cook

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May 2, 2005

Bob Schultz
Alameda County Environmental Health
1311 Harbor Bay Pkwy, Ste 250
Alameda, California 94502-6577

Subject: **Express Gas & Mart,**
2951 High Street, Oakland, California

Dear Mr. Schultz:

Enclosed is the *Quarterly Verification Monitoring Report, Second Quarter 2005* for the subject LUFT site. A *Verification Monitoring Work Plan* was submitted to you on November 26, 2004. The ACEH has yet to comment on this work plan. Per your verbal approval, the verification monitoring program was started on January 3, 2005. On this same date the ozone sparge system was permanently turned off. Four rounds of verification monitoring have now been completed. All constituents of concern are significantly below site-specific threshold levels (SSTLs). The site no longer poses a potential threat to groundwater quality. If concentrations of all constituents of concern remain below their respective SSTLs for two more verification monitoring events, we recommend that the LUFT case be closed.

Please call me at (925) 937-1759 if you have any questions or comments in regard to this report.

Very truly yours,

Cook Environmental Services, Inc.

Tim Cook, P.E., CEG
Principal

cc: Aziz Kandahari, Express Gas & Mart
Betty Graham, SFRWQCB

cook

271 Las Juntas Way, Walnut Creek, CA 94597 Phone 925.937.1759 Cell 925.787.6869 cookenvironmental@att.net

QUARTERLY VERIFICATION MONITORING REPORT
Second Quarter 2005

PROJECT SITE:
Express Gas & Mart
2951 High Street
Oakland, California 94619

PREPARED FOR:
Mr. Aziz Kandahari
Himalaya Trading Company
2951 High Street
Oakland, California 94619

SUBMITTED TO:
Alameda County Health Care Services
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

PREPARED BY:
Cook Environmental Services, Inc.
271 Las Juntas Way
Walnut Creek, California 94597

Project No. 1004

May 2, 2005

PROFESSIONAL CERTIFICATION

QUARTERLY VERIFICATION MONITORING REPORT

Second Quarter 2005

Express Gas & Mart
2951 High Street
Oakland, California 94619

Cook Environmental Services, Inc.
Project No. 1004
May 2, 2005

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Tim Cook, P.E., CEG
Principal

INTRODUCTION

This report presents the results of the second quarter 2005 verification monitoring program for the Express Gas & Mart located at 2951 High Street in Oakland, California (the "Site"). The sampling described herein is part of an ongoing characterization and remediation of subsurface contamination that was caused by accidental releases from underground storage tanks (USTs) that were replaced in 2001. The contaminant investigation and corrective action are being conducted by Cook Environmental Services, Inc. (CES) on behalf of the responsible party, Mr. Aziz Kandahari. The local oversight program (LOP) agency overseeing this case is Alameda County Environmental Health (ACEH). Groundwater monitoring this quarter was conducted on April 5, 2005.

PHYSICAL SETTING

Site Location

The Site is a retail gasoline station and convenience store located on the corner of High Street and Penniman Avenue, in southeastern Oakland, California. The Site location is shown on **Figure 1** and Site features are depicted on **Figure 2**. Neighboring land use is commercial and residential.

Topography and Drainage

The Site is located about 3½ miles east of San Francisco Bay. The Site location is near the base of the Oakland Hills, at a surface elevation of approximately 132 feet above mean sea level (amsl). Hilly topography occurs directly south and east of the Site. The ground surface at the Site slopes gently toward High Street, but the regional topography slopes southwesterly from the Oakland Hills. The nearest surface water body is Peralta Creek, located approximately ½ mile north-northeast of the Site.

Geology and Soils

The Site area is located on an alluvial apron that extends northwest and southeast between the San Francisco Bay on the west and the Diablo Range on the east. The active Hayward Fault forms a structural boundary between the alluvial apron and the Diablo Range. Surficial sediments are Holocene-age alluvial fan and fluvial deposits (Helley, E.J. and Graymer, R.W., 1997). These sediments are gravelly sand and sandy gravel that grade into sand and silty clay. The nearby hilly areas directly south and east of the Site are underlain by similar, though older, deposits of Pleistocene age.

Soil borings were drilled and sampled and monitoring wells were installed at the Site in March and April 2003. Soils encountered in the 25-foot deep borings were gravelly to sandy silts with

some interbedded silts, sandy clays and silty fine sands. Groundwater was observed in two of the four borings, at depths of 16 feet below grade (fbg) and 4 fbg. The latter boring was drilled offsite, within the High Street right-of-way.

Groundwater

The Site is within the San Francisco Bay regional watershed. The Quaternary alluvial deposits of the region host beneficial use aquifers. Slightly less than half the region's water supply is derived from groundwater. The balance is obtained from imported surface water. The water bearing unit at the Site is primarily gravelly clay. The porosity of the water bearing zone is secondary. Groundwater moves primarily through fractures in the gravelly clay. Static water levels in the onsite monitoring wells range from about 5 to 9 fbg, depending upon the season. Water level data indicate the direction of groundwater flow is southerly. Field measurements of specific conductance (SC) among the monitoring wells range from approximately 400 to 2,000 microsiemens.

PROJECT BACKGROUND

Groundwater monitoring has been conducted periodically at the Site since early 1995. Groundwater quality was impacted by petroleum hydrocarbons such as benzene, toluene, ethylbenzene, xylenes (BTEX), and methyl tert-butyl ether (MtBE). A report by Aqua Science Engineers, Inc. (ASE), dated November 14, 2000, indicates that 2,550 pounds of oxygen releasing compound (ORC®) slurry was injected into borings along the northern and eastern side of the former USTs in June 1997. The ORC® apparently increased the dissolved oxygen (DO) concentrations in the five nearby monitoring wells for approximately one year. Contaminant concentrations decreased slightly in well MW-5 during that period. ORC® socks were installed in wells MW-4 and MW-5 in August 1998 after the DO concentrations declined. The ORC® socks were removed in September 2000 after proving ineffective at reducing petroleum hydrocarbon concentrations in groundwater.

A Tier 2 Risk-Based Corrective Action (RBCA) analysis was performed for the Site by Christopher Palmer in August 1997. The RBCA was conducted to develop site-specific threshold levels for petroleum hydrocarbon contaminants in soil and groundwater (SSTLs are listed in **Table 3**). The RBCA was reviewed and commented on by Alameda County. Alameda County approved the RBCA in a letter dated October 21, 1997.

On February 28, 2001, soil samples were collected along a product line leading to the fuel dispensers in front of the convenience mart during the installation of new dispensers. All of the soil samples yielded detectable concentrations of petroleum hydrocarbons. Total petroleum hydrocarbons as gasoline (TPH-g) was detected at concentrations ranging from 71 milligrams per kilogram (mg/kg) to 3,600 mg/kg. A *Site Investigation Work Plan* dated March 26, 2001 was submitted to the ACEH. The work plan described methods and procedures to conduct a soil

and groundwater investigation around the fuel dispensers. The ACEH approved the work plan and requested that the USTs and contaminated soils be removed and disposed.

Six soil borings were drilled and sampled in late April 2001. Sample results from the borings yielded TPH-g concentrations in soil up to 4,000 mg/kg and in groundwater up to 78,000 micrograms per liter (µg/L), confirming that petroleum hydrocarbons had impacted soil and groundwater. The dispenser pumps, product lines, and four steel gasoline USTs were excavated and removed from the Site by W.A. Craig, Inc. in May 2001. The USTs were inspected and appeared to be in good condition. However, soil samples from the base and the sides of the UST excavation yielded TPH-g concentrations up to 1,700 mg/kg on the west sidewall of the excavation at 8 fbg. W.A. Craig, Inc. excavated approximately 3,700 tons of hydrocarbon contaminated soil between May 9 and September 27, 2001. The soil was disposed of at the B&J Class II Landfill in Vacaville, California. The excavation area is shown on **Figure 2**.

Following Site restoration and re-opening of the Express Gas & Mart, little additional activity occurred until March 2003, when four new monitoring wells were installed to replace wells removed during excavation. Monitoring well construction information is summarized in **Table 1**. Quarterly groundwater monitoring was resumed in April 2003. The wells had not been sampled since the September 2000 sampling reported by ASE. The April 2003 analytical data indicated that MtBE was above the SSTL of 8,400 µg/L in wells MW-5 and MW-7.

Based on the April 2003 groundwater sampling results, W.A. Craig, Inc. recommended corrective action to remediate the subsurface contamination at the Site to below SSTLs. A *Feasibility Study/Corrective Action Plan* dated July 28, 2003 and an *Addendum to Corrective Action Plan* dated September 10, 2003 were submitted to ACEH. The ACEH approved the installation of an OS system in a letter dated February 18, 2004.

An OS system consisting of ten ozone-sparge wells and a control panel began operating on April 14, 2004. Prior to startup, monitoring wells MW-5, MW-7, MW-8, and MW-9 were purged and sampled to determine baseline concentrations. Except for brief periods of mechanical failure or maintenance, the system operated continuously from April 14, 2004 until January 4, 2005.

This quarter, wells were sampled on April 5, 2005. Concentrations in all eight Site monitoring wells have remained below the SSTLs since May 13, 2004. The OS system is responsible for reducing these concentrations. Tim Cook of CES called Bob Schultz, the caseworker at ACEH for the Site on November 19, 2004 to discuss Site closure. Mr. Schultz requested a *Verification Monitoring Work Plan* describing methods and procedures to ensure the Site is no longer a risk to groundwater quality. This work plan was submitted to ACEH on November 26, 2004. Mr. Schultz conditionally approved the work plan during a phone conversation on January 19, 2005. The OS system was turned off and verification monitoring began on January 4, 2005. The ACEH has yet to review or comment on the *Verification Monitoring Work Plan.*

SCOPE OF WORK

The scope of work performed during this quarter included the following tasks:

- Maintained the California State Water Resources Control Board Geographical Environmental Information Management System (GeoTracker) database;
- Collected and analyzed monthly verification monitoring groundwater samples from four monitoring wells;
- Measured static water levels in eight monitoring wells;
- Collected and analyzed quarterly verification monitoring groundwater samples from eight monitoring wells;
- Collected field measurements from eight monitoring wells including water level, DO concentrations, temperature, pH, and specific conductance;
- Analyzed groundwater samples for TPH-g, BTEX, MtBE, DIPE, EtBE, tAME, tBA, methanol, ethanol, EDB, and DCA (see ***Laboratory Analyses*** section of this report for chemical names and analytical methods used);
- Prepared this *Quarterly Groundwater Monitoring Report.*

FIELD PROCEDURES

Groundwater Level Measurements

CES measured water levels in Site monitoring wells on April 5, 2005 using an electronic water level indicator. Water levels were recorded on monitoring well sampling logs included in **Appendix A**. Prior to taking the measurements, the wells were uncapped and water levels were allowed to equilibrate with atmospheric pressure for at least 30 minutes. Water level measurements were referenced to the surveyed top of the well casings. The depth-to-water measurements were used to calculate the standing water volume and the amount of water to be purged prior to collecting a sample. The depth to water and surveyed wellhead elevations are also used to determine the static groundwater elevations and flow direction.

Purging and Sampling

CES purged and sampled only monitoring wells MW-3, MW-5, MW-7 and MW-8 on February 3 and March 3, 2005. All eight monitoring wells were sampled on April 5, 2005. At least three well casing volumes were purged from each well before collecting groundwater samples. Wells were purged using clean disposable polyethylene bailers. The DO concentration, pH, temperature, and SC of the groundwater were intermittently monitored with portable

instrumentation during purging. Field measurements were recorded on the monitoring well sampling logs in **Appendix A**.

Upon completion of purging activities, a groundwater sample was collected from each well with a dedicated disposable bailer. The groundwater samples were decanted from the bailer into laboratory-supplied, 40-ml volatile organic analysis (VOA) vials preserved with hydrochloric acid. Care was taken to ensure that the vials were completely filled to avoid headspace volatilization of dissolved petroleum hydrocarbons. Each sample vial was labeled with the well ID. Samples were stored on ice and submitted under chain-of-custody control to McCampbell Analytical Inc. of Pacheco, California (DHS certification number 1644).

Samples were analyzed for TPH-g using EPA Method 8015C (modified), for BTEX and MtBE using EPA Method 8021B, and for MtBE, di-isopropyl ether (DIPE), ethyl tert-butyl ether (EtBE), tert-amyl methyl ether (tAME), tert-butyl alcohol (tBA), methanol, ethanol, ethylene dibromide (EDB), and 1,2-dichloroethane (DCA) using EPA Method 8260B. Discussions in this report cite MtBE concentrations determined by EPA Method 8260B, which is considered a more accurate analysis than Method 8021B.

DATA EVALUATION

Groundwater Levels and Elevations

Water level data for Site monitoring wells is summarized in **Table 2**. The surveyed top-of-casing (TOC) elevations and the depth to water measurements were used to calculate groundwater elevations in the monitoring wells. The water level in well MW-7 was slightly depressed below its static water level due to residual high pressure from a nearby sparge point. This water level is not indicative of the static water level in this well. The static water levels in wells ranged from 5.41 feet below TOC in MW-1 to 7.63 feet below TOC in MW-9. Groundwater elevations ranged from 120.07 feet above mean sea level (msl) in well MW-10 to 127.16 feet above msl in MW-6. Excluding well MW-7, groundwater elevations decreased an average of 2.32 feet since the last quarterly monitoring event on January 3, 2005. Groundwater elevations are shown on **Figure 3**. The groundwater gradient was calculated using static water elevations in wells MW-3, MW-8, and MW-9. On, April 5, 2005 the groundwater flow direction was S 10° W with a gradient of 0.035 feet per foot (ft/ft). On January 3, 2005 the groundwater flow direction was S 6° W with a gradient of 0.038 feet per foot (ft/ft). The groundwater flow and gradient this quarter are consistent with previous monitoring events. Hydrographs for all eight monitoring wells are presented on **Figure 4**.

Quarterly Groundwater Monitoring Results

The only petroleum hydrocarbons detected in Site wells this quarter were MtBE, tBA and DCA. MtBE was detected in wells MW-1, MW-3, MW-5, MW-7, MW-8, MW-9 and MW-10. tBA

was detected in wells MW-1, MW-8, MW-9 and MW-10. The presence of tBA is most likely caused by the incomplete breakdown of MtBE. DCA was detected only in well MW-7. Concentrations of all constituents of concern were below their respective SSTLs. Groundwater analytical results are summarized in **Table 3**. Laboratory analytical reports are included in **Appendix B**.

The highest MtBE concentration was 520 µg/L and was observed in well MW-10, which is approximately 70 feet downgradient of the Site. This concentration is considerably below the SSTL for MtBE, which is 8,400 µg/L and considerably below its concentration of 1,700 µg/L last quarter. MtBE concentrations in the monitoring wells on April 5, 2005 are shown on **Figure 5**. Since startup of the OS system, petroleum hydrocarbon concentrations in the wells closest to the former USTs that previously yielded the highest hydrocarbon concentrations (wells MW-5, MW-7, and MW-9) have shown a remarkable decrease. MtBE in MW-5 this quarter was 14 µg/L compared to 20,000 µg/L on April 14, 2004, the same day the OS system was turned on. The MtBE concentration in well MW-7 this quarter was 6.7 µg/L, having decreased from 21,000 µg/L on April 14, 2004. Graphs of MtBE concentrations in wells MW-3, MW-5, MW-7 and MW-8 are shown on **Figure 6**. MtBE concentrations in wells MW-1 and MW-3 have decreased one order of magnitude since the OS system began operation, while MtBE concentrations in MW-5 and MW-7 have decreased three orders of magnitude. MtBE in well MW-8 decreased slightly to 140 µg/L from 180 µg/L last January. Graphs of MtBE concentrations in wells MW-1, MW-9 and MW-10 are shown on **Figure 7**.

BTEX constituents were not detected in any monitoring well this quarter. DCA was detected in well MW-7 at 3.2 µg/L. DCA has been detected intermittently in this well since January. It was probably not detected prior to this date due to matrix effects from the high concentrations of hydrocarbons that used to be present in this well. Previously benzene had been detected in wells MW-5 and MW-7 at concentrations above the SSTL of 34 µg/L. Benzene was not detected above the laboratory detection limit (0.5 µg/L) in any well this quarter. A graph of benzene concentrations versus time in wells MW-5 and MW-7 is shown on **Figure 8**.

TPH-g was not detected in any well this quarter for the first time. Before the installation of the OS system, wells MW-5, MW-7, and MW-10 consistently yielded detectable TPH-g concentrations. The TPH-g concentration in well MW-5 was 6,600 µg/L on the same day the OS system was turned on, but TPH-g has not been detected in this well since then. The TPH-g concentration in well MW-7 the day the OS system was turned on was 8,900 µg/L.

Baseline DO concentrations were measured in wells MW-1, MW-3, MW-5 and MW-7 on April 14, 2004. The average baseline DO concentration was approximately 0.22 milligrams per liter (mg/L). The average DO concentration in these same wells on January 3, 2005 was 5.54 mg/L and the average DO in these wells this quarter was 5.83 mg/L. DO concentrations in wells MW-1, MW-3, MW-5, and MW-7 remain significantly above baseline concentrations, which suggest

that the residual DO is from the OS system. DO concentrations in the monitoring wells are summarized in **Table 4**.

GeoTracker Requirements

Laboratory data were submitted electronically to the GeoTracker database as required by AB2886 (Water Code Sections 13195-13198). Electronic analytical reports (EDF files) are prepared and formatted by the laboratory and submitted by CES. Groundwater elevations in Site wells (GEO_WELL file) were also submitted.

CONCLUSIONS

The OS system began operation on April 14, 2004 and ceased operation on January 3, 2005. Verification monitoring began on January 3 in accordance with the *Verification Monitoring Work Plan* to ensure that concentrations of constituents of concern remain below SSTLs.

On April 5, 2005 the direction of groundwater flow was S 10° W with a gradient of 0.035 feet per foot (ft/ft). This is consistent with previous measurements. The groundwater elevation in well MW-7 was slightly depressed due to residual pressure caused by the OS system.

MtBE was the principal constituent of concern in groundwater at the Site. Constituents of concern have remained below their respective SSTLs since May 26, 2004. Quarterly groundwater monitoring of all eight monitoring wells on April 5, 2005 and monitoring of wells MW-3, MW-5, MW-7 and MW-8 on February 3 and March 4, 2005 verified that constituents of concern remain below SSTLs for the ninth straight sampling event. TPH-g and BTEX were not detected in any well this quarter.

DO concentrations remain substantially above baseline levels in wells MW-1, MW-3, MW-5 and MW-7. The increased DO concentrations indicate that residual oxygen from the OS system is causing aerobic degradation of the remaining dissolved hydrocarbons in the subsurface.

RECOMMENDATIONS

If concentrations of all constituents of concern remain below their respective SSTLs for two more consecutive sampling events, we recommend Site closure.

TABLES

Table 1
Monitoring and Ozone-Sparge Well Construction Information
2951 High Street
Oakland, California

Well ID	Date Installed	Casing Diameter (inches)	Total Depth (fbg)	Screened Interval (fbg)	Water-Bearing Unit	Top of Casing Elevation (feet amsl)	Northing (feet)	Easting (feet)
MW-1	2/95	2	25	N/A	N/A	131.64	2,112,552.39	6,070,038.16
MW-3	2/95	2	25	N/A	N/A	131.05	2,112,539.60	6,070,048.55
MW-5	12/9/1996	2	30	5-30	N/A	131.99	2,112,582.04	6,070,083.59
MW-6	1/7/1997	2	30	5-30	N/A	132.58	2,112,662.53	6,070,113.49
MW-7	3/24/2003	2	25	15-25	gravelly sandy silt	130.93	2,112,533.18	6,070,106.31
MW-8	3/24/2003	2	25	15-25	gravelly sandy silt	131.15	2,112,527.86	6,070,153.72
MW-9	3/25/2003	2	25	15-25	silty gravelly sand	130.00	2,112,484.75	6,070,065.55
MW-10	4/4/2003	2	25	15-25	sandy silt	127.19	2,112,393.29	6,069,984.72
SP-1	3/25/2004	3/4	37	30.5-33	clayey sand	130.39	2,112,529.17	6,070,105.65
SP-2	3/25/2004	3/4	31	26.5-29	sandy clay	130.07	2,112,534.87	6,070,118.37
SP-3	3/24/2004	3/4	32	28.5-31	gravelly sandy clay	130.66	2,112,541.87	6,070,131.76
SP-4	3/25/2004	3/4	33	14.5-17	gravelly sandy clay	130.51	2,112,541.66	6,070,102.66
SP-5	3/26/2004	3/4	30	20-22.5	clayey gravelly sand	130.55	2,112,553.75	6,070,115.66
SP-6	3/26/2004	3/4	30	21.5-24	clayey sandy gravel	130.88	2,112,564.81	6,070,106.43
SP-7	3/26/2004	3/4	30	25.5-28	gravelly sand	131.20	2,112,575.20	6,070,106.74
SP-8	3/26/2004	3/4	31	28.5-31	gravelly sandy clay	130.98	2,112,569.95	6,070,091.53
SP-9	3/25/2004	3/4	33	25-27.5	clayey sand	130.85	2,112,562.57	6,070,080.59
SP-10	3/26/2004	3/4	30	21.5-24	gravelly clay	131.23	2,112,578.47	6,070,085.11

Notes:

MW denotes monitoring wells. SP denotes sparge wells.

fbg = feet below grade; amsl = above mean sea level; N/A = data not available.

Monitoring wells surveyed by Virgil Chavez Land Surveying on April 15, 2003.

Ozone-sparge wells surveyed by Virgil Chavez Land Surveying on April 22, 2004.

MW-1, MW-3, MW-5, and MW-6 were installed by Aqua Science Engineers, Inc.

MW-7, MW-8, MW-9, MW-10, and SP-1 through SP-10 were installed by W.A. Craig, Inc.

Table 2
Groundwater Elevations in Monitoring Wells
2951 High Street
Oakland, California

Well ID	Date	TOC Elevation	DTW	Groundwater Elevation
MW-1	04/04/03	131.64	5.07	126.57
	07/16/03		7.32	124.32
	10/28/03		9.16	122.48
	01/13/04		4.03	127.61
	04/14/04		5.37	126.27
	04/29/04		5.55	126.09
	05/13/04		6.24	125.40
	05/26/04		6.61	125.03
	06/10/04		7.08	124.56
	07/08/04		7.49	124.15
	10/01/04		8.38	123.26
	01/03/05		2.12	129.52
	04/05/05		5.41	126.23
MW-3	04/04/03	131.05	5.86	125.19
	07/16/03		7.86	123.19
	10/28/03		9.43	121.62
	01/13/04		5.76	125.29
	04/14/04		6.72	124.33
	04/29/04		6.81	124.24
	05/13/04		7.62	123.43
	05/26/04		7.80	123.25
	06/10/04		8.17	122.88
	07/08/04		8.34	122.71
	10/01/04		9.41	121.64
	01/03/05		4.19	126.86
	02/03/05		5.41	125.64
	03/04/05		3.90	127.15
	04/05/05		6.75	124.30
MW-5	04/04/03	131.99	6.94	125.05
	07/16/03		8.17	123.82
	10/28/03		9.43	122.56
	01/13/04		6.27	125.72
	04/14/04		6.79	125.20
	04/29/04		7.35	124.64
	05/13/04		7.71	124.28
	05/26/04		7.66	124.33
	06/10/04		8.11	123.88
	07/08/04		8.38	123.61
	10/01/04		8.83	123.16
	01/03/05		4.96	127.03
	02/03/05		5.91	126.08
	03/04/05		4.48	127.51
	04/05/05		6.81	125.18

Table 2
Groundwater Elevations in Monitoring Wells
2951 High Street
Oakland, California

Well ID	Date	TOC Elevation	DTW	Groundwater Elevation
MW-6	04/04/03	132.58	5.13	127.45
	07/16/03		7.99	124.59
	10/28/03		9.18	123.40
	01/13/04		5.97	126.61
	04/29/04		7.05	125.53
	07/08/04		8.01	124.57
	10/01/04		8.59	123.99
	01/03/05		4.25	128.33
	04/05/05		5.42	127.16
MW-7	04/04/03	130.93	7.06	123.87
	07/16/03		8.11	122.82
	10/28/03		9.25	121.68
	01/13/04		6.80	124.13
	04/14/04		7.30	123.63
	04/29/04	*	20.80	110.13
	05/13/04	*	17.51	113.42
	05/26/04	*	18.79	112.14
	06/10/04	*	19.41	111.52
	07/08/04	*	13.92	117.01
	10/01/04	*	19.61	111.32
	01/03/05	*	7.25	123.68
	02/03/05	*	11.41	119.52
	03/04/05		5.05	125.88
	04/05/05	*	7.32	123.61
MW-8	04/04/03	131.15	6.60	124.55
	07/16/03		7.79	123.36
	10/28/03		8.83	122.32
	01/13/04		6.02	125.13
	04/14/04		6.90	124.25
	04/29/04		7.25	123.90
	05/13/04		7.52	123.63
	05/26/04		7.71	123.44
	06/10/04		7.89	123.26
	07/08/04		7.45	123.70
	10/01/04		8.46	122.69
	01/03/05		4.40	126.75
	02/03/05		5.78	125.37
	03/04/05		4.40	126.75
	04/05/05		6.95	124.20

Table 2
Groundwater Elevations in Monitoring Wells
2951 High Street
Oakland, California

Well ID	Date	TOC Elevation	DTW	Groundwater Elevation
MW-9	04/04/03	130.00	7.35	122.65
	07/16/03		8.50	121.50
	10/28/03		9.56	120.44
	01/13/04		6.83	123.17
	04/14/04		7.61	122.39
	04/29/04		8.23	121.77
	05/13/04		8.25	121.75
	05/26/04		8.44	121.56
	06/10/04		8.71	121.29
	07/08/04		8.68	121.32
	10/01/04		9.29	120.71
	01/03/05		5.30	124.70
	04/05/05		7.63	122.37
MW-10	04/23/03	127.19	7.06	120.13
	07/16/03		7.72	119.47
	10/28/03		8.61	118.58
	01/13/04		6.15	121.04
	04/29/04		7.09	120.10
	07/08/04		7.84	119.35
	10/01/04		8.25	118.94
	01/03/05		4.60	122.59
	04/05/05		7.12	120.07

Notes:
Elevations are in feet above mean sea level.
TOC, Top of casing. DTW, Depth to water in feet below TOC.
* Water level in MW-7 is affected by ozone sparging.

Table 3
Analytical Results for Groundwater Samples
2951 High Street
Oakland, California

Well ID	Date	TPH-g	benzene	toluene	ethyl-benzene	xylenes	MtBE	DIPE	EtBE	tAME	tBA	methanol	ethanol	EDB	DCA
MW-1	02/23/95	<50	<0.5	<0.5	<0.5	<0.5	NT	NT	NT	NT	NT	NT	NT	NT	NT
	05/26/95	<50	<0.5	<0.5	<0.5	<0.5	NT	NT	NT	NT	NT	NT	NT	NT	NT
	08/23/95	<50	<0.5	<0.5	<0.5	<0.5	NT	NT	NT	NT	NT	NT	NT	NT	NT
	04/04/03	<50	<0.5	<0.5	<0.5	<0.5	270	<5	<5	<5	<50	<5,000	<500	<5	<5
	07/16/03	<50	<0.5	<0.5	<0.5	<0.5	420	<10	<10	<10	<100	<10,000	<1,000	<10	<10
	10/28/03	<50	<0.5	<0.5	<0.5	<0.5	1,200	<50	<50	<50	<500	<50,000	<5,000	<50	<50
	01/13/04	58	0.85	<0.5	3.1	8.4	380	<0.5	<0.5	<0.5	<5.0	<50	<5	<0.5	<0.5
*	04/29/04	<50	<0.5	<0.5	<0.5	<0.5	260	<5	<5	<5	<50	<5,000	<500	<5	<5
	07/08/04	<50	<0.5	<0.5	<0.5	<1.0	341	<0.5	<1	<1	<10	NT	<100	<1.0	<0.5
	10/01/04	<50	<0.5	<0.5	<0.5	<0.5	1.7	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	<0.5
	01/03/05	<50	<0.5	<0.5	<0.5	<0.5	33	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	<0.5
	04/05/05	<50	<0.5	<0.5	<0.5	<0.5	44	<0.5	<0.5	<0.5	6.8	<500	<50	<0.5	<0.5
MW-3	02/23/95	<50	<0.5	<0.5	<0.5	<0.5	NT	NT	NT	NT	NT	NT	NT	NT	NT
	05/26/95	<50	<0.5	<0.5	<0.5	<0.5	NT	NT	NT	NT	NT	NT	NT	NT	NT
	08/23/95	<50	<0.5	<0.5	<0.5	<0.5	NT	NT	NT	NT	NT	NT	NT	NT	NT
	04/04/03	<50	<0.5	<0.5	<0.5	<0.5	1,600	<25	<25	<25	<250	<25,000	<2,500	<25	<25
	07/16/03	<50	<0.5	<0.5	<0.5	<0.5	1,200	<50	<50	<50	<500	<50,000	<5,000	<50	<50
	10/28/03	<50	<0.5	<0.5	<0.5	<0.5	1,400	<50	<50	<50	<500	<50,000	<5,000	<50	<50
	01/13/04	<200	<2	<2	<2	<2	790	<2	<2	<2	<20	<200	<20	<2	<2
*	04/29/04	<50	<0.5	<0.5	<0.5	<0.5	140	<5	<5	<5	<50	<5,000	<500	<5	<5
	07/08/04	<50	<0.5	<0.5	<0.5	<1.0	24.3	<0.5	<1	<1	<10	NT	<100	<1.0	<0.5
	10/01/04	<50	<0.5	<0.5	<0.5	<0.5	4.0	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	<0.5
	01/03/05	<50	<0.5	<0.5	<0.5	<0.5	49	<1.0	<1.0	<1.0	<10	<1000	<100	<1.0	<1.0
	02/03/05	<50	<0.5	<0.5	<0.5	<0.5	4.9	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	<0.5
	03/04/05	<50	<0.5	<0.5	<0.5	<0.5	32	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	1.5
	04/05/05	<50	<0.5	<0.5	<0.5	<0.5	12	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	<0.5

Table 3
Analytical Results for Groundwater Samples
2951 High Street
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Well ID	Date	TPH-g	benzene	toluene	ethyl-benzene	xylenes	MtBE	DIPE	EtBE	tAME	tBA	methanol	ethanol	EDB	DCA
MW-5	12/13/96	3,600	180	350	81	510	430	NT	NT	NT	NT	NT	NT	NT	NT
	03/27/97	120,000	28,000	16,000	2,600	10,000	64,000	NT	NT	NT	NT	NT	NT	NT	NT
**	06/27/97	6,300	10,000	2,400	290	4,500	43,000	NT	NT	NT	NT	NT	NT	NT	NT
	09/22/97	<50,000	7.9	3.3	0.6	3.3	30,000	NT	NT	NT	NT	NT	NT	NT	NT
	12/06/97	<5,000	33	12	<5	7.3	33,000	NT	NT	NT	NT	NT	NT	NT	NT
	03/23/98	29,000	150	160	130	320	34,000	NT	NT	NT	NT	NT	NT	NT	NT
	06/10/98	53,000	7,000	2,400	540	3,400	67,000	NT	NT	NT	NT	NT	NT	NT	NT
	07/23/98	36,000	1,000	270	<120	740	51,000	NT	NT	NT	NT	NT	NT	NT	NT
***	09/16/98	56,000	3,400	1,300	430	1,800	84,000	NT	NT	NT	NT	NT	NT	NT	NT
	11/23/98	63,000	5,700	2,900	500	2,200	87,000	NT	NT	NT	NT	NT	NT	NT	NT
	03/05/99	42,000	<250	<250	<250	<250	38,000	NT	NT	NT	NT	NT	NT	NT	NT
	06/17/99	37,000	510	85	5.6	89	61,000	NT	NT	NT	NT	NT	NT	NT	NT
	09/15/99	54,000	8,500	1,800	420	2,400	55,000	NT	NT	NT	NT	NT	NT	NT	NT
	12/09/99	34,000	1,600	230	130	570	33,000	NT	NT	NT	NT	NT	NT	NT	NT
	03/06/00	21,000	7,800	870	440	2,100	30,000	NT	NT	NT	NT	NT	NT	NT	NT
	06/07/00	<50,000	11,000	890	570	3,000	68,000	NT	NT	NT	NT	NT	NT	NT	NT
	09/18/00	40,000	4,900	<250	<250	1,700	46,000	NT	NT	NT	NT	NT	NT	NT	NT
	04/04/03	1,800	560	<5.0	<5.0	30	19,000	<330	<330	<330	<3,300	<330,000	<33,000	<330	<330
	07/16/03	2,800	1,000	<5	10	80	16,000	<200	<200	<200	<2,000	<200,000	<20,000	<200	<200
	10/28/03	740	290	<5.0	<5.0	7.2	14,000	<170	<170	<170	<1,700	<170,000	<17,000	<170	<170
	01/13/04	<500	48	<5	<5	<5	2,000	<5	<5	<5	<50	<500	<50	<5	<5
	04/14/04	6,600	2,700	<50	<50	260	20,000	<500	<500	<500	<5,000	<500,000	<50,000	<500	<500
*	04/29/04	<500	6.3	<5	<5	7.8	11,000	<250	<250	<250	<2,500	<250,000	<25,000	<250	<250
	05/13/04	<50	<0.5	<0.5	<0.5	<0.5	3,000	<50	<50	<50	<500	<50,000	<5,000	<50	<50
	05/26/04	<50	<0.5	<0.5	<0.5	<0.5	460	<10	<10	<10	<100	<10,000	<1,000	<10	<10
	06/10/04	<50	<0.5	<0.5	<0.5	<0.5	38	<0.5	<0.5	<0.5	<5.0	<50	<5.0	<0.5	<0.5
	07/08/04	<50	1.5	<0.5	<0.5	<1.0	9.6	<0.5	<1	<1	<10	NT	<100	<1.0	<0.5
	10/01/04	<50	<0.5	<0.5	<0.5	<0.5	1.7	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	<0.5
	01/03/05	<50	<0.5	<0.5	<0.5	<0.5	2.2	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	<0.5
	02/03/05	<50	<0.5	<0.5	<0.5	<0.5	4.2	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	<0.5
	03/04/05	<50	<0.5	<0.5	<0.5	<0.5	1.8	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	<0.5
	04/05/05	<50	<0.5	<0.5	<0.5	<0.5	14	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	<0.5

Table 3
Analytical Results for Groundwater Samples
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Well ID	Date	TPH-g	benzene	toluene	ethyl-benzene	xylenes	MtBE	DIPE	EtBE	tAME	tBA	methanol	ethanol	EDB	DCA
MW-6	01/13/97	<50	<0.5	<0.5	<0.5	<0.5	<5	NT	NT	NT	NT	NT	NT	NT	NT
	03/27/97	<50	<0.5	<0.5	<0.5	<0.5	<5	NT	NT	NT	NT	NT	NT	NT	NT
	06/27/97	<50	<0.5	<0.5	<0.5	<0.5	<5	NT	NT	NT	NT	NT	NT	NT	NT
	09/22/97	<50	<0.5	<0.5	<0.5	<0.5	24	NT	NT	NT	NT	NT	NT	NT	NT
	12/06/97	94	<0.5	<0.5	<0.5	<0.5	<5	NT	NT	NT	NT	NT	NT	NT	NT
	03/23/98	<50	<0.5	<0.5	<0.5	<0.5	<5	NT	NT	NT	NT	NT	NT	NT	NT
	06/10/98	<50	<0.5	<0.5	<0.5	<0.5	<5	NT	NT	NT	NT	NT	NT	NT	NT
	07/23/98	<50	<0.5	<0.5	<0.5	<0.5	<5	NT	NT	NT	NT	NT	NT	NT	NT
	09/16/98	<50	<0.5	<0.5	<0.5	<0.5	<5	NT	NT	NT	NT	NT	NT	NT	NT
	03/05/99	55	<0.5	0.92	0.5	1.3	<5	NT	NT	NT	NT	NT	NT	NT	NT
	06/17/99	<50	<0.5	<0.5	<0.5	<0.5	8.0	NT	NT	NT	NT	NT	NT	NT	NT
	09/15/99	<50	<0.5	<0.5	<0.5	<0.5	<5	NT	NT	NT	NT	NT	NT	NT	NT
	12/09/99	<50	<0.5	<0.5	<0.5	<0.5	<5	NT	NT	NT	NT	NT	NT	NT	NT
	03/06/00	<50	<0.5	<0.5	<0.5	<0.5	<5	NT	NT	NT	NT	NT	NT	NT	NT
	06/07/00	<50	<0.5	<0.5	<0.5	<0.5	<5	NT	NT	NT	NT	NT	NT	NT	NT
	04/04/03	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	<0.5
	07/16/03	<50	<0.5	<0.5	<0.5	<0.5	0.54	<0.5	<0.5	<0.5	<5	<500	<50	<0.5	<0.5
	10/28/03	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<500	<50	<0.5	<0.5
	01/13/04	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<50	<5	<0.5	<0.5
*	04/29/04	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<500	<50	<0.5	<0.5
	07/08/04	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<1	<1	<10	NT	<100	<1.0	<0.5
	10/01/04	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<500	<50	<0.5	<0.5
	01/03/05	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<500	<50	<0.5	<0.5
	04/05/05	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<500	<50	<0.5	<0.5

Table 3
Analytical Results for Groundwater Samples
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Well ID	Date	TPH-g	benzene	toluene	ethyl-benzene	xylenes	MtBE	DIPE	EtBE	tAME	tBA	methanol	ethanol	EDB	DCA
MW-7	04/04/03	1,400	**54**	27	15	180	**26,000**	<500	<500	<500	<5,000	<500,000	<50,000	<500	<500
	07/16/03	18,000	**1,100**	**630**	**1,100**	**2,000**	**13,000**	<200	<200	<200	<2,000	<200,000	<20,000	<200	<200
	10/28/03	10,000	**750**	**370**	**750**	**1,000**	**17,000**	<500	<500	<500	<5,000	<500,000	<50,000	<500	<500
	01/13/04	7,200	**430**	150	**560**	**550**	**22,000**	<50	<50	<50	<500	<5000	<500	<50	<50
	04/14/04	8,900	**520**	**360**	**640**	**1,100**	**21,000**	<500	<500	<500	<5,000	<500,000	<50,000	<500	<500
*	04/29/04	<500	<5	<5	<5	12	**12,000**	<250	<250	<250	<2,500	<250,000	<25,000	<250	<250
	05/13/04	660	<5.0	28	25	120	**10,000**	<170	<170	<170	<1,700	<170,000	<17,000	<170	<170
	05/26/04	380	<2.5	15	15	79	7,600	<200	<200	<200	<2,000	<200,000	<20,000	<200	<200
	06/10/04	<1,000	<10	<10	<10	<10	4,900	<10	<10	<10	300	<10,000	<100	<10	<10
	07/08/04	67	<0.5	<0.5	1.3	10	1,040	<0.5	<1	<1	<10	NT	<100	<1.0	<0.5
	10/01/04	85	<0.5	<0.5	0.63	6.0	2,300	<50	<50	<50	<500	<50,000	<5,000	<50	<50
	01/03/05	<50	<0.5	<0.5	<0.5	<0.5	130	<2.5	<2.5	<2.5	<25	<2500	<250	<2.5	3.2
	02/03/05	<50	<0.5	<0.5	<0.5	<0.5	4.5	<0.5	<0.5	<0.5	<5	<500	<50	<0.5	2.9
	03/04/05	<50	<0.5	<0.5	<0.5	<0.5	21	<0.5	<0.5	<0.5	<5	<500	<50	<0.5	<0.5
	04/05/05	<50	<0.5	<0.5	<0.5	<0.5	6.7	<0.5	<0.5	<0.5	<5	<500	<50	<0.5	3.2
MW-8	04/04/03	<50	<0.5	<0.5	<0.5	<0.5	230	<5	<5	<5	<50	<5,000	<500	<5	<5
	07/16/03	<50	<0.5	<0.5	<0.5	<0.5	340	<5	<5	<5	<50	<5,000	<500	<5	<5
	10/28/03	<50	<0.5	<0.5	<0.5	<0.5	250	<5.0	<5.0	<5.0	<50	<5,000	<500	<5	<5.0
	01/13/04	<50	<0.5	<0.5	<0.5	<0.5	140	<0.5	<0.5	<0.5	<5.0	<50	<5	<0.5	<0.5
	04/14/04	<50	<0.5	<0.5	<0.5	<0.5	260	<5	<5	<5	<50	<5,000	<500	<5	<5
*	04/29/04	<50	<0.5	<0.5	<0.5	<0.5	130	<5	<5	<5	<50	<5,000	<500	<5	<5
	05/13/04	<50	<0.5	<0.5	<0.5	<0.5	110	<2.5	<2.5	<2.5	<25	<2,500	<250	<2.5	<2.5
	05/26/04	<50	<0.5	<0.5	<0.5	<0.5	150	<2.5	<2.5	<2.5	<25	<2,500	<250	<2.5	<2.5
	06/10/04	<50	<0.5	<0.5	<0.5	<0.5	290	<0.5	<0.5	<0.5	<5.0	<50	<5.0	<0.5	<0.5
	07/08/04	<50	<0.5	<0.5	<0.5	<1.0	395	<0.5	<1	<1	<10	NT	<100	<1.0	<0.5
	10/01/04	<50	<0.5	<0.5	<0.5	<0.5	450	<10	<10	<10	<100	<10,000	<5.0	<0.5	<0.5
	01/03/05	<50	<0.5	<0.5	<0.5	<0.5	330	<5	<5	<5	<50	<5,000	<500	<5	<5
	02/03/05	<50	<0.5	<0.5	<0.5	<0.5	360	<5	<5	<5	53	<5,000	<500	<5	<5
	03/04/05	<50	<0.5	<0.5	<0.5	<0.5	180	<5	<5	<5	53	<5,000	<500	<5	<5
	04/05/05	<50	<0.5	<0.5	<0.5	<0.5	140	<2.5	<2.5	<2.5	29	<2500	<250	<2.5	<2.5

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Well ID	Date	TPH-g	benzene	toluene	ethyl-benzene	xylenes	MtBE	DIPE	EtBE	tAME	tBA	methanol	ethanol	EDB	DCA
MW-9	04/04/03	<50	<0.5	<0.5	<0.5	<0.5	85	<1.5	<1.5	<1.5	<12	<1,200	<120	<1.5	2
	07/16/03	<50	<0.5	<0.5	<0.5	<0.5	170	<2.5	<2.5	3	27	<2,500	<250	<2.5	<2.5
	10/28/03	<50	<0.5	<0.5	<0.5	<0.5	230	<5.0	<5.0	<5.0	57	<5,000	<500	<5.0	<5.0
	01/13/04	<50	<0.5	<0.5	<0.5	<0.5	55	<0.5	<0.5	0.72	5.8	<50	<5	<0.5	1
	04/14/04	<50	<0.5	<0.5	<0.5	<0.5	58	<1	<1	<1	<10	<1,000	<100	<1	<1
*	04/29/04	<50	<0.5	<0.5	<0.5	<0.5	4.7	<0.5	<0.5	<0.5	<5	<500	<50	<0.5	0.63
	05/13/04	<50	<0.5	<0.5	<0.5	<0.5	5.9	<0.5	<0.5	<0.5	<5.0	<50	<5.0	<0.5	0.66
	05/26/04	<50	<0.5	<0.5	<0.5	<0.5	2.5	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	0.53
	06/10/04	<50	<0.5	<0.5	<0.5	<0.5	14	<0.5	<0.5	<0.5	<5.0	<50	<5.0	<0.5	0.60
	07/08/04	<50	<0.5	<0.5	<0.5	<1.0	7.3	<0.5	<1	<1	<10	NT	<100	<1.0	<0.5
	10/01/04	<50	<0.5	<0.5	<0.5	<0.5	2.1	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	<0.5
	01/03/05	<50	<0.5	<0.5	<0.5	<0.5	4.0	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	<0.5
	04/05/05	<50	<0.5	<0.5	<0.5	<0.5	48	<0.5	<0.5	0.75	13	<500	<50	<0.5	<0.5
MW-10	04/23/03	79	<0.5	<0.5	<0.5	<0.5	1,900	<25	<25	58	<250	<25,000	<2,500	<25	<25
	07/16/03	73	20	<0.5	<0.5	<0.5	1,100	<20	<20	39	<200	<20,000	<2,000	<20	<20
	10/28/03	76	<0.5	<0.5	<0.5	<0.5	1,900	<50	<50	<50	<500	<50,000	<5,000	<50	<50
	01/13/04	<500	<5	<5	<5	<5	2,300	<5	<5	72	<50	<500	<50	<5	<5
*	04/29/04	54	<0.5	<0.5	<0.5	<0.5	1,000	<17	<17	24	<170	<17,000	<1,700	<17	<17
	07/08/04	76	<0.5	<0.5	<0.5	<1.0	1,650	<0.5	<1	37	211	NT	<100	<1.0	<0.5
	10/01/04	67	<0.5	<0.5	<0.5	<0.5	1,500	<50	<50	<50	<500	<50,000	<5,000	<50	<50
	01/03/05	62	<0.5	<0.5	<0.5	<0.5	1,700	<25	<25	<25	<250	<25,000	<2,500	<25	<25
	04/05/05	<50	<0.5	<0.5	<0.5	<0.5	520	<17	<17	<17	230	<17,000	<1,700	<17	<17
SSTL		NE	34	270	180	470	8,400	NE	NE	NE	NE	NE	NE	NE	NE

Notes:

SSTLs are site-specific target levels developed for the site by Aqua Science Engineers, Inc. in 1997. **Bold** concentrations exceed the SSTL.

Concentrations are micrograms per liter (ug/L). NE, SSTL not established for this compound. NT, analyte not tested.

Data prior to April 2003 are from *Groundwater Monitoring Report for September 2000 Sampling* by Aqua Science Engineers, Inc. dated 11/14/2000.

* First sampling event after the OS system was started up on April 14, 2004.

** Oxygen Release Compound (ORC) was injected into borings on the south side of MW-5 in late June 1997.

*** ORC socks were placed in MW-5 in August 1998 and removed in September 2000.

TPH-g total petroleum hydrocarbons as gasoline

MtBE methyl tert-butyl ether

DIPE di-isopropyl ether

EtBE ethyl tert-butyl ether

tAME tert-amyl methyl ether

tBA tert-butyl alcohol

EDB ethylene dibromide (1,2-dibromoethane)

DCA 1,2-dichloroethane

Table 4
Field Measurements of Dissolved Oxygen and Temperature
2951 High Street
Oakland, California

Well ID	Date	DO (mg/L)	Temperature (Celsius)	% Oxygen Saturation
MW-1	04/04/03	0.64	18.5	6.7%
	07/16/03	0.82	18.5	8.6%
	10/28/03	0.51	19.3	5.5%
	01/13/04	0.17	19.3	1.8%
	04/14/04	0.23	18.4	2.4%
*	04/29/04	0.56	18.1	5.9%
	05/13/04	0.70	18.4	7.4%
	05/26/04	0.40	18.5	4.2%
	06/10/04	1.42	18.5	15.0%
	07/08/04	0.71	18.7	7.5%
	10/01/04	1.97	19.5	21.2%
	01/03/05	2.06	19.2	22.0%
	04/05/05	2.41	18.9	25.6%
MW-3	04/04/03	0.78	18.8	8.3%
	07/16/03	2.13	18.8	22.6%
	10/28/03	0.67	19.1	7.2%
	01/13/04	0.25	19.3	2.7%
	04/14/04	0.17	18.6	1.8%
*	04/29/04	6.52	18.0	68.1%
	05/13/04	5.87	18.5	61.9%
	05/26/04	2.76	18.5	29.1%
	06/10/04	6.12	18.5	64.5%
	07/08/04	0.76	18.7	8.0%
	10/01/04	3.45	19.3	37.0%
	01/03/05	2.71	19.2	29.0%
	02/03/05	2.60	19.2	27.8%
	03/04/05	3.34	16.3	33.7%
	04/05/05	3.53	18.6	37.3%
MW-5	04/04/03	0.70	19.2	7.5%
	07/16/03	NA	NA	NA
	10/28/03	0.83	19.70	9.0%
	01/13/04	0.57	19.80	6.2%
	04/14/04	0.32	19.70	3.5%
*	04/29/04	9.83	19.50	105.8%
	05/13/04	10.89	19.50	117.2%
	05/26/04	10.50	19.50	113.0%
	06/10/04	14.14	19.50	152.1%
	07/08/04	11.46	19.40	123.0%
	10/01/04	12.67	19.50	136.3%
	01/03/05	9.25	20.10	100.7%
	02/03/05	13.50	20.20	147.3%
	03/04/05	6.96	17.60	72.1%
	04/05/05	9.78	19.40	105.0%

Table 4
Field Measurements of Dissolved Oxygen and Temperature
2951 High Street
Oakland, California

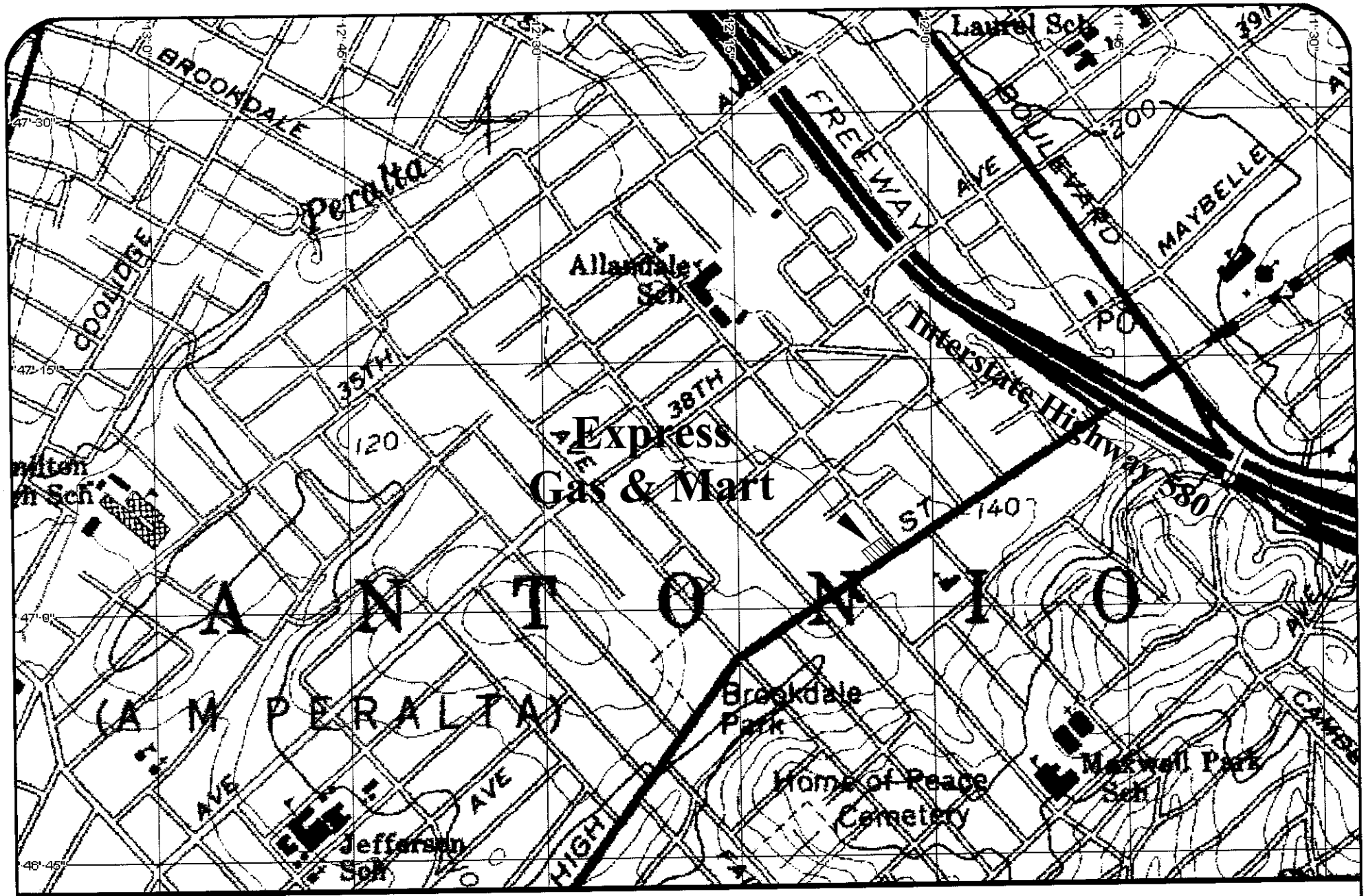
Well ID	Date	DO (mg/L)	Temperature (Celsius)	% Oxygen Saturation
MW-6	04/04/03	NA	NA	NA
	07/16/03	0.54	19.1	5.8%
	10/28/03	1.26	19.3	13.5%
	01/13/04	0.27	19.4	2.9%
*	04/29/04	1.37	18.7	14.5%
	07/08/04	0.31	19.8	3.4%
	10/01/04	0.27	19.3	2.9%
	01/03/05	1.30	19.1	13.9%
	04/05/05	1.40	19.2	15.0%
MW-7	04/04/03	0.97	20.1	10.6%
	07/16/03	0.69	19.8	7.5%
	10/28/03	0.49	20.5	5.4%
	01/13/04	0.14	20.5	1.5%
	04/14/04	0.17	20.2	1.9%
*	04/29/04	7.34	20.0	79.8%
	05/13/04	10.60	19.9	115.0%
	05/26/04	13.73	19.9	148.9%
	06/10/04	13.16	19.9	142.7%
	07/08/04	10.50	20.0	114.1%
	10/01/04	9.12	20.6	100.4%
	01/03/05	7.52	20.1	81.9%
	02/03/05	11.10	20.7	122.4%
	03/04/05	9.03	18.0	94.3%
	04/05/05	7.58	19.9	82.2%
MW-8	04/04/03	1.50	20.8	16.6%
	07/16/03	0.78	20.5	8.6%
	10/28/03	0.41	21.3	4.6%
	01/13/04	0.58	21.4	6.5%
	04/14/04	0.20	20.6	2.2%
*	04/29/04	1.10	20.1	12.0%
	05/13/04	1.15	20.4	12.6%
	05/26/04	0.64	20.5	7.0%
	06/10/04	0.22	20.5	2.4%
	07/08/04	0.22	20.5	2.4%
	10/01/04	0.12	21.3	1.3%
	01/03/05	0.93	20.9	10.3%
	02/03/05	0.20	21.2	2.2%
	03/04/05	1.50	17.9	15.6%
	04/05/05	0.87	20.3	9.5%

Table 4
Field Measurements of Dissolved Oxygen and Temperature
2951 High Street
Oakland, California

Well ID	Date	DO (mg/L)	Temperature (Celsius)	% Oxygen Saturation
MW-9	04/04/03	1.30	20.4	14.2%
	07/16/03	0.82	20.1	8.9%
	10/28/03	0.41	20.4	4.5%
	01/13/04	0.11	20.5	1.2%
	04/14/04	0.14	20.2	1.5%
*	04/29/04	10.02	20.2	109.3%
	05/13/04	10.91	20.0	118.6%
	05/26/04	6.16	19.9	66.8%
	06/10/04	5.84	19.9	63.3%
	07/08/04	3.99	19.9	43.3%
	10/01/04	3.30	20.3	36.1%
	01/03/05	3.33	19.5	35.8%
	04/05/05	3.21	20.5	35.2%
MW-10	04/23/03	2.75	19.1	29.3%
	07/16/03	1.00	19.2	10.7%
	10/28/03	0.55	19.6	5.9%
	01/13/04	0.13	19.7	1.4%
*	04/29/04	0.19	18.7	2.0%
	07/08/04	0.19	19	2.0%
	10/01/04	0.14	19.4	1.5%
	01/03/05	1.27	18.3	13.3%
	04/05/05	1.10	18.6	11.6%

Notes: DO, Dissolved oxygen concentration in milligrams per liter.
Formula for calculating % saturation = C/(-0.1883*T+12.967), where
C is the DO concentration in mg/L and T is the temperature in degrees Celsius.
* First sampling event after the OS system was started up on April 14, 2004.
N/A No data available.

FIGURES



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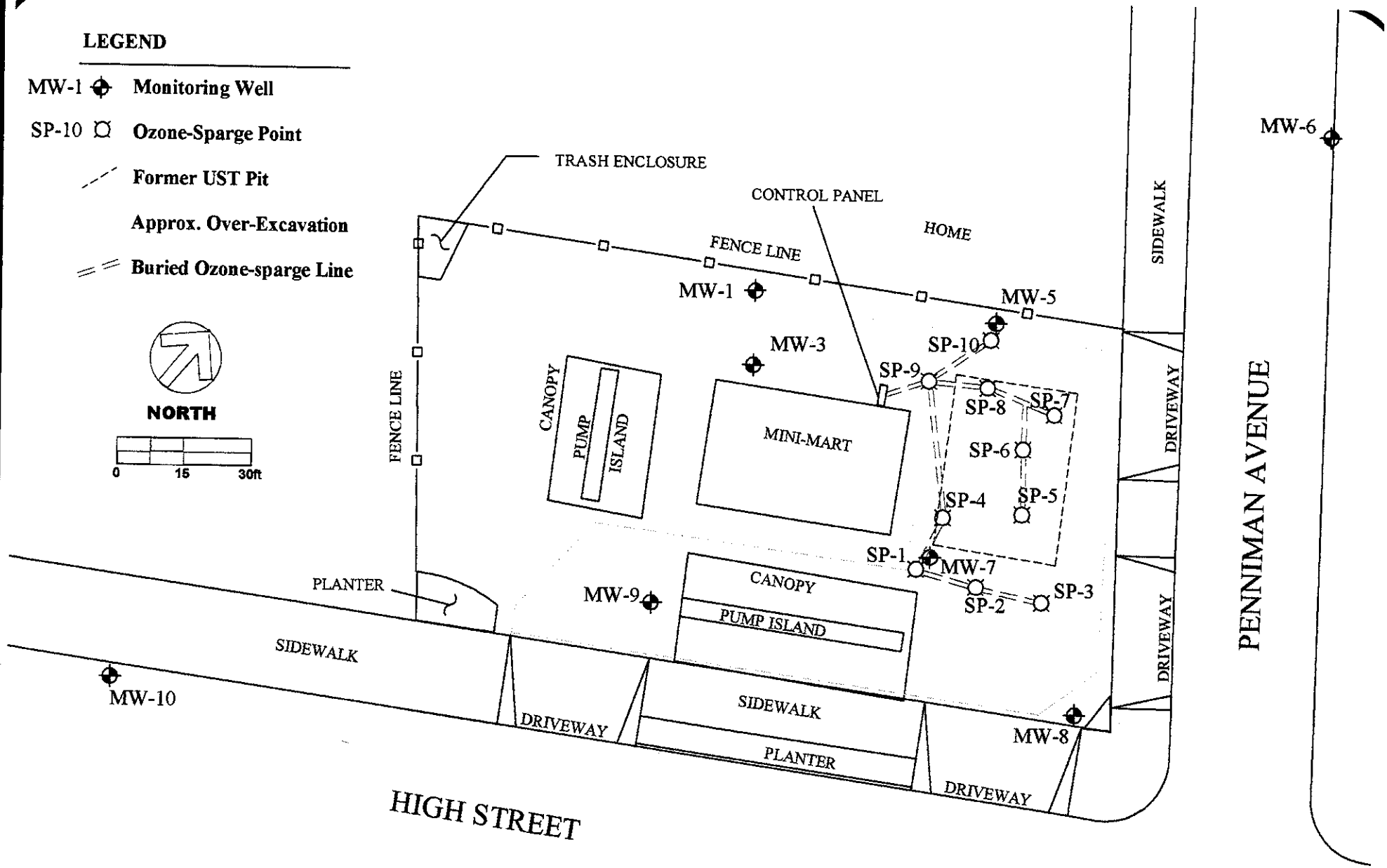
Site Location Map

Express Gas & Mart
2951 High Street
Oakland, California

NORTH

Project #: 1004	Figure: 1
Date: 2/10/05	
Scale: as shown	



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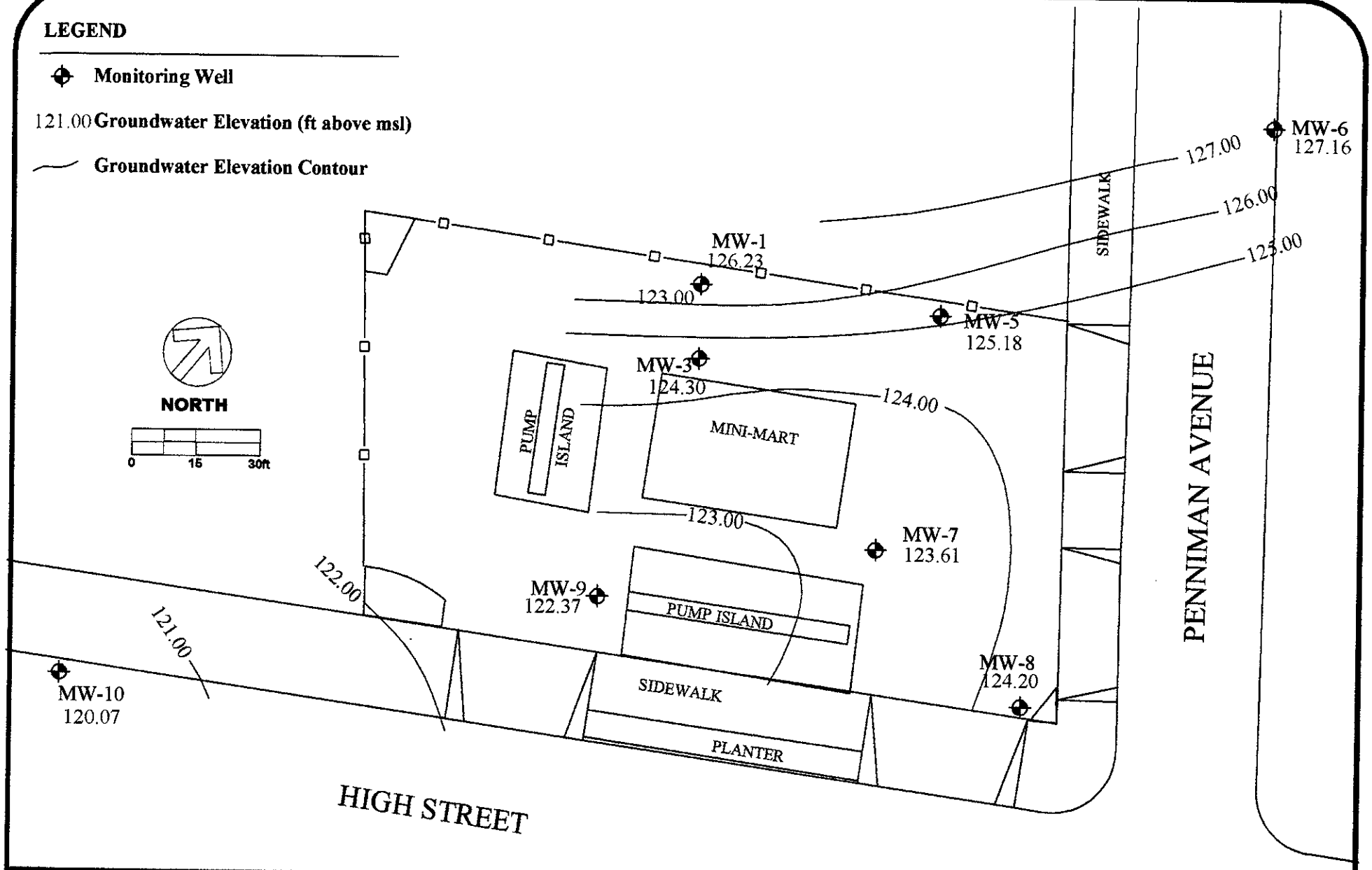
Site Features

Express Gas & Mart
2951 High Street
Oakland, California

Project #: 1004	Figure: 2
Date: 5/2/05	
Scale: 1"=30'	



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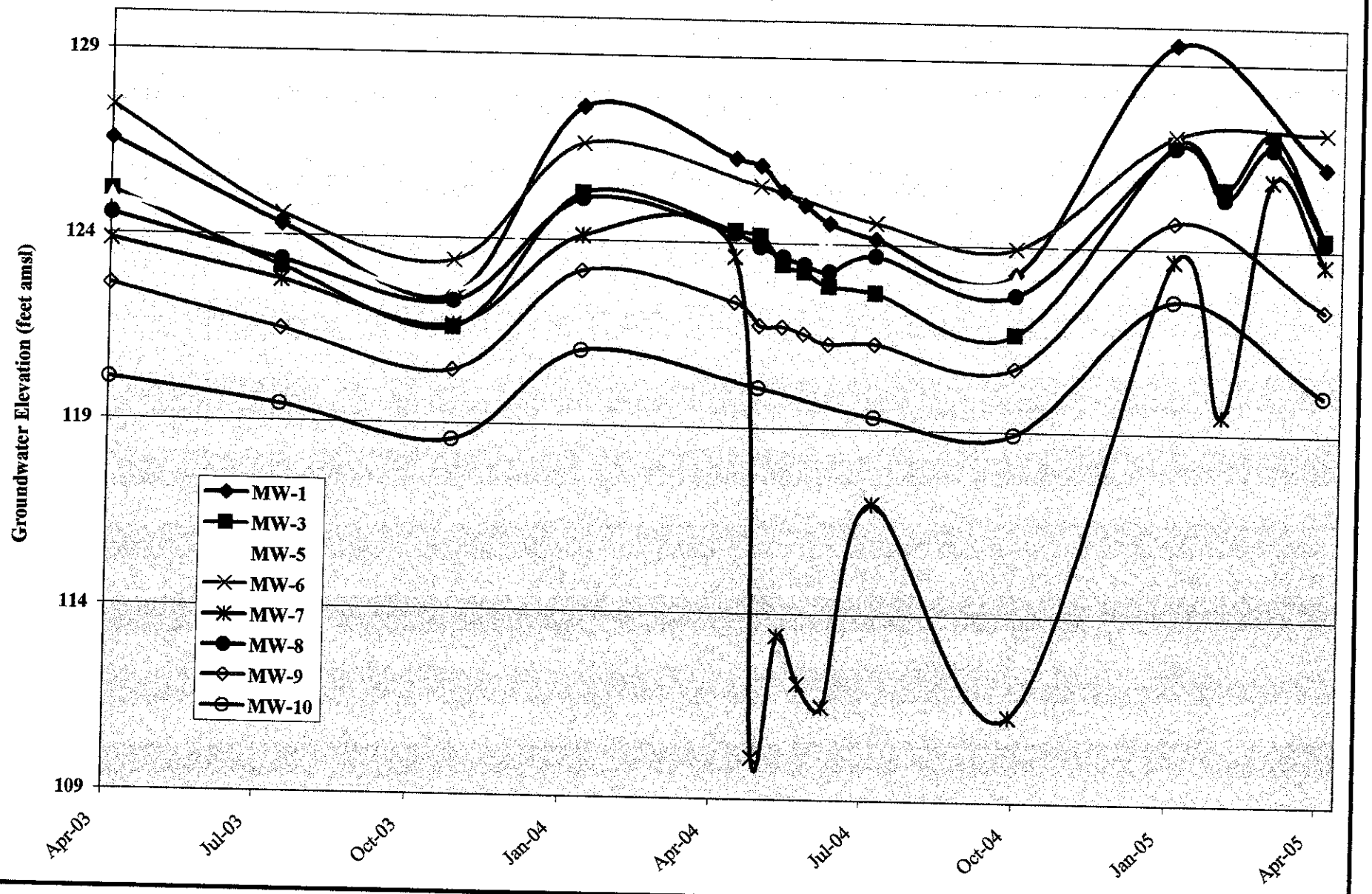
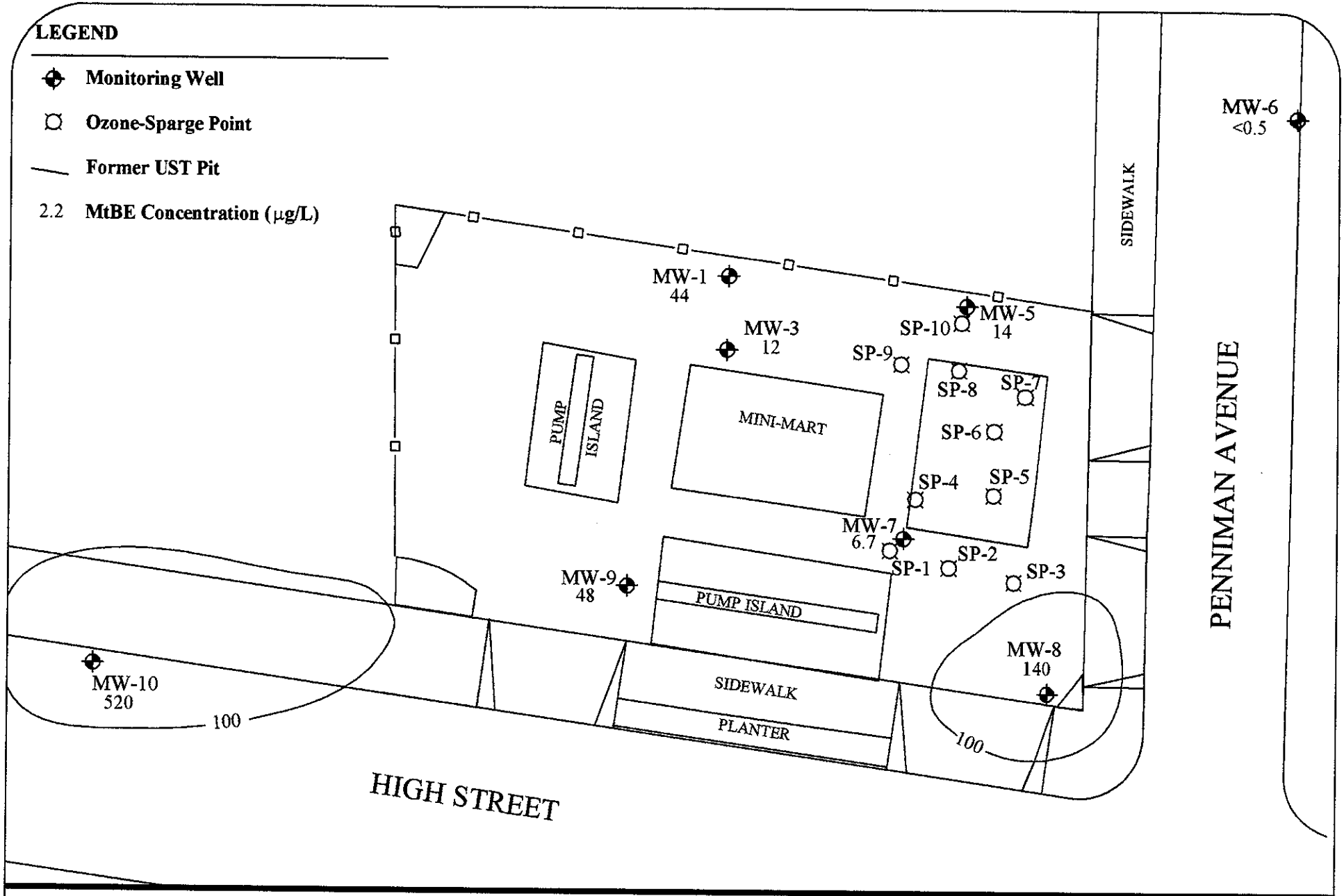
Groundwater Elevations on April 5, 2005

Express Gas & Mart
2951 High Street
Oakland, California

Project #: 1004	Figure: 3
Date: 4/5/05	
Scale: 1"=30'	

Figure 4
Monitoring Well Hydrograph
2951 High Street, Oakland, California





cook ENVIRONMENTAL SERVICES, INC.
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cookenvironmental@att.net

MtBE Concentrations in Groundwater
on April 5, 2005
Express Gas & Mart
2951 High Street
Oakland, California

Project #1004	Figure: 5
Date: 4/5/05	
Scale: 1"=30'	

Figure 6

MtBE Concentrations vs. Time in Wells MW-3, MW-5, MW-7 and MW-8
2951 High Street, Oakland, California

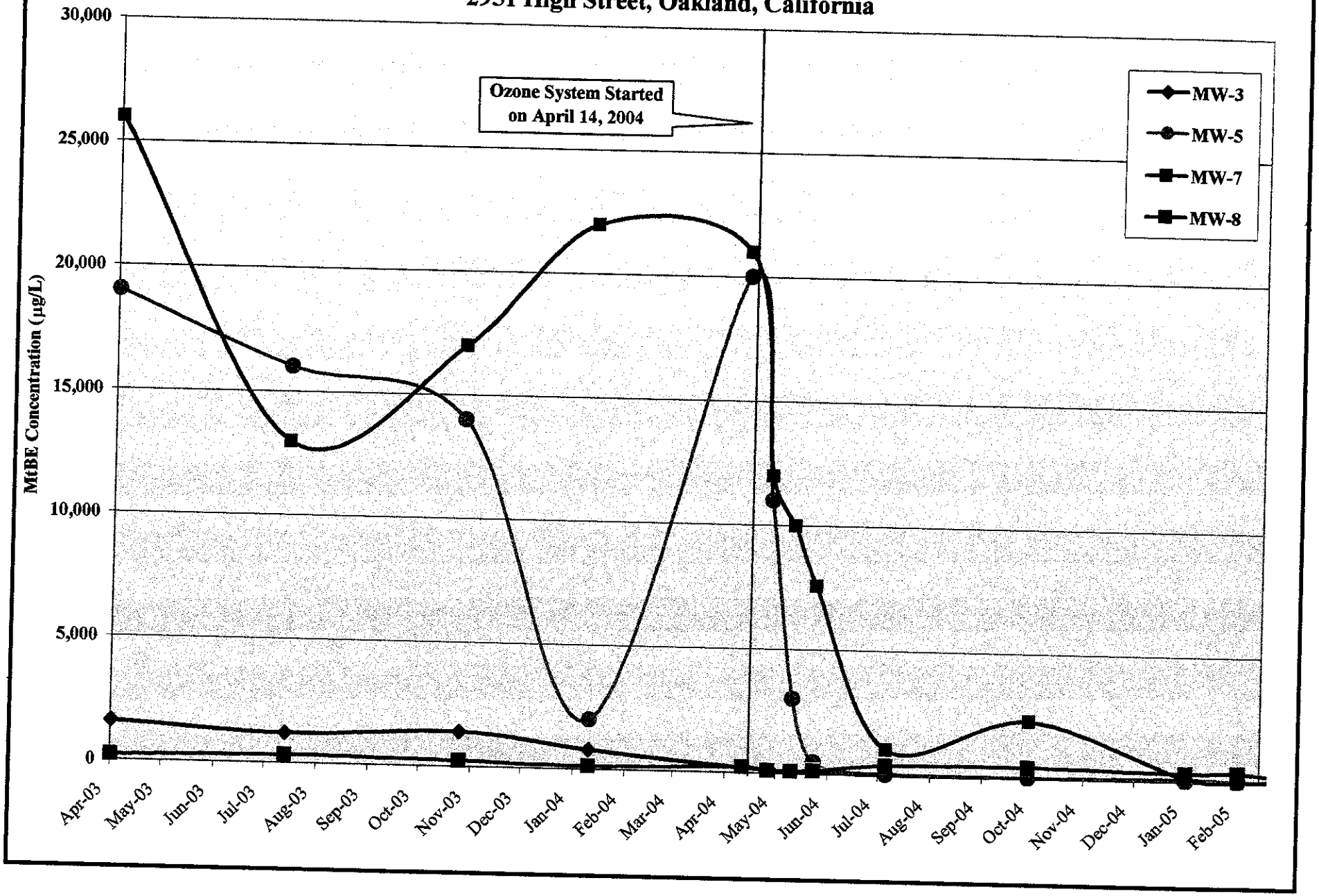


Figure 7

MtBE Concentrations versus time in Wells MW-1, MW-9 and MW-10
2951 High Street, Oakland, California

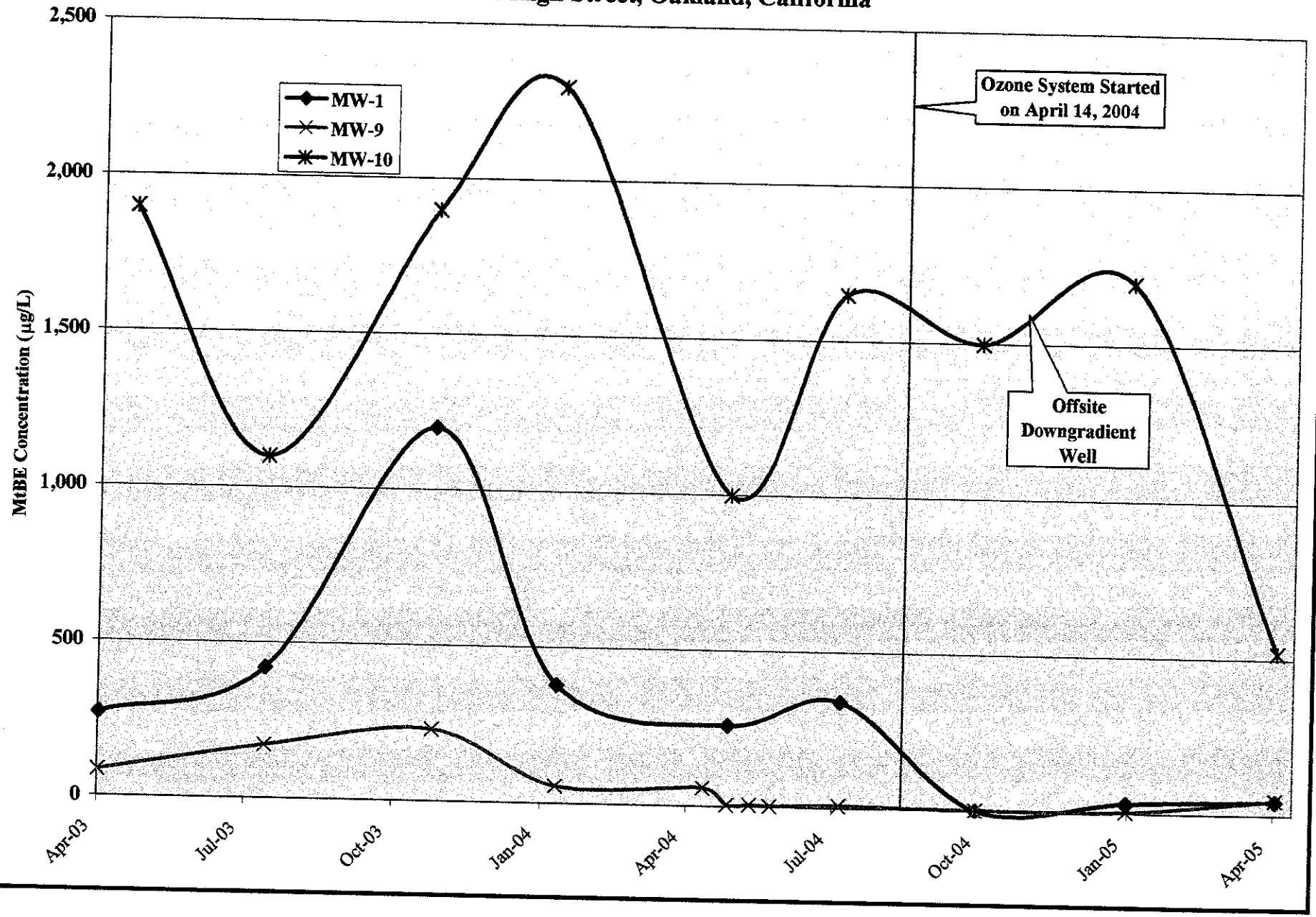
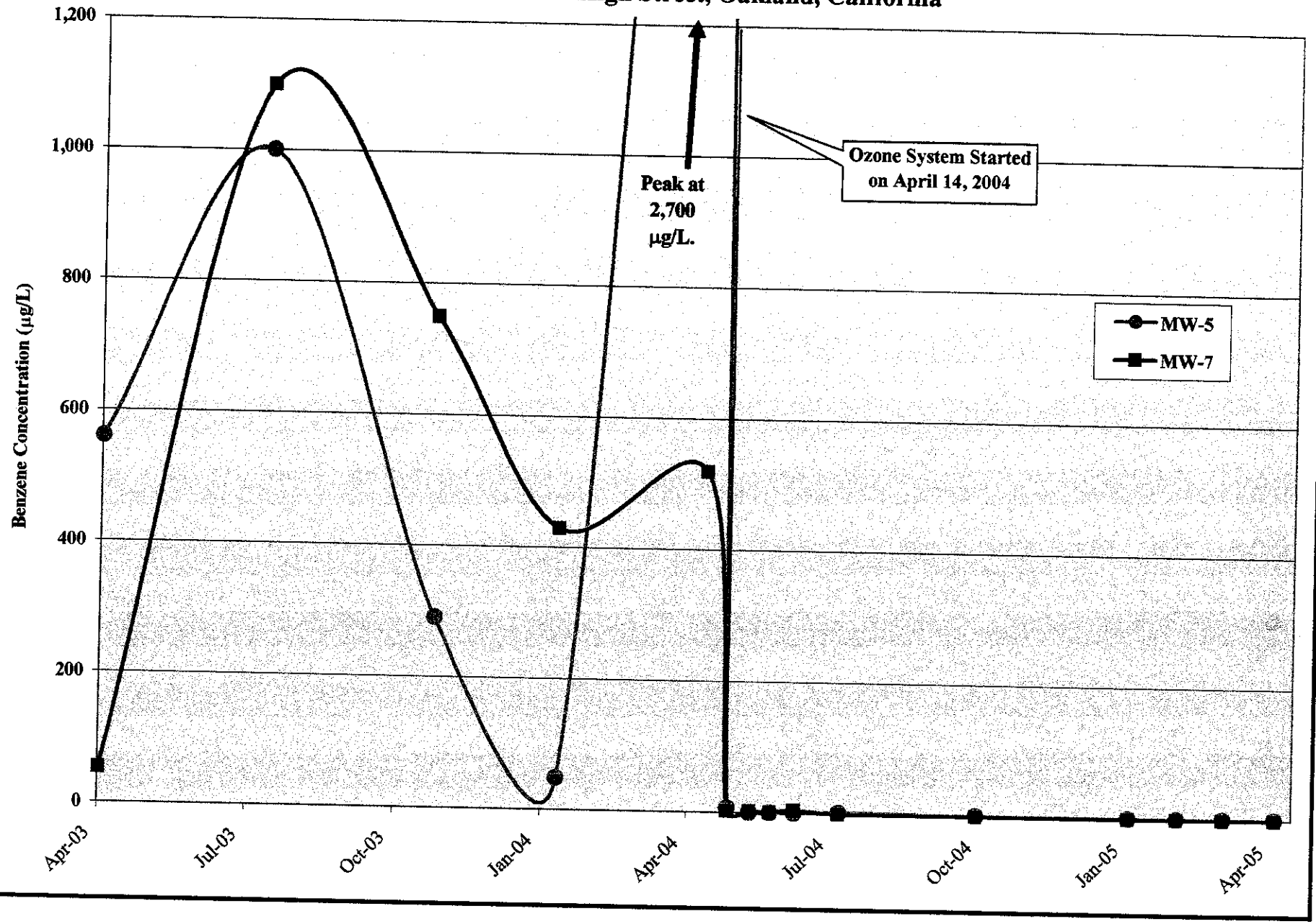


Figure 8

Benzene Concentrations vs. Time in Wells MW-5 and MW-7
2951 High Street, Oakland, California



APPENDIX A

Monitoring Well Sampling Logs

Verification Monitoring Sampling
February 3, 2005

COOK ENVIRONMENTAL SERVICES
MONITORING WELL SAMPLING LOG

Site Name: High Street Job # 1004

Date: 2-3-05 Sampler: T. Cook

Well ID: MW-3 Well Diameter 2" Column 19.43

Well Depth 24.89 Depth to Water 5.11

Casing Volume 3.3 3 Casing Volumes 9.9
(2" well = col height * 0.17 gal/ft, 4" well = 0.66 gal/ft)

Purge Method: bailer Sample Method bailer

Time	Gallons Purged	Temp C	pH	SC (uS)	Turbidity (NTU)	DO (mg/L)	Comments
1520	3	16.9	6.80	489		7.9	
1525	6	18.3	6.47	484		3.0	
1535	10	18.7	6.44	497		3.2	

	T	DO	%
INSITU	19.2	2.6	28.6

Sampled @ 1540

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COOK ENVIRONMENTAL SERVICES
MONITORING WELL SAMPLING LOG

Site Name: High Street Job # 1004

Date: 2-3-05 Sampler: T. Cook

Well ID: MW-5 Well Diameter 2" Column 21.17

Well Depth 27.08 Depth to Water 5.91

Casing Volume 3.59 3 Casing Volumes 10.8
(2" well = col height * 0.17 gal/ft, 4" well = 0.66 gal/ft)

Purge Method: baler Sample Method baler

Time	Gallons Purged	Temp C	pH	SC (uS)	Turbidity (NTU)	DO (mg/L)	Comments
1445	3	18.8	8.40	1135	—	9.4	
1450	6	20.3	8.39	1189	—	11.8	
1500	10	20.0	8.64	1142	—	16.1	

INSITU	T	DO	%
	20.2	13.5	146

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COOK ENVIRONMENTAL SERVICES
MONITORING WELL SAMPLING LOG

Site Name: High Street Job # 1004

Date: 2-3-05 Sampler: T. Cook

Well ID: MW-7 Well Diameter 2" Column 13.6

Well Depth 25.01 Depth to Water 11.41* well under pressure, not fully recovered

Casing Volume 2.31 3 Casing Volumes 6.9
(2" well = col height * 0.17 gal/ft, 4" well = 0.66 gal/ft)

Purge Method: bailer Sample Method bailer

Time	Gallons Purged	Temp C	pH	SC (uS)	Turbidity (NTU)	DO (mg/L)	Comments
1410	3	20.2	7.43	365	—	10.0	Turbid.
1415	5	20.0	7.37	367	—	9.0	
1420	7	20.1	7.50	361	—	8.8	

	Temp	DO	SAT %
INSITU	20.7	11.1	108

Sampled @ 1423

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COOK ENVIRONMENTAL SERVICES
MONITORING WELL SAMPLING LOG

Site Name: High Street

Job # 1004

Date: 2-3-05

Sampler: T. Cook

Well ID: MW-8

Well Diameter 2"

Column 19.5

Well Depth 25.28

Depth to Water 5.78

Casing Volume 3.81
(2" well = col height * 0.17 gal/ft, 4" well = 0.66 gal/ft)

3 Casing Volumes 9.9

Purge Method: bailer

Sample Method bailer

Time	Gallons Purged	Temp C	pH	SC (uS)	Turbidity (NTU)	DO (mg/L)	Comments
12:03	3	19.6	6.62	638		1.6	clear, No odor
12:09	6	20.8	6.63	491		1.0	less clear
12:16	9	21.0	6.63	472		1.3	mod turbid, No odor

	Temp	DO	%SAT
INSITU DO	21.2	0.2	2%

Sampled @ 12:18

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Verification Monitoring Sampling
March 4, 2005

COOK ENVIRONMENTAL SERVICES
MONITORING WELL SAMPLING LOG

Site Name: High Street

Job # 1004

Date: 3-4-05

Sampler: T. Cook

Well ID: MW-3 Well Diameter 2" Column 20.94

Well Depth 24.84 Depth to Water 3.90

Casing Volume 3.55 3 Casing Volumes 10.6
(2" well = col height * 0.17 gal/ft, 4" well = 0.66 gal/ft)

Purge Method: bailer Sample Method bailer

Time	Gallons Purged	Temp C	pH	SC (uS)	Turbidity (NTU)	DO (mg/L)	Comments
4:53	3	17.3	6.98	688		2.53	
4:59	5	17.3	6.69	561		3.24	
5:10	8	17.8	6.70	551		3.03	
5:15	10	17.8		556		2.47	

	Temp	DO
IN SITU	16.3	3.39

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COOK ENVIRONMENTAL SERVICES
MONITORING WELL SAMPLING LOG

Site Name: High Street

Job # 1004

Date: 3-4-05

Sampler: T. Cook

Well ID: MW-5

Well Diameter 2"

Column 22.60

Well Depth 27.08

Depth to Water 4.98

Casing Volume 3.84
(2" well = col height * 0.17 gal/ft, 4" well = 0.66 gal/ft)

3 Casing Volumes 11.5

Purge Method: bailer

Sample Method bailer

Time	Gallons Purged	Temp C.	pH	SC (uS)	Turbidity (NTU)	DO (mg/L)	Comments
3:51	3	18.8	8.09	1099		7.05	
4:01	5	19.1	8.25	1075		10.05	
4:27	8	19.5	8.71	1151		11.95	
4:35	10	19.7	8.51	1081		10.23	
4:41	11.5	19.6	8.55	1077		10.28	

	Temp	DO	
INSITO	17.6	6.96	73.3%

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COOK ENVIRONMENTAL SERVICES
MONITORING WELL SAMPLING LOG

Site Name: High Street Job # 1004

Date: 3-4-07 Sampler: T. Cook

Well ID: MW-7 Well Diameter 2" Column 19.96

Well Depth 25.01 Depth to Water 5.65

Casing Volume 3.39 3 Casing Volumes 10.2
(2" well = col height * 0.17 gal/ft, 4" well = 0.66 gal/ft)

Purge Method: bailer Sample Method bailer

Time	Gallons Purged	Temp C	pH	SC (uS)	Turbidity (NTU)	DO (mg/L)	Comments
226	3	19.0	7.63	453		8.40	
231	5	19.5	7.64	426		7.70	
246	8	20.3	7.75	395		8.40	
251	10	20.1	7.69	398		8.03	

IN SITU Temp DO
18.0 9.03 94.9%

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COOK ENVIRONMENTAL SERVICES
MONITORING WELL SAMPLING LOG

Site Name: High Street Job # 1004

Date: 3-4-05 Sampler: T. Cook

Well ID: MW-8 Well Diameter 2" Column 20.88

Well Depth 25.28 Depth to Water 4.40

Casing Volume 3.55 3 Casing Volumes 10.6
(2" well = col height * 0.17 gal/ft, 4" well = 0.66 gal/ft)

Purge Method: bailer Sample Method bailer

Time	Gallons Purged	Temp C	pH	SC (uS)	Turbidity (NTU)	DO (mg/L)	Comments
3:10	3	20.1	6.96	539		3.90	
3:16	5	20.5	7.05	549		2.45	
3:22	8	19.8	7.09	549		1.67	
3:28	10	20.6	6.96	527		1.33	

IN SITU Temp DO
17.9 1.50

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Verification Monitoring Sampling
April 5, 2005

COOK ENVIRONMENTAL SERVICE
MONITORING WELL SAMPLING LOG

Site Name: High Street Job # 1004

Date: 4/5/2005 Sampler: T. Cook

Well ID: MW-3I Well Diameter 2" Column 19.40

Well Depth 24.81 Depth to Water 5.41

Casing Volume 3.3 3 Casing Volumes 9.9
(2" well = col height * 0.17 gal/ft, 4" well = 0.66 gal/ft)

Purge Method: bailer Sample Method: bailer

Time	Gallons Purged	Temp C	pH	SC (uS)	Turbidity (NTU)	DO (mg/L)	Comments
1030	3	19.8	6.63	568		2.20	
	6	19.1	6.58	574		2.37	
1105	10	18.9	6.72	575		2.41	

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COOK ENVIRONMENTAL SERVICES
MONITORING WELL SAMPLING LOG

Site Name: High Street Job # 1004

Date: 4/5/2005 Sampler: T. Cook

Well ID: MW-3 Well Diameter 2" Column 18.09

Well Depth 24.09 Depth to Water 6.75

Casing Volume 3.07 3 Casing Volumes 9.2
(2" well = col height * 0.17 gal/ft, 4" well = 0.66 gal/ft)

Purge Method: bailer Sample Method: bailer

Time	Gallons Purged	Temp C	pH	SC (uS)	Turbidity (NTU)	DO (mg/L)	Comments
1115	3	19.5	6.47	550		3.59	
	6	18.9	6.68	562		3.49	
1145	9	18.6	6.75	561		3.53	

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COOK ENVIRONMENTAL SERVICE
MONITORING WELL SAMPLING LOG

Site Name: High Street Job # 1004

Date: 4/5/2005 Sampler: T. Cook

Well ID: MW-5 Well Diameter 2" Column 20.27

Well Depth 27.08 Depth to Water 6.81

Casing Volume 3.49 3 Casing Volumes 10.3
(2" well = col height * 0.17 gal/ft, 4" well = 0.66 gal/ft)

Purge Method: bailer Sample Method: bailer

Time	Gallons Purged	Temp C	pH	SC (uS)	Turbidity (NTU)	DO (mg/L)	Comments
1155	3	20.1	6.75	1145		7.61	
	6	19.7	6.83	1215		8.53	
1235	10	19.4	6.87	1187		9.78	

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COOK ENVIRONMENTAL SERVICES
MONITORING WELL SAMPLING LOG

Site Name: High Street Job # 1004

Date: 4/5/2005 Sampler: T. Cook

Well ID: MW-6 Well Diameter 2" Column 23.18

Well Depth 28.60 Depth to Water 5.42

Casing Volume 3.94 3 Casing Volumes 11.8
(2" well = col height * 0.17 gal/ft, 4" well = 0.66 gal/ft)

Purge Method: bailer Sample Method: bailer

Time	Gallons Purged	Temp C	pH	SC (uS)	Turbidity (NTU)	DO (mg/L)	Comments
0836	1	19.4	7.09	524		0.9	
	3	19.7	6.87	537		1.1	
	5	19.4	6.61	541		1.0	
0905	8	19.6	6.63	563		1.3	
0911	11	19.2	6.58	550		1.4	

Cook Environmental Services, Inc.
271 Las Juntas Way
Walnut Creek, CA 94597
(925) 937-1759

COOK ENVIRONMENTAL SERVICES
MONITORING WELL SAMPLING LOG

Site Name: High Street Job # 1004

Date: 4/5/2005 Sampler: T. Cook

Well ID: MW-7 Well Diameter 2" Column 17.69

Well Depth 25.01 Depth to Water 7.32* under pressure

Casing Volume 3.0 3 Casing Volumes 9.0
(2" well = col height * 0.17 gal/ft, 4" well = 0.66 gal/ft)

Purge Method: bailer Sample Method: bailer

Time	Gallons Purged	Temp C	pH	SC (uS)	Turbidity (NTU)	DO (mg/L)	Comments
0920	2	20.1	7.32	363		7.58	
	4	19.9	7.26	361		7.62	
	6	19.8	7.29	370		7.70	
	8	19.8	7.25	368		7.61	
0945	9	19.9	7.23	365		7.58	

Cook Environmental Services, Inc.
271 Las Juntas Way
Walnut Creek, CA 94597
(925) 937-1759

COOK ENVIRONMENTAL SERVICES
MONITORING WELL SAMPLING LOG

Site Name: High Street Job # 1004

Date: 4/5/2005 Sampler: T. Cook

Well ID: MW-8 Well Diameter 2" Column 18.33

Well Depth 25.28 Depth to Water 6.95

Casing Volume 3.1 3 Casing Volumes 9.3

(2" well = col height * 0.17 gal/ft, 4" well = 0.66 gal/ft)

Purge Method: bailer Sample Method: bailer

Time	Gallons Purged	Temp C	pH	SC (uS)	Turbidity (NTU)	DO (mg/L)	Comments
0955	3	20.1	6.32	450		0.90	
	6	20.3	6.36	461		0.93	
1020	9	20.3	6.38	468		0.87	

Cook Environmental Services, Inc.
271 Las Juntas Way
Walnut Creek, CA 94597
(925) 937-1759

COOK ENVIRONMENTAL SERVICES
MONITORING WELL SAMPLING LOG

Site Name: High Street Job # 1004

Date: 4/5/2005 Sampler: T. Cook

Well ID: MW-9 Well Diameter 2" Column 17.69

Well Depth 25.32 Depth to Water 7.63

Casing Volume 3.0 3 Casing Volumes 9.0

(2" well = col height * 0.17 gal/ft, 4" well = 0.66 gal/ft)

Purge Method: bailer Sample Method: bailer

Time	Gallons Purged	Temp C	pH	SC (uS)	Turbidity (NTU)	DO (mg/L)	Comments
1027	3	20.1	6.75	892		2.76	
	6	20.3	6.83	935		3.15	
1035	9	20.5	6.85	827		3.21	

Cook Environmental Services, Inc.
271 Las Juntas Way
Walnut Creek, CA 94597
(925) 937-1759

COOK ENVIRONMENTAL SERVICES
MONITORING WELL SAMPLING LOG

Site Name: High Street Job # 1004

Date: 4/5/2005 Sampler: T. Cook

Well ID: MW-10 Well Diameter 2" Column 17.83

Well Depth 24.95 Depth to Water 7.12

Casing Volume 3.03 3 Casing Volumes 9.1
(2" well = col height * 0.17 gal/ft, 4" well = 0.66 gal/ft)

Purge Method: bailer Sample Method: bailer

Time	Gallons Purged	Temp C	pH	SC (uS)	Turbidity (NTU)	DO (mg/L)	Comments
1320	3	19.0	6.78			0.87	
	6	18.8	6.81			0.99	
1345	9	18.6	6.85			1.10	

Cook Environmental Services, Inc.
271 Las Juntas Way
Walnut Creek, CA 94597
(925) 937-1759

APPENDIX B

Laboratory Analytical Reports

Verification Monitoring Results
February 3, 2005

McCampbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

Cook Environmental Services, Inc	Client Project ID: #1004; High Street	Date Sampled: 02/03/05
271 Las Juntas Way		Date Received: 02/03/05
Walnut Creek, CA 94596	Client Contact: Tim Cook	Date Reported: 02/10/05
	Client P.O.:	Date Completed: 02/10/05

WorkOrder: 0502072

February 10, 2005

Dear Tim:

Enclosed are:

1). the results of **4** analyzed samples from your **#1004; High Street project,**

2). a QC report for the above samples

3). a copy of the chain of custody, and

4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

Cook Environmental Services, Inc	Client Project ID: #1004; High Street	Date Sampled: 02/03/05
271 Las Juntas Way		Date Received: 02/03/05
Walnut Creek, CA 94596	Client Contact: Tim Cook	Date Extracted: 02/09/05-02/10/05
	Client P.O.:	Date Analyzed: 02/09/05-02/10/05

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0502072

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001B	MW-3	W	ND	ND	ND	ND	ND	ND	1	102
002B	MW-5	W	ND	6.2	ND	ND	ND	ND	1	102
003B	MW-7	W	ND	5.8	ND	ND	ND	ND	1	106
004B	MW-8	W	ND	320	ND	ND	ND	ND	1	111

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

Cook Environmental Services, Inc	Client Project ID: #1004; High Street	Date Sampled: 02/03/05
271 Las Juntas Way		Date Received: 02/03/05
Walnut Creek, CA 94596	Client Contact: Tim Cook	Date Extracted: 02/03/05
	Client P.O.:	Date Analyzed: 02/03/05

Oxygenated Volatile Organics + EDB and 1,2-DCA by P&T and GC/MS*

Extraction Method: SW5030B | Analytical Method: SW8260B | Work Order: 0502072

Lab ID	0502072-001A	0502072-002A	0502072-003A	0502072-004A	Reporting Limit for DF =1	
Client ID	MW-3	MW-5	MW-7	MW-8		
Matrix	W	W	W	W		
DF	1	1	1	10	S	W
Compound	**Concentration**				ug/kg	µg/L
tert-Amyl methyl ether (TAME)	ND	ND	ND	ND<5.0	NA	0.5
t-Butyl alcohol (TBA)	ND	ND	ND	53	NA	5.0
1,2-Dibromoethane (EDB)	ND	ND	ND	ND<5.0	NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND	ND	2.9	ND<5.0	NA	0.5
Diisopropyl ether (DIPE)	ND	ND	ND	ND<5.0	NA	0.5
Ethanol	ND	ND	ND	ND<500	NA	50
Ethyl tert-butyl ether (ETBE)	ND	ND	ND	ND<5.0	NA	0.5
Methanol	ND	ND	ND	ND<5000	NA	500
Methyl-t-butyl ether (MTBE)	4.9	4.2	4.5	360	NA	0.5
Surrogate Recoveries (%)						
%SS1:	104	105	105	105		
Comments						

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0502072

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 14958 Spiked Sample ID: 0502145-001A

Analyte	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(btex)£	ND	60	94.2	109	14.4	92.8	91.9	0.982	70 - 130	70 - 130
MTBE	ND	10	90.3	95.7	5.81	96.8	100	3.40	70 - 130	70 - 130
Benzene	ND	10	105	109	3.84	105	97.9	6.69	70 - 130	70 - 130
Toluene	ND	10	102	107	5.33	104	91.7	12.9	70 - 130	70 - 130
Ethylbenzene	ND	10	104	117	11.7	102	102	0	70 - 130	70 - 130
Xylenes	ND	30	90.7	95.7	5.37	90.3	90.7	0.368	70 - 130	70 - 130
%SS:	110	10	112	113	0.829	115	110	4.46	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

* MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not applicable or not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

QA/QC Officer

McCampbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0502072

EPA Method: SW8260B Extraction: SW5030B BatchID: 14902 Spiked Sample ID: 0502054-002B

Analyte	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
tert-Amyl methyl ether (TAME)	0.5884	10	82.9	89.8	7.42	110	95.8	14.2	70 - 130	70 - 130
t-Butyl alcohol (TBA)	ND	50	88.1	89.7	1.85	102	98.7	3.05	70 - 130	70 - 130
1,2-Dibromoethane (EDB)	ND	10	111	108	2.83	120	120	0	70 - 130	70 - 130
1,2-Dichloroethane (1,2-DCA)	ND	10	103	104	0.848	116	111	4.58	70 - 130	70 - 130
Diisopropyl ether (DIPE)	ND	10	107	109	1.93	109	113	3.37	70 - 130	70 - 130
Ethanol	ND	500	103	106	2.70	98.7	104	5.24	70 - 130	70 - 130
Ethyl tert-butyl ether (ETBE)	ND	10	103	104	1.27	116	111	3.99	70 - 130	70 - 130
Methanol	ND	2500	101	101	0	100	101	0.525	70 - 130	70 - 130
Methyl-t-butyl ether (MTBE)	ND	10	97.1	98.4	1.27	115	107	7.08	70 - 130	70 - 130
%SS1:	99	10	105	106	0.341	107	104	2.40	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

* MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

DHS Certification No. 1644

QA/QC Officer

McCampbell Analytical, Inc.
110 Second Avenue South, #D7
Pacheco, CA 94553-5560
(925) 798-1620

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0502072 **ClientID: CESW**

Report to:
Tim Cook
Cook Environmental Services, Inc.
271 Las Juntas Way
Walnut Creek, CA 94596
TEL: 925-937-1759
FAX: 925-937-1759
ProjectNo: #1004; High Street
PO:

Bill to:
Tim Cook
Cook Environmental Services, Inc.
271 Las Juntas Way
Walnut Creek, CA 94596

Requested TAT: 5 days
Date Received: 02/03/2005
Date Printed: 02/09/2005

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)														
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0502072-001	MW-3	Water	2/3/05	☐	A	B													
0502072-002	MW-5	Water	2/3/05	☐	A	B													
0502072-003	MW-7	Water	2/3/05	☐	A	B													
0502072-004	MW-8	Water	2/3/05	☐	A	B													

Test Legend:

1	9-OXYS_W	2	G-MBTEX_W	3		4		5	
6		7		8		9		10	
11		12		13		14		15	

Prepared by: Melissa Valles

Comments:

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

CBN

0502072

McCAMPBELL ANALYTICAL, INC.
110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553-5560
Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (925) 798-1620 Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAY

EDF Required? Coelt (Normal) Yes Write On (DW) No

Report To: Tim Cook Bill To:

Company: Cook Environmental Services, Inc.

271 Las Juntas Way

Walnut Creek, CA 9457 E-Mail: cookenvironmental@att.net

Tele: (925) 937-1759 Fax: (925) 937-1759

Project #:1004 Project Name: High Street

Project Location: Oakland

Sampler Signature: Tim Cook

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED ICE	METHOD PRESERVED HCL	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	Analysis Request: BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010 / 8021	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8081	EPA 608 / 8082 PCB's ONLY	EPA 8140 / 8141	EPA 8150 / 8151	EPA 8260 All 9 oxys only	EPA 525 / 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals (6010 / 6020)	LUFT 5 Metals (6010 / 6020)	Lead (200.8 / 200.9 / 6010)	Other	Other	Other	Comments
		02-03-05																															
MW-3		1/4/05		3	VOA	X					X	X			X									X									
MW-5		1/4/05		3	VOA	X					X	X			X									X									
MW-7		1/4/05		3	VOA	X					X	X			X									X									
MW-8		1/4/05		3	VOA	X					X	X			X									X									

Filter Samples for Metals analysis: Yes / No

Relinquished By:	Date:	Time:	Received By:
Tim Cook	2-3	6:00	Dana
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° ✓

GOOD CONDITION ✓

HEAD SPACE ABSENT ✓

DECHLORINATED IN LAB

APPROPRIATE CONTAINERS ✓

PRESERVED IN LAB

PRESERVATION	VOAS ✓	O&G	METALS pH<2	OTHER

COMMENTS:

Verification Monitoring Results
March 4, 2005

McCampbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

Cook Environmental Services, Inc	Client Project ID: #1004; High Street	Date Sampled: 03/04/05
271 Las Juntas Way		Date Received: 03/04/05
Walnut Creek, CA 94596	Client Contact: Tim Cook	Date Reported: 03/09/05
	Client P.O.:	Date Completed: 03/09/05

WorkOrder: 0503099

March 09, 2005

Dear Tim:

Enclosed are:

1). the results of **4** analyzed samples from your **#1004; High Street project,**

2). a QC report for the above samples

3). a copy of the chain of custody, and

4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

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Website: www.mccampbell.com E-mail: main@mccampbell.com

Cook Environmental Services, Inc	Client Project ID: #1004; High Street	Date Sampled: 03/04/05
271 Las Juntas Way		Date Received: 03/04/05
Walnut Creek, CA 94596	Client Contact: Tim Cook	Date Extracted: 03/04/05-03/09/05
	Client P.O.:	Date Analyzed: 03/04/05-03/09/05

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0503099

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-3	W	ND,i	28	ND	ND	ND	ND	1	92
002A	MW-5	W	ND	ND	ND	ND	ND	ND	1	114
003A	MW-7	W	ND,i	23	ND	ND	ND	ND	1	95
004A	MW-8	W	ND	190	ND	ND	ND	ND	1	96

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

Cook Environmental Services, Inc	Client Project ID: #1004; High Street	Date Sampled: 03/04/05
271 Las Juntas Way		Date Received: 03/04/05
Walnut Creek, CA 94596	Client Contact: Tim Cook	Date Extracted: 03/07/05-03/08/05
	Client P.O.:	Date Analyzed: 03/07/05-03/08/05

Oxygenated Volatile Organics + EDB and 1,2-DCA by P&T and GC/MS*

Extraction Method: SW5030B | Analytical Method: SW8260B | Work Order: 0503099

Lab ID	0503099-001B	0503099-002B	0503099-003B	0503099-004B	Reporting Limit for DF =1	
Client ID	MW-3	MW-5	MW-7	MW-8		
Matrix	W	W	W	W		
DF	1	1	1	10	S	W
Compound	**Concentration**				ug/kg	µg/L
tert-Amyl methyl ether (TAME)	ND	ND	ND	ND<5.0	NA	0.5
t-Butyl alcohol (TBA)	ND	ND	ND	ND<50	NA	5.0
1,2-Dibromoethane (EDB)	ND	ND	ND	ND<5.0	NA	0.5
1,2-Dichloroethane (1,2-DCA)	1.5	ND	ND	ND<5.0	NA	0.5
Diisopropyl ether (DIPE)	ND	ND	ND	ND<5.0	NA	0.5
Ethanol	ND	ND	ND	ND<500	NA	50
Ethyl tert-butyl ether (ETBE)	ND	ND	ND	ND<5.0	NA	0.5
Methanol	ND	ND	ND	ND<5000	NA	500
Methyl-t-butyl ether (MTBE)	32	1.8	21	180	NA	0.5
Surrogate Recoveries (%)						
%SS1:	106	101	104	104		
Comments	i		i			

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0503099

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 15249 Spiked Sample ID: 0503107-001A

Analyte	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(btex) £	ND	60	100	103	3.30	99.3	97.3	2.09	70 - 130	70 - 130
MTBE	ND	10	107	102	4.03	101	103	2.44	70 - 130	70 - 130
Benzene	ND	10	113	116	2.97	116	117	1.14	70 - 130	70 - 130
Toluene	ND	10	113	113	0	113	113	0	70 - 130	70 - 130
Ethylbenzene	ND	10	116	119	2.54	116	116	0	70 - 130	70 - 130
Xylenes	ND	30	107	107	0	103	103	0	70 - 130	70 - 130
%SS:	92	10	113	111	2.16	115	114	0.180	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

Sample ID	Batch ID	Date Sampled	Date Analyzed	Sample ID	Batch ID	Date Sampled	Date Analyzed
0503099-001A	15249	3/04/05	3/07/05 6:30 PM	0503099-002A	15249	3/04/05	3/09/05 3:41 AM
0503099-003A	15249	3/04/05	3/04/05 11:58 PM	0503099-004A	15249	3/04/05	3/05/05 12:29 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

* MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not applicable or not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

QA/QC Officer

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QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0503099

EPA Method: SW8260B Extraction: SW5030B BatchID: 15244 Spiked Sample ID: 0503085-011B

Analyte	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
tert-Amyl methyl ether (TAME)	ND	10	90.9	87.1	4.28	86.2	89.8	4.05	70 - 130	70 - 130
t-Butyl alcohol (TBA)	ND	50	99.3	97.5	1.82	98.9	98.5	0.468	70 - 130	70 - 130
1,2-Dibromoethane (EDB)	ND	10	112	111	0.618	115	119	2.83	70 - 130	70 - 130
1,2-Dichloroethane (1,2-DCA)	ND	10	102	102	0	98.1	101	3.13	70 - 130	70 - 130
Diisopropyl ether (DIPE)	ND	10	96.6	97.6	1.11	90.5	93.4	3.13	70 - 130	70 - 130
Ethanol	ND	500	104	100	3.77	103	99.6	3.40	70 - 130	70 - 130
Ethyl tert-butyl ether (ETBE)	ND	10	97.3	98.3	1.08	91.4	95.3	4.18	70 - 130	70 - 130
Methanol	ND	2500	99.8	101	1.30	98.9	99.5	0.634	70 - 130	70 - 130
Methyl-t-butyl ether (MTBE)	ND	10	98.6	101	2.41	93.1	97.5	4.62	70 - 130	70 - 130
%SS1:	98	10	101	102	0.366	103	102	0.172	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

Sample ID	Batch ID	Date Sampled	Date Analyzed	Sample ID	Batch ID	Date Sampled	Date Analyzed
0503099-001B	15244	3/04/05	3/07/05 9:35 PM	0503099-002B	15244	3/04/05	3/07/05 10:18 PM
0503099-003B	15244	3/04/05	3/07/05 11:01 PM	0503099-004B	15244	3/04/05	3/08/05 2:58 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

* MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

DHS Certification No. 1644

QA/QC Officer

McCampbell Analytical, Inc.
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CHAIN-OF-CUSTODY RECORD

WorkOrder: 0503099 **ClientID: CESW**

Report to:
Tim Cook
Cook Environmental Services, Inc.
271 Las Juntas Way
Walnut Creek, CA 94596

TEL: 925-937-1759
FAX: 925-937-1759
ProjectNo: #1004; High Street
PO:

Bill to:
Tim Cook
Cook Environmental Services, Inc.
271 Las Juntas Way
Walnut Creek, CA 94596

Requested TAT: 5 days
Date Received: 03/04/2005
Date Printed: 03/04/2005

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)														
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0503099-001	MW-3	Water	3/4/05	☐	B	A	A												
0503099-002	MW-5	Water	3/4/05	☐	B	A													
0503099-003	MW-7	Water	3/4/05	☐	B	A													
0503099-004	MW-8	Water	3/4/05	☐	B	A													

Test Legend:

1	9-OXYS_W	2	G-MBTEX_W	3	PREDF REPORT	4		5	
6		7		8		9		10	
11		12		13		14		15	

Prepared by: Rosa Venegas

Comments:

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

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CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

EDF Required? Coelt (Normal) (Yes) Write On (DW) No

Report To: Tim Cook Bill To:
Company: Cook Environmental Services, Inc.
271 Las Juntas Way
Walnut Creek, CA 9457 E-Mail: cookenvironmental@att.net
Tele: (925) 937-1759 Fax: (925) 937-1759
Project #:1004 Project Name: High Street
Project Location: Oakland
Sampler Signature: Tim Cook

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED ICE	METHOD PRESERVED HCL	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	Analysis Request: BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010 / 8021	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8081	EPA 608 / 8082 PCB's ONLY	EPA 8140 / 8141	EPA 8150 / 8151	EPA 8260 All 9 oxys only	EPA 525 / 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals (6010 / 6020)	LUFT 5 Metals (6010 / 6020)	Lead (200.8 / 200.9 / 6010)	Other	Comments
MW-3		3/4/05		3	VOA	X					X	X			X										X							
MW-5		3/4/05		3	VOA	X					X	X			X										X							
MW-7		3/4/05		3	VOA	X					X	X			X										X							
MW-8		3/4/05		3	VOA	X					X	X			X										X							

EDF REQUIRED

Relinquished By:	Date:	Time:	Received By:
Tim Cook	3/4	7:00	Aaron
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB

COMMENTS:

PRESERVATION	VOAS	O&G	METALS pH<2	OTHER

Verification Monitoring Results
April 5, 2005

McCampbell Analytical, Inc.

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Cook Environmental Services, Inc 271 Las Juntas Way Walnut Creek, CA 94596	Client Project ID: #1004; High Street	Date Sampled: 04/05/05
		Date Received: 04/05/05
	Client Contact: Tim Cook	Date Reported: 04/08/05
	Client P.O.:	Date Completed: 04/08/05

WorkOrder: 0504046

April 08, 2005

Dear Tim:

Enclosed are:

1). the results of **8** analyzed samples from your **#1004; High Street project,**

2). a QC report for the above samples

3). a copy of the chain of custody, and

4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

Cook Environmental Services, Inc	Client Project ID: #1004; High Street	Date Sampled: 04/05/05
271 Las Juntas Way		Date Received: 04/05/05
Walnut Creek, CA 94596	Client Contact: Tim Cook	Date Extracted: 04/06/05-04/07/05
	Client P.O.:	Date Analyzed: 04/06/05-04/07/05

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0504046

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-1	W	ND	33	ND	ND	ND	ND	1	101
002A	MW-3	W	ND	11	ND	ND	ND	ND	1	97
003A	MW-5	W	ND	12	ND	ND	ND	ND	1	97
004A	MW-6	W	ND	ND	ND	ND	ND	ND	1	97
005A	MW-7	W	ND	6.3	ND	ND	ND	ND	1	99
006A	MW-8	W	ND	98	ND	ND	ND	ND	1	97
007A	MW-9	W	ND	40	ND	ND	ND	ND	1	96
008A	MW-10	W	ND	500	ND	ND	ND	ND	1	112
Reporting Limit for DF =1; ND means not detected at or above the reporting limit		W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
		S	NA	NA	NA	NA	NA	NA	1	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

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Cook Environmental Services, Inc	Client Project ID: #1004; High Street	Date Sampled: 04/05/05
271 Las Juntas Way		Date Received: 04/05/05
Walnut Creek, CA 94596	Client Contact: Tim Cook	Date Extracted: 04/07/05
	Client P.O.:	Date Analyzed: 04/07/05

Oxygenated Volatile Organics + EDB and 1,2-DCA by P&T and GC/MS*

Extraction Method: SW5030B | Analytical Method: SW8260B | Work Order: 0504046

Lab ID	0504046-001B	0504046-002B	0504046-003B	0504046-004B	Reporting Limit for DF =1	
Client ID	MW-1	MW-3	MW-5	MW-6		
Matrix	W	W	W	W		
DF	1	1	1	1	S	W
Compound	**Concentration**				ug/kg	µg/L
tert-Amyl methyl ether (TAME)	ND	ND	ND	ND	NA	0.5
t-Butyl alcohol (TBA)	6.8	ND	ND	ND	NA	5.0
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND	ND	ND	ND	NA	0.5
Diisopropyl ether (DIPE)	ND	ND	ND	ND	NA	0.5
Ethanol	ND	ND	ND	ND	NA	50
Ethyl tert-butyl ether (ETBE)	ND	ND	ND	ND	NA	0.5
Methanol	ND	ND	ND	ND	NA	500
Methyl-t-butyl ether (MTBE)	44	12	14	ND	NA	0.5
Surrogate Recoveries (%)						
%SS1:	105	106	107	105		
Comments						

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.

DHS Certification No. 1644

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Cook Environmental Services, Inc	Client Project ID: #1004; High Street	Date Sampled: 04/05/05
271 Las Juntas Way		Date Received: 04/05/05
Walnut Creek, CA 94596	Client Contact: Tim Cook	Date Extracted: 04/07/05
	Client P.O.:	Date Analyzed: 04/07/05

Oxygenated Volatile Organics + EDB and 1,2-DCA by P&T and GC/MS*

Extraction Method: SW5030B | Analytical Method: SW8260B | Work Order: 0504046

Lab ID	0504046-005B	0504046-006B	0504046-007B	0504046-008B	Reporting Limit for DF =1	
Client ID	MW-7	MW-8	MW-9	MW-10		
Matrix	W	W	W	W		
DF	1	5	1	33	S	W
Compound	**Concentration**				ug/kg	µg/L
tert-Amyl methyl ether (TAME)	ND	ND<2.5	0.75	ND<17	NA	0.5
t-Butyl alcohol (TBA)	ND	29	13	230	NA	5.0
1,2-Dibromoethane (EDB)	ND	ND<2.5	ND	ND<17	NA	0.5
1,2-Dichloroethane (1,2-DCA)	3.2	ND<2.5	ND	ND<17	NA	0.5
Diisopropyl ether (DIPE)	ND	ND<2.5	ND	ND<17	NA	0.5
Ethanol	ND	ND<250	ND	ND<1700	NA	50
Ethyl tert-butyl ether (ETBE)	ND	ND<2.5	ND	ND<17	NA	0.5
Methanol	ND	ND<2500	ND	ND<17,000	NA	500
Methyl-t-butyl ether (MTBE)	6.7	140	48	520	NA	0.5
Surrogate Recoveries (%)						
%SS1:	103	103	108	104		
Comments						

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

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QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0504046

EPA Method: SW8021B/8015Cm **Extraction: SW5030B** **BatchID: 15734** **Spiked Sample ID: 0504046-004A**

Analyte	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(btex)£	ND	60	92.8	92	0.866	103	96.4	6.99	70 - 130	70 - 130
MTBE	ND	10	93.8	90	4.10	103	102	1.57	70 - 130	70 - 130
Benzene	ND	10	108	104	4.21	113	112	0.599	70 - 130	70 - 130
Toluene	ND	10	104	101	3.15	109	108	0.851	70 - 130	70 - 130
Ethylbenzene	ND	10	105	102	3.48	109	108	1.63	70 - 130	70 - 130
Xylenes	ND	30	91.3	90.3	1.10	96	95.3	0.697	70 - 130	70 - 130
%SS:	97	10	117	113	2.81	112	114	1.58	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 15734 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0504046-001A	4/05/05	4/06/05 10:00 PM	4/06/05 10:00 PM	0504046-002A	4/05/05	4/06/05 10:33 PM	4/06/05 10:33 PM
0504046-003A	4/05/05	4/06/05 11:05 PM	4/06/05 11:05 PM	0504046-004A	4/05/05	4/06/05 11:38 PM	4/06/05 11:38 PM
0504046-005A	4/05/05	4/07/05 12:11 AM	4/07/05 12:11 AM	0504046-006A	4/05/05	4/07/05 12:43 AM	4/07/05 12:43 AM
0504046-007A	4/05/05	4/07/05 3:59 AM	4/07/05 3:59 AM	0504046-008A	4/05/05	4/07/05 6:46 AM	4/07/05 6:46 AM
0504046-008A	4/05/05	4/07/05 10:34 PM	4/07/05 10:34 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

* MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not applicable or not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

QA/QC Officer

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QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0504046

EPA Method: SW8260B	Extraction: SW5030B	BatchID: 15733	Spiked Sample ID: 0504046-004B

Analyte	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
tert-Amyl methyl ether (TAME)	ND	10	96.9	96.2	0.738	97.7	92.3	5.68	70 - 130	70 - 130
t-Butyl alcohol (TBA)	ND	50	98.5	94.8	3.83	95.6	86.6	9.88	70 - 130	70 - 130
1,2-Dibromoethane (EDB)	ND	10	87.1	86.7	0.409	87.3	84.7	2.99	70 - 130	70 - 130
1,2-Dichloroethane (1,2-DCA)	ND	10	113	113	0	111	105	4.96	70 - 130	70 - 130
Diisopropyl ether (DIPE)	ND	10	102	102	0	105	98.6	5.85	70 - 130	70 - 130
Ethanol	ND	500	100	101	0.764	105	93.4	11.6	70 - 130	70 - 130
Ethyl tert-butyl ether (ETBE)	ND	10	96.1	94.3	1.93	96.9	91.8	5.45	70 - 130	70 - 130
Methanol	ND	2500	96.5	93.4	3.28	97.1	95.4	1.84	70 - 130	70 - 130
Methyl-t-butyl ether (MTBE)	ND	10	98.4	97.1	1.32	96.2	87.8	9.07	70 - 130	70 - 130
%SS1:	105	10	99	98	0.837	98	96	1.42	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 15733 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0504046-001B	4/05/05	4/07/05	4/07/05 4:26 AM	0504046-002B	4/05/05	4/07/05	4/07/05 5:09 AM
0504046-003B	4/05/05	4/07/05	4/07/05 5:52 AM	0504046-004B	4/05/05	4/07/05	4/07/05 6:34 AM
0504046-005B	4/05/05	4/07/05	4/07/05 7:17 AM	0504046-006B	4/05/05	4/07/05	4/07/05 1:18 PM
0504046-007B	4/05/05	4/07/05	4/07/05 9:53 AM	0504046-008B	4/05/05	4/07/05	4/07/05 3:24 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

DHS Certification No. 1644

QA/QC Officer

McCampbell Analytical, Inc.
110 Second Avenue South, #D7
Pacheco, CA 94553-5560
(925) 798-1620

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0504046 **ClientID: CESW**

Report to:
Tim Cook
Cook Environmental Services, Inc.
271 Las Juntas Way
Walnut Creek, CA 94596
TEL: 925-937-1759
FAX: 925-937-1759
ProjectNo: #1004; High Street
PO:

Bill to:
Tim Cook
Cook Environmental Services, Inc.
271 Las Juntas Way
Walnut Creek, CA 94596

Requested TAT: 5 days
Date Received: 04/05/2005
Date Printed: 04/05/2005

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)														
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0504046-001	MW-1	Water	4/5/05	☐	B	A	A												
0504046-002	MW-3	Water	4/5/05	☐	B	A													
0504046-003	MW-5	Water	4/5/05	☐	B	A													
0504046-004	MW-6	Water	4/5/05	☐	B	A													
0504046-005	MW-7	Water	4/5/05	☐	B	A													
0504046-006	MW-8	Water	4/5/05	☐	B	A													
0504046-007	MW-9	Water	4/5/05	☐	B	A													
0504046-008	MW-10	Water	4/5/05	☐	B	A													

Test Legend:

1	9-OXYS_W	2	G-MBTEX_W	3	PREDF REPORT	4		5	
6		7		8		9		10	
11		12		13		14		15	

Prepared by: Maria Venegas

Comments:

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

0504046

McCAMPBELL ANALYTICAL, INC.
110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553-5560
Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (925) 798-1620 Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ❑ RUSH ❑ 24 HR ❑ 48 HR ❑ 72 HR ❑ 5 DAY

EDF Required? Coelt (Normal) Yes Write On (DW) No

Report To: Tim Cook Bill To:

Company: Cook Environmental Services, Inc.

271 Las Juntas Way

Walnut Creek, CA 9457 E-Mail: cookenvironmental@att.net

Tele: (925) 937-1759 Fax: (925) 937-1759

Project #:1004 Project Name: High Street

Project Location: Oakland

Sampler Signature:

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED ICE	METHOD PRESERVED HCL	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010 / 8021	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8081	EPA 608 / 8082 PCB's ONLY	EPA 8140 / 8141	EPA 8150 / 8151	EPA 8260 All 9 oxys only	EPA 525 / 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals (6010 / 6020)	LUFT 5 Metals (6010 / 6020)	Lead (200.8 / 200.9 / 6010)	Other			Comments
MW-1		4/5/05		3	VOA	X					X	X			X										X									
MW-3		4/5/05		3	VOA	X					X	X			X										X									
MW-5		4/5/05		3	VOA	X					X	X			X										X									
MW-6		4/5/05		3	VOA	X					X	X			X										X									
MW-7		4/5/05		3	VOA	X					X	X			X										X									
MW-8		4/5/05		3	VOA	X					X	X			X										X									
MW-9		4/5/05		3	VOA	X					X	X			X										X									
MW-10															X										X									

Relinquished By:	Date: 4/5	Time: 1:37pm	Received By:
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB

COMMENTS:

PRESERVATION	VOAS ✓	O&G	METALS pH<2	OTHER