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July 22, 2005

Donna Drogos
Alameda County Environmental Health
1311 Harbor Bay Pkwy, Ste 250
Alameda, California 94502-6577

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

Alameda County
JUL 27 2005
Environmental Health

Dear Ms. Drogos:

Enclosed is the *Quarterly Verification Monitoring Report, Third Quarter 2005* for the subject LUFT site. A *Verification Monitoring Work Plan* was submitted to Mr. Bob Schultz of the ACEH on November 26, 2004. The ACEH has yet to provide a written comment on this work plan. Per Mr. Schultz's verbal approval, the verification monitoring program was started on January 3, 2005. On this same date the ozone sparge system was permanently turned off. Five 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. Per Mr. Schultz's direction, the LUFT case can be closed if concentrations of all constituents of concern remain below their respective SSTLs for one more sampling event. This event will take place in September 2005.

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
Dave Charter, UST Cleanup Fund
Chuck Headlee, San Francisco Bay RWQCB

cook

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**QUARTERLY VERIFICATION MONITORING
REPORT
Third 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

July 22, 2005

**Alameda County
JUL 27 2005
Environmental Health**

PROFESSIONAL CERTIFICATION

QUARTERLY VERIFICATION MONITORING REPORT

Third Quarter 2005

**Express Gas & Mart
2951 High Street
Oakland, California 94619**

**Cook Environmental Services, Inc.
Project No. 1004
July 22, 2005**

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The conclusions presented in this document are professional opinions based solely upon the stated scope of work and the interpretation of available information as described herein. Such information may include third party data that either has not, or could not be independently verified. Cook Environmental Services, Inc. recognizes that the limited scope of services performed in execution of this investigation may not be appropriate to satisfy the needs or requirements of other potential users, including public agencies not directly involved. Any use or reuse of this document or the findings, conclusions, and recommendations presented herein is at the sole risk of said user.



Tim Cook, P.E., CEG
Principal



INTRODUCTION

This report presents the results of the third 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 July 6, 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

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 ($\mu\text{g/L}$), 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 $\mu\text{g/L}$ 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-spargers 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 July 6, 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:

- 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);
- Maintained the California State Water Resources Control Board Geographical Environmental Information Management System (GeoTracker) database;
- Prepared this *Quarterly Verification Monitoring Report*.

FIELD PROCEDURES

Groundwater Level Measurements

CES measured water levels in Site monitoring wells on July 6, 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

All eight monitoring wells were sampled on July 6, 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 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. Water levels in wells ranged from 5.52 feet below TOC in MW-1 to 12.20 feet below TOC in MW-7. Groundwater elevations ranged from 118.73 feet above mean sea level (msl) in well MW-7 to 126.12 feet above msl in MW-1. Excluding well MW-7, groundwater elevations decreased an average of 0.91 feet since the last quarterly monitoring event on April 5, 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, July 6, 2005 the groundwater flow direction was S 8° W with a gradient of 0.040 feet per foot (ft/ft). On April 5, 2005 the groundwater flow direction was S 10° W with a gradient of 0.035 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, TAME and DCA. As in previous sampling events, MtBE was detected in wells MW-1, MW-3, MW-5, MW-7, MW-8, MW-9 and MW-10. tBA was detected only in well MW-8. The presence of tBA is most likely caused by the incomplete breakdown of MtBE. DCA was detected only in well MW-7. TAME was detected only in well MW-10. 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 420 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 below its concentration of 520 µg/L last quarter. MtBE concentrations in the monitoring wells on July 6, 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. A slight rebound in MtBE concentrations when compared to the previous quarter was observed in MW-1, MW-3, MW-7 and MW-8. MtBE concentrations decreased in downgradient wells MW-9 and MW-10. 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. Graphs of MtBE concentrations in wells MW-1, MW-9 and MW-10 are shown on **Figure 7**.

TPH-g and BTEX constituents were not detected in any monitoring well this quarter. Previously benzene had been detected in wells MW-5 and MW-7 at concentrations above the SSTL of 34 µg/L. A graph of benzene concentrations versus time in wells MW-5 and MW-7 is shown on **Figure 8**.

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 was 5.54 mg/L on January 3, 2005 5.83 mg/L on April 5, 2005 and 6.93 mg/L on July 6, 2005. DO concentrations 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 July 6, 2005 the direction of groundwater flow was S 8° W with a gradient of 0.040 feet per foot (ft/ft). This is consistent with previous measurements. The groundwater elevation in well MW-7 was depressed due to residual pressure caused by the OS system.

MtBE is 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 July 6, 2005 verify that constituents of concern remain below SSTLs for the tenth straight sampling event. TPH-g and BTEX were not detected in any well this quarter.

There was a slight increase in MtBE concentrations this quarter in wells near the source area (MW-1, MW-3, MW-7 and MW-8). There was slight decrease in MtBE concentrations in downgradient wells MW-5, MW-9 and MW-10. MtBE was not detected in upgradient well MW-6. MtBE remains significantly below the SSTL of 8,400 ug/L in all wells.

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 one more sampling event, we recommend Site closure. The next sampling event is scheduled for October 2005.

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	12/9/96	2	30	5-30	N/A	131.99	2,112,582.04	6,070,083.59
MW-6	1/7/97	2	30	5-30	N/A	132.58	2,112,662.53	6,070,113.49
MW-7	3/24/03	2	25	15-25	gravelly sandy silt	130.93	2,112,533.18	6,070,106.31
MW-8	3/24/03	2	25	15-25	gravelly sandy silt	131.15	2,112,527.86	6,070,153.72
MW-9	3/25/03	2	25	15-25	silty gravelly sand	130.00	2,112,484.75	6,070,065.55
MW-10	4/4/03	2	25	15-25	sandy silt	127.19	2,112,393.29	6,069,984.72
SP-1	3/25/04	3/4	37	30.5-33	clayey sand	130.39	2,112,529.17	6,070,105.65
SP-2	3/25/04	3/4	31	26.5-29	sandy clay	130.07	2,112,534.87	6,070,118.37
SP-3	3/24/04	3/4	32	28.5-31	gravelly sandy clay	130.66	2,112,541.87	6,070,131.76
SP-4	3/25/04	3/4	33	14.5-17	gravelly sandy clay	130.51	2,112,541.66	6,070,102.66
SP-5	3/26/04	3/4	30	20-22.5	clayey gravelly sand	130.55	2,112,553.75	6,070,115.66
SP-6	3/26/04	3/4	30	21.5-24	clayey sandy gravel	130.88	2,112,564.81	6,070,106.43
SP-7	3/26/04	3/4	30	25.5-28	gravelly sand	131.20	2,112,575.20	6,070,106.74
SP-8	3/26/04	3/4	31	28.5-31	gravelly sandy clay	130.98	2,112,569.95	6,070,091.53
SP-9	3/25/04	3/4	33	25-27.5	clayey sand	130.85	2,112,562.57	6,070,080.59
SP-10	3/26/04	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
	07/06/05		5.52	126.12
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		
07/06/05	6.70	124.35		
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		
07/06/05	7.54	124.45		

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	
	07/06/05		7.15	125.43	
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
07/06/05	*	12.20	118.73		
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	
07/06/05	7.12	124.03			

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
	07/06/05		8.02	121.98
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
	07/06/05		7.11	120.08

Notes:

Elevations are in feet above mean sea level.

TOC, Top of casing. DTW, Depth to water in feet below TOC.

* Well MW-7 is under pressure from ozone sparging. The water level is artificially low.

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
07/06/05	<50	<0.5	<0.5	<0.5	<0.5	270	<5	<5	<5	<50	<5,000	<500	<5	<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	<1.0
	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	<0.5
	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	1.5
07/06/05	<50	<0.5	<0.5	<0.5	<0.5	44	<1.0	<1.0	<1.0	<10	<1000	<100	<1.0	<1.0	

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-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
	07/06/05	<50	<0.5	<0.5	<0.5	<0.5	6.2	<0.5	<0.5	<0.5	<5.0	<500	<50	<0.5	<0.5

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	EBB	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
	07/06/05	<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
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-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
07/06/05	<50	<0.5	<0.5	<0.5	<0.5	18	<0.5	<0.5	<0.5	<5	<500	<50	<0.5	2.0	
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	
07/06/05	<50	<0.5	<0.5	<0.5	<0.5	160	<2.5	<2.5	<2.5	29	<2500	<250	<2.5	<2.5	

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-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
	07/06/05	<50	<0.5	<0.5	<0.5	<0.5	18	<0.5	<0.5	<0.5	<5.0	<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
07/06/05	<50	<0.5	<0.5	<0.5	<0.5	420	<5	<5	12	<50	<5,000	<500	<5	<5	
SSTL	NE	34	270	180	470	8,400	NE	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%
		07/06/05	3.47	20.9	38.4%
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%
07/06/05	3.00	19.9	32.5%		
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%
07/06/05	16.90	20.60	186.0%		

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

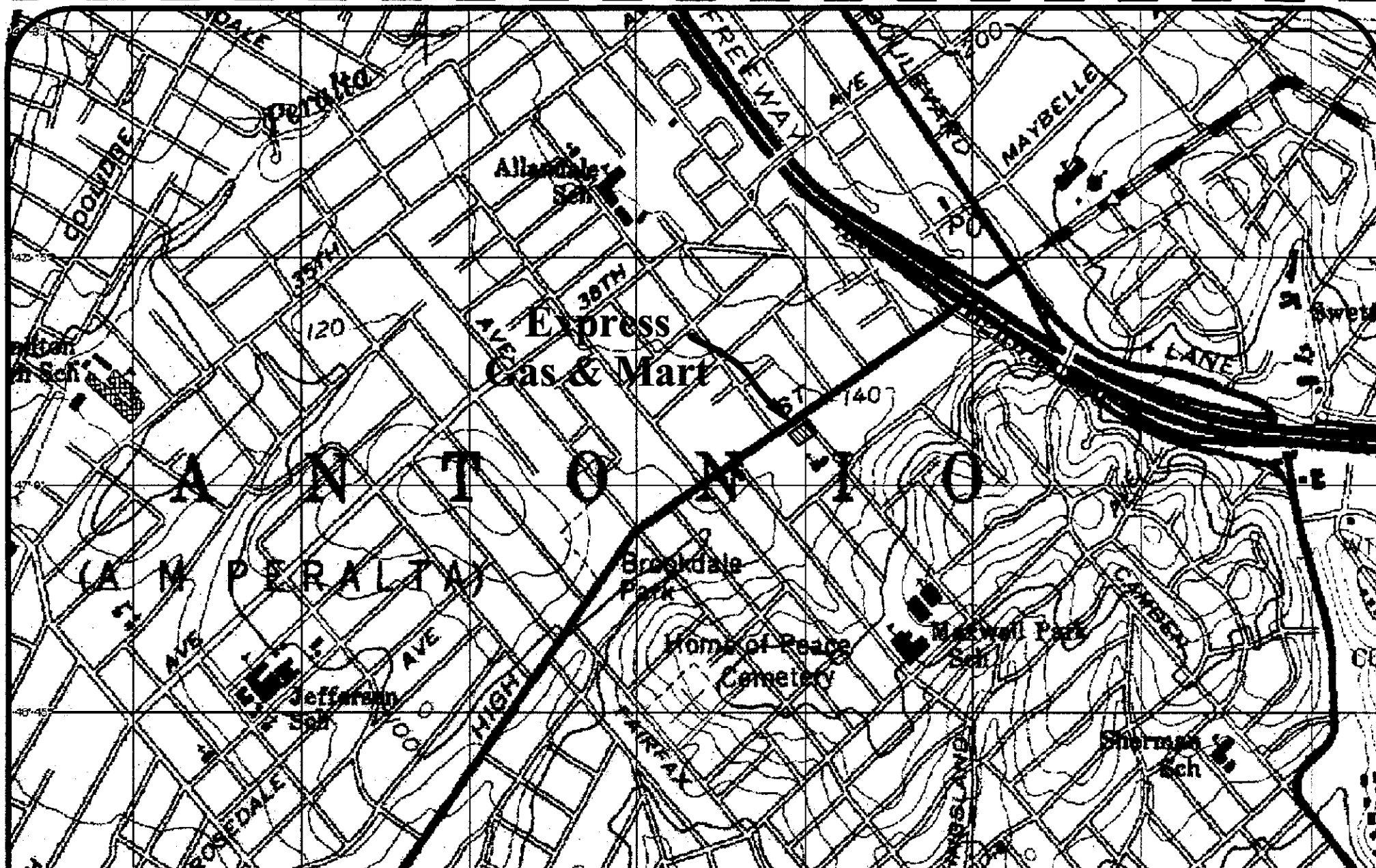
Well ID	Date	DO (mg/L)	Temperature (Celsius)	% Oxygen Saturation
MW-6 *	04/04/03	NA	NA	NA
	07/16/03	0.54	19.1	5.8%
	10/28/03	1.26	19.3	13.5%
	01/13/04	0.27	19.4	2.9%
	04/29/04	1.37	18.7	14.5%
	07/08/04	0.31	19.8	3.4%
	10/01/04	0.27	19.3	2.9%
	01/03/05	1.30	19.1	13.9%
	04/05/05	1.40	19.2	15.0%
07/06/05	2.32	19.8	25.1%	
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%
07/06/05	4.35	20.9	48.2%	
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%
07/06/05	1.83	21.3	20.4%	

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%
07/06/05	3.55	20.8	39.2%	
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%
	07/06/05	2.32	19.3	24.9%

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



3-D TopoQuads Copyright © 1999 DeLorme, Yarmouth, ME 04096 Source Data: USGS

Scale: ——— | 300 ft

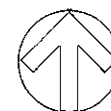
Datum: WGS84

cook ENVIRONMENTAL SERVICES, INC

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

Site Location Map

Express Gas & Mart
 2951 High Street
 Oakland, California



NORTH

Project #: 1004

Date: 7/22/05


Scale: as shown


Figure:


1

LEGEND

MW-1  Monitoring Well

SP-10  Ozone-sparg Point

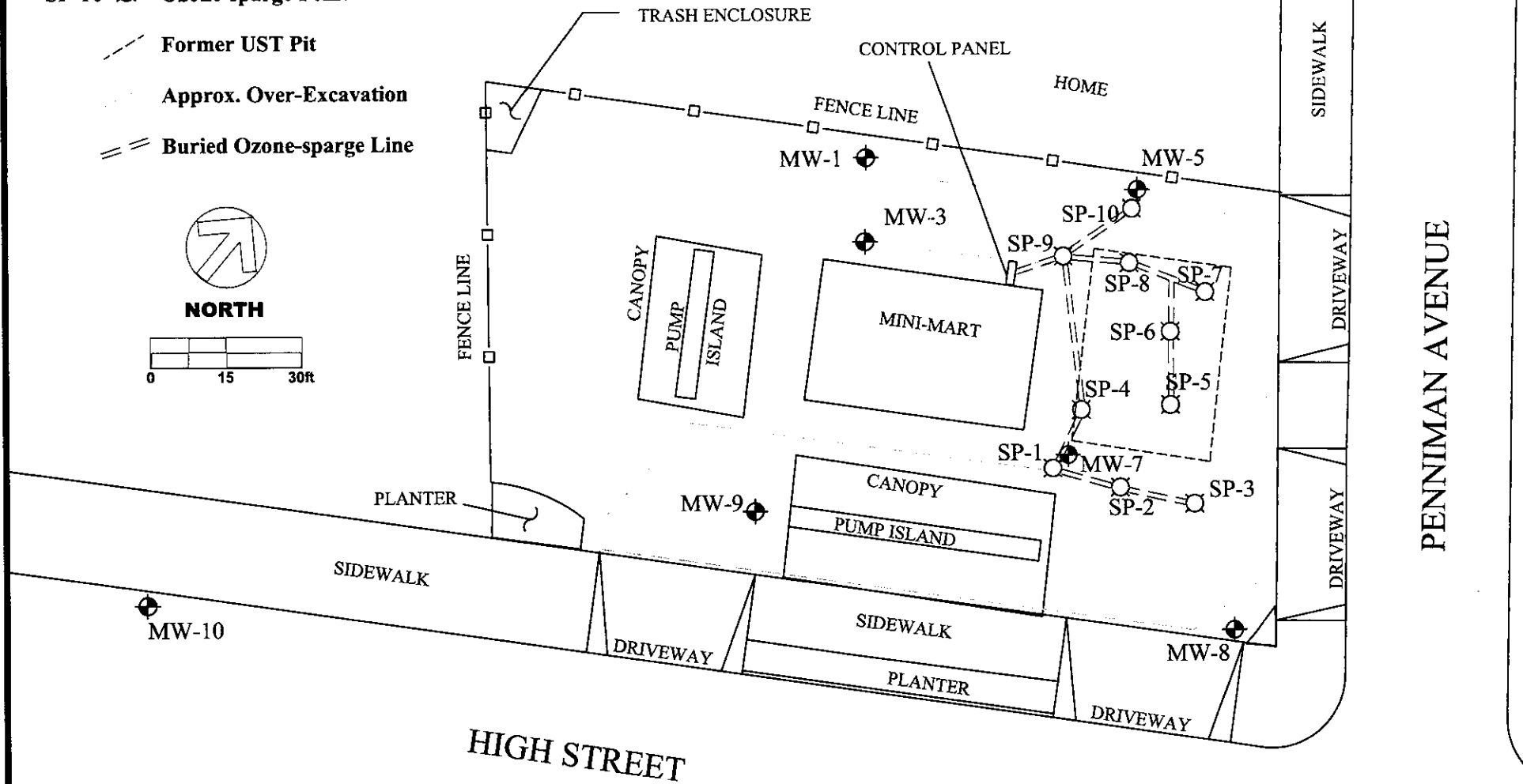
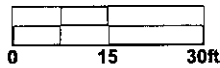
 Former UST Pit

 Approx. Over-Excavation

 Buried Ozone-sparg Line



NORTH



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Site Features

Express Gas & Mart
 2951 High Street
 Oakland, California

Project #: 1004

Date: 7/22/05

Scale: 1"=30'

Figure:

2

LEGEND

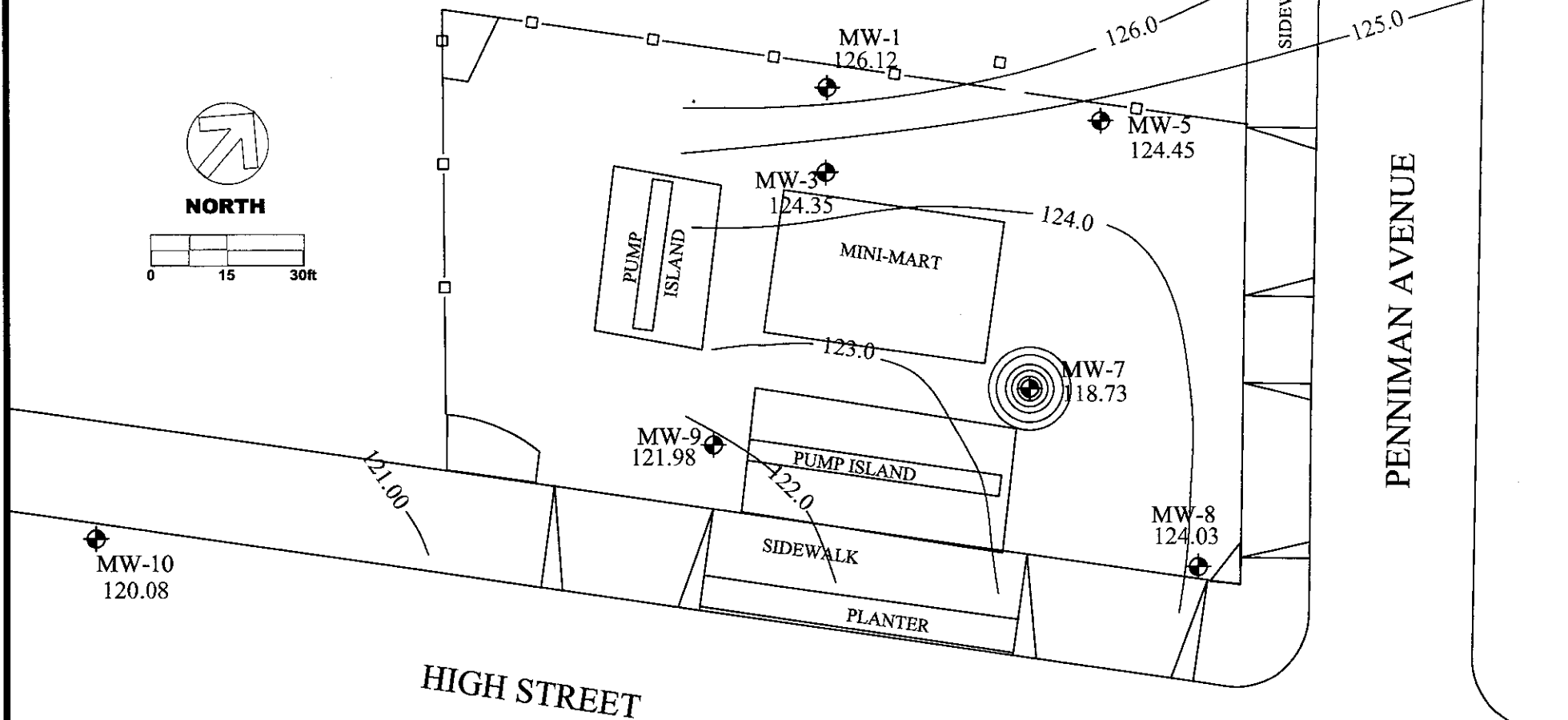
◆ Monitoring Well

121.00 Groundwater Elevation (ft above msl)

— Groundwater Elevation Contour



NORTH



cook ENVIRONMENTAL SERVICES, INC.

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

Groundwater Elevations on July 6, 2005

Express Gas & Mart
 2951 High Street
 Oakland, California

Project #: 1004

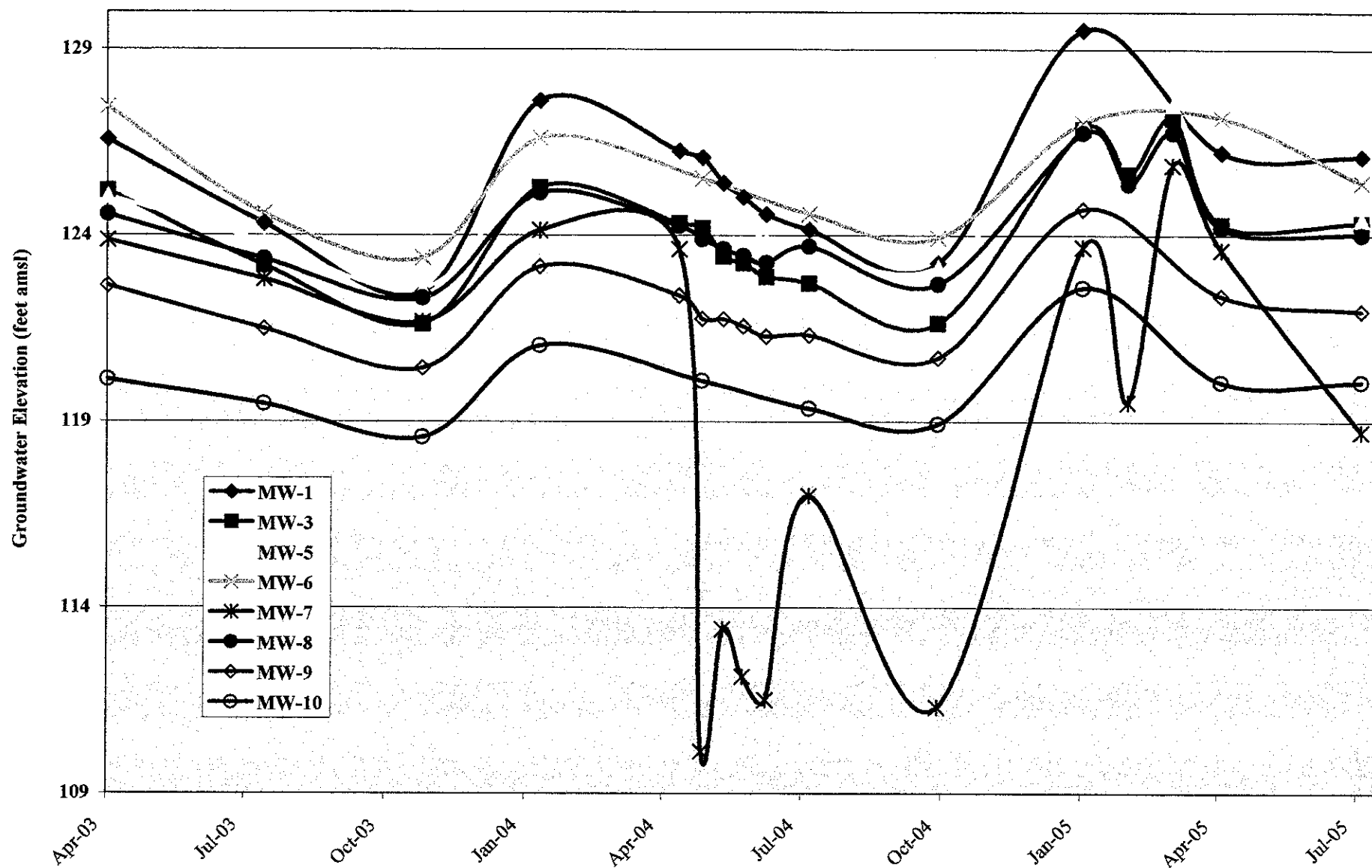
Date: 7/22/05

Scale: 1"=30'

Figure:

3

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

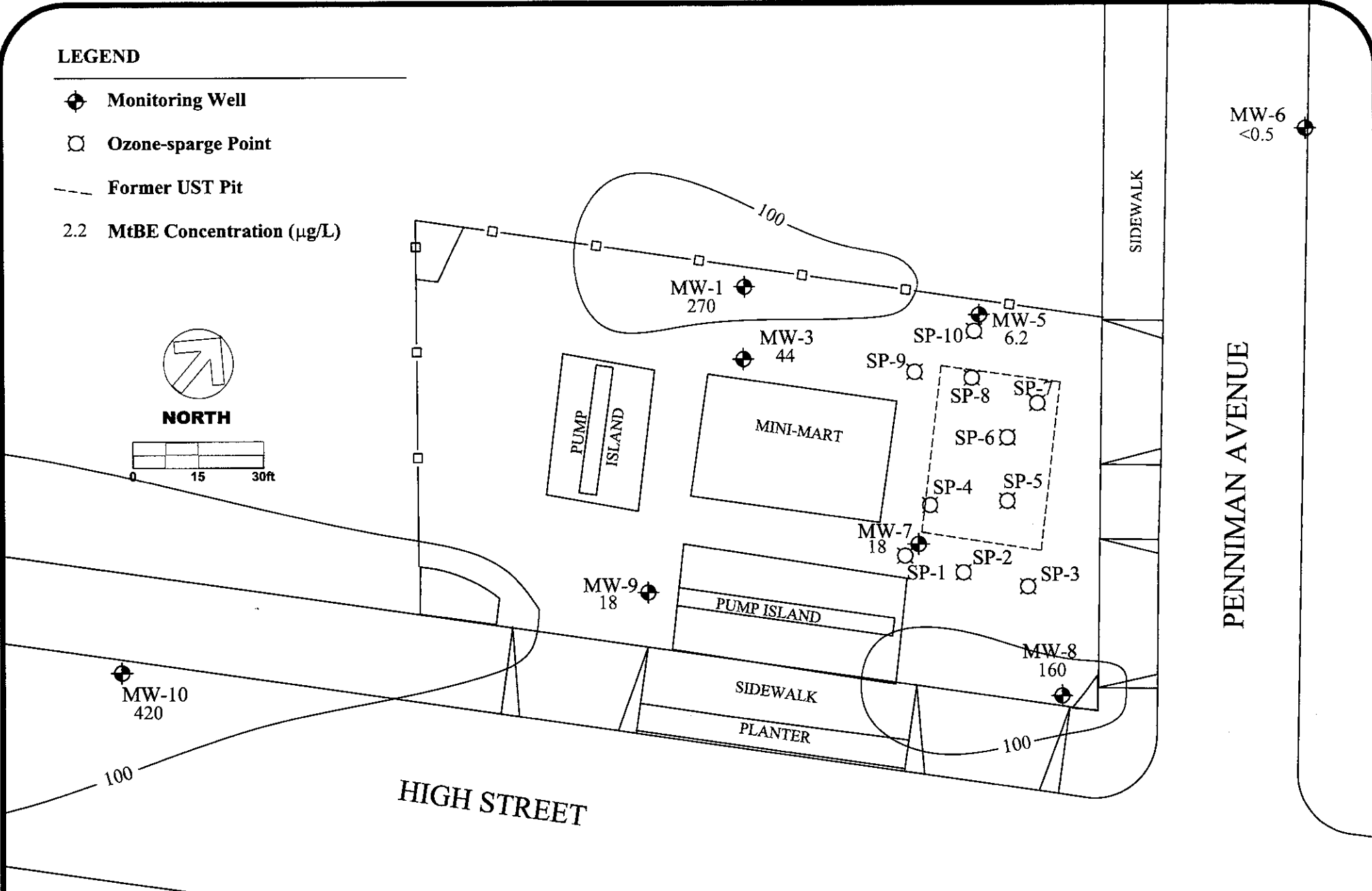
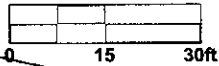


LEGEND

- ◆ Monitoring Well
- Ozone-sparge Point
- Former UST Pit
- 2.2 MtBE Concentration (µg/L)



NORTH



COOK ENVIRONMENTAL SERVICES, INC.

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

MtBE Concentrations in Groundwater on July 6, 2005

Express Gas & Mart
 2951 High Street
 Oakland, California

Project #: 1004

Date: 7/22/05

Scale: 1"=30'

Figure:

5

Figure 6
MtBE Concentrations vs. Time in Wells MW-3, MW-5, MW-7 and MW-8
2951 High Street, Oakland, California

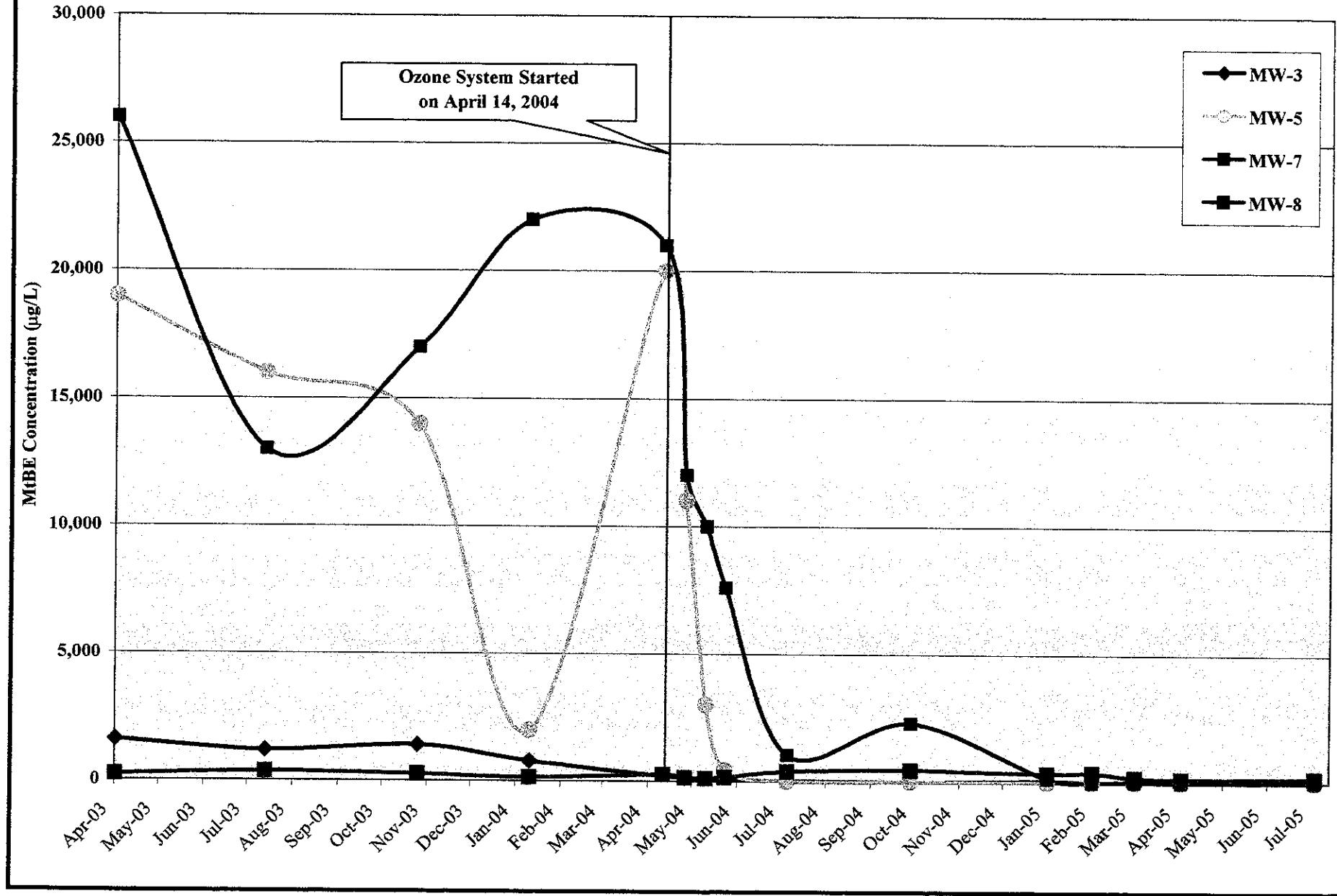


Figure 7
MtBE Concentrations versus time in Wells MW-1, MW-9 and MW-10
2951 High Street, Oakland, California

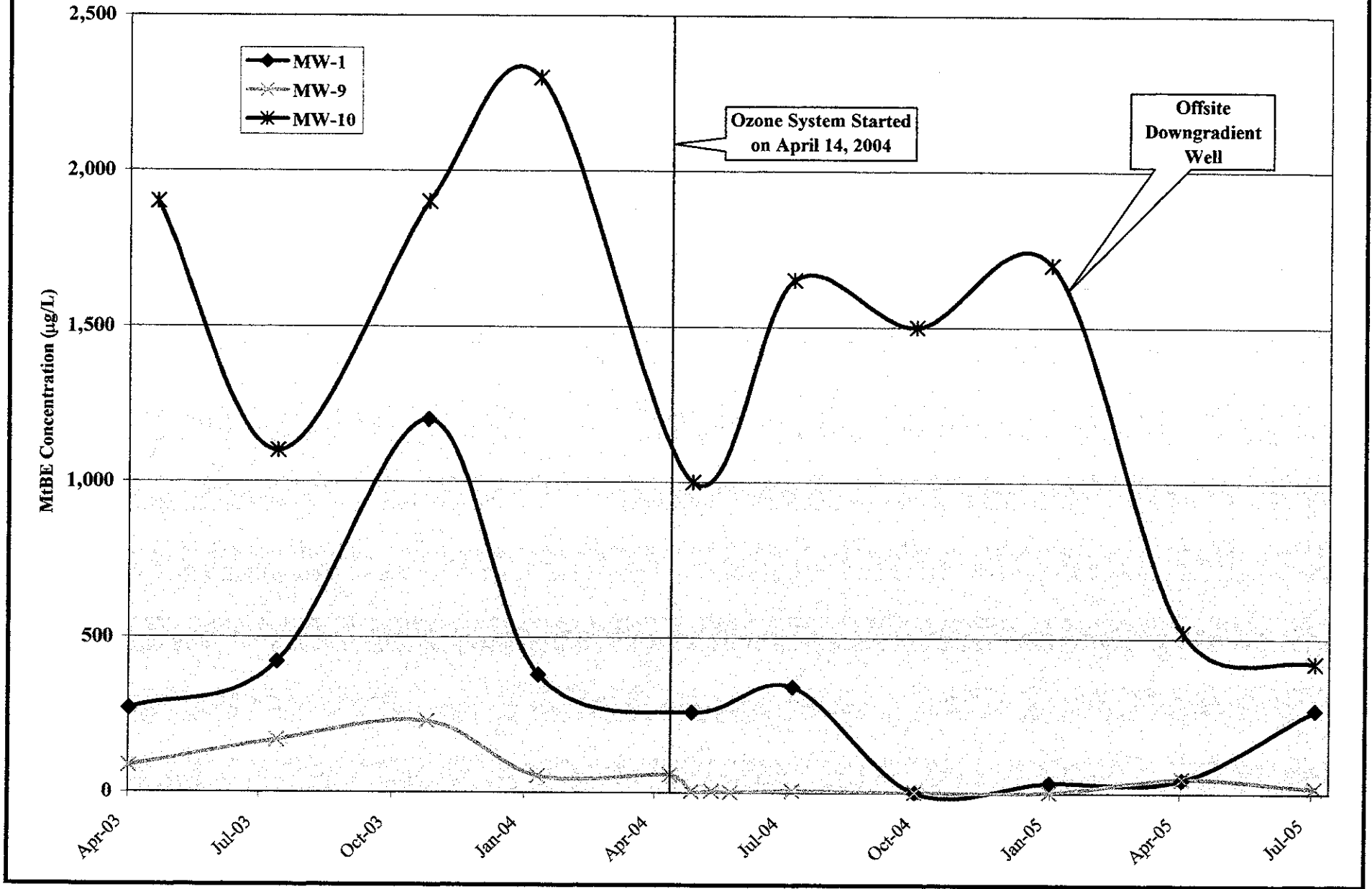
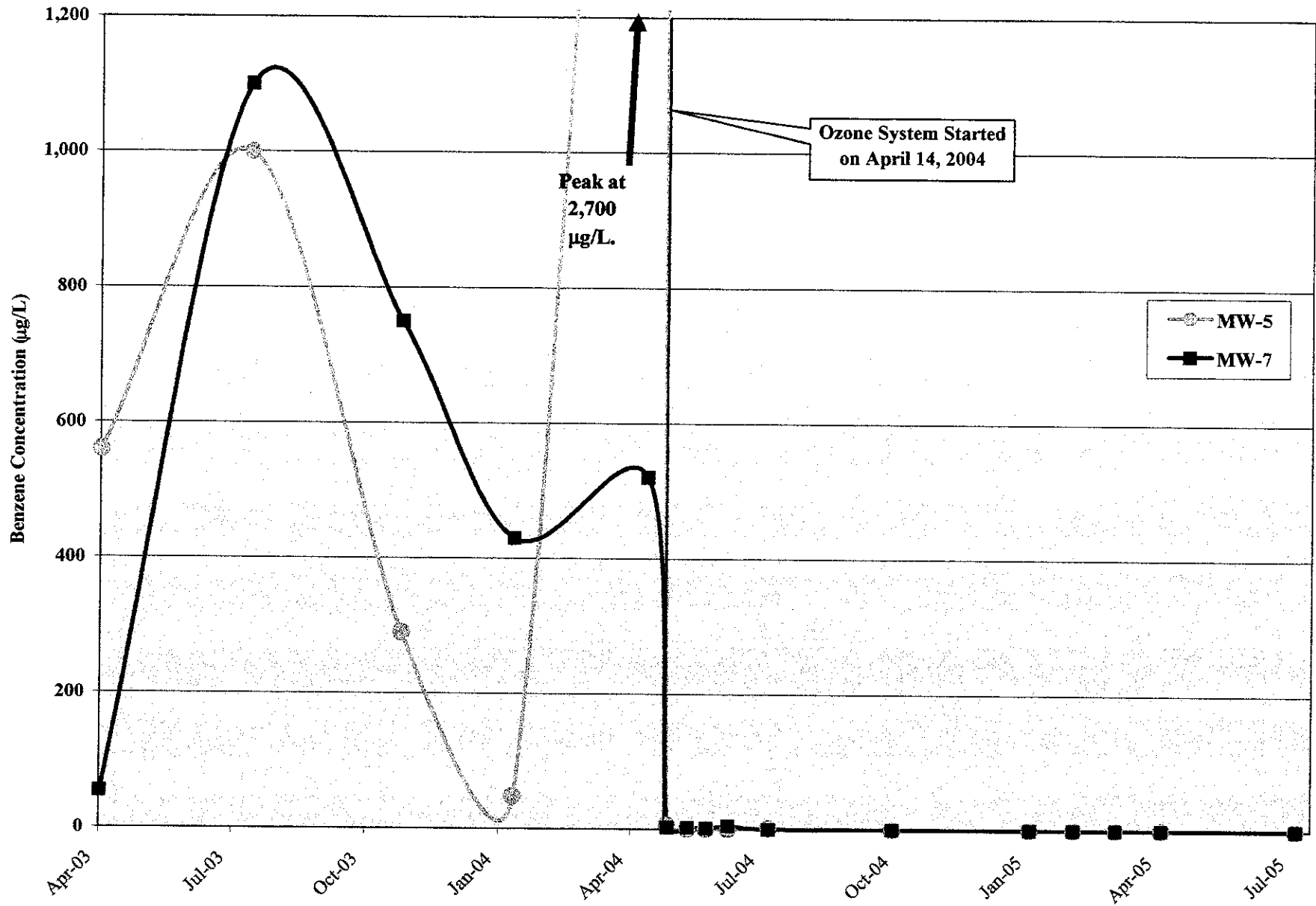


Figure 8
Benzene Concentrations vs. Time in Wells MW-5 and MW-7
2951 High Street, Oakland, California



APPENDIX A
Monitoring Well Sampling Logs

**COOK ENVIRONMENTAL SERVICES
MONITORING WELL SAMPLING LOG**

Site Name: High Street

Job # 1004

Date: 7/6/2005

Sampler: T. Cook

Well ID: MW-1

Well Diameter 2"

Column 19.29

Well Depth 24.81

Depth to Water 5.52

Casing Volume 3.28

3 Casing Volumes 9.8

(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
1351	3	22.3	6.45	801	400	3.40	
1357	6	21.1	6.41	685	343	3.53	
1405	10	20.9	6.45	692	346	3.47	

**COOK ENVIRONMENTAL SERVICE
MONITORING WELL SAMPLING LOG**

Site Name: High Street

Job # 1004

Date: 7/6/2005

Sampler: T. Cook

Well ID: MW-3

Well Diameter 2"

Column 18.9

Well Depth 24.84

Depth to Water 6.70

Casing Volume 3.08

3 Casing Volumes 9.25

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

Purge Method: bailer

Sample Method: bailer

TDS

Time	Gallons Purged	Temp C	pH	SC (uS)	Turbidity (NTU)	DO (mg/L)	Comments
1321	4	22.0	6.29	517	290	3.21	
1324	6	20.0	6.35	596	300	2.85	
1335	9.2	19.9	6.39	610	307	3.00	

**COOK ENVIRONMENTAL SERVICES
MONITORING WELL SAMPLING LOG**

Site Name: High Street Job # 1004

Date: 7/6/2005 Sampler: T. Cook

Well ID: MW-5 Well Diameter 2" Column 19.54

Well Depth 27.08 Depth to Water 7.54

Casing Volume 3.32 3 Casing Volumes 10.0
 (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)	TDS Turbidity (NTU)	DO (mg/L)	Comments
1122	3	21.8	8.47	102	510	6.30	
1129	6	21.3	8.60	1126	562	15.06	
1136	8.5	20.6	8.94	1090	549	16.9	well dry

**COOK ENVIRONMENTAL SERVICES
MONITORING WELL SAMPLING LOG**

Site Name: High Street

Job # 1004

Date: 7/6/2005

Sampler: T. Cook

Well ID: MW-6

Well Diameter 2"

Column 21.45

Well Depth 28.60

Depth to Water 7.15

Casing Volume 3.64

3 Casing Volumes 10.9

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

Purge Method: bailer

Sample Method: bailer

TDS

Time	Gallons Purged	Temp C	pH	SC (uS)	Turbidity (NTU)	DO (mg/L)	Comments
1023	5	19.8	6.80	551	275	2.12	
1032	8	19.9	6.89	556	276	1.82	
1037	10.15	19.8	6.82	553	277	2.32	

**COOK ENVIRONMENTAL SERVICE
MONITORING WELL SAMPLING LOG**

Site Name: High Street

Job # 1004

Date: 7/6/2005

Sampler: T. Cook

Well ID: MW-7

Well Diameter 2"

Column 12.8'

Well Depth 25.01

Depth to Water 12.20* well under pressure

Casing Volume 2.17
(2" well = col height * 0.17 gal/ft, 4" well = 0.66 gal/ft)

3 Casing Volumes 6.5

Purge Method: bailer

Sample Method: bailer

Time	Gallons Purged	Temp C	pH	SC (uS)	T TDS (NTU)	DO (mg/L)	Comments
1226	2	22.1	7.06	474	238	5.10	HC odor
1230	4	21.1	7.06	477	239	4.27	
1237	6.5	20.9	7.18	423	212	4.35	

**COOK ENVIRONMENTAL SERVICES
MONITORING WELL SAMPLING LOG**

Site Name: High Street

Job # 1004

Date: 7/6/2005

Sampler: T. Cook

Well ID: MW-8

Well Diameter 2"

Column 18.16

Well Depth 25.28

Depth to Water 7.12

Casing Volume 3.08

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)	TDS		Comments
					turbidity (NTU)	DO (mg/L)	
1156	3	22.4	6.84	517	213	2.20	
1201	6	21.3	6.69	526	213	1.83	
1209	9.2	21.3	6.49	523	260	1.83	

**COOK ENVIRONMENTAL SERVICES
MONITORING WELL SAMPLING LOG**

Site Name: High Street

Job # 1004

Date: 7/6/2005

Sampler: T. Cook

Well ID: MW-9

Well Diameter 2"

Column 17.3

Well Depth 25.32

Depth to Water 8.02

Casing Volume 2.94

3 Casing Volumes 8.8'

(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)	TDS		Comments
					Turbidity (NTU)	DO (mg/L)	
1420	3.5	22.1	6.77	993	496	3.67	
1426	6	20.9	6.95	1069	534	3.53	
1433	8.0	20.8	6.96	1071	536	3.55	

**COOK ENVIRONMENTAL SERVICES
MONITORING WELL SAMPLING LOG**

Site Name: High Street

Job # 1004

Date: 7/6/2005

Sampler: T. Cook

Well ID: MW-10

Well Diameter 2"

Column 17.84

Well Depth 24.95

Depth to Water 7.11

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)	TDS		DO (mg/L)	Comments
					Conductivity	(NTU)		
1455	3	20.3	6.89	526	269	2.95		
1500	6	19.5	6.85	536	269	2.57		
1507	9	19.3	6.80	521	260	2.82		

APPENDIX B

Laboratory Analytical Reports



McC Campbell 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 271 Las Juntas Way Walnut Creek, CA 94596	Client Project ID: #1004; High Street	Date Sampled: 07/06/05
		Date Received: 07/06/05
	Client Contact: Tim Cook	Date Reported: 07/13/05
	Client P.O.:	Date Completed: 07/13/05

WorkOrder: 0507072

July 13, 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. McC Campbell 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



McC Campbell 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
 271 Las Juntas Way
 Walnut Creek, CA 94596

Client Project ID: #1004; High Street

Date Sampled: 07/06/05

Date Received: 07/06/05

Client Contact: Tim Cook

Date Extracted: 07/09/05

Client P.O.:

Date Analyzed: 07/09/05

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0507072

Lab ID	0507072-001B	0507072-002B	0507072-003B	0507072-004B	Reporting Limit for DF=1	
Client ID	MW-1	MW-3	MW-5	MW-6	S	W
Matrix	W	W	W	W		
DF	10	2	1	1		

Compound	Concentration				ug/kg	ug/L
tert-Amyl methyl ether (TAME)	ND<5.0	ND<1.0	ND	ND	NA	0.5
t-Butyl alcohol (TBA)	ND<50	ND<10	ND	ND	NA	5.0
1,2-Dibromoethane (EDB)	ND<5.0	ND<1.0	ND	ND	NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND<5.0	ND<1.0	ND	ND	NA	0.5
Diisopropyl ether (DIPE)	ND<5.0	ND<1.0	ND	ND	NA	0.5
Ethanol	ND<500	ND<100	ND	ND	NA	50
Ethyl tert-butyl ether (ETBE)	ND<5.0	ND<1.0	ND	ND	NA	0.5
Methanol	ND<5000	ND<1000	ND	ND	NA	500
Methyl-t-butyl ether (MTBE)	270	44	6.2	ND	NA	0.5

Surrogate Recoveries (%)


%SS1:	101	100	100	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 coelutes with another peak; &) low surrogate due to matrix interference.

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.

 Angela Rydelius, Lab Manager



McC Campbell Analytical, Inc.

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

Cook Environmental Services, Inc 271 Las Juntas Way Walnut Creek, CA 94596	Client Project ID: #1004; High Street	Date Sampled: 07/06/05
		Date Received: 07/06/05
	Client Contact: Tim Cook	Date Extracted: 07/09/05
	Client P.O.:	Date Analyzed: 07/09/05

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0507072

Lab ID	0507072-005B	0507072-006B	0507072-007B	0507072-008B	Reporting Limit for DF = 1	
Client ID	MW-7	MW-8	MW-9	MW-10		
Matrix	W	W	W	W		
DF	1	5	1	10		

Compound	Concentration				ug/kg	µg/L
	tert-Amyl methyl ether (TAME)	ND	ND<2.5	ND	12	NA
t-Butyl alcohol (TBA)	ND	ND<25	ND	ND<50	NA	5.0
1,2-Dibromoethane (EDB)	ND	ND<2.5	ND	ND<5.0	NA	0.5
1,2-Dichloroethane (1,2-DCA)	2.0	ND<2.5	ND	ND<5.0	NA	0.5
Diisopropyl ether (DIPE)	ND	ND<2.5	ND	ND<5.0	NA	0.5
Ethanol	ND	ND<250	ND	ND<500	NA	50
Ethyl tert-butyl ether (ETBE)	ND	ND<2.5	ND	ND<5.0	NA	0.5
Methanol	ND	ND<2500	ND	ND<5000	NA	500
Methyl-t-butyl ether (MTBE)	18	160	18	420	NA	0.5

Surrogate Recoveries (%)


%SS1:	103	102	97	97	
Comments	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 coelutes with another peak; &) low surrogate due to matrix interference.

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.

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QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0507072

EPA Method: SW8021B/8015Cm		Extraction: SW5030B			BatchID: 17028			Spiked Sample ID: 0507071-007A		
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	106	104	2.15	107	104	3.16	70 - 130	70 - 130
MTBE	ND	10	114	110	3.74	107	101	4.95	70 - 130	70 - 130
Benzene	ND	10	110	104	5.12	117	111	4.68	70 - 130	70 - 130
Toluene	ND	10	108	104	3.53	110	104	5.02	70 - 130	70 - 130
Ethylbenzene	ND	10	111	111	0	111	109	1.99	70 - 130	70 - 130
Xylenes	ND	30	96.3	100	3.74	96.7	96.3	0.345	70 - 130	70 - 130
%SS:	106	10	106	101	5.14	114	111	2.55	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 17028 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0507072-001A	7/06/05	7/08/05	7/08/05 10:00 AM	0507072-002A	7/06/05	7/08/05	7/08/05 10:30 AM
0507072-003A	7/06/05	7/08/05	7/08/05 11:00 AM	0507072-004A	7/06/05	7/08/05	7/08/05 11:30 AM
0507072-005A	7/06/05	7/08/05	7/08/05 12:44 PM	0507072-006A	7/06/05	7/08/05	7/08/05 1:17 PM
0507072-007A	7/06/05	7/08/05	7/08/05 1:51 PM	0507072-008A	7/06/05	7/08/05	7/08/05 2:25 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.



QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0507072

EPA Method: SW8260B		Extraction: SW5030B			BatchID: 17027			Spiked Sample ID: 0507072-004B		
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	110	106	3.25	106	110	3.69	70 - 130	70 - 130
t-Butyl alcohol (TBA)	ND	50	117	116	1.70	112	115	2.95	70 - 130	70 - 130
1,2-Dibromoethane (EDB)	ND	10	113	107	5.40	110	109	1.45	70 - 130	70 - 130
1,2-Dichloroethane (1,2-DCA)	ND	10	118	115	3.27	116	118	1.53	70 - 130	70 - 130
Diisopropyl ether (DIPE)	ND	10	119	119	0	118	118	0	70 - 130	70 - 130
Ethanol	ND	500	114	114	0	114	113	0.361	70 - 130	70 - 130
Ethyl tert-butyl ether (ETBE)	ND	10	109	106	2.86	104	108	3.75	70 - 130	70 - 130
Methanol	ND	2500	102	101	0.658	103	104	1.14	70 - 130	70 - 130
Methyl-t-butyl ether (MTBE)	ND	10	106	102	3.98	102	107	4.89	70 - 130	70 - 130
%SSI:	104	10	95	94	0.958	95	100	4.81	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 17027 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0507072-001B	7/06/05	7/09/05	7/09/05 4:23 PM	0507072-002B	7/06/05	7/09/05	7/09/05 5:05 PM
0507072-003B	7/06/05	7/09/05	7/09/05 5:48 PM	0507072-004B	7/06/05	7/09/05	7/09/05 6:30 PM
0507072-005B	7/06/05	7/09/05	7/09/05 7:12 PM	0507072-006B	7/06/05	7/09/05	7/09/05 7:54 PM
0507072-007B	7/06/05	7/09/05	7/09/05 8:37 PM	0507072-008B	7/06/05	7/09/05	7/09/05 9:19 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.

