ANNUAL 2010 GROUNDWATER MONITORING REPORT

240 W. MACARTHUR BOULEVARD OAKLAND, CALIFORNIA

Prepared for:

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

December 2010

STELLAR
ENVIRONMENTAL SOLUTIONS, INC.
GEOSCIENCE & ENGINEERING CONSULTING

ANNUAL 2010 GROUNDWATER MONITORING REPORT

240 W. MACARTHUR BOULEVARD OAKLAND, CALIFORNIA

Prepared for:

MR. GLEN POY-WING
OAKLAND AUTO WORKS
240 W. MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA 94611

Prepared by:

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

December 15, 2010

Project No. 2003-43

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

December 15, 2010

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

Subject: Annual 2010 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 Annual 2010 groundwater monitoring event (the 44th site groundwater monitoring event since August 1997) conducted in September 2010 as well as the soil vapor monitoring conducted in October 2010.

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 semi-annual basis. The frequency was further reduced in 2010 to annual monitoring per the Stellar Environmental letter submitted to ACEH on September 24, 2010.

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

TABLE OF CONTENTS

APPENDICES

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. However, to determine the current concentrations of soil gas at the subject property, Stellar Environmental conducted a soil vapor sampling event in October 2010 which is included in this report. As of January 2009, ACEH in concurrence with Stellar Environmental reduced the monitoring frequency from a quarterly to a semi-annual basis. 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.

SCOPE OF REPORT

This report discusses the annual groundwater monitoring event conducted in September 2010 as well as the soil vapor sampling conducted in October 2010.

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*).

1500 ft Scale: 1 : 50,000 Detail: 12-0 Datum: WGS84

N

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

240 W. MacArthur Blvd.
Oakland, CA

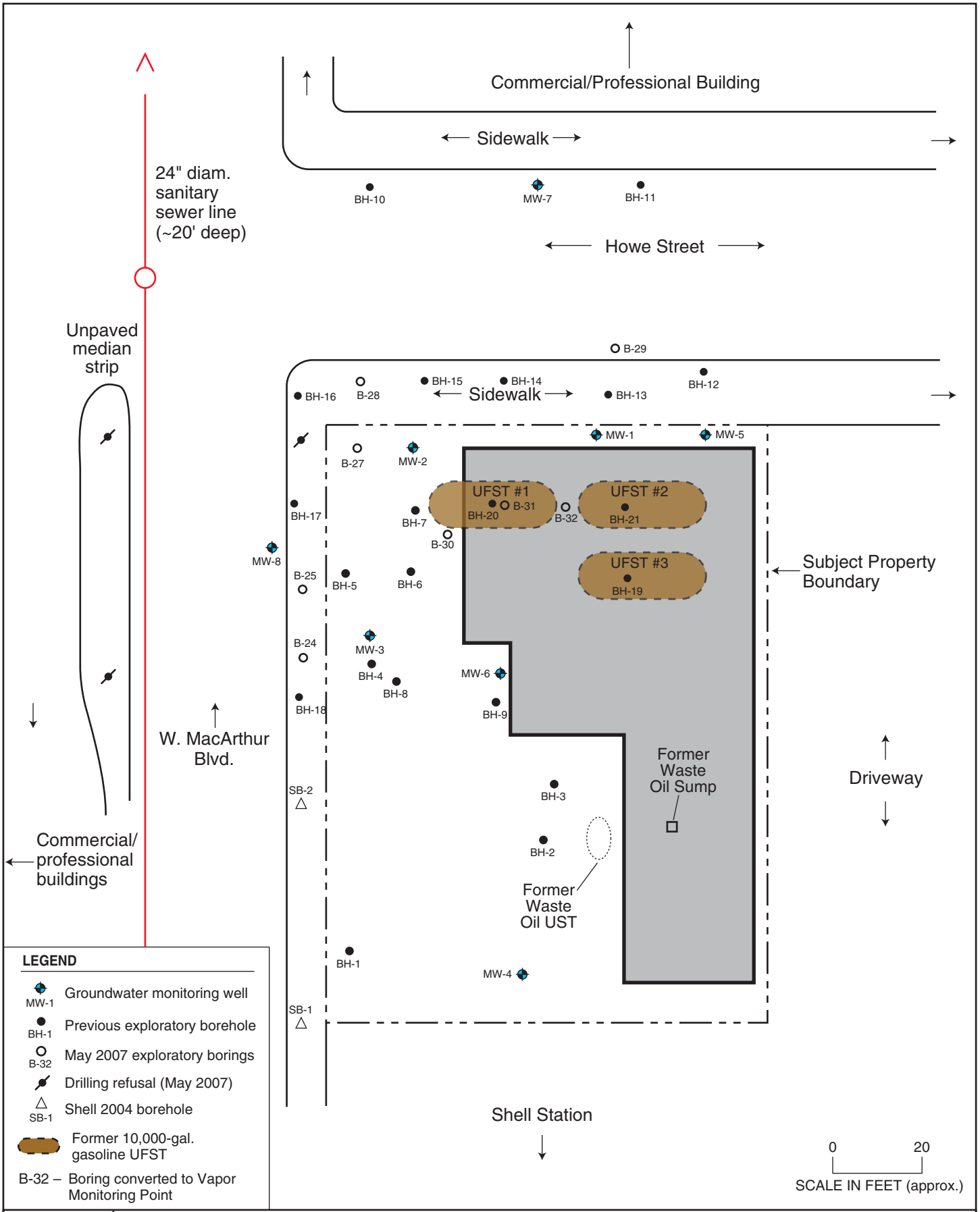
By: MJC

APRIL 2007

Figure 1

STELLAR ENVIRONMENTAL SOLUTIONS, INC
GEOSCIENCE & ENGINEERING CONSULTING

2003-43-01



SITE PLAN WITH BOREHOLE AND GROUNDWATER WELL LOCATIONS

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

STELLAR ENVIRONMENTAL SOLUTIONS, INC
GEOSCIENCE & ENGINEERING CONSULTING

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 personal and 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.
- **September 2010.** Semiannual monitoring was reduced to annual monitoring per the letter submitted to ACEH on September 24, 2010.
- **November-December 2010.** An 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.

To date, a total of 44 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

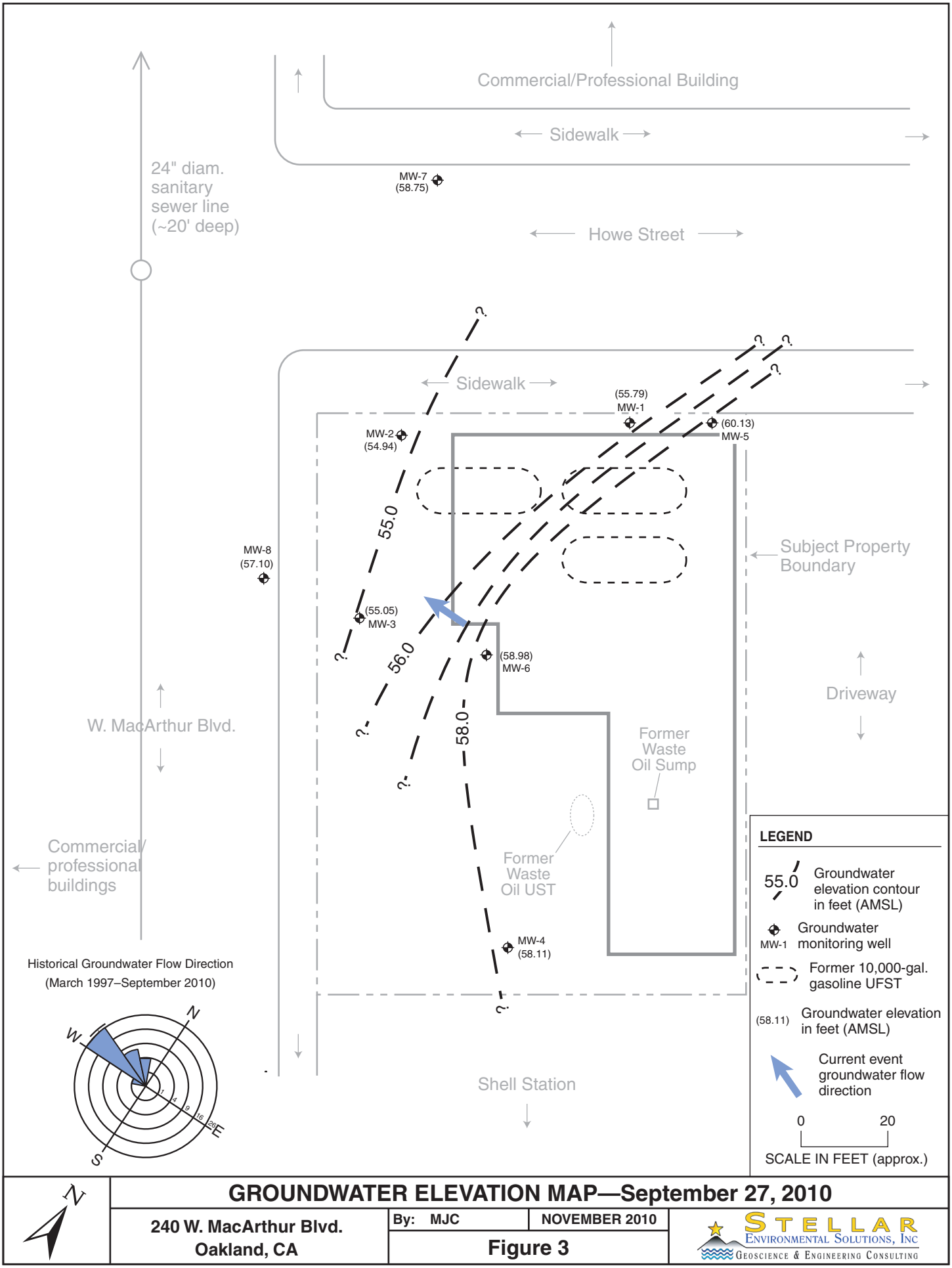
0.5 to 2.5 feet thick, underlain in all boreholes by a cohesive, non-water-bearing clay. The top of this clay was consistently at a depth of approximately 21 to 23 feet. Of the 12 boreholes in the April 2004 investigation, 9 were advanced at least 1.5 feet into this clay before terminating (and not encountering 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 sitewide 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 (September 2010) groundwater monitoring event. Groundwater flow direction in this event was generally to the west, although the data suggest local variations. A generally westward (with a slight southern component) groundwater flow direction has also been measured at the adjacent Shell-branded service station (Cambria Environmental Technology, 2004). 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 0.01 feet/foot, averaging approximately 0.005 feet/foot. Groundwater elevation lowered an average of 5.44 feet between March 2009 and the current quarter with the largest decrease of 7.76 feet recorded in MW-1.



GROUNDWATER ELEVATION MAP—September 27, 2010

240 W. MacArthur Blvd. Oakland, CA	By: MJC	NOVEMBER 2010
	Figure 3	

STELLAR ENVIRONMENTAL SOLUTIONS, INC
GEOSCIENCE & ENGINEERING CONSULTING

2003-43-212

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 2010 QUARTERLY MONITORING EVENT

This section presents the groundwater sampling and analytical methods for the current event (Annual 2010), conducted on September 27, 2010. 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 measurement of "pre-purge" groundwater samples for hydrogeochemical parameters (temperature, pH, electrical conductivity, turbidity, and dissolved oxygen) in the eight site wells; and
- Collecting "post-purge" groundwater samples from the 5 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.
- A soil-gas sample was collected from source area vapor well B32 and is discussed in Section 4.0.

The locations of all site monitoring wells are shown on Figure 2. Well construction information and water level data are summarized in Table 1. All site wells are 2-inch-diameter PVC, although the borehole geologic logs for MW-1 through MW-4 completed by the previous consultant mistakenly indicated that they are 4-inch-diameter. Appendix 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 27, 2010	Groundwater Elevation [(b)] September 27, 2010
		Depth (feet)	Elevation (feet)		
MW-1	25	19.5 to 24.5	54.5 to 49.5	23.36	55.79
MW-2	25	14.5 to 24.5	64.2 to 54.2	23.51	54.94
MW-3	25	14.5 to 24.5	63.4 to 53.4	22.53	55.05
MW-4	25	14.5 to 24.5	63.6 to 53.6	19.63	58.11
MW-5	20	9 to 19	70.6 to 60.6	19.23 19.28 [(c)]	60.13 60.08 [(c)]
MW-6	20	9 to 19	69.7 to 59.7	19.45	58.98
MW-7	20	9 to 19	69.6 to 59.6	19.52	58.75
MW-8	20	9 to 19	67.7 to 57.7	19.29	57.10

Notes:

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

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

[(c)] re-measured Oct. 1, 2010

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 3.6 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, ANALYTICAL RESULTS, AND FINDINGS

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

REGULATORY CONSIDERATIONS

Environmental Screening Levels

There are no published cleanup goals for detected site contaminants in groundwater. 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.

SOIL-GAS ANALYTICAL RESULTS

One soil- gas sample was collected from well B32, a vapor well that was previously used for a high volume, high vacuum soil vapor extraction pilot test in May 2007. Vapor well B32 is screened from 13 to 18 feet bgs and is located approximately 30 feet downgradient from the highest known contaminant source area at the site. The sample was collected during this current quarter to evaluate the presence and migration of previously documented contaminant soil-gas and the potential for vapor intrusion into the overlying building space. The well was purged of approximately 10 well volumes prior to collecting the soil-gas sample and the sample was collected in a laboratory supplied Summa™ canister. None of the petroleum contaminants of concern were detected with the exception of TVHg which was not analyzed for, indicating

minimal to no off-gassing and/or migration of contaminant gases from site groundwater and soil is occuring and therefore there is low to no risk of vapor intrusion into the site building.

The sample was maintained at ambient temperature and out of direct sunlight, and transported for analysis by EPA Method TO-15 to Torrent Laboratory of Milpitas, California, a laboratory certified by the State of California Environmental Laboratory Accreditation Program. The certified soil-gas analytical results are contained in Appendix B.

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;
- 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. The salient result of the September 2010 groundwater monitoring event is—for reasons not attributed to rainfall—groundwater was recorded in wells such as MW-5 that had been dry for the last two years, and the source well MW-5 showed a significant increase in dissolved phase concentrations and evidence of the reemergence of free-floating hydrocarbon product in this monitoring event, with highest diesel and third highest gasoline concentrations recorded in well MW-5.

Gasoline and Diesel

Figure 4 shows gasoline isoconcentration contours for the recent event. Gasoline was detected in five of the eight wells sampled with concentrations ranging from 160 micrograms per liter (µg/L) in well MW-4 to 140,000 µg/L in well MW-5. This is the third highest concentration of gasoline detected in a site well and the second highest historical detection in MW-5. 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, however this event recorded historical highest concentration of diesel detected in a site well. Diesel was detected in all of the wells in which it was analyzed at concentrations ranging from 840 µg/L (MW-2) to 480,000 µg/L (MW-5), exceeding the 100-µg/L ESL criterion in all wells in which it was sampled for. 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 three of four of the wells in which it was analyzed for. Detected concentrations ranged from 8.7 µg/L in MW-2 to 190 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 in MW-1 and MW-5 above the ESL of 4.0 µg/L. Toluene was detected below the ESL in well MW-2 and was below laboratory detection in wells MW-3.

Ethylbenzene was detected in source area well MW-5 at 36 µg/L and in downgradient well MW-1 at 16 µg/L above the ESL of 30 µg/L. Ethylbenzene was also detected in downgradient wells MW-2, but below the ESL and was not detected in MW-3.

The ESL criterion of 20 µg/L was exceeded for total xylenes in source area wells MW-1 (84 µg/L) and MW-5 (390 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 three of the four wells in which it was analyzed for, and exceeded the ESL criteria of 5.0 µg/L in MW-2 (30 µg/L) and MW-3 (7.3 µg/L), but was below the ESL in MW-1 (2.5 µg/L). MTBE was below laboratory detection in source well MW-5 indicating that the center of mass of the MTBE plume has migrated downgradient from the source area to the southern side of the property (adjacent to W. MacArthur Boulevard).

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 27, 2010
Hydrocarbons, BTEX, and MTBE

Well	TVHg	TEHd	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE
MW-1	**3,400**	**2,100**	**190**	**10**	16	**84**	2.5
MW-2	**1,400**	**840**	**8.7**	2.6	1.7	9.1	**30**
MW-3	**1,300**	**890**	*<0.5*	*<0.5*	*<0.5*	*<0.5*	**7.3**
MW-4	**160**	NA	NA	NA	NA	NA	NA
MW-5	**140,000**	**480,000**	**68**	**10**	**36**	**390**	*<5.0*
MW-6	NS	NS	NS	NS	NS	NS	NS
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

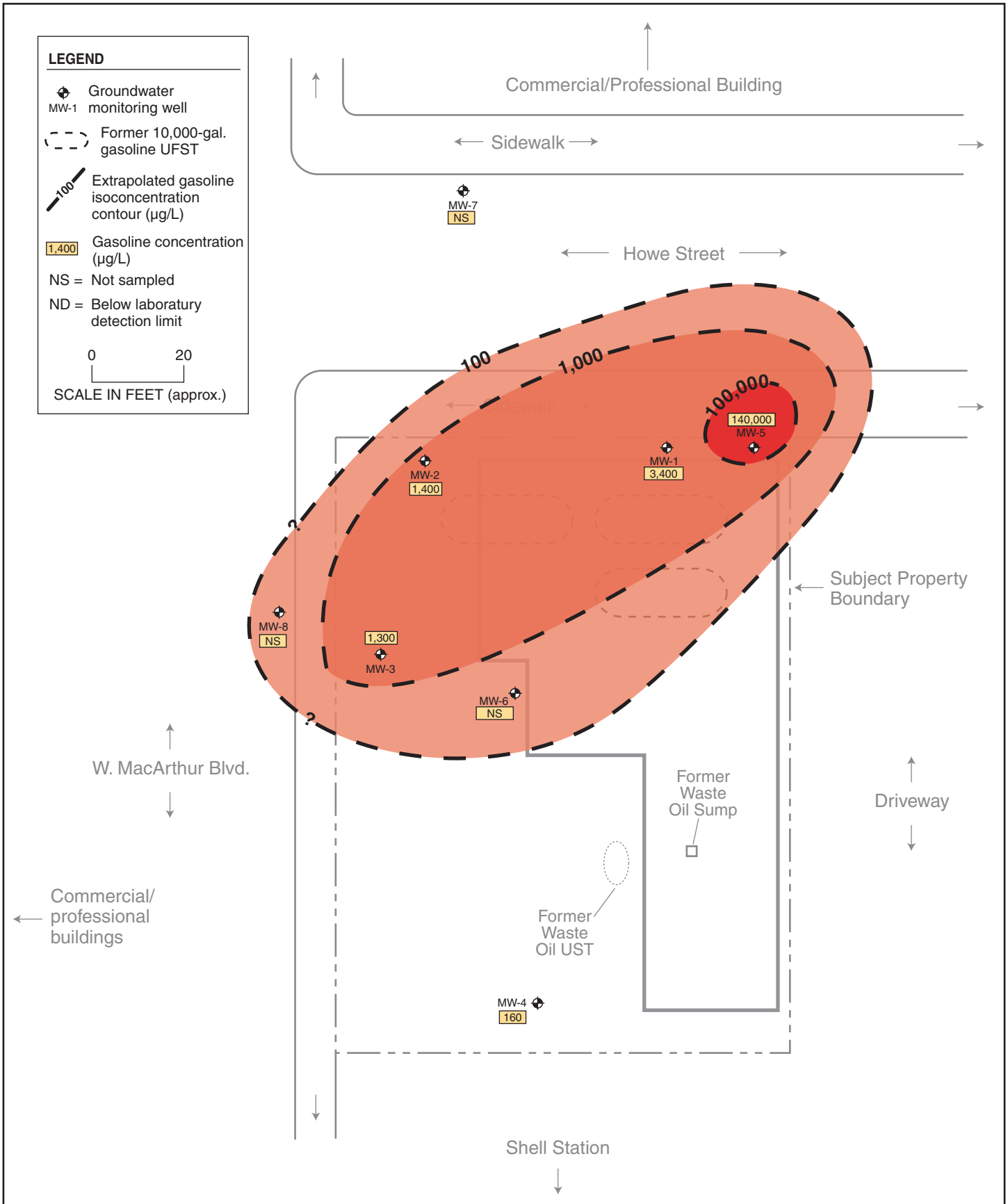
Notes:

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 27, 2010
Lead Scavengers and Fuel Oxygenates

Well	EDC	DIPE	TBA
MW-1	**1.3**	*<0.5*	*<10*
MW-2	**2.1**	2.3	*<10*
MW-3	**4.1**	3.0	*<10*
MW-4	NA	NA	NA
MW-5	*<5.0*	*<5.0*	**750**
MW-6	NS	NS	NS
MW-7	NS	NS	NS
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 2010)

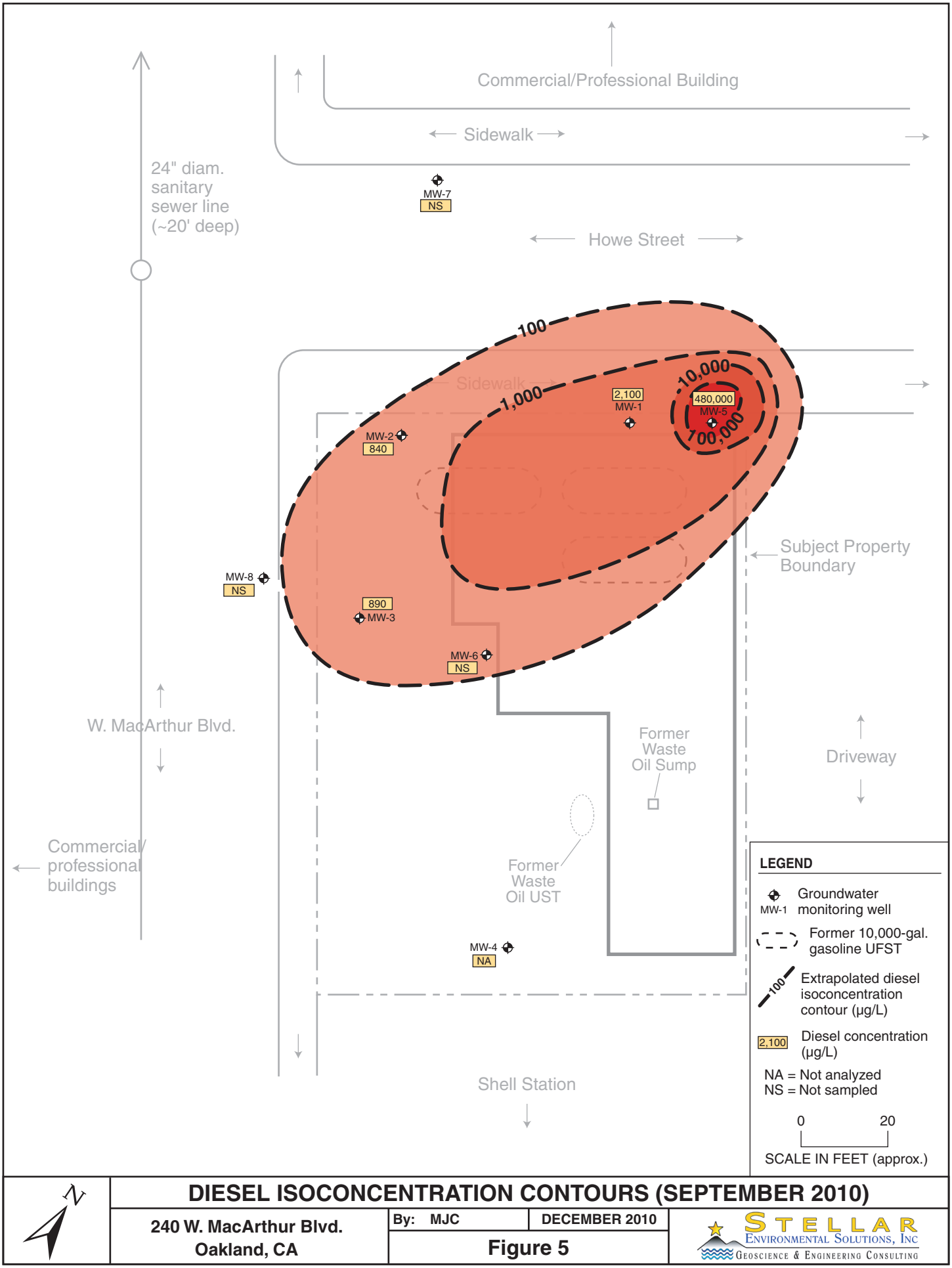
240 W. MacArthur Blvd.
Oakland, CA

By: MJC | DECEMBER 2010

Figure 4

STELLAR ENVIRONMENTAL SOLUTIONS, INC
GEOSCIENCE & ENGINEERING CONSULTING

2003-43-213



DIESEL ISOCONCENTRATION CONTOURS (SEPTEMBER 2010)

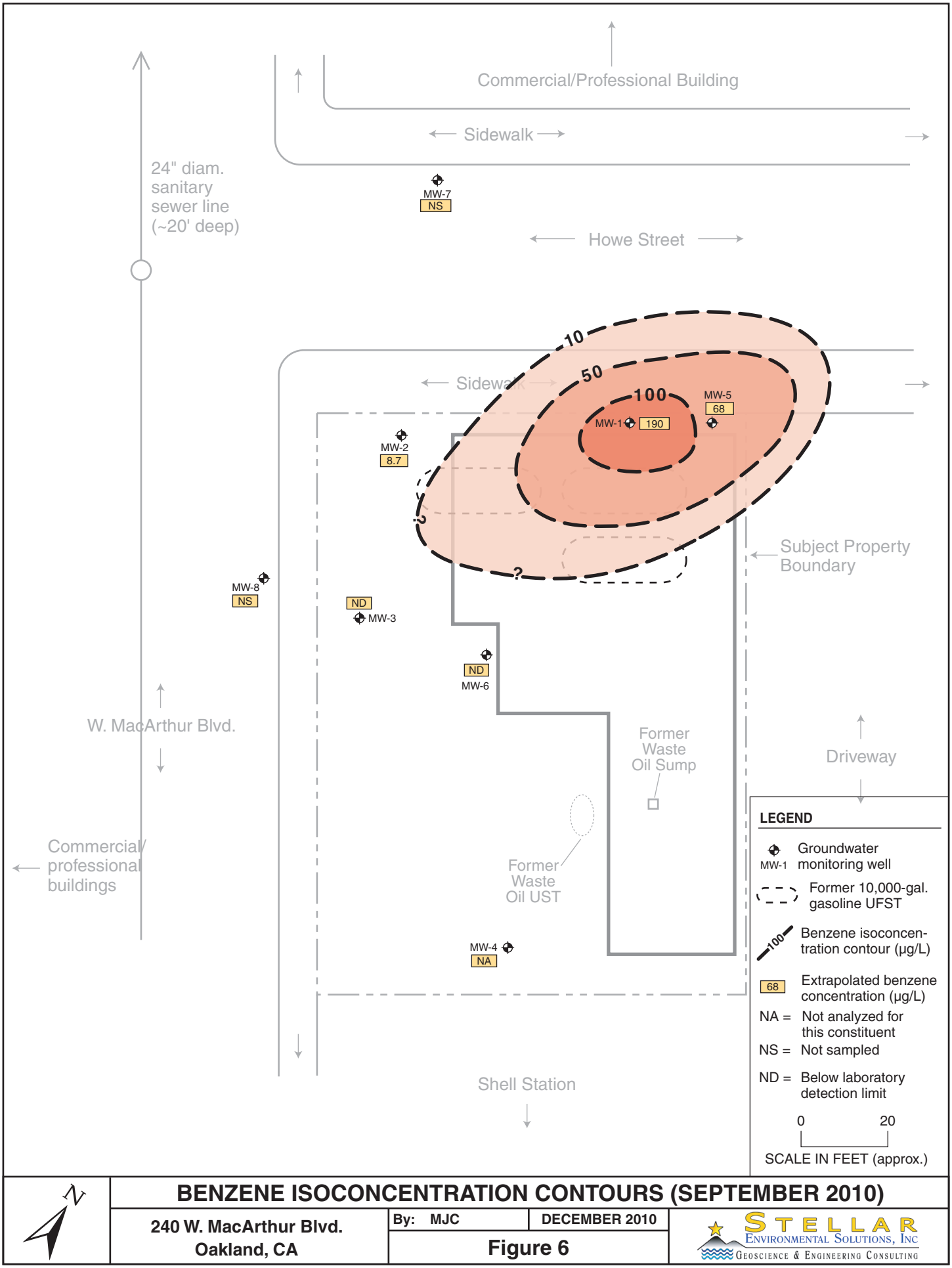
240 W. MacArthur Blvd.
Oakland, CA

By: MJC | DECEMBER 2010

Figure 5

STELLAR ENVIRONMENTAL SOLUTIONS, INC
GEOSCIENCE & ENGINEERING CONSULTING

2003-43-214



BENZENE ISOCONCENTRATION CONTOURS (SEPTEMBER 2010)

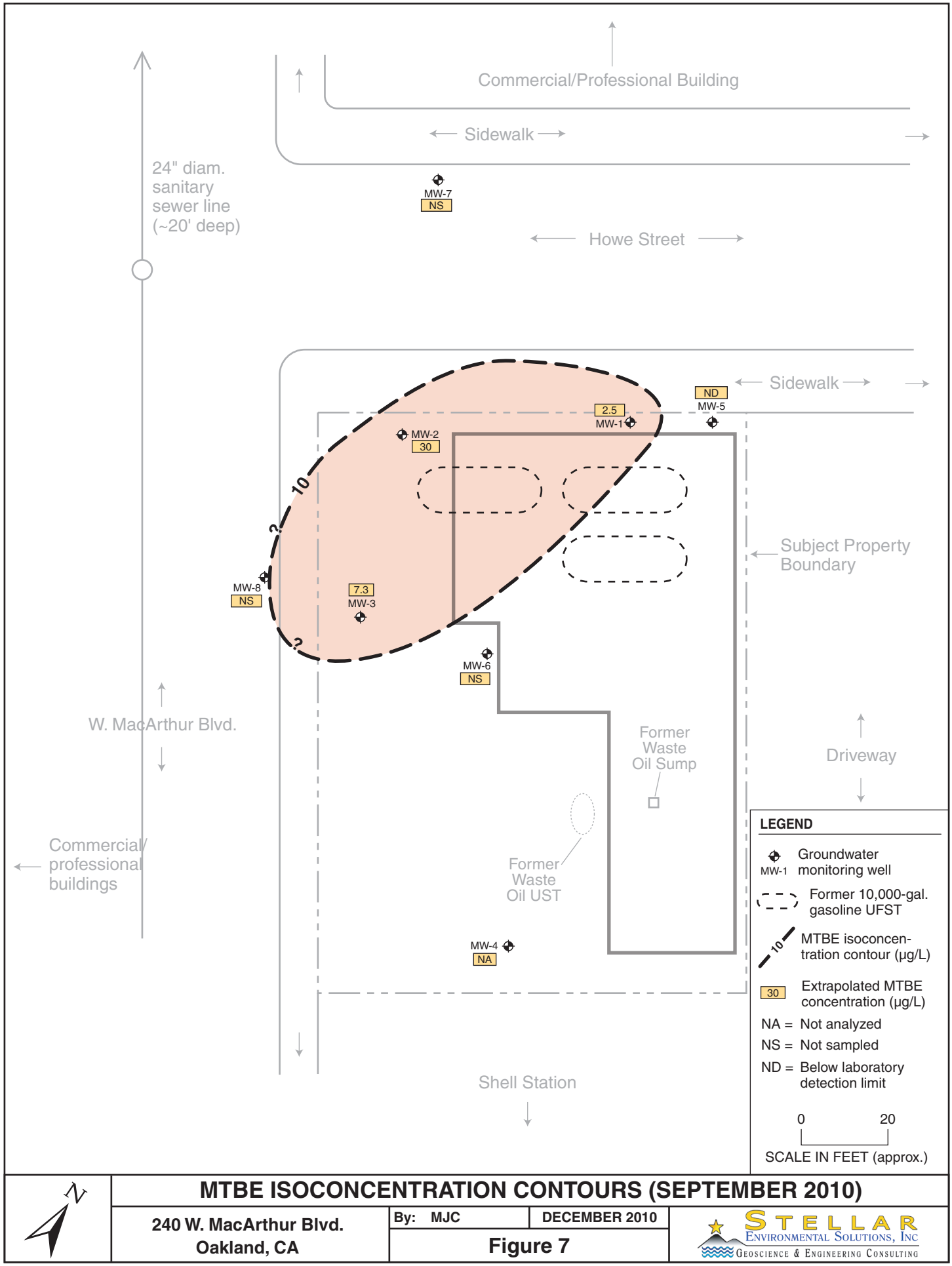
240 W. MacArthur Blvd.
Oakland, CA

By: MJC | DECEMBER 2010

Figure 6

STELLAR ENVIRONMENTAL SOLUTIONS, INC
GEOSCIENCE & ENGINEERING CONSULTING

2003-43-215



MTBE ISOCONCENTRATION CONTOURS (SEPTEMBER 2010)

240 W. MacArthur Blvd.
Oakland, CA

By: MJC | DECEMBER 2010

Figure 7

STELLAR ENVIRONMENTAL SOLUTIONS, INC
GEOSCIENCE & ENGINEERING CONSULTING

2003-43-216

Lead Scavengers and Fuel Oxygenates

The lead scavenger EDC was detected above the ESLs of 0.5 µg/L in three of the four wells analyzed. Tertiary-butyl alcohol (TBA) was detected and was above the ESL in only one of the four wells in which it was sampled. DIPE was also detected in two of the four 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 and 2009-2010 years 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. However, a significant increase has occurred over the last year due to a general increase in water levels. This increase has resulted in mobilization and desorption of residual contamination from the surrounding contaminated soils as the water level has risen. 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 this September 2010 event.

Concentration in all wells except MW-5 showed a stable or decreasing trend in this September 2010 sampling event as compared to the previous September 2009 sampling event. In this September 2010 event, the maximum concentrations of gasoline and diesel were detected in well MW-5 (near the former UFSTs). The highest BTEX concentrations were detected in the other source well, MW-1. The 480,000 µg/L of diesel observed in MW-5 is a new historic maximum, and the 140,000 µg/L gasoline was the second historic high concentration in MW-5 and the third highest at the site, the highest detection being in MW-1 in December of 2000.

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). However, due to the desorption occurring during this sampling event, MTBE concentrations will most likely increase across the site as this new source of contamination migrates with groundwater.

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 specifically showed a concentration increase of gasoline and diesel to the highest concentrations since monitoring began in 2001. 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 quarter September 2010 recorded the historical highest detection of both diesel and gasoline in MW-5, however floating product was not observed.

The 2006-2008 years 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 all source area monitoring wells occurred during that time. However, a significant increase in water levels observed between 2008 -2009 resulted in mobilization and desorption of residual contamination from the surrounding contaminated soils and the subsequent decrease in groundwater elevation this last 2009-2010 season has resulted in a subsequent increase in detected groundwater contamination.

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.

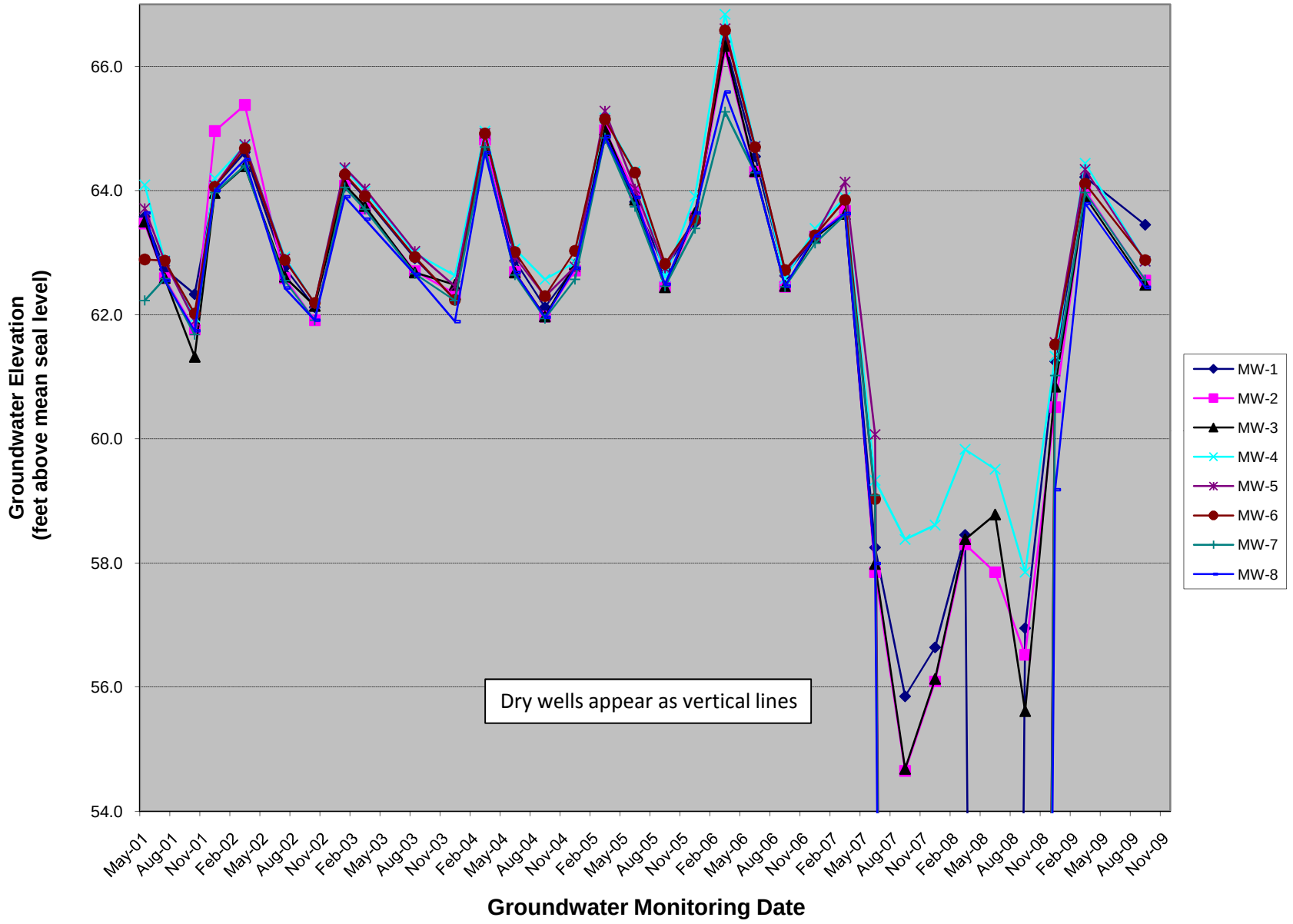
WATER LEVEL TRENDS

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:

- The historical highest detection of diesel in MW-5 detected in source well may represent a rebound effect that resulted from the groundwater elevation drop observed between September 2009 and this September 2010 monitoring event.
- 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 and 2007-2008 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 2010 monitoring event has shown another dramatic decrease in site groundwater elevations.
- Groundwater elevation lowered an average of 5.42 feet between September 2009 and September 2010 with the largest decrease of 7.76 feet recorded in MW-1.
- 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 0.01 feet/foot, averaging approximately 0.005 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



Stellar Environmental Solutions, Inc.

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 9 years 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.

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 6½ 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. The diesel concentrations in MW-1 have remained within the historical site maxima and minima; however, new historic maximum detections of diesel: 44,000 µg/L in September 2009 event and 480,000

µg/L this September 2010 were observed in MW-5. This may reflect the lower wter levels leaving residual diesel in the screen trap areas.

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 September 2006 and December 2007 events both showing the historical highest diesel concentration of 2,600 µg/L. MW-2 has shown a general decrease in diesel concentration since September 2006. 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, however there was insufficient water to sample MW-8 as was MW-6 during this September 2010 event.

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

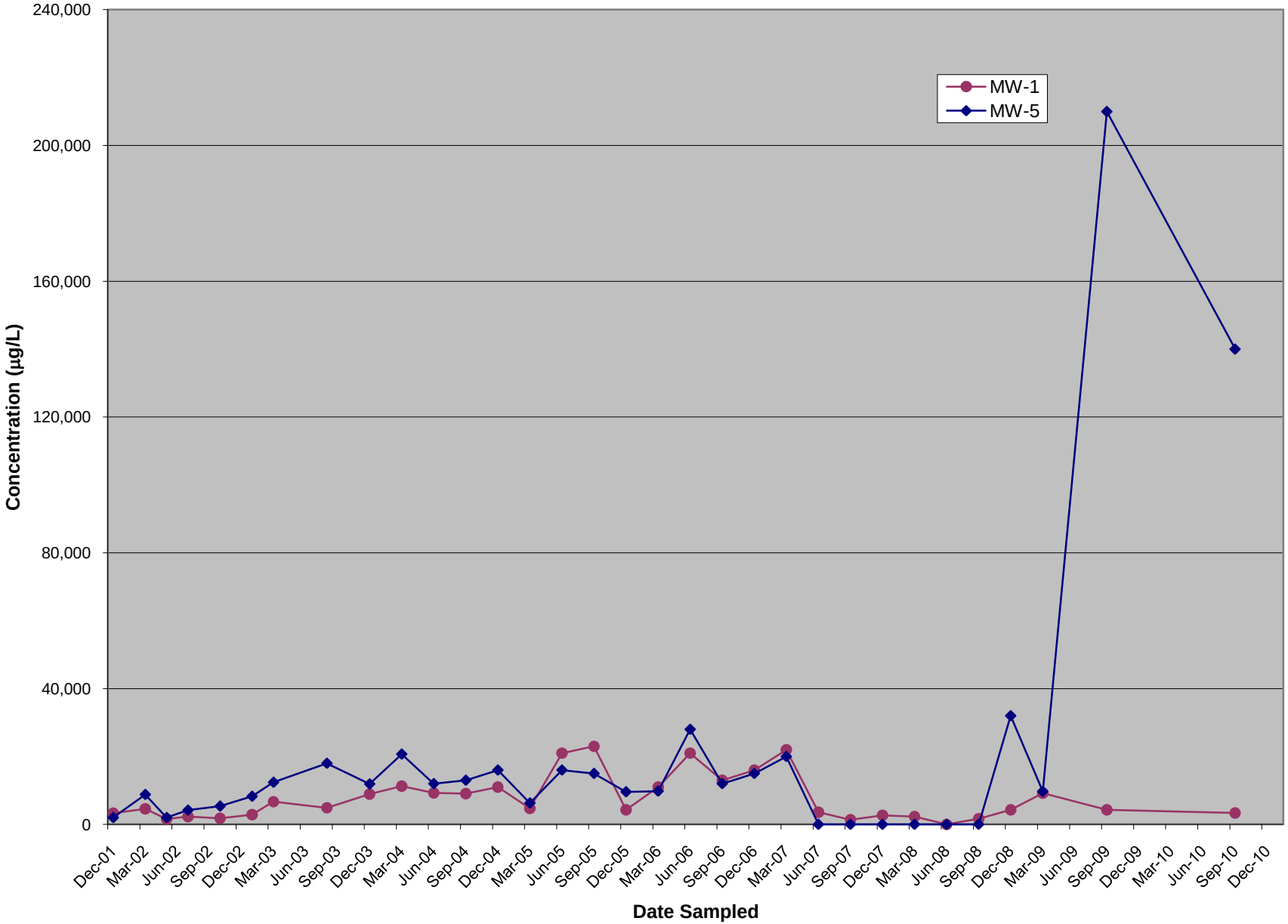


Figure 10: Gasoline Hydrochemical Trends
Downgradient Wells
240 W. MacArthur Blvd, Oakland, California

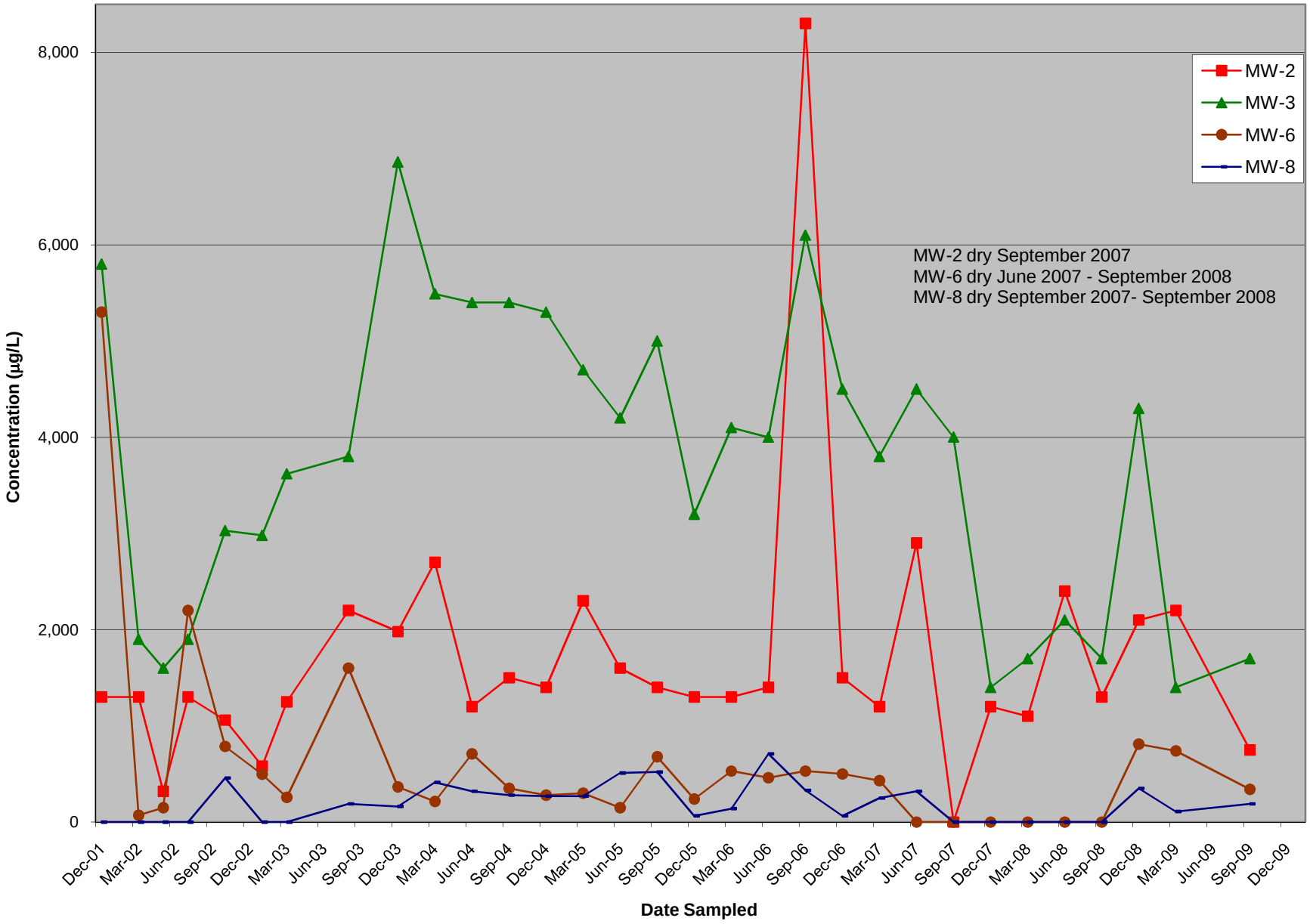
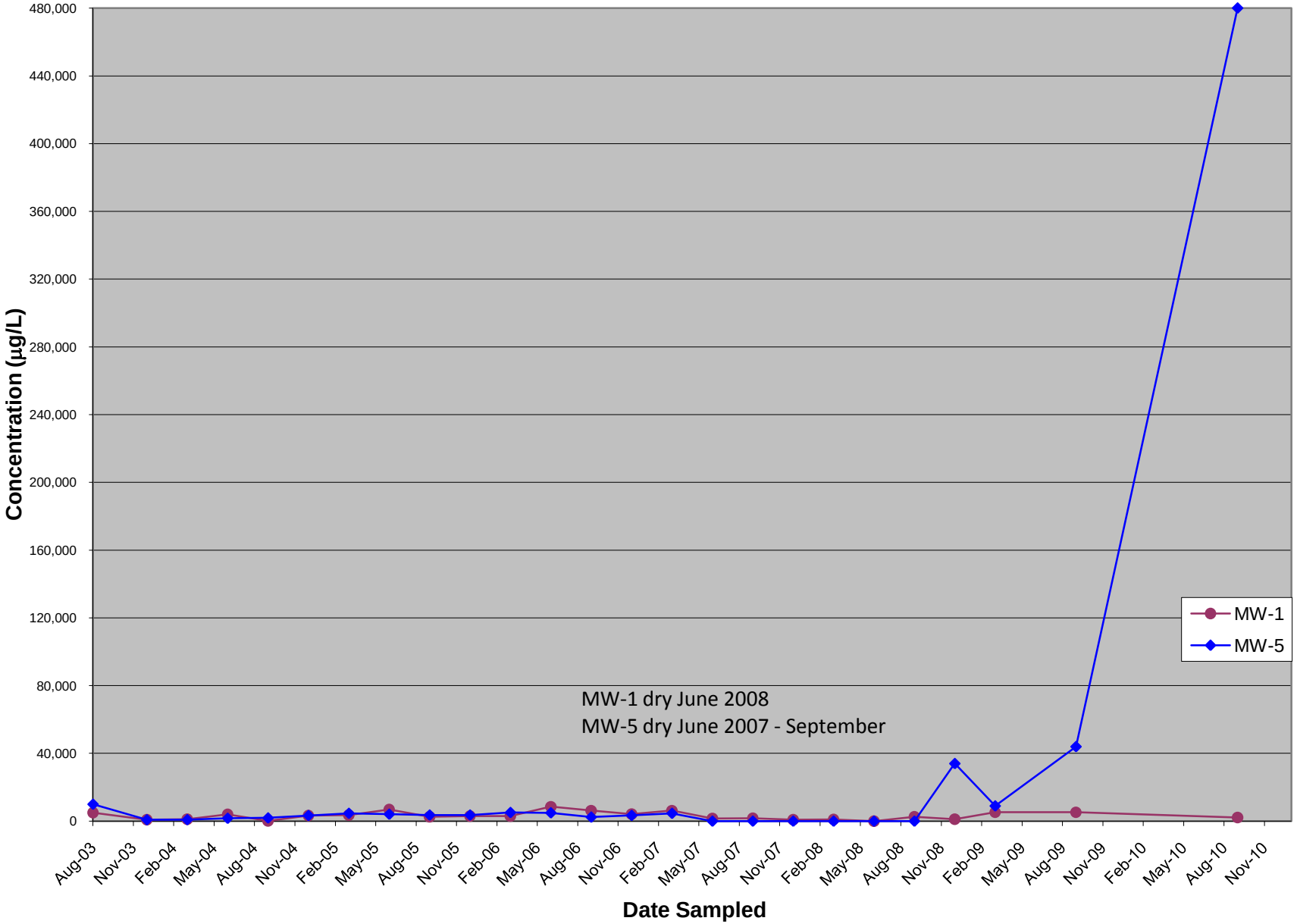
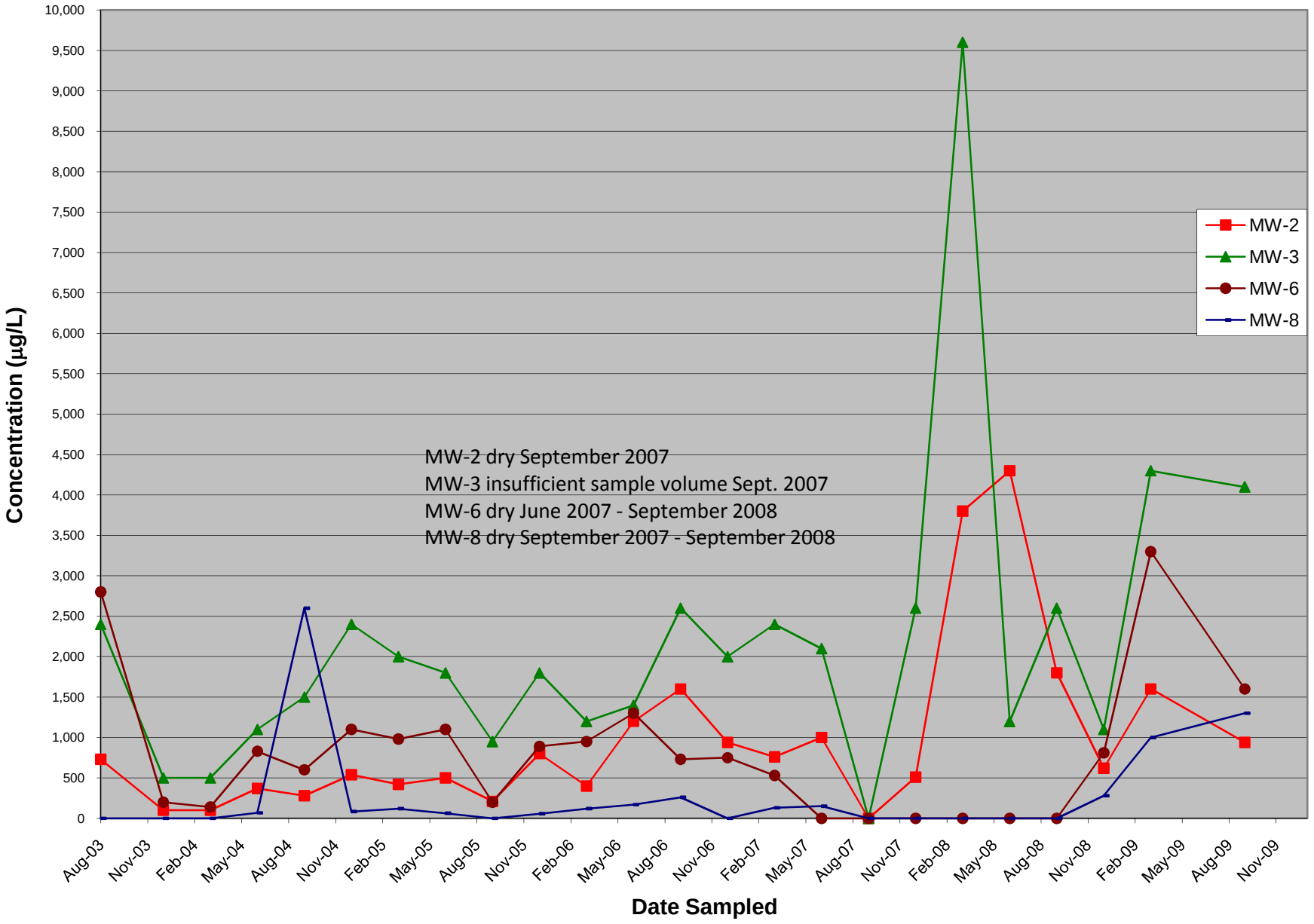


Figure 11: Diesel Hydrochemical Trends
Source Area Wells
240 W. MacArthur Blvd, Oakland, California



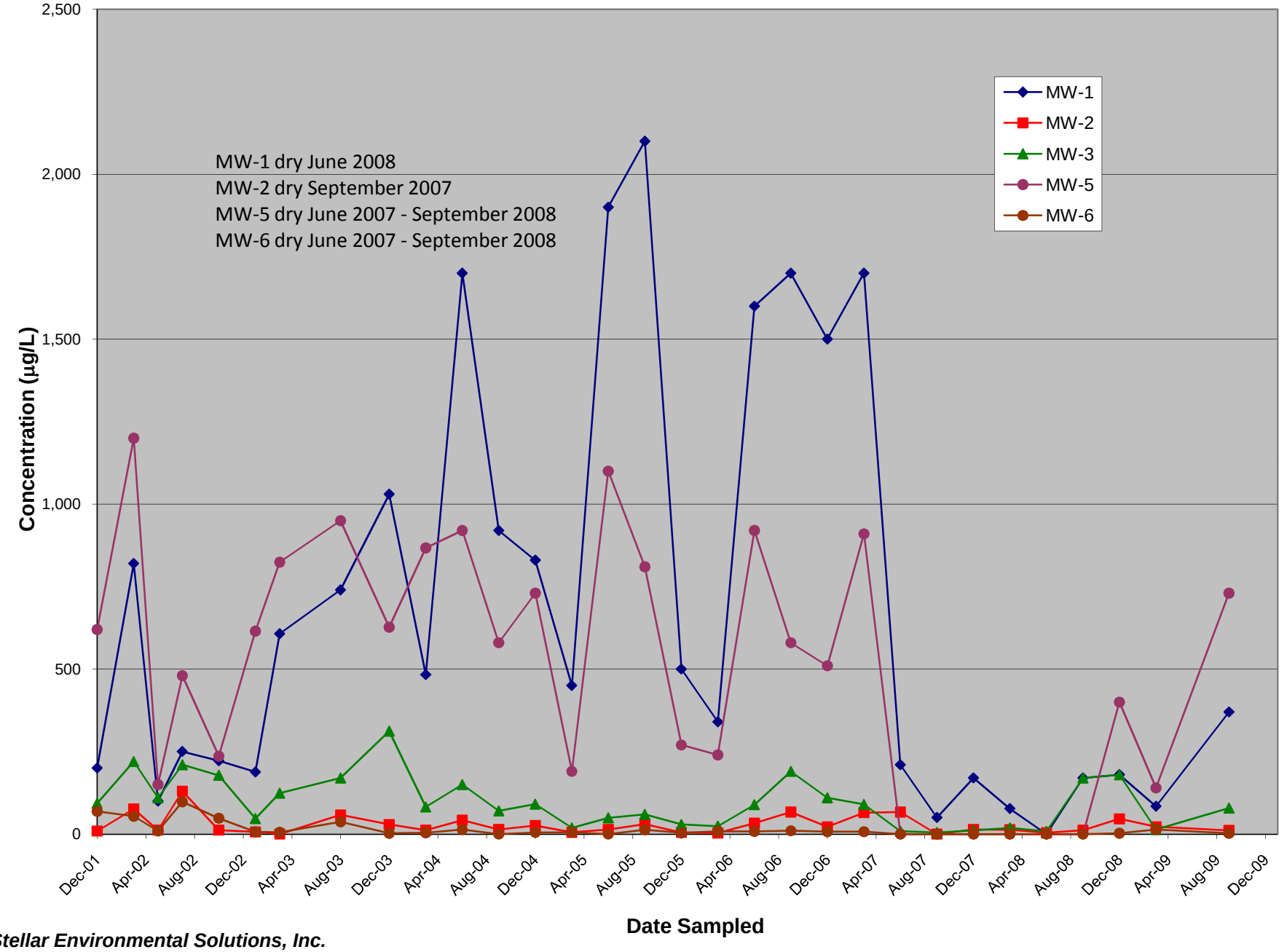
Stellar Environmental Solutions, Inc.

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



Stellar Environmental Solutions, Inc.

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



Stellar Environmental Solutions, Inc.

Benzene

Figure 13 shows hydrochemical trend data for benzene in key site wells for the past 9 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 this September 2010 event with 190 µg/L. Both of these wells generally demonstrate the same trends in seasonal fluctuations.

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. The concentration observed during the September 2009 event showed an increase, but remained within the historical minimum and maximums and have shown a decrease this September 2010. Downgradient wells MW-2, MW-3, and MW-6 have all shown a relatively stable benzene concentration trend.

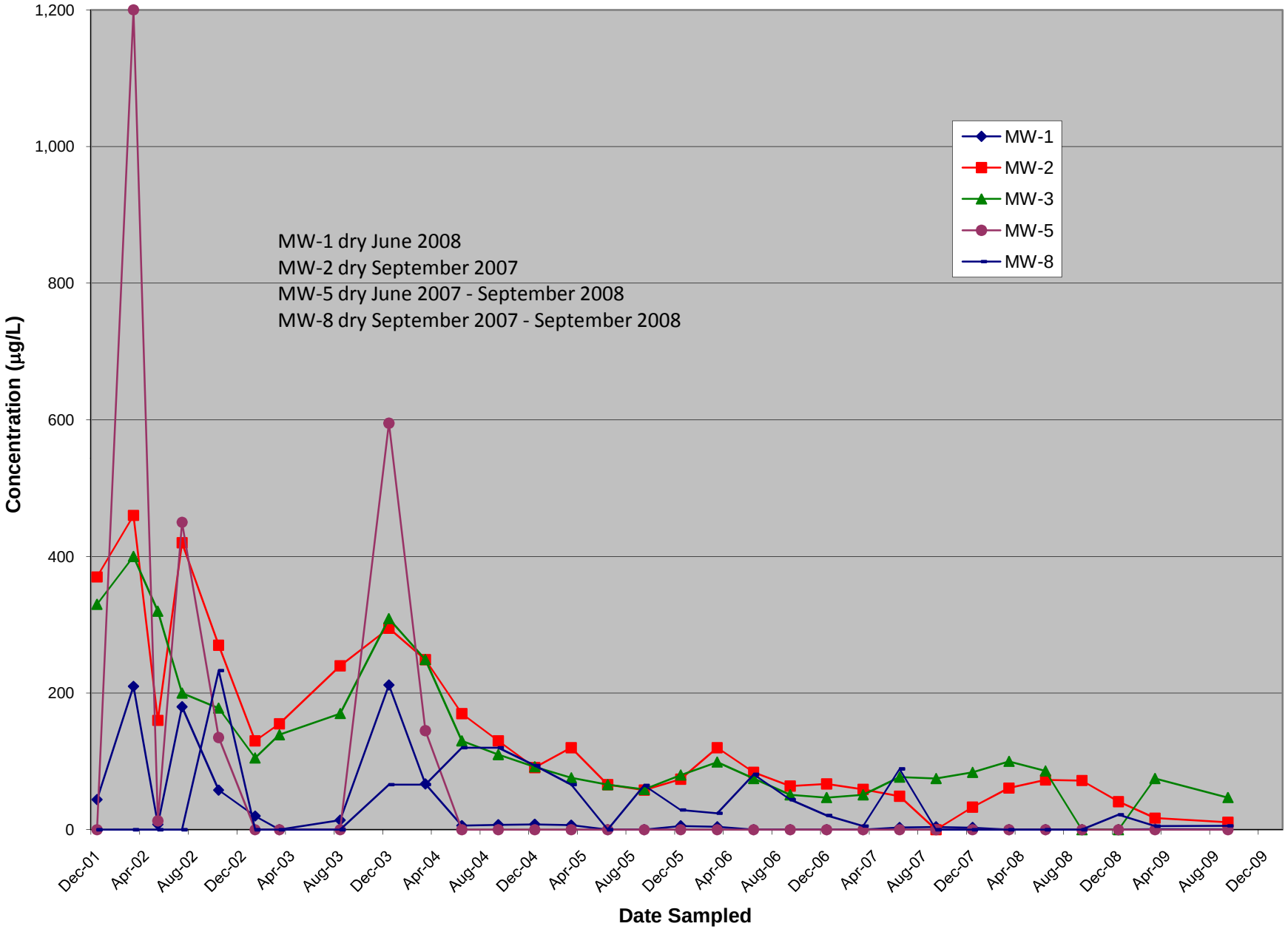
MTBE

Figure 14 shows hydrochemical trend data for MTBE in key site wells for the past 9 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 9 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-6 and MW-8 during this September 2010 event.

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



Stellar Environmental Solutions, Inc.

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. Well MW-5 showed a dramatic increase in overall contaminant concentrations during the last two September 2009 and 2010 events.

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 9 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 has been removed (i.e., the source of the discharge and obviously-contaminated soil).*** This criterion has not been met and the test of monitoring over the last 9 years shows that without treatment this source area will not decrease by natural attenuation over time. 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. Reducing source area (and outlying 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. The property owner has proposed to ACEH to implement a SVE system as an interim remedial action to reduce contaminant mass. A corrective action assessment and remedial evaluation was conducted in May and June 2007. A workplan for installation and operation of a soil vapor extraction system has been submitted and approved by ACEH and the Water Board and is currently being updated and scheduled for implementation in 2011.
2. ***The groundwater contaminant plume is well characterized, and is stable or reducing in magnitude and extent.*** As discussed above, in our professional opinion, this criterion has not been met, and continued groundwater monitoring will be needed to demonstrate plume stability.
3. ***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.

6.0 SUMMARY, CONCLUSIONS, AND PROPOSED ACTIONS

SUMMARY AND CONCLUSIONS

- The site has undergone site investigations and remediation since 1991 (SES has been involved since August 2003) to address soil and groundwater contamination resulting from leaking UFSTs that were reportedly removed.
- ACEH is the lead regulatory agency. A total of 44 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; and is currently being updated for implementation in 2011.
- The lowest recorded groundwater levels measured in the site wells was in September 2007 and the next lowest levels were recorded in September 2008. 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. Groundwater returned to its' pre-2007 (pre-drought) elevation range during 2009, however this latest 2010 monitoring event has shown another dramatic decrease in site groundwater elevations. Groundwater elevation lowered an average of 5.42 feet between September 2009 and September 2010 with the largest decrease of 7.76 feet recorded in MW-1.
- 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 0.02 and 0.03 feet/foot. Historical groundwater gradient has varied between approximately 0.002 and 0.01 feet/foot, averaging approximately 0.005 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 the northern corner of the site (near the source area). 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.
- This current quarter September 2010 recorded the historical highest detections of diesel (480,000 µg/L) and second highest detection (140,000 µg/L) gasoline in MW-5, however floating product was not observed.
- Well MW-5 is a "source area" well and the significant increase in dissolved phase, is likely the result of it having not sampled in the last two years due to being dry. The re-saturation resulted in desorption form the soil matrix.
- 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.
- A previous water well survey identified no vicinity water wells with the potential to intercept site-sourced groundwater contamination.
- Potential preferential pathways identified include deep sanitary sewer lines beneath Howe Street and W. MacArthur Boulevard (adjacent to the subject property). Based on the detection of gasoline and MTBE in well MW-7 (beyond the Howe Street deep utilities), it appears unlikely that the Howe Street deep utilities are acting as a preferential pathway for site-sourced groundwater contamination. The influence of deep utilities beneath W. MacArthur Boulevard is not known.
- The adjacent Shell service station is contributing minor MTBE and gasoline in groundwater contamination to the eastern corner of the subject property. This

contamination is unrelated to the separate, site-sourced MTBE and gasoline groundwater contamination in the northern and western portions of the subject property.

- None of the most volatile petroleum constituent contaminants of concern were detected in soil-gas collected 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. Implementation of SVE remediation has been delayed indefinitely by the property owner due to financial/personal consideration. The delay has been verbally approved by the ACEH case officer, Mr. Jerry Wickham, who has requested to be kept apprised of the situation every 6 months. The Water Board concurs with ACEH who will issue a deadline to the Responsibility Party for getting the remediation underway. The SVE implementation budget has been updated and re-evaluated for implementation in 2011.
- 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. The State of California Tank Cleanup Fund has requested a Y2011 budget projection.
- 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 continued to be made to the GeoTracker database, and electronic copies of technical reports should be uploaded to ACEH's ftp system.

7.0 REFERENCES AND BIBLIOGRAPHY

Advanced Environmental Concepts, Inc. (AEC), 2003a. 1st Quarter Groundwater Sampling Report (2003) – Former Vogue Tyres Facility – 240 W. MacArthur Boulevard, Oakland, California. March 7.

Advanced Environmental Concepts, Inc. (AEC), 2003b. 2nd Quarter Groundwater Sampling Report (2003) – Former Vogue Tyres Facility – 240 W. MacArthur Boulevard, Oakland, California. April 30.

Advanced Environmental Concepts, Inc. (AEC), 2002a. December 2001 Quarterly Groundwater Sampling Report – Former Vogue Tyres Facility – 240 W. MacArthur Boulevard, Oakland, California. January 30.

AEC, 2002b. March 2002 Quarterly Groundwater Sampling Report – Former Vogue Tyres Facility – 240 W. MacArthur Boulevard, Oakland, California. April 19.

Advanced Environmental Concepts, Inc. (AEC), 2002c. 2nd Quarter Groundwater Sampling Report (2002) – Former Vogue Tyres Facility – 240 W. MacArthur Boulevard, Oakland, California. July 17.

Advanced Environmental Concepts, Inc. (AEC), 2002d. 4th Quarter Groundwater Sampling Report (2002) – Former Vogue Tyres Facility – 240 W. MacArthur Boulevard, Oakland, California. November 11.

Advanced Environmental Concepts, Inc. (AEC), 2001a. December 2000 Quarterly Groundwater Sampling Report – Former Vogue Tyres Facility – 240 W. MacArthur Boulevard, Oakland, California. January.

Advanced Environmental Concepts, Inc. (AEC), 2001b. Additional Soil and Groundwater Assessment – 240 W. MacArthur Boulevard, Oakland, County of Alameda, California. March.

Advanced Environmental Concepts, Inc. (AEC), 2001c. May 2001 Quarterly Groundwater Sampling Report – Former Vogue Tyres Facility – 240 W. MacArthur Boulevard, Oakland, California. May 27.

Advanced Environmental Concepts, Inc. (AEC), 2001d. July 2001 Quarterly Groundwater Sampling Report – Former Vogue Tyres Facility – 240 W. MacArthur Boulevard, Oakland, California. August 31.

Advanced Environmental Concepts, Inc. (AEC), 2001e. Summary "Hi-Vac" Workplan – Former Vogue Tyres Facility – 240 W. MacArthur Boulevard, Oakland, California. September 11.

Advanced Environmental Concepts, Inc. (AEC), 2001f. October 2001 Quarterly Groundwater Sampling and Summary "Hi-Vac" Report – Former Vogue Tyres Facility – 240 W. MacArthur Boulevard, Oakland, California. December 15.

Advanced Environmental Concepts, Inc. (AEC), 2000a. Quarterly Groundwater Sampling Report – Former Vogue Tyres Facility – 240 W. MacArthur Boulevard, Oakland, California. August 11.

Advanced Environmental Concepts, Inc. (AEC), 2000b. Additional Groundwater Assessment Workplan for Former Vogue Tyres Facility – 240 W. MacArthur Boulevard, Oakland, County of Alameda, California. October.

Advanced Environmental Concepts, Inc. (AEC), 1999. Quarterly Groundwater Sampling Report – Former Vogue Tyres Facility – 240 W. MacArthur Boulevard, Oakland, California. January 22.

Advanced Environmental Concepts, Inc. (AEC), 1998a. Second Quarterly Groundwater Sampling Report – Former Vogue Tyres Facility – 240 W. MacArthur Boulevard, Oakland, California. April 2.

Advanced Environmental Concepts, Inc. (AEC), 1998b. Request for Site Closure – Former Vogue Tyres Facility – 240 W. MacArthur Boulevard, Oakland, California. June 29.

Advanced Environmental Concepts, Inc. (AEC), 1998c. Third Quarterly Groundwater Sampling Report – Former Vogue Tyres Facility – 240 W. MacArthur Boulevard, Oakland, California. August 2.

Advanced Environmental Concepts, Inc. (AEC), 1998d. Fourth Quarterly Groundwater Sampling Report – Former Vogue Tyres Facility – 240 W. MacArthur Boulevard, Oakland, California. November 6.

Advanced Environmental Concepts, Inc. (AEC), 1997a. Subsurface Soil and Groundwater Investigation Workplan for Former Vogue Tyres Facility – 240 W. MacArthur Boulevard, Oakland, California. June.

Advanced Environmental Concepts, Inc. (AEC), 1997b. Continuing Soil and Groundwater Assessment for Former Vogue Tyres Facility – 240 W. MacArthur Boulevard, Oakland, California. August.

Advanced Environmental Concepts, Inc. (AEC), 1997c. First Quarterly Groundwater Sampling Report – Former Vogue Tyres Facility – 240 W. MacArthur Boulevard, Oakland, California. December 21.

All Environmental, Inc., 1997a. Underground Storage Tank Removal and Excavation, Transport and Disposal of Contaminated Soil Report – 240 W. MacArthur Boulevard, Oakland, California. January 3.

All Environmental, Inc., 1997b. Phase II Subsurface Investigation Report – 240 W. MacArthur Boulevard, Oakland, California. February 14.

All Environmental, Inc., 1997c. Soil and Groundwater Investigation Workplan – 240 W. MacArthur Boulevard, Oakland, California. April 15.

Alameda County Environmental Health, 2009. Email communication pertaining to conversion of site monitoring frequency reduction from quarterly to semi-annual basis. January 9.

Alameda County Environmental Health, 2009. Technical directive confirming reductionof site monitoring frequency from quarterly to semi-annual basis. July 24.

Cambria Environmental Technology, Inc., 2004. Second Quarter 2004 Monitoring Report, Shell-branded Service Station, 230 W. MacArthur Boulevard, Oakland, California. July 29.

Guidici, 2003. Supervisor, City of Oakland Public Works Department – Sewer Maintenance. Personal communication to Joe Dinan of SES. September 8.

Mittelhauser Corporation, 1991a. Magnetic Survey for Underground Utilities and Recommendations at 240 W. MacArthur Boulevard, Oakland, California. February 21.

Mittelhauser Corporation, 1991b. Sump Removal and Waste Oil Cleanup at 240 W. MacArthur Boulevard, Oakland, California. April 9.

Regional Water Quality Control Board (Water Board), 1999. East Bay Plain Groundwater Basin Beneficial Use Evaluation Report. June.

Regional Water Quality Control Board (Water Board), 2008. Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater. November 2007. Revised May 2008.

Regional Water Quality Control Board (Water Board), 2004. Water Quality Control Plan, Triennial Review. Water Board Staff Report. November 5.

Regional Water Quality Control Board (Water Board), 2009. Preliminary 5-Year Summary Report for Claim Number 013718; Concurrence with site Corrective Action and SVE Remediation. June 5.

Stellar Environmental Solutions, Inc. (Stellar Environmental), 2003a. Workplan for Additional Site Characterization, 240 W. MacArthur Boulevard, Oakland, California. August 20.

Stellar Environmental Solutions, Inc. (Stellar Environmental), 2003b. Third Quarter 2003 Groundwater Monitoring Report, 240 W. MacArthur Boulevard, Oakland, California. September 5.

Stellar Environmental Solutions, Inc. (Stellar Environmental), 2003c. Amended Workplan for Additional Site Characterization, 240 W. MacArthur Boulevard, Oakland, California. December 10.

Stellar Environmental Solutions, Inc. (Stellar Environmental), 2004a. Fourth Quarter 2003 Groundwater Monitoring Report, 240 W. MacArthur Boulevard, Oakland, California. January 12.

Stellar Environmental Solutions, Inc. (Stellar Environmental), 2004b. First Quarter 2004 Groundwater Monitoring Report, 240 W. MacArthur Boulevard, Oakland, California. April 12.

Stellar Environmental Solutions, Inc. (Stellar Environmental), 2004c. Soil and Groundwater Investigation Report, 240 W. MacArthur Boulevard, Oakland, California. June 8.

Stellar Environmental Solutions, Inc. (Stellar Environmental), 2004d. Second Quarter 2004 Groundwater Monitoring Report, 240 W. MacArthur Boulevard, Oakland, California. July 12.

Stellar Environmental Solutions, Inc. (Stellar Environmental), 2004e. Third Quarter 2004 Groundwater Monitoring Report, 240 W. MacArthur Boulevard, Oakland, California. October 11.

Stellar Environmental Solutions, Inc. (Stellar Environmental), 2004f. Workplan for Additional Site Characterization and Interim Remedial Action, 240 W. MacArthur Boulevard, Oakland, California. December 27.

Stellar Environmental Solutions, Inc. (Stellar Environmental), 2005a. Fourth Quarter 2004 Groundwater Monitoring and Annual Summary Report, 240 W. MacArthur Boulevard, Oakland, California. January 18.

Stellar Environmental Solutions, Inc. (Stellar Environmental), 2005b. First Quarter 2005 Groundwater Monitoring Report, 240 W. MacArthur Boulevard, Oakland, California. March 31.

Stellar Environmental Solutions, Inc. (Stellar Environmental), 2005c. Second Quarter 2005 Groundwater Monitoring Report, 240 W. MacArthur Boulevard, Oakland, California. July 8.

Stellar Environmental Solutions, Inc. (Stellar Environmental), 2005d. Third Quarter 2005 Groundwater Monitoring Report, 240 W. MacArthur Boulevard, Oakland, California. October 12.

Stellar Environmental Solutions, Inc. (Stellar Environmental), 2006a. Fourth Quarter 2005 Groundwater Monitoring and Annual Summary Report, 240 W. MacArthur Boulevard, Oakland, California. January 18.

Stellar Environmental Solutions, Inc. (Stellar Environmental), 2006b. First Quarter 2006 Groundwater Monitoring Report, 240 W. MacArthur Boulevard, Oakland, California. April 21.

Stellar Environmental Solutions, Inc. (Stellar Environmental), 2006c. Second Quarter 2006 Groundwater Monitoring Report, 240 W. MacArthur Boulevard, Oakland, California. July 11

Stellar Environmental Solutions, Inc. (Stellar Environmental), 2006d. Third Quarter 2006 Groundwater Monitoring Report, 240 W. MacArthur Boulevard, Oakland, California. September 29.

Stellar Environmental Solutions, Inc. (Stellar Environmental), 2007a. Fourth Quarter 2006 Groundwater Monitoring and Annual Summary Report, 240 W. MacArthur Boulevard, Oakland, California. January 16.

Stellar Environmental Solutions, Inc. (Stellar Environmental), 2007b. First Quarter 2007 Groundwater Monitoring Report, 240 W. MacArthur Boulevard, Oakland, California. May 4.

Stellar Environmental Solutions, Inc. (Stellar Environmental), 2007c. Second Quarter 2007 Groundwater Monitoring Report, 240 W. MacArthur Boulevard, Oakland, California. July 11.

Stellar Environmental Solutions, Inc. (Stellar Environmental), 2007d. Corrective Action Assessment Report, 240 W. MacArthur Boulevard, Oakland, California. August 1.

Stellar Environmental Solutions, Inc. (Stellar Environmental Solutions, Inc. (Stellar Environmental),), 2007e. Workplan for Soil Vapor Extraction System Installation and Operation – Oakland Auto Works – 240 W. MacArthur Blvd., Oakland, CA. September 28.

Stellar Environmental Solutions, Inc. (Stellar Environmental), 2007f. Third Quarter 2007 Groundwater Monitoring Report, 240 W. MacArthur Boulevard, Oakland, California. October 1.

Stellar Environmental Solutions, Inc. (Stellar Environmental), 2008a. Fourth Quarter 2007 Groundwater Monitoring and Annual Summary Report, 240 W. MacArthur Boulevard, Oakland, California. January 30.

Stellar Environmental Solutions, Inc. (Stellar Environmental), 2008b. First Quarter 2008 Groundwater Monitoring Report, 240 W. MacArthur Boulevard, Oakland, California. April 25.

Stellar Environmental Solutions, Inc. (Stellar Environmental), 2008c. Second Quarter 2008 Groundwater Monitoring Report, 240 W. MacArthur Boulevard, Oakland, California. July 8

Stellar Environmental Solutions, Inc. (Stellar Environmental), 2008d. Third Quarter 2008 Groundwater Monitoring Report, 240 W. MacArthur Boulevard, Oakland, California. October 14.

Stellar Environmental Solutions, Inc. (Stellar Environmental), 2009a. Fourth Quarter 2008 Groundwater Monitoring and Annual Summary Report, 240 W. MacArthur Boulevard, Oakland, California. January 7.

Stellar Environmental Solutions, Inc. (Stellar Environmental), 2009b. First Semi-Annual 2009 Groundwater Monitoring Letter Report, 240 W. MacArthur Boulevard, Oakland, California. April 2.

Stellar Environmental Solutions, Inc. (Stellar Environmental), 2009c. Second Semi-Annual 2009 Groundwater Monitoring Letter Report, 240 W. MacArthur Boulevard, Oakland, California. October 16.

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

WELL GAUGING DATA

Project # 1001-PC2 Date 10/1/10 Client Stellar

Site Oakland Auto Works, Oakland

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
MW-5	1505	2					19.28	20.11	TOC	

LL MONITORING DATA SH T

Project #: 101001-PL2	Client: Stellar
Sampler: DC	Date: 10/1/10
Well I.D.: MW-5	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 20.4	Depth to Water (DTW): 19.28
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: ~~PVC~~ Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

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

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

_____(Gals.) X _____ = _____ 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 for Parameters			
			Well dewatered during pre-purge sampling DTW: 19.92			
			Wait 10 minutes to reattempt bottle filling			
			DTW: 19.92 - Per client, end sampling & submit low			
			volume → 6x 40ml VOA, 1x 500ml Amber w/ ~80ml only			

Did well dewater? Yes No Gallons actually evacuated:

Sampling Date: 10/1/10 Sampling Time: 1515 Depth to Water:

Sample I.D.: MW-5 Laboratory: Kiff CalScience Other C&T

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

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

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

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

WELL GAUGING DATA

Project # 100927-FS1 Date 9-27-10 Client STELLAR

Site 240 W. MACARTHER BLVD. OAKLAND

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
MW-1	945	2	ODOR	SPH			23.36	24.28	TOC	
MW-2	930	2					23.51	24.30		
MW-3	937	2					22.53	24.06		
MW-4	903	2					19.63	23.59		
MW-5	950	2					19.23	19.91		
MW-6	922	2					19.45	20.14		
MW-7	910	2					19.52	20.01		
MW-8	916	2					19.29	19.83		

WELLHEAD INSPECTION CHECKLIST

Date 9-27-10 Client STELLAR

Site Address 240 W. MACARTHUR BLVD. OAKLAND

Job Number 100927-FS1 Technician FS

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							✓	
MW-2							*	
MW-3							*	
MW-4							*	
MW-5							✓	
MW-6	✓							
MW-7							*	
MW-8							✓	

NOTES: * 2/2 TABS STRIPPED MW-8 1/2 TABS BROKEN

MW-1 & MW-5 NO BOLTS & 2/2 TABS BROKEN

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME STELLAR				PROJECT NUMBER 100927-FS1			
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP.	INITIALS
MYRON L ULTRAMETER	6209577	9-27-10 950	4.0/7.0/10.0	4.10/6.98/9.83	YES	80.7	FF
↓	↓	" 955	3900 µS	3967 µS	YES	77.8	F

WELL MONITORING DATA SHEET

Project #: 100927-FS1	Client: STELLAR @ OAKLAND AUTOWORKS
Sampler: FS	Start Date: 9-27-10
Well I.D.: MW-1	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth:	Depth to Water:
Before: 24.28 After:	Before: 23.36 After: 23.50
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

80% @ 23.54

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	radius² * 0.163

Time	Temp. (°F or (°C))	pH	Conductivity (mS or (µS))	Turbidity (NTU)	Gals. Removed	Observations
1156	67.8	7.28	669	>1000	0.2	6 DOR
1200	67.2	6.80	664	>1000	0.4	↓
1254	67.2	6.72	652	>1000	0.6	↓

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

Sampling Time: 1450 Sampling Date: 9-27-10

Sample I.D.: MW-1 Laboratory: ~~STL~~ CTT

Analyzed for: TPH-G BTEX MTBE TPH-D (Other:) SEE COC.

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

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

WELL MONITORING DATA SHEET

Project #: 100927-FS1	Client: STELLAR @ OAKLAND AUTOWORKS
Sampler: FS	Start Date: 9-27-10
Well I.D.: MW-2	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth:	Depth to Water:
Before: 24.30 After: ____	Before: 23.51 After: 23.65
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

80% = 23.66'

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	radius² * 0.163

Time	Temp. (°F or (°C))	pH	Conductivity (mS or (µS))	Turbidity (NTU)	Gals. Removed	Observations
1024	69.8	6.67	698	>1000	0.2	ODOR
1028	69.1	6.51	715	>1000	0.4	
1031	68.8	6.54	717	>1000	0.6	

Did well dewater? Yes (No)		Gallons actually evacuated: 0.6	
Sampling Time: 1035		Sampling Date: 9-27-10	
Sample I.D.: MW-2		Laboratory: ~~STL~~ CET	
Analyzed for: TPH-G BTEX MTBE TPH-D (Other:)		SEE COC.	
Equipment Blank I.D.:	@ Time	Duplicate I.D.:	
Analyzed for: TPH-G BTEX MTBE TPH-D Other:			
D.O. (if req'd):	Pre-purge: mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge: mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 100927-FS1	Client: STELLAR @ OAKLAND AUTOWORKS
Sampler: FS	Start Date: 9-27-10
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth:	Depth to Water:
Before: 24.06 After:	Before: 22.53 After: 22.55
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

PO.70 @ 22.83'

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	radius^2 * 0.163

Time	Temp. (°F or (°C))	pH	Conductivity (mS or (µS))	Turbidity (NTU)	Gals. Removed	Observations
1144	71.3	7.28	768	71000	0.3	
—	WELL	DEWATERED	@	0.3	GALLONS	—
1430	76.6	6.81	795	—	—	

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

Sampling Time: 1430 Sampling Date: 9-27-10

Sample I.D.: MW-3 Laboratory: CAT ~~STL~~

Analyzed for: TPH-G BTEX MTBE TPH-D (Other:) SEE COC.

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

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

WELL MONITORING DATA SHEET

Project #: 100927-FS1	Client: STELLAR @ OAKLAND AUTOWORKS
Sampler: FS	Start Date: 9-27-10
Well I.D.: MW-4	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 23.59	Depth to Water: 19.63
Before: After:	Before: After: 19.81
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

80% = 20.42'

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	Conductivity (mS or (µS))	Turbidity (NTU)	Gals. Removed	Observations
1008	71.0	8.20	490	>1000	0.7	
1010	70.0	6.87	464	>1000	1.4	
1012	69.6	6.80	453	>1000	2.1	

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

Sampling Time: 1225 Sampling Date: 9-27-10

Sample I.D.: MW-4 Laboratory: ~~STL~~ CT

Analyzed for: (TPH-G) BTEX MTBE TPH-D (Other:) SEE COC.

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

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

WELL MONITORING DATA SHEET

Project #: 100927-FS1	Client: STELLAR @ OAKLAND AUTOWORKS
Sampler: FS	Start Date: 9-27-10
Well I.D.: MW-5	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 19.91	Depth to Water: 19.23
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

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	radius^2 * 0.163

Time	Temp. (°F or (°C))	pH	Conductivity (mS or (µS))	Turbidity (NTU)	Gals. Removed	Observations
—	INSUFFICIENT		WATER	TO	PURGE	
—	NO	SAMPLE		TAKEN	—	

Did well dewater? Yes No Gallons actually evacuated:

Sampling Time: Sampling Date: 9-27-10

Sample I.D.: MW-5 Laboratory: STL

Analyzed for: TPH-G BTEX MTBE TPH-D (Other:) SEE COC.

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

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

WELL MONITORING DATA SHEET

Project #: 100927-FS1	Client: STELLAR @ OAKLAND AUTOWORKS
Sampler: FS	Start Date: 9-27-10
Well I.D.: MW-6	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth:	Depth to Water:
Before: 20.14 After:	Before: 19.45 After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

80% = 19.58 !

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	Conductivity (mS or (µS))	Turbidity (NTU)	Gals. Removed	Observations
—	WELL	DEWATERED	DURING	ATTEMPTED		PURGE —
1045	NO	PARAMETER	COLLECTED			
— RETURNED	TO	THIS	WELL	TWICE	TO	EXTRACT
SAMPLE.	WATER	INSUFFICIENT.				
—	NO	SAMPLE	TAKEN			

Did well dewater? (Yes) No — Gallons actually evacuated: 0.1

Sampling Time: — Sampling Date: 9-27-10

Sample I.D.: MW-6 — Laboratory: ~~STL~~ CAT

Analyzed for: TPH-G BTEX MTBE TPH-D (Other:) SEE COC.

Equipment Blank I.D.: @ Time — Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

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

WELL MONITORING DATA SHEET

Project #: 100927-FS1	Client: STELLAR @ OAKLAND AUTOWORKS
Sampler: FS	Start Date: 9-27-10
Well I.D.: MW-7	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 20.01	Depth to Water: 19.52
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:

Bailer
Disposable Bailer
Positive Air Displacement
Electric Submersible
Waterra
Peristaltic
Extraction Pump
Other_____

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

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

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

Time	Temp. (°F or (°C))	pH	Conductivity (mS or (µS))	Turbidity (NTU)	Gals. Removed	Observations
	(~SUFFICIENT WATER TO PURGE					
	NO SAMPLES TAKEN					

Did well dewater? Yes No Gallons actually evacuated:

Sampling Time: Sampling Date: 9-27-10

Sample I.D.: MW- Laboratory: STL

Analyzed for: TPH-G BTEX MTBE TPH-D (Other:) SEE COC.

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

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

WELL MONITORING DATA SHEET

Project #: 100927-FS1	Client: STELLAR @ OAKLAND AUTOWORKS
Sampler: FS	Start Date: 9-27-10
Well I.D.: MW-8	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 19.83	Depth to Water: 19.29
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

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	Conductivity (mS or (µS))	Turbidity (NTU)	Gals. Removed	Observations
— INSUFFICIENT			WATER	TO	PURGE	—
—	NO	SAMPLE		TAKEN	—	

Did well dewater? Yes No Gallons actually evacuated:

Sampling Time: Sampling Date: 9-27-10

Sample I.D.: MW- Laboratory: STL

Analyzed for: TPH-G BTEX MTBE TPH-D (Other:) SEE COC.

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

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

Chain of Custody Record

Lab job no. 100927-FS1
Date 9-27-10
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	TPH g (8015)	TEH - Diesel (8015)	BTEX + MTBE, EDB, 5 Oxygenates	Remarks
MW-1		9-27-10	1450		1 AMBER 6 VOAs	yes		No	7	X	X	X	LIMITED WATER VOL.
MW-2			1035		2 AMBERS 6 VOAs				8	X	X	X	
MW-3			1430		1 AMBER 6 VOAs				7	X	X	X	
MW-4			1225		VOAs				3	X			

Relinquished by:	Date	Received by:	Date	Relinquished by:	Date	Received by:	Date
Signature	9-27-10	Signature	9-27-10	Signature	9/28/10	Signature	9/28/10
Printed H. Pietropaoli	Time 1860	Printed F. Szymoniak	Time 1800	Printed W Jones	Time 1485	Printed Ricky Grams	Time 1415
Company Stellar Environmental		Company BTJ		Company BTJ		Company CET	

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

water in ice

SPH or Purge Water Drum Log

Client: Stellar

Site Address: 240 W. Macarthur Blvd Oakland CA

STATUS OF DRUM(S) UPON ARRIVAL

Date	12/1/08	12/12/08	3/17/09	9/18/09	9-27-10	
Number of drum(s) empty:	2	1	2	1	1	
Number of drum(s) 1/4 full:	0	1	1			
Number of drum(s) 1/2 full:						
Number of drum(s) 3/4 full:				1	1	
Number of drum(s) full:	1	1	1	1	2	
Total drum(s) on site:	3	3	3	3	4	
Are the drum(s) properly labeled?	Y	Y	Y	Yes	YES	
Drum ID & Contents:	Purge H2O	Purge H2O	Purge H2O	(1) EMPTY (2) PURGED H2O	1 EMPTY 3 PURGE H2O	
If any drum(s) are partially or totally filled, what is the first use date:	NA	NA	NA	N/A	N/A	

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

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

-All BTS drums MUST be labeled appropriately.

STATUS OF DRUM(S) UPON DEPARTURE

Date	12/1/08	12/12/08		9/18/09	9-27-10	
Number of drums empty:	1	1	1	1 (PUNCTURED) (DO NOT USE) →		
Number of drum(s) 1/4 full:	1	1				
Number of drum(s) 1/2 full:			1	1		
Number of drum(s) 3/4 full:				1	1	
Number of drum(s) full:	1	1	1	1	2	
Total drum(s) on site:	3	3	3	4	4	
Are the drum(s) properly labeled?	Y	Y	Y	YES	YES	
Drum ID & Contents:	Purge H2O	Purge H2O	Purge H2O	PURGED H2O	PURGE H2O	

LOCATION OF DRUM(S)

Describe location of drum(s):

FINAL STATUS

Number of new drum(s) left on site this event	0	0	0	0 1	0	
Date of inspection:	12/1/08	12/12/08	3/17/09	9/18/09	9-27-10	
Drum(s) labelled properly:	Y	Y	Y	Y	YES	
Logged by BTS Field Tech:	JD	JD	JD	JR	JR	
Office reviewed by:	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	

APPENDIX B

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


Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

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

Laboratory Job Number 222910
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-5	222910-001

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: 10/11/2010
Project Manager

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**222910**
Client:	**Stellar Environmental Solutions**
Project:	**2003-43**
Location:	**Oakland Auto Works**
Request Date:	**10/04/10**
Samples Received:	**10/04/10**

This data package contains sample and QC results for one water sample, requested for the above referenced project on 10/04/10. The sample was 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):
MW-5 (lab # 222910-001) was diluted due to high non-target analytes. No other analytical problems were encountered.

Chain of Custody Record

Lab job no. 222910
Date 10/1/10
Page 1 of 1

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

Project Owner Mr. Glen Poywing
Site Address 240 W. MacArthur Blvd
Oakland, CA 94612

Project Name Oakland Autoworks
Project Number 2003-43

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

Field Sample Number	Location/ Depth	Date	Time	Sample Type	Type/Size of Container	Preservation: Cooler	Preservation: Chemical	Filtered	No. of Containers	Analysis Required: TVH-gas (8015m)	TEH-Diesel (8015m)	BTEX, MTBE + EDB 8260B	EDC, 5-Fuel Oxy's	Remarks
MW-5		10/1/10	1515	W	6x40mlVOA/1x250mlAmber	yes	HCl/NP	No	7	X	X	X	X	Low Volume

Relinquished by: Signature / Printed H. Pietropaoli / Company Stellar Environmental — Date — Time
Received by: Signature / Printed / Company — Date — Time
Relinquished by: Signature / Printed Pete Cornish / Company BTS — Date 10/1/10 — Time 1715
Received by: Signature (SC) / Printed Pete Cornish / Company BTS — Date 10/1/10 — Time 1715

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

Relinquished by: Signature / Printed Dustin Becker / Company BTS — Date 10/4/10 — Time 1315
Received by: Signature / Printed Ricky Brown / Company CTE — Date 10/4/10 — Time 1315

2000-00-01

★ Stellar Environmental Solutions

2198 Sixth Street #201, Berkeley, CA 94710

contact Gild RC

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 222910 Date Received 10/4/10 Number of coolers 1
Client PES Project OAKLAND AUTOWORKS

Date Opened 10/4/10 By (print) M. VILLAPUDUA (sign)
Date Logged in [illegible] By (print) [illegible] (sign)

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

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

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

7. Temperature documentation:

Type of ice used: ☑ Wet ☐ Blue/Gel ☐ None Temp(°C) 1-5

☐ Samples Received on ice & cold without a temperature blank

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

8. Were Method 5035 sampling containers present? _____ YES (NO)
If YES, what time were they transferred to freezer? _____
9. Did all bottles arrive unbroken/unopened? _____ (YES) NO
10. Are samples in the appropriate containers for indicated tests? _____ (YES) NO
11. Are sample labels present, in good condition and complete? _____ (YES) NO
12. Do the sample labels agree with custody papers? _____ (YES) NO
13. Was sufficient amount of sample sent for tests requested? _____ YES (NO)
14. Are the samples appropriately preserved? _____ (YES) NO N/A
15. Are bubbles > 6mm absent in VOA samples? _____ (YES) NO N/A
16. Was the client contacted concerning this sample delivery? _____ YES NO
If YES, Who was called? Richard By T-B Date: 10-5-10

COMMENTS
NOT ENOUGH SAMPLE TO DO TEH
WE WILL RUN IT AND RAISE REPORTING LIMIT BY 5CX

SOP Volume: Client Services
Section: 1.1.2
Page: 1 of 1

Rev. 6 Number 1 of 3
Effective: 23 July 2008
Z:\qc\forms\checklists\Cooler Receipt Checklist_rv6.doc

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	222910	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2003-43	Analysis:	EPA 8015B
Field ID:	MW-5	Batch#:	167626
Matrix:	Water	Sampled:	10/01/10
Units:	ug/L	Received:	10/04/10

Type:	SAMPLE	Diln Fac:	100.0
Lab ID:	222910-001	Analyzed:	10/06/10

Analyte	Result	RL
Gasoline C7-C12	140,000 Y	5,000

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	127	70-140

Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC563044	Analyzed:	10/05/10

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	97	70-140

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

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	222910	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:	QC563043	Batch#:	167626
Matrix:	Water	Analyzed:	10/05/10
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	916.0	92	73-127

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	103	70-140

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	222910	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2003-43	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	167626
MSS Lab ID:	222908-001	Sampled:	10/04/10
Matrix:	Water	Received:	10/04/10
Units:	ug/L	Analyzed:	10/05/10
Diln Fac:	1.000		

Type: MS Lab ID: QC563045

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	513.1	2,000	2,126	81	68-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	108	70-140

Type: MSD Lab ID: QC563046

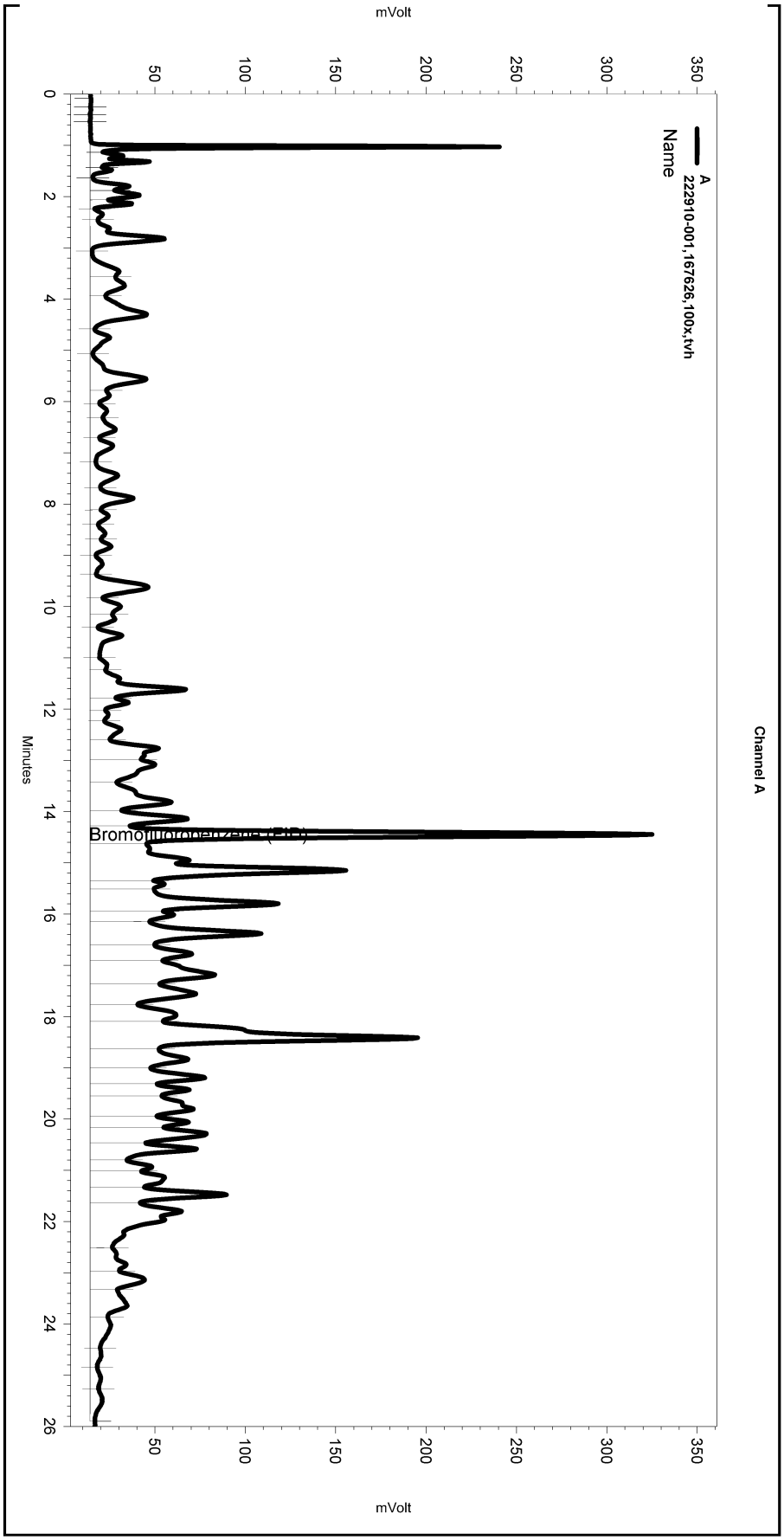
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	2,201	84	68-120	3	20

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	108	70-140

RPD= Relative Percent Difference

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC04\Sequence\278.seq**
Sample Name: **222910-001,167626,100x,tvh**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC04\Data\278-031**
Instrument: GC04 (Offline) Vial: N/A Operator: Tvh 1. Analyst (lims2k3\tvh1)
Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe246.met

Software Version 3.1.7
Run Date: 10/6/2010 12:47:56 PM
Analysis Date: 10/6/2010 4:17:22 PM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: f1.0



---< General Method Parameters >---

No items selected for this section

---< A >---

No items selected for this section

Integration Events

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

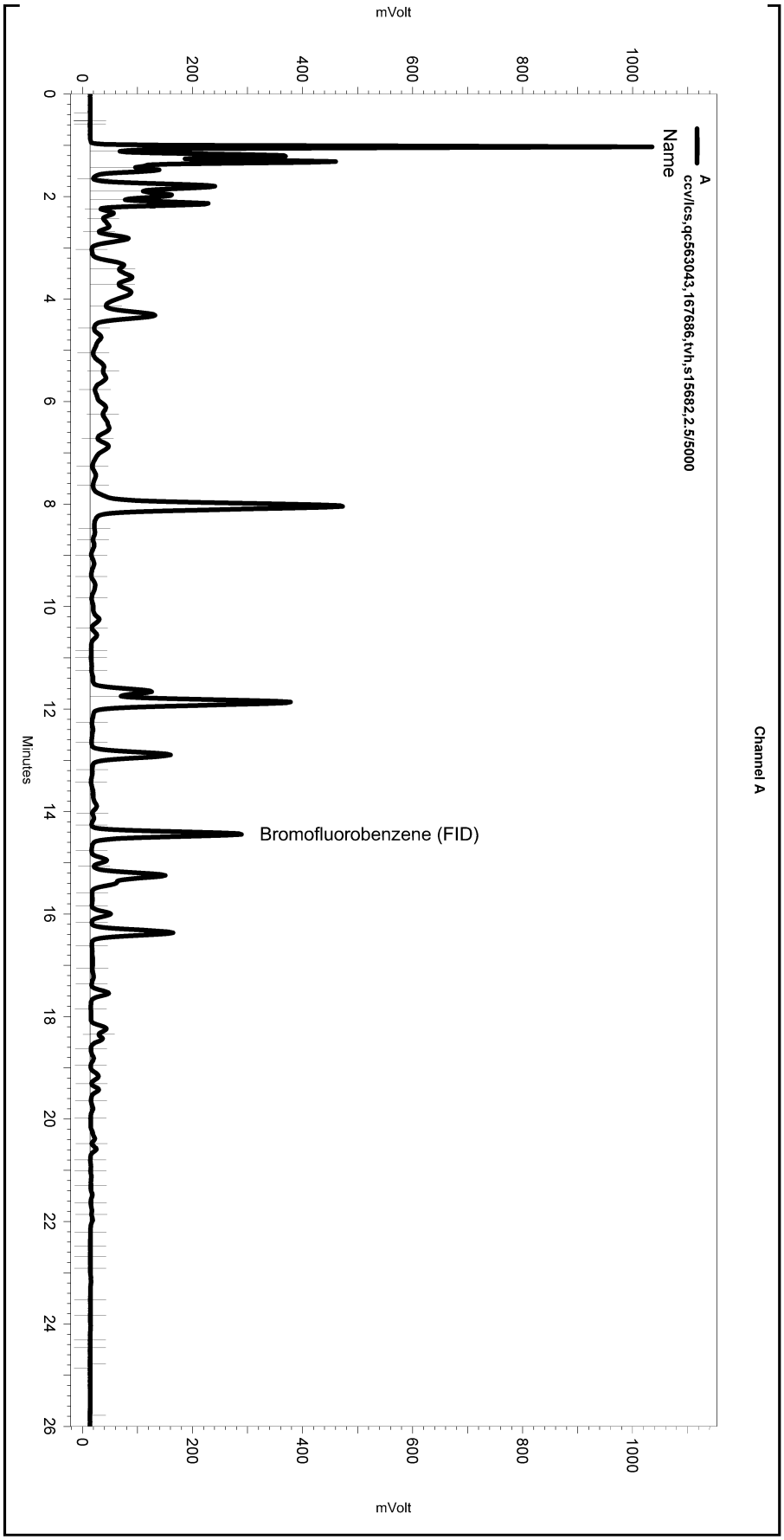
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\278-031

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Lowest Point Horizontal Baseli	0.236	25.966	0

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC04\Sequence\278.seq**
Sample Name: **ccv/lcs,qc563043,167686,tvh,s15682,2.5/5000**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC04\Data\278-005**
Instrument: GC04 (Offline) Vial: N/A Operator: Tvh 1. Analyst (lims2k3\tvh1)
Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe246.met

Software Version 3.1.7
Run Date: 10/5/2010 5:11:30 PM
Analysis Date: 10/6/2010 3:28:28 PM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: {Data Description}



---< General Method Parameters >---

No items selected for this section

---< A >---

No items selected for this section

Integration Events

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

Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\278-005

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

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	222910	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 3520C
Project#:	2003-43	Analysis:	EPA 8015B
Field ID:	MW-5	Sampled:	10/01/10
Matrix:	Water	Received:	10/04/10
Units:	ug/L	Prepared:	10/06/10
Batch#:	167659		

Type:	SAMPLE	Diln Fac:	5.000
Lab ID:	222910-001	Analyzed:	10/10/10

Analyte	Result	RL
Diesel C10-C24	480,000 Y	2,500

Surrogate	%REC	Limits
o-Terphenyl	65	60-129

Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC563173	Analyzed:	10/07/10

Analyte	Result	RL
Diesel C10-C24	ND	50

Surrogate	%REC	Limits
o-Terphenyl	91	60-129

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 #:	222910	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 3520C
Project#:	2003-43	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	167659
Units:	ug/L	Prepared:	10/06/10
Diln Fac:	1.000	Analyzed:	10/07/10

Type: BS Cleanup Method: EPA 3630C
Lab ID: QC563174

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,339	94	54-125

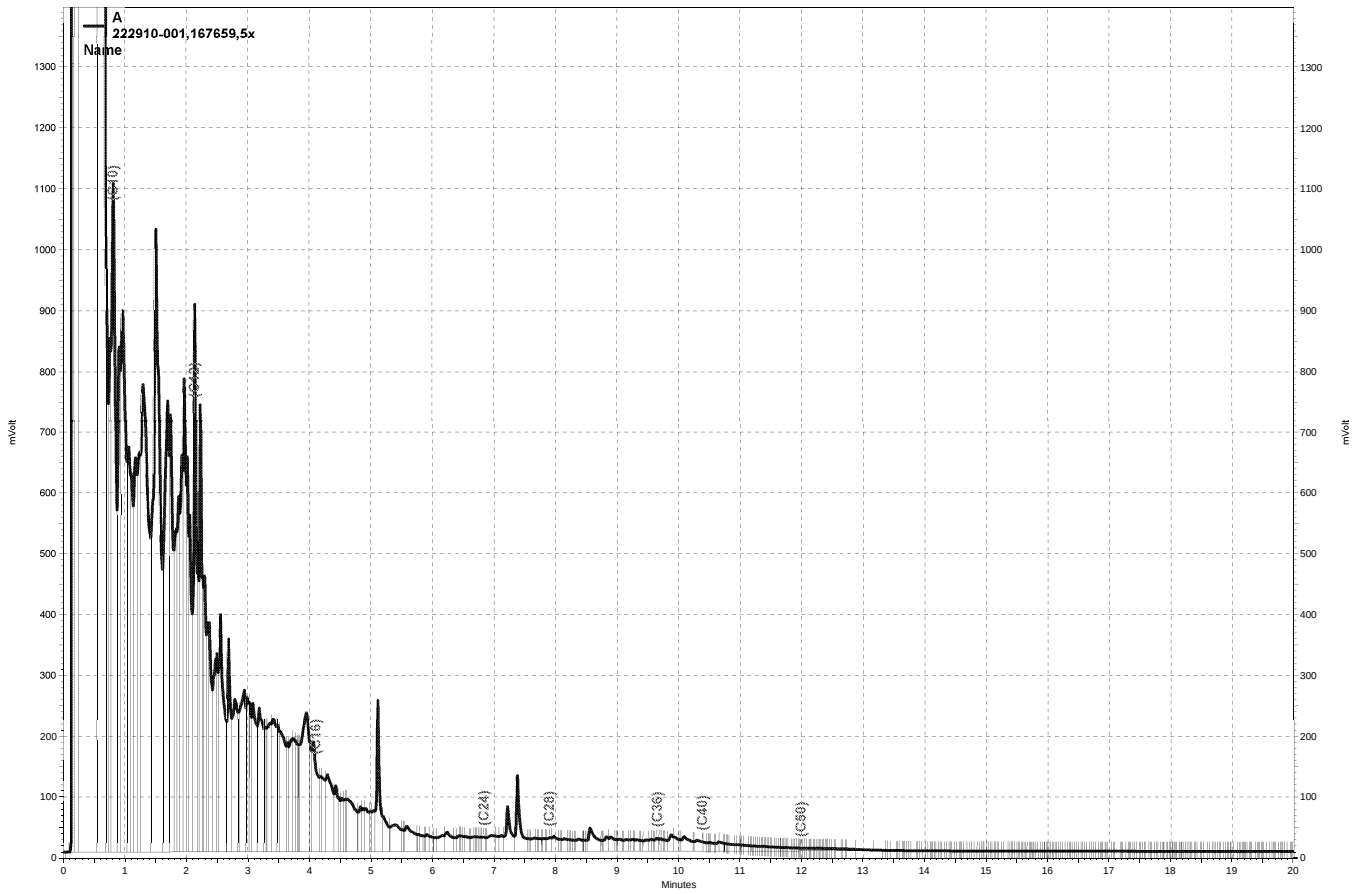
Surrogate	%REC	Limits
o-Terphenyl	85	60-129

Type: BSD Cleanup Method: EPA 3630C
Lab ID: QC563175

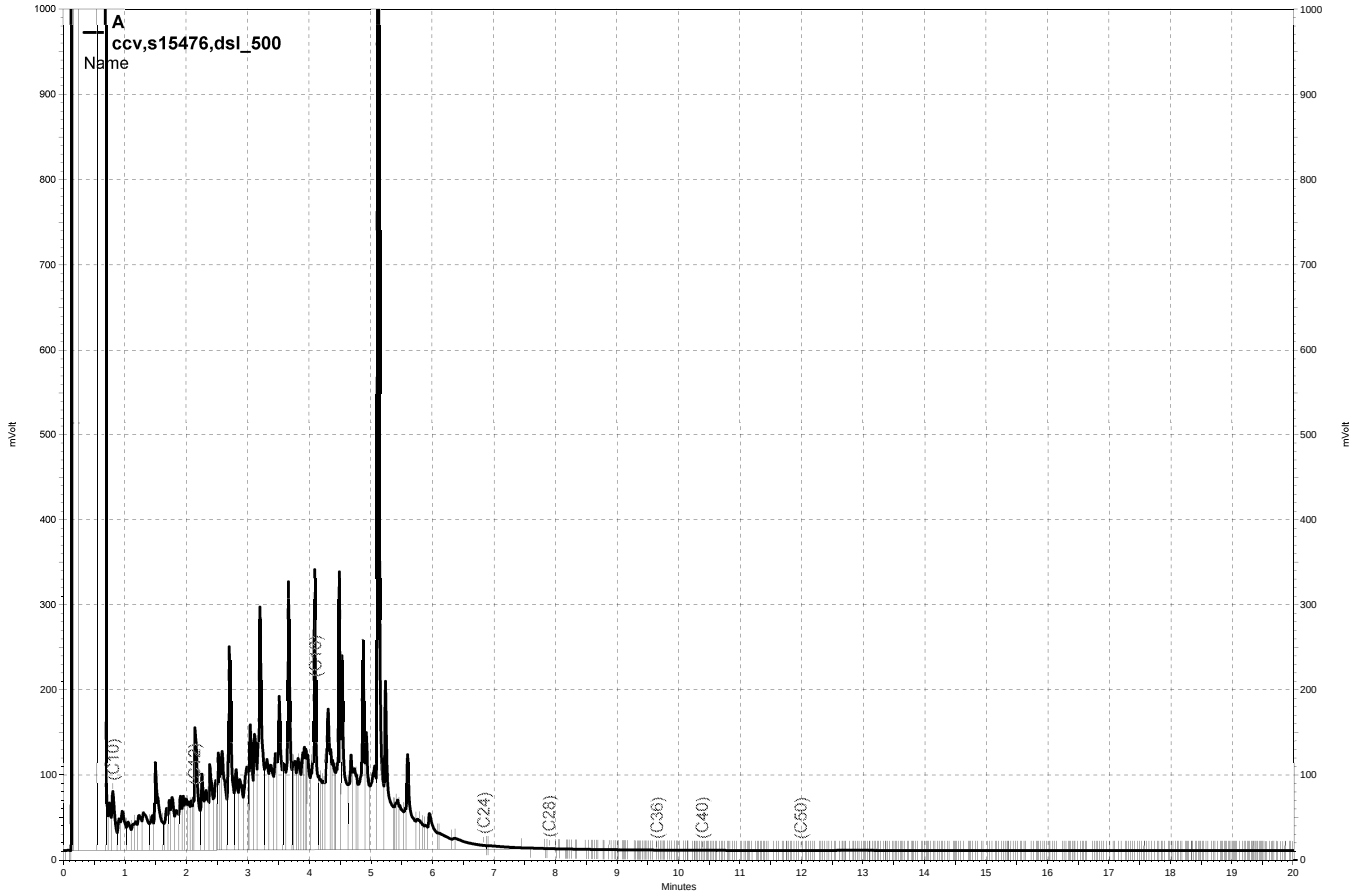
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,263	91	54-125	3	53

Surrogate	%REC	Limits
o-Terphenyl	84	60-129

RPD= Relative Percent Difference



\\Lims\gdrive\ezchrom\Projects\GC26\Data\283a026, A



\\Lims\gdrive\ezchrom\Projects\GC26\Data\280a004, A

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	222910	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2003-43	Analysis:	EPA 8260B
Field ID:	MW-5	Batch#:	167731
Lab ID:	222910-001	Sampled:	10/01/10
Matrix:	Water	Received:	10/04/10
Units:	ug/L	Analyzed:	10/08/10
Diln Fac:	10.00		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	750	100
MTBE	ND	5.0
Isopropyl Ether (DIPE)	ND	5.0
Ethyl tert-Butyl Ether (ETBE)	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	68	5.0
Methyl tert-Amyl Ether (TAME)	ND	5.0
Toluene	10	5.0
1,2-Dibromoethane	ND	5.0
Ethylbenzene	36	5.0
m,p-Xylenes	250	5.0
o-Xylene	140	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-122
1,2-Dichloroethane-d4	116	71-140
Toluene-d8	98	80-120
Bromofluorobenzene	98	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	222910	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2003-43	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	167731
Units:	ug/L	Analyzed:	10/08/10
Diln Fac:	1.000		

Type: BS Lab ID: QC563468

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	152.8	122	45-152
MTBE	25.00	26.91	108	66-120
Isopropyl Ether (DIPE)	25.00	27.26	109	56-134
Ethyl tert-Butyl Ether (ETBE)	25.00	27.03	108	60-124
1,2-Dichloroethane	25.00	28.72	115	70-135
Benzene	25.00	27.89	112	80-122
Methyl tert-Amyl Ether (TAME)	25.00	27.07	108	66-120
Toluene	25.00	28.65	115	80-120
1,2-Dibromoethane	25.00	27.08	108	80-120
Ethylbenzene	25.00	29.75	119	80-123
m,p-Xylenes	50.00	56.70	113	80-126
o-Xylene	25.00	28.36	113	80-122

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-122
1,2-Dichloroethane-d4	110	71-140
Toluene-d8	102	80-120
Bromofluorobenzene	99	80-121

Type: BSD Lab ID: QC563469

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	144.5	116	45-152	6	30
MTBE	25.00	24.92	100	66-120	8	20
Isopropyl Ether (DIPE)	25.00	25.16	101	56-134	8	20
Ethyl tert-Butyl Ether (ETBE)	25.00	24.67	99	60-124	9	20
1,2-Dichloroethane	25.00	26.58	106	70-135	8	20
Benzene	25.00	26.19	105	80-122	6	20
Methyl tert-Amyl Ether (TAME)	25.00	24.81	99	66-120	9	20
Toluene	25.00	26.46	106	80-120	8	20
1,2-Dibromoethane	25.00	26.02	104	80-120	4	20
Ethylbenzene	25.00	27.46	110	80-123	8	20
m,p-Xylenes	50.00	53.71	107	80-126	5	20
o-Xylene	25.00	26.56	106	80-122	7	20

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-122
1,2-Dichloroethane-d4	109	71-140
Toluene-d8	101	80-120
Bromofluorobenzene	99	80-121

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	222910	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:	QC563470	Batch#:	167731
Matrix:	Water	Analyzed:	10/08/10
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	100	80-122
1,2-Dichloroethane-d4	109	71-140
Toluene-d8	104	80-120
Bromofluorobenzene	103	80-121

ND= Not Detected
RL= Reporting Limit


Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

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

Laboratory Job Number 222759
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-1	222759-001
MW-2	222759-002
MW-3	222759-003
MW-4	222759-004

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: 10/05/2010
Project Manager

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**222759**
Client:	**Stellar Environmental Solutions**
Project:	**2003-43**
Location:	**Oakland Auto Works**
Request Date:	**09/28/10**
Samples Received:	**09/28/10**

This data package contains sample and QC results for four water samples, requested for the above referenced project on 09/28/10. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B):
High surrogate recovery was observed for bromofluorobenzene (FID) in MW-1 (lab # 222759-001). No other analytical problems were encountered.

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

Volatile Organics by GC/MS (EPA 8260B):
High recoveries were observed for isopropyl ether (DIPE) in the MS/MSD for batch 167549; the parent sample was not a project sample, the BS/BSD were within limits, the associated RPD was within limits, and these high recoveries were not associated with any reported results. No other analytical problems were encountered.

222791

Chain of Custody Record

Lab job no. 100927-FS1
Date 9-27-10
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 Owner Mr. Glen Poywing
Site Address 240 W. MacArthur Blvd
Oakland, CA 94612

Project Manager Richard Makdisi
Telephone No. (510) 644-3123
Fax No. (510) 644-3859

Project Name Oakland Autoworks
Project Number 2003-43
Samplers: *(Signature)* [signature]

Field Sample Number	Location/ Depth	Date	Time	Sample Type	Type/Size of Container	Preservation: Cooler	Preservation: Chemical	Filtered	No. of Containers	TPH g (8015)	TEH - DIESEL (8015)	BTEX MTBE EDB EDC + 5 OXYGENATES	Remarks
1 MW-1		9-27-10	1450		1 AMBER 6 VOAS	yes		No	7	X	X	X	LIMITED WATER VOL.
2 MW-2		↓	1035		2 AMBERS 6 VOAS	↓		↓	8	X	X	X	
3 MW-3		↓	1430		1 AMBER 6 VOAS	↓		↓	7	X	X	X	
4 MW-4		↓	1225		VOAS	↓		↓	3	X			

Relinquished by	Date / Time	Received by	Date / Time
Signature [signature]; Printed H. Pietropaoli; Company Stellar Environmental	9-27-10 / 1800	Signature [signature]; Printed F. SZIWONGTONG; Company BTS	9-27-10 / 1800
Signature [signature]; Printed W JONES; Company BTS	9/28/10 / 1415	Signature [signature]; Printed Ricky Grans; Company C&T	9/28/10 / 1415
Signature; Printed; Company	Date / Time	Signature; Printed; Company	Date / Time

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

2000-00-01

★ Stellar Environmental Solutions

2198 Sixth Street #201, Berkeley, CA 94710

intact cold RC

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 222759 Date Received 9/20/10 Number of coolers 1
Client SES Project OAKLAND AUTO WORKS

Date Opened 9/20/10 By (print) M. VILLANUEVA (sign)
Date Logged in 9/24/10 By (print) S. EVANS (sign)

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

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

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

7. Temperature documentation:

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

☑ Samples Received on ice & cold without a temperature blank

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

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

COMMENTS

_____

_____

_____

_____

_____

_____

_____

_____

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	222759	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2003-43	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	167428
Units:	ug/L	Sampled:	09/27/10
Diln Fac:	1.000	Received:	09/28/10

Field ID: MW-1 Lab ID: 222759-001
Type: SAMPLE Analyzed: 09/30/10

Analyte	Result	RL
Gasoline C7-C12	3,400 Y	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	144 *	70-140

Field ID: MW-2 Lab ID: 222759-002
Type: SAMPLE Analyzed: 09/30/10

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

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	127	70-140

Field ID: MW-3 Lab ID: 222759-003
Type: SAMPLE Analyzed: 09/30/10

Analyte	Result	RL
Gasoline C7-C12	1,300 Y	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	129	70-140

Field ID: MW-4 Lab ID: 222759-004
Type: SAMPLE Analyzed: 09/30/10

Analyte	Result	RL
Gasoline C7-C12	160 Y	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	102	70-140

Type: BLANK Analyzed: 09/29/10
Lab ID: QC562257

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	91	70-140

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

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	222759	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:	QC562258	Batch#:	167428
Matrix:	Water	Analyzed:	09/29/10
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	876.9	88	73-127

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	93	70-140

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	222759	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2003-43	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	167428
MSS Lab ID:	222718-003	Sampled:	09/27/10
Matrix:	Water	Received:	09/27/10
Units:	ug/L	Analyzed:	09/29/10
Diln Fac:	1.000		

Type: MS Lab ID: QC562259

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	196.7	2,000	2,066	93	68-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	113	70-140

Type: MSD Lab ID: QC562260

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	2,031	92	68-120	2	20

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	112	70-140

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	222759	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2003-43	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	167428
MSS Lab ID:	222749-003	Sampled:	09/28/10
Matrix:	Water	Received:	09/28/10
Units:	ug/L	Analyzed:	09/30/10
Diln Fac:	1.000		

Type: MS Lab ID: QC562261

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	25.07	2,000	1,735	85	68-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	107	70-140

Type: MSD Lab ID: QC562262

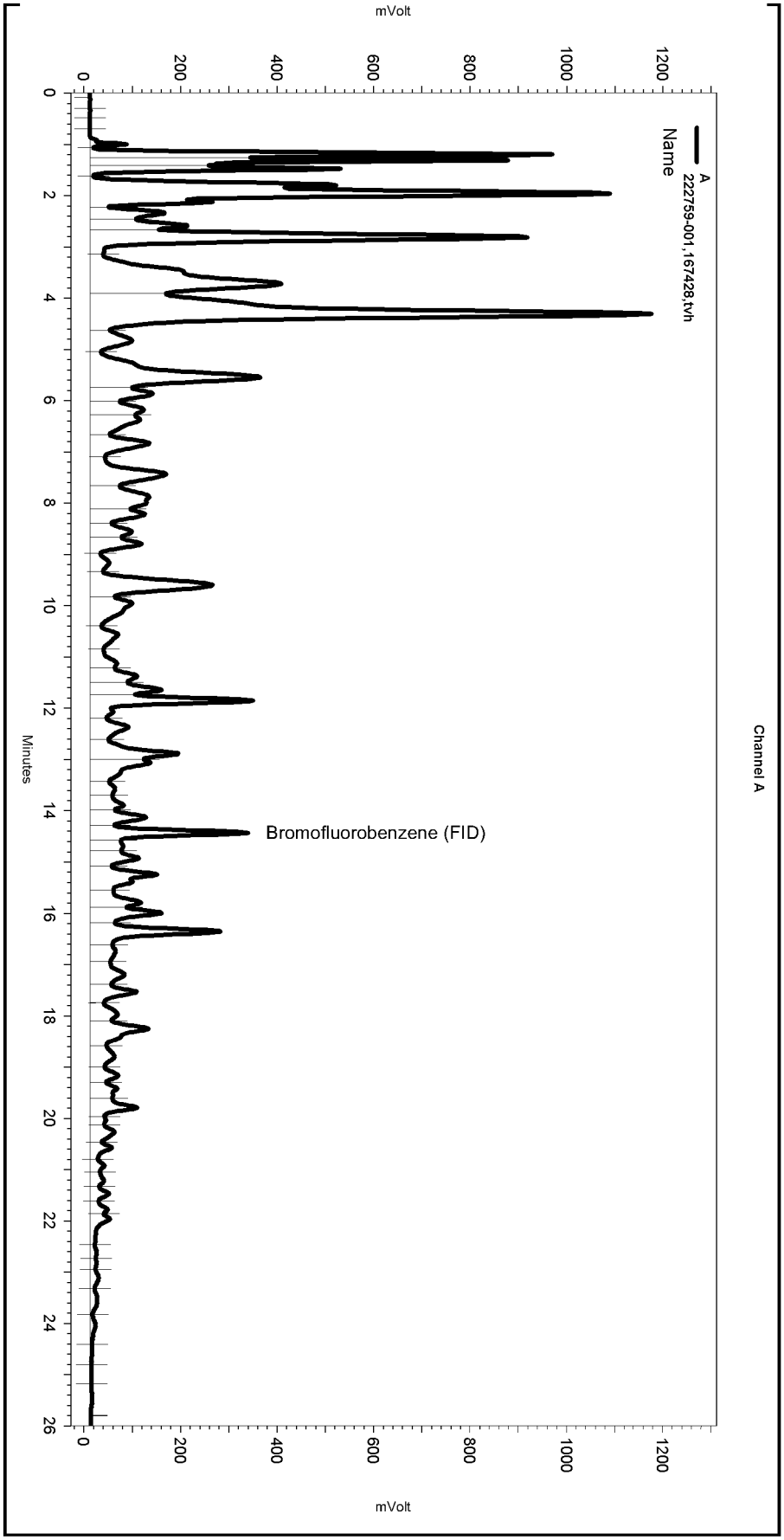
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,927	95	68-120	10	20

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	110	70-140

RPD= Relative Percent Difference

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC04\Sequence\272.seq**
Sample Name: **222759-001,167428,tvh**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC04\Data\272-029**
Instrument: GC04 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe246.met

Software Version 3.1.7
Run Date: 9/30/2010 10:52:15 AM
Analysis Date: 9/30/2010 7:07:28 PM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: b1.0



---< General Method Parameters >---

No items selected for this section

---< A >---

No items selected for this section

Integration Events

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

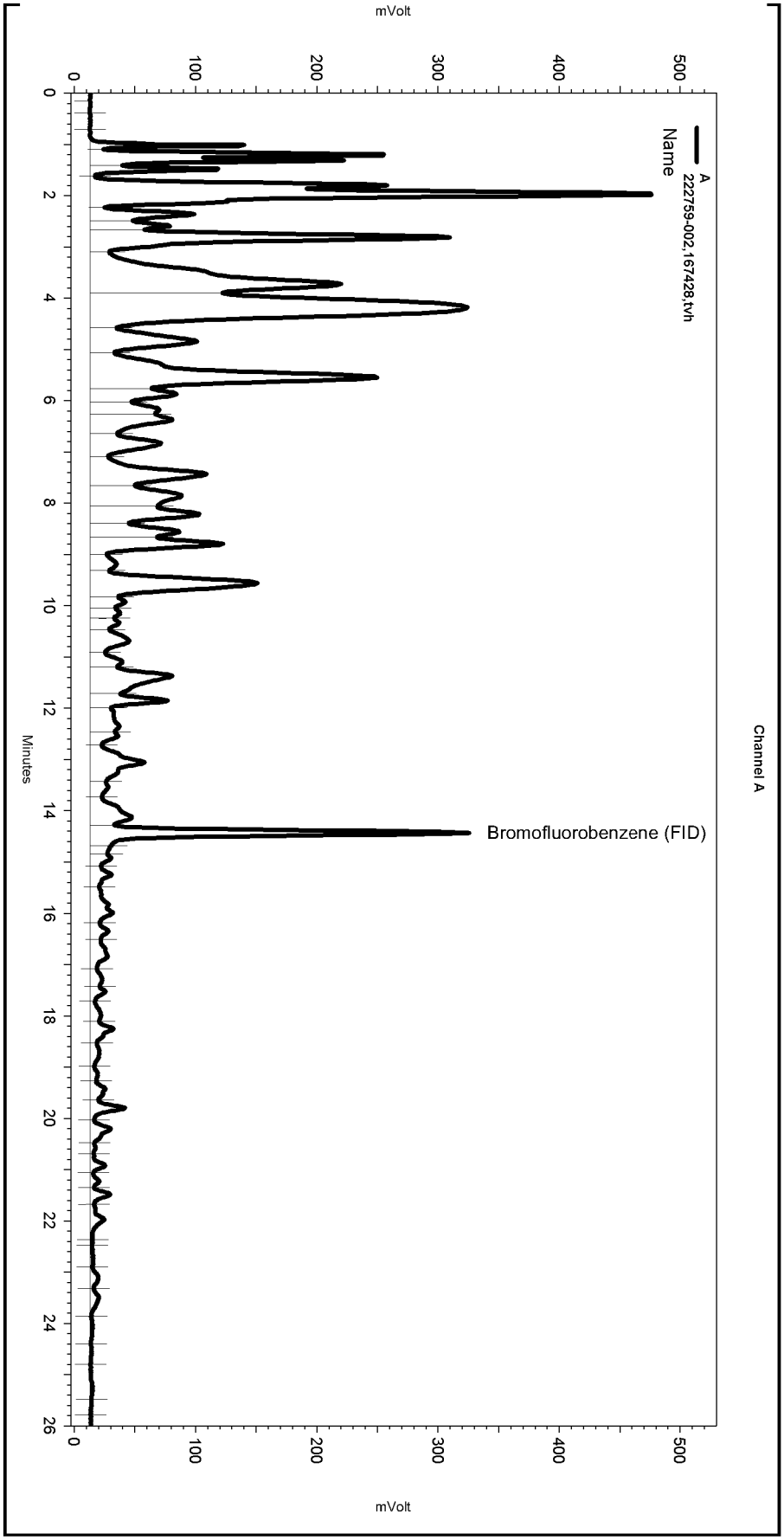
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\272-029

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Lowest Point Horizontal Baseli	0.317	25.983	0

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC04\Sequence\272.seq**
Sample Name: **222759-002,167428,tvh**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC04\Data\272-030**
Instrument: GC04 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe246.met

Software Version 3.1.7
Run Date: 9/30/2010 11:29:51 AM
Analysis Date: 9/30/2010 7:08:00 PM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: b1.0



---< General Method Parameters >---

No items selected for this section

---< A >---

No items selected for this section

Integration Events

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

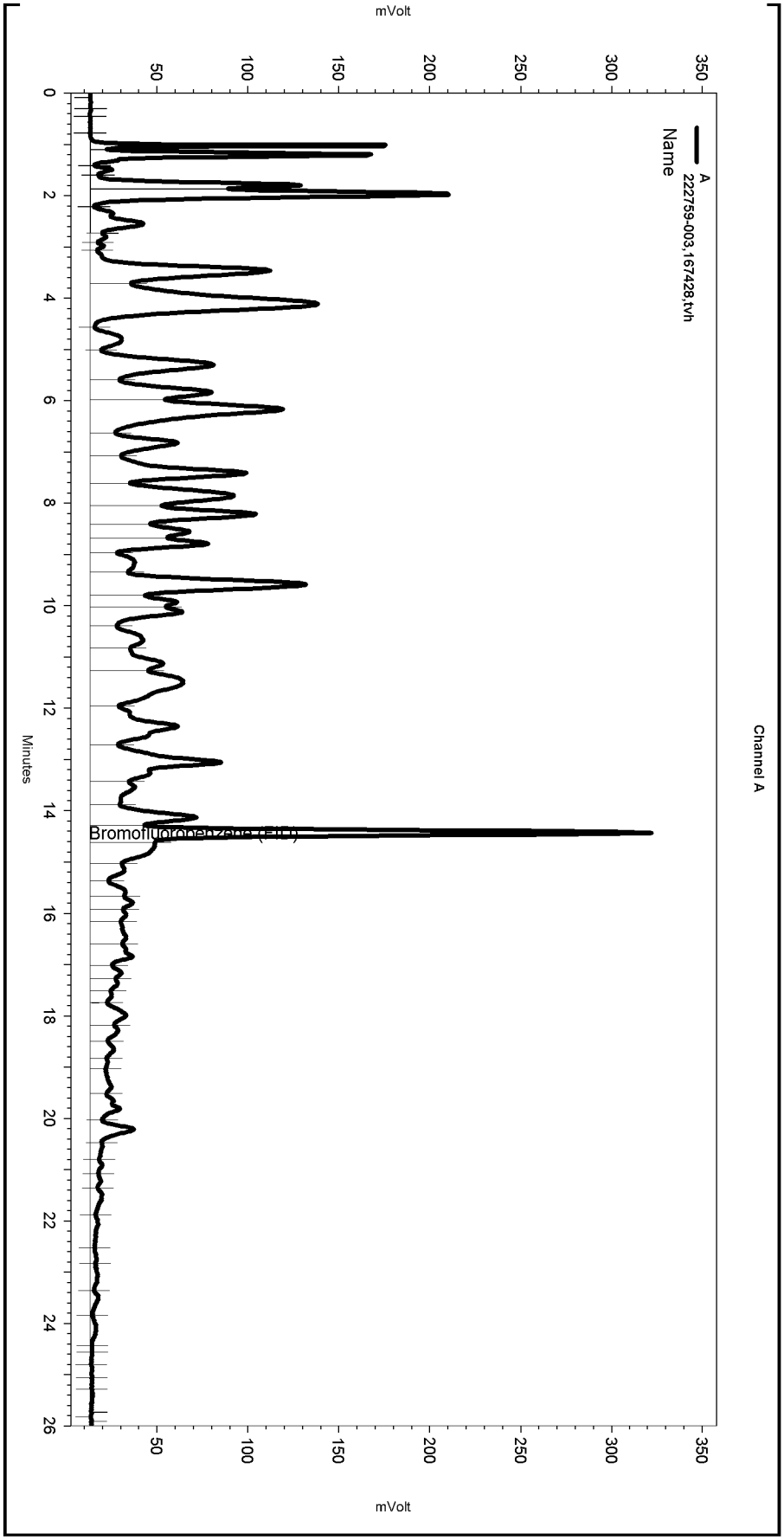
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\272-030

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Lowest Point Horizontal Baseli	0.178	26.017	0
Yes	Split Peak	14.675	0	0

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC04\Sequence\272.seq**
Sample Name: **222759-003,167428,tvh**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC04\Data\272-031**
Instrument: GC04 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe246.met

Software Version 3.1.7
Run Date: 9/30/2010 12:07:29 PM
Analysis Date: 9/30/2010 7:08:26 PM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: b1.0



---< General Method Parameters >---

No items selected for this section

---< A >---

No items selected for this section

Integration Events

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

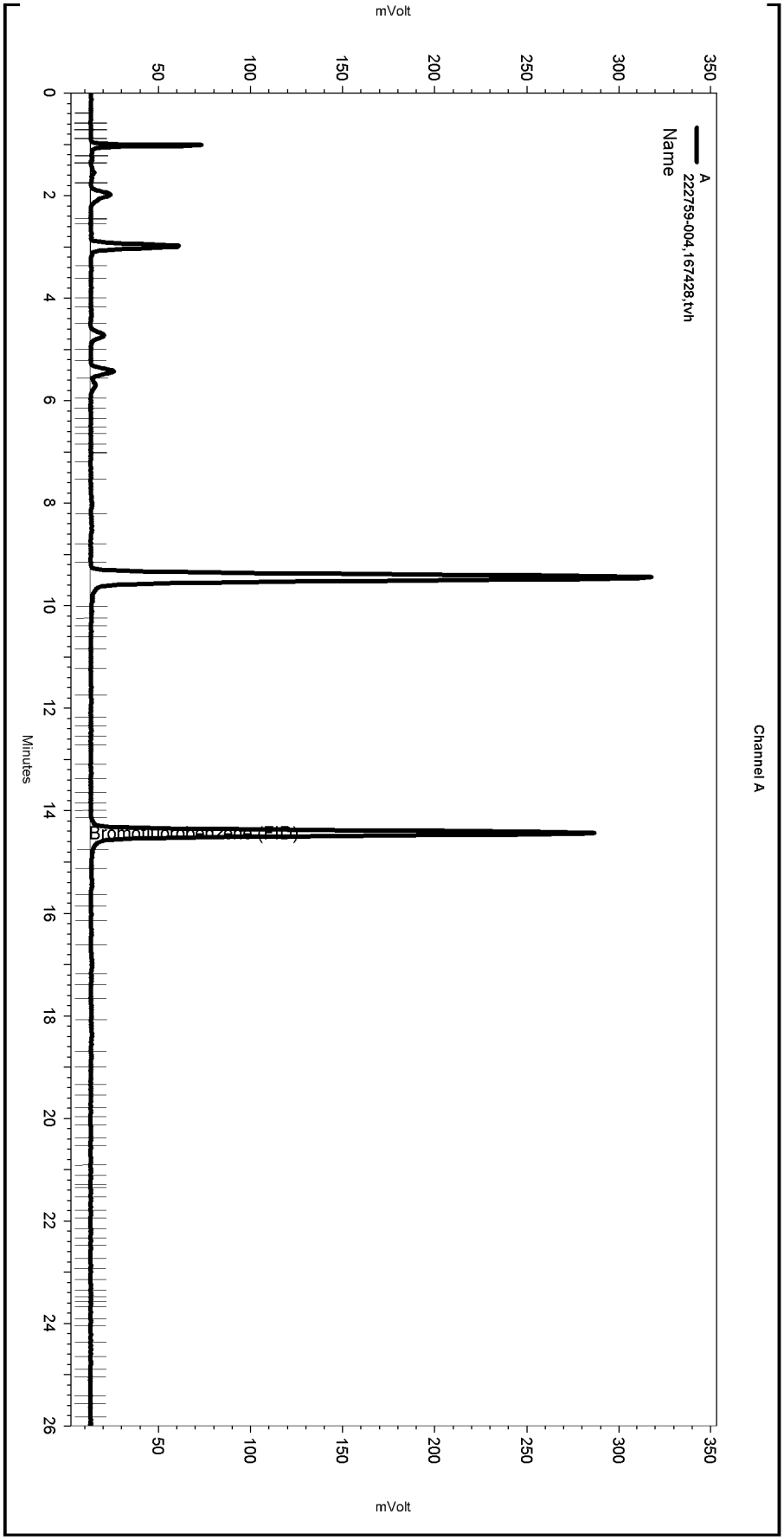
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\272-031

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Lowest Point Horizontal Baseli	0.363	25.845	0
Yes	Split Peak	14.617	0	0

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC04\Sequence\272.seq**
Sample Name: **222759-004,167428,tvh**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC04\Data\272-032**
Instrument: GC04 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe246.met

Software Version 3.1.7
Run Date: 9/30/2010 12:45:03 PM
Analysis Date: 9/30/2010 7:08:56 PM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: b1.0



---< General Method Parameters >---

No items selected for this section

---< A >---

No items selected for this section

Integration Events

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

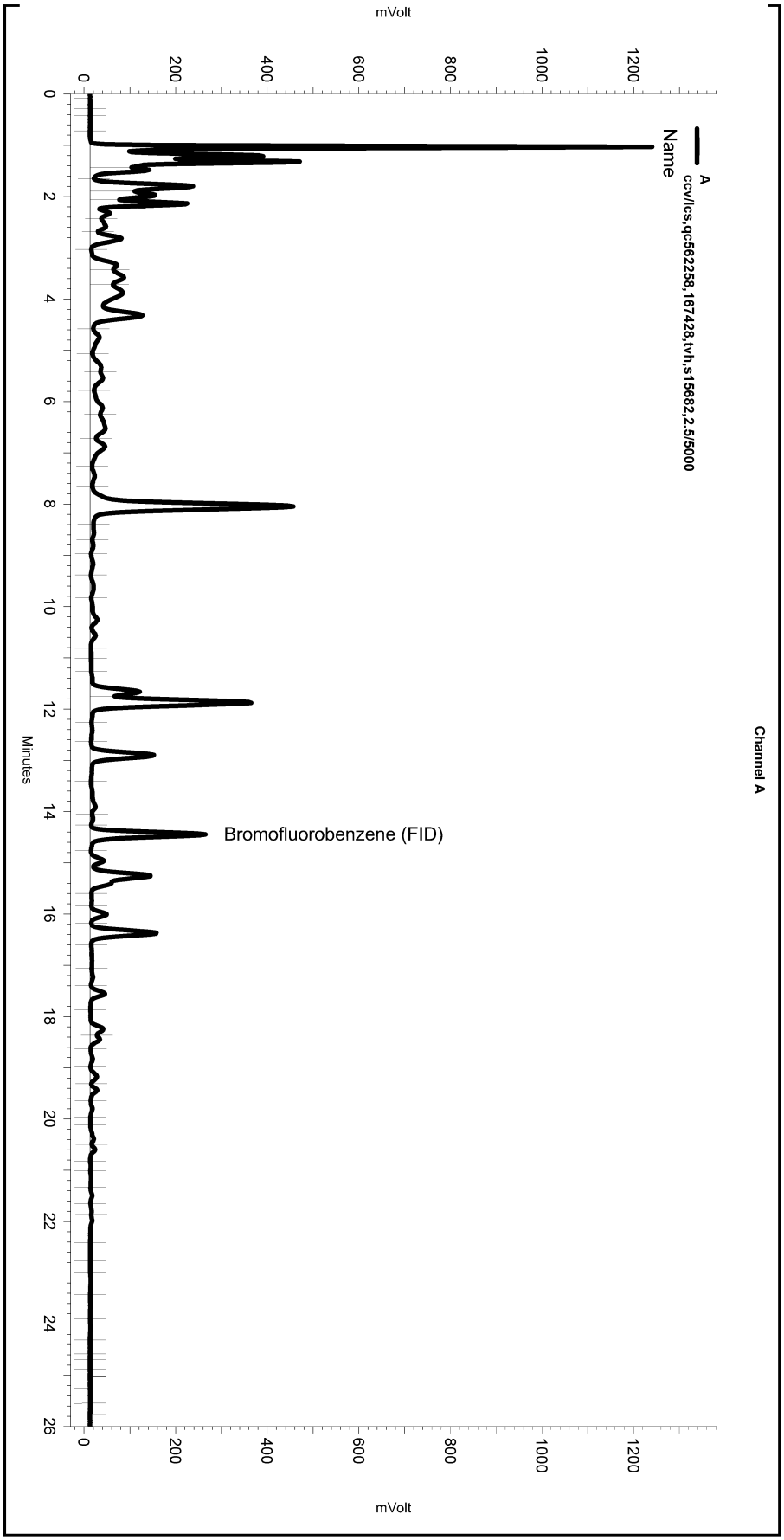
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\272-032

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Lowest Point Horizontal Baseli	0.063	26.017	0
Yes	Split Peak	14.132	0	0
Yes	Split Peak	14.765	0	0

Sequence File: **\\Lims\gdrive\ezchrom\Projects\GC04\Sequence\272.seq**
Sample Name: **ccv/lcs,qc562258,167428,tvh,s15682,2.5/5000**
Data File: **\\Lims\gdrive\ezchrom\Projects\GC04\Data\272-002**
Instrument: GC04 Vial: N/A Operator: Tvh 3. Analyst (lims2k3\tvh3)
Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe246.met

Software Version 3.1.7
Run Date: 9/29/2010 1:40:40 PM
Analysis Date: 9/29/2010 6:53:50 PM
Sample Amount: 5 Multiplier: 5
Vial & pH or Core ID: {Data Description}



---< General Method Parameters >---

No items selected for this section

---< A >---

No items selected for this section

Integration Events

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

Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\272-002

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

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	222759	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 3520C
Project#:	2003-43	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	09/27/10
Units:	ug/L	Received:	09/28/10
Diln Fac:	1.000	Prepared:	09/29/10
Batch#:	167414		

Field ID: MW-1 Lab ID: 222759-001
Type: SAMPLE Analyzed: 10/01/10

Analyte	Result	RL
Diesel C10-C24	2,100	50

Surrogate	%REC	Limits
o-Terphenyl	81	60-129

Field ID: MW-2 Lab ID: 222759-002
Type: SAMPLE Analyzed: 10/01/10

Analyte	Result	RL
Diesel C10-C24	840	50

Surrogate	%REC	Limits
o-Terphenyl	94	60-129

Field ID: MW-3 Lab ID: 222759-003
Type: SAMPLE Analyzed: 10/01/10

Analyte	Result	RL
Diesel C10-C24	890	50

Surrogate	%REC	Limits
o-Terphenyl	91	60-129

Type: BLANK Analyzed: 09/30/10
Lab ID: QC562204

Analyte	Result	RL
Diesel C10-C24	ND	50

Surrogate	%REC	Limits
o-Terphenyl	95	60-129

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	222759	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:	QC562205	Batch#:	167414
Matrix:	Water	Prepared:	09/29/10
Units:	ug/L	Analyzed:	09/30/10

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,156	86	54-125

Surrogate	%REC	Limits
o-Terphenyl	93	60-129

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	222759	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 3520C
Project#:	2003-43	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	167414
MSS Lab ID:	222687-003	Sampled:	09/23/10
Matrix:	Water	Received:	09/24/10
Units:	ug/L	Prepared:	09/29/10
Diln Fac:	1.000	Analyzed:	09/30/10

Type: MS Cleanup Method: EPA 3630C
Lab ID: QC562206

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	20.56	2,500	2,100	83	46-131

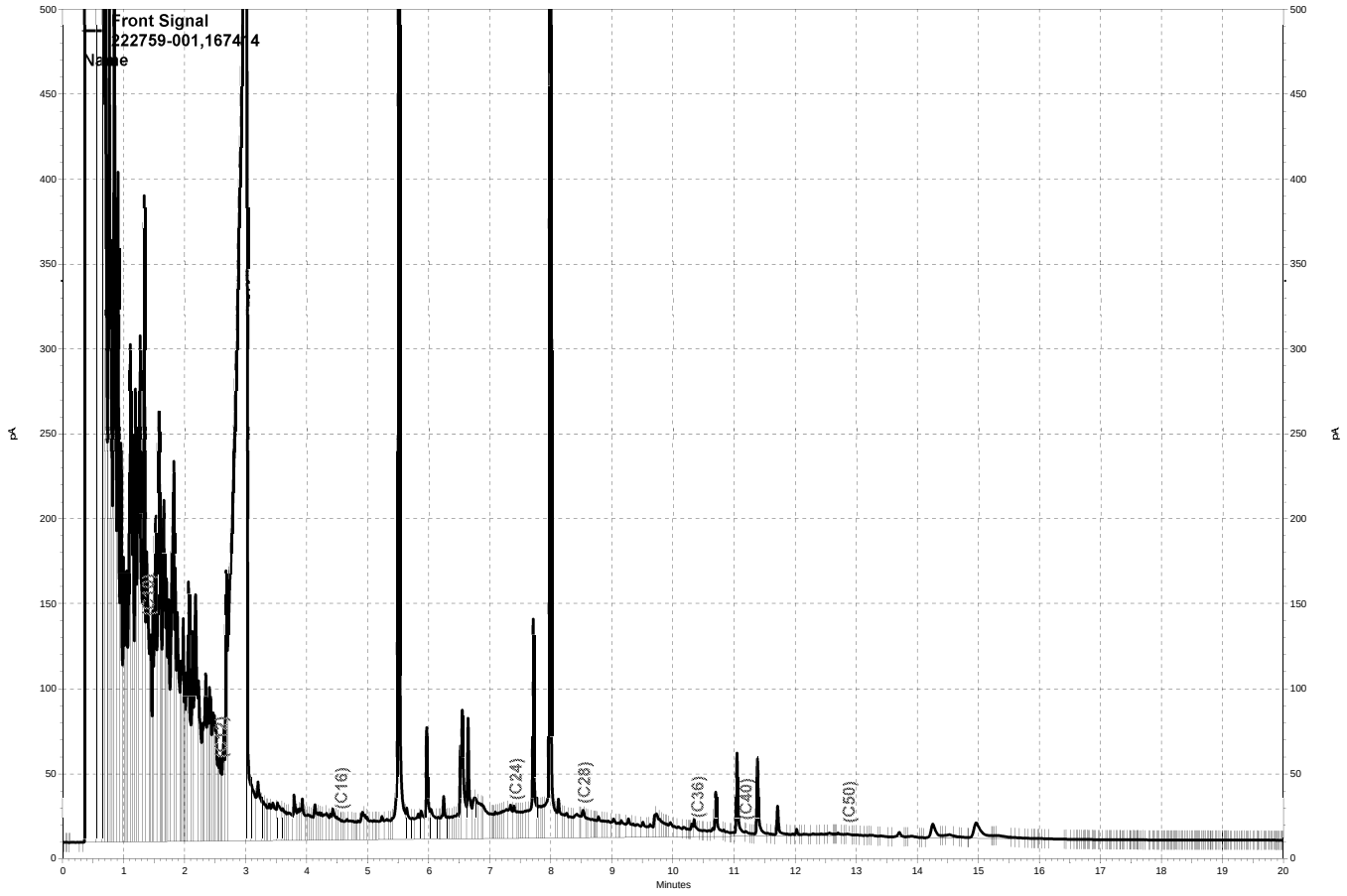
Surrogate	%REC	Limits
o-Terphenyl	74	60-129

Type: MSD Cleanup Method: EPA 3630C
Lab ID: QC562207

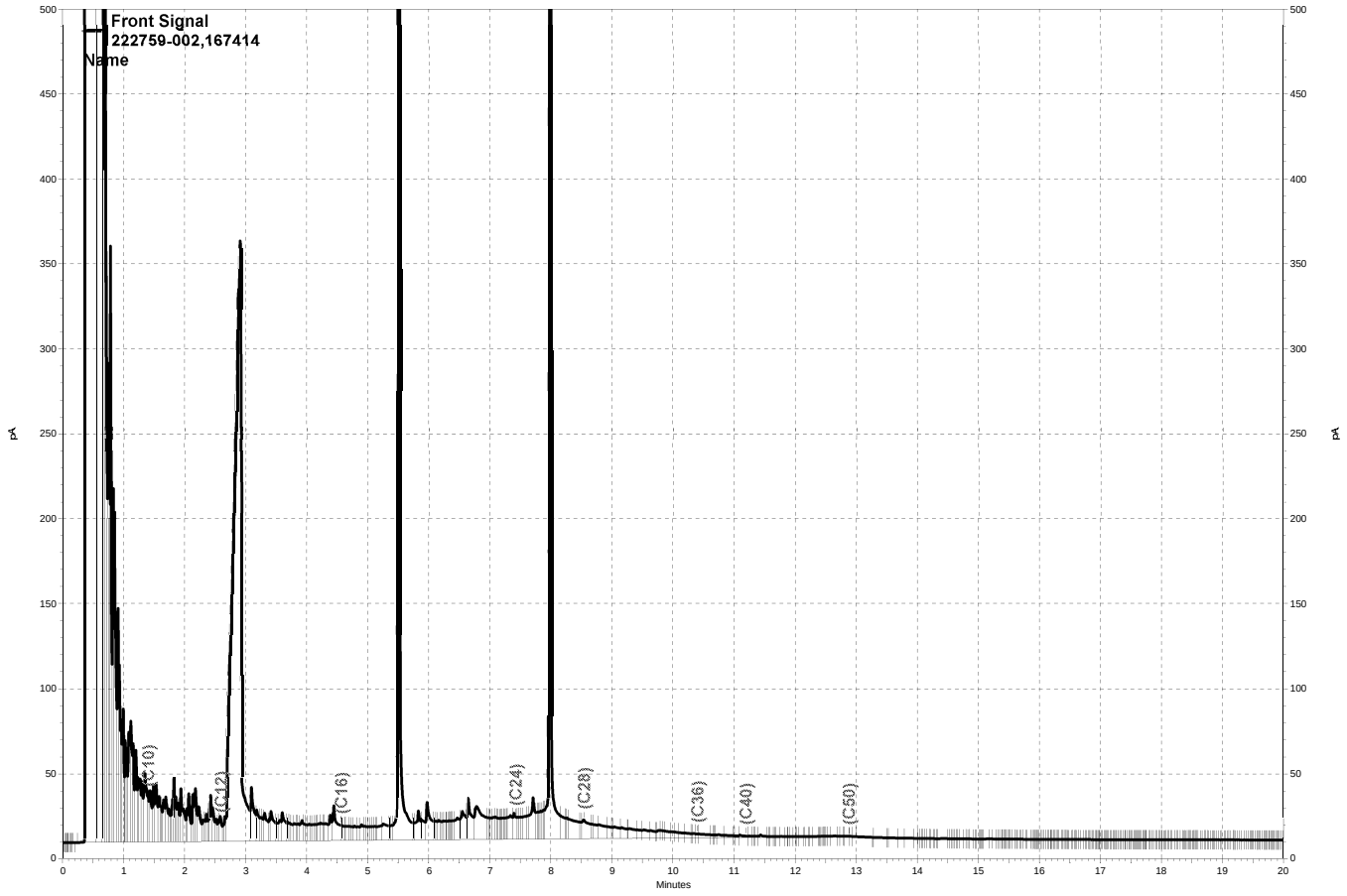
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,236	89	46-131	6	61

Surrogate	%REC	Limits
o-Terphenyl	79	60-129

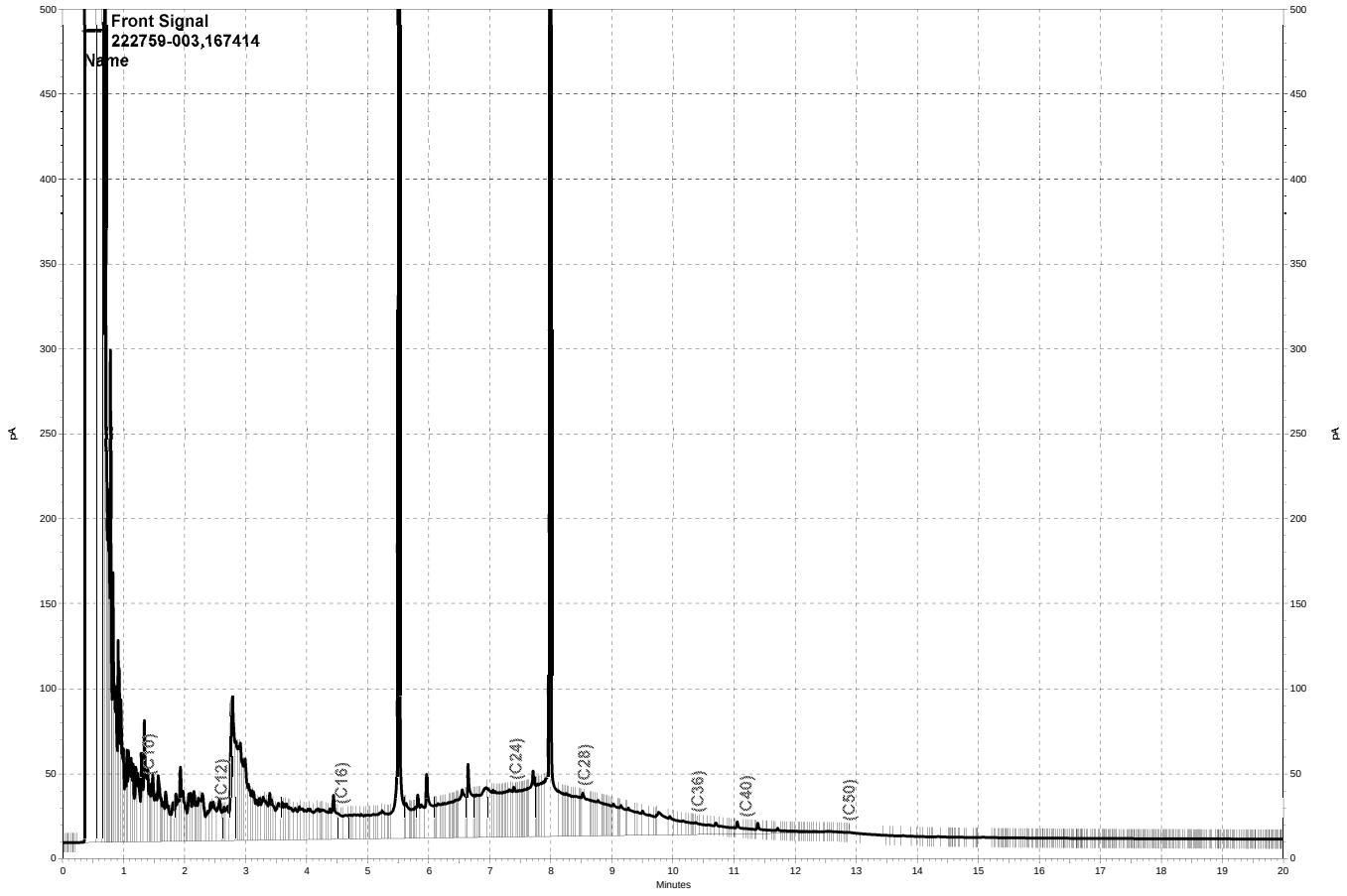
RPD= Relative Percent Difference



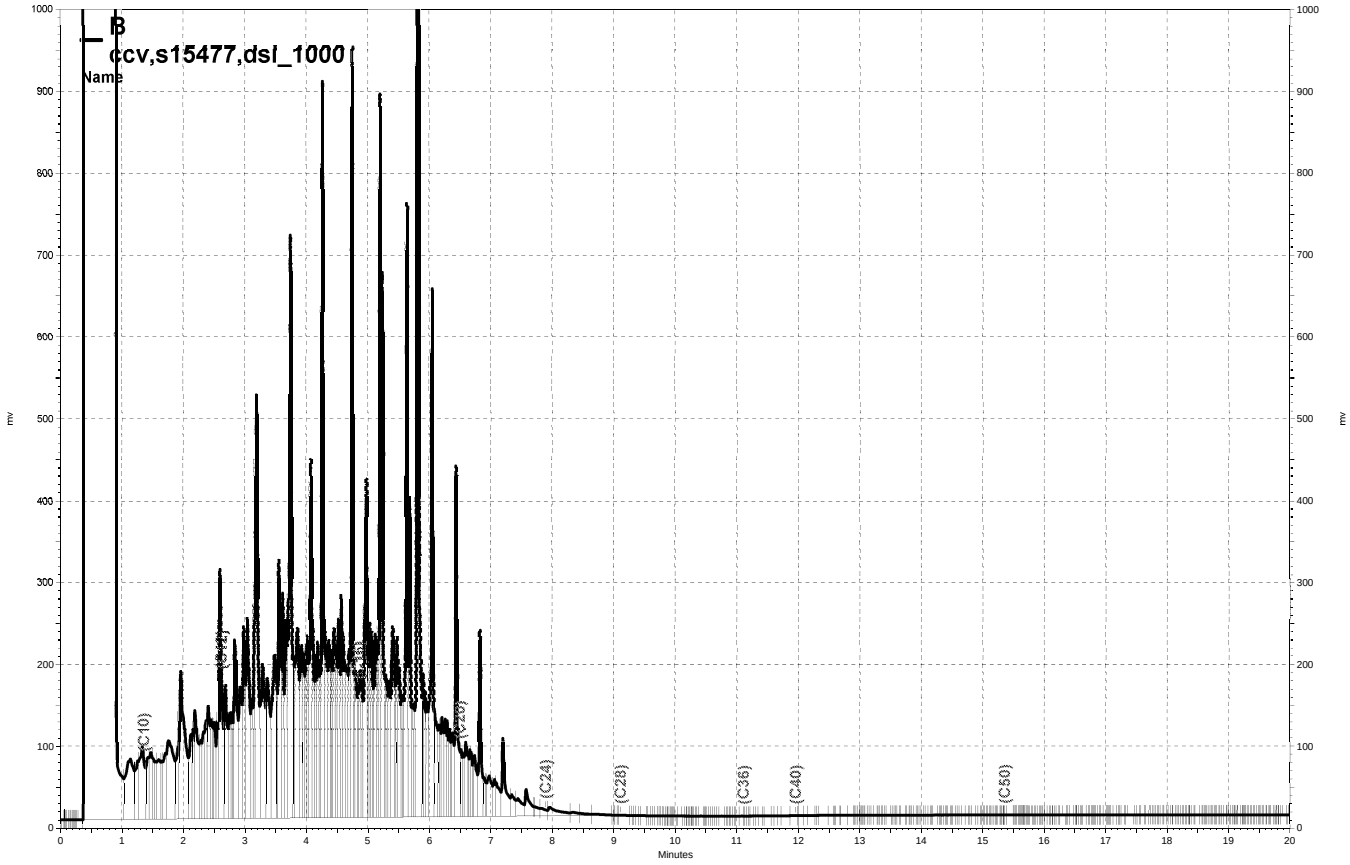
G:\ezchrom\Projects\GC27\Data\274a009.dat, Front Signal



G:\ezchrom\Projects\GC27\Data\274a010.dat, Front Signal



G:\ezchrom\Projects\GC27\Data\274a011.dat, Front Signal



\\Lims\gdrive\ezchrom\Projects\GC15B\Data\272b033, B

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	222759	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2003-43	Analysis:	EPA 8260B
Field ID:	MW-1	Units:	ug/L
Lab ID:	222759-001	Sampled:	09/27/10
Matrix:	Water	Received:	09/28/10

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
tert-Butyl Alcohol (TBA)	ND	10	1.000	167486	10/01/10
MTBE	2.5	0.5	1.000	167486	10/01/10
Isopropyl Ether (DIPE)	ND	0.5	1.000	167486	10/01/10
Ethyl tert-Butyl Ether (ETBE)	ND	0.5	1.000	167486	10/01/10
1,2-Dichloroethane	1.3	0.5	1.000	167486	10/01/10
Benzene	190	1.7	3.333	167549	10/04/10
Methyl tert-Amyl Ether (TAME)	ND	0.5	1.000	167486	10/01/10
Toluene	10	0.5	1.000	167486	10/01/10
1,2-Dibromoethane	ND	0.5	1.000	167486	10/01/10
Ethylbenzene	16	0.5	1.000	167486	10/01/10
m,p-Xylenes	60	0.5	1.000	167486	10/01/10
o-Xylene	24	0.5	1.000	167486	10/01/10

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	107	80-122	1.000	167486	10/01/10
1,2-Dichloroethane-d4	117	71-140	1.000	167486	10/01/10
Toluene-d8	98	80-120	1.000	167486	10/01/10
Bromofluorobenzene	113	80-121	1.000	167486	10/01/10

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	222759	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2003-43	Analysis:	EPA 8260B
Field ID:	MW-2	Batch#:	167486
Lab ID:	222759-002	Sampled:	09/27/10
Matrix:	Water	Received:	09/28/10
Units:	ug/L	Analyzed:	10/01/10
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	30	0.5
Isopropyl Ether (DIPE)	2.3	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	2.1	0.5
Benzene	8.7	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	2.6	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	1.7	0.5
m,p-Xylenes	7.9	0.5
o-Xylene	1.2	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	106	80-122
1,2-Dichloroethane-d4	111	71-140
Toluene-d8	99	80-120
Bromofluorobenzene	115	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

BTXE & Oxygenates

Lab #:	222759	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2003-43	Analysis:	EPA 8260B
Field ID:	MW-3	Batch#:	167486
Lab ID:	222759-003	Sampled:	09/27/10
Matrix:	Water	Received:	09/28/10
Units:	ug/L	Analyzed:	10/01/10
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	7.3	0.5
Isopropyl Ether (DIPE)	3.0	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	4.1	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	108	80-122
1,2-Dichloroethane-d4	107	71-140
Toluene-d8	100	80-120
Bromofluorobenzene	119	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	222759	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2003-43	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	167486
Units:	ug/L	Analyzed:	10/01/10
Diln Fac:	1.000		

Type: BS Lab ID: QC562481

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	103.2	83	45-152
MTBE	25.00	23.43	94	66-120
Isopropyl Ether (DIPE)	25.00	28.04	112	56-134
Ethyl tert-Butyl Ether (ETBE)	25.00	24.47	98	60-124
1,2-Dichloroethane	25.00	24.89	100	70-135
Benzene	25.00	26.17	105	80-122
Methyl tert-Amyl Ether (TAME)	25.00	21.94	88	66-120
Toluene	25.00	25.59	102	80-120
1,2-Dibromoethane	25.00	24.56	98	80-120
Ethylbenzene	25.00	24.52	98	80-123
m,p-Xylenes	50.00	49.62	99	80-126
o-Xylene	25.00	24.34	97	80-122

Surrogate	%REC	Limits
Dibromofluoromethane	107	80-122
1,2-Dichloroethane-d4	101	71-140
Toluene-d8	104	80-120
Bromofluorobenzene	109	80-121

Type: BSD Lab ID: QC562482

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	109.3	87	45-152	6	30
MTBE	25.00	24.16	97	66-120	3	20
Isopropyl Ether (DIPE)	25.00	28.78	115	56-134	3	20
Ethyl tert-Butyl Ether (ETBE)	25.00	25.43	102	60-124	4	20
1,2-Dichloroethane	25.00	24.90	100	70-135	0	20
Benzene	25.00	26.15	105	80-122	0	20
Methyl tert-Amyl Ether (TAME)	25.00	22.45	90	66-120	2	20
Toluene	25.00	25.36	101	80-120	1	20
1,2-Dibromoethane	25.00	23.96	96	80-120	3	20
Ethylbenzene	25.00	24.94	100	80-123	2	20
m,p-Xylenes	50.00	52.32	105	80-126	5	20
o-Xylene	25.00	25.62	102	80-122	5	20

Surrogate	%REC	Limits
Dibromofluoromethane	108	80-122
1,2-Dichloroethane-d4	102	71-140
Toluene-d8	102	80-120
Bromofluorobenzene	98	80-121

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	222759	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:	QC562483	Batch#:	167486
Matrix:	Water	Analyzed:	10/01/10
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	110	80-122
1,2-Dichloroethane-d4	104	71-140
Toluene-d8	103	80-120
Bromofluorobenzene	108	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	222759	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2003-43	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	167549
Units:	ug/L	Analyzed:	10/04/10
Diln Fac:	1.000		

Type: BS Lab ID: QC562732

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	123.6	99	45-152
MTBE	25.00	26.47	106	66-120
Isopropyl Ether (DIPE)	25.00	32.24	129	56-134
Ethyl tert-Butyl Ether (ETBE)	25.00	27.77	111	60-124
1,2-Dichloroethane	25.00	26.52	106	70-135
Benzene	25.00	27.23	109	80-122
Methyl tert-Amyl Ether (TAME)	25.00	23.85	95	66-120
Toluene	25.00	26.16	105	80-120
1,2-Dibromoethane	25.00	25.48	102	80-120
Ethylbenzene	25.00	26.06	104	80-123
m,p-Xylenes	50.00	53.52	107	80-126
o-Xylene	25.00	26.48	106	80-122

Surrogate	%REC	Limits
Dibromofluoromethane	114	80-122
1,2-Dichloroethane-d4	108	71-140
Toluene-d8	103	80-120
Bromofluorobenzene	103	80-121

Type: BSD Lab ID: QC562733

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	122.5	98	45-152	1	30
MTBE	25.00	25.75	103	66-120	3	20
Isopropyl Ether (DIPE)	25.00	30.31	121	56-134	6	20
Ethyl tert-Butyl Ether (ETBE)	25.00	26.99	108	60-124	3	20
1,2-Dichloroethane	25.00	26.57	106	70-135	0	20
Benzene	25.00	26.34	105	80-122	3	20
Methyl tert-Amyl Ether (TAME)	25.00	23.85	95	66-120	0	20
Toluene	25.00	25.18	101	80-120	4	20
1,2-Dibromoethane	25.00	24.83	99	80-120	3	20
Ethylbenzene	25.00	24.84	99	80-123	5	20
m,p-Xylenes	50.00	51.29	103	80-126	4	20
o-Xylene	25.00	24.67	99	80-122	7	20

Surrogate	%REC	Limits
Dibromofluoromethane	112	80-122
1,2-Dichloroethane-d4	109	71-140
Toluene-d8	102	80-120
Bromofluorobenzene	103	80-121

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	222759	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:	QC562734	Batch#:	167549
Matrix:	Water	Analyzed:	10/04/10
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	114	80-122
1,2-Dichloroethane-d4	110	71-140
Toluene-d8	102	80-120
Bromofluorobenzene	114	80-121

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

BTXE & Oxygenates

Lab #:	222759	Location:	Oakland Auto Works
Client:	Stellar Environmental Solutions	Prep:	EPA 5030B
Project#:	2003-43	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	167549
MSS Lab ID:	222810-004	Sampled:	09/27/10
Matrix:	Water	Received:	09/29/10
Units:	ug/L	Analyzed:	10/04/10
Diln Fac:	1.000		

Type: MS Lab ID: QC562791

Analyte	MSS Result	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	<2.000	125.0	126.2	101	57-142
MTBE	<0.1090	25.00	27.61	110	70-120
Isopropyl Ether (DIPE)	<0.1585	25.00	33.48	134 *	70-122
Ethyl tert-Butyl Ether (ETBE)	<0.1000	25.00	27.79	111	71-120
1,2-Dichloroethane	<0.1000	25.00	27.17	109	79-131
Benzene	<0.1000	25.00	26.62	106	80-121
Methyl tert-Amyl Ether (TAME)	<0.1000	25.00	24.21	97	75-120
Toluene	<0.1000	25.00	25.45	102	80-120
1,2-Dibromoethane	<0.1000	25.00	24.74	99	80-120
Ethylbenzene	<0.1000	25.00	24.88	100	80-122
m,p-Xylenes	<0.1000	50.00	50.70	101	80-123
o-Xylene	<0.1000	25.00	24.56	98	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	118	80-122
1,2-Dichloroethane-d4	112	71-140
Toluene-d8	103	80-120
Bromofluorobenzene	104	80-121

Type: MSD Lab ID: QC562792

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	127.4	102	57-142	1	32
MTBE	25.00	28.27	113	70-120	2	20
Isopropyl Ether (DIPE)	25.00	34.56	138 *	70-122	3	20
Ethyl tert-Butyl Ether (ETBE)	25.00	28.92	116	71-120	4	20
1,2-Dichloroethane	25.00	27.52	110	79-131	1	20
Benzene	25.00	27.51	110	80-121	3	20
Methyl tert-Amyl Ether (TAME)	25.00	24.85	99	75-120	3	20
Toluene	25.00	25.95	104	80-120	2	20
1,2-Dibromoethane	25.00	24.64	99	80-120	0	20
Ethylbenzene	25.00	25.51	102	80-122	3	20
m,p-Xylenes	50.00	52.19	104	80-123	3	20
o-Xylene	25.00	25.21	101	80-120	3	20

Surrogate	%REC	Limits
Dibromofluoromethane	117	80-122
1,2-Dichloroethane-d4	113	71-140
Toluene-d8	103	80-120
Bromofluorobenzene	104	80-121

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

Stellar Environmental Solutions, Inc
2198 6th Street
Berkeley, California 94710
Tel: 510) 644-3123

RE: Oakland CA

Work Order No.: 1010236

Dear Richard Makdisi:

Torrent Laboratory, Inc. received 1 sample(s) on October 28, 2010 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

Patti Sandrock

November 04, 2010
Date

Torrent LABORATORY, INC.

Date: 11/4/2010

Client: Stellar Environmental Solutions, Inc

Project: Oakland CA

Work Order: 1010236

CASE NARRATIVE

Sample required a 20X dilution due tomatrix intereference that suppressed the ability to recover the internal standard used for quantitation of data. Results are reported to the MDL.

Torrent LABORATORY, INC.

Sample Result Summary

Report prepared for: Richard Makdisi

Stellar Environmental Solutions, Inc

Date Received: 10/28/10

Date Reported: 11/04/10

B-32

1010236-001A

Parameters:	Analysis Method	DF	MDL	PQL	Results ug/m3

All compounds were non-detectable for this sample.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Richard Makdisi
Stellar Environmental Solutions, Inc

Date Received: 10/28/10
Date Reported: 11/04/10

Client Sample ID:	B-32	**Lab Sample ID:**	1010236-001A
Project Name/Location:	Oakland CA	**Sample Matrix:**	Soil Vapor
Project Number:			
Date/Time Sampled:	10/28/10 / 11:47	**Certified Clean WO # :**	
Canister/Tube ID:	446	**Received PSI :**	11.8
Collection Volume (L):	0.00	**Corrected PSI :**	0.0
Tag Number:	Oakland CA		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
The results shown below are reported using their MDL.											
Dichlorodifluoromethane	ETO15	NA	11/02/10	20	30	100	ND	ND		402855	NA
1,1-Difluoroethane	ETO15	NA	11/02/10	20	10	27	ND	ND		402855	NA
1,2-Dichlorotetrafluoroethane	ETO15	NA	11/02/10	20	99	280	ND	ND		402855	NA
Chloromethane	ETO15	NA	11/02/10	20	6.4	21	ND	ND		402855	NA
Vinyl Chloride	ETO15	NA	11/02/10	20	13	52	ND	ND		402855	NA
1,3-Butadiene	ETO15	NA	11/02/10	20	8.9	22	ND	ND		402855	NA
Bromomethane	ETO15	NA	11/02/10	20	14	39	ND	ND		402855	NA
Chloroethane	ETO15	NA	11/02/10	20	10	26	ND	ND		402855	NA
Trichlorofluoromethane	ETO15	NA	11/02/10	20	36	110	ND	ND		402855	NA
1,1-Dichloroethene	ETO15	NA	11/02/10	20	12	40	ND	ND		402855	NA
Freon 113	ETO15	NA	11/02/10	20	17	77	ND	ND		402855	NA
Carbon Disulfide	ETO15	NA	11/02/10	20	16	62	ND	ND		402855	NA
2-Propanol (Isopropyl Alcohol)	ETO15	NA	11/02/10	20	19	200	ND	ND		402855	NA
Methylene Chloride	ETO15	NA	11/02/10	20	12	70	ND	ND		402855	NA
Acetone	ETO15	NA	11/02/10	20	18	190	ND	ND		402855	NA
trans-1,2-Dichloroethene	ETO15	NA	11/02/10	20	13	40	ND	ND		402855	NA
Hexane	ETO15	NA	11/02/10	20	11	35	ND	ND		402855	NA
MTBE	ETO15	NA	11/02/10	20	17	36	ND	ND		402855	NA
tert-Butanol	ETO15	NA	11/02/10	20	18	170	ND	ND		402855	NA
Diisopropyl ether (DIPE)	ETO15	NA	11/02/10	20	18	42	ND	ND		402855	NA
1,1-Dichloroethane	ETO15	NA	11/02/10	20	15	41	ND	ND		402855	NA
ETBE	ETO15	NA	11/02/10	20	14	42	ND	ND		402855	NA
cis-1,2-Dichloroethene	ETO15	NA	11/02/10	20	11	40	ND	ND		402855	NA
Chloroform	ETO15	NA	11/02/10	20	25	98	ND	ND		402855	NA
Vinyl Acetate	ETO15	NA	11/02/10	20	11	35	ND	ND		402855	NA
Carbon Tetrachloride	ETO15	NA	11/02/10	20	17	63	ND	ND		402855	NA
1,1,1-trichloroethane	ETO15	NA	11/02/10	20	17	55	ND	ND		402855	NA
2-Butanone (MEK)	ETO15	NA	11/02/10	20	13	30	ND	ND		402855	NA
Ethyl Acetate	ETO15	NA	11/02/10	20	15	36	ND	ND		402855	NA
Tetrahydrofuran	ETO15	NA	11/02/10	20	6.0	30	ND	ND		402855	NA
Benzene	ETO15	NA	11/02/10	20	14	32	ND	ND		402855	NA
TAME	ETO15	NA	11/02/10	20	7.2	42	ND	ND		402855	NA
1,2-Dichloroethane (EDC)	ETO15	NA	11/02/10	20	20	41	ND	ND		402855	NA
Trichloroethylene	ETO15	NA	11/02/10	20	28	110	ND	ND		402855	NA

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Richard Makdisi
Stellar Environmental Solutions, Inc

Date Received: 10/28/10
Date Reported: 11/04/10

Client Sample ID:	B-32	**Lab Sample ID:**	1010236-001A
Project Name/Location:	Oakland CA	**Sample Matrix:**	Soil Vapor
Project Number:			
Date/Time Sampled:	10/28/10 / 11:47	**Certified Clean WO # :**	
Canister/Tube ID:	446	**Received PSI :**	11.8
Collection Volume (L):	0.00	**Corrected PSI :**	0.0
Tag Number:	Oakland CA		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
1,2-Dichloropropane	ETO15	NA	11/02/10	20	26	92	ND	ND		402855	NA
Bromodichloromethane	ETO15	NA	11/02/10	20	18	67	ND	ND		402855	NA
1,4-Dioxane	ETO15	NA	11/02/10	20	25	72	ND	ND		402855	NA
trans-1,3-Dichloropropene	ETO15	NA	11/02/10	20	17	45	ND	ND		402855	NA
Toluene	ETO15	NA	11/02/10	20	19	38	ND	ND		402855	NA
4-Methyl-2-Pentanone (MIBK)	ETO15	NA	11/02/10	20	17	41	ND	ND		402855	NA
cis-1,3-Dichloropropene	ETO15	NA	11/02/10	20	23	45	ND	ND		402855	NA
Tetrachloroethylene	ETO15	NA	11/02/10	20	18	68	ND	ND		402855	NA
1,1,2-Trichloroethane	ETO15	NA	11/02/10	20	19	55	ND	ND		402855	NA
Dibromochloromethane	ETO15	NA	11/02/10	20	35	85	ND	ND		402855	NA
1,2-Dibromoethane (EDB)	ETO15	NA	11/02/10	20	41	150	ND	ND		402855	NA

NOTE: The reporting limits were raised due to suppression of the internal standard used for peak quantification. Suppression due to the high concentration of non-target compounds (light end butanes, pentanes).

2-Hexanone	ETO15	NA	11/02/10	20	22	82	ND	ND		402855	NA
Ethyl Benzene	ETO15	NA	11/02/10	20	20	43	ND	ND		402855	NA
Chlorobenzene	ETO15	NA	11/02/10	20	14	46	ND	ND		402855	NA
1,1,1,2-Tetrachloroethane	ETO15	NA	11/02/10	20	21	69	ND	ND		402855	NA
m,p-Xylene	ETO15	NA	11/02/10	20	32	86	ND	ND		402855	NA
o-Xylene	ETO15	NA	11/02/10	20	16	43	ND	ND		402855	NA
Styrene	ETO15	NA	11/02/10	20	14	44	ND	ND		402855	NA
Bromoform	ETO15	NA	11/02/10	20	22	100	ND	ND		402855	NA
1,1,2,2-Tetrachloroethane	ETO15	NA	11/02/10	20	14	69	ND	ND		402855	NA
4-Ethyl Toluene	ETO15	NA	11/02/10	20	16	49	ND	ND		402855	NA
1,3,5-Trimethylbenzene	ETO15	NA	11/02/10	20	15	49	ND	ND		402855	NA
1,2,4-Trimethylbenzene	ETO15	NA	11/02/10	20	14	49	ND	ND		402855	NA
1,4-Dichlorobenzene	ETO15	NA	11/02/10	20	13	60	ND	ND		402855	NA
1,3-Dichlorobenzene	ETO15	NA	11/02/10	20	17	60	ND	ND		402855	NA
Benzyl Chloride	ETO15	NA	11/02/10	20	12	52	ND	ND		402855	NA
1,2-Dichlorobenzene	ETO15	NA	11/02/10	20	18	60	ND	ND		402855	NA
Hexachlorobutadiene	ETO15	NA	11/02/10	20	48	110	ND	ND		402855	NA
1,2,4-Trichlorobenzene	ETO15	NA	11/02/10	20	68	150	ND	ND		402855	NA
Naphthalene	ETO15	NA	11/02/10	20	29	100	ND	ND		402855	NA
(S) 4-Bromofluorobenzene	ETO15	NA	11/02/10	20	65	135	94.1 %			402855	NA

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	1010236	**Prep Method:**	NA	**Prep Date:**	NA	**Prep Batch:**	NA
Matrix:	Air	**Analytical Method:**	ETO15	**Analyzed Date:**	11/02/10	**Analytical Batch:**	402855
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Dichlorodifluoromethane	0.15	0.500	ND	
1,1-Difluoroethane	0.092	0.250	ND	
1,2-Dichlorotetrafluoroethane	0.35	1.00	ND	
Chloromethane	0.076	0.250	ND	
Vinyl Chloride	0.13	0.500	ND	
1,3-Butadiene	0.10	0.250	ND	
Bromomethane	0.092	0.250	ND	
Chloroethane	0.096	0.250	ND	
Trichlorofluoromethane	0.16	0.500	ND	
1,1-Dichloroethene	0.077	0.250	ND	
Freon 113	0.055	0.250	ND	
Carbon Disulfide	0.13	0.500	ND	
2-Propanol (Isopropyl Alcohol)	0.19	2.00	ND	
Methylene Chloride	0.084	0.250	ND	
Acetone	0.18	2.00	ND	
trans-1,2-Dichloroethene	0.080	0.250	ND	
Hexane	0.075	0.250	ND	
MTBE	0.12	0.250	ND	
tert-Butanol	0.11	1.00	ND	
Diisopropyl ether (DIPE)	0.10	0.250	ND	
1,1-Dichloroethane	0.092	0.250	ND	
ETBE	0.081	0.250	ND	
cis-1,2-Dichloroethene	0.067	0.250	ND	
Chloroform	0.13	0.500	ND	
Vinyl Acetate	0.081	0.250	ND	
Carbon Tetrachloride	0.069	0.250	ND	
1,1,1-Trichloroethane	0.077	0.250	ND	
2-Butanone (MEK)	0.10	0.250	ND	
Ethyl Acetate	0.10	0.250	ND	
Tetrahydrofuran	0.050	0.250	ND	
Benzene	0.11	0.250	ND	
TAME	0.043	0.250	ND	
1,2-Dichloroethane (EDC)	0.12	0.250	ND	
Trichloroethylene	0.13	0.500	ND	
1,2-Dichloropropane	0.14	0.500	ND	
Bromodichloromethane	0.066	0.250	ND	
1,4-Dioxane	0.17	0.500	ND	
trans-1,3-Dichloropropene	0.097	0.250	ND	
Toluene	0.13	0.250	ND	
4-Methyl-2-Pentanone (MIBK)	0.10	0.250	ND	
cis-1,3-Dichloropropene	0.13	0.250	ND	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	1010236	**Prep Method:**	NA	**Prep Date:**	NA	**Prep Batch:**	NA
Matrix:	Air	**Analytical Method:**	ETO15	**Analyzed Date:**	11/02/10	**Analytical Batch:**	402855
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Tetrachloroethylene	0.067	0.250	ND		
1,1,2-Trichloroethane	0.084	0.250	ND		
Dibromochloromethane	0.10	0.250	ND		
1,2-Dibromoethane (EDB)	0.13	0.500	ND		
2-Hexanone	0.14	0.500	ND		
Ethyl Benzene	0.12	0.250	ND		
Chlorobenzene	0.077	0.250	ND		
1,1,1,2-Tetrachloroethane	0.075	0.250	ND		
m,p-Xylene	0.19	0.500	ND		
o-Xylene	0.094	0.250	ND		
Styrene	0.078	0.250	ND		
Bromoform	0.055	0.250	ND		
1,1,2,2-Tetrachloroethane	0.051	0.250	ND		
4-Ethyl Toluene	0.084	0.250	ND		
1,3,5-Trimethylbenzene	0.077	0.250	ND		
1,2,4-Trimethylbenzene	0.070	0.250	ND		
1,4-Dichlorobenzene	0.054	0.250	ND		
1,3-Dichlorobenzene	0.070	0.250	ND		
Benzyl Chloride	0.059	0.250	ND		
1,2-Dichlorobenzene	0.076	0.250	ND		
Hexachlorobutadiene	0.11	0.250	ND		
1,2,4-Trichlorobenzene	0.23	0.500	ND		
Naphthalene	0.14	0.500	ND		
(S) 4-Bromofluorobenzene			78.8		

Torrent LABORATORY, INC.

LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1010236	**Prep Method:**	NA	**Prep Date:**	NA	**Prep Batch:**	NA
Matrix:	Air	**Analytical Method:**	ETO15	**Analyzed Date:**	11/02/10	**Analytical Batch:**	402855
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	0.15	0.500	ND	20	97.3	104	6.90	65 - 135	30	
Benzene	0.21	0.500	ND	20	113	122	7.84	65 - 135	30	
Trichloroethylene	0.26	1.00	ND	20	103	105	1.88	65 - 135	30	
Toluene	0.25	0.500	ND	20	91.7	93.4	1.84	65 - 135	30	
Chlorobenzene	0.15	0.500	ND	20	93.5	96.7	3.36	65 - 135	30	
(S) 4-Bromofluorobenzene			ND	20	70.0	75.0		65 - 135		

Laboratory Qualifiers and Definitions

DEFINITIONS:

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.
Blank (Method/Preparation Blank) -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
Duplicate - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
Practical Quantitation Limit (PQL) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
Tentatively Identified Compound (TIC) - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
Units: the unit of measure used to express the reported result - **mg/L** and ***mg/Kg*** (equivalent to PPM - parts per million in **liquid** and ***solid***), **ug/L** and ***ug/Kg*** (equivalent to PPB - parts per billion in **liquid** and ***solid***), **ug/m3**, ***mg.m3***, **ppbv** and ***ppmv*** (all units of measure for reporting concentrations in air), **%** (equivalent to 10000 ppm or 1,000,000 ppb), **ug/Wipe** (concentration found on the surface of a single Wipe usually taken over a 100cm2 surface)

LABORATORY QUALIFIERS:

B - Indicates when the anlayte is found in the associated method or preparation blank
D - Surrogate is not recoverable due to the necessary dilution of the sample
E - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.
H- Indicates that the recommended holding time for the analyte or compound has been exceeded
J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative
NA - Not Analyzed
N/A - Not Applicable
NR - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added
R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts
S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative
X -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.

Sample Receipt Checklist

Client Name: Stellar Environmental Solutions, Inc

Project Name: Oakland CA

Work Order No.: 1010236

Date and Time Received: 10/28/2010 16:15

Received By: lorna

Physically Logged By: lorna

Checklist Completed By: lorna

Carrier Name: Gold Bullet Courier

Chain of Custody (COC) Information

Chain of custody present?	Yes
Chain of custody signed when relinquished and received?	Yes
Chain of custody agrees with sample labels?	Yes
Custody seals intact on sample bottles?	Not Present

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Not Present
Shipping Container/Cooler In Good Condition?	Yes
Samples in proper container/bottle?	Yes
Samples containers intact?	Yes
Sufficient sample volume for indicated test?	Yes

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes		
Container/Temp Blank temperature in compliance?	No	Temperature:	°C
Water-VOA vials have zero headspace?	No VOA vials submitted		
Water-pH acceptable upon receipt?			
pH Checked by:	pH Adjusted by:		

Login Summary Report

Client ID:	TL5204	Stellar Environmental Solutions, Inc	**QC Level:**	
Project Name:	Oakland CA		**TAT Requested:**	5+ day:0
Project # :			**Date Received:**	10/28/2010
Report Due Date:	11/4/2010		**Time Received:**	16:15

Comments: 5 day TAT!!! Recv'd 1 air sample for TO-15 Full.Pls. email to rmakdisi@stellar-environmental.com.

Work Order # : ***1010236***

WO Sample ID	Client Sample ID	Collection Date/Time	Matrix	Scheduled Disposal	Sample On Hold	Test On Hold	Requested Tests	Subbed
1010236-001A	B-32	10/28/10 11:47	Air				A_TO-15Full-B A_TO-15Full-A	

Torrent LABORATORY, INC.

Torrent LABORATORY, INC.

483 Sinclair Frontage Road
Milpitas, CA 95035
Phone: 408.263.5258
FAX: 408.263.8293
www.torrentlab.com

RESET

CHAIN OF CUSTODY

• NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONLY •

LAB WORK ORDER NO: 1010236

Company Name: Stellar Environmental	Location of Sampling: Oakland, CA
Address: 2198 Sixth St #201	Purpose:
City: Berkeley State: CA Zip Code: 94710	Special Instructions / Comments:
Telephone: 510 644-3123 FAX: 510 644-3859	rmakdisi@stellar-environmental.com
REPORT TO: Richard Makdisi SAMPLER: S. Bittman	P.O. #: EMAIL: [illegible]

TURNAROUND TIME: ☐ 10 Work Days ☐ 3 Work Days ☐ Noon - Nxt Day ☐ 7 Work Days ☐ 2 Work Days ☐ 2 - 8 Hours ☒ 5 Work Days ☐ 1 Work Day ☐ Other

SAMPLE TYPE: ☐ Storm Water ☒ Air ☐ Waste Water ☐ Other ☐ Ground Water ☐ Soil

REPORT FORMAT: ☐ QC Level IV ☐ EDF ☐ Excel / EDD — Standard

ANALYSIS REQUESTED: TO-15 full A

LAB ID	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	TO-15 full A	REMARKS
001A	B-32	10/28/10 1147	AIR	1	6L Summa	X	Start Hg = 30.0 "; End Hg = -6.0 "

	Relinquished By	Print	Date	Time	Received By	Print	Date	Time
1	[signature]	Steve Bittman	10/28/10	1250	[signature]	Carlos	10/28/10	14:15
2	[signature]	Carlos	10/28/10	16:15	[signature]	L-D Imbat	10-28-10	16:15

Were Samples Received in Good Condition? ☐ Yes ☐ NO Samples on Ice? ☐ Yes ☐ NO Method of Shipment: gold bullet Sample seals intact? ☐ Yes ☐ NO ☐ N/A

NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made. Page 1 of 1

Log In By: ______ Date: ______ | Log In Reviewed By: ______ Date: ______

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, Alameda, 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	4,800	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

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

Table C-1 continued

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	840	940	11	1	5	3	11
Yes	44	Sep-10	1,400	840	9	2.6	1.7	9.1	30

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

Table C-1 continued

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	1,400	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	1,300	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

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

Table C-1 continued

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*

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

Table C-1 continued

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

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

Table C-1 continued

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	360	1,600	2.7	*<0.5*	0.9	1.2	1.3
Yes	44	Sep-10	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*

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

Table C-1 continued

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*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
No	36	Sep-07	*NS*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
No	37	Dec-07	*NS*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
No	38	Mar-08	*NS*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
No	39	Jun-08	*NS*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
No	40	Sep-08	*NS*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
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*
Yes	44	Sep-10	*NS*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*

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

Table C-1 continued

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
Yes	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	21	1,300	*<0.5*	*<0.5*	*<0.5*	*<0.5*	5.7
Yes	44	Sep-10	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*	*NS*

Notes:

(a) Data not available to SES as to whether the samples were collected "post-purge" or before purging.

"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.

TABLE C-2
Historical Groundwater Monitoring Well Groundwater Analytical Results
Fuel Oxygenates and VOCs (µg/L)
240 W. MacArthur Boulevard, Oakland, California

Well I.D.	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
MW-1	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*

(table continued on next page)

Table C-2 Continued

Well I.D.	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*
MW-2	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*

(table continued on next page)

Table C-2 Continued

Well I.D.	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
MW-3	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*

(table continued on next page)

Table C-2 Continued

Well I.D.	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
MW-4	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*

(table continued on next page)

Table C-2 Continued

Well I.D.	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
MW-5	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*

(table continued on next page)

Table C-2 Continued

Well I.D.	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
MW-6	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 / 17.1 [(d)]	*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*

(table continued on next page)

Table C-2 Continued

Well I.D.	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
MW-7	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*

(table continued on next page)

Table C-2 Continued

Well I.D.	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
MW-8	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*

Table C-2 - Footnotes

Notes:

Table includes only detected contaminants.

EDB = Ethylene dibromide, aka 1,2-Dibromoethane (lead scavenger)

EDC = Ethylene dichloride, aka 1,2-Dichloroethane (lead scavenger)

PCE = Tetrachloroethylene

DCE = Dichloroethylene

TCE = Trichloroethyene

TMB = Trimethylbenzene

DIPE = Isopropyl Ether (a.k.a. di-isopropyl ether)

TBA = Tertiary butyl alcohol

NLP = No Level Published

NA = Not analyzed for this constituent. ND = Not Detected

(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-propylbenzene (36 mg/L); p-Isopropyltoluene (14 mg/L).

(c.) Also detected were: isopropylbenzene (3.4 mg/L); n-propylbenzene (2.3 mg/L).

(d) Pre-purge / post-purge sampling, conducted in same event.

NS = Not Sampled

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

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

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

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

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

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	19.45	58.98

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

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

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.