

Project Name : Job Number MACTEC		SOIL LOG - Boring No. B-302	
SCE&G COL : 6234-06-3534			
Type and Diameter of Boring Mud Rotary / 3 7/8 inch/NQ		Boring Location Nuclear Island	Total Depth 175.75 feet
Drilling Contractor and Rig Gregg/Burnett/311025 / CME 55		Elevation at Boring 417.2 feet	Ground Water Depth 45 feet
Sampling Method Split Spoon		Sample Driving Hammer/Drop 140 lbs / 30 inches	No. of Samples 14
		Borehole Inclination 0	Date Started 7/10/06
		Logged by S. Woodham	Date Completed 7/18/06

Reviewed by / Date M. Cooke 7/24/06
 Reviewed by / Date *Clay Sams 12/4/06*

Depth (feet)	Sample	Sample Type & No.	Uncorrected Blows/6 inches	Recovery (inches)	Water Content	Grain Size	Atterberg Limits	Lithology	Soil Type (USCS)	Lithology	Remarks
0	X	SS 1	4	10						SILT sandy, gravelly (ML); strong brown (7.5 YR 4/6); damp; stiff; 30% sand and gravel; topsoil; FILL	Boring in dozer graded road
1											
2	X	SPT 2	7	2							Rock blocked sampler
3											
4	X	SS 3	4	13						SILT sandy (ML); yellowish brown (10 YR 5/6); with pink and white; damp; stiff; 20% sand; SAPROLITE	Fill to 3.5 ft, saprolite begins
5										SAA with more white color	
6	X	SS 4	6	14							
7											
8											
9	X	SS 1	6	12							
10											
11	X	SS 5	8	15					SM	SAND silty (SM); light olive brown with white (2.5 Y 5/6, 8/1); damp; medium dense; 50% sand; SAPROLITE	
12											
13											
14	X	SS 6	5	16							
15											
16											
17											
18											
19	X	SS 2	6	16						SAA; (10 YR 5/4); yellowish brown with pink and white; 40% sand	
20											
21											
22											
23											
24	X	SS 7	6	15							
25											
26											
27											
28										SAA less white/pink; some mica	
29	X	SS 3	7	14							
30											
31											
32											
33									SM	SAND silty (SM); dark yellowish brown with white (10 YR 4/4); damp; medium dense; micaceous	
34	X	SS 8	7	14							
35											
36											
37											
38										SAA; dark yellowish brown with white and black	
39	X	SS 4	6	14							
40											

Project Name : Job Number 	SOIL LOG - Boring No. B-302
SCE&G COL : 6234-06-3534	

Depth (feet)	Sample	Sample Type & No.	Uncorrected Blows/6 inches	Recovery (inches)	Water Content	Grain Size	Atterberg Limits	Lithology	Soil Type (USCS)	Lithology	Remarks
40											
41										SAND silty (SM); dark yellowish brown with white (10 YR 4/4); damp; medium dense; micaceous <i>(Continued from previous page)</i>	
42											
43											
44	X	SS 9	8 10 15	12 18					M		
45											
46											
47											
48											
49	X	SS 10	10 10 13	14 18							
50											
51											
52											
53											
54											Tricone bit refusal, drill casing to 53.5 ft, see rock log
55											
56											
57											
58											
59											
60											
61											
62											
63											
64											
65											
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77											
78											
79											
80											

Project Name : Job Number MACTEC		ROCK LOG - Boring No. B-302		
SCE&G COL : 6234-06-3534		Boring Location Nuclear Island		Total Depth 175.75 feet
Type and Diameter of Boring Mud Rotary / 3 7/8 inch/NQ		Elevation at Boring 417.2 feet	Ground Water Depth 45 feet	Depth to Bedrock 53.5 feet
Drilling Contractor and Rig Gregg/Burnett/311025 / CME 55		Length of Core Barrel and Bit	No. of Core Boxes 9	Date Started 7/10/06
Casing Size and Depth 4.5		Borehole Inclination 0	Logged by S. Woodham	Date Completed 7/18/06

Reviewed by / Date M. Cooke 7/24/06

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Remarks
54	1	1.5 1.5	44	F to SW	R4		GRANODIORITE; white, gray, dark gray, dark greenish gray; quartz, biotite, hornblende gneiss, feldspar, epidote Hornblende gneiss layer 53.7 to 58 ft Highly weathered zone 55.4 to 56.8 ft	
55				HW	R1			
56								
57	2	3.6 5.0	67	MW to SW	R4		GRANODIORITE; with common amphibolite schist and hornblende gneiss xenolith	
58								
59								
60							SAA, pyrite and epidote	
61								
62	3	5.0 5.0	100	F	R4			
63							SAA; amphibolite xenoliths becoming more common	
64								
65								
66							SAA; fewer amphibolite xenoliths	
67	4	5.0 5.0	100	F	R4			
68								
69							End 7/11/06 Start 7/12/06	
70								
71								
72	5	5.0 5.0	100	F	R4		SAA; fewer amphibolite xenoliths	
73								
74								
75							SAA; fewer amphibolite xenoliths	
76	6	5.0 5.0	99	F	R4			
77								
78							SAA; fewer amphibolite xenoliths	
79								
80								
81							SAA; fewer amphibolite xenoliths	
82	7	5.0 5.0	95	F	R4			
83								
84							SAA; fewer amphibolite xenoliths	
85								
86								
87	8	5.0 5.0	100	F	R4		SAA; fewer amphibolite xenoliths	
88								
89								
90							SAA; fewer amphibolite xenoliths	
91								
92								
93	9	5.0 5.0	100	F	R4		SAA; fewer amphibolite xenoliths	

Project Name : Job Number



ROCK LOG - Boring No. B-302

SCE&G COL : 6234-06-3534

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Remarks
94							GRANODIORITE; with common amphibolite schist and hornblende gneiss xenolith; quartz, biotite, hornblende, biotite, feldspar, epidote, chalcopyrite GRANODIORITE; with biotite gneiss and amphibolite schist; quartz, biotite, feldspar, epidote, amphibolite Finer grained zone with more epidote from 115.6 to 119.8 ft QUARTZ DIORITE; gray; dark gray; light gray; fine grained; igneous; with some amphibolite xenoliths; quartz; biotite; feldspar	
95								
96								
97	10	5.0 / 5.0	100	F	R4			
98								
99								
100								
101								
102	11	5.0 / 5.0	100	F	R4			
103								
104								
105								
106								
107	12	5.0 / 5.0	100	F	R4			
108								
109								
110								
111								
112	13	5.0 / 5.0	100	F	R4			
113								
114								
115								
116								
117	14	5.0 / 5.0	100	F	R4			
118								
119								
120								
121								
122	15	5.0 / 5.0	100	F	R4			
123								
124								
125								
126								
127	16	5.0 / 5.0	100	F	R4			
128								
129								
130								
131								
132	17	5.0 / 5.0	100	F	R4			
133								

End 7/12/06
Start 7/13/06; water level at 36 ft

Project Name : Job Number



ROCK LOG - Boring No. B-302

SCE&G COL : 6234-06-3534

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Remarks
134							SAA with limited quartz veins	
135								
136								
137	18	5.0 / 5.0	100	F	R4			
138								
139								
140								
141								
142	19	5.0 / 5.0	100	F	R4			
143								
144								
145								
146								
147	20	5.0 / 5.0	100	F	R4			
148								
149								
150								
151							GRANODIORITE; white and black; medium to coarse grained; igneous texture; occasional xenoliths of quartz diorite; gradational contact with quartz diorite above; biotite, quartz, plagioclase, K-spar? HORNBLLENDE GNEISS xenolith from 154 to 154.8 ft Large pyrite zone	
152	21	5.0 / 5.0	100	F	R4			
153								
154								
155								
156								
157	22	5.0 / 5.0	100	F	R4			
158								
159								
160								
161								
162	23	5.0 / 5.0	100	F	R4			
163								
164								
165							GRANODIORITE; with amphibolite schist xenoliths;	End on 7/13/06; water level at 0 ft Start drilling 7/18/06; water level at 45 ft
166								
167	24	5.0 / 5.0	100	F	R4			
168								
169								
170								
171								
172								
173	25	5.8 / 5.8	100	F	R4			

Project Name : Job Number



ROCK LOG - Boring No. B-302

SCE&G COL : 6234-06-3534

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Remarks
174							SAA; with a quartz pegmatite from 173.6 to 174 ft	
175							CORING TERMINATED AT 175.5 ft	
176								Coring terminated on 175.5 ft
177								
178								
179								
180								
181								
182								
183								
184								
185								
186								
187								
188								
189								
190								
191								
192								
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211								
212								
213								

Project Name : Job Number		SOIL LOG - Boring No. B-303	
SCE&G COL : 6234-06-3534		MACTEC	
Type and Diameter of Boring Mud Rotary / 3 7/8 inch/HQ		Boring Location Nuclear Island	Total Depth 150.5 feet
Drilling Contractor and Rig MACTEC/Banks/337153 / CME550		Elevation at Boring 415.1 feet	Ground Water Depth 37.2 feet
Sampling Method Standard		Sample Driving Hammer/Drop 140 lbs / 30 inches	No. of Samples 14
		Borehole Inclination 0	Date Started 7/24/06
		Logged by J. Liles	Date Completed 7/26/06

Reviewed by / Date M. Cooke 8/4/06
 Reviewed by / Date *Clay Lams 12/4/06*

Depth (feet)	Sample	Sample Type & No.	Uncorrected Blows/6 inches	Recovery (inches)	Water Content	Grain Size	Atterberg Limits	Lithology	Soil Type (USCS)	Lithology	Remarks
0									ML	SILT sandy (ML); yellowish red (5 YR 4/6); damp; medium stiff; fine sand; non plastic; micaceous; RESIDUUM	Residuum
1	SPT 1	2/3	16/18								
2	SPT 2	2/4	17/18								
3											
4	SPT 3	2/3	12/18						ML	SILT sandy (ML); strong brown (7.5 YR 4/6); damp; medium stiff; fine sand; non plastic; micaceous; RESIDUUM	
5											
6	SPT 4	2/5	13/18							SAA; stiff; fine to medium grained	
7											
8											
9	SPT 5	2/4	12/18								
10											
11											
12	SPT 6	2/4	15/18								
13											
14	SPT 7	1/3	15/18						SM	SAND very silty (SM); dark brown (10 YR 3/3); damp; loose; fine to medium sand; non plastic; micaceous; RESIDUUM	
15											
16											
17									ML	SILT sandy (ML); dark brown (10 YR 3/3); damp; stiff; fine sand; non plastic; micaceous; RESIDUUM	
18	SPT 8	1/4	15/18								
19											
20											
21											
22									SM	SAND silty (SM); dark yellowish brown (10 YR 4/4); damp; medium dense; fine to coarse sand; non plastic; micaceous; SAPROLITE	First saprolitic sample
23	SPT 9	3/6	13/18								
24											
25											
26											
27											
28										SAA; fine to medium sand	
29	SPT 10	2/6	12/18								
30											
31											
32											
33									SM	SAND silty (SM); dark olive brown (2.5 Y 3/3); damp; fine to coarse sand; non plastic; medium dense; micaceous; SAPROLITE	
34	SPT 11	4/8	12/18								
35											
36											
37											
38											
39	SPT 12	3/6	11/18								
40											

Project Name : Job Number 	SOIL LOG - Boring No. B-303
SCE&G COL : 6234-06-3534	

Depth (feet)	Sample	Sample Type & No.	Uncorrected Blows/6 inches	Recovery (inches)	Water Content	Grain Size	Atterberg Limits	Lithology	Soil Type (USCS)	Lithology	Remarks
40										SAND silty (SM); dark olive brown (2.5 Y 3/3); damp; fine to coarse sand; non plastic; medium dense; micaceous; SAPROLITE <i>(Continued from previous page)</i>	
41											
42										SAA; fine to coarse sand	
43											
44		SPT 13	3	14						REFUSAL, BORING TERMINATED at 51.5 ft see rock log	
45				18							
46											
47											
48											
49		SPT 14	4	17							
50			7	18							
51			8								
52											
53											
54											
55											
56											
57											
58											
59											
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80											

Project Name : Job Number MACTEC		ROCK LOG - Boring No. B-303	
SCE&G COL : 6234-06-3534			
Type and Diameter of Boring Mud Rotary / 3 7/8 inch/HQ		Boring Location Nuclear Island	Total Depth 150.5 feet
Drilling Contractor and Rig MACTEC/Banks/337153 / CME550		Elevation at Boring 415.1 feet	Ground Water Depth 37.2 feet
Casing Size and Depth 4 / 51.5 feet		Length of Core Barrel and Bit 13.5 feet	No. of Core Boxes 8
		Borehole Inclination 0	Date Started 7/24/06
		Logged by J. Liles	Date Completed 7/26/06

Reviewed by / Date M. Cooke 8/4/06

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Remarks
52	1	$\frac{0.9}{2.0}$	17	MW	R2 to R3		QUARTZ DIORITE; bluish gray; fine to medium grained; intensely fractured; discolored trace of pyrite	Refusal at 51.5 ft on 7/24/06 see rock log Begin coring on 7/25/06; water level at 47.3 ft
53								
54								
55								
56	2	$\frac{3.6}{5.0}$	52	F	R3		QUARTZ DIORITE; bluish gray; fine to medium grained	Top of sound rock
57								
58								
59								
60								
61	3	$\frac{5.0}{5.0}$	100	F	R3			
62								
63								
64								
65								
66	4	$\frac{5.0}{5.0}$	100	F	R3			
67								
68								
69								
70								
71	5	$\frac{5.0}{5.0}$	100	F	R3			
72								
73								
74								
75								
76	6	$\frac{5.0}{5.0}$	100	F	R3			
77								
78								
79								
80					R3		GRANODIORITE; black and white; medium to coarse grained; transitional contact with quartz diorite above	
81	7	$\frac{5.0}{5.0}$	100	F				
82					R4			
83								
84								
85								
86	8	$\frac{5.0}{5.0}$	100	F	R4			
87								
88								
89								
90							GRANODIORITE; SAA; contains feldspar, quartz, biotite, hornblende, and trace of pyrite	
91	9	$\frac{5.0}{5.0}$	100	F	R4			

Project Name : Job Number 	ROCK LOG - Boring No. B-303
SCE&G COL : 6234-06-3534	

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Remarks
92		5.0						
93								
94								
95								
96	10	5.0 / 5.0	100	F	R4		SAA; contains small xenoliths of black amphibolite schist and trace of pyrite; transitions into quartz diorite	End 7/25/06 Begin 7/26/06; water level at 37.2 ft
97								
98								
99								
100								
101	11	5.0 / 5.0	100	F	R4			
102								
103								
104							QUARTZ DIORITE and GRANODIORITE; bluish gray, black, and white; fine to coarse grained	
105								
106	12	5.0 / 5.0	100	F	R4			
107								
108								
109							SAA; with small xenoliths of black amphibolite schist	
110								
111	13	5.0 / 5.0	100	F	R4			
112								
113								
114								
115								
116	14	5.0 / 5.0	100	F	R4		QUARTZ DIORITE; bluish gray; fine to coarse grained; trace of pyrite	
117								
118								
119								
120								
121	15	5.0 / 5.0	100	F	R4		Granodiorite zone from 120.5 to 121.1 ft	
122								
123								
124								
125								
126	16	5.0 / 5.0	100	F	R4			
127								
128								
129								
130								
131	17	5.0	100	F	R4		QUARTZ DIORITE to GRANODIORITE transition	

Project Name : Job Number



ROCK LOG - Boring No. B-303

SCE&G COL : 6234-06-3534

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Remarks
132		5.0					zone	
133								
134								
135								
136	18	5.0 5.0	100	F	R4			
137								
138								
139								
140								
141	19	5.0 5.0	100	F	R4			
142								
143								
144								
145								
146								
147	20	7.0 7.0	100	F	R4		QUARTZ DIORITE	
148								
149							CORING TERMINATED at 150.5 ft	
150								
151								Borehole terminated at 150.5 ft on 7/26/06
152								
153								
154								
155								
156								
157								
158								
159								
160								
161								
162								
163								
164								
165								
166								
167								
168								
169								
170								
171								

Project Name : Job Number		MACTEC		SOIL LOG - Boring No. B-304	
SCE&G COL : 6234-06-3534					
Type and Diameter of Boring Mud Rotary / 4 inch/HQ			Boring Location Nuclear Island		Total Depth 150 feet
Drilling Contractor and Rig MACTEC/White/331145 / CME 55 LC			Elevation at Boring 415.3 feet	Ground Water Depth 0 feet	Depth to Bedrock 52.7 feet
Sampling Method Standard			Sample Driving Hammer/Drop 140 lbs / 30 inches	No. of Samples 14	Date Started 6/5/06
			Borehole Inclination 0	Logged by K. Miller/C. Gandy	Date Completed 7/12/06

Reviewed by / Date M. Cooke 7/24/06
 Reviewed by / Date Clay Lane 12/4/06

Depth (feet)	Sample	Sample Type & No.	Uncorrected Blows/6 inches	Recovery (inches)	Water Content	Grain Size	Atterberg Limits	Lithology	Soil Type (USCS)	Lithology	Remarks
0											Residuum
1		SPT 1	1 2	15 18						SILT sandy (ML); yellowish red (5 YR 5/8); damp; medium stiff; 65% silt, 35% sand; low plasticity; contains rock fragments; micaceous; RESIDUUM SAA; except red (2.5 YR 5/8); stiff	
2		SPT 2	3 4	15 18							
3		SPT 3	4 4	17 18							
4		SPT 4	3 5	13 18					ML	SILT sandy (ML); light olive brown (2.5 Y 5/4); damp; stiff; 60% silt, 40% sand; low to no plasticity; micaceous; RESIDUUM	Saprolite
5		SPT 1	4 4	14 18					SM	SAND silty (SM); light olive brown (2.5 Y 5/4); damp; medium dense; 55% sand, 45% silt; non plastic; micaceous; RESIDUUM	
6		SPT 5	4 5	13 18					ML	SILT sandy (ML); dark yellowish brown (10 YR 4/6); damp; stiff; 60% silt, 40% sand, non plastic; micaceous; SAPROLITE	
7		SPT 6	4 6	13 18					ML	SILT sandy (ML); dark yellowish brown (10 YR 4/6); moist; stiff; 70% silt, 30% sand; low plasticity; micaceous	Saprolite
8		SPT 2	4 6	14 18					ML	SILT sandy (ML); dark yellowish brown (10 YR 4/6); damp; very stiff; 60% silt, 40% sand; low plasticity; micaceous	
9		SPT 7	5 7	14 18					ML	SILT sandy (ML); dark yellowish brown (10 YR 4/4); damp; very stiff; 60% silt, 40% sand; low plasticity; micaceous	
10		SPT 3	5 7	13 18						SAA; except (10 YR 3/6); stiff	Saprolite
11		SPT 8	5 9	15 18					ML	SILT sandy (ML); dark yellowish brown (10 YR 3/6); moist; stiff; 60% silt, 40% sand; low plasticity; micaceous	
12		SPT 4	5 7	16 18							

Project Name : Job Number



SOIL LOG - Boring No. B-304

SCE&G COL : 6234-06-3534

Depth (feet)	Sample	Sample Type & No.	Uncorrected Blows/6 inches	Recovery (inches)	Water Content	Grain Size	Atterberg Limits	Lithology	Soil Type (USCS)	Lithology	Remarks
40										SILT sandy (ML); dark yellowish brown (10 YR 3/6); moist; stiff; 60% silt, 40% sand; low plasticity; micaceous (Continued from previous page)	
41											
42											
43											
44	SPT 9		5 7 9	16 18							
45											
46											
47											
48											
49	SPT 10		3 4 7	14 18							
50											
51											
52											
53										PARTIALLY WEATHERED ROCK drilled with casing	Tricone refusal on 6/5/06
54											
55											
56											
57											
58											
59											
60											
61											
62											
63											
64											
65											
66											
67											
68											
69											
70											
71											
72											
73											
74											
75											
76											
77											
78											
79											
80											

Project Name : Job Number MACTEC		ROCK LOG - Boring No. B-304	
SCE&G COL : 6234-06-3534			
Type and Diameter of Boring Mud Rotary / 4 inch/HQ		Boring Location Nuclear Island	Total Depth 150 feet
Drilling Contractor and Rig MACTEC/White/331145 / CME 55 LC		Elevation at Boring 415.3 feet	Ground Water Depth 0 feet
Casing Size and Depth 4 / 52.7 feet		Length of Core Barrel and Bit 10 feet / 3.75 feet	No. of Core Boxes 7
		Date Started 6/5/06	Date Completed 7/12/06
		Borehole Inclination 0	Logged by K. Miller/C. Gandy

Reviewed by / Date M. Cooke 7/24/06

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Remarks
53	1	1.7	74	CW	R1		GRANODIORITE; white to black; coarse grained; quartz, plagioclase; biotite; hornblende, pyrite	Drill casing to 52.7 on 6/26/06
54		2.3		SW	R3			
55							▽	End of 6/26/06; water level at 0 ft Begin day 6/27/06; water level at 37 ft
56								
57	2	4.7	85	F to	R2		HORNBLLENDE GNEISS; light to dark gray; fine grained; hornblende, biotite, feldspar, quartz	
58		5.0		MW	R3			
59								Top of sound rock
60								
61	3	4.8	100	F	R3		GRANODIORITE; white to black; coarse grained; quartz, feldspar, biotite, hornblende, and pyrite	
62		4.8						
63								
64								
65	4	4.7	89	F to	R1			
66		5.3		CW	R3			
67								
68								
69	5	5.0	95	F	R3			
70		5.0						
71								
72								
73	6	5.0	98	F	R3			
74		5.0						
75								
76								
77	7	5.5	96	F	R3			End day 6/27/06; water level at 0 ft Begin day 7/5/06; water level at 37 ft
78		5.5						
79								
80								
81	8	9.7	97	F	R3			
82		9.7						
83								
84								
85								
86								
87								
88								
89								
90								
91								
92								

Project Name : Job Number 	ROCK LOG - Boring No. B-304
SCE&G COL : 6234-06-3534	

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Remarks
93								
94								
95								
96							QUARTZ DIORITE; medium to dark gray; coarse grained; quartz, hornblende; biotite; feldspar, and accessory pyrite	
97								
98								
99								
100	9	10.2 / 10.2	100	F	R3			End day 7/5/06; water level at 0 ft
101								Begin day 7/6/06
102								
103								
104								
105								
106								
107								
108								
109								
110	10	9.8 / 9.8	100	F	R3			
111								
112							SAA with abundant veins of granodiorite up to 0.3 ft in width, epidote? interstitially	
113								
114								
115								
116								
117	11	4.6 / 4.6	100	F	R4			
118								
119							TRANSITION ZONE FROM QUARTZ DIORITE to GRANODIORITE	
120								End day 7/6/06; water level at 0 ft
121							GRANODIORITE; white to black; coarse grained; quartz, feldspar, hornblende, biotite, pyrite, muscovite	Begin day 7/10/06; water level at 55 ft
122	12	4.5 / 4.5	100	F	R4			End day 7/10/06; water level at 0 ft
123								Begin day 7/11/06; water level at 55 ft
124								End day 7/11/06; water level at 0 ft
125								Begin day 7/12/06
126								
127	13	4.5 / 5.0	100	F	R4			
128								
129							QUARTZ DIORITE	
130								
131								
132	14	5.0 / 5.0	100	F	R4			

Project Name : Job Number 	ROCK LOG - Boring No. B-304
SCE&G COL : 6234-06-3534	

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Remarks
133							GRANODIORITE; white and black; coarse grained; contains quartz, feldspar, hornblende, biotite Some zones of quartz diorite CORING TERMINATED at 150.0 ft	
134								
135								
136	15	5.0 / 5.0	100	F	R4			
137								
138								
139								
140								
141	16	5.0 / 5.0	100	F	R4			
142								
143								
144								
145								
146								
147	17	5.0 / 5.8	90	F	R4			
148								
149								
150							Boring terminated on 7/12/06	
151								
152								
153								
154								
155								
156								
157								
158								
159								
160								
161								
162								
163								
164								
165								
166								
167								
168								
169								
170								
171								
172								

Project Name : Job Number MACTEC		SOIL LOG - Boring No. B-305	
SCE&G COL : 6234-06-3534			
Type and Diameter of Boring Mud Rotary / 3 7/8 inch/HQ		Boring Location Nuclear Island	Total Depth 175 feet
Drilling Contractor and Rig TRIGON/Toothman/90117 / B 57		Elevation at Boring 423.9 feet	Ground Water Depth 94 feet
Sampling Method Standard		Sample Driving Hammer/Drop 140 lbs / 30 inches	No. of Samples 14
		Borehole Inclination 0	Date Started 4/28/06
		Logged by J. Liles	Date Completed 5/16/06

Reviewed by / Date M. Cooke 5/17/06
 Reviewed by / Date Cly Lamm 11/30/06

Depth (feet)	Sample	Sample Type & No.	Uncorrected Blows/6 inches	Recovery (inches)	Water Content	Grain Size	Atterberg Limits	Lithology	Soil Type (USCS)	Lithology	Remarks
0									SM	SAND silty (SM); red (2.5 YR 4/6); loose; fine to medium grained; trace clay; low to medium plasticity; RESIDUUM	Residuum
1		SPT 1	2	15							
2		SPT 2	11	15	●	●				SAA; medium dense; 32% fines	
3											
4		SPT 3	5	16	●	●	●			SAND silty (SM); red (2.5 YR 4/6); medium dense; trace clay; contains mica; no plasticity 47% fines; RESIDUUM	
5			10	18							
6										SAA	
7		SPT 4	7	12							
8											
9		SPT 5	3	16	●	●				SAND silty (SM); red (2.5 YR 4/8); medium dense; fine to medium grained; trace clay; very micaceous; low plasticity; 29% fines; RESIDUUM	
10											
11		SPT 6	4	12						SAA; brown (7.5 YR 4/4); red and white	
12											
13											
14		SPT 7	3	15	●	●				SAA; 31% fines	
15											
16											
17											
18											
19		SPT 8	3	14	●	●				SAND silty (SM); brown (10 YR 4/3); red and white; medium dense; fine to medium grained; micaceous; 34% fines RESIDUUM	
20											
21											
22											
23											
24		SPT 9	3	16						SAND silty (SM); brown (10 YR 4/3); red and white; medium dense; fine to coarse grained; very micaceous; no plasticity; RESIDUUM	
25											
26											
27											
28											
29		SPT 10	4	14	●	●				SAA; 25% fines	
30											
31											
32											
33											Top of saprolite
34		SPT 11	4	16							
35											
36											
37											
38											
39		SPT 12	3	15	●	●				SAA; 28% fines	
40											

Project Name : Job Number 	SOIL LOG - Boring No. B-305
SCE&G COL : 6234-06-3534	

Depth (feet)	Sample	Sample Type & No.	Uncorrected Blows/6 inches	Recovery (inches)	Water Content	Grain Size	Atterberg Limits	Lithology	Soil Type (USCS)	Lithology	Remarks
40									SM		
41											
42											
43											
44	SPT		4	15						SAA, black and white	
45	13		8	18							
46											
47											
48											
49	SPT		3	16	●	●				SAA; 24% fines	
50	14		8	18							
51											
52											
53											
54	SPT		50/5	0					▽	No recovery PARTIALLY WEATHERED ROCK BORING TERMINATED AT 57.5 ft. see rock log	
55	15			5							
56											
57											
58											
59											
60											
61											
62											
63											
64											
65											
66											
67											
68											
69											
70											
71											
72											
73											
74											
75											
76											
77											
78											
79											
80											

Project Name : Job Number MACTEC		ROCK LOG - Boring No. B-305	
SCE&G COL : 6234-06-3534			
Type and Diameter of Boring Mud Rotary / 3 7/8 inch/HQ		Boring Location Nuclear Island	
Drilling Contractor and Rig TRIGON/Toothman/90117 / B 57		Elevation at Boring 423.9 feet	Ground Water Depth 94 feet
Casing Size and Depth 4 / 57.5 feet		Length of Core Barrel and Bit	No. of Core Boxes
		Borehole Inclination 0	Logged by J. Liles
			Date Started 4/28/06
			Date Completed 5/16/06

Reviewed by / Date M. Cooke 5/17/06

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Remarks
58	1	4.7 5.0	58	MW	R1		GRANODIORITE; black and white; weathered zone from 57.5 to 60.6 ft; 35 to 45° dipping joints; some pyrite mineralization along joint surfaces Fracture zone 57.5 to 60.6 ft	Tricone bit refusal at 57.5 ft on 4/28/06 Top of sound rock
60				SW	R3			
62	2	4.0 5.0	74	F	R3 to R4		GRANODIORITE; black and white with xenoliths of black amphibolite schist. Fracture zone 64 to 64.5 ft	
64								
66	3	5.0 5.0	100	F	R3 to R4			
68								
70	4	5.0 5.0	100	F	R4		GRANODIORITE MIGMATITE; black and white with some scattered xenoliths of black amphibolite schist fine to coarse grained	
72								
74	5	5.0 5.0	100	F	R4		AMPHIBOLITE SCHIST; black; fine grained	5/1/06 5:30 pm at water at 52.5 ft 5/2/06 7:30 am at water at 45.5 ft.
76								
78	6	5.0 5.0	96	F	R4		HORNBLLENDE GNEISS; black; fine grained; some quartz dikes	End drilling on 5/2/06 Begin drilling 5/13/06 at 1:45 pm water at 53.5 ft
80								
82	7	5.0 5.0	100	F	R4		Some quartz dikes and zones of granodiorite with pyrite visible at 89.0 to 89.8 ft and 90.7 to 91.3 ft	
84								
86	8	5.0 5.0	100	F	R4		Granodiorite intrusion from 93.0 to 93.3 ft.; moderately fractured	
88								
90								
92								
94								
96								
97								

Project Name : Job Number 	ROCK LOG - Boring No. B-305
SCE&G COL : 6234-06-3534	

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Remarks
98	9	4.0	100	F	R4			End drilling 5/13/06 at 5:15 pm water at 28.0 ft. Begin day 5/14/06 at 7:30 am water at 50.0 ft.
99		4.0						
100	10	5.0	100	F	R4		Some granodiorite intrusions	End day 5/14/06 Begin day 5/15/06 at 7:45 am water at 53.0 ft.
101		5.0						
102	11	5.0	100	F	R4		BIOTITE GNEISS MIGMATITE; black and white; fine to medium grained; some quartz dikes and small granodiorite intrusions; some small xenoliths of amphibolite schist at 30 to 60° foliation	
103		5.0						
104	12	5.0	100	F	R4		AMPHIBOLITE SCHIST; black with zones of granodiorite; black and white; quartz dikes; fine to medium grained	
105		5.0						
106	13	5.0	100	F	R4		Granodiorite intrusion 0.2 ft with pyrite visible	
107		5.0						
108	14	5.0	100	F	R4			
109		5.0						
110	15	5.0	96	F	R4			
111		5.0						
112	16	5.0	100	F	R4		Granodiorite zone from 134.2 to 134.6 ft	
113		5.0						
114				F	R4		HORNBLÉNDE GNEISS; black; fine grained; some small xenoliths of black amphibolite schist	
115								
116								
117								
118								
119								
120								
121								
122								
123								
124								
125								
126								
127								
128								
129								
130								
131								
132								
133								
134								
135								
136								
137								

Project Name : Job Number



ROCK LOG - Boring No. B-305

SCE&G COL : 6234-06-3534

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Remarks
138	17	5.0	88	F	R4		BIOTITE GNEISS and QUARTZ and PLAGIOCLASE GNEISS; black and white; fine to medium grained; 20 to 40° foliation; some small xenoliths of amphibolite schist. Totally healed vertical discontinuity	End day 5/15/06 Begin day 5/16/06 at 8:15 am water at 94 ft.
139		5.0						
140								
141								
142	18	5.0	96	F	R4	BIOTITE GNEISS; bluish black; fine grained; with zones of granodiorite migmatite; quartz dikes and scattered xenoliths of black amphibolite schist		
143		5.0						
144								
145								
146								
147	19	5.0	58	F	R4	GRANODIORITE; black and white; fine to medium grained with zones of fine grained; black amphibolite schist		
148		5.0						
149								
150								
151								
152	20	5.0	86	F	R4			
153		5.0						
154								
155								
156								
157	21	5.0	100	F	R4			
158		5.0						
159								
160								
161								
162	22	5.0	90	F	R4	Feldspar and quartz vein visible CORING TERMINATED at 175.0 ft.		
163		5.0						
164								
165								
166								
167	23	5.0	78	F	R4			
168		5.0						
169								
170								
171								
172	24	3.5	91	F	R4			
173		3.5						
174								
175							Boring terminated on 5/16/06	
176								
177								

Project Name : Job Number SCE&G COL : 6234-06-3534		MACTEC		SOIL LOG - Boring No. B-305UDP	
Type and Diameter of Boring Mud Rotary / 6 inch			Boring Location Nuclear Island		Total Depth 55.5 feet
Drilling Contractor and Rig MACTEC/Oglesby/219907 / CME 75			Elevation at Boring 424 feet	Ground Water Depth	Depth to Bedrock
Sampling Method UD			Sample Driving Hammer/Drop Pitcher sampler / NA	No. of Samples 2	Date Started 8/16/06
			Borehole Inclination 0	Logged by C. Gandy	Date Completed 8/16/06

Reviewed by / Date M. Cooke 8/20/06
 Reviewed by / Date Clay Gandy 12/1/06

Depth (feet)	Sample	Sample Type & No.	Uncorrected Blows/6 inches	Recovery (inches)	Water Content	Grain Size	Atterberg Limits	Lithology	Soil Type (USCS)	Lithology	Remarks
0										Drilled without SPT sampling to obtain Pitcher barrel undisturbed samples	
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											
27											
28											
29											
30											
31											
32											
33											
34											
35											
36											
37											
38											
39											
40											

Project Name : Job Number 	SOIL LOG - Boring No. B-305UDP
SCE&G COL : 6234-06-3534	

Depth (feet)	Sample	Sample Type & No.	Uncorrected Blows/6 inches	Recovery (inches)	Water Content	Grain Size	Atterberg Limits	Lithology	Soil Type (USCS)	Remarks
40										Drilled without SPT sampling to obtain Pitcher barrel undisturbed samples <i>(Continued from previous page)</i>
41										
42										
43										
44										
45										
46										
47										
48										
49		UDP 1		15/24						Adjacent boring B-305 encountered SAND silty (SM) with 24% fines within this depth interval
50										
51										
52										
53										
54		UDP 2		16.5/24						SILT sandy (ML); light brown (7.5 YR 6/4); moist; low plasticity; 90% silt; 10% sand; micaceous; SAPROLITE; top of Pitcher UD sample SILT sandy (ML); light brown (7.5 YR 6/4); moist; low plasticity; 90% silt; 10% sand; micaceous; SAPROLITE; bottom of Pitcher UD sample SILT sandy (ML); brown (7.5 YR 6/4); moist; medium plasticity; 85% silt; 15% sand; micaceous; SAPROLITE; top of Pitcher UD sample
55										
56										
57										SAND silty (SP-SM); black (7.5 YR 2.5/1) to white (10 R 8/1); damp; non plastic; sand 40%; silt 10% abundant gravel; SAPROLITE/PARTIALLY WEATHERED ROCK; bottom of Pitcher UD sample
58										
59										
60										
61										
62										
63										
64										
65										
66										
67										
68										
69										
70										
71										
72										
73										
74										
75										
76										
77										
78										
79										
80										

Project Name : Job Number MACTEC SCE&G COL : 6234-06-3534		SOIL LOG - Boring No. B-306	
Type and Diameter of Boring Mud Rotary / 3 7/8 inch/HQ		Boring Location Nuclear Island	
Drilling Contractor and Rig MACTEC/White/331145 / CME 55 LC		Elevation at Boring 413.4 feet	Ground Water Depth 38 feet
Sampling Method Standard		Sample Driving Hammer/Drop 140 lbs / 30 inches	No. of Samples 13
		Borehole Inclination 0	Logged by K. Miller
			Date Started 5/29/06
			Date Completed 6/9/06

Reviewed by / Date M. Cooke 6/19/06
 Reviewed by / Date *Clay Sam* 11/30/06

Depth (feet)	Sample	Sample Type & No.	Uncorrected Blows/6 inches	Recovery (inches)	Water Content	Grain Size	Atterberg Limits	Lithology	Soil Type (USCS)	Lithology	Remarks
0									ML	SILT sandy (ML); red (10 Y 4/8); damp; medium stiff; 65% silt, 35% sand; low plasticity; contains small roots; RESIDUUM	Top of Residuum
1	SPT 1	2/3	18	18					ML		
2	SPT 2	4/9	18	18	●	●	●		ML	SILT sandy with clay (ML); except very stiff, no roots; 21% sand	
3											
4	SPT 3	4/5	16	18	●	●			SM	SAND silty (SM); red (10 Y 4/8); damp; medium dense; 30% fines; low plasticity; RESIDUUM	
5											
6	SPT 4	3/4	16	18	●	●			ML	SILT sandy (ML); 45% sand	
7											
8											
9	SPT 5	2/3	13	18							
10											
11	SPT 6	2/3	12	18	●	●	●		SM	SAND silty (SM); red (2.5 YR 4/6); loose; 43% fines; no plasticity; RESIDUUM	
12											
13											Top of Saprolite
14	SPT 7	2/4	12	18					MH	SILT sandy (MH); yellowish red (5 YR 5/6); stiff; 35% sand; micaceous; low plasticity; schist texture; SAPROLITE	
15											
16											
17											
18											
19	SPT 8	3/5	12	18	●	●				SILT sandy (MH); medium dense; 31% sand	
20											
21											
22											
23											
24	SPT 9	2/3	16	18	●	●	●			SILT clayey with sand (MH); brownish yellow (10 Y 6/8); moist; medium stiff; 23% sand; low plasticity	
25											
26											
27											
28											
29	SPT 10	4/4	16	18						SILT sandy (ML); dark yellowish brown (10 Y 4/6); moist; stiff; 30% sand; low plasticity; with manganese stains	
30											
31											
32											
33											
34	SPT 11	5/6	18	18	●	●			SM	SAND silty (SM); light olive brown (2.5 Y 4/4); 30% fines; medium dense; moist; low plasticity; micaceous	
35											
36											
37											
38											
39	SPT 12	4/4	18	18	●	●				SAA except 40% fines	
40											

Project Name : Job Number



SOIL LOG - Boring No. B-306

SCE&G COL : 6234-06-3534

Depth (feet)	Sample	Sample Type & No.	Uncorrected Blows/6 inches	Recovery (inches)	Water Content	Grain Size	Atterberg Limits	Lithology	Soil Type (USCS)	Lithology	Remarks
40											
41									SM	SAND silty (SM); dark olive brown (2.5 Y 3/3); 60% sand, 40% silt; very dense; low to no plasticity; micaceous; PARTIALLY WEATHERED ROCK	
42											
43											
44		SPT 50/5		5							
45		13									Tricone refusal at 44.5 ft. 5/29/06, see rock log
46											
47											
48											
49											
50											
51											
52											
53											
54											
55											
56											
57											
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78											
79											
80											

Project Name : Job Number MACTEC		ROCK LOG - Boring No. B-306	
SCE&G COL : 6234-06-3534			
Type and Diameter of Boring Mud Rotary / 3 7/8 inch/HQ		Boring Location Nuclear Island	Total Depth 215 feet
Drilling Contractor and Rig MACTEC/White/331145 / CME 55 LC		Elevation at Boring 413.4 feet	Ground Water Depth 38 feet
Casing Size and Depth 4 / 44 feet		Length of Core Barrel and Bit 8 feet / 1 feet	No. of Core Boxes 14
		Borehole Inclination 0	Date Started 5/29/06
		Logged by K. Miller	Date Completed 6/9/06

Reviewed by / Date M. Cooke 6/19/06

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Remarks
45	1	1.4 1.5	72	MW to SW	R2 to R3		GRANODIORITE; white to black (10 YR 8/1 to 2/1); medium to coarse grained; quartz, feldspar, hornblende, biotite.	
46				F	R3			
47								
48	2	4.2 5.0	50	HW	R0 to R1			
49								
50								
51							MIGMATITE; black to white (10 YR 2/1 to 8/1); medium to coarse grained; quartz, biotite, feldspar, hornblende.	~50% return on core water
52								
53	3	5.0 5.0	100	F	R3		GRANODIORITE; white to black (10 YR 8/1 to 2/1); medium to coarse grained; quartz, feldspar, hornblende, biotite	
54								
55								
56								
57								
58	4	5.0 5.0	100	F	R3			
59								
60								
61								
62							HORNBLLENDE GNEISS; black (10 YR 2/1); fine to medium grained; hornblende, biotite, quartz, feldspar.	
63	5	5.0 5.0	100	F	R3		GRANODIORITE; white to black (10 YR 8/1 to 2/1); medium to coarse grained; quartz, feldspar, hornblende, biotite	
64								
65								
66							QUARTZ DIORITE; black (10 YR 2/1); fine to medium grained; biotite, quartz, feldspar	End drilling on 6/6/06. Water at 0 ft. (core water) 6/7/06 groundwater at 33.5 ft.
67								
68	6	5.0 5.0	100	F	R3			
69								
70								
71								
72								
73	7	5.0 5.0	90	F	R3		Pegmatitic dike; quartz, feldspar	
74								
75								
76								
77								
78	8	5.0 5.0	100	F	R3		GRANODIORITE, SAA	
79								
80								
81							QUARTZ DIORITE, SAA	
82								
83	9	5.0 5.0	100	F	R3		Pegmatitic dike; quartz, feldspar	
84								

Project Name : Job Number



ROCK LOG - Boring No. B-306

SCE&G COL : 6234-06-3534

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Remarks
85							GRANODIORITE, SAA	
86							Transitional zone from granodiorite to quartz diorite	
87								
88	10	5.0 5.0	100	F	R3		QUARTZ DIORITE; black (10 YR 2/1); fine to medium grained; biotite, quartz, feldspar	
89								
90								
91								
92								
93	11	5.0 5.0	100	F	R3			
94								
95								
96								
97								
98	12	5.0 5.0	100	F	R3		~0.1 ft. thick pegmatite dike; quartz, feldspar	
99								
100							GRANODIORITE; white to black (10 YR 8/1 to 2/1); medium grained	
101								
102								
103	13	5.0 5.0	100	F	R3		Transition zone from granodiorite to quartz diorite	
104								
105							QUARTZ DIORITE; black (10 YR 2/1); fine to medium grained; biotite, quartz, feldspar	
106								
107								
108	14	5.0 5.0	98	F	R3		Transition zone from quartz diorite to granodiorite; medium to large grained; quartz, feldspar, biotite	
109								
110								
111								
112								
113	15	5.0 5.0	100	F	R3			
114								
115								
116								
117	16	5.0 5.0	98	F	R3		GRANODIORITE; ~2.7 ft. thick zone; white to black; (10 YR 8/1 to 2/1); medium to coarse grained	
118								
119								
120								
121								
122							GRANODIORITE~1.4 ft thick zone; white to black (10 YR 8/1 to 2/1); medium to coarse grained	
123	17	5.0 5.0	100	F	R3		QUARTZ DIORITE; SAA	
124								

Project Name : Job Number



ROCK LOG - Boring No. B-306

SCE&G COL : 6234-06-3534

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Remarks
125								
126								End drilling on 6/7/06. Water at 0 ft. (core water) 6/8/06 groundwater at 40.0 ft.
127								
128	18	5.0 5.0	100	F	R3		GRANODIORITE; ~0.7 ft thick zone	
129								
130								
131								
132							QUARTZ DIORITE; black (10 YR 2/1); coarse grained	
133	19	5.0 5.0	100	F	R3		GRANODIORITE; white to black (10 YR 8/1 to 2/1); medium to coarse grained	
134								
135								
136								
137								
138	20	5.0 5.0	95	F	R3		~0.1 thick pegmatite dike; quartz, feldspar ~0.8 ft thick pegmatite dike; quartz, feldspar GRANODIORITE ~1.0 ft. thick zone white to black (10 YR 8/1 to 2/1); medium grained HORNBLende GNEISS; black (10 YR 2/1); fine grained	142.3 to 145.2 ft. Potential shear zone; evidence of nearly vertical partially healed fractures (incipient); 80 to 85°
139								
140								
141								
142								
143	21	5.0 5.0	100	F	R3		3 ft zone of pegmatite dikes; quartz, feldspar, biotite	
144								
145								
146								
147								
148	22	5.0 5.0	100	F	R3			
149								
150								
151								
152								
153	23	5.0 5.0	100	F	R3		3 ft zone of pegmatite dikes; quartz, feldspar, biotite	
154								
155								
156								
157								
158	24	5.0 5.0	100	F	R3			
159								
160								
161								
162								
163	25	5.0 5.0	100	F	R3			
164								

Project Name : Job Number SCE&G COL : 6234-06-3534	ROCK LOG - Boring No. B-306
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Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Remarks
165								
166								
167								
168	26	5.0 5.0	100	F	R3			
169								
170								
171								
172							GRANODIORITE ~0.5 ft thick zone; white to black (10 YR 8/1 to 2/1); medium grained	
173	27	5.0 5.0	100	F	R3			
174								
175								
176							~0.4 thick pegmatite dike; quartz, feldspar	
177								
178	28	5.0 5.0	100	F	R3			
179								
180								
181								
182								
183	29	5.0 5.0	100	F	R3		GRANODIORITE ~2.0 ft thick zone; white to black (10 YR 8/1 to 2/1); medium grained	
184								
185								
186								
187							GRANODIORITE; white to black (10 YR 8/1 to 2/1); medium to coarse grained	
188	30	5.0 5.0	100	F	R3			
189								
190								
191								
192								
193	31	5.0 5.0	100	F	R3		QUARTZ DIORITE	
194								
195								
196								
197								
198	32	5.0 5.0	100	F	R3		Migmatitic zone of hornblende; gneiss; granodiorite	
199								
200								
201								
202								
203	33	5.0 5.0	100	F	R3			
204								

End drilling on 6/8/06. Water at 0 ft due to core water 6/9/06 at 9:00 am groundwater at 38.0 ft.

Project Name : Job Number




ROCK LOG - Boring No. B-306

SCE&G COL : 6234-06-3534

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Remarks
205								
206								
207								
208	34	5.0 5.0	100	F	R3		QUARTZ DIORITE; black (10 YR 2/1); coarse grained	Finished planned depth on 6/9/06 at 215.0 ft. water at 0 ft drilling water)
209								
210							GRANODIORITE ZONE; white to black (10 YR 8/1 to 2/1); medium to coarse grained	
211								
212	35	4.0 4.0	100	F	R3			
213								
214								
215								
216								
217								
218								
219								
220								
221								
222								
223								
224								
225								
226								
227								
228								
229								
230								
231								
232								
233								
234								
235								
236								
237								
238								
239								
240								
241								
242								
243								
244								

Project Name : Job Number		SOIL LOG - Boring No. B-307	
SCE&G COL : 6234-06-3534			
Type and Diameter of Boring Mud Rotary / 3 7/8 inch/HQ		Boring Location Power Block	
Drilling Contractor and Rig TRIGON/Wichard/190742 / CME 850		Elevation at Boring 402.6 feet	Ground Water Depth 40.4 feet
Sampling Method Standard		Sample Driving Hammer/Drop 140 lbs / 30 inches	No. of Samples 12
		Borehole Inclination 0	Date Started 6/8/06
		Logged by J. Liles	Date Completed 6/21/06
		Reviewed by / Date M. Cooke 7/6/06	
		Reviewed by / Date <i>Clay Lamm 11/30/06</i>	

Depth (feet)	Sample	Sample Type & No.	Uncorrected Blows/6 inches	Recovery (inches)	Water Content	Grain Size	Atterberg Limits	Lithology	Soil Type (USCS)	Lithology	Remarks
0											
1	SPT 1	1	1	12/18					CL-ML	CLAY silty, sandy (CL-ML); dark red (2.5 YR 3/6); moist; very soft; fine to medium sand; low to medium plasticity; RESIDUUM	
2	SPT 2	2	6	14/18					MH	SILT clayey with sand (MH); dark red (2.5 YR 3/6); moist; stiff; fine to medium sand; no to low plasticity; 8% sand; RESIDUUM	
3											
4	SPT 3	3	8	24/18						SILT clayey with sand (MH); dark red (2.5 YR 3/6); moist; medium dense; 17% sand; no plasticity; trace mica; RESIDUUM	
5											
6	SPT 4	4	7	14/18							
7											
8											
9	SPT 5	5	5	14/18					SM	SAND silty (SM); strong brown (7.5 YR 4/6); moist; loose; fine to medium sand; no plasticity; slightly micaceous; 33% fines; SAPROLITE	Saprolite
10											
11	SPT 6	6	5	13/18						SAA; fine to coarse grained; 38% fines	
12											
13											
14	SPT 7	7	11	0/18						No recovery	Residuum No recovery from 13.5 to 15.0 ft
15											
16	SPT 7A	7A	6	6/18					ML	SILT sandy (ML); dark red (2.5 YR 3/6); moist; stiff; no plasticity; slightly micaceous; 44% fine to medium sands; RESIDUUM	
17											
18									ML	SILT sandy, clayey (ML); strong brown (7.5 YR 4/6); moist; stiff; fine to coarse sand; low to no plasticity; slightly micaceous; SAPROLITE	Saprolite
19	SPT 8	8	5	6/18							
20											
21											
22											
23											
24	SPT 9	9	4	15/18					ML	SILT sandy (ML); strong brown (7.5 YR 4/6); moist; very stiff; fine to coarse sand; no plasticity; 38% sand, 2% gravel; slightly micaceous; SAPROLITE	
25											
26											
27											
28									SM	SAND silty (SM); dark yellowish brown (10 YR 4/6); moist; medium dense; fine to medium sand; no plasticity; 42% fines; SAPROLITE	
29	SPT 10	10	5	15/18							
30											
31											
32											
33											
34	SPT 11	11	7	11/18						SAND silty, gravelly (SM); brown (7.5 YR 4/2); moist; medium dense; fine to medium sand; no plasticity; very micaceous; 24% fines, 10% gravel; SAPROLITE	
35											
36											
37											
38											
39	SPT 12	12	4	9/11						SAA; strong brown (7.5 YR 4/6); slightly micaceous; 46% fines. PARTIALLY WEATHERED	Partially weathered rock
40											

Project Name : Job Number SCE&G COL : 6234-06-3534				ROCK LOG - Boring No. B-307	
Type and Diameter of Boring Mud Rotary / 3 7/8 inch/HQ			Boring Location Power Block		Total Depth 176 feet
Drilling Contractor and Rig TRIGON/Wichard/190742 / CME 850			Elevation at Boring 402.6 feet	Ground Water Depth 40.4 feet	Depth to Bedrock 40 feet
Casing Size and Depth 4 / 39.5 feet			Length of Core Barrel and Bit 8.5 feet	No. of Core Boxes 10	Date Started 6/8/06
			Borehole Inclination 0	Logged by J. Liles	Date Completed 6/21/06

Reviewed by / Date M. Cooke 7/6/06

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Lithology	Remarks
40	1	$\frac{2.0}{2.0}$	100	SW to F	R3				Top of sound rock
41		$\frac{2.0}{2.0}$							
42							K-spar and quartz dike		
43									
44	2	$\frac{4.5}{5.0}$	74	F	R3		Slicken sided surface dipping 45°, slightly fractured		100% water loss
45									
46									
47									
48							GRANODIORITE; black and white; medium to coarse grained; contains quartz; K-spar; small xenoliths of black fine grained amphibolite schist; some pyrite visible		
49	3	$\frac{5.0}{5.0}$	96	F	R4		GRANODIORITE MIGMATITE; black and white; fine to medium grained; small xenoliths of black amphibolite schist; contains quartz and K-spar; also contains hornblende; pyrite visible		
50									
51									
52									
53									
54	4	$\frac{5.0}{5.0}$	100	F	R4		HORNBLLENDE GNEISS; black and white; with zones of granodiorite migmatite; fine grained; foliation at 45°		
55									
56									
57									
58									
59	5	$\frac{5.0}{5.0}$	94	F	R4				
60									
61									
62									
63									
64	6	$\frac{5.0}{5.0}$	100	F	R4		GRANODIORITE; black and white; medium to coarse grained; zones of black, fine grained amphibolite schist; contains K-spar, hornblende, quartz, and traces of pyrite		
65									
66									
67									
68	7	$\frac{5.0}{3.0}$	100	F	R4		Migmatic zone from 67.7 to 68.8 ft		
69									
70									
71	8	$\frac{5.0}{2.0}$	100	F	R4				
72									
73							BIOTITE GNEISS; migmatite; black and white; fine to medium grained; contains quartz, feldspar, and a small xenolith of black amphibolite schist, pyrite visible		End drilling 6/11/06 groundwater at 36.6 ft Start drilling 6/12/06; groundwater at 41.1 ft
74	9	$\frac{5.0}{5.0}$	100	F	R4		GRANODIORITE; black and white; medium to coarse grained; with zones of black fine grained amphibolite schist, and light green epidote dikes, contains hornblende, quartz, K-spar, and some pyrite is visible		
75									
76									
77									
78									
79	10	$\frac{5.0}{5.0}$	100	F	R4				
80									

Project Name : Job Number MACTEC SCE&G COL : 6234-06-3534	<h2 style="margin: 0;">ROCK LOG - Boring No. B-307</h2>
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Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Remarks
80								
81							SAA; with some xenoliths of amphibolite schist, along with some quartz dikes	
82							Amphibolite schist zone from 82.6 to 85.1 ft	
83								
84	11	5.0 / 5.0	100	F	R4		SAA; closely spaced fractures	
85								
86								
87							SAA; GRANODIORITE MIGMATITE	
88								
89	13	5.0 / 5.0	100	F	R4			
90								
91								
92								
93								
94	14	5.0 / 5.0	100	F	R4			
95								
96								
97							GRANODIORITE; black and white; medium to coarse grained; with a migmatitic hornblende zone and xenoliths of fine grained amphibolite schist; also contains quartz, feldspar, and some pyrite mineralization	
98								
99	15	5.0 / 5.0	100	F	R4			
100								
101								
102							MIGMATITE; bluish black and white; fine to medium grained; contains a zone of black amphibolite schist with pyrite mineralization; also contains a quartz and K-spar dike	
103								
104	16	5.0 / 5.0	100	F	R4			
105								
106							GRANODIORITE MIGMATITE; black and white; fine to coarse grained; with scattered xenoliths of black, fine grained amphibolite schist	
107								
108								
109	17	5.0 / 5.0	86	F	R4			
110								
111								
112								
113								
114	18	5.0 / 5.0	100	F	R4			
115								
116								
117								End drilling 6/12/06
118								Start drilling 6/13/06;
119	19	5.0 / 5.0	100	F	R4			groundwater at 41.0 ft
120								

Project Name : Job Number 	ROCK LOG - Boring No. B-307
SCE&G COL : 6234-06-3534	

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Remarks
120								
121							SAA with zones of black fine grained amphibolite schist	End 6/13/06 Start drilling 6/20/06; groundwater 42.5 ft
122	20	$\frac{2.5}{2.5}$	100	F	R4			
123								
124								
125	21	$\frac{2.0}{2.0}$	100	F	R4			
126								
127								
128	22	$\frac{5.0}{5.0}$	100	F	R4			
129								
130								
131								
132							GRANODIORITE MIGMATITE; black and white; fine to medium grained; with xenoliths of black amphibolite schist, contains quartz, K-spar, and hornblende	End drilling 6/20/06 Start drilling 6/21/06 groundwater at 40.7 ft
133	23	$\frac{5.0}{5.0}$	100	F	R4			
134								
135							SAA, with a zone of black, fine to medium grained amphibolite schist	
136								
137								
138	24	$\frac{5.0}{5.0}$	98	F	R4			
139								
140								
141							HORNBLLENDE GNEISS; bluish black; fine to medium grained; with a granodiorite migmatic zone; trace of pyrite visible	
142								
143	25	$\frac{5.0}{5.0}$	100	F	R4			
144								
145							MIGMATITE, SAA	
146								
147								
148	26	$\frac{5.0}{5.0}$	100	F	R4			
149								
150								
151								
152							GRANODIORITE MIGMATITE; black and white; fine to coarse grained; contains small xenoliths of black fine grained amphibolite schist, contains hornblende, K-spar, quartz, and biotite; trace of pyrite mineralization CORING TERMINATED at 176.0 ft	
153	27	$\frac{5.0}{5.0}$	100	F	R4			
154								
155								
156								
157								
158	28	$\frac{5.0}{5.0}$	100	F	R4			
159								
160								

Project Name : Job Number



ROCK LOG - Boring No. B-307

SCE&G COL : 6234-06-3534

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Lithology	Remarks
160									
161									
162									
163	29	5.0 / 5.0	100	F	R4				
164									
165									
166									
167									
168	30	5.0 / 5.0	96	F	R4				
169									
170									
171									
172									
173	31	4.8 / 5.0	96	F	R4				
174									
175									
176									
177									Boring terminated at 176.0 ft on 6/21/06 at 4:00 pm 6/22/06; groundwater 40.4 ft
178									
179									
180									
181									
182									
183									
184									
185									
186									
187									
188									
189									
190									
191									
192									
193									
194									
195									
196									
197									
198									
199									
200									

Project Name : Job Number MACTEC		SOIL LOG - Boring No. B-307A	
SCE&G COL : 6234-06-3534			
Type and Diameter of Boring Mud Rotary / 3 7/8 inch/HQ		Boring Location Power Block	Total Depth 40 feet
Drilling Contractor and Rig MACTEC/Banks/337153 / CME550		Elevation at Boring 402.4 feet	Ground Water Depth Depth to Bedrock 40 feet
Sampling Method No sampling		Sample Driving Hammer/Drop NA / NA	No. of Samples 0
		Borehole Inclination 0	Logged by J. Liles
			Date Started 7/8/06
			Date Completed 7/8/06

Reviewed by / Date M. Cooke 7/13/06
 Reviewed by / Date Clay Sam 12/4/06

Depth (feet)	Sample	Sample Type & No.	Uncorrected Blows/6 inches	Recovery (inches)	Water Content	Grain Size	Atterberg Limits	Lithology	Soil Type (USCS)	Lithology	Remarks
0										Drilled in soil without sampling to 40.0 ft for P-S velocity log in soil offset south of B-307	
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											
27											
28											
29											
30											
31											
32											
33											
34											
35											
36											
37											
38											
39										Top of rock	Drill bit refusal at 40 ft Boring drilled for P-S suspension logging in soil
40											

Project Name : Job Number		SOIL LOG - Boring No. B-308	
SCE&G COL : 6234-06-3534		MACTEC	
Type and Diameter of Boring Mud Rotary / 3 7/8 inch/HQ		Boring Location Power Block	Total Depth 115 feet
Drilling Contractor and Rig MACTEC/Banks/337153 / CME550		Elevation at Boring 418.3 feet	Ground Water Depth 47.2 feet
Sampling Method Standard/UD		Sample Driving Hammer/Drop 140 lbs / 30 inches	No. of Samples 8
		Borehole Inclination 0	Date Started 8/1/06
		Logged by J. Liles	Date Completed 8/3/06

Reviewed by / Date M. Cooke 8/6/06
 Reviewed by / Date Clay Sam 12/4/06

Depth (feet)	Sample	Sample Type & No.	Uncorrected Blows/6 inches	Recovery (inches)	Water Content	Grain Size	Atterberg Limits	Lithology	Soil Type (USCS)	Lithology	Remarks
0									SM	SAND silty, clayey (SM); dark red (2.5 YR 3/6); damp; fine to medium grained; loose; no to low plasticity; slightly micaceous; RESIDUUM	Residuum
1		SPT 1	22	13							
2		SPT 2	20	21							
3											
4		SPT 3	24	15					SM	SAND silty (SM); dark red (2.5 YR 3/6); damp; loose; fine to medium grained; non plastic; micaceous; RESIDUUM	
5											
6											
7		SPT 4	24	15					SM	SAA; yellowish brown (10 YR 5/4); damp; loose to medium dense; fine to medium grained; non plastic; slightly micaceous; SAPROLITE	First saprolitic sample
8											
9		UD 1		14							
10				24							
11											
12		SPT 5	33	13							
13											
14		SPT 6	40	12							
15				18							
16											
17											
18											
19		UD 2		18							
20				24							
21											
22											
23										SAA; dark yellowish brown (10 YR 3/6)	
24		SPT 7	30	13							
25				18							
26											
27											
28											
29		UD 3		14							
30				24							
31											
32											
33											
34		SPT 8	30	16							
35				18							
36											
37											
38											
39		UD 4		4						PARTIALLY WEATHERED ROCK, refusal, see rock log	Partially weathered rock
40				12							

End day 8/1/06
 Begin day 8/2/06; water level at 0 ft

Project Name : Job Number MACTEC		ROCK LOG - Boring No. B-308	
SCE&G COL : 6234-06-3534			
Type and Diameter of Boring Mud Rotary / 3 7/8 inch/HQ	Boring Location Power Block	Total Depth 115 feet	
Drilling Contractor and Rig MACTEC/Banks/337153 / CME550	Elevation at Boring 418.3 feet	Ground Water Depth 47.2 feet	Depth to Bedrock 39.5 feet
Casing Size and Depth 4 / 39.5 feet	Length of Core Barrel and Bit 13.5 feet	No. of Core Boxes	Date Started 8/1/06
	Borehole Inclination 0	Logged by J. Liles	Date Completed 8/3/06

Reviewed by / Date M. Cooke 8/6/06

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Remarks						
40	1	5.1 5.5	62	MW to SW	R2 to R3		GRANODIORITE; black and white; medium to coarse grained	Refusal at 39.5 ft, see rock log on 8/2/06						
41														
42	2	4.5 5.0	76	F	R3		Fracture zone 39.5 to 46.5 ft	Top of sound rock						
43														
44														
45	3	5.0 5.0	100	F	R4		SAA; bluish gray and black with zones of quartz diorite; with small xenoliths of black fine grained amphibolite schist							
46														
47														
48														
49	4	5.0 5.0	100	F	R4		SAA; black and white; quartz, feldspar, biotite, hornblende, and trace of pyrite	End day 8/2/06 Begin day 8/3/06; water level at 47.2 ft						
50														
51														
52														
53														
54	5	5.0 5.0	100	F	R4		SAA; medium to coarse grained with zones of quartz diorite and amphibolite schist; some epidote present							
55														
56														
57														
58														
59									6	5.0 5.0	100	F	R4	
60														
61														
62														
63														
64	7	5.0 5.0	100	F	R4									
65														
66														
67														
68														
69								8	5.0 5.0	100	F	R4		
70														
71														
72														
73														
74														
75														
76														
77														
78														
79														

Project Name : Job Number 	ROCK LOG - Boring No. B-308
SCE&G COL : 6234-06-3534	

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Remarks
80								
81								
82	9	5.0 5.0	100	F	R4			
83								
84								
85							GRANODIORITE to BIOTITE GNEISS	
86							MIGMATITE; bluish gray, and white; medium to coarse grained	
87	10	5.0 5.0	100	F	R4			
88								
89								
90								
91	11	5.0 5.0	100	F	R4		BIOTITE GNEISS; bluish gray; fine to medium grained; contains some hornblende and quartz dikes with a trace of pyrite	
92							Totally healed fractured with epidote present at 92 ft	
93								
94								
95								
96								
97	12	5.0 5.0	100	F	R4			
98								
99								
100								
101								
102	13	5.0 5.0	100	F	R4		Granodiorite zone from 102 to 103 ft	
103								
104								
105							Trace of pyrite	
106								
107	14	5.0 5.0	100	F	R4			
108								
109								
110								
111							BIOTITE GNEISS and GRANODIORITE	
112	15	5.0 5.0	100	F	R4		MIGMATITE	
113							CORING TERMINATED at 115 ft	
114								
115								Borehole terminated on 8/3/06
116								
117								
118								
119								

Project Name : Job Number		SOIL LOG - Boring No. B-309	
MACTEC SCE&G COL : 6234-06-3534			
Type and Diameter of Boring Mud Rotary / 3 7/8 inch/HQ		Boring Location Power Block	
Drilling Contractor and Rig MACTEC/Banks/337153 / CME550		Elevation at Boring 422.6 feet	Ground Water Depth 48 feet
Sampling Method Standard		Sample Driving Hammer/Drop 140 lbs / 30 inches	No. of Samples 9
		Borehole Inclination 0	Date Started 7/19/06
		Logged by J. Liles	Date Completed 7/21/06
		Reviewed by / Date <u>M. Cooke 7/24/06</u>	
		Reviewed by / Date <u>Clay Liles 11/30/06</u>	

Depth (feet)	Sample	Sample Type & No.	Uncorrected Blows/6 inches	Recovery (inches)	Water Content	Grain Size	Atterberg Limits	Lithology	Soil Type (USCS)	Lithology	Remarks
0											
1	SPT 1	3/3	16						ML	SILT sandy (ML); yellowish red (5 YR 4/6); damp; fine to medium grained; medium stiff to stiff, slightly micaceous; RESIDUUM	Residuum
2	SPT 2	4/6	12								
3											
4	SPT 3	2/6	15						ML	SILT sandy (ML); dark red (10 R 3/6); mottled with light brown and white; damp; stiff; fine to medium grained; micaceous; non plastic; RESIDUUM	
5											
6	SPT 4	2/5	16							SAA; strong brown (7.5 YR 5/6);	
7											
8											
9	UD 1		24		●	●	●			SAND very silty (SM); strong brown (7.5 YR 5/6); damp; fine to medium grained; loose to medium dense; slightly micaceous; non plastic; 35% fines; SAPROLITE	Saprolite
10											
11	SPT 5	2/5	10								
12											
13	SPT 6	3/5	13							SAA; brown (7.5 YR 4/4); micaceous	
14											
15											
16											
17											
18											
19	UD 2		18								
20			24								
21											
22											
23											
24	SPT 7	2/6	16							SAA; strong brown (7.5 YR 4/6); mottled with red and white	
25											
26											
27											
28											
29	UD 3		24		●	●	●		ML	SILT sandy (ML); 30% sand, 70% fines	
30											
31											
32											
33									SM	SAND silty (SM) very micaceous; medium to coarse grained	
34	SPT 8	2/9	13								
35											
36											
37											
38											
39	UD		14			●				SAA; 49% fines	
40											

Project Name : Job Number



SOIL LOG - Boring No. B-309

SCE&G COL : 6234-06-3534

Depth (feet)	Sample	Sample Type & No.	Uncorrected Blows/6 inches	Recovery (inches)	Water Content	Grain Size	Atterberg Limits	Lithology	Soil Type (USCS)	Lithology	Remarks
40		4		24					SM		
41										SAND silty (SM); dark olive brown (2.5 Y 3/3); moist; medium to coarse grained; very dense; non plastic; slightly micaceous; SAPROLITE	
42											
43											
44	SPT 9		14 24 29	16 18							
45											
46											
47	SPT 10		50/2	0 2						No recovery, PARTIALLY WEATHERED ROCK Refusal at 46.5 ft see rock log	
48											
49											
50											
51											
52											
53											
54											
55											
56											
57											
58											
59											
60											
61											
62											
63											
64											
65											
66											
67											
68											
69											
70											
71											
72											
73											
74											
75											
76											
77											
78											
79											
80											

Project Name : Job Number MACTEC		ROCK LOG - Boring No. B-309	
SCE&G COL : 6234-06-3534			
Type and Diameter of Boring Mud Rotary / 3 7/8 inch/HQ	Boring Location Power Block	Total Depth 150 feet	
Drilling Contractor and Rig MACTEC/Banks/337153 / CME550	Elevation at Boring 422.6 feet	Ground Water Depth 48 feet	Depth to Bedrock 46.5 feet
Casing Size and Depth 4 / 47 feet	Length of Core Barrel and Bit 13.5 feet	No. of Core Boxes 8	Date Started 7/19/06
Borehole Inclination 0	Logged by J. Liles	Date Completed 7/21/06	

Reviewed by / Date M. Cooke 7/24/06

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Remarks
47	1	2.3 5.0	0	HW to MW	R1 to R2		GRANODIORITE; black and white; medium to coarse grained	SPT terminated, bit refusal
48								
49	2	1.7 5.0	20	MW	R2 to R3		Fracture zone 46.5 to 58.5 ft	
50								
51								
52	3	4.6 5.0	72	F	R3		SAA; quartz, feldspar, hornblende, and biotite	Top of sound rock
53								
54								
55								
56	4	5.0 5.0	100	F	R4		QUARTZ DIORITE; bluish gray and black; fine to medium grained; contains a couple of quartz dikes	
57								
58	5	5.0 5.0	100	F	R4		GRANODIORITE; black and white; medium to coarse grained; contains some small xenoliths of amphibolite schist and also contains quartz, feldspar, hornblende, and biotite	Begin day 7/20/06 water level at 46 ft
59								
60								
61	6	5.0 5.0	100	F	R4		GRANODIORITE; SAA, with xenoliths of black fine grained amphibolite schist	
62								
63	7	5.0 5.0	100	F	R4			
64								
65								
66	8	5.0 5.0	100	F	R4			
67								
68								
69								
70								
71								
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								

Project Name : Job Number



SCE&G COL : 6234-06-3534

ROCK LOG - Boring No. B-309

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Remarks
87	9	5.0 5.0	100	F	R4		GRANODIORITE; transitioning into a fine to medium grained HORNBLLENDE GNEISS; with some quartz dikes; foliation at 25°	
88								
89								
90	10	5.0 5.0	100	F	R4		MIGMATITE - GRANODIORITE and HORNBLLENDE GNEISS bluish gray, black, and white, fine to coarse grained; contains quartz dikes and trace of pyrite	
91								
92								
93								
94								
95								
96								
97	11	5.0 5.0	100	F	R4			
98								
99								
100	12	5.0 5.0	100	F	R4		MIGMATITE; bluish gray, black, and white, fine to coarse grained, trace of pyrite CORING TERMINATED at 150.0 ft	
101								
102								
103								
104								
105								
106								
107	13	5.0 5.0	100	F	R4			
108								
109								
110	14	5.0 5.0	100	F	R4			
111								
112								
113								
114								
115								
116								
117	15	5.0 5.0	100	F	R4			
118								
119								
120	16	5.0 5.0	100	F	R4			
121								
122								
123								
124								
125								
126								

Project Name : Job Number



ROCK LOG - Boring No. B-309

SCE&G COL : 6234-06-3534

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Remarks
127								
128								
129	17	5.0 5.0	100	F	R4			
130								
131								
132								
133								
134	18	5.0 5.0	100	F	R4			Begin day 7/21/06 water level at 48 ft
135								
136								
137								
138								
139	19	5.0 5.0	100	F	R4			
140								
141								
142								
143								
144	20	5.0 5.0	100	F	R4			
145								
146								
147								
148	21	3.0 3.0	100	F	R4			
149								
150								Boring terminated on 7/21/06
151								
152								
153								
154								
155								
156								
157								
158								
159								
160								
161								
162								
163								
164								
165								
166								

Project Name : Job Number MACTEC		SOIL LOG - Boring No. B-310	
SCE&G COL : 6234-06-3534			
Type and Diameter of Boring Mud Rotary / 4 7/8 inch/HQ	Boring Location Power Block	Total Depth 105.8 feet	
Drilling Contractor and Rig Gregg/Burnett/311025 / CME 55	Elevation at Boring 417 feet	Ground Water Depth 35 feet	Depth to Bedrock 53.3 feet
Sampling Method Standard/UD	Sample Driving Hammer/Drop 140 lbs / 30 inches	No. of Samples 10	Date Started 7/22/06
	Borehole Inclination 0	Logged by M. Cooke/S. Woodham	Date Completed 8/2/06

Reviewed by / Date M. Cooke 8/4/06

Reviewed by / Date *Clay Lane 12/4/06*

Depth (feet)	Sample	Sample Type & No.	Uncorrected Blows/6 inches	Recovery (inches)	Water Content	Grain Size	Atterberg Limits	Lithology	Soil Type (USCS)	Lithology	Remarks
0		SPT 1	4	14					ML	SILT sandy (ML); yellowish brown (10 YR 5/6); with reddish brown; stiff; 20% sand; micaceous; RESIDUUM SAA; dark red (10 R 3/6); white weathered feldspar stringers	Saprolite
1		SPT 2	2	12				ML			
2		SPT 3	2	12				ML			
3		SPT 4	4	14							
4		UD 1		22							
5		SPT 5	4	18							
6		SPT 6	2	14							
7		SPT 7	4	16							
8									SAA; slightly higher sand content ~20%		
9		UD 2		18							
10											
11											
12		SPT 8	4	15						SAA; dark yellowish brown (10 YR 4/6); abundant mica; well pronounced relict structure	
13											
14											
15		UD 3		19							
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											
27											
28											
29											
30											
31											
32											
33											
34											
35											
36											
37											
38											
39											
40										SILT sandy (ML); dark yellowish brown (10 YR 4/4); damp; stiff; 15 to 20% sand; micaceous;	

Project Name : Job Number



SOIL LOG - Boring No. B-310


SCE&G COL : 6234-06-3534

Depth (feet)	Sample	Sample Type & No.	Uncorrected Blows/6 inches	Recovery (inches)	Water Content	Grain Size	Atterberg Limits	Lithology	Soil Type (USCS)	Remarks
40		4		24						
41										
42										
43										
44	SPT	9	4	17						
45			6	18						
46			12							
47										
48								ML		
49	SPT	10	4	16						
50			6	18						
51			11							
52										
53										
54								PARTIALLY WEATHERED ROCK drilled with casing		Casing refusal at 53.3 ft see rock log
55										
56										
57										
58										
59										
60										
61										
62										
63										
64										
65										
66										
67										
68										
69										
70										
71										
72										
73										
74										
75										
76										
77										
78										
79										
80										

Project Name : Job Number MACTEC		ROCK LOG - Boring No. B-310	
SCE&G COL : 6234-06-3534			
Type and Diameter of Boring Mud Rotary / 4 7/8 inch/HQ		Boring Location Power Block	Total Depth 105.8 feet
Drilling Contractor and Rig Gregg/Burnett/311025 / CME 55		Elevation at Boring 417 feet	Ground Water Depth 35 feet
Casing Size and Depth 4.5 / 53 feet		Length of Core Barrel and Bit 5 feet	No. of Core Boxes
		Borehole Inclination 0	Date Started 7/22/06
		Logged by M. Cooke/S. Woodham	Date Completed 8/2/06

Reviewed by / Date M. Cooke 8/4/06

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Remarks
54	1	1.4 1.7	59	MW to SW	R4		GRANODIORITE; gray, white, dark gray; fine to medium grained; igneous; massive; biotite, quartz, feldspar; contains quartz veins	End day 7/23/06 Begin day 7/24/06; water level at 35 ft
55								
56								
57	2	5.0 5.0	100	SW to F	R4			
58								
59								
60								
61				F to HW	R2		MIGMATITE; granodiorite and quartz diorite; gray, very dark gray; fine to coarse grained; flowing texture; quartz, biotite, feldspar, K-spar, epidote	End day 7/24/06 Begin day 7/25/06
62	3	4.5 5.0	92	F	R4		MIGMATITE; consisting of granodiorite, amphibolite schist, quartz diorite Highly weathered zone 61.1 to 61.8 ft	
63								
64								
65								
66							MIGMATITE; consisting of granodiorite, amphibolite schist, fine to coarse grained, flowing texture; feldspar, biotite, amphibolite, quartz pyrite, K-spar	End day 7/25/06 Begin day 7/26/06
67	4	5.0 5.0	100	F	R4			
68								
69								
70								
71								
72	5	5.0 5.0	98	F	R4			
73								
74								
75								
76								
77	6	5.0 5.0	98	F	R4			
78								
79								
80								
81							QUARTZ DIORITE to GRANODIORITE; with amphibolite schist xenolith; gray, dark gray, fine to coarse grained, igneous; massive; feldspar, quartz, biotite, amphibole pyrite	
82	7	5.0 5.0	97	F	R4			
83								
84								
85							QUARTZ DIORITE; very dark gray, white, gray; fine to medium grained; massive; quartz, biotite; contains quartz dikes	
86								
87	8	5.0 5.0	100	F	R4			
88								
89								
90								
91							BIOTITE GNEISS; light gray, gray, with some dark gray; fine grained; igneous; biotite, quartz, muscovite, K-spar, pyrite, feldspar	
92	9	5.0 5.0	100	F	R4			
93								

Project Name : Job Number <div style="text-align: center;"> MACTEC</div> SCE&G COL : 6234-06-3534	<h2 style="margin: 0;">ROCK LOG - Boring No. B-310</h2>
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Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Remarks
94								
95								
96								
97	10	5.0	94	F	R4			
98		5.0						
99								
100								
101								
102	11	5.0	95	F	R4			
103		5.0						
104								
105								
106	12	0.8	100					
107		0.8						
108								
109								
110								
111								
112								
113								
114								
115								
116								
117								
118								
119								
120								
121								
122								
123								
124								
125								
126								
127								
128								
129								
130								
131								
132								
133								

CORING TERMINATED at 105.8 ft

Borehole terminated at 105.8 on 7/26/06

Project Name : Job Number MACTEC		SOIL LOG - Boring No. B-311	
SCE&G COL : 6234-06-3534			
Type and Diameter of Boring Mud Rotary / 3 7/8 inch/HQ		Boring Location Adjacent to Power Block	Total Depth 175 feet
Drilling Contractor and Rig MACTEC/Christian/211797 / CME 75		Elevation at Boring 419.5 feet	Ground Water Depth 55.1 feet
Sampling Method Standard		Sample Driving Hammer/Drop 140 lbs / 30 inches	No. of Samples 15
		Borehole Inclination 0	Date Started 5/11/06
		Logged by J. Liles/K.Miller	Date Completed 5/26/06

Reviewed by / Date M. Cooke 5/30/06

Reviewed by / Date Clay Liles 11/30/06

Depth (feet)	Sample	Sample Type & No.	Uncorrected Blows/6 inches	Recovery (inches)	Water Content	Grain Size	Atterberg Limits	Lithology	Soil Type (USCS)	Lithology	Remarks
0									MH	SILT clayey (MH); red (2.5 YR 4/6); fine to medium grained; stiff; low plasticity; slightly micaceous; 11% sand; RESIDUUM	Residuum
1		SPT 1	3	21	●	●			MH	SILT clayey with sand (MH); very stiff; 26% sand	
2		SPT 2	4	21	●	●			MH	SILT clayey with sand (MH); very stiff; 26% sand	
3			10	18							
4		SPT 3	5	18	●	●				SAA; 36% sand	
5			10	18							
6		SPT 4	3	16	●	●			ML	SILT sandy, clay (ML); red (2.5 YR 4/6); very stiff; fine sand; no to low plasticity; slightly micaceous; 30% sand; RESIDUUM	
7			10	18							
8		SPT 5	3	18	●	●				SAA; 49% sand	
9			8	18							
10		SPT 6	4	15	●	●			SM	SAND silty (SM); yellowish red (5 YR 4/6); mottled with white; medium dense; fine to medium grained; no plasticity; slightly micaceous; 32% fines; RESIDUUM	
11			8	18							
12		SPT 7	5	16	●	●				SAA; mottled with white and brown; 24% fines	
13			11	18							
14		SPT 8	4	20	●	●			ML	SILT sandy (ML); yellowish red (5 YR 4/6); very stiff; fine sand; no plasticity; slightly micaceous; 10% sand; RESIDUUM	
15			9	18							
16											
17											
18											
19		SPT 9	4	12	●	●			SM	SAND silty (SM); yellowish red (5 YR 4/6); medium dense; slightly micaceous; 44% fines; SAPROLITE	Saprolite
20			11	18							
21											
22											
23		SPT 10	7	14	●	●			ML	SILT sandy (ML); 28% sand; very stiff	
24			12	18							
25											
26											
27											
28											
29		SPT 11	3	14	●	●				SILT sandy (ML); reddish brown (5 YR 4/4); stiff to very stiff; fine sand; no plasticity; slightly micaceous; 40% sand; RESIDUUM	
30			11	18							
31											
32											
33											
34		SPT 12	3	16	●	●				SAA; 34% sand	
35			11	18							
36											
37											
38											
39											
40											

Project Name : Job Number



SOIL LOG - Boring No. B-311

SCE&G COL : 6234-06-3534

Depth (feet)	Sample	Sample Type & No.	Uncorrected Blows/6 inches	Recovery (inches)	Water Content	Grain Size	Atterberg Limits	Lithology	Soil Type (USCS)	Lithology	Remarks
40									ML	SAA; very stiff; slicken sided at 39.6 ft, 45°; SAPROLITE	
41											
42											
43											
44	SPT 13		5 9	18 18	●	●			SM	SAND silty (SM); mottled with black and white; 45% fines; medium dense; SAPROLITE	
45											
46											
47											
48											
49	SPT 14		8 11 15	18 18	●	●				SAND silty (SM); dark yellowish brown (10 YR 3/4); mottled with black and white; dense; fine to medium sand; no plasticity; slightly micaceous; slicken sided at 48.8 ft; 25% fines SAPROLITE	
50											
51											
52											
53											
54	SPT 15		46 50/5	12 11	●	●			SM	SAND silty with gravel (SM); light gray to dark brown; very dense; medium to coarse sand with rock fragments; 21% fines; 18% gravel	
55									∇	PARTIALLY WEATHERED ROCK	
56										BORING TERMINATED at 56.5 ft., see rock log	
57											
58											
59											
60											
61											
62											
63											
64											
65											
66											
67											
68											
69											
70											
71											
72											
73											
74											
75											
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77											
78											
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80											