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Bond CC Oakland, LLC

Groundwater Monitoring Report for the Semiannual Reporting Period from January 1, 2010 through June 30, 2010 and Request for Case Closure

Former Cox Cadillac Property
230 Bay Place
Oakland, California
(ACEH Fuel Leak Case Number RO0000148 and
Geotracker Global ID Number T0600100193)

August 13, 2010

Ron Goloubow, P.G. (8655) Senior Associate Geologist Groundwater Monitoring Report for the Semiannual Reporting Period from January 1, 2010 through June 30, 2010 and Request for Case Closure

Former Cox Cadillac Property 230 Bay Place Oakland, California

Prepared for: Bond CC Oakland, LLC 350 W. Hubbard Street, Suite 4560 Chicago, Illinois 60610

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Our Ref.:

EM009171.0017.00002

Date:

August 13, 2010

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Bond CC Oakland, LLC 350 W. Hubbard Street Suite 450 Chicago, IL 60654

July 30, 2010

Mr. Paresh Khatri Alameda County Environmental Health Services 1131 Harbor Bay Parkway, suite 250 Alameda, CA 94502-6577

Re:

Groundwater Monitoring Report for the Semiannual Reporting Period from January 1 through June 30, 2010 and Request for Case Closure, Former Cox Cadillac Property, 230 Bay Place, Oakland, California (ACEH Fuel Leak Case Number RO0000148 and Geotracker Global ID number TO600100193)

Dear Mr. Khatri:

I certify under perjury of law that this document and all attachments are prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine for knowing violations.

If you have any questions or comments, please call me at 312-853-0070 or Ron Golobow of ARCADIS at 510-596-9550.

Sincerely,

Bond CC Oakland, LLC

Is Authorized Signatory



Mr. Paresh Khatri Alameda County Environmental Health Services 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502-6577 ARCADIS U.S., Inc. 1900 Powell Street 12th Floor Emeryville California 94608 Tel 510.652.4500 Fax 510.652.4906 www.arcadis-us.com

Subject:

Groundwater Monitoring Report for the Semiannual Reporting Period from January 1, 2010 through June 30, 2010 and Request for Case Closure, Former Cox Cadillac Property, 230 Bay Place, Oakland, California (ACEH Fuel Leak Case Number RO0000148 and Geotracker Global ID Number T0600100193)

ENVIRONMENT

Dear Mr. Khatri:

ARCADIS has prepared this semiannual groundwater monitoring report on behalf of Bond CC Oakland, LLC ("Bond"), to summarize the activities conducted during the monitoring period from January 1, 2010 through June 30, 2010 at the former Cox Cadillac property, located at 230 Bay Place, Oakland, California ("the Site"; Figures 1 and 2). The majority of the environmental work conducted on behalf of Bond, was conducted by LFR Inc. (LFR). ARCADIS purchased LFR in December 2008 and LFR became fully integrated into ARCADIS in January 2010.

The periodic groundwater monitoring was performed in accordance with the Revised Corrective Action Plan (RCAP), dated June 4, 2004. The RCAP superseded the Corrective Action Plan originally submitted to Alameda County Environmental Health (ACEH) on April 8, 2004. The purpose of the RCAP was to summarize the results of the remedial investigations and the remedial measures conducted to date at the Site and, based on the results of these site activities, to propose a corrective action for the remediation of soil and groundwater at the Site. ACEH subsequently approved the proposed interim remediation work plan, described in the RCAP, in a letter dated October 6, 2004.

As discussed during our meeting on July 10, 2008, the periodic groundwater monitoring and reporting schedule for this project has been changed in frequency from quarterly to semiannually (twice a year). This second semiannual monitoring period was conducted from January 1, 2010 through June 30, 2010.

The investigative and remedial work conducted at the Site has been conducted under the oversight, review, and approval of the ACEH. It is our understanding that

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August 13, 2010

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Mr. Paresh Khatri
August 13, 2010

the ACEH will approve case closure for this project when they are satisfied that the environmental and/or health risk(s) associated with the affected soil and groundwater at the Site have been mitigated or proven to be not significant.

The effectiveness of the removal action that took place at the Site in 2005 has resulted in a significant decrease of total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, and total xylenes (BTEX), and methyl tertiary-butyl ether (MTBE) in groundwater samples collected from wells located at the Site. Based on the decreasing concentration trends for TPHg, BTEX, and MTBE, it appears that no further investigation, remediation, and monitoring are needed for the Site, and the periodic groundwater monitoring and reporting program at the Site can be discontinued. Therefore, on behalf of Bond, ARCADIS requests to cease the groundwater monitoring and reporting for the Site, abandon the site monitoring wells, and have this case closed based on the Regional Water Board's "low-risk case closure criteria" (RWQCB 1995, 2009, and 2010).

If you have any questions or comments, please contact me at 510.652.4500.

Sincerely,

ARCADIS U.S., Inc.

Ron Goloubow, P.G. (8655) Senior Associate Geologist

Copies:

Robert Bond, Bond CC Oakland, LLC Alan Lee, Bond CC Oakland, LLC

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- A Historical Groundwater Data
- B Laboratory Analytical Reports

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.*

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Senior Associate Geologist

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Expires Nov. 30, 2013

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. Introduction

ARCADIS has prepared this semiannual groundwater monitoring report on behalf of Bond CC Oakland, LLC ("Bond") to summarize the activities conducted during the monitoring period from January 1, 2010 through June 30, 2010 ("the reporting period") at the former Cox Cadillac property, located at 230 Bay Place, Oakland, California ("the Site"; Alameda County Environmental Health [ACEH] Fuel Leak Case Number RO0000148 and Geotracker Global ID Number T0600100193). The majority of the environmental work conducted on behalf of Bond, was conducted by LFR Inc. (LFR). ARCADIS purchased LFR in December 2008 and LFR became fully integrated into ARCADIS in January 2010.

As provided in this report, the analytical results for groundwater samples collected at the Site have indicated a decreasing concentration trend for total petroleum hydrocarbons as gasoline (TPHg) and benzene, toluene, ethylbenzene, and total xylenes (BTEX), and methyl tertiary-butyl ether (MTBE) over time. This decreasing trend in concentrations is likely the direct result of the excavation and off-site disposal of approximately 5,000 tons of fuel-affected soil that took place at the Site in 2005. Based on the removal action that took place at the Site and the analytical data for groundwater samples conducted at the Site, it appears that no further investigation, remediation, or monitoring are needed for the Site, and the periodic groundwater monitoring and reporting program at the Site can be discontinued. Therefore, we request approval to cease the periodic groundwater monitoring and reporting program that has been taking place at the Site, abandon the five groundwater monitoring wells, and recommend that this case be closed based on the San Francisco Regional Water Quality Control Board's (RWQCB's) "low-risk case closure criteria" (RWQCB 1995, 2009, and 2010).

1.1 Purpose of the Report

As discussed during a meeting between representatives of Bond, ACEH, and LFR that took place on July 10, 2008, the periodic groundwater monitoring and reporting schedule for this project was changed from quarterly to semiannually (twice a year).

The periodic groundwater monitoring was performed in accordance with the Revised Corrective Action Plan (RCAP), dated June 4, 2004 (LFR 2004a). The RCAP superseded the Corrective Action Plan originally submitted to ACEH on April 8, 2004. The purpose of the RCAP was to summarize the results of the remedial investigations and the remedial measures conducted to date at the Site and, based on the results of

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these site activities, to propose a corrective action for the remediation of soil and groundwater at the Site. ACEH subsequently approved the proposed remediation work plan, described in the RCAP, in a letter dated October 6, 2004.

This report discusses the following groundwater monitoring activities that were conducted at the Site during the reporting period:

- Measurement of water levels and collection of groundwater samples from five groundwater monitoring wells (Figures 2 and 3).
- Submittal of groundwater samples for laboratory analysis of TPHg, BTEX compounds, and MTBE in April 2010.
- Preparation of this report.
- In addition, ARCADIS is recommending that this case be closed and that the ACEH issue a "No Further Action" letter for the environmental issues at the Site (Section 3).

1.2 Background

The Site was formerly occupied by Cox Cadillac and was used for automobile sales and service. A portion of the facility was formerly used as a sales showroom and offices, while the remainder was formerly used for automobile storage, bodywork, painting, and indoor service. Currently, the Site has been redeveloped into a Whole Foods Market; construction activities were completed and the store opened in September 2007.

The site vicinity is primarily residential, commercial, and light-industrial facilities, mainly automobile dealerships and service stations. Single-family and multi-unit residential buildings occupy the property to the northeast and southeast of the Site. The property to the northwest of the Site is occupied by a church and associated school. An automobile dealership, auto repair shops, and a service station occupy the properties to the south and west of the Site across Bay Place. The surface topography in the site vicinity slopes gently to the west from Vernon Street to Bay Place.

TPHg, TPH as diesel (TPHd), TPH as motor oil (TPHmo), BTEX, and MTBE, collectively referred to as chemicals of potential concern (COPCs), have been detected in soil and groundwater samples collected at the Site. A partial summary of the

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analytical results of groundwater samples previously collected at the Site is included as Appendix A (LFR 2004c).

The RCAP presented a description and evaluation of the corrective actions that were implemented to reduce the concentrations of the COPCs that have been detected in the soil and groundwater at the Site. The remedial actions described in the RCAP and the "Addendum to the Revised Corrective Action Plan, Former Cox Cadillac Property, 230 Bay Place, Oakland, California," dated June 17, 2004 (LFR 2004b), were approved by ACEH in a letter dated October 6, 2004. The remedial action for the Site was to conduct an excavation to remove the source for the affected groundwater, and to conduct periodic groundwater monitoring and reporting to assess the effectiveness of the removal action.

1.3 Excavation and Disposal of Soil

During the period from September 16 to December 16, 2005, LFR supervised the excavation of affected soil in the vicinity of the former gasoline and waste oil underground storage tanks (USTs) that contained concentrations of target analytes above the remediation goals. A total of approximately 5,000 tons of TPH-affected soil was excavated from this area. The soil excavated from the TPH-affected area was temporarily stockpiled and subsequently disposed of as Class 2 waste material at Allied Waste's Forward Landfill, located in Manteca, California. In addition, approximately 250 tons of brick and concrete debris removed from the area of excavation were disposed of at Allied Waste's Keller Canyon Landfill, located in Pittsburg, California. In addition to the 5,000 tons of petroleum-affected soil removed from the Site, approximately 245,000 gallons of potentially petroleum-affected water were removed from the Site after the excavation filled with water.

A detailed description of the activities associated with this excavation work and the findings of the confirmation soil sampling are included in LFR's report titled "Results of the Implementation of the Revised Corrective Action Plan, Former Cox Cadillac Site, 230 Bay Place, Oakland, California," dated August 3, 2007 (LFR 2007).

1.4 Installation of Groundwater Monitoring Wells

LFR installed five groundwater monitoring wells at locations illustrated on Figure 2 between August 28 and September 20, 2007. The total depth of each well ranges from approximately 13 feet below ground surface (bgs) at well LF-5 to approximately 23 feet bgs at well LF-1. Each monitoring well was constructed using 2 inch diameter

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Schedule 40 polyvinyl chloride (PVC) well casing and machine-slotted Schedule 40 PVC well screens with a 0.010-inch slot size. To comply with a request from ACEH, the well screen intervals were limited to approximately 4 feet. Details regarding the installation of the groundwater monitoring wells were included in the "Groundwater Monitoring Report for the Quarterly Reporting Period from October 1 through December 31, 2007," dated January 31, 2008 (LFR 2008a).

1.5 Groundwater Designation

Initially, the cleanup goals designated for groundwater at the Site were the RWQCB Environmental Screening Levels (ESLs) for commercial sites where groundwater is a current or potential source of drinking water (RWQCB 2008). Based on the location of this Site, the shallow groundwater in this area of Oakland is likely not a potential source of drinking water. To demonstrate that the groundwater beneath the Site is not a potential source of drinking water, LFR conducted the following specific activities during the monitoring period of July 1 through September 30, 2008:

- Groundwater samples collected from each well were analyzed for total dissolved solids (TDS).
- The volume of groundwater that could be extracted from each well was estimated/calculated by conducting step drawdown tests on wells LF-2 and LF-3.

1.5.1 TDS

Groundwater samples collected from the wells during the quarterly event that took place on September 8, 2008 were submitted to a state-certified laboratory for the analysis of TDS. Analytical results for TDS ranged from 10,200 milligrams per liter (mg/L) in the sample collected from well LF-1 to 900 mg/L in the sample collected from well LF-5; the concentrations of TDS for samples collected from wells LF-2, LF 3, and LF-4 were 1,300 mg/L, 1,610 mg/L, and 3,200/3,340 mg/L (primary/duplicate sample), respectively (Table 3; LFR 2008b). Each of these concentrations exceeds the United States Environmental Protection Agency (U.S. EPA) drinking water standard for TDS of 500 mg/L (RWQCB 2007). TDS concentrations exceeded the RWQCB Basin Plan drinking water standard for TDS of 3,000 mg/L for two of the five samples collected (RWQCB 2007). Based on these data, the groundwater at the Site is of poor quality and would not likely be considered a source of drinking water.

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1.5.2 Step Drawdown Tests on Wells LF-2 and LF-3

Step drawdown tests were conducted at wells LF-2 and LF-3 to assess the volume of groundwater that could be supplied by the shallow sediments at the Site. Initially the pumping rate at well LF-2 was set at approximately 1,000 milliliters per minute (ml/min) or 0.26 gallon per minute (gpm). However, the water level in the well decreased approximately 1 foot in approximately 10 minutes. Based on this result, the pumping rate at well LF-2 was decreased to between approximately 600 and 700 ml/min. This pumping rate was sustained for 60 minutes. Based on this short-term step drawdown test it appears that this well could sustain a pumping rate of between approximately 600 and 700 ml/min or 0.18 gpm for 40 minutes. Based on a 0.18 gpm pumping rate, it was extrapolated that the well could potentially yield approximately 260 gallons in 24 hours of continuous pumping (LFR 2008b). Given the relatively thin saturated sediment interval at the well LF-2 location (approximately 6 feet), it is unlikely that the well could sustain a pumping rate of 0.18 gpm for 24 hours and yield the 200 gallons of water needed to designate the groundwater as a source of drinking water.

A step drawdown test was also conducted at well LF-3. Initially the pumping rate was set at well LF-3 at approximately 750 ml/min or 0.20 gpm. However, the well dewatered in approximately 50 minutes (LFR 2008b). Based on this short-term test, it appears that the water-bearing sediments at this well could not sustain a pumping rate of approximately 750 ml/min or 0.20 gpm. Based on a 0.20 gpm pumping rate, it was extrapolated that the well could potentially yield approximately 288 gallons in 24 hours of continuous pumping (LFR 2008b). Given the relatively thin saturated sediment interval at the well LF-3 location (approximately 2 feet), it is unlikely that the well could sustain a pumping rate of 0.20 gpm for 24 hours and yield the 200 gallons of water needed to designate the groundwater as a source of drinking water.

1.6 Cleanup Goals for Groundwater

Based on the results of the groundwater samples analyzed for TDS and the results of the step drawdown testing, the following revised cleanup goals for groundwater were applied to this Site. The proposed cleanup goals are ESLs at commercial sites where groundwater is not a current or potential source of drinking water (RWQCB 2008).



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Proposed Cleanup Goals for Groundwater

Chemicals of Potential Concern	RWQCB ESL
Griefficals of Fotoritial Correction	micrograms per liter (μg/L)
TPHg	210
TPHd	210
TPHmo	210
Benzene	46
Toluene	130
Ethylbenzene	43
Total Xylenes	100
МТВЕ	1,800

2. Semiannual Groundwater Monitoring Report

The following activities were performed during this reporting period:

Conducted groundwater monitoring on April 29, 2010.

2.1 Groundwater Elevation and Gradient

Depth to groundwater was measured in the five groundwater monitoring wells on April 29, 2010. The groundwater elevation in each well was calculated using the surveyed top of casing elevation; results are summarized in Table 1. Groundwater elevation data and contours are presented on Figure 2. The depth to groundwater in the wells measured on April 29, 2010 ranged from 1.74 to 5.53 feet bgs.

The groundwater elevation contours indicate that the groundwater flow direction beneath the Site was generally toward the south—southwest on April 29, 2010, with a horizontal groundwater gradient of approximately 0.026 foot per foot measured between wells LF-1 and LF-3. This gradient and flow direction is generally consistent with the historical gradient and flow direction previously observed at this Site by ARCADIS, LFR, and previous consultants. However, it appears that shallow groundwater preferentially flows more towards the southern portion of the Site, where the large excavation was conducted.

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2.2 Groundwater Sampling

Groundwater samples were collected from the five monitoring wells on April 29, 2010, using low-flow groundwater sampling techniques. The intake of the low-flow pump was placed near the middle of the screened interval and purged continuously until the basic groundwater parameters stabilized, or until the well had been purged for approximately 30 minutes or of two gallons. Field parameters were recorded on log sheets and are summarized in Table 2.

Groundwater samples were collected directly from the hose of the pump and conveyed into laboratory-supplied sample containers. The containers were labeled with the well identification number, the time and date of collection, the analysis requested, and the initials of the sampler. The samples were stored in an ice-chilled cooler and maintained under strict chain-of-custody protocols as they were submitted to the analytical laboratory.

The groundwater samples were submitted to Curtis & Tompkins, Ltd., a state-certified laboratory located in Berkeley, California, and analyzed for TPHg and TPHd using U.S. EPA test method 8015, modified. The samples were also analyzed for BTEX and fuel oxygenates using U.S. EPA test method 8260B. Analytical results of groundwater samples are presented in Table 3, and copies of the laboratory data sheets and chain-of-custody documents are presented in Appendix B.

2.2.1 Analytical Results for Groundwater Samples

Analytical results for the groundwater samples collected during this monitoring event are summarized in Table 3 and presented on Figure 3. Historical groundwater-quality results are presented in Appendix A, and the locations of the former wells on the Site are shown on Figure 2. As indicated in Table 3 and on Figure 3, the removal actions that took place at the Site in 2005 have significantly improved groundwater quality in the vicinity of wells LF-1 and LF-5. Concentrations of TPHg and BTEX were not present above the laboratory reporting limits in samples collected from either well. These analytical results are consistent with the results of samples collected at the Site in February and March 2008 and August 2009 (ARCADIS 2010).

Concentrations of petroleum hydrocarbons and BTEX detected in samples collected from former well MW-1 (located near the former waste oil UST location), before it was abandoned during the soil remediation activities, were significantly elevated (Appendix A). Notably, during this groundwater monitoring event, TPHg and TPHd were not

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present above analytical detection limits in the groundwater sample collected from well LF-1 (located near former well MW-1). In fact, the only detection of either of these analytes in samples collected from well LF-1 was a low concentration of TPHd (0.055 μ g/L) in February 2008.

BTEX compounds were not detected above laboratory reporting limits in groundwater samples collected during this monitoring event. This is the third consecutive monitoring event that BTEX was not detected above laboratory reporting limits in groundwater samples collected from any of the wells at the Site.

MTBE was not detected in groundwater samples collected from wells LF-1, LF-4, and LF-5 during this monitoring event. MTBE was detected at concentrations of 69 μ g/L (64 μ g/L in duplicate) and 1,400 μ g/L in the samples collected from wells LF-2 and LF-3, respectively. None of these samples contain concentrations of MTBE that exceed the ESL for MTBE of 1,800 μ g/L, for sites where groundwater is not considered a source of drinking water. The analytical results for grab groundwater samples collected from soil borings SB-8, UB-1, and SBA, collected in 2004 and 2005 indicate that the lateral extent of shallow groundwater affected by MTBE is limited to the area near well LF-3 and former wells MW-2 and TW-7 (see Figures 9, 11, and 12 included in Appendix A).

Historically elevated concentrations of MTBE have been detected in samples collected from well LF-3. However, the concentrations of MTBE detected in the samples collected from well LF-3 have decreased over time indicating the effectiveness of the removal action that took place at the Site in 2005 (Table 3). A graph illustrating the decreasing trend of MTBE detected in samples collected from well LF-3 is provided on Figure 4. It is anticipated that MTBE concentrations will continue to decrease over time because the source of the MTBE was removed.

Previous groundwater samples collected from monitoring well LF-2 indicated the presence of petroleum hydrocarbons (Table 3). Analytical results for the sample collected from this well in April 2010 did not contain TPHg at concentrations greater than the laboratory reporting limit. This decrease in TPHg over time indicates the effectiveness of the removal action that took place at the Site in 2005.

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During the July 2008 meeting with ACEH staff, a representative of Bond, and LFR staff, the ACEH acknowledged that Bond has assessed the lateral and vertical extent of MTBE at locations on and off site. As such, the ACEH requested periodic

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groundwater monitoring and reporting for the Site. The length of time that periodic groundwater monitoring and reporting would be required was not established. However, it was understood that when the concentrations of the COPCs detected in groundwater established a decreasing trend over time, the ACEH indicated that they may provide Bond a letter stating that no further investigation or remediation is necessary at this Site. During the July 2008 meeting the ACEH also acknowledged that there is no feasible approach or technology available to further reduce the concentrations of MTBE in groundwater in this portion of the Site. Therefore, our understanding from the meeting is that the ACEH will consider the Site as a "Low-Risk Fuel Site" (RWQCB 1995, 2009, and 2010).

3.1 Source Removal

As reported above, during the period from September 16 to December 16, 2005, LFR supervised the excavation of approximately 5,000 tons of TPH-affected soil from the vicinity of the former gasoline and waste oil USTs. Given the location of the soil that was excavated and the observations made during the removal action, this soil was considered the source of the COPCs detected in groundwater at the Site. In addition to the 5,000 tons of petroleum-affected soil removed from the Site, approximately 245,000 gallons of potentially petroleum-affected water were removed from the Site after the excavation filled with water.

3.2 Groundwater Designation

As provided in Section 1.5 above, based on the location of the Site, the analytical results of the groundwater samples analyzed for TDS, and the results of the pumping test conducted on the selected groundwater monitoring wells, the shallow groundwater in this area of Oakland is not considered a likely source of drinking water.

3.3 Results of Groundwater Monitoring

As provided in Section 2.2.1 above and as depicted in Table 3, and on Figures 3 and 4, the removal actions that took place at the Site in 2005 have significantly improved groundwater quality in the vicinity of the Site. Concentrations of the COPCs detected in groundwater samples collected from monitoring wells after the removal action that was conducted at the Site have decreased over time.

This decrease in COPC concentrations is consistent with the findings presented in a report prepared under RWQCB Resolution No. 2009- 42 in which a Task Force was

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created to "make recommendations to improve the Underground Storage Tank (UST) Cleanup regulatory program, including additional approaches to risk-based cleanup" for fuel sites in California (RWQCB 2010). According to the RWQCB, from more than 20 years of experience, dissolved-phase petroleum hydrocarbon plumes do not typically extend more than a few hundred feet due to natural attenuation in sedimentary deposits (clay, silt, sand, gravel, or mixtures thereof). The RWQCB also reported that petroleum hydrocarbons biodegrade naturally in both aerobic and anaerobic conditions. In 1996 the Lawrence Livermore report and other investigators pointed out that only 0.1% of the State's drinking-water supply wells were impacted by petroleum constituents (e.g., benzene; RWQCB 2010).

Regarding the lengths of petroleum hydrocarbon plumes, a 2004 study of benzene and MTBE plume lengths at 500 UST sites in the Los Angeles, California area confirmed the results from previous plume studies. The 2004 study showed that 90% of the benzene plumes were less than 350 feet long and that the maximum length was 554 feet. For MTBE, 90% of the plumes were less than 550 feet long, and the maximum length was 1,046 feet. According to the RWQCB, for plume lengths to extend significantly farther, a large non-aqueous-phase liquid (NAPL) source in extremely permeable sediments must be present at the site (RWQCB 2010). Neither of these conditions is present at the Site.

These reported findings are consistent with the analytical results for the groundwater samples collected at the Site. In 2004, in situ groundwater samples were collected from locations near existing well LF-3 and west-southwest into Bay Place. Based on these data, the lateral extent of BTEX or MTBE-affected groundwater does not extend into Bay Place (see Figures 11 and 12 included in Appendix A; LFR 2004c).

3.4 Case Closure

The following are the facts most relevant to this case being recommended for case closure:

- Approximately 5,000 tons of TPH-affected soil was removed from the vicinity of the former gasoline and waste oil USTs, the source of the petroleum hydrocarbons in the Site's subsurface.
- Approximately 245,000 gallons of potentially petroleum-affected water was removed from the excavation of the petroleum-impacted soil;

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- Shallow groundwater parameters (TDS concentrations and a sustained pumping rate of 200 gallons per day) do not meet the threshold requirements provided in the RWQCB Basin Plan (RWQCB 2007) for groundwater to be designated a source of drinking water.
- Concentration trends for the COPCs present in groundwater at the Site have decreased significantly over time, and COPC concentrations detected during the most recent monitoring event are all below their respective cleanup goals.

Based on the findings included in this report, the findings from previous investigations and remedial activities, and the facts presented above, ARCADIS recommends that this case be approved for regulatory closure, and requests that the ACEH provide Bond a letter stating that no further investigation or remediation is necessary and that the groundwater monitoring wells be abandoned at the Site.

4. References

- ARCADIS. 2010. Groundwater Monitoring Report for the Quarterly Reporting Period from July 1, 2009 through December 31, 2009 Former Cox Cadillac Property, 230 Bay Place, Oakland, California (Fuel Leak Case No. RO0000148). February 9.
- LFR Levine-Fricke (LFR). 2004a. Revised Corrective Action Plan, Former Cox Cadillac Property, 230 Bay Place, Oakland, California. June 4.
- LFR. 2004b. Addendum to the Revised Corrective Action Plan, Former Cox Cadillac Property, 230 Bay Place, Oakland, California. June 17.
- LFR. 2004c. REVISED Report of the Results of the March and April 2004 Soil and Groundwater Investigation at the Former Cox Cadillac Property 230 Bay Place Oakland, California (Fuel Leak Case No. RO0000148). December 2.
- LFR Inc. (LFR). 2007. Results of the Implementation of the Revised Corrective Action Plan, Former Cox Cadillac Site, 230 Bay Place, Oakland, California (Fuel Leak Case No. RO0000148). August 3.
- LFR. 2008a. Groundwater Monitoring Report for the Quarterly Reporting Period from October 1 through December 31, 2007, Former Cox Cadillac Property, 230 Bay Place, Oakland, California (Fuel Leak Case No. RO0000148). January 31.

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- LFR. 2008b. Groundwater Monitoring Report for the Quarterly Reporting Period from July 1 through September 30, 2008, Former Cox Cadillac Property, 230 Bay Place, Oakland, California (Fuel Leak Case No. RO0000148 and Geotracker Global ID Number T0600100193). October 31.
- Regional Water Quality Control Board (RWQCB). 1995. Supplemental Instructions to State Board, Interim Guidance on Required Cleanup at Low Risk Fuel Sites.

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- RWQCB. 2007. San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan). January 18.
- RWQCB. 2008. Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater (Interim Final November 2007; Revised May 2008); Environmental Screening Levels ("ESLs"). Technical Document. May.
- RWQCB. 2009. Assessment Tool for Closure of Low-Threat Chlorinated Solvent Sites. Draft Final July 31.
- RWQCB. 2010. Resolution 2009-042 Underground Storage Tank Cleanup Program Task Force Report Technical Document. January 13.

Table 1
Groundwater Elevations

Former Cox Cadillac Property 230 Bay Place, Oakland, California

		Top-of-Casing	Depth to	Groundwater
Location ID	Date Collected	Elevation ⁽¹⁾	Groundwater ⁽²⁾	Elevation ⁽¹⁾
LF-1	10/8/2007	13.40	2.56	10.84
	2/26/2008	13.40	2.33	11.07
	5/6/2008	13.40	2.15	11.25
	9/8/2008	13.40	1.98	11.42
	1/16/2009	13.40	2.39	11.01
	8/13/2009	13.40	2.17	11.23
	4/29/2010	13.40	1.74	11.66
LF-2	10/8/2007	13.13	3.71	9.42
	2/26/2008	13.13	3.78	9.35
	5/6/2008	13.13	4.05	9.08
	9/8/2008	13.13	4.01	9.12
	1/16/2009	13.13	3.94	9.19
	8/13/2009	13.13	4.18	8.95
	4/29/2010	13.13	3.3	9.83
LF-3	10/8/2007	13.15	5.24	7.91
	2/26/2008	13.15	5.08	8.07
	5/6/2008	13.15	5.11	8.04
	9/8/2008	13.15	5.24	7.91
	1/16/2009	13.15	5.33	7.82
	8/13/2009	13.15	5.86	7.29
	4/29/2010	13.15	5.28	7.87
LF-4	10/8/2007	13.32	5.74	7.58
	2/26/2008	13.32	5.55	7.77
	5/6/2008	13.32	5.61	7.71
	9/8/2008	13.32	5.47	7.85
	1/16/2009	13.32	5.30	8.02
	8/13/2009	13.32	5.90	7.42
	4/29/2010	13.32	5.53	7.79
LF-5	10/8/2007	15.92	3.46	12.46
	2/26/2008	15.92	2.97	12.95
	5/6/2008	15.92	2.38	13.54
	9/8/2008	15.92	4.13	11.79
	1/16/2009	15.92	3.29	12.63
	8/13/2009	15.92	6.62	9.30
	4/29/2010	15.92	5.15	10.77

Notes:

⁽¹⁾ Top-of-casing and groundwater elevation in North America Vertical Datum 1988

⁽²⁾ Depth to water measured in feet below top of casing

Table 2 Results of Field Parameters in Groundwater Samples

Former Cox Cadillac Property 230 Bay Place, Oakland, California

Location ID	Date Collected	Volume Purged (gallons)	Temperature (°Celsius)	Dissolved Oxygen (mg/L)	pH (units)	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)
LF-1	10/8/2007	5.25	18.36	5.82	6.70	10.700	1.65	
	2/6/2008	1.75	17.15	2.74	6.79	13.279	15.2	57.10
	5/6/2008	5.50	16.95	0.72	6.59	13.187		170.30
	9/8/2008	2.5	18.00	0.32	6.59	9.760		-153.80
	1/16/2009	4.0	17.88	1.74	6.76	12.695		44.30
	8/13/2009	2.0	18.22	0.92	6.80	11.144		135.40
	4/29/2010	2.0	16.99	1.08	6.90	11.404		259.10
LF-2	10/8/2007	0.75	22.57	0.28	7.18	1.983	1.33	
	2/6/2008	2.00	17.73	1.35	6.77	2.580	1.50	-113.20
	5/6/2008	2.00	20.16	0.19	6.49	3.378		-137.60
	9/8/2008	2.5	24.16	0.17	6.61	2.452		-143.30
	1/16/2009	3.5	19.95	0.14	6.51	2.287		-230.40
	8/13/2009	0.5	24.18	0.34	6.72	2.660		-113.50
Duplicate	8/13/2009	0.5	24.17	0.22	6.74	2.640		-113.40
	4/29/2010	2.5	20.20	0.13	6.79	2.395		-139.40
LF-3	10/8/2007	5.00	20.52	6.07	6.51	2.169	3.92	
	2/6/2008	1.00	16.64	2.60	6.57	2.047	2.40	158.00
	5/6/2008	2.00	18.82	0.19	6.30	2.338		37.10
	9/8/2008	2.5	27.07	0.42	6.43	2.080		-37.50
	1/16/2009	3.25	19.60	0.25	6.26	2.372		-45.20
	8/13/2009	1.50	22.65	0.22	6.45	2.116		-34.10
	4/29/2010	1.50	19.06	0.22	6.50	2.121		69.90
LF-4	10/8/2007	0.75	20.00	0.62	6.81	1.465	0.75	
	2/6/2008	2.00	15.88	1.06	6.96	1.368	1.40	136.20
	5/6/2008	1.50	18.81	0.20	6.83	1.443		13.00
	9/8/2008	2.5	23.16	0.46	7.69	0.654		54.60
	1/16/2009	4.5	18.76	0.18	6.83	0.410		-47.80
	8/13/2009		21.83	0.24	7.20	0.544		57.14
	4/29/2010	0.8	17.77	0.29	6.78	0.715		226.90
LF-5	10/8/2007	1.25	20.55	3.36	7.37	1.014	25.50	
	2/6/2008	1.50	15.02	5.61	7.58	1.346	30.40	126.20
	5/6/2008	1.50	18.98	1.73	7.73	1.206		119.50
	9/8/2008	2.5	22.00	0.23	6.79	0.895		17.60
	1/16/2009	1.25	16.37	5.02	7.14	0.723		37.20
	8/13/2009	1.00	22.68	0.58	7.51	0.728		114.90
	4/29/2010	1.50	17.24	3.08	7.34	0.999		240.50

Notes:

Parameters measured using field instruments; data were collected by ARCADIS.

mg/L = milligrams per liter

mS/cm = milliSiemens per centimeter

NTU = nephelometric turbidity units

ORP = oxidation-reduction potential

mV = millivolts

-- = parameter not measured

Table 3
Analytical Results for Volatile Organic Compounds in Groundwater Samples

Former Cox Cadillac Property 230 Bay Place, Oakland, California Concentrations in micrograms per liter

Location	Date	Bannan -	Taluana	Ethyl-	Total	TDUms	TDU	TDU	MTDE	TDS				
ID	Collected	Benzene	Toluene	benzene	Xylenes	TPHmo	TPHg	TPHd	MTBE	mg/L	ТВА	DIPE	ETBE	TAME
LF-1	8-Oct-07	<0.50	<0.50	<0.50	<0.50	<300	<250	<50	< 0.50	NA	<50	<2.5	<2.5	<2.5
	6-Feb-08	< 0.50	< 0.50	< 0.50	< 0.50	<300	<50	55Y	<2.0	NA	NA	NA	NA	NA
	6-May-08	< 0.50	< 0.50	< 0.50	< 0.50	<300	<50	<50	< 0.50	NA	NA	NA	NA	NA
	8-Sep-08	< 0.50	< 0.50	< 0.50	< 0.50	NA	<50	<50	< 0.50	10,200	< 5.0	<1.0	< 0.50	< 0.50
	16-Jan-09	< 0.50	< 0.50	< 0.50	<1.0	NA	<50	<50	< 0.50	NA	<5.0	<1.0	< 0.50	< 0.50
	13-Aug-09	< 0.50	< 0.50	< 0.50	< 0.50	<300	<50	<50	< 0.50	NA	<10	< 0.50	< 0.50	< 0.50
	29-Apr-10	<0.50	<0.50	<0.50	<0.50	<300	<50	<50	<0.50	NA	<10	<0.50	<0.50	<0.50
LF-2	8-Oct-07	<2.5	<2.5	<2.5	<2.5	900	<250	1,900Y	280	NA	<50	<2.5	<2.5	<2.5
Duplicate	8-Oct-07	< 0.50	< 0.50	< 0.50	< 0.50	1,100	<130	2,100Y	250	NA	<25	<1.3	<1.3	<1.3
	6-Feb-08	<2.5	<2.5	<2.5	<2.5	880	<50	1,800Y	260C	NA	NA	NA	NA	NA
Duplicate	6-Feb-08	< 0.50	< 0.50	< 0.50	< 0.50	800	<50	1,700Y	270C	NA	NA	NA	NA	NA
	6-May-08	< 0.50	0.54	< 0.50	0.63C	840	52Y	1,500Y	360	NA	NA	NA	NA	NA
	8-Sep-08	<2.0	<2.0	<2.0	<2.0	NA	<50	1,400Y	320	1,300	<2.0	<2.0	<2.0	<2.0
	16-Jan-09	< 0.50	< 0.50	< 0.50	<1.0	NA	130	1,200Y	200	NA	8.8	<1.0	< 0.50	< 0.50
	13-Aug-09	< 0.70	< 0.70	< 0.70	< 0.70	<300	<50	58Y	280	NA	15	< 0.70	< 0.70	< 0.70
Duplicate	13-Aug-09	<2.0	<2.0	<2.0	<2.0	<300	<50	<50	280	NA	<40	<2.0	<2.0	<2.0
	29-Apr-10	< 0.50	< 0.50	< 0.50	< 0.50	<300	<50	<50	69	NA	200	< 0.50	< 0.50	< 0.50
Duplicate	29-Apr-10	<0.50	< 0.50	<0.50	< 0.50	<300	<50	<50	64	NA	170	<0.50	< 0.50	<0.50
LF-3	8-Oct-07	<50	<50	<50	<50	<300	<5,000	350Y	12,000	NA	<1,000	<50	<50	<50
	6-Feb-08	< 0.50	< 0.50	< 0.50	< 0.50	<300	<50	290Y	15,000C	NA	NA	NA	NA	NA
	6-May-08	< 0.50	0.70C	< 0.50	0.94	<300	58Y	320Y	16,000	NA	NA	NA	NA	NA
	8-Sep-08	<63	<63	<63	<63	NA	<50	200Y	9,300	1,610	<63	<63	<63	<63
	16-Jan-09	<50	<50	<50	<100	NA	6,400	280 Y	7,900	NA	5,800	<100	<50	< 5.0
	13-Aug-09	< 0.50	< 0.50	< 0.50	< 0.50	<300	<50	<50	5,100	NA	2,900	< 0.50	< 0.50	1.5
	29-Apr-10	<13	<13	<13	<13	<300	<50	<50	1,400	NA	5,500	<13	<13	<13
LF-4	8-Oct-07	<1.3	<1.3	<1.3	<1.3	<300	<130	220Y	230	NA	<25	<1.3	<1.3	<1.3
	6-Feb-08	< 0.50	< 0.50	< 0.50	< 0.50	<300	<50	130Y	77C	NA	NA	NA	NA	NA
	6-May-08	< 0.50	< 0.50	< 0.50	< 0.50	<300	<50	95Y	130	NA	NA	NA	NA	NA
Duplicate	6-May-08	< 0.50	< 0.50	< 0.50	< 0.50	<300	<50	120Y	59	NA	NA	NA	NA	NA
	8-Sep-08	0.8	0.6	1.7	2.3	<300	<50	80Y	24	3,200	<10	< 0.50	< 0.50	< 0.50
Duplicate	8-Sep-08	1.7	1.4	4.1	5.9	NA	<50	75Y	24	3,340	<10	< 0.50	< 0.50	< 0.50
-	16-Jan-09	< 0.50	< 0.50	< 0.50	<1.0	NA	<50	67	< 0.50	NA	< 5.0	<1.0	< 0.50	< 0.50
Duplicate	16-Jan-09	< 0.50	< 0.50	< 0.50	<1.0	NA	<50	<50	< 0.50	NA	< 5.0	<1.0	< 0.50	< 0.50
	13-Aug-09	< 0.50	< 0.50	< 0.50	< 0.50	<300	<50	<50	< 0.50	NA	<10	< 0.50	< 0.50	< 0.50
	29-Apr-10	< 0.50	< 0.50	< 0.50	< 0.50	<300	<50	<50	< 0.50	NA	<10	< 0.50	< 0.50	< 0.50

Table 3 Analytical Results for Volatile Organic Compounds in Groundwater Samples

Former Cox Cadillac Property 230 Bay Place, Oakland, California Concentrations in micrograms per liter

Location ID	Date Collected	Benzene	Toluene	Ethyl- benzene	Total Xylenes	TPHmo	TPHg	TPHd	MTBE	TDS mg/L	ТВА	DIPE	ETBE	TAME
LF-5	8-Oct-07	<0.50	<0.50	<0.50	<0.50	<300	<50	200Y	<0.50	NA	<10	<0.50	<0.50	<0.50
0	6-Feb-08	< 0.50	< 0.50	< 0.50	< 0.50	<300	<50	51Y	<2.0	NA	NA	NA	NA	NA
	6-May-08	< 0.50	< 0.50	< 0.50	< 0.50	<300	<50	91Y	28	NA	NA	NA	NA	NA
	8-Sep-08	< 0.50	< 0.50	< 0.50	< 0.50	NA	<50	53Y	< 0.50	900	<10	< 0.50	< 0.50	< 0.50
	16-Jan-09	< 0.50	< 0.50	< 0.50	<1.0	NA	<50	51	< 0.50	NA	< 5.0	<1.0	< 0.50	< 0.50
	13-Aug-09	< 0.50	< 0.50	< 0.50	< 0.50	<300	<50	<50	< 0.50	NA	<10	< 0.50	< 0.50	< 0.50
	29-Apr-10	< 0.50	< 0.50	< 0.50	< 0.50	<300	<50	<50	< 0.50	NA	<10	< 0.50	< 0.50	<0.50
Screening (ESL at a pro- groundwater considered a	perty where is a source of	1.0	40	30	13	100	100	100	5.0	NE	120	NE	NE	NE
ESL at a property where groundwater is not considered a source of drinking water		46	130	43	100	210	210	210	1,800	NE	18,000	NE	NE	NE

Notes:

Bold font denotes analytical results are above ESLs where groundwater is not a source of drinking water.

Samples were analyzed by Curtis & Tompkins, Ltd., or TestAmerica using EPA Test Methods 8260B and 8015B.

mg/L = milligrams per liter

NA = not analyzed

NE = not established

Duplicate = duplicate sample

TPHd = total petroleum hydrocarbons as diesel

TPHg = total petroleum hydrocarbons as gasoline

TPHmo = total petroleum hydrocarbons as motor oil

TDS = total dissolved solids

MTBE = methyl tertiary-butyl ether

TAME = tertiary-amyl methyl ether

TBA = tertiary-butyl alcohol

DIPE = di-isopropyl ether

ETBE = ethyl tertiary-butyl ether

Y = Sample exhibits chromatographic pattern that does not resemble standard.

C = Presence confirmed, but relative percent difference between columns exceeds 40%.

<2.5 = less than laboratory analytical reporting limits

ESL denotes environmental screening criteria established by the Regional Water Quality Control Board in May 2008 to address environmental protection. Under most circumstances, the presence of a chemical in soil or groundwater at concentrations below the corresponding ESL can be assumed to not pose a significant threat to human health. ESLs can be obtained from http://www.swrcb.ca.gov/rwqcb2/ESL.htm.

DESIGN\001\09171\SiteVicinity.CDR 091803

LAYOUT NOTES

I. VERIFY LOCATION OF ALL BUILDINGS, WALLS, ROADS AND CURBS AFFECTING LANDSCAPE SCOPE OF WORK WITH ARCHITECTURAL AND CIVIL ENGINEER'S DRAWINGS.

2. VERIFY LOCATION OF ALL VAULTS, ELECTRICAL DUCT BANKS, MANHOLES, CONDUIT AND PIPING, DRAINAGE STRUCTURES AND OTHER UTILITIES WITH THE APPROPRIATE ENGINEERING DRAWINGS.

S. TAKE ALL DIMENSIONS FROM FACE OF CURB, WALL OR BUILDING UNLESS OTHERWISE NOTED. ALL DIMENSIONS CALLED OUT AS "EQUAL" ARE EQUIDISTANT MEASUREMENTS TO DESIGNATED CENTERLINE(S)

4. TAKE ALL DIMENSIONS PERPENDICULAR TO ANY REFERENCE LINE, WORK LINE, FACE OF BUILDING, FACE OF WALL, OR CENTERLINE.

5. ALL ANGLES TO BE 90 DEGREES AND ALL LINES OF PAVING AND FENCING TO BE PARALLEL UNLESS NOTED OTHERWISE. MAINTAIN HORIZONTAL ALIGNMENT OF ADJACENT ELEMENTS AS NOTED ON THE

6. REFERENCE TO NORTH REFERS TO PROJECT NORTH. REFERENCE TO SCALE IS FOR FULL-SIZED DRAWINGS ONLY. DO NOT SCALE

1. DIMENSIONS TAKE PRECEDENCE OVER SCALES SHOWN ON DRAWINGS.

8. NOTES AND DETAILS ON SPECIFIC DRAWINGS TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.

9. SEE CIVIL ENGINEER'S DRAWINGS FOR ROADWAYS, CURBS, CURB CUTS AND RAMPS, BUILDING SETBACKS AND BENCH MARKS,

LAYOUT LEGEND

SL	GENTER LINE
EJ	EXPANSION JOINT
EQ	EQUAL
PA	PLANTING AREA
TYP	TYPICAL

EXPLANATION:

Approximate Limit of Excavation performed in 2005/2006

Approximate Location of Former Gasoline UST Approximate Location of Former Waste Oil UST

Current Groundwater Monitoring Well

•

Groundwater Elevation Contour (Feet/MSL)

Previous Well Location

Dashed where inferred Contour Interval = one foot

Approximate Groundwater Flow Direction

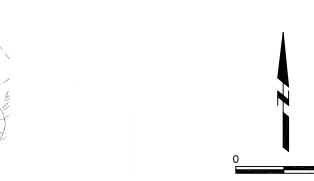
Location ID LF-1

Groundwater Elevation (Feet/MSL)

MSL Mean Sea Level

Underground Storage Tank

Water level not contoured because well under pressure at time of measurement



FORMER COX CADILLAC 230 BAY PLACE, OAKLAND, CALIFORNIA

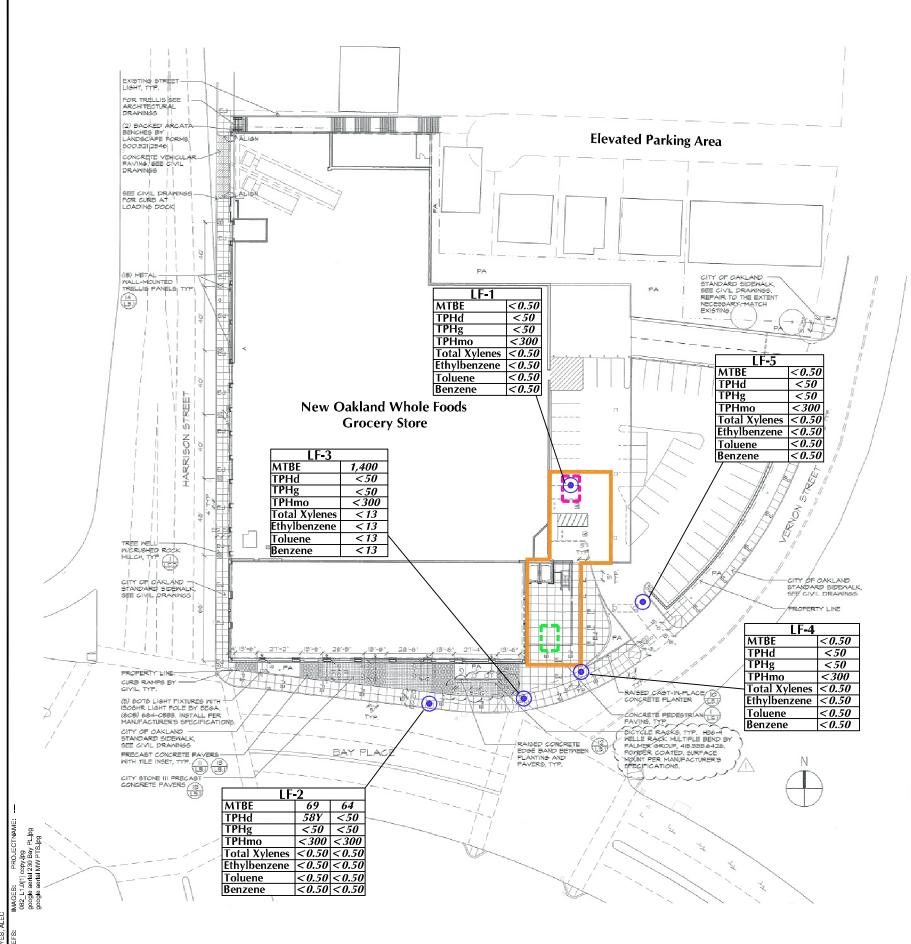
SITE PLAN AND SHALLOW GROUNDWATER ELEVATIONS CONTOUR MAP - APRIL 29, 2010



FIGURE

60 FEET

BASEMAP SOURCE: Cliff Lowe Associates

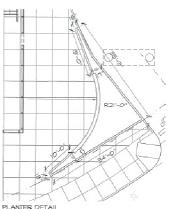


LAYOUT NOTES

- I, VERIFY LOCATION OF ALL BUILDINGS, WALLS, ROADS AND CURBS AFFECTINS LANDSCAPE SCOPE OF WORK MITH ARCHITECTURAL AND CIVIL BISINEER'S DRAWINGS.
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- 9. SEE CIVIL ENGINEER'S DRAWINGS FOR ROADWAYS, CURBS, CURB CUTS AND RAMPS, BUILDING SETBACKS AND BENCH MARKS.

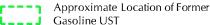
LAYOUT LEGEND

CL	CENTER LINE
EJ	EXPANSION JOINT
EQ	EQUAL
PA	PLANTING AREA
en.co	THE PARTY AND TH



EXPLANATION:

Approximate Limit of Excavation performed in 2005/2006



Approximate Location of Former
Waste Oil UST

Groundwater Monitoring Well

UST Underground Storage Tank

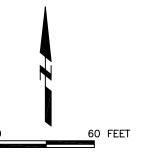
LF-	2	
MTBE	69	64
TPHd	58Y	< 50
TPHg	<50	<50
TPHmo	<300	< 300
Total Xylenes	< 0.50	< 0.50
Ethylbenzene	< 0.50	< 0.50
Toluene		< 0.50
Benzene	< 0.50	< 0.50

 Duplicate Sample
 Chemical Concentration in micrograms per liter (µg/L)

MTBE methyl tertiary-butyl ether

TPHd Total petroleum hydrocarbons as diesel
TPHg Total petroleum hydrocarbons as gas
TPHmo Total petroleum hydrocarbons as motor oil

- γ Sample exhibits chromatographic pattern which does not resemble standard
- Presence confirmed but relative percent difference between columns exceeds 40%

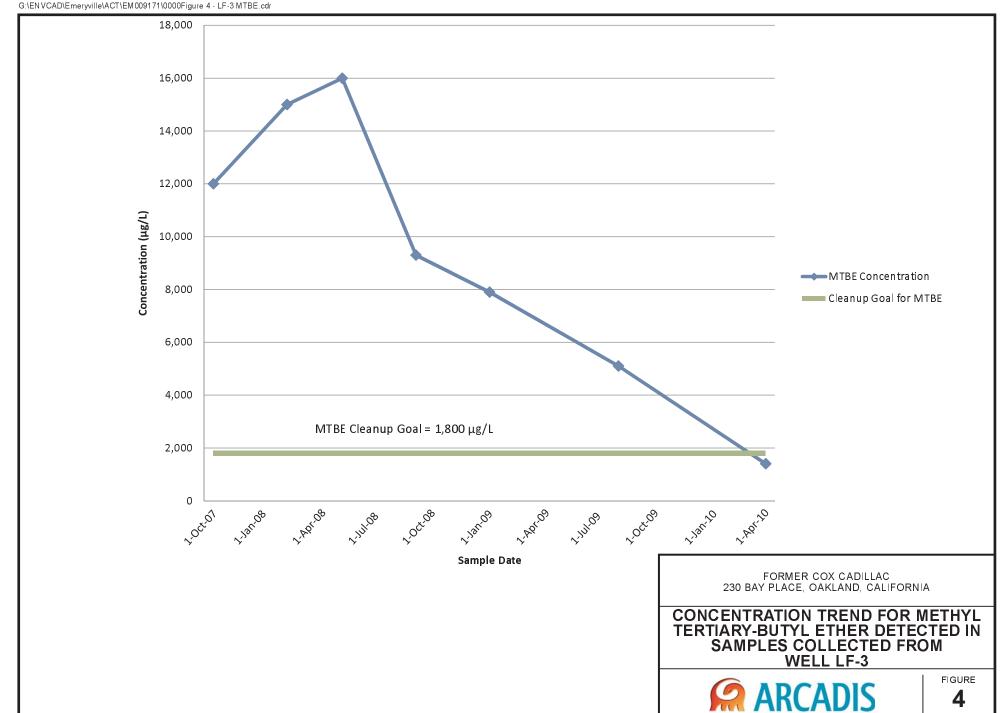


FORMER COX CADILLAC 230 BAY PLACE, OAKLAND, CALIFORNIA

TOTAL PETROLEUM HYDROCARBON AND VOLATILE ORGANIC COMPOUND CONCENTRATIONS - APRIL 29, 2010



FIGURE 3



Appendix A

Historical Groundwater Data

Table 2
Groundwater Analytical Data
Former Cox Cadillac
230 Bay Place
Oakland, California

Concentration (µg/L)

Vell Number	Sample Date	Benzene	Toluene	Ethyl- benzene	Total Xylenes	TPH-g	MTBE		1,2-DCA	PDP	ም ሌን ለም	7773-4	nine	T-000-		Dissolve	•
sen Marimer	Sample Date	Denzene	1 Olucile	Denzene	Aylenes	11H-g	MIBE	•	1,2-DCA	EDB	TAME	TBA	DIPE	ETBE	1,1-DCA	Lead	Ethanol
MW-1	03/03/93	8,500	7,500	4,400	15,000	110,000			350	,				-			
MW-1	10/13/93	6,100	4,800	4,000	11,000	74,000			350	80		-,-		<u>-</u>			
MW-1	12/22/94	18,000	11,000	2,800	16,000	110,000	***		130				-4		<1.0		
MW-1	03/24/95	3,700	1,800	2,200	4,700	25,000	**		130						<5.0	23	
MW-I	06/29/95	5,300	2,100	3,200	7,500	28,900			110		42		 ,	_	<2.0	14	
MW-1	09/29/95	5,600	2,200	3,800	7,400	43,000			98						<1.0	16	
MW-1	02/23/96	4,800	3,000	3,400	7,700	46,000	***		96					-+	<1.0	24	
MW-1	01/12/99	2,600	970	2,900	5,700	39,000	800							-			
MW-I	04/13/99	1,500	500	<50	4,000	29,000	520			?							
MW-1.	07/07/99	1,900	870	1,600	3,900	31,000	<250						_		<u></u>		
MW-1	10/06/99	2,100	910	1,800	4,400	32,000	<250	а			P.H				-		
MW-1	01/11/00	52	3.9	63	12	2,400	<5.0	a		~~	••						**
MW-1	04/06/01	4,300	3,200	2,600	7,300	32,000	<10	2									
MW-1	07/25/01	2,300	1,300	2,500	6,200	24,000	<25	а			يان						-
MW-1	11/20/01	2,100	890	2,500	3,600	33,000	<100	а									
MW-1	01/23/02	2,400	1,400	2,500	5,900	28,000	350		-**								
MW-I	04/26/02	3,200	2,400	2,700	6,300	39,000	2,800										
MW-1	07/25/02	2,300	1,300	2,500	4,700	26,000	<500										~~
MW-1	10/22/02	2,800	1.300	4,300	8,600	42,000	<10		<50	<50	<50	<100	<50	<50			
MW-1	01/27/03	1.600	660	2,100	3,100	20,000	<20		<100	<100	<100	<200	<1.00	<100		~~	
MW-1	10/22/03 b		800	1,600	2,800	22,000	<20		<20	<20	<20	<200	<40	<20		***	
MW-I	01/30/04	2,700	1.400	2,900	5,800	32,000	<25		<25	<25	<25	<250	<50 <50	<25			<1 _x 000
		,	-,,	~ ,	-,	02,000	-		-22.5	~ked	~23	~2.70	~0	~23	. -		<1,300
MW-2	01/12/99	1.5	<0.50	< 0.50	<0.50	<50	2,900						718				
MW-2	04/13/99	0.76	<0.50	<0.50	< 0.50	<50	3,800		30 st					_			
MW-2	07/07/99	<25	<25	<25	<25	<2,500	7,000	а							··· ,		
MW-2	10/06/99	73	<25	<25	<25	2,800	300	a	***		-				~~	-	
MW-2	01/11/00	890	<100	<100	<100	11,000	8,400	a	***					***		-	
MW-2	04/06/01	210	<25	<25	<25	2,800	3,800	a a									
MW-2	07/25/01	250	<12.5	<12.5	<12.5	3,400	4,200	a				**			_	~~	**
MW-2	11/20/01	870	<100	<100	200	12,000	8,700	·			***		-	-	**		***
MW-2	01/23/02	100	<25	<25	<25	3,900	3,300						***	~~			~~
MW-2	04/26/02	13	< 0.50	< 0.50	<1.5	90		•	~~							~~	-
MW-2	07/25/02	<50	<50	<50	<100	-	6,900		711								
MW-2	10/22/02	<5.0	<5.0	<5.0		<5,000	6,600						***		~~		
MW-2	01/27/03	90			<10	7,800	7,000		<250	<250	<250	<500	<250	<250			
MW-2			100	60	78	6,100	6,400		<250	<250	<250	<500	<250	<250	•	~~	
	10/22/03 b		<10	<10	<20	2,000	g 3,000		<10	<10	<10	<100	<20	<10			<500
MW-2	01/30/04	<25	<25	<25	<50	<2,500	2,100		<25	<25	<25	<250	<50	<25			<1,300

Table 2
Groundwater Analytical Data
Former Cox Cadillac
230 Bay Place
Oakland, California

Concentration (µg/L)

est(1 'x 11.	O	D	'6e 1	Ethyl-	Total	(EV)**						_:_			Dissofved	
well Number	Sample Date	Benzene	Toluene	benzene	Xylenes	TPH-g	MTBE	1,2-DCA	EDB	TAME	TBA	DIPE	ETBE	1,1-DCA	Lead	Ethanol
TW-I	10/13/93	<0.50	<0.50	<0.50	<0.50	<50		<0.50	<0.50				4~		'. 	نب
TW-2	10/12/02	≠0.50°	₩0.50	e0 50	.d0 50	460		iib es	-0.00				٠	٠		
TW-2	10/13/93 01/12/99	<0.50 <0.50	<0.50 <0.50	<0.50	<0.50	<50 <50		<0.50	< 0.50	***	1			 .		**
				< 0.50	< 0.50	<50	<5.0				1	***	**			***
TW-2	04/13/99	<0.50	< 0.50	< 0.50	<0.50	<\$0 	<5.0		*-	W.M.	77		44			
TW-2 TW-2	07/07/99 10/06/99	< 0.50	< 0.50	<0.50	<0.50	<50	<5.0						**	W-10*		
TW-2		<0.50	< 0.50	<0.50	<0.50	<50	<5.0				400		-			***
	01/11/00	<0.50	<0.50	<0.50	<0.50	<\$0	<5.0		- 							
TW-2	04/06/01	< 0.50	<0.50	< 0.50	<0.50	<50	<5.0	•••	38.44		**	-				Jaine
TW-2	07/25/01	<0.50	<0.50	<0.50	< 0.50	<50	<5.0	44	**	,,	**			-		فعيد
TW-2	11/20/01	<0.50	<0.50	<0.50	<0.50	<50	<5.0	. ***	**	who .		-				
TW-2	01/23/02	< 0.50	<0.50	< 0.50	<0.50	<50	<5.0		**	₩.	**			****		
TW-2	04/26/02	< 0.50	<0.50	< 0.50	<1.5	<50	<5.0	**			77		***	w in		arr.
TW-2	07/25/02	<0.50	< 0.50	< 0.50	<1.0	<50	<5.0		. 4,4	***		-				~~
TW-2	10/22/02	<0.50	<0.50	< 0.50	<1.0	<50	<1.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0			
TW-2	01/27/03	<0.50	< 0.50	< 0.50	<1.0	<50	<1.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0			÷-
TW-2	10/22/03		< 0.50	<0.50	<1.0		g <0.50	<0.50	< 0.50	<0.50	<5.0	<1.0	< 0.50	-		<25
TW-2	01/30/04	<0.50	<0.50	<0.50	<1.0	<50	<0.50	<0.50	<0.50	<0.50	<5.0	<1.0	<0.50		ننمد	<25
TW-3	10/13/93	<0.50	<0.50	<0.50	<0.50	<50		<0.50	<0.50		<u>}_</u>			**		~~
TW-4	10/13/93	65	18	49	33	2,000	-	<5.0	<5.0					era.	TOTAL STATE OF THE	
TW-4	10/03/03 i	< 0.50	0.97	0.63	1.4	<50	< 0.50	<0.50	<0.50	<0.50	<5.0	<1.0	<0.50	***	***	<25
TW-5	10/13/93	20,000	25,000	3,800	23,000	140,000		<100	<100	 .	,~*	***	- T	شپ	*a	_4
TW-5	10/03/03	4,400	1,700	820	2,900	21,000	<100	<100	<100	<100	<100	<200	<100	· ****		<5,000
TW-6	10/14/93	3.800	1,600	110	540	4,100		<1.0	<1.0							
TW-6	12/22/94	5,400	2,700	3,100	6,800	24,000	****	<1.0				***		<1.0		
TW-6	03/24/95	4,900	530	270	380	10,000	_	<2.0							*** ***	
TW-6	06/29/95	12,000	6,600	1,000	3,000	28,000		<1.0						<2.0	<3.0	w.w .
TW-6	09/29/95	19,000	5,200	1,500	4,000	47,000		<1.0			-		-	<1.0	4.2	
TW-6	02/23/96	13,000	5,200	1,100	2,770	25,000		<1.0				AFE	ner en	<1.0	3.3	
TW-6	01/12/99	9,900	4,100	1,000	4,000	29,000	210		*-		***	44		<1.0	5.2	
TW-6	04/13/99	0.70	<0.50	<0.50	0.62	<50	22	232	*-	· ·			**	~~		
TW-6	07/07/99	13	<0.50	<0.50	2.2	55 55		_	#* #	7-		••			***	
TW-6	10/06/99	0.59					8.1	3	44	***				A44	***	
TW-6			<0.50	<0.50	<0.50	<50	<5		***			***		~		**
TW-6	01/11/00	<0.50	< 0.50	<0.50	<0.50	≤50 ≤50	<5.0		,	***	-	~		44	eliter	· 4
T AA -()	04/06/01	< 0.50	< 0.50	<0.50	<0.50	<50	<5.0	Season		,e-	w.w	.***	44	45	₹#	

Table 2
Groundwater Analytical Data
Former Cox Cadillac
230 Bay Place
Oakland, California

Concentration (µg/L)

					Ethyl-	Total		•		-				· · ·		• • •	Dissolved	·
Well Number	Sample Date		Benzene	Toluene	benzene	Xylenes	TPH-g	MTBE		I,2-DCA	EDB	TAME	TBA	DIPE	ETBE	I,1-DCA	Lead	Ethanol
TW-6	07/25/01		<0.50	<0.50	<0.50	<0.50	<50	<5.0		****								
TW-6	11/20/01		< 0.50	<0.50	< 0.50	<0.50	<50	<5.0		38.00		***	4-	~~	-		***	-i-
TW-6	01/23/02		< 0.50	< 0.50	< 0.50	<0.50	<50	<5.0										
TW-6	04/26/02		< 0.50	< 0.50	< 0.50	<1.5	<50	<5:0				***	· Version		***	æ		
TW-6	07/25/02		0.60	< 0.50	< 0.50	<1	<50	<5.0					ىت			·		****
TW-6	10/22/02		<0.50	< 0.50	< 0.50	<1.0	<50	<1.0		<5.0	<5.0	<5.0	<10	<5.0	<5.0			
TW-6	01/27/03		< 0.50	<0.50	< 0.50	<1.0	<50	<1.0		<5:0	<5.0	<5.0	<10	<5.0	<5.0	من		
TW-6	10/22/03	b	< 0.50	<0.50	< 0.50	<1.0	<50	<5 ₅ 0		< 0.50	<0.50	< 0.50	<5.0	<1.0	<0.50			<25
TW-6	01/30/04		< 0.50	<0.50	<0.50	<1.0	<50	<5.0	٠.	< 0.50	<0.50	<0.50	<5.0	<1.0	<0.50	•		<25
TW-7	10/14/93		48,000	15,000	3,400	16,000	100,000	***		<50	<50				 .	w.w.'		
TW-7	12/22/94		49,000	33,000	7.300	28,000	210,000	700 170		<1.0		~*				<1.0	,	••
TW-7	03/24/95		13,000	7,000	1,500	5,600	56,000			<2.0	***	***				<2.0	<3.9	 -
TW-7	06/29/95		39,000	8,100	3,000	8,300	100,000	≡=		<1.0				***		<1.0	3:5	
TW-7	09/29/95		32,000	8,700	2,900	8,600	74,000	•		<1.0	45	••			_	<1.0	3.5	
TW-7	02/23/96		22,000	8,400	2,700	6,900	50,000	**		<5.0			24	ee		<5.0	3.8	***
TW-7	01/12/99		7,300	670	2,700	960	29,000	<100			~~	, 	**					
TW-7	04/13/99		4,500	1,800	180	8,200	54,000	1,200				***		***				
. TW-7	07/07/99		8,000	4,500	1,200	3,500	42,000	2,200	a		~		~*			****		77
TW-7	10/06/99		9,700	1,600	1,600	2,100	29,000	580	a				More.		***			·
TW-7	01/11/00		8,500	7,100	1,600	6,700	52,000	2,600	a		×*		16.06	-TR				#0
TW-7	04/06/01		4,800	1,800	2,200	3,400	22,000	690	a	•••	**	•	-			₩.*		==
TW-7	07/25/01		5,100	660	1,400	2,100	20,000	1,100	a.		water.			**	****			~ *.
TW-7	11/20/01		6,400	1,100	1,000	2,400	26,000	1,600		*~	**		. * .	**		~~	·-	**
TW-7	01/23/02		5,100	510	2,200	3,900	25,000	1,200		***	~~			-446		19.00		
TW-7	04/26/02		4,400	1,300	2,900	2,370	29,000	1,600			**			****		**	·	
TW-7	07/25/02		4,900	470	1,600	1,700	21,000	1,900		~~	**	and the						
TW-7	10/22/02		6,700	410	1,100	1,500	31,000	1,700	a	<100	<100	<100	<200	<100	<100		nje are	
TW-7	01/27/03		2,700	710	1,900	1,100	17,000	680		<100	<100	<100	<200	<100	<100		••	
TW-7	10/22/03	b	2,900	130	310	370	13,000	660		<13	<13	<13	<130	<25	<13	+-		<630
TW-7	01/30/04		2,500	520	1,900	550	16,000	300		<25	<25	<25	<250	·<\$0.	<25	**	**	<1,300

Table 2 **Groundwater Analytical Data** Former Cox Cadillac 230 Bay Place Oakland, California

Concentration (ug/L)

·					COHO	HERMIOH (P	الدابعا								
Well Number Sample Date	Benzene	Toluene	Ethyl- benzene	Total Xylenes	TPH-g	MTBE	1,2-DCA	EDB	TAME	TBA	DIPE	ETBE	1,I-DCA	Dissolved Lead	Ethanof
Notes:						•	•								
TPHg - Total Petroleum Hydro	ocarbons as a	gasoline		······································			****			***************************************					3, 3
MTBE - Methyl tertiary butyl	ether														
DCA - Dichloroethane															-
EDB - Effiylene dibromide															-
and the second control of the contro			•												

TAME - Tertiary amyl methyl ether

TBA - Tertiary butyl alcohol

DIPE - Di-isopropyl ether

ETBE - Ethyl tertiary butyl ether

µg/L = Micrograms per liter.

<= Not detected at or above indicated laboratory reporting limit.

-= Not Analyzed

a = MTBE Confirmation by EPA Method 8260B.

b = Samples were analyzed by EPA Method 8260B.

g = hydrocarbon reported in gasoline range does not match our gasoline standard.

Table 4
Grab Groundwater Analytical Data
(ETIC October and November 2003)
Former Cox Cadillac Site
230 Bay Place, Oakland, California

Expressed in micrograms per liter (µg/l)

		Sample													
Sample	Sample	Depth				Ethyl-	Total								
Number	Date	(feet)	TPHg	Benzene	Toluene	benzene	Xylenes	MTBE	1,2-DCA	EDB	TAME	TBA	DIPE	ETBE	Ethanol
GP1	11/25/2003	10	7,500	300	470	<1.0	420	5,800	NA	NA	< 1.0	< 10	< 1.0	<1.0	NA
GP2A	11/26/2003	10	32,000	3,100	84	1,300	< 100	7,300	< 50	< 50	< 50	< 500	< 100	< 50	NA
GP6	11/26/2003	15	67,000	9,500	5,700	1,800	6,100	< 100	180	150	< 100	<1,000	< 200	< 100	NA
GP7	11/26/2003	13	< 50	4.0	0.70	< 0.50	< 0.50	< 0.50	0.73	< 0.50	< 0.50	< 5.0	< 1.0	< 0.50	NA
GP8	11/26/2003	15	< 50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 1.0	< 0.50	NA
GP9	11/26/2003	14	< 50	< 0.50	0.55	< 0.50	< 0.50	< 0.5	< 0.50	< 0.50	< 0.50	< 5.0	< 1.0	< 0.50	NA
UB1	10/10/2003	10	< 50	< 0.50	1.5	< 0.50	2.0	0.84	< 0.50	< 0.50	< 0.50	< 5.0	< 1.0	< 0.50	< 25
UB2	10/10/2003	10	14,000	< 5.0	< 5.0	< 5.0	< 5.0	37	< 5.0	< 5.0	< 5.0	< 50	< 10	< 5.0	< 250

Notes:

Bold denotes detection above laboratory detection limit.

TPHg = total petroleum hydrocarbons as gasoline

MTBE = methyl tertiary-butyl ether

DCA = dichloroethane

EDB = ethylene dibromide

TAME = tert-amyl methyl ether

TBA = tert-butyl alcohol

DIPE = di-isopropyl ether

ETBE = ethyl tert-butyl ether

< = not detected at or above indicated laboratory reporting limit

NA = not analyzed

Table 6
Grab Groundwater Analytical Data
(LFR March 2004)
Former Cox Cadillac Site
230 Bay Place
Oakland, California

Expressed in micrograms per liter (µg/l)

Sample Number	Sample Date	Sample Depth (feet)	TPHg	TPHd	Benzene	Toluene	Ethyl- benzene	Total Xylenes	МТВЕ
GW-1	3/15/2004	10 - 11	< 0.05	260 Y	< 0.005	< 0.005	< 0.005	< 0.005	< 0.5
GW-2	3/15/2004	6 - 7	970,000	NA	23,000	33,000 C	22,000	79,000	< 420
GW-3	3/15/2004	7 - 8	970	3,800 H Y	48	93	42	90.7	< 0.5
GW-4	3/15/2004	5 - 6	< 0.05	310 H Y	< 0.005	< 0.005	< 0.005	< 0.005	< 0.5
GW-5	3/15/2004	6 - 7	< 0.05	640 H Y	< 0.005	< 0.005	< 0.005	< 0.005	21
GW-6	3/15/2004	7 - 9	< 0.05	600 H Y	< 0.005	< 0.005	< 0.005	< 0.005	29
GW-6D	3/15/2004	7 - 9	< 0.05	970 H Y	< 0.005	< 0.005	< 0.005	< 0.005	55
GW-7	3/15/2004	7 - 8	< 0.05	350,000 H Y	< 0.005	< 0.005	< 0.005	< 0.005	1.1
GW-8	3/24/2004	10	< 0.05	680 Y	< 0.005	< 0.005	< 0.005	< 0.005	< 0.5

Notes:

Bold denotes detection above laboratory detection limit.

TPHg = Total petroleum hydrocarbons as gasoline

TPHd = Total petroleum hydrocarbons as diesel

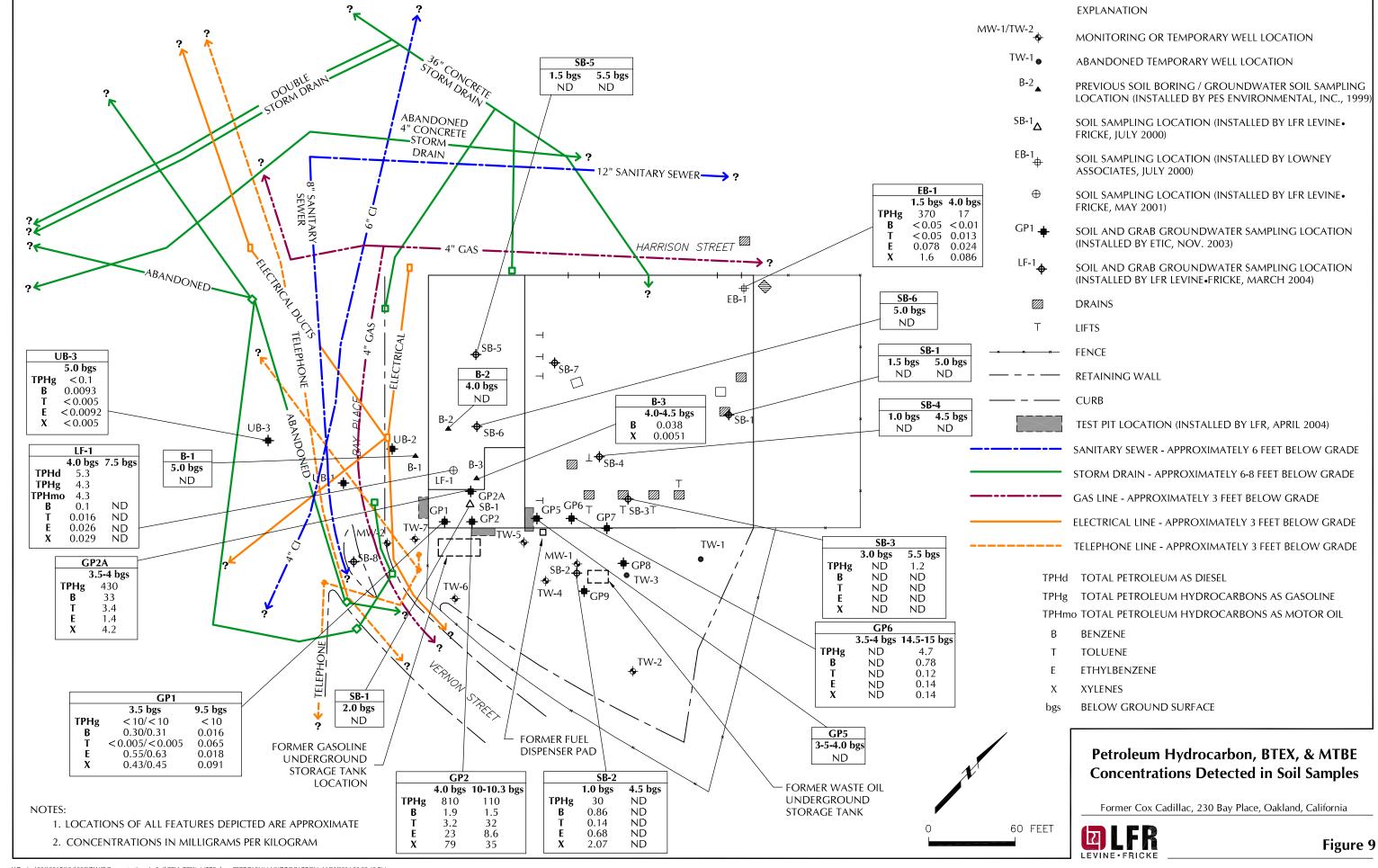
MTBE = Methyl tertiary-butyl ether

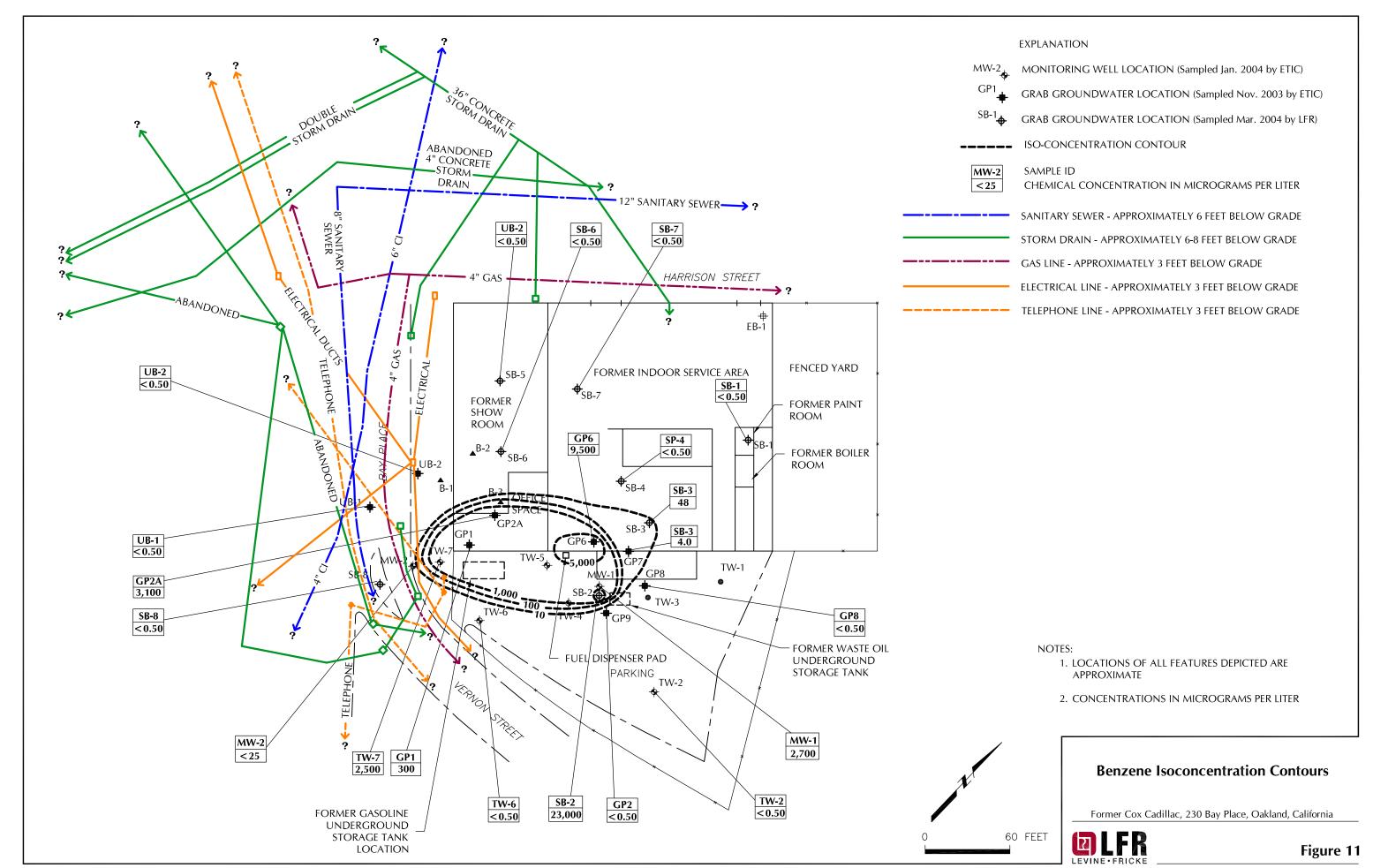
H = Heavier hydrocarbons contributed to the quantitation

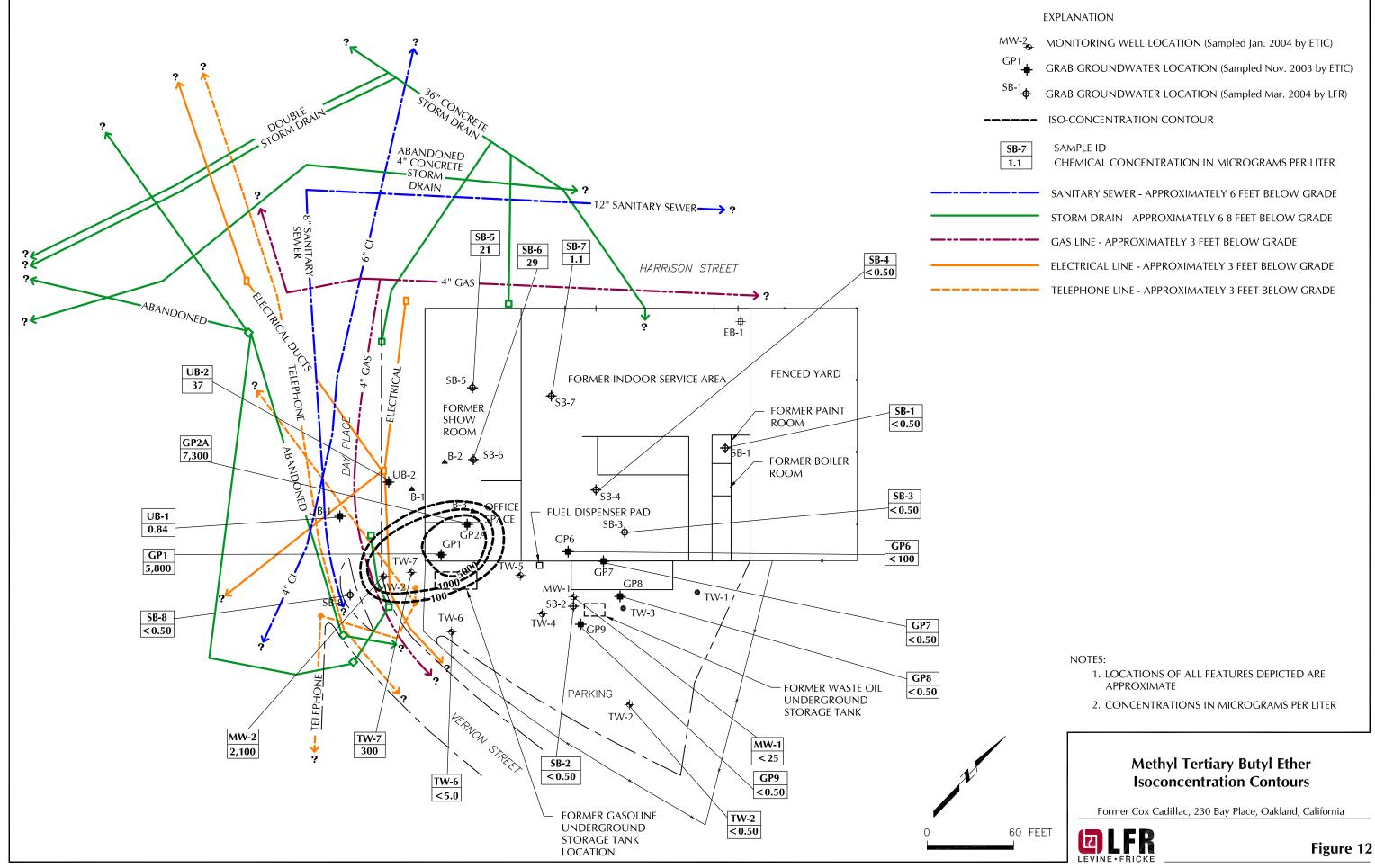
Y = Sample exhibits chromatographic pattern which does not resemble standard

ND = Not detected

C = Presence confirmed, but Relative Percent Difference (RPD) between columns exceeds 40%.







ARCADIS

Appendix B

Laboratory Analytical Reports



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

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

Laboratory Job Number 219821 ANALYTICAL REPORT

Arcadis Project : EM009171.0017

1900 Powell St. Location : Whole Foods Emeryville, CA 94608

Level : II

Sample ID	<u>Lab ID</u>
TB042910	219821-001
LF-1	219821-002
LF-2	219821-003
LF-3	219821-004
LF-4	219821-005
LF-5	219821-006
LF-2D	219821-007

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.

Date: <u>05/05/2010</u>

NELAP # 01107CA



CASE NARRATIVE

Laboratory number: 219821 Client: Arcadis

Project: EM009171.0017
Location: Whole Foods
Request Date: 04/29/10
Samples Received: 04/29/10

This data package contains sample and QC results for seven water samples, requested for the above referenced project on 04/29/10. The samples were received cold and intact. All data were e-mailed to Ron Goloubow on 05/05/10.

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

No analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B):

No analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):

TB042910 (lab # 219821-001) was analyzed with more than 1 mL of headspace in the VOA vial. No other analytical problems were encountered.

214821 **CHAIN OF CUSTODY / ANALYSES REQUEST FORM** SAMPLE COLLECTOR: PROJECT NO .: SEC EMC09171,0017 SECTION NO.: SAMPLER'S INITIALS: SERIAL NO .: 4/29/10 1900 Powell Street, 12th Floor Emeryville, California 94608-1827 MUS PROJECT NAME: Nº 202066 SAMPLER (Signature) LEVINE · FRICKE (510) 652-4500 Fax: (510) 652-2246 whole foods **SAMPLE ANALYSES** REMARKS A BUTCH BY TEL TOCS Weeps Feb Bround CA A Strange TRIMO ER BOSIN NO of Containers **TYPE** TAT *VOCs: **Metals: Standard RUSH. ☐ 8240 List ☐ RCRA HOLD Soil Water SAMPLE ID. DATE TIME ☐ 8010 List ☐ LUFT ☐ 624 List TB 042910 4/19 Silica gel Cleanup Fo-TPH-d/mo LF-1410 Y × V Y × 1240 8 X Υ Y X 8 1305 X X Y X X K 888 1100 X X Υ ¥ K 1345 X X 1250 RELINGUISHED BY: (SIGNATURE) Michael Sullivey SAMPLE RECEIPT: Cooler Temp: METHOD OF SHIPMENT: **RELINQUISHED BY:** 2 RELINQUISHED BY: 4/24/10 (DATE) On Ice Ambient LAB REPORT NO .: (SIGNATURE) (DATE) (SIGNATURE) Cooler No: (DATE) 1550 (PRINTED NAME) (TIME) FAX COC CONFIRMATION TO: (PRINTED NAME) (TIME) (PRINTED NAME) (TIME) Arridis Preservative Correct? Yes No N/A (COMPANY) Kon (Jolowbou (COMPANY) (COMPANY) ANALYTICAL LABORATORY: FAX RESULTS TO: RECEIVED BY: RECEIVED BY: RECEIVED BY (LABORATORY): (SIGNATURE) SEND HARDCOPY TO: (DATE) (SIGNATURE) (DATE) PRINTED NAME (PRINTED NAME) SEND EDD TO: (TIME) (PRINTED NAME) (TIME) EMV.LABEDDS.COM

(COMPANY)

(COMPANY)

CHAIN of CUSTODY - ANALYSES FORM.CDR 5/2003

(COMPANY)

Field Copy (Pink)

File Copy (Yellow)

으

Shipping Copy (White)

COOLER RECEIPT CHECKLIST



Login # 2(982)	Date Received <u>L</u>	1.29.10	Number of cool	ers_/
Client	Pro	ject WHOVE	roups,	
Data On and 1/12/10	Des (cont. 1)	· · · ·		•
Date Upened - 1 1910	By (print) S.F./Ar- By (print)	(sign)	Jany,	
Date Logged in	By (print)	(sign)_		
1. Did cooler come with Shipping info	a shipping slip (airbill, et		YE	s do
How many	oresent? YES (circ. Name			NO
2B. Were custody seals is	ntact upon arrival?		YE	S NO (N/A)
3. Were custody papers of	lry and intact when receiv	red?	CYE	NO ON
4. Were custody papers f	illed out properly (ink, sig	gned, etc)?	CYE	NO S
	ble from custody papers?			
6. Indicate the packing in	cooler: (if other, describ	ne)		
Bubble Wrap ☐ Cloth material	▼Foam blocks ☐ Cardboard	Bags	☐ None	owels
7. Temperature documen	tation:			
Type of ice used:	₩et □ Blue/Gel	☐ None	Temp(°C) <u>4'</u> 3	
☐ Samples Recei	ived on ice & cold withou	it a temperature l	olank	
	ved on ice directly from th	_		ın
8. Were Method 5035 sa	mpling containers presen	t?		YES 🕬
If YES, what time	were they transferred to	freezer?	· · · · · · · · · · · · · · · · · · ·	
9. Did all bottles arrive un	nbroken/unopened?			YES NO
10. Are samples in the ap	ppropriate containers for i	indicated tests? _		YES NO
11. Are sample labels pre	esent, in good condition ar	nd complete?		YES NO
12. Do the sample labels	agree with custody papers	s?		YES NO
13. Was sufficient amount	it of sample sent for tests	requested?		YES NO
14. Are the samples appro			\tag{\$25}	NO N/A
15. Are bubbles > 6mm a		1 1' 0	<u>VES</u>	NO N/A
16. Was the client contact	ted concerning this sample	le delivery?		YES NO
II 1ES, Who was	called? Ron & Mile	2 By / · /	Date:	71340
COMMENTS Pla	od tun al	el BT	VE & (GASCX
			,	
mpund	by 236C.	\rightarrow (3)(1)		
V				
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SOP Volume: Client Services

Section:

1.1.2

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Rev. 6 Number 1 of 3 Effective: 23 July 2008

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Total Volatile Hydrocarbons Lab #: 219821 Location: Whole Foods EPA 5030B Client: Prep: Arcadis EM009171.0017 Project#: Analysis: EPA 8015B Batch#: 162568 Matrix: Water Sampled: 04/29/10 Units: ug/L Diln Fac: 1.000 Received: 04/29/10

Field ID: LF-1 Lab ID: 219821-002 Type: SAMPLE Analyzed: 04/29/10

Analyte Result RL
Gasoline C7-C12 ND 50

Surrogate%RECLimitsTrifluorotoluene (FID)9848-162Bromofluorobenzene (FID)10252-158

Field ID: LF-2 Lab ID: 219821-003 Type: SAMPLE Analyzed: 04/30/10

AnalyteResultRLGasoline C7-C12ND50

Surrogate%RECLimitsTrifluorotoluene (FID)9348-162Bromofluorobenzene (FID)10052-158

Field ID: LF-3 Lab ID: 219821-004 Type: SAMPLE Analyzed: 04/30/10

 Analyte
 Result
 RL

 Gasoline C7-C12
 ND
 50

Surrogate%RECLimitsTrifluorotoluene (FID)9948-162Bromofluorobenzene (FID)10352-158

Field ID: LF-4 Lab ID: 219821-005 Type: SAMPLE Analyzed: 04/30/10

Analyte Result RL
Gasoline C7-C12 ND 50

Surrogate%RECLimitsTrifluorotoluene (FID)9948-162Bromofluorobenzene (FID)9752-158

ND= Not Detected RL= Reporting Limit

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Total Volatile Hydrocarbons 219821 Whole Foods Lab #: Location: Client: EPA 5030B Arcadis Prep: EPA 8015B 162568 Project#: EM009171.0017 Analysis: Water Matrix: Batch#: 04/29/10 Units: ug/L Sampled: Diln Fac: 1.000 Received: 04/29/10

Field ID: LF-5 Lab ID: 219821-006 Type: SAMPLE Analyzed: 04/30/10

Analyte Result RL
Gasoline C7-C12 ND 50

Surrogate %REC Limits
Trifluorotoluene (FID) 97 48-162
Bromofluorobenzene (FID) 105 52-158

Field ID: LF-2D Lab ID: 219821-007 Type: SAMPLE Analyzed: 04/30/10

Analyte Result RL
Gasoline C7-C12 ND 50

Surrogate%RECLimitsTrifluorotoluene (FID)9548-162Bromofluorobenzene (FID)9752-158

Type: BLANK Analyzed: 04/29/10

Lab ID: QC542665

Analyte Result RL
Gasoline C7-C12 ND 50

Surrogate%RECLimitsTrifluorotoluene (FID)9748-162Bromofluorobenzene (FID)9652-158

ND= Not Detected RL= Reporting Limit

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	Total V	olatile Hydrocarbo	ons	
Lab #:	219821	Location:	Whole Foods	
Client:	Arcadis	Prep:	EPA 5030B	
Project#:	EM009171.0017	Analysis:	EPA 8015B	
Type:	LCS	Diln Fac:	1.000	
Lab ID:	QC542666	Batch#:	162568	
Matrix:	Water	Analyzed:	04/29/10	
Units:	ug/L			

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	934.1	93	73-121

Surrogate	%REC	Limits
Trifluorotoluene (FID)	124	48-162
Bromofluorobenzene (FID)	100	52-158

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	Total V	olatile Hydrocarbo	ons	
Lab #:	219821	Location:	Whole Foods	
Client:	Arcadis	Prep:	EPA 5030B	
Project#:	EM009171.0017	Analysis:	EPA 8015B	
Field ID:	LF-1	Batch#:	162568	
MSS Lab ID:	219821-002	Sampled:	04/29/10	
Matrix:	Water	Received:	04/29/10	
Units:	ug/L	Analyzed:	04/29/10	
Diln Fac:	1.000			

Type: MS

542667
`

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	<6.172	2,000	1,680	84	49-129

Surrogate	%REC	Limits	
Trifluorotoluene (FID)	121	48-162	
Bromofluorobenzene (FID)	129	52-158	

Type: MSD

Lab ID:	QC542668
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Gasoline C7-C12 2,000 1,745 87 49-129 4 19	Analyte	spiked	Result	*REC	Limits	RPD	Lim
	I Gasoline C/-Cl2	2,000	1,/45		センーエムシ	4	19

Surrogate	%REC	Limits
Trifluorotoluene (FID)	118	48-162
Bromofluorobenzene (FID)	102	52-158



Total Extractable Hydrocarbons Whole Foods EPA 3520C Lab #: 219821 Location: Client: Arcadis Prep: EM009171.0017 EPA 8015B Project#: Analysis: 04/29/10 04/29/10 Matrix: Water Sampled: Received: Units: ug/L Diln Fac: 1.000 Prepared: 04/30/10 Batch#: 162599 Analyzed: 05/04/10

Field ID: LF-1 Lab ID: 219821-002 Type: SAMPLE Cleanup Method: EPA 3630C

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

Surrogate	%REC	Limits	
o-Terphenyl	107	39-150	

Field ID: LF-2 Lab ID: 219821-003 Type: SAMPLE Cleanup Method: EPA 3630C

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

Surrogate	%REC	Limits
a Marsahararal	105	20 150
o-Terphenyl	105	39-I50

Field ID: LF-3 Lab ID: 219821-004 Type: SAMPLE Cleanup Method: EPA 3630C

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

Surrogate	%REC	Limits
_ , , ,	106	
o-Terphenyl	106	39-150

Field ID: LF-4 Lab ID: 219821-005 Type: SAMPLE Cleanup Method: EPA 3630C

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

Surrogate	%REC	Limits
o-Terphenyl	104	39-150

ND= Not Detected RL= Reporting Limit Page 1 of 2



Total Extractable Hydrocarbons				
Lab #: Client: Project#:	219821 Arcadis EM009171.0017	Location: Prep: Analysis:	Whole Foods EPA 3520C EPA 8015B	
Matrix: Units: Diln Fac: Batch#:	Water ug/L 1.000 162599	Sampled: Received: Prepared: Analyzed:	04/29/10 04/29/10 04/30/10 05/04/10	-

Field ID: LF-5 Type: SAMPLE Lab ID: 219821-006 Cleanup Method: EPA 3630C

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

Surrogate	%REC	Limits
o-Terphenyl	96	39-150

Field ID: LF-2D Type: SAMPLE Lab ID: 219821-007 Cleanup Method: EPA 3630C

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

Surrogate	%REC	Limits
o-Terphenyl	103	39-150

Type: BLANK Lab ID: QC542790 Cleanup Method: EPA 3630C

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

Surrogate	%REC	Limits	
o-Terphenyl	105	39-150	

ND= Not Detected RL= Reporting Limit Page 2 of 2



	Total Extractable Hydrocarbons							
Lab #:	219821	Location:	Whole Foods					
Client:	Arcadis	Prep:	EPA 3520C					
Project#:	EM009171.0017	Analysis:	EPA 8015B					
Matrix:	Water	Batch#:	162599					
Units:	ug/L	Prepared:	04/30/10					
Diln Fac:	1.000	Analyzed:	05/04/10					

Type: BS Cleanup Method: EPA 3630C

Lab ID: QC542791

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,380	95	34-144

Surrogate	%REC	Limits
o-Terphenyl	100	39-150

Type: BSD Cleanup Method: EPA 3630C

Lab ID: QC542792

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,492	100	34-144	5	48

Surrogate	%REC	Limits	
o-Terphenyl	109	39-150	



	В	TXE & Oxygenates		
Lab #:	219821	Location:	Whole Foods	
Client:	Arcadis	Prep:	EPA 5030B	
Project#:	EM009171.0017	Analysis:	EPA 8260B	
Field ID:	TB042910	Batch#:	162593	
Lab ID:	219821-001	Sampled:	04/29/10	
Matrix:	Water	Received:	04/29/10	
Units:	ug/L	Analyzed:	04/30/10	
Diln Fac:	1.000	_		

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

Surrogate	%REC	Limits
Dibromofluoromethane	103	81-124
1,2-Dichloroethane-d4	92	73-140
Toluene-d8	90	88-113
Bromofluorobenzene	95	80-127

ND= Not Detected RL= Reporting Limit

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BTXE & Oxygenates						
Lab #:	219821	Location:	Whole Foods			
Client:	Arcadis	Prep:	EPA 5030B			
Project#:	EM009171.0017	Analysis:	EPA 8260B			
Field ID:	LF-1	Batch#:	162682			
Lab ID:	219821-002	Sampled:	04/29/10			
Matrix:	Water	Received:	04/29/10			
Units:	ug/L	Analyzed:	05/05/10			
Diln Fac:	1.000	_				

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

Surrogate	%REC	Limits
Dibromofluoromethane 9	99	81-124
1,2-Dichloroethane-d4 1	110	73-140
Toluene-d8 9	98	88-113
Bromofluorobenzene 9	98	80-127



BTXE & Oxygenates					
Lab #:	219821	Location:	Whole Foods		
Client:	Arcadis	Prep:	EPA 5030B		
Project#:	EM009171.0017	Analysis:	EPA 8260B		
Field ID:	LF-2	Batch#:	162646		
Lab ID:	219821-003	Sampled:	04/29/10		
Matrix:	Water	Received:	04/29/10		
Units:	ug/L	Analyzed:	05/03/10		
Diln Fac:	1.000	_			

Analyte	Result	RL	
tert-Butyl Alcohol (TBA)	200	10	
MTBE	69	0.5	
Isopropyl Ether (DIPE)	ND	0.5	
Ethyl tert-Butyl Ether (ETBE)	ND	0.5	
1,2-Dichloroethane	ND	0.5	
Benzene	ND	0.5	
Methyl tert-Amyl Ether (TAME)	ND	0.5	
Toluene	ND	0.5	
1,2-Dibromoethane	ND	0.5	
Ethylbenzene	ND	0.5	
m,p-Xylenes	ND	0.5	
o-Xylene	ND	0.5	

Surrogate	%REC	Limits
Dibromofluoromethane	105	81-124
1,2-Dichloroethane-d4	93	73-140
Toluene-d8	88	88-113
Bromofluorobenzene	97	80-127

ND= Not Detected RL= Reporting Limit

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BTXE & Oxygenates					
Lab #:	219821	Location:	Whole Foods		
Client:	Arcadis	Prep:	EPA 5030B		
Project#:	EM009171.0017	Analysis:	EPA 8260B		
Field ID:	LF-3	Batch#:	162682		
Lab ID:	219821-004	Sampled:	04/29/10		
Matrix:	Water	Received:	04/29/10		
Units:	ug/L	Analyzed:	05/05/10		
Diln Fac:	25.00				

Analyte	Result	RL	
tert-Butyl Alcohol (TBA)	5,500	250	
MTBE	1,400	13	
Isopropyl Ether (DIPE)	ND	13	
Ethyl tert-Butyl Ether (ETBE)	ND	13	
1,2-Dichloroethane	ND	13	
Benzene	ND	13	
Methyl tert-Amyl Ether (TAME)	ND	13	
Toluene	ND	13	
1,2-Dibromoethane	ND	13	
Ethylbenzene	ND	13	
m,p-Xylenes	ND	13	
o-Xylene	ND	13	

Surrogate	%REC	Limits
Dibromofluoromethane	97	81-124
1,2-Dichloroethane-d4	110	73-140
Toluene-d8	100	88-113
Bromofluorobenzene	98	80-127

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BTXE & Oxygenates					
Lab #:	219821	Location:	Whole Foods		
Client:	Arcadis	Prep:	EPA 5030B		
Project#:	EM009171.0017	Analysis:	EPA 8260B		
Field ID:	LF-4	Batch#:	162646		
Lab ID:	219821-005	Sampled:	04/29/10		
Matrix:	Water	Received:	04/29/10		
Units:	ug/L	Analyzed:	05/03/10		
Diln Fac:	1.000				

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

Surrogate	%REC	Limits
Dibromofluoromethane 1	L05	81-124
1,2-Dichloroethane-d4 9	91	73-140
Toluene-d8 8	38	88-113
Bromofluorobenzene 9	97	80-127

ge 1 of 1



BTXE & Oxygenates					
Lab #:	219821	Location:	Whole Foods		
Client:	Arcadis	Prep:	EPA 5030B		
Project#:	EM009171.0017	Analysis:	EPA 8260B		
Field ID:	LF-5	Batch#:	162593		
Lab ID:	219821-006	Sampled:	04/29/10		
Matrix:	Water	Received:	04/29/10		
Units:	ug/L	Analyzed:	04/30/10		
Diln Fac:	1.000				

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

Surrogate	%REC	Limits
Dibromofluoromethane 1	100	81-124
1,2-Dichloroethane-d4 9	90	73-140
Toluene-d8 8	39	88-113
Bromofluorobenzene 9	96	80-127

ge 1 of 1



BTXE & Oxygenates						
Lab #:	219821	Location:	Whole Foods			
Client:	Arcadis	Prep:	EPA 5030B			
Project#:	EM009171.0017	Analysis:	EPA 8260B			
Field ID:	LF-2D	Batch#:	162593			
Lab ID:	219821-007	Sampled:	04/29/10			
Matrix:	Water	Received:	04/29/10			
Units:	ug/L	Analyzed:	04/30/10			
Diln Fac:	1.000					

Analyte	Result	RL	
tert-Butyl Alcohol (TBA)	170	10	
MTBE	64	0.5	
Isopropyl Ether (DIPE)	ND	0.5	
Ethyl tert-Butyl Ether (ETBE)	ND	0.5	
1,2-Dichloroethane	ND	0.5	
Benzene	ND	0.5	
Methyl tert-Amyl Ether (TAME)	ND	0.5	
Toluene	ND	0.5	
1,2-Dibromoethane	ND	0.5	
Ethylbenzene	ND	0.5	
m,p-Xylenes	ND	0.5	
o-Xylene	ND	0.5	

Surrogate	%REC	Limits
Dibromofluoromethane	100	81-124
1,2-Dichloroethane-d4	90	73-140
Toluene-d8	89	88-113
Bromofluorobenzene	96	80-127

ND= Not Detected
RL= Reporting Limit

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BTXE & Oxygenates							
Lab #:	219821	Location:	Whole Foods				
Client:	Arcadis	Prep:	EPA 5030B				
Project#:	EM009171.0017	Analysis:	EPA 8260B				
Type:	BLANK	Diln Fac:	1.000				
Lab ID:	QC542765	Batch#:	162593				
Matrix:	Water	Analyzed:	04/30/10				
Units:	ug/L						

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

Surrogate	%REC	Limits
Dibromofluoromethane 1	104	81-124
1,2-Dichloroethane-d4 9	93	73-140
Toluene-d8 9	91	88-113
Bromofluorobenzene 9	99	80-127

ND= Not Detected RL= Reporting Limit Page 1 of 1



BTXE & Oxygenates							
Lab #: Client: Project#:	219821 Arcadis EM009171.0017	Location: Prep: Analysis:	Whole Foods EPA 5030B EPA 8260B				
Matrix: Units: Diln Fac:	Water ug/L 1.000	Batch#: Analyzed:	162593 04/30/10				

Type: BS Lab ID: QC542766

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	100.0	113.1	113	36-156
MTBE	20.00	21.44	107	61-123
Isopropyl Ether (DIPE)	20.00	22.95	115	54-139
Ethyl tert-Butyl Ether (ETBE)	20.00	22.78	114	64-133
1,2-Dichloroethane	20.00	22.22	111	66-141
Benzene	20.00	23.76	119	81-122
Methyl tert-Amyl Ether (TAME)	20.00	21.47	107	73-124
Toluene	20.00	21.39	107	82-122
1,2-Dibromoethane	20.00	19.81	99	81-122
Ethylbenzene	20.00	21.96	110	86-125
m,p-Xylenes	40.00	44.20	111	83-127
o-Xylene	20.00	21.61	108	81-122

Surrogate	%REC	Limits
Dibromofluoromethane	102	81-124
1,2-Dichloroethane-d4	93	73-140
Toluene-d8	90	88-113
Bromofluorobenzene	89	80-127

Type: BSD Lab ID: QC542767

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	100.0	109.6	110	36-156	3	23
MTBE	20.00	21.29	106	61-123	1	11
Isopropyl Ether (DIPE)	20.00	22.78	114	54-139	1	11
Ethyl tert-Butyl Ether (ETBE)	20.00	22.67	113	64-133	0	11
1,2-Dichloroethane	20.00	21.79	109	66-141	2	12
Benzene	20.00	22.76	114	81-122	4	12
Methyl tert-Amyl Ether (TAME)	20.00	21.33	107	73-124	1	11
Toluene	20.00	20.41	102	82-122	5	12
1,2-Dibromoethane	20.00	19.49	97	81-122	2	11
Ethylbenzene	20.00	21.09	105	86-125	4	12
m,p-Xylenes	40.00	42.27	106	83-127	4	13
o-Xylene	20.00	21.00	105	81-122	3	12

Surrogate	%REC	Limits
Dibromofluoromethane	101	81-124
1,2-Dichloroethane-d4	92	73-140
Toluene-d8	90	88-113
Bromofluorobenzene	87	80-127



		BTXE & Oxygenates		
Lab #:	219821	Location:	Whole Foods	
Client:	Arcadis	Prep:	EPA 5030B	
Project#:	EM009171.0017	Analysis:	EPA 8260B	
Type:	BLANK	Diln Fac:	1.000	
Lab ID:	QC543008	Batch#:	162646	
Matrix:	Water	Analyzed:	05/03/10	
Units:	ug/L			

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

Surrogate	%REC	Limits
Dibromofluoromethane	104	81-124
1,2-Dichloroethane-d4	91	73-140
Toluene-d8	89	88-113
Bromofluorobenzene	95	80-127

ND= Not Detected RL= Reporting Limit Page 1 of 1



		BTXE & Oxygenates		
Lab #: Client: Project#:	219821 Arcadis EM009171.0017	Location: Prep: Analysis:	Whole Foods EPA 5030B EPA 8260B	
Matrix: Units: Diln Fac:	Water ug/L 1.000	Batch#: Analyzed:	162646 05/03/10	

Type: BS Lab ID: QC543009

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	112.5	133.9	119	36-156
MTBE	22.50	24.62	109	61-123
Isopropyl Ether (DIPE)	22.50	25.48	113	54-139
Ethyl tert-Butyl Ether (ETBE)	22.50	25.92	115	64-133
1,2-Dichloroethane	22.50	25.36	113	66-141
Benzene	22.50	26.35	117	81-122
Methyl tert-Amyl Ether (TAME)	22.50	24.36	108	73-124
Toluene	22.50	23.12	103	82-122
1,2-Dibromoethane	22.50	22.36	99	81-122
Ethylbenzene	22.50	23.83	106	86-125
m,p-Xylenes	45.00	48.52	108	83-127
o-Xylene	22.50	24.02	107	81-122

Surrogate	%REC	Limits	
Dibromofluoromethane	102	81-124	
1,2-Dichloroethane-d4	93	73-140	
Toluene-d8	89	88-113	
Bromofluorobenzene	85	80-127	

Type: BSD Lab ID: QC543010

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	112.5	137.5	122	36-156	3	23
MTBE	22.50	24.26	108	61-123	1	11
Isopropyl Ether (DIPE)	22.50	25.04	111	54-139	2	11
Ethyl tert-Butyl Ether (ETBE)	22.50	25.18	112	64-133	3	11
1,2-Dichloroethane	22.50	24.56	109	66-141	3	12
Benzene	22.50	24.84	110	81-122	6	12
Methyl tert-Amyl Ether (TAME)	22.50	23.91	106	73-124	2	11
Toluene	22.50	22.02	98	82-122	5	12
1,2-Dibromoethane	22.50	22.12	98	81-122	1	11
Ethylbenzene	22.50	22.53	100	86-125	6	12
m,p-Xylenes	45.00	46.48	103	83-127	4	13
o-Xylene	22.50	22.83	101	81-122	5	12

Surrogate	%REC	Limits
Dibromofluoromethane	101	81-124
1,2-Dichloroethane-d4	93	73-140
Toluene-d8	88	88-113
Bromofluorobenzene	86	80-127



		BTXE & Oxygenates		
Lab #: Client: Project#:	219821 Arcadis EM009171.0017	Location: Prep: Analysis:	Whole Foods EPA 5030B EPA 8260B	
Matrix: Units: Diln Fac:	Water ug/L 1.000	Batch#: Analyzed:	162682 05/04/10	

Type: BS Lab ID: QC543158

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	100.0	80.78	81	36-156
MTBE	20.00	16.85	84	61-123
Isopropyl Ether (DIPE)	20.00	16.55	83	54-139
Ethyl tert-Butyl Ether (ETBE)	20.00	16.72	84	64-133
1,2-Dichloroethane	20.00	18.49	92	66-141
Benzene	20.00	20.38	102	81-122
Methyl tert-Amyl Ether (TAME)	20.00	17.72	89	73-124
Toluene	20.00	20.77	104	82-122
1,2-Dibromoethane	20.00	19.00	95	81-122
Ethylbenzene	20.00	20.74	104	86-125
m,p-Xylenes	40.00	42.31	106	83-127
o-Xylene	20.00	21.10	105	81-122

Surrogate	%REC	Limits	
Dibromofluoromethane	94	81-124	
1,2-Dichloroethane-d4	98	73-140	
Toluene-d8	99	88-113	
Bromofluorobenzene	93	80-127	

Type: BSD Lab ID: QC543159

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	100.0	79.51	80	36-156	2	23
MTBE	20.00	17.28	86	61-123	2	11
Isopropyl Ether (DIPE)	20.00	16.46	82	54-139	1	11
Ethyl tert-Butyl Ether (ETBE)	20.00	16.92	85	64-133	1	11
1,2-Dichloroethane	20.00	19.10	96	66-141	3	12
Benzene	20.00	20.36	102	81-122	0	12
Methyl tert-Amyl Ether (TAME)	20.00	17.98	90	73-124	1	11
Toluene	20.00	20.54	103	82-122	1	12
1,2-Dibromoethane	20.00	19.50	97	81-122	3	11
Ethylbenzene	20.00	20.31	102	86-125	2	12
m,p-Xylenes	40.00	41.37	103	83-127	2	13
o-Xylene	20.00	20.26	101	81-122	4	12

Surrogate	%REC	Limits
Dibromofluoromethane	96	81-124
1,2-Dichloroethane-d4	98	73-140
Toluene-d8	97	88-113
Bromofluorobenzene	94	80-127



		BTXE & Oxygenates		
Lab #:	219821	Location:	Whole Foods	
Client:	Arcadis	Prep:	EPA 5030B	
Project#:	EM009171.0017	Analysis:	EPA 8260B	
Type:	BLANK	Diln Fac:	1.000	
Lab ID:	QC543245	Batch#:	162682	
Matrix:	Water	Analyzed:	05/04/10	
Units:	ug/L			

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

Surrogate	%REC	Limits
Dibromofluoromethane	97	81-124
1,2-Dichloroethane-d4	104	73-140
Toluene-d8	100	88-113
Bromofluorobenzene	96	80-127

ND= Not Detected RL= Reporting Limit

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