34-0157NB-A1

Caltrans

EXPLORATION BORING FIELD LOG

Date 2/26/08 | Boring No.

Location Doyle Drive, Hig Viaduct, Crissy field Av | Job No. | EA No. 163701 | Page 1 of

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 : Brad, Javed, Randy

Drill rig : CME-750 | Hammer Type and Weight : Automatic

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

Hole Completion : 2/28/08

Depth	Sample Interval	Blows / RQD	Sample I.D.	% Rec.	Strength	Graphic Log	Description	Remarks
1								
2								Wet drilling
3							Sand (SP), v. loose,	
4							brown, slightly moist,	
5							medium grained, non-plastic	
		3					no cementation	
6	1	1						
		3						
7							Silty sand (SW), medium	
8							dense, reddish brown, medium	
9							to fine grained, non-plastic,	
10							no cementation	
		3						
11	2	9						
		13						
12								
13							Sand (SP), dense, yellowish	
14							brown, medium grained,	
15							non-plastic, no cementation	
		12						
16	3	18						
		16						
17								
18								
19		2B						Brass Sample
20		2A					Sand stone, coarse to medium grained,	
		Refusal					massive, yellowish brown to	
21		10/60	42/60				dark brown, hard intensely	From 20.0 to 25.00
							weathered, intensely fractured	30 min
22	1						and jointed	
23								
24							Sand stone, coarse grained,	
25							massive, reddish brown, v.	
26		24/60	57/60				hard, moderately weathered,	29 min
27							moderately fractured and jointed	
28	2							
29								
30								
31		13/60	52/60				The same as above	24 min
32								

34-0157HB-A1

Caltrans EXPLORATION BORING FIELD LOG

Date 2/26/08 | Boring No.

Location Doyle Drive - High Viaduct - Crissy Field Ave | Job No. | EA No. 163701 | Page 2 of

Dist. 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: Brad, Jared, Randy

Drill rig: CME-750 | Hammer Type and Weight: Automatic

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

Hole Completion: 2/28/08

Depth	Sample Interval	Total Blows	RQD	Sample I.D.	% Rec.	Strength	Graphic Log	Description			Remarks
33											
34	3										
35								The same as above			
36		28/60			56/60						38 min
37											
38	4										
39											
40								Sandstone, massive, coarse			
41		46/60			58/60			grained, gray, hard, slightly			cont. on 2/27/08
42								weathered, slightly fractured,			
43	5							moderately jointed			27 min
44											
45								Sandstone, massive, coarse			
46		44/60			60/60			grained, dark brown to gray, hard,			
47								moderately weathered, slightly			
48	6							fractured, and moderately jointed			22 min
49											
50								Sandstone as above, but			
51		39/60			58/60			gray			
52											22 min
53	7										
54								Sandstone, massive, coarse			
55								grained, gray, hard, moderately			
56		4/60			58/60			weathered, intensely fractured			
57								and intensely jointed			19 min
58	8										
59											
60								The same as above			
61		20/60			54/60						
62											26 min
63	9										
64								Sandstone, massive, coarse			
65								grained, dark gray, moderately			
66		42/60			54/60			to slightly weathered, moderately			
67								fractured, intensely jointed			33 min
68	10										
69								Sandstone, massive, coarse			
70								grained, gray to yellowish gray,			
71		26/60			60/60			hard, intensely weathered,			
72								intensely fractured and slightly jointed			30 min

34-0157NB-A.1

Caltrans EXPLORATION BORING FIELD LOG

Date 2/27/08 | Boring No.

Location Doyle Drive, high Viaduct, Crissy field | Log No. | EA No. 163701 | Page 3 of

Dist. 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: Brad, Javod, Randy

Drill rig: CME 750 | Hammer Type and Weight: Automatic

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

Hole Completion: 2/28/08

Depth	Sample Interval / Tool / Blows	RQD	Sample I.D.	% Rec.	Strength	Graphic Log	Description	Remarks
73								
74	11						Sandstone, massive, coarse grained gray, hard, intensely to moderately weathered, intensely fractured and jointed	
75								
76		25/69		57/60				
77								27 min
78	12							
79								
80							Sandstone, massive, coarse grained, gray, hard, slightly weathered, moderately fractured slightly jointed	
81		45/60		60/60				23 min
82								
83	13							
84								
85							Sandstone, massive, coarse grained, gray to yellowish gray, moderately weathered, intensely fractured and intensely jointed	
86		30/60		60/60				21 min
87								
88	14							
89								
90							Sandstone as above	
91		20/44		40/44				Continue on 2/28/08
92	15						Shale, thinly bedded fine grained black, soft, intensely weathered	from 90 to 93' 8"
93								21 min
94		7		16			Sandstone as above (shear zone)	From 93' 8" to 95'
95	16	16		16			Sandstone as above	7 min
96		6/60		50/60				
97							Shaley Sandstone (mélange), massive, coarse grained dark gray, v. hard, slightly weathered intact rock, few joint, calcite veinlets	
98	17							30 min
99								
100							Shale, thinly bedded, moderate grained, black intensely weathered intensely fractured	
							Graywake, massive, coarse grained, black, moderately hard to moderately soft, intensely weathered, intensely fractured	