SECOND SEMIANNUAL 2011 GROUNDWATER MONITORING REPORT

240 W. MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

Prepared for:

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

October 2011

STELLAR
ENVIRONMENTAL SOLUTIONS, INC.
GEOSCIENCE & ENGINEERING CONSULTING

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October 7, 2011

Mr. Jerry Wickham
Hazardous Materials Specialist
Alameda County Environmental Health Department
Local Oversight Program
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Subject: Second Semiannual 2011 Groundwater Monitoring Report
Oakland Auto Works Facility – 240 W. MacArthur Boulevard, Oakland, California
Alameda County Environmental Health Department Fuel Leak Case No. RO0000142

Dear Mr. Wickham:

Enclosed is the Stellar Environmental Solutions, Inc., (Stellar Environmental) report summarizing recent activities conducted at the referenced site. This report presents the findings of the Second Semiannual 2011 groundwater monitoring event conducted on September 23, 2011. This is the 46th groundwater monitoring event since August 1997. Quarterly groundwater monitoring conducted since August 1997 had adequately shown the groundwater and contaminant trends; therefore, in January 2009 Alameda County Environmental Health Department (ACEH) in concurrence with Stellar Environmental reduced the monitoring frequency from a quarterly to a semiannual basis. Site remedition by soil vapor extraction has been approved by ACEH and a detailed budget has been submitted to theWater Board.

This report was uploaded to both the State Water Board's GeoTracker system and the ACEH electronic upload "ftp" system. We declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of our knowledge.

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

Sincerely,

Henry Pietropaoli
Senior Geologist

Mr. Glen Poy-Wing
Property owner and Responsible Party

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

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Project No. 2003-43

TABLE OF CONTENTS

Tables **Page**

Figures **Page**

1.0 INTRODUCTION

PROJECT BACKGROUND

The subject property, located at 240 W. MacArthur Boulevard, Oakland, Alameda County, California, is owned by Mr. and Ms. Glen Poy-Wing of Oakland Auto Works, for whom Stellar Environmental Solutions, Inc. (Stellar Environmental) 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. This report presents finding for the 44th site groundwater monitoring event since monitoring began in August 1997.

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

The previous consultant requested site closure in March 2003 (AEC, 2003a). ACEH received that request and, in a letter dated April 16, 2003, requested additional site characterization prior to considering case closure. That work was subsequently conducted by Stellar Environmental, and was summarized in our April 2004 Soil and Groundwater Investigation Report (Stellar Environmental, 2004c). In December 2004, Stellar Environmental submitted a workplan for interim remedial action (including additional site characterization and an evaluation of soil vapor extraction as an interim corrective action). ACEH responded to that workplan in its March 2006 letter (Water Board, 2006), approving the work (with minor technical revisions). The December 2004 workplan was implemented in May 2007 and presented in a separate technical report, dated August 1, 2007. ACEH responded in its letter dated August 24, 2007 requesting a workplan for

the installation and operation of a soil vapor extraction (SVE) system. The SVE system design was submitted by Stellar Environmental to ACEH, and was approved by ACEH in its letter dated October 5, 2007; the letter included a request for a SVE System Start-Up Report by March 10, 2008. Implementation of SVE remediation has been delayed indefinitely by the property owner due to financial considerations. The delay has been tentatively approved by ACEH who has requested to be kept apprised of the situation every 6 months. As of January 2009, ACEH in concurrence with Stellar Environmental reduced the monitoring frequency from a quarterly to a semiannual basis. In a letter dated July 1 2010 ACEH reiterated its approval for the SVE remedy to be implemented to address the persistent concentrations around the source area and requested a schedule to complete the work. Per the Stellar Environmental letter submitted to ACEH on September 24, 2010, the frequency has been further reduced to annual sampling.

The site is in compliance with State Water Resources Control Board's "GeoTracker" requirements for uploading of technical data and reports. In addition, electronic copies of technical documentation reports published since the Second Quarter of 2005 have been uploaded to ACEH's file transfer protocol (ftp) system.

The site has been granted a Letter of Commitment (and has been receiving financial reimbursement) from the California Underground Storage Tank Cleanup Fund.

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*).

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

240 W. MacArthur Blvd. Oakland, CA	By: MJC	APRIL 2007
	Figure 1	

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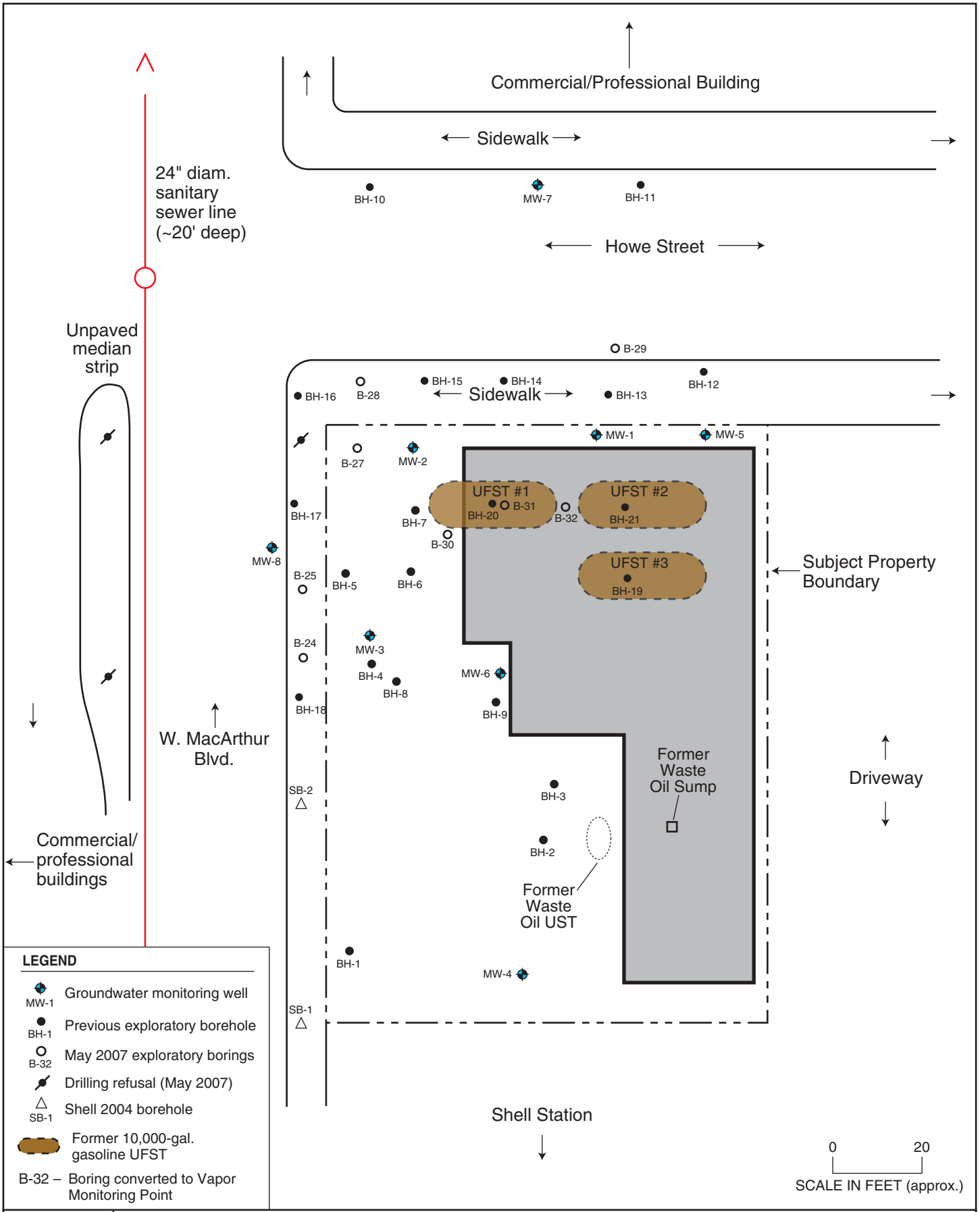

SITE PLAN WITH BOREHOLE AND GROUNDWATER WELL LOCATIONS

240 W. MacArthur Blvd. Oakland, CA	By: MJC	DECEMBER 2010
	Figure 2	

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2003-43-155

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 ACEH files. Figure 2 shows the site plan with the current groundwater well and former underground fuel storage tank (UFST) locations.

Historical remediation and site characterization activities include:

- **Pre-1991.** Three 10,000-gallon gasoline UFSTs from a former Gulf service station occupancy were removed prior to 1991 (there is no available documentation regarding the removals).
- **1991.** A waste oil sump was removed. Limited over-excavation was conducted, and there was no evidence of residual soil contamination, with the exception of 360 milligrams per kilogram (mg/kg) of petroleum oil & grease (Mittelhauser Corporation, 1991b).
- **1996.** A 350-gallon waste oil UFST was removed. Elevated levels of diesel and oil & grease were detected in confirmation soil samples. Subsequent over-excavation was conducted, and there was no evidence of residual soil contamination (All Environmental, Inc., 1997a).
- **January 1997.** In accordance with a request by ACEH, a subsurface investigation was conducted (All Environmental, Inc., 1997b). Six exploratory boreholes were advanced to a maximum depth of 20 feet, and soil samples were collected.
- **August 1997.** Additional site characterization was conducted. This included sampling of three boreholes, installation of four groundwater monitoring wells, and the initial groundwater sampling event.
- **February 2001.** Four additional groundwater monitoring wells were installed. Maximum historical soil concentrations were detected in well MW-5 in the northeastern corner of the subject property: 11,700 mg/kg of gasoline and 25.6 mg/kg of benzene (AEC, 2001b).
- **October 2001.** Short-term (less than 1-day duration) groundwater and vapor extraction from five wells was conducted over 4 days (AEC, 2001e) (referred to by that consultant as "Hi-Vac" process).
- **2003.** A sensitive receptor and vicinity water well survey was conducted.
- **April 2004.** Additional site characterization was conducted, including: advancing and sampling of 12 exploratory boreholes; analysis of 64 soil and 12 grab-groundwater

sample results; and further evaluation of site hydrogeology and contaminant extent and magnitude.

- **June 2004 to December 2008.** Quarterly groundwater monitoring.
- **May to June 2007.** Additional site characterization and interim remedial action evaluation. This included eight exploratory boreholes; analysis of 8 soil-gas, 18 soil, and 8 grab-groundwater samples; and a 6-hour SVE pilot test.
- **September 2007.** A workplan for installation and operation of a full SVE system was submitted to ACEH on September 28, 2007.
- **October 2007.** ACEH has requested submittal of a SVE System Start-Up Report by March 10, 2008.
- **February 2008.** At the request of the property owner, ACEH agreed to a delay of the implementation of SVE remediation due to the property owner's financial situation. ACEH has requested to be kept apprised of the situation every 6 months.
- **January 2009.** Quarterly groundwater monitoring conducted since August 1997 has adequately shown the groundwater and contaminant trends; therefore, as of January 2009, ACEH in concurrence with Stellar Environmental, reduced the monitoring frequency from a quarterly to a semiannual basis with abbreviated reporting in Q1 and an annual summary to be completed in Q3.
- **July 2010.** ACEH issues a letter reiterated its approval for the SVE remedy to be implemented to address the persistent concentrations around the source area and requests a schedule to complete the work.
- **September 2010.** Semiannual monitoring was reduced to annual monitoring per the letter submitted to ACEH on September 24, 2010.
- **November-December 2010.** A soil vapor sample was collected from inside the "garage" area and at the request of the property owner, the cost for the SVE remediation was revised and rebid after the long delay that ACEH agreed to as a result of the property owner's financial situation.
- **April 2011.** March 2011 First semiannual groundwater monitoring and sampling event.

To date, a total of 46 groundwater monitoring events have been conducted at the site.

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 investigations and groundwater monitoring data collected by Stellar Environmental since 2003.

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 the subject property.

LITHOLOGY

A previous Stellar Environmental report included geologic cross-sections through the area of historical investigations (Stellar Environmental, 2004c). The following summarizes site lithologic conditions.

The unsaturated zone (from ground surface to approximately 20 feet below ground surface [bgs]) consists of interbedded silty/sandy clays with silty/clayey sand, with occasional gravelly zones. In the sand zones, clay and/or silt content is high, and the sand is generally very fine- to fine-grained—such that the unit is, in essence, gradational between a clayey sand and a sandy clay. The most laterally-extensive unsaturated zone unit is a sandy clay encountered between ground surface and approximately 15 feet, locally pinching out and displaying lenticular form. The sediment types and geometry are suggestive of channel deposits, which is a common depositional facies in this area.

Depth to groundwater in all onsite April 2004 boreholes and all May 2007 boreholes was approximately 20 to 21 feet bgs, predominantly in a saturated, loose, clayey sand. The saturated portion of this clayey sand constitutes the bottom of the unit; the saturated zone is approximately

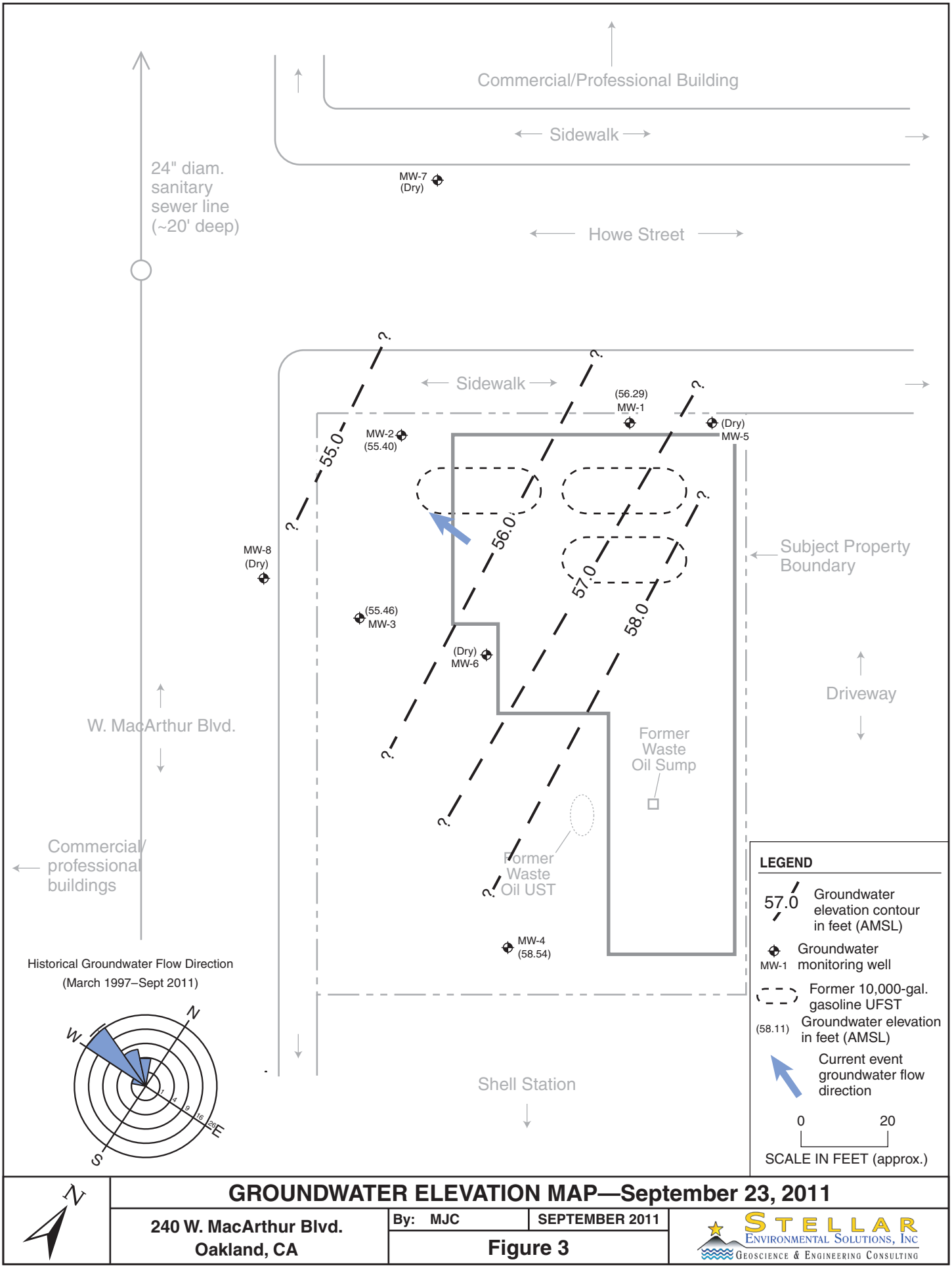
0.5 to 2.5 feet thick, underlain in all boreholes by a cohesive, non-water-bearing clay. The top of this clay was consistently at a depth of approximately 21 to 23 feet. Of the 12 boreholes in the April 2004 investigation, 9 were advanced at least 1.5 feet into this clay before terminating (and not encountering visible moisture or sand). Two boreholes B31 and B32 were advanced to 32 feet bgs in the May 2007 investigation and showed this clay extending from its upper reach of 21 to 23 feet bgs to 32 feet bgs. One of the boreholes in the April 2004 investigation was advanced deeper, documenting a thickness of at least 4.5 feet. The lithologic data (supported by soil sample analytical data from both the 2004 and 2007 investigations) strongly suggest that this clay unit inhibits downward migration of groundwater contamination.

The site lithology is consistent with that documented at the adjacent Shell service station site. Specifically, those boreholes have documented the thin upper, water-bearing zone underlain by the likely non-water-bearing clay unit. In three of the four Shell well boreholes, that clay unit was at least 2 feet thick. In one of the well boreholes, the clay unit was underlain by a saturated clayey sand unit (from approximately 22 to 25.5 feet bgs, which was underlain by a non-water-bearing clay). There are insufficient data to conclude whether the second deepest saturated clayey sand is connected to the shallower site wide saturated zone. The subsequent (March 2004) Shell boreholes SB-1 and SB-2 (between the Shell wells and the subject property) all terminated at 20 feet bgs, which was too shallow to encounter the underlying clay unit.

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, MW-2, MW-3, and MW-4) are screened between approximately 15 and 25 feet bgs, and the other four (MW-5, MW-6, MW-7, and MW -8) are screened at a depth of 10 to 20 feet.

Figure 3 is a groundwater elevation map that shows elevations and contours from the current groundwater monitoring event. Groundwater flow direction in this event was generally to the west, although the data suggest local variations. Subject property groundwater gradient in the current event ranged between approximately 0.02 and 0.03 feet/foot. Historical groundwater gradient has varied between approximately 0.002 and 0.03 feet/foot, averaging approximately 0.015 feet/foot. Groundwater elevation lowered an average of 2.07 feet between April 2011 and the current quarter with the largest decrease of 2.41 feet recorded in MW-2.



GROUNDWATER ELEVATION MAP—September 23, 2011

240 W. MacArthur Blvd. Oakland, CA	By: MJC	SEPTEMBER 2011
	Figure 3	

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2003-43-222

Figure 3 contains 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 17 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 D contains historical site groundwater monitoring well elevation data.

3.0 SEPTEMBER 2011 SEMIANNUAL MONITORING EVENT

This section presents the groundwater sampling and analytical methods for the current event (Semiannual 2011), conducted on September 23, 2011. Table 1 summarizes monitoring well construction and groundwater monitoring data. Groundwater analytical results are presented and discussed in Section 4.0. Monitoring and sampling protocols were in accordance with the Stellar Environmental technical workplan (Stellar Environmental, 2003) submitted to ACEH, and subsequent technical revision requested by ACEH. The 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 ACEH.

Specific activities for this event included:

- Measuring static water levels and field measurements of groundwater during purging for hydrogeochemical parameters (temperature, pH, electrical conductivity and turbidity).
- Collecting "post-purge" groundwater samples from the 4 of the 8 onsite wells for field measurement of the aforementioned hydrogeochemical parameters, and for offsite laboratory analyses for contaminants of concern. Water levels were generally low such that three of the eight wells did not contain enough water to collect samples this quarter.

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 4-inch-diameter. Appendix A 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) under the supervision of Stellar Environmental 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).

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

Well	Well Depth (feet bgs)	Well Screened Interval		Groundwater Level Depth [(a)] September 23, 2011	Groundwater Elevation [(b)] September 23, 2011
		Depth (feet)	Elevation (feet)		
MW-1	25	19.5 to 24.5	54.5 to 49.5	22.86	56.29
MW-2	25	14.5 to 24.5	64.2 to 54.2	23.05	55.40
MW-3	25	14.5 to 24.5	63.4 to 53.4	22.12	55.46
MW-4	25	14.5 to 24.5	63.6 to 53.6	19.20	58.54
MW-5	20	9 to 19	70.6 to 60.6	Dry	NR
MW-6	20	9 to 19	69.7 to 59.7	Dry	NR
MW-7	20	9 to 19	69.6 to 59.6	Dry	NR
MW-8	20	9 to 19	67.7 to 57.7	Dry	NR

Notes:

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

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

NR = not recorded (dry or only residual water in silt trap)

As the first monitoring task, static water levels were measured in the eight site wells using an electric water level indicator. Each well was then purged of three wetted casing volumes, and aquifer stability parameters 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. 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.

Approximately 4 gallons of wastewater (purge water and equipment decontamination rinseate) was containerized in a labeled, 55-gallon steel drum and temporarily stored onsite. This non-hazardous water will continue to be accumulated onsite until it is cost-effective to coordinate its disposal, at which time it will be profiled and disposed of at a permitted wastewater treatment facility.

4.0 REGULATORY CONSIDERATIONS AND ANALYTICAL RESULTS

This section presents analytical results of the most recent monitoring event, preceded by a summary of relevant regulatory considerations.

REGULATORY CONSIDERATIONS

Environmental Screening Levels

The Water Board 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 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 being proposed.

For all site contaminants with published drinking water standards—benzene, toluene, ethylbenzene, and xylenes (BTEX); and methyl *tertiary*-butyl ether (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 a previous report (Stellar Environmental, 2004c), the Department of Water 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 *San Francisco Bay Region Water Quality Control Plan* (Water Board, 2004), all groundwaters are considered potential sources of drinking water unless otherwise approved by the Water Board, 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 Water Board has completed the *East Bay Plain Groundwater Basin Beneficial Use Evaluation Report* (Water Board, 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: an area where groundwater is considered a significant drinking water resource.
2. A site-specific exemption can be obtained from the Water Board. 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 Stellar Environmental technical workplan. Analytical methods included:

- Total volatile hydrocarbons – gasoline range (TVHg), by EPA Method 8015B (all wells);
- BTEX and MTBE, by EPA Method 8260B (all wells except MW-4 and MW-7);
- Total extractable hydrocarbons – diesel range (TEHd), by EPA Method 8015M (all wells except MW-4 and MW-7, which historically have never detected diesel);
- The lead scavengers 1,2-dichloroethane (EDC) and 1,2-dibromoethane (EDB), by EPA Method 8260B (all wells except MW-4 and MW-7, which historically have had little or no site-sourced contamination); and
- The fuel oxygenates *tertiary*-butyl alcohol (TBA), di-isopropyl ether (DIPE), ethyl *tertiary*-butyl ether (ETBE), and *tertiary*-amyl methyl ether (TAME); by EPA Method

8260B (all wells except MW-4 and MW-7, which historically have had little or no site-sourced contamination.

The analytical results for the current event indicate no significant differences from historical analytical results.

GROUNDWATER SAMPLE ANAYLTICAL RESULTS

Tables 2 and 3 summarize the contaminant analytical results of the current monitoring event. Appendix B contains the certified analytical laboratory report and chain-of-custody record. Appendix C contains historical site groundwater monitoring well analytical data.

Gasoline and Diesel

Figure 4 shows gasoline isoconcentration contours for the recent event. Gasoline was detected in all of the four wells sampled with concentrations ranging from 130 micrograms per liter (µg/L) in well MW-4 to 2,100 µg/L in well MW-1, showing a decreasing concentration trend in all wells sampled. The historical highest detection of gasoline was 976,000 µg/L in well MW-1 in December 2000. All of the detected gasoline concentrations exceeded the 100-µg/L residential ESL criterion. The concentration observed in MW-4 this sampling event was 160 µg/L an increase compared to September 2009 not detected below the laboratory detection limit.

Figure 5 shows diesel isoconcentration contours for the recent event. Diesel concentrations have historically been detected at significantly lower levels than gasoline. Diesel was detected in all of the wells in which it was analyzed at concentrations ranging from 840 µg/L (MW-3) to 410 µg/L (MW-1), exceeding the 100-µg/L ESL criterion in all wells in which it was tested. There was decreasing concentration trend in all wells sampled. The diesel plume footprint is similar to that of the gasoline plume, but somewhat smaller. Diesel is known to be present offsite under Howe Street (to the northwest) and under W. MacArthur Boulevard (to the southwest).

Benzene, Toluene, Ethylbenzene, and Total Xylenes

Figure 6 shows benzene isoconcentration contours for the recent event. Benzene was detected in two of the three wells in which it was analyzed for. Detected concentrations ranged from 1.3 µg/L in MW-2 to 200 µg/L in MW-1. All concentrations, with the exception of MW-3 which was below the laboratory detection limit, were in excess of the 1.0-µg/L ESL criterion. The lateral extent of the benzene plume was constrained onsite in three directions in the current event; however, it is known to extend under Howe Street to the northwest (historical concentrations up to approximately 100 µg/L). The benzene plume configuration is generally the same as for gasoline and diesel, but much smaller.

Toluene was detected only in MW-1 and above the ESL of 4.0 µg/L. Toluene was below laboratory detection in wells MW-2 and MW-3.

Ethylbenzene was detected in source area well MW-1 at 16 µg/L and in downgradient well MW-2 at 10 µg/L above the ESL of 30 µg/L. Ethylbenzene was not detected in MW-3.

The ESL criterion of 20 µg/L was exceeded for total xylenes in source area well MW-1 (49 µg/L). Total xylenes were also detected in MW-2, but below the ESL and were not detected in MW-3.

Methyl tertiary-Butyl Ether

Figure 7 shows MTBE isoconcentration contours for the recent event. MTBE was detected in two of the three wells in which it was analyzed for, and in excess of the ESL criteria of 5.0 µg/L. MTBE was below laboratory detection in source well MW-1 indicating that the center mass of the MTBE plume has migrated downgradient from the source area.

The lateral extent of the MTBE plume was constrained onsite in three directions in the current event; however, it is seen to extend to the west underneath W. MacArthur Boulevard. As discussed in previous reports (SES, 2004c), MTBE may be migrating onto the subject property from the adjacent (to the east) Shell-brand service station. This contamination, however, is unrelated to the separate site-sourced MTBE contamination.

Table 2
Groundwater Sample Analytical Results –September 23, 2011
Hydrocarbons, BTEX, and MTBE

Well	TVHg	TEHd	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE
MW-1	**2,100**	**410**	**200**	**10**	16	**49**	*<1.3*
MW-2	**620**	**440**	**1.3**	*<0.5*	10	0.9	**9.1**
MW-3	**660**	**860**	*<0.5*	*<0.5*	*<0.5*	*<0.5*	**9.0**
MW-4	**130**	NA	NA	NA	NA	NA	NA
MW-5	NS	NS	NS	NS	NS	NS	NS
MW-6	NS	NA	NA	NA	NA	NA	NA
MW-7	NS	NS	NS	NS	NS	NS	NS
MW-8	NS	NS	NS	NS	NS	NS	NS
ESLs							
	100 / 210	100 / 210	1.0 / 46	4.0 / 130	30 / 43	20 / 100	5.0 / 1,800

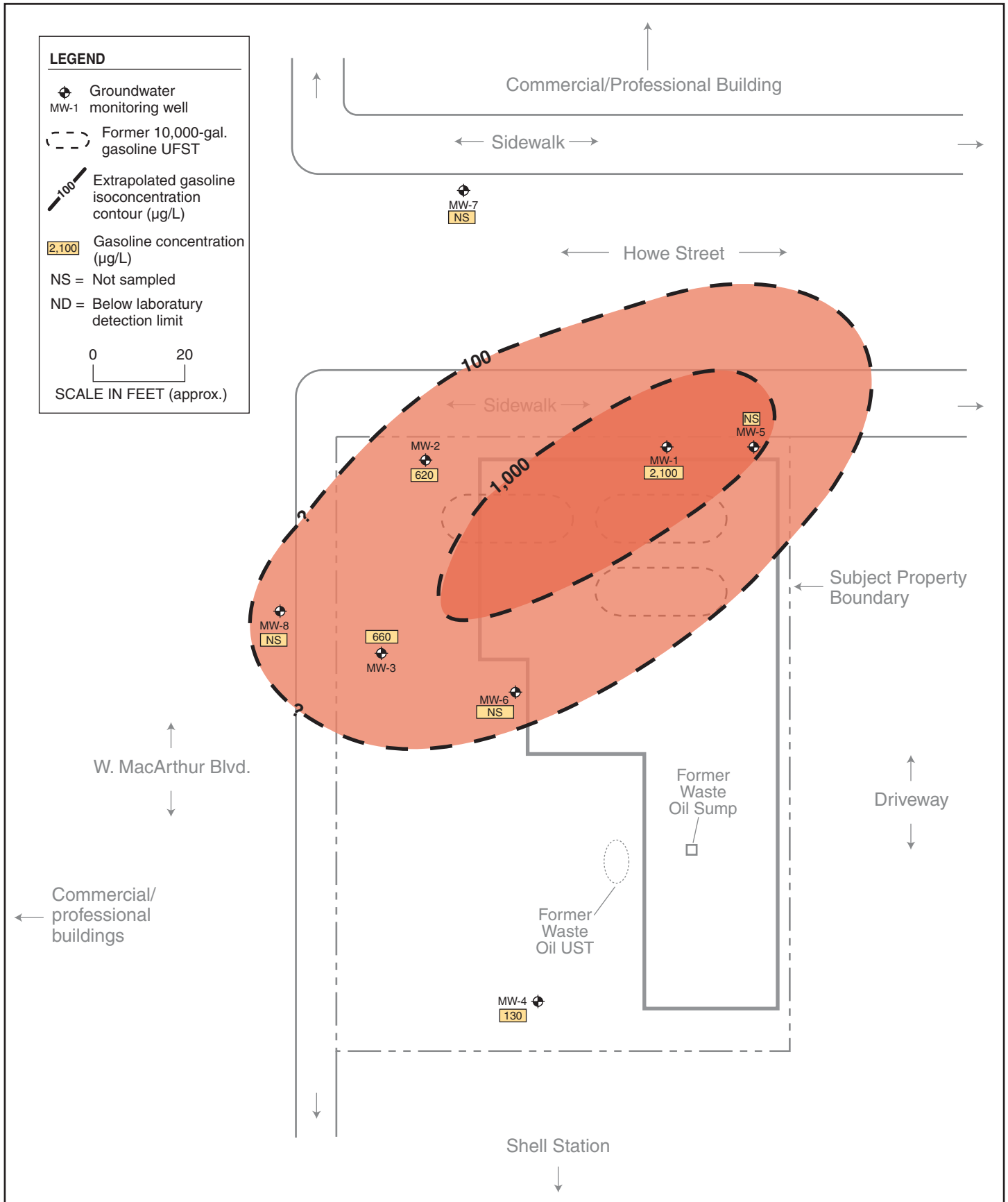
Notes:

ESLs = Water Board Environmental Screening Levels for commercial/industrial sites where groundwater *is/is not* a potential drinking water resource
MTBE = methyl *tertiary*-butyl ether; TEHd = total extractable hydrocarbons - diesel range; TVHg = total volatile hydrocarbons - gasoline range
NA = not analyzed for this contaminant; NS = not sampled
All concentrations are expressed in micrograms per liter (µg/L), equivalent to parts per billion (ppb).
Samples in **bold-face** type exceed the ESL commercial/industrial criterion where groundwater is considered a potential drinking water resource.

Table 3
Groundwater Sample Analytical Results – September 23, 2011
Lead Scavengers and Fuel Oxygenates

Well	EDC	DIPE	TBA
MW-1	**1.4**	*<0.5*	*<25*
MW-2	**2.2**	0.7	**39**
MW-3	**2.4**	3.6	**54**
MW-4	NA	NA	NA
MW-5	NS	NS	NS
MW-6	NS	NS	NS
MW-7	NA	NA	NA
MW-8	NS	NS	NS
ESLs	0.5 / 690	NLP	12 / 18,000

Notes:
ESLs = Water Board Environmental Screening Levels for commercial/industrial sites where groundwater *is/is not* considered a drinking water resource.
Samples in **bold-face** type exceed the ESL commercial/industrial criterion where groundwater is considered a potential drinking water resource.
DIPE = isopropyl ether; EDC = ethylene dichloride (1,2-dichloroethane); TBA = *tertiary*-butyl alcohol
The table includes only detected fuel oxygenates and lead scavengers; contaminants analyzed for and not detected include EDB, ETBE, and TAME.
NA = not analyzed for this contaminant; NS = not sampled; NLP = no level published.
All concentrations are expressed in micrograms per liter (µg/L), equivalent to parts per billion (ppb)



GASOLINE ISOCONCENTRATION CONTOURS (SEPTEMBER 2011)

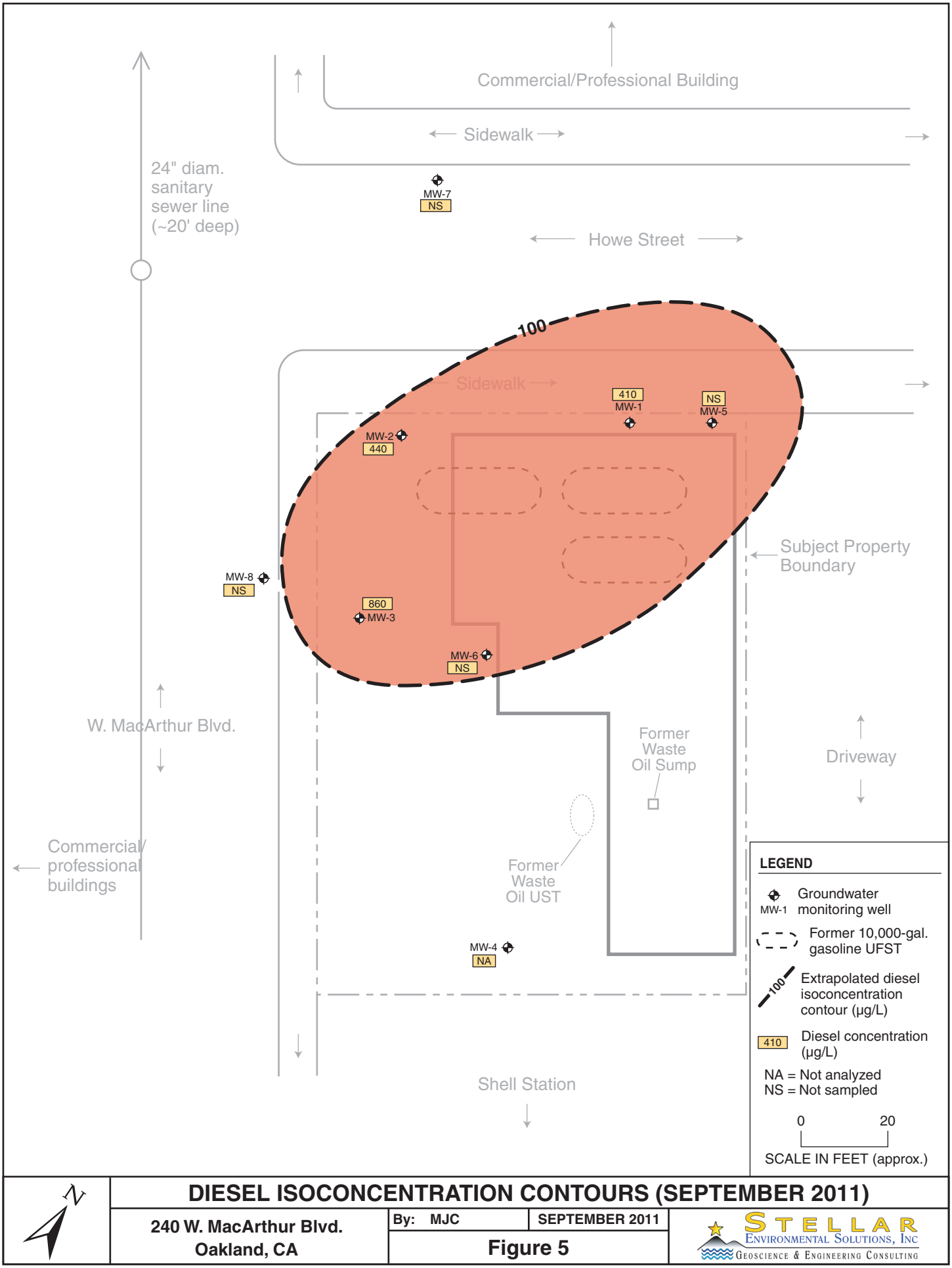
240 W. MacArthur Blvd.
Oakland, CA

By: MJC | SEPTEMBER 2011

Figure 4

STELLAR ENVIRONMENTAL SOLUTIONS, INC
GEOSCIENCE & ENGINEERING CONSULTING

2003-43-223

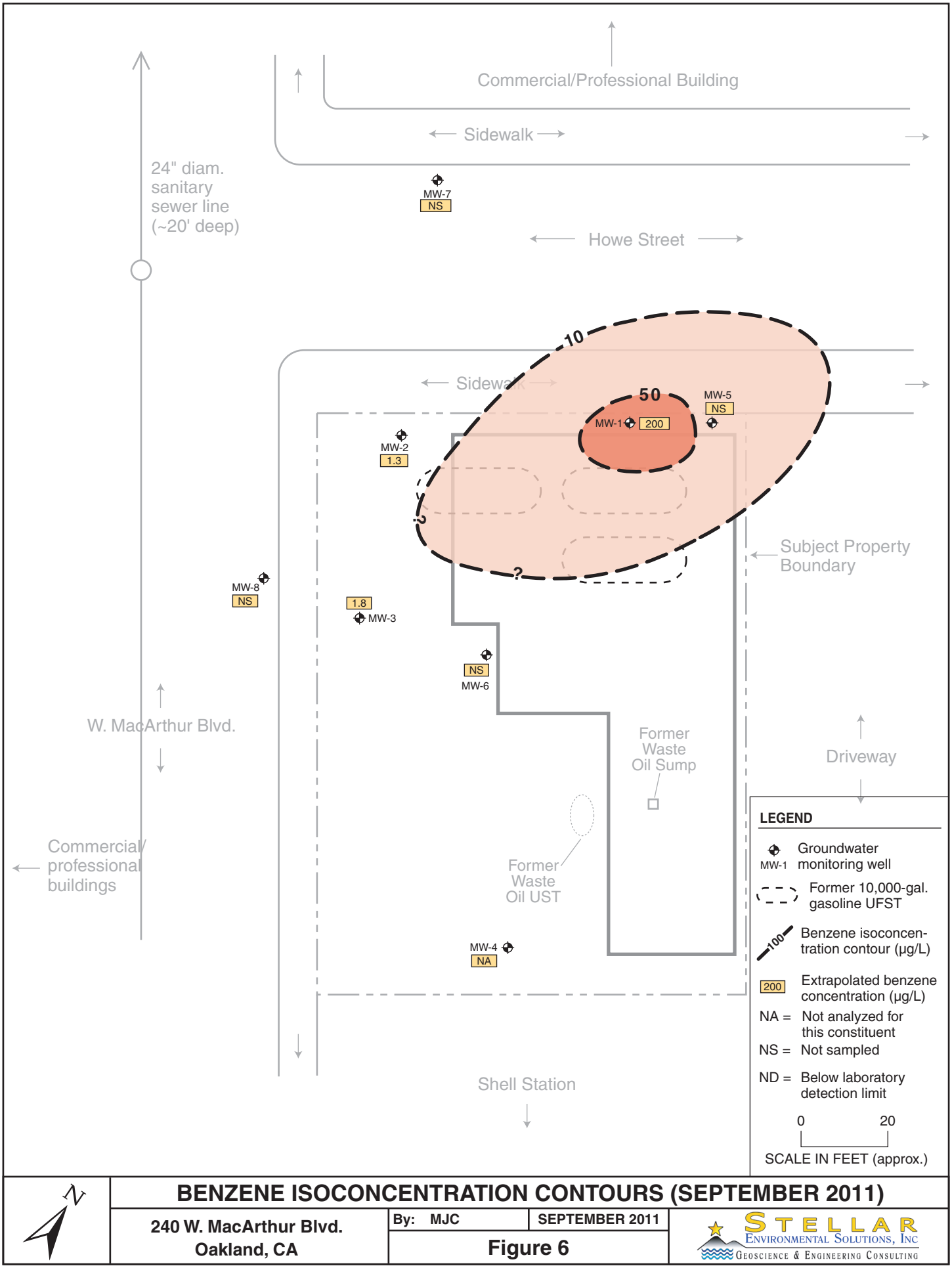


DIESEL ISOCONCENTRATION CONTOURS (SEPTEMBER 2011)

240 W. MacArthur Blvd. Oakland, CA	By: MJC	SEPTEMBER 2011
	Figure 5	

STELLAR ENVIRONMENTAL SOLUTIONS, INC
GEOSCIENCE & ENGINEERING CONSULTING

2003-43-224



BENZENE ISOCONCENTRATION CONTOURS (SEPTEMBER 2011)

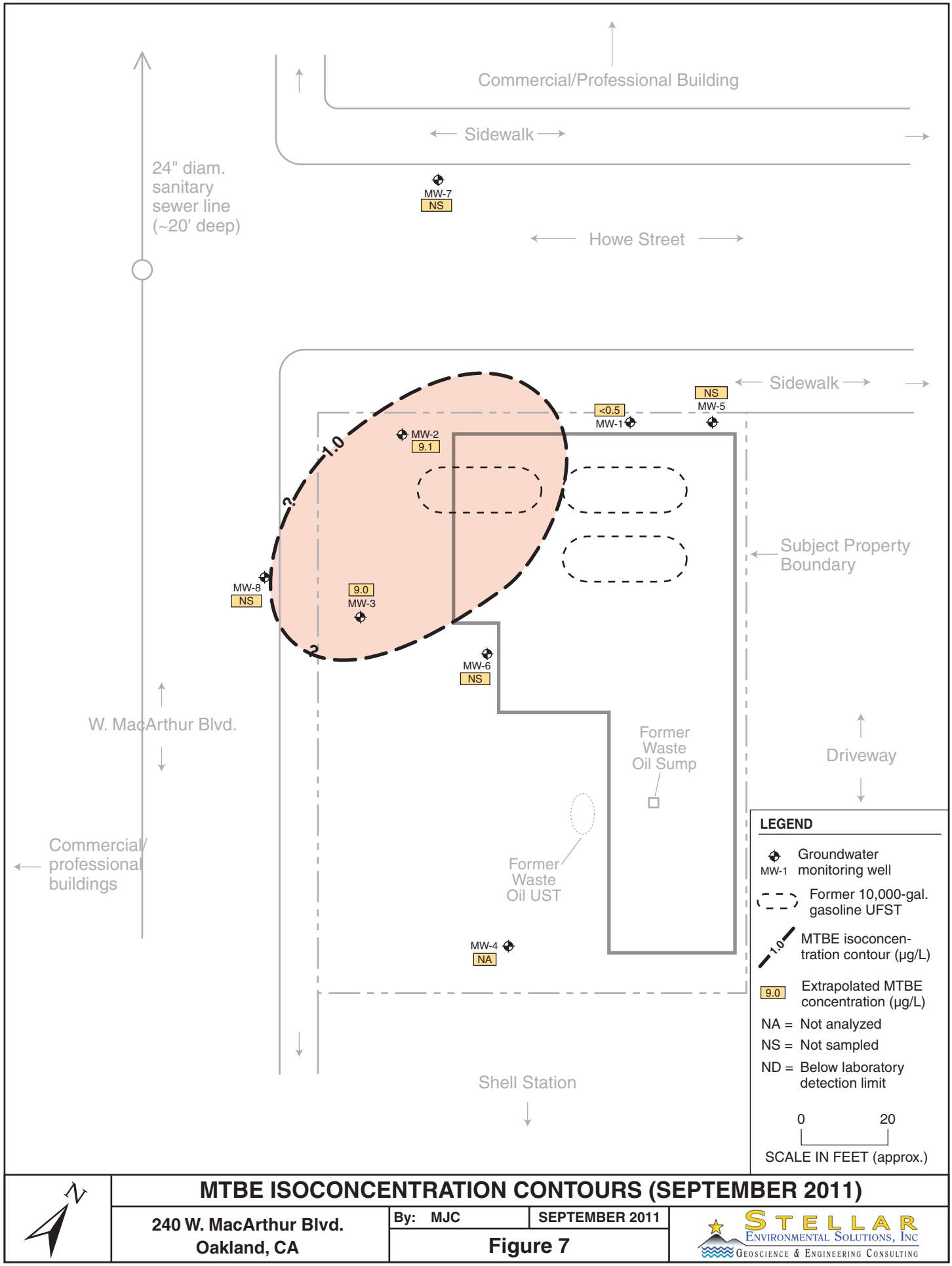
240 W. MacArthur Blvd.
Oakland, CA

By: MJC | SEPTEMBER 2011

Figure 6

STELLAR ENVIRONMENTAL SOLUTIONS, INC
GEOSCIENCE & ENGINEERING CONSULTING

2003-43-225



MTBE ISOCONCENTRATION CONTOURS (SEPTEMBER 2011)

240 W. MacArthur Blvd.
Oakland, CA

By: MJC | SEPTEMBER 2011

Figure 7

STELLAR ENVIRONMENTAL SOLUTIONS, INC
GEOSCIENCE & ENGINEERING CONSULTING

2003-43-226

Lead Scavengers and Fuel Oxygenates

The lead scavenger EDC was detected above the ESLs of 0.5 µg/L in all three of the wells analyzed. Tertiary-butyl alcohol (TBA) was detected and was above the ESL in only two of the three wells in which it was sampled. DIPE was also detected in two of the three wells in which it was analyzed for; however, there is no ESL for DIPE. EDB, the only other fuel oxygenates analyzed for, was not detected in any of the wells.

Summary of Groundwater Contamination

The low rainfall in the 2006-2007, 2007-2008, 2009-2010 and 2010-2011 rainfall periods resulted in the most subsequent observed decreases in water level elevations since the initiation of groundwater elevation monitoring in 2001. A resultant decrease in contaminant concentrations was observed during these low groundwater periods. However, a significant increase occurred with rising groundwater levels due to mobilization and desorption of residual contamination from the surrounding contaminated soils. This was evident in source area monitoring well MW-5 which contained 0.2 feet of floating product during the September 2009 monitoring event and showed the highest historic maximum of 480,000 µg/L diesel in the September 2010 event that followed periods of low groundwater. Future events, primarily those in periods having more substantial rainfall should show whether these rebounding trends persist indicating substantial residual source or that the source is diminishing.

Concentration in the wells sampled showed a stable and decreasing trend in this September 2011 sampling event as compared to the previous September 2010 sampling event, however data interpretation is limited with only 4 of the 8 wells sampled due to low groundwater. In this September 2011 event, the maximum concentrations of gasoline, diesel and BTEX were all detected in well MW-1 (near the former UFSTs).

Maximum concentrations of MTBE were historically detected in downgradient wells (adjacent to W. MacArthur Boulevard), indicating that the center of mass of MTBE has migrated downgradient. Groundwater contamination is known to extend offsite to the northwest southwest (beneath Howe Street and W. MacArthur Boulevard).

QUALITY CONTROL SAMPLE ANALYTICAL RESULTS

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

5.0 EVALUATION OF HYDROCHEMICAL TRENDS AND PLUME STABILITY

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

CONTAMINANT SOURCE ASSESSMENT

Three UFSTs were removed (i.e., discharge was discontinued) prior to 1991, although there is no documentation of conditions at the time of the removals, nor of any contaminated soil removal at that time. Borehole soil sampling has provided data on the extent and magnitude of soil contamination in the vicinity of the former UFSTs ("source area") and the outlying area (in the capillary fringe above the groundwater plume). A full discussion of residual soil contamination was presented in the SES August 2007 Corrective Action Assessment Report (Stellar Environmental, 2007d).

Source Area

The source area contamination has not attenuated over the years, showing a significantly higher concentration than usual at well MW-5 this annual sampling event. This higher concentration, especially with respect to diesel, likely reflects the dropping water levels and possible diesel fouling of the screen area from which water samples are drawn.

A substantial mass of soil contamination is present at depths between approximately 13 feet bgs and 18 to 21 feet bgs (top of the underlying non-water-bearing clay unit) in the immediate vicinity of former UFSTs (BH-13, BH-19, BH-20, BH–21, B30 and B31); this mass has a footprint of approximately 40 feet by 40 feet. This source area contamination is almost certainly related to downward migration of contamination following UFST and/or piping leakage, and is responsible for the continued relatively elevated concentrations of gasoline, diesel, BTEX, and MTBE in groundwater in the wells and bores. No contamination was detected in the UFST excavation fill material. Soil contamination was detected in two of the three saturated zone soil samples, and no contamination was detected in the underlying clay samples.

Source area wells MW-1 and MW-5 historically showed evidence of separate-phase hydrocarbons (i.e., floating product). The source area well MW-5 showed the highest gasoline and diesel concentrations since monitoring began in 2001 during the September 2010. Limited "Hi-Vac" removal (short-term pumping) of contaminated groundwater from these wells in October 2001 appears to have removed most of the floating product, which had not been observed in any of the wells until the September 2009 event in which 0.20 feet of floating product was observed in well MW-5. This current September 2011 contaminant concentration within historical range and floating product was not observed.

The 2006-2008 and 2010-2011 years of low rainfall resulted in the most subsequent drop in water level elevations since the initiation of groundwater elevation monitoring in 2001. A resultant significant decrease in the gasoline and diesel concentrations in the source area monitoring wells occurred during that time. However, a significant increase in water levels following these periods observed between 2008-2009 and 2009-2010 resulted in mobilization and desorption of residual contamination from the surrounding contaminated soils and subsequent increase in detected groundwater contamination. Future monitoring events in periods having more substantial rainfall and corresponding groundwater levels should show whether the rebounding trends persist indicating substantial source or if the source is diminishing.

Outlying Area Soil Contamination

Outside the source area soil and further outside the main high dissolved groundwater concentrations located in the source zone the trend has shown better hydrocarbon attenuation at the margins.

Soil contamination has been detected in boreholes greater than 10 feet from the former UFSTs only to the southwest (BH-16, approximately 40 feet away) and to the south (BH-4 and BH-8, approximately 40 feet away). Intervening boreholes (MW-2, BH-7, and BH-15) showed low to no soil contamination. Low to no soil contamination was detected in boreholes other than those discussed above, even in the capillary fringe. Soil contamination above ESL criteria appears to be constrained on site, except for the apparently localized "hot spot" at BH-16 (southwest corner of property). Bore B27 showed no soil contamination, and was located downgradient of the source (between the source and BH-16, 15 feet to the west). This distribution suggests that the detected soil contamination is influenced by localized lithologic and groundwater hydrologic controls.

Consideration of potential sources (discrete former UFSTs), historical groundwater flow direction and water levels, and distribution suggests that the detected soil contamination is the result of leaks from at least two, and possibly three, former UFSTs. The unsaturated zone soil contamination to the south and southwest likely resulted from desorption from source area

contaminated groundwater, the distribution of which is strongly influenced by localized lithologic and groundwater hydrologic controls. The contaminant mass in outlying area unsaturated zone soils is small relative to the source area.

Summary

A substantial mass of unsaturated zone soil contamination is located beneath the subject property building and to the immediate south-southwest. While the contamination is largely constrained on site, it will continue to be a source of long-term groundwater contamination unless abated.

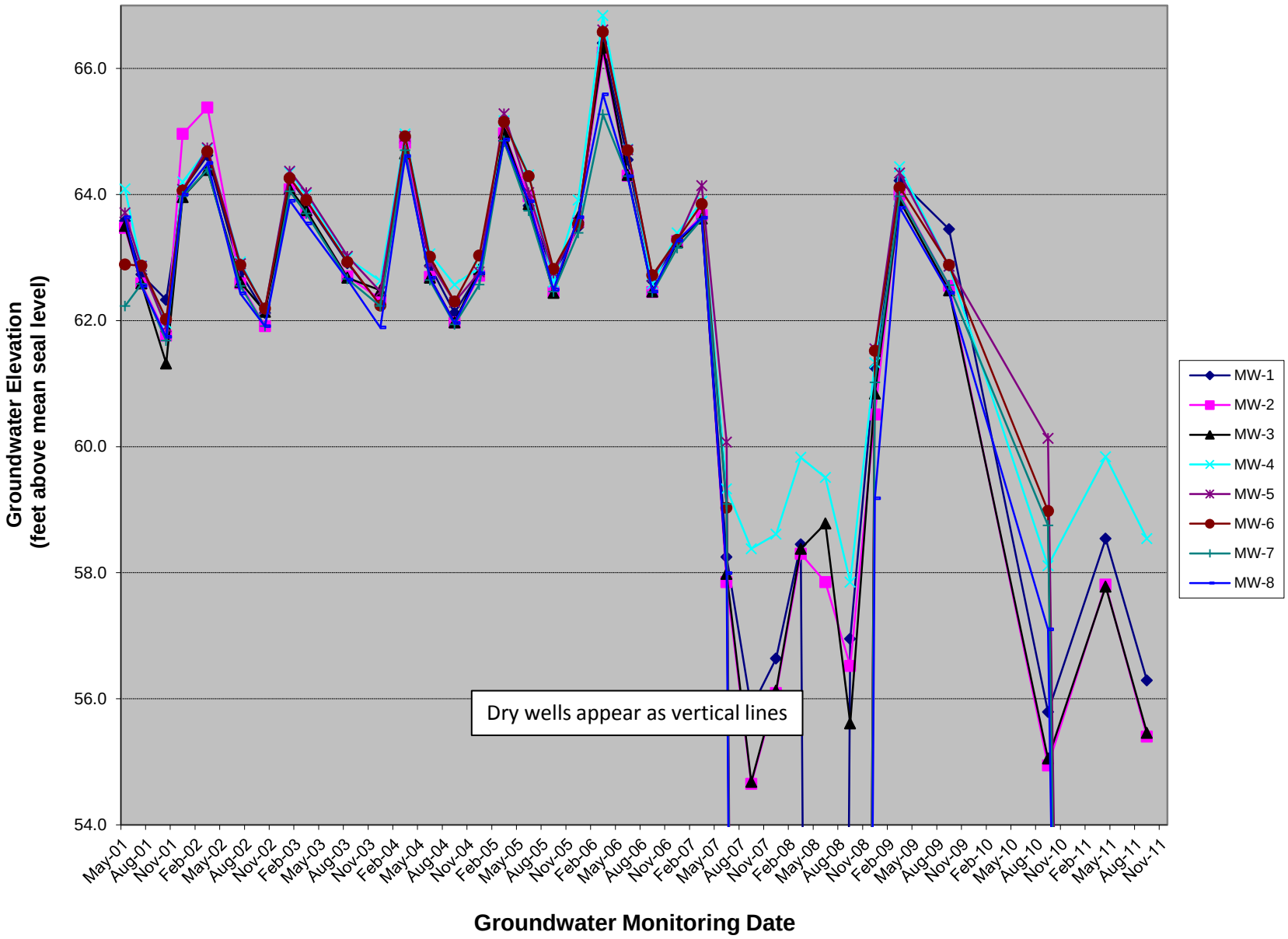
WATER LEVEL TRENDS

Appendix D contains historical groundwater elevation and gradient data. Figure 8 shows a trendline of site groundwater elevations in wells since May 2001.

The data support the following conclusions:

- Rebounds of high contaminant detections in the source wells have been observed in the events in which high groundwater follows a period of low groundwater level.
- Groundwater elevations in all wells show a strong elevation change correlation with rainy versus dry season. Decreases in elevation are seen from approximately March through December, followed by an increase in March. This is a common seasonal trend observed in the upper water-bearing zone in the Bay Area region.
- Prior to 2007, the range of water level elevations (in a given year) varied by approximately 3 feet, and no substantial differences in elevations (beyond the seasonal fluctuations) have been noted since 2001. The low rainfall in the 2006-2007, 2007-2008 and 2010-2011 years resulted in the most subsequent drop in water level elevations since the initiation of groundwater elevation monitoring in 2001. Groundwater returned to its' pre-2007 (pre-drought) elevation range during 2009, however this latest 2011 monitoring event has shown another dramatic decrease in site groundwater elevations.
- Groundwater elevation increased an average of 0.48 feet between September 2010 and September 2011 with the largest increase of 0.46 feet recorded in MW-2.
- Subject property groundwater gradient in the current event ranged between approximately 0.02 and 0.03 feet/foot. Historical groundwater gradient has varied between approximately 0.015 and 0.03 feet/foot.
- Historical groundwater flow direction has been predominantly to the west-northwest.

Figure 8: Historical Groundwater Elevations in Monitoring Wells
240 W. Macarthur Blvd., Oakland, CA



HYDROCHEMICAL TRENDS

Historical groundwater analytical results are included in Appendix C.

Gasoline

Figures 9 and 10 show hydrochemical trend data for gasoline in source area wells (MW-1 and MW-5) and downgradient wells (MW-2, MW-3, MW-6, and MW-8), respectively, for the past 910years of monitoring.

Source area wells MW-1 and MW-5 showed an overall trend of increased gasoline concentration between December 2001 and June 2005, followed by a decrease in December 2005, and thereafter the increasing trend continued. During the monitoring events in June and September 2005; March, September, and December 2006; and March 2007, the concentrations of gasoline in MW-1 exceeded that of MW-5, even though MW-5 has historically had higher concentrations. In MW-5, the second and third highest site detections of gasoline were 210,000 µg/L and 140,000 µg/L were detected during the September 2009 and September 2010 events, respectfully. These historical high concentrations in well MW-5 represent a large rebound that resulted from broad groundwater fluctuations during the previous years between from 2008 to 2010. There was insufficient water for sampling MW-5 during this current event.

Downgradient wells MW-2, MW-3, MW-6, and MW-8 have shown relatively stable gasoline concentrations over the previous 5 years of monitoring, with some seasonal variations within particular years. The September 2006 event showed the second highest historical gasoline concentration (8,300 µg/L) in well MW-2, but returned to average historical levels in December 2006. Downgradient well MW-3 showed a trend of decreasing gasoline concentrations from December 2001 to June 2002, then an increasing concentration trend until December 2003, and has remained within historical range since. All downgradient well gasoline concentrations in the current event are between the historical site minima and maxima for individual wells.

Diesel

Figures 11 and 12 show hydrochemical trend data for diesel in source area wells and downgradient wells, respectively, for the past 8 years of monitoring.

Source area wells MW-1 and MW-5 have shown substantial variations (generally correlating with seasonal variations in groundwater elevations) in diesel concentrations. Historic maximum detections of diesel: 44,000 µg/L in September 2009 event and 480,000 µg/L 1 September 2010 were observed in MW-5. There was insufficient water for sampling MW-5 this current event and the diesel concentration in MW-1 was within the historical site maxima and minima.

Downgradient wells MW-2, MW-3, MW-6, and MW-8 have shown substantial variations in diesel concentration. In general, a substantial decrease was observed in wells MW-2, MW-3, and MW-6 from August 2003 to December 2003, followed by an overall increasing trend up to the December 2006 event, where concentrations were within historical range. Since August 2005, MW-3 has showed a general increase in diesel concentration, with the historical highest diesel concentrations observed in March 2008 (9,600 μg/L) and March 2009 (5,100 μg/L) MW-3 has shown a general decrease in diesel concentration since March 2009. MW-2 has shown a general decrease in diesel concentration since September 2008. Well MW-8 (the most downgradient well) has historically shown low to non-detect diesel concentrations, with the exception of an apparently anomalous measurement of approximately 2,600 μg/L in September 2004, and then a return to a concentrations of less than 100 μg/L but showed an increasing trend from November 2008 to the September 2009 event that detected 1,300 μg/L. There was insufficient water to sample both MW-8 and MW-6 during this September 2011event.

Figure 9: Gasoline Hydrochemical Trends
Source Area Wells
240 W. MacArthur Blvd, Oakland, California

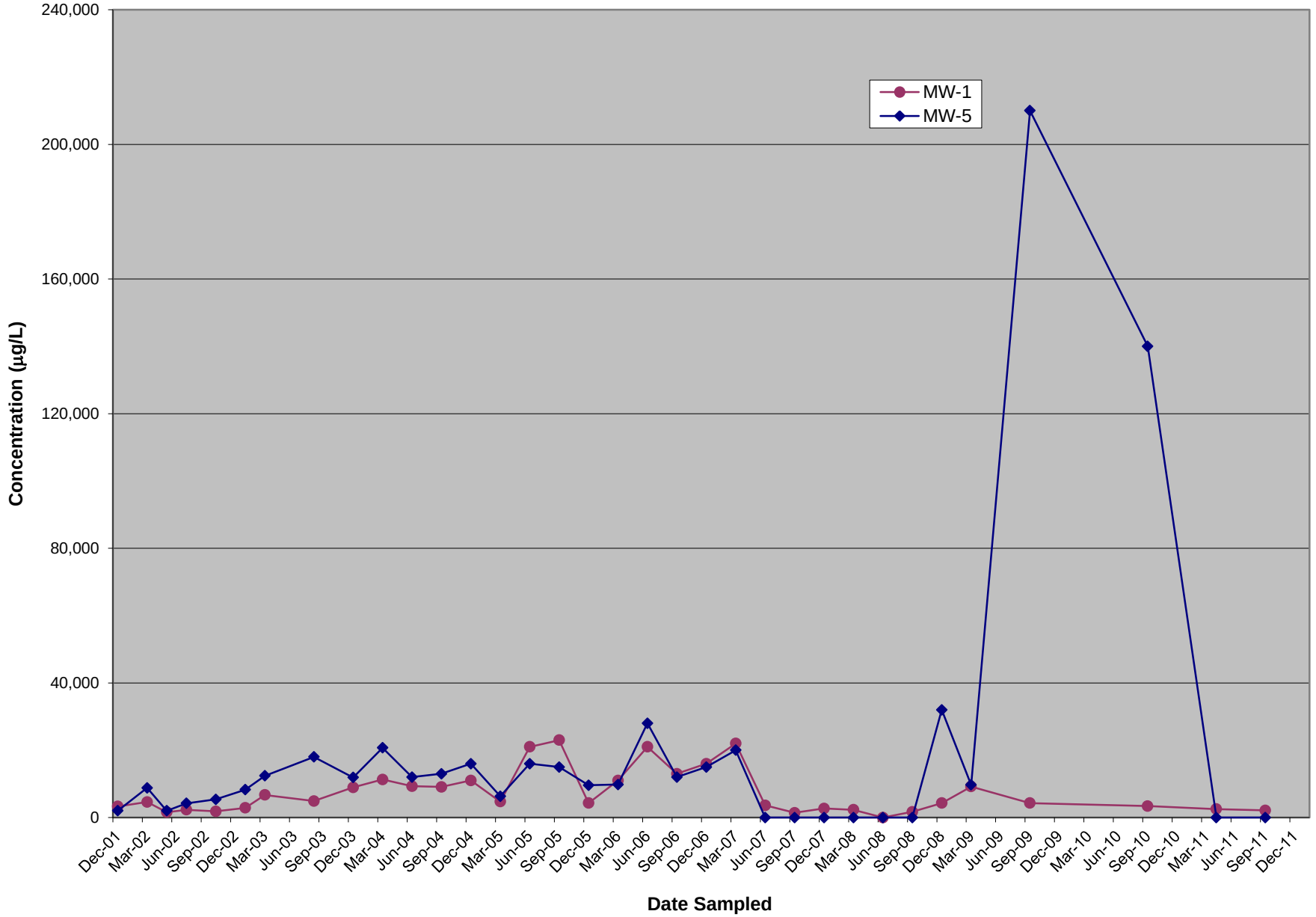


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Figure 10: Gasoline Hydrochemical Trends
Downgradient Wells
240 W. MacArthur Blvd, Oakland, California

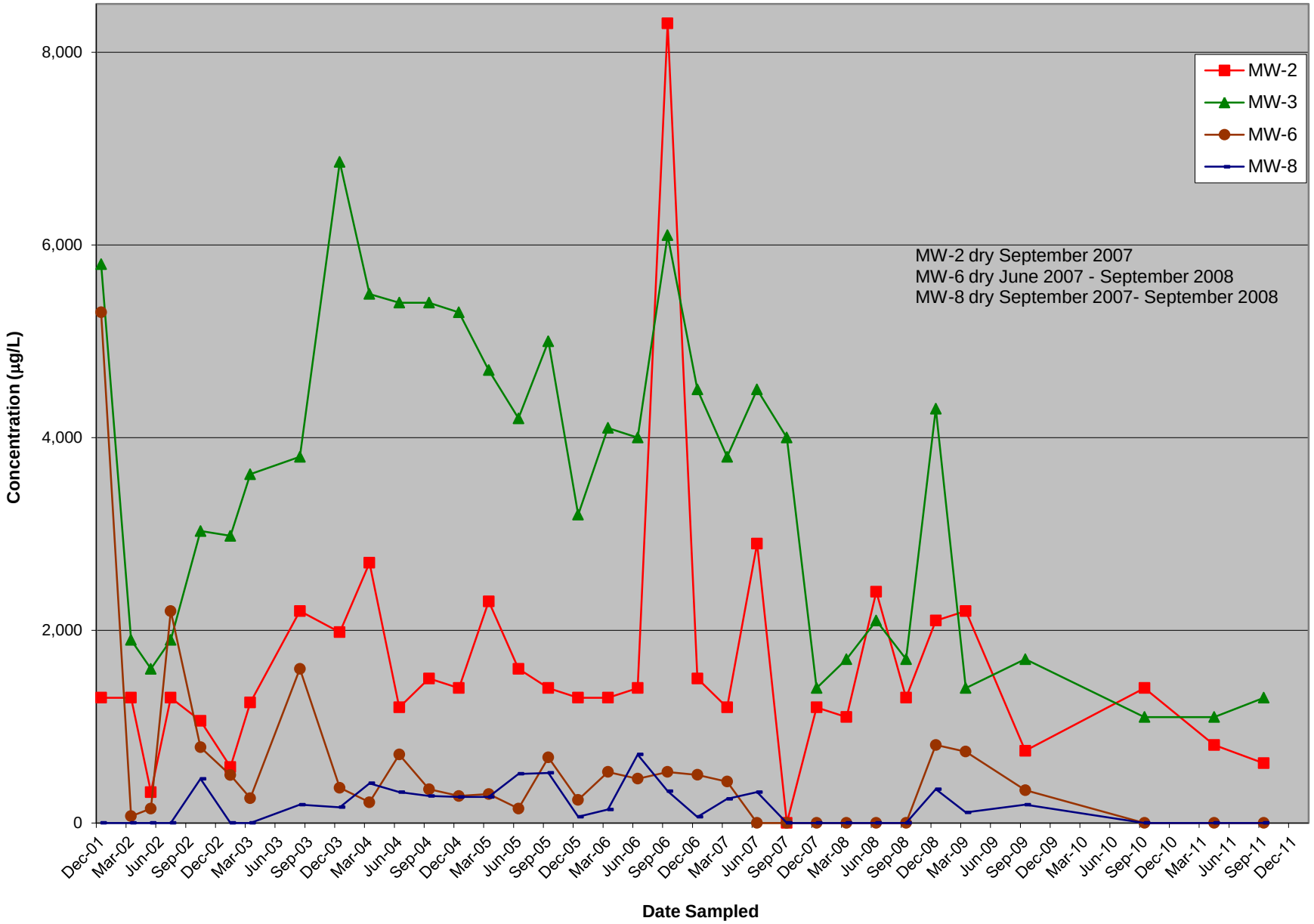

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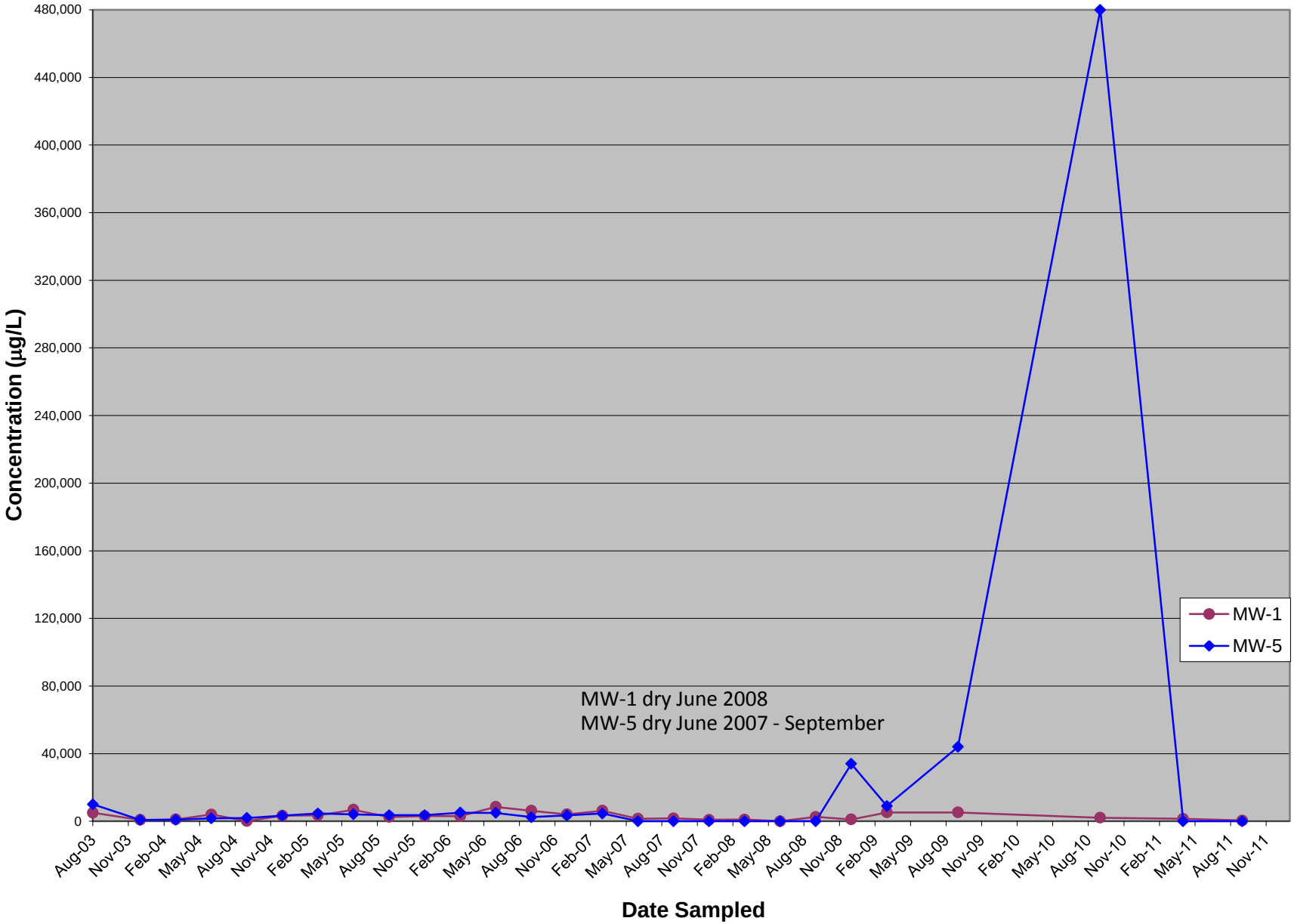
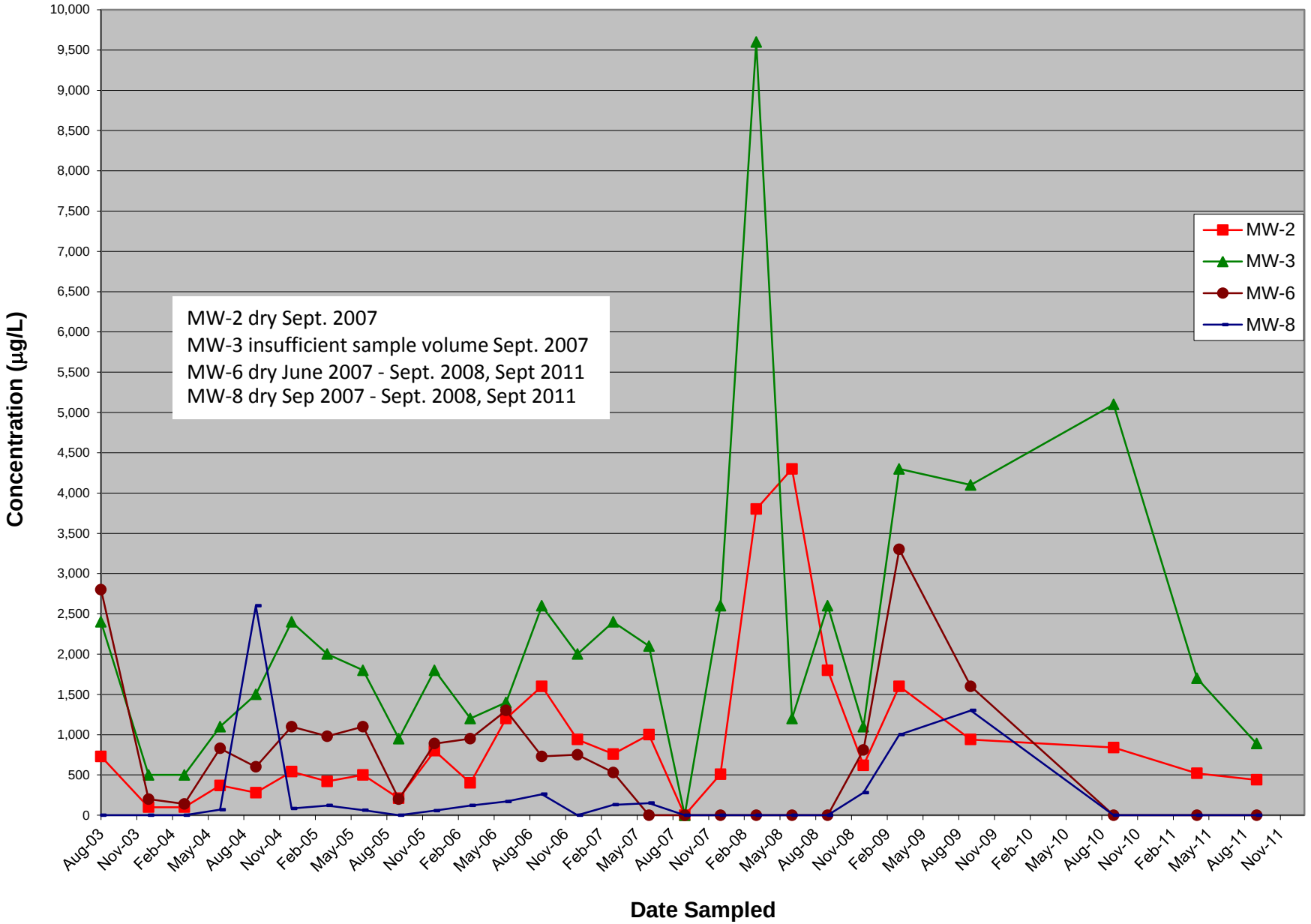
Figure 11: Diesel Hydrochemical Trends
Source Area Wells
240 W. MacArthur Blvd, Oakland, California



Stellar Environmental Solutions, Inc.

Figure 12: Diesel Hydrochemical Trends
Downgradient Wells
240 W. MacArthur Blvd, Oakland, California



Benzene

Figure 13 shows hydrochemical trend data for benzene in key site wells for the past 10 years of monitoring.

Source area wells MW-1 and MW-5 have shown substantial variations in benzene concentrations—an overall increase in concentration over time. Benzene concentrations generally have been comparable between MW-1 and MW-5 with MW-1 observed to be higher the September 2010 event with 190 µg/L. Both of these wells generally demonstrate the same trends in seasonal fluctuations, however there was insufficient water in MW-5 to sample during the September 2011 event.

Historical maximum benzene concentrations were observed in June 2005 (source well MW-5) and September 2005 (source well MW-1), followed by a decrease in December 2005; they remained within the historical range during 2006. Concentrations of benzene in the 3rd and 4th quarters of 2007 and all the first three quarters of 2008 in MW-1 were observed to be the lowest since January of 1999. Downgradient wells MW-2, MW-3, and MW-6 have all shown a relatively stable benzene concentration trend.

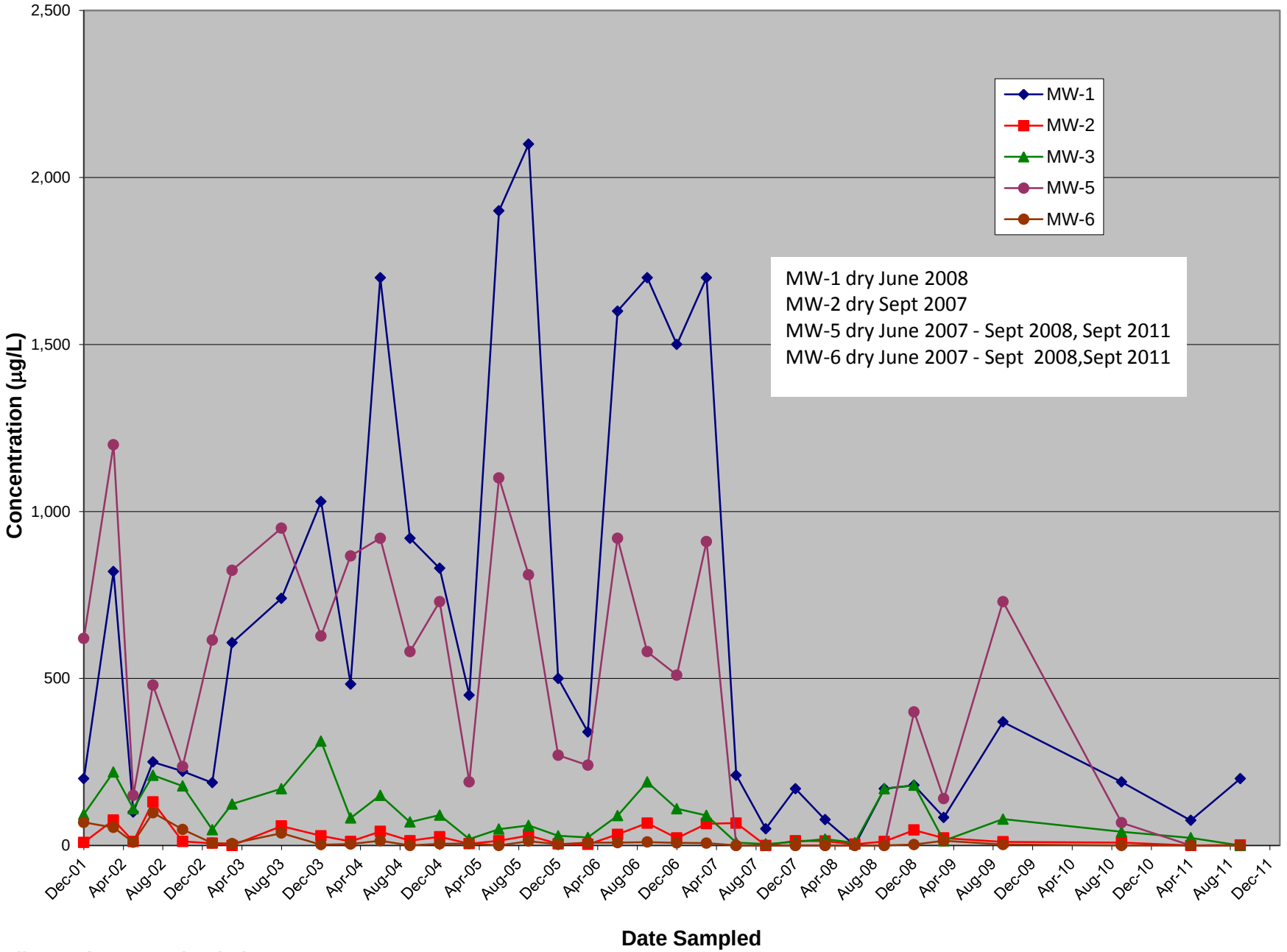
MTBE

Figure 14 shows hydrochemical trend data for MTBE in key site wells for the past 10 years of monitoring. MTBE concentrations have shown a generally declining trend since December 2003.

Source area wells MW-1 and MW-5 have shown substantial variations in MTBE concentrations, with generally the same trend of higher concentrations in the wet season and lower concentrations in the dry season. Following historical maximum concentrations in December 2003, MTBE concentrations in MW-1 and MW-5 decreased to low or non-detectable concentrations by June 2004, and have remained there since.

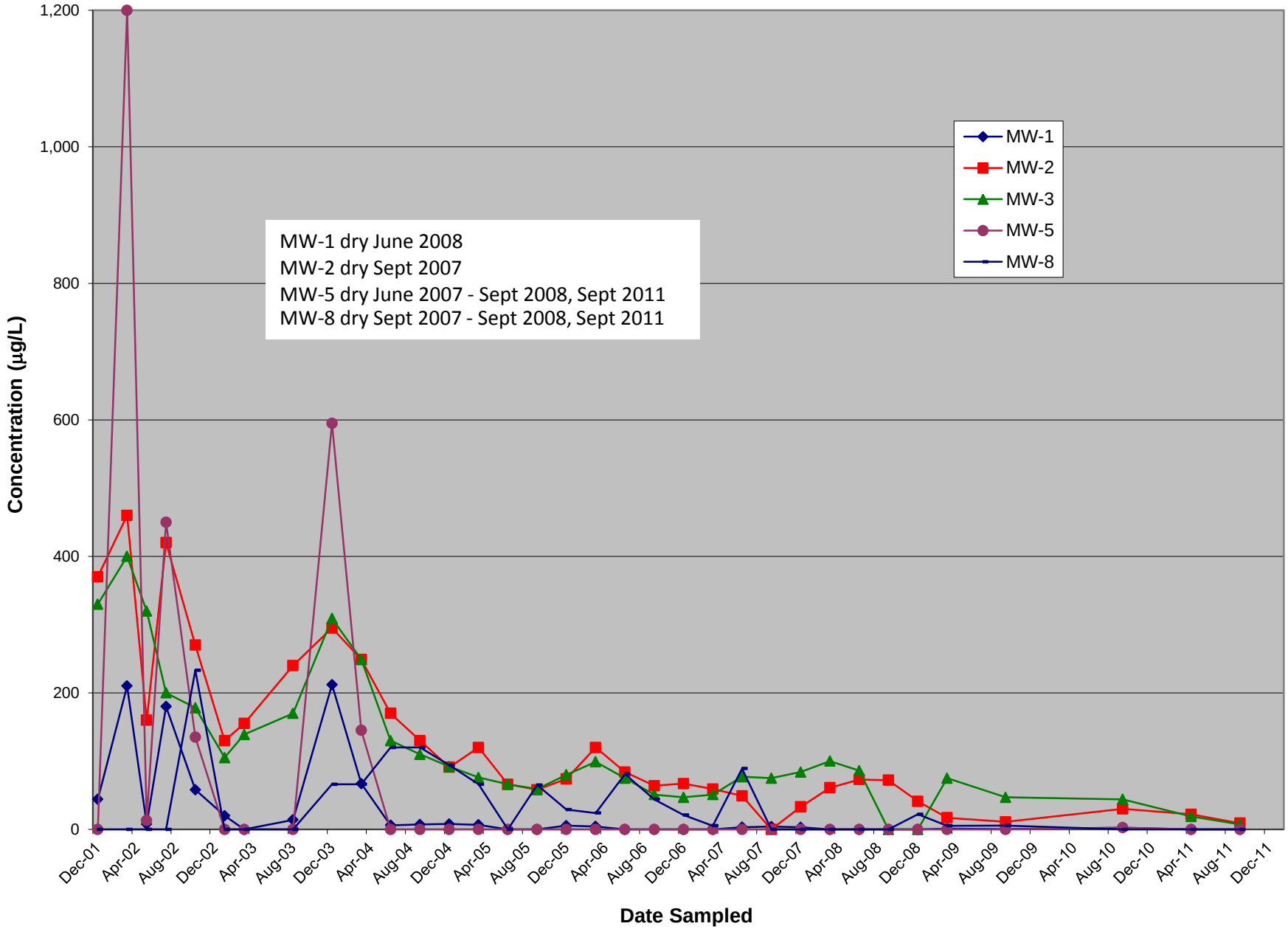
Downgradient wells MW-2 and MW-3 have shown substantial variations in MTBE concentration over the 10 years of monitoring, with the expected higher concentrations in the rainy season but are seen to be within historical range this last. MTBE concentrations in MW-8 (the most downgradient well) also have shown substantial variations, with an increasing trend from August 2003 through September 2004, and have since fluctuated between non-detect and 94 µg/L. MTBE has not been detected above 5 µg/L in downgradient well MW-6 since June 2005. The data indicate that the center of MTBE mass in the plume has migrated beyond the source area to the downgradient (southern) portion of the property, however there was insufficient water to sample wells MW-5 and MW-8 during this September 2011 event.

Figure 13: Benzene Hydrochemical Trends
240 W. MacArthur Blvd, Oakland, California



Stellar Environmental Solutions, Inc.

Figure 14: MTBE Hydrochemical Trends
240 W. MacArthur Blvd, Oakland, California



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PLUME GEOMETRY AND MIGRATION INDICATIONS

The contaminant plume in groundwater (gasoline, diesel, and BTEX concentrations above ESL criteria) has a maximum extent within the isoconcentration contours of approximately 160 feet long by 120 feet wide in the December 2008 monitoring event, with a generally north-south longitudinal axis. The source area is represented by wells MW-1 and MW-5. Well MW-1 has shown concentrations of gasoline and benzene remaining high over the past year.

The 2006-2008 and 2009-2010 years' low rainfall resulted in the most subsequent drops in water level elevations since the initiation of groundwater elevation monitoring in 2001. A resultant significant decrease in the gasoline and diesel concentrations in all source area monitoring wells occurred, however new historic contaminant high concentrations were observed during the September 2009 and September 2010 events as groundwater levels returned to typical historical site elevations. The drop in concentrations, and subsequent rise, can be attributed to a portion of the dissolved mass of contamination absorbing onto the newly created vadose zone, and then desorbing with a rise in the groundwater table.

Contaminant concentrations above ESL criteria extend off site to the north-northwest (under Howe Street), and for gasoline extend underneath W. Macarthur Boulevard to the south. The MTBE plume shows generally the same configuration, except that it is situated downgradient from the source area. The northern (upgradient) limit of the plume is inferred to be within 10 to 20 feet of the former UFSTs. The eastern limit of the plume is constrained on site.

The plume geometry has not varied substantially over the past 10 years of monitoring, although seasonal fluctuations in contaminant concentrations have been observed. Concentrations of gasoline and diesel in downgradient wells appear to be remaining relatively stable or decreasing. However, increases in both gasoline and diesel concentrations in the source area wells during the September 2009 and 2010 events indicate an increase in desorbed contamination from the surrounding soils. Increases in contaminant concentrations in downgradient wells from this desorption will most likely be observed in future events.

Relatively stable benzene concentrations in downgradient wells suggest that the migration of this constituent is not occurring. However, benzene does continue to be observed in the source area wells. Concentrations of MTBE have decreased to below the laboratory detection limit in the source area wells, while downgradient wells are demonstrating a slight increase. This indicates that the mass of contamination is slowly migrating off-site.

Groundwater contaminant migration appears to be controlled locally by hydrogeologic conditions. Based on our experience, it is likely that the contaminant concentrations attenuate to below ESL criteria no more than 50 feet off site.

CLOSURE CRITERIA ASSESSMENT AND PROPOSED ACTIONS

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

1. ***The contaminant source/leak and ongoing sources have been removed or remediated. (i.e., the source of the discharge and obviously-contaminated soil).*** This criterion has been partially but not adequately met to meet site closure criteria as evident by the more than 10 years of natural attenuation monitoring without substantive change in source area well contaminant concentrations. While the UFSTs have been removed, borehole soil sampling has shown a mass of residual source area soil contamination that will act as an ongoing source of groundwater contamination. Monitoring over the last 10 years shows that without treatment this source area will not decrease by natural attenuation over time. Reducing source area soil contamination should reduce the potential for offsite migration of groundwater contamination by removing contaminant mass, and should reduce the overall time to achieve regulatory closure. A corrective action assessment and remedial evaluation was conducted in May and June 2007. The ACEH approved the SVE system in 2008 and again in 2010 which would be covered by the State Fund but the property owner has indicated they cannot go forward until securing financing for the project.
2. ***The site has adequately characterized. The groundwater contaminant plume is well characterized, and is stable or reducing in magnitude and extent.*** In our professional opinion, this criterion has not been partially met, with the season the trends stable enough to warrant less frequent monitoring as is currently being done.

If residual contamination (soil or groundwater) exists, there is no reasonable risk to sensitive receptors (i.e., contaminant discharge to surface water or water supply wells) or to site occupants. This criterion is generally met by conducting a Risk-Based Corrective Action assessment that models the fate and transport of residual contamination in the context of potential impacts to sensitive receptors (e.g., water wells, residential land use). While no downgradient water wells have been identified, a deep sanitary sewer line is located approximately 40 feet from the downgradient property line. It is possible that this line could act as a preferential pathway for migration of site-sourced groundwater contamination. However, it is highly unlikely that contaminated groundwater that might be entrained in the line backfill material would migrate to the nearest surface water body. Some risk of vapor intrusion into the building may exist from benzene in wells MW-5 and MW-6.

3.

6.0 SUMMARY, CONCLUSIONS, AND RECOMENDATIONS

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 UFSTs that were reportedly removed.
- ACEH is the lead regulatory agency. A total of 46 groundwater monitoring/sampling events have been conducted in the eight site wells since August 1997 and is currently being monitored on an annual frequency basis.
- Sufficient site characterization has been conducted to evaluate the risks associated with residual soil contamination, and to evaluate corrective action options. Quarterly groundwater monitoring conducted since August 1997 has adequately shown the groundwater and contaminant trends. The data indicate that, if remedial action is not implemented, residual site contamination will remain at elevated levels for many years and longer. A workplan for installation and operation of a SVE system has been submitted and approved by ACEH and the Water Board.
- Because of seasonally low groundwater levels only 4 of the 8 monitoring wells contained sufficient water for sampling. The lowest recorded site groundwater levels were in September 2007 and the next lowest levels were recorded in September 2008 and September 2010. Groundwater returned to its' pre-2007 elevation range during 2009, however this latest 2011 monitoring event has shown another dramatic decrease in site groundwater elevations. Prior to 2007, the range of water level elevations (in a given year) varied by approximately 3 feet, and no substantial differences in elevations (beyond the seasonal fluctuations) had been notable
- Monitoring events where a significant increase in water levels followed dry, low groundwater periods as observed between 2008-2009 and 2009-2010 resulted in mobilization and desorption of residual contamination from the surrounding contaminated soils and a substantial increase in detected groundwater contamination. Future monitoring events in periods having more substantial rainfall and corresponding higher groundwater levels should demonstrate whether the rebounding trends continue indicating substantial source or if the source is diminishing.

- Groundwater at the site appears to be slightly confined, with a flow direction ranging between northwest and west. Subject property groundwater gradient in the current event ranged between approximately 0.017 and 0.03 feet/foot. Historical groundwater gradient has varied between approximately 0.015 and 0.03 feet/foot.
- The groundwater contaminant plume geometry is typical of what has been observed in previous monitoring events. Seasonal effects do not appear to change the plume migration direction.
- The primary site chemicals of concern, with regard to concentrations and risk issues, are gasoline, benzene, and MTBE. Diesel, aromatic hydrocarbons, lead scavengers, and fuel oxygenates are present at lesser concentrations and over a smaller area.
- The greatest concentrations of gasoline, diesel, and benzene in groundwater are located in well near the source area in the northern corner of the site. Maximum groundwater contamination by MTBE was detected in the downgradient portion of the property, indicating that the center of mass of these contaminants has migrated downgradient. Groundwater contamination above ESL criteria extends offsite (likely no more than 25 feet) beneath Howe Street and W. MacArthur Boulevard.
- Concentrations of gasoline and diesel in downgradient wells appear to be remaining relatively stable or decreasing, reflecting the general trend in all of the monitoring wells.
- As stipulated by ACEH, analysis for lead scavengers will continue to be conducted in wells MW-1, MW-5, and MW-6. Fuel oxygenates were detected in those wells, and in MW-2, MW-3, and MW-8. Because lead scavengers and fuel oxygenates are analyzed by the same method at no additional cost, the responsible party has elected to continue analysis for lead scavengers and fuel oxygenates in all wells except MW-4 and MW-7.
- 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 influence of deep utilities beneath W. MacArthur Boulevard is not known.
- A previous water well survey identified no vicinity water wells with the potential to intercept site-sourced groundwater contamination.
- None of the most volatile petroleum constituent contaminants of concern were detected in soil-gas collected in August 2010 from vapor well B32 indicating minimal to no off-gassing and/or migration of contaminant gases from site groundwater and soil occurs and therefore there is low to no risk of vapor intrusion into the site building.

PROPOSED ACTIONS

The Responsible Party proposes to implement the following actions to address regulatory concerns:

- The Water Board Underground Storage Tank Cleanup Fund, Technical Review Unit issued a 5-Year Summary Report, in their letter dated June 15, 2009, in which they agree with the corrective action plan for implementation of SVE remediation of the site. The SVE implementation budget was updated and re-evaluated in December 2010 for implementation in 2011. Implementation of SVE remediation is delayed indefinitely by the property owner due to an inability to obtain financing in the current economy to underwrite the remediation needed before the State Fund reimbursement occurs.
- The State of California Tank Cleanup Fund has reinstated the site's Priority Class C letter of commitment and reimbursement requests may once again be submitted to assist the responsible party in funding site monitoring and cleanup. In the event the property is sold, the current Responsibility Party will coordinate with the new Responsibility Party to transfer Tank Fund eligibility.
- SES recommends implementing the soil vapor extraction remedy as soon as the owner has the ability to and that this site continue to be monitored on a semiannual basis.
- Required Electronic Data Format uploads should continue to be made to the GeoTracker database, and electronic copies of technical reports should be uploaded to ACEH's ftp system.

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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.

APPENDIX A

Current Event Groundwater Monitoring Field Records

Chain of Custody Record

Lab job no. _____
Date 9/23/11
Page 1 of 1

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

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

Project Owner Mr. Glen Poywing
Site Address 240 W. MacArthur Blvd
Oakland, CA 94612
Project Name Oakland Autoworks
Project Number 2003-43

Field Sample Number	Location/ Depth	Date	Time	Sample Type	Type/Size of Container	Preservation: Cooler	Preservation: Chemical	Filtered	No. of Containers	TVHt-GAS (8015M)	TEPH (8015M)	BTEX, MTBE, EDB, EDC (8260B)	5 oxy's (8260B)	Remarks
MW-4	—	9/23/11	0950	W	3 VOAs	yes	HCl	No		X				
MW-2	—		0815	W	6 VOAs / 2 Ambers		HCl			X	X	X	X	
MW-3	—		1040	W			HCl			X	X	X	X	
MW-1	—		1100	W			HCl			X	X	X	X	

Copy

Relinquished by:	Date	Received by:	Date	Relinquished by:	Date	Received by:	Date
Signature _____		Signature _____		Signature _____	9/23/11	Signature _____	9/23/11
Printed H. Pietropaoli	Time	Printed _____	Time	Printed D. Rayna	Time 1115	Printed Pat Gonzalez	Time 1115
Company Stellar Environmental		Company _____		Company Blaine Tech Services		Company C&T	

Turnaround Time: 5 Day TAT
Comments: Global ID: TO600102243

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

2000-00-01

WELL GAUGING DATA

Project # 110923-DR1 Date 9/23/11 Client Stellar Env. Solutions

Site 240 W. MacArthur Blvd. Oakland Ca.

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
MW-1	0725	2	ODOR	NO SPH			22.86	24.60		
MW-2	0717	2					23.05	24.30		
MW-3	0720	2					22.12	24.28		
MW-4	0702	2					19.20	23.88		
MW-5	0730	2					DRY	20.10		
MW-6	0714	2					19.31	20.14		
* MW-7	0821	2					19.39	20.01		
MW-8	0711	2					19.25	19.89	✓	

* Gauged out of order due to well being parked over.

WELLHEAD INSPECTION CHECKLIST

Date 9/23/11 Client Stellar Env. Solutions

Site Address 240 W. MacArthur Blvd. Oakland Ca.

Job Number 110923-DR1 Technician DR

Well ID	Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Debris Removed From Wellbox	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)
mw-1							X	
mw-2							X	
mw-3							X	
mw-4							X	
mw-5							X	
mw-6							X	
mw-7							X	
mw-8							X	

NOTES: mw-4 2/2 tabs stripped. mw-8 -1/2 bolts. mw-6 1/2 tabs stripped. mw-2 2/2 tabs stripped. mw-3 2/2 tabs stripped. mw-1 Bar loose from apron. -2/2 bolts. mw-7 2/2 tabs stripped.

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME Stellar @ Oakland Auto Works				PROJECT NUMBER 110923-DR1			
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP. C°	INITIALS
Myron L Ultrameter	L208729	9/23/11 @ 0530	7.0 10.0 4.0 3903	7.01 9.99 3.99 3900	Y	24.7-24.9	DR
Hach Turbidimeter	08070023444	9/23/11 @ 0545	<60 55 5.7	55 54 5	Y	—	DR

LL MONITORING DATA SH T

Project #: 110923-DR1	Client: Stellar Env. Solutions
Sampler: DR	Date: 9/23/11
Well I.D.: MW-1	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 24.60	Depth to Water (DTW): 22.86
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]: 23.21	

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

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

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

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

Time	Temp (°F or (°C))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
0849	18.8	6.67	483	894	0.3	color
0851	18.7	6.31	482	>1000	0.6	"
0853	18.7	6.30	480	>1000	0.9	"

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

Sampling Date: 9/23/11 Sampling Time: 1100 Depth to Water: 22.94

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

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

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

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

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

L MONITORING DATA SH T

Project #: 110923-DR1	Client: Stellar Env. Solutions
Sampler: DR	Date: 9/23/11
Well I.D.: MW-2	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 24.30	Depth to Water (DTW): 23.05
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]: 23.30	

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

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

0.2 (Gals.) X 3 = 0.6 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

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

Time	Temp (°F or (°C))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
0801	19.8	6.42	628	>1000	0.2	odor
0803	19.7	6.39	601	>1000	0.4	"
0805	19.7	6.37	600	>1000	0.6	"

Did well dewater? Yes (No) Gallons actually evacuated: 0.6

Sampling Date: 9/23/11 Sampling Time: 0815 Depth to Water: 23.22

Sample I.D.: MW-2 Laboratory: Kiff CalScience Other (C.T.)

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

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

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

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

LL MONITORING DATA SH T

Project #: 110923-DR1	Client: Stellar Env. Solutions
Sampler: DR	Date: 9/23/11
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 24.28	Depth to Water (DTW): 22.12
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 22.55	

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

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

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

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

Time	Temp (°F or (°C))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
0838	19.9	7.08	699	>1000	0.3	
* well dewatered @ 0.4 gal.						
1040	20.7	7.00	741	727	—	

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

Sampling Date: 9/23/11 Sampling Time: 1040 Depth to Water: 22.39

Sample I.D.: MW-3 Laboratory: Kiff CalScience Other (CT)

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

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

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

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

LL MONITORING DATA SH T

Project #: 110923-DR1	Client: Stellar Env. Solutions
Sampler: DR	Date: 9/23/11
Well I.D.: MW-4	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 23.88	Depth to Water (DTW): 19.20
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]: 20.14	

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

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

0.7 (Gals.) X 3 = 2.1 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

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

Time	Temp (°F or (C))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
0744	20.6	6.42	493	496	0.7	
0742	20.4	6.40	469	>1000	1.4	
0744	20.3	6.39	466	>1000	2.1	

Did well dewater? Yes (No) Gallons actually evacuated: 2.1

Sampling Date: 9/23/11 Sampling Time: 0950 Depth to Water: 19.53

Sample I.D.: MW-4 Laboratory: Kiff CalScience Other (CT)

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

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

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

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

LL MONITORING DATA SH T

Project #: 110923-DR1	Client: Stellar Env. Solutions
Sampler: DR	Date: 9/23/11
Well I.D.: MW-5	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 20.10	Depth to Water (DTW): DRY
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: ____

____(Gals.) X 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
* Well is		dry.				

Did well dewater? Yes No Gallons actually evacuated:

Sampling Date: 9/23/11 Sampling Time: Depth to Water:

Sample I.D.: MW-5 Laboratory: Kiff CalScience Other (CT)

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

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

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

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

LL MONITORING DATA SH T

Project #: 110923-DR1	Client: Stetler Env. Solutions
Sampler: DR	Date: 9/23/11
Well I.D.: MW-6	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 20.14	Depth to Water (DTW): 19.31
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

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

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

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

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

Time	Temp (°F or (°C))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
* Insufficient water to purge or sample						

Did well dewater? Yes No Gallons actually evacuated:

Sampling Date: 9/23/11 Sampling Time: Depth to Water:

Sample I.D.: MW-6 Laboratory: Kiff CalScience Other (CT)

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

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

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

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

LL MONITORING DATA SH T

Project #: 110923-DR1	Client: Stellar Env. Solutions
Sampler: DR	Date: 9/23/11
Well I.D.: MW-7	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 20.01	Depth to Water (DTW): 19.39
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

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

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

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

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

Time	Temp (°F or (°C))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
* Insufficient water to purge or sample.						

Did well dewater? Yes No Gallons actually evacuated:

Sampling Date: 9/23/11 Sampling Time: Depth to Water:

Sample I.D.: MW-7 Laboratory: Kiff CalScience Other (CLT)

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

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

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

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

LL MONITORING DATA SH T

Project #: 110923-DR1	Client: Stellar Env. Solutions
Sampler: DR	Date: 9/23/11
Well I.D.: MW-8	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 19.89	Depth to Water (DTW): 19.25
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 Case Volume		Specified Volumes		Calculated Volume
0.1	(Gals.) X	3	=	0.3 Gals.

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
* Insufficient	Water	to	purge	or	sample.	

Did well dewater? Yes No Gallons actually evacuated:

Sampling Date: 9/23/11 Sampling Time: Depth to Water:

Sample I.D.: MW-8 Laboratory: Kiff CalScience Other (CT)

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

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

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

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

APPENDIX B

Current Event Analytical Laboratory Report and Chain-of-Custody Record

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

Laboratory Job Number 231273
ANALYTICAL REPORT

Stellar Environmental Solutions	Project : 2003-43
2198 6th Street	Location : Oakland Auto Works
Berkeley, CA 94710	Level : II

Sample ID	Lab ID
MW-4	231273-001
MW-2	231273-002
MW-3	231273-003
MW-1	231273-004

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

Signature: _____ Date: 09/29/2011
Project Manager

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**231273**
Client:	**Stellar Environmental Solutions**
Project:	**2003-43**
Location:	**Oakland Auto Works**
Request Date:	**09/23/11**
Samples Received:	**09/23/11**

This data package contains sample and QC results for four water samples, requested for the above referenced project on 09/23/11. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B):
No analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B):
No analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):
No analytical problems were encountered.

Chain of Custody Record

231273

Lab job no. _____
Date 9/23/11
Page 1 of 1

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

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

Project Owner Mr. Glen Poywing
Site Address 240 W. MacArthur Blvd
Oakland, CA 94612
Project Name Oakland Autoworks
Project Number 2003-43

Field Sample Number	Location/ Depth	Date	Time	Sample Type	Type/Size of Container	Preservation: Cooler	Preservation: Chemical	Filtered	No. of Containers	TVH-GRO (8015M)	TEPH-D (8015M)	BTEX, MTBE, EDB, EDC (8260B)	5 oxy's (8260B)	Remarks
MW-4	—	9/23/11	0950	W	3 VOAs	yes	HCl	No		X				
MW-2	—	↓	0815	W	6 VOAs/2 Ambers		HCl			X	X	X	X	
MW-3	—		1040	W	↓ ↓		HCl			X	X	X	X	
MW-1	—	↓	1100	W	↓ ↓		HCl			X	X	X	X	

Analysis Required

Relinquished by:	Date	Time	Received by:	Date	Time
Signature _____			Signature _____		
Printed H. Pietropaoli			Printed _____		
Company Stellar Environmental			Company _____		

Relinquished by:	Date	Time	Received by:	Date	Time
Signature _____	9/23/11	1115	Signature _____	9/23/11	11:15
Printed D. Raynal			Printed Pat Gonzalez		
Company Blaine Tech Services			Company C&T		

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

Turnaround Time: 5 Day TAT
Comments: Global ID: TO600102243

2000-00-01

★ Stellar Environmental Solutions

2198 Sixth Street #201, Berkeley, CA 94710

COOLER RECEIPT CHECKLIST Curtis & Tompkins, Ltd.

Login # 231273 Date Received 9/23/11 Number of coolers 1
Client SES Project 2003-43

Date Opened 9/23/11 By (print) I. CHOY (sign) [signature]
Date Logged in ↓ By (print) ↓ (sign) ↓

1. Did cooler come with a shipping slip (airbill, etc) _____ YES (NO)
Shipping info _____

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

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

7. Temperature documentation: * Notify PM if temperature exceeds 6°C

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

☒ Samples Received on ice & cold without a temperature blank

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

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

COMMENTS

_____
_____
_____
_____
_____
_____

Rev 8, 6/11

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	231273	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2003-43	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	179277
Units:	ug/L	Sampled:	09/23/11
Diln Fac:	1.000	Received:	09/23/11

Field ID: MW-4 Lab ID: 231273-001
Type: SAMPLE Analyzed: 09/24/11

Analyte	Result	RL
Gasoline C7-C12	130 Y Z	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	99	78-123

Field ID: MW-2 Lab ID: 231273-002
Type: SAMPLE Analyzed: 09/24/11

Analyte	Result	RL
Gasoline C7-C12	620 Y	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	104	78-123

Field ID: MW-3 Lab ID: 231273-003
Type: SAMPLE Analyzed: 09/24/11

Analyte	Result	RL
Gasoline C7-C12	660 Y	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	108	78-123

Field ID: MW-1 Lab ID: 231273-004
Type: SAMPLE Analyzed: 09/24/11

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

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	108	78-123

Type: BLANK Analyzed: 09/23/11
Lab ID: QC610434

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	99	78-123

Y= Sample exhibits chromatographic pattern which does not resemble standard
Z= Sample exhibits unknown single peak or peaks
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	231273	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2003-43	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC610433	Batch#:	179277
Matrix:	Water	Analyzed:	09/23/11
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	1,062	106	80-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	94	78-123

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	231273	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2003-43	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	179277
MSS Lab ID:	231257-001	Sampled:	09/22/11
Matrix:	Water	Received:	09/22/11
Units:	ug/L	Analyzed:	09/23/11
Diln Fac:	1.000		

Type: MS Lab ID: QC610435

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	19.93	2,000	1,685	83	66-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	104	78-123

Type: MSD Lab ID: QC610436

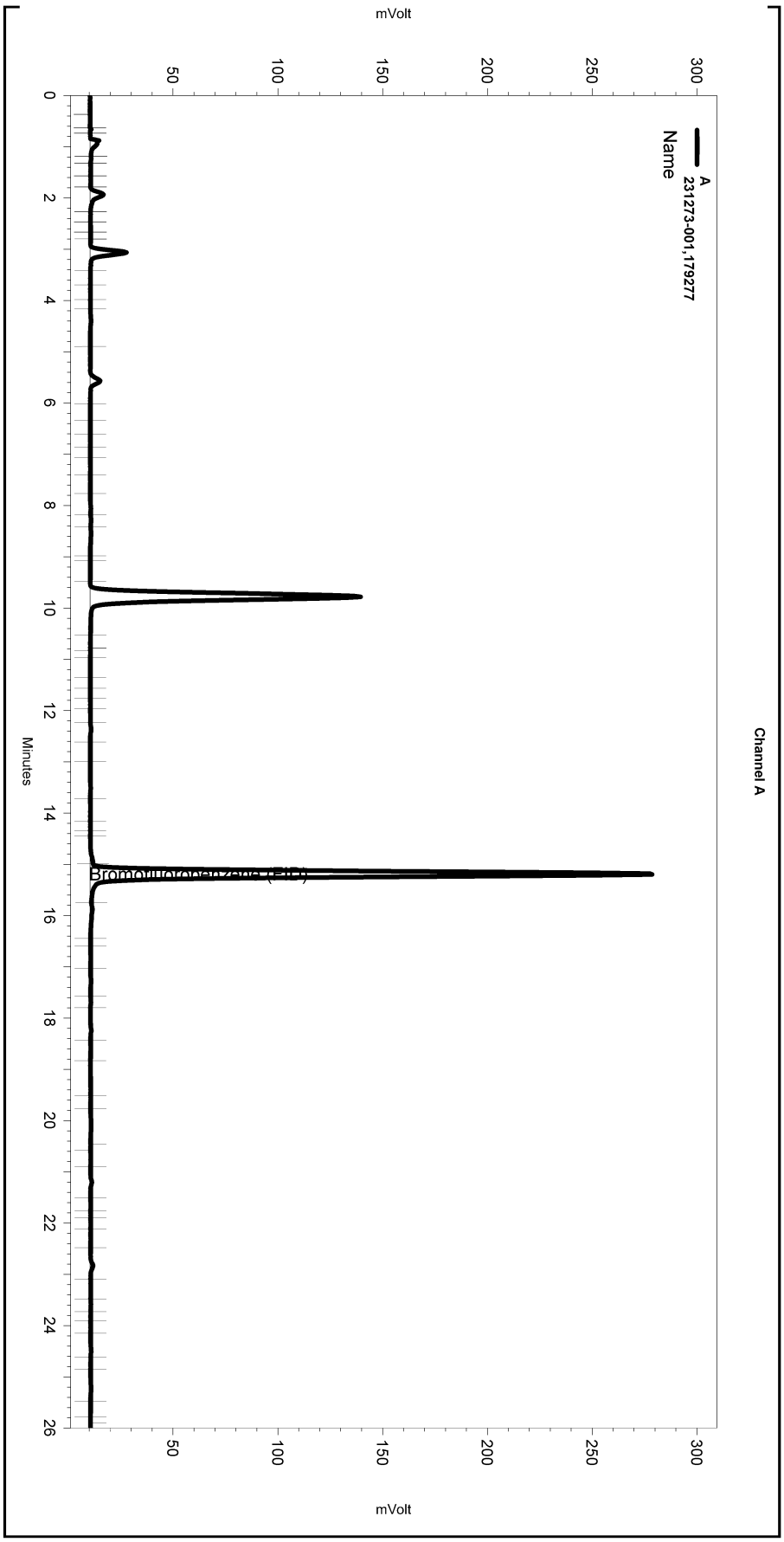
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,882	93	66-120	11	25

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	102	78-123

RPD= Relative Percent Difference

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC07\Sequence\266.seq**
Sample Name: **231273-001,179277**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC07\Data\266-019**
Instrument: GC07 (Offline) Vial: N/A Operator: Tvh 1. Analyst (lims2k3\tvh1)
Method Name: \\Lims\gdrive\ezchrom\Projects\GC07\Method\tvhbtxe153.met

Software Version 3.1.7
Run Date: 9/24/2011 3:31:53 AM
Analysis Date: 9/26/2011 11:01:42 AM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: a1.0



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Yes	Threshold	0	0	50

Manual Integration Fixes

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Yes	Split Peak	14.986	0	0

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Sample Name: **231273-002,179277**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC07\Data\266-020**
Instrument: GC07 (Offline) Vial: N/A Operator: Tvh 1. Analyst (lims2k3\tvh1)
Method Name: \\Lims\gdrive\ezchrom\Projects\GC07\Method\tvhbtxe153.met

Software Version 3.1.7
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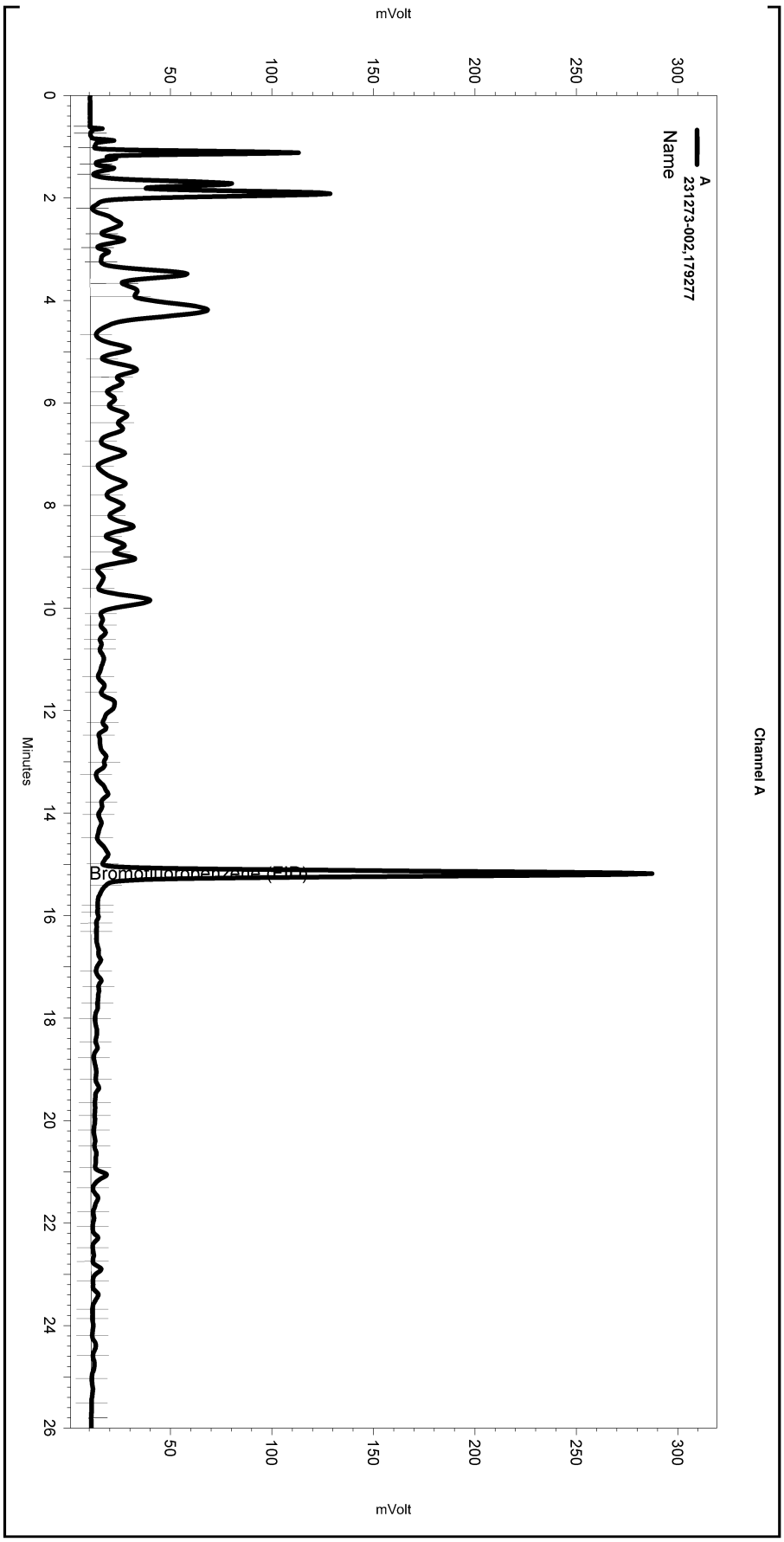
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: a1.0



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Integration Events

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Yes	Threshold	0	0	50

Manual Integration Fixes

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Yes	Split Peak	15.414	0	0

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Sample Name: **231273-003,179277**
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Instrument: GC07 (Offline) Vial: N/A Operator: Tvh 1. Analyst (lims2k3\tvh1)
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Software Version 3.1.7
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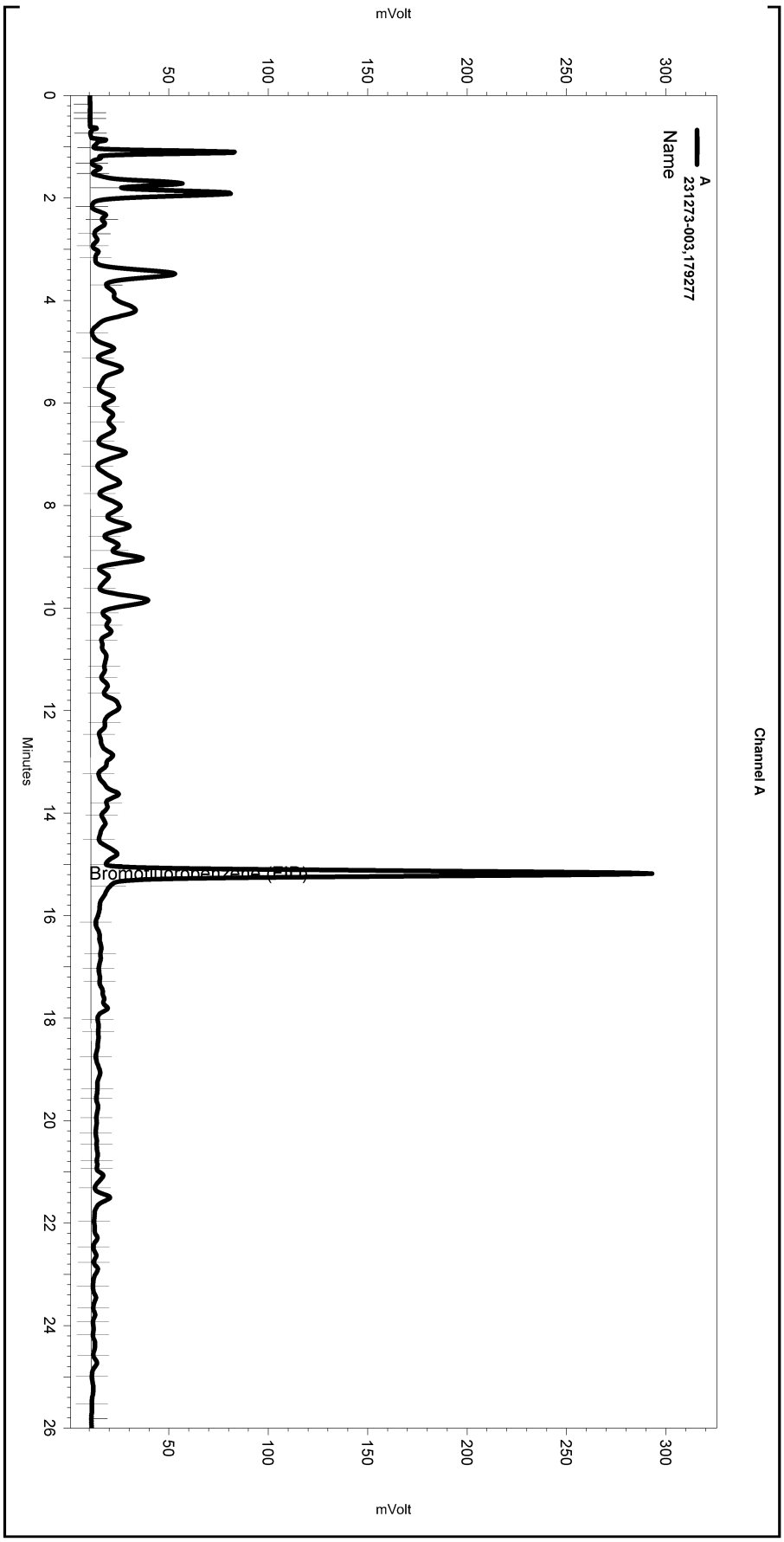
Vial & pH or Core ID: a1.0



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Yes	Threshold	0	0	50

Manual Integration Fixes

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Yes	Split Peak	15.43	0	0

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Sample Name: **231273-004,179277**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC07\Data\266-022**
Instrument: GC07 (Offline) Vial: N/A Operator: Tvh 1. Analyst (lims2k3\tvh1)
Method Name: \\Lims\gdrive\ezchrom\Projects\GC07\Method\tvhbtxe153.met

Software Version 3.1.7
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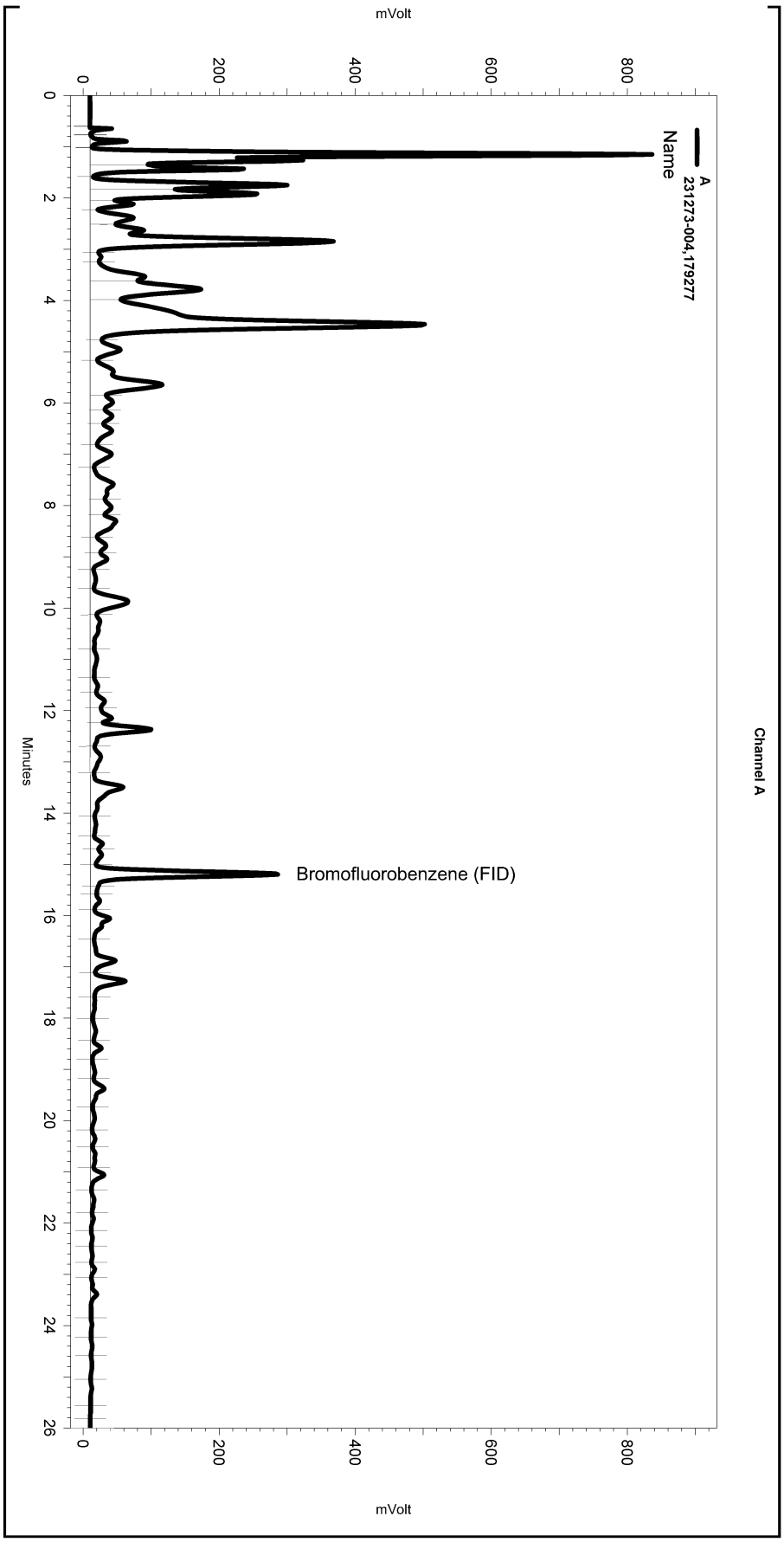
Analysis Date: 9/26/2011 11:05:11 AM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: a1.0



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Integration Events

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

Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC07\Data\266-022

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Split Peak	15.431	0	0

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Sample Name: **ccv,tvh,s17785,2.5/5000**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC07\Data\266-003**
Instrument: GC07 Vial: N/A Operator: lims2k3\tvh3
Method Name: \\Lims\gdrive\ezchrom\Projects\GC07\Method\tvhbtxe153.met

Software Version 3.1.7
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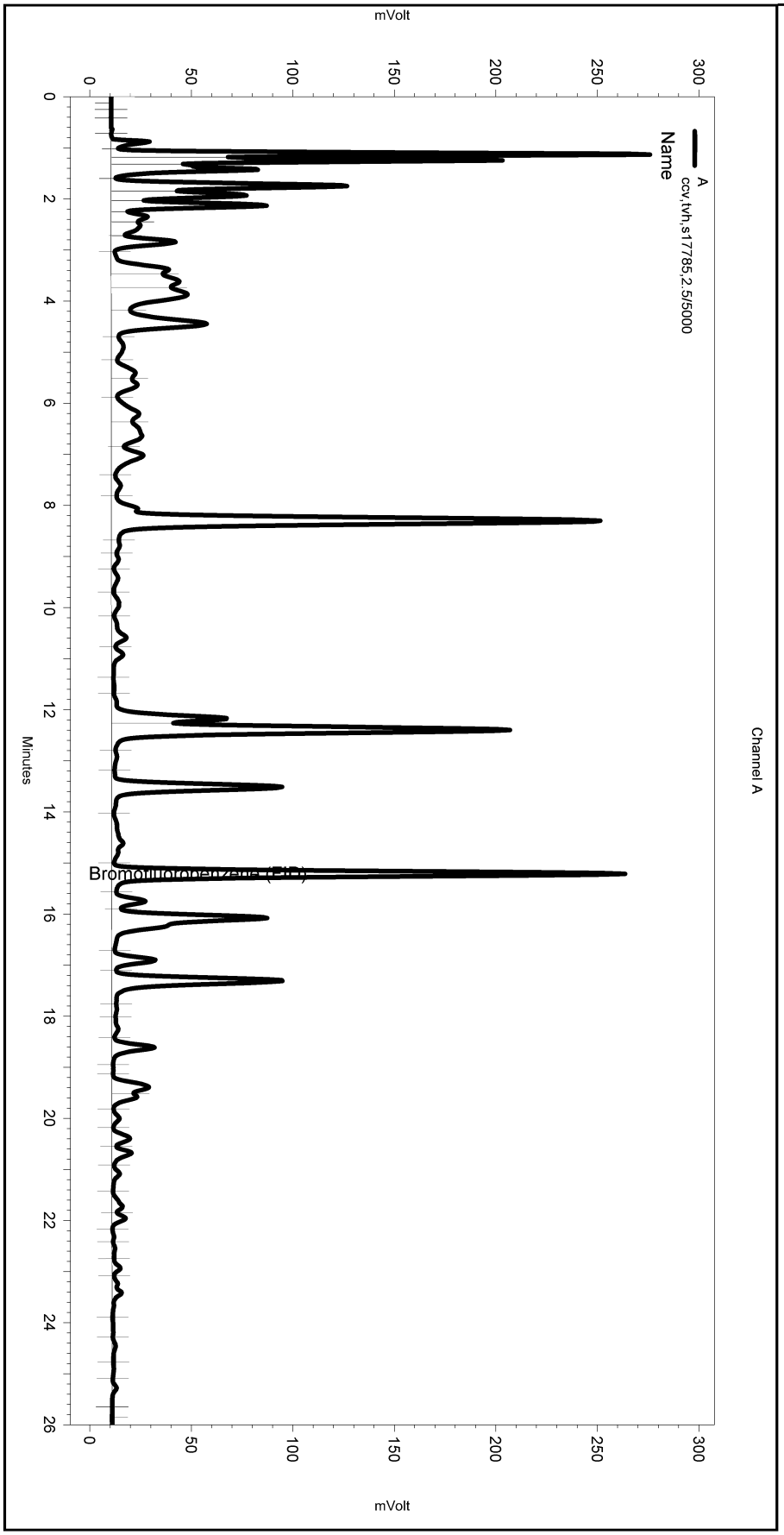
Analysis Date: 9/23/2011 1:17:02 PM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: {Data Description}



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Integration Events

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

Manual Integration Fixes

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Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
None				

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	231273	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 3520C
Project#:	2003-43	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	09/23/11
Units:	ug/L	Received:	09/23/11
Diln Fac:	1.000	Prepared:	09/23/11
Batch#:	179283	Analyzed:	09/26/11

Field ID: MW-2 Lab ID: 231273-002
Type: SAMPLE

Analyte	Result	RL
Diesel C10-C24	440 Y	50

Surrogate	%REC	Limits
o-Terphenyl	105	68-120

Field ID: MW-3 Lab ID: 231273-003
Type: SAMPLE

Analyte	Result	RL
Diesel C10-C24	860 Y	50

Surrogate	%REC	Limits
o-Terphenyl	93	68-120

Field ID: MW-1 Lab ID: 231273-004
Type: SAMPLE

Analyte	Result	RL
Diesel C10-C24	410 Y	50

Surrogate	%REC	Limits
o-Terphenyl	105	68-120

Type: BLANK Lab ID: QC610460

Analyte	Result	RL
Diesel C10-C24	ND	50

Surrogate	%REC	Limits
o-Terphenyl	108	68-120

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

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	231273	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 3520C
Project#:	2003-43	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC610461	Batch#:	179283
Matrix:	Water	Prepared:	09/23/11
Units:	ug/L	Analyzed:	09/26/11

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,212	88	61-120

Surrogate	%REC	Limits
o-Terphenyl	92	68-120

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	231273	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 3520C
Project#:	2003-43	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	179283
MSS Lab ID:	231269-001	Sampled:	09/22/11
Matrix:	Water	Received:	09/23/11
Units:	ug/L	Prepared:	09/23/11
Diln Fac:	1.000	Analyzed:	09/26/11

Type: MS Lab ID: QC610462

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	2,704	2,500	5,247	102	33-140

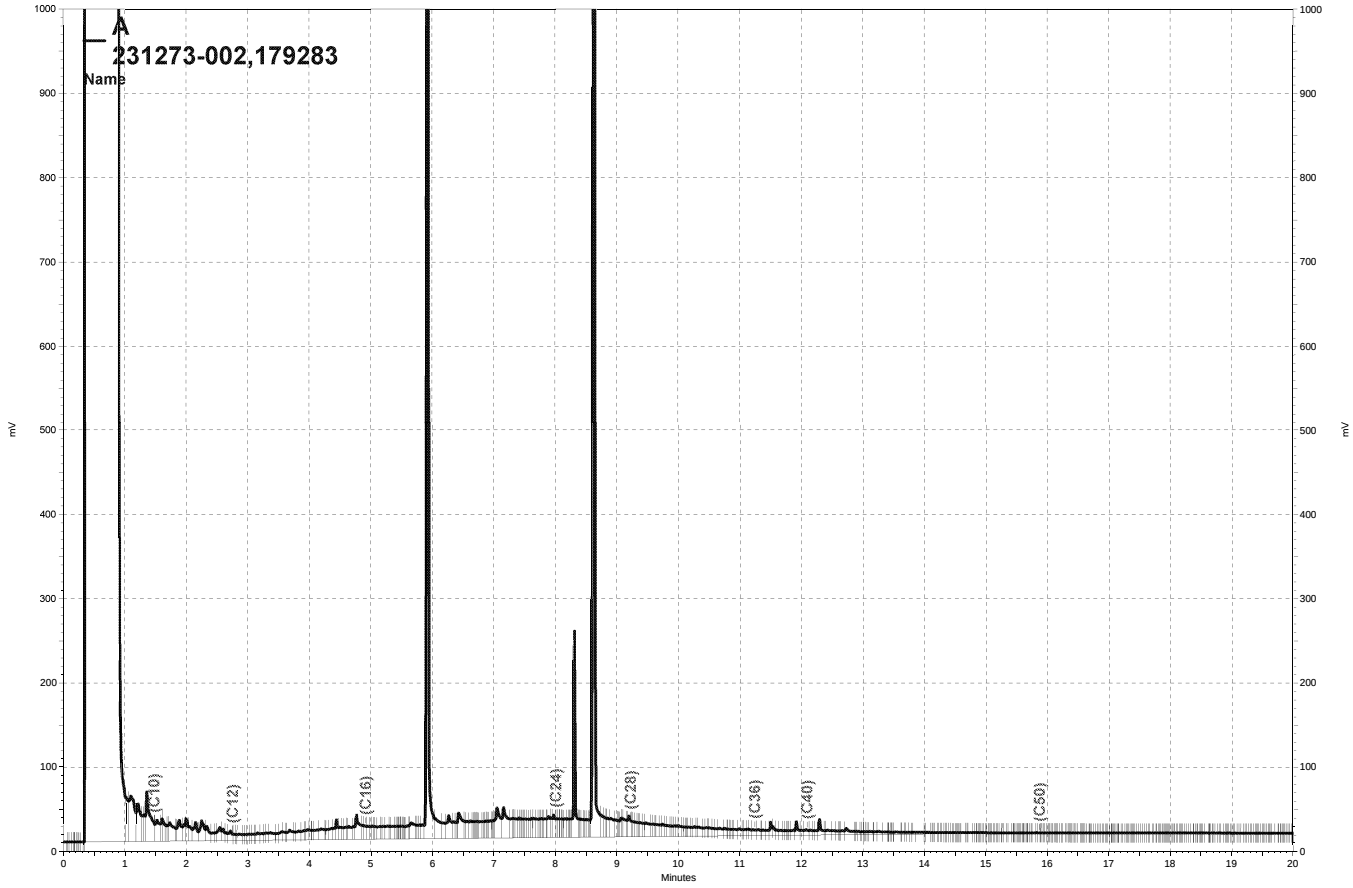
Surrogate	%REC	Limits
o-Terphenyl	104	68-120

Type: MSD Lab ID: QC610463

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	4,962	90	33-140	6	30

Surrogate	%REC	Limits
o-Terphenyl	89	68-120

RPD= Relative Percent Difference



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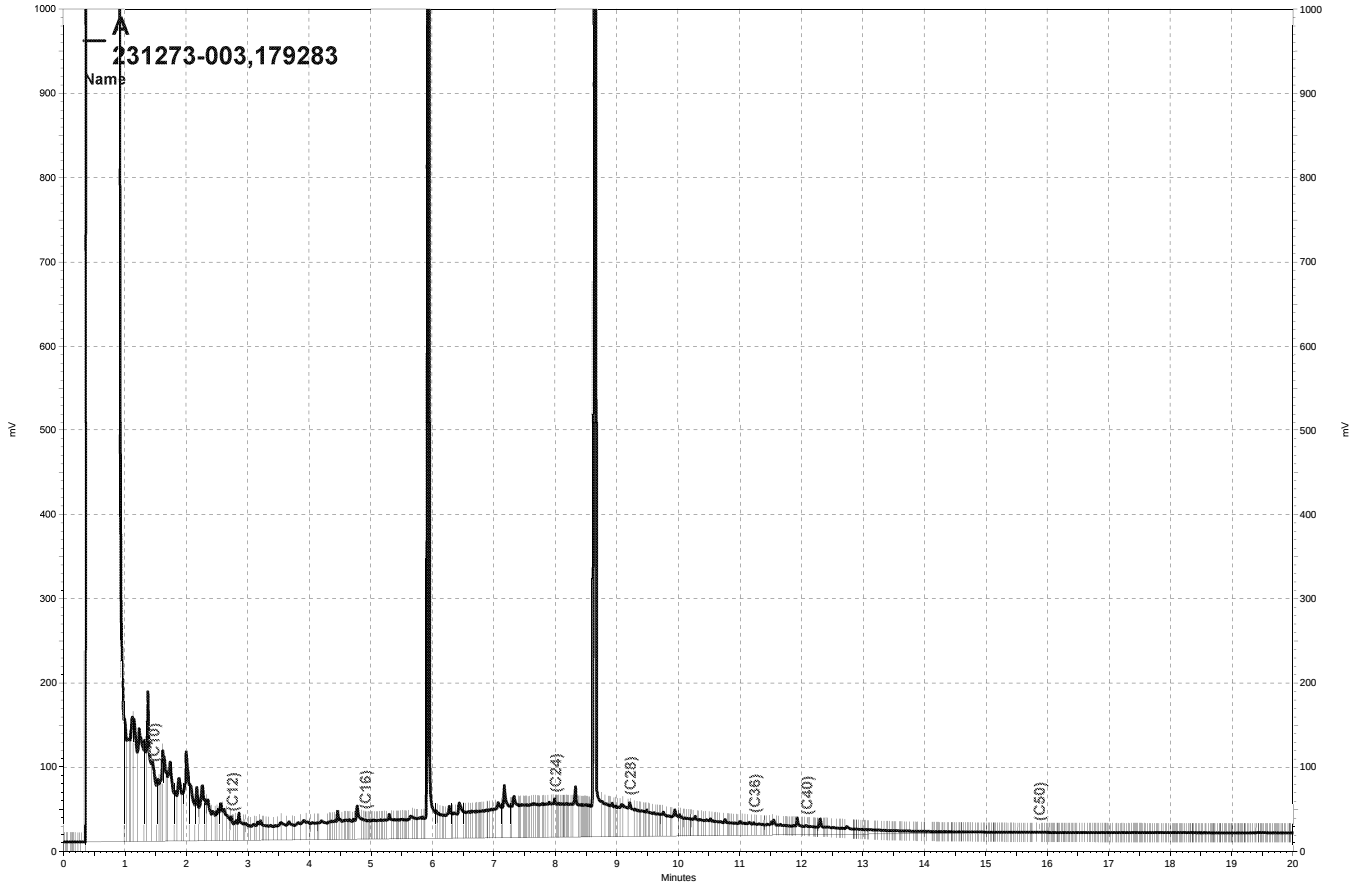

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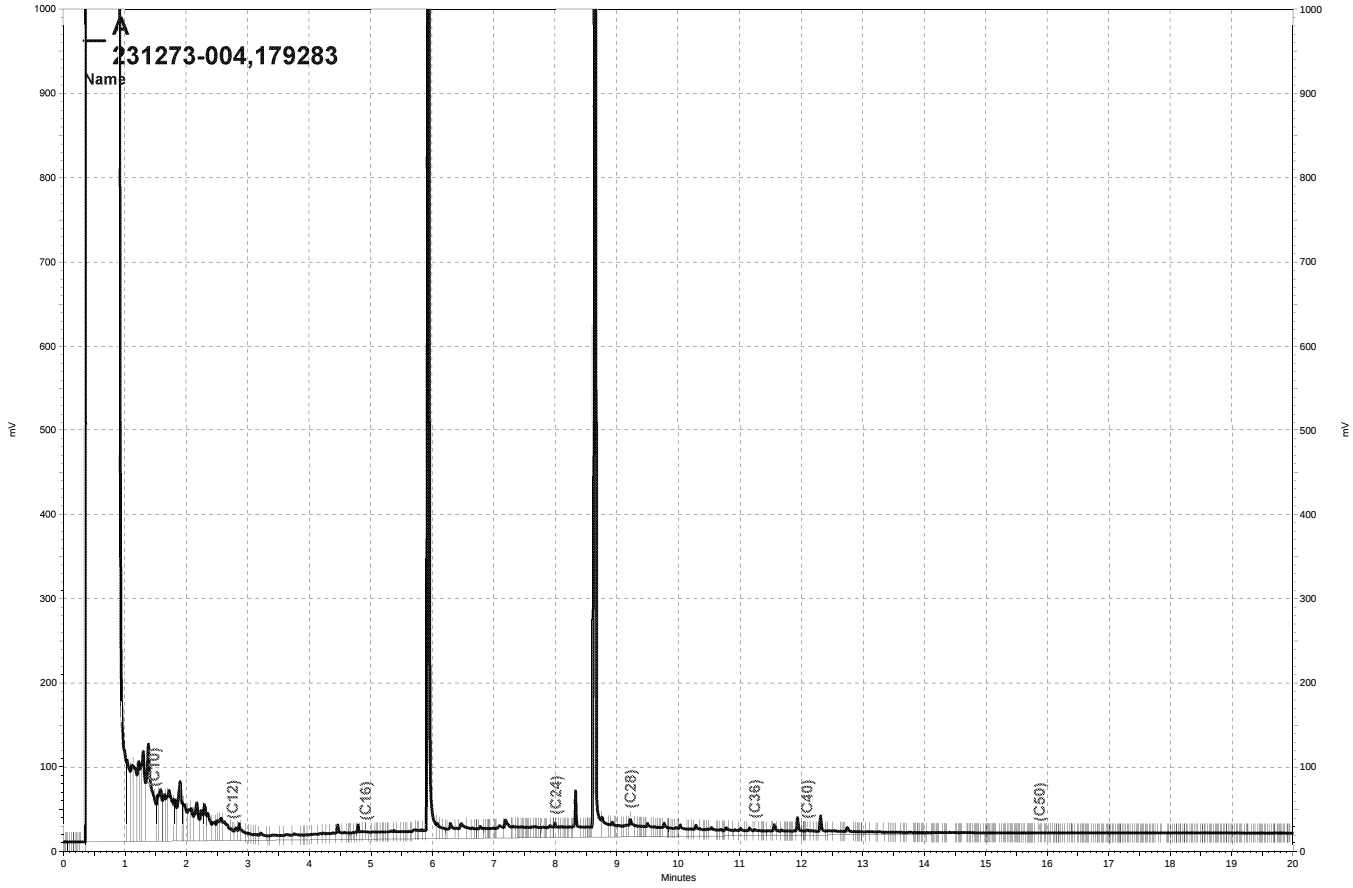

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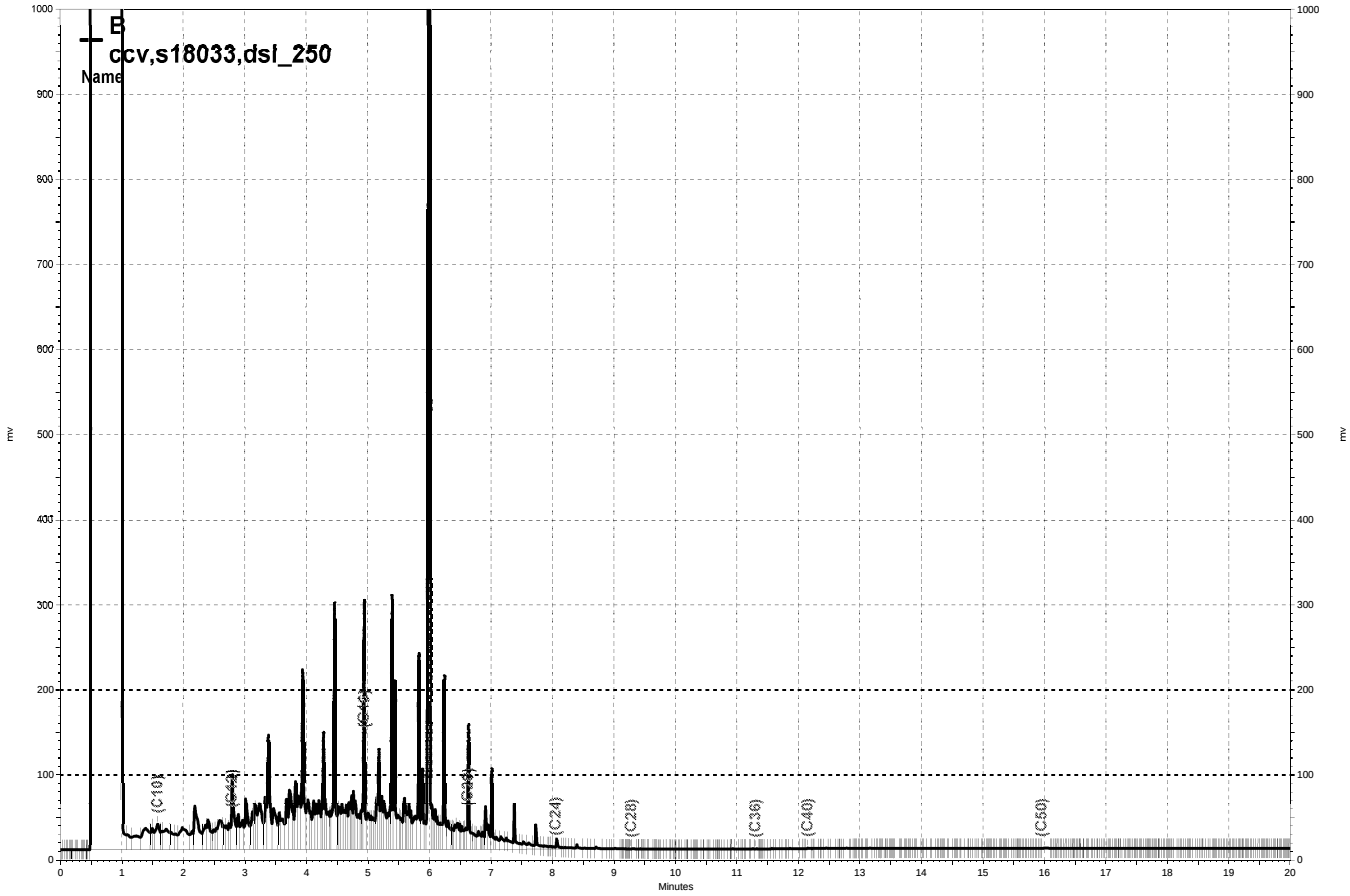

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Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	231273	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2003-43	Analysis:	EPA 8260B
Field ID:	MW-2	Batch#:	179300
Lab ID:	231273-002	Sampled:	09/23/11
Matrix:	Water	Received:	09/23/11
Units:	ug/L	Analyzed:	09/26/11
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	39	10
MTBE	9.1	0.5
Isopropyl Ether (DIPE)	0.7	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	2.2	0.5
Benzene	1.3	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	0.8	0.5
m,p-Xylenes	0.9	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	112	80-127
1,2-Dichloroethane-d4	103	73-145
Toluene-d8	90	80-120
Bromofluorobenzene	102	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	231273	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2003-43	Analysis:	EPA 8260B
Field ID:	MW-3	Batch#:	179300
Lab ID:	231273-003	Sampled:	09/23/11
Matrix:	Water	Received:	09/23/11
Units:	ug/L	Analyzed:	09/26/11
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	54	10
MTBE	9.0	0.5
Isopropyl Ether (DIPE)	3.6	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	2.4	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	107	80-127
1,2-Dichloroethane-d4	99	73-145
Toluene-d8	91	80-120
Bromofluorobenzene	94	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	231273	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2003-43	Analysis:	EPA 8260B
Field ID:	MW-1	Batch#:	179346
Lab ID:	231273-004	Sampled:	09/23/11
Matrix:	Water	Received:	09/23/11
Units:	ug/L	Analyzed:	09/27/11
Diln Fac:	2.500		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	25
MTBE	ND	1.3
Isopropyl Ether (DIPE)	ND	1.3
Ethyl tert-Butyl Ether (ETBE)	ND	1.3
1,2-Dichloroethane	1.4	1.3
Benzene	200	1.3
Methyl tert-Amyl Ether (TAME)	ND	1.3
Toluene	10	1.3
1,2-Dibromoethane	ND	1.3
Ethylbenzene	10	1.3
m,p-Xylenes	34	1.3
o-Xylene	15	1.3

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-127
1,2-Dichloroethane-d4	89	73-145
Toluene-d8	96	80-120
Bromofluorobenzene	92	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	231273	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2003-43	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	179300
Units:	ug/L	Analyzed:	09/26/11
Diln Fac:	1.000		

Type: BS Lab ID: QC610527

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	110.0	88	46-141
MTBE	25.00	26.00	104	59-123
Isopropyl Ether (DIPE)	25.00	26.78	107	52-139
Ethyl tert-Butyl Ether (ETBE)	25.00	28.48	114	56-131
1,2-Dichloroethane	25.00	27.82	111	71-135
Benzene	25.00	27.73	111	80-122
Methyl tert-Amyl Ether (TAME)	25.00	23.51	94	65-120
Toluene	25.00	24.07	96	80-120
1,2-Dibromoethane	25.00	23.39	94	79-120
Ethylbenzene	25.00	24.03	96	80-120
m,p-Xylenes	50.00	48.71	97	80-120
o-Xylene	25.00	26.27	105	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	106	80-127
1,2-Dichloroethane-d4	99	73-145
Toluene-d8	89	80-120
Bromofluorobenzene	97	80-120

Type: BSD Lab ID: QC610528

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	107.3	86	46-141	2	31
MTBE	25.00	25.71	103	59-123	1	20
Isopropyl Ether (DIPE)	25.00	25.97	104	52-139	3	20
Ethyl tert-Butyl Ether (ETBE)	25.00	27.40	110	56-131	4	20
1,2-Dichloroethane	25.00	26.12	104	71-135	6	20
Benzene	25.00	25.44	102	80-122	9	20
Methyl tert-Amyl Ether (TAME)	25.00	22.55	90	65-120	4	20
Toluene	25.00	22.41	90	80-120	7	20
1,2-Dibromoethane	25.00	22.83	91	79-120	2	20
Ethylbenzene	25.00	22.41	90	80-120	7	20
m,p-Xylenes	50.00	44.05	88	80-120	10	20
o-Xylene	25.00	22.83	91	80-120	14	20

Surrogate	%REC	Limits
Dibromofluoromethane	110	80-127
1,2-Dichloroethane-d4	99	73-145
Toluene-d8	90	80-120
Bromofluorobenzene	98	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	231273	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2003-43	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC610529	Batch#:	179300
Matrix:	Water	Analyzed:	09/26/11
Units:	ug/L		

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

Surrogate	%REC	Limits
Dibromofluoromethane	115	80-127
1,2-Dichloroethane-d4	103	73-145
Toluene-d8	87	80-120
Bromofluorobenzene	102	80-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	231273	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2003-43	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	179346
Units:	ug/L	Analyzed:	09/27/11
Diln Fac:	1.000		

Type: BS Lab ID: QC610709

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	95.04	76	46-141
MTBE	25.00	19.16	77	59-123
Isopropyl Ether (DIPE)	25.00	21.86	87	52-139
Ethyl tert-Butyl Ether (ETBE)	25.00	21.67	87	56-131
1,2-Dichloroethane	25.00	22.40	90	71-135
Benzene	25.00	24.98	100	80-122
Methyl tert-Amyl Ether (TAME)	25.00	20.73	83	65-120
Toluene	25.00	23.50	94	80-120
1,2-Dibromoethane	25.00	22.48	90	79-120
Ethylbenzene	25.00	23.64	95	80-120
m,p-Xylenes	50.00	45.70	91	80-120
o-Xylene	25.00	23.20	93	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-127
1,2-Dichloroethane-d4	95	73-145
Toluene-d8	101	80-120
Bromofluorobenzene	93	80-120

Type: BSD Lab ID: QC610710

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	102.3	82	46-141	7	31
MTBE	25.00	19.83	79	59-123	3	20
Isopropyl Ether (DIPE)	25.00	22.12	88	52-139	1	20
Ethyl tert-Butyl Ether (ETBE)	25.00	22.72	91	56-131	5	20
1,2-Dichloroethane	25.00	23.98	96	71-135	7	20
Benzene	25.00	25.81	103	80-122	3	20
Methyl tert-Amyl Ether (TAME)	25.00	21.09	84	65-120	2	20
Toluene	25.00	26.00	104	80-120	10	20
1,2-Dibromoethane	25.00	23.65	95	79-120	5	20
Ethylbenzene	25.00	25.43	102	80-120	7	20
m,p-Xylenes	50.00	48.48	97	80-120	6	20
o-Xylene	25.00	25.24	101	80-120	8	20

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-127
1,2-Dichloroethane-d4	95	73-145
Toluene-d8	97	80-120
Bromofluorobenzene	94	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	231273	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2003-43	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC610743	Batch#:	179346
Matrix:	Water	Analyzed:	09/27/11
Units:	ug/L		

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

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-127
1,2-Dichloroethane-d4	96	73-145
Toluene-d8	98	80-120
Bromofluorobenzene	102	80-120

ND= Not Detected
RL= Reporting Limit

APPENDIX C

Historical Groundwater Monitoring Well Analytical Data

Table C-1
Historical Groundwater Monitoring Well Groundwater Analytical Results
Petroleum and Aromatic Hydrocarbons (µg/L)
240 W. MacArthur Boulevard, Oakland, California

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
Yes	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
Yes	23	Jun-04	9,300	4,000	1,700	75	92	350	6.0
Yes	24	Sep-04	9,100	97	920	19	82	201	7.2
Yes	25	Dec-04	11,000	3,300	830	21	74	118	7.9
Yes	26	Mar-05	4,700	3,500	450	28	42	97	6.7
Yes	27	Jun-05	21,000	6,800	1,900	270	320	2,800	*< 13*
Yes	28	Sep-05	23,000	2,500	2,100	100	200	880	*< 2.5*
Yes	29	Dec-05	4,300	3,000	500	22	72	228	5.5
Yes	30	Mar-06	11,000	3,000	340	45	89	630	4.3
Yes	31	Jun-06	21,000	8,500	1,600	160	170	1,000	*< 2.5*
Yes	32	Sep-06	13,000	6,200	1,700	76	110	440	*< 13*
Yes	33	Dec-06	16,000	4,100	1,500	100	160	670	*< 13*
Yes	34	Mar-07	22,000	6,200	1,700	140	180	1,100	*< 13*
Yes	35	Jun-07	3,600	1,500	210	10	19	61	3.2
Yes	36	Sep-07	1,400	1,700	50	*< 0.5*	1.3	*< 0.5*	4.1
Yes	37	Dec-07	2,700	840	170	5.5	7.5	34.6	3.1
Yes	38	Mar-08	2,300	1,000	77	<2.5	8.2	10	*<2.5*
No	39	Jun-08	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
Yes	40	Sep-08	1,700	2,600	170	5	3	19	*<1.3*
Yes	41	Dec-08	4,300	1,100	180	6.7	12	27.3	*<1.3*
Yes	42	Mar-09	9,200	5,200	84	6.4	29	54.0	1.0
Yes	43	Sep-09	4,300	5,200	370	14.0	52	33.0	0.5
Yes	44	Sep-10	3,400	2,100	190	10.0	16	84.0	2.5
Yes	45	Apr-11	2,500	1,400	75	2.3	9	24.3	*<0.5*
Yes	46	Sep-11	2,100	410	200	10.0	13	49.0	*<.1.3*

(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-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	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
Yes	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
Yes	23	Jun-04	1,200	370	42	0.7	2.6	0.9	170
Yes	24	Sep-04	1,500	280	14	*< 0.5*	*< 0.5*	0.6	130
Yes	25	Dec-04	1,400	540	26	1.1	1.8	3.5	91
Yes	26	Mar-05	2,300	420	5.3	*< 1.0*	3.7	*< 2.0*	120
Yes	27	Jun-05	1,600	500	14	*< 0.5*	1.8	0.68	66
Yes	28	Sep-05	1,400	210	30	1.3	12	26	58
Yes	29	Dec-05	1,300	800	4.9	0.6	0.7	0.8	74
Yes	30	Mar-06	1,300	400	3.2	*< 0.7*	*< 0.7*	*< 1.4*	120
Yes	31	Jun-06	1,400	1,200	33.0	1.3	3.5	*<1.6*	84
Yes	32	Sep-06	8,300	1,600	67.0	4.1	4.6	15.4	64
Yes	33	Dec-06	1,500	940	22.0	2.9	2.6	3.5	67
Yes	34	Mar-07	1,200	760	65	1.9	3.7	1.6	59
Yes	35	Jun-07	2,900	1,000	67	3.2	14.0	7.5	49
No	36	Sep-07	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
Yes	37	Dec-07	1,200	510	14	*< 0.5*	*< 0.5*	0.5	33
Yes	38	Mar-08	1,100	3,800	13	0.9	0.9	2.3	61
Yes	39	Jun-08	2,400	4,300	3.9	2.2	3	9.4	73
Yes	40	Sep-08	1,300	1,800	12	8.6	10	34.6	72
Yes	41	Dec-08	2,100	620	46	22	39	73	41
Yes	42	Mar-09	2,200	1,600	22	3	10	16	17
Yes	43	Sep-09	750	940	11	1	5	3	11
Yes	44	Sep-10	1,400	840	9	2.6	1.7	9.1	30
Yes	45	Apr-11	810	520	*<0.5*	*<0.5*	*<0.5*	*<0.5*	22
Yes	46	Sep-11	620	440	1.3	*<0.5*	10	0.9	9

(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	5	9.3	*NA*
Yes	3	Mar-98	1,000	*NA*	6	*< 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
Yes	21	Dec-03	6,860	500	312	20	55	58	309
Yes	22	Mar-04	5,490	500	82	34	46	49	249
Yes	23	Jun-04	5,400	1,100	150	30	45	66	130
Yes	24	Sep-04	5,400	1,500	70	3.2	16	13	110
Yes	25	Dec-04	5,300	2,400	91	7.4	21	19	92
Yes	26	Mar-05	4,700	2,000	19	1.1	10	3.7	76
Yes	27	Jun-05	4,200	1,800	49	4.5	23	16	66
Yes	28	Sep-05	5,000	950	60	3.1	12	26	59
Yes	29	Dec-05	3,200	1,800	29	1.3	6.6	5.6	80
Yes	30	Mar-06	4,100	1,200	24	1.1	8.5	3.4	99
Yes	31	Jun-06	4,000	1,400	89.0	8.4	14.0	16.7	75
Yes	32	Sep-06	6,100	2,600	190	15.0	24.0	59.0	51
Yes	33	Dec-06	4,500	2,000	110	4.0	7.3	19.1	47
Yes	34	Mar-07	3,800	2,400	90	3.7	9.8	11.1	51
Yes	35	Jun-07	4,500	2,100	8.9	1.4	14.0	4.0	77
Yes	36	Sep-07	4,000	*NA*	4.6	*< 0.5*	1.3	*< 0.5*	75
Yes	37	Dec-07	1,400	2,600	11.0	0.8	0.7	3.9	84
Yes	38	Mar-08	1,700	9,600	19.0	*<0.5*	*<0.5*	0.6	100
Yes	39	Jun-08	2,100	1,200	7.9	*<0.5*	*<0.5*	0.8	86
Yes	40	Sep-08	1,700	2,600	170	5	3	19	*<1.3*
Yes	41	Dec-08	4,300	1,100	180	6.7	12	27.3	*<1.3*
Yes	40	Sep-08	1,400	4,300	14.0	*<0.5*	0.7	1.5	75
Yes	41	Dec-08	1,700	4,100	79	1.6	5.2	10.6	47
Yes	42	Mar-09	1,100	5,100	41	0.6	2.4	3.0	44
Yes	43	Sep-09	1,100	1,700	23	*<0.5*	1.8	1.9	19
Yes	44	Sep-10	1,300	890	*<0.5*	*<0.5*	*<0.5*	*<0.5*	7.3
Yes	45	Apr-11	1,100	910	*<0.5*	*<0.5*	*<0.5*	*<0.5*	19.0
Yes	46	Sep-11	660	860	*<0.5*	*<0.5*	*<0.5*	*<0.5*	9.0

(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-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*
Yes	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*
Yes	23	Jun-04	*< 50*	*NA*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	0.9
Yes	24	Sep-04	*< 50*	*NA*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	2.3
Yes	25	Dec-04	*< 50*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Yes	26	Mar-05	*< 50*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Yes	27	Jun-05	*< 50*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Yes	28	Sep-05	*< 50*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Yes	29	Dec-05	*< 50*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Yes	30	Mar-06	*< 50*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Yes	31	Jun-06	*< 50*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Yes	32	Sep-06	*< 50*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Yes	33	Dec-06	59	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Yes	34	Mar-07	*<50*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Yes	35	Jun-07	57	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Yes	36	Sep-07	70	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Yes	37	Dec-07	90	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Yes	38	Mar-08	120	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Yes	39	Jun-08	190	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Yes	40	Sep-08	140	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Yes	41	Dec-08	130	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Yes	42	Mar-09	81	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Yes	43	Sep-09	*<50*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Yes	44	Sep-10	160	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Yes	45	Apr-11	150	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Yes	46	Sep-11	130	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*

(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*
Yes	21	Dec-03	11,900	800	627	263	288	1,230	595
Yes	22	Mar-04	20,700	850	867	266	305	678	145
Yes	23	Jun-04	12,000	1,700	920	240	260	1,150	*< 3.1*
Yes	24	Sep-04	13,000	1,900	580	240	260	1,260	*< 4.2*
Yes	25	Dec-04	16,000	3,300	730	200	250	1,100	*< 4.2*
Yes	26	Mar-05	6,300	4,600	190	28	42	280	*< 1.7*
Yes	27	Jun-05	16,000	4,100	1,100	260	380	1,590	*< 7.1*
Yes	28	Sep-05	15,000	3,600	810	210	300	1,300	*< 1.3*
Yes	29	Dec-05	9,600	3,600	270	80	110	710	*< 1.7*
Yes	30	Mar-06	9,800	5,100	240	47	97	590	*< 2.0*
Yes	31	Jun-06	28,000	4,900	920.0	250.0	350.0	1,480	*< 2.0*
Yes	32	Sep-06	12,000	2,400	580	170	230	980	*< 3.6*
Yes	33	Dec-06	15,000	3,400	510	160	260	1,190	*<3.6*
Yes	34	Mar-07	20,000	4,600	910	230	360	1,560	*<3.6*
No	35	Jun-07	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
No	36	Sep-07	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
No	37	Dec-07	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
No	38	Mar-08	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
No	39	Jun-08	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
No	40	Sep-08	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
Yes	41	Dec-08	32,000	34,000	400	90	64	640	*<6.3*
Yes	42	Mar-09	9,700	9,000	140	34	38	280	*<107*
Yes	43	Sep-09	210,000	44,000	730	160	270	2,000	*<10*
Yes	44	Sep-10	140,000	480,000	68	10.0	16	84.0	2.5
No	45	Apr-11	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
No	46	Sep-11	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*

(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-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
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	23	58	*< 0.5*
Yes	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
Yes	23	Jun-04	710	830	14.0	0.7	5.2	6.6	*< 0.5*
Yes	24	Sep-04	350	600	*< 0.5*	2.4	*< 0.5*	*< 0.5*	*< 0.5*
Yes	25	Dec-04	280	1,100	4.9	*< 0.5*	1.4	4.4	*< 0.5*
Yes	26	Mar-05	300	980	5.4	*< 0.5*	3.3	2.3	*< 0.5*
Yes	27	Jun-05	150	1,100	*< 0.5*	*< 0.5*	*< 0.5*	*0.77*	28
Yes	28	Sep-05	680	200	13	0.9	6.6	13	*< 0.5*
Yes	29	Dec-05	240	890	3.6	*< 0.5*	0.7	2.4	0.5
Yes	30	Mar-06	530	950	8.3	*< 0.5*	4.0	2.1	0.6
Yes	31	Jun-06	460	1,300	8.3	*< 0.5*	1.4	2.6	*< 0.5*
Yes	32	Sep-06	530	730	10.0	0.8	4.1	7.5	*< 0.5*
Yes	33	Dec-06	500	750	7.5	*< 0.5*	2.6	2.5	*< 0.5*
Yes	34	Mar-07	430	530	7.1	*< 0.5*	1.7	0.8	*< 0.5*
No	35	Jun-07	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
No	36	Sep-07	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
No	37	Dec-07	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
No	38	Mar-08	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
No	39	Jun-08	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
No	40	Sep-08	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
Yes	41	Dec-08	810	810	2.6	*<0.5*	0.8	3.1	1.1
Yes	42	Mar-09	740	3,300	14.0	*<0.5*	1.6	8.6	2.6
Yes	43	Sep-09	340	1,600	2.7	*<0.5*	0.9	1.2	1.3
No	44	Sep-10	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
No	45	Apr-11	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
No	46	Sep-11	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*

(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-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*
Yes	21	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
Yes	23	Jun-04	*< 50*	*NA*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*
Yes	24	Sep-04	*< 50*	*NA*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*
Yes	25	Dec-04	*< 50*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Yes	26	Mar-05	*< 50*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Yes	27	Jun-05	*< 50*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Yes	28	Sep-05	*< 50*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Yes	29	Dec-05	*< 50*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Yes	30	Mar-06	*< 50*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Yes	31	Jun-06	*< 50*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Yes	32	Sep-06	*< 50*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Yes	33	Dec-06	*< 50*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Yes	34	Mar-07	*< 50*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
No	35	Jun-07	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
No	36	Sep-07	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
No	37	Dec-07	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
No	38	Mar-08	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
No	39	Jun-08	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
No	40	Sep-08	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
Yes	41	Dec-08	*<50*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Yes	42	Mar-09	*<50*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Yes	43	Sep-09	*<50*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
No	44	Sep-10	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
No	45	Apr-11	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
No	46	Sep-11	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*

(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	Aug-03	190	*< 50*	*< 0.5*	*< 0.5*	*< 0.5*	0.6	*< 0.5*
Yes	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
Yes	23	Jun-04	320	68	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	120
Yes	24	Sep-04	280	2600	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	120
Yes	25	Dec-04	270	84	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	94
Yes	26	Mar-05	270	120	*< 0.5*	*< 0.5*	*< 0.5*	*< 1.0*	66
Yes	27	Jun-05	510	63	6.8	*< 0.5*	2.4	5.3	*< 0.5*
Yes	28	Sep-05	520	*< 50*	*< 0.5*	*< 0.5*	*< 0.5*	*< 1.0*	65
Yes	29	Dec-05	65	57	*< 0.5*	*< 0.5*	*< 0.5*	*< 1.0*	29
Yes	30	Mar-06	140	120	*< 0.5*	*< 0.5*	*< 0.5*	*0.6*	24
Yes	31	Jun-06	710	170	*< 0.5*	*< 0.5*	*< 0.5*	*< 1.0*	81
Yes	32	Sep-06	330	260	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	44
Yes	33	Dec-06	63	*< 50*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	21
Yes	34	Mar-07	250	130	*< 0.5*	*< 0.5*	*< 0.5*	0.5	5
No	35	Jun-07	320	150	*5.2*	*<0.5*	*<0.5*	0.7	89
No	36	Sep-07	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
No	37	Dec-07	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
No	38	Mar-08	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
No	39	Jun-08	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
No	40	Sep-08	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
Yes	41	Dec-08	350	280	*<0.5*	*<0.5*	*<0.5*	*<0.5*	22
Yes	42	Mar-09	110	1,000	*<0.5*	*<0.5*	*<0.5*	*<0.5*	5.2
Yes	43	Sep-09	190	1,300	*<0.5*	*<0.5*	*<0.5*	*<0.5*	5.7
No	44	Sep-10	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
No	45	Apr-11	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
No	46	Sep-11	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*

Notes:

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

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 the information available to SES)

NS = Well not sampled

TABLE C-2
Fuel Oxygenates and VOCs (mg/L)
240 W. MacArthur Boulevard, Oakland, California

MW-1													
Sampling Event No.	**Date Sampled**	**EDB**	**EDC**	**1,2,4-TMB**	**1,3,5-TMB**	**t-Butanol**	**TBA**	**DIPE**	**Naphthalene**	**cis-1,2-DCE**	**TCE**	**PCE**	**Others**
7	Jun-00	*< 5.0*	*< 5.0*	51	*< 5*	*< 1,000*	*< 1000*	*< 50*	*<5*	*< 5*	*< 5*	*< 5*	*ND*
14	Mar-02	*< 1.0*	*< 1.0*	*< 1*	1.6	< 10	*NA*	*< 2*	*< 1*	*< 1*	*< 1*	*< 1*	*ND*
18	Jan-03	*< 50*	*< 50*	150	*< 50*	*NA*	68	*< 10*	*< 50*	*< 50*	*< 50*	*< 50*	*ND*
19	Mar-03	*< 0.26*	*< 0.17*	373	*< 0.49*	*NA*	*< 10*	*< 0.29*	*< 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*	*NA*
21	Dec-03	*< 5.0*	*< 5.0*	*NA*	*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*	*NA*
23	Jun-04	*< 5.0*	*< 5.0*	*NA*	*NA*	*NA*	270	*< 5.0*	*NA*	*NA*	*NA*	*NA*	*NA*
24	Sep-04	*< 5.0*	*< 5.0*	*NA*	*NA*	*NA*	120	*< 5.0*	*NA*	*NA*	*NA*	*NA*	*NA*
25	Dec-04	*< 1.3*	*< 1.3*	*NA*	*NA*	*NA*	*< 25*	*< 1.3*	*NA*	*NA*	*NA*	*NA*	*NA*
26	Mar-05	*< 0.50*	*< 0.50*	*NA*	*NA*	*NA*	*< 10*	*< 0.50*	*NA*	*NA*	*NA*	*NA*	*NA*
27	Jun-05	*< 13*	*< 13*	*NA*	*NA*	*NA*	*< 250*	*< 13*	*NA*	*NA*	*NA*	*NA*	*NA*
28	Sep-05	*< 2.5*	6.5	*NA*	*NA*	*NA*	240	*< 2.5*	*NA*	*NA*	*NA*	*NA*	*NA*
29	Dec-05	*< 1.3*	*< 1.3*	*NA*	*NA*	*NA*	100	*< 3.6*	*NA*	*NA*	*NA*	*NA*	*NA*
30	Mar-06	*< 2.0*	*< 2.0*	*NA*	*NA*	*NA*	83	*< 2.0*	*NA*	*NA*	*NA*	*NA*	*NA*
31	Jun-06	*< 2.5*	*< 2.5*	*NA*	*NA*	*NA*	220	*< 2.5*	*NA*	*NA*	*NA*	*NA*	*NA*
32	Sep-06	*< 13*	*< 13*	*NA*	*NA*	*NA*	320	*< 13*	*NA*	*NA*	*NA*	*NA*	*NA*
33	Dec-06	*< 13*	*< 13*	*NA*	*NA*	*NA*	320	*< 13*	*NA*	*NA*	*NA*	*NA*	*NA*
34	Mar-07	*< 13*	*< 13*	*NA*	*NA*	*NA*	*<250*	*< 13*	*NA*	*NA*	*NA*	*NA*	*NA*
35	Jun-07	*<1.7*	*<1.7*	*NA*	*NA*	*NA*	37	*<1.7*	*NA*	*NA*	*NA*	*NA*	*NA*
36	Sep-07	*< 0.5*	1.8	*NA*	*NA*	*NA*	66	*< 0.5*	*NA*	*NA*	*NA*	*NA*	*NA*
37	Dec-07	*< 1.0*	*< 1.0*	*NA*	*NA*	*NA*	26	*< 1.0*	*NA*	*NA*	*NA*	*NA*	*NA*
38	Mar-08	*<2.5*	4.6	*NA*	*NA*	*NA*	66	*<2.5*	*NA*	*NA*	*NA*	*NA*	*NA*
39	Jun-08	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
40	Sep-08	*<1.3*	3.8	*NA*	*NA*	*NA*	49	*<1.3*	*NA*	*NA*	*NA*	*NA*	*NA*
41	Dec-08	*<1.3*	3.0	*NA*	*NA*	*NA*	34	*<1.3*	*NA*	*NA*	*NA*	*NA*	*NA*
42	Mar-09	*< 0.5*	2.3	*NA*	*NA*	*NA*	21	*<0.5*	*NA*	*NA*	*NA*	*NA*	*NA*
43	Sep-09	*< 0.5*	7.1	*NA*	*NA*	*NA*	49	*<0.5*	*NA*	*NA*	*NA*	*NA*	*NA*
44	Sep-10	*< 0.5*	1.3	*NA*	*NA*	*NA*	*<10*	*<0.5*	*NA*	*NA*	*NA*	*NA*	*NA*
45	Apr-11	*< 0.5*	2.9	*NA*	*NA*	*NA*	34	*<0.5*	*NA*	*NA*	*NA*	*NA*	*NA*
46	Sep-11	*< 0.5*	1.4	*NA*	*NA*	*NA*	*<25*	*<0.5*	*NA*	*NA*	*NA*	*NA*	*NA*

Table C-2 Continued

MW-2													
Sampling Event No.	**Date Sampled**	**EDB**	**EDC**	**1,2,4-TMB**	**1,3,5-TMB**	**t-Butanol**	**TBA**	**DIPE**	**Naphthalene**	**cis-1,2-DCE**	**TCE**	**PCE**	**Others**
7	Jun-00	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	*< 100*	*< 100*	*< 5.0*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	*ND*
14	Mar-02	*< 1.0*	*< 1.0*	*< 1*	*< 1*	220	*NA*	*< 2*	*< 1*	*< 1*	*< 1*	*< 1*	*ND*
18	Jan-03	*< 5*	*< 5*	*< 5*	*< 5*	*NA*	34	*< 1*	*< 5*	24	*< 5*	*< 5*	*ND*
19	Mar-03	*< 0.26*	*< 0.17*	*< 0.49*	*< 0.26*	*NA*	94	*< 0.29*	*< 0.88*	15	*< 0.23*	*< 0.36*	*ND*
21	Dec-03	*< 0.6*	*< 0.6*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
20	Aug-03	*NA*	*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*	*NA*
22	Mar-04	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
23	Jun-04	*< 0.5*	2.0	*NA*	*NA*	*NA*	190	1.1	*NA*	*NA*	*NA*	*NA*	*NA*
24	Sep-04	*< 0.5*	1.2	*NA*	*NA*	*NA*	130	0.9	*NA*	*NA*	*NA*	*NA*	*NA*
25	Dec-04	*< 0.5*	*< 0.5*	*NA*	*NA*	*NA*	*< 10*	0.8	*NA*	*NA*	*NA*	*NA*	*NA*
26	Mar-05	*< 1.0*	*< 1.0*	*NA*	*NA*	*NA*	*< 20*	1.3	*NA*	*NA*	*NA*	*NA*	*NA*
27	Jun-05	*< 0.50*	*< 0.50*	*NA*	*NA*	*NA*	200	0.79	*NA*	*NA*	*NA*	*NA*	*NA*
28	Sep-05	*< 0.50*	0.6	*NA*	*NA*	*NA*	150	0.8	*NA*	*NA*	*NA*	*NA*	*NA*
29	Dec-05	*< 0.50*	*< 0.50*	*NA*	*NA*	*NA*	54	1.0	*NA*	*NA*	*NA*	*NA*	*NA*
30	Mar-06	*< 0.7*	*< 0.7*	*NA*	*NA*	*NA*	56	1.2	*NA*	*NA*	*NA*	*NA*	*NA*
31	Jun-06	*< 0.8*	1.4	*NA*	*NA*	*NA*	56	*< 0.8*	*NA*	*NA*	*NA*	*NA*	*NA*
32	Sep-06	*< 0.5*	1.3	*NA*	*NA*	*NA*	59	0.8	*NA*	*NA*	*NA*	*NA*	*NA*
33	Dec-06	*< 0.5*	1.3	*NA*	*NA*	*NA*	59	0.8	*NA*	*NA*	*NA*	*NA*	*NA*
34	Mar-07	*< 0.5*	2.5	*NA*	*NA*	*NA*	65	1.2	*NA*	*NA*	*NA*	*NA*	*NA*
35	Jun-07	*<0.5*	*<0.5*	*NA*	*NA*	*NA*	24	6.1	*NA*	*NA*	*NA*	*NA*	*NA*
37	Dec-07	*<0.5*	*<0.5*	*NA*	*NA*	*NA*	21	3.4	*NA*	*NA*	*NA*	*NA*	*NA*
38	Mar-08	*<0.5*	1.4	*NA*	*NA*	*NA*	87	17	*NA*	*NA*	*NA*	*NA*	*NA*
39	Jun-08	*<0.5*	1.9	*NA*	*NA*	*NA*	71	11	*NA*	*NA*	*NA*	*NA*	*NA*
40	Sep-08	*<0.5*	1.8	*NA*	*NA*	*NA*	52	8	*NA*	*NA*	*NA*	*NA*	*NA*
41	Dec-08	*<0.5*	1.8	*NA*	*NA*	*NA*	40	4.4	*NA*	*NA*	*NA*	*NA*	*NA*
42	Mar-09	*<0.5*	1.1	*NA*	*NA*	*NA*	22	2.2	*NA*	*NA*	*NA*	*NA*	*NA*
43	Sep-09	*<0.5*	1.0	*NA*	*NA*	*NA*	18	14.0	*NA*	*NA*	*NA*	*NA*	*NA*
44	Sep-10	*<0.5*	2.1	*NA*	*NA*	*NA*	*<10*	2.3	*NA*	*NA*	*NA*	*NA*	*NA*
45	Apr-11	*<0.5*	1.4	*NA*	*NA*	*NA*	28	4.8	*NA*	*NA*	*NA*	*NA*	*NA*
46	Sep-11	*<0.5*	1.4	*NA*	*NA*	*NA*	39	0.7	*NA*	*NA*	*NA*	*NA*	*NA*

Table C-2 Continued

MW-3													
Sampling Event No.	**Date Sampled**	**EDB**	**EDC**	**1,2,4-TMB**	**1,3,5-TMB**	**t-Butanol**	**TBA**	**DIPE**	**Naphthalene**	**cis-1,2-DCE**	**TCE**	**PCE**	**Others**
14	Mar-02	*< 1.0*	*< 1.0*	1.8	4.7	180	*NA*	*< 2*	2.2	*< 1*	*< 1*	*< 1*	*ND*
18	Jan-03	*< 5*	*< 5*	*< 5*	5.0	*NA*	76	*< 1*	*< 5*	21	*< 5*	*< 5*	(a)
19	Mar-03	*< 0.26*	*< 0.17*	*< 0.49*	*< 0.26*	*NA*	*< 10*	*< 0.29*	*< 0.88*	24	*< 0.23*	*< 0.36*	*ND*
20	Aug-03	*< 0.5*	*< 0.5*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
21	Dec-03	*NA*	*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*	*NA*
23	Jun-04	*< 0.5*	*< 0.5*	*NA*	*NA*	*NA*	130	1.9	*NA*	*NA*	*NA*	*NA*	*NA*
24	Sep-04	*< 0.5*	*< 0.5*	*NA*	*NA*	*NA*	82	1.5	*NA*	*NA*	*NA*	*NA*	*NA*
25	Dec-04	*< 0.7*	*< 0.7*	*NA*	*NA*	*NA*	*< 14*	1.3	*NA*	*NA*	*NA*	*NA*	*NA*
26	Mar-05	*< 1.0*	*< 1.0*	*NA*	*NA*	*NA*	*< 20*	1.1	*NA*	*NA*	*NA*	*NA*	*NA*
27	Jun-05	*< 0.5*	*< 0.5*	*NA*	*NA*	*NA*	160	1.4	*NA*	*NA*	*NA*	*NA*	*NA*
28	Sep-05	*< 0.5*	1.5	*NA*	*NA*	*NA*	94	0.9	*NA*	*NA*	*NA*	*NA*	*NA*
29	Dec-05	*< 0.7*	*< 0.7*	*NA*	*NA*	*NA*	67	1.2	*NA*	*NA*	*NA*	*NA*	*NA*
30	Mar-06	*< 0.5*	*< 0.5*	*NA*	*NA*	*NA*	29	1.0	*NA*	*NA*	*NA*	*NA*	*NA*
31	Jun-06	*< 0.5*	*< 0.5*	*NA*	*NA*	*NA*	52	2.2	*NA*	*NA*	*NA*	*NA*	*NA*
32	Sep-06	*<1.7*	1.8	*NA*	*NA*	*NA*	53	1.7	*NA*	*NA*	*NA*	*NA*	*NA*
33	Dec-06	*<1.7*	1.8	*NA*	*NA*	*NA*	53	1.7	*NA*	*NA*	*NA*	*NA*	*NA*
34	Mar-07	*<0.5*	*<0.5*	*NA*	*NA*	*NA*	37	1.9	*NA*	*NA*	*NA*	*NA*	*NA*
35	Jun-07	*<0.5*	*<0.5*	*NA*	*NA*	*NA*	10	1.0	*NA*	*NA*	*NA*	*NA*	*NA*
36	Sep-07	*<0.5*	*<0.5*	*NA*	*NA*	*NA*	49	1.9	*NA*	*NA*	*NA*	*NA*	*NA*
37	Dec-07	*<0.5*	*<0.5*	*NA*	*NA*	*NA*	71	8.6	*NA*	*NA*	*NA*	*NA*	*NA*
38	Mar-08	*<0.5*	1.9	*NA*	*NA*	*NA*	74	8.3	*NA*	*NA*	*NA*	*NA*	*NA*
39	Jun-08	*<0.5*	1.1	*NA*	*NA*	*NA*	22	3.2	*NA*	*NA*	*NA*	*NA*	*NA*
40	Sep-08	*<0.5*	1.7	*NA*	*NA*	*NA*	21	3.0	*NA*	*NA*	*NA*	*NA*	*NA*
41	Dec-08	*<0.5*	2.4	*NA*	*NA*	*NA*	33	3.2	*NA*	*NA*	*NA*	*NA*	*NA*
42	Mar-09	*<0.5*	1.8	*NA*	*NA*	*NA*	41	2.8	*NA*	*NA*	*NA*	*NA*	*NA*
43	Sep-09	*<0.5*	1.8	*NA*	*NA*	*NA*	35	1.8	*NA*	*NA*	*NA*	*NA*	*NA*
44	Sep-10	*<0.5*	4.1	*NA*	*NA*	*NA*	*<10*	3.0	*NA*	*NA*	*NA*	*NA*	*NA*
45	Apr-11	*<0.5*	1.8	*NA*	*NA*	*NA*	14	2.2	*NA*	*NA*	*NA*	*NA*	*NA*
46	Sep-11	*<0.5*	2.4	*NA*	*NA*	*NA*	54	3.6	*NA*	*NA*	*NA*	*NA*	*NA*

Table C-2 Continued

MW-4													
Sampling Event No.	**Date Sampled**	**EDB**	**EDC**	**1,2,4-TMB**	**1,3,5-TMB**	**t-Butanol**	**TBA**	**DIPE**	**Naphthalene**	**cis-1,2-DCE**	**TCE**	**PCE**	**Others**
7	Jun-00	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	*< 100*	*< 100*	*< 5.0*	*< 0.5*	*< 0.5*	*< 0.5*	*< 0.5*	*ND*
14	Mar-02	*< 1.0*	*< 1.0*	*< 1*	*< 1*	*< 10*	*NA*	*< 2*	*< 1*	2.9	3.7	5.0	*ND*
18	Jan-03	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*ND*
19	Mar-03	*NA*	*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*	*NA*
21	Dec-03	*NA*	*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*	*NA*
23	Jun-04	*< 0.5*	*< 0.5*	*NA*	*NA*	*NA*	*< 10*	*< 0.5*	*NA*	*NA*	*NA*	*NA*	*NA*
24	Sep-04	*< 0.5*	*< 0.5*	*NA*	*NA*	*NA*	*< 10*	*< 0.5*	*NA*	*NA*	*NA*	*NA*	*NA*
25	Dec-04	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
26	Mar-05	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
27	Jun-05	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
28	Sep-05	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
29	Dec-05	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
30	Mar-06	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
31	Jun-06	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
32	Sep-06	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
33	Dec-06	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
34	Mar-07	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
36	Sep-07	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
37	Dec-07	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
38	Mar-08	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
39	Jun-08	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
40	Sep-08	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
41	Dec-08	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
42	Mar-09	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
43	Sep-09	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
44	Sep-10	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
45	Apr-11	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
46	Sep-11	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*

Table C-2 Continued

MW-5													
Sampling Event No.	**Date Sampled**	**EDB**	**EDC**	**1,2,4-TMB**	**1,3,5-TMB**	**t-Butanol**	**TBA**	**DIPE**	**Naphthalene**	**cis-1,2-DCE**	**TCE**	**PCE**	**Others**
14	Mar-02	*< 1.0*	*< 1.0*	*< 1*	2.7	640	*NA*	*< 2*	*< 1*	*< 1*	*< 1*	*< 1*	*ND*
18	Jan-03	*< 50*	*< 50*	512	122	*NA*	*< 100*	*< 10*	120	*< 50*	*< 50*	*< 50*	*ND*
19	Mar-03	*< 0.26*	*< 0.17*	554	107	*NA*	*< 10*	*< 0.29*	251	*< 0.3*	*< 0.23*	*< 0.36*	(b)
20	Aug-03	*< 2.0*	6.1	*NA*	*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*	*NA*
22	Mar-04	*< 0.26*	*< 0.17*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
23	Jun-04	*< 3.1*	*< 3.1*	*NA*	*NA*	*NA*	120	*< 3.1*	*NA*	*NA*	*NA*	*NA*	*NA*
24	Sep-04	*< 4.2*	18	*NA*	*NA*	*NA*	87	*< 4.2*	*NA*	*NA*	*NA*	*NA*	*NA*
25	Dec-04	*< 4.2*	*< 4.2*	*NA*	*NA*	*NA*	*< 83*	*< 4.2*	*NA*	*NA*	*NA*	*NA*	*NA*
26	Mar-05	*< 1.7*	*< 1.7*	*NA*	*NA*	*NA*	*< 33*	*< 1.7*	*NA*	*NA*	*NA*	*NA*	*NA*
27	Jun-05	*< 7.1*	*< 7.1*	*NA*	*NA*	*NA*	*< 140*	*< 7.1*	*NA*	*NA*	*NA*	*NA*	*NA*
28	Sep-05	*< 1.3*	7.7	*NA*	*NA*	*NA*	87	*< 0.50*	*NA*	*NA*	*NA*	*NA*	*NA*
29	Dec-05	*< 1.7*	*< 1.7*	*NA*	*NA*	*NA*	*< 33*	*< 1.7*	*NA*	*NA*	*NA*	*NA*	*NA*
30	Mar-06	*< 2.0*	*< 2.0*	*NA*	*NA*	*NA*	*< 2.0*	*< 2.0*	*NA*	*NA*	*NA*	*NA*	*NA*
31	Jun-06	*< 2.0*	10	*NA*	*NA*	*NA*	61	*< 2.0*	*NA*	*NA*	*NA*	*NA*	*NA*
32	Sep-06	*< 3.6*	5.5	*NA*	*NA*	*NA*	76	*< 3.6*	*NA*	*NA*	*NA*	*NA*	*NA*
33	Dec-06	*< 3.6*	5.5	*NA*	*NA*	*NA*	76	*< 3.6*	*NA*	*NA*	*NA*	*NA*	*NA*
34	Mar-07	*< 3.6*	*< 3.6*	*NA*	*NA*	*NA*	*<71*	*< 3.6*	*NA*	*NA*	*NA*	*NA*	*NA*
35	Jun-07	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
36	Sep-07	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
37	Dec-07	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
38	Mar-08	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
39	Jun-08	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
40	Sep-08	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
41	Dec-08	*<6.3*	*<6.3*	*NA*	*NA*	*NA*	*<130*	*<6.3*	*NA*	*NA*	*NA*	*NA*	*NA*
42	Mar-09	*<1.7*	2.1	*NA*	*NA*	*NA*	33	*<1.7*	*NA*	*NA*	*NA*	*NA*	*NA*
43	Sep-09	*<10*	*<10*	*NA*	*NA*	*NA*	*<200*	*<10*	*NA*	*NA*	*NA*	*NA*	*NA*
44	Sep-10	*<5.0*	*<5.0*	*NA*	*NA*	*NA*	750	*<5.0*	*NA*	*NA*	*NA*	*NA*	*NA*
45	Apr-11	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
46	Sep-11	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*

Table C-2 Continued

MW-6													
Sampling Event No.	**Date Sampled**	**EDB**	**EDC**	**1,2,4-TMB**	**1,3,5-TMB**	**t-Butanol**	**TBA**	**DIPE**	**Naphthalene**	**cis-1,2-DCE**	**TCE**	**PCE**	**Others**
14	Mar-02	*< 1.0*	*< 1.0*	*< 1*	2.2	*< 10*	*NA*	*< 2*	1.6	*< 1*	*< 1*	*< 1*	*ND*
18	Jan-03	*< 5.0*	*< 5.0*	13	*< 5*	*NA*	46	*< 1*	*< 5*	*< 5*	*< 5*	*< 5*	*ND*
19	Mar-03	*< 0.26*	6.9	*< 0.49*	*< 0.26*	*NA*	40	*< 0.29*	*< 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*	*NA*
21	Dec-03	*< 5.0*	11 /	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
22	Mar-04	*< 0.26*	31	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
23	Jun-04	*< 0.5*	19	*NA*	*NA*	*NA*	54	1.0	*NA*	*NA*	*NA*	*NA*	*NA*
24	Sep-04	*< 0.5*	31	*NA*	*NA*	*NA*	43	1.0	*NA*	*NA*	*NA*	*NA*	*NA*
25	Dec-04	*< 0.5*	24	*NA*	*NA*	*NA*	32	0.7	*NA*	*NA*	*NA*	*NA*	*NA*
26	Mar-05	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
27	Jun-05	*< 0.50*	*< 0.50*	*NA*	*NA*	*NA*	26	*< 0.50*	*NA*	*NA*	*NA*	*NA*	*NA*
28	Sep-05	*< 0.50*	15	*NA*	*NA*	*NA*	43	0.7	*NA*	*NA*	*NA*	*NA*	*NA*
29	Dec-05	*< 0.50*	13	*NA*	*NA*	*NA*	30	0.9	*NA*	*NA*	*NA*	*NA*	*NA*
30	Mar-06	*< 0.50*	15	*NA*	*NA*	*NA*	19	0.6	*NA*	*NA*	*NA*	*NA*	*NA*
31	Jun-06	*< 0.50*	28	*NA*	*NA*	*NA*	53	1.3	*NA*	*NA*	*NA*	*NA*	*NA*
32	Sep-06	*< 0.50*	11	*NA*	*NA*	*NA*	46	0.7	*NA*	*NA*	*NA*	*NA*	*NA*
33	Dec-06	*< 0.50*	11	*NA*	*NA*	*NA*	46	0.7	*NA*	*NA*	*NA*	*NA*	*NA*
34	Mar-07	*< 0.5*	10	*NA*	*NA*	*NA*	25	*< 0.5*	*NA*	*NA*	*NA*	*NA*	*NA*
35	Jun-07	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
36	Sep-07	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
37	Dec-07	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
38	Mar-08	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
39	Jun-08	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
40	Sep-08	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
41	Dec-08	*<0.5*	18	*NA*	*NA*	*NA*	*<10*	0.7	*NA*	*NA*	*NA*	*NA*	*NA*
42	Mar-09	*<0.5*	4.7	*NA*	*NA*	*NA*	*<10*	0.6	*NA*	*NA*	*NA*	*NA*	*NA*
43	Sep-09	*<0.5*	9	*NA*	*NA*	*NA*	*<10*	0.8	*NA*	*NA*	*NA*	*NA*	*NA*
44	Sep-10	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
45	Apr-11	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
46	Sep-11	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*

Table C-2 Continued

MW-7													
Sampling Event No.	**Date Sampled**	**EDB**	**EDC**	**1,2,4-TMB**	**1,3,5-TMB**	**t-Butanol**	**TBA**	**DIPE**	**Naphthalene**	**cis-1,2-DCE**	**TCE**	**PCE**	**Others**
14	Mar-02	*< 1.0*	*< 1.0*	*< 1*	*< 1*	*< 10*	*NA*	*< 2*	*< 1*	*< 1*	*< 1*	*< 1*	*ND*
18	Jan-03	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*ND*
19	Mar-03	*NA*	*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*	*NA*
21	Dec-03	*NA*	*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*	*NA*
23	Jun-04	*< 0.5*	*< 0.5*	*NA*	*NA*	*NA*	*< 10*	*< 0.5*	*NA*	*NA*	*NA*	*NA*	*NA*
24	Sep-04	*< 0.5*	*< 0.5*	*NA*	*NA*	*NA*	*< 10*	*< 0.5*	*NA*	*NA*	*NA*	*NA*	*NA*
25	Dec-04	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
26	Mar-05	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
27	Jun-05	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
28	Sep-05	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
29	Dec-05	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
30	Mar-06	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
31	Jun-06	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
32	Sep-06	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
32	Sep-06	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
33	Dec-06	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
34	Mar-07	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
35	Jun-07	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
36	Sep-07	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
37	Dec-07	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
38	Mar-08	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
39	Jun-08	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
40	Sep-08	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
41	Dec-08	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
42	Mar-09	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
43	Sep-09	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
44	Sep-10	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
45	Apr-11	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
46	Sep-11	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*

Table C-2 Continued

MW-8													
Sampling Event No.	**Date Sampled**	**EDB**	**EDC**	**1,2,4-TMB**	**1,3,5-TMB**	**t-Butanol**	**TBA**	**DIPE**	**Naphthalene**	**cis-1,2-DCE**	**TCE**	**PCE**	**Others**
14	Mar-02	*< 1.0*	*< 1.0*	*< 1*	*< 1*	*< 10*	*NA*	*< 2*	*< 1*	*< 1*	*< 1*	*< 1*	*ND*
18	Jan-03	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*ND*
19	Mar-03	*< 0.26*	*< 0.17*	*< 0.49*	*< 0.26*	*NA*	*< 10*	*< 0.29*	*< 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*	*NA*
21	Dec-03	*NA*	*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*	*NA*
23	Jun-04	*< 0.5*	*< 0.5*	*NA*	*NA*	*NA*	61	1.0	*NA*	*NA*	*NA*	*NA*	*NA*
24	Sep-04	*< 0.5*	*< 0.5*	*NA*	*NA*	*NA*	96	1.1	*NA*	*NA*	*NA*	*NA*	*NA*
25	Dec-04	*< 0.5*	*< 0.5*	*NA*	*NA*	*NA*	*< 10*	1.0	*NA*	*NA*	*NA*	*NA*	*NA*
26	Mar-05	*< 0.5*	*< 0.5*	*NA*	*NA*	*NA*	*< 10*	0.6	*NA*	*NA*	*NA*	*NA*	*NA*
27	Jun-05	*< 0.50*	25.0	*NA*	*NA*	*NA*	42	1.1	*NA*	*NA*	*NA*	*NA*	*NA*
28	Sep-05	*< 0.50*	*< 0.5*	*NA*	*NA*	*NA*	120	1.4	*NA*	*NA*	*NA*	*NA*	*NA*
29	Dec-05	*< 0.50*	*< 0.50*	*NA*	*NA*	*NA*	27	*< 0.50*	*NA*	*NA*	*NA*	*NA*	*NA*
30	Mar-06	*< 0.50*	*< 0.50*	*NA*	*NA*	*NA*	17	0.6	*NA*	*NA*	*NA*	*NA*	*NA*
31	Jun-06	*< 0.50*	*< 0.50*	*NA*	*NA*	*NA*	20	0.9	*NA*	*NA*	*NA*	*NA*	*NA*
32	Sep-06	*< 0.50*	*< 0.50*	*NA*	*NA*	*NA*	12	*< 0.50*	*NA*	*NA*	*NA*	*NA*	*NA*
33	Dec-06	*< 0.50*	*< 0.50*	*NA*	*NA*	*NA*	12	*< 0.50*	*NA*	*NA*	*NA*	*NA*	*NA*
34	Mar-07	*< 0.50*	*< 0.50*	*NA*	*NA*	*NA*	*<10*	*< 0.50*	*NA*	*NA*	*NA*	*NA*	*NA*
35	Jun-07	*<0.5*	*<0.5*	*NA*	*NA*	*NA*	14	1.3	*NA*	*NA*	*NA*	*NA*	*NA*
36	Sep-07	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
37	Dec-07	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
38	Mar-08	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
39	Jun-08	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
40	Sep-08	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
41	Dec-08	*<0.5*	*<0.5*	*NA*	*NA*	*NA*	24	2.6	*NA*	*NA*	*NA*	*NA*	*NA*
42	Mar-09	*<0.5*	*<0.5*	*NA*	*NA*	*NA*	34	2.5	*NA*	*NA*	*NA*	*NA*	*NA*
43	Sep-09	*<0.5*	0.6	*NA*	*NA*	*NA*	46	2.8	*NA*	*NA*	*NA*	*NA*	*NA*
44	Sep-10	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
45	Apr-11	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*
46	Sep-11	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*

Table C-2 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

TCE = Trichloroethyene

(a) Also detected were: 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-propyll TBA = Tertiary butyl alcohol

(c.) Also detected were: isopropylbenzene DCE = Dichloroethylene ND = Not Detected

NS = Not Sampled TMB = Trimethylbenzene NA = Not analyzed for this constituent

APPENDIX D

Historical Groundwater Elevation Data

Table D-1
Historical Water Levels in Monitoring Wells
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
	23	Jun-04	16.28	62.87
	24	Sep-04	17.03	62.12
	25	Dec-04	16.38	62.77
	26	Mar-05	14.30	64.85
	27	Jun-05	15.53	63.82
	28	Sep-05	16.42	62.73
	29	Dec-05	15.67	63.48
	30	Mar-06	12.75	66.40
	31	Jun-06	14.60	64.55
	32	Sep-06	16.52	62.63
	33	Dec-06	15.89	63.26
	34	Mar-07	15.50	63.65
	35	Jun-07	20.90	58.25
	36	Sep-07	23.30	55.85
	37	Dec-07	22.51	56.64
	38	Mar-08	20.70	58.45
	39	Jun-08	NM	Dry
	40	Sep-08	22.20	56.95
	41	Dec-08	17.90	61.25
	42	Mar-09	14.93	64.22
	43	Sep-09	15.70	63.45
	44	Sep-10	23.36	55.79
	45	Apr-11	20.61	57.54
	46	Sep-11	22.86	56.29

Notes:

(a) Feet below well top of casing.

(b) Relative to mean sea level.

NA = Data Not Available

NM = Not Measurable

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

Table D-1 (continued)

Well I.D.	Sampling Event No.	Date Measured	Water Level Depth (a)	Water Level Elevation (b)
	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
MW-2	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
	23	Jun-04	15.76	62.69
	24	Sep-04	16.48	61.97
	25	Dec-04	15.74	62.71
	26	Mar-05	13.48	64.97
	27	Jun-05	14.48	63.97
	28	Sep-05	16.00	62.45
	29	Dec-05	14.88	63.57
	30	Mar-06	12.20	66.25
	31	Jun-06	14.15	64.30
	32	Sep-06	16.00	62.45
	33	Dec-06	15.19	63.26
	34	Mar-07	14.78	63.67
	35	Jun-07	20.60	57.85
	36	Sep-07	23.80	54.65
	37	Dec-07	22.36	56.09
	38	Mar-08	20.15	58.30
	39	Jun-08	20.60	57.85
	40	Sep-08	22.23	56.52
	41	Dec-08	17.94	60.51
	42	Mar-09	14.45	64.00
	43	Sep-09	15.90	62.55
	44	Sep-10	23.51	54.94
	45	Apr-11	20.64	57.81
	46	Sep-11	23.05	55.40

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.

Table D-1 (continued)

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
	23	Jun-04	14.90	62.68
	24	Sep-04	15.61	61.97
	25	Dec-04	14.77	62.81
	26	Mar-05	12.60	64.98
	27	Jun-05	13.73	63.85
	28	Sep-05	15.14	62.44
	29	Dec-05	13.94	63.64
	30	Mar-06	11.25	66.33
	31	Jun-06	13.27	64.31
	32	Sep-06	15.12	62.46
	33	Dec-06	14.34	63.24
	34	Mar-07	13.96	63.62
	35	Jun-07	19.60	57.98
	36	Sep-07	22.90	54.68
	37	Dec-07	21.45	56.13
	38	Mar-08	19.20	58.38
	39	Jun-08	18.80	58.78
	40	Sep-08	21.97	55.61
	41	Dec-08	16.74	60.84
	42	Mar-09	13.68	63.90
	43	Sep-09	15.10	62.48
	44	Sep-10	22.53	55.05
	45	Apr-11	19.80	57.78
	46	Sep-11	22.12	55.46

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.

Table D-1 (continued)

Well I.D.	Sampling Event No.	Date Measured	Water Level Depth (a)	Water Level Elevation (b)
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
	23	Jun-04	14.68	63.06
	24	Sep-04	15.17	62.57
	25	Dec-04	14.90	62.84
	26	Mar-05	12.57	65.17
	27	Jun-05	13.43	64.31
	28	Sep-05	15.13	62.61
	29	Dec-05	13.83	63.91
	30	Mar-06	10.90	66.84
	31	Jun-06	13.02	64.72
	32	Sep-06	15.16	62.58
	33	Dec-06	14.35	63.39
	34	Mar-07	13.85	63.89
	35	Jun-07	18.41	59.33
	36	Sep-07	19.36	58.38
	37	Dec-07	19.13	58.61
	38	Mar-08	17.91	59.83
	39	Jun-08	18.23	59.51
	40	Sep-08	19.89	57.85
	41	Dec-08	16.41	61.33
	42	Mar-09	13.30	64.44
	43	Sep-09	14.88	62.86
	44	Sep-10	19.63	58.11
	45	Apr-11	17.90	59.84
	46	Sep-11	19.20	58.54

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.

Table D-1 (continued)

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
	23	Jun-04	16.43	62.93
	24	Sep-04	17.07	62.29
	25	Dec-04	16.59	62.77
	26	Mar-05	14.08	65.28
	27	Jun-05	15.33	64.03
	28	Sep-05	16.61	62.75
	29	Dec-05	15.81	63.55
	30	Mar-06	12.75	66.61
	31	Jun-06	14.65	64.71
	32	Sep-06	16.66	62.70
	33	Dec-06	16.10	63.26
	34	Mar-07	15.22	64.14
	35	Jun-07	19.29	60.07
	36	Sep-07	NM	Dry
	37	Dec-07	NM	Dry
	38	Mar-08	NM	Dry
	39	Jun-08	NM	Dry
	40	Sep-08	NM	Dry
	41	Dec-08	17.81	61.55
	42	Mar-09	15.02	64.34
	43	Sep-09	16.50	62.86 (c)
	44	Sep-10	19.23	60.13
	45	Apr-11	NM	Dry
	46	Sep-11	NM	Dry

Notes:

(a) Feet below well top of casing.

NA = Data Not Available

(b) Relative to mean sea level.

(c) 0.20 feet of LNPL measured

NM = Not Measurable

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

Table D-1 (continued)

Well I.D.	Sampling Event No.	Date Measured	Water Level Depth (a)	Water Level Elevation (b)
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
	23	Jun-04	15.42	63.01
	24	Sep-04	16.13	62.30
	25	Dec-04	15.40	63.03
	26	Mar-05	13.28	65.15
	27	Jun-05	14.14	64.29
	28	Sep-05	15.61	62.82
	29	Dec-05	14.90	63.53
	30	Mar-06	11.85	66.58
	31	Jun-06	13.73	64.70
	32	Sep-06	15.71	62.72
	33	Dec-06	15.15	63.28
	34	Mar-07	14.58	63.85
	35	Jun-07	19.40	59.03
	36	Sep-07	20.00	Dry
	37	Dec-07	NM	Dry
	38	Mar-08	NM	Dry
	39	Jun-08	NM	Dry
	40	Sep-08	NM	Dry
	41	Dec-08	16.91	61.52
	42	Mar-09	14.32	64.11
	43	Sep-09	15.55	62.88
	44	Sep-10	19.23	60.13
	45	Apr-11	NM	Dry
	46	Sep-11	NM	Dry

Notes:

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

NA = Data Not Available NM = Not Measurable

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

Table D-1 (continued)

Well I.D.	Sampling Event No.	Date Measured	Water Level Depth (a)	Water Level Elevation (b)
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
	23	Jun-04	15.63	62.64
	24	Sep-04	16.33	61.94
	25	Dec-04	15.70	62.57
	26	Mar-05	13.42	64.85
	27	Jun-05	14.53	63.74
	28	Sep-05	15.81	62.46
	29	Dec-05	14.88	63.39
	30	Mar-06	13.00	65.27
	31	Jun-06	13.98	64.29
	32	Sep-06	15.82	62.45
	33	Dec-06	15.12	63.15
	34	Mar-07	14.66	63.61
	35	Jun-07	19.18	59.09
	36	Sep-07	19.96	Dry
	37	Dec-07	NM	Dry
	38	Mar-08	NM	Dry
	39	Jun-08	NM	Dry
	40	Sep-08	NM	Dry
	41	Dec-08	17.25	61.02
	42	Mar-09	14.30	63.97
	43	Sep-09	15.71	62.56
	44	Sep-10	19.52	58.75
	45	Apr-11	NM	Dry
	46	Sep-11	NM	Dry

Notes:

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

NA = Data Not Available NM = Not Measurable

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

Table D-1 (continued)

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	14.50	61.89
	22	Mar-04	11.78	64.61
	23	Jun-04	13.71	62.68
	24	Sep-04	14.43	61.96
	25	Dec-04	13.64	62.75
	26	Mar-05	11.52	64.87
	27	Jun-05	12.50	63.89
	28	Sep-05	13.90	62.49
	29	Dec-05	12.75	63.64
	30	Mar-06	10.80	65.59
	31	Jun-06	12.10	64.29
	32	Sep-06	13.93	62.46
	33	Dec-06	13.12	63.27
	34	Mar-07	12.76	63.63
	35	Jun-07	18.40	Dry
	36	Sep-07	19.12	Dry
	37	Dec-07	NM	Dry
	38	Mar-08	NM	Dry
	39	Jun-08	NM	Dry
	40	Sep-08	NM	Dry
	41	Dec-08	17.21	59.18
	42	Mar-09	12.60	63.79
	43	Sep-09	13.95	62.44
	44	Sep-10	19.29	57.10
	45	Apr-11	NM	Dry
	46	Sep-11	NM	Dry

Notes:

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

NA = Data Not Available NM = Not Measurable

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