ConocoPhillips
76 Broadway
Sacramento, California 95818

November 26, 2007

Ms. Donna Drogos
Alameda County Health Agency
1131 Harbor Bay Parkway
Alameda, California 94502

Re: OZONE SPARGE PILOT TEST FINAL REPORT

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

Dear Ms. Drogos:

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 contact me at (916) 558-7612.

Sincerely,

Bill Borgh

Bill Borgh
Site Manager – Risk Management and Remediation

Attachment

1590 Solano Way
#A
Concord, CA 94520

925.688.1200 PHONE
925.688.0388 FAX

www.TRCsolutions.com

November 26, 2007 TRC Project No. 125854

Mr. Donna Drogos
Supervising Hazardous Materials Specialist
Alameda County Health Care Services
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

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

RE: OZONE SPARGE PILOT TEST FINAL REPORT

Dear Ms. Drogos:

On behalf of ConocoPhillips Company (ConocoPhillips), TRC submits this Ozone Sparge Pilot Test Final Report for activities conducted at 76 Service Station #5325, located at 3220 Lakeshore Avenue, Oakland, California. This report also includes a discussion of the results of a file review concerning the former Shell Station located at 3201 Lakeshore Avenue, Oakland.

If you have any questions regarding this report, please contact Keith Woodburne at (925) 688-2488. However, environmental consulting responsibilities for the Site have been transferred to Delta Consultants. Therefore, please direct all future questions and correspondence regarding the Site to Delta Consultants project manager Daniel Davis at (916) 503-1260.

Sincerely,

Rachelle Dunn
Senior Staff Geologist

Keith Woodburne, P.G.
Senior Project Manager

cc: Bill Borgh, ConocoPhillips (electronic upload only)

OZONE SPARGE PILOT TEST FINAL REPORT

November 26, 2007

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

TRC Project No. 125854

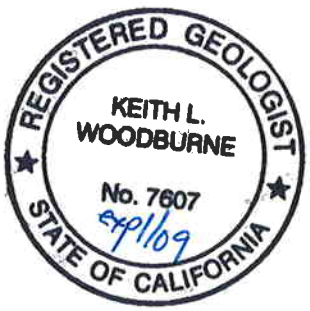
Prepared For:

ConocoPhillips Company
76 Broadway Street
Sacramento, CA

By:

Rachelle Dunn
Senior Staff Geologist

Keith Woodburne, P.G.
Senior Project Geologist



TRC
1590 Solano Way
Concord, California
(925) 688-1200

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1.0 INTRODUCTION

On behalf of ConocoPhillips Company (ConocoPhillips), TRC submits this Ozone Sparge Pilot Test Final Report for activities conducted at 76 Service Station #5325, located at 3220 Lakeshore Avenue, Oakland, California (the Site, Figure 1). The objective of this pilot test was to assess the applicability of ozone sparging as remedial technology at Site. This final report, was prepared to augment the *Well Installation and Ozone Sparge Progress Report,* submitted by TRC on July 21, 2006, which documented the permitting and installation of three ozone sparge wells, underground trenching, and initial operational data.

This report includes the following:

- Discussion of the delivery and startup of the mobile ozone sparge system.
- Summary of field parameter and system operational data collected during the Ozone Sparge Pilot Test at the Site.
- Pre- and post-test quarterly groundwater monitoring and sampling of Site wells to assess ozone sparge performance during the pilot test.
- Results of a file review regarding the former Shell service station historically located approximately 80 feet northwest of the Site.

2.0 SITE DESCRIPTION

The Site is an operating 76 Service Station situated 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. Current Site facilities consist of the service station building with three service bays, three product dispenser islands, and two 12,000-gallon double-wall fiberglass gasoline underground storage tanks (USTs). Locations of the pertinent Site features are shown on Figure 2.

Geology and Hydrogeology

The Site is situated on estuarine deposits northeast of the Lake Merritt basin and southwest of the Piedmont Hills at an elevation of approximately 7 to 11 feet (City of Oakland datum). These estuarine deposits consist primarily of unconsolidated, water-saturated, dark plastic clay and silty clay rich in organic material (GSI, 1994).

Based on previous onsite subsurface investigations, silt and sand fill were observed in the vadose zone to varying depths up to 6 feet below grade (fbg). The Site is underlain by fine-grained sediments, silts and clays to depths of approximately 25 fbg. The silts and clays contain from 10 percent to as much as 30 percent fine- to coarse-grained sand.

Within the predominantly fine-grained soil horizon are laterally discontinuous lenses of predominantly coarse-grained sediments, interbedded with fine-grained materials to the maximum depth explored of 26.5 fbg. The predominantly coarse-grained deposits vary in thickness and are encountered at varying depths across the Site.

These deposits consist of silty sand (SM), fine-to coarse-grained sand (SW and SP), and sandy gravel (GW). The predominantly coarse-grained sediments appear to be discontinuous across the Site in an east-west orientation, and continuous across the Site in a north-south orientation.

In the vicinity of well U-2, the coarse-grained sediments with observed hydrocarbon impacts are encountered between 6 and 9 fbg and are underlain by a clayey silt with sand that extends to a depth of approximately 14 fbg. The clayey silt with sand is underlain by a stiff clay to the total depth explored of 21.5 fbg.

Groundwater is unconfined and is typically encountered at approximately 6 to 10 fbg. Groundwater flow has been predominantly toward the northwest with a hydraulic gradient ranging from 0.002 to 0.02 (Gettler-Ryan, Inc., 2000).

Quarterly groundwater monitoring has been performed on the Site wells since their installation. Well U-1 contained floating product (0.01 to 0.55 feet) during 1996 to 1998. Well U-2 contained floating product (sheen to 0.03 feet) during 1997 and 1998. Total purgeable petroleum hydrocarbons (TPPH) and methyl tertiary butyl ether (MTBE) remain elevated in well U-1 (TRC, 2007).

3.0 SITE BACKGROUND

May 1990: Three exploratory soil borings (U-A, U-B, and U-C) were advanced adjacent to the UST complex to depths ranging from 10 to 12.5 feet below grade (fbg). Soil samples collected were analyzed for total petroleum hydrocarbons as gasoline (TPH-g) and benzene, toluene, ethylbenzene, and xylenes (BTEX). The samples contained total petroleum hydrocarbons as gasoline (TPH-g) concentrations ranging from 2 to 7,500 parts per million (ppm) and benzene concentrations ranging from 0.14 to 13 ppm (GeoStrategies, Inc. (GSI), 1990a).

June 1990: Two 10,000-gallon gasoline USTs, one 550-gallon waste oil UST, and related product dispensers were replaced. Soil samples collected from the UST excavation sidewalls and bottom and product line trenches were reported to contain TPH-g 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 generated during the removal of USTs were aerated onsite to reduce concentrations to below 100 ppm TPH-g, then transported to an appropriate soil disposal facility. Groundwater was encountered at approximately 7.5 feet fbg (GSI, 1990b).

September 1990: Monitoring wells U-1, U-2, and U-3 were installed. TPH-g was detected in soil samples collected from the capillary fringe in well borings U-1 and U-2 at concentrations of 110 and 480 ppm, respectively. Benzene was detected in the soil sample from well boring U-1 at a concentration of 4.5 ppm. Petroleum hydrocarbons were not detected in soil or groundwater samples from U-3. Groundwater samples collected from wells U-1 and U-2 were reported to contain 690 and 38 parts per billion (ppb) TPH-g and 780 and 27 ppb benzene, respectively (GSI, 1990b).

June 1994: Monitoring wells U-4, U-5, and U-6 were installed. TPH-g and benzene were detected in the capillary fringe soil sample collected from boring U-5 at concentrations of 400 and 1.9 ppm, respectively. TPH-g and benzene were not detected in soil samples collected from borings U-4 and U-6. Groundwater levels stabilized at depths between 8.8 and 9.2 feet fbg (GSI, 1994).

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 (TPH-d) and 78 ppm total oil and grease (TOG). TPH-g, benzene, methyl tertiary butyl ether (MTBE), halogenated volatile organic compounds (HVOCs), and semivolatile organic compounds (SVOCs) were not detected. Product line trench excavation and over excavation samples were reported to contain petroleum hydrocarbon concentrations ranging from non-detect to 880 ppm TPH-g, non-detect to 3.6 ppm benzene, and non-detect to 23 ppm MTBE. Approximately 276 tons of soil was excavated during the removal of a waste oil tank was transported to an appropriate disposal facility (GSI, 1997b).

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. TPH-g, BTEX, and MTBE were detected in one or all of the soil samples collected at the capillary fringe from the soil borings. TPH-g and MTBE were detected at a maximum of 450 ppm and 1.1 ppm, respectively, in U-D (GSI, 1997a).

October 2003: Site environmental consulting responsibilities were transferred to TRC.

April 2006: Three ozone injection wells (C-1 through C-3) were installed onsite around Site well U-2.

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 Site well U-2, using a mobile ozone sparge treatment system.

4.0 OZONE SPARGING SYSTEM

TRC installed three onsite ozone sparge wells, C-1 through C-3 (Figure 2), in the immediate area surrounding onsite well U-2, and a setup a mobile ozone sparge treatment system for the purpose of evaluating ozone sparge technology as a remedial alternative for treating residual hydrocarbons and fuel oxygenates at the Site within the shallow water-bearing zone. On June 14, 2006, under the supervision of a TRC field supervisor, Applied Process Technologies Inc. (APT) delivered and setup the PulseOx P-100 mobile ozone sparge unit.

The P-100 system is a trailer-mounted mobile treatment system that can deliver up to 2 pounds per day (lbs/day) of ozone to the subsurface at 20 pounds per square inch (psi) in up to 8 sparge points simultaneously. The automated P-100 system was connected directly to sparge points C-1 through C-3 via Teflon lines buried within PVC conduit. Ozone was injected into impacted groundwater to oxidize dissolved-phase contaminants. Ozone not consumed by reacting with contaminants rapidly decomposes to oxygen, which increases dissolved oxygen (D.O.) concentrations and stimulates aerobic biodegradation of the contaminants.

The P-100 mobile ozone sparging system operated at the Site from June 14 through September 1, 2006. Operations and maintenance activities were conducted weekly during the first month of the test and every other week for the last two months. During the first week of operation, 0.5 pounds of ozone were injected per day into ozone sparge wells. During the second and third week of operation, only oxygen was injected due to a compromised well seal. Details concerning this were discussed in the Well Installation and Ozone Sparge Progress Report (TRC, 2006). Once the well seal was modified, the ozone system was restarted and programmed to inject 0.25 pounds of ozone per day through out the remainder of the pilot test. A total of approximately 17.5 pounds of ozone was injected into the subsurface during this pilot test.

5.0 GROUNDWATER ANALYTICAL RESULTS

To assess the feasibility of using ozone sparging to treat dissolved-phase hydrocarbons within the shallow water-bearing zone in the vicinity of well U-2, Groundwater data were collected from all Site wells during quarterly sampling activities before the pilot study (First Quarter 2006), during the pilot test (Second Quarter 2006), and following the completion of the ozone sparge pilot test (Third Quarter 2006 through Third Quarter 2007). Laboratory and field analytical results of groundwater samples collected during the quarterly sampling activities are presented in Table 1.

As presented in Table 1, D.O. concentrations collected immediately before the pilot test (First Quarter 2006) ranged from 0.95 milligrams per liter (mg/L) in source area well U-2, to a maximum of 5.51 mg/L in non-impacted upgradient well U-4. This inverse relationship between D.O. and hydrocarbon concentrations is typical as D.O. levels decline within source areas due to aerobic biodegradation. Copies of field sampling forms and laboratory analytical reports and chain-of-custody documentation for all sampling events documented in Table 1 are included in their respective quarterly monitoring reports.

As would be expected, the only significant charge in D.O. concentrations during and immediately following the pilot test occurred in well U-2 due to its close proximity with ozone sparge wells C-1 through C-3. Figure 3 presents the TPH-g, MTBE, and D.O. concentrations over time for U-2 relative to operation of the ozone sparge system. The D.O. concentrations in U-2 increased from 0.95 mg/L before the pilot test to maximum of 20 mg/L during the pilot study, and then decreased to 3.15 mg/L immediately after the pilot test. Immediately following the pilot test, the D.O. concentrations in source area well U-2 (3.15 mg/L) were comparable to the D.O. concentrations in non-impacted upgradient well U-4 (4.23 mg/L). These changes in D.O. concentrations appear to be related to the introduction and subsequent decomposition of ozone that did not directly react with the dissolved-phase contaminants.

The cause for the large post-test increase in D.O. concentrations in U-2, from 3.15 mg/L (September 21, 2006) to 23.71 mg/L (December 21, 2006), is unclear. This increase in D.O. concentrations during the fourth quarter 2006 was observed in all Site wells, though not as pronounced, as was a gradual decrease in D.O concentrations in all wells through the Third Quarter 2007. As this pattern was exhibited in all wells, the cause for large post-test increase in D.O. concentrations is not thought to be associated with the pilot study and could be the result of a malfunction with the D.O. meter.

The analytical results of quarterly groundwater sampling of Site wells were reviewed to assess the post-remedial affect of the pilot test. As presented on Figure 3, hydrocarbon concentrations were lowered in well U-2 during and immediately following the 3-month ozone sparge event. Prior to the ozone pilot test, TPH-g and MTBE concentrations were at 2,400 micrograms per liter (µg/L) and 1,400 µg/L, respectively. Immediately following the 3-month ozone sparge event, TPH-g and MTBE concentrations were at 440 µg/L and 1,100 µg/L, respectively. During fourth quarter 2006 the concentrations of MTBE continued to decrease to 730 µg/L, while TPH-g concentrations increased to 670 µg/L. During the following three quarters, TPH-g and MTBE concentrations increased in U-2.

Based on D.O. and hydrocarbon concentration trends in U-2 during and immediately after completion of the ozone sparge test, it appears that Site well U-2 is located within the radius of influence of one or all of the ozone sparge wells. Ozone sparge well C-2 is located approximately 6 feet from Site well U-2.

6.0 VICINITY RECONNAISSANCE

A review of historical documents show that a Shell service station was located at 3201 Lakeshore Avenue on the northern eastern corner of the intersection of Rand Avenue and Lakeshore Avenue, which is approximately 80 feet northwest of and in the assumed downgradient direction from the Site. Based on a database search performed by Vista Information Solutions, Inc., there were three gasoline USTs and one waste oil UST located at the Site, and that a leak was discovered on November 3, 1986. GSI reported they had requested file reviews from both the Regional Water Quality Control Board and the Alameda County Environmental Health for documents on the Shell Site. Both agencies replied with no files for that address (GSI, 1996).

Based on a Soil Boring and Monitoring Well Installation Report prepared by Emcon (1985), two soil borings and one monitoring well were installed at the Shell station. Strong hydrocarbon odors were detected in all of the borings within the gravel fill. Contaminants were not detected above laboratory reporting limits in analyzed soil samples, which were collected from native soil. Liquid-phase hydrocarbons (LPH) at a thickness of 1/16-inch was identified in the well using a bailer.

In the 1986 Tank Removal letter by Crosby and Overton Environmental Management Inc (CO EMI, 1986), four tanks were removed from the Site on October 10, 1986. In addition, CO EMI reported that a moderate amount of contaminated soil was removed from the Site during UST removal activities, and that the excavation was backfilled with "selected material". Laboratory analytical reports included with the letter reported a maximum concentration 78,000 milligrams per kilogram (mg/kg) waste oil. Gasoline range hydrocarbons were not detected above the laboratory reporting limit in the soil samples.

7.0 CONCLUSIONS AND RECOMMENDATIONS

- Based on historical and current quarterly groundwater monitoring data for this Site, it appears that the ozone sparge pilot test temporarily decreased concentrations of dissolved-phase hydrocarbons and fuel oxygenates and increased D.O. concentrations in groundwater in the vicinity of U-2 during and immediately after the ozone sparge pilot test. The effective radius of influence for ozone sparging technology in the vicinity of well U-2 is at least six feet. Ozone sparging should be considered along with other remedial options prior to implementing a remedial strategy at the Site.

- A review of historical reports document that a former Shell service station was located at 3201 Lakeshore Avenue on the northern eastern corner of the intersection of Rand Avenue and Lakeshore Avenue, which is approximately 80 feet northwest of and in the assumed downgradient direction from the Site. Measurable LPH was identified in an onsite well on the former Shell property. This presence of this apparently impacted Site may complicate any offsite groundwater assessment 76 Service Station No. 5325 as there may exist a commingled plume at some distance downgradient of both locations. However, as stated previously, additional offsite, specifically downgradient assessment may not be feasible due to the presence of a high traffic intersection and highway off ramp immediately downgradient of the Site.

- TRC recommends continuing quarterly monitoring and sampling to assess the concentration trend in U-2 and throughout the Site.

8.0 REFERENCES

Crosby and Overton Environmental Management Inc., 1986, Tank Removal, Lakeshore Avenue and Rand Street, Oakland, CA Shell Oil Co., Dated October 30, 1986.

Emcon Associates, 1985, Shell Service Station, 3201 Rand Avenue at Lakeshore Avenue, Oakland, California, Dated October 11, 1985.

Gettler-Ryan Inc., 2000, Site Conceptual Model for Tosco (76) Station No. 5325, 3220 Lakeshore Avenue, Oakland, California, dated June 19, 2000.

GeoStrategies Incorporated (GSI), 1990, Soil Boring Report, Unocal Service Station No. 5325, 3220 Lakeshore Avenue, Oakland, California, Dated June 12, 1990.

GSI, 1990, Tank Replacement Report, Unocal Service Station No. 5325, 3220 Lakeshore Avenue, Oakland, California, Dated August 31, 1990.

GSI, 1994, Monitoring Well Installation Report, Unocal Service Station No. 5325, 3220 Lakeshore Avenue, Oakland, California, Dated November 16, 1994.

GSI, 1996, Limited Groundwater Study at Unocal Station No. 5325, 3220 Lakeshore Avenue, Oakland, California, Dated February 16, 1996.

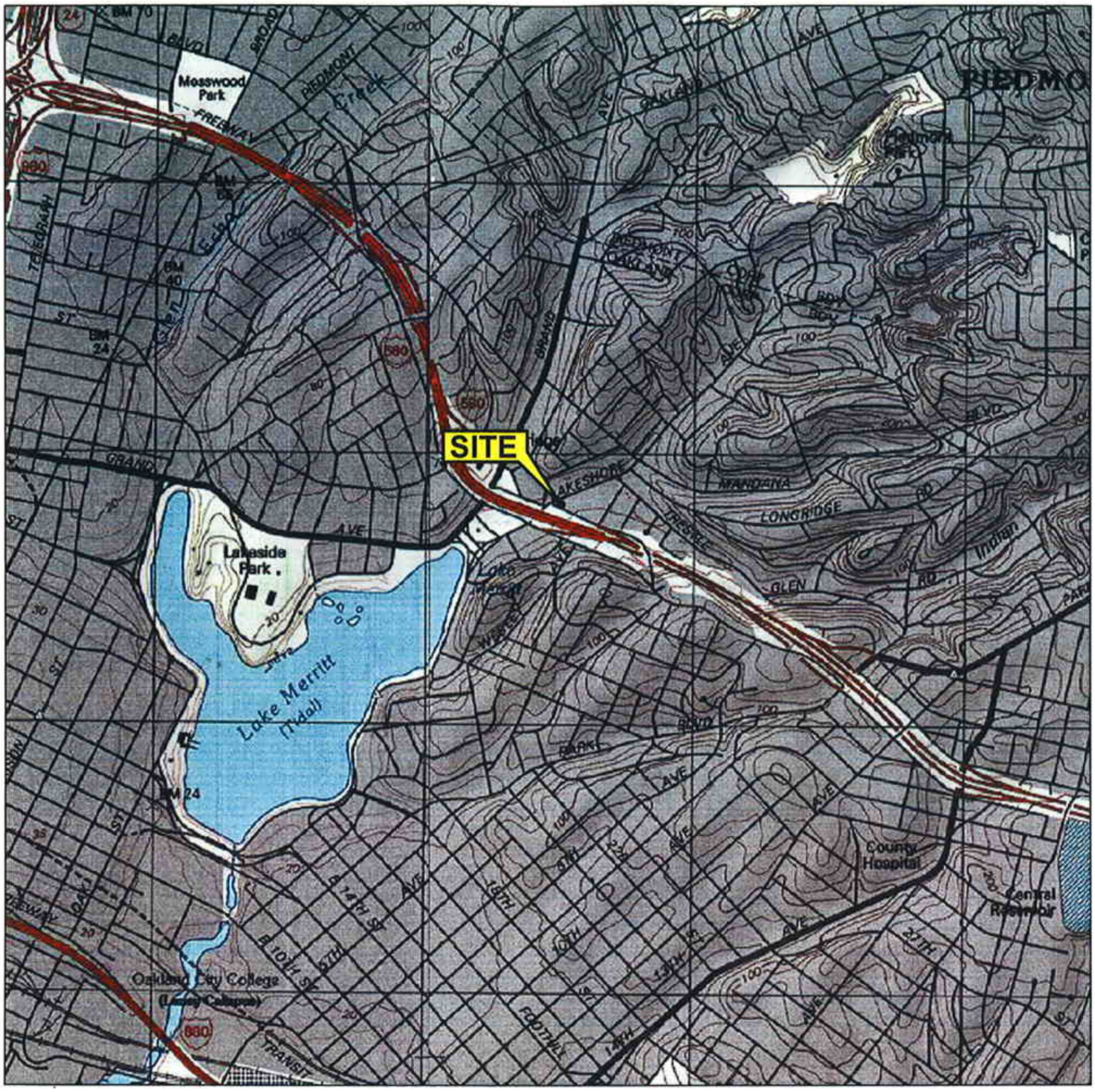
GSI, 1997, Soil Boring and Well Installation Report, Unocal Service Station No. 5325, 3220 Lakeshore Avenue, Oakland, California, Dated August 4, 1997.

GSI, 1997, Waste Oil Tank Removal and Product Line Replacement Report, Unocal Service Station No. 5325, 3220 Lakeshore Avenue, Oakland, California, Dated January 24, 1997.

TRC, 2007, Quarterly Monitoring Report, July through September, 2007, 76 Station No. 5325, 3220 Lakeshore Avenue, Oakland, California, dated October 15, 2007.

TRC, 2006, Well Installation and Ozone Sparge Progress Report, 76 Service Station No. 5325, 3220 Lakeshore Avenue, Oakland, California, dated July 21, 2006.

FIGURES



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SOURCE:

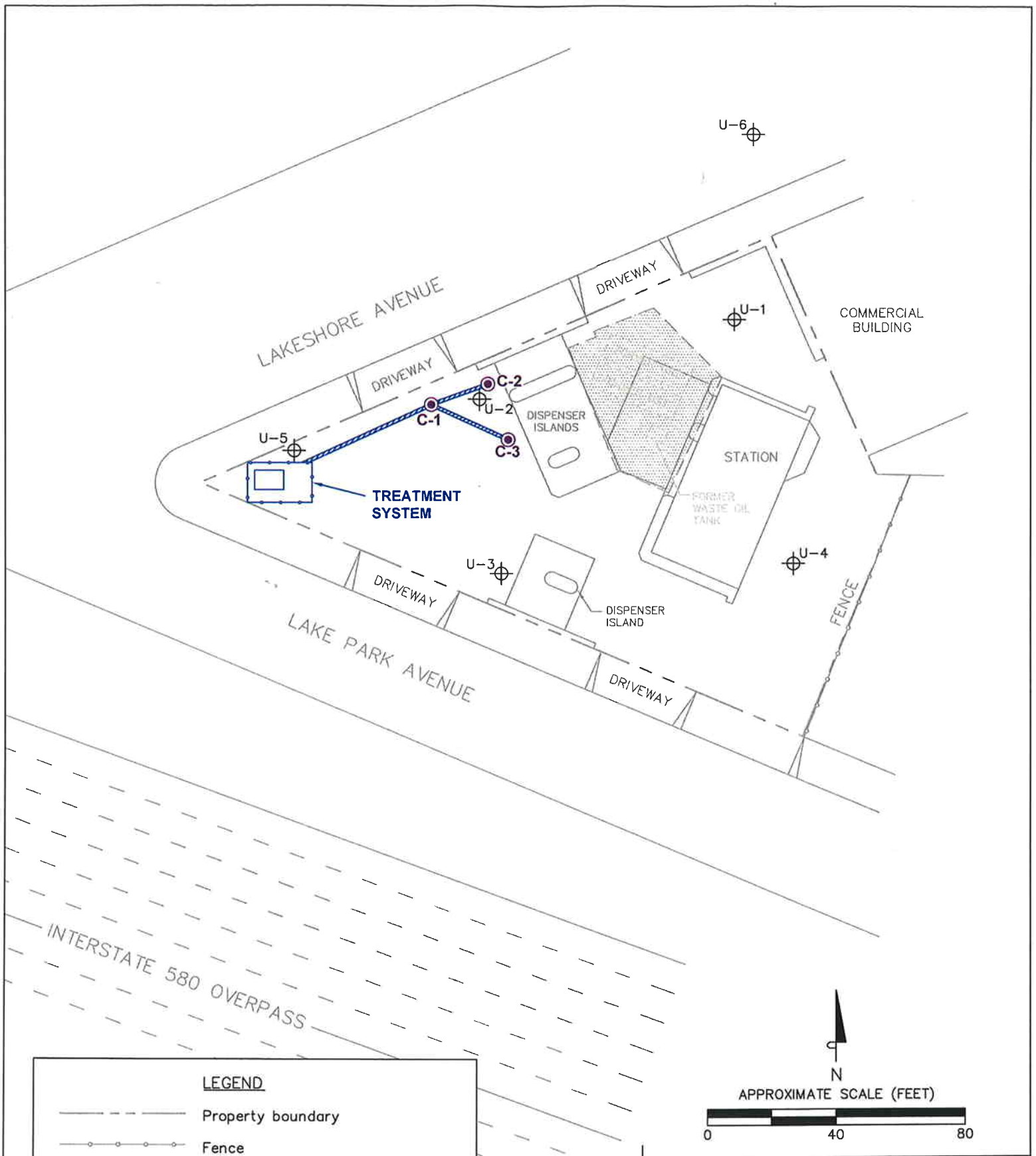
United States Geological Survey
7.5 Minute Topographic Maps:
Oakland East and Oakland West
Quadrangles, California

VICINITY MAP

76 Service Station #5325
3220 Lakeshore Avenue
Oakland, California

TRC

FIGURE 1

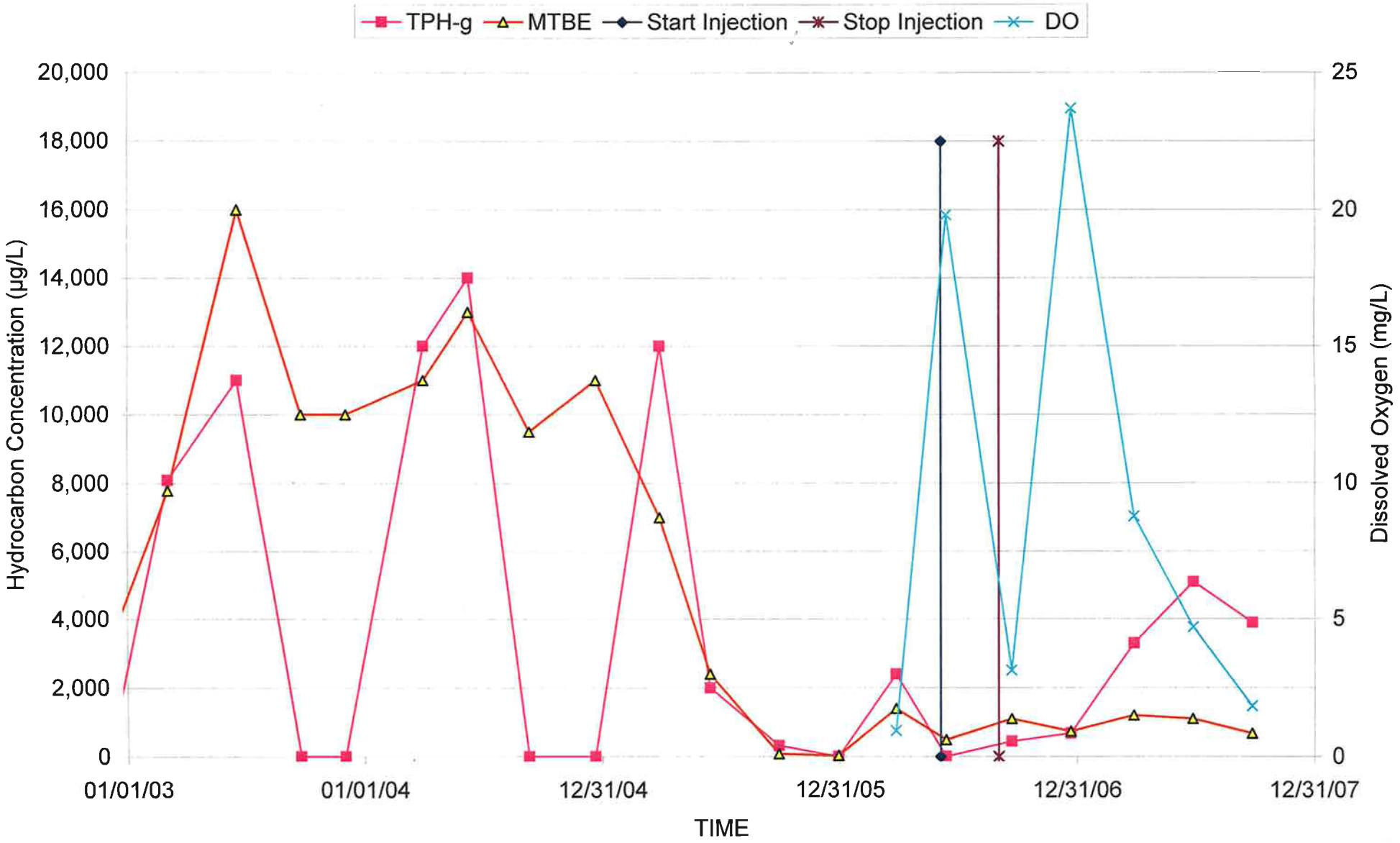


SPARGE POINTS AND TREATMENT SYSTEM LAYOUT

76 Service Station #5325
3200 Lakeshore Avenue
Oakland, California

FIGURE 2

FIGURE 3
76 Service Station # 5325
U-2 Groundwater Data Trends
3220 Lakeshore Avenue, Oakland, California



TABLES

Table 1

RESULTS OF LABORATORY AND FIELD ANALYSIS OF GROUNDWATER SAMPLES
76 Service Station # 5325
3220 Lakeshore Avenue, Oakland, California

Well ID	Sample Date	Depth to Water (ft btoc)	TPH-g	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	Ethanol	Iron Ferrous	Nitrate	Phosphate (ortho)	Pre-Purge DO	Pre-Purge ORP
			(µg/L)									(mg/L)		(mV)
			EPA Method 8260B											
U-1	3/27/2006	7.20	29,000	<25	<25	1,500	4,900	300	<12,000	8,500	<0.10	<0.050	1.95	-667
	6/12/2006	7.81	3,200	<0.50	<0.50	42	15	56	<250	25,000	<0.10	0.64	1.20	-229
	9/21/2006	8.04	2,600	<12	<12	<12	<12	30	<6,200	16,000	<0.10	1.50	1.28	-110
	12/21/2006	8.32	2,000	<0.50	<0.50	13	2.2	53	<250	22,000	<0.10	1.00	14.10	-102
	3/28/2007	6.17	12,000	<2.5	<2.5	690	1900	110	<1,200	20,000	<0.10	<0.050	6.75	-93
	6/27/2007	5.39	13,000	2.8	<2.5	960	1300	79	<1,200	35,000	<0.10	0.065	3.87	-106
	9/26/2007	5.32	6,900	2.6	<2.5	310	680	44	<1,200	27,000	<0.10	0.11	2.39	-60
U-2	3/27/2006	5.31	2,400	31	0.73	120	15	1,400	<250	1,100	<0.10	<0.050	0.95	-1334
	6/12/2006	6.25	<1,200	<12	<12	17	<25	490	<6,200	1,500	<0.10	<0.050	19.82	-130
	9/21/2006	6.00	440	6.1	<0.50	1.7	<0.50	1,100	<250	100	33	0.36	3.15	-18
	12/21/2006	6.08	670	10	<0.50	52	1.2	730	<250	770	<0.20	0.21	23.71	-92
	3/28/2007	5.05	3,300	36	<5.0	200	6.8	1,200	<2,500	8,600	<0.10	<0.050	8.80	-97
	6/27/2007	4.80	5,100	94	<5.0	640	7.1	1,100	<2,500	9,000	<0.10	<0.050	4.72	-105
	9/26/2007	4.73	3,900	54	<5.0	240	240	670	<2,500	22,000	<0.10	0.10	1.84	-25
U-3	3/27/2006	10.16	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<250	<100	4.5	0.66	2.67	-1588
	6/12/2006	9.94	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<250	<100	4.4	0.64	3.97	77
	9/21/2006	11.01	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<250	170	4.4	0.69	2.64	-33
	12/21/2006	10.92	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<250	<100	4.5	0.68	13.47	85
	3/28/2007	10.84	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<250	<100	4.7	0.67	8.10	-10
	6/27/2007	10.93	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<250	<100	4.5	0.64	8.72	111
	9/26/2007	11.01	770	<0.50	<0.50	<0.50	<0.50	18	<250	9,900	<0.10	<0.050	3.49	72
U-4	3/27/2006	6.27	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<250	<100	6.4	0.41	5.51	-1,000
	6/12/2006	8.45	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<250	2,200	6.8	0.39	4.33	102
	9/21/2006	9.63	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<250	360	5.7	0.43	3.51	152
	12/21/2006	8.50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<250	<100	5.6	0.41	14.99	90
	3/28/2007	8.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<250	<100	5.5	0.49	12.16	144
	6/27/2007	8.78	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<250	<100	5.3	0.34	10.42	115
	9/26/2007	9.08	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<250	<100	5.4	0.4	4.27	98
U-5	3/27/2006	6.29	450	<0.50	<0.50	8.3	<1.0	70	<250	6,300	<0.50	<0.050	2.69	-585
	6/12/2006	6.45	370	<0.50	<0.50	<0.50	<1.0	61	<250	8,700	<0.50	<0.050	2.32	-236
	9/21/2006	6.60	130	<0.50	<0.50	<0.50	<0.50	35	<250	6,800	<0.50	<0.050	1.37	-125
	12/21/2006	6.92	230	<0.50	<0..50	0.58	<0.50	11	<250	15,000	<0.50	<0.050	14.44	-109
	3/28/2007	5.12	400	<0.50	<0.50	5.4	<0.50	13	<250	10,000	<0.20	<0.050	9.09	-97
	6/27/2007	4.41	210	<0.50	<0.50	2.4	<0.50	18	<250	10,000	<0.10	<0.050	3.52	-101
	9/26/2007	4.71	740	<0.50	<0.50	<0.50	<0.50	18	<250	9,200	<0.10	<0.050	2.66	-80

Table 1

RESULTS OF LABORATORY AND FIELD ANALYSIS OF GROUNDWATER SAMPLES
76 Service Station # 5325
3220 Lakeshore Avenue, Oakland, California

Well ID	Sample Date	Depth to Water (ft btoc)	TPH-g	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	Ethanol	Iron Ferrous	Nitrate	Phosphate (ortho)	Pre-Purge DO	Pre-Purge ORP
			(µg/L)									(mg/L)		(mV)
			EPA Method 8260B											
U-6	3/27/2006	6.16	<50	<0.50	<0.50	<0.50	<1.0	**8.1**	<250	**8,800**	**0.37**	**0.19**	**1.33**	**-953**
	6/12/2006	6.59	<50	<0.50	<0.50	<0.50	<1.0	**6.9**	<250	**8,500**	**0.23**	<0.050	**1.32**	**-234**
	9/21/2006	6.90	<50	<0.50	<0.50	<0.50	<0.50	**3.1**	<250	**2,900**	**0.19**	**0.31**	**2.07**	**-113**
	12/21/2006	7.36	<50	<0.50	<0.50	<0.50	<0.50	**1.2**	<250	**11,000**	**0.36**	**0.41**	**11.82**	**-132**
	3/28/2007	3.48	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<250	<100	**0.55**	**0.31**	**7.37**	**-36**
	6/27/2007		----------Not Sampled - Well Inaccessible----------											
	9/26/2007	2.71	**54**	<0.50	<0.50	<0.50	<0.50	<0.50	<250	<100	**0.41**	**0.34**	**3.92**	**64**

Notes:

Groundwater samples were collected during the normally scheduled quarterly groundwater monitoring and sampling events.
DO values were collected as percentage values on 12/21/2006 and have been converted.

TPH-g	=	total petroleum hydrocarbons as gasoline	ft btoc	=	feet below top of casing
MTBE	=	methyl tertiary butyl ether	µg/L	=	microgram per liter
DO	=	dissolved oxygen	mg/L	=	milligrams per liter
ORP	=	oxygen reduction potential	mV	=	milivolts