Groundwater Monitoring Report
Fall 2009 Semiannual Sampling Event
Municipal Service Center
7101 Edgewater Drive
Oakland, California

March 15, 2010
LC010060.0006

Prepared for:
City of Oakland, Public Works Agency
Environmental Services Division
250 Frank H. Ogawa Plaza, Suite 5301
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LFR an ARCADIS company

March 15, 2010 LC010060.0006

Mr. Gopal Nair
City of Oakland, Public Works Department
Environmental Sciences Division
250 Frank H. Ogawa Plaza, Suite 5301
Oakland, California 94612

Subject: Groundwater Monitoring Report, Fall 2009 Semiannual Sampling Event, Municipal Service Center, 7101 Edgewater Drive, Oakland, California

Dear Mr. Nair:

LFR Inc. an ARCADIS company (now known as ARCADIS) is pleased to present this report summarizing data collected during the Fall 2009 semiannual groundwater monitoring event at the Municipal Service Center, located at 7101 Edgewater Drive in Oakland, California ("the Site"). These activities were performed in a manner consistent with previous sampling events conducted at the Site.

If you have any questions regarding this report, please call me at (650) 469-7224.

Sincerely,

Charles H. Pardini, P.G. (6444)
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CERTIFICATION

All hydrogeologic and geologic information, conclusions, and recommendations in this document have been prepared under the supervision of and reviewed by an ARCADIS U.S., Inc., California Professional Geologist.*

Charles H. Pardini
Principal Geologist
California Professional Geologist (6444)

REGISTERED GEOLOGIST * CHARLES H. PARDINI * 8/31/11 No. 6444 * STATE OF CALIFORNIA

3/15/10
Date

* A professional geologist's certification of conditions comprises a declaration of his or her professional judgment. It does not constitute a warranty or guarantee, expressed or implied, nor does it relieve any other party of its responsibility to abide by contract documents, applicable codes, standards, regulations, and ordinances.

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1.0 INTRODUCTION

This report presents the results of the Fall 2009 semiannual groundwater monitoring event conducted on October 29 and 30, 2009 ("the current monitoring event") at the Municipal Service Center (MSC), located at 7101 Edgewater Drive in Oakland, California ("the Site"; Figure 1). LFR Inc. an ARCADIS company (now known as ARCADIS) conducted monitoring activities at the Site in accordance with Assignment No. G08-LFR-08.

This report summarizes the monitoring activities conducted during the current monitoring event as well as the analytical results, distribution of contaminants in groundwater, conclusions, and recommendations. Also discussed are the anticipated semiannual monitoring activities to be performed in March/April 2010.

2.0 SITE BACKGROUND AND CORRECTIVE ACTION MEASURES

Eighteen 2-inch-diameter groundwater monitoring wells (MW-1 through MW-18) were installed on and off site to depths ranging from 13 feet below ground surface (bgs) to 20 feet bgs, at various times from 1989 to 2003. These wells have been monitored regularly since their installation. MW-3 and MW-4 were abandoned and sealed in 1999 (Ninyo & Moore 2004). In addition, six 6-inch-diameter wells (TBW-1 through TBW-6) were installed during backfilling of the excavation of former fuel hydrant lines in the early 1990s. TBW-1 through TBW-4 were abandoned and sealed in June 2007 by Baseline Environmental Consulting ("Baseline").

Eighteen 4-inch-diameter remediation wells and four 2-inch-diameter test/observation wells were installed on site to depths ranging from 13 feet bgs to 17 feet bgs, in December 2001 and January 2002 by others, according to Uribe & Associates' ("Uribe's") "Test/Observation Well Installation Report, U & A Project 291-03," dated April 2, 2002 (Uribe 2002). Seven of the wells (RW-Al, RW-A2, OB-A1, RW-B1, RW-B2, RW-B3, and RW-B4) were installed in the vicinity of Plumes A and B. Fifteen of the wells (RW-C1, RW-C2, RW-C3, RW-C4, RW-C5, RW-C6, RW-C7, OB-C1, RW-D1, RW-D2, RW-D3, RW-D4, RW-D5, OB-D1, and OB-D2) were installed in the vicinity of Plumes C and D. Each well, except OB-A1, was surveyed subsequent to the installation event. Six additional extraction wells (RW-D6 through RW-D11) were installed within the Plume D area in March 2007 by URS Corporation. These six wells are 6 inches in diameter and installed to an approximate depth of 20 feet bgs. The well locations are shown on Figures 2 and 3. The plume locations are shown on Figure 3.

According to the "Second Quarter 2003 Monitoring Report" (Uribe 2003), approximately 10,000 gallons of a groundwater/free product mixture were removed from on-site wells RW-B3 and RW-B4 (Plume B) in September and October 2002, using a trailer-mounted, dual-phase extraction (DPE) unit with a 10-horsepower vacuum pump. Additionally, approximately 10,000 gallons of liquid were removed from wells RW-C3, RW-C4, RW-C5, and RW-C7 (Plume C) through five daily

extractions over a two-month period. The liquid was pumped into a 21,000-gallon aboveground storage tank to allow separation of oil from water and drained through three 2,000-pound granular-activated carbon filters (in series). After filtration, the wastewater was discharged into a local storm drain. A National Pollutant Discharge Elimination System (NPDES) permit was issued prior to discharge.

Within the same time period, hydrogen peroxide, followed by water, was injected periodically into wells OB-Al, RW-Al, RW-A2, TBW-3, and TBW-4 (Plume A); MW-16 and MW-17 (Plume B); and MW-5 (active tank area), to promote in situ bioremediation. Hydrogen peroxide was also injected periodically into wells in the Plume C area from July 2004 through January 2009.

Construction of an extraction system to remove separate-phase hydrocarbons (SPH) within the vicinity of Plume D began in March 2006. Seven existing wells (RW-D1, RW-D2, RW-D3, RW-D4, RW-D5, TBW-5, and RW-1) were converted to extraction wells by URS Corporation. The extraction system was completed in April 2006, and the system began operation in mid-May 2006. Groundwater extracted from the seven wells was treated through an oil/water separator, followed by three 2,000-pound liquid-phase activated carbon units in series, and was discharged into the local storm drain via an NPDES permit. Extracted soil vapor was treated through a thermal oxidizer and discharged into the atmosphere via a permit issued by the Bay Area Air Quality Management District. Six additional wells were installed within the vicinity of Plume D in March 2007 (RW-D6, RW-D7, RW-D8, RW-D9, RW-D10, and RW-D11) and were connected to the extraction system on June 11, 2007. In addition, six existing wells in the Plume C area (RW-C2, RW-C4 through RW-C7, and OB-C1) were connected to the DPE system in May 2009 and extraction from these wells commenced on May 26, 2009.

The extraction remediation system was shutdown on December 23, 2009. It may be restarted if free phase product is again detected or significant rebound of dissolved concentration of petroleum hydrocarbons is determined in subsequent groundwater monitoring events. Quarterly remediation system performance reports were submitted separately from this monitoring report to Alameda County Environmental Health (ACEH) and to the Regional Water Quality Control Board – San Francisco Bay Region (RWQCB).

3.0 FALL 2009 SEMIANNUAL MONITORING ACTIVITIES

3.1 Field Activities

The field activities, which included depth-to-groundwater/product measurement and well sampling, were conducted in accordance with the City of Oakland MSC Schedule and Protocol Table presented in Appendix A.

On October 29, 2009, ARCADIS personnel measured depth to water and depth to SPH using an electric oil/water interface probe in the following wells: MW-1, MW-2,

MW-5 through MW-17, TBW-5, RW-1, RW-A1, RW-A2, OB-A1, RW-B1 through RW-B4, RW-C1 through RW-C4, RW-C7OB-D1, and OB-D2. A number of monitoring wells have been eliminated from the monitoring program. Monitoring wells MW-3 and MW-4 have been abandoned and sealed (Ninyo & Moore 2004). Wells TBW-1, TBW-2, TBW-3, and TBW-4 were abandoned and sealed by Baseline in June 2007. Wells RW-D1 through RW-D11 were converted to extraction wells and could not be accessed for depth-to-groundwater measurements. These wells were accessed by OTG EnviroEngineering Solutions, Inc. (OTG) to confirm no SPH was present.

ARCADIS was unable to access TBW-6 in October 2009 due to a vehicle parked on top of it. Since SPH was detected in this well in April 2009, OTG visited the Site on December 16, 2009 to collect a depth-to-SPH measurement. SPH was not detected in TBW-6 at that time.

RW-C5, RW-C6, and OB-C1 were not accessible because of damage to the surface well boxes due to site activities. The heavy equipment utilized at the site bent the well lids and bolts preventing their removal. It does not appear the well casing has been compromised. These well boxes will be replaced prior to the next semiannual monitoring event.

The oil/water interface probe was decontaminated with liquinox and distilled water before use in each well to avoid potential cross contamination. Current and historical product thickness measurements, depth-to-groundwater measurements, and groundwater elevations calculated from groundwater measurements are presented in Table 1. Monitoring and remediation well locations are shown on Figures 2 and 3.

On October 29 and 30, 2009, ARCADIS personnel collected groundwater samples from monitoring wells MW-1, MW-5, MW-6, MW-8 through MW-10, and MW-12 through MW-17.

Prior to sampling, a clean, disposable, polyvinyl chloride (PVC) sampling bailer was used to purge a minimum of three well-casing volumes of groundwater from each of the 12 monitoring wells sampled during the current monitoring event. The wells were allowed to recover to at least 80 percent of their original static groundwater levels before sampling. Dissolved oxygen, temperature, pH, conductivity, and turbidity were measured for each well volume purged. Additionally, characteristics of the water (color, turbidity, odor, sheen) were noted on the field data sheets, which are included in Appendix B.

After the wells were purged, samples were collected using the disposable, PVC, bottom-discharging bailer that was used to purge the well. The samples were transferred from the bailer to the appropriate sample containers, labeled, and placed in a “wet chilled” cooler containing ice, under chain-of-custody protocol. The samples were secured in the cooler and transferred to Curtis & Tompkins, Ltd., Analytical Laboratories (C&T), a California Department of Health Services–certified environmental laboratory located in Berkeley, California. Purged and decontamination water generated during sampling activities was transferred into an on-site storage tank

that was part of the on-site extraction and treatment system maintained by the City of Oakland.

3.2 Sample Analyses

The groundwater samples were analyzed by C&T for the following parameters:

- total petroleum hydrocarbons (TPH) as gasoline (TPHg) using U.S. Environmental Protection Agency (U.S. EPA) Method 8260B
- TPH as kerosene (TPHk), TPH as diesel (TPHd), and TPH as motor oil (TPHmo) using U.S. EPA Method 8015B, with a silica-gel cleanup
- the aromatic hydrocarbons benzene, toluene, ethylbenzene, and total xylenes (collectively known as BTEX) and methyl tertiary-butyl ether (MTBE) using U.S. EPA Method 8260B

4.0 MONITORING RESULTS

4.1 Shallow Groundwater Topography

Depth to groundwater was measured on October 29, 2009, using a Solinst oil/water interface meter (Table 1). Prior to groundwater measurement, the well caps were removed from all wells to allow the water column within each well to come into equilibrium with atmospheric pressure. Groundwater elevations were determined using well survey data from the "Second Quarter 2003 Monitoring Report, City of Oakland Municipal Service Center" (Uribe 2003).

Groundwater elevations in the monitoring wells ranged from 5.53 feet mean sea level (msl) at MW-1 to 0.59 foot msl at MW-2 (Figure 2). Groundwater flow direction, measured between wells MW-1 and MW-10, is toward the northwest in the northern section of the Site at approximately 0.012 foot/foot (ft/ft), and toward the southwest (measured between wells MW-11 and MW-15) at approximately 0.011 ft/ft in the southern portion of the Site. A groundwater high (groundwater elevation of 9.85 feet msl) is observed in the vicinity of remediation well RW-B4, located in the vicinity of Plume B in the southern portion of the Site (Figure 3). This observed groundwater high may be due to the presence of coarse-grained backfill in the area. The variation in the groundwater gradient may be due to differences in lithologic characteristics in the subsurface or preferential pathways (possibly due to backfilled utility trenches and underground storage tank pits). The groundwater flow direction for this sampling period was similar to that reported by Ninyo & Moore in its July 14, 2004 Spring Semiannual Groundwater Monitoring Report for the Site, and in more recent ARCADIS monitoring reports.

4.2 Occurrence of Separate-Phase Hydrocarbons

Floating SPH was not observed in any wells where depth-to-water and depth-to-SPH were measured during this monitoring event. The results of the SPH assessment are presented in Table 1. Plumes B, C, and D showed a significant decrease in lateral extent of SPH compared to the April 2004 monitoring event. The monitoring wells in the Plume A area continue to not contain measurable amounts of SPH. A sheen was observed in wells RW-A1 and RW-A2. SPH was detected in the vicinity of RW-C7 in Plume C in April 2009 but was not detected during the current reporting period (Table 1; Figure 3). Historically, well OB-C1 has contained measureable amounts of SPH. This well could not be accessed during the current monitoring event because of damage to the well box. Remediation wells RW-D1 through RW-D11 in the Plume D area could not be accessed for SPH measurements because of the extraction system piping.

4.3 Contaminant Distribution in Groundwater

The analytical data from this groundwater monitoring event are presented in Table 1, along with historical analytical results. Laboratory analytical data reports are included in Appendix C. Historical data for volatile organic compounds, semivolatile organic compounds, leaking underground fuel tank metals, and other metals are provided in Appendix D (Tables D-1, D-2, D-3, and D-4, respectively).

For quality assurance/quality control (QA/QC), ARCADIS collected a duplicate sample from well MW-5 and analyzed it for TPHg, TPHk, TPHd, TPHmo, BTEX, and MTBE. Analytical results for the duplicate sample were consistent with those for the primary samples collected from well MW-5.

4.3.1 Screening Criteria

In the previous semiannual monitoring report, ARCADIS recommended that groundwater quality results be compared to the RWQCB Environmental Screening Levels (ESLs) for Groundwater Screening Levels (groundwater is not a current or potential drinking water resource; RWQCB 2008; Table F-1b) because they are the most applicable screening criteria for the current site conditions. The groundwater quality results had previously been compared to the San Francisco Airport Ecological Protection Zone (SFAEPZ) Tier I Standard and the RWQCB ESL for Surface Water Screening Levels Marine Habitats. These standards/screening levels both relate to the quality of the water in San Francisco Bay but not groundwater.

A comparison of the previous screening criteria and the recommended screening criteria is included in the table below. The groundwater quality results will be compared to the recommended screening criteria in this semiannual monitoring report.

Analyte	Previous Screening Criteria		Recommended Screening Criteria
	SFAEPZ Tier 1 Standard (µg/)	ESL Surface Water (Table F-2b) (µg/)	ESL Groundwater (Table F-1b) (µg/)
Benzene	71	71	46
Toluene	NA	40	130
Ethylbenzene	29,000	30	43
Total Xylenes	NA	100	100
MTBE	NA	180	1800
TPH gasoline	3700	210	210
TPH diesel	640	210	210
TPH motor oil	640	210	210
TPH kerosene	NA	NA	210

Notes:
µg/l = micrograms per liter
NA = screening criteria not previously applied to analyte

4.3.2 Benzene

Benzene concentrations detected above laboratory analytical detection limits (LADLs) were reported in groundwater samples collected from four of the 12 monitoring wells sampled during the current monitoring event. The maximum benzene concentration was detected in well MW-6 at 98 micrograms per liter (µg/l).

Benzene was also reported in groundwater samples collected from wells MW-1 (59 µg/l), MW-5 (5.2 µg/l; 5.3 µg/l in the duplicate sample), and MW-16 (59 µg/l).

The benzene concentrations detected during the October 2009 sampling event were generally consistent with historical concentrations for most monitoring wells.

The RWQCB ESL Groundwater Screening Level (groundwater is not a current or potential drinking water resource) for benzene is 46 µg/l (RWQCB 2008; Table F-1b). Benzene concentrations were above the RWQCB ESL for benzene (46 µg/l) in samples collected from three monitoring wells (MW-1, MW-6, and MW-16).

MW-16 is the only well bounding the Site and San Leandro Bay ("the Bay") that exceeded regulatory standards. The benzene concentration measured in this well increased from the benzene concentration measured in April 2009 (below laboratory detection limit of 0.5 μg/l), but was similar to that measured in October 2007 and November 2008 (31 μg/l and 21 μg/l, respectively).

4.3.3 Toluene

Toluene was reported in groundwater samples collected from three of the 12 monitoring wells sampled during the current monitoring event. The maximum toluene concentration was detected in MW-1 at 9.4 μg/l.

Toluene was also reported in groundwater samples collected from wells MW-6 (4.1 μg/l) and MW-16 (3.5 μg/l).

The RWQCB ESL Groundwater Screening Level (groundwater is not a current or potential drinking water resource) for toluene is 130 μg/l (RWQCB 2008; Table F-1b). Concentrations of toluene above the ESL of 130 μg/l were not detected in samples collected from the monitoring wells during the October 2009 sampling event.

4.3.4 Ethylbenzene

Ethylbenzene was reported in groundwater samples collected from four of the 12 monitoring wells sampled during the current monitoring event. The maximum ethylbenzene concentration was detected in MW-5 (200 μg/l; 210 μg/l in the duplicate sample). Ethylbenzene was also reported in groundwater samples collected from wells MW-1 (3.5 μg/l), MW-6 (3.0 μg/l), and MW-16 (3.1 μg/l).

The RWQCB ESL Groundwater Screening Level (groundwater is not a current or potential drinking water resource) for ethylbenzene is 43 μg/l (RWQCB 2008; Table F-1b). Ethylbenzene was detected in a sample collected from one monitoring well (MW-5) above the ESL of 43 μg/l during the October 2009 sampling event.

4.3.5 Total Xylenes

Total xylenes were reported in groundwater samples collected from six of the 12 monitoring wells sampled during the current monitoring event. The maximum total xylenes concentration was detected in MW-1 at 10.7 μg/l.

Total xylenes were also reported in samples collected from wells MW-5 (8.1 μg/l; 8.7 μg/l in the duplicate sample), MW-6 (4.76 μg/l), MW-9 (0.61μg/l), MW-15 (2.41 μg/l), and MW-16 (3.03 μg/l).

The RWQCB ESL Groundwater Screening Level (groundwater is not a current or potential drinking water resource) for total xylenes is 100 μg/l (RWQCB 2008; Table F-1b). Concentrations of total xylenes were not detected above the ESL of 100 μg/l in samples collected from the monitoring wells during the October 2009 sampling event.

4.3.6 MTBE

MTBE was reported in groundwater samples collected from two of the 12 monitoring wells sampled during the current monitoring event. The maximum MTBE concentration was detected in MW-5 (23 µg/l; 20 µg/l in the duplicate sample). MTBE was also reported in samples collected from well MW-6 at 5.0 µg/l.

The RWQCB ESL Groundwater Screening Level (groundwater is not a current or potential drinking water resource) for MTBE is 1,800 µg/l (RWQCB 2008; Table F-1b). Concentrations of MTBE were not detected above the ESL of 1,800 µg/l in samples collected from the monitoring wells during the October 2009 sampling event.

4.3.7 TPHg

TPHg was reported in groundwater samples collected from six of the 12 monitoring wells sampled during the current monitoring event. The maximum TPHg concentration was detected in MW-5 (3,100 µg/l; 3,300 µg/l in the duplicate sample). TPHg was also detected in wells MW-1 (1,800 µg/l), MW-6 (560 µg/l), MW-12 (160 µg/l), MW-15 (81 µg/l), and MW-16 (590 µg/l).

The RWQCB ESL Groundwater Screening Level (groundwater is not a current or potential drinking water resource) for TPHg is 210 µg/l (RWQCB 2008; Table F-1b). TPHg was detected above the ESL of 210 µg/l in samples collected from four monitoring wells (MW-1, MW-5, MW-6, and MW-16).

TPHg was only detected above the ESL in one monitoring well (MW-16) bounding the Site and the Bay.

4.3.8 TPHd

TPHd was reported in groundwater samples collected from eight of the 12 monitoring wells sampled during the current monitoring event. The maximum TPHd concentration was detected in MW-16 at 5,600 µg/l. TPHd was also detected in wells MW-1 (810 µg/l), MW-5 (1,100 µg/l; 600 µg/l in duplicate sample), MW-6 (1,200 µg/l), MW-9 (220 µg/l), MW-12 (280 µg/l), MW-13 (81 µg/l), and MW-15 (110 µg/l).

The RWQCB ESL Groundwater Screening Level (groundwater is not a current or potential drinking water resource) for TPHd (middle distillates) is 210 µg/l (RWQCB 2008; Table F-1b). TPHd concentrations were above the ESL of 210 µg/l in samples collected from six monitoring wells (MW-1, MW-5, MW-6, MW-9, MW-12, and MW-16).

Wells MW-9 and MW-16 are located along the southwestern perimeter of the Site, between the Site and the Bay. The concentration of TPHd measured in MW-9 was consistent with concentrations detected historically. The concentration of TPHd measured in MW-16 decreased significantly since it was last sampled in November 2008 (52,000 µg/l).

4.3.9 TPHmo

TPHmo was reported in groundwater samples collected from two of the 12 monitoring wells sampled during the current monitoring event. The maximum TPHmo concentration was detected in MW-16 at 12,000 µg/l. TPHmo was also detected in well MW-13 at 650 µg/l.

The RWQCB ESL Groundwater Screening Level (groundwater is not a current or potential drinking water resource) for TPHmo (middle distillates) is 210 µg/l (RWQCB 2008; Table F-1b). TPHmo concentrations were above the ESL of 210 µg/l in samples collected from two monitoring wells (MW-13 and MW-16).

The TPHmo concentration measured in MW-13 was consistent with the concentration detected in April 2009 (610 µg/l). The TPHmo concentration measured in MW-16 decreased significantly since it was last sampled l in November 2008 (110,000 µg/).

4.3.10 TPHk

TPHk was reported in groundwater samples collected from six of the 12 monitoring wells sampled during the current monitoring event. The maximum TPHk concentration was detected in MW-16 at 4,100 µg/l. TPHk was also detected in wells MW-1 (820 µg/l), MW-5 (1,100 µg/l; 620 µg/l in duplicate sample), MW-6 (1,000 µg/l), MW-9 (130 µg/l), and MW-12 (220 µg/l).

The RWQCB ESL Groundwater Screening Level (groundwater is not a current or potential drinking water resource) for TPHk (middle distillates) is 210 µg/l (RWQCB 2008; Table F-1b). TPHk concentrations were above the ESL of 210 µg/l in samples collected from five monitoring wells (MW-1, MW-5, MW-6, MW-12, and MW-16).

4.4 Laboratory Analysis

Current laboratory analytical results and historical results are presented in Table 1. Copies of laboratory data sheets and chain-of-custody documents are included in Appendix C.

5.0 LABORATORY QUALITY ASSURANCE AND QUALITY CONTROL

A laboratory QA/QC review was performed on the laboratory analytical data to evaluate the quality and usability of the analytical results. The following sections summarize the QA/QC review.

5.1 Method Holding Times

The procedures used to extract and analyze the collected samples were reviewed by ARCADIS personnel and were found to be within the appropriate holding times for all samples.

5.2 Blanks

One field blank (MW-8-FB) was collected along with the corresponding groundwater sample and was analyzed for TPHg, TPHk, TPHd, TPHmo, BTEX, and MTBE. Additionally, laboratory method blank results were reviewed for detection of target analytes. No target analytes were detected in the field blank. These results indicate that sample collection methods were effective, and that transportation and laboratory procedures were not a source of contamination.

5.3 Laboratory Control Samples

Laboratory quality control samples were conducted by C&T for TPHg, TPHd, TPHk, TPHmo, and BTEX. All samples were within the percentage recovery range required by the laboratory.

5.4 Surrogates

All surrogates, including hexacosane, bromofluorobenzene, and trifluorotoluene for TPHg, TPHd, TPHk, and TPHmo, and bromofluorobenzene, 1,2-dichloroethane-d4, and toluene-d8 for BTEX, were used for laboratory QA/QC analysis. All of the surrogates were within the acceptable laboratory recovery limits.

5.5 False-Positive Petroleum Hydrocarbon Identification

Qualifiers were reported in the laboratory analytical reports and noted in Table 1 and on Figure 2.

6.0 CONCLUSIONS AND RECOMMENDATIONS

The following summarizes the data collected during the Fall 2009 sampling event and presents the recommendations for the Spring 2010 monitoring period.

- Groundwater elevations in the monitoring wells ranged from 5.53 feet msl at MW-1 to 0.59 foot msl at MW-2. The direction of shallow groundwater flow is toward the northwest in the northern section of the Site at a 0.012 ft/ft gradient and toward the southwest in the southern portion of the Site at 0.011 ft/ft. A groundwater high was observed in the vicinity of well RW-B4 (Plume B) in the southern portion of the Site. This groundwater high is probably the result of higher subsurface permeability in areas of excavation backfill.
- SPH was not observed in any wells where depth-to-SPH was measured during this monitoring event.
- Benzene was detected above LADL in four of the 12 wells sampled. The maximum concentration of benzene detected in shallow groundwater was 98 μg/l in well MW-6. Concentrations of benzene are above the RWQCB ESL Groundwater Screening

Level (groundwater is not a current or potential drinking water resource) for benzene of 46 µg/l in three of the wells sampled.

- Toluene was detected above LADL in three of the 12 wells sampled. The maximum concentration of toluene detected in shallow groundwater was 9.4 µg/l in well MW-1. No concentrations of toluene exceeded the RWQCB ESL Groundwater Screening Level (groundwater is not a current or potential drinking water resource) for toluene of 130 µg/l during the October 2009 event.
- Ethylbenzene was detected above LADL in four of the 12 wells sampled. The maximum concentration of ethylbenzene was detected in shallow groundwater at 200 µg/l in well MW-5. The concentration of ethylbenzene is above the RWQCB ESL Groundwater Screening Level (groundwater is not a current or potential drinking water resource) for ethylbenzene of 43 µg/l in one well sampled.
- Total xylenes were detected above LADL in six of the 12 wells sampled. The maximum concentration of xylenes detected in shallow groundwater was 10.7µg/l in well MW-1. No concentrations of total xylenes exceeded the RWQCB ESL Groundwater Screening Level (groundwater is not a current or potential drinking water resource) for ethylbenzene of 100 µg/l during the October 2009 event.
- MTBE was detected above LADL in two of the 12 wells sampled. The maximum concentration of MTBE detected in shallow groundwater was 23 µg/l in well MW-5. No concentrations of MTBE exceeded the RWQCB ESL Groundwater Screening Level (groundwater is not a current or potential drinking water resource) for MTBE of 1,800 µg/l during the October 2009 event.
- TPHg was detected in six of the 12 wells sampled. The maximum concentration of TPHg detected in shallow groundwater was 3,100 µg/l in well MW-5. TPHg concentrations were above the RWQCB ESL Groundwater Screening Level (groundwater is not a current or potential drinking water resource) for TPHg of 210 µg/l in four of the wells sampled.
- TPHd was detected above LADL in eight of the 12 wells sampled. The maximum concentration detected was present in well MW-16 at a concentration of 5,600 µg/l. TPHd concentrations were above the RWQCB ESL Groundwater Screening Level (groundwater is not a current or potential drinking water resource) for TPHd (middle distillates) of 210 µg/l in six of the wells sampled.
- TPHmo was detected in two of the 12 wells sampled and had a maximum concentration of 12,000 µg/l in well MW-16. TPHmo concentrations were above the RWQCB ESL Groundwater Screening Level (groundwater is not a current or potential drinking water resource) for TPHd (middle distillates) of 210 µg/l in two wells sampled.
- TPHk was detected above laboratory analytical limits in six of the 12 wells sampled. The maximum concentration of TPHk detected was present in well MW-16 (4,100 µg/l). TPHk concentrations were above the RWQCB ESL Groundwater Screening Level (groundwater is not a current or potential drinking water resource) for TPHk (middle distillates) of 210 µg/l in five wells sampled.

Based on the results of the Fall 2009 groundwater monitoring event, ARCADIS makes the following recommendations:

- Continue semiannual groundwater monitoring on site due to the elevated concentrations of TPHg, TPHd, TPHmo, and benzene reported during the current monitoring event.
- Continue monitoring SPH.
- Continue in situ remediation using hydrogen peroxide and continue groundwater extraction until the end of 2009.
- Repair the damaged well boxes in the Plume C area.
- Submit a Human Health Risk Assessment during the first quarter of 2010.

7.0 LIMITATIONS

The environmental services described in this report have been conducted in general accordance with current regulatory guidelines and the standard of care exercised by environmental consultants performing similar work in the project area. No other warranty, expressed or implied, is made regarding the professional opinions presented in this report. Please note this study did not include an evaluation of geotechnical conditions or potential geologic hazards.

Our conclusions, recommendations, and opinions are based on an analysis of the observed site conditions and the referenced literature. It should be understood that the conditions of a site can change with time as a result of natural processes or the activities of man at the site or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which ARCADIS has no control.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. ARCADIS should be contacted if the reader requires any additional information or has questions regarding the content, interpretations presented, or completeness of this document.

8.0 SELECTED REFERENCES

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Table 1
Summary of Groundwater Analytical Data, Petroleum Hydrocarbons
Municipal Service Center
7101 Edgewater Drive, Oakland, California
Concentrations expressed in micrograms per liter (µg/l)

Well ID/ Date	TOC Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
MW-1														
10/4/89	10.20	---	---	8020		---	---	---	540	65	26	14	22	---
10/4/89	10.20	---	---	8240		---	---	---	---	120	46	43	78	---
4/27/93	10.20	---	---	8020		---	---	---	<1,000	<1.0	<1.0	<1.0	<1.0	---
4/19/95	10.20	---	---	8020		---	---	---	3,200	880	15	23	21	---
7/27/95	10.20	4.62	5.58	8020		---	---	---	980	130	3.6	1.4	5.6	---
11/20/95	10.20	6.08	4.12	8020		---	---	---	400	99	2.8	1.1	4.6	---
2/21/96	10.20	4.62	5.58	8020		---	---	---	1,700	340	8.4	5.3	16	---
5/13/96	10.20	4.33	5.87	8020		---	---	---	7,300	2,000	30	42	38	---
8/27/96	10.20	5.25	4.95	8020		---	---	---	380	61	2.4	<0.5	4.2	---
2/23/98	10.20	1.75	8.45	8020		<50	<500	<50	820	160	4.9	3	9.7	---
8/19/98	10.20	4.78	5.42	8020	SGC	1,200	---	---	780	69	4.1	0.84	8.5	<5.0
11/11/98	10.20	5.64	4.56	---		---	---	---	---	---	---	---	---	---
2/23/99	10.20	3.41	6.79	8020	SGC	1,200	1,600	<50	1,100	190	5	3	12	<5.0
5/27/99	10.20	3.96	6.24	---		---	---	---	---	---	---	---	---	---
8/24/99	10.20	4.92	5.28	8020	SGC	640	1,900	<50	370	37	0.9	<0.5	1.9	<5.0
11/22/99	10.20	5.46	4.74	---		---								
1/18/00	10.05	5.41	4.64	---		---	---	---	---	---	---	---	---	---
1/19/00	10.05	---	---	8020	SGC	50	<200	<50	660	43	2.3	1.1	6	<5.0
5/11/00	10.05	4.63	5.42	---		---	---	---	---	---	---	---	---	---
8/24/00	10.05	5.07	4.98	---		---	---	---	---	---	---	---	---	---
8/25/00	10.05	---	---	8020	SGC	340	<250	290	480	53	1.4	<0.5	2.9	<5.0
11/28/00	10.05	5.60	4.45	---		---	---	---	---	---	---	---	---	---
2/27/01	10.05	3.95	6.10	8020	Filtered+SGC	270	<250	<61	1,500	110	6.3	<1.5	9.9	<15
5/17/01	10.05	4.00	6.05	---		---	---	---	---	---	---	---	---	---
8/16/01	10.05	4.17	5.88		Filtered+SGC	280	<200B	<100	4,000	640	9.7	5.7	13	<5.0
12/15/01	10.05	5.52	4.53	---		---	---	---	---	---	---	---	---	---
4/9/02	10.05	3.78	6.27	8021	SGC	1,100	1,000	---	2,000	320	5.38	3.08	6.24	<5
6/21/02	10.05	4.92	5.13	---		---	---	---	---	---	---	---	---	---
9/13/02	10.05	5.52	4.53	8021	SGC	88 b,c	<300	88	260	9.6	<0.5	<0.5	1.0	<2
4/22/03	10.05	4.41	5.64	8021B	SGC	570 L Y	<300	660	1,900 Z	400.0	9.6	5.4	8.1	<2.0
4/28/04	10.05	3.95	6.10	8260B	SGC	<100	<400	<100	154	20	<1.0	<1.0	2.3	<1.0
10/29/04	10.05	5.68	4.37	8260B	SGC	230 L Y	<300	240	340 H Z	6.4	0.6	<0.5	1.4	<0.5
9/2/05 [1]	10.05	4.35	5.70	8260B	SGC	140 L Y	<300	170	350	6.6	1.0	<0.5	2.3	<0.5
4/4/2006 [3]	10.05	2.24	7.81	8260B	SGC	830 L Y	<300	1,100 L Y	3,700	470	13	7.8	6.3	<3.6
9/6/06	10.05	4.98	5.07	8260B	SGC	3,400 H L	400 L	3,100 H	480	4.2	1.0	<0.5	1.9	<0.5
4/5/07	10.05	3.56	6.49	8260B	SGC	500 L Y	<300	490 L Y	1,500 Y	170	7.2	3.6	5.7	<1.3
10/2/07	10.05	5.59	4.46	8260B	SGC	600 Y	<300	710 Y	460 Y	6.1	1.1	<0.5	1.2	<0.5
3/20/08 [8]	10.05	3.53	6.52	8260B	SGC	1,000 Y	<300	960	1,600 Y	53	4.1	1.2	6.3	<0.5

Table 1
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Municipal Service Center
7101 Edgewater Drive, Oakland, California
Concentrations expressed in micrograms per liter (µg/l)

Well ID/ Date	TOC Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
11/21/08 (10)	10.05	5.48	4.57	8260B	SGC	110 Y	<300	87 Y	210 Y	2.4	0.52	<0.50	1.3	<0.50
4/1/09	10.05	3.30	6.75	8260B	SGC	480 Y	<300	540	1,300 Y	79	6.40	2.9	5.1	<0.50
10/30/09	10.05	4.52	5.53	8260B	SGC	810Y	<300	820Y	1,800Y	59	9.40	3.5	10.7	<0.50
MW-2														
10/4/89	10.47	---	---	8020		---	---	---	<30	<0.3	<0.3	<0.3	<0.3	---
10/4/89	10.47	---	---	8240		---	---	---	---	2	<2.0	<2.0	<2.0	---
4/27/93	10.47	---	---	8020		---	---	---	<1,000	<1.0	<1.0	<1.0	<1.0	---
4/19/95	10.47	---	---	8020		---	---	---	<50	1.8	<0.5	<0.5	<0.5	---
7/27/95	10.47	6.22	4.25	8020		---	---	---	<50	2.3	<0.5	<0.5	<0.5	---
11/20/95	10.47	7.49	2.98	8020		---	---	---	<50	2.2	<0.5	<0.5	<0.5	---
2/12/96	10.47	6.68	3.79	8020		---	---	---	<50	1.7	<0.5	<0.5	0.5	---
5/13/96	10.47	6.32	4.15	8020		---	---	---	---	2	<0.5	<0.5	<0.5	---
8/27/96	10.47	6.84	3.63	8020		---	---	---	---	2.4	<0.5	<0.5	<0.5	---
2/24/98	10.47	5.44	5.03	8020		<50	<500	<50	---	1.6	<0.5	<0.5	<0.5	---
8/19/98	10.47	6.56	3.91	8020	SGC	330	---	---	<50	4.1	3.4	0.8	2.6	<5.0
11/11/98	10.47	7.37	3.10	---		---	---	---	---	---	---	---	---	---
2/23/99	10.47	8.68	1.79	8020	SGC	200	900	<50	<50	3.5	0.6	0.6	1.2	<5.0
5/27/99	10.47	5.20	5.27	---		---	---	---	---	---	---	---	---	---
8/24/99	10.47	6.75	3.72	8020	SGC	140	700	<50	<50	2.6	<0.5	<0.5	<0.5	<5.0
11/22/99	10.47	7.58	2.89	---		---	---	---	---	---	---	---	---	---
1/18/00	10.47	7.41	3.06	8020	SGC	60 a	660	<50	<50	2.1	<0.5	<0.5	<0.5	<5.0
5/11/00	10.47	6.43	4.04	---		---	---	---	---	---	---	---	---	---
8/24/00	10.47	8.91	1.56	8020	SGC	170	440	130	<50	2.4	<0.5	<0.5	<0.5	<5.0
11/28/00	10.47	7.35	3.12	---		---	---	---	---	---	---	---	---	---
2/27/01	10.47	6.70	3.77	8020	Filtered+SGC	<59	<240	<59	<50	3.6	<0.5	<0.5	<0.5	<5
5/17/01	10.47	6.90	3.57	---		---	---	---	---	---	---	---	---	---
8/16/01	10.47	6.95	3.52		Filtered+SGC	<50	200B	<100	<50	<0.5	<0.5	<0.5	<0.5	<5.0
12/15/01	10.47	7.21	3.26	---		---	---	---	---	---	---	---	---	---
4/5/02	10.47	6.02	4.45	8021	SGC	200	400	---	<50	2.9	<0.5	<0.5	<0.5	<5
6/21/02	10.47	8.07	2.40	---		---	---	---	---	---	---	---	---	---
9/17/02	10.47	7.12	3.35	8021	SGC	<50	<300	<50	<50	2.1	<0.5	<0.5	<0.5	<2
4/23/03	10.47	6.36	4.11	8021B	SGC	<50	<300	<50	<50	1.6	<.50	<.50	<.50	<2.0
4/28/04	10.47	5.99	4.48	8260B	SGC	<100	<400	<100	<100	<0.5	<1.0	<1.0	1.3	<1.0
9/1/05 (1)	10.47	6.08	4.39	8260B	SGC	<50	<300	<50	<50	2.8	<0.5	<0.5	<0.5	0.8
4/4/2006 (3)	10.47	4.96	5.51	8260B	SGC	<50	<300	<50	<50	2.1	<0.5	<0.5	0.5	0.5
9/6/06	10.47	9.31	1.16	---	---	---	---	---	---	---	---	---	---	---
4/5/07	10.47	9.21	1.26	8260B	SGC	<50	<300	<50	<50	1.6	<0.5	<0.5	<0.5	<0.5
10/2/07	10.47	10.81	-0.34	---	---	---	---	---	---	---	---	---	---	---

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Well ID/ Date	TOC Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
3/20/08 [8]	10.47	12.36	-1.89	8260B	SGC	<50	<300	<50	<50	1.5	<0.5	<0.5	<0.5	<0.5
11/18/08	10.47	11.07	-0.60	8260B	---	---	---	---	---	---	---	---	---	---
4/1/09	10.47	10.80	-0.33	8260B	SGC	<50	<300	<50	<50	1.3	<0.5	<0.5	<0.5	<0.5
4/1/09 dup	---	---	---	8260B	SGC	<50	<300	<50	<50	1.5	<0.5	<0.5	<0.5	<0.5
10/29/09	10.47	9.88	0.59	---	---	---	---	---	---	---	---	---	---	---
MW-3														
10/4/89	---	---	---	8020		---	---	---	<30	<0.3	<0.3	<0.3	<0.3	---
10/4/89	---	---	---	8240		---	---	---	---	<2.0	<2.0	<2.0	<2.0	---
2/23/98	---	---	---	---		<50	<500	<50	---	---	---	---	---	---
11/11/98	---	5.83	---	---		---	---	---	---	---	---	---	---	---
2/23/99	---	---	---	---	Submerged	---	---	---	---	---	---	---	---	---
5/27/99	---	1.68	---	---		---	---	---	---	---	---	---	---	---
8/24/99	---	4.76	---	---		---	---	---	---	---	---	---	---	---
11/22/99	---	6.46	---	---		---	---	---	---	---	---	---	---	---
11/22/99	---	---	---	---	Destroyed	---	---	---	---	---	---	---	---	---
MW-4														
10/4/89	7.89	---	---	8020		---	---	---	<30	<0.3	<0.3	<0.3	<0.3	---
10/4/89	7.89	---	---	8240		---	---	---	---	<2.0	<2.0	<2.0	<2.0	---
11/11/98	7.89	6.25	1.64	---		---	---	---	---	---	---	---	---	---
2/23/99	7.89	3.10	4.79	---		---	---	---	---	---	---	---	---	---
5/27/99	7.89	4.03	3.86	---		---	---	---	---	---	---	---	---	---
8/24/99	7.89	5.07	2.82	---		---	---	---	---	---	---	---	---	---
11/22/99	7.89	6.32	1.57	---		---	---	---	---	---	---	---	---	---
11/22/99	---	---	---	---	Destroyed	---	---	---	---	---	---	---	---	---
MW-5														
12/13/91	11.15	---	---	8020		1,900	---	---	13,000	1,500	190	970	2,500	---
12/13/91	11.15	---	---	8020	Dup	---	---	---	16,000	1,400	180	870	2,500	---
12/13/91	11.15	---	---	8240		---	---	---	---	1,800	<250	1,000	3,800	---
12/13/91	11.15	---	---	8240	Dup	---	---	---	---	1,600	<250	980	3,500	---
4/27/93	11.15	---	---	8240		12,000	---	---	35,000	2,100	<1.0	1,800	2,700	---
4/19/95	11.15	---	---	8240		880	4,700	---	14,000	490	51	610	1,200	---
7/27/95	11.15	6.29	4.86	8240		590	5,000	---	22,000	1,300	54	1,500	2,400	---
11/20/95	11.15	6.98	4.17	8020		<50	<50	<50	8,900	430	31	610	880	---
2/21/96	11.15	5.97	5.18	8020		480	<50	<50	1,000	540	65	700	970	---
5/13/96	11.15	6.25	4.90	8020		<50	<50	<50	5,900	430	26	580	760	---
5/13/96	11.15	---	---	8020	Dup	<50	<50	<50	7,300	360	22	49	640	---

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Well ID/ Date	TOC Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
8/27/96	11.15	6.40	4.75	8020		2,000	<51	<51	6,600	430	27	600	650	---
8/27/96	11.15	---	---	8020	Dup	6,600	<51	<51	6,300	410	25	580	620	---
2/23/98	11.15	4.22	6.93	8020		<50	<500	<50	740	19	1.4	41	34	---
8/19/98	11.15	6.14	5.01	8020		1,400	<250	1700	5,800	500	25	730	300	5,900
8/19/98	11.15	6.14	5.01	8260	SGC	---	---	---	---	---	---	---	---	6,700
11/11/98	11.15	6.51	4.64	---		---	---	---	---	---	---	---	---	---
2/23/99	11.15	3.59	7.56	8020	SGC	2,000	700	<50	6,700	300	26	800	690	1,600
5/27/99	11.15	5.71	5.44	---		---	---	---	---	---	---	---	---	---
8/24/99	11.15	6.02	5.13	8020	SGC	220	2,000	<50	2,100 e	190 e	5.5	340 e	78	380 e
11/22/99	11.15	6.16	4.99	---		---	---	---	---	---	---	---	---	---
1/18/00	11.15	6.60	4.55	---		---	---	---	---	---	---	---	---	---
1/19/00	11.15	---	---	8020	SGC	100	320	<50	3,000	66 e	6.3	400 e	90	300 E (1,300)
5/11/00	11.15	5.62	5.53	---		---	---	---	---	---	---	---	---	---
8/24/00	11.15	6.32	4.83	8020	SGC	4,800	560	6,600	12,000	220	21	430	91	1,200 (1,400)
11/28/00	11.15	6.47	4.68	---		---	---	---	---	---	---	---	---	---
2/27/01	11.15	4.40	6.75	8020	Filtered+SGC	230	<250	<61	6,300	150	7	350	55	830
5/17/01	11.15	5.77	5.38	8020	Filtered+SGC	190	<200	<50	7,500	140	7	580	101	170
8/16/01	11.15	4.87	6.28		Filtered+SGC	320	500B	<100	2,300	46	<5	110	24	850
12/15/01	11.15	5.50	5.65	---		---	---	---	---	---	---	---	---	---
4/9/02	11.15	5.15	6.00	8021	SGC	480	260	---	8,000	110	5.95	650	53.9	166
6/21/02	11.15	6.01	5.14	8021	SGC	200 a,b,c	<300	190	4,600	130	33	380	56	440
9/12/02	11.15	6.40	4.75	8021	SGC	620 b,c	<300	650	4,000 J	120	<0.5	260	16	580
4/22/03	11.15	4.69	6.46	8021B	SGC	1600 L Y	<300	1800	6000	91	<1.0	870	59.4	150 C
4/28/04	11.15	5.70	5.45	8260B	SGC	<650	<400	<810	4780	34	<1.0	560	44	47
10/29/04	11.15	5.73	5.42	8260B	SGC	840 L Y	<300	940	3000	18	2.1	280	16.1	94
9/2/05 (1)	11.15	6.08	5.07	8260B	SGC	510 L Y	<300	640	1600	13	1.4	55	8.6	92
4/5/06 (3)	11.15	3.64	7.51	8260B	SGC	840 L Y	<300	850 H	3,400	14	2.1	280	13	31
9/6/06	11.15	6.21	4.94	8260B	SGC	340 Y	<300	400 Y	2000	8.3	1.1	8.2	6.8	50
4/5/07	11.15	5.31	5.84	8260B	SGC	340 L Y	<300	310 L Y	3,100 Y	9.3	<2.0	230	13	38
10/2/07	11.15	6.51	4.64	8260B	SGC	400 Y	<300	440	3,000 Y	11	1.4	100	6.8	46
3/20/08 (8)	11.15	5.37	5.78	8260B	SGC	1,400 Y	<300	1,400	4,100 Y	8.4	1.7	270	12	23
11/21/08 (10)	11.15	6.51	4.64	8260B	SGC	660 Y	<300	690 Y	2,600	11	1.7	240	6.5	20
4/2/09 (12)	11.15	4.89	6.26	8260B	SGC	730 Y	<300	840	4,800 Y	8.8	2.5	380	13.3	15
10/30/09	11.15	5.86	5.29	8260B	SGC	1,100Y	<300	1,100Y	3,100	5.2	<1.7	200	8.1	23
10/30/09dup	---	---	---	8260B	Dup	600Y	<300	620Y	3,300	5.3	<1.7	210	8.7	20
MW-6														
12/13/91	10.98	---	---	8020		520	---	---	780	110	2.7	<2.5	5.5	---

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Summary of Groundwater Analytical Data, Petroleum Hydrocarbons
Municipal Service Center
7101 Edgewater Drive, Oakland, California
Concentrations expressed in micrograms per liter (µg/l)

Well ID/ Date	TOC Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
12/13/91	10.98	---	---	8240		---	---	---	---	95	5	<5	<5	---
4/27/93	10.98	---	---	8020		<1,000	---	---	<1,000	430	4	5	10	---
4/19/95	10.98	---	---	8020		6,700	---	---	5,700	40	<0.8	3.9	29	---
4/19/95	10.98	---	---	8020	Dup	3,700	---	---	3,000	310	3.1	2.7	100	---
7/27/95	10.98	7.09	3.89	8020		3,900	---	---	6,100	430	15	200	600	---
7/27/95	10.98	---	---	8020	Dup	2,600	---	---	6,300	420	15	200	600	---
11/20/95	10.98	7.89	3.09	8020		850	---	---	6,800	160	4.6	8	240	---
11/20/95	10.98	---	---	8020	Dup	---	---	---	3,600	130	11	4.4	200	---
2/21/96	10.98	7.40	3.58	8020	Filtered+SGC	1,700	---	---	2,800	230	2.8	3.8	44	---
2/21/96	10.98	---	---	8020	Dup	2,500	---	---	2,200	280	3	4	4.6	---
5/13/96	10.98	7.10	3.88	8020		400	<50	<50	3,100	430	12	5.2	67	---
8/27/96	10.98	7.42	3.56	8020		3,100	---	---	4,200	300	9.3	110	110	---
8/19/98	10.98	---	---	---	SPH: 0.125 ft.	---	---	---	---	---	---	---	---	---
11/11/98	10.98	7.09	3.93	---	SPH: 0.05 ft.	---	---	---	---	---	---	---	---	---
2/23/99	10.98	7.31	3.67	---	SPH: NM	---	---	---	---	---	---	---	---	---
5/27/99	10.98	6.91	4.25	---	SPH: 0.20 ft.	---	---	---	---	---	---	---	---	---
8/24/99	10.98	7.46	3.72	---	SPH: 0.03 ft.	---	---	---	---	---	---	---	---	---
11/22/99	10.98	7.96	3.15	---	SPH: 0.16 ft.	---	---	---	---	---	---	---	---	---
1/18/00	10.98	8.08	3.05	---	SPH: 0.19 ft.	---	---	---	---	---	---	---	---	---
5/11/00	10.98	7.52	4.47	---	SPH: 0.01 ft.	---	---	---	---	---	---	---	---	---
8/24/00	10.98	7.50	3.53	---	SPH: 0.06 ft.	---	---	---	---	---	---	---	---	---
11/28/00	10.98	6.39	4.62	---	SPH: 0.04 ft.	---	---	---	---	---	---	---	---	---
2/26/01	10.98	7.80	3.50	8020	SPH: 0.40 ft., f	820	<240	<60	6,100	181	<5	14.2	<5	<50
2/26/01	10.98	---	---	8260B		---	---	---	---	270	3	9	3	(19)
5/17/01	10.98	7.57	3.66	---	SPH: 0.32 ft.	---	---	---	---	---	---	---	---	---
8/16/01	10.98	7.75	3.49		SPH: 0.32 ft., f	740	200B	<100	4,200	360	4.6	13	12	14
12/15/01	10.98	7.58	3.40	---	SPH: 0.07 ft.	---	---	---	---	---	---	---	---	---
4/3/02	10.98	6.92	4.06	---	SPH: 0.11 ft.	---	---	---	---	---	---	---	---	---
6/21/02	10.98	7.05	3.93	---	SPH: 0.19 ft.	---	---	---	---	---	---	---	---	---
9/12/02	10.98	7.22	4.02	---	SPH: 0.33 ft.	---	---	---	---	---	---	---	---	---
4/22/03	10.98	4.71	6.27	---	SPH: 0.16 ft.	---	---	---	---	---	---	---	---	---
4/28/04	10.98	5.09	5.89		SPH: 0.23 ft.	---	---	---	---	---	---	---	---	---
10/27/04	10.98	6.12	4.86	--	SPH: product on probe	---	---	---	---	---	---	---	---	---
8/31/05	10.98	6.11	4.87	--	SPH: 0.95 ft.	---	---	---	---	---	---	---	---	---
3/27/06	10.98	4.11	---	--	SPH: 0.57 ft.	---	---	---	---	---	---	---	---	---
9/6/06	10.98	5.42	5.56	8260B	SPH: 0.01 ft.	180 Y	<300	200 Y	1,300	330	3.9	<1.7	3.7	4.8
9/6/06	10.98	---	---	8260B	Dup	2,400 H L	<300	2,300 H	1,200	350	3.6	<1.3	3.4	4.7

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4/4/07	10.98	4.37	6.61	8260B	SGC	3,300	<300	3,000 H	1,400 H Y	520	<4.2	<4.2	<4.2	4.5
10/2/07	10.98	7.25	3.73	8260B	SGC	2,400	340 Y	2000	890 Y	270	3.8	5.5	3	7.8
3/20/08 [8]	10.98	6.59	4.39	8260B	SPH: Residual Product noted while bailing/ SGC	7,200	820	5,900	1,100 Y	500	3.5	5.9	3.1	7.7
11/21/08 [10]	10.98	6.06	4.92	8260B	SPH: Residual Product noted while bailing/ SGC	1,500 Y	<300	1,200 Y	450 Y	96	1.9	<0.50	1.2	5.7
4/1/09	10.98	4.48	6.50	---	SPH: 0.03 ft.	---	---	---	---	---	---	---	---	---
10/30/09	10.98	6.97	4.01	8260B	SGC	1,200Y	<300	1,000Y	560Y	98	4.1	3.0	4.76	5.0
MW-7														
12/13/91	11.51	---	---	8020		<50	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
12/13/91	11.51	---	---	8240		---	---	---	---	<5	<5	<5	<5	---
4/27/93	11.51	---	---	8240		<1,000	---	---	<1,000	<1.0	<1.0	<1.0	<1.0	---
4/19/95	11.51	---	---	8240		<50	<1,000	---	<50	<2.0	<2.0	<2.0	<2.0	---
7/27/95	11.51	6.87	4.64	8240		<50	<1,000	---	<50	<2.0	<2.0	<2.0	<2.0	---
11/20/95	11.51	8.48	3.03	8020		<50	---	---	<50	<0.5	<0.5	<0.5	1.5	---
2/21/96	11.51	6.29	5.22	8020		<50	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
5/13/96	11.51	6.95	4.56	8020		<50	---	---	---	<0.5	<0.5	<0.5	<0.5	---
8/27/96	11.51	6.80	4.71	8020		---	---	---	---	<0.5	<0.5	<0.5	<0.5	---
8/19/98	11.51	6.88	4.63	---		---	---	---	---	---	---	---	---	---
11/11/98	11.51	7.40	4.11	---		---	---	---	---	---	---	---	---	---
2/23/99	11.51	5.57	5.94	8020		<50	<200	<50	80	<0.5	<0.5	<0.5	1	<5.0
5/27/99	11.51	6.56	4.95	---		---	---	---	---	---	---	---	---	---
8/24/99	11.51	6.29	5.22	8020	SGC	<50	<200	<50	<50	<0.5	<0.5	<0.5	<0.5	5
11/22/99	11.51	6.80	4.71	---		---	---	---	---	---	---	---	---	---
1/18/00	11.51	7.31	4.20	---		---	---	---	---	---	---	---	---	---
1/19/00	11.51	---	---	8020	SGC	<50	<200	<50	54	1.5	1.5	2.4	3.8	<5.0
5/11/00	11.51	6.41	5.10	---		---	---	---	---	---	---	---	---	---
8/24/00	11.51	7.11	4.40	8020		<50	<250	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
11/28/00	11.51	7.30	4.21	---		---	---	---	---	---	---	---	---	---
2/27/01	11.51	5.75	5.76	8020	Filtered+SGC	<50	<200	<50	<50	<0.5	<0.5	<0.5	<0.5	<5
5/17/01	11.51	6.65	4.86	---		---	---	---	---	---	---	---	---	---
8/16/01	11.51	5.97	5.54		Filtered+SGC	<50	600B	<100	<50	<0.5	<0.5	<0.5	<0.5	<5
12/15/01	11.51	6.43	5.08	---		---	---	---	---	---	---	---	---	---
4/8/02	11.51	6.17	5.34	8021	SGC	80	<200	---	<50	<0.5	0.5	0.6	<0.5	<5
6/21/02	11.51	6.75	4.76	8021	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	3.3

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9/12/02	11.51	7.05	4.46	8021	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	2.6
4/22/03	11.51	6.24	5.27	8021B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	4 C
4/28/04	11.51	6.61	4.90	8260B	SGC	<100	<400	<100	<100	1.6	<1.0	<1.0	<1.0	<1.0
9/2/05 (1)	11.51	6.56	4.95	8260B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	3.2
4/5/06 (3)	11.51	4.58	6.93	8260B	SGC	<50	<300	<50	<50	2.7	<0.5	<0.5	<0.5	<0.5
9/6/06	11.51	6.67	4.84	---	---	---	---	---	---	---	---	---	---	---
4/5/07	11.51	6.13	5.38	8260B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	2.7
10/2/07	11.51	7.07	4.44	---	---	---	---	---	---	---	---	---	---	---
3/20/08 (8)	11.51	6.24	5.27	8260B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	2.7
3/20/08 dup	---	---	---	8260B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	2.6
11/18/08	11.51	7.40	4.11	---	---	---	---	---	---	---	---	---	---	---
4/2/09 (12)	11.51	6.95	4.56	8260B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	1.3
10/29/09	11.51	6.60	4.91	8260B	SGC	---	---	---	---	---	---	---	---	---
MW-8														
11/20/96	12.22	---	---	8020		880	---	---	<50	0.66	<0.5	<0.5	<0.5	---
11/20/97	12.22	9.59	2.63	8020		200	---	---	<50	<0.5	<0.5	<0.5	<0.5	2
2/24/98	12.22	8.42	3.80	8020		<50	<500	<50	<50	<0.5	<0.5	<0.5	<0.5	---
6/8/98	12.22	9.57	2.65	8020		1,200	1,000	<50	<50	<0.5	<0.5	<0.5	<0.5	---
8/19/98	12.22	9.49	2.73	8020	SGC	<50	<250	<50	<50	1.6	3.4	1	2.8	<5.0
11/11/98	12.22	9.64	2.58	8020	SGC	<50	<200	<50	<50	0.9	0.8	0.6	2.3	<5.0
2/23/99	12.22	11.53	0.69	8020		700	1,500	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
5/27/99	12.22	9.65	2.57	8020		<50	<200	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
8/24/99	12.22	9.62	2.60	8020	SGC	70	<200	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
11/22/99	12.22	9.64	2.58	8020	SGC	57	<200	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
1/18/00	12.22	8.31	3.91	8020	SGC	<50	<200	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
5/11/00	12.22	9.69	2.53	8020	SGC	<50	<200	<50	<50	<0.5	1.3	<0.5	2.1	<5.0
8/24/00	12.22	9.40	2.82	---		---	---	---	---	---	---	---	---	---
8/25/00	12.22	---	---	8020	SGC	85	<250	<50	<50					
11/28/00	12.22	9.40	2.83	8020	SGC	<50	910	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
2/27/01	12.22	9.50	2.72	8020	Filtered+SGC	<50	<200	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
5/17/01	12.22	9.71	2.51	---		---	---	---	---	---	---	---	---	---
5/18/01	12.22	---	---	8020	Filtered+SGC	<50	<200	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
8/16/01	12.22	9.80	2.42		Filtered+SGC	<50	<200	<100	<50	<0.5	<0.5	<0.5	<0.5	<5
12/15/01	12.22	9.28	2.94	8021	SGC	390	1,300	<50	<50	<0.5	<0.5	<0.5	<0.5	<5
4/8/02	12.22	9.55	2.67	8021	SGC	440	800	---	<50	<0.5	<0.5	<0.5	<0.5	<5
6/21/02	12.22	9.71	2.51	---		---	---	---	---	---	---	---	---	---
9/18/02	12.22	9.86	2.36	8021	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<2

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4/22/03	12.22	9.54	2.68	8021B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<2
4/28/04	12.22	---	---	---		---	---	---	---	---	---	---	---	---
10/27/04	12.22	NM[4]	---	---		---	---	---	---	---	---	---	---	---
4/5/06 [3]	12.22	8.73	3.49	8260B	SGC	54 Y	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
9/6/06	12.22	9.50	2.72	8260B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
4/3/07	12.22	9.58	2.64	8260B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/3/07	12.22	9.54	2.68	8260B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
3/21/08 [8]	12.22	9.61	2.61	8260B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
11/19/08 [10]	12.22	9.58	2.64	8260B	SGC	<50	<300	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
4/2/09 [12]	12.22	9.54	2.68	8260B	SGC	<50	<300	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
10/30/09	12.22	9.67	2.55	8260B	SGC	<50	<300	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-9														
11/20/96	10.77	---	---	8020		1,900	---	---	240	21	0.81	1.8	2.2	---
11/20/97	10.77	7.91	2.86	8020		---	---	---	300	20	<0.5	<0.5	1.8	<1.0
2/24/98	10.77	6.11	4.66	8020		<50	<500	<50	2,200	540	5.6	1.6	4.9	---
6/8/98	10.77	7.14	3.63	8020		1,800	890	<50	840	450	6.1	3.3	5.3	---
8/19/98	10.77	7.88	2.89	8020	SGC	190	<250	160	740	370	8.6	0.99	7.3	<5.0
11/11/98	10.77	8.23	2.54	8020	SGC	<50	230	<50	700	130	4.3	<0.5	3.9	<5.0
2/23/99	10.77	6.65	4.12	8020		1,100	3,700	<50	1,100	620	9.7	1.5	7.7	<5.0
5/27/99	10.77	7.70	3.07	8020	SGC	70	300	<50	950	470	11	1.5	9.2	<5.0
8/24/99	10.77	8.12	2.65	8020	SGC	890	1,700	<50	290	45	2.8	<0.5	3	<5.0
11/22/99	10.77	8.33	2.44	8020	SGC	1,000	6,000	<50	170	12	1.8	<0.5	2	<5.0
1/18/00	10.77	8.63	2.14	8020	SGC	200 a	2,300	<50	160	5.7	1.9	0.6	4.2	<5.0
5/11/00	10.77	7.70	3.07	8020	SGC	180 a	980	<100	1,050	280	7.0	<2.5	5.9	<25
8/24/00	10.77	8.31	2.46	---		---	---	---	---	---	---	---	---	---
8/25/00	10.77	---	---	8020	SGC	580	2,200	170	180	23	2.4	<0.5	2.7	<5.0
11/28/00	10.77	8.45	2.32	8020	SGC	200	1,600	<50	130	1.9	<0.5	<0.5	<0.5	<5.0
11/28/00	10.77	8.45	2.32	---	Filtered+SGC	<50	<200	<50	---	---	---	---	---	---
2/26/01	10.77	6.40	4.37	8020	Filtered+SGC	120	<200	<50	142	33	1.8	<0.5	<0.5	<5.0
5/17/01	10.77	9.88	0.89	---		---	---	---	---	---	---	---	---	---
5/18/01	10.77	---	---	8020	Filtered+SGC	<50	<200	<50	74	4.6	<0.5	<0.5	<0.5	<5.0
8/16/01	10.77	8.05	2.72		Filtered+SGC	<50	<200	<100	70	0.62	<0.5	<0.5	<0.5	<5
12/16/01	10.77	7.75	3.02	8021	SGC	1,400	4,100	<50	210	15	1.6	<0.5	2.2	<5
4/5/02	10.77	7.50	3.27	8021	SGC	870	1,000	---	1,498	367	11	2.1	7.8	<5
6/20/02	10.77	8.27	2.50	8021	SGC	<50	<300	<50	430	180	5.7	2.4	4.15	<2
9/18/02	10.77	8.25	2.52	8021	SGC	63 b,c	<300	60	250	49	5.8	<0.5	3.1	<2
4/22/03	10.77	7.25	3.52	8021B	SGC	<50	<300	<50	69	4.1 C	<0.5	<0.5	0.9	<2
4/28/04	10.77	---	---	---		---	---	---	---	---	---	---	---	---

Table 1
Summary of Groundwater Analytical Data, Petroleum Hydrocarbons
Municipal Service Center
7101 Edgewater Drive, Oakland, California
Concentrations expressed in micrograms per liter (µg/l)

Well ID/ Date	TOC Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
10/27/04	10.77	NM[4]	---	---		---	---	---	---	---	---	---	---	---
9/6/06	10.77	8.44	2.33	8260B	SGC	210 Y	<300	150 Y	240	58	5.3	<0.5	5.68	<0.5
4/3/07	10.77	8.28	2.49	8260B	SGC	180 H Y	<300	140 H	240 Z	27	4.2	<0.5	5.32	<0.5
4/3/07	10.77	---	---	8260B	Dup	190 H Y	<300	160 H	260 Z	28	4.5	<0.5	5.87	<0.5
10/3/07	10.77	8.58	2.19	8260B	SGC	110 Y	<300	110 Y Z	240 Y	1	2.4	<0.5	3.53	<0.5
3/20/08 [8]	10.77	8.46	2.31	8260B	SGC	170 Y	<300	150 Y	230	65	4.2	<0.5	5.13	<0.5
3/20/08 dup	---	---	---	8260B	SGC	190 Y	<300	180 Y	250	66	4.4	<0.5	5.5	<0.5
11/21/08 [10]	10.77	8.63	2.14	8260B	SGC	<50	<300	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
4/2/09 [12]	10.77	8.08	2.69	8260B	SGC	130 Y	380	53 Y	70 Y	82	1.4	<0.50	1.0	<0.50
10/30/09	10.77	8.91	1.86	8260B	SGC	220Y	<300	130Y	<50	<0.50	<0.50	<0.50	0.61	<0.50
MW-10														
11/20/96	10.59	---	---	8020		940	---	---	<50	49	0.59	0.54	1.2	---
11/20/97	10.59	7.70	2.89	8020		---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
2/24/98	10.59	4.39	6.20	8020		<50	<500	<50	<50	<0.5	<0.5	<0.5	<0.5	---
6/8/98	10.59	6.94	3.65	8020		500	<500	<50	<50	7.3	<0.5	<0.5	<0.5	---
8/19/98	10.59	6.99	3.60	8020	SGC	240	520	110	<50	<0.5	<0.5	<0.5	<0.5	<5.0
11/11/98	10.59	7.57	3.02	8020	SGC	<50	<200	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
2/23/99	10.59	5.51	5.08	8020		170	1,200	<50	<50	1.3	<0.5	<0.5	<0.5	<5.0
5/27/99	10.59	6.72	3.87	8020	SGC	<50	<200	<50	350	170	1.5	0.5	2.3	<5.0
8/24/99	10.59	7.27	3.32	8020	SGC	140	300	<50	380	160 e	<0.5	<0.5	2.6	<5.0
11/22/99	10.59	7.71	2.88	8020	SGC	570	3,400	<50	110	5.1	<0.5	<0.5	0.72	<5.0
1/18/00	10.59	7.77	2.82	---		---	---	---	---	---	---	---	---	---
1/19/00	10.59	---	---	8020	SGC	120 a,b	1,200	<50	100	<0.5	<0.5	0.8	<0.5	<5.0
5/11/00	10.59	7.00	3.59	8020	SGC	110 a	990	<50	145	1.62	0.5	0.5	0.9	<5.0
8/24/00	10.59	7.31	3.28	---		---	---	---	---	---	---	---	---	---
8/25/00	10.59	---	---	8020	SGC	430	1,300	110	<50	1.0	<0.5	<0.5	<0.5	<5.0
11/28/00	10.59	7.90	2.69	8020	SGC	220	1,500	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
2/27/01	10.59	5.80	4.79	8020	Filtered+SGC	85	<230	<57	<50	1.3	<0.5	<0.5	<0.5	<5.0
5/17/01	10.59	6.27	4.32	---		---	---	---	---	---	---	---	---	---
5/18/01	10.59	---	---	8020	Filtered+SGC	<50	<200	<50	<50	0.7	<0.5	<0.5	<0.5	<5.0
8/16/01	10.59	8.75	1.84		Filtered+SGC	<50	<200	<100	<50	<0.5	<0.5	<0.5	<0.5	<5
12/16/01	10.59	6.97	3.62	8021	SGC	410	2,100	<50	<50	2.4	<0.5	<0.5	<0.5	<5
4/8/02	10.59	6.51	4.08	8021	SGC	220	300	---	<50	1.1	<0.5	<0.5	<0.5	<5
6/20/02	10.59	8.10	2.49	8021	SGC	1,100 a,c	6,200	<50	120	34	<0.5	<0.5	<0.5	<2
9/17/02	10.59	7.66	2.93	8021	SGC	150 a,c	880	<50	130 a,c,j	32	<0.5	2.3	<0.5	<2
4/22/03	10.59	6.81	3.78	8021B	SGC	<50	<300	<50	51	1.0 C	<.50	1.2	<.50	<2
4/28/04	10.59	6.70	3.89	8260B	SGC	<100	<400	<100	114	14	<1.0	6.9	5.2	3.5

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Municipal Service Center
7101 Edgewater Drive, Oakland, California
Concentrations expressed in micrograms per liter (µg/l)

Well ID/ Date	TOC Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
10/28/04	10.59	6.98	3.61	8260B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
9/1/05 (1)	10.59	6.76	3.83	8260B	SGC	<50	<300	<50	110	2.4	<0.5	<0.5	0.7	<0.5
4/5/06 (3)	10.59	4.86	5.73	8260B	SGC	<50	<300	<50	<50	2.1	<0.5	<0.5	<0.5	<0.5
9/6/06	10.59	9.01	1.58	8260B	SGC	98 H Y	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
4/4/07	10.59	8.99	1.60	8260B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/3/07	10.59	9.78	0.81	8260B	SGC	<50	<300	<50	<50	30	<0.5	<0.5	<0.5	<0.5
3/21/08 (8)	10.59	10.20	0.39	8260B	SGC	<50	<300	<50	<50	3.9	<0.5	<0.5	<0.5	<0.5
11/19/08 (10)	10.59	9.55	1.04	8260B	SGC	<50	<300	<50	<50	11	<0.50	<0.50	<0.50	<0.50
11/19/08 dup	---	---	---	8260B	SGC	<50	<300	<50	<50	11	<0.50	<0.50	<0.50	<0.50
4/1/09	10.59	7.52	3.07	8260B	SGC	<50	<300	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
10/30/09	10.59	8.80	1.79	8260B	SGC	<50	<300	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-11														
1/18/00	11.60	7.08	4.52	---		---	---	---	---	---	---	---	---	---
1/19/00	11.60	---	---	8020	SGC	<50	500	<50	220	<0.5	<0.5	<0.5	<0.5	<5.0
5/11/00	11.60	5.95	5.65	8020	SGC	<50	430	<50	600	23	2.1	18	15	<5.0
8/24/00	11.60	6.58	5.02	8020		<50	<250	<50	110	5.9	<0.5	0.73	0.64	<5.0
11/28/00	11.60	6.91	4.69	8020	SGC	<50	<200	<50	180	4	<0.5	1.9	<0.5	<5.0
2/27/01	11.60	5.65	5.95	8020	Filtered+SGC	86	<240	<60	720	29	5.2	38	36	<5.0
5/17/01	11.60	6.85	4.75	8020	Filtered+SGC	<50	<200	<50	720	36	3.4	15	18	9.7
8/16/01	11.60	6.01	5.59		Filtered+SGC	<50	500B	<100	110	4.8	<0.5	1.4	<0.5	<5
12/15/01	11.60	6.26	5.34	8021	SGC	200	300	<50	170	1.7	0.6	2.4	1.8	<2
4/5/02	11.60	5.47	6.13	8021	SGC	160	<200	---	330	8.9	2.0	6.9	8.7	<5
6/21/02	11.60	6.17	5.43	8021	SGC	<50	<300	<50	280	16	1.8	8.7	9.6	3.6
9/12/02	11.60	6.60	5.00	8021	SGC	<50	<300	<50	93	<0.5	<0.5	1.1	<0.5	2.1
4/24/03	11.60	5.71	5.89	8021B	SGC	<50	<300	<50	320	21	2.1	12	6.13	8.9
4/28/04	11.60	5.92	5.68	8260B	SGC	<100	<400	<100	360	18	<1.0	6.5	4.5	4
10/27/04	11.60	6.59	5.01	8260B	SGC	---	---	---	---	---	---	---	---	---
9/2/05 (1)	11.60	6.22	5.38	8260B	SGC	<50	<300	<50	85	<0.5	<0.5	<0.5	<0.5	4.5
4/4/06 (3)	11.60	4.17	7.43	8260B	SGC	71 L Y	<300	75 L Y	230	5.7	0.9	14	7.0	6.5
4/4/06	11.60	---	---	8260B	dup	<50	<300	55 L Y	220	6.5	1.0	15	7.3	7.4
9/6/06	11.60	6.46	5.14	---	---	---	---	---	---	---	---	---	---	---
4/5/07	11.60	5.60	6.00	8260B	SGC	66 Y	<300	55 Y	270 Y	9.6	0.7	7.3	2.4	11
10/2/07	11.60	6.83	4.77	---	---	---	---	---	---	---	---	---	---	---
3/20/08 (8)	11.60	6.83	4.77	8260B	SGC	<50	<300	<50	160	3.5	<0.5	5.4	0.92	13
11/18/08	11.60	7.00	4.60	---	---	---	---	---	---	---	---	---	---	---
4/2/09 (12)	11.60	5.24	6.36	8260B	SGC	<50	<300	<50	94 Y	0.98	<0.50	2.9	<0.50	13
10/29/09	11.60	6.33	5.27	8260B	SGC	---	---	---	---	---	---	---	---	---

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Municipal Service Center
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Concentrations expressed in micrograms per liter (µg/l)

Well ID/ Date	TOC Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
MW-12														
1/18/00	10.43	8.11	2.32	---		---	---	---	---	---	---	---	---	---
1/19/00	10.43	---	---	8020	SGC	1,800 a	11,000	<50	200	<0.5	3.4	1.5	8.4	<5.0
5/11/00	10.43	6.78	3.65	8020	SGC	2,400 a	4,900	<100	370	<0.5	<0.5	<0.5	0.9	<5.0
8/24/00	10.43	7.56	2.87	---		---	---	---	---	---	---	---	---	---
8/25/00	10.43	---	---	8020	SGC	3,500	5,000	3,700	170	<0.5	<0.5	<0.5	<0.5	<5.0
11/28/00	10.43	8.13	2.30	8020	SGC	2,100	14,000	<50	290	<0.5	<0.5	<0.5	<0.5	<5.0
11/28/00	10.43	8.13	2.30	---	Filtered+SGC	50	<200	<50	---	---	---	---	---	---
2/27/01	10.43	6.00	4.43	8020	Filtered+SGC	320	<250	66	110	1.4	<0.5	<0.5	<0.5	<5.0
5/17/01	10.43	7.01	3.42	8020	Filtered+SGC	<50	<200	<50	220	<0.5	<0.5	<0.5	<0.5	<5.0
8/16/01	10.43	8.47	1.96	8020	Filtered+SGC	200	300B	<100	160	<0.5	<0.5	<0.5	<0.5	<5
4/8/02	10.43	6.65	3.78	8021	SGC	500	500	---	180	<0.5	<0.5	0.7	<1.5	<5
6/21/02	10.43	7.10	3.33	8021	SGC	1,100 a,b,c	3,000 h	640	180	<0.5	<0.5	0.63	1.62	<2
9/17/02	10.43	7.75	2.68	8021	SGC	220 a,b,c	360	190	130	<0.5	<0.5	<0.5	<0.5	<2
4/22/03	10.43	6.60	3.83	8021B	SGC	140 L Y	<300	120	150	<0.5	<0.5	<0.5	<0.5	<2
4/28/04	10.43	6.60	3.83	8260B	SGC	<550	1,020	<100	<100	<0.5	<1.0	<1.0	<1.0	<1.0
10/29/04	10.43	7.87	2.56	8260B	SGC	240 H L Y	460	180	170 H	<0.5	<0.5	<0.5	<0.5	<0.5
9/2/05 [1]	10.43	7.04	3.39	8260B	SGC	<50	<300	<50	170	<0.5	<0.5	<0.5	<0.5	<0.5
9/2/05 [1]	10.43	7.04	3.39	8260B	SGC	110 L Y	<300	120	150	<0.5	<0.5	<0.5	<0.5	<0.5
4/4/06 [3]	10.43	4.49	5.94	8260B	SGC	110 Y	<300	110 Y	110	<0.5	<0.5	<0.5	<0.5	<0.5
9/6/06	10.43	7.43	3.00	8260B	SGC	230 Y	<300	200 Y	120	<0.5	<0.5	<0.5	<0.5	<0.5
4/5/07	10.43	6.58	3.85	8260B	SGC	340 H Y	360 H L	230 H Y	160 Y	<0.5	<0.5	<0.5	<0.5	<0.5
10/2/07	10.43	8.14	2.29	8260B	SGC	290 Y	<300	230	160 Y	<0.5	<0.5	<0.5	<0.5	<0.5
3/19/08	10.43	6.45	3.98	8260B	SGC	620 Y	340	430	130 Y	<0.5	<0.5	<0.5	<0.5	<0.5
11/21/08 [10]	10.43	8.27	2.16	8260B	SGC	170 Y	<300	120 Y	59 Y	<0.50	<0.50	<0.50	<0.50	<0.50
4/1/09	10.43	6.30	4.13	8260B	SGC	330 Y	<300	300	100 Y	<0.50	<0.50	<0.50	<0.50	<0.50
10/29/09	10.43	7.73	2.70	8260b	SGC	280Y	<300	220Y	160Y	<0.50	<0.50	<0.50	<0.50	<0.50
MW-13														
1/18/00	11.34	9.63	1.71	8020	SGC	8,800 a	120,000	<50	<50	<0.5	0.8	<0.5	<0.5	<5.0
5/11/00	11.34	10.12	1.22	8020	SGC	11,000 a	110,000	<500	70	1.6	5.4	1.2	7.6	<5.0
8/24/00	11.34	10.22	1.12	---		---	---	---	---	---	---	---	---	---
8/25/00	11.34	---	---	8020	SGC	3,100	13,000	1,200	<50	<0.5	<0.5	<0.5	<0.5	<5.0
11/28/00	11.34	10.50	0.84	8020	SGC	2,400	36,000	<1300	<50	<0.5	<0.5	<0.5	<0.5	<5.0
11/28/00	11.34	10.50	0.84	---	Filtered+SGC	280	1,100	<50	---	---	---	---	---	---
2/26/01	11.34	9.60	1.74	8020	Filtered+SGC	100	<260	<64	<50	<0.5	<0.5	<0.5	<0.5	<5.0
5/17/01	11.34	10.10	1.24	---		---	---	---	---	---	---	---	---	---
5/18/01	11.34	---	---	8020	Filtered+SGC	<50	<200	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0

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Well ID/ Date	TOC Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
8/16/01	11.34	10.50	0.84		Filtered+SGC	<50	300B	<100	<50	<0.5	<0.5	<0.5	<0.5	<5
12/16/01	11.34	9.43	1.91	8021	SGC	1,900	18,000	<250	<50	<0.5	<0.5	<0.5	<0.5	<5
4/8/02	11.34	10.24	1.10	8021	SGC	440	900	---	<50	<0.5	<0.5	<0.5	<0.5	<5
6/20/02	11.34	10.75	0.59	8021	SGC	270 a,c	1,500 h	<50	<50	<0.5	<0.5	<0.5	<0.5	<2
9/18/02	11.34	10.60	0.74	8021	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<2
4/22/03	11.34	10.46	0.88	8021B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<2.0
4/28/04	11.34	10.22	1.12	8260B	SGC	<100	799	<100	<100	<0.5	<1.0	<1.0	<1.0	<1.0
10/28/04	11.34	9.50	1.84	8260B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
9/1/05 [1]	11.34	9.56	1.78	8260B	SGC	<50	320	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
4/5/06 [3]	11.34	7.86	3.48	8260B	SGC	180 H Y	910	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
9/6/06	11.34	10.53	0.81	8260B	SGC	150 H Y	730	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
4/4/07	11.34	9.73	1.61	8260B	SGC	58 H Y	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/3/07	11.34	10.18	1.16	8260B	SGC	120 Y	460	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
3/20/08 [8]	11.34	9.54	1.80	8260B	SGC	53 Y	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
11/21/08 [10]	11.34	10.41	0.93	8260B	SGC	120 Y	630	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
4/2/09 [12]	11.34	10.41	0.93	8260B	SGC	110 Y	610	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
10/30/09	11.34	9.65	1.69	8260B	SGC	81Y	650	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-14														
1/18/00	10.05	7.37	2.68	8020	SGC	1,700 a	22,000	<50	120	<0.5	<0.5	<0.5	<0.5	<5.0
5/11/00	10.05	6.73	3.32	8020	SGC	360 a	4,300	<100	120	<0.5	<0.5	<0.5	0.5	<5.0
8/24/00	10.05	7.30	2.75	---		---	---	---	---	---	---	---	---	---
8/25/00	10.05	---	---	8020	SGC	1,000	3,100	460	90	6.3	<0.5	<0.5	<0.5	<5.0
11/28/00	10.05	7.40	2.65	8020	SGC	380	6,400	<250	140	7.4	<0.5	<0.5	<0.5	<5.0
11/28/00	10.05	7.40	2.65	---	Filtered+SGC	<50	<200	<50	---	---	---	---	---	---
2/26/01	10.05	6.20	3.85	8020	Filtered+SGC	150	<230	<58	73	2.3	<0.5	<0.5	<0.5	<5.0
5/17/01	10.05	7.74	2.31	---		---	---	---	---	---	---	---	---	---
5/18/01	10.05	---	---	8020	Filtered+SGC	120	<200	<50	100	11	<0.5	<0.5	<0.5	<5.0
8/16/01	10.05	7.85	2.20		Filtered+SGC	<50	<200	<100	60	<0.5	<0.5	<0.5	<0.5	<5
12/16/01	10.05	6.60	3.45	8021	SGC	1,110	3,000	<50	<50	<0.5	<0.5	<0.5	<0.5	<5
4/9/02	10.05	6.58	3.47	8021	SGC	870	1,100	---	250	<0.5	<0.5	<0.5	<0.5	<5
6/20/02	10.05	7.52	2.53	8021	SGC	<50	310 h	<50	<50	<0.5	<0.5	<0.5	<0.5	<2
9/18/02	10.05	7.55	2.50	8021	SGC	<50	<300	<50	<50	1.3	<0.5	0.80	<0.5	<2
4/22/03	10.05	6.71	3.34	8021B	SGC	<50	<300	<50	61	4.2	<0.5	1.0	<0.5	12.0
4/28/04	10.05	6.81	3.24	8260B	SGC	<230	<400	<100	241	1.4	<1.0	<1.0	<1.0	<1.0
10/28/04	10.05	6.99	3.06	8260B	SGC	<50	<300	<50	56	3.5	<0.5	<0.5	<0.5	0.5
10/28/04	10.05	---	---	8260B	dup	<50	<300	<50	53	1.9	<0.5	<0.5	<0.5	<0.5
9/1/05 [1]	10.05	7.60	2.45	8260B	SGC	<50	<300	<50	79	6.7	<0.5	<0.5	<0.5	0.7

Table 1
Summary of Groundwater Analytical Data, Petroleum Hydrocarbons
Municipal Service Center
7101 Edgewater Drive, Oakland, California
Concentrations expressed in micrograms per liter (µg/l)

Well ID/ Date	TOC Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
4/5/06 (3)	10.05	5.91	4.14	8260B	SGC	50 Y	<300	<50	<50	1.7	<0.5	<0.5	<0.5	<0.5
9/6/06	10.05	7.70	2.35	8260B	SGC	140 H Y	<300	79 H Y	60	<0.5	<0.5	<0.5	<0.5	0.51
4/4/07	10.05	7.52	2.53	8260B	SGC	100 H Y	<300	50 H Y	<50	<0.5	<0.5	<0.5	<0.5	<0.5
4/4/07	10.05	---	---	8260B	Dup	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/3/07	10.05	8.45	1.60	8260B	SGC	61 Y	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
3/20/08 (8)	10.05	7.80	2.25	8260B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
11/21/08 (10)	10.05	8.45	1.60	8260B	SGC	150 Y	660	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
4/2/09 (12)	10.05	7.20	2.85	8260B	SGC	<50	<300	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
10/30/09	10.05	9.11	0.94	8260B	SGC	<50	<300	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-15														
1/18/00	12.36	10.56	1.80	8020	SGC	12,000 a	89,000	<50	110	3.8	2.1	1	4.6	<5.0
5/11/00	12.36	10.03	2.33	8020	SGC	120 a	590	<50	90	0.9	0.9	<0.5	3.3	<5.0
8/24/00	12.36	10.22	2.14	---		---	---	---	---	---	---	---	---	---
8/25/00	12.36	---	---	8020	SGC	1,900	8,600	1,000	<50	1.9	<0.5	<0.5	1.5	<5.0
11/28/00	12.36	10.30	2.06	8020	SGC	2,500	36,000	<1300	80	1.7	<0.5	<0.5	1.6	<5.0
11/28/00	12.36	10.30	2.06	---	Filtered+SGC	73	<200	<50	---	---	---	---	---	---
2/26/01	12.36	9.30	3.06	8020	Filtered+SGC	190	<240	<60	55	0.6	<0.5	<0.5	0.5	<5.0
5/17/01	12.36	10.09	2.27	---		---	---	---	---	---	---	---	---	---
5/18/01	12.36	---	---	8020	Filtered+SGC	210	<230	<57	66	1.5	<0.5	<0.5	2.1	<5.0
8/16/01	12.36	10.20	2.16		Filtered+SGC	<50	B500	<100	<50	<0.5	<0.5	<0.5	2.4	<5
12/16/01	12.36	9.80	2.56	8021	SGC	3,800	15,000	<250	<50	<0.5	<0.5	<0.5	2	<5
4/5/02	12.36	9.58	2.78	8021	SGC	1,000	1,400	---	<50	<0.5	<0.5	<0.5	2.3	<5
6/20/02	12.36	10.24	2.12	8021	SGC	670 a,c	2,700 h	95 c,i	<50	0.83	<0.5	<0.5	2.20	<2
9/18/02	12.36	9.89	2.47	8021	SGC	70 a,c	<300	<50	<50	<0.5	<0.5	1.5	1.71	<2
4/22/03	12.36	9.55	2.81	8021B	SGC	<50	<300	<50	<50	1 C	<.50	1.4	1.9	<2
4/28/04	12.36	9.68	2.68	8260B	SGC	<250	567	<100	<100	<0.5	<1.0	<1.0	<1.0	2.8
10/28/04	12.36	9.58	2.78	8260B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	2.2	<0.5
9/1/05 (1)	12.36	9.56	2.80	8260B	SGC	420 Y	<300	120 H Y	55	<0.5	<0.5	<0.5	2.0	<0.5
4/5/06 (3)	12.36	8.76	3.60	8260B	SGC	300 H Y	760	87 H Y	<50	<0.5	<0.5	<0.5	2.4	<0.5
9/6/06	12.36	9.98	2.38	8260B	SGC	220 H Y	400	80 H Y	<50	<0.5	<0.5	<0.5	2.06	<0.5
4/3/07	12.36	10.05	2.31	8260B	SGC	130 H Y	<300	63 H Y	<50	<0.5	<0.5	<0.5	2.38	<0.5
10/3/07	12.36	10.16	2.20	8260B	SGC	150 Y	550	<50	55 Y	<0.5	<0.5	<0.5	1.96	<0.5
3/20/08 (8)	12.36	10.08	2.28	8260B	SGC	88 Y	<300	<50	<50	<0.5	<0.5	<0.5	2.02	<0.5
11/19/08 (10)	12.36	10.28	2.08	8260B	SGC	110 Y	<300	<50	<50	<0.50	<0.50	<0.50	1.78	<0.50
4/2/09 (12)	12.36	9.91	2.45	8260B	SGC	85 Y	<300	<50	<50	<0.50	<0.50	<0.50	0.82	<0.50
10/30/09	12.36	10.24	2.12	8260B	SGC	110Y	<300	<50	81Y	<0.50	<0.50	<0.50	2.41	<0.50

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Well ID/ Date	TOC Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
MW-16														
1/18/00	13.57	10.22	3.43	---	SPH: 0.1 ft.	---	---	---	---	---	---	---	---	---
5/11/00	13.57	13.31	0.27	---	SPH: 0.01 ft.	---	---	---	---	---	---	---	---	---
8/24/00	13.57	8.91	4.66	---	SPH: NM	---	---	---	---	---	---	---	---	---
11/28/00	13.57	13.05	0.86	---	SPH: 0.42 ft.	---	---	---	---	---	---	---	---	---
2/26/01	13.57	13.10	0.79	---	SPH: 0.40 ft.	---	---	---	---	---	---	---	---	---
5/17/01	13.57	12.62G	---	---	SPH: NM	---	---	---	---	---	---	---	---	---
8/16/01	13.57	11.94G	---	---	SPH: NM	---	---	---	---	---	---	---	---	---
12/15/01	13.57	NM	---	---	SPH: NM	---	---	---	---	---	---	---	---	---
4/3/02	13.57	12.88	0.69	---		---	---	---	---	---	---	---	---	---
6/21/02	12.22	NM	---	---	SPH: NM	---	---	---	---	---	---	---	---	---
4/22/03	12.22				Well cap stuck									
4/28/04	12.22	12.48	-0.26	8260B	SGC	<230	1030	<260	2000	150	<1.0	46	<1.0	<1.0
10/28/04	12.22	11.97	0.25	8260B	SGC	450 L Y	<300	480	1100	18	1.7	29	1.7	<0.5
8/31/05	12.22	12.09	0.13	---	SPH: None	---	---	---	---	---	---	---	---	---
4/5/06 [3]	12.22	3.80	8.42	8260B	SGC	95 H Y	420	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
9/6/06	12.22	---	---	---	Dry	---	---	---	---	---	---	---	---	---
4/4/07 [5]	12.22	10.72	1.5	8260B	SGC	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/3/07	12.22	10.92	1.3	8260B	SGC	2,300 Y	4300	1700	480 Y	31	1.7	4.5	1.6	<0.5
3/19/08 [9]	12.22	10.72	1.5	---	---	---	---	---	---	---	---	---	---	---
11/19/08 [10]	12.22	12.33	-0.11	8260B	SGC	52,000 Y	110,000	31,000	150 Y	21	1.7	2.7	1.1	<0.50
4/2/09 [12]	12.22	11.25	0.97	8260B	SGC	---	---	---	59 Y	<0.5	<0.5	<0.5	<0.5	<0.5
10/30/09	12.22	11.37	0.85	8260B	SGC	5,600Y	12,000	4,100Y	590	59	3.5	3.1	3.03	<0.50
MW-17														
1/18/00	9.86	5.35	4.51	8020	SGC	850 a	21,000	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
5/11/00	9.86	9.85	0.01	8020	SGC	150 a	2,900	<100	<50	<0.5	<0.5	<0.5	<0.5	<5.0
8/24/00	9.86	8.59	1.27	---		---	---	---	---	---	---	---	---	---
8/25/00	9.86	---	---	8020	SGC	190	610	71	<50	0.58	<0.5	<0.5	<0.5	<5.0
11/28/00	9.86	9.25	0.61	8020	SGC	<250	2,400	<250	<50	<0.5	<0.5	<0.5	<0.5	<5.0
11/28/00	9.86	9.25	0.61	---	Filtered+SGC	<50	<200	<50	---	---	---	---	---	---
2/26/01	9.86	9.40	0.46	8020	Filtered+SGC	<50	<200	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
5/17/01	9.86	8.32	1.54	---		---	---	---	---	---	---	---	---	---
5/18/01	9.86	---	---	8020	Filtered+SGC	<50	<200	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
8/16/01	9.86	10.35	-0.49		Filtered+SGC	<50	400B	<100	<50	<0.5	<0.5	<0.5	<0.5	<5.0
12/16/01	9.86	8.01	1.85	8021	SGC	940	1,000	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
4/9/02	9.86	9.76	0.10	8021	SGC	590	880	---	60	<0.5	<0.5	1.6	<0.5	<5.0

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Municipal Service Center
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Well ID/ Date	TOC Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
6/21/02	9.86	9.79	0.07	8021	SGC	99 a,c	650 h	<50	<50	<0.5	<0.5	<0.5	<0.5	<2
9/18/02	9.86	8.25	1.61	8021	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<2
4/23/03	9.86	9.75	0.11	8021B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<2
4/28/04	9.86	8.90	0.96	8260B	SGC	<100	<400	<100	<100	<0.5	<1.0	2.4	<1.0	<1.0
10/28/04	9.86	8.32	1.54	`	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
9/1/05 (1)	9.86	8.38	1.48	8260B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
4/5/06 (3)	9.86	6.86	3.00	8260B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
9/6/06	9.86	9.85	0.01	8260B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
4/3/07	9.86	7.67	2.19	8260B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/3/07	9.86	7.97	1.89	8260B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/3/07 dupe	---	---	---	8260B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
3/20/08 (8)	9.86	6.70	3.16	8260B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
11/19/08 (10)	9.86	9.53	0.33	8260B	SGC	<50	<300	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
4/2/09 (12)	9.86	9.56	0.30	8260B	SGC	<50	<300	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
10/30/09	9.86	7.21	2.65	8260B	SGC	<50	<300	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-18														
4/24/03	---	6.49		8021B	SGC	<50	<300	<50	<50	<0.5	<0.5	2.4	<0.5	<2
4/28/04	---				Developed to monitor a utility trench, not sampled									
8/31/05	---	---	---	---		---	---	---	---	---	---	---	---	---
3/27/06	---	---	---	---		---	---	---	---	---	---	---	---	---
9/6/06	---	---	---	---		---	---	---	---	---	---	---	---	---
TBW-1														
2/23/99	---	6.25	---	---	SPH: 0.10 ft.	---	---	---	---	---	---	---	---	---
5/27/99	---	5.29	---	---	SPH: 0.01 ft.	---	---	---	---	---	---	---	---	---
8/24/99	---	6.99	---	---	SPH: 0.18 ft.	---	---	---	---	---	---	---	---	---
11/22/99	---	---	---	---	Inaccessible	---	---	---	---	---	---	---	---	---
1/18/00	---	---	---	---	Inaccessible	---	---	---	---	---	---	---	---	---
5/11/00	---	6.90	---	---	SPH: 0.10 ft.	---	---	---	---	---	---	---	---	---
8/24/00	---	7.12	---	---	SPH: NM	---	---	---	---	---	---	---	---	---
11/28/00	---	7.75	---	---	SPH: 0.36 ft.	---	---	---	---	---	---	---	---	---
2/27/01	---	9.06	---	---	SPH: 0.51 ft.	---	---	---	---	---	---	---	---	---
5/17/01	---	6.98	---	---	SPH: 0.28 ft.	---	---	---	---	---	---	---	---	---
8/16/01	---	6.62	---	---	SPH: 0.66 ft., f	1,100	700B	<100	17,000	2,100	75	730	850	<1
12/15/01	---	6.86	---	---	SPH 0.35 ft.	---	---	---	---	---	---	---	---	---
4/3/02	---	6.14	---	---	SPH: None	---	---	---	---	---	---	---	---	---

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7101 Edgewater Drive, Oakland, California
Concentrations expressed in micrograms per liter (µg/l)

Well ID/ Date	TOC Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
9/12/02	---	7.52	---	---	SPH: None	---	---	---	---	---	---	---	---	---
4/22/03	---	6.41	---	---	SPH: None	---	---	---	---	---	---	---	---	---
4/28/04	---	6.33	---	---	SPH: None	---	---	---	---	---	---	---	---	---
10/28/04	---	NM	---	---		---	---	---	---	---	---	---	---	---
8/31/05	---	6.50	---	---	Well cap smashed 6"	---	---	---	---	---	---	---	---	---
3/27/06	---	5.20	---	---	SPH: None	---	---	---	---	---	---	---	---	---
9/6/06	---	NM	---	---	SPH: None	---	---	---	---	---	---	---	---	---
4/4/07	---	8.26	---	---	---	---	---	---	---	---	---	---	---	---
10/2/07	---	NM	---	---	Abandoned	---	---	---	---	---	---	---	---	---
TBW-2														
6/21/02	---	8.28	---	---		**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
4/22/03	---	6.70	---	---	SPH globules	---	---	---	---	---	---	---	---	---
4/28/04	---	6.61	---	---	SPH: None	---	---	---	---	---	---	---	---	---
10/28/04	---	7.31	---	---	SPH: None	---	---	---	---	---	---	---	---	---
8/31/05	---	NM	---	---		---	---	---	---	---	---	---	---	---
3/27/06	---	NM[(4)]	---	---		---	---	---	---	---	---	---	---	---
9/6/06	---	NM[(4)]	---	---	SPH: None	---	---	---	---	---	---	---	---	---
4/4/07	---	NM[(4)]	---	---	---	---	---	---	---	---	---	---	---	---
10/2/07	---	NM	---	---	Abandoned	---	---	---	---	---	---	---	---	---
TBW-3														
8/19/98	---	2.67	---	8020	SGC	810,000	---	---	920	3.2	<0.5	<0.5	0.77	<10
8/19/98	---	2.67	---	8260		---	---	---	---	---	---	---	---	<5.0
2/23/98	---	1.25	---	8020		3,800	3,000	<50	110	1.6	<0.5	<0.5	<0.5	<5.0
5/27/99	---	---	---	---	DTW: NM	---	---	---	---	---	---	---	---	---
8/24/99	---	3.25	---	---	SPH globules	---	---	---	---	---	---	---	---	---
11/22/99	---	3.68	---	---		---	---	---	---	---	---	---	---	---
1/18/00	9.92	3.73	6.19	---	SPH globules	---	---	---	---	---	---	---	---	---
5/11/00	9.92	2.07	7.85	---		---	---	---	---	---	---	---	---	---
8/24/00	9.92	2.82	7.10	---	SPH: sheen	44,000	13,000	34,000	570	4.7	<0.5	<0.5	<0.5	<5.0
11/28/00	9.92	---	---	---		---	---	---	---	---	---	---	---	---
2/27/01	9.92	1.29	8.63	8020	Filtered+SGC	560	<230	<57	120	1.5	<0.5	<0.5	<0.5	<5.0
5/17/01	9.92	2.47	7.45	---		---	---	---	---	---	---	---	---	---
8/16/01	9.92	1.81	8.11		Filtered+SGC	1,500	400B	<100	180	<0.5	<0.5	<0.5	<0.5	<1
12/15/01	9.92	2.52	---	---	SPH: 0.02 ft.	---	---	---	---	---	---	---	---	---
4/3/02	9.92	1.50	---	---	SPH: None	---	---	---	---	---	---	---	---	---
6/21/02	9.92	2.37	7.55	---	SPH: None	---	---	---	---	---	---	---	---	---
9/12/02	9.92	3.48	6.44	---	SPH: None	---	---	---	---	---	---	---	---	---

Table 1
Summary of Groundwater Analytical Data, Petroleum Hydrocarbons
Municipal Service Center
7101 Edgewater Drive, Oakland, California
Concentrations expressed in micrograms per liter (µg/l)

Well ID/ Date	TOC Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
4/22/03	9.92	1.45	8.47	---	Sheen	---	---	---	---	---	---	---	---	---
4/28/04	9.92	2.26	7.66	---	SPH: None	---	---	---	---	---	---	---	---	---
10/28/04	9.92	3.42	6.50	---	Sheen	---	---	---	---	---	---	---	---	---
8/31/05	9.92	2.99	6.93	---	SPH: None	---	---	---	---	---	---	---	---	---
3/27/06	9.92	0.49	9.43	---	SPH: None	---	---	---	---	---	---	---	---	---
9/6/06	9.92	3.42	6.50	---	SPH:0.01 ft.	---	---	---	---	---	---	---	---	---
4/4/07	9.92	1.93	7.99											
10/2/07	---	NM	---	---	Abandoned	---	---	---	---	---	---	---	---	---
TBW-4														
2/27/01	---	1.35	---	8020	Filtered+SGC	410	<230	<57	250	1.9	<0.5	<0.5	<0.5	<5.0
5/17/01	---	2.52	---	---		**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
8/16/01	---	1.88	---	---	Filtered+SGC	2,600	700B	<100	390	<0.5	<0.5	<0.5	<0.5	<5
6/21/02	---	2.32	---	---		---	---	---	---	---	---	---	---	---
4/22/03	---	1.41	---	---	Sheen	---	---	---	---	---	---	---	---	---
4/28/04	---	2.21	---	---		---	---	---	---	---	---	---	---	---
10/27/04	---	3.37	---	---	Sheen	---	---	---	---	---	---	---	---	---
8/31/05	---	2.92	---	---		---	---	---	---	---	---	---	---	---
3/27/06	---	0.49	---	---	SPH: None	---	---	---	---	---	---	---	---	---
9/6/06	---	3.37	---	---	SPH:0.01 ft.	---	---	---	---	---	---	---	---	---
4/4/07	---	1.88	---	---	---	---	---	---	---	---	---	---	---	---
10/2/07	---	NM	---	---	Abandoned	---	---	---	---	---	---	---	---	---
TBW-5														
2/23/99	---	9.72	---	---	SPH: 1.45 ft.	---	---	---	---	---	---	---	---	---
5/27/99	---	7.03	---	---	SPH: 1.13 ft.	---	---	---	---	---	---	---	---	---
8/24/99	---	6.52	---	---	SPH: 1.33 ft.	---	---	---	---	---	---	---	---	---
11/22/99	---	8.31	---	---	SPH: 1.29 ft.	---	---	---	---	---	---	---	---	---
1/18/00	10.22	6.20	4.74	---	SPH: 0.90 ft.	---	---	---	---	---	---	---	---	---
5/11/00	10.22	9.41	1.05	---	SPH: 0.30 ft.	---	---	---	---	---	---	---	---	---
8/24/00	10.22	9.62	0.81	---	SPH: 0.26 ft.	---	---	---	---	---	---	---	---	---
11/28/00	10.22	10.25	0.34	---	SPH: 0.46 ft.	---	---	---	---	---	---	---	---	---
2/27/01	10.22	9.06	1.45	---	SPH: 0.36 ft.	---	---	---	---	---	---	---	---	---
5/17/01	10.22	8.75	1.47	---	SPH: 0.67 ft.	---	---	---	---	---	---	---	---	---
8/16/01	10.22	8.32	2.51	8020	SPH: 0.76 ft., f	550	400B	<100	30,000	2,900	100	1,500	5,100	<1
12/15/01	10.22	9.09	1.13	---	SPH: 0.36 ft.	---	---	---	---	---	---	---	---	---
4/3/02 [6]														
6/21/02	10.22	7.87	2.35	---	SPH: 0.03 ft.	---	---	---	---	---	---	---	---	---

Table 1
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Municipal Service Center
7101 Edgewater Drive, Oakland, California
Concentrations expressed in micrograms per liter (µg/l)

Well ID/ Date	TOC Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
9/12/01	10.22	7.26	2.97	---	SPH: 0.01 ft.	---	---	---	---	---	---	---	---	---
4/22/03	10.22	6.22	4.00	---	SPH: 0.06 ft.	---	---	---	---	---	---	---	---	---
4/28/04	10.22	6.26	3.96	---	SPH: 0.21 ft.	---	---	---	---	---	---	---	---	---
10/27/04	10.22	3.62	6.60	---	SPH: None	---	---	---	---	---	---	---	---	---
8/31/05	10.22	6.41	---	---	SPH: 0.30 ft.	---	---	---	---	---	---	---	---	---
3/27/06	10.22	NM[(2)]	---	---		---	---	---	---	---	---	---	---	---
9/6/06	10.22	NM[(2)]	---	---	---	---	---	---	---	---	---	---	---	---
4/4/07	10.22	NM[(2)]	---	---	---	---	---	---	---	---	---	---	---	---
10/2/07	---	NM	---	---	SPH: viscous residual	---	---	---	---	---	---	---	---	---
3/19/08	---	NM	---	---	SPH: None	---	---	---	---	---	---	---	---	---
11/18/08	10.22	9.32	0.9	---	---	---	---	---	---	---	---	---	---	---
4/1/09	---	NM	---	---	NA	---	---	---	---	---	---	---	---	---
10/29/09	10.22	8.50	1.72	---	---	---	---	---	---	---	---	---	---	---
TBW-6														
2/23/99	---	2.09	---	8020		160	600	<50	60	<0.5	<0.5	<0.5	<0.5	<5.0
5/27/99	---	3.31	---	---		---	---	---	---	---	---	---	---	---
8/24/99	---	7.29	---	8020	SGC	180	400	<50	130	<0.5	<0.5	<0.5	<0.5	<5.0
11/22/99	---	4.37	---	---		---	---	---	---	---	---	---	---	---
1/18/00	9.49	3.83	5.66	---		---	---	---	---	---	---	---	---	---
1/19/00	9.49	---	---	8020	SGC	55 C	<200	<50	170	0.6	<0.5	<0.5	<0.5	<5.0
5/11/00	9.49	2.51	6.98	---		---	---	---	---	---	---	---	---	---
8/24/00	9.49	4.34	5.15	---		---	---	---	---	---	---	---	---	---
8/25/00	9.49	---	---	8020	SGC	320	<250	200	<50	<0.5	<0.5	<0.5	<0.5	<5.0
11/28/00	9.49	4.74	4.75	---		---	---	---	---	---	---	---	---	---
2/27/01	9.49	2.30	7.19	8020	Filtered+SGC	<57	<230	<57	<50	<0.5	<0.5	<0.5	<0.5	<5.0
5/17/01	9.49	3.35	6.14	---		---	---	---	---	---	---	---	---	---
8/16/01	9.49	3.85	5.64		Filtered+SGC	<50	<200	<100	<50	<0.5	<0.5	<0.5	<0.5	<5
12/15/01	9.49	3.96	5.53	---		---	---	---	---	---	---	---	---	---
4/3/02	9.49	2.51	6.98	---		---	---	---	---	---	---	---	---	---
6/21/02	9.49	3.58	5.91	---		---	---	---	---	---	---	---	---	---
9/12/02	9.49	6.07	4.56	---	SPH: 1.42 ft.	---	---	---	---	---	---	---	---	---
4/23/03	9.49	2.42	7.07	---		---	---	---	---	---	---	---	---	---
4/28/04	9.49	3.21	6.28	---		---	---	---	---	---	---	---	---	---
10/27/04	9.49	4.49	5.00	---	SPH: None	---	---	---	---	---	---	---	---	---
8/31/05	9.49	4.43	---	---	SPH: 0.52 ft.	---	---	---	---	---	---	---	---	---
3/27/06	9.49	1.90	7.59	---	SPH: None	---	---	---	---	---	---	---	---	---
9/6/06	9.49	4.33	5.16	---	SPH:0.01 ft.	---	---	---	---	---	---	---	---	---
4/4/07	9.49	3.08	6.41	---	---	---	---	---	---	---	---	---	---	---

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7101 Edgewater Drive, Oakland, California
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Well ID/ Date	TOC Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
10/2/07	9.49	4.98	4.51	---	SPH: None	---	---	---	---	---	---	---	---	---
3/19/08	9.49	3.16	6.33	---	SPH: None	---	---	---	---	---	---	---	---	---
11/18/08	9.49	5.32	4.17	---	SPH: None	---	---	---	---	---	---	---	---	---
4/1/09	9.49	2.87	6.62	---	SPH: sheen	---	---	---	---	---	---	---	---	---
10/29/09	---	---	---	---	No Access	---	---	---	---	---	---	---	---	---
RW-A1														
4/22/03	---	1.81	---	---		---	---	---	---	---	---	---	---	---
4/28/04	10.09	2.52	7.57	---		---	---	---	---	---	---	---	---	---
10/27/04	10.09	3.03	7.06	---	SPH: None	---	---	---	---	---	---	---	---	---
8/31/05	10.09	3.31	6.78	---	SPH: None	---	---	---	---	---	---	---	---	---
3/27/06	10.09	0.62	9.47	---	SPH: None	---	---	---	---	---	---	---	---	---
9/6/06	10.09	3.52	6.57	---	SPH: None	---	---	---	---	---	---	---	---	---
4/3/07	10.09	2.93	7.16	---	---	---	---	---	---	---	---	---	---	---
10/2/07	10.09	NM[7]	---	---	---	---	---	---	---	---	---	---	---	---
3/19/08	10.09	3.16	6.93	---	SPH: None	---	---	---	---	---	---	---	---	---
11/20/08 [10]	10.09	4.49	5.60	8260B	SGC	56 Y	<300	<50	<50	8.8	<0.50	<0.50	<0.50	4.5
4/1/09	10.09	2.48	7.61	---	SPH: None	---	---	---	---	---	---	---	---	---
10/29/09	10.09	3.49	6.60	---	---	---	---	---	---	---	---	---	---	---
RW-A2														
4/22/03	---	1.22	---	---	Sheen	---	---	---	---	---	---	---	---	---
4/28/04	9.67	2.01	7.66	---		---	---	---	---	---	---	---	---	---
10/27/04	9.67	3.20	6.47	---	SPH: None	---	---	---	---	---	---	---	---	---
8/31/05	9.67	2.75	6.92	---	SPH: None	---	---	---	---	---	---	---	---	---
3/27/06	9.67	0.30	9.37	---	SPH: None	---	---	---	---	---	---	---	---	---
9/6/06	9.67	3.19	6.48	---	SPH: 0.01 ft.	---	---	---	---	---	---	---	---	---
4/4/07	9.67	1.70	7.97	8260B	SGC	200 Y	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/2/07	9.67	3.81	5.86	---	SPH: None	---	---	---	---	---	---	---	---	---
3/19/08	9.67	1.71	7.96	---	SPH: None	---	---	---	---	---	---	---	---	---
11/20/08 [10]	9.67	3.96	5.71	8260B	SGC	590 Y	<300	160 Y	<50	<0.50	<0.50	<0.50	<0.50	<0.50
4/1/09	9.67	1.58	8.09	---	SPH: None	---	---	---	---	---	---	---	---	---
10/29/09	9.67	2.89	6.78	---	---	---	---	---	---	---	---	---	---	---
OB-A1														
4/22/03	---	2.24	---	---	SPH: .01 ft.	---	---	---	---	---	---	---	---	---
4/28/04	---	3.01	---	---	SPH: None	---	---	---	---	---	---	---	---	---
10/27/04	---	5.11	---	---	SPH: None (strong odor)	---	---	---	---	---	---	---	---	---

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Well ID/ Date	TOC Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
8/31/05	---	4.10	---	---	SPH: None	---	---	---	---	---	---	---	---	---
3/27/06	---	1.25	---	---	SPH: None	---	---	---	---	---	---	---	---	---
9/7/06	---	4.49	---	---		---	---	---	---	---	---	---	---	---
4/4/07	---	2.72	---	---	---	---	---	---	---	---	---	---	---	---
10/2/07	---	5.34	---	---	---	---	---	---	---	---	---	---	---	---
3/19/08	---	2.73	---	---	SPH: None	---	---	---	---	---	---	---	---	---
11/18/08	---	5.31	---	---	---	---	---	---	---	---	---	---	---	---
4/1/09	---	2.61	---	---	---	---	---	---	---	---	---	---	---	---
10/29/09	---	4.68	---	---	---	---	---	---	---	---	---	---	---	---
RW-B1														
4/22/03	---	7.26	---	---	Sheen	---	---	---	---	---	---	---	---	---
4/28/04	11.22	7.20	4.02	---		---	---	---	---	---	---	---	---	---
10/27/04	11.22	7.80	3.42	---	SPH: None	---	---	---	---	---	---	---	---	---
8/31/05	11.22	7.14	4.08	---	SPH: None	---	---	---	---	---	---	---	---	---
3/27/06	11.22	6.10	5.12	---	SPH: None	---	---	---	---	---	---	---	---	---
9/6/06	11.22	7.39	3.83	---	SPH:0.01 ft.	---	---	---	---	---	---	---	---	---
4/4/07	11.22	7.06	4.16	8260B	SGC	130 L	<300	100 H	220	410	23	9.4	16	6.3
10/2/07	11.22	7.70	3.52	---	SPH: None	---	---	---	---	---	---	---	---	---
3/19/08	11.22	7.06	4.16	---	SPH: None	---	---	---	---	---	---	---	---	---
11/18/08	11.22	7.90	3.32	---	SPH: None	---	---	---	---	---	---	---	---	---
4/1/09	11.22	7.15	4.07	---	SPH: None	---	---	---	---	---	---	---	---	---
10/29/09	11.22	7.76	3.46	---	---	---	---	---	---	---	---	---	---	---
RW-B2														
4/22/03	---	7.29	---	---	Sheen, Odor	---	---	---	---	---	---	---	---	---
4/28/04	11.23	7.20	4.03	---		---	---	---	---	---	---	---	---	---
10/27/04	11.23	7.81	3.42	---	SPH: None	---	---	---	---	---	---	---	---	---
8/31/05	11.23	7.14	4.09	---	SPH: None	---	---	---	---	---	---	---	---	---
3/27/06	11.23	6.09	5.14	---	SPH: None	---	---	---	---	---	---	---	---	---
9/6/06	11.23	7.39	3.84	---	SPH: None	---	---	---	---	---	---	---	---	---
4/4/07	11.23	9.84	1.39	8260B	SGC	500 L Y	<300	500 L	11000	3400	2700	190	1100	<10
10/2/07	11.23	7.71	3.52	---	SPH: None	---	---	---	---	---	---	---	---	---
3/19/08	11.23	7.07	4.16	---	SPH: None (strong odor)	---	---	---	---	---	---	---	---	---
11/20/08 [10]	11.23	7.92	3.31	8260B	SGC	190 Y	<300	150 Y	7,900 Y	3,200	2,100	140	720	<25
4/1/09	11.23	7.16	4.07	---	SPH: None	---	---	---	---	---	---	---	---	---
10/29/09	11.23	7.78	3.45	---	---	---	---	---	---	---	---	---	---	---

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7101 Edgewater Drive, Oakland, California
Concentrations expressed in micrograms per liter (µg/l)

Well ID/ Date	TOC Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
RW-B3														
4/22/03	---	9.90	---	---	visible Product	---	---	---	---	---	---	---	---	---
4/28/04	11.14	13.20	-2.06	---	SPH: 3.09	---	---	---	---	---	---	---	---	---
10/27/04	11.14	9.33	1.81	---	SPH: None	---	---	---	---	---	---	---	---	---
8/31/05	11.14	9.60	1.54	---	SPH: 0.01	---	---	---	---	---	---	---	---	---
3/27/06	11.14	9.08	2.06	---	SPH: None	---	---	---	---	---	---	---	---	---
9/6/06	11.14	9.61	1.53	---	SPH: None	---	---	---	---	---	---	---	---	---
4/4/07	11.14	9.84	1.30	8260B	SGC	3,600 L Y	880	4,000 L	7900	4300	130	520	357	<31
10/2/07	11.14	9.56	1.58	---	SPH: None	---	---	---	---	---	---	---	---	---
3/19/08	---	NM[7]	---	---	NM	---	---	---	---	---	---	---	---	---
11/18/08	11.14	9.57	1.57	---	---	---	---	---	---	---	---	---	---	---
4/1/09	11.14	9.80	1.34	---	---	---	---	---	---	---	---	---	---	---
10/29/09	11.14	9.61	1.53	---	---	---	---	---	---	---	---	---	---	---
RW-B4														
4/22/03	---	10.55	---	---	SPH: .55 ft.	---	---	---	---	---	---	---	---	---
4/28/04	11.29	10.22	1.07	---	SPH: None	---	---	---	---	---	---	---	---	---
10/27/04	11.29	9.55	1.74	---	SPH: None	---	---	---	---	---	---	---	---	---
8/31/05	11.29	9.70	1.59	---	SPH: None	---	---	---	---	---	---	---	---	---
3/27/06	11.29	9.23	2.06	---	SPH: None	---	---	---	---	---	---	---	---	---
9/6/06	11.29	9.69	1.60	---	SPH: None	---	---	---	---	---	---	---	---	---
4/4/07	11.29	10.04	1.25	8260B	SGC	3,500 Y	360	4,000 L	16000	3200	150	460	1430	<8.3
10/2/07	11.29	9.72	1.57	---	SPH: None	---	---	---	---	---	---	---	---	---
3/19/08	11.29	9.87	1.42	---	SPH: None (odor)	---	---	---	---	---	---	---	---	---
11/20/08 [10]	11.29	9.75	1.54	8260B	SGC	3,100 Y	2,900	930	6,000 Y	3,100	100	270	679	<25
4/1/09	11.29	9.87	1.42	---	SPH: None	---	---	---	---	---	---	---	---	---
10/29/09	11.29	9.85	1.44	---	---	---	---	---	---	---	---	---	---	---
RW-C1														
4/24/03	---	8.34	---	---		---	---	---	---	---	---	---	---	---
4/28/04	10.44	8.00	2.44	---		---	---	---	---	---	---	---	---	---
10/27/04	10.44	7.59	2.85	---	SPH: None	---	---	---	---	---	---	---	---	---
8/31/05	10.44	5.81	4.63	---	SPH: None	---	---	---	---	---	---	---	---	---
3/27/06	10.44	1.94	8.50	---	SPH: None	---	---	---	---	---	---	---	---	---
9/6/06	10.44	6.71	3.73	---	SPH: 0.01 ft.	---	---	---	---	---	---	---	---	---
4/5/07	10.44	6.66	3.78	8260B	---	220 H Y	1300	63 H Y	<50	<0.50	<0.50	<0.50	<0.50	<0.50
10/2/07	10.44	8.48	1.96	---	SPH: 0.01 ft.	---	---	---	---	---	---	---	---	---
3/19/08	10.44	8.56	1.88	---	SPH: None	---	---	---	---	---	---	---	---	---

Table 1
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Municipal Service Center
7101 Edgewater Drive, Oakland, California
Concentrations expressed in micrograms per liter (µg/l)

Well ID/ Date	TOC Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
11/20/08 [10]	10.44	8.29	2.15	8260B	SGC	290 Y	1,200	76 Y	<50	6.4	<0.50	<0.50	0.51	<0.50
4/1/09	10.44	8.16	2.28	---	SPH: None	---	---	---	---	---	---	---	---	---
10/29/09	10.44	8.64	1.80	---	---	---	---	---	---	---	---	---	---	---
RW-C2														
4/24/03	---	6.22	---	---	SPH: .03 ft.	---	---	---	---	---	---	---	---	---
4/28/04	10.58	6.19	4.39	---	SPH: 0.06 ft	---	---	---	---	---	---	---	---	---
10/27/04	10.58	7.00	3.58	---	SPH: Present	---	---	---	---	---	---	---	---	---
8/31/05	10.58	6.30	4.28	---	SPH: 0.01 ft.	---	---	---	---	---	---	---	---	---
3/27/06	10.58	5.10	5.48	---	SPH: None	---	---	---	---	---	---	---	---	---
9/6/06	10.58	8.19	2.39	---	SPH: 0.12 ft.	---	---	---	---	---	---	---	---	---
4/4/07	10.58	8.28	2.30	---	---	---	---	---	---	---	---	---	---	---
10/2/07	10.58	9.75	0.83	---	SPH: 0.015 ft.	---	---	---	---	---	---	---	---	---
10/3/07	10.58	9.39	1.19	---	SPH: None	---	---	---	---	---	---	---	---	---
11/18/08	10.58	9.38	1.20	---	---	---	---	---	---	---	---	---	---	---
4/1/09	10.58	7.64	2.94	---	---	---	---	---	---	---	---	---	---	---
10/29/09	10.58	8.90	1.68	---	---	---	---	---	---	---	---	---	---	---
RW-C3														
4/24/03	---	6.36	---	---		---	---	---	---	---	---	---	---	---
4/28/04	10.71	6.25	4.46	---		---	---	---	---	---	---	---	---	---
10/27/04	10.71	7.10	3.61	---	SPH: None	---	---	---	---	---	---	---	---	---
8/31/05	10.71	6.39	4.32	---	SPH: None	---	---	---	---	---	---	---	---	---
3/27/06	10.71	5.30	5.41	---	SPH: None	---	---	---	---	---	---	---	---	---
9/6/06	10.71	8.10	2.61	---	SPH: 0.01 ft.	---	---	---	---	---	---	---	---	---
4/5/07	10.71	7.97	2.74	8260B	SPH: None	540 H L Y	360 H L	430 H L Y	520	13	14	32	54	<0.5
10/2/07	10.71	8.59	2.12	---	SPH: 0.01 ft.	---	---	---	---	---	---	---	---	---
3/19/08	10.71	8.38	2.33	---	SPH: None	---	---	---	---	---	---	---	---	---
11/20/08 [10]	10.71	8.61	2.10	8260B	SGC	720 Y [11]	1600 [11]	170 Y [11]	<50	1.1	<0.50	0.67	<0.50	<0.50
4/1/09	10.71	6.98	3.73	---	SPH: None	---	---	---	---	---	---	---	---	---
10/29/09	10.71	8.56	2.15	---	---	---	---	---	---	---	---	---	---	---
RW-C4														
4/22/03	---	7.15	---	---	Strong odor	---	---	---	---	---	---	---	---	---
4/28/04	11.32	6.95	4.37	---	SPH: 0.01 ft	---	---	---	---	---	---	---	---	---
10/27/04	11.32	7.45	3.87	---	SPH: None	---	---	---	---	---	---	---	---	---
8/31/05	11.32	6.71	4.61	---	SPH: None	---	---	---	---	---	---	---	---	---
3/27/06	11.32	6.47	4.85	---	SPH: None	---	---	---	---	---	---	---	---	---
9/6/06	11.32	8.16	3.16	---	SPH: 0.01 ft.	---	---	---	---	---	---	---	---	---

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Concentrations expressed in micrograms per liter (µg/l)

Well ID/ Date	TOC Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
4/4/07	11.32	8.50	2.82	---	---	---	---	---	---	---	---	---	---	---
10/2/07	11.32	8.62	2.70	---	SPH: None	---	---	---	---	---	---	---	---	---
3/19/08	11.32	9.13	2.19	---	SPH: None	---	---	---	---	---	---	---	---	---
11/18/08	11.32	8.99	2.33	---	---	---	---	---	---	---	---	---	---	---
4/1/09	11.32	8.52	2.80	---	---	---	---	---	---	---	---	---	---	---
10/29/09	11.32	8.53	2.79	---	---	---	---	---	---	---	---	---	---	---
RW-C5														
4/22/03	---	6.46	---	---		---	---	---	---	---	---	---	---	---
4/28/04	10.79	6.39	4.40	---		---	---	---	---	---	---	---	---	---
10/27/04	10.79	7.21	3.58	---	SPH: Present	---	---	---	---	---	---	---	---	---
8/31/05	10.79	6.51	4.28	---	SPH: None	---	---	---	---	---	---	---	---	---
3/27/06	10.79	5.33	5.46	---	SPH: None	---	---	---	---	---	---	---	---	---
9/6/06	10.79	8.03	2.76	---	SPH: 0.01 ft.	---	---	---	---	---	---	---	---	---
4/4/07	10.79	8.27	2.52	8260B	SGC	3,800 Y	310	4,100 L	12000	3400	170	520	1300	<25
10/2/07	10.79	8.95	1.84	---	SPH: None	---	---	---	---	---	---	---	---	---
3/19/08	10.79	8.82	1.97	---	SPH: 0.01 ft.	---	---	---	---	---	---	---	---	---
11/20/08 [10]	10.79	8.92	1.87	8260B	SPH: None/ SGC	3,700 Y	430	3,300	5,800 Y	2,900	91	120	437	<20
11/20/08 dup	---	---	---	8260B	SGC: Oder	3,400 Y	<300	3,100	3,900 Y	2,700	78	91	358	<25
4/1/09	10.79	7.88	2.91	---	SPH: None	---	---	---	---	---	---	---	---	---
10/29/09	---	---	---	---	No Access	---	---	---	---	---	---	---	---	---
RW-C6														
4/22/03	---	6.05	---	---	SPH: 0.07 ft.	---	---	---	---	---	---	---	---	---
4/28/04	10.31	6.30	4.01	---	SPH: 0.05 ft.	---	---	---	---	---	---	---	---	---
10/27/04	10.31	6.85	---	---	SPH: 0.15 ft.	---	---	---	---	---	---	---	---	---
8/31/05	10.31	6.81	---	---	SPH: 0.93 ft.	---	---	---	---	---	---	---	---	---
3/27/06	10.31	5.66	---	---	SPH: 0.96 ft.	---	---	---	---	---	---	---	---	---
9/6/06	10.31	7.96	2.35	---	SPH: 0.18ft.	---	---	---	---	---	---	---	---	---
4/4/07	10.31	NM[4]	---	---	---	---	---	---	---	---	---	---	---	---
10/2/07	10.31	8.45	1.86	---	SPH: residual	---	---	---	---	---	---	---	---	---
3/19/08	10.31	8.32	1.99	---	SPH: None	---	---	---	---	---	---	---	---	---
11/18/08	10.31	8.42	1.89	---	SPH: Oder	---	---	---	---	---	---	---	---	---
4/1/09	10.31	7.36	2.95	---	SPH: None	---	---	---	---	---	---	---	---	---
10/29/09	---	---	---	---	No Access	---	---	---	---	---	---	---	---	---
RW-C7														
4/22/03	---	6.51	---	---	visible Product	---	---	---	---	---	---	---	---	---
4/28/04	10.12	6.60	3.52	---	SPH: 0.02 ft.	---	---	---	---	---	---	---	---	---

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Well ID/ Date	TOC Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
10/27/04	10.12	NM	---	---	---	---	---	---	---	---	---	---	---	---
8/31/05	10.12	NM	---	---	---	---	---	---	---	---	---	---	---	---
3/27/06	10.12	NM[4]	---	---	---	---	---	---	---	---	---	---	---	---
9/6/06	10.12	8.34	1.78	---	SPH: 0.01 ft.	---	---	---	---	---	---	---	---	---
4/4/07	10.12	NM[4]	---	---	---	---	---	---	---	---	---	---	---	---
10/2/07	10.12	9.01	1.11	---	SPH: None	---	---	---	---	---	---	---	---	---
3/19/08	10.12	8.85	1.27	---	SPH: None	---	---	---	---	---	---	---	---	---
11/18/08	10.12	8.97	1.15	---	---	---	---	---	---	---	---	---	---	---
4/1/09	10.12	7.89	2.23	---	SPH: 0.01 ft.	---	---	---	---	---	---	---	---	---
10/29/09	---	9.23	---	---	---	---	---	---	---	---	---	---	---	---
OB-C1														
4/22/03	---	6.26	---	---		---	---	---	---	---	---	---	---	---
4/28/04	10.39	7.39	3.00	---	SPH: 1.27 ft.	---	---	---	---	---	---	---	---	---
10/27/04	10.39	8.06	2.33	---	SPH: 1.08 ft.	---	---	---	---	---	---	---	---	---
8/31/05	10.39	7.84	---	---	SPH: 1.55 ft.	---	---	---	---	---	---	---	---	---
3/27/06	10.39	6.15	---	---	SPH: 1.05 ft.	---	---	---	---	---	---	---	---	---
9/6/06	---	NM[4]	---	---	Buried	---	---	---	---	---	---	---	---	---
4/4/07	10.39	7.78	2.61	---	---	---	---	---	---	---	---	---	---	---
10/2/07	10.39	8.67	1.72	---	SPH: 0.02 ft.	---	---	---	---	---	---	---	---	---
3/19/08	10.39	8.49	1.90	---	SPH: 0.29 ft.	---	---	---	---	---	---	---	---	---
11/18/08	10.39	8.57	1.82	---	SPH: 0.03 ft.	---	---	---	---	---	---	---	---	---
4/1/09	10.39	7.96	2.43	---	SPH: 0.64 ft.	---	---	---	---	---	---	---	---	---
10/29/09	---	---	---	---	No Access	---	---	---	---	---	---	---	---	---
RW-D1														
4/22/03	---	6.97	---	---		---	---	---	---	---	---	---	---	---
4/28/04	10.18	5.62	4.56	---		---	---	---	---	---	---	---	---	---
10/27/04	10.18	6.67	3.51	---	SPH: Present	---	---	---	---	---	---	---	---	---
8/31/05	10.18	5.75	---	---	SPH: 0.02 ft.	---	---	---	---	---	---	---	---	---
3/27/06	10.18	NM[2]	---	---	---	---	---	---	---	---	---	---	---	---
9/6/06	10.18	NM[2]	---	---	No Access	---	---	---	---	---	---	---	---	---
4/4/07	10.18	NM[2]	---	---	---	---	---	---	---	---	---	---	---	---
10/2/07	10.18	NM[2]	---	---	---	---	---	---	---	---	---	---	---	---
3/19/08	---	NM[2]	---	---	---	---	---	---	---	---	---	---	---	---
11/19/08	10.18	11.29	-1.11	6260B	SGC	11,000 Y	4,900	9,400	5,100 Y	270	85	150	710	<2.0
4/1/09	---	NM[2]	---	---	---	---	---	---	---	---	---	---	---	---
10/29/09	---	NM[2]	---	---	SPH: None	---	---	---	---	---	---	---	---	---

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RW-D2														
4/22/03	---	7.15	---	---	SPH 1.25 ft.	---	---	---	---	---	---	---	---	---
4/28/04	10.33	7.45	2.88	---	SPH: 0.1 ft.	---	---	---	---	---	---	---	---	---
10/27/04	10.33	6.41	3.92	---	SPH: Present	---	---	---	---	---	---	---	---	---
8/31/05	10.33	8.44	---	---	SPH: 3.12 ft.	---	---	---	---	---	---	---	---	---
3/27/06	10.33	NM(2)	---	---	---	---	---	---	---	---	---	---	---	---
9/6/06	10.33	NM(2)	---	---	No Access	---	---	---	---	---	---	---	---	---
4/4/07	10.33	NM(2)	---	---	---	---	---	---	---	---	---	---	---	---
10/2/07	10.33	NM(2)	---	---	---	---	---	---	---	---	---	---	---	---
3/19/08	---	NM(2)	---	---	---	---	---	---	---	---	---	---	---	---
11/18/08	10.33	10.95	-0.62	---	---	---	---	---	---	---	---	---	---	---
4/1/09	---	NM(2)	---	---	---	---	---	---	---	---	---	---	---	---
10/29/09	---	NM(2)	---	---	SPH: None	---	---	---	---	---	---	---	---	---
RW-D3														
4/22/03	---	6.89	---	---	SPH: 1.58 ft.	---	---	---	---	---	---	---	---	---
4/28/04	10.07	8.18	1.89	---	SPH: 3.25 ft.	---	---	---	---	---	---	---	---	---
10/27/04	10.07	6.37	3.70	---	SPH: Present	---	---	---	---	---	---	---	---	---
8/31/05	10.07	7.72	---	---	SPH: 2.46	---	---	---	---	---	---	---	---	---
3/27/06	10.07	NM(2)	---	---	---	---	---	---	---	---	---	---	---	---
9/6/06	10.07	NM(2)	---	---	No Access	---	---	---	---	---	---	---	---	---
4/4/07	10.07	NM(2)	---	---	---	---	---	---	---	---	---	---	---	---
10/2/07	10.07	NM(2)	---	---	---	---	---	---	---	---	---	---	---	---
3/19/08	---	NM(2)	---	---	---	---	---	---	---	---	---	---	---	---
11/18/08	10.07	10.10	-0.03	---	---	---	---	---	---	---	---	---	---	---
4/1/09	---	NM(2)	---	---	---	---	---	---	---	---	---	---	---	---
10/29/09	---	NM(2)	---	---	SPH: None	---	---	---	---	---	---	---	---	---
RW-D4														
4/22/03	---	8.11	---	---	SPH: 1.98 ft.	---	---	---	---	---	---	---	---	---
4/28/04	10.22	7.99	2.23	---	SPH: 2.09 ft.	---	---	---	---	---	---	---	---	---
10/27/04	10.22	6.49	3.73	---	SPH: Present	---	---	---	---	---	---	---	---	---
8/31/05	10.22	8.09	---	---	SPH: 2.12 ft.	---	---	---	---	---	---	---	---	---
3/27/06	10.22	NM(2)	---	---	---	---	---	---	---	---	---	---	---	---
9/6/06	10.22	NM(2)	---	---	No Access	---	---	---	---	---	---	---	---	---
4/4/07	10.22	NM(2)	---	---	---	---	---	---	---	---	---	---	---	---

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Well ID/ Date	TOC Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
10/2/07	10.22	NM(2)	---	---	---	---	---	---	---	---	---	---	---	---
3/19/08	---	NM(2)	---	---	---	---	---	---	---	---	---	---	---	---
11/19/08 (10)	10.22	9.10	1.12	8260B	SGC	55,000	9,700	46,000	7,600 Y	210	17	270	280	<1.7
4/1/09	---	NM(2)	---	---	---	---	---	---	---	---	---	---	---	---
10/29/09	---	NM(2)	---	---	SPH: None	---	---	---	---	---	---	---	---	---
RW-D5														
4/22/03	---	6.04	---	---	SPH: 0.07 ft.	---	---	---	---	---	---	---	---	---
4/28/04	9.99	5.96	4.03	---	SPH: None	---	---	---	---	---	---	---	---	---
10/27/04	9.99	6.48	3.51	---	SPH: Present	---	---	---	---	---	---	---	---	---
8/31/05	9.99	7.02*	---	---	SPH: 1.01 ft.	---	---	---	---	---	---	---	---	---
3/27/06	9.99	NM(2)	---	---	---	---	---	---	---	---	---	---	---	---
9/6/06	9.99	NM(2)	---	---	No Access	---	---	---	---	---	---	---	---	---
4/4/07	9.99	NM(2)	---	---	---	---	---	---	---	---	---	---	---	---
10/2/07	9.99	NM(2)	---	---	---	---	---	---	---	---	---	---	---	---
3/19/08	---	NM(2)	---	---	---	---	---	---	---	---	---	---	---	---
11/18/08	9.99	9.45	0.54	---	---	---	---	---	---	---	---	---	---	---
4/1/09	---	NM(2)	---	---	---	---	---	---	---	---	---	---	---	---
10/29/09	---	NM(2)	---	---	SPH: None	---	---	---	---	---	---	---	---	---
RW-D6														
11/18/08	---	11.10	---	---	---	---	---	---	---	---	---	---	---	---
4/1/09	---	NM(2)	---	---	---	---	---	---	---	---	---	---	---	---
10/29/09	---	NM(2)	---	---	SPH: None	---	---	---	---	---	---	---	---	---
RW-D7														
11/19/08 (10)	---	9.62	---	8260B	SGC	54,000 Y	59,000	43,000	3,400	100	54	13	830	<3.1
4/1/09	---	NM(2)	---	---	---	---	---	---	---	---	---	---	---	---
10/29/09	---	NM(2)	---	---	SPH: None	---	---	---	---	---	---	---	---	---
RW-D8														
11/18/08	---	8.48	---	---	---	---	---	---	---	---	---	---	---	---
4/1/09	---	NM(2)	---	---	---	---	---	---	---	---	---	---	---	---
10/29/09	---	NM(2)	---	---	SPH: None	---	---	---	---	---	---	---	---	---
RW-D9														
11/18/08	---	9.70	---	---	---	---	---	---	---	---	---	---	---	---

Table 1
Summary of Groundwater Analytical Data, Petroleum Hydrocarbons
Municipal Service Center
7101 Edgewater Drive, Oakland, California
Concentrations expressed in micrograms per liter (µg/l)

Well ID/ Date	TOC Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
4/1/09	---	NM[(2)]	---	---	---	---	---	---	---	---	---	---	---	---
10/29/09	---	NM[(2)]	---	---	SPH: None	---	---	---	---	---	---	---	---	---
RW-D10														
11/18/08	---	8.84	---	8260B	SGC	1,000 Y	650	760	640 Y	2.7	0.69	5.6	17.71	< 0.50
4/1/09	---	NM[(2)]	---	---	---	---	---	---	---	---	---	---	---	---
10/29/09	---	NM[(2)]	---	---	SPH: None	---	---	---	---	---	---	---	---	---
RW-D11														
11/18/08	---	8.66	---	---	---	---	---	---	---	---	---	---	---	---
4/1/09	---	NM[(2)]	---	---	---	---	---	---	---	---	---	---	---	---
10/29/09	---	NM[(2)]	---	---	SPH: None	---	---	---	---	---	---	---	---	---
OB-D1														
4/22/03	---	5.41	---	---	Strong Odor	---	---	---	---	---	---	---	---	---
4/28/04	9.46	5.31	4.15	---	Strong Odor	---	---	---	---	---	---	---	---	---
10/27/04	9.46	5.89	3.57	---	---	---	---	---	---	---	---	---	---	---
8/31/05	9.46	5.42	---	---	SPH: None	---	---	---	---	---	---	---	---	---
3/27/06	9.46	3.09	6.37	---	SPH: None	---	---	---	---	---	---	---	---	---
9/6/06	9.46	8.31	1.15	---	SPH: 0.01 ft.	---	---	---	---	---	---	---	---	---
4/4/07	9.46	7.77	1.69	---	---	---	---	---	---	---	---	---	---	---
10/2/07	9.46	8.66	0.80	---	SPH: None	---	---	---	---	---	---	---	---	---
3/19/08	9.46	8.90	0.56	---	SPH: None	---	---	---	---	---	---	---	---	---
11/18/08	9.46	8.41	1.05	---	---	---	---	---	---	---	---	---	---	---
4/1/09	9.46	8.50	0.96	---	SPH: sheen	---	---	---	---	---	---	---	---	---
10/29/09	9.46	7.65	1.81	---	SPH: None	---	---	---	---	---	---	---	---	---
OB-D2														
4/22/03	---	5.14	---	---		---	---	---	---	---	---	---	---	---
4/28/04	9.95	5.25	4.70	---		---	---	---	---	---	---	---	---	---
10/27/04	9.95	6.42	3.53	---	SPH: None	---	---	---	---	---	---	---	---	---
8/31/05	9.95	5.71	---	---	SPH: 0.01 ft.	---	---	---	---	---	---	---	---	---
3/27/06	9.95	2.32	7.63	---	SPH: None	---	---	---	---	---	---	---	---	---
9/6/06	9.95	8.39	1.56	---	SPH: 0.01 ft.	---	---	---	---	---	---	---	---	---
4/4/07	9.95	7.94	2.01	---	---	---	---	---	---	---	---	---	---	---
10/2/07	9.95	9.07	0.88	---	SPH: None	---	---	---	---	---	---	---	---	---
3/19/08	9.95	8.64	1.31	---	SPH: None	---	---	---	---	---	---	---	---	---
11/18/08	9.95	8.94	1.01	---	---	---	---	---	---	---	---	---	---	---
4/1/09	9.95	7.00	2.95	---	SPH: None	---	---	---	---	---	---	---	---	---

Table 1
Summary of Groundwater Analytical Data, Petroleum Hydrocarbons
Municipal Service Center
7101 Edgewater Drive, Oakland, California
Concentrations expressed in micrograms per liter (µg/l)

Well ID/ Date	TOC Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
10/29/09	9.95	8.24	1.71	---	SPH: None	---	---	---	---	---	---	---	---	---
RW-1														
4/22/03	---	6.43	---	---		---	---	---	---	---	---	---	---	---
4/28/04	---	5.73	---	---		---	---	---	---	---	---	---	---	---
10/27/04	---	6.34	---	---	SPH: None	---	---	---	---	---	---	---	---	---
8/31/05	---	5.83	---	---	SPH: None	---	---	---	---	---	---	---	---	---
3/27/06	---	NM[(2)]	---	---	---	---	---	---	---	---	---	---	---	---
9/6/06	---	NM[(2)]	---	---	No Access	---	---	---	---	---	---	---	---	---
4/4/07	---	NM[(2)]	---	---	---	---	---	---	---	---	---	---	---	---
10/2/07	---	NM[(2)]	---	---	---	---	---	---	---	---	---	---	---	---
3/19/08	---	NM[(2)]	---	---	---	---	---	---	---	---	---	---	---	---
11/18/08	---	8.81	---	---	---	---	---	---	---	---	---	---	---	---
4/1/09	---	NM[(2)]	---	---	---	---	---	---	---	---	---	---	---	---
10/29/09	---	8.17	---	---	---	---	---	---	---	---	---	---	---	---
Field Blank														
10/28/04	---	---	---	8260B		---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<0.5
9/1/05	---	---	---	8260B		<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
9/2/05	---	---	---	8260B		---	---	---	<50	---	---	---	---	---
4/4/06	---	---	---	8260B		<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
9/7/06	---	---	---	8260B		<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
4/3/07	---	---	---	8260B		<50	<300	<50	<50	<0.5	0.54	<0.5	<0.5	<0.5
10/2/07	---	---	---	8260B		<50	<300	<50	<50	<0.5	0.5	<0.5	<0.5	<0.5
3/20/08	---	---	---	8260B	SGC	<50	<300	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
11/19/08	---	---	---	8260B	SGC	<50	<300	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
11/20/08	---	---	---	8260B	SGC	<50	<300	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
11/21/08	---	---	---	8260B	SGC	<50	<300	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
4/1/09	---	---	---	8260B	SGC	<50	<300	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
10/30/09	---	---	---	8260B	SGC	<50	<300	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
Trip Blank														
8/19/98	---	---	---	8020		---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0
11/22/99	---	---	---	8020		---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0
11/28/00	---	---	---	8020		---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0
2/27/01	---	---	---	8020	Filtered+SGC	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0
5/17/01	---	---	---	8020	SGC	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0
12/16/01	---	---	---	8021		---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5.0
4/5/02	---	---	---	8021	Trip Blank 1	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5

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Well ID/ Date	TOC Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)
4/5/02	---	---	---	8021	Trip Blank 2	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5
6/21/02	---	---	---	8021	Trip Blank 1	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<5
9/12/02	---	---	---	8021	Trip Blank 1	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<2
9/13/02	---	---	---	8021	Trip Blank 2	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<2
4/23/03	---	---	---	8021B	Trip Blank 1	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<2
4/28/04	---	---	---	8260B	Trip Blank 1	---	---	---	<100	<0.5	<1.0	<1.0	<1.0	<1.0
10/29/04	---	---	---	8260B	Trip Blank 2	---	---	---	<50	---	---	---	---	---
4/3/07	---	---	---	8260B	Trip Blank 1	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5
10/2/07	---	---	---	8260B	Trip Blank 1	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:

Groundwater elevations corrected for the presence of free product according to the calculation: GW Elevation = TOC - DTW + (0.8 x SPH thickness)

(1) = Depth to groundwater measured on August 31, 2005.
(2) = Converted to an extraction well, and access port is too small for the oil/water probe.
(3) = Depth to groundwater measured on March 27, 2006.
(4) = Could not locate well.
(5) = Well dewatered, field staff unable to collect all samples.
(6) = Well has active remediation unit/recovery.
(7) = Well was covered by car or heavy equipment.
(8) = Depth to groundwater measured on March 19, 2008.
(9) = Well dewatered, field staff unable to collect samples.
(10) = Depth to groundwater measured on 11/18/2008.
(11) = Low surrogate recovery was observed for hexacosane. The sample was re extracted, but was outside the EPA recommended hold time.
(12) = Depth to groundwater measured on 4/1/2009

--- = Not measured/analyzed

BTEX = Benzene, toluene, ethylbenzene, and xylenes by EPA Method 8020 or 8240/8260
DTW = Depth to water
Dup = Duplicate sample
Filtered = Groundwater samples were filtered through a 0.45-micron glass membrane filter.
ID = Identification
MTBE = Methyl tertiary-butyl ether by EPA Method 8020 or 8260. Confirmation 8260 results shown in parentheses.
NM = Not measured. Well obstructed or could not be located.
SPH = Separate-phase hydrocarbons; measured thickness
SGC = Silica gel cleanup based on Method 3630B prior to TPH-d, TPH-k, or TPH-mo analysis, following California Regional Water Quality Control Board February 16, 1999 memorandum
TBW = Tank backfill well
TOC = Top of casing

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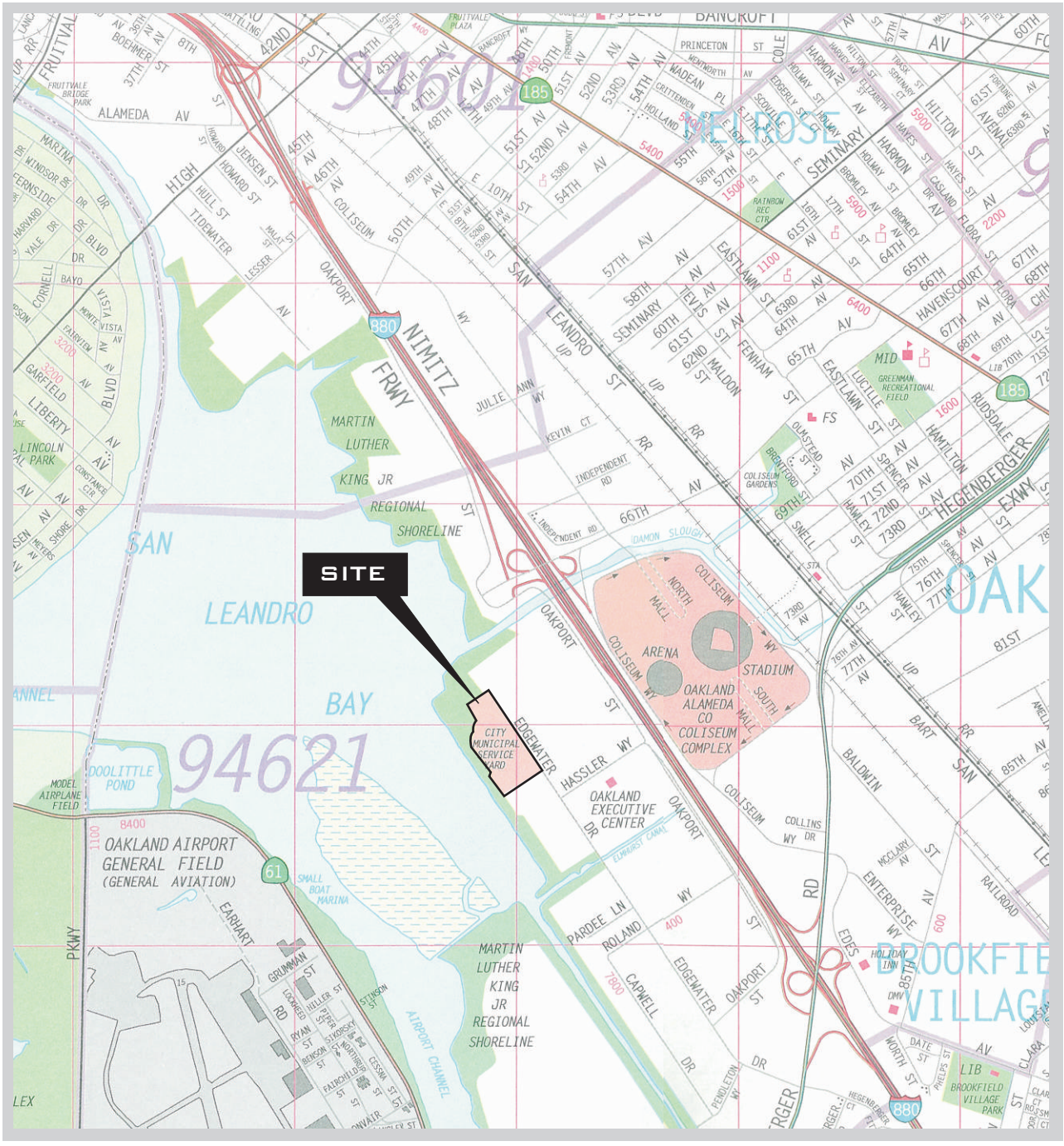
Well ID/ Date	TOC Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	BTEX Method	Notes	TPH-d (µg/l)	TPH-mo (µg/l)	TPH-k (µg/l)	TPH-g (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)

TPH-d = Total petroleum hydrocarbons quantitated as diesel - analyzed by EPA Method 8015B
TPH-g = Total petroleum hydrocarbons quantitated as gasoline - analyzed by EPA Method 8015B
TPH-k = Total petroleum hydrocarbons quantitated as kerosene - analyzed by EPA Method 8015B
TPH-mo = Total petroleum hydrocarbons quantitated as motor oil - analyzed by EPA Method 8015B

a = The analytical laboratory reviewed the data and noted that petroleum hydrocarbons quantified in the diesel range actually resemble heavier fuels at the front end of the motor oil pattern.
b= The analytical laboratory reviewed the data and noted that petroleum hydrocarbons quantified in the diesel range actually resemble lighter fuels; the response looks like lower carbon chain compounds close to the gasoline range.
c= The analytical laboratory reviewed the data and noted that the sample exhibits a fuel pattern that does not resemble the standard.
e= Results are estimated due to concentrations exceeding the calibration range
f= Filtration with 0.45-micron glass membrane filter and silica gel treatment
h= The analytical laboratory reviewed the data and noted that petroleum hydrocarbons quantified in the motor oil range are actually from the front end of the kerosene oil pattern.
i= The analytical laboratory reviewed the data and noted that petroleum hydrocarbons quantified in the motor oil range are actually from the back end of the kerosene oil pattern.
j= The analytical laboratory reviewed the data and noted that the sample exhibited an unknown peak or peaks.
B= Results flagged with "B" indicate motor oil was detected in the method blank.
C= Footnote assigned by Ninyo and Moore, not defined in their historical tables.
E= Footnote assigned by Ninyo and Moore, not defined in their historical tables.
H= Heavier hydrocarbons contributed to the quantitation.
J= Value qualified as "estimated"
L= Lighter hydrocarbons contributed to the quantitation.
Y= Sample exhibits chromatographic pattern that does not resemble standard.
Z= Sample exhibits unknown single peak or peaks



0 2400 4800

APPROXIMATE SCALE IN FEET

SOURCE: 2002 THOMAS GUIDE FOR ALAMEDA AND CONTRA COSTA COUNTIES

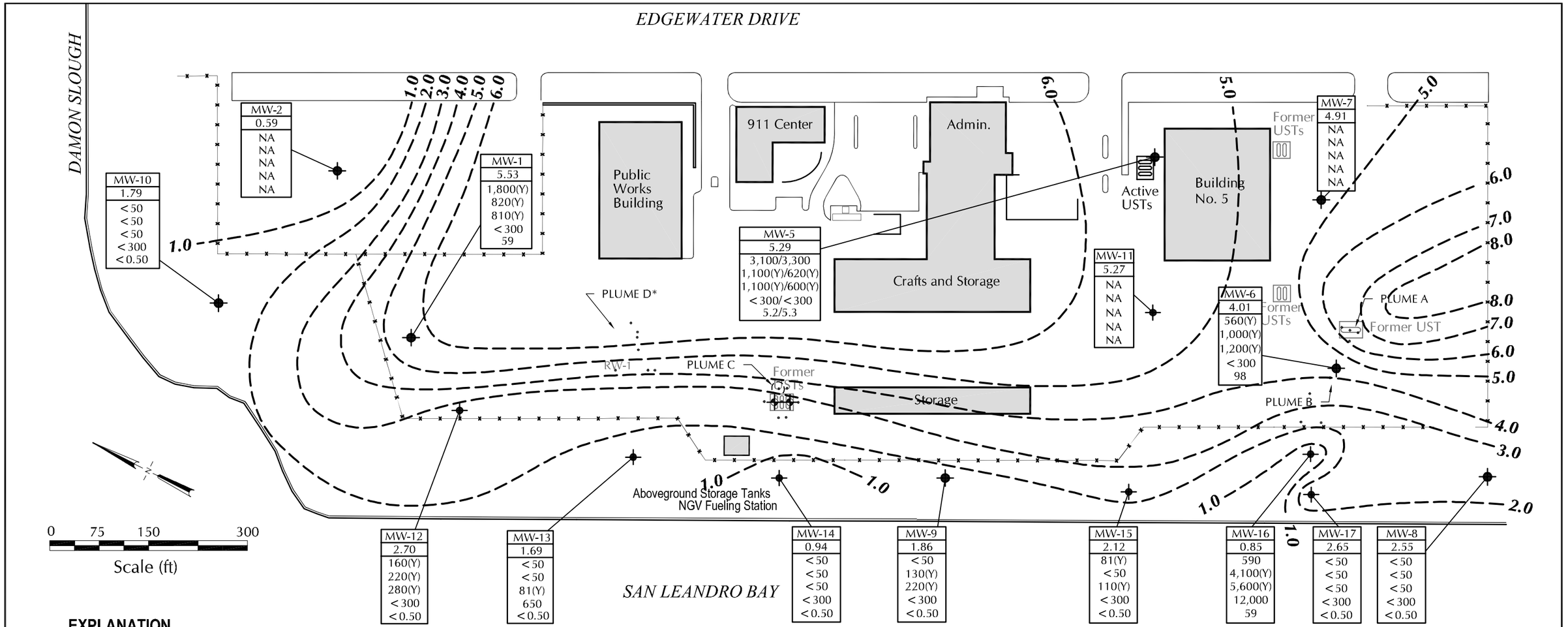
DESIGN\09225\11\000\09225 SiteVicinity.CDR

Site Vicinity Map

Municipal Service Center, 7101 Edgewater Drive, Oakland, California

LFR

Figure 1



EXPLANATION

MW-1 — Monitoring well location

• — Remediation well location

Y — Sample exhibits chromatographic pattern that does not resemble standard

NA — Not sampled in this event

FT / FT — Foot per foot

Fence

3.0 — Groundwater elevation contour; dashed where inferred

* Wells TBW-5, RW-D1 through RW-D11 and RW-1 (PLUME D), were converted to extraction wells and could not be accessed for DEPTH-TO -WATER and DEPTH-TO-SPH measurements.

M2-2
0.59
TPHg/TPHg TPHk/TPHk TPHd/TPHd TPHmo/TPHmo B/B

- M2-2 — Monitoring Well ID
- 0.59 — Groundwater elevation, feet above mean sea level (msl)
- TPHg/TPHg, TPHk/TPHk, TPHd/TPHd, TPHmo/TPHmo, B/B — TPHg, TPHk TPHd, TPHmo, and benzene concentrations in Micrograms per Liter (ug/L)
- Duplicate sample
- Sample

TPHg Total Petroleum Hydrocarbons as Gasoline
TPHk Total Petroleum Hydrocarbons as Kerosene
TPHd Total Petroleum Hydrocarbons as Diesel
TPHmo Total Petroleum Hydrocarbons as Motor Oil
B Benzene
UST = Underground Storage Tank

Source: CAMBRIA

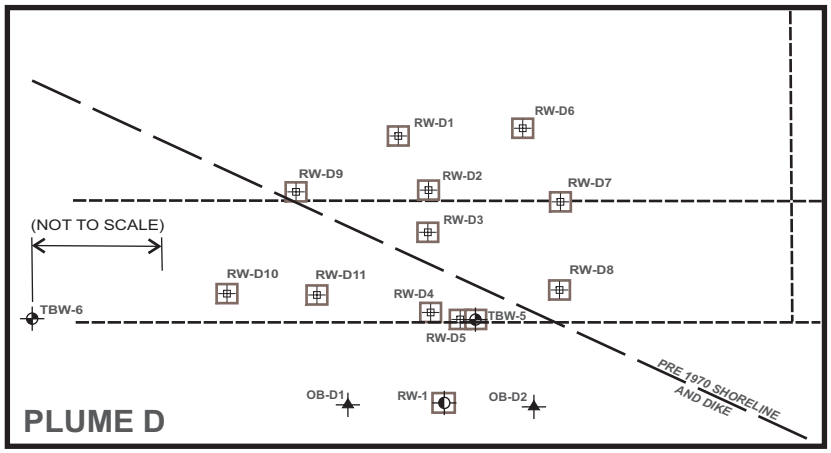
Groundwater Elevation Contour Map and Hydrocarbon Concentrations in Shallow Groundwater, October 2009

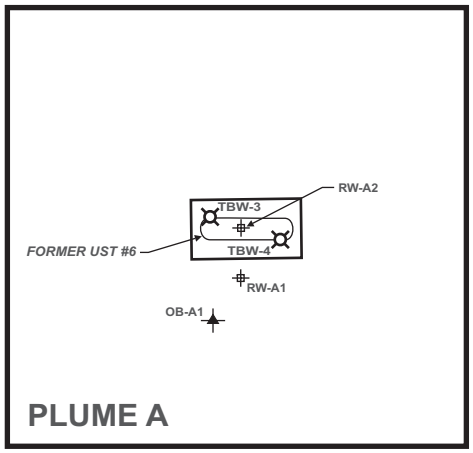
Municipal Service Center, Oakland, California

Figure 2

LFR an ARCADIS company

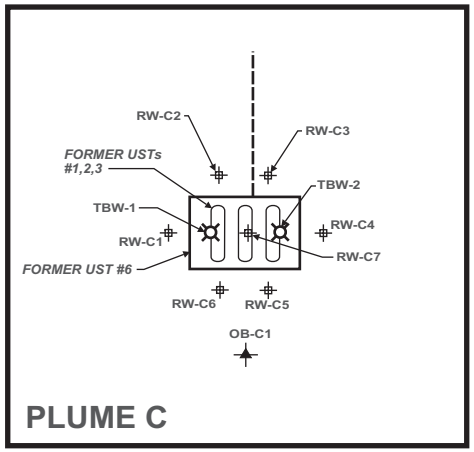
I:\Design\001\09225\11\000\dwg\GW Elev October 2009.dwg Mar 15,2010-10:42am

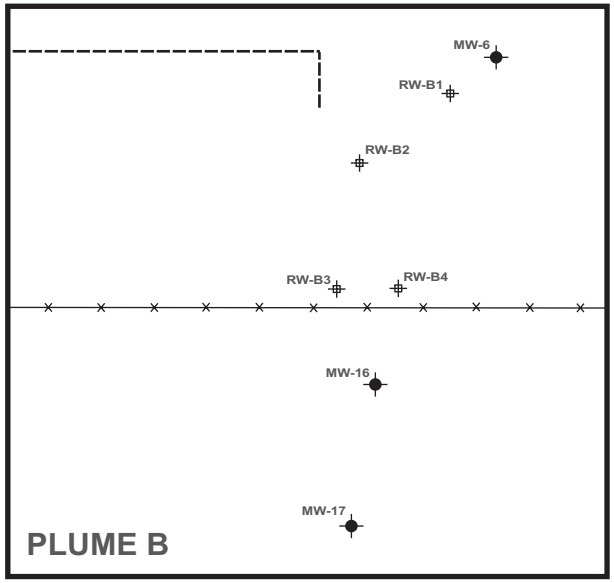




EXPLANATION

- RW-D1 — EXTRACTION WELL LOCATION
- RW-A1 — TEST/OBSERVATION WELL LOCATION
- OB-A1 — OBSERVATION WELL LOCATION
- MW-A6 — MONITORING WELL LOCATION
- RW-1 — REMEDIATION WELL LOCATION
- TBW-1 — TANK BACKFILL WELL
- ABANDONED WELL
- FENCE
- FORMER UNDERGROUND PIPING





NOTES:

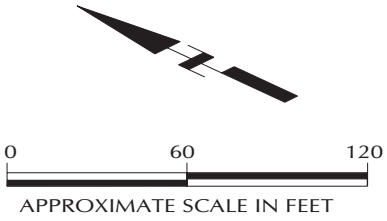
SPH WAS NOT DETECTED IN ANY WELLS WHERE DEPTH-TO-SPH MEASUREMENTS WERE COLLECTED IN OCTOBER 2009.

LFR WAS UNABLE TO ACCESS TBW-6 IN OCTOBER 2009. THE WELL WAS CHECKED FOR THE PRESENCE OF SPH BY OTG ENVIROENGINEERING SOLUTIONS, INC. ON DECEMBER 16, 2009.

RW-C5, RWC6, AND OB-C1 WERE NOT ACCESSIBLE IN OCTOBER 2009 DUE TO DAMAGED WELL BOXES.

WELLS RW-D1 THROUGH RW-D11 (PLUME D), WERE CONVERTED TO EXTRACTION WELLS AND COULD NOT BE ACCESSED FOR DEPTH-TO-WATER AND DEPTH-TO-SPH MEASUREMENTS.

SPH = SEPARATE PHASE HYDROCARBONS



NOTE: ALL DIMENSIONS, DIRECTIONS, AND LOCATIONS ARE APPROXIMATE
SOURCE: NINYO & MOORE - JULY 2004

DESIGN\001\09225\11\000\09225 Plume Detail rev6.CDR

Detail Plume Map
October 2009

Municipal Service Center
7101 Edgewater Drive, Oakland, California

Figure 3

LFR an ARCADIS company

APPENDIX A

City of Oakland MSC Schedule and Protocol

Table A: Revised Well Sampling Schedule and Protocol

City of Oakland Municipal Service Center

Well ID	Monitoring Schedule		Parameters to Be Monitored							
	March	September	Elevation	Floating Product Thickness	PH	Dissolved Oxygen	Temperature	Specific Conductivity	TPH-gas BTEX & MTBE	TPH d/k/mo
MW-1	X	X	X	X	X	X	X	X	X	X
MW-2	X	gauge only	X	X	X	X	X	X	X	X
MW-3	Closed/ Destroyed									
MW-4	Closed/ Destroyed									
MW-5	X	X	X	X	X	X	X	X	X	X
MW-6	X	X	X	X	X	X	X	X	X	X
MW-7	X	gauge only	X	X	X	X	X	X	X	X
MW-8	X	X	X	X	X	X	X	X	X	X
MW-9	X	X	X	X	X	X	X	X	X	X
MW-10	X	X	X	X	X	X	X	X	X	X
MW-11	X	gauge only	X	X	X	X	X	X	X	X
MW-12	X	X	X	X	X	X	X	X	X	X
MW-13	X	X	X	X	X	X	X	X	X	X
MW-14	X	X	X	X	X	X	X	X	X	X
MW-15	X	X	X	X	X	X	X	X	X	X
MW-16	X	X	X	X	X	X	X	X	X	X
MW-17	X	X	X	X	X	X	X	X	X	X
MW-18	gauge only	gauge only	X	X						
TBW-1	gauge only	gauge only	X	X						
TBW-2	gauge only	gauge only	X	X						
TBW-3	gauge only	gauge only	X	X						
TBW-4	gauge only	gauge only	X	X						
TBW-5	gauge only	gauge only	X	X						
TBW-6	gauge only	gauge only	X	X						
RW-1	gauge only	gauge only	X	X						
RW-A1	gauge only	gauge only	X	X						
RW-A2	gauge only	gauge only	X	X						
OB-A1	gauge only	gauge only	X	X						
RW-B1	gauge only	gauge only	X	X						
RW-B2	gauge only	gauge only	X	X						
RW-B3	gauge only	gauge only	X	X						
RW-B4	gauge only	gauge only	X	X						
RW-C1	gauge only	gauge only	X	X						
RW-C2	gauge only	gauge only	X	X						
RW-C3	gauge only	gauge only	X	X						
RW-C4	gauge only	gauge only	X	X						
RW-C5	gauge only	gauge only	X	X						
RW-C6	gauge only	gauge only	X	X						
RW-C7	gauge only	gauge only	X	X						
OB-C1	gauge only	gauge only	X	X						
RW-D1	gauge only	gauge only	X	X						
RW-D2	gauge only	gauge only	X	X						
RW-D3	gauge only	gauge only	X	X						
RW-D4	gauge only	gauge only	X	X						
RW-D5	gauge only	gauge only	X	X						
OB-D1	gauge only	gauge only	X	X						
OB-D2	gauge only	gauge only	X	X						

Notes:

gauge only = measure groundwater elevation and floating product thickness only

TPH d/k/mo = total petroleum hydrocarbons as diesel, kerosene, and motor oil after silica gel cleanup

APPENDIX B

Groundwater Sampling Field Data Sheets

LFR LEVINE•FRICKE

WATER-LEVEL MEASUREMENTS LOG

Project No. 028-10060-06-*** Date October 29, 2009 Page 1 of ___

Project Name Oakland MSC Day: ☐ Sun ☐ Mon ☐ Tues ☐ Weds ☒ Thurs ☐ Fri ☐ Sat

Field Personnel Michael Sullivan and Andrea Valdivia

General Observations

Time Measured

Depth to bottom	WELL NO.	Time Opened	DEPTH TO WATER Products	DEPTH TO WATER Water	~~WATER ELEVATION~~	WELL SECURE? Y	WELL SECURE? N	REMARKS (UNITS = FEET)
15.17'	MW-10	0740	—	8.80'/8.80'	1023	X		
19.51'	MW-13	0747	—	9.65'/9.65'	1033		X	No bolts
14.65'	MW-14	0750	—	9.11'/9.11'	1037	X		Missing 1 bolt, No seal
14.17'	MW-9	0756	—	8.92'/8.91'	1045	X		1 working bolts
20.24'	MW-15	0800	—	10.24'/10.24'	1050	X		1 bolt stripped - no bolts work
13.47'	MW-16	0802	—	11.31'/11.31'	1057		X	No bolts - needs new cap
17.41'	MW-17	0804	—	7.21'/7.21'	1101		X	No bolts
15.40'	MW-8	0808	—	9.67'/9.67'	1106	X		No seal
14.74'	MW-7	0823	—	9.88'/9.88'	1125		X	No lock
15.89'	MW-1	0832	—	4.52'/4.52'	1132	X		
14.45'	MW-12	0838	—	7.73'/7.73'	1137	X		
—	RW-1	0854	—	~~8.17'/8.17'~~ 8.24'/8.24'	~~1123~~ 1143	X		1 bolt missing
—	OB-D2	0857	—	8.24'/8.24'	1143	X		
—	TBW-5	0904	—	8.50'/8.50'	1148	X		Missing 1 bolt
—	RW-D5		Cannot get water level			X		Missing 1 bolt, just piping, can't sample/gauge
—	RW-D4		Cannot get water level			X		" " " "
—	RW-D3							Parked on @ 0915
—	RW-D8		Cannot get water level			X		Just piping, can't gauge
—	RW-D7		Cannot get water level			X		" , Missing 1 bolt
—	RW-D6		Cannot get water level			X		" "
—	RW-B3	0942	—	9.61'/9.61'	1239		X	No lock - J plug - odorous
—	RW-B4	0944	—	9.85'/9.85'	1236		X	No lock - J plug - smell
—	RW-B2	0946	—	7.78'/7.78'	1242		X	No lock - J plug loose! - should be replaced
—	RW-B1	0948	—	7.76'/7.76'	1248		X	No lock - J plug
14.23'	MW-6	0951	—	6.97'/6.97'	1251		X	~~No bolts~~ No bolts, No lock, J-plug, odor
—	OB-A1	0953	—	4.68'/4.68'	1254	X		
—	~~RW-A2~~ RW-A5	0957	—	2.89'/2.89'	1303	X		Irridescents sheen
—	RW-A1	0959	—	3.49'/3.49'	1259	X		Noticed irridescents sheen @ surface
—	MW-7	1003	—	6.60'/6.60'	1309	X	X	No bolts, Yes lock
14.32'	MW-5	1008	—	5.86'/5.86'	1315	X		No bolts, Yes lock
—	MW-11	1011	—	6.33'/6.33'	1318	X		
—	OB-D1	1154	—	7.65'/7.65'	1430	X		Odorous

WELL NO.	Time Opened ~~WELL ELEVATION~~	DEPTH TO WATER		Time Measured ~~WATER ELEVATION~~	WELL SECURE?		REMARKS (UNITS = FEET)
		Product	Water		Y	N	
RW-C2	~0915	—	~~8.90/8.90~~ ~~1.14/1.14~~	~~1204~~ 1159	X		
RW-C3	~0915	—	8.56'/8.56'	1201	X		
RW-C4	~0915	—	8.53'/8.53'	1205	X		
TBW-2	~0915	—	9.23'/9.23'	1207	X		
RW-C1	1220	—	8.64'/8.64	1221		X	No pressure

LFR LEVINE • FRICKE

WATER-QUALITY SAMPLING LOG

Project No. 028-10060-06-*** Date: 10/29/09 Page 1 of _____

Project Name: MSC Oakland Edgewater Sampling Location: 7101 Edgewater Drive, Oakland, Ca

Sampler's Name: M. Sullivan/A. Valdivia Sample No.: _____ ☐ FB

Sampling Plan By: DCR Dated: 10/27/09 C.O.C. No.: _____ ☐ DUP ___

Purge Method: ☐ Centrifugal Pump ☒ Disposable Bailer ☐ Hand Bail ☐ Submersible Pump ☐ Teflon Bailer ☐ Other _____

Purge Water Storage Container Type: 55 gallon drum Storage Location: On-site

Date Purge Water Disposed: _____ Where Disposed: On-site

Analyses Requested	No. and Type of Bottles Used
TPHg / BTEX / MTBE by 8260	3 VOAs with HCl preservative
TPHd / TPHmo / TPHk by 8010 with silica gel clean-up	1 Liter Amber

Lab Name: Curtis and Tompkins

Delivery By ☐ Courier _____ ☒ Hand _____

Well No. MW-12 Depth of Water 7.73'

Well Diameter: _____ Well Depth 14.45'

☐ 2" (0.16 gal/feet) ☐ 5" (1.02 gal/feet) Water Column Height 6.72'

☐ 4" (0.65 gal/feet) ☐ 6" (1.47 gal/feet) Well Volume 1.08 gal

80% DTW 9.07

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	DO (mg/L)	Temperature (C°)	PH (SU)	Cond (uS/cm C)	ORP (mV)	Remarks
1631			~~1.25~~ 1.0	0.91	19.82	7.32	3678	-143.8	
1633			2.5	0.90	19.78	7.31	4396	-149.0	
1635			3.0	0.89	19.78	7.32	4544	-150.3	
1638			4.0	0.87	19.45	7.36	4571	-156.6	
~~1645~~ Hold	Sample								

Continue remarks on reverse, if needed.

LFR LEVINE • FRICKE

WATER-QUALITY SAMPLING LOG

Project No. 028-10060-06-*** Date: 10/29/09 Page 1 of _____

Project Name: MSC Oakland Edgewater Sampling Location: 7101 Edgewater Drive, Oakland, Ca

Sampler's Name: M. Sullivan / A. Valdivia Sample No.: _____ ☐ FB

Sampling Plan By: DCR Dated: 10/27/09 C.O.C. No.: _____ ☐ DUP

Purge Method: ☐ Centrifugal Pump ☒ Disposable Bailer ☐ Hand Bail ☐ Submersible Pump ☐ Teflon Bailer ☐ Other _____

Purge Water Storage Container Type: 55 gallon drum Storage Location: On-site

Date Purge Water Disposed: _____ Where Disposed: On-site

Analyses Requested	No. and Type of Bottles Used
TPHg / BTEX / MTBE by 8260	3 VOAs with HCl preservative
TPHd / TPHmo / TPHk by 8010 with silica gel clean-up	1 Liter Amber

Lab Name: Curtis and Tompkins

Delivery By ☐ Courier _____ ☒ Hand _____

Well No. MW-1 Depth of Water 4.52'

Well Diameter: 2" Well Depth 15.87'

☒ 2" (0.16 gal/feet) ☐ 5" (1.02 gal/feet) Water Column Height 11.35

☐ 4" (0.65 gal/feet) ☐ 6" (1.47 gal/feet) Well Volume 1.82 gal

80% DTW 6.79'

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	DO (mg/L)	Temperature (C°)	PH (SU)	Cond (uS/cm C)	ORP (mV)	Remarks
1540									start
1545			1	0.58	21.73	6.90	11198	-36.6	
1550			2	0.78	22.01	6.88	11763	-135.6	
1553			3	0.80	22.88	6.80	12686	-133.7	
1555			4	0.56	21.91	6.83	12845	-132.5	
1600		13.52	6	0.44	21.58	6.83	16432	-131.2	
1605			7	0.55	21.47	6.86	15849	-132.6	
1611			8	0.79	21.17	6.85	21003	-132.2	Purged dry
10/30/09	7.35	5.44							sample

Continue remarks on reverse, if needed.

LFR LEVINE • FRICKE

WATER-QUALITY SAMPLING LOG

Project No. 028-10060-06-*** Date: 10/30/09 Page 1 of _____

Project Name: MSC Oakland Edgewater Sampling Location: 7101 Edgewater Drive, Oakland, Ca

Sampler's Name: MCS / AAV Sample No.: MW-6 ☐ FB

Sampling Plan By: DCR Dated: 10/27/09 C.O.C. No.: _____ ☐ DUP ____

Purge Method: ☐ Centrifugal Pump ☒ Disposable Bailer ☐ Hand Bail ☐ Submersible Pump ☐ Teflon Bailer ☐ Other _____

Purge Water Storage Container Type: 55 gallon drum Storage Location: On-site

Date Purge Water Disposed: _____ Where Disposed: On-site

Analyses Requested	No. and Type of Bottles Used
TPHg / BTEX / MTBE by 8260	3 VOAs with HCl preservative
TPHd / TPHmo / TPHk by 8010 with silica gel clean-up	1 Liter Amber

Lab Name: Curtis and Tompkins

Delivery By ☐ Courier _____ ☒ Hand CT

Well No. ~~MW-5~~ MW-6 Depth of Water 6.97

Well Diameter: _____ Well Depth 14.23

☒ 2" (0.16 gal/feet) ☐ 5" (1.02 gal/feet) Water Column Height 7.26

☐ 4" (0.65 gal/feet) ☐ 6" (1.47 gal/feet) Well Volume 1.16

80% DTW 8.71

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	DO (mg/L)	Temperature (C°)	PH (SU)	Cond (uS/cm C)	ORP (mV)	Remarks
0807	~~Start~~	~~Purge~~ →							Need to recalibrate YSI
0825	~~Star~~								Start purge
0829			1.25	1.17	20.59	7.59	3505	-158.4	
0832			2.50	1.16	20.55	7.62	3572	-149.8	
0834		8.15	3.75	1.16	20.57	7.61	3546	-149.5	
0835			→					→	Sampled

Continue remarks on reverse, if needed.

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WATER-QUALITY SAMPLING LOG

Project No. 028-10060-06-*** Date: 10/30/09 Page 1 of _____

Project Name: MSC Oakland Edgewater Sampling Location: 7101 Edgewater Drive, Oakland, Ca

Sampler's Name: _____ Sample No.: MW-5 ☐ FB

Sampling Plan By: DCR Dated: 10/27/09 C.O.C. No.: _____ ☐ DUP ____

Purge Method: ☐ Centrifugal Pump ☒ Disposable Bailer ☐ Hand Bail ☐ Submersible Pump ☐ Teflon Bailer ☐ Other _____

Purge Water Storage Container Type: 55 gallon drum Storage Location: On-site

Date Purge Water Disposed: _____ Where Disposed: On-site

Analyses Requested	No. and Type of Bottles Used
TPHg / BTEX / MTBE by 8260	3 VOAs with HCl preservative
TPHd / TPHmo / TPHk by 8010 with silica gel clean-up	1 Liter Amber

Lab Name: Curtis and Tompkins

Delivery By ☐ Courier _____ ☒ Hand _____

Well No. MW-5 Depth of Water 5.86'

Well Diameter: 2" Well Depth 14.32'

☒ 2" (0.16 gal/feet) ☐ 5" (1.02 gal/feet) Water Column Height 8.46'

☐ 4" (0.65 gal/feet) ☐ 6" (1.47 gal/feet) Well Volume 1.35

80% DTW 7.55'

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	DO (mg/L)	Temperature (C°)	PH (SU)	Cond (uS/cm C)	ORP (mV)	Remarks
9		5.87	→					→	Start
0926			1.5	8.28	21.18	7.24	2399	-67.5	
0928			2.75	8.28	21.28	7.19	2156	-65.3	
0931			4.00	~~1.03~~ 2.06	21.13	~~7.11~~ 7.09	2247	-59.2	
0934			4.50	~~1.12~~ 8.35	21.18	7.14	2279	-61.5	
0936			5.00	1.12	21.23	7.03	2117	-57.0	
0939		5.88	→					→	Sample
0953			→					→	Duplicate

Continue remarks on reverse, if needed.

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WATER-QUALITY SAMPLING LOG

Project No. 028-10060-06-*** Date: 10/30/09 Page 1 of 1

Project Name: MSC Oakland Edgewater Sampling Location: 7101 Edgewater Drive, Oakland, Ca

Sampler's Name: _____ Sample No.: MW-8 MW-8-FB ☒ FB

Sampling Plan By: DCR Dated: 10/27/09 C.O.C. No.: _____ ☐ DUP

Purge Method: ☐ Centrifugal Pump ☒ Disposable Bailer ☐ Hand Bail ☐ Submersible Pump ☐ Teflon Bailer ☐ Other _____

Purge Water Storage Container Type: 55 gallon drum Storage Location: On-site

Date Purge Water Disposed: _____ Where Disposed: On-site

Analyses Requested	No. and Type of Bottles Used
TPHg / BTEX / MTBE by 8260	3 VOAs with HCl preservative
TPHd / TPHmo / TPHk by 8010 with silica gel clean-up	2 1 Liter Amber

Lab Name: Curtis and Tompkins

Delivery By ☐ Courier _____ ☒ Hand _____

Well No. MW-8 Depth of Water 9.67

Well Diameter: 2" Well Depth 15.40

☒ 2" (0.16 gal/feet) ☐ 5" (1.02 gal/feet) Water Column Height 5.73

☐ 4" (0.65 gal/feet) ☐ 6" (1.47 gal/feet) Well Volume 0.91

80% DTW 6.88

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	DO (mg/L)	Temperature (C°)	PH (SU)	Cond (uS/cm C)	ORP (mV)	Remarks
1100									MW-8-FB
1135		9.63							Start
1140			1	0.76	20.31	7.40	33642	-11.3	
1145			2	0.86	20.20	7.39	33945	-10.7	
1150			3	0.95	19.88	7.36	34893	-8.7	
1155			4	0.90	20.04	7.33	34904	-7.1	
1200			5	0.95	20.06	7.30	35094	-6.0	
1202		11.5	5.5	0.94	20.02	7.32	35916	-6.9	Wait for recharge
1305		11.5							Sample

Continue remarks on reverse, if needed.

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WATER-QUALITY SAMPLING LOG

Project No. 028-10060-06-*** Date: 10/30/09 Page 1 of _____

Project Name: MSC Oakland Edgewater Sampling Location: 7101 Edgewater Drive, Oakland, Ca

Sampler's Name: A. Valdivia Sample No.: _____ ☐ FB

Sampling Plan By: DCR Dated: 10/27/09 C.O.C. No.: _____ ☐ DUP ____

Purge Method: ☐ Centrifugal Pump ☒ Disposable Bailer ☐ Hand Bail ☐ Submersible Pump ☐ Teflon Bailer ☐ Other _____

Purge Water Storage Container Type: 55 gallon drum Storage Location: On-site

Date Purge Water Disposed: _____ Where Disposed: On-site

Analyses Requested	No. and Type of Bottles Used
TPHg / BTEX / MTBE by 8260	3 VOAs with HCl preservative
TPHd / TPHmo / TPHk by 8010 with silica gel clean-up	1 Liter Amber

Lab Name: Curtis and Tompkins

Delivery By ☐ Courier _____ ☒ Hand _____

Well No. MW-17 Depth of Water 7.21'

Well Diameter: 2" Well Depth 17.41'

☒ 2" (0.16 gal/feet) ☐ 5" (1.02 gal/feet) Water Column Height 10.20'

☐ 4" (0.65 gal/feet) ☐ 6" (1.47 gal/feet) Well Volume 1.63 gal

80% DTW 9.25'

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	DO (mg/L)	Temperature (C°)	PH (SU)	Cond (uS/cm C)	ORP (mV)	Remarks
1210									Start
1216			1.75	0.49	20.31	7.51	35386	-118.0	
1223			3.5	0.30	20.26	7.53	35114	-170.2	
1227			5.0	0.38	20.26	7.47	35134	-163.9	
1230			6.5	0.49	20.32	7.49	35091	-166.9	
1233		7.66'							
1239									Sample

Continue remarks on reverse, if needed.

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WATER-QUALITY SAMPLING LOG

Project No. 028-10060-06-*** Date: 10/30/09 Page 1 of ____

Project Name: MSC Oakland Edgewater Sampling Location: 7101 Edgewater Drive, Oakland, Ca

Sampler's Name: A. Valdivia Sample No.: ____ ☐ FB

Sampling Plan By: DCR Dated: 10/27/09 C.O.C. No.: ____ ☐ DUP ____

Purge Method: ☐ Centrifugal Pump ☒ Disposable Bailer ☐ Hand Bail ☐ Submersible Pump ☐ Teflon Bailer ☐ Other ____

Purge Water Storage Container Type: 55 gallon drum Storage Location: On-site

Date Purge Water Disposed: ____ Where Disposed: On-site

Analyses Requested	No. and Type of Bottles Used
TPHg / BTEX / MTBE by 8260	3 VOAs with HCl preservative
TPHd / TPHmo / TPHk by 8010 with silica gel clean-up	1 Liter Amber

Lab Name: Curtis and Tompkins

Delivery By ☐ Courier ____ ☒ Hand ____

Well No. MW-16 Depth of Water 11.37'

Well Diameter: 2" Well Depth 13.47'

☒ 2" (0.16 gal/feet) ☐ 5" (1.02 gal/feet) Water Column Height 2.10'

☐ 4" (0.65 gal/feet) ☐ 6" (1.47 gal/feet) Well Volume 0.34 gal

80% DTW 11.79'

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	DO (mg/L)	Temperature (C°)	PH (SU)	Cond (uS/cm C)	ORP (mV)	Remarks
1129									start Purge
1135		~~0.75~~	0.25						After 0.25 gal - extracting 5"-6" of black, silty water anoxic
1156			0.50	0.44	21.04	736	14276	-809	
1203		12.56'							
1230									Sample

Continue remarks on reverse, if needed.

LFR LEVINE • FRICKE

WATER-QUALITY SAMPLING LOG

Project No. 028-10060-06-*** Date: 10/30/09 Page 1 of _____

Project Name: MSC Oakland Edgewater Sampling Location: 7101 Edgewater Drive, Oakland, Ca

Sampler's Name: MWS/AAV Sample No.: _____ ☐ FB

Sampling Plan By: DCR Dated: 10/27/09 C.O.C. No.: _____ ☐ DUP ___

Purge Method: ☐ Centrifugal Pump ☒ Disposable Bailer ☐ Hand Bail ☐ Submersible Pump ☐ Teflon Bailer ☐ Other _____

Purge Water Storage Container Type: 55 gallon drum Storage Location: On-site

Date Purge Water Disposed: _____ Where Disposed: On-site

Analyses Requested	No. and Type of Bottles Used
TPHg / BTEX / MTBE by 8260	3 VOAs with HCl preservative
TPHd / TPHmo / TPHk by 8010 with silica gel clean-up	1 Liter Amber

Lab Name: Curtis and Tompkins

Delivery By ☐ Courier _____ ☒ Hand _____

Well No. MW-15 Depth of Water 10.24'

Well Diameter: 2" Well Depth 20.24'

☒ 2" (0.16 gal/feet) ☐ 5" (1.02 gal/feet) Water Column Height 10.00'

☐ 4" (0.65 gal/feet) ☐ 6" (1.47 gal/feet) Well Volume 1.60 gal

80% DTW 12.24'

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	DO (mg/L)	Temperature (C°)	PH (SU)	Cond (uS/cm C)	ORP (mV)	Remarks
1553									Starts purge
1558			1.50	0.81	20.41	7.25	12501	-125.8	
1602			3.00	0.83	20.34	7.23	12243	-124.6	
1604		10.37'	4.50	0.79	20.28	7.24	11943	-121.4	
1606									Sample

Continue remarks on reverse, if needed.

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WATER-QUALITY SAMPLING LOG

Project No. 028-10060-06-*** Date: 10/30/09 Page 1 of _____

Project Name: MSC Oakland Edgewater Sampling Location: 7101 Edgewater Drive, Oakland, Ca

Sampler's Name: MWS/AAN Sample No.: _____ ☐ FB

Sampling Plan By: DCR Dated: 10/27/09 C.O.C. No.: _____ ☐ DUP

Purge Method: ☐ Centrifugal Pump ☒ Disposable Bailer ☐ Hand Bail ☐ Submersible Pump ☐ Teflon Bailer ☐ Other _____

Purge Water Storage Container Type: 55 gallon drum Storage Location: On-site

Date Purge Water Disposed: _____ Where Disposed: On-site

Analyses Requested	No. and Type of Bottles Used
TPHg / BTEX / MTBE by 8260	3 VOAs with HCl preservative
TPHd / TPHmo / TPHk by 8010 with silica gel clean-up	1 Liter Amber

Lab Name: Curtis and Tompkins

Delivery By ☐ Courier _____ ☒ Hand _____

Well No. MW-9 Depth of Water 8.91'

Well Diameter: 2" Well Depth 14.47'

☒ 2" (0.16 gal/feet) ☐ 5" (1.02 gal/feet) Water Column Height 5.56'

☐ 4" (0.65 gal/feet) ☐ 6" (1.47 gal/feet) Well Volume 0.89 gal

80% DTW 10.02'

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	DO (mg/L)	Temperature (C°)	PH (SU)	Cond (uS/cm C)	ORP (mV)	Remarks
1528	→								Start purge
1531			1.0	0.81	21.31	7.06	16118	-82.7	
1534			2.0	0.84	20.75	7.06	20197	-86.9	
1535			3.0	0.86	20.43	7.07	19709	-88.8	
1537		9.96'	4.0	0.87	20.67	7.06	19612	-89.0	
1542	→							→	Sample

Continue remarks on reverse, if needed

LFR LEVINE • FRICKE

WATER-QUALITY SAMPLING LOG

Project No. 028-10060-06-*** Date: 10/30/09 Page 1 of _____

Project Name: MSC Oakland Edgewater Sampling Location: 7101 Edgewater Drive, Oakland, Ca

Sampler's Name: MWS/AAV Sample No.: _____ ☐ FB

Sampling Plan By: DCR Dated: 10/27/09 C.O.C. No.: _____ ☐ DUP

Purge Method: ☐ Centrifugal Pump ☒ Disposable Bailer ☐ Hand Bail ☐ Submersible Pump ☐ Teflon Bailer ☐ Other _____

Purge Water Storage Container Type: 55 gallon drum Storage Location: On-site

Date Purge Water Disposed: _____ Where Disposed: On-site

Analyses Requested	No. and Type of Bottles Used
TPHg / BTEX / MTBE by 8260	3 VOAs with HCl preservative
TPHd / TPHmo / TPHk by 8010 with silica gel clean-up	1 Liter Amber

Lab Name: Curtis and Tompkins

Delivery By ☐ Courier _____ ☒ Hand _____

Well No. MW-14 Depth of Water 9.11'

Well Diameter: 2" Well Depth 14.65'

☒ 2" (0.16 gal/feet) ☐ 5" (1.02 gal/feet) Water Column Height 5.54'

☐ 4" (0.65 gal/feet) ☐ 6" (1.47 gal/feet) Well Volume 0.89 gal

80% DTW 10.22'

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	DO (mg/L)	Temperature (C°)	PH (SU)	Cond (uS/cm C)	ORP (mV)	Remarks
1502	→								Start purge
1504			1.0	0.87	21.22	7.03	17134	-88.4	odorous → anoxic
1507			2.0	0.94	20.46	7.08	16630	-96.2	
1509			3.0	0.91	20.35	7.17	15693	-100.8	
1512			4.0	1.05	20.46	7.17	15475	-101.2	
1514		9.83	4.5	1.06	20.48	7.20	15061	-99.0	
1515	→							→	Sampled

Continue remarks on reverse, if needed.

LFR LEVINE • FRICKE

WATER-QUALITY SAMPLING LOG

Project No. 028-10060-06-*** Date: 10/30/09 Page 1 of _____

Project Name: MSC Oakland Edgewater Sampling Location: 7101 Edgewater Drive, Oakland, Ca

Sampler's Name: MWS / AAV Sample No.: _____ ☐ FB

Sampling Plan By: DCR Dated: 10/27/09 C.O.C. No.: _____ ☐ DUP

Purge Method: ☐ Centrifugal Pump ☒ Disposable Bailer ☐ Hand Bail ☐ Submersible Pump ☐ Teflon Bailer ☐ Other _____

Purge Water Storage Container Type: 55 gallon drum Storage Location: On-site

Date Purge Water Disposed: _____ Where Disposed: On-site

Analyses Requested	No. and Type of Bottles Used
TPHg / BTEX / MTBE by 8260	3 VOAs with HCl preservative
TPHd / TPHmo / TPHk by 8010 with silica gel clean-up	1 Liter Amber

Lab Name: Curtis and Tompkins

Delivery By ☐ Courier _____ ☒ Hand _____

Well No. MW-13 Depth of Water 9.65'

Well Diameter: 2" Well Depth 19.51'

☒ 2" (0.16 gal/feet) ☐ 5" (1.02 gal/feet) Water Column Height 9.86'

☐ 4" (0.65 gal/feet) ☐ 6" (1.47 gal/feet) Well Volume 1.58* gal

80% DTW 11.62'

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	DO (mg/L)	Temperature (C°)	PH (SU)	Cond (uS/cm C)	ORP (mV)	Remarks
1424									Start purge
1427			1.5	1.15	20.22	6.91	13140	-74.7	De-watering
1430			3.0	0.98	20.07	6.90	14308	-72.0	
1433			4.5	0.85	19.92	6.90	15028	-68.7	
1436			5.0	0.91	19.78	6.92	15491	-63.2	
1438			5.5	6.90	19.81	6.93	15298	-65.9	
1445		9.92'							Sample

Continue remarks on reverse, if needed.

LFR LEVINE • FRICKE

WATER-QUALITY SAMPLING LOG

Project No. 028-10060-06-*** Date: 10/30/09 Page 1 of _____

Project Name: MSC Oakland Edgewater Sampling Location: 7101 Edgewater Drive, Oakland, Ca

Sampler's Name: M. Sullivan Sample No.: MW-10 ☐ FB

Sampling Plan By: DCR Dated: 10/27/09 C.O.C. No.: _____ ☐ DUP

Purge Method: ☐ Centrifugal Pump ☒ Disposable Bailer ☐ Hand Bail ☐ Submersible Pump ☐ Teflon Bailer ☐ Other _____

Purge Water Storage Container Type: 55 gallon drum Storage Location: On-site

Date Purge Water Disposed: _____ Where Disposed: On-site

Analyses Requested	No. and Type of Bottles Used
TPHg / BTEX / MTBE by 8260	3 VOAs with HCl preservative
TPHd / TPHmo / TPHk by 8010 with silica gel clean-up	1 Liter Amber

Lab Name: Curtis and Tompkins

Delivery By ☐ Courier _____ ☒ Hand _____

Well No. MW-10 Depth of Water 8.80

Well Diameter: 2" Well Depth 15.17

☐ 2" (0.16 gal/feet) ☐ 5" (1.02 gal/feet) Water Column Height 6.37

☐ 4" (0.65 gal/feet) ☐ 6" (1.47 gal/feet) Well Volume ~1

80% DTW 7.64

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	DO (mg/L)	Temperature (C°)	PH (SU)	Cond (uS/cm C)	ORP (mV)	Remarks
1357		8.70							
1401			1.0	1.65	20.81	6.87	2879	-62.6	
1403			2.0	1.08	20.67	6.98	2805	-68.0	
1405			3.0	1.01	20.57	6.81	3156	-74.8	
1408			4.0	1.03	20.72	6.84	3086	-78.6	
1415								→	Sample

Continue remarks on reverse, if needed.

LFR LEVINE • FRICKE

WATER-QUALITY SAMPLING LOG

Project No. 028-10060-06-*** Date: _____ Page 1 of _____

Project Name: MSC Oakland Edgewater Sampling Location: 7101 Edgewater Drive, Oakland, Ca

Sampler's Name: _____ Sample No.: _____ ☐ FB

Sampling Plan By: DCR Dated: 10/27/09 C.O.C. No.: _____ ☐ DUP ____

Purge Method: ☐ Centrifugal Pump ☒ Disposable Bailer ☐ Hand Bail ☐ Submersible Pump ☐ Teflon Bailer ☐ Other _____

Purge Water Storage Container Type: 55 gallon drum Storage Location: On-site

Date Purge Water Disposed: _____ Where Disposed: On-site

Analyses Requested	No. and Type of Bottles Used
TPHg / BTEX / MTBE by 8260	3 VOAs with HCl preservative
TPHd / TPHmo / TPHk by 8010 with silica gel clean-up	1 Liter Amber

Lab Name: Curtis and Tompkins

Delivery By ☐ Courier _____ ☒ Hand _____

Well No. _____ Depth of Water _____

Well Diameter: _____ Well Depth _____

☐ 2" (0.16 gal/feet) ☐ 5" (1.02 gal/feet) Water Column Height _____

☐ 4" (0.65 gal/feet) ☐ 6" (1.47 gal/feet) Well Volume _____

80% DTW _____

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	DO (mg/L)	Temperature (C°)	PH (SU)	Cond (uS/cm C)	ORP (mV)	Remarks

Continue remarks on reverse, if needed.

LFR LEVINE • FRICKE

WATER-QUALITY SAMPLING LOG

Project No. 028-10060-06-*** Date: _____ Page 1 of _____

Project Name: MSC Oakland Edgewater Sampling Location: 7101 Edgewater Drive, Oakland, Ca

Sampler's Name: _____ Sample No.: _____ ☐ FB

Sampling Plan By: DCR Dated: 10/27/09 C.O.C. No.: _____ ☐ DUP

Purge Method: ☐ Centrifugal Pump ☒ Disposable Bailer ☐ Hand Bail ☐ Submersible Pump ☐ Teflon Bailer ☐ Other _____

Purge Water Storage Container Type: 55 gallon drum Storage Location: On-site

Date Purge Water Disposed: _____ Where Disposed: On-site

Analyses Requested	No. and Type of Bottles Used
TPHg / BTEX / MTBE by 8260	3 VOAs with HCl preservative
TPHd / TPHmo / TPHk by 8010 with silica gel clean-up	1 Liter Amber

Lab Name: Curtis and Tompkins

Delivery By ☐ Courier _____ ☒ Hand _____

Well No. _____ Depth of Water _____

Well Diameter: _____ Well Depth _____

☐ 2" (0.16 gal/feet) ☐ 5" (1.02 gal/feet) Water Column Height _____

☐ 4" (0.65 gal/feet) ☐ 6" (1.47 gal/feet) Well Volume _____

80% DTW _____

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	DO (mg/L)	Temperature (C°)	PH (SU)	Cond (uS/cm C)	ORP (mV)	Remarks

Continue remarks on reverse, if needed.

LFR LEVINE • FRICKE

WATER-QUALITY SAMPLING LOG

Project No. 028-10060-06-*** Date: _____ Page 1 of _____

Project Name: MSC Oakland Edgewater Sampling Location: 7101 Edgewater Drive, Oakland, Ca

Sampler's Name: _____ Sample No.: _____ ☐ FB

Sampling Plan By: DCR Dated: 10/27/09 C.O.C. No.: _____ ☐ DUP ___

Purge Method: ☐ Centrifugal Pump ☒ Disposable Bailer ☐ Hand Bail ☐ Submersible Pump ☐ Teflon Bailer ☐ Other _____

Purge Water Storage Container Type: 55 gallon drum Storage Location: On-site

Date Purge Water Disposed: _____ Where Disposed: On-site

Analyses Requested	No. and Type of Bottles Used
TPHg / BTEX / MTBE by 8260	3 VOAs with HCl preservative
TPHd / TPHmo / TPHk by 8010 with silica gel clean-up	1 Liter Amber

Lab Name: Curtis and Tompkins

Delivery By ☐ Courier _____ ☒ Hand _____

Well No. _____ Depth of Water _____

Well Diameter: _____ Well Depth _____

☐ 2" (0.16 gal/feet) ☐ 5" (1.02 gal/feet) Water Column Height _____

☐ 4" (0.65 gal/feet) ☐ 6" (1.47 gal/feet) Well Volume _____

80% DTW _____

Time	Inlet Depth	Depth to Water	Volume Purged (gal)	DO (mg/L)	Temperature (C°)	PH (SU)	Cond (uS/cm C)	ORP (mV)	Remarks

Continue remarks on reverse, if needed.

APPENDIX C

Laboratory Results and Chain-of-Custody Documentation


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 216169
ANALYTICAL REPORT

LFR Levine Fricke	Project : 028-10060-06
1900 Powell Street	Location : Oakland MSC
Emeryville, CA 94608	Level : II

Sample ID	Lab ID
TB102909	216169-001
MW-12	216169-002
MW-1	216169-003
MW-6	216169-004
MW-5	216169-005
MW-8-FB	216169-006
MW-8	216169-007
MW-17	216169-008
MW-16	216169-009
MW-15	216169-010
MW-9	216169-011
MW-14	216169-012
MW-13	216169-013
MW-10	216169-014
MW-5-D	216169-015

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: 11/10/2009
Project Manager

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**216169**
Client:	**LFR Levine Fricke**
Project:	**028-10060-06**
Location:	**Oakland MSC**
Request Date:	**11/02/09**
Samples Received:	**10/30/09**

This data package contains sample and QC results for thirteen water samples, requested for the above referenced project on 11/02/09. The samples were received cold and intact. All data were e-mailed to Daren Roth on 11/10/09.

TPH-Extractables by GC (EPA 8015B):
MW-16 (lab # 216169-009) was diluted due to the dark and viscous nature of the sample extract. No other analytical problems were encountered.

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

Curtis & Tompkins, Ltd.
Analytical Laboratory Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510) 486-0900 Phone
(510) 486-0532 Fax

CHAIN OF CUSTODY

C & T LOGIN #: 216169

Sampler: M. Sullivan / de Valdivia

Project No.: 026-10060-06

Report To: Paven Roth

Project Name: MSC

Company: LFR

Project P.O.:

Telephone:

Turnaround Time: Standard

Fax:

Lab No.	Sample ID.	Sampling Date Time	Matrix: Soil	Water	Waste	# of Containers	Preservative: HCL	H_2SO_4	HNO_3	ICE		Analysis: TPHg/BTEX/MTBE (8260)	TPH d/mo/k (8015)
	~~[redacted]~~ TB102909	10/29/09 —		Y		2	2					HOLD	
	MW-12	↓ 1645		X		5	3				2	X	X
	MW-1	10/30/09 0735		X		5	3				2	X	X
	MW-6	0835		X		5	3				2	X	X
	MW-5	0939		X		5	3				2	X	X
	MW-8-FB	1100		X		5	3				2	HOLD	
	MW-8	1305		X		5	3				2	X	X
	MW-17	1239		X		5	3				2	X	X
	MW-16	1230		X		5	3				2	X	X
	MW-15	1606		X		5	3				2	X	X
	MW-9	1542		X		5	3				2	X	X
	MW-14	↓ 1515		X		5	3				2	X	X
	MW-13	10/30/09 1445		X		5	3				2	X	X

Notes: Silica Gel Cleanup on TPHd/TPHmo/TPHk prior to Analysis

SAMPLE RECEIPT
☐ Intact ☐ Cold
☐ On Ice ☐ Ambient

Preservative Correct?
☐ Yes ☐ No ☐ N/A

RELINQUISHED BY:

SIGNATURE — 10/30/09 1500 DATE / TIME

DATE / TIME

DATE / TIME

RECEIVED BY:

Alan Tsadik — 11-2-09/0930 DATE / TIME

DATE / TIME

DATE / TIME

Curtis & Tompkins, Ltd.
Analytical Laboratory Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510) 486-0900 Phone
(510) 486-0532 Fax

CHAIN OF CUSTODY

C & T LOGIN #: 216169

Project No.: C08-10660-01
Project Name: MSC
Project P.O.:
Turnaround Time: Standard

Sampler: McSullivan/A. Valdivia
Report To: Daren Roth
Company: LFR
Telephone:
Fax:

Lab No.	Sample ID.	Sampling Date Time	Matrix: Soil	Matrix: Water	Matrix: Waste	Matrix:	# of Containers	Preservative: HCL	Preservative: H_2SO_4	Preservative: HNO_3	Preservative: ICE	Preservative:	Analysis: TPHg / BTEX / MTBE (8260)	Analysis: TPH d/mo/k (8015)
	MW-10	10/30/09 1415		X			5	3				2	X	X
	MW-5-D	10/30/09 0953		X			5	3				2	X	X

Notes: Silica Gel Clean up on TPHd TPHmo and TPHk prior to analysis

SAMPLE RECEIPT
☐ Intact ☐ Cold
☐ On Ice ☐ Ambient
Preservative Correct?
☐ Yes ☐ No ☐ N/A

RELINQUISHED BY:	DATE / TIME	RECEIVED BY:	DATE / TIME
[signature]	10/30/09 1900	Elvie Tsertik	11-2-09/0930

SIGNATURE

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 21619 Date Received 10-30 Number of coolers 2
Client LFR Project WET MSC

Date Opened 10-30 By (print) Elyse T. (sign) Elyse Tsudik
Date Logged in 11-2 By (print) _____ (sign) _____

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

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

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

7. Temperature documentation:

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
Received 2 extra temp blanks

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	216169	Location:	Oakland MSC
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	028-10060-06	Analysis:	EPA 8015B
Matrix:	Water	Received:	10/30/09
Units:	ug/L		

Field ID:	MW-12	Sampled:	10/29/09
Type:	SAMPLE	Prepared:	11/03/09
Lab ID:	216169-002	Analyzed:	11/04/09
Diln Fac:	1.000	Cleanup Method:	EPA 3630C
Batch#:	156815		

Analyte	Result	RL
Kerosene C10-C16	220 Y	50
Diesel C10-C24	280 Y	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
o-Terphenyl	86	39-150

Field ID:	MW-1	Sampled:	10/30/09
Type:	SAMPLE	Prepared:	11/03/09
Lab ID:	216169-003	Analyzed:	11/04/09
Diln Fac:	1.000	Cleanup Method:	EPA 3630C
Batch#:	156815		

Analyte	Result	RL
Kerosene C10-C16	820 Y	50
Diesel C10-C24	810 Y	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
o-Terphenyl	91	39-150

Field ID:	MW-6	Sampled:	10/30/09
Type:	SAMPLE	Prepared:	11/03/09
Lab ID:	216169-004	Analyzed:	11/04/09
Diln Fac:	1.000	Cleanup Method:	EPA 3630C
Batch#:	156815		

Analyte	Result	RL
Kerosene C10-C16	1,000 Y	50
Diesel C10-C24	1,200 Y	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
o-Terphenyl	78	39-150

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

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	216169	Location:	Oakland MSC
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	028-10060-06	Analysis:	EPA 8015B
Matrix:	Water	Received:	10/30/09
Units:	ug/L		

Field ID:	MW-5	Sampled:	10/30/09
Type:	SAMPLE	Prepared:	11/03/09
Lab ID:	216169-005	Analyzed:	11/05/09
Diln Fac:	1.000	Cleanup Method:	EPA 3630C
Batch#:	156815		

Analyte	Result	RL
Kerosene C10-C16	1,100 Y	50
Diesel C10-C24	1,100 Y	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
o-Terphenyl	91	39-150

Field ID:	MW-8	Sampled:	10/30/09
Type:	SAMPLE	Prepared:	11/03/09
Lab ID:	216169-007	Analyzed:	11/05/09
Diln Fac:	1.000	Cleanup Method:	EPA 3630C
Batch#:	156815		

Analyte	Result	RL
Kerosene C10-C16	ND	50
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
o-Terphenyl	97	39-150

Field ID:	MW-17	Sampled:	10/30/09
Type:	SAMPLE	Prepared:	11/03/09
Lab ID:	216169-008	Analyzed:	11/05/09
Diln Fac:	1.000	Cleanup Method:	EPA 3630C
Batch#:	156815		

Analyte	Result	RL
Kerosene C10-C16	ND	50
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
o-Terphenyl	87	39-150

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

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	216169	Location:	Oakland MSC
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	028-10060-06	Analysis:	EPA 8015B
Matrix:	Water	Received:	10/30/09
Units:	ug/L		

Field ID:	MW-16	Sampled:	10/30/09
Type:	SAMPLE	Prepared:	11/03/09
Lab ID:	216169-009	Analyzed:	11/04/09
Diln Fac:	10.00	Cleanup Method:	EPA 3630C
Batch#:	156815		

Analyte	Result	RL
Kerosene C10-C16	4,100 Y	500
Diesel C10-C24	5,600 Y	500
Motor Oil C24-C36	12,000	3,000

Surrogate	%REC	Limits
o-Terphenyl	DO	39-150

Field ID:	MW-15	Sampled:	10/30/09
Type:	SAMPLE	Prepared:	11/03/09
Lab ID:	216169-010	Analyzed:	11/05/09
Diln Fac:	1.000	Cleanup Method:	EPA 3630C
Batch#:	156815		

Analyte	Result	RL
Kerosene C10-C16	ND	50
Diesel C10-C24	110 Y	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
o-Terphenyl	80	39-150

Field ID:	MW-9	Sampled:	10/30/09
Type:	SAMPLE	Prepared:	11/04/09
Lab ID:	216169-011	Analyzed:	11/06/09
Diln Fac:	1.000	Cleanup Method:	EPA 3630C
Batch#:	156877		

Analyte	Result	RL
Kerosene C10-C16	130 Y	50
Diesel C10-C24	220 Y	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
o-Terphenyl	107	39-150

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

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	216169	Location:	Oakland MSC
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	028-10060-06	Analysis:	EPA 8015B
Matrix:	Water	Received:	10/30/09
Units:	ug/L		

Field ID:	MW-14	Sampled:	10/30/09
Type:	SAMPLE	Prepared:	11/03/09
Lab ID:	216169-012	Analyzed:	11/04/09
Diln Fac:	1.000	Cleanup Method:	EPA 3630C
Batch#:	156816		

Analyte	Result	RL
Kerosene C10-C16	ND	50
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
o-Terphenyl	85	39-150

Field ID:	MW-13	Sampled:	10/30/09
Type:	SAMPLE	Prepared:	11/03/09
Lab ID:	216169-013	Analyzed:	11/04/09
Diln Fac:	1.000	Cleanup Method:	EPA 3630C
Batch#:	156816		

Analyte	Result	RL
Kerosene C10-C16	ND	50
Diesel C10-C24	81 Y	50
Motor Oil C24-C36	650	300

Surrogate	%REC	Limits
o-Terphenyl	72	39-150

Field ID:	MW-10	Sampled:	10/30/09
Type:	SAMPLE	Prepared:	11/03/09
Lab ID:	216169-014	Analyzed:	11/04/09
Diln Fac:	1.000	Cleanup Method:	EPA 3630C
Batch#:	156816		

Analyte	Result	RL
Kerosene C10-C16	ND	50
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
o-Terphenyl	93	39-150

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

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	216169	Location:	Oakland MSC
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	028-10060-06	Analysis:	EPA 8015B
Matrix:	Water	Received:	10/30/09
Units:	ug/L		

Field ID:	MW-5-D	Sampled:	10/30/09
Type:	SAMPLE	Prepared:	11/03/09
Lab ID:	216169-015	Analyzed:	11/04/09
Diln Fac:	1.000	Cleanup Method:	EPA 3630C
Batch#:	156816		

Analyte	Result	RL
Kerosene C10-C16	620 Y	50
Diesel C10-C24	600 Y	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
o-Terphenyl	89	39-150

Type:	BLANK	Prepared:	11/03/09
Lab ID:	QC519746	Analyzed:	11/04/09
Diln Fac:	1.000	Cleanup Method:	EPA 3630C
Batch#:	156815		

Analyte	Result	RL
Kerosene C10-C16	ND	50
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
o-Terphenyl	91	39-150

Type:	BLANK	Prepared:	11/03/09
Lab ID:	QC519750	Analyzed:	11/04/09
Diln Fac:	1.000	Cleanup Method:	EPA 3630C
Batch#:	156816		

Analyte	Result	RL
Kerosene C10-C16	ND	50
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
o-Terphenyl	92	39-150

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

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	216169	Location:	Oakland MSC
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	028-10060-06	Analysis:	EPA 8015B
Matrix:	Water	Received:	10/30/09
Units:	ug/L		

Type:	BLANK	Prepared:	11/04/09
Lab ID:	QC519993	Analyzed:	11/06/09
Diln Fac:	1.000	Cleanup Method:	EPA 3630C
Batch#:	156877		

Analyte	Result	RL
Kerosene C10-C16	ND	50
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
o-Terphenyl	89	39-150

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

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	216169	Location:	Oakland MSC
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	028-10060-06	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC519747	Batch#:	156815
Matrix:	Water	Prepared:	11/03/09
Units:	ug/L	Analyzed:	11/04/09

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,040	82	34-144

Surrogate	%REC	Limits
o-Terphenyl	96	39-150

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	216169	Location:	Oakland MSC
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	028-10060-06	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	156815
MSS Lab ID:	216163-004	Sampled:	10/29/09
Matrix:	Water	Received:	10/30/09
Units:	ug/L	Prepared:	11/03/09
Diln Fac:	1.000	Analyzed:	11/05/09

Type: MS Cleanup Method: EPA 3630C
Lab ID: QC519748

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	16.05	2,500	2,326	92	21-160

Surrogate	%REC	Limits
o-Terphenyl	108	39-150

Type: MSD Cleanup Method: EPA 3630C
Lab ID: QC519749

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,121	84	21-160	9	58

Surrogate	%REC	Limits
o-Terphenyl	101	39-150

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	216169	Location:	Oakland MSC
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	028-10060-06	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	156816
Units:	ug/L	Prepared:	11/03/09
Diln Fac:	1.000	Analyzed:	11/04/09

Type: BS Cleanup Method: EPA 3630C
Lab ID: QC519751

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,056	82	34-144

Surrogate	%REC	Limits
o-Terphenyl	93	39-150

Type: BSD Cleanup Method: EPA 3630C
Lab ID: QC519752

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,361	94	34-144	14	48

Surrogate	%REC	Limits
o-Terphenyl	108	39-150

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	216169	Location:	Oakland MSC
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	028-10060-06	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC519994	Batch#:	156877
Matrix:	Water	Prepared:	11/04/09
Units:	ug/L	Analyzed:	11/06/09

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,453	98	34-144

Surrogate	%REC	Limits
o-Terphenyl	109	39-150

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	216169	Location:	Oakland MSC
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	028-10060-06	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	156877
MSS Lab ID:	216170-003	Sampled:	10/29/09
Matrix:	Water	Received:	10/30/09
Units:	ug/L	Prepared:	11/04/09
Diln Fac:	1.000	Analyzed:	11/06/09

Type: MS Cleanup Method: EPA 3630C
Lab ID: QC519995

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	185.3	2,500	2,344	86	21-160

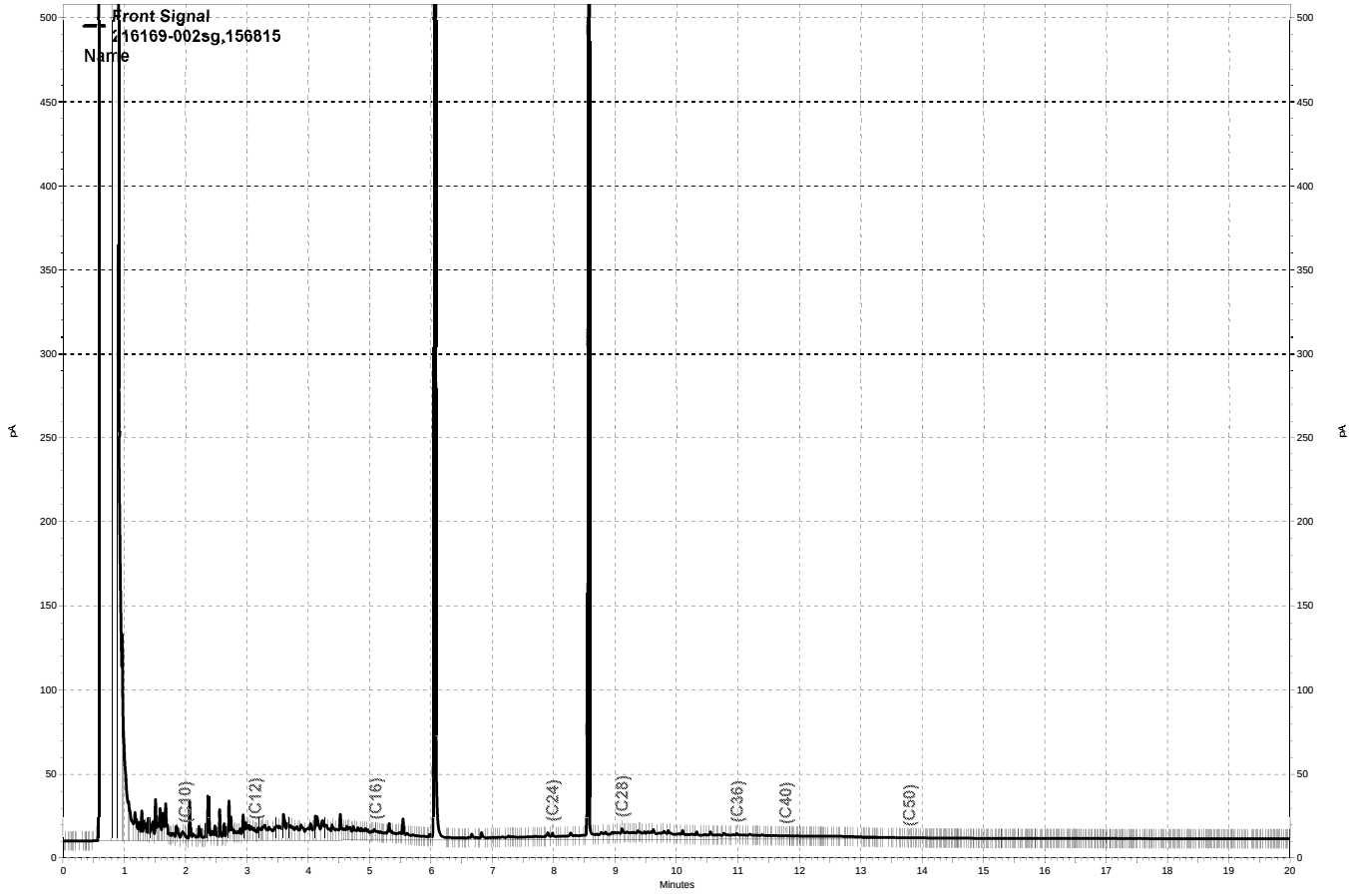
Surrogate	%REC	Limits
o-Terphenyl	105	39-150

Type: MSD Cleanup Method: EPA 3630C
Lab ID: QC519996

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,516	93	21-160	7	58

Surrogate	%REC	Limits
o-Terphenyl	115	39-150

RPD= Relative Percent Difference



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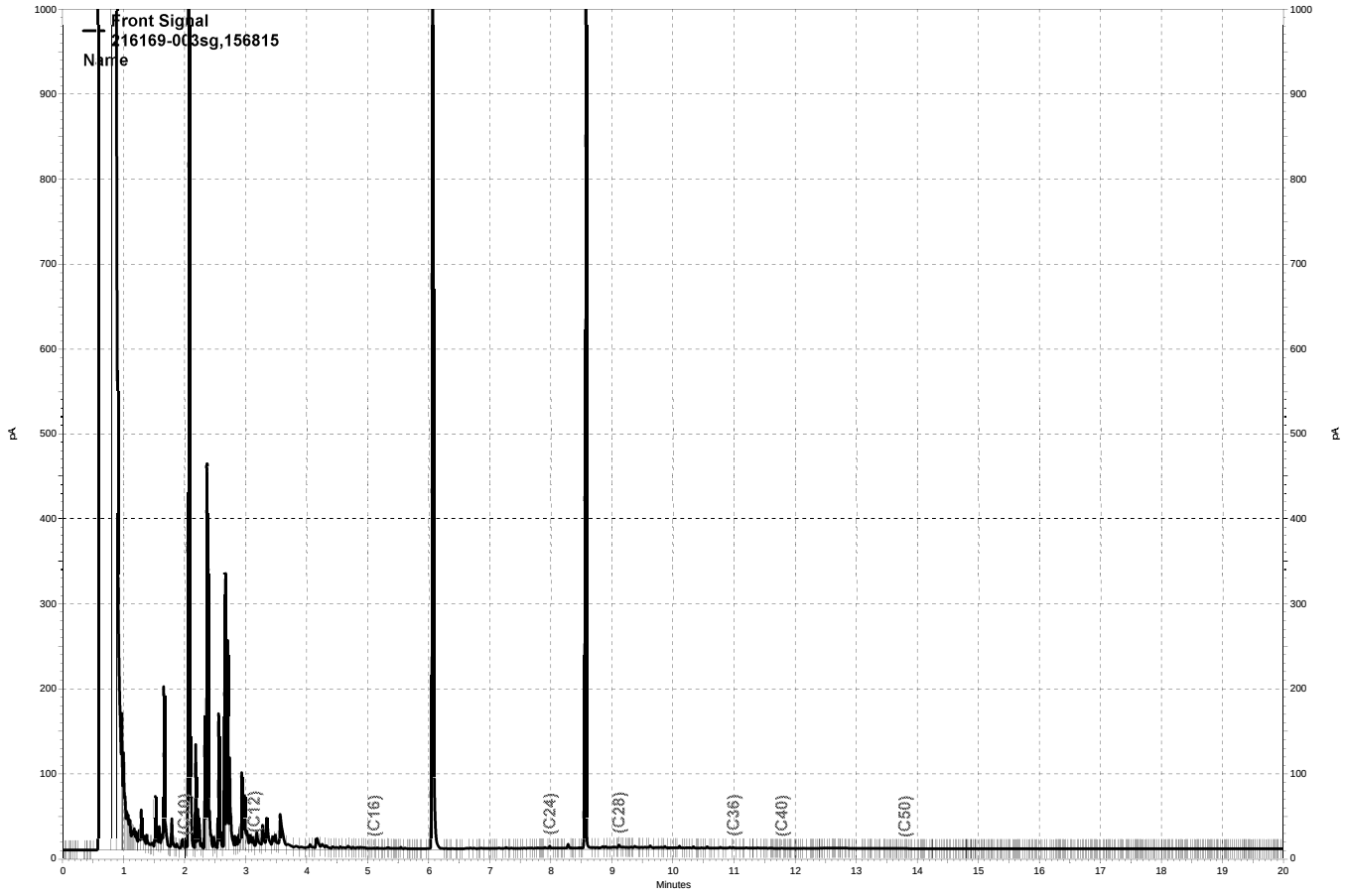

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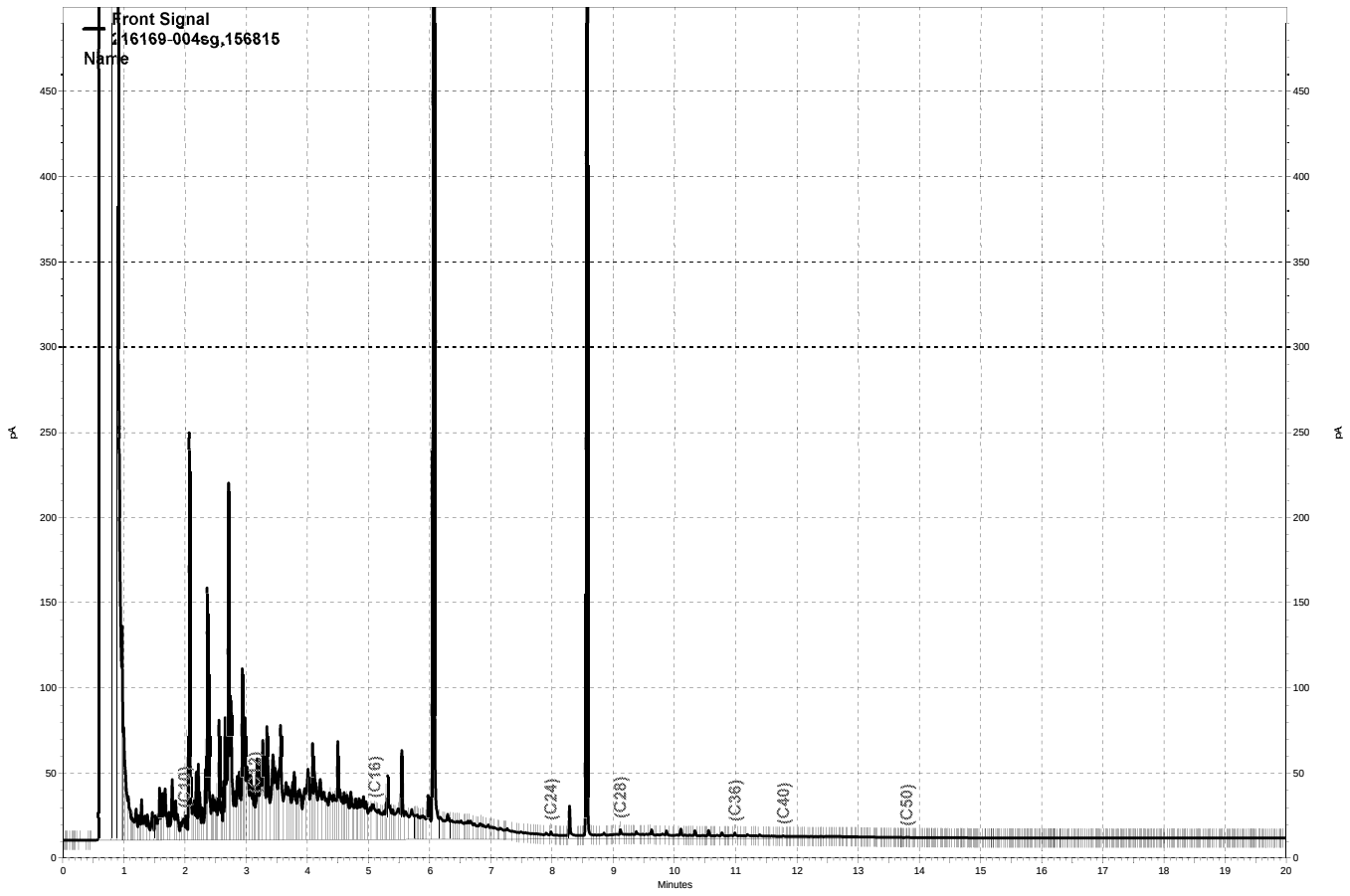

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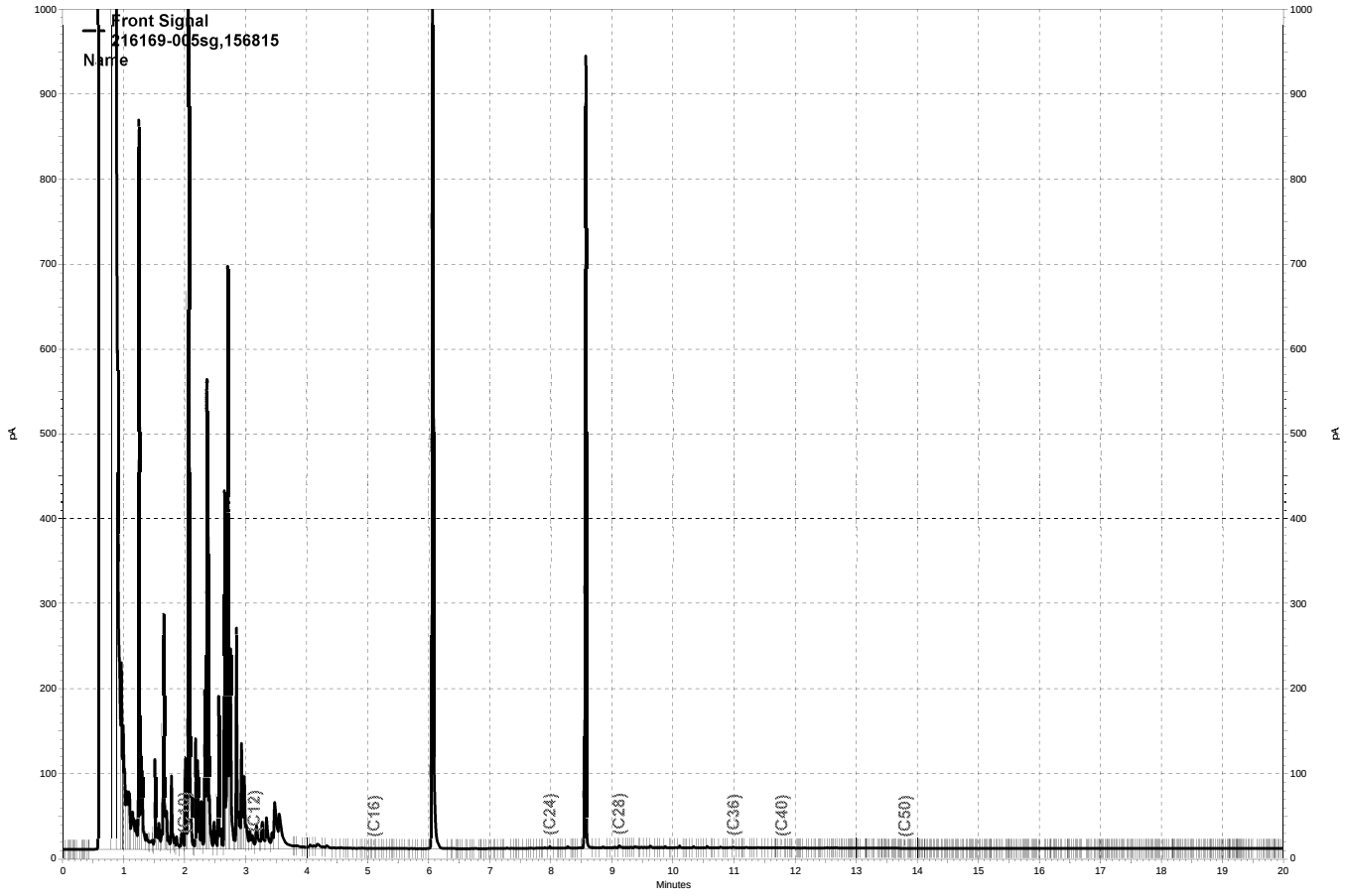

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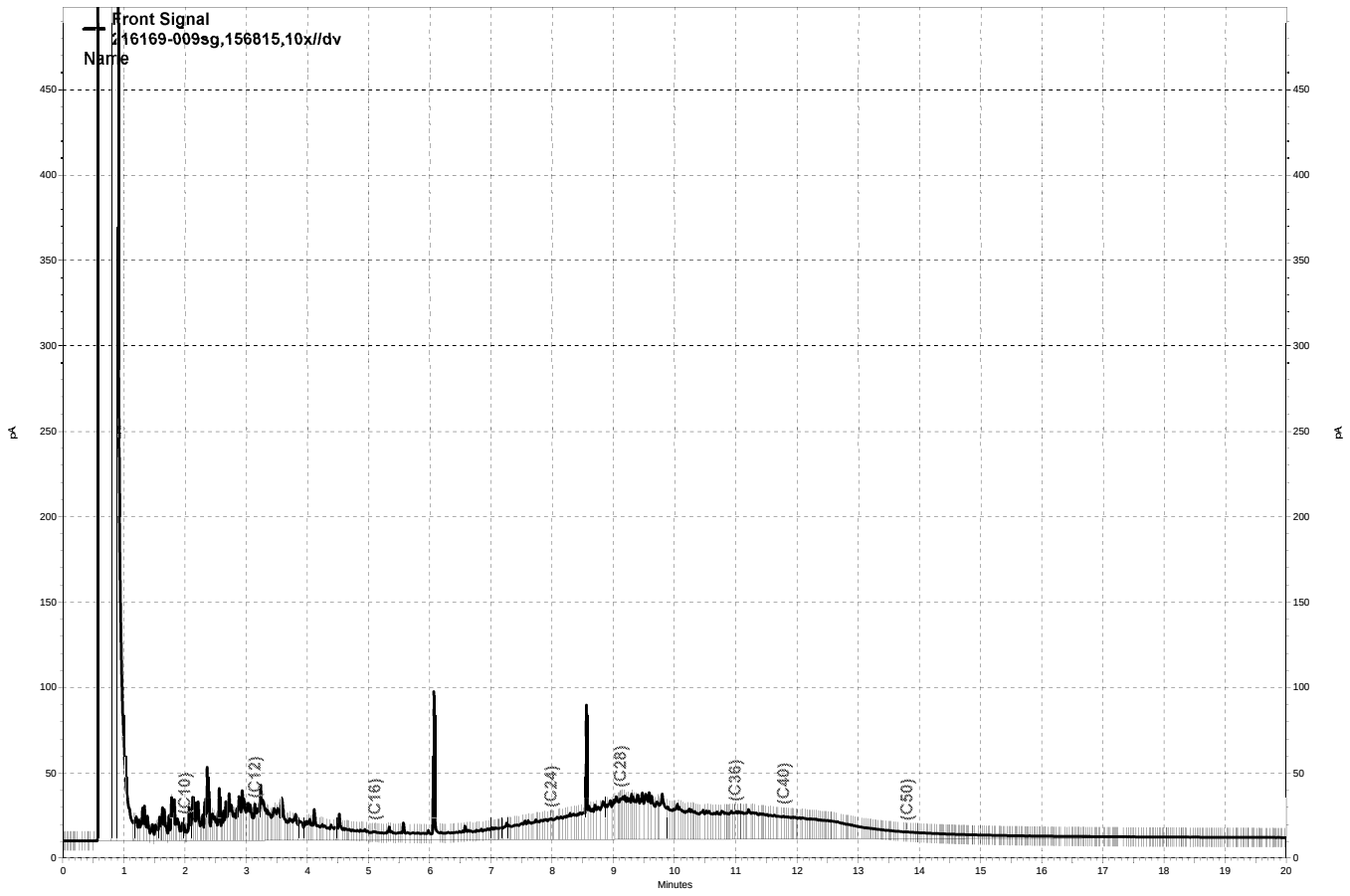

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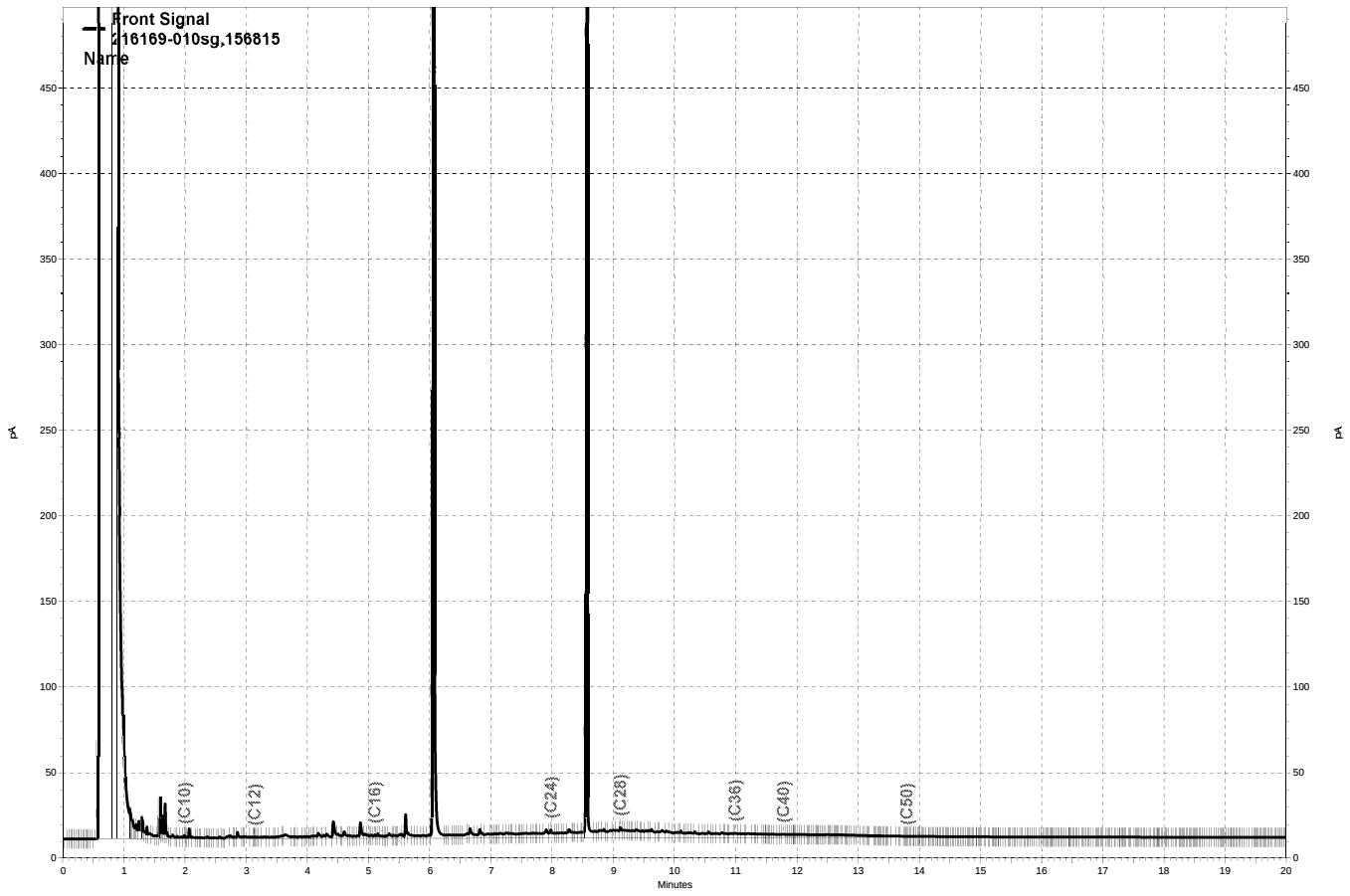

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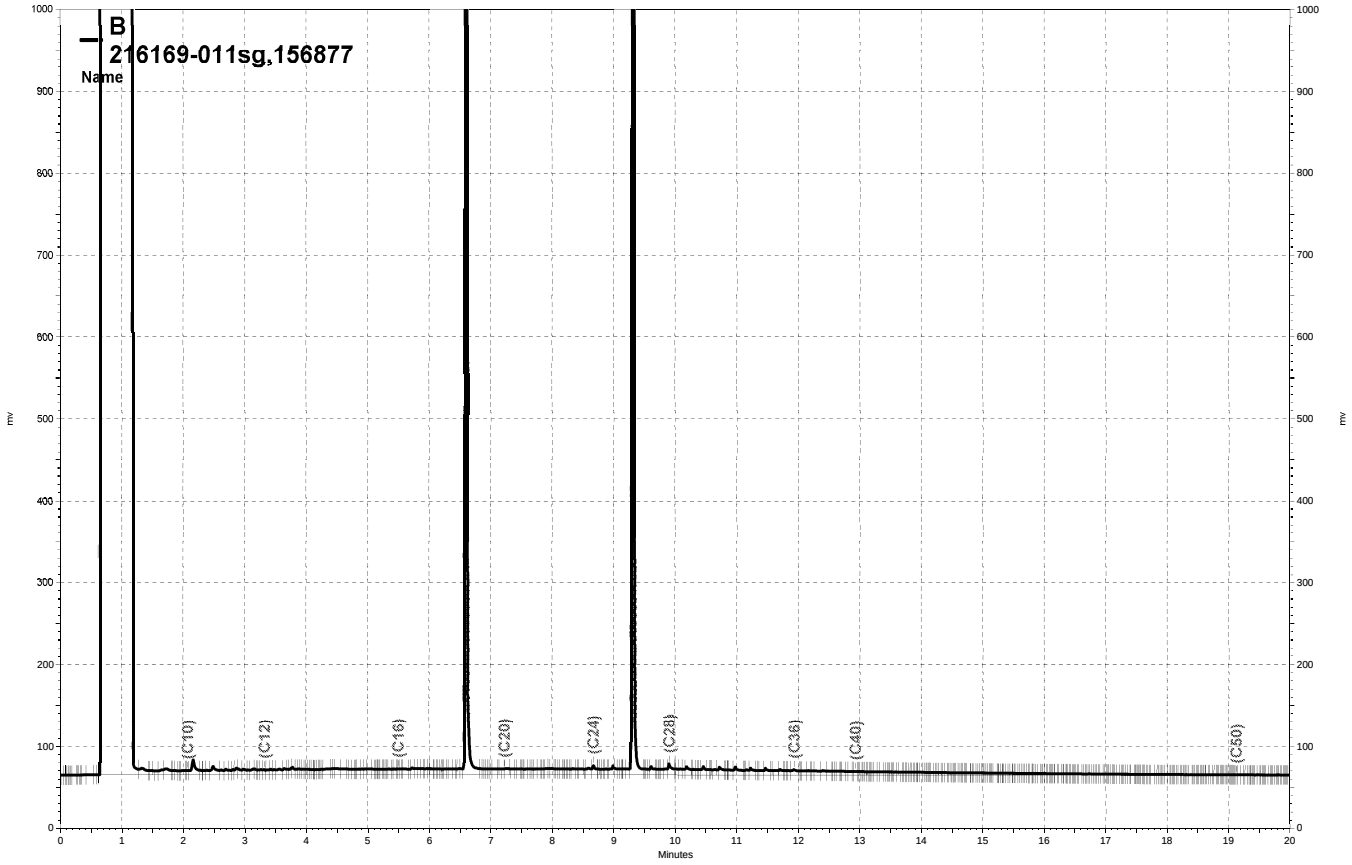

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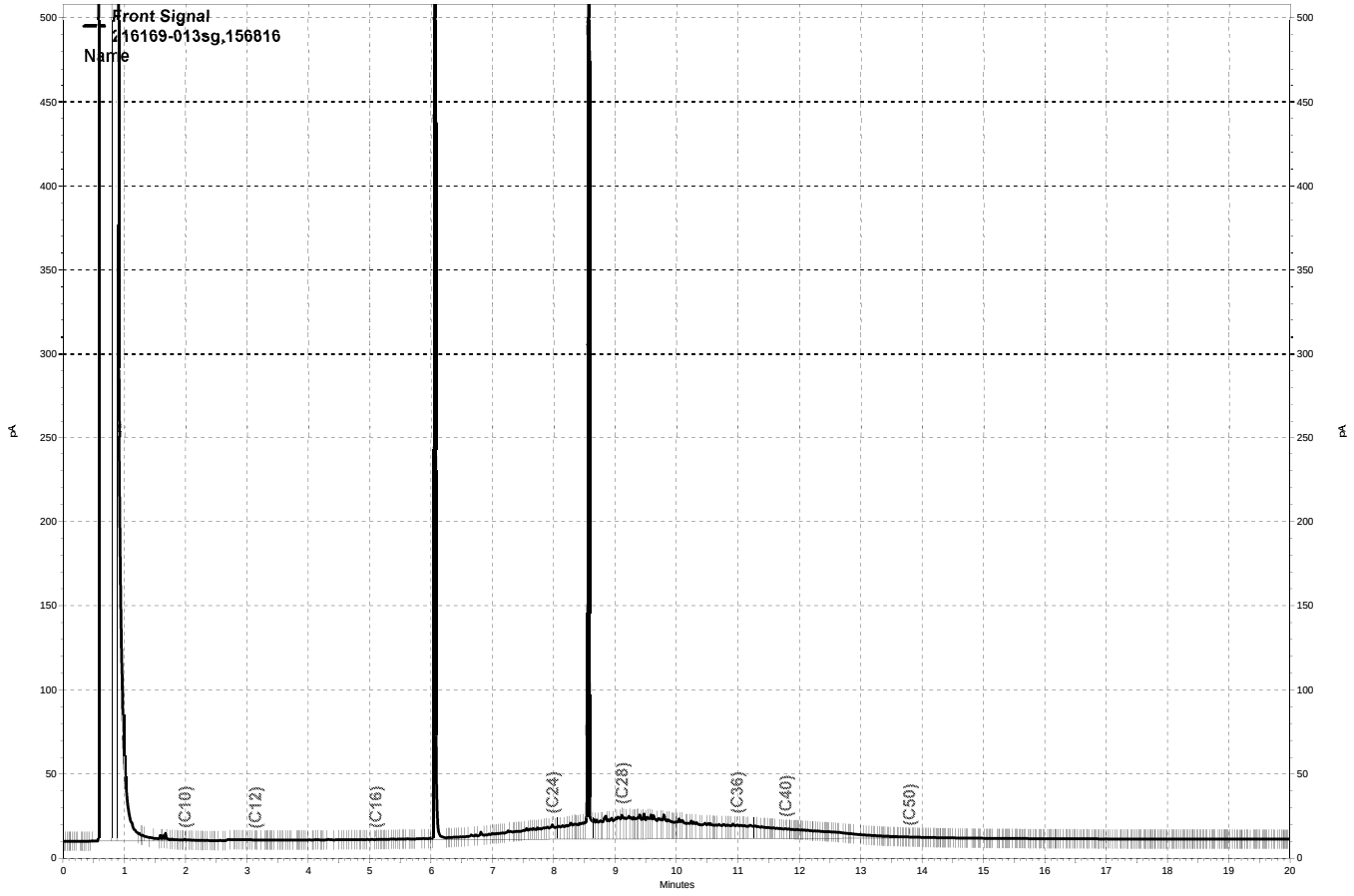

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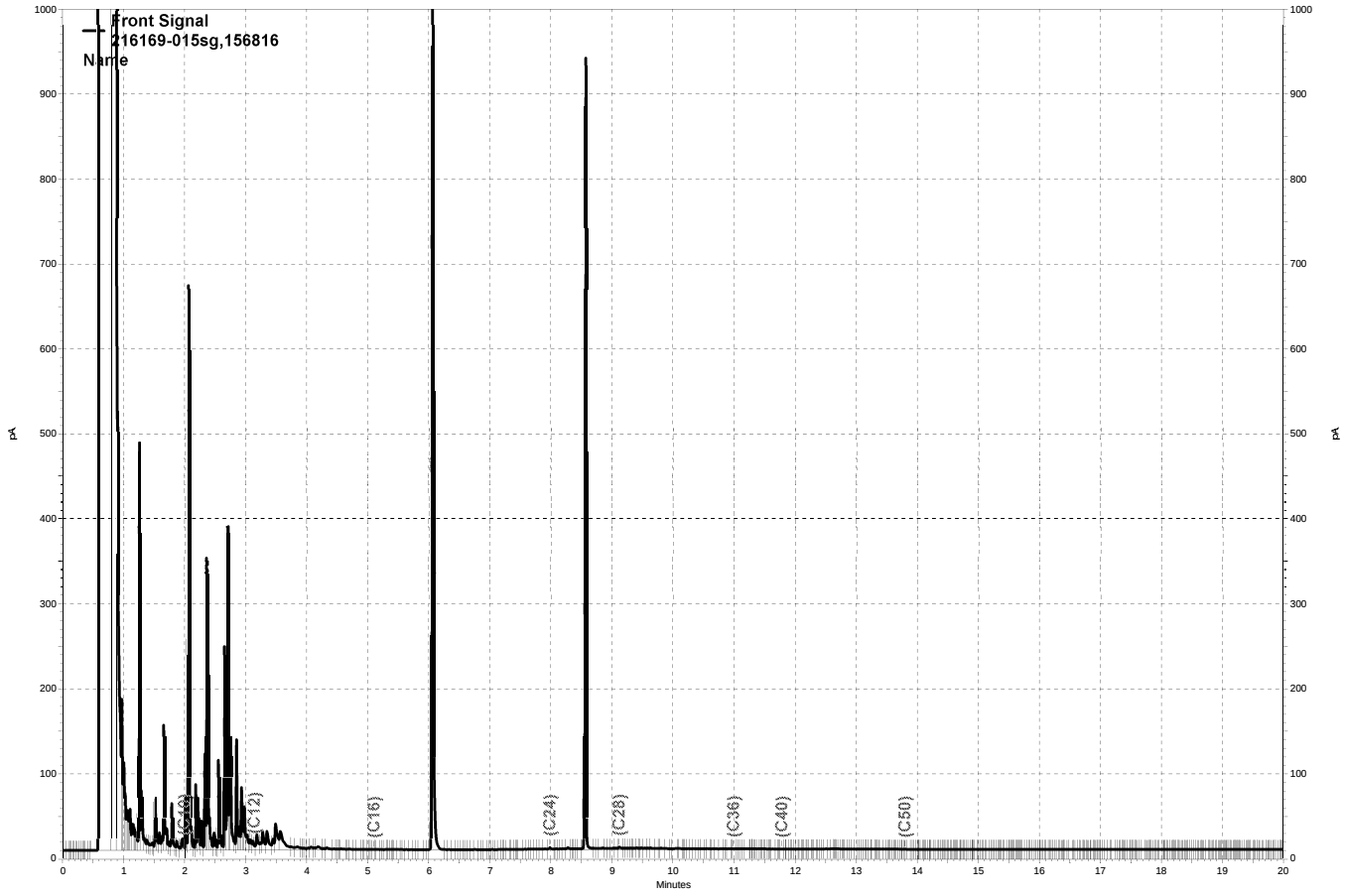

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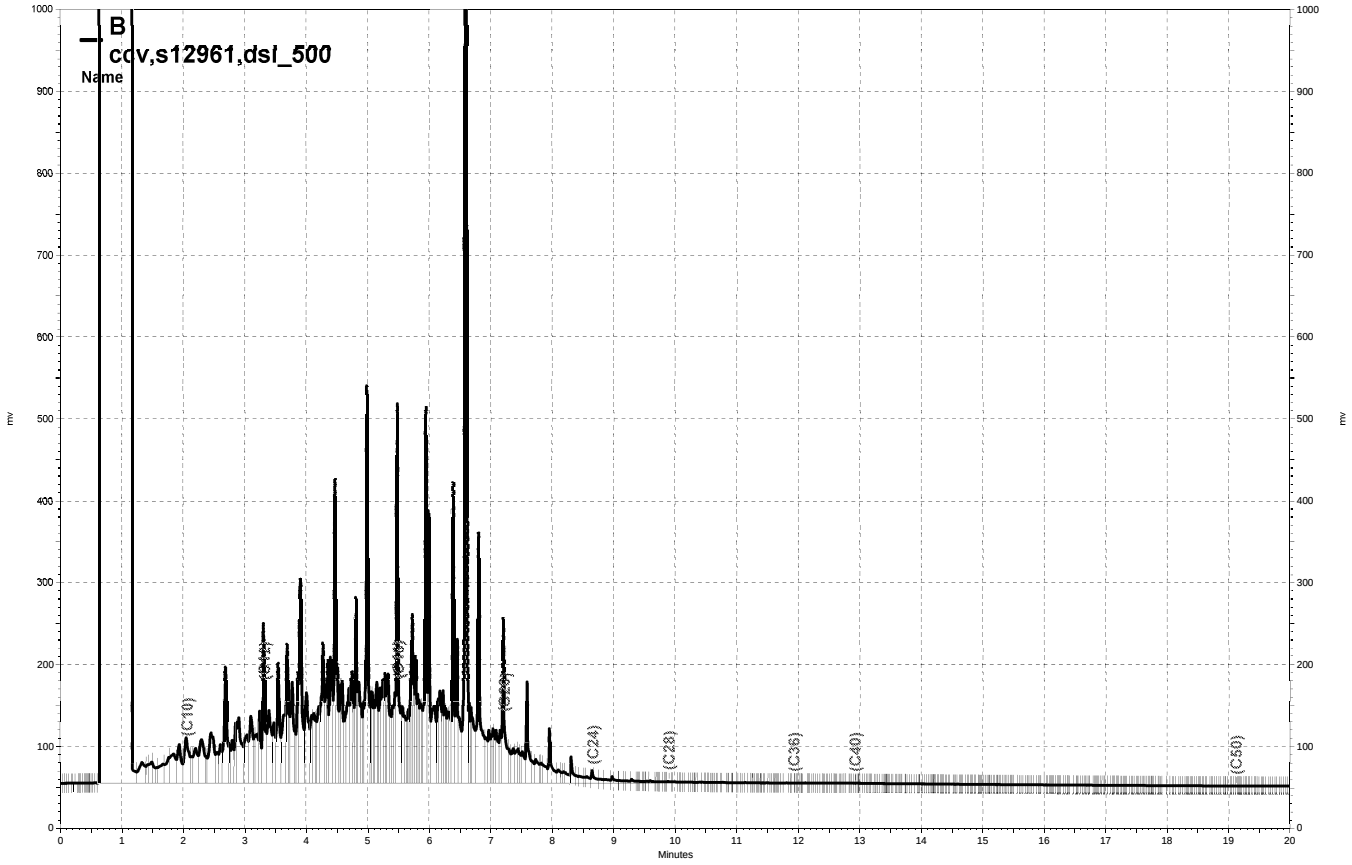

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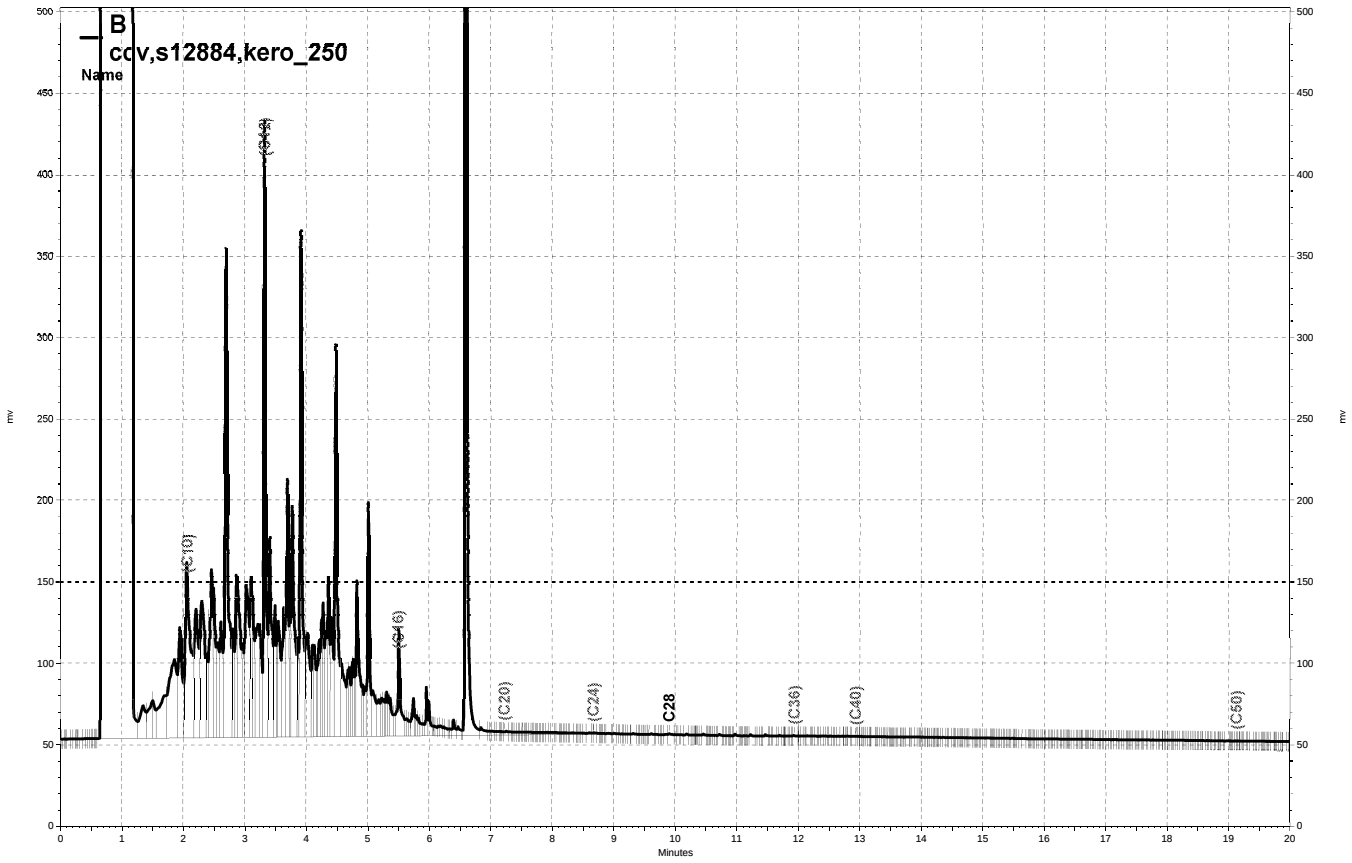

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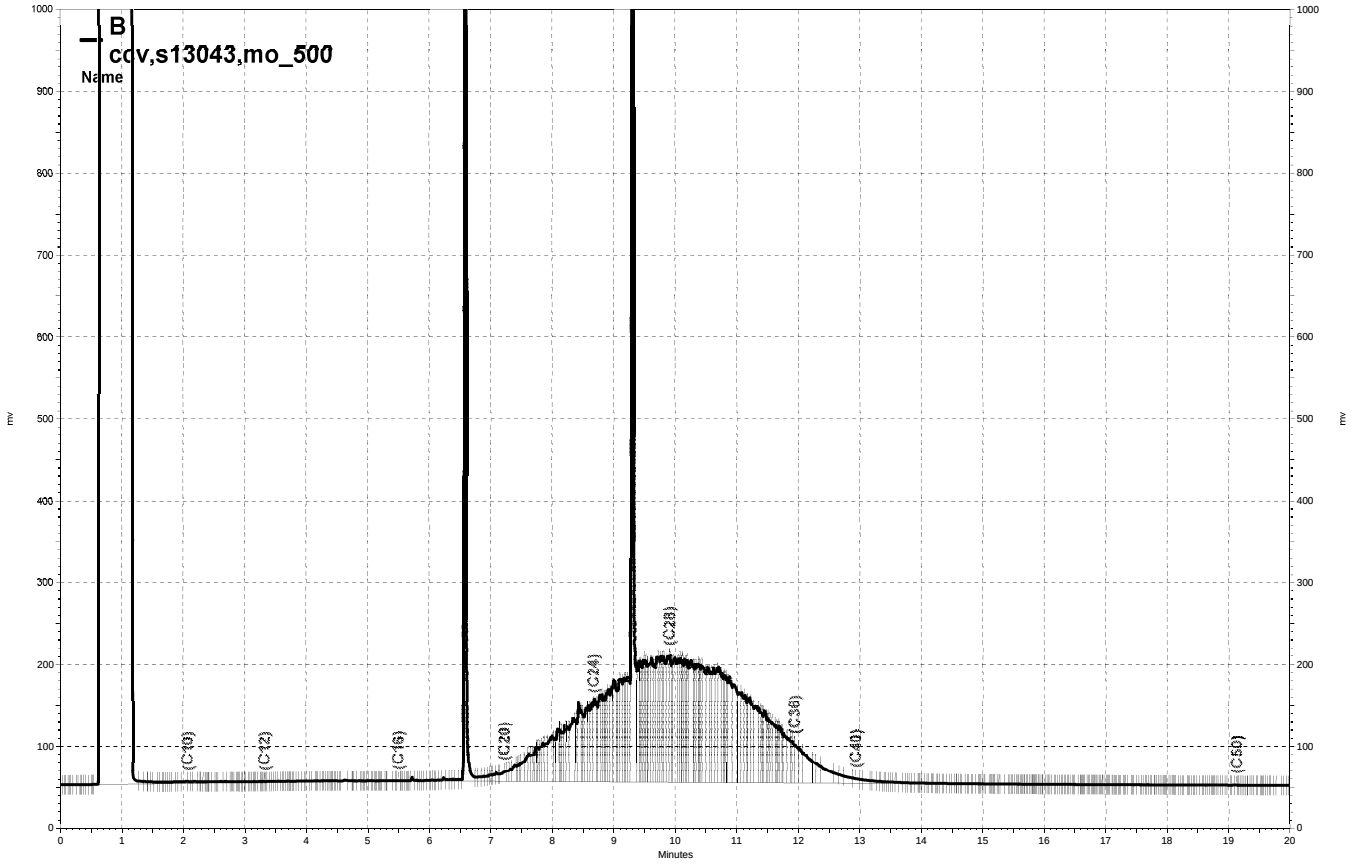

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Curtis & Tompkins, Ltd.

Gasoline by GC/MS

Lab #:	216169	Location:	Oakland MSC
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	028-10060-06	Analysis:	EPA 8260B
Matrix:	Water	Received:	10/30/09
Units:	ug/L		

Field ID:	MW-12	Batch#:	156896
Type:	SAMPLE	Sampled:	10/29/09
Lab ID:	216169-002	Analyzed:	11/05/09
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	160 Y	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	89	81-124
1,2-Dichloroethane-d4	92	73-140
Toluene-d8	100	88-113
Bromofluorobenzene	99	80-127

Field ID:	MW-1	Batch#:	156896
Type:	SAMPLE	Sampled:	10/30/09
Lab ID:	216169-003	Analyzed:	11/05/09
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	1,800 Y	50
MTBE	ND	0.50
Benzene	59	0.50
Toluene	9.4	0.50
Ethylbenzene	3.5	0.50
m,p-Xylenes	8.5	0.50
o-Xylene	2.2	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	90	81-124
1,2-Dichloroethane-d4	86	73-140
Toluene-d8	99	88-113
Bromofluorobenzene	96	80-127

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

Curtis & Tompkins, Ltd.

Gasoline by GC/MS

Lab #:	216169	Location:	Oakland MSC
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	028-10060-06	Analysis:	EPA 8260B
Matrix:	Water	Received:	10/30/09
Units:	ug/L		

Field ID:	MW-6	Batch#:	156896
Type:	SAMPLE	Sampled:	10/30/09
Lab ID:	216169-004	Analyzed:	11/05/09
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	560 Y	50
MTBE	5.0	0.50
Benzene	98	0.50
Toluene	4.1	0.50
Ethylbenzene	3.0	0.50
m,p-Xylenes	4.2	0.50
o-Xylene	0.56	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	90	81-124
1,2-Dichloroethane-d4	80	73-140
Toluene-d8	99	88-113
Bromofluorobenzene	98	80-127

Field ID:	MW-5	Sampled:	10/30/09
Type:	SAMPLE	Analyzed:	11/07/09
Lab ID:	216169-005		

Analyte	Result	RL	Diln Fac	Batch#
Gasoline C7-C12	3,100	200	4.000	156964
MTBE	23	1.7	3.333	156988
Benzene	5.2	1.7	3.333	156988
Toluene	ND	1.7	3.333	156988
Ethylbenzene	200	1.7	3.333	156988
m,p-Xylenes	8.1	1.7	3.333	156988
o-Xylene	ND	1.7	3.333	156988

Surrogate	%REC	Limits	Diln Fac	Batch#
Dibromofluoromethane	108	81-124	3.333	156988
1,2-Dichloroethane-d4	135	73-140	3.333	156988
Toluene-d8	100	88-113	3.333	156988
Bromofluorobenzene	99	80-127	3.333	156988

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

Curtis & Tompkins, Ltd.

Gasoline by GC/MS

Lab #:	216169	Location:	Oakland MSC
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	028-10060-06	Analysis:	EPA 8260B
Matrix:	Water	Received:	10/30/09
Units:	ug/L		

Field ID:	MW-8	Batch#:	156896
Type:	SAMPLE	Sampled:	10/30/09
Lab ID:	216169-007	Analyzed:	11/06/09
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	89	81-124
1,2-Dichloroethane-d4	93	73-140
Toluene-d8	99	88-113
Bromofluorobenzene	100	80-127

Field ID:	MW-17	Batch#:	156896
Type:	SAMPLE	Sampled:	10/30/09
Lab ID:	216169-008	Analyzed:	11/06/09
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	91	81-124
1,2-Dichloroethane-d4	93	73-140
Toluene-d8	99	88-113
Bromofluorobenzene	109	80-127

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

Curtis & Tompkins, Ltd.

Gasoline by GC/MS

Lab #:	216169	Location:	Oakland MSC
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	028-10060-06	Analysis:	EPA 8260B
Matrix:	Water	Received:	10/30/09
Units:	ug/L		

Field ID:	MW-16	Batch#:	156896
Type:	SAMPLE	Sampled:	10/30/09
Lab ID:	216169-009	Analyzed:	11/06/09
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	590	50
MTBE	ND	0.50
Benzene	59	0.50
Toluene	3.5	0.50
Ethylbenzene	3.1	0.50
m,p-Xylenes	2.5	0.50
o-Xylene	0.53	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	91	81-124
1,2-Dichloroethane-d4	88	73-140
Toluene-d8	100	88-113
Bromofluorobenzene	99	80-127

Field ID:	MW-15	Batch#:	156896
Type:	SAMPLE	Sampled:	10/30/09
Lab ID:	216169-010	Analyzed:	11/06/09
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	81 Y	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	1.6	0.50
o-Xylene	0.81	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	92	81-124
1,2-Dichloroethane-d4	94	73-140
Toluene-d8	98	88-113
Bromofluorobenzene	99	80-127

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

Curtis & Tompkins, Ltd.

Gasoline by GC/MS

Lab #:	216169	Location:	Oakland MSC
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	028-10060-06	Analysis:	EPA 8260B
Matrix:	Water	Received:	10/30/09
Units:	ug/L		

Field ID:	MW-9	Batch#:	156964
Type:	SAMPLE	Sampled:	10/30/09
Lab ID:	216169-011	Analyzed:	11/06/09
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	0.61	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	100	81-124
1,2-Dichloroethane-d4	104	73-140
Toluene-d8	99	88-113
Bromofluorobenzene	104	80-127

Field ID:	MW-14	Batch#:	156964
Type:	SAMPLE	Sampled:	10/30/09
Lab ID:	216169-012	Analyzed:	11/06/09
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	99	81-124
1,2-Dichloroethane-d4	103	73-140
Toluene-d8	99	88-113
Bromofluorobenzene	106	80-127

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

Curtis & Tompkins, Ltd.

Gasoline by GC/MS

Lab #:	216169	Location:	Oakland MSC
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	028-10060-06	Analysis:	EPA 8260B
Matrix:	Water	Received:	10/30/09
Units:	ug/L		

Field ID:	MW-13	Batch#:	156964
Type:	SAMPLE	Sampled:	10/30/09
Lab ID:	216169-013	Analyzed:	11/06/09
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	97	81-124
1,2-Dichloroethane-d4	105	73-140
Toluene-d8	99	88-113
Bromofluorobenzene	109	80-127

Field ID:	MW-10	Batch#:	156964
Type:	SAMPLE	Sampled:	10/30/09
Lab ID:	216169-014	Analyzed:	11/06/09
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	100	81-124
1,2-Dichloroethane-d4	106	73-140
Toluene-d8	100	88-113
Bromofluorobenzene	105	80-127

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

Curtis & Tompkins, Ltd.

Gasoline by GC/MS

Lab #:	216169	Location:	Oakland MSC
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	028-10060-06	Analysis:	EPA 8260B
Matrix:	Water	Received:	10/30/09
Units:	ug/L		

Field ID:	MW-5-D	Sampled:	10/30/09
Type:	SAMPLE	Analyzed:	11/07/09
Lab ID:	216169-015		

Analyte	Result	RL	Diln Fac	Batch#
Gasoline C7-C12	3,300	830	16.67	156964
MTBE	20	1.7	3.333	156988
Benzene	5.3	1.7	3.333	156988
Toluene	ND	1.7	3.333	156988
Ethylbenzene	210	1.7	3.333	156988
m,p-Xylenes	8.7	1.7	3.333	156988
o-Xylene	ND	1.7	3.333	156988

Surrogate	%REC	Limits	Diln Fac	Batch#
Dibromofluoromethane	105	81-124	3.333	156988
1,2-Dichloroethane-d4	125	73-140	3.333	156988
Toluene-d8	99	88-113	3.333	156988
Bromofluorobenzene	98	80-127	3.333	156988

Type:	BLANK	Batch#:	156896
Lab ID:	QC520078	Analyzed:	11/05/09
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	104	81-124
1,2-Dichloroethane-d4	108	73-140
Toluene-d8	101	88-113
Bromofluorobenzene	108	80-127

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

Curtis & Tompkins, Ltd.

Gasoline by GC/MS

Lab #:	216169	Location:	Oakland MSC
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	028-10060-06	Analysis:	EPA 8260B
Matrix:	Water	Received:	10/30/09
Units:	ug/L		

Type: BLANK Batch#: 156964
Lab ID: QC520359 Analyzed: 11/06/09
Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	NA	
Benzene	NA	
Toluene	NA	
Ethylbenzene	NA	
m,p-Xylenes	NA	
o-Xylene	NA	

Surrogate	%REC	Limits
Dibromofluoromethane	95	81-124
1,2-Dichloroethane-d4	98	73-140
Toluene-d8	99	88-113
Bromofluorobenzene	102	80-127

Type: BLANK Batch#: 156964
Lab ID: QC520392 Analyzed: 11/06/09
Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	98	81-124
1,2-Dichloroethane-d4	101	73-140
Toluene-d8	100	88-113
Bromofluorobenzene	102	80-127

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

Curtis & Tompkins, Ltd.

Gasoline by GC/MS

Lab #:	216169	Location:	Oakland MSC
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	028-10060-06	Analysis:	EPA 8260B
Matrix:	Water	Received:	10/30/09
Units:	ug/L		

Type:	BLANK	Batch#:	156988
Lab ID:	QC520437	Analyzed:	11/07/09
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	NA	
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	109	81-124
1,2-Dichloroethane-d4	130	73-140
Toluene-d8	99	88-113
Bromofluorobenzene	100	80-127

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

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/MS

Lab #:	216169	Location:	Oakland MSC
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	028-10060-06	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	156896
Units:	ug/L	Analyzed:	11/05/09
Diln Fac:	1.000		

Type: BS Lab ID: QC520079

Analyte	Spiked	Result	%REC	Limits
MTBE	21.25	20.60	97	61-123
Benzene	21.25	22.52	106	81-122
Toluene	21.25	22.03	104	82-122
Ethylbenzene	21.25	23.62	111	86-125
m,p-Xylenes	42.50	48.27	114	83-127
o-Xylene	21.25	23.07	109	81-122

Surrogate	%REC	Limits
Dibromofluoromethane	101	81-124
1,2-Dichloroethane-d4	99	73-140
Toluene-d8	100	88-113
Bromofluorobenzene	101	80-127

Type: BSD Lab ID: QC520080

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	21.25	20.43	96	61-123	1	11
Benzene	21.25	22.20	104	81-122	1	12
Toluene	21.25	22.56	106	82-122	2	12
Ethylbenzene	21.25	23.46	110	86-125	1	12
m,p-Xylenes	42.50	48.57	114	83-127	1	13
o-Xylene	21.25	22.67	107	81-122	2	12

Surrogate	%REC	Limits
Dibromofluoromethane	101	81-124
1,2-Dichloroethane-d4	99	73-140
Toluene-d8	101	88-113
Bromofluorobenzene	102	80-127

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/MS

Lab #:	216169	Location:	Oakland MSC
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	028-10060-06	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	156896
Units:	ug/L	Analyzed:	11/05/09
Diln Fac:	1.000		

Type: BS Lab ID: QC520081

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	850.0	787.5	93	74-124

Surrogate	%REC	Limits
Dibromofluoromethane	101	81-124
1,2-Dichloroethane-d4	103	73-140
Toluene-d8	100	88-113
Bromofluorobenzene	100	80-127

Type: BSD Lab ID: QC520082

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	850.0	764.2	90	74-124	3	13

Surrogate	%REC	Limits
Dibromofluoromethane	97	81-124
1,2-Dichloroethane-d4	98	73-140
Toluene-d8	99	88-113
Bromofluorobenzene	101	80-127

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/MS

Lab #:	216169	Location:	Oakland MSC
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	028-10060-06	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	156964
Units:	ug/L	Analyzed:	11/06/09
Diln Fac:	1.000		

Type: BS Lab ID: QC520360

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	800.0	769.2	96	74-124

Surrogate	%REC	Limits
Dibromofluoromethane	93	81-124
1,2-Dichloroethane-d4	94	73-140
Toluene-d8	100	88-113
Bromofluorobenzene	99	80-127

Type: BSD Lab ID: QC520361

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	800.0	778.2	97	74-124	1	13

Surrogate	%REC	Limits
Dibromofluoromethane	92	81-124
1,2-Dichloroethane-d4	94	73-140
Toluene-d8	98	88-113
Bromofluorobenzene	97	80-127

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/MS

Lab #:	216169	Location:	Oakland MSC
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	028-10060-06	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	156964
Units:	ug/L	Analyzed:	11/06/09
Diln Fac:	1.000		

Type: BS Lab ID: QC520390

Analyte	Spiked	Result	%REC	Limits
MTBE	20.00	18.45	92	61-123
Benzene	20.00	20.45	102	81-122
Toluene	20.00	21.14	106	82-122
Ethylbenzene	20.00	22.06	110	86-125
m,p-Xylenes	40.00	45.38	113	83-127
o-Xylene	20.00	21.72	109	81-122

Surrogate	%REC	Limits
Dibromofluoromethane	96	81-124
1,2-Dichloroethane-d4	92	73-140
Toluene-d8	99	88-113
Bromofluorobenzene	98	80-127

Type: BSD Lab ID: QC520391

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	20.00	18.58	93	61-123	1	11
Benzene	20.00	20.81	104	81-122	2	12
Toluene	20.00	21.66	108	82-122	2	12
Ethylbenzene	20.00	22.11	111	86-125	0	12
m,p-Xylenes	40.00	46.52	116	83-127	2	13
o-Xylene	20.00	21.70	109	81-122	0	12

Surrogate	%REC	Limits
Dibromofluoromethane	96	81-124
1,2-Dichloroethane-d4	93	73-140
Toluene-d8	100	88-113
Bromofluorobenzene	100	80-127

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/MS

Lab #:	216169	Location:	Oakland MSC
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	028-10060-06	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	156988
Units:	ug/L	Analyzed:	11/07/09
Diln Fac:	1.000		

Type: BS Lab ID: QC520438

Analyte	Spiked	Result	%REC	Limits
MTBE	17.50	16.26	93	61-123
Benzene	17.50	16.88	96	81-122
Toluene	17.50	16.18	92	82-122
Ethylbenzene	17.50	17.62	101	86-125
m,p-Xylenes	35.00	34.50	99	83-127
o-Xylene	17.50	16.50	94	81-122

Surrogate	%REC	Limits
Dibromofluoromethane	110	81-124
1,2-Dichloroethane-d4	133	73-140
Toluene-d8	99	88-113
Bromofluorobenzene	97	80-127

Type: BSD Lab ID: QC520439

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	17.50	15.65	89	61-123	4	11
Benzene	17.50	16.96	97	81-122	0	12
Toluene	17.50	16.36	94	82-122	1	12
Ethylbenzene	17.50	17.91	102	86-125	2	12
m,p-Xylenes	35.00	34.91	100	83-127	1	13
o-Xylene	17.50	16.82	96	81-122	2	12

Surrogate	%REC	Limits
Dibromofluoromethane	108	81-124
1,2-Dichloroethane-d4	130	73-140
Toluene-d8	99	88-113
Bromofluorobenzene	98	80-127

RPD= Relative Percent Difference

Data File: \\GCMSSERVER\DD\chem\MSVOA08.i\110509.b\HK521TVH.D

Date : 05-NOV-2009 22:43

Client ID: DYNA P&T

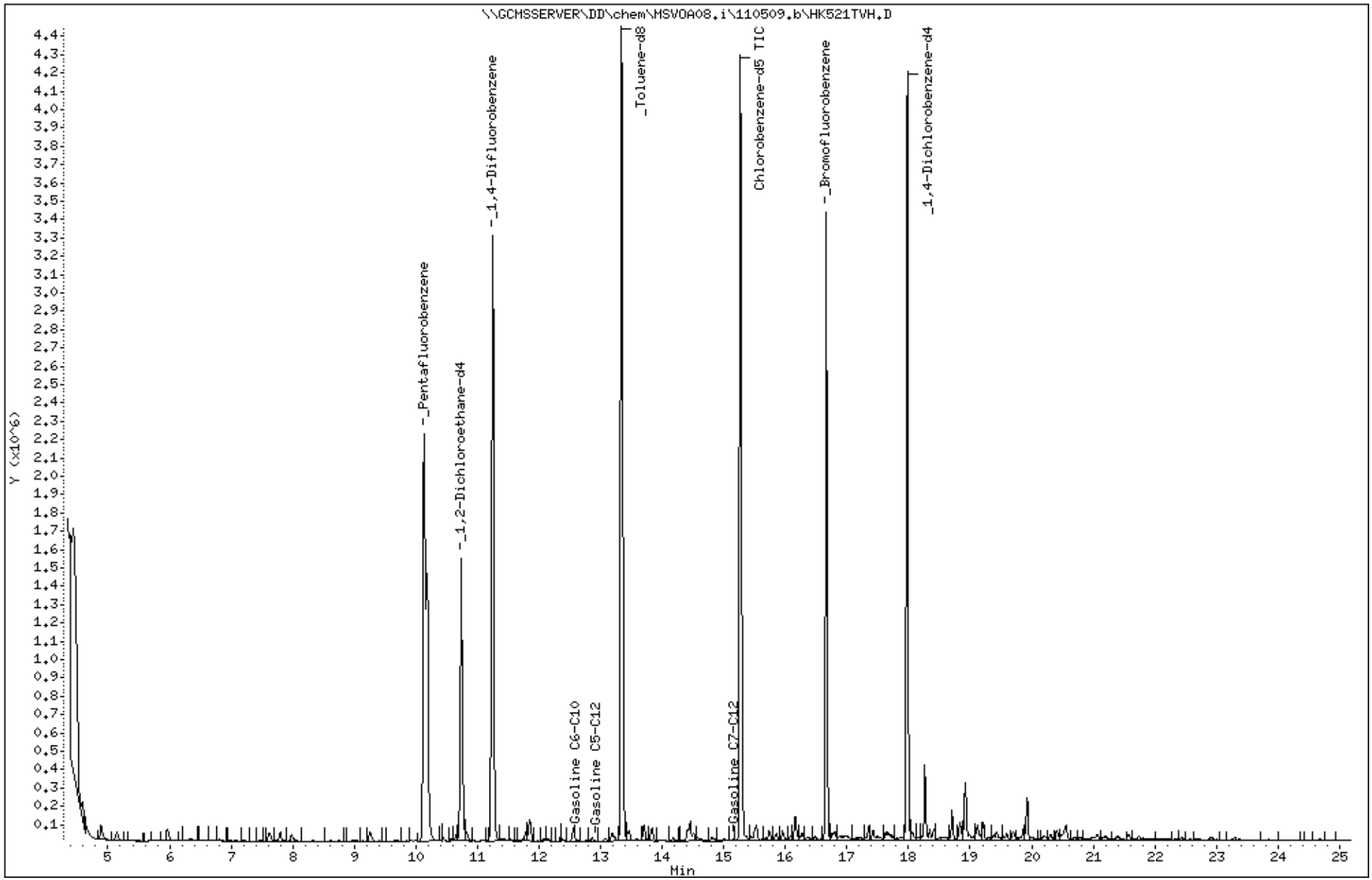
Instrument: MSVOA08.i

Sample Info: S,216169-002

Operator: voc

Column phase:

Column diameter: 2.00



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Date : 05-NOV-2009 23:20

Client ID: DYNA P&T

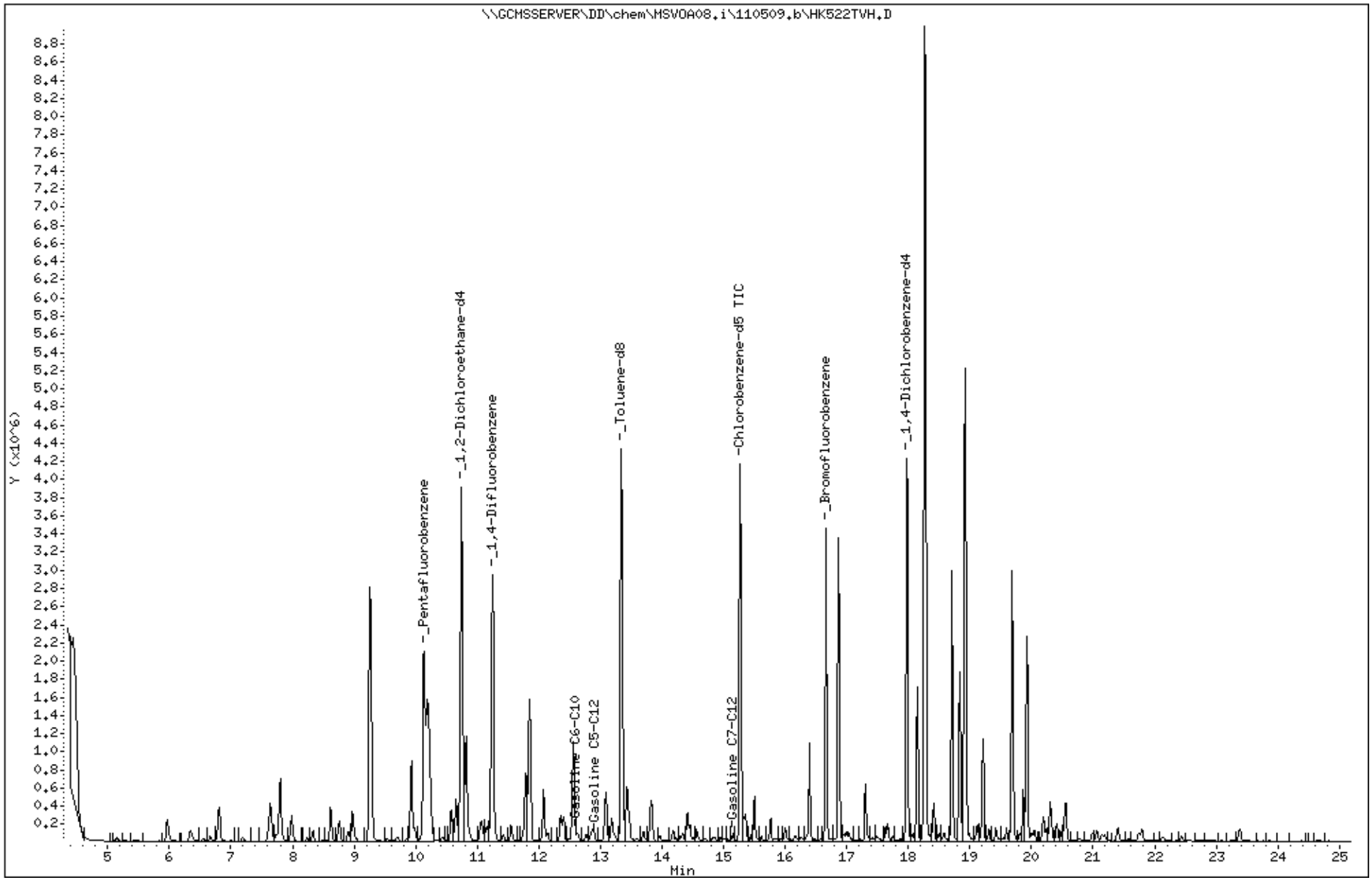
Instrument: MSVOA08.i

Sample Info: S,216169-003

Operator: voc

Column phase:

Column diameter: 2.00



Data File: \\GCMSSERVER\DD\chem\MSVOA08.i\110509.b\HK523TVH.D

Date : 05-NOV-2009 23:56

Client ID: DYNA P&T

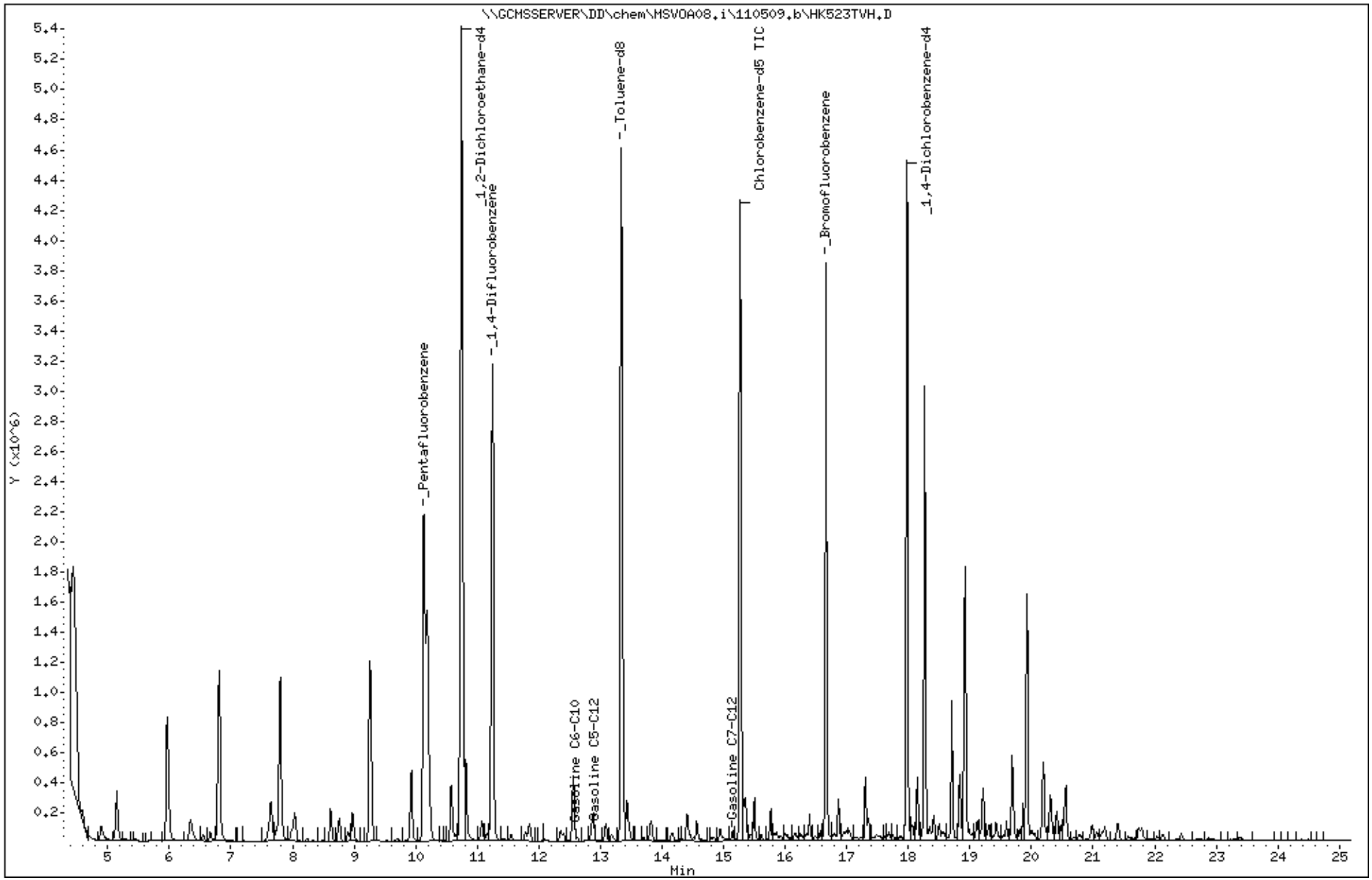
Instrument: MSVOA08.i

Sample Info: S,216169-004

Operator: voc

Column phase:

Column diameter: 2.00



Data File: \\GCMSSERVER\DD\chem\MSVOA08.i\110609.b\HK622TVH.D

Date : 07-NOV-2009 00:48

Client ID: DYNA P&T

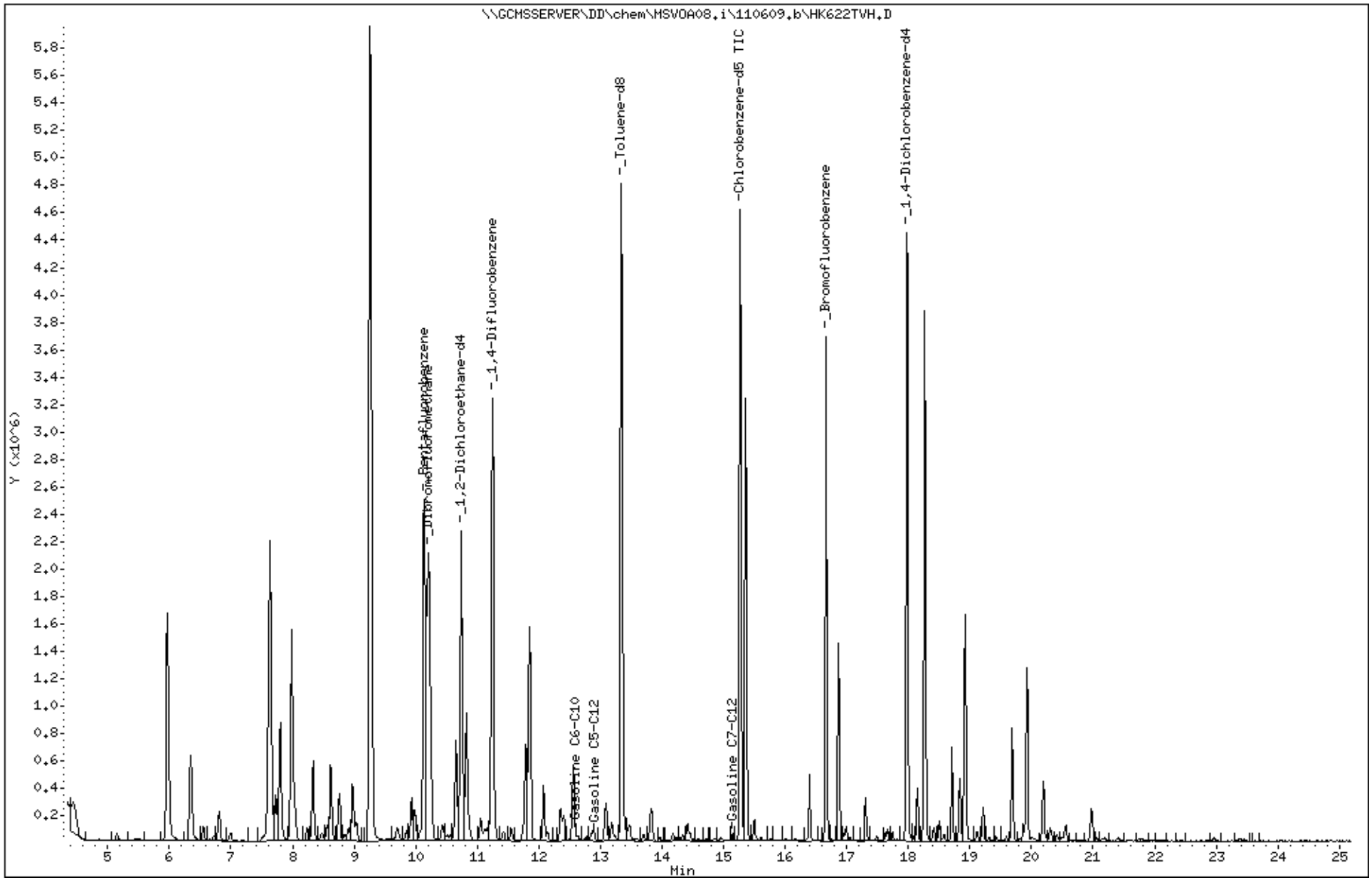
Instrument: MSVOA08.i

Sample Info: S,216169-005

Operator: voc

Column phase:

Column diameter: 2.00



Data File: \\GCMSSERVER\DD\chem\MSVOA08.i\110509.b\HK526TVH.D

Date : 06-NOV-2009 01:46

Client ID: DYNA P&T

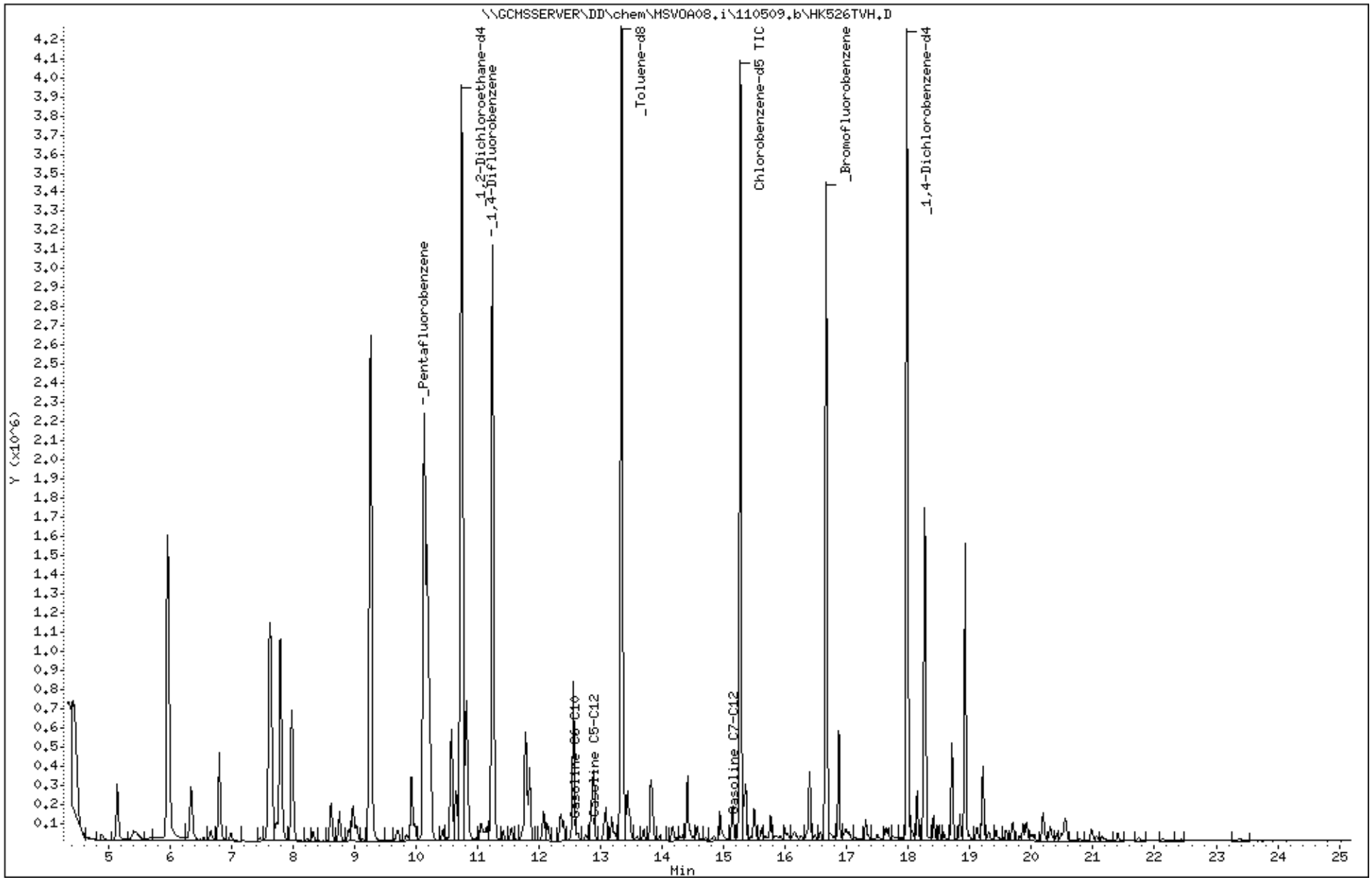
Instrument: MSVOA08.i

Sample Info: S,216169-009

Operator: voc

Column phase:

Column diameter: 2.00



Data File: \\GCMSSERVER\DD\chem\MSVOA08.i\110509.b\HK527TVH.D

Date : 06-NOV-2009 02:23

Client ID: DYNA P&T

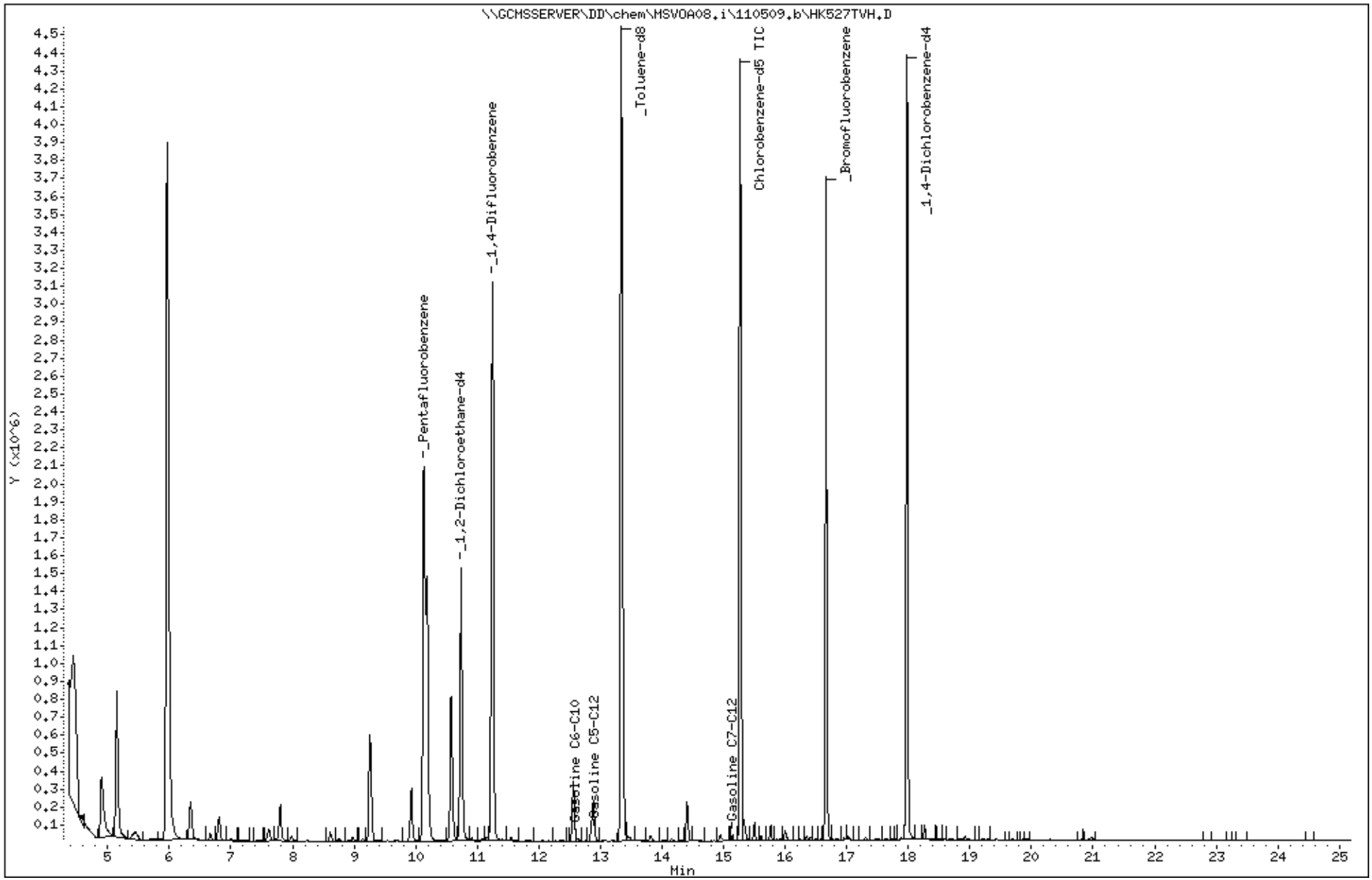
Instrument: MSVOA08.i

Sample Info: S,216169-010

Operator: voc

Column phase:

Column diameter: 2.00



Data File: \\GCMSSERVER\DD\chem\MSVOA08.i\110609.b\HK623TVH.D

Date : 07-NOV-2009 01:25

Client ID: DYNA P&T

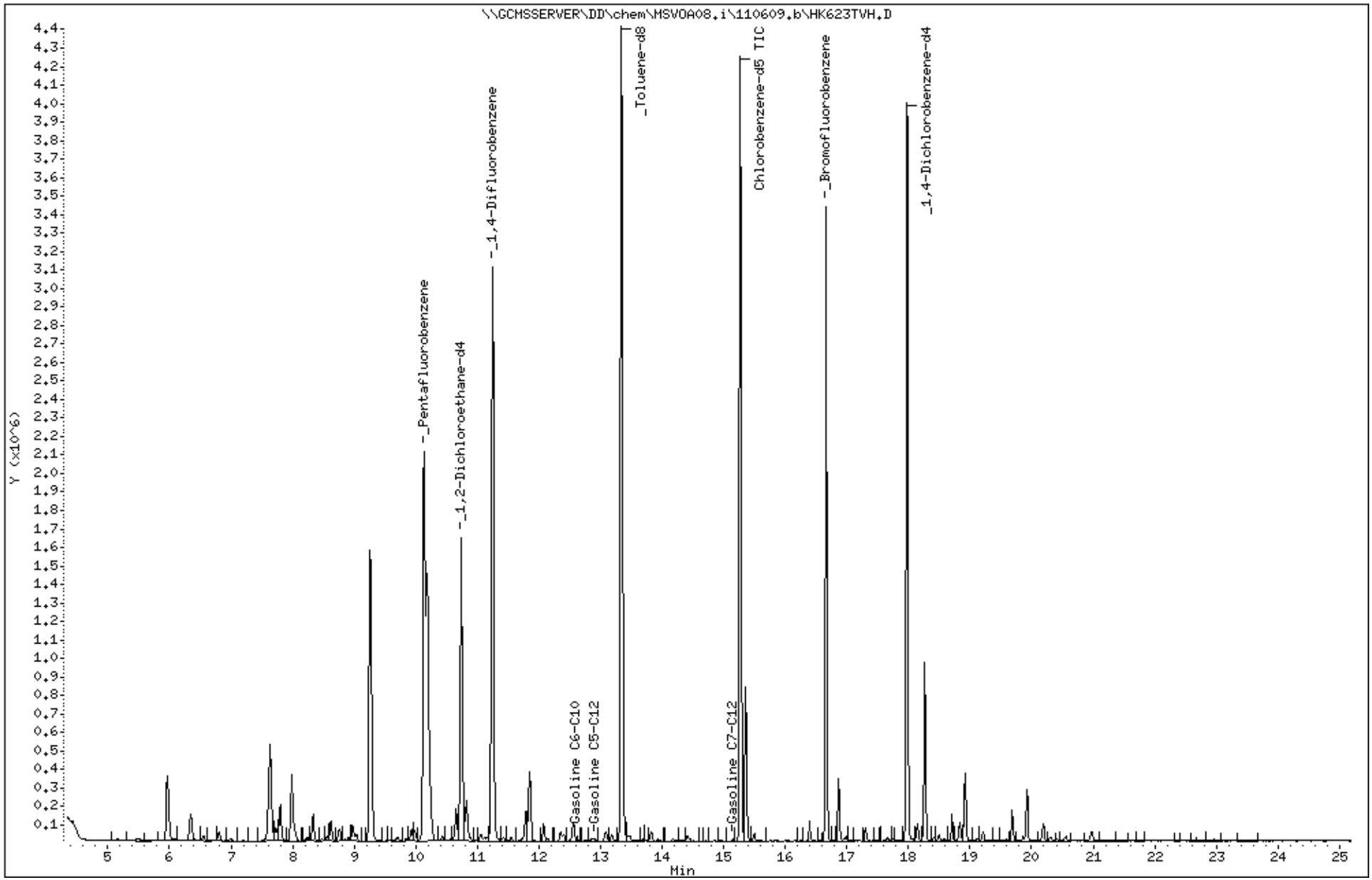
Instrument: MSVOA08.i

Sample Info: S,216169-015

Operator: voc

Column phase:

Column diameter: 2.00



Data File: \\Gcmsserver\DD\chem\MSVOA08.i\110509.b\HK504TVH.D

Date : 05-NOV-2009 12:10

Client ID: DYNA P&T

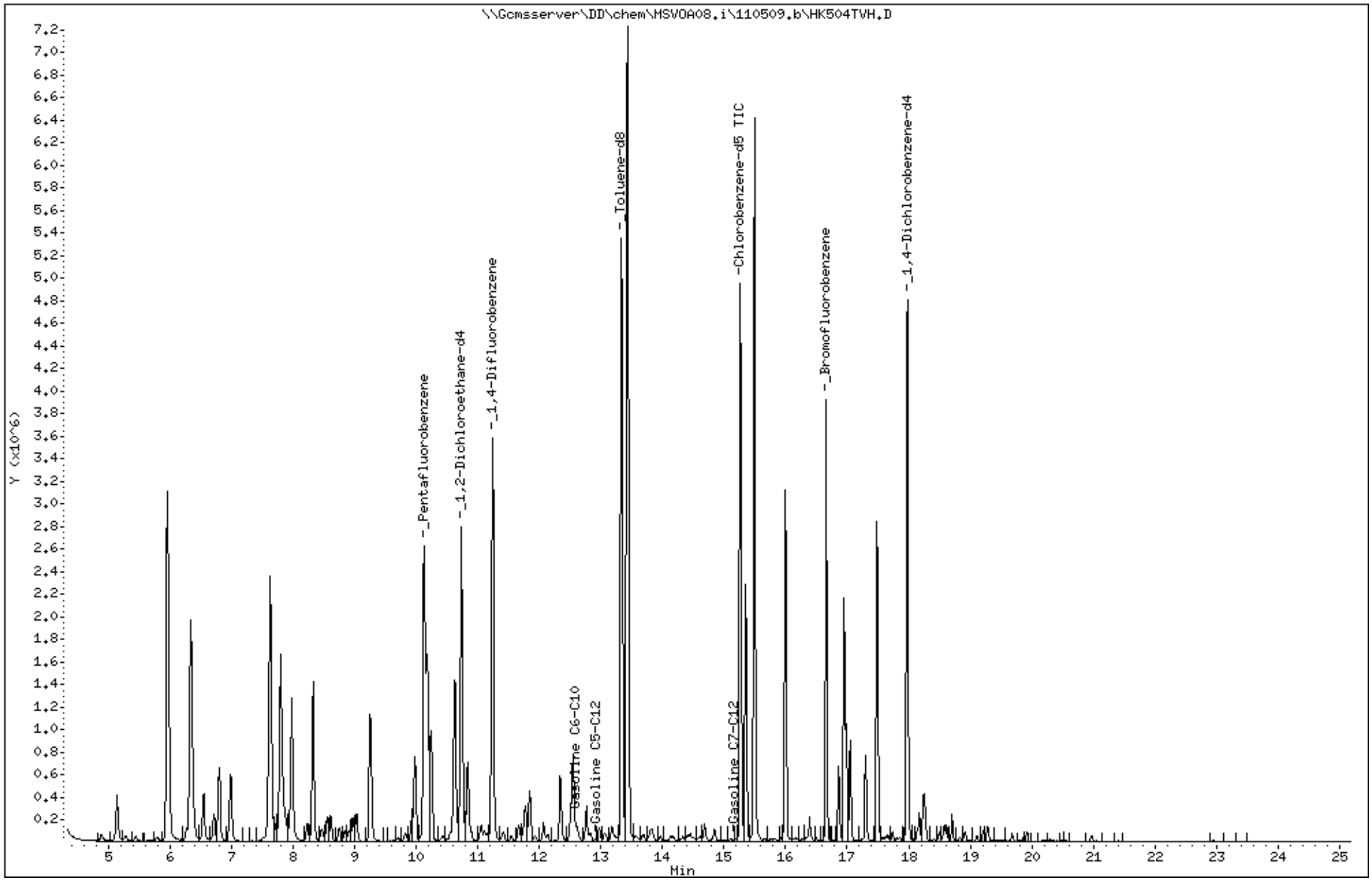
Instrument: MSVOA08.i

Sample Info: CCV,S12207,.015/100

Operator: voc

Column phase:

Column diameter: 2.00

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

Laboratory Job Number 216323
ANALYTICAL REPORT

LFR Levine Fricke	Project : 028-10060-06
1900 Powell Street	Location : Oakland MSC
Emeryville, CA 94608	Level : II

Sample ID	Lab ID
MW-8-FB	216323-001

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: 11/13/2009
Project Manager

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**216323**
Client:	**LFR Levine Fricke**
Project:	**028-10060-06**
Location:	**Oakland MSC**
Request Date:	**11/06/09**
Samples Received:	**10/30/09**

This data package contains sample and QC results for one water sample, requested for the above referenced project on 11/06/09. The sample was received cold and intact. All data were e-mailed to Daren Roth on 11/13/09.

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

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

Tracy Babjar CT# 216323

From: "Roth, Daren" <Daren.Roth@lfr.com>
To: "Tracy Babjar" <tracy.babjar@ctberk.com>
Sent: Thursday, November 05, 2009 6:29 PM
Subject: RE: 028-10060-06 - C&T Login Summary (216169)

Tracy,

Can you please analyze LFR sample MW-8-FB for TPHg/BTEX/MTBE (8260) and TPHd/k/mo (8015) with silica gel cleanup. Thanks.

Daren

Daren Roth | Project Geologist | daren.roth@lfr.com
LFR, an ARCADIS company | 1900 Powell Street, Suite 1200 | Emeryville, CA, 94608
T. 510.596.9558 | M. 510.409.1393 | F. 510.652.2246
www.arcadis-us.com

From: Tracy Babjar [mailto:tracy.babjar@ctberk.com]
Sent: Monday, November 02, 2009 12:09 PM
To: Roth, Daren; Sullivan, Michael
Subject: 028-10060-06 - C&T Login Summary (216169)

C&T Login Summary for 216169

Project: 028-10060-06 **Site:** Oakland MSC **Lab Login #:** 216169 **Report Due:** 11/09/09 **PO#:** 028-10060-06 **C&T Proj Mgr:** Tracy Babjar	**Report To:** LFR Levine Fricke 1900 Powell Street 12th Floor Emeryville, CA 94608 ATTN: Daren Roth (510) 652-4500	**Bill To:** LFR Levine Fricke 1900 Powell Street 12th Floor Emeryville, CA 94608 ATTN: Accounts Payabl (510) 652-4500

Client ID	Lab ID	Sampled	Received	Matrix	Analyses	COC #	Comments
TB102909	001	10/29	10/30				
				Water	HOLD		
MW-12	002	10/29	10/30				
				Water	MSTVH		TVH/BTXE/MTBE
				Water	SILICA GEL		
				Water	TEHM		Silica Gel; Desel, motor oil, and
MW-1	003	10/30	10/30				

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2323 Fifth Street
Berkeley, CA 94710
(510) 486-0900 Phone
(510) 486-0532 Fax

CHAIN OF CUSTODY

C & T LOGIN #: 216169

Sampler: M. Sullivan / A. Valdivia
Project No.: 026-10060-06
Report To: Paren Roth
Project Name: MSC
Company: LFR
Project P.O.:
Telephone:
Turnaround Time: Standard
Fax:

Lab No.	Sample ID.	Sampling Date Time	Matrix: Soil	Water	Waste	# of Containers	Preservative: HCL	H_2SO_4	HNO_3	ICE		Analysis: TPHg/BTEX/MTBE (8260)	TPH d/mo/k (8015)											
	~~[redacted]~~ TB102909	10/29/09		Y		2	2					H	OLD											
	MW-12	↓ 1645		X		5	3				2	X	X											
	MW-1	10/30/09 0725		X		5	3				2	X	X											
	MW-6	0835		X		5	3				2	X	X											
	MW-5	0939		X		5	3				2	X	X											
	MW-8-FB	1100		X		5	3				2	HOLD → Analyze												
	MW-8	1305		X		5	3				2	X	X											
	MW-17	1239		X		5	3				2	X	X											
	MW-16	1230		X		5	3				2	X	X											
	MW-15	1606		X		5	3				2	X	X											
	MW-9	1592		X		5	3				2	X	X											
	MW-14	1515		X		5	3				2	X	X											
	MW-13	↓ 10/30/09 1445		X		5	3				2	X	X											

Notes: Silica Gel Cleanup on TPHd / TPHmo / TPHk prior to Analysis

SAMPLE RECEIPT
☐ Intact ☐ Cold
☐ On Ice ☐ Ambient
Preservative Correct?
☐ Yes ☐ No ☐ N/A

RELINQUISHED BY:
SIGNATURE — 10/30/09 1500 DATE / TIME
DATE / TIME
DATE / TIME

RECEIVED BY:
Alan Tsalik — 11-2-09/0930 DATE / TIME
DATE / TIME
DATE / TIME

Curtis & Tompkins, Ltd.
Analytical Laboratory Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510) 486-0900 Phone
(510) 486-0532 Fax

CHAIN OF CUSTODY

C & T LOGIN #: 21616 9

Sampler: M. Sullivan/A. Valdivia

Report To: Darren Roth

Company: LFR

Telephone:

Fax:

Project No.: 008-11660-06

Project Name: MSC

Project P.O.:

Turnaround Time: Standard

Lab No.	Sample ID.	Sampling Date Time	Matrix: Soil	Matrix: Water	Matrix: Waste	Matrix	# of Containers	Preservative: HCL	Preservative: H_2SO_4	Preservative: HNO_3	Preservative: ICE	Preservative	Analysis: TPHg/BTEX/MTBE (8260)	Analysis: TPH d/mo/k (8015)
	MW-10	10/30/09 1415		X			5	3				2	X	X
	MW-5-D	10/30/09 0953		X			5	3				2	X	X

Notes: Silica Gel Clean up on TPH d TPH mo and TPH k prior to analysis

SAMPLE RECEIPT
☐ Intact ☐ Cold
☐ On Ice ☐ Ambient

Preservative Correct?
☐ Yes ☐ No ☐ N/A

RELINQUISHED BY:

Signature	DATE / TIME
[signature]	10/30/09 1900

RECEIVED BY:

Signature	DATE / TIME
Elise Tsatik	11-2-09/0930

SIGNATURE

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 216169 Date Received 10-30 Number of coolers 2
Client LFR Project Nat MSC

Date Opened 10-30 By (print) Elyse T. (sign) Elyse Tsudik
Date Logged in 11-2 By (print) _____ (sign) _____

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

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

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

7. Temperature documentation:

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
Received 2 extra temp blanks

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	216323	Location:	Oakland MSC
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	028-10060-06	Analysis:	EPA 8015B
Field ID:	MW-8-FB	Sampled:	10/30/09
Matrix:	Water	Received:	10/30/09
Units:	ug/L	Prepared:	11/08/09
Diln Fac:	1.000	Analyzed:	11/09/09
Batch#:	157000		

Type: SAMPLE Cleanup Method: EPA 3630C
Lab ID: 216323-001

Analyte	Result	RL
Kerosene C10-C16	ND	50
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
o-Terphenyl	99	39-150

Type: BLANK Cleanup Method: EPA 3630C
Lab ID: QC520482

Analyte	Result	RL
Kerosene C10-C16	ND	50
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
o-Terphenyl	88	39-150

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	216323	Location:	Oakland MSC
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	028-10060-06	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC520483	Batch#:	157000
Matrix:	Water	Prepared:	11/08/09
Units:	ug/L	Analyzed:	11/09/09

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,133	85	34-144

Surrogate	%REC	Limits
o-Terphenyl	95	39-150

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	216323	Location:	Oakland MSC
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	028-10060-06	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	157000
MSS Lab ID:	216322-003	Sampled:	11/04/09
Matrix:	Water	Received:	11/05/09
Units:	ug/L	Prepared:	11/08/09
Diln Fac:	1.000	Analyzed:	11/09/09

Type: MS Cleanup Method: EPA 3630C
Lab ID: QC520484

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	41.83	2,500	1,847	72	21-160

Surrogate	%REC	Limits
o-Terphenyl	79	39-150

Type: MSD Cleanup Method: EPA 3630C
Lab ID: QC520485

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,223	87	21-160	18	58

Surrogate	%REC	Limits
o-Terphenyl	92	39-150

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Gasoline by GC/MS

Lab #:	216323	Location:	Oakland MSC
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	028-10060-06	Analysis:	EPA 8260B
Field ID:	MW-8-FB	Batch#:	157058
Matrix:	Water	Sampled:	10/30/09
Units:	ug/L	Received:	10/30/09
Diln Fac:	1.000		

Type: SAMPLE Analyzed: 11/11/09
Lab ID: 216323-001

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	115	81-124
1,2-Dichloroethane-d4	131	73-140
Toluene-d8	106	88-113
Bromofluorobenzene	117	80-127

Type: BLANK Analyzed: 11/10/09
Lab ID: QC520756

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	112	81-124
1,2-Dichloroethane-d4	127	73-140
Toluene-d8	104	88-113
Bromofluorobenzene	113	80-127

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/MS

Lab #:	216323	Location:	Oakland MSC
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	028-10060-06	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	157058
Units:	ug/L	Analyzed:	11/10/09
Diln Fac:	1.000		

Type: BS Lab ID: QC520757

Analyte	Spiked	Result	%REC	Limits
MTBE	21.25	21.07	99	61-123
Benzene	21.25	22.40	105	81-122
Toluene	21.25	21.00	99	82-122
Ethylbenzene	21.25	22.51	106	86-125
m,p-Xylenes	42.50	45.79	108	83-127
o-Xylene	21.25	21.77	102	81-122

Surrogate	%REC	Limits
Dibromofluoromethane	107	81-124
1,2-Dichloroethane-d4	111	73-140
Toluene-d8	101	88-113
Bromofluorobenzene	105	80-127

Type: BSD Lab ID: QC520758

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	21.25	21.27	100	61-123	1	11
Benzene	21.25	22.57	106	81-122	1	12
Toluene	21.25	20.98	99	82-122	0	12
Ethylbenzene	21.25	22.29	105	86-125	1	12
m,p-Xylenes	42.50	46.13	109	83-127	1	13
o-Xylene	21.25	21.03	99	81-122	3	12

Surrogate	%REC	Limits
Dibromofluoromethane	109	81-124
1,2-Dichloroethane-d4	115	73-140
Toluene-d8	103	88-113
Bromofluorobenzene	104	80-127

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline by GC/MS

Lab #:	216323	Location:	Oakland MSC
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	028-10060-06	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	157058
Units:	ug/L	Analyzed:	11/10/09
Diln Fac:	1.000		

Type: BS Lab ID: QC520759

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	800.0	722.7	90	74-124

Surrogate	%REC	Limits
Dibromofluoromethane	107	81-124
1,2-Dichloroethane-d4	117	73-140
Toluene-d8	100	88-113
Bromofluorobenzene	106	80-127

Type: BSD Lab ID: QC520760

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	800.0	704.5	88	74-124	3	13

Surrogate	%REC	Limits
Dibromofluoromethane	105	81-124
1,2-Dichloroethane-d4	111	73-140
Toluene-d8	104	88-113
Bromofluorobenzene	106	80-127

RPD= Relative Percent Difference

APPENDIX D

Historical Tables

Table D-1
Summary of Groundwater Analytical Data, VOCs
Municipal Service Center, 7101 Edgewater Drive, Oakland, California

Concentrations expressed in micrograms per liter (µg/l)

Well ID/ Date	Benzene (µg/l)	n-Butyl-benzene (µg/l)	sec-Butyl-benzene (µg/l)	tert-Butyl-benzene (µg/l)	Chloro-ethane (µg/l)	Chloro-form (µg/l)	Methyl Chloride (µg/l)	1,2-DCA (µg/l)	cis-1,2-DCE (µg/l)	1,2-DCP (µg/l)	Ethyl-benzene (µg/l)	Isopropyl-benzene (µg/l)	p-Isopropyl-toluene (µg/l)	MTBE (µg/l)	Napthalene (µg/l)	n-Propyl-benzene (µg/l)	Toluene (µg/l)	1,2,4-TMB (µg/l)	1,3,5-TMB (µg/l)	Xylenes (µg/l)
MW-5																				
2/27/01	180	9	4	ND	3	ND	ND	7	ND	3	260	23	6	1,100	43	68	7	1	11	53
MW-6																				
2/27/01	270	11	3	ND	< 1	ND	ND	7	ND	< 1	9	6.0	1.0	19.0	62	21	3	1	< 1	3
8/20/01	E280	14	< 1	< 1	< 1	3	2	< 1	< 1	< 1	11	4.0	< 1	14.0	E82	14	4	< 1	< 1	9
TBW-1																				
8/20/01	E530	30	< 1	54	< 1	4	10	< 1	2	< 1	E540	36	54	< 1	E300	E120	79	E430	< 1	E790
TBW-3																				
8/20/01	10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	6	< 1	< 1	< 1	5	< 1	< 1	< 1	< 1	3
TBW-5																				
8/20/01	E620	< 1	< 1	E160	< 1	3	< 1	< 1	< 1	< 1	E730	40	E160	< 1	E450	E140	E110	< 1	< 1	E3100

Notes:

cis-1,2-DCE = cis-1,2-dichloroethene
E = Estimated concentration.
MTBE = methyl tertiary-butyl ether
ND = Not detected.
VOCs = Volatile organic compounds by EPA Method 8260. Sample not subject to silica gel cleanup or filtration prior to analysis.
1,2-DCA = 1,2-dichloroethane
1,2-DCP = 1,2-dichloropropane
1,2,4-TMB = 1,2,4-trimethylbenzene
1,3,5-TMB = 1,3,5-trimethylbenzene

Table D-2
Summary of Groundwater Analytical Data, SVOCs
Municipal Service Center, 7101 Edgewater Drive, Oakland, California

Concentrations expressed in micrograms per liter (µg/l)

Well ID/ Date	Napthalene (µg/l)	Pyrene (µg/l)	Other SVOCs (µg/l)
MW-6			
2/27/01	19	ND	ND
8/20/01	52	< 5	39
MW-9			
11/28/00	ND	ND	ND
MW-13			
11/28/00	ND	10	ND
MW-17			
11/28/00	ND	ND	ND
TBW-1			
8/20/01	140	8	387
TBW-3			
8/20/01	< 5	< 5	5
TBW-5			
8/20/01	220	< 5	73

Notes:

SVOCs = Semivolatile organic compounds by EPA Method 8270.
ND = Not detected

Samples not subject to silica gel cleanup or filtration before analysis.

Table D-3
Summary of Groundwater Analytical Data, LUFT Metals
Municipal Service Center, 7101 Edgewater Drive, Oakland, California

Concentrations expressed in milligrams per liter (mg/l)

Well ID/ Date	Cadmium (mg/l)	Chromium (mg/l)	Lead (mg/l)	Nickel (mg/l)	Zinc (mg/l)	Notes
MW-2						
8/19/98	---	---	< 100	---	---	a
MW-6						
2/28/01	< 0.001	0.035	0.23	0.046	0.19	non-filtered
8/16/01	< 0.001	0.020	0.12	0.032	0.11	
TBW-1						
8/16/01	< 0.001	0.017	0.042	0.034	0.10	0.1*
TBW-3						
8/16/01	< 0.001	0.008	0.01	0.019	< 0.02	
TBW-5						
8/16/01	< 0.001	< 0.005	0.01	0.008	0.03	

Notes:

--- = Not measured/analyzed.
* = Note was indicated but not defined in historical data tables.
a = Analyzed for organic lead.
LUFT = Leaking Underground Fuel Tank

LUFT metals by EPA Method 6010. Samples filtered in lab before analysis, unless noted otherwise.

Table D-4
Summary of Groundwater Analytical Data, Additional Metals
Municipal Service Center, 7101 Edgewater Drive, Oakland, California
Concentrations expressed in milligrams per liter (mg/l)

Sample ID/ Date	Antimony (mg/l)	Arsenic (mg/l)	Beryllium (mg/l)	Copper (mg/l)	Selenium (mg/l)	Silver (mg/l)	Thallium (mg/l)
MW-6							
8/16/01	<0.01	0.033	<0.001	0.025	<0.01	<0.003	<0.01
TBW-1							
8/16/01	<0.01	0.015	<0.001	0.017	<0.01	<0.003	<0.01
TBW-3							
8/16/01	<0.01	0.009	<0.001	0.008	<0.01	<0.003	<0.01
TBW-5							
8/16/01	<0.01	0.020	<0.001	<0.005	<0.01	<0.003	<0.01

Notes:

Metals by EPA Method 6010. Samples filtered in lab before analysis, unless noted otherwise.