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Alameda County  
Environmental Health

August 31, 2011

Ms. Barbara Jakub  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

**Subject:** Site Summary Report  
**Site:** 76 Service Station No. 5325  
3220 Lakeshore Avenue  
Oakland, California  
Fuel Leak Case No. RO0000229

Dear Ms. Jakub;

I declare under penalty of perjury that to the best of my knowledge the information and/or recommendations contained in the attached report is/are true and correct.

If you have any questions or need additional information, please call:

Brian Whalen  
Platinum Energy  
30343 Canwood Street, Suite 200  
Agoura Hills, California 91301  
Tel: (818) 206-5704  
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bwhalen@platinum-energy.com

Sincerely,

**PLATINUM ENERGY**



**BRIAN WHALEN**

Attachment

# Site Summary Report

*76 Service Station No. 5325  
3220 Lakeshore Avenue  
Oakland, California*

*Alameda County Health Care Services Agency  
Fuel Leak Case No. RO0000229*

*San Francisco Bay Regional Water Quality Control Board  
No. 01-1588*

*GeoTracker Global ID No.T0600101463*

*Antea Group Project No. I40255325*

*August 31, 2011*

*Prepared for:*

**Ms. Barbara J. Jakub, P.G.**  
Alameda County Environmental  
Health  
1131 Harbor Bay Parkway,  
Suite 250  
Alameda, CA 94502

*Prepared by:*

**Antea™Group**  
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- Attachment B      ACHCSA Letter
- Attachment C      Time versus Concentration Graphs for Monitoring Wells U-1, U-2, and U-5

## **1.0 INTRODUCTION**

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Antea™ Group (formerly Delta Consultants) is pleased to submit this *Site Summary Report* for the referenced site in Oakland, CA. The site is located on the southeast corner of the intersection of Lakeshore Avenue and Lake Park Avenue in Oakland, California (**Figure 1**). The site is bounded to the north by Lakeshore Avenue; to the west and southwest by Lake Park Avenue; to the southeast by a supermarket parking lot; and to the east by a pharmacy. Station facilities include service station building with one service bay, three fuel dispenser islands, and two 12,000-gallon double-wall fiberglass gasoline underground storage tanks (USTs) (**Figure 2**). A summary of previous environmental investigation is presented as **Attachment A**.

This report summarizes the findings of the utility survey performed on July 27, 2011, evaluates the results of nitrate, sulfate, acetone, chloride, metals, etc. monitoring and proposes changes to the groundwater sampling and monitoring scheme, and evaluates the previous work done at the site and recommends future corrective actions. This report has received a technical review by Mr. Dennis S. Dettloff, California Professional Geologist No.7480.

## **2.0 CURRENT PROJECT STATUS**

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Current phase of project:	Semi-Annual Groundwater Monitoring
Local Oversight Program (LOP) – Lead agency for cleanup oversight:	Alameda County Health Care Services Agency (ACHCSA) Fuel Leak Case No. RO0000229
Contact:	Ms. Barbara Jakub
Secondary agency for cleanup oversight	San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) No. 01-1588
Monitoring well gauging schedule:	Semi-annually: U-1 through U-6 (second and fourth quarters)
Monitoring well sampling schedule:	Semi-annually: U-1 through U-6 (second and fourth quarters)
Total number of monitoring wells:	6
Range of well depths (total depth below ground surface, bgs):	21.5 to 26.5 feet
Wells with historical measurable LNAPL (light non-aqueous phase liquid):	Yes
Generalized site geology:	Predominantly sandy silt, with sandy materials beginning at approximately 6-10 feet below ground surface (bgs)
Historical Depth to Water Range, in feet below top of casing (BTOC):	Min: 2.71 (U-6, Q3 2007) Max: 12.81 (MW-6, Q3 1994)
Historical Groundwater Elevation Range, in feet above mean sea level:	Min: -5.67 (U-6, Q3 2004) Max: 4.89 (U-4, Q1 2006)
Local Receptors:	Lake Merritt is 0.3 miles southwest of the site
Current Remediation Technique:	Natural Attenuation

## **2.1 Regulatory Correspondence**

In a letter dated June 2, 2011, Ms. Barbara Jakub of the ACHCSA requested a report with technical comments about a preferential pathway study, bioattenuation and metals groundwater analysis, and site review. A copy of the ACGSA letter is presented as **Attachment B**.

## **3.0 PREFERENTIAL PATHWAY STUDY**

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On July 27, 2011, Cruz Brothers Locators, under the supervision of Antea Group field staff, conducted a site utility survey. The survey was conducted to assess the location and approximate depth of on-site underground utilities, which can act as preferential pathways for groundwater. On August 4, 2011, the site features and utility markings were surveyed. Monitoring well locations were also resurveyed. Utility locations and approximate depths are shown on **Figure 3**.

### **3.1 Discussion**

Utilities on-site were measured at depths ranging from 1 foot 1 inch to 4 feet 11 inches below ground surface (bgs). The deepest measured on-site utility was a vent line running from the USTs to the station building in the vicinity of monitoring well U-1. In order for a utility trench to act as a preferential pathway it has to intersect with groundwater. Historical groundwater levels in monitoring well U-1 have varied from 5.32 feet below the top of casing (btc) during the third quarter 2007 to 11.35 feet btc during the third quarter 2005, so it is unlikely that groundwater encountered this utility. However, the UST basin extends from the surface to approximately 12 feet bgs, so it encounters groundwater, but the tank basin is limited to on-site, so it is not a conduit for off-site migration the petroleum hydrocarbon impacted groundwater beneath the site. Utilities in the vicinity of monitoring well U-2 include an electric line with a maximum depth of 1 foot 9 inches bgs and a gas line with a depth of 1 foot 11 inches bgs. Historical groundwater levels in monitoring well U-2 have varied from 4.21 feet bgs during the fourth quarter 2010 and 8.64 feet bgs during the third quarter 2004, so it is unlikely that groundwater encountered these utilities. Utilities in the vicinity of monitoring well U-5 include an electric line with a maximum depth of 1 foot 5 inches bgs and a gas line with a depth 2 feet 4 inches bgs. Historical groundwater levels in monitoring well U-5 have varied from 4.40 feet bgs during the second quarter 2007 and 12.27 feet bgs during the third quarter 2004, so it is unlikely that groundwater encountered these utilities.

The new survey data for the monitoring well elevations changed the calculated groundwater elevations across the site. New groundwater elevation contours based on the second quarter 2011 data is presented on **Figure 4**.

## **4.0 BIOATTENUATION AND METALS GOUNDWATER ANALYSIS**

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The site has been sampled and analyzed for nitrogen, sulfate, acetone, chloride, metals, biological oxygen demand (BOD), and chemical oxygen demand (COD) during recent semi-annual monitoring. Several of the analyses (acetone, and the metals: antimony, beryllium, cadmium, cobalt, mercury, nickel, selenium, silver, thallium, and vanadium) have been below the laboratory's indicated reporting limits since sampling began during the second

quarter 2010. Analyses for zinc and lead have been below the laboratory's indicated reporting limits since the fourth quarter 2010. Analyses for the fuel oxygenates di-isopropyl ether (DIPE), ethyl tertiary-butyl ether (ETBE), ethanol, ethylene dibromide (EDB), and 1,2-dichloroethane (1,2-DCA) have been below the laboratory's indicated reporting limits since sampling began in each of the six monitoring wells. Analysis for the fuel oxygenate tertiary amyl methyl ether (TAME) has been below the laboratory's indicated reporting limits since the fourth quarter 2010. Antea Group recommends that these constituents be removed from the semi-annual sampling list. Historic laboratory analytical results are summarized in **Table 1**.

## **5.0 SITE REVIEW**

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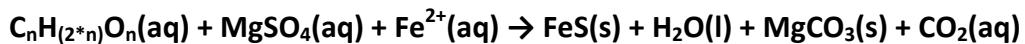
A review of the site has been conducted to assess what future corrective action should be taken to decrease petroleum hydrocarbon concentrations in soil and groundwater on-site and move the environmental case toward closure. Previous corrective action included soil removal from the tank pit excavation and product line trenches in 1990 and from waste-oil excavation in 1996, free product skimmers were used to remove free product from monitoring wells U-1 and U-2 in 1997, a six day Dual Phase Extraction (DPE) event in April 1999, and a three month ozone sparge pilot test, from June through August 2006, using sparge points C-1 through C-3 located in the vicinity of monitoring well U-2. The ozone sparge pilot test temporarily decreased petroleum hydrocarbon concentration and increased dissolved oxygen (DO) concentration in the groundwater in the vicinity of monitoring well U-2 during and immediately after the pilot test. The effective radius of influence for ozone sparging technology in the vicinity of monitoring well U-2 is at least six feet since DO concentrations in monitoring well U-2 increased and monitoring well U-2 is six feet from ozone sparge well C-2. Subsequent to the pilot test total petroleum hydrocarbon as gasoline (TPHg) concentrations in monitoring well U-2 increased until June 2007 and have remained stable. TPHg concentrations in monitoring well U-1 also decreased during the pilot test and continued to decrease through December 2006 before rebounding during the first half of 2007 and then decreasing and then remaining stable. TPHg concentrations in monitoring well U-5 were fluctuating before and after the pilot test so while TPHg decreased in monitoring well U-5 during the pilot test, it is unclear whether the decrease is related to the pilot test. In September 2008, TPHg concentrations in monitoring well U-5 began decreasing. The other corrective action taken has been the natural attenuation. In 1997, free product skimmers were placed in monitoring wells U-1 and U-2 to remove the free product in these two monitoring wells. Subsequent to the removal of the free product, natural attenuation has reduced petroleum hydrocarbons to the present concentrations of 6,490 micrograms per liter ( $\mu\text{g}/\text{L}$ ) in monitoring well U-1 and 3,280  $\mu\text{g}/\text{L}$  in monitoring well U-2 reported in June 2011. Time versus concentration graphs for monitoring wells U-1, U-2, and U-5 are presented as **Attachment C**.

### **5.1 Magnesium Sulfate Infiltration**

The stable and decreasing concentrations of petroleum hydrocarbons in monitoring wells U-1, U-2, and U-5 as well as low dissolved oxygen in monitoring wells U-1, U-2, U-4, and U-5, low sulfate concentrations in monitoring wells U-1 and U-5 indicate that natural bioattenuation of hydrocarbons is currently taking place on-site. Microorganisms consume hydrocarbons using oxygen, sulfate, or other electron acceptors to produce carbon dioxide and water

(and in the case of sulfate, sulfide). Low concentrations of dissolved oxygen indicate that the microorganism activity have driven the groundwater on-site to anaerobic conditions. Under anaerobic condition microorganisms must use other electron acceptors such as sulfate or nitrate. The sulfate concentrations near monitoring wells U-1 and U-5 are also low indicating that the dissolved sulfate has been consumed. Sulfate and dissolved oxygen concentration from the second quarter 2011 data are shown on **Figure 5**.

Antea Group proposes a pilot test for magnesium sulfate ( $MgSO_4$  [Epsom salt]) infiltration using monitoring wells U-1 and U-2 and tank pit wells TP-1 and TP-2. The reaction that describes the introduction of magnesium sulfate solution into petroleum hydrocarbon-impacted groundwater follows:



The magnesium sulfate solution mixes with the groundwater and spreads out and moves with the groundwater, so the radius of influence is determined by the hydraulic conductivity of the formation. Monitoring wells U-1 and U-2 both have sand with gravel in the water bearing unit which provides good hydraulic conductivity and tank pit wells TP-1 and TP-2 are set in the pea gravel of the tank pit which also provides very good hydraulic conductivity.

Prior to the first proposed  $MgSO_4$  infiltration, baseline groundwater samples from monitoring wells U-1, U-2, and U-4 will be collected and analyzed for pH, TPHg, BTEX compounds, MTBE, sulfate, ferrous iron, ferric iron, and total iron. For the initial  $MgSO_4$  application, approximately 300 pounds (a total of 1,200 pounds for four wells) of magnesium sulfate will be mixed with the appropriate amount of tap water required, to be determined during application. Subsequent applications will take place monthly for the first three months. Before each infiltration event monitoring wells U-1, U-2, and U-4 will be sampled for pH, TPHg, BTEX compounds, MTBE, sulfate, ferrous iron, ferric iron, and total iron.

After the first three months, Antea Group will assess whether to change the schedule for the infiltrations and sampling events to a quarterly basis, or to cease  $MgSO_4$  infiltrations. At a minimum Antea Group will sample the site quarterly for four quarters after the cessation of  $MgSO_4$  infiltrations.

## **6.0 CONCLUSIONS AND RECOMMENDATIONS**

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Antea Group offers the following conclusions and recommendations:

- Based on the results of the utility survey, no utilities were below the groundwater table with the exception of the tank pit.
- Several bioattenuation and metals constituents and fuel oxygenates have not been reported above the laboratory's indicated reporting limits and should be removed from the sampling list.
- Antea Group proposes that a work plan be prepared, under a separate cover, for magnesium sulfate infiltration as a corrective action to enhance natural attenuation.

#### **4.0 REMARKS**

The recommendations contained in this report represent Antea USA, Inc.'s professional opinions based upon the currently available information and are arrived at in accordance with currently accepted professional standards. This report is based upon a specific scope of work requested by the client. For any reports cited that were not generated by Delta or Antea Group, the data from those reports is used "as is" and is assumed to be accurate. Antea Group does not guarantee the accuracy of this data for the referenced work performed nor the inferences or conclusions stated in these reports. The contract between Antea USA, Inc. and its client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this report were performed. This report is intended only for the use of Antea USA, Inc.'s client and anyone else specifically identified in writing by Antea USA, Inc. as a user of this report. Antea USA, Inc. will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, Antea USA, Inc. makes no express or implied warranty as to the contents of this report.

Prepared by:

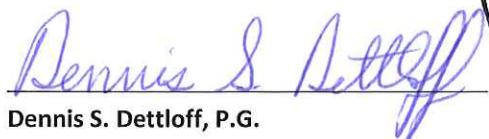


**Jonathan Fillingame**

Staff Geologist

Information, conclusions, and recommendations provided by Antea Group in this document regarding the site have been prepared under the supervision of and reviewed by the licensed professional whose signature appears below.

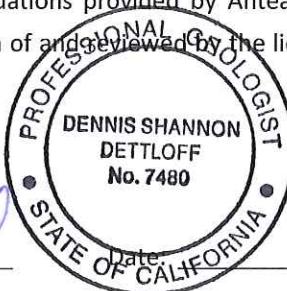
Licensed Approver:



**Dennis S. Dettloff, P.G.**

Project Manager

California Registered Professional Geologist No. 7480

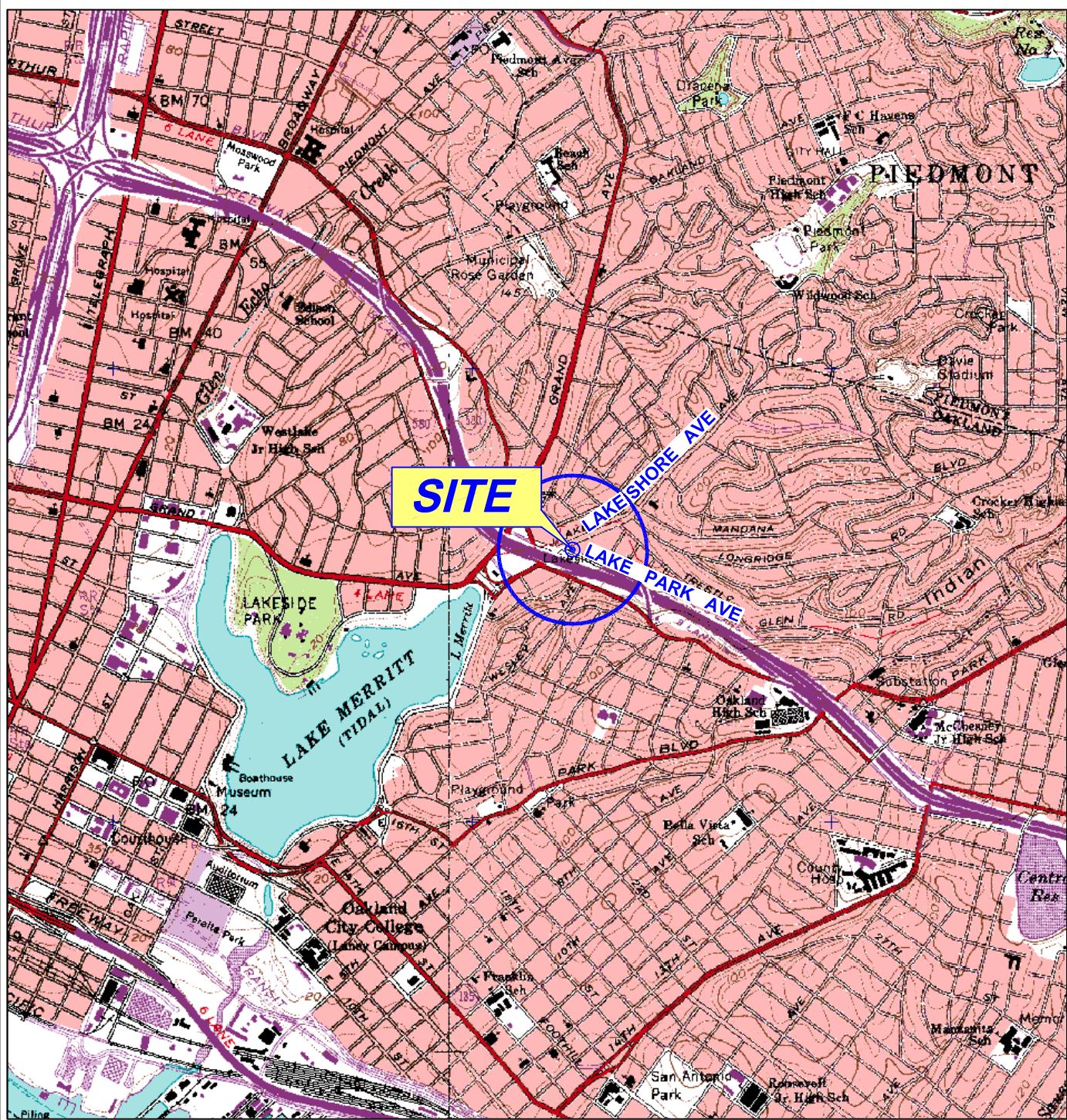


*8/31/2011*

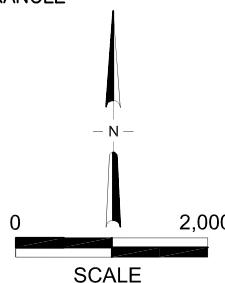
cc: Ms. Barbara Jakub, Alameda County Health Care Services Agency, 1131 Harbor Bay Parkway, Suite 250,  
Alameda, CA 94502-6577.  
GeoTracker (upload)

## ***Figures***

- |          |   |
|----------|---|
| Figure 1 | Site Location Map                               |
| Figure 2 | Site Plan                                       |
| Figure 3 | Site Plan with Utilities                        |
| Figure 4 | Groundwater Elevation Contour Map               |
| Figure 5 | Sulfate and Dissolved Oxygen Concentrations Map |



GENERAL NOTES:  
BASE MAP FROM 3-D TOPO QUADS  
OAKLAND WEST & OAKLAND EAST, CA. QUADRANGLE  
7.5 MINUTE TOPOGRAPHIC MAP

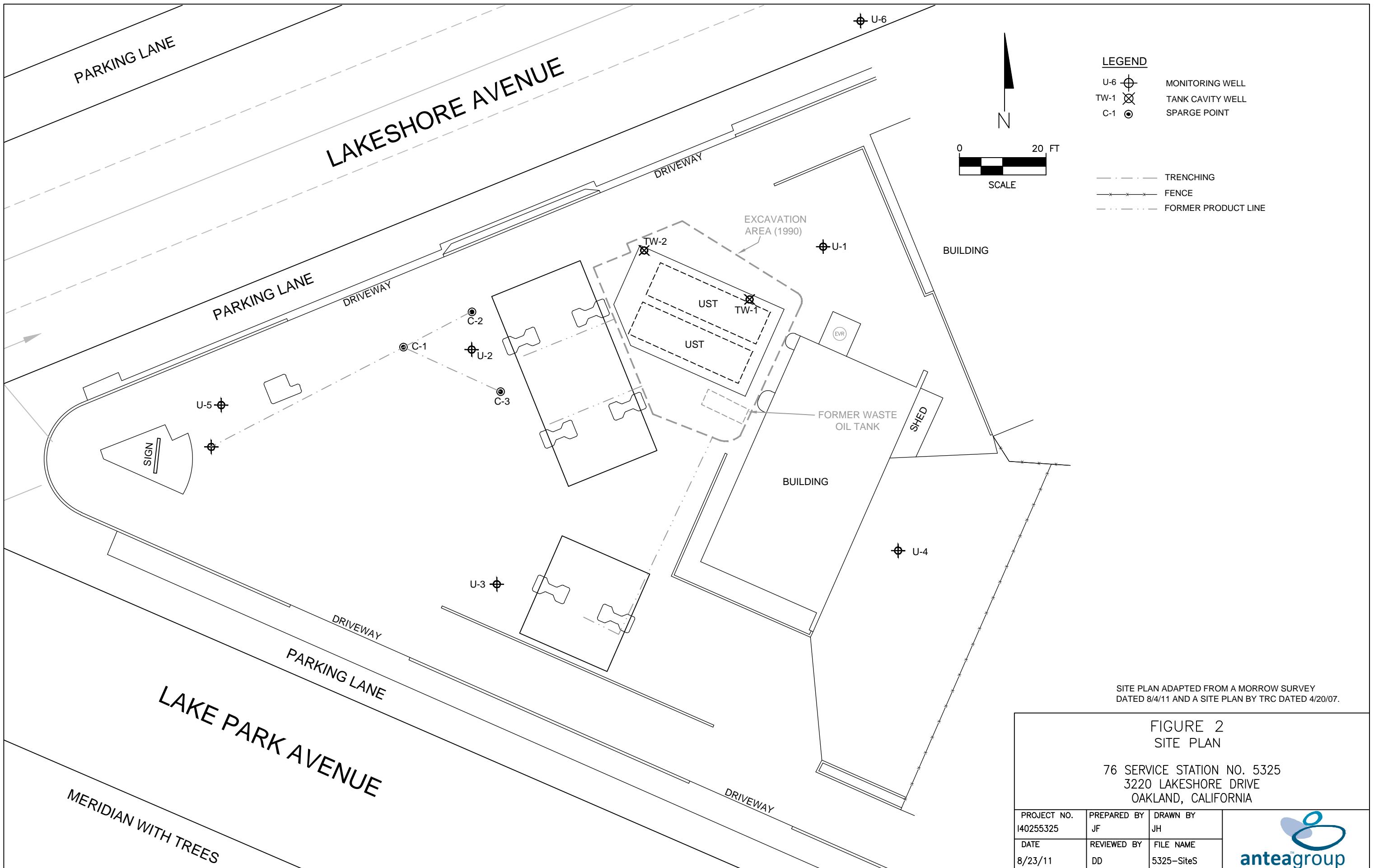


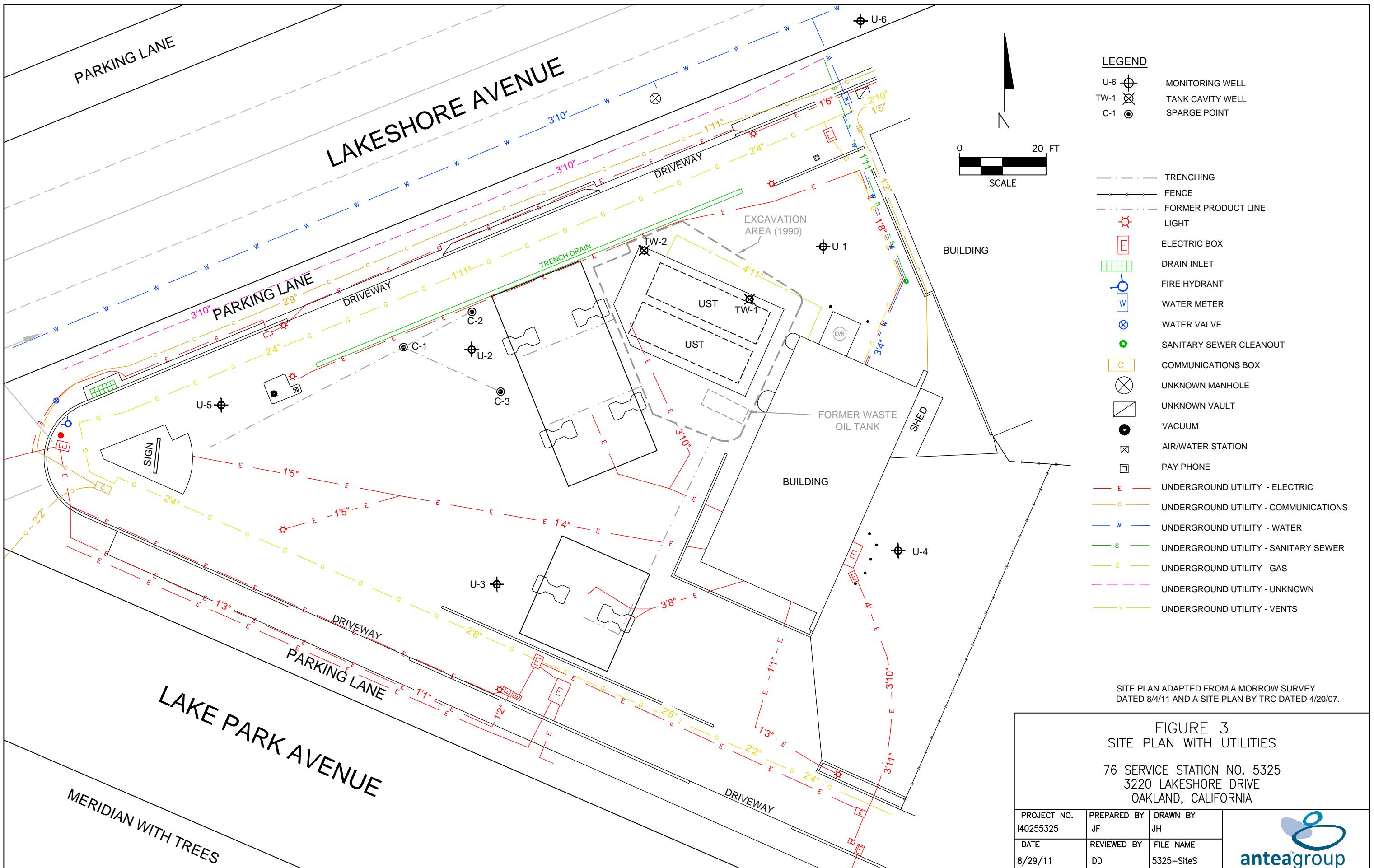
**FIGURE 1**  
**SITE LOCATION MAP**

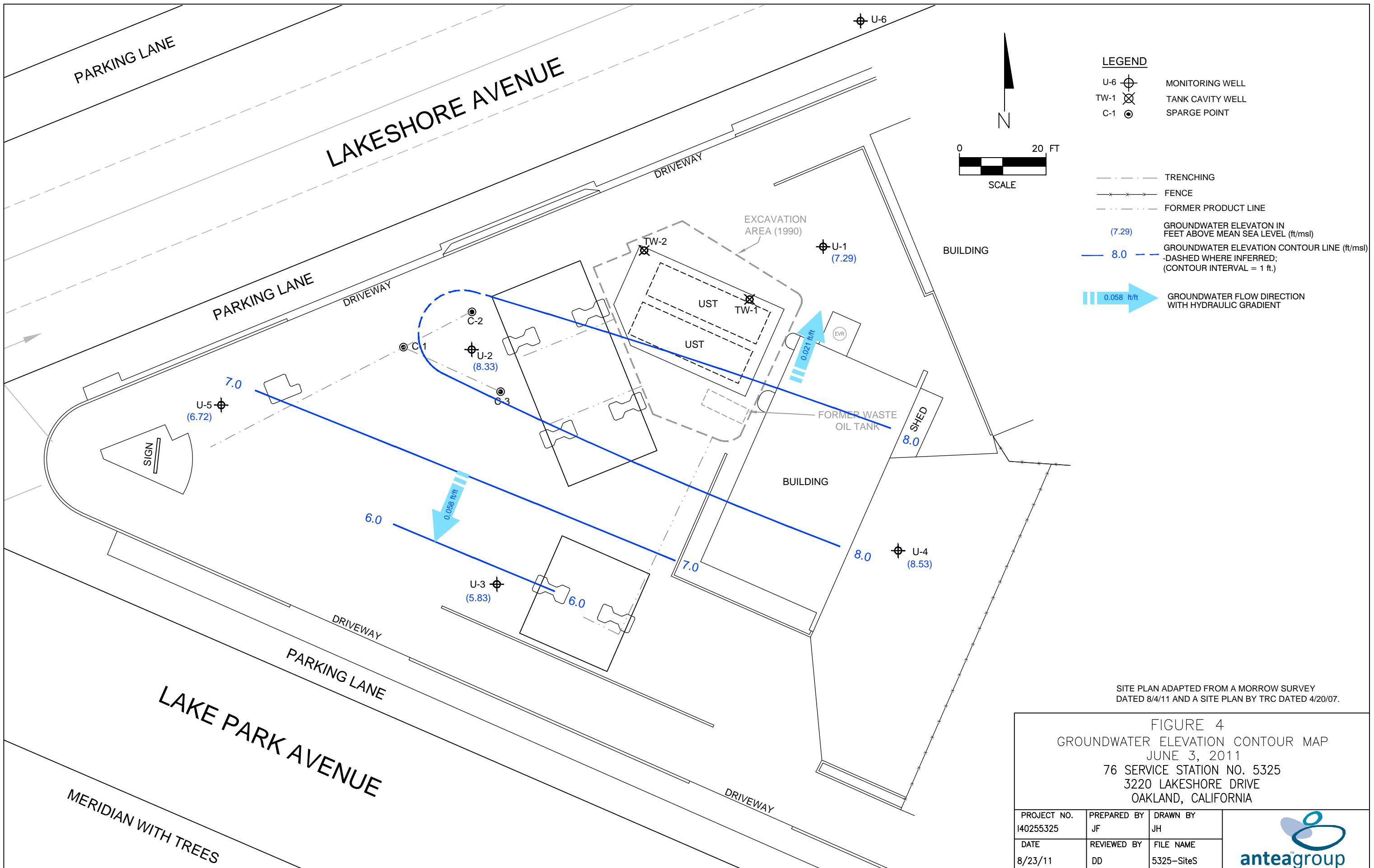
76 SERVICE STATION NO. 5325  
3220 LAKESHORE AVENUE  
OAKLAND, CALIFORNIA

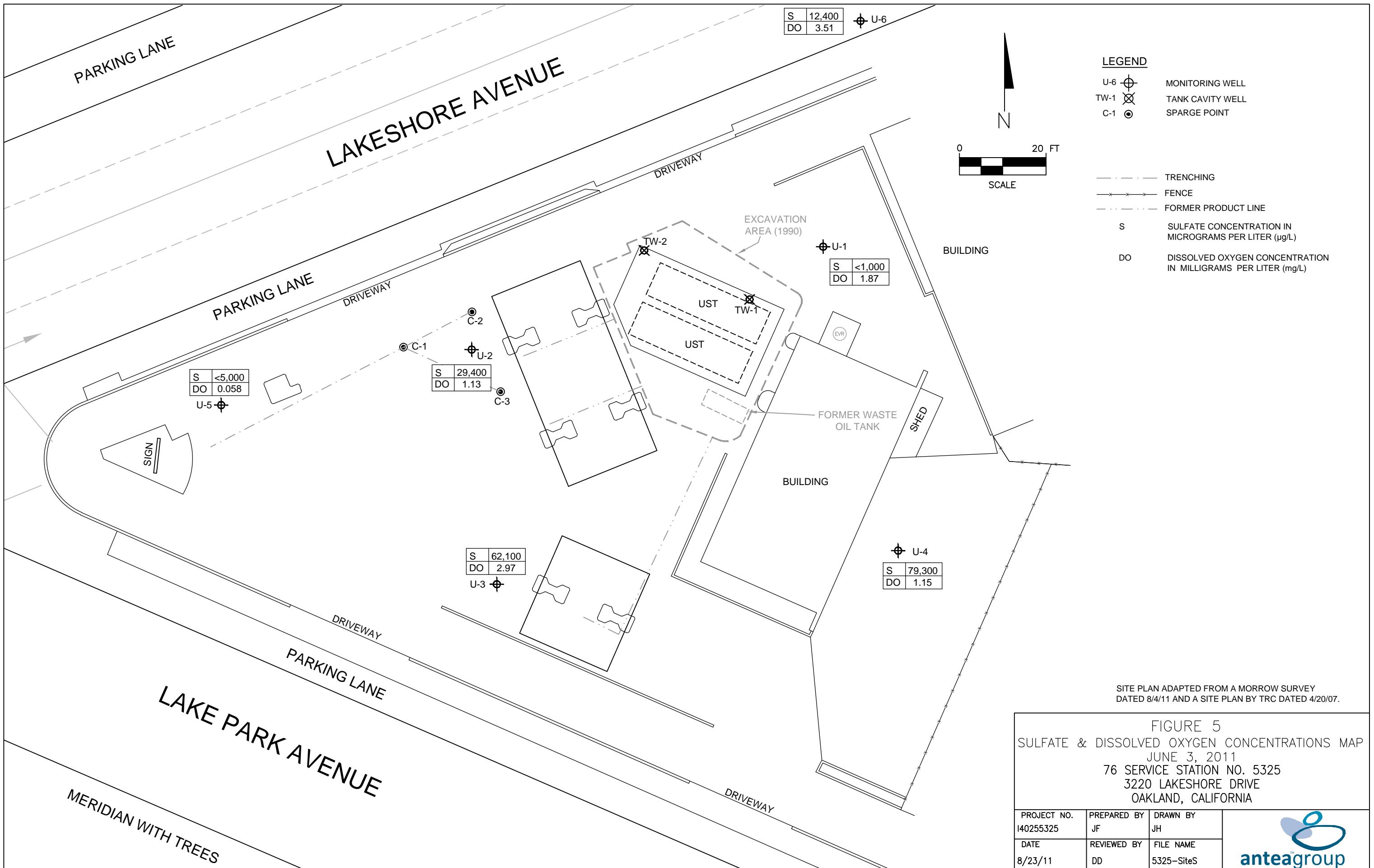
PROJECT NO. I40255325	DRAWN BY JH
FILE NO. 5325-SLM	PREPARED BY EW
DATE 28 JAN 11	REV. 2











## ***Tables***

- Table 1      Historical Groundwater Gauging and Analytical Data
- Table 1a     Additional Historical Groundwater Analytical Data
- Table 1b     Additional Historical Groundwater Analytical Data
- Table 1c     Additional Historical Groundwater Analytical Data

**TABLE 1**  
**HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA**  
**76 Service Station No. 5325**  
**3200 LAKESHORE AVE**  
**OAKLAND, CALIFORNIA**



Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA												
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)
U-1	8/10/1990	NSVD	NG	NG	NG	690	38	75	8.6	130	--	--	--	--	--	--	--	--
	1/7/1991	NSVD	NG	NG	NG	250	22	16	4.2	17	--	--	--	--	--	--	--	--
	4/1/1991	NSVD	NG	NG	NG	160	13	8.6	1.0	15	--	--	--	--	--	--	--	--
	7/3/1991	NSVD	NG	NG	NG	140	21	4.3	0.36	17	--	--	--	--	--	--	--	--
	10/9/1991	NSVD	NG	NG	NG	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	2/12/1992	NSVD	NG	NG	NG	250	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	5/5/1992	NSVD	NG	NG	NG	230	1.2	ND	ND	ND	--	--	--	--	--	--	--	--
	6/11/1992	NSVD	NG	NG	NG	1,000	80	1.4	6.7	41	--	--	--	--	--	--	--	--
	8/20/1992	NSVD	NG	NG	NG	400	1.0	ND	ND	0.6	--	--	--	--	--	--	--	--
	2/22/1993	NSVD	NG	NG	NG	34,000	1,400	5,500	910	7,300	--	--	--	--	--	--	--	--
	5/7/1993	NSVD	NG	NG	NG	8,700	600	240	650	3,300	--	--	--	--	--	--	--	--
	8/8/1993	NSVD	NG	NG	NG	4,900	79	ND	832	270	--	--	--	--	--	--	--	--
	11/16/1993	5.32	8.60	NP	-3.28	690	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	2/16/1994	5.32	8.53	NP	-3.21	6,800	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	6/22/1994	8.46	8.39	NP	0.07	200	ND	ND	5.9	21	--	--	--	--	--	--	--	--
	9/22/1994	8.46	8.65	NP	-0.19	6,100	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	12/24/1994	8.46	8.03	NP	0.43	50,000	2,500	9,700	2,400	17,000	--	--	--	--	--	--	--	--
	3/25/1995	8.46	7.71	0.36	1.02	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	6/21/1995	8.46	9.30	0.20	-0.69	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	9/19/1995	8.46	9.28	0.39	-0.53	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	12/19/1995	8.46	8.97	0.02	-0.50	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	3/18/1996	8.46	8.25	NP	0.21	27,000	ND	2,300	1,400	11,000	4,900	--	--	--	--	--	--	--
	6/27/1996	8.46	7.92	NP	0.54	120,000	540	4,300	2,600	26,000	ND	--	--	--	--	--	--	--
	9/26/1996	8.46	9.10	0.02	-0.63	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	12/9/1996	8.46	6.88	0.03	1.60	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	3/14/1997	8.46	9.02	0.55	-0.15	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	6/30/1997	8.46	8.40	0.01	0.07	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	9/19/1997	8.46	8.56	0.02	-0.09	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	12/12/1997	8.46	8.57	0.00	-0.11	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	3/3/1998	8.46	8.22	0.03	0.26	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	6/15/1998	8.46	8.36	NP	0.10	52,000	ND	900	1,800	13,000	ND	--	--	--	--	--	--	--
	9/30/1998	8.46	8.93	NP	-0.47	1,000,000	ND	2,600	13,000	83,000	4,800	--	--	--	--	--	--	--
	12/28/1998	8.46	8.56	NP	-0.10	1,100,000	ND	1600	8,600	71,000	5,700	--	--	--	--	--	--	--
	3/22/1999	8.46	8.18	NP	0.28	130,000	470	1,100	2,000	28,000	5,700	--	--	--	--	--	--	--
	6/9/1999	8.46	9.36	NP	-0.90	40,000	230	640	590	13,000	3,500	2,100	--	--	--	--	--	--
	9/8/1999	8.46	9.52	NP	-1.06	55,000	217	202	745	14,300	6,890	6,690	--	--	--	--	--	--
	12/7/1999	8.46	9.67	NP	-1.21	41,200	89.3	ND	385	6,930	15,800	14,700	--	--	--	--	--	--
	3/13/2000	8.46	8.43	NP	0.03	48,000	490	610	2400	10,000	22,000	23,000	--	--	--	--	--	--
	6/21/2000	8.46	9.44	NP	-0.98	37,000	200	ND	1200	7,200	15,000	20,000	--	--	--	--	--	--
	9/27/2000	8.46	9.28	NP	-0.82	15,000	92	ND	540	2,800	74,000	83,000	ND	ND	ND	ND	--	ND
	12/12/2000	8.46	9.36	NP	-0.90	50,000	ND	ND	250	1,900	12,000	15,000	--	--	--	--	--	--
	3/7/2001	8.46	8.44	NP	0.02	6,220	29.8	10.4	96.3	638	11,200	11,800	ND	ND	ND	ND	--	ND
	6/6/2001	8.46	9.28	NP	-0.82	5,200	17	ND	69	420	6,500	8,700	ND	ND	ND	ND	--	ND
	9/24/2001	8.46	9.39	NP	-0.93	4,300	36	<25	65	590	4,400	4,400	<1000	<1000	<1000	<20000	<400000	<1000
	12/10/2001	8.46	9.17	NP	-0.71	11,000	220	<100	380	1,500	5,100	5,100	<100	<100	<100	<4000	<8000	<100
	3/11/2002	8.46	9.43	NP	-0.97	5,500	28	<20	360	690	6,400	6,300	<100	<100	<100	<5000	<25000	<100

**TABLE 1**  
**HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA**  
**76 Service Station No. 5325**  
**3200 LAKESHORE AVE**  
**OAKLAND, CALIFORNIA**



Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA													
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
U-1	12/2/2003	8.46	8.89	NP	-0.43	<10000	<100	<100	<100	<200	--	11,000	--	--	--	--	<100000	--	--
	3/30/2004	8.46	8.38	NP	0.08	12,000	<100	<100	190	<200	--	13,000	<200	<100	<100	3100	<10000	<100	<100
	6/7/2004	8.46	10.35	NP	-1.89	13,000	<100	<100	<100	<200	--	12,000	<200	<100	<100	3300	<10000	<100	<100
	9/9/2004	8.46	dry	dry	dry	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	12/20/2004	8.46	9.00	NP	-0.54	<50	<0.50	<0.50	<0.50	<1.0	--	8.2	<1.0	<0.50	<0.50	11	<50	<0.50	<0.50
	3/28/2005	8.46	8.10	NP	0.36	37,000	<10	<10	1500	5300	--	460	--	--	--	--	<10000	--	--
	6/14/2005	8.46	8.90	NP	-0.44	3,900	<0.50	<0.50	48	68	--	60	<10	<10	<10	4400	<1000	<10	<10
	9/28/2005	8.46	11.35	NP	-2.89	560	<0.50	0.60	3.0	26	--	18	<10	<10	<10	5500	<250	<10	<10
	12/29/2005	8.46	8.57	NP	-0.11	510	0.77	<0.50	27	63	--	62	<0.50	<0.50	<0.50	3900	<250	<0.50	<0.50
	3/27/2006	8.46	7.19	NP	1.27	29,000	<25	<25	1,500	4,900	--	300	--	--	--	--	<12000	--	--
	6/12/2006	8.46	7.80	NP	0.66	3,200	<0.50	<0.50	42	15	--	56	--	--	--	--	<250	--	--
	9/21/2006	8.46	8.03	NP	0.43	2,600	<12	<12	<12	<12	--	30	--	--	--	--	<6200	--	--
	12/21/2006	8.46	8.31	NP	0.15	2,000	<0.50	<0.50	13	2.2	--	53	--	--	--	--	<250	--	--
	3/28/2007	8.46	6.17	NP	2.29	12,000	<2.5	<2.5	690	1,900	--	110	<2.5	<2.5	<2.5	1600	<1200	<2.5	<2.5
	6/27/2007	8.46	5.38	NP	3.08	13,000	2.8	<2.5	960	1,300	--	79	<2.5	<2.5	<2.5	1500	<1200	<2.5	<2.5
	9/26/2007	8.46	5.32	NP	3.14	6,900	2.6	<2.5	310	680	--	44	--	--	--	--	<1200	--	--
	12/27/2007	8.46	8.11	NP	0.35	5,900	<2.5	<2.5	290	130	--	42	--	--	--	--	<1200	--	--
	3/26/2008	8.46	7.84	NP	0.62	3,500	<2.5	<2.5	100	18	--	30	--	--	--	--	<1200	--	--
	6/18/2008	8.46	7.03	NP	1.43	8,400	<5.0	<5.0	230	86	--	26	--	--	--	--	<2500	--	--
	9/24/2008	8.46	6.90	NP	1.56	6,000	3.3	<2.5	170	86	--	78	--	--	--	--	<1200	--	--
	12/22/2008	8.46	7.69	NP	0.77	6,400	0.64	<0.50	95	7.0	--	12	--	--	--	--	<250	--	--
	3/26/2009	8.46	7.55	NP	0.91	5,700	<2.5	<2.5	72	6.5	--	10	--	--	--	--	<1200	--	--
	6/23/2009	8.46	6.80	NP	1.66	4,000	<2.5	<2.5	41	<0.50	--	10	--	--	--	--	<1200	--	--
	12/3/2009	8.46	7.30	NP	1.16	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/4/2009	--	--	--	--	8330	0.56	<0.50	13.5	1.6	--	10.9	<0.50	<0.50	<0.50	729	<250	<1.0	<1.0
	6/28/2010	8.46	6.71	NP	1.75	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/30/2010	--	--	--	--	7,090	<0.50	<0.50	2.1	2.2	--	5.1	<0.50	<0.50	<0.50	1110	<250	<1.0	<1.0
	12/20/2010	8.46	6.76	NP	1.70	6,280	<0.50	<0.50	29.9	1.8	--	7.0	<0.50	<0.50	<0.50	391	<250	<1.0	<1.0
	6/3/2011	8.46	6.95	NP	1.51	6,490	<0.50	<0.50	1.2	<1.5	--	6.1	<0.50	<0.50	<0.50	880	<250	<1.0	<1.0
U-2	8/10/1990	NSVD	NG	NG	NG	780	27	46	15	130	--	--	--	--	--	--	--	--	--
	1/7/1991	NSVD	NG	NG	NG	1,900	67	5.8	58	69	--	--	--	--	--	--	--	--	--
	4/1/1991	NSVD	NG	NG	NG	1,700	250	89	34	190	--	--	--	--	--	--	--	--	--
	7/3/1991	NSVD	NG	NG	NG	2,100	150	25	3.1	290	--	--	--	--	--	--	--	--	--
	10/9/1991	NSVD	NG	NG	NG	230	7.1	ND	ND	11	--	--	--	--	--	--	--	--	--
	2/12/1992	NSVD	NG	NG	NG	410	1.9	ND	0.36	0.4	--	--	--	--	--	--	--	--	--
	5/5/1992	NSVD	NG	NG	NG	1,600	120	52	6.2	290	--	--	--	--	--	--	--	--	--
	6/11/1992	NSVD	NG	NG	NG	620	17	2.1	ND	37	--	--	--	--	--	--	--	--	--
	8/20/1992	NSVD	NG	NG	NG	700	28	6.5	1.3	4.6	--	--	--	--	--	--	--	--	--
	2/22/1993	NSVD	NG	NG	NG	3,400	2,400	2,100	1,200	5,800	--	--	--	--	--	--	--	--	--
	5/7/1993	NSVD	NG	NG	NG	17,000	1,800	660	1,700	4,000	--	--	--	--	--	--	--	--	--
	8/8/1993	NSVD	NG	NG	NG	5,600	420	ND	410	670	--	--	--	--	--	--	--	--	--
	11/16/1993	4.53	8.17	NP	-3.64	510	ND	ND	ND	ND	--	--	--	--					

**TABLE 1**  
**HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA**  
**76 Service Station No. 5325**  
**3200 LAKESHORE AVE**  
**OAKLAND, CALIFORNIA**



Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA													
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
U-2	3/14/1997	7.62	7.11	0.02	0.53	LPH	LPH	LPH	LPH	LPH	LPH	LPH	--	--	--	--	--	--	
	6/30/1997	7.62	6.19	NP	1.43	LPH	LPH	LPH	LPH	LPH	LPH	LPH	--	--	--	--	--	--	
	9/19/1997	7.62	7.30	NP	0.32	LPH	LPH	LPH	LPH	LPH	LPH	LPH	--	--	--	--	--	--	
	12/12/1997	7.62	6.75	NP	0.87	LPH	LPH	LPH	LPH	LPH	LPH	LPH	--	--	--	--	--	--	
	3/3/1998	7.62	6.36	NP	1.26	80,000	3,000	1,100	820	16,000	16,000	--	--	--	--	--	--	--	
	6/15/1998	7.62	6.51	NP	1.11	48,000	1,800	330	470	7,900	20,000	--	--	--	--	--	--	--	
	9/30/1998	7.62	7.17	NP	0.45	60,000	1,300	ND	500	9,700	19,000	--	--	--	--	--	--	--	
	12/28/1998	7.62	7.05	NP	0.57	63,000	590	160	320	5,600	16,000	--	--	--	--	--	--	--	
	3/22/1999	7.62	6.82	NP	0.80	28,000	1,100	ND	360	2,900	25,000	--	--	--	--	--	--	--	
	6/9/1999	7.62	7.51	NP	0.11	21,000	110	190	310	2,600	7,900	7,800	--	--	--	--	--	--	
	9/8/1999	7.62	8.15	NP	-0.53	23,300	477	138	286	4,110	16,400	15,300	--	--	--	--	--	--	
	12/7/1999	7.62	8.31	NP	-0.69	4,840	17.2	ND	ND	157	14,900	15,600	--	--	--	--	--	--	
	3/13/2000	7.62	6.69	NP	0.93	11,000	380	160	ND	2,100	22,000	26,000	--	--	--	--	--	--	
	6/21/2000	7.62	7.67	NP	-0.05	9,100	22	ND	ND	800	16,000	22,000	--	--	--	--	--	--	
	9/27/2000	7.62	7.44	NP	0.18	2,900	43	ND	ND	39	20,000	26,000	--	--	--	--	--	--	
	12/12/2000	7.62	7.51	NP	0.11	3,600	17	ND	ND	87	8,000	7,800	--	--	--	--	--	--	
	3/7/2001	7.62	7.15	NP	0.47	1,670	51.0	ND	7.20	19.5	5,930	7,900	ND	ND	ND	ND	ND	ND	
	6/6/2001	7.62	7.57	NP	0.05	1,100	14	ND	9.3	35	9,200	10,000	ND	ND	ND	ND	ND	ND	
	9/24/2001	7.62	7.63	NP	-0.01	1,000	25	<2.5	12	100	9,800	11,000	<1000	<1000	<1000	<20000	<400000	<1000	<1000
	12/10/2001	7.62	6.78	NP	0.84	83	14	0.55	3.4	6.8	2,500	2,500	<50	<50	<50	<2000	<4000	<50	<50
	3/11/2002	7.62	7.11	NP	0.51	<1000	28	<10	40	31	11,000	11,000	<200	<200	<200	<10000	<50000	<200	<200
	6/4/2002	7.62	7.17	NP	0.45	7,700	32	<25	33	48	14,000	--	--	--	--	--	--	--	
	9/3/2002	7.62	7.57	NP	0.05	5,200	<25	<25	<25	<25	11,000	15,000	<1000	<1000	<1000	<50000	<250000	<1000	<1000
	12/3/2002	7.62	7.67	NP	-0.05	<5000	<50	<50	<50	<100	--	3,200	<200	<200	<200	<10000	<50000	<200	<200
	3/4/2003	7.62	7.76	NP	-0.14	8,100	<50	<50	<50	<100	--	7,800	<200	<200	<200	<10000	<50000	<200	<200
	6/18/2003	7.62	6.86	NP	0.76	11,000	<50	<50	<50	<100	--	16,000	<200	<200	<200	<10000	<50000	<200	<200
	9/24/2003	7.62	7.48	NP	0.14	<10000	<100	<100	<100	<200	--	10,000	<400	<400	<400	<20000	<100000	<400	<400
	12/2/2003	7.62	7.94	NP	-0.32	<10000	<100	<100	<100	<200	--	10,000	--	--	--	<100000	--	--	
	3/30/2004	7.62	7.07	NP	0.55	12,000	<100	<100	<100	<200	--	11,000	<200	<100	<100	2400	<10000	<100	<100
	6/7/2004	7.62	7.75	NP	-0.13	14,000	<100	<100	<100	<200	--	13,000	<200	<100	<100	2600	<10000	<100	<100
	9/9/2004	7.62	8.64	NP	-1.02	<10000	<100	<100	<100	<200	--	9,500	<200	<100	<100	2700	<10000	<100	<100
	12/20/2004	7.62	7.73	NP	-0.11	<5000	<50	<50	<50	<100	--	11,000	<100	<50	<50	3500	<5000	<50	<50
	3/28/2005	7.62	6.23	NP	1.39	12,000	<50	<50	<50	160	120	--	7,000	<50	<50	<0.50	830	<5000	<50
	6/14/2005	7.62	7.05	NP	0.57	2,000	0.75	<0.50	3.7	1.1	--	2,400	<20	<20	<20	10000	<2000	<20	<20
	9/28/2005	7.62	8.00	NP	-0.38	320	<0.50	<0.50	<0.50	<1.0	--	80	<0.50	<0.50	<0.50	13000	<250	<0.50	<0.50
	12/29/2005	7.62	7.23	NP	0.39	<50	<0.50	<0.50	<0.50	<1.0	--	35	<0.50	<0.50	<0.50	11000	<250	<0.50	<0.50
	3/27/2006	7.62	5.30	NP	2.32	2,400	31	0.73	120	15	--	1,400	--	--	--	<250	--	--	
	6/12/2006	7.62	6.25	NP	1.37	<1200	<12	<12	17	<25	--	490	--	--	--	<6200	--	--	
	9/21/2006	7.62	6.00	NP	1.62	440	6.1	<0.50	1.7	<0.50	--	1,100	--	--	--	<250	--	--	
	12/21/2006	7.62	6.07	NP	1.55	670	10	<0.50	52	1.2									



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Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA												
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)
U-3	12/3/2002	10.98	10.65	NP	0.33	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--
	3/4/2003	10.98	10.76	NP	0.22	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--
	6/18/2003	10.98	10.26	NP	0.72	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--
	9/24/2003	10.98	10.88	NP	0.10	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	<500	--	--
	12/2/2003	10.98	11.00	NP	-0.02	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	<500	--	--
	3/30/2004	10.98	10.64	NP	0.34	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	<50	--	--
	6/7/2004	10.98	11.00	NP	-0.02	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	<50	--	--
	9/9/2004	10.98	11.31	NP	-0.33	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	<50	--	--
	12/20/2004	10.98	10.78	NP	0.20	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	<50	--	--
	3/28/2005	10.98	9.80	NP	1.18	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	<50	--	--
	6/14/2005	10.98	10.75	NP	0.23	<50	<0.50	<0.50	<0.50	1.2	--	<0.50	--	--	--	<50	--	--
	9/28/2005	10.98	11.15	NP	-0.17	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	<250	--	--
	12/29/2005	10.98	10.40	NP	0.58	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	<250	--	--
	3/27/2006	10.98	10.15	NP	0.83	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	<250	--	--
	6/12/2006	10.98	9.93	NP	1.05	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	<250	--	--
	9/21/2006	10.98	11.01	NP	-0.03	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	<250	--	--
	12/21/2006	10.98	10.92	NP	0.06	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	<250	--	--
	3/28/2007	10.98	10.84	NP	0.14	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	<250	--	--
	6/27/2007	10.98	10.93	NP	0.05	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	<250	--	--
	9/26/2007	10.98	11.01	NP	-0.03	770	<0.50	<0.50	<0.50	<0.50	--	18	--	--	--	<250	--	--
	12/27/2007	10.98	10.93	NP	0.05	<50	<0.50	<0.50	<0.50	<1.0	--	0.63	--	--	--	<250	--	--
	3/26/2008	10.98	10.84	NP	0.14	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	<250	--	--
	6/18/2008	10.98	10.89	NP	0.09	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	<250	--	--
	9/24/2008	10.98	10.89	NP	0.09	<50	<0.50	<0.50	<0.50	<1.0	--	0.87	--	--	--	<250	--	--
	12/22/2008	10.98	10.93	NP	0.05	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	<250	--	--
	3/26/2009	10.98	10.69	NP	0.29	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	<250	--	--
	6/23/2009	10.98	10.40	NP	0.58	<50	<0.50	<0.50	<0.50	<1.0	--	0.65	--	--	--	<250	--	--
	12/3/2009	10.98	11.10	NP	-0.12	<50	<0.50	<0.50	<0.50	<1.0	--	1.2	<0.50	<0.50	<0.50	<5.0	<250	<1.0
	6/28/2010	10.98	10.67	NP	0.31	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/30/2010	10.98	10.74	NP	0.24	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	<0.50	<0.50	<0.50	<5.0	<250	<1.0
	12/20/2010	10.98	10.37	NP	0.61	<50.0	<0.50	<0.50	<0.50	<1.5	--	0.91	<0.50	<0.50	<0.50	<5.0	<250	<1.0
	6/3/2011	10.98	10.54	NP	0.44	<50.0	<0.50	<0.50	<0.50	<1.5	--	0.73	<0.50	<0.50	<0.50	<5.0	<250	<1.0
U-4	6/22/1994	11.15	10.15	NP	1.00	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	9/22/1994	11.15	10.78	NP	0.37	ND	0.78	1.3	ND	1.4	--	--	--	--	--	--	--	--
	12/24/1994	11.15	9.81	NP	1.34	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	3/25/1995	11.15	9.51	NP	1.64	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	6/21/1995	11.15	9.53	NP	1.62	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	9/19/1995	11.15	10.17	NP	0.98	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	12/19/1995	11.15	9.97	NP	1.18	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	3/18/1996	11.15	9.65	NP	1.50	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	6/27/1996	11.15	9.73	NP	1.42	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	9/26/1996	11.15	10.14	NP	1.01	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	12/9/1996	11.																

**TABLE 1**  
**HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA**  
**76 Service Station No. 5325**  
**3200 LAKESHORE AVE**  
**OAKLAND, CALIFORNIA**



**TABLE 1**  
**HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA**  
**76 Service Station No. 5325**  
**3200 LAKESHORE AVE**  
**OAKLAND, CALIFORNIA**



Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA													
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
U-5	12/19/1995	6.98	7.17	NP	-0.19	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	
	3/18/1996	6.98	6.65	NP	0.33	100	0.67	0.5	0.51	5.4	--	--	--	--	--	--	--	--	
	6/27/1996	6.98	6.48	NP	0.50	16,000	280	150	1,400	4,600	530	--	--	--	--	--	--	--	
	9/26/1996	6.98	7.13	NP	-0.15	ND	ND	0.57	ND	0.96	ND	--	--	--	--	--	--	--	
	12/9/1996	6.98	5.90	NP	1.08	1,300	29	46	ND	140	97	--	--	--	--	--	--	--	
	3/14/1997	6.98	6.98	NP	0.00	ND	ND	ND	ND	ND	14	--	--	--	--	--	--	--	
	6/30/1997	6.98	7.07	NP	-0.09	4,200	74	51	180	980	270	--	--	--	--	--	--	--	
	9/19/1997	6.98	6.78	NP	0.20	6,300	160	13	370	1,000	480	--	--	--	--	--	--	--	
	12/12/1997	6.98	6.94	NP	0.04	60	1.3	ND	1.6	2.1	47	--	--	--	--	--	--	--	
	3/3/1998	6.98	6.50	NP	0.48	1,700	29	ND	150	190	330	--	--	--	--	--	--	--	
	6/15/1998	6.98	6.84	NP	0.14	1,500	32	ND	91	83	330	--	--	--	--	--	--	--	
	9/30/1998	6.98	7.30	NP	-0.32	1,700	44	ND	39	150	60	--	--	--	--	--	--	--	
	12/28/1998	6.98	7.25	NP	-0.27	1,400	59	ND	13	27	150	--	--	--	--	--	--	--	
	3/22/1999	6.98	6.86	NP	0.12	780	8.9	ND	0.76	4.5	350	--	--	--	--	--	--	--	
	6/9/1999	6.98	7.28	NP	-0.30	1,000	ND	ND	10	35	280	350	--	--	--	--	--	--	
	9/8/1999	6.98	7.51	NP	-0.53	2,620	26.2	ND	32.2	157	280	239	--	--	--	--	--	--	
	12/7/1999	6.98	7.67	NP	-0.69	949	9.26	ND	11.2	22.7	235	301	--	--	--	--	--	--	
	3/13/2000	6.98	6.73	NP	0.25	880	12	1.0	5.6	8.7	46	37	--	--	--	--	--	--	
	6/21/2000	6.98	7.38	NP	-0.40	700	4.0	ND	0.99	4.0	120	140	--	--	--	--	--	--	
	9/27/2000	6.98	7.44	NP	-0.46	400	1.9	ND	ND	1.5	160	250	--	--	--	--	--	--	
	12/12/2000	6.98	7.67	NP	-0.69	770	3.2	ND	ND	ND	27	13	--	--	--	--	--	--	
	3/7/2001	6.98	6.82	NP	0.16	623	5.15	ND	ND	0.669	35.7	43.4	ND	ND	ND	ND	ND	ND	
	6/6/2001	6.98	7.42	NP	-0.44	110	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	9/24/2001	6.98	7.50	NP	-0.52	270	<0.50	<0.50	<0.50	<0.50	40	42	<10	<10	<10	<200	<4000	<10	<10
	12/10/2001	6.98	6.65	NP	0.33	420	13	0.60	0.66	<0.50	<2.5	--	--	--	--	--	--	--	
	3/11/2002	6.98	7.00	NP	-0.02	260	<0.50	<0.50	<0.50	<0.50	42	47	<2.0	<2.0	<2.0	<100	<500	<2.0	<2.0
	6/4/2002	6.98	6.71	NP	0.27	170	<0.50	0.77	0.87	0.69	29	--	--	--	--	--	--	--	
	9/3/2002	6.98	7.46	NP	-0.48	<50	<0.50	<0.50	<0.50	<0.50	37	53	<2.0	<2.0	<2.0	<100	<500	<2.0	<2.0
	12/3/2002	6.98	6.63	NP	0.35	320	<0.50	<0.50	5.7	<1.0	--	11	<2.0	<2.0	<2.0	<100	<500	<2.0	<2.0
	3/4/2003	6.98	6.75	NP	0.23	100	<0.50	<0.50	<0.50	<1.0	--	44	<2.0	<2.0	<2.0	<100	<500	<2.0	<2.0
	6/18/2003	6.98	6.25	NP	0.73	51	<0.50	<0.50	<0.50	<1.0	--	36	<2.0	<2.0	<2.0	<100	<500	<2.0	<2.0
	9/24/2003	6.98	6.86	NP	0.12	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	<500	--	--	
	12/2/2003	6.98	7.11	NP	-0.13	<50	<0.50	<0.50	<0.50	<1.0	--	24	--	--	--	<500	--	--	
	3/30/2004	6.98	6.88	NP	0.10	100	<0.50	<0.50	<0.50	<1.0	--	130	<1.0	<0.50	<0.50	52	<50	<0.50	<0.50
	6/7/2004	6.98	8.52	NP	-1.54	250	<0.50	<0.50	<0.50	<1.0	--	160	<1.0	<0.5	<0.5	69	<50	<0.5	<0.5
	9/9/2004	6.98	12.27	NP	-5.29	340	<0.50	<0.50	<0.50	<1.0	--	260	<1.0	<0.50	<0.50	130	<50	<0.50	<0.50
	12/20/2004	6.98	7.51	NP	-0.53	130	<0.50	<0.50	1.9	2.0	--	120	--	--	--	<50	--	--	
	3/28/2005	6.98	7.21	NP	-0.23	670	<2.0	<2.0	<2.0	<4.0	--	230	<0.50	<0.50	<0.50	150	<50	<0.50	<0.50
	6/14/2005	6.98	7.46	NP	-0.48	160	<0.50	<0.50	<0.50	<1.0	--	400	<0.50	<0.50	<0.50	160	<100	<0.50	<0.50
	9/28/2005	6.98	9.59	NP	-2.61	460	<0.50	<0.50	<0.50	<1.0	--	370	<0.50	<0.50	<0.50	220	<250	<0.50	<0.50
	12/29/2005	6.98	7.53	NP	-0.55	150	<0.50	<0.50	<0.50	<1.0	--	190	<0.50	<0.50	<0.50	280	<250	<0.50	<0.50
	3/27/2006	6.98	6.28	NP	0.70	450	<0.50	<0.50	8.3	<1.0	--	70	--	--	--	<2			

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**76 Service Station No. 5325**  
**3200 LAKESHORE AVE**  
**OAKLAND, CALIFORNIA**



Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA													
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
U-5	12/22/2008	6.98	6.82	NP	0.16	620	<0.50	<0.50	0.54	1.3	--	13	--	--	--	--	<250	--	--
	3/26/2009	6.98	6.19	NP	0.79	310	<0.50	<0.50	<0.50	<1.0	--	9.4	--	--	--	<250	--	--	
	6/23/2009	6.98	5.50	NP	1.48	80	<0.50	<0.50	<0.50	<1.0	--	7.1	--	--	--	<250	--	--	
	12/3/2009	6.98	6.02	NP	0.96	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/4/2009	--	--	--	--	160	<0.50	<0.50	<0.50	<1.0	--	4.6	<0.50	<0.50	<0.50	79.4	<250	<1.0	<1.0
	6/28/2010	6.98	5.51	NP	1.47	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/30/2010	6.98	5.71	NP	1.27	144	<0.50	<0.50	<0.50	<1.5	--	3.8	<0.50	<0.50	<0.50	66.6	<250	<1.0	<1.0
	12/20/2010	6.98	5.82	NP	1.16	164	<0.50	<0.50	<0.50	<1.5	--	3.9	<0.50	<0.50	<0.50	67.7	<250	<1.0	<1.0
	6/3/2011	6.98	6.05	NP	0.93	85.0	<0.50	<0.50	<0.50	<1.5	--	3.0	<0.50	<0.50	<0.50	61.6	<250	<1.0	<1.0
U-6	6/22/1994	7.14	7.13	NP	0.01	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
	9/22/1994	7.14	7.34	NP	-0.20	130	1.3	0.8	ND	0.73	--	--	--	--	--	--	--	--	--
	12/24/1994	7.14	6.67	NP	0.47	6,900	500	59	600	380	--	--	--	--	--	--	--	--	--
	3/25/1995	7.14	6.28	NP	0.86	47,000	450	1,300	1,700	8,200	--	--	--	--	--	--	--	--	--
	6/21/1995	7.14	7.59	NP	-0.45	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
	9/19/1995	7.14	7.69	NP	-0.55	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
	12/19/1995	7.14	7.75	NP	-0.61	210	2.5	1.0	2.9	17	--	--	--	--	--	--	--	--	--
	3/18/1996	7.14	6.86	NP	0.28	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
	6/27/1996	7.14	6.51	NP	0.63	ND	ND	ND	ND	ND	510	--	--	--	--	--	--	--	--
	9/26/1996	7.14	7.61	NP	-0.47	ND	ND	ND	ND	ND	1,400	--	--	--	--	--	--	--	--
	12/9/1996	7.14	5.88	NP	1.26	1,200	29	48	6.4	140	58	--	--	--	--	--	--	--	--
	3/14/1997	7.14	7.30	NP	-0.16	ND	ND	ND	ND	ND	1,500	--	--	--	--	--	--	--	--
	6/30/1997	7.14	7.34	NP	-0.20	ND	ND	ND	ND	ND	990	--	--	--	--	--	--	--	--
	9/19/1997	7.14	7.25	NP	-0.11	ND	ND	ND	ND	ND	1,400	--	--	--	--	--	--	--	--
	12/12/1997	7.14	7.28	NP	-0.14	ND	ND	ND	ND	ND	680	--	--	--	--	--	--	--	--
	3/3/1998	7.14	7.00	NP	0.14	ND	ND	ND	ND	ND	1,600	--	--	--	--	--	--	--	--
	6/15/1998	7.14	7.17	NP	-0.03	ND	ND	ND	ND	ND	1,000	--	--	--	--	--	--	--	--
	9/30/1998	7.14	7.90	NP	-0.76	ND	ND	ND	ND	ND	1,200	--	--	--	--	--	--	--	--
	12/28/1998	7.14	7.78	NP	-0.64	ND	ND	ND	ND	ND	730	--	--	--	--	--	--	--	--
	3/22/1999	7.14	7.46	NP	-0.32	ND	ND	ND	ND	ND	1,800	--	--	--	--	--	--	--	--
	6/9/1999	7.14	7.73	NP	-0.59	ND	ND	ND	ND	ND	1,000	850	--	--	--	--	--	--	--
	9/8/1999	7.14	7.94	NP	-0.80	ND	ND	ND	ND	ND	851	1,040	--	--	--	--	--	--	--
	12/7/1999	7.14	8.10	NP	-0.96	ND	ND	ND	ND	ND	1,140	1,150	--	--	--	--	--	--	--
	3/13/2000	7.14	6.94	NP	0.20	ND	ND	ND	ND	ND	560	670	--	--	--	--	--	--	--
	6/21/2000	7.14	7.84	NP	-0.70	ND	ND	ND	ND	ND	400	590	--	--	--	--	--	--	--
	9/27/2000	7.14	7.67	NP	-0.53	ND	ND	ND	ND	ND	2,500	2800	--	--	--	--	--	--	--
	12/12/2000	7.14	7.73	NP	-0.59	ND	ND	ND	ND	ND	590	580	--	--	--	--	--	--	--
	3/7/2001	7.14	7.26	NP	-0.12	ND	ND	ND	ND	ND	310	321	ND	ND	ND	ND	ND	ND	ND
	6/6/2001	7.14	7.80	NP	-0.66	ND	ND	ND	ND	ND	250	330	ND	ND	ND	ND	ND	ND	ND
	9/24/2001	7.14	7.82	NP	-0.68	<50	<0.50	<0.50	<0.50	<0.50	530	660	<100	<100	<100	<2000	<40000	<100	<100
	12/10/2001	7.14	7.15	NP	-0.01	<50	<0.50	<0.50	<0.50	<0.50	220	220	<5.0	<5.0	<5.0	<200	<400	<5.0	<5.0
	3/11/2002	7.14	7.32	NP	-0.18	<50	<0.50	<0.50	<0.50	<0.50	720	760	<8.0	<8.0	<8.0	<400	<2000	<8.0	<8.0
	6/4/2002	7.14	7.17	NP	-0.03	250	<1.0	<1.0	<1.0	<1.0	470	--	--	--	--	--	--	--	--
	9/3/2002	7.14	7.71	NP	-0.57	420	<2.5	<2.5	<2.5	4.7	860	1,200	<40	<40	<40	<2000	<10000	<40	<40
	12/3/2002	7.14	6.92	NP	0.22	<500	<5.0	<5.0	<5.0	<10	--	870	<20</						

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Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA													
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
U-6	3/28/2005	7.14	7.07	NP	0.07	<50	<0.50	<0.50	<0.50	<1.0	--	150	<0.50	<0.50	<0.50	990	--	<2.5	<0.50
	6/14/2005	7.14	7.88	NP	-0.74	<100	<1.0	<1.0	<1.0	<2.0	--	20	<0.50	<0.50	<0.50	<5.0	<100	<0.5	<0.5
	9/28/2005	7.14	10.43	NP	-3.29	150	<0.50	<0.50	<0.50	<1.0	--	4.6	<0.50	<0.50	<0.50	3,800	<250	<0.50	<0.50
	12/29/2005	7.14	7.63	NP	-0.49	<50	<0.50	<0.50	<0.50	<1.0	--	13	<0.50	<0.50	<0.50	1,100	<250	<0.50	<0.50
	3/27/2006	7.14	6.15	NP	0.99	<50	<0.50	<0.50	<0.50	<1.0	--	8.1	--	--	--	--	<250	--	--
	6/12/2006	7.14	6.59	NP	0.55	<50	<0.50	<0.50	<0.50	<1.0	--	6.9	--	--	--	<250	--	--	--
	9/21/2006	7.14	6.90	NP	0.24	<50	<0.50	<0.50	<0.50	<0.50	--	3.1	--	--	--	<250	--	--	--
	12/21/2006	7.14	7.36	NP	-0.22	<50	<0.50	<0.50	<0.50	<0.50	--	1.2	--	--	--	<250	--	--	--
	3/28/2007	7.14	3.48	NP	3.66	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	<250	--	--	--
	6/27/2007	7.14	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	
	9/26/2007	7.14	2.71	NP	4.43	54	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	<250	--	--	--
	12/27/2007	7.14	6.96	NP	0.18	<50	<0.50	<0.50	<0.50	<1.0	--	2.4	--	--	--	<250	--	--	--
	3/26/2008	7.14	6.55	NP	0.59	<50	<0.50	<0.50	<0.50	<1.0	--	2.3	--	--	--	<250	--	--	--
	6/18/2008	7.14	6.71	NP	0.43	<50	<0.50	<0.50	<0.50	<1.0	--	0.59	--	--	--	<250	--	--	--
	9/24/2008	7.14	5.50	NP	1.64	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	<250	--	--	--
	12/22/2008	7.14	6.48	NP	0.66	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	<250	--	--	--
	3/26/2009	7.14	6.09	NP	1.05	<250	<2.5	<2.5	<2.5	<5.0	--	<2.5	--	--	--	<1200	--	--	--
	6/23/2009	7.14	4.80	NP	2.34	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	<250	--	--	--
	12/3/2009	7.14	5.31	NP	1.83	<50	<0.50	<0.50	<0.50	<1.5	--	<0.50	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0
	6/28/2010	7.14	4.77	NP	2.37	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/30/2010	7.14	4.97	NP	2.17	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	<0.50	<0.50	<0.50	11.4	<250	<1.0	<1.0
	12/20/2010	7.14	4.59	NP	2.55	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0
	6/3/2011	7.14	5.26	NP	1.88	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	<0.50	<0.50	<0.50	<5.0	<250	<1.0	<1.0

**Gauging Notes:**

TOC - Top of Casing

ft - Feet

NP - LNAPL not present

LNAPL - Light non-aqueous phase liquid

\* - Corrected for LNAPL if present (assumes LNAPL specific gravity = 0.75)

NG - Not gauged

WI - Well Inaccessible

NSVD - Not surveyed

DRY - Well is dry

-- - No information available

**Analytical Notes:**

< - Not detected at or above indicated laboratory reporting limit

DRY - Well was Dry; sample could not be taken

LPH - Liquid Phase Hydrocarbons

ND - Not detected, and detection limit is not known

ug/L - micrograms/liter

WI - Well Inaccessible

TPHg- Total Petroleum Hydrocarbon as gasoline

MTBE- Methyl tertiary-butyl ether

TBA- Tertiary-butyl alcohol

DIPE- Di-isopropyl ether

ETBE- Ethyl tertiary-butyl ether

TAME- Tertiary-amyl methyl ether

**TABLE 1a**  
**ADDITIONAL HISTORICAL GROUNDWATER ANALYTICAL DATA**  
**76 Service Station No. 5325**  
**3200 LAKESHORE AVE**  
**OAKLAND, CALIFORNIA**



Well I.D.	Date	GROUNDWATER ANALYTICAL DATA																			
		Acenaphthylene (ug/L)	Acetone (ug/L)	Alkalinity, Total as CaCO3 (ug/L)	Antimony SW6010 D (ug/L)	Antimony SW6010 T (ug/L)	Arsenic SW6010 D (ug/L)	Arsenic SW6010 T (ug/L)	Barium SW6010 D (ug/L)	Barium SW6010 T (ug/L)	Beryllium SW6010 D (ug/L)	Beryllium SW6010 T (ug/L)	Biochemical Oxygen Demand (ug/L)	Cadmium SW6010 D (ug/L)	Cadmium SW6010 T (ug/L)	Chemical Oxygen Demand (ug/L)	Chloride (ug/L)	Cobalt SW6010 D (ug/L)	Cobalt SW6010 T (ug/L)	Iron SW6010 T (ug/L)	Iron, Ferric (ug/L)
U-1	6/30/2010	--	<5.0	--	<60.0	<60.0	52.5	52.5	293	293	<5.0	<5.0	23,400	<5.0	<5.0	113,000	43,800	<50.0	<50.0	27,700	23,700
	12/20/2010	--	<5.0	371,000	<60.0	<60.0	32.5	32.5	237	237	<5.0	<5.0	16,700	<5.0	<5.0	41,000	46,000	<50.0	<50.0	10,600	7,000
	6/3/2011	--	<5.0	--	<60.0	<60.0	44.0	44.0	224	224	<5.0	<5.0	19,600	<5.0	<5.0	40,400	40,700	<50.0	<50.0	27,100	24,700
U-2	6/30/2010	--	29.5	--	<60.0	<60.0	100	100	264	264	<5.0	<5.0	12,300	<5.0	<5.0	62,100	74,000	<50.0	<50.0	5,760	2,560
	12/20/2010	--	13.5	754,000	<60.0	<60.0	46.4	46.4	209	209	<5.0	<5.0	17,300	<5.0	<5.0	65,500	61,400	<50.0	<50.0	3,710	<100
	6/3/2011	--	<5.0	--	<60.0	<60.0	64.4	64.4	190	190	<5.0	<5.0	<2000	<5.0	<5.0	65,600	57,700	<50.0	<50.0	10,900	8,700
U-3	9/27/2000	307	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/30/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	952	--	
	12/20/2010	--	--	312,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	812	--	
	6/3/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
U-4	6/30/2010	--	<5.0	--	<60.0	<60.0	<10.0	<10.0	<100	<100	<5.0	<5.0	<2000	<5.0	<5.0	<5000	41,100	<50.0	<50.0	395	395
	12/20/2010	--	<5.0	352,000	<60.0	<60.0	<20.0	<20.0	<100	<100	<5.0	<5.0	<2000	<5.0	<5.0	9,090	43,500	<50.0	<50.0	118	118
	6/3/2011	--	<5.0	--	<60.0	<60.0	<20.0	<20.0	<100	<100	<5.0	<5.0	11,500	<5.0	<5.0	9,530	40,600	<50.0	<50.0	<100	<100
U-5	6/30/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6,650	--	
	12/20/2010	--	--	319,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7,160	--	
	6/3/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
U-6	6/30/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	566,000	--	
	12/20/2010	--	--	87,800	--	--	--	--	--	--	--	--	--	--	--	--	--	--	28,500	--	
	6/3/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

**Analytical Notes:**

< - Not detected at or above indicated laboratory reporting limit

DRY - Well was Dry; sample could not be taken

LPH - Liquid Phase Hydrocarbons

ug/L - micrograms/liter

**TABLE 1b**  
**ADDITIONAL HISTORICAL GROUNDWATER ANALYTICAL DATA**  
**76 Service Station No. 5325**  
**3200 LAKESHORE AVE**  
**OAKLAND, CALIFORNIA**

Well I.D.	Date	GROUNDWATER ANALYTICAL DATA																			
		Iron, Ferrous A3500D (ug/L)	Lead SW6010 D (ug/L)	Lead SW6010 T (ug/L)	Manganese SW6010 D (ug/L)	Manganese SW6010 T (ug/L)	Mercury SW7470A D (ug/L)	Mercury SW7470A T (ug/L)	Molybdenum SW6010 D (ug/L)	Molybdenum SW6010 T (ug/L)	Nickel SW6010 D (ug/L)	Nickel SW6010 T (ug/L)	Nitrate as N (ug/L)	Nitrite as N (ug/L)	Nitrogen (ug/L)	Nitrogen, NO2 plus NO3 (ug/L)	Oxidation Reduction Potential FIELD_PostPurge (MILLIVOLTS)	Oxidation Reduction Potential FIELD_PrePurge (MILLIVOLTS)	Oxygen, Dissolved FIELD_PostPurge (mg/L)	Oxygen, Dissolved FIELD_PrePurge (mg/L)	Phosphate (mg/L)
U-1	6/15/1998	39000	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	382	382	--	--	ND
	9/30/1998	17000	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	366	366	--	--	ND
	12/28/1998	4300	--	--	--	--	--	--	--	--	--	--	6300	--	--	--	298	298	--	--	28
	3/22/1999	4900	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	320	320	--	--	3.5
	6/9/1999	1200	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	260	260	--	--	ND
	9/8/1999	1800	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	85	85	--	--	ND
	12/7/1999	5700	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	404	404	--	--	17.0
	3/13/2000	8000	--	--	--	--	--	--	--	--	--	--	180	--	--	--	262	262	--	--	ND
	6/21/2000	9300	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	148	148	--	--	ND
	9/27/2000	2800	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	119	119	--	--	18.4
	12/12/2000	490	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	131	131	--	--	16.0
	3/7/2001	483	--	--	--	--	--	--	--	--	--	--	2640	--	--	--	125	125	--	--	6.89
	6/6/2001	1000	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	141	141	--	--	2.7
	9/24/2001	<100	--	--	--	--	--	--	--	--	--	--	450	--	--	--	125	125	--	--	--
	12/10/2001	14000	--	--	--	--	--	--	--	--	--	--	<500	--	--	--	141	141	--	--	2.2
	3/11/2002	15000	--	--	--	--	--	--	--	--	--	--	<500	--	--	--	132	132	--	--	0.11
	6/4/2002	<500	--	--	--	--	--	--	--	--	--	--	<500	--	--	--	117	117	--	--	<0.10
	9/3/2002	<500	--	--	--	--	--	--	--	--	--	--	<500	--	--	--	94	94	--	--	<0.10
	12/3/2002	9600	--	--	--	--	--	--	--	--	--	--	<1000	--	--	--	72	72	--	--	<1.0
	3/4/2003	36000	--	--	--	--	--	--	--	--	--	--	<1000	--	--	--	-125	-125	--	--	<1.0
	6/18/2003	16000	--	--	--	--	--	--	--	--	--	--	<1000	--	--	--	-48	-48	--	--	<1.0
	9/24/2003	15	--	--	--	--	--	--	--	--	--	--	<1000	--	--	--	-36	-36	--	--	<1.0
	12/2/2003	4000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/30/2004	12000	--	--	--	--	--	--	--	--	--	--	<1000	--	--	--	--	--	--	--	--
	6/7/2004	660	--	--	--	--	--	--	--	--	--	--	<500	--	--	--	--	--	--	--	--
	9/9/2004	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	12/20/2004	0.015	--	--	--	--	--	--	--	--	--	--	<1000	--	--	--	--	--	--	--	--
	3/28/2005	16	--	--	--	--	--	--	--	--	--	--	<1000	--	--	--	--	--	--	--	--
	6/14/2005	7100	--	--	--	--	--	--	--	--	--	--	<1000	--	--	--	--	--	--	--	--
	9/28/2005	7300	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	12/29/2005	9500	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	3/27/2006	8500	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	6/12/2006	25000	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	9/21/2006	16000	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	12/21/2006	22000	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	3/28/2007	20000	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	6/27/2007	35000	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	9/26/2007	27000	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	12/27/2007	25000	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	3/26/2008	23000	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	6/18/2008	30000	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	9/24/2008	5000	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	12/22/2008	23000	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	3/26/2009	2400	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	6/23/2009	23,000	--	--	--	--	--	--	--	--	--	--	<0.10	--	--	--	--	--	--	--	--
	12/3/2009</td																				

**TABLE 1b**  
**ADDITIONAL HISTORICAL GROUNDWATER ANALYTICAL DATA**  
**76 Service Station No. 5325**  
**3200 LAKESHORE AVE**  
**OAKLAND, CALIFORNIA**

Well I.D.	Date	GROUNDWATER ANALYTICAL DATA																			
		Iron, Ferrous A3500D (ug/L)	Lead SW6010 D (ug/L)	Lead SW6010 T (ug/L)	Manganese SW6010 D (ug/L)	Manganese SW6010 T (ug/L)	Mercury SW7470A D (ug/L)	Mercury SW7470A T (ug/L)	Molybdenum SW6010 D (ug/L)	Molybdenum SW6010 T (ug/L)	Nickel SW6010 D (ug/L)	Nickel SW6010 T (ug/L)	Nitrate as N (ug/L)	Nitrite as N (ug/L)	Nitrogen (ug/L)	Nitrogen, NO2 plus NO3 (ug/L)	Oxidation Reduction Potential FIELD_PostPurge (MILLIVOLTS)	Oxidation Reduction Potential FIELD_PrePurge (MILLIVOLTS)	Oxygen, Dissolved FIELD_PostPurge (mg/L)	Oxygen, Dissolved FIELD_PrePurge (mg/L)	Phosphate (mg/L)
U-2	9/8/1999	1900	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	235	235	--	--	ND
	12/7/1999	250	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	389	389	--	--	ND
	3/13/2000	4300	--	--	--	--	--	--	--	--	--	--	310	--	--	--	184	184	--	--	ND
	6/21/2000	260	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	136	136	--	--	ND
	9/27/2000	640	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	142	142	--	--	10.5
	12/12/2000	2700	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	155	155	--	--	ND
	3/7/2001	677	--	--	--	--	--	--	--	--	--	--	2240	--	--	--	148	148	--	--	3.02
	6/6/2001	800	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	163	163	--	--	2.8
	9/24/2001	<100	--	--	--	--	--	--	--	--	--	--	490	--	--	--	151	151	--	--	--
	12/10/2001	<100	--	--	--	--	--	--	--	--	--	--	<500	--	--	--	171	171	--	--	0.20
	3/11/2002	<100	--	--	--	--	--	--	--	--	--	--	<500	--	--	--	156	156	--	--	0.65
	6/4/2002	<100	--	--	--	--	--	--	--	--	--	--	<500	--	--	--	144	144	--	--	<0.10
	9/3/2002	<250	--	--	--	--	--	--	--	--	--	--	<500	--	--	--	151	151	--	--	0.26
	12/3/2002	9900	--	--	--	--	--	--	--	--	--	--	<1000	--	--	--	94	94	--	--	<1.0
	3/4/2003	8600	--	--	--	--	--	--	--	--	--	--	<1000	--	--	--	-147	-147	--	--	<1.0
	6/18/2003	5500	--	--	--	--	--	--	--	--	--	--	<1000	--	--	--	-8	-8	--	--	3.1
	9/24/2003	14	--	--	--	--	--	--	--	--	--	--	<1000	--	--	--	-10	-10	--	--	<1.0
	12/2/2003	2700	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/30/2004	<200	--	--	--	--	--	--	--	--	--	--	<1000	--	--	--	--	--	--	--	--
	6/7/2004	210	--	--	--	--	--	--	--	--	--	--	<500	--	--	--	--	--	--	--	--
	9/9/2004	930	--	--	--	--	--	--	--	--	--	--	<1000	--	--	--	--	--	--	--	--
	12/20/2004	0.87	--	--	--	--	--	--	--	--	--	--	<1000	--	--	--	--	--	--	--	--
	3/28/2005	4.0	--	--	--	--	--	--	--	--	--	--	<1000	--	--	--	--	--	--	--	--
	6/14/2005	3400	--	--	--	--	--	--	--	--	--	--	<1000	--	--	--	--	--	--	--	--
	9/28/2005	4000	--	--	--	--	--	--	--	--	--	--	<200	--	--	--	--	--	--	--	--
	12/29/2005	2200	--	--	--	--	--	--	--	--	--	--	<200	--	--	--	--	--	--	--	--
	3/27/2006	1100	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	6/12/2006	1500	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	9/21/2006	100	--	--	--	--	--	--	--	--	--	--	33000	--	--	--	--	--	--	--	--
	12/21/2006	770	--	--	--	--	--	--	--	--	--	--	<200	--	--	--	--	--	--	--	--
	3/28/2007	8600	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	6/27/2007	9000	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	9/26/2007	22000	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	12/27/2007	7600	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	3/26/2008	11000	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	6/18/2008	16000	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	9/24/2008	4600	--	--	--	--	--	--	--	--	--	--	<200	--	--	--	--	--	--	--	--
	12/22/2008	13000	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	3/26/2009	2600	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	6/23/2009	9500	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	12/3/2009	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/4/2009	3500	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	6/28/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/30/2010	3200	<10.0	<10.0	5180	5180	<0.20	<0.20	60.3	60.3	<40.0	<40.0	62.1	19.4	4330	81.5	--	--	--	--	--
	12/20/2010	4400	<10.0	<10.0	5740	5740	<0.20	<0.20	49.5	49.5	<40.0	<40.0	<50.0	29.6	4360	<50.0	--	--	--	--	--

**TABLE 1b**  
**ADDITIONAL HISTORICAL GROUNDWATER ANALYTICAL DATA**  
**76 Service Station No. 5325**  
**3200 LAKESHORE AVE**  
**OAKLAND, CALIFORNIA**



Well I.D.	Date	GROUNDWATER ANALYTICAL DATA																			
		Iron, Ferrous A3500D (ug/L)	Lead SW6010 D (ug/L)	Lead SW6010 T (ug/L)	Manganese SW6010 D (ug/L)	Manganese SW6010 T (ug/L)	Mercury SW7470A D (ug/L)	Mercury SW7470A T (ug/L)	Molybdenum SW6010 D (ug/L)	Molybdenum SW6010 T (ug/L)	Nickel SW6010 D (ug/L)	Nickel SW6010 T (ug/L)	Nitrate as N (ug/L)	Nitrite as N (ug/L)	Nitrogen (ug/L)	Nitrogen, NO2 plus NO3 (ug/L)	Oxidation Reduction Potential FIELD_PostPurge (MILLIVOLTS)	Oxidation Reduction Potential FIELD_PrePurge (MILLIVOLTS)	Oxygen, Dissolved FIELD_PostPurge (mg/L)	Oxygen, Dissolved FIELD_PrePurge (mg/L)	Phosphate (mg/L)
U-3	3/13/2000	150	--	--	--	--	--	--	--	--	--	--	33000	--	--	--	307	307	--	--	ND
	6/21/2000	200	--	--	--	--	--	--	--	--	--	--	32000	--	--	--	225	225	--	--	ND
	9/27/2000	ND	--	--	--	--	--	--	--	--	--	--	34000	--	--	--	211	211	--	--	15.7
	12/12/2000	ND	--	--	--	--	--	--	--	--	--	--	31000	--	--	--	246	246	--	--	ND
	3/7/2001	ND	--	--	--	--	--	--	--	--	--	--	36500	--	--	--	251	251	--	--	0.443
	6/6/2001	ND	--	--	--	--	--	--	--	--	--	--	8000	--	--	--	214	214	--	--	0.18
	9/24/2001	<100	--	--	--	--	--	--	--	--	--	--	23000	--	--	--	198	198	--	--	ND
	12/10/2001	<100	--	--	--	--	--	--	--	--	--	--	21000	--	--	--	188	188	--	--	0.11
	3/11/2002	<100	--	--	--	--	--	--	--	--	--	--	30000	--	--	--	166	166	--	--	0.14
	6/4/2002	<100	--	--	--	--	--	--	--	--	--	--	18000	--	--	--	151	151	--	--	<0.10
	9/3/2002	<100	--	--	--	--	--	--	--	--	--	--	28000	--	--	--	143	143	--	--	<0.10
	12/3/2002	<200	--	--	--	--	--	--	--	--	--	--	20000	--	--	--	154	154	--	--	<1.0
	3/4/2003	<200	--	--	--	--	--	--	--	--	--	--	18000	--	--	--	-136	-136	--	--	<1.0
	6/18/2003	<200	--	--	--	--	--	--	--	--	--	--	17000	--	--	--	333	333	--	--	<1.0
	9/24/2003	<0.20	--	--	--	--	--	--	--	--	--	--	18000	--	--	--	-50	-50	--	--	1.4
	12/2/2003	<200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/30/2004	<200	--	--	--	--	--	--	--	--	--	--	16000	--	--	--	--	--	--	--	--
	6/7/2004	<200	--	--	--	--	--	--	--	--	--	--	17000	--	--	--	--	--	--	--	--
	9/9/2004	<10	--	--	--	--	--	--	--	--	--	--	16000	--	--	--	--	--	--	--	--
	12/20/2004	<0.010	--	--	--	--	--	--	--	--	--	--	17000	--	--	--	--	--	--	--	--
	3/28/2005	<0.050	--	--	--	--	--	--	--	--	--	--	17000	--	--	--	--	--	--	--	--
	6/14/2005	<50	--	--	--	--	--	--	--	--	--	--	18000	--	--	--	--	--	--	--	--
	9/28/2005	<100	--	--	--	--	--	--	--	--	--	--	4300	--	--	--	--	--	--	--	--
	12/29/2005	<100	--	--	--	--	--	--	--	--	--	--	4300	--	--	--	--	--	--	--	--
	3/27/2006	<100	--	--	--	--	--	--	--	--	--	--	4500	--	--	--	--	--	--	--	--
	6/12/2006	<100	--	--	--	--	--	--	--	--	--	--	4400	--	--	--	--	--	--	--	--
	9/21/2006	170	--	--	--	--	--	--	--	--	--	--	4400	--	--	--	--	--	--	--	--
	12/21/2006	<100	--	--	--	--	--	--	--	--	--	--	4500	--	--	--	--	--	--	--	--
	3/28/2007	<100	--	--	--	--	--	--	--	--	--	--	4700	--	--	--	--	--	--	--	--
	6/27/2007	<100	--	--	--	--	--	--	--	--	--	--	4500	--	--	--	--	--	--	--	--
	9/26/2007	9900	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	12/27/2007	130	--	--	--	--	--	--	--	--	--	--	4600	--	--	--	--	--	--	--	--
	3/26/2008	190	--	--	--	--	--	--	--	--	--	--	5100	--	--	--	--	--	--	--	--
	6/18/2008	<100	--	--	--	--	--	--	--	--	--	--	4900	--	--	--	--	--	--	--	--
	9/24/2008	150	--	--	--	--	--	--	--	--	--	--	4700	--	--	--	--	--	--	--	--
	12/22/2008	<100	--	--	--	--	--	--	--	--	--	--	4800	--	--	--	--	--	--	--	--
	3/26/2009	<100	--	--	--	--	--	--	--	--	--	--	4800	--	--	--	--	--	--	--	--
	6/23/2009	<100	--	--	--	--	--	--	--	--	--	--	4400	--	--	--	--	--	--	--	--
	12/3/2009	200	--	--	--	--	--	--	--	--	--	--	4940	--	--	--	--	--	--	--	--
	6/28/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/30/2010	--	--	--	--	--	--	--	--	--	--	--	--	<10.0	--	4690	--	--	--	--	--
	12/20/2010	--	--	--	--	--	--	--	--	--	--	--	4770	13.3	--	4780	--	--	--	--	--
	6/3/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
U-4	6/30/1997	130	--	--	--	--	--	--	--	--	--	--	35000	--	--	--	200	200	--	--	0.52
	9/19/1997	350	--	--	--	--	--	--	--	--	--	--	30000	--	--	--	45	45	--	--	ND
	12/12/1997	680	--	--	--	--	--	--	--	--	--	--	31000	--	--	--	380	380	--	--	0.73
	3/3/1998	18	--	--	--	--	--	--	--	--	--	--	3200	--	--	--	284	284	--	--	ND
	6/15/1998	140	--	--	--	--	--	--	--	--	--	--	33000	--	--	--	256	256	--	--	ND
	9/30/1998	49	--	--	--	--	--	--	--	--	--	--	31000	--	--	--	276	276	--	--	ND
	12/28/1998	360	--	--	--	--	--	--	--	--	--	--	31000	--	--	--	280	280	--	--	ND
	3/22/1999	ND	--	--	--	--	--	--	--	--	--	--	30000	--	--	--	320	320	--	--	0.14
	6/9/1999	ND	--	--	--	--	--	--	--	--	--	--	35000	--	--	--	340	340	--	--	0.91
	9/8/1999	ND	--	--	--	--	--	--	--	--	--	--	24000	--	--	--	391	391	--	--	ND
	12/7/1999	ND	--	--	--	--	--	--	--	--	--	--	27700	--	--	--	478	478	--	--	ND
	3/13/2000	ND	--	--	--	--	--	--	--	--	--	--	33000	--	--	--	244	244	--	--	ND
	6/21/2000	34	--	--	--	--	--	--	--	--	--	--	32000	--	--	--	248	248	--	--	ND
	9/27/2000	ND	--	--	--	--	--	--	--	--	--	--	28000	--	--	--	198	198	--	--	ND

**TABLE 1b**  
**ADDITIONAL HISTORICAL GROUNDWATER ANALYTICAL DATA**  
**76 Service Station No. 5325**  
**3200 LAKESHORE AVE**  
**OAKLAND, CALIFORNIA**

Well I.D.	Date	GROUNDWATER ANALYTICAL DATA																			
		Iron, Ferrous A3500D (ug/L)	Lead SW6010 D (ug/L)	Lead SW6010 T (ug/L)	Manganese SW6010 D (ug/L)	Manganese SW6010 T (ug/L)	Mercury SW7470A D (ug/L)	Mercury SW7470A T (ug/L)	Molybdenum SW6010 D (ug/L)	Molybdenum SW6010 T (ug/L)	Nickel SW6010 D (ug/L)	Nickel SW6010 T (ug/L)	Nitrate as N (ug/L)	Nitrite as N (ug/L)	Nitrogen (ug/L)	Nitrogen, NO2 plus NO3 (ug/L)	Oxidation Reduction Potential FIELD_PostPurge (MILLIVOLTS)	Oxidation Reduction Potential FIELD_PrePurge (MILLIVOLTS)	Oxygen, Dissolved FIELD_PostPurge (mg/L)	Oxygen, Dissolved FIELD_PrePurge (mg/L)	Phosphate (mg/L)
U-4	12/12/2000	ND	--	--	--	--	--	--	--	--	--	--	30000	--	--	--	210	210	--	--	ND
	3/7/2001	ND	--	--	--	--	--	--	--	--	--	--	33900	--	--	--	233	233	--	--	0.226
	6/6/2001	ND	--	--	--	--	--	--	--	--	--	--	7400	--	--	--	248	248	--	--	0.21
	9/24/2001	<100	--	--	--	--	--	--	--	--	--	--	24000	--	--	--	262	262	--	--	--
	12/10/2001	<100	--	--	--	--	--	--	--	--	--	--	19000	--	--	--	242	242	--	--	0.10
	3/11/2002	<100	--	--	--	--	--	--	--	--	--	--	31000	--	--	--	195	195	--	--	0.14
	6/4/2002	<100	--	--	--	--	--	--	--	--	--	--	27000	--	--	--	169	169	--	--	<0.10
	9/3/2002	<100	--	--	--	--	--	--	--	--	--	--	28000	--	--	--	126	126	--	--	0.27
	12/3/2002	<200	--	--	--	--	--	--	--	--	--	--	20000	--	--	--	133	133	--	--	<1.0
	3/4/2003	<200	--	--	--	--	--	--	--	--	--	--	26000	--	--	--	-148	-148	--	--	<1.0
	6/18/2003	<200	--	--	--	--	--	--	--	--	--	--	31000	--	--	--	250	250	--	--	<1.0
	9/24/2003	<0.20	--	--	--	--	--	--	--	--	--	--	17000	--	--	--	-24	-24	--	--	1.5
	12/2/2003	<200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/30/2004	<200	--	--	--	--	--	--	--	--	--	--	25000	--	--	--	--	--	--	--	--
	6/7/2004	<200	--	--	--	--	--	--	--	--	--	--	24000	--	--	--	--	--	--	--	--
	9/9/2004	<10	--	--	--	--	--	--	--	--	--	--	22000	--	--	--	--	--	--	--	--
	12/20/2004	<0.010	--	--	--	--	--	--	--	--	--	--	20000	--	--	--	--	--	--	--	--
	3/28/2005	0.060	--	--	--	--	--	--	--	--	--	--	31000	--	--	--	--	--	--	--	--
	6/14/2005	<50	--	--	--	--	--	--	--	--	--	--	32000	--	--	--	--	--	--	--	--
	9/28/2005	190	--	--	--	--	--	--	--	--	--	--	6800	--	--	--	--	--	--	--	--
	12/29/2005	<100	--	--	--	--	--	--	--	--	--	--	5300	--	--	--	--	--	--	--	--
	3/27/2006	<100	--	--	--	--	--	--	--	--	--	--	6400	--	--	--	--	--	--	--	--
	6/12/2006	2200	--	--	--	--	--	--	--	--	--	--	6800	--	--	--	--	--	--	--	--
	9/21/2006	360	--	--	--	--	--	--	--	--	--	--	5700	--	--	--	--	--	--	--	--
	12/21/2006	<100	--	--	--	--	--	--	--	--	--	--	5600	--	--	--	--	--	--	--	--
	3/28/2007	<100	--	--	--	--	--	--	--	--	--	--	5500	--	--	--	--	--	--	--	--
	6/27/2007	<100	--	--	--	--	--	--	--	--	--	--	5300	--	--	--	--	--	--	--	--
	9/26/2007	<100	--	--	--	--	--	--	--	--	--	--	5400	--	--	--	--	--	--	--	--
	12/27/2007	<100	--	--	--	--	--	--	--	--	--	--	5300	--	--	--	--	--	--	--	--
	3/26/2008	160	--	--	--	--	--	--	--	--	--	--	5600	--	--	--	--	--	--	--	--
	6/18/2008	<100	--	--	--	--	--	--	--	--	--	--	5600	--	--	--	--	--	--	--	--
	9/24/2008	250	--	--	--	--	--	--	--	--	--	--	5100	--	--	--	--	--	--	--	--
	12/22/2008	140	--	--	--	--	--	--	--	--	--	--	4800	--	--	--	--	--	--	--	--
	3/26/2009	<100	--	--	--	--	--	--	--	--	--	--	4400	--	--	--	--	--	--	--	--
	6/23/2009	<100	--	--	--	--	--	--	--	--	--	--	4200	--	--	--	--	--	--	--	--
	12/3/2009	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/4/2009	400	--	--	--	--	--	--	--	--	--	--	4310	--	--	--	--	--	--	--	--
	6/28/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/30/2010	<100	<10.0	<10.0	19.7	19.7	<0.20	<0.20	<20.0	<20.0	<40.0	<40.0	4870	<10.0	<1000	4880	--	--	--	--	--
	12/20/2010	<100	<10.0	<10.0	<15.0	<15.0	<0.20	<0.20	<20.0	<20.0	<40.0	<40.0	4090	<10.0	<1000	4100	--	--	--	--	--
	6/3/2011	200	<10.0	<10.0	<15.0	<15.0	<0.20	<0.20	<20.0	<20.0	<40.0	<40.0	4280	<10	--	4280	--	--	--	--	4.00
U-5	6/30/1997	16000	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	160	160	--	--	ND
	9/19/1997	220	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	63	63	--	--	ND
	12/12/1997	6700	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	400	400	--	--	ND
	3/3/1998	18000	--	--</td																	

**TABLE 1b**  
**ADDITIONAL HISTORICAL GROUNDWATER ANALYTICAL DATA**  
**76 Service Station No. 5325**  
**3200 LAKESHORE AVE**  
**OAKLAND, CALIFORNIA**

Well I.D.	Date	GROUNDWATER ANALYTICAL DATA																			
		Iron, Ferrous A3500D (ug/L)	Lead SW6010 D (ug/L)	Lead SW6010 T (ug/L)	Manganese SW6010 D (ug/L)	Manganese SW6010 T (ug/L)	Mercury SW7470A D (ug/L)	Mercury SW7470A T (ug/L)	Molybdenum SW6010 D (ug/L)	Molybdenum SW6010 T (ug/L)	Nickel SW6010 D (ug/L)	Nickel SW6010 T (ug/L)	Nitrate as N (ug/L)	Nitrite as N (ug/L)	Nitrogen (ug/L)	Nitrogen, NO2 plus NO3 (ug/L)	Oxidation Reduction Potential FIELD_PostPurge (MILLIVOLTS)	Oxidation Reduction Potential FIELD_PrePurge (MILLIVOLTS)	Oxygen, Dissolved FIELD_PostPurge (mg/L)	Oxygen, Dissolved FIELD_PrePurge (mg/L)	Phosphate (mg/L)
U-5	6/6/2001	ND	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	112	112	--	--	1.2
	9/24/2001	<100	--	--	--	--	--	--	--	--	--	--	770	--	--	--	146	146	--	--	--
	12/10/2001	3700	--	--	--	--	--	--	--	--	--	--	<500	--	--	--	96	96	--	--	2.6
	3/11/2002	100	--	--	--	--	--	--	--	--	--	--	<500	--	--	--	108	108	--	--	0.52
	6/4/2002	<250	--	--	--	--	--	--	--	--	--	--	<500	--	--	--	118	118	--	--	<0.10
	9/3/2002	<250	--	--	--	--	--	--	--	--	--	--	<500	--	--	--	87	87	--	--	<0.10
	12/3/2002	22000	--	--	--	--	--	--	--	--	--	--	<1000	--	--	--	104	104	--	--	<1.0
	3/4/2003	19000	--	--	--	--	--	--	--	--	--	--	<1000	--	--	--	-166	-166	--	--	<1.0
	6/18/2003	11000	--	--	--	--	--	--	--	--	--	--	<1000	--	--	--	-10	-10	--	--	<1.0
	9/24/2003	<0.20	--	--	--	--	--	--	--	--	--	--	18000	--	--	--	-28	-28	--	--	1.8
	12/2/2003	9400	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/30/2004	5900	--	--	--	--	--	--	--	--	--	--	<1000	--	--	--	--	--	--	--	--
	6/7/2004	3800	--	--	--	--	--	--	--	--	--	--	<500	--	--	--	--	--	--	--	--
	9/9/2004	4100	--	--	--	--	--	--	--	--	--	--	<1000	--	--	--	--	--	--	--	--
	12/20/2004	5.0	--	--	--	--	--	--	--	--	--	--	<1000	--	--	--	--	--	--	--	--
	3/28/2005	6.5	--	--	--	--	--	--	--	--	--	--	<1000	--	--	--	--	--	--	--	--
	6/14/2005	7400	--	--	--	--	--	--	--	--	--	--	3600	--	--	--	--	--	--	--	--
	9/28/2005	7300	--	--	--	--	--	--	--	--	--	--	<500	--	--	--	--	--	--	--	--
	12/29/2005	7300	--	--	--	--	--	--	--	--	--	--	<500	--	--	--	--	--	--	--	--
	3/27/2006	6300	--	--	--	--	--	--	--	--	--	--	<500	--	--	--	--	--	--	--	--
	6/12/2006	8700	--	--	--	--	--	--	--	--	--	--	<200	--	--	--	--	--	--	--	--
	9/21/2006	6800	--	--	--	--	--	--	--	--	--	--	<500	--	--	--	--	--	--	--	--
	12/21/2006	15000	--	--	--	--	--	--	--	--	--	--	<500	--	--	--	--	--	--	--	--
	3/28/2007	10000	--	--	--	--	--	--	--	--	--	--	<200	--	--	--	--	--	--	--	--
	6/27/2007	10000	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	9/26/2007	9200	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	12/27/2007	5900	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	3/26/2008	10000	--	--	--	--	--	--	--	--	--	--	<200	--	--	--	--	--	--	--	--
	6/18/2008	6700	--	--	--	--	--	--	--	--	--	--	120	--	--	--	--	--	--	--	--
	9/24/2008	7900	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	12/22/2008	9200	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	3/26/2009	990	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	6/23/2009	7000	--	--	--	--	--	--	--	--	--	--	0.17	--	--	--	--	--	--	--	--
	12/3/2009	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/4/2009	4000	--	--	--	--	--	--	--	--	--	--	<50	--	--	--	--	--	--	--	--
	6/28/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/30/2010	--	--	--	--	--	--	--	--	--	--	--	--	39.9	--	91.5	--	--	--	--	--
	12/20/2010	--	--	--	--	--	--	--	--	--	--	--	<50.0	34.3	--	<50.0	--	--	--	--	--
	6/3/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
U-6	6/30/1997	88000	--	--	--	--	--	--	--	--	--	--	800	--	--	--	190	190	--	--	ND
	9/19/1997	2900	--	--	--	--	--	--	--	--	--	--	1800	--	--	--	ND	ND	--	--	ND
	12/12/1997	51000	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	380	380	--	--	ND
	3/3/1998	60000	--	--	--	--	--	--	--	--	--	--	3500	--	--	--	327	327	--	--	ND
	6/15/1998	590000	--	--	--	--	--	--	--	--	--	--	4800	--	--	--	315	315	--	--	ND
	9/30/1998	33000	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	345	345	--	--	ND
	12/28/1998	83000	--	--	--	--	--	--	--	--	--	--	7200	--	--	--	297				

**TABLE 1b**  
**ADDITIONAL HISTORICAL GROUNDWATER ANALYTICAL DATA**  
**76 Service Station No. 5325**  
**3200 LAKESHORE AVE**  
**OAKLAND, CALIFORNIA**

Well I.D.	Date	GROUNDWATER ANALYTICAL DATA																			
		Iron, Ferrous A3500D (ug/L)	Lead SW6010 D (ug/L)	Lead SW6010 T (ug/L)	Manganese SW6010 D (ug/L)	Manganese SW6010 T (ug/L)	Mercury SW7470A D (ug/L)	Mercury SW7470A T (ug/L)	Molybdenum SW6010 D (ug/L)	Molybdenum SW6010 T (ug/L)	Nickel SW6010 D (ug/L)	Nickel SW6010 T (ug/L)	Nitrate as N (ug/L)	Nitrite as N (ug/L)	Nitrogen (ug/L)	Nitrogen, NO2 plus NO3 (ug/L)	Oxidation Reduction Potential FIELD_PostPurge (MILLIVOLTS)	Oxidation Reduction Potential FIELD_PrePurge (MILLIVOLTS)	Oxygen, Dissolved FIELD_PostPurge (mg/L)	Oxygen, Dissolved FIELD_PrePurge (mg/L)	Phosphate (mg/L)
U-6	12/10/2001	990	--	--	--	--	--	--	--	--	--	--	500	--	--	--	112	112	--	--	2.0
	3/11/2002	1200	--	--	--	--	--	--	--	--	--	--	<500	--	--	--	128	128	--	--	0.089
	6/4/2002	<100	--	--	--	--	--	--	--	--	--	--	<500	--	--	--	97	97	--	--	<1.0
	9/3/2002	<100	--	--	--	--	--	--	--	--	--	--	580	--	--	--	110	110	--	--	1.1
	12/3/2002	1200	--	--	--	--	--	--	--	--	--	--	<1000	--	--	--	95	95	--	--	2.6
	3/4/2003	20000	--	--	--	--	--	--	--	--	--	--	<1000	--	--	--	-112	-112	--	--	<1.0
	6/18/2003	3200	--	--	--	--	--	--	--	--	--	--	<1000	--	--	--	-15	-15	--	--	2.0
	9/24/2003	1.4	--	--	--	--	--	--	--	--	--	--	<1000	--	--	--	-12	-12	--	--	4.6
	12/2/2003	1400	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/30/2004	2600	--	--	--	--	--	--	--	--	--	--	<1000	--	--	--	--	--	--	--	--
	6/7/2004	2100	--	--	--	--	--	--	--	--	--	--	800	--	--	--	--	--	--	--	--
	9/9/2004	870	--	--	--	--	--	--	--	--	--	--	<1000	--	--	--	--	--	--	--	--
	12/20/2004	2.5	--	--	--	--	--	--	--	--	--	--	<1000	--	--	--	--	--	--	--	--
	3/28/2005	3.4	--	--	--	--	--	--	--	--	--	--	<1000	--	--	--	--	--	--	--	--
	6/14/2005	4100	--	--	--	--	--	--	--	--	--	--	3800	--	--	--	--	--	--	--	--
	9/28/2005	21000	--	--	--	--	--	--	--	--	--	--	<200	--	--	--	--	--	--	--	--
	12/29/2005	8300	--	--	--	--	--	--	--	--	--	--	480	--	--	--	--	--	--	--	--
	3/27/2006	8800	--	--	--	--	--	--	--	--	--	--	370	--	--	--	--	--	--	--	--
	6/12/2006	8500	--	--	--	--	--	--	--	--	--	--	230	--	--	--	--	--	--	--	--
	9/21/2006	2900	--	--	--	--	--	--	--	--	--	--	190	--	--	--	--	--	--	--	--
	12/21/2006	11000	--	--	--	--	--	--	--	--	--	--	360	--	--	--	--	--	--	--	--
	3/28/2007	<100	--	--	--	--	--	--	--	--	--	--	550	--	--	--	--	--	--	--	--
	6/27/2007	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI
	9/26/2007	<100	--	--	--	--	--	--	--	--	--	--	410	--	--	--	--	--	--	--	--
	12/27/2007	7700	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	3/26/2008	19000	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	6/18/2008	2100000	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	9/24/2008	220000	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	12/22/2008	290000	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	3/26/2009	540000	--	--	--	--	--	--	--	--	--	--	<100	--	--	--	--	--	--	--	--
	6/23/2009	12000	--	--	--	--	--	--	--	--	--	--	0.26	--	--	--	--	--	--	--	--
	12/3/2009	600	--	--	--	--	--	--	--	--	--	--	352	--	--	--	--	--	--	--	--
	6/28/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/30/2010	--	--	--	--	--	--	--	--	--	--	--	--	44.3	--	308	--	--	--	--	--
	12/20/2010	--	--	--	--	--	--	--	--	--	--	--	486	33.4	--	520	--	--	--	--	--
	6/3/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**Analytical Notes:**

< - Not detected at or above indicated laboratory reporting limit

DRY - Well was Dry; sample could not be taken

LPH - Liquid Phase Hydrocarbons

MG/L - milligrams per liter

MILLIVOLTS - millivolts

ND - Not detected, and detection limit is not known

ug/L - micrograms/liter

WI - Well Inaccessible

**TABLE 1c**  
**ADDITIONAL HISTORICAL GROUNDWATER ANALYTICAL DATA**  
**76 Service Station No. 5325**  
**3200 LAKESHORE AVE**  
**OAKLAND, CALIFORNIA**



**TABLE 1c**  
**ADDITIONAL HISTORICAL GROUNDWATER ANALYTICAL DATA**  
**76 Service Station No. 5325**  
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**TABLE 1c**  
**ADDITIONAL HISTORICAL GROUNDWATER ANALYTICAL DATA**  
**76 Service Station No. 5325**  
**3200 LAKESHORE AVE**  
**OAKLAND, CALIFORNIA**



Well I.D.	Date	GROUNDWATER ANALYTICAL DATA											
		Phosphate, Ortho (mg/L)	Selenium SW6010 D (ug/L)	Selenium SW6010 T (ug/L)	Silver SW6010 D (ug/L)	Silver SW6010 T (ug/L)	Sulfate (ug/L)	Thallium SW6010 D (ug/L)	Thallium SW6010 T (ug/L)	Vanadium SW6010 D (ug/L)	Vanadium SW6010 T (ug/L)	Zinc SW6010 D (ug/L)	Zinc SW6010 T (ug/L)
U-5	12/4/2009	--	--	--	--	--	--	--	--	--	--	--	--
	6/28/2010	--	--	--	--	--	--	--	--	--	--	--	--
	6/30/2010	--	--	--	--	--	5560	--	--	--	--	--	--
	12/20/2010	--	--	--	--	--	<5000	--	--	--	--	--	--
	6/3/2011	--	--	--	--	--	--	--	--	--	--	--	--
U-6	3/30/2004	<1.0	--	--	--	--	--	--	--	--	--	--	--
	6/7/2004	<0.20	--	--	--	--	--	--	--	--	--	--	--
	9/9/2004	3.8	--	--	--	--	--	--	--	--	--	--	--
	12/20/2004	<1.0	--	--	--	--	--	--	--	--	--	--	--
	3/28/2005	<1.0	--	--	--	--	--	--	--	--	--	--	--
	6/14/2005	<1.0	--	--	--	--	--	--	--	--	--	--	--
	9/28/2005	3.4	--	--	--	--	--	--	--	--	--	--	--
	12/29/2005	<0.050	--	--	--	--	--	--	--	--	--	--	--
	3/27/2006	0.19	--	--	--	--	--	--	--	--	--	--	--
	6/12/2006	<0.050	--	--	--	--	--	--	--	--	--	--	--
	9/21/2006	0.31	--	--	--	--	--	--	--	--	--	--	--
	12/21/2006	0.41	--	--	--	--	--	--	--	--	--	--	--
	3/28/2007	0.31	--	--	--	--	--	--	--	--	--	--	--
	6/27/2007	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI
	9/26/2007	0.34	--	--	--	--	--	--	--	--	--	--	--
	12/27/2007	1.0	--	--	--	--	--	--	--	--	--	--	--
	3/26/2008	1.2	--	--	--	--	--	--	--	--	--	--	--
	6/18/2008	0.076	--	--	--	--	--	--	--	--	--	--	--
	9/24/2008	0.28	--	--	--	--	--	--	--	--	--	--	--
	12/22/2008	0.39	--	--	--	--	--	--	--	--	--	--	--
	3/26/2009	0.28	--	--	--	--	--	--	--	--	--	--	--
	6/23/2009	0.68	--	--	--	--	--	--	--	--	--	--	--
	12/3/2009	33.7	--	--	--	--	--	--	--	--	--	--	--
	6/28/2010	--	--	--	--	--	--	--	--	--	--	--	--
	6/30/2010	--	--	--	--	--	10100	--	--	--	--	--	--
	12/20/2010	--	--	--	--	--	12400	--	--	--	--	--	--
	6/3/2011	--	--	--	--	--	--	--	--	--	--	--	--

**Analytical Notes:**

< - Not detected at or above indicated laboratory reporting limit

DRY - Well was Dry; sample could not be taken

LPH - Liquid Phase Hydrocarbons

mg/L - milligrams per liter

ug/L - micrograms/liter

WI - Well Inaccessible

*Site Summary Report*  
**76 Service Station No. 5325**  
**Oakland, CA**  
**Antea Group Project No. I40255325**



## ***Attachment A***

Summary of Previous Environmental Investigations

## **SUMMARY OF PREVIOUS ENVIRONMENTAL INVESTIGATIONS**

May 1990 Three exploratory soil borings were advanced adjacent to the UST complex to depths ranging from 10 to 12.5 feet below ground surface (bgs). Soil samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) and benzene, toluene, ethylbenzene, and xylenes (BTEX). The samples contained TPHg concentrations ranging from 2 to 7,500 parts per million (ppm) and benzene concentrations ranging from 0.14 to 13 ppm.

June 1990 Two 10,000-gallon gasoline USTs, one 550-gallon waste oil UST, and related product dispensers were replaced. Soil samples from the UST excavation sidewalls and bottom and product line trenches were reported to contain TPHg and benzene at concentrations ranging from 12 to 2,800 ppm and 0.008 to 11 ppm, respectively. Approximately 250 cubic yards of soil and backfill material were aerated onsite to reduce concentrations to below 100 ppm TPHg, then transported to an appropriate soil disposal facility. Groundwater was encountered at approximately 7.5 feet bgs.

September 1990 Monitoring wells U-1, U-2, and U-3 were installed. TPHg was reported in soil samples collected from the capillary fringe in well borings U-1 and U-2 at levels of 110 and 480 ppm, respectively. Benzene was reported in the soil sample from well boring U-1 at a level of 4.5 ppm. Petroleum hydrocarbons were below the laboratory's indicated reporting limit in soil or groundwater samples from U-3. Groundwater samples collected from monitoring wells U-1 and U-2 were reported to contain 690 and 38 parts per billion (ppb) TPHg and 780 and 27 ppb benzene, respectively.

June 1990 Monitoring wells U-4, U-5, and U-6 were installed. TPHg and benzene were detected in the capillary fringe soil sample collected from boring U-5 at levels of 400 ppm and 1.9 ppm, respectively. TPHg and benzene were below the laboratory's indicated reporting limits in soil samples collected from borings U-4 and U-6. Groundwater levels stabilized at depths between 8.8 and 9.2 feet bgs.

November 1996 One 550-gallon waste oil UST was removed and the product lines and dispensers were replaced. A soil sample collected from the sidewall of the waste oil UST excavation contained 1.5 ppm total petroleum hydrocarbons as diesel (TPHd) and 78 ppm total oil and grease (TOG). TPHg, benzene, methyl tertiary butyl ether (MTBE), halogenated volatile organic compounds (HVOCs), and semi-volatile organic compounds (SVOCs) were below the laboratory's indicated reporting limits. Product line trench excavation and over excavation samples were reported to contain petroleum hydrocarbon levels ranging from below the laboratory's indicated reporting limit to 880 ppm of TPHg, below the laboratory's indicated reporting limit to 3.6 ppm of benzene, and below the laboratory's indicated reporting limit to 23 ppm of MTBE. Approximately 276 tons of excavated soil was transported to an appropriate disposal facility.

June 1997 Two exploratory borings (U-D and U-E) and one UST observation well were installed. U-D was advanced offsite on Lakeshore Avenue. TPHg, BTEX, and MTBE were reported in one or all of the soil samples collected at the capillary fringe from the soil borings. TPHg and MTBE were reported at a maximum of 450 ppm and 1.1 ppm, respectively, in U-D.

October 2003 Site environmental consulting responsibilities were transferred to TRC.

April 2006 Three ozone sparge wells (C-1 through C-3) were installed by TRC in the vicinity of monitoring well U-2 for the purpose of an ozone pilot study. Total purgeable petroleum hydrocarbons (TPPH) were reported at a maximum of 4,600 milligrams per kilograms (mg/kg) in the five feet below grade (fbg) soil sample collected from C-1.

June through August 2006 A 3-month ozone sparge event was completed on sparge points C-1 through C-3 located in the vicinity of monitoring well U-2 using a mobile ozone sparge treatment system.

October 2007 Site environmental consulting responsibilities were transferred to Delta Consultants.

January 2011 Delta Consultants rebranded to Antea Group.

## **REMEDIATION SUMMARY**

June 1990 Approximately 250 cubic yards of soil and backfill material were removed from the tank pit excavation and product line trenches and transported to an appropriate disposal facility.

November 1996 Approximately 276 tons of soil removed from a waste oil excavation was transported to an appropriate disposal facility.

1997 Free product skimmers were placed in monitoring wells U-1 and U-2 to remove the free product in these two monitoring wells.

April 1999 A calculated 167.44 pounds of petroleum hydrocarbons were removed during a 6 day Dual Phase Extraction (DPE) event.

June through August 2006 A 3-month ozone sparge event was completed on sparge points C-1 through C-3 located in the vicinity of monitoring well U-2 using a mobile ozone sparge treatment system. A total of approximately 17.5 pounds of ozone were injected into the subsurface during the pilot test.

## **SENSITIVE RECEPTORS SURVEY**

Lake Merritt is located approximately 0.3 miles down gradient. No domestic water wells are located within a one mile distance of the site.

Current Consultant: Antea Group

*Site Summary Report*  
*76 Service Station No. 5325*  
*Oakland, CA*  
*Antea Group Project No. I40255325*



## ***Attachment B***

ACHCSA Letter



ENVIRONMENTAL HEALTH DEPARTMENT  
ENVIRONMENTAL PROTECTION  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577  
(510) 567-6700  
FAX (510) 337-9335

June 2, 2011

Bill Borgh  
ConocoPhillips  
76 Broadway Street  
Sacramento, CA 95818

Subject: Fuel Leak Case No. RO0000229 and Geotracker Global ID T0600101463, UNOCAL #5325, 3220 Lakeshore Avenue, Oakland CA 94610

Dear Mr. Borgh:

Alameda County Environmental Health (ACEH) staff has reviewed the case file including the most recent quarterly monitoring report entitled *Semi-Annual Summary Report- July through December 2010, dated January 31, 2011* which was prepared by Antea Group for the subject site. ACEH requests that you address the following technical comments and send us a report as requested below.

**TECHNICAL COMMENTS**

1. **Preferential Pathway Study** – Please include the results of your utility survey that is referenced in your reports on cross-sections and on the basemap for your groundwater and isoconcentration contour maps. Please also evaluate whether contamination could have migrated along these conduits in the report requested below.
2. **Bioattenuation and Metals Groundwater Analysis** – Continued monitoring for nitrate, sulfate, acetone, chloride, metals BOD, COD, etc is performed semi-annually yet these constituents are neither reported on a table or evaluated as to what the results indicate. Please tabulate and evaluate the results of this monitoring and propose changes to the monitoring scheme if any analytes are no longer needed in the site summary report requested below.
3. **Site Review** – Please evaluate the results of your work to date and provide conclusions and recommendations for future corrective actions at this site in the site summary report requested below.

Ladies and Gentlemen  
RO0000229  
June 2, 2011, Page 2

**REQUEST FOR INFORMATION**

ACEH's case file for the subject site is missing the December 19, 1990 Site Investigation Report for U-1 through U-3 well installation. Please upload this report and upload any reports missing from our website to the ACEH ftp site by the date requested below.

**TECHNICAL REPORT REQUEST**

Please submit technical reports to ACEH (Attention: Barbara Jakub), according to the following schedule:

- **June 30, 2011** – Upload missing report(s) to ACEH ftp site
- **July 20, 2011** – First Semi-annual Monitoring Report
- **August 2, 2011** – Site Summary Report
- **January 20, 2012** – Second Semi-annual Monitoring Report

Thank you for your cooperation. Should you have any questions or concerns regarding this correspondence or your case, please call me at (510) 639-1287 or send me an electronic mail message at [barbara.jakub@acgov.org](mailto:barbara.jakub@acgov.org).

Sincerely,

Barbara J. Jakub, P.G.  
Hazardous Materials Specialist

Enclosure:      Responsible Party(ies) Legal Requirements/Obligations  
                  ACEH Electronic Report Upload (ftp) Instructions

cc:      Dennis Dettloff, Antea Group, 11050 White Rock Rd., Suite 110 Rancho Cordova, CA 95670 (*Sent via E-mail to: [ddettloff@anteagroup.com](mailto:ddettloff@anteagroup.com)*)  
            Leroy Griffin, Oakland Fire Department, 250 Frank H. Ogawa Plaza, Ste. 3341, Oakland, CA 94612-2032 (*Sent via E-mail to: [lgriffin@oaklandnet.com](mailto:lgriffin@oaklandnet.com)*)  
            Donna Drogos, ACEH (*Sent via E-mail to: [donna.drogos@acgov.org](mailto:donna.drogos@acgov.org)*)  
            Barbara Jakub, ACEH (*Sent via E-mail to: [barbara.jakub@acgov.org](mailto:barbara.jakub@acgov.org)*)  
            GeoTracker, e-file

## **Responsible Party(ies) Legal Requirements/Obligations**

### **REPORT REQUESTS**

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

### **ELECTRONIC SUBMITTAL OF REPORTS**

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements ([http://www.waterboards.ca.gov/water\\_issues/programs/ust/electronic\\_submittal/](http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/)).

### **PERJURY STATEMENT**

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

### **PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS**

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

### **UNDERGROUND STORAGE TANK CLEANUP FUND**

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

### **AGENCY OVERSIGHT**

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

<b>Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)</b>	<b>REVISION DATE:</b> July 20, 2010
	<b>ISSUE DATE:</b> July 5, 2005
	<b>PREVIOUS REVISIONS:</b> October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
<b>SECTION:</b> Miscellaneous Administrative Topics & Procedures	<b>SUBJECT:</b> Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

## REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as a **single portable document format (PDF) with no password protection**.
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document.** Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted.**
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:  
RO#\_Report Name\_Year-Month-Date (e.g., RO#5555\_WorkPlan\_2005-06-14)

## Submission Instructions

- 1) Obtain User Name and Password:
  - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
    - i) Send an e-mail to [deh.loptoxic@acgov.org](mailto:deh.loptoxic@acgov.org)
  - b) In the subject line of your request, be sure to include "ftp **PASSWORD REQUEST**" and in the body of your request, include the **Contact Information, Site Addresses, and the Case Numbers (RO# available in Geotracker) you will be posting for.**
- 2) Upload Files to the ftp Site
  - a) Using Internet Explorer (IE4+), go to <ftp://alcoftp1.acgov.org>
    - (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site.
  - b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
  - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
  - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
  - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
  - a) Send email to [deh.loptoxic@acgov.org](mailto:deh.loptoxic@acgov.org) notify us that you have placed a report on our ftp site.
  - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
  - c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
  - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

## ***Attachment C***

Time versus Concentration Graphs for Monitoring Wells U-1, U-2, and U-5

