STELLAR ENVIRONMENTAL SOLUTIONS, INC.
2198 SIXTH STREET, SUITE 201, BERKELEY, CA 94710
TEL: 510.644.3123 ★ FAX: 510.644.3859

TRANSMITTAL MEMORANDUM	
TO: LOCAL OVERSIGHT PROGRAM ENVIRONMENTAL HEALTH SERVICES ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY 1131 HARBOR BAY PARKWAY ALAMEDA, CALIFORNIA 94502-6577	**DATE:** APRIL 12, 2004
ATTENTION: MR. DON HWANG	**FILE:** SES 2003-43
SUBJECT: OAKLAND AUTO WORKS 240 W. MACARTHUR BLVD OAKLAND, CALIFORNIA ACEH FUEL LEAK CASE NO. R00000142	
WE ARE SENDING: ☒ HEREWITH	☐ UNDER SEPARATE COVER
☒ VIA MAIL	☐ VIA
THE FOLLOWING: FIRST QUARTER 2004 GROUNDWATER MONITORING REPORT (1 COPY)	
☐ AS REQUESTED	☐ FOR YOUR APPROVAL
☐ FOR REVIEW	☒ FOR YOUR USE
☐ FOR SIGNATURE	☐ FOR YOUR FILES
COPY TO: MR. GLEN POY-WING OAKLAND AUTO WORKS 240 WEST MCARTHUR BLVD. OAKLAND, CA 94711	**BY:** BRUCE RUCKER BNR

Alameda County

APR 1 6 2004

Environmental Health

FIRST QUARTER 2004 GROUNDWATER MONITORING REPORT

240 W. MACARTHUR BOULEVARD OAKLAND, CALIFORNIA

Prepared for:

MR. GLEN TOY-WING
OAKLAND AUTO WORKS
OAKLAND, CALIFORNIA

April 2004

★ **Stellar Environmental Solutions**

2198 Sixth Street, Suite 201, Berkeley, CA 94710
Tel: (510) 644-3123 • Fax: (510) 644-3859
Geoscience & Engineering Consulting

April 12, 2004

Mr. Glen Poy-Wing
Oakland Auto Works
240 W. MacArthur Boulevard
Oakland, CA 94711

Subject: First Quarter 2004 Groundwater Monitoring Report
Oakland Auto Works Facility – 240 W. MacArthur Boulevard, Oakland, California
Alameda County Health Department Fuel Leak Case No. RO0000142

Dear Mr. Poy-Wing

Enclosed is the Stellar Environmental Solutions, Inc. (SES) report summarizing recent activities conducted at the referenced site. The lead regulatory agency for this investigation is the Alameda County Environmental Health Department (Alameda County Health), to which we have provided a copy of this report.

This report discusses the first quarter 2004 groundwater monitoring event (the 22nd site groundwater monitoring event), as well as the findings of a sensitive receptor survey and a contaminant preferential pathway survey that were requested by Alameda County Health. SES submitted a technical workplan to conduct additional site characterization on August 20, 2003, followed by an amendment dated December 10, 2003 to address the Alameda County Health December 3, 2003 requested revisions. We are still awaiting approval of the addendum to our workplan as requested by Alameda County Health.

If you have any questions regarding this report, please contact us at (510) 644-3123.

Sincerely,

Bruce M. Rucker, R.G., R.E.A.
Project Manager

REGISTERED GEOLOGIST
BRUCE M. RUCKER
No. 6814
Exp. 9/04
STATE OF CALIFORNIA

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

cc: Don Hwang – Alameda County Department of Environmental Health, Local Oversight Program

FIRST QUARTER 2004
GROUNDWATER MONITORING REPORT

240 W. MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

Prepared for:

MR. GLEN POY-WING
OAKLAND AUTO WORKS
240 W. MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA 94612

Prepared by:

STELLAR ENVIRONMENTAL SOLUTIONS, INC.
2198 SIXTH STREET
BERKELEY, CALIFORNIA 94710

April 12, 2004

Project No. 2003-43

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1.0 INTRODUCTION

PROJECT BACKGROUND

The subject property, located at 240 W. MacArthur Boulevard, Oakland, Alameda County, California, is owned by Glen Poy-Wing and his wife of Oakland Auto Works, for whom Stellar Environmental Solutions, Inc. (SES) has provided environmental consulting services since July 2003. The site has undergone contaminant investigations and remediation since 1991 (discussed below). A list of all known environmental reports is included in Section 7.0, References and Bibliography.

In 2002, the current property owners purchased the property and assumed responsibility for continued environmental investigations. The property was formerly owned by Mr. Warren Dodson (Dodson Ltd.) and operated as Vogue Tyres.

REGULATORY STATUS

The Alameda County Environmental Health Department (Alameda County Health) is the lead regulatory agency for the case, acting as a Local Oversight Program (LOP) for the California Regional Water Quality Control Board – San Francisco Bay Region (RWQCB). There are no Alameda County Health or RWQCB cleanup orders for the site; however, all site work has been conducted under oversight of Alameda County Health. In our August 2003 review of the Alameda County Health case file, we determined that all known technical reports for the site were included in that file.

The previous consultant requested site closure in March 2003 (AEC, 2003a). Alameda County Health denied that request and, in a letter dated April 16, 2003, requested additional site characterization prior to considering case closure. Requested activities include: exploratory borehole drilling/sampling in the source area and downgradient area; a preferential pathway survey (identifying underground utilities); a vicinity water well search; and continued quarterly groundwater monitoring (including revisions to the analytical program). On behalf of the property owner, SES submitted to Alameda County Health a technical workplan for the requested work (SES, 2003). Alameda County Health subsequently requested technical revisions in a letter dated December 3, 2003, all of which were addressed in the SES workplan amendments letter of December 4, 2003 (SES, 2003c). We have not yet received Alameda County Health's response to those amendments.

The site is in compliance with State of California "GeoTracker" requirements. Tasks conducted include: uploading field point (well) names; surveying groundwater monitoring well horizontal and vertical coordinates, and uploading that data; and uploading groundwater monitoring analytical data from groundwater monitoring events conducted by SES (beginning in August 2003.

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 REPORT

This report discusses the following activities, conducted between January 1 and March 31, 2004:

- The 22nd groundwater monitoring and sampling event, conducted on March 11, 2004.
- The findings of a preferential pathway survey, and a sensitive receptor survey

SITE DESCRIPTION

The project site is located at 240 W. MacArthur Boulevard in Oakland, California (see Figure 1). The rectangular-shaped project site is approximately 14,000 square feet (140 feet long by 100 feet wide), and is oriented with its long axis parallel to W. MacArthur Boulevard (approximately northwest-southeast). The project site is essentially flat and is wholly paved. One structure currently exists on the property—an automobile servicing shop that covers approximately 50 percent of the property. The building is currently occupied by Oakland Auto Works. Figure 2 is a site plan showing adjacent land uses.

Adjacent land use includes: a Shell-branded service station (*to the south*); W. MacArthur Boulevard (*to the west*); Howe Street (*to the north*); and a paved driveway, then a multi-story (with basement) health services building (*to the east*).

HISTORICAL ENVIRONMENTAL ACTIVITIES

This section summarizes historical (prior to the current quarter) environmental remediation and site characterization activities, based on documentation provided by the current property owners as well as Alameda County Health files. A detailed discussion of the magnitude and extent of residual soil and groundwater contamination will be discussed in an upcoming report. Figure 2 shows the site plan with the current groundwater well locations.

Historical remediation and site characterization activities include:

- Three 10,000-gallon gasoline underground fuel storage tanks (UFSTs) from a former Gulf service station occupancy were removed prior to 1991 (there is no available documentation regarding their removals).

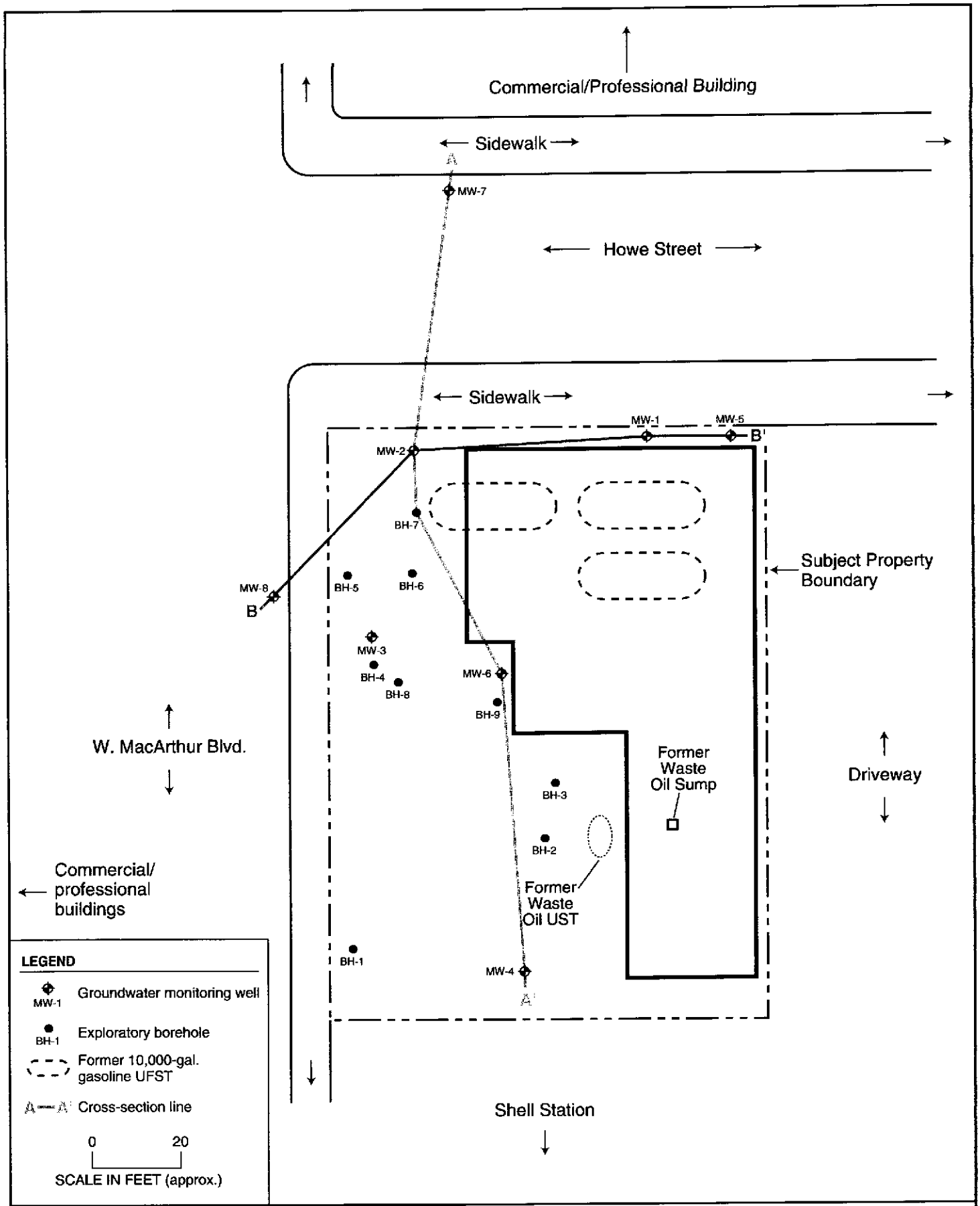
3-D TopoQuads Copyright © 1999 DeLorme Yarmouth, ME 04096 — 1500 ft Scale: 1 : 50,000 Detail: 12-0 Datum: WGS84

N

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

240 W. MacArthur Blvd. Oakland, CA	By: MJC	APRIL 2004	★ Stellar Environmental Solutions, Inc. Geoscience & Engineering Consulting
	Figure 1		

2003-43-01



SITE PLAN WITH BOREHOLE AND GROUNDWATER WELL LOCATIONS

240 W. MacArthur Blvd. Oakland, CA	By: MJC	AUGUST 2003	★ Stellar Environmental Solutions, Inc. Geoscience & Engineering Consulting
	Figure 2		

2003-43-13

- A waste oil sump was removed in 1991. Limited overexcavation was conducted, and there was no evidence of residual soil contamination, with the exception of 360 mg/kg of petroleum oil & grease (Mittelhauser Corporation, 1991b).
- A 350-gallon waste oil UFST was removed in 1996. Elevated levels of diesel and oil & grease were detected in confirmation soil samples. Subsequent overexcavation was conducted, and there was no evidence of residual soil contamination (All Environmental, Inc., 1997a).
- In accordance with a request by Alameda County Health, a subsurface investigation was conducted in January 1997 (All Environmental, Inc., 1997b). Six exploratory boreholes were advanced to a maximum depth of 20 feet, and soil samples were collected.
- Additional site characterization (three boreholes sampled and four monitoring wells installed) was performed in August 1997, and well locations were selected.
- Groundwater sampling of four onsite wells installed was conducted in March 1998, July 1998, October 1998, and January 1999.
- Four additional groundwater monitoring wells were installed in February 2001. Maximum historical soil concentrations were detected in well MW-5 in the northeastern corner of the subject property: 11,700 mg/kg gasoline and 25.6 mg/kg benzene (Advanced Environmental Concepts, Inc., 2001b).
- Short-term (less than 1-day duration) groundwater and vapor extraction from five wells was conducted over 4 days in October 2001 (Advanced Environmental Concepts, Inc., 2001e).

A total of 22 groundwater monitoring/sampling events have been conducted in available site wells between August 1997 and March 2004 (the most recent event).

2.0 PHYSICAL SETTING

The following evaluation of the physical setting of the site—including topography, surface water drainage, and geologic and hydrogeologic conditions—is based on previous (1991 through April 2003) site investigations conducted by others, and site inspections and groundwater monitoring data collected by SES since March 2004.

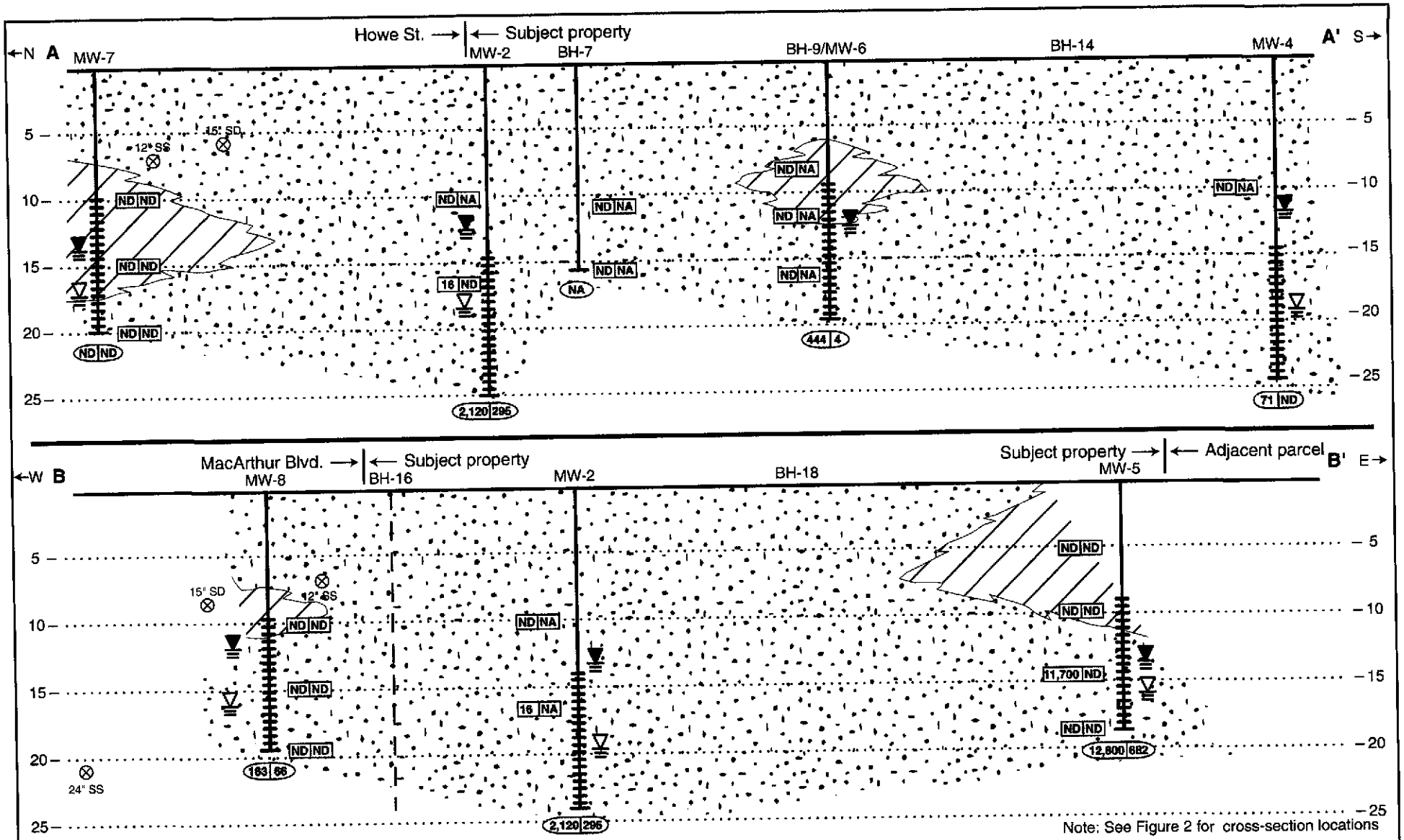
TOPOGRAPHY AND SURFACE WATER DRAINAGE

The site is on a gently-sloping alluvial fan at the base of the Berkeley/Oakland Hills, which rise approximately 1,100 feet above mean sea level (amsl) and are located approximately 3 miles east of San Francisco Bay. The mean elevation of the subject property is approximately 82 feet amsl. The subject property is essentially flat, with a local topographic gradient to the west. The nearest surface water bodies are: 1) Glen Echo Creek, a northeast-southwest trending creek located approximately 800 feet southeast of the subject property; and 2) Rockridge Branch, a north-south trending creek located approximately 1,000 feet northwest of the subject property. Both creeks are culverted underground in the areas nearest to the subject property.

LITHOLOGY

Site lithology has not been characterized in detail because the geologic logging during the well installations to 25 feet bgs was limited to three or four samples per bore, and these samples were generally collected at 5-foot intervals with no other notation of lithology between. The lithology recorded in the samples include lower-permeability soils (clays and silts) as well as higher-permeability sands and gravels. Sand/gravel lithology is more commonly found beneath the overlying clay/silt.

The upper clay-silt zone is underlain by a relatively laterally-continuous sand/gravel zone, the top of which is encountered most typically below a depth of approximately 15 feet. In all site boreholes for which data were available, groundwater was encountered at or just below the top of this zone. The last sample collected in most of the bores was at approximately 20 feet bgs, and these samples were described as sands and/or gravel deposits. The depth to the bottom of the water-bearing zone—which is across the screen interval of the wells—has not yet been determined, and will be evaluated in the proposed exploratory borehole drilling program. Figure 3 shows two geologic cross-sections through the area of historical investigations, based



Note: All depths are relative to ground surface at that location, and do not correspond to actual elevations between boreholes.

0 — 20

Horizontal scale (in feet)

ND = Not detected

NA = Not analyzed

Inferred higher permeability soils (sand; gravel)

Inferred lower permeability soils (clay, silt)

⊗ Sanitary sewer (SS) or storm drain (SD) with diameter in inches

16 ND Soil results (gas/ MTBE) in mg/Kg

183 66 Dec. 2003 groundwater result (gas/MTBE) in µg/L

Proposed borehole

Monitoring well showing screened interval

Highest water level in well

Water level during drilling

Stellar Environmental Solutions, Inc.

Geoscience & Engineering Consulting

GEOLOGIC CROSS SECTIONS A–A' AND B–B'

240 W. MacArthur Blvd., Oakland, CA

Figure 3

by: MJC | FEBRUARY 2004

2003-43-26

on the available geologic logging data. These cross-sections will be updated following the proposed additional site characterization activities which will include continuous core logging.

GROUNDWATER HYDROLOGY

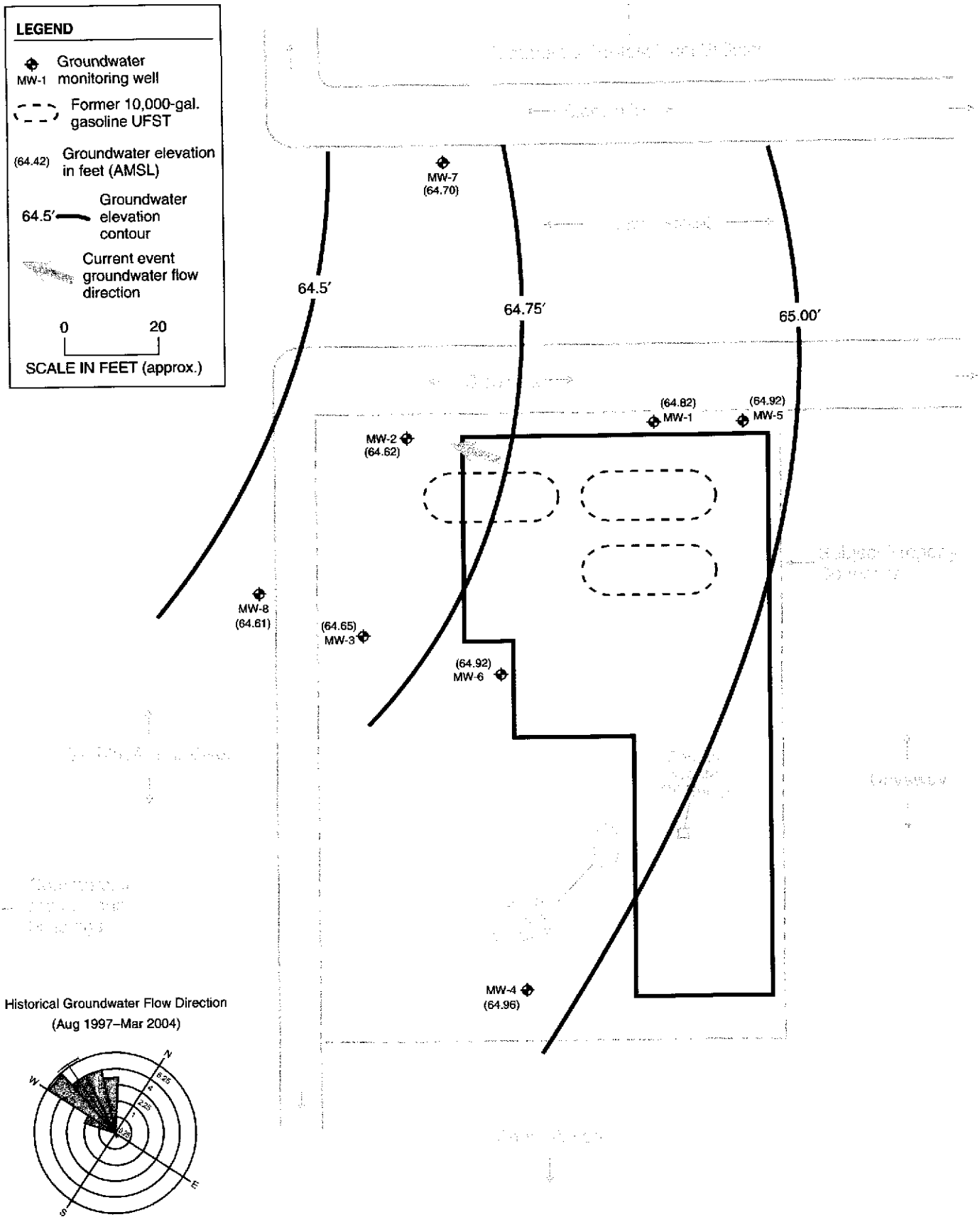
The number and positioning of the existing eight site monitoring wells is currently adequate to evaluate the general groundwater flow direction and gradient. Four of the wells (MW-1, -2, -3, and -4) are screened between approximately 25 and 15 feet bgs, and the other four (MW-5, -6, -7, and -8) are screened at a depth of 10 to 20 feet.

Following the September 26, 2003 well surveying, SES evaluated groundwater flow direction of events (from October 2001 to March 2003), finding groundwater flow to be generally westward, with a slight northern component in some events. Figure 4 is a groundwater elevation map that shows elevations and contours from the current (March 2004) groundwater monitoring event. Groundwater flow direction in this event was to the west. A generally westward (with a slight southern component) groundwater flow direction has also been measured at the adjacent Shell-branded service station (Cambria Environmental Technology, 2003). Groundwater gradient in the March 2004 event was relatively flat, at approximately 0.005 feet/foot. Historical groundwater gradient has varied between approximately 0.002 feet/foot and 0.008 feet/foot, averaging approximately 0.005 feet/foot.

Figure 4 includes a rose diagram that shows historical groundwater flow direction measured at the site. The rose diagram is a histogram that has been wrapped around a circle, and has the following characteristics:

- Each wedge represents a 15-degree arc of groundwater flow direction.
- The length of each wedge (circle radius) represents the number of sampling events with data falling within the 15 degree arc.
- The bold black line from the center of the circle to the outer edge is the mean groundwater flow direction.
- The arcs extending to either side of the mean groundwater flow direction line represent the 95-degree confidence interval of the data.

Historical equilibrated water levels (in wells) have been measured at depths of approximately 13 to 16 feet (slightly higher than first occurrence of groundwater encountered during drilling), indicating that groundwater occurs under slightly confining conditions. The range of water level elevations has varied by approximately 3 feet, and shows a strong seasonal variation, with highest elevations during the rainy winter-spring seasons and lowest elevations during the dry summer-fall seasons. Appendix A contains a tabular summary of historical groundwater depths, elevations, flow direction, and gradient.



N	GROUNDWATER ELEVATION MAP—MARCH 11, 2004		
240 W. MacArthur Blvd. Oakland, CA	By: MJC	MARCH 2004	Stellar Environmental Solutions, Inc. Geoscience & Engineering Consulting
	Figure 4		

2003-43-28

3.0 MARCH 2004 GROUNDWATER MONITORING AND SAMPLING

This section presents the groundwater sampling and analytical methods for the current event (First Quarter 2004), conducted on March 11, 2004. Table 1 summarizes monitoring well construction and groundwater monitoring data. Groundwater analytical results are presented and discussed in Section 5.0. Monitoring and sampling protocols were in accordance with the SES technical workplan (SES, 2003) submitted to Alameda County Health, and subsequent technical revision requested by Alameda County Health. The March 2004 groundwater sampling event involved the collection of one set of "post-purge" samples from all wells in accordance with recent revisions to the quarterly monitoring program approved by Alameda County Health. Specific activities for this event included:

- Measuring static water levels and field measurement of "pre-purge" groundwater samples for hydrogeochemical parameters (temperature, pH, electrical conductivity, turbidity, and dissolved oxygen) in the eight site wells;
- Collecting "post-purge" groundwater samples from the eight onsite wells for field measurement of the aforementioned hydrogeochemical parameters, and for offsite laboratory analyses for contaminants of concern.

The locations of all site monitoring wells are shown on Figure 2. Well construction information and water level data are summarized in Table 1. All site wells are 2-inch-diameter PVC, although the borehole geologic logs for MW-1 through MW-4 completed by the previous consultant mistakenly indicated that they are 4-inch-diameter. Appendix B contains the groundwater monitoring field records for the current event.

Groundwater monitoring well water level measurements, sampling, and field analyses were conducted by Blaine Tech Services (San Jose, California) on March 11, 2004, under the direct supervision of SES personnel. To minimize the potential for cross-contamination, wells were purged and sampled in order of increasing contamination (based on the previous quarter analytical results).

As the first monitoring task, static water levels were measured in the eight site wells using an electric water level indicator. "Grab" groundwater samples were then collected from each well (using a new disposable bailer) and field-analyzed for aquifer stability parameters—including temperature, pH, electrical conductivity, turbidity, and dissolved oxygen.

Table 1
Groundwater Monitoring Well Construction and Groundwater Elevation Data
240 W. MacArthur Boulevard, Oakland, California

Well	Well Depth (feet bgs)	Screened Interval		Groundwater Level Depth [a] March 11, 2004	Groundwater Elevation [b] March 11, 2004
		Depth (feet)	Elevation (feet)		
MW-1	25	19.5 to 24.5	54.5 to 49.5	14.33	64.82[c]
MW-2	25	14.5 to 24.5	64.2 to 54.2	13.83	64.62[c]
MW-3	25	14.5 to 24.5	63.4 to 53.4	12.93	64.65[c]
MW-4	25	14.5 to 24.5	63.6 to 53.6	12.78	64.96[c]
MW-5	20	9 to 19	70.6 to 60.6	14.44	64.92
MW-6	20	9 to 19	69.7 to 59.7	13.51	64.92
MW-7	20	9 to 19	69.6 to 59.6	13.57	64.70
MW-8	20	9 to 19	67.7 to 57.7	11.78	64.61

Notes:

[a] Pre-purge measurement feet below top of well casing.

[b] Pre-purge measurement, feet above mean sea level.

[c] Equilibrated water level in well above top of screened interval.

Each well was then purged (by hand bailing with a new disposable bailer) of three wetted casing volumes, and aquifer stability parameters (pH, temperature, electrical conductivity, and turbidity) were measured between each purging. When measurements indicated that representative formation water was entering the well, a groundwater sample set was collected from each well with the purging bailer. These samples were field-measured for pH, temperature, electrical conductivity, turbidity, and dissolved oxygen. Samples were then transferred to appropriate sampling containers (40-ml VOA vials with hydrochloric acid preservative, and 1-liter amber glass jars), labeled, and placed in coolers with "blue ice." All groundwater samples were managed under chain-of-custody procedures from the time of sample collection until samples were received in the laboratory.

Wastewater (purge water and equipment decontamination rinseate) was containerized in a labeled, 55-gallon steel drum that will be temporarily stored on site. This water will be combined with wastewater generated in the proposed exploratory borehole drilling/sampling program, and then will be profiled and disposed of at a permitted wastewater treatment facility.

4.0 PREFERENTIAL PATHWAY AND OFFSITE WELL SURVEYS

This section presents the methods and findings of the preferential pathway and offsite well surveys requested in the Alameda County Health letter of April 16, 2003 (and the request for revisions dated December 3, 2003).

PREFERENTIAL PATHWAY SURVEY

Alameda County Health requested that a survey be conducted to identify potential preferential horizontal/vertical contaminant migration pathways that might be influencing site-sourced contaminant transport. This task focused on identifying both the location and the depth of potential underground facilities. The shallowest known site groundwater depth (based on equilibrated water levels in wells) is approximately 12 feet. Therefore, it is highly unlikely that any preferential pathways above this depth would intercept groundwater.

This task included three components:

1. Contacting applicable municipal agencies, utility providers, and Kaiser (adjacent land owner) to obtain underground construction data, and reviewing the findings of a recent similar utility conducted for the adjacent Shell-branded service station (Cambria Environmental Technology, Inc., 2003);
2. Retaining a private utility locating firm to locate onsite utilities; and
3. Contacting Underground Service Alert of California (USA), which notified all known utility providers in the area; the utility providers will then be responsible for marking the locations of underground utilities servicing the property.

Table 2 summarizes the findings of the survey.

Underground Utilities

As summarized in Section 2.0, the highest measured historical groundwater elevation in site wells is approximately 65.5 feet amsl (approximately 12 feet below grade). Therefore, only utilities deeper than this level would have a reasonable potential to act as a preferential pathway for site-sourced groundwater contamination. We identified the following underground utilities,

Table 2
Preferential Pathway Survey Findings
240 W. MacArthur Boulevard, Oakland, California

Underground Utility / Facility	Agency / Firm Contacted	Utility / Facility Description and Location	Estimated Maximum Depth (feet below grade)	Potential Preferential Pathway for Groundwater?
Sanitary Sewer	City of Oakland - Records and Maps	Offsite: Main line beneath Howe St. & W. MacArthur Blvd, within approximately 30 feet of site.	21'	Possibly
	City of Oakland Public Works – Sewer Maintenance	Offsite: Sidewalk adjacent to south side of site.	5'	No
		Onsite: Service from bathrooms/sinks to W. MacArthur Blvd. sidewalk.	4.5'	No
Stormwater Sewer	City of Oakland – Records and Maps	Offsite (only): Beneath Howe St. and W. MacArthur Blvd.	8'	No
Drinking Water	East Bay Municipal Utility District	Offsite: To sidewalks beneath streets.	3' to 4'	No
		Onsite: Service from Howe St. Sidewalk, then below site slab to bathrooms & sinks	3' to 4'	No
Traffic Lights	City of Oakland - Department of Electrical Engineering	Offsite (only): Beneath Howe St., W. MacArthur Blvd., and sidewalks.	1.5' to 3'	No
Electric	Pacific Gas & Electric - Service Planning Department	Offsite: Beneath Howe St., W. MacArthur Blvd., and sidewalks.	3' to 4'	No
		Onsite service from Howe St. sidewalk, then below north service bay slab.	3' to 4'	No
Natural Gas	Pacific Gas & Electric - Service Planning Department	Offsite: Beneath Howe St., W. MacArthur Blvd., and sidewalks.	3'	No
		Onsite: Service from sidewalk, then all onsite service is overhead.	3'	No
Kaiser – Pedestrian Tunnel	Kaiser Permanente - Assistant Director of Facilities	Offsite (only): Concrete tunnel installed in native soil, no surrounding backfill material – 100 feet from subject property.	11'	No
Kaiser – 3772 Howe Street Building	Kaiser Permanente - Assistant Director of Facilities	Offsite (only): Basement-level offices, adjacent to north side of subject property. Concrete walls and floor poured against native soil.	11'	No

located beneath Howe Street, W. MacArthur Boulevard, and adjoining sidewalks: sanitary sewer, storm sewer, potable water, electric, natural gas, and traffic lights. Figure 5 shows those utilities identified with documented or potential depths at or below the groundwater table. Table 2 summarizes the locations, depths, and type of all identified utilities.

The only utilities identified at deeper than 10 feet were the sanitary sewer lines located beneath Howe Street and W. MacArthur Boulevard, within approximately 30 feet of the subject property. City of Oakland engineering drawings indicate that these lines are approximately 21 feet below grade. According to City of Oakland Public Works – Sewer Maintenance (Guidici, 2003), these lines could be installed within trenches backfilled with more permeable sand. The depth interval of the trench(es) is not known. The information we obtained in our survey was consistent with that determined in the survey for the adjacent Shell station property (Cambria Environmental Technology, Inc., 2003) (see Cambria utility map in Appendix C).

Kaiser Pedestrian Tunnel

We determined that Kaiser owns and maintains an underground pedestrian tunnel that runs east-west under Howe Street (between two Kaiser buildings), approximately 100 feet north of (cross-gradient to) the subject property. The Kaiser Facilities Engineering Department provided SES with detailed construction drawings of the tunnel. The data indicate that the tunnel is a wholly-enclosed concrete structure abutting native soils (i.e., there is no backfill material along the exterior). The base of the tunnel is at an elevation of approximately 67 feet (approximately 11 feet below Howe Street grade). There is no dewatering system (i.e., sump pump) associated with the tunnel. Based on the absence of any higher-permeability backfill material around the tunnel, and the fact that the tunnel is a closed system, it is unlikely that any site-sourced contamination migrating to the tunnel would be preferentially carried to any sensitive receptors.

Kaiser 3772 Howe Street Building Basement

We determined that the adjacent (to the east) Kaiser building has a basement level that extends to within approximately 3 feet of the subject property line, beneath the paved driveway between the two buildings. According to Kaiser construction drawings and our inspection of the facility, the depth of the concrete foundation and slab is approximately 11 feet (approximately 2 feet higher than highest recorded groundwater). While not specified on the construction drawings, it is common construction practice to pour concrete floor slabs directly against the excavated soil. We identified a below-floor sump and pump in the extreme western corner of the basement level. Based on our visual inspection, it appears that this sump is not open to groundwater; rather, it collects stormwater from adjacent areas for subsequent discharge to the storm sewer system. Based on the likely absence of any higher-permeability backfill material around the foundation

and slab, it is unlikely that any site-sourced contamination migrating to this basement level would be preferentially carried to any sensitive receptors.

OFFSITE WELL SURVEY

Alameda County Health requested that a survey be conducted to identify all water wells within ¼ mile of the subject property. Water wells might include groundwater monitoring wells and water supply wells (irrigation, domestic, industrial, and municipal). We made a formal well survey request to the California Department of Water Resources (DWR), the agency ultimately responsible for permitting water wells and retaining Water Well Driller's Reports.

Appendix C contains a copy of the DWR documentation. The only well identified by DWR was located at 4082 Piedmont Avenue, approximately 1,500 feet northeast (crossgradient or upgradient) of the subject property. The 8-inch-diameter well was installed in 1979 to a depth of 184 feet. The well was perforated from 132 to 184 feet below grade, and a sanitary seal was emplaced from surface to 30 feet below grade. The current status of this well is not known. Based on the well construction and the relative hydraulic location, it is highly unlikely that site-sourced groundwater contamination could impact that well.

5.0 REGULATORY CONSIDERATIONS, ANALYTICAL RESULTS AND FINDINGS

This section presents analytical results of the most recent monitoring event, preceded by a summary of relevant regulatory considerations. Table 3 summarizes the contaminant analytical results of the current monitoring event. Appendix D contains the certified analytical laboratory report and chain-of-custody record. Appendix E contains historical site groundwater monitoring well analytical data.

REGULATORY CONSIDERATIONS

Environmental Screening Levels

There are no published cleanup goals for detected site contaminants in groundwater. The RWQCB has published "Environmental Screening Levels" (ESLs), which are screening-level concentrations for soil and groundwater that incorporate both environmental and human health risk considerations, and are used as a preliminary guide in determining whether additional remediation and/or investigation are warranted. The ESLs are not cleanup criteria; rather, they are conservative screening-level criteria designed to be protective of both drinking water resources and aquatic environments in general. The groundwater ESLs are composed of one or more components, including ceiling value, human toxicity, indoor air impacts, and aquatic life protection. Exceedance of ESLs suggests that additional remediation and/or investigation may be warranted, such as monitoring plume stability to demonstrate no risk to sensitive receptors in the case of sites where drinking water is not threatened.

The City of Oakland, via its Urban Land Redevelopment (URL) Program, utilizes a similar ESL approach in evaluating whether active remediation is necessary at sites proposed for redevelopment. This program is not currently applicable to the site, as no redevelopment is proposed.

For all site contaminants with published drinking water standards (BTEX and MTBE), the drinking water standards are equal to or greater than the published ESLs.

Sensitive Receptors

Risk evaluation commonly includes the identification of sensitive receptors, including vicinity groundwater supply wells. As discussed in Section 4.0, the California Department of Water

Table 3
Groundwater Sample Analytical Results – March 11, 2004
240 W. MacArthur Boulevard, Oakland, California [a]

Well	TPHg	TPHd	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	EDC [f]	EDB [f]
MW-1	11,300	1,100	483	97	122	452	67	*<0.17 / <5.0*	*<0.26 / < 5.0*
MW-2	2,700	100	12	16	9.0	12	249	*NA*	*NA*
MW-3	5,490	500	82	34	46	49	249	*NA*	*NA*
MW-4	*<50*	*NA*	*<0.3*	*<0.3*	*<0.3*	*<0.6*	*<5.0*	*NA*	*NA*
MW-5	20,700	850	867	266	305	678	145	*<0.17 / <12.5*	*<0.26 /< 12.5*
MW-6	215	140	4.0	1.2	1.4	1.4	3.7 [e]	31	*<0.26 / 5.0*
MW-7	86	*NA*	*<0.3*	*<0.3*	*<0.3*	*<0.6*	57	*NA*	*NA*
MW-8	412	*<100*	1.2	*<0.3*	1.7	3.9	66	*NA*	*NA*
Drinking Water Standards [b]									
	NLP	NLP	1.0 [c]	40	30	20	5.0	NLP	NLP
RWQCB Environmental Screening Levels [d]									
	100	100	1.0	40	30	13	5.0	0.5	0.05

Notes:

[a] All concentrations in micrograms per liter (µg/L), equivalent to parts per billion (ppb).

[b] Drinking water standards are State of California Secondary Maximum Contaminant Levels (MCLs) – Proposed, unless specified otherwise.

[c] State of California Primary MCL.

[d] For commercial/industrial sites where known/potential drinking water resource is threatened.

[e] Concentration detected between estimated quantitation (EQL) and method detection limit (MDL).

[f] First value is MDL and second value is EQL.

EDB = Ethylene dibromide (1,2-dibromoethane); EDC = Ethylene dichloride (1,2-dichloroethane); MTBE = Methyl *tertiary*-butyl ether; TPHg = Total petroleum hydrocarbons - gasoline range (equivalent to total volatile hydrocarbons - gasoline range); TPHd = Total petroleum hydrocarbons - diesel range (equivalent to total extractable hydrocarbons - diesel range); NA = Not analyzed for this contaminant; NLP = No level published.

Resources identified only one groundwater supply well within 1,500 feet of the site. Based on its distance and upgradient location relative to the site, there is no reasonable potential for this well to intercept shallow groundwater emanating from the subject property.

As specified in the RWQCB's San Francisco Bay Region Water Quality Control Plan, all groundwaters are considered potential sources of drinking water unless otherwise approved by the RWQCB, and are assumed to ultimately discharge to a surface water body and potentially impact aquatic organisms. In the case of groundwater contamination, ESLs are published for two scenarios: groundwater *is* a source of drinking water, and groundwater *is not* a source of drinking water. Qualifying for the higher ESLs (applicable to groundwater *is not* a source of drinking water) requires meeting one of the following two criteria:

1. The RWQCB has completed the "East Bay Plain Groundwater Basin Beneficial Use Evaluation Report" (RWQCB, 1999) that delineates three types of areas with regard to beneficial uses of groundwater: Zone A (significant drinking water resource), Zone B (groundwater unlikely to be used as drinking water resource), and Zone C (shallow groundwater proposed for designation as Municipal Supply Beneficial Use). The subject site falls within Zone A.
2. A site-specific exemption can be obtained from the RWQCB. Such an exemption has not been obtained for this site.

As discussed below, multiple groundwater contaminants have been detected in excess of ESLs, for both groundwater beneficial scenarios (groundwater *is* versus *is not* a potential drinking water resource). These data indicate that continued site characterization is warranted until it can be demonstrated that site-sourced contamination poses no unacceptable risk to sensitive receptors. Our subsequent discussion of groundwater contamination is in the context of the ESL criteria for sites where groundwater *is* a potential drinking water resource.

GROUNDWATER SAMPLE ANALYTICAL METHODS

Groundwater samples were analyzed in accordance with the methods proposed in the SES technical workplan. Analytical methods included:

- Total volatile hydrocarbons – gasoline range (TVHg), by EPA Method 8015B (all wells);
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX) and methyl *tertiary*-butyl ether (MTBE), by EPA Method 8260B;
- The lead scavengers 1,2-dichloroethane (EDC) and 1,2-dibromoethane (EDB), by EPA Method 8260B (wells MW-1, MW-5, and MW-6—the only wells with detectable concentrations in the previous monitoring event); and

- Total extractable hydrocarbons – diesel range (TEHd), by EPA Method 8015M (all wells except MW-4 and MW-7, which historically have never detected diesel).

GROUNDWATER SAMPLE RESULTS

Gasoline and Diesel

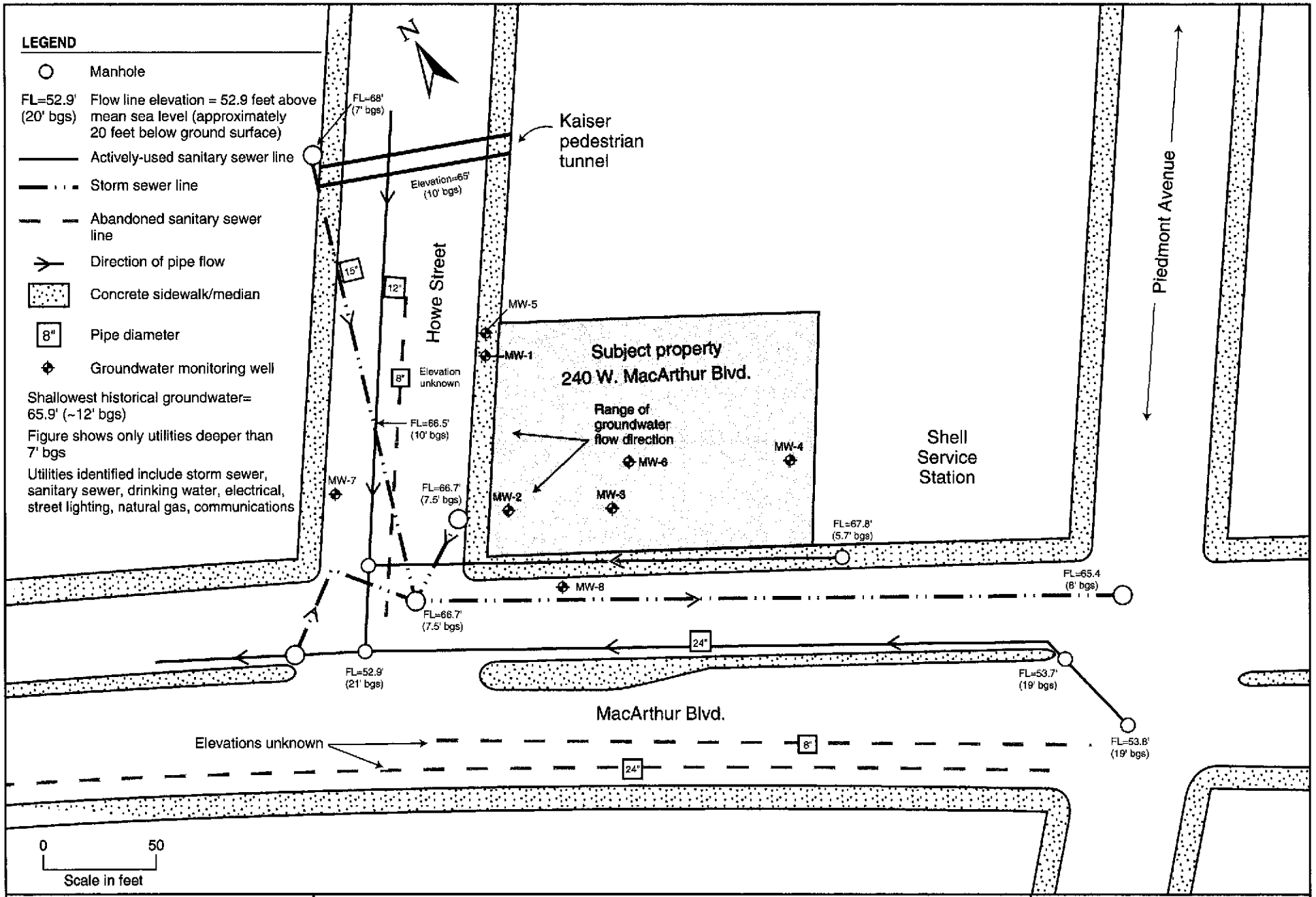
Figure 6 shows gasoline isoconcentration contours for the recent event. Historically, gasoline is the principal dissolved hydrocarbon at the site. Gasoline was detected in all site wells except MW-4 (southernmost well) at concentrations between 86 µg/L (well MW-7) and 20,700 µg/L (well MW-5). The current event was the first site event in which gasoline was detected in MW-7 (across Howe Street). Several of the gasoline concentrations exceeded the 100-µg/L ESL criterion. As shown on Figure 6, the lateral extent of the gasoline plume is relatively well defined to the east and west. To the south, the plume extends somewhat offsite into W. MacArthur Blvd. Well MW-5 to the north of the site, near the original source area, had the highest concentration, as it has historically. The gasoline plume extends offsite to the north (beneath Howe Street). The concentrations in well MW-5 showed the most significant increase compared to the last quarter monitoring event in December 2003—with 20,700 µg/L TPHg reported in this event compared to 11,900 µg/L TPHg in the last event. Both samples were post-purge samples.

Figure 7 shows diesel isoconcentration contours for the recent event. Diesel was detected in all five of the wells analyzed for diesel, but is of secondary concern relative to gasoline, with concentrations historically at significantly lesser levels than gasoline. Diesel concentrations ranged from 100 µg/L (well MW-2) to 1,100 µg/L (well MW-1), all exceeding the 100-µg/L ESL criterion. As shown on Figure 7, the lateral extent of the diesel plume is well defined to the west and does not appear to extend offsite more than 10 feet. The diesel plume extends offsite to the north (beneath Howe Street) and to the east an undefined distance.

Benzene, Toluene, Ethylbenzene, and Total Xylenes

Benzene was detected in six of the eight site wells, at concentrations ranging from 1.2 µg/L to 867 µg/L in wells MW-8 and MW-5, respectively. Figure 8 shows benzene isoconcentration contours for the recent event. The lateral extent of the benzene plume is relatively well defined to the east, west, and south, and does not extend offsite in those directions. The benzene plume extends offsite to the north/northeast (beneath Howe Street) to an undefined distance.

Toluene was detected in five of the eight site wells, at concentrations ranging from 1.2 µg/L to 266 µg/L. Ethylbenzene was detected in five of the wells, at concentrations ranging from 1.4 µg/L to 305 µg/L. Total xylenes were also detected in five of the wells, at concentrations



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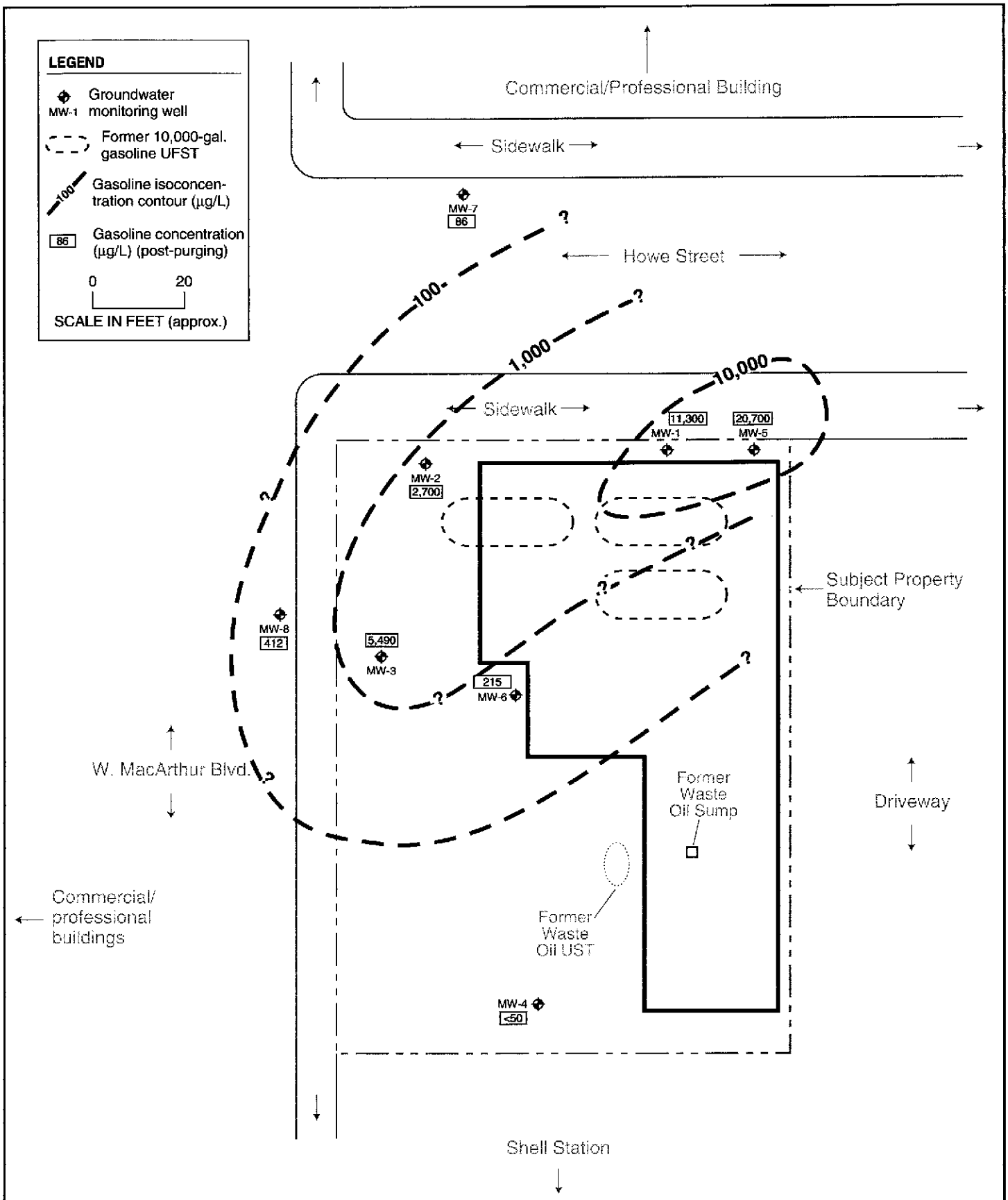
POTENTIAL PREFERENTIAL PATHWAY/UTILITY LOCATION MAP

240 W. MacArthur Blvd., Oakland

Figure 5

by: MJC | FEBRUARY 2004

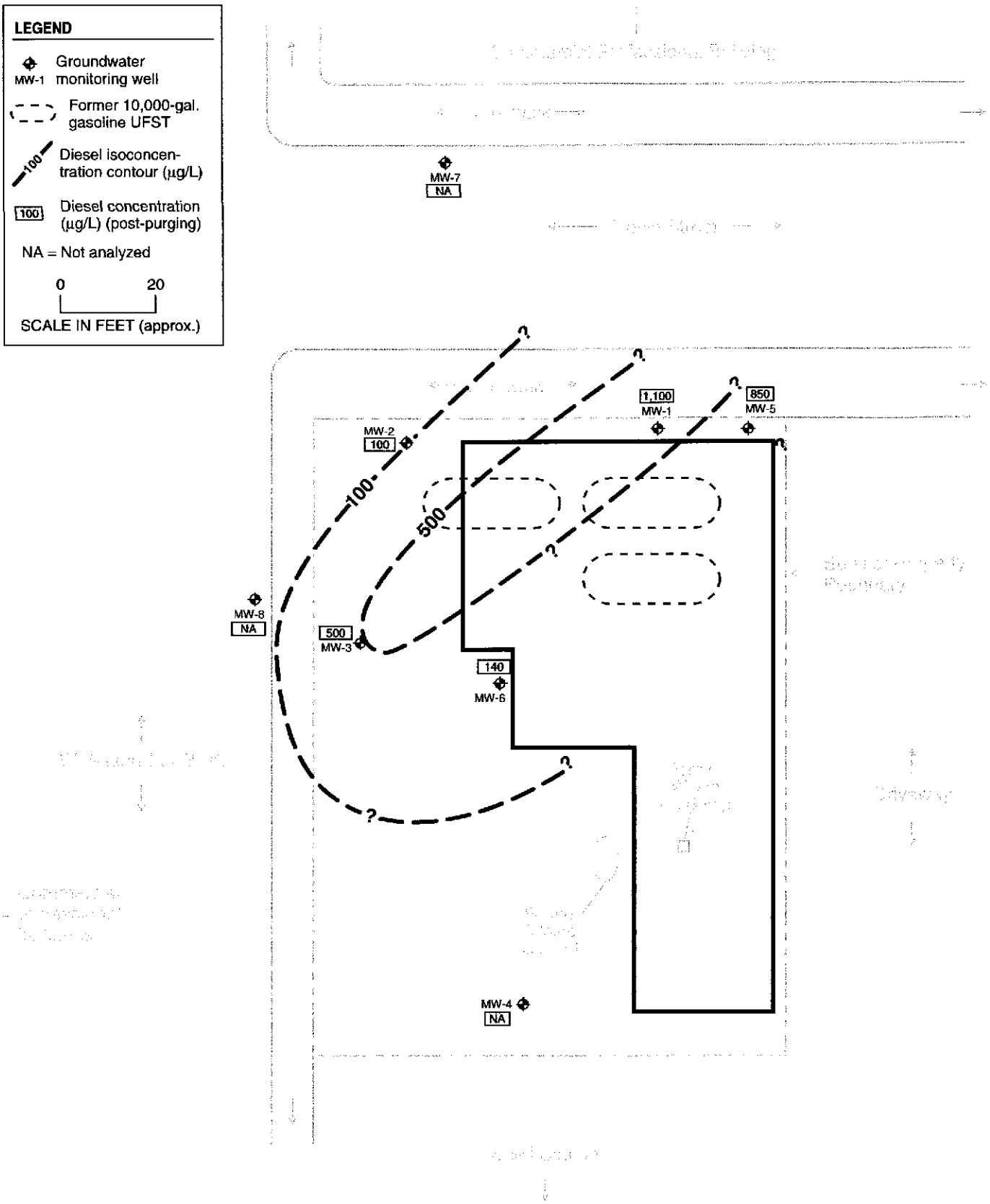
2003-43-25



GASOLINE ISOCONCENTRATION CONTOURS (MARCH 2004)

240 W. MacArthur Blvd. Oakland, CA	By: MJC	MARCH 2004	★ Stellar Environmental Solutions, Inc. Geoscience & Engineering Consulting
	Figure 6		

2003-43-29



DIESEL ISOCONCENTRATION CONTOURS (MARCH 2004)

240 W. MacArthur Blvd.
Oakland, CA

By: MJC | MARCH 2004

Figure 7

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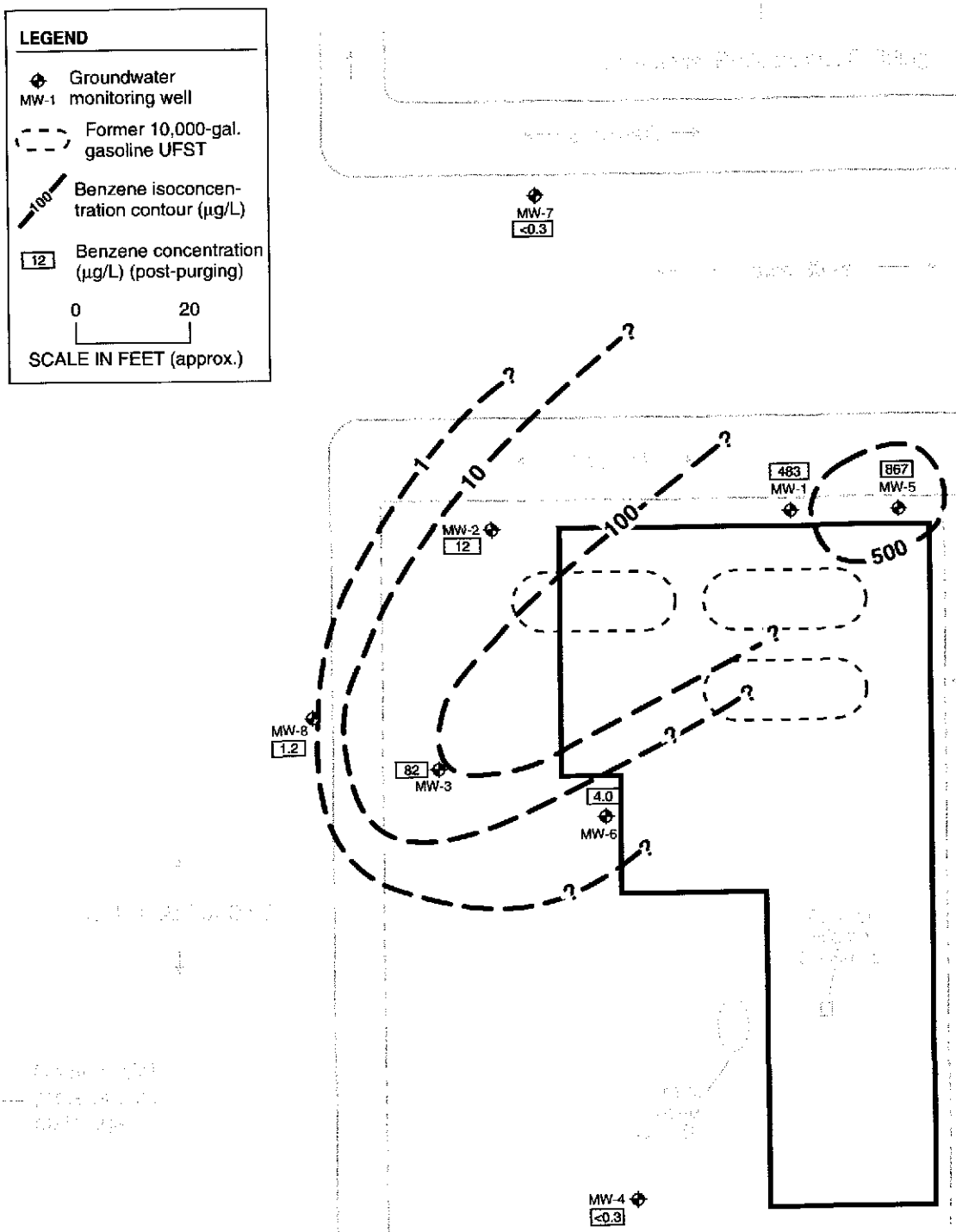
2003-43-30



BENZENE ISOCONCENTRATION CONTOURS (MARCH 2004)

240 W. MacArthur Blvd. Oakland, CA	By: MJC	MARCH 2004	Stellar Environmental Solutions, Inc. Geoscience & Engineering Consulting
	Figure 8		

2003-43-31

ranging from 1.4 µg/L to 452 µg/L. Maximum BTEX constituent concentrations were all detected in well MW-5. Maximum BTEX concentrations were all in excess of their respective ESL criteria.

Methyl *tertiary*-Butyl Ether

Figure 9 shows MTBE isoconcentration contours for the recent event. MTBE was detected in five of the eight site wells, at concentrations ranging from 3.7 µg/L to 249 µg/L. These results exceed the 5 µg/L ESL. The current event was the first event in which MTBE was detected in MW-7 (across Howe Street).

As shown on Figure 9, the lateral extent of the MTBE plume is well defined within 100 µg/L in all directions, but is only defined to the east/southeast to a level of non-detection. The lower levels concentrations of MTBE extend offsite to the northeast (near MW-5), south (MW-8), and west (MW-2 and MW-7) into W. MacArthur Boulevard and Howe Street.

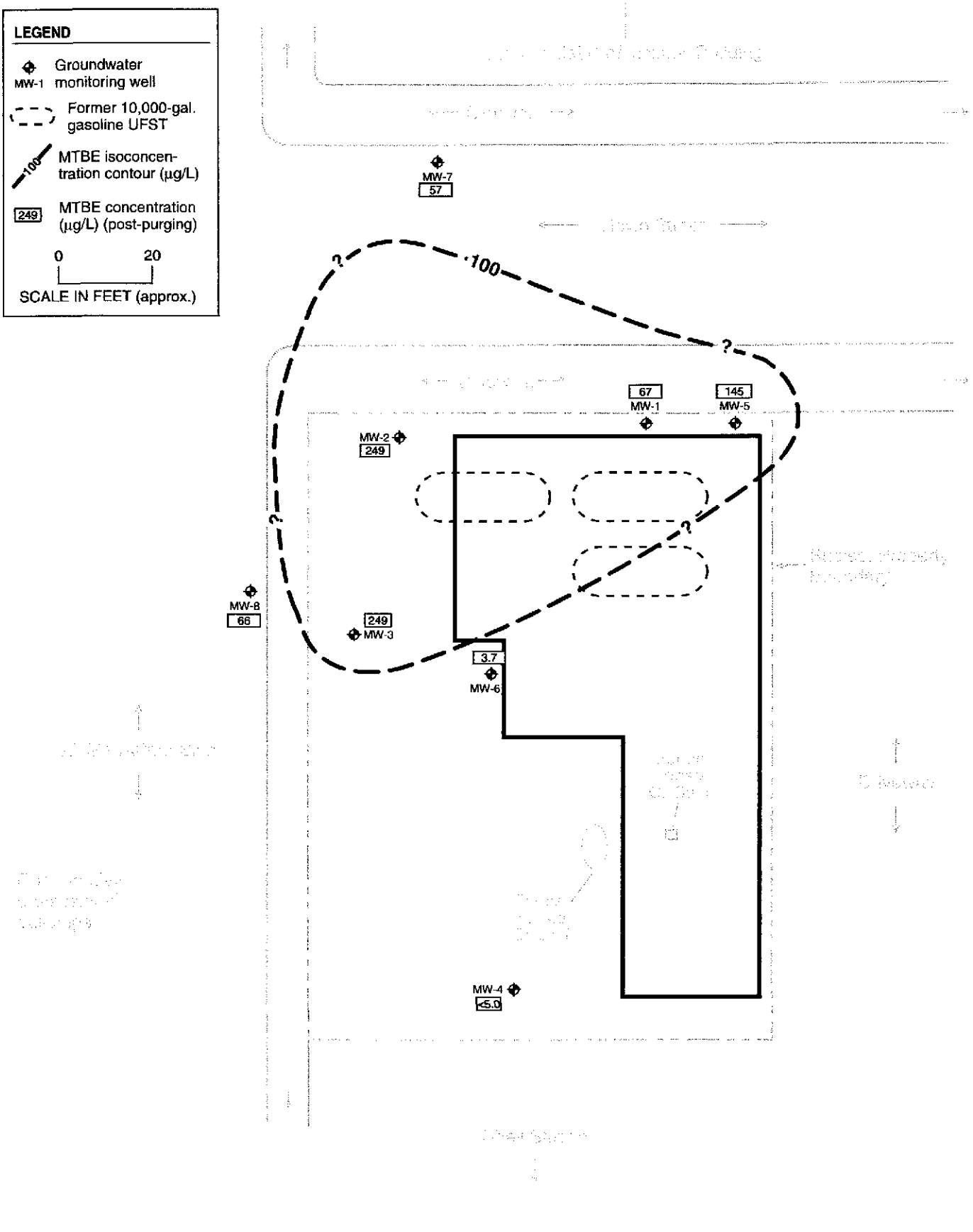
Alameda County Health has requested (in its workplan request letter) that the adjacent Shell-branded service station be evaluated as a potential source for the MTBE contamination. That issue will be fully evaluated in the upcoming Soil and Water Investigation report (to follow the proposed borehole program).

We have already conducted a preliminary evaluation of groundwater flow direction and contaminant plume geometry (for both the subject property and the adjacent Shell Station) with regard to this issue. Given the prevalent groundwater flow direction, the subject property well MW-4 is adequately positioned to monitor the downgradient portion of the Shell-sourced contaminant plume. MTBE has been detected in that well in only 3 of the 21 events, at concentrations between 2.9 µg/L and 14 µg/L. The data suggest that the Shell station is contributing minor MTBE to the eastern corner of the subject property. However, that contamination is unrelated to the separate, site-sourced contribution of MTBE in the northern and western portion of the subject property, as reflected in subject property wells MW-1 and MW-5.

Lead Scavengers

EDC was analyzed for in the three site wells (MW-1, MW-5, and MW-6) in which EDC was detected in the previous event. For the current event, the only detection was in well MW-6, at 31 µg/L. This concentration exceeds the 0.5 µg/L ESL. EDB was not detected in any of the wells for which it was analyzed.

The estimated quantitation limit (EQL, essentially the method reporting limit) for EDB and EDC using EPA Method 8260B was 5 µg/L, although the method detection limit (MDL) for these



	MTBE ISOCONCENTRATION CONTOURS (MARCH 2004)		
240 W. MacArthur Blvd. Oakland, CA	By: MJC	MARCH 2004	★ Stellar Environmental Solutions, Inc. Geoscience & Engineering Consulting
	Figure 9		

2003-43-32

compounds were 0.26 μg/L and 0.17 μg/L, respectively. Contaminant concentrations between the MDL and the EQL are quantitative approximations (and would be flagged as a "j" value); however, the presence of a contaminant at a concentration between the MDL and the EQL generally indicates that the contaminant is present. Therefore, for the samples reported as "ND" for EDB and EDC, it is likely that EDB and EDC are not present above the lower MDL.

Summary

With the exception of EDC, maximum contaminant concentrations were detected in wells MW-5 or MW-1, located in the northeastern corner of the property (near the former UFSTs) which appears to be the center of the groundwater contaminant mass. Groundwater contamination extends in a limited way offsite to the west of MW-8 (for MTBE) and is fully contained onsite to the south, based on the non-detectable concentrations at well MW-4. The lateral extent of groundwater contamination to the east and north is undefined.

QUALITY CONTROL SAMPLE ANALYTICAL RESULTS

Laboratory QC samples (e.g., method blanks, matrix spikes, surrogate spikes, etc.) 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 (Appendix D), with one exception. High surrogate recovery was observed for the MW-1 and MW-2 samples. This may be due to co-elution of the sample hydrocarbons with the surrogate. This does not appear to have any significant adverse impact on the reported sample concentrations.

6.0 SUMMARY, CONCLUSIONS, AND PROPOSED ACTIONS

SUMMARY AND CONCLUSIONS

- The site has undergone site investigations and remediation since 1991 (SES has been involved since August 2003) to address soil and groundwater contamination resulting from leaking underground fuel storage tanks (UFSTs) that were reportedly removed. Alameda County Health is the lead regulatory agency.
- A total of 22 groundwater monitoring/sampling events have been conducted in the eight site wells between August 1997 and March 2004 (the most recent event). Alameda County Health recently denied a request for case closure, and requested a technical workplan for additional site characterization (to include exploratory borehole drilling/sampling, a vicinity water well survey, and a preferential pathway survey). That workplan was submitted by SES in August 2003, and Alameda County Health approval has not yet been granted.
- Site lithology consists of clays, silts, sand, and gravel in the near surface sediments characterized to a depth of 25 feet. Lower-permeability soils (clays and silts) occur primarily in the upper 15 feet of native material. Sand/gravel lithology is more commonly found beneath the overlying clay/silt. All well bases except one are within the sand/gravel zone, so the depth of the more permeable zone is undefined.
- Groundwater was measured in the wells at depths of approximately 12 to 14 feet in this first quarterly monitoring event of 2004. The shallow groundwater beneath the site appears to be slightly confined, equilibrating in wells. The screen intervals of the monitoring well are at depths of approximately 25 to 15 feet, or 20 to 10 feet, depending on the wells. Site groundwater flow direction has ranged between northwest and west, with a relatively flat hydraulic gradient averaging approximately 0.005 ft/ft.
- Site groundwater contaminants include gasoline, diesel, BTEX, MTBE, and the lead scavenger EDB. Current-event groundwater concentrations for all of these contaminants exceed RWQCB ESLs (screening-level criteria) except EDB, for which no ESL is published.
- Site groundwater contaminants detected in excess of regulatory agency screening level criteria include gasoline, diesel, BTEX, MTBE, and the lead scavenger EDC. Maximum groundwater contamination is located in the northern corner of the site (near wells MW-1

and MW-5). The limits of groundwater contamination for all contaminants are relatively well defined to the west and to the south, and do not appear to extend offsite to the south, with a limited offsite component of MTBE to the west. The lateral extent of groundwater contamination to the north, south, and east are variably defined to undefined, depending on the specific analytes. The proposed (in the SES technical workplan) additional site characterization will provide better definition of contaminant extent and magnitude.

- We identified no vicinity water wells with the potential to intercept site-sourced groundwater contamination.
- Potential preferential pathways identified include deep sanitary sewer lines beneath Howe Street and W. MacArthur Boulevard (adjacent to the subject property). Based on the detection of gasoline and MTBE in well MW-7 (beyond the Howe Street deep utilities), it appears unlikely that the Howe Street deep utilities are acting as a preferential pathway for site-sourced groundwater contamination.
- The adjacent Shell service station is contributing minor MTBE groundwater contamination to the eastern corner of the subject property. This contamination is unrelated to the separate, site-sourced MTBE groundwater contamination in the northern and western portions of the subject property.

PROPOSED ACTIONS

The property owner proposes to implement the following action to address regulatory concerns:

- Continue the program of quarterly groundwater sampling and reporting, with the objectives of obtaining site closure and continuing reimbursement requests under the State of California Petroleum UST Cleanup Fund.
- Implement the activities proposed in the SES August 2003 workplan (and December 2003 workplan amendments), currently scheduled for the end of April 2004. Report on those activities (including a comprehensive evaluation of contaminant distribution and hydrochemical trends) in the Second Quarter 2004 report.
- Continue to upload Electronic Data Format (EDF) analytical results to the GeoTracker database.

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8.0 LIMITATIONS

This report has been prepared for the exclusive use of the current property owners (Mr. and Mrs. Glen Poy-Wing, d.b.a. Oakland Auto Works) their representatives, and the regulators. 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 on the review of previous investigators' findings at the site, as well as site activities conducted by SES since August 2003. 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 of the area. The SES personnel who performed this limited remedial 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.

Historical Water Level and Hydraulic Gradient Data
240 W. MacArthur Boulevard, Oakland, Alameda, California

Well I.D.	Sampling Event No.	Date Measured	Water Level Depth (a)	Water Level Elevation (b)
MW-1	1	Aug-97	16.83	62.32
	2	Dec-97	NA	NA
	3	Mar-98	13.58	65.57
	4	Jul-98	15.55	63.60
	5	Oct-98	15.70	63.45
	6	Jan-99	15.21	63.94
	7	Jun-00	15.41	63.74
	8	Dec-00	NA	NA
	9	Feb-01	NA	NA
	10	May-01	15.57	63.58
	11	Jul-01	16.42	62.73
	12	Oct-01	16.82	62.33
	13	Dec-01	15.08	64.07
	14	Mar-02	14.53	64.62
	15	May-02	NA	NA
	16	Jul-02	16.39	62.76
	17	Oct-02	17.03	62.12
	18	Jan-03	14.91	64.24
	19	Mar-03	15.26	63.89
	20	Aug-03	16.24	62.91
	21	Dec-03	16.90	62.25
	22	Mar-04	14.33	64.82
MW-2	1	Aug-97	16.32	62.13
	2	Dec-97	NA	NA
	3	Mar-98	13.05	64.95
	4	Jul-98	14.95	63.50
	5	Oct-98	15.09	63.36
	6	Jan-99	14.61	63.84
	7	Jun-00	14.80	63.65
	8	Dec-00	NA	NA
	9	Feb-01	NA	NA
	10	May-01	14.98	63.47
	11	Jul-01	15.86	62.59
	12	Oct-01	16.69	61.76
	13	Dec-01	13.49	64.96
	14	Mar-02	13.07	65.38
	15	May-02	NA	NA
	16	Jul-02	15.86	62.59
	17	Oct-02	16.54	61.91
	18	Jan-03	14.37	64.08
	19	Mar-03	14.74	63.71
	20	Aug-03	15.75	62.70
	21	Dec-03	16.11	62.34
	22	Mar-04	13.83	64.82

Well I.D.	Sampling Event No.	Date Measured	Water Level Depth (a)	Water Level Elevation (b)
MW-3	1	Aug-97	15.36	62.22
	2	Dec-97	NA	NA
	3	Mar-98	12.18	65.40
	4	Jul-98	14.08	63.50
	5	Oct-98	14.24	63.34
	6	Jan-99	13.74	63.84
	7	Jun-00	13.94	63.64
	8	Dec-00	NA	NA
	9	Feb-01	NA	NA
	10	May-01	14.08	63.50
	11	Jul-01	14.99	62.59
	12	Oct-01	16.26	61.32
	13	Dec-01	13.62	63.96
	14	Mar-02	13.19	64.39
	15	May-02	NA	NA
	16	Jul-02	14.97	62.61
	17	Oct. 2002	15.44	62.14
	18	Jan-03	13.49	64.09
	19	Mar-03	13.83	63.75
	20	Aug-03	14.90	62.68
	21	Dec-03	15.10	62.48
	22	Mar-04	12.93	64.65
MW-4	1	Aug-97	NA	NA
	2	Dec-97	NA	NA
	3	Mar-98	11.87	65.87
	4	Jul-98	13.90	63.84
	5	Oct-98	14.10	63.64
	6	Jan-99	13.56	64.18
	7	Jun-00	13.75	63.99
	8	Dec-00	NA	NA
	9	Feb-01	NA	NA
	10	May-01	13.65	64.09
	11	Jul-01	14.87	62.87
	12	Oct-01	15.78	61.96
	13	Dec-01	13.54	64.20
	14	Mar-02	13.02	64.72
	15	May-02	NA	NA
	16	Jul-02	14.81	62.93
	17	Oct-02	15.56	62.18
	18	Jan-03	13.39	64.35
	19	Mar-03	13.75	63.99
	20	Aug-03	14.75	62.99
	21	Dec-03	15.11	62.63
	22	Mar-04	12.78	64.96

Well I.D.	Sampling Event No.	Date Measured	Water Level Depth (a)	Water Level Elevation (b)
MW-5	9	Feb-01	NA	NA
	10	May-01	15.65	63.71
	11	Jul-01	16.50	62.86
	12	Oct-01	17.46	61.90
	13	Dec-01	15.28	64.08
	14	Mar-02	14.62	64.74
	15	May-02	NA	NA
	16	Jul-02	16.46	62.90
	17	Oct-02	17.18	62.18
	18	Jan-03	14.99	64.37
	19	Mar-03	15.33	64.03
	20	Aug-03	16.34	63.02
	21	Dec-03	16.90	62.46
	22	Mar-04	14.44	64.92
MW-6	9	Feb-01	NA	NA
	10	May-01	15.54	62.89
	11	Jul-01	15.56	62.87
	12	Oct-01	16.41	62.02
	13	Dec-01	14.37	64.06
	14	Mar-02	13.75	64.68
	15	May-02	NA	NA
	16	Jul-02	15.55	62.88
	17	Oct-02	16.24	62.19
	18	Jan-03	14.17	64.26
	19	Mar-03	14.52	63.91
	20	Aug-03	15.50	62.93
	21	Dec-03	16.19	62.24
	22	Mar-04	13.51	64.92
MW-7	9	Feb-01	NA	NA
	10	May-01	15.04	62.23
	11	Jul-01	15.69	62.58
	12	Oct-01	16.59	61.68
	13	Dec-01	14.30	63.97
	14	Mar-02	13.87	64.40
	15	May-02	NA	NA
	16	Jul-02	15.72	62.55
	17	Oct-02	16.36	61.91
	18	Jan-03	14.22	64.05
	19	Mar-03	14.57	63.70
	20	Aug-03	15.61	62.66
	21	Dec-03	16.04	62.23
	22	Mar-04	13.57	64.70

Well I.D.	Sampling Event No.	Date Measured	Water Level Depth (a)	Water Level Elevation (b)
MW-8	10	May-01	12.75	63.64
	11	Jul-01	13.84	62.55
	12	Oct-01	14.65	61.74
	13	Dec-01	12.39	64.00
	14	Mar-02	11.89	64.50
	15	May-02	NA	NA
	16	Jul-02	13.96	62.43
	17	Oct-02	14.48	61.91
	18	Jan-03	12.49	63.90
	19	Mar-03	12.85	63.54
	20	Aug-03	13.75	62.65
	21	Dec-03	14.5	61.89
	22	Mar-04	11.78	64.61

Sampling Event No.	Date Measured	Groundwater Flow Direction	Groundwater Hydraulic Gradient (feet/foot)
1	Aug-97	NW	0.0048
2	Dec-97	NW	0.0051
3	Mar-98	NW	0.0063
4	Jul-98	N46W	0.0053
5	Oct-98	N46W	0.0053
6	Jan-99	N73W	0.0043
7	Jun-00	N78W	0.0050
8	Dec-00	NA	NA
9	Feb-01	N50W	0.0028
10	May-01	NA	NA
11	Jul-01	N85W	NA
12	Oct-01	N71W	NA
13	Dec-01	N71W	0.0027
14	Mar-02	N50W	0.0021
15	May-02	NA	NA
16	Jul-02	N80W	0.0075
17	Oct-02	N45W	0.0030
18	Jan-03	N70W	0.0033
19	Mar-03	N80W	0.0063
20	Aug-03	S80W	0.0050
21	Dec-03	W	0.0055
22	Mar-04	W	0.0055

Notes:

(a) Feet below well top of casing.

(b) Relative to mean sea level.

NA = Data Not Available

Data prior to August 2003 are likely not valid as well elevations were not surveyed.

WELL GAUGING DATA

Project # 040311-MD1 Date 3/11/04 Client Stellar Envr.

Site 240 W. MacArthur Blvd., Oakland

Well ID	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~~	
MW-1	2					14.33	24.40		
MW-2	2					13.83	24.38		
MW-3	2					12.93	24.25		
MW-4	2					12.78	24.10		
MW-5	2	odor				14.44	20.11		
MW-6	2					13.51	20.18		
MW-7	2					13.57	19.98		
MW-8	2					11.78	19.97		

WELL MONITORING DATA SHEET

Project #: 040311-MD1	Client: Stellar Envr. Sol.
Sampler: John DeJong	Date: 3/11/04
Well I.D.: MW-7	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 19.98	Depth to Water (DTW): 13.57
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: _____

1.0 (Gals.) X 3 = 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

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
855	68.2	7.0	690	>1000	1	cloudy, tan
857	67.8	6.7	715	>1000	2	"
900	67.8	6.7	732	>1000	3	cloudy tan
				Ferrous Iron → 0.2		

Did well dewater? Yes (No) Gallons actually evacuated: 3

Sampling Date: 3/11/04 Sampling Time: 910 Depth to Water: 14.71

Sample I.D.: MW-7 Laboratory: Kiff CalScience Other_____

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

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

Iron (Ferric)

WELL MONITORING DATA SHEET

Project #: 040311 – MD1	Client: Stellar Envr. Sol.
Sampler: John DeJong	Date: 3/11/04
Well I.D.: MW-4	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 24.10	Depth to Water (DTW): 12.78
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: _____

1.8 (Gals.) X 3 = 5.4 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

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
923	67.4	7.0	522	491	1.8	cloudy, tan
925	67.1	6.7	540	555	3.6	"
928	67.2	6.6	567	71000	5.4	More turbid, tan
				Ferrous Iron	MD 0.2	

Did well dewater? Yes (No) Gallons actually evacuated: 5.4

Sampling Date: 3/11/04 Sampling Time: 935 Depth to Water: 13.91

Sample I.D.: MW-4 Laboratory: Kiff CalScience Other_____

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

FB 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):	2.9 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 040311-MD1	Client: Stellar Envr. Sol.
Sampler: John DeJong	Date: 3/11/04
Well I.D.: MW-8	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 19.97	Depth to Water (DTW): 11.79
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: _____

1.3 (Gals.) X 3 = 3.9 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	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
946	67.6	6.9	457	71000	1.3	cloudy, tan
948	67.5	6.9	464	>1000	2.6	silty, tan
950	67.3	7.0	474	>1000	3.9	silty, tan
				Ferrious Iron = 0.7		

Did well dewater? Yes (No) Gallons actually evacuated: 3.9

Sampling Date: 3/11/04 Sampling Time: 955 Depth to Water: 12.35

Sample I.D.: MW-8 Laboratory: Kiff CalScience Other_____

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

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

WELL MONITORING DATA SHEET

Project #: 040311-MD1	Client: Stellar Envr. Sol.
Sampler: John DeJong	Date: 3/11/04
Well I.D.: MW-2	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 24.38	Depth to Water (DTW): 13.93
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: _____

1.7 (Gals.) X	3	= 5.1 Gals.
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

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1018	68.3	6.9	734	300	1.7	cloudy, white
1020	67.6	6.8	731	373	3.9	"
1023	67.3	6.7	729	371	5.1	cloudy, white
				Ferrous Iron → 2.0		

Did well dewater? Yes (No) Gallons actually evacuated: 5.1

Sampling Date: 3/11/04 Sampling Time: 1030 Depth to Water: 13.91

Sample I.D.: MW-2 Laboratory: Kiff CalScience Other_____

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

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

WELL MONITORING DATA SHEET

Project #: 040311-MD1	Client: Stellar Envr. Sol.
Sampler: John DeJong	Date: 3/11/04
Well I.D.: MW6	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 20.18	Depth to Water (DTW): 17.51
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: _____

1.1 (Gals.) X 3 = 3.3 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

Time	Temp (°F or °C)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1046	66.8	6.7	1099	364	1.1	cloudy, odor
1049	66.9	6.6	1099	>1000	2.2	cloudy, white, odor
1052	67.2	6.6	1134	>1000	3.3	cloudy white, odor
				Ferrious Iron →	1.7	

Did well dewater? Yes (No) Gallons actually evacuated: 3.3

Sampling Date: 3/11/04 Sampling Time: 1100 Depth to Water: 17.21

Sample I.D.: MW-6 Laboratory: Kiff CalScience Other_____

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

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

WELL MONITORING DATA SHEET

Project #: 040311-MD1	Client: Stellar Envr. Sol.
Sampler: John DeJong	Date: 3/11/04
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 24.25	Depth to Water (DTW): 12.93
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: _____

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

1.8 (Gals.) X 3 = 5.4 Gals.
Purge Volume | Specified Volumes | Calculated Volume

Time	Temp (F or °C)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1130	74.0	6.8	871	>1000	1.8	cloudy, strong odor
1133	69.8	6.7	857	>1000	3.6	"
1137	69.7	6.7	856	>1000	5.4	cloudy, grey, odor
				Ferrous Iron → 2.8		

Did well dewater? Yes (No) Gallons actually evacuated: 5.4

Sampling Date: 3/11/04 Sampling Time: 1145 Depth to Water: 13.11

Sample I.D.: MW-3 Laboratory: Kiff CalScience Other_____

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

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

WELL MONITORING DATA SHEET

Project #: 040311-MD1	Client: Stellar Envr. Sol.
Sampler: John DeJong	Date: 3/11/04
Well I.D.: MW-1	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 24.40	Depth to Water (DTW): 14.33
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: _____

1.6 (Gals.) X 3 = 4.8 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

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1200	69.3	7.3	1026	349	16	cloudy, grey, strong odor
1203	67.7	6.6	1046	756	3.2	", sheen
1207	67.9	6.7	891	295	4.8	grey, sheen, odor
				Ferrous Iron =	2.0	

Did well dewater? Yes (No) Gallons actually evacuated: 4.8

Sampling Date: 3/11/04 Sampling Time: 1220 Depth to Water: 16.09

Sample I.D.: MW-1 Laboratory: Kiff CalScience Other_____

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

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

WELL MONITORING DATA SHEET

Project #: 040311-MD1	Client: Stellar Envr. Sol.
Sampler: John DeJong	Date: 3/11/04
Well I.D.: MW-5	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 20.11	Depth to Water (DTW): 14.44
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: _____

1 (Gals.) X 3 = 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

Time	Temp (°F or °C)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1241	70.0	7.1	871	>1000	1	cloudy, grey, odor
1246	67.7	6.6	843	71000	2	"
1250	70.2	6.7	766	71000	3	grey, odor
				Ferrous Iron →	2.1	

Did well dewater? Yes (No) Gallons actually evacuated: 3

Sampling Date: 3/11/04 Sampling Time: 1300 Depth to Water: 14.2

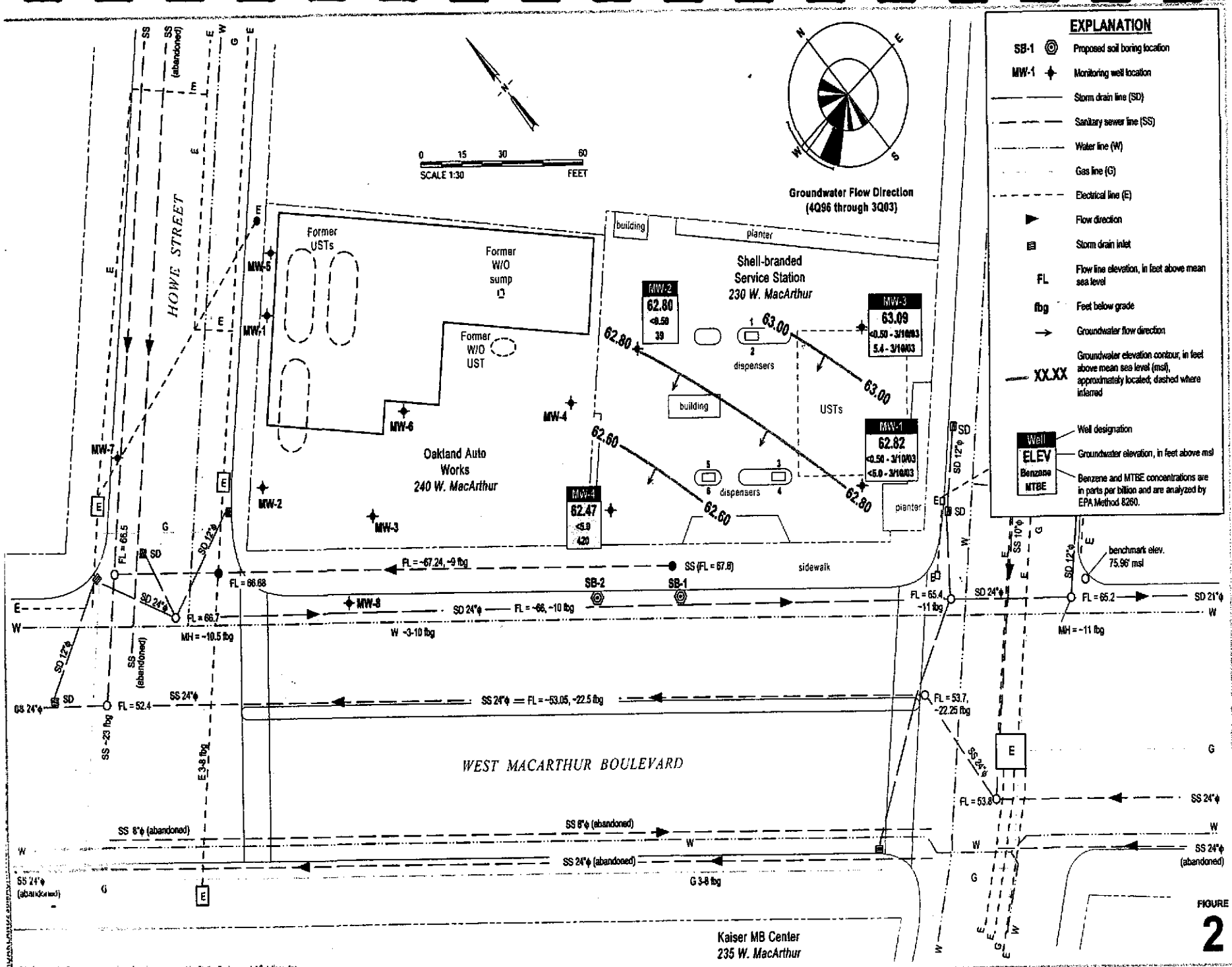
Sample I.D.: MW-5 Laboratory: Kiff CalScience Other_____

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

FB 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:)	0.2 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV



Groundwater Elevation Contour Map with Underground Utility and Proposed Soil Boring Locations

September 16, 2003

CAMBRIA

Shell-branded Service Station
230 West MacArthur Boulevard
Oakland, California
Incident #98995741

FIGURE 2

STATE OF CALIFORNIA - THE RESOURCES AGENCY

GRAY DAVIS, *Governor*

DEPARTMENT OF WATER RESOURCES
CENTRAL DISTRICT
3251 S STREET
SACRAMENTO, CA 95816-7017

AUG 2 8 2003

Mr. Bruce Rucker
Stellar Environmental Solutions
2198 Sixth Street, Suite 201
Berkeley, California 94710

Dear Mr. Rucker:

We are enclosing Water Well Drillers Report 106930 in response to your request for the well location information from our data base for all types of water wells in the following area:

A 1,500-foot radius of 240 West MacArthur Boulevard, Oakland
Township 01 South, Range 04 West, Section 23-J and R
Township 01 South, Range 04 West, Section 24-K, L, M, N, P, and Q

We located one well drillers report as a result of this search, which required 15 minutes of staff time and for which there will be no charge.

If you need additional information or have any questions, please contact Anne Roth at (916) 227-7632 or fax (916) 227-7600.

Sincerely,

Robert L. Niblack, Chief
Geology and Groundwater Section

Enclosure

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Do not fill in
No. 106930

State Well No. 15/4W-24L1
Other Well No.

... of Intent No.
... Permit No. or Date 79132

(1) OWNER: Name John Bond
Address 4101 Howe Street
City Oakland Calif Zip 94577

(2) LOCATION OF WELL (See instructions):
County Alameda Owner's Well Number
Well address if different from above 4082 Piedmont Ave
Township Oakland Range Section
Distance from cities, roads, railroads, fences, etc.

WELL LOCATION SKETCH

(3) TYPE OF WORK:
New Well ☒ Deepening ☐
Reconstruction ☐
Reconditioning ☐
Horizontal Well ☐
Destruction ☐ (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:
Domestic ☐
Irrigation ☐
Industrial ☐
Test Well ☐
Stock ☐
Municipal ☐
Other ☐

(5) EQUIPMENT:
Rotary ☐ Reverse ☐
Cable ☒ Air ☐
Other ☐ Bucket ☐

(6) GRAVEL PACK:
Yes ☐ No ☒ Size
Diameter of bore
Packed from to ft.

(7) CASING INSTALLED:
Steel ☐ Plastic ☐ Concrete ☐

(8) PERFORATIONS:
Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gage or Wall	From ft.	To ft.	Slot size
0	184	8	10	132	184	3

(9) WELL SEAL:
Was surface sanitary seal provided? Yes ☒ No ☐ If yes, to depth 30 ft.
Were strata sealed against pollution? Yes ☐ No ☐ Interval ft.
Method of sealing

(10) WATER LEVELS:
Depth of first water, if known 42 ft.
Standing level after well completion 21 ft.

(11) WELL TESTS:
Was well test made? Yes ☐ No ☐ If yes, by whom?
Type of test Pump ☐ Bailer ☐ Air lift ☐
Depth to water at start of test ft. At end of test ft
Discharge gal/min after hours Water temperature
Chemical analysis made? Yes ☐ No ☐ If yes, by whom?
Was electric log made? Yes ☐ No ☐ If yes, attach copy to this report

(12) WELL LOG: Total depth 198 ft. Depth of completed well 198 ft.

from ft.	to ft.	Formation (Describe by color, character, size or material)
0	2	Red Rock fill
2	8	Sandy Clay Yellow
8	14	Yellow Clay
14	28	Yellow Clay Sandy
24	32	Brown Clay
32	78	Brown Clay Small Gravel
78	178	Yellow Clay " "
178	181	Gray " " "
181	198	Shale Rock

Work started 7/27 1979 Completed 8/11 1979

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
SIGNED [signature] (Well Driller)
NAME Louis A. Wood Co. (Person, firm, or corporation) (Typed or printed)
Address 2525 West Ave. 133rd
City San Leandro Zip 94577
License No. 193859 Date of this report

DWR 188 (REV. 7-76) IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92868 - 714/771-6900 *FAX 714/538-1209*

CLIENT Stellar Environmental Solutions (10503)
ATTN: Bruce Rucker
2198 Sixth Street
#201
Berkeley, CA 94710

LAB REQUEST 126059
REPORTED 03/23/2004
RECEIVED 03/12/2004

PROJECT #2003-43
Oakland Auto Works

SUBMITTER Client

COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.	Client Sample Identification
505154	MW-7
505155	MW-4
505156	MW-8
505157	MW-2
505158	MW-6
505159	MW-3
505160	MW-1
505161	MW-5
505162	Laboratory Method Blank

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph.D.
Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical
Microbiological
Environmental

Order #: 505154 **Client Sample ID:** MW-7

Matrix: WATER

Date Sampled: 03/11/2004
Time Sampled: 09:10

Method	Analyte	Result	DF	EQL	MDL	Units	Date/Analyst
8021B/AVO	Benzene	ND	1	0.3	0.04	ug/L	03/15/04 LZ
8021B/AVO	Ethyl benzene	ND	1	0.3	0.02	ug/L	03/15/04 LZ
TPH-DHS	Gasoline	86	1	50	15	ug/L	03/15/04 LZ
8021B/AVO	Methyl t - butyl ether	57	1	5	0.03	ug/L	03/15/04 LZ
8021B/AVO	Toluene	ND	1	0.3	0.02	ug/L	03/15/04 LZ
8021B/AVO	Xylene (total)	ND	1	0.6	0.06	ug/L	03/15/04 LZ

Surrogates			Units	Control Limits
8021B/AVO	a,a,a-Trifluorotoluene	93	%	70 - 130
TPH-DHS	a,a,a-Trifluorotoluene	93	%	55 - 200

EQL = Estimated Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor
ND = Not detected below indicated MDL, J=Trace, S=Surrogate Outside Control Limits

Order #: 505155 **Client Sample ID:** MW-4

Matrix: WATER

Date Sampled: 03/11/2004
Time Sampled: 09:35

Method	Analyte	Result	DF	EQL	MDL	Units	Date/Analyst
8021B/AVO	Benzene	ND	1	0.3	0.04	ug/L	03/15/04 LZ
8021B/AVO	Ethyl benzene	ND	1	0.3	0.02	ug/L	03/15/04 LZ
TPH-DHS	Gasoline	ND	1	50	15	ug/L	03/15/04 LZ
8021B/AVO	Methyl t - butyl ether	ND	1	5	0.03	ug/L	03/15/04 LZ
8021B/AVO	Toluene	ND	1	0.3	0.02	ug/L	03/15/04 LZ
8021B/AVO	Xylene (total)	ND	1	0.6	0.06	ug/L	03/15/04 LZ

Surrogates			Units	Control Limits
8021B/AVO	a,a,a-Trifluorotoluene	94	%	70 - 130
TPH-DHS	a,a,a-Trifluorotoluene	94	%	55 - 200

EQL = Estimated Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor
ND = Not detected below indicated MDL, J=Trace, S=Surrogate Outside Control Limits

Order #: 505156 **Client Sample ID:** MW-8

Matrix: WATER

Date Sampled: 03/11/2004
Time Sampled: 09:55

Method	Analyte	Result	DF	EQL	MDL	Units	Date/Analyst
8021B/AVO	Benzene	1.2	1	0.3	0.04	ug/L	03/15/04 LZ
8021B/AVO	Ethyl benzene	1.7	1	0.3	0.02	ug/L	03/15/04 LZ
TPH-DHS	Gasoline	412	1	50	15	ug/L	03/15/04 LZ
8021B/AVO	Methyl t - butyl ether	66	2	10.0	0.03	ug/L	03/15/04 LZ
8021B/AVO	Toluene	ND	1	0.3	0.02	ug/L	03/15/04 LZ
8021B/AVO	Xylene (total)	3.9	1	0.6	0.06	ug/L	03/15/04 LZ
Surrogates						**Units**	**Control Limits**
TPH-DHS	a,a,a-Trifluorotoluene	117				%	55 - 200
8021B/AVO	a,a,a-Trifluorotoluene	117				%	70 - 130
8015	TEPH Diesel	ND	1	0.1	0.040	mg/L	03/19/04 AF
Surrogates						**Units**	**Control Limits**
8015	o-Terphenyl (sur)	126				%	55 - 200

EQL = Estimated Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor
ND = Not detected below indicated MDL, J=Trace, S=Surrogate Outside Control Limits

Order #: 505157 **Client Sample ID:** MW-2

Matrix: WATER

Date Sampled: 03/11/2004
Time Sampled: 10:30

Method	Analyte	Result	DF	EQL	MDL	Units	Date/Analyst
8021B/AVO	Benzene	12	1	0.3	0.04	ug/L	03/15/04 LZ
8021B/AVO	Ethyl benzene	9.0	1	0.3	0.02	ug/L	03/15/04 LZ
TPH-DHS	Gasoline	2700	1	50	15	ug/L	03/15/04 LZ
8021B/AVO	Methyl t - butyl ether	249	10	50.0	0.03	ug/L	03/15/04 LZ
8021B/AVO	Toluene	16	1	0.3	0.02	ug/L	03/15/04 LZ
8021B/AVO	Xylene (total)	12	1	0.6	0.06	ug/L	03/15/04 LZ
Surrogates						**Units**	**Control Limits**
8021B/AVO	a,a,a-Trifluorotoluene	153 S				%	70 - 130
TPH-DHS	a,a,a-Trifluorotoluene	153				%	55 - 200
8015	TEPH Diesel	0.10	1	0.1	0.040	mg/L	03/19/04 AF
Surrogates						**Units**	**Control Limits**
8015	o-Terphenyl (sur)	115				%	55 - 200

EQL = Estimated Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor
ND = Not detected below indicated MDL, J=Trace, S=Surrogate Outside Control Limits

Order #: 505158 **Client Sample ID:** MW-6

Matrix: WATER

Date Sampled: 03/11/2004
Time Sampled: 11:00

Method	Analyte	Result	DF	EQL	MDL	Units	Date/Analyst
8021B/AVO	Benzene	4.0	1	0.3	0.04	ug/L	03/15/04 LZ
8021B/AVO	Ethyl benzene	1.4	1	0.3	0.02	ug/L	03/15/04 LZ
TPH-DHS	Gasoline	215	1	50	15	ug/L	03/15/04 LZ
8021B/AVO	Methyl t - butyl ether	3.7 J	1	5	0.03	ug/L	03/15/04 LZ
8021B/AVO	Toluene	1.2	1	0.3	0.02	ug/L	03/15/04 LZ
8021B/AVO	Xylene (total)	1.4	1	0.6	0.06	ug/L	03/15/04 LZ
Surrogates						**Units**	**Control Limits**
8021B/AVO	a,a,a-Trifluorotoluene	114				%	70 - 130
TPH-DHS	a,a,a-Trifluorotoluene	114				%	55 - 200
8260B	1,2-Dibromoethane	ND	1	5	0.26	ug/L	03/21/04 AM
8260B	1,2-Dichloroethane	31	1	5	0.17	ug/L	03/21/04 AM
8015	TEPH Diesel	0.14	1	0.1	0.040	mg/L	03/19/04 AF
Surrogates						**Units**	**Control Limits**
8015	o-Terphenyl (sur)	121				%	55 - 200

EQL = Estimated Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor
ND = Not detected below indicated MDL, J=Trace, S=Surrogate Outside Control Limits

Order #: 505159 **Client Sample ID:** MW-3

Matrix: WATER

Date Sampled: 03/11/2004
Time Sampled: 11:45

Method	Analyte	Result	DF	EQL	MDL	Units	Date/Analyst
8021B/AVO	Benzene	82	5	1.5	0.04	ug/L	03/15/04 LZ
8021B/AVO	Ethyl benzene	46	5	1.5	0.02	ug/L	03/15/04 LZ
TPH-DHS	Gasoline	5490	5	250.0	15	ug/L	03/15/04 LZ
8021B/AVO	Methyl t - butyl ether	249	5	25.0	0.03	ug/L	03/15/04 LZ
8021B/AVO	Toluene	34	5	1.5	0.02	ug/L	03/15/04 LZ
8021B/AVO	Xylene (total)	49	5	3.0	0.06	ug/L	03/15/04 LZ

Surrogates						Units	Control Limits
TPH-DHS	a,a,a-Trifluorotoluene	200				%	55 - 200
8021B/AVO	a,a,a-Trifluorotoluene	200 S				%	70 - 130

8015	TEPH Diesel	0.50	1	0.1	0.040	mg/L	03/19/04 AF

Surrogates						Units	Control Limits
8015	o-Terphenyl (sur)	118				%	55 - 200

EQL = Estimated Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor
ND = Not detected below indicated MDL, J=Trace, S=Surrogate Outside Control Limits

Order #: 505160 **Client Sample ID:** MW-1

Matrix: WATER

Date Sampled: 03/11/2004
Time Sampled: 12:20

Method	Analyte	Result	DF	EQL	MDL	Units	Date/Analyst
8021B/AVO	Benzene	483	50	15.0	0.04	ug/L	03/15/04 LZ
8021B/AVO	Ethyl benzene	122	5	1.5	0.02	ug/L	03/15/04 LZ
TPH-DHS	Gasoline	11300	5	250.0	15	ug/L	03/15/04 LZ
8021B/AVO	Methyl t - butyl ether	67	5	25.0	0.03	ug/L	03/15/04 LZ
8021B/AVO	Toluene	97	5	1.5	0.02	ug/L	03/15/04 LZ
8021B/AVO	Xylene (total)	452	5	3.0	0.06	ug/L	03/15/04 LZ
Surrogates						**Units**	**Control Limits**
8021B/AVO	a,a,a-Trifluorotoluene	242*				%	70 - 130
TPH-DHS	a,a,a-Trifluorotoluene	242*				%	55 - 200
8260B	1,2-Dibromoethane	ND	1	5	0.26	ug/L	03/21/04 AM
8260B	1,2-Dichloroethane	ND	1	5	0.17	ug/L	03/21/04 AM
8015	TEPH Diesel	1.1	1	0.1	0.040	mg/L	03/19/04 AF
Surrogates						**Units**	**Control Limits**
8015	o-Terphenyl (sur)	109				%	55 - 200

EQL = Estimated Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor
ND = Not detected below indicated MDL, J=Trace, S=Surrogate Outside Control Limits

Order #: 505161 **Client Sample ID** MW-5

Matrix: WATER

Date Sampled: 03/11/2004
Time Sampled: 13:00

Method	Analyte	Result	DF	EQL	MDL	Units	Date/Analyst
8021B/AVO	Benzene	867	100	30.0	0.04	ug/L	03/16/04 LZ
8021B/AVO	Ethyl benzene	305	10	3.0	0.02	ug/L	03/16/04 LZ
TPH-DHS	Gasoline	20700	10	500.0	15	ug/L	03/16/04 LZ
8021B/AVO	Methyl t - butyl ether	145	10	50.0	0.03	ug/L	03/16/04 LZ
8021B/AVO	Toluene	266	10	3.0	0.02	ug/L	03/16/04 LZ
8021B/AVO	Xylene (total)	678	100	60.0	0.06	ug/L	03/16/04 LZ
Surrogates						**Units**	**Control Limits**
8021B/AVO	a,a,a-Trifluorotoluene	105				%	70 - 130
TPH-DHS	a,a,a-Trifluorotoluene	105				%	55 - 200
8260B	1,2-Dibromoethane	ND	3	12.5	0.26	ug/L	03/21/04 AM
8260B	1,2-Dichloroethane	ND	3	12.5	0.17	ug/L	03/21/04 AM
8015	TEPH Diesel	0.85	1	0.1	0.040	mg/L	03/19/04 AF
Surrogates						**Units**	**Control Limits**
8015	o-Terphenyl (sur)	120				%	55 - 200

EQL = Estimated Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor
ND = Not detected below indicated MDL, J=Trace, S=Surrogate Outside Control Limits

Order #: 505162 **Client Sample ID**: Laboratory Method Blank

Matrix: WATER

Method	Analyte	Result	DF	EQL	MDL	Units	Date/Analyst
8021B/AVO	Benzene	ND	1	0.3	0.04	ug/L	03/15/04 LZ
8021B/AVO	Ethyl benzene	ND	1	0.3	0.02	ug/L	03/15/04 LZ
TPH-DHS	Gasoline	ND	1	50	15	ug/L	03/15/04 LZ
8021B/AVO	Methyl t - butyl ether	ND	1	5	0.03	ug/L	03/15/04 LZ
8021B/AVO	Toluene	ND	1	0.3	0.02	ug/L	03/15/04 LZ
8021B/AVO	Xylene (total)	ND	1	0.6	0.06	ug/L	03/15/04 LZ
Surrogates						**Units**	**Control Limits**
8021B/AVO	a,a,a-Trifluorotoluene	93				%	70 - 130
TPH-DHS	a,a,a-Trifluorotoluene	93				%	55 - 200
8260B	1,2-Dibromoethane	ND	1	5	0.26	ug/L	03/21/04 AM
8260B	1,2-Dichloroethane	ND	1	5	0.17	ug/L	03/21/04 AM
8015	TEPH Diesel	ND	1	0.1	0.040	mg/L	03/18/04 AF
Surrogates						**Units**	**Control Limits**
8015	o-Terphenyl (sur)	138				%	55 - 200

EQL = Estimated Quantitation Limit, MDL = Method detection limit, DF = Dilution Factor
ND = Not detected below indicated MDL, J=Trace, S=Surrogate Outside Control Limits

ASSOCIATED LABORATORIES

LCS REPORT FORM - METHOD 8260 / 624 / 524.2

C Sample: LCS/LCSD - Water Samples

Analysis Date: 03/21/04

Applies to: LR 126118, 126282, 126059, 126331

eporting Units = ug/L

ab Controlled Spike / Lab Controlled Spike Duplicate

Test	Sample Result	Spike Added	LCS Spike	LCS Spk. Dup	%Rec LCS	%Rec LCS D	RPD	QC Limits RPD	QC Limits %REC
-Dichloroethene	ND	50	51.16	51.58	102	103	1	22	59-172
TBE	ND	50	49.55	50.35	99	101	2	24	62-137
enzene	ND	50	51.85	51.70	104	103	0	24	62-137
chloroethene	ND	50	52.49	53.63	105	107	2	21	66-142
Toluene	ND	50	50.95	51.17	102	102	0	21	59-139
lorobenzene	ND	50	51.12	50.61	102	101	1	21	60-133

Method Blank = All ND

SURROGATE (QC Limits : 70-135)

Compound	MB 3	MB 4	LCS	LCSD
DBFM	92	97	94	97
1,2-DCA	101	104	83	89
Tol-d8	107	116	109	104
p-BFB	96	91	92	93

ASSOCIATED LABORATORIES

QA REPORT FORM - METHOD 8260 / 624 / 524.2

QC Sample: MS / MSD - Water Samples 126152-602

Analysis Date: 03/18/04 12:42 PM

Applies to: LR 126102, 126152, 126146, 126059, 126282, 126138, 126343, 126116, 126117, 126118

Reporting Units = ug/L

Matrix Spike / Matrix Spike Duplicate

Test	Sample Result	Spike Added	Matrix Spike	Matrix Spk. Dup	%Rec MS	%Rec MSD	RPD	QC Limits RPD	QC Limits %REC
1,1-Dichloroethene	ND	25.0	27.38	24.79	110	99	10	22	59-172
MTBE	ND	25.0	17.98	19.28	72	77	7	24	62-137
Benzene	ND	25.0	24.64	26.58	99	106	8	24	62-137
Trichloroethene	ND	25.0	27.46	27.82	110	111	1	21	66-142
Toluene	ND	25.0	30.32	28.17	121	113	7	21	59-139
Chlorobenzene	ND	25.0	27.38	27.78	110	111	1	21	60-133

QC Sample: LCS
Analysis Date: 03/19/04 7:22 AM

LCS RECOVERY / METHOD BLANK

Test	Sample Result	Spike Added	LCS Spike	%Rec LCS	QC Limits %REC
1,1-Dichloroethene	ND	50	54.74	109	59-172
MTBE	ND	50	42.64	85	62-137
Benzene	ND	50	47.84	96	62-137
Trichloroethene	ND	50	59.26	119	66-142
Toluene	ND	50	57.25	115	59-139
Chlorobenzene	ND	50	51.17	102	60-133

Method Blank = All ND

SURROGATE (QC Limits : 70-135)

Compound	MB 1	MB 2	MS	MSD	LCS
DBFM	83	92	92	91	91
1,2-DCA	81	96	74	79	84
Tol-d8	116	112	112	105	108
p-BFB	102	102	90	89	90

ASSOCIATED LABORATORIES

LCS REPORT FORM

QC Sample: LCS / LCSD

Matrix: WATER

Prep. Date: 03/15/04

Analysis Date: 03/15/04-03/16/04

LAB ID#'s in Batch: LR 126059

REPORTING UNITS = ug/L

PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS

Test	Method	PREP. BLK	LCS			LCSD	
		Value	Result	TRUE	%Rec	Result	%Rec
Benzene	8021	ND	20.40	20	102	19.00	95
Toluene	8021	ND	20.60	20	103	19.00	95
Ethylbenzene	8021	ND	20.60	20	103	19.30	97
Xylenes	8021	ND	59.80	60	100	56.80	95

LCS = Lab Control Sample Result
TRUE = True Value of LCS
L.LIMIT / H.LIMIT = LCS Control Limits

L.Limit	H.Limit
80%	120%

SURROGATE RECOVERY

Sample No.	AAA-TFT
QC Limit	55-200
Method Blank	93
LCS	97
LCSD	100

AAA-TFT = a,a,a-Trifluorotoluene

ASSOCIATED LABORATORIES
QA REPORT FORM

QC Sample: LCS / LCSD

Matrix: WATER

Prep. Date: 03/15/04

Analysis Date: 03/15/04-03/16/04

ID#'s in Batch: LR 126059

Reporting Units = ug/L

PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS

			PREP BLK					
			Value	Result	True	%Rec	L.Limit	H.Limit
Test	Method	LCS	ND	522	500	104	80%	120%
TPH	8015M-G	LCSD	ND	530	500	106	80%	120%

LCS Result = Lab Control Sample Result
True = True Value of LCS
L.Limit / H.Limit = LCS Control Limits

SURROGATE RECOVERY

Sample No.	AAA-TFT
QC Limit	55-200
Method Blank	93
LCS	148
LCSD	143

AAA-TFT = a,a,a-Trifluorotoluene

ASSOCIATED LABORATORIES
LCS REPORT FORM

QC Sample: LCS/LCSD

Matrix: WATER

Extraction Method : 3510 B

Prep. Date: 03/17/04

Analysis Date: 03/18/04

ID#'s in Batch: LR 126209, 126009,1 26100, 126059, 126116, 126117, 126118, 126033

Reporting Units = mg/L

PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS

			PREP BLK					
			Value	Result	True	%Rec	L.Limit	H.Limit
Test	Method	LCS	ND	0.86	1	86	70%	130%
DIESEL	8015D	LCSD	ND	0.81	1	81	70%	130%

LCS Result = Lab Control Sample Result
True = True Value of LCS
L.Limit / H.Limit = LCS Control Limits

SURROGATE RECOVERY

Sample No.	O-Terphenyl
QC Limit	55-200
Method Blank	138
LCS	165
LCSD	168

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92868-1225 - 714/771-6900 FAX 714/538-1209

Cooler Receipt Form

Client: Stellar Project: _____

Date Cooler Received: 3/12/04 Date Cooler Opened: 3/12/04

Was cooler scanned for presence of radioactivity ? Yes/No
If yes was radioactivity results above 25 cpm ? Yes/No

Was a shipper's packing slip attached to the cooler ? Yes/No

If the cooler had custody seal(s), were thy signed and intact ? Yes/No/Na

Was the cooler packed with: Ice X Ice Packs ____ Bubble wrap ____
Styrofoam ____ Paper ____ None ____ Other ____

Cooler Temperature: 1.0 *
*cooler needs to be received @ 4°C with an acceptable range of 2°- 6 °C

If samples were hand delivered do they meet the temp. criteria, which should be @ 4°C with an acceptable range of 2°- 6 °C ? Yes/No

If no explain: _____

Were all samples sealed in plastic bags ? Yes/No

Did all samples arrive intact ? If no, indicate below. Yes/No

Were all samples labeled correctly ? (ID's Dates, Times) If no, indicate below. Yes/No

Can the tests required be ran with the provided containers, If no indicate below. Yes/No

Was sufficient sample volume sent for all containers ? Yes/No

Were any VOA vials received with head space ? Yes/No/Na

Was the correct preservatives used ? Yes/No/Na
If no, see the pH log for a list of samples containers regarding pH

Any other important information: _____

Receiving Department: _____ Date: 3/12/04

Chain of Custody Record

Lab Job [redacted]

Date

Page ____ of ____

126059

Laboratory: Associated Laboratories Inc
Address: 806 N. Batavia
Orange CA 92868
Tel: 714-771-6900

Project Owner: Glen Poy-Wing
Site Address: 240 W. MacArthur Blvd
Oakland CA
Project Name: Oakland Auto Works
Project Number: 2003-43

Method of Shipment: Golden State Overnight (courier)
Shipment No.: —
Airbill No.: —
Cooler No.: —
Project Manager: Bruce Rucker
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	Analysis Required: TVH-Gas (EPA 8015)	Analysis Required: TEH-Diesel (EPA 8015)	Analysis Required: BTEX + MTBE (EPA 8021)	Analysis Required: EDB + EDC (EPA 8260)	Analysis Required: SO4	Remarks
MW-7		3/11/04	910	H_2O	(a)	YES	(a)	NO		X		X			
MW-4			935							X		X			
MW-8			955							X	X	X			
MW-2			1035							X	X	X			
MW-6			1100							X	X	X	X		
MW-3			1145							X	X	X			
MW-1			1220							X	X	X	X		
MW-5			1300							X	X	X	X		

Relinquished by	Date	Received by	Date	Relinquished by	Date	Received by	Date
Signature: John DeJong	3/11/04	Signature: B.M. Rucker	3/11/04	Signature:		Signature: Ryan Lewis	3/12
Printed: John DeJong	Time: 1600	Printed: Bruce Rucker	Time: 1600	Printed: Joe Diman	Time	Printed: Ryan Lewis	Time: 9:40
Company: BTS		Company: Stellar Env. Solutions		Company: Stellar Env. Solutions		Company: Assoc Labs	

Turnaround Time:

Comments: (a) 40 mL VOA VIALS w/ HCl preservative + 1-L Amber glass unpreserved

All SAMPLES COLLECTED AFTER well purging.

Relinquished by	Date	Received by	Date
Signature:		Signature:	Time: 1:20
Printed:	Time	Printed:	Time
Company:		Company:	

2000-00-01

★ Stellar Environmental Solutions

Samples shipped overnight via Golden State Overnight

2198 Sixth Street #201, Berkeley, CA 94710

Historical Groundwater Monitoring Well Groundwater Analytical Results
Petroleum and Aromatic Hydrocarbons
240 W. MacArthur Boulevard, Oakland, Alameda, California
(all concentrations in µg/L)

Well Purged?	Sampling Event No.	Date Sampled	TVH-g	TEH-d	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
MW-1									
Yes	1	Aug-97	1,140	*< 1,000*	110	16	15	112	*NA*
Yes	2	Dec-97	*ND*	*NA*	*ND*	*ND*	*ND*	31	*NA*
Yes	3	Mar-98	370	*NA*	8.9	*< 0.5*	*< 0.5*	2.2	18
Yes	4	Jul-98	6,400	*NA*	1,300	23	3.7	58	97
Yes	5	Oct-98	2,500	*NA*	360	44	1.3	150	*< 0.5*
Yes	6	Jan-99	2,700	*NA*	1,200	28	140	78	130
(a)	7	Jun-00	27,000	*NA*	5,200	500	320	3,100	1,300
(a)	8	Dec-00	976,000	*NA*	2,490	1,420	3,640	10,100	*< 150*
(a)	9	Feb-01	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
(a)	10	May-01	20,000	*NA*	2,900	310	230	1,900	*< 30*
(a)	11	Jul-01	92,000	*NA*	2,900	580	2,800	20,000	560
Pre"hi-vac"	12	Oct 22-01	20,000	*NA*	3,700	560	410	4,600	2,600
Post "hi-vac"	12	Oct 26-01	*< 0.05*	*NA*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*
(a)	13	Dec-01	3,300	*NA*	200	12	5.7	43	44
No	14	Mar-02	4,600	*NA*	820	4.4	100	300	210
No	15	May-02	1,600	*NA*	100	23	20	190	7.7
No	16	Jul-02	2,300	*NA*	250	15	13	180	180
No	17	Oct-02	1,820	*NA*	222	16	*< 0.3*	59	58
No	18	Jan-03	2,880	*NA*	188	*< 50*	*< 50*	157	20
No	19	Mar-03	6,700	*NA*	607	64	64	288	*< 0.18*
No	20	Aug-03	4,900	5,000	740	45	85	250	14
Pre-Purge	21	Dec-03	5,060	400	654	11	79	92	129
Post-Purge	21	Dec-03	8,930	800	1,030	55	127	253	212
Yes	22	Mar-04	11,300	1,100	483	97	122	452	67
MW-2									
Yes	1	Aug-97	5,350	*< 1,000*	108	36	33	144	*NA*
Yes	2	Dec-97	1,600	*NA*	73	*ND*	*ND*	*ND*	*NA*
Yes	3	Mar-98	3,400	*NA*	830	100	210	240	870
Yes	4	Jul-98	3,100	*NA*	25	2.2	*< 0.5*	0.9	1,900
Yes	5	Oct-98	4,300	*NA*	*< 0.5*	1.2	*< 0.5*	1	4,200
Yes	6	Jan-99	2,900	*NA*	160	8.9	6.9	78.4	2,100
(a)	7	Jun-00	2,700	*NA*	200	17	30	16	680
(a)	8	Dec-00	3,020	*NA*	56.7	*< 1.5*	*< 1.5*	*< 3.0*	3,040
(a)	9	Feb-01	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
(a)	10	May-01	720	*NA*	49	*< 3.0*	4.6	*< 3.0*	380
(a)	11	Jul-01	8,400	*NA*	350	44	77	78	550
Pre"hi-vac"	12	Oct 22-01	850	*NA*	170	4.9	5.1	14	260
Post "hi-vac"	12	Oct 26-01	770	*NA*	86	5.5	9.6	8.5	310
(a)	13	Dec-01	1,300	*NA*	9.2	*< 2.0*	*< 2.0*	*< 2.0*	370
No	14	Mar-02	1,300	*NA*	76	3.8	21	15	460
No	15	May-02	320	*NA*	12	1.1	4.6	4.8	160
No	16	Jul-02	1,300	*NA*	130	1.0	9.4	5.6	420
No	17	Oct-02	1,060	*NA*	12	2.2	4.2	3.5	270
No	18	Jan-03	581	*NA*	6.5	*< 5.0*	*< 5.0*	*< 5.0*	130
No	19	Mar-03	1,250	*NA*	*< 0.22*	*< 0.32*	*< 0.31*	*< 0.4*	155
No	20	Aug-03	2,200	730	58	9.2	*< 0.5*	28	240
Pre-Purge	21	Dec-03	2,120	100	45	9.4	9.5	20	289
Post-Purge	21	Dec-03	1,980	100	29	22.0	7.4	13	295
Yes	22	Mar-04	2,700	100	12	16.0	9	12	249

(table continued on next page; footnotes on final page)

Well Purged?	Sampling Event No.	Date Sampled	TVH-g	TEH-d	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
MW-3									
Yes	1	Aug-97	8,500	*< 1,000*	450	30	53	106	*NA*
Yes	2	Dec-97	5,200	*NA*	180	6.0	5.0	9.3	*NA*
Yes	3	Mar-98	1,000	*NA*	6.0	*< 0.5*	*< 0.5*	*< 0.5*	810
Yes	4	Jul-98	6,400	*NA*	490	57	23	78	220
Yes	5	Oct-98	2,100	*NA*	*< 5.0*	*< 5.0*	*< 5.0*	*< 5.0*	2,100
Yes	6	Jan-99	4,400	*NA*	450	65	26	42	1,300
(a)	7	Jun-00	1,700	*NA*	110	13	34	13	96
(a)	8	Dec-00	5,450	*NA*	445	*< 7.5*	23.8	*< 7.5*	603
(a)	9	Feb-01	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
(a)	10	May-01	1,900	*NA*	180	12	*< 3.0*	19	330
(a)	11	Jul-01	10,000	*NA*	830	160	150	260	560
Pre"hi-vac"	12	Oct 22-01	1,400	*NA*	240	7.8	4.1	15	220
Post "hi-vac"	12	Oct 26-01	1,900	*NA*	200	16	51	30	290
(a)	13	Dec-01	5,800	*NA*	93	*< 20*	31	*< 20*	330
No	14	Mar-02	1,900	*NA*	220	16	31	24	400
No	15	May-02	1,600	*NA*	110	3.4	29	14	320
No	16	Jul-02	1,900	*NA*	210	27	30	55	200
No	17	Oct. 2002	3,030	*NA*	178	19	6.2	36	178
No	18	Jan-03	2,980	*NA*	47	*< 5.0*	7.6	6.3	105
No	19	Mar-03	3,620	*NA*	124	*< 0.32*	22	12	139
No	20	Aug-03	3,800	2,400	170	28	31	31	170
Pre-Purge	21	Dec-03	5,550	400	311	20	41	48	357
Post-Purge	21	Dec-03	6,860	500	312	20	55	58	309
Yes	22	Mar-04	5,490	500	82	34	46	49	249
MW-4									
Yes	1	Aug-97	*< 500*	*< 1,000*	*< 0.5*	*< 0.5*	*< 0.5*	*< 1.5*	*NA*
Yes	2	Dec-97	*ND*	*NA*	*ND*	*ND*	*ND*	*ND*	*NA*
Yes	3	Mar-98	*< 50*	*NA*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*
Yes	4	Jul-98	*< 50*	*NA*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*
Yes	5	Oct-98	*< 50*	*NA*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*
Yes	6	Jan-99	*< 50*	*NA*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*
(a)	7	Jun-00	*< 50*	*NA*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*
(a)	8	Dec-00	*< 500*	*NA*	*< 0.3*	*< 0.3*	*< 0.6*	*< 0.3*	*< 0.3*
(a)	9	Feb-01	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
(a)	10	May-01	*< 50*	*NA*	1.2	*< 0.3*	0.55	1.2	2.9
(a)	11	Jul-01	*< 5.0*	*NA*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*
Pre"hi-vac"	12	Oct 22-01	*< 5.0*	*NA*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*
Post "hi-vac"	12	Oct 26-01	*< 5.0*	*NA*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*
(a)	13	Dec-01	*ND*	*NA*	*ND*	*ND*	*ND*	*ND*	*ND*
No	14	Mar-02	*< 50*	*NA*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*
No	15	May-02	*< 50*	*NA*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*
No	16	Jul-02	*< 50*	*NA*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*
No	17	Oct-02	*< 100*	*NA*	*< 0.3*	*< 0.3*	*< 0.3*	*< 0.6*	*< 0.3*
No	18	Jan-03	*< 100*	*NA*	*< 0.3*	*< 0.3*	*< 0.3*	*< 0.6*	14
No	19	Mar-03	*< 15*	*NA*	*< 0.4*	*< 0.02*	*< 0.02*	*< 0.06*	5.2
No	20	Aug-03	*< 50*	*NA*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*
Pre-Purge	21	Dec-03	71	*NA*	*< 0.3*	*< 0.3*	*< 0.3*	*< 0.6*	*< 5.0*
Post-Purge	21	Dec-03	63	*NA*	*< 0.3*	*< 0.3*	*< 0.3*	*< 0.6*	*< 5.0*
Yes	22	Mar-04	*< 50*	*NA*	*< 0.3*	*< 0.3*	*< 0.3*	*< 0.6*	*< 5.0*

(table continued on next page; footnotes on final page)

Well Purged?	Sampling Event No.	Date Sampled	TVH-g	TEH-d	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
MW-5									
(a)	9	Feb-01	5,660	*NA*	76.9	21.1	47.3	312	*< 0.3*
(a)	10	May-01	22,000	*NA*	2,600	480	220	2,700	*< 30*
(a)	11	Jul-01	72,000	*NA*	3,500	1,100	4,300	22,000	2,500
Pre"hi-vac"	12	Oct 22-01	26,000	*NA*	2,800	980	6,000	950	2,300
Post "hi-vac"	12	Oct 26-01	17,000	*NA*	1,200	470	2,900	440	900
(a)	13	Dec-01	2,000	*NA*	620	190	110	910	*< 20*
No	14	Mar-02	8,800	*NA*	1,200	72	7.4	350	1,200
No	15	May-02	2,000	*NA*	150	38	21	260	13
No	16	Jul-02	4,200	*NA*	480	68	29	280	450
No	17	Oct-02	5,370	*NA*	236	45	23	39	135
No	18	Jan-03	8,270	*NA*	615	156	174	1,010	*< 10*
No	19	Mar-03	12,400	*NA*	824	195	213	1,070	*< 0.18*
No	20	Aug-03	18,000	10,000	950	290	330	1,820	*< 2.0*
Pre-Purge	21	Dec-03	12,800	600	1,140	327	354	1,530	682
Post-Purge	21	Dec-03	11,900	800	627	263	288	1,230	595
Yes	22	Mar-04	20,700	850	867	266	305	678	145
MW-6									
(a)	9	Feb-01	1,340	*NA*	17	0.967	11.1	51.4	*< 0.3*
(a)	10	May-01	610	*NA*	15	0.97	*< 0.5*	46	*< 0.5*
(a)	11	Jul-01	2,500	*NA*	130	4.7	53	170	120
Pre"hi-vac"	12	Oct 22-01	280	*NA*	18	1.2	6.2	4.7	6.0
Post "hi-vac"	12	Oct 26-01	3,600	*NA*	210	20	170	62	120
(a)	13	Dec-01	5,300	*NA*	69	5.6	14	17	*< 2.0*
No	14	Mar-02	71	*NA*	54	4.2	27	17	8.5
No	15	May-02	150	*NA*	9.3	*< 0.5*	*< 0.5*	*< 0.5*	1.5
No	16	Jul-02	2,200	*NA*	98	32	46	150	66
No	17	Oct-02	786	*NA*	48	5.0	2.2	44	16
No	18	Jan-03	497	*NA*	6.8	*< 5.0*	*< 5.0*	11	*< 1.0*
No	19	Mar-03	258	*NA*	5.4	*< 0.32*	3.3	*< 1.1*	*< 0.18*
No	20	Aug-03	1,600	2,800	37	4.1	23	58	*< 0.5*
Pre-Purge	21	Dec-03	444	100	4.7	4.9	1.8	5.9	4.4
Post-Purge	21	Dec-03	365	200	2.5	3.8	1.4	6.1	*< 5.0*
Yes	22	Mar-04	215	140	4.0	1.2	1.4	1.4	3.7
MW-7									
(a)	9	Feb-01	*ND*	*NA*	*ND*	*ND*	*ND*	*ND*	*ND*
(a)	10	May-01	*< 50*	*NA*	0.75	0.77	0.48	2.4	1.1
(a)	11	Jul-01	*< 5.0*	*NA*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*
Pre"hi-vac"	12	Oct 22-01	*< 5.0*	*NA*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*
Post "hi-vac"	12	Oct 26-01	6,000	*NA*	170	550	110	120	970
(a)	13	Dec-01	*< 50*	*NA*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	43
No	14	Mar-02	*< 50*	*NA*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
No	15	May-02	*< 50*	*NA*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*
No	16	Jul-02	*< 50*	*NA*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*
No	17	Oct-02	*< 100*	*NA*	*< 0.3*	*< 0.3*	*< 0.3*	*< 0.6*	*< 5.0*
No	18	Jan-03	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
No	19	Mar-03	*< 15*	*NA*	*< 0.04*	*< 0.02*	*< 0.02*	*< 0.06*	*< 0.03*
No	20	Aug-03	*< 50*	*NA*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*
Pre-Purge	21	Dec-03	*< 50*	*NA*	*< 0.3*	*< 0.3*	*< 0.3*	*< 0.6*	*< 5.0*
Post-Purge	22	Dec-03	*< 50*	*NA*	*< 0.3*	*< 0.3*	*< 0.3*	*< 0.6*	*< 5.0*
Yes	22	Mar-04	86	*NA*	*< 0.3*	*< 0.3*	*< 0.3*	*< 0.6*	57

(table continued on next page; footnotes on final page)

Well Purged?	Sampling Event No.	Date Sampled	TVH-g	TEH-d	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
MW-8									
(a)	9	Feb-01	1,000	*NA*	3.97	< 0.3	3.78	1.63	620
(a)	10	May-01	*< 50*	*NA*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	4.4
(a)	11	Jul-01	*< 5.0*	*NA*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*
Pre"hi-vac"	12	Oct 22-01	*< 5.0*	*NA*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*
Post "hi-vac"	12	Oct 26-01	*< 5.0*	*NA*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*
(a)	13	Dec-01	*< 50*	*NA*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*
No	14	Mar-02	*< 50*	*NA*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*	*< 1.0*
No	15	May-02	*< 50*	*NA*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*
No	16	Jul-02	*< 50*	*NA*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*
No	17	Oct-02	458	*NA*	1.7	*< 0.3*	*< 0.3*	*< 0.6*	233
No	18	Jan-03	*< 100*	*NA*	*< 0.3*	*< 0.3*	*< 0.3*	*< 0.6*	*< 5.0*
No	19	Mar-03	*< 15*	*NA*	*< 0.22*	*< 0.32*	*< 0.31*	*< 0.4*	*< 0.18*
No	20	Jul-03	190	*< 50*	*< 0.5*	*< 0.5*	*< 0.5*	0.6	*< 0.5*
Pre-Purge	21	Dec-03	144	*< 100*	*< 0.3*	*< 0.3*	*< 0.3*	*< 0.6*	7.6
Post-Purge	21	Dec-03	163	*< 100*	*< 0.3*	*< 0.3*	*< 0.3*	*< 0.6*	66
Yes	22	Mar-04	412	*< 100*	*1.2*	*< 0.3*	1.7	3.9	66
ESLs			**100**	**100**	**1.0**	**40**	**30**	**13**	**5.0**

Notes:

(a) Data not available to SES as to whether the samples were collected "post-purge" or without purging.

"No Purge" means no purging was conducted before the groundwater sample was collected.

ESLs = Regional Water Quality Control Board Risk-Based Environmental Levels (see "Regulatory Considerations" text for applicable criteria)

TVH-g = Total volatile hydrocarbons – gasoline range. TEH-d – Total extractable hydrocarbons – diesel range.

NA = Not analyzed for this constituent in this event.

ND = Not Detected (method reporting limit not specified in information available to SES).

Historical Groundwater Monitoring Well Groundwater Analytical Results
Fuel Oxygenates and VOCs
240 W. MacArthur Boulevard, Oakland, California
(all concentrations in µg/L)

Well I.D.	Sampling Event No.	Date Sampled	EDB	EDC	1,2,4-TMB	1,3,5-TMB	t-Butanol	TBA	Naphthalene	cis-1,2-DCE	TCE	PCE	Others
MW-1	7	Jun-00	NA	NA	51	< 5	< 1,000	NA	<5	< 5	< 5	< 5	ND
	14	Mar-02	NA	NA	< 1	1.6	< 10	NA	< 1	< 1	< 1	< 1	ND
	18	Jan-03	NA	NA	150	< 50	NA	68	< 50	< 50	< 50	< 50	ND
	19	Mar-03	NA	NA	373	< 0.49	NA	< 10	< 0.88	< 0.30	< 0.23	< 0.36	ND
	20	Aug-03	< 1.0	7.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
	21	Dec-03	< 5.0	< 5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	22	Mar-04	< 0.26	< 0.17	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-2	7	Jun-00	NA	NA	< 0.5	< 0.5	< 100	NA	< 0.5	< 0.5	< 0.5	< 0.5	ND
	14	Mar-02	NA	NA	< 1	< 1	220	NA	< 1	< 1	< 1	< 1	ND
	18	Jan-03	NA	NA	< 5	< 5	NA	34	< 5	24	< 5	< 5	ND
	19	Mar-03	NA	NA	< 0.49	< 0.26	NA	94	< 0.88	15	< 0.23	< 0.36	ND
	21	Dec-03	< 0.6	< 0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
	20	Aug-03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	21	Dec-03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	22	Mar-04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	7	Jun-00	NA	NA	< 0.5	< 0.5	< 100	NA	< 0.5	< 0.5	< 0.5	< 0.5	ND
	14	Mar-02	NA	NA	2	4.7	180	NA	2.2	< 1	< 1	< 1	ND
	18	Jan-03	NA	NA	< 5	5.0	NA	76	< 5	21	< 5	< 5	(a)
	19	Mar-03	NA	NA	< 0.49	< 0.26	NA	< 10	< 0.88	24	< 0.23	< 0.36	ND
	20	Aug-03	< 0.5	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
	21	Dec-03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	22	Mar-04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	7	Jun-00	NA	NA	< 0.5	< 0.5	< 100	NA	< 0.5	< 0.5	< 0.5	< 0.5	ND
	14	Mar-02	NA	NA	< 1	< 1	< 10	NA	< 1	2.9	3.7	5.0	ND
	18	Jan-03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
	19	Mar-03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
	20	Aug-03	< 0.5	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
	21	Dec-03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	22	Mar-04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-5	14	Mar-02	NA	NA	< 1	2.7	640	NA	< 1	< 1	< 1	< 1	ND
	18	Jan-03	NA	NA	512	122	NA	< 100	120	< 50	< 50	< 50	ND
	19	Mar-03	NA	NA	554	107	NA	< 10	251	< 0.3	< 0.23	< 0.36	(b)
	20	Aug-03	< 2.0	6.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
	21	Dec-03	< 5.0	< 5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	22	Mar-04	< 0.26	< 0.17	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-6	14	Mar-02	NA	NA	< 1	2.2	< 10	NA	1.6	< 1	< 1	< 1	ND
	18	Jan-03	NA	NA	13	< 5	NA	46	< 5	< 5	< 5	< 5	ND
	19	Mar-03	NA	NA	< 0.49	< 0.26	NA	40	< 0.88	< 0.3	< 0.23	< 0.36	(c.)
	20	Aug-03	< 0.5	12.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	21	Dec-03	< 5.0	11 / 17.1 [d]	NA	NA	NA	NA	NA	NA	NA	NA	NA
	22	Mar-04	< 0.26	31	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-7	14	Mar-02	NA	NA	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	ND
	18	Jan-03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
	19	Mar-03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
	20	Aug-03	< 0.5	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
	21	Dec-03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	22	Mar-04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-8	14	Mar-02	NA	NA	< 1	< 1	< 10	NA	< 1	< 1	< 1	< 1	ND
	18	Jan-03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
	19	Mar-03	NA	NA	< 0.49	< 0.26	NA	< 10	< 0.88	< 0.3	< 0.23	< 0.36	ND
	20	Aug-03	< 0.5	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
	21	Dec-03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	22	Mar-04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Groundwater ESLs			**NLP**	**NLP**	**NLP**	**NLP**	**NLP**	**NLP**	**21**	**5.0**	**5.0**	**5.0**	**NLP**

Notes:
Table includes only detected contaminants
EDB = Ethylene dibromide, aka 1,2-Dibromoethane (lead scavenger)
EDC = Ethylene dichloride, aka 1,2-Dichloroethane (lead scavenger)
PCE = Tetrachloroethylene DCE = Dichloroethylene TBA = Tertiary butyl alcohol
TCE = Trichloroethyene TMB = Trimethylbenzene
(a) Also detected were: isopropyl ether (DIPE - 2.0 mg/l); n-propylbenzene (5.4 mg/L); p-Isopropyltoluene (14 mg/L); sec-Butylbenzene (7.2 mg/L)
(b) Also detected were: isopropylbenzene (38 mg/L); n-Butylbenzene (20 mg/L); n-propylbenzene (36 mg/L); p-Isopropyltoluene (14 mg/L).
(c.) Also detected were: isopropylbenzene (3.4 mg/L); n-propylbenzene (2.3 mg/L).
(d) Pre-purge / post-purge sampling, conducted in same event.
ESLs = Regional Water Quality Control Board Risk-Based Environmental Levels (see "Regulatory Considerations" text for applicable criteria)
NA = Not analyzed for this constituent. ND = Not Detected NLP = No Level Published