FOURTH QUARTER 2007 GROUNDWATER MONITORING AND ANNUAL SUMMARY REPORT

2836 UNION STREET
OAKLAND, CALIFORNIA

Prepared for:

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

December 2007

STELLAR
ENVIRONMENTAL SOLUTIONS, INC.
GEOSCIENCE & ENGINEERING CONSULTING

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STELLAR ENVIRONMENTAL SOLUTIONS, INC.
2198 SIXTH STREET, SUITE 201
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December 18, 2007

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December 18, 2007

Mr. Barney Chan
Hazardous Materials Specialist
Alameda County Environmental Health Care Services Agency
Department of Environmental Health – Local Oversight Program
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Subject: Fourth Quarter 2007 Groundwater Monitoring and Annual Summary Report
Former Modern Mail Service, 2836 Union Street, Oakland, California
Alameda County Environmental Health Department Fuel Leak Case No. RO2901

Dear Mr. Chan:

On behalf of the property owner and "Responsible Party" (Estate of Lawrence M. Wadler), Stellar Environmental Solutions, Inc. (SES) is submitting this Fourth Quarter 2007 Groundwater Monitoring and Annual Summary Report for the former Modern Mail Service Facility at 2836 Union Street, Oakland, California. The report documents the Q4-2007 groundwater monitoring event and excavation dewatering, related to petroleum contamination from a former underground fuel storage tank. This report also summarizes historical findings, evaluates hydrologic and hydrochemical contaminant trends, and assesses contaminant plume stability and the potential for migration. This is the 5th consecutive quarterly groundwater monitoring event conducted at this site. The report has been uploaded to Alameda County Environmental Health and to the State Water Resources Control Board's GeoTracker system.

The property owners have pursued more aggressive measures that have included extraction of contaminated groundwater, removal of a portion of the onsite building to enable excavation of underlying contaminated soil and inoculation with ORC compound in order to move the site more rapidly toward closure. This corrective action was conducted on November 26th and 27th of 2007, and will be documented in a forthcoming report.

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,

Henry Pietropaoli, R.G., R.E.A.
Principal

Richard S. Makdisi, R.G., R.E.A.
Project Manager

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TABLES AND FIGURES

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 groundwater extraction event and well monitoring conducted in August and October of 2007 respectively. 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 an auto body repair facility (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 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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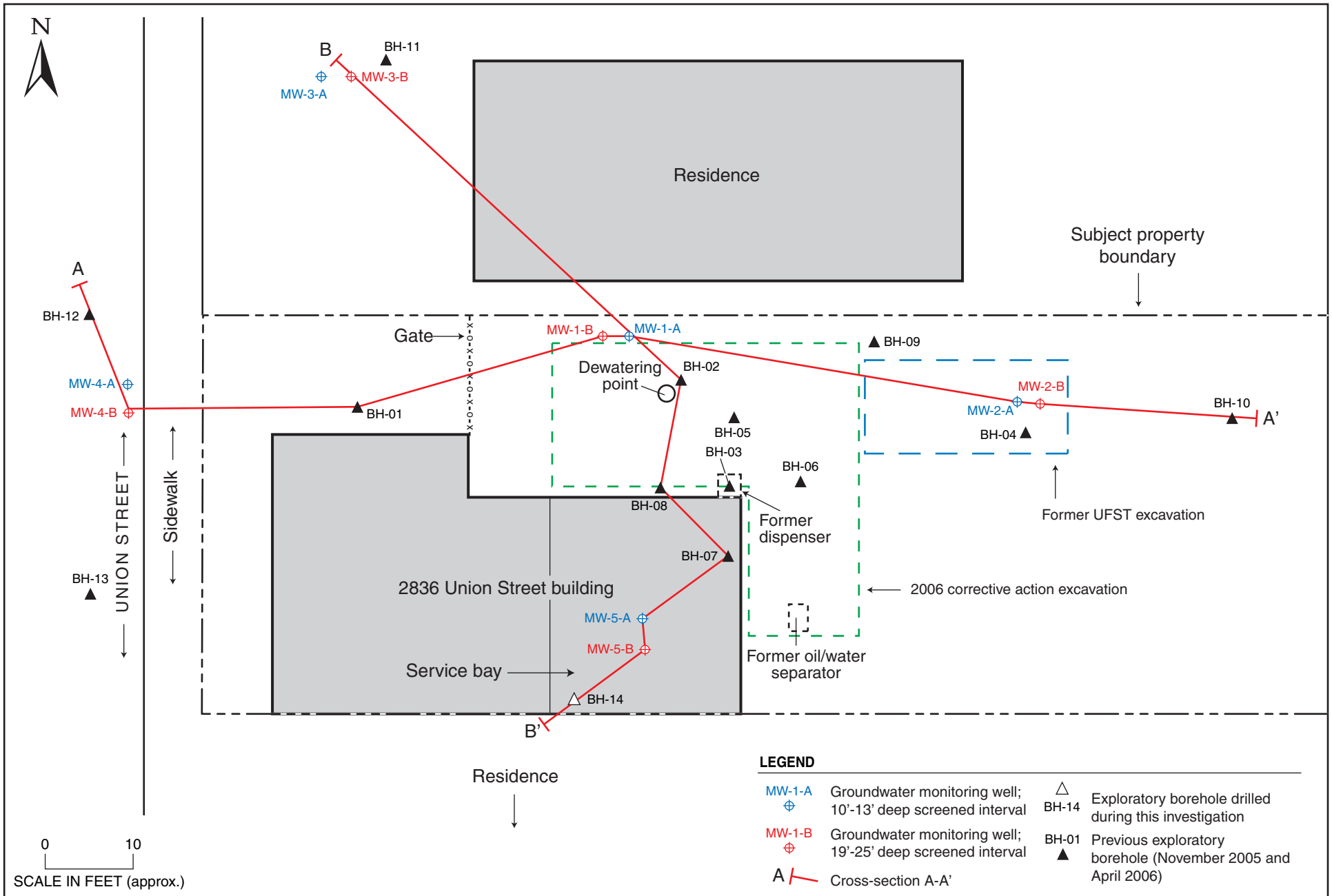

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SITE PLAN SHOWING LOCATIONS OF SOIL BORINGS

2836 Union Street, Oakland, CA

Figure 2

by: MJC | NOVEMBER 2006

2005-65-47

Additional site investigation 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 warranting groundwater monitoring and the removal of the remaining (accessible) contaminated soils by excavation, as an interim corrective action. That investigation is summarized in a technical report (SES, 2006b).

A corrective action implementing the April 2006 recommendations conducted between September and December 2006 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. Contaminated soil, at estimated concentrations of 1,000+ milligrams per kilogram (mg/kg) was inaccessible for removal and remained beneath the onsite building. That investigation is summarized in a SES technical report (SES, 2006c). Removal of this previously inaccessible soil beneath the onsite building was conducted on November 2007. This corrective action will be discussed in a forthcoming excavation and remediation report.

REGULATORY STATUS

The Alameda County Environmental Health Care Services Agency, Department of Environmental Health (Alameda County Environmental Health) 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 Alameda County Environmental Health or Water Board cleanup orders for the site; however, all site work has been conducted under oversight of Alameda County Environmental Health. Alameda County Environmental Health has assigned the site to its fuel leak case system (RO#2901), and a case officer has been assigned. 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.

SCOPE OF WORK

This report discusses the fourth quarter 2007 groundwater monitoring event conducted in October 2007. In addition, on August 1, 2007, approximately 4,445 gallons of petroleum-contaminated water was pumped from a temporary dewatering point in the backfilled excavation. On August 9, 2007, the purged groundwater was transported from the site and disposed of at a certified recycler.

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.

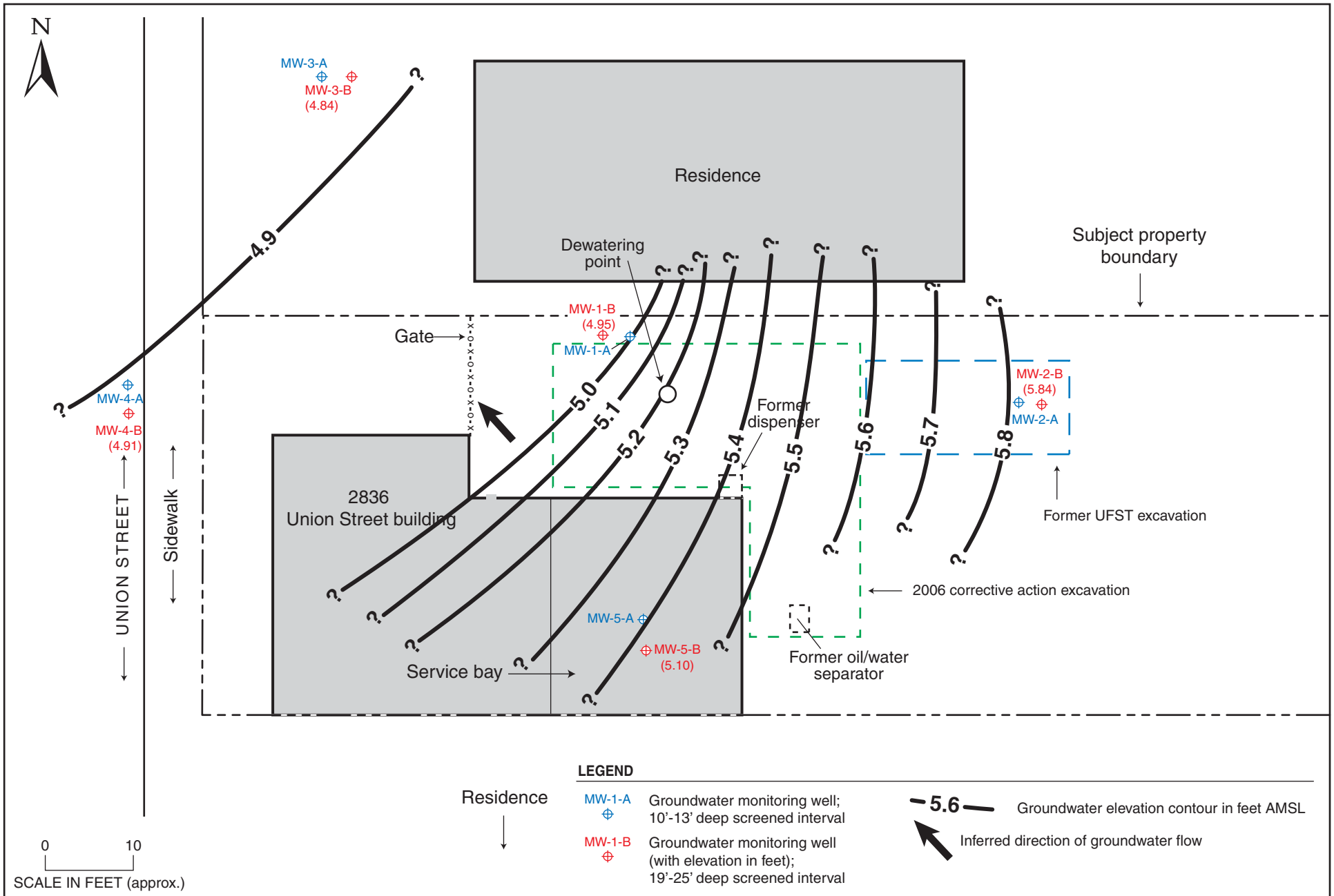
LITHOLOGY AND HYDROGEOLOGY

The predominant soil type in all site boreholes was silty clay, generally firm and plastic. 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 with the occurrence of groundwater coincident in 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 October 25, 2007 groundwater elevation measurements. The flow direction is indicated to be to toward the west-northwest (toward San Francisco Bay), generally parallel to the long dimension of the groundwater contaminant plume. Subject property groundwater gradient in the current event was relatively flat, at approximately 0.009 feet/foot. The groundwater gradient has varied since October 2006 between approximately 0.006 feet/foot and 0.01 feet/foot, averaging approximately 0.008 feet/foot.



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GROUNDWATER ELEVATION MAP (B-WELLS)

2836 Union Street, Oakland, CA

Figure 3

by: MJC | NOVEMBER 2007

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3.0 FOURTH QUARTER 2007 GROUNDWATER MONITORING, SAMPLING AND EXCAVATION DEWATERING

This section presents the groundwater sampling and analytical methods for the most recent event (Fourth Quarter 2007), conducted on October 25, 2007. In addition, approximately 4,445 gallons of groundwater was pumped from the excavation on August 1, 2007 as a corrective action measure (to remove dissolved contaminant mass).

GROUNDWATER MONITORING

Groundwater monitoring well water level measurements, sampling, and field analyses were conducted by Blaine Tech Services (San Jose, California) on October 25, 2007, under the direct supervision of SES personnel. To minimize the potential for cross-contamination, wells were purged and sampled in order of anticipated increasing contamination (based on analytical results from the previous quarter).

As the first monitoring task, static water levels were measured in the ten site wells using an electric water level indicator. The wells were then sampled with a peristaltic pump, during which the groundwater quality parameters of temperature, pH, conductivity, and turbidity were field-measured using daily-calibrated instruments. Approximately 6.8 gallons of sampling purge water was generated and containerized onsite. The purge water was 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. The certified analytical results are contained in Appendix C

Table 1
Monitoring Well Groundwater Elevation Data – October 25, 2007
2836 Union Street, Oakland, California

Well	Well Depth Below TOC	Rim Elevation	TOC Elevation	Groundwater Elevation (10/25/07)
MW-1A	12.59	12.52	12.25	4.96
MW-1B	22.52	12.48	12.05	4.95
MW-2A	12.69	13.06	12.82	5.49
MW-2B	24.59	13.16	12.96	5.84
MW-3A	13.06	11.76	11.59	5.09
MW-3B	25.06	12.10	11.95	4.84
MW-4A	12.28	11.25	11.02	4.93
MW-4B	24.32	11.25	11.04	4.91
MW-5A	12.58	12.56	12.42	4.10
MW-5B	25.39	12.57	12.38	5.10

Notes:

TOC = top of casing

Wells are 1-inch diameter.

All elevations are in feet above mean sea level.

EXCAVATION DEWATERING

On August 1, 2007, approximately 4,445 gallons of petroleum-contaminated water was pumped from a temporary dewatering point in the backfilled excavation. The pumped water was stored onsite in a 4,500-gallon plastic tank. A sample for disposal purposes was collected, prior to removal and disposal of the water by Evergreen Environmental Services on August 9, 2007. Appendix D contains excavation dewatering analytical results, disposal, and transport documentation. Analytical results of the purged groundwater discussed in Section 4.0

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.

In our professional opinion, the appropriate ESLs for the subject site are based on the following:

- Residential land use (due to the residence adjoining the property) and commercial/ industrial use (for the subject property itself). Note that, for both soil and groundwater contaminants, all ESLs for 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 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.
- 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. Exceedance of 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; BTEX; and methyl *tertiary*-butyl ether (MTBE). In addition, several other contaminants were analyzed (as required by Alameda County Environmental Health)—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 Alameda County Environmental Health requirement)
- EDC and EDB, by EPA Method 8260B (in accordance with Alameda County Environmental Health 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.

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 and the excavation dewatering analytical results for TVHg, associated constituents. Table 3 presents the analytic results of the fuel oxygenates and lead scavengers analysis. The certified laboratory reports are contained in Appendix C.

Groundwater Analytical Results

TVHg and benzene were detected above their ESLs in all monitoring wells in which they were detected. MTBE was detected above its ESL in wells MW-1A, MW-2B, MW-4A, and MW-5B, the wells with the highest contaminant concentration closest to the source area. Ethylbenzene was detected in wells MW-1A, MW-2B, and MW-5B. Toluene and total xylenes were also detected in wells MW-2B and MW-5B. The lead scavenger 1,2-dichloroethane was detected above its ESL in wells MW-1B and MW-2B.

Figure 4 shows an isoconcentration contour map of TVHg concentration in groundwater based on the October 2007 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.

Table 2
October 2007 Groundwater Analytical Results
2836 Union Street, Oakland, California

Sample	TVHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE
Monitoring Wells						
MW-1A	**830**	**28**	*<0.7*	13	*<0.7*	**110**
MW-1B	**230**	*<0.7*	*<0.7*	*<0.7*	*<0.7*	**6.0**
MW-2A	<50	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<0.5*
MW-2B	**1,700**	*<0.5*	*<0.5*	*<0.5*	*<0.5*	**83**
MW-3A	<50	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*<0.5*
MW-3B	**2,100**	*<7.1*	*<7.1*	*<7.1*	*<7.1*	*<7.1*
MW-4A	<50	*<0.5*	*<0.5*	*<0.5*	*<0.5*	**73**
MW-4B	**1,400**	*<4.2*	*<4.2*	*<4.2*	*<4.2*	*<4.2*
MW-5A	**820**	**6.6**	*<0.5*	6.6	*1.8*	**78**
MW-5B	**1,200**	*<0.5*	*<0.5*	*<0.5*	*<0.5*	**45**
Excavation Dewatering [(a)]						
EX-1	**4,500**	**47**	**58**	**200**	**400**	**59**
Groundwater ESLs	100	1.0	40	30	13	5.0
MCLs	NLP	1.0	40	30	20	5.0

Notes:

[(a)] Sample collected from temporary former excavation dewatering point.

ESLs = Water Board Environmental Screening Levels for residential or commercial/industrial sites where groundwater is a potential drinking water resource (Water Board 2005). California MCLs = Maximum Contaminant Levels

NLP = No level published

MTBE = methyl tertiary-butyl ether
TVHg = total volatile hydrocarbons as gasoline

NA = not analyzed for this constituent; NS = not sampled

All concentrations are in micrograms per liter (µg/L). Samples in **bold-face** type exceed the ESL criterion.

Table 3
October 2007 Groundwater Sample Analytical Results
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*	*< 0.5*	*< 0.5*
MW-1B	**3.3**	*<1.3*	*<1.3*	*<1.3*	*<1.3*	<25
MW-2A	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
MW-2B	**4.1**	*< 0.5*	*< 0.5*	*< 0.5*	*<0.5*	*<10*
MW-3A	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
MW-3B	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
MW-4A	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*
MW-4B	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
MW-5A	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
MW-5B	*<0.5*	*<0.5*	*<0.5*	*<0.5*	*< 0.5*	*< 10*
Water Board Environmental Screening Levels						
Groundwater ESLs	0.05	0.005	NLP	NLP	NLP	NLP

Notes:

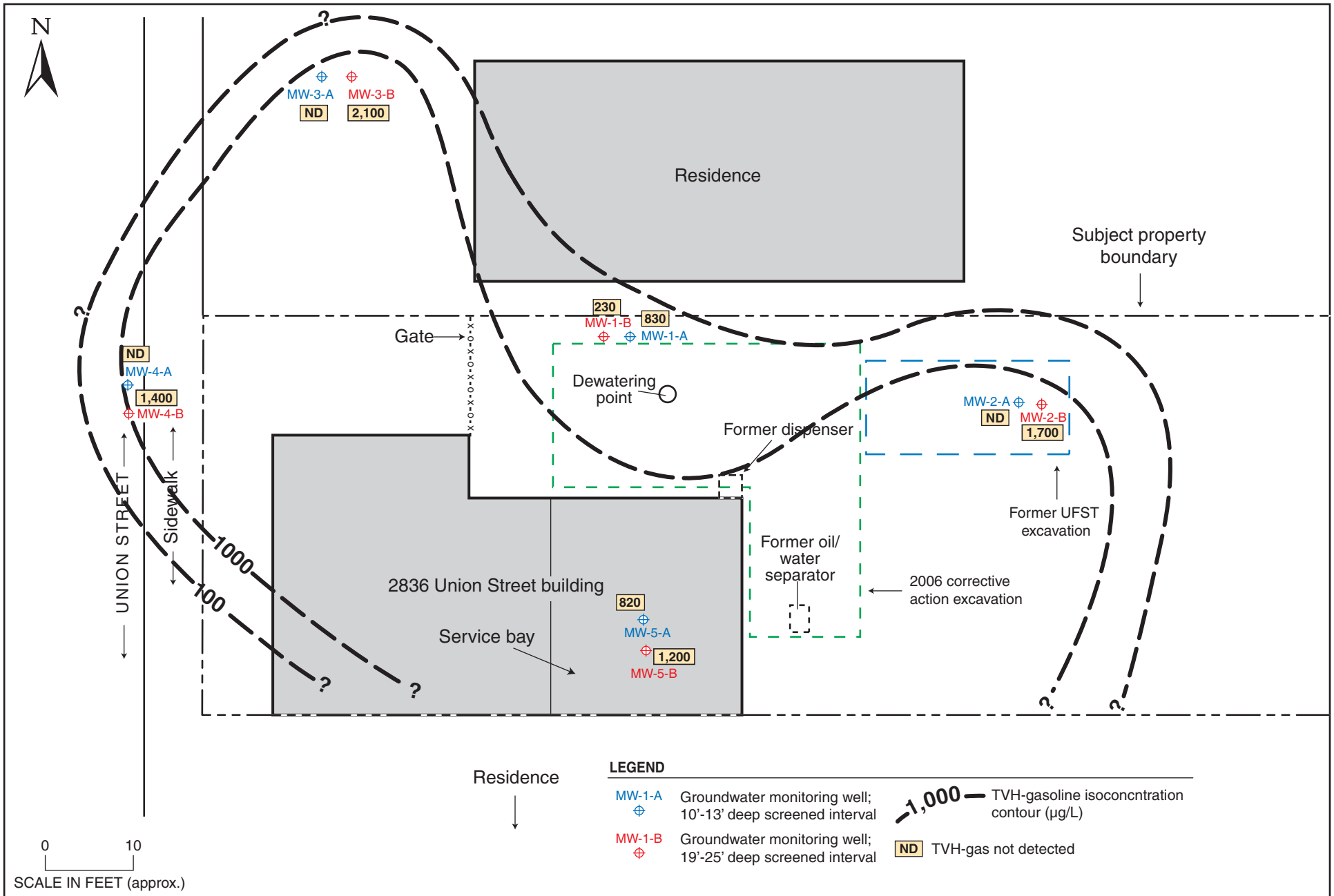
ESLs = Water Board Environmental Screening Levels for residential or commercial/industrial sites where groundwater is a potential drinking water resource.

NLP = no level published

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

All concentrations are in micrograms per liter (µg/L). Samples in **bold-face** type exceed the ESL criterion.



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TVH-GASOLINE PLUME — OCTOBER 25, 2007
2836 Union Street, Oakland, CA

Figure 4

by: MJC | NOVEMBER 2007

2005-65-59

Excavation Dewatering and Estimated Contaminant Mass Removal

On August 1, 2007 a total of 4,445 gallons of TVHg-contaminated groundwater was removed from the site, with an average concentration of 4,500 micrograms per liter (µg/L). This represents a mass removal of approximately 0.17 pounds of gasoline.

The excavation water sample was collected at a dewatering point directly downgradient of the former UFST location, the area of highest residual soil contamination beneath the building. In this and previous events, the grab-groundwater sample collected this event after dewatering have consistently displayed contaminant concentrations typically much higher than are displayed in samples collected from nearby groundwater monitoring wells. This results from sorbed-phase contamination from high dissolved solids (turbidity) in grab-groundwater samples, relative to lower-turbidity well samples that have been passively filtered through well annular filter pack, displaying only the dissolved-phase of contamination. Direct comparison of grab-groundwater samples to well samples is problematic, however the it is indicative of the presence of groundwater contaminant source.

Appendix D contains the dewatering data, including certified analytical results, chain-of-custody record, disposal, and transport documentation for the excavation purge water.

5.0 EVALUATION OF HYDROCHEMICAL TRENDS AND PLUME STABILITY

This section evaluates the observed hydrologic and hydrochemical trends with regard to plume stability and contaminant migration. An assessment is made of the nature of residual contaminated soil that acts as a continued source of groundwater contamination. A conceptual model (incorporating site lithology, hydrogeology, and hydrochemistry) is presented to explain the spatial extent and magnitude of the dissolved hydrocarbon plume.

CONTAMINANT SOURCE ASSESSMENT

One 10,000-gallon gasoline UFST was installed in the late 1970s. The UFST operated under Alameda County Environmental Health permit (Permit No. STID 4065) until its removal in 1998.

Site soil and groundwater has been contaminated by gasoline and associated aromatic hydrocarbons. Soil analytical results show that soil contamination began at a depth of approximately 6 to 7 feet, and did not extend deeper than approximately 11 feet.

Soil contamination above ESL criteria appears to be constrained on site in the area of MW-1A and MW-1B where it could not be removed over the property boundary.

While past corrective actions removed a substantial mass of contamination, shallow groundwater will continue to be slightly impacted by the remaining residual soil contamination by desorption from soil into groundwater.

As evidenced by soil boring sample analysis, the dissolved phase hydrocarbon contamination in the groundwater does not appear to be adsorbing onto downgradient soils.

Summary

The mass of unsaturated zone soil contamination has been removed to the extent practical and investigations indicate there is no remaining significant residual contamination present on site.

WATER LEVEL TRENDS

Appendix E contains historical groundwater elevation. The data support the following conclusions:

- Groundwater elevations in all wells show general correlation with rainy versus dry season. Decreases in elevation are seen from approximately April through December, followed by an increase from December through April. This is a common seasonal trend observed in the upper water-bearing zone in the Bay Area region.
- The range of water level elevations in the B-wells screened from approximately 19 to 25 feet bgs has varied by less than 2 feet, and no substantial differences in elevations (beyond the seasonal fluctuations) have been noted since October 2006.
- The A-wells, screened from approximately 10 to 13 feet bgs and exhibit very slow recharge. These well are screened across units that are not laterally continuous and have not been used in the construction of the site groundwater elevation maps or the calculation of groundwater gradient. They have been used primarily to monitor shallow contamination.
- Groundwater at the site occurs at a depth of less than 10 feet, and appears to be under at least semi-confining conditions, rising in previous investigation borings from approximately 20 feet bgs to as high as 6 feet below grade, such that groundwater is in contact with residual contaminated soil.
- Historical groundwater flow direction has been predominantly to the west-northwest with minor deviations produced by local dewatering of contaminated water.
- Subject property groundwater gradient in previous events and in the current event was relatively flat, at approximately 0.009 feet/foot. Historical groundwater gradient (since October 2006) has varied between approximately 0.006 feet/foot and 0.01 feet/foot, averaging approximately 0.008 feet/foot.

HYDROCHEMICAL TRENDS

The contaminants of concern (those above regulatory ESLs) have been determined to be TVH as gasoline, benzene, MTBE and EDC.

Historical groundwater analytical results are included in Appendix F .

Gasoline

Figure 5 show hydrochemical trend data for gasoline in the site wells. Source area wells MW-1A, MW1B and MW-5A and MW5B showed an overall trend of decreased gasoline concentration since monitoring began in October 2006. Historically, source area well MW-5B has displayed higher gasoline concentrations than downgradient wells MW-3B and MW-4B and upgradient well MW-2B; however, during the October 2007 monitoring event, the concentrations of gasoline in these wells exceeded that of MW-5B.

Downgradient wells MW-4B and MW-3B have shown a relatively stable gasoline concentration since monitoring began in October 2006 and the concentration in upgradient well MW-2B is within its historical site minima and maxima.

Benzene

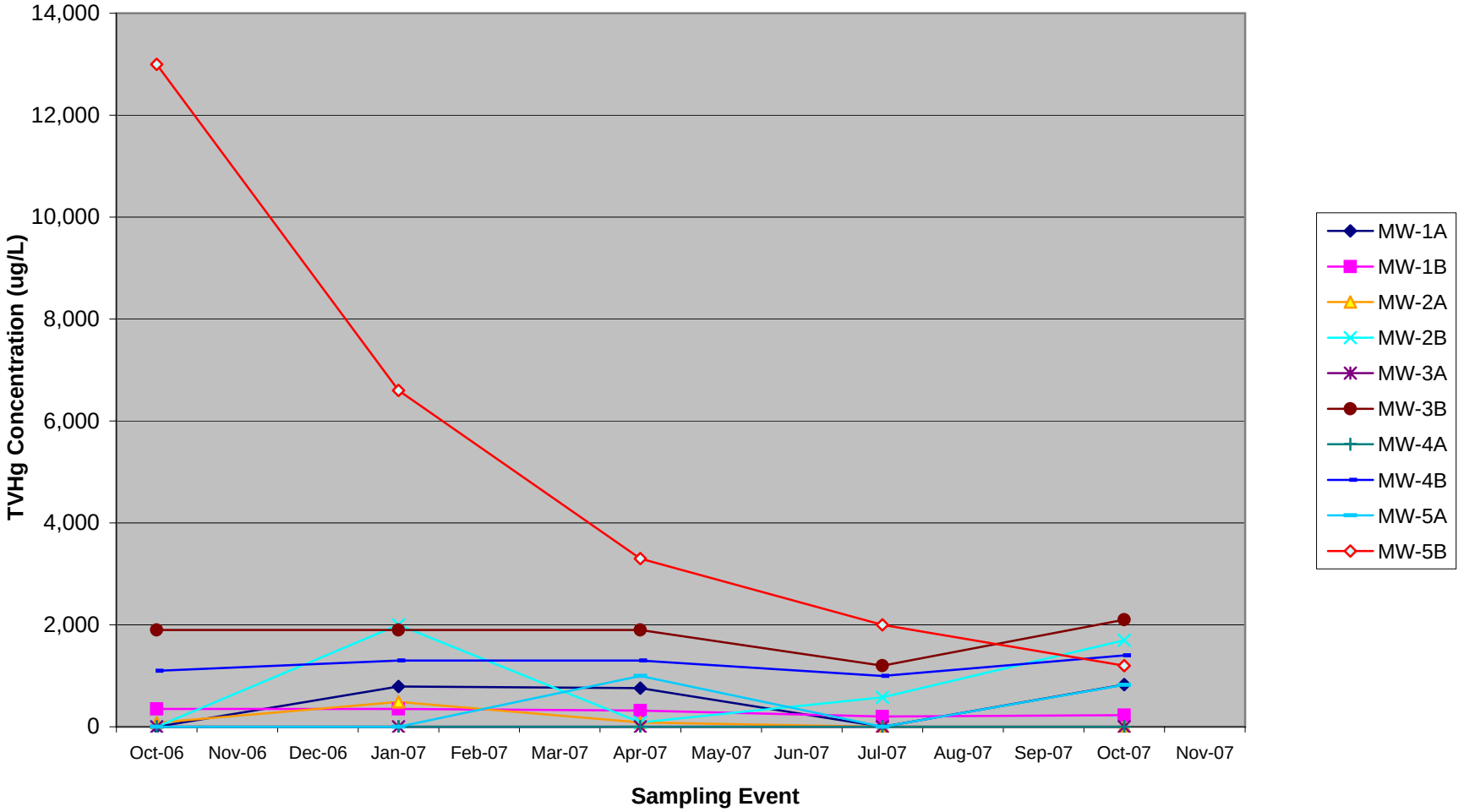
Well MW-1A (downgradient from the UST dispenser) having the highest benzene concentration, has shown a substantial decrease from 94 μg/L in January 2007 to 28 μg/L in October 2007. Well MW-5A, located within the November 2007 contaminated soil excavation has shown stable concentration and deeper well MW-5B has shown a decrease from 9.6 μg/L to none detected in October 2007.

MTBE and EDC

Concentrations of MTBE have remained relatively stable in all of the wells in which it has been detected. MTBE has been detected at relatively higher concentrations in the shallower A-wells and has been the only detected contaminant in wells, MW-3A, MW-4A downgradient from the source area, demonstrating its high soluble mobility.

EDC has been consistently detected in onsite wells MW-1B and MW-2B and once in offsite well MW-3A since monitoring began.

Figure 5: Historical Groundwater Analytical Results
Total Volatile Hydrocarbons as Gasoline (TVHg)
October 2006 - November 2007



PLUME GEOMETRY AND MIGRATION INDICATIONS

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.

As discussed in detail in Section 4.0, the contaminant plume in groundwater (gasoline, benzene and MTBE concentrations above ESL criteria) has an approximate maximum extent within the 100 µg/L TVHg isoconcentration contour of approximately 130 feet long by 60 feet wide in the October 2007 monitoring event, with a generally northwest-southeast longitudinal axis.

Contaminant concentrations of TVH as gasoline and MTBE above ESL criteria extend off site to the north-northwest (under Union Street). The MTBE plume shows generally the same configuration. The downgradient limits of the plume are inferred to extend offsite approximately 20 west and 40 feet north. The plume extends offsite about 20 feet in the south direction while the eastern upgradient limit of the plume is constrained on site.

The plume geometry has not varied substantially since monitoring began in October 2006, although seasonal fluctuations in contaminant concentrations have been observed. Relatively stable gasoline and benzene concentrations in downgradient wells suggest that downgradient migration of these constituents is not occurring.

Groundwater contaminant migration appears to be controlled locally by hydrogeologic conditions. Based on our experience, it is likely that the contaminant concentrations attenuate to below ESL criteria no more than 50 feet off site. However, continued quarterly groundwater monitoring in site wells is warranted to confirm that groundwater contaminant concentrations do not increase and/or there is no indication of significant plume migration.

CLOSURE CRITERIA ASSESSMENT AND PROPOSED ACTIONS

The Water Board generally requires that the following criteria be met before issuing regulatory closure of contaminant cases:

The contaminant source has been removed (i.e., the source of the discharge and obviously-contaminated soil). This criterion has been met. The UFST and associated piping and dispenser and residual soil contamination sources have been removed to the extent possible and borehole and excavation soil sampling have shown that the substantial mass of that will act as an ongoing source of groundwater contamination has been removed.

The groundwater contaminant plume is well characterized, and is stable or reducing in magnitude and extent. As discussed above, in our professional opinion, this criterion has not been entirely met, and continued groundwater monitoring will be needed to evaluate the effect of the November 2007 groundwater dewatering, contaminated soil excavation and ORC® application in order to demonstrate plume stability.

If residual contamination (soil or groundwater) exists, there is no reasonable risk to sensitive receptors (i.e., contaminant discharge to surface water or water supply wells) or to site occupants. This criterion is generally met by conducting a Risk-Based Corrective Action (RBCA) assessment that models the fate and transport of residual contamination in the context of potential impacts to sensitive receptors (e.g., water wells, residential land use).

6.0 SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

SUMMARY AND CONCLUSIONS

- One 10,000-gallon gasoline UFST was installed in the late 1970s. The UFST operated under Alameda County Environmental Health permit until its removal in 1998.
- A preliminary investigation was conducted in August 2005, additional site characterization investigations in October 2005 and April 2006 and a corrective action entailing contaminated soil excavation and the installation of ten monitoring wells was conducted in September to October 2006.
- In August 2007 approximately 4,445 gallons of contaminated groundwater was removed from the site, with an average concentration of 4,500 µg/L TVHg. This represents a mass removal of approximately 0.17 pounds of gasoline.
- Excavation dewatering has resulted in the capture of contaminant mass but has not resulted in the plume being drawn back on-site. Fourth quarter 2007 groundwater analytical results show a reduction in TVHg concentrations (a decrease from 2,000 µg/L reported in the July 2007 Q3 sampling event to 1,200 µg/L in the November 2007 Q4 sampling event) in the source area (MW 5-B).
- 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.
- The primary source (UFST) and secondary source (contaminated soil) have been remediated by excavation. On November 26th and 27th of 2007, contaminated soil was removed from underneath the recently demolished garage building, 4,500 gallons of contaminated groundwater with an average concentration of 2,800 µg/L was dewatered from the area prior to excavation activities, and the excavation area was treated with ORC® product. A forthcoming technical report will describe this remedial action in more detail.

RECOMMENDATIONS

- We recommend following up with Alameda County Environmental Health following its receipt of this report, to discuss the requirements to move the site toward regulatory

closure. We further recommend that the Alameda County Environmental Health-requested work be implemented, and that all future technical reports be provided to the appropriate regulatory agencies, including electronic uploads to Alameda County Environmental Health's "ftp" system and the State Water Board's GeoTracker system.

- Continued quarterly groundwater monitoring of site wells should be continued to determine the effectiveness of the November 2007 corrective action and monitor the level of breakdown accomplished by the ORC application.
- Analysis for lead scavengers and fuel oxygenates should be limited to the wells with a historical detection—namely, MW-1B, MW-2B, MW-3A and MW-5A.
- In our professional opinion, quarterly groundwater monitoring is the appropriate action to further evaluate the magnitude and stability of the contaminant plume over time, and to determine whether site closure criteria can be met.

7.0 REFERENCES

Alameda County Environmental Health, 2006. Letter approving technical workplan for corrective action investigation at 2836 Union Street, Oakland, California. March 20.

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Stellar Environmental Solutions, Inc. (SES), 2005a. Workplan for Initial Site Characterization – 2836 Union Street, Oakland, California. October 25.

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Stellar Environmental Solutions, Inc. (SES), 2005c. Workplan for Corrective Action Investigation – 2836 Union Street, Oakland, California. December 22.

Stellar Environmental Solutions, Inc. (SES), 2006a. Workplan for Groundwater Characterization and Interim Corrective Actions – 2836 Union Street, Oakland, California. May 3, 2006.

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Stellar Environmental Solutions, Inc. (SES), 2006c. Underground Fuel Storage Tank-Related Corrective Action Report – 2836 Union Street, Oakland, California, Alameda County Environmental Health Case No. RO0002901. May 3.

Stellar Environmental Solutions, Inc. (SES), 2006d. Underground Fuel Storage Tank-Related Corrective Action Report – 2836 Union Street, Oakland, California, Alameda County Environmental Health Case No. RO0002901. December 3.

Stellar Environmental Solutions, Inc. (SES), 2007a. First Quarter 2007 Groundwater Monitoring Report – 2836 Union Street, Oakland, California. February 6.

Stellar Environmental Solutions, Inc. (SES), 2007b. Second Quarter 2007 Groundwater Monitoring Report – 2836 Union Street, Oakland, California. April 6.

Stellar Environmental Solutions, Inc. (SES), 2007c. Third Quarter 2007 Groundwater Monitoring Report – 2836 Union Street, Oakland, California. July 23.

Stellar Environmental Solutions, Inc. (SES), 2007d. Work Plan for Additional Interim Corrective Actions– 2836 Union Street, Oakland, California. August 31.

8.0 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

WELL GAUGING DATA

Project # 071025-SL1 Date 10/25/07 Client Stellar

Site 2836 Union St. Oakland

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or ~~TOC~~	Notes
MW-1A	0826	3/4					7.29	12.52		
MW-1B	0824	3/4					7.10	22.49		
MW-2A	0820	3/4					7.33	12.67		
MW-2B	0836	3/4					7.12	24.51		
MW-3A	0841	3/4					6.50	12.91		
MW-3B	0832	3/4					7.11	24.91		
MW-4A	0817	3/4					6.09	12.18		
MW-4B	0829	3/4					6.13	24.25		
MW-5A	0843	3/4					8.32	12.44		
MW-5B	0839	3/4	Odor				7.28	25.33		

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME Stellar				PROJECT NUMBER 07025-SL1			
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP.	INITIALS
Myron L Ultrameter	6208750	10/25/07 0800	pH 4 7 10	pH 4.01 7.00 10.00	✓	19.1°C	EW
		0804	3900 µs	3902 µs	✓	19.5	EW
~~Hach Turbidimeter~~	17103	~~0805~~	20/100/200 NTU	20/100/~~200~~ NTU	✓	~~19~~ EW	

WELLHEAD INSPECTION CHECKLIST

Date 10/25/07 Client Stellar

Site Address 2836 Union St. Oakland

Job Number 071025-SL1 Technician SL

Well ID	Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Debris Removed From Wellbox	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)
MW-1A	X							
MW-1B	X							
MW-2A	X							
MW-2B	X							
MW-3A	X							
MW-3B	X							
MW-4A	X							
MW-4B	X							
MW-5A	X							
MW-5B	X							

NOTES:

WELL MONITORING DATA SHEET

Project #: 071025-SL1	Client: Stellar
Sampler: SL	Date: 10/25/07
Well I.D.: MW-1A	Well Diameter: 2 3 4 6 8 3/4
Total Well Depth (TD): 12.52	Depth to Water (DTW): 7.29
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer; Disposable Bailer; Positive Air Displacement; Electric Submersible; Waterra; ~~Peristaltic~~; Extraction Pump; Other_____

Sampling Method: ~~Bailer~~; Disposable Bailer; ~~Extraction Port~~; ~~Dedicated Tubing~~; Other: _____

0.1	(Gals.) X	3	=	0.3	Gals.
1 Case Volume		Specified Volumes		Calculated Volume	

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

0.09 0.02

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0909	18.9	6.88	1098	20	0.1	
	well dewatered @ 0.1 gal					
1135	18.8	6.93	1040	19		

Did well dewater? Yes No Gallons actually evacuated: 0.1

Sampling Date: 10/25/07 Sampling Time: 1135 Depth to Water: 9.55

Sample I.D.: MW-1A Laboratory: Kiff CalScience Other CT

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 071025-SL1	Client: Stellar
Sampler: SL	Date: 10/25/07
Well I.D.: MW-2B	Well Diameter: 2 3 4 6 8 3/4
Total Well Depth (TD): 24.51	Depth to Water (DTW): 7.12
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer; Disposable Bailer; Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other_____

Sampling Method: Bailer; X Disposable Bailer; Extraction Port; Dedicated Tubing; Other:_____

0.3 (Gals.) X 3 = 0.9 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or uS)	Turbidity (NTUs)	Gals. Removed	Observations
0923	19.5	6.89	1438	>1000	0.3	Brown
0927	19.6	6.79	1436	>1000	0.6	Odor
	well dewatered @ 0.6 gal					
1150	19.7	7.02	978	103		

Did well dewater? Yes No Gallons actually evacuated: 0.6

Sampling Date: 10/25/07 Sampling Time: 1150 Depth to Water: 8.41

Sample I.D.: MW-2B Laboratory: Kiff CalScience Other CT

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 071025-SL1	Client: Stellar
Sampler: SL	Date: 10/25/07
Well I.D.: MW-3A	Well Diameter: 2 3 4 6 8 3/4
Total Well Depth (TD): 12.91	Depth to Water (DTW): 6.50
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: ~~PVC~~ Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer; Disposable Bailer; Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other_____

Sampling Method: Bailer; Disposable Bailer; Extraction Port; Dedicated Tubing; Other:_____

0.1 (Gals.) X	3	= 0.3 Gals.
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0936	19.8	6.97	1304	55	0.1	
	well dewatered @ 0.1 gal					
1205	18.7	6.96	1304	72		

Did well dewater? Yes No Gallons actually evacuated: 0.1

Sampling Date: 10/25/07 Sampling Time: 1205 Depth to Water: 9.88

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

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 071025-SL1	Client: Stellar
Sampler: SL	Date: 10/25/07
Well I.D.: MW-4A	Well Diameter: 2 3 4 6 8 3/4
Total Well Depth (TD): 12.18	Depth to Water (DTW): 6.09
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer; Disposable Bailer; Positive Air Displacement; Electric Submersible; Waterra; (Peristaltic); Extraction Pump; Other_____

Sampling Method: Bailer; Disposable Bailer; Extraction Port; (Dedicated Tubing); Other:_____

0.1 (Gals.) X	3	= 0.3 Gals.
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Time	Temp (°F or (°C))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
0945	19.6	6.81	1201	114	0.1	
0947	20.0	6.84	1195	252	0.2	
	well dewatered @ 0.2gal					
1215	DTW - 11.30 → filled 2 vials before well dewatered					
1250	Tried again but unable to get anymore water					

Did well dewater? (Yes) No Gallons actually evacuated: 0.2

Sampling Date: 10/25/07 Sampling Time: 1215 Depth to Water: 11.30

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

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 071025-SL1	Client: Stellar
Sampler: SL	Date: 10/25/07
Well I.D.: MW-5A	Well Diameter: 2 3 4 6 8 3/4
Total Well Depth (TD): 17.44	Depth to Water (DTW): 8.32
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer; Disposable Bailer; Positive Air Displacement; Electric Submersible; Waterra; ~~Peristaltic~~; Extraction Pump; Other

Sampling Method: Bailer; ~~Disposable Bailer~~; Extraction Port; Dedicated Tubing; Other: SL

0.08 (Gals.) X	3	= 0.24	Gals.
1 Case Volume	Specified Volumes	Calculated Volume	

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Time	Temp (°F or (°C))	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0957	18.3	6.68	1170	274	0.08	
0959	18.4	6.64	1195	>1000	0.16	
	well dewatered @ 0.16 gal					
1240	DTW - 12.00 → filled				0.16	before
	well dewatered again					

Did well dewater? (Yes) No — Gallons actually evacuated: 0.16

Sampling Date: 10/25/07 Sampling Time: 1245 Depth to Water: 12.00

Sample I.D.: MW-5A — Laboratory: Kiff CalScience Other C+T

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See COC

EB I.D. (if applicable): @ Time — Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 071025-SL1	Client: Stellar
Sampler: SL	Date: 10/25/07
Well I.D.: MW-5B	Well Diameter: 2 3 4 6 8 3/4
Total Well Depth (TD): 25.33	Depth to Water (DTW): 7.28
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer; Disposable Bailer; Positive Air Displacement; Electric Submersible; Waterra; ~~Peristaltic~~; Extraction Pump; Other_____

Sampling Method: Bailer; ~~Disposable Bailer~~; Extraction Port; ~~Dedicated~~ Tubing; Other: _____

0.4 (Gals.) X 3 = 1.2 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Time	Temp (°F or ~~°C~~)	pH	Cond. (mS or ~~µS~~)	Turbidity (NTUs)	Gals. Removed	Observations
1007	18.5	7.00	979	124	0.4	Odor
	well dewatered @ 0.4 gal					
1230	17.9	6.97	1013	79		

Did well dewater? (Yes) No Gallons actually evacuated: 0.4

Sampling Date: 10/25/07 Sampling Time: 1230 Depth to Water: 7.20

Sample I.D.: MW-5B Laboratory: Kiff CalScience Other CFT

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project # 071025-SL1	Client: Shell
Sampler: SL	Date: 10/25/07
Well I.D.: MW-3B	Well Diameter: 2 3 4 6 8 3/4
Total Well Depth (TD): 24.91	Depth to Water (DTW): 7.11
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer; Disposable Bailer; Positive Air Displacement; Electric Submersible; Waterra; ~~Peristaltic~~; Extraction Pump; Other_____

Sampling Method: Bailer; Disposable Bailer; Extraction Port; Dedicated Tubing; Other: X New tubing

1 Case Volume		Specified Volumes		Calculated Volume
0.3	(Gals.) X	3	=	0.9 Gals.

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Time	Temp (°F or (°C))	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1018	17.6	7.22	923	122	0.3	
1021	17.4	6.79	882	322	0.6	
1023	17.3	6.81	879	118	0.9	

Did well dewater? Yes (No) Gallons actually evacuated: 0.9

Sampling Date: 10/25/07 Sampling Time: 1025 Depth to Water: 7.03

Sample I.D.: MW-3B Laboratory: Kiff CalScience Other CAT

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L	
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV	

WELL MONITORING DATA SHEET

Project #: 071025-SL1	Client: Stellar
Sampler: SL	Date: 10/25/07
Well I.D.: MW-4B	Well Diameter: 2 3 4 6 8 3/4
Total Well Depth (TD): 24.25	Depth to Water (DTW): 6.13
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer, Disposable Bailer, Positive Air Displacement, Electric Submersible, Waterra, Peristaltic, Extraction Pump, Other_____

Sampling Method: Bailer, Disposable Bailer, Extraction Port, Dedicated Tubing, Other: New Tubing

0.4 (Gals.) X 3 = 1.2 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1038	18.0	6.90	866	44	0.4	
1040	18.1	6.78	859	>1000	0.8	Brown
1042	18.2	6.78	854	>1000	1.2	↓

Did well dewater? Yes (No) Gallons actually evacuated: 1.2

Sampling Date: 10/25/07 Sampling Time: 1045 Depth to Water: 6.00

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

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 071025-SL1	Client: Stellar
Sampler: SL	Date: 10/25/07
Well I.D.: MW-1B	Well Diameter: 2 3 4 6 8 3/4
Total Well Depth (TD): 22.45	Depth to Water (DTW): 7.10
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer; Disposable Bailer; Positive Air Displacement; Electric Submersible; Waterra; (Peristaltic); Extraction Pump; Other_____

Sampling Method: Bailer; Disposable Bailer; Extraction Port; Dedicated Tubing; Other: New Tubing

0.3 (Gals.) X 3 = 0.9 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Time	Temp (°F or (°C))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1059	18.4	6.83	1168	49	0.3	
1101	18.4	6.82	1182	162	0.6	
1103	18.0	6.76	1177	>1000	0.9	

Did well dewater? Yes (No) Gallons actually evacuated: 0.9

Sampling Date: 10/25/07 Sampling Time: 1109 Depth to Water: 12.65

Sample I.D.: MW-1B Laboratory: Kiff CalScience Other GET

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 071025-SL1	Client: Stellar
Sampler: SL	Date: 10/25/07
Well I.D.: MW-2A	Well Diameter: 2 3 4 6 8 3/4
Total Well Depth (TD): 12.67	Depth to Water (DTW): 7.33
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer; Disposable Bailer; Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other_____

Sampling Method: Bailer; Disposable Bailer; Extraction Port; Dedicated Tubing; Other: New Tubing

0.1 (Gals.) X 3 = 0.3 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Time	Temp (°F or (°C))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1113	19.8	7.15	791	206	0.1	
1114	20.8	7.22	755	51	0.2	
1115	20.7	7.20	747	22	0.3	

Did well dewater? Yes (No) Gallons actually evacuated: 0.3

Sampling Date: 10/25/07 Sampling Time: 1120 Depth to Water: 7.40

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

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

SPH or Purge Water Drum Log

Client: Stellar

Site Address: 2836 Union St. Oakland CA

STATUS OF DRUM(S) UPON ARRIVAL						
Date	10/5/06	1/9/07	4/6/07	7/12/07	10/25/07	
Number of drum(s) empty:	0	3 (Non BTS)			3	
Number of drum(s) 1/4 full:			1 (~5 gal)	1 (BTS)		
Number of drum(s) 1/2 full:					1	
Number of drum(s) 3/4 full:						
Number of drum(s) full:	0					
Total drum(s) on site: Baker Tanks 2	0		1 BTS	1	4	
Are the drum(s) properly labeled?			Yes	Y	Y	
Drum ID & Contents:			Purge H_2O	Purge H_2O	H_2O	
If any drum(s) are partially or totally filled, what is the first use date:			—	—		

- If you add any SPH to an empty or partially filled drum, drum must have at least 20 gals. of Purgewater or DI Water.

-If drum contains SPH, the drum MUST be steel AND labeled with the appropriate label.

-All BTS drums MUST be labeled appropriately.

STATUS OF DRUM(S) UPON DEPARTURE						
Date	10/5/06	1/9/07	4/6/07	7/12/07	10/25/07	
Number of drums empty:	0				3	
Number of drum(s) 1/4 full:		1 (~10 gal)	1 (~15 gal)	1 (25) gal		
Number of drum(s) 1/2 full:					1	
Number of drum(s) 3/4 full:						
Number of drum(s) full:	0					
Total drum(s) on site:	0	1 (BTS) 3 (Non BTS)	1 BTS	1 (BTS)	4	
Are the drum(s) properly labeled?		BTS Yes	Yes	Y	Y	
Drum ID & Contents:		→ Purge H_2O	Purge H_2O	Purge H_2O	H_2O	

LOCATION OF DRUM(S)
Describe location of drum(s): ~~2 Baker Tanks along the fence line~~ as 4/6/07 55 gal. drums inside garage.

FINAL STATUS						
Number of new drum(s) left on site this event	0	1	0	0	0	
Date of inspection:	10/5/06	1/9/07	4/6/07	7/12/07	10/25/07	
Drum(s) labelled properly:	—	Y	Y	Y	Y	
Logged by BTS Field Tech:	DR	DR	WO	DR	[illegible]	
Office reviewed by:	[illegible]	[illegible]	[illegible]	[illegible]		

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

198772

Chain of Custody Record

Lab job no. _____
Date 10/25/07
Page 1 of 1

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

Project Owner Larry Wadler
Site Address 2836 Union St
Oakland, CA
Project Name USTCF CLAIM # 018639
Project Number 2005-65

Method of Shipment _____
Shipment No. _____
Airbill No. _____
Cooler No. _____
Project Manager R. Makdisi
Telephone No. (510) 644-3123
Fax No. (510) 644-3859
Samplers: (Signature) S. Lane

	Field Sample Number	Location/ Depth	Date	Time	Sample Type	Type/Size of Container	Preservation: Cooler	Preservation: Chemical	Filtered	No. of Containers	Analysis Required: TPH-g (8015B)	Analysis Required: BTEX/MTBE (8260B)	Analysis Required: TBA, DIPE, ETBE, TAME (8260B)	Analysis Required: EDC & EDB (8260B)	Remarks
-1	MW-1A		10/25/07	1135	GW	40ml Vial	X	HCl		6	X	X			
-2	MW-1B			1105	GW		X			6	X	X	X	X	
-3	MW-2A			1120	GW		X			6	X	X			
-4	MW-2B			1150	GW		X			6	X	X	X	X	
-5	MW-3A			1205	GW		X			6	X	X	X	X	
-6	MW-3B			1025	GW		X			6	X	X			
-7	MW-4A			1215	GW		X			2	X	X			limited volume
-8	MW-4B			1045	GW		X			6	X	X			
-9	MW-5A			1245	GW		X			1	X	X	X	X	limited volume
-10	MW-5B			1230	GW		X			6	X	X			

Relinquished by:	Date	Received by:	Date	Relinquished by:	Date	Received by:	Date
Signature S. Lane	10/25/07	Signature S. Lane (Sample custody)	10/25/07	Signature	10/26/07	Signature	10/26/07
Printed S. Lane	Time 1615	Printed S. Lane	Time 1615	Printed K. Shah	Time 1545	Printed Rick Williams	Time 1545
Company BTS		Company BTS		Company BTS		Company C&T	

Turnaround Time: _____
Comments: Global ID T0600105641

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

2000-00-01

★ Stellar Environmental Solutions

2198 Sixth Street #201, Berkeley, CA 94710

Intact cold RG

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

Laboratory Job Number 198772
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	198772-001
MW-1B	198772-002
MW-2A	198772-003
MW-2B	198772-004
MW-3A	198772-005
MW-3B	198772-006
MW-4A	198772-007
MW-4B	198772-008
MW-5A	198772-009
MW-5B	198772-010

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: 11/12/2007
Project Manager

Signature: _____ Date: 11/15/2007
Operations Manager

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**198772**
Client:	**Stellar Environmental Solutions**
Project:	**2005-65**
Location:	**Wadler Property**
Request Date:	**10/26/07**
Samples Received:	**10/26/07**

This hardcopy data package contains sample and QC results for ten water samples, requested for the above referenced project on 10/26/07. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B):

High surrogate recoveries were observed for trifluorotoluene (FID) in MW-2B (lab # 198772-004) and MW-5B (lab # 198772-010), due to interference from coeluting hydrocarbon peaks. The surrogate recoveries for bromofluorobenzene (FID) were within criteria. High surrogate recoveries were observed for trifluorotoluene (FID) and bromofluorobenzene (FID) in the MS/MSD for batch 131070. The spike recoveries were within criteria. Sample MW-5A (lab # 198772-009) had approximately 1 mL of headspace in the vial associated with reported results. No other analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):

MW-5A (lab # 198772-009) was analyzed with more than 1 mL of headspace in the VOA vial. No other analytical problems were encountered.

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	198772	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	10/25/07
Units:	ug/L	Received:	10/26/07
Diln Fac:	1.000		

Field ID:	MW-1A	Batch#:	131070
Type:	SAMPLE	Analyzed:	10/29/07
Lab ID:	198772-001		

Analyte	Result	RL
Gasoline C7-C12	830	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	108	73-134
Bromofluorobenzene (FID)	117	77-140

Field ID:	MW-1B	Batch#:	131070
Type:	SAMPLE	Analyzed:	10/29/07
Lab ID:	198772-002		

Analyte	Result	RL
Gasoline C7-C12	230 Y Z	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	111	73-134
Bromofluorobenzene (FID)	105	77-140

Field ID:	MW-2A	Batch#:	131070
Type:	SAMPLE	Analyzed:	10/29/07
Lab ID:	198772-003		

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	105	73-134
Bromofluorobenzene (FID)	98	77-140

Field ID:	MW-2B	Batch#:	131070
Type:	SAMPLE	Analyzed:	10/29/07
Lab ID:	198772-004		

Analyte	Result	RL
Gasoline C7-C12	1,700 Y	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	169 *	73-134
Bromofluorobenzene (FID)	117	77-140

*= Value outside of QC limits; see narrative
Y= Sample exhibits chromatographic pattern which does not resemble standard
Z= Sample exhibits unknown single peak or peaks
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	198772	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	10/25/07
Units:	ug/L	Received:	10/26/07
Diln Fac:	1.000		

Field ID: MW-3A
Type: SAMPLE
Lab ID: 198772-005
Batch#: 131070
Analyzed: 10/30/07

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	88	73-134
Bromofluorobenzene (FID)	83	77-140

Field ID: MW-3B
Type: SAMPLE
Lab ID: 198772-006
Batch#: 131070
Analyzed: 10/30/07

Analyte	Result	RL
Gasoline C7-C12	2,100 Y Z	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	125	73-134
Bromofluorobenzene (FID)	107	77-140

Field ID: MW-4A
Type: SAMPLE
Lab ID: 198772-007
Batch#: 131070
Analyzed: 10/30/07

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	119	73-134
Bromofluorobenzene (FID)	120	77-140

Field ID: MW-4B
Type: SAMPLE
Lab ID: 198772-008
Batch#: 131070
Analyzed: 10/30/07

Analyte	Result	RL
Gasoline C7-C12	1,400 Y Z	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	121	73-134
Bromofluorobenzene (FID)	109	77-140

*= Value outside of QC limits; see narrative
Y= Sample exhibits chromatographic pattern which does not resemble standard
Z= Sample exhibits unknown single peak or peaks
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	198772	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	10/25/07
Units:	ug/L	Received:	10/26/07
Diln Fac:	1.000		

Field ID:	MW-5A	Batch#:	131111
Type:	SAMPLE	Analyzed:	10/30/07
Lab ID:	198772-009		

Analyte	Result	RL
Gasoline C7-C12	820	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	107	73-134
Bromofluorobenzene (FID)	97	77-140

Field ID:	MW-5B	Batch#:	131070
Type:	SAMPLE	Analyzed:	10/30/07
Lab ID:	198772-010		

Analyte	Result	RL
Gasoline C7-C12	1,200 Y	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	137 *	73-134
Bromofluorobenzene (FID)	128	77-140

Type:	BLANK	Batch#:	131070
Lab ID:	QC412751	Analyzed:	10/29/07

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	114	73-134
Bromofluorobenzene (FID)	105	77-140

Type:	BLANK	Batch#:	131111
Lab ID:	QC412934	Analyzed:	10/30/07

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	91	73-134
Bromofluorobenzene (FID)	97	77-140

*= Value outside of QC limits; see narrative
Y= Sample exhibits chromatographic pattern which does not resemble standard
Z= Sample exhibits unknown single peak or peaks
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	198772	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC412752	Batch#:	131070
Matrix:	Water	Analyzed:	10/29/07
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	894.6	89	79-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	134	73-134
Bromofluorobenzene (FID)	136	77-140

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	198772	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	131070
MSS Lab ID:	198698-002	Sampled:	10/24/07
Matrix:	Water	Received:	10/25/07
Units:	ug/L	Analyzed:	10/29/07
Diln Fac:	1.000		

Type: MS Lab ID: QC412753

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	15.39	2,000	1,763	87	72-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	142 *	73-134
Bromofluorobenzene (FID)	146 *	77-140

Type: MSD Lab ID: QC412754

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,785	88	72-120	1	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	149 *	73-134
Bromofluorobenzene (FID)	152 *	77-140

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	198772	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC412935	Batch#:	131111
Matrix:	Water	Analyzed:	10/30/07
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	991.7	99	79-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	102	73-134
Bromofluorobenzene (FID)	98	77-140

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	198772	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	131111
MSS Lab ID:	198791-001	Sampled:	10/29/07
Matrix:	Water	Received:	10/29/07
Units:	ug/L	Analyzed:	10/30/07
Diln Fac:	1.000		

Type: MS Lab ID: QC412936

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	28.45	2,000	1,830	90	72-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	104	73-134
Bromofluorobenzene (FID)	103	77-140

Type: MSD Lab ID: QC412937

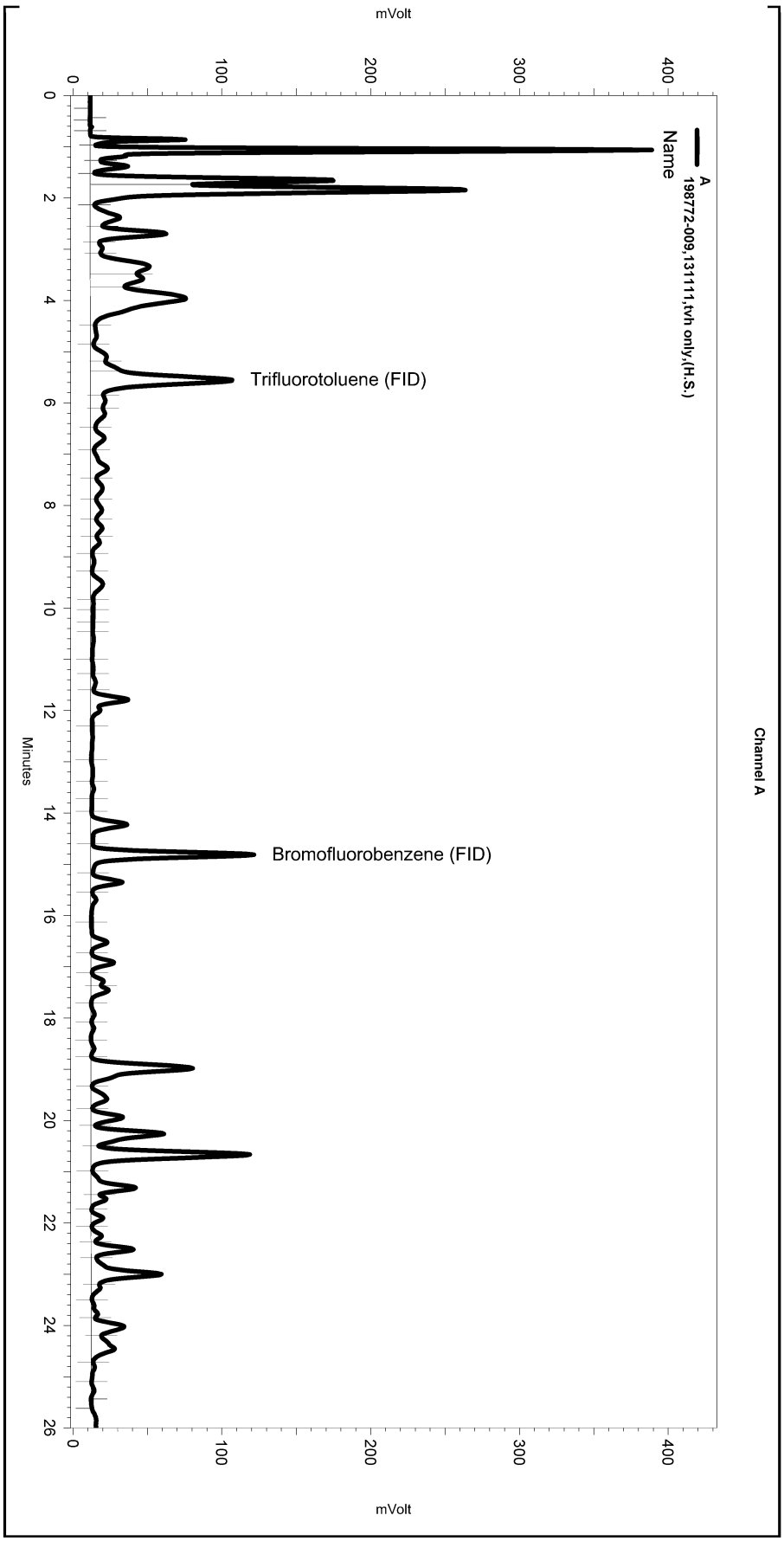
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,831	90	72-120	0	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	107	73-134
Bromofluorobenzene (FID)	103	77-140

RPD= Relative Percent Difference

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC07\Sequence\303.seq**
Sample Name: **198772-009,131111,tvh only,(H.S.)**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC07\Data\303_014**
Instrument: GC07 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
Method Name: \\Lims\gdrive\ezchrom\Projects\GC07\Method\tvhbtxe295.met

Software Version 3.1.7
Run Date: 10/30/2007 6:32:31 PM
Analysis Date: 10/31/2007 9:00:15 AM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: a1.3



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No items selected for this section

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No items selected for this section

Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC07\Data\303_014

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Split Peak	5.389	0	0

Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	198772	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:	198772-001	Sampled:	10/25/07
Matrix:	Water	Received:	10/26/07

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
MTBE	110	8.3	16.67	131138	11/01/07
Benzene	28	0.7	1.429	131186	11/02/07
Toluene	ND	0.7	1.429	131186	11/02/07
Chlorobenzene	ND	0.7	1.429	131186	11/02/07
Ethylbenzene	13	0.7	1.429	131186	11/02/07
m,p-Xylenes	ND	0.7	1.429	131186	11/02/07
o-Xylene	ND	0.7	1.429	131186	11/02/07
1,3-Dichlorobenzene	ND	0.7	1.429	131186	11/02/07
1,4-Dichlorobenzene	ND	0.7	1.429	131186	11/02/07
1,2-Dichlorobenzene	ND	0.7	1.429	131186	11/02/07

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
1,2-Dichloroethane-d4	110	74-137	1.429	131186	11/02/07
Toluene-d8	98	80-120	1.429	131186	11/02/07
Bromofluorobenzene	103	80-120	1.429	131186	11/02/07

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	198772	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Field ID:	MW-2A	Batch#:	131138
Lab ID:	198772-003	Sampled:	10/25/07
Matrix:	Water	Received:	10/26/07
Units:	ug/L	Analyzed:	10/31/07
Diln Fac:	1.000		

Analyte	Result	RL
MTBE	ND	0.5
Benzene	ND	0.5
Toluene	ND	0.5
Chlorobenzene	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	100	74-137
Toluene-d8	100	80-120
Bromofluorobenzene	100	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	198772	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Field ID:	MW-3B	Batch#:	131138
Lab ID:	198772-006	Sampled:	10/25/07
Matrix:	Water	Received:	10/26/07
Units:	ug/L	Analyzed:	11/01/07
Diln Fac:	14.29		

Analyte	Result	RL
MTBE	ND	7.1
Benzene	ND	7.1
Toluene	ND	7.1
Chlorobenzene	ND	7.1
Ethylbenzene	ND	7.1
m,p-Xylenes	ND	7.1
o-Xylene	ND	7.1
1,3-Dichlorobenzene	ND	7.1
1,4-Dichlorobenzene	ND	7.1
1,2-Dichlorobenzene	ND	7.1

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	108	74-137
Toluene-d8	100	80-120
Bromofluorobenzene	99	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	198772	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Field ID:	MW-4A	Batch#:	131138
Lab ID:	198772-007	Sampled:	10/25/07
Matrix:	Water	Received:	10/26/07
Units:	ug/L	Analyzed:	10/31/07
Diln Fac:	1.000		

Analyte	Result	RL
MTBE	73	0.5
Benzene	ND	0.5
Toluene	ND	0.5
Chlorobenzene	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	105	74-137
Toluene-d8	100	80-120
Bromofluorobenzene	98	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	198772	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Field ID:	MW-4B	Batch#:	131138
Lab ID:	198772-008	Sampled:	10/25/07
Matrix:	Water	Received:	10/26/07
Units:	ug/L	Analyzed:	11/01/07
Diln Fac:	8.333		

Analyte	Result	RL
MTBE	ND	4.2
Benzene	ND	4.2
Toluene	ND	4.2
Chlorobenzene	ND	4.2
Ethylbenzene	ND	4.2
m,p-Xylenes	ND	4.2
o-Xylene	ND	4.2
1,3-Dichlorobenzene	ND	4.2
1,4-Dichlorobenzene	ND	4.2
1,2-Dichlorobenzene	ND	4.2

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	106	74-137
Toluene-d8	100	80-120
Bromofluorobenzene	101	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	198772	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Field ID:	MW-5B	Batch#:	131138
Lab ID:	198772-010	Sampled:	10/25/07
Matrix:	Water	Received:	10/26/07
Units:	ug/L	Analyzed:	10/31/07
Diln Fac:	1.000		

Analyte	Result	RL
MTBE	45	0.5
Benzene	ND	0.5
Toluene	ND	0.5
Chlorobenzene	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	107	74-137
Toluene-d8	100	80-120
Bromofluorobenzene	101	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Aromatics by GC/MS

Lab #:	198772	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC413032	Batch#:	131138
Matrix:	Water	Analyzed:	10/31/07
Units:	ug/L		

Analyte	Result	RL
MTBE	ND	0.5
Benzene	ND	0.5
Toluene	ND	0.5
Chlorobenzene	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	105	74-137
Toluene-d8	100	80-120
Bromofluorobenzene	102	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Aromatics by GC/MS

Lab #:	198772	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	131138
Units:	ug/L	Analyzed:	10/31/07
Diln Fac:	1.000		

Type: BS Lab ID: QC413033

Analyte	Spiked	Result	%REC	Limits
MTBE	25.00	22.73	91	60-130
Benzene	25.00	22.93	92	80-120
Toluene	25.00	23.32	93	80-122
Chlorobenzene	25.00	23.39	94	80-120
Ethylbenzene	25.00	24.96	100	80-127
m,p-Xylenes	50.00	49.60	99	80-130
o-Xylene	25.00	23.68	95	80-126

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	102	74-137
Toluene-d8	100	80-120
Bromofluorobenzene	99	80-120

Type: BSD Lab ID: QC413034

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	25.00	23.22	93	60-130	2	20
Benzene	25.00	23.41	94	80-120	2	20
Toluene	25.00	23.19	93	80-122	1	20
Chlorobenzene	25.00	23.37	93	80-120	0	20
Ethylbenzene	25.00	24.79	99	80-127	1	20
m,p-Xylenes	50.00	49.54	99	80-130	0	20
o-Xylene	25.00	23.95	96	80-126	1	20

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	100	74-137
Toluene-d8	99	80-120
Bromofluorobenzene	101	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Aromatics by GC/MS

Lab #:	198772	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC413035	Batch#:	131138
Matrix:	Water	Analyzed:	10/31/07
Units:	ug/L		

Analyte	Result	RL
MTBE	ND	0.5
Benzene	ND	0.5
Toluene	ND	0.5
Chlorobenzene	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	100	74-137
Toluene-d8	100	80-120
Bromofluorobenzene	97	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Aromatics by GC/MS

Lab #:	198772	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	131186
Units:	ug/L	Analyzed:	11/01/07
Diln Fac:	1.000		

Type: BS Lab ID: QC413212

Analyte	Spiked	Result	%REC	Limits
MTBE	30.00	28.44	95	60-130
Benzene	30.00	28.56	95	80-120
Toluene	30.00	28.89	96	80-122
Chlorobenzene	30.00	28.92	96	80-120
Ethylbenzene	30.00	31.12	104	80-127
m,p-Xylenes	60.00	60.62	101	80-130
o-Xylene	30.00	29.48	98	80-126

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	105	74-137
Toluene-d8	101	80-120
Bromofluorobenzene	101	80-120

Type: BSD Lab ID: QC413213

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	30.00	27.89	93	60-130	2	20
Benzene	30.00	27.74	92	80-120	3	20
Toluene	30.00	27.58	92	80-122	5	20
Chlorobenzene	30.00	28.04	93	80-120	3	20
Ethylbenzene	30.00	29.96	100	80-127	4	20
m,p-Xylenes	60.00	59.10	99	80-130	3	20
o-Xylene	30.00	28.82	96	80-126	2	20

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	104	74-137
Toluene-d8	100	80-120
Bromofluorobenzene	102	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Aromatics by GC/MS

Lab #:	198772	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC413214	Batch#:	131186
Matrix:	Water	Analyzed:	11/01/07
Units:	ug/L		

Analyte	Result	RL
MTBE	ND	0.5
Benzene	ND	0.5
Toluene	ND	0.5
Chlorobenzene	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	102	74-137
Toluene-d8	99	80-120
Bromofluorobenzene	99	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	198772	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Field ID:	MW-1B	Units:	ug/L
Lab ID:	198772-002	Sampled:	10/25/07
Matrix:	Water	Received:	10/26/07

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
tert-Butyl Alcohol (TBA)	ND	14	1.429	131186	11/02/07
MTBE	6.0	1.3	2.500	131139	10/31/07
Isopropyl Ether (DIPE)	ND	0.7	1.429	131186	11/02/07
Ethyl tert-Butyl Ether (ETBE)	ND	0.7	1.429	131186	11/02/07
1,2-Dichloroethane	5.9	0.7	1.429	131186	11/02/07
Benzene	ND	0.7	1.429	131186	11/02/07
Methyl tert-Amyl Ether (TAME)	ND	0.7	1.429	131186	11/02/07
Toluene	ND	0.7	1.429	131186	11/02/07
1,2-Dibromoethane	ND	0.7	1.429	131186	11/02/07
Ethylbenzene	ND	0.7	1.429	131186	11/02/07
m,p-Xylenes	ND	0.7	1.429	131186	11/02/07
o-Xylene	ND	0.7	1.429	131186	11/02/07

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	102	80-122	1.429	131186	11/02/07
1,2-Dichloroethane-d4	109	74-137	1.429	131186	11/02/07
Toluene-d8	99	80-120	1.429	131186	11/02/07
Bromofluorobenzene	100	80-120	1.429	131186	11/02/07

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	198772	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Field ID:	MW-2B	Batch#:	131139
Lab ID:	198772-004	Sampled:	10/25/07
Matrix:	Water	Received:	10/26/07
Units:	ug/L	Analyzed:	10/31/07
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	83	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	1.2	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-122
1,2-Dichloroethane-d4	108	74-137
Toluene-d8	96	80-120
Bromofluorobenzene	104	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	198772	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Field ID:	MW-3A	Batch#:	131139
Lab ID:	198772-005	Sampled:	10/25/07
Matrix:	Water	Received:	10/26/07
Units:	ug/L	Analyzed:	10/31/07
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-122
1,2-Dichloroethane-d4	113	74-137
Toluene-d8	98	80-120
Bromofluorobenzene	106	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	198772	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Field ID:	MW-5A	Batch#:	131186
Lab ID:	198772-009	Sampled:	10/25/07
Matrix:	Water	Received:	10/26/07
Units:	ug/L	Analyzed:	11/01/07
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	78	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	6.6	0.5
Methyl tert-Amyl Ether (TAME)	6.3	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	12	0.5
m,p-Xylenes	1.8	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-122
1,2-Dichloroethane-d4	107	74-137
Toluene-d8	100	80-120
Bromofluorobenzene	101	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	198772	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC413036	Batch#:	131139
Matrix:	Water	Analyzed:	10/31/07
Units:	ug/L		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	107	80-122
1,2-Dichloroethane-d4	122	74-137
Toluene-d8	96	80-120
Bromofluorobenzene	105	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	198772	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	131139
Units:	ug/L	Analyzed:	10/31/07
Diln Fac:	1.000		

Type: BS Lab ID: QC413037

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	135.3	108	59-149
MTBE	25.00	27.14	109	60-130
Isopropyl Ether (DIPE)	25.00	26.81	107	59-120
Ethyl tert-Butyl Ether (ETBE)	25.00	26.85	107	65-134
1,2-Dichloroethane	25.00	26.83	107	76-121
Benzene	25.00	23.88	96	80-120
Methyl tert-Amyl Ether (TAME)	25.00	25.63	103	67-132
Toluene	25.00	24.45	98	80-122
1,2-Dibromoethane	25.00	25.35	101	80-120
Ethylbenzene	25.00	25.33	101	80-127
m,p-Xylenes	50.00	48.55	97	80-130
o-Xylene	25.00	24.01	96	80-126

Surrogate	%REC	Limits
Dibromofluoromethane	105	80-122
1,2-Dichloroethane-d4	115	74-137
Toluene-d8	97	80-120
Bromofluorobenzene	102	80-120

Type: BSD Lab ID: QC413038

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	137.3	110	59-149	1	20
MTBE	25.00	27.65	111	60-130	2	20
Isopropyl Ether (DIPE)	25.00	27.32	109	59-120	2	20
Ethyl tert-Butyl Ether (ETBE)	25.00	27.02	108	65-134	1	20
1,2-Dichloroethane	25.00	26.57	106	76-121	1	20
Benzene	25.00	23.45	94	80-120	2	20
Methyl tert-Amyl Ether (TAME)	25.00	24.58	98	67-132	4	20
Toluene	25.00	23.12	92	80-122	6	20
1,2-Dibromoethane	25.00	24.84	99	80-120	2	20
Ethylbenzene	25.00	25.02	100	80-127	1	20
m,p-Xylenes	50.00	48.03	96	80-130	1	20
o-Xylene	25.00	23.65	95	80-126	2	20

Surrogate	%REC	Limits
Dibromofluoromethane	107	80-122
1,2-Dichloroethane-d4	116	74-137
Toluene-d8	96	80-120
Bromofluorobenzene	101	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	198772	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	131186
Units:	ug/L	Analyzed:	11/01/07
Diln Fac:	1.000		

Type: BS Lab ID: QC413212

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	150.0	162.7	108	59-149
MTBE	30.00	28.44	95	60-130
Isopropyl Ether (DIPE)	30.00	29.12	97	59-120
Ethyl tert-Butyl Ether (ETBE)	30.00	28.13	94	65-134
1,2-Dichloroethane	30.00	28.74	96	76-121
Benzene	30.00	28.56	95	80-120
Methyl tert-Amyl Ether (TAME)	30.00	30.13	100	67-132
Toluene	30.00	28.89	96	80-122
1,2-Dibromoethane	30.00	28.32	94	80-120
Ethylbenzene	30.00	31.12	104	80-127
m,p-Xylenes	60.00	60.62	101	80-130
o-Xylene	30.00	29.48	98	80-126

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-122
1,2-Dichloroethane-d4	105	74-137
Toluene-d8	101	80-120
Bromofluorobenzene	101	80-120

Type: BSD Lab ID: QC413213

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	150.0	168.3	112	59-149	3	20
MTBE	30.00	27.89	93	60-130	2	20
Isopropyl Ether (DIPE)	30.00	28.83	96	59-120	1	20
Ethyl tert-Butyl Ether (ETBE)	30.00	27.84	93	65-134	1	20
1,2-Dichloroethane	30.00	28.44	95	76-121	1	20
Benzene	30.00	27.74	92	80-120	3	20
Methyl tert-Amyl Ether (TAME)	30.00	30.14	100	67-132	0	20
Toluene	30.00	27.58	92	80-122	5	20
1,2-Dibromoethane	30.00	28.27	94	80-120	0	20
Ethylbenzene	30.00	29.96	100	80-127	4	20
m,p-Xylenes	60.00	59.10	99	80-130	3	20
o-Xylene	30.00	28.82	96	80-126	2	20

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-122
1,2-Dichloroethane-d4	104	74-137
Toluene-d8	100	80-120
Bromofluorobenzene	102	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	198772	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC413214	Batch#:	131186
Matrix:	Water	Analyzed:	11/01/07
Units:	ug/L		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-122
1,2-Dichloroethane-d4	102	74-137
Toluene-d8	99	80-120
Bromofluorobenzene	99	80-120

ND= Not Detected
RL= Reporting Limit

Chain of Custody Record # 196390

Lab job no. _____

Date _____

Page 1 of 1

Laboratory Curtis and Tompkins, Ltd.
Address 2323 Fifth Street
Berkeley, California 94710
510-486-0900

Project Owner Estate of Lawrence Wadler
Site Address 2836 Union Street
Oakland, CA

Project Name USTCF Claim No. 018639
Project Number 2005-65

Method of Shipment Hand Delivery
Shipment No. _____
Airbill No. _____
Cooler No. _____
Project Manager Richard Makdisi
Telephone No. (510) 644-3123
Fax No. (510) 644-3859
Samplers: *(Signature)* _____

Field Sample Number	Location/ Depth	Date	Time	Sample Type	Type/Size of Container	Preservation: Cooler	Preservation: Chemical	Filtered	No. of Containers	TPH-gas 8015	BTEX/MTBE 8021	TVH/MTBE/BZ/X 8260	Remarks
EX-1	Excavation	1AUG07	1500	Water	40 ml VOA Vial	yes	HCl	No	3	X	X		Intact Cold

Relinquished by: Signature Fred Hayden Printed Fred Hayden Company Stellar Environmental — Date 1AUG07 Time 1615

Received by: Signature _____ Printed Faith Nichols Company C&T — Date 8-1-07 Time 1615

Relinquished by: Signature _____ Printed _____ Company _____ — Date _____ Time _____

Received by: Signature _____ Printed _____ Company _____ — Date _____ Time _____

Turnaround Time: 5 Day TAT

Comments: [redacted]

Relinquished by: Signature _____ Printed _____ Company _____ — Date _____ Time _____

Received by: Signature _____ Printed _____ Company _____ — Date _____ Time _____

2000-00-01

★ Stellar Environmental Solutions

2198 Sixth Street #201, Berkeley, CA 94710

Curtis & Tompkins, Ltd.

Curtis & Tompkins Laboratories Analytical Report

Lab #:	196390	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65		
Field ID:	EX-1	Batch#:	127913
Matrix:	Water	Sampled:	08/01/07
Units:	ug/L	Received:	08/01/07
Diln Fac:	1.000	Analyzed:	08/01/07

Type: SAMPLE Lab ID: 196390-001

Analyte	Result	RL	Analysis
Gasoline C7-C12	4,500	50	EPA 8015B
MTBE	59	2.0	EPA 8021B
Benzene	47	0.50	EPA 8021B
Toluene	58	0.50	EPA 8021B
Ethylbenzene	200	0.50	EPA 8021B
m,p-Xylenes	290	0.50	EPA 8021B
o-Xylene	110	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	119	72-136	EPA 8015B
Bromofluorobenzene (FID)	111	78-131	EPA 8015B
Trifluorotoluene (PID)	110	63-140	EPA 8021B
Bromofluorobenzene (PID)	107	78-121	EPA 8021B

Type: BLANK Lab ID: QC399253

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	EPA 8015B
MTBE	ND	2.0	EPA 8021B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	88	72-136	EPA 8015B
Bromofluorobenzene (FID)	82	78-131	EPA 8015B
Trifluorotoluene (PID)	82	63-140	EPA 8021B
Bromofluorobenzene (PID)	78	78-121	EPA 8021B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	196390	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8021B
Matrix:	Water	Batch#:	127913
Units:	ug/L	Analyzed:	08/01/07
Diln Fac:	1.000		

Type: BS Lab ID: QC399254

Analyte	Spiked	Result	%REC	Limits
MTBE	30.00	26.61	89	73-125
Benzene	30.00	26.02	87	79-120
Toluene	30.00	26.42	88	80-120
Ethylbenzene	30.00	27.21	91	80-120
m,p-Xylenes	30.00	29.33	98	80-120
o-Xylene	30.00	26.47	88	80-120

Surrogate	%REC	Limits
Trifluorotoluene (PID)	92	63-140
Bromofluorobenzene (PID)	92	78-121

Type: BSD Lab ID: QC399255

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	30.00	22.25	74	73-125	18	24
Benzene	30.00	25.25	84	79-120	3	20
Toluene	30.00	25.94	86	80-120	2	20
Ethylbenzene	30.00	27.00	90	80-120	1	20
m,p-Xylenes	30.00	29.46	98	80-120	0	20
o-Xylene	30.00	26.65	89	80-120	1	20

Surrogate	%REC	Limits
Trifluorotoluene (PID)	86	63-140
Bromofluorobenzene (PID)	90	78-121

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	196390	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	127913
Units:	ug/L	Analyzed:	08/01/07
Diln Fac:	1.000		

Type: BS Lab ID: QC399256

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	2,115	106	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	115	72-136
Bromofluorobenzene (FID)	106	78-131

Type: BSD Lab ID: QC399257

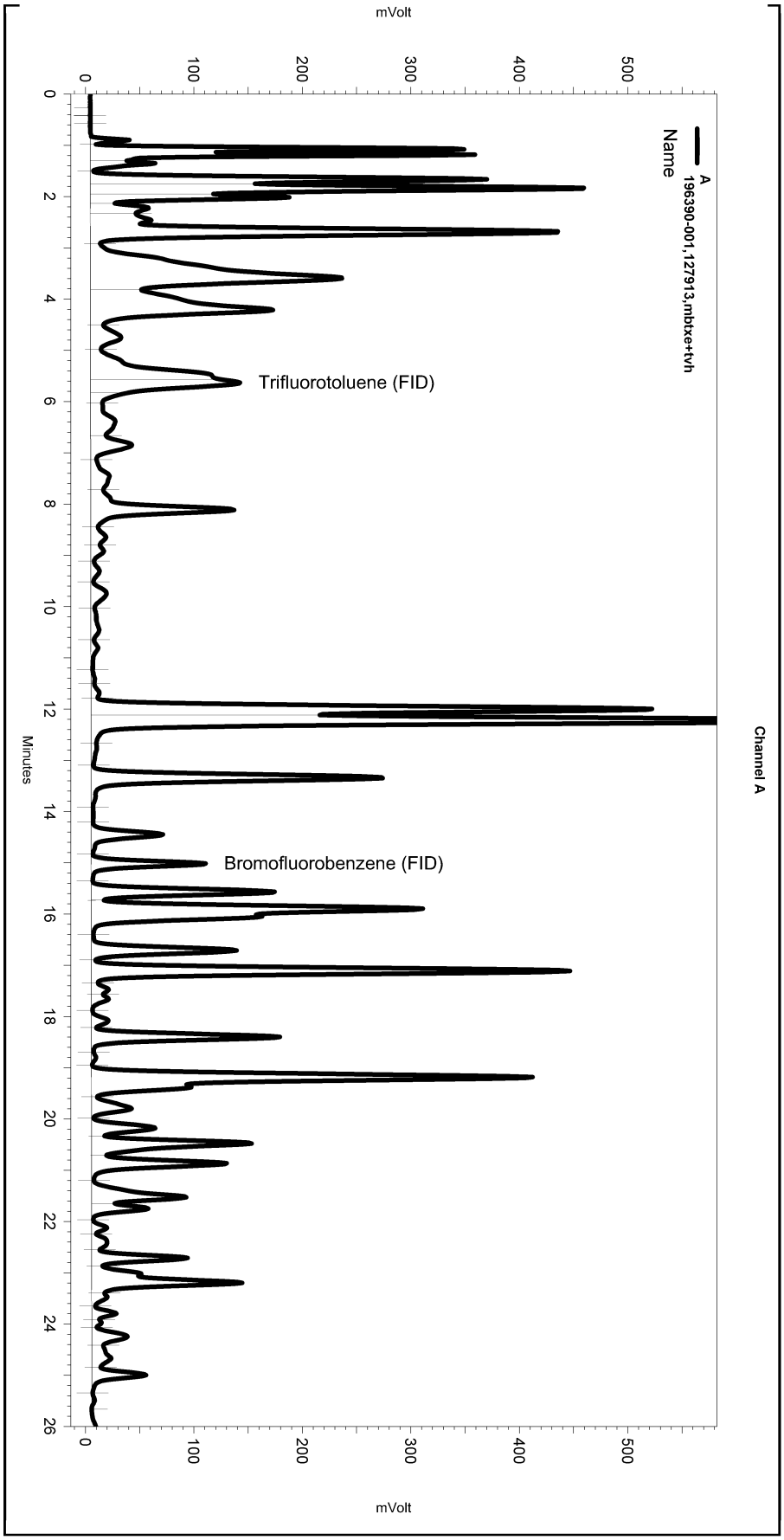
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	2,013	101	80-120	5	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	115	72-136
Bromofluorobenzene (FID)	112	78-131

RPD= Relative Percent Difference

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC05\Sequence\213.seq**
Sample Name: **196390-001,127913,mbtxe+tvh**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC05\Data\213_011**
Instrument: GC05 (Offline) Vial: N/A Operator: Tvh 1. Analyst (lims2k3\tvh1)
Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbtxe198.met

Software Version 3.1.7
Run Date: 8/1/2007 7:17:08 PM
Analysis Date: 8/2/2007 10:36:03 AM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: A7.0



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No items selected for this section

---< A >---

No items selected for this section

Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

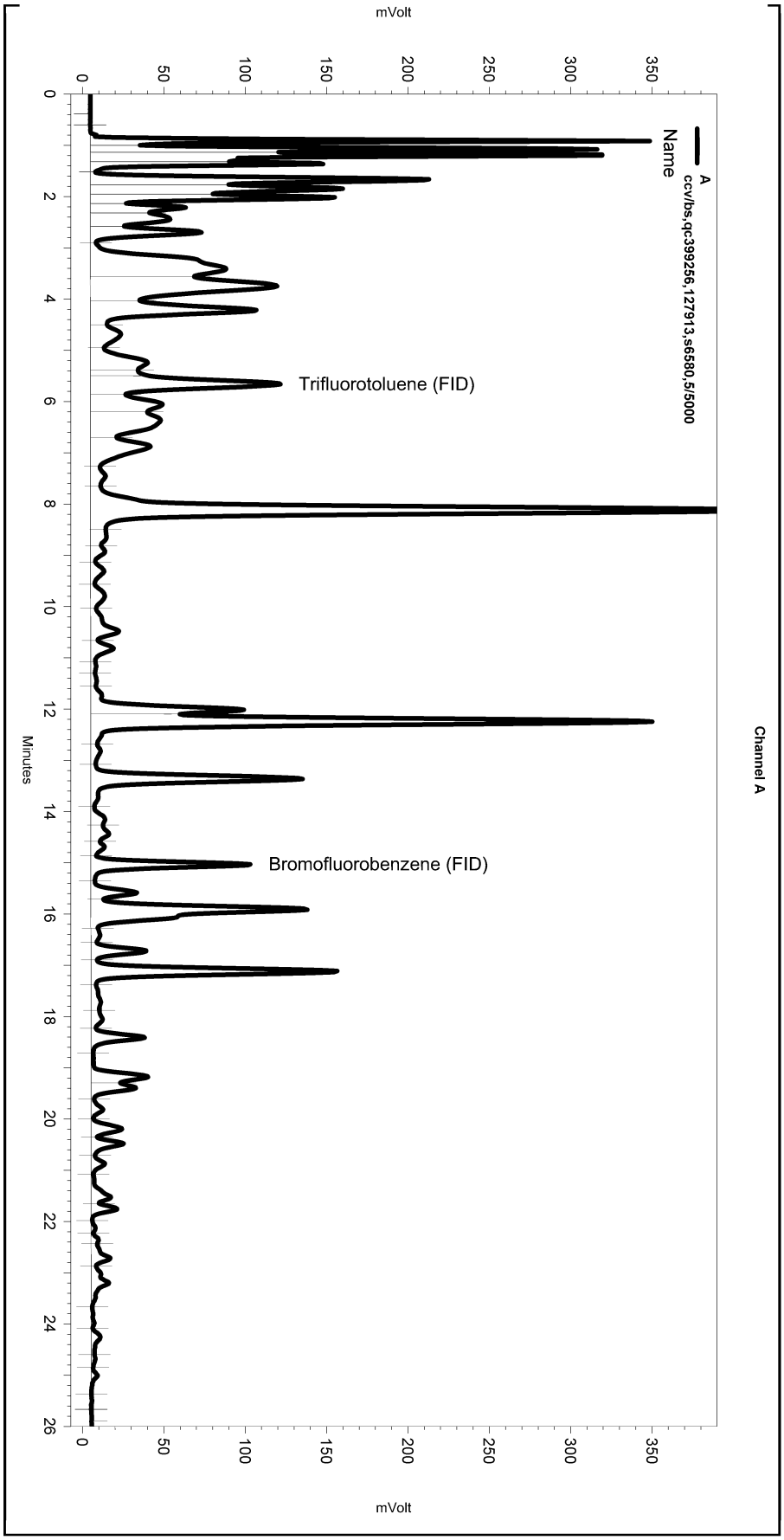
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC05\Data\213_011

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Split Peak	5.57	0	0
Yes	Split Peak	5.83	0	0

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC05\Sequence\213.seq**
Sample Name: **ccv/bs,qc399256,127913,s6580,5/5000**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC05\Data\213_002**
Instrument: GC05 (Offline) Vial: N/A Operator: Tvh 1. Analyst (lims2k3\tvh1)
Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbtxe198.met

Software Version 3.1.7
Run Date: 8/1/2007 8:42:45 AM
Analysis Date: 8/2/2007 10:35:20 AM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: {Data Description}



---< General Method Parameters >---

No items selected for this section

---< A >---

No items selected for this section

Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC05\Data\213_002

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Split Peak	5.506	0	0

APPENDIX D

EXCAVATION DEWATERING DISPOSAL DOCUMENTATION

NON-HAZARDOUS WASTE MANIFEST

EES19

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. NH 4631

2. Page 1 of 1

3. Generator's Name and Mailing Address
Larry Wadler
2836 Union St
Oakland Ca 94608
4. Generator's Phone (510) 644-3123

5. Transporter 1 Company Name
EVERGREEN ENVIRONMENTAL SERVICES

6. US EPA ID Number
CAD982413262

A. State Transporter's ID

B. Transporter 1 Phone 510 795-4400

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
EVERGREEN OIL, INC.
6880 Smith Avenue
Newark, CA 94560

10. US EPA ID Number
CAD980887418

E. State Facility's ID
CAD980887418

F. Facility's Phone
510 795-4400

11. WASTE DESCRIPTION	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non-Hazardous waste, liquid	001	TT	4445	G
b.				
c.				
d.				

G. Additional Descriptions for Materials Listed Above
Billing:
Stellar Environmental Solutions
2198 Sixth St Ste 201
Berkeley California 94710

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Profile # _____
Do not ingest
Wear protective clothing
In case of emergency call: CHEMTREC 800-424-9300
DOT ERG 171

Invoice: 416755
Sales Order: W00131955

GENERATOR

16. **GENERATOR'S CERTIFICATION:** I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name: Henry Pietrusko
Signature: [signature]
Date: Month 8 Day 9 Year 07

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Fred Okino
Signature: Fred Okino
Date: Month 8 Day 09 Year 07

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name:
Signature:
Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.

Printed/Typed Name: JOHNNY C WINGSTEDT
Signature: [signature]
Date: Month 08 Day 10 Year 07

NON-HAZARDOUS WASTE

APPENDIX E

HISTORICAL GROUNDWATER ELEVATION DATA

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

MW-1A			
Sampling Event No.	**Date Measured**	**Water Level Depth (a)**	**Water Level Elevation (b)**
1	Oct-06	dry	dry
2	Jan-07	9.80	2.45
3	Apr-07	7.49	4.76
4	Jul-07	7.16	5.09
5	Oct-07	7.29	4.96

MW-1B			
Sampling Event No.	**Date Measured**	**Water Level Depth (a)**	**Water Level Elevation (b)**
1	Oct-06	7.44	4.56
2	Jan-07	6.40	5.65
3	Apr-07	6.42	5.63
4	Jul-07	7.19	4.86
5	Oct-07	7.10	4.95

MW-2A			
Sampling Event No.	**Date Measured**	**Water Level Depth (a)**	**Water Level Elevation (b)**
1	Oct-06	7.93	4.87
2	Jan-07	6.58	6.24
3	Apr-07	6.52	6.30
4	Jul-07	7.37	5.45
5	Oct-07	7.33	5.49

MW-2B			
Sampling Event No.	**Date Measured**	**Water Level Depth (a)**	**Water Level Elevation (b)**
1	Oct-06	7.90	5.06
2	Jan-07	6.59	6.37
3	Apr-07	6.20	6.76
4	Jul-07	7.33	5.63
5	Oct-07	7.12	5.84

Notes:

(a) Feet below top of well casing.

(b) Relative to mean sea level.

MW-3A			
Sampling Event No.	**Date Measured**	**Water Level Depth (a)**	**Water Level Elevation (b)**
1	Oct-06	dry	dry
2	Jan-07	6.32	5.27
3	Apr-07	5.75	5.84
4	Jul-07	6.19	5
5	Oct-07	6.50	5.09

MW-3B			
Sampling Event No.	**Date Measured**	**Water Level Depth (a)**	**Water Level Elevation (b)**
1	Oct-06	7.34	4.61
2	Jan-07	6.41	5.54
3	Apr-07	6.39	5.56
4	Jul-07	7.15	4.80
5	Oct-07	7.11	4.84

MW-4A			
Sampling Event No.	**Date Measured**	**Water Level Depth (a)**	**Water Level Elevation (b)**
1	Oct-06	9.74	1.28
2	Jan-07	5.64	5.38
3	Apr-07	5.34	5.68
4	Jul-07	5.71	5.31
5	Oct-07	6.09	4.93

MW-4B			
Sampling Event No.	**Date Measured**	**Water Level Depth (a)**	**Water Level Elevation (b)**
1	Oct-06	6.63	4.41
2	Jan-07	5.55	5.49
3	Apr-07	5.45	5.59
4	Jul-07	6.28	4.76
5	Oct-07	6.13	4.91

Notes:

(a) Feet below top of well casing. (b) Relative to mean sea level.

MW-5A			
Sampling Event No.	**Date Measured**	**Water Level Depth (a)**	**Water Level Elevation (b)**
1	Oct-06	9.60	2.82
2	Jan-07	6.72	6.10
3	Apr-07	5.74	6.68
4	Jul-07	6.98	5.44
5	Oct-07	8.32	4.10

MW-5B			
Sampling Event No.	**Date Measured**	**Water Level Depth (a)**	**Water Level Elevation (b)**
1	Oct-06	9.07	3.31
2	Jan-07	6.45	5.93
3	Apr-07	6.45	5.93
4	Jul-07	7.15	5.23
5	Oct-07	7.28	5.10

Notes:

(a) Feet below top of well casing.

(b) Relative to mean sea level.

APPENDIX F

HISTORICAL ANALYTICAL RESULTS

TABLE B
Historical Groundwater Monitoring Well Groundwater Analytical Results
Petroleum and Aromatic Hydrocarbons (µg/L)
2836 Union Street, Oakland, California

MW-1A							
Sampling Event No.	**Date Sampled**	**TVH-g**	**Benzene**	**Toluene**	**Ethylbenzene**	**Total Xylenes**	**MTBE**
1	Oct-06	NS	NS	NS	NS	NS	NS
2	Jan-07	790	94	< 0.5	8.6	< 0.5	100
3	Apr-07	760	63	<0.5	1.9	<0.5	150
4	Jul-07	NS	NS	NS	NS	NS	NS
5	Oct-07	830	28	<0.7	13	<0.7	110

MW-1B							
Sampling Event No.	**Date Sampled**	**TVH-g**	**Benzene**	**Toluene**	**Ethylbenzene**	**Total Xylenes**	**MTBE**
1	Oct-06	350	<1.3	<1.3	<1.3	<1.3	2.7
2	Jan-07	350	<1.3	<1.3	<1.3	<1.3	3.6
3	Apr-07	320	<0.5	<0.5	<0.5	<0.5	4.2
4	Jul-07	200	<1.3	<1.3	<1.3	<1.3	3.2
5	Oct-07	230	<0.7	<0.7	<0.7	<0.7	6.0

MW-2A							
Sampling Event No.	**Date Sampled**	**TVH-g**	**Benzene**	**Toluene**	**Ethylbenzene**	**Total Xylenes**	**MTBE**
1	Oct-06	80	<0.5	<0.5	<0.5	<0.5	<0.5
2	Jan-07	490	<0.5	<0.5	<0.5	<0.5	<0.5
3	Apr-07	83	<0.5	<0.5	<0.5	<0.5	<0.5
4	Jul-07	<50	<0.5	<0.5	<0.5	<0.5	<0.5
5	Oct-07	<50	<0.5	<0.5	<0.5	<0.5	<0.5

MW-2B							
Sampling Event No.	**Date Sampled**	**TVH-g**	**Benzene**	**Toluene**	**Ethylbenzene**	**Total Xylenes**	**MTBE**
1	Oct-06	NS	NS	NS	NS	NS	NS
2	Jan-07	2,000	<0.5	1.1	6.7	0.8	19
3	Apr-07	84	<0.5	<0.5	<0.5	<0.5	18
4	Jul-07	580	<0.5	<0.5	<0.5	<0.5	6.0
5	Oct-07	1,700	<0.5	<0.5	<0.5	<0.5	83

MW-3A							
Sampling Event No.	**Date Sampled**	**TVH-g**	**Benzene**	**Toluene**	**Ethylbenzene**	**Total Xylenes**	**MTBE**
1	Oct-06	NS	NS	NS	NS	NS	NS
2	Jan-07	NS	NS	NS	NS	NS	NS
3	Apr-07	<50	<0.5	<0.5	<0.5	<0.5	75
4	Jul-07	NS	NS	NS	NS	NS	NS
5	Oct-07	<50	<0.5	<0.5	<0.5	<0.5	<0.5

MW-3B							
Sampling Event No.	**Date Sampled**	**TVH-g**	**Benzene**	**Toluene**	**Ethylbenzene**	**Total Xylenes**	**MTBE**
1	Oct-06	1,900	<10	<10	<10	<10	<10
2	Jan-07	1,900	<8.3	<8.3	<8.3	<8.3	<8.3
3	Apr-07	1,900	<0.5	<0.5	<0.5	<0.5	<0.5
4	Jul-07	1,200	<2.0	<2.0	<2.0	<2.0	<2.0
5	Oct-07	2,100	<7.1	<7.1	<7.1	<7.1	<7.1

MW-4A							
Sampling Event No.	**Date Sampled**	**TVH-g**	**Benzene**	**Toluene**	**Ethylbenzene**	**Total Xylenes**	**MTBE**
1	Oct-06	NS	NS	NS	NS	NS	NS
2	Jan-07	<50	<0.5	<0.5	<0.5	<0.5	72
3	Apr-07	<50	<0.5	0.6	<0.5	0.6	77
4	Jul-07	<50	<0.5	<0.5	<0.5	<0.5	64
5	Oct-07	<50	<0.5	<0.5	<0.5	<0.5	73

MW-4B							
Sampling Event No.	**Date Sampled**	**TVH-g**	**Benzene**	**Toluene**	**Ethylbenzene**	**Total Xylenes**	**MTBE**
1	Oct-06	1,100	<2.5	<2.5	<2.5	<2.5	<2.5
2	Jan-07	1,300	<4.2	<4.2	<4.2	<4.2	<4.2
3	Apr-07	1,300	<0.5	<0.5	<0.5	<0.5	<0.5
4	Jul-07	1,000	<4.2	<4.2	<4.2	<4.2	<4.2
5	Oct-07	1,400	<4.2	<4.2	<4.2	<4.2	<4.2

MW-5A							
Sampling Event No.	**Date Sampled**	**TVH-g**	**Benzene**	**Toluene**	**Ethylbenzene**	**Total Xylenes**	**MTBE**
1	Oct-06	NS	NS	NS	NS	NS	NS
2	Jan-07	NS	NS	NS	NS	NS	NS
3	Apr-07	1,000	6.6	<0.5	29	7.6	79
4	Jul-07	NS	NS	NS	NS	NS	NS
5	Oct-07	820	6.6	<0.5	6.6	1.8	78

MW-5B							
Sampling Event No.	**Date Sampled**	**TVH-g**	**Benzene**	**Toluene**	**Ethylbenzene**	**Total Xylenes**	**MTBE**
1	Oct-06	13,000	9.6	0.6	21	1.9	37
2	Jan-07	6,600	4.0	<0.5	10	1.0	22
3	Apr-07	3,300	0.7	<0.5	2.7	<0.5	<0.5
4	Jul-07	2,000	1.1	<0.5	2.2	<0.5	26
5	Oct-07	1,200	<0.5	<0.5	<0.5	<0.5	45

Notes:

All concentrations reported in micrograms per liter.

TVH-g = Total volatile hydrocarbons – gasoline range.

NA = Not analyzed for this constituent in this event.

NS = Not sampled

TABLE C
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**
1	Oct-06	NS	NS	NS	NS	NS	NS
2	Jan-07	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
3	Apr-07	NA	NA	NA	NA	NA	NA
4	Jul-07	NA	NA	NA	NA	NA	NA
5	Oct-07	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

MW-1B							
Sampling Event No.	**Date Sampled**	**EDC**	**EDB**	**ETBE**	**DIPE**	**TAME**	**TBA**
1	Oct-06	3.1	<1.3	<1.3	<1.3	<1.3	<25
2	Jan-07	3.3	<1.3	<1.3	<1.3	<1.3	<25
3	Apr-07	4.8	<0.5	4.8	4.8	4.8	<10
4	Jul-07	3.4	<1.3	<1.3	<1.3	<1.3	<25
5	Oct-07	3.3	<1.3	<1.3	<1.3	<1.3	<25

MW-2A							
Sampling Event No.	**Date Sampled**	**EDC**	**EDB**	**ETBE**	**DIPE**	**TAME**	**TBA**
1	Oct-06	<0.5	<0.5	<0.5	<0.5	<0.5	<10
2	Jan-07	NA	NA	NA	NA	NA	NA
3	Apr-07	NA	NA	NA	NA	NA	NA
4	Jul-07	NA	NA	NA	NA	NA	NA
5	Oct-07	NA	NA	NA	NA	NA	NA

MW-2B							
Sampling Event No.	**Date Sampled**	**EDC**	**EDB**	**ETBE**	**DIPE**	**TAME**	**TBA**
1	Oct-06	NS	NS	NS	NS	NS	NS
2	Jan-07	4.1	<0.5	<0.5	<0.5	<0.5	<10
3	Apr-07	6.9	<0.5	<0.5	<0.5	<0.5	<10
4	Jul-07	1.4	<0.5	<0.5	<0.5	<0.5	<10
5	Oct-07	4.1	<0.5	<0.5	<0.5	<0.5	<10

MW-3A							
Sampling Event No.	**Date Sampled**	**EDC**	**EDB**	**ETBE**	**DIPE**	**TAME**	**TBA**
1	Oct-06	NS	NS	NS	NS	NS	NS
2	Jan-07	NS	NS	NS	NS	NS	NS
3	Apr-07	0.9	<0.5	<0.5	<0.5	<0.5	14
4	Jul-07	NS	NS	NS	NS	NS	NS
5	Oct-07	NS	NS	NS	NS	NS	NS

MW-3B							
Sampling Event No.	**Date Sampled**	**EDC**	**EDB**	**ETBE**	**DIPE**	**TAME**	**TBA**
1	Oct-06	<10	<10	<10	<10	<10	<200
2	Jan-07	NA	NA	NA	NA	NA	NA
3	Apr-07	NA	NA	NA	NA	NA	NA
4	Jul-07	NA	NA	NA	NA	NA	NA
5	Oct-07	NA	NA	NA	NA	NA	NA

MW-4A							
Sampling Event No.	**Date Sampled**	**EDC**	**EDB**	**ETBE**	**DIPE**	**TAME**	**TBA**
1	Oct-06	NS	NS	NS	NS	NS	NS
2	Jan-07	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
3	Apr-07	NA	NA	NA	NA	NA	NA
4	Jul-07	NA	NA	NA	NA	NA	NA
5	Oct-07	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

MW-4B							
Sampling Event No.	**Date Sampled**	**EDC**	**EDB**	**ETBE**	**DIPE**	**TAME**	**TBA**
1	Oct-06	<2.5	<0.5	<1	<1	<2.5	<50
2	Jan-07	NA	NA	NA	NA	NA	NA
3	Apr-07	NA	NA	NA	NA	NA	NA
4	Jul-07	NA	NA	NA	NA	NA	NA
5	Oct-07	NA	NA	NA	NA	NA	NA

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

MW-5B							
Sampling Event No.	**Date Sampled**	**EDC**	**EDB**	**ETBE**	**DIPE**	**TAME**	**TBA**
1	Oct-06	<0.5	<0.5	<0.5	<0.5	1.5	<10
2	Jan-07	<0.5	<0.5	<0.5	<0.5	<0.5	<10
3	Apr-07	NA	NA	NA	NA	NA	NA
4	Jul-07	NA	NA	NA	NA	NA	NA
5	Oct-07	<0.5	<0.5	<0.5	<0.5	<0.5	<10

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