SECOND QUARTER 2009 GROUNDWATER MONITORING REPORT

2836 UNION STREET
OAKLAND, CALIFORNIA

Prepared for:

ESTATE OF LARRY M. WADLER
2525 MANDELA PARKWAY
OAKLAND, CA 94607

May 2009

STELLAR
ENVIRONMENTAL SOLUTIONS, INC.
GEOSCIENCE & ENGINEERING CONSULTING

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2198 SIXTH STREET, SUITE 201
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May 7, 2009

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May 7, 2009

Ms. Barbara Jakub
Alameda County Environmental Health Care Services Agency
Department of Environmental Health – Local Oversight Program
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Subject: Second Quarter 2009 Groundwater Monitoring Report: Former Modern Mail Service, 2836 Union Street, Oakland, California, Alameda County Environmental Health Department Fuel Leak Case No. RO2901

Dear Ms. Jakub:

On behalf of the property owner and "Responsible Party" (Estate of Lawrence M. Wadler), Stellar Environmental Solutions, Inc. (SES) is submitting this Second Quarter 2009 Groundwater Monitoring Report for the former Modern Mail Service Facility at 2836 Union Street, Oakland, California. This report documents the Q2-2009 groundwater monitoring event related to petroleum contamination from a former underground fuel storage tank.

This is the 11th consecutive quarterly groundwater monitoring event conducted at this site. The report has been uploaded to ACEH and to the State Water Resources Control Board's GeoTracker system.

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report are true and correct to the best of my knowledge. If you have any questions regarding this report, please contact us at (510) 644-3123.

Sincerely,

Teal Glass, R.E.A.
Environmental Scientist

Elana Aabas
Property Estate Trustee

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

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1.0 INTRODUCTION

PROJECT BACKGROUND

Stellar Environmental Solutions, Inc. (SES) was contracted by Mr. Lawrence Wadler (property owner currently referred to as the Estate of Lawrence Wadler) to conduct corrective actions related to soil and groundwater contamination associated with a 10,000-gallon underground fuel storage tank (UFST) at 2836 Union Street in Oakland, California. A list of all known environmental reports is included in Section 6.0.

This report discusses the second quarter 2009 activities conducted on April 20, 2009. Figure 1 shows the site location. Figure 2 shows the site plan with the locations of groundwater wells, borings, and the former UFST.

SITE DESCRIPTION AND HISTORY

The approximately 7,200-square foot rectangular subject property is developed with one approximately 1,500-square foot two-story building. A narrow driveway borders the building to the north, and the rear of the property is undeveloped (paved). Adjacent uses include:

- A residence (to the north);
- A paved parking area (to the east);
- A residence (to the south); and
- A sidewalk, then Union Street, then a moving company (to the west).

The property operated as an express courier facility (Modern Mail Services, Inc.) between 1951 and 2003. One 10,000-gallon gasoline UFST was installed in the late 1970s. The UFST operated under an Alameda County Environmental Health permit (permit No. STID 4065) until it was removed in 1998. The tank closure report was submitted to the Oakland Fire Department (Golden Gate Tank Removal, 1998).

An initial site characterization conducted by SES in November 2005, which included the advancement of four borings, revealed gasoline and associated aromatic hydrocarbons at elevated levels in both soil and groundwater. That investigation was summarized in a technical report (SES, 2005b).

3-D TopoQuads Copyright © 1999 DeLorme Yarmouth, ME 04096

1000 ft Scale: 1 : 43,750 Detail: 12-2 Datum: WGS84

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

2836 Union Street
Oakland, CA

By: MJC | NOVEMBER 2005

Figure 1

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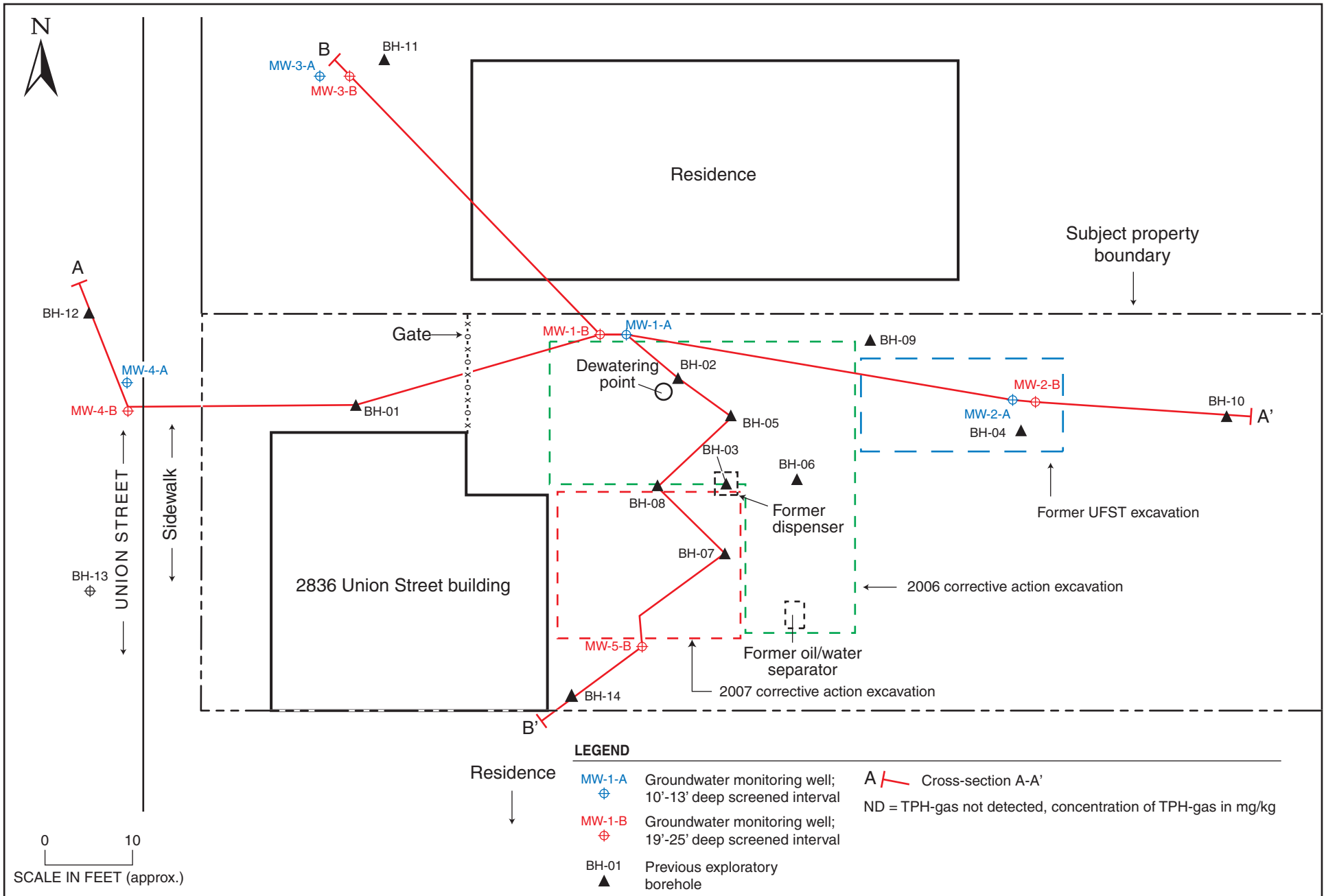
2005-65-01



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SITE PLAN SHOWING LOCATIONS OF SOIL BORINGS AND MONITORING WELLS
2836 Union Street, Oakland, CA

Figure 2

by: MJC | DECEMBER 2007

2005-65-62

Additional site investigations in April 2006 involved the advancement of nine exploratory boreholes to determine the areal and vertical extent of soil and groundwater contamination. Site data indicated the presence of petroleum hydrocarbons in soil and groundwater. Actions such as groundwater monitoring, and the removal of any remaining (accessible) contaminated soils by excavation, were recommended as an interim corrective action. The April 2006 investigation is summarized in a technical report (SES, 2006b).

A corrective action which implemented the April 2006 recommendations was conducted between September and December 2006. This involved the installation of ten monitoring wells, the advancement of one soil boring, the removal of 398 tons of contaminated soil, and the pumping of 5,100 gallons of contaminated groundwater from the backfilled excavation. Some residual contaminated soil was inaccessible for removal, and remained beneath the onsite building. Removal of this portion of the building and the previously inaccessible soil was conducted in November 2007. This corrective action was effective in removing 212 tons of contaminated soil; and included purging contaminated groundwater and applying Oxygen Reducing Compound (ORC) Advanced™ product into the open excavation. Monitoring well MW-5A was destroyed by excavation during the November 2007 activity. These investigations are summarized in SES technical reports (SES, 2006d and 2007f). The site wells have been monitored quarterly since October 2006. At the request of ACEH, a "Preferential Pathway Utility and Well Survey" was conducted during the fourth quarter of 2008, the results of which are discussed in another technical report (SES 2008e).

REGULATORY STATUS

The Alameda County Environmental Health Care Services Agency, Department of Environmental Health Services (ACEH) is the lead regulatory agency for the case, acting as a Local Oversight Program (LOP) for the Regional Water Quality Control Board – San Francisco Bay Region (Water Board). There are no ACEH or Water Board cleanup orders for the site; however, all site work has been conducted under the oversight of ACEH. ACEH assigned the site to its fuel leak case system (RO#2901), and the case officer assigned was Mr. Barney Chan. Mr. Chan transferred to another ACEH department in 2007 and the current case officer, Ms. Barbara Jakub was assigned to the case in the summer of 2008.

The case has been assigned No. T0600105641 in the Water Board's GeoTracker system. Electronic uploads of required data/reports are submitted to both agencies. The site has been granted a Letter of Commitment, and has been receiving financial reimbursement from the California Underground Storage Tank Cleanup Fund.

2.0 PHYSICAL SETTING

TOPOGRAPHY AND DRAINAGE

The mean elevation of the property is approximately 18 feet above mean sea level (amsl), and the general topographic gradient in the site vicinity is slight and to the west-southwest (toward San Francisco Bay). The site itself has no discernible slope. The nearest downgradient (to the west) permanent surface water body is the Airport Channel of San Leandro Bay (which is connected to San Francisco Bay), approximately 2 miles west of the subject property. According to the commercially available database, the site is not located within a flood zone or wetland.

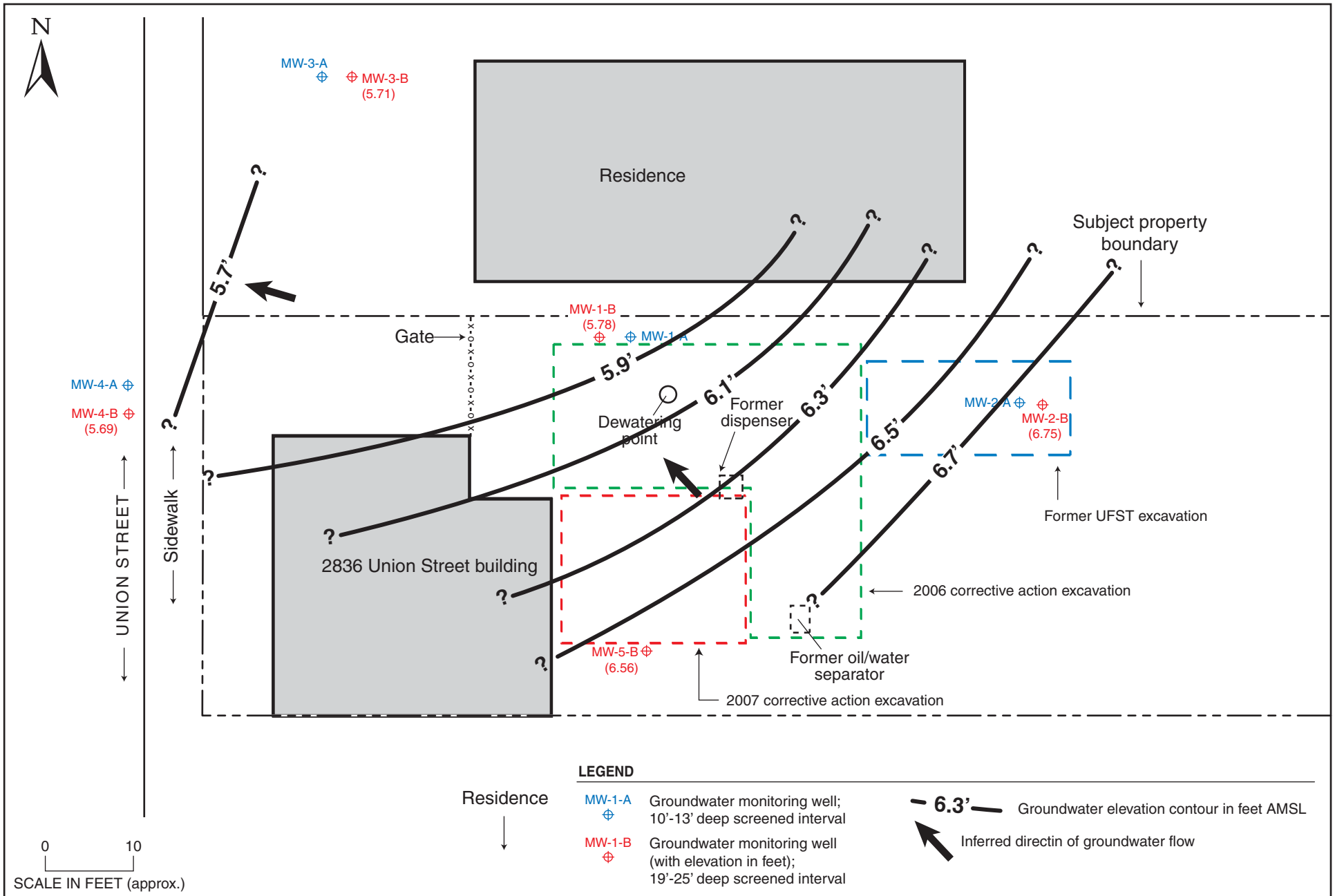
LITHOLOGY AND HYDROGEOLOGY

The predominant soil type in all site boreholes was generally firm and plastic silty clay. Several of the boreholes had no obvious sand or gravel units, although minor amounts of sand and gravel were occasionally present in the overall clay matrix. Groundwater occurred in these units with higher sandy-gravel than clay content. Local heterogeneities in shallow lithology and groundwater levels are typical of the alluvial deposits in this area.

Local groundwater flow direction is generally to the west (toward San Francisco Bay and following local topography) in this area of west Oakland. Groundwater in the immediate vicinity of the former UFST occurs at a depth of less than 10 feet, and appears to be under semi-confining conditions, rising from approximately 20 feet below ground surface to as high as 6 feet below grade such that groundwater is in contact with residual contaminated soil. The groundwater contaminant plume has not been fully delineated, but appears to have an elliptical configuration with the long axis trending east to west-northwest.

GROUNDWATER FLOW DIRECTION

Figure 3 is a groundwater elevation map based on the April 20, 2009 groundwater elevation measurements. The flow direction during the April 2009 event was found to be toward the west-northwest (toward San Francisco Bay), generally parallel to the long dimension of the groundwater contaminant plume. The subject property groundwater gradient during this event was approximately 0.01 feet/foot. The groundwater gradient has varied since October 2006 between approximately 0.001 feet/foot and 0.01 feet/foot, averaging approximately 0.005 feet/foot.



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GROUNDWATER ELEVATION MAP (B-WELLS)

2836 Union Street, Oakland, CA

Figure 3

by: MJC | MAY 2009

2005-65-78

3.0 SECOND QUARTER 2009 GROUNDWATER MONITORING

This section presents the groundwater sampling and analytical methods for the most recent event (Second Quarter 2009), conducted on April 20, 2009.

GROUNDWATER MONITORING

Groundwater monitoring well water level measurements, sampling, and field analyses were conducted by SES on April 20, 2009. To minimize the potential for cross-contamination, wells were purged and sampled using new disposable tubing at each well. Any equipment used was decontaminated between wells.

As the first monitoring task, static water levels were measured in the nine site wells using an electric water level indicator. Monitoring well MW-5A was destroyed by excavation during the November 2007 corrective action and thus is no longer available for monitoring. The wells were then sampled with a peristaltic pump, during which the groundwater quality parameters of temperature, pH, conductivity, turbidity, and dissolved oxygen were field-measured using daily-calibrated instruments. Approximately 6 gallons of sampling purge water was generated and containerized onsite, and will be disposed of at later date after subsequent monitoring events and additional purge water has accumulated. The samples were placed in an ice chest with ice at approximately 4°C and transported to the analytical laboratory under chain-of-custody the same day. Laboratory analysis was conducted by Curtis and Tompkins, Ltd. (Berkeley, California), an analytical laboratory certified by the State of California Environmental Laboratory Accreditation Program (ELAP).

The locations of all site monitoring wells are shown on Figure 2. Well construction information and groundwater elevation data are summarized in Table 1. Appendix A contains the groundwater monitoring field records for the current event. Appendix B outlines SES's standard sampling protocol for groundwater. Groundwater analytical results are presented and discussed in Section 4.0. Historical groundwater elevation data and analytical results are contained in Appendix D.

Table 1
Monitoring Well Groundwater Elevation Data – April 20, 2009
2836 Union Street, Oakland, California

Well	Well Depth Below TOC	Rim Elevation	TOC Elevation	Groundwater Elevation (4/20/09)
MW-1A	12.59	12.52	12.25	6.63
MW-1B	22.52	12.48	12.05	5.78
MW-2A	12.69	13.06	12.82	6.35
MW-2B	24.59	13.16	12.96	6.75
MW-3A	13.06	11.76	11.59	6.01
MW-3B	25.06	12.10	11.95	5.71
MW-4A	12.28	11.25	11.02	5.57
MW-4B	24.32	11.25	11.04	5.69
MW-5B	25.39	12.57	12.38	6.56

Notes:

TOC = top of casing

Wells are 1-inch diameter.

All elevations are in feet above mean sea level.

4.0 REGULATORY CONSIDERATIONS, ANALYTICAL RESULTS, AND DISCUSSION OF FINDINGS

REGULATORY CONSIDERATIONS AND SCREENING LEVELS

The Water Board has established Environmental Screening Levels (ESLs) for evaluating the likelihood of environmental impact. ESLs are conservative screening-level criteria for soil and groundwater, designed to be generally protective of both drinking water resources and aquatic environments; they incorporate both environmental and human health risk considerations. ESLs are not cleanup criteria (i.e., health-based numerical values or disposal-based values). Rather, they are used as a preliminary guide in determining whether additional remediation and/or investigation may be warranted. Exceedance of ESLs suggests that additional investigation and/or remediation is warranted.

Different ESLs are published for commercial/industrial vs. residential land use, for sites where groundwater is a potential drinking water resource vs. is not a drinking water resource, and the type of receiving water body. A Water Board-published map of the East Bay shows areas where groundwater is, and is not, a potential drinking water resource.

The appropriate ESLs for the subject site are based on the following:

- Residential land use (due to the residences adjoining the property) and commercial/ industrial use (for the subject property itself). Note that, for both soil and groundwater contaminants, all ESLs for the site contaminants are the same for both residential and commercial/industrial land use.
- Groundwater <u>is</u> a potential drinking water resource. In our professional opinion, the appropriate ESLs for the subject site are *commercial/industrial land use* and *groundwater is a potential drinking water resource.* This is based on both the property zoning status (commercial/industrial) and the designation of this area of Oakland as "Zone A – Significant Drinking Water Resource (Water Board, 1999).
- The receiving body for groundwater discharge is an estuary (San Francisco Bay).

The State of California has also promulgated drinking water standards (Maximum Contaminant Levels [MCLs]) for some of the site contaminants. Drinking water standards may also be utilized by regulatory agencies to evaluate the potential risk associated with groundwater

contamination. For the site contaminants, MCLs are generally the same as the ESLs (except that there is no MCL for gasoline).

Once ESLs or drinking water standards are exceeded, the need for, and/or type of additional investigative and corrective actions are generally driven by the potential risk associated with the contamination. Minimum regulatory criteria generally applied to fuel leak cases in groundwater include:

- The contaminant source has been removed, including reasonably accessible contaminated soils that pose a long-term impact to groundwater;
- The extent of residual contamination has been fully characterized to obtain sufficient lithologic and hydrogeologic understanding (generally referred to as a Site Conceptual Model);
- Groundwater wells have been installed and are monitored periodically to evaluate groundwater contaminant concentrations and hydrochemical trends;
- The stability of the contaminant plume has been evaluated to determine whether it is moving or increasing in concentration; and
- A determination has been made as to whether the residual contamination poses an unacceptable risk to sensitive receptors.

As stated above, ESLs are used as a preliminary guide in determining whether additional remediation or other action is warranted. Exceeding ESLs may warrant additional actions, such as monitoring plume stability to demonstrate no risk to sensitive receptors in the case of sites where drinking water is not threatened.

ANALYTICAL METHODS

The initial site characterization documented contamination by the following LUFT-related constituents: gasoline; benzene toluene, ethyl benzene, and xylenes (BTEX); and methyl *tertiary*-butyl ether (MTBE). In addition, several other contaminants were analyzed (as required by ACEH)—ethanol; fuel oxygenates (*tertiary*-butyl alcohol [TBA], di-isopropyl ether [DIPE], ethyl *tertiary*-butyl ether [ETBE], and *tertiary*-amyl methyl ether [TAME]); and lead scavengers (1,2-dichloroethane [EDC] and 1,2-dibromoethane [EDB]). Fuel oxygenates and lead scavengers were analyzed in monitoring wells for which there were no data, or in those that showed previous laboratory detectable concentrations for these constituents.

Groundwater samples were analyzed using the following methods for:

- Total volatile hydrocarbons (TVH) gasoline range by EPA Method 8015M;
- BTEX and MTBE by EPA Method 8260;

- TBA, DIPE, ETBE, and TAME by EPA Method 8260B (in accordance with ACEH requirement); and
- EDC and EDB by EPA Method 8260B (in accordance with ACEH requirement).

All groundwater samples were analyzed by Curtis & Tompkins, Ltd. (Berkeley, California) which maintains current ELAP certifications for all the analytical methods utilized in this investigation.

Field parameters including temperature, pH, conductivity, turbidity, and dissolved oxygen were measured using a Horiba U22 meter, which was calibrated the same day of sample collection.

QUALITY CONTROL SAMPLE ANALYTICAL RESULTS

Laboratory quality control (QC) samples (e.g., method blanks, matrix spikes, surrogate spikes) were analyzed by the laboratory in accordance with requirements of each analytical method. All laboratory QC sample results and sample holding times were within the acceptance limits of the methods (see Appendix C).

ANALYTICAL RESULTS AND DISTRIBUTION OF CONTAMINANTS

Tables 2 and 3 summarize the groundwater monitoring analytical results for TVHg, and associated constituents and the dissolved oxygen field measurements. Table 3 presents the analytic results of the fuel oxygenates and lead scavengers analyses. The certified analytical results and chain of custody record are contained in Appendix C. Historical groundwater-monitoring analytical results are contained in Appendix D.

Groundwater Analytical Results

TVH as gasoline was detected above the ESL of 100 micrograms per liter (µg/L) in monitoring wells MW-1B, MW-2A, MW-2B, MW-3B, MW-4B, and MW-5B. TVH as gasoline was also detected in monitoring well MW-1A, but below the ESL. No other monitoring wells had detections of TVH as gasoline above the laboratory detection limit. MTBE was detected above its ESL of 5.0 µg/L in wells MW-1A, MW-1B, MW-2B, MW-3A, MW-4A, and MW-5B. MTBE was not found above the laboratory detection limit in any of the other wells sampled.

Benzene and ethyl benzene were detected in well MW-1A. Benzene was found above the ESL of 1.0 µg/L; however, ethyl benzene was well below the ESL of 30 µg/L. Benzene and ethyl benzene were not detected above the laboratory detection limit in any of the other wells sampled. Total xylenes and toluene were not found above the laboratory detection limit in any of the wells during this event.

The lead scavenger 1,2-dichloroethane was detected above the ESL of 0.5 µg/L in well MW-1B, MW-2B, MW-3A, and MW-4A. Tertiary-amyl methyl ether (TAME) was detected in well MW-1A and MW-5B; however, there is no published ESL for this constituent. Tertiary butyl alcohol (TBA) was detected in MW-1A at 12 µg/L, which is the ESL. None of the other lead scavengers analyzed for were detected above the laboratory detection limits in any of the other groundwater monitoring wells.

Figure 4 shows an isoconcentration contour map of TVH as gasoline concentrations in groundwater based on the April 2009 monitoring well analytical results. The plume geometry indicates a west-by-northwest migrational pattern, which is in line with general groundwater flow direction in this area.

Contaminant concentrations have increased since the Q1-2009 sampling event in all wells but MW-5B, which slightly decreased. The concentration remained below the laboratory detection limit in wells MW-3A and MW-4A. In addition, increases as compared to April of 2008 were observed in all the B zone wells, while decreases or no change was observed in the A zone wells. New historical maximum TVHg concentrations were observed in MW-1B, MW-3B, and MW-4B.

Table 2
Groundwater Sample Analytical Results – April 20, 2009
TVHg, BTEX, and MTBE,
2836 Union Street, Oakland, California

Sample	TVHg	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	DO_2
Monitoring Wells							
MW-1A	89	**8.7**	*<0.5*	0.75	<0.5	**150**	7,100
MW-1B	**1,400**	*<1.0*	*<1.0*	*<1.0*	*<1.0*	**7.7**	6,200
MW-2A	**110**	*<0.5*	*<0.5*	*<0.5*	*<0.5*	1.9	5,800
MW-2B	**250**	*<0.5*	*<0.5*	*<0.5*	*<0.5*	**30**	5,800
MW-3A	<50	*<0.5*	*<0.5*	*<0.5*	*<0.5*	**52**	8,100
MW-3B	**4,900**	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<2.0*	5,300
MW-4A	*<50*	*<0.5*	*<0.5*	*<0.5*	*<0.5*	**11**	7,100
MW-4B	**3,700**	*<4.2*	*<4.2*	*<4.2*	*<4.2*	*<4.2*	5,200
MW-5B	**220**	*<0.5*	*<0.5*	*<0.5*	*<0.5*	**73**	5,900
Groundwater ESLs	100 / 210	1.0 / 46	40 / 130	30 / 43	20 / 100	5 / 1,800	NLP

Notes:
ESLs = Water Board Environmental Screening Levels for commercial/industrial sites where groundwater *is/is not* a potential drinking water resource. Sample concentrations in **bold-face** type exceed the ESL criterion where groundwater is a potential drinking water resource.
MTBE = methyl tertiary-butyl ether; TVHg = total volatile hydrocarbons as gasoline ; DO_2 = dissolved oxygen
NA = not analyzed for this constituent; NS = not sampled, insufficient sample amount; NLP = no level published
All concentrations are in micrograms per liter (µg/L).

Table 3
Groundwater Sample Analytical Results – April 20, 2009
Lead Scavengers and Fuel Oxygenates,
2836 Union Street, Oakland, California

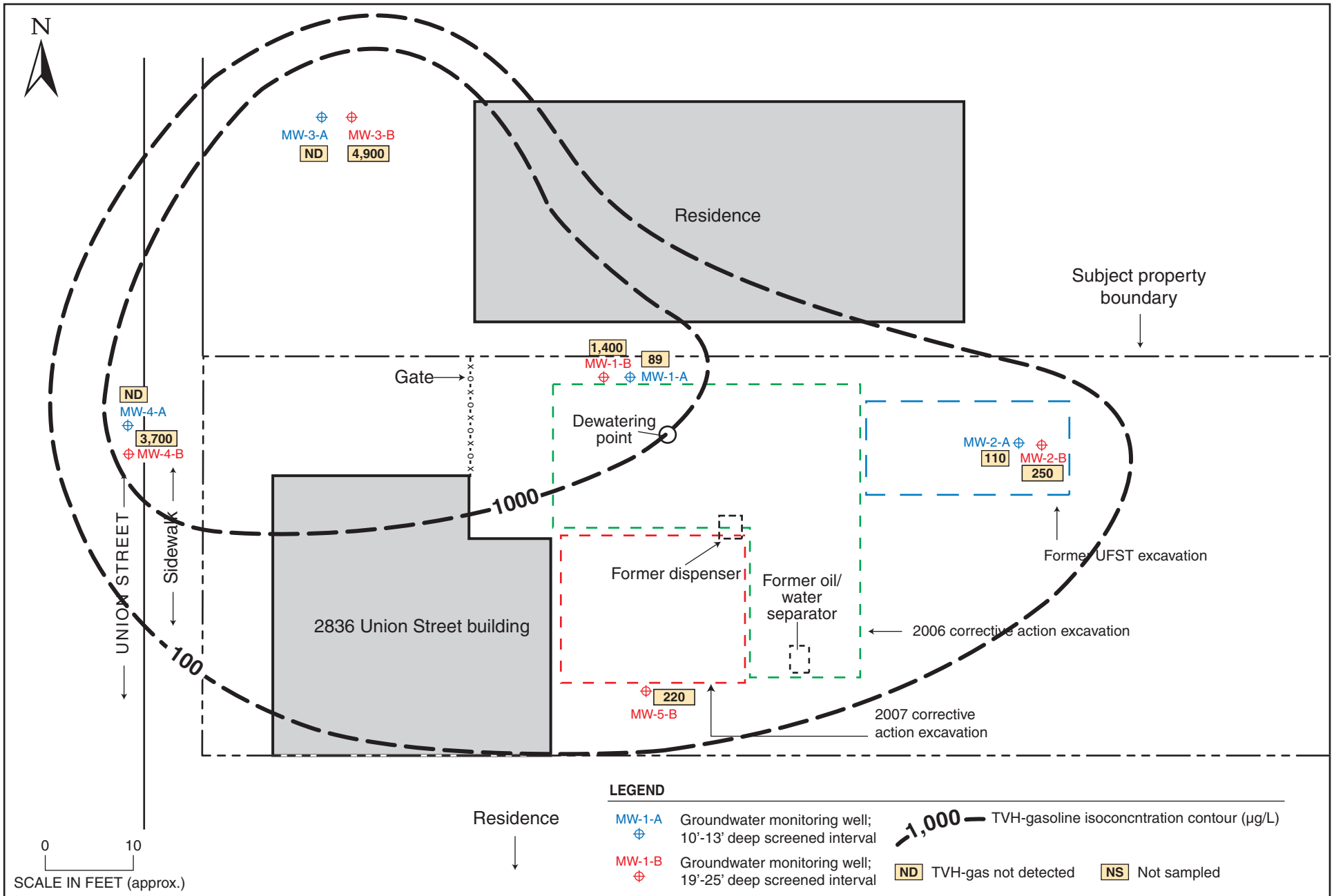
Sample I.D.	EDC	EDB	ETBE	DIPE	TAME	TBA
Groundwater Analyses (µg/L)						
MW-1A	*<0.5*	*<0.5*	*<0.5*	<0.5	0.8	**12**
MW-1B	**2.9**	*<1.0*	*<1.0*	*<1.0*	*<1.0*	*<20*
MW-2A	<0.5	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<10*
MW-2B	**2.4**	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<10*
MW-3A	**1.2**	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<10*
MW-3B	*<5.0*	*<5.0*	*<5.0*	*<5.0*	*<5.0*	*<100*
MW-4A	**11**	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<10*
MW-4B	*<4.2*	*<4.2*	*<4.2*	*<4.2*	*<4.2*	*<83*
MW-5B	*<0.5*	*<0.5*	*<0.5*	*<0.5*	3.5	*<10*
Groundwater ESLs	0.5 / 690	0.05 / 510	NLP	NLP	NLP	12/ 18,000

Notes:
ESLs = Water Board Environmental Screening Levels for residential sites where groundwater *is/is not* considered a potential drinking water resource. Sample concentrations in **bold-face** type exceed the ESL criterion where groundwater is a potential drinking water resource.
EDB = ethylene dibromide ; EDC = ethylene dichloride ; ETBE = ethyl tertiary-butyl ether; DIPE = isopropyl ether
TAME = tertiary-amyl methyl ether; TBA = tertiary-butyl alcohol;
NA = not analyzed for this constituent; NS = not sampled; NLP = no level published
All concentrations are in micrograms per liter (µg/L).

Dissolved Oxygen

Dissolved oxygen (DO) is the most thermodynamically-favored electron acceptor used in aerobic biodegradation of hydrocarbons. Active aerobic biodegradation of petroleum hydrocarbon compounds requires at least one to two mg/L of DO in groundwater. During aerobic biodegradation, DO levels are reduced in the hydrocarbon plume as respiration occurs. Therefore, DO levels that vary inversely to hydrocarbon concentrations are consistent with the occurrence of aerobic biodegradation.

DO concentrations, shown in Table 3, were measured in wells during the current event and ranged from 5.2 mg/L to 8.1 mg/L. These concentrations indicate that the conditions in groundwater are favorable to aerobic biodegradation. In addition, the measurements generally show the expected inverse relationship of lower DO in wells containing higher hydrocarbon concentrations. The relatively high DO concentrations suggest that the November 2007 ORC™ treatment is still active in releasing oxygen in the subsurface formation. However, the effectiveness of the ORC has diminished over the last 1.5 years since the last injection.



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TVH-GASOLINE PLUME — APRIL 20, 2009, B-ZONE WELLS
2836 Union Street, Oakland, CA

Figure 4

by: MJC | MAY 2009

2005-65-79

5.0 SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

SUMMARY AND CONCLUSIONS

- One 10,000-gallon gasoline UFST was installed in the late 1970s. The UFST operated under an Alameda County permit until its removal in 1998.
- A preliminary investigation was conducted in August 2005, additional site characterization investigations were conducted in October 2005 and April 2006, and corrective action entailing contaminated soil excavation and the installation of ten monitoring wells was conducted in September to October 2006. The remaining accessible contaminated soil was removed in November 2007 from beneath the former garage building, and the excavation area was treated with ORC® product. The November 2007 corrective action also entailed destruction by excavation of monitoring well MW-5A.
- The primary source (UFST) and secondary source (contaminated soil) have been remediated by excavation. All known accessible residual contaminated soil has been excavated from this site. Residual TVH as gasoline soil contamination (790 to 270 mg/kg) above regulatory ESLs was documented during the October 2006 corrective action along the northern property boundary, but was inaccessible for removal over the property line.
- The subject property groundwater gradient measured approximately 0.01 feet/foot during the April 2009 event and was found to flow to the north-northwest, which is consistent with historical data.
- TVH as gasoline was detected above the ESL of 100 micrograms per liter (µg/L) in monitoring wells MW-1B, MW-2A, MW-2B, MW-3B, MW-4B, and MW-5B. TVH as gasoline was also detected in monitoring well MW-1A, but below the ESL. No other monitoring wells had detections of TVH as gasoline above the laboratory detection limit.
- MTBE was detected above its ESL of 5.0 µg/L in wells MW-1A, MW-1B, MW-2B, MW-3A, MW-4A, and MW-5B. MTBE was not found above the laboratory detection limit in any of the other wells sampled.
- Benzene and ethyl benzene were detected in well MW-1A. Benzene was found above the ESL of 1.0 µg/L; however, ethyl benzene was well below the ESL of 30 µg/L. Benzene and ethyl benzene were not detected above the laboratory detection limit in any of the other wells sampled.

- Total xylenes and toluene were not found above the laboratory detection limit in any of the wells during this event.
- The lead scavenger 1,2-dichloroethane was detected above the ESL of 0.5 µg/L in well MW-1B, MW-2B, MW-3A, and MW-4A. Tertiary-amyl methyl ether (TAME) was detected in well MW-1A and MW-5B; however, there is no published ESL for this constituent. Tertiary butyl alcohol (TBA) was detected in MW-1A at 12 µg/L, which is the same as the ESL. None of the other lead scavengers analyzed for were detected above the laboratory detection limits in any of the other groundwater monitoring wells.
- Contaminant concentrations have increased since the Q1-2009 sampling event in all wells but MW-5B, which slightly decreased. The concentration remained below the laboratory detection limit in wells MW-3A and MW-4A. In addition, increases as compared to April of 2008 were observed in all the B zone wells, while decreases or no change was observed in the A zone wells. New historical maximum TVHg concentrations were observed in MW-1B, MW-3B, and MW-4B.
- At the request of ACEH, analysis for lead scavengers and fuel oxygenates is limited to the wells with a historical detection—namely, MW-1A, MW-1B, MW-2B, MW-3A, MW-3B, MW-4B and MW-5B.
- DO concentrations measured in wells during the current event ranged from 5.2 mg/L to 8.1 mg/L and indicate conditions favorable to aerobic biodegradation of hydrocarbon contaminants.
- The groundwater contaminate plume has not been fully delineated, but appears to be in elliptical configuration with its long axis trending east by west-northwest.
- At the request of ACEH, a "Preferential Pathway and Offsite Utility and Well Survey was conducted during the 4th Quarter 2008. The survey concluded that it would be unlikely that nearby wells would be impacted by the plume and there is insignificant risk of migration of site contaminated groundwater into any utility-related preferential pathway.
- It has been l7 months since the November 2007 corrective action excavation and application of ORC™. While the ORC™ treatment appears to have been and possibly continues to be effective in lowering contaminant concentrations in the source area, historical maximum TVHg concentrations observed in MW-1B, MW-3B, and MW-4B during this event suggest that additional treatment may be necessary to remediate contamination that has migrated away from the source area. At the current groundwater velocity, it is likely that elevated (above regulatory ESLs) contaminant concentrations in these wells will persist for at least 4 to 6 years.

RECOMMENDATIONS

- Additional remediation consisting of limited excavation-backfill purging to control hydraulic migration (and achieve some measure of mass recovery) and injection of ORC™ or similar compound in the vicinity of wells MW-3B and MW-4B is recommended to mitigate the increased concentrations in those downgradient wells. In addition, injection of ORC-like product is recommended in the area of the residual source contamination excavation area on the northern subject property boundary (following groundwater purging) to address contamination in the vicinity of well MW-1B.
- SES recommends following up with ACEH following its receipt of this report, to discuss the requirements to move the site toward regulatory closure. We further recommend that the ACEH-requested work be implemented, and that all future technical reports be provided to the appropriate regulatory agencies, including electronic uploads ACEH's "ftp" system and the State Water Board's GeoTracker system.
- Continued quarterly groundwater monitoring of site wells should be continued as requested by ACEH to monitor the level of breakdown accomplished by the ORC application, to evaluate the magnitude and stability of the contaminant plume over time, and to determine whether site closure criteria can be met.
- Reimbursement requests should continue to be submitted under the State of California Petroleum UST Cleanup Fund.

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7.0 LIMITATIONS

This report has been prepared for the exclusive use by the Estate of Mr. Lawrence Wadler (subject property owner), the regulatory agencies, and their authorized assigns and/or representatives. No reliance on this report shall be made by anyone other than those for whom it was prepared.

The findings and conclusions presented in this report are based solely on the findings of the investigations discussed herein. This report has been prepared in accordance with generally accepted methodologies and standards of practice of the area. The personnel performing this assessment are qualified to perform such investigations and have accurately reported the information available, but cannot attest to the validity of that information. No warranty, expressed or implied, is made as to the findings, conclusions, and recommendations included in the report.

APPENDIX A

GROUNDWATER MONITORING AND SAMPLING FIELD REPORT

STELLAR
ENVIRONMENTAL SOLUTIONS, INC.
2198 SIXTH STREET, SUITE 201 · BERKELEY, CA 94710
TEL: (510)644-3123 · FAX: (510)644-3859
GEOSCIENCE & ENGINEERING CONSULTING

WELL MONITORING DATA SHEET

Project #: 2005-65	Client: Wadler Trust
Sampler: TG	Start Date: 4-20-09
Well I.D.: MW-1A	Well Diameter: (circle one) 2 3 4 6 3/4
Total Well Depth: Before 12.43 After	Depth to Water: Before 5.62 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade	Other:

Well Diameter	VCF	Well Diameter	VCF
1" 3/4" = 0.02	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

0.14 (1 Case Volume) x 3 (Specified Volumes) = 0.41 gallons

Purging: Bailer
Disposable Bailer
Middleburg
Electric Submersible
(Extraction Pump)
Other

Sampling: Bailer
Disposable Bailer
Extraction Port
Other New tubing

DO	TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
9.9	0949	18.5	6.74	0.12	24	0.2	
7.1	0950	17.7	6.57	0.12	8	0.3	
	0951	Dewatered					

Did Well Dewater? Y If yes, gals. 0.32 Gallons Actually Evacuated: 0.4

Sampling Time: 1205 Sampling Date: 4-20-09

Sample I.D.: MW-1A Laboratory: C+T

Analyzed for: (TPH-G) (BTEX) TPH-D OTHER: + 8260 B

Duplicate I.D.: NA Cleaning Blank I.D.: NA

Analyzed for: TPH-G BTEX TPH-D OTHER: NA

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GEOSCIENCE & ENGINEERING CONSULTING

WELL MONITORING DATA SHEET

Project #: 2005-65	Client: Wadler Trust
Sampler: TG	Start Date: 4-20-09
Well I.D.: MW-1B	Well Diameter: (circle one) 2 3 4 6 3/4
Total Well Depth: Before 22.5 After	Depth to Water: Before 6.27 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade	Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2" 3/4" = 0.02	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

0.32 (1 Case Volume) x 3 (Specified Volumes) = 0.97 gallons

Purging: Bailer / Disposable Bailer / Middleburg / Electric Submersible / (Extraction Pump) / Other _____

Sampling: Bailer / Disposable Bailer / Extraction Port / Other tubing

DO	TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
8.2	0922	17.9	6.46	0.13	980	0.3	
6.9	0925	17.9	6.43	0.13	31	0.6	
6.2	0927	18.0	6.35	0.13	85	1.0	

Did Well Dewater? N If yes, gals. Gallons Actually Evacuated: 1.0

Sampling Time: 0930 Sampling Date: 4.20.09

Sample I.D.: MW-1B Laboratory: C+T

Analyzed for: (TPH-G BTEX) TPH-D OTHER: + 8260 B

Duplicate I.D.: NA Cleaning Blank I.D.: NA

Analyzed for: TPH-G BTEX TPH-D OTHER: NA

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WELL MONITORING DATA SHEET

Project #: 2005-65	Client: Wadler Trust
Sampler: JG	Start Date: 4-20-09
Well I.D.: MW-2A	Well Diameter: (circle one) 2 3 4 6 3/4"
Total Well Depth: Before 12.75 After	Depth to Water: Before 6.47 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade Other:	

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2" 3/4" = 0.02	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

0.13 (1 Case Volume) x 3 (Specified Volumes) = 0.38 gallons

Purging: Bailer
Disposable Bailer
Middleburg
Electric Submersible
(Extraction Pump)
Other

Sampling: Bailer
Disposable Bailer
Extraction Port
Other disposable tubing

DO	TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
7.7	1018	18.4	6.81	0.11	5	0.2	
6.2	1021	18.2	6.79	0.11	3	0.3	
5.8	1023	18.2	6.79	0.11	0	0.4	

Did Well Dewater? N If yes, gals. Gallons Actually Evacuated: 0.4

Sampling Time: 1024 Sampling Date: 4-20-09

Sample I.D.: MW-2A Laboratory: C+T

Analyzed for: (TPH-G BTEX) TPH-D OTHER:
(Circle)

Duplicate I.D.: NA Cleaning Blank I.D.: NA

Analyzed for: TPH-G BTEX TPH-D OTHER:
(Circle)
NA

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WELL MONITORING DATA SHEET

Project #: 2005-65	Client: Wadler Trust
Sampler: TS	Start Date: 4-20-09
Well I.D.: MW-2B	Well Diameter: (circle one) 2 3 4 6 3/4
Total Well Depth: Before 24.61 After	Depth to Water: Before 6.21 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade	Other:

Well Diameter	VCF	Well Diameter	VCF
1" 3/4"=0.02	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

0.34 (1 Case Volume) x 3 (Specified Volumes) = 1.1 gallons

Purging: Bailer
Disposable Bailer
Middleburg
~~Electric Submersible~~
(Extraction Pump)
Other

Sampling: Bailer
Disposable Bailer
Extraction Port
Other tubing

DO	TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
6.5	1037	18.9	6.86	0.13	130	0.3	
5.8	1042	19.8	6.76	0.16	460	0.7	
	1043	Dewatered					

Did Well Dewater? Y If yes, gals. Gallons Actually Evacuated:

Sampling Time: 1225 Sampling Date: 4-20-09

Sample I.D.: MW-2B Laboratory: C+T

Analyzed for: (TPH-G) BTEX TPH-D OTHER: 8260 B
(Circle)

Duplicate I.D.: NA Cleaning Blank I.D.: NA

Analyzed for: TPH-G BTEX TPH-D OTHER: NA
(Circle)

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Geoscience & Engineering Consulting

WELL MONITORING DATA SHEET

Project #: 2005-65	Client: Wadler Trust
Sampler: MW-3A	Start Date: 4-20-09
Well I.D.: MW-3A	Well Diameter: (circle one) 2 3 4 6 3/4"
Total Well Depth: Before 12.96 After	Depth to Water: Before 5.58 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade	Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2" 3/4" = 0.02	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

0.15 (1 Case Volume) x 3 (Specified Volumes) = 0.44 gallons

Purging: Bailer
Disposable Bailer
Middleburg
~~Electric Submersible~~
(Extraction Pump)
Other _____

Sampling: Bailer
Disposable Bailer
Extraction Port
Other tubing

DO	TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
8.1	1151	16.4	6.77	0.15	50	0.2	
	1152	Dewatered				0.3 ~~0.5~~	

Did Well Dewater? Y If yes, gals. Gallons Actually Evacuated:

Sampling Time: 1250 Sampling Date: 4-20-09

Sample I.D.: MW-3A Laboratory: C+T

Analyzed for: (TPH-G) (BTEX) TPH-D OTHER: 8260B

Duplicate I.D.: NA Cleaning Blank I.D.: NA

Analyzed for: TPH-G BTEX TPH-D OTHER: NA

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WELL MONITORING DATA SHEET

Project #: 2005-65	Client: Wadler Trust
Sampler: TG	Start Date: 4-20-09
Well I.D.: MW-3B	Well Diameter: (circle one) 2 3 4 6 3/4"
Total Well Depth: Before 25.03 After	Depth to Water: Before 6.24 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade	Other:

Well Diameter	VCF	Well Diameter	VCF
1" 3/4" = 0.02	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

0.38 (1 Case Volume) x 3 (Specified Volumes) = 1.1 gallons

Purging: Bailer
Disposable Bailer
Middleburg
Electric Submersible
(Extraction Pump)
Other

Sampling: Bailer
Disposable Bailer
Extraction Port
Other tubing

DO	TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
6.2	1136	18.0	666	91.5	27	0.4	
5.7	1138	17.8	662	91.6	21	0.7	
5.3	1140	17.8	656	91.5	28	1.1	

Did Well Dewater? N If yes, gals. Gallons Actually Evacuated: 1.1

Sampling Time: 1142 Sampling Date: 4-20-09

Sample I.D.: MW-3B Laboratory: C+T

Analyzed for: (TPH-G) BTEX TPH-D OTHER: MTBE
(Circle)

Duplicate I.D.: NA Cleaning Blank I.D.: NA

Analyzed for: TPH-G BTEX TPH-D OTHER: NA
(Circle)

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WELL MONITORING DATA SHEET

Project #: 2005-65 Client: Wadler Trust

Sampler: TG Start Date: 4-20-09

Well I.D.: MW-4A Well Diameter: (circle one) 2 3 4 6 3/4"

Total Well Depth: Before 12.12 After

Depth to Water: Before 5.45 After

Depth to Free Product:

Thickness of Free Product (feet):

Measurements referenced to: (PVC) Grade Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2" 3/4" = 0.02	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

0.13 (1 Case Volume) x 3 (Specified Volumes) = 0.4 gallons

Purging: Bailer
Disposable Bailer
Middleburg
~~Electric Submersible~~
(Extraction Pump)
Other

Sampling: Bailer
Disposable Bailer
Extraction Port
Other Tubing

DO	TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
7.1	1120	18.5	6.65	0.13	570	0.2	
	1121	Dewatered					

Did Well Dewater? Y If yes, gals. 0.25 Gallons Actually Evacuated: 0.3

Sampling Time: 1240 Sampling Date: 4-20-09

Sample I.D.: MW-4A Laboratory: C+T

Analyzed for: (TPH-G BTEX) TPH-D OTHER:
(Circle)
MTBE

Duplicate I.D.: NA Cleaning Blank I.D.: NA

Analyzed for: TPH-G BTEX TPH-D OTHER:
(Circle)
NA

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GEOSCIENCE & ENGINEERING CONSULTING

WELL MONITORING DATA SHEET

Project #: 2005-65	Client: Wadler Trust
Sampler: TG	Start Date: 4-20-09
Well I.D.: MW-4B	Well Diameter: (circle one) 2 3 4 6 3/4"
Total Well Depth: Before 24.27 After	Depth to Water: Before 5.35 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade	Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2" 3/4"=0.02	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

0.38 (1 Case Volume) x 3 (Specified Volumes) = 1.1 gallons

Purging: Bailer
Disposable Bailer
Middleburg
Electric ~~Submersible~~
(Extraction Pump)
Other

Sampling: Bailer
Disposable Bailer
Extraction Port
Other Tubing

DO	TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
6.4	1104	18.1	6.76	0.09	370	0.4	
5.5	1107	18.1	6.62	0.09	240	0.8	
5.2	1110	18.1	6.55	0.09	64	1.1	

Did Well Dewater? N If yes, gals. Gallons Actually Evacuated:

Sampling Time: 1112 Sampling Date: 4-20-09

Sample I.D.: MW-4B Laboratory: C+T

Analyzed for: (TPH-G BTEX) TPH-D OTHER:
(Circle) MTBE

Duplicate I.D.: NA Cleaning Blank I.D.: NA

Analyzed for: TPH-G BTEX TPH-D OTHER:
(Circle) NA

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GEOSCIENCE & ENGINEERING CONSULTING

WELL MONITORING DATA SHEET

Project #: 2005-65	Client: Wadler Trust
Sampler: MW-5B	Start Date: 4-20-09
Well I.D.: MW-5B	Well Diameter: (circle one) 2 3 4 6 3/4"
Total Well Depth: Before 25.30 After	Depth to Water: Before 5.82 After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: (PVC) Grade	Other:

Well Diameter	VCF	Well Diameter	VCF
1" 3/4" = 0.02	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

0.39 (1 Case Volume) x 3 (Specified Volumes) = 1.2 gallons

Purging: Bailer
Disposable Bailer
Middleburg
Electric Submersible
(Extraction Pump)
Other

Sampling: Bailer
Disposable Bailer
Extraction Port
Other tubing

DO	TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
7.3	1003	17.8	6.74	0.11	19	0.4	odor
5.9	1007	17.9	6.50	0.10	140	0.8	
	1009	Dewatered					

Did Well Dewater? Y If yes, gals. 1.0 Gallons Actually Evacuated: 1.1

Sampling Time: 1215 Sampling Date: 4.20-09

Sample I.D.: MW-5B Laboratory: C+T

Analyzed for: (TPH-G BTEX) TPH-D OTHER:
(Circle) 8260B

Duplicate I.D.: NA Cleaning Blank I.D.: NA

Analyzed for: TPH-G BTEX TPH-D OTHER:
(Circle) NA

Chain of Custody Record

Lab job no. _____
Date _____
Page ____ of ____

Laboratory C+T
Address 2323 Fifth St. Berkeley, CA

Project Owner Wadler Trust
Site Address 2836 Union St. Oakland, CA

Project Name _____
Project Number 2005-65

Method of Shipment Hand
Shipment No. —
Airbill No. —
Cooler No. —
Project Manager Teal Glass
Telephone No. (510) 644-3123
Fax No. (510) 644-3859
Samplers: (Signature) Teal Glass

Field Sample Number	Location/ Depth	Date	Time	Sample Type	Type/Size of Container	Preservation: Cooler	Preservation: Chemical	Filtered	No. of Containers	TVHg BTEX MTBE	Oxygenates by 8260B	Remarks
MW-1A	1A	4-20-09	1205	W	VOA -6 2	Y	Y	N	6	X	X	run g+BTEX first
MW-1B	1B		0930		-6				6	X	X	
MW-2A	2A		1024		-3				3	X		
MW-2B	2B		1225		-6				6	X	X	
MW-3A	3A		1250		-6 3				6	X	X	run g+BTEX first
MW-3B	3B		1142		-3				3	X		
MW-4A	4A		1240		-3 1				3	X		run g+BTEX first
MW-4B	4B		1112		-3				3	X		
MW-5B	5B		1215		-6				6	X	X	

Relinquished by:	Date	Received by:	Date	Relinquished by:	Date	Received by:	Date
Signature [signature]	4-20-09	Signature [signature]	4/20/09	Signature		Signature	
Printed Teal Glass	Time 1355	Printed Fred Duiz	Time 1355	Printed	Time	Printed	Time
Company SES		Company C&T		Company		Company	

Turnaround Time: Standard
Comments: EDF required CCID
GID T0600105641 & map

Relinquished by:	Date	Received by:	Date
Signature		Signature	
Printed	Time	Printed	Time
Company		Company	

2000-00-01

APPENDIX B

SES GROUNDWATER STANDARD SAMPLING PROTOCOLS

APPENDIX B
SES GROUNDWATER STANDARD SAMPLING PROTOCOLS

SAMPLING AND ANALYSIS PERSONNEL

Sampling and analysis is conducted by Blaine Tech Services, a subcontractor to SES, which uses appropriately trained personnel to perform the water level measurements, sampling, and analyses of key natural attenuation indicators.

SUMMARY OF SAMPLING PROCEDURES

Activities that will occur during groundwater sampling are summarized as follows:

- Pre-arrangement with testing laboratory
- Assembly and preparation of equipment and supplies
- Groundwater sampling
  - water-level measurements
  - immiscible material measurements (with an interface probe, if applicable)
  - visual inspection of borehole water
  - well bore evacuation
  - sampling
- Sample preservation and shipment
  - sample preparation
  - onsite measurement of parameters using direct read instruments
  - sample labeling
- Completion of sample records
- Completion of chain-of-custody records
- Samples placed in chilled cooler
- Sample shipment

Detailed sampling and analysis procedures are presented in the following sections.

ARRANGEMENTS WITH ANALYTICAL LABORATORY

Prior to sampling, arrangements will be made with an analytical laboratory to conduct the sample analyses. Samples will be analyzed by Curtis and Tompkins, Ltd. (C&T), an analytical laboratory in Berkeley, California. C&T has the required Department of Toxic Substances Control (DTSC) certification to perform the analyses, and will provide a sufficient number of sample containers for the wells to be sampled and the blanks to be included. C&T will determine the proper type and size for the containers based on the analyses requested. For samples requiring chemical preservation, preservatives will be added to containers by the C&T prior to shipping containers to the facility. Shipping containers (ice chests with adequate container padding) will be sent to the facility with the sample containers.

PREPARATION FOR SAMPLING

Prior to the sampling episode, equipment to be used will be assembled and its operating condition verified, calibrated (if required), and properly cleaned (if required). In addition, all record-keeping materials will be prepared.

Equipment Calibration

Where appropriate, equipment will be calibrated according to the manufacturer's specifications prior to field use. This applies to the equipment for making onsite chemical measurements of pH, conductivity, water temperature, and photoionization detector (PID).

Equipment Cleaning

Portions of sampling and test equipment that will come into contact with the sample will be thoroughly cleaned before use. Such equipment includes water-level probe, bailers, lifting line, and other equipment or portions thereof that may be immersed. The procedure for cleaning non-dedicated equipment is as follows:

- Clean with potable water and phosphate-free detergent;
- Rinse with potable water;
- Rinse with distilled or deionized water; and
- Air dry the equipment prior to use.

Any deviations from these procedures will be documented in the permanent record of the sampling event.

Laboratory-supplied sample containers will be cleaned and sealed by the laboratory before shipping. The type of container provided and the method of container cleaning should be in the laboratory's permanent record of the sampling event.

Sampling equipment to be disposed of after use will be cleaned with potable water and phosphate-free detergent before disposal as solid waste. Rinse water will be stored in properly labeled 55-gallon drums for proper disposal, pending receipt of laboratory results of groundwater and soil sample analyses with assistance from SES.

SAMPLING PROCEDURES

Special care will be exercised to prevent contamination of the groundwater and extracted samples during the sampling activities. Contamination of a sample can occur through contact with improperly cleaned equipment. Cross-contamination of the groundwater can occur through insufficient cleaning of equipment between wells. Pre-cleaned disposable sampling equipment will be rinsed with distilled water prior to use. Sampling equipment and sample containers will be thoroughly cleaned before and after field use and between uses at different sampling locations according to the procedures discussed above. In addition to the use of properly cleaned equipment, two further precautions will be taken:

- A new pair of clean, disposable latex (or similar) gloves will be worn each time a different well is sampled.
- Sample collection activities will progress from the least affected (upgradient) area to the most affected (downgradient) area. Wells described as “background” or “upgradient” wells will be sampled first.

The following paragraphs present procedures for the several activities that comprise groundwater sample acquisition. These activities will be performed in the same order as presented below. Exceptions to this procedure will be noted in the permanent sampling record.

Preparation of Location

Prior to starting the sampling procedure, the area around the well will be cleared of foreign materials, such as brush, rocks, debris, etc. A clean (new) disposable plastic sheet will be placed around the well casing so that the sheet is flat on the ground. The sheet will be placed such that the flush-mount well projects through the center of the sheet. This preparation will prevent sampling equipment from inadvertently contacting the ground or exterior parts of the well.

Water-Level Measurement

The first sampling operation is water-level measurement. An electrical probe or a weighted tape will be used to measure the depth to groundwater below the datum to the nearest 0.01 foot. The datum, usually the top of the inner casing (inside and below the protective steel cover), will be described in the monitoring well records. A permanent mark or scribe will be marked on the inner casing.

If the wells to be sampled are closely spaced, the water levels at all of the closely-spaced wells will be measured before any of the wells are evacuated. The water-level probe or weighted tape will be cleaned with phosphate-free detergent in distilled water and with a distilled water rinse between usage at different wells.

Total Depth Measurement

Once the water level and immiscible material thickness is measured and recorded, the water-level probe or weighted tape will be slowly lowered to the bottom of the well. The depth to the bottom will be measured and recorded. The probe or tape will then be slowly withdrawn from the well. The bottom of the probe or tape will be observed after withdrawal to determine any evidence of viscous, heavy contaminants. Descriptions (and measurements, if possible) of such materials will be made from observation of the probe or tape.

Visual Inspection of Well Water

Prior to well evacuation, a small quantity of water will be removed with a bailer that is not completely immersed. The recovered sample is representative of the top of the water column in the well casing. If immiscible materials are present as measured by the interface probe at the top of the water column, this technique can allow their detection. The water will be observed for the presence of any floating films or other indications of immiscible materials. Any sample odors will be noted. Observations regarding odor or visual evidence of immiscible materials will be recorded in the sampling record.

The well water sample will be discarded unless the site-specific protocol calls for retention of this sample. The sample will be placed in a labeled container for proper disposal.

Well Bore Evacuation

Water contained within and adjacent to the well casing can potentially reflect chemical interaction with the atmosphere (by diffusion of gases down the casing) or the well construction materials (through prolonged residence adjacent to the casing).

Observations of this water will be recorded during removal and prior to it being discarded. Onsite parameter measurements of the purged water, as described in this section, will indicate when water-quality parameters have stabilized, and also will be recorded.

The volume of water contained within the well bore at the time of sampling will be calculated, and 4 times the calculated water volume will be removed from the well and discarded. A bailer will be used for well evacuation. The volume of water to be evacuated will be calculated as follows:

Number of Bailers:

$$\text{Number of bailers} = 4 \times \frac{\text{Volume of water in well (Vw)}}{\text{Volume of bailer (Vb)}}$$

Volume of Water in Well:

$$Vw = \frac{3.142 \times dw^2 \times Lw}{4}$$

where: Vw = water volume in well (ft^3)
dw = inside diameter of well (ft)
Lw = length of water column in well (ft)

Volume of Water in Full Bailer:

$$Vb = \frac{3.142 \times db2 \times Lb}{4}$$

where: Vb = water volume in bailer (ft^3)
db = inside diameter of bailer (ft)
Lb = length of bailer (ft)

Wells that can be evacuated to a dry state will be evacuated completely; samples will be taken as soon as sufficient water for sampling is present. Sample compositing—sampling over a lengthy period by accumulating small volumes of water at different times to eventually obtain a sample of sufficient volume—will not be conducted.

Water produced during well evacuation will be contained in a suitable container and temporarily stored onsite pending proper disposal.

Some chemical and physical parameters in water can change significantly within a short time of sample acquisition. The following parameters cannot be accurately measured in a laboratory located more than a few hours from the facility, and will be measured onsite with portable equipment:

- pH
- Specific conductance
- Temperature
- Turbidity units

These parameters will be measured in unfiltered, unpreserved, "fresh" water, using the same sampling technique as for laboratory analyses. The measurements will be made in a clean glass container separate from those intended for laboratory analyses. The tested sample will be discarded after use. The measured values will be recorded in the sampling record.

Natural Attenuation Field Measurements

In addition to the meter reading above, following the indicators that groundwater has been purged sufficiently to represent water within the water bearing materials, natural attenuation parameters were measured by the Blaine Tech sampling personnel. These include meter readings for:

- Oxidation reduction potential;
- Dissolved oxygen; and
- Dissolved ferrous iron.

Sample Extraction

Natural attenuation parameters are measured before the water is purged and sampled. Care will be taken during insertion of sampling equipment to prevent undue disturbance of water in the well.

The pump or bailer will be lowered into the water gently to prevent splashing, and extracted gently to prevent creation of an excessive vacuum in the well. The sample will be transferred directly into the appropriate container. While pouring water from a bailer, the water will be carefully poured down the inside of the sample bottle to prevent significant aeration of the sample. Unless other instructions are given by the analytical laboratory, the sample containers will be completely filled so that no air space remains in the container. Excess water taken during sampling will be placed in a container for proper disposal.

SAMPLE HANDLING

Sample Preservation

Water samples will be properly prepared for transportation to the laboratory by refrigeration and chemical preservation, as necessary. The laboratory providing sample containers will add any necessary chemical preservatives to the sealed containers provided prior to shipment.

Container and Labels

Glass containers and appropriate container lids will be provided by the laboratory. The containers will be filled and container lids tightly closed. Sample container lids will be sealed so as to make obvious any seal tampered with or broken. The label will be firmly attached to the container side (rather than the lid). The following information will be written with permanent marker on the label:

- Facility name;
- Sample identification;
- Sample type (groundwater, surface water, etc.);
- Sampling date;
- Sampling time; and
- Preservatives added, and sample collector's initials.

Sample Shipment

In most instances, the concentration and type of compounds present in the groundwater are considered by the U.S. Department of Transportation to be non-hazardous. Thus, the following packaging and labeling requirements for the sample materials are appropriate for shipping the sample to the testing laboratory:

- Package sample so that is does not leak, spill, or vaporize from its packaging
- Label package with:
  - sample collector's name, address, and telephone number
  - laboratory's name, address, and telephone number
  - description of sample
  - quantity of sample
  - date of shipment

To comply with packaging regulations and prevent damage to expensive groundwater samples, SES will follow packaging and shipping instructions supplied by the certified testing laboratory.

Chain-of-Custody Control

After samples are obtained, chain-of-custody procedures will be followed to establish a written record concerning sample movement between the sampling site and the testing laboratory. Each shipping container will contain a chain-of-custody form to be completed by the sampling personnel packing the samples. The chain-of-custody form for each container will be completed in triplicate. One copy of this form will be maintained at the site; the other two copies will remain at the laboratory. One of the laboratory copies will become a part of the permanent record for the sample and will be returned with the sample analyses.

The record will contain the following minimum information:

- Collector's sample number
- Signature of collector
- Date and time of collection
- Place and address of collection
- Material type
- Preservatives added
- Analyses requested
- Signatures involved in the chain of possession
- Inclusive dates of possession

The shipping container will be sealed so as to make obvious any seal tampered with or broken. The chain-of-custody documentation will be placed inside the container so that it is immediately apparent to the laboratory personnel receiving the container, but could not be damaged or lost during shipping.

SAMPLING RECORDS

To provide complete documentation of sampling, detailed records containing the following information will be maintained during sampling:

- Sample location (facility name)
- Sample identification (name and sample number)
- Sample location map or detailed sketch
- Date and time of sampling

- Sampling method
- Field observations of sample appearance and odor
- Weather conditions
- Samples identification
- Any other significant information

APPENDIX C

CERTIFIED ANALYTICAL LABORATORY REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION


Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 211563
ANALYTICAL REPORT

Stellar Environmental Solutions	Project : 2005-65
2198 6th Street	Location : Wadler Property
Berkeley, CA 94710	Level : II

Sample ID	Lab ID
MW-1A	211563-001
MW-1B	211563-002
MW-2A	211563-003
MW-2B	211563-004
MW-3A	211563-005
MW-3B	211563-006
MW-4A	211563-007
MW-4B	211563-008
MW-5B	211563-009

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 05/06/2009
Project Manager

Signature: _____ Date: 05/06/2009
Senior Program Manager

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**211563**
Client:	**Stellar Environmental Solutions**
Project:	**2005-65**
Location:	**Wadler Property**
Request Date:	**04/20/09**
Samples Received:	**04/20/09**

This data package contains sample and QC results for nine water samples, requested for the above referenced project on 04/20/09. The samples were received cold and intact.

Volatile Organics by GC/MS (EPA 8260B):
MW-1B (lab # 211563-002), MW-3B (lab # 211563-006), and MW-4B (lab # 211563-008) were diluted due to high non-target analytes. No other analytical problems were encountered.

Chain of Custody Record

211563

Lab job no. _____

Date _____

Page _____ of _____

Laboratory C+T
Address 2323 Fifth St.
Berkeley, CA

Project Owner Wadler Trust
Site Address 2836 Union St.
Oakland, CA

Project Name _____
Project Number 2005-65

Method of Shipment Hand
Shipment No. —
Airbill No. —
Cooler No. —
Project Manager Teal Glass
Telephone No. (510) 644-3123
Fax No. (510) 644-3859
Samplers: (Signature) Teal Glass

	Field Sample Number	Location/ Depth	Date	Time	Sample Type	Type/Size of Container	Preservation: Cooler	Preservation: Chemical	Filtered	No. of Containers	TVHg BTEX MTBE Oxygenates by 8260B	MS/MSD	Remarks
1	MW-1A	1A	4-20-09	1205	W	VOA -6 2	Y	Y	N	6	X	X	run g+BTEX first
2	MW-1B	1B		0930		-6				6	X	X	
3	MW-2A	2A		1024		-3				3	X		
4	MW-2B	2B		1225		-6				6	X	X	
5	MW-3A	3A		1250		-6 3 1/2				6	X	X	run g+BTEX first
6	MW-3B	3B		1142		-3				3	X		
7	MW-4A	4A		1240		-3 1 1/2				3	X		run g+BTEX first
8	MW-4B	4B		1112		-3				3	X		
9	MW-5B	5B		1215		-6				6	X	X	

Relinquished by:	Date	Received by:	Date	Relinquished by:	Date	Received by:	Date
Signature Teal Glass	4-20-09	Signature Tiffany Dias	4/20/09	Signature		Signature	
Printed Teal Glass	Time 1555	Printed Tiffany Dias	Time 1355	Printed	Time	Printed	Time
Company SES		Company C&T		Company		Company	

Turnaround Time: Standard

Comments: EDF required cc'd
GID T0600105641 & mail

2000-00-01

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 211563 Date Received 4/20/09 Number of coolers 1
Client 385 Project 2005-65

Date Opened 4/20/09 By (print) M. VILLANUEVA (sign)
Date Logged in ↓ By (print) ↓ (sign) ↓

1. Did cooler come with a shipping slip (airbill, etc) YES NO
   Shipping info
2A. Were custody seals present? ... ☐ YES (circle) on cooler on samples ☐ NO
   How many Name Date
2B. Were custody seals intact upon arrival? YES NO N/A
3. Were custody papers dry and intact when received? YES NO
4. Were custody papers filled out properly (ink, signed, etc)? YES NO
5. Is the project identifiable from custody papers? (If so fill out top of form) YES NO
6. Indicate the packing in cooler: (if other, describe)

☐ Bubble Wrap ☑ Foam blocks ☑ Bags ☐ None
☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels

7. Temperature documentation:

Type of ice used: ☑ Wet ☐ Blue/Gel ☐ None Temp(°C) 7.7

☐ Samples Received on ice & cold without a temperature blank

☐ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? YES NO
   If YES, what time were they transferred to freezer?
9. Did all bottles arrive unbroken/unopened? YES NO
10. Are samples in the appropriate containers for indicated tests? YES NO
11. Are sample labels present, in good condition and complete? YES NO
12. Do the sample labels agree with custody papers? YES NO
13. Was sufficient amount of sample sent for tests requested? YES NO
14. Are the samples appropriately preserved? YES NO N/A
15. Are bubbles > 6mm absent in VOA samples? YES NO N/A
16. Was the client contacted concerning this sample delivery? YES NO
   If YES, Who was called? By Date:

COMMENTS

Curtis & Tompkins, Ltd.

Gasoline by GC/MS

Lab #:	211563	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Field ID:	MW-1A	Units:	ug/L
Lab ID:	211563-001	Sampled:	04/20/09
Matrix:	Water	Received:	04/20/09

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Gasoline C7-C12	89 Y	50	1.000	150443	04/29/09
tert-Butyl Alcohol (TBA)	12	10	1.000	150443	04/29/09
Isopropyl Ether (DIPE)	ND	0.50	1.000	150443	04/29/09
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	1.000	150443	04/29/09
Methyl tert-Amyl Ether (TAME)	0.80	0.50	1.000	150443	04/29/09
MTBE	150	1.3	2.500	150499	04/30/09
1,2-Dichloroethane	ND	0.50	1.000	150443	04/29/09
Benzene	8.7	0.50	1.000	150443	04/29/09
Toluene	ND	0.50	1.000	150443	04/29/09
1,2-Dibromoethane	ND	0.50	1.000	150443	04/29/09
Ethylbenzene	0.75	0.50	1.000	150443	04/29/09
m,p-Xylenes	ND	0.50	1.000	150443	04/29/09
o-Xylene	ND	0.50	1.000	150443	04/29/09

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	108	80-122	1.000	150443	04/29/09
1,2-Dichloroethane-d4	120	77-137	1.000	150443	04/29/09
Toluene-d8	105	80-120	1.000	150443	04/29/09
Bromofluorobenzene	97	80-125	1.000	150443	04/29/09

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline by GC/MS

Lab #:	211563	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Field ID:	MW-1B	Batch#:	150443
Lab ID:	211563-002	Sampled:	04/20/09
Matrix:	Water	Received:	04/20/09
Units:	ug/L	Analyzed:	04/29/09
Diln Fac:	2.000		

Analyte	Result	RL
Gasoline C7-C12	1,400 Z	100
tert-Butyl Alcohol (TBA)	ND	20
Isopropyl Ether (DIPE)	ND	1.0
Ethyl tert-Butyl Ether (ETBE)	ND	1.0
Methyl tert-Amyl Ether (TAME)	ND	1.0
MTBE	7.7	1.0
1,2-Dichloroethane	2.9	1.0
Benzene	ND	1.0
Toluene	ND	1.0
1,2-Dibromoethane	ND	1.0
Ethylbenzene	ND	1.0
m,p-Xylenes	ND	1.0
o-Xylene	ND	1.0

Surrogate	%REC	Limits
Dibromofluoromethane	106	80-122
1,2-Dichloroethane-d4	114	77-137
Toluene-d8	104	80-120
Bromofluorobenzene	99	80-125

Z= Sample exhibits unknown single peak or peaks
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline by GC/MS

Lab #:	211563	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Field ID:	MW-2A	Batch#:	150499
Lab ID:	211563-003	Sampled:	04/20/09
Matrix:	Water	Received:	04/20/09
Units:	ug/L	Analyzed:	04/30/09
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	110 Y	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
MTBE	1.9	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-122
1,2-Dichloroethane-d4	107	77-137
Toluene-d8	104	80-120
Bromofluorobenzene	96	80-125

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline by GC/MS

Lab #:	211563	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Field ID:	MW-2B	Batch#:	150508
Lab ID:	211563-004	Sampled:	04/20/09
Matrix:	Water	Received:	04/20/09
Units:	ug/L	Analyzed:	04/30/09
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	250 Y	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
MTBE	30	0.50
1,2-Dichloroethane	2.4	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-122
1,2-Dichloroethane-d4	109	77-137
Toluene-d8	100	80-120
Bromofluorobenzene	102	80-125

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline by GC/MS

Lab #:	211563	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Field ID:	MW-3A	Batch#:	150508
Lab ID:	211563-005	Sampled:	04/20/09
Matrix:	Water	Received:	04/20/09
Units:	ug/L	Analyzed:	04/30/09
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
MTBE	52	0.50
1,2-Dichloroethane	1.2	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-122
1,2-Dichloroethane-d4	110	77-137
Toluene-d8	99	80-120
Bromofluorobenzene	103	80-125

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline by GC/MS

Lab #:	211563	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Field ID:	MW-3B	Batch#:	150508
Lab ID:	211563-006	Sampled:	04/20/09
Matrix:	Water	Received:	04/20/09
Units:	ug/L	Analyzed:	05/01/09
Diln Fac:	10.00		

Analyte	Result	RL
Gasoline C7-C12	4,900 Z	500
tert-Butyl Alcohol (TBA)	ND	100
Isopropyl Ether (DIPE)	ND	5.0
Ethyl tert-Butyl Ether (ETBE)	ND	5.0
Methyl tert-Amyl Ether (TAME)	ND	5.0
MTBE	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Toluene	ND	5.0
1,2-Dibromoethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-122
1,2-Dichloroethane-d4	104	77-137
Toluene-d8	100	80-120
Bromofluorobenzene	100	80-125

Z= Sample exhibits unknown single peak or peaks
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline by GC/MS

Lab #:	211563	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Field ID:	MW-4A	Batch#:	150508
Lab ID:	211563-007	Sampled:	04/20/09
Matrix:	Water	Received:	04/20/09
Units:	ug/L	Analyzed:	04/30/09
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
MTBE	11	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-122
1,2-Dichloroethane-d4	108	77-137
Toluene-d8	100	80-120
Bromofluorobenzene	104	80-125

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline by GC/MS

Lab #:	211563	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Field ID:	MW-4B	Batch#:	150508
Lab ID:	211563-008	Sampled:	04/20/09
Matrix:	Water	Received:	04/20/09
Units:	ug/L	Analyzed:	05/01/09
Diln Fac:	8.333		

Analyte	Result	RL
Gasoline C7-C12	3,700 Z	420
tert-Butyl Alcohol (TBA)	ND	83
Isopropyl Ether (DIPE)	ND	4.2
Ethyl tert-Butyl Ether (ETBE)	ND	4.2
Methyl tert-Amyl Ether (TAME)	ND	4.2
MTBE	ND	4.2
1,2-Dichloroethane	ND	4.2
Benzene	ND	4.2
Toluene	ND	4.2
1,2-Dibromoethane	ND	4.2
Ethylbenzene	ND	4.2
m,p-Xylenes	ND	4.2
o-Xylene	ND	4.2

Surrogate	%REC	Limits
Dibromofluoromethane	96	80-122
1,2-Dichloroethane-d4	101	77-137
Toluene-d8	98	80-120
Bromofluorobenzene	101	80-125

Z= Sample exhibits unknown single peak or peaks
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline by GC/MS

Lab #:	211563	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Field ID:	MW-5B	Batch#:	150508
Lab ID:	211563-009	Sampled:	04/20/09
Matrix:	Water	Received:	04/20/09
Units:	ug/L	Analyzed:	04/30/09
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	220 Y	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	3.5	0.50
MTBE	73	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-122
1,2-Dichloroethane-d4	108	77-137
Toluene-d8	99	80-120
Bromofluorobenzene	103	80-125

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/MS

Lab #:	211563	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC493730	Batch#:	150443
Matrix:	Water	Analyzed:	04/29/09
Units:	ug/L		

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-122
1,2-Dichloroethane-d4	100	77-137
Toluene-d8	102	80-120
Bromofluorobenzene	95	80-125

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/MS

Lab #:	211563	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC493731	Batch#:	150443
Matrix:	Water	Analyzed:	04/29/09
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	100.0	90.08	90	55-151
Isopropyl Ether (DIPE)	20.00	20.90	105	65-131
Ethyl tert-Butyl Ether (ETBE)	20.00	20.75	104	75-128
Methyl tert-Amyl Ether (TAME)	20.00	19.29	96	80-121
MTBE	20.00	17.38	87	73-122
1,2-Dichloroethane	20.00	15.85	79	73-141
Benzene	20.00	20.20	101	80-120
Toluene	20.00	19.63	98	80-120
1,2-Dibromoethane	20.00	20.07	100	80-120
Ethylbenzene	20.00	20.32	102	80-121
m,p-Xylenes	40.00	41.22	103	80-122
o-Xylene	20.00	20.20	101	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	107	80-122
1,2-Dichloroethane-d4	108	77-137
Toluene-d8	105	80-120
Bromofluorobenzene	95	80-125

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/MS

Lab #:	211563	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	150443
Units:	ug/L	Analyzed:	04/29/09
Diln Fac:	1.000		

Type: BS Lab ID: QC493732

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	800.0	916.8	115	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	105	80-122
1,2-Dichloroethane-d4	104	77-137
Toluene-d8	103	80-120
Bromofluorobenzene	89	80-125

Type: BSD Lab ID: QC493733

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	800.0	924.7	116	80-120	1	20

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-122
1,2-Dichloroethane-d4	104	77-137
Toluene-d8	105	80-120
Bromofluorobenzene	94	80-125

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/MS

Lab #:	211563	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	150443
MSS Lab ID:	211591-004	Sampled:	04/21/09
Matrix:	Water	Received:	04/21/09
Units:	ug/L	Analyzed:	04/29/09
Diln Fac:	2.000		

Type: MS Lab ID: QC493842

Analyte	MSS Result	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	<4.000	250.0	193.6	77	62-140
Isopropyl Ether (DIPE)	<0.2000	50.00	51.73	103	71-131
Ethyl tert-Butyl Ether (ETBE)	<0.2000	50.00	49.13	98	78-130
Methyl tert-Amyl Ether (TAME)	<0.2000	50.00	44.07	88	80-121
MTBE	<0.2000	50.00	39.94	80	73-124
1,2-Dichloroethane	<0.2000	50.00	45.28	91	80-139
Benzene	<0.2000	50.00	49.13	98	80-122
Toluene	<0.2000	50.00	52.50	105	80-121
1,2-Dibromoethane	<0.2000	50.00	49.47	99	80-120
Ethylbenzene	<0.2000	50.00	50.12	100	80-121
m,p-Xylenes	<0.2189	100.0	109.0	109	80-120
o-Xylene	<0.2000	50.00	52.39	105	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	106	80-122
1,2-Dichloroethane-d4	119	77-137
Toluene-d8	107	80-120
Bromofluorobenzene	87	80-125

Type: MSD Lab ID: QC493843

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	250.0	216.1	86	62-140	11	20
Isopropyl Ether (DIPE)	50.00	50.18	100	71-131	3	20
Ethyl tert-Butyl Ether (ETBE)	50.00	49.63	99	78-130	1	20
Methyl tert-Amyl Ether (TAME)	50.00	45.39	91	80-121	3	20
MTBE	50.00	41.13	82	73-124	3	20
1,2-Dichloroethane	50.00	43.29	87	80-139	5	20
Benzene	50.00	48.23	96	80-122	2	20
Toluene	50.00	48.58	97	80-121	8	20
1,2-Dibromoethane	50.00	49.82	100	80-120	1	20
Ethylbenzene	50.00	48.86	98	80-121	3	20
m,p-Xylenes	100.0	101.8	102	80-120	7	20
o-Xylene	50.00	49.96	100	80-120	5	20

Surrogate	%REC	Limits
Dibromofluoromethane	105	80-122
1,2-Dichloroethane-d4	121	77-137
Toluene-d8	104	80-120
Bromofluorobenzene	84	80-125

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/MS

Lab #:	211563	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	150499
Units:	ug/L	Analyzed:	04/30/09
Diln Fac:	1.000		

Type: BS Lab ID: QC493941

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	100.0	101.6	102	55-151
Isopropyl Ether (DIPE)	20.00	22.54	113	65-131
Ethyl tert-Butyl Ether (ETBE)	20.00	21.64	108	75-128
Methyl tert-Amyl Ether (TAME)	20.00	19.12	96	80-121
MTBE	20.00	18.16	91	73-122
1,2-Dichloroethane	20.00	17.95	90	73-141
Benzene	20.00	20.51	103	80-120
Toluene	20.00	20.39	102	80-120
1,2-Dibromoethane	20.00	21.37	107	80-120
Ethylbenzene	20.00	20.78	104	80-121
m,p-Xylenes	40.00	42.23	106	80-122
o-Xylene	20.00	20.78	104	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	110	80-122
1,2-Dichloroethane-d4	116	77-137
Toluene-d8	107	80-120
Bromofluorobenzene	90	80-125

Type: BSD Lab ID: QC493942

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	100.0	106.5	106	55-151	5	21
Isopropyl Ether (DIPE)	20.00	22.01	110	65-131	2	20
Ethyl tert-Butyl Ether (ETBE)	20.00	21.78	109	75-128	1	20
Methyl tert-Amyl Ether (TAME)	20.00	18.30	91	80-121	4	20
MTBE	20.00	17.72	89	73-122	2	20
1,2-Dichloroethane	20.00	17.04	85	73-141	5	20
Benzene	20.00	19.40	97	80-120	6	20
Toluene	20.00	20.18	101	80-120	1	20
1,2-Dibromoethane	20.00	19.94	100	80-120	7	20
Ethylbenzene	20.00	19.52	98	80-121	6	20
m,p-Xylenes	40.00	40.72	102	80-122	4	20
o-Xylene	20.00	20.38	102	80-120	2	20

Surrogate	%REC	Limits
Dibromofluoromethane	110	80-122
1,2-Dichloroethane-d4	112	77-137
Toluene-d8	103	80-120
Bromofluorobenzene	91	80-125

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/MS

Lab #:	211563	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	150499
Units:	ug/L	Analyzed:	04/30/09
Diln Fac:	1.000		

Type: BS Lab ID: QC493943

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	800.0	882.0	110	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	105	80-122
1,2-Dichloroethane-d4	110	77-137
Toluene-d8	106	80-120
Bromofluorobenzene	92	80-125

Type: BSD Lab ID: QC493944

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	800.0	856.7	107	80-120	3	20

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-122
1,2-Dichloroethane-d4	103	77-137
Toluene-d8	105	80-120
Bromofluorobenzene	95	80-125

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/MS

Lab #:	211563	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC493945	Batch#:	150499
Matrix:	Water	Analyzed:	04/30/09
Units:	ug/L		

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-122
1,2-Dichloroethane-d4	103	77-137
Toluene-d8	106	80-120
Bromofluorobenzene	97	80-125

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/MS

Lab #:	211563	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC493977	Batch#:	150508
Matrix:	Water	Analyzed:	04/30/09
Units:	ug/L		

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-122
1,2-Dichloroethane-d4	111	77-137
Toluene-d8	99	80-120
Bromofluorobenzene	102	80-125

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/MS

Lab #:	211563	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC493978	Batch#:	150508
Matrix:	Water	Analyzed:	04/30/09
Units:	ug/L		

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-122
1,2-Dichloroethane-d4	111	77-137
Toluene-d8	99	80-120
Bromofluorobenzene	103	80-125

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/MS

Lab #:	211563	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	150508
Units:	ug/L	Analyzed:	04/30/09
Diln Fac:	1.000		

Type: BS Lab ID: QC493979

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	112.5	110.2	98	55-151
Isopropyl Ether (DIPE)	22.50	23.53	105	65-131
Ethyl tert-Butyl Ether (ETBE)	22.50	23.22	103	75-128
Methyl tert-Amyl Ether (TAME)	22.50	22.32	99	80-121
MTBE	22.50	22.17	99	73-122
1,2-Dichloroethane	22.50	23.64	105	73-141
Benzene	22.50	23.64	105	80-120
Toluene	22.50	23.66	105	80-120
1,2-Dibromoethane	22.50	23.00	102	80-120
Ethylbenzene	22.50	25.32	113	80-121
m,p-Xylenes	45.00	50.82	113	80-122
o-Xylene	22.50	24.96	111	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-122
1,2-Dichloroethane-d4	103	77-137
Toluene-d8	100	80-120
Bromofluorobenzene	101	80-125

Type: BSD Lab ID: QC493980

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	112.5	115.4	103	55-151	5	21
Isopropyl Ether (DIPE)	22.50	24.39	108	65-131	4	20
Ethyl tert-Butyl Ether (ETBE)	22.50	24.06	107	75-128	4	20
Methyl tert-Amyl Ether (TAME)	22.50	22.70	101	80-121	2	20
MTBE	22.50	22.60	100	73-122	2	20
1,2-Dichloroethane	22.50	23.99	107	73-141	1	20
Benzene	22.50	24.60	109	80-120	4	20
Toluene	22.50	24.84	110	80-120	5	20
1,2-Dibromoethane	22.50	23.07	103	80-120	0	20
Ethylbenzene	22.50	26.59	118	80-121	5	20
m,p-Xylenes	45.00	52.48	117	80-122	3	20
o-Xylene	22.50	25.86	115	80-120	4	20

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-122
1,2-Dichloroethane-d4	104	77-137
Toluene-d8	101	80-120
Bromofluorobenzene	101	80-125

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/MS

Lab #:	211563	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	150508
Units:	ug/L	Analyzed:	04/30/09
Diln Fac:	1.000		

Type: BS Lab ID: QC493981

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	900.0	931.9	104	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-122
1,2-Dichloroethane-d4	109	77-137
Toluene-d8	100	80-120
Bromofluorobenzene	103	80-125

Type: BSD Lab ID: QC493982

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	900.0	875.4	97	80-120	6	20

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-122
1,2-Dichloroethane-d4	106	77-137
Toluene-d8	101	80-120
Bromofluorobenzene	104	80-125

RPD= Relative Percent Difference

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Instrument: MSVOA09.i

Sample Info: S,211563-001

Operator: VOC

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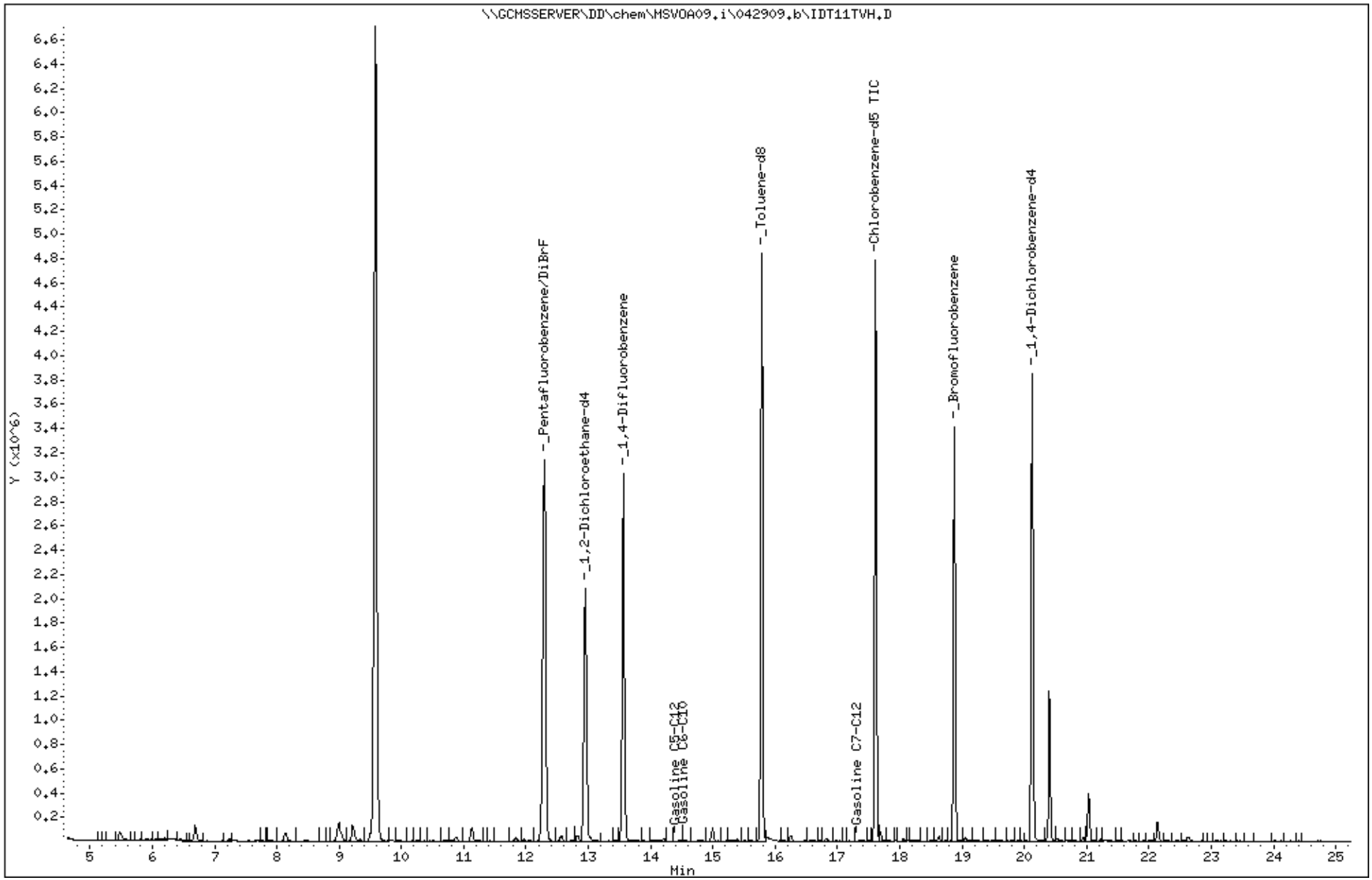

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Sample Info: S,211563-002

Operator: VOC

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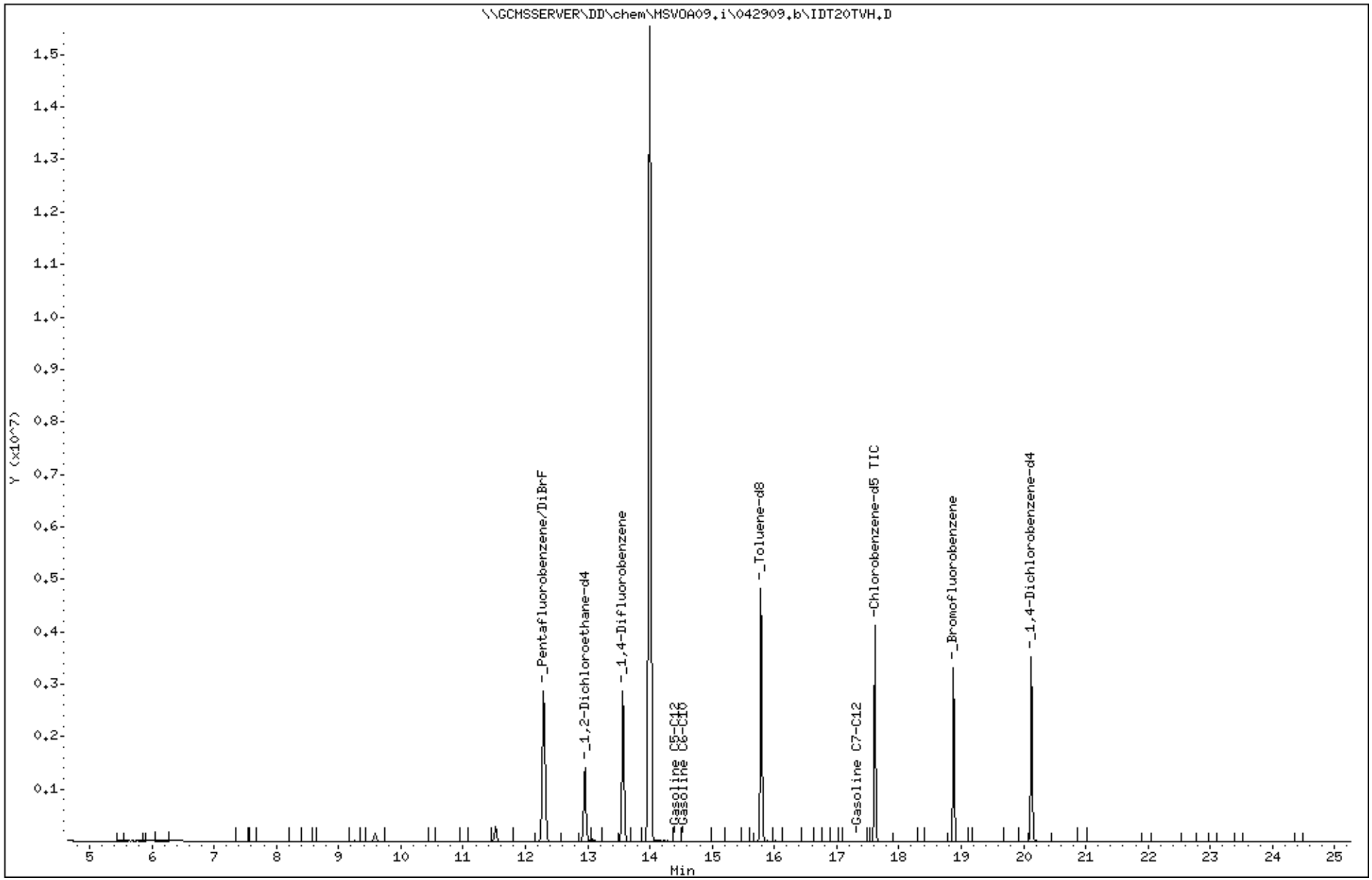
Column diameter: 2.00



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Date : 30-APR-2009 14:48

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Instrument: MSVOA09.i

Sample Info: S,211563-003

Operator: VOC

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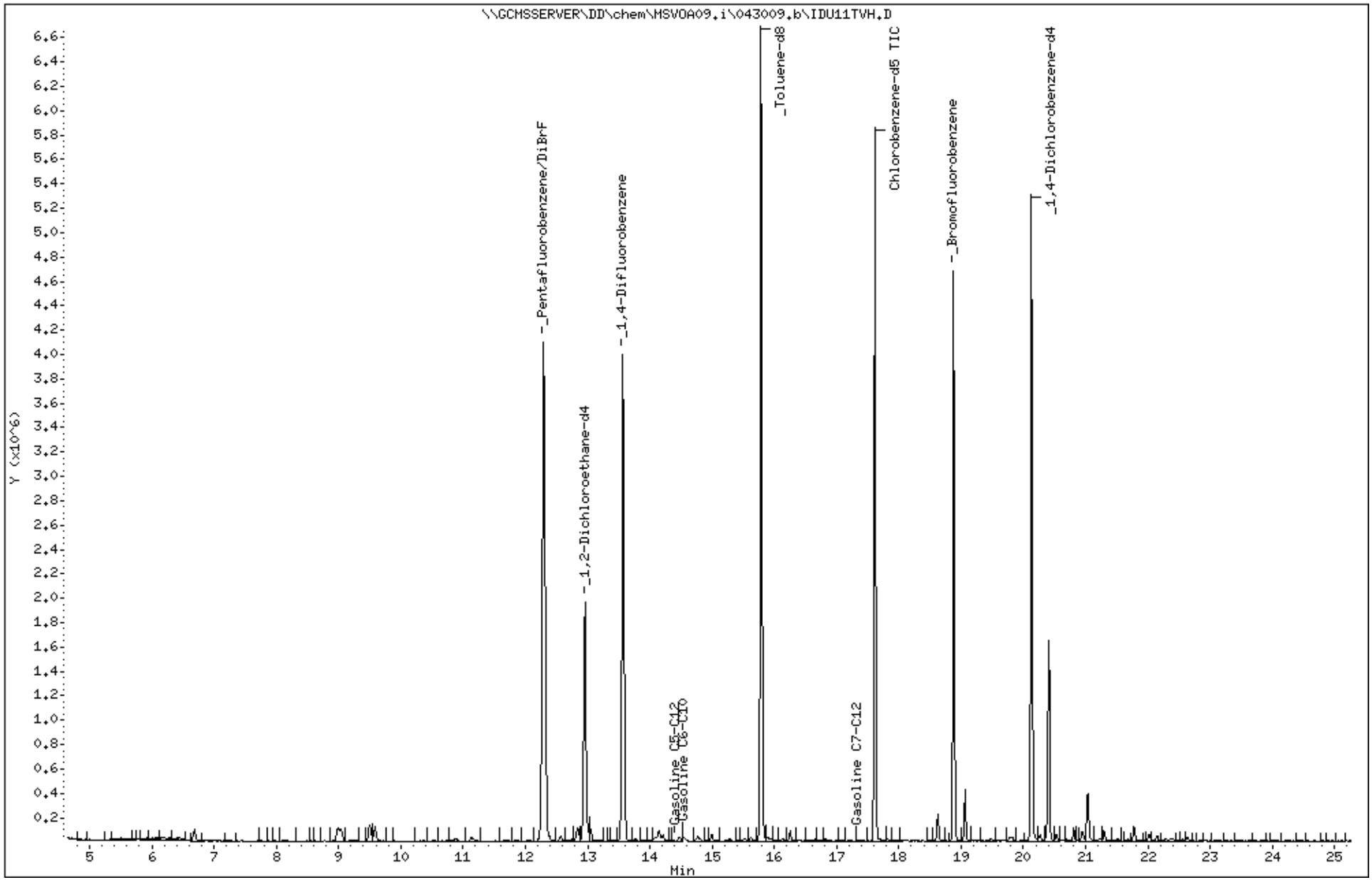

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Date : 30-APR-2009 21:35

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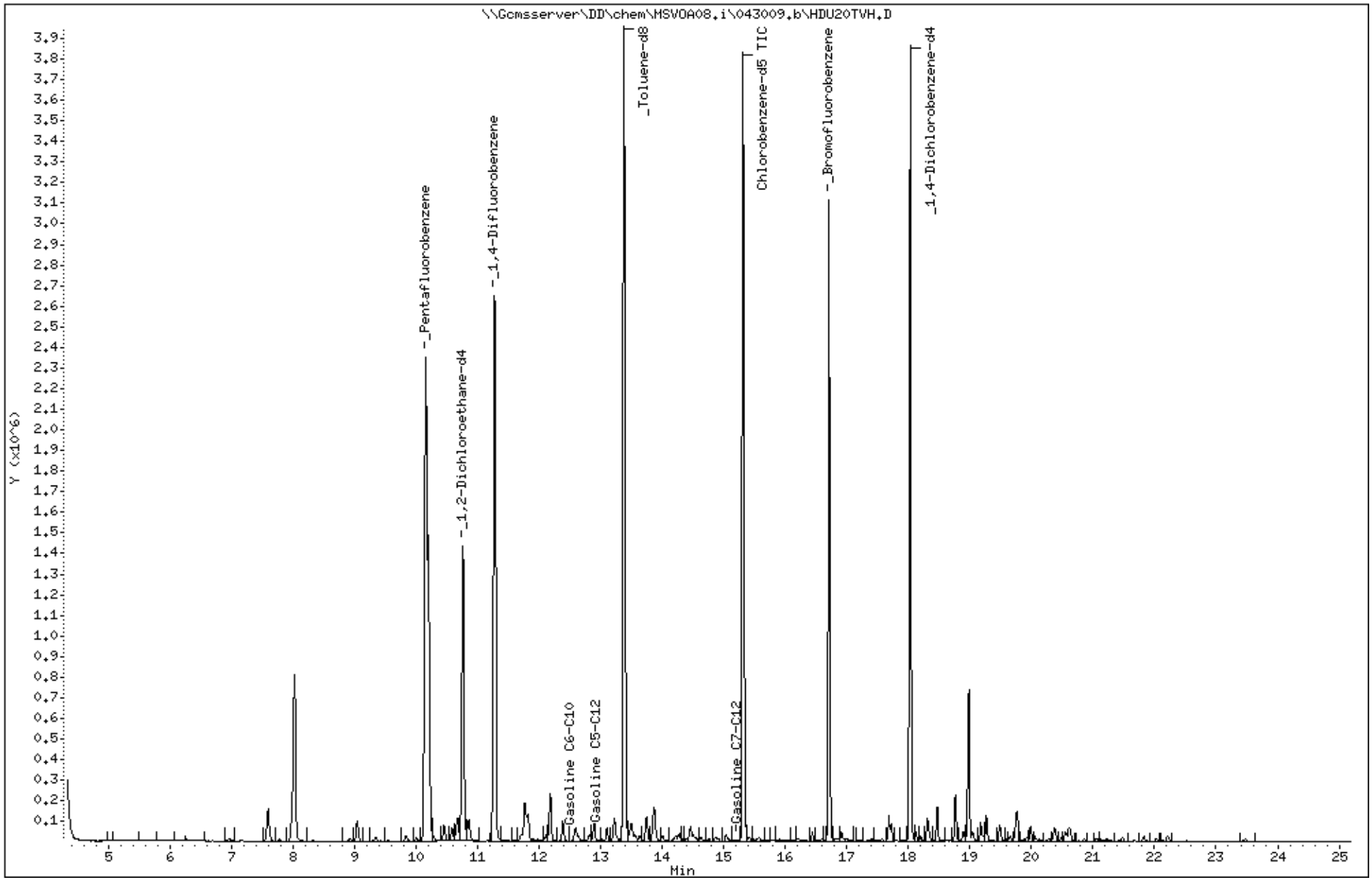
Instrument: MSVOA08.i

Sample Info: S,211563-004

Operator: voc

Column phase:

Column diameter: 2.00



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Date : 01-MAY-2009 03:00

Client ID: DYNA P&T

Instrument: MSVOA08.i

Sample Info: S,211563-006

Operator: voc

Column phase:

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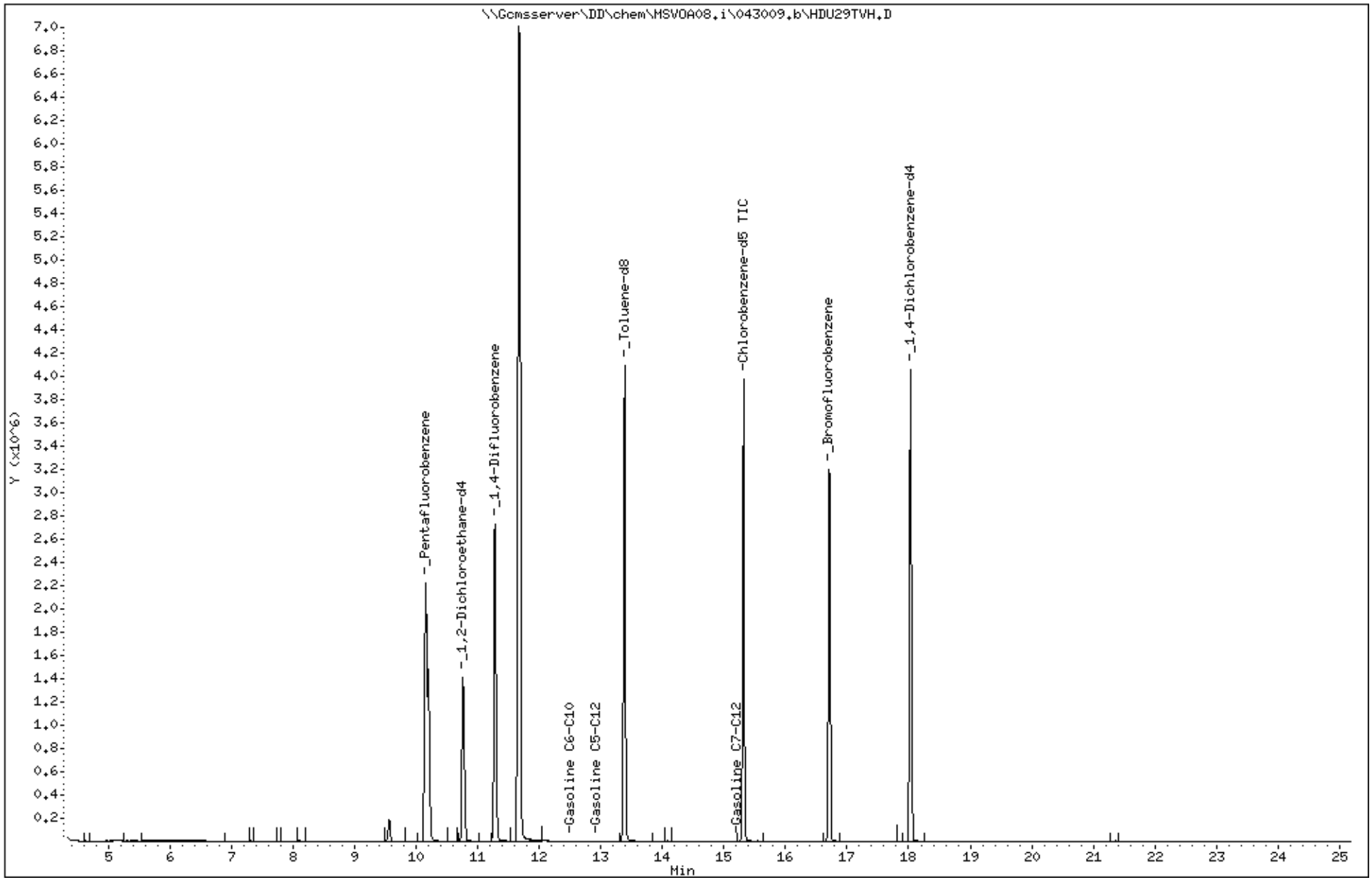

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Date : 01-MAY-2009 02:24

Client ID: DYNA P&T

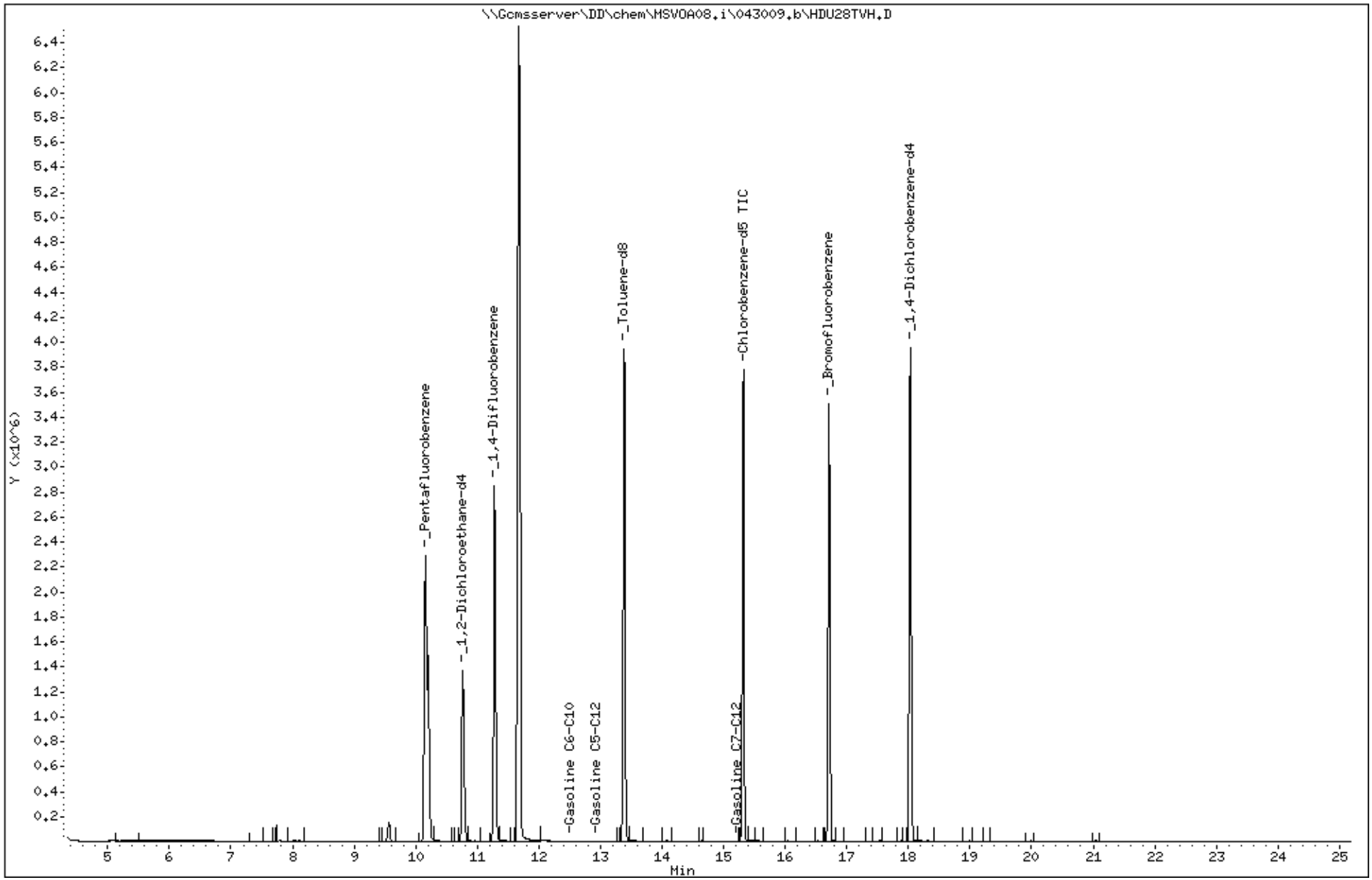
Instrument: MSVOA08.i

Sample Info: S,211563-008

Operator: voc

Column phase:

Column diameter: 2.00



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Date : 30-APR-2009 22:47

Client ID: DYNA P&T

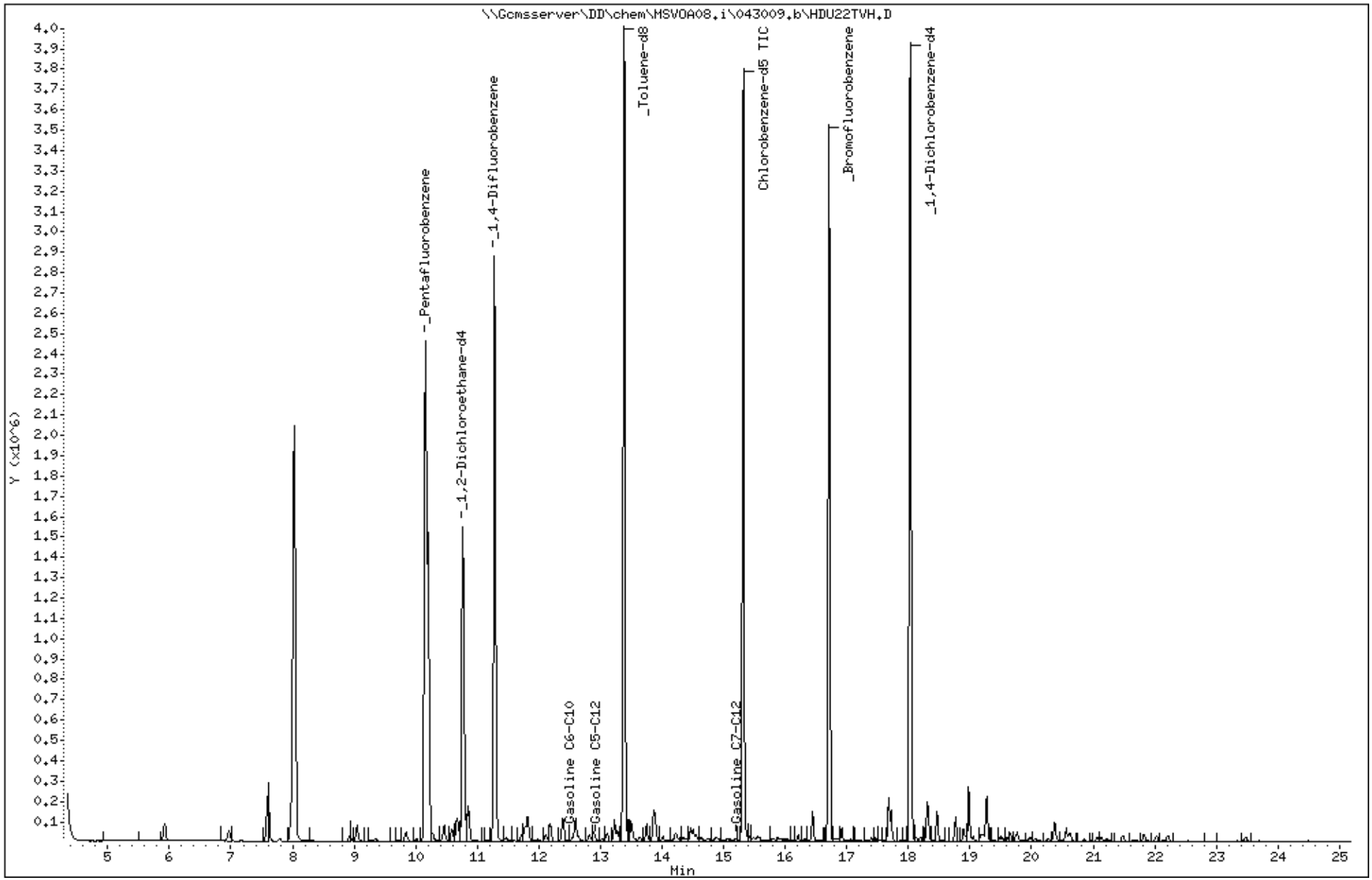
Instrument: MSVOA08.i

Sample Info: S,211563-009

Operator: voc

Column phase:

Column diameter: 2.00



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Date : 30-APR-2009 13:11

Client ID: DYNA P&T

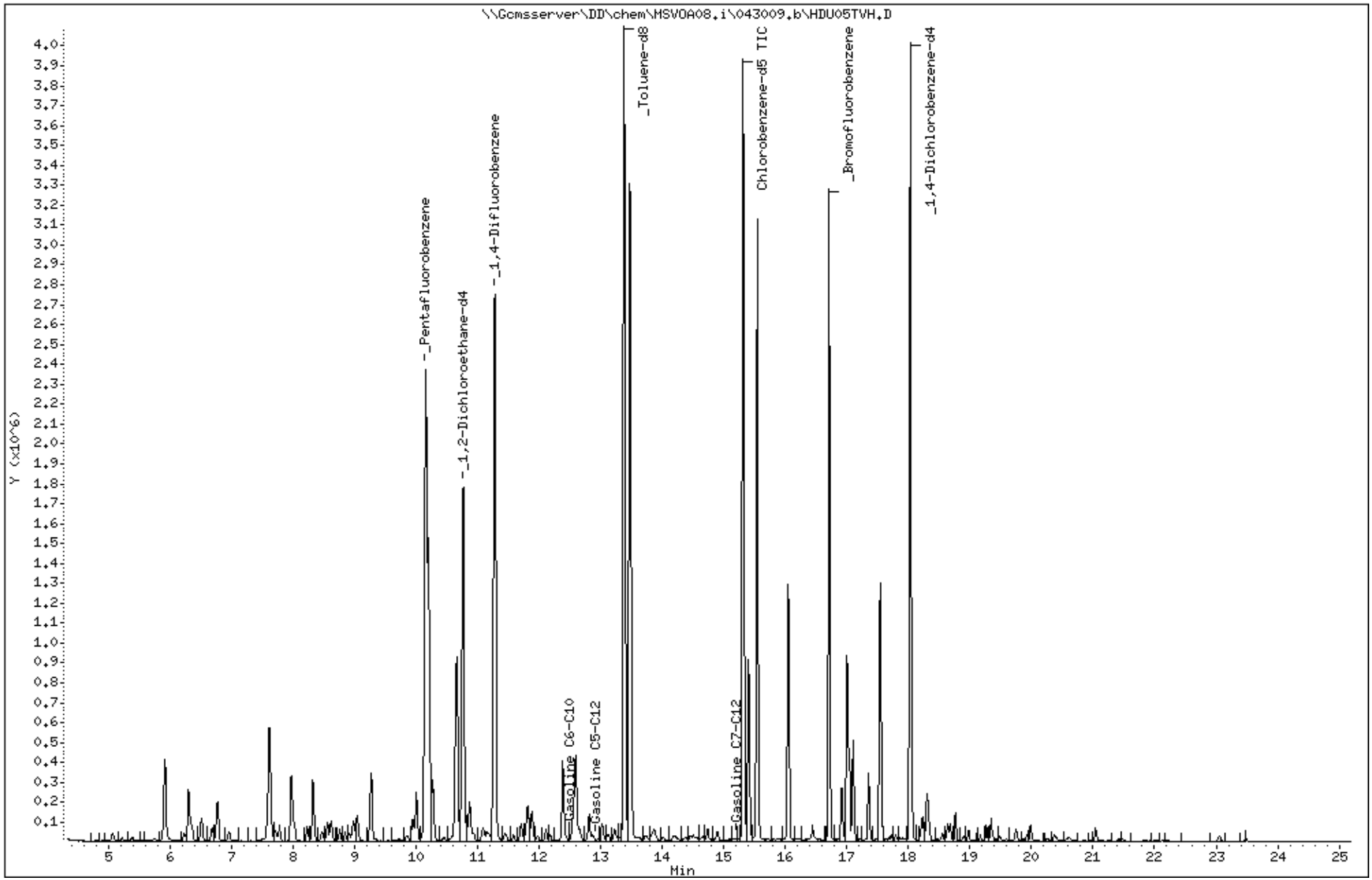
Instrument: MSVOA08.i

Sample Info: CCV/BS,QC493981,150508,S10867,0.009/100

Operator: voc

Column phase:

Column diameter: 2.00



APPENDIX D

HISTORICAL GROUNDWATER ELEVATION AND ANALYTICAL DATA

TABLE A
Historical Groundwater Monitoring Well Data
2836 Union Street, Oakland, California

MW-1A										
Sampling Event No.	**Date Sampled**	**Depth to Groundwater (a)**	**Groundwater Elevation (b)**	**Dissolved Oxygen**	**TVH-g**	**Benzene**	**Toluene**	**Ethylbenzene**	**Total Xylenes**	**MTBE**
1	Oct-06	dry	dry	*NA*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
2	Jan-07	9.80	2.45	*NA*	790	94	*< 0.5*	8.6	*< 0.5*	100
3	Apr-07	7.49	4.76	*NA*	760	63	*<0.5*	1.9	*<0.5*	150
4	Jul-07	7.16	5.09	*NA*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
5	Oct-07	7.29	4.96	*NA*	830	28	<0.7	13	<0.7	110
6	Jan-08	6.82	5.70	*NA*	720	8.1	*< 0.5*	*< 0.5*	*< 0.5*	130
7	Apr-08	6.32	5.70	*NA*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
8	Jul-08	8.25	4.00	*NA*	120	1.0	*<0.5*	*<0.5*	*<0.5*	86
9	Oct-08	9.04	3.21	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
10	Jan-09	7.00	5.25	*NA*	63	1.2	*<0.5*	*<0.5*	*<0.5*	77
11	Apr-09	5.62	6.63	7,100	89	8.7	*<0.5*	0.75	*<0.5*	150

MW-1B										
Sampling Event No.	**Date Sampled**	**Depth to Groundwater (a)**	**Groundwater Elevation (b)**	**Dissolved Oxygen**	**TVH-g**	**Benzene**	**Toluene**	**Ethylbenzene**	**Total Xylenes**	**MTBE**
1	Oct-06	7.44	4.56	*NA*	350	*<1.3*	*<1.3*	*<1.3*	*<1.3*	2.7
2	Jan-07	6.40	5.65	*NA*	350	*<1.3*	*<1.3*	*<1.3*	*<1.3*	3.6
3	Apr-07	6.42	5.63	*NA*	320	*<0.5*	*<0.5*	*<0.5*	*<0.5*	4.2
4	Jul-07	7.19	4.86	*NA*	200	*<1.3*	*<1.3*	*<1.3*	*<1.3*	3.2
5	Oct-07	7.10	4.95	*NA*	230	*<0.7*	*<0.7*	*<0.7*	*<0.7*	6.0
6	Jan-08	5.81	6.67	*NA*	400	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	6.2
7	Apr-08	6.82	5.23	*NA*	350	*<0.5*	*<0.5*	*<0.5*	*<0.5*	7.8
8	Jul-08	7.62	4.43	*NA*	300	*<0.5*	*<0.5*	*<0.5*	*<0.5*	8.4
9	Oct-08	8.21	3.84	3,600	520	*<0.5*	*<0.5*	*<0.5*	*<0.5*	5.9
10	Jan-09	6.89	5.16	6,160	300	*<0.5*	*<0.5*	*<0.5*	*<0.5*	7.5
11	Apr-09	6.27	5.78	6,000	1,400	8.7	*<1.0*	*<1.0*	*<1.0*	7.7

MW-2A										
Sampling Event No.	**Date Sampled**	**Depth to Groundwater (a)**	**Groundwater Elevation (b)**	**Dissolved Oxygen**	**TVH-g**	**Benzene**	**Toluene**	**Ethylbenzene**	**Total Xylenes**	**MTBE**
1	Oct-06	7.93	4.87	*NA*	80	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<0.5*
2	Jan-07	6.58	6.24	*NA*	490	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<0.5*
3	Apr-07	6.52	6.30	*NA*	83	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<0.5*
4	Jul-07	7.37	5.45	*NA*	*<50*	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<0.5*
5	Oct-07	7.33	5.49	*NA*	*<50*	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<0.5*
6	Jan-08	5.50	7.56	*NA*	*<50*	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<2.0*
7	Apr-08	6.86	5.96	*NA*	160	*<0.5*	*<0.5*	*<0.5*	*<0.5*	3.0
8	Jul-08	7.70	5.12	*NA*	97	*<0.5*	*<0.5*	*<0.5*	*<0.5*	5.5
9	Oct-08	8.44	4.38	3,280	71	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<2.0*
10	Jan-09	6.99	5.83	2,120	*<50*	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<2.0*
11	Apr-09	6.47	6.35	5,800	110	*<0.5*	*<0.5*	*<0.5*	*<0.5*	1.9

MW-2B										
Sampling Event No.	**Date Sampled**	**Depth to Groundwater (a)**	**Groundwater Elevation (b)**	**Dissolved Oxygen**	**TVH-g**	**Benzene**	**Toluene**	**Ethylbenzene**	**Total Xylenes**	**MTBE**
1	Oct-06	7.90	5.06	*NA*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
2	Jan-07	6.59	6.37	*NA*	2,000	*<0.5*	1.1	6.7	0.8	19
3	Apr-07	6.20	6.76	*NA*	84	*<0.5*	*<0.5*	*<0.5*	*<0.5*	18
4	Jul-07	7.33	5.63	*NA*	580	*<0.5*	*<0.5*	*<0.5*	*<0.5*	6.0
5	Oct-07	7.12	5.84	*NA*	1,700	*<0.5*	*<0.5*	*<0.5*	*<0.5*	83
6	Jan-08	5.51	7.65	*NA*	780	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	32
7	Apr-08	6.56	6.40	*NA*	92	*<0.5*	*<0.5*	*<0.5*	*<0.5*	2.4
8	Jul-08	7.78	5.18	*NA*	570	*<0.5*	*<0.5*	*<0.5*	0.72	17
9	Oct-08	8.62	4.34	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
10	Jan-09	7.03	5.93	2,160	110	*<0.5*	*<0.5*	*<0.5*	*<0.5*	27
11	Apr-09	6.21	6.75	5,800	250	*<0.5*	*<0.5*	*<0.5*	*<0.5*	30

MW-3A										
Sampling Event No.	**Date Sampled**	**Depth to Groundwater (a)**	**Groundwater Elevation (b)**	**Dissolved Oxygen**	**TVH-g**	**Benzene**	**Toluene**	**Ethylbenzene**	**Total Xylenes**	**MTBE**
1	Oct-06	dry	dry	*NA*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
2	Jan-07	6.32	5.27	*NA*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
3	Apr-07	5.75	5.84	*NA*	*<50*	*<0.5*	*<0.5*	*<0.5*	*<0.5*	75
4	Jul-07	6.19	5.40	*NA*	NS	NS	NS	NS	NS	NS
5	Oct-07	6.50	5.09	*NA*	*<50*	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<0.5*
6	Jan-08	5.69	6.07	*NA*	*<50*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	70
7	Apr-08	6.56	6.40	*NA*	*<50*	*<0.5*	*<0.5*	*<0.5*	*<0.5*	77
8	Jul-08	6.73	4.86	*NA*	*<50*	*<0.5*	*<0.5*	*<0.5*	*<0.5*	56
9	Oct-08	8.68	2.91	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
10	Jan-09	6.28	5.31	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
11	Apr-09	5.58	6.01	8,100	<50	*<0.5*	*<0.5*	*<0.5*	*<0.5*	52

MW-3B										
Sampling Event No.	**Date Sampled**	**Depth to Groundwater (a)**	**Groundwater Elevation (b)**	**Dissolved Oxygen**	**TVH-g**	**Benzene**	**Toluene**	**Ethylbenzene**	**Total Xylenes**	**MTBE**
1	Oct-06	7.34	4.61	*NA*	1,900	*<10*	*<10*	*<10*	*<10*	*<10*
2	Jan-07	6.41	5.54	*NA*	1,900	*<8.3*	*<8.3*	*<8.3*	*<8.3*	*<8.3*
3	Apr-07	6.39	5.56	*NA*	1,900	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<0.5*
4	Jul-07	7.15	4.80	*NA*	1,200	*<2.0*	*<2.0*	*<2.0*	*<2.0*	*<2.0*
5	Oct-07	7.11	4.84	*NA*	2,100	*<7.1*	*<7.1*	*<7.1*	*<7.1*	*<7.1*
6	Jan-08	5.60	6.50	*NA*	2,100	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	*<2.0*
7	Apr-08	6.77	5.18	*NA*	1,800	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<2.0*
8	Jul-08	7.50	4.45	*NA*	1,700	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<2.0*
9	Oct-08	8.11	3.84	1,490	2,300	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<2.0*
10	Jan-09	6.84	5.11	1,480	1,500	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<2.0*
11	Apr-09	6.24	5.71	5,300	4,900	*<0.5*	*<0.5*	*<0.5*	*<0.5*	<2.0

MW-4A										
Sampling Event No.	**Date Sampled**	**Depth to Groundwater (a)**	**Groundwater Elevation (b)**	**Dissolved Oxygen**	**TVH-g**	**Benzene**	**Toluene**	**Ethylbenzene**	**Total Xylenes**	**MTBE**
1	Oct-06	9.74	1.28	*NA*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
2	Jan-07	5.64	5.38	*NA*	*<50*	*<0.5*	*<0.5*	*<0.5*	*<0.5*	72
3	Apr-07	5.34	5.68	*NA*	*<50*	*<0.5*	*0.6*	*<0.5*	0.6	77
4	Jul-07	5.71	5.31	*NA*	*<50*	*<0.5*	*<0.5*	*<0.5*	*<0.5*	64
5	Oct-07	6.09	4.93	*NA*	*<50*	*<0.5*	*<0.5*	*<0.5*	*<0.5*	73
6	Jan-08	5.53	5.72	*NA*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
7	Apr-08	5.56	5.46	*NA*	<50	<0.5	<0.5	<0.5	<0.5	61
8	Jul-08	6.30	4.34	*NA*	<50	*<0.5*	*<0.5*	*<0.5*	*<0.5*	46
9	Oct-08	10.45	0.57	1,870	<50	*<0.5*	*<0.5*	*<0.5*	*<0.5*	66
10	Jan-09	6.00	5.02	2,350	<50	*<0.5*	*<0.5*	*<0.5*	*<0.5*	6.7
11	Apr-09	5.45	5.57	7,100	<50	*<0.5*	*<0.5*	*<0.5*	*<0.5*	11

MW-4B										
Sampling Event No.	**Date Sampled**	**Depth to Groundwater (a)**	**Groundwater Elevation (b)**	**Dissolved Oxygen**	**TVH-g**	**Benzene**	**Toluene**	**Ethylbenzene**	**Total Xylenes**	**MTBE**
1	Oct-06	6.63	4.41	*NA*	1,100	*<2.5*	*<2.5*	*<2.5*	*<2.5*	*<2.5*
2	Jan-07	5.55	5.49	*NA*	1,300	*<4.2*	*<4.2*	*<4.2*	*<4.2*	*<4.2*
3	Apr-07	5.45	5.59	*NA*	1,300	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<0.5*
4	Jul-07	6.28	4.76	*NA*	1,000	*<4.2*	*<4.2*	*<4.2*	*<4.2*	*<4.2*
5	Oct-07	6.13	4.91	*NA*	1,400	*<4.2*	*<4.2*	*<4.2*	*<4.2*	*<4.2*
6	Jan-08	4.81	6.44	*NA*	1,500	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<2.0*
7	Apr-08	5.90	5.14	*NA*	1,500	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<2.0*
8	Jul-08	6.70	4.34	*NA*	1,200	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<2.0*
9	Oct-08	7.24	3.80	1,960	1,600	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<2.0*
10	Jan-09	6.00	5.04	1,620	980	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<2.0*
11	Apr-09	5.35	5.69	5,200	3,700	*<4.2*	*<4.2*	*<4.2*	*<4.2*	<4.2

MW-5A										
Sampling Event No.	**Date Sampled**	**Depth to Groundwater (a)**	**Groundwater Elevation (b)**	**Dissolved Oxygen**	**TVH-g**	**Benzene**	**Toluene**	**Ethylbenzene**	**Total Xylenes**	**MTBE**
1	Oct-06	9.60	2.82	*NA*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
2	Jan-07	6.72	6.10	*NA*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
3	Apr-07	5.74	6.68	*NA*	1,000	6.6	*<0.5*	29	7.6	79
4	Jul-07	6.98	5.44	*NA*	NS	*NS*	*NS*	*NS*	*NS*	*NS*
5	Oct-07	8.32	4.10	*NA*	820	6.6	*<0.5*	6.6	1.8	78
Well Destoyed in November 2007										

MW-5B										
Sampling Event No.	**Date Sampled**	**Depth to Groundwater (a)**	**Groundwater Elevation (b)**	**Dissolved Oxygen**	**TVH-g**	**Benzene**	**Toluene**	**Ethylbenzene**	**Total Xylenes**	**MTBE**
1	Oct-06	9.07	3.31	*NA*	13,000	9.6	0.6	21	1.9	37
2	Jan-07	6.45	5.93	*NA*	6,600	4.0	*<0.5*	10	1.0	22
3	Apr-07	6.45	5.93	*NA*	3,300	0.7	*<0.5*	2.7	*<0.5*	*<0.5*
4	Jul-07	7.15	5.23	*NA*	2,000	1.1	*<0.5*	2.2	*<0.5*	26
5	Oct-07	7.28	5.10	*NA*	1,200	*<0.5*	*<0.5*	*<0.5*	*<0.5*	45
6	Jan-08	4.94	7.63	*NA*	1,200	*<0.5*	*<0.5*	4.1	*<0.5*	69
7	Apr-08	6.51	5.87	*NA*	240	*<0.5*	*<0.5*	<0.5	*<0.5*	65
8	Jul-08	7.64	4.74	*NA*	310	*<0.5*	*<0.5*	<0.5	*<0.5*	68
9	Oct-08	8.24	4.14	1,670	780	*<0.5*	*<0.5*	<0.5	*<0.5*	84
10	Jan-09	6.93	5.45	3,210	1,200	*<0.5*	*<0.5*	<0.5	4.2	56
11	Apr-09	5.82	6.56	5,900	220	*<0.5*	*<0.5*	*<0.5*	*<0.5*	73

Notes:

All concentrations reported in micrograms per liter.

TVH-g = Total volatile hydrocarbons – gasoline range.

NA = Not analyzed for this constituent. NS = Not sampled

(a) Feet below top of casing

(b) Relative to mean sea level

TABLE B
Historical Groundwater Monitoring Well Groundwater Analytical Results
Lead Scavengers and Fuel Oxygenates (µg/L)
2836 Union Street, Oakland, California

MW-1A								
Sampling Event No.	**Date Sampled**	**EDC**	**EDB**	**ETBE**	**DIPE**	**TAME**	**TBA**	**DO**
1	Oct-06	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
2	Jan-07	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*NA*
3	Apr-07	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
4	Jul-07	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
5	Oct-07	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*NA*
6	Jan-08	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
7	Apr-08	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
8	Jul-08	*<0.5*	*<0.5*	*<0.5*	*<0.5*	1	*<10*	*NA*
9	Oct-08	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
10	Jan-09	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
11	Apr-09	*<0.5*	*<0.5*	*<0.5*	*<0.5*	0.8	12	7,100

MW-1B								
Sampling Event No.	**Date Sampled**	**EDC**	**EDB**	**ETBE**	**DIPE**	**TAME**	**TBA**	**DO**
1	Oct-06	3.1	*<1.3*	*<1.3*	*<1.3*	*<1.3*	*<25*	*NA*
2	Jan-07	3.3	*<1.3*	*<1.3*	*<1.3*	*<1.3*	*<25*	*NA*
3	Apr-07	4.8	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<10*	*NA*
4	Jul-07	3.4	*<1.3*	*<1.3*	*<1.3*	*<1.3*	*<25*	*NA*
5	Oct-07	3.3	*<1.3*	*<1.3*	*<1.3*	*<1.3*	*<25*	*NA*
6	Jan-08	4.7	*<1.3*	*<1.3*	*<1.3*	*<1.3*	*<25*	*NA*
7	Apr-08	4.7	*<1.3*	*<1.3*	*<1.3*	*<1.3*	*<25*	*NA*
8	Jul-08	5.4	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<10*	*NA*
9	Oct-08	3	*<1.0*	*<1.0*	*<1.0*	*<1.0*	*<20*	3,600
10	Jan-09	4.4	*<1.0*	*<1.0*	*<1.0*	*<1.0*	*<20*	6,160
11	Apr-09	2.9	*<1.0*	*<1.0*	*<1.0*	*<1.0*	*<20*	6,200

MW-2A								
Sampling Event No.	**Date Sampled**	**EDC**	**EDB**	**ETBE**	**DIPE**	**TAME**	**TBA**	**DO**
1	Oct-06	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<10*	*NS*
2	Jan-07	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
3	Apr-07	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
4	Jul-07	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
5	Oct-07	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
6	Jan-08	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
7	Apr-08	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
8	Jul-08	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<10*	*NS*
9	Oct-08	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	3,280
10	Jan-09	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	2,120
11	Apr-09	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<10*	5,800

MW-2B								
Sampling Event No.	**Date Sampled**	**EDC**	**EDB**	**ETBE**	**DIPE**	**TAME**	**TBA**	**DO**
1	Oct-06	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
2	Jan-07	4.1	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<10*	*NA*
3	Apr-07	6.9	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<10*	*NA*
4	Jul-07	1.4	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<10*	*NA*
5	Oct-07	4.1	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<10*	*NA*
6	Jan-08	3.9	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<10*	*NA*
7	Apr-08	3.9	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<10*	*NA*
8	Jul-08	1.3	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<10*	*NA*
9	Oct-08	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
10	Jan-09	4.3	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<10*	2,160
11	Apr-09	2.4	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<10*	5,800

MW-3A								
Sampling Event No.	**Date Sampled**	**EDC**	**EDB**	**ETBE**	**DIPE**	**TAME**	**TBA**	**DO**
1	Oct-06	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
2	Jan-07	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
3	Apr-07	0.9	*<0.5*	*<0.5*	*<0.5*	*<0.5*	14	*NA*
4	Jul-07	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
5	Oct-07	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
6	Jan-08	0.8	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<10*	*NA*
7	Apr-08	0.8	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<10*	*NA*
8	Jul-08	0.8	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<10*	*NA*
9	Oct-08	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
10	Jan-09	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
11	Apr-09	1.2	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<10*	8,100

MW-3B								
Sampling Event No.	**Date Sampled**	**EDC**	**EDB**	**ETBE**	**DIPE**	**TAME**	**TBA**	**DO**
1	Oct-06	*<10*	*<10*	*<10*	*<10*	*<10*	*<200*	*NA*
2	Jan-07	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
3	Apr-07	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
4	Jul-07	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
5	Oct-07	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
6	Jan-08	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
7	Apr-08	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
8	Jul-08	*<6.3*	*<6.3*	*<6.3*	*<6.3*	*<6.3*	*<130*	*NA*
9	Oct-08	*<5.0*	*<5.0*	*<5.0*	*<5.0*	*<5.0*	*<100*	1,490
10	Jan-09	*<5.0*	*<5.0*	*<5.0*	*<5.0*	*<5.0*	*<100*	1,480
11	Apr-09	*<5.0*	*<5.0*	*<5.0*	*<5.0*	*<5.0*	*<100*	5,300

MW-4A								
Sampling Event No.	**Date Sampled**	**EDC**	**EDB**	**ETBE**	**DIPE**	**TAME**	**TBA**	**DO**
1	Oct-06	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
2	Jan-07	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*NA*
3	Apr-07	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
4	Jul-07	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
5	Oct-07	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
6	Jan-08	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NA*
7	Apr-08	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NA*
8	Jul-08	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<10*	*NA*
9	Oct-08	*<4.2*	*<4.2*	*<4.2*	*<4.2*	*<4.2*	*<83*	1,960
10	Jan-09	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	2,350
11	Apr-09	11	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<10*	7,100

MW-4B								
Sampling Event No.	**Date Sampled**	**EDC**	**EDB**	**ETBE**	**DIPE**	**TAME**	**TBA**	**DO**
1	Oct-06	*<2.5*	*<0.5*	*<1*	*<1*	*<2.5*	*<50*	*NA*
2	Jan-07	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
3	Apr-07	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
4	Jul-07	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
5	Oct-07	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
6	Jan-08	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
7	Apr-08	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
8	Jul-08	*<4.2*	*<4.2*	*<4.2*	*<4.2*	*<4.2*	*<83*	*NA*
9	Oct-08	*<4.2*	*<4.2*	*<4.2*	*<4.2*	*<4.2*	*<83*	1,960
10	Jan-09	*<4.2*	*<4.2*	*<4.2*	*<4.2*	*<4.2*	*<83*	1,620
11	Apr-09	*<4.2*	*<4.2*	*<4.2*	*<4.2*	*<4.2*	*<83*	5,200

MW-5A								
Sampling Event No.	**Date Sampled**	**EDC**	**EDB**	**ETBE**	**DIPE**	**TAME**	**TBA**	**DO**
1	Oct-06	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
2	Jan-07	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
3	Apr-07	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*4.3*	*<10*	*NA*
4	Jul-07	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
5	Oct-07	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
Well Destoyed in November 2007								

MW-5B								
Sampling Event No.	**Date Sampled**	**EDC**	**EDB**	**ETBE**	**DIPE**	**TAME**	**TBA**	**DO**
1	Oct-06	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*1.5*	*<10*	*NA*
2	Jan-07	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<10*	*NA*
3	Apr-07	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
4	Jul-07	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
5	Oct-07	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<10*	*NA*
6	Jan-08	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
7	Apr-08	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
8	Jul-08	*<0.5*	*<0.5*	*<0.5*	*<0.5*	3.3	*<10*	*NA*
9	Oct-08	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<0.5*	1,670
10	Jan-09	*<0.5*	*<0.5*	*<0.5*	*<0.5*	2.3	*<10*	3,210
11	Apr-09	*<0.5*	*<0.5*	*<0.5*	*<0.5*	3.5	*<10*	5,900

Notes:

NA = Not analyzed for this constituent. NS = Not sampled

EDB = Ethylene dibromide (1,2-dibromoethane). EDC = Ethylene dichloride (1,2-dichloroethane).

DIPE = isopropyl ether. ETBE = Ethyl-tertbutyl ether. TAME = Tert-amylmethylether

TBA = Tertiary butyl alcohol

DO = Dissolved Oxygen