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By Alameda County Environmental Health 9:21 am, Sep 13, 2016



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August 26, 2016

Ref.: 20160093

John Walter
East Bay Municipal Utility District
375 11th Street MS 704
Oakland, CA 94607

Adeline Maintenance Center LUFT/SLIC Case
Data Review
Fuel Leak Case No. RO0000030
GeoTracker Global ID: T0600102115
1200 21st Street, Oakland, CA.

Dear Mr. Walter:

At the request of East Bay Municipal Utility District (EBMUD) and in accordance with Alameda County Environmental Health's (ACEH) directive "Fuel Leak Case No. RO0000030 and GeoTracker Global ID T0600102115, EBMUD, 1200 21st Street, Oakland, CA 94607" dated June 24, 2016, Engineering/Remediation Resources Group, Inc. (ERRG) has prepared this data review to update the Environmental Screening Levels (ESL) for comparison to the soil and groundwater data presented in AECOM's June 30, 2015, "Technical Memo, East Bay Municipal Utility District, Adeline Maintenance Center, Oakland, California." [Figure 1](#) shows the regional location of 1200 21st Street, Oakland, California (site) and [Figure 2](#) presents the site's detail.

This data review compares the 2009 soil and groundwater data from the site (Tables 1 through 8) against values taken from the California Environmental Protection Agency, San Francisco Bay Regional Water Quality Control Board 2016 Interim Final Tier 2 ESL Input and Output (ESL Table T2-1) worksheet using the following inputs:

- Land Use: Commercial or Industrial
- Groundwater Use: Drinking Water Resource
- Maximum Contaminant Level Priority over Risk-Based Levels: No
- Intact Building Slab: No or Unknown
- Groundwater Depth for Groundwater Vapor Intrusion: Shallow Groundwater
- Soil Type for Groundwater Vapor Intrusion: Fine to Coarse Scenario
- Soil Contamination Depth: Shallow Soil

A comparison of the 2009 soil and groundwater data to the 2016 Tier 2 ESLs is summarized below:

Soil Data

- Arsenic soil ESLs were exceeded in AOCs 1, 2, and 3, where detected. The analytical reporting limit exceeded the soil ESLs, where arsenic was not detected ([Table 1](#)).

- Total petroleum hydrocarbons as gasoline (TPH-g) and as diesel (TPH-d) were detected above their soil ESLs in AOC 1. Total petroleum hydrocarbons as motor oil (TPH-mo) were detected above their soil ESLs in AOC 2. TPH as oil and grease does not have established soil ESLs. The highest concentrations of TPH as oil and grease in AOCs 1, 2, and 3 was 2,700 mg/kg (AOC 1) ([Table 2](#)).
- Seven volatile organic compound (VOC) analytes exceeded their soil ESLs. Chloroethane and methylene chloride soil ESLs were exceeded in AOCs 1, 2, and 3. Dibromochloropropane, ethylbenzene, m+p xylenes, and naphthalene exceeded their soil ESLs in AOC 1 and acetone exceeded its soil ESL in AOC 2 and 3. The analytical reporting limits for acetone, benzene, dibromochloropropane, and naphthalene exceed their soil ESLs, where those chemicals were not detected ([Table 3](#)).
- Three semivolatile organic compound (SVOC) analytes exceeded their soil ESLs. Phenol exceeded its soil ESL in AOCs 1, 2, and 3. 2-methylnaphthalene and naphthalene exceeded their soil ESLs in AOC 1. The analytical reporting limit for naphthalene exceed the soil ESLs, where not detected ([Table 4](#)).

Groundwater Data

- Twelve metals exceeded their groundwater ESLs. Arsenic, barium, beryllium, cadmium chromium, cobalt, lead, mercury, nickel, vanadium, and zinc exceeded their groundwater ESLs in AOCs 2 and 3. Silver exceeded its groundwater ESL in AOC 3. No groundwater samples from AOC 1 were analyzed for metals. The analytical reporting limits for antimony, arsenic, cadmium, copper, lead, selenium, and thallium exceeded their groundwater ESLs, where not detected ([Table 5](#)).
- TPH-g exceeded its groundwater ESL in AOCs 1, 2 and 3. TPH-d exceeded its groundwater ESL in AOCs 1 and 3. TPH-mo and oil and grease do not have established groundwater ESLs. The highest concentration of TPH-mo was 2,200 micrograms per liter ($\mu\text{g/L}$) (AOC1), 7,000 $\mu\text{g/L}$ (AOC 2), and 185,000 $\mu\text{g/L}$ (AOC 3). Oil and grease was detected in one groundwater sample in AOC 3 at a concentration of 7.8 $\mu\text{g/L}$ ([Table 6](#)).
- Twelve VOC analytes exceeded their groundwater ESLs. Benzene exceeded its groundwater ESL in AOCs 1, 2 and 3. Naphthalene exceeded its groundwater ESL in AOCs 1 and 3. Bromodichloromethane, ethyl benzene, m+p xylenes, methyl tertiary butyl ether, and o-xylene exceeded their groundwater ESLs in AOC 1. Chloroform exceeded its groundwater ESL in AOC 2. Hexachlorobutadiene, hexachloroethane, tert-butyl alcohol, and vinyl chloride exceeded their groundwater ESLs in AOC 3. The analytical reporting limits for benzene, bromodichloromethane, chloroform, hexachlorobutadiene, hexachloroethane, naphthalene, and vinyl chloride exceeded their groundwater ESLs, where not detected ([Table 7](#)).
- Eight SVOC analytes exceeded their groundwater ESLs. 2-methylnaphthalene, benzo(a)pyrene, benzo(a)anthracene, bis(2-ethylhexhyl)phthalate, chrysene, naphthalene, phenol, and pyrene were detected above their groundwater ESLs in AOC 3. No detected SVOCs in AOC 2 exceeded their groundwater ESLs. No groundwater samples from AOC 1 were analyzed for SVOCs. The analytical reporting limits for benzo(a)anthracene, benzo(a)pyrene, chrysene, and naphthalene exceeded their groundwater ESLs ([Table 8](#)).

If you have any questions or comments regarding this data review, please contact me at 925-839-2266 (email: dan.lohr@errg.com) or Erik Oehlschlager at 925-839-2274 (email: erik.oehlschlager@errg.com).

Sincerely,



Dan Loehr, PG
Senior Project Geologist

Enclosure 1: [Tables](#)

Enclosure 2: [Figures](#)



Enclosure 1. Tables

Table 1. 2009 Soil Analytical Results - Metals Adeline Maintenance Center Technical Memo

Alisto Sample ID	Boring Location	Sample Depth (ft bgs)	Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	
EPA Method				6010B	6010B	6010B	6010B	6010B	6010B	WET	6010B	6010B	6010B	7471	6010B	6010B	6010B	7761	6010B	6010B	6010B
Units				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Soil ESL¹				140	0.31	3,000	42	43	--	28	14,000	160	44	1,800	86	1,700	1,800	4	470	110,000	
Area of Concern 1																					
2509-8	2509	8	03/26/09	<0.963	4.45	132	0.363	0.243	40.8	--	8.33	26.1	88.9	0.20	<0.193	32.9	<1.25	0.086	<1.06	35.5	84.2
2609-8	2609	8	03/26/09	<0.929	2.32	83.5	0.301	0.112	44.1	--	4.78	12.1	7.62	0.037	2.67	29.5	<1.21	0.04	<1.02	38.1	32.8
2909-10	2909	10	03/26/09	<0.882	1.36	272	0.522	<0.0794	40.8	--	3.5	13.4	2.65	0.027	0.201	27.9	<1.15	0.017	<0.97	26.2	27.4
2909-7	2909	7	03/26/09	<0.899	2.83	50.7	0.356	0.089	50.4	--	6.32	17.1	18.2	0.16	<0.18	33.7	<1.17	0.089	<0.989	37.7	37.6
3009-7	3009	7	03/26/09	<0.778	2.08	52.3	0.313	0.131	39.7	--	6.59	12.0	12.6	0.23	<0.156	34	<1.01	0.065	<0.855	31.0	42.8
3009-10		10	03/26/09	<0.921	14.5	339	0.422	0.397	35.4	--	27.4	6.63	3.9	0.028	0.433	48.6	<1.2	0.065	<1.01	32.1	24.0
3109-8	3109	8	03/26/09	<0.958	<0.958	833	0.434	<0.0862	45.8	--	3.94	12.1	4.0	0.027	1.44	34.1	<1.25	0.019	<1.05	37.2	29.6
3109-12		12	03/26/09	1.42	<1	84	0.244	0.126	29.5	--	3.61	6.86	4.11	0.035	<0.201	22.4	<1.31	0.059	<1.1	19.0	17.8
Area of Concern 2																					
3209-8	3209	10	03/27/09	<0.931	3.12	69.6	0.235	0.258	33.4	--	7.14	12.2	19.9	0.45	<0.186	24.3	<1.21	0.049	<1.02	25.2	43.7
3309-8	3309	10	03/27/09	<0.963	1.3	105	0.269	0.112	39.5	--	5.59	7.93	3.81	0.038	<0.193	19.4	<1.25	0.025	<1.06	27.3	23.5
3409-5	3409	5	03/27/09	<0.904	1.3	39.7	0.368	<0.0814	68.4	0.871	7.62	21.9	8.6	0.081	<0.181	41.1	<1.18	0.067	<0.995	55.6	55.1
3409-8		8	03/27/09	<0.673	1.78	50.7	0.223	<0.0606	36.6	--	5.66	7.26	3.7	0.038	0.566	19.6	<0.875	0.021	<0.74	26.4	19.5
3509-5	3509	5	03/27/09	<0.945	8.1	50.7	0.34	0.2	62.6	0.784	7.78	24.4	19.1	0.16	0.432	40.6	<1.23	0.063	<1.04	52.8	68.9
3509-8		8	03/27/09	<0.912	7.82	154	0.363	0.248	32.2	--	5.5	8.64	3.36	0.032	0.439	28.2	<1.19	0.061	<1	30.2	26.5
3609-8	3609	10	03/27/09	<0.898	1.21	84.1	0.223	0.184	34.9	--	6.28	7.85	14.2	0.055	<0.18	19.2	<1.17	0.031	<0.987	24.4	27.2
3709-8	3709	10	03/27/09	<0.998	5.24	258	0.563	0.234	45.5	--	9.68	14.7	4.2	0.043	<0.2	55.6	<1.3	0.16	<1.1	41.2	40.0
3809-5	3809	5	03/27/09	<0.909	5.02	74.1	0.365	0.11	58.7	0.766	7.26	22.2	20.3	0.13	0.514	39.9	<1.18	0.057	<1	48.7	48.0
3809-8		8	03/27/09	<0.919	1.21	87.5	0.2	0.219	32.2	--	7	7.45	3.47	0.038	<0.184	24.6	<1.19	0.029	<1.01	22.6	26.0
Area of Concern 3																					
0609-8	0609	8	03/27/09	<0.893	2.67	19.8	0.185	0.163	29.5	--	5.42	10.4	11.9	0.083	0.179	24.4	<1.16	0.035	<0.982	22.2	36.0
0609-20		20	03/24/09	<0.825	<0.825	44.9	0.253	<0.0743	30.5	--	4.34	5.75	2.12	0.038	<0.165	18.2	<1.07	0.034	<0.908	21.2	19.7
0709-8	0709	8	03/24/09	<0.849	1.44	84.2	0.25	0.136	34.2	--	26	6.67	13.5	0.042	0.188	27.1	<1.1	0.012	<0.934	27.0	25.8
0709-16		16	03/24/09	<0.951	<0.951	260	0.479	<0.0856	46.3	--	5.66	10.5	3.94	0.037	0.205	28.6	<1.24	0.074	<1.05	44.3	51.3
0809-16	0809	18	03/24/09	<0.962	1.29	272	0.514	<0.0865	28.0	--	5.9	20.2	4.07	0.051	<0.192	41.4	<1.25	0.1	<1.06	21.7	43.4
0909-16	0909	18	03/24/09	<1.02	<1.02	166	0.42	<0.0915	28.9	--	2.92	10.0	4.14	0.045	<0.203	20.4	<1.32	0.047	<1.12	18.9	20.3

Notes:

-- = ESL not established or analyte not analyzed
 Values in bold indicate analyte detected above the laboratory reporting limit.
 Values shaded in blue indicate analyte detected above "Soil" ESL¹

1. Environmental Screening Levels, San Francisco Bay Regional Water Quality Control Board, Feb. 2016 (Rev.3), Table T2-1: Tier 2 ESL Input and Output. Inputs: Land Use - Commercial or Industrial; Groundwater Use - Drinking Water Resource; MCL Priority over Risk-Based Levels - No; Intact Building Slab - No -or- Unknown; Groundwater Depth for GW VI - Shallow Groundwater; Soil Type for GW VI - Fine to Coarse Scenario; Soil Contamination Depth - Shallow Soil. Output: Soil (mg/kg).

Abbreviations

ft bgs = feet below ground surface
 mg/kg = milligram per kilogram
 ESL = Environmental Screening Level

Table 2. 2009 Soil Analytical Results - Total Petroleum Hydrocarbons
Adeline Maintenance Center Technical Memo

Alisto Sample ID	Boring Location	Sample Depth (ft bgs)	Sample Date	TPH-g	TPH-d	TPH-mo	Oil and Grease
EPA Method				8015B	8015B	8015B	1644
Units				mg/kg	mg/kg	mg/kg	mg/kg
Soil ESL¹				500	570	5100	--
Area of Concern 1							
2509-8	2509	8	03/26/09	<5.7	27	270	2,700
2609-8	2609	8	03/26/09	<5.7	<1.5	34 T	176
2909-7	2909	7	03/26/09	600	140 T	76 T	42.4
2909-10		10	03/26/09	320	<1.5	<18	333
3009-7	3009	7	03/26/09	2,500	600 T	230 T	865
3009-10		10	03/26/09	660	120	37 T	48.1
3109-8	3109	8	03/26/09	2,100	170 T	66 T	37.1
3109-12		12	03/26/09	2,400	120 T	53	81.9
Area of Concern 2							
3209-8	3209	10	03/27/09	110	<1.5	890	564
3309-8	3309	10	03/27/09	10	<1.5	23 T	55.3
3409-5	3409	5	03/27/09	<0.57	<1.5	350	147
3409-8		8	03/27/09	<5.7	<1.5	3,400	2,340
3509-5	3509	5	03/27/09	5.6	<1.5	12,000	2,230
3509-8		8	03/27/09	<5.7	<1.5	52 T	38.8
3609-8	3609	10	03/27/09	<0.57	<1.5	32 T	60.5
3709-8	3709	10	03/27/09	<0.57	<1.5	<18	333
3809-5	3809	5	03/27/09	<0.57	<1.5	96 T	89.9
3809-8		8	03/27/09	<0.57	<1.5	<18	36.8
Area of Concern 3							
0609-8	0609	8	03/27/09	<0.57	<1.5	<18	43.6
0609-20		20	03/24/09	<0.57	<1.5	<18	333
0709-8	0709	8	03/24/09	<0.57	<1.5	<18	43.5
0709-16		16	03/24/09	<0.57	<1.5	<18	26.3
0809-16	0809	18	03/24/09	<0.57	<1.5	<18	30.7
0909-16	0909	18	03/24/09	<0.57	26 T	490	37.4

Notes:

-- = ESL not established

Values in **bold** indicate analyte detected above the laboratory reporting limit.

Values **shaded in blue** indicate analyte detected above "Soil" ESL¹

1. Environmental Screening Levels, San Francisco Bay Regional Water Quality Control Board, Feb. 2016 (Rev.3), Table T2-1: Tier 2 ESL Input and Output. Inputs: Land Use - Commercial or Industrial; Groundwater Use - Drinking Water Resource; MCL Priority over Risk-Based Levels - No; Intact Building Slab - No -or- Unknown; Groundwater Depth for GW VI - Shallow Groundwater; Soil Type for GW VI - Fine to Coarse Scenario; Soil Contamination Depth - Shallow Soil. Output: Soil (mg/kg).

Abbreviations

ft bgs = feet below ground surface

mg/kg = milligram per kilogram

T = A "T" qualifier indicates that diesel/gasoline pattern is atypical.

TPH-g = total petroleum hydrocarbons as gasoline

TPH-d = total petroleum hydrocarbons as diesel

TPH-mo = total petroleum hydrocarbons as motor oil

Table 3. 2009 Soil Analytical Results - Volatile Organic Compounds Adeline Maintenance Center Technical Memo

Alisto Sample ID	Boring Location	Sample Depth (ft bgs)	Date	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE	1-CHLOROBUTANE	2-BUTANONE	ACETONE	ACROLEIN	BENZENE	CARBON DISULFIDE	CHLOROACETONITRILE	CHLOROETHANE	CHLOROMETHANE	DIBROMOCHLOROPROPANE	DIBROMOMETHANE	DICHLORODIFLUOROMETHANE	
EPA Method				8260B	8260B	8260B	8260B	8260B	8260B	8260B	8260B	8260B	8260B	8260B	8260B	8260B	8260B	8260B
Units				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Soil ESL¹				--	--	--	--	0.5	--	0.044	--	--	1.1	29	0.0045	--	--	
Area of Concern 1																		
2509-8	2509	8	03/26/09	<0.17	<0.19	<0.25	<0.64	<0.75	<0.68	<0.23	<0.32	<0.29	<0.48	<0.53	<0.32	<0.24	<0.35	
2609-8	2609	8	03/26/09	<0.17	<0.19	<0.25	<0.64	<0.75	<0.68	<0.23	<0.32	<0.29	<0.48	<0.53	<0.32	<0.24	<0.35	
2909-7	2909	7	03/26/09	<0.17	<0.19	<0.25	<0.64	<0.75	<0.68	<0.23	<0.32	<0.29	<0.48	<0.53	<0.32	<0.24	<0.35	
2909-10		10	03/26/09	<0.25	<0.22	<0.75	<0.23	<1.2	<0.32	<0.48	<0.27	<0.22	7.3	<0.52	<0.18	<0.17	<0.33	
3009-7	3009	7	03/26/09	<0.17	<0.19	<0.25	<0.64	<0.75	<0.68	<0.23	<0.32	<0.29	<0.48	<0.53	<0.32	<0.24	<0.35	
3009-10		10	03/26/09	<0.25	<0.22	<0.75	<0.23	<1.2	<0.32	<0.48	<0.27	0.28	5.2	<0.52	0.42	<0.17	<0.33	
3109-8	3109	8	03/26/09	<0.17	<0.19	<0.25	<0.64	<0.75	<0.68	<0.23	<0.32	<0.29	<0.48	<0.53	<0.32	<0.24	<0.35	
3109-12		12	03/26/09	9.0	2.0	<0.25	<0.64	<0.75	<0.68	<0.23	<0.32	<0.29	<0.48	<0.53	<0.32	<0.24	<0.35	
Area of Concern 2																		
3209-8	3209	10	03/27/09	<0.17	<0.19	<0.25	<0.64	<0.75	<0.68	<0.23	<0.32	<0.29	<0.48	<0.53	<0.32	<0.24	<0.35	
3309-8	3309	10	03/27/09	<0.17	<0.19	<0.25	<0.64	<0.75	<0.68	<0.23	<0.32	<0.29	<0.48	<0.53	<0.32	<0.24	<0.35	
3409-5	3409	5	03/27/09	<0.017	<0.019	<0.025	<0.064	0.79	<0.068	<0.023	<0.032	<0.029	<0.048	0.071	<0.032	<0.024	<0.035	
3409-8		8	03/27/09	<0.25	<0.22	<0.75	<0.23	<1.2	<0.32	<0.48	<0.27	<0.22	6.0	<0.52	<0.18	<0.17	<0.33	
3509-5	3509	5	03/27/09	0.053	0.03	<0.025	0.13	0.46	<0.068	<0.023	<0.032	<0.029	<0.048	0.07	<0.032	<0.024	<0.035	
3509-8		8	03/27/09	<0.25	<0.22	<0.75	<0.23	<1.2	<0.32	<0.48	<0.27	<0.22	9.8	<0.52	<0.18	<0.17	<0.33	
3609-8	3609	10	03/27/09	<0.017	<0.019	<0.025	<0.064	0.19	<0.068	<0.023	0.075	<0.029	0.048	0.053	<0.032	<0.024	0.035	
3709-8	3709	10	03/27/09	<0.017	<0.019	<0.025	<0.064	0.22	<0.068	<0.023	<0.032	<0.029	<0.048	<0.053	<0.032	<0.024	<0.035	
3809-5	3809	5	03/27/09	<0.017	<0.019	<0.025	0.12	0.59	<0.068	<0.023	<0.032	<0.029	<0.048	<0.053	<0.032	<0.024	<0.035	
3809-8		8	03/27/09	<0.025	<0.022	0.15	<0.023	<0.12	0.097	<0.048	<0.027	<0.022	3.0	<0.021	<0.018	<0.017	<0.033	
Area of Concern 3																		
0609-8	0609	8	03/27/09	<0.017	<0.019	<0.025	<0.064	0.23	<0.068	<0.023	<0.032	<0.029	<0.048	<0.053	<0.032	<0.024	<0.035	
0609-20		20	03/24/09	<0.025	<0.022	0.21	<0.023	<0.12	<0.032	<0.048	<0.027	<0.022	2.2	<0.021	<0.018	<0.017	<0.033	
0709-8	0709	8	03/24/09	<0.017	<0.019	<0.025	<0.064	0.13	<0.068	<0.023	<0.032	<0.029	<0.048	<0.053	<0.032	<0.024	<0.035	
0709-16		16	03/24/09	<0.025	<0.022	0.25	<0.023	<0.12	<0.032	<0.048	<0.027	<0.022	5.7	<0.021	<0.018	<0.017	<0.033	
0809-16	0809	18	03/24/09	<0.017	<0.019	<0.025	<0.064	0.27	<0.068	<0.023	<0.032	<0.029	<0.048	<0.053	<0.032	<0.024	<0.035	
0909-16	0909	18	03/24/09	0.029	<0.019	<0.025	<0.064	1.9	<0.068	<0.023	<0.032	<0.029	<0.048	<0.053	<0.032	<0.024	<0.035	

Table 3. 2009 Soil Analytical Results - Volatile Organic Compounds Adeline Maintenance Center Technical Memo

Alisto Sample ID	Boring Location	Sample Depth (ft bgs)	Date	ETHYL ACETATE	ETHYL BENZENE	ISOPROPYLBENZENE	M+P XYLENES	METHYLENE CHLORIDE	NAPHTHALENE	N-BUTYLBENZENE	N-PROPYLBENZENE	O-XYLENE	TERT-BUTYLBENZENE
EPA Method				8260B	8260B	8260B	8260B	8260B	8260B	8260B	8260B	8260B	8260B
Units				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Soil ESL¹				--	1.4	--	2.3	0.077	0.033	--	--	--	--
Area of Concern 1													
2509-8	2509	8	03/26/09	<0.38	<0.27	<0.22	<0.29	1.2	<0.52	<0.19	<0.18	<0.23	<0.16
2609-8	2609	8	03/26/09	<0.38	<0.27	<0.22	<0.29	1.8	<0.52	<0.19	<0.18	<0.23	<0.16
2909-7	2909	7	03/26/09	<0.38	<0.27	0.42	<0.29	6.9	<0.52	<0.19	1.1	<0.23	<0.16
2909-10		10	03/26/09	<0.33	<0.2	<0.22	<0.29	7.3	<0.52	<0.19	<0.18	<0.23	<0.16
3009-7	3009	7	03/26/09	<0.38	<0.27	1.9	<0.29	8.8	<0.52	<0.19	<0.18	<0.23	<0.16
3009-10		10	03/26/09	<0.33	<0.2	0.28	<0.29	5.2	<0.52	<0.19	0.42	<0.23	<0.16
3109-8	3109	8	03/26/09	<0.38	<0.27	1.0	<0.29	6.3	4.3	<0.19	2.3	<0.23	<0.16
3109-12		12	03/26/09	<0.38	1.8	0.6	3.3	0.82	2.4	<0.19	1.6	0.81	0.3
Area of Concern 2													
3209-8	3209	10	03/27/09	<0.38	<0.27	<0.22	<0.29	3.9	<0.52	<0.19	<0.18	<0.23	<0.16
3309-8	3309	10	03/27/09	<0.38	<0.27	<0.22	<0.29	1.2	<0.52	<0.19	<0.18	<0.23	<0.16
3409-5	3409	5	03/27/09	<0.038	<0.027	<0.022	<0.029	6.7	<0.052	<0.019	<0.018	<0.023	<0.016
3409-8		8	03/27/09	<0.33	<0.2	<0.22	<0.29	6.0	<0.52	<0.19	<0.18	<0.23	<0.16
3509-5	3509	5	03/27/09	<0.038	<0.027	<0.022	<0.029	4.5	<0.052	0.069	<0.018	<0.023	<0.016
3509-8		8	03/27/09	<0.33	<0.2	<0.22	<0.29	9.8	<0.52	<0.19	<0.18	<0.23	<0.16
3609-8	3609	10	03/27/09	<0.038	<0.027	<0.022	<0.029	3.1	<0.052	<0.019	<0.018	<0.023	<0.016
3709-8	3709	10	03/27/09	<0.038	<0.027	<0.022	<0.029	5.0	<0.052	<0.019	<0.018	<0.023	<0.016
3809-5	3809	5	03/27/09	<0.038	<0.027	<0.022	<0.029	8.6	<0.052	<0.019	<0.018	<0.023	<0.016
3809-8		8	03/27/09	<0.033	<0.02	<0.022	<0.029	3.0	<0.052	<0.019	<0.018	<0.023	<0.016
Area of Concern 3													
0609-8	0609	8	03/27/09	<0.038	<0.027	<0.022	<0.029	3.6	<0.052	<0.019	<0.018	<0.023	<0.016
0609-20		20	03/24/09	<0.033	<0.02	<0.022	<0.029	2.2	<0.052	<0.019	<0.018	<0.023	<0.016
0709-8	0709	8	03/24/09	<0.038	<0.027	<0.022	<0.029	5.1	<0.052	<0.019	<0.018	<0.023	<0.016
0709-16		16	03/24/09	<0.033	<0.02	<0.022	<0.029	5.7	<0.052	<0.019	<0.018	<0.023	<0.016
0809-16	0809	18	03/24/09	<0.038	<0.027	<0.022	<0.029	7.6	<0.052	<0.019	<0.018	<0.023	<0.016
0909-16	0909	18	03/24/09	<0.038	<0.027	<0.022	<0.029	4.6	<0.052	0.046	<0.018	<0.023	<0.016

Notes:

-- = ESL not established

Values in **bold** indicate analyte detected above the laboratory reporting limit or that reporting limit is above screening level.

Values **shaded in blue** indicate analyte detected above "Soil" ESL¹

Only analytes with detections are shown.

1. Environmental Screening Levels, San Francisco Bay Regional Water Quality Control Board, Feb. 2016 (Rev.3), Table T2-1: Tier 2 ESL Input and Output. Inputs: Land Use - Commercial or Industrial; Groundwater Use - Drinking Water Resource; MCL Priority over Risk-Based Levels - No; Intact Building Slab - No -or- Unknown; Groundwater Depth for GW VI - Shallow Groundwater; Soil Type for GW VI - Fine to Coarse Scenario; Soil Contamination Depth - Shallow Soil. Output: Soil (mg/kg).

Abbreviations:

ft bgs = feet below ground surface

mg/kg = milligram per kilogram

Table 4. 2009 Soil Analytical Results - Semivolatile Organic Compounds Adeline Maintenance Center Technical Memo

Alisto Sample ID	Boring Location	Sample Depth (ft bgs)	Date	1,4-DICHLOROBENZENE	2-METHYLNAPHTHALENE	ACENAPHTHENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZO(B)FLUORANTHENE	BENZO(GH)PERYLENE	BENZO(K)FLUORANTHENE	BIS(2-ETHYLHEXYL)PHTHALATE	CHRYSENE	FLUORANTHENE	FLUORENE	INDENO(1,2,3-CD)PYRENE	NAPHTHALENE	PHENANTHRENE	PHENOL	PYRENE	
EPA Method				8270C	8270C	8270C	8270C	8270C	8270C	8270C	8270C	8270C	8270C	8270C	8270C	8270C	8270C	8270C	8270C	8270C	8270C
Units				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Soil ESL ¹				0.59	0.25	16	2.9	0.29	2.9	2.5	2.6	160	3.8	60	8.9	2.9	0.033	11	0.076	85	
Area of Concern 1																					
2509-8	2509	8	03/26/09	<0.022	<0.063	<0.027	0.16	0.17	0.12	0.14	0.16	0.085	0.26	0.32	<0.039	0.098	0.035	0.22	0.38	0.41	
2609-8	2609	8	03/26/09	<0.022	<0.063	<0.027	<0.078	<0.065	<0.05	<0.12	<0.042	<0.076	<0.061	<0.2	<0.039	<0.068	<0.021	<0.062	0.36	<0.15	
2909-7	2909	7	03/26/09	<0.022	0.082	<0.027	<0.078	<0.065	<0.05	<0.12	<0.042	<0.076	<0.061	<0.2	<0.039	<0.068	0.083	<0.062	0.22	<0.15	
2909-10		10	03/26/09	<0.28	<0.063	<0.027	<0.078	<0.065	<0.05	<0.12	<0.042	<0.076	<0.061	<0.2	<0.039	<0.068	<0.52	<0.062	0.97	<0.15	
3009-7	3009	7	03/26/09	<0.022	2.2	0.057	<0.078	<0.065	<0.05	<0.12	<0.042	<0.076	0.071	<0.2	0.039	<0.068	0.32	0.12	0.33	0.19	
3009-10		10	03/26/09	<0.28	<0.063	<0.027	<0.078	<0.065	<0.05	<0.12	<0.042	<0.076	<0.061	<0.2	<0.039	<0.068	<0.52	<0.062	0.17	<0.15	
3109-8	3109	8	03/26/09	<0.022	<0.063	<0.027	<0.078	<0.065	<0.05	<0.12	<0.042	<0.076	<0.061	<0.2	<0.039	<0.068	0.89	<0.062	0.093	<0.15	
3109-12		12	03/26/09	<0.28	0.47	<0.027	<0.078	<0.065	<0.05	<0.12	<0.042	<0.076	<0.061	<0.2	<0.039	<0.068	2.4	<0.062	0.14	<0.15	
Area of Concern 2																					
3209-8	3209	10	03/27/09	<0.022	<0.063	<0.027	<0.078	<0.065	<0.05	<0.12	<0.042	<0.076	<0.061	<0.2	<0.039	<0.068	<0.021	<0.062	0.17	<0.15	
3309-8	3309	10	03/27/09	<0.022	<0.063	<0.027	<0.078	<0.065	<0.05	<0.12	<0.042	<0.076	<0.061	<0.2	<0.039	<0.068	<0.021	<0.062	0.35	<0.15	
3409-5	3409	5	03/27/09	<0.022	<0.063	<0.027	<0.078	<0.065	<0.05	<0.12	<0.042	<0.076	<0.061	<0.2	<0.039	<0.068	<0.021	<0.062	0.17	<0.15	
3409-8		8	03/27/09	<0.28	<0.063	<0.027	<0.078	<0.065	<0.05	<0.12	<0.042	<0.076	<0.061	<0.2	<0.039	<0.068	<0.52	<0.062	0.61	<0.15	
3509-5	3509	5	03/27/09	<0.022	<0.063	<0.027	<0.078	<0.065	<0.05	<0.12	<0.042	0.23	<0.061	<0.2	<0.039	<0.068	<0.021	0.077	0.31	<0.15	
3509-8		8	03/27/09	<0.28	<0.063	<0.027	<0.078	<0.065	<0.05	<0.12	<0.042	<0.076	<0.061	<0.2	<0.039	<0.068	<0.52	<0.062	0.35	<0.15	
3609-8	3609	10	03/27/09	<0.022	<0.063	<0.027	<0.078	<0.065	<0.05	<0.12	<0.042	<0.076	<0.061	<0.2	<0.039	<0.068	<0.021	<0.062	0.74	<0.15	
3709-8	3709	10	03/27/09	<0.022	<0.063	<0.027	<0.078	<0.065	<0.05	<0.12	<0.042	<0.076	<0.061	<0.2	<0.039	<0.068	<0.021	<0.062	0.26	<0.15	
3809-5	3809	5	03/27/09	0.022	<0.063	<0.027	<0.078	<0.065	<0.05	<0.12	<0.042	<0.076	<0.061	<0.2	<0.039	<0.068	<0.021	<0.062	0.15	<0.15	
3809-8		8	03/27/09	<0.022	<0.063	<0.027	<0.078	<0.065	<0.05	<0.12	<0.042	<0.076	<0.061	<0.2	<0.039	<0.068	<0.021	<0.062	<0.045	<0.15	
Area of Concern 3																					
0609-8	609	8	03/27/09	<0.022	<0.063	<0.027	0.15	0.21	0.12	0.13	0.19	<0.076	0.19	<0.2	<0.039	0.1	<0.021	<0.062	0.14	0.16	
0609-20		20	03/24/09	<0.022	<0.063	<0.027	<0.078	<0.065	<0.05	<0.12	<0.042	<0.076	<0.061	<0.2	<0.039	<0.068	<0.021	<0.062	0.66	<0.15	
0709-8	709	8	03/24/09	<0.022	<0.063	<0.027	<0.078	<0.065	<0.05	<0.12	<0.042	<0.076	<0.061	<0.2	<0.039	<0.068	<0.021	<0.062	1.7	<0.15	
0709-16		16	03/24/09	<0.022	<0.063	<0.027	<0.078	<0.065	<0.05	<0.12	<0.042	<0.076	<0.061	<0.2	<0.039	<0.068	<0.021	<0.062	0.76	<0.15	
0809-16	809	18	03/24/09	<0.022	<0.063	<0.027	<0.078	<0.065	<0.05	<0.12	<0.042	<0.076	<0.061	<0.2	<0.039	<0.068	<0.021	<0.062	0.52	<0.15	
0909-16	909	18	03/24/09	<0.022	<0.063	<0.027	<0.078	<0.065	<0.05	<0.12	<0.042	<0.076	<0.061	<0.2	<0.039	<0.068	<0.021	<0.062	0.67	<0.15	

Notes:
 Values in **bold** indicate analyte detected above the laboratory reporting limit.
 Values **shaded in blue** indicate analyte detected above "Soil" ESL¹
 Only analytes with detections are shown.

1. Environmental Screening Levels, San Francisco Bay Regional Water Quality Control Board, Feb. 2016 (Rev.3), Table T2-1: Tier 2 ESL Input and Output. Inputs: Land Use - Commercial or Industrial; Groundwater Use - Drinking Water Resource; MCL Priority over Risk-Based Levels - No; Intact Building Slab - No -or- Unknown; Groundwater Depth for GW VI - Shallow Groundwater; Soil Type for GW VI - Fine to Coarse Scenario; Soil Contamination Depth - Shallow Soil. Output: Soil (mg/kg).

Abbreviations:
 ft bgs = feet below ground surface
 mg/kg = milligram per kilogram

Table 5. 2009 Groundwater Analytical Results - Metals Adeline Maintenance Center Technical Memo

Alisto Sample ID	Boring Location	Sample Depth (ft bgs)	Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	
EPA Method				6010B	6010B	6010B	6010B	6010B	6010B	6010B	6010B	6010B	7470	6010B	6010B	6010B	7761	6010B	6010B	6010B	
Units				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Groundwater ESL¹				6	10	1000	1	0.04	50	3	3.1	0.2	0.051	100	8.2	5	0.19	0.1	19	81	
Area of Concern 2																					
1109	1109	13	03/24/09	<13.2	<12.1	227	<0.55	1.12	<3.3	1.5	<3.3	<5.5	<0.02	6.25	8.29	<9.9	<0.04	<14.3	<4.4	<4.4	
1209	1209	13	03/24/09	<13.2	12.2	459	<0.55	2.33	86.4	16.5	32	7.51	0.089	8.89	77.8	<9.9	0.16	<14.3	64.6	52.3	
1309	1309	13	03/27/09	<13.2	<12.1	261	<0.55	<0.99	8.07	3.52	<3.3	<5.5	<0.02	12.9	12.2	<9.9	<0.04	<14.3	<4.4	6.66	
1409	1409	13	03/27/09	<13.2	<12.1	224	<0.55	<0.99	42.6	15.5	28.6	25.4	0.12	11.8	36.2	<9.9	0.06	<14.3	28.1	76.6	
1509	1509	13	03/27/09	<13.2	18	3,770	2.75	2.55	370	100	77.3	32.5	0.26	6.49	384	<9.9	0.34	<14.3	311	207	
1609	1609	13	03/27/09	Not analyzed - insufficient volume																	
3509	3509	13	03/27/09	Not analyzed - insufficient volume																	
3609	3609	13	03/27/09	Not analyzed - insufficient volume																	
3709	3709	13	03/27/09	Not analyzed - insufficient volume																	
Area of Concern 3																					
0109	0109	13	03/23/09	<13.2	<12.1	716	<0.55	<0.99	79.7	10.5	22	<5.5	0.11	7.47	52	<9.9	0.09	<14.3	55.1	61.9	
0209	0209	13	03/23/09	Not analyzed - insufficient volume																	
0309	0309	13	03/23/09	<13.2	66	3,870	3.91	2.66	606	85.3	132	40.5	0.29	<2.2	414	<9.9	0.58	<14.3	452	325	
0409	0409	13	03/23/09	Not analyzed - insufficient volume																	
0509	0509	13	03/23/09	<13.2	<12.1	690	<0.55	<0.99	29.2	4.07	5.72	<5.5	0.036	10	21.1	<9.9	0.06	<14.3	14.5	12.8	
0609	0609	13	03/24/09	Not analyzed - insufficient volume																	
0709	0709	13	03/24/09	Not analyzed - insufficient volume																	
0809	0809	13	03/24/09	<13.2	<12.1	729	<0.55	<0.99	14.4	1.18	5.7	<5.5	0.024	2.57	11.4	<9.9	0.041	<14.3	7.52	13.7	
0909	0909	13	03/24/09	<13.2	<12.1	392	<0.55	<0.99	7.98	<1.1	<3.3	<5.5	0.023	4.54	6.09	<9.9	<0.04	<14.3	<4.4	<4.4	
1009	1009	13	03/24/09	Not analyzed - insufficient volume																	

Notes:

-- = ESL not established

Values in **bold** indicate analyte detected above the laboratory reporting limit.

Values **shaded in blue** indicate analyte detected above "Groundwater" ESL¹

1. Environmental Screening Levels, San Francisco Bay Regional Water Quality Control Board, Feb. 2016 (Rev.3), Table T2-1: Tier 2 ESL Input and Output. Inputs: Land Use - Commercial or Industrial; Groundwater Use - Drinking Water Resource; MCL Priority over Risk-Based Levels - No; Intact Building Slab - No -or- Unknown; Groundwater Depth for GW VI - Shallow Groundwater; Soil Type for GW VI - Fine to Coarse Scenario; Soil Contamination Depth - Shallow Soil. Output: Groundwater (µg/L).

Abbreviations:

ft bgs = feet below ground surface

µg/L = micrograms per liter

Table 6. 2009 Groundwater Analytical Results - Total Petroleum Hydrocarbons
Adeline Maintenance Center Technical Memo

Alisto Sample ID	Boring Location	Sample Depth (ft bgs)	Sample Date	TPH-g	TPH-d	TPH-mo	Oil and Grease
EPA Method				8015B	8015B	8015B	1644
Units				µg/L	µg/L	µg/L	µg/L
Groundwater ESL¹				100	100	--	--
Area of Concern 1							
1709	1709	13	03/26/09	--	<20	<260	<17
1809	1809	13	03/26/09	--	430 T	<260	--
1909	1909	13	03/26/09	360	<20	<260	<7.1
2009	2009	13	03/26/09	760	280 T	<260	<9.1
2109	2109	13	03/26/09	1,200	<20	<260	<9.3
2209	2209	13	03/26/09	1,100	98 T	<260	<9.1
2309	2309	13	03/26/09	2,500	2,200	2,200	<10
2609	2609	13	03/27/09	<57	<20	<260	<8
2809	2809	13	03/26/09	87 T	<20	<260	<7.1
2909	2909	13	03/27/09	4,900 J	1,200 T	<260	<7.8
Area of Concern 2							
1109	1109	13	03/24/09	<57	<20	<260	<7.3
1209	1209	13	03/24/09	<57	<20	<260	<8
1309	1309	13	03/27/09	<57	<20	7,000	<7
1409	1409	13	03/27/09	<57	<20	<260	<8
1509	1509	13	03/27/09	120	<20	<260	<8
1609	1609	13	03/27/09	--	<20	<260	--
3509	3509	13	03/27/09	--	<20	5,800	<9.4
3609	3609	13	03/27/09	--	--	<260	<11
3709	3709	13	03/27/09	<57	<20	<260	<11
Area of Concern 3							
0109	0109	13	03/23/09	150	<20	22,600	<7.3
0209	0209	13	03/23/09	<57	<20	<260	<8
0309	0309	13	03/23/09	<57	<20	2,200 T	<8.3
0409	0409	13	03/23/09	<57	<20	<260	<8
0509	0509	13	03/23/09	140 J	2,300	24,000	<8
0609	0609	13	03/24/09	<57	<20	1,900 T	<8.2
0709	0709	13	03/24/09	<57	<20	<260	<7.4
0809	0809	13	03/24/09	<57	<20	1,600 T	<8
0909	0909	13	03/24/09	90	<20	13,000	<7.1
1009	1009	13	03/24/09	--	17,600	185,000	7.8

Notes:

-- = ESL not established or analyte not analyzed

Values in **bold** indicate analyte detected above the laboratory reporting limit or reporting limit is above Groundwater ESL.

Values **shaded in blue** indicate analyte detected above "Groundwater" ESL¹

1. Environmental Screening Levels, San Francisco Bay Regional Water Quality Control Board, Feb. 2016 (Rev.3), Table T2-1: Tier 2 ESL Input and Output. Inputs: Land Use - Commercial or Industrial; Groundwater Use - Drinking Water Resource; MCL Priority over Risk-Based Levels - No; Intact Building Slab - No -or- Unknown; Groundwater Depth for GW VI - Shallow Groundwater; Soil Type for GW VI - Fine to Coarse Scenario; Soil Contamination Depth - Shallow Soil. Output: Groundwater (µg/L).

ft bgs = feet below ground surface

mg/kg = milligram per kilogram

T = A "T" qualifier indicates that diesel/gasoline pattern is atypical.

J = The result is an estimate quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

TPH-g = total petroleum hydrocarbons as gasoline

TPH-d = total petroleum hydrocarbons as diesel

TPH-mo = total petroleum hydrocarbons as motor oil

Table 7. 2009 Groundwater Analytical Results - Volatile Organic Compounds Adeline Maintenance Center Technical Memo

Alisto Sample ID	Boring Location	Sample Depth (ft bgs)	Sample Date	1,1-DICHLORO-2-PROPANONE	1,2,3-TRICHLOROBENZENE	1,2,4-TRIMETHYLBENZENE	1,3,5-TRIMETHYLBENZENE	2-BUTANONE	ACETONE	BENZENE	BROMODICHLOROMETHANE	CARBON DISULFIDE	CHLOROFORM	CIS-1,2-DICHLOROETHENE	ETHYL BENZENE	ETHYL ETHER	HEXACHLOROBUTADIENE	HEXACHLOROETHANE	ISOPROPYLBENZENE	
EPA Method				8260B	8260B	8260B	8260B	8260B	8260B	8260B	8260B	8260B	8260B	8260B	8260B	8260B	8260B	8260B	8260B	
Units				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Groundwater ESL ¹				--	--	--	--	--	1500	0.15	0.12	--	0.23	6	1.5	--	0.14	0.33	--	
Area of Concern 1																				
1709	1709	13	03/26/09	Not analyzed - sample contained more than 30% soil																
1809	1809	13	03/26/09	Not analyzed - sample contained more than 30% soil																
1909	1909	13	03/26/09	<0.38	<0.82	<0.81	<0.69	<1.7	2.4	4.5	0.73	<0.61	<0.57	<0.58	<0.51	<0.66	<0.84	<0.82	1.3	
2009	2009	13	03/26/09	<0.38	<0.82	9.1	1.4	2.9	7.3	3.9	<0.58	0.69	<0.57	<0.58	5.7	<0.66	<0.84	<0.82	3.4	
2109	2109	13	03/26/09	<0.38	<0.82	59	19	5.2	12	5.6	<0.58	<0.61	<0.57	<0.58	24	<0.66	<0.84	<0.82	2.6	
2209	2209	13	03/26/09	<0.38	<0.82	1.1	<0.69	4.2	12	6.8	<0.58	0.74	<0.57	<0.58	<0.51	2.1	<0.84	<0.82	7.3	
2309	2309	13	03/26/09	<0.38	<0.82	2.6	1.1	<1.7	7.0	22	<0.58	<0.61	<0.57	<0.58	21	<0.66	<0.84	<0.82	13	
2609	2609	13	03/27/09	<0.38	<0.82	<0.81	<0.69	3.3	15	1.4	<0.58	<0.61	<0.57	<0.58	<0.51	<0.66	<0.84	<0.82	<0.5	
2809	2809	13	03/26/09	<0.38	<0.82	<0.81	<0.69	<1.7	<2	<0.58	<0.58	<0.61	<0.57	<0.58	<0.51	<0.66	<0.84	<0.82	<0.5	
2909	2909	13	03/27/09	<0.38	<0.82	<0.81	<0.69	22	32	5.8	<0.58	<0.61	<0.57	<0.58	2.8	1.4	<0.84	<0.82	43	
Area of Concern 2																				
1109	1109	13	03/24/09	<0.38	<0.82	<0.81	<0.69	<1.7	<2	<0.58	<0.58	<0.61	<0.57	<0.58	<0.51	<0.66	<0.84	<0.82	<0.5	
1209	1209	13	03/24/09	<0.38	<0.82	<0.81	<0.69	<1.7	<2	<0.58	<0.58	<0.61	<0.57	<0.58	<0.51	<0.66	<0.84	<0.82	<0.5	
1309	1309	13	03/27/09	<0.38	<0.82	<0.81	<0.69	23	5.4	<0.58	<0.58	<0.61	<0.57	<0.58	<0.51	<0.66	<0.84	<0.82	<0.5	
1409	1409	13	03/27/09	<0.38	<0.82	<0.81 UJ	<0.69 UJ	21	4.3	<0.58	<0.58	<0.61	<0.57	<0.58	<0.51	<0.66	<0.84 UJ	<0.82 UJ	<0.5	
1509	1509	13	03/27/09	<0.38	<0.82	<0.81	<0.69	7.0	6.0	<0.58	<0.58	<0.61	1.5	<0.58	<0.51	<0.66	<0.84	<0.82	<0.5	
1609	1609	13	03/27/09	Not analyzed - insufficient volume																
3509	3509	13	03/27/09	Not analyzed - sample contained more than 30% soil																
3609	3609	13	03/27/09	Not analyzed - insufficient volume																
3709	3709	13	03/27/09	<0.38	<0.82	<0.81	<0.69	13	13	0.76	<0.58	<0.61	<0.57	<0.58	<0.51	<0.66	<0.84	<0.82	<0.5	
Area of Concern 3																				
0109	0109	13	03/23/09	<0.38	1.2	6.5	<0.69	77	17	1.6	<0.58	0.83	<0.57	1.2	<0.51	<0.66	1.0	<0.82	<0.5	
0209	0209	13	03/23/09	<0.38	<0.82	<0.81	<0.69	170	20	<0.58	<0.58	0.70	<0.57	<0.58	<0.51	<0.66	<0.84	<0.82	<0.5	
0309	0309	13	03/23/09	<0.38	<0.82	<0.81	<0.69	2.3	<2	<0.58	<0.58	<0.61	<0.57	<0.58	<0.51	<0.66	<0.84	<0.82	<0.5	
0409	0409	13	03/23/09	<0.38	<0.82	<0.81	<0.69	<1.7	<2	<0.58	<0.58	0.98	<0.57	<0.58	<0.51	<0.66	<0.84	<0.82	<0.5	
0509	0509	13	03/23/09	<0.38	<0.82	4.7	0.83	<1.7	3.9	1.5	<0.58	1.4	<0.57	0.72	<0.51	<0.66	<0.84	<0.82	<0.5	
0609	0609	13	03/24/09	<0.38	<0.82 UJ	<0.81	<0.69	<1.7	4.3	<0.58	<0.58	0.62	<0.57	<0.58	<0.51	<0.66	<0.84 UJ	<0.82	<0.5	
0709	0709	13	03/24/09	<0.38	<0.82	<0.81	<0.69	30	9.7	<0.58	<0.58	<0.61	<0.57	<0.58	<0.51	<0.66	<0.84	<0.82	<0.5	
0809	0809	13	03/24/09	<0.38	<0.82	<0.81	<0.69	<1.7	5.7	0.85	<0.58	<0.61	<0.57	<0.58	<0.51	<0.66	<0.84	<0.82	<0.5	
0909	0909	13	03/24/09	0.49	<0.82	2.1	<0.69	2.4	9.0	0.89	<0.58	<0.61	<0.57	1.7	<0.51	<0.66	<0.84	0.88	<0.5	
1009	1009	13	03/24/09	Not analyzed - insufficient volume																

Table 7. 2009 Groundwater Analytical Results - Volatile Organic Compounds Adeline Maintenance Center Technical Memo

Alisto Sample ID	Boring Location	Sample Depth (ft bgs)	Sample Date	M+P XYLENES	METHYL-T-BUTYL ETHER	NAPHTHALENE	N-BUTYLBENZENE	NITROBENZENE	N-PROPYLBENZENE	O-XYLENE	P-CHLOROTOLUENE	SEC-BUTYLBENZENE	TERT-BUTYL ALCOHOL	TETRAHYDROFURAN	TOLUENE	VINYL CHLORIDE
EPA Method				8260B	8260B	8260B	8260B	8260B	8260B	8260B	8260B	8260B	8260B	8260B	8260B	8260B
Units				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Groundwater ESL ¹				20	5	0.17	--	--	--	20	--	--	12	--	40	0.0097
Area of Concern 1																
1709	1709	13	03/26/09	Not analyzed - sample contained more than 30% soil												
1809	1809	13	03/26/09	Not analyzed - sample contained more than 30% soil												
1909	1909	13	03/26/09	<1	<1.2	1.2	<0.79	<1.5	3.4	<0.6	<0.81	<0.68	<5.6	<0.44	0.74	<1.1
2009	2009	13	03/26/09	8.1	<1.2	4.2	2.7	<1.5	5.4	2.3	<0.81	1.1	<5.6	<0.44	1.5	<1.1
2109	2109	13	03/26/09	81	1.4	12	<0.79	<1.5	8.2	34	2.2	<0.68	<5.6	<0.44	7.2	<1.1
2209	2209	13	03/26/09	1.3	59	1.4	<0.79	<1.5	7.8	<0.6	<0.81	3.2	<5.6	<0.44	0.83	<1.1
2309	2309	13	03/26/09	6.6	1.5	45	<0.79	<1.5	34	3.3	6.5	5.2	<5.6	<0.44	4.0	<1.1
2609	2609	13	03/27/09	<1	<1.2	<0.79	<0.79	<1.5	<0.63	<0.6	<0.81	<0.68	<5.6	<0.44	<0.66	<1.1
2809	2809	13	03/26/09	<1	<1.2	1.5	<0.79	<1.5	<0.63	<0.6	<0.81	<0.68	<5.6	<0.44	<0.66	<1.1
2909	2909	13	03/27/09	7.2	1.5	<0.79	19	<1.5	60	4.7	<0.81	11	<5.6	<0.44	4.3	<1.1
Area of Concern 2																
1109	1109	13	03/24/09	<1	<1.2	<0.79	<0.79	<1.5	<0.63	<0.6	<0.81	<0.68	<5.6	<0.44	<0.66	<1.1
1209	1209	13	03/24/09	<1	<1.2	<0.79	<0.79	<1.5	<0.63	<0.6	<0.81	<0.68	<5.6	<0.44	<0.66	<1.1
1309	1309	13	03/27/09	<1	1.4	<0.79	<0.79	<1.5	<0.63	<0.6	<0.81	<0.68	<5.6	<0.44	<0.66	<1.1
1409	1409	13	03/27/09	<1	<1.2	<0.79	<0.79 UJ	<1.5	<0.63	<0.6	<0.81	<0.68 UJ	<5.6	<0.44	<0.66	<1.1
1509	1509	13	03/27/09	<1	1.8	<0.79	<0.79	2.9	<0.63	<0.6	<0.81	<0.68	<5.6	<0.44	<0.66	<1.1
1609	1609	13	03/27/09	Not analyzed - insufficient volume												
3509	3509	13	03/27/09	Not analyzed - sample contained more than 30% soil												
3609	3609	13	03/27/09	Not analyzed - insufficient volume												
3709	3709	13	03/27/09	<1	2.1	<0.79	<0.79	<1.5	<0.63	<0.6	<0.81	<0.68	<5.6	<0.44	0.68	<1.1
Area of Concern 3																
0109	0109	13	03/23/09	1.4	<1.2	1.6	<0.79	<1.5	<0.63	4.4	<0.81	<0.68	13	<0.44	<0.66	<1.1
0209	0209	13	03/23/09	<1	<1.2	<0.79	<0.79	<1.5	<0.63	<0.6	<0.81	<0.68	<5.6	<0.44	<0.66	<1.1
0309	0309	13	03/23/09	<1	<1.2	<0.79	<0.79	<1.5	<0.63	<0.6	<0.81	<0.68	<5.6	<0.44	<0.66	<1.1
0409	0409	13	03/23/09	<1	<1.2	<0.79	<0.79	<1.5	<0.63	<0.6	<0.81	<0.68	<5.6	<0.44	<0.66	<1.1
0509	0509	13	03/23/09	6.7	<1.2	<0.79	<0.79	<1.5	<0.63	3.9	<0.81	<0.68	17	<0.44	<0.66	1.8
0609	0609	13	03/24/09	<1	<1.2	<0.79 UJ	<0.79	<1.5	<0.63	<0.6	<0.81	<0.68	<5.6	<0.44	<0.66	<1.1
0709	0709	13	03/24/09	<1	<1.2	<0.79	<0.79	<1.5	<0.63	<0.6	<0.81	<0.68	<5.6	<0.44	<0.66	<1.1
0809	0809	13	03/24/09	<1	<1.2	<0.79	<0.79	<1.5	<0.63	<0.6	<0.81	<0.68	19	<0.44	<0.66	<1.1
0909	0909	13	03/24/09	<1	<1.2	<0.79	<0.79	<1.5	<0.63	0.82	<0.81	<0.68	14	<0.44	<0.66	<1.1
1009	1009	13	03/24/09	Not analyzed - insufficient volume												

Note:

-- ESL not established

Values in **bold** indicate analyte detected above the laboratory reporting limit or reporting limit is above Groundwater ESL.

Values **shaded in blue** indicate analyte detected above "Groundwater" ESL¹

1. Environmental Screening Levels, San Francisco Bay Regional Water Quality Control Board, Feb. 2016 (Rev.3), Table T2-1: Tier 2 ESL Input and Output. Inputs: Land Use - Commercial or Industrial; Groundwater Use - Drinking Water Resource; MCL Priority over Risk-Based Levels - No; Intact Building Slab - No -or- Unknown; Groundwater Depth for GW VI - Shallow Groundwater; Soil Type for GW VI - Fine to Coarse Scenario; Soil Contamination Depth - Shallow Soil. Output: Groundwater (µg/L).

Abbreviations:

ft bgs = feet below ground surface

µg/L = micrograms per liter

ESL = Environmental Screening Level

J = The result is an estimate quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ = The analyte was analyzed for, but not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Table 8. 2009 Groundwater Analytical Results -Semivolatile Organic Compounds Adeline Maintenance Center Technical Memo

Alisto Sample ID	Boring Location	Sample Depth (ft bgs)	Sample Date	2-METHYLNAPHTHALENE	ANTHRACENE	BENZO(A)ANTHRACENE	BENZO(A)PYRENE	BENZOIC ACID	BENZYL ALCOHOL	BIS(2-ETHYLHEXYL)PHTHALATE	BUTYLBENZYL PHTHALATE	CHRYSENE	DI-N-BUTYL PHTHALATE	DI-N-OCTYL PHTHALATE	DIETHYL PHTHALATE	FLUORANTHENE	FLUORENE	ISOPHORONE	N-NITROSODIPHENYLAMINE	NAPHTHALENE	PHENANTHRENE	PHENOL	PYRENE
EPA Method				8270C	8270C	8270C	8270C	8270C	8270C	8270C	8270C	8270C	8270C	8270C	8270C	8270C	8270C	8270C	8270C	8270C	8270C	8270C	8270C
Units				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Groundwater ESL ¹				2.1	0.73	0.027	0.0034	--	--	4.0	--	0.049	--	--	1.5	8	3.9	--	--	0.17	4.6	5	2
Area of Concern 2																							
1109	1109	13	03/24/09	<0.43	<0.11	<0.11	<0.11	<1.1	<0.21	<0.53	<0.11	<0.053	<0.21	<0.11	<0.11	<0.11	<0.21	<0.11	<0.11	<0.21	<0.11	<0.21	<0.11
1209	1209	13	03/24/09	<0.45	<0.11	<0.11	<0.11	<1.1	<0.22	<0.56	<0.11	<0.056	0.3	<0.11	<0.11	<0.11	<0.22	<0.11	<0.11	<0.22	<0.11	0.54	<0.11
1309	1309	13	03/27/09	<0.48	<0.12	<0.12	<0.12	<1.2	<0.24	<0.6	0.13	<0.06	<0.24	<0.12	<0.12	<0.12	<0.24	<0.12	<0.12	<0.24	<0.12	1.3	<0.12
1409	1409	13	03/27/09	<0.56	<0.14	<0.14	<0.14	<1.4	<0.28	<0.69	<0.14	<0.069	<0.28	<0.14	<0.14	<0.14	<0.28	<0.14	<0.14	<0.28	<0.14	1.2	<0.14
1509	1509	13	03/27/09	<0.49	<0.12	<0.12	<0.12	<1.2	<0.25	<0.62	<0.12	<0.062	<0.25	<0.12	<0.12	<0.12	<0.25	<0.12	<0.12	<0.25	<0.12	1.1	<0.12
1609	1609	13	03/27/09	Not analyzed - insufficient volume																			
3509	3509	13	03/27/09	Not analyzed - insufficient volume																			
3609	3609	13	03/27/09	Not analyzed - insufficient volume																			
3709	3709	13	03/27/09	<0.53	<0.13	<0.13	<0.13	<1.3	<0.26	<0.66	<0.13	<0.066	<0.26	<0.13	<0.13	<0.13	<0.26	0.18	<0.13	<0.26	<0.13	0.53	<0.13
Area of Concern 3																							
0109	0109	13	03/23/09	2.1	0.19	0.23	<0.12	7.1	<0.24	7.4	<0.12	0.23	0.43	<0.12	<0.12	0.23	<0.24	<0.12	<0.12	1.0	0.4	7.8	0.52
0209	0209	13	03/23/09	<0.43	<0.11	<0.11	<0.11	<1.1	<0.21	<0.53	0.23	<0.053	<0.21	<0.11	0.17	<0.11	<0.21	<0.11	<0.11	<0.21	<0.11	9.0	<0.11
0309	0309	13	03/23/09	<0.51	<0.13	<0.13	<0.13	3.6	0.44	<0.64	0.36	0.12	<0.26	<0.13	0.14	<0.13	<0.26	<0.13	<0.13	<0.26	<0.13	3.6	<0.13
0409	0409	13	03/23/09	<0.42	<0.11	<0.11	<0.11	<1.1	<0.21	<0.53	0.2	<0.053	<0.21	<0.11	0.41	<0.11	<0.21	<0.11	<0.11	<0.21	<0.11	<0.21	<0.11
0509	0509	13	03/23/09	<0.49	<0.12	0.13	<0.12	19	<0.24	3.3	0.71	0.098	0.49	<0.12	0.43	0.12	0.27	<0.12	<0.12	<0.24	<0.12	2.7	0.22
0609	0609	13	03/24/09	<0.39	<0.097	<0.097	<0.097	<0.97	<0.19	<0.49	0.65	<0.049	1.2	<0.097	0.60	<0.097	<0.19	0.14	<0.097	<0.19	<0.097	1.7	<0.097
0709	0709	13	03/24/09	<0.4	<0.1	<0.1	0.12	<1	<0.2	<0.5	0.53	<0.05	0.35	<0.1	0.17	<0.1	<0.2	<0.1	<0.1	<0.2	<0.1	0.3	<0.1
0809	0809	13	03/24/09	<0.39	<0.098	<0.098	<0.098	<0.98	<0.2	<0.49	0.61	<0.049	0.38	<0.098	0.18	<0.098	<0.2	<0.098	<0.098	<0.2	<0.098	5.0	<0.098
0909	0909	13	03/24/09	2.5	<0.1	1.6	<0.1	23	<0.2	40	5.9	1.1	2.3	2.3	<0.1	1.4	1.8	<0.1	<0.1	<0.2	2.4	<0.2	2.9
1009	1009	13	03/24/09	<0.43	<0.11	0.25	<0.11	6.1	<0.22	5.5	1.2	0.22	1.2	<0.11	0.23	<0.11	0.54	<0.11	1.8	4.4	0.63	<0.22	0.46

Notes:

-- = ESL not established

Values in **bold** indicate analyte detected above the laboratory reporting limit or reporting limit is above Groundwater ESL.

Values **shaded in blue** indicate analyte detected above "Groundwater" ESL¹

Only analytes with detections are shown.

1. Environmental Screening Levels, San Francisco Bay Regional Water Quality Control Board, Feb. 2016 (Rev.3), Table T2-1: Tier 2 ESL Input and Output. Inputs: Land Use - Commercial or Industrial; Groundwater Use - Drinking Water Resource; MCL Priority over Risk-Based Levels - No; Intact Building Slab - No -or- Unknown; Groundwater Depth for GW VI - Shallow Groundwater; Soil Type for GW VI - Fine to Coarse Scenario; Soil Contamination Depth - Shallow Soil. Output: Groundwater (µg/L).

Abbreviations:

ft bgs = feet below ground surface

µg/L = micrograms per liter

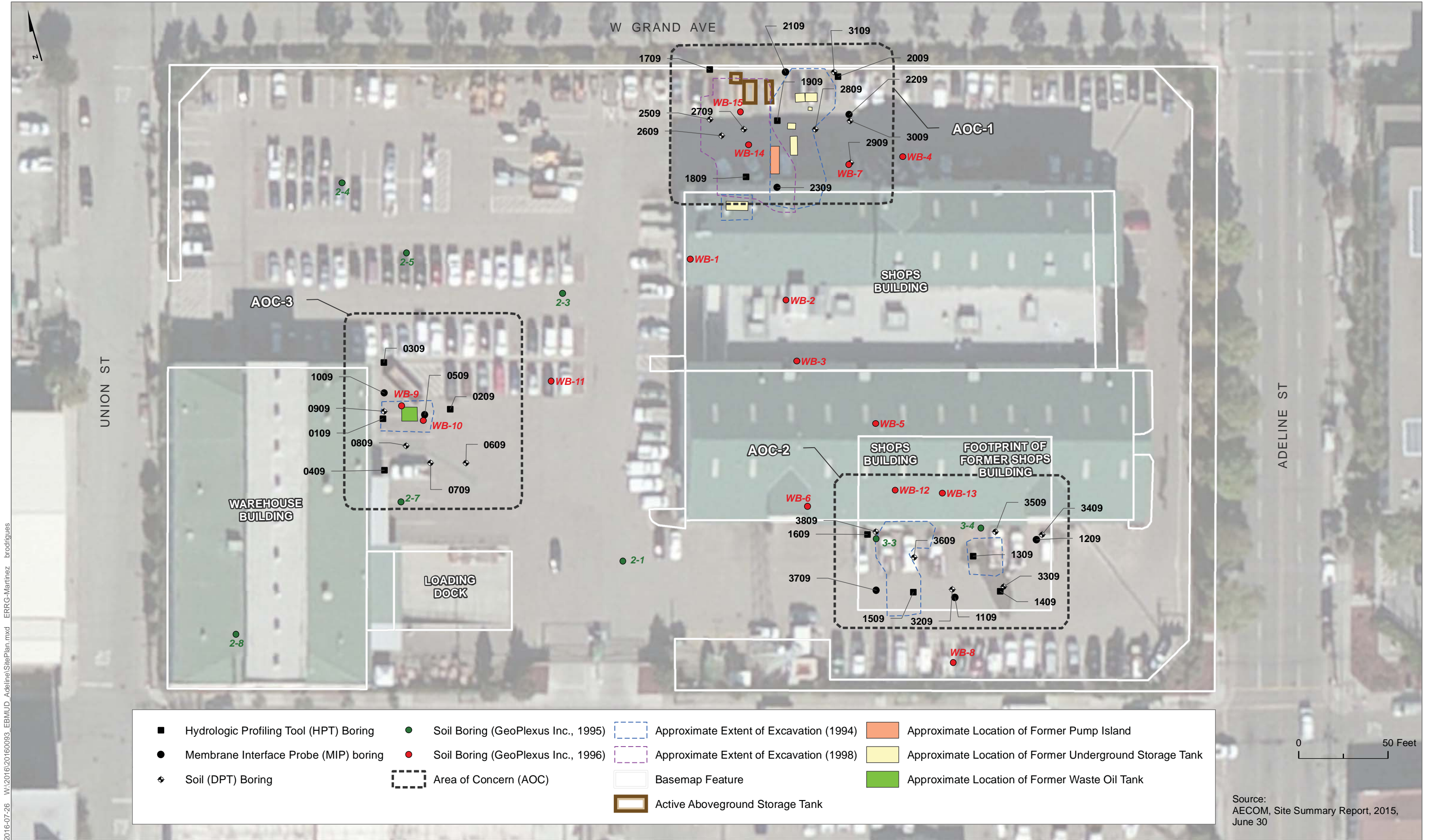
Enclosure 2. Figures



2016-07-25 W:\2016\20160093_EBMUD_Adeline\SiteVicinity.mxd ERRG-Martinez brodrigues

Figure 1. Site Vicinity Map
 EBMUD - Adeline Maintenance Center
 Oakland, California





2016-07-26 W:\2016\20160093_EBMUD_Adeline\SitePlan.mxd ERRG-Martinez_brodigues

Source:
AECOM, Site Summary Report, 2015,
June 30

Figure 2. Site Plan
EBMUD - Adeline Maintenance Center
Oakland, California

