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Alameda County
Environmental Health

February 12, 2009

Mr. Jerry Wickham
Senior Hazardous Materials Specialist
Local Oversight Program
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502-6577

Subject: Remedial Action Workplan for Oxygen Releasing Compound ORC® Application to Source Area Contamination, Redwood Regional Park Service Yard Site – 7867 Redwood Road, Oakland, California
Alameda County Fuel Leak Case No. RO0000246.

Dear Mr. Wickham

INTRODUCTION AND BACKGROUND

On behalf of the responsible party, East Bay Regional Park District (EBRPD), Stellar Environmental Solutions, Inc. (SES) is submitting this to address the Alameda County Environmental Health Services (ACEHS) concerns about the subject property designated Fuel Leak case, specifically the to complete a limited remedial application of Oxygen Release Compound (ORC®) into the upper yard area (source area) to address the rising hydrocarbon concentration observed at well MW-2 during the monitoring year 2008.

Environmental remediation and investigations associated with former fuel underground storage tanks (USTs) have been conducted at the site since 1993 when the USTs were removed. The site currently contains 11 site groundwater monitoring wells, 7 of which are sampled on a quarterly basis; the site also contains an operating bioventing system that consists of four vent wells (VWs) and four vapor monitoring points (VMPs) that are monitored on a monthly basis.

The proposed workplan involves the injection of hydrocarbon-reducing compound ORC, in nine bores immediately nearby on the three accessible sides of MW-2 and upgradient of MW-2. Four additional samplings of MW-2 spaced between regular quarterly sampling will also be conducted

to monitor the effectiveness of the ORC® injection remedy. Attached Figure 1 shows the general site location and the injection bore points are shown on attached site plan Figure 2.

PROPOSED SCOPE OF WORK

Project work elements proposed in this workplan include: 1) Pre-Field Work Planning and Permits; 2) ORC™ Injection; 3) Post-Injection Monitoring and Laboratory Analyses; 4) Technical Report Preparation.

Task 1 – Pre-Field Work Planning and Permits

This task includes the cost to conduct all the pre-field work planning and permitting elements for the proposed borehole program, including the completion of the following four permits:

- Obtain a Alameda County Public Works Drilling Permit;
- Site Health and Safety Plan to be updated to reflect the boring and ORC™ injection tasks;
- Complete a site visit to mark drilling locations, then notify Underground Service Alert;
- Procure necessary drilling contractor to accomplish the project (obtain multiple bids).
- Purchase ORC™ from distributor for delivery to site.

Task 2 – Oxygen Releasing Compound (ORC™) Injection

The oxygen releasing compound ORC™ was selected to inoculate the groundwater in accessible areas surrounding monitoring well MW-2. This passive remedial technique creates a highly oxygenated zone in the areas where natural attenuation is limited by oxygen availability. The nine proposed injection points are shown on the attached Figure 2.

The injection system equipment mobilized to the site for use will consist of:

- Direct-push Geoprobe® rig;
- Drive rods (typically 1½-inch outside diameter) and injection tooling with fluid deliver sub-assembly;

- Injection pump rated for 5 gpm at 200 psi for sandy formations, and 800 psi for silt and clay formations (Geoprobe® DP-800, Rupe Models 9-1500 and 9-1600, Wilden, etc.);
- Injection hosing and a pressure relief valve with a bypass;
- Pressure gauges;
- Power drill paint stirrer (3-inch-diameter or smaller propeller tip);
- 5-amp sump pump (such as Little Giant) and hose;
- One 55-gallon drum or similarly sized mixing tanks for ORC™ mixing;
- Granular bentonite, quick-set grout concrete for closing and sealing injection holes;
- Water supply;
- Electrical generator;

The injection specifications are:

- The projected “hot spot” area covers an area estimated to be 300 square feet: approximately 20 by 15 feet.
- A total of 9 injection points will be drilled using direct-push technology to a depth of 25 feet.
- A total of approximately 270 pounds of ORC® mixed with water to achieve a 30% solid slurry will be delivered to the subsurface (30 lbs ORC mixed with 8 gallons of water will be injected per bore)
- The oxidant loading will be approximately 3 pounds per foot.
- Delivery point spacing is approximately 7-10 feet.
- The saturated thickness of the treatment zone (including capillary fringe) is 10 feet, from 15 to 25 feet below ground surface (bgs) or between elevations 538 to 548 feet amsl.
- The remedy is scheduled to be applied during the seasonal high groundwater in March or April 2009.

The ORC™ injection should be effective in reducing the toxicity of the plume by accelerating the biodegradation significantly within the first 6-12 months or so. The mobility of the plume will likewise be reduced in the area, although historical data suggest that this “hotspot” area exhibits low mobility due to other, possibly lithologic reasons. The volume of dissolved hydrocarbons within the “hot spot” area will likely be reduced within the first 6 to 9 months by 50 percent or more—according to the manufacturer's data.

Soil or groundwater waste is usually not generated during the injection process. All other investigation derived waste will be disposed of properly.

Task 3 – Post injection Monitoring and Laboratory Analyses

At least 4 samplings of MW-2 spaced between regular quarterly sampling will be conducted to monitor the ORC™ injection remedy. In addition, dissolved oxygen will be measured in the field during quarterly sampling to monitor the effect of the ORC™ application. Groundwater samples will be analyzed in accordance with ACEHS' current site groundwater monitoring requirements for the following:

- Total extractable and volatile hydrocarbons – diesel and gas range (TPH-d) by EPA Method 8015M or 8260;
- Aromatic hydrocarbons benzene, toluene, ethlybenzene and xylenes - BTEX by EPA Method 8260

Task 4 – Technical Reporting

SES will complete a report on the ORC™ injection and post injection monitoring at MW-2 that will be integrated with the Quarterly report it which the activity occurs.

The report will include:

- Summary of ORC™ rationale and efficacy;
- Detailed description of the injection and associated field data;
- Maps showing key site features;
- Key indicators to monitor effectiveness; and
- Technical appendices.

As required, site data will be electronically uploaded to both the State of California GeoTracker system and ACEH “ftp” system.

TEAM QUALIFICATIONS

SES has completed dozens of similar projects, including several under the jurisdiction of ACEH. Our team would consist of:

Mr. Jerry Wickham
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- Stellar Environmental Solutions, Inc. (owners' consultant responsible for overall project coordination, geologic evaluation, and report certification by a California Professional Geologist)
- A driller with a current C-57 license.

We trust that this workplan submittal meets your agency's needs. Please contact the undersigned directly if you have any questions.

Sincerely,



Henry Pietropaoli, P.G., R.E.A.
Project Manager



Richard S. Makdisi, P.G., R.E.A.
Principal

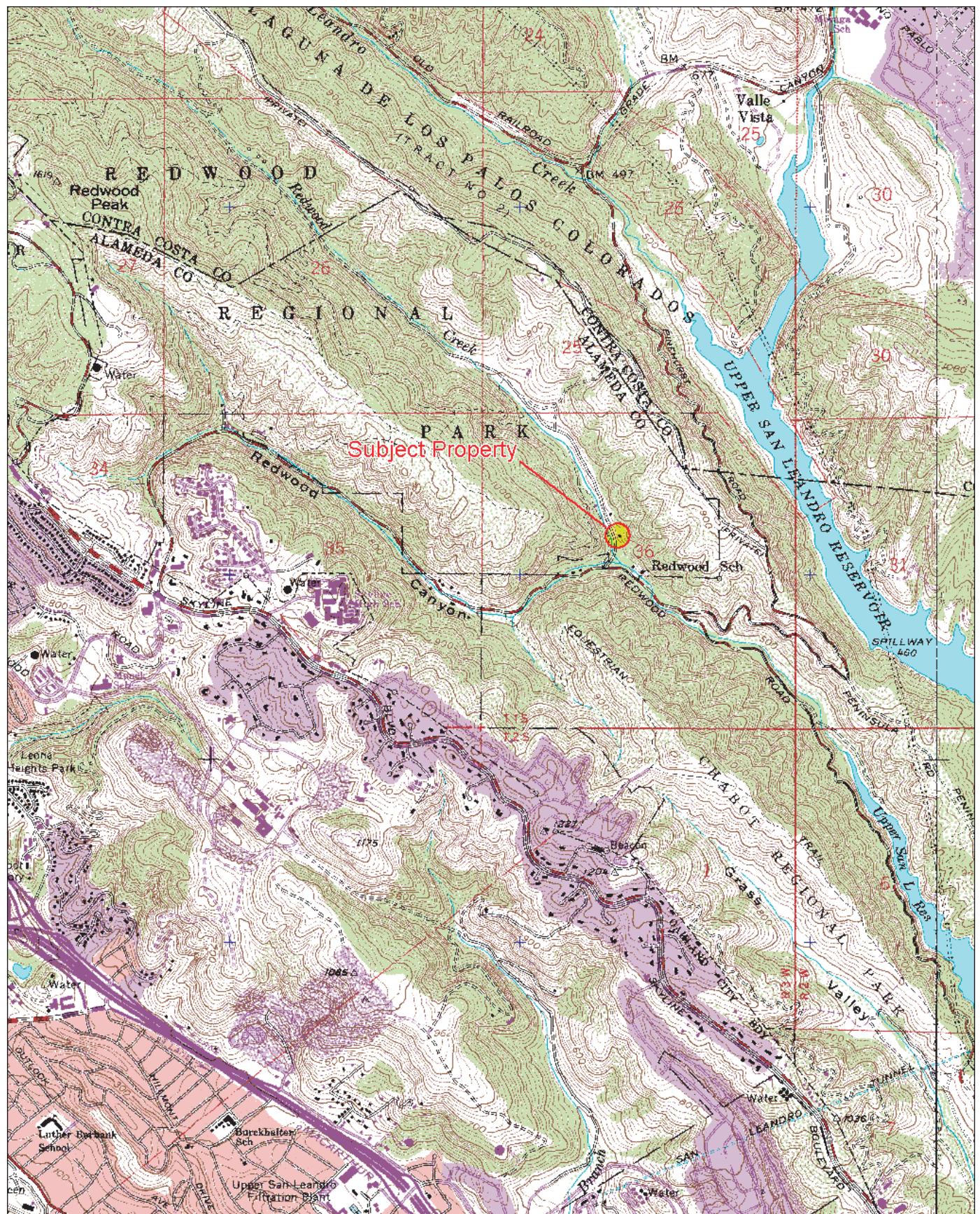
Attachments:

Attachment A – Site Location and Site Plan Showing Proposed Injection Bore Locations
Attachment B – Historical Groundwater Elevation Data and Analytical Results
Attachment C – References

cc: Mr. Neal Fujita – East Bay Regional Park District

ATTACHMENT A

Site Location Map and Site Plan



2006-17-01



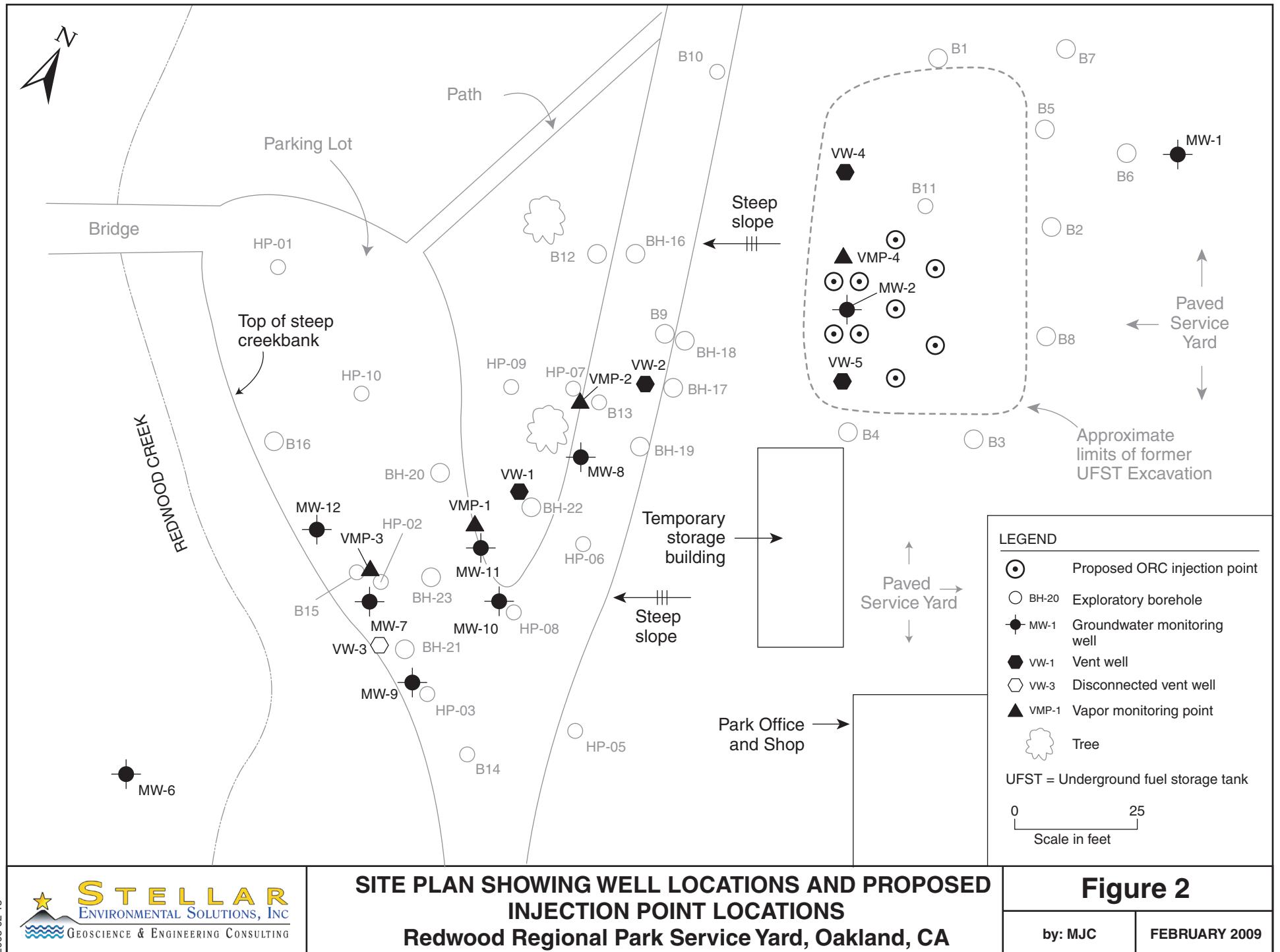
SITE LOCATION ON U.S.G.S. TOPOGRAPHIC MAP

Redwood Reg. Park Service Yard
Oakland, CA

By: MJC

MARCH 2006

Figure 1



ATTACHMENT B

Groundwater Elevation Data

Analytical Results

HISTORICAL GROUNDWATER ELEVATIONS IN MONITORING WELLS

REDWOOD REGIONAL PARK SERVICE YARD

7867 REDWOOD ROAD, OAKLAND, CALIFORNIA

Well I.D.	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12
TOC Elevation (a)	565.83	566.42	560.81	548.10	547.41	545.43	547.56	549.13	549.28	547.22	547.75	544.67
Groundwater Elevations (feet above mean sea level)												
Date Monitored												
09/18/98	563.7	544.2	540.8	534.5	531.1	545.6						
04/06/99	565.2	546.9	542.3	535.6	532.3	532.9						
12/20/99	562.9	544.7	541.5	534.9	531.2	532.2						
09/28/00	562.8	542.7	538.3	532.2	530.9	532.0						
01/11/01	562.9	545.1	541.7	535.0	531.2	532.3	534.9	538.1				
04/13/01	562.1	545.7	541.7	535.1	531.5	532.4	535.3	539.8				
09/01/01	560.9	542.0	537.7	533.9	530.7	531.8	534.0	535.6				
12/17/01	562.2	545.2	542.2	534.8	531.4	532.4	534.8	538.4	534.6	535.7	535.2	
03/14/02	563.0	547.1	542.2	535.5	532.4	533.3	535.7	541.8	535.0	537.6	536.6	
06/18/02	562.1	544.7	541.1	534.6	531.2	532.2	534.8	537.9	534.7	535.6	535.3	
09/24/02	561.4	542.2	537.3	533.5	530.6	531.8	533.5	535.5	535.3	533.8	531.7	
12/18/02	562.4	545.0	542.0	534.8	531.5	532.5	534.6	537.1	536.5	535.2	532.8	
03/27/03	562.6	545.7	541.7	534.8	531.6	532.4	535.1	539.9	537.2	536.2	533.6	
06/19/03	562.3	544.9	541.5	534.8	531.3	532.3	534.9	538.2	536.9	535.7	533.2	
09/10/03	561.6	542.1	537.9	533.8	530.8	531.9	533.7	535.6	535.6	534.1	531.9	
12/10/03	562.4	542.7	537.6	533.7	530.9	531.9	533.7	535.2	535.5	533.8	531.7	
03/18/04	563.1	546.6	541.9	535.0	531.7	532.4	535.2	540.9	537.4	536.6	533.8	
06/17/04	562.1	544.3	540.7	534.3	531.0	532.1	534.6	537.4	536.5	535.1	532.7	
09/21/04	561.5	541.1	536.5	533.1	530.5	531.6	533.1	534.7	532.7	533.2	533.2	
12/14/04	562.2	545.3	541.7	534.7	531.4	532.2	534.6	540.4	536.7	535.5	532.9	
03/16/05	563.8	547.3	541.7	535.3	532.4	532.8	535.6	541.8	538.0	537.1	534.2	
06/15/05	562.9	545.9	541.6	535.0	531.7	532.5	535.0	540.0	535.0	536.1	535.6	
09/13/05	562.3	543.5	539.7	534.4	530.9	532.2	534.3	536.7	536.1	534.7	532.4	
12/15/05	562.2	544.3	541.4	(b)	531.0	532.2	534.5	537.3	534.1	534.7	534.9	535.1
03/30/06	565.8	548.6	542.7	(b)	533.9	534.4	536.2	542.3	536.4	537.3	537.6	535.7
06/20/06	563.6	545.4	541.6	(b)	531.5	532.5	534.9	538.6	534.6	536.2	535.5	535.0
09/29/06	561.9	542.8	539.0	(b)	530.7	532.1	535.1	536.1	533.7	534.6	534.7	534.7
12/14/06	562.9	544.2	541.5	(b)	531.1	532.3	534.7	536.7	534.0	534.8	535.2	535.0
03/21/07	562.5	545.2	541.7	(b)	531.4	532.4	534.9	539.3	534.6	535.6	535.6	535.1
06/20/07	561.5	543.5	540.8	(b)	531.0	532.4	534.6	537.1	531.1	535.2	535.3	534.9
9/14/2007	560.71	541.02	536.99	(b)	530.46	531.58	533.42	534.86	532.64	533.47	533.68	533.74
12/6/2007	560.62	541.22	536.85	(b)	530.68	531.48	533.21	535.08	532.62	533.3	533.61	533.64
3/14/2008	561.76	545.73	541.63	(b)	531.34	532.30	534.88	539.30	534.67	536.04	535.89	535.72
6/13/2008	560.92	543.61	540.6	(b)	530.83	532.02	534.42	536.86	533.81	534.84	535.16	534.67
9/18/2008	560.43	540.15	536.41	(b)	529.85	531.11	532.69	534.15	531.97	532.65	533.09	533.12
12/17/2008	561.11	540.88	536.77	(b)	530.68	531.67	533.26	534.04	532.35	532.94	533.29	533.66

TOC = Top of well Casing

(a) TOC Elevations resurveyed on December 15, 2005 in accordance GeoTracker requirements.

(b) Well decommissioned and replaced by MW-12 in December 2005.

HISTORICAL GROUNDWATER MONITORING WELLS ANALYTICAL RESULTS

REDWOOD REGIONAL PARK SERVICE YARD, OAKLAND, CALIFORNIA

(all concentrations in $\mu\text{g/L}$, equivalent to parts per billion [ppb])

Well MW-2									
Event	Date	TVHg	TEHd	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	MTBE
1	Nov-94	66	< 50	3.4	< 0.5	< 0.5	0.9	4.3	NA
2	Feb-95	89	< 50	18	2.4	1.7	7.5	30	NA
3	May-95	< 50	< 50	3.9	< 0.5	1.6	2.5	8.0	NA
4	Aug-95	< 50	< 50	5.7	< 0.5	< 0.5	< 0.5	5.7	NA
5	May-96	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	—	NA
6	Aug-96	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	—	NA
7	Dec-96	< 50	< 50	6.3	< 0.5	1.6	< 0.5	7.9	NA
8	Feb-97	< 50	< 50	0.69	< 0.5	0.55	< 0.5	1.2	NA
9	May-97	67	< 50	8.9	< 0.5	5.1	< 1.0	14	NA
10	Aug-97	< 50	< 50	4.5	< 0.5	1.1	< 0.5	5.6	NA
11	Dec-97	61	< 50	21	< 0.5	6.5	3.9	31	NA
12	Feb-98	2,000	200	270	92	150	600	1,112	NA
13	Sep-98	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	—	7.0
14	Apr-99	82	710	4.2	< 0.5	3.4	4.0	12	7.5
15	Dec-99	57	< 50	20	0.6	5.9	< 0.5	27	4.5
16	Sep-00	< 50	< 50	0.72	< 0.5	< 0.5	< 0.5	0.7	7.9
17	Jan-01	51	< 50	8.3	< 0.5	1.5	< 0.5	9.8	8.0
18	Apr-01	110	< 50	10	< 0.5	11	6.4	27	10
19	Aug-01	260	120	30	6.7	1.6	6.4	45	27
20	Dec-01	74	69	14	0.8	3.7	3.5	22	6.6
21	Mar-02	< 50	< 50	2.3	0.51	1.9	1.3	8.3	8.2
22	Jun-02	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	—	7.7
23	Sep-02	98	< 50	5.0	< 0.5	< 0.5	< 0.5	—	13
24	Dec-02	< 50	< 50	4.3	< 0.5	< 0.5	< 0.5	—	< 2.0
25	Mar-03	130	82	39	< 0.5	20	4.1	63	16
26	Jun-03	< 50	< 50	1.9	< 0.5	< 0.5	< 0.5	1.9	8.7
27	Sep-03	120	< 50	8.6	0.51	0.53	< 0.5	9.6	23
28	Dec-03	282	<100	4.3	1.6	1.3	1.2	8.4	9.4
29	Mar-04	374	<100	81	1.2	36	7.3	126	18
30	Jun-04	< 50	< 50	0.75	< 0.5	< 0.5	< 0.5	< 0.5	15
31	Sep-04	200	< 50	23	< 0.5	< 0.5	0.70	24	16
32	Dec-04	80	< 50	14	< 0.5	2.9	0.72	18	20
33	Mar-05	190	68	27	<0.5	14	11	52	26
34	Jun-05	68	< 50	7.1	< 0.5	6.9	1.8	16	24
35	Sep-05	< 50	< 50	2.5	< 0.5	< 0.5	< 1.0	2.5	23
36	Dec-05	< 50	< 50	3.9	< 0.5	< 0.5	< 1.0	3.9	23
37	Mar-06	1300	300	77	4.4	91	250	422	18
38	Jun-06	< 50	60	< 0.5	< 0.5	< 0.5	< 1.0	—	17
39	Sep-06	270	52	31	< 0.5	15	6.69	53	17
40	Dec-06	< 50	< 50	2.1	< 0.5	< 0.5	< 0.5	2	16
41	Mar-07	59	< 50	4	< 0.5	< 0.5	< 0.5	< 0.5	14
42	Jun-07	<50	<50	3.5	<0.5	<0.5	<0.5	3.5	8
43	Sep-07	2,600	260	160	44	86	431	721	15
44	Dec-07	16,000	5,800	23	91	230	2,420	2764	16
44a	Jan-08	480	200	1.1	3.2	5.5	68	77.8	11
45	Mar-08	20,000	24,000	21	39	300	2,620	2980	13
45a	Apr-08	800	640	2.6	2.1	13	155	172.7	13
46a	May-08	7,100	3,900	14	8.8	140	710	872.8	11
46	Jun-08	5,700	1,000	9.4	5.2	80	550	644.6	11
46a	Jul-08	6,400	2,200	13	5.1	140	570	728.1	2.9
46b	Jul-08	390	55	1.3	0.77	4.6	44.4	51.07	9
46c	Aug-08	28,000	7,100	12	19	260	2,740	3031	<20
46d	Aug-08	8,700	2,700	5.7	7.4	130	900.0	1043.1	3.5
47	Sep-08	40,000	9,100	1.6	<0.5	110	910.0	1021.6	9.5
48	Dec-08	9,200	2,200	0.52	<0.5	<0.5	201.0	201.52	12

Well MW-4										
Event	Date	TVHg	TEHd	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	MTBE	
1	Nov-94	2,600	230	120	4.8	150	88	363	NA	
2	Feb-95	11,000	330	420	17	440	460	1,337	NA	
3	May-95	7,200	440	300	13	390	330	1,033	NA	
4	Aug-95	1,800	240	65	6.8	89	67	227	NA	
5	May-96	1,100	140	51	< 0.5	< 0.5	47	98	NA	
6	Aug-96	3,700	120	63	2.0	200	144	409	NA	
7	Dec-96	2,700	240	19	< 0.5	130	93	242	NA	
8	Feb-97	3,300	< 50	120	1.0	150	103	374	NA	
9	May-97	490	< 50	2.6	6.7	6.4	6.7	22	NA	
10	Aug-97	1,900	150	8.6	3.5	78	53	143	NA	
11	Dec-97	1,000	84	4.6	2.7	61	54	123	NA	
12	Feb-98	5,300	340	110	24	320	402	856	NA	
13	Sep-98	1,800	< 50	8.9	< 0.5	68	27	104	23	
14	Apr-99	2,900	710	61	1.2	120	80	263	32	
15	Dec-99	1,000	430	4.0	2.0	26	14	46	< 2.0	
16	Sep-00	570	380	< 0.5	< 0.5	16	4.1	20	2.4	
17	Jan-01	1,600	650	4.2	0.89	46	13.8	65	8.4	
18	Apr-01	1,700	1,100	4.5	2.8	48	10.7	66	5.0	
19	Aug-01	1,300	810	3.2	4.0	29	9.7	46	< 2.0	
20	Dec-01	< 50	110	< 0.5	< 0.5	< 0.5	1.2	1.2	< 2.0	
21	Mar-02	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	—	< 2.0	
22	Jun-02	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	—	< 2.0	
23	Sep-02	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	—	< 2.0	
24	Dec-02	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	—	< 2.0	
25	Mar-03	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	—	< 2.0	
26	Jun-03	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	—	< 2.0	
27	Sep-03	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	—	< 2.0	
28	Dec-03	< 50	< 100	< 0.3	< 0.3	< 0.3	< 0.6	—	< 5.0	
29	Mar-04	< 50	< 100	< 0.3	< 0.3	< 0.3	< 0.6	—	< 5.0	
30	Jun-04	< 50	2,500	< 0.3	< 0.3	< 0.3	< 0.6	—	< 5.0	
31	Sep-04	< 50	< 50	< 0.5	< 0.5	< 0.5	< 1.0	—	< 2.0	
32	Dec-04	< 50	< 50	< 0.5	< 0.5	< 0.5	< 1.0	—	< 2.0	
33	Mar-05	< 50	< 50	< 0.5	< 0.5	< 0.5	< 1.0	—	< 2.0	
34	Jun-05	< 50	< 50	< 0.5	< 0.5	< 0.5	< 1.0	—	< 2.0	
35	Sep-05	< 50	< 50	< 0.5	< 0.5	< 0.5	< 1.0	—	< 2.0	

Groundwater monitoring in this well discontinued with Alameda County Health Care Services Agency approval.

Well MW-5									
Event	Date	TVHg	TEHd	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	MTBE
1	Nov-94	50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	—	NA
2	Feb-95	70	< 50	0.6	< 0.5	< 0.5	< 0.5	0.6	NA
3	May-95	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	—	NA
4	Aug-95	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	—	NA
5	May-96	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	—	NA
6	Aug-96	80	< 50	< 0.5	< 0.5	< 0.5	< 0.5	—	NA
7	Dec-96	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	—	NA
8	Feb-97	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	—	NA
9	May-97	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	—	NA
10	Aug-97	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	—	NA
11	Dec-97	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	—	NA
12	Feb-98	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	—	NA
13	Sep-98	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	—	< 2
Groundwater monitoring in this well discontinued in 1998 with Alameda County Health Care Services Agency approval.									
Subsequent groundwater monitoring conducted to confirm plume's southern limit									
14	Jun-04	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	—	5.9
15	Sep-04	< 50	< 50	< 0.5	< 0.5	< 0.5	< 1.0	—	< 2.0

Well MW-7									
Event	Date	TVHg	TEHd	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	MTBE
1	Jan-01	13,000	3,100	95	4	500	289	888	95
2	Apr-01	13,000	3,900	140	< 0.5	530	278	948	52
3	Aug-01	12,000	5,000	55	25	440	198	718	19
4	Dec-01	9,100	4,600	89	< 2.5	460	228	777	< 10
5	Mar-02	8,700	3,900	220	6.2	450	191	867	200
6	Jun-02	9,300	3,500	210	6.3	380	155	751	18
7	Sep-02	9,600	3,900	180	< 0.5	380	160	720	< 2.0
8	Dec-02	9,600	3,700	110	< 0.5	400	189	699	< 2.0
9	Mar-03	10,000	3,600	210	12	360	143	725	45
10	Jun-03	9,300	4,200	190	< 10	250	130	570	200
11	Sep-03	10,000	3,300	150	11	300	136	597	< 2.0
12	Dec-03	9,140	1,100	62	45	295	184	586	89
13	Mar-04	8,170	600	104	41	306	129	580	84
14	Jun-04	9,200	2,700	150	< 0.5	290	91	531	< 2.0
15	Sep-04	9,700	3,400	98	< 0.5	300	125	523	< 2.0
16	Dec-04	8200	4,000	95	< 0.5	290	124	509	< 2.0
17	Mar-05	10,000	4,300	150	<0.5	370	71	591	<2.0
18	Jun-05	10,000	3,300	210	<1.0	410	56	676	<4.0
19	Sep-05	7,600	2,700	110	<1.0	310	54	474	<4.0
20	Dec-05	2,900	3,300	31	<1.0	140	41	212	<4.0
21	Mar-06	6,800	3,000	110	< 1.0	280	42	432	110
22	Jun-06	6,900	3,600	63	< 2.5	290	43	396	< 10
23	Sep-06	7,900	3,600	64	< 0.5	260	58	382	49
24	Dec-06	7,300	2,400	50	< 0.5	220	42	312	< 2.0
25	Mar-07	6,200	2,900	34	< 0.5	190	15	239	< 2.0
26	Jun-07	6,800	3,000	30	<1.0	160	27	217	<4.0
27	Sep-07	6,400	3,000	<0.5	<0.5	170	43	213	<2.0
28	Dec-07	4,800	2,800	<0.5	<0.5	100	26.5	126.5	2.7
30	Mar-08	5,400	5,900	21	<0.5	150	15	186	51
31	Jun-08	4,800	3,500	55	<0.5	140	7.03	202	<2.0
32	Sep-08	6,400	2,800	22	<0.5	100	9.30	131	<2.0
33	Dec-08	3,500	3,600	5	<0.5	100	9.10	114	<2.0

Well MW-8									
Event	Date	TVHg	TEHd	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	MTBE
1	Jan-01	14,000	1,800	430	17	360	1230	2,037	96
2	Apr-01	11,000	3,200	320	13	560	1,163	2,056	42
3	Aug-01	9,600	3,200	130	14	470	463	1,077	14
4	Dec-01	3,500	950	69	2.4	310	431	812	< 4.0
5	Mar-02	14,000	3,800	650	17	1,200	1,510	3,377	240
6	Jun-02	2,900	1,100	70	2.0	170	148	390	19
7	Sep-02	1,000	420	22	< 0.5	64	50	136	< 2.0
8	Dec-02	3,300	290	67	< 0.5	190	203	460	< 2.0
9	Mar-03	13,000	3,500	610	12	1,100	958	2,680	< 10
10	Jun-03	7,900	2,200	370	7.4	620	562	1,559	< 4.0
11	Sep-03	3,600	400	120	3.3	300	221	644	< 2.0
12	Dec-03	485	100	19	1.5	26	36	83	< 5.0
13	Mar-04	16,000	900	592	24	1,060	1,870	3,546	90
14	Jun-04	5,900	990	260	9.9	460	390	1,120	< 10
15	Sep-04	2,000	360	100	< 2.5	180	102	382	< 10
16	Dec-04	15,000	4,000	840	21	1,200	1,520	3,581	< 10
17	Mar-05	24,000	7,100	840	51	1,800	2,410	5,101	< 10
18	Jun-05	33,000	5,700	930	39	2,500	3,860	7,329	< 20
19	Sep-05	5,600	1,200	270	6.6	400	390	1,067	< 20
20	Dec-05	3,700	1,300	110	< 5.0	320	356	786	< 20
21	Mar-06	22,000	4,300	550	30	1,800	2,380	4,760	< 20
22	Jun-06	19,000	5,000	500	28	1,800	1,897	4,225	< 20
23	Sep-06	9,000	820	170	7.7	730	539	1,447	< 10
24	Dec-06	4,400	800	75	4.2	320	246	645	< 2.0
25	Mar-07	15,000	4,500	340	19	1,300	1,275	2,934	< 20
26	Jun-07	10,000	3,500	220	11	670	675	1,576	< 4.0
27	Sep-07	9,400	3,400	200	6.9	1,000	773	1,980	< 8.0
28	Dec-07	1,200	500	15	0.88	95	57.7	168.58	< 2.0
30	Mar-08	11,000	13,000	150	13	1,100	950.0	2,213	76
31	Jun-08	2,000	1,700	27	2.5	190	113.2	333	< 2.0
32	Sep-08	5,500	4,400	89	3.9	630	194.4	917	< 2.0
33	Dec-08	520	400	1.5	<0.5	20	4.4	26	4.5

Well MW-9									
Event	Date	TVHg	TEHd	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	MTBE
1	Aug-01	11,000	170	340	13	720	616	1,689	48
2	Dec-01	9,400	2,700	250	5.1	520	317	1,092	< 10
3	Mar-02	1,700	300	53	4.2	120	67	244	20
4	Jun-02	11,000	2,500	200	16	600	509	1,325	85
5	Sep-02	3,600	2,800	440	11	260	39	750	< 4.0
6	Dec-02	7,000	3,500	380	9.5	730	147	1,266	< 10
7	Mar-03	4,400	1,400	320	6.9	400	93	820	< 2.0
8	Jun-03	7,600	1,600	490	10	620	167	1,287	< 4.0
9	Sep-03	8,300	2,900	420	14	870	200	1,504	< 10
10	Dec-03	7,080	700	287	31	901	255	1,474	< 10
11	Mar-04	3,550	600	122	15	313	84	534	35
12	Jun-04	6,800	1,700	350	< 2.5	620	99	1,069	< 10
13	Sep-04	7,100	1,900	160	8.1	600	406	1,174	< 10
14	Dec-04	4,700	2,800	160	< 2.5	470	< 0.5	630	< 10
15	Mar-05	4,200	1,600	97	< 2.5	310	42	449	< 10
16	Jun-05	9,900	2,000	170	< 2.5	590	359	1,119	< 10
17	Sep-05	3,600	1,200	250	< 0.5	330	36	616	< 2.0
18	Dec-05	8,700	1,500	150	4	650	551	1,355	< 4.0
19	Mar-06	3,600	880	37	< 1.0	210	165	412	< 4.0
20	Jun-06	3,200	1,300	39	< 1.0	220	144	403	4.2
21	Sep-06	12,000	3,300	130	8	850	604	1,592	< 1.0
22	Dec-06	12,000	2,800	140	9.4	880	634	1,663	< 10
23	Mar-07	9,600	2,900	120	8.7	780	453	1,362	< 10
24	Jun-07	7,100	2,200	75	5.2	480	298	858	< 4.0
25	Sep-07	4,500	2,100	60	3.8	420	227	710	< 4.0
26	Dec-07	6,200	2,000	51	< 0.5	340	128.8	519.8	< 2.0
27	Mar-08	6,400	3,500	67	5.2	480	177.6	724.6	38
28	Jun-08	10,000	3,400	89	< 2.5	510	231.0	830.0	< 10
29	Sep-08	4,800	2,700	53	< 0.5	250	66.4	369.4	< 2.0
30	Dec-08	4,300	2,300	45	< 0.5	330	39.1	414.1	< 2.0

Well MW-10									
Event	Date	TVHg	TEHd	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	MTBE
1	Aug-01	550	2,100	17	< 0.5	31	44	92	40
2	Dec-01	< 50	81	< 0.5	< 0.5	< 0.5	< 0.5	—	25
3	Mar-02	< 50	< 50	0.61	< 0.5	< 0.5	< 0.5	0.61	6.0
4	Jun-02	< 50	< 50	0.59	< 0.5	0.58	< 0.5	1.2	9.0
5	Sep-02	160	120	10	< 0.5	6.7	3.6	20	26
6	Dec-02	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	—	16
7	Mar-03	110	< 50	11	< 0.5	12	1.3	24	15
8	Jun-03	110	< 50	9.6	< 0.5	6.8	< 0.5	16	9.0
9	Sep-03	< 50	< 50	1.1	< 0.5	1.5	< 0.5	2.6	7.0
10	Dec-03	162	<100	6.9	<0.3	8.0	<0.6	15	9.9
11	Mar-04	94	<100	2.8	<0.3	5.7	7.0	16	<5.0
12	Jun-04	150	56	11	< 0.5	12	< 0.5	23	15
13	Sep-04	< 50	< 50	1.6	< 0.5	1.9	< 1.0	3.5	5.8
14	Dec-04	64	< 50	3.7	< 0.5	3.7	0.7	8.1	10
15	Mar-05	95	98	8.3	<0.5	7.7	0.77	17	13
16	Jun-05	150	57	14	<0.5	10	1.0	25	<2.0
17	Sep-05	87	< 50	5.0	<0.5	3.6	<1.0	8.6	<2.0
18	Dec-05	< 50	< 50	1.2	<0.5	<0.5	<1.0	1.2	7.8
19	Mar-06	58	71	3.2	<0.5	2.2	<1.0	5.4	8.8
20	Jun-06	73	140	4.9	<0.5	2.5	<1.0	7.4	5.3
21	Sep-06	88	51	<0.5	<0.5	<0.5	<0.5	<0.5	9.6
22	Dec-06	<50	<50	0.61	<0.5	0.55	<0.5	1.2	3.7
23	Mar-07	57	<50	3.6	<0.5	2.2	<0.5	5.8	3.1
24	Jun-07	60	65	2.4	<0.5	1.6	<0.5	4.0	4.0
25	Sep-07	84	<50	3.6	<0.5	2.3	0.52	6.4	3.6
26	Dec-07	130	67	0.77	<0.5	340	0.83	341.6	<2.0
27	Mar-08	78	170	1.7	<0.5	3.1	0.97	5.8	2.4
28	Jun-08	230	320	12	<0.5	9.9	3.50	25.4	<2.0
29	Sep-08	80	<50	1.6	<0.5	0.52	<0.5	2.1	3.0
30	Dec-08	<50	66	0.89	<0.5	<0.5	<0.5	0.9	2.1

Well MW-11										
Event	Date	TVHg	TEHd	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	MTBE	
1	Aug-01	17,000	7,800	390	17	820	344	1,571	< 10	
2	Dec-01	5,800	2,800	280	7.8	500	213	1,001	< 10	
3	Mar-02	100	94	< 0.5	< 0.5	0.64	< 0.5	0.64	2.4	
4	Jun-02	8,200	2,600	570	13	560	170	1,313	< 4	
5	Sep-02	12,000	4,400	330	13	880	654	1,877	< 10	
6	Dec-02	18,000	4,500	420	< 2.5	1,100	912	2,432	< 10	
7	Mar-03	7,800	2,600	170	4.7	530	337	1,042	53	
8	Jun-03	14,000	3,800	250	< 2.5	870	693	1,813	< 10	
9	Sep-03	10,000	3,000	250	9.9	700	527	1,487	< 4	
10	Dec-03	15,000	1,100	314	60	1,070	802	2,246	173	
11	Mar-04	4,900	400	72	17	342	233	664	61	
12	Jun-04	10,000	2,300	210	2.8	690	514	1,417	< 10	
13	Sep-04	7,200	2,300	340	< 2.5	840	75	1,255	< 10	
14	Dec-04	11,000	3,900	180	5.1	780	695	1,660	< 10	
15	Mar-05	4,600	1,900	69	< 2.5	300	206	575	< 10	
16	Jun-05	1,400	590	85	< 0.5	110	8.2	203	< 2.0	
17	Sep-05	12,000	3,100	220	< 1.0	840	762	1,822	< 4.0	
18	Dec-05	2,500	2,100	120	< 2.5	260	16	396	< 10	
19	Mar-06	2,200	1,300	27	< 2.5	130	5.2	162	< 10	
20	Jun-06	3,700	1,900	170	< 1.0	230	14	414	< 4.0	
21	Sep-06	3,600	2,100	80	< 0.5	230	8.8	319	< 2.0	
22	Dec-06	6,000	3,500	83	< 1.0	260	16.4	359	< 4.0	
23	Mar-07	4,500	1,900	110	< 0.5	170	7.9	288	< 2.0	
24	Jun-07	4	2,200	120	< 0.5	140	6.6	267	< 4.0	
25	Sep-07	5,500	2,700	86	< 0.5	180	16.1	282	< 2.0	
26	Dec-07	7,100	4,000	68	< 0.5	140	14	222	35	
27	Mar-08	5,300	4,000	130	< 0.5	120	13	263	8.8	
28	Jun-08	3,600	4,200	190	< 0.5	140	11	341	< 2.0	
29	Sep-08	7,300	4,600	130	< 0.5	110	4.5	245	< 2.0	
30	Dec-08	2,800	1,600	93	< 0.5	82	0.69	176	< 2.0	

Well MW-12										
Event	Date	TVHg	TEHd	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	MTBE	
1	Dec-05	1,300	700	< 0.5	< 0.5	33	5.6	39	< 2.0	
2	Mar-06	1,100	540	< 0.5	< 0.5	8.5	1.5	10	49	
3	Jun-06	680	400	< 0.5	< 0.5	5.8	1.4	7.2	< 2.0	
4	Sep-06	910	480	< 0.5	< 0.5	9.9	1.5	11.4	21	
5	Dec-06	770	230	< 0.5	< 0.5	7.4	2.0	9.4	< 2.0	
6	Mar-07	390	110	< 0.5	< 0.5	1.7	1.7	3.4	< 2.0	
7	Jun-07	590	280	< 0.5	< 0.5	4.5	0.9	5.4	< 2.0	
8	Sep-07	390	180	< 0.5	< 0.5	2.4	2.4	4.8	< 2.0	
9	Dec-07	210	140	< 0.5	< 0.5	2.1	1.3	3.4	< 2.0	
10	Mar-08	720	500	< 0.5	4.4	9.0	2.8	16.2	< 2.0	
11	Jun-08	220	50	< 0.5	< 0.5	2.0	< 0.5	2.0	< 2.0	
12	Sep-08	370	95	< 0.5	< 0.5	2.8	0.98	3.8	< 2.0	
13	Dec-08	93	170	< 0.5	< 0.5	0.76	< 0.5	0.8	< 2.0	

HISTORICAL SURFACE WATER ANALYTICAL RESULTS
REDWOOD REGIONAL PARK SERVICE YARD, OAKLAND, CALIFORNIA

(all concentrations in ug/L, equivalent to parts per billion [ppb])

Sampling Location SW-1 (Upstream of Contaminated Groundwater Discharge Location SW-2)									
Event	Date	TVHg	TEHd	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	MTBE
1	Feb-94	50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	—	NA
2	May-95	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	—	NA
3	May-96	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	—	NA
4	Aug-96	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	—	NA
5	Dec-96	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	—	NA
6	Feb-97	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	—	NA
7	Aug-97	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	—	NA
8	Dec-97	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	—	NA
9	Feb-98	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	—	NA
10	Sep-98	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	—	< 2.0
11	Apr-99	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	—	< 2.0
Sampling at this location discontinued after April 1999 with Alameda County Health Services Agency approval.									

Sampling Location SW-2 (Area of Historical Contaminated Groundwater Discharge)									
Event	Date	TVHg	TEHd	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	MTBE
1	Feb-94	130	< 50	1.9	< 0.5	4.4	3.2	9.5	NA
2	May-95	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	NA
3	Aug-95	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	NA
4	May-96	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	NA
5	Aug-96	200	< 50	7.5	< 0.5	5.4	< 0.5	13	NA
6	Dec-96	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	NA
7	Feb-97	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	NA
8	Aug-97	350	130	13	0.89	19	11	44	NA
9	Dec-97	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	NA
10	Feb-98	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	NA
11	Sep-98	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	<2.0
12	Apr-99	81	<50	2.0	< 0.5	2.5	1.3	5.8	2.3
13	Dec-99	1,300	250	10	1.0	47	27	85	2.2
14	Sep-00	160	100	2.1	< 0.5	5.2	1.9	9.2	3.4
15	Jan-01	< 50	< 50	< 0.5	< 0.5	0.53	< 0.5	0.5	< 2.0
16	Apr-01	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	< 2.0
17	Sep-01	440	200	2.1	< 0.5	17	1.3	20	10
18	Dec-01	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	< 2.0
19	Mar-02	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	< 2.0
20	Jun-02	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	< 2.0
21	Sep-02	220	590	10	< 0.5	13	< 0.5	23	< 2.0
22	Dec-02	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	< 2.0
23	Mar-03	< 50	< 50	< 0.5	< 0.5	0.56	< 0.5	0.56	2.8
24	Jun-03	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	< 2.0
25	Sep-03	190	92	2.1	< 0.5	4.2	< 0.5	6.3	< 2.0
26	Dec-03	86	< 100	< 0.3	< 0.3	< 0.3	< 0.6	<0.6	< 5.0
27	Mar-04	<50	<100	<0.3	<0.3	1.1	<0.6	1.1	< 5.0
28	Jun-04	<50	<50	<0.5	<0.5	0.83	<0.5	0.83	< 2.0
29	Sep-04	260	370	4.4	<0.5	6.3	< 1.0	11	< 2.0
30	Dec-04	<50	<50	<0.5	<0.5	<0.5	< 1.0	1.0	< 2.0
31	Mar-05	<50	<50	<0.5	<0.5	<0.5	< 1.0	<1.0	< 2.0
32	Jun-05	<50	<50	<0.5	<0.5	<0.5	< 1.0	<1.0	< 2.0
33	Sep-05	<50	<50	<0.5	<0.5	<0.5	< 1.0	<1.0	< 2.0
34	Dec-05	<50	<50	<0.5	<0.5	<0.5	< 1.0	<1.0	< 2.0
35	Mar-06	<50	62	<0.5	<0.5	<0.5	< 1.0	<1.0	< 2.0
36	Jun-06	<50	110	<0.5	<0.5	<0.5	< 1.0	<1.0	< 2.0
37	Sep-06	62	94	<0.5	<0.5	0.81	<0.5	0.8	< 2.0
38	Dec-06	<50	<50	<0.5	<0.5	<0.5	< 1.0	<1.0	< 2.0
39	Mar-07	<50	<50	<0.5	<0.5	<0.5	< 1.0	<1.0	< 2.0
40	Jun-07	<50	<50	<0.5	<0.5	<0.5	<0.5	<1.0	< 2.0
41	Sep-07	<50	77	<0.5	<0.5	<0.5	<0.5	<1.0	< 2.0
42	Dec-07	130	430	<0.5	<0.5	1.5	<0.5	1.5	< 2.0
43	Mar-08	<50	130	<0.5	<0.5	<0.5	0.61	0.61	<2.0
44	Jun-08	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0
45	Sep-08	530	690	<0.5	<0.5	4.3	<0.5	4.3	<2.0
46	Dec-08	<50	83	<5.0	<5.0	<5.0	<5.0	<0.5	<2.0

Sampling Location SW-3 (Downstream of Contaminated Groundwater Discharge Location SW-2)									
Event	Date	TVHg	TEHd	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	MTBE
1	May-95	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NA
2	Aug-95	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NA
3	May-96	< 50	74	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NA
4	Aug-96	69	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NA
5	Dec-96	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NA
6	Feb-97	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NA
7	Aug-97	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NA
8	Dec-97	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NA
9	Feb-98	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NA
10	Sep-98	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2.0
11	Apr-99	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2.0
12	Dec-99	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2.0
13	Sep-00	NS	NS	NS	NS	NS	NS	NS	NS
14	Jan-01	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2.0
15	Apr-01	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2.0
16	Sep-01	NS	NS	NS	NS	NS	NS	< 0.5	NS
17	Dec-01	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2.0
18	Mar-02	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2.0
19	Jun-02	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.4
20	Sep-02	NS	NS	NS	NS	NS	NS	NS	NS
21	Dec-02	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2.0
22	Mar-03	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2.0
23	Jun-03	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2.0
24	Sep-03	NS	NS	NS	NS	NS	NS	NS	NS
25	Dec-03	60	< 100	< 0.3	< 0.3	< 0.3	< 0.6	< 0.6	< 5.0
26	Mar-04	< 50	< 100	< 0.3	< 0.3	< 0.6	< 0.6	< 0.6	< 5.0
27	Jun-04	NS	NS	NS	NS	NS	NS	NS	NS
28	Sep-04	NS	NS	NS	NS	NS	NS	NS	NS
29	Dec-04	< 50	< 50	< 0.5	< 0.5	< 0.5	< 1.0	< 1.0	< 2.0
30	Mar-05	< 50	< 50	< 0.5	< 0.5	< 0.5	< 1.0	< 1.0	< 2.0
31	Jun-05	< 50	< 50	< 0.5	< 0.5	< 0.5	< 1.0	< 1.0	< 2.0
32	Sep-05	< 50	< 50	< 0.5	< 0.5	< 0.5	< 1.0	< 1.0	< 2.0
33	Dec-05	< 50	< 50	< 0.5	< 0.5	< 0.5	< 1.0	< 1.0	< 2.0
34	Mar-06	< 50	< 50	< 0.5	< 0.5	< 0.5	< 1.0	< 1.0	< 2.0
35	Jun-06	< 50	120	< 0.5	< 0.5	< 0.5	< 1.0	< 1.0	< 2.0
36	Sep-06	< 50	120	< 0.5	< 0.5	< 0.5	< 0.5	0.5	7.8
37	Dec-06	< 50	< 50	< 0.5	< 0.5	< 0.5	< 1.0	< 1.0	< 2.0
38	Mar-07	< 50	< 50	< 0.5	< 0.5	< 0.5	< 1.0	< 1.0	3.3
39	Jun-07	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	0.5	< 2.0
40	Sep-07	NS	NS	NS	NS	NS	NS	NS	NS
41	Dec-07	NS	NS	NS	NS	NS	NS	NS	NS
42	Mar-08	< 50	200	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2.0
43	Jun-08	< 50	55	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2.0
44	Sep-08	NS	NS	NS	NS	NS	NS	NS	NS
45	Dec-08	< 50	360	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 2.0

NS = Not Sampled (no surface water present during sampling event)