


STELLAR ENVIRONMENTAL SOLUTIONS, INC.
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 TEL: 510.644.3123 FAX: 510.644.3859

TRANSMITTAL MEMORANDUM	
TO: CITY OF OAKLAND FIRE SERVICES AGENCY – OFFICE OF EMERGENCY SERVICES 1605 MARTIN LUTHER KING, JR. WAY OAKLAND, CA 94612	DATE: DECEMBER 14, 2005
ATTENTION: MR. HERNAN GOMEZ	FILE: SES 2005-65
SUBJECT: FORMER MODERN MAIL EXPRESS, INC. FACILITY 2836 UNION STREET OAKLAND, CALIFORNIA	
WE ARE SENDING: <input checked="" type="checkbox"/> HEREWITH	<input type="checkbox"/> UNDER SEPARATE COVER
<input checked="" type="checkbox"/> VIA MAIL	<input type="checkbox"/> VIA
THE FOLLOWING: TECHNICAL DOCUMENTATION REPORT FOR INITIAL SITE CHARACTERIZATION (DATED DECEMBER 14, 2005)	
<input checked="" type="checkbox"/> AS REQUESTED	<input type="checkbox"/> FOR YOUR APPROVAL
<input type="checkbox"/> FOR REVIEW	<input type="checkbox"/> FOR YOUR USE
<input type="checkbox"/> FOR SIGNATURE	<input type="checkbox"/> FOR YOUR FILES
COPIES TO: MR. LARRY WADLER – PROPERTY OWNER ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY – LOCAL OVERSIGHT PROGRAM	BY: BRUCE RUCKER 
REPORT ALSO UPLOADED TO CALIFORNIA WATER BOARD'S "GEOTRACKER" DATABASE	

Alameda County
 REC 18 2005

December 14, 2005

Mr. Hernan Gomez
City of Oakland Fire Services Agency
Office of Emergency Services
1605 Martin Luther King, Jr. Way
Oakland, CA 94612

Subject: Technical Documentation Report for Initial Site Characterization
2836 Union Street, Oakland, California

Alameda County
RECEIVED
DEC 16 2005

Dear Mr. Gomez:

INTRODUCTION AND BACKGROUND

Stellar Environmental Solutions, Inc. (SES) is pleased to submit this report of findings for the recent site investigation at the referenced site, on behalf of Mr. Larry Wadler, the property owner. The objective of the work was to evaluate residual soil and groundwater contamination associated with a former 10,000-gallon gasoline underground fuel storage tank (UFST) that was removed from the property in July 1998 under City of Oakland Fire Services Agency – Office of Emergency Services (Oakland Fire) oversight. We understand from Mr. Wadler that your agency will oversee this initial phase of investigation and, based on the findings, either issue case closure or refer the case to the Alameda County Environmental Health Department (Alameda County Health).

PREVIOUS UFST-RELATED WORK

The 10,000-gallon UFST was removed in July 1998 from the north side of the property. The site location is shown on Figure 1. Figure 2 is a site plan showing the former UFST location. The UFST bottom was at a depth of 12 feet. Two soil samples were collected in the excavation sidewalls, just above first occurrence of groundwater. One sample was collected beneath the dispenser, following the purging of 250 gallons of groundwater that had a reported petroleum sheet on the water. Following the groundwater purging, one grab-groundwater sample was collected from infiltrating groundwater in the excavation. Elevated levels of petroleum hydrocarbons were detected in the dispenser soil and grab-groundwater sample. Analytical

results are discussed in a subsequent section. The tank closure report was submitted to Oakland Fire (Golden Gate Tank Removal, 1998).

In preparation for selling the property, Mr. Wadler elected to conduct the proposed investigation to *evaluate residual contamination*.

SUBJECT PROPERTY 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:

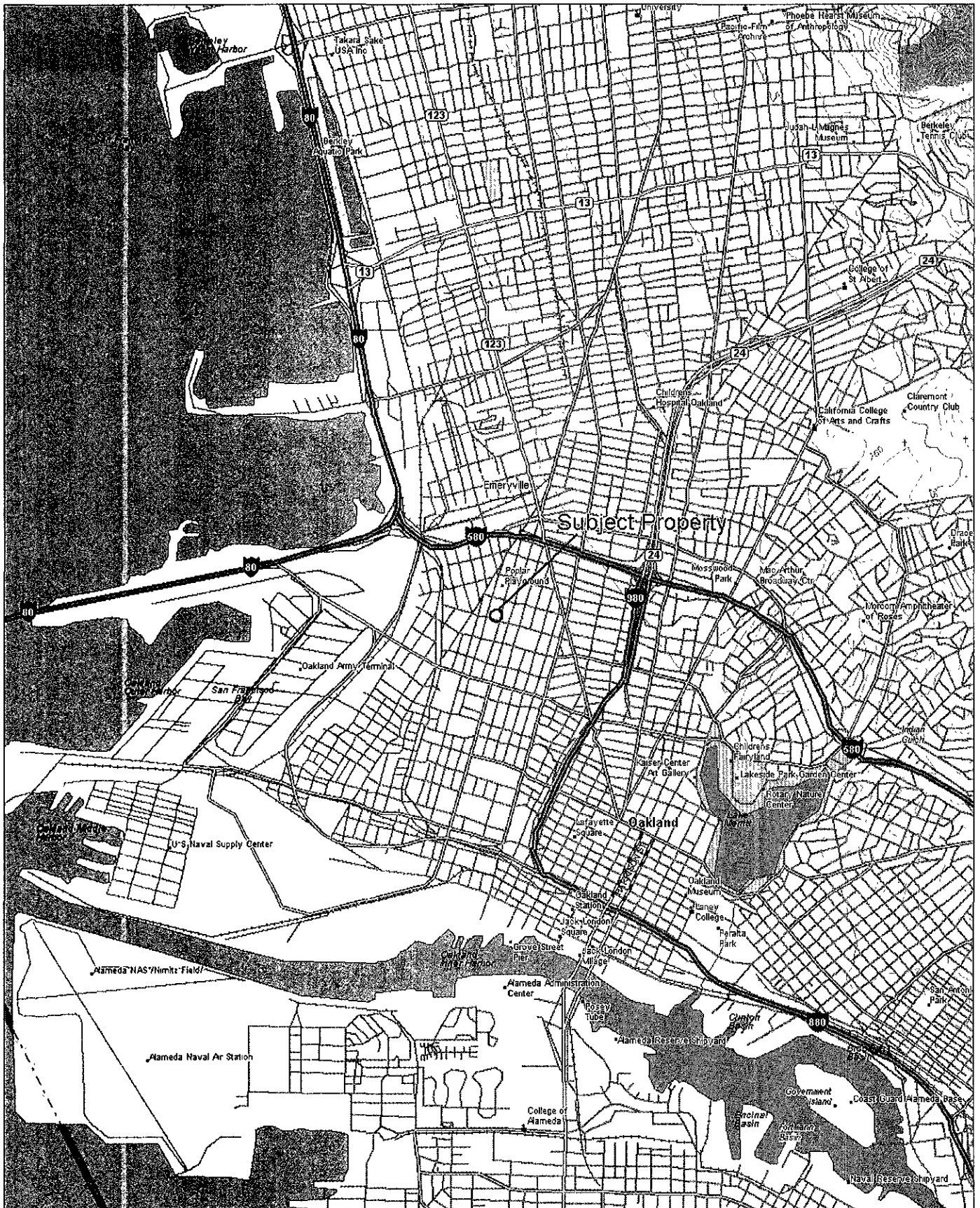
- A currently vacant and for-sale residence (to the north), which is also owned by Mr. Wadler;
- A paved parking area (to the east);
- A residence (to the south); and
- A sidewalk, then Union Street, then a commercial building (to the west).

The property operated as an express courier facility (Modern Mail Services, Inc.) between 1951 and 2003. The property and business were owned by the current property's father between 1951 and his death in 1976. At that time, the current property owner and his brother took over the business and became the legal property owners. The 10,000-gallon gasoline UFST was installed in the late 1970s by the current owners to fuel courier vehicles. The UFST had a current Alameda County Health permit when it was removed (permit No. STID 4065). That permit lists both Mr. Larry Wadler and Modern Mail Service, Inc. as the permit holders.

PRE-FIELD WORK ACTIVITIES

Technical Workplan

SES submitted to Oakland Fire a technical workplan discussing the proposed scope of work (Stellar Environmental Solutions, Inc., 2005). Investigation activities did not deviate substantively deviate from that workplan.



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

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



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

2836 Union Street
Oakland, CA

By: MJC

NOVEMBER 2005

Figure 1



2005-65-01



UNION STREET

Sidewalk

Residence

Subject property boundary

Gate

BH-01

BH-02

Former dispenser

BH-03

BH-04

Former UFST excavation

Paved area

2836 Union Street building

Residence

0 10
SCALE IN FEET (approx.)

2005-65-02



SITE PLAN AND DRILLING LOCATIONS
2836 Union Street, Oakland, CA

Figure 2

by: MJC

NOVEMBER 2005

Permitting and Planning

Prior to drilling, SES marked the drilling locations with white paint and reported the planned drilling activities to Underground Service Alert of Northern California (USA North), which is responsible for notifying local utility companies to conduct a site-specific survey and mark underground utilities. We obtained and paid for the required borehole drilling permit from Alameda County Public Works Agency (ACPWA) (permit copy included as Attachment A). We notified ACPWA of the drilling schedule; however, ACPWA did not conduct an inspection.

EXPLORATORY BOREHOLE DRILLING AND SAMPLING

Exploratory borehole drilling and sampling was conducted on November 22, 2005. Drilling was conducted by EnProb Environmental Probing (C-57 License No. 777007), under the direct supervision of an SES Registered Geologist. The boreholes were drilled with a truck-mounted Geoprobe™ rig. Boreholes were drilled with a direct-push (GeoProbe™) rig that advances 2-inch-diameter steel outer drive casing lined with acetate sampling sleeves. Figure 2 shows the borehole locations. Attachment B contains photodocumentation of the drilling activities.

Four boreholes (BH-01 through BH-04) were advanced, as shown on Figure 2. These locations were selected as likely areas to intercept UFST-sourced contamination. Site lithology was determined by geologic logging of continuous core samples (results discussed in a subsequent section). The following samples were submitted for laboratory analysis:

- ***BH-01—approximately 65 feet downgradient of the UFST:***
 - 8 feet below ground surface (bgs) (soil sample from the contaminated zone, just above first occurrence of groundwater)
 - 17 feet bgs (soil sample from the non-water-bearing clay zone beneath first occurrence of groundwater)
 - grab-groundwater sample
- ***BH-02—approximately 25 feet downgradient of the UFST:***
 - 8.5 feet bgs (soil sample from the contaminated zone, just above first occurrence of groundwater)
 - 13.5 feet bgs (soil sample from the non-water-bearing clay zone beneath first occurrence of groundwater)
 - grab-groundwater sample

■ ***BH-03—within the former dispenser area:***

- 2.5 feet bgs (soil sample from the contaminated zone)
- 7 feet bgs (soil sample just above first occurrence of groundwater)
- 14.5 feet bgs (soil sample from the non-water-bearing clay zone beneath first occurrence of groundwater)
- grab-groundwater sample

■ ***BH-04—within the former UFST excavation:***

- 10.5 feet bgs (soil sample from the top of native soil, just below the UFST excavation backfill)
- 14.5 feet bgs (soil sample from the non-water-bearing clay zone beneath first occurrence of groundwater)
- grab-groundwater sample

Groundwater samples were collected by inserting temporary PVC casing (with basal screen) into the borehole, allowing groundwater to infiltrate the casing, then withdrawing groundwater with a new disposable bailer. Samples were labeled, chilled, and transported to the analytical laboratory under chain-of-custody documentation.

Following completion of drilling and sampling activities, the boreholes were tremie-grouted to surface with a slurry of neat Portland cement and potable water. Drill cuttings from the investigation were placed in three labeled, covered, 5-gallon buckets, which were left onsite. As a cost-savings measure, we recommend that this waste soil be held onsite until it is known that no further waste soil will be generated.

LABORATORY ANALYSES PERFORMED

The soil and groundwater samples were analyzed for the following contaminants of concern:

- Total volatile hydrocarbons (TVH), gasoline range, by EPA Method 8015M.
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) and methyl tertiary-butyl ether (MTBE), by EPA Method 8020.

Curtis and Tompkins, Ltd. (a California-certified analytical laboratory) completed all laboratory analyses.

LITHOLOGY AND HYDROGEOLOGY

Shallow site lithology was determined in the current investigations by the visual method of the Unified Soils Classification System (USCS) using continuous core soil samples from the two borehole programs. Attachment C contains borehole geologic logs. The elevation of the property is approximately 17 feet above mean sea level (amsl).

In downgradient borehole BH-01, lithology encountered was wholly clay (to 22 feet bgs), predominantly either silty or sandy, with minor gravel at approximately 18.5 feet bgs. In BH-02, a 0.5-foot-thick sand interval was encountered at 9 feet bgs, and was underlain by a stiff clay. In BH-03, a sand unit was encountered from 8 to 12.5 feet bgs as a clayey and gravelly sand underlain by a stiff clay. In bore BH-04 (advanced through the former UFST excavation), sand backfill was present from surface to 9.5 feet bgs, underlain by gravel backfill (likely base rock) from 9.5 to 10.5 feet bgs. Native material underlying the backfill included a well-sorted sand from 10.5 to 13.5 feet bgs, underlain by a stiff sandy clay.

Water (i.e., saturated cuttings and measurable water levels) was encountered at depths between approximately 8 and 10 feet bgs. In boreholes with a sand unit (BH-02 and BH-03), groundwater was encountered at the top of the sand unit. In the former UFST excavation borehole (BH-04), groundwater was encountered near the bottom of the backfill material. Water levels rose approximately 1 to 2 feet in boreholes (to approximately 7.3 feet bgs), indicating confining or semi-confining conditions in the shallow aquifer. Local groundwater flow direction is likely to the west (toward San Francisco Bay and following local topography), although variations between northwest and southwest are possible.

The observed local heterogeneities in shallow lithology and groundwater levels are typical of the alluvial deposits in this area.

REGULATORY CONSIDERATIONS

Screening Levels

The California Regional Water Quality Control Board (Water Board) has established Environmental Screening Levels (ESLs) as conservative numerical standards for evaluating the likelihood of environmental impact. ESLs are 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 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.

Different ESLs are published for commercial/industrial vs. residential land use, and for sites where groundwater is a potential drinking water resource vs. is not a drinking water resource. 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 *commercial/industrial land use* and *groundwater is a potential drinking water resource*.

Hazardous Waste Criteria

Soils can be classified as hazardous (which requires special disposal if removed, but doesn't necessarily require cleanup). The most commonly applied California hazardous criteria are based on both total and soluble concentrations relative to State of California numerical criteria (Total Threshold Limit Concentrations [TTLCs]) and Soluble Threshold Limit Concentrations [STLCs]). Generally, total concentrations are first determined to reduce the number of samples that might require further STLC classification (by the California Waste Extraction Test [WET]) method. No hazardous waste criteria are published for petroleum or aromatic hydrocarbons, although very high concentrations of these contaminants can render soil hazardous by other criteria (i.e., ignitability and/or toxicity).

DRILLING OBSERVATIONS AND ANALYTICAL RESULTS

Drilling Observations

As noted on the borehole geologic logs (Attachment A), petroleum odor was evident in all boreholes, at the following depth intervals:

- BH-01: approximately 7.5 to 9 feet bgs
- BH-02: approximately 5.5 to 9.5 feet bgs
- BH-03: approximately 2 to 4 feet bgs
- BH-04: approximately 10.5 feet bgs (base of excavation backfill material, in the saturated zone) to approximately 12 feet bgs

At BH-4, UFST excavation backfill material was encountered from ground surface to a depth of 9.5 feet (sand) and from 9.5 to 10.5 feet (drain rock).

Analytical Results

Attachment D contains the certified analytical laboratory report and chain-of-custody record for the borehole drilling samples.

Soil Analytical Results

Gasoline. Table 1 and Figure 3 summarize the analytical results for soil samples. In the 1998 UFST removal phase, gasoline was detected at 2,100 mg/kg at a depth of 2 feet bgs at the former UFST dispenser location (current investigation borehole BH-03). Gasoline concentrations were less than 10 mg/kg in the UFST excavation sidewall samples. In the current investigation, gasoline was detected at BH-03 (former dispenser) at 250 mg/kg (2.5 feet bgs) and 920 mg/kg (7 feet bgs in the unsaturated zone), and was not detected at 14.5 feet bgs (underlying clay aquitard). Gasoline concentrations in BH-02 were 31 mg/kg (unsaturated zone) and 3 mg/kg (underlying clay aquitard). Gasoline was not detected in any of the soil samples from source area borehole BH-04 or downgradient borehole BH-01.

The distribution pattern of gasoline, BTEX, and MTBE in the bores shown in Figure 3 suggest that the leakage from the former UST may have been at a depth such that groundwater was directly affected but soil contamination less pronounced, while at the former dispenser area the soil was more affected by more shallow contamination. The concentration of gasoline at BH-03 suggests there may be some contamination in a thin capillary fringe zone around 8 feet coincident with the upper groundwater elevation.

Aromatic Hydrocarbons and MTBE. In the 1998 UFST removal phase, elevated levels of BTEX and MTBE were detected at a depth of 2 feet bgs at the former dispenser location, and only trace to non-detectable concentrations were present in the UFST excavation sidewalls. In the current investigation, elevated levels of BTEX and MTBE were detected in only boreholes BH-02 (benzene and MTBE) and BH-03 (BTEX only).

Groundwater Analytical Results

Gasoline. Table 2 and Figure 4 summarize groundwater analytical results. In the 1998 UFST removal phase, gasoline was detected in the 1998 excavation grab-groundwater sample at 2,100 µg/L. In the current investigation, gasoline was detected in all boreholes, from 7,200 µg/L (downgradient borehole BH-01) to a maximum of 430,000 µg/L (BH-02).

Table 1
Historical and Current Soil Analytical Results
2836 Union Street, Oakland, California

Sample ID	Sample Location	Sample Depth (feet)	TVHg	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
<i>July 1998 UFST Removal Excavation Soil Samples</i>								
7751-E	sidewall	8.5	< 0.5	< 0.005	< 0.005	< 0.005	< 0.01	< 0.005
7751-W	sidewall	8.5	7.2	< 0.005	0.012	0.065	0.021	< 0.005
7751-DISP	dispenser	2.0	2,100	2.8	16	15	93	5.1
<i>November 2005 Borehole Soil Samples</i>								
BH-01-8'	unsaturated zone	8'	< 1.0	< 0.005	< 0.005	< 0.005	< 0.01	< 0.021
BH-01-17'	clay aquitard	17'	< 1.0	< 0.005	< 0.005	< 0.005	< 0.01	< 0.021
BH-02-8.5'	unsaturated zone	8.5'	31	0.093	< 0.005	0.75	0.55	< 0.022
BH-02-13.5'	clay aquitard	13.5'	3.0	0.012	< 0.005	0.057	0.134	0.024
BH-03-2.5'	unsaturated zone	2.5'	220	0.47	6.7	3.1	17.9	< 0.26
BH-03-7'	unsaturated zone	7'	920	1.8	19	16	81	< 0.66
BH-03-14.5'	clay aquitard	14.5'	< 1.0	< 0.005	< 0.005	0.019	0.021	< 0.02
BH-04-10.5'	saturated zone	10.5'	< 0.93	< 0.005	< 0.005	< 0.005	0.007	< 0.019
BH-04-14.5'	clay aquitard	14.5'	< 1.0	< 0.005	< 0.005	< 0.005	< 0.01	< 0.02
<i>ESLs^(a)</i>			<i>100</i>	<i>0.044</i>	<i>2.9</i>	<i>3.3</i>	<i>1.5</i>	<i>0.023</i>

Notes:

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

TVHg = total volatile hydrocarbons as gasoline

MTBE = methyl tertiary-butyl ether

All concentrations are in milligrams per kilogram (mg/kg). Samples in **bold-face type** exceed the ESL criterion.

Table 2
Historical and Current Groundwater Analytical Results
2836 Union Street, Oakland, California

Sample ID	TVH _g	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE
<i>July 1998 UFST Removal Excavation Grab-Groundwater Sample</i>						
7561-GW ^(a)	4,200	15	4.0	140	170	150
<i>November 2005 Borehole Groundwater Samples</i>						
BH-01-GW	830	0.76	< 0.50	< 0.50	< 0.50	24
BH-02-GW	430,000	6,700	350	14,000	31,000	< 200
BH-03-GW	73,000	530	440	4,400	5,540	< 200
BH-04-GW	7,200	< 0.5	< 0.5	18	1.2	< 2.0
<i>ESLs ^(b)</i>	<i>100</i>	<i>1.0</i>	<i>40</i>	<i>30</i>	<i>13</i>	<i>5.0</i>

Notes:

^(a) This sample had no detectable lead (< 0.05 mg/L).

^(b) ESLs = Water Board Environmental Screening Levels for commercial/industrial sites where groundwater is a potential drinking water resource.

TVH_g = total volatile hydrocarbons as gasoline

MTBE = methyl tertiary-butyl ether

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

Aromatic Hydrocarbons and MTBE. The aromatic hydrocarbons BTEX and MTBE were all detected at elevated levels in the 1998 excavation grab-groundwater sample. In the current investigation, elevated levels of BTEX were detected only in boreholes BH-02 and BH-02, and trace to non-detectable concentrations were present in BH-01 and BH-04. MTBE was present (24 µg/L) above the ESL criterion only in downgradient borehole BH-01, although required sample dilution in BH-02 and BH-03 samples raised the method reporting limit to well above the ESL criterion.

Lead. Lead was not detected (less than 0.05 mg/L) in the 1998 excavation grab-groundwater sample. As this sample had elevated levels of the primary site contaminants (fuel and aromatic hydrocarbons), it is very unlikely that lead is a site contaminant of concern.



UNION STREET

Sidewalk

Residence

Subject property boundary

Gate

	8'	17'
TVHg	<1.0	<1.0
BTEX	<0.005	<0.005
MTBE	<0.021	<0.021

BH-01

BH-02

	8.5'	13.5'
TVHg	31	3
B	0.093	0.012
T	<0.005	<0.005
E	0.75	0.057
X	0.55	0.134
MTBE	<0.022	0.024

Former dispenser

BH-03

	2.5'	7'	14.5'
TVHg	220	920	<1.0
B	0.47	1.8	<0.005
T	6.7	19	<0.005
E	3.1	16	0.019
X	17.9	81	0.021
MTBE	<0.26	<0.66	<0.02

2836 Union Street building

	10.5'	14.5'
TVHg	<0.93	<1.0
B	<0.005	<0.005
T	<0.005	<0.005
E	<0.005	<0.005
X	0.007	<0.01
MTBE	<0.019	<0.02

BH-04

Former UFST excavation

Paved area

Residence

LEGEND

⊕ November 2005 borehole
 BH-03
 MTBE = Methyl tertiary butyl ether
 TVHg = Total volatile hydrocarbons – gasoline range
 BTEX = Benzene, toluene, ethylbenzene and total xylenes
 All concentrations are in mg/Kg

0 10
 SCALE IN FEET (approx.)

2005-65-12



SOIL SAMPLE ANALYTICAL RESULTS
2836 Union Street, Oakland, CA

Figure 3

by: MJC

DECEMBER 2005



UNION STREET

Sidewalk

Residence

Subject property boundary

Gate

TVHg	830
B	0.76
TEX	ND
MTBE	24

BH-01

BH-02

TVHg	430,000
B	6,700
T	350
E	14,000
X	31,000
MTBE	<200

Former dispenser

BH-03

TVHg	73,000
B	530
T	440
E	4,400
X	5,540
MTBE	<200

Paved area

TVHg	7,200
B&T	<0.5
E	18
X	1.2
MTBE	<2.0

BH-04

Former UFST excavation

2836 Union Street building

Residence

LEGEND

⊕ November 2005 borehole
 BH-03
 MTBE = Methyl tertiary butyl ether
 TVHg = Total volatile hydrocarbons - gasoline range
 BTEX = Benzene, toluene, ethylbenzene and total xylenes
 ND = Not detected
 All concentrations are in mg/Kg

0 10
 SCALE IN FEET (approx.)

GROUNDWATER ANALYTICAL RESULTS
2836 Union Street, Oakland, CA

Figure 4

by: MJC

DECEMBER 2005

2005-65-13



DISCUSSION OF FINDINGS

Contaminant Distribution

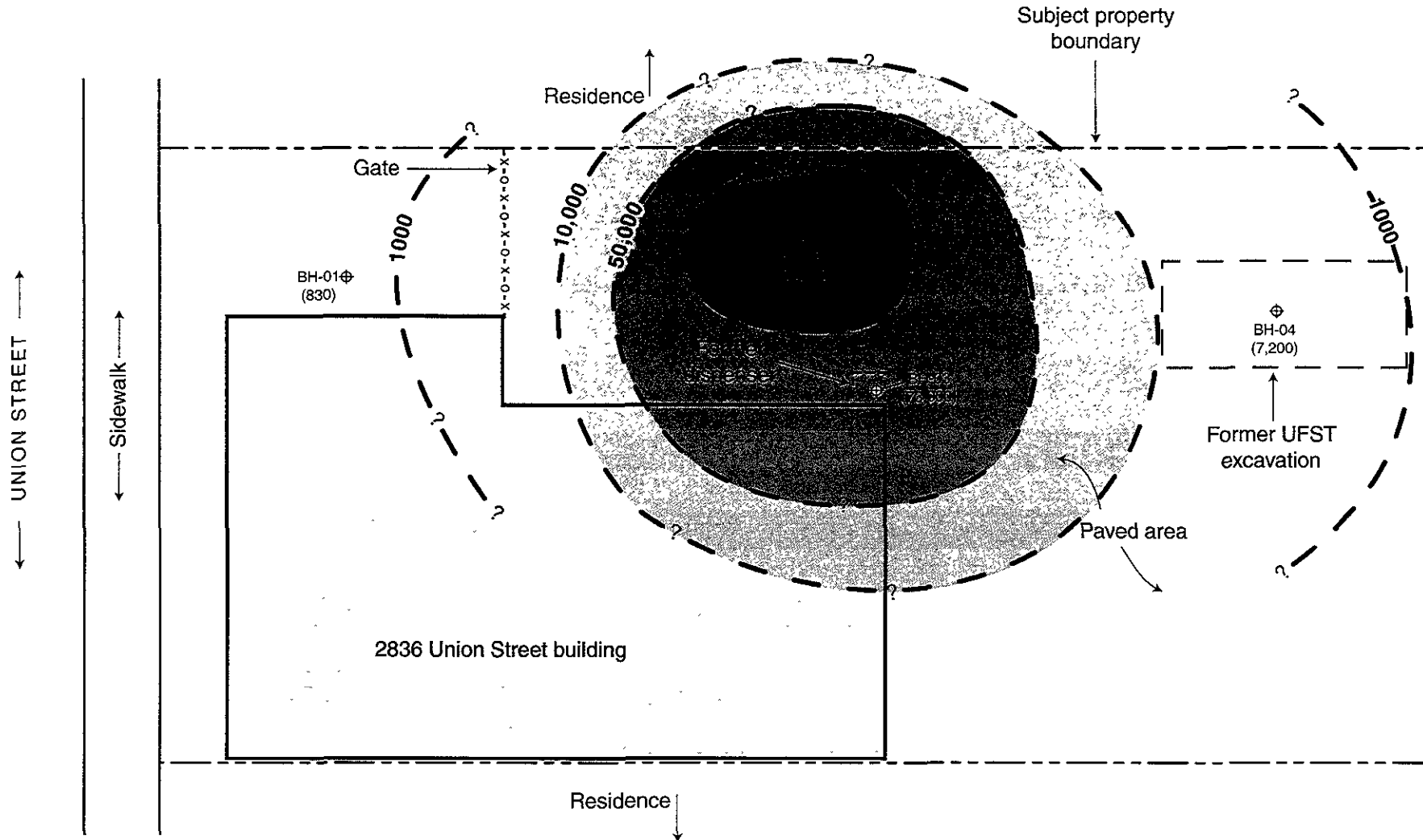
The conceptual model to explain the distribution pattern of the dissolved phase hydrocarbons depends on the groundwater flow direction. Figures 4 and 5 show the lower concentrations in the groundwater at the former UST area versus the former dispenser. This suggests that the main hydrocarbon contamination originated from the dispenser area. This model is consistent with the higher soil concentrations reported at the dispenser area. However, regional and local groundwater flow is to the west, and under that flow regime the highest concentration of dissolved hydrocarbons reported at BH-02 (approximately 30 feet west of the former UST) may reflect deeper leakage at the former UST directly into the groundwater that subsequently migrated downgradient. If, alternatively, there is a northwestern component to the flow, the high concentrations at BH-02 can be explained by migration from the dispenser area.

In either case, the findings suggest that soil and groundwater have been impacted by the former UFST/dispenser area. Maximum soil contamination was detected beneath the former dispenser, with no soil contamination detected at the former UFST source area within the deeper native material at 10 feet or more bgs.

Soil contamination above ESL criteria in the four exploratory bores is present only in unsaturated zone soil samples, and does not extend into the underlying clay aquitard. It is likely that residual soil contamination above ESL criteria is also present between the former UFST excavation and the former dispenser.

The center of mass of groundwater contamination (based on maximum groundwater contaminant concentrations) is in the vicinity of BH-02, downgradient of the former UFST. This suggests that the groundwater contaminant plume has migrated since the UFST was removed and/or it is originating mainly from the closer dispenser area to the south of BH-03. The gasoline groundwater concentrations near the solubility limit suggest a source of light, non-aqueous phase liquid (LNAPL), representing separate-phase gasoline. This LNAPL will contribute to long-term groundwater impacts (unless abated) by dissolving into groundwater.

While groundwater flow direction has not been measured at the site, it is likely to the west (toward San Francisco Bay, following local topography), and the groundwater contamination distribution suggest a generally westerly flow. It appears that groundwater contamination is



LEGEND

⊕ BH-01 November 2005 borehole

-1000- Gasoline isoconcentration contour (µg/L)

0 10
SCALE IN FEET (approx.)

2005-65-14



DISSOLVED GASOLINE PLUME CONTOURS
2836 Union Street, Oakland, CA

Figure 5

by: MJC

DECEMBER 2005

- A contaminant plume consisting of gasoline, BTEX, and MTBE is centered just downgradient of the former UFST and closest to the former dispenser, and likely extends offsite to the north and west. Based on the elevated concentrations, natural attenuation will not be effective in substantially reducing the groundwater contaminant plume to within accepted regulatory levels. Gasoline concentrations suggest that LNAPL may be present on the surface of shallow groundwater.
- Based on the detected contamination confirming a contaminant release, it appears likely that Oakland Fire will transfer the case to Alameda County Health. Alameda County Health will likely determine that the site meets its criteria for formal listing as a UFST release, and will require additional site characterization and possibly corrective action. This will also trigger the requirement to upload electronic data from the investigations to the State Water Resources Control Board “Geotracker” database and Alameda County Health’s Electronic Report Upload “ftp” system.

Recommendations

- A primary regulatory criterion for case closure is removal of the contaminant source—in this case, residual contaminated soil. We recommend that additional site characterization (borehole drilling and sampling) be conducted to evaluate the effectiveness of abating residual soil contamination by excavation and offsite disposal. The data from this investigation will also supplement the site conceptual model, and will be useful in evaluating other potential remediation options.
- We recommend that a technical workplan be prepared and submitted to Alameda County Health detailing the recommended additional site characterization. Because the case will not yet have been transferred to that agency, we will provide Alameda County Health with a copy of this report as well.
- These investigation activities may be eligible for reimbursement from the California Underground Storage Tank Cleanup Fund (Fund), depending largely on the permit status of the UFST when it was removed. We recommend that you conduct an initial evaluation of your records to determine potential eligibility, and then initiate the Fund application if the results are favorable.
- As a cost-savings measure, we recommend that the non-hazardous waste soil (drill cuttings) be held onsite until it is determined that no additional drilling will be conducted.

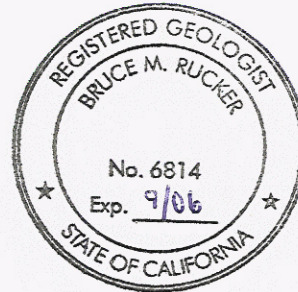
Mr. Hernan Gomez
December 14, 2005
Page 18 of 20

Please call the undersigned directly at (510) 644-3123 if you have any questions regarding this report of findings.

Sincerely,

Bruce M. Rucker

Bruce M. Rucker, R.G. (#6814), R.E.A. (#2465)
Project Manager / Senior Geologist



Richard S. Makdisi

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

REFERENCES

Golden Gate Tank Removal, 1998. Tank Closure Report – 2836 Union Street, Oakland, California. July 31.

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

LIMITATIONS

This report has been prepared for the exclusive use of Mr. Wadler, the regulatory agencies, and their authorized representatives and/or assigns. 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 1998 UFST removal report and the November 2005 drilling investigation conducted by SES. This report provides neither a certification nor guarantee that the property is free of hazardous substance contamination. This report has been prepared in accordance with generally accepted methodologies and standards of practice. The SES personnel who performed this investigation 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.

The findings of this report are valid as of the present. Site conditions may change with the passage of time, natural processes, or human intervention, which can invalidate the findings and conclusions presented in this report. As such, this report should be considered a reflection of the current site conditions as based on the investigation and remediation completed.

ATTACHMENT A

Drilling Permit

Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 10/28/2005 **By** Jamesy
Permits Issued: W2005-1046

Receipt Number: WR2005-2164
Permits Valid from 11/04/2005 **to** 11/04/2005

Application Id: 1130521115710
Site Location: 2836 Union St, Oakland, CA 94608
Project Start Date: 11/04/2005

City of Project Site: Oakland
Completion Date: 11/04/2005

Applicant: Stellar Environmental Solutions Inc - Bruce Rucker
2198 6th St. #201, Oakland, CA 94710
Property Owner: Larry Walder c/o Modern Express Courier
2525 Mandela Parkway, Oakland, CA 94607
Client: ** same as Property Owner **

Phone: 510-644-3123
Phone: 510-444-6248

Total Due: \$200.00
Total Amount Paid: \$200.00
Paid By: CHECK **PAID IN FULL**

Works Requesting Permits:

Borehole(s) for Investigation-Contamination Study - 40 Boreholes
Driller: EnProb Environmental Probing - Lic #: 777007 - Method: DP

Work Total: \$200.00

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2005-1046	10/28/2005	02/02/2006	40	2.00 in.	20.00 ft

Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site.
2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
4. Applicant shall contact James Yoo for an inspection time at 510-670-6633 at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
5. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.
6. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

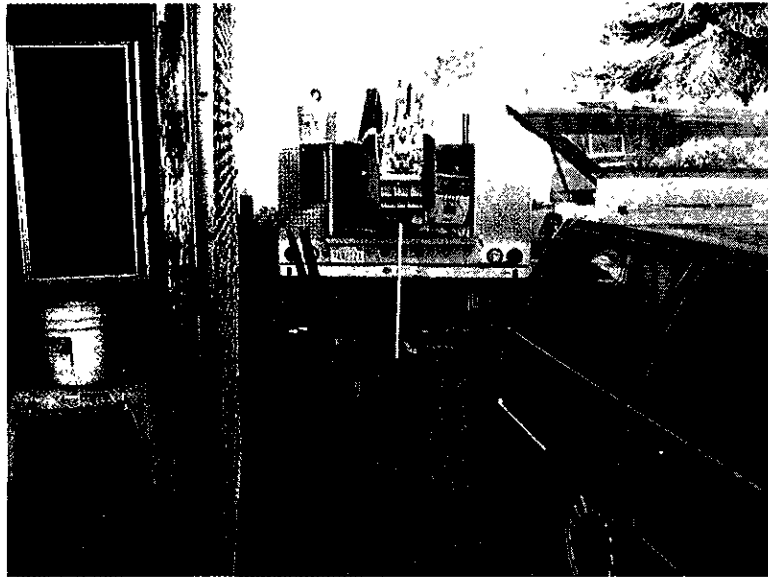
Alameda County Public Works Agency - Water Resources Well Permit

7. Spot check only

Inspector does not have to be present for grout inspection.

ATTACHMENT B

Photodocumentation



Subject: Borehole drilling rig at BH-01, looking to the west.

Site: 2836 Union Street, Oakland, Berkeley, Alameda County, California

Date Taken: November 22, 2005

Project No.: SES 2005-65

Photographer: Bruce Rucker

Photo No.: 01



Subject: Borehole drilling rig at BH-3 (BH-02 at left with casing protruding from hole), looking to the east.

Site: 2836 Union Street, Oakland, Berkeley, Alameda County, California

Date Taken: November 22, 2005

Project No.: SES 2005-65

Photographer: Bruce Rucker

Photo No.: 02



Subject: Borehole drilling rig at BH-04, looking to the east (BH-02 and BH-03 locations in the foreground)

Site: 2836 Union Street, Oakland, Berkeley, Alameda County, California

Date Taken: November 22, 2005

Project No.: SES 2005-65

Photographer: Bruce Rucker

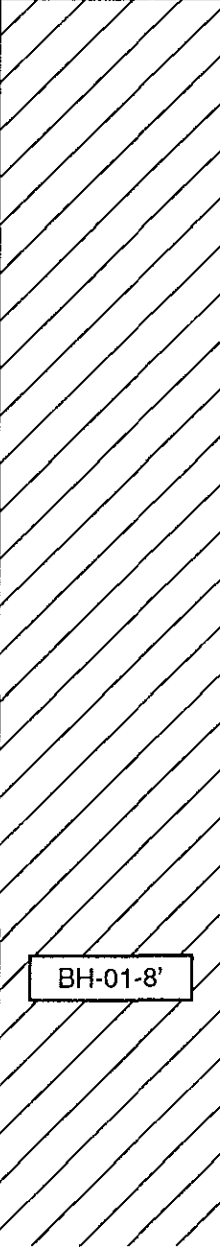
Photo No.: 03

ATTACHMENT C

Borehole Geologic Logs

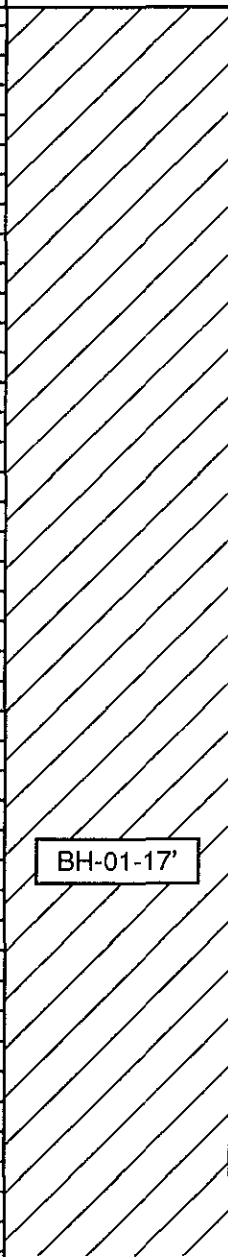
BORING NUMBER BH-01 Page 1 of 3

PROJECT Wadler Property OWNER Mr. Larry Wadler
 LOCATION 2836 Union St., Oakland, CA PROJECT NUMBER 2005-65
 TOTAL DEPTH 22 feet BOREHOLE DIA. 2 inch
 SURFACE ELEV. ~17' amsl WATER FIRST ENCOUNTERED ~8'
 DRILLING COMPANY En Prob DRILLING METHOD Direct Push
 DRILLER J. Edmond GEOLOGIST B. Rucker DATE DRILLED 11/22/2005

DEPTH (feet)	GRAPHIC LOG	SAMPLE INTERVAL/RECOVERY	BLOW COUNTS	INSTRUMENT READING	DESCRIPTION/SOIL CLASSIFICATION	REMARKS	
0					Dark brown silty clay (CL), cohesive, sl.-mod stiff, sl. moist		
1					Organics from 0'-3' and minor fine gravel		
2							
3							
4						4' No silt, light brown, mod. stiff, v. cohesive	
5						5' Becomes sandy	
6							
7							
8		BH-01-8'				7.7' Blue-grey discoloration, petroleum odor, minor small gravel	
9						8-8.5' Very moist but not saturated and no water in borehole	
10					9' Sand and silt absent, no petroleum odor. Brown with blue-grey mottling, mod. stiff, v. cohesive, sl. moist, sticky		

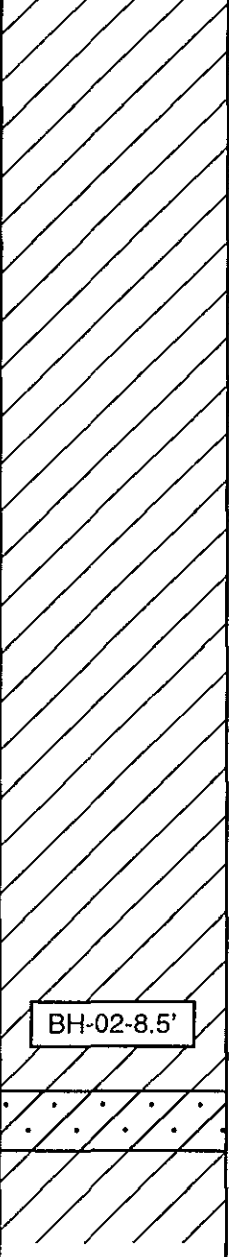
BORING NUMBER BH-01 Page 2 of 3

PROJECT Wadler Property OWNER Mr. Larry Wadler
 LOCATION 2836 Union St., Oakland, CA PROJECT NUMBER 2005-65
 TOTAL DEPTH 22 feet BOREHOLE DIA. 2 inch
 SURFACE ELEV. ~17' amsl WATER FIRST ENCOUNTERED ~8'
 DRILLING COMPANY En Prob DRILLING METHOD Direct Push
 DRILLER J. Edmond GEOLOGIST B. Rucker DATE DRILLED 11/22/2005

DEPTH (feet)	GRAPHIC LOG	SAMPLE INTERVAL/RECOVERY	BLOW COUNTS	INSTRUMENT READING	DESCRIPTION/SOIL CLASSIFICATION	REMARKS	
-10					10' Becomes silty		
-11							
-12						12'-12.3' Sandy and wet, no water in borehole, blue-grey silty clay (CL), sticky, med. stiff, cohesive	
-13						13' Brown w/blue-grey mottling	
-14							
-15						14.5' Becomes sl. sandy, black organic staining	
-16						15' Becomes soft-sl. stiff, minor silt, v. cohesive, sticky, light brown	
-17						17' Becomes sl.- mod. stiff	Borehole swelling shut at 17.5'
-18							
-19							
-20						18.5' Minor small gravel and fine sand, sl. friable	

BORING NUMBER BH-02 Page 1 of 2

PROJECT Wadler Property OWNER Mr. Larry Wadler
 LOCATION 2836 Union St., Oakland, CA PROJECT NUMBER 2005-65
 TOTAL DEPTH 14 feet BOREHOLE DIA. 2 inch
 SURFACE ELEV. ~17' amsl WATER FIRST ENCOUNTERED ~9'
 DRILLING COMPANY En Prob DRILLING METHOD Direct Push
 DRILLER J. Edmond GEOLOGIST B. Rucker DATE DRILLED 11/22/2005

DEPTH (feet)	GRAPHIC LOG	SAMPLE INTERVAL/RECOVERY	BLOW COUNTS	INSTRUMENT READING	DESCRIPTION/SOIL CLASSIFICATION	REMARKS	
0					Dark brown silty clay (CL), med. stiff, cohesive, sl. moist		
1							
2							
2.5						2.5' Dark brown-black, organics	
3							
3.5						3.5' Dark grey-black, rootlets	
4						4' Dark grey silty clay (CL), silt is minor, mod. stiff, v. cohesive, sl. moist	
5						5.5' Slight petroleum odor	
6						6.5' Petroleum odor stronger, becomes more silty, very fine grained sand just visible	
7						7'-7.5' Gravelly (small)	
7.5					7.5' Blue-grey sandy clay (CL), minor small gravel, friable, sl. moist, cohesive, strong petroleum odor		
8					8'-8.5' Very moist, sl. stiff, mod. friable		
8.5					8.5' Sl. moist, mod. stiff		
9					Blue-grey clayey sand (SC), med.-grained, loose, wet, strong petroleum odor		
10					Blue-grey silty clay (CL), mod. stiff, cohesive, sl. moist, no petroleum odor		

BH-02-8.5'

2005-65-06

BORING NUMBER BH-02 Page 2 of 2

PROJECT Wadler Property OWNER Mr. Larry Wadler

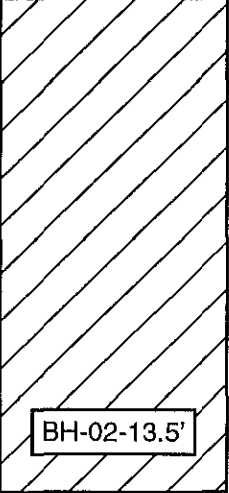
LOCATION 2836 Union St., Oakland, CA PROJECT NUMBER 2005-65

TOTAL DEPTH 14 feet BOREHOLE DIA. 2 inch

SURFACE ELEV. ~17' amsl WATER FIRST ENCOUNTERED ~9'

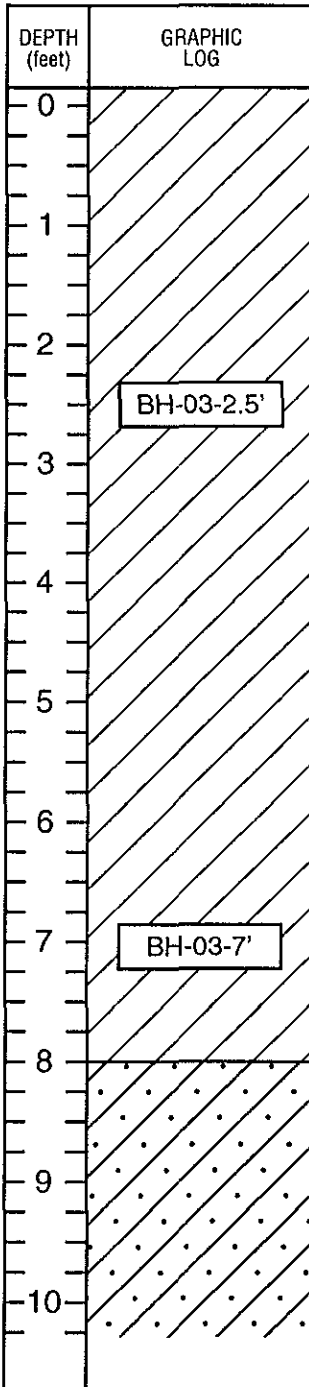
DRILLING COMPANY En Prob DRILLING METHOD Direct Push

DRILLER J. Edmond GEOLOGIST B. Rucker DATE DRILLED 11/22/2005

DEPTH (feet)	GRAPHIC LOG	SAMPLE INTERVAL/RECOVERY	BLOW COUNTS	INSTRUMENT READING	DESCRIPTION/SOIL CLASSIFICATION	REMARKS	
10	 BH-02-13.5'				10.5' Becomes very stiff	Water level at 11.5' after drilling to 12'. Insert PVC casing. Collect BH-02-GW	
11							
12						12' Brown silty clay (CL), stiff, silt is minor, very cohesive, sl. moist, no petroleum odor	Water level after 2 hours = 7.4'
13							
14						Bottom of borehole = 14'	
15							
16							
17							
18							
19							
20							

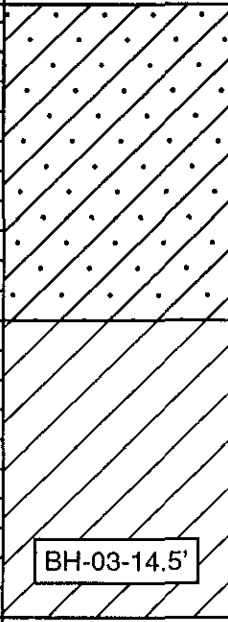
BORING NUMBER BH-03 Page 1 of 2

PROJECT Wadler Property OWNER Mr. Larry Wadler
 LOCATION 2836 Union St., Oakland, CA PROJECT NUMBER 2005-65
 TOTAL DEPTH 15 feet BOREHOLE DIA. 2 inch
 SURFACE ELEV. ~17' amsl WATER FIRST ENCOUNTERED ~10'
 DRILLING COMPANY En Prob DRILLING METHOD Direct Push
 DRILLER J. Edmond GEOLOGIST B. Rucker DATE DRILLED 11/22/2005

DEPTH (feet)	GRAPHIC LOG	SAMPLE INTERVAL/RECOVERY	BLOW COUNTS	INSTRUMENT READING	DESCRIPTION/SOIL CLASSIFICATION	REMARKS	
0					Black silty clay (CL), silt is minor, sl.-mod. stiff, cohesive, sl. moist		
1							
2						2' Petroleum odor begins	
3						3' Becomes silty	
4						4' Petroleum odor absent, stiff	
4.5						4.5' Sl.-mod. stiff, sticky	
5							
6						6.5' Becomes stiff	
7						7.5' Becomes blue-grey sandy clay (CL), minor sm. gravel, v. moist, stiff, friable	
8							
9					Clayey gravelly sand (SC), gravel is medium, ~20%, sand is medium, v. moist, stiff		
10							


BORING NUMBER BH-03 Page 2 of 2

PROJECT Wadler Property OWNER Mr. Larry Wadler
 LOCATION 2836 Union St., Oakland, CA PROJECT NUMBER 2005-65
 TOTAL DEPTH 15 feet BOREHOLE DIA. 2 inch
 SURFACE ELEV. ~17' amsl WATER FIRST ENCOUNTERED ~10'
 DRILLING COMPANY En Prob DRILLING METHOD Direct Push
 DRILLER J. Edmond GEOLOGIST B. Rucker DATE DRILLED 11/22/2005

DEPTH (feet)	GRAPHIC LOG	SAMPLE INTERVAL/RECOVERY	BLOW COUNTS	INSTRUMENT READING	DESCRIPTION/SOIL CLASSIFICATION	REMARKS
-10					10.5' Wet, black, clayey, gravelly, sand (SC), gravel ~30% and small-med, loose (no cohesion)	Several inches of water in borehole after advancing to 12'. Insert casing Collect BH-03-GW Water level after 1 hour = 7.4'
-11					Light brown silty clay (CL), stiff, cohesive, sl. moist	
-12						
-13						
-14						
-15					Bottom of borehole = 15'	
-16						
-17						
-18						
-19						
-20						

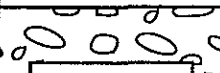
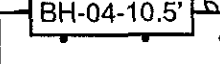
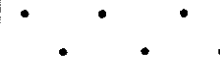



BORING NUMBER BH-04 Page 1 of 2

PROJECT Wadler Property OWNER Mr. Larry Wadler
 LOCATION 2836 Union St., Oakland, CA PROJECT NUMBER 2005-65
 TOTAL DEPTH 15 feet BOREHOLE DIA. 2 inch
 SURFACE ELEV. ~17' amsl WATER FIRST ENCOUNTERED ~9'
 DRILLING COMPANY En Prob DRILLING METHOD Direct Push
 DRILLER J. Edmond GEOLOGIST B. Rucker DATE DRILLED 11/22/2005

DEPTH (feet)	GRAPHIC LOG	SAMPLE INTERVAL RECOVERY	BLOW COUNTS	INSTRUMENT READING	DESCRIPTION/SOIL CLASSIFICATION	REMARKS
0	• •				Brown well-sorted (medium) sand (backfill), dry, no cohesion	
1	• • • •					
2	• • • •					
3	• • • •					
4	• • • •					
5	• • • •					
6	• • • •					
7	• • • •					
8	• • • •					
9	• • • •				9' Sample wet	
10					Well-sorted (medium) gravel, (drain rock backfill)	

BORING NUMBER BH-04 Page 2 of 2

PROJECT Wadler Property OWNER Mr. Larry Wadler
 LOCATION 2836 Union St., Oakland, CA PROJECT NUMBER 2005-65
 TOTAL DEPTH 15 feet BOREHOLE DIA. 2 inch
 SURFACE ELEV. ~17' amsl WATER FIRST ENCOUNTERED ~9'
 DRILLING COMPANY En Prob DRILLING METHOD Direct Push
 DRILLER J. Edmond GEOLOGIST B. Rucker DATE DRILLED 11/22/2005

DEPTH (feet)	GRAPHIC LOG	SAMPLE INTERVAL/RECOVERY	BLOW COUNTS	INSTRUMENT READING	DESCRIPTION/SOIL CLASSIFICATION	REMARKS	
10						Insert PVC casing after advancing to 15'	
11					Black sand (SP), well-sorted (medium grained), loose, wet, slight petroleum odor		Collect BH-04-GW
12							Water level after 15 minutes = 7.3'
13							
14					Blue-grey gravelly sandy clay (CL), mod. stiff, sl. cohesive, dry		
15					Bottom of borehole = 15'		
16							
17							
18							
19							
20							

ATTACHMENT D

**Certified Analytical Laboratory Reports
and Chain-of-Custody Records**



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

A N A L Y T I C A L R E P O R T

Prepared for:

Stellar Environmental Solutions
2198 6th Street
Suite 201
Berkeley, CA 94710

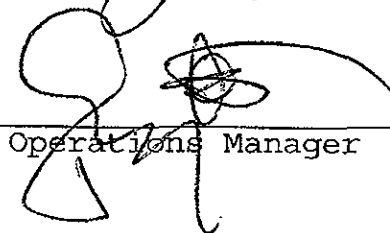
Date: 01-DEC-05
Lab Job Number: 183379
Project ID: 2005-65
Location: Wadler Property

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.

Reviewed by:


Project Manager

Reviewed by:


Operations Manager

This package may be reproduced only in its entirety.

CASE NARRATIVE

Laboratory number: 183379
Client: Stellar Environmental Solutions
Project: 2005-65
Location: Wadler Property
Request Date: 11/22/05
Samples Received: 11/22/05

This hardcopy data package contains sample and QC results for nine soil samples and four water samples, requested for the above referenced project on 11/22/05. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B and EPA 8021B) Water:

No analytical problems were encountered.

TPH-Purgeables and/or BTXE by GC (EPA 8015B and EPA 8021B) Soil:

High surrogate recovery was observed for trifluorotoluene (FID) in BH-02-8.5' (lab # 183379-004), due to interference from coeluting hydrocarbon peaks; the corresponding bromofluorobenzene (FID) surrogate recovery was within limits. High surrogate recovery was observed for trifluorotoluene (PID) in BH-02-8.5' (lab # 183379-004), due to interference from coeluting hydrocarbon peaks; the corresponding bromofluorobenzene (PID) surrogate recovery was within limits. High surrogate recovery was observed for bromofluorobenzene (FID) in BH-03-7' (lab # 183379-008), due to interference from coeluting hydrocarbon peaks; the corresponding trifluorotoluene (FID) surrogate recovery was within limits. No other analytical problems were encountered.

Chain of Custody Record

185571
 Lab job no _____
 Date _____
 Page 1 of 2

Laboratory Curtis and Tompkins, Ltd Method of Shipment Hand Delivery
 Address 2323 Fifth Street Shipment No. _____
Berkeley, California 94710 Airbill No. _____
510-486-0900 Cooler No. _____
 Project Manager Bruce Rucker
 Site Address 2836 Union Street Telephone No. (510) 644-3123
Oakland, California Fax No. (510) 644-3859
 Project Name Wadler Property Samplers: (Signature) B.M. Rucker
 Project Number 2005-65

Field Sample Number	Location/Depth	Date	Time	Sample Type	Type/Size of Container	Preservation		Analysis Required										Remarks						
						Cooler	Chemical																	
-1	BH-01-8'	11/22/05	8:20	Soil	acetate sleeve	yes	-	1	X															
-2	BH-01-17'	11/22/05	9:10	Soil	acetate sleeve		-	1	X															
-3	BH-01-GW	11/22/05	9:35	H ₂ O	40ml VOA's		HCl	3	X															
-4	BH-02-8.5'	11/22/05	10:00	Soil	acetate sleeve		-	1	X															
-5	BH-02-13.5'	11/22/05	10:30	Soil	acetate sleeve		-	1	X															
-6	BH-02-GW	11/22/05	10:05	GW	40 ml VOA's		HCl	3	X															
-7	BH-03-2.5'	11/22/05	10:55	Soil	acetate sleeve		-	1	X															
-8	BH-03-7'	11/22/05	11:05	Soil	" "		-	1	X															
-9	BH-03-14.5'	11/22/05	11:10	Soil	" "		-	1	X															
-10	BH-03-GW	11/22/05	11:20	GW	40 ml VOA's		HCl	3	X															
-11	BH-04-10.5'	11/22/05	11:30	Soil	acetate sleeve		-	1	X															
-12	BH-04-14.5'	11/22/05	11:50	Soil	acetate sleeve		-	1	X															

-1
-2
-3
-4
-5
-6
-7
-8
-9
-10
-11
-12

Relinquished by: <u>B.M. Rucker</u> Signature _____ Printed <u>Bruce Rucker</u> Company <u>Stellar Environmental</u>	Date <u>11/22/05</u> Time <u>1:35</u>	Received by: <u>Steven Stanley</u> Signature _____ Printed <u>Steven Stanley</u> Company <u>CST</u>	Date <u>11/22/05</u> Time <u>1:35</u>	Relinquished by: _____ Signature _____ Printed _____ Company _____	Date _____ Time _____	Received by: _____ Signature _____ Printed _____ Company _____	Date _____ Time _____		
Turnaround Time: <u>5 Day TAT</u> Comments _____				Relinquished by: _____ Signature _____ Printed _____ Company _____				Date _____ Time _____	

2000-00-01

Rapid cold & intact on ice 11/22/05 SES

Curtis & Tompkins Laboratories Analytical Report

Lab #: 183379	Location: Wadler Property
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2005-65	
Matrix: Water	Sampled: 11/22/05
Units: ug/L	Received: 11/22/05
Batch#: 108055	Analyzed: 11/23/05

Field ID: BH-01-GW Lab ID: 183379-003
 Type: SAMPLE Diln Fac: 1.000

Analyte	Result	RL	Analysis
Gasoline C7-C12	830 Y Z	50	EPA 8015B
MTBE	24	2.0	EPA 8021B
Benzene	0.76 C	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)	87	62-141	EPA 8015B
Bromofluorobenzene (FID)	96	78-134	EPA 8015B
Trifluorotoluene (PID)	100	67-127	EPA 8021B
Bromofluorobenzene (PID)	92	80-122	EPA 8021B

Field ID: BH-02-GW Lab ID: 183379-006
 Type: SAMPLE Diln Fac: 100.0

Analyte	Result	RL	Analysis
Gasoline C7-C12	430,000	5,000	EPA 8015B
MTBE	ND	200	EPA 8021B
Benzene	6,700	50	EPA 8021B
Toluene	350	50	EPA 8021B
Ethylbenzene	14,000	50	EPA 8021B
m,p-Xylenes	23,000	50	EPA 8021B
o-Xylene	8,000	50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	120	62-141	EPA 8015B
Bromofluorobenzene (FID)	108	78-134	EPA 8015B
Trifluorotoluene (PID)	99	67-127	EPA 8021B
Bromofluorobenzene (PID)	97	80-122	EPA 8021B

C= Presence confirmed, but RPD between columns exceeds 40%
 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 Laboratories Analytical Report

Lab #: 183379	Location: Wadler Property
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2005-65	
Matrix: Water	Sampled: 11/22/05
Units: ug/L	Received: 11/22/05
Batch#: 108055	Analyzed: 11/23/05

Field ID: BH-03-GW Lab ID: 183379-010
 Type: SAMPLE Diln Fac: 100.0

Analyte	Result	RL	Analysis
Gasoline C7-C12	73,000	5,000	EPA 8015B
MTBE	ND	200	EPA 8021B
Benzene	530	50	EPA 8021B
Toluene	440	50	EPA 8021B
Ethylbenzene	4,400	50	EPA 8021B
m,p-Xylenes	4,600	50	EPA 8021B
o-Xylene	940	50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	100	62-141	EPA 8015B
Bromofluorobenzene (FID)	92	78-134	EPA 8015B
Trifluorotoluene (PID)	89	67-127	EPA 8021B
Bromofluorobenzene (PID)	88	80-122	EPA 8021B

Field ID: BH-04-GW Lab ID: 183379-013
 Type: SAMPLE Diln Fac: 1.000

Analyte	Result	RL	Analysis
Gasoline C7-C12	7,200 Y	50	EPA 8015B
MTBE	ND	2.0	EPA 8021B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	18	0.50	EPA 8021B
m,p-Xylenes	1.2 C	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	72	62-141	EPA 8015B
Bromofluorobenzene (FID)	121	78-134	EPA 8015B
Trifluorotoluene (PID)	101	67-127	EPA 8021B
Bromofluorobenzene (PID)	89	80-122	EPA 8021B

C= Presence confirmed, but RPD between columns exceeds 40%
 Y= Sample exhibits chromatographic pattern which does not resemble standard
 Z= Sample exhibits unknown single peak or peaks
 ND= Not Detected
 RL= Reporting Limit
 Page 2 of 3

Curtis & Tompkins Laboratories Analytical Report

Lab #: 183379	Location: Wadler Property
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2005-65	
Matrix: Water	Sampled: 11/22/05
Units: ug/L	Received: 11/22/05
Batch#: 108055	Analyzed: 11/23/05

Type: BLANK Diln Fac: 1.000
 Lab ID: QC318367

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)	90	62-141	EPA 8015B
Bromofluorobenzene (FID)	93	78-134	EPA 8015B
Trifluorotoluene (PID)	91	67-127	EPA 8021B
Bromofluorobenzene (PID)	90	80-122	EPA 8021B

C= Presence confirmed, but RPD between columns exceeds 40%
 Y= Sample exhibits chromatographic pattern which does not resemble standard
 Z= Sample exhibits unknown single peak or peaks
 ND= Not Detected
 RL= Reporting Limit

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	183379	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8021B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC318368	Batch#:	108055
Matrix:	Water	Analyzed:	11/23/05
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
MTBE	20.00	21.40	107	72-124
Benzene	20.00	19.83	99	80-120
Toluene	20.00	19.63	98	80-120
Ethylbenzene	20.00	20.20	101	80-120
m,p-Xylenes	20.00	19.58	98	80-120
o-Xylene	20.00	19.23	96	80-120

Surrogate	%REC	Limits
Trifluorotoluene (PID)	90	67-127
Bromofluorobenzene (PID)	91	80-122

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	183379	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC318369	Batch#:	108055
Matrix:	Water	Analyzed:	11/23/05
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	1,780	89	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	103	62-141
Bromofluorobenzene (FID)	92	78-134

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	183379	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	108055
MSS Lab ID:	183420-004	Sampled:	11/22/05
Matrix:	Water	Received:	11/23/05
Units:	ug/L	Analyzed:	11/24/05
Diln Fac:	1.000		

Type: MS Lab ID: QC318477

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	<23.71	2,000	1,792	90	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	111	62-141
Bromofluorobenzene (FID)	91	78-134

Type: MSD Lab ID: QC318478

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,682	84	80-120	6	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	106	62-141
Bromofluorobenzene (FID)	89	78-134

RPD= Relative Percent Difference

Curtis & Tompkins Laboratories Analytical Report

Lab #: 183379	Location: Wadler Property	EPA 5030B
Client: Stellar Environmental Solutions	Prep:	
Project#: 2005-65		
Matrix: Soil	Sampled: 11/22/05	
Basis: as received	Received: 11/22/05	

Field ID: BH-01-8'	Diln Fac: 1.000	Batch#: 108056
Type: SAMPLE	Batch#: 108056	Analyzed: 11/23/05
Lab ID: 183379-001	Analyzed: 11/23/05	

Analyte	Result	RL	Units	Analysis
Gasoline C7-C12	ND	1.0	mg/Kg	EPA 8015B
MTBE	ND	21	ug/Kg	EPA 8021B
Benzene	ND	5.2	ug/Kg	EPA 8021B
Toluene	ND	5.2	ug/Kg	EPA 8021B
Ethylbenzene	ND	5.2	ug/Kg	EPA 8021B
m,p-Xylenes	ND	5.2	ug/Kg	EPA 8021B
o-Xylene	ND	5.2	ug/Kg	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	103	59-140	EPA 8015B
Bromofluorobenzene (FID)	106	62-149	EPA 8015B
Trifluorotoluene (PID)	102	63-125	EPA 8021B
Bromofluorobenzene (PID)	107	71-129	EPA 8021B

Field ID: BH-01-17'	Diln Fac: 1.000	Batch#: 108056
Type: SAMPLE	Batch#: 108056	Analyzed: 11/23/05
Lab ID: 183379-002	Analyzed: 11/23/05	

Analyte	Result	RL	Units	Analysis
Gasoline C7-C12	ND	1.0	mg/Kg	EPA 8015B
MTBE	ND	21	ug/Kg	EPA 8021B
Benzene	ND	5.2	ug/Kg	EPA 8021B
Toluene	ND	5.2	ug/Kg	EPA 8021B
Ethylbenzene	ND	5.2	ug/Kg	EPA 8021B
m,p-Xylenes	ND	5.2	ug/Kg	EPA 8021B
o-Xylene	ND	5.2	ug/Kg	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	100	59-140	EPA 8015B
Bromofluorobenzene (FID)	108	62-149	EPA 8015B
Trifluorotoluene (PID)	103	63-125	EPA 8021B
Bromofluorobenzene (PID)	106	71-129	EPA 8021B

*= Value outside of QC limits; see narrative
 C= Presence confirmed, but RPD between columns exceeds 40%
 ND= Not Detected
 RL= Reporting Limit

Curtis & Tompkins Laboratories Analytical Report

Lab #: 183379	Location: Wadler Property
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2005-65	
Matrix: Soil	Sampled: 11/22/05
Basis: as received	Received: 11/22/05

Field ID: BH-02-8.5' Diln Fac: 1.000
 Type: SAMPLE Batch#: 108056
 Lab ID: 183379-004 Analyzed: 11/23/05

Analyte	Result	RL	Units	Analysis
Gasoline C7-C12	31	1.1	mg/Kg	EPA 8015B
MTBE	ND	22	ug/Kg	EPA 8021B
Benzene	93 C	5.4	ug/Kg	EPA 8021B
Toluene	ND	5.4	ug/Kg	EPA 8021B
Ethylbenzene	750	5.4	ug/Kg	EPA 8021B
m,p-Xylenes	400	5.4	ug/Kg	EPA 8021B
o-Xylene	150	5.4	ug/Kg	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	144 *	59-140	EPA 8015B
Bromofluorobenzene (FID)	149	62-149	EPA 8015B
Trifluorotoluene (PID)	127 *	63-125	EPA 8021B
Bromofluorobenzene (PID)	116	71-129	EPA 8021B

Field ID: BH-02-13.5' Diln Fac: 1.000
 Type: SAMPLE Batch#: 108056
 Lab ID: 183379-005 Analyzed: 11/23/05

Analyte	Result	RL	Units	Analysis
Gasoline C7-C12	3.0	1.1	mg/Kg	EPA 8015B
MTBE	24	22	ug/Kg	EPA 8021B
Benzene	12 C	5.4	ug/Kg	EPA 8021B
Toluene	ND	5.4	ug/Kg	EPA 8021B
Ethylbenzene	57	5.4	ug/Kg	EPA 8021B
m,p-Xylenes	100	5.4	ug/Kg	EPA 8021B
o-Xylene	34	5.4	ug/Kg	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	120	59-140	EPA 8015B
Bromofluorobenzene (FID)	114	62-149	EPA 8015B
Trifluorotoluene (PID)	124	63-125	EPA 8021B
Bromofluorobenzene (PID)	116	71-129	EPA 8021B

*= Value outside of QC limits; see narrative
 C= Presence confirmed, but RPD between columns exceeds 40%
 ND= Not Detected
 RL= Reporting Limit

Curtis & Tompkins Laboratories Analytical Report

Lab #: 183379	Location: Wadler Property
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2005-65	
Matrix: Soil	Sampled: 11/22/05
Basis: as received	Received: 11/22/05

Field ID: BH-03-2.5'	Diln Fac: 13.20
Type: SAMPLE	Batch#: 108056
Lab ID: 183379-007	Analyzed: 11/23/05

Analyte	Result	RL	Units	Analysis
Gasoline C7-C12	220	13	mg/Kg	EPA 8015B
MTBE	ND	260	ug/Kg	EPA 8021B
Benzene	470	66	ug/Kg	EPA 8021B
Toluene	6,700	66	ug/Kg	EPA 8021B
Ethylbenzene	3,100	66	ug/Kg	EPA 8021B
m,p-Xylenes	12,000	66	ug/Kg	EPA 8021B
o-Xylene	5,900	66	ug/Kg	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	122	59-140	EPA 8015B
Bromofluorobenzene (FID)	131	62-149	EPA 8015B
Trifluorotoluene (PID)	102	63-125	EPA 8021B
Bromofluorobenzene (PID)	109	71-129	EPA 8021B

Field ID: BH-03-7'	Diln Fac: 33.00
Type: SAMPLE	Batch#: 108125
Lab ID: 183379-008	Analyzed: 11/28/05

Analyte	Result	RL	Units	Analysis
Gasoline C7-C12	920	33	mg/Kg	EPA 8015B
MTBE	ND	660	ug/Kg	EPA 8021B
Benzene	1,800	170	ug/Kg	EPA 8021B
Toluene	19,000	170	ug/Kg	EPA 8021B
Ethylbenzene	16,000	170	ug/Kg	EPA 8021B
m,p-Xylenes	57,000	170	ug/Kg	EPA 8021B
o-Xylene	24,000	170	ug/Kg	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	132	59-140	EPA 8015B
Bromofluorobenzene (FID)	162 *	62-149	EPA 8015B
Trifluorotoluene (PID)	114	63-125	EPA 8021B
Bromofluorobenzene (PID)	122	71-129	EPA 8021B

*= Value outside of QC limits; see narrative
 C= Presence confirmed, but RPD between columns exceeds 40%
 ND= Not Detected
 RL= Reporting Limit

Curtis & Tompkins Laboratories Analytical Report

Lab #: 183379	Location: Wadler Property
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2005-65	
Matrix: Soil	Sampled: 11/22/05
Basis: as received	Received: 11/22/05

Field ID: BH-03-14.5'	Diln Fac: 1.000
Type: SAMPLE	Batch#: 108125
Lab ID: 183379-009	Analyzed: 11/28/05

Analyte	Result	RL	Units	Analysis
Gasoline C7-C12	ND	1.0	mg/Kg	EPA 8015B
MTBE	ND	20	ug/Kg	EPA 8021B
Benzene	ND	5.1	ug/Kg	EPA 8021B
Toluene	ND	5.1	ug/Kg	EPA 8021B
Ethylbenzene	19 C	5.1	ug/Kg	EPA 8021B
m,p-Xylenes	21	5.1	ug/Kg	EPA 8021B
o-Xylene	ND	5.1	ug/Kg	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	99	59-140	EPA 8015B
Bromofluorobenzene (FID)	113	62-149	EPA 8015B
Trifluorotoluene (PID)	101	63-125	EPA 8021B
Bromofluorobenzene (PID)	114	71-129	EPA 8021B

Field ID: BH-04-10.5'	Diln Fac: 1.000
Type: SAMPLE	Batch#: 108056
Lab ID: 183379-011	Analyzed: 11/23/05

Analyte	Result	RL	Units	Analysis
Gasoline C7-C12	ND	0.93	mg/Kg	EPA 8015B
MTBE	ND	19	ug/Kg	EPA 8021B
Benzene	ND	4.6	ug/Kg	EPA 8021B
Toluene	ND	4.6	ug/Kg	EPA 8021B
Ethylbenzene	ND	4.6	ug/Kg	EPA 8021B
m,p-Xylenes	6.7 C	4.6	ug/Kg	EPA 8021B
o-Xylene	ND	4.6	ug/Kg	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	103	59-140	EPA 8015B
Bromofluorobenzene (FID)	103	62-149	EPA 8015B
Trifluorotoluene (PID)	100	63-125	EPA 8021B
Bromofluorobenzene (PID)	106	71-129	EPA 8021B

*= Value outside of QC limits; see narrative
 C= Presence confirmed, but RPD between columns exceeds 40%
 ND= Not Detected
 RL= Reporting Limit

Curtis & Tompkins Laboratories Analytical Report

Lab #: 183379	Location: Wadler Property	Prep: EPA 5030B
Client: Stellar Environmental Solutions	Prep: EPA 5030B	
Project#: 2005-65		
Matrix: Soil	Sampled: 11/22/05	
Basis: as received	Received: 11/22/05	

Field ID: BH-04-14.5'	Diln Fac: 1.000	Batch#: 108056
Type: SAMPLE	Batch#: 108056	
Lab ID: 183379-012	Analyzed: 11/23/05	

Analyte	Result	RL	Units	Analysis
Gasoline C7-C12	ND	1.0	mg/Kg	EPA 8015B
MTBE	ND	20	ug/Kg	EPA 8021B
Benzene	ND	5.1	ug/Kg	EPA 8021B
Toluene	ND	5.1	ug/Kg	EPA 8021B
Ethylbenzene	ND	5.1	ug/Kg	EPA 8021B
m,p-Xylenes	ND	5.1	ug/Kg	EPA 8021B
o-Xylene	ND	5.1	ug/Kg	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	97	59-140	EPA 8015B
Bromofluorobenzene (FID)	102	62-149	EPA 8015B
Trifluorotoluene (PID)	100	63-125	EPA 8021B
Bromofluorobenzene (PID)	105	71-129	EPA 8021B

Type: BLANK	Batch#: 108056	Analyzed: 11/23/05
Lab ID: QC318370	Batch#: 108056	
Diln Fac: 1.000	Analyzed: 11/23/05	

Analyte	Result	RL	Units	Analysis
Gasoline C7-C12	ND	1.0	mg/Kg	EPA 8015B
MTBE	ND	20	ug/Kg	EPA 8021B
Benzene	ND	5.0	ug/Kg	EPA 8021B
Toluene	ND	5.0	ug/Kg	EPA 8021B
Ethylbenzene	ND	5.0	ug/Kg	EPA 8021B
m,p-Xylenes	ND	5.0	ug/Kg	EPA 8021B
o-Xylene	ND	5.0	ug/Kg	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	97	59-140	EPA 8015B
Bromofluorobenzene (FID)	96	62-149	EPA 8015B
Trifluorotoluene (PID)	100	63-125	EPA 8021B
Bromofluorobenzene (PID)	101	71-129	EPA 8021B

*= Value outside of QC limits; see narrative
 C= Presence confirmed, but RPD between columns exceeds 40%
 ND= Not Detected
 RL= Reporting Limit

Curtis & Tompkins Laboratories Analytical Report

Lab #: 183379	Location: Wadler Property
Client: Stellar Environmental Solutions	Prep: EPA 5030B
Project#: 2005-65	
Matrix: Soil	Sampled: 11/22/05
Basis: as received	Received: 11/22/05

Type: BLANK	Batch#: 108125
Lab ID: QC318675	Analyzed: 11/28/05
Diln Fac: 1.000	

Analyte	Result	RL	Units	Analysis
Gasoline C7-C12	ND	1.0	mg/Kg	EPA 8015B
MTBE	ND	20	ug/Kg	EPA 8021B
Benzene	ND	5.0	ug/Kg	EPA 8021B
Toluene	ND	5.0	ug/Kg	EPA 8021B
Ethylbenzene	ND	5.0	ug/Kg	EPA 8021B
m,p-Xylenes	ND	5.0	ug/Kg	EPA 8021B
o-Xylene	ND	5.0	ug/Kg	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	95	59-140	EPA 8015B
Bromofluorobenzene (FID)	104	62-149	EPA 8015B
Trifluorotoluene (PID)	97	63-125	EPA 8021B
Bromofluorobenzene (PID)	102	71-129	EPA 8021B

*= Value outside of QC limits; see narrative
 C= Presence confirmed, but RPD between columns exceeds 40%
 ND= Not Detected
 RL= Reporting Limit

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	183379	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8021B
Type:	LCS	Basis:	as received
Lab ID:	QC318371	Diln Fac:	1.000
Matrix:	Soil	Batch#:	108056
Units:	ug/Kg	Analyzed:	11/23/05

Analyte	Spiked	Result	%REC	Limits
MTBE	100.0	112.8	113	71-130
Benzene	100.0	109.3	109	80-120
Toluene	100.0	107.3	107	80-120
Ethylbenzene	100.0	103.4	103	80-120
m,p-Xylenes	100.0	100.9	101	80-120
o-Xylene	100.0	103.3	103	80-120

Surrogate	%REC	Limits
Trifluorotoluene (PID)	103	63-125
Bromofluorobenzene (PID)	106	71-129

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	183379	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8015B
Type:	LCS	Basis:	as received
Lab ID:	QC318372	Diln Fac:	1.000
Matrix:	Soil	Batch#:	108056
Units:	mg/Kg	Analyzed:	11/23/05

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	10.00	9.807	98	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	123	59-140
Bromofluorobenzene (FID)	111	62-149

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	183379	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8015B
Field ID:	BH-01-8'	Diln Fac:	1.000
MSS Lab ID:	183379-001	Batch#:	108056
Matrix:	Soil	Sampled:	11/22/05
Units:	mg/Kg	Received:	11/22/05
Basis:	as received	Analyzed:	11/23/05

Type: MS Lab ID: QC318466

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.1257	10.53	9.993	94	44-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	127	59-140
Bromofluorobenzene (FID)	115	62-149

Type: MSD Lab ID: QC318467

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	10.42	9.590	91	44-120	3	23

Surrogate	%REC	Limits
Trifluorotoluene (FID)	125	59-140
Bromofluorobenzene (FID)	118	62-149

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	183379	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8021B
Type:	LCS	Basis:	as received
Lab ID:	QC318676	Diln Fac:	1.000
Matrix:	Soil	Batch#:	108125
Units:	ug/Kg	Analyzed:	11/28/05

Analyte	Spiked	Result	%REC	Limits
MTBE	100.0	111.3	111	71-130
Benzene	100.0	106.8	107	80-120
Toluene	100.0	106.0	106	80-120
Ethylbenzene	100.0	100.9	101	80-120
m,p-Xylenes	100.0	101.4	101	80-120
o-Xylene	100.0	101.7	102	80-120

Surrogate	%REC	Limits
Trifluorotoluene (PID)	105	63-125
Bromofluorobenzene (PID)	111	71-129

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	183379	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8015B
Type:	LCS	Basis:	as received
Lab ID:	QC318677	Diln Fac:	1.000
Matrix:	Soil	Batch#:	108125
Units:	mg/Kg	Analyzed:	11/28/05

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	10.00	10.11	101	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	120	59-140
Bromofluorobenzene (FID)	118	62-149

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	183379	Location:	Wadler Property
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2005-65	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	183422-003	Batch#:	108125
Matrix:	Soil	Sampled:	11/23/05
Units:	mg/Kg	Received:	11/23/05
Basis:	as received	Analyzed:	11/28/05

Type: MS Lab ID: QC318793

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.1256	10.87	10.47	95	44-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	120	59-140
Bromofluorobenzene (FID)	120	62-149

Type: MSD Lab ID: QC318794

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	10.20	9.327	90	44-120	5	23

Surrogate	%REC	Limits
Trifluorotoluene (FID)	121	59-140
Bromofluorobenzene (FID)	117	62-149