Appendix C

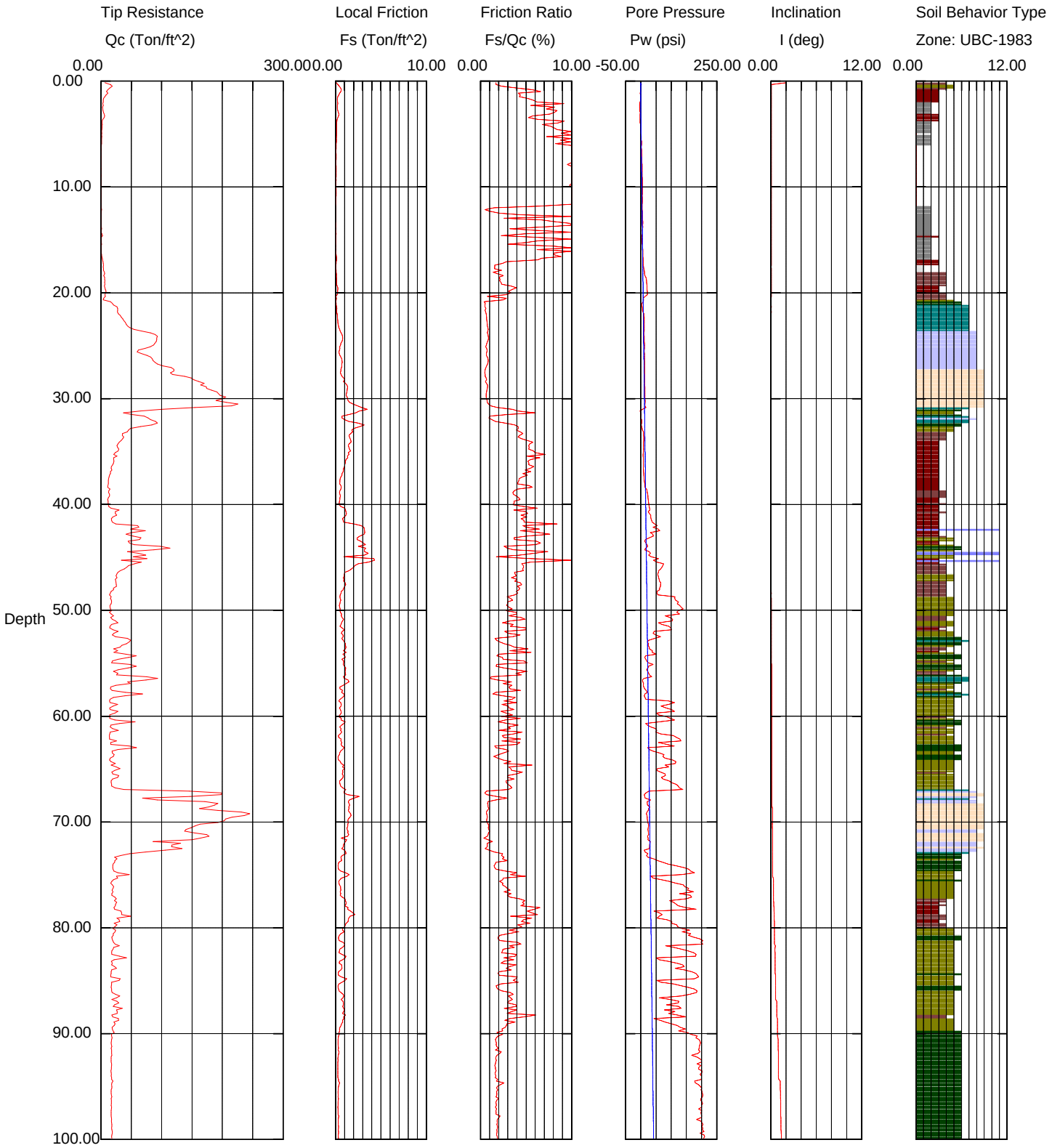
Bureau of Reclamation 2002 CPT Data

Bacon Island CPT Logs and Data

Bureau of Reclamation

Operator: TONY SHANAHAN
Sounding: BSC001
Cone Used: 739

CPT Date/Time: 08-28-02 07:06
Location: BACON IS. PUMP
Job Number: IN-DELTA STORAGE



Maximum Depth = 101.05 feet

Depth Increment = 0.16 feet

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 (*)

E W1 Bureau of Reclamation
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Operator :TONY SHANAHAN
On Site Loc:BACON IS. PUMP
Job No. :IN-DELTA STORAGE
Tot. Unit Wt. (avg) : 115 pcf

CPT Date :08-28-02 07:06
Cone Used :739
Water table (feet) : 3.28084

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
0.30	1	12.67	0.44	3.49	0.03	silty clay to clay	UNDFND	UNDFD	8	1.05
0.60	2	6.44	0.30	4.70	0.08	clay	UNDFND	UNDFD	6	.52
0.95	3	3.61	0.28	7.66	0.15	organic material	UNDFND	UNDFD	3	.28
1.25	4	3.36	0.21	6.37	0.20	clay	UNDFND	UNDFD	3	.26
1.55	5	1.51	0.14	9.36	0.22	undefined	UNDFND	UNDFD	UDF	UNDEFINED
1.85	6	1.22	0.11	9.34	0.25	undefined	UNDFND	UNDFD	UDF	UNDEFINED
2.15	7	0.41	0.08	20.27	0.27	undefined	UNDFND	UNDFD	UDF	UNDEFINED
2.45	8	0.42	0.07	16.99	0.30	undefined	UNDFND	UNDFD	UDF	UNDEFINED
2.75	9	0.43	0.09	20.01	0.33	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.05	10	0.26	0.07	27.86	0.35	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.35	11	0.30	0.09	28.84	0.38	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.65	12	0.24	0.05	20.43	0.40	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.95	13	0.62	0.01	2.01	0.43	undefined	UNDFND	UNDFD	UDF	UNDEFINED
4.25	14	0.50	0.03	6.89	0.46	undefined	UNDFND	UNDFD	UDF	UNDEFINED
4.55	15	1.05	0.05	5.21	0.48	organic material	UNDFND	UNDFD	1	1.80
4.85	16	0.67	0.04	5.50	0.51	undefined	UNDFND	UNDFD	UDF	UNDEFINED
5.15	17	1.32	0.10	7.51	0.53	organic material	UNDFND	UNDFD	1	3.16
5.45	18	3.95	0.08	2.02	0.56	clay	UNDFND	UNDFD	4	.24
5.75	19	5.78	0.12	2.00	0.59	silty clay to clay	UNDFND	UNDFD	4	.39
6.05	20	6.71	0.21	3.08	0.61	clay	UNDFND	UNDFD	6	.46
6.40	21	9.21	0.12	1.35	0.64	clayey silt to silty clay	UNDFND	UNDFD	4	.66
6.70	22	26.30	0.15	0.55	0.67	silty sand to sandy silt	<40	36-38	8	UNDEFINED
7.00	23	36.77	0.26	0.70	0.69	silty sand to sandy silt	40-50	36-38	12	UNDEFINED
7.35	24	67.90	0.55	0.81	0.72	sand to silty sand	60-70	40-42	16	UNDEFINED
7.65	25	88.53	0.66	0.75	0.75	sand to silty sand	60-70	40-42	21	UNDEFINED
7.95	26	69.53	0.48	0.69	0.77	sand to silty sand	50-60	40-42	17	UNDEFINED
8.25	27	94.87	0.71	0.75	0.80	sand to silty sand	60-70	40-42	23	UNDEFINED
8.55	28	126.54	0.67	0.53	0.83	sand	70-80	42-44	24	UNDEFINED
8.85	29	165.92	1.16	0.70	0.85	sand	80-90	42-44	32	UNDEFINED
9.15	30	194.52	1.27	0.65	0.88	sand	80-90	44-46	37	UNDEFINED
9.45	31	181.78	2.29	1.26	0.90	sand to silty sand	80-90	44-46	44	UNDEFINED
9.75	32	63.75	1.47	2.31	0.93	sandy silt to clayey silt	UNDFND	UNDFD	24	5.16
10.05	33	71.10	2.27	3.19	0.96	sandy silt to clayey silt	UNDFND	UNDFD	27	5.77
10.35	34	36.79	1.66	4.50	0.98	silty clay to clay	UNDFND	UNDFD	23	2.90
10.65	35	28.35	1.56	5.49	1.01	clay	UNDFND	UNDFD	27	2.19
10.95	36	22.34	1.31	5.86	1.03	clay	UNDFND	UNDFD	21	1.69
11.25	37	17.90	0.96	5.39	1.06	clay	UNDFND	UNDFD	17	1.31
11.55	38	13.24	0.60	4.52	1.09	clay	UNDFND	UNDFD	13	.92

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

E W1 Bureau of Reclamation
W0
Operator :TONY SHANAHAN On Site Loc:BACON IS. PUMP Page No. 2

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
11.85	39	12.56	0.55	4.35	1.11	clay	UNDFND	UNDFD	12	.86
12.15	40	12.53	0.49	3.90	1.14	clay	UNDFND	UNDFD	12	.85
12.45	41	19.82	0.93	4.69	1.16	clay	UNDFND	UNDFD	19	1.45
12.80	42	26.25	1.36	5.18	1.19	clay	UNDFND	UNDFD	25	1.98
13.10	43	54.80	3.09	5.64	1.22	clay	UNDFND	UNDFD	>50	4.36
13.40	44	62.19	2.74	4.41	1.24	clayey silt to silty clay	UNDFND	UNDFD	30	4.97
13.75	45	72.70	3.10	4.26	1.27	clayey silt to silty clay	UNDFND	UNDFD	35	5.84
14.05	46	46.99	2.73	5.80	1.30	clay	UNDFND	UNDFD	45	3.69
14.35	47	26.66	1.06	3.96	1.33	silty clay to clay	UNDFND	UNDFD	17	1.99
14.65	48	23.53	0.99	4.20	1.35	silty clay to clay	UNDFND	UNDFD	15	1.73
14.95	49	16.02	0.57	3.58	1.38	silty clay to clay	UNDFND	UNDFD	10	1.10
15.25	50	16.12	0.49	3.04	1.40	clayey silt to silty clay	UNDFND	UNDFD	8	1.10
15.55	51	18.42	0.71	3.88	1.43	silty clay to clay	UNDFND	UNDFD	12	1.29
15.85	52	20.44	0.71	3.47	1.46	clayey silt to silty clay	UNDFND	UNDFD	10	1.45
16.15	53	33.92	0.81	2.39	1.48	sandy silt to clayey silt	UNDFND	UNDFD	13	2.57
16.45	54	29.63	1.10	3.70	1.51	clayey silt to silty clay	UNDFND	UNDFD	14	2.21
16.75	55	34.92	0.91	2.61	1.53	sandy silt to clayey silt	UNDFND	UNDFD	13	2.64
17.05	56	37.99	1.04	2.74	1.56	sandy silt to clayey silt	UNDFND	UNDFD	15	2.90
17.35	57	60.12	1.18	1.97	1.59	silty sand to sandy silt	40-50	36-38	19	UNDEFINED
17.65	58	30.43	0.71	2.33	1.61	sandy silt to clayey silt	UNDFND	UNDFD	12	2.26
17.95	59	21.88	0.64	2.94	1.64	clayey silt to silty clay	UNDFND	UNDFD	10	1.54
18.25	60	19.25	0.57	2.95	1.66	clayey silt to silty clay	UNDFND	UNDFD	9	1.31
18.55	61	25.97	0.71	2.75	1.69	clayey silt to silty clay	UNDFND	UNDFD	12	1.87
18.85	62	17.80	0.54	3.01	1.71	clayey silt to silty clay	UNDFND	UNDFD	9	1.18
19.20	63	27.31	0.67	2.44	1.74	sandy silt to clayey silt	UNDFND	UNDFD	10	1.97
19.50	64	20.45	0.47	2.32	1.77	clayey silt to silty clay	UNDFND	UNDFD	10	1.39
19.80	65	21.30	0.71	3.35	1.80	clayey silt to silty clay	UNDFND	UNDFD	10	1.46
20.15	66	21.82	0.75	3.43	1.82	clayey silt to silty clay	UNDFND	UNDFD	10	1.50
20.45	67	43.08	0.76	1.75	1.85	silty sand to sandy silt	<40	32-34	14	UNDEFINED
20.75	68	146.15	1.65	1.13	1.88	sand to silty sand	60-70	38-40	35	UNDEFINED
21.05	69	190.55	1.49	0.78	1.90	sand	70-80	40-42	37	UNDEFINED
21.35	70	216.30	1.54	0.71	1.93	sand	70-80	40-42	41	UNDEFINED
21.65	71	149.84	1.35	0.90	1.96	sand	60-70	38-40	29	UNDEFINED
21.95	72	147.21	1.13	0.77	1.98	sand	60-70	38-40	28	UNDEFINED
22.25	73	98.86	0.96	0.97	2.01	sand to silty sand	50-60	36-38	24	UNDEFINED
22.55	74	24.48	0.56	2.29	2.03	sandy silt to clayey silt	UNDFND	UNDFD	9	1.68
22.85	75	25.84	0.70	2.70	2.06	clayey silt to silty clay	UNDFND	UNDFD	12	1.79
23.15	76	21.11	0.62	2.91	2.09	clayey silt to silty clay	UNDFND	UNDFD	10	1.39
23.45	77	19.16	0.57	2.95	2.11	clayey silt to silty clay	UNDFND	UNDFD	9	1.23
23.75	78	24.00	1.05	4.38	2.14	silty clay to clay	UNDFND	UNDFD	15	1.62
24.05	79	32.31	1.68	5.19	2.16	clay	UNDFND	UNDFD	31	2.31
24.35	80	26.35	1.27	4.80	2.19	clay	UNDFND	UNDFD	25	1.81

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

E W1 Bureau of Reclamation
W0
Operator :TONY SHANAHAN On Site Loc:BACON IS. PUMP Page No. 3

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
24.65	81	20.91	0.66	3.15	2.21	clayey silt to silty clay	UNDFND	UNDFD	10	1.35
24.95	82	22.21	0.73	3.29	2.24	clayey silt to silty clay	UNDFND	UNDFD	11	1.46
25.25	83	24.39	0.71	2.93	2.27	clayey silt to silty clay	UNDFND	UNDFD	12	1.63
25.60	84	20.22	0.63	3.10	2.29	clayey silt to silty clay	UNDFND	UNDFD	10	1.28
25.90	85	21.22	0.66	3.10	2.32	clayey silt to silty clay	UNDFND	UNDFD	10	1.36
26.20	86	17.37	0.41	2.36	2.35	clayey silt to silty clay	UNDFND	UNDFD	8	1.03
26.55	87	24.68	0.80	3.23	2.38	clayey silt to silty clay	UNDFND	UNDFD	12	1.64
26.85	88	26.17	0.88	3.38	2.40	clayey silt to silty clay	UNDFND	UNDFD	13	1.76
27.15	89	23.35	0.87	3.72	2.43	silty clay to clay	UNDFND	UNDFD	15	1.52
27.45	90	19.63	0.48	2.43	2.46	clayey silt to silty clay	UNDFND	UNDFD	9	1.20
27.75	91	17.48	0.31	1.75	2.48	sandy silt to clayey silt	UNDFND	UNDFD	7	1.02
28.05	92	17.57	0.34	1.94	2.51	clayey silt to silty clay	UNDFND	UNDFD	8	1.02
28.35	93	17.08	0.29	1.67	2.53	sandy silt to clayey silt	UNDFND	UNDFD	7	.97
28.65	94	16.98	0.28	1.66	2.56	sandy silt to clayey silt	UNDFND	UNDFD	7	.96
28.95	95	18.05	0.36	1.98	2.58	clayey silt to silty clay	UNDFND	UNDFD	9	1.05
29.25	96	17.40	0.31	1.79	2.61	sandy silt to clayey silt	UNDFND	UNDFD	7	.99
29.55	97	17.17	0.30	1.76	2.64	sandy silt to clayey silt	UNDFND	UNDFD	7	.96
29.85	98	17.00	0.31	1.85	2.66	clayey silt to silty clay	UNDFND	UNDFD	8	.94
30.15	99	17.69	0.33	1.85	2.69	clayey silt to silty clay	UNDFND	UNDFD	8	1.00
30.45	100	18.10	0.33	1.82	2.71	sandy silt to clayey silt	UNDFND	UNDFD	7	1.03
30.75	101	18.94	-5460.99	-28830.55	2.74	undefined	UNDFND	UNDFD	UDF	UNDEFINED

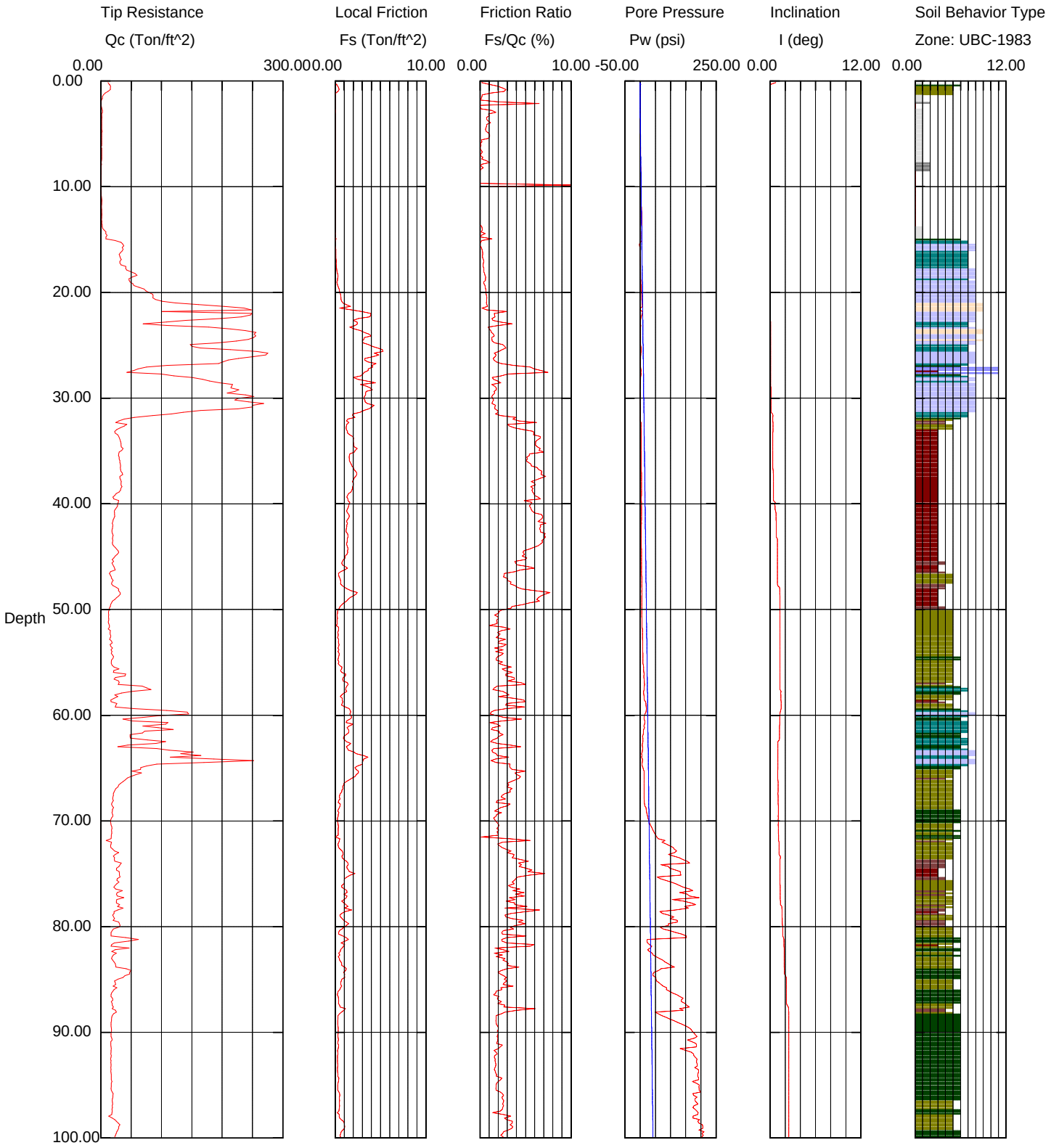
Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

Bureau of Reclamation

Operator: TONY SHANAHAN
Sounding: BSC002
Cone Used: 739

CPT Date/Time: 08-28-02 09:02
Location: BACON IS. PUMP
Job Number: IN-DELTA STORAGE



Maximum Depth = 101.05 feet

Depth Increment = 0.16 feet

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 (*)

E W1 Bureau of Reclamation
W0

Operator :TONY SHANAHAN
On Site Loc:BACON IS. PUMP
Job No. :IN-DELTA STORAGE
Tot. Unit Wt. (avg) : 115 pcf

CPT Date :08-28-02 09:02
Cone Used :739
Water table (feet) : 3.28084

DEPTH (meters)	DEPTH (feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
0.30	1	14.09	0.27	1.90	0.03	clayey silt to silty clay	UNDFND	UNDFD	7	1.17
0.60	2	3.01	0.02	0.62	0.08	sensitive fine grained	UNDFND	UNDFD	1	.24
0.95	3	1.41	0.01	0.77	0.15	sensitive fine grained	UNDFND	UNDFD	1	.10
1.25	4	1.52	0.01	0.87	0.20	sensitive fine grained	UNDFND	UNDFD	1	.10
1.55	5	1.61	0.01	0.75	0.22	sensitive fine grained	UNDFND	UNDFD	1	.11
1.85	6	1.45	0.01	0.42	0.25	sensitive fine grained	UNDFND	UNDFD	1	9.39
2.15	7	1.44	0.00	0.09	0.27	sensitive fine grained	UNDFND	UNDFD	1	8.84
2.45	8	1.16	0.00	0.40	0.30	sensitive fine grained	UNDFND	UNDFD	1	6.02
2.75	9	0.57	-0.01	-0.91	0.33	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.05	10	0.40	-0.01	-3.53	0.35	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.35	11	0.64	-0.01	-1.99	0.38	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.65	12	1.48	-0.01	-0.71	0.40	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.95	13	1.54	-0.01	-0.83	0.43	undefined	UNDFND	UNDFD	UDF	UNDEFINED
4.25	14	2.01	-0.01	-0.27	0.46	undefined	UNDFND	UNDFD	UDF	UNDEFINED
4.55	15	8.06	0.03	0.41	0.48	sensitive fine grained	UNDFND	UNDFD	4	.60
4.85	16	33.70	0.03	0.10	0.51	sand to silty sand	40-50	38-40	8	UNDEFINED
5.15	17	32.32	0.10	0.30	0.53	silty sand to sandy silt	40-50	38-40	10	UNDEFINED
5.45	18	36.85	0.14	0.38	0.56	silty sand to sandy silt	40-50	38-40	12	UNDEFINED
5.75	19	51.78	0.28	0.54	0.59	sand to silty sand	50-60	40-42	12	UNDEFINED
6.05	20	60.71	0.34	0.55	0.61	sand to silty sand	50-60	40-42	15	UNDEFINED
6.40	21	93.14	0.66	0.71	0.64	sand to silty sand	70-80	42-44	22	UNDEFINED
6.70	22	199.80	2.02	1.01	0.67	sand	>90	44-46	38	UNDEFINED
7.00	23	165.75	2.86	1.73	0.69	sand to silty sand	80-90	44-46	40	UNDEFINED
7.35	24	214.70	2.80	1.31	0.72	sand	>90	44-46	41	UNDEFINED
7.65	25	201.22	3.37	1.68	0.75	sand to silty sand	>90	44-46	48	UNDEFINED
7.95	26	238.95	4.75	1.99	0.77	sand to silty sand	>90	44-46	>50	UNDEFINED
8.25	27	169.39	3.81	2.25	0.80	silty sand to sandy silt	80-90	44-46	>50	UNDEFINED
8.55	28	88.07	3.06	3.48	0.83	sandy silt to clayey silt	UNDFND	UNDFD	34	7.20
8.85	29	198.25	3.43	1.73	0.85	sand to silty sand	80-90	44-46	47	UNDEFINED
9.15	30	228.79	3.43	1.50	0.88	sand to silty sand	>90	44-46	>50	UNDEFINED
9.45	31	243.03	3.70	1.52	0.90	sand to silty sand	>90	44-46	>50	UNDEFINED
9.75	32	99.21	2.22	2.24	0.93	silty sand to sandy silt	60-70	40-42	32	UNDEFINED
10.05	33	32.34	1.30	4.02	0.96	silty clay to clay	UNDFND	UNDFD	21	2.53
10.35	34	27.64	1.72	6.23	0.98	clay	UNDFND	UNDFD	26	2.14
10.65	35	33.95	2.14	6.29	1.01	clay	UNDFND	UNDFD	33	2.66
10.95	36	30.14	1.67	5.54	1.03	clay	UNDFND	UNDFD	29	2.34
11.25	37	32.27	1.94	6.01	1.06	clay	UNDFND	UNDFD	31	2.51
11.55	38	33.42	2.18	6.54	1.09	clay	UNDFND	UNDFD	32	2.60

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

E W1 Bureau of Reclamation
W0
Operator :TONY SHANAHAN On Site Loc:BACON IS. PUMP Page No. 2

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
11.85	39	32.73	1.91	5.82	1.11	clay	UNDFND	UNDFD	31	2.54
12.15	40	24.58	1.44	5.84	1.14	clay	UNDFND	UNDFD	24	1.85
12.45	41	24.94	1.41	5.64	1.16	clay	UNDFND	UNDFD	24	1.88
12.80	42	20.80	1.41	6.76	1.19	clay	UNDFND	UNDFD	20	1.53
13.10	43	19.07	1.29	6.78	1.22	clay	UNDFND	UNDFD	18	1.38
13.40	44	19.52	1.33	6.81	1.24	clay	UNDFND	UNDFD	19	1.41
13.75	45	25.64	1.29	5.05	1.27	clay	UNDFND	UNDFD	25	1.92
14.05	46	20.40	0.96	4.69	1.30	clay	UNDFND	UNDFD	20	1.48
14.35	47	17.43	0.57	3.29	1.33	clayey silt to silty clay	UNDFND	UNDFD	8	1.22
14.65	48	21.85	0.83	3.82	1.35	silty clay to clay	UNDFND	UNDFD	14	1.59
14.95	49	28.57	1.93	6.74	1.38	clay	UNDFND	UNDFD	27	2.14
15.25	50	16.06	0.72	4.49	1.40	clay	UNDFND	UNDFD	15	1.10
15.55	51	12.79	0.24	1.91	1.43	clayey silt to silty clay	UNDFND	UNDFD	6	.82
15.85	52	13.62	0.29	2.15	1.46	clayey silt to silty clay	UNDFND	UNDFD	7	.88
16.15	53	15.80	0.34	2.13	1.48	clayey silt to silty clay	UNDFND	UNDFD	8	1.06
16.45	54	17.47	0.38	2.17	1.51	clayey silt to silty clay	UNDFND	UNDFD	8	1.19
16.75	55	18.63	0.40	2.13	1.53	clayey silt to silty clay	UNDFND	UNDFD	9	1.29
17.05	56	21.65	0.61	2.83	1.56	clayey silt to silty clay	UNDFND	UNDFD	10	1.53
17.35	57	30.96	1.04	3.36	1.59	clayey silt to silty clay	UNDFND	UNDFD	15	2.31
17.65	58	56.63	1.22	2.16	1.61	sandy silt to clayey silt	UNDFND	UNDFD	22	4.44
17.95	59	22.05	0.75	3.42	1.64	clayey silt to silty clay	UNDFND	UNDFD	11	1.55
18.25	60	83.08	1.41	1.70	1.66	silty sand to sandy silt	50-60	36-38	27	UNDEFINED
18.55	61	78.51	1.62	2.06	1.69	silty sand to sandy silt	50-60	36-38	25	UNDEFINED
18.85	62	78.77	1.43	1.81	1.71	silty sand to sandy silt	50-60	36-38	25	UNDEFINED
19.20	63	63.42	1.24	1.95	1.74	silty sand to sandy silt	40-50	36-38	20	UNDEFINED
19.50	64	128.05	2.33	1.82	1.77	silty sand to sandy silt	60-70	38-40	41	UNDEFINED
19.80	65	140.31	2.82	2.01	1.80	silty sand to sandy silt	60-70	38-40	45	UNDEFINED
20.15	66	53.65	2.21	4.11	1.82	clayey silt to silty clay	UNDFND	UNDFD	26	4.15
20.45	67	29.16	0.94	3.22	1.85	clayey silt to silty clay	UNDFND	UNDFD	14	2.11
20.75	68	20.50	0.53	2.59	1.88	clayey silt to silty clay	UNDFND	UNDFD	10	1.38
21.05	69	19.05	0.44	2.30	1.90	clayey silt to silty clay	UNDFND	UNDFD	9	1.25
21.35	70	17.98	0.32	1.80	1.93	sandy silt to clayey silt	UNDFND	UNDFD	7	1.16
21.65	71	17.55	0.34	1.97	1.96	clayey silt to silty clay	UNDFND	UNDFD	8	1.12
21.95	72	15.85	0.36	2.28	1.98	clayey silt to silty clay	UNDFND	UNDFD	8	.97
22.25	73	20.08	0.54	2.69	2.01	clayey silt to silty clay	UNDFND	UNDFD	10	1.32
22.55	74	24.26	1.01	4.17	2.03	silty clay to clay	UNDFND	UNDFD	15	1.66
22.85	75	29.03	1.54	5.32	2.06	clay	UNDFND	UNDFD	28	2.06
23.15	76	28.75	1.18	4.12	2.09	silty clay to clay	UNDFND	UNDFD	18	2.03
23.45	77	26.20	1.02	3.89	2.11	silty clay to clay	UNDFND	UNDFD	17	1.81
23.75	78	28.94	1.08	3.72	2.14	clayey silt to silty clay	UNDFND	UNDFD	14	2.04
24.05	79	25.78	1.10	4.28	2.16	silty clay to clay	UNDFND	UNDFD	16	1.77
24.35	80	25.98	1.06	4.07	2.19	silty clay to clay	UNDFND	UNDFD	17	1.78

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

E W1 Bureau of Reclamation
W0
Operator :TONY SHANAHAN On Site Loc:BACON IS. PUMP Page No. 3

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
24.65	81	19.99	0.65	3.25	2.21	clayey silt to silty clay	UNDFND	UNDFD	10	1.28
24.95	82	34.41	1.08	3.13	2.24	clayey silt to silty clay	UNDFND	UNDFD	16	2.47
25.25	83	25.61	0.53	2.07	2.27	sandy silt to clayey silt	UNDFND	UNDFD	10	1.73
25.60	84	24.76	0.77	3.10	2.29	clayey silt to silty clay	UNDFND	UNDFD	12	1.66
25.90	85	41.62	1.00	2.41	2.32	sandy silt to clayey silt	UNDFND	UNDFD	16	3.06
26.20	86	23.17	0.63	2.72	2.35	clayey silt to silty clay	UNDFND	UNDFD	11	1.52
26.55	87	18.17	0.35	1.90	2.38	clayey silt to silty clay	UNDFND	UNDFD	9	1.09
26.85	88	21.13	0.71	3.35	2.40	clayey silt to silty clay	UNDFND	UNDFD	10	1.34
27.15	89	18.28	0.34	1.88	2.43	clayey silt to silty clay	UNDFND	UNDFD	9	1.09
27.45	90	17.12	0.33	1.93	2.46	clayey silt to silty clay	UNDFND	UNDFD	8	.99
27.75	91	17.07	0.33	1.91	2.48	clayey silt to silty clay	UNDFND	UNDFD	8	.98
28.05	92	16.88	0.33	1.98	2.51	clayey silt to silty clay	UNDFND	UNDFD	8	.96
28.35	93	16.69	0.28	1.66	2.53	sandy silt to clayey silt	UNDFND	UNDFD	6	.94
28.65	94	16.77	0.28	1.69	2.56	sandy silt to clayey silt	UNDFND	UNDFD	6	.94
28.95	95	17.42	0.35	2.01	2.58	clayey silt to silty clay	UNDFND	UNDFD	8	.99
29.25	96	18.40	0.39	2.12	2.61	clayey silt to silty clay	UNDFND	UNDFD	9	1.07
29.55	97	19.24	0.48	2.52	2.64	clayey silt to silty clay	UNDFND	UNDFD	9	1.14
29.85	98	17.60	0.42	2.37	2.66	clayey silt to silty clay	UNDFND	UNDFD	8	.99
30.15	99	26.11	0.87	3.31	2.69	clayey silt to silty clay	UNDFND	UNDFD	13	1.70
30.45	100	26.00	0.72	2.78	2.71	clayey silt to silty clay	UNDFND	UNDFD	12	1.69
30.75	101	20.86	-5460.99	-26175.05	2.74	undefined	UNDFND	UNDFD	UDF	UNDEFINED

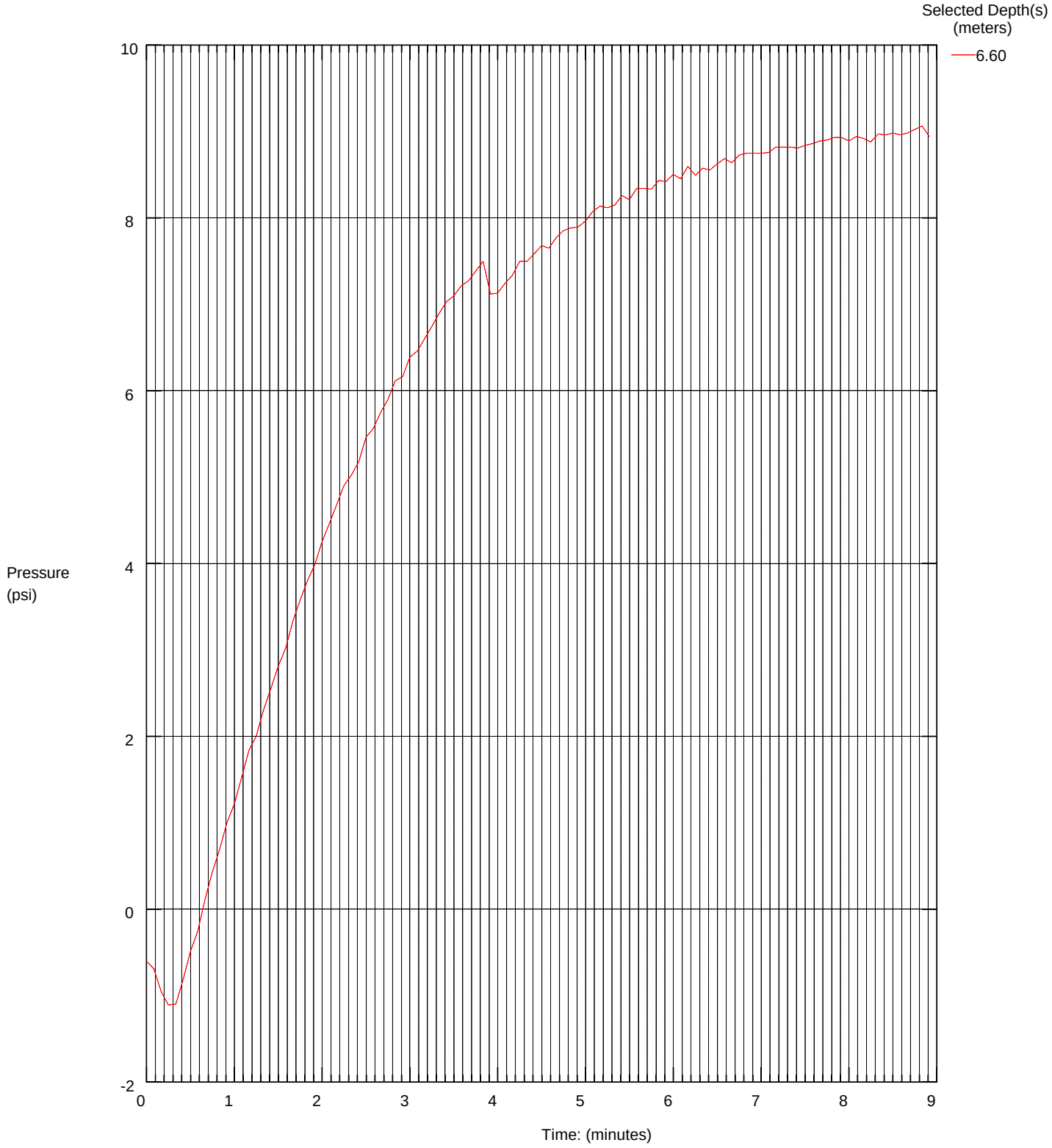
Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

Bureau of Reclamation

Operator TONY SHANAHAN
Sounding: BSC002
Cone Used: 739

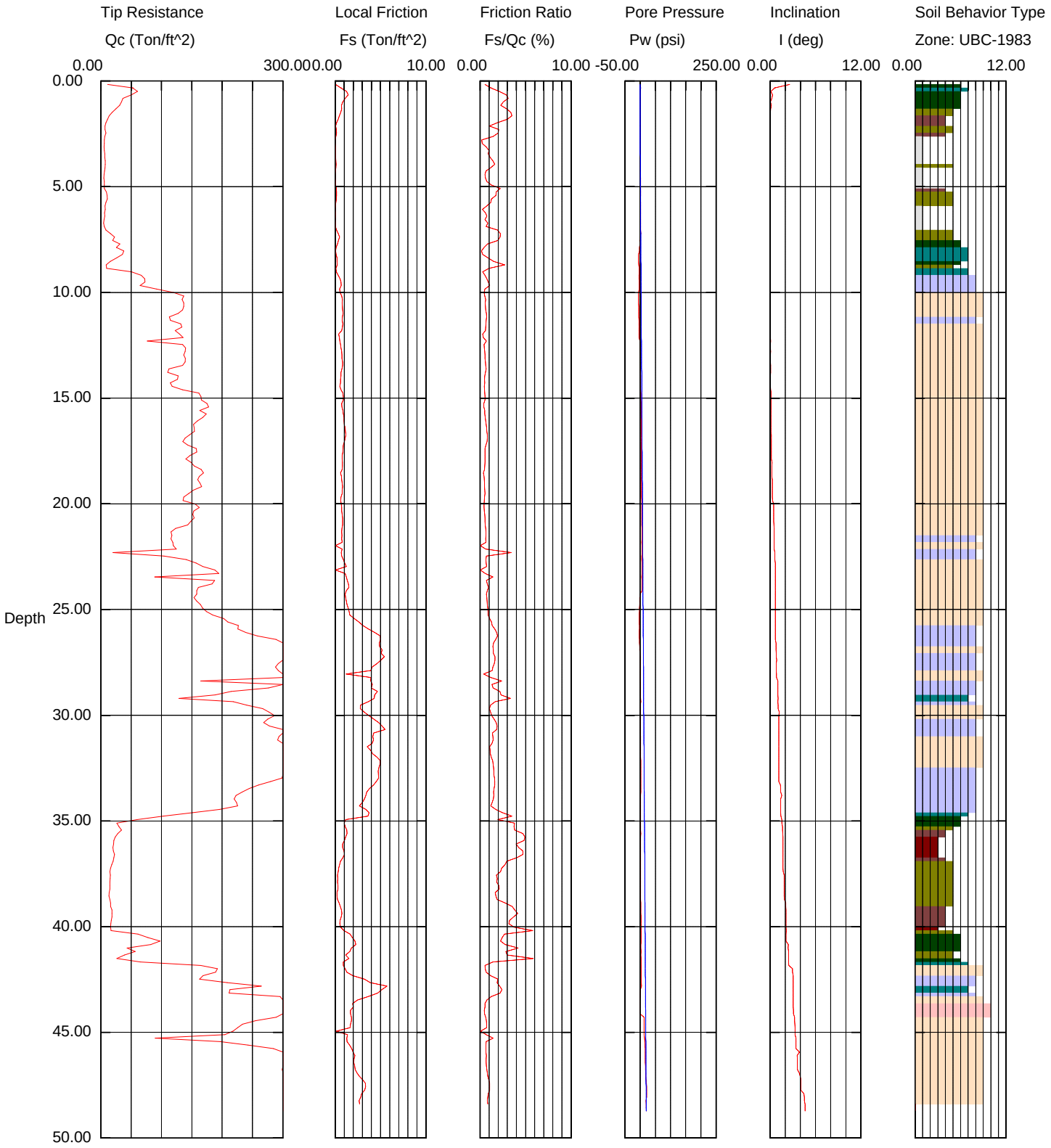
CPT Date/Time: 08-28-02 09:02
Location: BACON IS. PUMP
Job Number: IN-DELTA STORAGE



Bureau of Reclamation

Operator: TONY SHANAHAN
Sounding: BSC006
Cone Used: 739

CPT Date/Time: 08-27-02 12:27
Location: BACON IS. BORROW
Job Number: IN-DELTA STORAGE



Maximum Depth = 48.72 feet

Depth Increment = 0.16 feet

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 (*)

E W1 Bureau of Reclamation
W0

Operator :TONY SHANAHAN CPT Date :08-27-02 12:27
On Site Loc:BACON IS. BORROW Cone Used :739
Job No. :IN-DELTA STORAGE Water table (feet) : 3.28084
Tot. Unit Wt. (avg) : 115 pcf

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
0.30	1	40.75	0.90	2.21	0.03	sandy silt to clayey silt	UNDFND	UNDFD	16	3.39
0.60	2	17.95	0.51	2.81	0.08	clayey silt to silty clay	UNDFND	UNDFD	9	1.48
0.95	3	6.53	0.08	1.18	0.15	sensitive fine grained	UNDFND	UNDFD	3	.53
1.25	4	6.63	0.08	1.21	0.20	sensitive fine grained	UNDFND	UNDFD	3	.53
1.55	5	5.64	0.06	1.02	0.22	sensitive fine grained	UNDFND	UNDFD	3	.44
1.85	6	8.81	0.11	1.23	0.25	clayey silt to silty clay	UNDFND	UNDFD	4	.70
2.15	7	6.09	0.06	0.97	0.27	sensitive fine grained	UNDFND	UNDFD	3	.47
2.45	8	25.41	0.28	1.09	0.30	sandy silt to clayey silt	UNDFND	UNDFD	10	2.08
2.75	9	24.33	0.17	0.71	0.33	silty sand to sandy silt	40-50	38-40	8	UNDEFINED
3.05	10	81.30	0.55	0.67	0.35	sand to silty sand	70-80	44-46	19	UNDEFINED
3.35	11	134.24	0.80	0.60	0.38	sand	80-90	46-48	26	UNDEFINED
3.65	12	124.25	0.73	0.59	0.40	sand	80-90	44-46	24	UNDEFINED
3.95	13	127.06	0.62	0.49	0.43	sand	80-90	44-46	24	UNDEFINED
4.25	14	127.12	0.75	0.59	0.46	sand	80-90	44-46	24	UNDEFINED
4.55	15	136.54	0.70	0.51	0.48	sand	80-90	44-46	26	UNDEFINED
4.85	16	170.54	0.85	0.50	0.51	sand	>90	46-48	33	UNDEFINED
5.15	17	150.73	1.09	0.73	0.53	sand	80-90	44-46	29	UNDEFINED
5.45	18	146.82	0.88	0.60	0.56	sand	80-90	44-46	28	UNDEFINED
5.75	19	159.91	0.74	0.47	0.59	sand	80-90	44-46	31	UNDEFINED
6.05	20	149.78	0.75	0.50	0.61	sand	80-90	44-46	29	UNDEFINED
6.40	21	152.43	0.77	0.51	0.64	sand	80-90	44-46	29	UNDEFINED
6.70	22	118.22	0.63	0.53	0.67	sand	70-80	42-44	23	UNDEFINED
7.00	23	118.91	0.89	0.75	0.69	sand to silty sand	70-80	42-44	28	UNDEFINED
7.35	24	165.84	1.14	0.69	0.72	sand	80-90	44-46	32	UNDEFINED
7.65	25	162.57	1.30	0.80	0.75	sand	80-90	44-46	31	UNDEFINED
7.95	26	214.53	2.90	1.35	0.77	sand to silty sand	>90	44-46	>50	UNDEFINED
8.25	27	319.49	5.00	1.56	0.80	sand to silty sand	>90	46-48	>50	UNDEFINED
8.55	28	302.06	4.05	1.34	0.83	sand	>90	46-48	>50	UNDEFINED
8.85	29	248.99	4.16	1.67	0.85	sand to silty sand	>90	44-46	>50	UNDEFINED
9.15	30	236.30	3.40	1.44	0.88	sand to silty sand	>90	44-46	>50	UNDEFINED
9.45	31	287.76	4.68	1.63	0.90	sand to silty sand	>90	44-46	>50	UNDEFINED
9.75	32	337.72	4.08	1.21	0.93	sand	>90	46-48	>50	UNDEFINED
10.05	33	324.32	4.83	1.49	0.96	sand to silty sand	>90	46-48	>50	UNDEFINED
10.35	34	243.32	3.77	1.55	0.98	sand to silty sand	>90	44-46	>50	UNDEFINED
10.65	35	159.86	2.93	1.83	1.01	silty sand to sandy silt	80-90	42-44	>50	UNDEFINED
10.95	36	27.30	1.16	4.24	1.03	silty clay to clay	UNDFND	UNDFD	17	2.10
11.25	37	20.90	0.86	4.11	1.06	silty clay to clay	UNDFND	UNDFD	13	1.56
11.55	38	15.93	0.34	2.17	1.09	clayey silt to silty clay	UNDFND	UNDFD	8	1.14

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

E W1 Bureau of Reclamation
W0
Operator :TONY SHANAHAN On Site Loc:BACON IS. BORROW Page No. 2

DEPTH (meters)	DEPTH (feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
11.85	39	14.60	0.30	2.06	1.11	clayey silt to silty clay	UNDFND	UNDFD	7	1.03
12.15	40	17.39	0.63	3.61	1.14	silty clay to clay	UNDFND	UNDFD	11	1.26
12.45	41	58.61	1.60	2.73	1.16	sandy silt to clayey silt	UNDFND	UNDFD	22	4.69
12.80	42	83.84	1.29	1.54	1.19	silty sand to sandy silt	50-60	38-40	27	UNDEFINED
13.10	43	200.96	3.54	1.76	1.22	sand to silty sand	80-90	42-44	48	UNDEFINED
13.40	44	322.23	2.74	0.85	1.24	sand	>90	44-46	>50	UNDEFINED
13.75	45	252.78	1.45	0.57	1.27	sand	80-90	44-46	48	UNDEFINED
14.05	46	238.07	1.70	0.71	1.30	sand	80-90	42-44	46	UNDEFINED
14.35	47	308.22	2.27	0.74	1.33	sand	>90	44-46	>50	UNDEFINED
14.65	48	321.75	3.12	0.97	1.35	sand	>90	44-46	>50	UNDEFINED

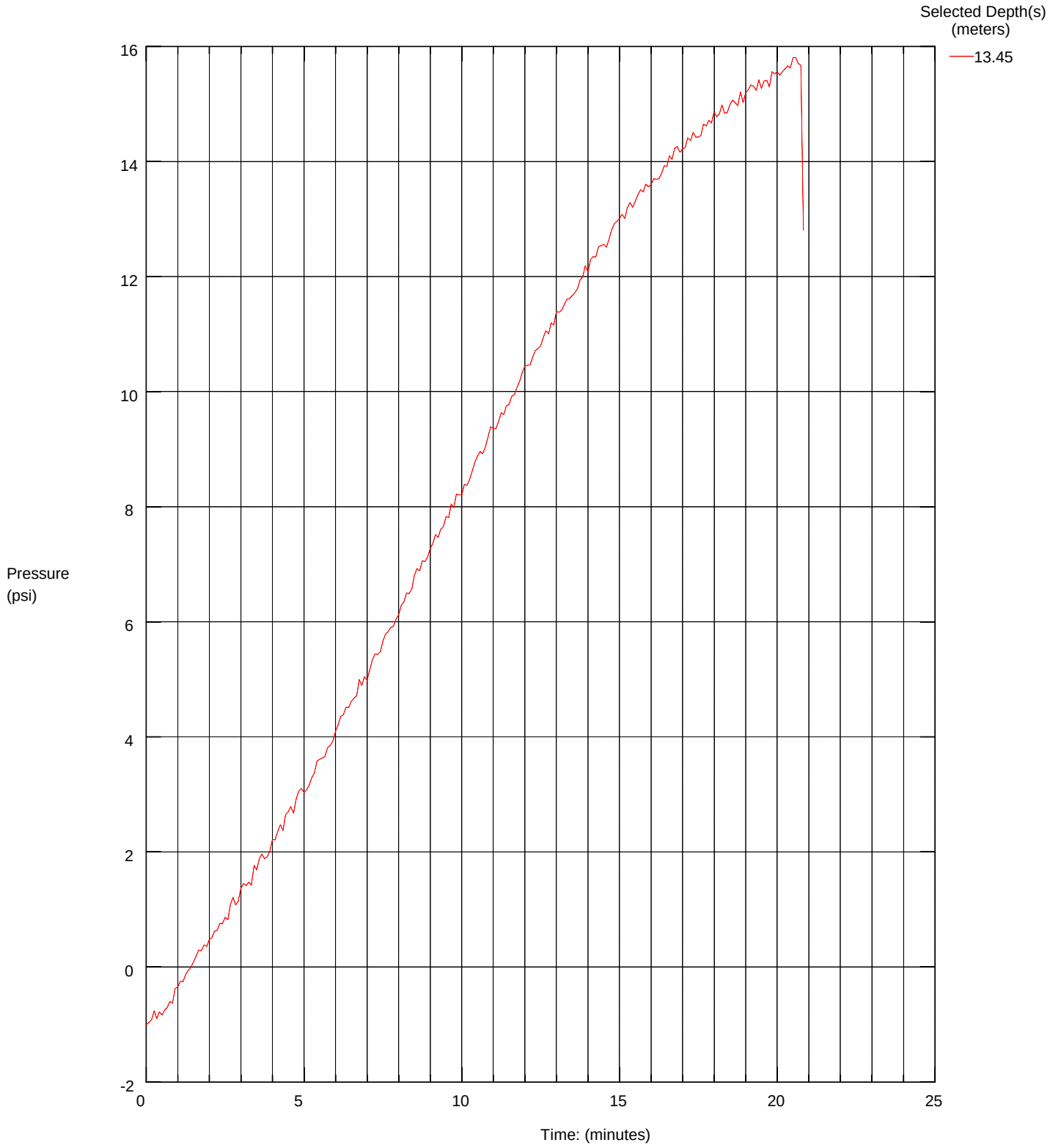
Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

Bureau of Reclamation

Operator TONY SHANAHAN
Sounding: BSC006
Cone Used: 739

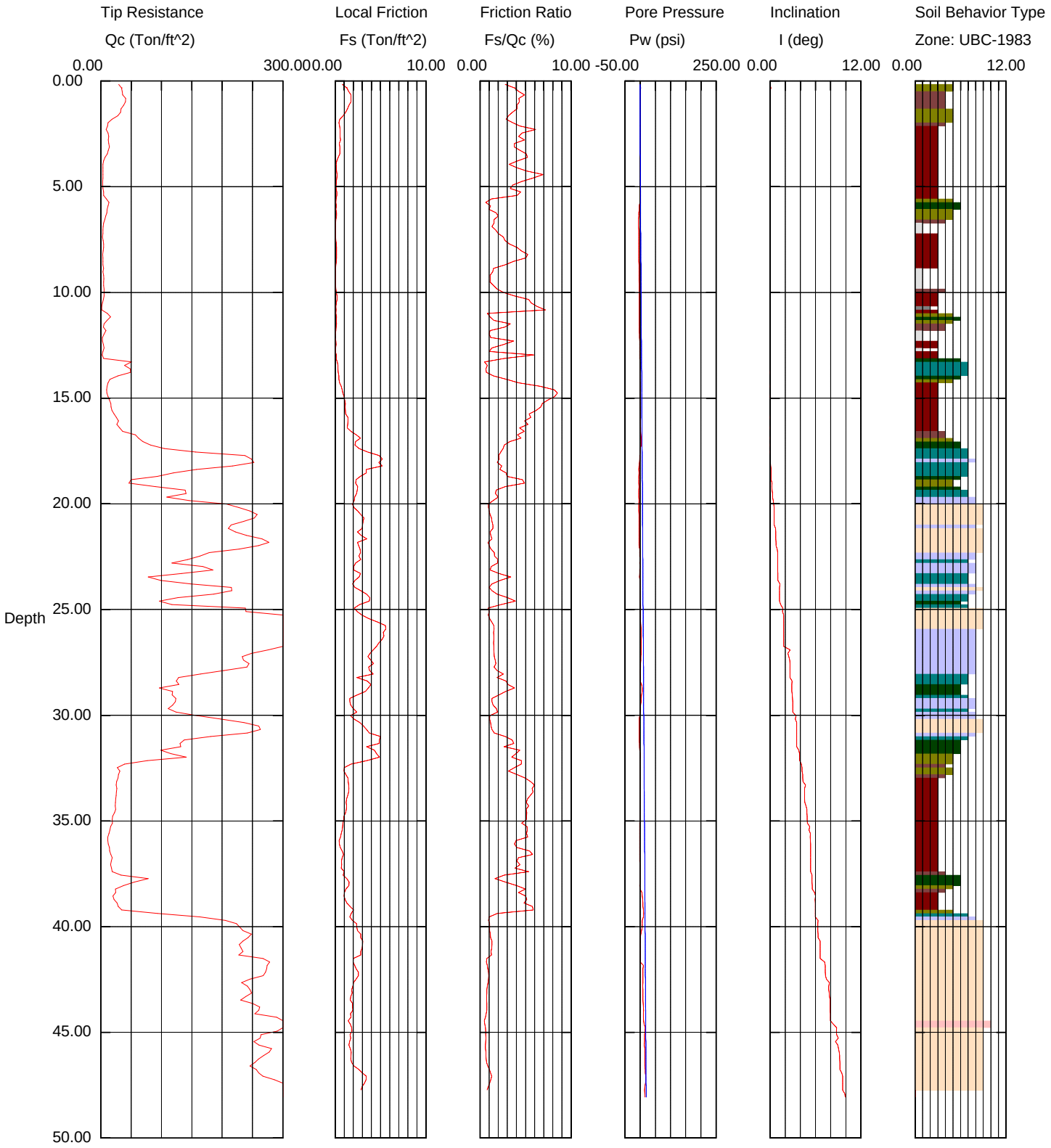
CPT Date/Time: 08-27-02 12:27
Location: BACON IS. BORROW
Job Number: IN-DELTA STORAGE



Bureau of Reclamation

Operator: TONY SHANAHAN
Sounding: BSC007
Cone Used: 739

CPT Date/Time: 08-27-02 11:09
Location: BACON IS. BORROW
Job Number: IN-DELTA STORAGE



Maximum Depth = 48.06 feet

Depth Increment = 0.16 feet

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 (*)

E W1 Bureau of Reclamation
W0

Operator :TONY SHANAHAN
On Site Loc:BACON IS. BORROW
Job No. :IN-DELTA STORAGE
Tot. Unit Wt. (avg) : 115 pcf

CPT Date :08-27-02 11:09
Cone Used :739
Water table (feet) : 3.28084

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
0.30	1	35.94	1.47	4.10	0.03	silty clay to clay	UNDFND	UNDFD	23	2.99
0.60	2	26.92	0.98	3.63	0.08	clayey silt to silty clay	UNDFND	UNDFD	13	2.23
0.95	3	12.00	0.54	4.46	0.15	clay	UNDFND	UNDFD	11	.98
1.25	4	6.77	0.31	4.56	0.20	clay	UNDFND	UNDFD	6	.54
1.55	5	3.29	0.16	4.91	0.22	clay	UNDFND	UNDFD	3	.25
1.85	6	8.94	0.14	1.54	0.25	clayey silt to silty clay	UNDFND	UNDFD	4	.71
2.15	7	5.99	0.10	1.70	0.27	silty clay to clay	UNDFND	UNDFD	4	.46
2.45	8	3.80	0.12	3.28	0.30	clay	UNDFND	UNDFD	4	.28
2.75	9	3.60	0.11	3.11	0.33	clay	UNDFND	UNDFD	3	.25
3.05	10	4.82	0.08	1.59	0.35	sensitive fine grained	UNDFND	UNDFD	2	.35
3.35	11	4.36	0.15	3.33	0.38	clay	UNDFND	UNDFD	4	.31
3.65	12	8.24	0.13	1.56	0.40	clayey silt to silty clay	UNDFND	UNDFD	4	.63
3.95	13	3.32	0.08	2.33	0.43	clay	UNDFND	UNDFD	3	.21
4.25	14	36.60	0.29	0.80	0.46	silty sand to sandy silt	40-50	40-42	12	UNDEFINED
4.55	15	11.37	0.70	6.18	0.48	clay	UNDFND	UNDFD	11	.87
4.85	16	18.93	1.18	6.22	0.51	clay	UNDFND	UNDFD	18	1.50
5.15	17	40.25	1.84	4.58	0.53	silty clay to clay	UNDFND	UNDFD	26	3.27
5.45	18	149.55	3.45	2.31	0.56	silty sand to sandy silt	80-90	44-46	48	UNDEFINED
5.75	19	148.26	3.66	2.47	0.59	silty sand to sandy silt	80-90	44-46	47	UNDEFINED
6.05	20	111.61	2.30	2.06	0.61	silty sand to sandy silt	70-80	42-44	36	UNDEFINED
6.40	21	234.32	2.66	1.13	0.64	sand	>90	46-48	45	UNDEFINED
6.70	22	245.66	2.81	1.14	0.67	sand	>90	46-48	47	UNDEFINED
7.00	23	166.28	2.55	1.53	0.69	sand to silty sand	80-90	44-46	40	UNDEFINED
7.35	24	153.50	2.37	1.55	0.72	sand to silty sand	80-90	44-46	37	UNDEFINED
7.65	25	167.38	3.05	1.82	0.75	sand to silty sand	80-90	44-46	40	UNDEFINED
7.95	26	352.47	4.62	1.31	0.77	sand	>90	46-48	>50	UNDEFINED
8.25	27	307.38	4.66	1.52	0.80	sand to silty sand	>90	46-48	>50	UNDEFINED
8.55	28	220.09	3.91	1.78	0.83	sand to silty sand	>90	44-46	>50	UNDEFINED
8.85	29	118.82	3.22	2.71	0.85	sandy silt to clayey silt	UNDFND	UNDFD	46	9.76
9.15	30	126.38	1.84	1.46	0.88	sand to silty sand	70-80	42-44	30	UNDEFINED
9.45	31	229.85	3.36	1.46	0.90	sand to silty sand	>90	44-46	>50	UNDEFINED
9.75	32	125.71	4.49	3.57	0.93	sandy silt to clayey silt	UNDFND	UNDFD	48	10.32
10.05	33	38.53	1.64	4.25	0.96	silty clay to clay	UNDFND	UNDFD	25	3.05
10.35	34	25.48	1.44	5.65	0.98	clay	UNDFND	UNDFD	24	1.96
10.65	35	22.12	1.14	5.14	1.01	clay	UNDFND	UNDFD	21	1.67
10.95	36	14.39	0.70	4.88	1.03	clay	UNDFND	UNDFD	14	1.02
11.25	37	15.58	0.71	4.57	1.06	clay	UNDFND	UNDFD	15	1.12
11.55	38	36.51	1.02	2.78	1.09	sandy silt to clayey silt	UNDFND	UNDFD	14	2.86

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****
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E W1 Bureau of Reclamation
W0
Operator :TONY SHANAHAN On Site Loc:BACON IS. BORROW Page No. 2

DEPTH (meters)	DEPTH (feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
11.85	39	25.75	1.19	4.63	1.11	clay	UNDFND	UNDFD	25	1.96
12.15	40	124.81	1.89	1.51	1.14	sand to silty sand	70-80	40-42	30	UNDEFINED
12.45	41	236.07	2.76	1.17	1.16	sand	80-90	44-46	45	UNDEFINED
12.80	42	255.01	2.44	0.96	1.19	sand	>90	44-46	49	UNDEFINED
13.10	43	250.64	2.21	0.88	1.22	sand	>90	44-46	48	UNDEFINED
13.40	44	248.25	1.84	0.74	1.24	sand	80-90	44-46	48	UNDEFINED
13.75	45	290.99	1.71	0.59	1.27	sand	>90	44-46	>50	UNDEFINED
14.05	46	267.02	1.67	0.63	1.30	sand	>90	44-46	>50	UNDEFINED
14.35	47	257.05	2.45	0.95	1.33	sand	80-90	42-44	49	UNDEFINED
14.65	48	329.62	-10920.59	-3313.13	1.35	undefined	UNDFND	UNDFD	UDF	UNDEFINED

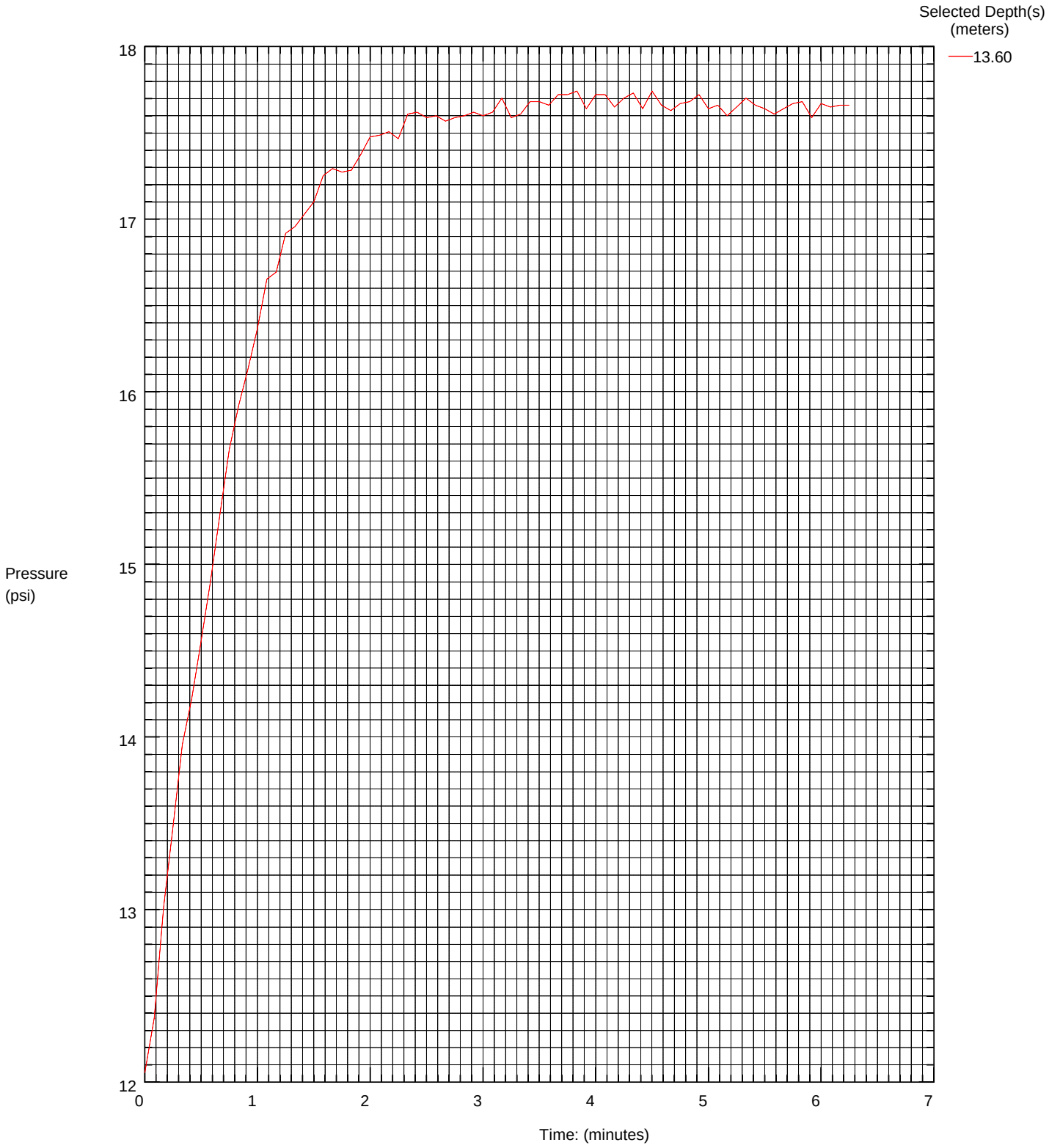
Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

Bureau of Reclamation

Operator TONY SHANAHAN
Sounding: BSC007
Cone Used: 739

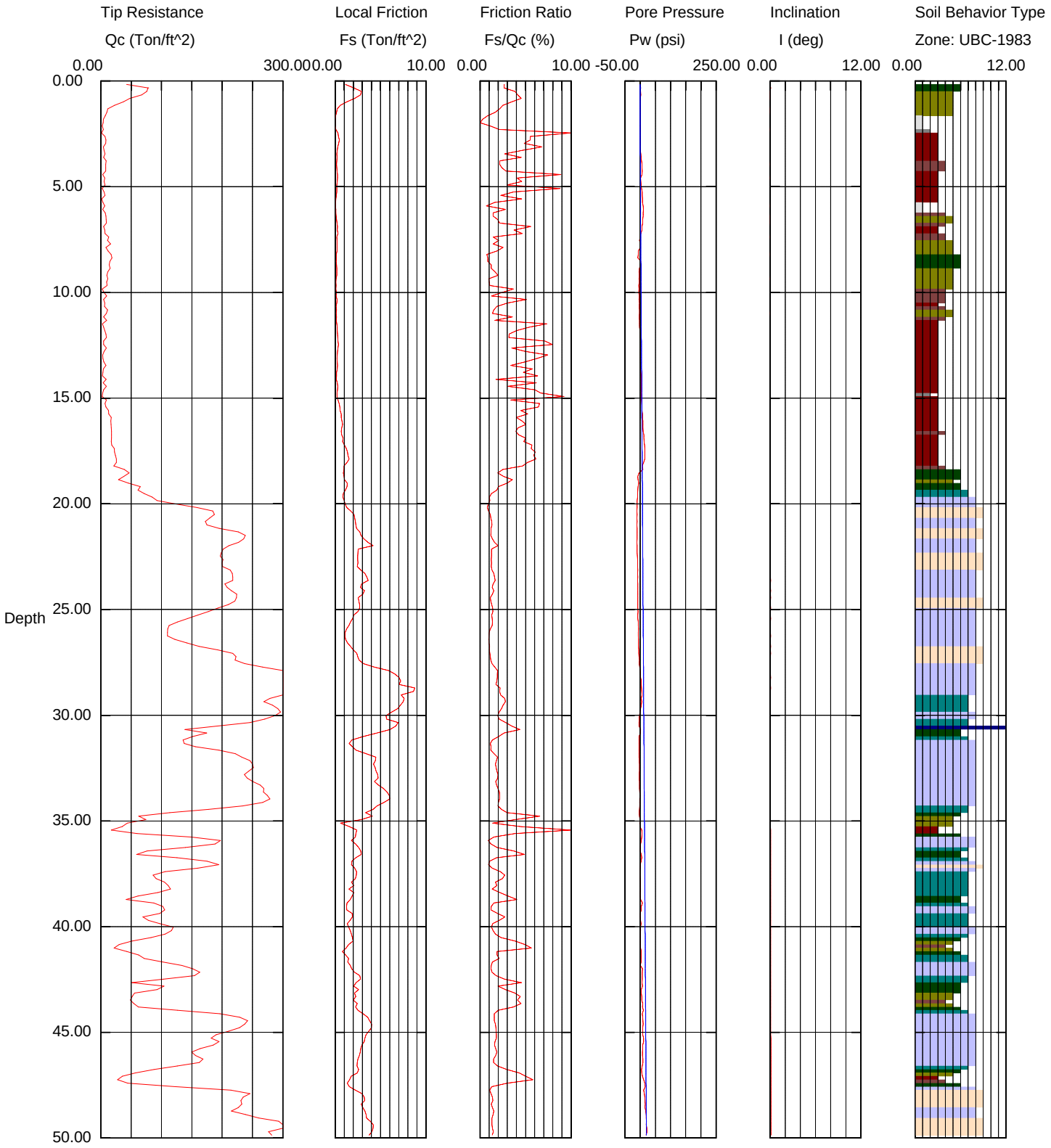
CPT Date/Time: 08-27-02 11:09
Location: BACON IS. BORROW
Job Number: IN-DELTA STORAGE



Bureau of Reclamation

Operator: TONY SHANAHAN
Sounding: BSC008
Cone Used: 739

CPT Date/Time: 08-29-02 06:24
Location: BACON IS. BORROW
Job Number: IN-DELTA STORAGE



Maximum Depth = 51.84 feet

Depth Increment = 0.16 feet

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 (*)

E W1 Bureau of Reclamation
W0

Operator :TONY SHANAHAN
On Site Loc:BACON IS. BORROW
Job No. :IN-DELTA STORAGE
Tot. Unit Wt. (avg) : 115 pcf

CPT Date :08-29-02 06:24
Cone Used :739
Water table (feet) : 3.28084

DEPTH (meters)	DEPTH (feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
0.30	1	57.96	2.06	3.55	0.03	clayey silt to silty clay	UNDFND	UNDFD	28	4.82
0.60	2	9.83	0.17	1.72	0.08	clayey silt to silty clay	UNDFND	UNDFD	5	.81
0.95	3	4.99	0.28	5.59	0.15	clay	UNDFND	UNDFD	5	.40
1.25	4	6.92	0.20	2.88	0.20	clay	UNDFND	UNDFD	7	.55
1.55	5	5.31	0.23	4.42	0.22	clay	UNDFND	UNDFD	5	.42
1.85	6	4.40	0.10	2.28	0.25	clay	UNDFND	UNDFD	4	.33
2.15	7	7.46	0.18	2.46	0.27	silty clay to clay	UNDFND	UNDFD	5	.59
2.45	8	11.23	0.23	2.08	0.30	clayey silt to silty clay	UNDFND	UNDFD	5	.89
2.75	9	15.14	0.16	1.06	0.33	sandy silt to clayey silt	UNDFND	UNDFD	6	1.22
3.05	10	8.22	0.12	1.49	0.35	clayey silt to silty clay	UNDFND	UNDFD	4	.63
3.35	11	7.79	0.16	2.03	0.38	silty clay to clay	UNDFND	UNDFD	5	.59
3.65	12	5.97	0.21	3.53	0.40	clay	UNDFND	UNDFD	6	.44
3.95	13	6.00	0.30	5.00	0.43	clay	UNDFND	UNDFD	6	.44
4.25	14	4.52	0.22	4.89	0.46	clay	UNDFND	UNDFD	4	.31
4.55	15	5.32	0.23	4.30	0.48	clay	UNDFND	UNDFD	5	.37
4.85	16	11.16	0.54	4.79	0.51	clay	UNDFND	UNDFD	11	.85
5.15	17	17.10	0.77	4.50	0.53	clay	UNDFND	UNDFD	16	1.34
5.45	18	21.59	1.24	5.75	0.56	clay	UNDFND	UNDFD	21	1.71
5.75	19	33.13	1.03	3.12	0.59	clayey silt to silty clay	UNDFND	UNDFD	16	2.67
6.05	20	70.06	1.10	1.56	0.61	silty sand to sandy silt	60-70	40-42	22	UNDEFINED
6.40	21	168.60	1.84	1.09	0.64	sand to silty sand	80-90	44-46	40	UNDEFINED
6.70	22	222.22	3.15	1.42	0.67	sand to silty sand	>90	46-48	>50	UNDEFINED
7.00	23	199.78	2.50	1.25	0.69	sand	>90	44-46	38	UNDEFINED
7.35	24	213.15	3.17	1.49	0.72	sand to silty sand	>90	44-46	>50	UNDEFINED
7.65	25	208.03	2.69	1.29	0.75	sand	>90	44-46	40	UNDEFINED
7.95	26	126.98	1.60	1.26	0.77	sand to silty sand	70-80	42-44	30	UNDEFINED
8.25	27	157.46	1.62	1.03	0.80	sand to silty sand	80-90	42-44	38	UNDEFINED
8.55	28	265.91	4.16	1.56	0.83	sand to silty sand	>90	44-46	>50	UNDEFINED
8.85	29	380.60	7.66	2.01	0.85	sand to silty sand	>90	46-48	>50	UNDEFINED
9.15	30	284.16	6.83	2.40	0.88	silty sand to sandy silt	>90	46-48	>50	UNDEFINED
9.45	31	195.45	5.50	2.82	0.90	silty sand to sandy silt	80-90	44-46	>50	UNDEFINED
9.75	32	179.58	2.59	1.44	0.93	sand to silty sand	80-90	42-44	43	UNDEFINED
10.05	33	244.74	4.50	1.84	0.96	sand to silty sand	>90	44-46	>50	UNDEFINED
10.35	34	267.07	5.34	2.00	0.98	sand to silty sand	>90	44-46	>50	UNDEFINED
10.65	35	154.62	4.08	2.64	1.01	silty sand to sandy silt	70-80	42-44	49	UNDEFINED
10.95	36	83.65	1.81	2.17	1.03	silty sand to sandy silt	60-70	40-42	27	UNDEFINED
11.25	37	127.12	2.45	1.92	1.06	silty sand to sandy silt	70-80	40-42	41	UNDEFINED
11.55	38	123.73	2.12	1.71	1.09	silty sand to sandy silt	70-80	40-42	40	UNDEFINED

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

E W1 Bureau of Reclamation
W0
Operator :TONY SHANAHAN On Site Loc:BACON IS. BORROW Page No. 2

DEPTH (meters)	DEPTH (feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
11.85	39	85.08	1.75	2.06	1.11	silty sand to sandy silt	60-70	38-40	27	UNDEFINED
12.15	40	91.59	1.55	1.69	1.14	silty sand to sandy silt	60-70	40-42	29	UNDEFINED
12.45	41	84.23	1.72	2.04	1.16	silty sand to sandy silt	50-60	38-40	27	UNDEFINED
12.80	42	83.52	1.37	1.64	1.19	silty sand to sandy silt	50-60	38-40	27	UNDEFINED
13.10	43	111.41	2.43	2.18	1.22	silty sand to sandy silt	60-70	40-42	36	UNDEFINED
13.40	44	66.34	2.27	3.43	1.24	clayey silt to silty clay	UNDFND	UNDFD	32	5.32
13.75	45	218.95	3.66	1.67	1.27	sand to silty sand	80-90	42-44	>50	UNDEFINED
14.05	46	171.90	2.95	1.72	1.30	sand to silty sand	70-80	42-44	41	UNDEFINED
14.35	47	106.08	2.36	2.22	1.33	silty sand to sandy silt	60-70	40-42	34	UNDEFINED
14.65	48	148.26	2.15	1.45	1.35	sand to silty sand	70-80	40-42	36	UNDEFINED
14.95	49	233.88	3.22	1.38	1.38	sand to silty sand	80-90	42-44	>50	UNDEFINED
15.25	50	299.04	4.02	1.34	1.40	sand	>90	44-46	>50	UNDEFINED
15.55	51	351.70	5.01	1.43	1.43	sand	>90	44-46	>50	UNDEFINED

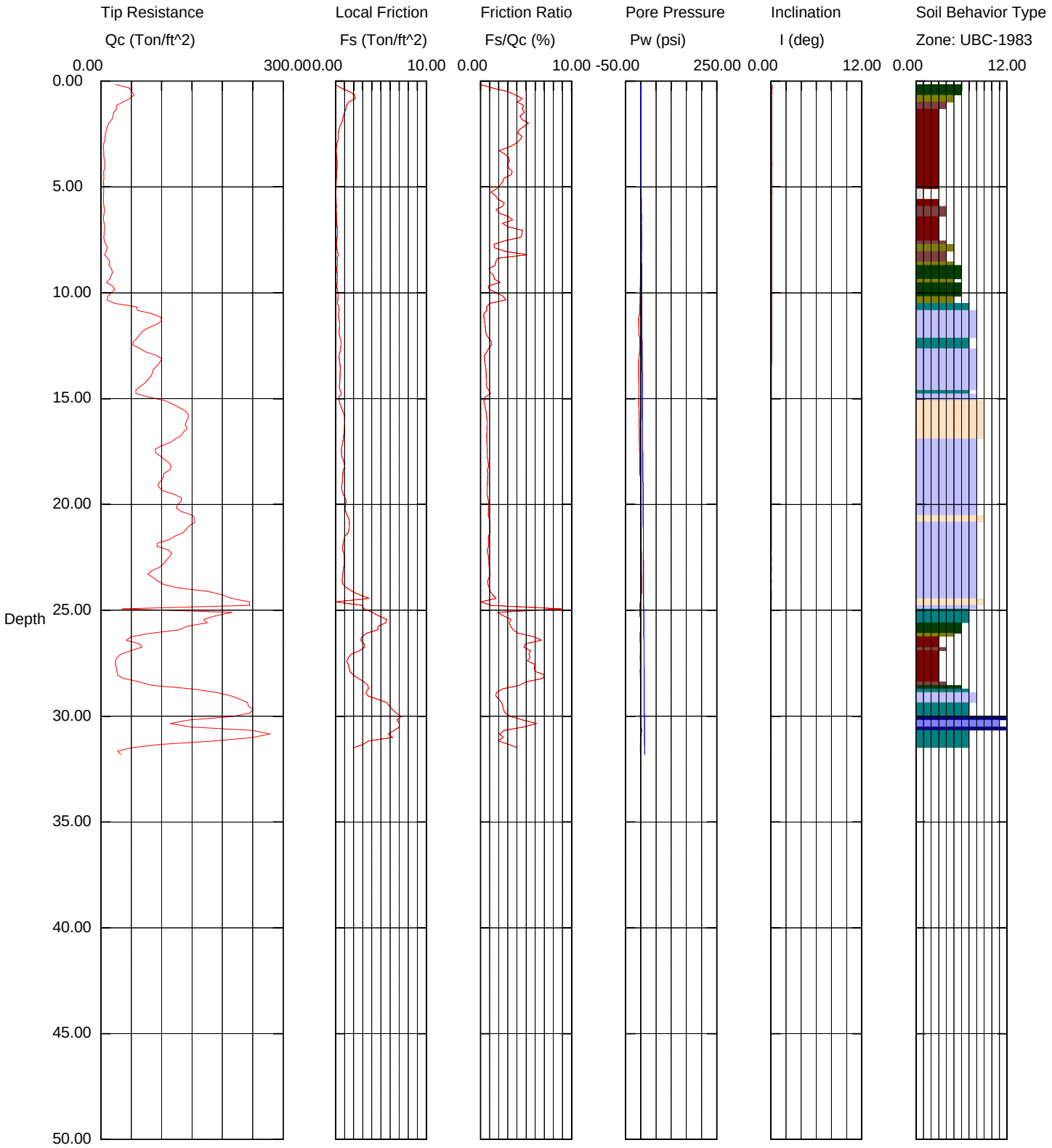
Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

Bureau of Reclamation

Operator: TONY SHANAHAN
Sounding: BSC009
Cone Used: 739

CPT Date/Time: 08-29-02 13:31
Location: BACON IS. BORROW
Job Number: IN-DELTA STORAGE



Maximum Depth = 31.82 feet

Depth Increment = 0.16 feet

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 (*)

E W1 Bureau of Reclamation
W0

Operator :TONY SHANAHAN CPT Date :08-29-02 13:31
On Site Loc:BACON IS. BORROW Cone Used :739
Job No. :IN-DELTA STORAGE Water table (feet) : 3.28084
Tot. Unit Wt. (avg) : 115 pcf

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
0.30	1	43.44	1.31	3.03	0.03	sandy silt to clayey silt	UNDFND	UNDFD	17	3.61
0.60	2	20.56	0.96	4.68	0.08	clay	UNDFND	UNDFD	20	1.70
0.95	3	7.04	0.30	4.28	0.15	clay	UNDFND	UNDFD	7	.57
1.25	4	5.40	0.16	2.88	0.20	clay	UNDFND	UNDFD	5	.43
1.55	5	4.52	0.12	2.62	0.22	clay	UNDFND	UNDFD	4	.35
1.85	6	4.53	0.09	1.89	0.25	silty clay to clay	UNDFND	UNDFD	3	.35
2.15	7	5.15	0.16	3.09	0.27	clay	UNDFND	UNDFD	5	.39
2.45	8	7.13	0.18	2.59	0.30	silty clay to clay	UNDFND	UNDFD	5	.55
2.75	9	13.45	0.22	1.65	0.33	clayey silt to silty clay	UNDFND	UNDFD	6	1.07
3.05	10	16.45	0.22	1.36	0.35	sandy silt to clayey silt	UNDFND	UNDFD	6	1.32
3.35	11	41.22	0.32	0.78	0.38	silty sand to sandy silt	50-60	40-42	13	UNDEFINED
3.65	12	83.70	0.42	0.50	0.40	sand to silty sand	70-80	44-46	20	UNDEFINED
3.95	13	65.79	0.55	0.83	0.43	sand to silty sand	60-70	42-44	16	UNDEFINED
4.25	14	90.38	0.49	0.55	0.46	sand to silty sand	70-80	44-46	22	UNDEFINED
4.55	15	67.81	0.49	0.73	0.48	sand to silty sand	60-70	42-44	16	UNDEFINED
4.85	16	129.57	0.73	0.56	0.51	sand	80-90	44-46	25	UNDEFINED
5.15	17	135.41	0.96	0.71	0.53	sand	80-90	44-46	26	UNDEFINED
5.45	18	99.73	0.74	0.74	0.56	sand to silty sand	70-80	42-44	24	UNDEFINED
5.75	19	107.84	0.88	0.81	0.59	sand to silty sand	70-80	42-44	26	UNDEFINED
6.05	20	112.57	0.88	0.78	0.61	sand to silty sand	70-80	42-44	27	UNDEFINED
6.40	21	141.22	1.31	0.93	0.64	sand to silty sand	80-90	44-46	34	UNDEFINED
6.70	22	115.95	1.10	0.95	0.67	sand to silty sand	70-80	42-44	28	UNDEFINED
7.00	23	107.86	0.93	0.87	0.69	sand to silty sand	70-80	42-44	26	UNDEFINED
7.35	24	107.27	1.03	0.96	0.72	sand to silty sand	70-80	42-44	26	UNDEFINED
7.65	25	192.56	2.75	1.43	0.75	sand to silty sand	80-90	44-46	46	UNDEFINED
7.95	26	147.69	4.78	3.23	0.77	sandy silt to clayey silt	UNDFND	UNDFD	>50	12.18
8.25	27	50.55	2.74	5.43	0.80	clay	UNDFND	UNDFD	48	4.08
8.55	28	25.72	1.52	5.93	0.83	clay	UNDFND	UNDFD	25	2.01
8.85	29	122.45	3.29	2.69	0.85	silty sand to sandy silt	70-80	42-44	39	UNDEFINED
9.15	30	237.78	6.07	2.55	0.88	silty sand to sandy silt	>90	44-46	>50	UNDEFINED
9.45	31	197.44	6.56	3.32	0.90	sand to clayey sand (*)	UNDFND	UNDFD	>50	UNDEFINED

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

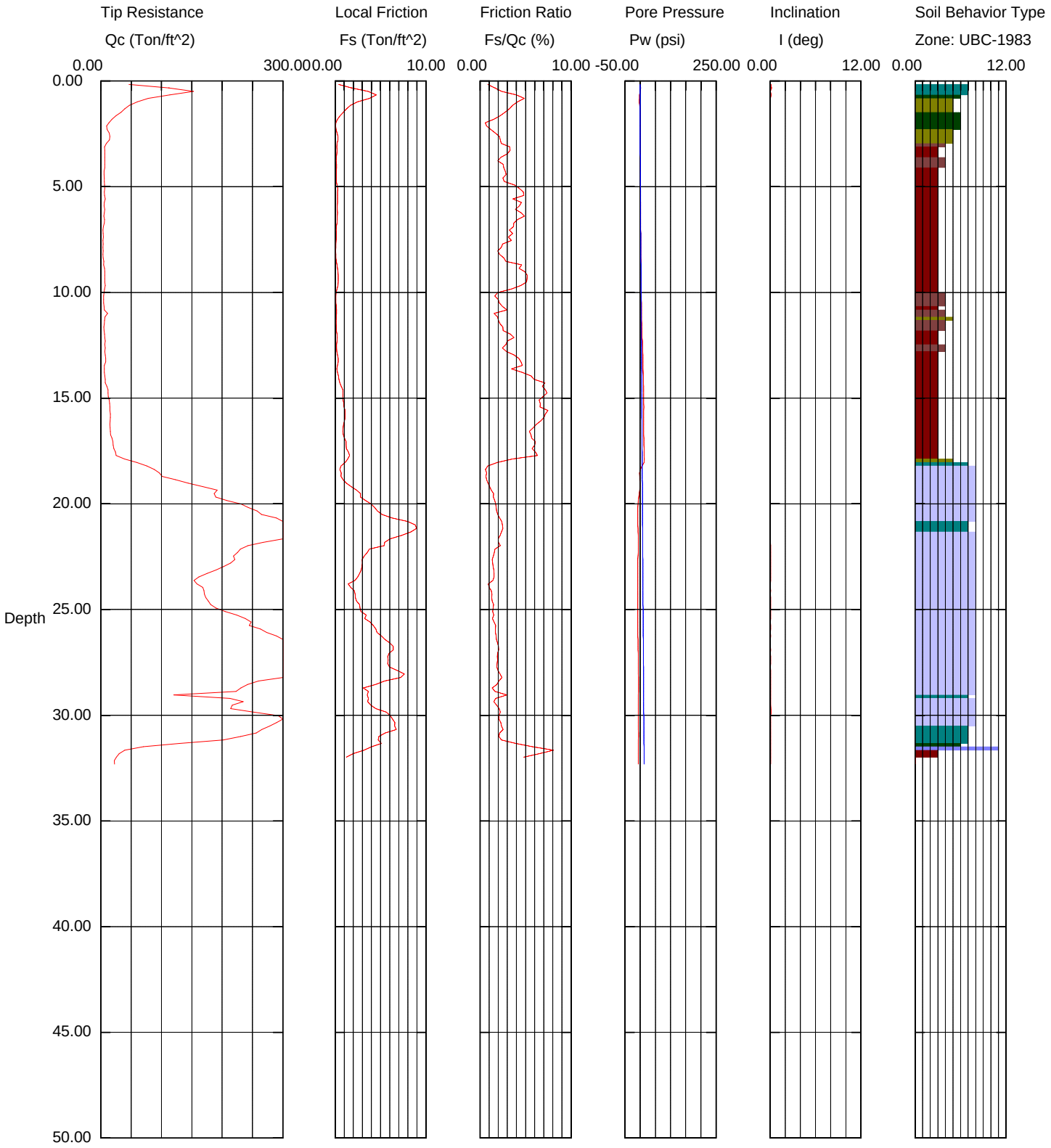
(*) overconsolidated or cemented

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

Bureau of Reclamation

Operator: TONY SHANAHAN
Sounding: BSC010
Cone Used: 739

CPT Date/Time: 08-29-02 12:40
Location: BACON IS. BORROW
Job Number: IN-DELTA STORAGE



Maximum Depth = 32.32 feet

Depth Increment = 0.16 feet

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 (*)

E W1 Bureau of Reclamation
W0

Operator :TONY SHANAHAN CPT Date :08-29-02 12:40
On Site Loc:BACON IS. BORROW Cone Used :739
Job No. :IN-DELTA STORAGE Water table (feet) : 3.28084
Tot. Unit Wt. (avg) : 115 pcf

DEPTH (meters)	DEPTH (feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
0.30	1	93.69	2.77	2.96	0.03	sandy silt to clayey silt	UNDFND	UNDFD	36	7.80
0.60	2	29.46	0.80	2.71	0.08	sandy silt to clayey silt	UNDFND	UNDFD	11	2.44
0.95	3	11.11	0.21	1.88	0.15	clayey silt to silty clay	UNDFND	UNDFD	5	.91
1.25	4	6.39	0.17	2.62	0.20	silty clay to clay	UNDFND	UNDFD	4	.51
1.55	5	5.90	0.19	3.19	0.22	clay	UNDFND	UNDFD	6	.47
1.85	6	6.07	0.26	4.30	0.25	clay	UNDFND	UNDFD	6	.47
2.15	7	5.01	0.20	4.07	0.27	clay	UNDFND	UNDFD	5	.38
2.45	8	3.82	0.11	2.83	0.30	clay	UNDFND	UNDFD	4	.28
2.75	9	4.92	0.18	3.75	0.33	clay	UNDFND	UNDFD	5	.36
3.05	10	6.40	0.28	4.30	0.35	clay	UNDFND	UNDFD	6	.48
3.35	11	6.05	0.12	2.05	0.38	silty clay to clay	UNDFND	UNDFD	4	.45
3.65	12	5.89	0.14	2.41	0.40	silty clay to clay	UNDFND	UNDFD	4	.43
3.95	13	6.89	0.21	3.10	0.43	clay	UNDFND	UNDFD	7	.51
4.25	14	6.58	0.30	4.52	0.46	clay	UNDFND	UNDFD	6	.48
4.55	15	10.11	0.70	6.95	0.48	clay	UNDFND	UNDFD	10	.77
4.85	16	14.90	1.03	6.91	0.51	clay	UNDFND	UNDFD	14	1.16
5.15	17	15.96	0.94	5.89	0.53	clay	UNDFND	UNDFD	15	1.25
5.45	18	25.07	1.35	5.40	0.56	clay	UNDFND	UNDFD	24	2.00
5.75	19	90.57	0.75	0.83	0.59	sand to silty sand	70-80	42-44	22	UNDEFINED
6.05	20	181.25	2.38	1.32	0.61	sand to silty sand	>90	44-46	43	UNDEFINED
6.40	21	282.58	5.89	2.08	0.64	sand to silty sand	>90	46-48	>50	UNDEFINED
6.70	22	309.50	6.91	2.23	0.67	sand to silty sand	>90	46-48	>50	UNDEFINED
7.00	23	218.49	3.24	1.48	0.69	sand to silty sand	>90	44-46	>50	UNDEFINED
7.35	24	168.06	2.22	1.32	0.72	sand to silty sand	80-90	44-46	40	UNDEFINED
7.65	25	182.73	2.52	1.38	0.75	sand to silty sand	80-90	44-46	44	UNDEFINED
7.95	26	248.43	3.97	1.60	0.77	sand to silty sand	>90	44-46	>50	UNDEFINED
8.25	27	307.08	5.89	1.92	0.80	sand to silty sand	>90	46-48	>50	UNDEFINED
8.55	28	322.60	6.31	1.96	0.83	sand to silty sand	>90	46-48	>50	UNDEFINED
8.85	29	229.38	4.57	1.99	0.85	sand to silty sand	>90	44-46	>50	UNDEFINED
9.15	30	236.90	4.56	1.92	0.88	sand to silty sand	>90	44-46	>50	UNDEFINED
9.45	31	270.28	6.08	2.25	0.90	silty sand to sandy silt	>90	44-46	>50	UNDEFINED
9.75	32	82.71	3.37	4.08	0.93	clayey silt to silty clay	UNDFND	UNDFD	40	6.74

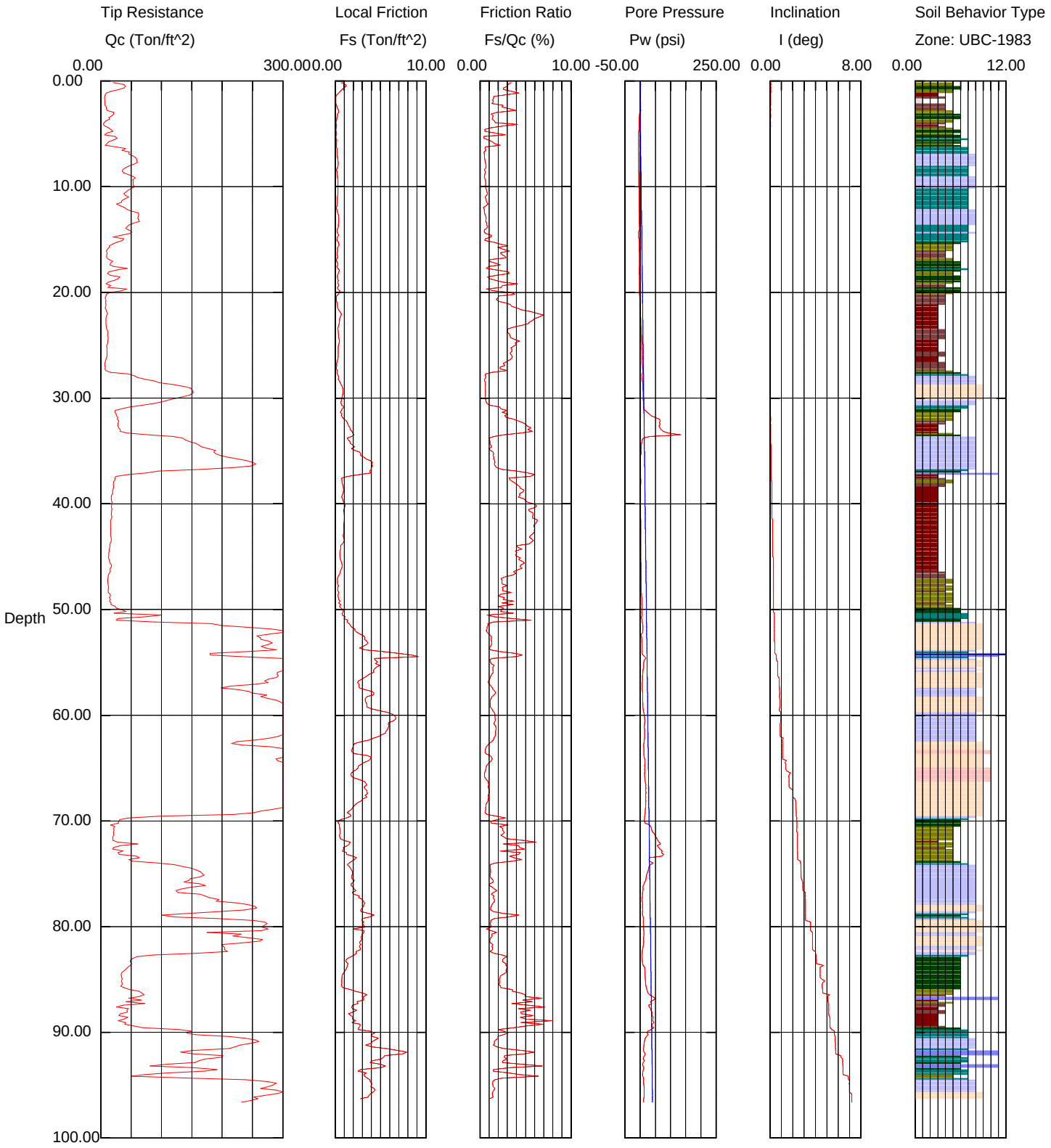
Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

Bureau of Reclamation

Operator: TONY SHANAHAN
Sounding: BSC012
Cone Used: 739

CPT Date/Time: 08-29-02 11:10
Location: BACON IS. PUMP 2
Job Number: IN-DELTA STORAGE



Maximum Depth = 96.62 feet

Depth Increment = 0.16 feet

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 (*)

E W1 Bureau of Reclamation
W0

Operator :TONY SHANAHAN
On Site Loc:BACON IS. PUMP 2
Job No. :IN-DELTA STORAGE
Tot. Unit Wt. (avg) : 115 pcf

CPT Date :08-29-02 11:10
Cone Used :739
Water table (feet) : 3.28084

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
0.30	1	30.38	0.90	2.96	0.03	clayey silt to silty clay	UNDFND	UNDFD	15	2.52
0.60	2	6.96	0.16	2.30	0.08	silty clay to clay	UNDFND	UNDFD	4	.57
0.95	3	12.02	0.26	2.18	0.15	clayey silt to silty clay	UNDFND	UNDFD	6	.98
1.25	4	10.53	0.17	1.61	0.20	clayey silt to silty clay	UNDFND	UNDFD	5	.86
1.55	5	12.08	0.14	1.17	0.22	clayey silt to silty clay	UNDFND	UNDFD	6	.98
1.85	6	17.00	0.15	0.89	0.25	sandy silt to clayey silt	UNDFND	UNDFD	7	1.38
2.15	7	40.69	0.21	0.52	0.27	silty sand to sandy silt	50-60	42-44	13	UNDEFINED
2.45	8	55.84	0.32	0.57	0.30	sand to silty sand	60-70	42-44	13	UNDEFINED
2.75	9	41.31	0.22	0.54	0.33	silty sand to sandy silt	50-60	42-44	13	UNDEFINED
3.05	10	54.12	0.32	0.59	0.35	sand to silty sand	60-70	42-44	13	UNDEFINED
3.35	11	43.49	0.30	0.70	0.38	silty sand to sandy silt	50-60	40-42	14	UNDEFINED
3.65	12	34.18	0.22	0.65	0.40	silty sand to sandy silt	40-50	40-42	11	UNDEFINED
3.95	13	56.47	0.31	0.55	0.43	sand to silty sand	60-70	42-44	14	UNDEFINED
4.25	14	51.81	0.37	0.71	0.46	silty sand to sandy silt	50-60	40-42	17	UNDEFINED
4.55	15	39.24	0.27	0.69	0.48	silty sand to sandy silt	50-60	40-42	13	UNDEFINED
4.85	16	20.00	0.33	1.66	0.51	sandy silt to clayey silt	UNDFND	UNDFD	8	1.59
5.15	17	10.34	0.24	2.33	0.53	silty clay to clay	UNDFND	UNDFD	7	.78
5.45	18	23.50	0.29	1.24	0.56	sandy silt to clayey silt	UNDFND	UNDFD	9	1.87
5.75	19	20.33	0.34	1.65	0.59	sandy silt to clayey silt	UNDFND	UNDFD	8	1.60
6.05	20	20.72	0.36	1.72	0.61	sandy silt to clayey silt	UNDFND	UNDFD	8	1.63
6.40	21	9.08	0.24	2.67	0.64	silty clay to clay	UNDFND	UNDFD	6	.65
6.70	22	8.89	0.42	4.68	0.67	clay	UNDFND	UNDFD	9	.63
7.00	23	8.74	0.53	6.03	0.69	clay	UNDFND	UNDFD	8	.62
7.35	24	10.37	0.35	3.37	0.72	silty clay to clay	UNDFND	UNDFD	7	.75
7.65	25	11.16	0.43	3.83	0.75	clay	UNDFND	UNDFD	11	.81
7.95	26	10.16	0.35	3.44	0.77	clay	UNDFND	UNDFD	10	.72
8.25	27	7.49	0.22	2.89	0.80	silty clay to clay	UNDFND	UNDFD	5	.49
8.55	28	32.08	0.27	0.83	0.83	silty sand to sandy silt	<40	36-38	10	UNDEFINED
8.85	29	110.05	0.61	0.55	0.85	sand	70-80	42-44	21	UNDEFINED
9.15	30	143.44	0.83	0.58	0.88	sand	70-80	42-44	27	UNDEFINED
9.45	31	74.60	0.76	1.02	0.90	sand to silty sand	50-60	40-42	18	UNDEFINED
9.75	32	25.40	0.75	2.96	0.93	clayey silt to silty clay	UNDFND	UNDFD	12	1.96
10.05	33	29.32	1.47	5.00	0.96	clay	UNDFND	UNDFD	28	2.28
10.35	34	91.34	1.74	1.91	0.98	silty sand to sandy silt	60-70	40-42	29	UNDEFINED
10.65	35	165.94	1.89	1.14	1.01	sand to silty sand	80-90	42-44	40	UNDEFINED
10.95	36	208.08	3.13	1.50	1.03	sand to silty sand	80-90	44-46	50	UNDEFINED
11.25	37	204.85	4.01	1.96	1.06	sand to silty sand	80-90	42-44	49	UNDEFINED
11.55	38	35.52	1.72	4.84	1.09	clay	UNDFND	UNDFD	34	2.78

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

E W1 Bureau of Reclamation
W0
Operator :TONY SHANAHAN On Site Loc:BACON IS. PUMP 2 Page No. 2

DEPTH (meters)	DEPTH (feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
11.85	39	20.36	0.89	4.38	1.11	clay	UNDFND	UNDFD	19	1.51
12.15	40	17.92	0.84	4.68	1.14	clay	UNDFND	UNDFD	17	1.30
12.45	41	17.72	1.03	5.79	1.16	clay	UNDFND	UNDFD	17	1.28
12.80	42	16.80	1.01	5.99	1.19	clay	UNDFND	UNDFD	16	1.20
13.10	43	16.11	0.95	5.88	1.22	clay	UNDFND	UNDFD	15	1.13
13.40	44	16.28	0.87	5.35	1.24	clay	UNDFND	UNDFD	16	1.14
13.75	45	13.49	0.56	4.15	1.27	clay	UNDFND	UNDFD	13	.91
14.05	46	15.63	0.71	4.54	1.30	clay	UNDFND	UNDFD	15	1.08
14.35	47	13.43	0.46	3.45	1.33	silty clay to clay	UNDFND	UNDFD	9	.89
14.65	48	11.94	0.30	2.54	1.35	clayey silt to silty clay	UNDFND	UNDFD	6	.76
14.95	49	14.21	0.36	2.54	1.38	clayey silt to silty clay	UNDFND	UNDFD	7	.95
15.25	50	22.22	0.59	2.65	1.40	clayey silt to silty clay	UNDFND	UNDFD	11	1.61
15.55	51	48.49	1.00	2.06	1.43	sandy silt to clayey silt	UNDFND	UNDFD	19	3.79
15.85	52	218.05	1.80	0.82	1.46	sand	80-90	42-44	42	UNDEFINED
16.15	53	273.59	3.04	1.11	1.48	sand	80-90	42-44	>50	UNDEFINED
16.45	54	271.04	3.56	1.31	1.51	sand	80-90	42-44	>50	UNDEFINED
16.75	55	291.01	6.32	2.17	1.53	sand to silty sand	>90	42-44	>50	UNDEFINED
17.05	56	317.35	4.45	1.40	1.56	sand	>90	44-46	>50	UNDEFINED
17.35	57	282.30	3.08	1.09	1.59	sand	80-90	42-44	>50	UNDEFINED
17.65	58	230.25	3.25	1.41	1.61	sand to silty sand	80-90	42-44	>50	UNDEFINED
17.95	59	283.39	3.53	1.24	1.64	sand	80-90	42-44	>50	UNDEFINED
18.25	60	337.57	4.60	1.36	1.66	sand	>90	44-46	>50	UNDEFINED
18.55	61	391.88	6.34	1.62	1.69	sand to silty sand	>90	44-46	>50	UNDEFINED
18.85	62	326.66	5.64	1.73	1.71	sand to silty sand	>90	42-44	>50	UNDEFINED
19.20	63	254.01	3.12	1.23	1.74	sand	80-90	42-44	49	UNDEFINED
19.50	64	322.62	2.54	0.79	1.77	sand	>90	42-44	>50	UNDEFINED
19.80	65	327.02	3.12	0.96	1.80	sand	>90	42-44	>50	UNDEFINED
20.15	66	362.76	2.09	0.58	1.82	gravelly sand to sand	>90	44-46	>50	UNDEFINED
20.45	67	357.69	3.34	0.93	1.85	sand	>90	42-44	>50	UNDEFINED
20.75	68	354.07	3.30	0.93	1.88	sand	>90	42-44	>50	UNDEFINED
21.05	69	306.32	2.03	0.66	1.90	sand	80-90	42-44	>50	UNDEFINED
21.35	70	112.45	1.16	1.03	1.93	sand to silty sand	60-70	38-40	27	UNDEFINED
21.65	71	21.99	0.49	2.24	1.96	clayey silt to silty clay	UNDFND	UNDFD	11	1.49
21.95	72	21.59	0.80	3.70	1.98	silty clay to clay	UNDFND	UNDFD	14	1.45
22.25	73	33.05	1.14	3.45	2.01	clayey silt to silty clay	UNDFND	UNDFD	16	2.40
22.55	74	57.65	1.85	3.21	2.03	sandy silt to clayey silt	UNDFND	UNDFD	22	4.45
22.85	75	148.77	1.70	1.14	2.06	sand to silty sand	60-70	38-40	36	UNDEFINED
23.15	76	154.38	1.90	1.23	2.09	sand to silty sand	60-70	38-40	37	UNDEFINED
23.45	77	144.45	2.01	1.39	2.11	sand to silty sand	60-70	38-40	35	UNDEFINED
23.75	78	200.48	2.96	1.48	2.14	sand to silty sand	70-80	40-42	48	UNDEFINED
24.05	79	197.84	3.29	1.66	2.16	sand to silty sand	70-80	40-42	47	UNDEFINED
24.35	80	229.02	3.19	1.39	2.19	sand to silty sand	70-80	40-42	>50	UNDEFINED

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

E W1 Bureau of Reclamation
W0
Operator :TONY SHANAHAN On Site Loc:BACON IS. PUMP 2 Page No. 3

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
24.65	81	238.26	2.91	1.22	2.21	sand	80-90	40-42	46	UNDEFINED
24.95	82	233.89	2.79	1.19	2.24	sand	70-80	40-42	45	UNDEFINED
25.25	83	154.10	2.35	1.52	2.27	sand to silty sand	60-70	38-40	37	UNDEFINED
25.60	84	47.93	1.31	2.73	2.29	sandy silt to clayey silt	UNDFND	UNDFD	18	3.59
25.90	85	35.17	0.88	2.50	2.32	sandy silt to clayey silt	UNDFND	UNDFD	13	2.52
26.20	86	37.14	0.92	2.48	2.35	sandy silt to clayey silt	UNDFND	UNDFD	14	2.68
26.55	87	59.76	2.94	4.92	2.38	silty clay to clay	UNDFND	UNDFD	38	4.56
26.85	88	44.37	2.08	4.69	2.40	silty clay to clay	UNDFND	UNDFD	28	3.27
27.15	89	35.74	1.87	5.23	2.43	clay	UNDFND	UNDFD	34	2.55
27.45	90	97.16	3.14	3.23	2.46	sandy silt to clayey silt	UNDFND	UNDFD	37	7.66
27.75	91	227.21	4.21	1.85	2.48	sand to silty sand	70-80	40-42	>50	UNDEFINED
28.05	92	182.88	5.88	3.21	2.51	sandy silt to clayey silt	UNDFND	UNDFD	>50	14.80
28.35	93	166.77	4.80	2.88	2.53	silty sand to sandy silt	60-70	38-40	>50	UNDEFINED
28.65	94	129.29	3.76	2.91	2.56	sandy silt to clayey silt	UNDFND	UNDFD	50	10.32
28.95	95	213.15	3.75	1.76	2.58	sand to silty sand	70-80	40-42	>50	UNDEFINED
29.25	96	281.98	4.07	1.44	2.61	sand to silty sand	80-90	40-42	>50	UNDEFINED

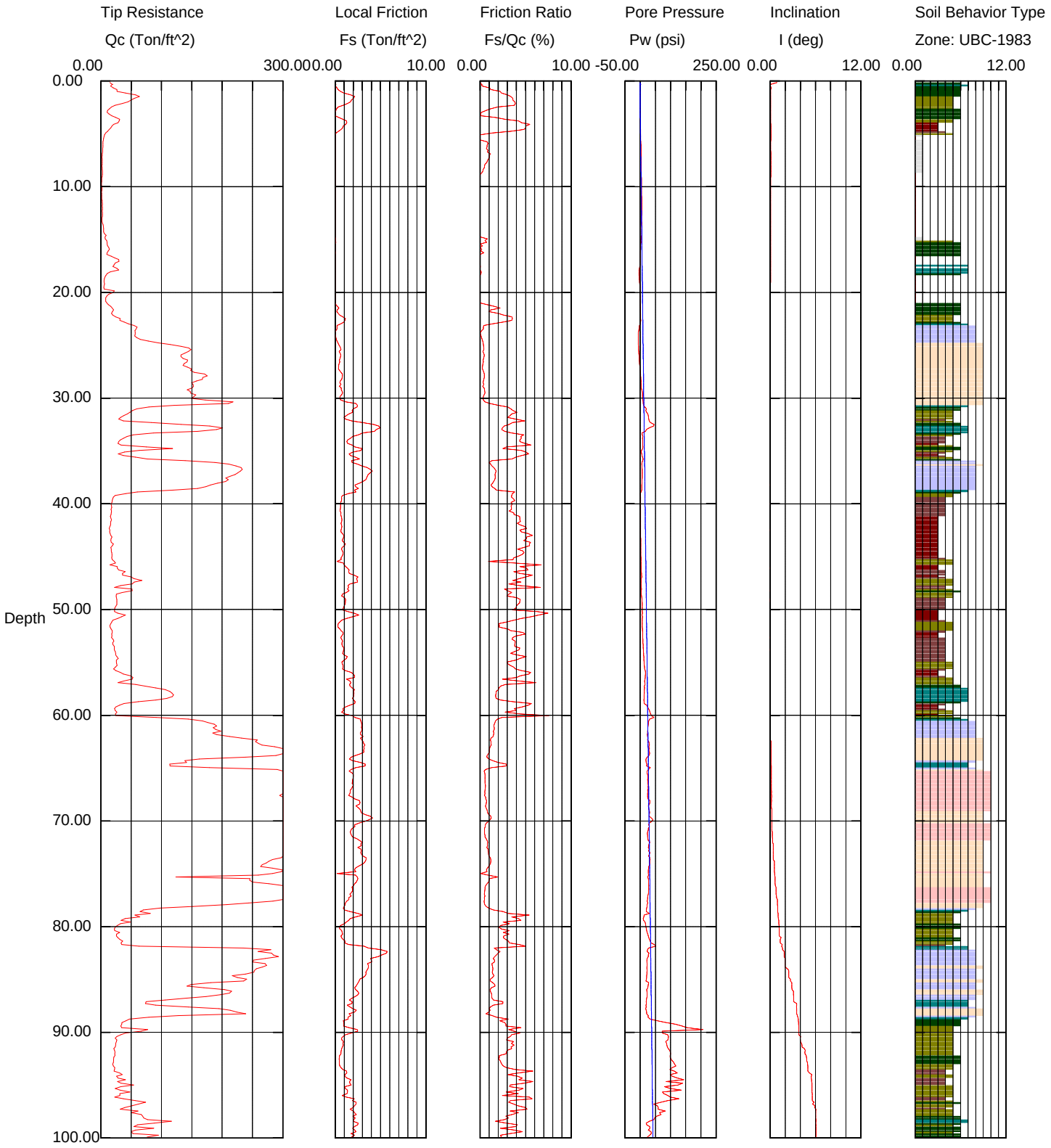
Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

Bureau of Reclamation

Operator: TONY SHANAHAN
Sounding: BSC013
Cone Used: 739

CPT Date/Time: 08-29-02 08:20
Location: BACON IS. PUMP 2
Job Number: IN-DELTA STORAGE



Maximum Depth = 101.54 feet

Depth Increment = 0.16 feet

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 (*)

E W1 Bureau of Reclamation
W0

Operator :TONY SHANAHAN
On Site Loc:BACON IS. PUMP 2
Job No. :IN-DELTA STORAGE
Tot. Unit Wt. (avg) : 115 pcf

CPT Date :08-29-02 08:20
Cone Used :739
Water table (feet) : 3.28084

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
0.30	1	20.64	0.20	0.97	0.03	sandy silt to clayey silt	UNDFND	UNDFD	8	1.71
0.60	2	51.90	1.73	3.33	0.08	clayey silt to silty clay	UNDFND	UNDFD	25	4.31
0.95	3	17.89	0.41	2.28	0.15	clayey silt to silty clay	UNDFND	UNDFD	9	1.47
1.25	4	25.50	0.83	3.26	0.20	clayey silt to silty clay	UNDFND	UNDFD	12	2.10
1.55	5	12.36	0.48	3.91	0.22	clay	UNDFND	UNDFD	12	1.00
1.85	6	4.05	0.01	0.22	0.25	sensitive fine grained	UNDFND	UNDFD	2	.31
2.15	7	2.73	0.02	0.86	0.27	sensitive fine grained	UNDFND	UNDFD	1	.19
2.45	8	2.15	0.02	0.76	0.30	sensitive fine grained	UNDFND	UNDFD	1	.14
2.75	9	2.36	-0.00	-0.05	0.33	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.05	10	1.45	-0.02	-1.40	0.35	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.35	11	1.58	-0.02	-1.07	0.38	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.65	12	2.22	-0.03	-1.13	0.40	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.95	13	2.46	-0.03	-1.03	0.43	undefined	UNDFND	UNDFD	UDF	UNDEFINED
4.25	14	3.18	-0.02	-0.58	0.46	undefined	UNDFND	UNDFD	UDF	UNDEFINED
4.55	15	6.28	-0.00	-0.05	0.48	undefined	UNDFND	UNDFD	UDF	UNDEFINED
4.85	16	11.44	0.03	0.24	0.51	sandy silt to clayey silt	UNDFND	UNDFD	4	.88
5.15	17	17.01	0.01	0.04	0.53	silty sand to sandy silt	<40	34-36	5	UNDEFINED
5.45	18	25.07	-0.00	-0.01	0.56	undefined	UNDFND	UNDFD	UDF	UNDEFINED
5.75	19	8.76	0.00	0.00	0.59	sensitive fine grained	UNDFND	UNDFD	4	.64
6.05	20	8.28	-0.01	-0.14	0.61	undefined	UNDFND	UNDFD	UDF	UNDEFINED
6.40	21	10.97	-0.01	-0.08	0.64	undefined	UNDFND	UNDFD	UDF	UNDEFINED
6.70	22	17.53	0.26	1.47	0.67	sandy silt to clayey silt	UNDFND	UNDFD	7	1.35
7.00	23	31.84	0.87	2.72	0.69	sandy silt to clayey silt	UNDFND	UNDFD	12	2.54
7.35	24	56.83	0.12	0.22	0.72	sand to silty sand	50-60	38-40	14	UNDEFINED
7.65	25	90.72	0.29	0.32	0.75	sand	60-70	40-42	17	UNDEFINED
7.95	26	140.09	0.58	0.41	0.77	sand	70-80	42-44	27	UNDEFINED
8.25	27	139.39	0.46	0.33	0.80	sand	70-80	42-44	27	UNDEFINED
8.55	28	160.95	0.65	0.41	0.83	sand	80-90	42-44	31	UNDEFINED
8.85	29	154.95	0.60	0.39	0.85	sand	80-90	42-44	30	UNDEFINED
9.15	30	149.47	0.68	0.45	0.88	sand	80-90	42-44	29	UNDEFINED
9.45	31	143.28	1.83	1.28	0.90	sand to silty sand	70-80	42-44	34	UNDEFINED
9.75	32	40.61	1.46	3.58	0.93	clayey silt to silty clay	UNDFND	UNDFD	19	3.23
10.05	33	137.31	3.88	2.83	0.96	sandy silt to clayey silt	UNDFND	UNDFD	>50	11.28
10.35	34	68.85	2.50	3.63	0.98	clayey silt to silty clay	UNDFND	UNDFD	33	5.57
10.65	35	57.93	2.10	3.62	1.01	clayey silt to silty clay	UNDFND	UNDFD	28	4.66
10.95	36	62.88	1.99	3.17	1.03	sandy silt to clayey silt	UNDFND	UNDFD	24	5.07
11.25	37	219.34	3.13	1.43	1.06	sand to silty sand	80-90	44-46	>50	UNDEFINED
11.55	38	213.42	3.48	1.63	1.09	sand to silty sand	80-90	42-44	>50	UNDEFINED

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

E W1 Bureau of Reclamation
W0
Operator :TONY SHANAHAN On Site Loc:BACON IS. PUMP 2 Page No. 2

DEPTH (meters)	DEPTH (feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
11.85	39	147.56	2.36	1.60	1.11	sand to silty sand	70-80	42-44	35	UNDEFINED
12.15	40	23.68	0.84	3.57	1.14	clayey silt to silty clay	UNDFND	UNDFD	11	1.78
12.45	41	17.36	0.60	3.46	1.16	silty clay to clay	UNDFND	UNDFD	11	1.25
12.80	42	16.34	0.70	4.26	1.19	clay	UNDFND	UNDFD	16	1.16
13.10	43	15.03	0.75	5.01	1.22	clay	UNDFND	UNDFD	14	1.04
13.40	44	18.24	0.96	5.25	1.24	clay	UNDFND	UNDFD	17	1.31
13.75	45	17.66	0.78	4.43	1.27	clay	UNDFND	UNDFD	17	1.25
14.05	46	22.27	0.89	4.02	1.30	silty clay to clay	UNDFND	UNDFD	14	1.63
14.35	47	40.88	1.92	4.71	1.33	silty clay to clay	UNDFND	UNDFD	26	3.18
14.65	48	46.79	1.81	3.87	1.35	clayey silt to silty clay	UNDFND	UNDFD	22	3.67
14.95	49	31.57	1.09	3.44	1.38	clayey silt to silty clay	UNDFND	UNDFD	15	2.39
15.25	50	24.76	1.01	4.07	1.40	silty clay to clay	UNDFND	UNDFD	16	1.82
15.55	51	28.81	1.67	5.81	1.43	clay	UNDFND	UNDFD	28	2.15
15.85	52	16.73	0.44	2.64	1.46	clayey silt to silty clay	UNDFND	UNDFD	8	1.14
16.15	53	18.98	0.78	4.09	1.48	silty clay to clay	UNDFND	UNDFD	12	1.33
16.45	54	21.57	0.86	4.00	1.51	silty clay to clay	UNDFND	UNDFD	14	1.54
16.75	55	25.79	1.03	3.99	1.53	silty clay to clay	UNDFND	UNDFD	16	1.88
17.05	56	25.76	1.05	4.07	1.56	silty clay to clay	UNDFND	UNDFD	16	1.88
17.35	57	42.82	1.82	4.25	1.59	silty clay to clay	UNDFND	UNDFD	27	3.29
17.65	58	92.83	1.89	2.04	1.61	silty sand to sandy silt	50-60	38-40	30	UNDEFINED
17.95	59	89.55	2.07	2.32	1.64	silty sand to sandy silt	50-60	38-40	29	UNDEFINED
18.25	60	25.42	1.06	4.18	1.66	silty clay to clay	UNDFND	UNDFD	16	1.83
18.55	61	131.82	2.58	1.96	1.69	silty sand to sandy silt	60-70	38-40	42	UNDEFINED
18.85	62	189.85	2.88	1.52	1.71	sand to silty sand	70-80	40-42	45	UNDEFINED
19.20	63	252.64	3.07	1.21	1.74	sand	80-90	42-44	48	UNDEFINED
19.50	64	292.68	2.72	0.93	1.77	sand	80-90	42-44	>50	UNDEFINED
19.80	65	141.41	2.53	1.79	1.80	silty sand to sandy silt	60-70	38-40	45	UNDEFINED
20.15	66	346.91	1.87	0.54	1.82	gravelly sand to sand	>90	42-44	>50	UNDEFINED
20.45	67	333.04	1.87	0.56	1.85	gravelly sand to sand	>90	42-44	>50	UNDEFINED
20.75	68	323.12	1.92	0.59	1.88	gravelly sand to sand	>90	42-44	>50	UNDEFINED
21.05	69	382.04	2.64	0.69	1.90	gravelly sand to sand	>90	44-46	>50	UNDEFINED
21.35	70	338.66	3.52	1.04	1.93	sand	>90	42-44	>50	UNDEFINED
21.65	71	367.73	2.04	0.55	1.96	gravelly sand to sand	>90	42-44	>50	UNDEFINED
21.95	72	349.08	2.26	0.65	1.98	gravelly sand to sand	>90	42-44	>50	UNDEFINED
22.25	73	331.23	2.79	0.84	2.01	sand	>90	42-44	>50	UNDEFINED
22.55	74	291.78	3.21	1.10	2.03	sand	80-90	42-44	>50	UNDEFINED
22.85	75	282.66	2.05	0.73	2.06	sand	80-90	42-44	>50	UNDEFINED
23.15	76	233.56	2.35	1.01	2.09	sand	80-90	40-42	45	UNDEFINED
23.45	77	349.50	1.86	0.53	2.11	gravelly sand to sand	>90	42-44	>50	UNDEFINED
23.75	78	283.39	1.39	0.49	2.14	gravelly sand to sand	80-90	42-44	45	UNDEFINED
24.05	79	86.96	1.69	1.95	2.16	silty sand to sandy silt	50-60	36-38	28	UNDEFINED
24.35	80	41.07	1.39	3.39	2.19	clayey silt to silty clay	UNDFND	UNDFD	20	3.04

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****
E W1 Bureau of Reclamation

W0
Operator :TONY SHANAHAN On Site Loc:BACON IS. PUMP 2 Page No. 3

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
24.65	81	25.28	0.67	2.66	2.21	clayey silt to silty clay	UNDFND	UNDFD	12	1.72
24.95	82	37.65	1.41	3.73	2.24	clayey silt to silty clay	UNDFND	UNDFD	18	2.74
25.25	83	272.05	4.99	1.83	2.27	sand to silty sand	80-90	40-42	>50	UNDEFINED
25.60	84	262.68	3.77	1.44	2.29	sand to silty sand	80-90	40-42	>50	UNDEFINED
25.90	85	237.70	3.23	1.36	2.32	sand to silty sand	70-80	40-42	>50	UNDEFINED
26.20	86	180.12	2.39	1.33	2.35	sand to silty sand	70-80	38-40	43	UNDEFINED
26.55	87	159.77	2.16	1.35	2.38	sand to silty sand	60-70	38-40	38	UNDEFINED
26.85	88	156.65	1.88	1.20	2.40	sand to silty sand	60-70	38-40	38	UNDEFINED
27.15	89	94.81	1.33	1.40	2.43	sand to silty sand	50-60	36-38	23	UNDEFINED
27.45	90	47.79	1.70	3.56	2.46	clayey silt to silty clay	UNDFND	UNDFD	23	3.55
27.75	91	26.63	0.88	3.32	2.48	clayey silt to silty clay	UNDFND	UNDFD	13	1.78
28.05	92	23.07	0.74	3.22	2.51	clayey silt to silty clay	UNDFND	UNDFD	11	1.48
28.35	93	21.14	0.47	2.21	2.53	clayey silt to silty clay	UNDFND	UNDFD	10	1.31
28.65	94	25.66	0.95	3.71	2.56	silty clay to clay	UNDFND	UNDFD	16	1.69
28.95	95	34.90	1.52	4.35	2.58	silty clay to clay	UNDFND	UNDFD	22	2.45
29.25	96	33.12	1.17	3.53	2.61	clayey silt to silty clay	UNDFND	UNDFD	16	2.30
29.55	97	50.62	2.00	3.95	2.64	clayey silt to silty clay	UNDFND	UNDFD	24	3.75
29.85	98	52.99	2.01	3.79	2.66	clayey silt to silty clay	UNDFND	UNDFD	25	3.94
30.15	99	77.89	2.24	2.87	2.69	sandy silt to clayey silt	UNDFND	UNDFD	30	6.01
30.45	100	69.74	2.02	2.89	2.71	sandy silt to clayey silt	UNDFND	UNDFD	27	5.33
30.75	101	112.47	2.14	1.90	2.74	silty sand to sandy silt	50-60	36-38	36	UNDEFINED

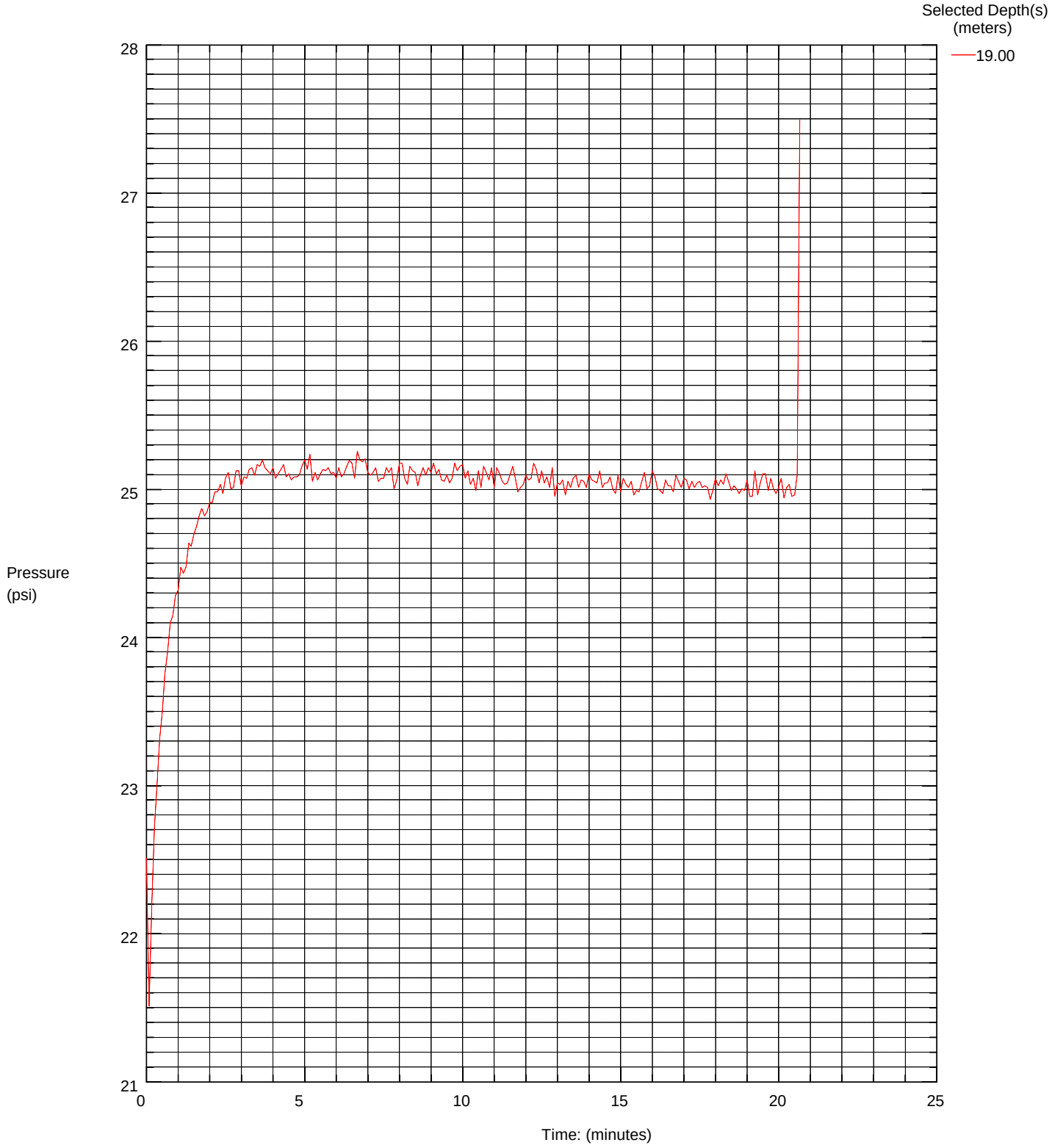
Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

Bureau of Reclamation

Operator TONY SHANAHAN
Sounding: BSC013
Cone Used: 739

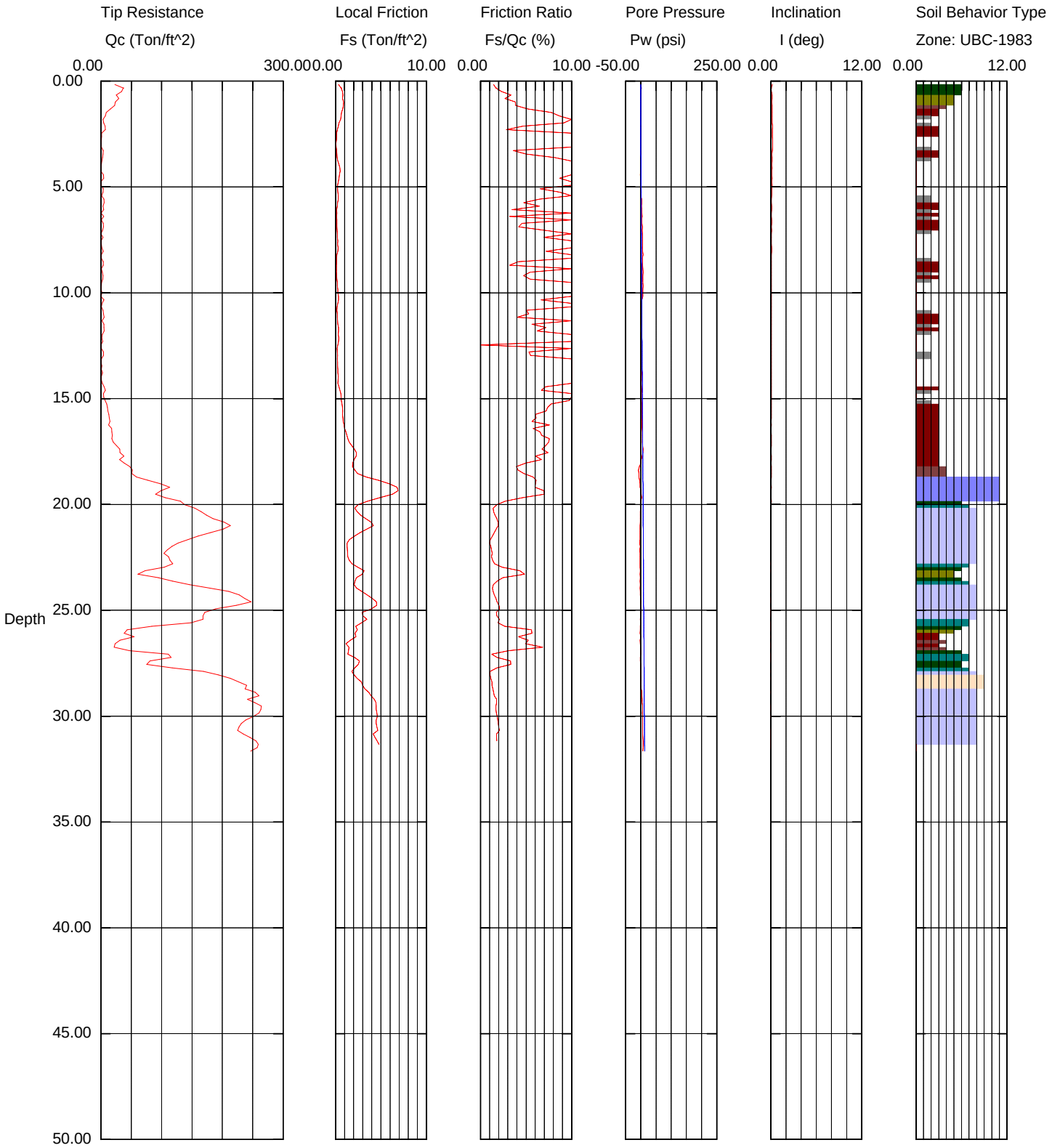
CPT Date/Time: 08-29-02 08:20
Location: BACON IS. PUMP 2
Job Number: IN-DELTA STORAGE



Bureau of Reclamation

Operator: TONY SHANAHAN
Sounding: BSC015
Cone Used: 739

CPT Date/Time: 08-30-02 06:11
Location: BACON IS. BORROW
Job Number: IN-DELTA STORAGE



Maximum Depth = 31.66 feet

Depth Increment = 0.16 feet

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 (*)

E W1 Bureau of Reclamation
W0

Operator :TONY SHANAHAN
On Site Loc:BACON IS. BORROW
Job No. :IN-DELTA STORAGE
Tot. Unit Wt. (avg) : 115 pcf

CPT Date :08-30-02 06:11
Cone Used :739
Water table (feet) : 3.28084

DEPTH (meters)	DEPTH (feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
0.30	1	28.62	0.71	2.49	0.03	sandy silt to clayey silt	UNDFND	UNDFD	11	2.38
0.60	2	10.36	0.66	6.38	0.08	clay	UNDFND	UNDFD	10	.85
0.95	3	2.56	0.15	5.93	0.15	organic material	UNDFND	UNDFD	2	.20
1.25	4	2.02	0.28	13.82	0.20	undefined	UNDFND	UNDFD	UDF	UNDEFINED
1.55	5	2.20	0.36	16.57	0.22	undefined	UNDFND	UNDFD	UDF	UNDEFINED
1.85	6	3.71	0.26	6.92	0.25	clay	UNDFND	UNDFD	4	.28
2.15	7	2.72	0.17	6.29	0.27	organic material	UNDFND	UNDFD	3	.19
2.45	8	1.69	0.25	15.07	0.30	undefined	UNDFND	UNDFD	UDF	UNDEFINED
2.75	9	1.89	0.14	7.59	0.33	organic material	UNDFND	UNDFD	2	.11
3.05	10	1.77	0.22	12.31	0.35	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.35	11	2.51	0.25	10.06	0.38	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.65	12	4.14	0.29	7.09	0.40	clay	UNDFND	UNDFD	4	.28
3.95	13	2.30	0.27	11.86	0.43	undefined	UNDFND	UNDFD	UDF	UNDEFINED
4.25	14	1.13	0.26	23.08	0.46	undefined	UNDFND	UNDFD	UDF	UNDEFINED
4.55	15	4.07	0.45	11.01	0.48	undefined	UNDFND	UNDFD	UDF	UNDEFINED
4.85	16	10.87	0.77	7.10	0.51	clay	UNDFND	UNDFD	10	.83
5.15	17	16.67	1.11	6.63	0.53	clay	UNDFND	UNDFD	16	1.31
5.45	18	29.35	2.01	6.85	0.56	clay	UNDFND	UNDFD	28	2.36
5.75	19	54.02	2.74	5.08	0.59	silty clay to clay	UNDFND	UNDFD	34	4.41
6.05	20	106.06	5.71	5.39	0.61	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
6.40	21	175.96	3.02	1.72	0.64	sand to silty sand	80-90	44-46	42	UNDEFINED
6.70	22	155.01	2.08	1.34	0.67	sand to silty sand	80-90	44-46	37	UNDEFINED
7.00	23	110.05	1.64	1.49	0.69	sand to silty sand	70-80	42-44	26	UNDEFINED
7.35	24	126.05	2.55	2.03	0.72	silty sand to sandy silt	70-80	42-44	40	UNDEFINED
7.65	25	215.71	3.91	1.81	0.75	sand to silty sand	>90	44-46	>50	UNDEFINED
7.95	26	108.21	2.70	2.49	0.77	silty sand to sandy silt	70-80	42-44	35	UNDEFINED
8.25	27	48.17	1.56	3.24	0.80	clayey silt to silty clay	UNDFND	UNDFD	23	3.88
8.55	28	125.11	2.21	1.76	0.83	silty sand to sandy silt	70-80	42-44	40	UNDEFINED
8.85	29	238.52	3.18	1.33	0.85	sand	>90	44-46	46	UNDEFINED
9.15	30	255.37	4.47	1.75	0.88	sand to silty sand	>90	44-46	>50	UNDEFINED
9.45	31	233.59	4.45	1.90	0.90	sand to silty sand	>90	44-46	>50	UNDEFINED

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

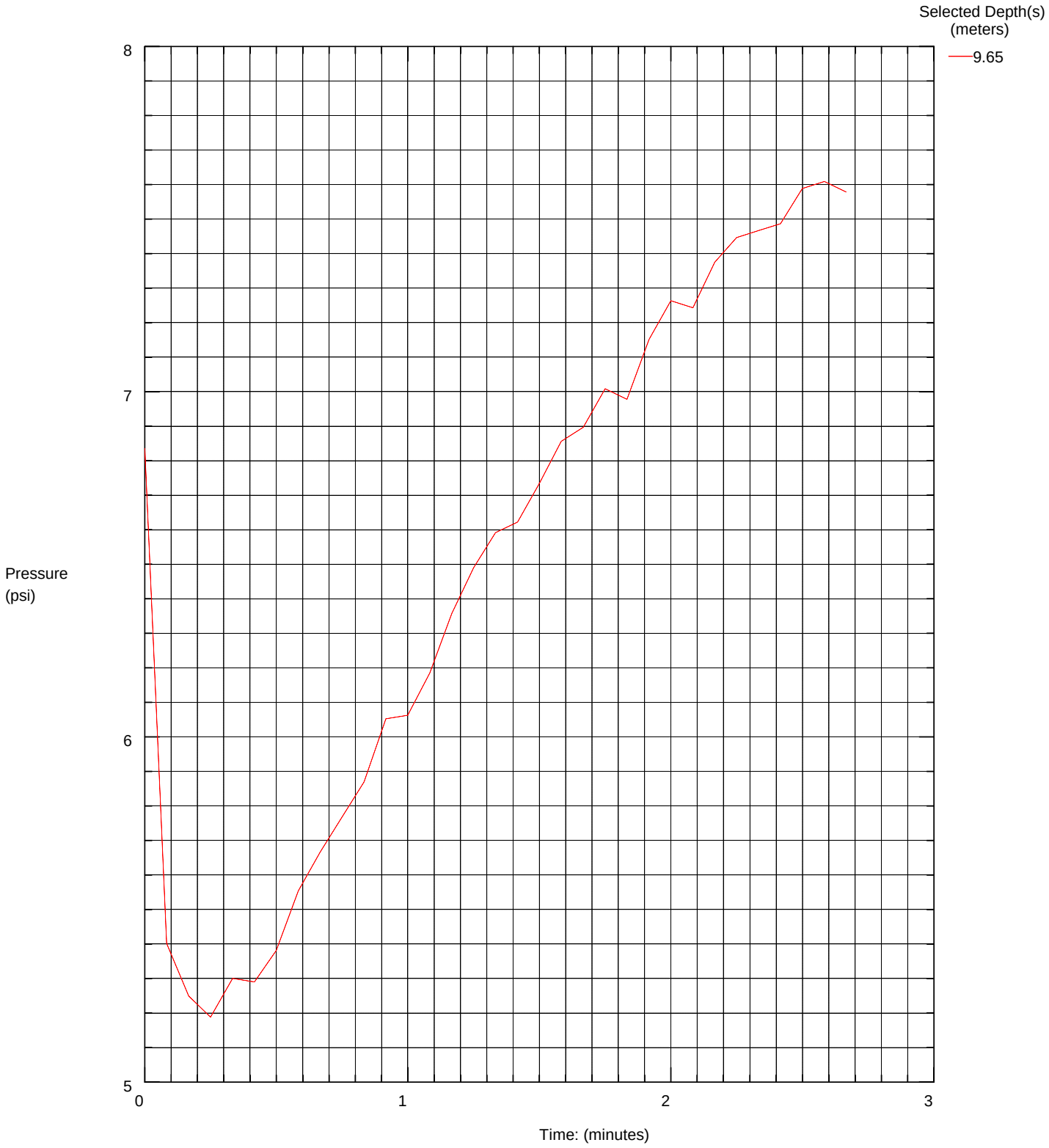
(*) overconsolidated or cemented

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

Bureau of Reclamation

Operator TONY SHANAHAN
Sounding: BSC015
Cone Used: 739

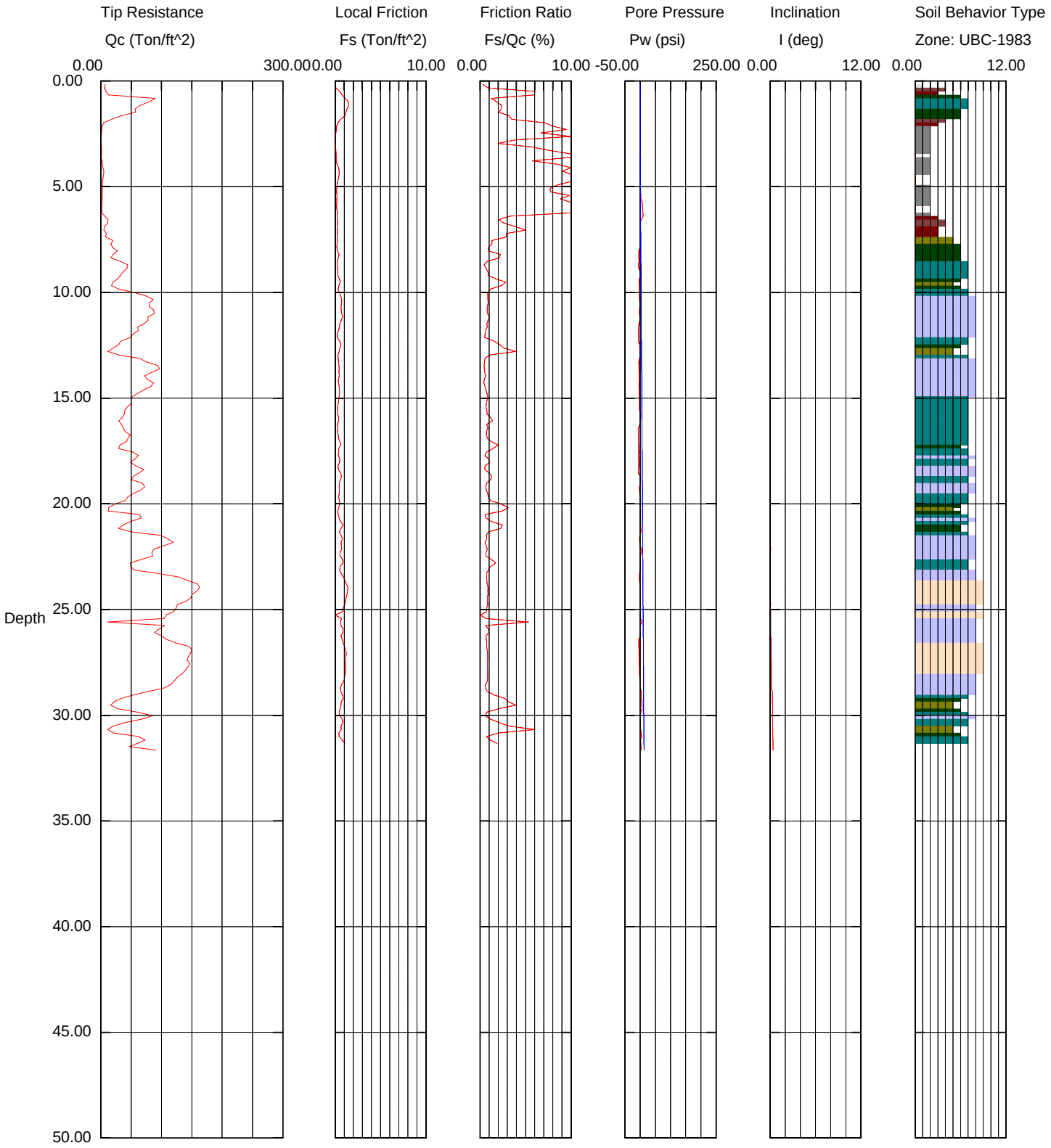
CPT Date/Time: 08-30-02 06:11
Location: BACON IS. BORROW
Job Number: IN-DELTA STORAGE



Bureau of Reclamation

Operator: TONY SHANAHAN
Sounding: BSC016
Cone Used: 739

CPT Date/Time: 08-27-02 08:41
Location: BACON IS. BORROW
Job Number: IN-DELTA STORAGE



Maximum Depth = 31.66 feet

Depth Increment = 0.16 feet

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 (*)

E W1 Bureau of Reclamation
W0

Operator :TONY SHANAHAN
On Site Loc:BACON IS. BORROW
Job No. :IN-DELTA STORAGE
Tot. Unit Wt. (avg) : 115 pcf

CPT Date :08-27-02 08:41
Cone Used :739
Water table (feet) : 3.28084

DEPTH (meters)	DEPTH (feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
0.30	1	33.98	0.65	1.92	0.03	sandy silt to clayey silt	UNDFND	UNDFD	13	2.82
0.60	2	39.10	1.01	2.59	0.08	sandy silt to clayey silt	UNDFND	UNDFD	15	3.25
0.95	3	1.03	0.08	7.37	0.15	undefined	UNDFND	UNDFD	UDF	UNDEFINED
1.25	4	1.81	0.17	9.60	0.20	undefined	UNDFND	UNDFD	UDF	UNDEFINED
1.55	5	3.44	0.33	9.65	0.22	undefined	UNDFND	UNDFD	UDF	UNDEFINED
1.85	6	1.94	0.19	9.87	0.25	undefined	UNDFND	UNDFD	UDF	UNDEFINED
2.15	7	7.06	0.26	3.65	0.27	clay	UNDFND	UNDFD	7	.55
2.45	8	16.75	0.24	1.41	0.30	sandy silt to clayey silt	UNDFND	UNDFD	6	1.35
2.75	9	32.29	0.31	0.96	0.33	silty sand to sandy silt	50-60	40-42	10	UNDEFINED
3.05	10	30.29	0.43	1.41	0.35	sandy silt to clayey silt	UNDFND	UNDFD	12	2.47
3.35	11	82.64	0.69	0.83	0.38	sand to silty sand	70-80	44-46	20	UNDEFINED
3.65	12	66.93	0.53	0.79	0.40	sand to silty sand	60-70	42-44	16	UNDEFINED
3.95	13	28.71	0.45	1.56	0.43	sandy silt to clayey silt	UNDFND	UNDFD	11	2.33
4.25	14	80.92	0.41	0.51	0.46	sand to silty sand	70-80	42-44	19	UNDEFINED
4.55	15	71.71	0.42	0.59	0.48	sand to silty sand	60-70	42-44	17	UNDEFINED
4.85	16	42.86	0.34	0.79	0.51	silty sand to sandy silt	50-60	40-42	14	UNDEFINED
5.15	17	38.99	0.33	0.84	0.53	silty sand to sandy silt	40-50	38-40	12	UNDEFINED
5.45	18	45.50	0.47	1.03	0.56	silty sand to sandy silt	50-60	40-42	15	UNDEFINED
5.75	19	57.41	0.52	0.90	0.59	silty sand to sandy silt	50-60	40-42	18	UNDEFINED
6.05	20	57.30	0.45	0.79	0.61	sand to silty sand	50-60	40-42	14	UNDEFINED
6.40	21	37.90	0.51	1.34	0.64	silty sand to sandy silt	40-50	38-40	12	UNDEFINED
6.70	22	85.75	0.67	0.78	0.67	sand to silty sand	60-70	42-44	21	UNDEFINED
7.00	23	70.11	0.68	0.97	0.69	sand to silty sand	60-70	40-42	17	UNDEFINED
7.35	24	128.73	1.03	0.80	0.72	sand to silty sand	70-80	42-44	31	UNDEFINED
7.65	25	135.00	1.08	0.80	0.75	sand	70-80	42-44	26	UNDEFINED
7.95	26	85.46	0.62	0.73	0.77	sand to silty sand	60-70	40-42	20	UNDEFINED
8.25	27	129.23	0.96	0.74	0.80	sand	70-80	42-44	25	UNDEFINED
8.55	28	141.49	1.16	0.82	0.83	sand	70-80	42-44	27	UNDEFINED
8.85	29	99.58	0.80	0.80	0.85	sand to silty sand	60-70	40-42	24	UNDEFINED
9.15	30	40.78	0.63	1.53	0.88	silty sand to sandy silt	40-50	36-38	13	UNDEFINED
9.45	31	37.23	0.64	1.71	0.90	sandy silt to clayey silt	UNDFND	UNDFD	14	2.95

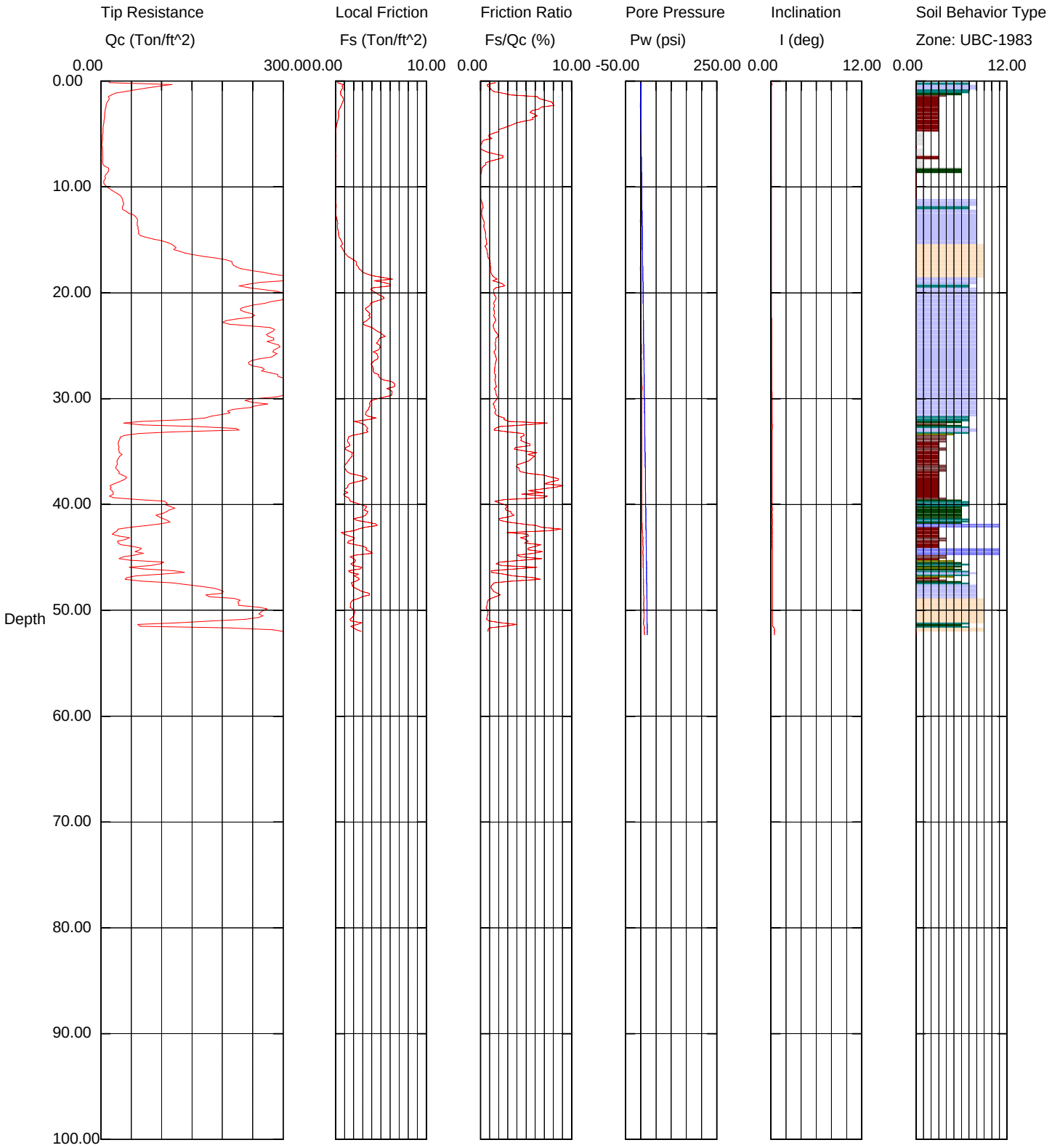
Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

Bureau of Reclamation

Operator: TONY SHANAHAN
Sounding: BSC017
Cone Used: 739

CPT Date/Time: 08-28-02 12:16
Location: BACON IS. BORROW
Job Number: IN-DELTA STORAGE



Maximum Depth = 52.33 feet

Depth Increment = 0.16 feet

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 (*)

E W1 Bureau of Reclamation
W0

Operator :TONY SHANAHAN
On Site Loc:BACON IS. BORROW
Job No. :IN-DELTA STORAGE
Tot. Unit Wt. (avg) : 115 pcf

CPT Date :08-28-02 12:16
Cone Used :739
Water table (feet) : 3.28084

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
0.30	1	66.65	0.65	0.98	0.03	sand to silty sand	>90	>48	16	UNDEFINED
0.60	2	14.93	0.75	5.01	0.08	clay	UNDFND	UNDFD	14	1.23
0.95	3	7.49	0.50	6.72	0.15	clay	UNDFND	UNDFD	7	.61
1.25	4	5.22	0.27	5.13	0.20	clay	UNDFND	UNDFD	5	.41
1.55	5	3.36	0.07	2.05	0.22	clay	UNDFND	UNDFD	3	.25
1.85	6	2.19	0.01	0.52	0.25	sensitive fine grained	UNDFND	UNDFD	1	.15
2.15	7	2.75	0.02	0.91	0.27	sensitive fine grained	UNDFND	UNDFD	1	.19
2.45	8	3.50	0.04	1.04	0.30	sensitive fine grained	UNDFND	UNDFD	2	.25
2.75	9	10.27	0.00	0.01	0.33	sensitive fine grained	UNDFND	UNDFD	5	.81
3.05	10	6.63	-0.02	-0.37	0.35	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.35	11	24.85	-0.03	-0.10	0.38	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.65	12	36.24	0.07	0.18	0.40	sand to silty sand	50-60	40-42	9	UNDEFINED
3.95	13	48.58	0.08	0.16	0.43	sand to silty sand	50-60	40-42	12	UNDEFINED
4.25	14	60.31	0.23	0.38	0.46	sand to silty sand	60-70	42-44	14	UNDEFINED
4.55	15	68.64	0.39	0.57	0.48	sand to silty sand	60-70	42-44	16	UNDEFINED
4.85	16	115.24	0.73	0.63	0.51	sand to silty sand	80-90	44-46	28	UNDEFINED
5.15	17	164.91	1.39	0.84	0.53	sand	>90	44-46	32	UNDEFINED
5.45	18	224.84	2.48	1.10	0.56	sand	>90	46-48	43	UNDEFINED
5.75	19	308.14	4.34	1.41	0.59	sand	>90	46-48	>50	UNDEFINED
6.05	20	254.80	4.92	1.93	0.61	sand to silty sand	>90	46-48	>50	UNDEFINED
6.40	21	299.06	4.69	1.57	0.64	sand to silty sand	>90	46-48	>50	UNDEFINED
6.70	22	239.26	3.59	1.50	0.67	sand to silty sand	>90	46-48	>50	UNDEFINED
7.00	23	223.67	3.45	1.54	0.69	sand to silty sand	>90	44-46	>50	UNDEFINED
7.35	24	274.35	4.55	1.66	0.72	sand to silty sand	>90	46-48	>50	UNDEFINED
7.65	25	285.33	4.77	1.67	0.75	sand to silty sand	>90	46-48	>50	UNDEFINED
7.95	26	285.60	4.59	1.61	0.77	sand to silty sand	>90	46-48	>50	UNDEFINED
8.25	27	251.52	4.18	1.66	0.80	sand to silty sand	>90	44-46	>50	UNDEFINED
8.55	28	282.56	4.49	1.59	0.83	sand to silty sand	>90	46-48	>50	UNDEFINED
8.85	29	370.75	6.08	1.64	0.85	sand to silty sand	>90	46-48	>50	UNDEFINED
9.15	30	331.99	5.77	1.74	0.88	sand to silty sand	>90	46-48	>50	UNDEFINED
9.45	31	246.44	3.78	1.53	0.90	sand to silty sand	>90	44-46	>50	UNDEFINED
9.75	32	185.79	3.63	1.95	0.93	silty sand to sandy silt	80-90	44-46	>50	UNDEFINED
10.05	33	129.95	3.07	2.36	0.96	silty sand to sandy silt	70-80	42-44	41	UNDEFINED
10.35	34	51.88	2.08	4.02	0.98	clayey silt to silty clay	UNDFND	UNDFD	25	4.16
10.65	35	29.16	1.36	4.67	1.01	clay	UNDFND	UNDFD	28	2.26
10.95	36	29.99	1.69	5.62	1.03	clay	UNDFND	UNDFD	29	2.32
11.25	37	26.66	1.13	4.25	1.06	silty clay to clay	UNDFND	UNDFD	17	2.04
11.55	38	35.48	2.67	7.53	1.09	clay	UNDFND	UNDFD	34	2.77

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

W0
Operator :TONY SHANAHAN On Site Loc:BACON IS. BORROW Page No. 2

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
11.85	39	17.94	1.27	7.10	1.11	clay	UNDFND	UNDFD	17	1.31
12.15	40	54.89	1.49	2.72	1.14	sandy silt to clayey silt	UNDFND	UNDFD	21	4.38
12.45	41	110.63	3.29	2.98	1.16	sandy silt to clayey silt	UNDFND	UNDFD	42	9.02
12.80	42	97.69	3.32	3.39	1.19	sandy silt to clayey silt	UNDFND	UNDFD	37	7.94
13.10	43	28.98	1.82	6.28	1.22	clay	UNDFND	UNDFD	28	2.21
13.40	44	37.62	2.02	5.36	1.24	clay	UNDFND	UNDFD	36	2.92
13.75	45	54.06	2.93	5.43	1.27	clay	UNDFND	UNDFD	>50	4.29
14.05	46	74.43	2.27	3.05	1.30	sandy silt to clayey silt	UNDFND	UNDFD	29	5.98
14.35	47	82.73	2.13	2.57	1.33	sandy silt to clayey silt	UNDFND	UNDFD	32	6.67
14.65	48	145.05	2.09	1.44	1.35	sand to silty sand	70-80	40-42	35	UNDEFINED
14.95	49	200.08	2.95	1.48	1.38	sand to silty sand	80-90	42-44	48	UNDEFINED
15.25	50	246.53	1.78	0.72	1.40	sand	80-90	42-44	47	UNDEFINED
15.55	51	245.15	1.89	0.77	1.43	sand	80-90	42-44	47	UNDEFINED
15.85	52	181.23	2.37	1.31	1.46	sand to silty sand	70-80	40-42	43	UNDEFINED

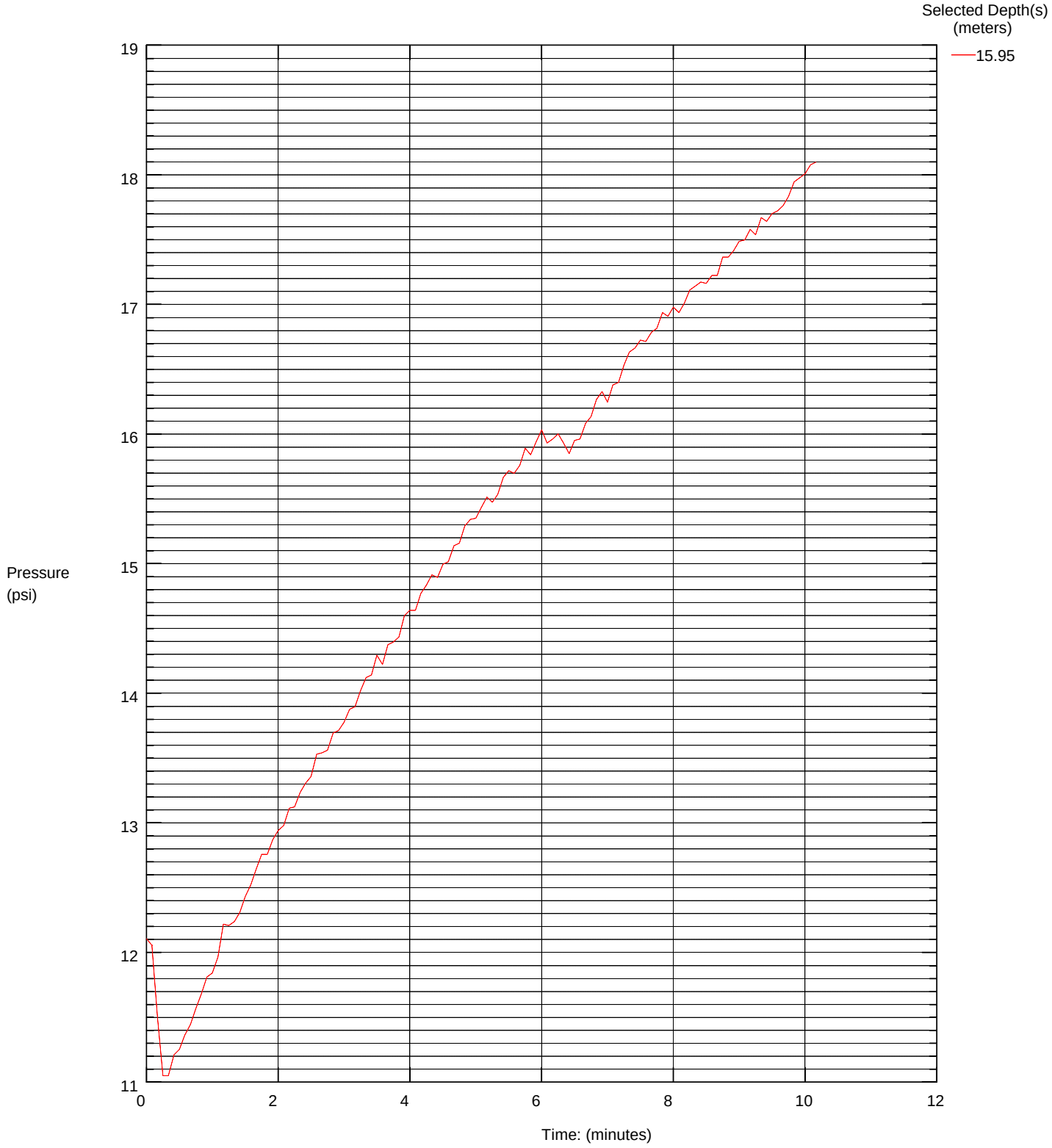
Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

Bureau of Reclamation

Operator TONY SHANAHAN
Sounding: BSC017
Cone Used: 739

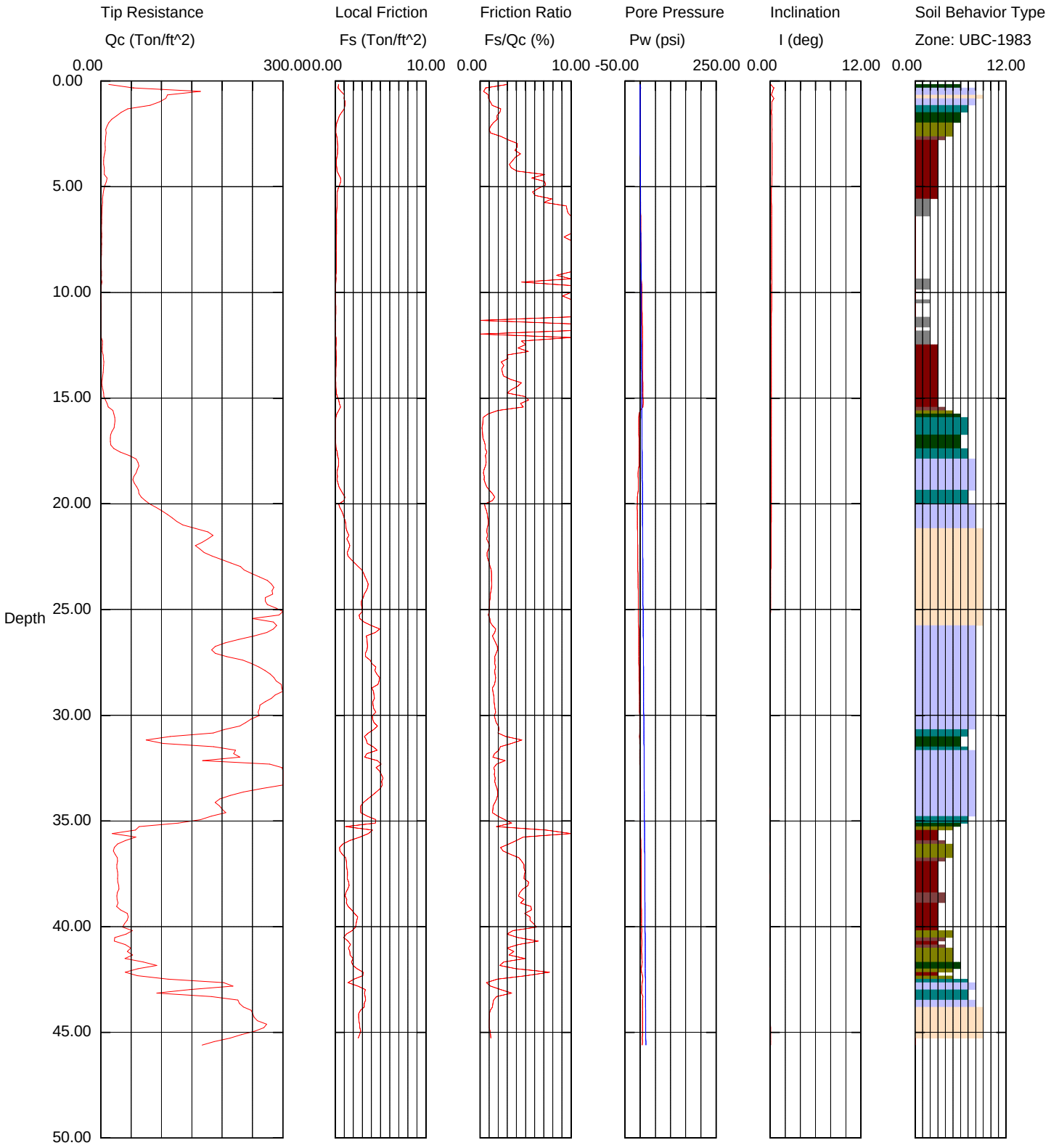
CPT Date/Time: 08-28-02 12:16
Location: BACON IS. BORROW
Job Number: IN-DELTA STORAGE



Bureau of Reclamation

Operator: TONY SHANAHAN
Sounding: BSC018
Cone Used: 739

CPT Date/Time: 08-27-02 14:19
Location: BACON IS. BORROW
Job Number: IN-DELTA STORAGE



Maximum Depth = 45.60 feet

Depth Increment = 0.16 feet

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 (*)

E W1 Bureau of Reclamation
W0

Operator :TONY SHANAHAN CPT Date :08-27-02 14:19
On Site Loc:BACON IS. BORROW Cone Used :739
Job No. :IN-DELTA STORAGE Water table (feet) : 3.28084
Tot. Unit Wt. (avg) : 115 pcf

DEPTH (meters)	DEPTH (feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
0.30	1	90.70	0.75	0.82	0.03	sand to silty sand	>90	>48	22	UNDEFINED
0.60	2	35.96	0.64	1.78	0.08	sandy silt to clayey silt	UNDFND	UNDFD	14	2.98
0.95	3	8.10	0.19	2.30	0.15	silty clay to clay	UNDFND	UNDFD	5	.66
1.25	4	5.49	0.21	3.75	0.20	clay	UNDFND	UNDFD	5	.43
1.55	5	7.17	0.45	6.28	0.22	clay	UNDFND	UNDFD	7	.57
1.85	6	2.99	0.22	7.27	0.25	organic material	UNDFND	UNDFD	3	.22
2.15	7	1.46	0.17	11.41	0.27	undefined	UNDFND	UNDFD	UDF	UNDEFINED
2.45	8	1.30	0.14	10.89	0.30	undefined	UNDFND	UNDFD	UDF	UNDEFINED
2.75	9	0.91	0.14	15.25	0.33	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.05	10	0.84	0.08	9.21	0.35	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.35	11	0.53	0.08	14.61	0.38	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.65	12	0.34	0.02	7.17	0.40	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.95	13	2.30	0.11	4.88	0.43	clay	UNDFND	UNDFD	2	.13
4.25	14	4.06	0.10	2.57	0.46	clay	UNDFND	UNDFD	4	.27
4.55	15	3.24	0.13	3.88	0.48	clay	UNDFND	UNDFD	3	.20
4.85	16	15.77	0.36	2.25	0.51	clayey silt to silty clay	UNDFND	UNDFD	8	1.24
5.15	17	19.60	0.06	0.28	0.53	silty sand to sandy silt	<40	36-38	6	UNDEFINED
5.45	18	31.63	0.20	0.62	0.56	silty sand to sandy silt	40-50	38-40	10	UNDEFINED
5.75	19	58.24	0.29	0.50	0.59	sand to silty sand	50-60	40-42	14	UNDEFINED
6.05	20	63.11	0.71	1.13	0.61	silty sand to sandy silt	60-70	40-42	20	UNDEFINED
6.40	21	108.78	0.83	0.77	0.64	sand to silty sand	70-80	42-44	26	UNDEFINED
6.70	22	169.35	1.41	0.83	0.67	sand	80-90	44-46	32	UNDEFINED
7.00	23	193.45	1.79	0.92	0.69	sand	>90	44-46	37	UNDEFINED
7.35	24	266.94	3.37	1.26	0.72	sand	>90	46-48	>50	UNDEFINED
7.65	25	281.72	3.01	1.07	0.75	sand	>90	46-48	>50	UNDEFINED
7.95	26	279.16	3.64	1.30	0.77	sand	>90	46-48	>50	UNDEFINED
8.25	27	207.43	3.47	1.68	0.80	sand to silty sand	>90	44-46	50	UNDEFINED
8.55	28	249.90	4.12	1.65	0.83	sand to silty sand	>90	44-46	>50	UNDEFINED
8.85	29	292.80	4.50	1.54	0.85	sand to silty sand	>90	46-48	>50	UNDEFINED
9.15	30	265.95	4.25	1.60	0.88	sand to silty sand	>90	44-46	>50	UNDEFINED
9.45	31	203.11	4.03	1.99	0.90	sand to silty sand	80-90	44-46	49	UNDEFINED
9.75	32	172.14	3.75	2.18	0.93	silty sand to sandy silt	80-90	42-44	>50	UNDEFINED
10.05	33	281.01	4.92	1.75	0.96	sand to silty sand	>90	44-46	>50	UNDEFINED
10.35	34	254.27	4.57	1.80	0.98	sand to silty sand	>90	44-46	>50	UNDEFINED
10.65	35	189.50	3.27	1.73	1.01	sand to silty sand	80-90	42-44	45	UNDEFINED
10.95	36	60.72	2.96	4.87	1.03	silty clay to clay	UNDFND	UNDFD	39	4.89
11.25	37	24.72	0.85	3.44	1.06	clayey silt to silty clay	UNDFND	UNDFD	12	1.88
11.55	38	27.32	1.35	4.95	1.09	clay	UNDFND	UNDFD	26	2.09

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

E W1 Bureau of Reclamation
W0

Operator :TONY SHANAHAN On Site Loc:BACON IS. BORROW Page No. 2

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
11.85	39	27.96	1.30	4.65	1.11	clay	UNDFND	UNDFD	27	2.14
12.15	40	38.27	2.10	5.48	1.14	clay	UNDFND	UNDFD	37	3.00
12.45	41	35.82	1.57	4.39	1.16	silty clay to clay	UNDFND	UNDFD	23	2.79
12.80	42	58.33	1.84	3.16	1.19	sandy silt to clayey silt	UNDFND	UNDFD	22	4.66
13.10	43	129.56	2.58	1.99	1.22	silty sand to sandy silt	70-80	40-42	41	UNDEFINED
13.40	44	201.86	3.18	1.58	1.24	sand to silty sand	80-90	42-44	48	UNDEFINED
13.75	45	255.41	2.68	1.05	1.27	sand	>90	44-46	49	UNDEFINED

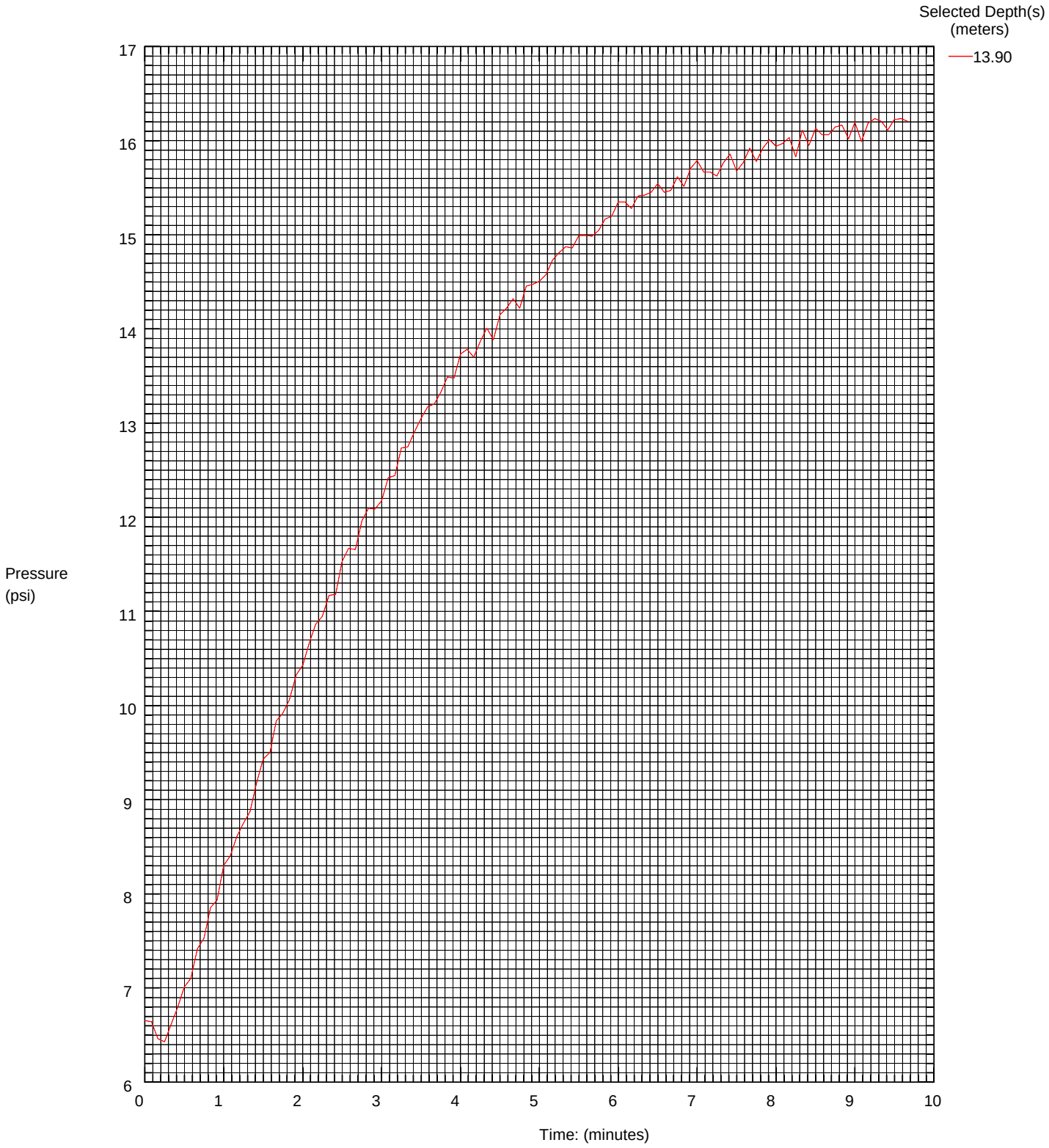
Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

Bureau of Reclamation

Operator TONY SHANAHAN
Sounding: BSC018
Cone Used: 739

CPT Date/Time: 08-27-02 14:19
Location: BACON IS. BORROW
Job Number: IN-DELTA STORAGE

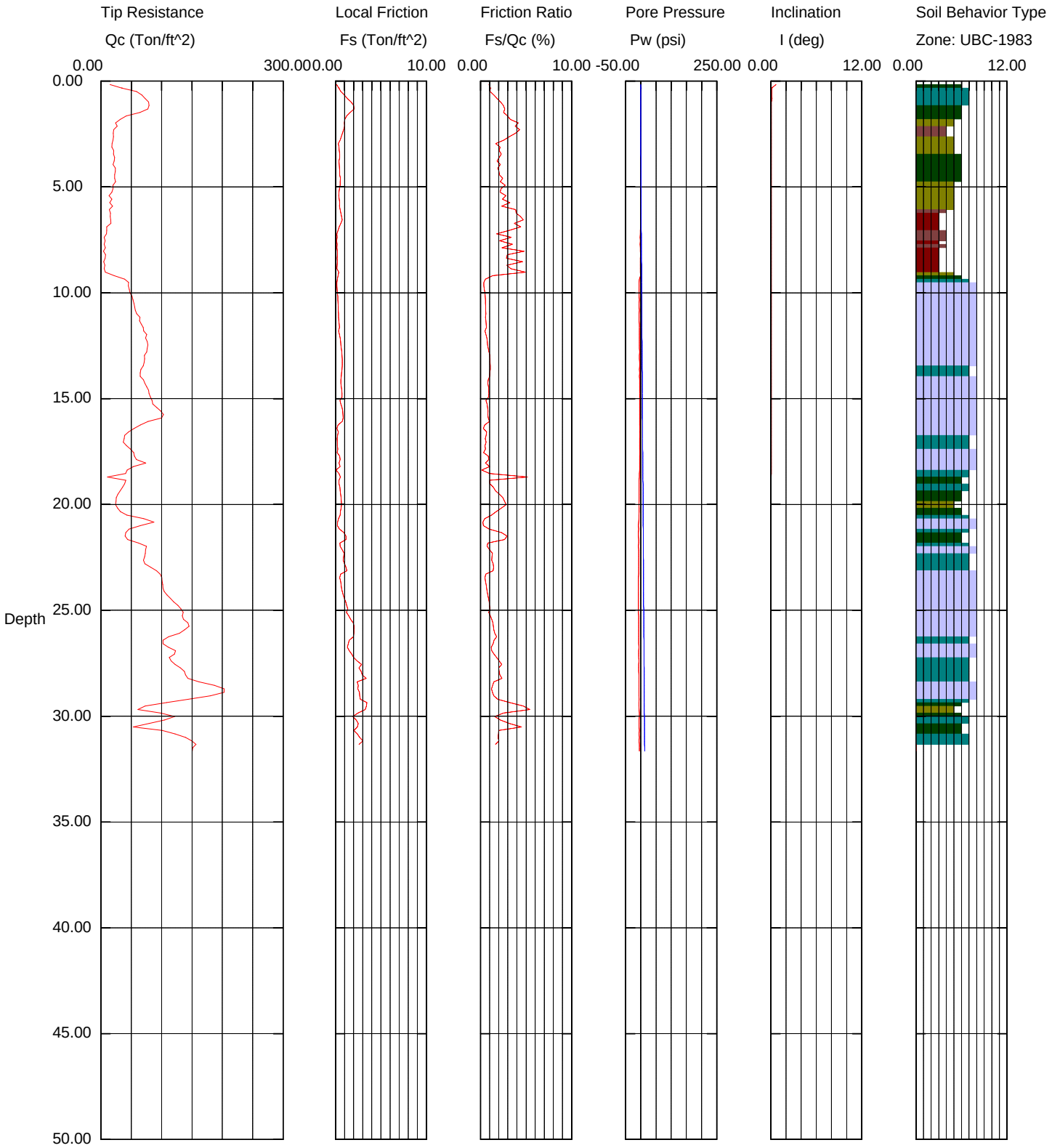


Webb Tract CPT Logs and Data

Bureau of Reclamation

Operator: TONY SHANAHAN
Sounding: WTSC01
Cone Used: 739

CPT Date/Time: 08-31-02 08:12
Location: WEBB TRACT BORRW
Job Number: IN-DELTA STORAGE



Maximum Depth = 31.66 feet

Depth Increment = 0.16 feet

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 (*)

E W1 Bureau of Reclamation
W0

Operator :TONY SHANAHAN
On Site Loc:WEBB TRACT BORRW
Job No. :IN-DELTA STORAGE
Tot. Unit Wt. (avg) : 115 pcf

CPT Date :08-31-02 08:12
Cone Used :739
Water table (feet) : 3.28084

DEPTH (meters)	DEPTH (feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
0.30	1	54.38	0.86	1.59	0.03	silty sand to sandy silt	>90	>48	17	UNDEFINED
0.60	2	53.06	1.49	2.82	0.08	sandy silt to clayey silt	UNDFND	UNDFD	20	4.41
0.95	3	20.76	0.65	3.15	0.15	clayey silt to silty clay	UNDFND	UNDFD	10	1.71
1.25	4	21.53	0.44	2.04	0.20	sandy silt to clayey silt	UNDFND	UNDFD	8	1.77
1.55	5	22.12	0.50	2.27	0.22	clayey silt to silty clay	UNDFND	UNDFD	11	1.82
1.85	6	16.05	0.44	2.73	0.25	clayey silt to silty clay	UNDFND	UNDFD	8	1.31
2.15	7	13.75	0.56	4.09	0.27	clay	UNDFND	UNDFD	13	1.11
2.45	8	6.36	0.17	2.75	0.30	clay	UNDFND	UNDFD	6	.49
2.75	9	6.35	0.23	3.55	0.33	clay	UNDFND	UNDFD	6	.48
3.05	10	41.06	0.21	0.52	0.35	silty sand to sandy silt	50-60	40-42	13	UNDEFINED
3.35	11	54.97	0.31	0.56	0.38	sand to silty sand	60-70	42-44	13	UNDEFINED
3.65	12	68.30	0.40	0.58	0.40	sand to silty sand	60-70	42-44	16	UNDEFINED
3.95	13	75.02	0.63	0.84	0.43	sand to silty sand	70-80	42-44	18	UNDEFINED
4.25	14	68.04	0.72	1.05	0.46	silty sand to sandy silt	60-70	42-44	22	UNDEFINED
4.55	15	76.07	0.66	0.87	0.48	sand to silty sand	60-70	42-44	18	UNDEFINED
4.85	16	93.79	0.72	0.77	0.51	sand to silty sand	70-80	42-44	22	UNDEFINED
5.15	17	53.34	0.33	0.63	0.53	sand to silty sand	50-60	40-42	13	UNDEFINED
5.45	18	49.13	0.32	0.64	0.56	silty sand to sandy silt	50-60	40-42	16	UNDEFINED
5.75	19	43.77	0.40	0.90	0.59	silty sand to sandy silt	50-60	38-40	14	UNDEFINED
6.05	20	30.76	0.55	1.79	0.61	sandy silt to clayey silt	UNDFND	UNDFD	12	2.47
6.40	21	49.84	0.45	0.90	0.64	silty sand to sandy silt	50-60	38-40	16	UNDEFINED
6.70	22	51.37	0.79	1.54	0.67	silty sand to sandy silt	50-60	38-40	16	UNDEFINED
7.00	23	73.70	0.94	1.28	0.69	silty sand to sandy silt	60-70	40-42	24	UNDEFINED
7.35	24	99.73	0.71	0.71	0.72	sand to silty sand	70-80	42-44	24	UNDEFINED
7.65	25	122.88	1.14	0.93	0.75	sand to silty sand	70-80	42-44	29	UNDEFINED
7.95	26	137.53	1.87	1.36	0.77	sand to silty sand	70-80	42-44	33	UNDEFINED
8.25	27	111.73	1.59	1.42	0.80	sand to silty sand	70-80	42-44	27	UNDEFINED
8.55	28	126.26	2.60	2.06	0.83	silty sand to sandy silt	70-80	42-44	40	UNDEFINED
8.85	29	179.57	2.68	1.49	0.85	sand to silty sand	80-90	44-46	43	UNDEFINED
9.15	30	100.71	2.88	2.86	0.88	sandy silt to clayey silt	UNDFND	UNDFD	39	8.25
9.45	31	99.97	2.39	2.39	0.90	silty sand to sandy silt	60-70	40-42	32	UNDEFINED

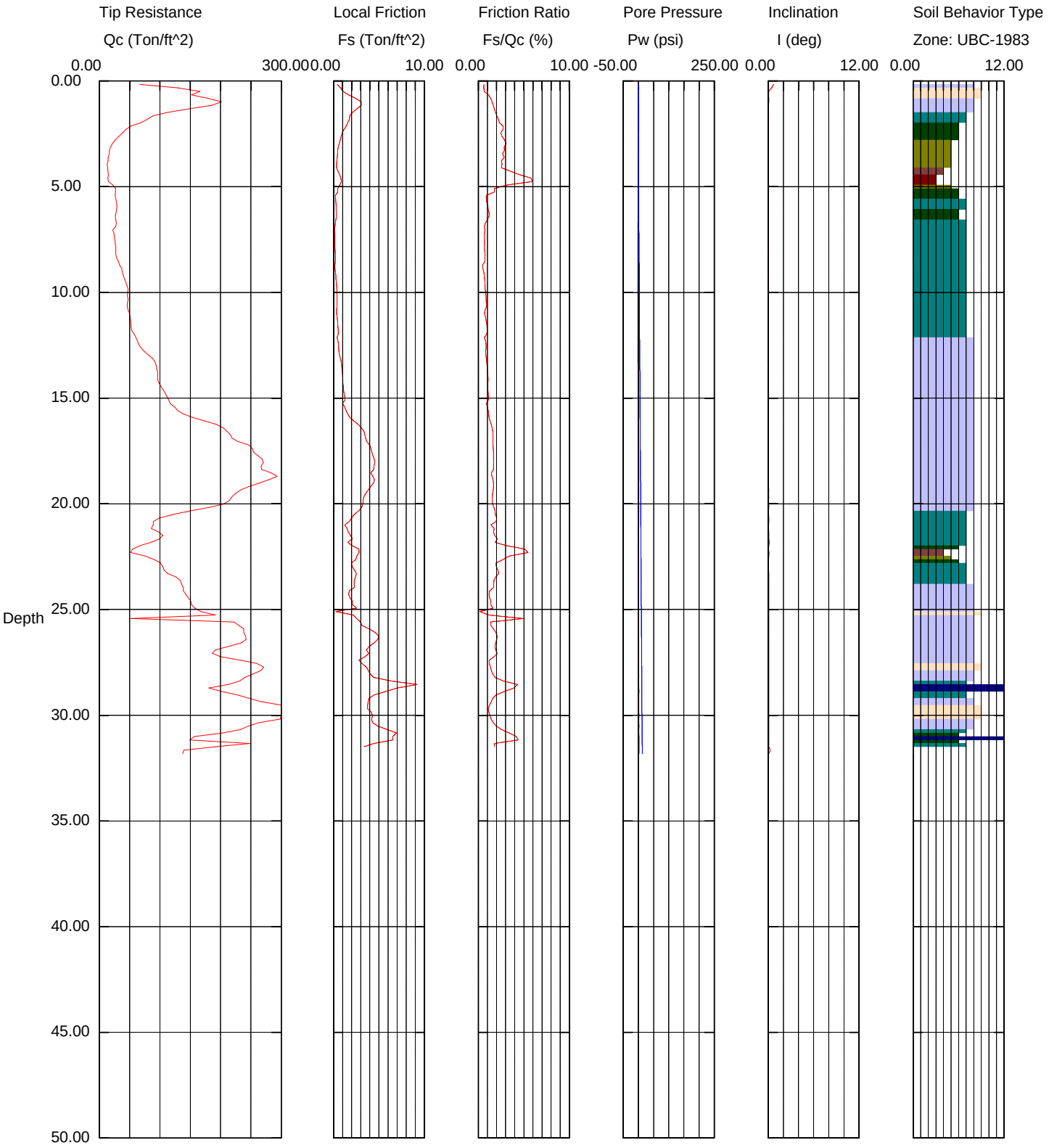
Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

Bureau of Reclamation

Operator: TONY SHANAHAN
Sounding: WTSC02
Cone Used: 739

CPT Date/Time: 08-31-02 11:19
Location: WEBB TRACT BORRW
Job Number: IN-DELTA STORAGE



Maximum Depth = 31.82 feet

Depth Increment = 0.16 feet

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 (*)

E W1 Bureau of Reclamation
W0

Operator :TONY SHANAHAN
On Site Loc:WEBB TRACT BORRW
Job No. :IN-DELTA STORAGE
Tot. Unit Wt. (avg) : 115 pcf

CPT Date :08-31-02 11:19
Cone Used :739
Water table (feet) : 3.28084

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
0.30	1	149.15	1.57	1.05	0.03	sand to silty sand	>90	>48	36	UNDEFINED
0.60	2	113.77	2.15	1.89	0.08	silty sand to sandy silt	>90	>48	36	UNDEFINED
0.95	3	33.33	0.91	2.72	0.15	sandy silt to clayey silt	UNDFND	UNDFD	13	2.76
1.25	4	14.76	0.40	2.69	0.20	clayey silt to silty clay	UNDFND	UNDFD	7	1.21
1.55	5	17.78	0.67	3.78	0.22	silty clay to clay	UNDFND	UNDFD	11	1.46
1.85	6	27.52	0.30	1.10	0.25	sandy silt to clayey silt	UNDFND	UNDFD	11	2.26
2.15	7	26.40	0.24	0.92	0.27	silty sand to sandy silt	40-50	40-42	8	UNDEFINED
2.45	8	25.90	0.17	0.67	0.30	silty sand to sandy silt	40-50	40-42	8	UNDEFINED
2.75	9	32.42	0.20	0.62	0.33	silty sand to sandy silt	50-60	40-42	10	UNDEFINED
3.05	10	44.01	0.32	0.74	0.35	silty sand to sandy silt	50-60	40-42	14	UNDEFINED
3.35	11	47.13	0.38	0.81	0.38	silty sand to sandy silt	50-60	40-42	15	UNDEFINED
3.65	12	52.91	0.48	0.90	0.40	silty sand to sandy silt	60-70	42-44	17	UNDEFINED
3.95	13	68.76	0.55	0.80	0.43	sand to silty sand	60-70	42-44	16	UNDEFINED
4.25	14	93.36	0.91	0.97	0.46	sand to silty sand	70-80	44-46	22	UNDEFINED
4.55	15	103.55	1.12	1.08	0.48	sand to silty sand	70-80	44-46	25	UNDEFINED
4.85	16	129.48	1.38	1.07	0.51	sand to silty sand	80-90	44-46	31	UNDEFINED
5.15	17	202.67	3.07	1.51	0.53	sand to silty sand	>90	46-48	49	UNDEFINED
5.45	18	251.88	4.14	1.64	0.56	sand to silty sand	>90	46-48	>50	UNDEFINED
5.75	19	276.74	4.40	1.59	0.59	sand to silty sand	>90	46-48	>50	UNDEFINED
6.05	20	233.18	3.74	1.60	0.61	sand to silty sand	>90	46-48	>50	UNDEFINED
6.40	21	133.15	2.34	1.76	0.64	silty sand to sandy silt	80-90	44-46	43	UNDEFINED
6.70	22	89.81	1.79	1.99	0.67	silty sand to sandy silt	60-70	42-44	29	UNDEFINED
7.00	23	79.66	2.45	3.08	0.69	sandy silt to clayey silt	UNDFND	UNDFD	31	6.53
7.35	24	127.31	2.27	1.78	0.72	silty sand to sandy silt	70-80	42-44	41	UNDEFINED
7.65	25	152.78	1.74	1.14	0.75	sand to silty sand	80-90	44-46	37	UNDEFINED
7.95	26	195.28	3.23	1.66	0.77	sand to silty sand	80-90	44-46	47	UNDEFINED
8.25	27	218.00	4.30	1.97	0.80	sand to silty sand	>90	44-46	>50	UNDEFINED
8.55	28	246.92	3.50	1.42	0.83	sand to silty sand	>90	44-46	>50	UNDEFINED
8.85	29	215.55	6.21	2.88	0.85	silty sand to sandy silt	>90	44-46	>50	UNDEFINED
9.15	30	309.43	3.95	1.28	0.88	sand	>90	46-48	>50	UNDEFINED
9.45	31	233.54	5.45	2.34	0.90	silty sand to sandy silt	>90	44-46	>50	UNDEFINED

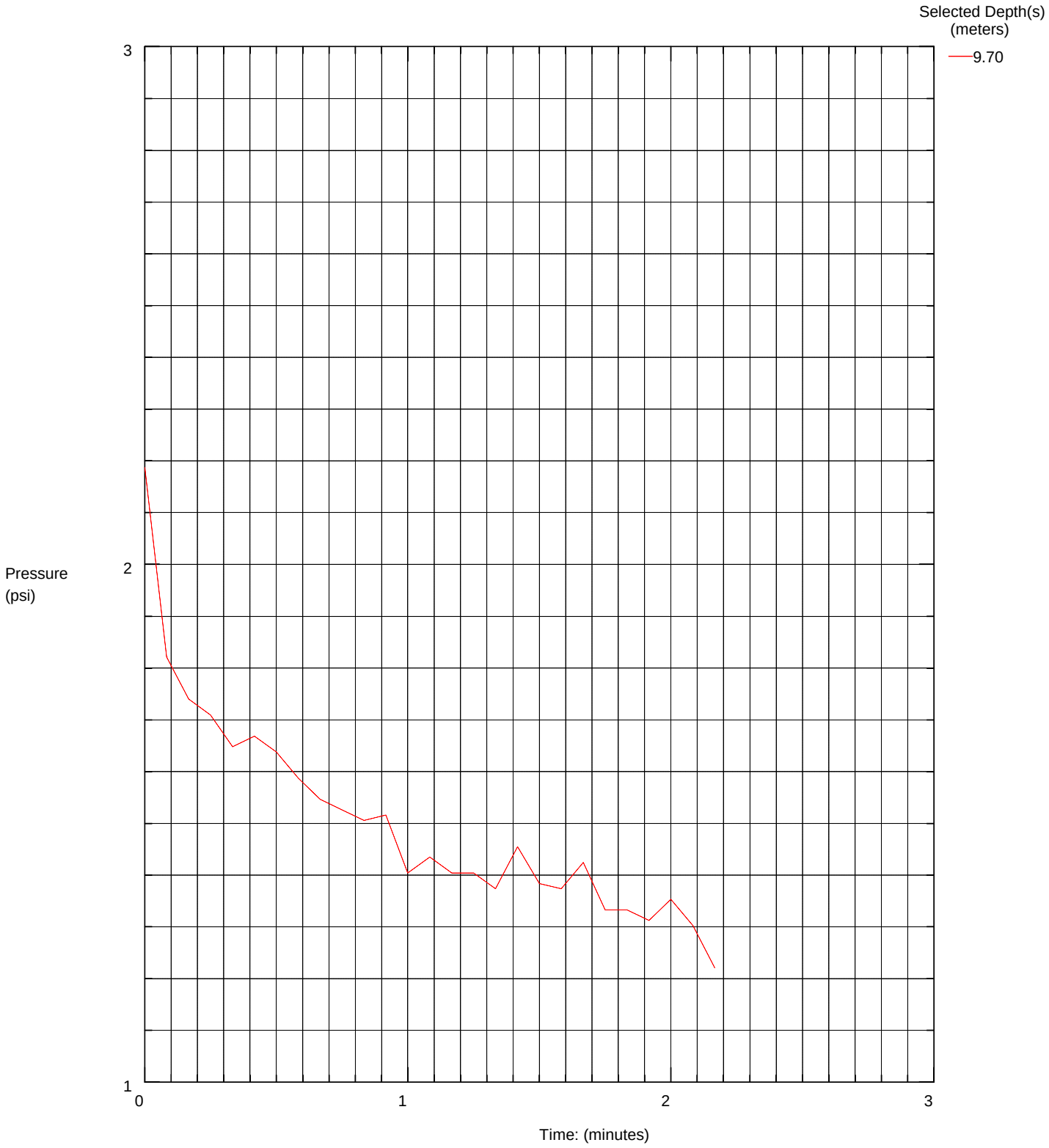
Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

Bureau of Reclamation

Operator TONY SHANAHAN
Sounding: WTSC02
Cone Used: 739

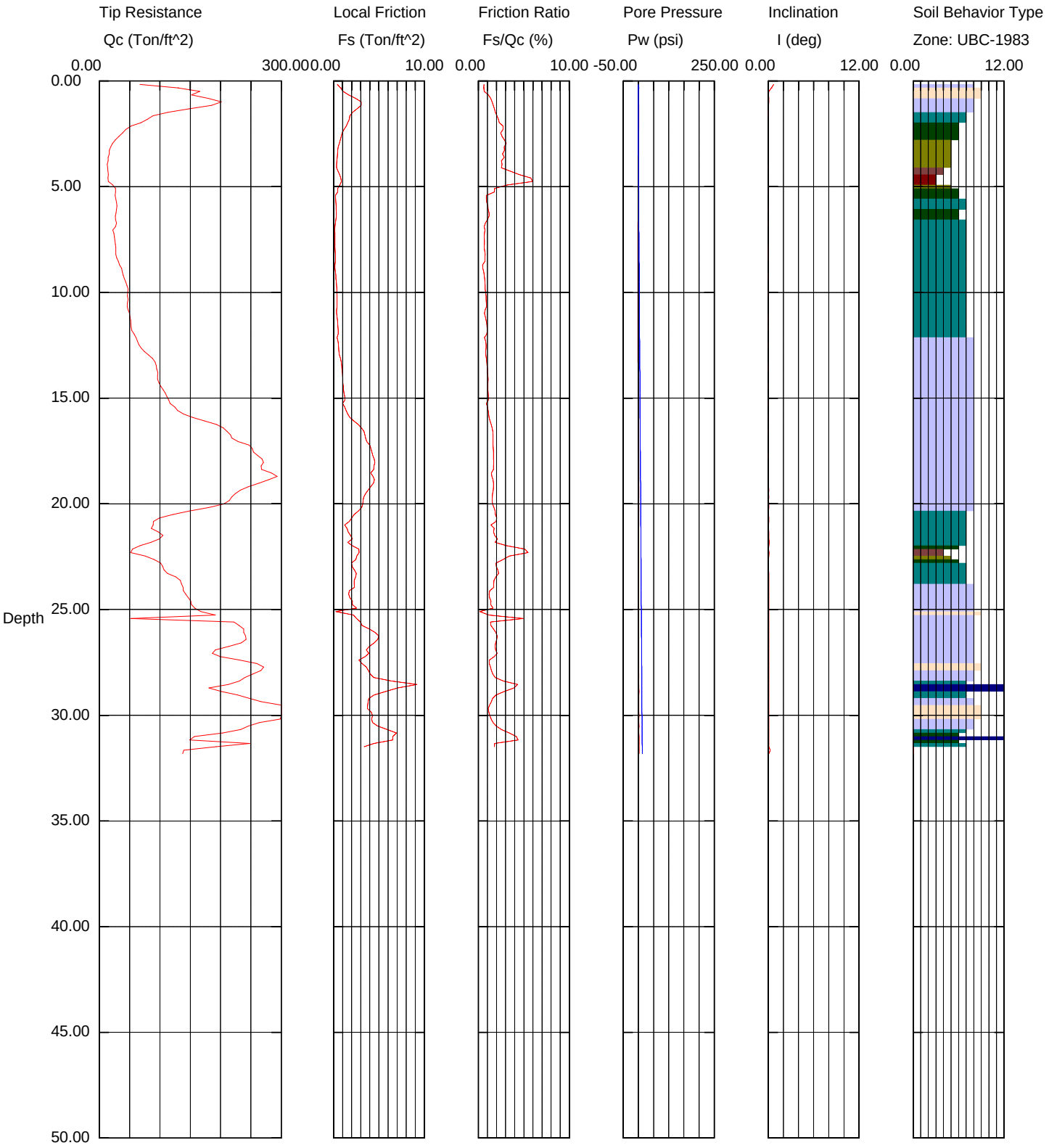
CPT Date/Time: 08-31-02 11:19
Location: WEBB TRACT BORRW
Job Number: IN-DELTA STORAGE



Bureau of Reclamation

Operator: TONY SHANAHAN
Sounding: WTSC02
Cone Used: 739

CPT Date/Time: 08-31-02 11:19
Location: WEBB TRACT BORRW
Job Number: IN-DELTA STORAGE



Maximum Depth = 31.82 feet

Depth Increment = 0.16 feet

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 (*)

E W1 Bureau of Reclamation
W0

Operator :TONY SHANAHAN
On Site Loc:WEBB TRACT BORRW
Job No. :IN-DELTA STORAGE
Tot. Unit Wt. (avg) : 115 pcf

CPT Date :08-31-02 11:19
Cone Used :739
Water table (feet) : 3.28084

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
0.30	1	149.15	1.57	1.05	0.03	sand to silty sand	>90	>48	36	UNDEFINED
0.60	2	113.77	2.15	1.89	0.08	silty sand to sandy silt	>90	>48	36	UNDEFINED
0.95	3	33.33	0.91	2.72	0.15	sandy silt to clayey silt	UNDFND	UNDFD	13	2.76
1.25	4	14.76	0.40	2.69	0.20	clayey silt to silty clay	UNDFND	UNDFD	7	1.21
1.55	5	17.78	0.67	3.78	0.22	silty clay to clay	UNDFND	UNDFD	11	1.46
1.85	6	27.52	0.30	1.10	0.25	sandy silt to clayey silt	UNDFND	UNDFD	11	2.26
2.15	7	26.40	0.24	0.92	0.27	silty sand to sandy silt	40-50	40-42	8	UNDEFINED
2.45	8	25.90	0.17	0.67	0.30	silty sand to sandy silt	40-50	40-42	8	UNDEFINED
2.75	9	32.42	0.20	0.62	0.33	silty sand to sandy silt	50-60	40-42	10	UNDEFINED
3.05	10	44.01	0.32	0.74	0.35	silty sand to sandy silt	50-60	40-42	14	UNDEFINED
3.35	11	47.13	0.38	0.81	0.38	silty sand to sandy silt	50-60	40-42	15	UNDEFINED
3.65	12	52.91	0.48	0.90	0.40	silty sand to sandy silt	60-70	42-44	17	UNDEFINED
3.95	13	68.76	0.55	0.80	0.43	sand to silty sand	60-70	42-44	16	UNDEFINED
4.25	14	93.36	0.91	0.97	0.46	sand to silty sand	70-80	44-46	22	UNDEFINED
4.55	15	103.55	1.12	1.08	0.48	sand to silty sand	70-80	44-46	25	UNDEFINED
4.85	16	129.48	1.38	1.07	0.51	sand to silty sand	80-90	44-46	31	UNDEFINED
5.15	17	202.67	3.07	1.51	0.53	sand to silty sand	>90	46-48	49	UNDEFINED
5.45	18	251.88	4.14	1.64	0.56	sand to silty sand	>90	46-48	>50	UNDEFINED
5.75	19	276.74	4.40	1.59	0.59	sand to silty sand	>90	46-48	>50	UNDEFINED
6.05	20	233.18	3.74	1.60	0.61	sand to silty sand	>90	46-48	>50	UNDEFINED
6.40	21	133.15	2.34	1.76	0.64	silty sand to sandy silt	80-90	44-46	43	UNDEFINED
6.70	22	89.81	1.79	1.99	0.67	silty sand to sandy silt	60-70	42-44	29	UNDEFINED
7.00	23	79.66	2.45	3.08	0.69	sandy silt to clayey silt	UNDFND	UNDFD	31	6.53
7.35	24	127.31	2.27	1.78	0.72	silty sand to sandy silt	70-80	42-44	41	UNDEFINED
7.65	25	152.78	1.74	1.14	0.75	sand to silty sand	80-90	44-46	37	UNDEFINED
7.95	26	195.28	3.23	1.66	0.77	sand to silty sand	80-90	44-46	47	UNDEFINED
8.25	27	218.00	4.30	1.97	0.80	sand to silty sand	>90	44-46	>50	UNDEFINED
8.55	28	246.92	3.50	1.42	0.83	sand to silty sand	>90	44-46	>50	UNDEFINED
8.85	29	215.55	6.21	2.88	0.85	silty sand to sandy silt	>90	44-46	>50	UNDEFINED
9.15	30	309.43	3.95	1.28	0.88	sand	>90	46-48	>50	UNDEFINED
9.45	31	233.54	5.45	2.34	0.90	silty sand to sandy silt	>90	44-46	>50	UNDEFINED

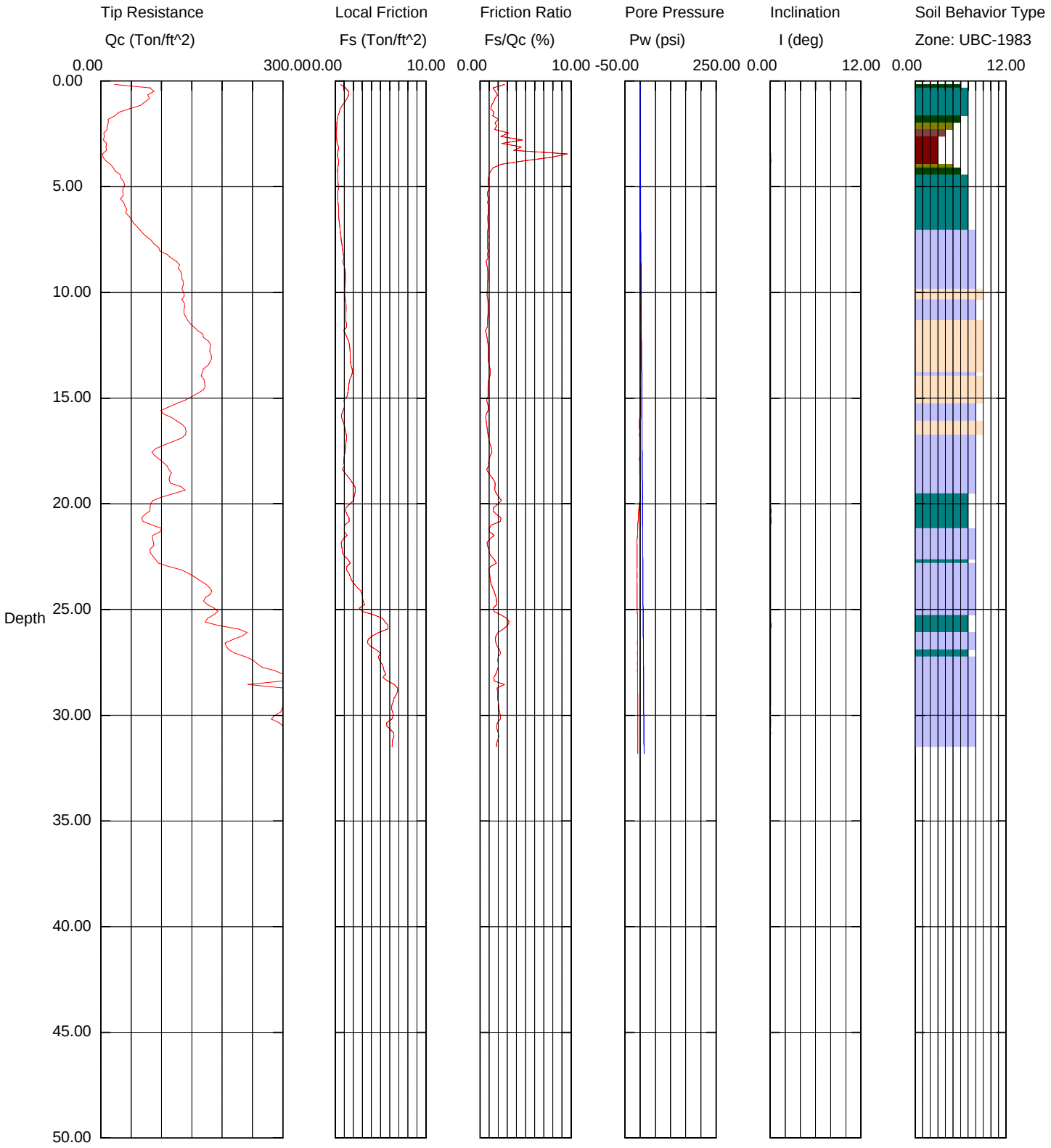
Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

Bureau of Reclamation

Operator: TONY SHANAHAN
Sounding: WTSC03
Cone Used: 739

CPT Date/Time: 09-01-02 08:33
Location: WEBB TRACT BORRW
Job Number: IN-DELTA STORAGE



Maximum Depth = 31.82 feet

Depth Increment = 0.16 feet

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 (*)

E W1 Bureau of Reclamation
W0

Operator :TONY SHANAHAN
On Site Loc:WEBB TRACT BORRW
Job No. :IN-DELTA STORAGE
Tot. Unit Wt. (avg) : 115 pcf

CPT Date :09-01-02 08:33
Cone Used :739
Water table (feet) : 3.28084

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
0.30	1	70.21	1.19	1.69	0.03	silty sand to sandy silt	>90	>48	22	UNDEFINED
0.60	2	31.64	0.43	1.37	0.08	sandy silt to clayey silt	UNDFND	UNDFD	12	2.63
0.95	3	7.59	0.20	2.70	0.15	silty clay to clay	UNDFND	UNDFD	5	.62
1.25	4	10.02	0.33	3.26	0.20	silty clay to clay	UNDFND	UNDFD	6	.81
1.55	5	33.63	0.33	0.97	0.22	silty sand to sandy silt	50-60	42-44	11	UNDEFINED
1.85	6	37.64	0.33	0.88	0.25	silty sand to sandy silt	50-60	42-44	12	UNDEFINED
2.15	7	52.55	0.46	0.88	0.27	silty sand to sandy silt	60-70	42-44	17	UNDEFINED
2.45	8	84.89	0.72	0.85	0.30	sand to silty sand	70-80	44-46	20	UNDEFINED
2.75	9	123.04	0.99	0.80	0.33	sand to silty sand	80-90	46-48	29	UNDEFINED
3.05	10	134.80	1.11	0.82	0.35	sand to silty sand	>90	46-48	32	UNDEFINED
3.35	11	136.70	1.17	0.86	0.38	sand to silty sand	80-90	46-48	33	UNDEFINED
3.65	12	151.97	1.17	0.77	0.40	sand	>90	46-48	29	UNDEFINED
3.95	13	178.08	1.55	0.87	0.43	sand	>90	46-48	34	UNDEFINED
4.25	14	173.36	1.78	1.03	0.46	sand	>90	46-48	33	UNDEFINED
4.55	15	165.36	1.48	0.89	0.48	sand	>90	46-48	32	UNDEFINED
4.85	16	115.82	0.90	0.78	0.51	sand to silty sand	80-90	44-46	28	UNDEFINED
5.15	17	135.17	1.10	0.81	0.53	sand to silty sand	80-90	44-46	32	UNDEFINED
5.45	18	96.95	1.10	1.13	0.56	sand to silty sand	70-80	42-44	23	UNDEFINED
5.75	19	111.08	1.16	1.04	0.59	sand to silty sand	70-80	42-44	27	UNDEFINED
6.05	20	115.25	2.10	1.82	0.61	silty sand to sandy silt	70-80	42-44	37	UNDEFINED
6.40	21	76.79	1.35	1.76	0.64	silty sand to sandy silt	60-70	40-42	25	UNDEFINED
6.70	22	90.30	0.95	1.05	0.67	sand to silty sand	60-70	42-44	22	UNDEFINED
7.00	23	90.91	1.17	1.29	0.69	sand to silty sand	60-70	42-44	22	UNDEFINED
7.35	24	161.55	1.95	1.21	0.72	sand to silty sand	80-90	44-46	39	UNDEFINED
7.65	25	179.63	3.00	1.67	0.75	sand to silty sand	80-90	44-46	43	UNDEFINED
7.95	26	199.01	5.25	2.64	0.77	silty sand to sandy silt	>90	44-46	>50	UNDEFINED
8.25	27	216.01	4.13	1.91	0.80	sand to silty sand	>90	44-46	>50	UNDEFINED
8.55	28	269.51	5.17	1.92	0.83	sand to silty sand	>90	46-48	>50	UNDEFINED
8.85	29	337.52	6.33	1.87	0.85	sand to silty sand	>90	46-48	>50	UNDEFINED
9.15	30	307.01	6.34	2.06	0.88	sand to silty sand	>90	46-48	>50	UNDEFINED
9.45	31	307.20	6.10	1.99	0.90	sand to silty sand	>90	46-48	>50	UNDEFINED

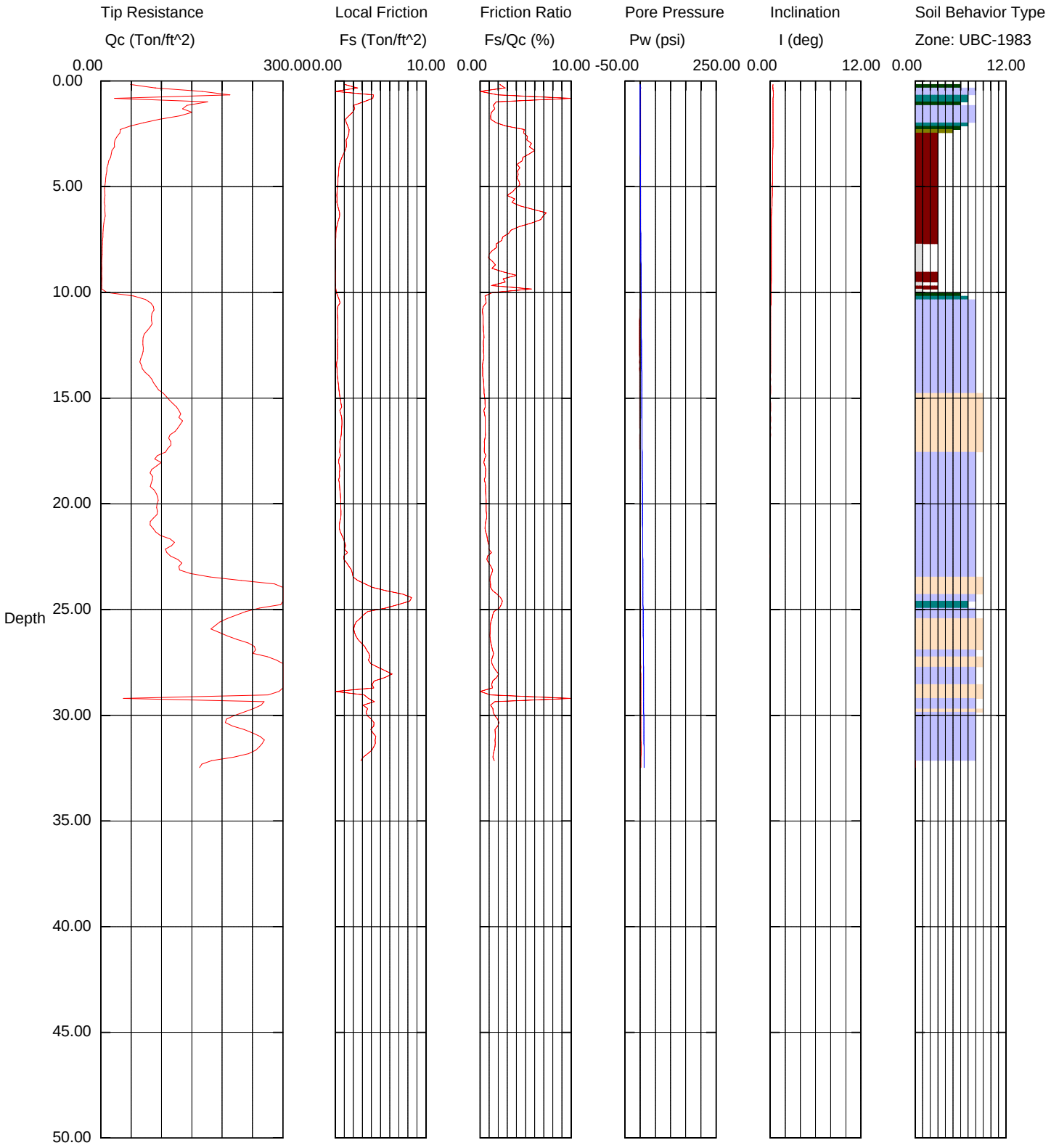
Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

Bureau of Reclamation

Operator: TONY SHANAHAN
Sounding: WTSC04
Cone Used: 739

CPT Date/Time: 08-31-02 10:18
Location: WEBB TRACT BORRW
Job Number: IN-DELTA STORAGE



Maximum Depth = 32.48 feet

Depth Increment = 0.16 feet

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 (*)

E W1 Bureau of Reclamation
W0

Operator :TONY SHANAHAN CPT Date :08-31-02 10:18
On Site Loc:WEBB TRACT BORRW Cone Used :739
Job No. :IN-DELTA STORAGE Water table (feet) : 3.28084
Tot. Unit Wt. (avg) : 115 pcf

DEPTH (meters)	DEPTH (feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
0.30	1	119.23	2.50	2.09	0.03	silty sand to sandy silt	>90	>48	38	UNDEFINED
0.60	2	120.77	1.68	1.39	0.08	sand to silty sand	>90	>48	29	UNDEFINED
0.95	3	29.64	1.37	4.61	0.15	clay	UNDFND	UNDFD	28	2.45
1.25	4	14.40	0.72	4.98	0.20	clay	UNDFND	UNDFD	14	1.18
1.55	5	7.93	0.33	4.16	0.22	clay	UNDFND	UNDFD	8	.63
1.85	6	6.38	0.26	4.02	0.25	clay	UNDFND	UNDFD	6	.50
2.15	7	5.42	0.33	6.04	0.27	clay	UNDFND	UNDFD	5	.42
2.45	8	2.74	0.06	2.23	0.30	clay	UNDFND	UNDFD	3	.19
2.75	9	1.78	0.03	1.43	0.33	sensitive fine grained	UNDFND	UNDFD	1	.10
3.05	10	3.06	0.06	2.11	0.35	clay	UNDFND	UNDFD	3	.20
3.35	11	78.07	0.35	0.45	0.38	sand to silty sand	70-80	44-46	19	UNDEFINED
3.65	12	80.21	0.29	0.36	0.40	sand to silty sand	70-80	44-46	19	UNDEFINED
3.95	13	69.29	0.27	0.40	0.43	sand to silty sand	60-70	42-44	17	UNDEFINED
4.25	14	69.66	0.22	0.31	0.46	sand to silty sand	60-70	42-44	17	UNDEFINED
4.55	15	94.60	0.41	0.43	0.48	sand to silty sand	70-80	42-44	23	UNDEFINED
4.85	16	124.23	0.65	0.52	0.51	sand	80-90	44-46	24	UNDEFINED
5.15	17	123.44	0.71	0.58	0.53	sand	80-90	44-46	24	UNDEFINED
5.45	18	104.98	0.53	0.50	0.56	sand	70-80	42-44	20	UNDEFINED
5.75	19	87.78	0.47	0.54	0.59	sand to silty sand	70-80	42-44	21	UNDEFINED
6.05	20	88.73	0.55	0.62	0.61	sand to silty sand	70-80	42-44	21	UNDEFINED
6.40	21	88.58	0.59	0.67	0.64	sand to silty sand	60-70	42-44	21	UNDEFINED
6.70	22	104.33	0.82	0.79	0.67	sand to silty sand	70-80	42-44	25	UNDEFINED
7.00	23	119.94	1.20	1.00	0.69	sand to silty sand	70-80	42-44	29	UNDEFINED
7.35	24	247.18	3.02	1.22	0.72	sand	>90	46-48	47	UNDEFINED
7.65	25	316.72	6.69	2.11	0.75	sand to silty sand	>90	46-48	>50	UNDEFINED
7.95	26	198.81	2.42	1.21	0.77	sand	>90	44-46	38	UNDEFINED
8.25	27	239.03	3.02	1.26	0.80	sand	>90	44-46	46	UNDEFINED
8.55	28	298.94	4.63	1.55	0.83	sand to silty sand	>90	46-48	>50	UNDEFINED
8.85	29	301.33	3.55	1.18	0.85	sand	>90	46-48	>50	UNDEFINED
9.15	30	212.81	3.60	1.69	0.88	sand to silty sand	>90	44-46	>50	UNDEFINED
9.45	31	229.62	4.18	1.82	0.90	sand to silty sand	>90	44-46	>50	UNDEFINED
9.75	32	252.44	3.97	1.57	0.93	sand to silty sand	>90	44-46	>50	UNDEFINED

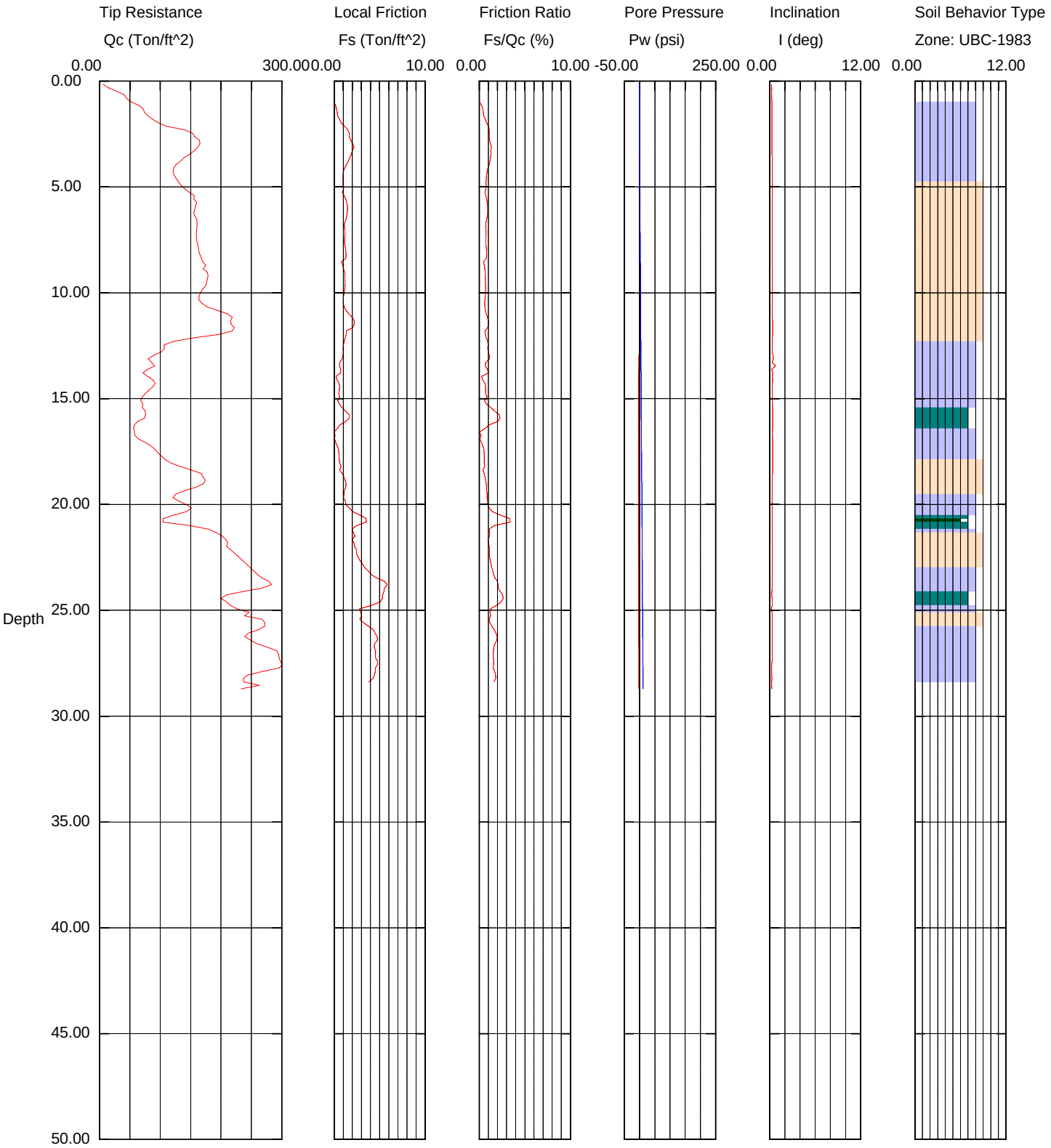
Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

Bureau of Reclamation

Operator: TONY SHANAHAN
Sounding: WTSC05
Cone Used: 739

CPT Date/Time: 09-01-02 09:19
Location: WEBB TRACT BORRW
Job Number: IN-DELTA STORAGE



Maximum Depth = 28.71 feet

Depth Increment = 0.16 feet

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 (*)

E W1 Bureau of Reclamation
W0

Operator :TONY SHANAHAN CPT Date :09-01-02 09:19
On Site Loc:WEBB TRACT BORRW Cone Used :739
Job No. :IN-DELTA STORAGE Water table (feet) : 3.28084
Tot. Unit Wt. (avg) : 115 pcf

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
0.30	1	31.31	-0.01	-0.04	0.03	undefined	UNDFND	UNDFD	UDF	UNDEFINED
0.60	2	79.28	0.43	0.54	0.08	sand to silty sand	>90	>48	19	UNDEFINED
0.95	3	149.84	1.72	1.15	0.15	sand to silty sand	>90	>48	36	UNDEFINED
1.25	4	137.69	1.62	1.18	0.20	sand to silty sand	>90	>48	33	UNDEFINED
1.55	5	128.82	1.01	0.78	0.22	sand to silty sand	>90	>48	31	UNDEFINED
1.85	6	155.42	1.27	0.82	0.25	sand	>90	>48	30	UNDEFINED
2.15	7	158.84	1.27	0.80	0.27	sand	>90	>48	30	UNDEFINED
2.45	8	160.97	1.20	0.75	0.30	sand	>90	46-48	31	UNDEFINED
2.75	9	170.79	1.10	0.64	0.33	sand	>90	46-48	33	UNDEFINED
3.05	10	173.66	1.19	0.68	0.35	sand	>90	46-48	33	UNDEFINED
3.35	11	179.47	1.18	0.66	0.38	sand	>90	46-48	34	UNDEFINED
3.65	12	214.51	1.85	0.86	0.40	sand	>90	46-48	41	UNDEFINED
3.95	13	113.04	1.06	0.94	0.43	sand to silty sand	80-90	44-46	27	UNDEFINED
4.25	14	81.09	0.63	0.77	0.46	sand to silty sand	70-80	42-44	19	UNDEFINED
4.55	15	82.20	0.53	0.65	0.48	sand to silty sand	70-80	42-44	20	UNDEFINED
4.85	16	72.45	1.07	1.48	0.51	silty sand to sandy silt	60-70	42-44	23	UNDEFINED
5.15	17	59.31	0.41	0.69	0.53	sand to silty sand	60-70	40-42	14	UNDEFINED
5.45	18	92.51	0.43	0.47	0.56	sand to silty sand	70-80	42-44	22	UNDEFINED
5.75	19	152.41	0.87	0.57	0.59	sand	80-90	44-46	29	UNDEFINED
6.05	20	141.03	1.18	0.84	0.61	sand	80-90	44-46	27	UNDEFINED
6.40	21	131.01	2.48	1.89	0.64	silty sand to sandy silt	80-90	44-46	42	UNDEFINED
6.70	22	200.10	2.14	1.07	0.67	sand	>90	44-46	38	UNDEFINED
7.00	23	231.71	2.80	1.21	0.69	sand	>90	46-48	44	UNDEFINED
7.35	24	263.64	4.97	1.88	0.72	sand to silty sand	>90	46-48	>50	UNDEFINED
7.65	25	217.53	4.25	1.95	0.75	sand to silty sand	>90	44-46	>50	UNDEFINED
7.95	26	259.26	3.62	1.39	0.77	sand to silty sand	>90	46-48	>50	UNDEFINED
8.25	27	268.19	4.57	1.71	0.80	sand to silty sand	>90	46-48	>50	UNDEFINED
8.55	28	284.03	4.59	1.62	0.83	sand to silty sand	>90	46-48	>50	UNDEFINED

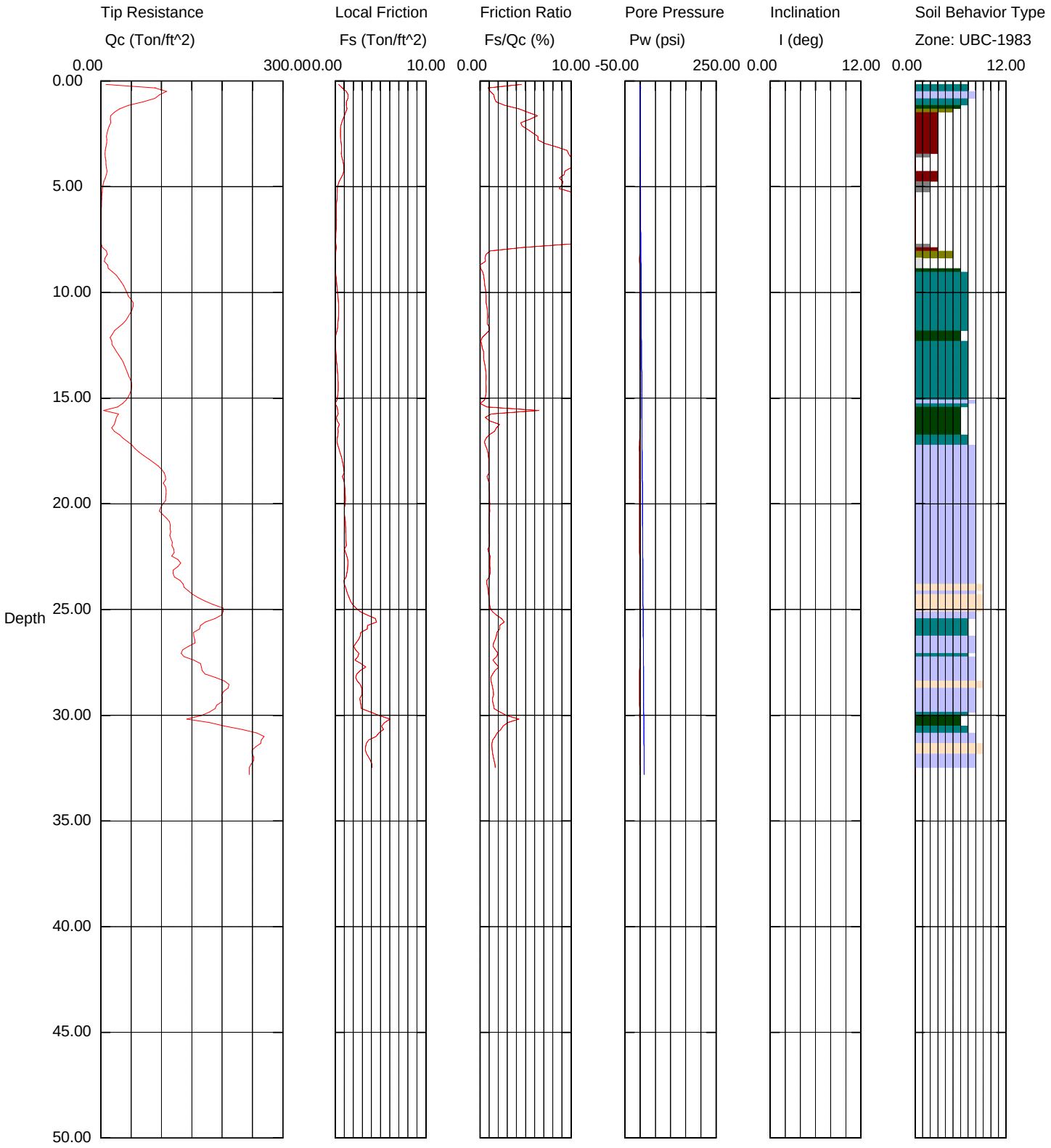
Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

Bureau of Reclamation

Operator: TONY SHANAHAN
Sounding: WTSC06
Cone Used: 739

CPT Date/Time: 09-01-02 12:08
Location: WEBB TRACT BORRW
Job Number: IN-DELTA STORAGE



Maximum Depth = 32.81 feet

Depth Increment = 0.16 feet

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 (*)

E W1 Bureau of Reclamation
W0

Operator :TONY SHANAHAN CPT Date :09-01-02 12:08
On Site Loc:WEBB TRACT BORRW Cone Used :739
Job No. :IN-DELTA STORAGE Water table (feet) : 3.28084
Tot. Unit Wt. (avg) : 115 pcf

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
0.30	1	76.87	1.09	1.42	0.03	silty sand to sandy silt	>90	>48	25	UNDEFINED
0.60	2	24.49	1.06	4.32	0.08	silty clay to clay	UNDFND	UNDFD	16	2.03
0.95	3	10.39	0.63	6.11	0.15	clay	UNDFND	UNDFD	10	.85
1.25	4	7.86	0.81	10.35	0.20	undefined	UNDFND	UNDFD	UDF	UNDEFINED
1.55	5	6.42	0.58	9.09	0.22	undefined	UNDFND	UNDFD	UDF	UNDEFINED
1.85	6	1.38	0.19	13.87	0.25	undefined	UNDFND	UNDFD	UDF	UNDEFINED
2.15	7	0.43	0.14	33.23	0.27	undefined	UNDFND	UNDFD	UDF	UNDEFINED
2.45	8	2.15	0.10	4.67	0.30	clay	UNDFND	UNDFD	2	.14
2.75	9	10.95	0.03	0.29	0.33	sandy silt to clayey silt	UNDFND	UNDFD	4	.87
3.05	10	34.84	0.18	0.53	0.35	silty sand to sandy silt	50-60	40-42	11	UNDEFINED
3.35	11	50.24	0.37	0.74	0.38	silty sand to sandy silt	60-70	42-44	16	UNDEFINED
3.65	12	32.25	0.27	0.85	0.40	silty sand to sandy silt	40-50	40-42	10	UNDEFINED
3.95	13	21.56	0.06	0.28	0.43	silty sand to sandy silt	<40	36-38	7	UNDEFINED
4.25	14	39.93	0.23	0.57	0.46	silty sand to sandy silt	50-60	40-42	13	UNDEFINED
4.55	15	48.92	0.32	0.66	0.48	silty sand to sandy silt	50-60	40-42	16	UNDEFINED
4.85	16	27.42	0.20	0.73	0.51	silty sand to sandy silt	<40	38-40	9	UNDEFINED
5.15	17	25.66	0.33	1.27	0.53	sandy silt to clayey silt	UNDFND	UNDFD	10	2.06
5.45	18	60.56	0.48	0.79	0.56	sand to silty sand	60-70	40-42	15	UNDEFINED
5.75	19	99.85	0.91	0.91	0.59	sand to silty sand	70-80	42-44	24	UNDEFINED
6.05	20	106.28	1.10	1.03	0.61	sand to silty sand	70-80	42-44	25	UNDEFINED
6.40	21	104.89	1.09	1.04	0.64	sand to silty sand	70-80	42-44	25	UNDEFINED
6.70	22	115.62	1.19	1.03	0.67	sand to silty sand	70-80	42-44	28	UNDEFINED
7.00	23	123.88	1.28	1.03	0.69	sand to silty sand	70-80	42-44	30	UNDEFINED
7.35	24	129.52	1.18	0.91	0.72	sand to silty sand	70-80	42-44	31	UNDEFINED
7.65	25	178.58	1.95	1.09	0.75	sand	80-90	44-46	34	UNDEFINED
7.95	26	173.08	3.74	2.16	0.77	silty sand to sandy silt	80-90	44-46	>50	UNDEFINED
8.25	27	145.65	2.43	1.67	0.80	sand to silty sand	80-90	42-44	35	UNDEFINED
8.55	28	159.80	2.68	1.68	0.83	sand to silty sand	80-90	42-44	38	UNDEFINED
8.85	29	202.48	2.72	1.34	0.85	sand to silty sand	80-90	44-46	48	UNDEFINED
9.15	30	187.26	3.34	1.79	0.88	sand to silty sand	80-90	44-46	45	UNDEFINED
9.45	31	213.97	5.21	2.44	0.90	silty sand to sandy silt	80-90	44-46	>50	UNDEFINED
9.75	32	255.60	3.49	1.37	0.93	sand	>90	44-46	49	UNDEFINED

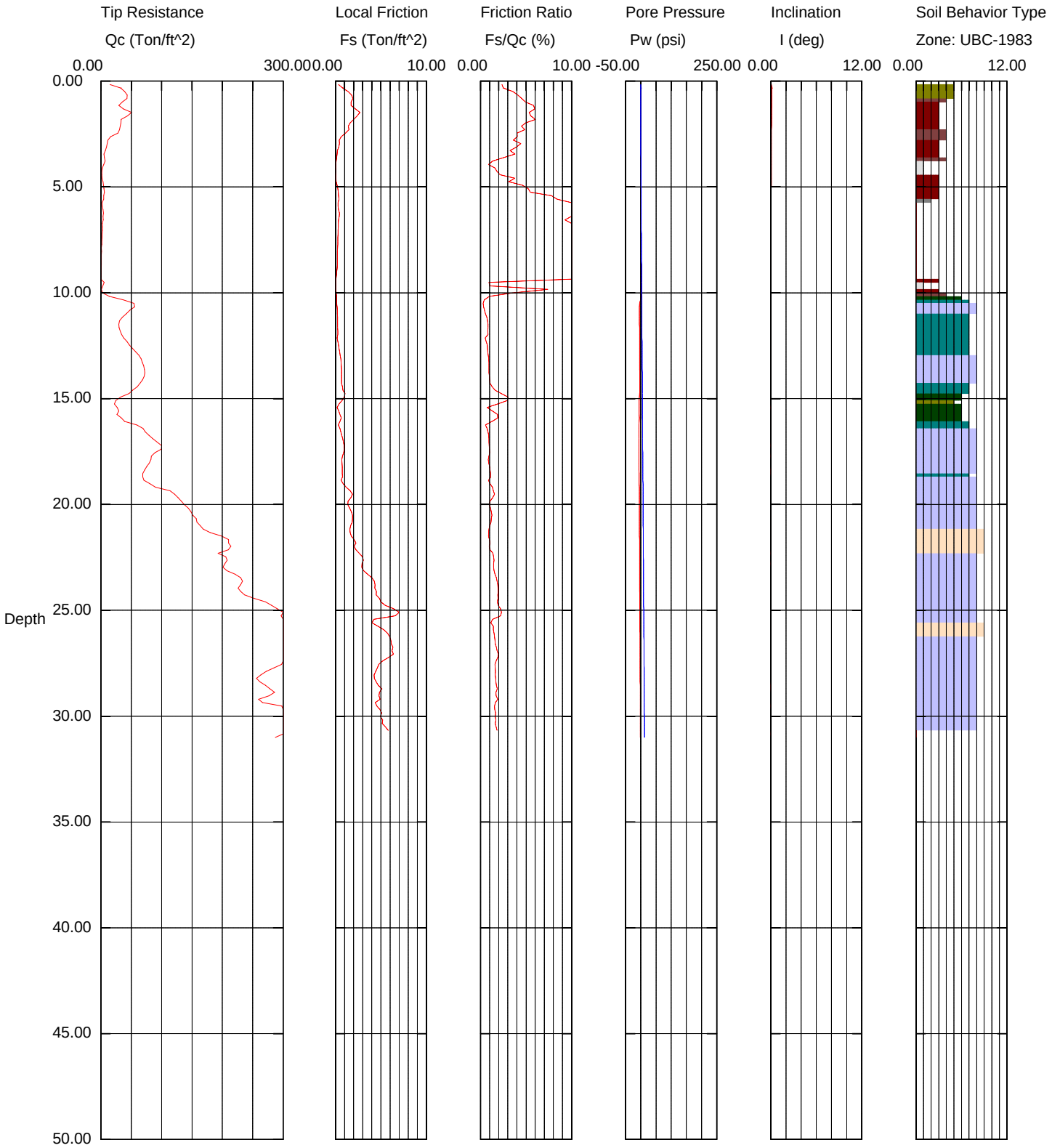
Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

Bureau of Reclamation

Operator: TONY SHANAHAN
Sounding: WTSC07
Cone Used: 739

CPT Date/Time: 09-01-02 11:07
Location: WEBB TRACT BORRW
Job Number: IN-DELTA STORAGE



Maximum Depth = 31.00 feet

Depth Increment = 0.16 feet

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 (*)

E W1 Bureau of Reclamation
W0

Operator :TONY SHANAHAN
On Site Loc:WEBB TRACT BORRW
Job No. :IN-DELTA STORAGE
Tot. Unit Wt. (avg) : 115 pcf

CPT Date :09-01-02 11:07
Cone Used :739
Water table (feet) : 3.28084

DEPTH (meters)	DEPTH (feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
0.30	1	34.56	1.33	3.85	0.03	clayey silt to silty clay	UNDFND	UNDFD	17	2.87
0.60	2	37.83	2.11	5.58	0.08	clay	UNDFND	UNDFD	36	3.14
0.95	3	19.67	0.85	4.31	0.15	clay	UNDFND	UNDFD	19	1.62
1.25	4	5.22	0.12	2.33	0.20	undefined	UNDFND	UNDFD	UDF	UNDEFINED
1.55	5	2.90	0.11	3.92	0.22	clay	UNDFND	UNDFD	3	.21
1.85	6	3.68	0.33	9.03	0.25	undefined	UNDFND	UNDFD	UDF	UNDEFINED
2.15	7	3.23	0.36	11.22	0.27	undefined	UNDFND	UNDFD	UDF	UNDEFINED
2.45	8	1.51	0.26	17.36	0.30	undefined	UNDFND	UNDFD	UDF	UNDEFINED
2.75	9	0.54	0.19	35.77	0.33	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.05	10	2.07	0.07	3.35	0.35	clay	UNDFND	UNDFD	2	.12
3.35	11	41.63	0.18	0.43	0.38	silty sand to sandy silt	50-60	40-42	13	UNDEFINED
3.65	12	31.72	0.25	0.79	0.40	silty sand to sandy silt	40-50	38-40	10	UNDEFINED
3.95	13	49.84	0.37	0.74	0.43	silty sand to sandy silt	50-60	40-42	16	UNDEFINED
4.25	14	69.95	0.65	0.93	0.46	sand to silty sand	60-70	42-44	17	UNDEFINED
4.55	15	53.84	0.83	1.55	0.48	silty sand to sandy silt	50-60	40-42	17	UNDEFINED
4.85	16	27.16	0.47	1.75	0.51	sandy silt to clayey silt	UNDFND	UNDFD	10	2.18
5.15	17	67.50	0.57	0.85	0.53	sand to silty sand	60-70	42-44	16	UNDEFINED
5.45	18	91.09	0.86	0.95	0.56	sand to silty sand	70-80	42-44	22	UNDEFINED
5.75	19	72.60	0.73	1.01	0.59	sand to silty sand	60-70	40-42	17	UNDEFINED
6.05	20	110.77	1.44	1.30	0.61	sand to silty sand	70-80	42-44	27	UNDEFINED
6.40	21	151.25	1.71	1.13	0.64	sand to silty sand	80-90	44-46	36	UNDEFINED
6.70	22	196.90	1.89	0.96	0.67	sand	>90	44-46	38	UNDEFINED
7.00	23	203.44	2.79	1.37	0.69	sand to silty sand	>90	44-46	49	UNDEFINED
7.35	24	225.20	4.01	1.78	0.72	sand to silty sand	>90	44-46	>50	UNDEFINED
7.65	25	272.57	5.53	2.03	0.75	sand to silty sand	>90	46-48	>50	UNDEFINED
7.95	26	342.78	5.10	1.49	0.77	sand to silty sand	>90	46-48	>50	UNDEFINED
8.25	27	362.32	6.18	1.71	0.80	sand to silty sand	>90	46-48	>50	UNDEFINED
8.55	28	288.23	4.85	1.68	0.83	sand to silty sand	>90	46-48	>50	UNDEFINED
8.85	29	271.61	4.70	1.73	0.85	sand to silty sand	>90	44-46	>50	UNDEFINED
9.15	30	290.98	4.79	1.65	0.88	sand to silty sand	>90	46-48	>50	UNDEFINED
9.45	31	309.69	-10919.06	-3525.79	0.90	undefined	UNDFND	UNDFD	UDF	UNDEFINED

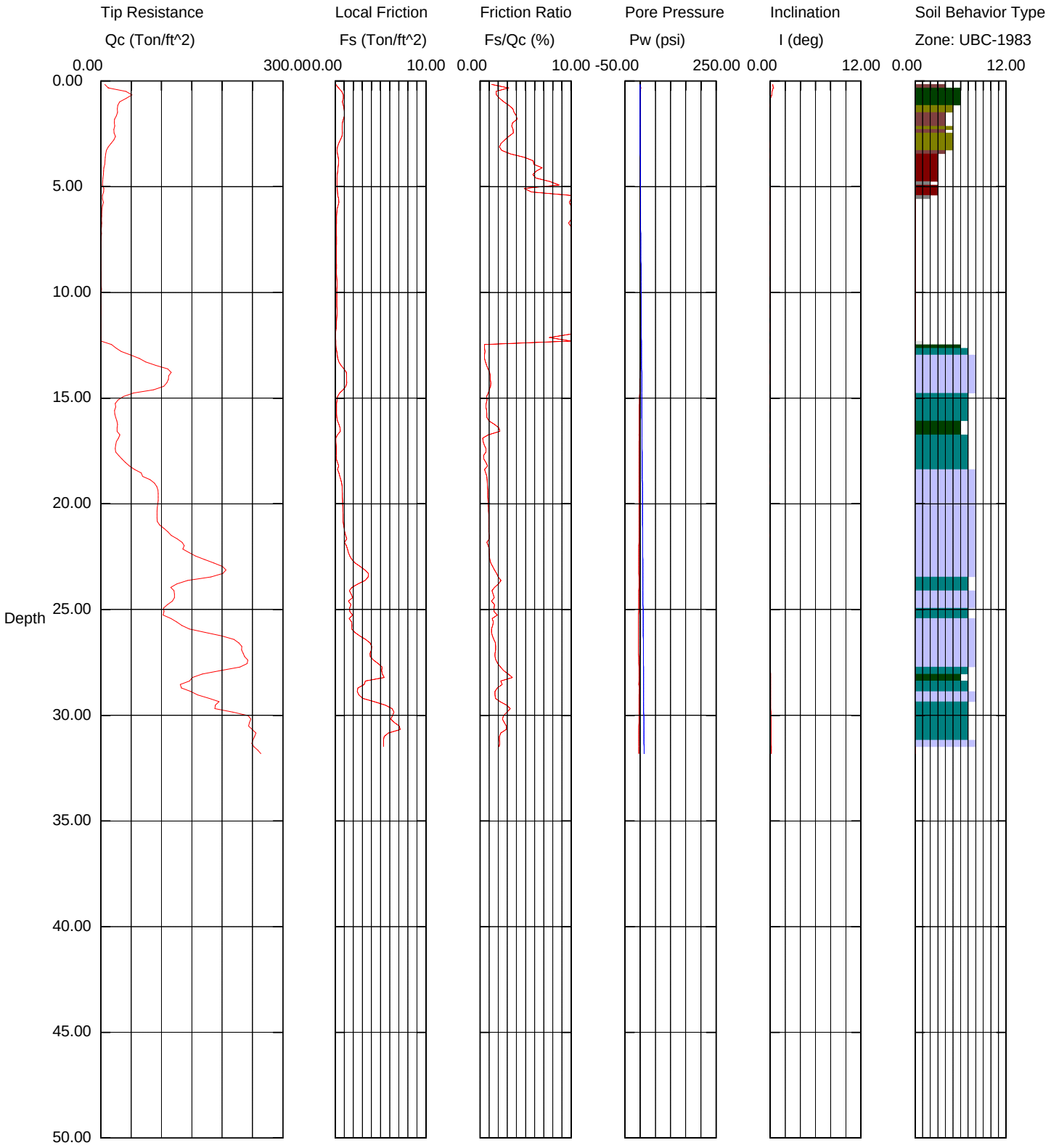
Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

Bureau of Reclamation

Operator: TONY SHANAHAN
Sounding: WTSC08
Cone Used: 739

CPT Date/Time: 09-02-02 13:19
Location: WEBB TRACT BORRW
Job Number: IN-DELTA STORAGE



Maximum Depth = 31.82 feet

Depth Increment = 0.16 feet

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 (*)

E W1 Bureau of Reclamation
W0

Operator :TONY SHANAHAN
On Site Loc:WEBB TRACT BORRW
Job No. :IN-DELTA STORAGE
Tot. Unit Wt. (avg) : 115 pcf

CPT Date :09-02-02 13:19
Cone Used :739
Water table (feet) : 3.28084

DEPTH (meters)	DEPTH (feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
0.30	1	30.66	0.64	2.07	0.03	sandy silt to clayey silt	UNDFND	UNDFD	12	2.55
0.60	2	25.52	0.94	3.68	0.08	clayey silt to silty clay	UNDFND	UNDFD	12	2.11
0.95	3	20.08	0.62	3.10	0.15	clayey silt to silty clay	UNDFND	UNDFD	10	1.66
1.25	4	7.09	0.32	4.58	0.20	clay	UNDFND	UNDFD	7	.57
1.55	5	3.78	0.24	6.27	0.22	clay	UNDFND	UNDFD	4	.29
1.85	6	3.20	0.33	10.22	0.25	undefined	UNDFND	UNDFD	UDF	UNDEFINED
2.15	7	1.32	0.17	12.66	0.27	undefined	UNDFND	UNDFD	UDF	UNDEFINED
2.45	8	0.54	0.16	29.81	0.30	undefined	UNDFND	UNDFD	UDF	UNDEFINED
2.75	9	0.34	0.16	46.90	0.33	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.05	10	0.81	0.19	23.85	0.35	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.35	11	0.32	0.20	61.98	0.38	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.65	12	0.25	0.13	52.41	0.40	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.95	13	21.00	0.13	0.62	0.43	sandy silt to clayey silt	UNDFND	UNDFD	8	1.69
4.25	14	94.31	0.81	0.86	0.46	sand to silty sand	70-80	44-46	23	UNDEFINED
4.55	15	83.65	0.90	1.07	0.48	sand to silty sand	70-80	42-44	20	UNDEFINED
4.85	16	24.45	0.18	0.72	0.51	silty sand to sandy silt	<40	36-38	8	UNDEFINED
5.15	17	27.91	0.37	1.32	0.53	sandy silt to clayey silt	UNDFND	UNDFD	11	2.24
5.45	18	26.98	0.13	0.48	0.56	silty sand to sandy silt	<40	36-38	9	UNDEFINED
5.75	19	59.93	0.42	0.69	0.59	sand to silty sand	50-60	40-42	14	UNDEFINED
6.05	20	93.14	0.79	0.85	0.61	sand to silty sand	70-80	42-44	22	UNDEFINED
6.40	21	93.43	0.88	0.94	0.64	sand to silty sand	70-80	42-44	22	UNDEFINED
6.70	22	121.34	1.13	0.93	0.67	sand to silty sand	70-80	42-44	29	UNDEFINED
7.00	23	165.74	1.88	1.14	0.69	sand to silty sand	80-90	44-46	40	UNDEFINED
7.35	24	156.12	2.84	1.82	0.72	silty sand to sandy silt	80-90	44-46	50	UNDEFINED
7.65	25	113.01	1.68	1.49	0.75	sand to silty sand	70-80	42-44	27	UNDEFINED
7.95	26	132.40	1.86	1.41	0.77	sand to silty sand	70-80	42-44	32	UNDEFINED
8.25	27	224.15	3.63	1.62	0.80	sand to silty sand	>90	44-46	>50	UNDEFINED
8.55	28	219.11	4.72	2.16	0.83	silty sand to sandy silt	>90	44-46	>50	UNDEFINED
8.85	29	144.74	3.25	2.25	0.85	silty sand to sandy silt	70-80	42-44	46	UNDEFINED
9.15	30	201.71	5.32	2.64	0.88	silty sand to sandy silt	80-90	44-46	>50	UNDEFINED
9.45	31	249.06	6.35	2.55	0.90	silty sand to sandy silt	>90	44-46	>50	UNDEFINED

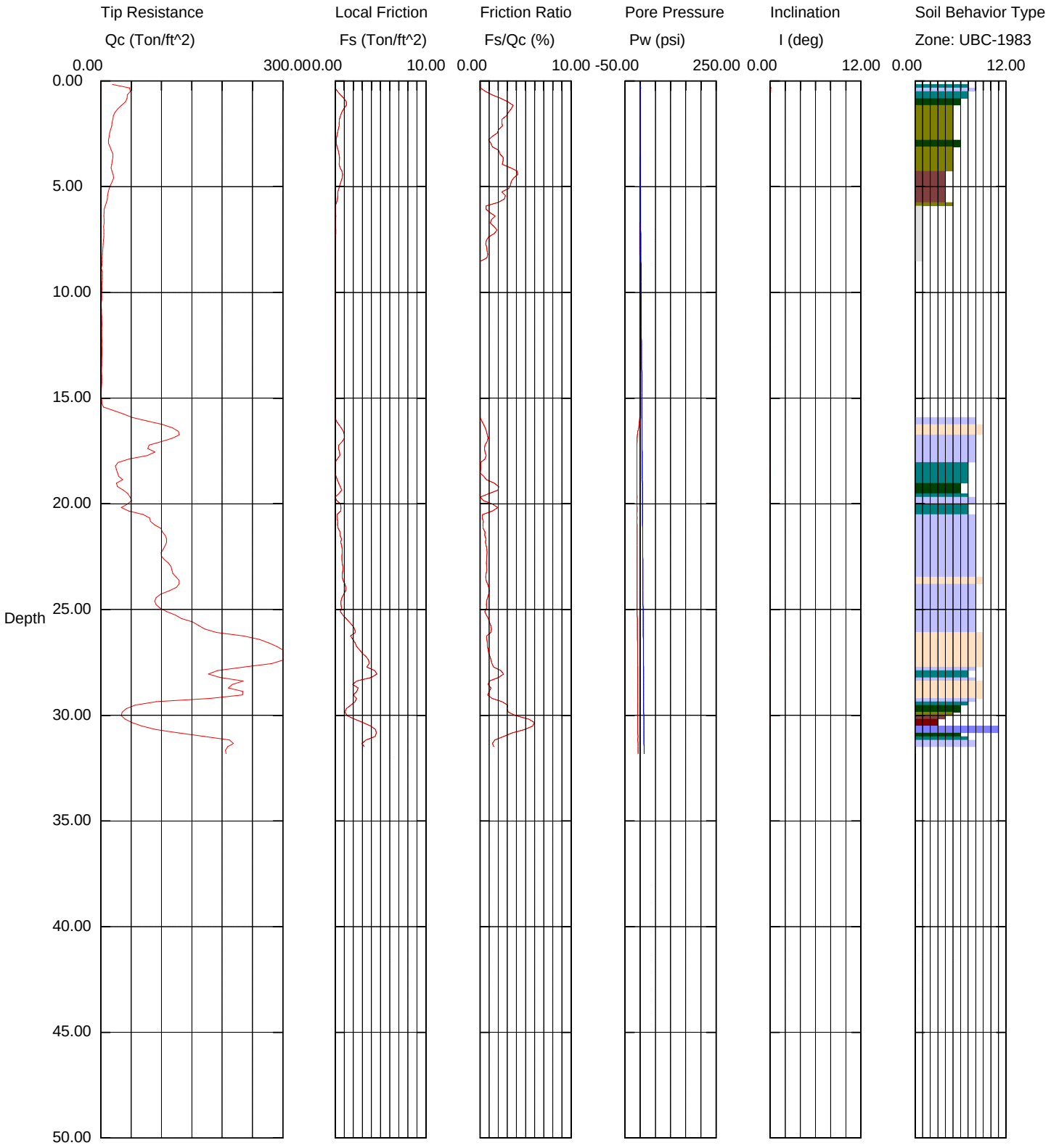
Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

Bureau of Reclamation

Operator: TONY SHANAHAN
Sounding: WTSC09
Cone Used: 739

CPT Date/Time: 09-01-02 10:04
Location: WEBB TRACT BORRW
Job Number: IN-DELTA STORAGE



Maximum Depth = 31.82 feet

Depth Increment = 0.16 feet

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 (*)

E W1 Bureau of Reclamation
W0

Operator :TONY SHANAHAN
On Site Loc:WEBB TRACT BORRW
Job No. :IN-DELTA STORAGE
Tot. Unit Wt. (avg) : 115 pcf

CPT Date :09-01-02 10:04
Cone Used :739
Water table (feet) : 3.28084

DEPTH (meters)	DEPTH (feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
0.30	1	40.34	0.52	1.29	0.03	silty sand to sandy silt	>90	>48	13	UNDEFINED
0.60	2	24.06	0.74	3.08	0.08	clayey silt to silty clay	UNDFND	UNDFD	12	1.99
0.95	3	14.73	0.25	1.67	0.15	clayey silt to silty clay	UNDFND	UNDFD	7	1.21
1.25	4	18.42	0.46	2.51	0.20	clayey silt to silty clay	UNDFND	UNDFD	9	1.51
1.55	5	17.98	0.66	3.68	0.22	silty clay to clay	UNDFND	UNDFD	11	1.47
1.85	6	9.28	0.19	2.07	0.25	clayey silt to silty clay	UNDFND	UNDFD	4	.74
2.15	7	5.06	0.07	1.42	0.27	sensitive fine grained	UNDFND	UNDFD	2	.39
2.45	8	4.04	0.04	0.93	0.30	sensitive fine grained	UNDFND	UNDFD	2	.30
2.75	9	1.98	-0.00	-0.22	0.33	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.05	10	2.03	-0.02	-0.81	0.35	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.35	11	1.17	-0.02	-1.86	0.38	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.65	12	1.56	-0.03	-1.64	0.40	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.95	13	1.72	-0.02	-1.14	0.43	undefined	UNDFND	UNDFD	UDF	UNDEFINED
4.25	14	1.41	-0.02	-1.08	0.46	undefined	UNDFND	UNDFD	UDF	UNDEFINED
4.55	15	0.91	-0.01	-1.42	0.48	undefined	UNDFND	UNDFD	UDF	UNDEFINED
4.85	16	19.52	-0.01	-0.07	0.51	undefined	UNDFND	UNDFD	UDF	UNDEFINED
5.15	17	111.73	0.69	0.62	0.53	sand to silty sand	70-80	44-46	27	UNDEFINED
5.45	18	78.19	0.47	0.61	0.56	sand to silty sand	60-70	42-44	19	UNDEFINED
5.75	19	28.47	0.07	0.25	0.59	silty sand to sandy silt	<40	36-38	9	UNDEFINED
6.05	20	38.90	0.39	1.00	0.61	silty sand to sandy silt	40-50	38-40	12	UNDEFINED
6.40	21	63.44	0.41	0.64	0.64	sand to silty sand	60-70	40-42	15	UNDEFINED
6.70	22	104.88	0.58	0.56	0.67	sand to silty sand	70-80	42-44	25	UNDEFINED
7.00	23	105.63	0.78	0.74	0.69	sand to silty sand	70-80	42-44	25	UNDEFINED
7.35	24	122.13	0.96	0.79	0.72	sand to silty sand	70-80	42-44	29	UNDEFINED
7.65	25	95.98	0.71	0.74	0.75	sand to silty sand	60-70	42-44	23	UNDEFINED
7.95	26	154.99	1.66	1.07	0.77	sand to silty sand	80-90	44-46	37	UNDEFINED
8.25	27	279.48	2.32	0.83	0.80	sand	>90	46-48	>50	UNDEFINED
8.55	28	250.04	3.88	1.55	0.83	sand to silty sand	>90	44-46	>50	UNDEFINED
8.85	29	220.96	2.54	1.15	0.85	sand	>90	44-46	42	UNDEFINED
9.15	30	73.14	1.66	2.27	0.88	sandy silt to clayey silt	UNDFND	UNDFD	28	5.95
9.45	31	91.63	3.75	4.09	0.90	clayey silt to silty clay	UNDFND	UNDFD	44	7.49

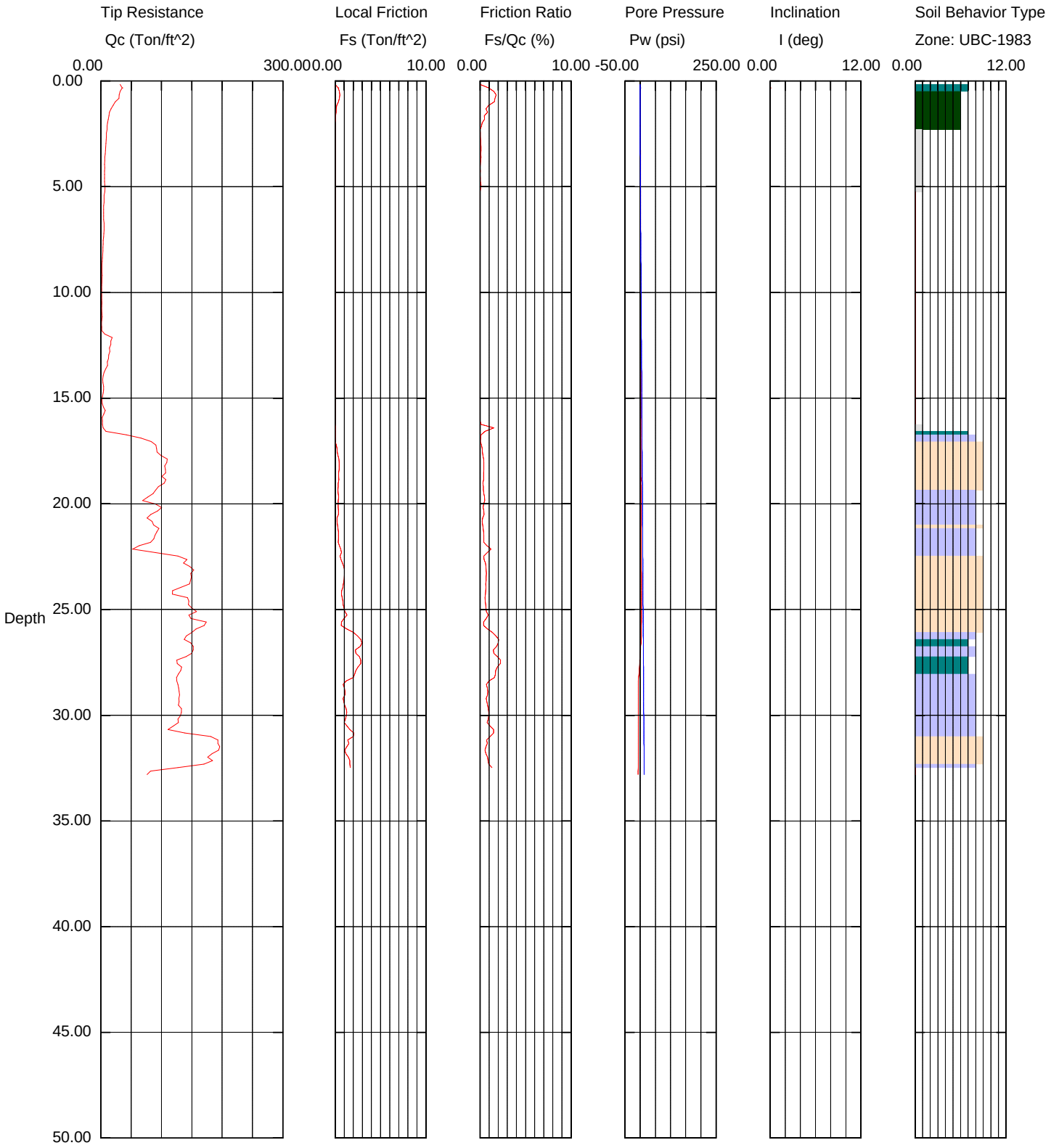
Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

Bureau of Reclamation

Operator: TONY SHANAHAN
Sounding: WTSC10
Cone Used: 739

CPT Date/Time: 09-01-02 12:44
Location: WEBB TRACT BORRW
Job Number: IN-DELTA STORAGE



Maximum Depth = 32.81 feet

Depth Increment = 0.16 feet

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 (*)

E W1 Bureau of Reclamation
W0

Operator :TONY SHANAHAN CPT Date :09-01-02 12:44
On Site Loc:WEBB TRACT BORRW Cone Used :739
Job No. :IN-DELTA STORAGE Water table (feet) : 3.28084
Tot. Unit Wt. (avg) : 115 pcf

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
0.30	1	30.38	0.37	1.22	0.03	sandy silt to clayey silt	UNDFND	UNDFD	12	2.52
0.60	2	14.75	0.10	0.65	0.08	sandy silt to clayey silt	UNDFND	UNDFD	6	1.22
0.95	3	9.20	0.01	0.07	0.15	sensitive fine grained	UNDFND	UNDFD	4	.75
1.25	4	6.74	0.00	0.07	0.20	sensitive fine grained	UNDFND	UNDFD	3	.54
1.55	5	6.29	0.00	0.05	0.22	sensitive fine grained	UNDFND	UNDFD	3	.50
1.85	6	5.33	-0.02	-0.31	0.25	undefined	UNDFND	UNDFD	UDF	UNDEFINED
2.15	7	4.86	-0.02	-0.43	0.27	undefined	UNDFND	UNDFD	UDF	UNDEFINED
2.45	8	3.93	-0.03	-0.75	0.30	undefined	UNDFND	UNDFD	UDF	UNDEFINED
2.75	9	2.25	-0.03	-1.49	0.33	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.05	10	1.79	-0.01	-0.78	0.35	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.35	11	1.70	-0.01	-0.68	0.38	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.65	12	2.34	-0.02	-0.73	0.40	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.95	13	15.63	-0.02	-0.13	0.43	undefined	UNDFND	UNDFD	UDF	UNDEFINED
4.25	14	8.59	-0.01	-0.15	0.46	undefined	UNDFND	UNDFD	UDF	UNDEFINED
4.55	15	3.74	-0.01	-0.30	0.48	undefined	UNDFND	UNDFD	UDF	UNDEFINED
4.85	16	3.78	-0.01	-0.22	0.51	undefined	UNDFND	UNDFD	UDF	UNDEFINED
5.15	17	20.95	0.03	0.15	0.53	silty sand to sandy silt	<40	36-38	7	UNDEFINED
5.45	18	94.39	0.23	0.24	0.56	sand	70-80	42-44	18	UNDEFINED
5.75	19	105.75	0.43	0.41	0.59	sand	70-80	42-44	20	UNDEFINED
6.05	20	87.01	0.35	0.40	0.61	sand to silty sand	60-70	42-44	21	UNDEFINED
6.40	21	87.62	0.31	0.35	0.64	sand to silty sand	60-70	42-44	21	UNDEFINED
6.70	22	84.98	0.38	0.44	0.67	sand to silty sand	60-70	42-44	20	UNDEFINED
7.00	23	115.59	0.72	0.62	0.69	sand to silty sand	70-80	42-44	28	UNDEFINED
7.35	24	142.07	0.94	0.66	0.72	sand	80-90	44-46	27	UNDEFINED
7.65	25	142.94	0.88	0.62	0.75	sand	80-90	42-44	27	UNDEFINED
7.95	26	157.54	1.17	0.74	0.77	sand	80-90	44-46	30	UNDEFINED
8.25	27	146.70	2.59	1.77	0.80	sand to silty sand	80-90	42-44	35	UNDEFINED
8.55	28	130.73	2.54	1.94	0.83	silty sand to sandy silt	70-80	42-44	42	UNDEFINED
8.85	29	127.26	1.22	0.96	0.85	sand to silty sand	70-80	42-44	30	UNDEFINED
9.15	30	130.40	1.10	0.85	0.88	sand to silty sand	70-80	42-44	31	UNDEFINED
9.45	31	134.08	1.53	1.14	0.90	sand to silty sand	70-80	42-44	32	UNDEFINED
9.75	32	189.13	1.32	0.70	0.93	sand	80-90	44-46	36	UNDEFINED

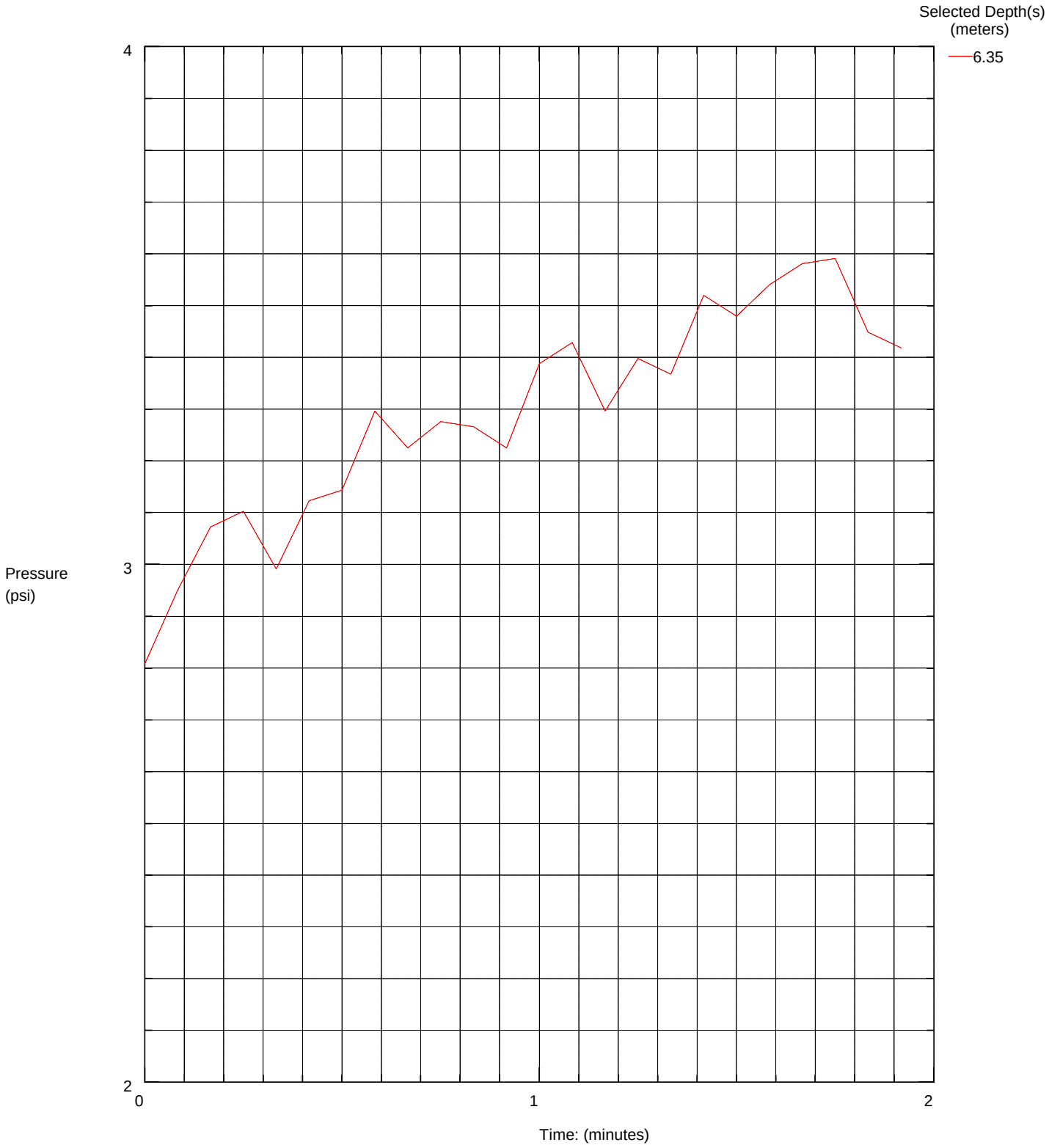
Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

Bureau of Reclamation

Operator TONY SHANAHAN
Sounding: WTSC10
Cone Used: 739

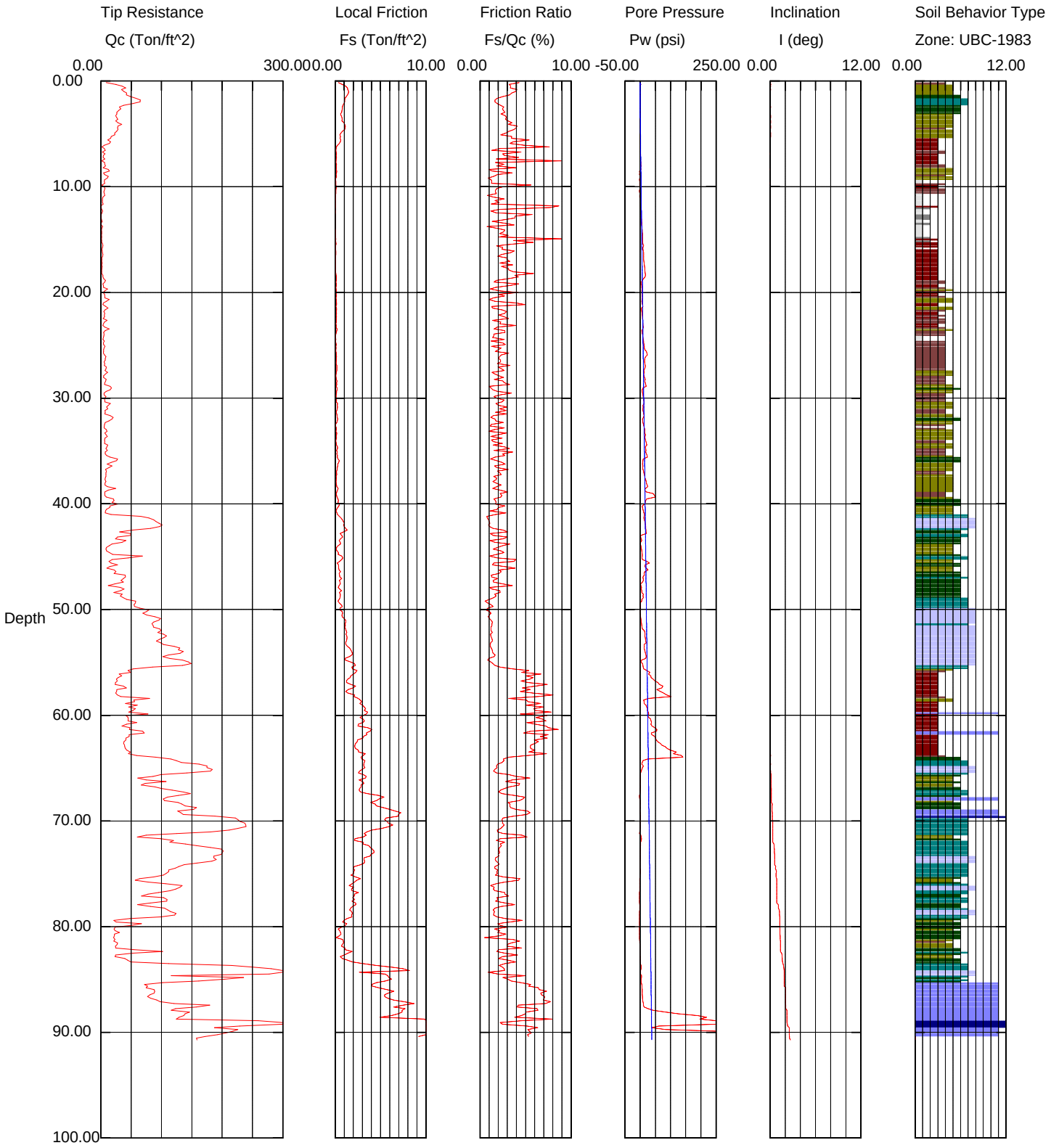
CPT Date/Time: 09-01-02 12:44
Location: WEBB TRACT BORRW
Job Number: IN-DELTA STORAGE



Bureau of Reclamation

Operator: TONY SHANAHAN
Sounding: WTSC11
Cone Used: 739

CPT Date/Time: 09-02-02 08:26
Location: WEBB TRACT BORRW
Job Number: IN-DELTA STORAGE



Maximum Depth = 90.72 feet

Depth Increment = 0.16 feet

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 (*)

E W1 Bureau of Reclamation
W0

Operator :TONY SHANAHAN
On Site Loc:WEBB TRACT BORRW
Job No. :IN-DELTA STORAGE
Tot. Unit Wt. (avg) : 115 pcf

CPT Date :09-02-02 08:26
Cone Used :739
Water table (feet) : 3.28084

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
0.30	1	30.17	1.10	3.63	0.03	clayey silt to silty clay	UNDFND	UNDFD	14	2.51
0.60	2	53.44	1.21	2.27	0.08	sandy silt to clayey silt	UNDFND	UNDFD	20	4.44
0.95	3	33.79	0.79	2.34	0.15	sandy silt to clayey silt	UNDFND	UNDFD	13	2.80
1.25	4	27.63	0.84	3.03	0.20	clayey silt to silty clay	UNDFND	UNDFD	13	2.28
1.55	5	25.98	0.88	3.40	0.22	clayey silt to silty clay	UNDFND	UNDFD	12	2.14
1.85	6	13.49	0.52	3.85	0.25	silty clay to clay	UNDFND	UNDFD	9	1.09
2.15	7	4.75	0.13	2.70	0.27	clay	UNDFND	UNDFD	5	.36
2.45	8	5.30	0.14	2.55	0.30	clay	UNDFND	UNDFD	5	.40
2.75	9	8.85	0.15	1.74	0.33	clayey silt to silty clay	UNDFND	UNDFD	4	.69
3.05	10	6.02	0.09	1.55	0.35	sensitive fine grained	UNDFND	UNDFD	3	.45
3.35	11	5.48	0.08	1.55	0.38	sensitive fine grained	UNDFND	UNDFD	3	.40
3.65	12	2.00	0.05	2.28	0.40	sensitive fine grained	UNDFND	UNDFD	1	.11
3.95	13	1.38	0.03	2.18	0.43	sensitive fine grained	UNDFND	UNDFD	1	5.52
4.25	14	1.49	0.02	1.67	0.46	sensitive fine grained	UNDFND	UNDFD	1	6.00
4.55	15	1.33	0.04	3.26	0.48	organic material	UNDFND	UNDFD	1	4.12
4.85	16	2.35	0.07	3.09	0.51	clay	UNDFND	UNDFD	2	.12
5.15	17	2.51	0.07	2.79	0.53	clay	UNDFND	UNDFD	2	.13
5.45	18	1.95	0.06	2.87	0.56	clay	UNDFND	UNDFD	2	7.96
5.75	19	3.73	0.12	3.14	0.59	clay	UNDFND	UNDFD	4	.22
6.05	20	6.01	0.12	2.00	0.61	silty clay to clay	UNDFND	UNDFD	4	.40
6.40	21	7.08	0.14	2.01	0.64	silty clay to clay	UNDFND	UNDFD	5	.49
6.70	22	6.88	0.15	2.21	0.67	silty clay to clay	UNDFND	UNDFD	4	.47
7.00	23	6.02	0.13	2.14	0.69	silty clay to clay	UNDFND	UNDFD	4	.39
7.35	24	6.54	0.14	2.07	0.72	silty clay to clay	UNDFND	UNDFD	4	.43
7.65	25	4.83	0.09	1.85	0.75	silty clay to clay	UNDFND	UNDFD	3	.28
7.95	26	5.53	0.12	2.25	0.77	silty clay to clay	UNDFND	UNDFD	4	.33
8.25	27	6.93	0.16	2.24	0.80	silty clay to clay	UNDFND	UNDFD	4	.45
8.55	28	7.19	0.15	2.03	0.83	silty clay to clay	UNDFND	UNDFD	5	.46
8.85	29	10.38	0.18	1.73	0.85	clayey silt to silty clay	UNDFND	UNDFD	5	.72
9.15	30	8.11	0.15	1.89	0.88	silty clay to clay	UNDFND	UNDFD	5	.53
9.45	31	10.32	0.23	2.23	0.90	clayey silt to silty clay	UNDFND	UNDFD	5	.71
9.75	32	12.44	0.21	1.71	0.93	clayey silt to silty clay	UNDFND	UNDFD	6	.88
10.05	33	7.79	0.14	1.81	0.96	silty clay to clay	UNDFND	UNDFD	5	.49
10.35	34	8.17	0.14	1.68	0.98	clayey silt to silty clay	UNDFND	UNDFD	4	.52
10.65	35	8.82	0.19	2.10	1.01	silty clay to clay	UNDFND	UNDFD	6	.57
10.95	36	15.47	0.29	1.87	1.03	clayey silt to silty clay	UNDFND	UNDFD	7	1.11
11.25	37	12.64	0.28	2.18	1.06	clayey silt to silty clay	UNDFND	UNDFD	6	.87
11.55	38	7.99	0.15	1.83	1.09	silty clay to clay	UNDFND	UNDFD	5	.48

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

E W1 Bureau of Reclamation
W0
Operator :TONY SHANAHAN On Site Loc:WEBB TRACT BORRW Page No. 2

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
11.85	39	11.23	0.21	1.90	1.11	clayey silt to silty clay	UNDFND	UNDFD	5	.75
12.15	40	13.88	0.25	1.83	1.14	clayey silt to silty clay	UNDFND	UNDFD	7	.96
12.45	41	13.69	0.27	2.01	1.16	clayey silt to silty clay	UNDFND	UNDFD	7	.94
12.80	42	76.64	0.73	0.95	1.19	sand to silty sand	50-60	38-40	18	UNDEFINED
13.10	43	60.13	0.95	1.59	1.22	silty sand to sandy silt	40-50	36-38	19	UNDEFINED
13.40	44	26.74	0.57	2.13	1.24	sandy silt to clayey silt	UNDFND	UNDFD	10	2.02
13.75	45	24.96	0.40	1.62	1.27	sandy silt to clayey silt	UNDFND	UNDFD	10	1.86
14.05	46	16.93	0.44	2.62	1.30	clayey silt to silty clay	UNDFND	UNDFD	8	1.19
14.35	47	31.10	0.54	1.73	1.33	sandy silt to clayey silt	UNDFND	UNDFD	12	2.36
14.65	48	29.26	0.48	1.64	1.35	sandy silt to clayey silt	UNDFND	UNDFD	11	2.21
14.95	49	33.48	0.55	1.65	1.38	sandy silt to clayey silt	UNDFND	UNDFD	13	2.55
15.25	50	61.27	0.55	0.91	1.40	silty sand to sandy silt	40-50	36-38	20	UNDEFINED
15.55	51	83.81	0.89	1.06	1.43	sand to silty sand	50-60	38-40	20	UNDEFINED
15.85	52	90.26	1.15	1.27	1.46	sand to silty sand	50-60	38-40	22	UNDEFINED
16.15	53	99.55	1.27	1.28	1.48	sand to silty sand	60-70	38-40	24	UNDEFINED
16.45	54	119.46	1.48	1.24	1.51	sand to silty sand	60-70	40-42	29	UNDEFINED
16.75	55	122.79	1.54	1.25	1.53	sand to silty sand	60-70	40-42	29	UNDEFINED
17.05	56	86.03	2.13	2.47	1.56	sandy silt to clayey silt	UNDFND	UNDFD	33	6.90
17.35	57	28.35	1.56	5.49	1.59	clay	UNDFND	UNDFD	27	2.09
17.65	58	29.87	1.66	5.56	1.61	clay	UNDFND	UNDFD	29	2.21
17.95	59	48.45	2.53	5.23	1.64	clay	UNDFND	UNDFD	46	3.75
18.25	60	56.56	3.30	5.83	1.66	clay	UNDFND	UNDFD	>50	4.42
18.55	61	46.30	2.96	6.39	1.69	clay	UNDFND	UNDFD	44	3.56
18.85	62	52.81	3.49	6.61	1.71	clay	UNDFND	UNDFD	>50	4.10
19.20	63	40.55	2.53	6.23	1.74	clay	UNDFND	UNDFD	39	3.08
19.50	64	54.38	2.78	5.12	1.77	silty clay to clay	UNDFND	UNDFD	35	4.22
19.80	65	147.39	3.17	2.15	1.80	silty sand to sandy silt	60-70	40-42	47	UNDEFINED
20.15	66	118.18	2.97	2.51	1.82	silty sand to sandy silt	60-70	38-40	38	UNDEFINED
20.45	67	92.29	2.88	3.12	1.85	sandy silt to clayey silt	UNDFND	UNDFD	35	7.37
20.75	68	121.41	4.32	3.56	1.88	sandy silt to clayey silt	UNDFND	UNDFD	47	9.79
21.05	69	139.36	5.12	3.68	1.90	sandy silt to clayey silt	UNDFND	UNDFD	>50	11.28
21.35	70	188.69	6.32	3.35	1.93	sand to clayey sand (*)	UNDFND	UNDFD	>50	UNDEFINED
21.65	71	222.15	5.13	2.31	1.96	silty sand to sandy silt	70-80	40-42	>50	UNDEFINED
21.95	72	98.59	2.86	2.90	1.98	sandy silt to clayey silt	UNDFND	UNDFD	38	7.87
22.25	73	179.72	3.89	2.16	2.01	silty sand to sandy silt	70-80	40-42	>50	UNDEFINED
22.55	74	183.70	3.44	1.87	2.03	sand to silty sand	70-80	40-42	44	UNDEFINED
22.85	75	119.91	2.20	1.83	2.06	silty sand to sandy silt	60-70	38-40	38	UNDEFINED
23.15	76	82.60	2.20	2.66	2.09	sandy silt to clayey silt	UNDFND	UNDFD	32	6.52
23.45	77	112.56	1.99	1.77	2.11	silty sand to sandy silt	50-60	36-38	36	UNDEFINED
23.75	78	88.33	2.10	2.38	2.14	silty sand to sandy silt	50-60	36-38	28	UNDEFINED
24.05	79	109.63	1.80	1.64	2.16	silty sand to sandy silt	50-60	36-38	35	UNDEFINED
24.35	80	51.39	1.23	2.40	2.19	sandy silt to clayey silt	UNDFND	UNDFD	20	3.90

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

(*) overconsolidated or cemented

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

E W1 Bureau of Reclamation
W0
Operator :TONY SHANAHAN On Site Loc:WEBB TRACT BORRW Page No. 3

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
24.65	81	24.01	0.54	2.27	2.21	sandy silt to clayey silt	UNDFND	UNDFD	9	1.61
24.95	82	23.97	0.72	3.00	2.24	clayey silt to silty clay	UNDFND	UNDFD	11	1.60
25.25	83	46.86	1.19	2.54	2.27	sandy silt to clayey silt	UNDFND	UNDFD	18	3.51
25.60	84	141.53	3.61	2.55	2.29	silty sand to sandy silt	60-70	38-40	45	UNDEFINED
25.90	85	240.19	5.71	2.38	2.32	silty sand to sandy silt	70-80	40-42	>50	UNDEFINED
26.20	86	95.73	4.78	4.99	2.35	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
26.55	87	86.63	6.15	7.09	2.38	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
26.85	88	140.40	7.51	5.35	2.40	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
27.15	89	221.32	8.60	3.88	2.43	sand to clayey sand (*)	UNDFND	UNDFD	>50	UNDEFINED
27.45	90	257.93	11.79	4.57	2.46	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

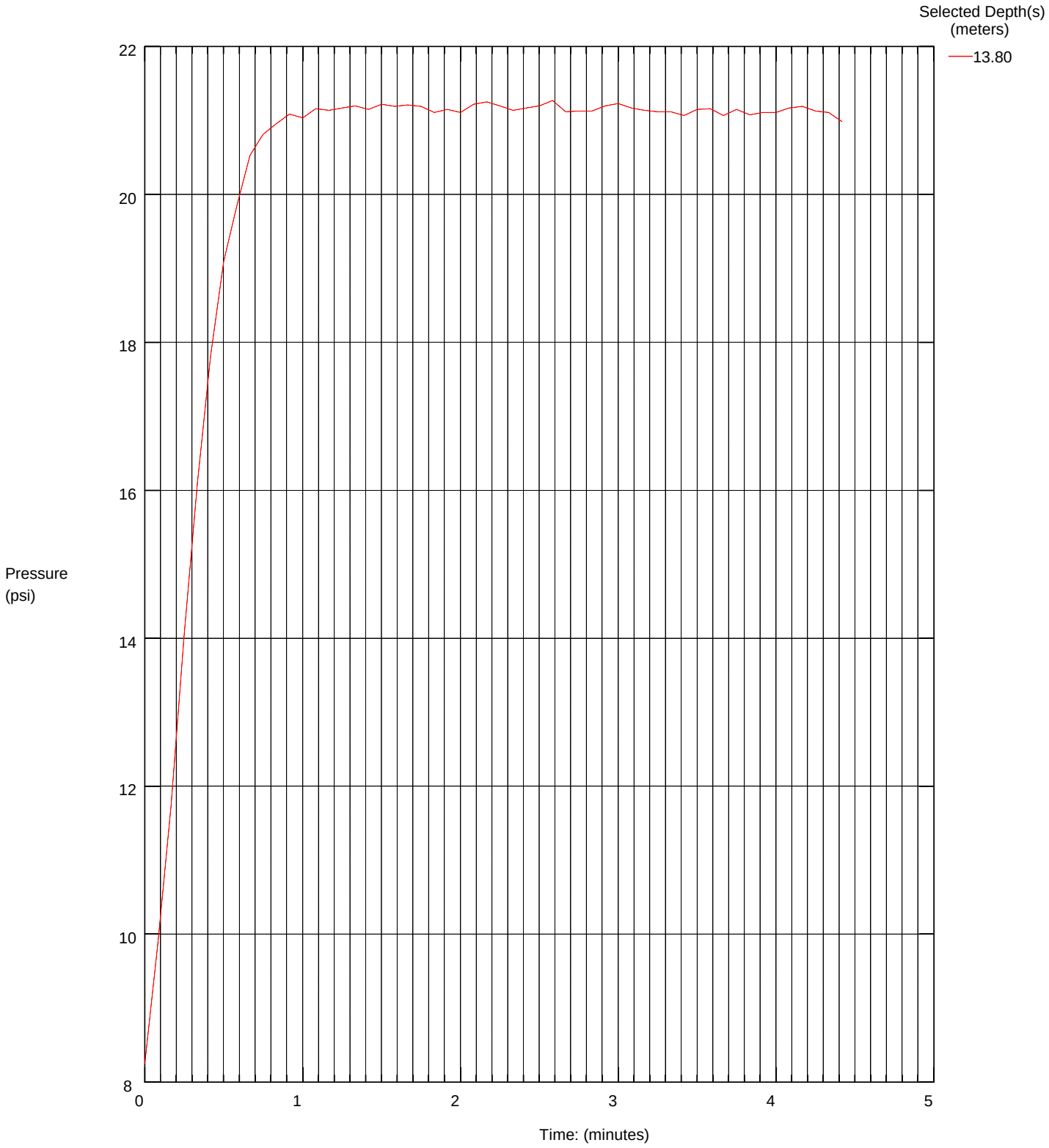
(*) overconsolidated or cemented

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

Bureau of Reclamation

Operator TONY SHANAHAN
Sounding: WTSC11
Cone Used: 739

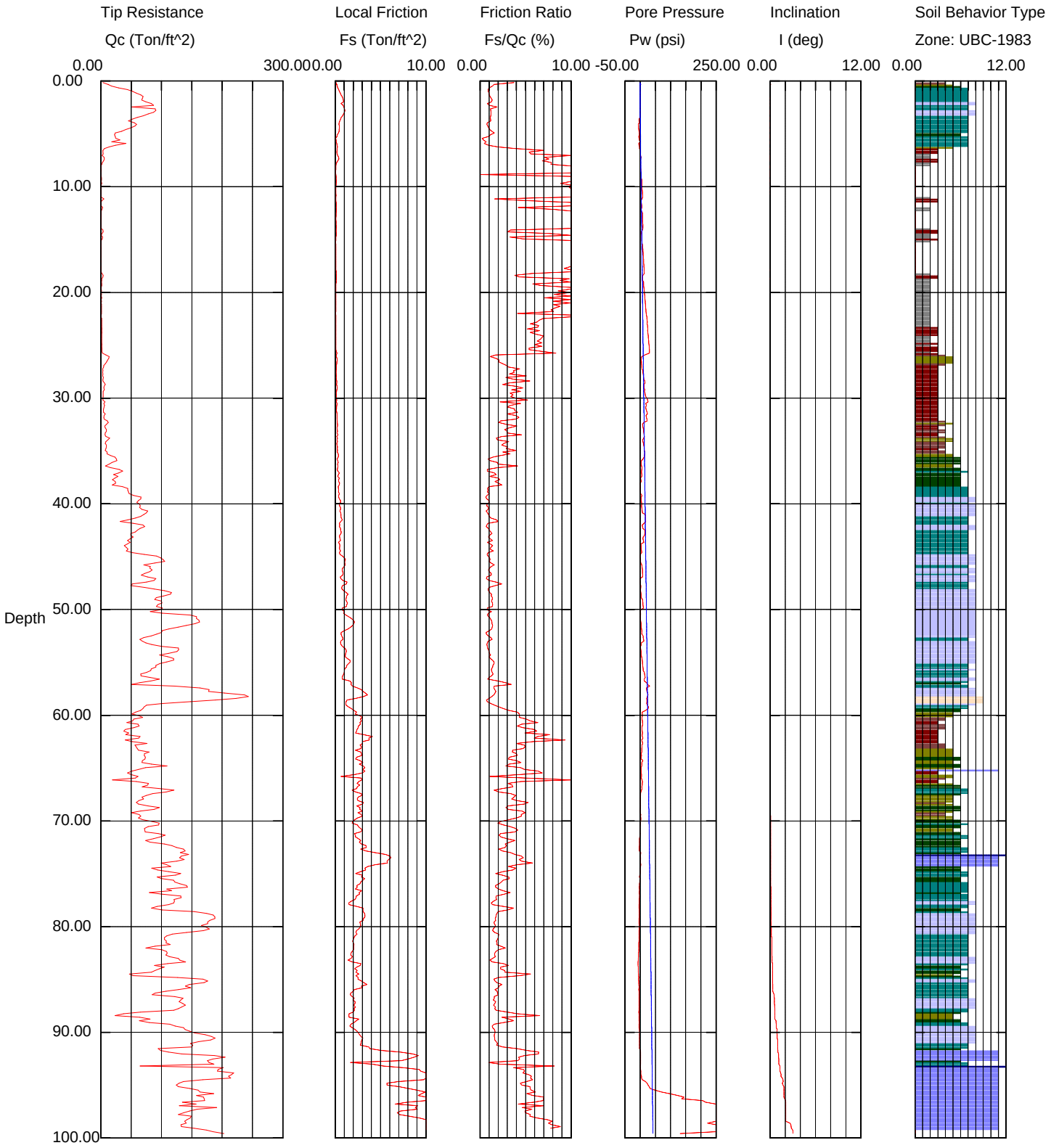
CPT Date/Time: 09-02-02 08:26
Location: WEBB TRACT BORRW
Job Number: IN-DELTA STORAGE



Bureau of Reclamation

Operator: TONY SHANAHAN
Sounding: WTSC13
Cone Used: 739

CPT Date/Time: 09-02-02 11:27
Location: WEBB FACILITY NE
Job Number: IN-DELTA STORAGE



Maximum Depth = 99.57 feet

Depth Increment = 0.16 feet

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 (*)

E W1 Bureau of Reclamation
W0

Operator :TONY SHANAHAN CPT Date :09-02-02 11:27
On Site Loc:WEBB FACILITY NE Cone Used :739
Job No. :IN-DELTA STORAGE Water table (feet) : 3.28084
Tot. Unit Wt. (avg) : 115 pcf

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
0.30	1	26.44	0.28	1.08	0.03	sandy silt to clayey silt	UNDFND	UNDFD	10	2.20
0.60	2	67.28	0.78	1.16	0.08	silty sand to sandy silt	>90	>48	21	UNDEFINED
0.95	3	80.78	0.94	1.17	0.15	sand to silty sand	80-90	>48	19	UNDEFINED
1.25	4	56.71	0.59	1.03	0.20	silty sand to sandy silt	70-80	44-46	18	UNDEFINED
1.55	5	37.77	0.41	1.08	0.22	silty sand to sandy silt	60-70	42-44	12	UNDEFINED
1.85	6	27.25	0.16	0.58	0.25	silty sand to sandy silt	40-50	40-42	9	UNDEFINED
2.15	7	5.40	0.24	4.38	0.27	clay	UNDFND	UNDFD	5	.41
2.45	8	3.29	0.25	7.64	0.30	organic material	UNDFND	UNDFD	3	.23
2.75	9	0.35	0.09	25.06	0.33	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.05	10	0.97	0.12	11.90	0.35	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.35	11	0.23	0.10	44.21	0.38	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.65	12	1.81	0.12	6.37	0.40	organic material	UNDFND	UNDFD	2	9.61
3.95	13	0.85	0.13	14.74	0.43	undefined	UNDFND	UNDFD	UDF	UNDEFINED
4.25	14	0.43	0.12	28.21	0.46	undefined	UNDFND	UNDFD	UDF	UNDEFINED
4.55	15	2.54	0.12	4.71	0.48	clay	UNDFND	UNDFD	2	.14
4.85	16	0.45	0.09	19.35	0.51	undefined	UNDFND	UNDFD	UDF	UNDEFINED
5.15	17	0.21	0.08	37.77	0.53	undefined	UNDFND	UNDFD	UDF	UNDEFINED
5.45	18	0.36	0.09	24.40	0.56	undefined	UNDFND	UNDFD	UDF	UNDEFINED
5.75	19	2.10	0.13	6.41	0.59	organic material	UNDFND	UNDFD	2	8.69
6.05	20	1.07	0.09	8.70	0.61	undefined	UNDFND	UNDFD	UDF	UNDEFINED
6.40	21	0.94	0.09	9.73	0.64	undefined	UNDFND	UNDFD	UDF	UNDEFINED
6.70	22	1.15	0.09	7.54	0.67	organic material	UNDFND	UNDFD	1	-7.39
7.00	23	1.22	0.10	7.99	0.69	organic material	UNDFND	UNDFD	1	-5.72
7.35	24	1.65	0.10	6.10	0.72	organic material	UNDFND	UNDFD	2	2.49
7.65	25	1.58	0.10	6.53	0.75	organic material	UNDFND	UNDFD	2	1.39
7.95	26	5.09	0.14	2.78	0.77	clay	UNDFND	UNDFD	5	.30
8.25	27	8.54	0.19	2.23	0.80	silty clay to clay	UNDFND	UNDFD	5	.58
8.55	28	3.31	0.12	3.76	0.83	clay	UNDFND	UNDFD	3	.14
8.85	29	4.99	0.19	3.75	0.85	clay	UNDFND	UNDFD	5	.27
9.15	30	4.10	0.15	3.69	0.88	clay	UNDFND	UNDFD	4	.20
9.45	31	5.26	0.18	3.49	0.90	clay	UNDFND	UNDFD	5	.29
9.75	32	5.30	0.20	3.79	0.93	clay	UNDFND	UNDFD	5	.29
10.05	33	9.22	0.25	2.74	0.96	silty clay to clay	UNDFND	UNDFD	6	.61
10.35	34	9.62	0.25	2.57	0.98	silty clay to clay	UNDFND	UNDFD	6	.64
10.65	35	8.24	0.24	2.97	1.01	silty clay to clay	UNDFND	UNDFD	5	.52
10.95	36	18.68	0.30	1.61	1.03	sandy silt to clayey silt	UNDFND	UNDFD	7	1.38
11.25	37	20.26	0.30	1.47	1.06	sandy silt to clayey silt	UNDFND	UNDFD	8	1.51
11.55	38	24.14	0.40	1.66	1.09	sandy silt to clayey silt	UNDFND	UNDFD	9	1.83

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

E W1 Bureau of Reclamation
W0
Operator :TONY SHANAHAN On Site Loc:WEBB FACILITY NE Page No. 2

DEPTH (meters)	DEPTH (feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
11.85	39	35.51	0.41	1.14	1.11	silty sand to sandy silt	<40	34-36	11	UNDEFINED
12.15	40	58.95	0.50	0.84	1.14	sand to silty sand	40-50	36-38	14	UNDEFINED
12.45	41	68.73	0.56	0.81	1.16	sand to silty sand	50-60	38-40	16	UNDEFINED
12.80	42	56.12	0.63	1.13	1.19	silty sand to sandy silt	40-50	36-38	18	UNDEFINED
13.10	43	58.85	0.59	1.00	1.22	silty sand to sandy silt	40-50	36-38	19	UNDEFINED
13.40	44	45.96	0.51	1.11	1.24	silty sand to sandy silt	40-50	36-38	15	UNDEFINED
13.75	45	63.13	0.64	1.01	1.27	silty sand to sandy silt	50-60	36-38	20	UNDEFINED
14.05	46	88.33	1.04	1.18	1.30	sand to silty sand	50-60	38-40	21	UNDEFINED
14.35	47	78.60	0.76	0.96	1.33	sand to silty sand	50-60	38-40	19	UNDEFINED
14.65	48	70.67	0.96	1.35	1.35	silty sand to sandy silt	50-60	36-38	23	UNDEFINED
14.95	49	103.23	1.22	1.18	1.38	sand to silty sand	60-70	38-40	25	UNDEFINED
15.25	50	97.44	1.13	1.16	1.40	sand to silty sand	60-70	38-40	23	UNDEFINED
15.55	51	134.51	1.41	1.05	1.43	sand to silty sand	70-80	40-42	32	UNDEFINED
15.85	52	133.22	1.72	1.29	1.46	sand to silty sand	60-70	40-42	32	UNDEFINED
16.15	53	79.65	0.73	0.92	1.48	sand to silty sand	50-60	36-38	19	UNDEFINED
16.45	54	106.72	0.93	0.87	1.51	sand to silty sand	60-70	38-40	26	UNDEFINED
16.75	55	111.20	1.34	1.21	1.53	sand to silty sand	60-70	38-40	27	UNDEFINED
17.05	56	86.54	1.19	1.38	1.56	silty sand to sandy silt	50-60	38-40	28	UNDEFINED
17.35	57	76.17	1.14	1.49	1.59	silty sand to sandy silt	50-60	36-38	24	UNDEFINED
17.65	58	149.30	2.57	1.72	1.61	sand to silty sand	70-80	40-42	36	UNDEFINED
17.95	59	190.17	2.11	1.11	1.64	sand	70-80	40-42	36	UNDEFINED
18.25	60	64.95	1.86	2.87	1.66	sandy silt to clayey silt	UNDFND	UNDFD	25	5.12
18.55	61	57.10	2.81	4.93	1.69	silty clay to clay	UNDFND	UNDFD	36	4.47
18.85	62	47.02	2.55	5.42	1.71	clay	UNDFND	UNDFD	45	3.62
19.20	63	58.49	3.32	5.68	1.74	clay	UNDFND	UNDFD	>50	4.57
19.50	64	69.76	2.68	3.84	1.77	clayey silt to silty clay	UNDFND	UNDFD	33	5.50
19.80	65	79.15	2.85	3.60	1.80	clayey silt to silty clay	UNDFND	UNDFD	38	6.28
20.15	66	49.18	2.56	5.21	1.82	clay	UNDFND	UNDFD	47	3.78
20.45	67	83.07	2.41	2.90	1.85	sandy silt to clayey silt	UNDFND	UNDFD	32	6.60
20.75	68	78.04	2.59	3.32	1.88	sandy silt to clayey silt	UNDFND	UNDFD	30	6.18
21.05	69	74.67	2.83	3.79	1.90	clayey silt to silty clay	UNDFND	UNDFD	36	5.89
21.35	70	65.72	2.49	3.80	1.93	clayey silt to silty clay	UNDFND	UNDFD	31	5.14
21.65	71	81.08	2.59	3.19	1.96	sandy silt to clayey silt	UNDFND	UNDFD	31	6.41
21.95	72	89.90	2.45	2.72	1.98	sandy silt to clayey silt	UNDFND	UNDFD	34	7.14
22.25	73	125.37	3.39	2.70	2.01	silty sand to sandy silt	60-70	38-40	40	UNDEFINED
22.55	74	128.21	5.85	4.56	2.03	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
22.85	75	107.34	3.29	3.07	2.06	sandy silt to clayey silt	UNDFND	UNDFD	41	8.58
23.15	76	114.69	2.96	2.58	2.09	silty sand to sandy silt	60-70	38-40	37	UNDEFINED
23.45	77	115.02	2.55	2.22	2.11	silty sand to sandy silt	50-60	38-40	37	UNDEFINED
23.75	78	122.91	1.94	1.58	2.14	sand to silty sand	60-70	38-40	29	UNDEFINED
24.05	79	131.61	3.02	2.29	2.16	silty sand to sandy silt	60-70	38-40	42	UNDEFINED
24.35	80	178.82	2.97	1.66	2.19	sand to silty sand	70-80	40-42	43	UNDEFINED

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

(*) overconsolidated or cemented

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

E W1 Bureau of Reclamation
W0
Operator :TONY SHANAHAN On Site Loc:WEBB FACILITY NE Page No. 3

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
24.65	81	148.06	2.44	1.65	2.21	sand to silty sand	60-70	38-40	35	UNDEFINED
24.95	82	105.01	2.03	1.93	2.24	silty sand to sandy silt	50-60	36-38	34	UNDEFINED
25.25	83	101.98	1.90	1.86	2.27	silty sand to sandy silt	50-60	36-38	33	UNDEFINED
25.60	84	113.99	2.17	1.91	2.29	silty sand to sandy silt	50-60	36-38	36	UNDEFINED
25.90	85	94.59	2.45	2.59	2.32	sandy silt to clayey silt	UNDFND	UNDFD	36	7.47
26.20	86	151.16	2.92	1.93	2.35	silty sand to sandy silt	60-70	38-40	48	UNDEFINED
26.55	87	114.08	1.94	1.70	2.38	silty sand to sandy silt	50-60	36-38	36	UNDEFINED
26.85	88	120.14	2.11	1.76	2.40	silty sand to sandy silt	50-60	36-38	38	UNDEFINED
27.15	89	58.22	1.94	3.34	2.43	clayey silt to silty clay	UNDFND	UNDFD	28	4.42
27.45	90	135.41	2.07	1.53	2.46	sand to silty sand	60-70	38-40	32	UNDEFINED
27.75	91	172.12	2.88	1.67	2.48	sand to silty sand	60-70	38-40	41	UNDEFINED
28.05	92	123.10	5.18	4.20	2.51	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
28.35	93	186.09	6.49	3.49	2.53	sand to clayey sand (*)	UNDFND	UNDFD	>50	UNDEFINED
28.65	94	180.99	8.86	4.90	2.56	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
28.95	95	163.77	8.64	5.28	2.58	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
29.25	96	156.98	8.78	5.60	2.61	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
29.55	97	155.20	9.87	6.36	2.64	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
29.85	98	151.58	7.85	5.18	2.66	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
30.15	99	138.82	10.58	7.62	2.69	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

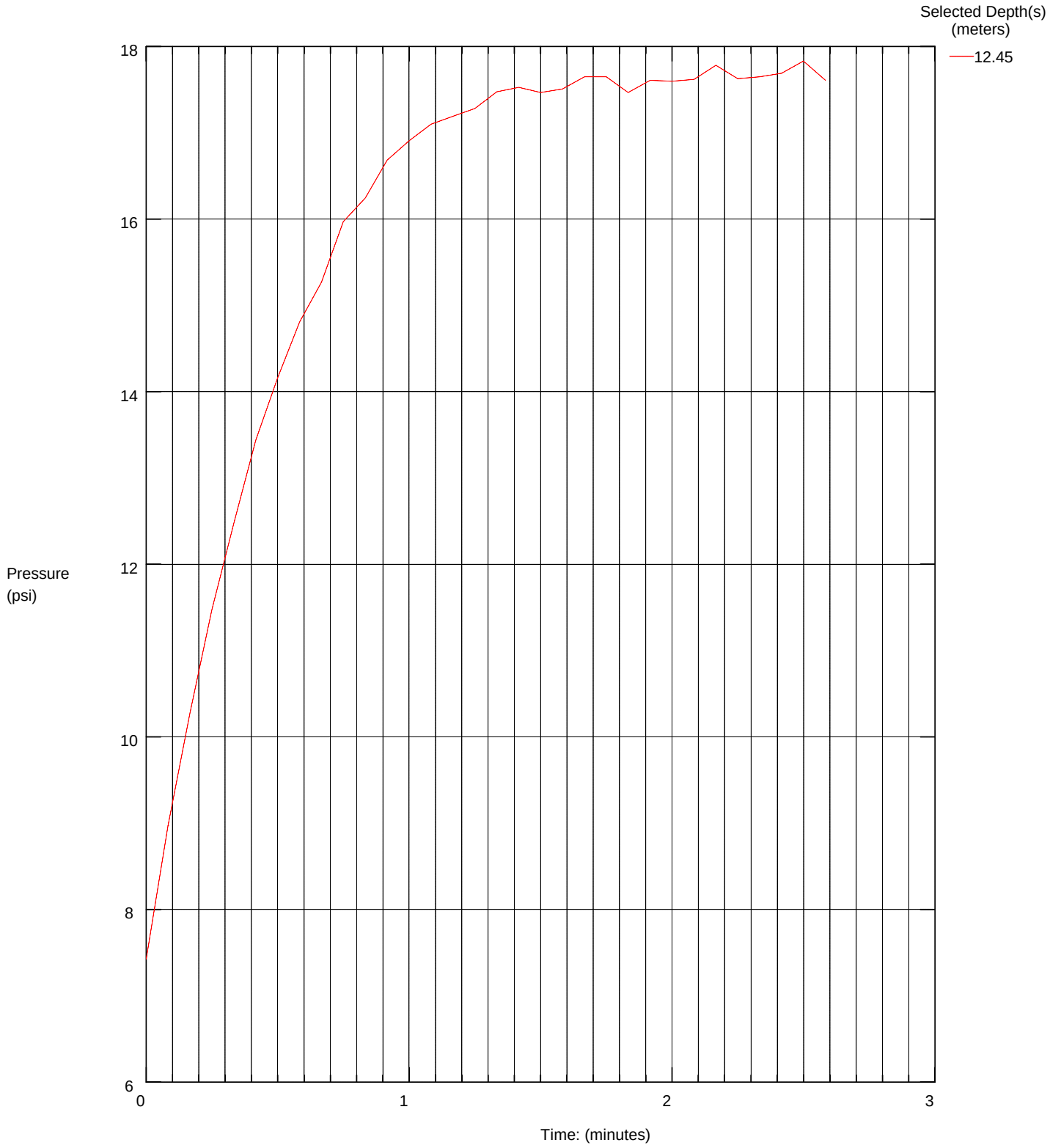
(*) overconsolidated or cemented

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

Bureau of Reclamation

Operator TONY SHANAHAN
Sounding: WTSC13
Cone Used: 739

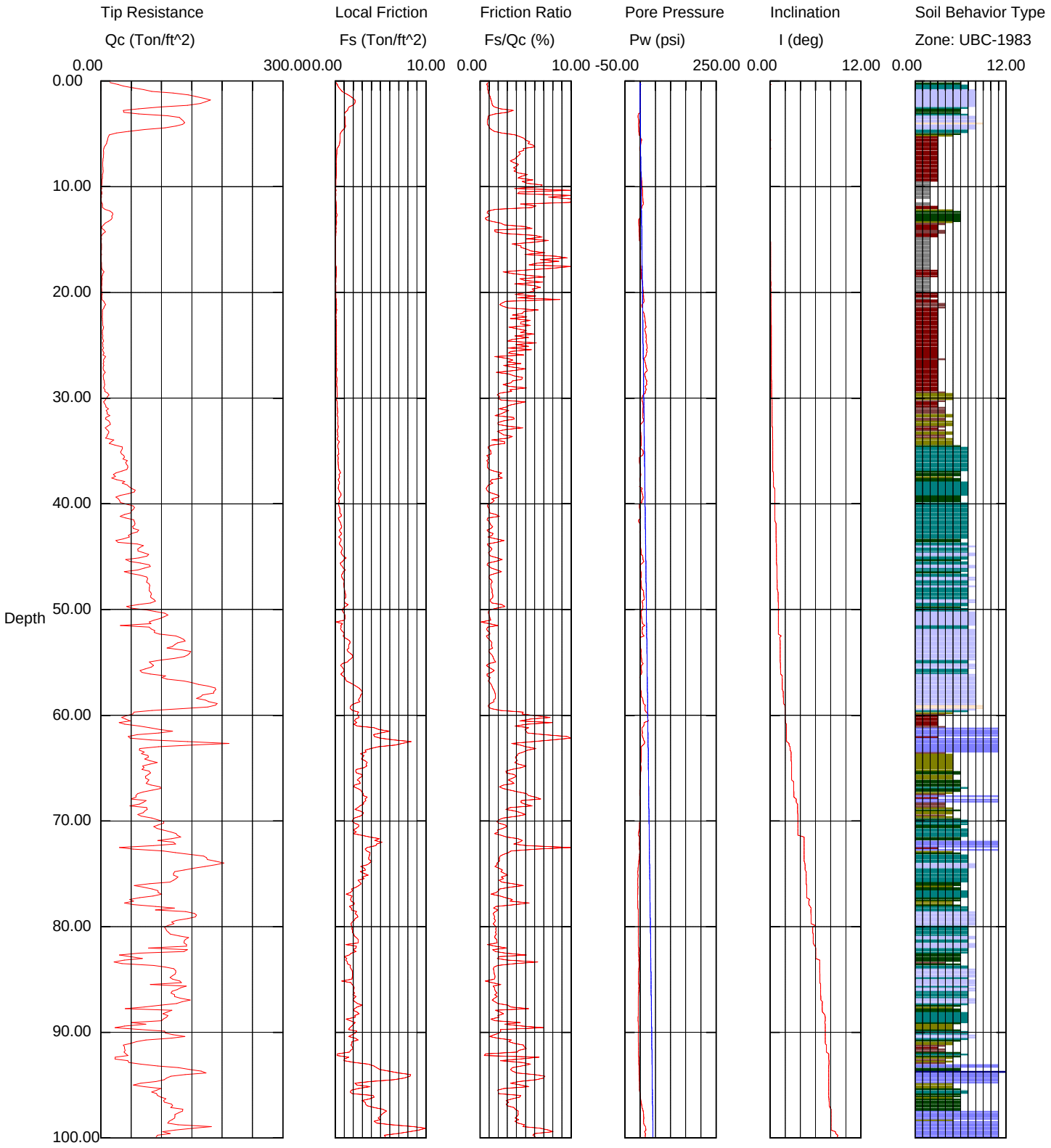
CPT Date/Time: 09-02-02 11:27
Location: WEBB FACILITY NE
Job Number: IN-DELTA STORAGE



Bureau of Reclamation

Operator: TONY SHANAHAN
Sounding: WTSC15
Cone Used: 739

CPT Date/Time: 09-02-02 09:53
Location: WEBB FACILITY NE
Job Number: IN-DELTA STORAGE



Maximum Depth = 100.72 feet

Depth Increment = 0.16 feet

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 (*)

E W1 Bureau of Reclamation
W0

Operator :TONY SHANAHAN
On Site Loc:WEBB FACILITY NE
Job No. :IN-DELTA STORAGE
Tot. Unit Wt. (avg) : 115 pcf

CPT Date :09-02-02 09:53
Cone Used :739
Water table (feet) : 3.28084

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
0.30	1	47.95	0.41	0.85	0.03	silty sand to sandy silt	>90	>48	15	UNDEFINED
0.60	2	157.19	1.77	1.12	0.08	sand to silty sand	>90	>48	38	UNDEFINED
0.95	3	86.39	1.51	1.75	0.15	silty sand to sandy silt	>90	>48	28	UNDEFINED
1.25	4	130.28	1.10	0.84	0.20	sand to silty sand	>90	>48	31	UNDEFINED
1.55	5	64.72	0.84	1.30	0.22	silty sand to sandy silt	70-80	44-46	21	UNDEFINED
1.85	6	10.37	0.52	5.05	0.25	clay	UNDFND	UNDFD	10	.83
2.15	7	4.60	0.22	4.82	0.27	clay	UNDFND	UNDFD	4	.35
2.45	8	3.33	0.13	3.85	0.30	clay	UNDFND	UNDFD	3	.24
2.75	9	3.28	0.14	4.17	0.33	clay	UNDFND	UNDFD	3	.23
3.05	10	1.82	0.10	5.33	0.35	organic material	UNDFND	UNDFD	2	.10
3.35	11	1.31	0.08	6.14	0.38	organic material	UNDFND	UNDFD	1	5.88
3.65	12	1.68	0.12	7.15	0.40	organic material	UNDFND	UNDFD	2	8.51
3.95	13	16.18	0.15	0.92	0.43	sandy silt to clayey silt	UNDFND	UNDFD	6	1.28
4.25	14	7.48	0.13	1.70	0.46	silty clay to clay	UNDFND	UNDFD	5	.55
4.55	15	3.36	0.09	2.58	0.48	clay	UNDFND	UNDFD	3	.21
4.85	16	0.97	0.05	4.95	0.51	undefined	UNDFND	UNDFD	UDF	UNDEFINED
5.15	17	0.78	0.05	6.71	0.53	undefined	UNDFND	UNDFD	UDF	UNDEFINED
5.45	18	1.38	0.10	6.96	0.56	organic material	UNDFND	UNDFD	1	3.12
5.75	19	2.83	0.11	4.06	0.59	clay	UNDFND	UNDFD	3	.14
6.05	20	1.52	0.09	5.68	0.61	organic material	UNDFND	UNDFD	1	3.42
6.40	21	2.87	0.11	3.85	0.64	clay	UNDFND	UNDFD	3	.14
6.70	22	4.48	0.15	3.40	0.67	clay	UNDFND	UNDFD	4	.27
7.00	23	2.71	0.12	4.39	0.69	clay	UNDFND	UNDFD	3	.11
7.35	24	3.18	0.14	4.45	0.72	clay	UNDFND	UNDFD	3	.15
7.65	25	3.31	0.14	4.33	0.75	clay	UNDFND	UNDFD	3	.15
7.95	26	4.61	0.15	3.19	0.77	clay	UNDFND	UNDFD	4	.26
8.25	27	4.58	0.15	3.31	0.80	clay	UNDFND	UNDFD	4	.25
8.55	28	4.90	0.17	3.47	0.83	clay	UNDFND	UNDFD	5	.27
8.85	29	5.45	0.20	3.60	0.85	clay	UNDFND	UNDFD	5	.31
9.15	30	9.64	0.23	2.37	0.88	silty clay to clay	UNDFND	UNDFD	6	.66
9.45	31	7.84	0.23	2.99	0.90	undefined	UNDFND	UNDFD	UDF	UNDEFINED
9.75	32	10.17	0.27	2.70	0.93	silty clay to clay	UNDFND	UNDFD	6	.69
10.05	33	12.00	0.32	2.63	0.96	silty clay to clay	UNDFND	UNDFD	8	.84
10.35	34	12.66	0.28	2.22	0.98	clayey silt to silty clay	UNDFND	UNDFD	6	.89
10.65	35	26.45	0.36	1.37	1.01	sandy silt to clayey silt	UNDFND	UNDFD	10	2.03
10.95	36	37.23	0.35	0.94	1.03	silty sand to sandy silt	<40	36-38	12	UNDEFINED
11.25	37	41.49	0.40	0.96	1.06	silty sand to sandy silt	40-50	36-38	13	UNDEFINED
11.55	38	25.51	0.46	1.79	1.09	sandy silt to clayey silt	UNDFND	UNDFD	10	1.94

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

E W1 Bureau of Reclamation
W0
Operator :TONY SHANAHAN On Site Loc:WEBB FACILITY NE Page No. 2

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
11.85	39	47.96	0.43	0.89	1.11	silty sand to sandy silt	40-50	36-38	15	UNDEFINED
12.15	40	32.45	0.52	1.60	1.14	sandy silt to clayey silt	UNDFND	UNDFD	12	2.51
12.45	41	50.44	0.48	0.95	1.16	silty sand to sandy silt	40-50	36-38	16	UNDEFINED
12.80	42	47.66	0.56	1.18	1.19	silty sand to sandy silt	40-50	36-38	15	UNDEFINED
13.10	43	54.13	0.62	1.15	1.22	silty sand to sandy silt	40-50	36-38	17	UNDEFINED
13.40	44	44.54	0.56	1.25	1.24	silty sand to sandy silt	40-50	34-36	14	UNDEFINED
13.75	45	67.70	0.83	1.23	1.27	silty sand to sandy silt	50-60	36-38	22	UNDEFINED
14.05	46	64.46	0.79	1.22	1.30	silty sand to sandy silt	50-60	36-38	21	UNDEFINED
14.35	47	60.94	0.85	1.40	1.33	silty sand to sandy silt	40-50	36-38	19	UNDEFINED
14.65	48	78.66	0.99	1.26	1.35	silty sand to sandy silt	50-60	38-40	25	UNDEFINED
14.95	49	82.89	1.10	1.33	1.38	silty sand to sandy silt	50-60	38-40	26	UNDEFINED
15.25	50	66.72	1.07	1.60	1.40	silty sand to sandy silt	50-60	36-38	21	UNDEFINED
15.55	51	99.28	1.02	1.03	1.43	sand to silty sand	60-70	38-40	24	UNDEFINED
15.85	52	74.30	0.59	0.80	1.46	sand to silty sand	50-60	36-38	18	UNDEFINED
16.15	53	119.07	1.15	0.97	1.48	sand to silty sand	60-70	40-42	29	UNDEFINED
16.45	54	126.27	1.49	1.18	1.51	sand to silty sand	60-70	40-42	30	UNDEFINED
16.75	55	121.01	1.71	1.41	1.53	sand to silty sand	60-70	38-40	29	UNDEFINED
17.05	56	76.39	0.83	1.09	1.56	sand to silty sand	50-60	36-38	18	UNDEFINED
17.35	57	114.15	1.10	0.96	1.59	sand to silty sand	60-70	38-40	27	UNDEFINED
17.65	58	181.34	2.62	1.44	1.61	sand to silty sand	70-80	40-42	43	UNDEFINED
17.95	59	172.03	2.63	1.53	1.64	sand to silty sand	70-80	40-42	41	UNDEFINED
18.25	60	115.30	2.01	1.74	1.66	silty sand to sandy silt	60-70	38-40	37	UNDEFINED
18.55	61	39.33	2.34	5.94	1.69	clay	UNDFND	UNDFD	38	2.98
18.85	62	85.80	4.45	5.19	1.71	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
19.20	63	110.73	6.12	5.53	1.74	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
19.50	64	70.26	3.27	4.66	1.77	silty clay to clay	UNDFND	UNDFD	45	5.55
19.80	65	77.82	3.31	4.25	1.80	clayey silt to silty clay	UNDFND	UNDFD	37	6.17
20.15	66	76.20	2.57	3.37	1.82	sandy silt to clayey silt	UNDFND	UNDFD	29	6.03
20.45	67	86.01	2.50	2.91	1.85	sandy silt to clayey silt	UNDFND	UNDFD	33	6.84
20.75	68	61.80	3.22	5.22	1.88	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
21.05	69	67.59	2.74	4.06	1.90	clayey silt to silty clay	UNDFND	UNDFD	32	5.30
21.35	70	79.57	2.49	3.13	1.93	sandy silt to clayey silt	UNDFND	UNDFD	30	6.29
21.65	71	99.39	2.33	2.35	1.96	silty sand to sandy silt	50-60	36-38	32	UNDEFINED
21.95	72	118.44	3.84	3.24	1.98	sandy silt to clayey silt	UNDFND	UNDFD	45	9.52
22.25	73	86.64	3.87	4.47	2.01	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
22.55	74	176.41	3.79	2.15	2.03	silty sand to sandy silt	70-80	40-42	>50	UNDEFINED
22.85	75	148.96	3.15	2.12	2.06	silty sand to sandy silt	60-70	38-40	48	UNDEFINED
23.15	76	114.11	2.99	2.62	2.09	silty sand to sandy silt	50-60	38-40	36	UNDEFINED
23.45	77	83.24	1.93	2.31	2.11	silty sand to sandy silt	50-60	36-38	27	UNDEFINED
23.75	78	57.40	1.89	3.29	2.14	clayey silt to silty clay	UNDFND	UNDFD	27	4.41
24.05	79	125.55	2.03	1.61	2.16	sand to silty sand	60-70	38-40	30	UNDEFINED
24.35	80	128.66	2.04	1.59	2.19	sand to silty sand	60-70	38-40	31	UNDEFINED

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

(*) overconsolidated or cemented

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

E W1 Bureau of Reclamation
W0
Operator :TONY SHANAHAN On Site Loc:WEBB FACILITY NE Page No. 3

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
24.65	81	112.66	1.96	1.74	2.21	silty sand to sandy silt	50-60	36-38	36	UNDEFINED
24.95	82	140.12	2.25	1.60	2.24	sand to silty sand	60-70	38-40	34	UNDEFINED
25.25	83	83.44	1.83	2.20	2.27	silty sand to sandy silt	40-50	36-38	27	UNDEFINED
25.60	84	68.12	1.47	2.16	2.29	silty sand to sandy silt	40-50	34-36	22	UNDEFINED
25.90	85	120.02	1.90	1.58	2.32	sand to silty sand	50-60	36-38	29	UNDEFINED
26.20	86	123.78	1.75	1.42	2.35	sand to silty sand	60-70	36-38	30	UNDEFINED
26.55	87	126.95	2.09	1.65	2.38	sand to silty sand	60-70	36-38	30	UNDEFINED
26.85	88	93.60	2.41	2.58	2.40	sandy silt to clayey silt	UNDFND	UNDFD	36	7.38
27.15	89	95.75	2.02	2.11	2.43	silty sand to sandy silt	50-60	36-38	31	UNDEFINED
27.45	90	69.01	1.93	2.79	2.46	sandy silt to clayey silt	UNDFND	UNDFD	26	5.32
27.75	91	92.59	1.97	2.13	2.48	silty sand to sandy silt	50-60	36-38	30	UNDEFINED
28.05	92	39.14	1.53	3.91	2.51	clayey silt to silty clay	UNDFND	UNDFD	19	2.82
28.35	93	41.37	1.59	3.84	2.53	clayey silt to silty clay	UNDFND	UNDFD	20	3.00
28.65	94	140.83	5.82	4.13	2.56	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
28.95	95	89.70	5.13	5.71	2.58	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
29.25	96	88.54	2.66	3.00	2.61	sandy silt to clayey silt	UNDFND	UNDFD	34	6.92
29.55	97	108.26	3.54	3.27	2.64	sandy silt to clayey silt	UNDFND	UNDFD	41	8.56
29.85	98	126.25	5.11	4.05	2.66	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
30.15	99	128.47	5.57	4.33	2.69	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
30.45	100	112.57	7.54	6.70	2.71	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

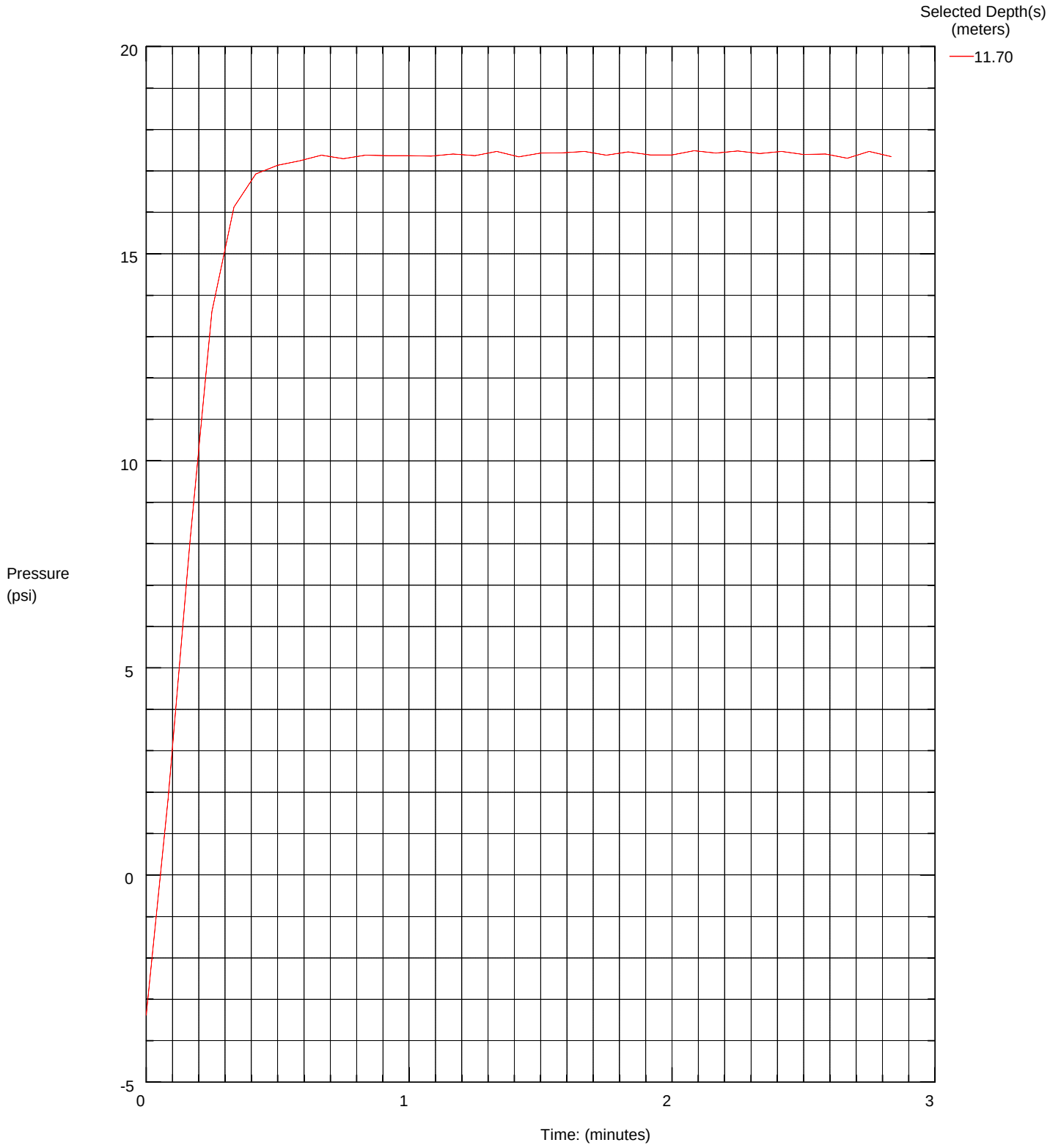
(*) overconsolidated or cemented

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

Bureau of Reclamation

Operator TONY SHANAHAN
Sounding: WTSC15
Cone Used: 739

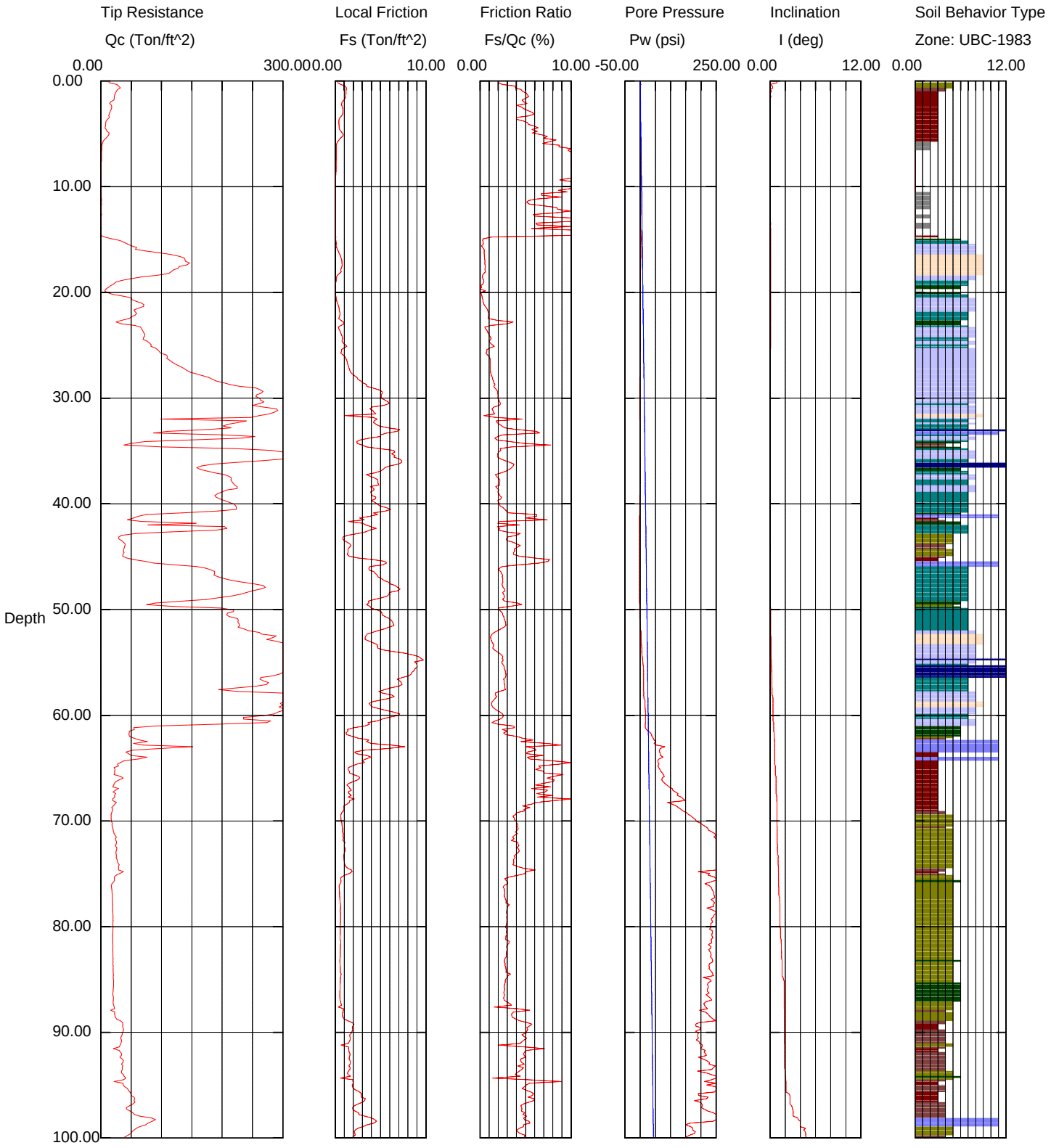
CPT Date/Time: 09-02-02 09:53
Location: WEBB FACILITY NE
Job Number: IN-DELTA STORAGE



Bureau of Reclamation

Operator: TONY SHANAHAN
Sounding: WTSC16
Cone Used: 739

CPT Date/Time: 09-03-02 10:34
Location: WEBB PUMP STA.SE
Job Number: IN-DELTA STORAGE



Maximum Depth = 100.56 feet

Depth Increment = 0.16 feet

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 (*)

E W1 Bureau of Reclamation
W0

Operator :TONY SHANAHAN
On Site Loc:WEBB PUMP STA.SE
Job No. :IN-DELTA STORAGE
Tot. Unit Wt. (avg) : 115 pcf

CPT Date :09-03-02 10:34
Cone Used :739
Water table (feet) : 3.28084

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
0.30	1	25.57	0.95	3.72	0.03	silty clay to clay	UNDFND	UNDFD	16	2.12
0.60	2	21.51	1.08	5.02	0.08	clay	UNDFND	UNDFD	21	1.78
0.95	3	15.99	0.80	5.02	0.15	clay	UNDFND	UNDFD	15	1.32
1.25	4	10.45	0.49	4.73	0.20	clay	UNDFND	UNDFD	10	.85
1.55	5	10.07	0.62	6.16	0.22	clay	UNDFND	UNDFD	10	.81
1.85	6	5.47	0.41	7.49	0.25	clay	UNDFND	UNDFD	5	.42
2.15	7	1.28	0.13	10.53	0.27	undefined	UNDFND	UNDFD	UDF	UNDEFINED
2.45	8	0.89	0.13	14.13	0.30	undefined	UNDFND	UNDFD	UDF	UNDEFINED
2.75	9	0.30	0.10	32.64	0.33	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.05	10	0.42	0.06	13.86	0.35	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.35	11	0.71	0.06	8.87	0.38	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.65	12	0.92	0.06	6.23	0.40	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.95	13	0.55	0.06	10.27	0.43	undefined	UNDFND	UNDFD	UDF	UNDEFINED
4.25	14	0.53	0.05	10.11	0.46	undefined	UNDFND	UNDFD	UDF	UNDEFINED
4.55	15	4.13	0.05	1.28	0.48	sensitive fine grained	UNDFND	UNDFD	2	.27
4.85	16	46.60	0.15	0.32	0.51	sand to silty sand	50-60	40-42	11	UNDEFINED
5.15	17	114.92	0.55	0.47	0.53	sand	70-80	44-46	22	UNDEFINED
5.45	18	133.82	0.73	0.55	0.56	sand	80-90	44-46	26	UNDEFINED
5.75	19	78.43	0.31	0.40	0.59	sand to silty sand	60-70	42-44	19	UNDEFINED
6.05	20	14.92	0.04	0.27	0.61	sandy silt to clayey silt	UNDFND	UNDFD	6	1.15
6.40	21	41.47	0.12	0.29	0.64	sand to silty sand	40-50	38-40	10	UNDEFINED
6.70	22	62.43	0.45	0.72	0.67	sand to silty sand	50-60	40-42	15	UNDEFINED
7.00	23	41.17	0.66	1.61	0.69	silty sand to sandy silt	40-50	38-40	13	UNDEFINED
7.35	24	67.55	0.57	0.84	0.72	sand to silty sand	60-70	40-42	16	UNDEFINED
7.65	25	76.86	0.95	1.23	0.75	silty sand to sandy silt	60-70	40-42	25	UNDEFINED
7.95	26	99.23	0.83	0.84	0.77	sand to silty sand	70-80	42-44	24	UNDEFINED
8.25	27	119.99	1.35	1.13	0.80	sand to silty sand	70-80	42-44	29	UNDEFINED
8.55	28	155.50	1.90	1.22	0.83	sand to silty sand	80-90	42-44	37	UNDEFINED
8.85	29	212.07	3.25	1.53	0.85	sand to silty sand	>90	44-46	>50	UNDEFINED
9.15	30	261.29	5.07	1.94	0.88	sand to silty sand	>90	44-46	>50	UNDEFINED
9.45	31	266.64	5.09	1.91	0.90	sand to silty sand	>90	44-46	>50	UNDEFINED
9.75	32	243.53	3.80	1.56	0.93	sand to silty sand	>90	44-46	>50	UNDEFINED
10.05	33	211.24	5.15	2.44	0.96	silty sand to sandy silt	80-90	44-46	>50	UNDEFINED
10.35	34	171.73	4.84	2.82	0.98	silty sand to sandy silt	80-90	42-44	>50	UNDEFINED
10.65	35	126.80	3.75	2.96	1.01	sandy silt to clayey silt	UNDFND	UNDFD	49	10.40
10.95	36	313.98	6.71	2.14	1.03	sand to silty sand	>90	44-46	>50	UNDEFINED
11.25	37	178.33	6.01	3.37	1.06	sandy silt to clayey silt	UNDFND	UNDFD	>50	14.68
11.55	38	208.04	4.23	2.04	1.09	silty sand to sandy silt	80-90	42-44	>50	UNDEFINED

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

E W1 Bureau of Reclamation
W0
Operator :TONY SHANAHAN On Site Loc:WEBB PUMP STA.SE Page No. 2

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
11.85	39	215.66	4.31	2.00	1.11	sand to silty sand	80-90	42-44	>50	UNDEFINED
12.15	40	196.89	4.22	2.14	1.14	silty sand to sandy silt	80-90	42-44	>50	UNDEFINED
12.45	41	202.56	5.18	2.56	1.16	silty sand to sandy silt	80-90	42-44	>50	UNDEFINED
12.80	42	76.50	3.18	4.16	1.19	clayey silt to silty clay	UNDFND	UNDFD	37	6.17
13.10	43	134.68	3.24	2.41	1.22	silty sand to sandy silt	70-80	40-42	43	UNDEFINED
13.40	44	34.97	1.25	3.57	1.24	clayey silt to silty clay	UNDFND	UNDFD	17	2.70
13.75	45	38.06	1.60	4.19	1.27	silty clay to clay	UNDFND	UNDFD	24	2.95
14.05	46	111.06	4.67	4.21	1.30	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
14.35	47	190.17	4.48	2.36	1.33	silty sand to sandy silt	80-90	42-44	>50	UNDEFINED
14.65	48	250.61	6.32	2.52	1.35	silty sand to sandy silt	80-90	42-44	>50	UNDEFINED
14.95	49	217.68	5.67	2.61	1.38	silty sand to sandy silt	80-90	42-44	>50	UNDEFINED
15.25	50	139.47	3.87	2.78	1.40	silty sand to sandy silt	70-80	40-42	45	UNDEFINED
15.55	51	216.39	5.50	2.54	1.43	silty sand to sandy silt	80-90	42-44	>50	UNDEFINED
15.85	52	231.19	5.88	2.54	1.46	silty sand to sandy silt	80-90	42-44	>50	UNDEFINED
16.15	53	276.57	3.56	1.29	1.48	sand	>90	42-44	>50	UNDEFINED
16.45	54	326.04	4.97	1.52	1.51	sand to silty sand	>90	44-46	>50	UNDEFINED
16.75	55	369.91	8.90	2.41	1.53	sand to clayey sand (*)	UNDFND	UNDFD	>50	UNDEFINED
17.05	56	333.09	8.82	2.65	1.56	sand to clayey sand (*)	UNDFND	UNDFD	>50	UNDEFINED
17.35	57	274.78	7.51	2.73	1.59	silty sand to sandy silt	80-90	42-44	>50	UNDEFINED
17.65	58	247.25	5.99	2.42	1.61	silty sand to sandy silt	80-90	42-44	>50	UNDEFINED
17.95	59	335.16	5.26	1.57	1.64	sand to silty sand	>90	44-46	>50	UNDEFINED
18.25	60	295.79	5.33	1.80	1.66	sand to silty sand	>90	42-44	>50	UNDEFINED
18.55	61	247.25	4.99	2.02	1.69	sand to silty sand	80-90	42-44	>50	UNDEFINED
18.85	62	56.38	1.77	3.13	1.71	sandy silt to clayey silt	UNDFND	UNDFD	22	4.40
19.20	63	73.97	4.21	5.70	1.74	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
19.50	64	60.34	3.49	5.78	1.77	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
19.80	65	35.20	2.55	7.25	1.80	clay	UNDFND	UNDFD	34	2.62
20.15	66	27.17	2.06	7.57	1.82	clay	UNDFND	UNDFD	26	1.95
20.45	67	23.45	1.63	6.94	1.85	clay	UNDFND	UNDFD	22	1.63
20.75	68	21.54	1.65	7.66	1.88	clay	UNDFND	UNDFD	21	1.47
21.05	69	21.03	1.12	5.33	1.90	clay	UNDFND	UNDFD	20	1.42
21.35	70	17.31	0.67	3.85	1.93	silty clay to clay	UNDFND	UNDFD	11	1.10
21.65	71	19.48	0.80	4.09	1.96	silty clay to clay	UNDFND	UNDFD	12	1.28
21.95	72	24.29	0.92	3.80	1.98	silty clay to clay	UNDFND	UNDFD	16	1.68
22.25	73	25.22	1.06	4.21	2.01	silty clay to clay	UNDFND	UNDFD	16	1.75
22.55	74	26.36	0.99	3.77	2.03	silty clay to clay	UNDFND	UNDFD	17	1.84
22.85	75	31.09	1.48	4.77	2.06	clay	UNDFND	UNDFD	30	2.23
23.15	76	21.92	0.70	3.21	2.09	clayey silt to silty clay	UNDFND	UNDFD	10	1.46
23.45	77	17.99	0.48	2.66	2.11	clayey silt to silty clay	UNDFND	UNDFD	9	1.13
23.75	78	19.03	0.54	2.86	2.14	clayey silt to silty clay	UNDFND	UNDFD	9	1.21
24.05	79	19.68	0.58	2.96	2.16	clayey silt to silty clay	UNDFND	UNDFD	9	1.26
24.35	80	19.99	0.58	2.93	2.19	clayey silt to silty clay	UNDFND	UNDFD	10	1.28

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

(*) overconsolidated or cemented

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

E W1 Bureau of Reclamation
W0
Operator :TONY SHANAHAN On Site Loc:WEBB PUMP STA.SE Page No. 3

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
24.65	81	19.69	0.57	2.89	2.21	clayey silt to silty clay	UNDFND	UNDFD	9	1.25
24.95	82	19.55	0.59	3.00	2.24	clayey silt to silty clay	UNDFND	UNDFD	9	1.23
25.25	83	19.80	0.58	2.92	2.27	clayey silt to silty clay	UNDFND	UNDFD	9	1.25
25.60	84	20.09	0.55	2.75	2.29	clayey silt to silty clay	UNDFND	UNDFD	10	1.27
25.90	85	20.47	0.61	2.99	2.32	clayey silt to silty clay	UNDFND	UNDFD	10	1.30
26.20	86	20.83	0.57	2.71	2.35	clayey silt to silty clay	UNDFND	UNDFD	10	1.32
26.55	87	20.28	0.54	2.68	2.38	clayey silt to silty clay	UNDFND	UNDFD	10	1.27
26.85	88	20.92	0.73	3.49	2.40	clayey silt to silty clay	UNDFND	UNDFD	10	1.32
27.15	89	27.31	1.12	4.11	2.43	silty clay to clay	UNDFND	UNDFD	17	1.85
27.45	90	36.37	1.92	5.29	2.46	clay	UNDFND	UNDFD	35	2.60
27.75	91	33.77	1.60	4.73	2.48	clay	UNDFND	UNDFD	32	2.38
28.05	92	29.85	1.39	4.66	2.51	clay	UNDFND	UNDFD	29	2.04
28.35	93	34.63	1.62	4.69	2.53	silty clay to clay	UNDFND	UNDFD	22	2.44
28.65	94	35.36	1.52	4.29	2.56	silty clay to clay	UNDFND	UNDFD	23	2.49
28.95	95	35.45	1.68	4.74	2.58	silty clay to clay	UNDFND	UNDFD	23	2.50
29.25	96	45.88	2.44	5.33	2.61	clay	UNDFND	UNDFD	44	3.36
29.55	97	53.56	2.85	5.31	2.64	clay	UNDFND	UNDFD	>50	4.00
29.85	98	50.76	2.42	4.77	2.66	silty clay to clay	UNDFND	UNDFD	32	3.76
30.15	99	79.15	3.98	5.02	2.69	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
30.45	100	49.63	2.20	4.42	2.71	silty clay to clay	UNDFND	UNDFD	32	3.66

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

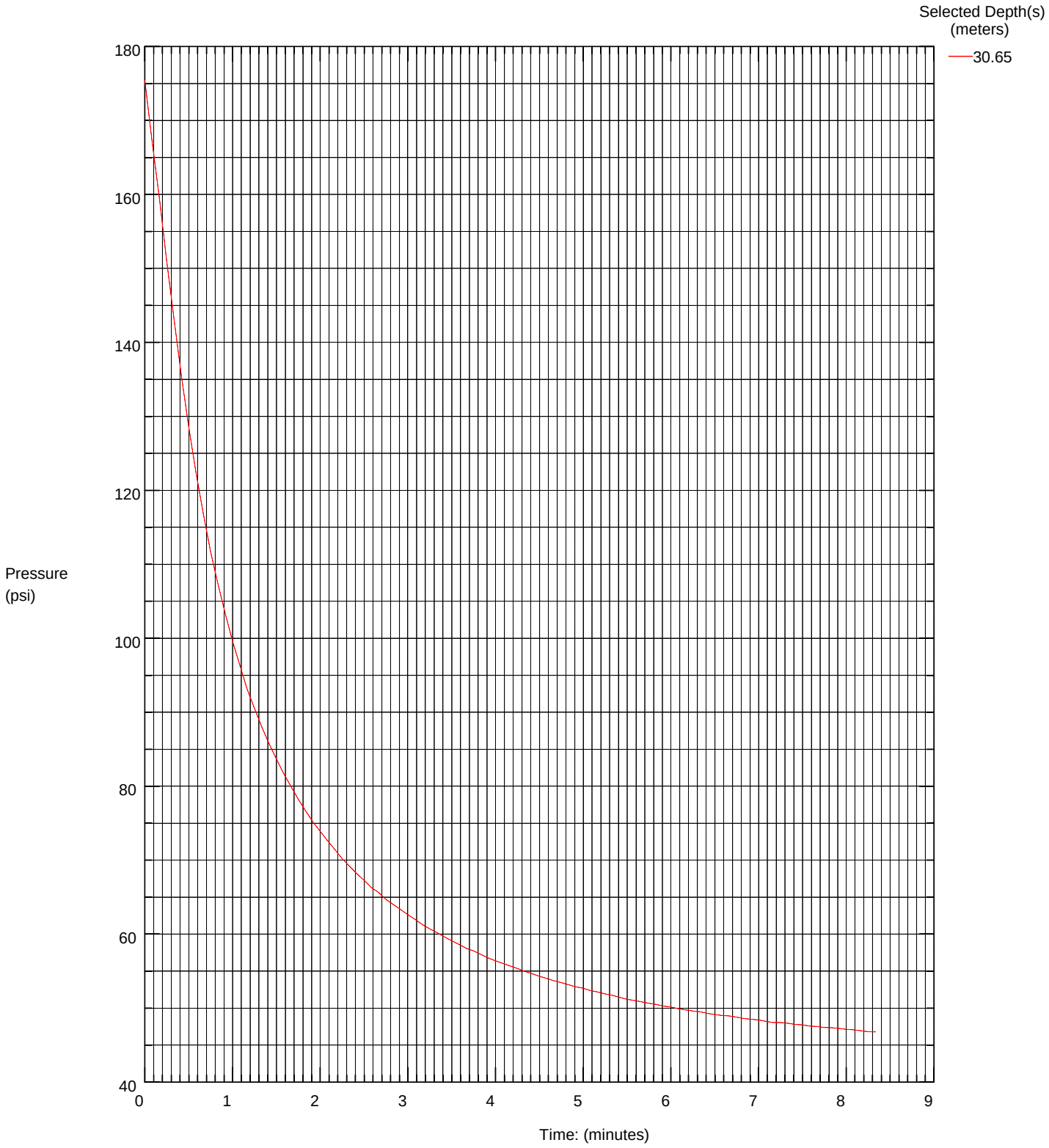
(*) overconsolidated or cemented

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

Bureau of Reclamation

Operator TONY SHANAHAN
Sounding: WTSC16
Cone Used: 739

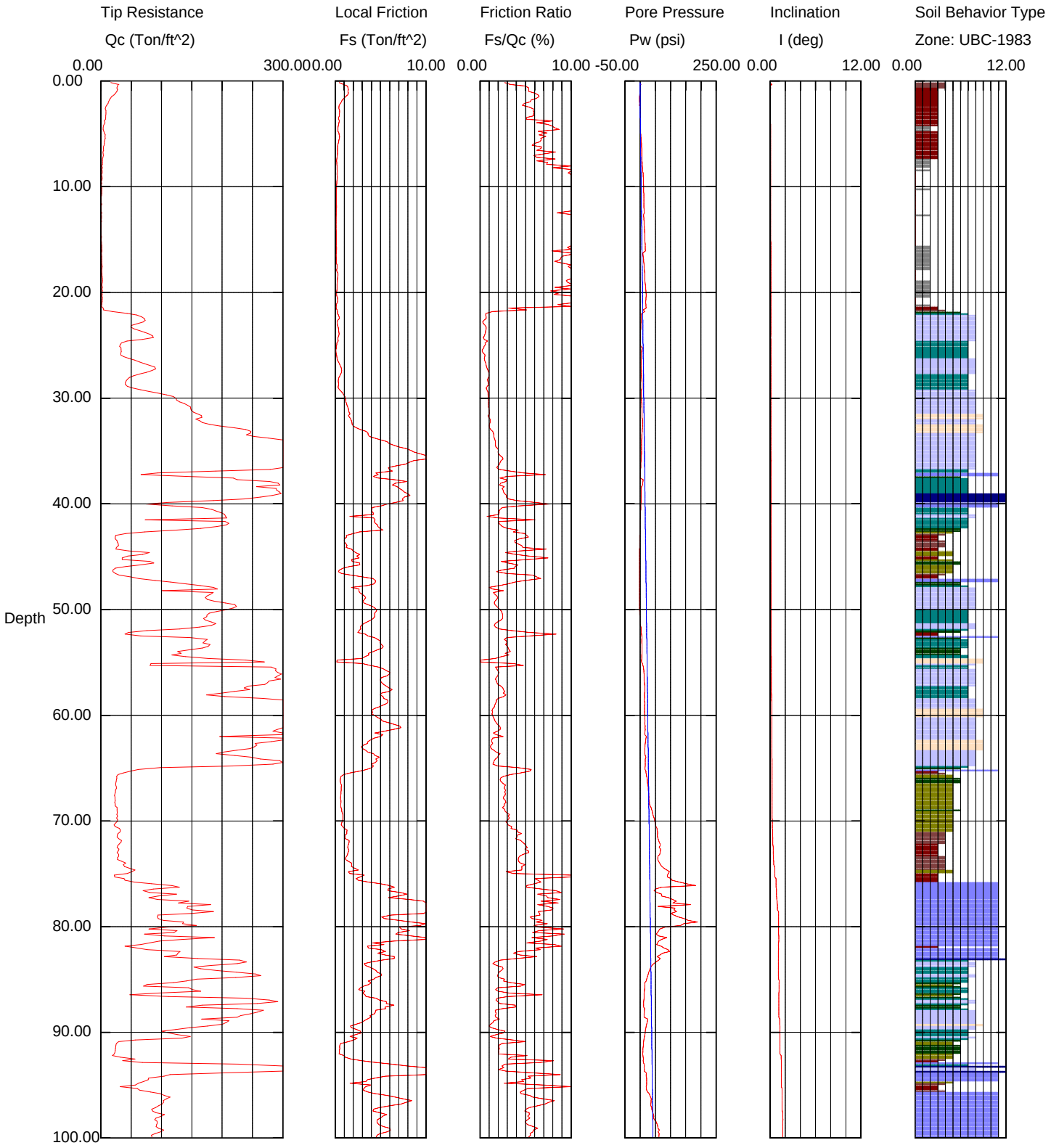
CPT Date/Time: 09-03-02 10:34
Location: WEBB PUMP STA.SE
Job Number: IN-DELTA STORAGE



Bureau of Reclamation

Operator: TONY SHANAHAN
Sounding: WTSC17
Cone Used: 739

CPT Date/Time: 09-03-02 08:46
Location: WEBB PUMP STA.SE
Job Number: IN-DELTA STORAGE



Maximum Depth = 101.54 feet

Depth Increment = 0.16 feet

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 (*)

E W1 Bureau of Reclamation
W0

Operator :TONY SHANAHAN CPT Date :09-03-02 08:46
On Site Loc:WEBB PUMP STA.SE Cone Used :739
Job No. :IN-DELTA STORAGE Water table (feet) : 3.28084
Tot. Unit Wt. (avg) : 115 pcf

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
0.30	1	25.49	1.18	4.61	0.03	clay	UNDFND	UNDFD	24	2.12
0.60	2	17.81	1.08	6.08	0.08	clay	UNDFND	UNDFD	17	1.47
0.95	3	8.84	0.48	5.42	0.15	clay	UNDFND	UNDFD	8	.72
1.25	4	6.88	0.42	6.15	0.20	clay	UNDFND	UNDFD	7	.55
1.55	5	4.96	0.36	7.35	0.22	clay	UNDFND	UNDFD	5	.39
1.85	6	6.20	0.40	6.52	0.25	clay	UNDFND	UNDFD	6	.49
2.15	7	4.08	0.28	6.76	0.27	clay	UNDFND	UNDFD	4	.30
2.45	8	2.58	0.20	7.72	0.30	organic material	UNDFND	UNDFD	2	.17
2.75	9	2.00	0.23	11.62	0.33	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.05	10	1.45	0.20	13.62	0.35	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.35	11	1.25	0.16	12.60	0.38	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.65	12	0.62	0.16	25.05	0.40	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.95	13	0.94	0.13	13.68	0.43	undefined	UNDFND	UNDFD	UDF	UNDEFINED
4.25	14	0.67	0.12	18.14	0.46	undefined	UNDFND	UNDFD	UDF	UNDEFINED
4.55	15	0.57	0.13	23.38	0.48	undefined	UNDFND	UNDFD	UDF	UNDEFINED
4.85	16	1.26	0.15	12.11	0.51	undefined	UNDFND	UNDFD	UDF	UNDEFINED
5.15	17	1.47	0.13	9.19	0.53	undefined	UNDFND	UNDFD	UDF	UNDEFINED
5.45	18	1.79	0.18	10.11	0.56	undefined	UNDFND	UNDFD	UDF	UNDEFINED
5.75	19	2.09	0.27	13.09	0.59	undefined	UNDFND	UNDFD	UDF	UNDEFINED
6.05	20	2.15	0.21	9.87	0.61	undefined	UNDFND	UNDFD	UDF	UNDEFINED
6.40	21	2.09	0.23	11.21	0.64	undefined	UNDFND	UNDFD	UDF	UNDEFINED
6.70	22	12.15	0.19	1.56	0.67	clayey silt to silty clay	UNDFND	UNDFD	6	.90
7.00	23	66.70	0.34	0.51	0.69	sand to silty sand	60-70	40-42	16	UNDEFINED
7.35	24	65.21	0.38	0.58	0.72	sand to silty sand	50-60	40-42	16	UNDEFINED
7.65	25	49.21	0.26	0.52	0.75	sand to silty sand	50-60	38-40	12	UNDEFINED
7.95	26	33.84	0.13	0.39	0.77	silty sand to sandy silt	<40	36-38	11	UNDEFINED
8.25	27	67.59	0.42	0.62	0.80	sand to silty sand	50-60	40-42	16	UNDEFINED
8.55	28	68.96	0.62	0.90	0.83	sand to silty sand	50-60	40-42	17	UNDEFINED
8.85	29	43.54	0.36	0.83	0.85	silty sand to sandy silt	40-50	36-38	14	UNDEFINED
9.15	30	98.45	0.86	0.88	0.88	sand to silty sand	60-70	40-42	24	UNDEFINED
9.45	31	138.54	1.30	0.94	0.90	sand to silty sand	70-80	42-44	33	UNDEFINED
9.75	32	158.39	1.58	1.00	0.93	sand to silty sand	80-90	42-44	38	UNDEFINED
10.05	33	194.37	2.11	1.09	0.96	sand	80-90	44-46	37	UNDEFINED
10.35	34	261.36	3.98	1.52	0.98	sand to silty sand	>90	44-46	>50	UNDEFINED
10.65	35	378.65	6.86	1.81	1.01	sand to silty sand	>90	46-48	>50	UNDEFINED
10.95	36	428.55	9.63	2.25	1.03	sand to clayey sand (*)	UNDFND	UNDFD	>50	UNDEFINED
11.25	37	309.34	6.77	2.19	1.06	sand to silty sand	>90	44-46	>50	UNDEFINED
11.55	38	170.27	5.42	3.18	1.09	sandy silt to clayey silt	UNDFND	UNDFD	>50	14.01

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

(*) overconsolidated or cemented

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

E W1 Bureau of Reclamation
W0
Operator :TONY SHANAHAN On Site Loc:WEBB PUMP STA.SE Page No. 2

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
11.85	39	286.04	6.96	2.43	1.11	silty sand to sandy silt	>90	44-46	>50	UNDEFINED
12.15	40	229.29	7.57	3.30	1.14	sand to clayey sand (*)	UNDFND	UNDFD	>50	UNDEFINED
12.45	41	155.11	4.52	2.91	1.16	silty sand to sandy silt	70-80	42-44	50	UNDEFINED
12.80	42	187.48	3.98	2.12	1.19	silty sand to sandy silt	80-90	42-44	>50	UNDEFINED
13.10	43	103.20	3.48	3.37	1.22	sandy silt to clayey silt	UNDFND	UNDFD	40	8.39
13.40	44	26.49	1.15	4.33	1.24	silty clay to clay	UNDFND	UNDFD	17	1.99
13.75	45	46.47	2.14	4.61	1.27	silty clay to clay	UNDFND	UNDFD	30	3.66
14.05	46	55.66	1.94	3.48	1.30	clayey silt to silty clay	UNDFND	UNDFD	27	4.42
14.35	47	34.41	1.76	5.12	1.33	clay	UNDFND	UNDFD	33	2.64
14.65	48	147.90	3.52	2.38	1.35	silty sand to sandy silt	70-80	40-42	47	UNDEFINED
14.95	49	165.10	3.01	1.82	1.38	sand to silty sand	70-80	40-42	40	UNDEFINED
15.25	50	209.68	3.82	1.82	1.40	sand to silty sand	80-90	42-44	>50	UNDEFINED
15.55	51	176.75	4.28	2.42	1.43	silty sand to sandy silt	70-80	40-42	>50	UNDEFINED
15.85	52	153.62	2.96	1.93	1.46	silty sand to sandy silt	70-80	40-42	49	UNDEFINED
16.15	53	107.51	3.91	3.63	1.48	sandy silt to clayey silt	UNDFND	UNDFD	41	8.70
16.45	54	160.74	4.90	3.05	1.51	sandy silt to clayey silt	UNDFND	UNDFD	>50	13.14
16.75	55	179.04	2.34	1.31	1.53	sand to silty sand	70-80	40-42	43	UNDEFINED
17.05	56	218.73	4.77	2.18	1.56	silty sand to sandy silt	80-90	42-44	>50	UNDEFINED
17.35	57	287.42	5.32	1.85	1.59	sand to silty sand	>90	42-44	>50	UNDEFINED
17.65	58	235.65	5.71	2.42	1.61	silty sand to sandy silt	80-90	42-44	>50	UNDEFINED
17.95	59	270.51	5.47	2.02	1.64	sand to silty sand	80-90	42-44	>50	UNDEFINED
18.25	60	309.14	4.42	1.43	1.66	sand to silty sand	>90	42-44	>50	UNDEFINED
18.55	61	322.16	5.25	1.63	1.69	sand to silty sand	>90	42-44	>50	UNDEFINED
18.85	62	304.21	5.96	1.96	1.71	sand to silty sand	>90	42-44	>50	UNDEFINED
19.20	63	265.06	3.77	1.42	1.74	sand to silty sand	80-90	42-44	>50	UNDEFINED
19.50	64	221.93	3.91	1.76	1.77	sand to silty sand	80-90	40-42	>50	UNDEFINED
19.80	65	242.71	4.31	1.78	1.80	sand to silty sand	80-90	42-44	>50	UNDEFINED
20.15	66	36.34	1.52	4.17	1.82	silty clay to clay	UNDFND	UNDFD	23	2.71
20.45	67	24.98	0.66	2.63	1.85	clayey silt to silty clay	UNDFND	UNDFD	12	1.76
20.75	68	23.38	0.63	2.71	1.88	clayey silt to silty clay	UNDFND	UNDFD	11	1.62
21.05	69	25.09	0.67	2.68	1.90	clayey silt to silty clay	UNDFND	UNDFD	12	1.76
21.35	70	26.96	0.83	3.07	1.93	clayey silt to silty clay	UNDFND	UNDFD	13	1.91
21.65	71	27.34	0.98	3.59	1.96	clayey silt to silty clay	UNDFND	UNDFD	13	1.94
21.95	72	29.85	1.29	4.31	1.98	silty clay to clay	UNDFND	UNDFD	19	2.14
22.25	73	28.41	1.45	5.12	2.01	clay	UNDFND	UNDFD	27	2.02
22.55	74	31.39	1.37	4.36	2.03	silty clay to clay	UNDFND	UNDFD	20	2.26
22.85	75	45.62	1.90	4.17	2.06	clayey silt to silty clay	UNDFND	UNDFD	22	3.44
23.15	76	43.67	3.25	7.43	2.09	clay	UNDFND	UNDFD	42	3.27
23.45	77	101.33	6.55	6.46	2.11	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
23.75	78	120.17	8.86	7.37	2.14	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
24.05	79	144.03	10.28	7.14	2.16	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
24.35	80	119.89	7.54	6.29	2.19	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

(*) overconsolidated or cemented

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

E W1 Bureau of Reclamation
W0
Operator :TONY SHANAHAN On Site Loc:WEBB PUMP STA.SE Page No. 3

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
24.65	81	102.00	7.43	7.28	2.21	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
24.95	82	100.60	6.68	6.64	2.24	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
25.25	83	104.00	5.17	4.97	2.27	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
25.60	84	193.30	4.30	2.23	2.29	silty sand to sandy silt	70-80	40-42	>50	UNDEFINED
25.90	85	219.21	4.67	2.13	2.32	silty sand to sandy silt	70-80	40-42	>50	UNDEFINED
26.20	86	116.89	3.32	2.84	2.35	sandy silt to clayey silt	UNDFND	UNDFD	45	9.33
26.55	87	175.19	4.00	2.29	2.38	silty sand to sandy silt	70-80	38-40	>50	UNDEFINED
26.85	88	219.41	5.34	2.43	2.40	silty sand to sandy silt	70-80	40-42	>50	UNDEFINED
27.15	89	214.31	3.63	1.69	2.43	sand to silty sand	70-80	40-42	>50	UNDEFINED
27.45	90	143.24	2.31	1.61	2.46	sand to silty sand	60-70	38-40	34	UNDEFINED
27.75	91	86.66	1.74	2.01	2.48	silty sand to sandy silt	40-50	34-36	28	UNDEFINED
28.05	92	23.82	0.49	2.06	2.51	sandy silt to clayey silt	UNDFND	UNDFD	9	1.54
28.35	93	73.21	2.91	3.98	2.53	clayey silt to silty clay	UNDFND	UNDFD	35	5.65
28.65	94	345.25	10.81	3.13	2.56	sand to clayey sand (*)	UNDFND	UNDFD	>50	UNDEFINED
28.95	95	75.05	3.75	5.00	2.58	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
29.25	96	73.37	3.90	5.31	2.61	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
29.55	97	104.19	7.27	6.98	2.64	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
29.85	98	92.43	4.85	5.25	2.66	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
30.15	99	91.33	4.84	5.30	2.69	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
30.45	100	92.54	5.32	5.75	2.71	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
30.75	101	85.48	4.65	5.45	2.74	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

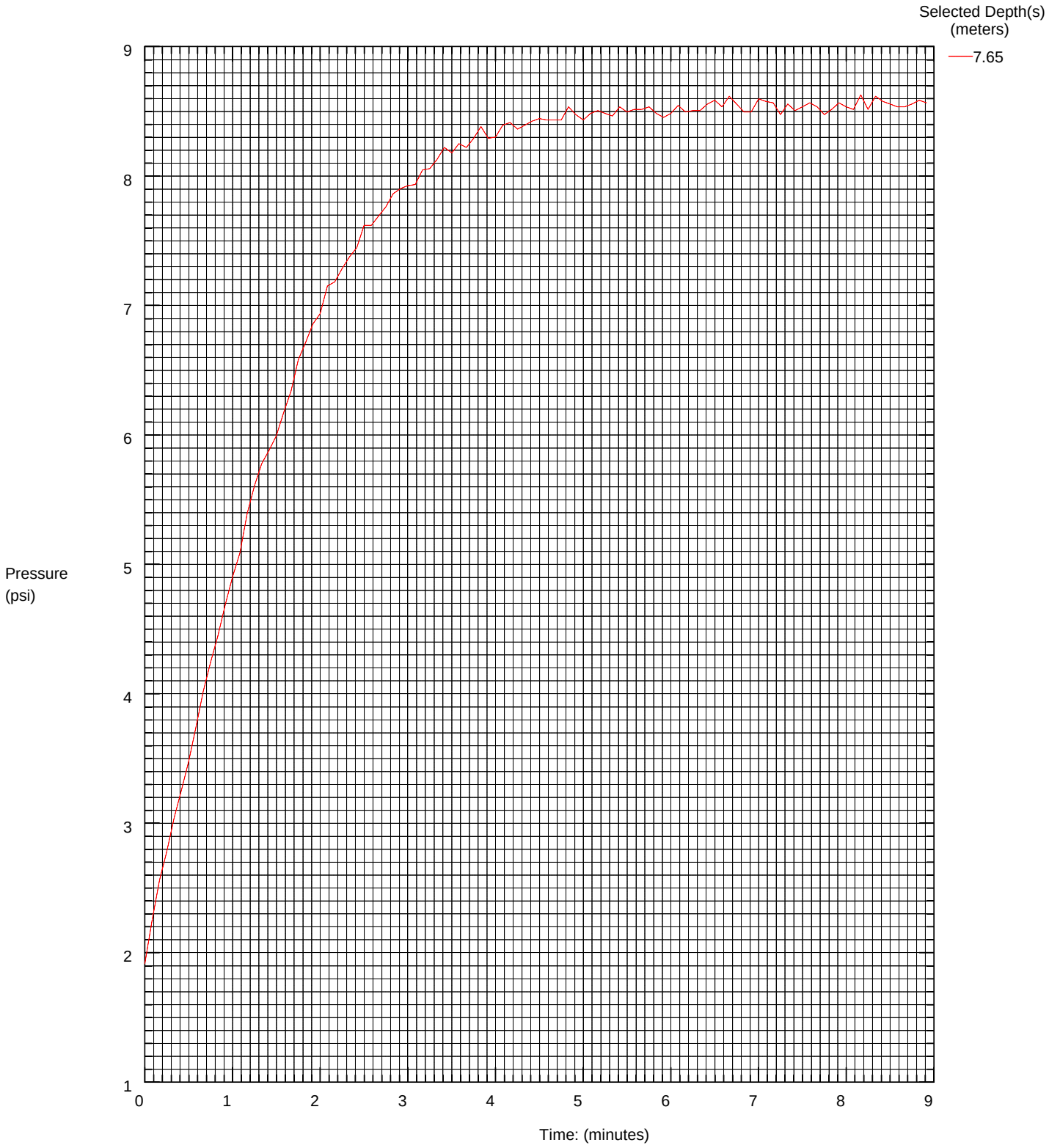
(*) overconsolidated or cemented

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

Bureau of Reclamation

Operator TONY SHANAHAN
Sounding: WTSC17
Cone Used: 739

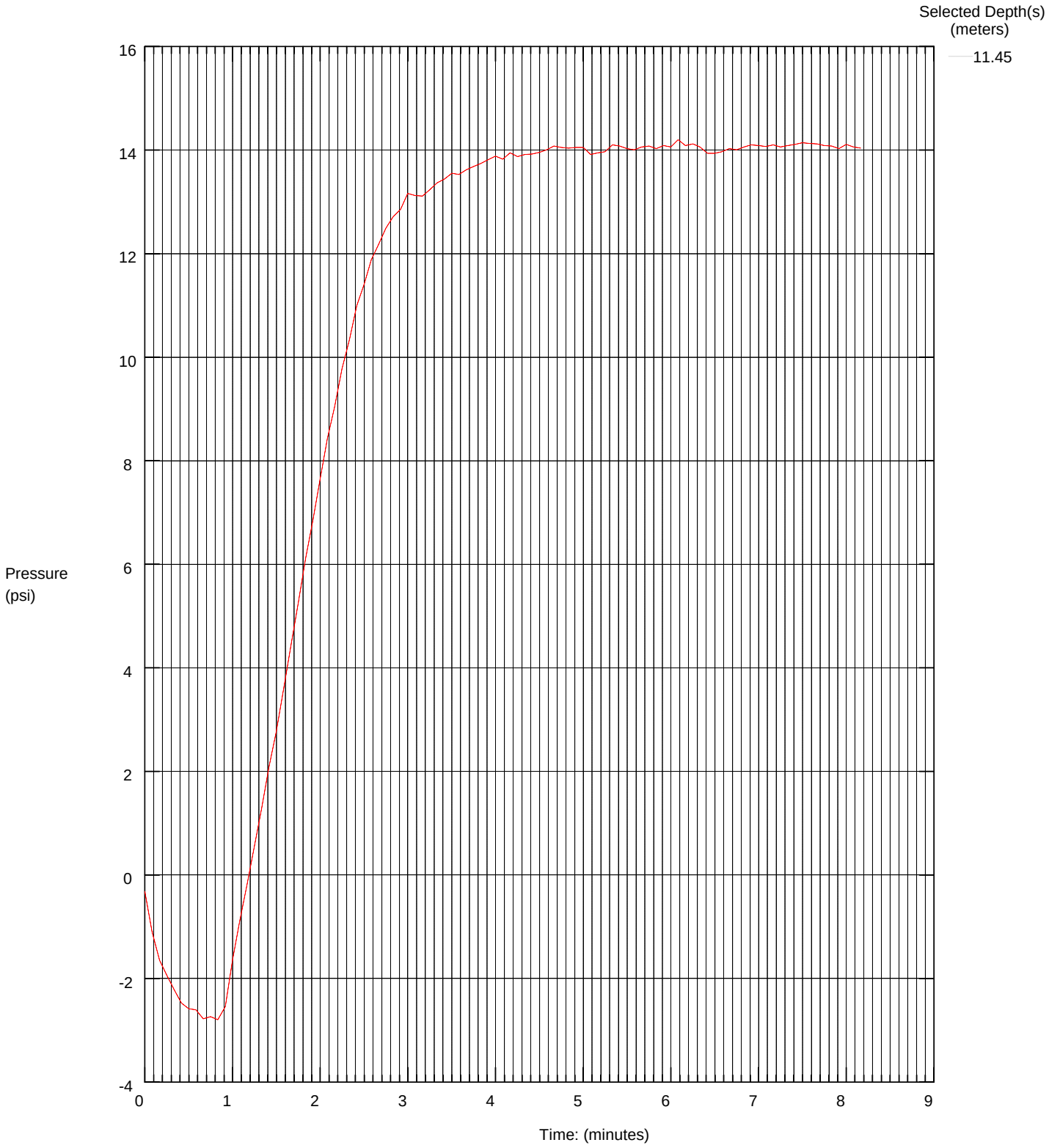
CPT Date/Time: 09-03-02 08:46
Location: WEBB PUMP STA.SE
Job Number: IN-DELTA STORAGE



Bureau of Reclamation

Operator TONY SHANAHAN
Sounding: WTSC17
Cone Used: 739

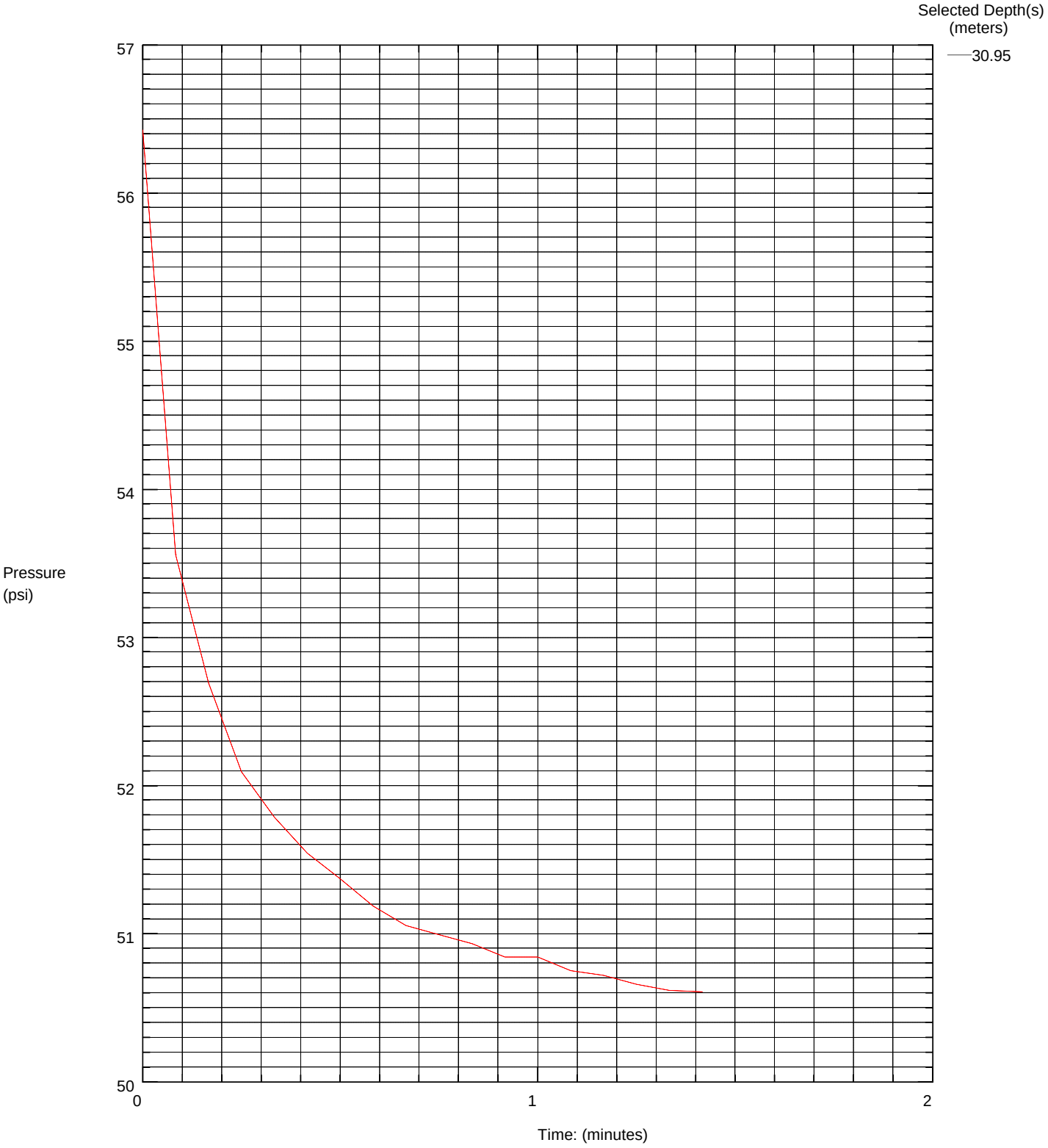
CPT Date/Time: 09-03-02 08:46
Location: WEBB PUMP STA.SE
Job Number: IN-DELTA STORAGE



Bureau of Reclamation

Operator TONY SHANAHAN
Sounding: WTSC17
Cone Used: 739

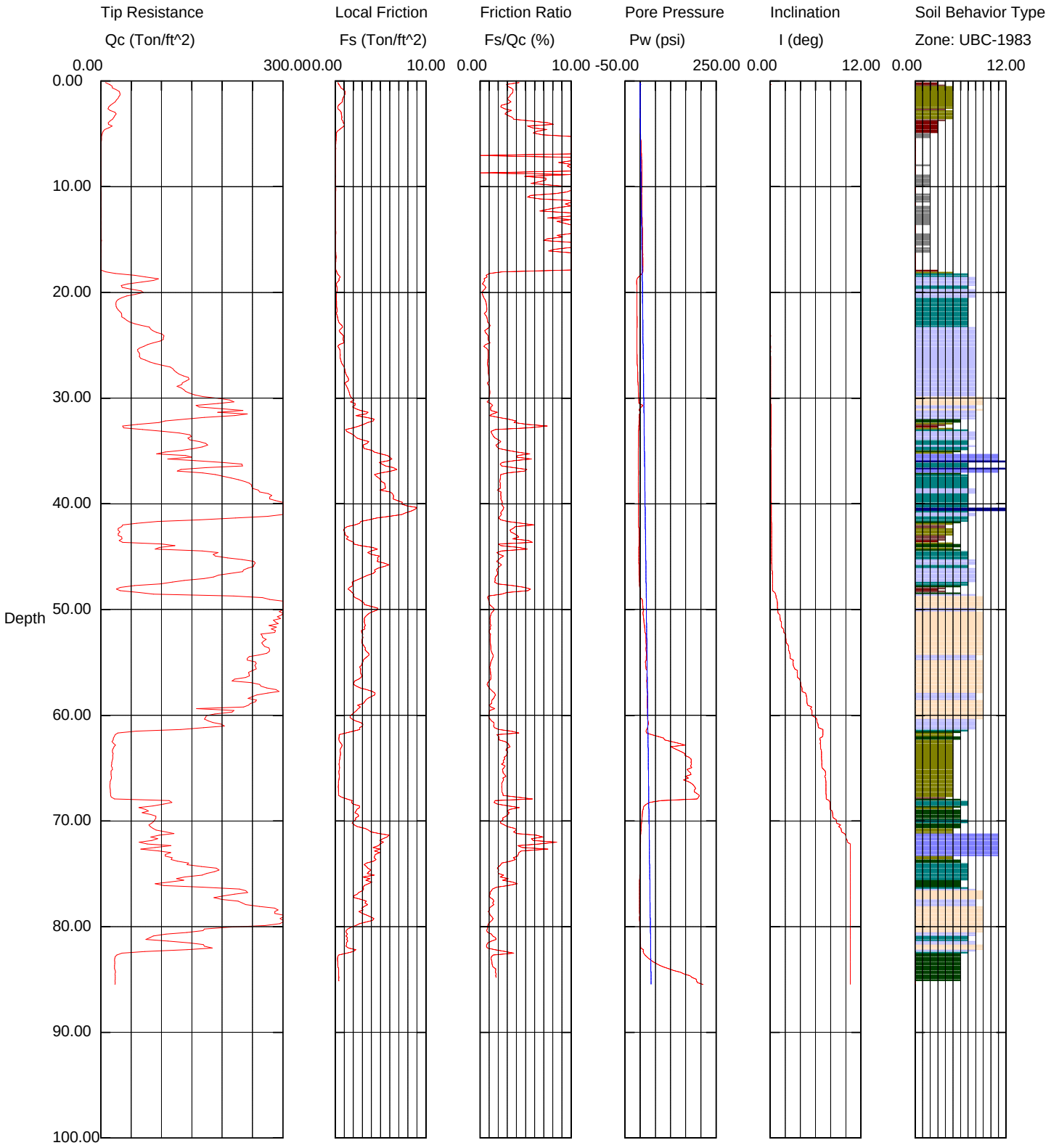
CPT Date/Time: 09-03-02 08:46
Location: WEBB PUMP STA.SE
Job Number: IN-DELTA STORAGE



Bureau of Reclamation

Operator: TONY SHANAHAN
Sounding: WTSC18
Cone Used: 739

CPT Date/Time: 09-03-02 12:09
Location: WEBB PUMP STA.SE
Job Number: IN-DELTA STORAGE



Maximum Depth = 85.47 feet

Depth Increment = 0.16 feet

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 (*)

E W1 Bureau of Reclamation
W0

Operator :TONY SHANAHAN
On Site Loc:WEBB PUMP STA.SE
Job No. :IN-DELTA STORAGE
Tot. Unit Wt. (avg) : 115 pcf

CPT Date :09-03-02 12:09
Cone Used :739
Water table (feet) : 3.28084

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
0.30	1	19.10	0.66	3.44	0.03	silty clay to clay	UNDFND	UNDFD	12	1.58
0.60	2	28.35	0.93	3.28	0.08	clayey silt to silty clay	UNDFND	UNDFD	14	2.35
0.95	3	17.75	0.50	2.82	0.15	clayey silt to silty clay	UNDFND	UNDFD	9	1.46
1.25	4	17.30	0.83	4.81	0.20	clay	UNDFND	UNDFD	17	1.42
1.55	5	7.79	0.46	5.86	0.22	clay	UNDFND	UNDFD	7	.62
1.85	6	0.72	0.10	13.71	0.25	undefined	UNDFND	UNDFD	UDF	UNDEFINED
2.15	7	0.23	0.06	27.94	0.27	undefined	UNDFND	UNDFD	UDF	UNDEFINED
2.45	8	0.30	0.04	14.74	0.30	undefined	UNDFND	UNDFD	UDF	UNDEFINED
2.75	9	0.21	0.04	19.31	0.33	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.05	10	0.50	0.04	8.11	0.35	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.35	11	0.54	0.06	10.36	0.38	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.65	12	0.62	0.06	10.33	0.40	undefined	UNDFND	UNDFD	UDF	UNDEFINED
3.95	13	0.70	0.06	8.61	0.43	undefined	UNDFND	UNDFD	UDF	UNDEFINED
4.25	14	0.57	0.07	11.54	0.46	undefined	UNDFND	UNDFD	UDF	UNDEFINED
4.55	15	0.67	0.07	10.05	0.48	undefined	UNDFND	UNDFD	UDF	UNDEFINED
4.85	16	0.64	0.06	9.85	0.51	undefined	UNDFND	UNDFD	UDF	UNDEFINED
5.15	17	0.42	0.09	22.17	0.53	undefined	UNDFND	UNDFD	UDF	UNDEFINED
5.45	18	0.26	0.07	26.45	0.56	undefined	UNDFND	UNDFD	UDF	UNDEFINED
5.75	19	57.12	0.38	0.66	0.59	sand to silty sand	50-60	40-42	14	UNDEFINED
6.05	20	49.20	0.21	0.42	0.61	sand to silty sand	50-60	40-42	12	UNDEFINED
6.40	21	40.36	0.16	0.38	0.64	silty sand to sandy silt	40-50	38-40	13	UNDEFINED
6.70	22	28.36	0.19	0.67	0.67	silty sand to sandy silt	<40	36-38	9	UNDEFINED
7.00	23	42.30	0.34	0.81	0.69	silty sand to sandy silt	40-50	38-40	14	UNDEFINED
7.35	24	87.34	0.70	0.80	0.72	sand to silty sand	60-70	40-42	21	UNDEFINED
7.65	25	89.68	0.75	0.84	0.75	sand to silty sand	60-70	40-42	21	UNDEFINED
7.95	26	62.73	0.53	0.85	0.77	sand to silty sand	50-60	40-42	15	UNDEFINED
8.25	27	87.55	0.75	0.86	0.80	sand to silty sand	60-70	40-42	21	UNDEFINED
8.55	28	128.76	1.20	0.93	0.83	sand to silty sand	70-80	42-44	31	UNDEFINED
8.85	29	135.26	1.30	0.96	0.85	sand to silty sand	70-80	42-44	32	UNDEFINED
9.15	30	156.52	1.62	1.04	0.88	sand to silty sand	80-90	42-44	37	UNDEFINED
9.45	31	190.78	2.07	1.09	0.90	sand	80-90	44-46	37	UNDEFINED
9.75	32	199.89	3.31	1.66	0.93	sand to silty sand	80-90	44-46	48	UNDEFINED
10.05	33	67.46	2.78	4.13	0.96	clayey silt to silty clay	UNDFND	UNDFD	32	5.46
10.35	34	136.45	2.09	1.53	0.98	sand to silty sand	70-80	42-44	33	UNDEFINED
10.65	35	160.77	3.44	2.14	1.01	silty sand to sandy silt	80-90	42-44	>50	UNDEFINED
10.95	36	125.43	5.54	4.42	1.03	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
11.25	37	183.23	5.83	3.18	1.06	sandy silt to clayey silt	UNDFND	UNDFD	>50	15.09
11.55	38	206.39	4.80	2.33	1.09	silty sand to sandy silt	80-90	42-44	>50	UNDEFINED

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

(*) overconsolidated or cemented

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

E W1 Bureau of Reclamation
W0
Operator :TONY SHANAHAN On Site Loc:WEBB PUMP STA.SE Page No. 2

DEPTH (meters)	(feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
11.85	39	252.24	5.50	2.18	1.11	silty sand to sandy silt	>90	44-46	>50	UNDEFINED
12.15	40	283.86	6.63	2.34	1.14	silty sand to sandy silt	>90	44-46	>50	UNDEFINED
12.45	41	335.31	8.19	2.44	1.16	silty sand to sandy silt	>90	44-46	>50	UNDEFINED
12.80	42	165.65	4.18	2.52	1.19	silty sand to sandy silt	70-80	42-44	>50	UNDEFINED
13.10	43	30.04	1.10	3.68	1.22	clayey silt to silty clay	UNDFND	UNDFD	14	2.29
13.40	44	59.55	1.87	3.13	1.24	sandy silt to clayey silt	UNDFND	UNDFD	23	4.75
13.75	45	161.32	4.27	2.65	1.27	silty sand to sandy silt	70-80	42-44	>50	UNDEFINED
14.05	46	247.58	5.13	2.07	1.30	sand to silty sand	80-90	42-44	>50	UNDEFINED
14.35	47	205.24	3.75	1.83	1.33	sand to silty sand	80-90	42-44	49	UNDEFINED
14.65	48	77.81	1.84	2.37	1.35	sandy silt to clayey silt	UNDFND	UNDFD	30	6.25
14.95	49	157.58	2.08	1.32	1.38	sand to silty sand	70-80	40-42	38	UNDEFINED
15.25	50	306.58	3.77	1.23	1.40	sand	>90	44-46	>50	UNDEFINED
15.55	51	294.45	3.53	1.20	1.43	sand	>90	44-46	>50	UNDEFINED
15.85	52	285.90	3.20	1.12	1.46	sand	>90	42-44	>50	UNDEFINED
16.15	53	270.70	3.00	1.11	1.48	sand	80-90	42-44	>50	UNDEFINED
16.45	54	272.46	3.22	1.18	1.51	sand	80-90	42-44	>50	UNDEFINED
16.75	55	252.62	3.40	1.35	1.53	sand	80-90	42-44	48	UNDEFINED
17.05	56	252.36	2.83	1.12	1.56	sand	80-90	42-44	48	UNDEFINED
17.35	57	235.29	2.58	1.10	1.59	sand	80-90	42-44	45	UNDEFINED
17.65	58	276.00	3.19	1.16	1.61	sand	80-90	42-44	>50	UNDEFINED
17.95	59	251.31	3.62	1.44	1.64	sand to silty sand	80-90	42-44	>50	UNDEFINED
18.25	60	209.95	2.37	1.13	1.66	sand	80-90	42-44	40	UNDEFINED
18.55	61	179.66	2.22	1.24	1.69	sand to silty sand	70-80	40-42	43	UNDEFINED
18.85	62	102.45	2.01	1.96	1.71	silty sand to sandy silt	50-60	38-40	33	UNDEFINED
19.20	63	21.21	0.57	2.66	1.74	clayey silt to silty clay	UNDFND	UNDFD	10	1.46
19.50	64	19.63	0.57	2.89	1.77	clayey silt to silty clay	UNDFND	UNDFD	9	1.33
19.80	65	18.31	0.48	2.61	1.80	clayey silt to silty clay	UNDFND	UNDFD	9	1.21
20.15	66	17.17	0.45	2.60	1.82	clayey silt to silty clay	UNDFND	UNDFD	8	1.11
20.45	67	15.27	0.37	2.41	1.85	clayey silt to silty clay	UNDFND	UNDFD	7	.95
20.75	68	33.32	0.84	2.53	1.88	sandy silt to clayey silt	UNDFND	UNDFD	13	2.45
21.05	69	86.93	2.32	2.67	1.90	sandy silt to clayey silt	UNDFND	UNDFD	33	6.91
21.35	70	84.77	2.30	2.72	1.93	sandy silt to clayey silt	UNDFND	UNDFD	32	6.73
21.65	71	88.11	2.89	3.28	1.96	sandy silt to clayey silt	UNDFND	UNDFD	34	7.00
21.95	72	89.91	5.34	5.94	1.98	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
22.25	73	93.09	4.68	5.03	2.01	very stiff fine grained (*)	UNDFND	UNDFD	>50	UNDEFINED
22.55	74	119.43	4.22	3.53	2.03	sandy silt to clayey silt	UNDFND	UNDFD	46	9.60
22.85	75	175.77	3.58	2.04	2.06	silty sand to sandy silt	70-80	40-42	>50	UNDEFINED
23.15	76	128.00	3.71	2.90	2.09	sandy silt to clayey silt	UNDFND	UNDFD	49	10.30
23.45	77	200.37	2.91	1.45	2.11	sand to silty sand	70-80	40-42	48	UNDEFINED
23.75	78	214.29	2.89	1.35	2.14	sand to silty sand	70-80	40-42	>50	UNDEFINED
24.05	79	288.04	3.06	1.06	2.16	sand	80-90	42-44	>50	UNDEFINED
24.35	80	296.55	3.45	1.16	2.19	sand	80-90	42-44	>50	UNDEFINED

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

(*) overconsolidated or cemented

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

E W1 Bureau of Reclamation
W0
Operator :TONY SHANAHAN On Site Loc:WEBB PUMP STA.SE Page No. 3

DEPTH (meters)	DEPTH (feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
24.65	81	148.07	1.36	0.92	2.21	sand to silty sand	60-70	38-40	35	UNDEFINED
24.95	82	125.34	1.30	1.03	2.24	sand to silty sand	60-70	38-40	30	UNDEFINED
25.25	83	80.68	1.29	1.60	2.27	silty sand to sandy silt	40-50	34-36	26	UNDEFINED
25.60	84	22.72	0.31	1.37	2.29	sandy silt to clayey silt	UNDFND	UNDFD	9	1.49
25.90	85	23.58	0.41	1.73	2.32	sandy silt to clayey silt	UNDFND	UNDFD	9	1.56

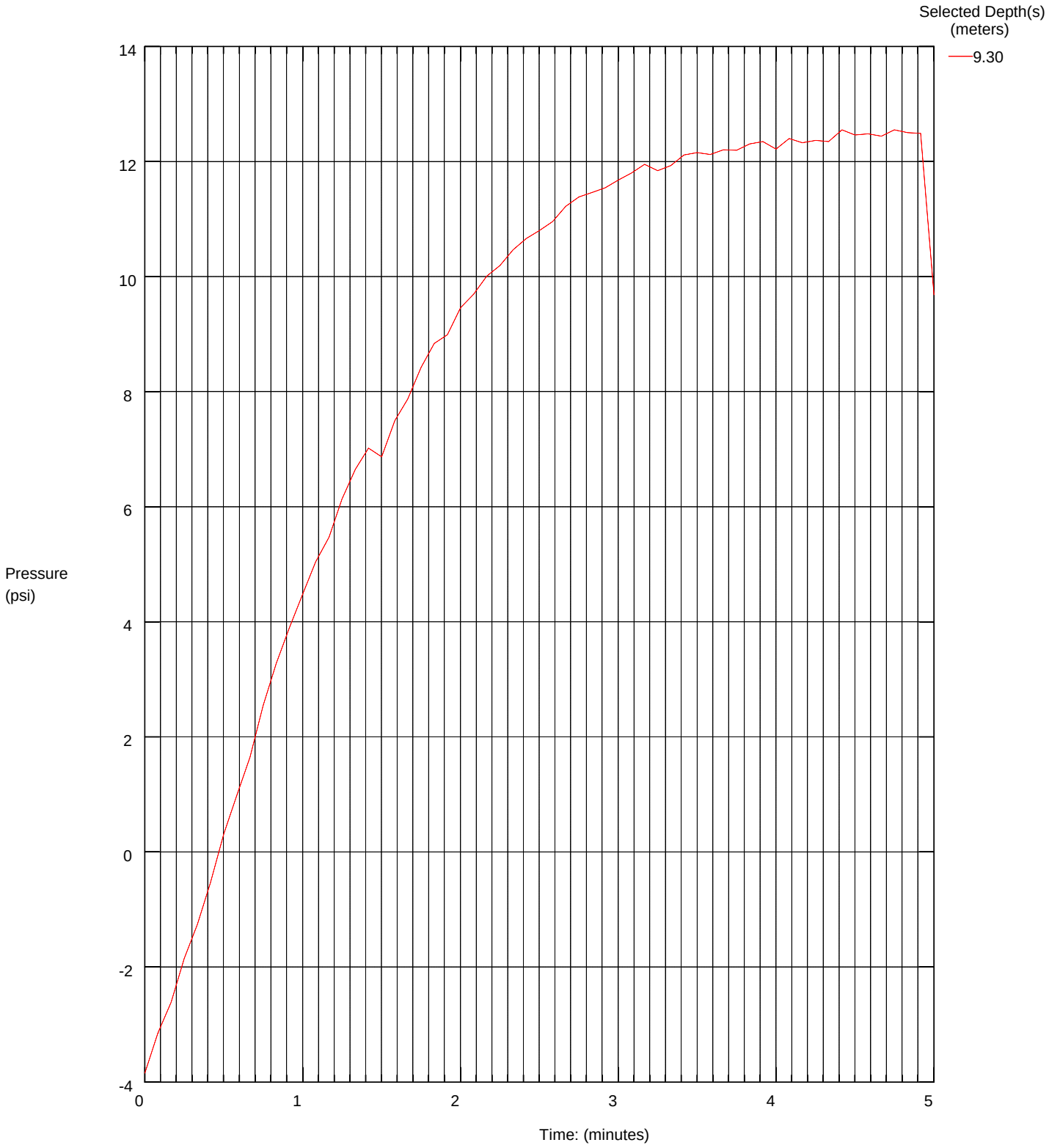
Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

**** Note: For interpretation purposes the PLOTTED CPT PROFILE should be used with the TABULATED OUTPUT from CPTINTR1 (v 3.04) ****

Bureau of Reclamation

Operator TONY SHANAHAN
Sounding: WTSC18
Cone Used: 739

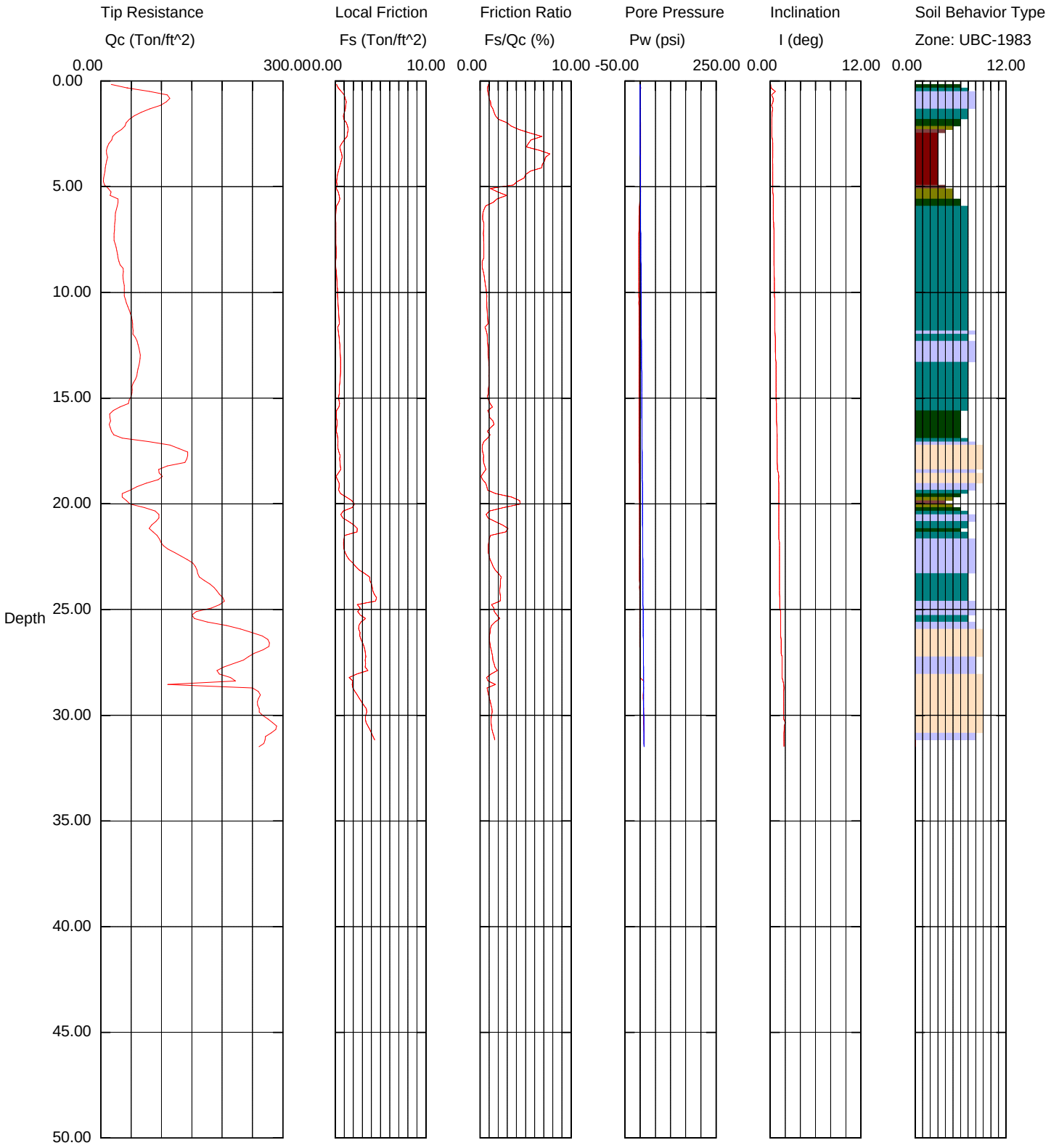
CPT Date/Time: 09-03-02 12:09
Location: WEBB PUMP STA.SE
Job Number: IN-DELTA STORAGE



Bureau of Reclamation

Operator: TONY SHANAHAN
Sounding: WTSC19
Cone Used: 739

CPT Date/Time: 08-31-02 09:14
Location: WEBB TRACT BORRW
Job Number: IN-DELTA STORAGE



Maximum Depth = 31.50 feet

Depth Increment = 0.16 feet

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 (*)

E W1 Bureau of Reclamation
W0

Operator :TONY SHANAHAN
On Site Loc:WEBB TRACT BORRW
Job No. :IN-DELTA STORAGE
Tot. Unit Wt. (avg) : 115 pcf

CPT Date :08-31-02 09:14
Cone Used :739
Water table (feet) : 3.28084

DEPTH (meters)	DEPTH (feet)	Qc (avg) (tsf)	Fs (avg) (tsf)	Rf (avg) (%)	SIGV' (tsf)	SOIL BEHAVIOUR TYPE	Eq - Dr (%)	PHI deg.	SPT N	Su tsf
0.30	1	78.49	0.76	0.96	0.03	sand to silty sand	>90	>48	19	UNDEFINED
0.60	2	64.88	1.08	1.66	0.08	silty sand to sandy silt	80-90	>48	21	UNDEFINED
0.95	3	22.97	1.11	4.84	0.15	clay	UNDFND	UNDFD	22	1.90
1.25	4	9.17	0.65	7.04	0.20	clay	UNDFND	UNDFD	9	.74
1.55	5	6.55	0.23	3.56	0.22	clay	UNDFND	UNDFD	6	.52
1.85	6	23.62	0.33	1.41	0.25	sandy silt to clayey silt	UNDFND	UNDFD	9	1.94
2.15	7	23.18	0.08	0.35	0.27	silty sand to sandy silt	40-50	40-42	7	UNDEFINED
2.45	8	23.50	0.09	0.40	0.30	silty sand to sandy silt	40-50	38-40	8	UNDEFINED
2.75	9	31.85	0.10	0.32	0.33	silty sand to sandy silt	40-50	40-42	10	UNDEFINED
3.05	10	37.76	0.22	0.58	0.35	silty sand to sandy silt	50-60	40-42	12	UNDEFINED
3.35	11	43.47	0.33	0.76	0.38	silty sand to sandy silt	50-60	40-42	14	UNDEFINED
3.65	12	52.15	0.40	0.76	0.40	silty sand to sandy silt	60-70	42-44	17	UNDEFINED
3.95	13	61.53	0.52	0.85	0.43	sand to silty sand	60-70	42-44	15	UNDEFINED
4.25	14	62.01	0.59	0.95	0.46	silty sand to sandy silt	60-70	42-44	20	UNDEFINED
4.55	15	52.46	0.48	0.92	0.48	silty sand to sandy silt	50-60	40-42	17	UNDEFINED
4.85	16	28.98	0.31	1.06	0.51	silty sand to sandy silt	40-50	38-40	9	UNDEFINED
5.15	17	19.91	0.21	1.07	0.53	sandy silt to clayey silt	UNDFND	UNDFD	8	1.58
5.45	18	124.90	0.41	0.33	0.56	sand	80-90	44-46	24	UNDEFINED
5.75	19	105.85	0.42	0.39	0.59	sand	70-80	42-44	20	UNDEFINED
6.05	20	49.28	0.83	1.68	0.61	silty sand to sandy silt	50-60	40-42	16	UNDEFINED
6.40	21	82.10	1.42	1.73	0.64	silty sand to sandy silt	60-70	42-44	26	UNDEFINED
6.70	22	92.78	1.46	1.58	0.67	silty sand to sandy silt	70-80	42-44	30	UNDEFINED
7.00	23	135.58	1.53	1.13	0.69	sand to silty sand	80-90	42-44	32	UNDEFINED
7.35	24	172.44	3.67	2.13	0.72	silty sand to sandy silt	80-90	44-46	>50	UNDEFINED
7.65	25	189.20	3.50	1.85	0.75	sand to silty sand	80-90	44-46	45	UNDEFINED
7.95	26	194.09	2.82	1.45	0.77	sand to silty sand	80-90	44-46	46	UNDEFINED
8.25	27	269.32	3.06	1.14	0.80	sand	>90	46-48	>50	UNDEFINED
8.55	28	214.37	3.22	1.50	0.83	sand to silty sand	>90	44-46	>50	UNDEFINED
8.85	29	219.70	2.00	0.91	0.85	sand	>90	44-46	42	UNDEFINED
9.15	30	260.92	3.17	1.21	0.88	sand	>90	44-46	50	UNDEFINED
9.45	31	281.33	3.72	1.32	0.90	sand	>90	44-46	>50	UNDEFINED

Dr - All sands (Jamiolkowski et al. 1985) PHI - Robertson and Campanella 1983 Su: Nk= 12

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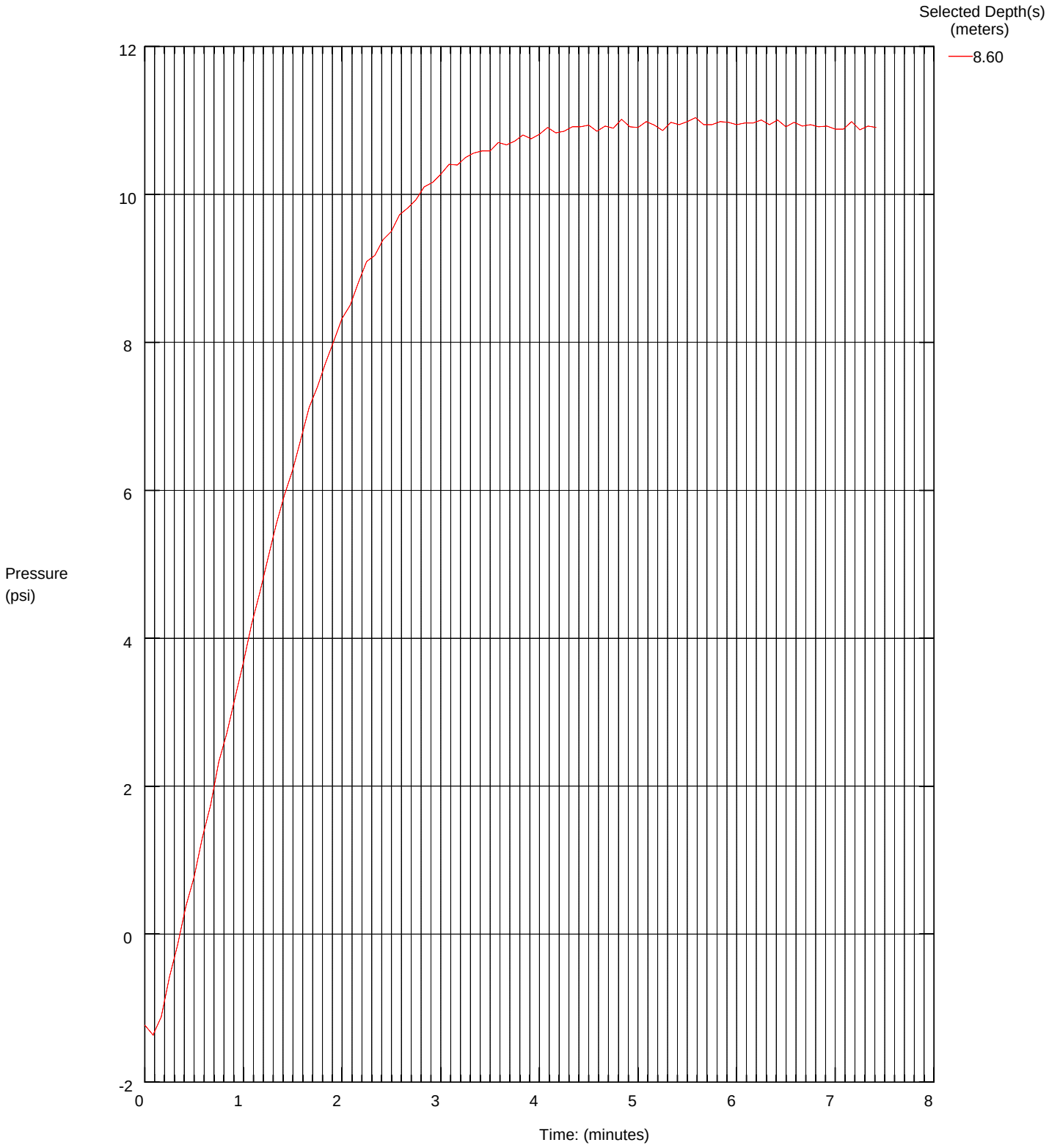
Bureau of Reclamation

Operator TONY SHANAHAN
Sounding: WTSC19
Cone Used: 739

CPT Date/Time: 08-31-02 09:14
Location: WEBB TRACT BORRW
Job Number: IN-DELTA STORAGE