Project Name : Job Number
MACTEC
SCE&G COL : 6234-06-3534

ROCK LOG - Boring No. B-321

Type and Diameter of Boring: Mud Rotary / 3 7/8 inch/NQ	Boring Location: Power Block		Total Depth: 85.1 feet
Drilling Contractor and Rig: MACTEC/Oglesby/219907 / CME 75	Elevation at Boring: 422.8 feet	Ground Water Depth:	Depth to Bedrock: 55 feet
Casing Size and Depth: 3.5 / 55 feet	Length of Core Barrel and Bit: 13.83 feet	No. of Core Boxes:	Date Started: 7/9/06
	Borehole Inclination: 0	Logged by: B. Sharp	Date Completed: 7/10/06

Reviewed by / Date: M. Cooke 7/13/06

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Lithology	Remarks
55				SW	R2 to R3			MIGMATITE GNEISS; very dark bluish gray (10 B 3/1); greenish black (10 GY 2.5/1); gray (N 6/); white (N 8/); black (N 2.5/); pale green (5 G 6/2); medium grained biotite gneiss with distinct gneissic flow banding; dip of foliation 35 to 70°; large zones of hornblende gneiss/amphibolite schist; few widely spaced totally healed fractures; epidote due to alteration of feldspar; biotite; hornblende; quartz; epidote.	Refusal at 55 ft. Boring terminated on 7/10/06
56									Sound rock
57	1	3.5/3.5	86	F	R3				
58									
59									
60									
61	2	5.0/5.0	100	F	R3 to R4				
62									
63									
64									
65									
66	3	5.0/5.0	100	F	R3 to R4			SAA fine to medium grained biotite amphibole; dip of foliation 30 to 40°	
67									
68									
69									
70									
71	4	5.0/5.0	100	F	R3 to R4				
72									
73									
74									
75									
76	5	5.0/5.0	100	F	R3 to R4				
77									
78									
79									
80									
81									
82	6	6.6/6.6	100	F	R3 to R4			HORNBLENDE GNEISS; greenish black (10 GY 2.5/1); fine to medium grained; banding/foliation dipping 30 to 40°; few thin totally healed steeply dipping fractures	
83									
84								Felsic seam 0.2 inch wide dipping 50°	
85								Pegmatite dike light pink/pinkish white (7.5 YR 8/2); K-spar rich with pale green epidote ~1.5 inch thick and dipping 30°	Boring terminated at 85.05 ft on 7/10/06
86								MIGMATITE BIOTITE GNEISS; very dark bluish gray (10 B 3/1); black (N 2.5/); gray (N 6/); white (N 8/); fine to medium grained; foliation dip ~ 40°; granodiorite; feldspar, biotite, quartz, amphibole CORING TERMINATED AT 85.05 ft	
87									
88									
89									
90									
91									
92									
93									
94									
95									

Project Name : Job Number
MACTEC
SCE&G COL : 6234-06-3534

SOIL LOG - Boring No. B-322

Type and Diameter of Boring: Mud Rotary / 3 7/8 inch/NQ	Boring Location: Power Block		Total Depth: 115.5 feet
Drilling Contractor and Rig: MACTEC/Oglesby/219907 / CME 75	Elevation at Boring: 425.3 feet	Ground Water Depth: 54 feet	Depth to Bedrock: 48.5 feet
Sampling Method: Standard/UD	Sample Driving Hammer/Drop: 140 lbs / 30 inches	No. of Samples: 14	Date Started: 7/18/06
	Borehole Inclination: 0	Logged by: B. Sharp	Date Completed: 7/20/06

Reviewed by / Date: M. Cooke 7/24/06
Reviewed by / Date: Clay Sams 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
0-1		SPT 1	7 6 4	17/18					CL	CLAY sandy (CL); dark red (10 R 3/6); moist; stiff; 30% fine grained sand, 70% fines; low plasticity; some roots; RESIDUUM	Residuum
2		SPT 2	12 10 11	0/18						No recovery	No recovery root blocked SPT
3-4		SPT 3	5 8 10	18/18					ML	SILT sandy (ML); dark red (10 R 3/6); moist; very stiff; low plasticity; some roots; RESIDUUM	
5-6		SPT 4	7 7 7	18/18						SILT (ML); red (10 R 4/6); yellowish brown (10 YR 5/8); mottled; moist; stiff; some localized silt with sand zones; low plasticity; RESIDUUM	
7-8		UD 1		17.5/24							
9-10		SPT 5	7 7 8	18/18						SILT sandy (ML); dark red (10 R 3/6); strong brown (7.5 YR 5/8); moist; stiff; low plasticity; RESIDUUM	End of day 7/18/06 Begin day 7/19/06
11-12		SPT 6	4 5 9	12/18					ML	SILT sandy (ML); dark red (10 R 3/6); strong brown (7.5 YR 5/8); moist; stiff; trace gray (N 6/); SAPROLITE	
13-14		UD 2		23.5/24	●	●	●		SM	SAND silty (SM); dark red (10 R 3/6); strong brown (7.5 YR 5/8); white (7.5 YR 8/1); black (7.5 YR 2.5/1); moist; medium dense; 29% fines; micaceous; some black manganese staining; SAPROLITE	
15-16		SPT 7	6 7 11	13/18							
17-18		UD 3		15.5/24					ML	SILT sandy (ML); dark red (10 R 3/6); strong brown (7.5 YR 5/8); dark yellowish brown (10 YR 4/4); trace white (10 YR 8/1); trace black (10 YR 2/1); moist; stiff; ~30% fine grained sand; ~70% fines; micaceous; with black manganese staining; SAPROLITE	
19-20		SPT 8	4 6 8	16/18							
21-22		UD		19.5					SM	SANDsilty (SM); yellowish brown (10 YR 5/8); olive	

Project Name : Job Number

MACTEC

SCE&G COL : 6234-06-3534

SOIL LOG - Boring No. B-322

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	1	4		24					SM	brown (2.5 Y 4/4); dark red (10 R 3/6); white; (10 YR 8/1); black (10 YR 2/1); 20 to 30% fines, 70 to 80% fine grained sand; moist; medium dense; abundant black manganese staining; SAPROLITE	
41											
42											
43											
44		SPT 9	8 7 17	16 18							
45											
46											
47											
48		SPT 10	26 50/5	9 11					SM	SAND silty; dark grayish brown (2.5 Y 4/3); white (2.5 Y 8/1); moist; very dense; locally micaceous; some completely weathered to highly weathered feldspar. PARTIALLY WEATHERED ROCK	
49											
50											
51											
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Project Name : Job Number
MACTEC
SCE&G COL : 6234-06-3534

ROCK LOG - Boring No. B-322

Type and Diameter of Boring: Mud Rotary / 3 7/8 inch/NQ	Boring Location: Power Block		Total Depth: 115.5 feet
Drilling Contractor and Rig: MACTEC/Oglesby/219907 / CME 75	Elevation at Boring: 425.3 feet	Ground Water Depth: 54 feet	Depth to Bedrock: 48.5 feet
Casing Size and Depth: 3.5 / 48.5 feet	Length of Core Barrel and Bit: 13.83 feet	No. of Core Boxes: 4	Date Started: 7/18/06
	Borehole Inclination: 0	Logged by: B. Sharp	Date Completed: 7/20/06

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

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Lithology	Remarks
49				CW	R0			Completely weathered zone	Tricone refusal at 48.5 ft 7/19/06 see rock log
50				MW	R2 to R3			HORNBLENDE and BIOTITE GNEISS; very dark greenish gray (10 G 3/1); foliation dip ~40°; very intensely fractured; feldspar, quartz, hornblende, biotite	
51	1	0.3 / 5.0	0						
52									
53				CW	R0			Completely weathered zone	
54								▼	
55									
56	2	0.9 / 5.0	0	MW to SW	R2 to R3			HORNBLENDE and BIOTITE GNEISS; very dark greenish gray (10 G 3/1); foliation dip 10 to 70°; some irregular flow banding; feldspar, quartz, hornblende, biotite	
57									
58								Completely weathered zone	
59									
60				CW	R0				
61	3	0.9 / 5.0	0						
62									
63				CW to SW	R2 to R3			MIGMATITE GNEISS; bluish black (5 B 2.5/1); fine to medium grained; foliated/banded biotite gneiss; foliation dipping 50 to 60°; with zones of medium to coarse grained; white (N 8/); gray (N 6/); and black (N 2.5/); massive granodiorite with some irregular flow banding; feldspar, quartz, biotite, amphibole, trace epidote	
64									
65				SW to F	R2 to R3				
66	4	4.8 / 5.0	90						Top of sound rock
67									
68				F	R3				
69									
70									
71	5	5.0 / 5.0	100						
72									
73									
74				F	R3 to R4				
75									
76	6	5.0 / 5.0	96						
77									
78									
79								BIOTITE GNEISS; bluish black (10 B 2.5/1); to bluish gray (10 B 5/1); fine to medium grained; with zones of medium to coarse grained granodiorite migmatite with few xenoliths of amphibolite schist/biotite amphibole schist; foliation/banding dipping 50 to 60°; some pale green epidote mineralization	End of day 7/19/06 Begin day 7/20/06
80									
81	7	5.0 / 5.0	100	F	R3 to R4				
82									
83									
84									
85									
86	8	5.0 / 5.0	100	F	R3 to R4			Quartz rich biotite gneiss from 86.2 to 88.1 ft	
87									
88									

Project Name : Job Number
MACTEC
SCE&G COL : 6234-06-3534

ROCK LOG - Boring No. B-322

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Lithology	Remarks
89–93	9	5.0/5.0	100	F	R3 to R4				
94–98	10	5.0/5.0	100	SW to F	R3			MIGMATITE; bluish black (10 B 2.5/1); to bluish gray (10 B 5/1); fine to medium grained; well foliated/banded biotite gneiss; with some localized medium to coarse grained gray (N 6/); white (N 8/); and black (N 2.5/) granodiorite; zones of hornblende gneiss/amphibolite schist; foliation dipping 60 to 70°; abundant pyrite mineralization; feldspar, quartz, biotite, hornblende, pyrite	
99–103	11	5.0/5.0	72	SW to F	R3				
104–108	12	5.0/5.0	70	SW to MW	R2 to R3				
109–112	13	7.0/7.0	66	SW to MW	R2 to R3			Pegmatite dike 0.5 inch thick and dipping ~35° at 110.3 ft BIOTITE GNEISS; bluish gray (10 B 5/1); fine to medium grained; distinct flow banding dipping ~60°; some localized small zones with igneous/massive texture; some irregular flow banding; biotite; feldspar, quartz, amphibole	
113–115				SW to F	R3			CORING TERMINATED AT 115.0 ft	
116–128									Boring terminated on 7/20/06 7/21/06 water level at 54.0 ft

Project Name : Job Number
MACTEC
SCE&G COL : 6234-06-3534

SOIL LOG - Boring No. B-323

Type and Diameter of Boring: Mud Rotary / 3 7/8 inch/NQ	Boring Location: Power Block		Total Depth: 84.9 feet
Drilling Contractor and Rig: MACTEC/Meyerson/209195 / CME 55	Elevation at Boring: 420.1 feet	Ground Water Depth: 34 feet	Depth to Bedrock: 46.7 feet
Sampling Method: Standard	Sample Driving Hammer/Drop: 140 lbs / 30 inches	No. of Samples: 13	Date Started: 4/28/06
	Borehole Inclination: 0	Logged by: B. Sharp	Date Completed: 4/30/06

Reviewed by / Date: M. Cooke 5/1/06
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
0-2		SPT 1	2 3 4	18/18						SAND silty (SM); strong brown (7.5 YR 5/6); with localized red (10 R 4/8), and gray (10 YR 6/1); loose; moist; 70 to 80% fine grained sand; 20 to 30% fines; clay/silt rich zones with faint relict horizontal structure; some roots from 0.0 to 0.5 ft; RESIDUUM	Residuum
2-4		SPT 2	3 3 6	15/18							
4-6		SPT 3	3 7 7	18/18						SAA	Loosing water
6-8		SPT 4	4 5 7	14/18						SAA; mottled red (10 R 4/8) and strong brown (7.5 YR 5/6); medium dense; no relict structure; 30 to 40% fines SAA; with some black (10 YR 2/1); manganese staining	
8-10		SPT 5	2 3 4	17/18					SM	SAA; red (10 R 4/8) with zones of yellowish red (5 YR 4/6); loose; relict foliation dipping 20 to 30°; SAPROLITE	Loosing less water
10-12		SPT 6	2 4 6	13/18						SAA; mottled red (10 R 4/8); strong brown (7.5 YR 5/6); with black (10 YR 2/1); loose; manganese staining with localized yellowish red (5 YR 4/6); RESIDUUM/SAPROLITE	
12-14		SPT 7	3 5 6	16/18						SAA; yellowish red (5 YR 4/6); with zones of light greenish gray (10 GY 8/1); medium dense; SAPROLITE	
14-16											
16-18											
18-20		SPT 8	3 4 6	17/18						SAND silty (SM); strong brown (7.5 YR 5/8), red (10 R 4/8); light greenish gray (10 GY 8/1); moist; loose; 70 to 90% fine grained sand; 10 to 30% silt; thin black (10 YR 2/1) manganese stringer SP-SM zone from 19 to 19.8 ft	
20-22											
22-24		SPT 9	4 4 6	15/18						SAND silty (SM); strong brown (7.5 YR 5/8); gray (10 YR 5/1); black (10 YR 2/1); moist; loose; black manganese staining in thin stringers; micaceous; SAPROLITE	
24-26											
26-28										Red silty clay at 28.5 ft	
28-30		SPT 10	4 4 5	17/18						SAND silty (SM); mostly strong brown (7.5 YR 5/8) with red (10 R 4/8); light greenish gray (10 GY 8/1); moist; loose; 70 to 80% fine grained sand; some partially weathered rock fragments; localized gray feldspar rich zones; SAPROLITE	
30-32											
32-34											
34-36		SPT 11	10 15 10	18/18						SAND silty (SM); strong brown (7.5 YR 5/8); with localized light greenish gray (10 GY 8/1), and black (10 YR 2/1); moist; medium dense; some bands of black manganese staining; SAPROLITE	End of day 4/28/06; water level at 4.3 ft Begin day 4/29/06; water 31 ft.
36-38										Silty clay zone at 39.2 to 39.3 ft brownish yellow	Very easy drilling from 37.5 to 38.5 ft
38-40		SPT 12	8 9 11	17/18						SAND silty (SM); strong brown (7.5 YR 5/8); brownish yellow (10 YR 6/8); with black (10 YR 2/1)	Good return of water

Project Name : Job Number

MACTEC

SCE&G COL : 6234-06-3534

SOIL LOG - Boring No. B-323

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										and light greenish gray (10 GY 8/1); moist; medium dense; light greenish gray feldspar with semi-lithified micaceous brown fragments from 38.5 to 38.8 ft.	Very easy drilling from 40 to 43.5 ft
41											
42											
43											
44		SPT 13	3 4 5	17/18						SAA; red (10 R 4/8) with zones of yellowish red (5 YR 4/6); loose; relict foliation dipping 20 to 30°; SAPROLITE	
45									SM	*(Continued from previous page)* SAA; loose; some localized silty clay (light greenish gray and brownish yellow); abundant black manganese staining locally micaceous	Hard drilling
46											
47		SPT 14	50/0	0/0						Hard drilling probably PARTIALLY WEATHERED ROCK Refusal at 46.7 ft, see rock log	
48											
49											
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Project Name : Job Number
MACTEC
SCE&G COL : 6234-06-3534

ROCK LOG - Boring No. B-323

Type and Diameter of Boring: Mud Rotary / 3 7/8 inch/NQ	Boring Location: Power Block		Total Depth: 84.9 feet
Drilling Contractor and Rig: MACTEC/Meyerson/209195 / CME 55	Elevation at Boring: 420.1 feet	Ground Water Depth: 34 feet	Depth to Bedrock: 46.7 feet
Casing Size and Depth: 3.5 / 46.7 feet	Length of Core Barrel and Bit	No. of Core Boxes	Date Started: 4/28/06
	Borehole Inclination: 0	Logged by: B. Sharp	Date Completed: 4/30/06

Reviewed by / Date: M. Cooke 5/1/06

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Lithology	Remarks
47	1	4.9 / 5.0	96	MW to F	R0 to R1, R3, R4			MIGMATITE; gray (N 6/) white (N 8/); and black (N 2.5/); granodiorite fine to coarse grained with xenoliths of bluish black (5 B 2.5/1); amphibolite schist fine grained; granodiorite has crystals of gray and white quartz and feldspar up to 1 cm in diameter with lesser amounts of black biotite and hornblende stained from 46.7 to 46.9 ft.	Refusal at 46.7 ft. on 4/29/06, see rock log Top of sound rock
52	2	5.0 / 5.0	100	F	R4			AMPHIBOLITE MIGMATITE; fine grained greenish black (10 BG 2.5/1); foliation dipping 50° with medium to coarse grained, gray (N 6/), white (N 8/1); and black (N 2.5/) granodiorite xenoliths SAA; gneissic flow banding (faint) with greater amount of plagioclase and quartz from 53.2 to 54.8 ft; below 54.8 ft, foliation not apparent grading into quartz diorite; fine to medium grained; dark bluish gray (5 PB 4/1)	
57	3	3.3 / 3.3	100	F	R4			MIGMATITE; very dark bluish gray (5 PB 3/1) to dark bluish gray (5 PB 4/1); quartz diorite/amphibolite may be faint mineral alignment from 56.7 to 57.3 ft.; granodiorite with amphibolite/gneiss xenoliths foliation dipping 35 to 40° from 57.3 to 58.7 ft.	
61	4	5.0 / 5.0	100	F	R4, R5			MIGMATITE GNEISS; gray (N 6/); and white (N 8/); fine grained amphibolite with thin bands of white migmatite granodiorite; foliation dipping 30 to 35°	
65	5	5.0 / 5.0	86	SW, F, HW to MW	R3, R3, R1			GRANODIORITE MIGMATITE; gray (5 YR 6/1); bluish black (5 B 2.5/1); and pinkish white (5 YR 8/2); and white (5 YR 8/1); medium to coarse grained; granodiorite; with some pinkish white K-spar; with xenoliths of amphibolite schist; bluish black; fine grained foliation dipping 30 to 60°	
70	6	5.0 / 5.0	98	MW, SW, F	R3, R3, R5			AMPHIBOLITE SCHIST; bluish black (5 B 2.5/1) fine grained; foliation dipping 40° with thin bands of gray (N 6/); granodiorite; fine to medium grained HORNBLENDE PLAGIOCLASE GNEISS; gray (N 6/) and black (N 2.5/); fine to medium grained; faint banding dipping 30 to 40°; some small xenoliths of amphibolite and granodiorite lighter in color and less amphibole from 66.2 to 66.6 ft; very intensely fractured and highly weathered at 67.8 to 68.1 ft. Shallow moderately weathered joint Shallow moderately weathered joint Shallow moderately weathered joint	
76	7	5.0 / 5.0	100	F, SW	R5, R4			MIGMATITE GNEISS; gray (N 6/), black (N 2.5/); fine to coarse grained; irregular flow banding with xenoliths of granodiorite and very dark greenish gray (10 GY 3/1); amphibolite schist; banding/foliation dipping 30 to 70°; some pyrite from 73.3 to 73.9 ft.	
80	8	4.9 / 4.9	100	F	R5			GRANODIORITE MIGMATITE; gray (N 6/); and black (N 2.5/); with trace pinkish white (5 YR 8/2) K-spar; granodiorite with large xenoliths of amphibolite (very dark bluish gray 10 B 3/1) and hornblende gneiss; granodiorite is fine to coarse grained; amphibolite and gneiss fine to medium grained; foliation dipping 40°	End of day 4/29/06, cored to 80 ft; water level at 52.0 ft Begin day 4/30/06, water level at 52 ft.
85								BIOTITE HORNBLENDE GNEISS; bluish black (10 B 2.5/1); and light gray (N 7/); and black (N 2.5/); very fine flow banding dipping ~ 40°; fine to	4/30/06 boring terminated

Project Name : Job Number

MACTEC

SCE&G COL : 6234-06-3534

ROCK LOG - Boring No. B-323

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Lithology	Remarks
87								medium grained; two granodiorite veins ~ 2 to 3 mm wide cutting across foliation and dipping 65 to 70° at 83.1 and 83.7 ft.	
88								BORING TERMINATED AT 84.9 ft	
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Project Name : Job Number
MACTEC
SCE&G COL : 6234-06-3534

SOIL LOG - Boring No. B-324

Type and Diameter of Boring: Mud Rotary / 3 7/8 inch/NQ	Boring Location: Power Block		Total Depth: 115.15 feet
Drilling Contractor and Rig: MACTEC/Oglesby/219907 / CME 75	Elevation at Boring: 419.4 feet	Ground Water Depth: 28 feet	Depth to Bedrock: 52 feet
Sampling Method: Standard/UD	Sample Driving Hammer/Drop: 140 lbs / 30 inches	No. of Samples: 15	Date Started: 7/21/06
	Borehole Inclination: 0	Logged by: B. Sharp	Date Completed: 7/24/06

Reviewed by / Date: M. Cooke 8/4/06
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
0-2		SPT 1	7 4 5	15/18					ML	SILT sandy (ML); yellowish brown (10 YR 5/8), red (2.5 YR 4/6); white (2.5 YR 8/1); mottled; slightly moist; sitff; ~30% fine grained sand; ~70% fines; micaceous; low plasticity; trace roots; few gravels at top; SAPROLITE	Saprolite
2-4		SPT 2	7 7 8	9/18						SAA; no roots or gravel; SAPROLITE	
4-6		SPT 3	4 4 6	18/18						SAA; igneous texture	
6-8		SPT 4	6 6 9	18/18						SAA; relict sub horizontal structure	
8-10		UD 1		13/24						SAA; some olive brown (2.5 Y 4/4); very stiff	
10-12		SPT 7	11 13	7/18						SAA; some olive brown (2.5 Y 4/4); very stiff	
12-14		SPT 6	4 5 8	12/18						SAA; stiff	
14-18											
18-20		UD 2		12/24							
20-24		SPT 7	5 8 11	15/18						SILT sandy (ML); olive brown (2.5 Y 4/4); yellowish brown (10 YR 5/8); red (2.5 YR 4/6); white (2.5 YR 8/1); moist; very stiff; 30 to 40% fine grained sand; 60 to 70% fines; low plasticity; micaceous; with some relict massive igneous texture; SAPROLITE	
24-28									▽		
28-30		UD 3		15/24						SAA; and trace red (2.5 YR 4/6); 45 to 50% fine grained sand, 50 to 55% fines; micaceous; faint relic subhorizontal structure; SAPROLITE	
30-34											
34-36		SPT 8	7 9 12	15/18						SILT, very sandy (ML); olive brown (2.5 Y 4/4); yellowish brown (10 YR 5/8); white (2.5 YR 8/1); and trace red (2.5 YR 4/6); 45 to 50% fine grained sand, 50 to 55% fines; micaceous; faint relic subhorizontal structure; SAPROLITE	
36-38											
38-40		UD		18					SM		

Project Name : Job Number

MACTEC

SCE&G COL : 6234-06-3534

SOIL LOG - Boring No. B-324

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						SAND silty (SM); olive brown (2.5 Y 4/4); white (2.5 Y 8/1); red (2.5 YR 4/6); black (N 2.5/); moist; medium dense; 60 to 70% fine to medium grained sand; 30 to 40% silt; micaceous; distinct relic sub horizontal foliation; manganese staining in thin bands parallel to relict structure; silty zone from 44.2 to 44.4 ft; SAPROLITE *(Continued from previous page)*	End of day 7/21/06 Begin day 7/22/06; no water to 25 ft; hole collapsed to 25 ft
41											
42											
43											
44		SPT 9	6 10 15	15 18							
45											
46											
47											
48											
49		SPT 10	7 10 12	17 18						SAND silty (SM); olive brown (2.5 Y 4/4); white (2.5 Y 8/1); red (2.5 YR 4/6); black (N 2.5/); moist; medium dense; 60 to 70% fine to medium grained sand; 30 to 40% silt; micaceous; distinct relic sub horizontal foliation; manganese staining in thin bands parallel to relict structure; SAPROLITE	
50											
51											
52										Refusal at 52 ft, see rock log	
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
SCE&G COL : 6234-06-3534

ROCK LOG - Boring No. B-324

Type and Diameter of Boring: Mud Rotary / 3 7/8 inch/NQ	Boring Location: Power Block		Total Depth: 115.15 feet
Drilling Contractor and Rig: MACTEC/Oglesby/219907 / CME 75	Elevation at Boring: 419.4 feet	Ground Water Depth: 28 feet	Depth to Bedrock: 52 feet
Casing Size and Depth: 3.5 / 52 feet	Length of Core Barrel and Bit	No. of Core Boxes	Date Started: 7/21/06
	Borehole Inclination: 0	Logged by: B. Sharp	Date Completed: 7/24/06

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

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Lithology	Remarks
52									
53				CW	R0			GRANODIORITE; white (N 8/); gray (N 6/); black (N 2.5/); predominantly coarse grained; massive; few small xenoliths of amphibolite schist with pale green (5 G 7/2) epidote mineralization; mostly near horizontal joints/fractures and few near vertical fractures; feldspar, quartz, biotite, amphibole, trace epidote	Refusal on 7/22/06 at 52 ft, see rock log
54									
55	1	3.8/6.0	45	MW to HW	R1 to R3				
56									
57				F	R3			Epidote mineralization from 54.25 to 55.35 ft	
58									
59									
60	2	5.0/5.0	96	F	R3				
61									
62									
63				MW to HW	R1 to R2				
64					R3				
65	3	5.0/5.0	100	F	R3 to R4				
66				F					
67									
68								BIOTITE GNEISS MIGMATITE; bluish black (10 B 2.5/1); fine to medium grained; distinct irregular flow banding; some localized zones of pale green (5 G 7/2); epidote mineralization; structure generally dipping 60 to 70°; feldspar, quartz, biotite, amphibole, epidote	
69									
70	4	4.8/5.0	82	F	R3 to R4				
71									
72				MW to HW	R1 to R2			GRANODIORITE; white (N 8/); gray (N 6/); black (N 2.5/); predominantly coarse grained; massive; few small xenoliths of amphibolite schist; mostly near horizontal joints/fractures and few near vertical fractures; feldspar, quartz, biotite, amphibole, trace epidote	
73									
74								Exfoliation joints from 72.1 to 73 ft	
75	5	5.0/5.0	100	F	R3 to R4			Darker and more quartz rich from 74.9 to 75.2 ft	
76									
77									
78									
79									
80	6	5.0/5.0	100	F	R3 to R4			GRANODIORITE	
81									
82									
83									
84									
85	7	5.0/5.0	100	F	R4				
86									End of day 7/22/06
87									Begin day 7/23/06; water level at 28 ft
88									
89								Few small xenoliths of bluish black (10 B 2.5/1); amphibolite schist	
90	8	5.0/5.0	100	F	R4			Few small xenoliths of bluish black (10 B 2.5/1); amphibolite schist	
91								GRANODIORITE	
92									

Project Name : Job Number
MACTEC
SCE&G COL : 6234-06-3534

ROCK LOG - Boring No. B-324

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Lithology	Remarks
92									
93									
94									
95	9	5.0/5.0	100	F	R4				
96									
97									
98									
99									
100	10	5.0/5.0	100	F	R4			GRANODIORITE	
101									
102									
103									
104									End of day 7/23/06
105	11	5.0/5.0	100	F	R4				Begin day 7/24/06; water level at 37 ft
106									
107									
108									
109									
110									
111	12	7.2/7.2	100	F	R4			GRANODIORITE; few/trace xenoliths of bluish black (10 B 2.5/1); amphibolite schist	
112									
113									
114									
115									Boring terminated at 115.15 ft on 7/24/06
116									
117									
118									
119									
120									
121									
122									
123									
124									
125									
126									
127									
128									
129									
130									
131									
132									

Project Name : Job Number	SOIL LOG - Boring No. B-325
MACTEC SCE&G COL : 6234-06-3534	

Type and Diameter of Boring	Boring Location		Total Depth
Mud Rotary / 3 7/8 inch/NQ	Power Block		85 feet
Drilling Contractor and Rig	**Elevation at Boring**	**Ground Water Depth**	**Depth to Bedrock**
MACTEC/Oglesby/219907 / CME 75	420.3 feet	21 feet	55 feet
Sampling Method	**Sample Driving Hammer/Drop**	**No. of Samples**	**Date Started**
Standard	140 lbs / 30 inches	14	6/9/06
	Borehole Inclination	**Logged by**	**Date Completed**
	0	B. Sharp	6/11/06

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

Reviewed by / Date: Clay Sams 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											
1		SPT 1	3 3 3	18/18					ML	SILT sandy (ML); red (10 R 4/6); dark red (10 R 3/6); yellowish red (5 YR 4/6); slightly moist; medium stiff; 30% fine grained sand, 70% fines; mottled to faint sub horizontal structure; low plasticity; RESIDUUM	Residuum
2		SPT 2	3 3 3	14/18	●	●			SM		
3										SAND silty (SM); yellowish red (5 YR 4/6); red (2.5 YR 4/6); slightly moist; loose, 44% fines at 1.5 ft; 57% fines at 3.5 ft;; mottled to faint relict sub horizontal structure; low plasticity; RESIDUUM	End of day 6/9/06. Begin day 6/10/06
4		UD 1		20/24		●					
5											
6		SPT 3	4 2 7	14/18	●	●	●			SAA; 48% fines	
7											
8											
9		UD 2		17/24		●					
10									SM	SAND silty (SM); dark red (2.5 YR 3/6); strong brown (7.5 YR 5/8); moist; medium dense; micaceous; relict sub-horizontal structure; SAPROLITE	
11		SPT 4	9 9 13	9/18	●	●				42% fines; medium dense	
12											
13											
14		UD 3		17/24			●		▼		
15											
16		SPT 5	9 13 18	14/18	●	●	●		▽	SAA; 34% fines	
17											
18											
19		UD 4		17/24						SAND silty (SM); olive yellow (2.5 Y 6/8); light olive brown (2.5 Y 5/4); red (10 R 4/6); white (2.5 Y 8/1); moist; medium dense; 29% fines; micaceous; SAPROLITE	
20											
21		SPT 6	9 10 13	14/18	●	●					
22											
23											
24		UD 5		15/24						SAND silty (SM); red (10 R 4/6); olive brown (2.5 Y 4/4); yellowish brown (10 YR 5/8); white (2.5 Y 8/1); moist; dense; 29% fines; micaceous; SAPROLITE	
25											
26		SPT 7	11 11 18	18	●	●	●				
27											
28											
29		UD 6		13/24						SAND silty (SM); strong brown (7.5 YR 5/8); black (7.5 YR 2.5/1); red (2.5 YR 4/8); white (2.5 YR 8/1); olive brown (2.5 Y 4/4); moist; medium dense; some black manganese staining; locally micaceous; 32% fines; SAPROLITE	
30											
31		SPT 8	7 11 14	16/18	●	●					
32											
33											
34		UD 7		13/24						SAND silty (SM); strong brown (7.5 YR 4/6); black (7.5 YR 2.5/1); dark olive gray (5 Y 3/2); white (5 Y 8/1); moist; hard; 31% fines; black manganese staining (stringers) parallel to foliation; micaceous; SAPROLITE	
35											
36		SPT 9	11 15 18	14/18	●	●	●				
37											
38										SAND silty (SM); dark olive gray (5 Y 3/2); and white (5 Y 8/1); moist; medium dense; micaceous SAPROLITE	
39		UD		20			●				
40											

Project Name : Job Number

MACTEC

SCE&G COL : 6234-06-3534

SOIL LOG - Boring No. B-325

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		8		24					SM		
41											
42		SPT 10	8 12 15	18/18	●	●				SAA; 45% fines	
43											
44		UD 9		18/18					ML	SILT sandy (ML); olive (5 Y 4/3); yellowish brown (10 YR 5/8); black (10 YR 2/1); white (10 YR 8/1); moist; hard; 34% sand, 2% gravel; sandy silt below 47.3 ft; micaceous; SAPROLITE	
45											
46		SPT 11	20 21 32	18/18	●	●					
47											
48									SM	PARTIALLY WEATHERED ROCK sampled as silty sand; white (10 YR 8/1); black (10 YR 2/1); olive (5 Y 4/3); moist; very dense; SAPROLITE	
49		SPT 12	38 50/6	9/12						BORING TERMINATED at 55.0 ft., see rock log	UD sampling attempted refusal to UD at 48.5 ft
50											
51											
52											
53											
54		SPT 13	11 24 50/3	0/15							
55											
56											
57											
58											
59											
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80											

Project Name : Job Number
MACTEC
SCE&G COL : 6234-06-3534

ROCK LOG - Boring No. B-325

Type and Diameter of Boring: Mud Rotary / 3 7/8 inch/NQ	Boring Location: Power Block		Total Depth: 85 feet
Drilling Contractor and Rig: MACTEC/Oglesby/219907 / CME 75	Elevation at Boring: 420.3 feet	Ground Water Depth: 21 feet	Depth to Bedrock: 55 feet
Casing Size and Depth: 3.5 / 55 feet	Length of Core Barrel and Bit: 13 feet	No. of Core Boxes: 2	Date Started: 6/9/06
	Borehole Inclination: 0	Logged by: B. Sharp	Date Completed: 6/11/06

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

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Lithology	Remarks
55	1	1.7 / 3.5	0	MW	R2			GRANODIORITE; black (N 2.5/), gray (N 6/1; light gray (N 7/); and white (N 8/); medium to coarse grained; joints have abundant brown oxidation staining degree of staining decreasing with depth; massive igneous texture; feldspar, biotite, quartz, amphibole	Tricone refusal at 55 ft. End of day 6/10/06, water at 14 ft. Begin day 6/11/06, water at 17 ft.
60	2	5.0 / 5.0	84	MW	R2 to R3				
65	3	5.0 / 5.0	100	F	R3			MIGMATITE; bluish black (5 B 2.5/1); black (N 2.5/); gray (N 6/); light gray (N 7/); white (N 8/); grayish green (5 G 4/2); medium to coarse grained; foliation dipping 40 to 60°; some dark gneissic flow banding in amphibolite; granodiorite with massive texture; with xenoliths of bluish black fine to medium grained well foliated amphibolite schist; localized grayish green alteration of feldspar to epidote in amphibolite foliation; biotite, feldspar, amphibole, quartz, epidote	
70	4	5.0 / 5.0	100	F	R3			SAA; fine to medium grained; biotite gneiss to dark colored borderline banded amphibolite schist with abundant epidote due to alteration of feldspar; some irregular flow banding; some zones of medium to coarse grained massive granodiorite and bluish black, fine to medium grained well foliated amphibolite schist; banding/foliation dipping 40 to 60°; biotite, feldspar, amphibole, quartz, epidote	
75	5	5.0 / 5.0	100	F	R3			CORING TERMINATED AT 85.0 ft.	
80	6	6.5 / 6.5	100	F	R3 to R4				
85									Boring terminated at 85.0 ft on 6/11/06, water at 21 ft.
90									
95									

Project Name : Job Number
MACTEC
SCE&G COL : 6234-06-3534

SOIL LOG - Boring No. B-325UDP

Type and Diameter of Boring: Mud Rotary / 6 inch	Boring Location: Power Block		Total Depth: 48.5 feet
Drilling Contractor and Rig: MACTEC/Oglesby/219907 / CME 75	Elevation at Boring: 420 feet	Ground Water Depth	Depth to Bedrock
Sampling Method: UD	Sample Driving Hammer/Drop: Pitcher sampler / NA	No. of Samples: 1	Date Started: 8/18/06
	Borehole Inclination: 0	Logged by: C. Gandy	Date Completed: 8/18/06

Reviewed by / Date: M. Cooke 8/20/06
Reviewed by / Date: Clay Sams 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	

Project Name : Job Number
MACTEC
SCE&G COL : 6234-06-3534

SOIL LOG - Boring No. B-325UDP

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										Drilled without SPT sampling to obtain Pitcher barrel undisturbed samples *(Continued from previous page)*	
47		UDP 1		12/24						SILT sandy (ML); brown (7.5 YR 5/4); moist; low plasticity; 75% silt; 25% sand; micaceous; SAPROLITE; top of Pitcher UD sample	Adjacent boring B-325 encountered SILT sandy (ML) with 34% sand and 2% gravel (64% fines) from 46 to 47.5 ft. Very hard drilling; partiallly weathered rock, decided to sample at 46.5 ft instead of assigned 50 ft

Project Name : Job Number
MACTEC
SCE&G COL : 6234-06-3534

SOIL LOG - Boring No. B-326

Type and Diameter of Boring: Mud Rotary / 3 7/8 inch/NQ	Boring Location: Power Block		Total Depth: 115 feet
Drilling Contractor and Rig: MACTEC/Gibson/285584 / CME 45	Elevation at Boring: 412.7 feet	Ground Water Depth: 50 feet	Depth to Bedrock: 55 feet
Sampling Method: Standard	Sample Driving Hammer/Drop: 140 lbs / 30 inches	No. of Samples: 16	Date Started: 5/10/06
	Borehole Inclination: 0	Logged by: C. Gandy	Date Completed: 5/13/06

Reviewed by / Date: M. Cooke 5/15/06
Reviewed by / Date: Clay Lamm 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	3 4 5	18/18					ML	SILT sandy (ML); red (2.5 YR 4/8); damp; stiff; 60% silt, 40% sand; low plasticity; contains small roots; micaceous; RESIDUUM	Top of residuum
1											
2		SPT 2	2 2 3	13/18						SAA; except medium stiff; no roots	
3											
4		SPT 3	3 4 6	16/18						SAA; except stiff; 75% silt, 40% sand	
5									SM	SANDsilty (SM)); reddish yellow (7.5 YR 6/6); damp; medium dense; 60% sand, 40% silt; low plasticity; micaceous	
6											
7		SPT 4	4 6 7	9.5/18					ML	SILTsandy (ML); red (2.5 YR 5/6); damp; stiff; 60% silt, 40%sand; low plasticity; micaceous	
8											
9		SPT 5	4 5 5	16/18							
10									ML	SILT sandy (ML); reddish yellow (5 YR 6/6); moist; stiff; 60% silt, 40% sand; non to low plasticity; very micaceous	
11		SPT 6	6 6 9	8/18						SILT sandy (ML); red (2.5 YR 5/8); damp; stiff; 75% silt, 25% sand; low plasticity; very micaceous	
12											
13											
14		SPT 7	4	4.5/18						SAA; except light yellowish brown (10 YR 4/6); 60% silt, 40% sand	End day 5/10/06 at 17:30, water at 0 ft Begin day 5/11/06 at 8:30, water at 5 ft.
15											
16											
17											
18											
19		SPT 8	3 4 6	12/18						SILT sandy (ML); brownish yellow (10 YR 6/6); damp; stiff; 75% silt, 25% sand; low plasticity; micaceous	
20											
21											
22									ML	SILT sandy (ML); brownish yellow (10 YR 6/6); damp; stiff; 65% silt, 35% sand; low plasticity; micaceous	Top of Saprolite Gneissic parent rock, possibly a biotite gneiss
23											
24		SPT 9	4 3 6	13/18							
25											
26											
27											
28											
29		SPT 10	3 3 4	13/18						SAA; except medium stiff; 80% silt, 20% sand	
30											
31											Loss of circulation 100%
32											
33											
34		SPT 11	3 3 4	0/18						No recovery	
35											
36											
37											
38											
39		SPT 12	4 4 5	0/18						No recovery	Still losing circulation (~30% return)
40											

Project Name : Job Number

MACTEC

SCE&G COL : 6234-06-3534

SOIL LOG - Boring No. B-326

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											
42									ML	SILT sandy (ML); brownish yellow (10 YR 6/6); damp; stiff; 80% silt, 20% sand; low plasticity; micaceous	
43											
44		SPT 13	4 5 8	18/18							Still losing circulation
45											
46											
47											
48									SM	SAND silty (SM); yellowish brown (10 YR 5/6); moist; medium dense; 60% sand, 40% silt; poorly graded; micaceous	
49		SPT 14	5 7 8	18/18							
50									▽		
51											
52											
53		SPT 15	11 8 15	18/18							Encountered hard layer in drilling
54										SAA; except 70% sand, 30% silt BORING TERMINATED AT 55.0 ft, see rock log	End of day 5/11/06 at 17:15, water at 0 ft
55											Begin day 5/12/05 at 9:00, water at 0 ft.
56											
57											
58											
59											
60											
61											
62											
63											
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80											

Project Name : Job Number
MACTEC
SCE&G COL : 6234-06-3534

ROCK LOG - Boring No. B-326

Type and Diameter of Boring: Mud Rotary / 3 7/8 inch/NQ	Boring Location: Power Block		Total Depth: 115 feet
Drilling Contractor and Rig: MACTEC/Gibson/285584 / CME 45	Elevation at Boring: 412.7 feet	Ground Water Depth: 50 feet	Depth to Bedrock: 55 feet
Casing Size and Depth: 3.5 / 55 feet	Length of Core Barrel and Bit: 5 feet / 8 feet	No. of Core Boxes: 4	Date Started: 5/10/06
	Borehole Inclination: 0	Logged by: C. Gandy	Date Completed: 5/13/06

Reviewed by / Date: M. Cooke 5/15/06

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Lithology	Remarks
55									
56	1	1.1 / 2.0	20	SW	R2			GRANODIORITE; white to black (10 YR 2/1 to 8/1); medium to coarse grained; coarse texture; feldspar (plagioclase), quartz, hornblende, biotite	
57									
58									
59	2	3.9 / 5.0	54	SW to HW	R0 to R2				
60									
61								SAA; except a highly weathered zone is present from 60.5 to 62 ft	
62									
63				SW to HW	R0 to R2			SAA; except a highly weathered zone is present from 62 to 64.4 ft	
64	3	5.0 / 5.0	60						Top of sound rock
65									
66									
67									
68	4	5.0 / 5.0	100	F	R3			Partially healed joint 20° dip Transitional from GRANODIORITE to QUARTZ DIORITE; black to white (10 YR 8/1 to 2/1); medium grained; biotite, hornblende, quartz	
69									
70								QUARTZ DIORITE; black to white (10 YR 8/1 to 2/1); medium grained; biotite, hornblende, quartz	
71									
72									
73									
74	5	5.0 / 5.0	100	F	R3			PEGMATITE zone; feldspar, quartz; (~1 to 3 inch width)	
75									
76									
77								PEGMATITE zone; feldspar, quartz; (~2.2 ft width)	
78									
79	6	4.8 / 5.0	95	F	R3			PEGMATITE zone; feldspar, quartz; (~0.3 ft width)	
80									
81									
82									
83									
84	7	5.0 / 5.0	94	F	R3			PEGMATITE zone; feldspar, quartz; (~0.5 ft width)	
85									
86									
87									
88									
89	8	5.0 / 5.0	100	F	R3			PEGMATITE zone; feldspar, quartz; (~0.1 ft width)	
90									
91									
92									
93									End day 5/12/06 at 17:30, water at 0 ft.
94	9	5.0	96	F	R3				Begin day 5/13/06 at 8:00, water at 50 ft.
95									

Project Name : Job Number

MACTEC

SCE&G COL : 6234-06-3534

ROCK LOG - Boring No. B-326

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Lithology	Remarks
95		5.0							
96									
97									
98									
99	10	5.0/5.0	100	F	R3			PEGMATITE zone; feldspar, quartz; (~2 ft width)	
100									
101									
102									
103									
104	11	5.0/5.0	100	F	R3				
105									
106									
107									
108									
109	12	5.0/5.0	97	F	R3				
110									
111									
112									
113	13	3.0/3.0	100	F	R3				
114									
115									Coring terminated on 5/13/06 at 115 ft
116									
117									
118									
119									
120									
121									
122									
123									
124									
125									
126									
127									
128									
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133									
134									
135									

Project Name : Job Number
MACTEC
SCE&G COL : 6234-06-3534

SOIL LOG - Boring No. B-327

Type and Diameter of Boring: Mud Rotary / 3 7/8 inch/NQ	Boring Location: Adjacent to Power Block		Total Depth: 59.3 feet
Drilling Contractor and Rig: MACTEC/Meyerson/209195 / CME 55	Elevation at Boring: 410.8 feet	Ground Water Depth: 45.3 feet	Depth to Bedrock: 49.3 feet
Sampling Method: Standard	Sample Driving Hammer/Drop: 140 lbs / 30 inches	No. of Samples: 14	Date Started: 4/14/06
	Borehole Inclination: 0	Logged by: B. Sharp	Date Completed: 4/18/06

Reviewed by / Date: M. Cooke 4/24/06
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
0-1		SPT 1	4 5 8	18/18					CL	CLAY sandy (CL); red (10 R 4/6); with tan/gray mottling; damp; medium stiff; 50 to 60% clay, 40 to 50% fine grained sand and silt; low plasticity; gradational contact below; RESIDUUM	Residuum
2-3		SPT 2	4 6 8	10/18					SM	SAND silty,clayey (SM); red (10 R 4/6); mottled; moist; medium dense; 50 to 60% fine grained sand; 40 to 50% silt; some clay; RESIDUUM	Slow drilling Losing water
4-5		SPT 3	3 4 6	18/18						SAND silty (SM); red (2.5 YR 4/8); loose;70 to 80% fine grained sand; 20 to 30% silt; trace clay; micaceous RESIDUUM	
6-7		SPT 4	4 4 6	15/18						SAA; but less silt 10 to 20%	
8-9		SPT 5	4 4 7	17/18						SAA; yellowish red (5 YR 5/8); medium dense; grading downward to red (2.5 YR 4/8) below 9.5 ft. localized clay-rich (white kaolinite) zone from 8.5 to 8.6 ft	
10-11		SPT 6	3 3 4	17/18					SM	SAND silty (SM); loose; faint structure sub horizontal yellowish brown and black thin (1/16 to 1/8 inch thick) banding; SAPROLITE	
12-13		SPT 7	4 5 7	18/18						SAA; red (10 R 4/6); medium dense; no structure; localized micaceous zones	End of day 4/14/06 water level at 7.6 ft. Begin day 4/17/06 water level dry
14-15		SPT 8	3 3 5	18/18						SAND silty (SM); red (10 R 4/6) with localized zones of strong brown (7.5 YR 5/8); moist; loose; 80 to 90% fine grained sand, 10 to 20% silt; SAPROLITE	
16-17		SPT 9	5 10 16	18/18					SP-SM	SAND slightly silty (SP-SM); strong brown (7.5 YR 5/8); to yellowish brown (10 YR 5/8); below 24.7 ft; moist; medium dense; 90% fine grained sand, 10% silt, trace silt below 24.7 ft.; SAPROLITE	
18-19		SPT 10	10 6 7	17/18					SM	SAND silty (SM); yellowish brown (10 YR 5/8); and (2.5 YR 4/8); medium dense; some black manganese staining, 80% fine grained sand, 20% silt; SAPROLITE	
20-21		SPT 11	5 7 10	18/18						SAA; dark red (2.5 YR 3/6); with alternating zones of yellowish brown (10 YR 5/8); moist; medium dense; some black manganese staining; 80% fine grained sand, 20% silt; SAPROLITE	Drilling becomes very hard Easier drilling from 37.5 to 38.5 ft
22-23		SPT 12	8 14 15	18/18						SAND silty (SM) olive brown (2.5 Y 4/4); and light olive brown (2.5 Y 5/6); moist; medium dense; with	

Project Name : Job Number

MACTEC

SCE&G COL : 6234-06-3534

SOIL LOG - Boring No. B-327

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										thin stringers (up to 1/8 inch thick) of black manganese staining; micaceous; SAPROLITE	
41										SAND silty (SM); yellowish brown (10 YR 5/8); and (2.5 YR 4/8); medium dense; some black manganese staining, 80% fine grained sand, 20% silt; SAPROLITE	
42										*(Continued from previous page)*	
43										SAA; yellowish brown (10 YR 5/8); to dark reddish brown below 44.8 ft; some light gray/white (5 YR 7/1), 80% fine grained sand, 20 % silt; micaceous	
44		SPT 13	9 10 12	18/18							
45											
46											
47											
48											
49		SPT 14	46 50/3	9/9						AMPHIBOLITE; black (10 YR 2/1); highly weathered; rock fragments up to 5 cm in diameter; PARTIALLY WEATHERED ROCK BORING TERMINATED AT 49.3 ft., see rock log	Tricone casing advancement tool plugging up from 47.5 to 48.5 ft. End of day 4/17/06 water level at 41.7 ft. Begin day 4/18/06
50											
51											
52											
53											
54											
55											
56											
57											
58											
59											
60											
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80											

Project Name : Job Number
MACTEC
SCE&G COL : 6234-06-3534

ROCK LOG - Boring No. B-327

Type and Diameter of Boring: Mud Rotary / 3 7/8 inch/NQ	Boring Location: Adjacent to Power Block		Total Depth: 59.3 feet
Drilling Contractor and Rig: MACTEC/Meyerson/209195 / CME 55	Elevation at Boring: 410.8 feet	Ground Water Depth: 45.3 feet	Depth to Bedrock: 49.3 feet
Casing Size and Depth: 3.5 / 49.3 feet	Length of Core Barrel and Bit	No. of Core Boxes	Date Started: 4/14/06
	Borehole Inclination: 0	Logged by: B. Sharp	Date Completed: 4/18/06

Reviewed by / Date: M. Cooke 4/24/06

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Lithology	Remarks
50-54	1	0.0 / 5.0	0	HW CW	R3 R0			AMPHIBOLITE SCHIST; dark gray/black (5 Y 2.5/1); fine to medium grained; foliation not obvious; highly weathered; washed away in drill cuttings; SAPROLITE/PARTIALLY WEATHERED ROCK	
55-59	2	1.9 / 5.0	24	HW MW SW	R3 R4			QUARTZ, BIOTITE, HORNBLENDE, and PLAGIOCLASE GNEISS; dark gray/black and white 54.3 to 54.8 ft with heavy brown oxidation staining; foliation dipping 60 to 70° CORING TERMINATED AT 59.3 ft.	Borehole terminated on 4/18/06 at 59.3 ft. water at 45.3 ft
60-89									

Project Name : Job Number
MACTEC
SCE&G COL : 6234-06-3534

SOIL LOG - Boring No. B-328

Type and Diameter of Boring: Mud Rotary / 3 7/8 inch/NQ	Boring Location: Adjacent to Power Block		Total Depth: 85 feet
Drilling Contractor and Rig: MACTEC/White/331145 / CME 55 LC	Elevation at Boring: 424.6 feet	Ground Water Depth:	Depth to Bedrock: 75.5 feet
Sampling Method: Standard	Sample Driving Hammer/Drop: 140 lbs / 30 inches	No. of Samples: 19	Date Started: 8/8/06
	Borehole Inclination: 0	Logged by: C. Gandy	Date Completed: 8/9/06

Reviewed by / Date: M. Cooke 8/10/06
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
0-1		SPT 1	3 5 8	14/18					ML	SILT clayey (ML); dark red (2.5 YR 3/6); dry; stiff; low plasticity; 80% silt, 20% clay; RESIDUUM	Residuum
2-3		SPT 2	6 10 16	12.5/18					ML	SILT sandy (ML); dark red (2.5 YR 3/6); dry; stiff; medium plasticity; clayey; 90% silt, 10% sand; manganese balls up to 1/2 inch in diameter; angular quartz fragments up to 1 inch in diameter	Saprolite
4-5		SPT 3	10 16 17	17/18					ML	SILT sandy (ML); red (10 R 4/8); dry; hard; medium plasticity; 90% silt; 10% sand; granular relict quartz seams; SAPROLITE	
6-7		SPT 4	10 16 20	18/18						SAA; lower plasticity; relict quartz seams; pebble size quartz fragments; SAPROLITE	
8-9		SPT 5	9 12 19	17/18						SAA; no pebble size quartz fragments; slightly micaceous	
10-11		SPT 6	7 8 12	16/18						SAA; except very stiff; no pebble size quartz fragments; 95% silt, 5% sand; slightly micaceous	
12-13		SPT 7	5 5 9	12/18						SAA; except stiff; micaceous; abundant relict feldspars (?); SAPROLITE	
14-15		SPT 8	5 7 7	14/18						SILT (ML); red (10 R 4/8) to pale red (10 R 6/3); dry; stiff; 100% silt; low plasticity; relict feldspars; contstitute pale red component; slightly micaceous; SAPROLITE	
16-17		SPT 9	5 9 8	13/18						SILT sandy (ML); dark reddish brown (2.5 Y 2.5/4); moist; very stiff; 90% silt, 10% sand; no plasticity; micaceous	
18-19		SPT 10	3 4 5	13/18						SILT (ML); red (10 R 5/8); moist; stiff; 100% silt; medium plasticity; slightly micaceous	
20-21		SPT 11	4 5 6	13/18					ML	SILT sandy (ML); brown (7.5 YR 4/4); damp; stiff; 95% silt, 5% sand; low plasticity; micaceous	
22-23		SPT 12	4 6 7	12/18						SAA; very micaceous	

Project Name : Job Number
MACTEC
SCE&G COL : 6234-06-3534

SOIL LOG - Boring No. B-328

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); brown (7.5 YR 4/4); damp; stiff; 95% silt, 5% sand; low plasticity; micaceous *(Continued from previous page)*	
44		SPT 13	4 6 7	14/18						Very micaceous	
49		SPT 14	2 4 5	16/18						SILT (ML); strong brown (7.5 YR 4/6); damp; stiff; low plasticity; 100% silt; micaceous; manganese staining common; SAPROLITE	
54		SPT 15	5 6 8	14/18						SILT sandy (ML); dark brown (7.5 YR 3/4); to reddish yellow (7.5 YR 6/8); damp; stiff; low plasticity; silt 90%, sand 10%; manganese staining; micaceous; SAPROLITE	
59		SPT 16	5 7 9	15/18						SILT sandy (ML); dark brown (7.5 YR 3/4); to reddish yellow (7.5 YR 6/8); damp; very stiff; low plasticity; 90% silt, 10% sand; micaceous; SAPROLITE	
64		SPT 17	5 8 10	15/18						SILT sandy (ML); dark brown (7.5 YR 3/4); damp; very stiff; silt 80%, sand 20%; low plasticity; micaceous; pebble size rock fragments common; SAPROLITE	
69		SPT 18	5 10 9	18/18						SILT very sandy (ML); silt 50%, sand 50% angular rock fragments up to 1 inch in diameter	
74		SPT 19	18 29 43	13/18						SILT sandy (ML); light brown (7.5 YR 6/4) to black (7.5 YR 2.5/1); damp; hard; low plasticity; silt 80%, sand 20%; angular rock fragments up to ~ 1 inch diameter; micaceous	
76										BORING TERMINATED at 75.5 ft, see rock log	
80											

Project Name : Job Number
MACTEC
SCE&G COL : 6234-06-3534

ROCK LOG - Boring No. B-328

Type and Diameter of Boring: Mud Rotary / 3 7/8 inch/NQ	Boring Location: Adjacent to Power Block		Total Depth: 85 feet
Drilling Contractor and Rig: MACTEC/White/331145 / CME 55 LC	Elevation at Boring: 424.6 feet	Ground Water Depth	Depth to Bedrock: 75.5 feet
Casing Size and Depth	Length of Core Barrel and Bit: 5 feet / 5 feet	No. of Core Boxes: 1	Date Started: 8/8/06
	Borehole Inclination: 0	Logged by: C. Gandy	Date Completed: 8/9/06

Reviewed by / Date: M. Cooke 8/10/06

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Lithology	Remarks
76								HORNBLENDE GNEISS; light to meidum gray; fine grained; hornblende, quartz, biotite, feldspar, quartz veins common	Refusal at 75.5 ft on 8/9/06
77									Top of sound rock
78	1	4.7/5.0	92	SW to F	R2 to R3			GRANODIORITE; 76.8 to 76.95 ft	
79								GRANODIORITE; SAA; 77.9 to 78.7 ft	
80								GRANODIORITE; white to black; coarse to medium grained; feldspar, quartz, biotite, hornblende, pyrite, muscovite?	
81									
82	2	4.5/4.5	100	F	R3			QUARTZ DIORITE; medium to dark gray; coarse grained; quartz, hornblende, biotite, feldspar 81.5 to 83 ft	
83								GRANODIORITE; SAA with quartz xenoliths	
84									
85								CORING TERMINATED at 85 ft	Coring terminated at 85 ft on 8/9/06
86									
87									
88									
89									
90									
91									
92									
93									
94									
95									
96									
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115									

Project Name : Job Number
MACTEC
SCE&G COL : 6234-06-3534

SOIL LOG - Boring No. B-329

Type and Diameter of Boring: Mud Rotary / 3 7/8 inch/NQ	Boring Location: Adjacent to Power Block		Total Depth: 85 feet
Drilling Contractor and Rig: MACTEC/Meyerson/209195 / CME 55	Elevation at Boring: 410 feet	Ground Water Depth: 65.5 feet	Depth to Bedrock: 60 feet
Sampling Method: Standard	Sample Driving Hammer/Drop: 140 lbs / 30 inches	No. of Samples: 16	Date Started: 4/21/06
	Borehole Inclination: 0	Logged by: B. Sharp	Date Completed: 4/27/06

Reviewed by / Date: M. Cooke 4/30/06
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
0-1		SPT 1	4 9 8	12/18					SM	SAND silty (SM); dark red (2.5 YR3/6); damp; medium dense; 60% fine grained sand; 35% silt, 5% clay; trace gravel at top; roots; RESIDUUM	Fill from 0 to 0.2 ft Residuum
2-3		SPT 2	3 3 3	14/18					ML	SILT sandy (ML); dark red (2.5 YR 3/6); moist; medium stiff; 60% fines, 40% fine grained sand; low plasticity; some roots; RESIDUUM	Losing water
4-5		SPT 3	2 3 6	13.5/18					▼	SAA; stiff; no roots	Losing water
6-7		SPT 4	4 5 10	17/18					SM	SAND silty (SM); dark red (2.5 YR 3/6); moist; medium dense; 60 to 70% fine grained sand, 30 to 40% silt, some clay; scattered mica flakes; RESIDUUM	
8-9		SPT 5	4 5 7	16/18						SAND silty (SM); red (10 R 4/6); mottled; moist; medium dense; 70 to 80% fine grained sand; 20 to 30% silt; micaceous; RESIDUUM	Losing water; coming out of ground under drill rig Replaced tricone casing advancer (wore out, plugging up)
10-11		SPT 6	3 4 6	17/18					SP-SM	SAND slightly silty (SP -SM); mottled red (10 R 4/6); and brown (10 YR 4/3); moist; loose; 80 to 90% fine grained sand; 10 to 20% silt; micaceous; faint sub horizontal structure with manganese staining; SAPROLITE	
12-13		SPT 7	3 5 8	17/18					SM	SAND silty (SM); red (10 R 4/6); dark yellowish brown (10 YR 4/6); and dark red (10 R 3/6); moist; medium dense; 60 to 70% fine grained sand; 30 to 40% silt; some localized SP zones; distinct relict banding; some micaceous zones; SAPROLITE	Water circulation return
14-15		SPT 8	3 4 5	14/18						SAND silty (SM); strong brown (7.5 YR) some red (10 R 4/6); and black (N 2.5 Y 2.5/1); moist; loose; 60 to 70% fine grained sand; 30 to 40% silt; micaceous; some black manganese staining; SAPROLITE	End of day 4/21/06, water level at 4.3 ft Begin day 4/25/06, water level dry
16-17		SPT 9	4 6 8	15/18						SILT sandy (ML); reddish brown (5 YR 4/4); moist; medium stiff; 50 to 60 % silt; 40 to 50% fine grained sand; low plasticity; micaceous faint sub horizontal relict foliation contact at bottom sharp; SAPROLITE of amphibolite schist	
18-19		SPT 10	5 10 10	18/18					SM	SAND silty (SM); greenish black (5 BG 2.5/1); at 24.2 t to 24.3 ft; dark red (10 R 3/6); strong brown (7.5 YR 4/6; light gray (7.5 YR 7/1); moist; medium dense; 80% fine grained sand; 20% silt; some coarse grained partially weathered rock quartz and feldspar fragments below 24.5 ft; SAPROLITE	
20-21		SPT 11	4 5 6	14/18						SAA; yellowish brown zone (10 YR 5/6); from 29.3 to 29.7 ft; sharp contact at 29.7 ft, below 29.7 ft dark yellowish brown (10 YR 3/6) micaceous; SAPROLITE	
22-23		SPT 12	5 7 9	14/18						SAND silty (SM); dark yellowish brown (10 YR 4/6); medium dense; moist; micaceous; SAPROLITE	
24-25										SAND silty (SM); strong brown (7.5 YR); red (2.5 YR 4/8); light gray (10 R 7/1); black (N 2.5/); moist; medium dense; thin stringers of manganese parallel to foliation throughout; 80% fine grained sand, 20% fines; SAPROLITE	
26-27										SANDsilty (SM); light olive brown (2.5 Y 5/4); strong brown (7.5 YR 5/8); black (N 2.5/); moist;	Good water return continue
28-29											
30-31											
32-33											
34-35											
36-37											
38-39											
40											

Project Name : Job Number
MACTEC
SCE&G COL : 6234-06-3534

SOIL LOG - Boring No. B-329

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										medium dense; 85 to 90% fine grained sand; 10 to 15% silt; stringers of black manganese staining parallel to foliation scattered throughout; micaceous; with few localized completely weathered feldspar rich zones; SAPROLITE	
44		SPT 13	6 5 9	16.5 / 18						SAND silty (SM); strong brown (7.5 YR); red (2.5 YR 4/8); light gray (10 R 7/1); black (N 2.5/); moist; medium dense; thin stringers of manganese parallel to foliation throughout; 80% fine grained sand, 20% fines; SAPROLITE *(Continued from previous page)* SAA	Harder drilling rom 46.5 to 48.5 ft.
49		SPT 14	6 7 10	18 / 18						SAND silty (SM); olive brown (2.5 Y 4/3); gray (2.5 Y 6/1); black (2.5 Y 2.5/1); yellowish brown (10 YR 5/8); moist; medium dense; 80% fine grained sand; 20% silt; micaceous below 49.8 ft; with stringers of black manganese staining; SAPROLITE	Good return
54		SPT 15	6 9 9	18 / 18						SAA	
57											Easy drilling from 57 to 58.5 ft.
59		SPT 16	10 50 50/0	12					SM	SAND silty (SM); yellowish brown (10 YR 5/8); gray (2.5 Y 6/1); black (2.5 Y 2.5/1); olive brown (2.5 Y 4/3); moist; very dense; fine to medium grained; some coarse grained quartz and feldspar; locally micaceous; PARTIALLY WEATHERED ROCK BORING TERMINATED AT 60.0 ft.	
80											

Project Name : Job Number
MACTEC
SCE&G COL : 6234-06-3534

ROCK LOG - Boring No. B-329

Type and Diameter of Boring: Mud Rotary / 3 7/8 inch/NQ	Boring Location: Adjacent to Power Block		Total Depth: 85 feet
Drilling Contractor and Rig: MACTEC/Meyerson/209195 / CME 55	Elevation at Boring: 410 feet	Ground Water Depth: 65.5 feet	Depth to Bedrock: 60 feet
Casing Size and Depth: 3.5 / 60 feet	Length of Core Barrel and Bit: 13 feet	No. of Core Boxes: 1	Date Started: 4/21/06
	Borehole Inclination: 0	Logged by: B. Sharp	Date Completed: 4/27/06

Reviewed by / Date: M. Cooke 4/30/06

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Lithology	Remarks
60				HW				GRANITIC GNEISS	Drilling refusal at 60.0 ft.
61								AMPHIBOLITE; olive brown (2.5 Y 4/3); completely weathered with stringers of black manganese staining; PARTIALLY WEATHERED ROCK	
62	1	1.9/5.0	0	CW	R0				
63									
64									
65								▽	
66				CW	R0				
67	2	2.0/5.0	14						
68				MW	R2			BIOTITE GNEISS; dark yellowish brown (10 YR 5/6) with black (10 YR 2/1); flow banding; oxidized; with incipient fractures throughout; 20 to 30° dip	
69					R3				
70								AMPHIBOLITE SCHIST zone	End of day 4/25/06; water level at 0 ft
71				CW	R0			PARTIALLY WEATHERED ROCK brown (7.5 YR 4/4); completely weathered	Begin day 4/26/06; water level at 35.9 ft
72	3	2.5/5.0	48	MW					
73								MIGMATITE dark bluish gray (5 PB 4/1); fine to medium grained with flow banding below 73.2 ft; oxidation staining and mineralization in joints from 72.6 to 73.2 ft.	Top of sound rock
74				SW	R3				
75								MIGMATITE; bluish black (5 B 2.5/1); and bluish gray (5 PB 6/1); with granodiorite inclusions structure dipping ~ 40 to 70°	
76									
77	4	5.0/5.0	100	F	R3				
78									
79									
80								AMPHIBOLITE SCHIST; 79.8 to 80.2 ft	End of day 4/26/06; no water level
81								MIGMATITE; SAA; amphibolite inclusion at 80.7 ft; structure dipping ~ 45 to 60°	Begin day 4/27/06; water level at 45 ft.
82	5	5.0/5.0	88	SW to F	R3			AMPHIBOLITE SCHIST zone; bluish black (5 B 2.5/1); fine grained; foliation dip 10 to 20°; contact below sharp; from 81 to 82.7 ft	
83									
84								MIGMATITE; bluish gray (5 PB 6/1); fine to medium grained; faint banding with zones of massive granodiorite predominantly feldspar and quartz with lesser amounts of biotite	
85								CORING TERMINATED AT 85.0 ft	Boring terminated on 4/27/06, water level at 44 ft; Begin day 4/28/06 water level at 65.5 ft.
86									
87									
88									
89									
90									
91									
92									
93									
94									
95									
96									
97									
98									
99									
100									

Project Name : Job Number
MACTEC
SCE&G COL : 6234-06-3534

SOIL LOG - Boring No. B-330

Type and Diameter of Boring: Mud Rotary / 3 7/8 inch/HQ	Boring Location: Adjacent to Power Block		Total Depth: 86 feet
Drilling Contractor and Rig: MACTEC/Christian/211797 / CME 75	Elevation at Boring: 401.6 feet	Ground Water Depth: 0 feet	Depth to Bedrock: 48.8 feet
Sampling Method: Standard	Sample Driving Hammer/Drop: 140 lbs / 30 inches	No. of Samples: 14	Date Started: 5/9/06
	Borehole Inclination: 0	Logged by: J. Liles/C. Gandy	Date Completed: 5/15/06

Reviewed by / Date: M. Cooke 5/15/06
Reviewed by / Date: Clay Sams 12/14/06

Depth (feet)	Sample	Sample Type & No.	Uncorrected Blows/6 inches	Recovery (inches)	Water Content	Grain Size	Atterberg Limits	Lithology	Soil Type (USCS)	Lithology	Remarks
0-1		SPT 1	3 4 6	9/18					CL-ML	CLAY sandy, silty (CL-ML); red (2.5 YR 4/6); fine to medium grained; stiff; medium; plasticity; RESIDUUM	Residuum
1-2		SPT 2	3 9 13	14/18						SAA; very stiff; slightly micaceous	
3-4		SPT 3	5 8 12	16/18					SM	SAND silty, clayey (SM); red (2.5 YR 4/6); fine to medium grained; medium dense; low plasticity; slightly micaceous	
6-7		SPT 4	3 5 7	13/18					ML	SILT sandy (ML); yellowish red (5 YR 4/6); fine grained; stiff; low to no plasticity; slightly micaceous; RESIDUUM	
8-9		SPT 5	2 4 7	13/18						SAA	
10-11		SPT 6	3 5 7	14/18						SAA	
13-14		SPT 7	2 5 9	13/18						SAA; yellowish brown (10 YR 5/4)	
18-19		SPT 8	3 6 9	14/18					ML	SILT sandy (ML); yellowish brown (10 YR 5/4) mottled with black and red; fine to medium grained; stiff; non plastic; slightly micaceous; RESIDUUM	
23-24		SPT 9	4 6 11	18/18						SAA; very stiff	
27-29		SPT 10	4 6 9	12/18					SM	SAND silty (SM); dark yellowish brown (10 YR 4/4); fine to coarse grained; medium dense; non plastic; micaceous; RESIDUUM	
33-34		SPT 11	5 10 11	16/18						SAA	
38-39		SPT 12	5 12 14	16/18						SAA; light olive brown (2.5 Y 5/3); contains more coarse sand	

Project Name : Job Number
MACTEC
SCE&G COL : 6234-06-3534

SOIL LOG - Boring No. B-330

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										BORING TERMINATED AT 48.8 ft.	
41										SAND silty (SM); dark yellowish brown (10 YR 4/4); fine to coarse grained; medium dense; non plastic; micaceous; RESIDUUM	
42										*(Continued from previous page)*	
43											
44		SPT 13	10 14 20	13 18						SAA; dense	
45											
46											
47											
48											
49		SPT 14	50/3	0 3					SM	PARTIALLY WEATHERED ROCK	Top of partially weathered rock
50											
51											
52											
53											
54											
55											
56											
57											
58											
59											
60											
61											
62											
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78											
79											
80											

Project Name : Job Number
MACTEC
SCE&G COL : 6234-06-3534

ROCK LOG - Boring No. B-330

Type and Diameter of Boring: Mud Rotary / 3 7/8 inch/HQ	Boring Location: Adjacent to Power Block		Total Depth: 86 feet
Drilling Contractor and Rig: MACTEC/Christian/211797 / CME 75	Elevation at Boring: 401.6 feet	Ground Water Depth: 0 feet	Depth to Bedrock: 48.8 feet
Casing Size and Depth: 4 / 48.8 feet	Length of Core Barrel and Bit	No. of Core Boxes	Date Started: 5/9/06
	Borehole Inclination: 0	Logged by: J. Liles/C. Gandy	Date Completed: 5/15/06

Reviewed by / Date: M. Cooke 5/15/06

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Lithology	Remarks
49–53	1	1.4 / 5.0	0	MW to HW	R2			Mixed lithology consisting of granodiorite and quartz diorite; GRANODIORITE is white (10 R 8/1); matrix; coarse grained; granitic texture; plagioclase, quartz, biotite, hornblende QUARTZ DIORITE; gray to black (5 Y 6/1 to 5 Y 2.5/2); coarse grained; granitic texture; biotite, hornblende, quartz, plagioclase	SPT terminated on 5/9/06 Logging taken by C. Gandy
54–58	2	4.4 / 5.0	68	SW	R2				Top of sound rock
59–63	3	4.8 / 5.0	90	SW	R2				
64–68	4	5.0 / 5.0	97	F	R3				End of day 5/13/06 at 17:00; water at 0 ft. Begin day 5/14/06; no water to 63.8 ft
69–73	5	5.0 / 5.0	100	F	R3				
74–78	6	5.0 / 5.0	96	F	R3				
79–83	7	5.0 / 5.0	100	F	R3				Quartz diorite more common as bore depth increases
84–85	8	2.2 / 2.2	100	F	R3				End of day 5/14/06 at 15:45; water at 0 ft Begin day 5/15/06 at 8:00; water at 0 ft
86								CORING TERMINATED AT 86.0 ft	Coring terminated 5/15/06
87–88									

Project Name : Job Number
MACTEC
SCE&G COL : 6234-06-3534

SOIL LOG - Boring No. B-331

Type and Diameter of Boring: Mud Rotary / 3 7/8 inch/NQ	Boring Location: Adjacent to Power Block		Total Depth: 116.3 feet
Drilling Contractor and Rig: MACTEC/Gibson/285584 / CME 45	Elevation at Boring: 352.8 feet	Ground Water Depth: 0 feet	Depth to Bedrock: 25.7 feet
Sampling Method: Standard	Sample Driving Hammer/Drop: 140 lbs / 30 inches	No. of Samples: 10	Date Started: 4/25/06
	Borehole Inclination: 0	Logged by: C. Gaskins	Date Completed: 4/29/06

Reviewed by / Date: M. Cooke 4/29/06
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
0-1		SPT 1	1 1 2	14/18					ML	SILT sandy (ML); strong brown (7.5 YR 4/6); moist; soft; 60% silt, 40% sand; low plasticity; RESIDUUM	Top of residuum
1-2		SPT 2	1 1 1	7/18						SAA; yellowish red (5 YR 4/6); moist; soft; 55% silt, 45% sand; low plasticity; RESIDUUM	
3-4		SPT 3	3 2 3	15/18						SAA; medium stiff	
5-6		SPT 4	2 3 3	16/18						SAA; medium stiff	
7-8		SPT 5	3 3 4	15/18						SAA; strong brown (7.5 YR 4/6); medium stiff	
9-10		SPT 6	13 24 28	12/18					SM	SAND silty (SM); yellowish red (5 YR 4/6); moist; very dense; 70% sand, 30% silt; SAPROLITE	Top of saprolite
11-12		SPT 7	50/6	5/6						SAA	
13-14											End of day 4/25/06 at 17:30; water at 0 ft. due to rotary wash mud
15-16											Begin day 4/26/06 at 8:30; water at 8 ft
17-18		SPT 8	14 34 18	16/18						SAA; very dark grayish green from 19 to 19.5 ft and yellowish brown from 19.5 to 20 ft (Gley 1 3/5G to 10 YR 5/4); moist to damp; very dense; 60 to 80% sand, 20 to 40% silt; SAPROLITE	
19-20											
21-22		SPT 9	24 44 50	14/18					SM	SAND silty (SM); light yellowish brown (10 YR 6/4); moist; very dense; 65% sand, 35% silt; very micaceous; SAPROLITE	
23-24										BORING TERMINATED AT 25.7 ft. see rock log	
25-26											
27-28											
29-30											
31-32											
33-34											
35-36											
37-38											
39-40											

Project Name : Job Number	ROCK LOG - Boring No. B-331
MACTEC SCE&G COL : 6234-06-3534	

Type and Diameter of Boring	Boring Location		Total Depth
Mud Rotary / 3 7/8 inch/NQ	Adjacent to Power Block		116.3 feet
Drilling Contractor and Rig	**Elevation at Boring**	**Ground Water Depth**	**Depth to Bedrock**
MACTEC/Gibson/285584 / CME 45	352.8 feet	0 feet	25.7 feet
Casing Size and Depth	**Length of Core Barrel and Bit**	**No. of Core Boxes**	**Date Started**
3.5 / 25.7 feet	5 feet / 10 feet	5	4/25/06
	Borehole Inclination	**Logged by**	**Date Completed**
	0	C. Gaskins	4/29/06

Reviewed by / Date M. Cooke 4/29/06

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Lithology	Remarks
26	1	1.0 / 1.0	100	MW to SW	R2			MIGMATITE; black to white (10 YR 2/1 to 8/1); fine grained; biotite, quartz, feldspar	End of day 4/26/06 at 14:30 water at 0 ft Begin day 4/27/06 at 13:00; water at 11.7 ft
27									
28				MW to SW	R2				
29	2	2.1 / 5.0	38					Highly weathered zone; material washed away during coring process	
30									
31					R0				
32									
33									
34	3	2.5 / 5.0	17					MIGMATITE; black to white (10 YR 2/1 to 8/1); fine grained; brown staining to 36.7 ft; quartz, feldspar, biotite	
35				HW	R1				
36									
37				SW	R3				Top of sound rock
38									
39	4	5.0 / 5.0	94	F	R3			MIGMATITE; same colors as above, no staining	
40									
41									
42									
43									
44	5	5.0 / 5.0	100	F	R3			MIGMATITE; SAA	
45									
46									
47									
48									
49	6	5.0 / 5.0	94	F	R3			MIGMATITE; SAA	
50									
51									
52									End of 4/27/06 at 17:30 water at 0 ft. Begin day 4/28/06 at 8:00 water at 25 ft.
53									
54	7	5.0 / 5.0	92	F	R3			MIGMATITE; SAA	
55									
56									
57									
58									
59	8	5.0 / 5.0	96	F	R3			MIGMATITE; SAA	
60									
61									
62									
63									
64	9	5.0 / 5.0	91	F	R3			MIGMATITE; SAA	
65									

Project Name : Job Number

MACTEC

SCE&G COL : 6234-06-3534

ROCK LOG - Boring No. B-331

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Lithology	Remarks
66									
67									
68									
69	10	5.0/5.0	100	F	R3			MIGMATITE; SAA	
70									
71									
72									
73									
74	11	5.0/5.0	94	F	R3			MIGMATITE; SAA	
75									
76									
77									
78									
79	12	5.0/5.0	96	F	R3			MIGMATITE; SAA	
80									
81									
82									
83									
84	13	5.0/5.0	100	F	R3			MIGMATITE; SAA	
85									
86									
87									
88									
89	14	5.0/5.0	97	F	R3			MIGMATITE; SAA	
90									
91									
92									
93									
94	15	5.0/5.0	95	F	R3			MIGMATITE; SAA	
95								Pegmatite dike 4 inch thick	
96									
97									
98									
99	16	5.0/5.0	90	F	R3			MIGMATITE; SAA	
100									
101									
102									End of day 4/28/06 at 17:00 water at 0 ft
103									Begin 4/29/06 at 8:00 water at 25 ft.
104	17	5.0/5.0	95	F	R3			MIGMATITE; SAA	
105									

Project Name : Job Number

MACTEC

SCE&G COL : 6234-06-3534

ROCK LOG - Boring No. B-331

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Lithology	Remarks
106									
107									
108									
109	18	5.0/5.0	100	F	R3			MIGMATITE; SAA	
110									
111									
112									
113									
114	19	4.6/4.6	94	F	R3			MIGMATITE; SAA	
115									
116								CORING TERMINATED AT 116.3 ft.	Coring terminated on 4/29/06
117									
118									
119									
120									
121									
122									
123									
124									
125									
126									
127									
128									
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143									
144									
145									

Project Name : Job Number
MACTEC
SCE&G COL : 6234-06-3534

SOIL LOG - Boring No. B-332

Type and Diameter of Boring: Mud Rotary / 3 7/8 inch/NQ	Boring Location: Adjacent to Power Block		Total Depth: 58.8 feet
Drilling Contractor and Rig: MACTEC/Meyerson/209195 / CME 55	Elevation at Boring: 398.4 feet	Ground Water Depth: 34.2 feet	Depth to Bedrock: 43.8 feet
Sampling Method: Standard	Sample Driving Hammer/Drop: 140 lbs / 30 inches	No. of Samples: 13	Date Started: 4/18/06
	Borehole Inclination: 0	Logged by: B. Sharp	Date Completed: 4/20/06

Reviewed by / Date: M. Cooke 4/24/06
Reviewed by / Date: Clay Sama 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											
1		SPT 1	2 2 3	8/18					ML	SILT sandy (ML); dark red (10 R 3/4); dry; medium stiff; 30% fine grained sand; 60% silt; 10% clay; some roots; low plasticity; ALLUVIUM	Alluvium
2		SPT 2	5 8 7	13/18							
3									CL-ML	SILT clayey, sandy (CL-ML); dark reddish brown (2.5 YR 2.5/4); moist; very stiff, 25% fine grained sand; 40% silt; 35% clay; low plasticity; ALLUVIUM	
4		SPT 3	5 7 10	13/18							
5											
6											
7		SPT 4	3 2 2	11/18					CL-ML	CLAY silty (CL-ML); dark reddish brown (2.5 YR 2.5/4); moist; wet; soft; 25% fine grained sand; 40% clay; 35% silt; low to medium plasticity; ALLUVIUM	Losing all water
8											
9		SPT 5	0 1 1	12/18						SAA; very soft	Zero means SPT sampler advanced under weight of hammer
10											
11											
12		SPT 6	0 0 0	2/18						SAA; wet; dusky red (10 R 3/4); medium plasticity; very soft	
13											
14		SPT 7	0 0 0	9/18					CH	CLAY silty and sandy (CH); red (10 R 4/6); wet; very soft; 15 to 25% silt/fine grained sand; high plasticity; ALLUVIUM	
15											
16											
17									ML	SILT sandy (ML); red (10 R 4/6); wet; soft; 30 to 40% fine grained sand; 60 to 70% silt; micaceous; RESIDUUM	Residuum
18											
19		SPT 8	2 2 1	13/18							
20											
21											
22										SAND silty (SM); strong brown (7.5 YR 5/6); with localized zones of dark olive brown (2.5 Y 3/3); wet; loose; 85% fine grained sand; 15% silt; micaceous; with localized zones of highly weathered quartz and feldspar, SAPROLITE	Saprolite
23											
24		SPT 9	4 5 5	18/18							
25											
26											
27											
28											
29		SPT 10	5 6 8	18/18						SAA; olive brown (2.5 Y 4/4); with some very dark greenish gray (Gley 1 5G 3/1); wet; medium dense; partially weathered rock fragments; 70% fine grained sand, 30% silt; micaceous; SAPROLITE	
30											
31											
32											
33											Began to get water return at 32 ft
34		SPT 11	5 5 7	18/18						SAA; strong brown (7.5 Y R 5/8); and olive brown (2.5 Y 4/4); with light gray (2.5 Y 7/1); moist; medium dense; 80% sand, 20% silt; micaceous; SAPROLITE	
35											
36											
37											
38											Drilling becoming much harder
39		SPT 12	8 13 18	18/18						SAA; strong brown (7.5 YR 5/8); and olive brown (2.5 Y 4/4); dark greenish gray (Gley 5 G 3/1);	
40											

Project Name : Job Number

MACTEC

SCE&G COL : 6234-06-3534

SOIL LOG - Boring No. B-332

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										moist; dense; micaceous; SAPROLITE	
41										SAND silty (SM); strong brown (7.5 YR 5/6); with localized zones of dark olive brown (2.5 Y 3/3); wet; loose; 85% fine grained sand; 15% silt; micaceous; with localized zones of highly weathered quartz and feldspar, SAPROLITE	
42										*(Continued from previous page)*	
43		SPT 13	50/3.5	2 3.5					SM	SM; PARTIALLY WEATHERED ROCK	Very hard drilling
44										Refusal at 43.8 ft, see rock log	
45											
46											
47											
48											
49											
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80											

Project Name : Job Number
MACTEC
SCE&G COL : 6234-06-3534

ROCK LOG - Boring No. B-332

Type and Diameter of Boring: Mud Rotary / 3 7/8 inch/NQ	Boring Location: Adjacent to Power Block		Total Depth: 58.8 feet
Drilling Contractor and Rig: MACTEC/Meyerson/209195 / CME 55	Elevation at Boring: 398.4 feet	Ground Water Depth: 34.2 feet	Depth to Bedrock: 43.8 feet
Casing Size and Depth: 3.5 / 43.8 feet	Length of Core Barrel and Bit: 13 feet	No. of Core Boxes: 1	Date Started: 4/18/06
	Borehole Inclination: 0	Logged by: B. Sharp	Date Completed: 4/20/06

Reviewed by / Date: M. Cooke 4/24/06

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Lithology	Remarks
44–47	1	3.5 / 5.0	60	F	R4			MIGMATITE; dark gray to white; predominantly amphibolite schist with foliation dipping 35 to 40°; with large granodiorite inclusions; highly weathered zone; from 47.4 to 48.8 ft. PARTIALLY WEATHERED ROCK/COMPLETELY WEATHERED ROCK	
47–48				HW	R0			PARTIALLY WEATHERED ROCK/COMPLETELY WEATHERED ROCK	Very rapid bit advance 47.2 to 48 ft Easy drilling from 48 to 48.8 ft.
48–51	2	4.1 / 5.0	43	HW to CW	R0			GRANITE PEGMATITE; white, brown, black; quartz, feldspar and biotite; coarse grained; highly weathered zone and very intensely fractured from 48.8 to 51.1 ft;	End of day 4/19/06 water level at 24 ft
51–54				SW	R4			GNEISS; dark greenish/bluish gray and light gray; 35 to 40° gneissic banding	
54–58	3	5.0 / 5.0	100	F	R4			MIGMATITE; dark gray, black, bluish black, light gray and white amphibolite schist with zones of granodiorite; schistosity and some gneissic banding dipping 30 to 40° CORING TERMINATED AT 58.8 ft	Boring terminated at 58.8 ft on 4/20/06, water level at 34.2 ft.
59–83									

Project Name : Job Number	SOIL LOG - Boring No. B-333
MACTEC SCE&G COL : 6234-06-3534	

Type and Diameter of Boring	Boring Location		Total Depth
Mud Rotary / 3 7/8 inch/NQ	Adjacent to Power Block		86 feet
Drilling Contractor and Rig	**Elevation at Boring**	**Ground Water Depth**	**Depth to Bedrock**
MACTEC/Akins/212393 / CME550	394.4 feet		26.1 feet
Sampling Method	**Sample Driving Hammer/Drop**	**No. of Samples**	**Date Started**
Standard	140 lbs / 30 inches	19	4/18/06
	Borehole Inclination	**Logged by**	**Date Completed**
	0	M. Harvey	4/19/06

Reviewed by / Date M. Cooke 4/24/06

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
0–1		SPT 1	2 2 3	9/18					SM	SAND silty (SM); brown (2.5 YR 3/3); dry; loose	Residuum
2–3		SPT 2	5 9 10	14/18						SAND silty (SM); red (10 R 3/4); dry; medium dense	
4–5		SPT 3	5 9 14	14/18						SAND sitly (SM); dark red (2.5 YR 3/6); dry; medium dense; trace mica	
6–7		SPT 4	7 10 15	15/18						SAND silty (SM); dark red (2.5 YR 4/6); dry; medium dense; micaceous	
8–9		SPT 5	5 7 11	15/18						SAA	
10–12		SPT 6	3 5 6	14/18					SM	SAND silty (SM); orange (5 YR 5/8); damp; medium dense; micaceous; fine to medium grained; SAPROLITE	Saprolite
12–15		SPT 7	3 3 5	18						SAA; pink orange (7.5 YR 7/6); damp; loose; 15% mica; SAPROLITE	
16–19		SPT 8	2 3 5	12/18					SM	SAA; white to brown; (7.5 YR 8/1 and 7.5 YR 5/4); damp; loose; 30% mica; SAPROLITE	
20–24		SPT 9	16 50/0.2	6 6.2						SAND silty; (SM); brown (5 YR 5/4); damp; very dense; fine gravel; micaceous; rock fragments; PARTIALLY WEATHERED ROCK Tricone refusal 25.9 ft, advanced casing to 26.1 ft, see rock log	Difficult drilling

Project Name : Job Number MACTEC SCE&G COL : 6234-06-3534			**ROCK LOG - Boring No. B-333**
Type and Diameter of Boring Mud Rotary / 3 7/8 inch/NQ	Boring Location Adjacent to Power Block		Total Depth 86 feet
Drilling Contractor and Rig MACTEC/Akins/212393 / CME550	Elevation at Boring 394.4 feet	Ground Water Depth	Depth to Bedrock 26.1 feet
Casing Size and Depth 3.5 / 26.1 feet	Length of Core Barrel and Bit 13 feet	No. of Core Boxes 3	Date Started 4/18/06
	Borehole Inclination 0	Logged by M. Harvey	Date Completed 4/19/06

Reviewed by / Date M. Cooke 4/24/06

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Lithology	Remarks
27–30	1	3.8 / 3.9	100	F	R3			GRANODIORITE; biotite; quartz and orthoclase	
30–35	2	5.8 / 10.0	47.5	F	R3				
				MW	R2				
35–40				CW	R0			No recovery; PARTIALLY WEATHERED ROCK	
40–45	3	3.5 / 5.0	0	HW	R0			Highly weathered igneous texture, coarse grain size 4 mm and more, >10% mafics ~20% diorite	
45–50	4	4.4 / 5.0	40	CW					
				HW	R1				
				SW	R3			GRANODIORITE; biotite; coarse grained quartz and orthoclase	Bottom of highly weathered
50–55	5	4.5 / 5.0	70	SW	R2 to R3				End of day 4/18/06 Begin day 4/19/06
				CW to HW	R0 to R1				
				MW	R2				
				SW	R3				
55–60	6	5.0 / 5.0	100	SW to F	R3				
				HW	R1				
60–65	7	4.4 / 5.0	17	SW to F	R3				
				CW to HW	R0 to R1				
65–66									

Project Name : Job Number

MACTEC

SCE&G COL : 6234-06-3534

ROCK LOG - Boring No. B-333

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Lithology	Remarks
67	8	4.8/5.0	72.5	HW to MW	R2				
68				CW	R0				
69				SW	R2 to R3				
70				HW	R3				
71					R1				
72	9	3.7/5.0	65	SW to F	R3				
73									
74									
75									
76									
77									
78								1 inch dike 40° aplite	Discolored discontinuity
79								1 inch dike 40° aplite	
80	10	10.0/10.0	99	SW to F	R3			1 inch dike 40° aplite	
81									
82									
83									
84									
85								Core left in hole	Bottom of core at 86 ft on 4/19/06
86								CORING TERMINATED at 86.0 ft	
87									
88									
89									
90									
91									
92									
93									
94									
95									
96									
97									
98									
99									
100									
101									
102									
103									
104									
105									
106									

Project Name : Job Number
MACTEC
SCE&G COL : 6234-06-3534

SOIL LOG - Boring No. B-334

Type and Diameter of Boring: Mud Rotary / 3 7/8 inch/NQ	Boring Location: Adjacent to Power Block		Total Depth: 55.5 feet
Drilling Contractor and Rig: MACTEC/Cain/100 / D 50	Elevation at Boring: 418.7 feet	Ground Water Depth:	Depth to Bedrock: 34.3 feet
Sampling Method: Standard	Sample Driving Hammer/Drop: 140 lbs / 30 inches	No. of Samples: 11	Date Started: 6/27/06
	Borehole Inclination: 0	Logged by: M. Harvey	Date Completed: 6/28/06

Reviewed by / Date: M. Cooke 7/13/06
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
0-1		SPT 1	1 1 7	14/18					ML	SILT sandy (ML); red (2.5 YR 4/6 and 2.5 YR 3/4); dry; medium stiff; fine sand	Residuum; very soft to 1 ft
1-2		SPT 2	4 6 9	15/18						SAA; red (2.5 YR 3/6); dry; stiff	
3-4		SPT 3	9 9 11	18/18						SAA; red (2.5 YR 3/6); dry; very stiff; mica present; trace fine sand	
5-6		SPT 4	3 6 8	13/18					SM	SAND silty (SM); red and orange (2.5 YR 3/6 to 5 YR 7/8); dry; medium dense; micaceous	
7-8		SPT 5	4 5 8	9/18						SAND silty (SM); pink and brown (10 R 8/3 and 7.5 YR 5/8); medium dense; relict K-spar; micaceous; SAPROLITE	Saprolite
9-10		SPT 6	4 6 9	11/18						SAA	
11-12		SPT 7	3 6 8	10/18						SAA	
13-14		SPT 8	4 5 9	10.5/18						SAA; brown, white and pink (10 YR 6/4, 5 YR 8/4, 10 YR 8/1); medium dense; micaceous; SAPROLITE	
15-16		SPT 9	4 6 9	12/18						SAA; brown, white, and pink (10 R 7/6, 10 R 8/1, 10 YR 5/6); dry; medium dense; micaceous; trace silt; relict K-spar and plagioclase; SAPROLITE	
17-18		SPT 10	4 6 9	12/18						SAA	
19-20		SPT 11	50/5	4/5						SAND silty (SM); medium black and white; wet; very dense; PARTIALLY WEATHERED ROCK	

Project Name : Job Number
MACTEC
SCE&G COL : 6234-06-3534

ROCK LOG - Boring No. B-334

Type and Diameter of Boring: Mud Rotary / 3 7/8 inch/NQ	Boring Location: Adjacent to Power Block		Total Depth: 55.5 feet
Drilling Contractor and Rig: MACTEC/Cain/100 / D 50	Elevation at Boring: 418.7 feet	Ground Water Depth:	Depth to Bedrock: 34.3 feet
Casing Size and Depth: 3.5 / 34.3 feet	Length of Core Barrel and Bit:	No. of Core Boxes:	Date Started: 6/27/06
	Borehole Inclination: 0	Logged by: M. Harvey	Date Completed: 6/28/06

Reviewed by / Date: M. Cooke 7/13/06

Depth (feet)	Run No.	Recovery / Cut	% RQD	Weathering	Strength	In-Situ Testing	Lithology	Lithology	Remarks
35	1	1.2 / 1.2	69	SW	R3			GRANODIORITE; white and black (Gley 1 8/N and 2.5/N); coarse grained; plagioclase, quartz, amphibole	Sound rock
36									
37									
38	2	5.0 / 5.0	96	F	R4				
39								GRANODIORITE; black and white (Gley 1 N to 2.5/N); fine to medium grained	
40									
41				F	R4			GRANODIORITE; white to black (Gley 1 8/N to 2.5/N); coarse grained; plagioclase, quartz, amphibole	
42				MW	R2				
43	3	4.3 / 5.0	74	F	R4			Fracture zone, moderately weathered, recovered core in rock disks from 0.5 to 1 inch thick	
44									
45									
46									
47									
48	4	5.0 / 5.0	100	F	R4			AMPHIBOLITE xenolith GRANODIORITE coarse grained CORING TERMINATED AT 55.5 ft	
49									
50									
51									
52									
53	5	5.0 / 5.0	100	F	R4				
54									
55									
56									Boring terminated on 6/28/06
57									
58									
59									
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73									
74									

Project Name : Job Number
MACTEC
SCE&G COL : 6234-06-3534

SOIL LOG - Boring No. B-335

Type and Diameter of Boring: Mud Rotary / 3 7/8 inch/NQ	Boring Location: Adjacent to Power Block		Total Depth: 85 feet
Drilling Contractor and Rig: MACTEC/Oglesby/219907 / CME 75	Elevation at Boring: 426.3 feet	Ground Water Depth: 28 feet	Depth to Bedrock: 40 feet
Sampling Method: Standard	Sample Driving Hammer/Drop: 140 lbs / 30 inches	No. of Samples: 13	Date Started: 7/25/06
	Borehole Inclination: 0	Logged by: B. Sharp	Date Completed: 7/26/06

Reviewed by / Date: M. Cooke 8/4/06
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
0-3		SPT 1	2 4 5	18/18					SM	SAND silty (SM); red (10 R 4/8); brownish yellow (10 YR 6/8); moist; loose; 80% fine grained sand; 20% fines; RESIDUUM	Residuum
0-3		SPT 2	2 5 5	15/18					SM	SAA; with trace white (10 R 8/1)	
4-5		SPT 3	4 6 7	15/18					SM	SAND silty (SM); dusk red (10 R 3/4) to dark red (10 R 8/1); with scattered white (10 R 8/1); moist; medium dense; 70 to 80% fine grained sand; 20 to 30% fines; micaceous; SAPROLITE	Saprolite
6-7		SPT 4	7 9 10	18/18					SM	SAA; with some olive brown (2.5 Y 4/4)	
8-10		SPT 5	4 5 9	18/18					SM	SAA; but only trace white feldspar	
11-12		SPT 6	6 9 10	17/18					ML	SILT sandy (ML); strong brown (7.5 YR 5/8); moist; very stiff; 60% fines, 40% fine grained sand; with dark red (10 R 3/4); silty sand zone from 12 to 12.4 ft; micaceous; SAPROLITE	
13-15		SPT 7	3 3 4	18					ML	SILT sandy (ML) and SAND silty (SM); strong brown (7.5 YR 5/8); moist; medium stiff/loose; 50% fines; 50% fine grained sand; some completely weathered white (10 R 8/1); feldspar; SAPROLITE	
17-18		SPT 8	3 5 8	13/18					SM	SAND silty (SM); dark yellowish brown (10 YR 4/6); brownish yellow (10 YR 6/8); red (10 R 4/8); white (10 R 8/1); moist; medium dense; 60 to 70% fine grained sand, 30 to 40% fines; micaceous; some white feldspar; SAPROLITE	
24-25		SPT 9	5 7 10	14/18					SM	SAA; predominantly olive brown (2.5 Y 4/6); and reddish brown (5 YR 4/6); some black manganese staining	
28									SM	▽	
29-30		SPT 10	5 7 9	16/18					SM	SAA; black manganese staining in thin horizontal bands; SAPROLITE	
34-35		SPT 11	7 9 12	12/18					SM	SAA; dark yellowish brown (10 YR 4/6); olive brown (2.5 Y 4/6); white (N 8/); black (N 2.5/); moist; medium dense; 60 to 70% fine grained sand; 30 to 40% fines; locally micaceous; some silt rich zones; abundant white feldspar; some black manganese staining in shallow dipping thin bands; SAPROLITE	
39-40		SPT 12	8 10 50/3	15/15					SM	SAA; less mica; fine to medium sand with red (10 R 4/8); feldspar and quartz fragments and black	