Cleaned

34-0157-NB-B6R

Caltrans EXPLORATION BORING FIELD LOG

Date 5/7/08 Boring No.

Location Doyle Drive, Lincoln Blvd, high Viaduct | Lab No. | EA No. 163701 | Page 1 of 3

Ist. #4 Co. SF Rt. 101 P.M. Br. No. Purpose of Work

Ft., Rt. Lt. Line. Sta. Northings. Eastings. Elev.

Ground Water Data: Date/Time | Water Level | Bot. of Boring

Logged By: R Nashed | Drill Crew: Norm, Logan, Jack, Ferran

Drill rig: All terrain CS1000 | Hammer Type and Weight: Automatic

Drilling Method: Rotary Wash/Coring | Casing: N/A

Hole Completion: 5/8/08

Depth	Sample Interval Tool	Blows RQD	Sample I.D.	% Rec.	Strength	Graphic Log	Description	Remarks
1								
2								wet drilling
3							Sand (SP), medium dense,	
4							brownish yellow, fine grained,	Bed rock @ depth ~
5							non-plastic, strongly cemented	3.00 ft
		6					[sand stone, massive, medium	
6		6					grained, brownish yellow, v. soft,	5 min
		8					intensely weathered	
7		32/60		52/60				
8	1"						Sandstone as above, slightly	
9							fractured	
10								
		51/60		55/60			The same as above	
12								5 min
13	2"						Serpentenite, massive, fissile,	
14							medium grained, greenish gray,	
15							moderately soft, intensely weathered,	
16		42/60		58/60			slightly fractured	
17								9 min
18	3"						Shale, thinly bedded, fissile, black,	
19							fine grained, moderately hard,	
20							slightly weathered	
21		39/60		65/60			Serpentenite as above	
22							Shale as above	12 min
23	4"							
24							Serpentenite, massive, fine grained,	
25							greenish gray, to bluish gray,	continue on 5/8/08
26		42/60		60/60			v. soft, intensely weathered,	
27							intensely fractured	5 min
28	5"						The same as above, but moderately	
29							fractured	
30							Shale (contact w/serp.), v. thickly	
31		55/60		71/60			bedded, fissile, fined grained, black,	
32							moderately soft, moderately weathered	8 min
33	6"						it contain sheared zone	
34							The same as above	
35							serpentenite, thickly bedd, fine gra	
36		50/60		60/60			greenish gray, v. soft, intensely	
37							weathered, intensely fractured	6 min
38	7						Shale (Sepentenized), massive,	

34-0157NB-B6R

Caltrans EXPLORATION BORING FIELD LOG

Date 5/8/08 | Boring No.

Location Doyle Drive, Lincoln Blvd, High Viaduct | Loc No. | EA No. 163701 | Page 2 of 3

St. 04 Co. SF Rt. 101 P.M. | Br. No. | Purpose of Work

Ft., Rt. Lt. | Line. Sta. | Northings. | Eastings. | Elev.

Ground Water Data: Date/Time | Water Level | Bot. of Boring

Logged By: R Nashed | Drill Crew: Norm, Logan, Jack, terrain

Drill rig: All terrain CS/ced | Hammer Type and Weight: Automatic

Drilling Method: Rotary Wash/Coring | Casing: N/A

Hole Completion: 5/8/08

Depth	Sample Interval	Tool Blows RQD	Sample I.D.	% Rec.	Strength	Graphic Log	Description	Remarks
37	7						fissile, fine to moderate grained, gray to bluish gray, moderately soft, contains white calc. veinlets, intensely weathered, intensely fractured	
38								
39								
40								
41		7/60		60/60			Moderately jointed	
42	8						shale, massive, fissile, fine and coarse grained of calcite, gray w/ white veinlets, moderately hard, intensely weathered and intensely fractured (as cottings)	7 min
43								
44								
45								
46								
47	9	20/60		60/60				11 min
48							The same as above, but intensely fractured and jointed	
50								
51		43/60		59/60			Serpentenite, massive, fine to medium grained, bluish to greenish gray, v. soft, intensely weathered slightly fractured	
52	16							10 min
53								
54								
55								
56		45/60		60/60			shale, as above	
57							Serpentenite, massive, medium grained, bluish gray, v. soft, intensely weathered, moderately fractured	14 min
58								
59								
60								
61		58/60		60/60			Shale, thickly bedded, fissile, black, moderately hard, slightly weathered, slightly fractured	14 min
62								
63	12							
64								
65							Serpentenite, as above, but intac rock	
66		14/60		60/60			The same as above	14 min
67	12							
68								
69							The same as above	
70								
71		60/60		60/60				8 min
72								
73								
74								
75								

34-0157NB-B6R

Caltrans EXPLORATION BORING FIELD LOG

Date 5/8/08 | Boring No.

Location Doyle Drive, Lincoln Blvd, High Viaduct | Co No. | EA No. 163701 | Page 3 of 3

t. 04 Co. SF Rt. 101 P.M. | Br. No. | Purpose of Work

Ft. Rt. Lt. | Line. Sta. | Northings. | Eastings. | Elev.

Ground Water Data

Date / Time	Water Level	Bot. of Boring

Logged By: R Nashed | Drill Crew: Norm, Logan, Jack, Torran

Drill rig: All terrain CS 1000 | Hammer Type and Weight: Automatic

Drilling Method: Rotary Wash/Coring | Casing: N/A

Hole Completion: 5/8/08

Depth	Sample Interval	Tool	Blows	RQD	Sample I.D.	% Rec.	Strength	Graphic Log	Description			Remarks
76		52/60				60/60			The same as above			
77	15											12 min
78												
79												
80												
81		52/60				60/60			The same as above			
82												13 min
83												
84	15											
85												
86		60/60				60/60			The same as above, but more shaley			10 min
87												
88	13											
89												
90												

cleaned

34-0157NB-B6L

Caltrans | EXPLORATION BORING FIELD LOG | Date 5/2/08 | Boring No.

Location Doyle Drive, Lincoln Ave, high Viaduct | Lab No. | EA No. 163701 | Page 1 of 3

Dist. 04 Co. SF Rt. 101 P.M. Br. No. Purpose of Work Br. Found

Ft. Rt. Lt. Line. Sta. Northings. Eastings. Elev.

Ground Water Data	Date / Time	Water Level	Bot. of Boring

Logged By : R Nashed | Drill Crew : Norm, Logan, Jack, Terran

Drill rig : All terrain CS1000 | Hammer Type and Weight : Automatic

Drilling Method : Rotary wash/Coring | Casing : N/A

Hole Completion : 5/6/08

Depth	Sample Interval Tool	Blows / RQD	Sample I.D.	% Rec.	Strength	Graphic Log	Description	Remarks
1							unde presido high Viduct	
2								
3							Sandy clay (CL), firm, yelowish	wet drilling
4							black, little sand %, fine	
5							grained, high plasticity,	
		3					moderate cementation q_c = 1.25/1.50	
6		3						
		4					Clayey sand (SP), medium dense,	
7							15% clay, low plasticity, highly	
8							cemented, organic roots [clayey	
9							Sand stone, massive, fine grained	
10							greenish yellow w/ brown stains,	
		4					soft, intensely weathered	
11	2	6						
		8					Sand stone, massive, fine	
12		32/60		41/60			grained, greenish yellow, v. soft,	
13							intensely weathered, moderately	
14							fractured	
15							The same as above	
16		45/60		60/60			shale, thinly bedded, fissile	7 min
17							black, fine grained, hard,	
18	2						intensely weathered, intac rock	
19								
20							Serpentonite, massived,	
21		50/60		60/60			medium grained, greenish	
22							gray, v. soft, intensely weathered	7 min
23	3						intac rock	
24							The same as above, no fractures	
25							Shale, thickly bedded, fissile	
26		60/60		60/60			fine grained, black, moderately	7 min
27							hard to hard, moderately	
28	4						weathered, moderately fractured	
29							The same as above, intac rock	
30							no fractures	
31		60/60		60/60				10 min
32							The same as above	
33	5							
34								
35							The same as above, but moderately	
36		60/60		60/60			fractured	10 min

34-0157NB-B6L

Caltrans EXPLORATION BORING FIELD LOG

Date 5/5/08 | Boring No.

Location Doyle Drive, Lincoln Ave, high viaduct | Lab No. | EA No. 163701 | Page 2 of 3

.04 Co. SF Rt. 101 P.M. | Br. No. | Purpose of Work Br. Found.

Ft. Rt. Lt. | Line. Sta. | Northings. | Eastings. | Elev.

Ground Water Data: Date/Time | Water Level | Hor. of Boring

Logged By: R Nashed | Drill Crew: Norm, Logan, Jack, Terry

Drill rig: All terrain CS1000 | Hammer Type and Weight: Automatic

Drilling Method: Rotary Wash/Coring | Casing: N/A

Hole Completion: 5/6/08

Depth	Sample Interval	Blows / RQD	Sample I.D.	% Rec.	Strength	Graphic Log	Description	Remarks
37								
38	6						shale as above	
39								continue on 5/5/08
40								
41		42/60		60/60			Shale/serpentin contact, thickly bedded, fined grained, black w/ green stains	
42							moderately hard, moderately weathered	15 min
43	7						jointed @ 60°	
44								
45							Shale, massive, fissile, fined grained	
46		41/60		40/60			black, moderately soft, intensely	
47							weathered, slightly fractured	15 min
48	8						and jointed @ ~50°	
49								
50							Shale, massive, fissile, fined	
51		29/60		44/60			grained, v. soft, intensely weathered	
52							intensely fractured	
53	9						Serpentenite, massive,	16 min
54							medium grained, greenish gray,	
55							moderately soft, intensely	
56		34/60		48/60			weathered, slightly fractured	
57								
58	10						Shale, v. thirkly bedded, fine	
59							to coarse grained, gray with	11 min
60							white veinlets, moderately soft,	
61		60/60		60/60			intensely weathered and intensely	
62							fractured /w white calcite veinlets	
63	11						Serpentenite, massive, medium	10 min
64							grained, greenish gray, moderately	
65							soft, intensely weathered, slightly	
66		60/60		60/60			fractured	11 min
67							The same as above	
68	12							
69							The same as above, intact rock	
70							no fractures	
71		60/60		60/60				13 min
72								
73	13						The same as above	
74								
75								
								Drilling break

34-0157NB-B6L

Caltrans | EXPLORATION BORING FIELD LOG | Date 5/6/08 | Boring No.

Location Doyle Drive, Lincoln Ave, High Viaduct | Lab No. | EA No. 163701 | Page 3 of 3

Dist. Co. Rt. P.M. Br. No. | Purpose of Work Br. Found

Ft., Rt. Lt. Line, Sta. Northings. Eastings. Elev.

Ground Water Data	Date / Time	Water Level	Bot. of Boring

Logged By : R Nashed | Drill Crew : Norm, Logan, Jack, Terran

Drill rig : All terrain, CS 1000 | Hammer Type and Weight : Automatic

Drilling Method : Rotary Wash/Coring | Casing : N/A

Hole Completion : 5/6/08

Depth	Sample Interval (ft)	Blows/RQD	Sample I.D.	% Rec.	Strength	Graphic Log	Description			Remarks
76	↓	57/60		60/60			Serpentenite, massive, fine grained			continue on 5/7/08
77							greenish gray, moderately Soft,			
78	14						intensely weathered, intack rock			
79	↑						~~no fractures~~			14 min
80										
81	↓	52/60		0/60			serpentenite, massive,			
82							fine grained, greenish			
83	15						gray, v/soft, intensely weathered			14 min
84	↑						slightly fractured, intac rock			
85										
86	↓	74/60		79/60			The same as above			
87										
88										
89	16						The same as above, but			
90	↑						moderately fractured			
91	↓	17/60		22/60						
92										
93	17									11 min
94	↑									
95							The same as above, but			
96	↓	47/60		60/60			jointed @ 70°			
97	18									
98										14 min
99	↑									
100										