fine grained
30.58	7.59	0.0898	1.183	28.598	3	1	sensitive fine grained
30.64	6.26	0.0792	1.266	28.271	3	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
30.71	5.09	0.0678	1.332	28.099	3	1	sensitive fine grained
30.77	4.20	0.0433	1.032	28.102	2	1	sensitive fine grained
30.84	3.67	0.0610	1.660	28.795	2	1	sensitive fine grained
30.91	3.41	0.0532	1.558	29.968	2	1	sensitive fine grained
30.97	3.56	0.0407	1.143	30.196	2	1	sensitive fine grained
31.04	3.60	0.0277	0.768	30.215	2	1	sensitive fine grained
31.10	3.63	0.0226	0.621	30.230	2	1	sensitive fine grained
31.17	5.66	0.0177	0.313	18.771	2	1	sensitive fine grained
31.23	4.08	0.0127	0.312	18.971	2	1	sensitive fine grained
31.30	3.64	0.0041	0.112	19.249	2	1	sensitive fine grained
31.36	3.43	0.0006	0.017	19.698	2	1	sensitive fine grained
31.43	3.35	0.0004	0.011	20.316	2	1	sensitive fine grained
31.50	3.64	0.0030	0.083	20.921	2	1	sensitive fine grained
31.56	3.32	0.0020	0.060	21.967	2	1	sensitive fine grained
31.63	3.10	0.0024	0.076	23.989	2	1	sensitive fine grained
31.69	3.00	0.0054	0.181	25.718	1	1	sensitive fine grained
31.76	2.91	-0.0035	-0.121	26.872	1	1	sensitive fine grained
31.82	2.72	-0.0012	-0.042	27.444	2	1	sensitive fine grained
31.89	2.67	0.0003	0.012	27.918	0	0	<out of range>
31.96	3.49	-0.0001	-0.004	28.573	0	0	<out of range>
32.02	4.46	-0.0010	-0.021	29.023	0	0	<out of range>
32.09	3.73	-0.0076	-0.204	28.829	0	0	<out of range>
32.15	3.11	-0.0011	-0.035	28.910	0	0	<out of range>
32.22	3.27	-0.0008	-0.025	30.102	0	0	<out of range>
32.28	3.98	-0.0074	-0.185	31.663	0	0	<out of range>
32.35	4.25	-0.0052	-0.123	31.881	0	0	<out of range>
32.41	4.18	-0.0102	-0.243	32.115	0	0	<out of range>
32.48	4.35	-0.0040	-0.091	32.462	0	0	<out of range>
32.55	4.44	-0.0010	-0.022	32.874	0	0	<out of range>
32.61	4.15	-0.0009	-0.022	33.098	0	0	<out of range>
32.68	4.12	-0.0012	-0.029	33.254	2	1	sensitive fine grained
32.74	4.05	0.0029	0.073	33.389	2	1	sensitive fine grained
32.81	4.39	0.0076	0.173	34.272	2	1	sensitive fine grained
32.87	4.66	0.0129	0.277	34.796	2	1	sensitive fine grained
32.94	4.69	0.0107	0.229	35.252	2	1	sensitive fine grained
33.01	5.05	0.0112	0.221	35.985	2	1	sensitive fine grained
33.07	5.64	0.0099	0.176	36.388	3	1	sensitive fine grained
33.14	6.07	0.0155	0.256	35.713	3	1	sensitive fine grained
33.20	5.75	0.0126	0.219	34.871	3	1	sensitive fine grained
33.27	5.37	0.0133	0.248	34.902	3	1	sensitive fine grained
33.33	5.29	0.0138	0.261	35.470	3	1	sensitive fine grained
33.40	5.29	0.0111	0.210	35.770	3	1	sensitive fine grained
33.46	5.26	0.0029	0.056	35.810	2	1	sensitive fine grained
33.53	5.12	0.0036	0.070	35.969	2	1	sensitive fine grained
33.60	4.94	0.0071	0.144	36.032	2	1	sensitive fine grained
33.66	4.65	0.0029	0.063	36.057	2	1	sensitive fine grained
33.73	4.47	0.0109	0.245	36.119	2	1	sensitive fine grained
33.79	4.44	0.0132	0.297	36.359	2	1	sensitive fine grained
33.86	4.30	0.0176	0.408	36.628	2	1	sensitive fine grained
33.92	4.42	0.0184	0.416	36.787	2	1	sensitive fine grained
33.99	4.45	0.0228	0.513	36.865	2	1	sensitive fine grained
34.06	4.53	0.0169	0.373	36.899	2	1	sensitive fine grained
34.12	4.54	0.0181	0.398	36.984	2	1	sensitive fine grained
34.19	4.54	0.0219	0.481	36.977	2	1	sensitive fine grained
34.25	4.53	0.0297	0.655	37.027	2	1	sensitive fine grained
34.32	4.52	0.0376	0.831	37.199	2	1	sensitive fine grained
34.38	4.69	0.0378	0.807	37.414	2	1	sensitive fine grained
34.45	4.92	0.0364	0.740	37.620	2	1	sensitive fine grained
34.51	4.94	0.0418	0.846	37.530	2	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
34.58	5.09	0.0458	0.899	37.477	2	1	sensitive fine grained
34.65	4.98	0.0415	0.833	37.308	2	1	sensitive fine grained
34.71	5.07	0.0520	1.027	37.327	2	1	sensitive fine grained
34.78	5.05	0.0614	1.215	37.024	2	1	sensitive fine grained
34.84	5.07	0.0597	1.177	37.083	2	1	sensitive fine grained
34.91	5.35	0.0618	1.156	36.890	3	1	sensitive fine grained
34.97	5.45	0.0680	1.248	33.039	3	1	sensitive fine grained
35.04	5.38	0.0697	1.296	32.484	3	1	sensitive fine grained
35.10	5.38	0.0604	1.121	32.490	3	1	sensitive fine grained
35.17	5.44	0.0662	1.217	32.646	3	1	sensitive fine grained
35.24	5.51	0.0779	1.416	32.718	3	1	sensitive fine grained
35.30	5.82	0.0939	1.611	33.092	4	4	silty clay to clay
35.37	5.86	0.1251	2.135	33.192	4	4	silty clay to clay
35.43	6.13	0.1348	2.197	33.014	4	4	silty clay to clay
35.50	6.01	0.1315	2.189	32.203	4	4	silty clay to clay
35.56	5.88	0.1211	2.061	31.550	4	4	silty clay to clay
35.63	5.57	0.1019	1.829	30.505	3	4	silty clay to clay
35.70	5.12	0.0910	1.775	29.956	3	4	silty clay to clay
35.76	4.82	0.0843	1.747	29.875	3	4	silty clay to clay
35.83	4.82	0.0785	1.629	30.084	3	4	silty clay to clay
35.89	5.05	0.0843	1.669	30.558	3	4	silty clay to clay
35.96	5.44	0.1053	1.936	30.742	4	4	silty clay to clay
36.02	5.87	0.1236	2.105	30.152	4	4	silty clay to clay
36.09	6.18	0.1105	1.788	30.018	4	4	silty clay to clay
36.15	6.39	0.1196	1.871	30.146	4	4	silty clay to clay
36.22	6.70	0.1256	1.875	29.884	4	4	silty clay to clay
36.29	6.70	0.1290	1.926	29.453	4	4	silty clay to clay
36.35	6.62	0.1520	2.298	29.403	4	4	silty clay to clay
36.42	6.35	0.1371	2.160	29.079	4	4	silty clay to clay
36.48	5.85	0.1522	2.602	28.402	4	4	silty clay to clay
36.55	5.42	0.1056	1.948	27.203	4	4	silty clay to clay
36.61	5.19	0.0837	1.613	26.548	3	4	silty clay to clay
36.68	4.99	0.0685	1.375	26.136	2	1	sensitive fine grained
36.75	4.64	0.0547	1.179	25.740	2	1	sensitive fine grained
36.81	4.36	0.0419	0.961	25.222	2	1	sensitive fine grained
36.88	3.37	0.0355	1.056	24.835	2	1	sensitive fine grained
36.94	3.20	0.0250	0.782	24.713	2	1	sensitive fine grained
37.01	2.96	0.0251	0.848	24.610	2	1	sensitive fine grained
37.07	2.81	0.0307	1.091	24.501	1	1	sensitive fine grained
37.14	2.98	0.0196	0.659	24.301	1	1	sensitive fine grained
37.20	2.96	0.0126	0.426	24.089	1	1	sensitive fine grained
37.27	2.81	0.0139	0.494	23.870	1	1	sensitive fine grained
37.34	2.69	0.0042	0.157	23.611	1	1	sensitive fine grained
37.40	2.59	0.0075	0.288	23.409	1	1	sensitive fine grained
37.47	2.65	0.0171	0.645	23.281	1	1	sensitive fine grained
37.53	2.61	0.0163	0.625	23.149	1	1	sensitive fine grained
37.60	2.56	0.0252	0.985	23.053	1	1	sensitive fine grained
37.66	2.85	0.0282	0.989	23.000	1	1	sensitive fine grained
37.73	2.92	0.0341	1.169	22.975	1	1	sensitive fine grained
37.80	3.13	0.0481	1.535	22.897	2	1	sensitive fine grained
37.86	3.35	0.0465	1.388	22.809	2	1	sensitive fine grained
37.93	3.84	0.0437	1.139	22.734	2	1	sensitive fine grained
37.99	4.42	0.0600	1.358	22.675	2	1	sensitive fine grained
38.06	4.77	0.0581	1.219	22.613	3	4	silty clay to clay
38.12	5.48	0.1050	1.914	22.479	3	5	clayey silt to silty clay
38.19	6.41	0.1442	2.252	22.332	4	5	clayey silt to silty clay
38.25	7.85	0.2018	2.570	20.800	5	5	clayey silt to silty clay
38.32	17.75	0.2214	1.247	20.494	5	5	clayey silt to silty clay
38.39	12.79	0.1934	1.512	19.994	5	5	clayey silt to silty clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
38.45	11.79	0.2102	1.783	19.885	5	5	clayey silt to silty clay
38.52	11.68	0.2123	1.818	19.851	5	5	clayey silt to silty clay
38.58	8.70	0.1986	2.282	19.573	4	5	clayey silt to silty clay
38.65	5.03	0.1724	3.427	19.536	5	4	silty clay to clay
38.71	6.27	0.1965	3.131	19.801	4	5	clayey silt to silty clay
38.78	7.59	0.1334	1.757	20.129	4	5	clayey silt to silty clay
38.85	9.03	0.1279	1.417	20.310	4	5	clayey silt to silty clay
38.91	10.84	0.1114	1.027	20.481	5	5	clayey silt to silty clay
38.98	12.44	0.1172	0.942	20.625	5	5	clayey silt to silty clay
39.04	12.76	0.1215	0.952	20.419	6	5	clayey silt to silty clay
39.11	11.72	0.1651	1.410	20.447	6	5	clayey silt to silty clay
39.17	11.72	0.1999	1.705	20.834	6	5	clayey silt to silty clay
39.24	12.92	0.2097	1.623	21.442	6	6	sandy silt to clayey silt
39.30	14.17	0.2229	1.573	22.135	6	6	sandy silt to clayey silt
39.37	17.01	0.2021	1.188	22.803	7	6	sandy silt to clayey silt
39.44	21.84	0.2140	0.980	22.678	7	6	sandy silt to clayey silt
39.50	23.68	0.2584	1.091	21.889	8	6	sandy silt to clayey silt
39.57	23.31	0.2548	1.093	21.224	8	6	sandy silt to clayey silt
39.63	21.16	0.2194	1.037	20.600	8	6	sandy silt to clayey silt
39.70	18.53	0.2207	1.191	20.029	8	6	sandy silt to clayey silt
39.76	17.76	0.2213	1.246	19.732	7	6	sandy silt to clayey silt
39.83	16.41	0.2331	1.420	19.492	7	6	sandy silt to clayey silt
39.90	17.22	0.2678	1.555	19.523	7	6	sandy silt to clayey silt
39.96	18.76	0.3158	1.684	19.760	8	6	sandy silt to clayey silt
40.03	21.97	0.3583	1.630	19.976	8	6	sandy silt to clayey silt
40.09	24.06	0.3687	1.532	20.010	9	6	sandy silt to clayey silt
40.16	25.26	0.4393	1.739	19.891	9	6	sandy silt to clayey silt
40.22	26.94	0.4086	1.517	19.707	9	6	sandy silt to clayey silt
40.29	25.73	0.3560	1.384	19.542	9	6	sandy silt to clayey silt
40.35	22.84	0.3605	1.578	19.352	9	6	sandy silt to clayey silt
40.42	21.02	0.4022	1.913	19.152	8	6	sandy silt to clayey silt
40.49	19.83	0.4683	2.362	18.949	8	6	sandy silt to clayey silt
40.55	18.15	0.5311	2.926	18.940	8	6	sandy silt to clayey silt
40.62	18.63	0.4990	2.678	19.152	8	6	sandy silt to clayey silt
40.68	21.96	0.4197	1.912	19.386	9	6	sandy silt to clayey silt
40.75	25.99	0.3545	1.364	19.520	10	6	sandy silt to clayey silt
40.81	28.91	0.2963	1.025	19.461	11	6	sandy silt to clayey silt
40.88	31.20	0.3068	0.983	19.152	12	6	sandy silt to clayey silt
40.94	33.14	0.3191	0.963	18.852	10	7	silty sand to sandy silt
41.01	34.03	0.3926	1.153	18.537	11	7	silty sand to sandy silt
41.08	35.20	0.4912	1.395	18.403	12	7	silty sand to sandy silt
41.14	38.17	0.6562	1.719	18.447	13	7	silty sand to sandy silt
41.21	41.72	0.7199	1.726	18.493	13	7	silty sand to sandy silt
41.27	45.48	0.6863	1.509	18.468	14	7	silty sand to sandy silt
41.34	47.07	0.7408	1.574	18.297	15	7	silty sand to sandy silt
41.40	46.52	0.7678	1.651	18.131	16	7	silty sand to sandy silt
41.47	50.10	0.8115	1.620	17.963	16	7	silty sand to sandy silt
41.54	56.96	0.8213	1.442	18.612	17	7	silty sand to sandy silt
41.60	56.57	0.8060	1.425	18.175	17	7	silty sand to sandy silt
41.67	54.66	0.9292	1.700	17.797	17	7	silty sand to sandy silt
41.73	55.02	0.9738	1.770	17.429	18	7	silty sand to sandy silt
41.80	54.30	0.9035	1.664	17.039	18	7	silty sand to sandy silt
41.86	54.10	0.8403	1.553	16.705	18	7	silty sand to sandy silt
41.93	55.67	0.7938	1.426	16.306	18	7	silty sand to sandy silt
41.99	59.13	0.7388	1.249	15.947	19	7	silty sand to sandy silt
42.06	61.86	0.6789	1.097	15.619	19	7	silty sand to sandy silt
42.13	62.75	0.6212	0.990	15.410	19	7	silty sand to sandy silt
42.19	62.99	0.6050	0.961	15.173	20	7	silty sand to sandy silt
42.26	62.22	0.6021	0.968	15.008	20	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
42.32	60.85	0.5536	0.910	14.873	19	7	silty sand to sandy silt
42.39	59.29	0.5201	0.877	14.752	14	8	sand to silty sand
42.45	58.73	0.5058	0.861	14.658	14	8	sand to silty sand
42.52	59.25	0.4519	0.763	14.493	14	8	sand to silty sand
42.59	59.30	0.4475	0.755	14.268	14	8	sand to silty sand
42.65	58.46	0.4381	0.749	14.043	14	8	sand to silty sand
42.72	57.22	0.4339	0.758	13.844	18	7	silty sand to sandy silt
42.78	56.89	0.4706	0.827	13.666	18	7	silty sand to sandy silt
42.85	57.07	0.5336	0.935	13.547	18	7	silty sand to sandy silt
42.91	56.68	0.6716	1.185	13.372	18	7	silty sand to sandy silt
42.98	56.20	0.7684	1.367	13.241	19	7	silty sand to sandy silt
43.04	56.06	0.6020	1.074	13.116	19	7	silty sand to sandy silt
43.11	58.00	0.4828	0.832	13.020	15	8	sand to silty sand
43.18	65.90	0.4476	0.679	12.873	16	8	sand to silty sand
43.24	77.19	0.4417	0.572	12.626	17	8	sand to silty sand
43.31	80.59	0.4600	0.571	12.395	18	8	sand to silty sand
43.37	80.75	0.5136	0.636	12.296	19	8	sand to silty sand
43.44	79.85	0.5602	0.702	12.305	19	8	sand to silty sand
43.50	79.64	0.5742	0.721	12.280	19	8	sand to silty sand
43.57	79.75	0.5344	0.670	12.311	20	8	sand to silty sand
43.64	82.02	0.5651	0.689	12.314	20	8	sand to silty sand
43.70	84.21	0.5822	0.691	12.327	20	8	sand to silty sand
43.77	85.39	0.5756	0.674	12.271	21	8	sand to silty sand
43.83	87.32	0.6002	0.687	12.224	21	8	sand to silty sand
43.90	89.53	0.6164	0.688	12.230	21	8	sand to silty sand
43.96	92.22	0.6550	0.710	12.196	22	8	sand to silty sand
44.03	93.91	0.6513	0.694	12.146	22	8	sand to silty sand
44.09	95.01	0.6079	0.640	12.155	23	8	sand to silty sand
44.16	96.93	0.4996	0.515	12.096	23	8	sand to silty sand
44.23	96.55	0.4572	0.474	12.018	23	8	sand to silty sand
44.29	94.99	0.5575	0.587	11.831	22	8	sand to silty sand
44.36	92.92	0.7405	0.797	11.659	21	8	sand to silty sand
44.42	88.32	0.8716	0.987	11.500	20	8	sand to silty sand
44.49	78.81	0.9737	1.236	11.515	18	8	sand to silty sand
44.55	66.28	0.9197	1.388	11.556	21	7	silty sand to sandy silt
44.62	52.61	0.7090	1.348	11.618	18	7	silty sand to sandy silt
44.69	42.50	0.4202	0.989	11.709	15	7	silty sand to sandy silt
44.75	34.67	0.3361	0.970	17.239	13	7	silty sand to sandy silt
44.82	32.33	0.3458	1.069	17.261	11	7	silty sand to sandy silt
44.88	28.64	0.2932	1.024	17.638	10	7	silty sand to sandy silt
44.95	25.93	0.2847	1.098	18.440	11	6	sandy silt to clayey silt
45.01	24.05	0.3624	1.507	19.991	12	6	sandy silt to clayey silt
45.08	27.45	0.4745	1.729	22.859	11	7	silty sand to sandy silt
45.14	34.95	0.5748	1.645	27.141	13	7	silty sand to sandy silt
45.21	49.34	0.5780	1.172	32.025	14	7	silty sand to sandy silt
45.28	57.63	0.5695	0.988	34.977	15	7	silty sand to sandy silt
45.34	56.48	0.6762	1.197	30.196	15	7	silty sand to sandy silt
45.41	51.89	0.6762	1.303	22.841	14	7	silty sand to sandy silt
45.47	41.82	0.6246	1.493	20.300	13	7	silty sand to sandy silt
45.54	32.71	0.5992	1.832	19.386	13	6	sandy silt to clayey silt
45.60	22.93	0.5693	2.483	18.447	11	6	sandy silt to clayey silt
45.67	18.29	0.5448	2.979	17.776	9	6	sandy silt to clayey silt
45.73	16.10	0.4269	2.651	17.582	9	5	clayey silt to silty clay
45.80	15.10	0.3091	2.047	17.623	8	5	clayey silt to silty clay
45.87	14.90	0.3089	2.073	17.735	7	5	clayey silt to silty clay
45.93	14.13	0.2846	2.014	17.782	8	5	clayey silt to silty clay
46.00	14.16	0.2571	1.816	17.885	7	6	sandy silt to clayey silt
46.06	16.60	0.2592	1.562	18.094	7	6	sandy silt to clayey silt
46.13	20.80	0.2412	1.160	18.693	8	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
46.19	23.80	0.2146	0.902	19.448	8	7	silty sand to sandy silt
46.26	27.61	0.1759	0.637	20.122	9	7	silty sand to sandy silt
46.33	31.00	0.1276	0.412	20.559	10	7	silty sand to sandy silt
46.39	35.76	0.1142	0.319	20.999	11	7	silty sand to sandy silt
46.46	39.17	0.1156	0.295	21.183	12	7	silty sand to sandy silt
46.52	41.38	0.1016	0.246	21.227	9	8	sand to silty sand
46.59	41.75	0.0888	0.213	21.224	9	8	sand to silty sand
46.65	40.94	0.0832	0.203	21.249	10	8	sand to silty sand
46.72	39.96	0.0862	0.216	21.305	9	8	sand to silty sand
46.78	38.54	0.0934	0.242	21.393	12	7	silty sand to sandy silt
46.85	36.65	0.1333	0.364	21.489	11	7	silty sand to sandy silt
46.92	33.35	0.2165	0.649	21.598	11	7	silty sand to sandy silt
46.98	29.91	0.2102	0.703	21.739	10	7	silty sand to sandy silt
47.05	28.13	0.1614	0.574	21.989	10	7	silty sand to sandy silt
47.11	28.05	0.1347	0.480	22.388	10	7	silty sand to sandy silt
47.18	30.73	0.1194	0.389	22.856	10	7	silty sand to sandy silt
47.24	33.16	0.1058	0.319	23.071	10	7	silty sand to sandy silt
47.31	33.90	0.1027	0.303	23.187	11	7	silty sand to sandy silt
47.38	35.57	0.1107	0.311	23.281	11	7	silty sand to sandy silt
47.44	36.80	0.1414	0.384	23.427	12	7	silty sand to sandy silt
47.51	37.99	0.1432	0.377	23.496	12	7	silty sand to sandy silt
47.57	38.16	0.1749	0.458	23.549	12	7	silty sand to sandy silt
47.64	37.58	0.2074	0.552	23.621	11	7	silty sand to sandy silt
47.70	36.06	0.5302	1.470	23.668	11	7	silty sand to sandy silt
47.77	32.20	0.3541	1.100	23.742	10	7	silty sand to sandy silt
47.83	28.07	0.2844	1.013	23.802	9	7	silty sand to sandy silt
47.90	23.81	0.2098	0.881	23.864	10	6	sandy silt to clayey silt
47.97	20.88	0.1667	0.799	23.970	9	6	sandy silt to clayey silt
48.03	21.39	0.1227	0.574	24.969	8	6	sandy silt to clayey silt
48.10	19.27	0.0786	0.408	25.275	7	6	sandy silt to clayey silt
48.16	17.27	0.0602	0.348	25.902	7	6	sandy silt to clayey silt
48.23	16.33	0.0545	0.334	26.695	7	6	sandy silt to clayey silt
48.29	16.17	0.0375	0.232	27.250	6	6	sandy silt to clayey silt
48.36	16.52	0.0354	0.214	27.955	6	6	sandy silt to clayey silt
48.43	16.44	0.0374	0.228	28.539	6	6	sandy silt to clayey silt
48.49	15.81	0.0501	0.317	28.970	6	6	sandy silt to clayey silt
48.56	14.22	0.0584	0.410	29.519	5	6	sandy silt to clayey silt
48.62	13.09	0.0551	0.421	30.180	5	6	sandy silt to clayey silt
48.69	11.81	0.0572	0.485	30.851	5	6	sandy silt to clayey silt
48.75	10.94	0.0646	0.591	31.607	5	6	sandy silt to clayey silt
48.82	10.51	0.0683	0.650	32.234	5	6	sandy silt to clayey silt
48.88	10.62	0.0600	0.566	33.111	5	6	sandy silt to clayey silt
48.95	11.95	0.0492	0.412	33.822	5	6	sandy silt to clayey silt
49.02	14.98	0.0460	0.307	34.590	6	6	sandy silt to clayey silt
49.08	17.13	0.0508	0.296	34.855	6	6	sandy silt to clayey silt
49.15	18.68	0.1687	0.903	34.893	6	6	sandy silt to clayey silt
49.21	18.85	0.1401	0.743	34.852	7	6	sandy silt to clayey silt
49.28	18.17	0.1293	0.711	34.924	7	6	sandy silt to clayey silt
49.34	17.76	0.1318	0.742	35.043	8	6	sandy silt to clayey silt
49.41	17.95	0.1169	0.651	35.195	8	6	sandy silt to clayey silt
49.48	24.11	0.1118	0.464	22.684	7	7	silty sand to sandy silt
49.54	24.81	0.1066	0.430	22.812	7	7	silty sand to sandy silt
49.61	23.53	0.1183	0.503	23.100	7	7	silty sand to sandy silt
49.67	22.71	0.1098	0.484	23.558	7	7	silty sand to sandy silt
49.74	21.96	0.1090	0.496	24.126	7	7	silty sand to sandy silt
49.80	21.70	0.1320	0.608	24.953	7	7	silty sand to sandy silt
49.87	21.11	0.1060	0.502	26.152	7	7	silty sand to sandy silt
49.93	21.10	0.0662	0.314	27.409	7	7	silty sand to sandy silt
50.00	22.82	0.0522	0.229	28.636	7	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
50.07	25.42	0.0542	0.213	29.818	7	7	silty sand to sandy silt
50.13	26.11	0.0545	0.209	30.327	7	7	silty sand to sandy silt
50.20	24.37	0.0784	0.322	30.271	7	7	silty sand to sandy silt
50.26	20.65	0.0804	0.389	30.258	6	7	silty sand to sandy silt
50.33	16.34	0.0595	0.364	30.661	7	6	sandy silt to clayey silt
50.39	12.99	0.0602	0.463	31.641	6	6	sandy silt to clayey silt
50.46	10.74	0.0661	0.616	33.089	5	6	sandy silt to clayey silt
50.52	9.50	0.0652	0.686	34.353	4	6	sandy silt to clayey silt
50.59	8.22	0.0513	0.624	36.079	4	5	clayey silt to silty clay
50.66	6.93	0.0472	0.681	38.241	4	1	sensitive fine grained
50.72	6.75	0.0441	0.654	40.510	4	1	sensitive fine grained
50.79	7.15	0.0446	0.623	42.258	4	1	sensitive fine grained
50.85	8.25	0.0446	0.540	43.481	4	1	sensitive fine grained
50.92	9.27	0.0460	0.496	44.086	4	1	sensitive fine grained
50.98	9.03	0.0329	0.364	44.192	4	1	sensitive fine grained
51.05	8.11	0.0526	0.648	44.748	4	1	sensitive fine grained
51.12	7.71	0.0485	0.629	45.238	4	1	sensitive fine grained
51.18	7.34	0.0428	0.584	46.202	4	6	sandy silt to clayey silt
51.25	7.98	0.0495	0.620	47.145	5	6	sandy silt to clayey silt
51.31	13.05	0.0530	0.406	42.604	6	6	sandy silt to clayey silt
51.38	18.80	0.0512	0.272	40.501	6	7	silty sand to sandy silt
51.44	24.94	0.0591	0.237	37.923	7	7	silty sand to sandy silt
51.51	29.32	0.0575	0.196	34.734	8	7	silty sand to sandy silt
51.57	30.41	0.0992	0.326	32.836	9	7	silty sand to sandy silt
51.64	29.84	0.1770	0.593	32.362	9	7	silty sand to sandy silt
51.71	28.71	0.2471	0.861	32.225	9	7	silty sand to sandy silt
51.77	26.77	0.2711	1.013	32.193	8	7	silty sand to sandy silt
51.84	24.43	0.2979	1.219	32.249	8	7	silty sand to sandy silt
51.90	22.97	0.2672	1.163	32.349	10	6	sandy silt to clayey silt
51.97	22.80	0.2143	0.940	32.502	8	7	silty sand to sandy silt
52.03	24.07	0.1579	0.656	32.958	9	7	silty sand to sandy silt
52.10	26.84	0.1270	0.473	33.763	10	7	silty sand to sandy silt
52.17	32.82	0.0949	0.289	34.162	11	7	silty sand to sandy silt
52.23	38.29	0.1033	0.270	33.158	12	7	silty sand to sandy silt
52.30	41.47	0.1246	0.300	31.937	13	7	silty sand to sandy silt
52.36	44.43	0.1506	0.339	30.180	13	7	silty sand to sandy silt
52.43	45.86	0.2020	0.440	29.544	14	7	silty sand to sandy silt
52.49	45.71	0.2983	0.653	29.410	14	7	silty sand to sandy silt
52.56	44.87	0.3736	0.833	29.350	14	7	silty sand to sandy silt
52.62	43.86	0.4256	0.970	29.344	14	7	silty sand to sandy silt
52.69	43.80	0.4541	1.037	29.322	15	7	silty sand to sandy silt
52.76	45.19	0.4763	1.054	29.366	15	7	silty sand to sandy silt
52.82	47.58	0.5031	1.057	29.463	15	7	silty sand to sandy silt
52.89	49.12	0.5571	1.134	29.519	15	7	silty sand to sandy silt
52.95	49.51	0.5800	1.171	29.531	16	7	silty sand to sandy silt
53.02	49.75	0.5811	1.168	29.569	16	7	silty sand to sandy silt
53.08	50.97	0.5925	1.162	29.628	17	7	silty sand to sandy silt
53.15	53.12	0.6184	1.164	29.628	17	7	silty sand to sandy silt
53.22	54.94	0.6332	1.153	29.544	18	7	silty sand to sandy silt
53.28	56.85	0.6277	1.104	29.322	18	7	silty sand to sandy silt
53.35	58.60	0.6498	1.109	29.263	19	7	silty sand to sandy silt
53.41	60.61	0.6870	1.133	29.279	19	7	silty sand to sandy silt
53.48	62.25	0.6973	1.120	29.169	20	7	silty sand to sandy silt
53.54	63.09	0.6507	1.031	29.048	20	7	silty sand to sandy silt
53.61	63.62	0.6332	0.995	28.960	20	7	silty sand to sandy silt
53.67	63.62	0.6458	1.015	28.892	20	7	silty sand to sandy silt
53.74	63.70	0.6329	0.994	28.782	21	7	silty sand to sandy silt
53.81	64.34	0.6379	0.992	28.732	16	8	sand to silty sand
53.87	66.02	0.6121	0.927	28.717	16	8	sand to silty sand

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
53.94	68.62	0.6530	0.952	28.723	17	8	sand to silty sand
54.00	72.49	0.6727	0.928	28.651	17	8	sand to silty sand
54.07	74.93	0.7258	0.969	28.673	18	8	sand to silty sand
54.13	76.88	0.7340	0.955	28.667	18	8	sand to silty sand
54.20	78.39	1.0049	1.282	28.717	19	8	sand to silty sand
54.27	79.75	0.8785	1.102	28.701	19	8	sand to silty sand
54.33	82.13	0.8934	1.088	28.729	19	8	sand to silty sand
54.40	84.45	0.9144	1.083	28.707	20	8	sand to silty sand
54.46	86.33	0.9446	1.094	28.720	20	8	sand to silty sand
54.53	80.26	0.9735	1.213	26.579	20	8	sand to silty sand
54.59	85.51	0.9526	1.114	26.551	20	8	sand to silty sand
54.66	83.31	0.9916	1.190	26.592	20	8	sand to silty sand
54.72	81.57	0.9969	1.222	26.560	19	8	sand to silty sand
54.79	79.65	0.9820	1.233	26.651	19	8	sand to silty sand
54.86	78.71	0.9649	1.226	26.638	19	8	sand to silty sand
54.92	77.86	0.9457	1.215	26.679	19	8	sand to silty sand
54.99	77.48	0.9427	1.217	26.688	19	8	sand to silty sand
55.05	78.01	0.9101	1.167	26.757	19	8	sand to silty sand
55.12	80.27	0.8487	1.057	26.872	19	8	sand to silty sand
55.18	82.73	0.8863	1.071	27.041	20	8	sand to silty sand
55.25	84.06	0.8829	1.050	27.259	20	8	sand to silty sand
55.31	85.18	0.8135	0.955	27.138	20	8	sand to silty sand
55.38	85.07	0.7823	0.920	27.132	20	8	sand to silty sand
55.45	84.13	0.7742	0.920	27.440	20	8	sand to silty sand
55.51	84.15	0.7588	0.902	27.587	20	8	sand to silty sand
55.58	84.49	0.7437	0.880	27.706	21	8	sand to silty sand
55.64	85.95	0.7132	0.830	27.965	21	8	sand to silty sand
55.71	89.78	0.6827	0.760	28.152	22	8	sand to silty sand
55.77	95.48	0.6094	0.638	28.261	23	8	sand to silty sand
55.84	100.45	0.5258	0.523	28.174	23	8	sand to silty sand
55.91	103.47	0.5419	0.524	27.572	23	8	sand to silty sand
55.97	102.71	0.5738	0.559	27.057	23	8	sand to silty sand
56.04	98.43	0.6219	0.632	26.916	22	8	sand to silty sand
56.10	91.49	0.6794	0.743	26.957	21	8	sand to silty sand
56.17	82.97	0.7269	0.876	27.075	20	8	sand to silty sand
56.23	74.63	0.7330	0.982	27.219	18	8	sand to silty sand
56.30	67.30	0.7223	1.073	27.403	17	8	sand to silty sand
56.36	61.14	0.7069	1.156	27.631	21	7	silty sand to sandy silt
56.43	56.12	0.7074	1.261	27.840	19	7	silty sand to sandy silt
56.50	53.24	0.6930	1.302	28.155	19	7	silty sand to sandy silt
56.56	55.13	0.6734	1.221	28.533	19	7	silty sand to sandy silt
56.63	59.91	0.6507	1.086	29.045	20	7	silty sand to sandy silt
56.69	63.73	0.6610	1.037	29.372	21	7	silty sand to sandy silt
56.76	68.54	0.6684	0.975	29.850	17	8	sand to silty sand
56.82	73.57	0.6739	0.916	30.333	18	8	sand to silty sand
56.89	78.74	0.7141	0.907	30.755	19	8	sand to silty sand
56.96	85.20	0.7174	0.842	31.057	20	8	sand to silty sand
57.02	91.31	0.7208	0.789	31.235	20	8	sand to silty sand
57.09	93.27	0.7602	0.815	31.304	20	8	sand to silty sand
57.15	89.86	0.8081	0.899	31.326	20	8	sand to silty sand
57.22	82.81	0.9001	1.087	31.332	19	8	sand to silty sand
57.28	74.58	1.0152	1.361	31.348	23	7	silty sand to sandy silt
57.35	65.66	1.1065	1.685	31.351	20	7	silty sand to sandy silt
57.41	53.99	1.1235	2.081	31.323	17	7	silty sand to sandy silt
57.48	42.29	0.4254	1.006	31.279	14	7	silty sand to sandy silt
57.55	31.36	0.3664	1.168	31.310	12	7	silty sand to sandy silt
57.61	24.32	0.3165	1.302	31.438	10	7	silty sand to sandy silt
57.68	20.96	0.2740	1.307	31.875	10	7	silty sand to sandy silt
57.74	20.09	0.2113	1.052	32.733	10	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
57.81	36.97	0.1760	0.476	30.159	10	7	silty sand to sandy silt
57.87	38.70	0.2360	0.610	32.128	11	7	silty sand to sandy silt
57.94	41.18	0.2204	0.535	33.513	0	0	<out of range>
58.01	44.54	0.2207	0.495	34.593	0	0	<out of range>
58.07	47.23	0.1809	0.383	35.252	13	8	sand to silty sand
58.14	49.37	-32768	-32768	35.092	0	0	<out of range>
58.20	51.08	-32768	-32768	33.179	0	0	<out of range>
58.27	55.46	-32768	-32768	32.468	0	0	<out of range>
58.33	72.07	-32768	-32768	31.806	0	0	<out of range>

*Soil behavior type and SPT based on data from UBC-1983

AECOM

TVA Kingston Coal Ash Pond RCA (Kingston,Tennessee) Cone Penetration Test

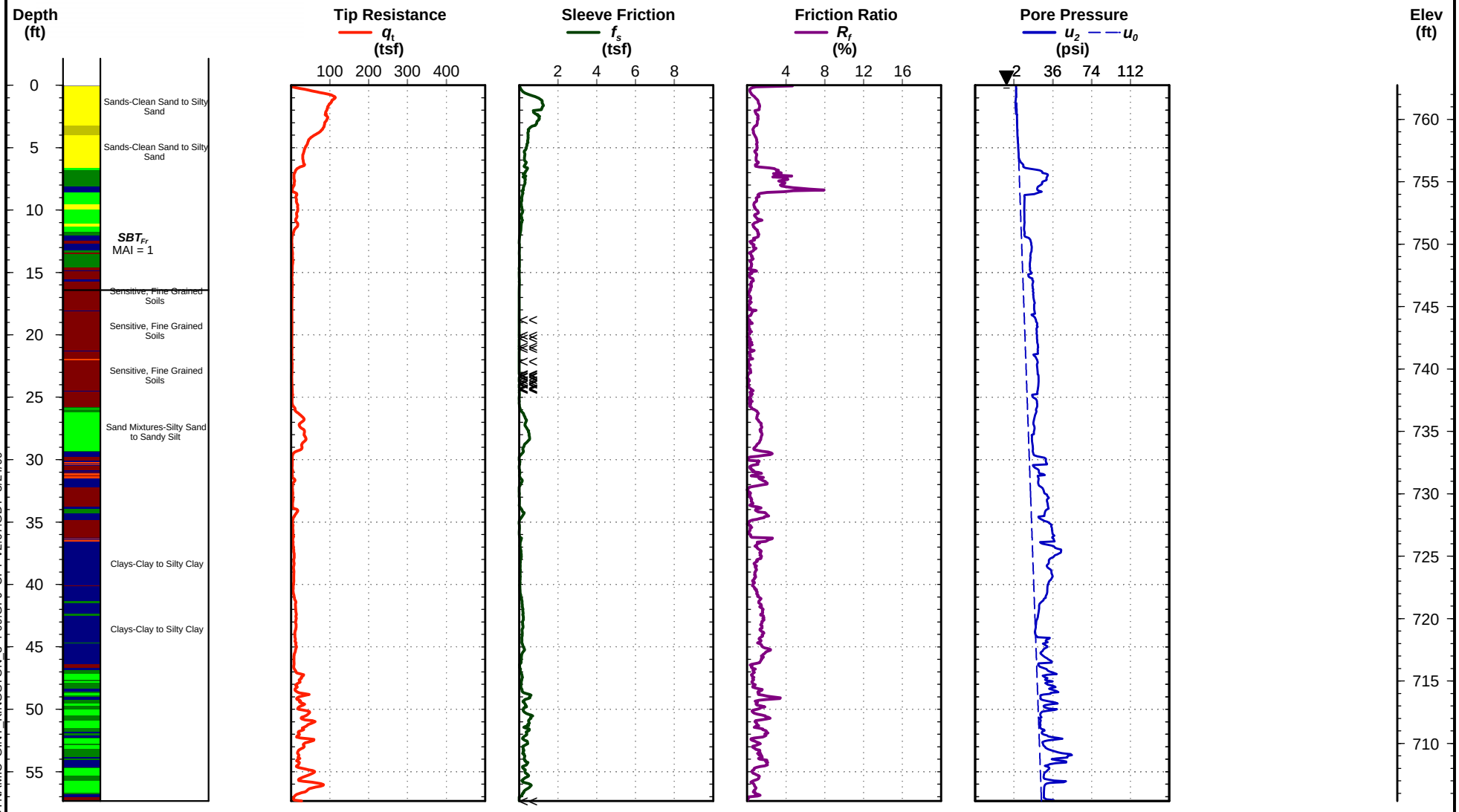
09-710-C1

Project No: 60095742

Date: Feb. 14, 2009
Estimated Water Depth: 0 ft
Rig/Operator: D-120/CAP

Northing: 554922.76
Easting: 2441964.15
Elevation: 762.74 NGVD

Total Depth: 57.4 ft
Termination Criteria: Refusal
Cone Size: 5T Tension Cone



CPT REPORT - DYNAMIC GINT_KINGSTON_3-4-09.GPJ CPT V2.07.GDT 3/24/09

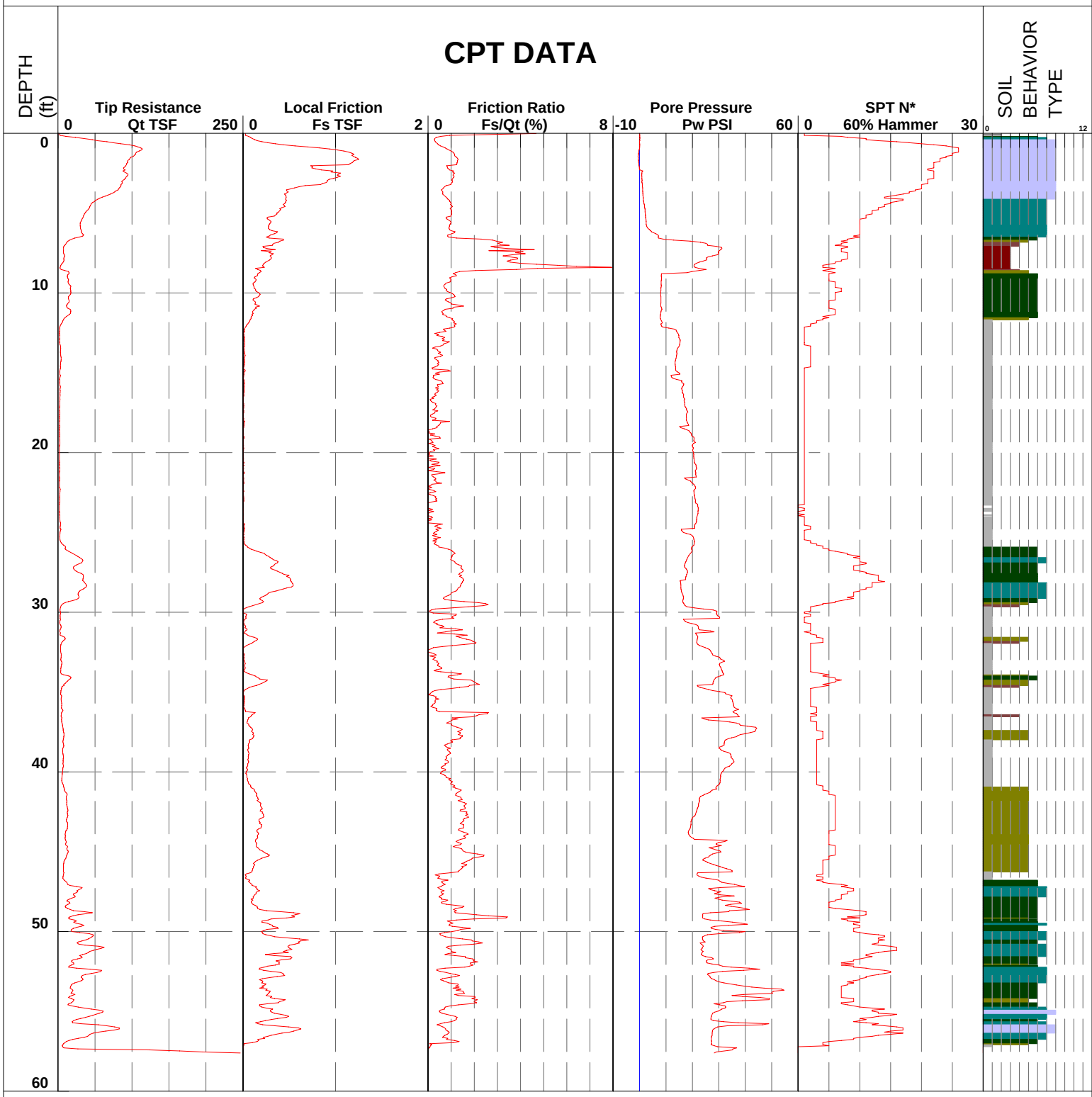
09-710-C1

Electronic Filename: 09-710-C1.cpt

AECOM

09-710-C1	60095742	2/14/2009 12:38:52 PM
DTA1081	TVA-Kingston	D-120/CAP

CPT DATA



- 1 - sensitive fine grained
- 2 - organic material
- 3 - clay
- 4 - silty clay to clay
- 5 - clayey silt to silty clay
- 6 - sandy silt to clayey silt
- 7 - silty sand to sandy silt
- 8 - sand to silty sand
- 9 - sand
- 10 - gravelly sand to sand
- 11 - very stiff fine grained (*)
- 12 - sand to clayey sand (*)

Data File:09-710-C1 2/14/2009 12:38:52 PM
Operator:D-120/CAP Location:TVA-Kingston
Cone ID:DTA1081 Job Number:60095742
Customer:TVA Units:

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
0.07	0.54	0.0251	4.677	0.075	1	2	organic material
0.13	3.02	0.0281	0.932	0.109	1	1	sensitive fine grained
0.20	10.87	0.0601	0.553	0.094	7	6	sandy silt to clayey silt
0.26	23.53	0.0824	0.350	0.134	8	7	silty sand to sandy silt
0.33	35.27	0.1008	0.286	0.115	11	7	silty sand to sandy silt
0.39	46.27	0.1272	0.275	0.103	11	8	sand to silty sand
0.46	53.25	0.1538	0.289	0.115	13	8	sand to silty sand
0.52	66.09	0.2064	0.312	-0.009	16	8	sand to silty sand
0.59	74.45	0.2683	0.360	0.009	18	8	sand to silty sand
0.66	84.86	0.3493	0.412	0.075	20	8	sand to silty sand
0.72	96.33	0.4324	0.449	0.128	22	8	sand to silty sand
0.79	103.82	0.5617	0.541	0.081	24	8	sand to silty sand
0.85	108.20	0.7013	0.648	0.059	25	8	sand to silty sand
0.92	112.01	0.8299	0.741	0.025	26	8	sand to silty sand
0.98	114.01	0.9348	0.820	-0.072	26	8	sand to silty sand
1.05	112.82	1.0186	0.903	-0.150	26	8	sand to silty sand
1.12	109.69	1.0890	0.993	-0.240	26	8	sand to silty sand
1.18	106.41	1.1437	1.075	-0.290	26	8	sand to silty sand
1.25	104.93	1.1793	1.124	-0.384	25	8	sand to silty sand
1.31	105.02	1.1992	1.142	-0.374	25	8	sand to silty sand
1.38	103.05	1.1778	1.143	-0.512	25	8	sand to silty sand
1.44	102.06	1.1928	1.169	-0.568	24	8	sand to silty sand
1.51	98.28	1.2148	1.236	-0.484	24	8	sand to silty sand
1.57	97.36	1.2408	1.274	-0.471	23	8	sand to silty sand
1.64	96.16	1.2490	1.299	-0.456	23	8	sand to silty sand
1.71	94.39	1.2041	1.276	-0.406	23	8	sand to silty sand
1.77	94.15	1.1923	1.266	-0.387	23	8	sand to silty sand
1.84	94.23	1.1805	1.253	-0.318	22	8	sand to silty sand
1.90	92.69	1.1570	1.248	-0.296	22	8	sand to silty sand
1.97	92.62	1.1393	1.230	-0.265	22	8	sand to silty sand
2.03	91.36	0.7330	0.802	-0.184	22	8	sand to silty sand
2.10	90.35	0.7535	0.834	-0.097	22	8	sand to silty sand
2.17	88.73	0.7445	0.839	-0.019	22	8	sand to silty sand
2.23	88.67	0.7884	0.889	-0.022	21	8	sand to silty sand
2.30	90.94	0.8489	0.933	0.103	21	8	sand to silty sand
2.36	87.70	0.9673	1.103	1.233	22	8	sand to silty sand
2.43	89.76	0.9508	1.059	0.924	22	8	sand to silty sand
2.49	92.59	1.0556	1.140	0.889	22	8	sand to silty sand
2.56	94.62	1.0333	1.092	0.899	22	8	sand to silty sand
2.62	94.54	1.0193	1.078	0.846	22	8	sand to silty sand
2.69	93.16	1.0515	1.129	0.886	22	8	sand to silty sand
2.76	91.81	1.0181	1.109	0.893	22	8	sand to silty sand
2.82	91.39	0.9797	1.072	0.899	22	8	sand to silty sand
2.89	89.62	0.9305	1.038	0.927	21	8	sand to silty sand
2.95	87.85	0.9115	1.038	0.967	21	8	sand to silty sand
3.02	86.37	0.9105	1.054	0.911	21	8	sand to silty sand
3.08	86.78	0.9009	1.038	0.952	21	8	sand to silty sand
3.15	86.59	0.8575	0.990	0.992	21	8	sand to silty sand
3.22	85.10	0.8393	0.986	1.064	20	8	sand to silty sand
3.28	85.16	0.6727	0.790	1.080	20	8	sand to silty sand
3.35	84.62	0.6067	0.717	1.120	20	8	sand to silty sand
3.41	83.05	0.5582	0.672	1.170	20	8	sand to silty sand
3.48	81.87	0.5167	0.631	1.192	20	8	sand to silty sand
3.54	81.30	0.4700	0.578	1.170	19	8	sand to silty sand

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
3.61	78.12	0.4729	0.605	1.186	19	8	sand to silty sand
3.67	76.68	0.4894	0.638	1.208	18	8	sand to silty sand
3.74	74.30	0.4722	0.635	1.261	18	8	sand to silty sand
3.81	70.99	0.4490	0.632	1.283	17	8	sand to silty sand
3.87	67.37	0.4608	0.684	1.304	16	8	sand to silty sand
3.94	63.91	0.4645	0.727	1.326	15	8	sand to silty sand
4.00	59.88	0.4674	0.780	1.404	14	8	sand to silty sand
4.07	56.51	0.4640	0.821	1.426	14	8	sand to silty sand
4.13	53.76	0.4607	0.857	1.451	17	7	silty sand to sandy silt
4.20	50.97	0.4697	0.921	1.476	17	7	silty sand to sandy silt
4.27	49.23	0.4620	0.938	1.539	16	7	silty sand to sandy silt
4.33	46.98	0.4594	0.978	1.598	15	7	silty sand to sandy silt
4.40	44.90	0.4512	1.005	1.716	15	7	silty sand to sandy silt
4.46	44.65	0.4328	0.969	1.807	14	7	silty sand to sandy silt
4.53	43.63	0.4475	1.026	1.854	14	7	silty sand to sandy silt
4.59	42.98	0.4529	1.054	1.888	14	7	silty sand to sandy silt
4.66	42.58	0.4202	0.987	1.963	13	7	silty sand to sandy silt
4.72	41.69	0.3981	0.955	2.038	13	7	silty sand to sandy silt
4.79	40.54	0.4075	1.005	2.072	13	7	silty sand to sandy silt
4.86	39.09	0.3966	1.015	2.082	12	7	silty sand to sandy silt
4.92	37.66	0.3862	1.026	2.106	12	7	silty sand to sandy silt
4.99	36.73	0.3669	0.999	2.135	12	7	silty sand to sandy silt
5.05	35.71	0.3677	1.030	2.191	12	7	silty sand to sandy silt
5.12	35.19	0.3514	0.999	2.241	11	7	silty sand to sandy silt
5.18	34.12	0.3378	0.990	2.272	11	7	silty sand to sandy silt
5.25	34.04	0.2691	0.791	2.294	11	7	silty sand to sandy silt
5.31	33.23	0.2587	0.779	2.359	11	7	silty sand to sandy silt
5.38	32.45	0.2681	0.826	2.425	10	7	silty sand to sandy silt
5.45	31.79	0.2862	0.900	2.453	10	7	silty sand to sandy silt
5.51	31.25	0.3009	0.963	2.556	10	7	silty sand to sandy silt
5.58	30.12	0.3020	1.003	2.515	10	7	silty sand to sandy silt
5.64	29.95	0.2924	0.976	2.522	10	7	silty sand to sandy silt
5.71	30.01	0.2844	0.948	2.556	10	7	silty sand to sandy silt
5.77	30.04	0.2774	0.924	2.637	10	7	silty sand to sandy silt
5.84	30.07	0.2775	0.923	2.740	10	7	silty sand to sandy silt
5.91	30.23	0.2743	0.908	2.974	10	7	silty sand to sandy silt
5.97	30.46	0.2777	0.912	3.305	10	7	silty sand to sandy silt
6.04	31.10	0.2896	0.931	3.814	10	7	silty sand to sandy silt
6.10	31.53	0.3156	1.001	4.194	10	7	silty sand to sandy silt
6.17	31.89	0.3717	1.165	4.538	10	7	silty sand to sandy silt
6.23	32.10	0.3646	1.136	5.380	10	7	silty sand to sandy silt
6.30	33.09	0.3378	1.021	6.238	10	7	silty sand to sandy silt
6.36	34.77	0.2988	0.859	6.984	10	7	silty sand to sandy silt
6.43	33.64	0.2841	0.844	7.187	9	7	silty sand to sandy silt
6.50	29.03	0.2535	0.873	6.969	10	6	sandy silt to clayey silt
6.56	22.77	0.2834	1.245	7.212	9	6	sandy silt to clayey silt
6.63	18.93	0.4348	2.297	8.969	8	6	sandy silt to clayey silt
6.69	15.68	0.4384	2.796	12.929	8	5	clayey silt to silty clay
6.76	13.51	0.3986	2.950	19.199	7	5	clayey silt to silty clay
6.82	11.90	0.3832	3.221	23.068	8	4	silty clay to clay
6.89	11.09	0.3344	3.015	25.116	7	4	silty clay to clay
6.96	10.29	0.3225	3.133	25.730	7	4	silty clay to clay
7.02	9.04	0.3169	3.508	25.818	6	4	silty clay to clay
7.09	7.91	0.2154	2.725	29.013	8	3	clay
7.15	7.57	0.2191	2.895	30.964	8	3	clay
7.22	7.56	0.2584	3.417	31.170	7	3	clay
7.28	7.59	0.3485	4.591	30.736	7	3	clay
7.35	7.50	0.1972	2.631	30.205	7	3	clay
7.41	7.45	0.3057	4.106	29.831	7	3	clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
7.48	7.45	0.2818	3.783	29.856	8	3	clay
7.55	7.81	0.3279	4.200	30.031	8	3	clay
7.61	8.56	0.3124	3.651	29.460	8	3	clay
7.68	9.03	0.2930	3.244	27.543	8	3	clay
7.74	8.56	0.3029	3.537	25.939	8	3	clay
7.81	7.94	0.3061	3.857	25.322	8	3	clay
7.87	7.80	0.3025	3.876	25.534	8	3	clay
7.94	7.99	0.2857	3.576	25.187	7	3	clay
8.01	7.83	0.2669	3.410	24.039	7	3	clay
8.07	6.98	0.2476	3.546	22.631	6	3	clay
8.14	5.77	0.2295	3.979	21.533	6	3	clay
8.20	4.68	0.2202	4.702	20.915	5	3	clay
8.27	3.82	0.2134	5.592	20.631	4	3	clay
8.33	3.34	0.2146	6.425	20.625	4	3	clay
8.40	2.91	0.2311	7.943	21.037	4	3	clay
8.46	2.87	0.1360	4.737	22.419	6	3	clay
8.53	4.20	0.1607	3.822	25.181	5	4	silty clay to clay
8.60	9.15	0.1889	2.065	22.550	4	5	clayey silt to silty clay
8.66	14.28	0.1957	1.371	19.845	5	5	clayey silt to silty clay
8.73	14.83	0.1772	1.195	18.007	6	5	clayey silt to silty clay
8.79	14.76	0.1603	1.086	8.339	5	6	sandy silt to clayey silt
8.86	13.32	0.1582	1.188	8.261	5	6	sandy silt to clayey silt
8.92	12.58	0.1544	1.227	8.239	5	6	sandy silt to clayey silt
8.99	12.58	0.1299	1.033	8.273	5	6	sandy silt to clayey silt
9.06	13.06	0.1217	0.932	8.295	5	6	sandy silt to clayey silt
9.12	13.83	0.1367	0.989	8.301	5	6	sandy silt to clayey silt
9.19	14.43	0.1415	0.981	8.245	5	6	sandy silt to clayey silt
9.25	13.78	0.1359	0.986	8.201	5	6	sandy silt to clayey silt
9.32	13.67	0.1299	0.950	8.192	6	6	sandy silt to clayey silt
9.38	13.98	0.1093	0.782	8.179	6	6	sandy silt to clayey silt
9.45	14.83	0.1089	0.734	8.198	6	6	sandy silt to clayey silt
9.51	16.31	0.1121	0.687	8.223	6	6	sandy silt to clayey silt
9.58	17.45	0.1187	0.680	8.211	6	6	sandy silt to clayey silt
9.65	17.02	0.1205	0.708	8.136	6	6	sandy silt to clayey silt
9.71	16.61	0.1217	0.733	8.126	7	6	sandy silt to clayey silt
9.78	16.97	0.1369	0.807	8.111	7	6	sandy silt to clayey silt
9.84	17.34	0.1353	0.780	8.098	7	6	sandy silt to clayey silt
9.91	17.40	0.1455	0.836	8.048	7	6	sandy silt to clayey silt
9.97	17.45	0.1649	0.945	8.020	6	6	sandy silt to clayey silt
10.04	17.28	0.1814	1.050	8.026	6	6	sandy silt to clayey silt
10.10	16.66	0.1845	1.107	8.026	6	6	sandy silt to clayey silt
10.17	15.33	0.1751	1.142	8.026	6	6	sandy silt to clayey silt
10.24	14.32	0.1666	1.164	8.070	6	6	sandy silt to clayey silt
10.30	13.94	0.1408	1.010	8.083	6	6	sandy silt to clayey silt
10.37	14.15	0.1127	0.796	8.098	6	6	sandy silt to clayey silt
10.43	14.64	0.1081	0.738	8.120	6	6	sandy silt to clayey silt
10.50	15.19	0.1206	0.794	8.111	5	6	sandy silt to clayey silt
10.56	14.90	0.1326	0.890	8.108	5	6	sandy silt to clayey silt
10.63	13.93	0.1365	0.980	8.064	5	6	sandy silt to clayey silt
10.70	12.61	0.1289	1.022	8.061	5	6	sandy silt to clayey silt
10.76	11.64	0.1546	1.328	8.058	5	6	sandy silt to clayey silt
10.83	11.59	0.1775	1.532	8.058	5	6	sandy silt to clayey silt
10.89	11.96	0.1343	1.123	8.214	5	6	sandy silt to clayey silt
10.96	13.44	0.1442	1.073	8.385	5	6	sandy silt to clayey silt
11.02	16.32	0.1210	0.741	8.463	6	6	sandy silt to clayey silt
11.09	17.21	0.1179	0.685	8.211	6	6	sandy silt to clayey silt
11.15	17.41	0.1034	0.594	8.148	6	6	sandy silt to clayey silt
11.22	17.16	0.1053	0.614	8.089	6	6	sandy silt to clayey silt
11.29	16.90	0.1089	0.644	8.011	6	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
11.35	15.37	0.0981	0.638	7.933	6	6	sandy silt to clayey silt
11.42	13.22	0.1029	0.778	7.880	5	6	sandy silt to clayey silt
11.48	11.33	0.0893	0.788	7.842	4	6	sandy silt to clayey silt
11.55	9.51	0.0882	0.928	7.786	5	5	clayey silt to silty clay
11.61	8.19	0.0871	1.063	7.927	4	5	clayey silt to silty clay
11.68	7.55	0.0777	1.029	8.042	4	1	sensitive fine grained
11.75	6.69	0.0738	1.104	8.310	3	1	sensitive fine grained
11.81	6.08	0.0696	1.146	8.482	3	1	sensitive fine grained
11.88	5.38	0.0593	1.103	8.666	3	1	sensitive fine grained
11.94	4.38	0.0534	1.219	8.086	2	1	sensitive fine grained
12.01	3.54	0.0400	1.129	8.173	2	1	sensitive fine grained
12.07	2.98	0.0347	1.161	8.364	2	1	sensitive fine grained
12.14	2.46	0.0277	1.127	8.813	1	1	sensitive fine grained
12.20	2.26	0.0212	0.941	11.066	1	1	sensitive fine grained
12.27	2.28	0.0149	0.653	13.204	1	1	sensitive fine grained
12.34	2.25	0.0159	0.706	13.822	1	1	sensitive fine grained
12.40	2.15	0.0168	0.781	14.006	1	1	sensitive fine grained
12.47	2.10	0.0104	0.492	14.221	1	1	sensitive fine grained
12.53	2.10	0.0062	0.295	14.521	1	1	sensitive fine grained
12.60	2.19	0.0098	0.449	14.783	1	1	sensitive fine grained
12.66	2.24	0.0084	0.376	14.876	1	1	sensitive fine grained
12.73	2.31	0.0142	0.614	14.876	1	1	sensitive fine grained
12.80	2.33	0.0168	0.719	14.876	1	1	sensitive fine grained
12.86	2.31	0.0141	0.611	15.042	1	1	sensitive fine grained
12.93	2.16	0.0151	0.699	15.354	1	1	sensitive fine grained
12.99	2.21	0.0140	0.634	15.373	1	1	sensitive fine grained
13.06	2.23	0.0205	0.918	15.348	1	1	sensitive fine grained
13.12	2.31	0.0194	0.837	15.282	1	1	sensitive fine grained
13.19	2.48	0.0168	0.678	15.223	1	1	sensitive fine grained
13.25	2.90	0.0191	0.660	15.182	1	1	sensitive fine grained
13.32	3.49	0.0189	0.542	15.064	2	1	sensitive fine grained
13.39	3.61	0.0111	0.307	14.767	2	1	sensitive fine grained
13.45	3.67	0.0074	0.202	14.483	2	1	sensitive fine grained
13.52	3.65	0.0136	0.371	14.277	2	1	sensitive fine grained
13.58	3.59	0.0148	0.412	14.149	2	1	sensitive fine grained
13.65	3.34	0.0146	0.438	14.062	2	1	sensitive fine grained
13.71	3.20	0.0169	0.530	14.062	2	1	sensitive fine grained
13.78	3.51	0.0157	0.448	14.171	2	1	sensitive fine grained
13.85	3.75	0.0200	0.534	14.096	2	1	sensitive fine grained
13.91	3.72	0.0235	0.630	14.012	2	1	sensitive fine grained
13.98	3.93	0.0212	0.540	13.987	2	1	sensitive fine grained
14.04	4.32	0.0130	0.302	13.897	2	1	sensitive fine grained
14.11	4.38	0.0128	0.292	13.803	2	1	sensitive fine grained
14.17	4.23	0.0151	0.357	13.647	2	1	sensitive fine grained
14.24	4.11	0.0176	0.428	13.569	2	1	sensitive fine grained
14.30	3.92	0.0168	0.428	13.472	2	1	sensitive fine grained
14.37	3.63	0.0170	0.468	13.428	2	1	sensitive fine grained
14.44	3.48	0.0139	0.401	13.453	2	1	sensitive fine grained
14.50	3.29	0.0150	0.454	13.500	2	1	sensitive fine grained
14.57	3.25	0.0130	0.402	13.547	2	1	sensitive fine grained
14.63	3.28	0.0101	0.308	13.641	2	1	sensitive fine grained
14.70	3.38	0.0058	0.172	13.638	1	1	sensitive fine grained
14.76	3.05	0.0061	0.199	13.603	1	1	sensitive fine grained
14.83	2.64	0.0228	0.864	13.669	1	1	sensitive fine grained
14.90	2.40	0.0235	0.976	13.878	1	1	sensitive fine grained
14.96	2.38	0.0114	0.478	14.524	1	1	sensitive fine grained
15.03	2.54	0.0079	0.312	15.201	1	1	sensitive fine grained
15.09	2.58	0.0126	0.489	15.217	1	1	sensitive fine grained
15.16	3.24	0.0075	0.231	11.968	1	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
15.22	3.06	0.0074	0.243	12.021	1	1	sensitive fine grained
15.29	2.66	0.0058	0.216	12.224	1	1	sensitive fine grained
15.35	2.23	0.0055	0.246	12.679	1	1	sensitive fine grained
15.42	2.17	0.0070	0.324	14.081	1	1	sensitive fine grained
15.49	2.40	0.0132	0.551	15.972	1	1	sensitive fine grained
15.55	2.37	0.0143	0.600	15.950	1	1	sensitive fine grained
15.62	2.25	0.0139	0.619	16.065	1	1	sensitive fine grained
15.68	2.38	0.0157	0.657	16.718	1	1	sensitive fine grained
15.75	2.55	0.0102	0.401	16.715	1	1	sensitive fine grained
15.81	2.95	0.0123	0.415	16.562	1	1	sensitive fine grained
15.88	3.17	0.0141	0.444	16.228	1	1	sensitive fine grained
15.94	3.04	0.0098	0.322	15.987	1	1	sensitive fine grained
16.01	2.71	0.0118	0.437	15.956	1	1	sensitive fine grained
16.08	2.74	0.0102	0.374	16.100	1	1	sensitive fine grained
16.14	3.02	0.0138	0.457	16.234	1	1	sensitive fine grained
16.21	2.94	0.0121	0.414	16.197	1	1	sensitive fine grained
16.27	2.72	0.0091	0.336	16.228	1	1	sensitive fine grained
16.34	2.66	0.0075	0.283	16.674	1	1	sensitive fine grained
16.40	2.96	0.0105	0.356	16.699	1	1	sensitive fine grained
16.47	2.81	0.0081	0.289	16.624	1	1	sensitive fine grained
16.54	2.54	0.0044	0.173	16.599	1	1	sensitive fine grained
16.60	2.54	0.0062	0.244	16.933	1	1	sensitive fine grained
16.67	2.68	0.0024	0.088	17.102	1	1	sensitive fine grained
16.73	2.58	0.0028	0.109	16.830	1	1	sensitive fine grained
16.80	2.43	0.0036	0.147	16.861	1	1	sensitive fine grained
16.86	2.41	0.0051	0.210	17.086	1	1	sensitive fine grained
16.93	2.47	0.0082	0.331	17.102	1	1	sensitive fine grained
16.99	2.48	0.0077	0.310	17.108	1	1	sensitive fine grained
17.06	2.39	0.0093	0.387	17.142	1	1	sensitive fine grained
17.13	2.26	0.0080	0.354	17.264	1	1	sensitive fine grained
17.19	2.22	0.0072	0.322	17.548	1	1	sensitive fine grained
17.26	2.21	0.0063	0.284	17.801	1	1	sensitive fine grained
17.32	2.21	0.0045	0.205	17.732	1	1	sensitive fine grained
17.39	2.23	0.0093	0.419	18.060	1	1	sensitive fine grained
17.45	2.32	0.0067	0.289	18.284	1	1	sensitive fine grained
17.52	2.41	0.0070	0.292	17.938	1	1	sensitive fine grained
17.59	2.36	0.0044	0.187	17.735	1	1	sensitive fine grained
17.65	2.25	0.0026	0.114	17.685	1	1	sensitive fine grained
17.72	2.16	0.0021	0.098	17.691	1	1	sensitive fine grained
17.78	2.21	0.0035	0.159	17.716	1	1	sensitive fine grained
17.85	2.25	0.0075	0.335	17.729	1	1	sensitive fine grained
17.91	2.32	0.0076	0.327	17.757	1	1	sensitive fine grained
17.98	2.26	0.0043	0.189	17.688	1	1	sensitive fine grained
18.04	2.14	0.0198	0.926	17.944	1	1	sensitive fine grained
18.11	2.16	0.0116	0.535	18.100	1	1	sensitive fine grained
18.18	2.15	0.0114	0.533	18.275	1	1	sensitive fine grained
18.24	2.12	0.0104	0.492	18.493	1	1	sensitive fine grained
18.31	2.15	0.0099	0.461	18.609	1	1	sensitive fine grained
18.37	2.47	0.0093	0.375	15.185	1	1	sensitive fine grained
18.44	2.18	0.0085	0.390	15.585	1	1	sensitive fine grained
18.50	2.06	0.0042	0.202	16.952	1	1	sensitive fine grained
18.57	2.07	0.0010	0.050	17.900	1	1	sensitive fine grained
18.64	2.17	-0.0001	-0.006	18.737	1	1	sensitive fine grained
18.70	2.18	0.0013	0.059	18.924	1	1	sensitive fine grained
18.77	2.21	-0.0024	-0.107	19.389	1	1	sensitive fine grained
18.83	2.32	0.0068	0.292	19.632	1	1	sensitive fine grained
18.90	2.31	0.0023	0.100	19.626	1	1	sensitive fine grained
18.96	2.22	0.0068	0.308	19.882	1	1	sensitive fine grained
19.03	2.25	0.0111	0.495	20.466	1	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
19.09	2.30	0.0121	0.528	20.628	1	1	sensitive fine grained
19.16	2.35	0.0012	0.049	20.622	1	1	sensitive fine grained
19.23	2.48	0.0034	0.137	20.550	1	1	sensitive fine grained
19.29	2.39	0.0041	0.171	20.572	1	1	sensitive fine grained
19.36	2.53	0.0054	0.215	21.130	1	1	sensitive fine grained
19.42	2.49	0.0012	0.049	20.463	1	1	sensitive fine grained
19.49	2.37	0.0044	0.186	20.060	1	1	sensitive fine grained
19.55	2.16	0.0065	0.301	19.994	1	1	sensitive fine grained
19.62	2.00	0.0039	0.195	20.026	1	1	sensitive fine grained
19.69	1.99	0.0062	0.312	20.253	1	1	sensitive fine grained
19.75	2.08	0.0097	0.464	20.307	1	1	sensitive fine grained
19.82	2.10	0.0048	0.228	20.175	1	1	sensitive fine grained
19.88	2.01	0.0057	0.282	20.126	1	1	sensitive fine grained
19.95	1.99	0.0021	0.106	20.285	1	1	sensitive fine grained
20.01	1.99	-0.0005	-0.026	20.388	1	1	sensitive fine grained
20.08	1.94	0.0015	0.076	20.466	1	1	sensitive fine grained
20.14	1.90	0.0002	0.010	20.503	1	1	sensitive fine grained
20.21	1.99	0.0046	0.231	20.459	1	1	sensitive fine grained
20.28	1.99	-0.0028	-0.141	20.500	1	1	sensitive fine grained
20.34	2.03	-0.0001	-0.006	20.559	1	1	sensitive fine grained
20.41	2.03	0.0072	0.356	20.622	1	1	sensitive fine grained
20.47	2.08	0.0013	0.061	20.650	1	1	sensitive fine grained
20.54	1.94	0.0025	0.129	20.684	1	1	sensitive fine grained
20.60	2.12	0.0102	0.479	20.722	1	1	sensitive fine grained
20.67	2.03	0.0087	0.428	20.843	1	1	sensitive fine grained
20.73	2.10	0.0033	0.158	21.283	1	1	sensitive fine grained
20.80	2.19	0.0114	0.519	21.358	1	1	sensitive fine grained
20.87	2.11	0.0043	0.206	21.402	1	1	sensitive fine grained
20.93	2.23	-0.0005	-0.023	21.533	1	1	sensitive fine grained
21.00	2.35	0.0066	0.283	21.595	1	1	sensitive fine grained
21.06	2.33	0.0054	0.230	21.358	1	1	sensitive fine grained
21.13	2.27	-0.0014	-0.062	21.087	1	1	sensitive fine grained
21.19	2.21	0.0082	0.371	21.109	1	1	sensitive fine grained
21.26	2.06	0.0151	0.733	21.315	1	1	sensitive fine grained
21.33	2.04	0.0102	0.498	21.274	1	1	sensitive fine grained
21.39	2.09	0.0034	0.162	21.265	1	1	sensitive fine grained
21.46	1.99	0.0033	0.167	21.358	1	1	sensitive fine grained
21.52	1.98	0.0047	0.236	21.477	1	1	sensitive fine grained
21.59	2.28	0.0070	0.308	16.980	1	1	sensitive fine grained
21.65	2.21	0.0075	0.338	17.545	1	1	sensitive fine grained
21.72	2.18	0.0054	0.249	18.415	1	1	sensitive fine grained
21.78	2.08	0.0069	0.332	19.245	1	1	sensitive fine grained
21.85	2.04	0.0071	0.349	19.598	1	1	sensitive fine grained
21.92	1.96	0.0114	0.580	19.979	1	1	sensitive fine grained
21.98	1.94	0.0033	0.171	20.550	1	1	sensitive fine grained
22.05	1.96	0.0024	0.121	20.796	1	1	sensitive fine grained
22.11	1.98	-0.0022	-0.113	21.043	1	1	sensitive fine grained
22.18	2.10	0.0033	0.155	21.199	1	1	sensitive fine grained
22.24	2.64	-0.0004	-0.015	21.243	1	1	sensitive fine grained
22.31	3.03	0.0022	0.074	20.831	1	1	sensitive fine grained
22.38	2.74	0.0069	0.252	20.550	1	1	sensitive fine grained
22.44	2.64	0.0087	0.330	20.572	1	1	sensitive fine grained
22.51	2.56	0.0024	0.095	20.619	1	1	sensitive fine grained
22.57	2.48	-0.0002	-0.008	20.640	1	1	sensitive fine grained
22.64	2.38	0.0021	0.089	20.725	1	1	sensitive fine grained
22.70	2.47	0.0062	0.251	20.800	1	1	sensitive fine grained
22.77	2.26	0.0076	0.336	20.878	1	1	sensitive fine grained
22.83	2.36	0.0072	0.306	20.940	1	1	sensitive fine grained
22.90	2.41	0.0090	0.374	21.024	1	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
22.97	2.34	0.0073	0.311	21.152	1	1	sensitive fine grained
23.03	2.50	0.0097	0.389	21.130	1	1	sensitive fine grained
23.10	2.26	0.0031	0.139	21.087	1	1	sensitive fine grained
23.16	2.16	-0.0019	-0.089	21.283	1	1	sensitive fine grained
23.23	2.10	-0.0031	-0.149	21.951	1	1	sensitive fine grained
23.29	2.06	-0.0033	-0.159	22.004	0	0	<out of range>
23.36	1.99	-0.0024	-0.119	21.979	0	0	<out of range>
23.43	1.93	0.0001	0.007	22.163	0	0	<out of range>
23.49	2.00	0.0001	0.006	22.210	1	1	sensitive fine grained
23.56	2.04	0.0038	0.188	22.185	1	1	sensitive fine grained
23.62	2.06	-0.0015	-0.072	22.163	1	1	sensitive fine grained
23.69	2.10	0.0050	0.238	22.132	0	0	<out of range>
23.75	2.13	0.0016	0.075	22.120	0	0	<out of range>
23.82	2.18	-0.0036	-0.167	22.120	0	0	<out of range>
23.88	2.22	-0.0055	-0.248	21.995	1	1	sensitive fine grained
23.95	2.38	-0.0029	-0.121	21.873	0	0	<out of range>
24.02	2.47	0.0038	0.153	21.748	1	1	sensitive fine grained
24.08	2.41	0.0044	0.183	21.670	1	1	sensitive fine grained
24.15	2.53	0.0001	0.005	21.642	1	1	sensitive fine grained
24.21	2.51	0.0042	0.168	21.614	1	1	sensitive fine grained
24.28	2.69	-0.0035	-0.131	21.567	1	1	sensitive fine grained
24.34	2.91	-0.0029	-0.099	21.539	1	1	sensitive fine grained
24.41	3.36	-0.0050	-0.149	21.368	1	1	sensitive fine grained
24.48	3.32	0.0207	0.622	21.046	1	1	sensitive fine grained
24.54	3.19	0.0127	0.399	20.871	1	1	sensitive fine grained
24.61	3.08	0.0086	0.280	20.825	2	1	sensitive fine grained
24.67	2.99	0.0121	0.407	20.843	2	1	sensitive fine grained
24.74	2.94	0.0164	0.556	20.859	2	1	sensitive fine grained
24.80	4.11	0.0138	0.336	15.835	2	1	sensitive fine grained
24.87	3.30	0.0144	0.437	15.913	1	1	sensitive fine grained
24.93	3.05	0.0109	0.359	16.165	1	1	sensitive fine grained
25.00	2.84	0.0077	0.273	16.580	1	1	sensitive fine grained
25.07	2.69	0.0060	0.223	17.772	1	1	sensitive fine grained
25.13	2.57	0.0100	0.388	19.280	1	1	sensitive fine grained
25.20	2.51	0.0051	0.201	19.866	1	1	sensitive fine grained
25.26	2.40	0.0074	0.306	20.235	1	1	sensitive fine grained
25.33	2.59	0.0138	0.533	20.400	1	1	sensitive fine grained
25.39	2.49	0.0060	0.241	20.522	1	1	sensitive fine grained
25.46	2.62	0.0102	0.388	20.572	1	1	sensitive fine grained
25.52	3.10	0.0065	0.208	20.718	2	1	sensitive fine grained
25.59	3.69	0.0130	0.351	20.722	2	1	sensitive fine grained
25.66	4.46	0.0132	0.297	20.690	2	1	sensitive fine grained
25.72	5.64	0.0143	0.253	20.644	3	1	sensitive fine grained
25.79	7.20	0.0267	0.370	20.572	3	1	sensitive fine grained
25.85	9.50	0.0446	0.469	20.210	4	1	sensitive fine grained
25.92	10.29	0.0479	0.466	19.776	4	6	sandy silt to clayey silt
25.98	9.64	0.0691	0.717	19.595	4	6	sandy silt to clayey silt
26.05	10.02	0.0881	0.879	19.651	5	6	sandy silt to clayey silt
26.12	12.01	0.1210	1.008	19.926	5	6	sandy silt to clayey silt
26.18	14.48	0.1514	1.046	19.838	6	6	sandy silt to clayey silt
26.25	17.11	0.1922	1.123	19.598	7	6	sandy silt to clayey silt
26.31	19.75	0.2305	1.167	19.245	8	6	sandy silt to clayey silt
26.38	22.25	0.2405	1.081	18.952	8	6	sandy silt to clayey silt
26.44	24.60	0.2555	1.039	18.665	9	6	sandy silt to clayey silt
26.51	26.99	0.2796	1.036	18.431	10	6	sandy silt to clayey silt
26.57	29.16	0.2930	1.005	18.213	9	7	silty sand to sandy silt
26.64	31.46	0.3142	0.999	18.022	10	7	silty sand to sandy silt
26.71	33.16	0.3255	0.982	17.869	10	7	silty sand to sandy silt
26.77	33.69	0.3652	1.084	17.673	10	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
26.84	32.82	0.3791	1.155	17.507	10	7	silty sand to sandy silt
26.90	31.77	0.3722	1.172	17.339	11	6	sandy silt to clayey silt
26.97	28.32	0.3479	1.228	17.186	11	6	sandy silt to clayey silt
27.03	25.28	0.3375	1.335	17.086	10	6	sandy silt to clayey silt
27.10	22.62	0.3281	1.451	16.970	9	6	sandy silt to clayey silt
27.17	20.99	0.3008	1.433	17.045	9	6	sandy silt to clayey silt
27.23	20.74	0.2942	1.418	17.367	9	6	sandy silt to clayey silt
27.30	21.39	0.3131	1.464	17.691	9	6	sandy silt to clayey silt
27.36	22.67	0.3445	1.520	17.978	9	6	sandy silt to clayey silt
27.43	24.34	0.3681	1.512	18.106	10	6	sandy silt to clayey silt
27.49	27.23	0.3975	1.460	18.150	11	6	sandy silt to clayey silt
27.56	31.00	0.4252	1.372	18.022	11	6	sandy silt to clayey silt
27.62	33.56	0.4445	1.325	17.838	12	6	sandy silt to clayey silt
27.69	34.35	0.4975	1.448	17.691	13	6	sandy silt to clayey silt
27.76	34.32	0.4704	1.371	17.573	13	6	sandy silt to clayey silt
27.82	34.22	0.4969	1.452	17.476	13	6	sandy silt to clayey silt
27.89	33.84	0.5103	1.508	17.426	13	6	sandy silt to clayey silt
27.95	33.66	0.5145	1.528	17.429	13	6	sandy silt to clayey silt
28.02	33.39	0.5134	1.538	15.419	13	6	sandy silt to clayey silt
28.08	35.23	0.5227	1.484	15.438	14	6	sandy silt to clayey silt
28.15	35.91	0.5294	1.474	15.535	12	7	silty sand to sandy silt
28.22	37.25	0.5366	1.441	15.600	12	7	silty sand to sandy silt
28.28	38.33	0.5419	1.414	15.657	12	7	silty sand to sandy silt
28.35	38.72	0.5424	1.401	15.672	12	7	silty sand to sandy silt
28.41	38.06	0.5247	1.379	15.672	12	7	silty sand to sandy silt
28.48	36.27	0.4733	1.305	15.672	11	7	silty sand to sandy silt
28.54	33.98	0.4339	1.277	15.685	11	7	silty sand to sandy silt
28.61	31.30	0.3931	1.256	15.757	10	7	silty sand to sandy silt
28.67	29.41	0.3550	1.207	15.831	10	7	silty sand to sandy silt
28.74	28.07	0.3024	1.077	15.944	9	7	silty sand to sandy silt
28.81	27.38	0.2741	1.001	16.115	9	7	silty sand to sandy silt
28.87	27.08	0.2626	0.970	16.287	9	7	silty sand to sandy silt
28.94	27.39	0.2472	0.902	16.462	9	7	silty sand to sandy silt
29.00	28.38	0.2240	0.789	16.552	9	7	silty sand to sandy silt
29.07	28.44	0.1951	0.686	16.605	8	7	silty sand to sandy silt
29.13	27.33	0.1825	0.668	16.599	9	6	sandy silt to clayey silt
29.20	25.41	0.1861	0.732	16.496	8	6	sandy silt to clayey silt
29.27	19.90	0.2098	1.054	16.384	7	6	sandy silt to clayey silt
29.33	14.29	0.2225	1.557	16.356	6	6	sandy silt to clayey silt
29.40	9.76	0.2118	2.171	16.502	6	5	clayey silt to silty clay
29.46	7.06	0.1758	2.490	16.752	4	5	clayey silt to silty clay
29.53	5.37	0.1396	2.600	16.949	4	4	silty clay to clay
29.59	4.38	0.1041	2.377	17.279	3	4	silty clay to clay
29.66	3.69	0.0637	1.727	17.944	2	1	sensitive fine grained
29.72	3.13	0.0338	1.077	20.640	2	1	sensitive fine grained
29.79	2.93	0.0090	0.306	24.198	2	1	sensitive fine grained
29.86	2.79	0.0039	0.140	27.818	2	1	sensitive fine grained
29.92	2.96	0.0019	0.063	29.066	2	1	sensitive fine grained
29.99	3.51	0.0035	0.100	29.335	1	1	sensitive fine grained
30.05	3.48	0.0077	0.223	29.082	1	1	sensitive fine grained
30.12	3.25	0.0398	1.225	29.166	2	1	sensitive fine grained
30.18	2.99	0.0359	1.201	29.400	2	1	sensitive fine grained
30.25	2.90	0.0308	1.063	29.684	2	1	sensitive fine grained
30.31	3.05	0.0311	1.019	30.343	1	1	sensitive fine grained
30.38	2.98	0.0334	1.122	30.196	1	1	sensitive fine grained
30.45	3.36	0.0210	0.623	16.608	1	1	sensitive fine grained
30.51	2.92	0.0105	0.359	16.858	1	1	sensitive fine grained
30.58	2.61	0.0068	0.262	17.389	1	1	sensitive fine grained
30.64	2.45	0.0060	0.245	18.309	1	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
30.71	2.57	0.0102	0.398	19.804	2	1	sensitive fine grained
30.77	3.20	0.0120	0.376	21.364	2	1	sensitive fine grained
30.84	3.92	0.0238	0.608	22.029	2	1	sensitive fine grained
30.91	4.28	0.0293	0.686	22.244	2	1	sensitive fine grained
30.97	4.13	0.0213	0.515	22.291	2	1	sensitive fine grained
31.04	3.46	0.0415	1.198	22.316	2	1	sensitive fine grained
31.10	2.94	0.0436	1.483	22.775	2	1	sensitive fine grained
31.17	2.60	0.0259	0.998	26.819	2	1	sensitive fine grained
31.23	2.59	0.0196	0.754	28.211	1	1	sensitive fine grained
31.30	3.50	0.0139	0.398	21.252	2	1	sensitive fine grained
31.36	2.79	0.0316	1.131	21.333	2	1	sensitive fine grained
31.43	3.11	0.0525	1.690	21.648	3	1	sensitive fine grained
31.50	6.11	0.0737	1.207	22.045	3	1	sensitive fine grained
31.56	8.80	0.1189	1.351	22.048	3	5	clayey silt to silty clay
31.63	9.86	0.1465	1.486	21.932	4	5	clayey silt to silty clay
31.69	9.64	0.1598	1.658	21.836	4	5	clayey silt to silty clay
31.76	7.92	0.1492	1.885	21.758	4	5	clayey silt to silty clay
31.82	6.36	0.1230	1.936	21.711	4	4	silty clay to clay
31.89	5.18	0.1072	2.072	21.677	4	4	silty clay to clay
31.96	4.56	0.0938	2.059	21.776	2	1	sensitive fine grained
32.02	3.95	0.0617	1.561	22.113	2	1	sensitive fine grained
32.09	3.82	0.0399	1.044	22.666	2	1	sensitive fine grained
32.15	3.52	0.0216	0.614	23.858	2	1	sensitive fine grained
32.22	3.41	0.0077	0.227	24.853	2	1	sensitive fine grained
32.28	3.41	0.0050	0.146	25.830	2	1	sensitive fine grained
32.35	3.61	-0.0001	-0.004	26.607	2	1	sensitive fine grained
32.41	3.76	0.0001	0.002	26.885	2	1	sensitive fine grained
32.48	3.74	-0.0003	-0.007	27.019	2	1	sensitive fine grained
32.55	3.97	0.0054	0.137	27.266	2	1	sensitive fine grained
32.61	4.27	0.0113	0.264	27.522	2	1	sensitive fine grained
32.68	4.50	0.0160	0.355	27.749	2	1	sensitive fine grained
32.74	4.22	0.0035	0.083	28.583	2	1	sensitive fine grained
32.81	4.15	0.0132	0.317	30.159	2	1	sensitive fine grained
32.87	4.07	0.0113	0.277	30.493	2	1	sensitive fine grained
32.94	3.81	0.0079	0.207	30.733	2	1	sensitive fine grained
33.01	3.79	0.0111	0.292	31.747	2	1	sensitive fine grained
33.07	4.71	0.0189	0.401	32.178	2	1	sensitive fine grained
33.14	5.43	0.0207	0.381	31.054	2	1	sensitive fine grained
33.20	5.30	0.0247	0.467	30.336	2	1	sensitive fine grained
33.27	4.95	0.0214	0.431	30.212	2	1	sensitive fine grained
33.33	4.59	0.0187	0.408	30.274	2	1	sensitive fine grained
33.40	4.29	0.0209	0.487	30.474	2	1	sensitive fine grained
33.46	4.04	0.0233	0.578	30.739	2	1	sensitive fine grained
33.53	3.85	0.0230	0.596	30.876	2	1	sensitive fine grained
33.60	3.87	0.0141	0.363	31.057	2	1	sensitive fine grained
33.66	3.77	0.0098	0.259	31.245	2	1	sensitive fine grained
33.73	3.74	0.0205	0.546	31.316	2	1	sensitive fine grained
33.79	3.66	0.0391	1.068	31.525	3	1	sensitive fine grained
33.86	4.45	0.0640	1.438	31.766	4	1	sensitive fine grained
33.92	7.89	0.0998	1.265	31.803	5	5	clayey silt to silty clay
33.99	14.66	0.1315	0.897	30.524	4	6	sandy silt to clayey silt
34.06	17.38	0.1495	0.860	29.329	5	6	sandy silt to clayey silt
34.12	17.45	0.1681	0.964	28.757	6	6	sandy silt to clayey silt
34.19	16.23	0.1826	1.125	28.433	6	6	sandy silt to clayey silt
34.25	14.34	0.2658	1.853	28.164	7	5	clayey silt to silty clay
34.32	12.75	0.2482	1.947	27.977	6	5	clayey silt to silty clay
34.38	11.27	0.2282	2.026	27.852	6	5	clayey silt to silty clay
34.45	9.77	0.2046	2.093	27.756	5	5	clayey silt to silty clay
34.51	7.84	0.1745	2.226	27.693	4	5	clayey silt to silty clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
34.58	8.32	0.1492	1.795	21.889	5	4	silty clay to clay
34.65	5.93	0.1038	1.748	22.082	4	4	silty clay to clay
34.71	4.98	0.0676	1.359	22.947	3	1	sensitive fine grained
34.78	4.81	0.0489	1.018	24.610	2	1	sensitive fine grained
34.84	4.52	0.0249	0.551	26.099	2	1	sensitive fine grained
34.91	3.99	0.0114	0.285	27.721	2	1	sensitive fine grained
34.97	3.92	0.0074	0.189	30.340	2	1	sensitive fine grained
35.04	3.87	0.0051	0.132	32.356	2	1	sensitive fine grained
35.10	3.74	0.0033	0.087	32.599	2	1	sensitive fine grained
35.17	3.88	0.0006	0.015	33.744	2	1	sensitive fine grained
35.24	4.80	0.0118	0.245	34.996	2	1	sensitive fine grained
35.30	4.88	0.0175	0.358	34.562	2	1	sensitive fine grained
35.37	4.36	0.0137	0.315	34.524	2	1	sensitive fine grained
35.43	4.26	0.0200	0.470	34.930	2	1	sensitive fine grained
35.50	4.34	0.0134	0.309	35.099	2	1	sensitive fine grained
35.56	4.48	0.0133	0.297	35.174	2	1	sensitive fine grained
35.63	4.72	0.0150	0.317	35.261	2	1	sensitive fine grained
35.70	5.01	0.0148	0.295	35.408	2	1	sensitive fine grained
35.76	5.03	0.0107	0.212	35.511	2	1	sensitive fine grained
35.83	5.09	0.0098	0.192	35.604	2	1	sensitive fine grained
35.89	4.91	0.0060	0.122	35.664	2	1	sensitive fine grained
35.96	4.68	0.0101	0.216	35.838	3	1	sensitive fine grained
36.02	4.55	0.0170	0.374	36.481	3	1	sensitive fine grained
36.09	6.17	0.0222	0.360	37.464	3	1	sensitive fine grained
36.15	6.76	0.0246	0.363	36.079	3	1	sensitive fine grained
36.22	5.84	0.0285	0.487	35.305	3	1	sensitive fine grained
36.29	5.04	0.1315	2.606	35.623	3	1	sensitive fine grained
36.35	4.61	0.1180	2.558	36.703	2	1	sensitive fine grained
36.42	4.50	0.0992	2.204	37.102	3	4	silty clay to clay
36.48	4.30	0.0909	2.114	37.280	3	4	silty clay to clay
36.55	4.25	0.0813	1.913	37.751	2	1	sensitive fine grained
36.61	5.49	0.0572	1.043	23.599	2	1	sensitive fine grained
36.68	4.66	0.0598	1.285	24.466	2	1	sensitive fine grained
36.75	4.83	0.0501	1.038	26.014	2	1	sensitive fine grained
36.81	5.08	0.0509	1.001	30.823	2	1	sensitive fine grained
36.88	5.00	0.0449	0.898	34.153	3	1	sensitive fine grained
36.94	5.38	0.0430	0.799	36.678	3	1	sensitive fine grained
37.01	5.96	0.0611	1.024	37.829	3	1	sensitive fine grained
37.07	6.19	0.0634	1.025	38.104	3	1	sensitive fine grained
37.14	6.30	0.0705	1.119	40.741	3	1	sensitive fine grained
37.20	6.64	0.0832	1.253	43.930	3	1	sensitive fine grained
37.27	6.86	0.0952	1.387	44.314	3	1	sensitive fine grained
37.34	7.04	0.1038	1.475	43.996	3	1	sensitive fine grained
37.40	7.08	0.1005	1.420	43.971	3	5	clayey silt to silty clay
37.47	7.36	0.0944	1.282	43.565	4	5	clayey silt to silty clay
37.53	7.79	0.1085	1.392	41.946	4	5	clayey silt to silty clay
37.60	8.00	0.1109	1.385	40.267	4	5	clayey silt to silty clay
37.66	8.12	0.1060	1.306	38.176	4	5	clayey silt to silty clay
37.73	8.10	0.1210	1.493	37.165	4	5	clayey silt to silty clay
37.80	7.79	0.1147	1.472	36.700	4	5	clayey silt to silty clay
37.86	7.82	0.1079	1.380	34.849	4	5	clayey silt to silty clay
37.93	7.19	0.1007	1.400	33.492	4	5	clayey silt to silty clay
37.99	7.09	0.0738	1.042	32.621	3	1	sensitive fine grained
38.06	6.79	0.0660	0.972	32.237	3	1	sensitive fine grained
38.12	6.82	0.0724	1.061	32.143	3	1	sensitive fine grained
38.19	6.99	0.0668	0.956	32.034	3	1	sensitive fine grained
38.25	7.28	0.0607	0.834	32.031	3	1	sensitive fine grained
38.32	7.84	0.0551	0.703	31.997	3	1	sensitive fine grained
38.39	7.77	0.0587	0.755	31.288	3	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
38.45	7.24	0.0591	0.817	30.190	3	1	sensitive fine grained
38.52	6.62	0.0646	0.976	30.031	3	1	sensitive fine grained
38.58	6.42	0.0534	0.832	30.589	3	1	sensitive fine grained
38.65	6.24	0.0523	0.839	30.951	3	1	sensitive fine grained
38.71	6.30	0.0575	0.912	32.003	3	1	sensitive fine grained
38.78	6.39	0.0605	0.946	33.345	3	1	sensitive fine grained
38.85	6.79	0.0662	0.975	34.306	3	1	sensitive fine grained
38.91	6.96	0.0607	0.872	34.446	3	1	sensitive fine grained
38.98	7.21	0.0605	0.839	34.612	3	1	sensitive fine grained
39.04	7.41	0.0571	0.770	34.696	3	1	sensitive fine grained
39.11	7.28	0.0586	0.804	34.640	3	1	sensitive fine grained
39.17	7.07	0.0558	0.789	35.080	3	1	sensitive fine grained
39.24	7.03	0.0518	0.737	35.417	3	1	sensitive fine grained
39.30	6.92	0.0584	0.845	35.598	3	1	sensitive fine grained
39.37	7.06	0.0618	0.875	35.767	3	1	sensitive fine grained
39.44	6.83	0.0593	0.868	35.426	3	1	sensitive fine grained
39.50	6.83	0.0495	0.726	34.915	3	1	sensitive fine grained
39.57	7.14	0.0536	0.750	34.549	3	1	sensitive fine grained
39.63	7.47	0.0478	0.640	34.094	3	1	sensitive fine grained
39.70	7.02	0.0395	0.563	32.930	3	1	sensitive fine grained
39.76	6.60	0.0387	0.586	32.349	3	1	sensitive fine grained
39.83	6.57	0.0492	0.749	31.972	3	1	sensitive fine grained
39.90	6.42	0.0487	0.759	31.841	3	1	sensitive fine grained
39.96	6.36	0.0389	0.613	31.513	3	1	sensitive fine grained
40.03	6.12	0.0348	0.568	31.029	3	1	sensitive fine grained
40.09	5.91	0.0310	0.525	30.904	3	1	sensitive fine grained
40.16	5.72	0.0375	0.656	30.745	3	1	sensitive fine grained
40.22	5.60	0.0410	0.733	30.661	3	1	sensitive fine grained
40.29	5.45	0.0428	0.786	30.689	3	1	sensitive fine grained
40.35	5.35	0.0415	0.776	30.639	3	1	sensitive fine grained
40.42	5.19	0.0508	0.977	30.533	3	1	sensitive fine grained
40.49	5.22	0.0465	0.892	30.464	3	1	sensitive fine grained
40.55	5.15	0.0502	0.975	30.521	3	1	sensitive fine grained
40.62	5.36	0.0565	1.052	30.486	3	1	sensitive fine grained
40.68	5.74	0.0580	1.010	30.433	3	1	sensitive fine grained
40.75	6.36	0.0618	0.972	30.296	3	1	sensitive fine grained
40.81	7.11	0.0768	1.079	29.825	3	1	sensitive fine grained
40.88	7.34	0.0848	1.154	29.338	4	1	sensitive fine grained
40.94	7.75	0.0828	1.068	29.010	4	5	clayey silt to silty clay
41.01	8.16	0.0959	1.175	28.832	4	5	clayey silt to silty clay
41.08	8.99	0.1192	1.325	29.213	4	5	clayey silt to silty clay
41.14	8.61	0.1236	1.435	27.494	4	5	clayey silt to silty clay
41.21	9.16	0.1260	1.375	26.975	5	5	clayey silt to silty clay
41.27	10.43	0.1355	1.299	26.707	5	5	clayey silt to silty clay
41.34	11.94	0.1463	1.225	25.733	5	5	clayey silt to silty clay
41.40	12.37	0.1478	1.195	24.629	5	5	clayey silt to silty clay
41.47	12.30	0.1465	1.191	24.011	6	5	clayey silt to silty clay
41.54	11.29	0.1475	1.306	23.100	6	5	clayey silt to silty clay
41.60	11.13	0.1588	1.427	22.812	6	5	clayey silt to silty clay
41.67	11.31	0.1611	1.425	22.656	6	5	clayey silt to silty clay
41.73	11.41	0.1685	1.476	22.641	6	5	clayey silt to silty clay
41.80	11.82	0.1534	1.298	22.663	6	5	clayey silt to silty clay
41.86	11.96	0.1707	1.427	22.650	6	5	clayey silt to silty clay
41.93	11.72	0.1843	1.573	22.482	6	5	clayey silt to silty clay
41.99	11.75	0.1954	1.663	22.351	6	5	clayey silt to silty clay
42.06	11.71	0.1880	1.606	22.319	6	5	clayey silt to silty clay
42.13	12.12	0.1884	1.554	22.322	6	5	clayey silt to silty clay
42.19	12.57	0.1985	1.579	22.157	6	5	clayey silt to silty clay
42.26	12.75	0.2052	1.610	21.942	6	5	clayey silt to silty clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
42.32	13.14	0.2084	1.586	21.820	6	5	clayey silt to silty clay
42.39	13.56	0.1897	1.399	21.745	6	5	clayey silt to silty clay
42.45	13.46	0.1856	1.379	21.627	6	5	clayey silt to silty clay
42.52	12.51	0.2099	1.678	21.452	6	5	clayey silt to silty clay
42.59	12.63	0.2078	1.646	21.311	6	5	clayey silt to silty clay
42.65	12.91	0.2213	1.715	21.193	6	5	clayey silt to silty clay
42.72	13.47	0.2183	1.621	21.027	6	5	clayey silt to silty clay
42.78	13.20	0.2282	1.729	20.675	6	5	clayey silt to silty clay
42.85	12.50	0.2181	1.744	20.122	6	5	clayey silt to silty clay
42.91	12.19	0.1926	1.580	19.923	6	5	clayey silt to silty clay
42.98	11.46	0.1738	1.516	19.767	6	5	clayey silt to silty clay
43.04	11.18	0.1736	1.553	19.564	6	5	clayey silt to silty clay
43.11	11.71	0.1762	1.505	19.445	6	5	clayey silt to silty clay
43.18	12.77	0.1846	1.445	19.470	6	5	clayey silt to silty clay
43.24	13.05	0.1809	1.386	19.464	6	5	clayey silt to silty clay
43.31	13.03	0.2009	1.542	19.439	6	5	clayey silt to silty clay
43.37	13.10	0.2009	1.534	19.383	6	5	clayey silt to silty clay
43.44	12.88	0.1974	1.533	19.305	6	5	clayey silt to silty clay
43.50	12.68	0.1942	1.532	19.199	6	5	clayey silt to silty clay
43.57	12.55	0.1694	1.350	19.040	6	5	clayey silt to silty clay
43.64	11.70	0.1534	1.311	18.749	6	5	clayey silt to silty clay
43.70	10.65	0.1479	1.389	18.543	5	5	clayey silt to silty clay
43.77	10.28	0.1556	1.513	18.456	5	5	clayey silt to silty clay
43.83	10.12	0.1685	1.665	18.450	5	5	clayey silt to silty clay
43.90	9.60	0.1664	1.734	18.609	5	5	clayey silt to silty clay
43.96	9.91	0.1588	1.601	18.846	5	5	clayey silt to silty clay
44.03	9.96	0.1538	1.544	19.136	5	5	clayey silt to silty clay
44.09	9.82	0.1588	1.617	19.545	5	5	clayey silt to silty clay
44.16	9.74	0.1551	1.593	20.303	5	5	clayey silt to silty clay
44.23	9.99	0.1403	1.404	20.784	5	5	clayey silt to silty clay
44.29	10.50	0.1359	1.294	33.139	5	5	clayey silt to silty clay
44.36	11.08	0.1339	1.208	32.249	5	5	clayey silt to silty clay
44.42	10.94	0.1430	1.306	29.940	5	5	clayey silt to silty clay
44.49	10.41	0.1504	1.444	29.060	5	5	clayey silt to silty clay
44.55	10.13	0.1426	1.408	29.041	5	5	clayey silt to silty clay
44.62	11.94	0.1440	1.206	30.936	6	5	clayey silt to silty clay
44.69	13.16	0.1427	1.084	28.920	6	5	clayey silt to silty clay
44.75	12.42	0.1614	1.300	26.305	6	5	clayey silt to silty clay
44.82	11.84	0.1718	1.451	27.687	6	5	clayey silt to silty clay
44.88	12.37	0.1834	1.483	28.976	6	5	clayey silt to silty clay
44.95	13.68	0.2074	1.516	30.402	6	5	clayey silt to silty clay
45.01	13.95	0.2242	1.607	30.767	6	5	clayey silt to silty clay
45.08	13.14	0.2376	1.809	29.116	6	5	clayey silt to silty clay
45.14	12.47	0.2662	2.135	27.650	6	5	clayey silt to silty clay
45.21	11.87	0.2874	2.421	26.860	6	5	clayey silt to silty clay
45.28	11.36	0.2725	2.398	26.367	5	5	clayey silt to silty clay
45.34	11.01	0.2376	2.159	26.021	5	5	clayey silt to silty clay
45.41	10.69	0.2048	1.916	24.791	5	5	clayey silt to silty clay
45.47	9.76	0.1820	1.865	24.070	5	5	clayey silt to silty clay
45.54	8.79	0.1578	1.795	23.992	4	5	clayey silt to silty clay
45.60	8.19	0.1357	1.656	25.022	4	5	clayey silt to silty clay
45.67	7.88	0.1247	1.583	25.774	4	5	clayey silt to silty clay
45.73	7.73	0.1123	1.453	26.857	4	5	clayey silt to silty clay
45.80	7.52	0.1260	1.675	28.002	4	5	clayey silt to silty clay
45.87	7.38	0.1210	1.640	29.135	4	5	clayey silt to silty clay
45.93	7.57	0.1110	1.466	30.439	4	5	clayey silt to silty clay
46.00	7.57	0.1138	1.504	31.513	4	5	clayey silt to silty clay
46.06	7.38	0.1062	1.439	32.908	4	5	clayey silt to silty clay
46.13	7.37	0.1028	1.395	34.362	4	5	clayey silt to silty clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
46.19	7.38	0.0985	1.334	35.021	4	5	clayey silt to silty clay
46.26	7.47	0.0970	1.298	35.011	4	1	sensitive fine grained
46.33	8.21	0.0784	0.956	22.104	4	1	sensitive fine grained
46.39	7.58	0.0347	0.458	21.742	4	1	sensitive fine grained
46.46	7.51	0.0231	0.308	21.730	3	1	sensitive fine grained
46.52	6.91	0.0345	0.499	22.416	3	1	sensitive fine grained
46.59	6.91	0.0326	0.472	23.252	4	1	sensitive fine grained
46.65	6.57	0.0276	0.419	25.125	4	1	sensitive fine grained
46.72	7.34	0.0435	0.593	27.821	4	1	sensitive fine grained
46.78	8.55	0.0737	0.862	29.921	3	6	sandy silt to clayey silt
46.85	10.05	0.0598	0.595	30.418	4	6	sandy silt to clayey silt
46.92	11.87	0.0711	0.599	31.148	4	6	sandy silt to clayey silt
46.98	12.45	0.0810	0.651	33.398	5	6	sandy silt to clayey silt
47.05	13.19	0.0977	0.740	35.960	7	6	sandy silt to clayey silt
47.11	16.17	0.1002	0.620	37.524	8	6	sandy silt to clayey silt
47.18	25.64	0.1435	0.560	39.780	7	7	silty sand to sandy silt
47.24	32.63	0.1387	0.425	30.561	8	7	silty sand to sandy silt
47.31	31.30	0.1523	0.487	26.158	9	7	silty sand to sandy silt
47.38	28.21	0.1553	0.551	26.988	9	7	silty sand to sandy silt
47.44	25.85	0.1797	0.695	28.492	9	7	silty sand to sandy silt
47.51	26.87	0.1508	0.561	30.755	8	7	silty sand to sandy silt
47.57	24.57	0.1406	0.572	29.519	8	7	silty sand to sandy silt
47.64	21.04	0.1406	0.668	28.345	8	7	silty sand to sandy silt
47.70	20.71	0.1269	0.613	30.446	7	7	silty sand to sandy silt
47.77	22.99	0.1182	0.514	35.816	7	7	silty sand to sandy silt
47.83	23.14	0.1092	0.472	30.845	7	6	sandy silt to clayey silt
47.90	18.79	0.1113	0.593	28.548	7	6	sandy silt to clayey silt
47.97	15.42	0.0879	0.570	29.725	7	6	sandy silt to clayey silt
48.03	12.66	0.1076	0.850	31.282	6	6	sandy silt to clayey silt
48.10	12.01	0.0909	0.757	34.899	6	6	sandy silt to clayey silt
48.16	15.50	0.0897	0.579	37.814	5	6	sandy silt to clayey silt
48.23	16.22	0.0960	0.592	38.606	5	6	sandy silt to clayey silt
48.29	13.60	0.1083	0.797	34.462	5	6	sandy silt to clayey silt
48.36	10.82	0.1293	1.196	32.409	5	6	sandy silt to clayey silt
48.43	9.88	0.1533	1.552	34.712	5	6	sandy silt to clayey silt
48.49	10.48	0.1550	1.479	37.664	5	6	sandy silt to clayey silt
48.56	13.06	0.1570	1.202	39.911	6	6	sandy silt to clayey silt
48.62	16.76	0.1848	1.103	41.524	8	6	sandy silt to clayey silt
48.69	20.87	0.2561	1.227	34.081	10	6	sandy silt to clayey silt
48.75	36.14	0.4101	1.135	33.657	11	6	sandy silt to clayey silt
48.82	46.47	0.5460	1.175	26.919	11	6	sandy silt to clayey silt
48.88	37.54	0.6144	1.637	24.023	11	6	sandy silt to clayey silt
48.95	27.05	0.5632	2.082	23.864	11	6	sandy silt to clayey silt
49.02	20.16	0.5266	2.612	23.923	10	6	sandy silt to clayey silt
49.08	16.20	0.5559	3.430	23.883	8	6	sandy silt to clayey silt
49.15	14.08	0.4739	3.366	23.845	10	5	clayey silt to silty clay
49.21	15.45	0.3039	1.968	24.682	7	6	sandy silt to clayey silt
49.28	22.08	0.2738	1.240	26.688	8	6	sandy silt to clayey silt
49.34	24.89	0.2075	0.834	31.139	8	6	sandy silt to clayey silt
49.41	21.34	0.2054	0.963	35.089	10	6	sandy silt to clayey silt
49.48	24.21	0.2605	1.076	38.432	9	7	silty sand to sandy silt
49.54	31.08	0.2879	0.926	40.822	9	7	silty sand to sandy silt
49.61	34.92	0.3178	0.910	33.716	10	6	sandy silt to clayey silt
49.67	30.97	0.3229	1.043	28.514	10	6	sandy silt to clayey silt
49.74	25.41	0.3715	1.462	27.032	10	6	sandy silt to clayey silt
49.80	20.83	0.3805	1.827	27.259	9	6	sandy silt to clayey silt
49.87	18.52	0.2616	1.412	28.732	9	6	sandy silt to clayey silt
49.93	17.57	0.2265	1.289	31.853	9	6	sandy silt to clayey silt
50.00	18.88	0.1979	1.048	39.958	9	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
50.07	29.56	0.2101	0.711	37.786	10	7	silty sand to sandy silt
50.13	42.41	0.2160	0.509	30.124	11	7	silty sand to sandy silt
50.20	47.14	0.2461	0.522	25.665	13	7	silty sand to sandy silt
50.26	47.86	0.3013	0.629	24.644	14	7	silty sand to sandy silt
50.33	46.07	0.3431	0.745	23.927	14	7	silty sand to sandy silt
50.39	43.67	0.4792	1.097	23.783	13	7	silty sand to sandy silt
50.46	41.02	0.6098	1.487	23.864	13	7	silty sand to sandy silt
50.52	37.58	0.7050	1.876	23.952	14	6	sandy silt to clayey silt
50.59	32.49	0.6220	1.915	24.214	13	6	sandy silt to clayey silt
50.66	27.18	0.5982	2.201	24.838	13	6	sandy silt to clayey silt
50.72	25.98	0.6119	2.355	22.937	13	6	sandy silt to clayey silt
50.79	28.27	0.5615	1.986	23.384	12	7	silty sand to sandy silt
50.85	36.39	0.5057	1.390	23.927	13	7	silty sand to sandy silt
50.92	55.38	0.4862	0.878	24.133	15	7	silty sand to sandy silt
50.98	62.30	0.4913	0.789	23.802	16	7	silty sand to sandy silt
51.05	58.41	0.5068	0.868	23.705	16	7	silty sand to sandy silt
51.12	52.92	0.5287	0.999	23.243	16	7	silty sand to sandy silt
51.18	47.64	0.4733	0.993	23.540	16	7	silty sand to sandy silt
51.25	42.77	0.4373	1.023	24.070	14	7	silty sand to sandy silt
51.31	41.08	0.4901	1.193	23.646	13	7	silty sand to sandy silt
51.38	38.25	0.3361	0.879	23.568	12	7	silty sand to sandy silt
51.44	33.29	0.2423	0.728	23.365	11	7	silty sand to sandy silt
51.51	29.07	0.3385	1.164	23.870	11	7	silty sand to sandy silt
51.57	31.97	0.5140	1.608	24.988	12	6	sandy silt to clayey silt
51.64	32.70	0.5284	1.616	27.378	11	6	sandy silt to clayey silt
51.71	26.73	0.5134	1.921	27.918	10	6	sandy silt to clayey silt
51.77	20.56	0.4139	2.013	25.765	9	6	sandy silt to clayey silt
51.84	18.33	0.3587	1.957	25.318	9	6	sandy silt to clayey silt
51.90	18.49	0.3967	2.146	25.215	8	6	sandy silt to clayey silt
51.97	21.11	0.3871	1.834	25.596	7	6	sandy silt to clayey silt
52.03	21.47	0.3928	1.830	27.453	9	5	clayey silt to silty clay
52.10	17.94	0.3488	1.944	30.190	7	6	sandy silt to clayey silt
52.17	14.88	0.2671	1.795	31.344	9	6	sandy silt to clayey silt
52.23	14.42	0.2298	1.594	34.662	9	7	silty sand to sandy silt
52.30	24.81	0.1820	0.734	41.440	11	7	silty sand to sandy silt
52.36	43.34	0.1722	0.397	45.444	12	7	silty sand to sandy silt
52.43	58.83	0.2233	0.379	39.330	14	7	silty sand to sandy silt
52.49	58.22	0.3006	0.516	31.466	15	7	silty sand to sandy silt
52.56	52.69	0.4082	0.775	28.090	15	7	silty sand to sandy silt
52.62	45.05	0.4324	0.960	25.964	14	7	silty sand to sandy silt
52.69	37.08	0.4376	1.180	25.743	13	7	silty sand to sandy silt
52.76	32.98	0.4517	1.370	26.280	12	7	silty sand to sandy silt
52.82	31.59	0.3685	1.166	26.645	11	7	silty sand to sandy silt
52.89	31.69	0.2896	0.914	26.766	11	7	silty sand to sandy silt
52.95	33.59	0.2086	0.621	27.362	10	7	silty sand to sandy silt
53.02	33.71	0.1781	0.528	28.358	10	7	silty sand to sandy silt
53.08	31.35	0.2070	0.660	28.942	9	7	silty sand to sandy silt
53.15	27.24	0.2143	0.787	30.099	8	7	silty sand to sandy silt
53.22	22.67	0.2046	0.903	32.000	9	6	sandy silt to clayey silt
53.28	19.43	0.2495	1.284	34.306	8	6	sandy silt to clayey silt
53.35	18.23	0.2382	1.307	36.628	8	6	sandy silt to clayey silt
53.41	17.29	0.2056	1.189	39.496	7	6	sandy silt to clayey silt
53.48	16.74	0.2251	1.344	42.507	7	6	sandy silt to clayey silt
53.54	16.61	0.1793	1.080	47.126	7	6	sandy silt to clayey silt
53.61	18.37	0.2614	1.423	53.664	7	6	sandy silt to clayey silt
53.67	20.22	0.2472	1.222	54.609	7	6	sandy silt to clayey silt
53.74	19.57	0.2946	1.505	50.818	7	6	sandy silt to clayey silt
53.81	18.51	0.2844	1.536	50.022	7	6	sandy silt to clayey silt
53.87	17.65	0.2774	1.572	50.287	7	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
53.94	22.97	0.2658	1.157	39.455	7	6	sandy silt to clayey silt
54.00	19.22	0.2499	1.300	34.977	7	6	sandy silt to clayey silt
54.07	15.43	0.3116	2.019	39.046	7	6	sandy silt to clayey silt
54.13	14.44	0.2944	2.038	45.840	7	6	sandy silt to clayey silt
54.20	17.97	0.3408	1.897	49.120	9	5	clayey silt to silty clay
54.27	21.48	0.4578	2.131	49.033	9	5	clayey silt to silty clay
54.33	21.14	0.4316	2.042	38.965	9	5	clayey silt to silty clay
54.40	19.73	0.3932	1.993	32.974	9	5	clayey silt to silty clay
54.46	18.20	0.3819	2.098	31.728	7	6	sandy silt to clayey silt
54.53	14.52	0.2637	1.816	28.174	7	6	sandy silt to clayey silt
54.59	13.36	0.1786	1.337	30.271	8	6	sandy silt to clayey silt
54.66	18.79	0.1788	0.952	32.396	9	6	sandy silt to clayey silt
54.72	27.14	0.2034	0.750	32.646	10	7	silty sand to sandy silt
54.79	35.78	0.2513	0.702	32.343	12	7	silty sand to sandy silt
54.86	45.26	0.3218	0.711	31.123	14	7	silty sand to sandy silt
54.92	55.98	0.2967	0.530	30.393	12	8	sand to silty sand
54.99	61.01	0.2946	0.483	29.694	12	8	sand to silty sand
55.05	60.34	0.3137	0.520	28.411	13	8	sand to silty sand
55.12	55.82	0.3387	0.607	27.662	13	8	sand to silty sand
55.18	50.89	0.4085	0.803	27.472	16	7	silty sand to sandy silt
55.25	47.22	0.4613	0.977	27.316	15	7	silty sand to sandy silt
55.31	42.19	0.4954	1.174	27.188	13	7	silty sand to sandy silt
55.38	37.11	0.4666	1.257	27.054	12	7	silty sand to sandy silt
55.45	30.71	0.3739	1.218	27.019	10	7	silty sand to sandy silt
55.51	25.03	0.3048	1.218	27.016	11	6	sandy silt to clayey silt
55.58	20.97	0.2391	1.140	28.008	10	6	sandy silt to clayey silt
55.64	19.32	0.1921	0.994	31.781	9	7	silty sand to sandy silt
55.71	19.57	0.1378	0.704	37.280	11	7	silty sand to sandy silt
55.77	30.87	0.1635	0.530	48.870	13	7	silty sand to sandy silt
55.84	54.41	0.2132	0.392	46.586	12	8	sand to silty sand
55.91	65.81	0.3433	0.522	33.270	14	8	sand to silty sand
55.97	76.59	0.4920	0.642	29.581	16	8	sand to silty sand
56.04	83.22	0.5993	0.720	28.757	17	8	sand to silty sand
56.10	82.75	0.6273	0.758	28.111	17	8	sand to silty sand
56.17	75.68	0.5839	0.771	27.678	17	8	sand to silty sand
56.23	64.63	0.5491	0.850	27.556	15	8	sand to silty sand
56.30	54.88	0.5029	0.916	27.525	14	8	sand to silty sand
56.36	47.60	0.4211	0.885	27.481	17	7	silty sand to sandy silt
56.43	43.43	0.3585	0.825	27.494	15	7	silty sand to sandy silt
56.50	41.68	0.3050	0.732	27.500	13	7	silty sand to sandy silt
56.56	40.05	0.2671	0.667	27.275	12	7	silty sand to sandy silt
56.63	35.45	0.2206	0.622	27.160	10	7	silty sand to sandy silt
56.69	27.37	0.2327	0.850	27.206	9	7	silty sand to sandy silt
56.76	20.20	0.1608	0.796	27.172	9	6	sandy silt to clayey silt
56.82	14.83	0.1699	1.146	27.203	7	6	sandy silt to clayey silt
56.89	11.36	0.1528	1.345	27.256	5	6	sandy silt to clayey silt
56.96	9.34	0.1010	1.081	27.259	4	6	sandy silt to clayey silt
57.02	7.67	0.0049	0.064	27.256	4	5	clayey silt to silty clay
57.09	6.59	0.0111	0.168	27.082	4	1	sensitive fine grained
57.15	5.92	0.0058	0.097	28.221	5	1	sensitive fine grained
57.22	6.25	0.0054	0.086	29.588	0	0	<out of range>
57.28	7.86	0.0043	0.055	36.756	0	0	<out of range>
57.35	26.94	-0.0019	-0.007	35.330	0	0	<out of range>
57.41	123.61	-32768	-32768	35.161	0	0	<out of range>
57.48	164.31	-32768	-32768	32.097	0	0	<out of range>
57.55	195.32	-32768	-32768	29.063	0	0	<out of range>
57.61	246.45	-32768	-32768	28.239	0	0	<out of range>

*Soil behavior type and SPT based on data from UBC-1983

AECOM

TVA Kingston Coal Ash Pond RCA (Kingston,Tennessee) Cone Penetration Test

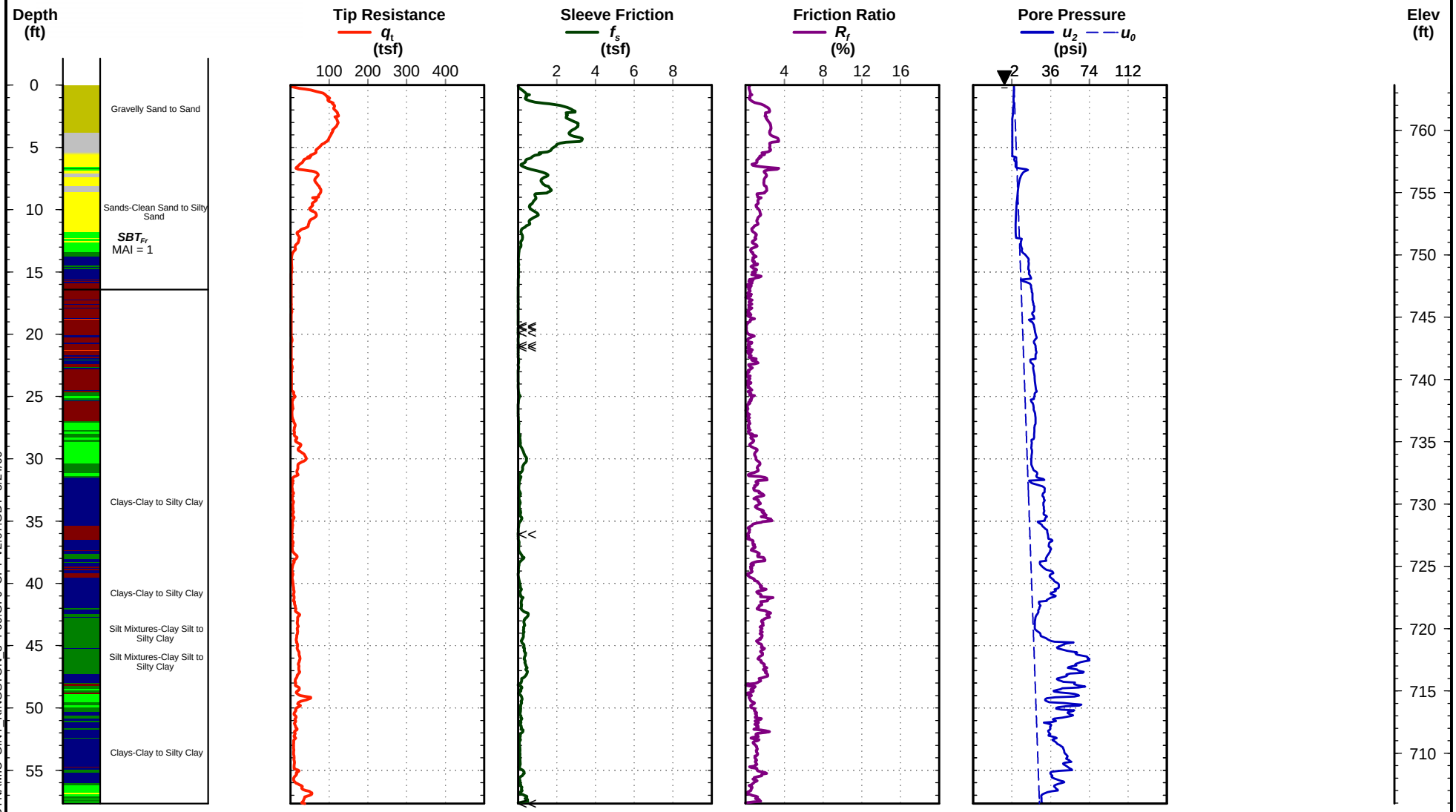
09-711-C1

Project No: 60095742

Date: Feb. 14, 2009
Estimated Water Depth: 0 ft
Rig/Operator: D-120/CAP

Northing: 554942.33
Easting: 2441764.66
Elevation: 763.63 NGVD

Total Depth: 57.7 ft
Termination Criteria: Refusal
Cone Size: 5T Tension Cone



CPT REPORT - DYNAMIC GINT_KINGSTON_3-4-09.GPJ CPT V2.07.GDT 3/24/09

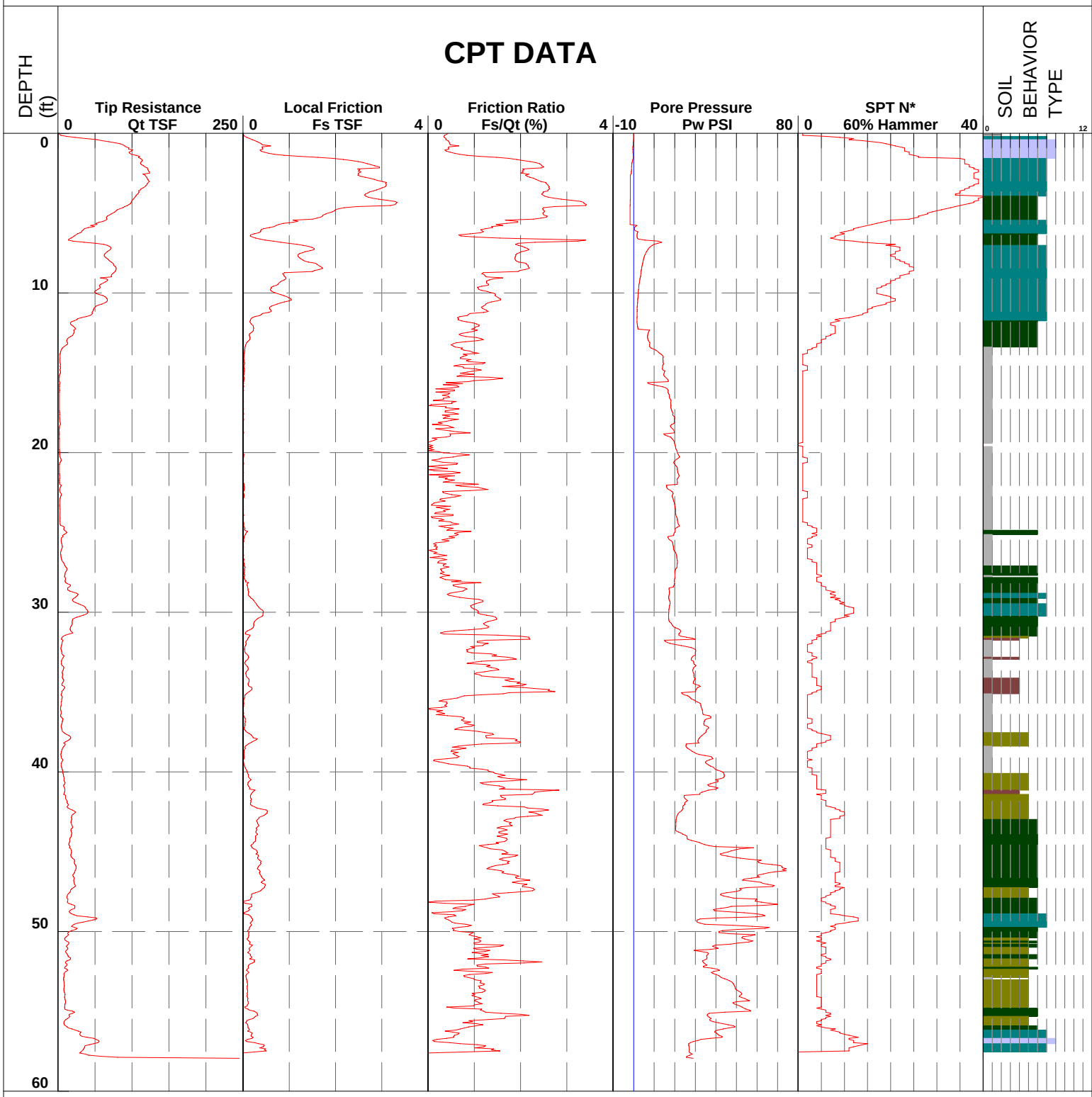
09-711-C1

Electronic Filename: 09-711-C1.cpt

AECOM

09-711-C1	60095742	2/14/2009 2:28:12 PM
DTA1081	TVA-Kingston	D-120/CAP

CPT DATA



1 - sensitive fine grained	4 - silty clay to clay	7 - silty sand to sandy silt	10 - gravelly sand to sand
2 - organic material	5 - clayey silt to silty clay	8 - sand to silty sand	11 - very stiff fine grained (*)
3 - clay	6 - sandy silt to clayey silt	9 - sand	12 - sand to clayey sand (*)

Data File:09-711-C1 2/14/2009 2:28:12 PM
Operator:D-120/CAP Location:TVA-Kingston
Cone ID:DTA1081 Job Number:60095742
Customer:TVA Units:

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
0.07	0.96	0.0042	0.432	-0.016	1	2	organic material
0.13	3.92	0.0140	0.357	-0.016	1	1	sensitive fine grained
0.20	11.76	0.0399	0.339	-0.012	6	7	silty sand to sandy silt
0.26	23.09	0.0816	0.354	-0.022	9	7	silty sand to sandy silt
0.33	37.57	0.1449	0.386	-0.041	12	7	silty sand to sandy silt
0.39	52.82	0.2025	0.383	-0.025	11	8	sand to silty sand
0.46	59.51	0.2580	0.433	-0.066	14	8	sand to silty sand
0.52	68.77	0.3073	0.447	-0.087	16	8	sand to silty sand
0.59	76.55	0.3560	0.465	-0.243	18	8	sand to silty sand
0.66	83.86	0.3918	0.467	-0.256	19	8	sand to silty sand
0.72	87.74	0.4204	0.479	-0.262	20	8	sand to silty sand
0.79	90.10	0.5981	0.664	-0.325	21	8	sand to silty sand
0.85	92.28	0.4101	0.444	-0.390	22	8	sand to silty sand
0.92	95.88	0.4222	0.440	-0.390	23	8	sand to silty sand
0.98	95.22	0.4298	0.451	-0.384	23	8	sand to silty sand
1.05	101.06	0.3688	0.365	-0.365	23	8	sand to silty sand
1.12	99.40	0.3882	0.390	-0.340	23	8	sand to silty sand
1.18	96.03	0.4576	0.477	-0.350	24	8	sand to silty sand
1.25	96.91	0.5528	0.570	-0.315	24	8	sand to silty sand
1.31	99.39	0.6766	0.681	-0.275	24	8	sand to silty sand
1.38	105.59	0.8911	0.844	-0.240	25	8	sand to silty sand
1.44	110.37	1.2182	1.104	-0.150	26	8	sand to silty sand
1.51	108.81	1.6140	1.483	-0.091	26	8	sand to silty sand
1.57	111.40	1.9465	1.747	-0.162	35	7	silty sand to sandy silt
1.64	113.36	2.1725	1.916	-0.381	36	7	silty sand to sandy silt
1.71	114.21	2.3424	2.051	-0.509	36	7	silty sand to sandy silt
1.77	113.04	2.4912	2.204	-0.649	36	7	silty sand to sandy silt
1.84	111.57	2.5983	2.329	-0.780	36	7	silty sand to sandy silt
1.90	111.48	2.6876	2.411	-0.858	36	7	silty sand to sandy silt
1.97	113.27	2.7695	2.445	-0.908	37	7	silty sand to sandy silt
2.03	115.71	2.8424	2.457	-0.964	37	7	silty sand to sandy silt
2.10	117.77	2.9497	2.505	-0.996	37	7	silty sand to sandy silt
2.17	120.47	2.9510	2.450	-1.002	38	7	silty sand to sandy silt
2.23	121.37	2.4809	2.044	-0.983	38	7	silty sand to sandy silt
2.30	121.64	2.5252	2.076	-1.014	39	7	silty sand to sandy silt
2.36	122.45	2.4922	2.035	-1.067	39	7	silty sand to sandy silt
2.43	123.65	2.5501	2.062	-1.148	39	7	silty sand to sandy silt
2.49	123.89	2.4868	2.007	-1.148	38	7	silty sand to sandy silt
2.56	114.90	2.5028	2.178	-1.354	38	7	silty sand to sandy silt
2.62	117.77	2.4833	2.109	-1.545	38	7	silty sand to sandy silt
2.69	118.56	2.5426	2.145	-1.592	38	7	silty sand to sandy silt
2.76	120.14	2.6447	2.201	-1.645	38	7	silty sand to sandy silt
2.82	120.26	2.7497	2.287	-1.645	38	7	silty sand to sandy silt
2.89	121.72	2.8366	2.330	-1.620	39	7	silty sand to sandy silt
2.95	121.89	2.9050	2.383	-1.607	39	7	silty sand to sandy silt
3.02	123.47	3.0137	2.441	-1.626	39	7	silty sand to sandy silt
3.08	122.00	3.1040	2.544	-1.632	39	7	silty sand to sandy silt
3.15	120.63	3.0819	2.555	-1.632	39	7	silty sand to sandy silt
3.22	120.22	3.1060	2.584	-1.657	38	7	silty sand to sandy silt
3.28	118.86	3.0876	2.598	-1.632	38	7	silty sand to sandy silt
3.35	117.48	3.0780	2.620	-1.645	37	7	silty sand to sandy silt
3.41	115.03	3.0057	2.613	-1.620	37	7	silty sand to sandy silt
3.48	112.34	2.9564	2.632	-1.623	36	7	silty sand to sandy silt
3.54	111.30	2.8901	2.597	-1.620	36	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
3.61	108.82	2.8174	2.589	-1.626	35	7	silty sand to sandy silt
3.67	109.77	2.7359	2.492	-1.648	35	7	silty sand to sandy silt
3.74	108.64	2.6978	2.483	-1.623	35	7	silty sand to sandy silt
3.81	107.73	2.6462	2.456	-1.607	34	7	silty sand to sandy silt
3.87	105.76	2.6264	2.483	-1.617	34	7	silty sand to sandy silt
3.94	105.37	2.6545	2.519	-1.645	40	6	sandy silt to clayey silt
4.00	104.11	2.7027	2.596	-1.623	40	6	sandy silt to clayey silt
4.07	102.91	2.7999	2.721	-1.641	39	6	sandy silt to clayey silt
4.13	101.75	2.9310	2.881	-1.660	39	6	sandy silt to clayey silt
4.20	100.33	3.1117	3.102	-1.682	39	6	sandy silt to clayey silt
4.27	99.34	3.2863	3.308	-1.676	38	6	sandy silt to clayey silt
4.33	98.93	3.3296	3.365	-1.676	38	6	sandy silt to clayey silt
4.40	98.02	3.3062	3.373	-1.691	37	6	sandy silt to clayey silt
4.46	96.01	3.2897	3.426	-1.679	36	6	sandy silt to clayey silt
4.53	93.70	3.1891	3.403	-1.716	35	6	sandy silt to clayey silt
4.59	90.26	2.4702	2.737	-1.729	34	6	sandy silt to clayey silt
4.66	87.81	2.1897	2.494	-1.738	33	6	sandy silt to clayey silt
4.72	83.71	2.0737	2.477	-1.741	32	6	sandy silt to clayey silt
4.79	80.30	1.9963	2.486	-1.738	31	6	sandy silt to clayey silt
4.86	78.69	1.9798	2.516	-1.741	30	6	sandy silt to clayey silt
4.92	76.84	1.9303	2.512	-1.710	29	6	sandy silt to clayey silt
4.99	74.58	1.8505	2.481	-1.732	28	6	sandy silt to clayey silt
5.05	71.96	1.7911	2.489	-1.716	28	6	sandy silt to clayey silt
5.12	69.28	1.7341	2.503	-1.723	27	6	sandy silt to clayey silt
5.18	66.69	1.7181	2.576	-1.720	26	6	sandy silt to clayey silt
5.25	65.58	1.6831	2.567	-1.729	26	6	sandy silt to clayey silt
5.31	65.58	1.5995	2.439	-1.741	25	6	sandy silt to clayey silt
5.38	66.31	1.5087	2.275	-1.732	24	6	sandy silt to clayey silt
5.45	64.86	1.0833	1.670	-1.716	20	7	silty sand to sandy silt
5.51	61.15	1.1845	1.937	-1.713	19	7	silty sand to sandy silt
5.58	55.65	1.0783	1.938	-1.716	18	7	silty sand to sandy silt
5.64	51.51	0.8758	1.700	-1.735	17	7	silty sand to sandy silt
5.71	52.67	0.7759	1.473	-1.748	16	7	silty sand to sandy silt
5.77	44.23	0.7156	1.618	1.601	15	7	silty sand to sandy silt
5.84	49.49	0.6801	1.374	0.839	14	7	silty sand to sandy silt
5.91	41.22	0.5759	1.397	0.440	13	7	silty sand to sandy silt
5.97	35.89	0.4460	1.243	0.296	12	7	silty sand to sandy silt
6.04	34.43	0.3913	1.137	0.421	12	7	silty sand to sandy silt
6.10	32.87	0.3838	1.168	0.730	11	7	silty sand to sandy silt
6.17	32.08	0.3836	1.196	2.066	10	7	silty sand to sandy silt
6.23	30.04	0.3394	1.130	1.904	9	7	silty sand to sandy silt
6.30	26.58	0.2441	0.918	1.716	10	6	sandy silt to clayey silt
6.36	24.23	0.1606	0.663	1.670	9	6	sandy silt to clayey silt
6.43	21.85	0.1566	0.717	1.632	8	6	sandy silt to clayey silt
6.50	19.98	0.2070	1.036	1.666	8	6	sandy silt to clayey silt
6.56	17.64	0.2737	1.552	1.738	7	6	sandy silt to clayey silt
6.63	14.79	0.3697	2.499	2.341	8	6	sandy silt to clayey silt
6.69	14.06	0.4793	3.408	5.477	9	6	sandy silt to clayey silt
6.76	20.26	0.6569	3.242	12.002	12	6	sandy silt to clayey silt
6.82	35.33	0.8176	2.314	13.653	14	6	sandy silt to clayey silt
6.89	50.83	0.9892	1.946	11.728	17	6	sandy silt to clayey silt
6.96	61.71	1.1667	1.891	9.943	21	6	sandy silt to clayey silt
7.02	66.59	1.3003	1.953	9.125	19	7	silty sand to sandy silt
7.09	69.44	1.4153	2.038	8.395	21	7	silty sand to sandy silt
7.15	71.37	1.4890	2.086	7.805	22	7	silty sand to sandy silt
7.22	71.71	1.5425	2.151	7.281	22	7	silty sand to sandy silt
7.28	70.52	1.5364	2.179	6.903	22	7	silty sand to sandy silt
7.35	68.52	1.4538	2.122	6.563	22	7	silty sand to sandy silt
7.41	66.50	1.3439	2.021	6.263	21	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
7.48	65.03	1.2855	1.977	5.995	21	7	silty sand to sandy silt
7.55	63.50	1.2177	1.918	5.739	21	7	silty sand to sandy silt
7.61	62.67	1.1895	1.898	5.521	20	7	silty sand to sandy silt
7.68	62.48	1.1863	1.899	5.308	20	7	silty sand to sandy silt
7.74	63.57	1.1985	1.885	5.121	21	7	silty sand to sandy silt
7.81	65.13	1.2250	1.881	5.012	21	7	silty sand to sandy silt
7.87	67.08	1.2580	1.875	4.840	21	7	silty sand to sandy silt
7.94	68.52	1.2946	1.889	4.734	22	7	silty sand to sandy silt
8.01	70.06	1.3391	1.911	4.628	22	7	silty sand to sandy silt
8.07	72.09	1.4157	1.964	4.497	23	7	silty sand to sandy silt
8.14	74.26	1.5727	2.118	4.391	23	7	silty sand to sandy silt
8.20	75.03	1.5937	2.124	4.294	24	7	silty sand to sandy silt
8.27	75.25	1.6296	2.166	4.185	24	7	silty sand to sandy silt
8.33	77.05	1.6645	2.160	4.054	24	7	silty sand to sandy silt
8.40	78.38	1.7065	2.177	3.960	25	7	silty sand to sandy silt
8.46	78.70	1.7220	2.188	3.873	25	7	silty sand to sandy silt
8.53	78.58	1.6493	2.099	3.792	25	7	silty sand to sandy silt
8.60	78.01	1.5470	1.983	3.704	25	7	silty sand to sandy silt
8.66	77.24	1.5031	1.946	3.639	24	7	silty sand to sandy silt
8.73	75.64	0.9032	1.194	3.551	24	7	silty sand to sandy silt
8.79	73.75	0.8573	1.162	3.505	24	7	silty sand to sandy silt
8.86	72.39	0.8795	1.215	3.448	23	7	silty sand to sandy silt
8.92	72.07	0.8883	1.233	3.405	22	7	silty sand to sandy silt
8.99	72.58	0.9097	1.253	3.324	22	7	silty sand to sandy silt
9.06	57.38	0.9267	1.615	3.155	22	7	silty sand to sandy silt
9.12	65.66	0.9267	1.411	3.077	21	7	silty sand to sandy silt
9.19	67.27	0.8918	1.326	2.987	21	7	silty sand to sandy silt
9.25	66.18	0.8401	1.270	2.924	20	7	silty sand to sandy silt
9.32	63.68	0.8046	1.264	2.859	20	7	silty sand to sandy silt
9.38	61.08	0.7736	1.266	2.756	20	7	silty sand to sandy silt
9.45	57.88	0.7583	1.310	2.649	19	7	silty sand to sandy silt
9.51	55.97	0.7284	1.301	2.600	19	7	silty sand to sandy silt
9.58	56.34	0.6546	1.162	2.534	18	7	silty sand to sandy silt
9.65	57.43	0.6100	1.062	2.500	18	7	silty sand to sandy silt
9.71	56.15	0.6116	1.089	2.472	17	7	silty sand to sandy silt
9.78	53.77	0.5871	1.092	2.387	17	7	silty sand to sandy silt
9.84	51.54	0.5996	1.163	2.337	17	7	silty sand to sandy silt
9.91	49.24	0.6317	1.283	2.269	17	7	silty sand to sandy silt
9.97	50.10	0.6733	1.344	2.247	17	7	silty sand to sandy silt
10.04	51.60	0.7429	1.440	2.206	17	7	silty sand to sandy silt
10.10	55.50	0.8110	1.461	2.166	18	7	silty sand to sandy silt
10.17	60.65	0.8790	1.449	2.138	19	7	silty sand to sandy silt
10.24	63.55	0.9445	1.486	2.125	20	7	silty sand to sandy silt
10.30	65.42	0.9950	1.521	2.075	20	7	silty sand to sandy silt
10.37	66.42	1.0377	1.562	2.032	21	7	silty sand to sandy silt
10.43	66.73	1.0469	1.569	2.000	21	7	silty sand to sandy silt
10.50	66.62	0.9952	1.494	1.954	21	7	silty sand to sandy silt
10.56	65.37	0.8939	1.367	1.941	20	7	silty sand to sandy silt
10.63	62.88	0.8122	1.292	1.882	19	7	silty sand to sandy silt
10.70	59.21	0.7378	1.246	1.860	19	7	silty sand to sandy silt
10.76	54.66	0.6756	1.236	1.801	18	7	silty sand to sandy silt
10.83	51.55	0.6156	1.194	1.744	17	7	silty sand to sandy silt
10.89	50.22	0.5789	1.153	1.729	16	7	silty sand to sandy silt
10.96	48.72	0.5718	1.174	1.716	16	7	silty sand to sandy silt
11.02	48.11	0.5846	1.215	1.729	15	7	silty sand to sandy silt
11.09	47.95	0.6058	1.263	1.741	15	7	silty sand to sandy silt
11.15	46.89	0.6105	1.302	1.723	15	7	silty sand to sandy silt
11.22	46.11	0.5552	1.204	1.726	15	7	silty sand to sandy silt
11.29	46.36	0.4207	0.907	1.720	14	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
11.35	45.53	0.3983	0.875	1.710	14	7	silty sand to sandy silt
11.42	43.13	0.3654	0.847	1.679	13	7	silty sand to sandy silt
11.48	38.29	0.2641	0.690	1.685	12	7	silty sand to sandy silt
11.55	31.41	0.1986	0.632	1.638	11	7	silty sand to sandy silt
11.61	26.41	0.1750	0.663	1.620	9	7	silty sand to sandy silt
11.68	25.37	0.1645	0.648	1.632	8	7	silty sand to sandy silt
11.75	21.62	0.1556	0.720	1.641	9	6	sandy silt to clayey silt
11.81	17.87	0.1488	0.833	1.601	8	6	sandy silt to clayey silt
11.88	16.69	0.1620	0.971	1.666	7	6	sandy silt to clayey silt
11.94	17.09	0.1784	1.044	1.744	7	6	sandy silt to clayey silt
12.01	18.22	0.2014	1.105	1.822	7	6	sandy silt to clayey silt
12.07	20.24	0.2224	1.099	1.913	8	6	sandy silt to clayey silt
12.14	21.85	0.2217	1.015	1.975	8	6	sandy silt to clayey silt
12.20	23.06	0.2325	1.008	2.063	8	6	sandy silt to clayey silt
12.27	23.93	0.2244	0.938	2.100	8	6	sandy silt to clayey silt
12.34	21.29	0.2268	1.066	7.727	8	6	sandy silt to clayey silt
12.40	21.76	0.2150	0.988	7.421	8	6	sandy silt to clayey silt
12.47	21.65	0.1850	0.855	7.212	8	6	sandy silt to clayey silt
12.53	21.20	0.1524	0.719	7.000	8	6	sandy silt to clayey silt
12.60	20.47	0.1370	0.669	6.869	7	6	sandy silt to clayey silt
12.66	19.53	0.1394	0.714	6.809	7	6	sandy silt to clayey silt
12.73	17.39	0.1426	0.820	6.788	6	6	sandy silt to clayey silt
12.80	14.78	0.1546	1.046	6.763	6	6	sandy silt to clayey silt
12.86	13.04	0.1494	1.145	6.850	6	6	sandy silt to clayey silt
12.93	12.19	0.1458	1.196	7.009	5	6	sandy silt to clayey silt
12.99	11.73	0.1244	1.060	7.246	5	6	sandy silt to clayey silt
13.06	12.05	0.0976	0.810	7.546	5	6	sandy silt to clayey silt
13.12	12.91	0.0787	0.610	7.852	5	6	sandy silt to clayey silt
13.19	13.12	0.0716	0.546	7.864	4	6	sandy silt to clayey silt
13.25	11.61	0.0579	0.499	7.777	4	6	sandy silt to clayey silt
13.32	9.31	0.0509	0.547	7.718	4	6	sandy silt to clayey silt
13.39	7.24	0.0423	0.585	7.933	4	1	sensitive fine grained
13.45	6.05	0.0450	0.744	8.532	3	1	sensitive fine grained
13.52	5.01	0.0359	0.715	9.631	3	1	sensitive fine grained
13.58	4.53	0.0350	0.773	10.742	2	1	sensitive fine grained
13.65	3.89	0.0351	0.902	11.494	2	1	sensitive fine grained
13.71	3.45	0.0333	0.965	12.118	2	1	sensitive fine grained
13.78	3.01	0.0332	1.101	12.658	2	1	sensitive fine grained
13.85	2.81	0.0214	0.762	13.416	1	1	sensitive fine grained
13.91	2.73	0.0230	0.844	13.975	1	1	sensitive fine grained
13.98	2.82	0.0213	0.754	14.349	1	1	sensitive fine grained
14.04	2.76	0.0193	0.700	14.358	1	1	sensitive fine grained
14.11	2.64	0.0184	0.698	14.243	1	1	sensitive fine grained
14.17	2.46	0.0226	0.921	14.249	1	1	sensitive fine grained
14.24	2.65	0.0220	0.831	14.327	1	1	sensitive fine grained
14.30	2.69	0.0236	0.876	14.324	1	1	sensitive fine grained
14.37	2.85	0.0352	1.234	14.374	1	1	sensitive fine grained
14.44	3.19	0.0377	1.184	14.514	1	1	sensitive fine grained
14.50	3.38	0.0235	0.696	14.396	1	1	sensitive fine grained
14.57	3.13	0.0176	0.562	14.109	2	1	sensitive fine grained
14.63	3.10	0.0235	0.757	14.081	2	1	sensitive fine grained
14.70	3.50	0.0267	0.764	14.124	2	1	sensitive fine grained
14.76	3.05	0.0318	1.043	13.943	2	1	sensitive fine grained
14.83	2.84	0.0327	1.151	14.390	2	1	sensitive fine grained
14.90	3.17	0.0309	0.976	15.167	1	1	sensitive fine grained
14.96	3.34	0.0283	0.847	15.011	1	1	sensitive fine grained
15.03	3.25	0.0226	0.697	14.823	1	1	sensitive fine grained
15.09	2.45	0.0243	0.994	14.633	1	1	sensitive fine grained
15.16	2.00	0.0141	0.704	14.646	1	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
15.22	1.87	0.0117	0.624	15.039	1	1	sensitive fine grained
15.29	1.76	0.0238	1.350	15.557	1	1	sensitive fine grained
15.35	1.78	0.0288	1.616	16.072	1	1	sensitive fine grained
15.42	1.79	0.0254	1.420	16.555	1	1	sensitive fine grained
15.49	1.77	0.0176	0.994	16.858	1	1	sensitive fine grained
15.55	1.79	0.0157	0.876	16.805	1	1	sensitive fine grained
15.62	2.64	0.0103	0.391	6.819	1	1	sensitive fine grained
15.68	2.24	0.0168	0.748	7.265	1	1	sensitive fine grained
15.75	2.10	0.0069	0.330	9.384	1	1	sensitive fine grained
15.81	2.14	0.0134	0.628	11.597	1	1	sensitive fine grained
15.88	2.10	0.0140	0.667	14.252	1	1	sensitive fine grained
15.94	2.05	0.0106	0.518	15.650	1	1	sensitive fine grained
16.01	2.01	0.0034	0.168	16.365	1	1	sensitive fine grained
16.08	2.12	0.0121	0.570	16.690	1	1	sensitive fine grained
16.14	2.13	0.0122	0.573	16.811	1	1	sensitive fine grained
16.21	2.11	0.0036	0.170	16.693	1	1	sensitive fine grained
16.27	2.00	0.0094	0.470	16.808	1	1	sensitive fine grained
16.34	2.02	0.0088	0.436	17.198	1	1	sensitive fine grained
16.40	2.05	0.0063	0.308	17.332	1	1	sensitive fine grained
16.47	2.05	0.0089	0.433	17.382	1	1	sensitive fine grained
16.54	1.99	0.0093	0.468	17.439	1	1	sensitive fine grained
16.60	1.91	0.0063	0.328	17.507	1	1	sensitive fine grained
16.67	1.87	0.0063	0.334	17.975	1	1	sensitive fine grained
16.73	1.98	0.0022	0.113	18.144	1	1	sensitive fine grained
16.80	2.04	0.0125	0.611	18.122	1	1	sensitive fine grained
16.86	1.97	0.0100	0.511	18.078	1	1	sensitive fine grained
16.93	1.96	0.0102	0.519	18.081	1	1	sensitive fine grained
16.99	1.97	0.0013	0.068	18.103	1	1	sensitive fine grained
17.06	1.94	0.0004	0.023	18.141	1	1	sensitive fine grained
17.13	1.89	0.0074	0.388	18.131	1	1	sensitive fine grained
17.19	1.90	0.0072	0.380	18.131	1	1	sensitive fine grained
17.26	1.88	0.0127	0.672	18.237	1	1	sensitive fine grained
17.32	2.04	0.0107	0.528	18.434	1	1	sensitive fine grained
17.39	2.05	0.0076	0.371	18.593	1	1	sensitive fine grained
17.45	2.16	0.0079	0.368	18.727	1	1	sensitive fine grained
17.52	2.22	0.0121	0.547	19.164	1	1	sensitive fine grained
17.59	2.27	0.0149	0.656	19.018	1	1	sensitive fine grained
17.65	2.16	0.0066	0.308	18.993	1	1	sensitive fine grained
17.72	2.17	0.0102	0.469	19.620	1	1	sensitive fine grained
17.78	2.18	0.0082	0.378	19.935	1	1	sensitive fine grained
17.85	2.24	0.0074	0.332	19.888	1	1	sensitive fine grained
17.91	2.31	0.0152	0.657	19.854	1	1	sensitive fine grained
17.98	2.46	0.0123	0.502	19.757	1	1	sensitive fine grained
18.04	2.49	0.0096	0.385	19.748	1	1	sensitive fine grained
18.11	2.95	0.0066	0.223	19.848	1	1	sensitive fine grained
18.18	3.59	0.0110	0.307	19.604	1	1	sensitive fine grained
18.24	3.14	0.0029	0.091	18.503	1	1	sensitive fine grained
18.31	2.57	0.0109	0.423	17.904	1	1	sensitive fine grained
18.37	2.08	0.0098	0.474	17.960	1	1	sensitive fine grained
18.44	1.89	0.0105	0.555	18.322	1	1	sensitive fine grained
18.50	1.77	0.0029	0.166	18.933	1	1	sensitive fine grained
18.57	1.72	0.0051	0.297	19.467	1	1	sensitive fine grained
18.64	1.72	0.0081	0.473	19.629	1	1	sensitive fine grained
18.70	1.78	0.0114	0.641	19.748	1	1	sensitive fine grained
18.77	1.75	0.0160	0.914	19.795	1	1	sensitive fine grained
18.83	2.02	0.0095	0.472	14.652	1	1	sensitive fine grained
18.90	1.81	0.0088	0.487	15.260	1	1	sensitive fine grained
18.96	1.81	0.0088	0.483	16.521	1	1	sensitive fine grained
19.03	1.80	0.0070	0.386	17.910	1	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
19.09	1.83	0.0017	0.091	18.428	1	1	sensitive fine grained
19.16	1.90	0.0036	0.188	18.902	1	1	sensitive fine grained
19.23	1.85	0.0025	0.135	19.348	1	1	sensitive fine grained
19.29	1.97	0.0013	0.065	19.667	1	1	sensitive fine grained
19.36	1.95	-0.0035	-0.180	19.842	1	1	sensitive fine grained
19.42	1.99	-0.0033	-0.167	19.885	0	0	<out of range>
19.49	1.95	-0.0003	-0.016	20.041	0	0	<out of range>
19.55	1.95	0.0019	0.098	20.228	0	0	<out of range>
19.62	1.91	0.0005	0.027	20.328	1	1	sensitive fine grained
19.69	2.03	0.0021	0.104	20.463	1	1	sensitive fine grained
19.75	2.08	-0.0002	-0.009	20.566	1	1	sensitive fine grained
19.82	2.05	0.0026	0.125	20.718	1	1	sensitive fine grained
19.88	2.12	-0.0015	-0.069	21.068	1	1	sensitive fine grained
19.95	2.19	0.0050	0.228	21.155	1	1	sensitive fine grained
20.01	2.25	0.0076	0.338	21.221	1	1	sensitive fine grained
20.08	2.23	0.0153	0.689	21.511	1	1	sensitive fine grained
20.14	2.24	0.0199	0.890	21.833	1	1	sensitive fine grained
20.21	2.42	0.0156	0.644	22.082	1	1	sensitive fine grained
20.28	2.79	0.0152	0.542	22.351	1	1	sensitive fine grained
20.34	3.58	0.0104	0.290	21.792	2	1	sensitive fine grained
20.41	4.05	0.0100	0.248	21.062	2	1	sensitive fine grained
20.47	4.34	0.0036	0.082	20.453	2	1	sensitive fine grained
20.54	4.02	0.0075	0.186	19.798	2	1	sensitive fine grained
20.60	3.11	0.0097	0.310	19.498	2	1	sensitive fine grained
20.67	2.27	0.0145	0.640	19.579	1	1	sensitive fine grained
20.73	2.10	0.0129	0.613	20.026	1	1	sensitive fine grained
20.80	2.10	0.0052	0.247	20.416	1	1	sensitive fine grained
20.87	2.04	-0.0021	-0.103	20.881	1	1	sensitive fine grained
20.93	1.93	0.0054	0.278	21.193	1	1	sensitive fine grained
21.00	1.94	0.0082	0.421	21.236	1	1	sensitive fine grained
21.06	1.99	-0.0015	-0.077	21.240	1	1	sensitive fine grained
21.13	2.06	0.0027	0.130	21.327	1	1	sensitive fine grained
21.19	2.02	0.0109	0.542	21.436	1	1	sensitive fine grained
21.26	1.91	0.0132	0.693	21.492	1	1	sensitive fine grained
21.33	1.95	0.0102	0.522	21.745	1	1	sensitive fine grained
21.39	2.21	0.0006	0.029	21.967	1	1	sensitive fine grained
21.46	2.25	0.0129	0.573	22.060	1	1	sensitive fine grained
21.52	2.24	0.0052	0.234	21.917	1	1	sensitive fine grained
21.59	2.28	0.0094	0.412	21.499	1	1	sensitive fine grained
21.65	2.19	0.0081	0.371	21.193	1	1	sensitive fine grained
21.72	2.09	0.0120	0.572	21.162	1	1	sensitive fine grained
21.78	1.98	0.0090	0.456	21.205	1	1	sensitive fine grained
21.85	2.14	0.0070	0.325	21.268	1	1	sensitive fine grained
21.92	2.18	0.0168	0.767	21.296	1	1	sensitive fine grained
21.98	2.33	0.0254	1.089	21.261	1	1	sensitive fine grained
22.05	4.66	0.0279	0.599	16.059	1	1	sensitive fine grained
22.11	3.99	0.0285	0.713	16.075	1	1	sensitive fine grained
22.18	3.16	0.0339	1.076	16.115	1	1	sensitive fine grained
22.24	2.54	0.0300	1.181	16.328	1	1	sensitive fine grained
22.31	2.36	0.0305	1.294	17.008	1	1	sensitive fine grained
22.38	2.35	0.0214	0.909	18.081	1	1	sensitive fine grained
22.44	2.51	0.0079	0.314	18.628	2	1	sensitive fine grained
22.51	3.24	0.0107	0.329	19.121	2	1	sensitive fine grained
22.57	4.52	0.0184	0.408	19.214	2	1	sensitive fine grained
22.64	4.59	0.0237	0.515	18.908	2	1	sensitive fine grained
22.70	4.14	0.0292	0.704	18.752	2	1	sensitive fine grained
22.77	3.63	0.0213	0.586	18.780	2	1	sensitive fine grained
22.83	3.02	0.0136	0.448	19.074	2	1	sensitive fine grained
22.90	2.80	0.0076	0.272	19.186	1	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
22.97	2.53	0.0065	0.256	19.308	1	1	sensitive fine grained
23.03	2.44	0.0090	0.369	19.464	1	1	sensitive fine grained
23.10	2.41	0.0054	0.225	19.661	1	1	sensitive fine grained
23.16	2.46	0.0031	0.128	19.813	1	1	sensitive fine grained
23.23	2.42	0.0021	0.087	19.932	1	1	sensitive fine grained
23.29	2.35	0.0017	0.073	20.041	1	1	sensitive fine grained
23.36	2.31	0.0113	0.487	20.147	1	1	sensitive fine grained
23.43	2.55	0.0045	0.178	20.210	1	1	sensitive fine grained
23.49	2.61	0.0076	0.292	20.275	1	1	sensitive fine grained
23.56	2.63	0.0121	0.463	20.363	1	1	sensitive fine grained
23.62	2.69	0.0090	0.335	20.413	1	1	sensitive fine grained
23.69	2.66	0.0099	0.372	20.453	1	1	sensitive fine grained
23.75	2.81	0.0046	0.164	20.459	1	1	sensitive fine grained
23.82	2.59	0.0036	0.141	20.500	1	1	sensitive fine grained
23.88	2.53	0.0138	0.546	20.528	1	1	sensitive fine grained
23.95	2.55	0.0136	0.533	20.631	1	1	sensitive fine grained
24.02	2.57	0.0018	0.070	20.809	1	1	sensitive fine grained
24.08	2.68	0.0024	0.091	21.102	1	1	sensitive fine grained
24.15	2.68	0.0074	0.276	21.252	1	1	sensitive fine grained
24.21	2.60	0.0088	0.339	21.296	1	1	sensitive fine grained
24.28	2.59	0.0059	0.229	21.330	1	1	sensitive fine grained
24.34	2.65	0.0130	0.489	21.421	1	1	sensitive fine grained
24.41	2.70	0.0140	0.518	21.567	2	1	sensitive fine grained
24.48	2.71	0.0180	0.664	21.683	2	1	sensitive fine grained
24.54	3.38	0.0164	0.484	22.104	2	1	sensitive fine grained
24.61	6.71	0.0157	0.234	22.254	3	1	sensitive fine grained
24.67	8.57	0.0307	0.358	21.268	3	1	sensitive fine grained
24.74	8.06	0.0440	0.545	20.413	4	1	sensitive fine grained
24.80	7.82	0.0350	0.447	20.163	4	1	sensitive fine grained
24.87	8.84	0.0360	0.407	20.160	4	6	sandy silt to clayey silt
24.93	10.75	0.0999	0.930	20.163	4	6	sandy silt to clayey silt
25.00	12.05	0.0774	0.642	19.979	4	6	sandy silt to clayey silt
25.07	10.85	0.0623	0.574	19.673	3	6	sandy silt to clayey silt
25.13	8.07	0.0527	0.653	19.498	4	1	sensitive fine grained
25.20	6.11	0.0371	0.607	19.455	4	1	sensitive fine grained
25.26	6.86	0.0313	0.456	16.624	3	1	sensitive fine grained
25.33	5.12	0.0295	0.575	16.736	3	1	sensitive fine grained
25.39	4.50	0.0187	0.415	17.030	2	1	sensitive fine grained
25.46	4.20	0.0128	0.305	17.476	2	1	sensitive fine grained
25.52	4.21	0.0189	0.450	18.284	2	1	sensitive fine grained
25.59	4.48	0.0163	0.364	18.737	2	1	sensitive fine grained
25.66	4.82	0.0081	0.169	18.924	2	1	sensitive fine grained
25.72	5.25	0.0063	0.119	19.061	2	1	sensitive fine grained
25.79	5.53	0.0100	0.180	19.186	3	1	sensitive fine grained
25.85	5.89	0.0074	0.126	19.255	3	1	sensitive fine grained
25.92	5.96	0.0120	0.202	19.302	3	1	sensitive fine grained
25.98	5.55	0.0093	0.168	19.352	2	1	sensitive fine grained
26.05	4.82	0.0094	0.195	19.433	2	1	sensitive fine grained
26.12	4.41	0.0006	0.014	19.564	2	1	sensitive fine grained
26.18	3.96	0.0033	0.084	19.923	2	1	sensitive fine grained
26.25	3.68	0.0069	0.187	20.344	2	1	sensitive fine grained
26.31	3.61	0.0044	0.122	20.597	2	1	sensitive fine grained
26.38	3.80	0.0098	0.258	20.796	2	1	sensitive fine grained
26.44	3.99	0.0160	0.402	20.906	2	1	sensitive fine grained
26.51	4.01	0.0093	0.231	20.956	2	1	sensitive fine grained
26.57	4.26	0.0019	0.044	20.981	2	1	sensitive fine grained
26.64	4.64	0.0144	0.310	21.068	2	1	sensitive fine grained
26.71	4.99	0.0201	0.403	21.162	3	1	sensitive fine grained
26.77	5.49	0.0139	0.253	21.218	3	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
26.84	6.38	0.0139	0.218	21.246	3	1	sensitive fine grained
26.90	7.72	0.0162	0.210	21.299	4	1	sensitive fine grained
26.97	8.38	0.0324	0.387	21.196	4	1	sensitive fine grained
27.03	8.88	0.0290	0.326	21.109	4	1	sensitive fine grained
27.10	9.61	0.0316	0.329	21.105	4	6	sandy silt to clayey silt
27.17	10.65	0.0477	0.448	21.080	4	6	sandy silt to clayey silt
27.23	11.81	0.0418	0.354	20.893	4	6	sandy silt to clayey silt
27.30	12.13	0.0328	0.270	20.472	4	6	sandy silt to clayey silt
27.36	11.83	0.0345	0.291	20.285	4	6	sandy silt to clayey silt
27.43	11.13	0.0325	0.292	20.188	4	6	sandy silt to clayey silt
27.49	10.07	0.0350	0.348	20.085	4	6	sandy silt to clayey silt
27.56	9.63	0.0258	0.268	20.054	4	6	sandy silt to clayey silt
27.62	9.63	0.0324	0.337	20.032	4	6	sandy silt to clayey silt
27.69	9.13	0.0426	0.466	20.041	5	1	sensitive fine grained
27.76	8.80	0.0277	0.315	20.051	5	1	sensitive fine grained
27.82	9.67	0.0250	0.258	20.041	4	6	sandy silt to clayey silt
27.89	10.28	0.0327	0.319	20.004	4	6	sandy silt to clayey silt
27.95	10.03	0.0373	0.372	19.885	4	6	sandy silt to clayey silt
28.02	9.66	0.0683	0.707	19.817	4	6	sandy silt to clayey silt
28.08	9.87	0.0504	0.511	19.848	4	6	sandy silt to clayey silt
28.15	10.55	0.1205	1.142	19.854	5	6	sandy silt to clayey silt
28.22	12.67	0.0934	0.737	19.860	5	6	sandy silt to clayey silt
28.28	16.53	0.0894	0.541	19.767	5	6	sandy silt to clayey silt
28.35	16.97	0.0934	0.550	19.489	5	6	sandy silt to clayey silt
28.41	15.24	0.1000	0.656	19.320	6	6	sandy silt to clayey silt
28.48	13.21	0.1045	0.791	17.226	6	6	sandy silt to clayey silt
28.54	13.20	0.1114	0.844	17.205	6	6	sandy silt to clayey silt
28.61	13.36	0.1052	0.787	17.295	6	6	sandy silt to clayey silt
28.67	15.82	0.1197	0.756	17.410	7	6	sandy silt to clayey silt
28.74	20.47	0.1244	0.608	17.489	8	6	sandy silt to clayey silt
28.81	25.11	0.1183	0.471	17.464	7	7	silty sand to sandy silt
28.87	27.20	0.1127	0.414	17.336	7	7	silty sand to sandy silt
28.94	26.65	0.1185	0.445	17.217	8	7	silty sand to sandy silt
29.00	25.08	0.1400	0.558	17.127	8	7	silty sand to sandy silt
29.07	23.33	0.1602	0.687	17.077	7	7	silty sand to sandy silt
29.13	21.26	0.1847	0.869	17.098	9	6	sandy silt to clayey silt
29.20	19.72	0.2169	1.100	17.201	8	6	sandy silt to clayey silt
29.27	19.52	0.2321	1.189	17.386	9	6	sandy silt to clayey silt
29.33	21.09	0.2509	1.190	17.613	9	6	sandy silt to clayey silt
29.40	23.92	0.2666	1.115	17.769	10	6	sandy silt to clayey silt
29.46	27.44	0.2830	1.031	17.738	9	7	silty sand to sandy silt
29.53	30.43	0.2979	0.979	17.591	10	7	silty sand to sandy silt
29.59	33.96	0.3119	0.919	17.470	10	7	silty sand to sandy silt
29.66	36.42	0.3376	0.927	17.373	11	7	silty sand to sandy silt
29.72	37.17	0.3513	0.945	17.283	12	7	silty sand to sandy silt
29.79	37.96	0.3767	0.992	17.211	12	7	silty sand to sandy silt
29.86	39.49	0.4137	1.047	17.155	12	7	silty sand to sandy silt
29.92	40.37	0.4369	1.082	17.127	12	7	silty sand to sandy silt
29.99	40.65	0.4406	1.084	17.089	12	7	silty sand to sandy silt
30.05	39.95	0.4312	1.079	17.058	12	7	silty sand to sandy silt
30.12	38.00	0.4329	1.139	17.027	11	7	silty sand to sandy silt
30.18	34.16	0.4314	1.263	17.030	10	7	silty sand to sandy silt
30.25	29.70	0.4142	1.395	17.014	11	6	sandy silt to clayey silt
30.31	25.43	0.3722	1.463	17.008	10	6	sandy silt to clayey silt
30.38	21.99	0.3259	1.482	17.020	9	6	sandy silt to clayey silt
30.45	19.88	0.2954	1.486	17.086	8	6	sandy silt to clayey silt
30.51	19.35	0.2717	1.404	17.151	8	6	sandy silt to clayey silt
30.58	19.22	0.2479	1.290	17.432	8	6	sandy silt to clayey silt
30.64	19.19	0.2380	1.240	17.966	7	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
30.71	19.31	0.2313	1.198	18.378	7	6	sandy silt to clayey silt
30.77	19.12	0.2333	1.220	18.646	7	6	sandy silt to clayey silt
30.84	18.36	0.2321	1.264	18.924	7	6	sandy silt to clayey silt
30.91	17.41	0.2292	1.316	19.414	7	6	sandy silt to clayey silt
30.97	16.79	0.2162	1.288	20.363	7	6	sandy silt to clayey silt
31.04	16.43	0.1888	1.149	21.642	7	6	sandy silt to clayey silt
31.10	16.53	0.1463	0.885	22.544	7	6	sandy silt to clayey silt
31.17	17.21	0.0962	0.559	22.837	7	6	sandy silt to clayey silt
31.23	18.91	0.0674	0.356	22.865	6	6	sandy silt to clayey silt
31.30	19.96	0.0527	0.264	22.410	6	6	sandy silt to clayey silt
31.36	14.89	0.0510	0.342	21.954	5	6	sandy silt to clayey silt
31.43	10.14	0.1527	1.506	22.035	4	6	sandy silt to clayey silt
31.50	7.15	0.1423	1.989	22.881	5	5	clayey silt to silty clay
31.56	5.65	0.1233	2.181	25.712	4	5	clayey silt to silty clay
31.63	5.00	0.1091	2.181	28.564	4	4	silty clay to clay
31.69	4.68	0.1032	2.207	29.765	4	4	silty clay to clay
31.76	6.72	0.0828	1.232	14.958	3	1	sensitive fine grained
31.82	6.02	0.0638	1.060	15.345	3	1	sensitive fine grained
31.89	5.66	0.0605	1.069	16.359	3	1	sensitive fine grained
31.96	5.39	0.0700	1.299	17.698	3	1	sensitive fine grained
32.02	5.19	0.0628	1.210	20.116	2	1	sensitive fine grained
32.09	4.68	0.0552	1.181	23.215	2	1	sensitive fine grained
32.15	4.43	0.0407	0.919	25.649	2	1	sensitive fine grained
32.22	4.02	0.0404	1.006	28.046	2	1	sensitive fine grained
32.28	3.92	0.0355	0.907	29.388	2	1	sensitive fine grained
32.35	4.24	0.0354	0.834	30.146	2	1	sensitive fine grained
32.41	4.83	0.0415	0.859	30.196	2	1	sensitive fine grained
32.48	5.15	0.0432	0.840	30.134	2	1	sensitive fine grained
32.55	5.19	0.0492	0.948	29.968	3	1	sensitive fine grained
32.61	5.36	0.0729	1.360	30.043	3	1	sensitive fine grained
32.68	6.80	0.1006	1.480	30.021	3	1	sensitive fine grained
32.74	8.29	0.1148	1.386	28.954	3	1	sensitive fine grained
32.81	7.23	0.1236	1.711	28.445	4	4	silty clay to clay
32.87	6.26	0.1151	1.838	28.171	4	4	silty clay to clay
32.94	5.57	0.1064	1.910	28.015	3	1	sensitive fine grained
33.01	5.15	0.0823	1.599	28.083	3	1	sensitive fine grained
33.07	4.78	0.0554	1.158	29.035	2	1	sensitive fine grained
33.14	4.73	0.0458	0.968	29.272	2	1	sensitive fine grained
33.20	4.73	0.0398	0.842	29.291	3	1	sensitive fine grained
33.27	4.59	0.0561	1.221	29.581	3	1	sensitive fine grained
33.33	5.50	0.0737	1.340	30.271	3	1	sensitive fine grained
33.40	7.42	0.0933	1.259	29.915	3	1	sensitive fine grained
33.46	7.98	0.1088	1.364	29.235	3	1	sensitive fine grained
33.53	7.67	0.1141	1.487	28.957	3	1	sensitive fine grained
33.60	7.14	0.1094	1.531	28.829	3	1	sensitive fine grained
33.66	6.42	0.0872	1.358	28.785	3	1	sensitive fine grained
33.73	5.91	0.0724	1.225	28.848	3	1	sensitive fine grained
33.79	5.75	0.0604	1.050	29.007	3	1	sensitive fine grained
33.86	6.13	0.0616	1.004	29.357	3	1	sensitive fine grained
33.92	6.22	0.0694	1.117	29.347	3	1	sensitive fine grained
33.99	6.07	0.0703	1.159	29.307	3	1	sensitive fine grained
34.06	5.89	0.0827	1.404	29.353	3	1	sensitive fine grained
34.12	6.08	0.1059	1.742	29.591	4	4	silty clay to clay
34.19	6.88	0.1278	1.858	29.912	4	4	silty clay to clay
34.25	7.83	0.1304	1.666	29.500	4	4	silty clay to clay
34.32	7.68	0.1347	1.754	29.166	4	4	silty clay to clay
34.38	6.54	0.1295	1.981	29.029	4	4	silty clay to clay
34.45	5.71	0.1100	1.927	29.010	4	4	silty clay to clay
34.51	5.20	0.1102	2.117	29.953	4	4	silty clay to clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
34.58	5.64	0.1157	2.050	31.744	4	4	silty clay to clay
34.65	8.33	0.1339	1.607	32.406	5	4	silty clay to clay
34.71	9.29	0.1905	2.050	31.266	5	4	silty clay to clay
34.78	8.57	0.1956	2.283	30.708	5	4	silty clay to clay
34.84	7.28	0.1910	2.624	30.393	5	4	silty clay to clay
34.91	6.19	0.1607	2.595	30.140	4	4	silty clay to clay
34.97	5.09	0.1394	2.741	30.196	4	4	silty clay to clay
35.04	5.55	0.0971	1.750	23.237	3	4	silty clay to clay
35.10	4.69	0.0761	1.625	23.674	3	1	sensitive fine grained
35.17	4.14	0.0474	1.146	24.594	2	1	sensitive fine grained
35.24	5.09	0.0398	0.783	26.295	2	1	sensitive fine grained
35.30	5.82	0.0404	0.694	27.160	2	1	sensitive fine grained
35.37	5.56	0.0355	0.640	27.600	2	1	sensitive fine grained
35.43	5.14	0.0252	0.490	28.118	2	1	sensitive fine grained
35.50	5.16	0.0166	0.322	29.369	2	1	sensitive fine grained
35.56	4.99	0.0120	0.240	30.043	2	1	sensitive fine grained
35.63	4.22	0.0168	0.398	31.042	2	1	sensitive fine grained
35.70	4.22	0.0175	0.415	32.281	2	1	sensitive fine grained
35.76	4.35	0.0171	0.394	32.627	2	1	sensitive fine grained
35.83	4.26	0.0154	0.362	32.690	2	1	sensitive fine grained
35.89	4.00	0.0162	0.406	32.749	2	1	sensitive fine grained
35.96	3.63	0.0108	0.297	32.911	2	1	sensitive fine grained
36.02	3.53	-0.0031	-0.087	33.089	2	1	sensitive fine grained
36.09	3.58	0.0015	0.041	33.307	2	1	sensitive fine grained
36.15	3.94	0.0122	0.310	33.454	2	1	sensitive fine grained
36.22	4.18	0.0079	0.190	33.510	2	1	sensitive fine grained
36.29	4.26	0.0121	0.283	33.557	2	1	sensitive fine grained
36.35	4.28	0.0153	0.357	33.663	2	1	sensitive fine grained
36.42	3.86	0.0068	0.176	33.813	2	1	sensitive fine grained
36.48	3.49	0.0146	0.418	36.569	2	1	sensitive fine grained
36.55	4.02	0.0288	0.716	37.658	2	1	sensitive fine grained
36.61	5.57	0.0435	0.780	37.467	2	1	sensitive fine grained
36.68	6.85	0.0529	0.772	35.461	3	1	sensitive fine grained
36.75	6.69	0.0481	0.720	34.656	3	1	sensitive fine grained
36.81	6.03	0.0461	0.764	34.415	3	1	sensitive fine grained
36.88	5.75	0.0528	0.919	34.312	3	1	sensitive fine grained
36.94	5.55	0.0433	0.780	34.153	3	1	sensitive fine grained
37.01	5.12	0.0444	0.868	34.094	2	1	sensitive fine grained
37.07	4.62	0.0462	0.999	34.362	2	1	sensitive fine grained
37.14	4.35	0.0407	0.936	35.648	2	1	sensitive fine grained
37.20	4.49	0.0325	0.723	36.409	2	1	sensitive fine grained
37.27	4.99	0.0316	0.633	36.422	2	1	sensitive fine grained
37.34	5.20	0.0299	0.576	35.657	3	1	sensitive fine grained
37.40	5.47	0.0480	0.878	35.351	3	1	sensitive fine grained
37.47	6.17	0.0679	1.101	35.217	4	1	sensitive fine grained
37.53	7.80	0.0960	1.231	35.033	4	5	clayey silt to silty clay
37.60	9.64	0.1349	1.399	34.347	5	5	clayey silt to silty clay
37.66	12.07	0.1703	1.411	33.738	6	5	clayey silt to silty clay
37.73	14.90	0.1867	1.253	33.151	7	5	clayey silt to silty clay
37.80	16.80	0.2096	1.247	32.599	7	5	clayey silt to silty clay
37.86	17.35	0.2193	1.264	32.122	7	5	clayey silt to silty clay
37.93	16.61	0.3088	1.859	31.678	7	5	clayey silt to silty clay
37.99	14.99	0.2884	1.924	31.379	7	5	clayey silt to silty clay
38.06	12.80	0.2413	1.885	31.276	6	5	clayey silt to silty clay
38.12	9.86	0.1967	1.996	31.329	6	5	clayey silt to silty clay
38.19	7.77	0.1531	1.969	31.719	5	5	clayey silt to silty clay
38.25	9.77	0.1132	1.159	25.524	4	5	clayey silt to silty clay
38.32	9.43	0.0809	0.858	25.493	4	5	clayey silt to silty clay
38.39	8.18	0.0535	0.655	25.428	4	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
38.45	7.03	0.0368	0.524	25.677	4	1	sensitive fine grained
38.52	6.19	0.0509	0.822	26.170	3	1	sensitive fine grained
38.58	5.66	0.0392	0.692	26.919	3	1	sensitive fine grained
38.65	5.19	0.0267	0.514	27.753	3	1	sensitive fine grained
38.71	4.83	0.0241	0.499	28.470	2	1	sensitive fine grained
38.78	4.41	0.0286	0.649	29.488	2	1	sensitive fine grained
38.85	4.14	0.0222	0.536	30.402	2	1	sensitive fine grained
38.91	3.97	0.0228	0.573	31.962	2	1	sensitive fine grained
38.98	4.07	0.0253	0.620	34.815	2	1	sensitive fine grained
39.04	4.24	0.0285	0.673	37.683	2	1	sensitive fine grained
39.11	4.50	0.0283	0.629	38.148	2	1	sensitive fine grained
39.17	5.51	0.0226	0.409	38.566	2	1	sensitive fine grained
39.24	6.46	0.0085	0.132	36.990	3	1	sensitive fine grained
39.30	6.09	0.0073	0.120	35.570	2	1	sensitive fine grained
39.37	5.35	0.0122	0.228	35.061	2	1	sensitive fine grained
39.44	4.41	0.0153	0.348	34.943	2	1	sensitive fine grained
39.50	4.17	0.0183	0.438	35.673	2	1	sensitive fine grained
39.57	4.16	0.0263	0.633	36.447	2	1	sensitive fine grained
39.63	4.32	0.0366	0.847	37.386	2	1	sensitive fine grained
39.70	4.91	0.0444	0.906	38.712	2	1	sensitive fine grained
39.76	5.37	0.0486	0.905	39.171	3	1	sensitive fine grained
39.83	5.62	0.0659	1.174	39.642	3	1	sensitive fine grained
39.90	6.08	0.0788	1.296	40.760	3	1	sensitive fine grained
39.96	6.43	0.0839	1.306	42.329	3	1	sensitive fine grained
40.03	6.70	0.0948	1.415	43.465	3	1	sensitive fine grained
40.09	6.89	0.0999	1.451	43.902	3	5	clayey silt to silty clay
40.16	7.09	0.1115	1.573	44.046	3	5	clayey silt to silty clay
40.22	7.30	0.1212	1.660	44.083	4	5	clayey silt to silty clay
40.29	7.75	0.1167	1.506	44.096	4	5	clayey silt to silty clay
40.35	8.11	0.1280	1.577	43.752	4	5	clayey silt to silty clay
40.42	8.34	0.1472	1.766	42.392	4	5	clayey silt to silty clay
40.49	8.16	0.1740	2.133	39.836	4	5	clayey silt to silty clay
40.55	8.19	0.1496	1.827	41.047	4	5	clayey silt to silty clay
40.62	9.05	0.1231	1.359	40.947	4	5	clayey silt to silty clay
40.68	9.58	0.1081	1.128	39.025	4	5	clayey silt to silty clay
40.75	9.15	0.1086	1.187	37.240	4	5	clayey silt to silty clay
40.81	7.92	0.1034	1.306	35.960	4	5	clayey silt to silty clay
40.88	7.65	0.1176	1.539	36.668	4	5	clayey silt to silty clay
40.94	8.35	0.1354	1.621	39.240	4	5	clayey silt to silty clay
41.01	8.82	0.1461	1.656	40.969	4	5	clayey silt to silty clay
41.08	9.16	0.1414	1.544	39.980	4	5	clayey silt to silty clay
41.14	9.31	0.2635	2.831	36.456	6	4	silty clay to clay
41.21	9.19	0.2290	2.491	34.815	6	4	silty clay to clay
41.27	8.96	0.2061	2.301	33.223	6	4	silty clay to clay
41.34	8.28	0.1892	2.286	32.137	6	4	silty clay to clay
41.40	7.78	0.1749	2.249	32.215	4	5	clayey silt to silty clay
41.47	10.46	0.1637	1.566	24.672	5	5	clayey silt to silty clay
41.54	10.16	0.1600	1.575	24.488	5	5	clayey silt to silty clay
41.60	10.24	0.1636	1.597	24.576	5	5	clayey silt to silty clay
41.67	10.27	0.1724	1.678	24.910	5	5	clayey silt to silty clay
41.73	11.01	0.1830	1.663	25.537	5	5	clayey silt to silty clay
41.80	12.10	0.1675	1.384	26.167	6	5	clayey silt to silty clay
41.86	12.49	0.1749	1.400	25.446	6	5	clayey silt to silty clay
41.93	12.31	0.1645	1.337	24.857	6	5	clayey silt to silty clay
41.99	13.30	0.1597	1.201	24.810	6	5	clayey silt to silty clay
42.06	14.26	0.1683	1.180	24.763	6	5	clayey silt to silty clay
42.13	13.22	0.1993	1.508	24.067	6	5	clayey silt to silty clay
42.19	12.25	0.2547	2.079	23.849	7	5	clayey silt to silty clay
42.26	13.70	0.2940	2.145	24.017	8	5	clayey silt to silty clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
42.32	15.79	0.3873	2.453	24.014	8	5	clayey silt to silty clay
42.39	19.31	0.5029	2.605	23.543	9	5	clayey silt to silty clay
42.45	21.93	0.5353	2.441	23.118	9	5	clayey silt to silty clay
42.52	23.84	0.5202	2.182	22.419	10	5	clayey silt to silty clay
42.59	22.50	0.5235	2.327	21.798	10	5	clayey silt to silty clay
42.65	20.27	0.4837	2.387	21.458	10	5	clayey silt to silty clay
42.72	18.63	0.4601	2.470	21.193	10	5	clayey silt to silty clay
42.78	18.68	0.4022	2.153	21.015	9	5	clayey silt to silty clay
42.85	18.31	0.3469	1.895	20.881	9	5	clayey silt to silty clay
42.91	18.48	0.3450	1.867	20.796	9	5	clayey silt to silty clay
42.98	18.64	0.3155	1.693	20.659	7	6	sandy silt to clayey silt
43.04	17.97	0.2949	1.641	20.594	7	6	sandy silt to clayey silt
43.11	17.65	0.2992	1.695	20.581	7	6	sandy silt to clayey silt
43.18	17.47	0.3146	1.800	20.550	7	6	sandy silt to clayey silt
43.24	18.06	0.3178	1.760	20.572	7	6	sandy silt to clayey silt
43.31	18.61	0.3304	1.775	20.572	7	6	sandy silt to clayey silt
43.37	19.06	0.3469	1.820	20.556	7	6	sandy silt to clayey silt
43.44	20.09	0.3167	1.576	20.503	7	6	sandy silt to clayey silt
43.50	19.41	0.2898	1.493	20.453	7	6	sandy silt to clayey silt
43.57	17.83	0.2919	1.637	20.366	7	6	sandy silt to clayey silt
43.64	17.48	0.2987	1.709	20.475	7	6	sandy silt to clayey silt
43.70	17.65	0.2848	1.613	20.753	7	6	sandy silt to clayey silt
43.77	18.20	0.2779	1.527	21.767	7	6	sandy silt to clayey silt
43.83	18.63	0.2859	1.535	22.987	7	6	sandy silt to clayey silt
43.90	18.42	0.3166	1.719	23.902	7	6	sandy silt to clayey silt
43.96	18.07	0.2912	1.611	25.078	7	6	sandy silt to clayey silt
44.03	17.99	0.2681	1.491	25.899	7	6	sandy silt to clayey silt
44.09	17.18	0.2756	1.604	26.030	7	6	sandy silt to clayey silt
44.16	16.21	0.2749	1.695	26.021	6	6	sandy silt to clayey silt
44.23	15.76	0.2701	1.714	26.429	6	6	sandy silt to clayey silt
44.29	16.04	0.2714	1.692	27.977	6	6	sandy silt to clayey silt
44.36	15.87	0.2627	1.655	30.202	6	6	sandy silt to clayey silt
44.42	15.47	0.2280	1.474	31.969	6	6	sandy silt to clayey silt
44.49	14.65	0.2236	1.527	33.161	6	6	sandy silt to clayey silt
44.55	14.67	0.1906	1.300	34.509	6	6	sandy silt to clayey silt
44.62	15.34	0.1697	1.106	36.531	6	6	sandy silt to clayey silt
44.69	16.18	0.1904	1.177	39.720	6	6	sandy silt to clayey silt
44.75	15.43	0.1974	1.279	58.332	6	6	sandy silt to clayey silt
44.82	17.32	0.2314	1.336	51.635	6	6	sandy silt to clayey silt
44.88	17.72	0.2832	1.598	49.423	7	6	sandy silt to clayey silt
44.95	18.22	0.3009	1.651	47.419	7	6	sandy silt to clayey silt
45.01	18.39	0.3102	1.687	45.943	7	6	sandy silt to clayey silt
45.08	18.04	0.3117	1.727	43.796	7	6	sandy silt to clayey silt
45.14	17.57	0.2803	1.596	42.033	7	6	sandy silt to clayey silt
45.21	17.27	0.3348	1.939	42.776	7	6	sandy silt to clayey silt
45.28	17.59	0.3332	1.894	45.669	7	6	sandy silt to clayey silt
45.34	18.21	0.3212	1.764	48.384	7	6	sandy silt to clayey silt
45.41	19.67	0.3167	1.610	51.857	8	6	sandy silt to clayey silt
45.47	21.50	0.3316	1.542	56.054	8	6	sandy silt to clayey silt
45.54	22.42	0.3614	1.612	61.977	8	6	sandy silt to clayey silt
45.60	22.37	0.3934	1.758	60.302	8	6	sandy silt to clayey silt
45.67	22.05	0.3784	1.716	60.817	9	6	sandy silt to clayey silt
45.73	22.33	0.3897	1.745	62.361	9	6	sandy silt to clayey silt
45.80	23.05	0.3728	1.618	67.317	9	6	sandy silt to clayey silt
45.87	24.09	0.3512	1.458	71.336	9	6	sandy silt to clayey silt
45.93	24.14	0.3329	1.379	72.298	9	6	sandy silt to clayey silt
46.00	24.45	0.3221	1.317	72.123	9	6	sandy silt to clayey silt
46.06	24.33	0.3092	1.271	74.145	9	6	sandy silt to clayey silt
46.13	23.76	0.3411	1.435	72.332	9	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
46.19	23.05	0.3635	1.577	74.076	9	6	sandy silt to clayey silt
46.26	22.58	0.3689	1.634	68.715	9	6	sandy silt to clayey silt
46.33	22.20	0.3541	1.595	65.523	8	6	sandy silt to clayey silt
46.39	21.14	0.3648	1.726	63.045	8	6	sandy silt to clayey silt
46.46	20.06	0.3768	1.878	60.751	8	6	sandy silt to clayey silt
46.52	20.27	0.3979	1.963	60.177	8	6	sandy silt to clayey silt
46.59	21.34	0.4032	1.889	61.297	8	6	sandy silt to clayey silt
46.65	22.09	0.4224	1.912	57.299	8	6	sandy silt to clayey silt
46.72	21.77	0.4470	2.053	53.576	8	6	sandy silt to clayey silt
46.78	21.32	0.4693	2.201	52.909	8	6	sandy silt to clayey silt
46.85	21.44	0.4169	1.945	57.686	8	6	sandy silt to clayey silt
46.92	21.74	0.3963	1.823	61.946	8	6	sandy silt to clayey silt
46.98	21.99	0.4302	1.957	62.776	9	6	sandy silt to clayey silt
47.05	22.42	0.4793	2.138	65.232	9	6	sandy silt to clayey silt
47.11	23.72	0.4847	2.043	68.490	8	6	sandy silt to clayey silt
47.18	23.06	0.4701	2.039	67.610	8	6	sandy silt to clayey silt
47.24	21.04	0.4620	2.196	55.162	10	5	clayey silt to silty clay
47.31	19.01	0.4339	2.282	51.548	9	5	clayey silt to silty clay
47.38	17.47	0.4013	2.298	52.281	9	5	clayey silt to silty clay
47.44	17.01	0.3843	2.259	51.383	8	5	clayey silt to silty clay
47.51	16.53	0.3343	2.022	48.973	8	5	clayey silt to silty clay
47.57	15.57	0.2699	1.733	45.141	7	5	clayey silt to silty clay
47.64	13.95	0.1940	1.391	42.451	7	5	clayey silt to silty clay
47.70	13.02	0.1869	1.436	42.245	7	5	clayey silt to silty clay
47.77	12.38	0.1884	1.521	43.727	6	5	clayey silt to silty clay
47.83	12.19	0.1886	1.548	46.043	6	5	clayey silt to silty clay
47.90	11.97	0.1607	1.342	48.477	5	6	sandy silt to clayey silt
47.97	13.59	0.1678	1.234	59.943	5	6	sandy silt to clayey silt
48.03	13.34	0.1283	0.961	59.397	5	6	sandy silt to clayey silt
48.10	13.13	0.0212	0.161	59.085	5	6	sandy silt to clayey silt
48.16	12.59	0.0012	0.010	62.093	6	6	sandy silt to clayey silt
48.23	13.86	0.0501	0.362	66.156	6	6	sandy silt to clayey silt
48.29	17.97	0.1788	0.995	69.935	7	6	sandy silt to clayey silt
48.36	22.11	0.1960	0.886	63.347	7	6	sandy silt to clayey silt
48.43	23.00	0.1859	0.808	47.538	8	6	sandy silt to clayey silt
48.49	22.82	0.1355	0.594	45.694	8	6	sandy silt to clayey silt
48.56	22.42	0.1209	0.539	42.364	8	6	sandy silt to clayey silt
48.62	18.31	0.1492	0.815	38.794	7	6	sandy silt to clayey silt
48.69	16.12	0.1199	0.744	39.330	7	6	sandy silt to clayey silt
48.75	15.11	0.0762	0.504	45.631	7	6	sandy silt to clayey silt
48.82	16.16	0.0134	0.083	53.733	7	6	sandy silt to clayey silt
48.88	18.44	0.0239	0.130	59.356	7	7	silty sand to sandy silt
48.95	21.44	0.1208	0.563	62.711	9	7	silty sand to sandy silt
49.02	25.81	0.1550	0.601	63.912	10	7	silty sand to sandy silt
49.08	40.17	0.1736	0.432	59.353	12	7	silty sand to sandy silt
49.15	52.02	0.1853	0.356	40.800	13	7	silty sand to sandy silt
49.21	52.29	0.2034	0.389	32.253	13	7	silty sand to sandy silt
49.28	47.10	0.2097	0.445	31.020	13	7	silty sand to sandy silt
49.34	41.01	0.1981	0.483	30.620	13	7	silty sand to sandy silt
49.41	34.01	0.1760	0.518	30.976	11	7	silty sand to sandy silt
49.48	26.61	0.1549	0.582	32.340	10	7	silty sand to sandy silt
49.54	21.86	0.1790	0.819	34.674	8	7	silty sand to sandy silt
49.61	19.67	0.1839	0.935	48.387	8	7	silty sand to sandy silt
49.67	18.41	0.1589	0.863	57.643	7	7	silty sand to sandy silt
49.74	21.64	0.1436	0.663	66.056	8	6	sandy silt to clayey silt
49.80	25.87	0.1365	0.528	63.997	8	6	sandy silt to clayey silt
49.87	24.11	0.1351	0.560	50.755	8	6	sandy silt to clayey silt
49.93	18.97	0.1031	0.544	43.272	7	6	sandy silt to clayey silt
50.00	15.34	0.1048	0.683	41.537	7	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
50.07	13.79	0.1350	0.979	41.518	6	6	sandy silt to clayey silt
50.13	13.07	0.1215	0.929	46.443	5	6	sandy silt to clayey silt
50.20	14.22	0.1260	0.886	59.088	5	6	sandy silt to clayey silt
50.26	13.17	0.1253	0.951	57.006	5	6	sandy silt to clayey silt
50.33	11.18	0.1182	1.057	53.040	4	6	sandy silt to clayey silt
50.39	9.68	0.1107	1.144	52.537	5	5	clayey silt to silty clay
50.46	9.09	0.0905	0.995	53.867	5	5	clayey silt to silty clay
50.52	9.36	0.1034	1.104	55.714	5	5	clayey silt to silty clay
50.59	11.10	0.1267	1.142	57.896	4	6	sandy silt to clayey silt
50.66	13.86	0.1545	1.115	56.048	5	6	sandy silt to clayey silt
50.72	14.90	0.1480	0.993	50.946	6	5	clayey silt to silty clay
50.79	14.06	0.1407	1.001	47.245	5	6	sandy silt to clayey silt
50.85	12.62	0.2052	1.625	39.652	5	6	sandy silt to clayey silt
50.92	11.30	0.1768	1.565	38.297	5	6	sandy silt to clayey silt
50.98	12.25	0.1545	1.262	39.830	6	5	clayey silt to silty clay
51.05	13.49	0.1326	0.983	41.137	6	5	clayey silt to silty clay
51.12	13.01	0.1378	1.059	37.570	6	5	clayey silt to silty clay
51.18	11.14	0.1488	1.336	29.369	6	5	clayey silt to silty clay
51.25	10.13	0.1253	1.238	32.693	6	5	clayey silt to silty clay
51.31	10.90	0.1037	0.951	35.851	6	5	clayey silt to silty clay
51.38	11.86	0.1329	1.121	36.462	6	5	clayey silt to silty clay
51.44	12.72	0.1653	1.299	36.038	5	6	sandy silt to clayey silt
51.51	13.71	0.1579	1.151	35.492	5	6	sandy silt to clayey silt
51.57	13.81	0.1811	1.311	35.520	6	6	sandy silt to clayey silt
51.64	16.71	0.1930	1.155	35.726	6	6	sandy silt to clayey silt
51.71	17.05	0.1458	0.855	35.542	7	5	clayey silt to silty clay
51.77	15.87	0.2575	1.622	34.599	7	5	clayey silt to silty clay
51.84	11.84	0.2437	2.058	33.442	6	5	clayey silt to silty clay
51.90	10.25	0.2522	2.459	33.760	6	5	clayey silt to silty clay
51.97	10.07	0.2091	2.075	34.156	6	5	clayey silt to silty clay
52.03	12.16	0.1520	1.251	34.843	5	5	clayey silt to silty clay
52.10	12.06	0.1274	1.056	35.707	5	5	clayey silt to silty clay
52.17	10.79	0.1150	1.066	33.953	5	5	clayey silt to silty clay
52.23	9.21	0.1147	1.246	34.022	4	6	sandy silt to clayey silt
52.30	9.09	0.1195	1.314	37.954	4	6	sandy silt to clayey silt
52.36	11.76	0.0875	0.744	40.694	5	5	clayey silt to silty clay
52.43	13.48	0.0748	0.555	41.836	5	5	clayey silt to silty clay
52.49	10.92	0.1047	0.959	39.181	5	5	clayey silt to silty clay
52.56	9.19	0.1277	1.389	37.751	5	5	clayey silt to silty clay
52.62	8.20	0.1027	1.253	38.578	5	5	clayey silt to silty clay
52.69	8.09	0.0727	0.898	40.139	4	5	clayey silt to silty clay
52.76	8.40	0.0651	0.775	41.290	4	5	clayey silt to silty clay
52.82	8.22	0.0643	0.783	42.024	4	5	clayey silt to silty clay
52.89	7.79	0.0686	0.881	42.604	4	1	sensitive fine grained
52.95	7.66	0.0755	0.985	44.136	4	1	sensitive fine grained
53.02	7.81	0.0787	1.007	45.497	4	5	clayey silt to silty clay
53.08	7.83	0.0897	1.145	46.652	4	5	clayey silt to silty clay
53.15	8.05	0.0915	1.137	47.675	4	5	clayey silt to silty clay
53.22	8.27	0.0932	1.127	48.184	4	5	clayey silt to silty clay
53.28	8.30	0.1014	1.222	48.549	4	5	clayey silt to silty clay
53.35	8.55	0.1025	1.199	48.867	4	5	clayey silt to silty clay
53.41	8.52	0.0926	1.086	49.098	4	5	clayey silt to silty clay
53.48	8.36	0.0933	1.116	49.289	4	5	clayey silt to silty clay
53.54	8.12	0.0902	1.111	49.329	4	5	clayey silt to silty clay
53.61	7.88	0.0938	1.190	49.579	4	5	clayey silt to silty clay
53.67	7.93	0.0978	1.233	50.256	4	5	clayey silt to silty clay
53.74	8.11	0.0995	1.226	51.149	4	5	clayey silt to silty clay
53.81	8.69	0.1015	1.169	52.019	4	5	clayey silt to silty clay
53.87	9.30	0.0885	0.951	52.565	4	5	clayey silt to silty clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
53.94	9.62	0.0971	1.010	52.500	4	5	clayey silt to silty clay
54.00	9.32	0.0884	0.948	51.720	4	5	clayey silt to silty clay
54.07	9.09	0.0923	1.015	51.286	4	5	clayey silt to silty clay
54.13	8.90	0.0979	1.100	52.578	5	5	clayey silt to silty clay
54.20	9.40	0.1077	1.146	54.148	5	5	clayey silt to silty clay
54.27	9.70	0.0995	1.026	55.056	5	5	clayey silt to silty clay
54.33	10.06	0.1006	1.000	56.382	5	5	clayey silt to silty clay
54.40	10.47	0.1114	1.064	49.944	5	5	clayey silt to silty clay
54.46	10.20	0.1121	1.099	48.215	5	5	clayey silt to silty clay
54.53	9.75	0.1145	1.175	48.774	5	5	clayey silt to silty clay
54.59	9.51	0.0953	1.003	50.103	5	5	clayey silt to silty clay
54.66	9.24	0.0910	0.985	51.557	5	5	clayey silt to silty clay
54.72	9.09	0.0368	0.405	52.656	5	5	clayey silt to silty clay
54.79	9.03	0.0512	0.567	53.539	4	6	sandy silt to clayey silt
54.86	9.28	0.1077	1.161	54.638	5	6	sandy silt to clayey silt
54.92	12.38	0.1402	1.132	56.419	6	6	sandy silt to clayey silt
54.99	19.65	0.2358	1.200	56.944	6	6	sandy silt to clayey silt
55.05	22.47	0.2789	1.241	44.508	6	6	sandy silt to clayey silt
55.12	19.59	0.3087	1.576	36.781	7	6	sandy silt to clayey silt
55.18	15.34	0.3077	2.006	35.904	7	6	sandy silt to clayey silt
55.25	14.76	0.3223	2.184	35.738	6	6	sandy silt to clayey silt
55.31	15.99	0.2680	1.676	36.110	7	5	clayey silt to silty clay
55.38	14.89	0.2481	1.667	36.812	6	5	clayey silt to silty clay
55.45	13.06	0.2157	1.651	37.751	6	5	clayey silt to silty clay
55.51	10.76	0.1405	1.306	36.906	5	5	clayey silt to silty clay
55.58	9.13	0.0809	0.886	37.296	5	5	clayey silt to silty clay
55.64	8.11	0.0781	0.963	38.778	4	5	clayey silt to silty clay
55.71	7.87	0.0591	0.751	41.025	4	5	clayey silt to silty clay
55.77	8.08	0.0849	1.051	43.419	4	5	clayey silt to silty clay
55.84	8.59	0.1019	1.187	45.949	5	5	clayey silt to silty clay
55.91	10.16	0.1062	1.046	48.599	4	6	sandy silt to clayey silt
55.97	12.39	0.1084	0.876	49.420	5	6	sandy silt to clayey silt
56.04	14.07	0.1109	0.788	46.368	6	6	sandy silt to clayey silt
56.10	18.88	0.1321	0.700	43.612	8	6	sandy silt to clayey silt
56.17	23.32	0.1392	0.597	40.872	7	7	silty sand to sandy silt
56.23	27.48	0.1023	0.372	39.599	8	7	silty sand to sandy silt
56.30	30.99	0.1660	0.536	39.334	9	7	silty sand to sandy silt
56.36	30.04	0.2025	0.674	40.363	9	7	silty sand to sandy silt
56.43	29.22	0.1897	0.649	40.944	10	7	silty sand to sandy silt
56.50	30.43	0.1743	0.573	41.452	11	7	silty sand to sandy silt
56.56	32.36	0.1795	0.555	42.960	12	7	silty sand to sandy silt
56.63	39.51	0.2187	0.553	43.016	13	7	silty sand to sandy silt
56.69	48.45	0.1935	0.399	37.333	11	8	sand to silty sand
56.76	51.38	0.1000	0.195	32.733	11	8	sand to silty sand
56.82	55.04	0.0550	0.100	31.270	12	8	sand to silty sand
56.89	55.54	0.0761	0.137	28.954	12	8	sand to silty sand
56.96	53.77	0.2534	0.471	27.678	12	8	sand to silty sand
57.02	48.38	0.3369	0.696	26.810	15	7	silty sand to sandy silt
57.09	42.37	0.4520	1.067	26.760	14	7	silty sand to sandy silt
57.15	36.81	0.4593	1.248	26.854	13	7	silty sand to sandy silt
57.22	36.20	0.4369	1.207	26.926	12	7	silty sand to sandy silt
57.28	35.70	0.3605	1.010	26.979	11	7	silty sand to sandy silt
57.35	34.58	0.4909	1.419	27.010	11	7	silty sand to sandy silt
57.41	33.87	0.4627	1.366	27.063	11	7	silty sand to sandy silt
57.48	32.42	0.5050	1.558	26.979	11	7	silty sand to sandy silt
57.55	31.00	0.2438	0.787	26.957	0	0	<out of range>
57.61	29.12	0.0001	0.000	27.506	0	0	<out of range>
57.68	37.08	-0.0054	-0.014	28.533	0	0	<out of range>
57.74	42.05	-32768	-32768	27.281	0	0	<out of range>

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
57.81	57.57	-32768	-32768	25.911	0	0	<out of range>
57.87	80.61	-32768	-32768	25.584	0	0	<out of range>
57.94	245.10	-32768	-32768	28.988	0	0	<out of range>

*Soil behavior type and SPT based on data from UBC-1983

AECOM

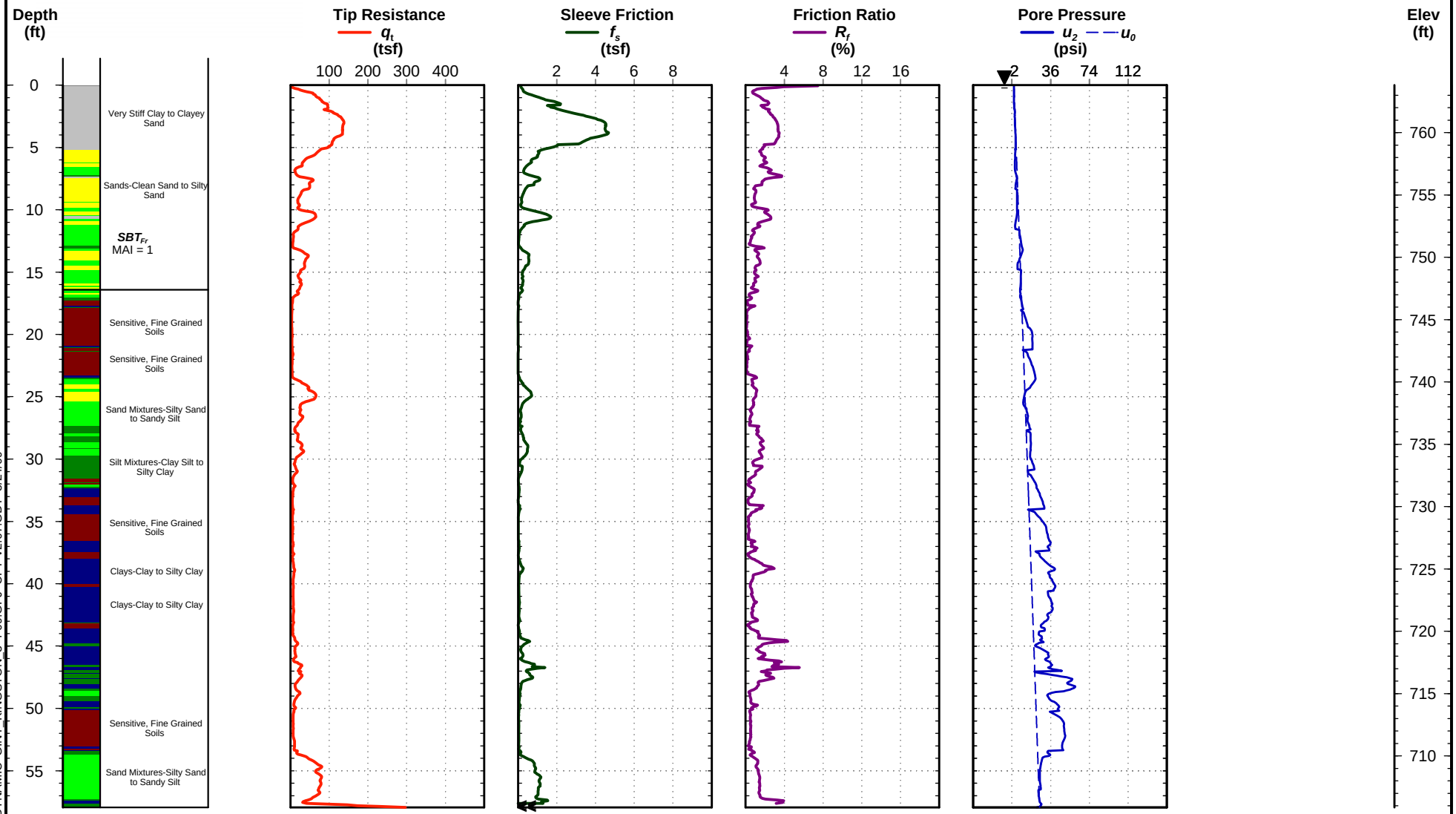
TVA Kingston Coal Ash Pond RCA (Kingston,Tennessee) *Cone Penetration Test* **09-712-C1**

Project No: 60095742

Date: Feb. 20, 2009
Estimated Water Depth: 0 ft
Rig/Operator: Mobile 57/CAP

Northing: 555083.02
Easting: 2441614.47
Elevation: 763.81 NGVD

Total Depth: 57.9 ft
Termination Criteria: Refusal
Cone Size: 10T Tension Cone



09-712-C1

Page 1 of 1

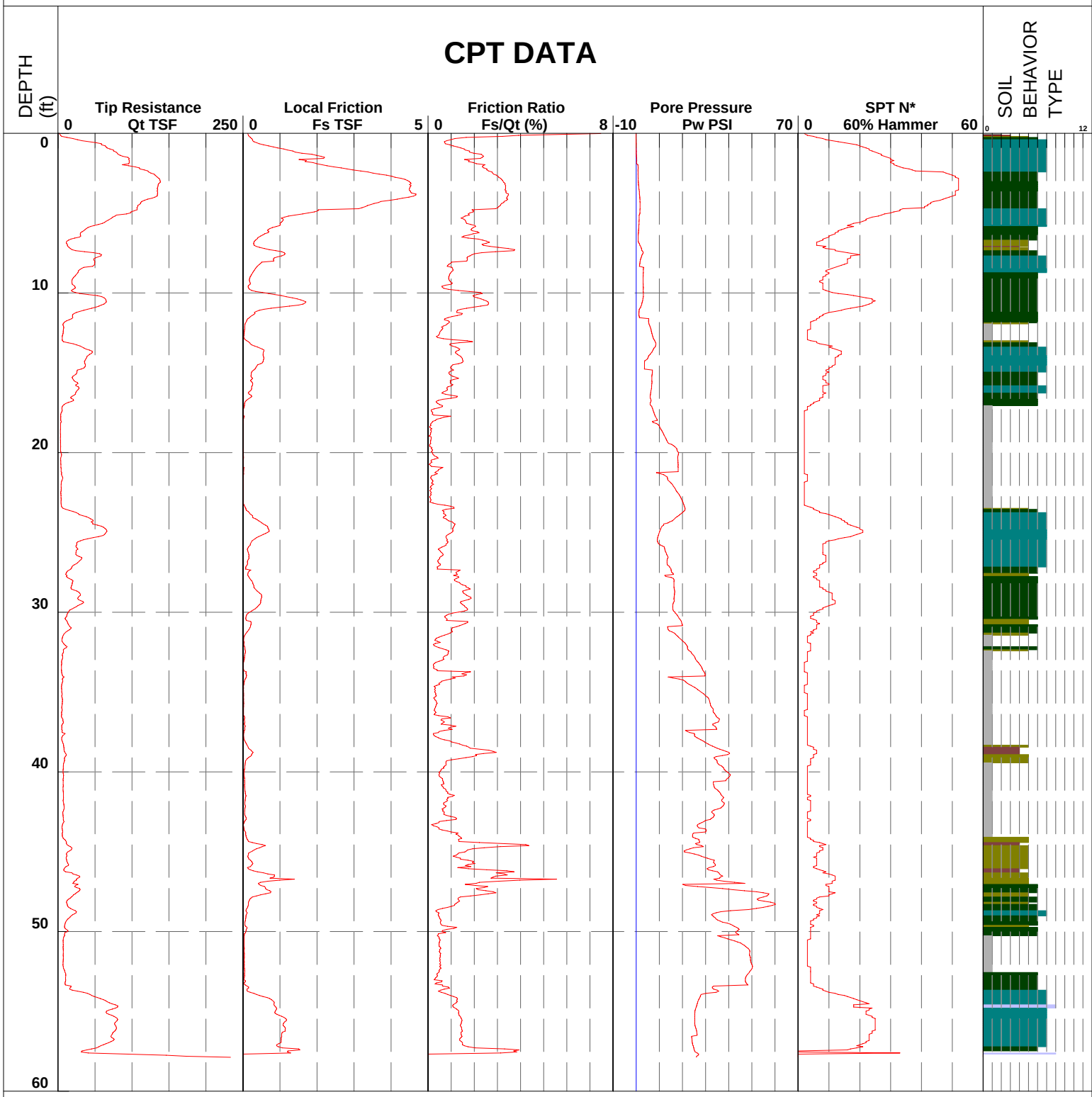
Electronic Filename: 09-712-C1.cpt

CPT REPORT - DYNAMIC GINT_KINGSTON_3-4-09.GPJ CPT V2.07.GDT 3/24/09

AECOM

09-712-C1	60095742	2/20/2009 2:50:47 PM
DSG0870	TVA-Kingston	Mobile 57/CAP

CPT DATA



- 1 - sensitive fine grained
- 2 - organic material
- 3 - clay
- 4 - silty clay to clay
- 5 - clayey silt to silty clay
- 6 - sandy silt to clayey silt
- 7 - silty sand to sandy silt
- 8 - sand to silty sand
- 9 - sand
- 10 - gravelly sand to sand
- 11 - very stiff fine grained (*)
- 12 - sand to clayey sand (*)

Data File:09-712-C1 2/20/2009 2:50:47 PM
Operator:Mobile 57/CAP Location:TVA-Kingston
Cone ID:DSG0870 Job Number:60095742
Customer:TVA Units:

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
0.07	1.75	0.1304	7.473	-0.080	2	2	organic material
0.13	3.76	0.1471	3.910	-0.087	3	3	clay
0.20	5.14	0.1656	3.219	-0.095	5	5	clayey silt to silty clay
0.26	12.01	0.1984	1.652	-0.070	6	6	sandy silt to clayey silt
0.33	20.07	0.2334	1.163	-0.061	8	6	sandy silt to clayey silt
0.39	26.14	0.2589	0.991	-0.044	9	7	silty sand to sandy silt
0.46	32.23	0.2608	0.809	-0.039	11	7	silty sand to sandy silt
0.52	42.03	0.2946	0.701	-0.048	13	7	silty sand to sandy silt
0.59	51.77	0.3736	0.722	-0.022	15	7	silty sand to sandy silt
0.66	58.60	0.4385	0.748	-0.010	17	7	silty sand to sandy silt
0.72	58.88	0.5512	0.936	-0.007	19	7	silty sand to sandy silt
0.79	64.08	0.6926	1.081	0.019	20	7	silty sand to sandy silt
0.85	65.16	0.8229	1.263	0.010	21	7	silty sand to sandy silt
0.92	66.32	0.9390	1.416	-0.015	22	7	silty sand to sandy silt
0.98	70.28	1.0988	1.564	-0.012	23	7	silty sand to sandy silt
1.05	74.69	1.1959	1.601	0.022	23	7	silty sand to sandy silt
1.12	75.33	1.3441	1.784	0.051	24	7	silty sand to sandy silt
1.18	78.58	1.4119	1.797	0.061	25	7	silty sand to sandy silt
1.25	80.32	1.5937	1.984	0.024	26	7	silty sand to sandy silt
1.31	81.15	1.8641	2.297	0.061	27	7	silty sand to sandy silt
1.38	84.12	1.9790	2.353	0.070	27	7	silty sand to sandy silt
1.44	87.62	2.1078	2.406	0.051	28	7	silty sand to sandy silt
1.51	94.38	2.2037	2.335	0.109	29	7	silty sand to sandy silt
1.57	96.21	2.1781	2.264	0.155	30	7	silty sand to sandy silt
1.64	95.80	1.5127	1.579	0.206	30	7	silty sand to sandy silt
1.71	96.44	1.7144	1.778	0.230	31	7	silty sand to sandy silt
1.77	96.08	1.6799	1.748	0.184	30	7	silty sand to sandy silt
1.84	96.40	1.8905	1.961	0.138	30	7	silty sand to sandy silt
1.90	95.70	1.9965	2.086	0.170	31	7	silty sand to sandy silt
1.97	86.82	2.1373	2.462	0.759	31	7	silty sand to sandy silt
2.03	95.68	2.2710	2.374	0.768	32	7	silty sand to sandy silt
2.10	104.33	2.4525	2.351	0.829	33	7	silty sand to sandy silt
2.17	110.04	2.6526	2.411	0.846	34	7	silty sand to sandy silt
2.23	110.60	2.8117	2.542	0.834	36	7	silty sand to sandy silt
2.30	116.74	2.9680	2.542	0.792	37	7	silty sand to sandy silt
2.36	121.38	3.1808	2.621	0.795	38	7	silty sand to sandy silt
2.43	122.52	3.3786	2.757	0.826	47	6	sandy silt to clayey silt
2.49	125.58	3.5115	2.796	0.812	48	6	sandy silt to clayey silt
2.56	129.90	3.6770	2.831	0.800	49	6	sandy silt to clayey silt
2.62	131.30	3.8803	2.955	0.829	50	6	sandy silt to clayey silt
2.69	133.01	4.0229	3.025	0.829	51	6	sandy silt to clayey silt
2.76	134.46	4.1117	3.058	0.834	51	6	sandy silt to clayey silt
2.82	136.25	4.2676	3.132	0.865	52	6	sandy silt to clayey silt
2.89	137.45	4.3740	3.182	0.858	52	6	sandy silt to clayey silt
2.95	137.89	4.4412	3.221	0.899	52	6	sandy silt to clayey silt
3.02	138.23	4.4905	3.249	0.931	52	6	sandy silt to clayey silt
3.08	138.01	4.5239	3.278	0.957	52	6	sandy silt to clayey silt
3.15	136.21	4.5407	3.334	0.981	52	6	sandy silt to clayey silt
3.22	135.52	4.4999	3.320	0.996	52	6	sandy silt to clayey silt
3.28	135.21	4.5406	3.358	1.037	52	6	sandy silt to clayey silt
3.35	135.01	4.5166	3.345	1.100	52	6	sandy silt to clayey silt
3.41	134.27	4.5066	3.356	1.156	52	6	sandy silt to clayey silt
3.48	134.16	4.4899	3.347	1.209	52	6	sandy silt to clayey silt
3.54	134.85	4.4907	3.330	1.258	52	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
3.61	133.90	4.5163	3.373	1.304	51	6	sandy silt to clayey silt
3.67	134.65	4.5280	3.363	1.355	51	6	sandy silt to clayey silt
3.74	134.62	4.5505	3.380	1.362	51	6	sandy silt to clayey silt
3.81	134.45	4.6754	3.477	1.408	51	6	sandy silt to clayey silt
3.87	134.22	4.6673	3.477	1.423	51	6	sandy silt to clayey silt
3.94	134.05	4.6050	3.435	1.498	50	6	sandy silt to clayey silt
4.00	131.06	4.4810	3.419	1.544	49	6	sandy silt to clayey silt
4.07	127.17	4.3119	3.391	1.570	48	6	sandy silt to clayey silt
4.13	121.10	4.1650	3.439	1.592	47	6	sandy silt to clayey silt
4.20	116.86	3.9702	3.397	1.631	46	6	sandy silt to clayey silt
4.27	113.27	3.7276	3.291	1.636	44	6	sandy silt to clayey silt
4.33	111.94	3.6643	3.274	1.660	43	6	sandy silt to clayey silt
4.40	111.49	3.5436	3.178	1.670	43	6	sandy silt to clayey silt
4.46	109.97	3.4565	3.143	1.684	42	6	sandy silt to clayey silt
4.53	107.81	3.3641	3.121	1.684	42	6	sandy silt to clayey silt
4.59	107.98	3.3066	3.062	1.677	41	6	sandy silt to clayey silt
4.66	106.66	3.2163	3.015	1.665	41	6	sandy silt to clayey silt
4.72	107.13	3.1231	2.915	1.662	34	7	silty sand to sandy silt
4.79	107.00	2.0344	1.901	1.655	33	7	silty sand to sandy silt
4.86	103.22	2.0285	1.965	1.641	33	7	silty sand to sandy silt
4.92	98.87	1.9298	1.952	1.633	31	7	silty sand to sandy silt
4.99	97.94	1.7688	1.806	1.614	30	7	silty sand to sandy silt
5.05	92.69	1.6122	1.739	1.575	28	7	silty sand to sandy silt
5.12	78.97	1.4070	1.782	1.282	27	7	silty sand to sandy silt
5.18	77.04	1.2312	1.598	1.270	26	7	silty sand to sandy silt
5.25	73.91	1.1267	1.524	1.289	24	7	silty sand to sandy silt
5.31	72.52	1.0372	1.430	1.287	23	7	silty sand to sandy silt
5.38	70.05	1.0835	1.547	1.284	22	7	silty sand to sandy silt
5.45	67.92	1.0869	1.600	1.255	22	7	silty sand to sandy silt
5.51	65.03	1.0611	1.632	1.250	21	7	silty sand to sandy silt
5.58	63.02	1.0364	1.645	1.224	20	7	silty sand to sandy silt
5.64	60.17	1.0033	1.668	1.214	18	7	silty sand to sandy silt
5.71	54.66	1.0100	1.848	1.219	17	7	silty sand to sandy silt
5.77	49.04	0.9945	2.028	1.146	16	7	silty sand to sandy silt
5.84	43.85	0.9012	2.055	1.098	18	6	sandy silt to clayey silt
5.91	40.47	0.7927	1.959	1.088	16	6	sandy silt to clayey silt
5.97	38.13	0.7213	1.892	1.076	15	6	sandy silt to clayey silt
6.04	36.39	0.6745	1.853	1.025	14	6	sandy silt to clayey silt
6.10	35.03	0.6683	1.908	1.020	13	6	sandy silt to clayey silt
6.17	32.72	0.6994	2.138	0.984	13	6	sandy silt to clayey silt
6.23	30.46	0.6714	2.204	0.974	12	6	sandy silt to clayey silt
6.30	30.13	0.5899	1.958	0.950	12	6	sandy silt to clayey silt
6.36	30.11	0.5369	1.783	0.923	11	6	sandy silt to clayey silt
6.43	30.72	0.4775	1.555	0.902	10	6	sandy silt to clayey silt
6.50	29.27	0.4289	1.465	0.906	10	6	sandy silt to clayey silt
6.56	22.72	0.3949	1.738	0.875	9	6	sandy silt to clayey silt
6.63	17.33	0.3779	2.180	0.865	8	6	sandy silt to clayey silt
6.69	14.43	0.3409	2.363	0.865	8	5	clayey silt to silty clay
6.76	12.27	0.3101	2.528	0.902	7	5	clayey silt to silty clay
6.82	11.17	0.2967	2.657	0.981	6	5	clayey silt to silty clay
6.89	11.45	0.2874	2.510	1.265	6	5	clayey silt to silty clay
6.96	12.46	0.2906	2.333	1.471	6	5	clayey silt to silty clay
7.02	12.69	0.3033	2.391	1.631	6	5	clayey silt to silty clay
7.09	13.30	0.3548	2.668	1.847	9	4	silty clay to clay
7.15	14.82	0.4495	3.034	2.113	8	5	clayey silt to silty clay
7.22	16.69	0.5777	3.462	2.261	9	5	clayey silt to silty clay
7.28	19.00	0.7128	3.751	2.392	12	5	clayey silt to silty clay
7.35	23.82	0.8846	3.713	2.506	12	6	sandy silt to clayey silt
7.41	35.88	1.0447	2.912	2.896	14	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
7.48	48.13	1.1138	2.314	3.029	16	6	sandy silt to clayey silt
7.55	56.40	1.1356	2.013	2.843	18	6	sandy silt to clayey silt
7.61	59.00	1.1188	1.896	2.525	20	6	sandy silt to clayey silt
7.68	57.81	1.0446	1.807	2.394	17	7	silty sand to sandy silt
7.74	54.24	0.9294	1.713	2.251	17	7	silty sand to sandy silt
7.81	50.57	0.8484	1.678	2.130	17	7	silty sand to sandy silt
7.87	48.32	0.8226	1.702	1.941	16	7	silty sand to sandy silt
7.94	48.78	0.8258	1.693	1.786	16	7	silty sand to sandy silt
8.01	49.65	0.8323	1.676	1.721	16	7	silty sand to sandy silt
8.07	49.82	0.5087	1.021	1.633	16	7	silty sand to sandy silt
8.14	49.54	0.4808	0.970	1.582	16	7	silty sand to sandy silt
8.20	49.65	0.4503	0.907	1.532	15	7	silty sand to sandy silt
8.27	48.66	0.4144	0.852	1.459	14	7	silty sand to sandy silt
8.33	46.71	0.3857	0.826	1.401	13	7	silty sand to sandy silt
8.40	35.03	0.3614	1.032	3.182	12	7	silty sand to sandy silt
8.46	32.13	0.3399	1.058	3.131	11	7	silty sand to sandy silt
8.53	29.76	0.3186	1.071	3.107	10	7	silty sand to sandy silt
8.60	28.02	0.3035	1.083	3.068	9	7	silty sand to sandy silt
8.66	27.44	0.2816	1.026	3.070	9	7	silty sand to sandy silt
8.73	26.90	0.2647	0.984	3.054	10	6	sandy silt to clayey silt
8.79	25.85	0.2457	0.950	3.034	10	6	sandy silt to clayey silt
8.86	24.56	0.2273	0.926	3.015	9	6	sandy silt to clayey silt
8.92	23.31	0.2147	0.921	3.007	9	6	sandy silt to clayey silt
8.99	21.95	0.1952	0.889	2.978	8	6	sandy silt to clayey silt
9.06	20.72	0.1856	0.895	2.969	8	6	sandy silt to clayey silt
9.12	19.65	0.1754	0.892	2.971	8	6	sandy silt to clayey silt
9.19	19.14	0.1742	0.910	2.988	8	6	sandy silt to clayey silt
9.25	18.81	0.1767	0.940	2.998	7	6	sandy silt to clayey silt
9.32	18.85	0.1844	0.978	2.986	7	6	sandy silt to clayey silt
9.38	19.01	0.1998	1.051	2.998	8	6	sandy silt to clayey silt
9.45	19.27	0.1940	1.007	3.020	8	6	sandy silt to clayey silt
9.51	20.91	0.1558	0.745	3.034	8	6	sandy silt to clayey silt
9.58	22.77	0.1371	0.602	3.044	8	6	sandy silt to clayey silt
9.65	23.44	0.1442	0.615	3.054	8	6	sandy silt to clayey silt
9.71	23.05	0.1574	0.683	3.054	8	6	sandy silt to clayey silt
9.78	20.40	0.1782	0.874	3.022	8	6	sandy silt to clayey silt
9.84	18.32	0.2385	1.302	3.017	9	6	sandy silt to clayey silt
9.91	19.44	0.3469	1.785	3.020	10	6	sandy silt to clayey silt
9.97	23.37	0.5317	2.276	3.049	11	6	sandy silt to clayey silt
10.04	29.66	0.6927	2.336	3.073	13	6	sandy silt to clayey silt
10.10	40.59	0.8576	2.113	3.100	16	6	sandy silt to clayey silt
10.17	53.05	1.0339	1.949	3.112	18	6	sandy silt to clayey silt
10.24	59.28	1.1674	1.969	3.073	20	6	sandy silt to clayey silt
10.30	62.53	1.3380	2.140	2.974	22	6	sandy silt to clayey silt
10.37	63.98	1.4639	2.288	2.915	24	6	sandy silt to clayey silt
10.43	64.91	1.5589	2.402	2.840	24	6	sandy silt to clayey silt
10.50	65.06	1.6386	2.519	2.785	25	6	sandy silt to clayey silt
10.56	65.43	1.6987	2.596	2.579	24	6	sandy silt to clayey silt
10.63	64.11	1.6785	2.618	2.477	24	6	sandy silt to clayey silt
10.70	62.23	1.6223	2.607	2.409	23	6	sandy silt to clayey silt
10.76	58.46	1.5014	2.568	2.331	22	6	sandy silt to clayey silt
10.83	55.45	1.2597	2.272	1.999	21	6	sandy silt to clayey silt
10.89	51.36	1.0117	1.970	1.948	19	6	sandy silt to clayey silt
10.96	45.45	0.7595	1.671	1.621	17	6	sandy silt to clayey silt
11.02	39.80	0.5631	1.415	1.323	15	6	sandy silt to clayey silt
11.09	34.72	0.4417	1.272	1.275	14	6	sandy silt to clayey silt
11.15	29.18	0.3606	1.236	1.231	12	6	sandy silt to clayey silt
11.22	25.06	0.3126	1.248	1.224	10	6	sandy silt to clayey silt
11.29	21.92	0.3262	1.488	1.200	9	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
11.35	20.01	0.2904	1.452	1.209	8	6	sandy silt to clayey silt
11.42	19.48	0.2450	1.258	1.229	8	6	sandy silt to clayey silt
11.48	19.62	0.2034	1.036	1.328	7	6	sandy silt to clayey silt
11.55	20.01	0.1714	0.857	1.384	7	6	sandy silt to clayey silt
11.61	18.51	0.1354	0.732	5.448	6	6	sandy silt to clayey silt
11.68	15.30	0.1082	0.707	5.385	6	6	sandy silt to clayey silt
11.75	11.61	0.1016	0.875	5.351	5	6	sandy silt to clayey silt
11.81	9.25	0.0856	0.926	5.358	4	6	sandy silt to clayey silt
11.88	7.89	0.0711	0.901	5.424	4	5	clayey silt to silty clay
11.94	6.93	0.0573	0.827	5.525	4	1	sensitive fine grained
12.01	6.78	0.0528	0.779	5.678	4	1	sensitive fine grained
12.07	7.34	0.0485	0.660	5.916	4	1	sensitive fine grained
12.14	7.79	0.0454	0.583	6.061	4	1	sensitive fine grained
12.20	7.73	0.0497	0.643	6.202	4	1	sensitive fine grained
12.27	7.46	0.0461	0.618	6.357	4	1	sensitive fine grained
12.34	7.14	0.0411	0.576	6.441	3	1	sensitive fine grained
12.40	7.01	0.0375	0.535	6.546	3	1	sensitive fine grained
12.47	6.97	0.0350	0.503	6.710	3	1	sensitive fine grained
12.53	6.88	0.0347	0.504	6.790	3	1	sensitive fine grained
12.60	6.53	0.0307	0.470	6.887	3	1	sensitive fine grained
12.66	6.04	0.0271	0.448	7.004	3	1	sensitive fine grained
12.73	5.79	0.0211	0.365	7.164	3	1	sensitive fine grained
12.80	5.81	0.0237	0.409	7.307	3	1	sensitive fine grained
12.86	5.78	0.0379	0.655	7.440	3	1	sensitive fine grained
12.93	5.79	0.0608	1.049	7.731	3	1	sensitive fine grained
12.99	5.96	0.1008	1.690	8.014	4	5	clayey silt to silty clay
13.06	7.52	0.1447	1.924	8.172	6	5	clayey silt to silty clay
13.12	13.46	0.1813	1.347	8.404	6	6	sandy silt to clayey silt
13.19	20.55	0.1965	0.956	8.526	7	6	sandy silt to clayey silt
13.25	25.10	0.2367	0.943	8.504	9	6	sandy silt to clayey silt
13.32	30.00	0.3140	1.047	8.329	11	6	sandy silt to clayey silt
13.39	32.72	0.3922	1.199	8.160	10	7	silty sand to sandy silt
13.45	35.30	0.4557	1.291	7.665	11	7	silty sand to sandy silt
13.52	37.87	0.5196	1.372	7.423	12	7	silty sand to sandy silt
13.58	42.49	0.5669	1.334	7.215	13	7	silty sand to sandy silt
13.65	46.13	0.5657	1.226	6.977	14	7	silty sand to sandy silt
13.71	46.30	0.5481	1.184	6.727	14	7	silty sand to sandy silt
13.78	45.40	0.5455	1.201	6.347	14	7	silty sand to sandy silt
13.85	42.86	0.5431	1.267	6.078	14	7	silty sand to sandy silt
13.91	40.93	0.5444	1.330	5.545	13	7	silty sand to sandy silt
13.98	39.22	0.5553	1.416	5.273	13	7	silty sand to sandy silt
14.04	38.88	0.5618	1.445	5.130	12	7	silty sand to sandy silt
14.11	38.03	0.5643	1.484	4.958	12	7	silty sand to sandy silt
14.17	37.05	0.5526	1.492	4.597	12	7	silty sand to sandy silt
14.24	36.43	0.5480	1.504	3.715	12	7	silty sand to sandy silt
14.30	35.77	0.5410	1.513	3.625	12	7	silty sand to sandy silt
14.37	36.09	0.5272	1.461	3.567	12	7	silty sand to sandy silt
14.44	36.42	0.4810	1.320	3.548	12	7	silty sand to sandy silt
14.50	37.05	0.3988	1.076	3.565	12	7	silty sand to sandy silt
14.57	36.87	0.3789	1.028	3.548	11	7	silty sand to sandy silt
14.63	36.51	0.3594	0.984	3.553	11	7	silty sand to sandy silt
14.70	35.24	0.3439	0.976	3.548	10	7	silty sand to sandy silt
14.76	31.58	0.3257	1.031	3.533	10	7	silty sand to sandy silt
14.83	26.21	0.2887	1.102	7.013	9	7	silty sand to sandy silt
14.90	25.83	0.2554	0.989	6.999	9	7	silty sand to sandy silt
14.96	25.62	0.2340	0.913	6.975	10	6	sandy silt to clayey silt
15.03	25.23	0.2253	0.893	6.929	9	6	sandy silt to clayey silt
15.09	24.28	0.2258	0.930	6.868	9	6	sandy silt to clayey silt
15.16	22.20	0.2184	0.984	6.824	9	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
15.22	20.13	0.2145	1.066	6.759	8	6	sandy silt to clayey silt
15.29	19.20	0.2323	1.210	6.749	8	6	sandy silt to clayey silt
15.35	19.69	0.2591	1.316	6.761	8	6	sandy silt to clayey silt
15.42	20.75	0.2297	1.107	6.773	8	6	sandy silt to clayey silt
15.49	21.51	0.2053	0.954	6.788	9	6	sandy silt to clayey silt
15.55	23.39	0.2293	0.980	6.807	9	6	sandy silt to clayey silt
15.62	26.59	0.2538	0.954	6.810	9	6	sandy silt to clayey silt
15.68	26.99	0.2663	0.987	6.749	10	6	sandy silt to clayey silt
15.75	24.22	0.2599	1.073	6.684	10	6	sandy silt to clayey silt
15.81	24.32	0.2473	1.017	6.645	8	7	silty sand to sandy silt
15.88	27.40	0.2356	0.860	6.645	8	7	silty sand to sandy silt
15.94	28.59	0.2316	0.810	6.630	8	7	silty sand to sandy silt
16.01	28.07	0.2324	0.828	6.572	8	7	silty sand to sandy silt
16.08	26.82	0.2250	0.839	6.449	8	7	silty sand to sandy silt
16.14	25.36	0.1960	0.773	6.371	8	7	silty sand to sandy silt
16.21	24.42	0.1587	0.650	6.315	8	7	silty sand to sandy silt
16.27	23.84	0.1414	0.593	6.211	9	6	sandy silt to clayey silt
16.34	23.52	0.1748	0.743	6.163	8	6	sandy silt to clayey silt
16.40	21.65	0.2153	0.994	6.114	8	6	sandy silt to clayey silt
16.47	19.09	0.2411	1.263	6.066	8	6	sandy silt to clayey silt
16.54	17.34	0.2153	1.242	6.063	8	6	sandy silt to clayey silt
16.60	17.64	0.1735	0.984	6.112	7	6	sandy silt to clayey silt
16.67	20.69	0.1308	0.632	6.352	7	6	sandy silt to clayey silt
16.73	21.18	0.0928	0.438	6.417	7	6	sandy silt to clayey silt
16.80	18.26	0.0637	0.349	6.361	6	6	sandy silt to clayey silt
16.86	13.75	0.0504	0.366	6.136	5	6	sandy silt to clayey silt
16.93	10.53	0.0446	0.423	6.046	5	6	sandy silt to clayey silt
16.99	8.22	0.0416	0.506	6.049	4	6	sandy silt to clayey silt
17.06	6.61	0.0416	0.630	6.400	4	1	sensitive fine grained
17.13	5.82	0.0357	0.614	6.783	3	1	sensitive fine grained
17.19	5.39	0.0250	0.464	6.924	3	1	sensitive fine grained
17.26	5.42	0.0145	0.267	7.091	3	1	sensitive fine grained
17.32	5.58	0.0078	0.139	7.251	3	1	sensitive fine grained
17.39	5.59	0.0076	0.136	7.372	2	1	sensitive fine grained
17.45	5.04	0.0089	0.176	7.588	2	1	sensitive fine grained
17.52	4.39	0.0090	0.204	7.677	2	1	sensitive fine grained
17.59	3.84	0.0069	0.180	7.847	2	1	sensitive fine grained
17.65	3.66	0.0088	0.241	8.053	2	1	sensitive fine grained
17.72	3.78	0.0371	0.981	8.266	2	1	sensitive fine grained
17.78	3.80	0.0258	0.680	8.472	2	1	sensitive fine grained
17.85	3.70	0.0203	0.547	8.707	2	1	sensitive fine grained
17.91	3.77	0.0140	0.370	8.940	2	1	sensitive fine grained
17.98	3.76	0.0123	0.326	9.151	2	1	sensitive fine grained
18.04	4.63	0.0092	0.199	7.016	2	1	sensitive fine grained
18.11	3.92	0.0068	0.174	7.314	2	1	sensitive fine grained
18.18	3.56	0.0045	0.126	8.644	2	1	sensitive fine grained
18.24	3.46	0.0038	0.109	9.480	2	1	sensitive fine grained
18.31	3.42	0.0042	0.122	9.858	2	1	sensitive fine grained
18.37	3.45	0.0024	0.069	10.077	2	1	sensitive fine grained
18.44	3.41	0.0029	0.085	10.300	2	1	sensitive fine grained
18.50	3.42	0.0055	0.160	10.569	2	1	sensitive fine grained
18.57	3.38	0.0034	0.100	10.792	2	1	sensitive fine grained
18.64	3.29	0.0047	0.144	11.094	2	1	sensitive fine grained
18.70	3.35	0.0045	0.134	11.317	2	1	sensitive fine grained
18.77	3.33	0.0037	0.112	11.589	2	1	sensitive fine grained
18.83	3.34	0.0037	0.110	11.814	2	1	sensitive fine grained
18.90	3.41	0.0031	0.090	12.027	2	1	sensitive fine grained
18.96	3.43	0.0014	0.042	12.250	2	1	sensitive fine grained
19.03	3.36	0.0047	0.139	12.483	2	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
19.09	3.32	0.0045	0.136	12.728	2	1	sensitive fine grained
19.16	3.38	0.0044	0.129	12.944	2	1	sensitive fine grained
19.23	3.37	0.0039	0.116	13.176	2	1	sensitive fine grained
19.29	3.41	0.0037	0.110	13.411	2	1	sensitive fine grained
19.36	3.37	0.0034	0.101	13.600	2	1	sensitive fine grained
19.42	3.42	0.0040	0.116	14.024	2	1	sensitive fine grained
19.49	3.55	0.0026	0.074	15.398	2	1	sensitive fine grained
19.55	3.63	0.0024	0.067	15.958	2	1	sensitive fine grained
19.62	3.67	0.0027	0.075	16.639	2	1	sensitive fine grained
19.69	3.61	0.0060	0.165	17.095	2	1	sensitive fine grained
19.75	3.61	0.0051	0.142	17.533	2	1	sensitive fine grained
19.82	3.55	0.0069	0.195	17.616	2	1	sensitive fine grained
19.88	3.59	0.0066	0.185	17.679	2	1	sensitive fine grained
19.95	3.85	0.0052	0.136	18.035	2	1	sensitive fine grained
20.01	4.24	0.0087	0.206	18.244	2	1	sensitive fine grained
20.08	4.58	0.0089	0.193	18.234	2	1	sensitive fine grained
20.14	4.84	0.0116	0.240	18.171	2	1	sensitive fine grained
20.21	4.64	0.0131	0.282	18.062	2	1	sensitive fine grained
20.28	4.08	0.0155	0.380	17.948	2	1	sensitive fine grained
20.34	3.73	0.0164	0.438	17.916	2	1	sensitive fine grained
20.41	3.68	0.0107	0.292	17.960	2	1	sensitive fine grained
20.47	3.69	0.0050	0.136	18.035	2	1	sensitive fine grained
20.54	3.89	0.0049	0.125	18.067	2	1	sensitive fine grained
20.60	3.80	0.0064	0.170	18.086	2	1	sensitive fine grained
20.67	3.84	0.0034	0.090	18.093	2	1	sensitive fine grained
20.73	3.98	0.0023	0.058	18.120	2	1	sensitive fine grained
20.80	3.96	0.0040	0.102	18.139	2	1	sensitive fine grained
20.87	3.95	0.0060	0.151	18.115	2	1	sensitive fine grained
20.93	4.00	0.0257	0.643	18.132	2	1	sensitive fine grained
21.00	4.16	0.0227	0.546	18.144	2	1	sensitive fine grained
21.06	4.26	0.0194	0.455	18.151	2	1	sensitive fine grained
21.13	4.24	0.0185	0.437	18.151	2	1	sensitive fine grained
21.19	4.24	0.0147	0.348	18.154	2	1	sensitive fine grained
21.26	5.02	0.0149	0.297	8.686	2	1	sensitive fine grained
21.33	4.69	0.0188	0.401	10.399	2	1	sensitive fine grained
21.39	4.84	0.0144	0.298	11.906	3	1	sensitive fine grained
21.46	5.41	0.0081	0.149	12.682	3	1	sensitive fine grained
21.52	6.11	0.0078	0.128	13.351	3	1	sensitive fine grained
21.59	6.58	0.0070	0.107	13.535	3	1	sensitive fine grained
21.65	6.19	0.0093	0.151	13.576	3	1	sensitive fine grained
21.72	5.60	0.0101	0.181	13.680	3	1	sensitive fine grained
21.78	5.00	0.0106	0.212	14.170	3	1	sensitive fine grained
21.85	4.61	0.0084	0.183	14.662	2	1	sensitive fine grained
21.92	4.48	0.0069	0.153	15.132	2	1	sensitive fine grained
21.98	4.40	0.0106	0.241	15.592	2	1	sensitive fine grained
22.05	4.39	0.0070	0.159	15.837	2	1	sensitive fine grained
22.11	4.37	0.0053	0.121	16.072	2	1	sensitive fine grained
22.18	4.33	0.0038	0.088	16.448	2	1	sensitive fine grained
22.24	4.46	0.0068	0.153	16.760	2	1	sensitive fine grained
22.31	4.40	0.0055	0.126	17.017	2	1	sensitive fine grained
22.38	4.24	0.0030	0.072	17.235	2	1	sensitive fine grained
22.44	3.97	0.0044	0.112	17.560	2	1	sensitive fine grained
22.51	3.87	0.0055	0.142	17.880	2	1	sensitive fine grained
22.57	3.97	0.0041	0.104	18.282	2	1	sensitive fine grained
22.64	3.96	0.0051	0.130	18.595	2	1	sensitive fine grained
22.70	4.04	0.0041	0.102	18.847	2	1	sensitive fine grained
22.77	4.03	0.0027	0.067	19.114	2	1	sensitive fine grained
22.83	4.03	0.0036	0.090	19.320	2	1	sensitive fine grained
22.90	4.18	0.0045	0.107	19.564	2	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
22.97	4.20	0.0054	0.129	19.785	2	1	sensitive fine grained
23.03	4.15	0.0045	0.108	19.950	2	1	sensitive fine grained
23.10	4.14	0.0033	0.079	20.168	2	1	sensitive fine grained
23.16	4.13	0.0089	0.215	20.301	2	1	sensitive fine grained
23.23	4.20	0.0173	0.412	20.459	2	1	sensitive fine grained
23.29	4.59	0.0336	0.732	20.655	2	1	sensitive fine grained
23.36	4.70	0.0462	0.981	20.803	3	1	sensitive fine grained
23.43	5.34	0.0597	1.117	20.999	4	1	sensitive fine grained
23.49	6.86	0.0773	1.128	21.110	5	5	clayey silt to silty clay
23.56	10.48	0.0811	0.773	21.123	5	6	sandy silt to clayey silt
23.62	15.49	0.0953	0.615	20.960	6	6	sandy silt to clayey silt
23.69	20.17	0.1372	0.680	20.541	7	6	sandy silt to clayey silt
23.75	24.66	0.1695	0.688	19.952	7	7	silty sand to sandy silt
23.82	27.41	0.1838	0.671	19.446	9	7	silty sand to sandy silt
23.88	28.87	0.2177	0.754	18.842	10	7	silty sand to sandy silt
23.95	33.50	0.2588	0.772	18.374	11	7	silty sand to sandy silt
24.02	38.29	0.2608	0.681	17.647	12	7	silty sand to sandy silt
24.08	41.76	0.2710	0.649	17.010	13	7	silty sand to sandy silt
24.15	44.23	0.3433	0.776	16.571	14	7	silty sand to sandy silt
24.21	46.80	0.3884	0.830	16.128	14	7	silty sand to sandy silt
24.28	47.66	0.4272	0.896	15.563	15	7	silty sand to sandy silt
24.34	44.92	0.4714	1.049	14.468	15	7	silty sand to sandy silt
24.41	47.03	0.5109	1.086	13.767	16	7	silty sand to sandy silt
24.48	47.03	0.5517	1.173	11.853	16	7	silty sand to sandy silt
24.54	53.58	0.6106	1.140	11.821	17	7	silty sand to sandy silt
24.61	58.43	0.6562	1.123	11.177	18	7	silty sand to sandy silt
24.67	61.42	0.6723	1.095	10.901	19	7	silty sand to sandy silt
24.74	63.36	0.6751	1.065	10.680	20	7	silty sand to sandy silt
24.80	64.88	0.6917	1.066	10.506	20	7	silty sand to sandy silt
24.87	65.89	0.7049	1.070	10.331	21	7	silty sand to sandy silt
24.93	66.11	0.7075	1.070	10.140	21	7	silty sand to sandy silt
25.00	64.99	0.6642	1.022	10.014	21	7	silty sand to sandy silt
25.07	64.02	0.6102	0.953	9.861	20	7	silty sand to sandy silt
25.13	62.94	0.5471	0.869	9.708	19	7	silty sand to sandy silt
25.20	60.84	0.4890	0.804	9.551	18	7	silty sand to sandy silt
25.26	54.71	0.4222	0.772	9.398	17	7	silty sand to sandy silt
25.33	47.47	0.3681	0.775	9.279	15	7	silty sand to sandy silt
25.39	40.04	0.3236	0.808	9.182	13	7	silty sand to sandy silt
25.46	34.28	0.2864	0.836	9.124	12	7	silty sand to sandy silt
25.52	30.22	0.2452	0.811	9.165	10	7	silty sand to sandy silt
25.59	26.82	0.2309	0.861	9.287	9	7	silty sand to sandy silt
25.66	25.31	0.2144	0.847	9.461	9	7	silty sand to sandy silt
25.72	25.45	0.1981	0.779	9.800	8	7	silty sand to sandy silt
25.79	25.25	0.1967	0.779	10.447	8	7	silty sand to sandy silt
25.85	24.30	0.1729	0.712	11.400	8	7	silty sand to sandy silt
25.92	24.65	0.1481	0.601	12.137	8	7	silty sand to sandy silt
25.98	25.89	0.1337	0.516	12.253	8	7	silty sand to sandy silt
26.05	26.89	0.1182	0.439	12.352	8	7	silty sand to sandy silt
26.12	24.64	0.1221	0.496	12.459	8	7	silty sand to sandy silt
26.18	24.68	0.1318	0.534	12.570	8	7	silty sand to sandy silt
26.25	24.41	0.1396	0.572	12.847	8	7	silty sand to sandy silt
26.31	24.14	0.1508	0.625	13.038	8	7	silty sand to sandy silt
26.38	24.28	0.1583	0.652	13.179	8	7	silty sand to sandy silt
26.44	25.53	0.1629	0.638	13.356	9	7	silty sand to sandy silt
26.51	28.65	0.1592	0.556	13.668	9	7	silty sand to sandy silt
26.57	31.99	0.1602	0.501	13.772	9	7	silty sand to sandy silt
26.64	32.15	0.1605	0.499	13.537	9	7	silty sand to sandy silt
26.71	31.01	0.1421	0.458	13.392	9	7	silty sand to sandy silt
26.77	29.24	0.1222	0.418	13.319	9	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
26.84	27.84	0.1192	0.428	13.305	9	7	silty sand to sandy silt
26.90	26.50	0.1192	0.450	13.309	8	7	silty sand to sandy silt
26.97	24.52	0.1268	0.517	13.341	8	7	silty sand to sandy silt
27.03	21.82	0.1156	0.530	13.469	7	7	silty sand to sandy silt
27.10	19.71	0.0914	0.464	14.080	7	7	silty sand to sandy silt
27.17	18.87	0.0739	0.392	14.458	7	6	sandy silt to clayey silt
27.23	18.33	0.0762	0.415	14.747	7	6	sandy silt to clayey silt
27.30	17.30	0.0688	0.398	15.016	6	6	sandy silt to clayey silt
27.36	15.22	0.2118	1.392	15.062	6	6	sandy silt to clayey silt
27.43	12.89	0.1696	1.316	15.166	5	6	sandy silt to clayey silt
27.49	11.61	0.1399	1.205	15.369	5	6	sandy silt to clayey silt
27.56	10.98	0.1345	1.225	15.946	6	5	clayey silt to silty clay
27.62	10.24	0.1300	1.270	16.191	6	5	clayey silt to silty clay
27.69	12.10	0.1338	1.106	12.326	6	5	clayey silt to silty clay
27.76	11.44	0.1494	1.307	12.728	5	6	sandy silt to clayey silt
27.82	12.47	0.1652	1.325	15.054	5	6	sandy silt to clayey silt
27.89	15.10	0.1840	1.219	16.036	6	6	sandy silt to clayey silt
27.95	18.32	0.2078	1.135	16.319	6	6	sandy silt to clayey silt
28.02	20.18	0.2321	1.150	16.397	7	6	sandy silt to clayey silt
28.08	20.00	0.2492	1.246	16.302	7	6	sandy silt to clayey silt
28.15	19.31	0.2642	1.368	16.285	7	6	sandy silt to clayey silt
28.22	19.28	0.2676	1.388	16.324	7	6	sandy silt to clayey silt
28.28	19.03	0.2832	1.489	16.346	7	6	sandy silt to clayey silt
28.35	18.37	0.2993	1.629	16.331	7	6	sandy silt to clayey silt
28.41	17.71	0.2922	1.650	16.339	7	6	sandy silt to clayey silt
28.48	17.47	0.3054	1.748	16.361	8	6	sandy silt to clayey silt
28.54	18.20	0.3318	1.823	16.404	8	6	sandy silt to clayey silt
28.61	21.57	0.3552	1.647	16.547	9	6	sandy silt to clayey silt
28.67	25.51	0.3824	1.499	16.642	9	6	sandy silt to clayey silt
28.74	27.79	0.4174	1.502	16.656	10	6	sandy silt to clayey silt
28.81	29.31	0.4512	1.540	16.605	11	6	sandy silt to clayey silt
28.87	30.40	0.4890	1.609	16.554	11	6	sandy silt to clayey silt
28.94	30.21	0.5031	1.666	16.506	11	6	sandy silt to clayey silt
29.00	28.65	0.5025	1.754	16.436	11	6	sandy silt to clayey silt
29.07	27.27	0.5047	1.850	16.363	11	6	sandy silt to clayey silt
29.13	26.59	0.4954	1.863	16.329	11	6	sandy silt to clayey silt
29.20	27.48	0.4849	1.764	16.346	11	6	sandy silt to clayey silt
29.27	30.57	0.4817	1.576	16.443	12	6	sandy silt to clayey silt
29.33	33.80	0.4810	1.423	16.392	12	6	sandy silt to clayey silt
29.40	34.54	0.4804	1.391	16.087	12	6	sandy silt to clayey silt
29.46	32.51	0.4694	1.444	15.958	12	6	sandy silt to clayey silt
29.53	29.49	0.4428	1.501	15.859	11	6	sandy silt to clayey silt
29.59	26.83	0.4184	1.559	15.835	10	6	sandy silt to clayey silt
29.66	24.47	0.3911	1.598	15.786	9	6	sandy silt to clayey silt
29.72	21.72	0.3601	1.658	15.813	8	6	sandy silt to clayey silt
29.79	19.00	0.3245	1.708	15.837	8	6	sandy silt to clayey silt
29.86	16.27	0.2768	1.701	15.912	7	6	sandy silt to clayey silt
29.92	14.96	0.2353	1.573	16.152	6	6	sandy silt to clayey silt
29.99	13.95	0.1857	1.332	16.673	6	6	sandy silt to clayey silt
30.05	13.22	0.1411	1.067	16.913	5	6	sandy silt to clayey silt
30.12	12.43	0.1106	0.890	17.403	5	6	sandy silt to clayey silt
30.18	11.96	0.0958	0.801	17.715	5	6	sandy silt to clayey silt
30.25	11.95	0.0874	0.731	17.994	4	6	sandy silt to clayey silt
30.31	10.69	0.0783	0.733	18.251	4	6	sandy silt to clayey silt
30.38	9.60	0.0747	0.778	18.522	4	6	sandy silt to clayey silt
30.45	9.94	0.0820	0.825	18.925	5	5	clayey silt to silty clay
30.51	11.44	0.0906	0.792	19.278	6	5	clayey silt to silty clay
30.58	12.37	0.2122	1.715	19.555	6	5	clayey silt to silty clay
30.64	13.02	0.2224	1.709	19.656	6	5	clayey silt to silty clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
30.71	13.54	0.2165	1.599	19.790	7	5	clayey silt to silty clay
30.77	14.36	0.2143	1.492	19.930	6	6	sandy silt to clayey silt
30.84	15.16	0.2078	1.371	20.025	6	6	sandy silt to clayey silt
30.91	16.14	0.2007	1.244	13.559	6	6	sandy silt to clayey silt
30.97	17.83	0.1882	1.056	13.627	6	6	sandy silt to clayey silt
31.04	17.11	0.1747	1.021	13.736	6	6	sandy silt to clayey silt
31.10	15.40	0.1551	1.007	13.901	5	6	sandy silt to clayey silt
31.17	13.11	0.1356	1.034	14.315	5	6	sandy silt to clayey silt
31.23	11.03	0.1159	1.051	15.452	4	6	sandy silt to clayey silt
31.30	9.46	0.0904	0.956	16.441	5	5	clayey silt to silty clay
31.36	8.22	0.0708	0.861	16.928	4	5	clayey silt to silty clay
31.43	7.25	0.0516	0.711	17.361	4	1	sensitive fine grained
31.50	6.55	0.0382	0.583	17.890	3	1	sensitive fine grained
31.56	6.11	0.0287	0.470	18.309	3	1	sensitive fine grained
31.63	5.69	0.0207	0.363	18.748	3	1	sensitive fine grained
31.69	5.52	0.0180	0.325	19.223	3	1	sensitive fine grained
31.76	5.41	0.0152	0.281	19.741	3	1	sensitive fine grained
31.82	5.57	0.0232	0.416	20.248	3	1	sensitive fine grained
31.89	6.42	0.0340	0.529	20.851	3	1	sensitive fine grained
31.96	7.64	0.0246	0.322	21.220	4	1	sensitive fine grained
32.02	8.51	0.0190	0.223	21.564	4	1	sensitive fine grained
32.09	10.16	0.0268	0.264	21.905	4	1	sensitive fine grained
32.15	12.39	0.0437	0.352	22.126	4	6	sandy silt to clayey silt
32.22	11.21	0.0526	0.469	22.136	4	6	sandy silt to clayey silt
32.28	8.58	0.0540	0.629	22.165	4	6	sandy silt to clayey silt
32.35	7.19	0.0555	0.772	22.412	4	5	clayey silt to silty clay
32.41	7.22	0.0643	0.890	22.955	4	1	sensitive fine grained
32.48	7.58	0.0670	0.885	23.626	3	1	sensitive fine grained
32.55	7.00	0.0603	0.862	23.861	3	1	sensitive fine grained
32.61	6.17	0.0538	0.872	24.135	3	1	sensitive fine grained
32.68	5.89	0.0487	0.828	24.629	3	1	sensitive fine grained
32.74	6.13	0.0440	0.717	25.056	3	1	sensitive fine grained
32.81	6.44	0.0420	0.652	25.308	3	1	sensitive fine grained
32.87	6.21	0.0403	0.649	25.477	3	1	sensitive fine grained
32.94	5.69	0.0390	0.685	25.637	3	1	sensitive fine grained
33.01	5.21	0.0315	0.604	25.969	3	1	sensitive fine grained
33.07	4.86	0.0236	0.485	26.309	3	1	sensitive fine grained
33.14	4.84	0.0165	0.341	26.735	2	1	sensitive fine grained
33.20	4.97	0.0139	0.279	27.147	2	1	sensitive fine grained
33.27	4.90	0.0112	0.228	27.426	2	1	sensitive fine grained
33.33	4.68	0.0107	0.229	27.780	2	1	sensitive fine grained
33.40	4.76	0.0120	0.252	28.075	2	1	sensitive fine grained
33.46	4.74	0.0113	0.239	28.337	2	1	sensitive fine grained
33.53	4.78	0.0119	0.248	28.504	2	1	sensitive fine grained
33.60	4.78	0.0187	0.392	28.689	2	1	sensitive fine grained
33.66	4.87	0.0192	0.394	28.977	2	1	sensitive fine grained
33.73	4.90	0.0901	1.840	29.323	2	1	sensitive fine grained
33.79	5.05	0.0820	1.623	29.568	3	1	sensitive fine grained
33.86	5.39	0.0791	1.468	29.743	3	1	sensitive fine grained
33.92	5.69	0.0947	1.665	29.789	3	1	sensitive fine grained
33.99	6.23	0.0964	1.547	29.723	3	1	sensitive fine grained
34.06	8.37	0.0873	1.044	13.806	3	1	sensitive fine grained
34.12	6.72	0.0788	1.171	15.900	3	1	sensitive fine grained
34.19	5.93	0.0580	0.979	18.486	3	1	sensitive fine grained
34.25	6.31	0.0489	0.776	20.303	3	1	sensitive fine grained
34.32	6.69	0.0394	0.589	21.108	3	1	sensitive fine grained
34.38	6.03	0.0338	0.561	21.530	3	1	sensitive fine grained
34.45	5.57	0.0261	0.468	22.143	3	1	sensitive fine grained
34.51	5.14	0.0259	0.504	22.850	3	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
34.58	4.99	0.0186	0.373	23.716	2	1	sensitive fine grained
34.65	4.72	0.0122	0.259	24.469	2	1	sensitive fine grained
34.71	4.81	0.0147	0.305	25.279	2	1	sensitive fine grained
34.78	4.87	0.0151	0.309	25.965	2	1	sensitive fine grained
34.84	4.95	0.0139	0.280	26.529	2	1	sensitive fine grained
34.91	4.99	0.0162	0.324	27.220	2	1	sensitive fine grained
34.97	4.98	0.0143	0.287	27.789	2	1	sensitive fine grained
35.04	5.23	0.0161	0.308	28.388	2	1	sensitive fine grained
35.10	5.64	0.0192	0.340	29.168	3	1	sensitive fine grained
35.17	5.45	0.0179	0.328	29.539	3	1	sensitive fine grained
35.24	5.11	0.0186	0.364	29.987	3	1	sensitive fine grained
35.30	5.29	0.0160	0.303	30.688	3	1	sensitive fine grained
35.37	5.76	0.0141	0.245	31.148	3	1	sensitive fine grained
35.43	6.01	0.0170	0.283	31.427	3	1	sensitive fine grained
35.50	6.18	0.0186	0.301	31.592	3	1	sensitive fine grained
35.56	6.00	0.0214	0.357	31.696	3	1	sensitive fine grained
35.63	6.03	0.0213	0.353	31.827	3	1	sensitive fine grained
35.70	5.93	0.0234	0.395	31.953	3	1	sensitive fine grained
35.76	5.77	0.0207	0.359	32.064	3	1	sensitive fine grained
35.83	5.51	0.0193	0.350	32.130	3	1	sensitive fine grained
35.89	5.26	0.0175	0.333	32.341	3	1	sensitive fine grained
35.96	5.08	0.0161	0.317	32.665	3	1	sensitive fine grained
36.02	5.23	0.0154	0.295	33.070	3	1	sensitive fine grained
36.09	5.65	0.0157	0.278	33.310	3	1	sensitive fine grained
36.15	5.59	0.0147	0.264	33.245	2	1	sensitive fine grained
36.22	5.10	0.0164	0.321	33.245	2	1	sensitive fine grained
36.29	4.85	0.0166	0.342	33.480	2	1	sensitive fine grained
36.35	4.88	0.0140	0.288	33.867	2	1	sensitive fine grained
36.42	4.95	0.0125	0.252	34.170	2	1	sensitive fine grained
36.48	4.78	0.0219	0.458	34.418	2	1	sensitive fine grained
36.55	4.74	0.0409	0.864	34.682	3	1	sensitive fine grained
36.61	5.42	0.0523	0.966	35.343	3	1	sensitive fine grained
36.68	6.58	0.0389	0.591	36.007	3	1	sensitive fine grained
36.75	6.71	0.0373	0.557	35.869	3	1	sensitive fine grained
36.81	6.71	0.0436	0.649	35.738	3	1	sensitive fine grained
36.88	7.28	0.0511	0.702	35.513	3	1	sensitive fine grained
36.94	6.97	0.0439	0.629	34.119	3	1	sensitive fine grained
37.01	6.03	0.0340	0.563	33.097	3	1	sensitive fine grained
37.07	5.26	0.0513	0.974	33.162	3	1	sensitive fine grained
37.14	5.11	0.0613	1.201	34.037	3	1	sensitive fine grained
37.20	5.19	0.0501	0.964	34.468	3	1	sensitive fine grained
37.27	5.18	0.0455	0.877	34.631	3	1	sensitive fine grained
37.34	5.15	0.0537	1.043	34.803	3	1	sensitive fine grained
37.40	5.75	0.0406	0.706	21.283	3	1	sensitive fine grained
37.47	5.52	0.0261	0.472	22.157	3	1	sensitive fine grained
37.53	5.87	0.0263	0.448	23.170	3	1	sensitive fine grained
37.60	9.54	0.0213	0.223	25.133	3	1	sensitive fine grained
37.66	8.34	0.0195	0.233	25.252	3	1	sensitive fine grained
37.73	6.43	0.0172	0.267	25.211	3	1	sensitive fine grained
37.80	5.62	0.0192	0.341	25.502	3	1	sensitive fine grained
37.86	5.13	0.0231	0.450	26.306	3	1	sensitive fine grained
37.93	5.00	0.0271	0.541	27.079	3	1	sensitive fine grained
37.99	5.09	0.0359	0.706	27.923	3	1	sensitive fine grained
38.06	5.65	0.0530	0.938	28.778	3	1	sensitive fine grained
38.12	6.09	0.0619	1.016	29.542	3	1	sensitive fine grained
38.19	6.55	0.0790	1.206	30.300	3	1	sensitive fine grained
38.25	7.14	0.0975	1.366	31.097	3	1	sensitive fine grained
38.32	7.61	0.1135	1.492	32.040	3	5	clayey silt to silty clay
38.39	7.67	0.1280	1.670	32.997	4	5	clayey silt to silty clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
38.45	7.91	0.1395	1.763	34.013	5	4	silty clay to clay
38.52	8.15	0.1485	1.823	34.972	5	4	silty clay to clay
38.58	8.19	0.1820	2.221	36.136	5	4	silty clay to clay
38.65	8.34	0.2193	2.629	37.437	6	4	silty clay to clay
38.71	8.64	0.2436	2.820	38.886	6	4	silty clay to clay
38.78	9.27	0.2729	2.945	40.057	6	4	silty clay to clay
38.85	10.46	0.2504	2.393	40.382	6	4	silty clay to clay
38.91	11.34	0.2329	2.054	39.621	5	5	clayey silt to silty clay
38.98	10.83	0.2278	2.103	37.297	5	5	clayey silt to silty clay
39.04	9.97	0.1926	1.933	34.556	5	5	clayey silt to silty clay
39.11	9.00	0.1483	1.648	33.635	5	5	clayey silt to silty clay
39.17	8.70	0.1158	1.331	33.865	4	5	clayey silt to silty clay
39.24	8.93	0.0916	1.026	34.602	4	5	clayey silt to silty clay
39.30	8.89	0.0717	0.806	34.970	4	5	clayey silt to silty clay
39.37	8.43	0.0650	0.770	34.985	4	5	clayey silt to silty clay
39.44	7.95	0.0615	0.774	35.052	4	1	sensitive fine grained
39.50	7.56	0.0582	0.771	35.450	4	1	sensitive fine grained
39.57	7.26	0.0569	0.784	35.998	4	1	sensitive fine grained
39.63	7.12	0.0510	0.716	36.998	3	1	sensitive fine grained
39.70	7.09	0.0472	0.666	37.447	3	1	sensitive fine grained
39.76	7.09	0.0480	0.677	37.820	3	1	sensitive fine grained
39.83	7.06	0.0400	0.567	37.987	3	1	sensitive fine grained
39.90	6.88	0.0388	0.564	38.331	3	1	sensitive fine grained
39.96	6.88	0.0364	0.528	38.896	3	1	sensitive fine grained
40.03	6.94	0.0325	0.468	39.621	3	1	sensitive fine grained
40.09	7.04	0.0358	0.509	40.062	3	1	sensitive fine grained
40.16	7.37	0.0349	0.473	40.566	3	1	sensitive fine grained
40.22	7.63	0.0363	0.475	40.648	3	1	sensitive fine grained
40.29	7.44	0.0369	0.496	40.355	3	1	sensitive fine grained
40.35	7.25	0.0402	0.554	39.924	3	1	sensitive fine grained
40.42	6.97	0.0431	0.618	39.327	3	1	sensitive fine grained
40.49	6.89	0.0435	0.630	38.896	3	1	sensitive fine grained
40.55	6.96	0.0440	0.632	38.777	3	1	sensitive fine grained
40.62	7.06	0.0469	0.664	33.388	3	1	sensitive fine grained
40.68	7.01	0.0467	0.667	33.269	3	1	sensitive fine grained
40.75	6.99	0.0480	0.687	33.371	3	1	sensitive fine grained
40.81	7.03	0.0402	0.572	33.511	3	1	sensitive fine grained
40.88	7.11	0.0429	0.604	33.606	3	1	sensitive fine grained
40.94	6.94	0.0452	0.651	33.703	3	1	sensitive fine grained
41.01	6.86	0.0456	0.664	33.943	3	1	sensitive fine grained
41.08	6.90	0.0520	0.753	34.495	3	1	sensitive fine grained
41.14	6.94	0.0535	0.772	35.258	3	1	sensitive fine grained
41.21	7.01	0.0553	0.789	35.554	3	1	sensitive fine grained
41.27	7.12	0.0610	0.857	36.056	3	1	sensitive fine grained
41.34	7.22	0.0607	0.840	36.402	3	1	sensitive fine grained
41.40	7.23	0.0686	0.949	36.562	3	1	sensitive fine grained
41.47	7.26	0.0826	1.137	36.904	4	1	sensitive fine grained
41.54	7.44	0.0779	1.048	37.328	4	1	sensitive fine grained
41.60	7.59	0.0647	0.853	37.781	3	1	sensitive fine grained
41.67	7.43	0.0637	0.857	37.580	3	1	sensitive fine grained
41.73	7.17	0.0576	0.803	37.030	3	1	sensitive fine grained
41.80	6.94	0.0587	0.847	36.872	4	1	sensitive fine grained
41.86	7.11	0.0547	0.770	37.260	4	1	sensitive fine grained
41.93	7.48	0.0507	0.679	37.987	4	1	sensitive fine grained
41.99	7.74	0.0518	0.669	38.048	4	1	sensitive fine grained
42.06	7.94	0.0543	0.685	37.910	4	1	sensitive fine grained
42.13	8.15	0.0629	0.771	37.582	4	1	sensitive fine grained
42.19	8.40	0.0637	0.758	37.054	4	1	sensitive fine grained
42.26	8.34	0.0574	0.688	36.538	4	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
42.32	8.25	0.0497	0.603	35.295	4	1	sensitive fine grained
42.39	7.63	0.0495	0.649	33.676	4	1	sensitive fine grained
42.45	7.22	0.0449	0.623	32.900	4	1	sensitive fine grained
42.52	6.68	0.0467	0.699	32.576	3	1	sensitive fine grained
42.59	6.57	0.0455	0.693	33.024	3	1	sensitive fine grained
42.65	6.75	0.0462	0.684	33.661	3	1	sensitive fine grained
42.72	6.84	0.0536	0.784	33.763	3	1	sensitive fine grained
42.78	6.85	0.0656	0.958	33.547	3	1	sensitive fine grained
42.85	7.15	0.0839	1.173	33.220	3	1	sensitive fine grained
42.91	7.16	0.0880	1.231	32.471	3	1	sensitive fine grained
42.98	7.09	0.0860	1.213	31.992	4	1	sensitive fine grained
43.04	7.37	0.0586	0.796	29.849	4	1	sensitive fine grained
43.11	8.46	0.0402	0.475	29.323	3	1	sensitive fine grained
43.18	7.39	0.0350	0.473	28.354	3	1	sensitive fine grained
43.24	6.69	0.0227	0.340	27.407	3	1	sensitive fine grained
43.31	6.19	0.0094	0.153	26.493	3	1	sensitive fine grained
43.37	5.77	0.0135	0.234	26.350	3	1	sensitive fine grained
43.44	5.50	0.0210	0.382	26.648	3	1	sensitive fine grained
43.50	5.48	0.0261	0.476	27.106	3	1	sensitive fine grained
43.57	5.87	0.0273	0.465	29.895	3	1	sensitive fine grained
43.64	6.04	0.0368	0.609	30.290	3	1	sensitive fine grained
43.70	6.25	0.0521	0.834	30.303	3	1	sensitive fine grained
43.77	6.32	0.0635	1.004	29.949	3	1	sensitive fine grained
43.83	5.91	0.0769	1.302	24.869	3	1	sensitive fine grained
43.90	5.77	0.0695	1.205	24.397	3	1	sensitive fine grained
43.96	6.02	0.0787	1.306	24.406	3	1	sensitive fine grained
44.03	5.83	0.0779	1.335	24.312	3	1	sensitive fine grained
44.09	6.47	0.0912	1.411	24.503	3	5	clayey silt to silty clay
44.16	7.07	0.1029	1.454	25.582	4	5	clayey silt to silty clay
44.23	8.92	0.1177	1.319	27.140	4	5	clayey silt to silty clay
44.29	10.13	0.1346	1.328	27.062	5	5	clayey silt to silty clay
44.36	11.07	0.1475	1.332	27.436	5	5	clayey silt to silty clay
44.42	11.45	0.2535	2.214	27.397	7	4	silty clay to clay
44.49	11.39	0.3668	3.219	25.557	8	4	silty clay to clay
44.55	12.24	0.5171	4.223	26.272	9	4	silty clay to clay
44.62	13.94	0.6075	4.357	28.206	7	5	clayey silt to silty clay
44.69	16.67	0.5195	3.116	29.079	7	5	clayey silt to silty clay
44.75	18.63	0.4521	2.426	24.724	8	5	clayey silt to silty clay
44.82	18.87	0.3638	1.928	23.328	8	5	clayey silt to silty clay
44.88	17.77	0.3042	1.712	21.656	8	5	clayey silt to silty clay
44.95	15.61	0.2596	1.663	20.803	7	5	clayey silt to silty clay
45.01	13.15	0.2094	1.593	20.861	7	5	clayey silt to silty clay
45.08	11.91	0.1582	1.329	23.178	6	5	clayey silt to silty clay
45.14	11.37	0.1458	1.283	25.172	6	5	clayey silt to silty clay
45.21	11.90	0.1461	1.228	27.007	6	5	clayey silt to silty clay
45.28	11.87	0.1289	1.086	28.090	6	5	clayey silt to silty clay
45.34	11.08	0.1348	1.217	29.290	5	5	clayey silt to silty clay
45.41	10.97	0.1532	1.396	30.724	6	5	clayey silt to silty clay
45.47	11.49	0.1615	1.405	32.108	6	5	clayey silt to silty clay
45.54	11.71	0.2019	1.725	33.761	6	5	clayey silt to silty clay
45.60	11.87	0.2338	1.970	33.586	6	5	clayey silt to silty clay
45.67	12.93	0.2483	1.920	33.412	6	5	clayey silt to silty clay
45.73	13.27	0.2683	2.022	33.841	6	5	clayey silt to silty clay
45.80	14.37	0.2490	1.733	34.163	6	5	clayey silt to silty clay
45.87	13.95	0.2244	1.608	34.262	6	5	clayey silt to silty clay
45.93	10.89	0.2016	1.852	33.363	5	5	clayey silt to silty clay
46.00	9.42	0.1210	1.285	31.507	5	5	clayey silt to silty clay
46.06	8.29	0.1448	1.747	30.613	6	4	silty clay to clay
46.13	7.73	0.1959	2.535	31.168	7	4	silty clay to clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
46.19	8.05	0.2743	3.407	32.922	8	4	silty clay to clay
46.26	10.47	0.3897	3.722	35.111	9	4	silty clay to clay
46.33	18.72	0.5518	2.948	35.663	8	5	clayey silt to silty clay
46.39	20.43	0.6719	3.289	36.010	10	5	clayey silt to silty clay
46.46	24.85	0.8519	3.428	36.405	11	5	clayey silt to silty clay
46.52	29.11	0.8511	2.923	37.432	12	5	clayey silt to silty clay
46.59	29.52	0.8312	2.815	36.317	12	5	clayey silt to silty clay
46.65	26.87	0.7310	2.721	36.048	12	5	clayey silt to silty clay
46.72	25.00	1.3903	5.561	33.535	12	5	clayey silt to silty clay
46.78	25.01	0.9944	3.976	34.820	12	5	clayey silt to silty clay
46.85	22.12	0.6793	3.071	37.907	11	5	clayey silt to silty clay
46.92	21.29	0.4743	2.227	42.563	11	5	clayey silt to silty clay
46.98	20.01	0.4163	2.080	46.944	11	5	clayey silt to silty clay
47.05	27.11	0.4350	1.605	20.141	9	6	sandy silt to clayey silt
47.11	23.62	0.4861	2.058	21.353	9	6	sandy silt to clayey silt
47.18	22.51	0.5802	2.578	26.495	10	6	sandy silt to clayey silt
47.24	25.09	0.6062	2.416	32.142	10	6	sandy silt to clayey silt
47.31	29.36	0.6113	2.082	37.360	10	6	sandy silt to clayey silt
47.38	29.84	0.6473	2.169	41.877	10	6	sandy silt to clayey silt
47.44	28.94	0.7245	2.504	46.758	10	6	sandy silt to clayey silt
47.51	27.04	0.7601	2.811	51.985	10	6	sandy silt to clayey silt
47.57	25.10	0.7366	2.935	54.905	12	5	clayey silt to silty clay
47.64	23.54	0.6124	2.601	57.329	11	5	clayey silt to silty clay
47.70	21.12	0.4806	2.276	57.108	10	5	clayey silt to silty clay
47.77	19.87	0.3662	1.843	56.437	10	5	clayey silt to silty clay
47.83	18.26	0.2548	1.395	54.963	7	6	sandy silt to clayey silt
47.90	16.47	0.2148	1.304	53.146	6	6	sandy silt to clayey silt
47.97	14.60	0.1892	1.296	52.218	6	6	sandy silt to clayey silt
48.03	12.80	0.1701	1.329	52.758	5	6	sandy silt to clayey silt
48.10	11.88	0.1625	1.368	55.184	5	6	sandy silt to clayey silt
48.16	11.54	0.1479	1.282	58.063	6	5	clayey silt to silty clay
48.23	12.02	0.1469	1.222	59.968	6	5	clayey silt to silty clay
48.29	12.47	0.1444	1.158	60.125	5	6	sandy silt to clayey silt
48.36	12.71	0.1460	1.148	58.880	5	6	sandy silt to clayey silt
48.43	13.30	0.1334	1.003	57.014	6	6	sandy silt to clayey silt
48.49	14.69	0.1238	0.843	54.840	6	6	sandy silt to clayey silt
48.56	16.88	0.1056	0.626	51.932	7	6	sandy silt to clayey silt
48.62	19.78	0.0861	0.435	48.592	8	6	sandy silt to clayey silt
48.69	23.32	0.0781	0.335	40.752	7	7	silty sand to sandy silt
48.75	24.85	0.0885	0.356	36.611	7	7	silty sand to sandy silt
48.82	24.57	0.1142	0.465	34.645	7	7	silty sand to sandy silt
48.88	22.42	0.1038	0.463	33.225	7	7	silty sand to sandy silt
48.95	19.76	0.0863	0.437	32.549	6	7	silty sand to sandy silt
49.02	17.84	0.0810	0.454	33.119	7	6	sandy silt to clayey silt
49.08	16.65	0.0807	0.485	33.586	6	6	sandy silt to clayey silt
49.15	15.17	0.0759	0.500	34.279	6	6	sandy silt to clayey silt
49.21	13.52	0.0702	0.519	34.524	5	6	sandy silt to clayey silt
49.28	12.27	0.0686	0.559	35.111	5	6	sandy silt to clayey silt
49.34	11.17	0.0619	0.554	36.138	4	6	sandy silt to clayey silt
49.41	10.42	0.0548	0.526	37.267	4	6	sandy silt to clayey silt
49.48	9.86	0.0531	0.539	39.439	4	6	sandy silt to clayey silt
49.54	9.43	0.0527	0.559	40.844	4	6	sandy silt to clayey silt
49.61	9.03	0.0541	0.599	41.678	5	5	clayey silt to silty clay
49.67	8.82	0.0739	0.838	42.393	5	5	clayey silt to silty clay
49.74	8.95	0.1117	1.247	43.362	4	6	sandy silt to clayey silt
49.80	9.57	0.1069	1.117	44.123	4	6	sandy silt to clayey silt
49.87	11.16	0.0905	0.810	44.460	4	6	sandy silt to clayey silt
49.93	13.38	0.0841	0.628	43.912	4	6	sandy silt to clayey silt
50.00	13.10	0.0778	0.594	43.290	4	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
50.07	9.31	0.0712	0.764	42.953	4	6	sandy silt to clayey silt
50.13	9.16	0.0412	0.450	43.614	4	6	sandy silt to clayey silt
50.20	8.73	0.0383	0.438	44.395	4	6	sandy silt to clayey silt
50.26	9.09	0.0363	0.399	35.249	4	1	sensitive fine grained
50.33	7.96	0.0364	0.458	36.499	4	1	sensitive fine grained
50.39	7.31	0.0351	0.480	38.293	4	1	sensitive fine grained
50.46	7.20	0.0349	0.485	39.635	4	1	sensitive fine grained
50.52	6.96	0.0367	0.528	41.111	3	1	sensitive fine grained
50.59	6.92	0.0348	0.502	42.587	3	1	sensitive fine grained
50.66	7.01	0.0344	0.490	43.830	3	1	sensitive fine grained
50.72	7.07	0.0340	0.481	45.144	3	1	sensitive fine grained
50.79	7.08	0.0334	0.473	45.837	3	1	sensitive fine grained
50.85	7.10	0.0341	0.480	46.593	3	1	sensitive fine grained
50.92	7.04	0.0337	0.479	47.235	3	1	sensitive fine grained
50.98	6.94	0.0367	0.529	47.722	3	1	sensitive fine grained
51.05	6.97	0.0384	0.551	48.345	3	1	sensitive fine grained
51.12	7.02	0.0359	0.510	48.725	3	1	sensitive fine grained
51.18	7.16	0.0365	0.510	49.045	3	1	sensitive fine grained
51.25	7.20	0.0350	0.486	49.108	3	1	sensitive fine grained
51.31	7.17	0.0364	0.509	49.062	3	1	sensitive fine grained
51.38	7.16	0.0393	0.549	48.999	3	1	sensitive fine grained
51.44	7.07	0.0374	0.529	48.960	3	1	sensitive fine grained
51.51	7.07	0.0370	0.523	49.070	3	1	sensitive fine grained
51.57	7.18	0.0378	0.527	49.239	3	1	sensitive fine grained
51.64	7.21	0.0370	0.514	49.392	3	1	sensitive fine grained
51.71	7.09	0.0357	0.504	49.426	3	1	sensitive fine grained
51.77	7.05	0.0370	0.525	49.438	3	1	sensitive fine grained
51.84	6.98	0.0347	0.497	49.467	3	1	sensitive fine grained
51.90	6.92	0.0370	0.535	49.540	3	1	sensitive fine grained
51.97	6.84	0.0366	0.534	49.692	3	1	sensitive fine grained
52.03	6.89	0.0344	0.500	49.852	3	1	sensitive fine grained
52.10	6.83	0.0376	0.551	50.063	3	1	sensitive fine grained
52.17	7.02	0.0356	0.506	50.259	3	1	sensitive fine grained
52.23	7.13	0.0370	0.518	50.209	4	1	sensitive fine grained
52.30	7.41	0.0419	0.565	50.102	4	1	sensitive fine grained
52.36	8.13	0.0412	0.506	49.884	4	1	sensitive fine grained
52.43	8.82	0.0421	0.477	49.547	4	1	sensitive fine grained
52.49	9.20	0.0447	0.486	49.096	4	1	sensitive fine grained
52.56	9.68	0.0442	0.456	48.834	4	6	sandy silt to clayey silt
52.62	10.30	0.0410	0.398	48.464	4	6	sandy silt to clayey silt
52.69	10.55	0.0409	0.388	48.083	4	6	sandy silt to clayey silt
52.76	10.56	0.0428	0.405	47.763	4	6	sandy silt to clayey silt
52.82	10.47	0.0409	0.391	47.482	4	6	sandy silt to clayey silt
52.89	10.27	0.0349	0.340	47.279	4	6	sandy silt to clayey silt
52.95	10.27	0.0312	0.303	47.179	4	6	sandy silt to clayey silt
53.02	10.41	0.0268	0.257	47.191	4	6	sandy silt to clayey silt
53.08	10.30	0.0627	0.609	47.189	4	6	sandy silt to clayey silt
53.15	9.79	0.0575	0.587	47.240	4	6	sandy silt to clayey silt
53.22	9.59	0.0350	0.365	47.550	4	6	sandy silt to clayey silt
53.28	9.54	0.0290	0.304	47.848	5	6	sandy silt to clayey silt
53.35	9.90	0.0610	0.616	48.318	5	6	sandy silt to clayey silt
53.41	17.62	0.1124	0.638	33.472	5	6	sandy silt to clayey silt
53.48	17.51	0.1536	0.877	32.864	6	6	sandy silt to clayey silt
53.54	16.14	0.1495	0.926	32.910	7	6	sandy silt to clayey silt
53.61	15.86	0.1109	0.700	33.436	8	6	sandy silt to clayey silt
53.67	19.24	0.1048	0.544	35.062	8	7	silty sand to sandy silt
53.74	26.46	0.1194	0.451	35.622	9	7	silty sand to sandy silt
53.81	34.53	0.1971	0.571	34.544	10	7	silty sand to sandy silt
53.87	39.80	0.2906	0.730	30.157	12	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
53.94	43.34	0.3674	0.848	28.066	13	7	silty sand to sandy silt
54.00	45.75	0.4434	0.969	27.782	15	7	silty sand to sandy silt
54.07	49.01	0.5413	1.104	27.690	16	7	silty sand to sandy silt
54.13	53.18	0.6511	1.224	27.501	17	7	silty sand to sandy silt
54.20	57.25	0.7242	1.265	27.256	18	7	silty sand to sandy silt
54.27	61.46	0.7720	1.256	26.999	19	7	silty sand to sandy silt
54.33	64.52	0.8046	1.247	26.793	20	7	silty sand to sandy silt
54.40	66.58	0.8378	1.258	26.646	21	7	silty sand to sandy silt
54.46	69.37	0.8453	1.218	26.503	22	7	silty sand to sandy silt
54.53	72.73	0.8384	1.153	26.357	23	7	silty sand to sandy silt
54.59	77.49	0.8377	1.081	26.226	18	8	sand to silty sand
54.66	80.78	0.8588	1.063	26.115	18	8	sand to silty sand
54.72	80.62	0.8857	1.099	25.955	18	8	sand to silty sand
54.79	77.77	0.9064	1.165	25.780	24	7	silty sand to sandy silt
54.86	73.41	0.9065	1.235	25.630	23	7	silty sand to sandy silt
54.92	68.74	0.8888	1.293	25.507	23	7	silty sand to sandy silt
54.99	65.92	0.8783	1.332	25.405	22	7	silty sand to sandy silt
55.05	64.75	0.8577	1.325	25.385	22	7	silty sand to sandy silt
55.12	65.93	0.8670	1.315	25.330	22	7	silty sand to sandy silt
55.18	68.97	0.9177	1.331	25.301	22	7	silty sand to sandy silt
55.25	72.79	0.9781	1.344	25.310	23	7	silty sand to sandy silt
55.31	75.66	1.0491	1.387	25.276	24	7	silty sand to sandy silt
55.38	78.11	1.1086	1.419	25.288	24	7	silty sand to sandy silt
55.45	80.17	1.1505	1.435	25.303	25	7	silty sand to sandy silt
55.51	80.65	1.1756	1.458	25.332	25	7	silty sand to sandy silt
55.58	79.76	1.1721	1.470	25.296	25	7	silty sand to sandy silt
55.64	78.35	1.1333	1.447	25.308	25	7	silty sand to sandy silt
55.71	77.03	1.1089	1.440	25.276	25	7	silty sand to sandy silt
55.77	76.22	1.0887	1.428	25.267	25	7	silty sand to sandy silt
55.84	76.92	1.0826	1.407	25.347	25	7	silty sand to sandy silt
55.91	78.15	1.0897	1.394	25.431	25	7	silty sand to sandy silt
55.97	78.64	1.1262	1.432	25.584	25	7	silty sand to sandy silt
56.04	79.15	1.1466	1.449	25.742	25	7	silty sand to sandy silt
56.10	78.75	1.1441	1.453	25.882	25	7	silty sand to sandy silt
56.17	77.79	1.1365	1.461	26.028	25	7	silty sand to sandy silt
56.23	76.75	1.1432	1.490	26.095	24	7	silty sand to sandy silt
56.30	74.95	1.0707	1.429	26.175	24	7	silty sand to sandy silt
56.36	73.75	1.0504	1.424	26.231	24	7	silty sand to sandy silt
56.43	73.14	1.0446	1.428	26.301	23	7	silty sand to sandy silt
56.50	72.31	1.0413	1.440	26.309	23	7	silty sand to sandy silt
56.56	71.43	1.0496	1.469	23.975	23	7	silty sand to sandy silt
56.63	72.22	1.0350	1.433	23.987	23	7	silty sand to sandy silt
56.69	74.61	1.0298	1.380	24.045	23	7	silty sand to sandy silt
56.76	75.97	1.0343	1.361	24.099	23	7	silty sand to sandy silt
56.82	74.69	1.0290	1.378	24.125	23	7	silty sand to sandy silt
56.89	71.95	1.0308	1.433	24.179	22	7	silty sand to sandy silt
56.96	68.75	1.0265	1.493	24.251	22	7	silty sand to sandy silt
57.02	64.99	0.9653	1.485	24.322	21	7	silty sand to sandy silt
57.09	61.50	0.9138	1.486	24.431	20	7	silty sand to sandy silt
57.15	57.99	0.9088	1.567	24.578	19	7	silty sand to sandy silt
57.22	55.34	0.9575	1.730	24.765	21	6	sandy silt to clayey silt
57.28	52.21	1.0642	2.038	24.876	19	6	sandy silt to clayey silt
57.35	45.59	1.5087	3.309	24.937	17	6	sandy silt to clayey silt
57.41	38.94	1.5329	3.937	25.061	16	6	sandy silt to clayey silt
57.48	32.73	1.2130	3.706	25.242	0	0	<out of range>
57.55	31.27	1.1982	3.831	25.528	0	0	<out of range>
57.61	40.92	1.2859	3.143	26.335	33	8	sand to silty sand
57.68	93.81	-32767.9300	-34931.460	26.990	0	0	<out of range>
57.74	146.50	-32767.9300	-22366.730	26.743	0	0	<out of range>

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
57.81	173.63	-32767.9300	-18872.660	26.137	0	0	<out of range>
57.87	233.19	-32767.9300	-14051.740	26.003	0	0	<out of range>

*Soil behavior type and SPT based on data from UBC-1983

AECOM

TVA Kingston Coal Ash Pond RCA (Kingston,Tennessee)
Project No: 60095742

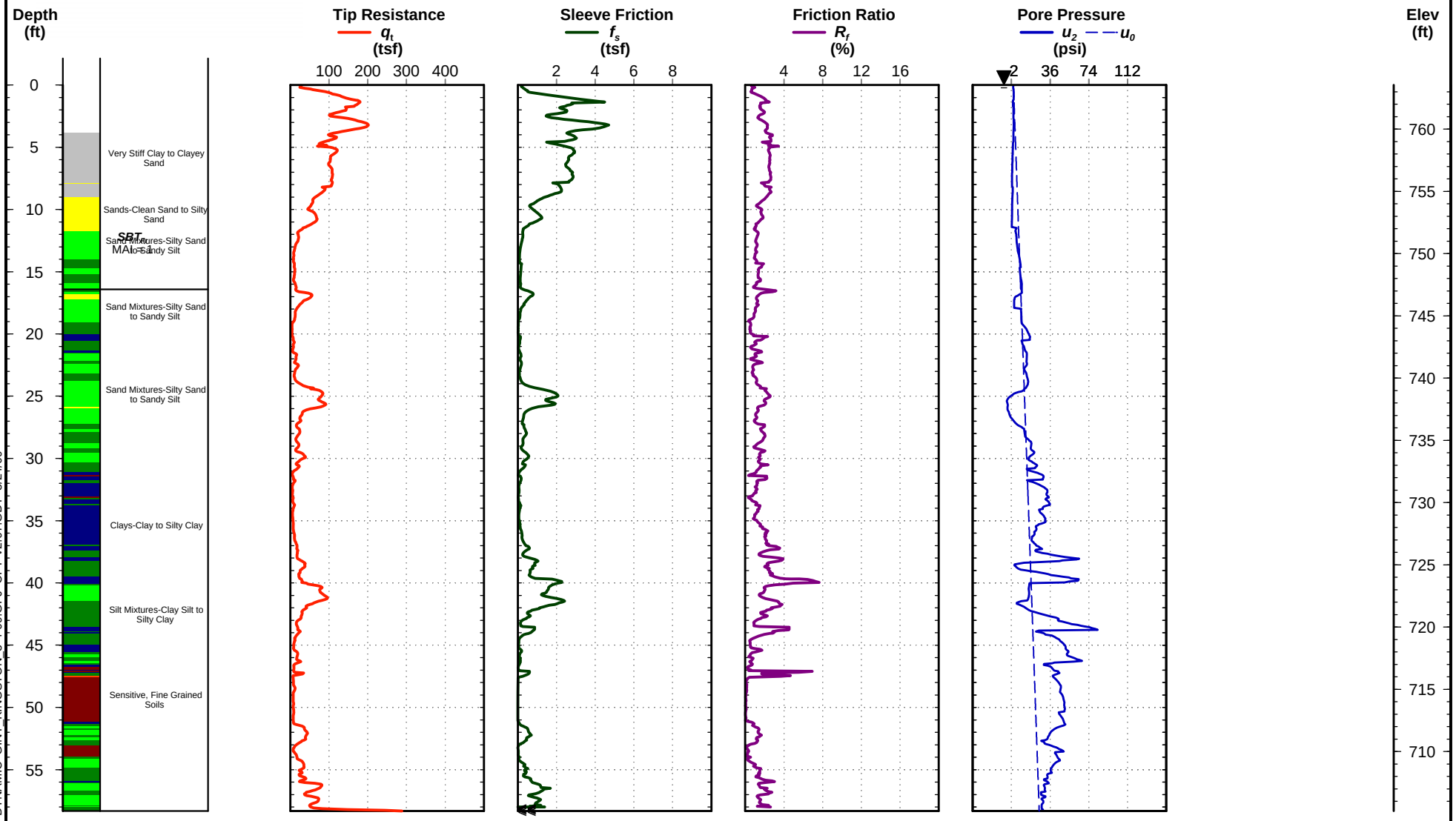
Cone Penetration Test

09-713-C1

Date: Feb. 21, 2009
Estimated Water Depth: 0 ft
Rig/Operator: Mobile 57/CAP

Northing: 555214.63
Easting: 2441472.75
Elevation: 763.55 NGVD

Total Depth: 58.3 ft
Termination Criteria: Refusal
Cone Size: 10T Tension Cone



CPT REPORT - DYNAMIC GINT_KINGSTON_3-4-09.GPJ CPT V2.07.GDT 3/24/09

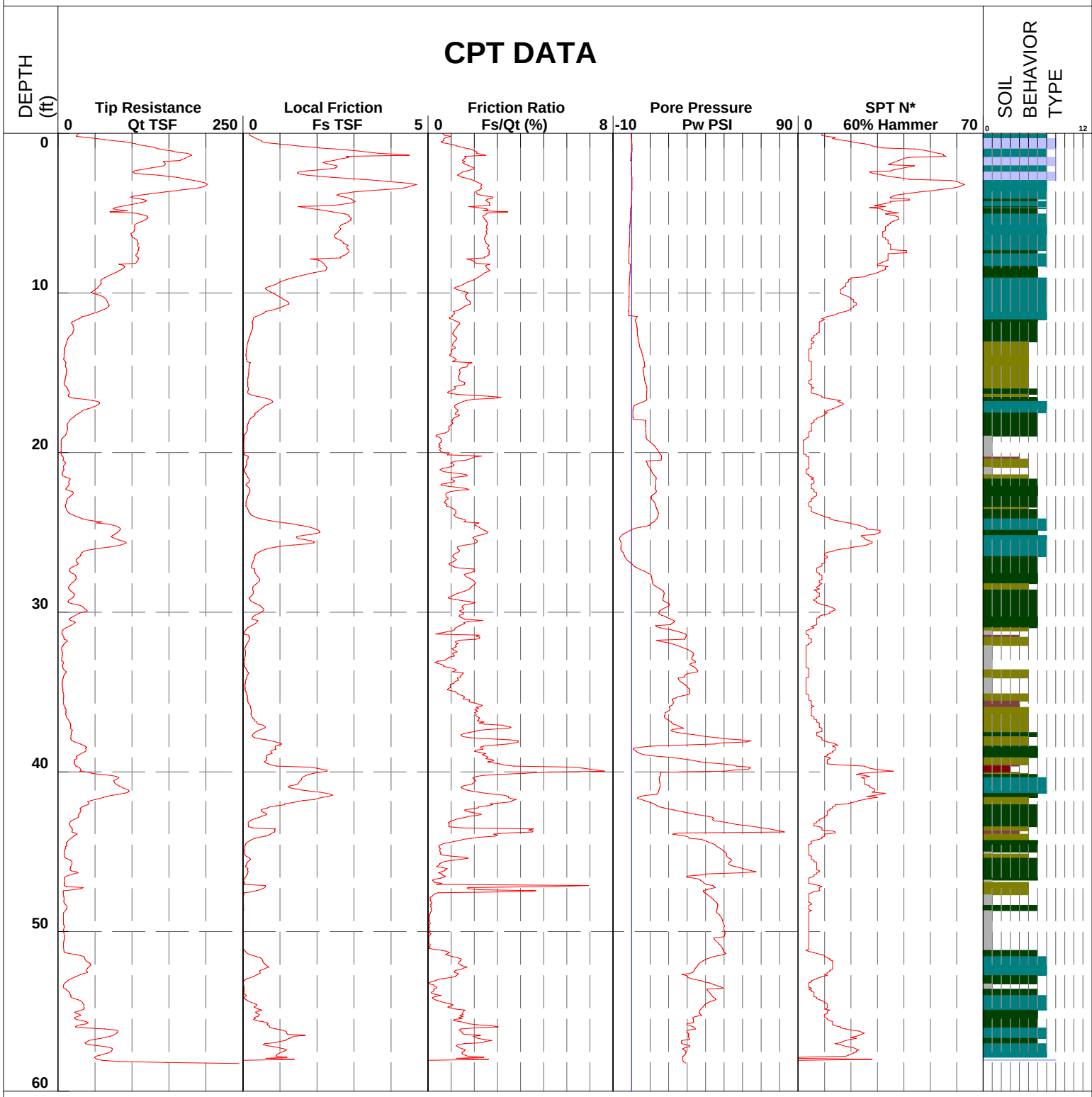
09-713-C1

Electronic Filename: 09-713-C1.cpt

AECOM

09-713-C1	60095742	2/21/2009 7:57:14 AM
DSG0870	TVA-Kingston	Mobile 57/CAP

CPT DATA



1 - sensitive fine grained	4 - silty clay to clay	7 - silty sand to sandy silt	10 - gravelly sand to sand
2 - organic material	5 - clayey silt to silty clay	8 - sand to silty sand	11 - very stiff fine grained (*)
3 - clay	6 - sandy silt to clayey silt	9 - sand	12 - sand to clayey sand (*)

Data File:09-713-C1 2/21/2009 7:57:14 AM
Operator:Mobile 57/CAP Location:TVA-Kingston
Cone ID:DSG0870 Job Number:60095742
Customer:TVA Units:

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
0.07	28.12	0.1732	0.616	-0.162	9	7	silty sand to sandy silt
0.13	25.24	0.1837	0.728	-0.184	9	7	silty sand to sandy silt
0.20	24.82	0.2460	0.991	-0.170	11	7	silty sand to sandy silt
0.26	37.73	0.3045	0.807	-0.128	14	7	silty sand to sandy silt
0.33	51.91	0.3550	0.684	-0.058	13	8	sand to silty sand
0.39	62.69	0.4220	0.673	-0.019	15	8	sand to silty sand
0.46	74.59	0.5106	0.685	0.034	18	8	sand to silty sand
0.52	88.86	0.5046	0.568	0.121	20	8	sand to silty sand
0.59	97.80	0.6147	0.629	0.148	22	8	sand to silty sand
0.66	104.42	0.9035	0.865	0.167	25	8	sand to silty sand
0.72	108.86	1.2015	1.104	0.206	27	8	sand to silty sand
0.79	118.53	1.4658	1.237	0.240	28	8	sand to silty sand
0.85	127.91	1.7920	1.401	0.165	30	8	sand to silty sand
0.92	131.88	2.0590	1.561	0.267	32	8	sand to silty sand
0.98	136.77	2.4856	1.817	0.286	44	7	silty sand to sandy silt
1.05	144.54	2.8233	1.953	0.284	47	7	silty sand to sandy silt
1.12	154.38	3.1202	2.021	0.237	49	7	silty sand to sandy silt
1.18	160.13	3.3875	2.116	0.221	51	7	silty sand to sandy silt
1.25	173.90	3.6540	2.101	-0.366	53	7	silty sand to sandy silt
1.31	179.03	4.1439	2.315	-0.364	55	7	silty sand to sandy silt
1.38	180.54	4.4942	2.489	-0.388	55	7	silty sand to sandy silt
1.44	177.08	2.7905	1.576	-0.380	56	7	silty sand to sandy silt
1.51	174.45	2.8535	1.636	-0.393	42	8	sand to silty sand
1.57	171.60	2.7229	1.587	-0.431	40	8	sand to silty sand
1.64	167.53	2.5441	1.519	-0.475	39	8	sand to silty sand
1.71	164.87	2.4535	1.488	-0.550	38	8	sand to silty sand
1.77	142.38	2.2547	1.584	0.068	37	8	sand to silty sand
1.84	144.15	2.1608	1.499	0.065	36	8	sand to silty sand
1.90	145.04	2.2637	1.561	0.063	35	8	sand to silty sand
1.97	144.22	2.3995	1.664	0.080	34	8	sand to silty sand
2.03	143.30	2.5308	1.766	0.044	44	7	silty sand to sandy silt
2.10	134.67	2.5468	1.891	0.024	42	7	silty sand to sandy silt
2.17	126.19	2.5051	1.985	0.002	40	7	silty sand to sandy silt
2.23	118.02	2.3336	1.977	-0.032	38	7	silty sand to sandy silt
2.30	109.96	2.0340	1.850	-0.073	36	7	silty sand to sandy silt
2.36	103.03	1.7182	1.668	-0.092	35	7	silty sand to sandy silt
2.43	100.72	1.5052	1.494	-0.082	27	8	sand to silty sand
2.49	102.86	1.4643	1.424	-0.073	28	8	sand to silty sand
2.56	115.19	1.5506	1.346	-0.061	30	8	sand to silty sand
2.62	135.36	1.7267	1.276	0.032	32	8	sand to silty sand
2.69	148.72	2.0665	1.389	0.114	34	8	sand to silty sand
2.76	160.61	2.3931	1.490	0.170	37	8	sand to silty sand
2.82	167.90	2.8133	1.676	0.225	40	8	sand to silty sand
2.89	174.55	3.2113	1.840	0.240	42	8	sand to silty sand
2.95	184.00	3.6432	1.980	0.237	58	7	silty sand to sandy silt
3.02	190.14	3.9006	2.051	0.216	60	7	silty sand to sandy silt
3.08	197.36	4.2724	2.165	0.237	61	7	silty sand to sandy silt
3.15	200.08	4.5123	2.255	0.237	62	7	silty sand to sandy silt
3.22	201.98	4.6934	2.324	0.254	63	7	silty sand to sandy silt
3.28	199.93	4.5847	2.293	0.262	62	7	silty sand to sandy silt
3.35	196.57	4.4782	2.278	0.191	61	7	silty sand to sandy silt
3.41	190.58	4.3756	2.296	0.216	59	7	silty sand to sandy silt
3.48	179.45	4.1278	2.300	0.182	56	7	silty sand to sandy silt
3.54	167.15	3.7133	2.222	0.184	53	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
3.61	157.41	3.3338	2.118	0.121	50	7	silty sand to sandy silt
3.67	144.92	2.9830	2.058	0.114	46	7	silty sand to sandy silt
3.74	133.99	2.8212	2.105	0.087	43	7	silty sand to sandy silt
3.81	122.40	2.6014	2.125	0.034	40	7	silty sand to sandy silt
3.87	111.57	2.5295	2.267	0.032	37	7	silty sand to sandy silt
3.94	102.63	2.6162	2.549	0.000	36	7	silty sand to sandy silt
4.00	98.14	2.7502	2.802	-0.010	35	7	silty sand to sandy silt
4.07	102.51	2.8699	2.800	-0.005	35	7	silty sand to sandy silt
4.13	113.88	2.9322	2.575	0.029	42	6	sandy silt to clayey silt
4.20	119.54	2.9728	2.487	0.063	42	6	sandy silt to clayey silt
4.27	118.16	3.0303	2.565	0.041	35	7	silty sand to sandy silt
4.33	113.03	2.9780	2.635	0.044	35	7	silty sand to sandy silt
4.40	106.09	2.8375	2.675	0.012	33	7	silty sand to sandy silt
4.46	98.94	2.6332	2.661	-0.010	31	7	silty sand to sandy silt
4.53	90.84	2.4228	2.667	-0.046	29	7	silty sand to sandy silt
4.59	84.58	1.4912	1.763	-0.267	33	6	sandy silt to clayey silt
4.66	77.27	1.6762	2.169	-0.397	27	7	silty sand to sandy silt
4.72	74.41	1.8669	2.509	-0.492	31	6	sandy silt to clayey silt
4.79	79.74	2.0667	2.592	-0.526	32	6	sandy silt to clayey silt
4.86	94.27	2.2451	2.381	-0.494	33	6	sandy silt to clayey silt
4.92	70.12	2.4178	3.448	-0.599	35	6	sandy silt to clayey silt
4.99	101.32	2.5980	2.564	-0.567	38	6	sandy silt to clayey silt
5.05	109.56	2.7554	2.515	-0.584	33	7	silty sand to sandy silt
5.12	115.83	2.8641	2.473	-0.579	35	7	silty sand to sandy silt
5.18	120.25	2.8562	2.375	-0.635	37	7	silty sand to sandy silt
5.25	121.75	2.8930	2.376	-0.659	38	7	silty sand to sandy silt
5.31	120.86	2.9290	2.424	-0.698	38	7	silty sand to sandy silt
5.38	119.16	2.9046	2.437	-0.710	38	7	silty sand to sandy silt
5.45	116.94	2.9312	2.507	-0.742	37	7	silty sand to sandy silt
5.51	113.82	2.8554	2.509	-0.761	36	7	silty sand to sandy silt
5.58	110.23	2.8245	2.562	-0.795	35	7	silty sand to sandy silt
5.64	107.11	2.7701	2.586	-0.829	35	7	silty sand to sandy silt
5.71	104.00	2.6738	2.571	-0.872	34	7	silty sand to sandy silt
5.77	103.72	2.6336	2.539	-0.889	34	7	silty sand to sandy silt
5.84	103.47	2.6139	2.526	-0.938	33	7	silty sand to sandy silt
5.91	103.89	2.6124	2.515	-0.950	33	7	silty sand to sandy silt
5.97	103.90	2.6424	2.543	-0.960	33	7	silty sand to sandy silt
6.04	102.85	2.6323	2.559	-1.001	33	7	silty sand to sandy silt
6.10	102.95	2.5957	2.521	-0.986	33	7	silty sand to sandy silt
6.17	102.62	2.5731	2.507	-1.028	32	7	silty sand to sandy silt
6.23	100.46	2.5457	2.534	-1.035	32	7	silty sand to sandy silt
6.30	98.47	2.5093	2.548	-1.052	32	7	silty sand to sandy silt
6.36	99.08	2.4736	2.497	-1.066	32	7	silty sand to sandy silt
6.43	99.63	2.4805	2.490	-1.074	32	7	silty sand to sandy silt
6.50	100.93	2.4766	2.454	-1.071	32	7	silty sand to sandy silt
6.56	103.14	2.5064	2.430	-1.074	33	7	silty sand to sandy silt
6.63	104.89	2.5655	2.446	-1.078	33	7	silty sand to sandy silt
6.69	106.70	2.6214	2.457	-1.098	34	7	silty sand to sandy silt
6.76	107.88	2.6751	2.480	-1.083	34	7	silty sand to sandy silt
6.82	107.97	2.6975	2.498	-1.105	34	7	silty sand to sandy silt
6.89	108.25	2.7195	2.512	-1.124	34	7	silty sand to sandy silt
6.96	108.22	2.7862	2.575	-1.158	35	7	silty sand to sandy silt
7.02	107.73	2.8380	2.634	-1.161	35	7	silty sand to sandy silt
7.09	107.91	2.8131	2.607	-1.335	35	7	silty sand to sandy silt
7.15	109.49	2.8021	2.559	-1.364	35	7	silty sand to sandy silt
7.22	109.27	2.8145	2.576	-1.374	35	7	silty sand to sandy silt
7.28	108.65	2.8482	2.621	-1.362	35	7	silty sand to sandy silt
7.35	108.37	2.8636	2.642	-1.381	41	6	sandy silt to clayey silt
7.41	107.92	2.8649	2.655	-1.369	41	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
7.48	108.08	2.8407	2.628	-1.408	41	6	sandy silt to clayey silt
7.55	106.58	2.8091	2.636	-1.425	34	7	silty sand to sandy silt
7.61	105.26	2.7762	2.638	-1.437	34	7	silty sand to sandy silt
7.68	105.48	2.7008	2.560	-1.444	34	7	silty sand to sandy silt
7.74	107.54	2.6361	2.451	-1.440	34	7	silty sand to sandy silt
7.81	108.38	2.6436	2.439	-1.461	34	7	silty sand to sandy silt
7.87	108.76	1.8090	1.663	-1.466	34	7	silty sand to sandy silt
7.94	108.16	2.0385	1.885	-1.478	34	7	silty sand to sandy silt
8.01	106.92	2.1036	1.967	-1.507	33	7	silty sand to sandy silt
8.07	106.46	2.1309	2.002	-1.490	32	7	silty sand to sandy silt
8.14	104.96	2.1728	2.070	-1.510	31	7	silty sand to sandy silt
8.20	82.17	2.1994	2.677	-0.649	30	7	silty sand to sandy silt
8.27	88.27	2.2172	2.512	-0.633	30	7	silty sand to sandy silt
8.33	89.95	2.2378	2.488	-0.649	34	6	sandy silt to clayey silt
8.40	89.64	2.2617	2.523	-0.652	33	6	sandy silt to clayey silt
8.46	88.10	2.2647	2.571	-0.710	33	6	sandy silt to clayey silt
8.53	85.94	2.2552	2.624	-0.725	33	6	sandy silt to clayey silt
8.60	83.19	2.2279	2.678	-0.780	32	6	sandy silt to clayey silt
8.66	80.82	2.0923	2.589	-0.800	31	6	sandy silt to clayey silt
8.73	77.52	1.9149	2.470	-0.848	30	6	sandy silt to clayey silt
8.79	74.70	1.7906	2.397	-0.882	29	6	sandy silt to clayey silt
8.86	71.49	1.6741	2.342	-0.933	27	6	sandy silt to clayey silt
8.92	68.77	1.5598	2.268	-0.965	26	6	sandy silt to clayey silt
8.99	65.63	1.4376	2.190	-1.001	25	6	sandy silt to clayey silt
9.06	62.65	1.3333	2.128	-1.030	20	7	silty sand to sandy silt
9.12	60.17	1.2378	2.057	-1.081	20	7	silty sand to sandy silt
9.19	58.60	1.1542	1.970	-1.149	19	7	silty sand to sandy silt
9.25	57.72	1.0752	1.863	-1.175	19	7	silty sand to sandy silt
9.32	58.11	0.9986	1.718	-1.190	19	7	silty sand to sandy silt
9.38	58.62	0.9435	1.609	-1.212	18	7	silty sand to sandy silt
9.45	57.68	0.8898	1.543	-1.214	18	7	silty sand to sandy silt
9.51	56.31	0.8207	1.458	-1.253	18	7	silty sand to sandy silt
9.58	54.95	0.7315	1.331	-1.258	18	7	silty sand to sandy silt
9.65	54.17	0.6452	1.191	-1.284	17	7	silty sand to sandy silt
9.71	52.95	0.6002	1.134	-1.294	17	7	silty sand to sandy silt
9.78	50.74	0.6320	1.246	-1.314	16	7	silty sand to sandy silt
9.84	48.86	0.6720	1.375	-1.304	16	7	silty sand to sandy silt
9.91	46.44	0.7251	1.561	-1.345	16	7	silty sand to sandy silt
9.97	44.87	0.7676	1.711	-1.338	16	7	silty sand to sandy silt
10.04	48.12	0.8260	1.717	-1.333	16	7	silty sand to sandy silt
10.10	53.41	0.8811	1.650	-1.330	17	7	silty sand to sandy silt
10.17	57.45	0.9272	1.614	-1.340	18	7	silty sand to sandy silt
10.24	60.75	0.9872	1.625	-1.335	19	7	silty sand to sandy silt
10.30	62.88	1.0417	1.657	-1.350	20	7	silty sand to sandy silt
10.37	64.68	1.0706	1.655	-1.379	20	7	silty sand to sandy silt
10.43	65.39	1.1149	1.705	-1.367	21	7	silty sand to sandy silt
10.50	66.04	1.1714	1.774	-1.362	21	7	silty sand to sandy silt
10.56	66.80	1.2149	1.819	-1.384	21	7	silty sand to sandy silt
10.63	67.40	1.2455	1.848	-1.377	22	7	silty sand to sandy silt
10.70	68.23	1.2408	1.818	-1.386	22	7	silty sand to sandy silt
10.76	69.36	1.1801	1.702	-1.396	22	7	silty sand to sandy silt
10.83	68.86	1.1063	1.607	-1.415	21	7	silty sand to sandy silt
10.89	67.55	1.0356	1.533	-1.466	21	7	silty sand to sandy silt
10.96	65.47	0.9554	1.459	-1.466	20	7	silty sand to sandy silt
11.02	62.42	0.8565	1.372	-1.495	20	7	silty sand to sandy silt
11.09	59.17	0.7770	1.313	-1.536	19	7	silty sand to sandy silt
11.15	55.47	0.6081	1.096	-1.558	18	7	silty sand to sandy silt
11.22	51.94	0.5857	1.128	-1.570	16	7	silty sand to sandy silt
11.29	47.29	0.5419	1.146	-1.614	15	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
11.35	42.95	0.4807	1.119	-1.636	14	7	silty sand to sandy silt
11.42	40.65	0.4175	1.027	-1.641	13	7	silty sand to sandy silt
11.48	32.66	0.3465	1.061	3.075	11	7	silty sand to sandy silt
11.55	31.71	0.2901	0.915	2.738	10	7	silty sand to sandy silt
11.61	28.91	0.2748	0.951	2.343	9	7	silty sand to sandy silt
11.68	25.43	0.2753	1.082	2.007	10	6	sandy silt to clayey silt
11.75	22.44	0.2619	1.167	1.934	9	6	sandy silt to clayey silt
11.81	19.45	0.2497	1.284	2.242	8	6	sandy silt to clayey silt
11.88	18.32	0.2479	1.353	2.423	8	6	sandy silt to clayey silt
11.94	18.97	0.2603	1.372	2.598	8	6	sandy silt to clayey silt
12.01	20.19	0.2635	1.305	2.763	8	6	sandy silt to clayey silt
12.07	20.49	0.2617	1.278	2.852	8	6	sandy silt to clayey silt
12.14	20.86	0.2599	1.246	2.908	8	6	sandy silt to clayey silt
12.20	21.35	0.2596	1.216	2.983	8	6	sandy silt to clayey silt
12.27	21.65	0.2561	1.183	3.007	8	6	sandy silt to clayey silt
12.34	21.19	0.2416	1.140	3.056	8	6	sandy silt to clayey silt
12.40	20.57	0.2297	1.117	3.061	8	6	sandy silt to clayey silt
12.47	20.15	0.2212	1.098	3.124	8	6	sandy silt to clayey silt
12.53	19.67	0.2098	1.066	3.187	7	6	sandy silt to clayey silt
12.60	18.50	0.1986	1.074	3.189	7	6	sandy silt to clayey silt
12.66	16.94	0.1907	1.126	3.240	6	6	sandy silt to clayey silt
12.73	15.54	0.1804	1.161	3.352	6	6	sandy silt to clayey silt
12.80	14.39	0.1763	1.225	3.449	6	6	sandy silt to clayey silt
12.86	13.51	0.1659	1.228	3.567	5	6	sandy silt to clayey silt
12.93	12.72	0.1542	1.212	3.681	5	6	sandy silt to clayey silt
12.99	12.30	0.1472	1.197	3.778	5	6	sandy silt to clayey silt
13.06	11.99	0.1348	1.124	3.904	6	5	clayey silt to silty clay
13.12	11.66	0.1269	1.088	4.020	6	5	clayey silt to silty clay
13.19	11.11	0.1193	1.074	4.083	5	5	clayey silt to silty clay
13.25	10.70	0.1133	1.059	4.193	5	5	clayey silt to silty clay
13.32	10.34	0.1109	1.073	4.251	5	5	clayey silt to silty clay
13.39	9.39	0.1106	1.177	4.432	5	5	clayey silt to silty clay
13.45	9.00	0.1060	1.177	4.595	5	5	clayey silt to silty clay
13.52	8.79	0.0936	1.066	4.815	4	5	clayey silt to silty clay
13.58	8.79	0.0898	1.022	5.191	4	5	clayey silt to silty clay
13.65	9.03	0.0916	1.014	5.380	4	5	clayey silt to silty clay
13.71	9.20	0.0925	1.005	5.494	4	5	clayey silt to silty clay
13.78	8.60	0.0863	1.003	5.598	4	5	clayey silt to silty clay
13.85	8.16	0.0775	0.949	5.714	4	5	clayey silt to silty clay
13.91	8.35	0.0781	0.935	5.884	4	5	clayey silt to silty clay
13.98	8.43	0.0851	1.009	6.122	4	5	clayey silt to silty clay
14.04	8.16	0.0904	1.107	6.243	4	5	clayey silt to silty clay
14.11	7.80	0.0907	1.163	6.366	4	5	clayey silt to silty clay
14.17	7.81	0.0952	1.219	6.536	4	5	clayey silt to silty clay
14.24	8.87	0.1008	1.136	6.672	4	5	clayey silt to silty clay
14.30	10.25	0.1083	1.056	6.778	5	5	clayey silt to silty clay
14.37	10.67	0.2023	1.896	6.861	5	5	clayey silt to silty clay
14.44	10.58	0.1834	1.734	6.875	5	5	clayey silt to silty clay
14.50	10.41	0.1792	1.721	6.958	5	5	clayey silt to silty clay
14.57	10.23	0.1751	1.712	7.069	5	5	clayey silt to silty clay
14.63	10.15	0.1694	1.669	7.188	5	5	clayey silt to silty clay
14.70	11.30	0.1624	1.437	6.107	5	5	clayey silt to silty clay
14.76	11.50	0.1609	1.399	6.185	5	5	clayey silt to silty clay
14.83	11.78	0.1595	1.354	6.269	5	5	clayey silt to silty clay
14.90	11.63	0.1589	1.366	6.361	5	5	clayey silt to silty clay
14.96	11.46	0.1580	1.379	6.410	5	5	clayey silt to silty clay
15.03	11.02	0.1521	1.381	6.517	5	5	clayey silt to silty clay
15.09	10.97	0.1498	1.366	6.587	5	5	clayey silt to silty clay
15.16	10.88	0.1455	1.337	6.626	5	5	clayey silt to silty clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
15.22	10.64	0.1402	1.318	6.749	5	5	clayey silt to silty clay
15.29	10.31	0.1376	1.335	6.846	5	5	clayey silt to silty clay
15.35	9.89	0.1318	1.332	6.962	5	5	clayey silt to silty clay
15.42	9.70	0.1297	1.338	7.072	5	5	clayey silt to silty clay
15.49	9.64	0.1304	1.352	7.176	4	5	clayey silt to silty clay
15.55	8.81	0.1308	1.485	7.321	4	5	clayey silt to silty clay
15.62	8.39	0.1332	1.587	7.471	4	5	clayey silt to silty clay
15.68	8.27	0.1311	1.584	7.634	4	5	clayey silt to silty clay
15.75	8.50	0.1326	1.560	7.786	5	5	clayey silt to silty clay
15.81	9.82	0.1281	1.304	8.046	5	5	clayey silt to silty clay
15.88	11.60	0.1319	1.136	8.208	5	5	clayey silt to silty clay
15.94	12.44	0.1467	1.179	8.252	6	5	clayey silt to silty clay
16.01	12.96	0.1514	1.168	8.254	5	6	sandy silt to clayey silt
16.08	13.49	0.1440	1.067	8.249	5	6	sandy silt to clayey silt
16.14	14.08	0.1358	0.964	8.249	5	6	sandy silt to clayey silt
16.21	14.98	0.1280	0.855	8.237	5	6	sandy silt to clayey silt
16.27	15.27	0.1318	0.863	8.211	5	6	sandy silt to clayey silt
16.34	14.64	0.1774	1.212	8.114	7	5	clayey silt to silty clay
16.40	13.85	0.2524	1.823	8.094	8	5	clayey silt to silty clay
16.47	14.22	0.3736	2.627	8.087	9	5	clayey silt to silty clay
16.54	16.23	0.5149	3.171	8.128	9	6	sandy silt to clayey silt
16.60	22.04	0.6263	2.841	8.208	11	6	sandy silt to clayey silt
16.67	36.49	0.7199	1.973	8.271	13	6	sandy silt to clayey silt
16.73	46.78	0.7786	1.664	7.917	16	6	sandy silt to clayey silt
16.80	53.21	0.8044	1.512	6.611	15	7	silty sand to sandy silt
16.86	56.15	0.7910	1.409	5.329	16	7	silty sand to sandy silt
16.93	55.95	0.7376	1.318	3.955	17	7	silty sand to sandy silt
16.99	54.33	0.6586	1.212	2.385	17	7	silty sand to sandy silt
17.06	52.14	0.6032	1.157	1.488	16	7	silty sand to sandy silt
17.13	48.95	0.5607	1.146	1.229	15	7	silty sand to sandy silt
17.19	44.89	0.5249	1.169	1.129	14	7	silty sand to sandy silt
17.26	40.35	0.4899	1.214	0.775	13	7	silty sand to sandy silt
17.32	35.23	0.4519	1.283	0.722	12	7	silty sand to sandy silt
17.39	32.77	0.4222	1.288	0.710	11	7	silty sand to sandy silt
17.45	31.32	0.3904	1.247	0.708	10	7	silty sand to sandy silt
17.52	29.12	0.3475	1.193	0.703	11	6	sandy silt to clayey silt
17.59	26.45	0.3106	1.174	0.717	10	6	sandy silt to clayey silt
17.65	24.24	0.3295	1.360	0.700	10	6	sandy silt to clayey silt
17.72	22.51	0.2904	1.290	0.698	9	6	sandy silt to clayey silt
17.78	21.09	0.2479	1.176	0.744	8	6	sandy silt to clayey silt
17.85	19.05	0.2108	1.107	0.754	7	6	sandy silt to clayey silt
17.91	17.63	0.1855	1.052	0.802	7	6	sandy silt to clayey silt
17.98	15.98	0.1673	1.047	7.709	6	6	sandy silt to clayey silt
18.04	15.25	0.1557	1.021	7.496	6	6	sandy silt to clayey silt
18.11	14.01	0.1482	1.057	7.527	6	6	sandy silt to clayey silt
18.18	12.99	0.1390	1.070	7.544	5	6	sandy silt to clayey silt
18.24	12.48	0.1270	1.018	7.590	5	6	sandy silt to clayey silt
18.31	12.43	0.1203	0.968	7.631	5	6	sandy silt to clayey silt
18.37	12.60	0.1140	0.905	7.658	5	6	sandy silt to clayey silt
18.44	12.91	0.1152	0.892	7.663	5	6	sandy silt to clayey silt
18.50	12.88	0.1184	0.920	7.675	5	6	sandy silt to clayey silt
18.57	12.63	0.1151	0.911	7.663	5	6	sandy silt to clayey silt
18.64	12.26	0.1090	0.889	7.687	5	6	sandy silt to clayey silt
18.70	11.76	0.0992	0.844	7.702	4	6	sandy silt to clayey silt
18.77	11.39	0.0845	0.742	7.740	4	6	sandy silt to clayey silt
18.83	10.91	0.0588	0.539	7.789	4	6	sandy silt to clayey silt
18.90	10.32	0.0402	0.390	7.840	4	6	sandy silt to clayey silt
18.96	9.02	0.0305	0.338	7.852	4	1	sensitive fine grained
19.03	7.44	0.0338	0.454	7.876	4	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
19.09	6.05	0.0319	0.528	7.963	3	1	sensitive fine grained
19.16	5.00	0.0282	0.564	8.232	3	1	sensitive fine grained
19.23	4.37	0.0254	0.582	8.787	2	1	sensitive fine grained
19.29	4.38	0.0250	0.572	9.645	2	1	sensitive fine grained
19.36	4.51	0.0249	0.552	10.278	2	1	sensitive fine grained
19.42	4.31	0.0203	0.471	10.915	2	1	sensitive fine grained
19.49	4.27	0.0210	0.492	11.574	2	1	sensitive fine grained
19.55	4.62	0.0239	0.517	12.236	2	1	sensitive fine grained
19.62	4.75	0.0216	0.455	12.718	2	1	sensitive fine grained
19.69	4.37	0.0222	0.508	13.062	2	1	sensitive fine grained
19.75	4.24	0.0243	0.572	13.440	2	1	sensitive fine grained
19.82	4.20	0.0210	0.500	13.988	2	1	sensitive fine grained
19.88	4.22	0.0221	0.523	14.301	2	1	sensitive fine grained
19.95	4.13	0.0228	0.552	14.713	2	1	sensitive fine grained
20.01	4.20	0.0304	0.723	15.088	2	1	sensitive fine grained
20.08	4.17	0.0380	0.911	15.333	2	1	sensitive fine grained
20.14	4.66	0.0389	0.835	15.915	3	1	sensitive fine grained
20.21	5.97	0.1384	2.318	16.254	3	1	sensitive fine grained
20.28	6.88	0.1386	2.014	16.244	4	4	silty clay to clay
20.34	7.37	0.1397	1.895	16.159	4	4	silty clay to clay
20.41	7.22	0.1286	1.781	16.038	4	5	clayey silt to silty clay
20.47	6.71	0.1116	1.663	15.966	4	5	clayey silt to silty clay
20.54	8.39	0.0999	1.190	7.896	4	5	clayey silt to silty clay
20.60	9.62	0.0999	1.039	8.220	4	5	clayey silt to silty clay
20.67	10.47	0.1020	0.974	8.516	4	5	clayey silt to silty clay
20.73	9.22	0.1030	1.117	8.654	4	5	clayey silt to silty clay
20.80	8.05	0.0908	1.128	8.870	4	5	clayey silt to silty clay
20.87	7.43	0.0769	1.035	9.194	4	5	clayey silt to silty clay
20.93	7.44	0.0643	0.865	9.708	4	1	sensitive fine grained
21.00	7.85	0.0485	0.618	10.198	4	1	sensitive fine grained
21.06	7.93	0.0410	0.517	10.523	3	1	sensitive fine grained
21.13	7.36	0.0442	0.601	10.653	3	1	sensitive fine grained
21.19	6.52	0.0440	0.676	10.874	3	1	sensitive fine grained
21.26	5.99	0.0587	0.981	11.121	3	1	sensitive fine grained
21.33	5.58	0.0786	1.409	11.475	3	1	sensitive fine grained
21.39	5.78	0.0952	1.648	11.979	4	5	clayey silt to silty clay
21.46	6.43	0.1095	1.703	12.529	4	5	clayey silt to silty clay
21.52	9.93	0.1289	1.297	13.070	5	5	clayey silt to silty clay
21.59	14.44	0.1460	1.011	13.343	6	5	clayey silt to silty clay
21.65	16.44	0.1629	0.991	13.285	5	6	sandy silt to clayey silt
21.72	15.83	0.1705	1.077	13.120	6	6	sandy silt to clayey silt
21.78	14.79	0.1710	1.156	13.094	6	6	sandy silt to clayey silt
21.85	14.54	0.1575	1.083	13.118	6	6	sandy silt to clayey silt
21.92	14.76	0.1199	0.812	13.125	6	6	sandy silt to clayey silt
21.98	14.94	0.0842	0.563	13.082	5	6	sandy silt to clayey silt
22.05	14.54	0.0817	0.562	13.011	5	6	sandy silt to clayey silt
22.11	13.51	0.1205	0.892	12.936	5	6	sandy silt to clayey silt
22.18	12.27	0.1539	1.254	12.890	5	6	sandy silt to clayey silt
22.24	10.91	0.1774	1.626	12.851	5	6	sandy silt to clayey silt
22.31	10.68	0.1891	1.770	12.992	6	6	sandy silt to clayey silt
22.38	15.03	0.1915	1.275	13.292	6	6	sandy silt to clayey silt
22.44	19.37	0.1850	0.955	13.387	6	6	sandy silt to clayey silt
22.51	20.65	0.1753	0.849	13.074	7	6	sandy silt to clayey silt
22.57	20.69	0.1601	0.774	12.512	7	6	sandy silt to clayey silt
22.64	19.33	0.1494	0.773	11.717	7	6	sandy silt to clayey silt
22.70	17.65	0.1361	0.771	10.978	7	6	sandy silt to clayey silt
22.77	15.89	0.1248	0.785	10.673	6	6	sandy silt to clayey silt
22.83	13.91	0.1186	0.853	10.600	6	6	sandy silt to clayey silt
22.90	12.78	0.1108	0.867	10.794	5	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
22.97	12.08	0.0946	0.784	11.291	5	6	sandy silt to clayey silt
23.03	11.62	0.0871	0.750	11.771	5	6	sandy silt to clayey silt
23.10	11.31	0.0800	0.708	12.306	4	6	sandy silt to clayey silt
23.16	11.24	0.0826	0.736	12.633	4	6	sandy silt to clayey silt
23.23	10.57	0.0868	0.821	12.825	4	6	sandy silt to clayey silt
23.29	10.06	0.0778	0.773	12.960	4	6	sandy silt to clayey silt
23.36	9.94	0.0816	0.821	13.096	4	6	sandy silt to clayey silt
23.43	10.18	0.1004	0.986	13.256	5	5	clayey silt to silty clay
23.49	11.19	0.1171	1.046	13.566	5	5	clayey silt to silty clay
23.56	11.54	0.1317	1.141	13.714	5	6	sandy silt to clayey silt
23.62	11.99	0.1443	1.203	13.927	5	6	sandy silt to clayey silt
23.69	13.20	0.1583	1.199	14.175	5	6	sandy silt to clayey silt
23.75	14.46	0.1725	1.193	14.398	6	6	sandy silt to clayey silt
23.82	16.14	0.1944	1.204	14.480	7	6	sandy silt to clayey silt
23.88	19.00	0.2109	1.110	14.388	8	6	sandy silt to clayey silt
23.95	22.13	0.2521	1.139	14.255	9	6	sandy silt to clayey silt
24.02	25.90	0.3086	1.192	14.167	10	6	sandy silt to clayey silt
24.08	29.73	0.3798	1.277	14.036	12	6	sandy silt to clayey silt
24.15	33.38	0.4899	1.468	13.566	12	7	silty sand to sandy silt
24.21	38.52	0.6137	1.593	13.026	13	7	silty sand to sandy silt
24.28	46.92	0.7549	1.609	12.614	15	7	silty sand to sandy silt
24.34	59.46	0.9164	1.541	12.170	17	7	silty sand to sandy silt
24.41	52.25	1.1449	2.191	11.053	19	7	silty sand to sandy silt
24.48	67.37	1.3668	2.029	10.275	21	7	silty sand to sandy silt
24.54	74.70	1.5196	2.034	9.732	23	7	silty sand to sandy silt
24.61	79.14	1.6878	2.133	8.060	24	7	silty sand to sandy silt
24.67	81.82	1.8130	2.216	4.878	25	7	silty sand to sandy silt
24.74	83.86	1.9018	2.268	2.007	26	7	silty sand to sandy silt
24.80	84.37	1.9734	2.339	0.378	26	7	silty sand to sandy silt
24.87	83.41	2.0396	2.445	-0.584	31	6	sandy silt to clayey silt
24.93	81.69	2.0702	2.534	-1.592	31	6	sandy silt to clayey silt
25.00	80.26	2.0778	2.589	-2.612	31	6	sandy silt to clayey silt
25.07	78.40	1.9919	2.541	-3.851	30	6	sandy silt to clayey silt
25.13	76.40	1.8189	2.381	-4.740	29	6	sandy silt to clayey silt
25.20	73.75	1.6059	2.177	-5.341	24	7	silty sand to sandy silt
25.26	71.87	1.4543	2.023	-5.882	24	7	silty sand to sandy silt
25.33	73.88	1.4414	1.951	-6.366	25	7	silty sand to sandy silt
25.39	77.94	1.5122	1.940	-6.425	25	7	silty sand to sandy silt
25.46	81.56	1.6860	2.067	-6.301	26	7	silty sand to sandy silt
25.52	86.40	1.8432	2.133	-6.095	27	7	silty sand to sandy silt
25.59	90.96	1.9398	2.133	-5.794	28	7	silty sand to sandy silt
25.66	92.14	1.9015	2.064	-5.659	28	7	silty sand to sandy silt
25.72	89.53	1.7450	1.949	-5.649	27	7	silty sand to sandy silt
25.79	84.93	1.3705	1.614	-5.693	26	7	silty sand to sandy silt
25.85	78.26	1.0697	1.367	-5.719	24	7	silty sand to sandy silt
25.92	69.23	0.8797	1.271	-5.739	21	7	silty sand to sandy silt
25.98	58.26	0.7371	1.265	-5.780	19	7	silty sand to sandy silt
26.05	47.64	0.6161	1.293	-5.821	16	7	silty sand to sandy silt
26.12	39.40	0.5382	1.366	-5.620	14	7	silty sand to sandy silt
26.18	35.16	0.4750	1.351	-5.157	13	7	silty sand to sandy silt
26.25	32.76	0.4239	1.294	-4.684	11	7	silty sand to sandy silt
26.31	31.45	0.3766	1.197	-4.406	10	7	silty sand to sandy silt
26.38	30.73	0.3446	1.121	-4.149	10	7	silty sand to sandy silt
26.44	30.73	0.3290	1.070	-3.926	10	7	silty sand to sandy silt
26.51	29.80	0.3175	1.065	-3.684	11	6	sandy silt to clayey silt
26.57	27.88	0.3077	1.104	-3.335	11	6	sandy silt to clayey silt
26.64	25.86	0.3033	1.173	-2.942	10	6	sandy silt to clayey silt
26.71	24.81	0.3019	1.217	-2.479	10	6	sandy silt to clayey silt
26.77	24.56	0.2841	1.157	-1.915	10	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
26.84	24.88	0.2729	1.097	-1.265	10	6	sandy silt to clayey silt
26.90	26.54	0.2600	0.979	-0.490	10	6	sandy silt to clayey silt
26.97	27.77	0.2513	0.905	0.104	9	6	sandy silt to clayey silt
27.03	25.83	0.2422	0.938	0.744	9	6	sandy silt to clayey silt
27.10	22.53	0.2332	1.035	1.221	9	6	sandy silt to clayey silt
27.17	19.45	0.2239	1.152	2.050	8	6	sandy silt to clayey silt
27.23	17.40	0.2323	1.335	3.070	7	6	sandy silt to clayey silt
27.30	16.05	0.3193	1.989	4.239	7	6	sandy silt to clayey silt
27.36	15.54	0.3095	1.992	5.385	7	6	sandy silt to clayey silt
27.43	15.81	0.3170	2.006	6.776	7	6	sandy silt to clayey silt
27.49	17.10	0.3218	1.882	8.041	7	6	sandy silt to clayey silt
27.56	19.25	0.3338	1.733	9.008	8	6	sandy silt to clayey silt
27.62	22.79	0.3555	1.560	10.423	8	6	sandy silt to clayey silt
27.69	23.71	0.3789	1.598	10.547	9	6	sandy silt to clayey silt
27.76	24.12	0.3949	1.638	10.661	9	6	sandy silt to clayey silt
27.82	24.41	0.4149	1.700	10.801	9	6	sandy silt to clayey silt
27.89	24.34	0.4391	1.804	10.947	9	6	sandy silt to clayey silt
27.95	23.83	0.4557	1.912	11.053	9	6	sandy silt to clayey silt
28.02	22.74	0.4514	1.985	11.140	8	6	sandy silt to clayey silt
28.08	21.42	0.4277	1.996	11.237	8	6	sandy silt to clayey silt
28.15	19.45	0.3976	2.045	11.332	8	6	sandy silt to clayey silt
28.22	17.97	0.3667	2.040	11.511	9	5	clayey silt to silty clay
28.28	16.59	0.3301	1.990	11.826	8	5	clayey silt to silty clay
28.35	15.29	0.2923	1.912	12.541	8	5	clayey silt to silty clay
28.41	14.50	0.2718	1.874	13.627	7	5	clayey silt to silty clay
28.48	14.28	0.2619	1.835	14.679	7	5	clayey silt to silty clay
28.54	14.58	0.2620	1.797	15.469	8	5	clayey silt to silty clay
28.61	15.69	0.2664	1.698	16.409	6	6	sandy silt to clayey silt
28.67	17.32	0.2758	1.592	17.146	7	6	sandy silt to clayey silt
28.74	19.10	0.2780	1.455	17.437	7	6	sandy silt to clayey silt
28.81	21.11	0.2752	1.303	17.604	8	6	sandy silt to clayey silt
28.87	22.35	0.2633	1.178	17.580	8	6	sandy silt to clayey silt
28.94	22.03	0.2454	1.114	17.424	8	6	sandy silt to clayey silt
29.00	21.36	0.2182	1.022	17.301	8	6	sandy silt to clayey silt
29.07	20.24	0.1775	0.877	17.160	7	6	sandy silt to clayey silt
29.13	18.60	0.1697	0.913	16.988	7	6	sandy silt to clayey silt
29.20	16.10	0.1887	1.172	16.932	6	6	sandy silt to clayey silt
29.27	14.23	0.2068	1.454	17.146	6	6	sandy silt to clayey silt
29.33	13.51	0.2437	1.803	17.914	7	6	sandy silt to clayey silt
29.40	14.34	0.2922	2.038	19.094	7	6	sandy silt to clayey silt
29.46	18.36	0.3480	1.895	20.207	8	6	sandy silt to clayey silt
29.53	25.79	0.4087	1.585	20.519	9	6	sandy silt to clayey silt
29.59	30.70	0.4627	1.507	20.127	11	6	sandy silt to clayey silt
29.66	33.43	0.4908	1.468	19.179	12	6	sandy silt to clayey silt
29.72	35.00	0.5257	1.502	17.972	13	6	sandy silt to clayey silt
29.79	36.55	0.5657	1.548	16.857	14	6	sandy silt to clayey silt
29.86	38.73	0.5631	1.454	15.958	14	6	sandy silt to clayey silt
29.92	39.40	0.5366	1.362	15.163	13	6	sandy silt to clayey silt
29.99	34.38	0.5024	1.462	14.839	12	6	sandy silt to clayey silt
30.05	29.37	0.4547	1.548	14.756	12	6	sandy silt to clayey silt
30.12	26.10	0.3925	1.504	15.016	11	6	sandy silt to clayey silt
30.18	23.71	0.3247	1.370	16.237	9	6	sandy silt to clayey silt
30.25	21.45	0.2861	1.333	17.892	8	6	sandy silt to clayey silt
30.31	18.77	0.2645	1.409	18.937	8	6	sandy silt to clayey silt
30.38	16.35	0.2455	1.502	20.197	7	6	sandy silt to clayey silt
30.45	15.10	0.2398	1.589	21.263	7	6	sandy silt to clayey silt
30.51	16.91	0.3997	2.364	22.790	7	6	sandy silt to clayey silt
30.58	22.09	0.3856	1.746	23.342	7	6	sandy silt to clayey silt
30.64	23.53	0.3615	1.536	22.509	7	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
30.71	21.27	0.3379	1.589	21.634	7	6	sandy silt to clayey silt
30.77	19.11	0.2787	1.458	21.210	7	6	sandy silt to clayey silt
30.84	17.02	0.2341	1.376	12.934	6	6	sandy silt to clayey silt
30.91	14.07	0.1809	1.285	13.561	5	6	sandy silt to clayey silt
30.97	10.80	0.1294	1.198	15.403	6	5	clayey silt to silty clay
31.04	8.79	0.1012	1.152	17.936	5	5	clayey silt to silty clay
31.10	6.87	0.0792	1.152	21.292	4	5	clayey silt to silty clay
31.17	5.87	0.0612	1.043	23.662	3	1	sensitive fine grained
31.23	5.31	0.0434	0.818	25.703	3	1	sensitive fine grained
31.30	5.21	0.0283	0.544	27.620	3	1	sensitive fine grained
31.36	5.77	0.0192	0.332	29.168	3	1	sensitive fine grained
31.43	6.58	0.1453	2.210	29.542	4	4	silty clay to clay
31.50	7.59	0.1578	2.078	29.471	4	4	silty clay to clay
31.56	7.89	0.1766	2.239	29.260	4	5	clayey silt to silty clay
31.63	7.87	0.1738	2.208	28.928	4	5	clayey silt to silty clay
31.69	8.32	0.1718	2.063	28.812	5	5	clayey silt to silty clay
31.76	12.21	0.1651	1.353	13.326	5	5	clayey silt to silty clay
31.82	12.48	0.1489	1.193	15.672	5	5	clayey silt to silty clay
31.89	10.39	0.1239	1.192	18.723	5	5	clayey silt to silty clay
31.96	8.83	0.1143	1.294	20.929	4	5	clayey silt to silty clay
32.02	7.77	0.0945	1.217	23.073	4	5	clayey silt to silty clay
32.09	6.95	0.0821	1.182	24.675	3	1	sensitive fine grained
32.15	5.81	0.0711	1.224	26.253	3	1	sensitive fine grained
32.22	5.12	0.0593	1.158	27.484	3	1	sensitive fine grained
32.28	5.02	0.0518	1.032	29.418	3	1	sensitive fine grained
32.35	5.07	0.0553	1.091	30.567	3	1	sensitive fine grained
32.41	5.29	0.0626	1.182	31.485	3	1	sensitive fine grained
32.48	5.65	0.0708	1.253	32.547	3	1	sensitive fine grained
32.55	6.44	0.0713	1.107	33.332	3	1	sensitive fine grained
32.61	6.31	0.0668	1.059	33.356	3	1	sensitive fine grained
32.68	5.92	0.0660	1.114	33.252	3	1	sensitive fine grained
32.74	5.78	0.0662	1.144	33.206	3	1	sensitive fine grained
32.81	5.56	0.0510	0.918	32.707	3	1	sensitive fine grained
32.87	5.07	0.0446	0.880	32.462	3	1	sensitive fine grained
32.94	4.81	0.0385	0.799	32.648	3	1	sensitive fine grained
33.01	4.77	0.0353	0.739	33.356	3	1	sensitive fine grained
33.07	5.81	0.0249	0.429	34.376	3	1	sensitive fine grained
33.14	7.74	0.0231	0.298	34.633	3	1	sensitive fine grained
33.20	7.28	0.0304	0.417	32.263	3	1	sensitive fine grained
33.27	6.53	0.0383	0.586	31.335	3	1	sensitive fine grained
33.33	6.19	0.0417	0.673	32.062	3	1	sensitive fine grained
33.40	6.14	0.0414	0.674	33.189	3	1	sensitive fine grained
33.46	6.40	0.0577	0.901	34.165	3	1	sensitive fine grained
33.53	7.08	0.0792	1.118	34.890	4	1	sensitive fine grained
33.60	8.03	0.0978	1.217	35.178	4	5	clayey silt to silty clay
33.66	9.61	0.1138	1.185	35.891	4	5	clayey silt to silty clay
33.73	11.14	0.1187	1.066	35.661	4	5	clayey silt to silty clay
33.79	10.70	0.1635	1.528	32.644	4	5	clayey silt to silty clay
33.86	9.43	0.1414	1.499	29.849	4	5	clayey silt to silty clay
33.92	8.54	0.1246	1.459	29.091	4	5	clayey silt to silty clay
33.99	7.79	0.1095	1.406	28.623	4	5	clayey silt to silty clay
34.06	7.12	0.1016	1.427	28.766	4	5	clayey silt to silty clay
34.12	7.09	0.0902	1.272	25.136	3	1	sensitive fine grained
34.19	6.58	0.0850	1.292	25.448	3	1	sensitive fine grained
34.25	6.15	0.0823	1.337	25.790	3	1	sensitive fine grained
34.32	5.89	0.0707	1.199	26.163	3	1	sensitive fine grained
34.38	5.67	0.0651	1.147	26.733	3	1	sensitive fine grained
34.45	5.75	0.0637	1.107	27.940	3	1	sensitive fine grained
34.51	5.77	0.0553	0.958	28.655	3	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
34.58	5.65	0.0540	0.956	29.299	3	1	sensitive fine grained
34.65	5.82	0.0565	0.971	29.990	3	1	sensitive fine grained
34.71	6.07	0.0582	0.958	30.283	3	1	sensitive fine grained
34.78	6.49	0.0578	0.891	31.010	3	1	sensitive fine grained
34.84	6.75	0.0562	0.833	31.386	3	1	sensitive fine grained
34.91	6.58	0.0633	0.961	31.136	3	1	sensitive fine grained
34.97	6.63	0.0780	1.178	30.986	3	1	sensitive fine grained
35.04	7.07	0.0880	1.245	31.403	3	1	sensitive fine grained
35.10	7.49	0.0956	1.276	31.427	3	5	clayey silt to silty clay
35.17	7.65	0.1051	1.375	30.065	4	5	clayey silt to silty clay
35.24	7.85	0.1181	1.504	27.499	4	5	clayey silt to silty clay
35.30	7.73	0.1219	1.578	24.629	4	5	clayey silt to silty clay
35.37	7.59	0.1180	1.555	23.987	4	5	clayey silt to silty clay
35.43	7.68	0.1160	1.511	22.087	4	5	clayey silt to silty clay
35.50	7.37	0.1332	1.809	21.833	4	5	clayey silt to silty clay
35.56	7.47	0.1321	1.768	22.363	5	4	silty clay to clay
35.63	7.23	0.1293	1.789	22.560	5	4	silty clay to clay
35.70	7.39	0.1517	2.052	22.538	5	4	silty clay to clay
35.76	7.79	0.1694	2.175	22.276	5	4	silty clay to clay
35.83	8.09	0.1900	2.347	21.716	5	4	silty clay to clay
35.89	8.96	0.2039	2.275	20.476	6	4	silty clay to clay
35.96	9.57	0.1993	2.083	20.444	5	5	clayey silt to silty clay
36.02	9.82	0.2154	2.194	20.662	5	5	clayey silt to silty clay
36.09	10.77	0.2180	2.024	20.761	5	5	clayey silt to silty clay
36.15	10.96	0.2288	2.087	20.274	5	5	clayey silt to silty clay
36.22	10.62	0.2269	2.137	19.431	5	5	clayey silt to silty clay
36.29	10.85	0.2181	2.010	18.185	5	5	clayey silt to silty clay
36.35	10.65	0.2178	2.045	18.137	5	5	clayey silt to silty clay
36.42	10.36	0.2155	2.080	18.067	5	5	clayey silt to silty clay
36.48	11.05	0.2284	2.068	17.819	5	5	clayey silt to silty clay
36.55	11.41	0.2437	2.136	17.788	6	5	clayey silt to silty clay
36.61	11.83	0.2637	2.229	18.016	6	5	clayey silt to silty clay
36.68	12.97	0.2856	2.202	18.808	6	5	clayey silt to silty clay
36.75	14.39	0.3155	2.192	19.727	7	5	clayey silt to silty clay
36.81	14.94	0.3184	2.131	20.376	7	5	clayey silt to silty clay
36.88	15.60	0.3765	2.414	21.508	7	5	clayey silt to silty clay
36.94	16.66	0.3685	2.212	21.879	8	5	clayey silt to silty clay
37.01	17.17	0.4172	2.430	22.518	8	5	clayey silt to silty clay
37.07	17.17	0.5501	3.203	24.544	8	5	clayey silt to silty clay
37.14	17.21	0.5801	3.370	25.582	8	5	clayey silt to silty clay
37.20	16.95	0.6073	3.583	26.755	8	5	clayey silt to silty clay
37.27	16.49	0.5763	3.494	28.068	9	5	clayey silt to silty clay
37.34	18.56	0.4949	2.666	22.106	9	5	clayey silt to silty clay
37.40	19.62	0.4248	2.165	21.367	9	5	clayey silt to silty clay
37.47	18.33	0.3708	2.023	22.087	9	5	clayey silt to silty clay
37.53	18.08	0.3190	1.764	25.019	7	6	sandy silt to clayey silt
37.60	18.43	0.2852	1.547	28.449	7	6	sandy silt to clayey silt
37.66	17.97	0.2592	1.442	33.453	7	6	sandy silt to clayey silt
37.73	17.54	0.2491	1.420	36.768	7	6	sandy silt to clayey silt
37.80	17.43	0.2658	1.525	40.731	8	5	clayey silt to silty clay
37.86	17.55	0.3228	1.839	46.367	9	5	clayey silt to silty clay
37.93	17.14	0.4515	2.635	50.921	9	5	clayey silt to silty clay
37.99	17.71	0.6222	3.514	58.671	9	5	clayey silt to silty clay
38.06	19.19	0.7500	3.909	64.567	10	5	clayey silt to silty clay
38.12	22.73	0.8845	3.891	62.045	11	5	clayey silt to silty clay
38.19	26.67	0.9947	3.730	48.216	13	5	clayey silt to silty clay
38.25	30.36	1.0476	3.451	45.085	14	5	clayey silt to silty clay
38.32	33.93	0.9579	2.823	26.386	15	5	clayey silt to silty clay
38.39	36.70	0.8784	2.393	10.476	13	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
38.45	38.69	0.8688	2.246	4.847	14	6	sandy silt to clayey silt
38.52	37.10	0.8684	2.340	1.234	14	6	sandy silt to clayey silt
38.58	37.81	0.8958	2.370	0.863	14	6	sandy silt to clayey silt
38.65	37.98	0.7749	2.040	1.856	14	6	sandy silt to clayey silt
38.71	37.33	0.7515	2.013	2.576	13	6	sandy silt to clayey silt
38.78	34.35	0.7666	2.232	3.434	13	6	sandy silt to clayey silt
38.85	31.58	0.7899	2.501	4.621	12	6	sandy silt to clayey silt
38.91	29.10	0.6845	2.353	6.403	11	6	sandy silt to clayey silt
38.98	26.02	0.6303	2.422	9.832	11	6	sandy silt to clayey silt
39.04	25.08	0.6406	2.554	15.963	10	6	sandy silt to clayey silt
39.11	25.29	0.6533	2.584	22.196	12	5	clayey silt to silty clay
39.17	25.24	0.6315	2.502	26.958	12	5	clayey silt to silty clay
39.24	22.70	0.6362	2.803	30.950	11	5	clayey silt to silty clay
39.30	21.81	0.6192	2.839	34.195	11	5	clayey silt to silty clay
39.37	22.57	0.5829	2.583	36.868	11	5	clayey silt to silty clay
39.44	21.95	0.6145	2.800	42.303	11	5	clayey silt to silty clay
39.50	22.08	0.6781	3.071	48.733	11	5	clayey silt to silty clay
39.57	23.32	0.7643	3.278	54.399	16	4	silty clay to clay
39.63	24.28	0.9010	3.710	56.665	25	3	clay
39.70	28.25	1.7743	6.280	64.032	26	3	clay
39.76	29.74	1.9919	6.698	63.809	27	3	clay
39.83	30.32	2.1216	6.996	63.179	29	3	clay
39.90	31.31	2.2771	7.273	54.743	32	3	clay
39.96	29.71	2.2672	7.631	50.209	36	3	clay
40.03	41.81	2.0597	4.926	15.832	28	4	silty clay to clay
40.09	45.68	1.8942	4.147	15.532	24	5	clayey silt to silty clay
40.16	57.28	1.7795	3.106	15.498	22	6	sandy silt to clayey silt
40.22	71.62	1.7059	2.382	15.520	25	6	sandy silt to clayey silt
40.29	78.69	1.6523	2.100	15.285	27	6	sandy silt to clayey silt
40.35	82.53	1.6040	1.944	15.045	24	7	silty sand to sandy silt
40.42	80.99	1.5854	1.958	14.960	25	7	silty sand to sandy silt
40.49	77.46	1.5824	2.043	14.974	25	7	silty sand to sandy silt
40.55	75.54	1.5559	2.060	15.069	25	7	silty sand to sandy silt
40.62	75.81	1.5247	2.011	15.175	25	7	silty sand to sandy silt
40.68	76.45	1.5017	1.964	15.280	25	7	silty sand to sandy silt
40.75	77.59	1.4916	1.922	15.389	25	7	silty sand to sandy silt
40.81	80.37	1.4197	1.766	15.415	26	7	silty sand to sandy silt
40.88	82.78	1.2602	1.522	15.401	27	7	silty sand to sandy silt
40.94	85.78	1.2225	1.425	15.292	27	7	silty sand to sandy silt
41.01	88.20	1.2869	1.459	15.195	28	7	silty sand to sandy silt
41.08	91.69	1.4379	1.568	15.033	29	7	silty sand to sandy silt
41.14	95.21	1.6117	1.693	14.795	29	7	silty sand to sandy silt
41.21	96.30	1.8225	1.893	14.577	29	7	silty sand to sandy silt
41.27	94.51	2.0844	2.205	14.461	28	7	silty sand to sandy silt
41.34	89.28	2.2509	2.521	14.259	33	6	sandy silt to clayey silt
41.40	80.93	2.3811	2.942	13.583	31	6	sandy silt to clayey silt
41.47	73.07	2.4251	3.319	7.714	29	6	sandy silt to clayey silt
41.54	66.19	2.2925	3.463	4.777	26	6	sandy silt to clayey silt
41.60	61.55	2.1339	3.467	3.364	30	5	clayey silt to silty clay
41.67	56.84	2.0217	3.557	3.204	27	5	clayey silt to silty clay
41.73	50.37	1.9204	3.813	5.370	25	5	clayey silt to silty clay
41.80	44.67	1.6290	3.647	6.873	23	5	clayey silt to silty clay
41.86	40.37	1.4555	3.606	8.729	22	5	clayey silt to silty clay
41.93	40.89	1.3279	3.247	10.571	20	5	clayey silt to silty clay
41.99	42.11	1.1308	2.685	12.018	19	5	clayey silt to silty clay
42.06	40.00	1.1188	2.797	12.902	14	6	sandy silt to clayey silt
42.13	35.66	0.9141	2.563	13.867	14	6	sandy silt to clayey silt
42.19	32.87	0.7220	2.197	15.265	13	6	sandy silt to clayey silt
42.26	30.82	0.6621	2.148	17.509	13	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
42.32	29.72	0.5439	1.830	20.182	12	6	sandy silt to clayey silt
42.39	31.04	0.4905	1.580	22.773	12	6	sandy silt to clayey silt
42.45	30.70	0.4980	1.622	25.305	11	6	sandy silt to clayey silt
42.52	29.95	0.5423	1.811	28.250	11	6	sandy silt to clayey silt
42.59	29.35	0.6128	2.088	31.354	11	6	sandy silt to clayey silt
42.65	28.26	0.6503	2.301	34.623	11	6	sandy silt to clayey silt
42.72	27.49	0.5914	2.151	37.675	11	6	sandy silt to clayey silt
42.78	28.06	0.4863	1.733	41.521	10	6	sandy silt to clayey silt
42.85	27.23	0.4414	1.621	43.866	10	6	sandy silt to clayey silt
42.91	25.21	0.3419	1.356	44.371	9	6	sandy silt to clayey silt
42.98	21.84	0.2632	1.205	43.634	8	6	sandy silt to clayey silt
43.04	18.61	0.1997	1.073	44.145	8	6	sandy silt to clayey silt
43.11	16.78	0.1609	0.959	47.921	7	6	sandy silt to clayey silt
43.18	16.12	0.1405	0.872	51.486	7	6	sandy silt to clayey silt
43.24	15.51	0.1424	0.918	54.297	6	6	sandy silt to clayey silt
43.31	15.67	0.1415	0.903	57.329	6	6	sandy silt to clayey silt
43.37	16.14	0.1477	0.915	62.944	6	6	sandy silt to clayey silt
43.44	17.05	0.1528	0.896	66.649	8	5	clayey silt to silty clay
43.50	18.18	0.2654	1.460	70.456	9	5	clayey silt to silty clay
43.57	19.34	0.8810	4.554	74.814	9	5	clayey silt to silty clay
43.64	19.45	0.8467	4.354	77.259	9	5	clayey silt to silty clay
43.70	19.14	0.8698	4.544	80.397	13	4	silty clay to clay
43.77	18.90	0.8513	4.504	82.607	14	4	silty clay to clay
43.83	23.26	0.7908	3.399	25.002	14	4	silty clay to clay
43.90	26.06	0.7401	2.840	22.186	10	5	clayey silt to silty clay
43.96	23.14	0.6953	3.005	25.746	10	5	clayey silt to silty clay
44.03	21.16	0.6080	2.873	29.525	10	5	clayey silt to silty clay
44.09	19.79	0.4425	2.237	30.736	9	5	clayey silt to silty clay
44.16	17.56	0.3284	1.870	31.410	9	5	clayey silt to silty clay
44.23	15.89	0.2416	1.520	37.752	8	5	clayey silt to silty clay
44.29	14.44	0.2013	1.394	39.158	6	6	sandy silt to clayey silt
44.36	12.95	0.1431	1.105	40.886	5	6	sandy silt to clayey silt
44.42	11.40	0.1052	0.922	41.974	5	6	sandy silt to clayey silt
44.49	11.78	0.0787	0.668	43.808	5	6	sandy silt to clayey silt
44.55	11.20	0.0644	0.575	45.032	4	6	sandy silt to clayey silt
44.62	12.44	0.0574	0.461	45.720	4	6	sandy silt to clayey silt
44.69	10.34	0.0501	0.485	46.079	4	6	sandy silt to clayey silt
44.75	10.29	0.0498	0.484	47.342	4	6	sandy silt to clayey silt
44.82	9.82	0.0521	0.530	48.088	4	6	sandy silt to clayey silt
44.88	9.33	0.0474	0.508	49.057	4	6	sandy silt to clayey silt
44.95	8.93	0.0445	0.498	49.566	4	6	sandy silt to clayey silt
45.01	8.68	0.0461	0.531	50.533	4	1	sensitive fine grained
45.08	8.54	0.0482	0.565	50.972	4	1	sensitive fine grained
45.14	8.69	0.0453	0.522	51.318	4	5	clayey silt to silty clay
45.21	8.44	0.0535	0.634	51.270	4	5	clayey silt to silty clay
45.28	8.37	0.0836	0.999	51.323	5	5	clayey silt to silty clay
45.34	9.07	0.1399	1.541	51.760	5	5	clayey silt to silty clay
45.41	10.75	0.1857	1.727	52.710	5	6	sandy silt to clayey silt
45.47	14.06	0.2060	1.465	53.815	5	6	sandy silt to clayey silt
45.54	16.78	0.1852	1.104	53.919	6	6	sandy silt to clayey silt
45.60	18.72	0.1368	0.731	53.478	6	6	sandy silt to clayey silt
45.67	18.92	0.1139	0.602	52.731	7	6	sandy silt to clayey silt
45.73	19.06	0.0983	0.516	52.460	7	6	sandy silt to clayey silt
45.80	18.73	0.0928	0.496	52.630	7	6	sandy silt to clayey silt
45.87	18.10	0.0803	0.444	53.769	7	6	sandy silt to clayey silt
45.93	17.36	0.0646	0.372	55.790	7	6	sandy silt to clayey silt
46.00	16.94	0.1086	0.641	58.383	7	6	sandy silt to clayey silt
46.06	16.42	0.1353	0.824	60.380	7	6	sandy silt to clayey silt
46.13	16.24	0.1196	0.736	62.221	7	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
46.19	17.61	0.1256	0.714	64.895	8	6	sandy silt to clayey silt
46.26	24.62	0.1430	0.581	67.231	8	6	sandy silt to clayey silt
46.33	27.14	0.1213	0.447	58.807	7	6	sandy silt to clayey silt
46.39	20.73	0.1243	0.600	40.272	7	6	sandy silt to clayey silt
46.46	15.82	0.0956	0.605	37.851	6	6	sandy silt to clayey silt
46.52	11.52	0.0859	0.745	29.944	6	6	sandy silt to clayey silt
46.59	9.31	0.0660	0.708	29.694	5	6	sandy silt to clayey silt
46.65	8.94	0.0474	0.531	33.795	4	6	sandy silt to clayey silt
46.72	9.21	0.0286	0.311	36.274	4	6	sandy silt to clayey silt
46.78	9.20	0.0181	0.197	37.146	4	1	sensitive fine grained
46.85	9.37	0.0227	0.243	37.868	4	1	sensitive fine grained
46.92	9.03	0.0256	0.284	38.738	4	5	clayey silt to silty clay
46.98	8.90	0.0526	0.591	39.451	4	5	clayey silt to silty clay
47.05	8.65	0.0319	0.369	40.275	6	5	clayey silt to silty clay
47.11	8.67	0.6011	6.929	43.939	8	5	clayey silt to silty clay
47.18	11.04	0.6100	5.526	44.218	9	5	clayey silt to silty clay
47.24	34.38	0.5894	1.715	45.245	8	5	clayey silt to silty clay
47.31	31.47	0.5376	1.708	42.919	8	5	clayey silt to silty clay
47.38	21.62	0.4680	2.165	40.840	8	5	clayey silt to silty clay
47.44	7.61	0.3544	4.657	38.755	8	5	clayey silt to silty clay
47.51	6.99	0.2556	3.656	38.753	6	5	clayey silt to silty clay
47.57	7.06	0.0305	0.432	39.422	5	5	clayey silt to silty clay
47.64	7.36	0.0223	0.303	40.239	4	5	clayey silt to silty clay
47.70	7.55	0.0170	0.225	41.094	4	1	sensitive fine grained
47.77	7.66	0.0145	0.189	41.908	4	1	sensitive fine grained
47.83	7.94	0.0099	0.125	42.691	4	1	sensitive fine grained
47.90	8.23	0.0061	0.074	43.454	4	1	sensitive fine grained
47.97	8.34	0.0091	0.109	43.988	4	1	sensitive fine grained
48.03	8.04	0.0075	0.093	44.518	4	1	sensitive fine grained
48.10	7.83	0.0087	0.112	45.117	4	1	sensitive fine grained
48.16	7.98	0.0126	0.158	45.730	4	1	sensitive fine grained
48.23	8.70	0.0136	0.157	46.229	5	1	sensitive fine grained
48.29	9.84	0.0101	0.102	46.556	5	1	sensitive fine grained
48.36	11.34	0.0169	0.149	46.595	4	6	sandy silt to clayey silt
48.43	12.32	0.0130	0.106	46.561	4	6	sandy silt to clayey silt
48.49	12.16	0.0156	0.128	46.389	4	6	sandy silt to clayey silt
48.56	11.59	0.0164	0.142	46.205	4	6	sandy silt to clayey silt
48.62	11.07	0.0167	0.151	46.186	4	6	sandy silt to clayey silt
48.69	9.85	0.0135	0.137	45.866	5	1	sensitive fine grained
48.75	8.62	0.0110	0.128	45.686	4	1	sensitive fine grained
48.82	7.62	0.0071	0.093	46.067	4	1	sensitive fine grained
48.88	7.36	0.0064	0.088	46.808	4	1	sensitive fine grained
48.95	7.38	0.0043	0.059	47.400	4	1	sensitive fine grained
49.02	7.33	0.0050	0.068	47.860	4	1	sensitive fine grained
49.08	7.24	0.0052	0.072	48.299	4	1	sensitive fine grained
49.15	7.35	0.0023	0.031	48.616	4	1	sensitive fine grained
49.21	7.47	0.0029	0.039	48.864	4	1	sensitive fine grained
49.28	7.49	0.0050	0.067	49.038	4	1	sensitive fine grained
49.34	7.40	0.0033	0.045	49.183	4	1	sensitive fine grained
49.41	7.40	0.0056	0.076	49.343	4	1	sensitive fine grained
49.48	7.45	0.0076	0.101	49.581	4	1	sensitive fine grained
49.54	7.66	0.0054	0.070	49.840	4	1	sensitive fine grained
49.61	8.19	0.0021	0.025	50.046	4	1	sensitive fine grained
49.67	8.66	0.0044	0.050	50.158	4	1	sensitive fine grained
49.74	8.51	0.0060	0.070	49.896	4	1	sensitive fine grained
49.80	8.03	0.0031	0.039	49.797	4	1	sensitive fine grained
49.87	7.67	0.0018	0.023	49.947	4	1	sensitive fine grained
49.93	7.54	0.0051	0.068	50.138	4	1	sensitive fine grained
50.00	7.63	0.0080	0.104	50.291	4	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
50.07	7.81	0.0032	0.041	50.429	4	1	sensitive fine grained
50.13	8.24	0.0100	0.121	50.468	4	1	sensitive fine grained
50.20	8.44	0.0080	0.095	50.385	4	1	sensitive fine grained
50.26	8.61	0.0047	0.055	50.175	4	1	sensitive fine grained
50.33	8.60	0.0039	0.045	49.966	4	1	sensitive fine grained
50.39	9.33	0.0028	0.030	44.450	4	1	sensitive fine grained
50.46	8.78	0.0019	0.022	44.642	4	1	sensitive fine grained
50.52	8.27	0.0039	0.047	44.974	4	1	sensitive fine grained
50.59	7.91	0.0019	0.024	45.563	4	1	sensitive fine grained
50.66	7.76	0.0035	0.045	46.181	4	1	sensitive fine grained
50.72	7.53	0.0021	0.029	46.787	4	1	sensitive fine grained
50.79	7.45	0.0047	0.064	47.349	4	1	sensitive fine grained
50.85	7.45	0.0077	0.104	47.889	4	1	sensitive fine grained
50.92	7.57	0.0036	0.048	48.389	4	1	sensitive fine grained
50.98	7.57	0.0066	0.087	48.771	4	1	sensitive fine grained
51.05	7.63	0.0007	0.009	49.086	4	1	sensitive fine grained
51.12	7.79	0.0197	0.253	49.363	4	1	sensitive fine grained
51.18	7.97	0.0499	0.626	49.574	3	6	sandy silt to clayey silt
51.25	8.04	0.0653	0.813	49.804	4	6	sandy silt to clayey silt
51.31	9.54	0.0882	0.924	50.359	6	6	sandy silt to clayey silt
51.38	15.08	0.1275	0.846	50.933	7	6	sandy silt to clayey silt
51.44	24.01	0.1822	0.759	49.387	9	6	sandy silt to clayey silt
51.51	30.63	0.2743	0.896	47.000	10	6	sandy silt to clayey silt
51.57	34.83	0.3676	1.055	44.351	10	7	silty sand to sandy silt
51.64	36.06	0.4605	1.277	42.352	11	7	silty sand to sandy silt
51.71	36.34	0.5133	1.413	40.735	12	7	silty sand to sandy silt
51.77	36.90	0.5290	1.433	39.555	12	7	silty sand to sandy silt
51.84	38.21	0.5345	1.399	38.588	13	7	silty sand to sandy silt
51.90	40.32	0.5419	1.344	37.653	13	7	silty sand to sandy silt
51.97	42.65	0.5620	1.318	36.759	13	7	silty sand to sandy silt
52.03	44.00	0.5946	1.351	36.225	13	7	silty sand to sandy silt
52.10	44.03	0.6236	1.416	35.743	13	7	silty sand to sandy silt
52.17	43.03	0.6588	1.531	35.414	13	7	silty sand to sandy silt
52.23	41.42	0.6997	1.689	35.055	13	7	silty sand to sandy silt
52.30	40.00	0.6098	1.524	34.461	13	7	silty sand to sandy silt
52.36	39.17	0.5671	1.448	34.076	13	7	silty sand to sandy silt
52.43	38.83	0.4668	1.202	33.833	12	7	silty sand to sandy silt
52.49	39.23	0.4456	1.136	33.625	12	7	silty sand to sandy silt
52.56	39.97	0.4608	1.153	33.026	11	7	silty sand to sandy silt
52.62	35.38	0.4582	1.295	31.148	11	7	silty sand to sandy silt
52.69	30.36	0.3896	1.283	27.203	10	7	silty sand to sandy silt
52.76	27.59	0.3379	1.225	29.668	11	6	sandy silt to clayey silt
52.82	24.20	0.2853	1.179	30.247	9	6	sandy silt to clayey silt
52.89	21.13	0.2040	0.966	30.618	8	6	sandy silt to clayey silt
52.95	17.82	0.1092	0.613	32.229	7	6	sandy silt to clayey silt
53.02	15.09	0.0623	0.413	34.892	6	6	sandy silt to clayey silt
53.08	13.00	0.0406	0.312	37.604	5	6	sandy silt to clayey silt
53.15	11.29	0.0137	0.121	39.015	5	6	sandy silt to clayey silt
53.22	9.70	0.0036	0.037	42.044	4	6	sandy silt to clayey silt
53.28	8.27	0.0056	0.067	43.564	4	1	sensitive fine grained
53.35	7.69	0.0192	0.249	44.984	4	1	sensitive fine grained
53.41	7.47	0.0207	0.277	46.995	4	1	sensitive fine grained
53.48	7.45	0.0268	0.360	48.461	4	1	sensitive fine grained
53.54	7.87	0.0289	0.367	49.428	5	1	sensitive fine grained
53.61	10.82	0.0262	0.242	40.900	4	6	sandy silt to clayey silt
53.67	11.74	0.0304	0.259	40.794	5	6	sandy silt to clayey silt
53.74	13.81	0.0323	0.234	41.390	5	6	sandy silt to clayey silt
53.81	15.48	0.0207	0.134	42.066	6	6	sandy silt to clayey silt
53.87	15.96	0.0276	0.173	42.456	6	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
53.94	16.75	0.0547	0.327	42.919	6	6	sandy silt to clayey silt
54.00	17.35	0.0958	0.552	43.362	6	7	silty sand to sandy silt
54.07	17.33	0.0542	0.313	43.697	6	7	silty sand to sandy silt
54.13	18.04	0.0355	0.197	44.482	7	7	silty sand to sandy silt
54.20	21.68	0.0449	0.207	45.384	7	7	silty sand to sandy silt
54.27	27.00	0.0803	0.298	45.529	8	7	silty sand to sandy silt
54.33	30.32	0.1279	0.422	44.017	9	7	silty sand to sandy silt
54.40	32.28	0.1828	0.566	42.252	10	7	silty sand to sandy silt
54.46	33.32	0.2446	0.734	41.307	10	7	silty sand to sandy silt
54.53	34.26	0.3207	0.936	40.248	11	7	silty sand to sandy silt
54.59	35.04	0.3754	1.071	39.560	11	7	silty sand to sandy silt
54.66	35.04	0.3589	1.024	38.998	11	7	silty sand to sandy silt
54.72	35.18	0.3004	0.854	38.520	11	7	silty sand to sandy silt
54.79	35.82	0.3547	0.990	37.973	11	7	silty sand to sandy silt
54.86	35.08	0.4212	1.201	37.469	10	7	silty sand to sandy silt
54.92	31.81	0.5143	1.617	36.846	12	6	sandy silt to clayey silt
54.99	27.40	0.4137	1.510	36.603	11	6	sandy silt to clayey silt
55.05	22.61	0.3422	1.513	36.620	11	6	sandy silt to clayey silt
55.12	24.63	0.3652	1.483	36.652	11	6	sandy silt to clayey silt
55.18	29.23	0.4420	1.512	37.284	10	6	sandy silt to clayey silt
55.25	30.94	0.4257	1.376	37.820	10	6	sandy silt to clayey silt
55.31	26.88	0.4052	1.507	34.902	10	6	sandy silt to clayey silt
55.38	22.98	0.3053	1.328	33.245	10	6	sandy silt to clayey silt
55.45	22.53	0.3317	1.472	33.123	11	6	sandy silt to clayey silt
55.51	25.06	0.2868	1.144	33.264	11	6	sandy silt to clayey silt
55.58	33.14	0.3651	1.102	33.465	12	6	sandy silt to clayey silt
55.64	38.35	0.5349	1.395	33.567	13	6	sandy silt to clayey silt
55.71	40.76	0.6507	1.597	33.206	13	6	sandy silt to clayey silt
55.77	38.88	0.6795	1.748	29.937	13	6	sandy silt to clayey silt
55.84	30.85	0.6510	2.110	29.971	13	6	sandy silt to clayey silt
55.91	25.45	0.7078	2.782	31.854	14	6	sandy silt to clayey silt
55.97	23.58	0.7143	3.030	33.310	16	6	sandy silt to clayey silt
56.04	37.56	0.7704	2.051	34.141	16	7	silty sand to sandy silt
56.10	63.11	0.8969	1.421	34.597	18	7	silty sand to sandy silt
56.17	78.88	1.0630	1.348	30.848	20	7	silty sand to sandy silt
56.23	81.32	1.1464	1.410	29.832	23	7	silty sand to sandy silt
56.30	80.75	1.1782	1.459	30.036	24	7	silty sand to sandy silt
56.36	79.22	1.1794	1.489	30.557	25	7	silty sand to sandy silt
56.43	77.34	1.2057	1.559	30.850	24	7	silty sand to sandy silt
56.50	74.26	1.6832	2.267	30.877	23	7	silty sand to sandy silt
56.56	70.25	1.3725	1.954	30.647	22	7	silty sand to sandy silt
56.63	64.40	1.3204	2.050	30.792	20	7	silty sand to sandy silt
56.69	57.38	1.2494	2.177	31.020	22	6	sandy silt to clayey silt
56.76	49.73	1.1875	2.388	31.509	20	6	sandy silt to clayey silt
56.82	41.30	1.1374	2.754	27.128	18	6	sandy silt to clayey silt
56.89	40.16	0.9931	2.473	26.985	17	6	sandy silt to clayey silt
56.96	36.45	0.8658	2.376	26.956	16	6	sandy silt to clayey silt
57.02	37.39	0.5853	1.565	27.218	14	7	silty sand to sandy silt
57.09	42.59	0.5453	1.280	29.176	16	7	silty sand to sandy silt
57.15	53.74	0.6553	1.219	31.451	17	7	silty sand to sandy silt
57.22	64.50	0.8319	1.290	31.211	19	7	silty sand to sandy silt
57.28	71.79	0.9818	1.368	28.725	21	7	silty sand to sandy silt
57.35	73.72	1.1077	1.503	27.479	22	7	silty sand to sandy silt
57.41	73.28	1.1779	1.607	28.267	23	7	silty sand to sandy silt
57.48	72.38	1.1312	1.563	29.200	22	7	silty sand to sandy silt
57.55	70.92	1.0646	1.501	29.442	22	7	silty sand to sandy silt
57.61	67.63	0.9917	1.466	29.304	21	7	silty sand to sandy silt
57.68	62.16	0.9270	1.491	29.122	20	7	silty sand to sandy silt
57.74	56.40	0.9056	1.606	28.492	19	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
57.81	51.36	0.8851	1.723	27.770	18	7	silty sand to sandy silt
57.87	49.54	1.1926	2.407	27.683	0	0	<out of range>
57.94	50.50	0.6209	1.230	27.683	0	0	<out of range>
58.01	53.05	1.3883	2.617	27.661	28	8	sand to silty sand
58.07	60.32	-32767.9600	-54321.860	27.634	0	0	<out of range>
58.14	82.01	-32767.9600	-39954.070	27.923	0	0	<out of range>
58.20	147.58	-32767.9600	-22202.920	28.887	0	0	<out of range>
58.27	244.91	-32767.9600	-13379.510	29.025	0	0	<out of range>

*Soil behavior type and SPT based on data from UBC-1983

AECOM

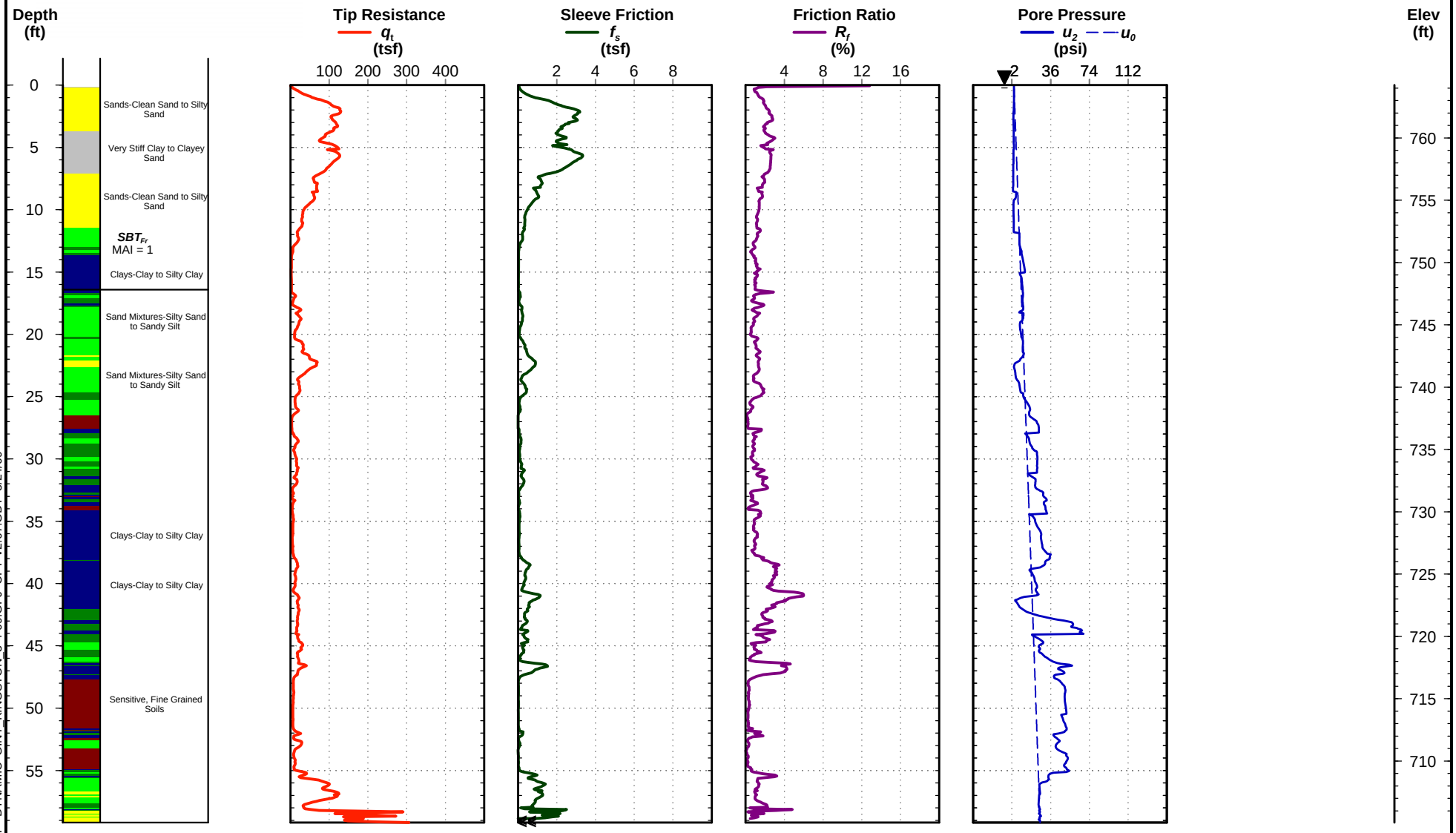
TVA Kingston Coal Ash Pond RCA (Kingston,Tennessee) *Cone Penetration Test* **09-714-C1**

Project No: 60095742

Date: Feb. 21, 2009
Estimated Water Depth: 0 ft
Rig/Operator: Mobile 57/CAP

Northing: 555360.52
Easting: 2441319.47
Elevation: 764.24 NGVD

Total Depth: 59.2 ft
Termination Criteria: Refusal
Cone Size: 10T Tension Cone



09-714-C1

Page 1 of 1

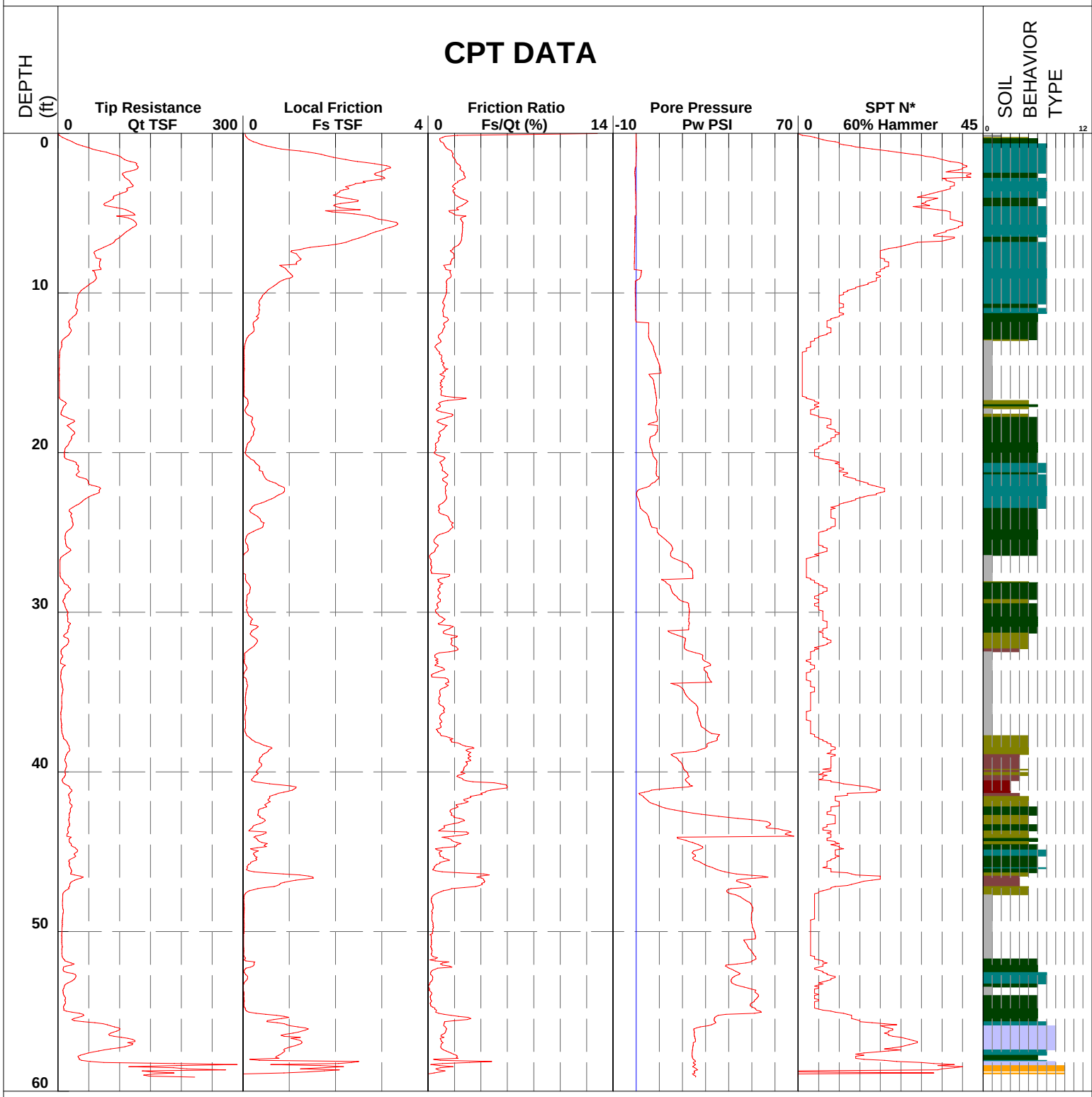
Electronic Filename: 09-714-C1.cpt

CPT REPORT - DYNAMIC GINT_KINGSTON_3-4-09.GPJ CPT V2.07.GDT 3/24/09

AECOM

09-714-C1	60095742	2/21/2009 11:01:56 AM
DSG0870	TVA-Kingston	Mobile 57/CAP

CPT DATA



- 1 - sensitive fine grained
- 2 - organic material
- 3 - clay
- 4 - silty clay to clay
- 5 - clayey silt to silty clay
- 6 - sandy silt to clayey silt
- 7 - silty sand to sandy silt
- 8 - sand to silty sand
- 9 - sand
- 10 - gravelly sand to sand
- 11 - very stiff fine grained (*)
- 12 - sand to clayey sand (*)

Data File:09-714-C1 2/21/2009 11:01:56 AM
Operator:Mobile 57/CAP Location:TVA-Kingston
Cone ID:DSG0870 Job Number:60095742
Customer:TVA Units:

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
0.07	0.34	0.0437	12.820	-0.099	0	0	<out of range>
0.13	2.35	0.0523	2.228	-0.097	1	2	organic material
0.20	4.81	0.0620	1.289	-0.085	3	1	sensitive fine grained
0.26	7.28	0.0811	1.115	-0.090	4	5	clayey silt to silty clay
0.33	11.33	0.0992	0.876	-0.078	5	6	sandy silt to clayey silt
0.39	15.09	0.1351	0.895	-0.063	6	6	sandy silt to clayey silt
0.46	19.49	0.1782	0.914	-0.046	7	6	sandy silt to clayey silt
0.52	23.06	0.2213	0.960	-0.036	9	6	sandy silt to clayey silt
0.59	26.03	0.2970	1.141	-0.015	10	6	sandy silt to clayey silt
0.66	29.21	0.3494	1.196	-0.027	10	7	silty sand to sandy silt
0.72	33.90	0.4154	1.225	-0.005	11	7	silty sand to sandy silt
0.79	39.61	0.5021	1.267	-0.002	13	7	silty sand to sandy silt
0.85	45.67	0.6099	1.335	0.044	14	7	silty sand to sandy silt
0.92	51.35	0.7047	1.372	0.085	16	7	silty sand to sandy silt
0.98	55.28	0.8218	1.487	0.065	18	7	silty sand to sandy silt
1.05	61.20	1.0039	1.640	0.034	20	7	silty sand to sandy silt
1.12	68.97	1.2390	1.796	0.029	22	7	silty sand to sandy silt
1.18	78.38	1.4127	1.802	0.007	24	7	silty sand to sandy silt
1.25	83.55	1.5687	1.878	0.010	26	7	silty sand to sandy silt
1.31	89.50	1.6879	1.886	-0.002	28	7	silty sand to sandy silt
1.38	96.03	1.7680	1.841	0.005	30	7	silty sand to sandy silt
1.44	100.14	1.8626	1.860	-0.019	31	7	silty sand to sandy silt
1.51	102.90	1.9547	1.900	-0.022	33	7	silty sand to sandy silt
1.57	105.18	2.0774	1.975	-0.044	34	7	silty sand to sandy silt
1.64	107.67	2.2199	2.062	-0.034	35	7	silty sand to sandy silt
1.71	111.56	2.3249	2.084	-0.046	36	7	silty sand to sandy silt
1.77	117.52	2.4794	2.110	-0.087	37	7	silty sand to sandy silt
1.84	125.40	2.6649	2.125	-0.126	39	7	silty sand to sandy silt
1.90	127.97	2.8478	2.225	-0.141	40	7	silty sand to sandy silt
1.97	126.79	2.9716	2.344	-0.131	40	7	silty sand to sandy silt
2.03	128.47	3.1085	2.420	-0.124	41	7	silty sand to sandy silt
2.10	130.13	3.1807	2.444	-0.208	41	7	silty sand to sandy silt
2.17	129.69	3.1900	2.460	-0.424	40	7	silty sand to sandy silt
2.23	128.26	3.0828	2.403	-0.473	40	7	silty sand to sandy silt
2.30	124.40	3.0757	2.473	-0.499	39	7	silty sand to sandy silt
2.36	117.95	3.0140	2.555	-0.511	37	7	silty sand to sandy silt
2.43	110.51	2.9514	2.671	-0.557	36	7	silty sand to sandy silt
2.49	105.19	2.8676	2.726	-0.584	42	6	sandy silt to clayey silt
2.56	104.33	2.8374	2.720	-0.536	42	6	sandy silt to clayey silt
2.62	105.77	2.8745	2.718	-0.511	41	6	sandy silt to clayey silt
2.69	107.15	2.9857	2.786	-0.482	41	6	sandy silt to clayey silt
2.76	108.14	3.0473	2.818	-0.458	42	6	sandy silt to clayey silt
2.82	110.25	3.0678	2.783	-0.429	35	7	silty sand to sandy silt
2.89	113.08	2.9628	2.620	-0.407	36	7	silty sand to sandy silt
2.95	115.53	2.7747	2.402	-0.383	36	7	silty sand to sandy silt
3.02	116.86	2.5951	2.221	-0.361	37	7	silty sand to sandy silt
3.08	117.73	2.6392	2.242	-0.393	38	7	silty sand to sandy silt
3.15	118.88	2.4340	2.047	-0.393	38	7	silty sand to sandy silt
3.22	120.60	2.3987	1.989	-0.361	38	7	silty sand to sandy silt
3.28	122.09	2.3111	1.893	-0.337	38	7	silty sand to sandy silt
3.35	120.80	2.2150	1.834	-0.339	37	7	silty sand to sandy silt
3.41	113.75	2.2755	2.001	-0.364	37	7	silty sand to sandy silt
3.48	111.07	2.2853	2.057	-0.337	37	7	silty sand to sandy silt
3.54	112.96	2.1728	1.924	-0.317	36	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
3.61	111.75	2.0947	1.874	-0.293	35	7	silty sand to sandy silt
3.67	109.67	2.0903	1.906	-0.242	34	7	silty sand to sandy silt
3.74	104.10	2.0504	1.970	-0.233	33	7	silty sand to sandy silt
3.81	100.12	2.0295	2.027	-0.206	32	7	silty sand to sandy silt
3.87	94.80	1.9513	2.058	-0.201	31	7	silty sand to sandy silt
3.94	90.93	2.0113	2.212	-0.216	30	7	silty sand to sandy silt
4.00	89.70	2.1023	2.344	-0.177	29	7	silty sand to sandy silt
4.07	90.26	2.2260	2.466	-0.211	34	6	sandy silt to clayey silt
4.13	88.92	2.3565	2.650	-0.189	33	6	sandy silt to clayey silt
4.20	85.43	2.4935	2.919	-0.150	32	6	sandy silt to clayey silt
4.27	82.23	2.4802	3.016	-0.141	31	6	sandy silt to clayey silt
4.33	78.78	2.2881	2.904	-0.153	31	6	sandy silt to clayey silt
4.40	75.33	2.1133	2.806	-0.153	30	6	sandy silt to clayey silt
4.46	74.23	1.9909	2.682	-0.162	31	6	sandy silt to clayey silt
4.53	76.24	1.9606	2.572	-0.177	32	6	sandy silt to clayey silt
4.59	84.72	2.0142	2.378	-0.218	28	7	silty sand to sandy silt
4.66	95.34	2.0949	2.197	-0.201	30	7	silty sand to sandy silt
4.72	104.44	2.2603	2.164	-0.153	32	7	silty sand to sandy silt
4.79	110.26	2.5348	2.299	-0.114	34	7	silty sand to sandy silt
4.86	113.98	1.7817	1.563	-0.080	36	7	silty sand to sandy silt
4.92	117.87	1.9222	1.631	-0.058	37	7	silty sand to sandy silt
4.99	121.48	2.1939	1.806	-0.017	37	7	silty sand to sandy silt
5.05	123.41	2.4043	1.948	-0.019	37	7	silty sand to sandy silt
5.12	125.14	2.5912	2.071	-0.027	37	7	silty sand to sandy silt
5.18	95.34	2.7342	2.868	-0.521	37	7	silty sand to sandy silt
5.25	108.07	2.8093	2.599	-0.504	37	7	silty sand to sandy silt
5.31	114.60	2.8520	2.489	-0.506	37	7	silty sand to sandy silt
5.38	118.97	2.9268	2.460	-0.499	37	7	silty sand to sandy silt
5.45	122.22	3.0754	2.516	-0.521	38	7	silty sand to sandy silt
5.51	124.36	3.1925	2.567	-0.477	39	7	silty sand to sandy silt
5.58	125.90	3.3112	2.630	-0.473	40	7	silty sand to sandy silt
5.64	127.01	3.3420	2.631	-0.516	40	7	silty sand to sandy silt
5.71	127.59	3.3397	2.617	-0.494	40	7	silty sand to sandy silt
5.77	126.57	3.3061	2.612	-0.487	40	7	silty sand to sandy silt
5.84	124.62	3.2504	2.608	-0.494	39	7	silty sand to sandy silt
5.91	120.85	3.1706	2.624	-0.494	39	7	silty sand to sandy silt
5.97	118.39	3.0757	2.598	-0.516	38	7	silty sand to sandy silt
6.04	116.20	3.0285	2.606	-0.540	37	7	silty sand to sandy silt
6.10	113.73	2.9582	2.601	-0.555	36	7	silty sand to sandy silt
6.17	110.85	2.8706	2.590	-0.543	36	7	silty sand to sandy silt
6.23	108.56	2.8120	2.590	-0.572	35	7	silty sand to sandy silt
6.30	106.88	2.7476	2.571	-0.550	34	7	silty sand to sandy silt
6.36	104.99	2.6962	2.568	-0.582	33	7	silty sand to sandy silt
6.43	102.64	2.6397	2.572	-0.603	33	7	silty sand to sandy silt
6.50	100.70	2.5646	2.547	-0.584	38	6	sandy silt to clayey silt
6.56	98.65	2.5067	2.541	-0.630	38	6	sandy silt to clayey silt
6.63	95.49	2.4264	2.541	-0.637	37	6	sandy silt to clayey silt
6.69	93.06	2.3547	2.530	-0.620	36	6	sandy silt to clayey silt
6.76	92.08	2.2945	2.492	-0.654	35	6	sandy silt to clayey silt
6.82	90.88	2.2269	2.450	-0.625	29	7	silty sand to sandy silt
6.89	88.41	2.1298	2.409	-0.657	28	7	silty sand to sandy silt
6.96	85.26	2.0078	2.355	-0.652	27	7	silty sand to sandy silt
7.02	81.46	1.8510	2.272	-0.637	26	7	silty sand to sandy silt
7.09	77.66	1.6410	2.113	-0.642	25	7	silty sand to sandy silt
7.15	73.82	1.4485	1.962	-0.696	24	7	silty sand to sandy silt
7.22	70.13	1.3156	1.876	-0.676	22	7	silty sand to sandy silt
7.28	65.95	1.2381	1.877	-0.717	21	7	silty sand to sandy silt
7.35	62.21	1.0516	1.690	-0.715	20	7	silty sand to sandy silt
7.41	59.27	1.0380	1.751	-0.761	20	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
7.48	58.09	1.0847	1.867	-0.763	20	7	silty sand to sandy silt
7.55	59.42	1.1562	1.946	-0.759	20	7	silty sand to sandy silt
7.81	61.92	1.2256	1.979	-0.759	20	7	silty sand to sandy silt
7.87	69.20	1.2577	1.817	-0.729	21	7	silty sand to sandy silt
7.94	69.13	1.2360	1.788	-0.744	21	7	silty sand to sandy silt
8.01	68.20	1.1883	1.742	-0.759	21	7	silty sand to sandy silt
8.07	67.44	1.1589	1.718	-0.766	22	7	silty sand to sandy silt
8.14	67.58	1.1497	1.701	-0.797	22	7	silty sand to sandy silt
8.20	67.62	1.1622	1.719	-0.802	22	7	silty sand to sandy silt
8.27	67.28	0.7930	1.179	-0.814	22	7	silty sand to sandy silt
8.33	67.12	0.8320	1.240	-0.839	22	7	silty sand to sandy silt
8.40	68.15	0.8782	1.289	-0.841	21	7	silty sand to sandy silt
8.46	69.35	0.9181	1.324	-0.848	21	7	silty sand to sandy silt
8.53	69.87	0.9367	1.341	-0.868	20	7	silty sand to sandy silt
8.60	55.88	0.9597	1.717	2.305	20	7	silty sand to sandy silt
8.66	58.98	0.9761	1.655	2.225	20	7	silty sand to sandy silt
8.73	59.82	1.0025	1.676	2.196	19	7	silty sand to sandy silt
8.79	60.29	1.0265	1.703	2.142	19	7	silty sand to sandy silt
8.86	60.43	1.0484	1.735	2.128	19	7	silty sand to sandy silt
8.92	61.11	1.0713	1.753	2.004	20	7	silty sand to sandy silt
8.99	61.88	1.0720	1.732	1.798	20	7	silty sand to sandy silt
9.06	62.38	1.0289	1.649	1.619	19	7	silty sand to sandy silt
9.12	61.91	0.9329	1.507	1.423	19	7	silty sand to sandy silt
9.19	60.71	0.8736	1.439	0.509	19	7	silty sand to sandy silt
9.25	59.09	0.8247	1.396	-0.262	19	7	silty sand to sandy silt
9.32	57.10	0.7837	1.373	-0.286	18	7	silty sand to sandy silt
9.38	53.89	0.7524	1.396	-0.337	17	7	silty sand to sandy silt
9.45	51.18	0.7234	1.413	-0.368	17	7	silty sand to sandy silt
9.51	49.17	0.6895	1.402	-0.385	16	7	silty sand to sandy silt
9.58	47.09	0.6585	1.398	-0.395	15	7	silty sand to sandy silt
9.65	44.74	0.6247	1.396	-0.412	14	7	silty sand to sandy silt
9.71	42.49	0.5931	1.396	-0.429	14	7	silty sand to sandy silt
9.78	40.08	0.5576	1.391	-0.427	13	7	silty sand to sandy silt
9.84	37.65	0.5287	1.404	-0.431	12	7	silty sand to sandy silt
9.91	36.35	0.5101	1.403	-0.448	12	7	silty sand to sandy silt
9.97	35.18	0.4891	1.390	-0.427	11	7	silty sand to sandy silt
10.04	33.96	0.4668	1.375	-0.417	11	7	silty sand to sandy silt
10.10	32.73	0.4442	1.358	-0.390	11	7	silty sand to sandy silt
10.17	32.13	0.4202	1.308	-0.405	10	7	silty sand to sandy silt
10.24	31.95	0.4143	1.297	-0.376	10	7	silty sand to sandy silt
10.30	31.71	0.4004	1.263	-0.368	10	7	silty sand to sandy silt
10.37	31.32	0.3816	1.219	-0.359	10	7	silty sand to sandy silt
10.43	30.70	0.3643	1.187	-0.339	10	7	silty sand to sandy silt
10.50	30.73	0.3537	1.151	-0.339	10	7	silty sand to sandy silt
10.56	31.09	0.3489	1.122	-0.325	10	7	silty sand to sandy silt
10.63	30.69	0.3402	1.108	-0.308	10	7	silty sand to sandy silt
10.70	29.76	0.3541	1.190	-0.313	11	6	sandy silt to clayey silt
10.76	29.19	0.3648	1.250	-0.313	11	6	sandy silt to clayey silt
10.83	28.98	0.3555	1.227	-0.298	11	6	sandy silt to clayey silt
10.89	28.65	0.3465	1.209	-0.286	11	6	sandy silt to clayey silt
10.96	29.07	0.3429	1.179	-0.281	10	7	silty sand to sandy silt
11.02	31.07	0.3524	1.134	-0.267	10	7	silty sand to sandy silt
11.09	31.82	0.3544	1.114	-0.237	10	7	silty sand to sandy silt
11.15	30.95	0.3463	1.119	-0.247	10	7	silty sand to sandy silt
11.22	30.30	0.3464	1.143	-0.237	10	7	silty sand to sandy silt
11.29	29.92	0.3453	1.154	-0.242	11	6	sandy silt to clayey silt
11.35	28.98	0.3342	1.153	-0.250	11	6	sandy silt to clayey silt
11.42	27.12	0.3135	1.156	-0.245	10	6	sandy silt to clayey silt
11.48	24.74	0.2896	1.171	-0.247	10	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
11.55	23.07	0.3360	1.457	-0.247	9	6	sandy silt to clayey silt
11.61	21.34	0.3202	1.501	-0.233	8	6	sandy silt to clayey silt
11.68	19.50	0.3007	1.542	-0.223	8	6	sandy silt to clayey silt
11.75	18.11	0.2677	1.478	-0.141	7	6	sandy silt to clayey silt
11.81	17.38	0.2371	1.364	-0.073	7	6	sandy silt to clayey silt
11.88	18.12	0.2211	1.220	5.419	7	6	sandy silt to clayey silt
11.94	18.48	0.2177	1.178	5.390	7	6	sandy silt to clayey silt
12.01	18.48	0.2210	1.195	5.399	7	6	sandy silt to clayey silt
12.07	18.14	0.2281	1.257	5.392	7	6	sandy silt to clayey silt
12.14	18.42	0.2328	1.264	5.378	7	6	sandy silt to clayey silt
12.20	19.78	0.2360	1.193	5.387	8	6	sandy silt to clayey silt
12.27	20.90	0.2419	1.157	5.397	8	6	sandy silt to clayey silt
12.34	21.57	0.2407	1.116	5.387	8	6	sandy silt to clayey silt
12.40	21.28	0.2354	1.106	5.397	8	6	sandy silt to clayey silt
12.47	20.04	0.2113	1.055	5.378	8	6	sandy silt to clayey silt
12.53	19.05	0.1831	0.962	5.361	7	6	sandy silt to clayey silt
12.60	18.07	0.1554	0.860	5.361	7	6	sandy silt to clayey silt
12.66	16.33	0.1272	0.779	5.346	6	6	sandy silt to clayey silt
12.73	14.31	0.1113	0.778	5.356	5	6	sandy silt to clayey silt
12.80	11.85	0.0934	0.788	5.453	5	6	sandy silt to clayey silt
12.86	9.71	0.0810	0.834	5.596	4	6	sandy silt to clayey silt
12.93	7.83	0.0725	0.925	5.770	4	5	clayey silt to silty clay
12.99	6.58	0.0632	0.961	6.013	4	1	sensitive fine grained
13.06	5.99	0.0582	0.973	6.233	3	1	sensitive fine grained
13.12	5.85	0.0517	0.883	6.560	3	1	sensitive fine grained
13.19	6.09	0.0447	0.735	6.790	3	1	sensitive fine grained
13.25	6.21	0.0395	0.635	7.069	3	1	sensitive fine grained
13.32	6.20	0.0347	0.559	7.358	3	1	sensitive fine grained
13.39	5.96	0.0303	0.509	7.464	3	1	sensitive fine grained
13.45	5.21	0.0317	0.608	7.501	2	1	sensitive fine grained
13.52	4.29	0.0278	0.648	7.549	2	1	sensitive fine grained
13.58	3.59	0.0252	0.703	7.675	2	1	sensitive fine grained
13.65	3.09	0.0242	0.783	7.820	2	1	sensitive fine grained
13.71	2.82	0.0252	0.895	7.983	1	1	sensitive fine grained
13.78	2.72	0.0228	0.839	8.201	1	1	sensitive fine grained
13.85	2.68	0.0237	0.885	8.310	1	1	sensitive fine grained
13.91	2.59	0.0270	1.042	8.438	1	1	sensitive fine grained
13.98	2.54	0.0265	1.043	8.550	1	1	sensitive fine grained
14.04	2.50	0.0262	1.046	8.775	1	1	sensitive fine grained
14.11	2.52	0.0247	0.981	9.015	1	1	sensitive fine grained
14.17	2.50	0.0259	1.036	9.190	1	1	sensitive fine grained
14.24	2.43	0.0261	1.075	9.345	1	1	sensitive fine grained
14.30	2.35	0.0240	1.024	9.507	1	1	sensitive fine grained
14.37	2.29	0.0270	1.178	9.626	1	1	sensitive fine grained
14.44	2.23	0.0264	1.185	9.854	1	1	sensitive fine grained
14.50	2.29	0.0249	1.086	10.021	1	1	sensitive fine grained
14.57	2.32	0.0267	1.154	10.128	1	1	sensitive fine grained
14.63	2.29	0.0280	1.224	10.144	1	1	sensitive fine grained
14.70	2.28	0.0276	1.214	10.270	1	1	sensitive fine grained
14.76	2.22	0.0333	1.502	10.382	1	1	sensitive fine grained
14.83	2.07	0.0263	1.268	10.457	1	1	sensitive fine grained
14.90	2.03	0.0266	1.314	10.607	1	1	sensitive fine grained
14.96	2.06	0.0232	1.125	10.670	1	1	sensitive fine grained
15.03	2.06	0.0240	1.166	10.729	1	1	sensitive fine grained
15.09	2.42	0.0218	0.901	5.504	1	1	sensitive fine grained
15.16	2.13	0.0219	1.031	5.714	1	1	sensitive fine grained
15.22	1.98	0.0246	1.242	6.107	1	1	sensitive fine grained
15.29	1.92	0.0233	1.213	6.541	1	1	sensitive fine grained
15.35	2.05	0.0245	1.195	7.021	1	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
15.42	2.17	0.0238	1.095	7.314	1	1	sensitive fine grained
15.49	2.27	0.0222	0.974	7.484	1	1	sensitive fine grained
15.55	2.29	0.0244	1.068	7.576	1	1	sensitive fine grained
15.62	2.30	0.0210	0.912	7.610	1	1	sensitive fine grained
15.68	2.33	0.0222	0.953	7.692	1	1	sensitive fine grained
15.75	2.48	0.0249	1.003	7.753	1	1	sensitive fine grained
15.81	2.50	0.0229	0.916	7.871	1	1	sensitive fine grained
15.88	2.41	0.0266	1.104	7.927	1	1	sensitive fine grained
15.94	2.38	0.0240	1.009	8.019	1	1	sensitive fine grained
16.01	2.40	0.0219	0.912	8.102	1	1	sensitive fine grained
16.08	2.52	0.0245	0.973	8.191	1	1	sensitive fine grained
16.14	2.51	0.0259	1.035	8.247	1	1	sensitive fine grained
16.21	2.40	0.0239	0.993	8.308	1	1	sensitive fine grained
16.27	2.35	0.0233	0.992	8.371	1	1	sensitive fine grained
16.34	2.29	0.0224	0.975	8.472	1	1	sensitive fine grained
16.40	2.31	0.0224	0.973	8.564	1	1	sensitive fine grained
16.47	2.41	0.0312	1.294	8.625	1	1	sensitive fine grained
16.54	2.43	0.0465	1.913	8.666	2	1	sensitive fine grained
16.60	2.67	0.0770	2.886	8.722	2	1	sensitive fine grained
16.67	4.03	0.0979	2.426	8.797	3	1	sensitive fine grained
16.73	7.12	0.1066	1.497	8.862	4	5	clayey silt to silty clay
16.80	9.93	0.1071	1.078	8.877	4	5	clayey silt to silty clay
16.86	12.26	0.1109	0.905	8.879	5	5	clayey silt to silty clay
16.93	13.83	0.1097	0.793	8.829	5	5	clayey silt to silty clay
16.99	12.14	0.1060	0.873	8.690	4	6	sandy silt to clayey silt
17.06	10.21	0.0950	0.931	8.596	4	6	sandy silt to clayey silt
17.13	8.82	0.0806	0.913	8.484	5	5	clayey silt to silty clay
17.19	8.18	0.0644	0.787	8.441	4	5	clayey silt to silty clay
17.26	7.54	0.0502	0.665	8.438	4	1	sensitive fine grained
17.32	6.99	0.0429	0.614	8.436	3	1	sensitive fine grained
17.39	6.11	0.0458	0.750	8.443	3	1	sensitive fine grained
17.45	5.37	0.0543	1.012	8.526	3	1	sensitive fine grained
17.52	4.86	0.0675	1.388	8.618	3	1	sensitive fine grained
17.59	4.78	0.0865	1.807	8.688	3	5	clayey silt to silty clay
17.65	6.02	0.1136	1.887	8.850	4	5	clayey silt to silty clay
17.72	9.43	0.1693	1.796	9.061	5	5	clayey silt to silty clay
17.78	13.96	0.2030	1.454	9.146	5	6	sandy silt to clayey silt
17.85	16.71	0.2122	1.270	9.141	7	6	sandy silt to clayey silt
17.91	21.41	0.1974	0.922	9.136	8	6	sandy silt to clayey silt
17.98	25.98	0.1991	0.766	9.119	8	6	sandy silt to clayey silt
18.04	26.91	0.1778	0.661	8.889	8	6	sandy silt to clayey silt
18.11	24.34	0.1874	0.770	7.447	8	6	sandy silt to clayey silt
18.18	20.75	0.2011	0.969	5.763	8	6	sandy silt to clayey silt
18.24	18.21	0.2025	1.112	5.176	8	6	sandy silt to clayey silt
18.31	14.50	0.2105	1.452	9.253	7	6	sandy silt to clayey silt
18.37	16.93	0.2251	1.330	9.236	7	6	sandy silt to clayey silt
18.44	19.04	0.2397	1.259	9.236	7	6	sandy silt to clayey silt
18.50	20.98	0.2547	1.214	9.204	8	6	sandy silt to clayey silt
18.57	22.60	0.2514	1.113	9.178	9	6	sandy silt to clayey silt
18.64	24.63	0.2414	0.980	9.119	9	6	sandy silt to clayey silt
18.70	26.47	0.2284	0.863	8.988	9	6	sandy silt to clayey silt
18.77	27.40	0.2258	0.824	8.562	10	6	sandy silt to clayey silt
18.83	26.65	0.2297	0.862	8.424	10	6	sandy silt to clayey silt
18.90	24.26	0.2261	0.932	8.111	9	6	sandy silt to clayey silt
18.96	22.51	0.2113	0.939	6.965	9	6	sandy silt to clayey silt
19.03	21.97	0.1875	0.853	6.139	9	6	sandy silt to clayey silt
19.09	22.18	0.1739	0.784	5.947	8	6	sandy silt to clayey silt
19.16	21.83	0.1728	0.792	5.896	8	6	sandy silt to clayey silt
19.23	20.76	0.1697	0.818	5.831	8	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
19.29	19.52	0.1523	0.780	5.792	8	6	sandy silt to clayey silt
19.36	18.27	0.1248	0.683	5.807	7	6	sandy silt to clayey silt
19.42	17.61	0.1009	0.573	5.870	7	6	sandy silt to clayey silt
19.49	16.98	0.0931	0.548	5.974	6	6	sandy silt to clayey silt
19.55	15.93	0.0908	0.570	6.063	6	6	sandy silt to clayey silt
19.62	14.07	0.0832	0.591	6.141	5	6	sandy silt to clayey silt
19.69	12.42	0.0731	0.588	6.248	5	6	sandy silt to clayey silt
19.75	11.52	0.0629	0.546	6.519	5	6	sandy silt to clayey silt
19.82	11.21	0.0670	0.598	6.759	4	6	sandy silt to clayey silt
19.88	11.03	0.0654	0.593	6.844	4	6	sandy silt to clayey silt
19.95	10.68	0.0533	0.500	6.929	4	6	sandy silt to clayey silt
20.01	10.27	0.0478	0.465	7.033	4	6	sandy silt to clayey silt
20.08	10.32	0.0563	0.546	7.137	4	6	sandy silt to clayey silt
20.14	10.64	0.0707	0.665	7.224	4	6	sandy silt to clayey silt
20.21	10.37	0.0942	0.908	7.331	4	6	sandy silt to clayey silt
20.28	10.40	0.1238	1.190	7.697	5	6	sandy silt to clayey silt
20.34	11.39	0.1463	1.284	8.041	5	6	sandy silt to clayey silt
20.41	13.80	0.1682	1.219	8.303	6	6	sandy silt to clayey silt
20.47	18.83	0.2183	1.159	8.732	8	6	sandy silt to clayey silt
20.54	24.45	0.2497	1.021	8.921	9	6	sandy silt to clayey silt
20.60	29.06	0.2603	0.896	8.923	10	6	sandy silt to clayey silt
20.67	29.89	0.2773	0.928	8.887	9	7	silty sand to sandy silt
20.73	29.95	0.3055	1.020	8.848	10	7	silty sand to sandy silt
20.80	32.83	0.3355	1.022	8.829	10	7	silty sand to sandy silt
20.87	33.39	0.3566	1.068	8.790	10	7	silty sand to sandy silt
20.93	32.66	0.3603	1.103	8.729	10	7	silty sand to sandy silt
21.00	32.40	0.3543	1.093	8.698	11	7	silty sand to sandy silt
21.06	32.40	0.3493	1.078	8.712	11	7	silty sand to sandy silt
21.13	33.47	0.3585	1.071	8.690	10	7	silty sand to sandy silt
21.19	34.52	0.4277	1.239	8.649	10	7	silty sand to sandy silt
21.26	32.81	0.4270	1.301	8.603	12	6	sandy silt to clayey silt
21.33	30.81	0.4318	1.402	8.608	12	6	sandy silt to clayey silt
21.39	29.43	0.4417	1.501	8.700	11	7	silty sand to sandy silt
21.46	30.65	0.4526	1.476	8.802	11	7	silty sand to sandy silt
21.52	34.15	0.4662	1.365	9.701	12	7	silty sand to sandy silt
21.59	40.46	0.4846	1.198	9.665	13	7	silty sand to sandy silt
21.65	45.51	0.4984	1.095	9.505	14	7	silty sand to sandy silt
21.72	47.89	0.5263	1.099	8.843	14	7	silty sand to sandy silt
21.78	48.74	0.5740	1.178	8.513	15	7	silty sand to sandy silt
21.85	49.15	0.6393	1.301	8.034	16	7	silty sand to sandy silt
21.92	49.16	0.7076	1.439	6.887	17	7	silty sand to sandy silt
21.98	50.59	0.7435	1.470	6.332	17	7	silty sand to sandy silt
22.05	54.79	0.7690	1.404	6.073	18	7	silty sand to sandy silt
22.11	62.14	0.8282	1.333	5.559	19	7	silty sand to sandy silt
22.18	67.38	0.8815	1.308	4.447	20	7	silty sand to sandy silt
22.24	69.12	0.8995	1.301	2.743	21	7	silty sand to sandy silt
22.31	67.62	0.8956	1.324	1.294	21	7	silty sand to sandy silt
22.38	66.85	0.8998	1.346	0.635	21	7	silty sand to sandy silt
22.44	67.45	0.8904	1.320	0.429	21	7	silty sand to sandy silt
22.51	66.80	0.8738	1.308	0.191	20	7	silty sand to sandy silt
22.57	63.04	0.8354	1.325	0.085	19	7	silty sand to sandy silt
22.64	58.07	0.7796	1.342	0.119	19	7	silty sand to sandy silt
22.70	53.75	0.7396	1.376	0.242	17	7	silty sand to sandy silt
22.77	50.19	0.7029	1.401	0.424	16	7	silty sand to sandy silt
22.83	47.40	0.6683	1.410	0.618	15	7	silty sand to sandy silt
22.90	44.59	0.6189	1.388	0.899	14	7	silty sand to sandy silt
22.97	42.12	0.5589	1.327	1.078	14	7	silty sand to sandy silt
23.03	40.10	0.5073	1.265	1.212	13	7	silty sand to sandy silt
23.10	38.20	0.4547	1.190	1.350	12	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
23.16	36.05	0.3960	1.098	1.427	11	7	silty sand to sandy silt
23.23	33.50	0.3151	0.941	1.461	10	7	silty sand to sandy silt
23.29	29.96	0.2488	0.830	1.532	10	7	silty sand to sandy silt
23.36	27.00	0.2180	0.807	1.655	9	7	silty sand to sandy silt
23.43	24.31	0.1962	0.807	1.779	8	7	silty sand to sandy silt
23.49	21.70	0.1865	0.859	1.900	9	6	sandy silt to clayey silt
23.56	19.19	0.1666	0.868	2.358	8	6	sandy silt to clayey silt
23.62	17.97	0.1420	0.790	2.835	8	6	sandy silt to clayey silt
23.69	18.57	0.1536	0.827	3.332	8	6	sandy silt to clayey silt
23.75	20.76	0.1718	0.828	4.079	8	6	sandy silt to clayey silt
23.82	22.48	0.2144	0.954	4.537	8	6	sandy silt to clayey silt
23.88	21.27	0.2494	1.173	4.818	8	6	sandy silt to clayey silt
23.95	20.36	0.2883	1.416	5.053	8	6	sandy silt to clayey silt
24.02	21.12	0.3200	1.515	5.256	8	6	sandy silt to clayey silt
24.08	22.20	0.3469	1.563	5.402	8	6	sandy silt to clayey silt
24.15	23.20	0.3692	1.591	5.504	9	6	sandy silt to clayey silt
24.21	23.21	0.3771	1.625	5.586	9	6	sandy silt to clayey silt
24.28	23.15	0.3868	1.671	5.712	9	6	sandy silt to clayey silt
24.34	23.36	0.4020	1.721	5.845	9	6	sandy silt to clayey silt
24.41	24.15	0.4588	1.900	6.046	9	6	sandy silt to clayey silt
24.48	24.51	0.4370	1.783	6.158	9	6	sandy silt to clayey silt
24.54	24.34	0.4393	1.805	6.250	9	6	sandy silt to clayey silt
24.61	23.68	0.4350	1.837	6.582	9	6	sandy silt to clayey silt
24.67	22.40	0.4248	1.896	6.735	8	6	sandy silt to clayey silt
24.74	21.40	0.3839	1.794	8.976	8	6	sandy silt to clayey silt
24.80	19.30	0.3260	1.689	9.037	7	6	sandy silt to clayey silt
24.87	16.74	0.2740	1.637	9.054	7	6	sandy silt to clayey silt
24.93	14.87	0.2285	1.537	9.078	6	6	sandy silt to clayey silt
25.00	13.32	0.1814	1.362	9.236	5	6	sandy silt to clayey silt
25.07	12.29	0.1381	1.123	9.546	5	6	sandy silt to clayey silt
25.13	12.09	0.1045	0.864	9.861	5	6	sandy silt to clayey silt
25.20	11.78	0.0869	0.737	10.430	5	6	sandy silt to clayey silt
25.26	11.66	0.0742	0.636	11.053	5	6	sandy silt to clayey silt
25.33	11.61	0.0686	0.591	11.599	5	6	sandy silt to clayey silt
25.39	11.70	0.0606	0.518	12.141	5	6	sandy silt to clayey silt
25.46	11.93	0.0529	0.444	12.733	5	6	sandy silt to clayey silt
25.52	12.26	0.0543	0.443	13.166	5	6	sandy silt to clayey silt
25.59	12.51	0.0557	0.445	13.717	5	6	sandy silt to clayey silt
25.66	12.54	0.0630	0.502	14.163	5	6	sandy silt to clayey silt
25.72	12.69	0.0762	0.600	14.647	5	6	sandy silt to clayey silt
25.79	13.28	0.0986	0.742	15.083	5	6	sandy silt to clayey silt
25.85	13.83	0.1061	0.767	15.335	6	6	sandy silt to clayey silt
25.92	15.18	0.1042	0.686	15.517	6	6	sandy silt to clayey silt
25.98	17.58	0.1071	0.609	15.728	7	6	sandy silt to clayey silt
26.05	20.20	0.1125	0.557	15.730	7	6	sandy silt to clayey silt
26.12	20.94	0.1108	0.529	15.653	7	6	sandy silt to clayey silt
26.18	19.08	0.0998	0.523	15.214	7	6	sandy silt to clayey silt
26.25	16.56	0.0696	0.420	14.938	6	6	sandy silt to clayey silt
26.31	13.76	0.0374	0.272	14.882	5	6	sandy silt to clayey silt
26.38	11.44	0.0212	0.185	14.822	4	6	sandy silt to clayey silt
26.44	8.86	0.0116	0.130	14.836	5	1	sensitive fine grained
26.51	6.71	0.0075	0.112	15.083	4	1	sensitive fine grained
26.57	4.81	0.0061	0.127	15.580	3	1	sensitive fine grained
26.64	3.97	0.0064	0.162	16.639	2	1	sensitive fine grained
26.71	3.54	0.0078	0.221	17.715	2	1	sensitive fine grained
26.77	3.37	0.0076	0.224	18.864	2	1	sensitive fine grained
26.84	3.40	0.0086	0.252	19.904	2	1	sensitive fine grained
26.90	3.39	0.0068	0.200	20.965	2	1	sensitive fine grained
26.97	3.38	0.0072	0.213	22.053	2	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
27.03	3.35	0.0065	0.195	22.429	2	1	sensitive fine grained
27.10	3.25	0.0086	0.263	22.618	2	1	sensitive fine grained
27.17	3.20	0.0087	0.272	22.991	2	1	sensitive fine grained
27.23	3.23	0.0088	0.272	23.645	2	1	sensitive fine grained
27.30	3.24	0.0074	0.230	23.980	2	1	sensitive fine grained
27.36	3.28	0.0063	0.192	24.215	2	1	sensitive fine grained
27.43	3.37	0.0074	0.219	24.334	2	1	sensitive fine grained
27.49	3.42	0.0090	0.262	24.411	2	1	sensitive fine grained
27.56	3.50	0.0091	0.262	24.445	2	1	sensitive fine grained
27.62	3.50	0.0572	1.634	24.440	2	1	sensitive fine grained
27.69	3.53	0.0578	1.638	24.489	2	1	sensitive fine grained
27.76	3.73	0.0581	1.558	24.486	2	1	sensitive fine grained
27.82	4.32	0.0547	1.267	24.511	2	1	sensitive fine grained
27.89	5.40	0.0510	0.944	24.498	3	1	sensitive fine grained
27.95	7.61	0.0560	0.737	10.888	3	1	sensitive fine grained
28.02	8.29	0.0678	0.817	11.834	4	1	sensitive fine grained
28.08	9.26	0.0729	0.787	12.662	4	5	clayey silt to silty clay
28.15	9.59	0.0882	0.920	12.970	4	6	sandy silt to clayey silt
28.22	10.45	0.1167	1.117	13.443	5	6	sandy silt to clayey silt
28.28	14.24	0.1334	0.937	14.238	5	6	sandy silt to clayey silt
28.35	16.87	0.1464	0.868	14.764	6	6	sandy silt to clayey silt
28.41	17.21	0.1575	0.915	14.805	6	6	sandy silt to clayey silt
28.48	18.89	0.1599	0.846	14.923	7	6	sandy silt to clayey silt
28.54	20.47	0.1545	0.755	15.059	7	6	sandy silt to clayey silt
28.61	20.18	0.1516	0.751	15.234	7	6	sandy silt to clayey silt
28.67	18.39	0.1479	0.804	15.411	7	6	sandy silt to clayey silt
28.74	16.57	0.1471	0.888	15.554	6	6	sandy silt to clayey silt
28.81	14.76	0.1350	0.915	15.869	6	6	sandy silt to clayey silt
28.87	12.81	0.1059	0.826	16.356	5	6	sandy silt to clayey silt
28.94	11.78	0.0898	0.763	16.724	5	6	sandy silt to clayey silt
29.00	11.54	0.0848	0.735	17.427	4	6	sandy silt to clayey silt
29.07	11.55	0.0886	0.767	17.819	4	6	sandy silt to clayey silt
29.13	10.56	0.0862	0.817	18.040	4	6	sandy silt to clayey silt
29.20	9.18	0.0852	0.928	18.525	5	5	clayey silt to silty clay
29.27	8.34	0.0779	0.934	19.218	5	5	clayey silt to silty clay
29.33	8.15	0.0749	0.919	20.325	5	5	clayey silt to silty clay
29.40	9.19	0.0702	0.764	22.085	5	5	clayey silt to silty clay
29.46	10.35	0.0714	0.690	22.676	4	6	sandy silt to clayey silt
29.53	10.88	0.0746	0.686	22.637	4	6	sandy silt to clayey silt
29.59	11.23	0.0782	0.696	22.652	4	6	sandy silt to clayey silt
29.66	11.80	0.0880	0.746	22.691	5	6	sandy silt to clayey silt
29.72	12.27	0.0943	0.769	22.821	5	6	sandy silt to clayey silt
29.79	13.12	0.0871	0.664	22.933	5	6	sandy silt to clayey silt
29.86	14.15	0.0769	0.544	22.943	5	6	sandy silt to clayey silt
29.92	14.87	0.0835	0.562	22.986	6	6	sandy silt to clayey silt
29.99	15.97	0.0941	0.589	22.991	6	6	sandy silt to clayey silt
30.05	16.04	0.1013	0.631	22.943	6	6	sandy silt to clayey silt
30.12	15.17	0.1159	0.764	22.846	6	6	sandy silt to clayey silt
30.18	14.96	0.1199	0.802	22.800	6	6	sandy silt to clayey silt
30.25	15.50	0.1357	0.875	22.802	6	6	sandy silt to clayey silt
30.31	15.82	0.1677	1.060	22.802	6	6	sandy silt to clayey silt
30.38	15.98	0.1867	1.168	22.797	6	6	sandy silt to clayey silt
30.45	16.01	0.2060	1.286	22.717	6	6	sandy silt to clayey silt
30.51	15.57	0.1816	1.166	22.657	6	6	sandy silt to clayey silt
30.58	15.75	0.1698	1.078	22.703	7	6	sandy silt to clayey silt
30.64	17.72	0.1751	0.988	22.901	7	6	sandy silt to clayey silt
30.71	20.34	0.1567	0.770	23.013	7	6	sandy silt to clayey silt
30.77	19.23	0.1601	0.833	22.843	7	6	sandy silt to clayey silt
30.84	17.52	0.2921	1.668	22.683	7	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
30.91	17.26	0.3316	1.921	22.674	7	6	sandy silt to clayey silt
30.97	17.59	0.3024	1.719	22.695	7	6	sandy silt to clayey silt
31.04	17.00	0.2743	1.613	22.661	6	6	sandy silt to clayey silt
31.10	16.17	0.2269	1.403	22.635	6	6	sandy silt to clayey silt
31.17	15.45	0.1908	1.235	13.717	6	6	sandy silt to clayey silt
31.23	16.30	0.1853	1.137	14.087	5	6	sandy silt to clayey silt
31.30	13.98	0.1621	1.159	15.171	6	5	clayey silt to silty clay
31.36	11.76	0.1545	1.314	16.368	6	5	clayey silt to silty clay
31.43	9.72	0.1737	1.787	17.827	6	5	clayey silt to silty clay
31.50	9.00	0.2003	2.226	19.046	6	5	clayey silt to silty clay
31.56	11.21	0.2392	2.133	20.316	6	5	clayey silt to silty clay
31.63	15.42	0.2694	1.747	21.261	7	5	clayey silt to silty clay
31.69	16.89	0.2972	1.759	21.287	7	5	clayey silt to silty clay
31.76	17.28	0.3123	1.807	21.224	8	5	clayey silt to silty clay
31.82	17.40	0.3134	1.801	21.147	8	5	clayey silt to silty clay
31.89	16.98	0.3023	1.781	21.028	8	5	clayey silt to silty clay
31.96	16.29	0.2852	1.751	20.960	7	5	clayey silt to silty clay
32.02	15.30	0.2644	1.728	20.900	7	5	clayey silt to silty clay
32.09	13.26	0.2466	1.859	20.822	6	5	clayey silt to silty clay
32.15	10.72	0.2254	2.102	20.791	5	5	clayey silt to silty clay
32.22	8.80	0.1915	2.177	20.851	4	5	clayey silt to silty clay
32.28	6.89	0.1557	2.260	20.992	5	4	silty clay to clay
32.35	5.59	0.1262	2.256	21.595	4	4	silty clay to clay
32.41	4.97	0.1016	2.044	22.538	4	4	silty clay to clay
32.48	4.91	0.0789	1.607	24.181	3	1	sensitive fine grained
32.55	5.21	0.0441	0.847	25.683	3	1	sensitive fine grained
32.61	5.28	0.0345	0.654	27.516	3	1	sensitive fine grained
32.68	6.57	0.0342	0.521	28.730	3	1	sensitive fine grained
32.74	7.98	0.0411	0.515	28.841	3	1	sensitive fine grained
32.81	7.21	0.0375	0.520	28.684	3	1	sensitive fine grained
32.87	5.87	0.0372	0.634	28.640	3	1	sensitive fine grained
32.94	5.03	0.0373	0.741	28.735	3	1	sensitive fine grained
33.01	4.30	0.0240	0.558	29.067	2	1	sensitive fine grained
33.07	4.11	0.0310	0.754	29.721	2	1	sensitive fine grained
33.14	4.25	0.0274	0.645	30.862	3	1	sensitive fine grained
33.20	4.56	0.0343	0.753	31.640	3	1	sensitive fine grained
33.27	8.23	0.0490	0.596	32.149	3	1	sensitive fine grained
33.33	11.98	0.0624	0.521	32.144	4	1	sensitive fine grained
33.40	9.25	0.0723	0.781	30.853	4	1	sensitive fine grained
33.46	7.93	0.0832	1.049	29.413	4	1	sensitive fine grained
33.53	6.98	0.0845	1.211	29.353	4	1	sensitive fine grained
33.60	6.13	0.0762	1.244	29.374	3	1	sensitive fine grained
33.66	5.38	0.0532	0.987	29.629	3	1	sensitive fine grained
33.73	4.94	0.0384	0.776	30.177	3	1	sensitive fine grained
33.79	4.89	0.0283	0.579	30.688	2	1	sensitive fine grained
33.86	5.02	0.0185	0.369	30.853	2	1	sensitive fine grained
33.92	4.74	0.0120	0.254	30.887	2	1	sensitive fine grained
33.99	4.45	0.0122	0.275	30.908	2	1	sensitive fine grained
34.06	4.42	0.0124	0.280	31.013	2	1	sensitive fine grained
34.12	4.40	0.0568	1.291	31.354	2	1	sensitive fine grained
34.19	4.65	0.0689	1.482	31.664	2	1	sensitive fine grained
34.25	4.86	0.0743	1.531	31.805	2	1	sensitive fine grained
34.32	5.09	0.0777	1.527	32.212	3	1	sensitive fine grained
34.38	5.58	0.0882	1.582	32.578	3	1	sensitive fine grained
34.45	6.48	0.0849	1.310	14.982	3	1	sensitive fine grained
34.51	6.68	0.0906	1.358	16.426	3	1	sensitive fine grained
34.58	6.80	0.1046	1.537	18.064	3	1	sensitive fine grained
34.65	6.89	0.0976	1.417	18.908	3	1	sensitive fine grained
34.71	7.08	0.0906	1.279	19.441	4	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
34.78	7.74	0.0819	1.058	20.020	4	1	sensitive fine grained
34.84	8.25	0.0776	0.940	20.415	4	1	sensitive fine grained
34.91	8.01	0.0698	0.871	20.635	4	1	sensitive fine grained
34.97	7.73	0.0681	0.882	20.732	4	1	sensitive fine grained
35.04	7.33	0.0647	0.883	20.921	3	1	sensitive fine grained
35.10	6.87	0.0617	0.899	21.190	3	1	sensitive fine grained
35.17	6.38	0.0589	0.924	21.452	3	1	sensitive fine grained
35.24	6.04	0.0563	0.932	21.787	3	1	sensitive fine grained
35.30	6.01	0.0518	0.861	22.235	3	1	sensitive fine grained
35.37	5.98	0.0494	0.826	22.584	3	1	sensitive fine grained
35.43	6.00	0.0488	0.814	23.010	3	1	sensitive fine grained
35.50	5.94	0.0487	0.820	23.490	3	1	sensitive fine grained
35.56	6.02	0.0523	0.869	23.960	3	1	sensitive fine grained
35.63	6.07	0.0505	0.833	24.523	3	1	sensitive fine grained
35.70	6.24	0.0506	0.810	25.114	3	1	sensitive fine grained
35.76	6.29	0.0546	0.869	25.717	3	1	sensitive fine grained
35.83	6.29	0.0604	0.961	26.011	3	1	sensitive fine grained
35.89	6.25	0.0705	1.127	26.343	3	1	sensitive fine grained
35.96	6.17	0.0727	1.177	26.575	3	1	sensitive fine grained
36.02	6.02	0.0748	1.242	26.692	3	1	sensitive fine grained
36.09	5.75	0.0703	1.224	26.670	3	1	sensitive fine grained
36.15	5.40	0.0628	1.164	26.609	3	1	sensitive fine grained
36.22	4.96	0.0602	1.215	26.442	2	1	sensitive fine grained
36.29	4.61	0.0564	1.222	26.391	2	1	sensitive fine grained
36.35	4.57	0.0481	1.053	26.444	2	1	sensitive fine grained
36.42	4.73	0.0462	0.977	26.566	2	1	sensitive fine grained
36.48	4.68	0.0425	0.906	26.706	2	1	sensitive fine grained
36.55	4.78	0.0422	0.884	26.856	2	1	sensitive fine grained
36.61	4.81	0.0420	0.874	27.014	2	1	sensitive fine grained
36.68	4.80	0.0437	0.911	27.145	2	1	sensitive fine grained
36.75	4.89	0.0468	0.957	27.232	2	1	sensitive fine grained
36.81	5.14	0.0533	1.038	27.402	3	1	sensitive fine grained
36.88	5.41	0.0566	1.047	27.668	3	1	sensitive fine grained
36.94	5.75	0.0523	0.910	27.826	3	1	sensitive fine grained
37.01	6.02	0.0547	0.909	27.886	3	1	sensitive fine grained
37.07	5.96	0.0563	0.946	27.920	3	1	sensitive fine grained
37.14	5.71	0.0560	0.980	28.010	3	1	sensitive fine grained
37.20	5.73	0.0556	0.970	28.521	3	1	sensitive fine grained
37.27	5.93	0.0513	0.866	29.280	3	1	sensitive fine grained
37.34	6.08	0.0375	0.617	29.857	3	1	sensitive fine grained
37.40	6.16	0.0430	0.699	30.431	3	1	sensitive fine grained
37.47	6.25	0.0459	0.734	31.131	3	1	sensitive fine grained
37.53	6.42	0.0519	0.809	31.863	3	1	sensitive fine grained
37.60	6.72	0.0625	0.930	32.668	3	1	sensitive fine grained
37.66	7.63	0.0706	0.926	36.039	4	1	sensitive fine grained
37.73	8.23	0.0819	0.994	35.673	4	5	clayey silt to silty clay
37.80	8.35	0.1172	1.405	35.295	4	5	clayey silt to silty clay
37.86	9.12	0.1476	1.618	35.048	5	5	clayey silt to silty clay
37.93	9.18	0.1725	1.879	34.956	5	5	clayey silt to silty clay
37.99	11.59	0.1920	1.657	35.082	6	5	clayey silt to silty clay
38.06	13.36	0.2366	1.771	34.558	6	5	clayey silt to silty clay
38.12	14.77	0.2625	1.777	32.711	7	5	clayey silt to silty clay
38.19	15.32	0.3469	2.264	31.318	7	5	clayey silt to silty clay
38.25	15.94	0.3882	2.434	30.639	8	5	clayey silt to silty clay
38.32	17.05	0.4431	2.599	30.528	8	5	clayey silt to silty clay
38.39	18.19	0.5152	2.832	30.719	8	5	clayey silt to silty clay
38.45	17.94	0.6028	3.360	30.361	9	5	clayey silt to silty clay
38.52	18.03	0.6267	3.475	29.830	9	5	clayey silt to silty clay
38.58	19.37	0.5842	3.015	28.194	9	5	clayey silt to silty clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
38.65	19.32	0.5554	2.875	27.004	8	5	clayey silt to silty clay
38.71	18.11	0.5440	3.003	25.843	8	5	clayey silt to silty clay
38.78	15.97	0.5152	3.226	20.354	8	5	clayey silt to silty clay
38.85	14.83	0.4625	3.120	16.264	7	5	clayey silt to silty clay
38.91	13.99	0.4265	3.049	15.134	9	4	silty clay to clay
38.98	13.42	0.4146	3.088	15.658	9	4	silty clay to clay
39.04	12.44	0.4018	3.230	16.271	8	4	silty clay to clay
39.11	12.24	0.3713	3.035	17.320	8	4	silty clay to clay
39.17	11.82	0.3598	3.043	17.839	8	4	silty clay to clay
39.24	11.17	0.3568	3.195	18.183	8	4	silty clay to clay
39.30	10.98	0.3535	3.218	18.433	8	4	silty clay to clay
39.37	12.16	0.3472	2.856	19.058	8	4	silty clay to clay
39.44	12.86	0.3787	2.944	19.433	8	4	silty clay to clay
39.50	13.51	0.4009	2.969	19.770	8	4	silty clay to clay
39.57	13.69	0.4028	2.942	19.911	8	4	silty clay to clay
39.63	14.04	0.3984	2.837	20.255	8	4	silty clay to clay
39.70	13.70	0.3739	2.729	20.262	8	4	silty clay to clay
39.76	12.79	0.3489	2.728	20.405	8	4	silty clay to clay
39.83	12.39	0.3325	2.683	20.577	6	5	clayey silt to silty clay
39.90	11.53	0.3112	2.700	20.856	8	4	silty clay to clay
39.96	11.45	0.2978	2.600	21.549	8	4	silty clay to clay
40.03	11.52	0.2859	2.481	21.942	6	5	clayey silt to silty clay
40.09	11.78	0.3283	2.786	22.325	6	5	clayey silt to silty clay
40.16	12.22	0.3098	2.535	22.283	5	5	clayey silt to silty clay
40.22	11.81	0.2657	2.249	22.523	7	4	silty clay to clay
40.29	10.72	0.2345	2.187	22.872	6	4	silty clay to clay
40.35	9.61	0.2288	2.381	22.298	6	4	silty clay to clay
40.42	7.80	0.2035	2.610	21.607	6	4	silty clay to clay
40.49	7.00	0.1844	2.635	21.241	5	4	silty clay to clay
40.55	6.72	0.1938	2.884	21.491	8	3	clay
40.62	7.67	0.2600	3.389	21.852	8	3	clay
40.68	8.43	0.4214	4.999	22.349	10	3	clay
40.75	10.62	0.5806	5.469	23.013	11	3	clay
40.81	13.61	0.8036	5.906	22.940	13	3	clay
40.88	17.33	1.0330	5.959	24.305	15	3	clay
40.94	19.20	1.1500	5.991	22.383	17	3	clay
41.01	19.22	1.1439	5.950	16.237	18	3	clay
41.08	20.90	1.1062	5.293	10.874	19	3	clay
41.14	22.51	1.0692	4.750	6.577	20	3	clay
41.21	22.30	0.9825	4.406	5.588	19	3	clay
41.27	20.42	0.8856	4.337	3.611	19	3	clay
41.34	19.06	0.7592	3.983	1.221	12	4	silty clay to clay
41.40	17.36	0.7117	4.100	1.444	12	4	silty clay to clay
41.47	17.48	0.6362	3.640	2.404	12	4	silty clay to clay
41.54	17.92	0.5737	3.201	3.012	9	5	clayey silt to silty clay
41.60	18.00	0.5821	3.235	3.407	9	5	clayey silt to silty clay
41.67	19.16	0.5720	2.986	3.897	9	5	clayey silt to silty clay
41.73	20.07	0.5396	2.688	4.491	9	5	clayey silt to silty clay
41.80	19.91	0.5467	2.746	4.968	9	5	clayey silt to silty clay
41.86	19.33	0.5890	3.046	5.448	10	5	clayey silt to silty clay
41.93	18.91	0.5415	2.864	6.134	10	5	clayey silt to silty clay
41.99	20.04	0.5044	2.517	7.307	10	5	clayey silt to silty clay
42.06	22.07	0.4676	2.119	8.618	10	5	clayey silt to silty clay
42.13	22.96	0.4972	2.165	9.749	10	5	clayey silt to silty clay
42.19	22.41	0.5107	2.279	10.927	8	6	sandy silt to clayey silt
42.26	20.88	0.4371	2.093	12.418	8	6	sandy silt to clayey silt
42.32	20.06	0.3676	1.832	14.141	8	6	sandy silt to clayey silt
42.39	19.82	0.3367	1.699	16.620	8	6	sandy silt to clayey silt
42.45	20.17	0.3326	1.649	19.017	8	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
42.52	19.70	0.3331	1.690	21.571	7	6	sandy silt to clayey silt
42.59	18.50	0.3318	1.793	24.624	7	6	sandy silt to clayey silt
42.65	18.29	0.3232	1.767	28.163	7	6	sandy silt to clayey silt
42.72	18.18	0.3216	1.769	32.021	9	5	clayey silt to silty clay
42.78	18.39	0.3689	2.006	35.624	9	5	clayey silt to silty clay
42.85	18.53	0.3643	1.966	39.715	9	5	clayey silt to silty clay
42.91	17.84	0.4260	2.388	43.888	9	5	clayey silt to silty clay
42.98	17.51	0.4650	2.656	48.859	9	5	clayey silt to silty clay
43.04	17.50	0.4847	2.769	53.354	9	5	clayey silt to silty clay
43.11	18.12	0.4539	2.505	56.490	9	5	clayey silt to silty clay
43.18	18.00	0.4237	2.354	57.532	9	5	clayey silt to silty clay
43.24	18.85	0.3678	1.951	57.993	9	5	clayey silt to silty clay
43.31	18.52	0.2911	1.572	57.951	7	6	sandy silt to clayey silt
43.37	18.62	0.2248	1.207	57.411	7	6	sandy silt to clayey silt
43.44	17.38	0.2137	1.230	56.124	7	6	sandy silt to clayey silt
43.50	16.11	0.1985	1.232	56.534	6	6	sandy silt to clayey silt
43.57	15.94	0.1686	1.057	61.565	6	6	sandy silt to clayey silt
43.64	15.80	0.1437	0.909	63.157	6	6	sandy silt to clayey silt
43.70	15.80	0.1255	0.794	65.820	8	5	clayey silt to silty clay
43.77	16.95	0.4953	2.923	66.923	8	5	clayey silt to silty clay
43.83	16.43	0.5031	3.063	65.188	7	5	clayey silt to silty clay
43.90	14.69	0.4383	2.984	64.417	8	5	clayey silt to silty clay
43.96	14.52	0.3746	2.581	66.181	8	5	clayey silt to silty clay
44.03	14.31	0.2713	1.896	68.130	8	5	clayey silt to silty clay
44.09	21.83	0.2325	1.065	17.706	8	5	clayey silt to silty clay
44.16	19.19	0.2920	1.522	17.885	7	6	sandy silt to clayey silt
44.23	17.76	0.3110	1.751	19.812	7	6	sandy silt to clayey silt
44.29	18.29	0.3252	1.778	21.539	7	6	sandy silt to clayey silt
44.36	18.26	0.3558	1.948	22.671	9	5	clayey silt to silty clay
44.42	18.90	0.4129	2.185	24.477	9	5	clayey silt to silty clay
44.49	21.08	0.5250	2.491	25.490	10	5	clayey silt to silty clay
44.55	21.59	0.4784	2.215	26.895	8	6	sandy silt to clayey silt
44.62	21.45	0.4586	2.138	27.680	9	6	sandy silt to clayey silt
44.69	24.08	0.5079	2.109	28.621	10	6	sandy silt to clayey silt
44.75	28.27	0.3057	1.081	28.802	10	6	sandy silt to clayey silt
44.82	29.26	0.1627	0.556	28.119	11	6	sandy silt to clayey silt
44.88	31.59	0.2216	0.701	26.643	9	7	silty sand to sandy silt
44.95	32.01	0.3357	1.049	24.838	9	7	silty sand to sandy silt
45.01	30.94	0.2758	0.891	24.486	9	7	silty sand to sandy silt
45.08	28.09	0.2353	0.838	24.171	9	7	silty sand to sandy silt
45.14	26.17	0.2267	0.866	24.821	9	7	silty sand to sandy silt
45.21	27.05	0.2489	0.920	25.562	9	7	silty sand to sandy silt
45.28	28.74	0.2597	0.903	25.606	10	6	sandy silt to clayey silt
45.34	26.91	0.3072	1.142	24.707	9	6	sandy silt to clayey silt
45.41	23.73	0.2761	1.164	24.445	9	6	sandy silt to clayey silt
45.47	20.40	0.2987	1.464	24.748	8	6	sandy silt to clayey silt
45.54	17.76	0.2882	1.623	25.279	8	6	sandy silt to clayey silt
45.60	17.44	0.2118	1.215	27.014	7	6	sandy silt to clayey silt
45.67	18.65	0.1657	0.888	27.949	7	6	sandy silt to clayey silt
45.73	18.46	0.1647	0.892	28.642	7	6	sandy silt to clayey silt
45.80	18.39	0.1175	0.639	29.551	7	6	sandy silt to clayey silt
45.87	17.99	0.1046	0.582	30.322	7	6	sandy silt to clayey silt
45.93	18.90	0.0903	0.478	31.606	7	6	sandy silt to clayey silt
46.00	20.00	0.0963	0.482	33.039	6	7	silty sand to sandy silt
46.06	20.89	0.0887	0.425	34.073	8	6	sandy silt to clayey silt
46.13	21.78	0.0769	0.353	35.120	8	6	sandy silt to clayey silt
46.19	22.11	0.1245	0.563	36.506	8	6	sandy silt to clayey silt
46.26	22.08	0.2364	1.071	38.324	8	6	sandy silt to clayey silt
46.33	20.91	0.4944	2.364	40.319	12	5	clayey silt to silty clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
46.39	20.55	0.8671	4.219	43.239	13	5	clayey silt to silty clay
46.46	26.65	1.2312	4.621	47.935	14	5	clayey silt to silty clay
46.52	36.11	1.4241	3.944	54.556	20	4	silty clay to clay
46.59	40.97	1.5126	3.692	56.980	20	4	silty clay to clay
46.65	37.41	1.5193	4.061	51.423	20	4	silty clay to clay
46.72	31.47	1.3261	4.214	45.444	20	4	silty clay to clay
46.78	27.15	1.1452	4.218	43.520	18	4	silty clay to clay
46.85	23.72	1.0169	4.287	43.324	16	4	silty clay to clay
46.92	20.99	0.8931	4.256	44.887	15	4	silty clay to clay
46.98	19.98	0.8096	4.052	47.080	14	4	silty clay to clay
47.05	19.35	0.7937	4.101	48.272	13	4	silty clay to clay
47.11	19.10	0.7437	3.894	49.222	12	4	silty clay to clay
47.18	18.79	0.6741	3.588	49.540	9	5	clayey silt to silty clay
47.24	17.16	0.4699	2.739	48.163	8	5	clayey silt to silty clay
47.31	17.81	0.3214	1.805	40.963	8	5	clayey silt to silty clay
47.38	14.86	0.2333	1.570	39.623	7	5	clayey silt to silty clay
47.44	12.05	0.1375	1.142	39.126	6	5	clayey silt to silty clay
47.51	10.18	0.0986	0.968	39.255	5	5	clayey silt to silty clay
47.57	8.80	0.0664	0.755	39.645	5	5	clayey silt to silty clay
47.64	7.97	0.0483	0.606	41.021	4	5	clayey silt to silty clay
47.70	7.81	0.0354	0.453	42.955	4	1	sensitive fine grained
47.77	7.68	0.0274	0.357	44.155	4	1	sensitive fine grained
47.83	7.71	0.0226	0.292	45.115	4	1	sensitive fine grained
47.90	7.60	0.0204	0.269	45.788	4	1	sensitive fine grained
47.97	7.56	0.0197	0.260	46.469	4	1	sensitive fine grained
48.03	7.47	0.0172	0.230	47.167	4	1	sensitive fine grained
48.10	7.43	0.0198	0.267	47.834	4	1	sensitive fine grained
48.16	7.38	0.0190	0.258	48.791	4	1	sensitive fine grained
48.23	7.40	0.0224	0.303	49.380	4	1	sensitive fine grained
48.29	7.41	0.0271	0.366	49.724	4	1	sensitive fine grained
48.36	7.41	0.0263	0.355	49.908	4	1	sensitive fine grained
48.43	7.54	0.0282	0.374	50.099	4	1	sensitive fine grained
48.49	7.69	0.0286	0.372	50.322	4	1	sensitive fine grained
48.56	7.98	0.0309	0.387	50.436	4	1	sensitive fine grained
48.62	8.39	0.0279	0.333	50.417	4	1	sensitive fine grained
48.69	8.83	0.0264	0.300	50.330	4	1	sensitive fine grained
48.75	8.86	0.0240	0.271	50.204	4	1	sensitive fine grained
48.82	8.46	0.0290	0.342	49.910	4	1	sensitive fine grained
48.88	8.07	0.0251	0.311	49.777	4	1	sensitive fine grained
48.95	7.81	0.0233	0.298	49.780	4	1	sensitive fine grained
49.02	7.69	0.0217	0.283	49.804	4	1	sensitive fine grained
49.08	7.56	0.0224	0.297	49.777	4	1	sensitive fine grained
49.15	7.51	0.0213	0.283	49.746	4	1	sensitive fine grained
49.21	7.39	0.0214	0.290	49.765	4	1	sensitive fine grained
49.28	7.24	0.0213	0.295	49.760	3	1	sensitive fine grained
49.34	7.01	0.0219	0.312	49.782	3	1	sensitive fine grained
49.41	6.86	0.0234	0.342	49.884	3	1	sensitive fine grained
49.48	6.78	0.0264	0.390	49.959	3	1	sensitive fine grained
49.54	7.38	0.0264	0.359	50.075	3	1	sensitive fine grained
49.61	6.80	0.0268	0.394	50.119	3	1	sensitive fine grained
49.67	7.02	0.0257	0.366	50.184	3	1	sensitive fine grained
49.74	6.54	0.0273	0.418	50.245	3	1	sensitive fine grained
49.80	6.41	0.0247	0.385	50.533	3	1	sensitive fine grained
49.87	6.46	0.0217	0.336	50.734	3	1	sensitive fine grained
49.93	6.45	0.0242	0.374	50.919	3	1	sensitive fine grained
50.00	6.44	0.0224	0.348	51.086	3	1	sensitive fine grained
50.07	6.34	0.0206	0.325	51.195	3	1	sensitive fine grained
50.13	6.28	0.0202	0.322	51.338	3	1	sensitive fine grained
50.20	6.17	0.0094	0.152	51.411	3	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
50.26	6.16	0.0160	0.260	51.488	3	1	sensitive fine grained
50.33	6.25	0.0142	0.227	51.529	3	1	sensitive fine grained
50.39	6.21	0.0150	0.242	51.500	3	1	sensitive fine grained
50.46	6.15	0.0143	0.232	51.425	3	1	sensitive fine grained
50.52	6.33	0.0163	0.257	46.430	3	1	sensitive fine grained
50.59	6.25	0.0159	0.254	46.668	3	1	sensitive fine grained
50.66	6.20	0.0163	0.263	47.012	3	1	sensitive fine grained
50.72	6.32	0.0152	0.240	47.361	3	1	sensitive fine grained
50.79	6.35	0.0168	0.265	47.729	3	1	sensitive fine grained
50.85	6.59	0.0155	0.236	47.984	3	1	sensitive fine grained
50.92	6.92	0.0137	0.198	48.192	3	1	sensitive fine grained
50.98	6.86	0.0145	0.211	48.355	3	1	sensitive fine grained
51.05	6.36	0.0174	0.274	48.662	3	1	sensitive fine grained
51.12	6.33	0.0168	0.265	49.196	3	1	sensitive fine grained
51.18	6.48	0.0205	0.316	49.564	3	1	sensitive fine grained
51.25	6.42	0.0186	0.289	49.969	3	1	sensitive fine grained
51.31	6.37	0.0189	0.296	50.250	3	1	sensitive fine grained
51.38	6.34	0.0162	0.255	50.548	3	1	sensitive fine grained
51.44	6.44	0.0156	0.242	50.761	3	1	sensitive fine grained
51.51	6.62	0.0187	0.283	51.057	3	1	sensitive fine grained
51.57	6.99	0.0258	0.369	51.602	4	1	sensitive fine grained
51.64	7.45	0.0538	0.722	51.706	4	1	sensitive fine grained
51.71	8.98	0.0490	0.546	51.791	4	6	sandy silt to clayey silt
51.77	10.57	0.0142	0.135	51.120	5	6	sandy silt to clayey silt
51.84	11.27	0.0606	0.538	50.104	6	6	sandy silt to clayey silt
51.90	16.40	0.2583	1.574	49.574	6	6	sandy silt to clayey silt
51.97	21.13	0.2341	1.108	47.477	7	6	sandy silt to clayey silt
52.03	26.27	0.2437	0.928	43.619	6	6	sandy silt to clayey silt
52.10	21.66	0.2371	1.095	38.811	6	6	sandy silt to clayey silt
52.17	13.11	0.2143	1.634	38.617	6	6	sandy silt to clayey silt
52.23	8.95	0.1615	1.806	39.402	5	6	sandy silt to clayey silt
52.30	8.83	0.0630	0.714	40.163	4	6	sandy silt to clayey silt
52.36	8.21	0.0460	0.561	41.239	4	6	sandy silt to clayey silt
52.43	8.35	0.0280	0.335	42.177	5	6	sandy silt to clayey silt
52.49	9.49	0.0239	0.251	43.067	6	6	sandy silt to clayey silt
52.56	14.49	0.0299	0.207	44.055	6	7	silty sand to sandy silt
52.62	24.04	0.0422	0.175	44.945	7	7	silty sand to sandy silt
52.69	28.01	0.0585	0.209	44.443	7	7	silty sand to sandy silt
52.76	29.26	0.0830	0.284	43.161	8	7	silty sand to sandy silt
52.82	29.11	0.0998	0.343	42.340	9	7	silty sand to sandy silt
52.89	28.45	0.1018	0.358	41.717	9	7	silty sand to sandy silt
52.95	27.29	0.0933	0.342	41.329	8	7	silty sand to sandy silt
53.02	25.66	0.0869	0.339	41.096	8	7	silty sand to sandy silt
53.08	23.09	0.0652	0.283	41.014	7	7	silty sand to sandy silt
53.15	20.08	0.0413	0.206	41.118	6	7	silty sand to sandy silt
53.22	16.16	0.0221	0.137	41.385	5	7	silty sand to sandy silt
53.28	13.17	0.0186	0.141	42.165	6	6	sandy silt to clayey silt
53.35	11.40	0.0097	0.085	43.122	5	6	sandy silt to clayey silt
53.41	10.30	0.0007	0.007	44.930	4	6	sandy silt to clayey silt
53.48	9.90	0.0050	0.050	46.634	5	1	sensitive fine grained
53.54	9.46	0.0051	0.054	48.381	5	1	sensitive fine grained
53.61	8.64	0.0116	0.134	49.908	4	1	sensitive fine grained
53.67	7.89	0.0068	0.086	51.747	4	1	sensitive fine grained
53.74	8.28	0.0137	0.166	51.437	4	1	sensitive fine grained
53.81	8.44	0.0203	0.240	51.340	4	1	sensitive fine grained
53.87	8.38	0.0238	0.284	52.029	4	1	sensitive fine grained
53.94	9.01	0.0230	0.255	52.690	5	1	sensitive fine grained
54.00	9.65	0.0190	0.197	52.877	4	6	sandy silt to clayey silt
54.07	10.84	0.0172	0.159	52.780	4	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
54.13	12.13	0.0209	0.172	52.370	4	6	sandy silt to clayey silt
54.20	12.13	0.0234	0.193	52.082	4	6	sandy silt to clayey silt
54.27	11.49	0.0226	0.196	51.471	5	6	sandy silt to clayey silt
54.33	11.39	0.0300	0.263	51.083	5	6	sandy silt to clayey silt
54.40	12.16	0.0292	0.240	50.933	4	6	sandy silt to clayey silt
54.46	12.21	0.0206	0.169	50.046	4	6	sandy silt to clayey silt
54.53	11.46	0.0187	0.163	49.460	4	6	sandy silt to clayey silt
54.59	10.47	0.0215	0.206	49.239	4	6	sandy silt to clayey silt
54.66	9.49	0.0189	0.199	49.336	4	6	sandy silt to clayey silt
54.72	8.90	0.0305	0.343	50.129	4	6	sandy silt to clayey silt
54.79	9.25	0.0480	0.519	51.260	4	6	sandy silt to clayey silt
54.86	9.58	0.0481	0.502	51.653	5	6	sandy silt to clayey silt
54.92	9.38	0.0596	0.636	51.939	6	6	sandy silt to clayey silt
54.99	13.51	0.0820	0.607	53.567	8	6	sandy silt to clayey silt
55.05	22.45	0.1295	0.577	54.132	9	6	sandy silt to clayey silt
55.12	34.72	0.2799	0.806	51.229	11	6	sandy silt to clayey silt
55.18	40.72	0.4922	1.209	38.811	12	6	sandy silt to clayey silt
55.25	41.76	0.7261	1.739	35.455	13	6	sandy silt to clayey silt
55.31	38.71	0.8893	2.297	34.597	13	6	sandy silt to clayey silt
55.38	32.59	0.9914	3.042	34.013	13	6	sandy silt to clayey silt
55.45	25.85	0.8362	3.235	33.792	13	6	sandy silt to clayey silt
55.51	22.39	0.6655	2.972	33.707	14	6	sandy silt to clayey silt
55.58	26.55	0.5249	1.977	33.753	15	6	sandy silt to clayey silt
55.64	40.88	0.5157	1.262	34.100	15	7	silty sand to sandy silt
55.71	59.90	0.7392	1.234	34.398	18	7	silty sand to sandy silt
55.77	73.20	0.8921	1.219	33.618	21	7	silty sand to sandy silt
55.84	79.96	0.9502	1.188	32.593	24	7	silty sand to sandy silt
55.91	85.24	1.0190	1.195	31.061	20	8	sand to silty sand
55.97	91.55	1.1894	1.299	27.649	21	8	sand to silty sand
56.04	98.73	1.3446	1.362	26.054	22	8	sand to silty sand
56.10	100.57	1.4137	1.406	24.935	23	8	sand to silty sand
56.17	98.97	1.3514	1.366	24.927	23	8	sand to silty sand
56.23	95.46	1.2730	1.334	25.032	22	8	sand to silty sand
56.30	90.10	1.1946	1.326	25.129	22	8	sand to silty sand
56.36	85.50	1.0848	1.269	25.061	21	8	sand to silty sand
56.43	82.09	0.9164	1.116	25.049	22	8	sand to silty sand
56.50	83.36	0.8230	0.987	25.097	22	8	sand to silty sand
56.56	90.84	0.8900	0.980	25.208	23	8	sand to silty sand
56.63	102.81	1.2405	1.207	25.390	25	8	sand to silty sand
56.69	113.69	1.0393	0.914	25.441	26	8	sand to silty sand
56.76	120.72	1.1495	0.952	25.550	27	8	sand to silty sand
56.82	124.64	1.2362	0.992	25.589	28	8	sand to silty sand
56.89	125.00	1.2699	1.016	25.611	29	8	sand to silty sand
56.96	113.05	1.2746	1.127	24.610	29	8	sand to silty sand
57.02	121.50	1.2528	1.031	24.658	28	8	sand to silty sand
57.09	119.98	1.1924	0.994	24.612	27	8	sand to silty sand
57.15	114.77	1.1275	0.982	24.569	26	8	sand to silty sand
57.22	108.53	1.0384	0.957	24.506	25	8	sand to silty sand
57.28	98.28	0.9622	0.979	24.443	23	8	sand to silty sand
57.35	85.29	0.9018	1.057	24.368	21	8	sand to silty sand
57.41	74.99	0.8788	1.172	24.307	25	7	silty sand to sandy silt
57.48	66.26	0.9050	1.366	24.244	22	7	silty sand to sandy silt
57.55	57.16	0.8845	1.547	24.205	19	7	silty sand to sandy silt
57.61	49.27	0.8516	1.728	24.171	16	7	silty sand to sandy silt
57.68	42.62	0.8183	1.920	24.166	14	7	silty sand to sandy silt
57.74	36.21	0.7719	2.132	24.162	16	6	sandy silt to clayey silt
57.81	32.52	0.7248	2.229	24.229	14	6	sandy silt to clayey silt
57.87	32.89	0.7059	2.146	24.283	14	6	sandy silt to clayey silt
57.94	34.50	0.7790	2.258	24.438	14	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
58.01	34.59	0.1441	0.417	24.724	16	6	sandy silt to clayey silt
58.07	38.20	0.3531	0.924	25.351	21	7	silty sand to sandy silt
58.14	51.91	2.5012	4.819	25.618	24	8	sand to silty sand
58.20	74.54	2.3446	3.145	24.685	30	8	sand to silty sand
58.27	188.62	2.0672	1.096	24.935	33	8	sand to silty sand
58.33	290.65	0.5983	0.206	25.594	38	8	sand to silty sand
58.40	192.68	1.6690	0.866	25.078	34	9	sand
58.46	114.88	2.1750	1.893	24.416	40	9	sand
58.53	187.38	1.7298	0.923	25.276	38	9	sand
58.60	209.01	1.2393	0.593	25.965	35	9	sand
58.66	271.99	2.0833	0.766	26.520	34	9	sand
58.73	136.72	1.7553	1.284	25.119	0	0	<out of range>
58.79	152.80	1.4032	0.918	25.129	0	0	<out of range>
58.86	188.27	0.8889	0.472	25.330	33	9	sand
58.92	156.79	-32767.9700	-20899.700	24.300	0	0	<out of range>
58.99	138.98	-32767.9700	-23577.980	24.947	0	0	<out of range>
59.06	147.92	-32767.9700	-22152.520	25.725	0	0	<out of range>
59.12	221.85	-32767.9700	-14770.420	25.674	0	0	<out of range>

*Soil behavior type and SPT based on data from UBC-1983

AECOM

TVA Kingston Coal Ash Pond RCA (Kingston,Tennessee) Cone Penetration Test

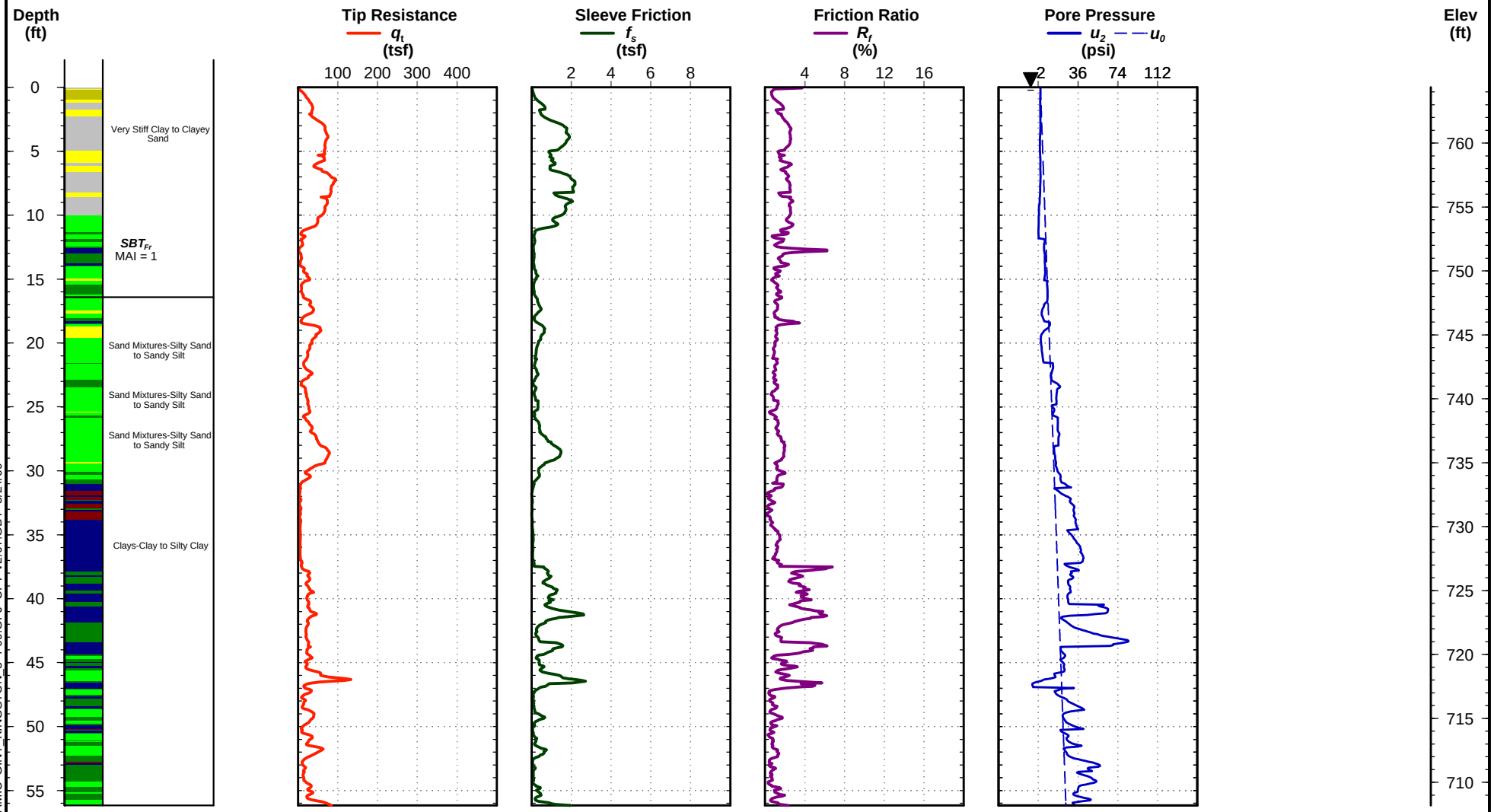
09-715-C1

Project No: 60095742

Date: Feb. 21, 2009
Estimated Water Depth: 0 ft
Rig/Operator: Mobile 57/CAP

Northing: 555481.53
Easting: 2441179.71
Elevation: 764.37 NGVD

Total Depth: 56.2 ft
Termination Criteria: Refusal
Cone Size: 10T Tension Cone



09-715-C1

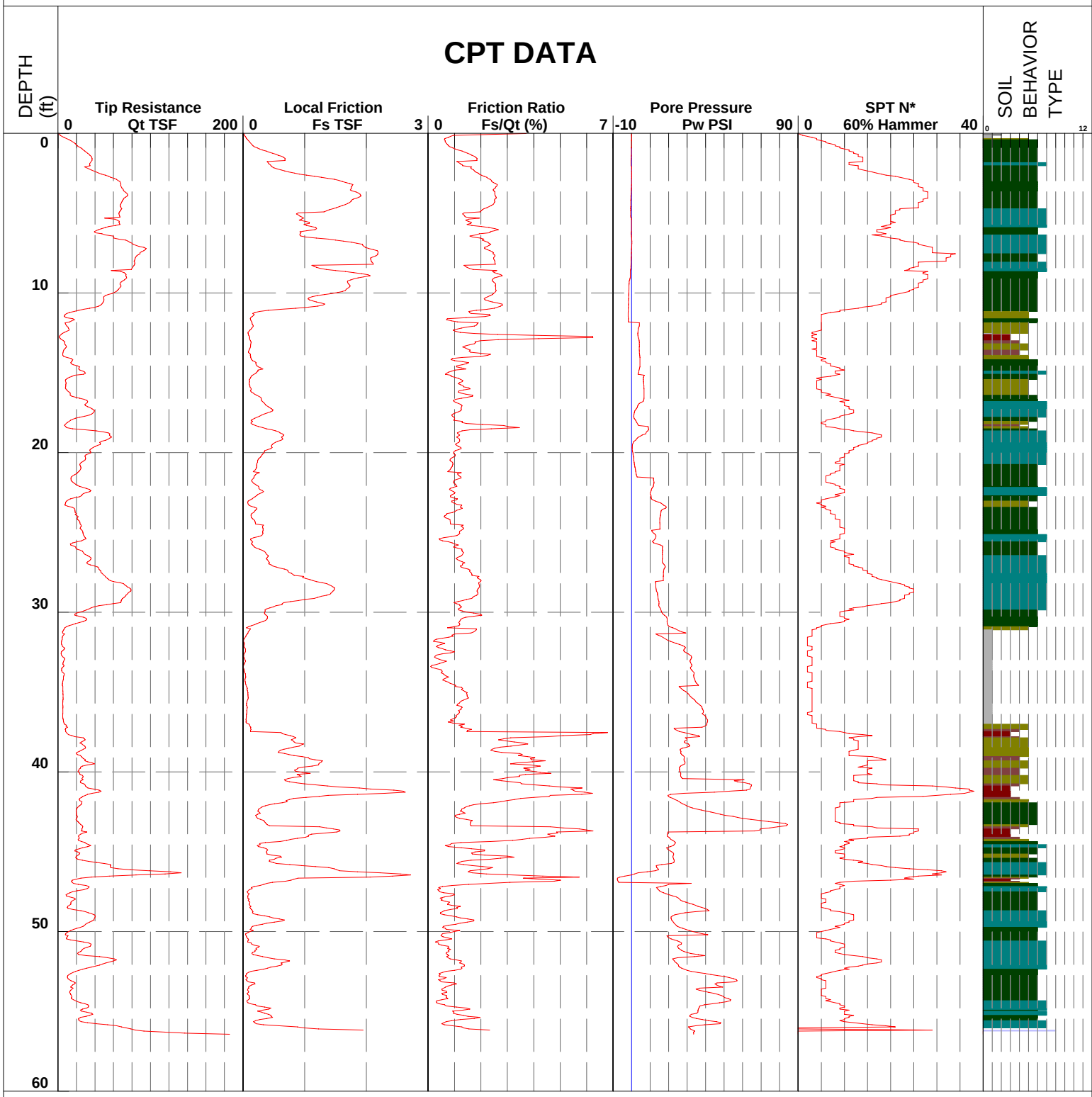
Electronic Filename: 09-715-C1.cpt

CPT REPORT - DYNAMIC GINT_KINGSTON_3-4-09.GPJ CPT V2.07.GDT 3/24/09

AECOM

09-715-C1	60095742	2/21/2009 1:22:07 PM
DSG0870	TVA-Kingston	Mobile 57/CAP

CPT DATA



1 - sensitive fine grained	4 - silty clay to clay	7 - silty sand to sandy silt	10 - gravelly sand to sand
2 - organic material	5 - clayey silt to silty clay	8 - sand to silty sand	11 - very stiff fine grained (*)
3 - clay	6 - sandy silt to clayey silt	9 - sand	12 - sand to clayey sand (*)

Data File:09-715-C1 2/21/2009 1:22:07 PM
Operator:Mobile 57/CAP Location:TVA-Kingston
Cone ID:DSG0870 Job Number:60095742
Customer:TVA Units:

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
0.07	0.42	0.0158	3.713	-0.044	0	2	organic material
0.13	2.58	0.0246	0.957	-0.039	1	1	sensitive fine grained
0.20	4.26	0.0361	0.848	-0.012	2	1	sensitive fine grained
0.26	6.44	0.0497	0.772	-0.010	3	1	sensitive fine grained
0.33	9.21	0.0586	0.636	0.017	4	5	clayey silt to silty clay
0.39	11.86	0.0731	0.616	0.007	4	6	sandy silt to clayey silt
0.46	13.87	0.0902	0.650	-0.032	5	6	sandy silt to clayey silt
0.52	15.72	0.1019	0.648	-0.051	6	6	sandy silt to clayey silt
0.59	17.46	0.1181	0.676	-0.121	6	6	sandy silt to clayey silt
0.66	18.75	0.1327	0.708	-0.104	7	6	sandy silt to clayey silt
0.72	19.82	0.1473	0.743	-0.109	8	6	sandy silt to clayey silt
0.79	21.09	0.1641	0.778	-0.111	8	6	sandy silt to clayey silt
0.85	22.65	0.1894	0.836	-0.111	9	6	sandy silt to clayey silt
0.92	24.73	0.2321	0.939	-0.124	9	6	sandy silt to clayey silt
0.98	26.33	0.2690	1.022	-0.136	10	6	sandy silt to clayey silt
1.05	27.41	0.3110	1.135	-0.136	11	6	sandy silt to clayey silt
1.12	29.05	0.3738	1.286	-0.136	11	6	sandy silt to clayey silt
1.18	30.45	0.4209	1.382	-0.143	12	6	sandy silt to clayey silt
1.25	32.09	0.4815	1.500	-0.145	12	6	sandy silt to clayey silt
1.31	33.57	0.5346	1.592	-0.136	13	6	sandy silt to clayey silt
1.38	34.52	0.5725	1.658	-0.170	13	6	sandy silt to clayey silt
1.44	35.88	0.6291	1.753	-0.184	13	6	sandy silt to clayey silt
1.51	36.46	0.6590	1.808	-0.189	14	6	sandy silt to clayey silt
1.57	36.83	0.6820	1.852	-0.213	14	6	sandy silt to clayey silt
1.64	36.83	0.6803	1.847	-0.262	14	6	sandy silt to clayey silt
1.71	36.81	0.6803	1.848	-0.279	14	6	sandy silt to clayey silt
1.77	35.97	0.3927	1.092	-0.301	14	6	sandy silt to clayey silt
1.84	35.03	0.4069	1.162	-0.298	11	7	silty sand to sandy silt
1.90	34.30	0.4175	1.217	-0.298	11	7	silty sand to sandy silt
1.97	34.27	0.4412	1.287	-0.310	11	7	silty sand to sandy silt
2.03	34.67	0.4554	1.314	-0.308	13	6	sandy silt to clayey silt
2.10	28.69	0.4737	1.651	0.107	13	6	sandy silt to clayey silt
2.17	31.20	0.5036	1.614	0.010	13	6	sandy silt to clayey silt
2.23	33.65	0.5562	1.653	0.000	13	6	sandy silt to clayey silt
2.30	35.83	0.6173	1.723	0.002	14	6	sandy silt to clayey silt
2.36	38.58	0.6789	1.760	0.022	15	6	sandy silt to clayey silt
2.43	41.23	0.7421	1.800	0.019	16	6	sandy silt to clayey silt
2.49	44.10	0.8366	1.897	0.034	17	6	sandy silt to clayey silt
2.56	47.12	0.9127	1.937	0.015	18	6	sandy silt to clayey silt
2.62	51.26	1.0311	2.012	0.034	19	6	sandy silt to clayey silt
2.69	54.80	1.1607	2.118	0.029	21	6	sandy silt to clayey silt
2.76	57.01	1.2690	2.226	0.034	22	6	sandy silt to clayey silt
2.82	60.67	1.3721	2.262	0.027	23	6	sandy silt to clayey silt
2.89	63.27	1.4867	2.350	0.015	24	6	sandy silt to clayey silt
2.95	64.86	1.5574	2.401	0.000	25	6	sandy silt to clayey silt
3.02	66.90	1.6114	2.409	0.000	25	6	sandy silt to clayey silt
3.08	67.39	1.6648	2.470	-0.012	25	6	sandy silt to clayey silt
3.15	67.90	1.7287	2.546	-0.007	26	6	sandy silt to clayey silt
3.22	67.99	1.7813	2.620	-0.019	26	6	sandy silt to clayey silt
3.28	67.76	1.7716	2.615	-0.036	26	6	sandy silt to clayey silt
3.35	68.33	1.7552	2.569	-0.061	26	6	sandy silt to clayey silt
3.41	68.98	1.7570	2.547	-0.092	27	6	sandy silt to clayey silt
3.48	70.19	1.7525	2.497	-0.141	27	6	sandy silt to clayey silt
3.54	70.59	1.7377	2.461	-0.160	27	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
3.61	71.05	1.7702	2.492	-0.187	27	6	sandy silt to clayey silt
3.67	72.54	1.8303	2.523	-0.211	28	6	sandy silt to clayey silt
3.74	73.92	1.8669	2.526	-0.216	28	6	sandy silt to clayey silt
3.81	75.06	1.8963	2.526	-0.259	28	6	sandy silt to clayey silt
3.87	75.35	1.9087	2.533	-0.308	28	6	sandy silt to clayey silt
3.94	74.78	1.9099	2.554	-0.373	28	6	sandy silt to clayey silt
4.00	73.08	1.8827	2.576	-0.393	28	6	sandy silt to clayey silt
4.07	71.46	1.8426	2.578	-0.402	28	6	sandy silt to clayey silt
4.13	70.64	1.7857	2.528	-0.419	27	6	sandy silt to clayey silt
4.20	69.86	1.7545	2.511	-0.436	27	6	sandy silt to clayey silt
4.27	69.25	1.7500	2.527	-0.429	27	6	sandy silt to clayey silt
4.33	68.79	1.7289	2.513	-0.441	26	6	sandy silt to clayey silt
4.40	68.18	1.6969	2.489	-0.446	26	6	sandy silt to clayey silt
4.46	67.60	1.6618	2.458	-0.473	26	6	sandy silt to clayey silt
4.53	67.42	1.6090	2.387	-0.477	26	6	sandy silt to clayey silt
4.59	67.58	1.5641	2.314	-0.475	26	6	sandy silt to clayey silt
4.66	68.10	1.5147	2.224	-0.480	26	6	sandy silt to clayey silt
4.72	68.90	1.4588	2.117	-0.480	22	7	silty sand to sandy silt
4.79	68.09	1.3998	2.056	-0.475	22	7	silty sand to sandy silt
4.86	67.62	1.3578	2.008	-0.485	21	7	silty sand to sandy silt
4.92	66.53	1.3118	1.972	-0.490	21	7	silty sand to sandy silt
4.99	65.94	0.8955	1.358	-0.480	21	7	silty sand to sandy silt
5.05	66.03	0.8647	1.310	-0.504	21	7	silty sand to sandy silt
5.12	66.27	0.8999	1.358	-0.499	20	7	silty sand to sandy silt
5.18	66.66	0.9217	1.383	-0.494	20	7	silty sand to sandy silt
5.25	67.13	0.9590	1.429	-0.470	20	7	silty sand to sandy silt
5.31	50.50	0.9804	1.941	-0.126	20	7	silty sand to sandy silt
5.38	61.47	0.9487	1.543	-0.116	20	7	silty sand to sandy silt
5.45	64.14	0.9134	1.424	-0.104	20	7	silty sand to sandy silt
5.51	66.27	1.0073	1.520	-0.104	20	7	silty sand to sandy silt
5.58	65.85	1.0777	1.636	-0.075	21	7	silty sand to sandy silt
5.64	66.36	1.0740	1.618	-0.087	20	7	silty sand to sandy silt
5.71	67.02	0.9889	1.476	-0.092	20	7	silty sand to sandy silt
5.77	62.19	1.0310	1.658	-0.051	19	7	silty sand to sandy silt
5.84	54.98	1.1110	2.021	-0.092	18	7	silty sand to sandy silt
5.91	51.38	1.1824	2.301	-0.104	20	6	sandy silt to clayey silt
5.97	47.06	1.1936	2.536	-0.107	19	6	sandy silt to clayey silt
6.04	43.84	1.1660	2.659	-0.116	17	6	sandy silt to clayey silt
6.10	41.17	1.0356	2.515	-0.099	17	6	sandy silt to clayey silt
6.17	39.30	0.9238	2.351	-0.111	17	6	sandy silt to clayey silt
6.23	40.37	0.9424	2.335	-0.179	18	6	sandy silt to clayey silt
6.30	47.56	0.9271	1.949	-0.228	19	6	sandy silt to clayey silt
6.36	50.94	0.9203	1.807	-0.116	16	7	silty sand to sandy silt
6.43	59.44	0.9389	1.580	-0.051	18	7	silty sand to sandy silt
6.50	60.37	1.0232	1.695	0.010	19	7	silty sand to sandy silt
6.56	60.30	1.1889	1.972	0.061	20	7	silty sand to sandy silt
6.63	65.60	1.3839	2.110	0.063	22	7	silty sand to sandy silt
6.69	73.30	1.5018	2.049	0.119	22	7	silty sand to sandy silt
6.76	75.76	1.6280	2.149	0.148	23	7	silty sand to sandy silt
6.82	77.74	1.7641	2.269	0.136	25	7	silty sand to sandy silt
6.89	80.17	1.8480	2.305	0.136	26	7	silty sand to sandy silt
6.96	81.35	1.9351	2.379	0.111	26	7	silty sand to sandy silt
7.02	84.28	1.9437	2.306	0.099	27	7	silty sand to sandy silt
7.09	87.37	1.9595	2.243	0.065	28	7	silty sand to sandy silt
7.15	92.84	1.9848	2.138	0.039	29	7	silty sand to sandy silt
7.22	95.30	2.0380	2.138	-0.019	29	7	silty sand to sandy silt
7.28	94.40	2.1126	2.238	-0.046	29	7	silty sand to sandy silt
7.35	92.81	2.1740	2.342	-0.058	29	7	silty sand to sandy silt
7.41	90.37	2.1906	2.424	-0.073	29	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
7.48	88.67	2.1894	2.469	-0.082	29	7	silty sand to sandy silt
7.55	88.80	2.1835	2.459	-0.124	34	6	sandy silt to clayey silt
7.61	86.87	2.1821	2.512	-0.143	33	6	sandy silt to clayey silt
7.68	85.06	2.1521	2.530	-0.150	33	6	sandy silt to clayey silt
7.74	84.15	2.1076	2.505	-0.165	33	6	sandy silt to clayey silt
7.81	83.55	2.0700	2.478	-0.196	32	6	sandy silt to clayey silt
7.87	83.24	2.0674	2.484	-0.216	32	6	sandy silt to clayey silt
7.94	82.94	2.0757	2.503	-0.237	32	6	sandy silt to clayey silt
8.01	82.21	2.0795	2.529	-0.242	32	6	sandy silt to clayey silt
8.07	82.86	2.0908	2.523	-0.252	26	7	silty sand to sandy silt
8.14	83.19	2.1093	2.535	-0.271	26	7	silty sand to sandy silt
8.20	82.85	2.1115	2.549	-0.301	26	7	silty sand to sandy silt
8.27	82.19	1.1160	1.358	-0.305	26	7	silty sand to sandy silt
8.33	81.49	1.1512	1.413	-0.330	26	7	silty sand to sandy silt
8.40	80.82	1.1927	1.476	-0.349	25	7	silty sand to sandy silt
8.46	80.03	1.2477	1.559	-0.366	24	7	silty sand to sandy silt
8.53	79.24	1.3508	1.705	-0.499	24	7	silty sand to sandy silt
8.60	57.62	1.4979	2.600	-0.633	23	7	silty sand to sandy silt
8.66	68.09	1.6599	2.438	-0.647	28	6	sandy silt to clayey silt
8.73	71.48	1.7956	2.512	-0.659	27	6	sandy silt to clayey silt
8.79	73.09	1.9213	2.629	-0.676	27	6	sandy silt to clayey silt
8.86	73.60	2.0248	2.751	-0.671	28	6	sandy silt to clayey silt
8.92	73.38	2.0605	2.808	-0.698	28	6	sandy silt to clayey silt
8.99	73.84	1.9579	2.651	-0.703	28	6	sandy silt to clayey silt
9.06	74.29	1.8643	2.509	-0.763	28	6	sandy silt to clayey silt
9.12	73.18	1.7960	2.454	-0.897	28	6	sandy silt to clayey silt
9.19	71.68	1.7456	2.435	-0.943	27	6	sandy silt to clayey silt
9.25	69.94	1.6954	2.424	-1.255	27	6	sandy silt to clayey silt
9.32	68.36	1.6944	2.479	-1.328	27	6	sandy silt to clayey silt
9.38	67.25	1.7032	2.533	-1.335	26	6	sandy silt to clayey silt
9.45	67.02	1.7158	2.560	-1.389	26	6	sandy silt to clayey silt
9.51	68.07	1.7331	2.546	-1.406	26	6	sandy silt to clayey silt
9.58	68.17	1.7355	2.546	-1.413	26	6	sandy silt to clayey silt
9.65	67.27	1.7217	2.560	-1.432	26	6	sandy silt to clayey silt
9.71	66.29	1.6967	2.560	-1.444	25	6	sandy silt to clayey silt
9.78	65.39	1.6724	2.557	-1.442	25	6	sandy silt to clayey silt
9.84	64.39	1.6599	2.578	-1.461	24	6	sandy silt to clayey silt
9.91	62.96	1.6090	2.556	-1.481	24	6	sandy silt to clayey silt
9.97	60.83	1.5396	2.531	-1.495	23	6	sandy silt to clayey silt
10.04	58.37	1.4422	2.471	-1.503	22	6	sandy silt to clayey silt
10.10	54.13	1.3213	2.441	-1.515	21	6	sandy silt to clayey silt
10.17	51.37	1.2089	2.353	-1.561	20	6	sandy silt to clayey silt
10.24	49.54	1.1203	2.261	-1.599	20	6	sandy silt to clayey silt
10.30	49.38	1.0691	2.165	-1.612	19	6	sandy silt to clayey silt
10.37	49.65	1.0543	2.123	-1.636	19	6	sandy silt to clayey silt
10.43	49.79	1.0769	2.163	-1.658	19	6	sandy silt to clayey silt
10.50	49.55	1.1279	2.276	-1.670	19	6	sandy silt to clayey silt
10.56	49.04	1.1890	2.425	-1.675	19	6	sandy silt to clayey silt
10.63	48.29	1.2654	2.621	-1.675	18	6	sandy silt to clayey silt
10.70	47.35	1.3247	2.797	-1.689	18	6	sandy silt to clayey silt
10.76	46.02	1.2957	2.816	-1.716	17	6	sandy silt to clayey silt
10.83	44.24	1.2162	2.749	-1.733	16	6	sandy silt to clayey silt
10.89	40.43	1.0646	2.633	-1.745	14	6	sandy silt to clayey silt
10.96	34.31	0.8590	2.503	-1.757	13	6	sandy silt to clayey silt
11.02	27.65	0.6151	2.224	-1.776	11	6	sandy silt to clayey silt
11.09	22.59	0.4124	1.825	-1.781	9	6	sandy silt to clayey silt
11.15	17.48	0.2708	1.549	-1.805	9	5	clayey silt to silty clay
11.22	12.58	0.1967	1.564	-1.837	7	5	clayey silt to silty clay
11.29	9.63	0.1566	1.626	-1.847	6	5	clayey silt to silty clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
11.35	7.86	0.1825	2.321	-1.842	5	5	clayey silt to silty clay
11.42	7.20	0.1693	2.352	-1.818	5	5	clayey silt to silty clay
11.48	6.97	0.1502	2.155	-1.815	5	5	clayey silt to silty clay
11.55	8.74	0.1259	1.440	-1.772	5	5	clayey silt to silty clay
11.61	16.08	0.1173	0.730	-1.730	5	6	sandy silt to clayey silt
11.68	17.81	0.1244	0.698	-1.730	5	6	sandy silt to clayey silt
11.75	14.82	0.1310	0.884	-1.776	5	6	sandy silt to clayey silt
11.81	12.80	0.1420	1.109	-1.759	5	6	sandy silt to clayey silt
11.88	7.71	0.1464	1.899	4.256	5	5	clayey silt to silty clay
11.94	8.11	0.1501	1.851	4.219	5	5	clayey silt to silty clay
12.01	8.78	0.1612	1.837	4.190	5	5	clayey silt to silty clay
12.07	9.63	0.1691	1.756	4.146	5	5	clayey silt to silty clay
12.14	10.75	0.1569	1.460	3.991	5	5	clayey silt to silty clay
12.20	11.27	0.1420	1.260	3.691	5	5	clayey silt to silty clay
12.27	11.92	0.1305	1.095	3.608	5	5	clayey silt to silty clay
12.34	11.96	0.1133	0.948	3.538	5	5	clayey silt to silty clay
12.40	9.49	0.0985	1.037	3.463	4	5	clayey silt to silty clay
12.47	6.70	0.0814	1.216	3.410	3	5	clayey silt to silty clay
12.53	4.77	0.0827	1.734	3.393	3	1	sensitive fine grained
12.60	3.33	0.0878	2.640	3.393	4	3	clay
12.66	2.19	0.0938	4.276	3.407	3	3	clay
12.73	1.66	0.1035	6.224	3.451	3	3	clay
12.80	1.71	0.1070	6.238	3.567	3	3	clay
12.86	2.57	0.1078	4.195	3.814	4	3	clay
12.93	4.21	0.1119	2.656	4.023	4	3	clay
12.99	5.97	0.1191	1.996	4.091	3	4	silty clay to clay
13.06	7.42	0.1318	1.777	4.161	4	4	silty clay to clay
13.12	7.28	0.1306	1.794	4.171	4	4	silty clay to clay
13.19	7.29	0.1276	1.750	4.161	4	5	clayey silt to silty clay
13.25	7.97	0.1246	1.562	4.178	4	5	clayey silt to silty clay
13.32	8.90	0.1242	1.395	4.183	4	5	clayey silt to silty clay
13.39	9.16	0.1204	1.313	4.159	4	5	clayey silt to silty clay
13.45	8.12	0.1155	1.423	4.130	4	5	clayey silt to silty clay
13.52	7.08	0.1057	1.493	4.151	3	5	clayey silt to silty clay
13.58	6.27	0.0999	1.593	4.154	4	4	silty clay to clay
13.65	5.84	0.0909	1.556	4.168	4	4	silty clay to clay
13.71	5.47	0.0881	1.612	4.200	4	4	silty clay to clay
13.78	5.21	0.1035	1.985	4.248	4	4	silty clay to clay
13.85	5.10	0.1204	2.362	4.331	4	4	silty clay to clay
13.91	5.22	0.1178	2.257	4.382	4	5	clayey silt to silty clay
13.98	6.28	0.1255	1.998	4.445	4	5	clayey silt to silty clay
14.04	9.79	0.1257	1.284	4.491	5	5	clayey silt to silty clay
14.11	14.14	0.1296	0.917	4.522	6	5	clayey silt to silty clay
14.17	16.05	0.1390	0.866	4.522	5	6	sandy silt to clayey silt
14.24	15.47	0.1551	1.002	4.522	5	6	sandy silt to clayey silt
14.30	14.71	0.1935	1.316	4.525	6	6	sandy silt to clayey silt
14.37	13.76	0.2111	1.535	4.525	6	6	sandy silt to clayey silt
14.44	14.26	0.2077	1.457	4.544	7	6	sandy silt to clayey silt
14.50	16.44	0.2122	1.291	4.551	7	6	sandy silt to clayey silt
14.57	21.15	0.2280	1.078	4.571	7	6	sandy silt to clayey silt
14.63	23.34	0.2515	1.077	4.539	8	6	sandy silt to clayey silt
14.70	22.77	0.2866	1.258	4.352	9	6	sandy silt to clayey silt
14.76	22.48	0.3210	1.428	4.229	9	6	sandy silt to clayey silt
14.83	23.81	0.2440	1.024	4.013	10	6	sandy silt to clayey silt
14.90	26.86	0.2433	0.906	3.957	8	7	silty sand to sandy silt
14.96	28.90	0.2253	0.780	3.873	8	7	silty sand to sandy silt
15.03	29.69	0.2090	0.704	3.604	8	7	silty sand to sandy silt
15.09	27.65	0.1808	0.654	3.492	9	6	sandy silt to clayey silt
15.16	17.72	0.1528	0.862	6.955	8	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
15.22	15.36	0.1341	0.873	6.543	7	6	sandy silt to clayey silt
15.29	12.38	0.1252	1.011	6.441	5	6	sandy silt to clayey silt
15.35	10.23	0.1175	1.148	6.405	4	6	sandy silt to clayey silt
15.42	8.58	0.1063	1.239	6.386	5	5	clayey silt to silty clay
15.49	7.92	0.1042	1.315	6.417	4	5	clayey silt to silty clay
15.55	8.28	0.1073	1.296	6.451	4	5	clayey silt to silty clay
15.62	8.72	0.1045	1.198	6.512	4	5	clayey silt to silty clay
15.68	8.68	0.0991	1.142	6.563	4	5	clayey silt to silty clay
15.75	8.51	0.1043	1.226	6.589	4	5	clayey silt to silty clay
15.81	8.49	0.1124	1.325	6.672	4	5	clayey silt to silty clay
15.88	8.26	0.1111	1.345	6.691	4	5	clayey silt to silty clay
15.94	7.98	0.1233	1.546	6.681	4	5	clayey silt to silty clay
16.01	8.44	0.1343	1.592	6.723	4	5	clayey silt to silty clay
16.08	9.48	0.1281	1.351	6.720	5	5	clayey silt to silty clay
16.14	10.31	0.1201	1.165	6.730	5	5	clayey silt to silty clay
16.21	11.99	0.1371	1.144	6.749	5	5	clayey silt to silty clay
16.27	13.31	0.1650	1.240	6.749	6	5	clayey silt to silty clay
16.34	13.27	0.1900	1.432	6.747	7	5	clayey silt to silty clay
16.40	13.27	0.2243	1.690	6.735	6	6	sandy silt to clayey silt
16.47	15.10	0.2540	1.682	6.740	7	6	sandy silt to clayey silt
16.54	19.24	0.2852	1.482	6.761	8	6	sandy silt to clayey silt
16.60	23.45	0.2964	1.264	6.742	9	6	sandy silt to clayey silt
16.67	28.15	0.2959	1.051	6.628	10	6	sandy silt to clayey silt
16.73	31.31	0.3003	0.959	6.451	11	6	sandy silt to clayey silt
16.80	32.06	0.3148	0.982	6.301	9	7	silty sand to sandy silt
16.86	31.80	0.3350	1.053	5.012	10	7	silty sand to sandy silt
16.93	30.41	0.3519	1.157	4.127	10	7	silty sand to sandy silt
16.99	29.04	0.3622	1.247	3.579	10	7	silty sand to sandy silt
17.06	29.89	0.3848	1.287	3.383	10	7	silty sand to sandy silt
17.13	32.05	0.4082	1.274	3.187	11	7	silty sand to sandy silt
17.19	35.04	0.4369	1.247	2.918	11	7	silty sand to sandy silt
17.26	36.91	0.4637	1.256	2.537	11	7	silty sand to sandy silt
17.32	38.57	0.4857	1.259	2.123	12	7	silty sand to sandy silt
17.39	39.38	0.4814	1.222	1.793	12	7	silty sand to sandy silt
17.45	38.98	0.4450	1.142	1.604	12	7	silty sand to sandy silt
17.52	37.99	0.3953	1.041	1.454	12	7	silty sand to sandy silt
17.59	36.34	0.3420	0.941	1.340	11	7	silty sand to sandy silt
17.65	33.87	0.3013	0.890	1.221	10	7	silty sand to sandy silt
17.72	29.01	0.2691	0.928	1.166	9	7	silty sand to sandy silt
17.78	23.55	0.2304	0.979	1.207	9	6	sandy silt to clayey silt
17.85	19.04	0.1921	1.009	1.384	8	6	sandy silt to clayey silt
17.91	15.89	0.1581	0.995	1.791	7	6	sandy silt to clayey silt
17.98	13.61	0.1321	0.971	2.205	6	6	sandy silt to clayey silt
18.04	11.90	0.1547	1.299	2.465	6	5	clayey silt to silty clay
18.11	10.23	0.1318	1.288	2.809	5	5	clayey silt to silty clay
18.18	8.99	0.1295	1.440	3.131	5	5	clayey silt to silty clay
18.24	7.81	0.1608	2.060	3.427	6	4	silty clay to clay
18.31	7.09	0.2028	2.860	3.771	6	4	silty clay to clay
18.37	8.26	0.2501	3.026	8.928	6	5	clayey silt to silty clay
18.44	9.41	0.3254	3.458	8.988	8	5	clayey silt to silty clay
18.50	15.91	0.3798	2.387	9.194	9	6	sandy silt to clayey silt
18.57	29.54	0.4691	1.588	9.173	11	6	sandy silt to clayey silt
18.64	41.16	0.5300	1.288	8.744	12	7	silty sand to sandy silt
18.70	48.81	0.5797	1.188	8.055	14	7	silty sand to sandy silt
18.77	54.47	0.6010	1.103	7.816	16	7	silty sand to sandy silt
18.83	56.16	0.6389	1.138	7.605	17	7	silty sand to sandy silt
18.90	55.56	0.6630	1.193	5.777	18	7	silty sand to sandy silt
18.96	56.59	0.6479	1.145	4.825	18	7	silty sand to sandy silt
19.03	57.87	0.6239	1.078	3.759	18	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
19.09	55.97	0.6369	1.138	3.046	17	7	silty sand to sandy silt
19.16	54.19	0.6454	1.191	2.734	17	7	silty sand to sandy silt
19.23	51.63	0.6167	1.195	2.154	16	7	silty sand to sandy silt
19.29	47.20	0.5651	1.197	1.313	16	7	silty sand to sandy silt
19.36	45.04	0.5240	1.163	0.938	15	7	silty sand to sandy silt
19.42	46.01	0.4957	1.077	0.763	15	7	silty sand to sandy silt
19.49	45.64	0.4745	1.040	0.468	14	7	silty sand to sandy silt
19.55	42.68	0.4637	1.086	0.400	13	7	silty sand to sandy silt
19.62	40.04	0.4617	1.153	0.376	13	7	silty sand to sandy silt
19.69	38.04	0.4729	1.243	0.337	12	7	silty sand to sandy silt
19.75	36.01	0.4505	1.251	0.342	12	7	silty sand to sandy silt
19.82	34.59	0.3996	1.155	0.356	12	7	silty sand to sandy silt
19.88	34.42	0.3545	1.030	0.373	11	7	silty sand to sandy silt
19.95	35.25	0.3456	0.980	0.555	11	7	silty sand to sandy silt
20.01	35.48	0.3423	0.965	0.742	11	7	silty sand to sandy silt
20.08	32.94	0.3212	0.975	0.756	10	7	silty sand to sandy silt
20.14	30.11	0.3098	1.029	0.788	10	7	silty sand to sandy silt
20.21	29.00	0.2983	1.028	0.972	10	7	silty sand to sandy silt
20.28	29.57	0.2842	0.961	1.098	10	7	silty sand to sandy silt
20.34	29.88	0.2651	0.887	1.156	9	7	silty sand to sandy silt
20.41	29.76	0.2497	0.839	1.144	9	7	silty sand to sandy silt
20.47	29.16	0.2408	0.826	1.190	9	7	silty sand to sandy silt
20.54	27.54	0.2353	0.854	1.270	9	7	silty sand to sandy silt
20.60	25.65	0.2366	0.923	1.389	8	7	silty sand to sandy silt
20.67	24.14	0.2263	0.937	1.481	8	7	silty sand to sandy silt
20.73	23.71	0.2227	0.939	1.534	10	6	sandy silt to clayey silt
20.80	23.93	0.2210	0.924	1.641	9	6	sandy silt to clayey silt
20.87	24.48	0.2229	0.911	1.784	9	6	sandy silt to clayey silt
20.93	24.69	0.2183	0.884	1.849	9	6	sandy silt to clayey silt
21.00	24.76	0.2134	0.862	2.016	9	6	sandy silt to clayey silt
21.06	24.19	0.2026	0.837	2.104	9	6	sandy silt to clayey silt
21.13	23.27	0.1837	0.789	2.188	9	6	sandy silt to clayey silt
21.19	22.36	0.1661	0.743	2.276	8	6	sandy silt to clayey silt
21.26	21.15	0.2656	1.256	2.341	8	6	sandy silt to clayey silt
21.33	20.08	0.2219	1.105	2.467	7	6	sandy silt to clayey silt
21.39	17.93	0.2025	1.130	2.564	7	6	sandy silt to clayey silt
21.46	15.92	0.1866	1.172	2.738	6	6	sandy silt to clayey silt
21.52	14.48	0.1799	1.242	2.961	6	6	sandy silt to clayey silt
21.59	13.98	0.1750	1.251	11.918	6	6	sandy silt to clayey silt
21.65	14.10	0.1596	1.132	11.785	6	6	sandy silt to clayey silt
21.72	14.14	0.1428	1.010	11.882	6	6	sandy silt to clayey silt
21.78	14.69	0.1429	0.973	12.018	6	6	sandy silt to clayey silt
21.85	16.06	0.1548	0.964	12.115	6	6	sandy silt to clayey silt
21.92	17.46	0.1716	0.983	12.088	7	6	sandy silt to clayey silt
21.98	19.07	0.1984	1.040	11.955	8	6	sandy silt to clayey silt
22.05	20.93	0.2198	1.050	11.802	8	6	sandy silt to clayey silt
22.11	22.93	0.2506	1.093	11.734	9	6	sandy silt to clayey silt
22.18	26.80	0.2588	0.966	11.363	9	7	silty sand to sandy silt
22.24	30.79	0.2574	0.836	10.932	9	7	silty sand to sandy silt
22.31	33.94	0.2740	0.807	10.726	10	7	silty sand to sandy silt
22.38	35.56	0.3135	0.882	10.590	10	7	silty sand to sandy silt
22.44	34.53	0.3327	0.963	10.435	10	7	silty sand to sandy silt
22.51	30.42	0.3095	1.018	9.999	10	7	silty sand to sandy silt
22.57	27.25	0.2701	0.991	9.999	9	7	silty sand to sandy silt
22.64	26.13	0.2377	0.910	10.210	8	7	silty sand to sandy silt
22.70	25.59	0.2185	0.854	10.539	9	6	sandy silt to clayey silt
22.77	23.04	0.1949	0.846	10.561	8	6	sandy silt to clayey silt
22.83	17.71	0.1670	0.943	10.566	7	6	sandy silt to clayey silt
22.90	13.36	0.1490	1.115	10.721	6	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
22.97	11.09	0.1186	1.069	11.424	5	6	sandy silt to clayey silt
23.03	9.42	0.0848	0.900	12.793	5	5	clayey silt to silty clay
23.10	8.51	0.0766	0.900	14.410	5	5	clayey silt to silty clay
23.16	8.16	0.0803	0.983	15.830	4	5	clayey silt to silty clay
23.23	7.80	0.0841	1.078	16.722	5	5	clayey silt to silty clay
23.29	7.67	0.0978	1.275	17.306	5	5	clayey silt to silty clay
23.36	10.60	0.1320	1.246	18.503	6	5	clayey silt to silty clay
23.43	15.33	0.1878	1.225	18.806	5	6	sandy silt to clayey silt
23.49	17.56	0.2270	1.293	18.338	6	6	sandy silt to clayey silt
23.56	18.33	0.2209	1.205	16.743	6	6	sandy silt to clayey silt
23.62	18.43	0.1968	1.068	16.038	7	6	sandy silt to clayey silt
23.69	18.52	0.1897	1.024	15.929	7	6	sandy silt to clayey silt
23.75	18.63	0.1701	0.913	15.852	7	6	sandy silt to clayey silt
23.82	19.91	0.1427	0.717	15.721	7	6	sandy silt to clayey silt
23.88	18.58	0.1299	0.699	15.689	8	6	sandy silt to clayey silt
23.95	20.48	0.1313	0.641	15.607	8	6	sandy silt to clayey silt
24.02	21.87	0.1330	0.608	15.481	8	6	sandy silt to clayey silt
24.08	21.05	0.1399	0.665	15.316	8	6	sandy silt to clayey silt
24.15	20.74	0.1599	0.771	15.260	8	6	sandy silt to clayey silt
24.21	21.53	0.1791	0.832	15.258	9	6	sandy silt to clayey silt
24.28	22.91	0.1916	0.836	15.241	9	6	sandy silt to clayey silt
24.34	23.60	0.1981	0.839	15.243	9	6	sandy silt to clayey silt
24.41	23.78	0.2006	0.844	15.239	9	6	sandy silt to clayey silt
24.48	24.03	0.2055	0.855	15.294	9	6	sandy silt to clayey silt
24.54	25.05	0.3317	1.324	15.326	9	6	sandy silt to clayey silt
24.61	25.37	0.3185	1.255	15.340	9	6	sandy silt to clayey silt
24.67	24.42	0.3191	1.307	15.304	9	6	sandy silt to clayey silt
24.74	23.86	0.3224	1.351	15.321	10	6	sandy silt to clayey silt
24.80	24.69	0.3255	1.318	15.348	10	6	sandy silt to clayey silt
24.87	25.95	0.3258	1.255	10.901	10	6	sandy silt to clayey silt
24.93	26.68	0.3199	1.199	11.044	10	6	sandy silt to clayey silt
25.00	27.02	0.3205	1.186	11.499	10	6	sandy silt to clayey silt
25.07	27.10	0.3253	1.200	12.110	10	6	sandy silt to clayey silt
25.13	27.23	0.3132	1.150	12.784	9	7	silty sand to sandy silt
25.20	27.97	0.3069	1.097	13.179	9	7	silty sand to sandy silt
25.26	28.66	0.2505	0.874	13.164	9	7	silty sand to sandy silt
25.33	29.38	0.1760	0.599	13.065	9	7	silty sand to sandy silt
25.39	30.27	0.1268	0.419	12.641	9	7	silty sand to sandy silt
25.46	27.73	0.1238	0.446	12.292	8	7	silty sand to sandy silt
25.52	25.55	0.1413	0.553	11.669	7	7	silty sand to sandy silt
25.59	20.54	0.1599	0.779	11.344	8	6	sandy silt to clayey silt
25.66	16.07	0.1463	0.910	11.989	7	6	sandy silt to clayey silt
25.72	13.33	0.1333	1.000	13.610	7	6	sandy silt to clayey silt
25.79	13.82	0.1580	1.143	15.638	7	6	sandy silt to clayey silt
25.85	16.95	0.1717	1.013	16.693	7	6	sandy silt to clayey silt
25.92	19.24	0.1858	0.966	16.746	7	6	sandy silt to clayey silt
25.98	19.44	0.2165	1.114	16.588	8	6	sandy silt to clayey silt
26.05	20.71	0.2659	1.284	16.622	8	6	sandy silt to clayey silt
26.12	24.21	0.3100	1.280	16.731	9	6	sandy silt to clayey silt
26.18	26.59	0.3432	1.290	16.702	10	6	sandy silt to clayey silt
26.25	27.26	0.3641	1.336	16.637	10	6	sandy silt to clayey silt
26.31	28.02	0.3722	1.328	16.613	11	6	sandy silt to clayey silt
26.38	29.47	0.3844	1.305	16.627	12	6	sandy silt to clayey silt
26.44	31.79	0.4054	1.275	16.651	10	7	silty sand to sandy silt
26.51	33.70	0.4065	1.206	16.647	10	7	silty sand to sandy silt
26.57	35.39	0.3931	1.111	16.639	11	7	silty sand to sandy silt
26.64	35.91	0.3794	1.056	16.632	11	7	silty sand to sandy silt
26.71	35.12	0.3914	1.114	16.600	11	7	silty sand to sandy silt
26.77	34.10	0.4084	1.198	16.559	11	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
26.84	32.32	0.4186	1.295	16.581	11	7	silty sand to sandy silt
26.90	30.95	0.4304	1.391	16.790	11	7	silty sand to sandy silt
26.97	31.98	0.4152	1.298	17.223	11	7	silty sand to sandy silt
27.03	34.90	0.4563	1.307	17.730	12	7	silty sand to sandy silt
27.10	39.60	0.4826	1.219	18.151	12	7	silty sand to sandy silt
27.17	42.97	0.5394	1.255	18.231	13	7	silty sand to sandy silt
27.23	44.18	0.5940	1.345	17.817	14	7	silty sand to sandy silt
27.30	44.27	0.6687	1.510	17.526	14	7	silty sand to sandy silt
27.36	45.25	0.7221	1.596	17.381	14	7	silty sand to sandy silt
27.43	46.40	0.7287	1.570	17.248	15	7	silty sand to sandy silt
27.49	46.30	0.7411	1.601	17.233	15	7	silty sand to sandy silt
27.56	47.74	0.7857	1.646	17.199	15	7	silty sand to sandy silt
27.62	48.77	0.8092	1.659	17.204	16	7	silty sand to sandy silt
27.69	50.04	0.8299	1.659	17.197	16	7	silty sand to sandy silt
27.76	51.19	0.9858	1.926	17.180	16	7	silty sand to sandy silt
27.82	52.02	0.9677	1.860	17.175	17	7	silty sand to sandy silt
27.89	53.69	1.0170	1.894	17.160	17	7	silty sand to sandy silt
27.95	54.78	1.0839	1.979	17.153	18	7	silty sand to sandy silt
28.02	56.58	1.1358	2.007	17.136	19	7	silty sand to sandy silt
28.08	60.07	1.1933	1.987	12.910	20	7	silty sand to sandy silt
28.15	67.01	1.2816	1.912	12.980	21	7	silty sand to sandy silt
28.22	70.75	1.3577	1.919	13.050	22	7	silty sand to sandy silt
28.28	72.20	1.3955	1.933	13.057	23	7	silty sand to sandy silt
28.35	73.63	1.4312	1.944	13.099	23	7	silty sand to sandy silt
28.41	75.18	1.4603	1.942	13.137	24	7	silty sand to sandy silt
28.48	77.36	1.4860	1.921	13.193	24	7	silty sand to sandy silt
28.54	78.63	1.4791	1.881	13.271	25	7	silty sand to sandy silt
28.61	79.03	1.4798	1.872	13.322	25	7	silty sand to sandy silt
28.67	78.85	1.4587	1.850	13.450	25	7	silty sand to sandy silt
28.74	76.91	1.4434	1.877	13.770	25	7	silty sand to sandy silt
28.81	75.83	1.4247	1.879	14.032	24	7	silty sand to sandy silt
28.87	74.75	1.4121	1.889	14.058	24	7	silty sand to sandy silt
28.94	73.59	1.3562	1.843	14.114	23	7	silty sand to sandy silt
29.00	72.86	1.2704	1.744	14.175	23	7	silty sand to sandy silt
29.07	71.51	1.2078	1.689	14.238	23	7	silty sand to sandy silt
29.13	69.89	1.1565	1.655	14.303	23	7	silty sand to sandy silt
29.20	68.98	1.0030	1.454	14.400	22	7	silty sand to sandy silt
29.27	68.46	0.8966	1.310	14.591	22	7	silty sand to sandy silt
29.33	68.25	0.7730	1.133	14.800	21	7	silty sand to sandy silt
29.40	67.73	0.6617	0.977	14.797	20	7	silty sand to sandy silt
29.46	59.71	0.6370	1.067	14.793	18	7	silty sand to sandy silt
29.53	52.82	0.6328	1.198	14.739	17	7	silty sand to sandy silt
29.59	44.56	0.5363	1.203	14.722	15	7	silty sand to sandy silt
29.66	39.08	0.4946	1.266	14.940	14	7	silty sand to sandy silt
29.72	35.90	0.4384	1.221	15.352	12	7	silty sand to sandy silt
29.79	33.45	0.3805	1.137	15.670	11	7	silty sand to sandy silt
29.86	30.64	0.3568	1.164	15.861	12	6	sandy silt to clayey silt
29.92	27.65	0.3602	1.303	16.029	10	6	sandy silt to clayey silt
29.99	24.08	0.3528	1.465	16.210	9	6	sandy silt to clayey silt
30.05	20.15	0.3469	1.722	16.605	9	6	sandy silt to clayey silt
30.12	18.07	0.3572	1.977	17.020	9	6	sandy silt to clayey silt
30.18	18.38	0.3740	2.035	17.713	9	6	sandy silt to clayey silt
30.25	22.71	0.3956	1.742	18.471	9	6	sandy silt to clayey silt
30.31	27.66	0.3962	1.433	18.992	10	6	sandy silt to clayey silt
30.38	30.27	0.3941	1.302	19.164	10	6	sandy silt to clayey silt
30.45	31.16	0.3882	1.246	19.220	11	6	sandy silt to clayey silt
30.51	30.15	0.3658	1.213	19.215	10	6	sandy silt to clayey silt
30.58	27.03	0.3231	1.195	19.169	10	6	sandy silt to clayey silt
30.64	23.11	0.2677	1.158	19.189	9	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
30.71	19.05	0.2283	1.198	19.303	7	6	sandy silt to clayey silt
30.77	15.78	0.1895	1.201	19.484	6	6	sandy silt to clayey silt
30.84	12.05	0.1407	1.167	19.736	5	6	sandy silt to clayey silt
30.91	9.31	0.0922	0.990	20.364	5	5	clayey silt to silty clay
30.97	7.42	0.0546	0.736	22.310	4	5	clayey silt to silty clay
31.04	6.76	0.1235	1.828	23.638	4	5	clayey silt to silty clay
31.10	6.21	0.1134	1.827	24.637	3	1	sensitive fine grained
31.17	5.49	0.0981	1.785	25.727	3	1	sensitive fine grained
31.23	4.93	0.0853	1.729	27.108	3	1	sensitive fine grained
31.30	5.04	0.0818	1.623	29.365	3	1	sensitive fine grained
31.36	7.04	0.0709	1.007	13.181	3	1	sensitive fine grained
31.43	5.82	0.0527	0.906	14.390	3	1	sensitive fine grained
31.50	5.03	0.0479	0.953	15.830	3	1	sensitive fine grained
31.56	4.66	0.0369	0.790	16.756	2	1	sensitive fine grained
31.63	4.72	0.0258	0.546	17.701	2	1	sensitive fine grained
31.69	4.55	0.0143	0.315	18.593	2	1	sensitive fine grained
31.76	4.16	0.0095	0.228	19.484	2	1	sensitive fine grained
31.82	3.87	0.0082	0.211	21.074	2	1	sensitive fine grained
31.89	3.72	0.0180	0.484	22.594	2	1	sensitive fine grained
31.96	3.70	0.0235	0.635	24.057	2	1	sensitive fine grained
32.02	3.95	0.0192	0.487	25.986	2	1	sensitive fine grained
32.09	4.48	0.0166	0.370	27.518	2	1	sensitive fine grained
32.15	5.09	0.0163	0.319	28.667	3	1	sensitive fine grained
32.22	6.64	0.0262	0.395	29.086	3	1	sensitive fine grained
32.28	7.27	0.0403	0.555	28.642	3	1	sensitive fine grained
32.35	6.28	0.0409	0.651	28.223	3	1	sensitive fine grained
32.41	4.77	0.0407	0.853	28.201	2	1	sensitive fine grained
32.48	3.77	0.0377	0.998	28.659	2	1	sensitive fine grained
32.55	3.41	0.0290	0.852	29.559	2	1	sensitive fine grained
32.61	3.42	0.0183	0.536	30.509	2	1	sensitive fine grained
32.68	3.72	0.0124	0.334	31.425	2	1	sensitive fine grained
32.74	4.54	0.0126	0.277	32.239	2	1	sensitive fine grained
32.81	5.65	0.0138	0.245	32.464	3	1	sensitive fine grained
32.87	7.14	0.0219	0.307	32.304	3	1	sensitive fine grained
32.94	7.34	0.0305	0.416	32.023	3	1	sensitive fine grained
33.01	6.78	0.0356	0.525	31.674	3	1	sensitive fine grained
33.07	6.10	0.0422	0.692	31.626	3	1	sensitive fine grained
33.14	5.59	0.0317	0.568	31.776	3	1	sensitive fine grained
33.20	5.38	0.0239	0.445	32.076	3	1	sensitive fine grained
33.27	5.43	0.0180	0.331	32.358	3	1	sensitive fine grained
33.33	6.43	0.0097	0.151	32.607	3	1	sensitive fine grained
33.40	6.08	0.0062	0.102	32.333	2	1	sensitive fine grained
33.46	4.70	0.0066	0.141	31.807	2	1	sensitive fine grained
33.53	4.13	0.0127	0.307	31.873	2	1	sensitive fine grained
33.60	3.85	0.0189	0.490	32.384	2	1	sensitive fine grained
33.66	3.95	0.0208	0.527	32.779	2	1	sensitive fine grained
33.73	4.41	0.0236	0.535	33.317	2	1	sensitive fine grained
33.79	5.77	0.0285	0.494	33.843	3	1	sensitive fine grained
33.86	6.74	0.0386	0.573	33.766	3	1	sensitive fine grained
33.92	6.74	0.0419	0.621	33.567	3	1	sensitive fine grained
33.99	6.24	0.0427	0.684	33.533	3	1	sensitive fine grained
34.06	5.96	0.0463	0.777	33.608	3	1	sensitive fine grained
34.12	5.84	0.0396	0.679	33.819	3	1	sensitive fine grained
34.19	5.80	0.0344	0.593	34.127	3	1	sensitive fine grained
34.25	5.62	0.0314	0.559	34.238	3	1	sensitive fine grained
34.32	5.30	0.0355	0.669	34.413	3	1	sensitive fine grained
34.38	5.01	0.0387	0.772	34.737	2	1	sensitive fine grained
34.45	4.90	0.0410	0.837	35.157	2	1	sensitive fine grained
34.51	4.82	0.0460	0.954	35.784	2	1	sensitive fine grained

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
34.58	4.84	0.0508	1.049	36.196	2	1	sensitive fine grained
34.65	5.22	0.0532	1.018	25.691	2	1	sensitive fine grained
34.71	5.23	0.0665	1.270	26.129	2	1	sensitive fine grained
34.78	5.34	0.0698	1.307	26.793	3	1	sensitive fine grained
34.84	5.32	0.0673	1.266	27.525	3	1	sensitive fine grained
34.91	5.34	0.0715	1.340	28.257	3	1	sensitive fine grained
34.97	5.40	0.0753	1.396	29.236	3	1	sensitive fine grained
35.04	5.46	0.0807	1.479	29.997	3	1	sensitive fine grained
35.10	5.43	0.0790	1.455	30.521	3	1	sensitive fine grained
35.17	5.48	0.0812	1.482	31.156	3	1	sensitive fine grained
35.24	5.47	0.0808	1.477	31.466	3	1	sensitive fine grained
35.30	5.51	0.0821	1.490	32.120	3	1	sensitive fine grained
35.37	5.57	0.0852	1.531	32.680	3	1	sensitive fine grained
35.43	5.62	0.0810	1.442	33.475	3	1	sensitive fine grained
35.50	5.43	0.0733	1.350	34.069	3	1	sensitive fine grained
35.56	5.34	0.0670	1.254	34.558	3	1	sensitive fine grained
35.63	5.19	0.0630	1.213	34.788	3	1	sensitive fine grained
35.70	5.07	0.0599	1.181	35.687	3	1	sensitive fine grained
35.76	5.15	0.0572	1.110	36.412	3	1	sensitive fine grained
35.83	5.16	0.0564	1.093	37.093	3	1	sensitive fine grained
35.89	5.36	0.0671	1.251	37.805	3	1	sensitive fine grained
35.96	5.43	0.0701	1.291	38.016	3	1	sensitive fine grained
36.02	5.27	0.0658	1.247	38.125	3	1	sensitive fine grained
36.09	5.19	0.0649	1.251	38.421	3	1	sensitive fine grained
36.15	5.33	0.0616	1.154	38.712	3	1	sensitive fine grained
36.22	5.24	0.0621	1.186	38.792	3	1	sensitive fine grained
36.29	5.32	0.0632	1.188	38.755	2	1	sensitive fine grained
36.35	5.17	0.0599	1.159	38.159	2	1	sensitive fine grained
36.42	5.11	0.0567	1.111	38.794	2	1	sensitive fine grained
36.48	5.12	0.0537	1.050	39.671	3	1	sensitive fine grained
36.55	5.14	0.0554	1.079	40.030	3	1	sensitive fine grained
36.61	5.28	0.0540	1.023	40.294	3	1	sensitive fine grained
36.68	5.50	0.0512	0.931	40.689	3	1	sensitive fine grained
36.75	5.69	0.0482	0.847	41.080	3	1	sensitive fine grained
36.81	5.94	0.0576	0.970	41.116	3	1	sensitive fine grained
36.88	6.11	0.0464	0.759	40.956	3	1	sensitive fine grained
36.94	6.42	0.0602	0.937	40.740	3	1	sensitive fine grained
37.01	7.14	0.0982	1.376	40.607	4	5	clayey silt to silty clay
37.07	9.23	0.1082	1.173	40.411	4	5	clayey silt to silty clay
37.14	8.66	0.1122	1.296	39.512	4	5	clayey silt to silty clay
37.20	10.34	0.1277	1.235	38.082	4	5	clayey silt to silty clay
37.27	8.51	0.1217	1.430	22.996	4	5	clayey silt to silty clay
37.34	7.89	0.1299	1.647	23.459	6	4	silty clay to clay
37.40	8.23	0.1226	1.490	24.612	6	4	silty clay to clay
37.47	8.31	0.1222	1.470	25.822	9	3	clay
37.53	9.09	0.6178	6.795	28.444	10	3	clay
37.60	10.17	0.6352	6.246	30.671	11	3	clay
37.66	11.25	0.6904	6.135	32.951	14	3	clay
37.73	14.99	0.7658	5.108	36.233	16	3	clay
37.80	18.05	0.8194	4.540	36.749	13	4	silty clay to clay
37.86	27.34	0.8563	3.132	29.023	11	5	clayey silt to silty clay
37.93	28.54	0.8197	2.872	29.844	12	5	clayey silt to silty clay
37.99	29.42	0.7846	2.667	29.975	12	5	clayey silt to silty clay
38.06	27.71	0.8129	2.933	28.776	13	5	clayey silt to silty clay
38.12	25.51	0.8305	3.255	28.478	13	5	clayey silt to silty clay
38.19	23.77	0.8573	3.607	29.018	13	5	clayey silt to silty clay
38.25	25.99	0.9816	3.776	30.685	13	5	clayey silt to silty clay
38.32	27.25	0.9351	3.432	31.342	13	5	clayey silt to silty clay
38.39	29.02	0.9099	3.135	31.284	13	5	clayey silt to silty clay

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
38.45	29.82	0.8140	2.729	29.900	13	5	clayey silt to silty clay
38.52	29.57	0.7463	2.524	27.431	13	5	clayey silt to silty clay
38.58	27.43	0.6657	2.426	26.364	13	5	clayey silt to silty clay
38.65	25.45	0.6044	2.374	26.311	12	5	clayey silt to silty clay
38.71	23.04	0.5829	2.530	26.680	11	5	clayey silt to silty clay
38.78	20.49	0.5699	2.782	26.619	11	5	clayey silt to silty clay
38.85	19.59	0.6790	3.466	26.643	11	5	clayey silt to silty clay
38.91	20.88	0.7441	3.563	27.038	11	5	clayey silt to silty clay
38.98	24.23	0.8277	3.416	27.777	11	5	clayey silt to silty clay
39.04	25.35	0.9548	3.766	28.429	16	4	silty clay to clay
39.11	26.24	1.0597	4.039	28.468	17	4	silty clay to clay
39.17	27.81	1.0779	3.877	28.313	18	4	silty clay to clay
39.24	29.63	1.1652	3.932	28.284	19	4	silty clay to clay
39.30	29.03	1.2889	4.440	28.410	15	5	clayey silt to silty clay
39.37	32.23	1.2738	3.952	28.839	15	5	clayey silt to silty clay
39.44	36.88	1.2418	3.367	28.895	15	5	clayey silt to silty clay
39.50	39.43	1.2292	3.118	28.795	15	5	clayey silt to silty clay
39.57	31.48	1.2251	3.891	27.453	15	5	clayey silt to silty clay
39.63	26.31	1.1178	4.248	26.442	14	5	clayey silt to silty clay
39.70	24.34	0.9687	3.980	25.972	13	5	clayey silt to silty clay
39.76	24.55	0.8877	3.616	25.826	16	4	silty clay to clay
39.83	22.64	0.8729	3.856	25.865	15	4	silty clay to clay
39.90	22.78	0.8369	3.674	25.860	15	4	silty clay to clay
39.96	21.67	0.8537	3.939	25.960	15	4	silty clay to clay
40.03	22.61	0.9577	4.236	26.255	15	4	silty clay to clay
40.09	23.49	1.0907	4.644	26.568	15	4	silty clay to clay
40.16	23.78	0.8782	3.693	26.587	16	4	silty clay to clay
40.22	26.46	0.9152	3.458	26.466	12	5	clayey silt to silty clay
40.29	27.18	0.9426	3.468	26.624	12	5	clayey silt to silty clay
40.35	26.82	0.8092	3.017	27.033	12	5	clayey silt to silty clay
40.42	25.78	0.7300	2.831	27.462	12	5	clayey silt to silty clay
40.49	27.08	0.6701	2.474	60.743	12	5	clayey silt to silty clay
40.55	24.74	0.6877	2.780	55.516	12	5	clayey silt to silty clay
40.62	24.11	0.7568	3.139	57.297	13	5	clayey silt to silty clay
40.68	24.66	0.8621	3.496	61.313	13	5	clayey silt to silty clay
40.75	28.03	0.9918	3.539	63.586	17	4	silty clay to clay
40.81	29.23	1.1715	4.008	64.822	18	4	silty clay to clay
40.88	29.80	1.3675	4.588	64.684	29	3	clay
40.94	30.86	1.5530	5.032	64.313	32	3	clay
41.01	32.37	1.8867	5.829	64.182	34	3	clay
41.08	38.27	2.0690	5.407	64.080	37	3	clay
41.14	44.56	2.4463	5.490	62.066	37	3	clay
41.21	46.73	2.5971	5.558	52.823	38	3	clay
41.27	44.35	2.6289	5.928	44.736	37	3	clay
41.34	36.90	2.2958	6.222	28.124	36	3	clay
41.40	31.98	1.8597	5.815	21.181	33	3	clay
41.47	29.82	1.3789	4.624	19.678	30	3	clay
41.54	26.91	1.2335	4.584	19.896	27	3	clay
41.60	25.51	1.0226	4.009	20.883	17	4	silty clay to clay
41.67	23.41	0.8214	3.508	22.354	16	4	silty clay to clay
41.73	22.98	0.7500	3.263	23.420	12	5	clayey silt to silty clay
41.80	23.49	0.7018	2.988	24.704	12	5	clayey silt to silty clay
41.86	25.95	0.7147	2.754	25.790	12	5	clayey silt to silty clay
41.93	25.71	0.6357	2.473	26.595	9	6	sandy silt to clayey silt
41.99	25.66	0.5110	1.991	27.443	9	6	sandy silt to clayey silt
42.06	24.69	0.4234	1.715	28.834	9	6	sandy silt to clayey silt
42.13	23.21	0.3619	1.559	29.748	9	6	sandy silt to clayey silt
42.19	21.72	0.3116	1.435	31.165	9	6	sandy silt to clayey silt
42.26	20.72	0.2833	1.367	32.896	8	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
42.32	20.09	0.2556	1.272	34.982	8	6	sandy silt to clayey silt
42.39	19.72	0.2502	1.269	37.573	8	6	sandy silt to clayey silt
42.45	19.65	0.2396	1.220	39.955	8	6	sandy silt to clayey silt
42.52	19.81	0.2598	1.311	42.807	8	6	sandy silt to clayey silt
42.59	19.83	0.2799	1.411	45.573	8	6	sandy silt to clayey silt
42.65	19.87	0.2363	1.189	48.088	8	6	sandy silt to clayey silt
42.72	20.15	0.2071	1.027	50.407	8	6	sandy silt to clayey silt
42.78	20.92	0.2145	1.025	54.733	8	6	sandy silt to clayey silt
42.85	20.70	0.2235	1.080	57.161	8	6	sandy silt to clayey silt
42.91	19.92	0.2382	1.196	59.779	8	6	sandy silt to clayey silt
42.98	19.56	0.2836	1.450	64.584	8	6	sandy silt to clayey silt
43.04	20.26	0.3392	1.674	69.499	8	6	sandy silt to clayey silt
43.11	21.57	0.3475	1.611	73.987	8	6	sandy silt to clayey silt
43.18	22.34	0.3602	1.612	78.975	9	6	sandy silt to clayey silt
43.24	23.59	0.3768	1.597	83.208	9	6	sandy silt to clayey silt
43.31	24.62	0.3918	1.592	84.318	12	5	clayey silt to silty clay
43.37	26.42	0.4305	1.629	83.589	12	5	clayey silt to silty clay
43.44	26.85	1.2413	4.623	79.013	16	4	silty clay to clay
43.50	26.49	1.3527	5.106	74.738	17	4	silty clay to clay
43.57	25.60	1.4661	5.726	69.591	26	3	clay
43.64	26.09	1.5652	6.000	69.468	26	3	clay
43.70	25.22	1.5746	6.243	66.443	26	3	clay
43.77	31.31	1.5222	4.862	19.734	25	3	clay
43.83	27.22	1.3344	4.903	19.494	25	3	clay
43.90	24.58	1.1133	4.530	19.373	24	3	clay
43.96	22.78	1.0583	4.645	19.290	24	3	clay
44.03	22.18	1.0650	4.801	19.324	22	3	clay
44.09	22.71	1.0131	4.460	20.124	15	4	silty clay to clay
44.16	22.94	0.8825	3.846	20.778	15	4	silty clay to clay
44.23	21.73	0.7747	3.565	21.190	11	5	clayey silt to silty clay
44.29	22.19	0.7109	3.204	22.237	12	5	clayey silt to silty clay
44.36	25.44	0.6012	2.364	23.134	10	6	sandy silt to clayey silt
44.42	29.09	0.3625	1.246	23.672	11	6	sandy silt to clayey silt
44.49	30.51	0.2686	0.880	23.473	11	6	sandy silt to clayey silt
44.55	33.12	0.2777	0.839	23.049	10	7	silty sand to sandy silt
44.62	35.45	0.2307	0.651	22.453	10	7	silty sand to sandy silt
44.69	32.15	0.2520	0.784	20.917	9	7	silty sand to sandy silt
44.75	26.46	0.3327	1.257	19.019	10	6	sandy silt to clayey silt
44.82	23.14	0.3796	1.640	19.261	10	6	sandy silt to clayey silt
44.88	18.73	0.4008	2.140	20.034	9	6	sandy silt to clayey silt
44.95	18.15	0.3875	2.135	20.890	8	6	sandy silt to clayey silt
45.01	21.44	0.3795	1.770	21.823	8	6	sandy silt to clayey silt
45.08	23.60	0.3871	1.640	22.451	8	6	sandy silt to clayey silt
45.14	23.22	0.3894	1.677	22.749	10	5	clayey silt to silty clay
45.21	21.84	0.4688	2.147	22.589	10	5	clayey silt to silty clay
45.28	20.05	0.6020	3.002	22.392	10	5	clayey silt to silty clay
45.34	19.18	0.6248	3.257	22.308	10	5	clayey silt to silty clay
45.41	19.57	0.5379	2.749	22.543	9	6	sandy silt to clayey silt
45.47	21.55	0.5089	2.362	22.797	10	6	sandy silt to clayey silt
45.54	26.33	0.4295	1.632	23.040	12	6	sandy silt to clayey silt
45.60	33.06	0.4271	1.292	23.003	14	6	sandy silt to clayey silt
45.67	42.11	0.4907	1.165	22.804	13	7	silty sand to sandy silt
45.73	50.15	0.5433	1.083	21.406	15	7	silty sand to sandy silt
45.80	56.73	0.7594	1.339	16.334	16	7	silty sand to sandy silt
45.87	56.92	0.9482	1.666	13.341	18	7	silty sand to sandy silt
45.93	56.52	1.1728	2.075	13.370	19	7	silty sand to sandy silt
46.00	57.14	1.3928	2.438	13.654	21	7	silty sand to sandy silt
46.06	64.98	1.4769	2.273	14.269	24	7	silty sand to sandy silt
46.13	78.23	1.5185	1.941	14.545	28	7	silty sand to sandy silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
46.19	98.83	1.5703	1.589	12.643	31	7	silty sand to sandy silt
46.26	121.81	1.8544	1.522	8.385	32	7	silty sand to sandy silt
46.33	133.16	2.2270	1.672	3.478	31	7	silty sand to sandy silt
46.39	115.88	2.5520	2.202	1.619	29	7	silty sand to sandy silt
46.46	84.51	2.7169	3.215	-0.128	31	6	sandy silt to clayey silt
46.52	55.85	2.4243	4.341	-3.642	26	6	sandy silt to clayey silt
46.59	36.01	2.0616	5.725	-6.357	24	5	clayey silt to silty clay
46.65	24.76	0.8929	3.607	-7.600	23	4	silty clay to clay
46.72	19.80	0.8302	4.193	-7.702	25	3	clay
46.78	15.54	0.7790	5.012	-7.573	20	3	clay
46.85	14.45	0.6902	4.777	-7.319	12	4	silty clay to clay
46.92	15.40	0.4777	3.101	-6.960	9	5	clayey silt to silty clay
46.98	16.69	0.3870	2.319	32.161	8	6	sandy silt to clayey silt
47.05	21.91	0.3385	1.545	20.056	9	6	sandy silt to clayey silt
47.11	30.28	0.2742	0.905	18.530	10	6	sandy silt to clayey silt
47.18	33.62	0.1829	0.544	15.905	9	7	silty sand to sandy silt
47.24	33.52	0.1345	0.401	13.443	9	7	silty sand to sandy silt
47.31	31.59	0.1485	0.470	13.966	9	7	silty sand to sandy silt
47.38	27.80	0.1006	0.362	14.514	8	7	silty sand to sandy silt
47.44	20.79	0.0853	0.411	15.083	7	7	silty sand to sandy silt
47.51	15.71	0.0686	0.436	15.803	7	6	sandy silt to clayey silt
47.57	13.00	0.0768	0.591	17.250	6	6	sandy silt to clayey silt
47.64	10.57	0.1008	0.954	18.692	5	6	sandy silt to clayey silt
47.70	8.70	0.0867	0.996	20.325	5	6	sandy silt to clayey silt
47.77	9.24	0.0785	0.850	22.351	5	6	sandy silt to clayey silt
47.83	12.91	0.0801	0.621	24.191	5	6	sandy silt to clayey silt
47.90	17.52	0.0799	0.456	25.339	5	6	sandy silt to clayey silt
47.97	18.90	0.1011	0.535	25.892	6	6	sandy silt to clayey silt
48.03	16.94	0.0842	0.497	26.449	6	6	sandy silt to clayey silt
48.10	14.90	0.0956	0.642	27.508	6	6	sandy silt to clayey silt
48.16	14.03	0.1135	0.809	29.377	6	6	sandy silt to clayey silt
48.23	14.01	0.1072	0.766	31.320	5	6	sandy silt to clayey silt
48.29	13.76	0.1008	0.732	33.167	5	6	sandy silt to clayey silt
48.36	12.18	0.1084	0.890	34.616	5	6	sandy silt to clayey silt
48.43	10.51	0.1284	1.222	35.872	5	6	sandy silt to clayey silt
48.49	10.05	0.1099	1.094	37.927	5	6	sandy silt to clayey silt
48.56	10.87	0.1208	1.111	39.587	6	6	sandy silt to clayey silt
48.62	16.69	0.1402	0.840	41.041	7	6	sandy silt to clayey silt
48.69	24.70	0.1511	0.612	41.836	7	7	silty sand to sandy silt
48.75	29.81	0.1630	0.547	34.277	9	7	silty sand to sandy silt
48.82	32.68	0.1525	0.467	28.965	10	7	silty sand to sandy silt
48.88	36.33	0.1695	0.466	26.195	11	7	silty sand to sandy silt
48.95	39.22	0.2395	0.611	23.391	12	7	silty sand to sandy silt
49.02	40.30	0.3496	0.867	22.213	12	7	silty sand to sandy silt
49.08	40.22	0.4341	1.079	21.406	12	7	silty sand to sandy silt
49.15	39.53	0.4865	1.231	21.283	12	7	silty sand to sandy silt
49.21	39.15	0.5876	1.501	21.430	12	7	silty sand to sandy silt
49.28	38.61	0.6709	1.738	21.692	12	7	silty sand to sandy silt
49.34	36.87	0.6364	1.726	22.041	11	7	silty sand to sandy silt
49.41	34.10	0.5062	1.484	22.543	11	7	silty sand to sandy silt
49.48	31.75	0.3874	1.220	22.991	10	7	silty sand to sandy silt
49.54	29.85	0.3126	1.047	23.594	10	7	silty sand to sandy silt
49.61	28.78	0.2186	0.760	24.174	9	7	silty sand to sandy silt
49.67	27.11	0.1589	0.586	24.743	8	7	silty sand to sandy silt
49.74	24.22	0.1325	0.547	26.047	9	6	sandy silt to clayey silt
49.80	20.17	0.1345	0.667	27.722	8	6	sandy silt to clayey silt
49.87	16.97	0.1157	0.682	29.263	7	6	sandy silt to clayey silt
49.93	13.77	0.1652	1.200	31.129	6	6	sandy silt to clayey silt
50.00	11.64	0.1153	0.991	33.070	5	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
50.07	9.70	0.0809	0.834	35.455	4	6	sandy silt to clayey silt
50.13	8.32	0.0453	0.545	38.094	4	6	sandy silt to clayey silt
50.20	8.01	0.0418	0.522	41.193	4	6	sandy silt to clayey silt
50.26	10.96	0.0531	0.484	19.077	4	6	sandy silt to clayey silt
50.33	10.16	0.0572	0.563	19.424	4	6	sandy silt to clayey silt
50.39	8.90	0.0660	0.742	20.272	4	6	sandy silt to clayey silt
50.46	9.31	0.0832	0.894	21.411	6	6	sandy silt to clayey silt
50.52	13.86	0.0925	0.667	23.090	7	6	sandy silt to clayey silt
50.59	20.79	0.0792	0.381	24.840	7	7	silty sand to sandy silt
50.66	27.56	0.0767	0.278	26.156	8	7	silty sand to sandy silt
50.72	33.34	0.1309	0.393	27.004	9	7	silty sand to sandy silt
50.79	35.86	0.1421	0.396	26.861	10	7	silty sand to sandy silt
50.85	35.58	0.1803	0.507	25.451	10	7	silty sand to sandy silt
50.92	34.83	0.2651	0.761	24.879	10	7	silty sand to sandy silt
50.98	31.60	0.2493	0.789	25.058	10	7	silty sand to sandy silt
51.05	28.33	0.2100	0.741	25.482	9	7	silty sand to sandy silt
51.12	26.41	0.2252	0.853	26.202	9	7	silty sand to sandy silt
51.18	25.86	0.1959	0.758	26.990	8	7	silty sand to sandy silt
51.25	24.59	0.1951	0.793	28.306	8	7	silty sand to sandy silt
51.31	21.94	0.1532	0.698	30.000	8	7	silty sand to sandy silt
51.38	21.15	0.1437	0.679	32.093	9	7	silty sand to sandy silt
51.44	22.34	0.1647	0.737	36.000	10	7	silty sand to sandy silt
51.51	30.40	0.2406	0.791	39.429	12	7	silty sand to sandy silt
51.57	45.03	0.3190	0.709	33.950	14	7	silty sand to sandy silt
51.64	53.78	0.4069	0.757	24.828	15	7	silty sand to sandy silt
51.71	60.76	0.5082	0.836	22.179	17	7	silty sand to sandy silt
51.77	63.23	0.6768	1.070	22.642	18	7	silty sand to sandy silt
51.84	60.17	0.7566	1.257	23.129	18	7	silty sand to sandy silt
51.90	55.94	0.6958	1.244	23.505	18	7	silty sand to sandy silt
51.97	51.74	0.6173	1.193	24.208	17	7	silty sand to sandy silt
52.03	48.31	0.6370	1.319	24.920	15	7	silty sand to sandy silt
52.10	45.16	0.6218	1.377	25.298	14	7	silty sand to sandy silt
52.17	40.39	0.5516	1.366	25.477	13	7	silty sand to sandy silt
52.23	35.87	0.4506	1.256	25.974	11	7	silty sand to sandy silt
52.30	31.12	0.3996	1.284	27.077	10	7	silty sand to sandy silt
52.36	26.84	0.3332	1.241	28.403	11	6	sandy silt to clayey silt
52.43	22.70	0.2274	1.002	30.072	9	6	sandy silt to clayey silt
52.49	19.19	0.1312	0.684	32.043	8	6	sandy silt to clayey silt
52.56	16.10	0.0876	0.544	35.893	7	6	sandy silt to clayey silt
52.62	14.02	0.0597	0.426	39.686	6	6	sandy silt to clayey silt
52.69	11.92	0.0544	0.456	42.786	5	6	sandy silt to clayey silt
52.76	10.64	0.0441	0.414	46.336	5	6	sandy silt to clayey silt
52.82	10.17	0.0437	0.429	50.337	4	6	sandy silt to clayey silt
52.89	10.27	0.0708	0.690	52.760	4	6	sandy silt to clayey silt
52.95	10.98	0.0655	0.597	55.186	5	6	sandy silt to clayey silt
53.02	12.21	0.0482	0.395	56.568	5	6	sandy silt to clayey silt
53.08	14.07	0.0643	0.457	57.033	6	6	sandy silt to clayey silt
53.15	17.10	0.0887	0.519	55.373	6	6	sandy silt to clayey silt
53.22	18.84	0.1855	0.984	46.152	6	6	sandy silt to clayey silt
53.28	17.97	0.1941	1.080	45.102	6	6	sandy silt to clayey silt
53.35	15.91	0.1418	0.892	45.948	6	6	sandy silt to clayey silt
53.41	14.35	0.1066	0.743	47.310	6	6	sandy silt to clayey silt
53.48	13.69	0.0909	0.664	49.266	6	6	sandy silt to clayey silt
53.54	16.27	0.0957	0.588	36.676	6	6	sandy silt to clayey silt
53.61	15.05	0.0779	0.518	34.871	5	6	sandy silt to clayey silt
53.67	13.78	0.0739	0.537	36.473	5	6	sandy silt to clayey silt
53.74	12.97	0.0896	0.691	38.782	5	6	sandy silt to clayey silt
53.81	12.67	0.0901	0.711	41.634	5	6	sandy silt to clayey silt
53.87	13.18	0.0689	0.523	44.475	5	6	sandy silt to clayey silt

*Soil behavior type and SPT based on data from UBC-1983

Depth (ft)	Qt TSF	Fs TSF	Fs/Qt (%)	Pw PSI	SPT N* 60% Hammer	Zone	Soil Behavior Type UBC-1983
53.94	13.88	0.0758	0.546	46.838	5	6	sandy silt to clayey silt
54.00	14.48	0.1008	0.696	48.471	5	6	sandy silt to clayey silt
54.07	15.10	0.1040	0.689	49.666	6	6	sandy silt to clayey silt
54.13	14.68	0.1015	0.691	50.158	6	6	sandy silt to clayey silt
54.20	14.43	0.1081	0.749	52.179	6	6	sandy silt to clayey silt
54.27	16.62	0.0885	0.532	53.543	7	6	sandy silt to clayey silt
54.33	19.01	0.0638	0.336	53.359	6	7	silty sand to sandy silt
54.40	21.31	0.0650	0.305	51.197	7	7	silty sand to sandy silt
54.46	24.63	0.0806	0.327	47.582	8	7	silty sand to sandy silt
54.53	29.35	0.1230	0.419	43.716	9	7	silty sand to sandy silt
54.59	32.34	0.2030	0.628	39.356	9	7	silty sand to sandy silt
54.66	33.29	0.2268	0.681	36.977	10	7	silty sand to sandy silt
54.72	32.81	0.3516	1.072	36.628	10	7	silty sand to sandy silt
54.79	31.02	0.4497	1.450	36.412	9	7	silty sand to sandy silt
54.86	26.60	0.4211	1.583	36.044	9	7	silty sand to sandy silt
54.92	24.09	0.3196	1.327	35.867	11	6	sandy silt to clayey silt
54.99	25.48	0.2370	0.930	35.884	10	7	silty sand to sandy silt
55.05	30.96	0.3030	0.978	35.842	10	7	silty sand to sandy silt
55.12	36.70	0.3532	0.962	35.232	10	7	silty sand to sandy silt
55.18	37.62	0.4142	1.101	32.270	10	7	silty sand to sandy silt
55.25	34.01	0.4531	1.332	31.526	12	6	sandy silt to clayey silt
55.31	30.28	0.4564	1.507	31.536	11	6	sandy silt to clayey silt
55.38	24.36	0.4803	1.971	32.656	11	6	sandy silt to clayey silt
55.45	22.27	0.3884	1.744	35.065	10	6	sandy silt to clayey silt
55.51	22.40	0.2736	1.222	38.145	10	6	sandy silt to clayey silt
55.58	22.76	0.2034	0.894	41.622	9	7	silty sand to sandy silt
55.64	25.21	0.1722	0.683	45.844	10	7	silty sand to sandy silt
55.71	31.97	0.1934	0.605	48.209	12	7	silty sand to sandy silt
55.77	41.46	0.2140	0.516	47.851	14	7	silty sand to sandy silt
55.84	53.63	0.3302	0.616	39.686	16	7	silty sand to sandy silt
55.91	63.52	0.5887	0.927	34.597	19	7	silty sand to sandy silt
55.97	68.68	0.8812	1.283	30.659	21	7	silty sand to sandy silt
56.04	73.93	0.9945	1.345	31.366	0	0	<out of range>
56.10	78.93	1.2233	1.550	31.725	0	0	<out of range>
56.17	83.61	1.9482	2.330	32.959	29	8	sand to silty sand
56.23	92.91	-32768	-32768	34.161	0	0	<out of range>
56.30	115.54	-32768	-32768	33.426	0	0	<out of range>
56.36	137.23	-32768	-32768	33.526	0	0	<out of range>
56.43	185.64	-32768	-32768	33.492	0	0	<out of range>

*Soil behavior type and SPT based on data from UBC-1983